

PARTS MANUAL

**CHALLENGER
H170-280HD
(G007)**

CUSTOMER EDITION

HYSTER

SECTIONS

1	FRAME
2	ENGINE ASSEMBLY
3	FUEL SYSTEM
4	ELECTRICAL SYSTEM
5	TRANSMISSION
6	DRIVE AXLE
7	STEERING SYSTEM
8	BRAKE SYSTEM
9	HYDRAULIC SYSTEM
10	MAST-TWO STAGE LIMITED FREE-LIFT
11	MAST-THREE STAGE FULL FREE-LIFT
12	ATTACHMENTS
13	OPTIONS
14	FIELD CONVERSION KITS
15	NUMERICAL INDEX

This Parts Manual is divided into 15 major sections which are listed above. Quick reference to these sections can be made by placing the right thumb on the tab of the desired section, bending the book back and thumbing the pages to the corresponding tab.

TABLE OF CONTENTS

DESCRIPTION	PAGE
A	
ACCESSORY DRIVE BELT AND TENSIONER	
CUMMINS DIESEL	2-153
CUMMINS LPG	4-38
ACCESSORY HOLE COVER	
CUMMINS LPG	2-187
WET BRAKE - CUMMINS DIESEL	2-136
ACCUMULATOR	
PISTON TYPE	9-8
ACCUMULATOR CHARGE VALVE	8-12
AIR CLEANER ASSEMBLY	3-3
AIR COMPRESSOR	
DRY BRAKE - CUMMINS DIESEL	2-102
DRY BRAKE - CUMMINS LPG	2-180
PERKINS DIESEL, SHEET 1 OF 2	2-20
PERKINS DIESEL, SHEET 2 OF 2	2-22
AIR COMPRESSOR AND ATTACHING PARTS	
PERKINS DIESEL	2-18
AIR COMPRESSOR COOLANT PLUMBING	
DRY BRAKE - CUMMINS DIESEL	2-104
DRY BRAKE - CUMMINS LPG	2-176
AIR COMPRESSOR INLET CONNECTION	
DRY BRAKE - CUMMINS LPG	2-178
AIR CONDITIONING KITS	14-2
AIR CONDITIONING SYSTEM	
CUMMINS	1-40
PERKINS	1-38
AIR CROSSOVER CONNECTION	
CUMMINS DIESEL	2-140
AIR DRYER	
S/N G007E02676D →	8-44
SHEET 1 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)	8-36
SHEET 2 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)	8-38
AIR DRYER AND ATTACHING PARTS	
→ S/N G007E01572B	8-30
S/N G007E01573B ↔ S/N G007E02675D	8-32
AIR DRYER ASSEMBLY	
→ S/N G007E01572B	8-34
AIR DRYER SYSTEM	
S/N G007E02676D →	8-40
AIR DUCT AND ACCESSORIES	
CAB	1-100
AIR FILTER ASSEMBLY	1-15
AIR FILTER SYSTEM	
WITH AND WITHOUT ASPIRATED PRE-CLEANER - LPG	3-50
WITH ASPIRATED PRE-CLEANER - DIESEL	3-8
WITHOUT ASPIRATED PRE-CLEANER - DIESEL	3-4
AIR HEATER STARTING AID	
CUMMINS DIESEL	2-108

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
AIR INTAKE CONNECTION	
CUMMINS LPG	2-217
ALTERNATOR AND MOUNTING	
CUMMINS DIESEL	4-36
CUMMINS LPG	4-40
ALTERNATOR AND PULLEY	
PERKINS DIESEL	4-34
ALTERNATOR BRACKET AND ATTACHING PARTS	
PERKINS DIESEL	4-32
ASPIRATED PRE-CLEANER CONVERSION KIT	14-2
AUXILIARY DRIVE GEAR	
PERKINS DIESEL	2-52
AUXILIARY HYDRAULIC OIL COOLER	9-2
AUXILIARY PUMP COVER	
WET BRAKE - CUMMINS DIESEL	2-125
AUXILIARY PUMP DRIVE	
→ S/N G007E01732B (PERKINS) → S/N G007E01719B (CUMMINS)	5-32
S/N G007E01733B → (PERKINS) S/N G007E01720B → (CUMMINS)	5-34
AXLE HOUSING AND ATTACHING PARTS	6-2
B	
BLANKING PLATE AND PLUGS	
PERKINS DIESEL	2-56
BLANKING PLUG, OIL FEED AND HOSES	
PERKINS DIESEL	2-54
BRAKE ACCUMULATOR	8-16
BRAKE ASSEMBLY	
DRY BRAKE	8-20
WET BRAKE	8-18
BRAKE CHAMBER	8-22
BRAKE SYSTEM	
DRY	8-6
WET	8-2
BRAKE VALVE	
DRY BRAKE	8-26
WET BRAKE	8-24
C	
CAB AND ATTACHING PARTS	1-12
CAB AND TILT CYLINDER MOUNTING	1-24
CAB FLOORMATS	1-16
CAB HARDWARE AND CONTROL COVER	1-92
OPEN CAB	1-94
CAB HEATER PLUMBING	
DRY BRAKE - CUMMINS DIESEL	2-135
CAB MOUNTED DRIVE LIGHTS	13-14
CAM FOLLOWER COVER	
CUMMINS DIESEL	2-110
CUMMINS LPG	2-172

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
CAMSHAFT	
CUMMINS DIESEL	2-98
CUMMINS LPG	2-202
CAMSHAFT AND ROCKER ASSEMBLY	
PERKINS DIESEL	2-34
CARRIAGE	
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT	11-18
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) - TWO STAGE LIMITED FREE-LIFT	10-34
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) - TWO STAGE LIMITED FREE-LIFT	10-38
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) - THREE STAGE FULL FREE-LIFT	11-24
THREE FUNCTION - THREE STAGE FULL FREE-LIFT	11-16
THREE FUNCTION WITHOUT HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	10-28
WITH HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	10-30
CHARGE PUMP AND FILTER ASSEMBLY	5-16
CONDENSER	
→ 2/2007	1-48
3/2007 →	1-50
CONTROL LEVERS	9-36
CONTROL PANEL	
AIR CONDITIONER	4-22
HEATER	4-20
CONTROL VALVE ASSEMBLY	5-12
COOLING	
CUMMINS DIESEL	2-146
CUMMINS LPG	2-220
PERKINS DIESEL	2-14
COUNTERWEIGHT	1-10
CRANKCASE BREATHER	
CUMMINS DIESEL	2-109
CUMMINS LPG	2-174
CRANKSHAFT AND MAIN BEARINGS	
CUMMINS DIESEL	2-92
CUMMINS LPG	2-164
PERKINS DIESEL	2-30
CYLINDER BLOCK	
CUMMINS DIESEL	2-88
CUMMINS LPG	2-162
PERKINS DIESEL	2-24
CYLINDER HEAD	
CUMMINS DIESEL	2-90
CUMMINS LPG	2-204
PERKINS DIESEL	2-26
CYLINDER HEAD COVER	
PERKINS DIESEL	2-28
D	
DASH AND AIR DUCT ASSEMBLY	
CAB	1-102
DC-DC CONVERTER AND ATTACHING PARTS	4-24

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
DIFFERENTIAL AND CARRIER	
DRY BRAKE	6-4
WET BRAKE - 425 SERIES	6-8
WET BRAKE - 475 SERIES	6-12
DIRECTIONAL CONTROL CONVERSION KIT	14-2
DIRECTIONAL CONTROL VALVE	12-2
DRIVE GEAR	5-30
DRIVE PLATE	5-48
E	
ELECTRICAL PUMP	
CAB TILT	1-32
ELECTRICAL SYSTEM	
CUMMINS DIESEL (→ S/N G007E02606D)	4-8
CUMMINS DIESEL (S/N G007E02607D →)	4-12
CUMMINS LPG	4-16
PERKINS DIESEL	4-4
ELECTRONIC CONTROL MODULE AND MOUNTING	
PERKINS DIESEL	2-74
ELECTRONIC LEVER ASSEMBLY	
THREE, FOUR, FIVE, AND SIX FUNCTION	9-42
WITH CLAMP ATTACHMENT	9-40
END CAP PARTS	
LIFT SECTION	9-26
ENGINE ASSEMBLY	
CUMMINS DIESEL	2-84
CUMMINS LPG	2-156
PERKINS DIESEL	2-10
ENGINE BLOCK HEATER	
CUMMINS DIESEL (S/N G007E02901D →)	2-8
PERKINS AND CUMMINS DIESEL (→ S/N G007E02900D)	2-6
ENGINE CONTROL SYSTEM	
CUMMINS DIESEL	4-26
CUMMINS LPG	4-46
ENGINE IGNITION SYSTEM	
CUMMINS LPG	4-42
ENGINE LIFTING EYES	
PERKINS DIESEL	2-72
ENGINE MOUNT	
CUMMINS DIESEL	2-86
CUMMINS LPG	2-158
PERKINS DIESEL	2-17
ENGINE OIL COOLER	
CUMMINS DIESEL (→ S/N G007E02037C)	2-128
CUMMINS DIESEL (S/N G007E02038C →)	2-129
CUMMINS LPG	2-192

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
EXHAUST	
CUMMINS DIESEL	2-154
CUMMINS LPG	2-212
PERKINS DIESEL	2-12
EXHAUST GAS SENSOR PLUMBING	
CUMMINS LPG	2-215
EXHAUST MANIFOLD	
CUMMINS DIESEL	2-139
CUMMINS LPG	2-214
EXHAUST OUTLET CONNECTION	
CUMMINS LPG	2-216
F	
FAN DRIVE	
CUMMINS DIESEL	2-118
CUMMINS LPG	2-223
FAN DRIVE AND PULLEY	
PERKINS DIESEL	2-50
FLOOR PLATES AND COVERS	1-8
FLYWHEEL	
CUMMINS DIESEL	2-122
CUMMINS LPG	2-190
FLYWHEEL AND STARTER RING	
PERKINS DIESEL	2-82
FLYWHEEL HOUSING	
CUMMINS DIESEL	2-120
CUMMINS LPG	2-188
PERKINS DIESEL	2-80
FORK POSITIONING CYLINDER	10-42
FORKS	
IDENTIFY BY PART NUMBER	12-4
FORWARD CLUTCH	5-22
FREE-LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-12
FRONT DRIVE PULLEY	
PERKINS DIESEL	2-48
FRONT FENDER, BRAKE AND BACK-UP LIGHTS	13-12
FRONT GEAR COVER	
CUMMINS DIESEL	2-123
FRONT GEAR COVER AND HOUSING	
CUMMINS LPG	2-166
FRONT GEAR HOUSING	
CUMMINS DIESEL	2-106
FRONT GEAR TRAIN ACCESSORY DRIVE	
WET BRAKE - CUMMINS DIESEL	2-114
WET BRAKE - CUMMINS LPG	2-184
FRONT GEAR TRAIN ACCESSORY DRIVE PLUMBING	
WET BRAKE - CUMMINS LPG	2-186

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
FUEL CONTROL MODULE	
CUMMINS LPG	3-58
FUEL FILTER	
CUMMINS DIESEL	3-34
CUMMINS LPG	3-62
FUEL FILTER ASSEMBLY	
PERKINS DIESEL	3-24
FUEL FILTER PLUMBING	
CUMMINS DIESEL	3-36
FUEL INJECTION PUMP	
CUMMINS DIESEL	3-38
FUEL INJECTION PUMP AND GEAR	
PERKINS DIESEL	3-14
FUEL INJECTION SUPPLY AND RETURN LINES	
PERKINS DIESEL	3-18
FUEL INJECTOR PLUMBING	
CUMMINS DIESEL	3-48
FUEL PLUMBING	
CUMMINS DIESEL	3-46
FUEL PUMP MOUNTING	
CUMMINS DIESEL	3-42
FUEL STRAINER	
CUMMINS DIESEL	3-45
FUEL SYSTEM	
CUMMINS DIESEL (→ S/N G007E02257C)	3-28
CUMMINS DIESEL (S/N G007E02258C ↔ S/N G007E02674D)	3-30
CUMMINS DIESEL (S/N G007E02675D →)	3-32
CUMMINS LPG	3-52
PERKINS DIESEL	3-12
FUEL SYSTEM ACCESSORIES	
CUMMINS LPG	3-61
FUEL TANK MOUNTING	
CUMMINS LPG	3-56
FUEL TRANSFER PUMP	
CUMMINS DIESEL	3-44
G	
GEAR CLUTCH INSTALLATION	5-36
GENERAL TRUCK	1-3
H	
HAND PUMP	
CAB TILT	1-30
HEADER HOSE	
THREE STAGE FULL FREE-LIFT	11-14
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-44
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-48
HEATER AND AIR CONDITIONER ASSEMBLY	
CLOSED CAB, WITH AIRCO	1-58

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
HEATER AND AIR CONDITIONER ATTACHMENT	1-44
HEATER ASSEMBLY	
CLOSED CAB, WITHOUT AIRCO	1-46
HEATER HOSE ARRANGEMENT	
CUMMINS	1-36
PERKINS	1-34
HIGH PRESSURE FUEL PIPES	
PERKINS DIESEL	3-16
HOOD	1-4
HUB AND SHAFT ASSEMBLY	
DRY BRAKE	6-16
WET BRAKE - 425 SERIES	6-18
WET BRAKE - 475 SERIES	6-20
HYDRAULIC CONTROL VALVE	9-22
HYDRAULIC PUMP	
S/N G007E02725D → (DIESEL) S/N G007E02724D → (LPG)	9-16
DIESEL (→ S/N G007E02724D)	9-12
LPG (→ S/N G007E02723D)	9-14
WET BRAKE - PERKINS	8-10
HYDRAULIC SUPPLY AND RETURN	9-4
HYDRAULIC TANK AND ATTACHING PARTS	9-10
HYDRAULIC VALVE AND ATTACHING PARTS	9-18
I	
IDLER GEAR	
PERKINS DIESEL	2-46
IDLER SHAFT	
REVERSE	5-28
INCHING PEDAL AND ACCESSORIES	
CAB	1-96
INJECTOR	
CUMMINS DIESEL	3-40
INNER MAST	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-8
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-10
INTAKE MANIFOLD	
CUMMINS LPG	2-218
J	
JOYSTICK ASSEMBLY	4-48
JOYSTICK CONTROL	9-34
L	
LABELS	
GENERAL TRUCK AND DIESEL FUEL - SHEET 1 OF 2	1-88
GENERAL TRUCK AND LP FUEL - SHEET 2 OF 2	1-91
LIFT	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-12
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-16
LIFT ACCUMULATOR AND ATTACHING PARTS	9-7

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
LIFT PUMP AND FUEL FILTER LINES	
PERKINS DIESEL	3-20
LIFT PUMP ASSEMBLY	
PERKINS DIESEL	3-22
LIFTING BRACKET	
CUMMINS DIESEL	2-124
CUMMINS LPG	2-160
LIFTING EYES	13-18
LOW CLUTCH	5-20
M	
MAIN LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-11
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-20
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-24
MAIN WINDOW ASSEMBLY	1-22
MANIFOLDS	
PERKINS DIESEL	2-44
MAST AND REAR WORK LIGHTS	13-10
MAST ASSEMBLY	
THREE STAGE FULL FREE-LIFT - SHEET 1 OF 3	11-4
THREE STAGE FULL FREE-LIFT - SHEET 2 OF 3	11-6
THREE STAGE FULL FREE-LIFT - SHEET 3 OF 3	11-8
MAST HOSE SHEAVE KIT	14-2
MAST INSTALLATION	10-2
MONOTROL PEDAL	3-72
O	
OIL COOLER	
WET BRAKE	8-14
OIL COOLER AND CONNECTIONS	
PERKINS DIESEL	2-62
OIL DRAIN CONNECTION AND ACCESSORY HOLE COVER	
DRY BRAKE - CUMMINS DIESEL	2-137
OIL FILTER	
CUMMINS DIESEL	2-132
OIL FILTER AND ATTACHING PARTS	
PERKINS DIESEL	2-60
OIL LEVEL GAUGE	
CUMMINS DIESEL	2-130
CUMMINS LPG	2-194
OIL PAN	
CUMMINS DIESEL	2-126
CUMMINS LPG	2-198
OIL PUMP	
CUMMINS DIESEL	2-134
CUMMINS LPG	2-196
OIL PUMP AND DELIVERY HOUSING	
PERKINS DIESEL	2-58

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
OIL SUMP	
PERKINS DIESEL	2-42
OUTER MAST	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-4
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-6
OUTPUT SHAFT	5-18
P	
PARK BRAKE	
WET BRAKE	8-28
PICK-UP SENSORS	
PERKINS DIESEL	2-78
PILOT VALVE	9-32
PISTON AND CONNECTING ROD	
CUMMINS DIESEL	2-96
CUMMINS LPG	2-200
PERKINS DIESEL	2-32
R	
REVERSE ALARM	13-20
REVERSE AND SECOND CLUTCH	5-24
ROCKER LEVERS	
CUMMINS DIESEL	2-100
CUMMINS LPG	2-170
S	
SEAT	
AIR SUSPENSION ASSEMBLY (S/N G007E02517C →)	1-74
ARMREST ASSEMBLY - WITH WINDOW WASHER OPTIONS	1-82
ARMREST PIVOT ARM ASSEMBLY	1-84
MECHANICAL SUSPENSION ASSEMBLY (S/N G007E02517C →)	1-78
SUSPENSION MOUNTING (S/N G007E02517C →)	1-70
TRAINING	1-86
SEAT ASSEMBLY	
AIR SUSPENSION (→ S/N G007E02516C)	1-60
MECHANICAL SUSPENSION (→ S/N G007E02516C)	1-52
SUSPENSION (S/N G007E02517C →)	1-66
SIDE-SHIFT CARRIAGE	
DUAL FUNCTION WITH FORK POSITIONER - TWO STAGE LIMITED FREE-LIFT	12-8
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT	12-14
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) - TWO STAGE LIMITED FREE-LIFT	12-18
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) - THREE STAGE FULL FREE-LIFT	12-22
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) - TWO STAGE LIMITED FREE-LIFT	12-26
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) - THREE STAGE FULL FREE-LIFT	12-30
THREE FUNCTION - THREE STAGE FULL FREE-LIFT	12-34
WITH HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	12-36
SIDE-SHIFT CYLINDER	12-6
DUAL FUNCTION WITH FORK POSITIONER - TWO STAGE LIMITED FREE-LIFT	12-12
STANDARD PIN CARRIAGE	
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) - THREE STAGE FULL FREE-LIFT	11-22

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
STARTER MOTOR	
CUMMINS DIESEL	4-30
CUMMINS LPG	4-44
PERKINS DIESEL	4-28
STEEL DOOR	
LEFT HAND	1-20
RIGHT HAND	1-18
STEERING AXLE	7-8
STEERING COLUMN AND ATTACHING PARTS	7-4
STEERING COLUMN ASSEMBLY	7-6
STEERING CYLINDER	
→ S/N G007E02599D	7-12
S/N G007E02600D →	7-14
STEERING SYSTEM	7-2
STROBE LIGHT	13-16
T	
THERMOSTAT	
CUMMINS DIESEL	2-117
CUMMINS LPG	2-225
THERMOSTAT AND WATER OUTLET HOUSING	
PERKINS DIESEL	2-64
THERMOSTAT HOUSING	
CUMMINS DIESEL	2-116
CUMMINS LPG	2-224
THIRD CLUTCH	5-26
THROTTLE PEDAL LINKAGE	
FORWARD AND REVERSE LEVER	3-64
MONOTROL PEDAL	3-68
TILT CYLINDER	
CAB	1-28
TILT CYLINDER AND ATTACHING PARTS	9-28
TIMING CASE	
PERKINS DIESEL	2-36
TIMING COVER	
PERKINS DIESEL	2-38
TIMING GEAR	
PERKINS DIESEL	2-40
TIRES AND WHEELS	
BERGOUGNAN ELITE - 9.00 X 20, SOLID TIRE	13-6
BERGOUGNAN ELITE - 10.00 X 20, SOLID TIRE	13-7
BRIDGESTONE - 9.00 X 20, 14 PLY	13-2
BRIDGESTONE - 10.00 X 20, 16 PLY	13-3
MICHELIN XZM - 9.00 X 20	13-8
MICHELIN XZM - 10.00 X 20	13-9
TRELLEBORG - 9.00 X 20, 14 PLY	13-4
TRELLEBORG - 10.00 X 20, 16 PLY	13-5

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
TORQUE CONVERTER ASSEMBLY	
CUMMINS (→ S/N G007E01719B)	5-42
CUMMINS (S/N G007E01720B →)	5-44
PERKINS (→ S/N G007E01732B)	5-38
PERKINS (S/N G007E01733B →)	5-40
TORQUE CONVERTER HOUSING AND ATTACHING PARTS	5-6
TRANSMISSION CASE	
→ S/N G007E01732B (PERKINS) → S/N G007E01719B (CUMMINS)	5-8
S/N G007E01733B → (PERKINS) S/N G007E01720B → (CUMMINS)	5-10
TRANSMISSION MOUNT AND ATTACHING PARTS	
CUMMINS	5-4
PERKINS	5-2
TURBINE SHAFT AND STATOR SUPPORT	5-46
TURBO DRAIN PIPE AND BLANKING PLATE	
PERKINS DIESEL	2-70
TURBOCHARGER	
CUMMINS DIESEL	2-142
CUMMINS LPG	2-206
TURBOCHARGER AND ATTACHING PARTS	
PERKINS DIESEL	2-68
TURBOCHARGER COMPRESSOR OUTLET CONNECTION	
CUMMINS LPG	2-210
TURBOCHARGER OIL PLUMBING	
CUMMINS DIESEL	2-144
TURBOCHARGER PLUMBING	
CUMMINS LPG	2-208
V	
VALVE COVER	
CUMMINS DIESEL	2-149
CUMMINS LPG	2-168
VALVE TAPPET	
CUMMINS DIESEL	2-94
CUMMINS LPG	2-173
VIBRATION DAMPER	
CUMMINS DIESEL	2-112
CUMMINS LPG	2-182
W	
WATER INLET CONNECTION	
CUMMINS DIESEL	2-150
CUMMINS LPG	2-226
WATER OUTLET CONNECTION	
CUMMINS LPG	2-227
WATER PUMP	
CUMMINS DIESEL	2-152
CUMMINS LPG	2-228
PERKINS DIESEL	2-66

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
WATER SEPERATOR	
PERKINS DIESEL	3-26

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
WIRE HARNESS	
AIR DRYER (S/N G007E02676D →)	4-144
ARMREST - WITH CLOSED CAB	4-118
ARMREST - WITH OPEN CAB	4-120
AUXILIARY HYDRAULIC OIL COOLER	4-160
BACK-UP ALARM	4-164
BRAKE TEMPERATURE - NON-ECH AND EC3 (→ S/N G007E02863D)	4-162
BRAKE TEMPERATURE - EC4 (→ S/N G007E02863D)	4-163
BRAKE TEMPERATURE (S/N G007E02864D →)	4-165
CAB LIGHTS	4-158
CAB SIDE CONSOLE - SHEET 1 OF 3	4-126
CAB SIDE CONSOLE - SHEET 2 OF 3	4-130
CAB SIDE CONSOLE (RELAYS AND FUSES) - SHEET 3 OF 3	4-134
CAB TILT	4-124
CAB UNDERFLOOR (→ S/N G007E03039D)	4-137
CAB UNDERFLOOR (S/N G007E03040D →)	4-139
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (→ 10/2004)	4-60
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (→ 10/2004)	4-64
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)	4-68
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)	4-72
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)	4-76
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)	4-80
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (S/N G007E03040D →)	4-84
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (S/N G007E03040D →)	4-88
CHASSIS, CUMMINS LPG - SHEET 1 OF 2 (→ S/N G007E03039D)	4-92
CHASSIS, CUMMINS LPG - SHEET 2 OF 2 (→ S/N G007E03039D)	4-96
CHASSIS, CUMMINS LPG - SHEET 1 OF 2 (S/N G007E03040D →)	4-100
CHASSIS, CUMMINS LPG - SHEET 2 OF 2 (S/N G007E03040D →)	4-104
CHASSIS, PERKINS DIESEL - SHEET 1 OF 2	4-50
CHASSIS, PERKINS DIESEL - SHEET 2 OF 2	4-54
CLOSED CAB (→ S/N G007E02505C)	4-110
CLOSED CAB (S/N G007E02506C →)	4-112
ENGINE CONTROL SYSTEM - CUMMINS DIESEL	4-108
ENGINE CONTROL SYSTEM - CUMMINS LPG	4-122
FRONT END - FOUR FUNCTION (→ 10/2006)	4-166
FRONT END - FIVE FUNCTION (→ 10/2006)	4-167
FRONT END - SIX FUNCTION (→ 10/2006)	4-168
FRONT END - FOUR, FIVE, AND SIX FUNCTION (11/2006 →)	4-170
FRONT LIGHTS	4-154
FRONT LIGHTS - WITH FRONT FENDER AND MAST WORK LIGHTS	4-156
FUSE AND RELAY - PERKINS DIESEL	4-58
MAST LIGHT EXTENSION - LEFT HAND	4-148
MAST LIGHT EXTENSION - RIGHT HAND	4-149
MAST WORKLIGHT EXTENSION	4-152
OIL COOLER	4-159
OPEN CAB	4-114
REAR DRIVE LIGHT EXTENSION	4-150
REAR WIPER	4-116
STEERING COLUMN	4-142
TWO STAGE LIMITED FREE-LIFT	4-146

TABLE OF CONTENTS (continued)

DESCRIPTION	PAGE
WIRING LOOMS	
PERKINS DIESEL	2-76

ABBREVIATIONS QUICK REFERENCE SHEET

Listed below are abbreviations used in parts manuals to denote the following expressions:

TERM	DEFINITION	TERM	DEFINITION
Amp	Amperes	FRE	Freezer Environment
AR	As Required	in.	inches
BDI	Battery Discharge Indicators	LPG	Liquefied Petroleum Gas
BWI	Brush Wear Indicator	MAP	Manifold Absolute Pressure
CE	Communicator End	mm	millimeters
CRE	Corrosive Environment	MSTS	Microprocessor Spark Timing System
D/B	Date Break	NPT	National Pipe Threads
dbA	Decibel "A" Scale	O/S	Oversize
DE	Drive End	PTO	Power Take Off
ECH	Empty Container Handler	RPM	Revolutions per Minute
ECH-3	Empty Container Handler - 3 High Stacking	S/N	Serial Number
ECH-4	Empty Container Handler - 4 High Stacking	TMM	Truck Management Module
ECH-5	Empty Container Handler - 5 High Stacking	UL Type D	Diesel-Powered Safety Rating
ECH-6	Empty Container Handler - 6 High Stacking	UL Type DS	Diesel-Powered Safety Rating
ECH-7	Empty Container Handler - 7 High Stacking	UL Type E	Battery-Powered Safety Rating
ECM	Electronic Control Module	UL Type EE	Battery-Powered Safety Rating
ECN	Engineering Change Notice	UL Type ES	Battery-Powered Safety Rating
EEPROM	Electrically Erasable Programmable Read Only Memory	UL Type G	Gasoline-Powered Safety Rating
EPA	US Environmental Protection Agency	UL Type GS	Gasoline-Powered Safety Rating
EPROM	Electrically Programmable Read Only Memory	UL Type LP	Gas-Powered Safety Rating
		UL Type LPS	LP Gas-Powered Safety Rating
		U/S	Undersize
		UL	Underwriters Laboratory
		V	Volts

HOW TO USE THE ILLUSTRATED PARTS MANUAL

This parts manual describes and illustrates assemblies, subassemblies, and detail parts needed for service replacement.

The different constructions are indicated by keys and footnotes. The callouts correspond to descriptions found on the next page.

HYSTER UNIT CODE D001 NORTH AMERICA 06/2001

TABLE OF CONTENTS

DESCRIPTION	PAGE
AIR INTAKE AND FILTER DIESEL (⇒ D/B 11/98)	3-22
AIR INTAKE AND FILTER DIESEL (D/B 11/96 ⇒)	
AIR INTAKE AND FILTER GASOLINE AND LPG	
ALTERNATOR GASOLINE, LPG, AND DIESEL	
ALTERNATOR TYPES GS, LPS, AND DS	
AUXILIARY FUNCTION TUBE TWO AND THREE STAGE FULL F	

SECTION 13 NUMERICAL INDEX

PART NO.	PAGE NO.	ITEM NO.	PART NO.	PAGE NO.	ITEM NO.	PART NO.	PAGE NO.	ITEM NO.	PART NO.	PAGE NO.	ITEM NO.
142	3-4	19	10-13	25		11-27	29	12-31	12		
12445	3-32	19	10-17	6		11-31	25	16719	3-36	5	
	3-34	1	10-27	11		11-32	37	16751	3-16	27	
			11	11		8-4	29	16849	3-34	21	
			11	6	16485	8-4	45		3-38	20	
			12	11		8-4	45	16863	3-28	17	
			14	13		8-8	34	16865	3-6	18	
			12	6		9-7	9		4-27	41	
			3	17		9-7	19	16882	9-7	30	
			9	10		9-11	9		9-11	27	
			23	46		9-11	17		10-10	36	
			27	46		10-9	21		10-13	32	
			26	14		10-9	28		11-7	24	
			28	14		10-13	16		11-9	17	
			50	14		11-7	19				

SECTIONS

- 1
- 2
- 3
- 4
- 5 BRAKE/ACC
- 6
- 7 MAST-TWO STAG
- 8 MAST-THREE ST
- 9 MAST-TWO ST
- 10
- 11

TRANSMISSION HOUSING ⇒ S/N D001H-2628

KEY:
A: Diesel
B: Gasoline and LPG

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	202547	Transmission	1	1
2	2023329	Transmission	1	1
3	2021670	Case	2	2
4	2023418	Bearing Cap	4	4
5	296429	Washer	4	4
6	293947	Bolt	1	1
7	2021390	Cover	2	2
8	1371656	Colter Pin	4	4
9	2021915	O-Ring	1	1
10	2021329	Plug	4	4
11	2021675	Housing	22	22
12	2021336	Pin	39	39
13	287860	Lockwasher	1	1
14	292682	Hydraulic Pump	1	1
15	2021345	⇒ Figure 5-3	1	1
16	214364	Gasket	1	1
17	296418	Bolt	8	8
18	2021388	Washer	1	1
19	2021389	Temperature Switch	1	1
20	292531	Breather	9	9
21	292583	Dipstick	9	9
22	292515	Bolt	2	2
23	136692	Nut	3	3
24	292527	Bolt	3	2
25	292531	Capscrew	4	4
26	292583	Lockwasher	4	4
27	293637	Bolt	4	4
28	296420	Washer	1	1
996403		Transmission Kit (Includes Item 7)	1	1
996405		Transmission Kit (Includes Item 14)	1	1

This Parts Manual is divided into 11 major sections which are listed above. Quick be made by placing the right thumb on the tab of the desired section, bending the pages to the corresponding tab.

©Copy Right Date HYSTER COMPANY See Service Manual for service procedures. 5-15

HP990004

HOW TO FIND THE DESIRED PART NUMBER**WHEN THE PART NUMBER AND THE NEXT HIGHER ASSEMBLY IS NOT KNOWN:**

1. Determine the function and application of the part required. Turn to the Sections Page. Choose the general area of reference most likely to include the part.
2. Turn to the section you chose. Use the Section Table of Contents to determine the assembly which would normally contain the part required. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS NOT KNOWN AND THE NEXT HIGHER ASSEMBLY IS KNOWN:

3. Determine the assembly the required part is used on. Turn to the Table of Contents (Page i).
4. Locate the assembly the required part is used on and turn to the page indicated for that assembly. Then locate the part on the assembly breakdown page.

WHEN THE PART NUMBER IS KNOWN:

5. Use the Numerical Index (Page 15-1) to find the part number. Turn to the page listed and locate the part as indicated by the item number.

GENERAL:

The assembly breakdowns include part numbers, descriptions, quantities required, keys and footnotes to help in selecting correct parts.

6. Five periods in the PART NO. column (.) indicate that the part is either *Not Serviced Separately* or there is a reference to another figure. A figure reference is denoted by a pointing hand followed by a figure number in the DESCRIPTION column (☞ Figure 10)
7. Keys are used to show two or more similar assemblies, RH and LH assembly parts, etc. Select the appropriate key, "A", "B", "C", "D", or "E" and the corresponding quantity column to find the required parts. Two periods in the QTY column (..) indicate that the part is not used for that assembly.
8. Indented descriptions under the DESCRIPTION column are used to indicate assemblies and subparts of assemblies. In the example on the

previous page, *BEARING CAP* (Item 2) is a subpart of the major assembly *CASE*.

9. Quantities shown are for one assembly. The quantities of the subpart *BEARING CAP* are indicated as two and two. This means two per *CASE* assembly.
10. Serial number breaks identify the most current parts information and are shown as follows:
 - **S/N D001H2628**
Indicates last serial number affected.
 - S/N D001H2629** →
Indicates the first serial number affected.
 - S/N D001H1553 ↔ S/N D001H3291**
Indicates a range of serial numbers affected.

ECN numbers for pending serial numbers are shown to allow for the inclusion of the most current parts information and are identified as follows:

- **S/N Pending Per ECN 63243**
Indicates a pending serial number for last unit affected.
- S/N Pending Per ECN 63243** →
Indicates a pending serial number for first unit affected.

Date breaks are used to indicate when a change occurred but a subsequent serial number break was not recorded. This is an arbitrary date usually based on the ECN release and are identified as follows:

- **D/B 3/00**
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00** →
Indicates that a change occurred sometime within that month for the item affected.
- D/B 3/00 ↔ D/B 4/00**
Indicates a range of production dates of the item affected.

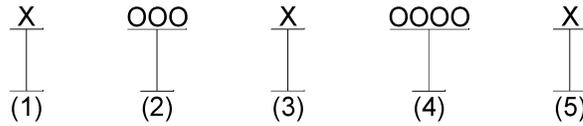
Contact your local dealer for Hyster lift trucks for serial number information for items with a ECN or a date break.

ORDERING PARTS:

When ordering replacement parts, give the unit serial number, part number, name of part and quantity required.

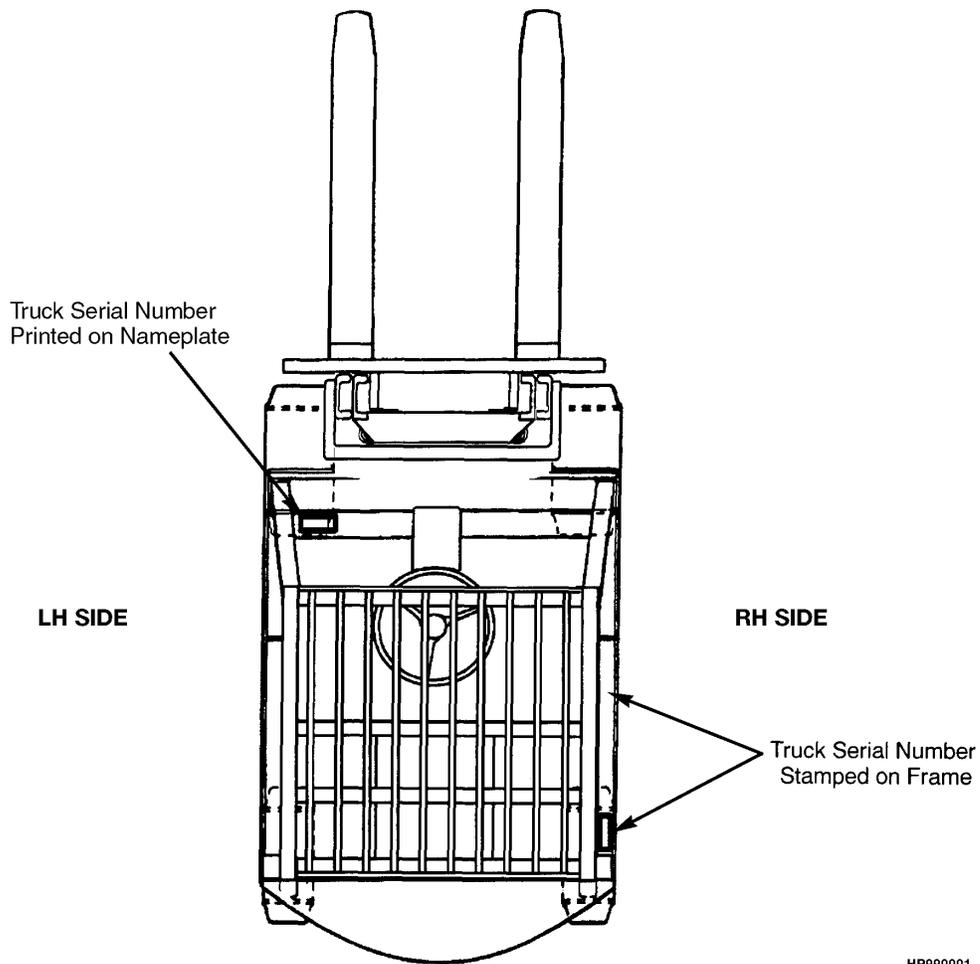
For any further information on parts, service, or ordering, consult your local dealer for Hyster lift trucks.

IDENTIFICATION OF TRUCK SERIAL NUMBERS

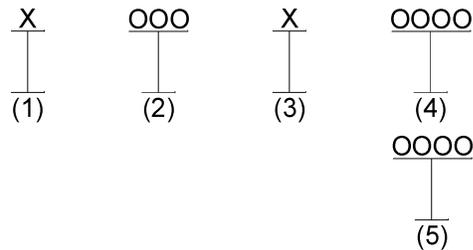


- (1) and (2) The first letter and three numbers indicate the truck unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the truck.
- (5) The final letter indicates the year of manufacture starting with "A" in 1957, 1980, and 2003.
The letters "I", "O", and "Q" will not be used.

For pending serial numbers contact your local dealer for Hyster lift trucks.



Parts referred to in this book as right or left hand parts are in accordance with the illustration above.

IDENTIFICATION OF MAST SERIAL NUMBERS

- (1) and (2) The first letter and number indicates the mast unit code.
- (3) The second letter indicates the plant of manufacture.
- (4) The four or five digit number indicates the production sequence number of the mast.
- (5) Carriage travel in millimeters stamped just below the serial number.

Mast Group identification consists of mast unit code (1) and (2) plus carriage travel (5).

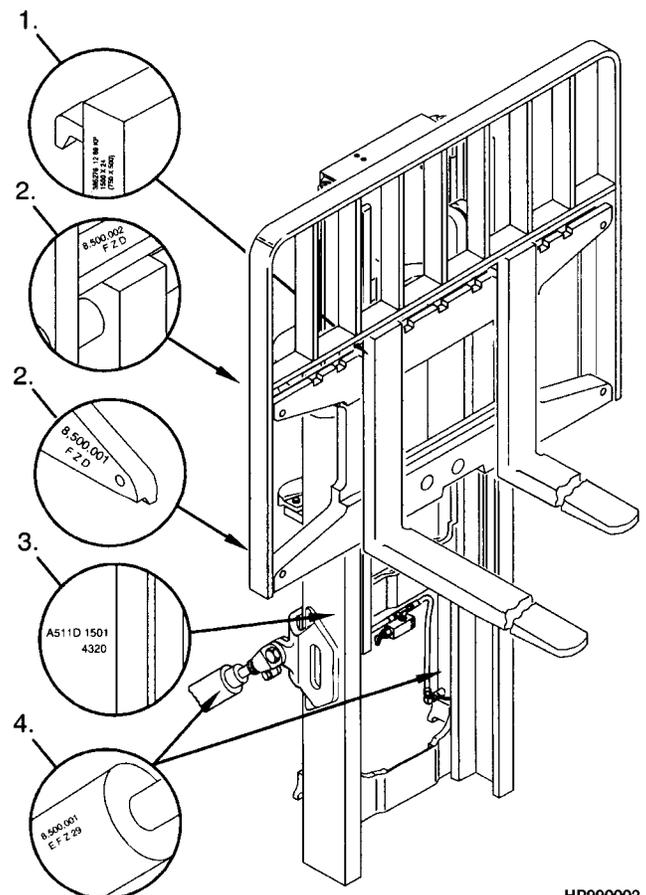
For pending production sequence numbers contact your local dealer for Hyster lift trucks.

LIFT EQUIPMENT IDENTIFICATION

1. Fork part number, capacity rating, plant code letter, and date of manufacture are stamped approximately six inches below the top of most forks.
2. The carriage group number is stamped on the right hand side of the top crossmember (pin type) or on the back of the right hand end of the bottom crossmember (hook type). A date code has two letters in line with or below the carriage group number.
3. The mast identification number has a unit code, a letter indicating the plant of manufacture, and a serial number. Underneath the production sequence number is a four digit number that indicates the carriage travel in millimeters.
4. Tilt and lift cylinder group numbers are stamped on the cylinder shell.

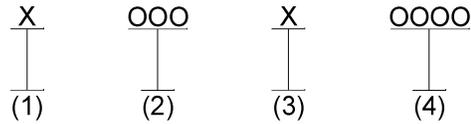
Always refer to the group, serial, or part number when ordering service parts.

Modification of masts and carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". contact your dealer for Hyster lift trucks for information on these assemblies.



HP990002

IDENTIFICATION OF ATTACHMENT AND SIDE-SHIFT CARRIAGE SERIAL NUMBERS

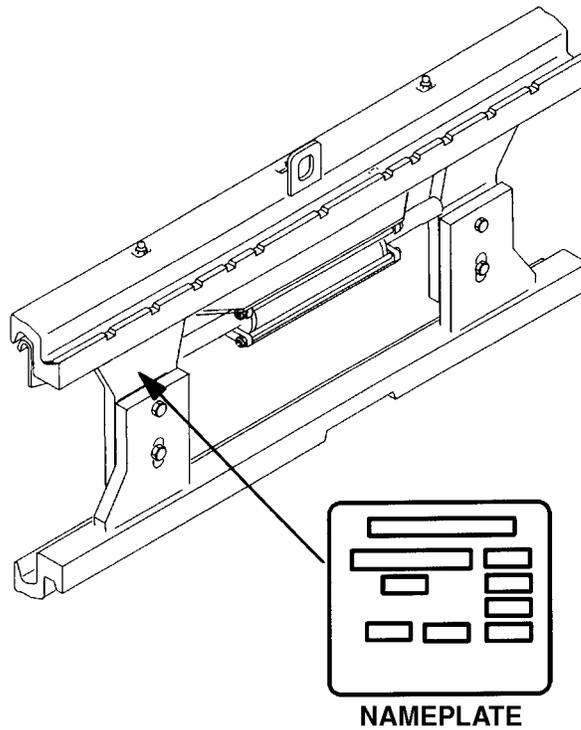


(1) and (2) The first letter and three numbers indicate the attachment unit code.

(3) The second letter indicates the plant of manufacture.

(4) The four or five digit number indicates the production sequence number.

For pending production sequence numbers contact your local dealer for Hyster lift trucks.



HP990003

Side-shift carriages and attachments have nameplates. Use the serial number found on the nameplate to identify the attachment.

Always refer to the group, serial, or part number when ordering service parts.

Modifications of attachments and side-shift carriages by SPED (Special Products Engineering Department) are identified by a model prefix code beginning with the letter "S". Contact your dealer for Hyster lift trucks for information on these assemblies.

PUBLICATIONS

Every new lift truck is provided with an OPERATING MANUAL. This manual has information that the operator must know for inspection and operation of the lift truck.

SERVICE MAINTENANCE MANUALS, which provide service and overhaul procedures, and PARTS

MANUALS with complete replacement part identification, are available at a nominal fee from your Hyster dealer to assist users in effectively maintaining Hyster lift trucks in a safe, useful condition. See the list below for information on ordering specific publications for this model lift truck.

PUBLICATION	HYSTER PART NUMBER
Operating Manual.....	1556854
Service Manual (Complete).....	1556870
Parts Manual.....	1556869

1

FRAME

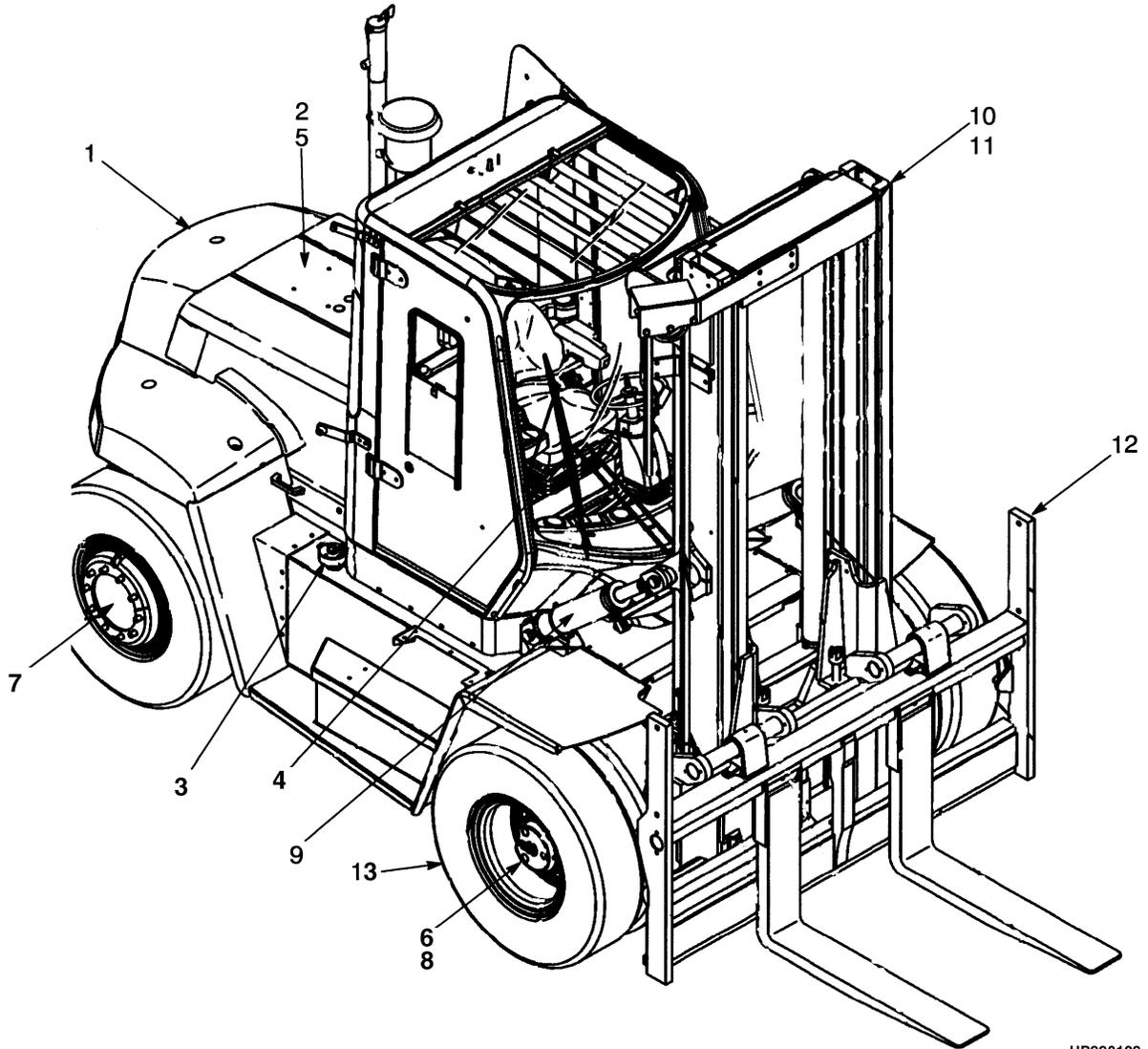
SECTION 1
FRAME

DESCRIPTION	PAGE
AIR CONDITIONING SYSTEM	
CUMMINS	1-40
PERKINS	1-38
AIR DUCT AND ACCESSORIES	
CAB	1-100
AIR FILTER ASSEMBLY	1-15
CAB AND ATTACHING PARTS	1-12
CAB AND TILT CYLINDER MOUNTING	1-24
CAB FLOORMATS	1-16
CAB HARDWARE AND CONTROL COVER	1-92
OPEN CAB	1-94
CONDENSER	
→ 2/2007	1-48
3/2007 →	1-50
COUNTERWEIGHT	1-10
DASH AND AIR DUCT ASSEMBLY	
CAB	1-102
ELECTRICAL PUMP	
CAB TILT	1-32
FLOOR PLATES AND COVERS	1-8
GENERAL TRUCK	1-3
HAND PUMP	
CAB TILT	1-30
HEATER AND AIR CONDITIONER ASSEMBLY	
CLOSED CAB, WITH AIRCO	1-58
HEATER AND AIR CONDITIONER ATTACHMENT	1-44
HEATER ASSEMBLY	
CLOSED CAB, WITHOUT AIRCO	1-46
HEATER HOSE ARRANGEMENT	
CUMMINS	1-36
PERKINS	1-34
HOOD	1-4
INCHING PEDAL AND ACCESSORIES	
CAB	1-96
LABELS	
GENERAL TRUCK AND DIESEL FUEL - SHEET 1 OF 2	1-88
GENERAL TRUCK AND LP FUEL - SHEET 2 OF 2	1-91
MAIN WINDOW ASSEMBLY	1-22
SEAT	
AIR SUSPENSION ASSEMBLY (S/N G007E02517C →)	1-74
ARMREST ASSEMBLY - WITH WINDOW WASHER OPTIONS	1-82
ARMREST PIVOT ARM ASSEMBLY	1-84
MECHANICAL SUSPENSION ASSEMBLY (S/N G007E02517C →)	1-78
SUSPENSION MOUNTING (S/N G007E02517C →)	1-70
TRAINING	1-86
SEAT ASSEMBLY	
AIR SUSPENSION (→ S/N G007E02516C)	1-60
MECHANICAL SUSPENSION (→ S/N G007E02516C)	1-52
SUSPENSION (S/N G007E02517C →)	1-66

SECTION 1 FRAME

DESCRIPTION	PAGE
STEEL DOOR	
LEFT HAND	1-20
RIGHT HAND	1-18
TILT CYLINDER	
CAB	1-28

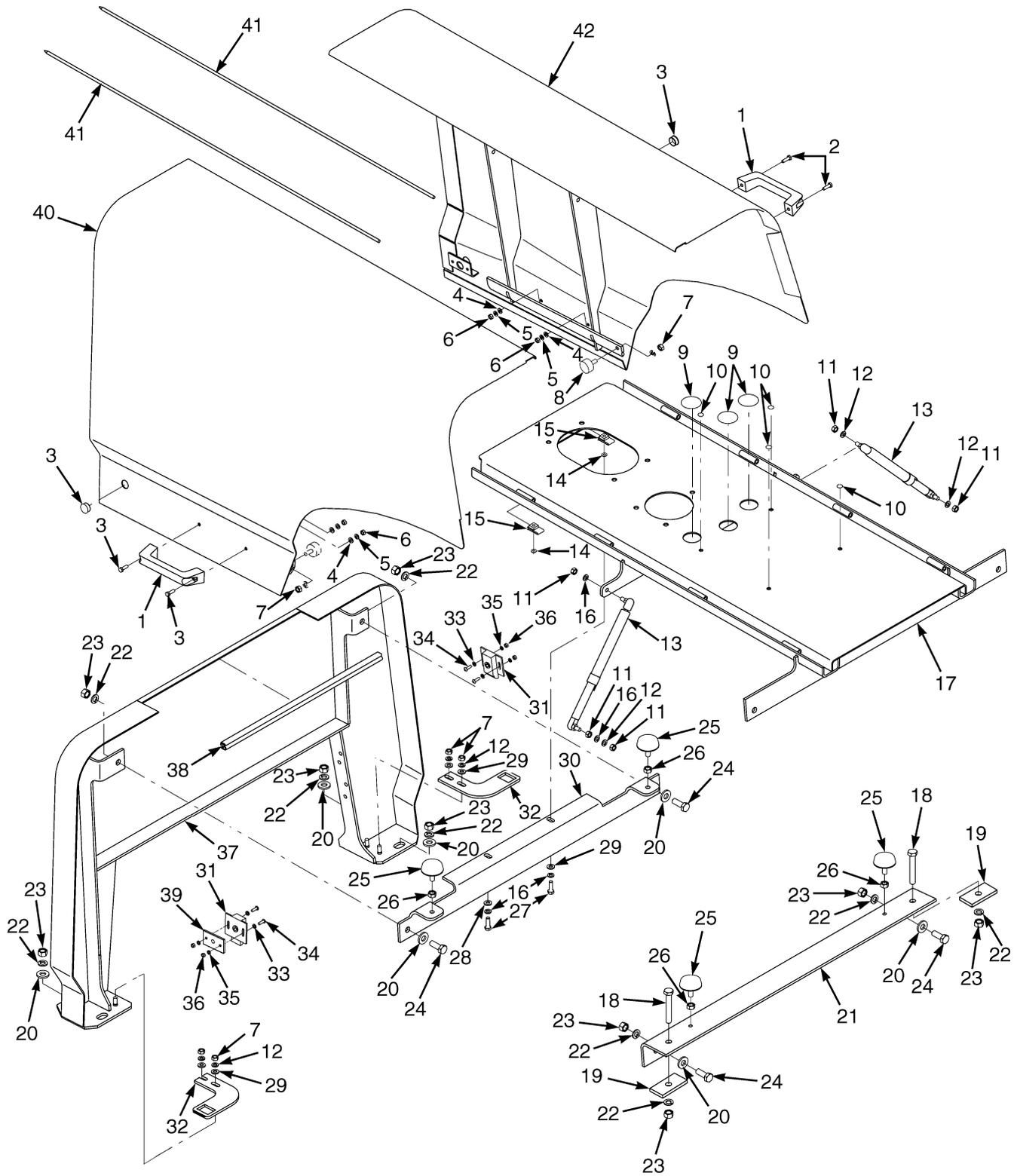
GENERAL TRUCK (FIGURE 1-1)



HP990129

ITEM	PART NO.	DESCRIPTION	QTY
1	Frame (☞ Figure 1-2).....	1
2	Engine Assembly	1
3	Fuel System (☞ Figure 3-4).....	1
4	Electrical System	1
5	Transmission	1
6	Drive Axle (☞ Figure 6-3).....	1
7	Steering System (☞ Figure 7-1).....	1
8	Brake System (☞ Figure 8-1).....	1
9	Hydraulic System (☞ Figure 9-2).....	1
10	Mast-Two Stage Limited Free-Lift (☞ Figure 10-2).....	1
11	Mast-Three Stage Full Free-Lift (☞ Figure 11-2).....	1
12	Attachments (☞ Figure 12-12).....	1
13	Options	1
14	Numerical Index	1

HOOD (FIGURE 1-2)



BP120166

HOOD

ITEM	PART NO.	DESCRIPTION	QTY
1	362030	Handle	2
2	292501	Capscrew	4
3	309666	Plug	2
4	320156	Washer	4
5	292680	Washer	4
6	136687	Nut	4
7	136692	Nut	4
8	1489092	Screw (Stop)	2
9	d 1494869	Plug (Without Air Conditioner)	3
9	e 1613498	Plug (Without Air Conditioner)	3
10	d 1494868	Plug (Without Air Conditioner)	4
10	e 2043079	Plug (Without Air Conditioner)	4
11	239503	Nut	4
12	292682	Lockwasher	4
13	376300	Gas Spring	2
14	320158	Washer	AR
15	376397	Retainer	2
16	292681	Lockwasher	4
17	a 1554210	Hose Guide	1
17	b 1554209	Hose Guide	1
18	292535	Capscrew	AR
19	1479871	Washer	2
20	1477508	Bracket	1
20	320162	Washer	8
21	1477512	Bracket	1
22	292683	Lockwasher	10
23	216877	Nut	10
24	292528	Capscrew	4
25	1479870	Screw (Stop)	4
26	136692	Nut	4
27	18498	Capscrew	2
28	320157	Washer	2
29	320160	Washer	4
30	1477508	Bracket	2
31	1382332	Latch	1
32	1494480	Plate	2
33	320155	Washer	4
34	296155	Capscrew	4
35	292679	Washer	4
36	292668	Nut	4
37	1489401	Support	1
38	300088	Seal (Door) (Door)	8
39	1494642	Shim	AR
39	1494643	Shim	AR
39	1494645	Shim	AR
40	a 1479059	Hood (LH)	1
40	b 1479060	Hood (LH)	1
41	a 1476660	Rod	1
41	b 1476661	Rod	1
42	a 1478957	Hood (RH)	1
42	b 1478958	Hood (RH)	1

HOOD

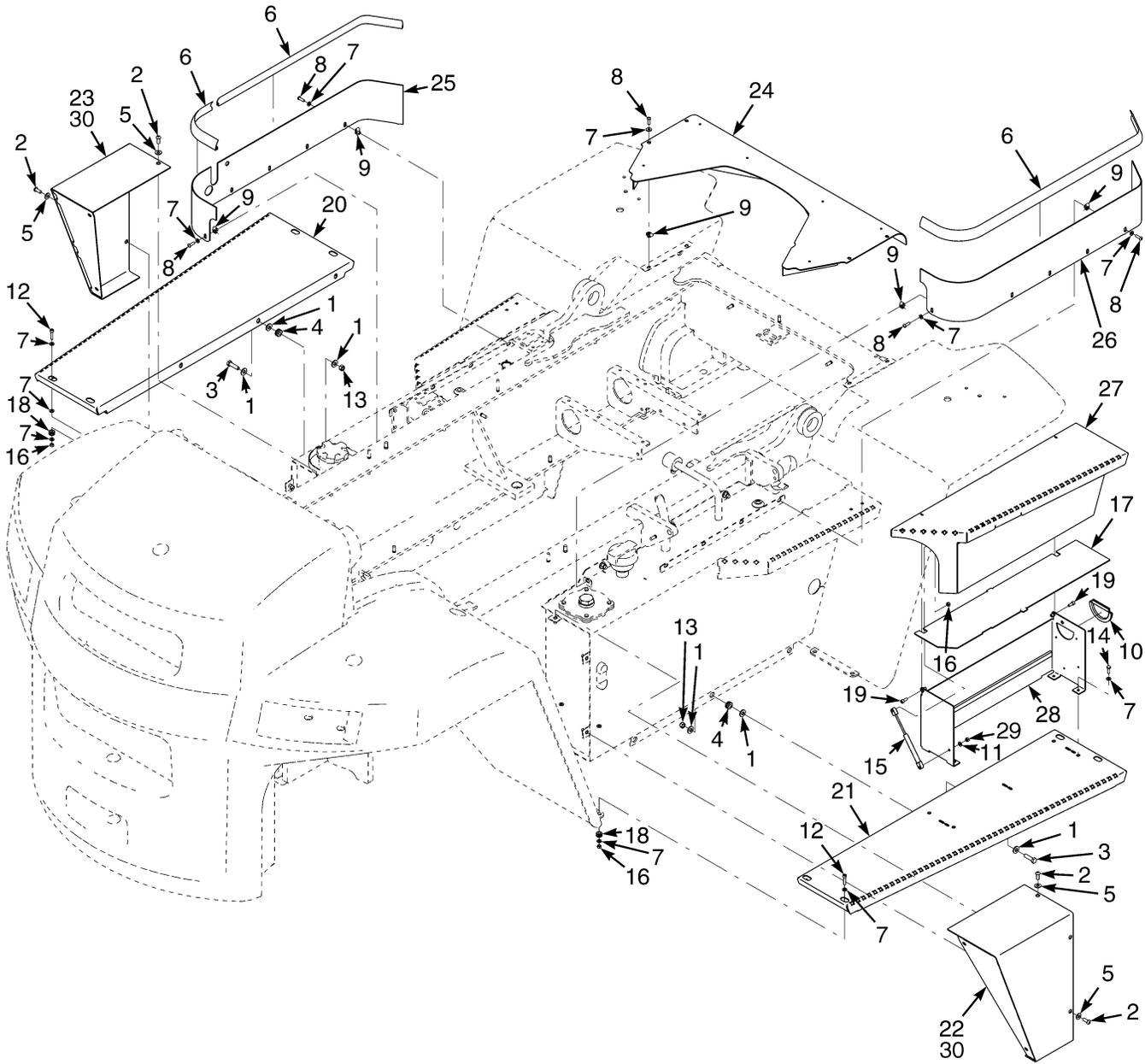
ITEM	PART NO.	DESCRIPTION	QTY
	c 1382766	Wrench	1
	c 1606784	Plug	11

FOOTNOTES:

- a H170HD-H210HD
- b H230HD-H280HD
- c Not Illustrated

- d → S/N G007E02505C
- e S/N G007E02506C →

FLOOR PLATES AND COVERS (FIGURE 1-3)



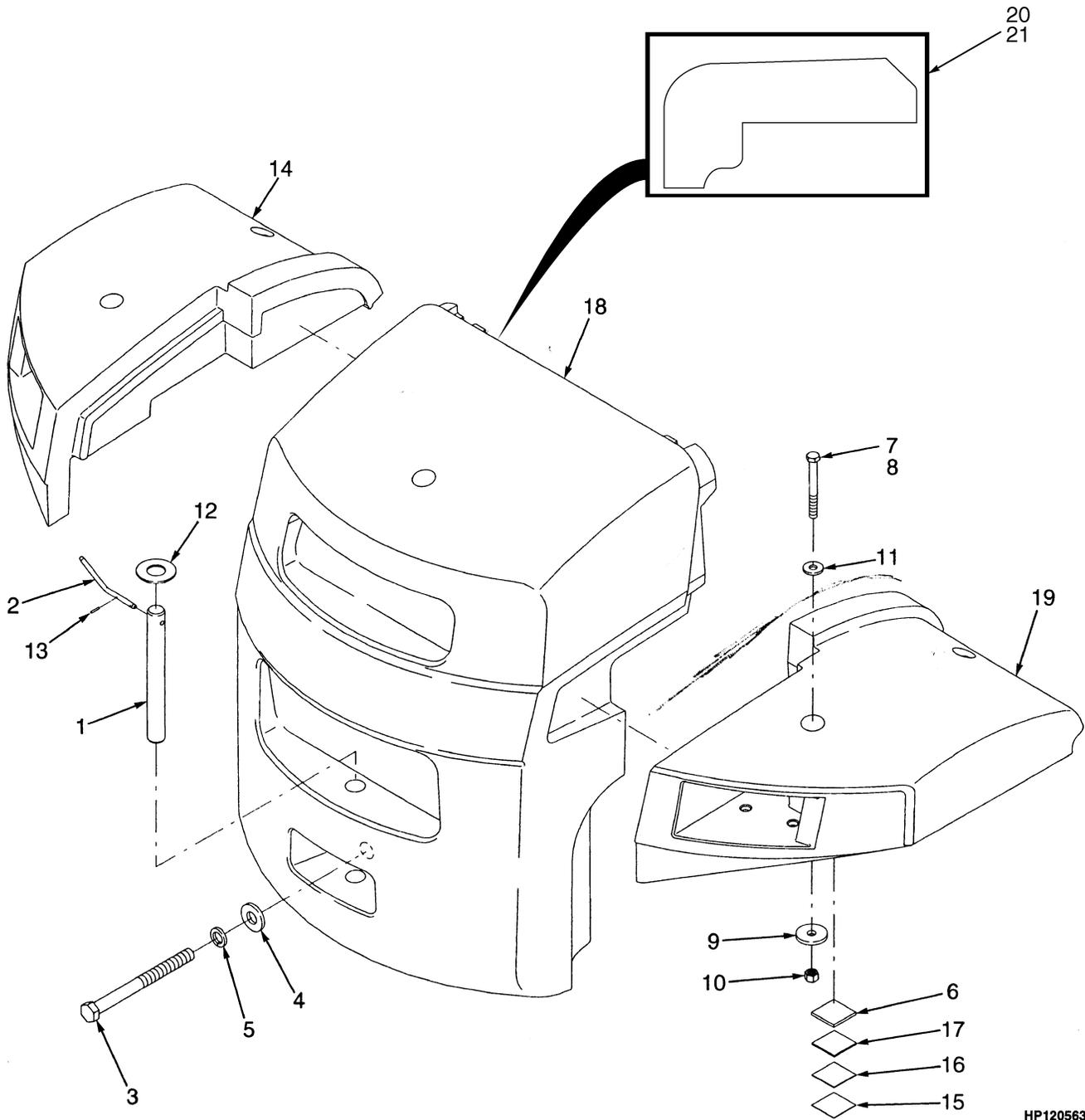
HP120673

FLOOR PLATES AND COVERS

ITEM	PART NO.	DESCRIPTION	QTY
1	320162	Washer	18
2	296173	Capscrew	6
3	287837	Capscrew	6
4	216735	Grommet	6
5	320160	Washer	6
6	1491360	Seal-Bulk	AR
7	320158	Washer	42
8	296167	Capscrew	14
9	1480237	Nut	14
10	325983	Trim	AR
11	292681	Lockwasher	2
12	296012	Capscrew	8
13	302402	Locknut	6
14	136749	Screw	4
15	1532341	Gas Spring	1
16	302400	Nut	10
17	2071326	Cover	1
18	91946	Grommet	8
19	1529665	Capscrew	2
20	a 1529813	Running Board (LH)	1
20	b 1529815	Running Board (LH)	1
21	a 1529814	Running Board (RH)	1
21	b 1529816	Running Board (RH)	1
22	a 1532189	Plate (RH)	1
22	b 1532448	Extension (RH)	1
23	a 1532188	Plate (LH)	1
23	b 1532446	Extension (LH)	1
24	1485265	Cover	1
25	1485263	Panel (LH)	1
26	1485264	Panel (RH)	1
27	1529751	Cover (Battery Box)	1
28	1532202	Battery Tray	1
29	329069	Nut	2

FOOTNOTES:**a** H170HD-H210HD**b** H230HD-H280HD

COUNTERWEIGHT (FIGURE 1-4)



HP120563

COUNTERWEIGHT

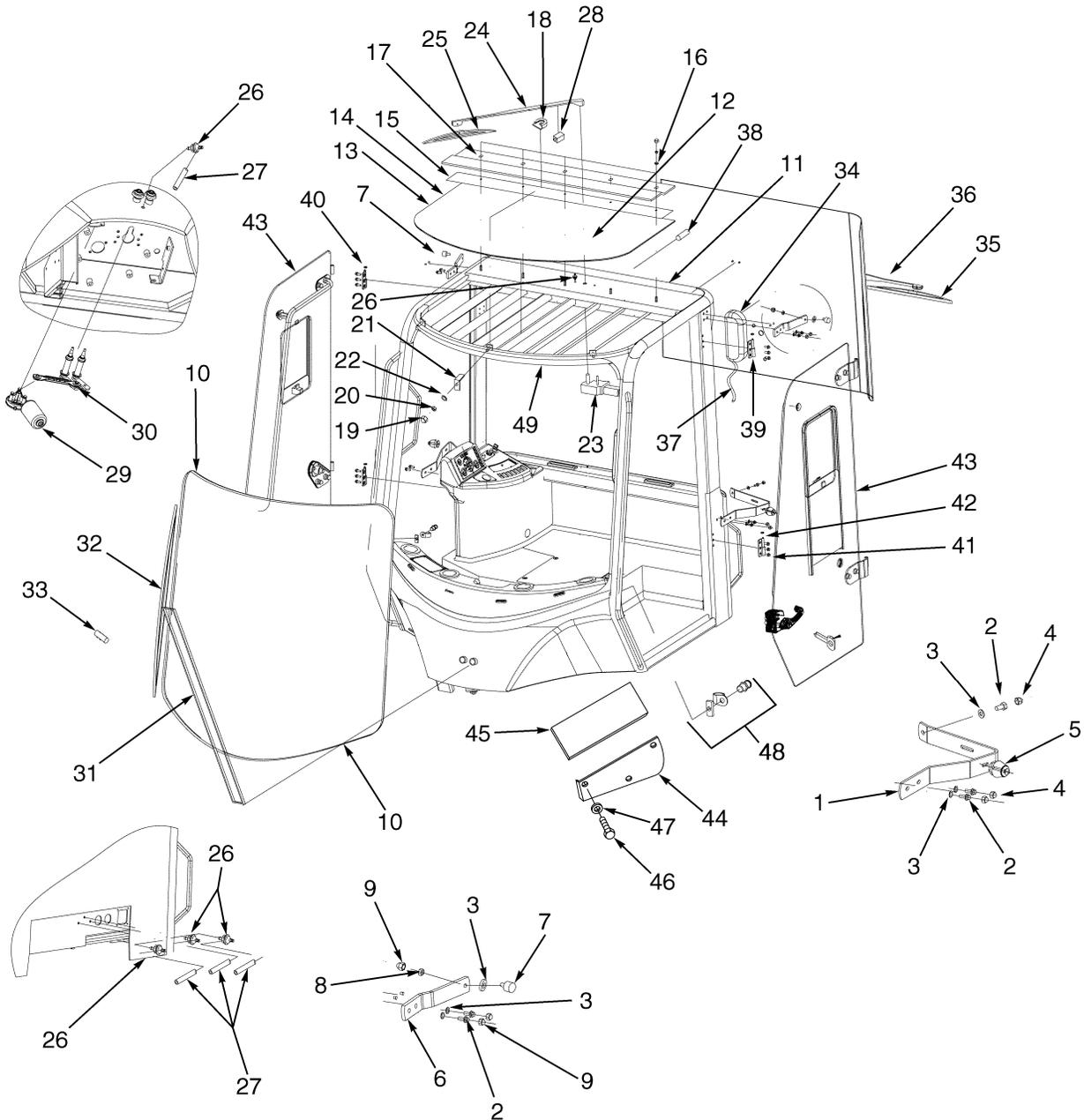
ITEM	PART NO.	DESCRIPTION	QTY
1	1467696	Tow Pin	2
2	1495368	Grip	2
3	376319	Capscrew	2
4	149531	Washer	2
5	15168	Lockwasher	2
6	1475214	Shim	2
7	280472	Sealant	2
8	292597	Capscrew	4
9	1475872	Washer	4
10	316829	Nut	4
11	1301086	Washer	4
12	15189	Washer	2
13	302440	Roll Pin	2
14	a 2038853	Fender (LH)	1
14	c 2038855	Fender (LH)	1
15	1475211	Shim	2
16	1475212	Shim	2
17	1475213	Shim	2
18	b 1467624	Counterweight	1
18	d 1467625	Counterweight	1
19	a 2038854	Fender (RH)	1
19	c 2038856	Fender (RH)	1
20	1532632	Liner (LH)	1
21	1532633	Liner (RH)	1

FOOTNOTES:

a H170-H190HD, H230-H250
b H170HD-H210HD

c H210, H280
d H230HD-H280HD

CAB AND ATTACHING PARTS (FIGURE 1-5)



HP120624

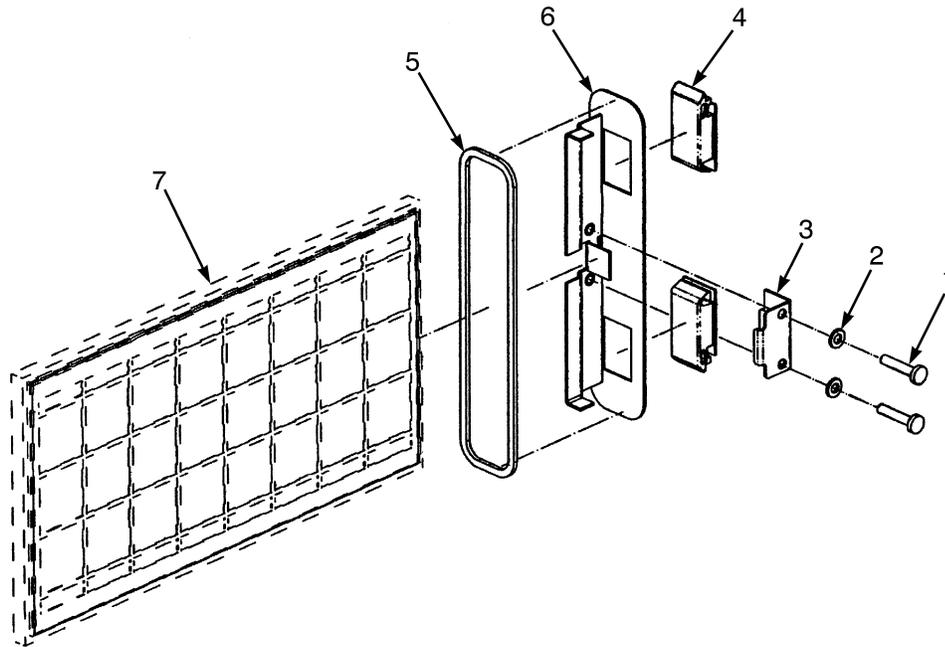
CAB AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1558020	Bar (LH) (Hold-Open) (Lower)	1
1	1558021	Bar (RH) (Hold-Open) (Lower)	1
2	136749	Screw	6
3	320158	Washer	10
4	1476584	Cover (Capscrew Head)	6
5	1493313	Bumper	2
6	1558023	Bar (RH) (Hold-Open) (Upper)	1
6	1558022	Bar (LH) (Hold-Open) (Upper)	1
7	1493316	Bumper	2
8	316835	Nut	2
9	1476584	Cover (Capscrew Head)	6
10	.....	Window Assembly (Curved Front)	1
10	1493320	Window (Tempered)	1
10	1498750	Kit-Seal	1
10	2046118	Window (Laminated) (Optional)	1
10	1498750	Kit-Seal	1
10	2046119	Kit-Flat Glass (Service Option)	1
10	1498750	Kit-Seal	1
10	1493278	Mirror (Interior)	1
11	1493323	Rear Window (Rear)	1
11	1493324	Window (Rear) (Curved)	1
11	1498750	Kit-Seal	1
12	1493326	Window (Skylight)	1
13	1515337	Seal	AR
13	1393463	Seal (Optional)	AR
14	1498339	Sealant	AR
15	1498341	Seal	1
16	1498342	Washer	5
17	1493328	Clip Window	1
18	1493329	Cover	3
19	1493397	Cover (Capscrew Head)	8
20	316834	Nut	8
21	1498343	Clip	3
22	320156	Washer	3
23	1493344	Wiper Motor	1
24	1498347	Wiper Arm	1
25	1498348	Wiper Blade	1
26	1493336	Connector	6
27	1493337	Hose	9
28	1507003	Nozzle	1
29	1493332	Wiper Motor	1
30	1493333	Linkage	1
31	1493334	Wiper Arm	1
32	1493335	Wiper Blade	1
33	1507005	Nozzle (Front)	1
34	1493339	Wiper Motor	1
35	1493340	Wiper Blade	1
36	1493341	Wiper Arm	1
37	2043546	Wire Harness (Rear Wiper)	1
38	1498344	Washer (Nozzle)	1
39	1393473	Hinge (LH)	2

CAB AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
39	.....	Pin (Hinge)	2
40	1393474	Hinge (RH)	2
40	.....	Pin (Hinge)	2
41	1493308	Bolt	12
42	1468312	Washer	4
43	1553405	Door (LH) (☞Figure 1-9).....	1
43	1553404	Door (RH) (☞Figure 1-8).....	1
44	1590815	Cover (Filter) (☞Figure 1-6).....	1
45	1558028	Air Filter	1
46	293613	Capscrew	3
47	320156	Washer	3
48	1493318	Capscrew (Striker)	2
48	1504953	Block	1
48	1504954	Guard	1
48	1504955	Bolt	1
49	1493307	Cab (Cab)	1

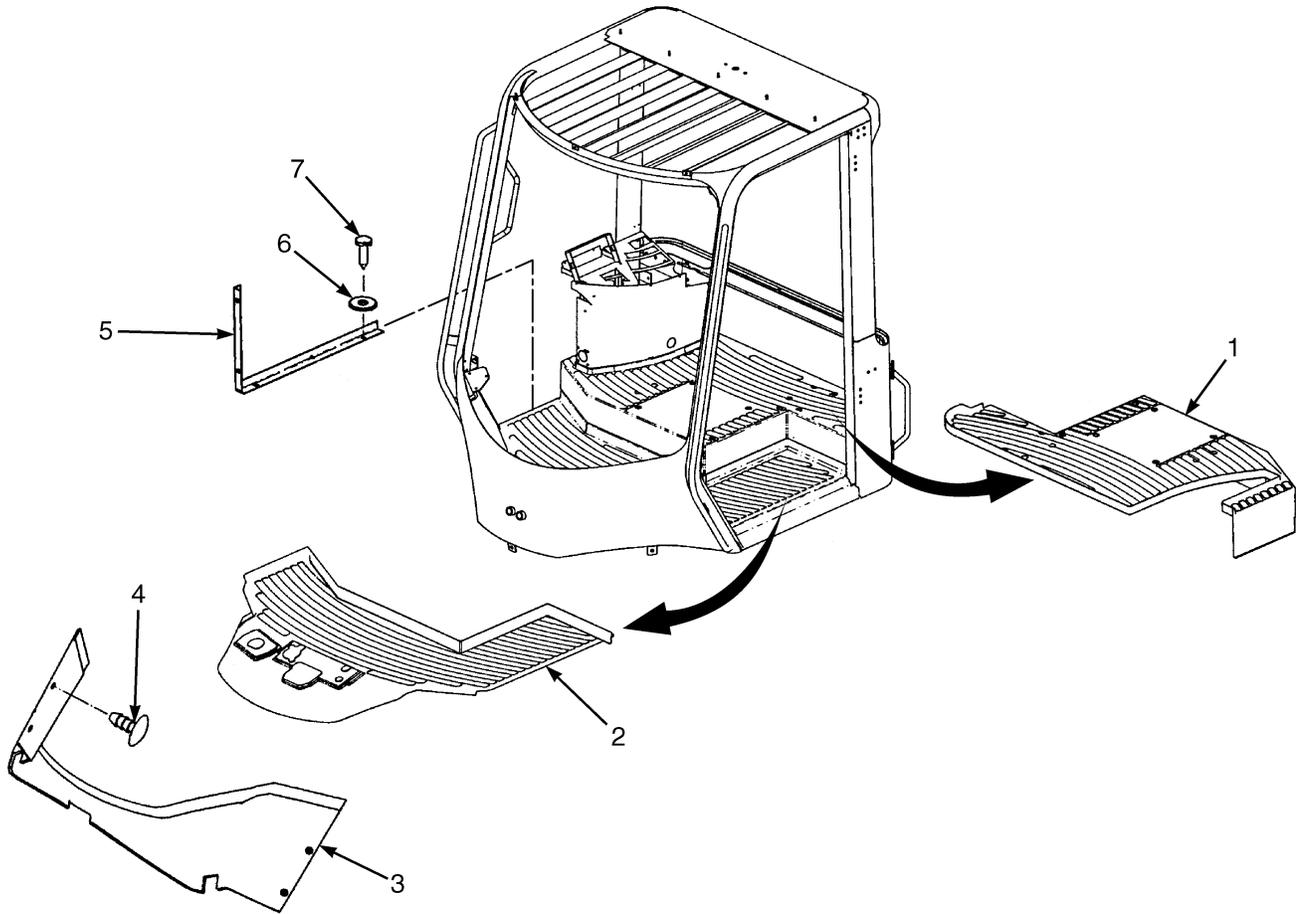
AIR FILTER ASSEMBLY (FIGURE 1-6)



BP120408

ITEM	PART NO.	DESCRIPTION	QTY
	1590815	Cover (Filter)	1
1	1492231	Screw	2
2	1492253	Washer	2
3	1590820	Bracket	1
4	1590821	Catch	2
5	1558294	Seal	1
6	1590822	Cover	1
7	1558028	Air Filter	1

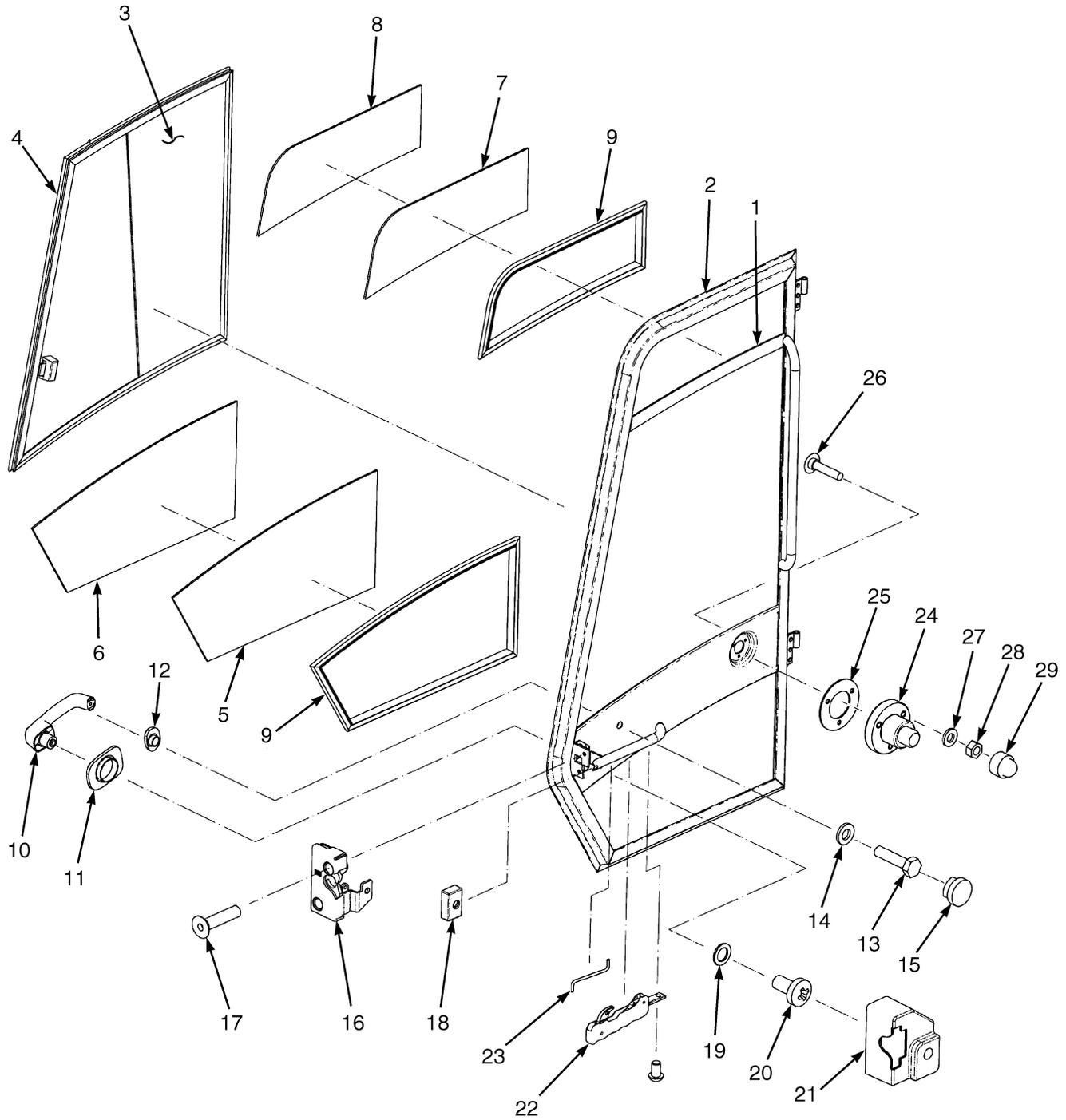
CAB FLOORMATS (FIGURE 1-7)



HP120784

ITEM	PART NO.	DESCRIPTION	QTY
1	1493282	Floormat (Seat)	1
2	1493281	Floormat (Main)	1
3	1493283	Floormat (Cowl)	1
4	1558034	Button	4
5	1498365	Strip	1
6	1492140	Washer	4
7	1468318	Screw	4

STEEL DOOR (FIGURE 1-8) RIGHT HAND

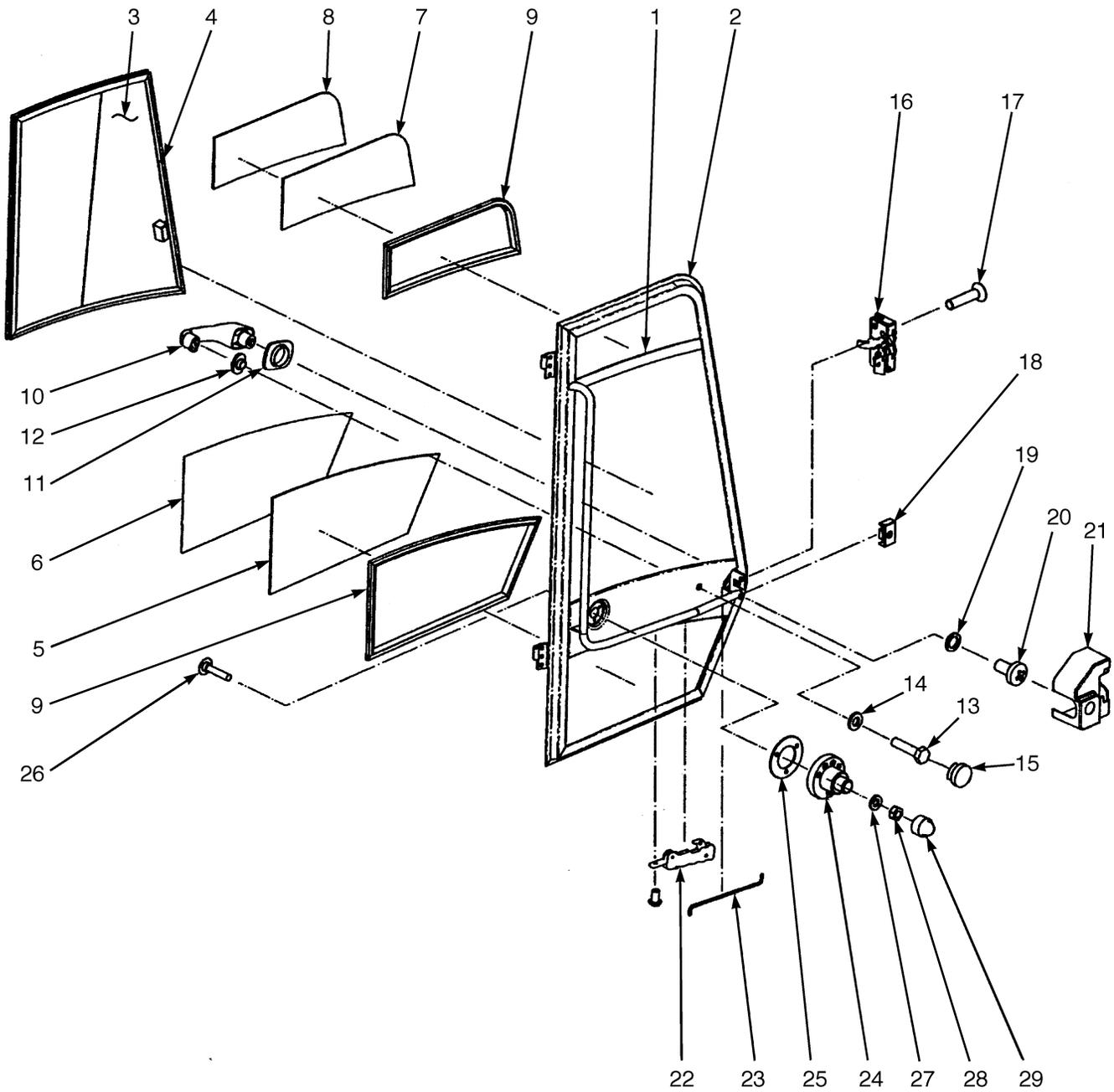


BP120062

**STEEL DOOR
RIGHT HAND**

ITEM	PART NO.	DESCRIPTION	QTY
	1553404	Door (RH)	1
1	1558292	Door	1
2	1515337	Seal	5
3	1558293	Window (Main) (☞ Figure 1-10).....	1
3	1542548	Shim (Rubber)	1
3	1483226	Latch	1
4	1558294	Seal	AR
5	1558295	Window (Lower)	1
6	1558296	Frame (Lower RH)	1
7	1558297	Sliding Window (Upper)	1
8	1558298	Frame (Upper RH)	1
9	1558299	Hose-Bulk	4
10	1495371	Handle (Push Button)	1
11	1495372	Seal	1
12	1495431	Seal	1
13	287816	Capscrew	1
14	1468321	Washer (Plastic)	1
15	1558300	Cap	1
16	1558301	Latch	1
17	296229	Capscrew	2
18	1558302	Plate (Door Handle)	1
19	1558303	Washer	1
20	1493308	Bolt	1
21	1495435	Cover	1
22	1558305	Lock (Door Handle)	1
23	1558306	Piston Rod (Connector)	1
24	1559691	Latch	1
25	1495454	Seal	1
26	1558307	Screw	3
27	1506738	Washer	3
28	316834	Nut	3
29	1493397	Cover (Capscrew Head)	3
	1593629	Key (For Cab Door Grip) (Not Illustrated)	1

STEEL DOOR (FIGURE 1-9) LEFT HAND

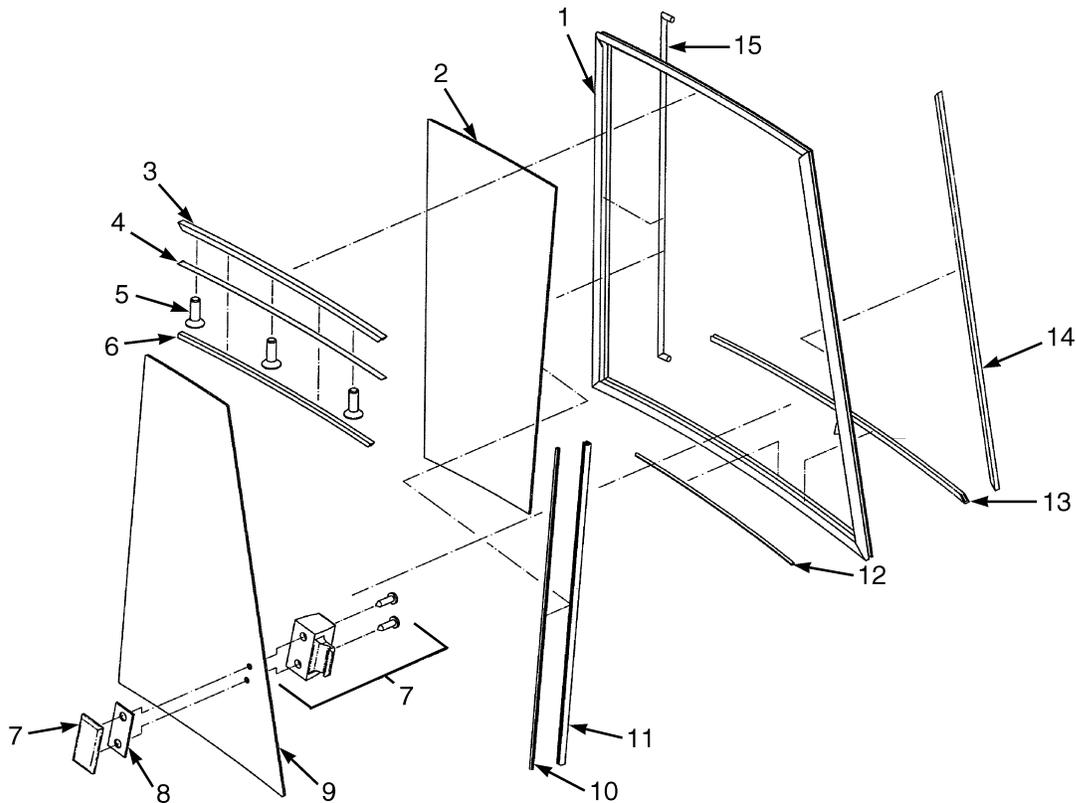


BP120063

**STEEL DOOR
LEFT HAND**

ITEM	PART NO.	DESCRIPTION	QTY
	1553405	Door (LH)	1
1	1558440	Door	1
2	1515337	Seal	5
3	1558441	Window (Main) (☞ Figure 1-10).....	1
3	1542548	Shim (Rubber)	1
3	1483226	Latch	1
4	1558294	Seal	AR
5	1558442	Window (Door) (Lower)	1
6	1558443	Seal (Lower LH)	1
7	1558444	Sliding Window (Door) (Upper)	1
8	1558445	Seal (Upper LH)	1
9	1558299	Hose-Bulk	4
10	1495371	Handle (Push Button)	1
11	1495372	Seal	1
12	1495431	Seal	1
13	287816	Capscrew	1
14	1468321	Washer (Plastic)	1
15	1558300	Cap	1
16	1558446	Latch	1
17	296229	Capscrew	2
18	1558302	Plate	1
19	1558303	Washer	1
20	1493308	Bolt	1
21	1495438	Cover	1
22	1558305	Lock	1
23	1558447	Piston Rod (Connector)	1
24	1559691	Latch	1
25	1495454	Seal	1
26	1558307	Screw	3
27	1506738	Washer	3
28	316834	Nut	3
29	1493397	Cover (Capscrew Head)	3
	1593629	Key (For Cab Door Grip) (Not Illustrated)	1

MAIN WINDOW ASSEMBLY (FIGURE 1-10)



BP120227

KEY:

A: Right Hand

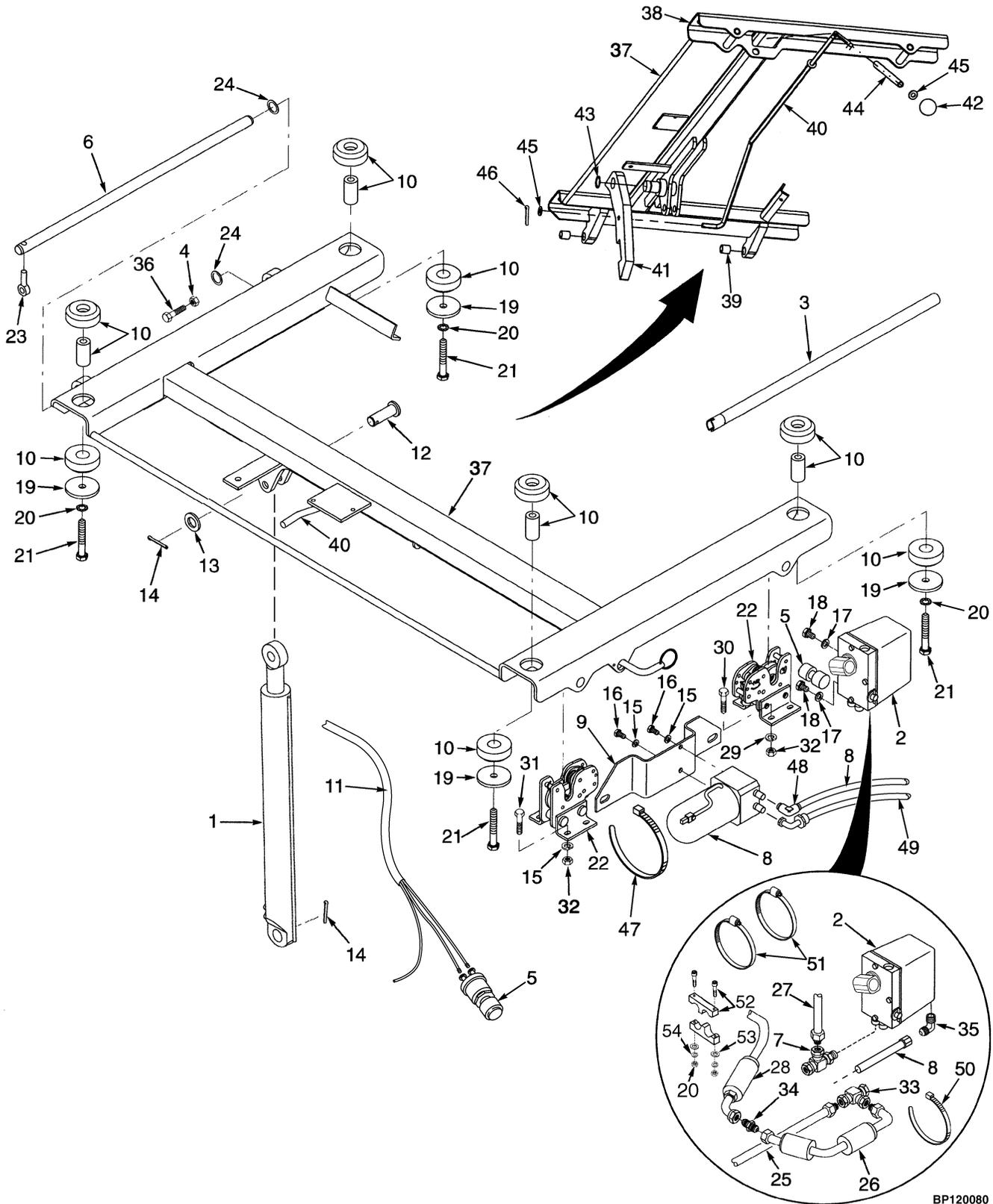
B: Left Hand

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1558293	Window (Main)	1	..
	1558441	Window (Main) .....	..	1
1	1641631	Frame (Sliding Window)	1	..
1	1641645	Frame (Sliding Window) .....	..	1
2	1641632	Glass	1	1
3	1641634	Seal	1	1
4	1641635	Strip	1	..
4	1641644	Strip .....	..	1
5	1641636	Screw	3	3
6	1641639	Guide	1	1
7	1483226	Latch	1	1
8	1542548	Shim (Rubber)	1	1
9	1641633	Glass	1	1
10	a 1641642	Seal	AR	AR
11	1641641	Guard	1	1
12	a 1641643	Seal	AR	AR
13	1641638	Guide	1	1
14	a 1641637	Seal	AR	AR
15	a 1641640	Strip Seal	AR	AR

FOOTNOTES:

- a** Sold by the foot

CAB AND TILT CYLINDER MOUNTING (FIGURE 1-11)



BP120080

CAB AND TILT CYLINDER MOUNTING**KEY:****A: Manual Tilt****B: Power Tilt**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	2043194	Tilt Cylinder (Cab) (☞Figure 1-12).....	1	..
2	1486535	Hand Pump (☞Figure 1-13).....	1	..
3	1487204	Handle (Used With Item #2)	1	..
4	136692	Nut	1	1
5	370776	Switch (Momentary) .....	..	1
6	1474921	Shaft	1	..
7	1496296	Fitting	1	1
8	1480186	Cab Tilt Pump Assembly .....	..	1
8	1475732	Cab Tilt Pump (Electric) (Tilt) (☞Figure 1-14).....	..	1
8	.....	Hose .....	..	1
8	1480187	Connector .....	..	1
8	1480188	Connector .....	..	1
8	1484709	Terminal (Pin) .....	..	2
9	1485271	Bracket .....	..	1
10	1486540	Mount	4	4
11	2049849	Wire Harness (Cab Tilt) .....	..	1
12	1486630	Pin	1	1
13	320169	Washer	1	1
14	15235	Cotter Pin	2	2
15	292681	Lockwasher	8	2
16	287851	Capscrew	2	2
17	292682	Lockwasher	3	3
18	292514	Capscrew	2	2
19	300939	Washer	4	4
20	15055	Nut	1	1
21	292535	Capscrew	4	4
22	1486539	Latch	2	2
23	195566	Anchor	1	1
24	1520841	Shim	2	2
25	1486067	Hose Assy	1	1
26	1486068	Hose Assy	1	1
27	1486069	Hose Assy	1	1
28	1486070	Hose Assy	1	1
29	320157	Washer	8	8
30	176640	Bolt	7	7
31	136749	Screw	1	1
32	239503	Nut	7	7
33	1496296	Fitting	1	1
34	1488675	Fitting	1	1
35	1488676	Fitting	2	2
36	292517	Capscrew	1	1
37	1486825	Tilt Platform	1	..
37	1493322	Adhesive (Not Illustrated)	AR	AR
38	1493379	Frame	1	1
39	1493380	Bearing	2	2
40	1493381	Rod (Release)	1	1

CAB AND TILT CYLINDER MOUNTING

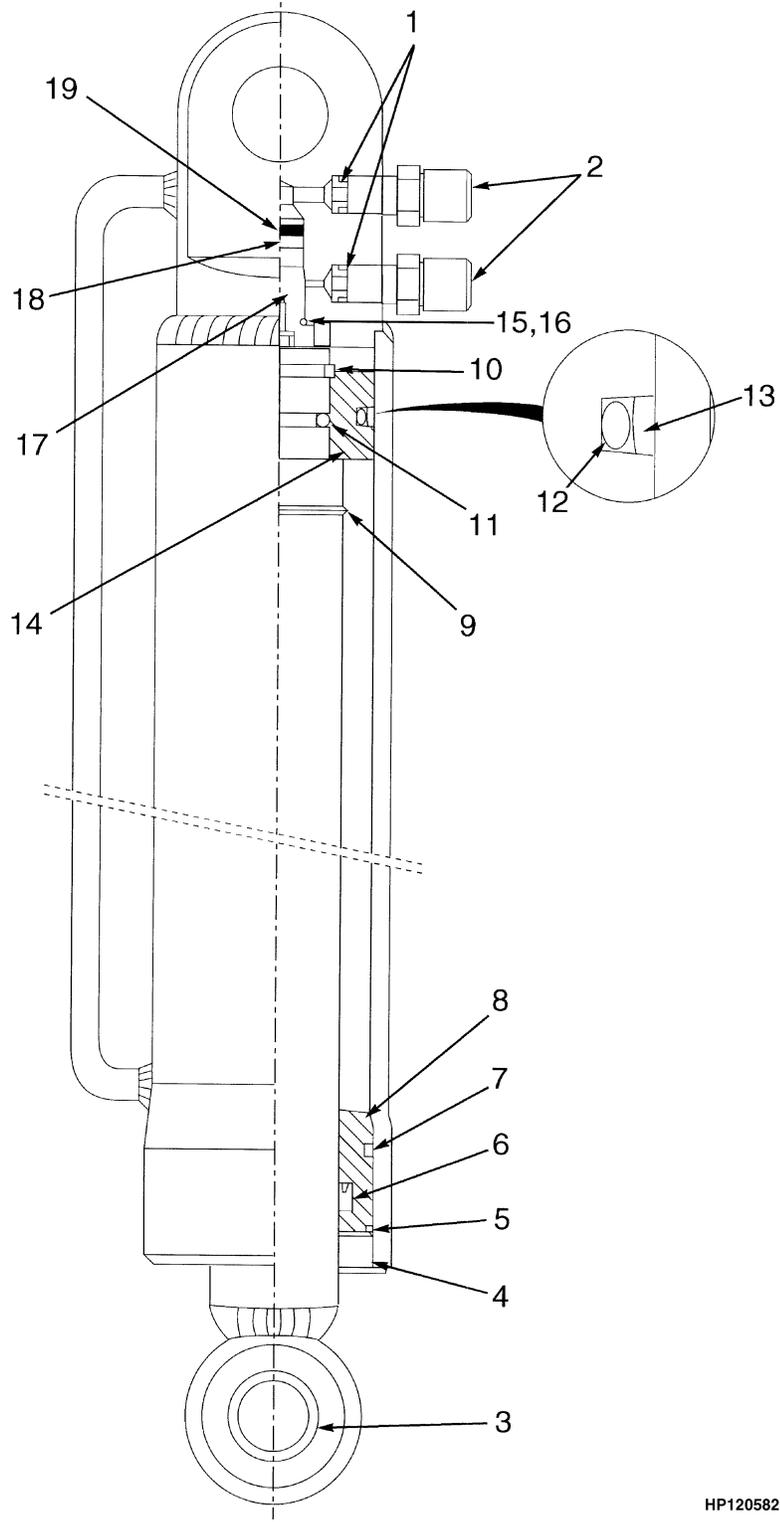
KEY:

A: Manual Tilt

B: Power Tilt

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
41	1493382	Catch (Tilt)	1	1
42	1493383	Knob	1	1
43	1493384	Retaining Ring	1	1
44	1493385	Spring	1	1
45	1493386	Washer	2	2
46	1493387	Cotter Pin	1	1
47	2004005	Strap Clamp .....	..	1
48	1496459	Fitting .....	..	1
49	1496368	Hose Assy .....	..	1
50	137852	Strap Clamp .....	..	1
51	397676	Strap Clamp	AR	AR
52	1393802	Clamp	1	1
52	.....	Capscrew	1	1
53	18515	Washer	1	1
54	15155	Lockwasher	1	1

**TILT CYLINDER (FIGURE 1-12)
CAB**

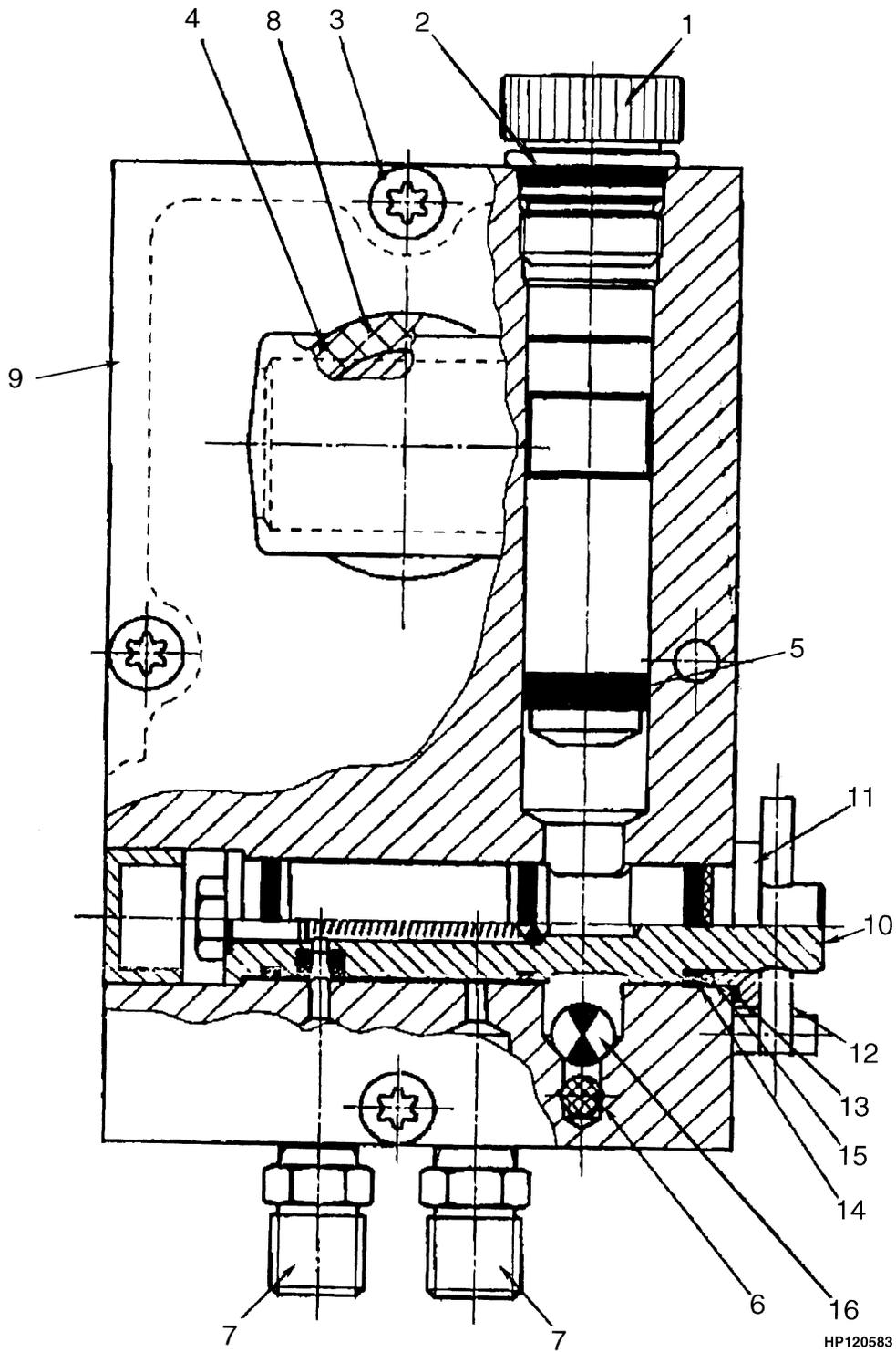


HP120582

**TILT CYLINDER
CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2043194	Tilt Cylinder (Cab)	1
1	1488735	Filter	2
2	1488703	Coupler	2
3	1488751	Spacer	2
4	.....	Wiper	1
5	.....	Retaining Ring (Bore)	1
6	.....	U-Cup	1
7	.....	O-Ring	1
8	.....	Gland	1
9	.....	Retaining Ring (Shaft)	1
10	.....	Retaining Ring (Shaft)	1
11	.....	O-Ring	1
12	.....	O-Ring	1
13	.....	Sleeve	1
14	.....	Piston	1
15	.....	Washer	1
16	.....	O-Ring	1
17	.....	Valve Seat Assembly	1
18	.....	Pilot Piston Assembly	1
19	.....	O-Ring	1
	1488752	Kit-Seal	1
	1665756	Kit-Service	1
	1488762	Kit-Service	1

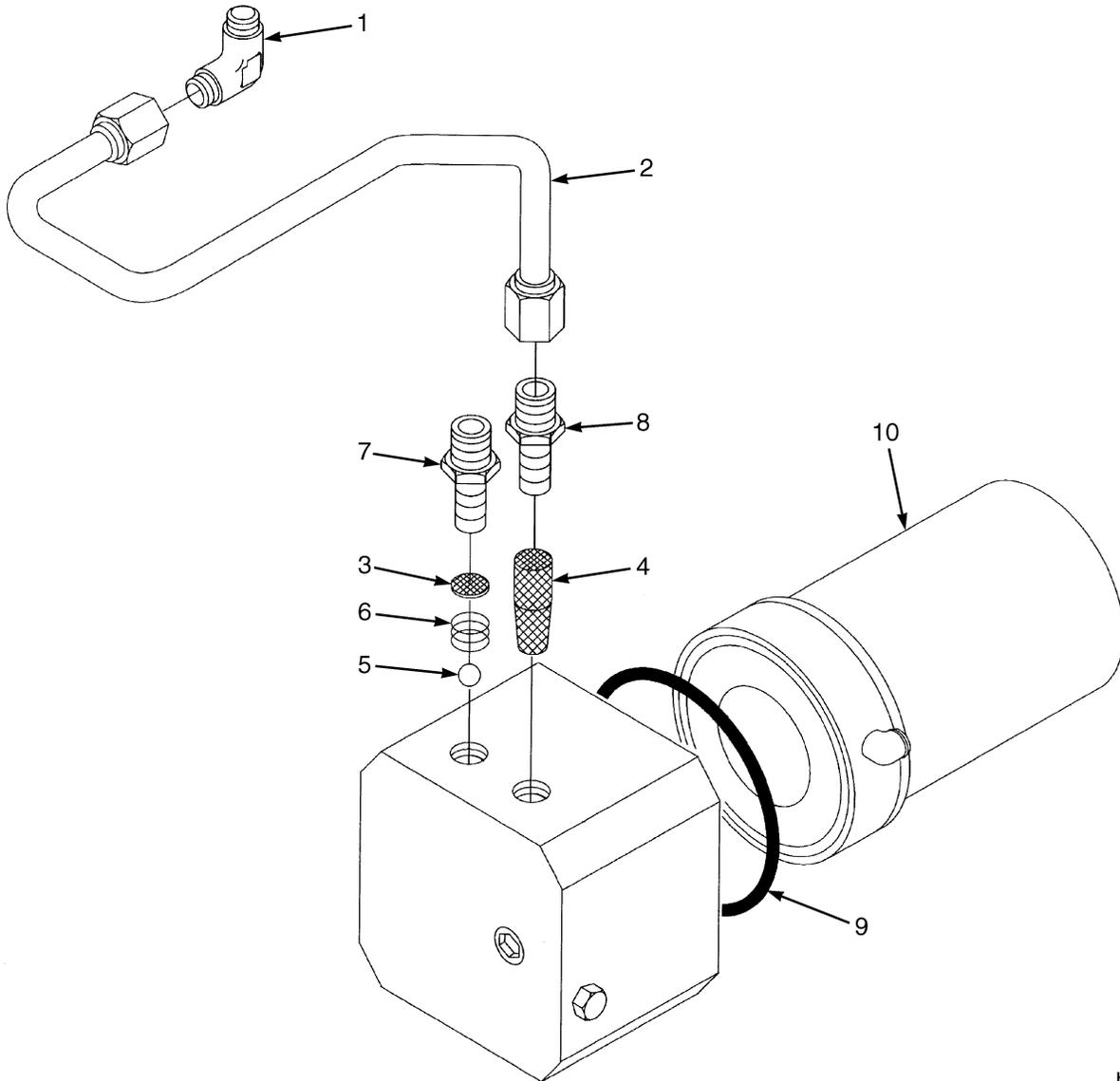
HAND PUMP (FIGURE 1-13) CAB TILT



**HAND PUMP
CAB TILT**

ITEM	PART NO.	DESCRIPTION	QTY
	1486535	Hand Pump	1
1	1488689	Plug (Fill)	1
2	.....	O-Ring	1
3	.....	Screw	4
4	.....	Bearing	1
5	.....	Seal	1
6	.....	Filter	1
7	.....	Coupler	2
8	.....	O-Rng	1
9	.....	Joint	1
10	.....	Spool	1
11	.....	Washer	1
12	.....	Pin	1
13	.....	O-Ring	1
14	.....	O-Ring	1
15	.....	Back-Up Ring	1
16	.....	Ball	1
	1488704	Kit-Seal	1
	1488705	Kit-Seal	1

ELECTRICAL PUMP (FIGURE 1-14) CAB TILT

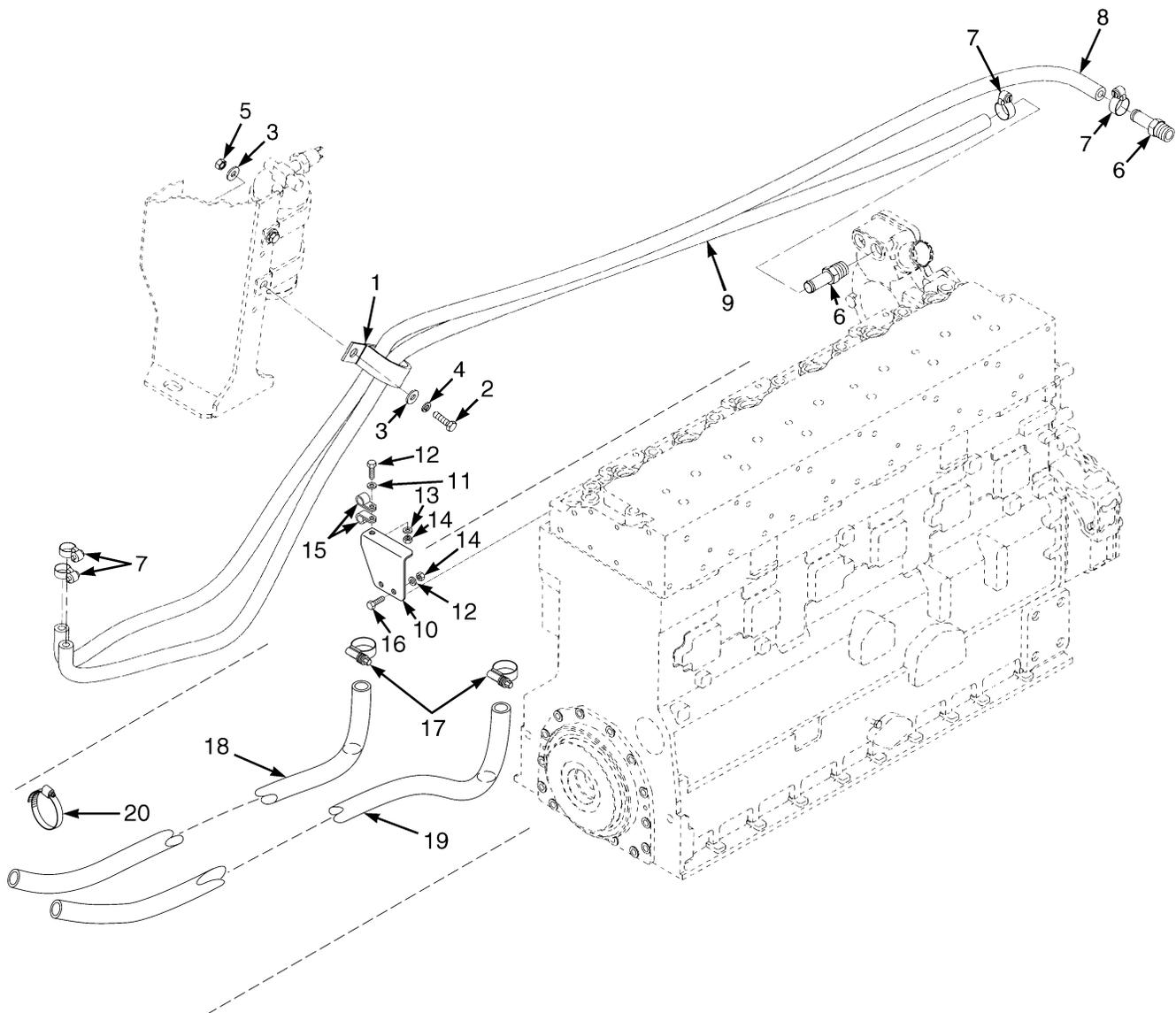


HP150732

**ELECTRICAL PUMP
CAB TILT**

ITEM	PART NO.	DESCRIPTION	QTY
	1475732	Cab Tilt Pump (Electric)	1
1	1488729	Coupler	1
2	1488736	Hose	1
3	1488735	Filter	1
4	.....	Screen	1
5	.....	Ball	1
6	1488730	Spring	1
7	1488703	Coupler	1
8	1616702	Coupling	1
9	1488727	O-Ring	1
10	1488726	Electric Motor	1
	1488728	Kit-Repair Pump	1
	1488725	Kit-Motor	1

HEATER HOSE ARRANGEMENT (FIGURE 1-15) PERKINS

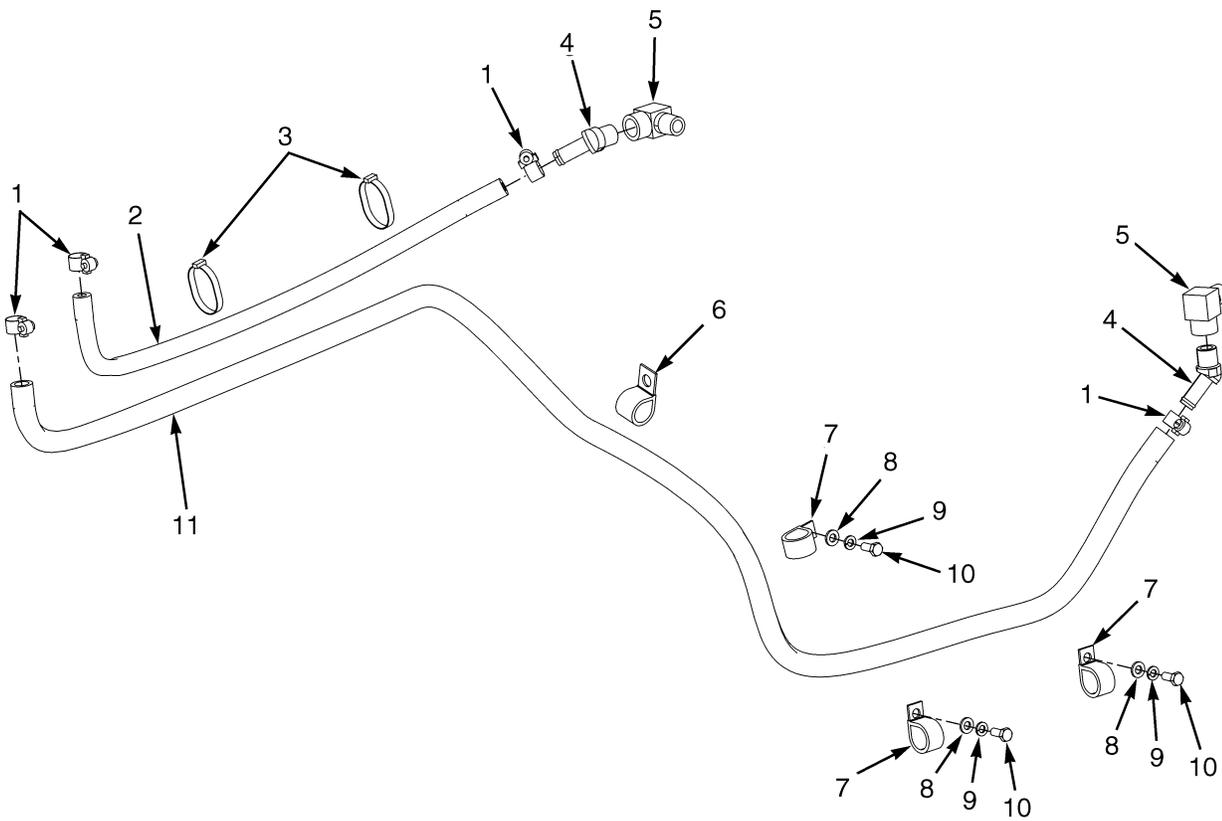


HP120585

**HEATER HOSE ARRANGEMENT
PERKINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1316496	Clamp	1
2	132861	Capscrew	1
3	320158	Washer	2
4	292681	Lockwasher	1
5	239503	Nut	1
6	16156	Fitting	2
7	130845	Clamp	4
8	125303	Hose	1
9	1480245	Hose	1
10	1309524	Bracket	1
11	136749	Screw	1
12	292681	Lockwasher	3
13	320157	Washer	2
14	239503	Nut	3
15	198678	Clamp	2
16	136681	Capscrew	2
17	166857	Clamp	2
18	114310	Hose	1
19	199337	Hose Assy	1
20	166857	Clamp	2

HEATER HOSE ARRANGEMENT (FIGURE 1-16) CUMMINS



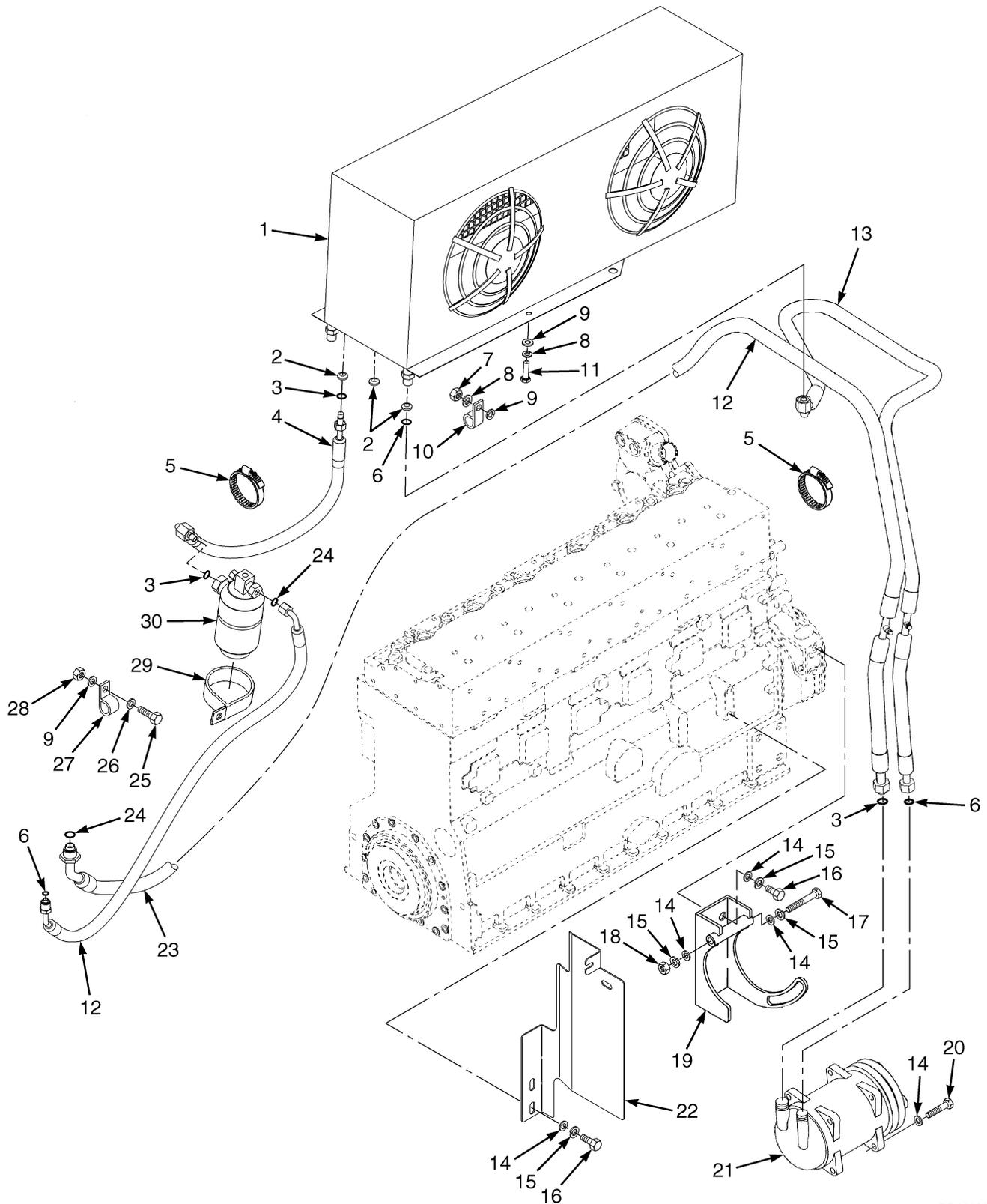
BP120142

**HEATER HOSE ARRANGEMENT
CUMMINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	b 130845	Clamp	4
1	c 1502008	Hose Clamp	4
2	258487	Hose	1
2	ad 239308	Sleeve	1
3	129563	Strap Clamp	4
4	127852	Fitting	2
5	17742	Fitting	2
6	321487	Clamp	1
7	178119	Clamp	3
8	320158	Washer	3
9	292681	Lockwasher	3
10	136681	Capscrew	3
11	123798	Hose	1
11	ad 239308	Sleeve	1

FOOTNOTES:**a** Not Illustrated**b** → S/N G007E02505C**c** S/N G007E02506C →**d** S/N G007E02675D →

AIR CONDITIONING SYSTEM (FIGURE 1-17) PERKINS

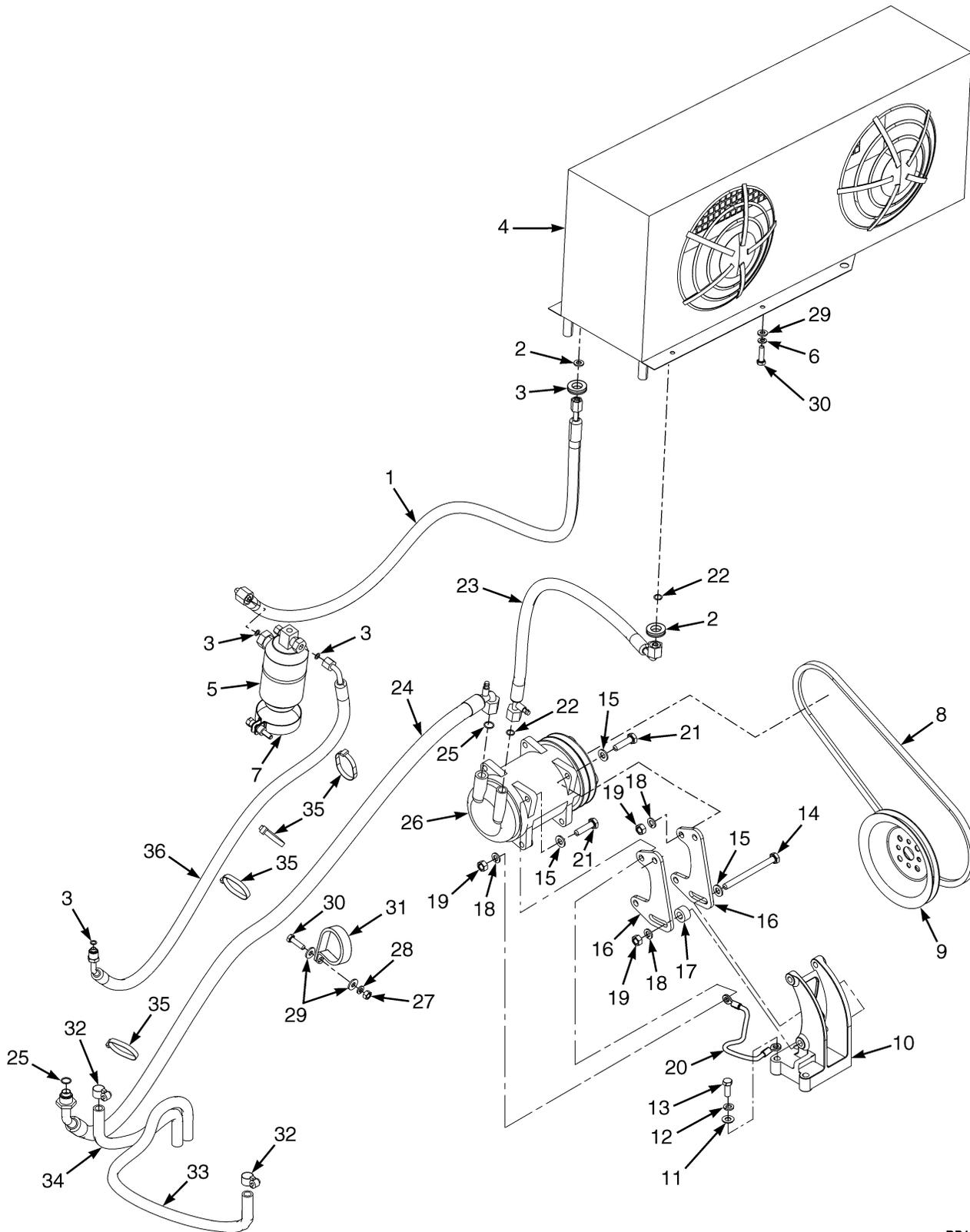


BP120162

**AIR CONDITIONING SYSTEM
PERKINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1538218	Air Conditioner (☞Figure 1-21).....	1
2	303493	Grommet	3
3	1487122	O-Ring	2
4	1485957	Hose Assy	1
5	129563	Strap Clamp	9
6	1487125	O-Ring	2
7	239503	Nut	1
8	292681	Lockwasher	6
9	320157	Washer	5
10	153069	Clamp	1
11	176640	Bolt	4
12	1485954	Hose Assy	1
13	1485956	Hose Assy	1
14	320159	Washer	10
15	292682	Lockwasher	7
16	287854	Capscrew	5
17	1390281	Capscrew	1
18	136692	Nut	3
19	1510210	Bracket Wldmt	1
20	287860	Capscrew	1
21	1480318	Compressor	1
22	1532139	Heat Shield	1
23	1485953	Hose Assy	1
24	1487118	O-Ring	4
25	132861	Capscrew	1
26	320158	Washer	1
27	385107	Clamp (Insulated)	1
28	239503	Nut	1
29	132796	Clamp	1
30	1538217	Air Dryer	1

AIR CONDITIONING SYSTEM (FIGURE 1-18) CUMMINS



BP120143

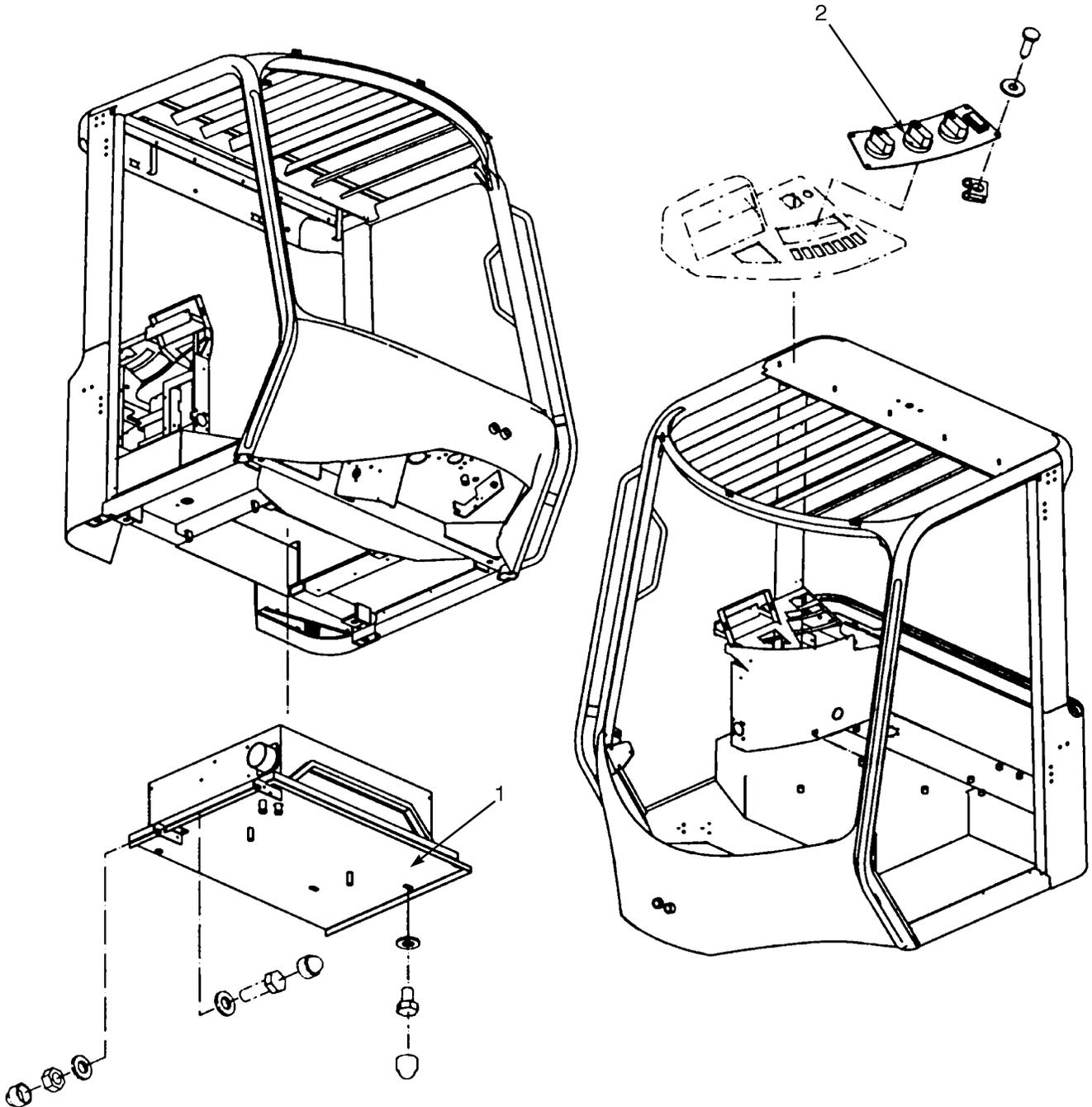
**AIR CONDITIONING SYSTEM
CUMMINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1485957	Hose Assy	1
2	b 303493	Grommet	3
3	a 1487118	O-Ring	4
4	a 1538218	Air Conditioner (☞ Figure 1-21).....	1
4	g 1654661	Condenser	1
5	a 1538217	Air Dryer	1
5	g 1654662	Filter	1
6	292681	Lockwasher	4
7	1591591	Bracket (Dryer)	1
8	b 2046918	V-Belt	1
8	e 2097620	V-Belt (Notched)	1
9	1500869	Pulley (Belt)	1
10	1500871	Bracket	1
11	15134	Washer	3
12	15156	Lockwasher	3
13	16816	Capscrew	3
14	1359458	Capscrew	2
15	320159	Washer	6
16	b 1500870	Bracket	2
16	e 1623950	Bracket	2
17	1373791	Spacer	2
18	292682	Lockwasher	6
19	136692	Nut	6
20	1605597	Wire (Ground)	1
21	287860	Capscrew	4
22	a 1487122	O-Ring	2
23	1514338	Hose Assy	1
24	b 1610762	Hose Assy	1
24	d 1624093	Hose	1
24	g 1656590	Hose Assy	1
25	a 1487125	O-Ring	2
26	1480318	Compressor	1
27	239503	Nut	1
28	292681	Lockwasher	1
29	320157	Washer	6
30	176640	Bolt	5
31	1316496	Clamp	1
32	c 166857	Clamp	2
32	f 1502005	Hose Clamp	2
33	199337	Hose Assy	1
34	114310	Hose	1
35	129563	Strap Clamp	9
36	a 1485953	Hose Assy	1
36	g 1656585	Hose Assy	1

FOOTNOTES:

- a** → 6/2007
- b** → S/N G007E02505C
- c** → S/N G007E02674D
- d** S/N G007E02506C ↔ 6/2007
- e** S/N G007E02506C →
- f** S/N G007E02675D →
- g** 6/2007 →

HEATER AND AIR CONDITIONER ATTACHMENT (FIGURE 1-19)



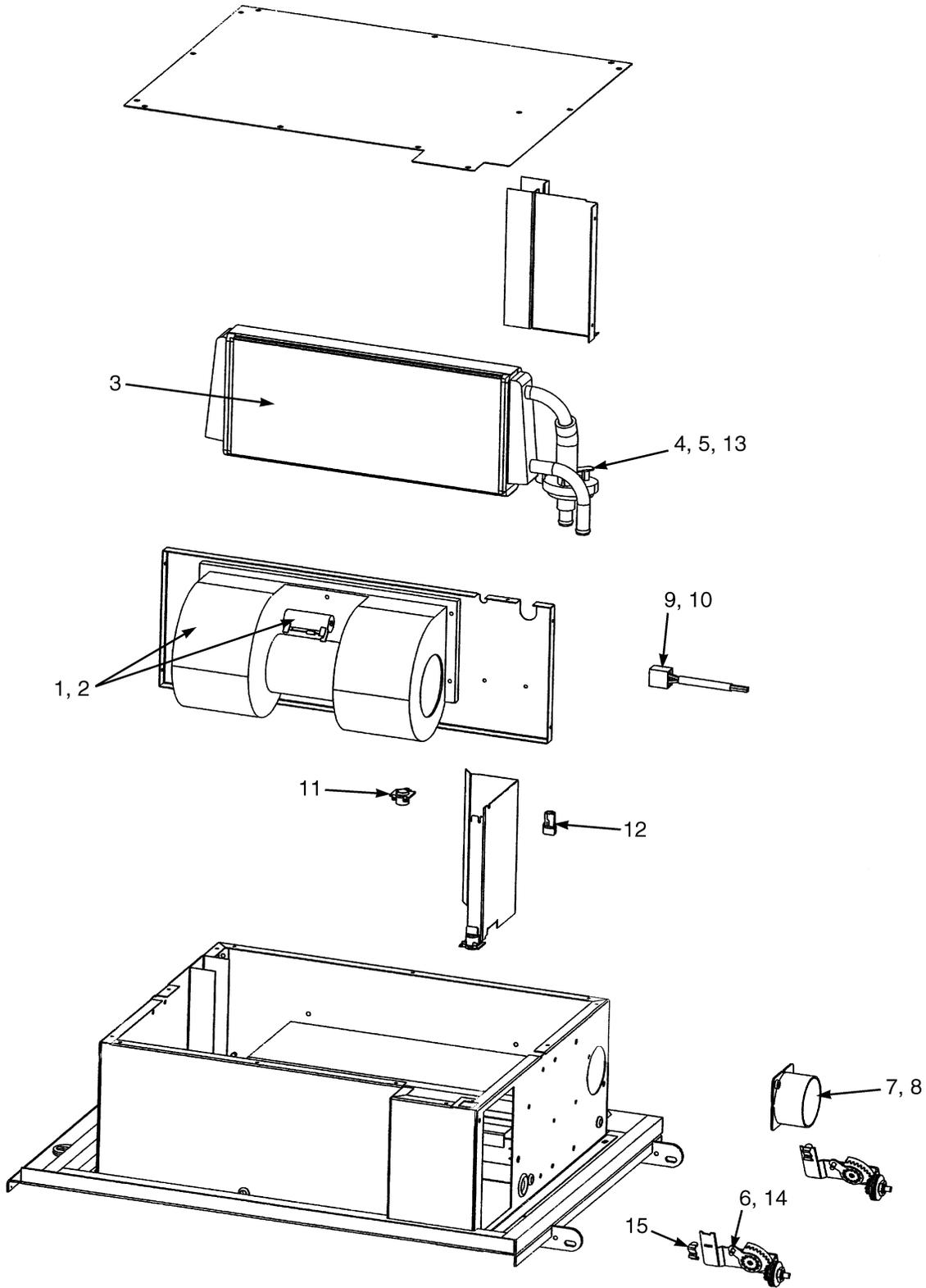
BP120064

HEATER AND AIR CONDITIONER ATTACHMENT

ITEM	PART NO.	DESCRIPTION	QTY
1	1558032	Heater (☞Figure 1-20).....	1
1	b 1558045	Kit-Heater and Airco	1
1	d 1656599	Kit-Heater and Airco	1
2	1558033	Control Panel (Heater)	1
2	a 1558046	Control Panel (Air Conditioning)	1
2	c 1615364	Control Panel (Heater and Air Conditioner)	1
	2098895	Wire Harness (Heater Adapter)	1

FOOTNOTES:**a** → S/N G007E02504C**b** → S/N G007E03126D**c** S/N G007E02505C →**d** S/N G007E03127D →

HEATER ASSEMBLY (FIGURE 1-20) CLOSED CAB, WITHOUT AIRCO

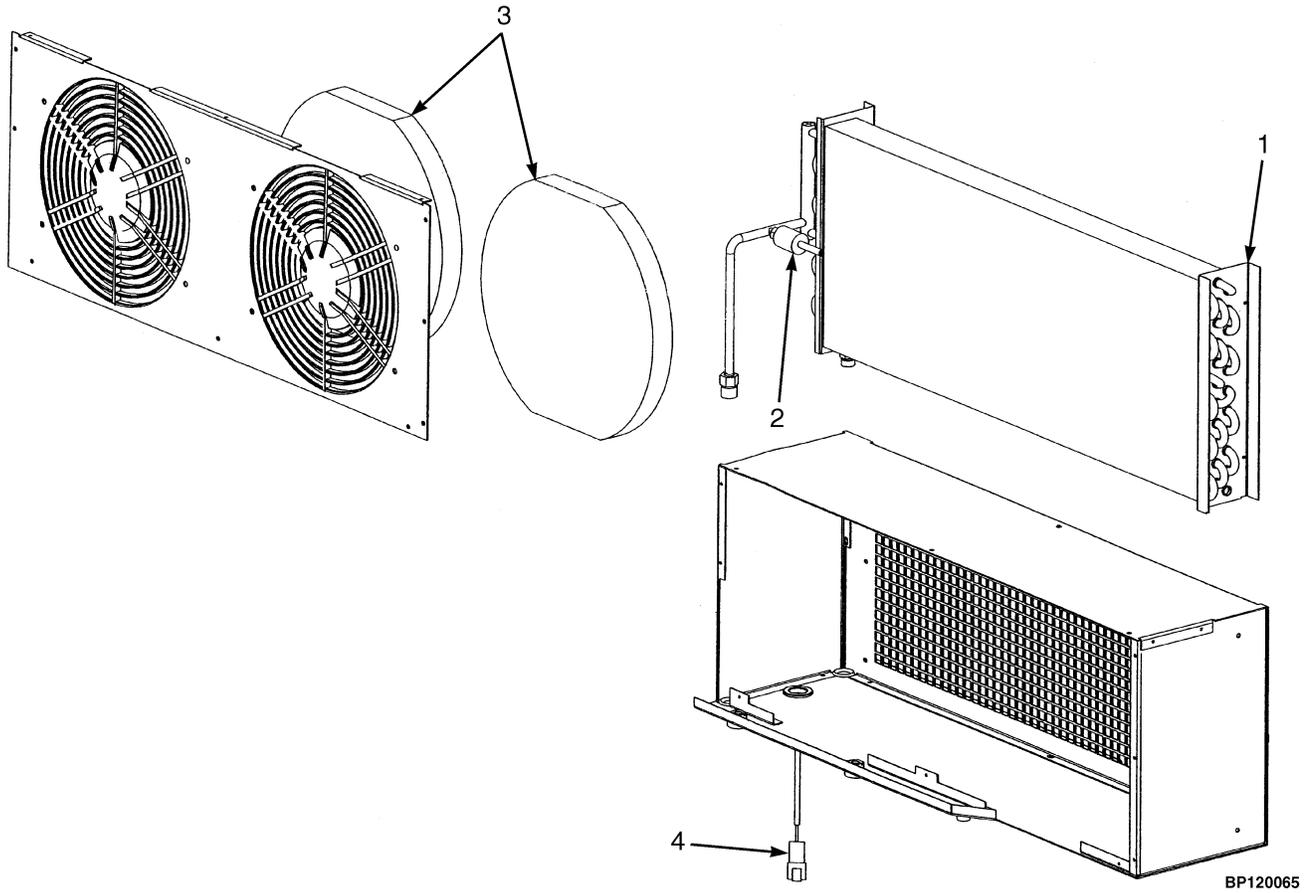


HP120741

**HEATER ASSEMBLY
CLOSED CAB, WITHOUT AIRCO**

ITEM	PART NO.	DESCRIPTION	QTY
	1558032	Heater	1
1	1560537	Blower	1
2	1453031	Resistor	1
3	1560623	Core (Heater)	1
4	1560624	Hose (Water Valve)	1
5	1560625	Drain Valve	1
6	1560626	Push-Pull Cable (Push Pull)	1
7	1560547	Adapter (Hose)	1
8	1560548	Rivet	1
9	1560627	Wire Harness	1
10	.....	Connector	1
11	1560552	Bearing	1
12	1560553	Clip	1
13	1560554	Push-Pull Cable (Push Pull)	1
14	1560555	Valve	1
15	1560556	Clip	1

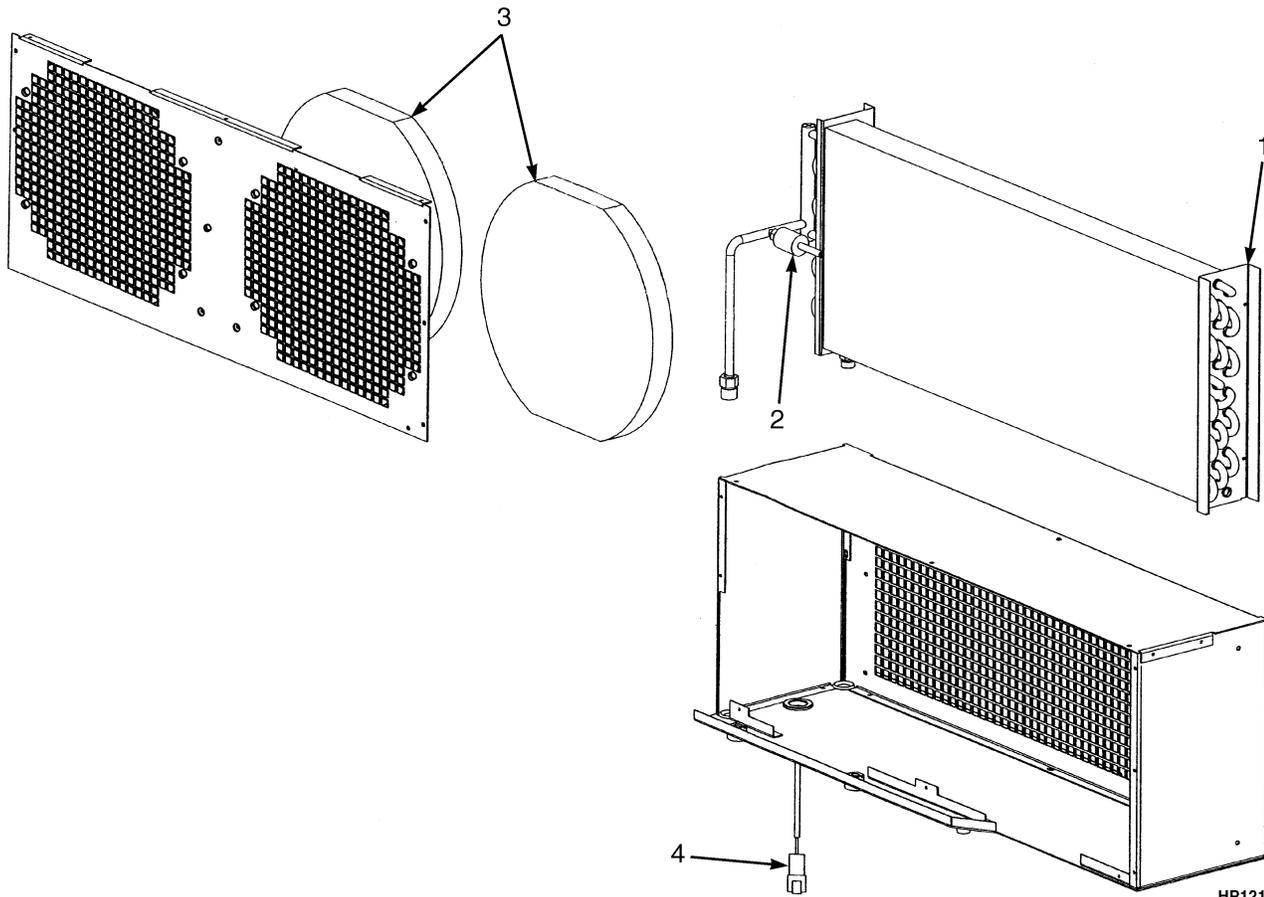
CONDENSER (FIGURE 1-21) (→ 2/2007)



CONDENSER
(→ 2/2007)

ITEM	PART NO.	DESCRIPTION	QTY
	1538218	Air Conditioner	1
1	1550921	Core (Condenser)	1
2	1550922	Pressure Switch	1
3	1550923	Fan (24 Volt)	2
3	1637675	Connector Body	1
3	1637676	Contact	2
3	1637677	Seal	1
3	1637678	Seal	1
4	1550924	Wire Harness (With Relays)	1
4	1686766	Relay	3

CONDENSER (FIGURE 1-22) (3/2007 →)



HP121090

ITEM	PART NO.	DESCRIPTION	QTY
	1654661	Condenser	1
1	1659935	Coil (Condenser)	1
2	.....	Pressure Switch	1
3	1550923	Fan (24 Volt)	2
3	1637675	Connector Body	1
3	1637676	Contact	2
3	1637677	Seal	1
3	1637678	Seal	1
4	1659936	Wire Harness	1

SEAT ASSEMBLY
MECHANICAL SUSPENSION (→ S/N G007E02516C)

KEY:**A: Vinyl Cover****B: Fabric Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1488000	Seat-Full Suspension .....	..	1
	1488002	Seat-Full Suspension	1	..
1	1482798	Seat-Full Suspension (With Armrest) .....	..	1
1	1482954	Seat-Full Suspension (With Armrest)	1	..
2	1482957	Seat Back Cushion Assy, Cloth .....	..	1
2	1482802	Cushion .....	..	1
2	1482924	Screw .....	..	2
2	1482958	Seat Back Cushion Assy, Vinyl	1	..
2	1482955	Seat Cushion	1	..
2	1482924	Screw	2	..
3	1482959	Kit-Back Pan	1	1
3	1482800	Pan	1	1
3	1482917	Locknut	12	12
3	1482919	Locknut	2	2
3	1482914	Screw	2	2
3	1467522	Information Case	1	1
3	1482951	Bolt	6	6
4	1482960	Armrest (LH)	1	1
4	1482804	Armrest	1	1
4	1482919	Locknut	1	1
4	1482923	Bolt	1	1
4	1482920	Washer	2	2
4	1482961	Screw	1	1
5	1482969	Kit-Bracket (LH)	1	1
5	1482805	Bracket	1	1
5	1482917	Locknut	3	3
5	1482951	Bolt	1	1
5	1482923	Bolt	1	1
5	1482919	Locknut	2	2
5	1482924	Screw	2	2
5	1482910	Nut	1	1
5	1482952	Clip	2	2
5	1482961	Screw	1	1
5	1482953	Strap Clamp	1	1
6	1482970	Kit-Recliner	1	1
6	1482903	Knob	1	1
6	1482904	Lever	1	1
6	1482905	Plate	1	1
6	1482906	Latch	1	1
6	1482907	Cover	1	1
6	1482908	Spring	1	1
6	1482909	Spring	1	1
6	1482919	Locknut	2	2
6	1482951	Bolt	2	2
6	1482917	Locknut	7	7

SEAT ASSEMBLY MECHANICAL SUSPENSION (→ S/N G007E02516C)

KEY:

A: Vinyl Cover

B: Fabric Cover

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482952	Clip	2	2
6	1482953	Strap Clamp	1	1
6	1482910	Nut	1	1
6	1482914	Screw	2	2
7	1482971	Kit-Seat Pan	1	1
7	1482801	Seat Pan	1	1
7	1482917	Locknut	12	12
7	1482951	Bolt	6	6
7	1482952	Clip	2	2
7	1482953	Strap Clamp	1	1
8	1482972	Seat Cushion	1	..
8	1482803	Seat Cushion	1	..
8	1482952	Clip	2	..
8	1482953	Strap Clamp	1	..
8	1482924	Screw	2	..
8	1482973	Seat Cushion .....	..	1
8	1482956	Seat Cushion .....	..	1
8	1482952	Clip .....	..	2
8	1482953	Strap Clamp .....	..	1
8	1482968	Screw .....	..	2
9	1482974	Kit-Bracket (RH)	1	1
9	1482806	Bracket	1	1
9	1482917	Locknut	3	3
9	1482951	Bolt	1	1
9	1482919	Locknut	2	2
9	1482924	Screw	2	2
9	1482952	Clip	2	2
9	1482953	Strap Clamp	1	1
10	1374750	Seat Belt	1	1
11	1482975	Kit-Operator Presence System	1	1
11	1482911	Switch	1	1
11	1482922	Wire Harness	1	1
11	1482953	Strap Clamp	2	2
11	1482952	Clip	2	2
11	1482912	Sleeve	1	1
11	1482913	Connector	2	2
12	1482976	Kit-Knob	1	1
12	1482903	Knob (Recliner)	1	1
12	1482977	Knob (Slide)	1	1
13	1482978	Kit-Lever (Slider)	1	1
13	1482979	Lever	1	1
13	1482977	Knob	1	1
13	1482980	Washer	1	1
13	1482981	Locknut	1	1
14	1482991	Kit-Service Mech Susp Seat	1	1

SEAT ASSEMBLY
MECHANICAL SUSPENSION (→ S/N G007E02516C)

KEY:**A: Vinyl Cover****B: Fabric Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
14	1482992	Suspension (Mechanical)	1	1
14	1482917	Locknut	4	4
14	1482990	Bolt	4	4
14	1482953	Strap Clamp	1	1
15	1482993	Kit-Plate (Adapter)	1	1
15	1482994	Plate	1	1
15	1482917	Locknut	8	8
15	1482951	Bolt	8	8
15	1482952	Clip	2	2
15	1482995	Washer	4	4
15	1482953	Strap Clamp	1	1
16	1482996	Kit-Bracket	1	1
16	1482997	Bracket	1	1
16	1482917	Locknut	4	4
16	1482951	Bolt	4	4
16	1482995	Washer	4	4
16	1482980	Washer	1	1
16	1482981	Locknut	1	1
17	1482998	Kit-Seat Rail	1	1
17	1482999	Seat Rail	1	1
17	1483000	Seat Rail	1	1
17	1482990	Bolt	4	4
17	1482917	Locknut	8	8
17	1482951	Bolt	8	8
17	1482997	Bracket	1	1
17	1482979	Lever	1	1
17	15135	Washer	3	3
17	1482977	Knob (Slide)	1	1
17	1482995	Washer	4	4
17	1482980	Washer	1	1
17	1482981	Locknut	1	1
18	1483001	Kit-Suspension Boot	1	1
18	1483002	Boot	1	1
18	1483003	Clip	18	18
18	1483004	Nut	3	3
19	1483007	Kit-Housing (Upper)	1	1
19	1483008	Housing	1	1
19	1483009	Shaft	1	1
19	1483010	Nut	1	1
19	1483003	Clip	9	9
19	1483011	Roll Pin	1	1
19	1482917	Locknut	4	4
19	1482990	Bolt	4	4
20	1483012	Kit-Bumper	1	1
20	1483013	Spring	2	2

SEAT ASSEMBLY MECHANICAL SUSPENSION (→ S/N G007E02516C)

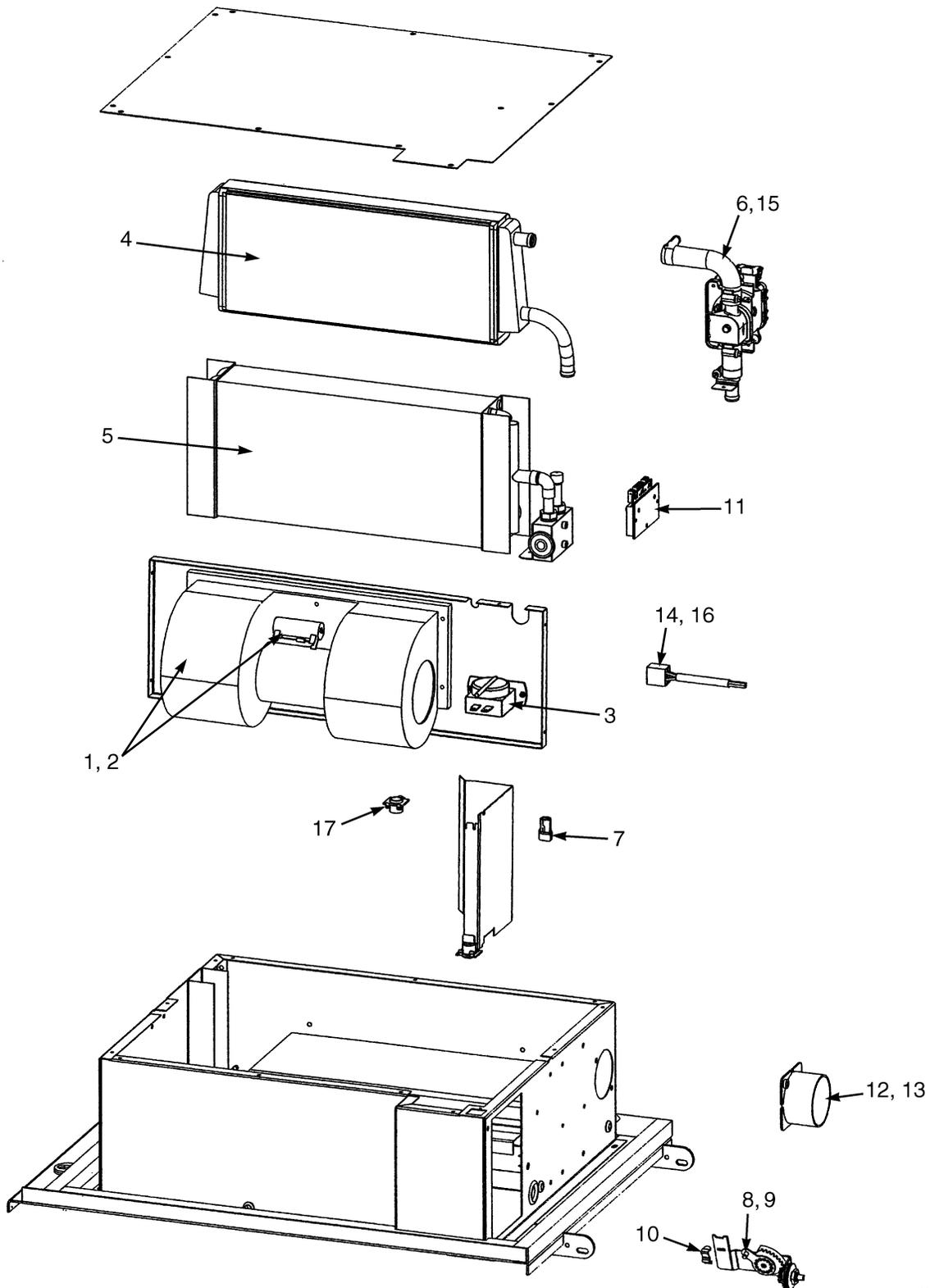
KEY:

A: Vinyl Cover

B: Fabric Cover

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
20	1483388	Nut	2	2
21	1483015	Kit-Spring	1	1
21	1483016	Spring	2	2
21	.....	Retaining Ring	2	2
21	1483017	Bushing	2	2
21	1483018	Spacer	2	2
21	1483019	Spring	1	1
22	1483020	Tape	1	1
22	1483021	Spring	1	1
22	1483022	Tape	1	1
22	1483023	Guide	1	1
22	1483014	Rivet	1	1
23	1483024	Gas Spring	1	1
23	1483025	Shock Absorber	1	1
23	.....	Fastener	1	1
23	1483026	Bushing	2	2
24	1483027	Kit-Housing (Lower)	1	1
24	1483028	Housing	1	1
24	1483009	Shaft	1	1
24	1483010	Nut	1	1
24	1483029	Rubber Bellow	3	3
24	1483003	Clip	9	9
24	1483004	Nut	3	3
25	1483030	Kit-Bearing	1	1
25	1483031	Roller	6	6
25	.....	Bearing	4	4
26	1483032	Arm	1	1
27	1483034	Knob	1	1
27	1483036	Knob	1	1
27	1483011	Roll Pin	1	1
28	1483037	Kit-Service Susp Scissors	1	1

HEATER AND AIR CONDITIONER ASSEMBLY (FIGURE 1-24) CLOSED CAB, WITH AIRCO



HP120742

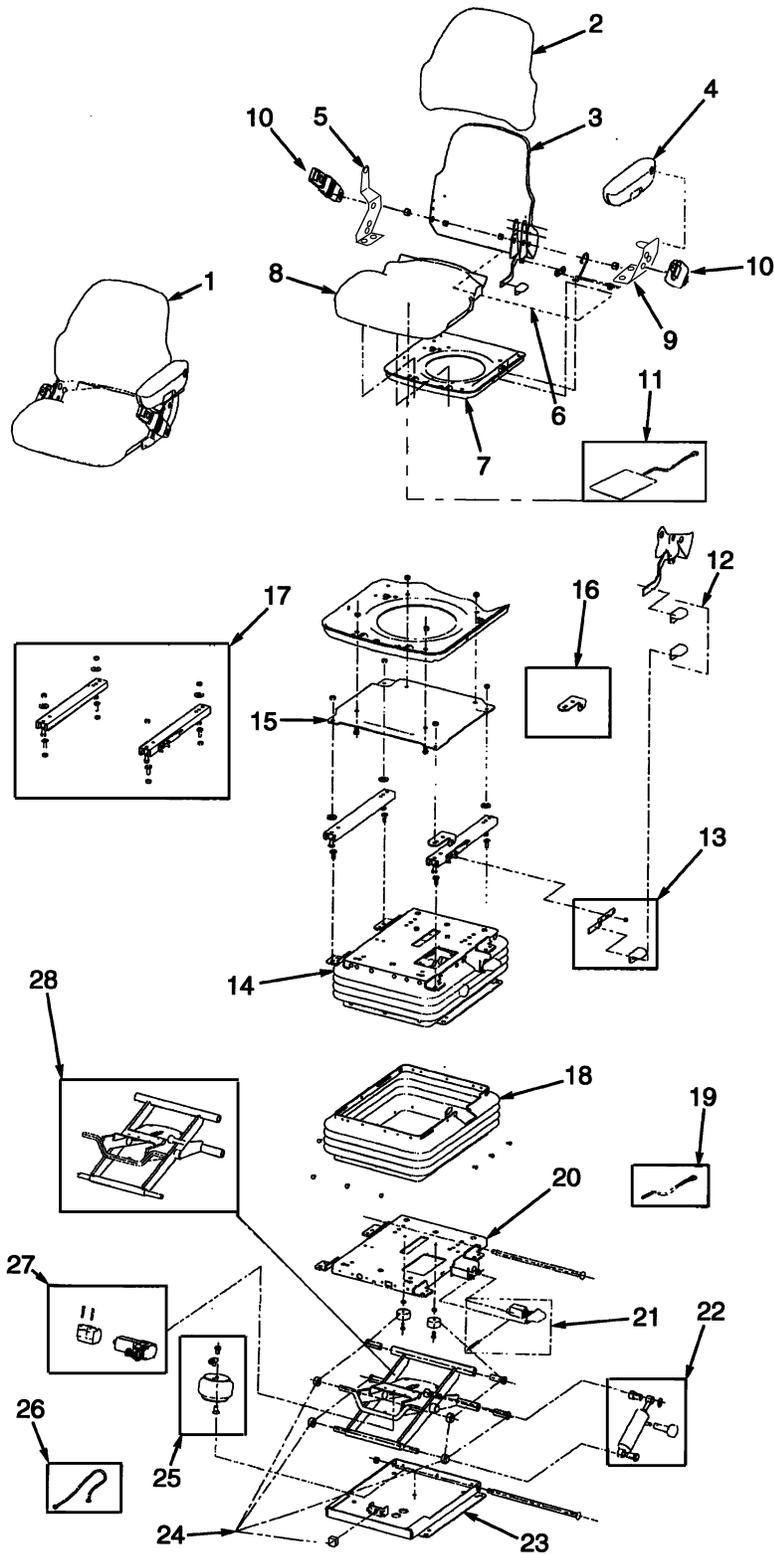
**HEATER AND AIR CONDITIONER ASSEMBLY
CLOSED CAB, WITH AIRCO**

ITEM	PART NO.	DESCRIPTION	QTY
	c 1558045	Kit-Heater and Airco	1
	d 1656599	Kit-Heater and Airco	1
1	1560537	Blower	1
2	1453031	Resistor	1
3	1560538	Thermostat	1
4	1560539	Core	1
5	c 1560540	Evaporator Core	1
5	d 1674584	Evaporator Core	1
6	1656600	Water Valve Assy	1
6	a 1560541	Valve (Water Valve)	1
6	1560542	Coupling	1
6	1560543	Drain Valve	1
6	1560544	Hose (90 degree)	1
6	1560545	Hose (Straight)	1
7	1560553	Clip	1
8	1560554	Push-Pull Cable	1
9	1560555	Valve	1
10	1560556	Clip	1
11	c 1560546	Controller (Water Valve)	1
11	d 1656603	Controller (Water Valve)	1
12	1560547	Adapter	1
13	1560548	Rivet	1
14	1560549	Wire Harness	1
15	c 1560550	Wire Harness	1
15	d 1656604	Wire Harness	1
15	.....	Wire Harness	1
16	1560551	Connector	1
17	1560552	Bearing	1
	b 1623420	Bracket (LH)	1
	b 1623421	Bracket (RH)	1
	1656601	Kit-Controller (Water)	1

FOOTNOTES:

- a** BOSCH 24V MOTOR TO TURN ON THE WATER VALVE **c** → 6/2007
b Not Illustrated **d** 6/2007 →

SEAT ASSEMBLY (FIGURE 1-25) AIR SUSPENSION (→ S/N G007E02516C)



HP120589

SEAT ASSEMBLY
AIR SUSPENSION (→ S/N G007E02516C)**KEY:****A: Vinyl Cover****B: Fabric Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1528716	Seat-Full Suspension (Vinyl)	1	..
	1528715	Seat-Full Suspension (Fabric) .....	..	1
1	1482798	Seat-Full Suspension (With Armrest) .....	..	1
1	1482954	Seat-Full Suspension (With Armrest)	1	..
2	1482957	Seat Back Cushion Assy, Cloth .....	..	1
2	1482802	Cushion .....	..	1
2	1482924	Screw .....	..	2
2	1482958	Seat Back Cushion Assy, Vinyl	1	..
2	1482955	Seat Cushion	1	..
2	1482924	Screw	2	..
3	1482959	Kit-Back Pan	1	1
3	1482800	Pan	1	1
3	1482917	Locknut	12	12
3	1482919	Locknut	2	2
3	1482914	Screw	2	2
3	1467522	Information Case	1	1
3	1482951	Bolt	6	6
4	1482960	Armrest (LH)	1	1
4	1482804	Armrest	1	1
4	1482919	Locknut	1	1
4	1482923	Bolt	1	1
4	1482920	Washer	2	2
4	1482961	Screw	1	1
5	1482969	Kit-Bracket (LH)	1	1
5	1482805	Bracket	1	1
5	1482917	Locknut	3	3
5	1482951	Bolt	1	1
5	1482923	Bolt	1	1
5	1482919	Locknut	2	2
5	1482924	Screw	2	2
5	1482910	Nut	1	1
5	1482952	Clip	2	2
5	1482961	Screw	1	1
5	1482953	Strap Clamp	1	1
6	1482970	Kit-Recliner	1	1
6	1482903	Knob	1	1
6	1482904	Lever	1	1
6	1482905	Plate	1	1
6	1482906	Latch	1	1
6	1482907	Cover	1	1
6	1482908	Spring	1	1
6	1482909	Spring	1	1
6	1482919	Locknut	2	2
6	1482951	Bolt	2	2
6	1482917	Locknut	7	7

SEAT ASSEMBLY AIR SUSPENSION (→ S/N G007E02516C)

KEY:

A: Vinyl Cover

B: Fabric Cover

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482952	Clip	2	2
6	1482953	Strap Clamp	1	1
6	1482910	Nut	1	1
6	1482914	Screw	2	2
7	1482971	Kit-Seat Pan	1	1
7	1482801	Seat Pan	1	1
7	1482917	Locknut	12	12
7	1482951	Bolt	6	6
7	1482952	Clip	2	2
7	1482953	Strap Clamp	1	1
8	1482972	Seat Cushion .....	..	1
8	1482803	Seat Cushion .....	..	1
8	1482952	Clip .....	..	2
8	1482953	Strap Clamp .....	..	1
8	1482924	Screw .....	..	2
8	1482973	Seat Cushion	1	..
8	1482956	Seat Cushion	1	..
8	1482952	Clip	2	..
8	1482953	Strap Clamp	1	..
8	1482968	Screw	2	..
9	1482974	Kit-Bracket (RH)	1	1
9	1482806	Bracket	1	1
9	1482917	Locknut	3	3
9	1482951	Bolt	1	1
9	1482919	Locknut	2	2
9	1482924	Screw	2	2
9	1482952	Clip	2	2
9	1482953	Strap Clamp	1	1
10	1374750	Seat Belt	1	1
11	1482975	Kit-Operator Presence System	1	1
11	1482911	Switch	1	1
11	1482922	Wire Harness	1	1
11	1482953	Strap Clamp	2	2
11	1482952	Clip	2	2
11	1482912	Sleeve	1	1
11	1482913	Connector	2	2
12	1482976	Kit-Knob	1	1
12	1482903	Knob (Recliner)	1	1
12	1482977	Knob (Slide)	1	1
13	1482978	Kit-Lever (Slider)	1	1
13	1482979	Lever	1	1
13	1482977	Knob	1	1
13	1482980	Washer	1	1
13	1482981	Locknut	1	1
14	1482982	Kit-Service Air Susp Seat	1	1

SEAT ASSEMBLY
AIR SUSPENSION (→ S/N G007E02516C)**KEY:****A: Vinyl Cover****B: Fabric Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
14	1482917	Locknut	1	1
14	1482990	Bolt	4	4
14	1482953	Strap Clamp	4	4
14	1482989	Suspension (Air)	1	1
15	1482993	Kit-Plate (Adapter)	1	1
15	1482994	Plate	1	1
15	1482917	Locknut	8	8
15	1482951	Bolt	8	8
15	1482952	Clip	2	2
15	1482995	Washer	4	4
15	1482953	Strap Clamp	1	1
16	1482996	Kit-Bracket	1	1
16	1482997	Bracket	1	1
16	1482917	Locknut	4	4
16	1482951	Bolt	4	4
16	1482995	Washer	4	4
16	1482980	Washer	1	1
16	1482981	Locknut	1	1
17	1482998	Kit-Seat Rail	1	1
17	1482999	Seat Rail	1	1
17	1483000	Seat Rail	1	1
17	1482990	Bolt	4	4
17	1482917	Locknut	8	8
17	1482951	Bolt	8	8
17	1482997	Bracket	1	1
17	1482979	Lever	1	1
17	15135	Washer	3	3
17	1482977	Knob (Slide)	1	1
17	1482995	Washer	4	4
17	1482980	Washer	1	1
17	1482981	Locknut	1	1
18	1483005	Kit-Suspension Boot	1	1
18	1483006	Boot	1	1
18	1483003	Clip	22	22
18	1483004	Nut	3	3
19	1483040	Wire Harness	1	1
19	1482953	Strap Clamp	1	1
19	1483003	Clip	1	1
19	1483004	Nut	1	1
19	1483041	Wire Harness	1	1
20	1483042	Kit-Housing (Upper)	1	1
20	1483043	Housing (Upper)	1	1
20	1483009	Shaft	1	1
20	1483010	Nut	1	1
20	1483003	Clip	11	11

SEAT ASSEMBLY AIR SUSPENSION (→ S/N G007E02516C)

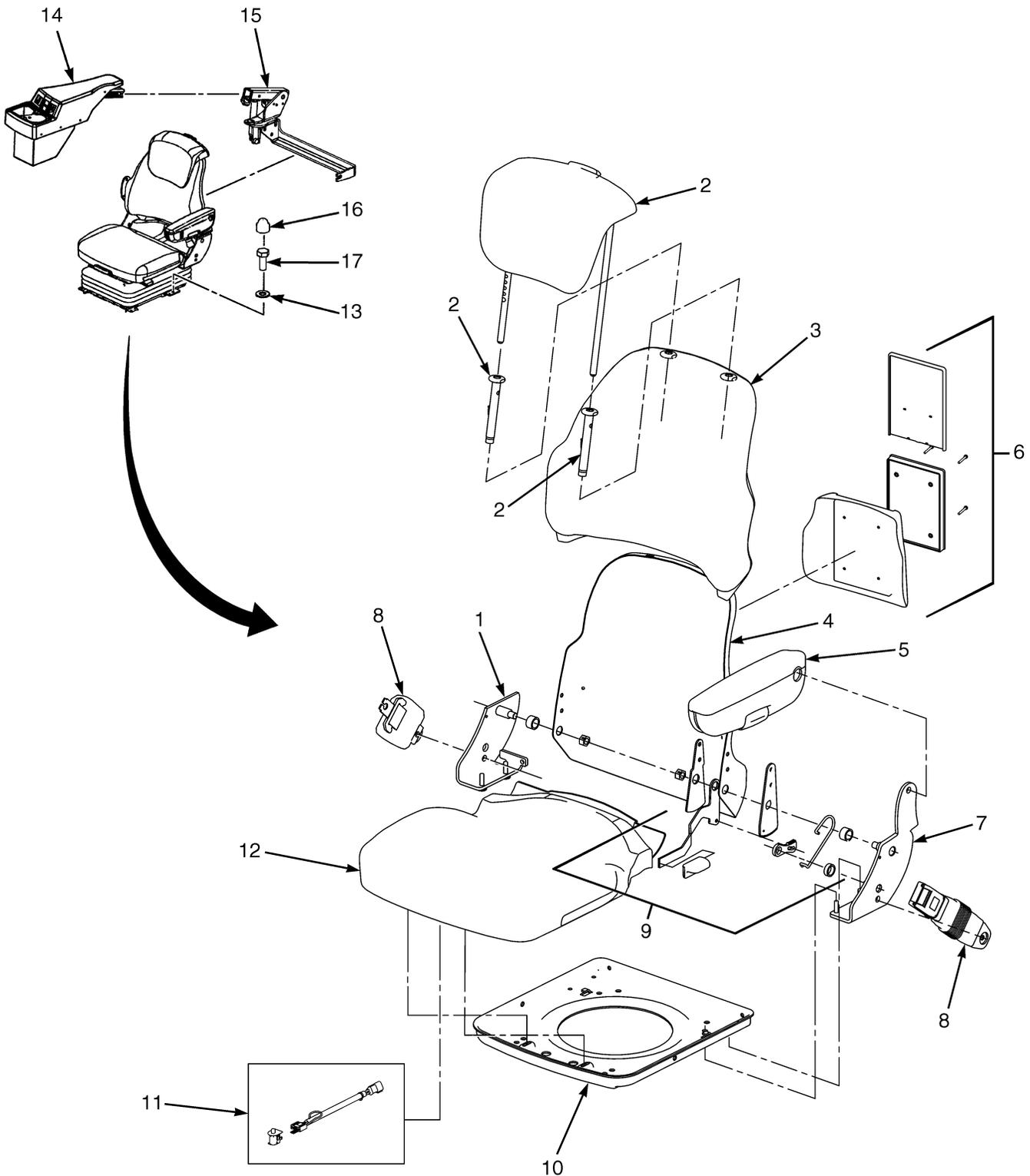
KEY:

A: Vinyl Cover

B: Fabric Cover

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
20	1482917	Locknut	4	4
20	1482990	Bolt	4	4
21	1483044	Valve (Air)	1	1
21	1483047	Roll Pin	2	2
22	1483049	Gas Spring	1	1
22	1483025	Shock Absorber	1	1
22	.....	Fastener	1	1
22	1483026	Bushing	1	1
23	1483050	Kit-Housing (Lower)	1	1
23	1483051	Housing (Lower)	1	1
23	1483009	Shaft	1	1
23	1483010	Nut	1	1
23	1483029	Rubber Bellow	3	3
23	1483003	Clip	9	9
23	1483004	Nut	3	3
24	1483052	Kit-Bearing (Suspension)	1	1
24	1483031	Roller	4	4
24	.....	Bearing	4	4
24	1483053	Bumper	2	2
24	1483054	Screw	2	2
24	1483055	Nut	2	2
25	1483056	Kit-Spring (Air)	1	1
25	1483057	Spring	1	1
25	1483058	Screw	1	1
25	1483059	Bolt	1	1
25	1483060	Fitting	1	1
26	1483061	Kit-Air Hose	1	1
26	1483062	Hose	1	1
26	1483063	Fitting	1	1
26	1483060	Fitting	1	1
27	1528714	Kit-Compressor	1	1
28	1483069	Kit-Service Susp Scissors (Suspension)	1	1
28	1483070	Scissor	1	1

SEAT ASSEMBLY (FIGURE 1-26) SUSPENSION (S/N G007E02517C →)



BP120176

SEAT ASSEMBLY
SUSPENSION (S/N G007E02517C →)**KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1603522	Seat-Full Suspension (Mechanical Suspension) (Fabric Cover)	1	..
	1603521	Seat-Full Suspension (Mechanical Suspension) (Vinyl Cover) .....	..	1
	1603524	Seat-Full Suspension (Air Suspension) (Fabric Cover)	1	..
	1603523	Seat-Full Suspension (Air Suspension) (Vinyl Cover) .....	..	1
	1482798	Seat-Full Suspension (With Armrest)	1	..
	1482954	Seat-Full Suspension (With Armrest) .....	..	1
	a 1482915	Spacer	1	1
	a 292528	Capscrew	1	1
	a 1482917	Locknut	4	4
	a 1615073	Bolt	4	4
1	1482974	Kit-Bracket (RH)	1	1
1	1482806	Bracket	1	1
1	1482917	Locknut	3	3
1	1482951	Bolt	1	1
1	1482919	Locknut	2	2
1	1482924	Screw	2	2
1	1482952	Clip	2	2
1	1482953	Strap Clamp	1	1
2	1615147	Kit-Back/Headrest Cushion	1	..
2	1574082	Headrest	1	..
2	1615149	Guide	2	..
2	1615150	Kit-Back/Headrest Cushion .....	..	1
2	1574081	Cushion .....	..	1
2	1615149	Guide .....	..	2
3	1482957	Seat Back Cushion Assy, Cloth	1	..
3	1482802	Cushion	1	..
3	1482924	Screw	2	..
3	1482958	Seat Back Cushion Assy, Vinyl .....	..	1
3	1482955	Seat Cushion .....	..	1
3	1482924	Screw .....	..	2
4	1482959	Kit-Back Pan	1	1
4	1615056	Pan	1	1
4	1482917	Locknut	8	8
4	1482919	Locknut	2	2
4	1482924	Screw	2	2
4	1615057	Bolt	1	1
4	1482913	Connector	6	6
5	1482960	Armrest (LH)	1	1
5	1482804	Armrest	1	1
5	1482919	Locknut	1	1
5	292528	Capscrew	1	1
5	1482920	Washer	2	2
5	1482961	Screw	1	1
6	1467522	Information Case	1	1
6	1470155	Information Case (Kit) (Alternate Part)	1	1

SEAT ASSEMBLY SUSPENSION (S/N G007E02517C →)

KEY:
A: Fabric Cover
B: Vinyl Cover

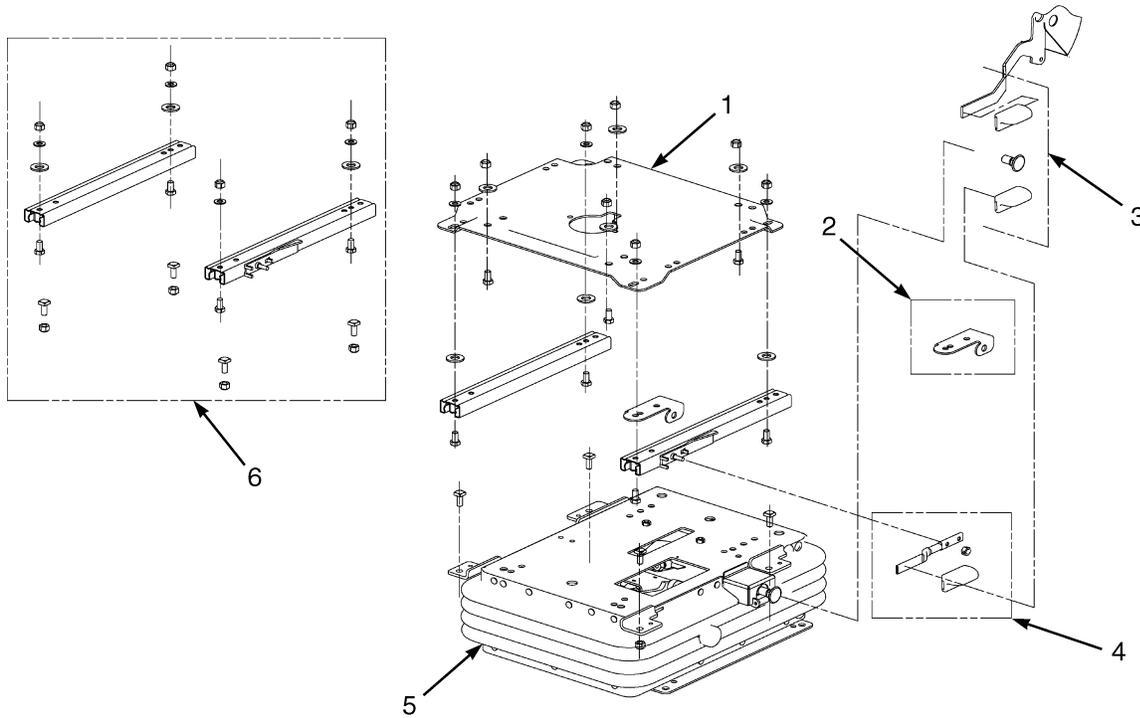
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482925	Plate	1	1
6	1482948	Box	1	1
6	1482949	Screw	4	4
6	1482950	Cover	1	1
7	1482969	Kit-Bracket (LH)	1	1
7	1482805	Bracket	1	1
7	1482917	Locknut	3	3
7	1615057	Bolt	1	1
7	292528	Capscrew	1	1
7	1482919	Locknut	2	2
7	1482924	Screw	2	2
7	1482910	Nut	1	1
7	1482952	Clip	2	2
7	1482961	Screw	1	1
7	1482953	Strap Clamp	1	1
8	1615062	Kit-Seat Belt	1	1
8	292528	Capscrew	1	1
8	246001	Capscrew	1	1
8	1615063	Washer	3	3
8	1615064	Spacer	2	2
9	1615066	Kit-Operator Presence System	1	1
9	1615067	Switch (Operator Presence System)	1	1
9	1615068	Wire Harness (Operator Presence System)	1	1
9	1482953	Strap Clamp	2	2
9	1482952	Clip	2	2
10	1482970	Kit-Recliner	1	1
10	1467531	Knob	1	1
10	1482904	Lever	1	1
10	1482905	Plate	1	1
10	1482906	Latch	1	1
10	1482907	Cover	1	1
10	1482908	Spring	1	1
10	1482909	Spring	1	1
10	1482919	Locknut	2	2
10	1615057	Bolt	1	1
10	1482917	Locknut	5	5
10	1482952	Clip	2	2
10	1482953	Strap Clamp	1	1
10	1482910	Nut	1	1
10	1482924	Screw	2	2
11	1482971	Kit-Seat Pan	1	1
11	1482801	Seat Pan	1	1
11	1482917	Locknut	12	12
11	1482951	Bolt	6	6
11	1482952	Clip	2	2

SEAT ASSEMBLY
SUSPENSION (S/N G007E02517C →)**KEY:****A: Fabric Cover****B: Vinyl Cover**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
11	1482953	Strap Clamp	1	1
11	1615057	Bolt	2	2
11	1482919	Locknut	2	2
12	1615158	Seat Cushion	1	..
12	1482803	Seat Cushion	1	..
12	1482952	Clip	2	..
12	1482953	Strap Clamp	1	..
12	1615055	Seat Cushion .....	..	1
12	1482956	Seat Cushion .....	..	1
12	1482952	Clip .....	..	2
12	1482953	Strap Clamp .....	..	1
13	1558035	Lockwasher	4	4
14	.....	Armrest Assembly (☞Figure 1-30).....	1	1
15	.....	Armrest Pivot Arm Assembly (☞Figure 1-31).....	1	1
16	1476584	Cover (Capscrew Head)	4	4
17	136681	Capscrew	4	4
	1561530	Kit-Back/Headrest Cushion	1	..
	1615152	Kit-Cushion .....	..	1
	a 1687037	Kit-Weight Adjuster	1	1

FOOTNOTES:**a** Not Illustrated

SEAT (FIGURE 1-27) SUSPENSION MOUNTING (S/N G007E02517C →)



BP120177

SEAT
SUSPENSION MOUNTING (S/N G007E02517C →)

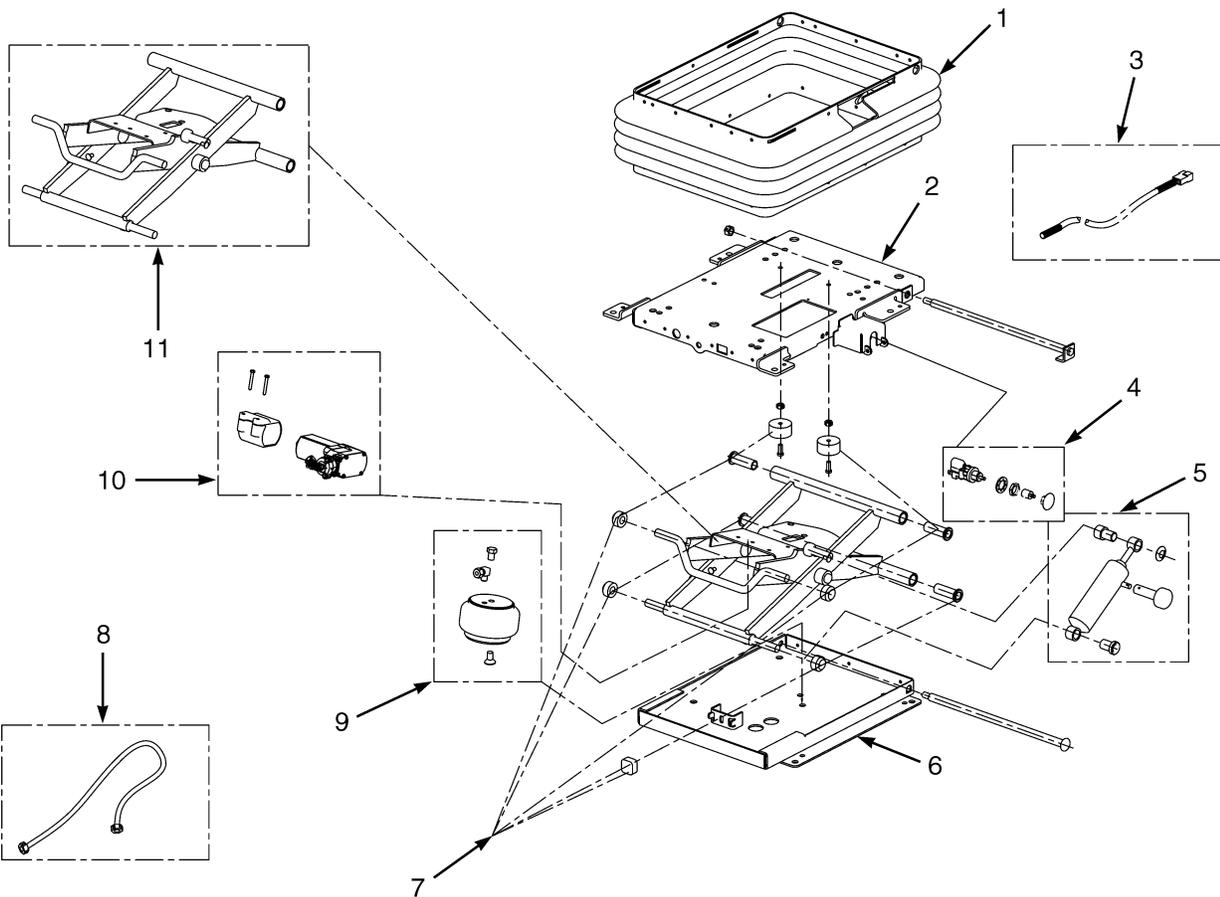
KEY:**A: Mechanical Suspension****B: Air Suspension**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1603522	Seat-Full Suspension (Mechanical Suspension) (Fabric Cover)	1	..
	1603521	Seat-Full Suspension (Mechanical Suspension) (Vinyl Cover)	1	..
	1603524	Seat-Full Suspension (Air Suspension) (Fabric Cover) .....	..	1
	1603523	Seat-Full Suspension (Air Suspension) (Vinyl Cover) .....	..	1
1	1482993	Kit-Plate (Adapter)	1	1
1	1482994	Plate	1	1
1	1482917	Locknut	8	8
1	1482951	Bolt	8	8
1	1482952	Clip	2	2
1	1482995	Washer	4	4
1	1482953	Strap Clamp	1	1
2	1482996	Kit-Bracket	1	1
2	1482997	Bracket	1	1
2	1482917	Locknut	4	4
2	1482951	Bolt	4	4
2	1482995	Washer	4	4
2	1482980	Washer	1	1
2	1482981	Locknut	1	1
3	1482976	Kit-Knob	1	1
3	1467531	Knob (Recliner)	1	1
3	.....	Knob (Slide)	1	1
3	1483047	Roll Pin .....	..	1
3	.....	Knob (Air Valve) .....	..	1
3	1615105	Handle (Control Valve) .....	..	1
3	1615106	Knob (Air Control Valve) .....	..	1
4	1482978	Kit-Lever (Slider)	1	1
4	1482979	Lever	1	1
4	.....	Knob	1	1
4	1482980	Washer	1	1
4	1482981	Locknut	1	1
5	1482991	Kit-Service Mech Susp Seat	1	..
5	1482992	Suspension (Mechanical)	1	..
5	1482917	Locknut	4	..
5	1482990	Bolt	4	..
5	1482953	Strap Clamp	1	..
5	1482982	Kit-Service Air Susp Seat .....	..	1
5	1482989	Suspension (Air) .....	..	1
5	1482917	Locknut .....	..	4
5	1482990	Bolt .....	..	4
5	1482953	Strap Clamp .....	..	1
6	1482998	Kit-Seat Rail	1	1
6	1482999	Seat Rail	1	1
6	1483000	Seat Rail	1	1
6	1482990	Bolt	4	4
6	1482917	Locknut	8	8

SEAT
SUSPENSION MOUNTING (S/N G007E02517C →)**KEY:****A: Mechanical Suspension****B: Air Suspension**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
6	1482951	Bolt	4	4
6	1482980	Washer	1	1
6	1482981	Locknut	1	1

SEAT (FIGURE 1-28) AIR SUSPENSION ASSEMBLY (S/N G007E02517C →)



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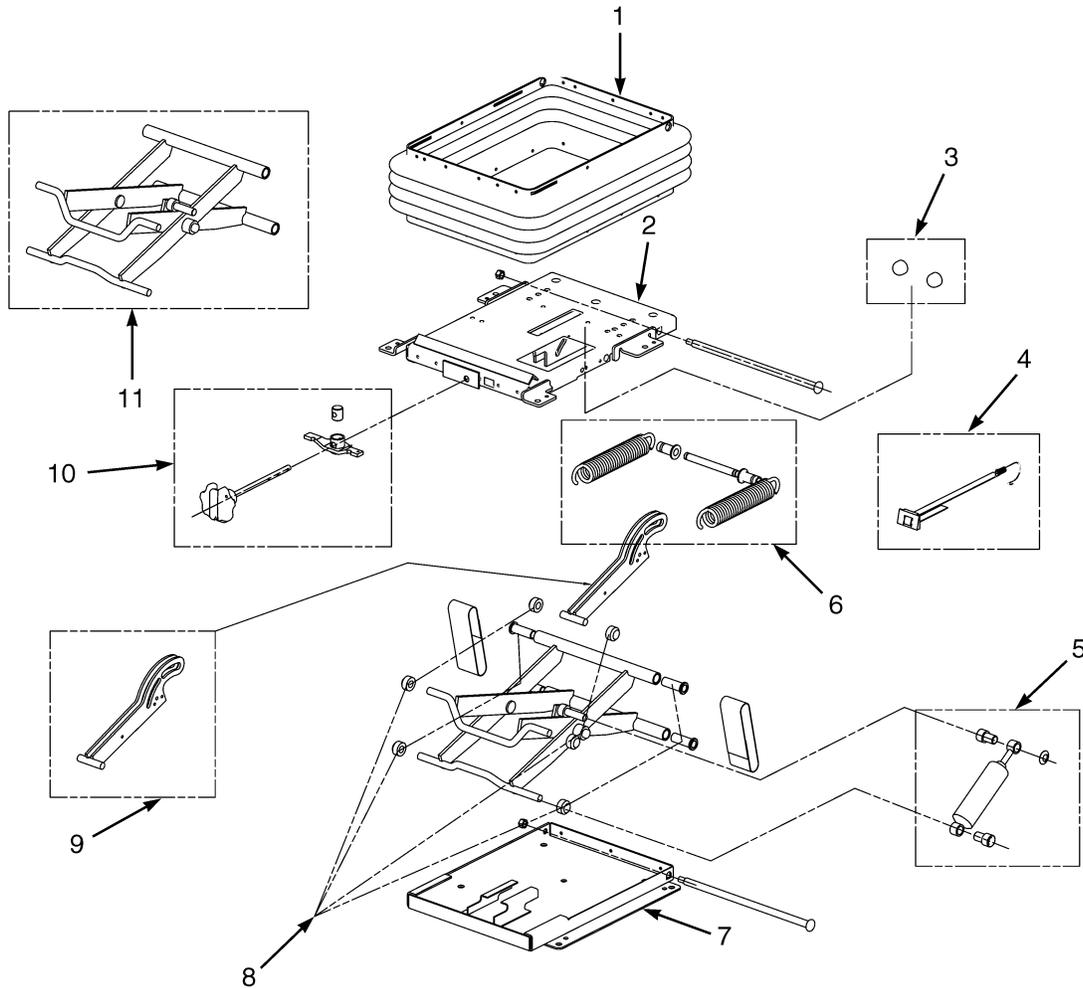
SEAT
AIR SUSPENSION ASSEMBLY (S/N G007E02517C →)

ITEM	PART NO.	DESCRIPTION	QTY
	1482989	Suspension (Air)	1
1	1483005	Kit-Suspension Boot	1
1	1483006	Boot	1
1	1483003	Clip	22
1	1483004	Nut	3
2	1483042	Kit-Housing (Upper)	1
2	1483043	Housing (Upper)	1
2	1483009	Shaft	1
2	1483010	Nut	1
2	.....	Plug	1
2	1483047	Roll Pin	1
2	1483003	Clip	11
2	1482917	Locknut	4
2	1482990	Bolt	4
2	.....	Bearing	2
3	1483040	Wire Harness	1
3	1483041	Wire Harness	1
3	1482953	Strap Clamp	1
3	1483003	Clip	1
3	1483004	Nut	1
4	1615107	Valve (Air)	1
4	.....	Valve Body	1
4	1615109	Lockwasher	1
4	1615110	Nut	1
4	.....	Knob (Air Valve)	1
4	1615111	Connector	1
4	1483047	Roll Pin	2
4	1615105	Handle (Control Valve)	1
4	1615106	Knob (Air Control Valve)	1
5	1483049	Gas Spring	1
5	1615129	Shock Absorber	1
5	.....	Fastener	1
5	1615124	Knob (Adjuster)	1
5	1615125	Roll Pin	1
5	1615126	Bushing (Shock) (Upper)	1
5	1615127	Bushing (Shock) (Lower)	1
5	1615128	Spring	1
6	1483050	Kit-Housing (Lower)	1
6	1483051	Housing (Lower)	1
6	1483009	Shaft	1
6	1483010	Nut	1
6	1483029	Rubber Bellow	3
6	1483003	Clip	9
6	1483004	Nut	3
6	1615131	Bumper (Rubber)	1
6	1483058	Screw	1
7	1483052	Kit-Bearing (Suspension)	1
7	1483031	Roller	4
7	1483053	Bumper	2
7	1483054	Screw	2

SEAT
AIR SUSPENSION ASSEMBLY (S/N G007E02517C →)

ITEM	PART NO.	DESCRIPTION	QTY
7	1483055	Nut	2
7	.....	Bearing	4
7	1482990	Bolt	4
7	1483010	Nut	2
7	1483003	Clip	9
7	1483004	Nut	3
7	1482953	Strap Clamp	1
7	1615132	Bumper	2
7	1615126	Bushing	1
7	1615127	Bushing	1
7	.....	Fastener	1
7	1482980	Washer	4
8	1483061	Kit-Air Hose	1
8	1483062	Hose	1
8	1615111	Connector	1
8	1483060	Fitting	1
8	1615138	Cap	1
8	1615139	O-Ring	1
9	1483056	Kit-Spring (Air)	1
9	1483057	Spring	1
9	1483058	Screw	1
9	1483059	Bolt	1
9	1483060	Fitting	1
9	1615136	Clip	1
9	1483062	Hose	1
9	1483003	Clip	10
9	1483004	Nut	3
9	1615137	Screw	1
10	1528714	Kit-Compressor	1
10	1615140	Compressor (24 Volt)	1
10	1615141	Bracket (Plastic)	1
10	1483067	Screw	2
10	1483062	Hose	1
10	1615111	Connector	1
10	1483060	Fitting	1
11	1615143	Kit-Service Susp Scissors	1
11	1615144	Scissor	1
11	1615126	Bushing (Shock) (Upper)	1
11	1615127	Bushing (Shock) (Lower)	1
11	1483031	Roller	4
11	.....	Bearing	4
11	Fastener	1

SEAT (FIGURE 1-29) MECHANICAL SUSPENSION ASSEMBLY (S/N G007E02517C →)



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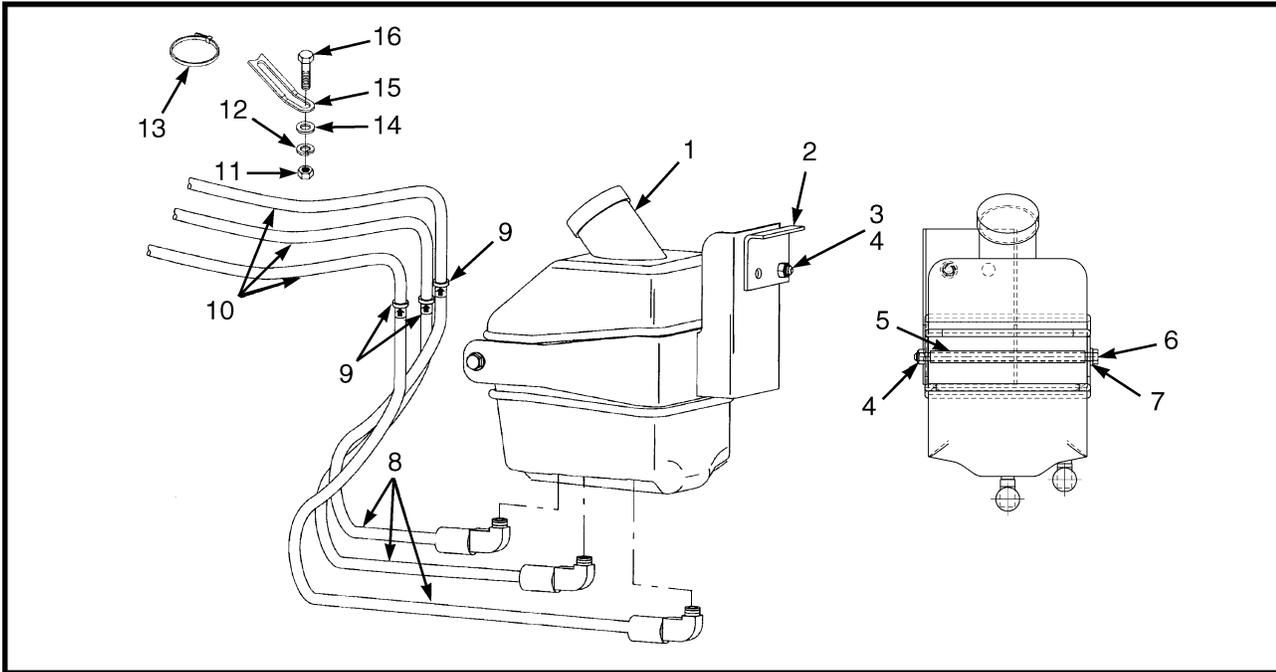
SEAT
MECHANICAL SUSPENSION ASSEMBLY (S/N G007E02517C →)

ITEM	PART NO.	DESCRIPTION	QTY
	1482992	Suspension (Mechanical)	1
1	1483001	Kit-Suspension Boot	1
1	1483002	Boot	1
1	1483003	Clip	18
1	1483004	Nut	3
2	1483007	Kit-Housing (Upper)	1
2	1483008	Housing	1
2	1483009	Shaft	1
2	1483010	Nut	1
2	1483003	Clip	9
2	1483011	Roll Pin	1
2	1482917	Locknut	4
2	1482990	Bolt	4
2	1615075	Pin	2
2	1615076	Pin	1
2	1615077	Clip	4
2	1615078	Clip	2
2	1615079	Cam Follower	1
3	1483012	Kit-Bumper	1
3	1483013	Spring	2
3	1483388	Nut	2
4	1483020	Tape	1
4	1483021	Spring	1
4	1483022	Tape	1
4	1483023	Guide	1
4	1483014	Rivet	1
5	1483024	Gas Spring	1
5	1483025	Shock Absorber	1
5	.....	Fastener	1
5	1483026	Bushing	2
6	1483015	Kit-Spring	1
6	1483016	Spring	2
6	.....	Retaining Ring	2
6	1483017	Bushing	2
6	1483018	Spacer	2
6	1483019	Spring	1
7	1483027	Kit-Housing (Lower)	1
7	1483028	Housing	1
7	1483009	Shaft	1
7	1483010	Nut	1
7	1483029	Rubber Bellow	3
7	1483003	Clip	9
7	1483004	Nut	3
7	1483031	Roller	4
8	1483030	Kit-Bearing	1
8	1483031	Roller	6
8	.....	Bearing	4
8	1483026	Bushing	2
9	1483032	Arm	1
9	1483033	Arm	1

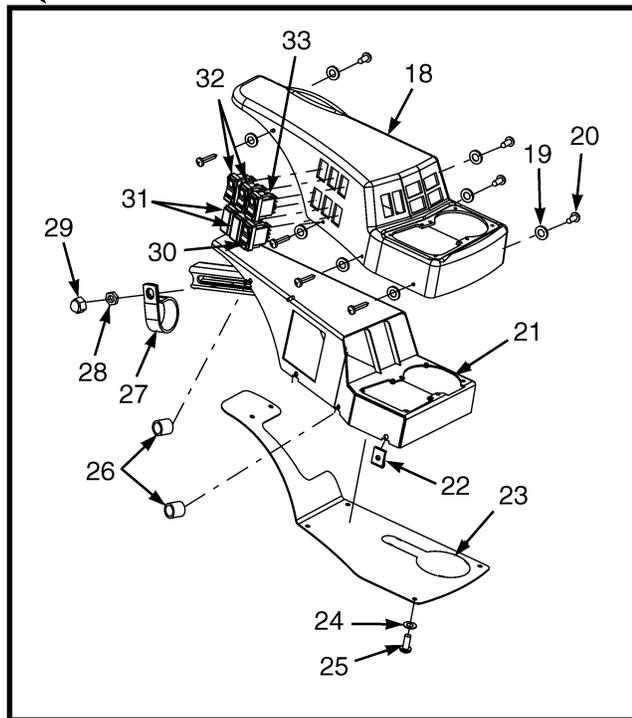
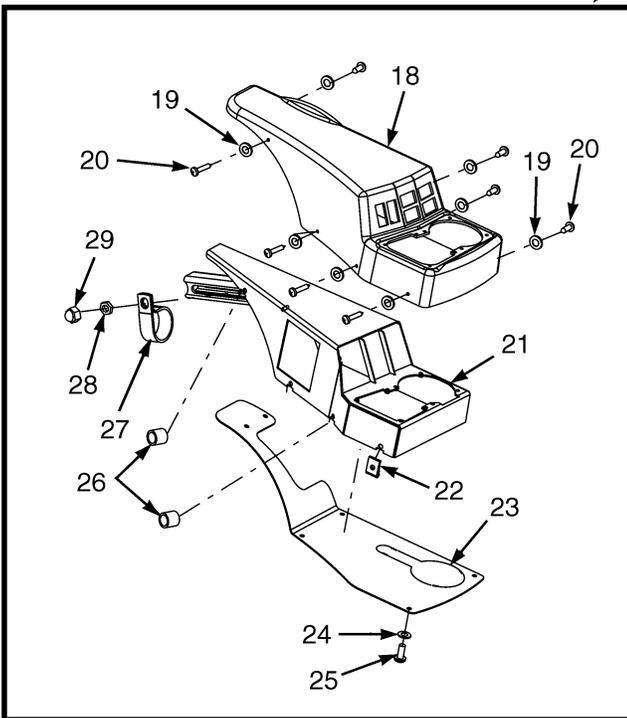
SEAT
MECHANICAL SUSPENSION ASSEMBLY (S/N G007E02517C →)

ITEM	PART NO.	DESCRIPTION	QTY
9	1615075	Pin	2
9	1615076	Pin	1
9	1615077	Clip	4
9	.....	Retaining Ring	2
9	1615078	Clip	2
9	1615079	Cam Follower	1
9	1483018	Spacer	2
9	.....	Bearing	2
9	1483031	Roller	2
10	1483034	Knob	1
10	1483036	Knob	1
10	1483011	Roll Pin	1
11	1483037	Kit-Service Susp Scissors	1
11	1483039	Scissor	1
11	1483031	Roller	4
11	.....	Bearing	4
11	1483026	Bushing	2
11	1483010	Nut	2
11	.....	Fastener	1

SEAT (FIGURE 1-30) ARMREST ASSEMBLY — WITH WINDOW WASHER OPTIONS



17

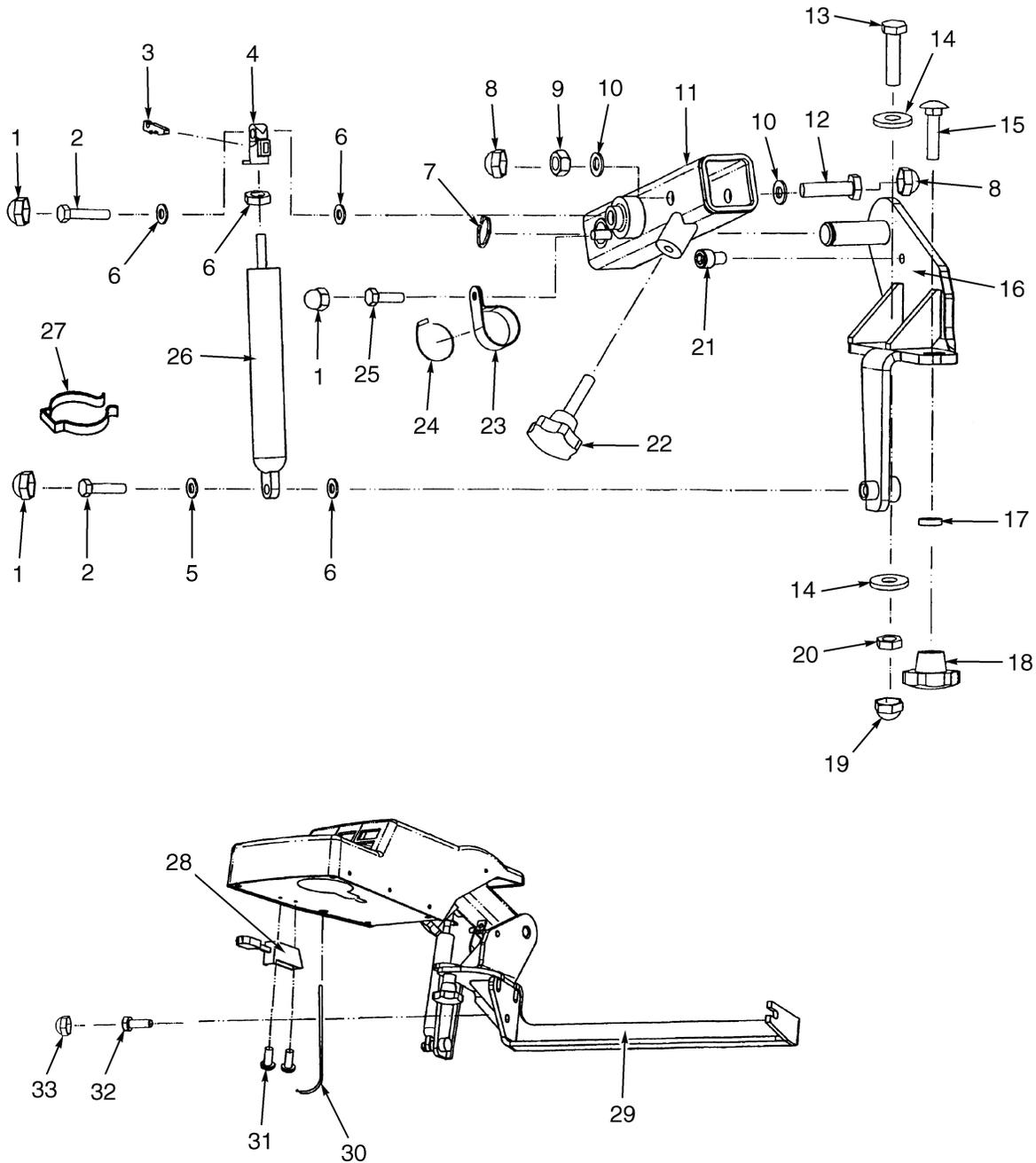


BP120187

SEAT
ARMREST ASSEMBLY – WITH WINDOW WASHER OPTIONS

ITEM	PART NO.	DESCRIPTION	QTY
1	1473851	Reservoir	1
1	1480017	Reservoir	1
1	1489089	Tank	1
1	1489090	Pump	3
2	1485427	Bracket Wldmt	1
3	176640	Bolt	1
4	302400	Nut	2
5	1492461	Tube	1
6	176769	Capscrew	1
7	320157	Washer	2
8	1563863	Hose	3
9	1301685	Check Valve	3
10	1563864	Hose	3
11	239503	Nut	3
12	292681	Lockwasher	3
13	137852	Strap Clamp	AR
14	320157	Washer	4
15	1356947	Strap	5
16	176640	Bolt	1
17	1628948	Armrest (With Wiper Switches)	1
17	1628949	Armrest (Without Wiper Switches)	1
18	1636183	Cover (Armrest) (Without Wiper Switches)	1
18	1636182	Cover (Armrest) (With Wiper Switches)	1
19	1492140	Washer	8
20	1468306	Screw	8
21	1493476	Frame (Armrest)	1
22	1492139	Nut	8
23	1493478	Plate (Bottom)	1
24	1493480	Washer	6
25	2046866	Capscrew	6
26	1493485	Spacer	2
27	1493486	Clamp	1
28	316834	Nut	1
29	1493397	Cover (Capscrew Head)	1
30	2043354	Switch (Window Washer) (With Wiper Switches)	1
31	1498383	Plug (Switch) (With Wiper Switches)	2
32	2043353	Switch (Top And Rear) (With Wiper Switches)	2
33	2043352	Switch (Front) (With Wiper Switches)	1
	2054224	Wire Harness (Armrest) (Open Cab) (Not Illustrated)	1
	2054225	Wire Harness (Armrest) (Closed Cab) (Not Illustrated)	1
	1563906	Trim (Not Illustrated)	AR

SEAT (FIGURE 1-31) ARMREST PIVOT ARM ASSEMBLY

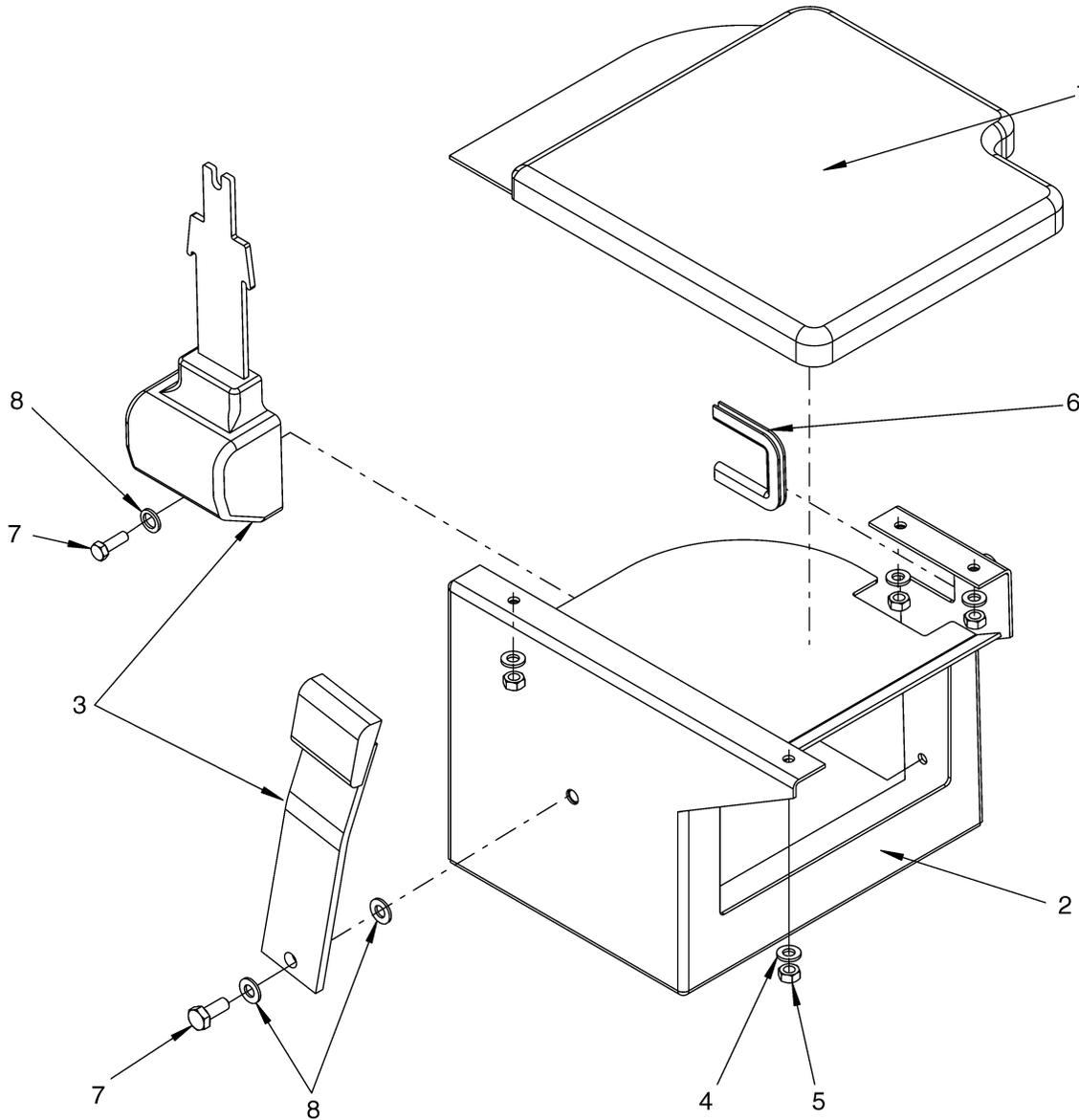


BP120190

SEAT
ARMREST PIVOT ARM ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	1476584	Cover (Capscrew Head)	3
2	132861	Capscrew	2
3	1534477	Lever (Release)	1
4	1534425	Rod End	1
5	1539034	Nut	1
6	320158	Washer	4
7	1498385	Retaining Ring	1
8	1493397	Cover (Capscrew Head)	2
9	316834	Nut	1
10	1476421	Washer	2
11	1534475	Tube Wldmt-Cylinder	2
12	1506669	Screw	1
13	287837	Capscrew	1
14	1571029	Washer	3
15	1493499	Screw	1
16	1534474	Console	1
17	1498338	Washer	2
18	1534476	Knob	1
19	1493474	Cover (Capscrew Head)	1
20	1506827	Nut	1
21	296010	Capscrew	1
22	1493494	Knob (Star Grip)	1
23	1493498	Clamp	1
24	1506825	Strap Clamp	1
25	287805	Capscrew	1
26	1530385	Gas Spring	1
27	1498356	Clip	1
28	1571030	Lever (Armrest Release)	1
28	1623802	Connector Body	1
28	1623801	Trip Lever	1
28	302048	Screw	1
28	1468321	Washer (Plastic)	3
28	1506670	Nut	1
28	302023	Screw	1
28	1623800	Knob	1
29	1534481	Console	1
30	1530386	Cable	1
31	1498357	Screw	1
32	136985	Capscrew	2
33	1493312	Cap (Capscrew Head)	3
	1624002	Kit-Armrest Lever Release	1

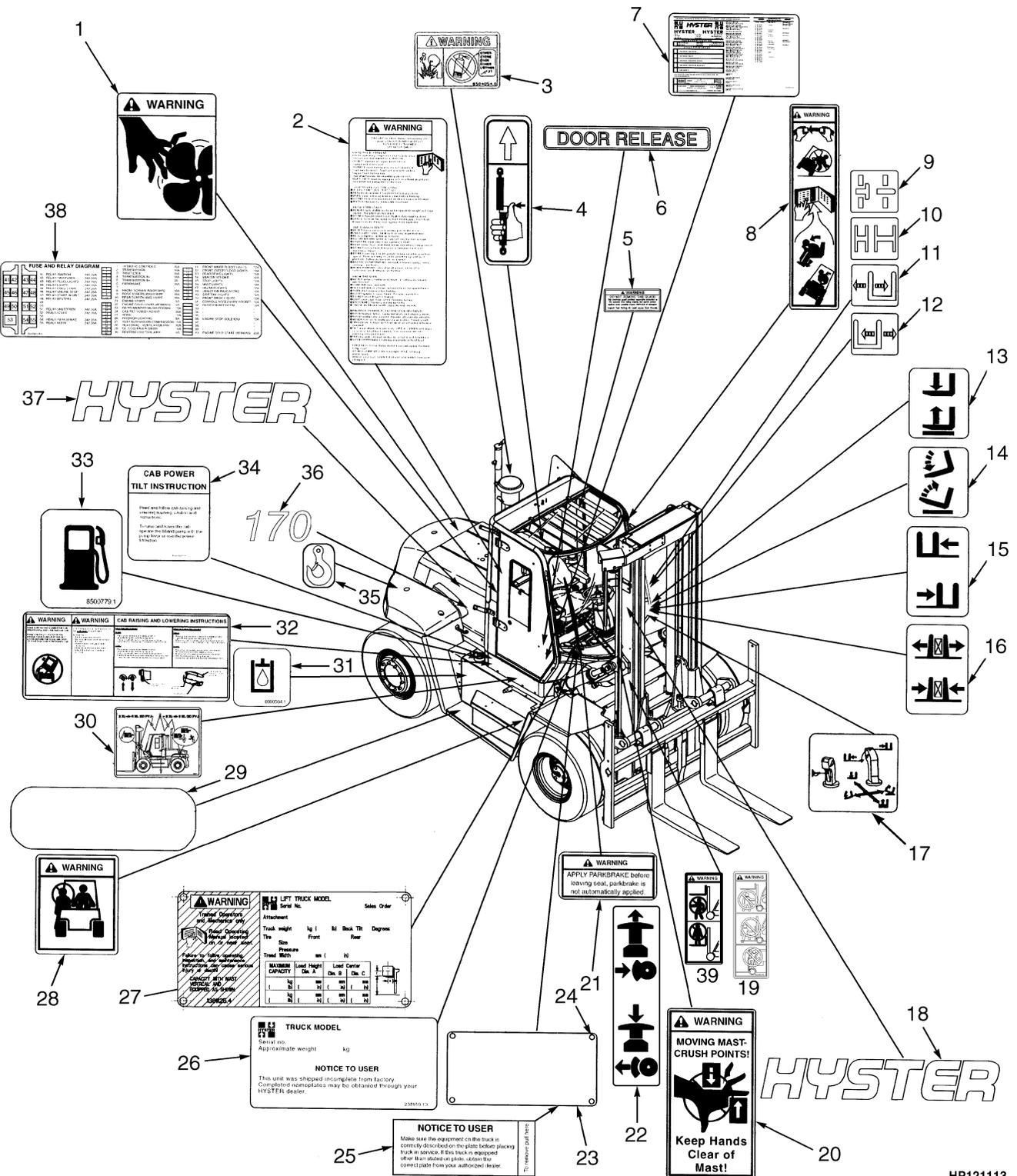
SEAT (FIGURE 1-32) TRAINING



HP120623

ITEM	PART NO.	DESCRIPTION	QTY
	1497822	Seat-Non Suspension	1
1	1499936	Cover (Top)	1
2	1506677	Seat Assy (Bottom)	1
3	1461081	Kit-Seat Belt	1
4	320156	Washer	4
5	136687	Nut	4
6	1498336	Edge Protector	AR
7	293628	Capscrew	2
8	1498338	Washer	3

LABELS (FIGURE 1-33) GENERAL TRUCK AND DIESEL FUEL — SHEET 1 OF 2



HP121113

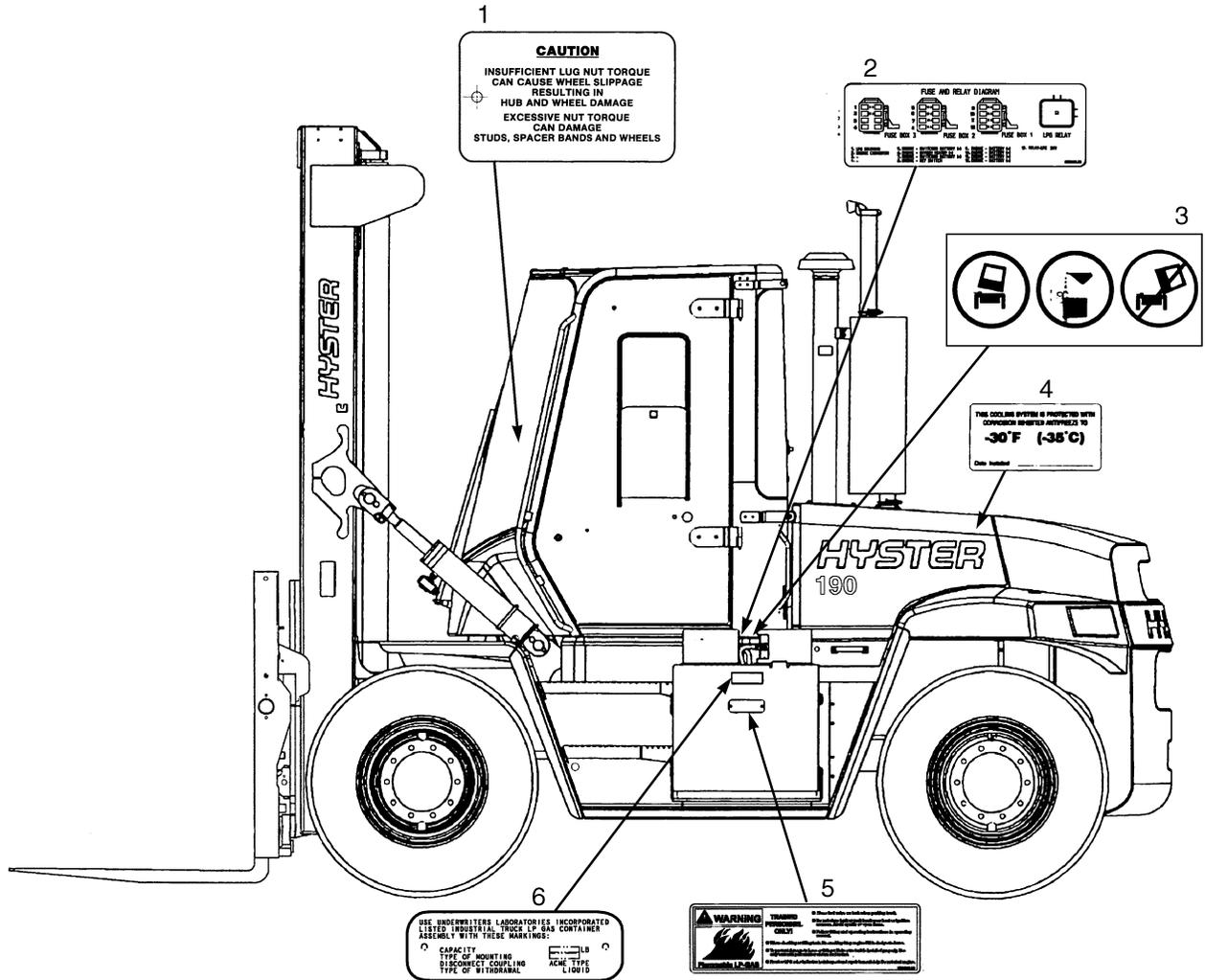
LABELS
GENERAL TRUCK AND DIESEL FUEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
1	1345939	Label (Fan Warning)	2
2	2043479	Label (Operator Warning)	1
3	2034459	Label (Ether Warning)	1
4	1311423	Label (Gas Spring)	2
5	b	Label-Overhead Guard Impact Rating	1
6	1451416	Label (Door Release)	2
7	1534660	Label (Patents and Trademarks)	1
8	1330917	Label (Operator Restraint)	2
9	2043476	Label (Extend and Retract)	1
10	2043468	Label (Twistlock and Unlock)	1
11	2043469	Label (LH Fork)	1
12	2043471	Label (RH Fork)	1
13	1301411	Label (Hoist)	1
14	1301410	Label (Tilt)	1
15	370258	Label (Auxiliary Function, Side-Shift)	1
16	370256	Label (Auxiliary Function, Clamp)	1
17	2043801	Label (Joystick, With Suspension Hooks)	1
17	2058930	Label (Joystick Without Side-Shift)	1
18	1490398	Label (Hyster)	2
19	c 1335126	Label (Mast Warning)	2
20	1346893	Label (Mast Warning)	2
21	1335146	Label (Park Brake Warning)	1
22	2044400	Label (Park Brake)	1
23	389688	Nameplate (Nameplate)	1
24	1513947	Rivet (Plastic)	4
25	1335137	Label (Nameplate Tag)	1
26	a	Label (Incomplete Truck)	1
27	a	Nameplate	1
28	1330920	Label (No Riders)	2
29	184841	Anti-Slip Tread (Slip-Resistant Tread) (H170HD-H210HD)	2
29	299391	Anti-Slip Tread (Slip-Resistant Tread) (H230HD-H280HD)	2
30	2048063	Label (Lifting)	1
31	1385099	Label (Hydraulic Oil Fill)	1
32	2043493	Label (Cab Tilt Warning)	1
33	1385130	Label (Fuel Fill)	1
34	2044002	Label (Power Tilt)	1
35	316448	Label (Lifting Eye)	4
36	1488635	Label (H170HD)	2
36	1488637	Label (H190HD)	2
36	1488638	Label (H210HD)	2
36	1488640	Label (H230HD)	2
36	1488641	Label (H250HD)	2
36	1488643	Label (H280HD)	2
37	888012	Label (Hyster)	2
38	2046166	Label (Fuse Panel)	1
39	d 2075658	Label (Mast Warning)	2

FOOTNOTES:

- a** Contact Your Local Hyster Dealer
- b** Contact Your Local Yale Dealer
- c** → S/N G007E03205E
- d** S/N G007E03206E →

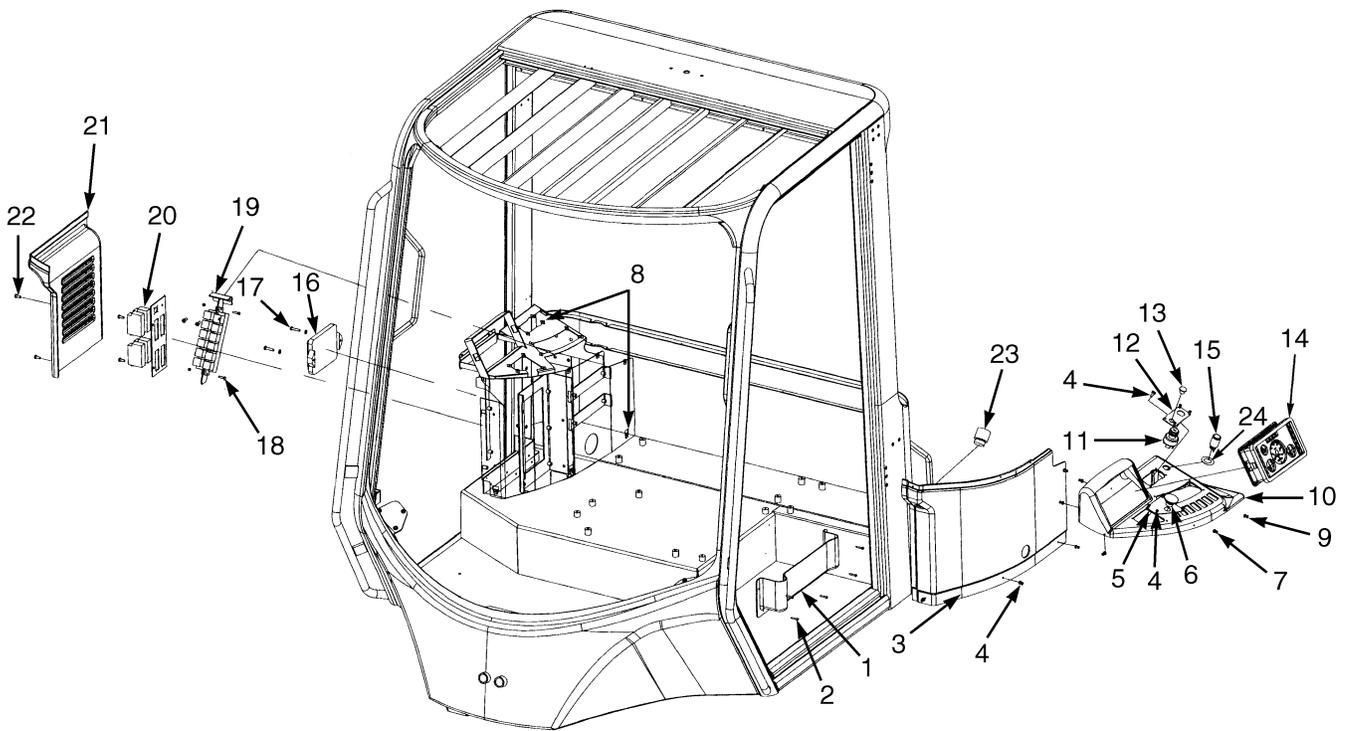
LABELS (FIGURE 1-34)
GENERAL TRUCK AND LP FUEL — SHEET 2 OF 2



HP120514

ITEM	PART NO.	DESCRIPTION	QTY
1	322668	Label (Lug Nut Torque)	1
1	137852	Strap Clamp	1
2	2082622	Label (LPG Fuse Box)	1
3	2050044	Label (Cab Tilt Pump)	1
4	1354165	Label (Antifreeze)	1
5	2081196	Label (Flammable LP Gas)	1
5	170658	Rivet	2
6	1520824	Nameplate (LP Tank Identifier)	1

CAB HARDWARE AND CONTROL COVER (FIGURE 1-35)



bp120559

CAB HARDWARE AND CONTROL COVER

ITEM	PART NO.	DESCRIPTION	QTY
1	1492133	Holder	1
2	1498354	Rivet	5
3	1491029	Console (RH Internal)	1
4	1468319	Screw	16
5	1492147	Plate (Park Brake)	1
6	1523533	Switch (Park Brake)	1
6	1500928	Switch (2-way) (Included with Wire Harness)	1
7	1492141	Screw	4
8	1492139	Nut	20
9	1492140	Washer	12
10	1566770	Console (Console)	1
11	1492154	Ignition Switch (Ignition)	1
12	1492151	Plate (Ignition)	1
13	1492155	Plug (Cold Start Switch)	1
14	c 2053895	Display	1
14	e 2079040	Dash Display	1
15	1492144	Cigarette Lighter (Volt Socket)	1
16	2056447	Controller (FLT/PWM)	1
17	1492159	Screw	2
18	292501	Capscrew	2
19	1492146	Bracket Wldmt (Relay)	1
20	1492145	Plate Wldmt (Fuse Block)	1
21	1491028	Console (RH External)	1
22	1498378	Screw	1
23	1393781	Back-Up Alarm	1
24	1492149	Washer	1
	a 1498356	Clip	2
	a 1498357	Screw	2
	ab 2066200	Wire Harness (Side Console) (Perkins)	1
	ad 2076603	Wire Harness (Side Console) (Cummins)	1
	af 2079043	Wire Harness (Side Console) (Cummins)	1
	a 2042507	Wire Harness (Open Cab)	1
	a 1492143	Screw	4
	a 293613	Capscrew	5
	a 320156	Washer	6
	a 2003859	Flasher	1
	a 1492156	Relay (Wiper Timer)	3

FOOTNOTES:

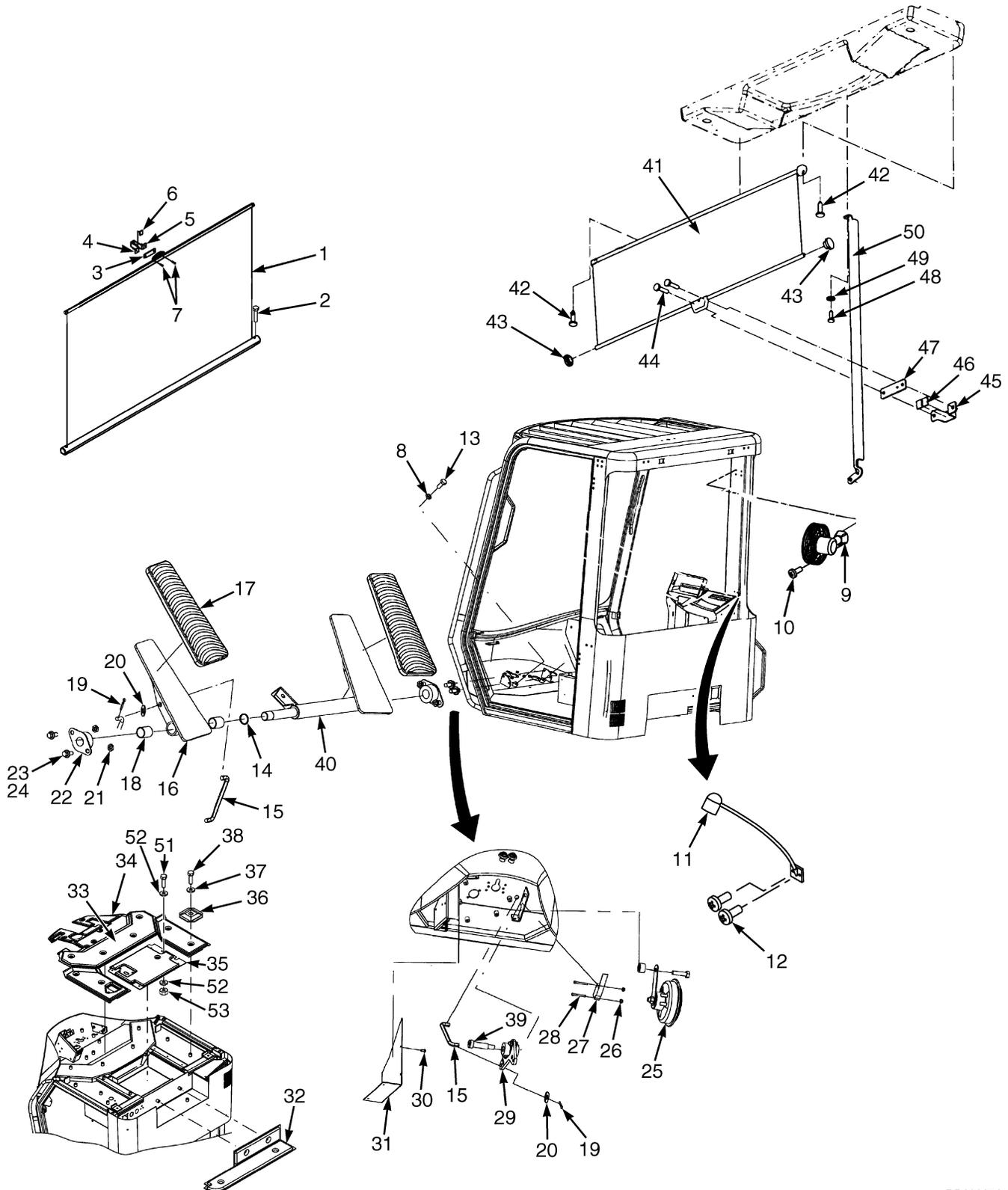
a	Not Illustrated	d	S/N G007E02258C ↔ S/N G007E02516C
b	→ S/N G007E02257C	e	S/N G007E02350C →
c	→ S/N G007E02349C	f	S/N G007E02517C →

**CAB HARDWARE AND CONTROL COVER
OPEN CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1558014	Cab	1
2	1498377	Cover	1
3	1492139	Nut	1
4	1492140	Washer	1
5	1492143	Screw	1
6	2042507	Wire Harness (Open Cab)	1
7	1468318	Screw	6
8	1508012	Headliner	1
9	1558031	Foam	1
10	1498376	Cover	1
11	1498360	Dash Panel	1
11	1468321	Washer (Plastic)	6
11	292501	Capscrew	6
11	1476584	Cover (Capscrew Head)	6
12	1558042	Screw	4
13	1498375	Cover	1
14	1468311	Screw	4
15	1558015	Rail	1
16	1508229	Seal	1
17	1493491	Bushing	4
18	1558017	Cover (Heater Box)	1
19	136985	Capscrew	4
	a 1498336	Edge Protector	2

FOOTNOTES:**a** Not Illustrated

INCHING PEDAL AND ACCESSORIES (FIGURE 1-37) CAB



BP120171

**INCHING PEDAL AND ACCESSORIES
CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1506751	Sunshade (Top)	1
2	1655365	Screw	2
3	1506749	Rubber Pad	1
4	1493322	Adhesive	AR
5	1506750	Clamp	1
6	1506748	Rubber Pad	1
7	1468318	Screw	2
8	1539034	Nut	2
9	1480217	Fan	1
9	1312226	Fan	1
9	1307755	Fan	1
9	181045	Connector Body	1
10	1468319	Screw	4
11	1480216	Map Light	1
11	1506682	Map Light	1
11	1516559	Bulb	1
12	1468318	Screw	2
13	287854	Capscrew	2
14	1520841	Shim	1
15	1491020	Rod (Inching Pedal)	1
16	1491016	Inching Pedal	1
17	1520596	Cover (Pedal)	2
18	1492224	Bearing	2
19	15201	Cotter Pin	2
20	320156	Washer	2
21	239503	Nut	4
22	1492225	Bearing	2
23	320158	Washer	8
24	287851	Capscrew	4
25	1483425	Horn (24 Volt)	1
26	1492221	Nut	2
27	374159	Switch	1
28	302014	Screw	2
29	1493377	Plate (Inching Pedal)	1
30	2055720	Capscrew	5
31	1492233	Cover	1
32	1498371	Insulation (Rear)	1
33	1648559	Insulation (Main)	1
34	1567942	Insulation (Front)	1
35	1498372	Insulation (Heater)	1
36	1498373	Plate	20
37	320160	Washer	20
38	292514	Capscrew	20
39	340213	Capscrew	1
40	1491015	Shaft (Brake Pedal)	1
41	1570557	Sunshade (Rear) (Rear)	1
42	1468318	Screw	3
43	1644793	Plug	2
44	1655365	Screw	2
45	1644792	Bracket	1

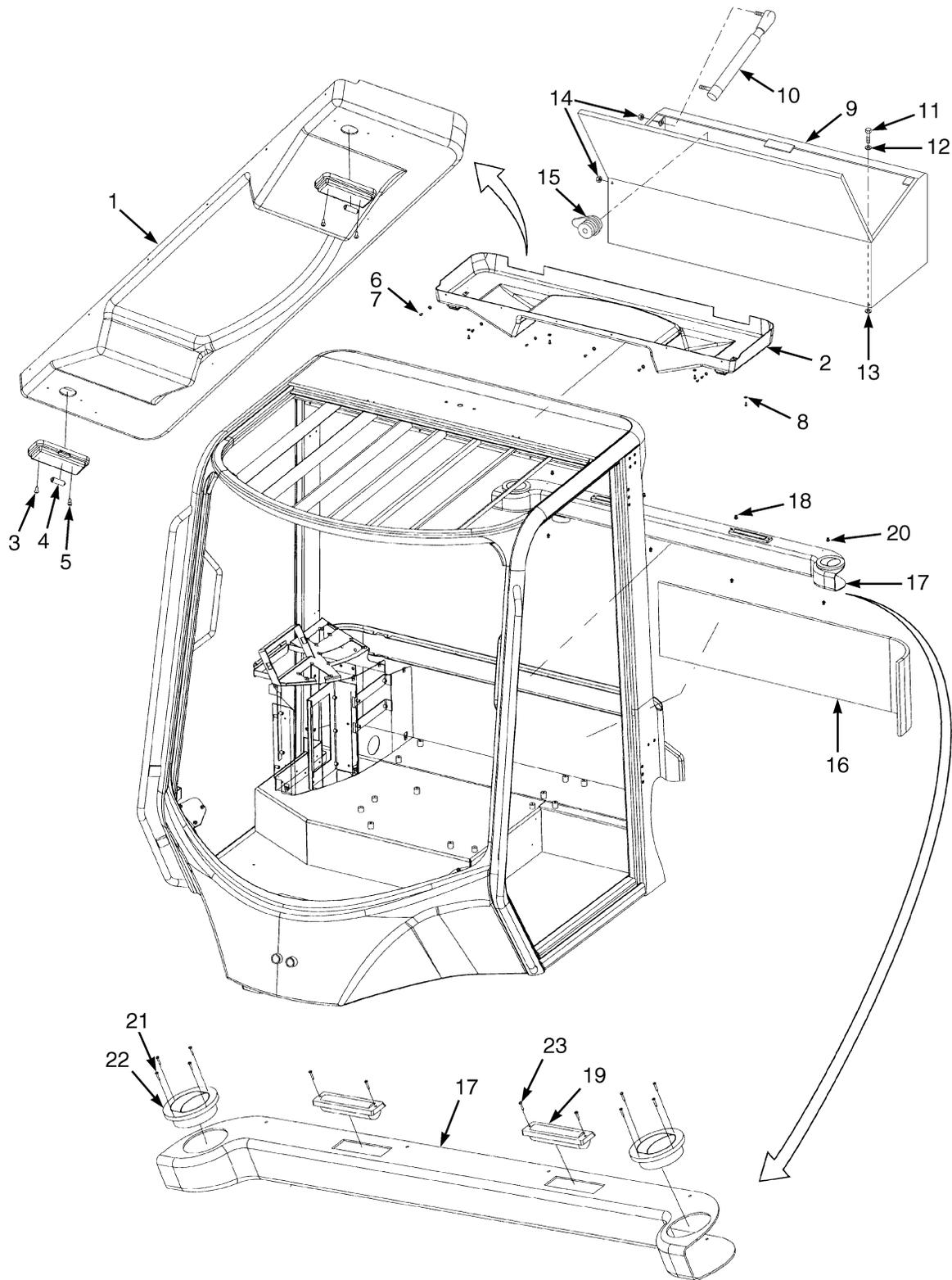
INCHING PEDAL AND ACCESSORIES CAB

ITEM	PART NO.	DESCRIPTION	QTY
46	1506748	Rubber Pad	2
47	1506749	Rubber Pad	1
48	1468318	Screw	1
49	296415	Washer	1
50	1644791	Bracket	1
51	1623364	Capscrew	4
52	296419	Washer	4
53	1468313	Nut	4
	a 1492214	Wire (Ground)	1
	ab 2066203	Wire Harness (Cab Underfloor) (☞ Figure 4-47).....	1
	ac 2088035	Wire Harness (Cab Underfloor) (☞ Figure 4-48).....	1
	a 1492229	Plate (Inching Pedal)	1
	a 313860	Flange	2
	a 292501	Capscrew	2
	a 316834	Nut	2
	a 1648560	Insulation (Main)	1
	a 1648561	Insulation (Main)	1
	a 1498387	Spring (Inching Pedal)	1
70	4001209	Return Spring (Alternate Part)	1
	ab 1569801	Sensor (Pedal Position)	1
	ac 2076661	Sensor (Throttle and Inching)	1

FOOTNOTES:

- a** Not Illustrated
- b** → S/N G007E03039D
- c** S/N G007E03040D →

AIR DUCT AND ACCESSORIES (FIGURE 1-38) CAB

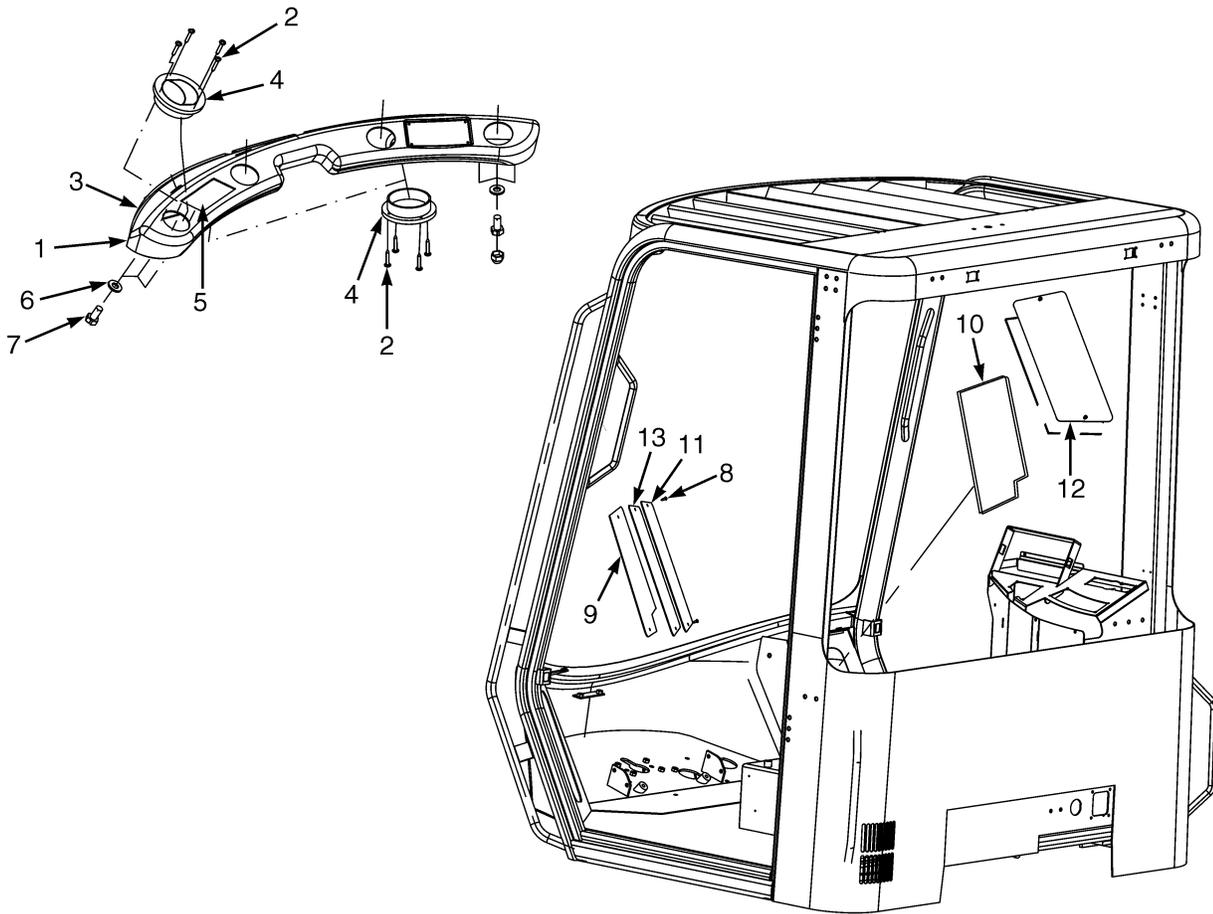


BP120168

**AIR DUCT AND ACCESSORIES
CAB**

ITEM	PART NO.	DESCRIPTION	QTY
1	1492176	Console (Radio)	1
2	1491468	Headliner	1
3	1393528	Dome Light	2
3	1566767	Bracket	1
4	887317	Bulb	2
5	1492163	Screw	4
6	1492139	Nut	10
7	1468319	Screw	18
8	1492140	Washer	15
9	1499932	Console (Rear Locking)	1
10	1506679	Gas Spring	1
11	136681	Capscrew	4
12	320158	Washer	4
13	1506678	Washer	4
14	316835	Nut	2
15	1506680	Cover	1
16	1492173	Foam	1
17	1492175	Duct (Rear)	1
17	1491495	Duct (Front Cover)	1
18	1468318	Screw	8
19	1492169	Louver	2
20	1492140	Washer	8
21	1654935	Screw	8
22	1598398	Louver	2
23	1468320	Screw	4

DASH AND AIR DUCT ASSEMBLY (FIGURE 1-39) CAB



BP120169

**DASH AND AIR DUCT ASSEMBLY
CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	1492200	Cover	1
1	1492195	Cover	1
2	1654935	Screw	24
3	1512822	Seal	AR
4	1598398	Louver (Round)	4
5	1492196	Ashtray	1
6	1468321	Washer (Plastic)	6
7	292501	Capscrew	6
8	1498363	Screw	12
9	1493372	Foam (LH)	4
10	1493373	Foam (RH)	1
11	1492197	Plate (LH Air Duct Cover)	1
12	1492198	Plate (RH Air Duct Cover)	1
13	1498362	Seal	AR

2

ENGINE ASSEMBLY

SECTION 2 ENGINE ASSEMBLY

DESCRIPTION	PAGE
ACCESSORY DRIVE BELT AND TENSIONER	
CUMMINS DIESEL	2-153
ACCESSORY HOLE COVER	
CUMMINS LPG	2-187
WET BRAKE - CUMMINS DIESEL	2-136
AIR COMPRESSOR	
DRY BRAKE - CUMMINS DIESEL	2-102
DRY BRAKE - CUMMINS LPG	2-180
PERKINS DIESEL, SHEET 1 OF 2	2-20
PERKINS DIESEL, SHEET 2 OF 2	2-22
AIR COMPRESSOR AND ATTACHING PARTS	
PERKINS DIESEL	2-18
AIR COMPRESSOR COOLANT PLUMBING	
DRY BRAKE - CUMMINS DIESEL	2-104
DRY BRAKE - CUMMINS LPG	2-176
AIR COMPRESSOR INLET CONNECTION	
DRY BRAKE - CUMMINS LPG	2-178
AIR CROSSOVER CONNECTION	
CUMMINS DIESEL	2-140
AIR HEATER STARTING AID	
CUMMINS DIESEL	2-108
AIR INTAKE CONNECTION	
CUMMINS LPG	2-217
AUXILIARY DRIVE GEAR	
PERKINS DIESEL	2-52
AUXILIARY PUMP COVER	
WET BRAKE - CUMMINS DIESEL	2-125
BLANKING PLATE AND PLUGS	
PERKINS DIESEL	2-56
BLANKING PLUG, OIL FEED AND HOSES	
PERKINS DIESEL	2-54
CAB HEATER PLUMBING	
DRY BRAKE - CUMMINS DIESEL	2-135
CAM FOLLOWER COVER	
CUMMINS DIESEL	2-110
CUMMINS LPG	2-172
CAMSHAFT	
CUMMINS DIESEL	2-98
CUMMINS LPG	2-202
CAMSHAFT AND ROCKER ASSEMBLY	
PERKINS DIESEL	2-34
COOLING	
CUMMINS DIESEL	2-146
CUMMINS LPG	2-220
PERKINS DIESEL	2-14
CRANKCASE BREATHER	
CUMMINS DIESEL	2-109
CUMMINS LPG	2-174

**SECTION 2
ENGINE ASSEMBLY**

DESCRIPTION	PAGE
CRANKSHAFT AND MAIN BEARINGS	
CUMMINS DIESEL	2-92
CUMMINS LPG	2-164
PERKINS DIESEL	2-30
CYLINDER BLOCK	
CUMMINS DIESEL	2-88
CUMMINS LPG	2-162
PERKINS DIESEL	2-24
CYLINDER HEAD	
CUMMINS DIESEL	2-90
CUMMINS LPG	2-204
PERKINS DIESEL	2-26
CYLINDER HEAD COVER	
PERKINS DIESEL	2-28
ELECTRONIC CONTROL MODULE AND MOUNTING	
PERKINS DIESEL	2-74
ENGINE ASSEMBLY	
CUMMINS DIESEL	2-84
CUMMINS LPG	2-156
PERKINS DIESEL	2-10
ENGINE BLOCK HEATER	
CUMMINS DIESEL (S/N G007E02901D →)	2-8
PERKINS AND CUMMINS DIESEL (→ S/N G007E02900D)	2-6
ENGINE LIFTING EYES	
PERKINS DIESEL	2-72
ENGINE MOUNT	
CUMMINS DIESEL	2-86
CUMMINS LPG	2-158
PERKINS DIESEL	2-17
ENGINE OIL COOLER	
CUMMINS DIESEL (→ S/N G007E02037C)	2-128
CUMMINS DIESEL (S/N G007E02038C →)	2-129
CUMMINS LPG	2-192
EXHAUST	
CUMMINS DIESEL	2-154
CUMMINS LPG	2-212
PERKINS DIESEL	2-12
EXHAUST GAS SENSOR PLUMBING	
CUMMINS LPG	2-215
EXHAUST MANIFOLD	
CUMMINS DIESEL	2-139
CUMMINS LPG	2-214
EXHAUST OUTLET CONNECTION	
CUMMINS LPG	2-216
FAN DRIVE	
CUMMINS DIESEL	2-118
CUMMINS LPG	2-223
FAN DRIVE AND PULLEY	
PERKINS DIESEL	2-50

SECTION 2 ENGINE ASSEMBLY

DESCRIPTION	PAGE
FLYWHEEL	
CUMMINS DIESEL	2-122
CUMMINS LPG	2-190
FLYWHEEL AND STARTER RING	
PERKINS DIESEL	2-82
FLYWHEEL HOUSING	
CUMMINS DIESEL	2-120
CUMMINS LPG	2-188
PERKINS DIESEL	2-80
FRONT DRIVE PULLEY	
PERKINS DIESEL	2-48
FRONT GEAR COVER	
CUMMINS DIESEL	2-123
FRONT GEAR COVER AND HOUSING	
CUMMINS LPG	2-166
FRONT GEAR HOUSING	
CUMMINS DIESEL	2-106
FRONT GEAR TRAIN ACCESSORY DRIVE	
WET BRAKE - CUMMINS DIESEL	2-114
WET BRAKE - CUMMINS LPG	2-184
FRONT GEAR TRAIN ACCESSORY DRIVE PLUMBING	
WET BRAKE - CUMMINS LPG	2-186
IDLER GEAR	
PERKINS DIESEL	2-46
INTAKE MANIFOLD	
CUMMINS LPG	2-218
LIFTING BRACKET	
CUMMINS DIESEL	2-124
CUMMINS LPG	2-160
MANIFOLDS	
PERKINS DIESEL	2-44
OIL COOLER AND CONNECTIONS	
PERKINS DIESEL	2-62
OIL DRAIN CONNECTION AND ACCESSORY HOLE COVER	
DRY BRAKE - CUMMINS DIESEL	2-137
OIL FILTER	
CUMMINS DIESEL	2-132
OIL FILTER AND ATTACHING PARTS	
PERKINS DIESEL	2-60
OIL LEVEL GAUGE	
CUMMINS DIESEL	2-130
CUMMINS LPG	2-194
OIL PAN	
CUMMINS DIESEL	2-126
CUMMINS LPG	2-198
OIL PUMP	
CUMMINS DIESEL	2-134
CUMMINS LPG	2-196

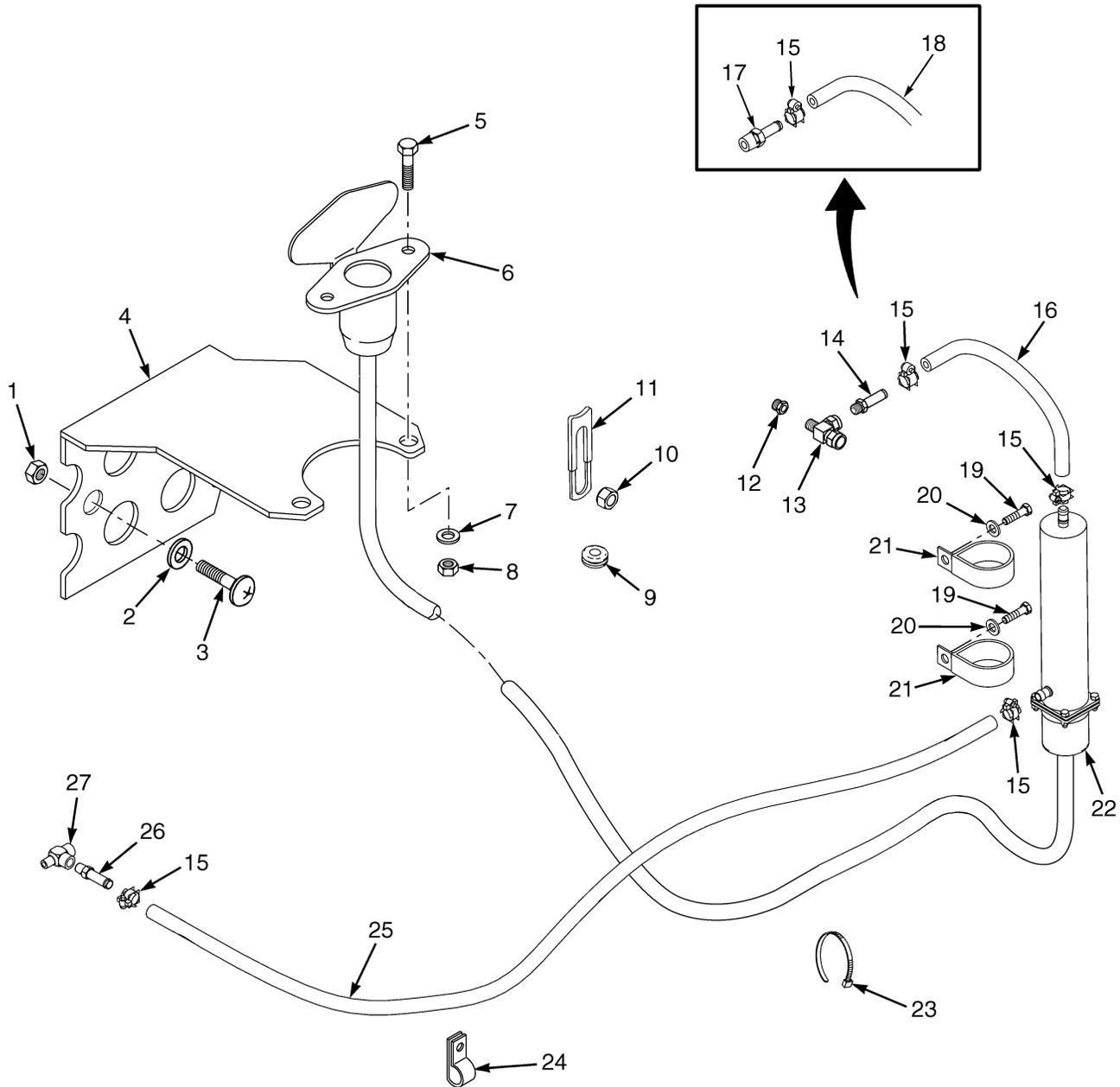
**SECTION 2
ENGINE ASSEMBLY**

DESCRIPTION	PAGE
OIL PUMP AND DELIVERY HOUSING	
PERKINS DIESEL	2-58
OIL SUMP	
PERKINS DIESEL	2-42
PICK-UP SENSORS	
PERKINS DIESEL	2-78
PISTON AND CONNECTING ROD	
CUMMINS DIESEL	2-96
CUMMINS LPG	2-200
PERKINS DIESEL	2-32
ROCKER LEVERS	
CUMMINS DIESEL	2-100
CUMMINS LPG	2-170
THERMOSTAT	
CUMMINS DIESEL	2-117
CUMMINS LPG	2-225
THERMOSTAT AND WATER OUTLET HOUSING	
PERKINS DIESEL	2-64
THERMOSTAT HOUSING	
CUMMINS DIESEL	2-116
CUMMINS LPG	2-224
TIMING CASE	
PERKINS DIESEL	2-36
TIMING COVER	
PERKINS DIESEL	2-38
TIMING GEAR	
PERKINS DIESEL	2-40
TURBO DRAIN PIPE AND BLANKING PLATE	
PERKINS DIESEL	2-70
TURBOCHARGER	
CUMMINS DIESEL	2-142
CUMMINS LPG	2-206
TURBOCHARGER AND ATTACHING PARTS	
PERKINS DIESEL	2-68
TURBOCHARGER COMPRESSOR OUTLET CONNECTION	
CUMMINS LPG	2-210
TURBOCHARGER OIL PLUMBING	
CUMMINS DIESEL	2-144
TURBOCHARGER PLUMBING	
CUMMINS LPG	2-208
VALVE COVER	
CUMMINS DIESEL	2-149
CUMMINS LPG	2-168
VALVE TAPPET	
CUMMINS DIESEL	2-94
CUMMINS LPG	2-173
VIBRATION DAMPER	
CUMMINS DIESEL	2-112
CUMMINS LPG	2-182

**SECTION 2
ENGINE ASSEMBLY**

DESCRIPTION	PAGE
WATER INLET CONNECTION	
CUMMINS DIESEL	2-150
CUMMINS LPG	2-226
WATER OUTLET CONNECTION	
CUMMINS LPG	2-227
WATER PUMP	
CUMMINS DIESEL	2-152
CUMMINS LPG	2-228
PERKINS DIESEL	2-66
WIRING LOOMS	
PERKINS DIESEL	2-76

ENGINE BLOCK HEATER (FIGURE 2-1) PERKINS AND CUMMINS DIESEL (→ S/N G007E02900D)



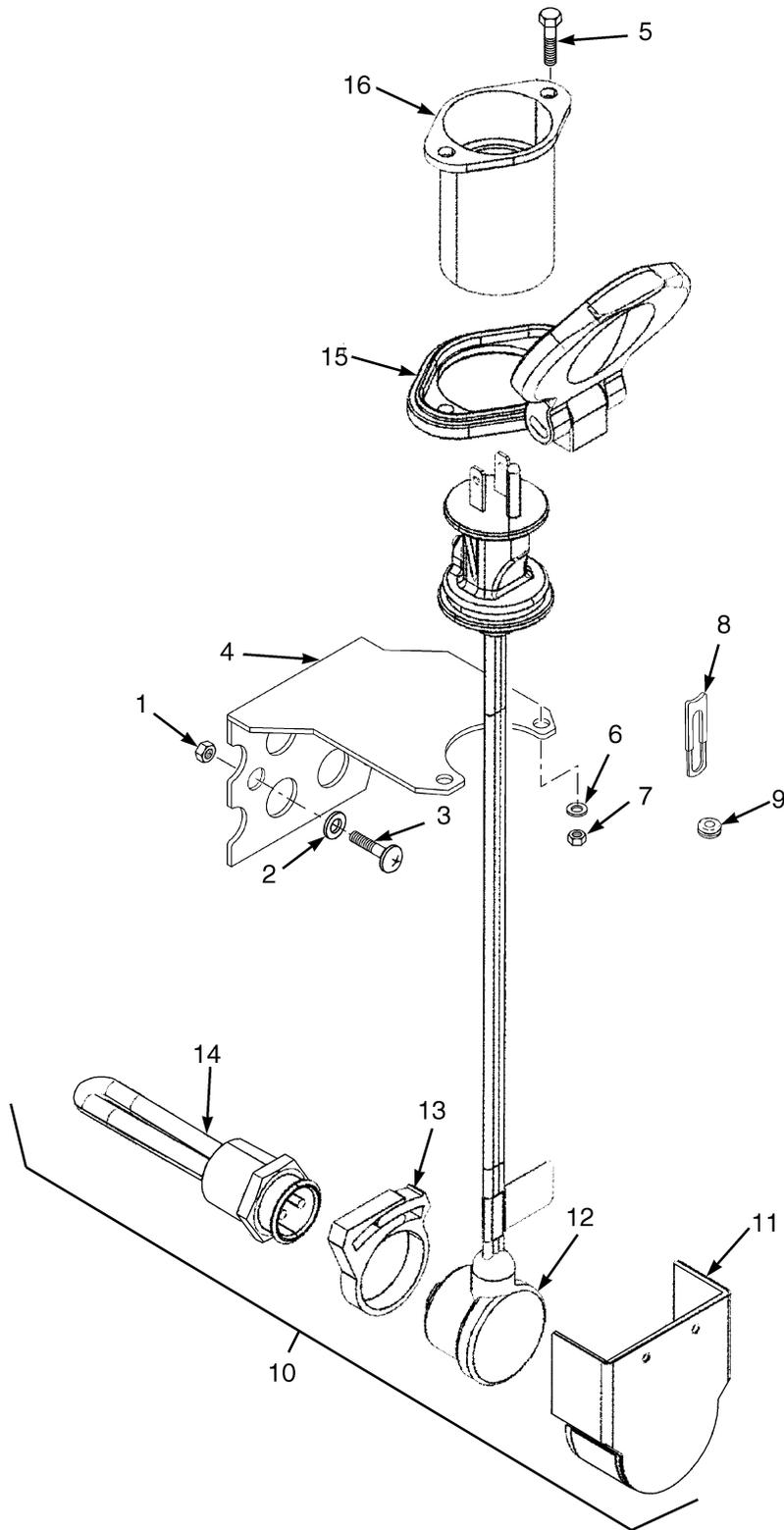
BP090221

ENGINE BLOCK HEATER
PERKINS AND CUMMINS DIESEL (→ S/N G007E02900D)

ITEM	PART NO.	DESCRIPTION	QTY
1	302400	Nut	2
2	320157	Washer	2
3	1533520	Capscrew	2
4	1533519	Plate	1
5	293744	Screw	2
6	1514601	Wire Harness (110 Volt)	1
7	320155	Washer	2
8	302398	Locknut	2
9	1361557	Grommet	1
10	296130	Nut	1
11	1350911	Strap	1
12	a 12845	Fitting	1
13	a 201757	Fitting	1
14	a 222473	Fitting	1
15	166857	Clamp	4
16	a 1539260	Hose	1
17	b 109417	Fitting	1
18	b 1539259	Hose	1
19	b 16815	Capscrew	2
19	a 132860	Capscrew	2
20	320162	Washer	2
21	1384699	Clamp	2
22	1514600	Engine Heater (Includes Wire Lead)	1
23	137852	Strap Clamp	15
24	101625	Clamp	1
25	1514683	Hose	1
26	109417	Fitting	1
27	17216	Fitting	1

FOOTNOTES:**a** Cummins**b** Perkins

ENGINE BLOCK HEATER (FIGURE 2-2) CUMMINS DIESEL (S/N G007E02901D →)

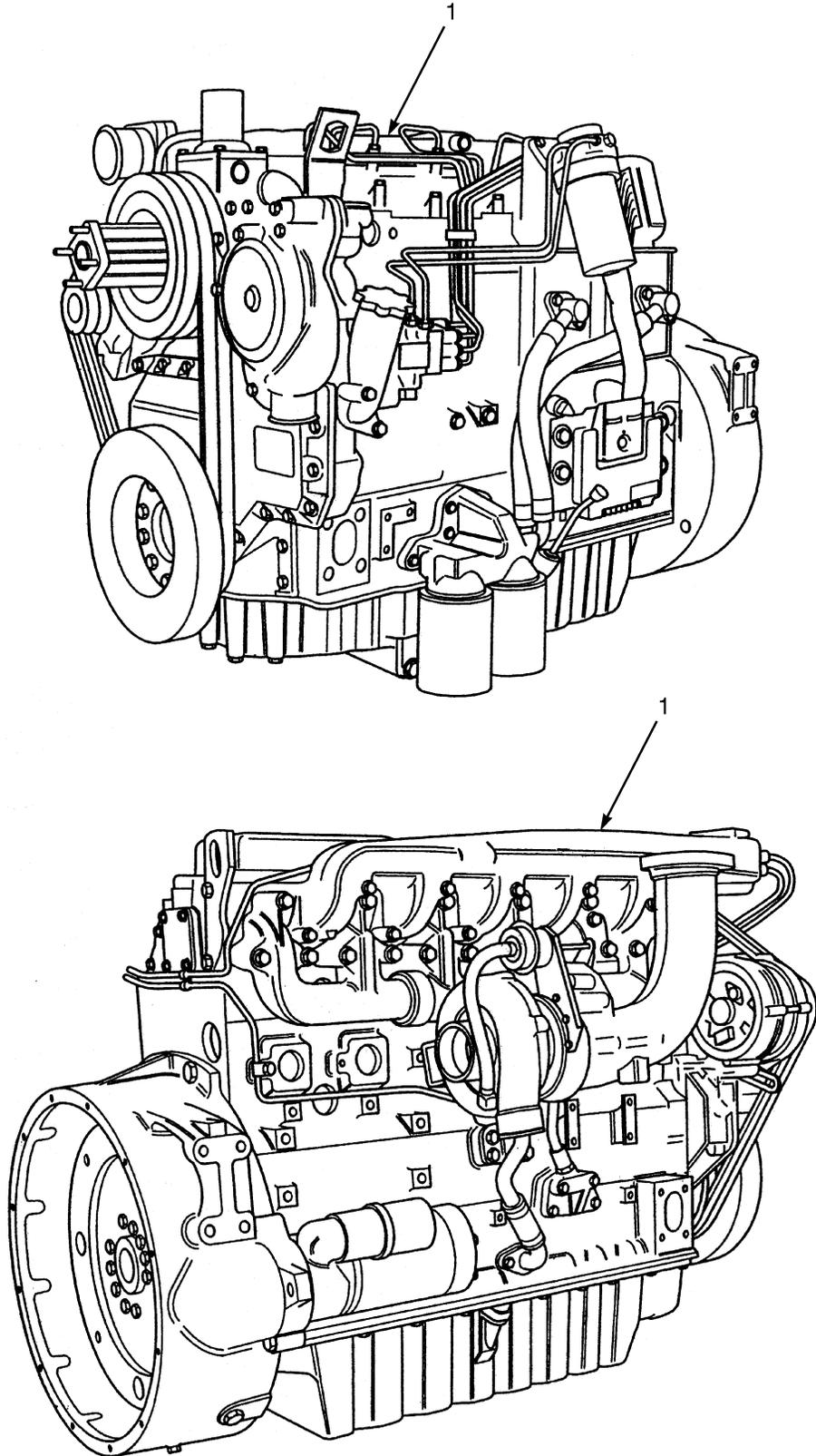


BP090281

ENGINE BLOCK HEATER
CUMMINS DIESEL (S/N G007E02901D →)

ITEM	PART NO.	DESCRIPTION	QTY
1	302400	Nut	2
2	320157	Washer	2
3	1533520	Capscrew	2
4	1533519	Plate	1
5	293744	Screw	2
6	320155	Washer	2
7	302398	Locknut	2
8	114312	Strap Clamp	1
9	1361557	Grommet	1
10	1625540	Heater	1
11	1628959	Heat Shield	1
12	1628960	Cable	1
13	1628961	Clamp	1
14	1628962	Heater	1
15	1628963	Cover	1
16	1628964	Housing	1

ENGINE ASSEMBLY (FIGURE 2-3) PERKINS DIESEL

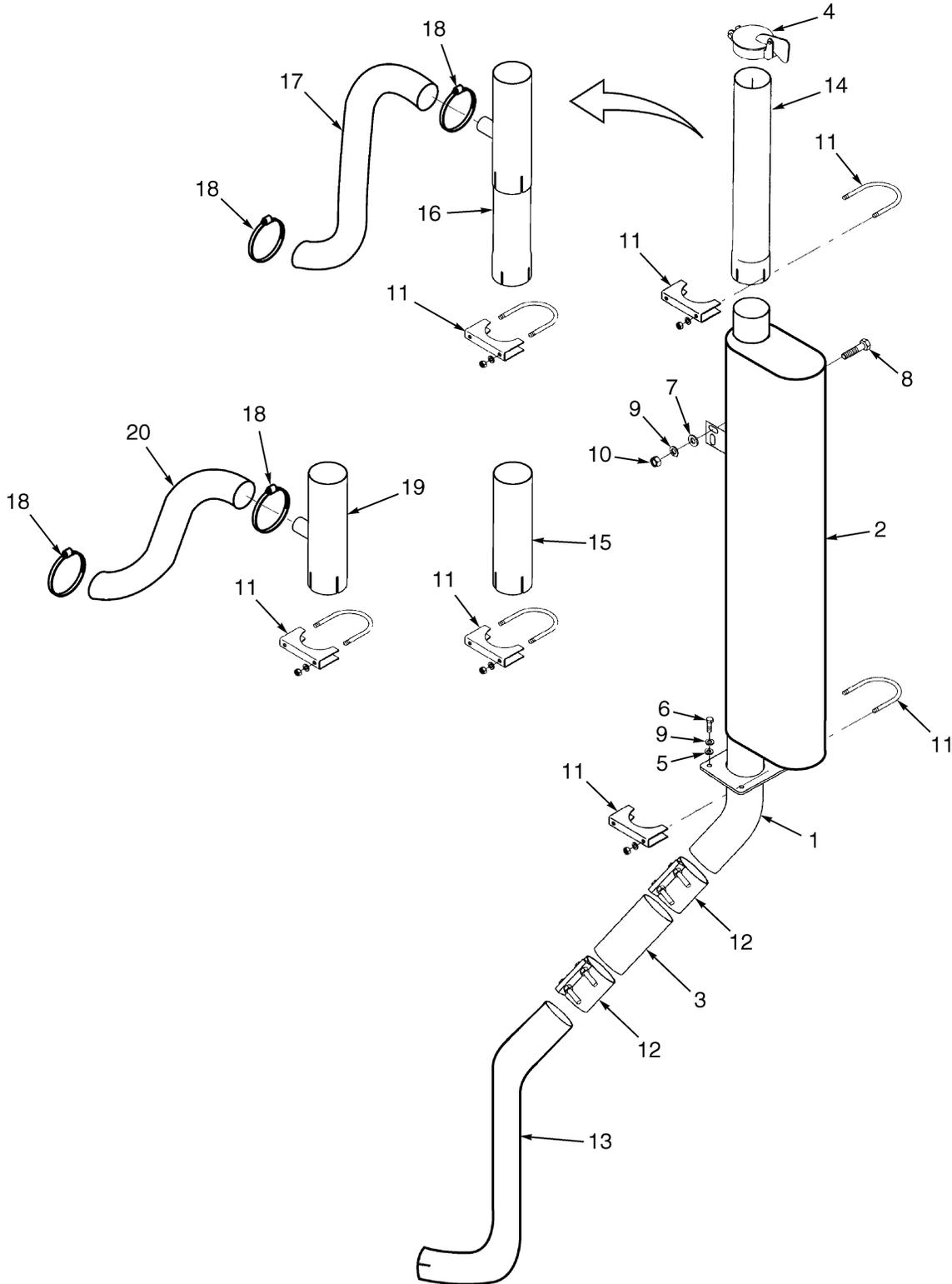


BP090054

**ENGINE ASSEMBLY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
1	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1

EXHAUST (FIGURE 2-4) PERKINS DIESEL



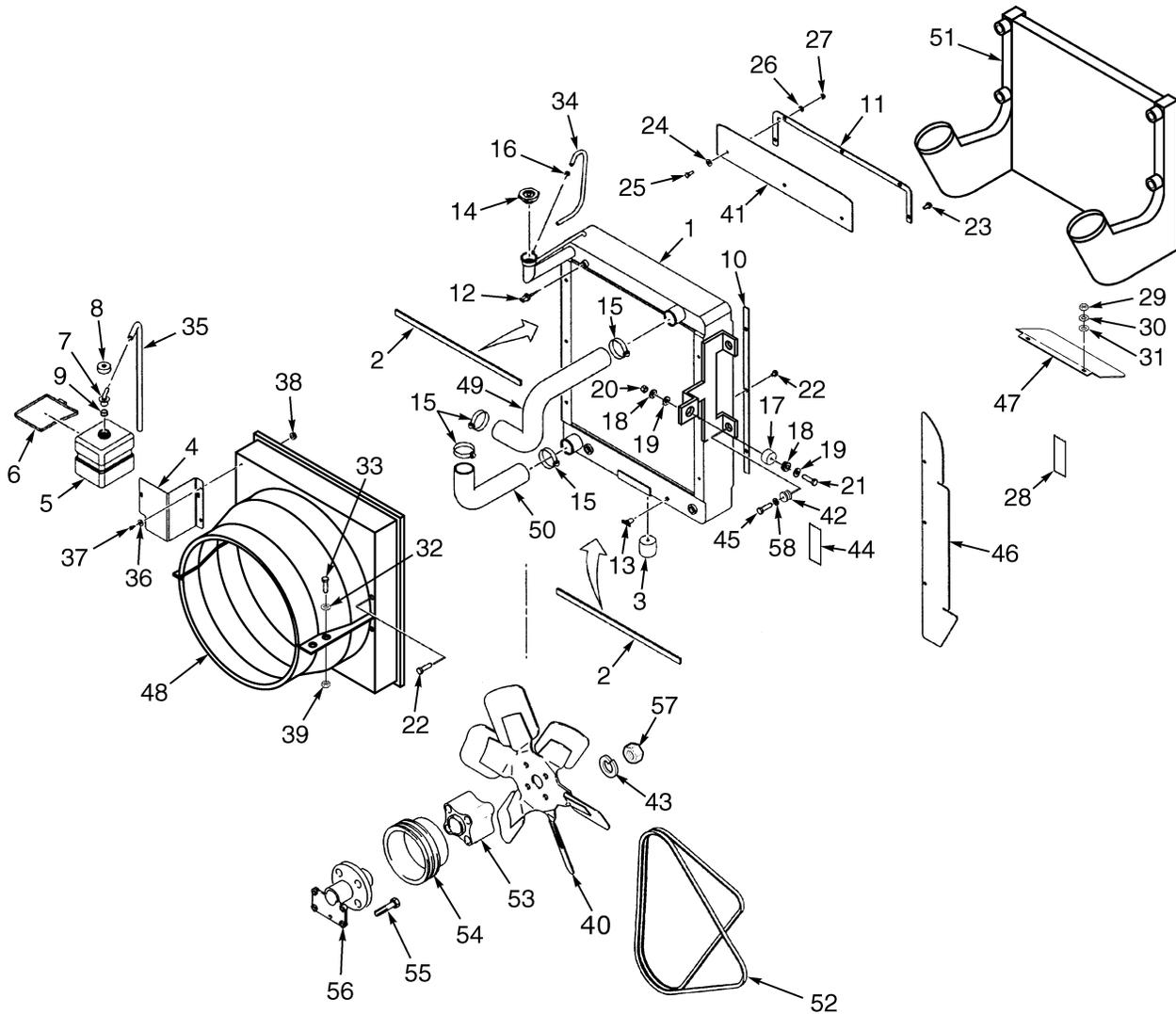
HP110004

**EXHAUST
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1519642	Exhaust Pipe	1
2	2052978	Muffler	1
3	1544774	Flex Tube	1
4	1361200	Rain Cap	1
5	320157	Washer	3
6	18497	Capscrew	3
7	320158	Washer	4
8	136749	Screw	2
9	292681	Lockwasher	5
10	239503	Nut	2
11	1598359	Clamp	2
12	270826	Clamp	2
13	1519644	Exhaust Pipe	1
14	b 1474875	Exhaust Pipe	1
15	b 1544775	Exhaust Pipe (Low Mast)	1
16	a 1487206	Exhaust Pipe	1
17	a 1489639	Hose (Air Duct)	1
18	ab 127045	Clamp (Hose)	2
19	a 1358326	Exhaust Pipe (Ejector) (Low Mast)	1
20	a 1525409	Hose (Low Mast)	1

FOOTNOTES:**a** With Aspirated Pre-Cleaner**b** Without Aspirated Pre-Cleaner

COOLING (FIGURE 2-5) PERKINS DIESEL



HP060022

**COOLING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	2053634	Radiator	1
2	261158	Foam Tape	AR
3	376649	Isolator	1
4	1523897	Bracket	1
5	344432	Reservoir	1
6	340204	Strap	1
7	345453	Outlet (Reservoir)	1
8	345454	Cap	1
9	336550	Bushing	1
10	1523853	Plate	2
11	1523854	Bracket	1
12	1401160	Sender (Coolant Level)	1
13	12815	Drain Valve (Drain)	2
14	178899	Radiator Cap (Radiator)	1
15	119236	Clamp	3
16	353310	Clamp	2
17	1307730	Mount	2
18	15134	Washer	4
19	15156	Lockwasher	4
20	15056	Nut	2
21	16805	Capscrew	2
22	139589	Screw	12
23	157233	Screw	2
24	15175	Lockwasher	3
25	18496	Capscrew	3
26	18515	Washer	3
27	15114	Locknut	3
28	212899	Foam Tape	AR
29	136692	Nut	2
30	320160	Washer	10
31	292682	Lockwasher	2
32	320156	Washer	8
33	292500	Capscrew	4
34	1329240	Hose	1
35	1663877	Hose	1
36	320157	Washer	1
37	176640	Bolt	1
38	302400	Nut	1
39	313805	Nut	4
40	1520872	Fan (Puller)	1
41	a 1523852	Screen (Rubber)	1
41	b 1524478	Screen (Rubber)	1
42	108464	Grommet	4
43	292681	Lockwasher	4
44	1303390	Tape	2
45	1531036	Capscrew	4
46	a 1523851	Screen (Rubber)	2
46	b 1524477	Screen (Rubber)	2
47	1479369	Baffle	1
48	1520706	Shroud	2

COOLING PERKINS DIESEL

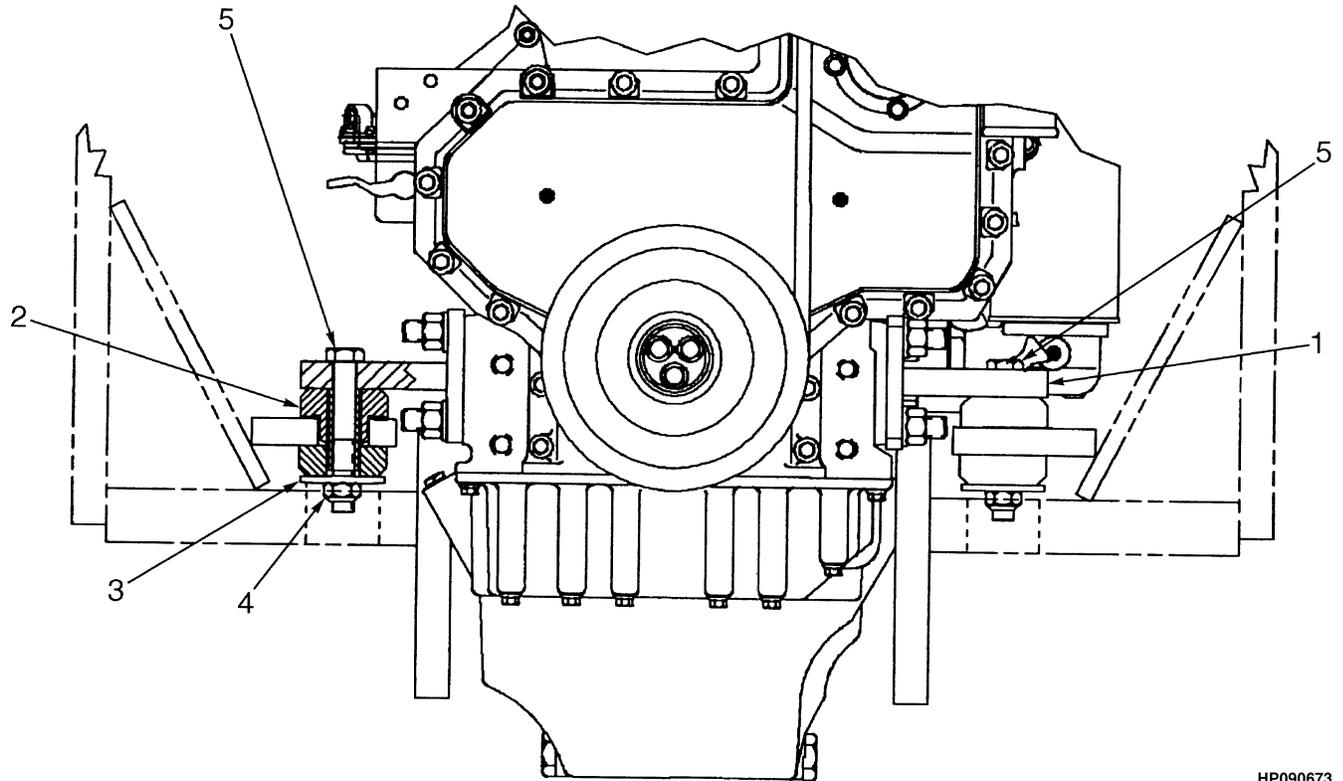
ITEM	PART NO.	DESCRIPTION	QTY
49	1523895	Radiator Hose (Upper)	1
50	1523896	Radiator Hose (Lower)	1
51	1509810	Cooler (Charge Air)	1
52	1541987	V-Belt (Alternator)	1
52	1554356	V-Belt (Air Conditioner)	1
52	1544227	Tensioner	1
53	1454154	Extension (20 in.)	1
54	1455578	Fan Pulley	1
55	1307913	Screw	4
56	.....	Housing	1
57	239503	Nut	4
58	320158	Washer	8

FOOTNOTES:

a H170-210HD

b H230-280HD

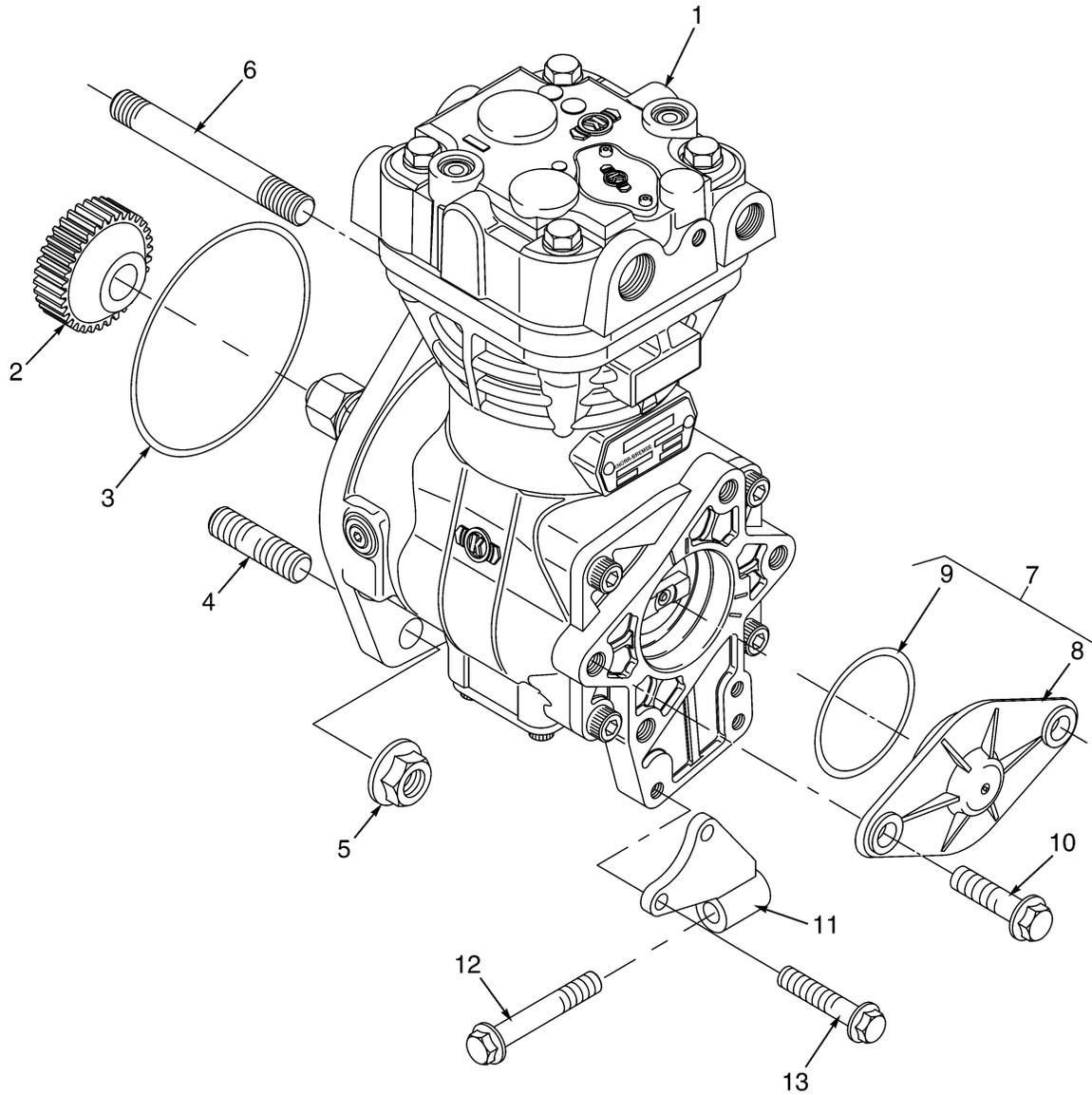
**ENGINE MOUNT (FIGURE 2-6)
PERKINS DIESEL**



HP090673

ITEM	PART NO.	DESCRIPTION	QTY
1	1475749	Bracket	2
2	1393708	Isolator	2
3	1452404	Washer	2
4	221357	Locknut	2
5	18612	Capscrew	2

AIR COMPRESSOR AND ATTACHING PARTS (FIGURE 2-7) PERKINS DIESEL

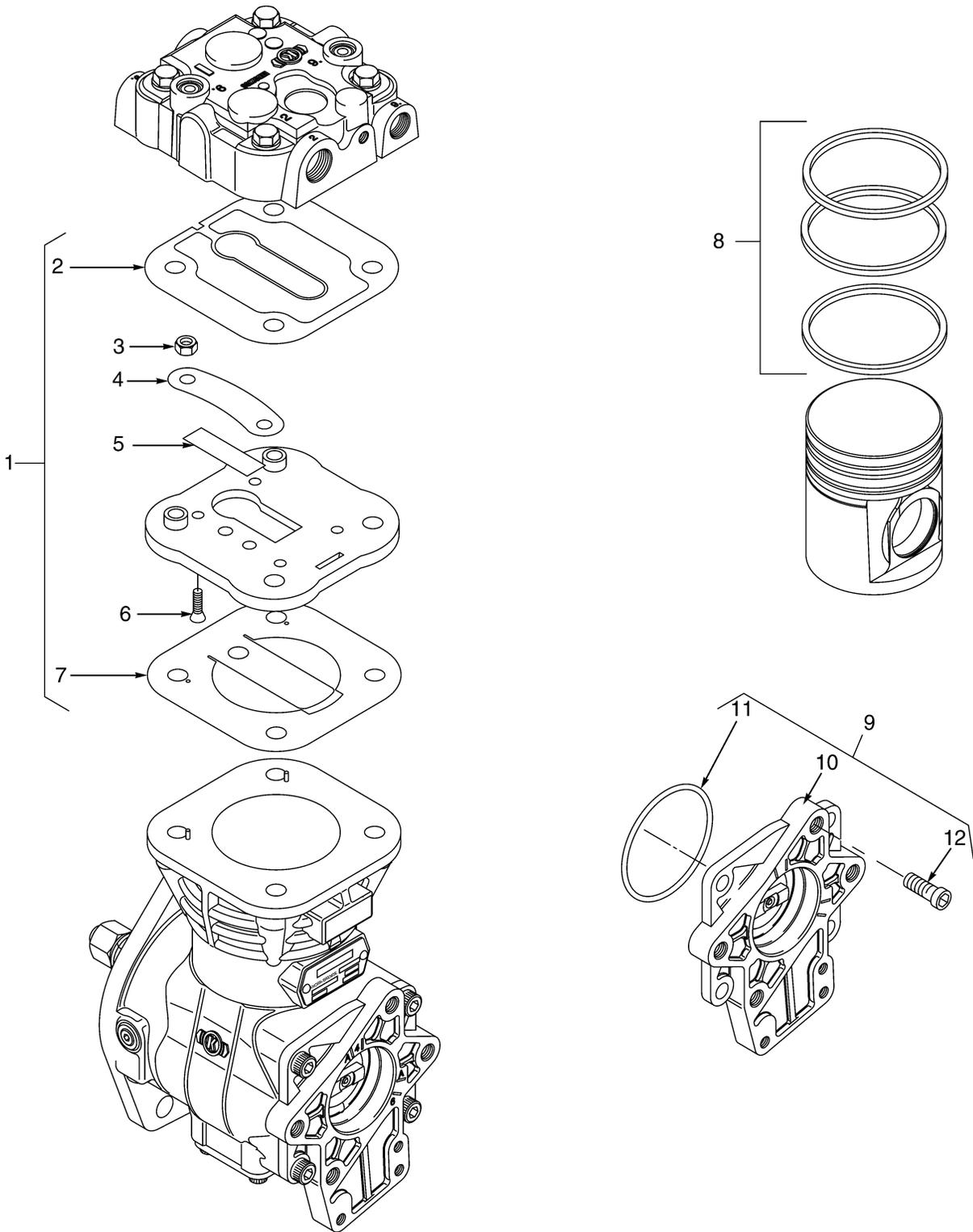


BP090045

**AIR COMPRESSOR AND ATTACHING PARTS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
1	1495255	Compressor (With Low Emissions) (☞Figure 2-8, ☞Figure 2-9).....	1
2	1651321	Drive Gear	1
3	1380214	O-Ring	1
4	1380210	Stud	1
5	1370949	Nut	1
6	1380211	Stud	1
7	1497394	Plate	1
8	.....	Plate	1
9	1497395	O-Ring	1
10	1311074	Screw	2
11	1537298	Bracket	1
12	1306365	Screw	1
13	386459	Screw	2

AIR COMPRESSOR (FIGURE 2-8) PERKINS DIESEL, SHEET 1 OF 2

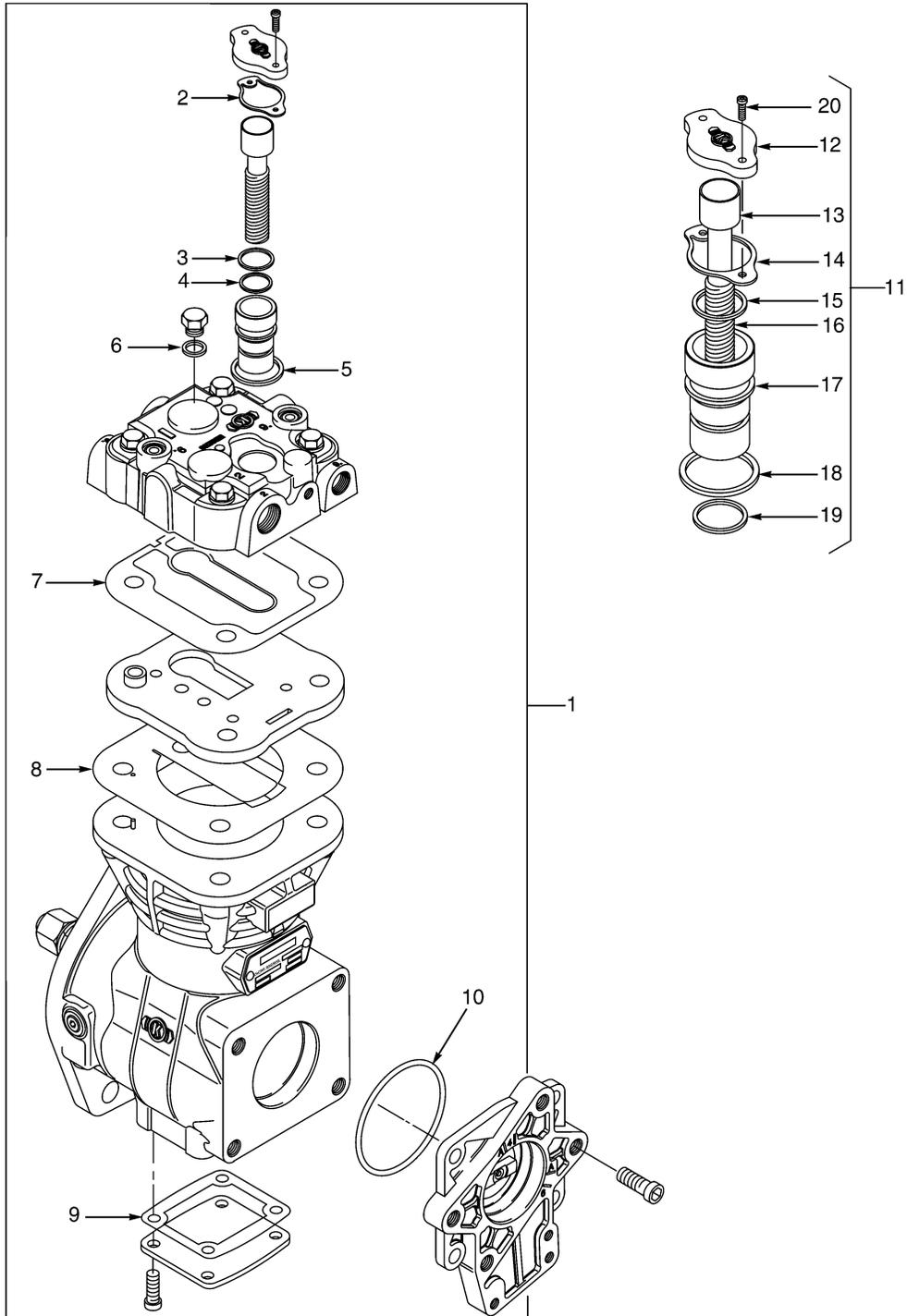


BP090046

**AIR COMPRESSOR
PERKINS DIESEL, SHEET 1 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1495255	Compressor (With Low Emissions) (☞Figure 2-7, ☞Figure 2-9).....	1
1	1497404	Kit-Valve	1
2	.....	Head Gasket	1
3	.....	Nut	2
4	.....	Bridge	1
5	.....	Connector	1
6	.....	Screw	1
7	.....	Connection	2
8	1497405	Kit-Piston Ring	1
9	1497406	Kit-Cover	1
10	.....	End Cover	1
11	.....	O-Ring	1
12	.....	Screw	4

AIR COMPRESSOR (FIGURE 2-9) PERKINS DIESEL, SHEET 2 OF 2

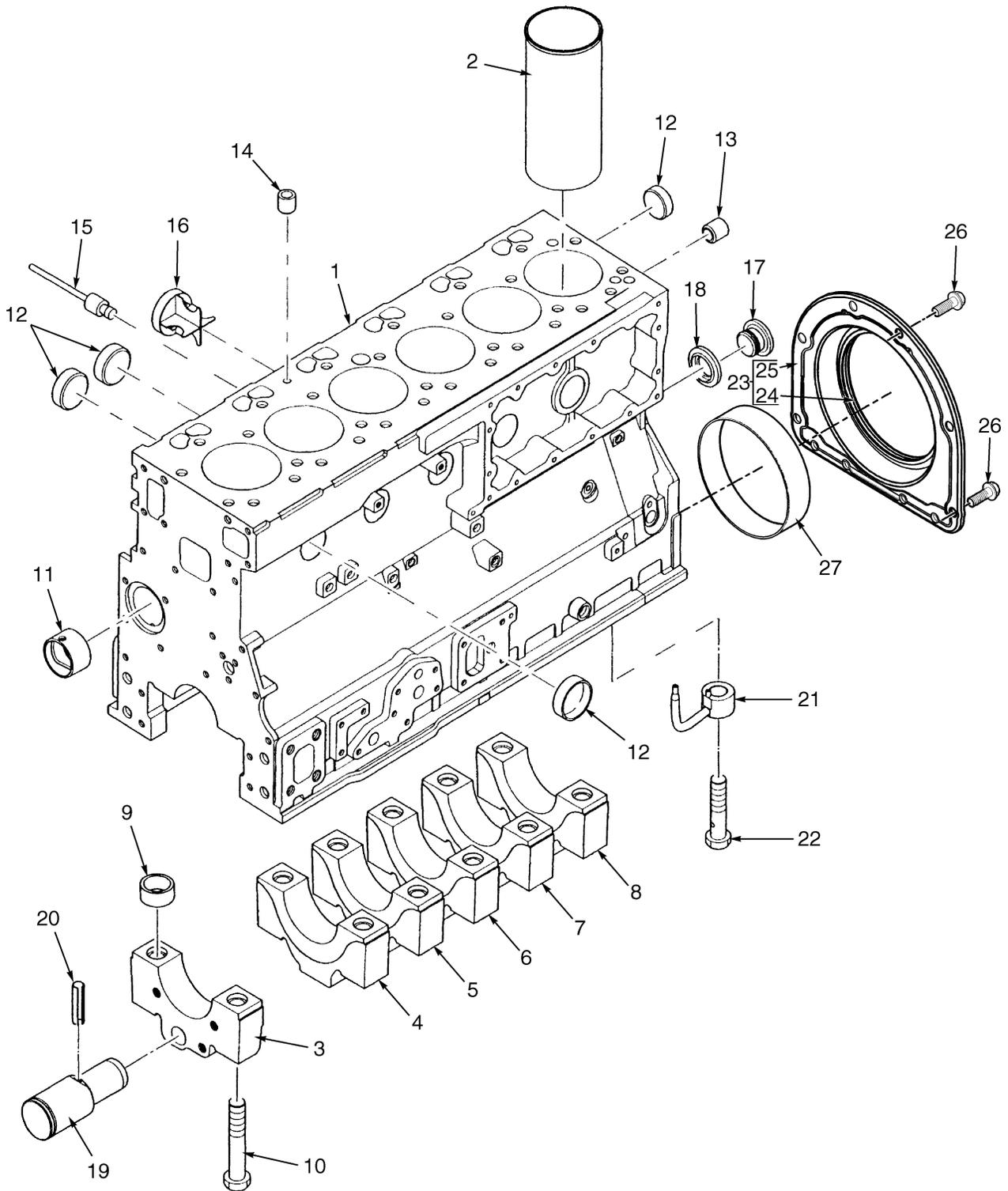


BP090047

**AIR COMPRESSOR
PERKINS DIESEL, SHEET 2 OF 2**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1495255	Compressor (With Low Emissions) (☞Figure 2-7, ☞Figure 2-8).....	1
1	1497402	Kit-Seal	1
2	Gasket	1
3	O-Ring	1
4	O-Ring	1
5	O-Ring	1
6	Washer	1
7	Head Gasket	1
8	Gasket (Inlet)	1
9	Gasket (Pan)	1
10	O-Ring	1
11	1497403	Kit-Piston	1
12	Cap	1
13	Piston	1
14	Gasket	1
15	O-Ring	1
16	Spring	1
17	Piston	1
18	O-Ring	1
19	O-Ring	1
20	Screw	2

CYLINDER BLOCK (FIGURE 2-10) PERKINS DIESEL

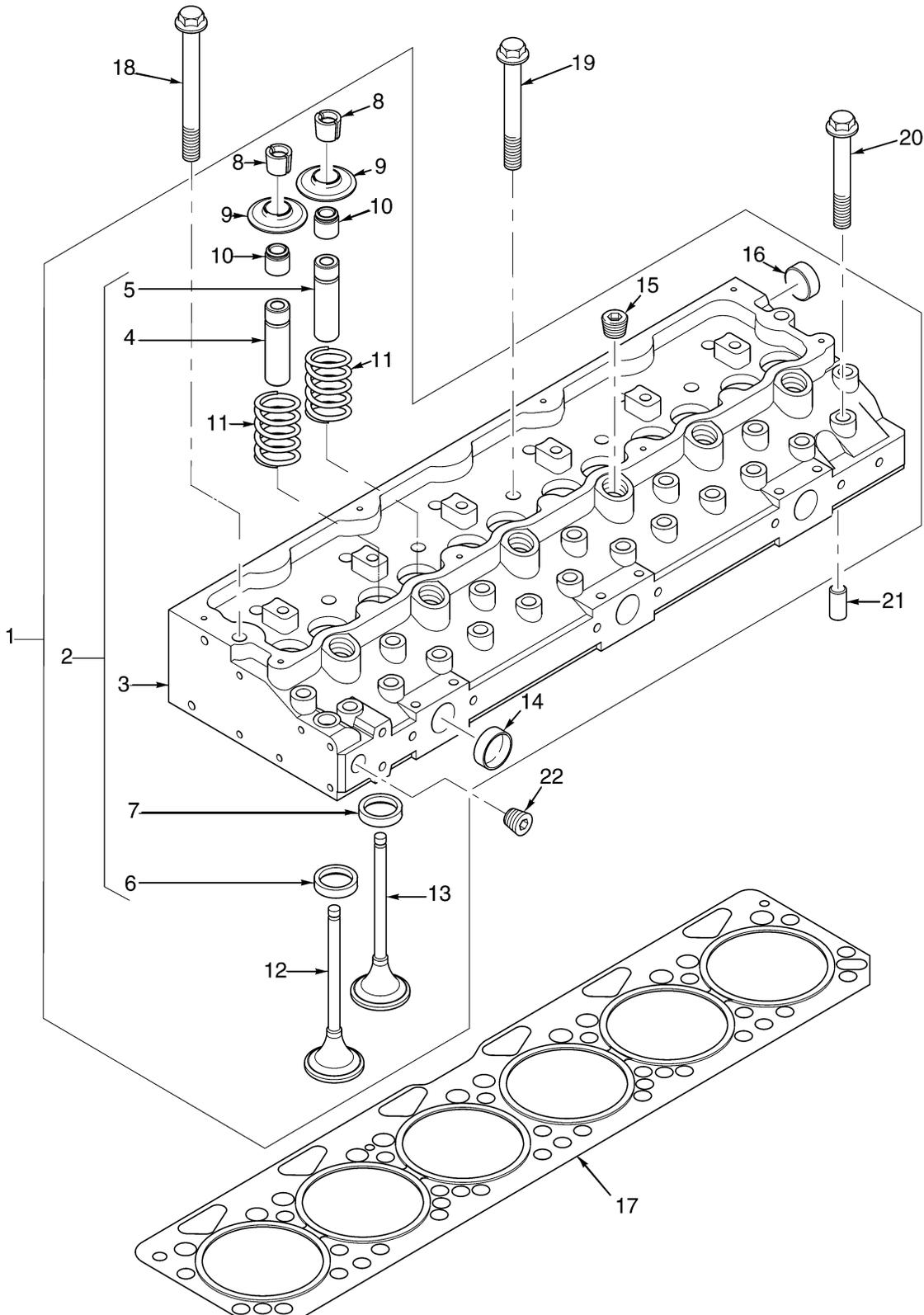


BP090021

**CYLINDER BLOCK
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	.....	Cylinder Block	1
2	1451624	Liner	6
2	1451628	Kit-Cylinder Liner (Slip Fit)	6
2	1537210	Cylinder Liner (0.010 in.)	6
2	1537211	Cylinder Liner (Oversized)	6
3	.....	Bearing Cap	1
4	.....	Bearing Cap	1
5	.....	Bearing Cap	2
6	.....	Bearing Cap	1
7	.....	Bearing Cap	1
8	.....	Bearing Cap	1
9	99576	Thimble	14
10	16794	Capscrew	14
11	1451625	Bushing	1
12	385531	Plug	12
13	1388387	Plug	1
14	992393	Plug	1
15	365854	Plug	1
16	1537209	Plug	6
17	161385	Plug	1
18	984632	Washer	1
19	1380755	Shaft	1
20	1380253	Pin	1
21	1456697	Jet	6
22	1311054	Valve	6
22	1311055	Ball	1
22	1311056	Spring	1
22	1311057	Retainer	1
23	1537223	Seal (Rear Oil Seal)	1
24	.....	Oil Seal	1
25	.....	Housing	1
26	1537224	Bolt	10
27	1537225	Sleeve	1
	1537208	Kit-Cylinder Block	1

CYLINDER HEAD (FIGURE 2-11) PERKINS DIESEL

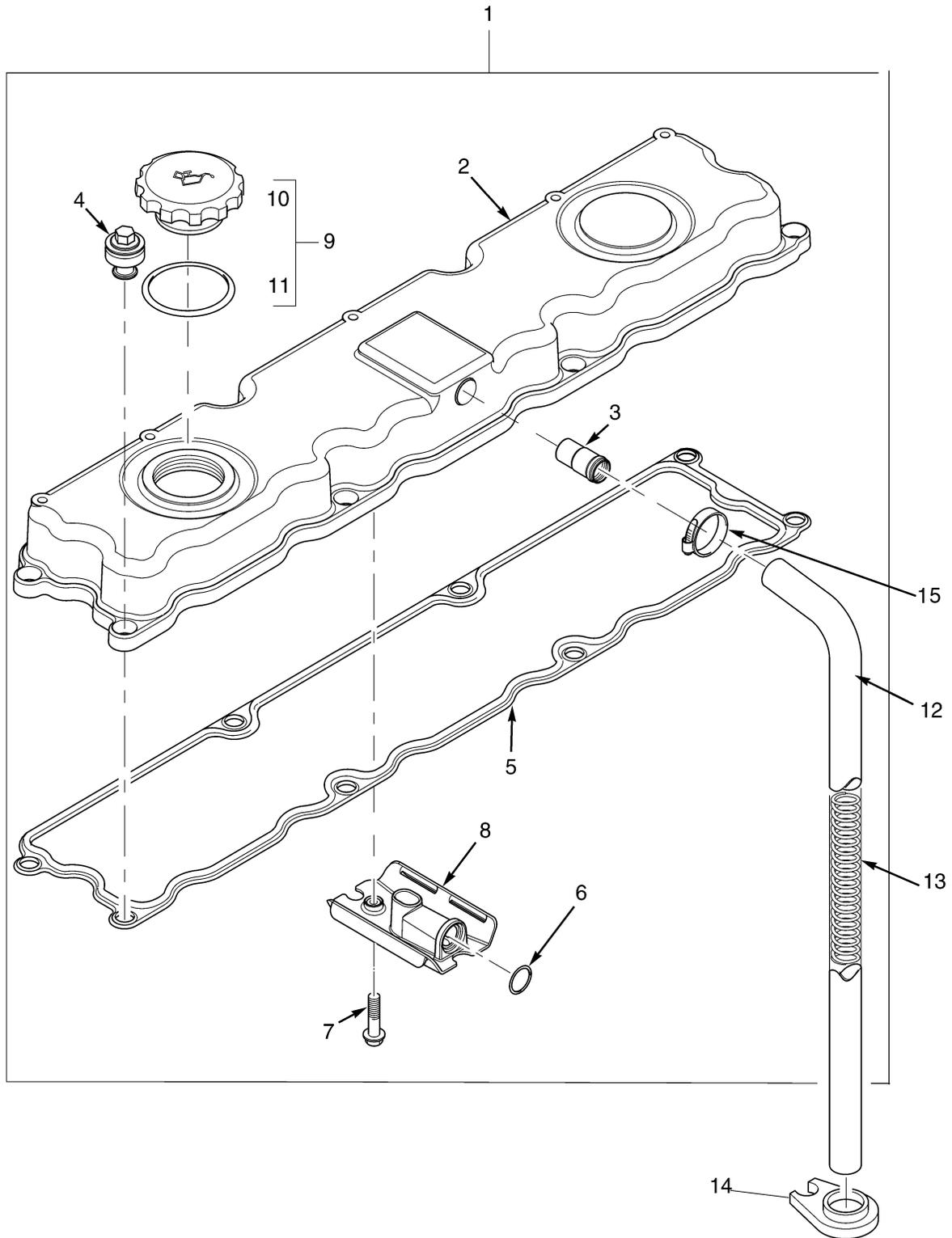


BP090024

**CYLINDER HEAD
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537226	Kit-Cylinder Head	1
2	.....	Cylinder Head Assembly	1
3	.....	Cylinder Head	1
4	1451629	Guide	6
5	1456704	Guide	6
6	1537227	Insert (Inlet Valve)	6
7	1537228	Insert (Exhaust Valve)	6
8	1451636	Keeper	24
9	1451633	Cap	12
10	1451632	Seal	12
11	1537229	Spring	12
12	1451639	Inlet Valve	6
13	1537230	Exhaust Valve	6
14	980727	Plug	3
15	150879	Fitting	6
16	385531	Plug	1
17	1537231	Cylinder Head Gasket (Cylinder Head)	1
18	361336	Screw	2
19	1370944	Bolt	18
20	1370945	Bolt	12
21	1451627	Dowel	2
22	15962	Fitting	1
	1537343	Kit-Gasket (Top)	1

CYLINDER HEAD COVER (FIGURE 2-12) PERKINS DIESEL

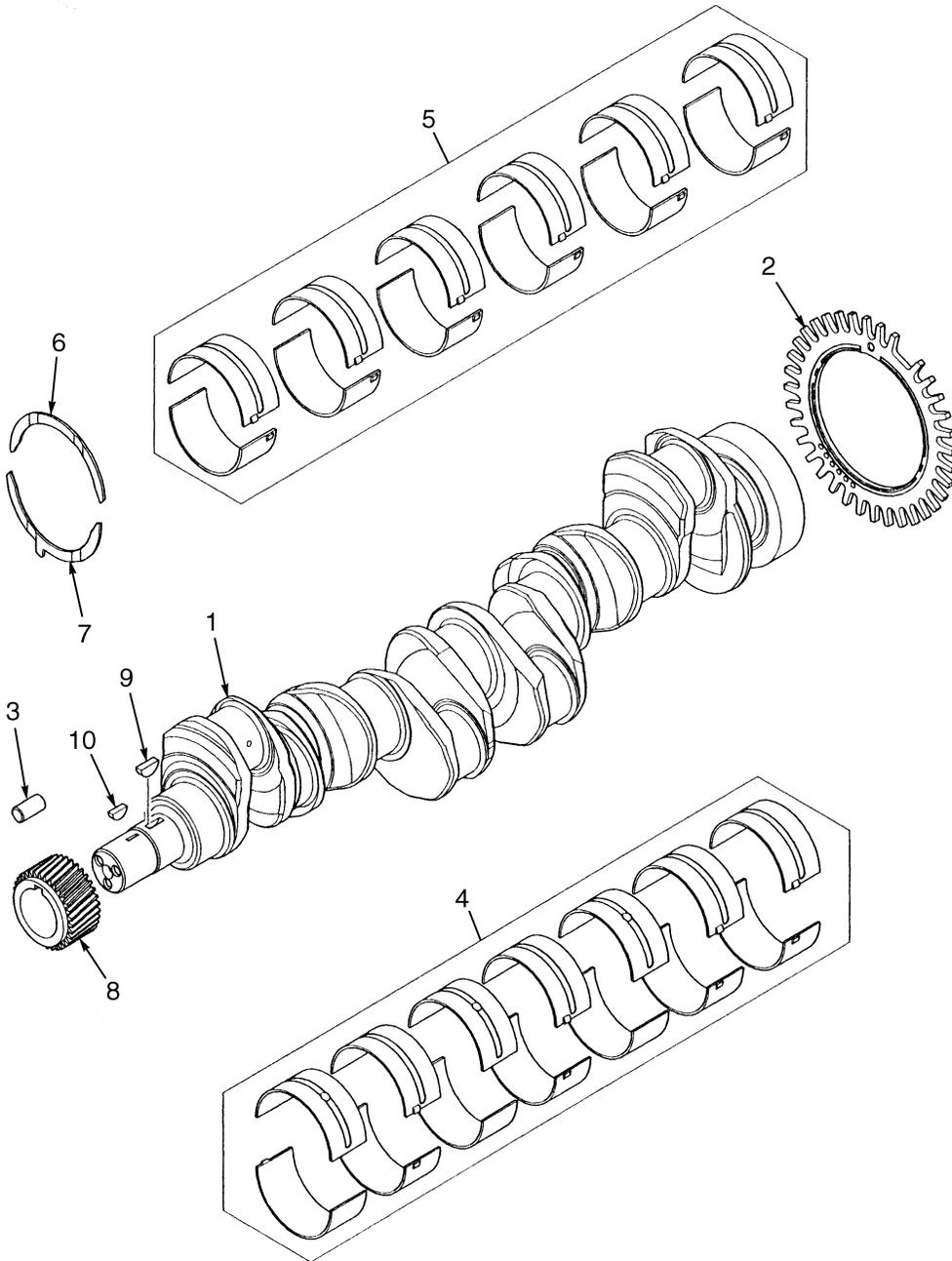


BP090032

**CYLINDER HEAD COVER
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537270	Engine Cover	1
2	.....	Cover	1
3	.....	Pipe	1
4	1537271	Isolator	8
5	1537272	Gasket (Rocker Arm)	1
6	1537273	O-Ring	1
7	1537274	Screw	1
8	1537275	Separator	1
9	1391246	Cap	1
10	.....	Cap	1
11	1516930	O-Ring	1
12	1537276	Hose	1
13	1460559	Spring	1
14	301785	Bracket	1
15	1380250	Clip	1
	1537343	Kit-Gasket (Top)	1

**CRANKSHAFT AND MAIN BEARINGS (FIGURE 2-13)
PERKINS DIESEL**

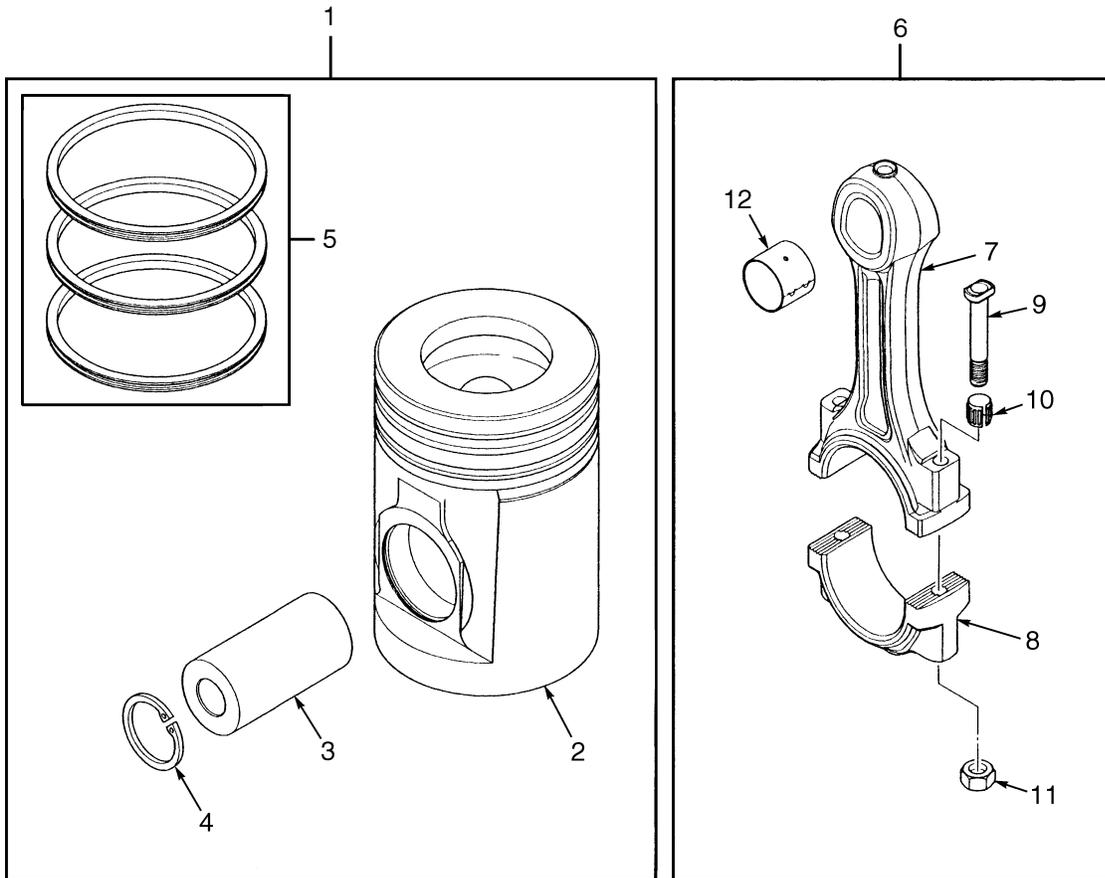


BP090022

**CRANKSHAFT AND MAIN BEARINGS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
1	.....	Crankshaft	1
2	1537213	Gear	1
3	1537214	Dowel	1
4	1537215	Kit-Bearing (Standard) (Lower)	1
4	1537217	Bearing Set (0.010 in.) (Lower)	1
4	1537218	Bearing Set (0.020 in.) (Lower)	1
4	1537219	Bearing Set (0.030 in.) (Lower)	1
5	1382069	Piston Rod Bearing (Standard) (Upper)	1
5	1382064	Piston Rod Bearing (0.010 in.) (Upper)	1
5	1382065	Piston Rod Bearing (0.020 in.) (Upper)	1
5	1382066	Piston Rod Bearing (0.030 in.) (Upper)	1
6	842799	Washer (Standard)	2
6	161296	Washer (0.007 in.)	2
7	842800	Washer (Standard)	2
7	161297	Thrust Washer (0.007 in.)	2
8	1537216	Gear	1
9	99610	Key	1
10	59184	Woodruff Key (Woodruff)	1
	1537212	Kit-Crankshaft	1

PISTON AND CONNECTING ROD (FIGURE 2-14) PERKINS DIESEL

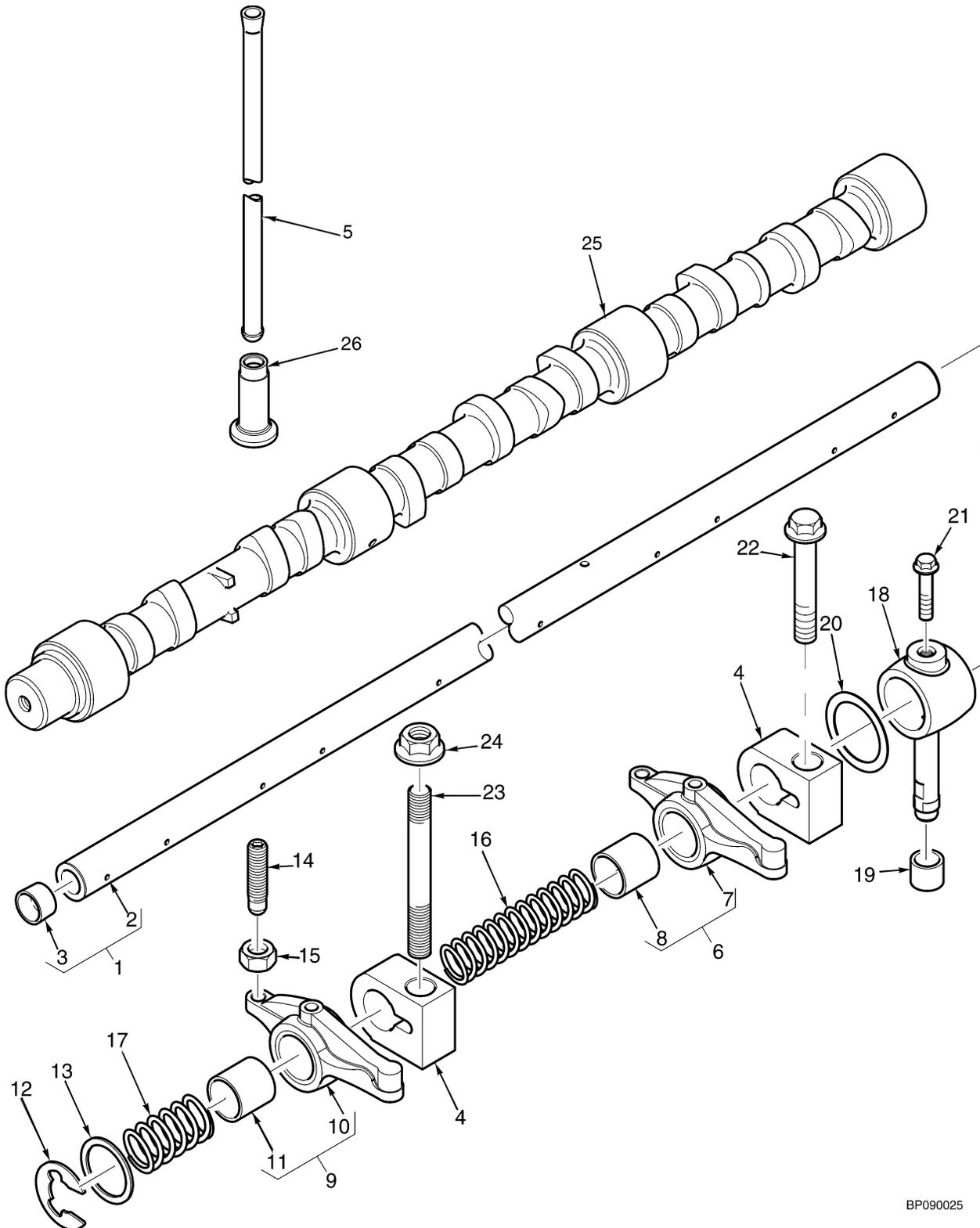


BP090023

**PISTON AND CONNECTING ROD
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537220	Kit-Piston	6
2	.....	Piston	1
3	.....	Pin	1
4	1451606	Snap Ring	2
5	1537221	Kit-Piston Ring	1
6	1460543	Piston Rod (Grade H)	6
6	1460544	Piston Rod (Grade J)	6
6	1639697	Kit-Piston Rod	6
6	1460546	Kit-Piston Rod (Grade L)	6
7	.....	Connecting Rod	1
8	.....	Bearing Cap	1
9	1306350	Bolt	2
10	1458329	Thimble	2
11	99663	Nut	2
12	1451602	Bushing	1

CAMSHAFT AND ROCKER ASSEMBLY (FIGURE 2-15) PERKINS DIESEL

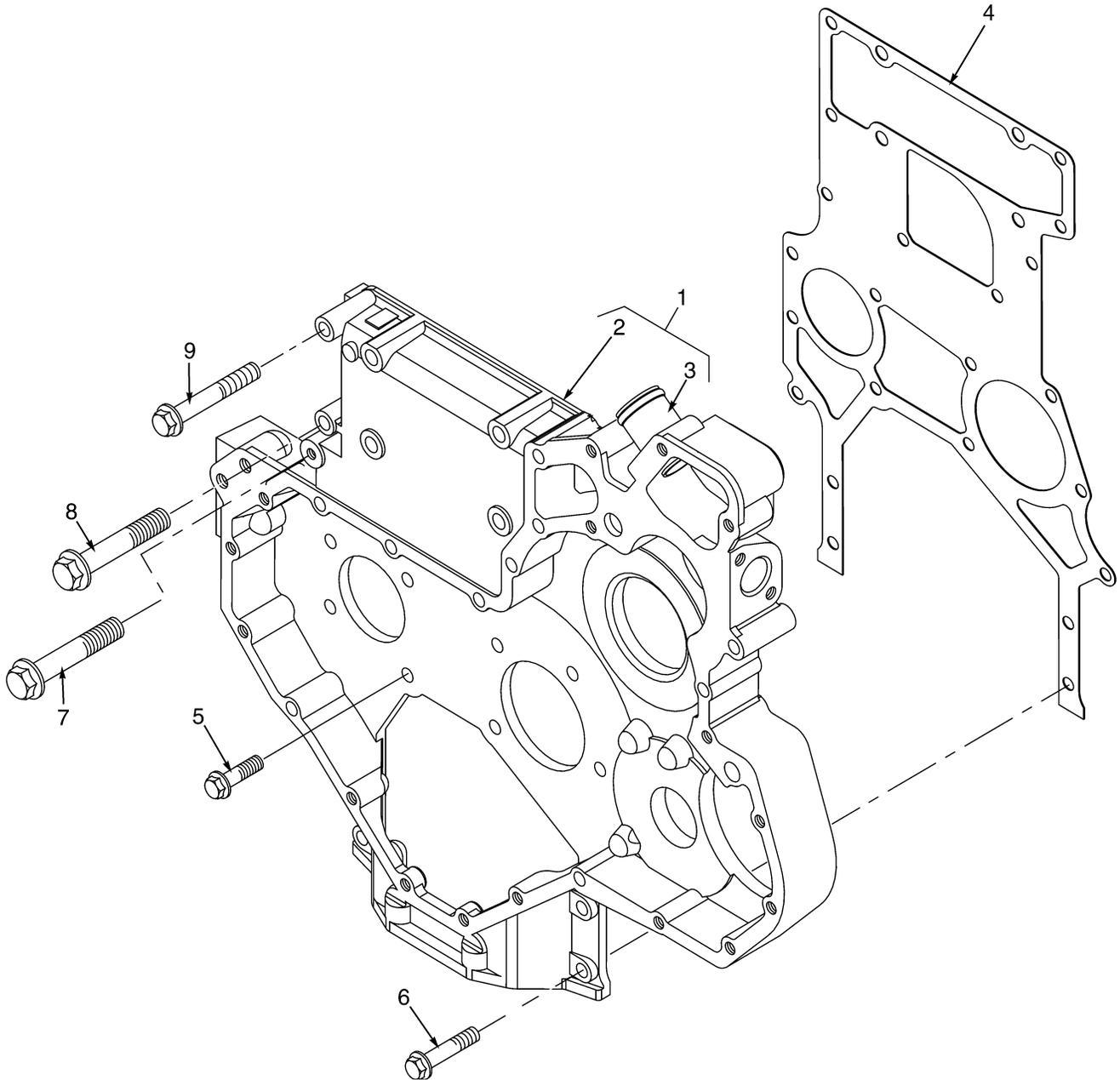


BP090025

**CAMSHAFT AND ROCKER ASSEMBLY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1452863	Rocker Shaft	1
1	.....	Rocker Shaft	1
2	.....	Shaft	2
3	990429	Plug	2
4	1370947	Bracket	6
5	99728	Rod	12
6	1451645	Rocker Arm (LH)	6
7	.....	Lever	1
8	1451644	Bushing	1
9	1451643	Rocker Arm (RH)	6
10	.....	Lever	1
11	1451644	Bushing	1
12	99725	Snap Ring	2
13	1451642	Washer	2
14	1466859	Screw	12
15	15026	Nut	12
16	99722	Spring	4
17	99723	Spring	2
18	1374980	Fitting	1
19	158187	Olive	1
20	367394	Shim (0.020 in.)	2
21	1370948	Screw	1
22	1306353	Screw	4
23	1537232	Stud	1
24	1370949	Nut	1
25	1537233	Camshaft	1
26	224248	Tappet	12
	1537343	Kit-Gasket (Top)	1

TIMING CASE (FIGURE 2-16) PERKINS DIESEL

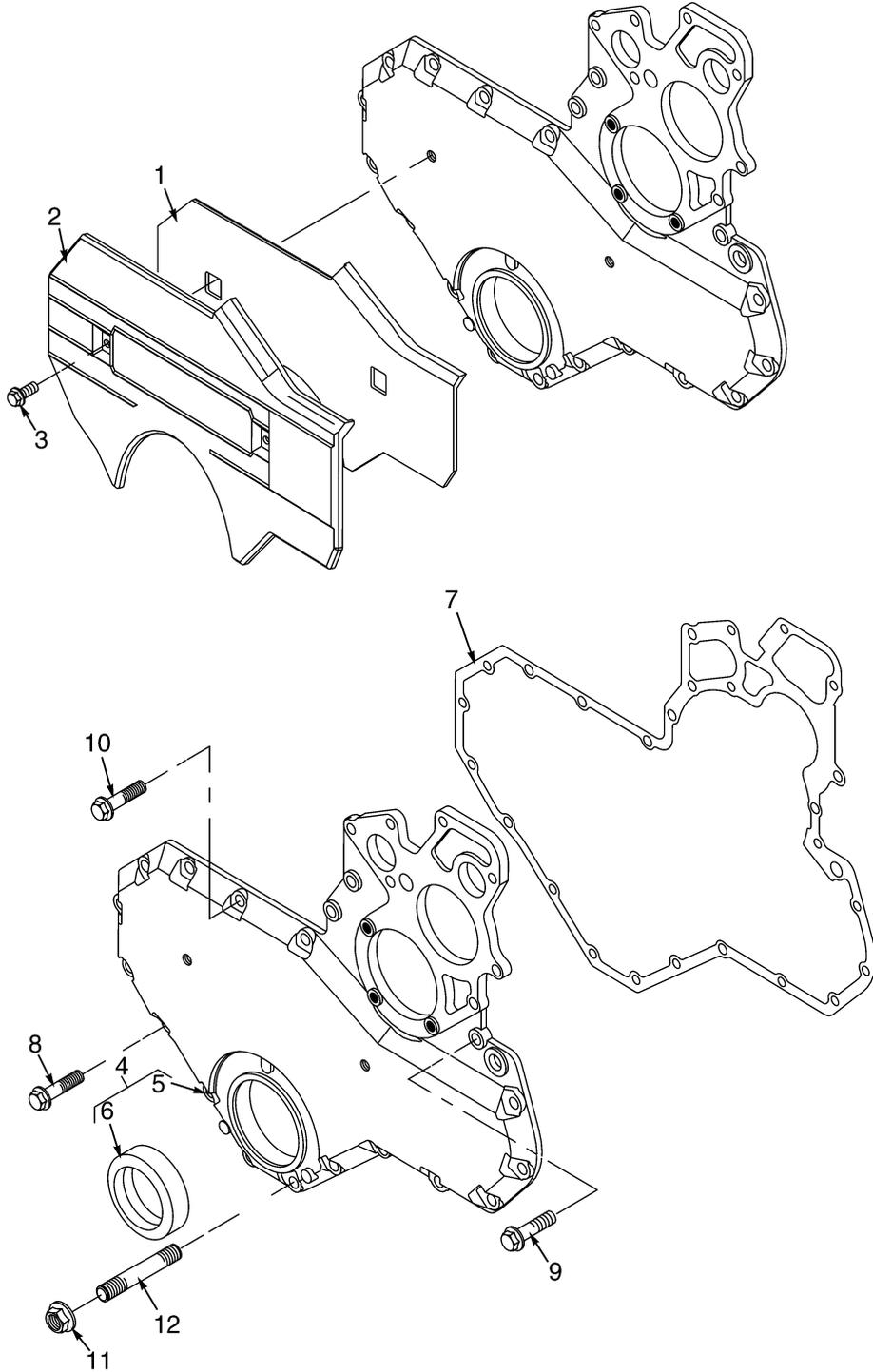


BP090042

**TIMING CASE
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537295	Timing Case	1
2	.....	Timing Case	1
3	.....	Pipe	1
4	1536819	Gasket	1
5	386459	Screw	8
6	1306358	Screw	5
7	1306362	Screw	2
8	1306357	Screw	1
9	1318968	Screw	2
	1537352	Kit-Gasket (Bottom)	1

TIMING COVER (FIGURE 2-17) PERKINS DIESEL

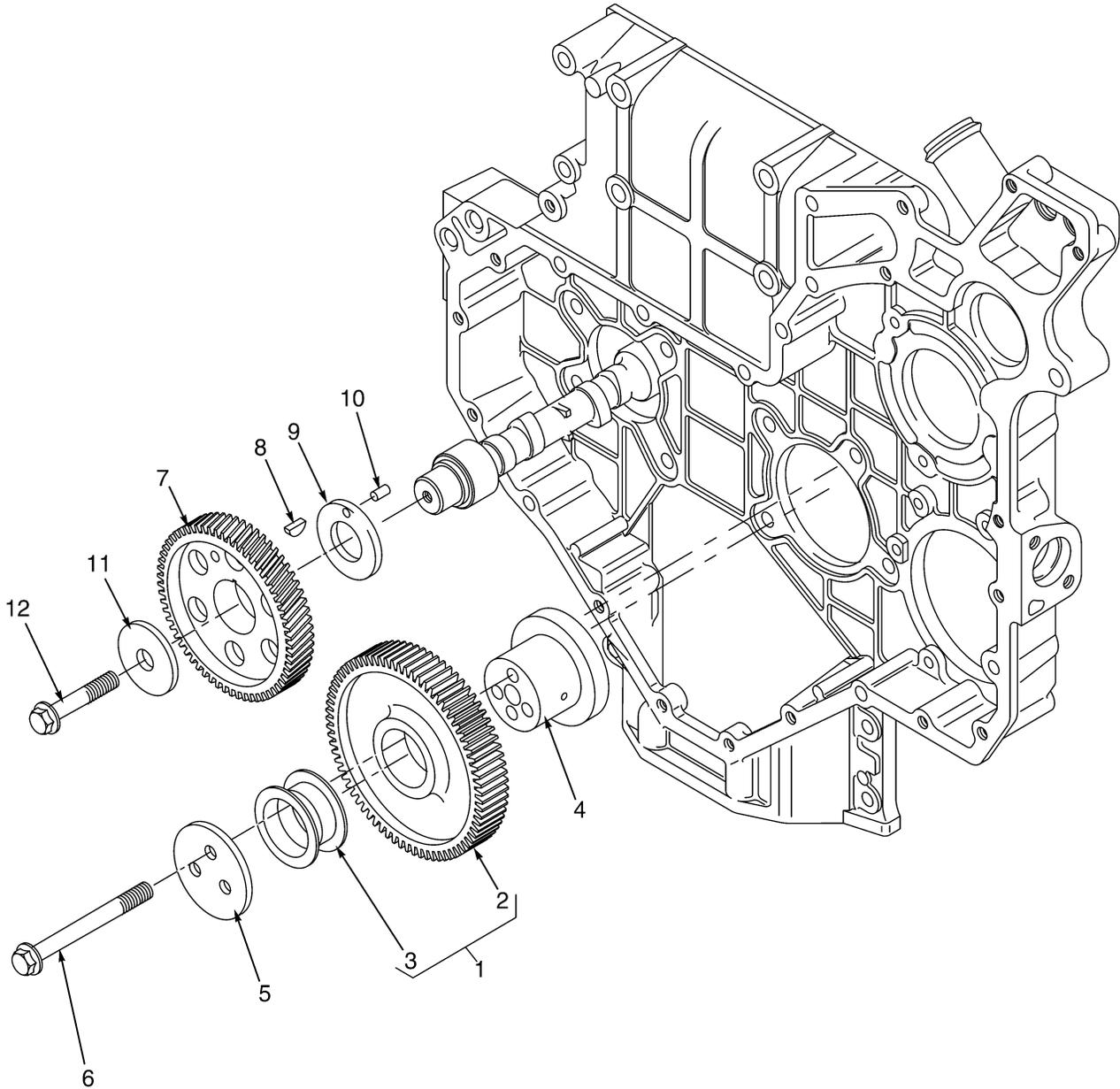


BP090043

**TIMING COVER
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1451650	Shield	1
2	1451651	Damper	1
3	1306361	Screw	2
4	1451649	Cover	1
5	.....	Cover	1
6	350399	Seal	1
7	1537353	Gasket	1
8	1306362	Screw	7
9	1306358	Screw	1
10	1306357	Screw	6
11	1306359	Nut	2
12	1306033	Stud	2
	1537352	Kit-Gasket (Bottom)	1

TIMING GEAR (FIGURE 2-18) PERKINS DIESEL

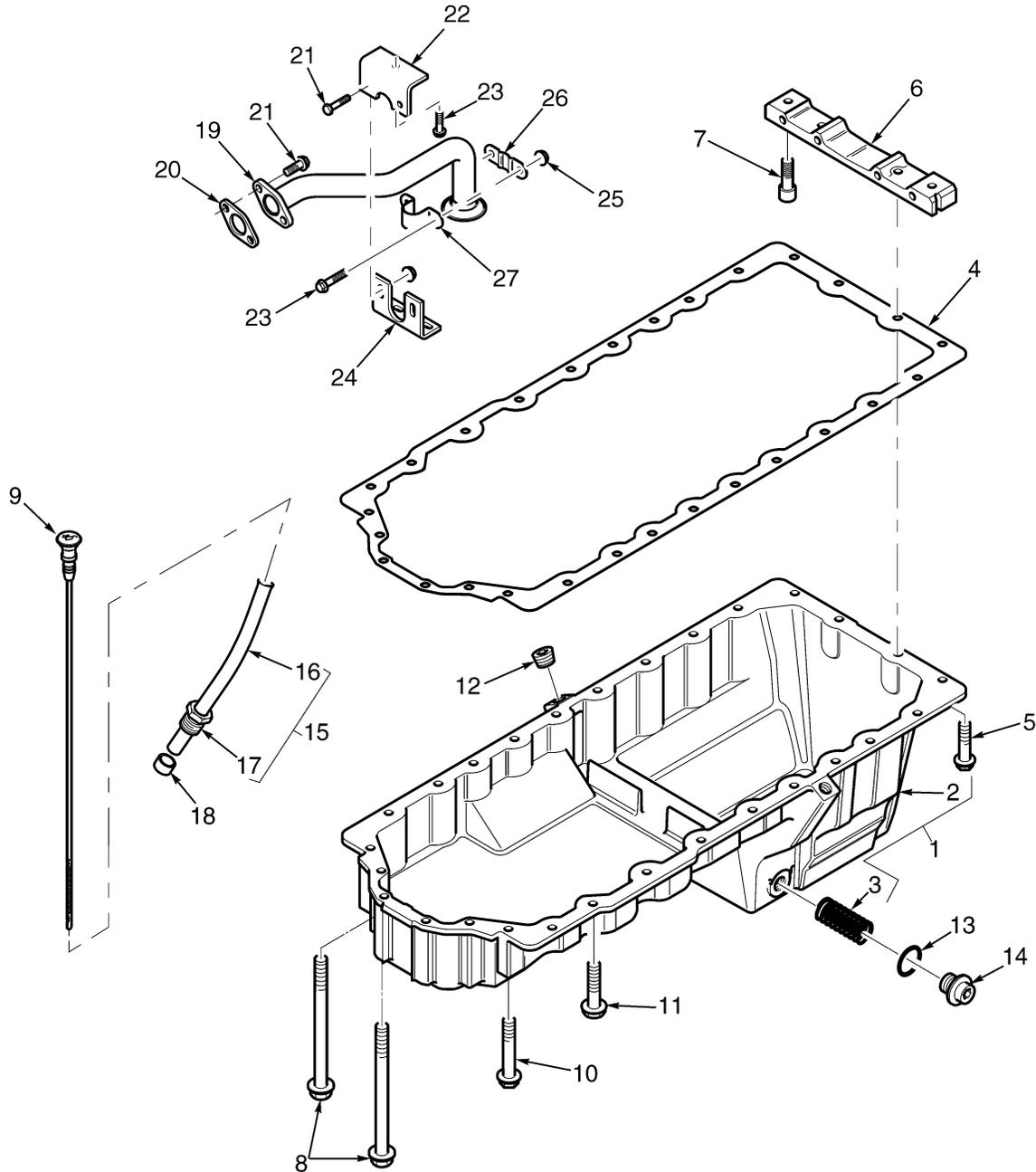


BP090044

**TIMING GEAR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1555485	Gear	1
2	.....	Idler Gear	1
3	983484	Bushing	2
4	229875	Hub	1
5	1382479	Plate	1
6	1306356	Screw	3
7	1537297	Gear (Camshaft)	1
8	99610	Key	1
9	1306364	Washer	1
10	298096	Dowel	1
11	99614	Washer	1
12	1328565	Screw	1

OIL SUMP (FIGURE 2-19) PERKINS DIESEL

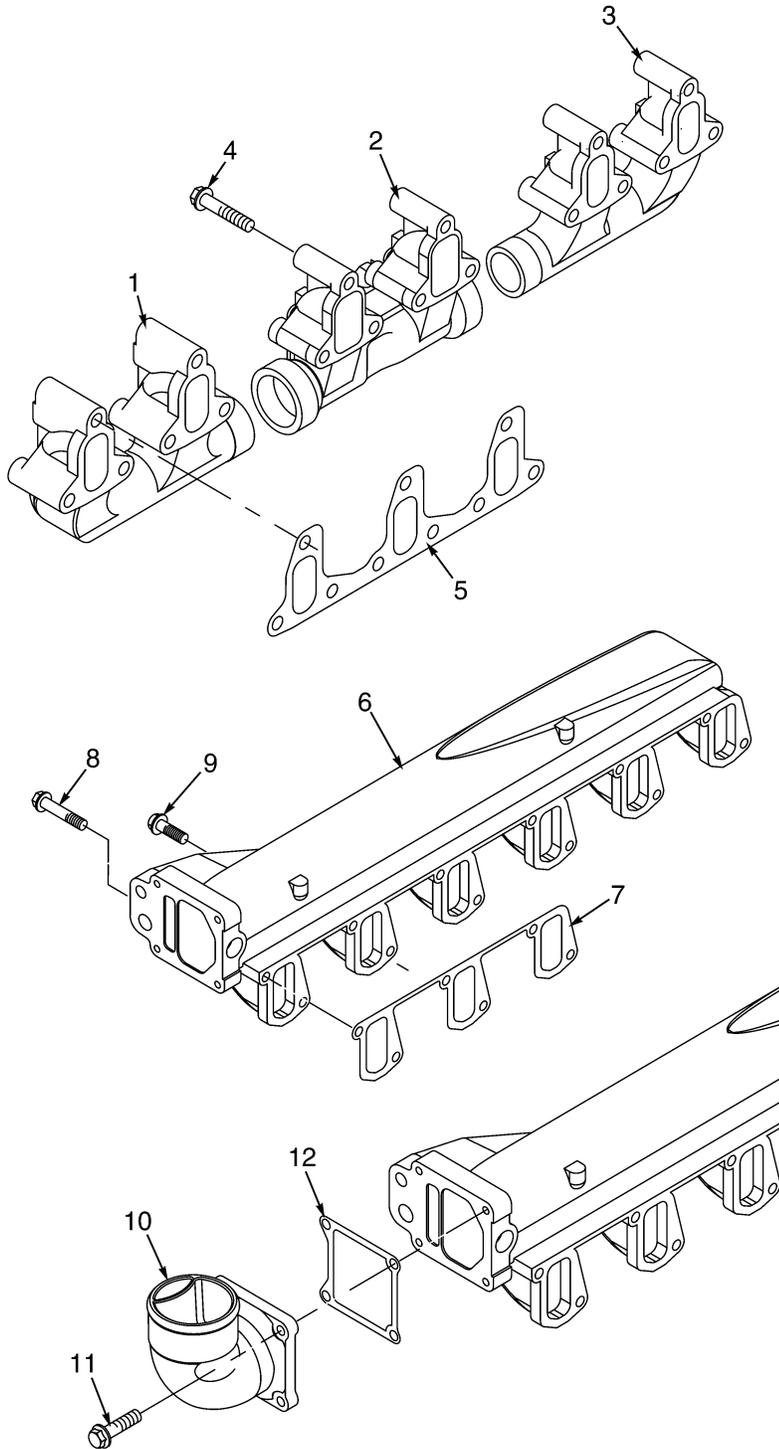


BP090031

**OIL SUMP
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1377720	Oil Pan	1
2	.....	Oil Sump	1
3	266465	Insert	2
4	1345786	Gasket	1
5	1307894	Screw	2
6	1537269	Bridge	1
7	1307875	Screw	1
8	1318940	Screw	5
9	1385703	Dipstick	1
10	386459	Screw	23
11	1380261	Screw	1
12	1377908	Plug	1
13	1306374	O-Ring	2
14	377976	Plug	2
15	1385704	Tube	1
16	.....	Tube	1
17	1307880	Nut	1
18	1306143	Olive	1
19	1318943	Pipe	1
20	1351996	Gasket	1
21	1306358	Screw	4
22	1318947	Bracket	1
23	386459	Screw	1
24	1318948	Bracket	1
25	1306359	Nut	2
26	1318948	Bracket	1
27	1318946	Clip	1
	1537352	Kit-Gasket (Bottom)	1

MANIFOLDS (FIGURE 2-20) PERKINS DIESEL

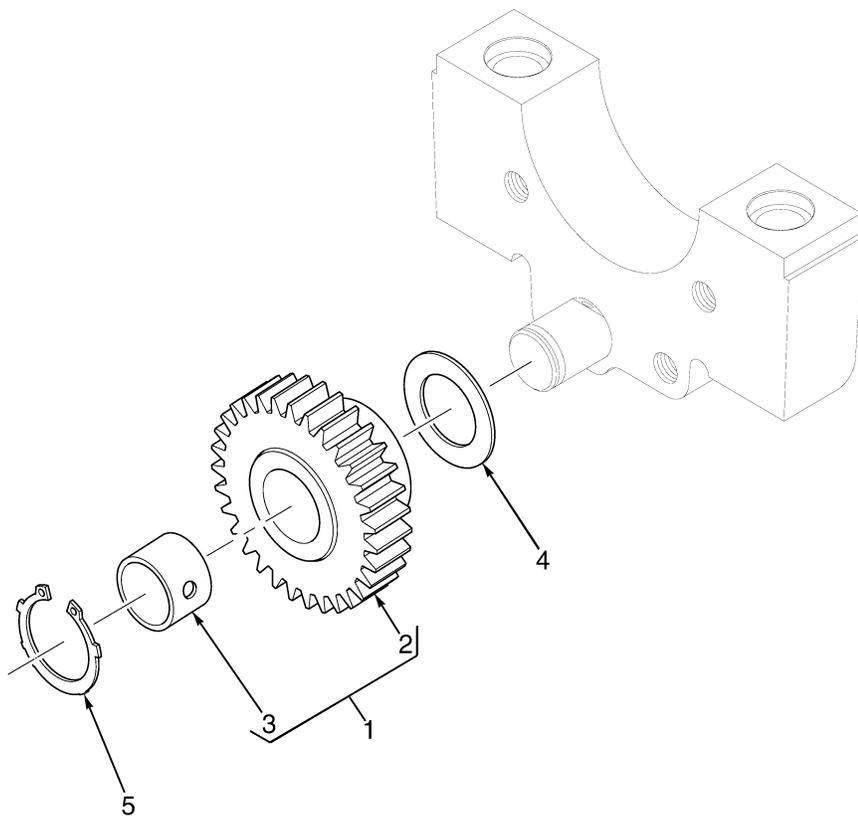


BP090052

**MANIFOLDS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537315	Exhaust Manifold	1
2	1537316	Exhaust Manifold (Center)	1
3	1537317	Exhaust Manifold	1
4	1558472	Screw	18
5	1537318	Gasket	2
6	1537309	Intake Manifold	1
7	1537310	Gasket	2
8	1537311	Screw	6
9	1537312	Screw	6
10	1537319	Elbow	1
11	1306358	Screw	4
12	1537320	Gasket	1
	1537343	Kit-Gasket (Top)	1

IDLER GEAR (FIGURE 2-21) PERKINS DIESEL

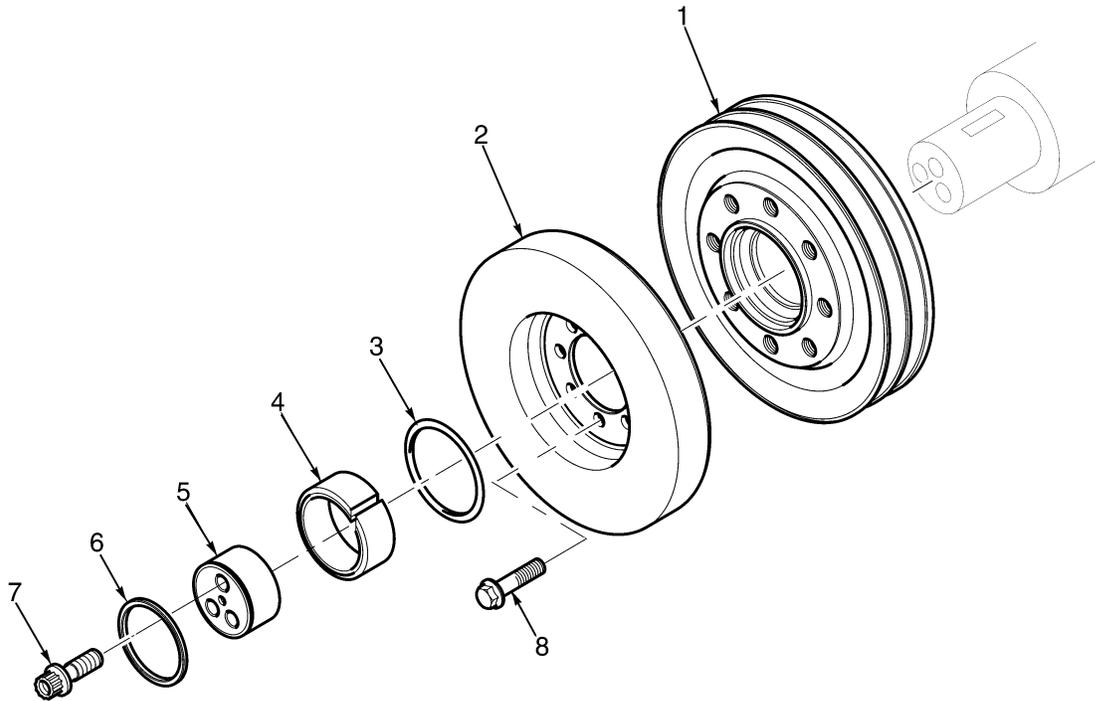


BP090026

**IDLER GEAR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
1	1537234	Idler Gear	1
2	.....	Gear	1
3	1306041	Bushing	1
4	385847	Washer	1
5	328047	Snap Ring	1

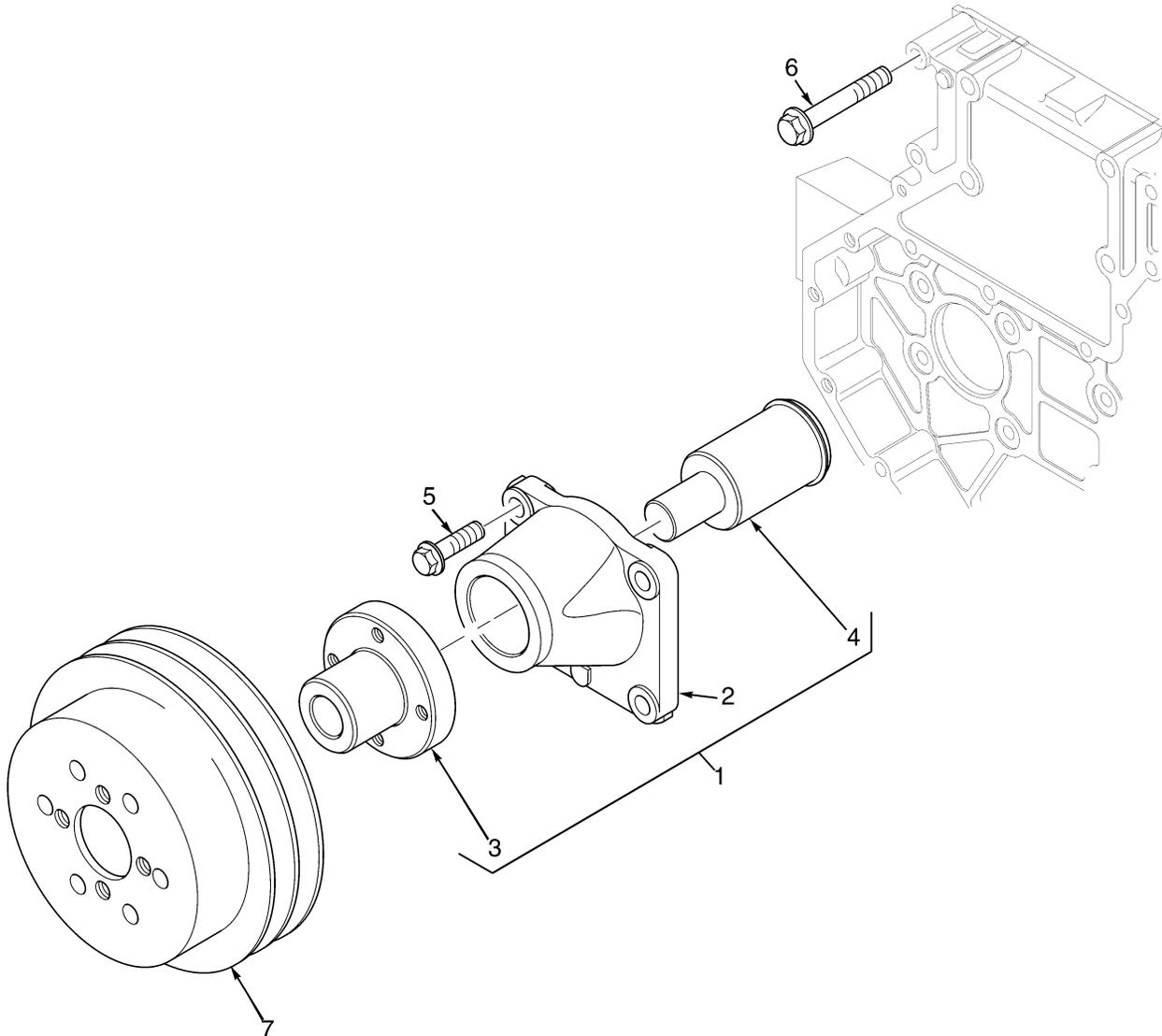
FRONT DRIVE PULLEY (FIGURE 2-22) PERKINS DIESEL



BP090039

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1382464	Pulley (Turbo)	1
2	1382462	Damper	1
3	302712	O-Ring	1
4	302711	Cam	1
5	301791	Thrust Block	1
6	1318961	Spacer	1
7	302713	Screw	3
8	1382463	Screw	8

FAN DRIVE AND PULLEY (FIGURE 2-23) PERKINS DIESEL

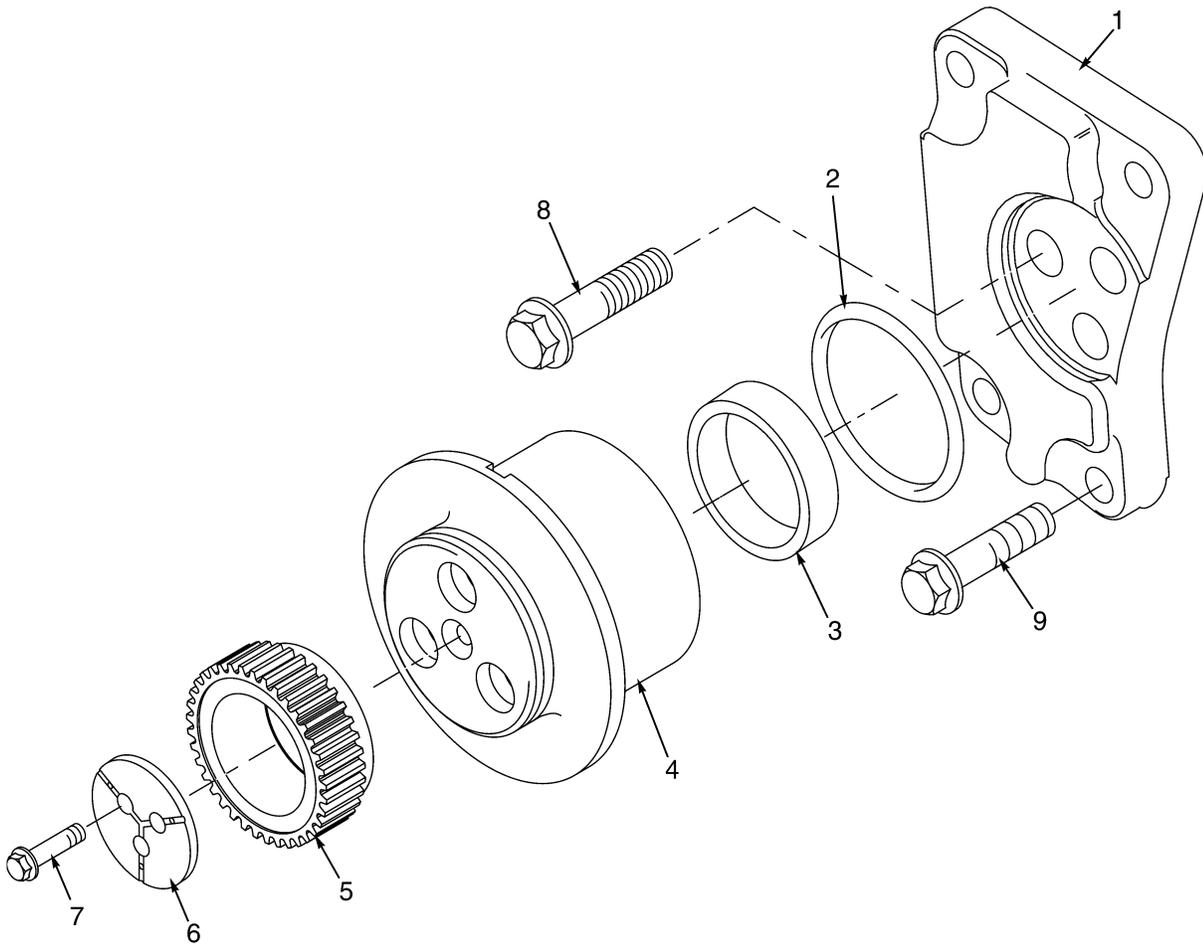


BP090030

**FAN DRIVE AND PULLEY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1451609	Housing (Fan)	1
2	.....	Housing	1
3	.....	Hub	1
4	.....	Bearing	1
5	1307913	Screw	4
6	1306368	Screw	4
7	1537268	Fan Pulley (Fan)	1

AUXILIARY DRIVE GEAR (FIGURE 2-24) PERKINS DIESEL

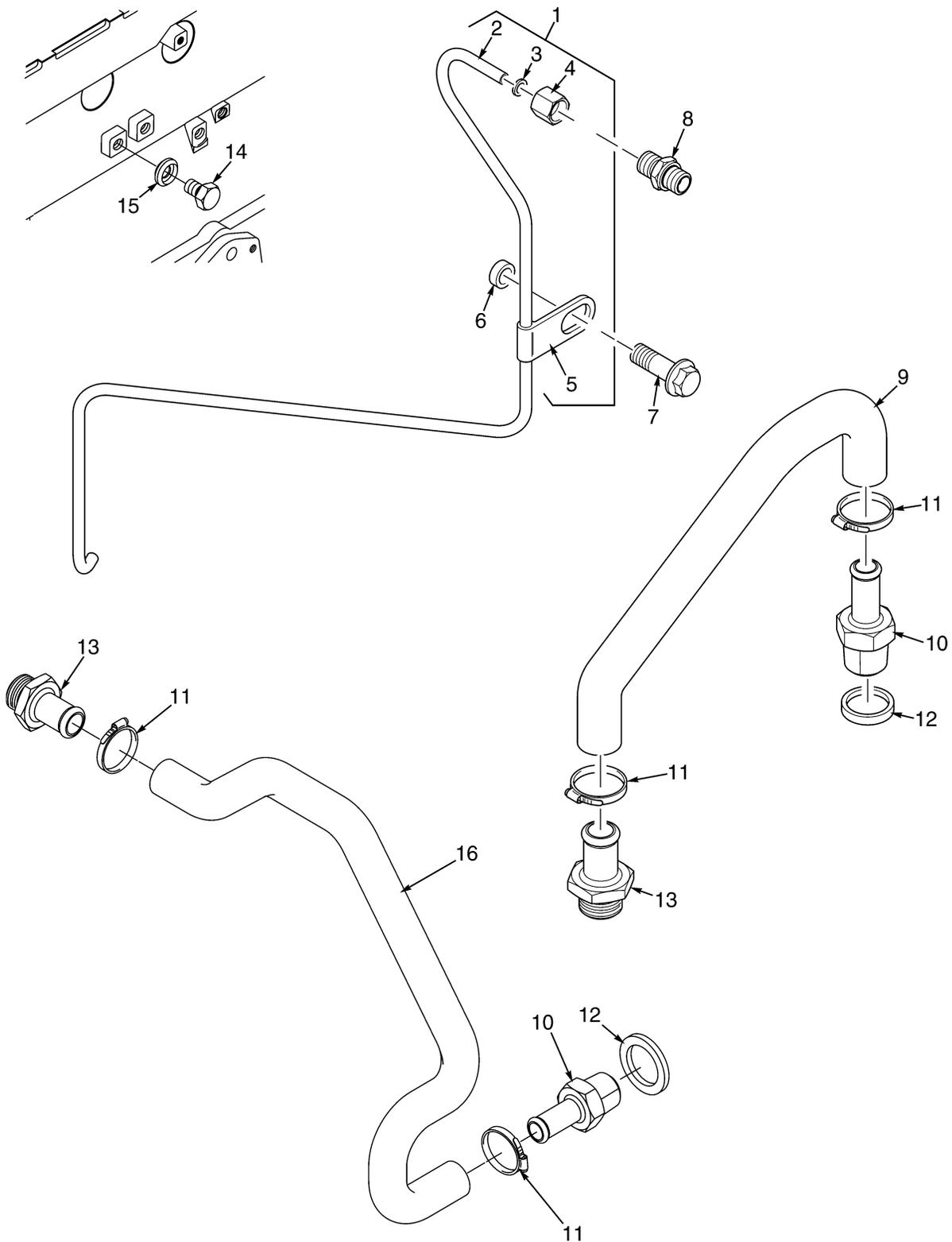


BP090048

**AUXILIARY DRIVE GEAR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1379774	Bracket	1
2	1380201	O-Ring	1
3	1380202	Bearing	1
4	1380200	Hub	1
5	1537299	Gear	1
6	1451747	Plate	1
7	1307881	Screw	3
8	1380205	Screw	3
9	1380206	Screw	4

BLANKING PLUG, OIL FEED AND HOSES (FIGURE 2-25) PERKINS DIESEL

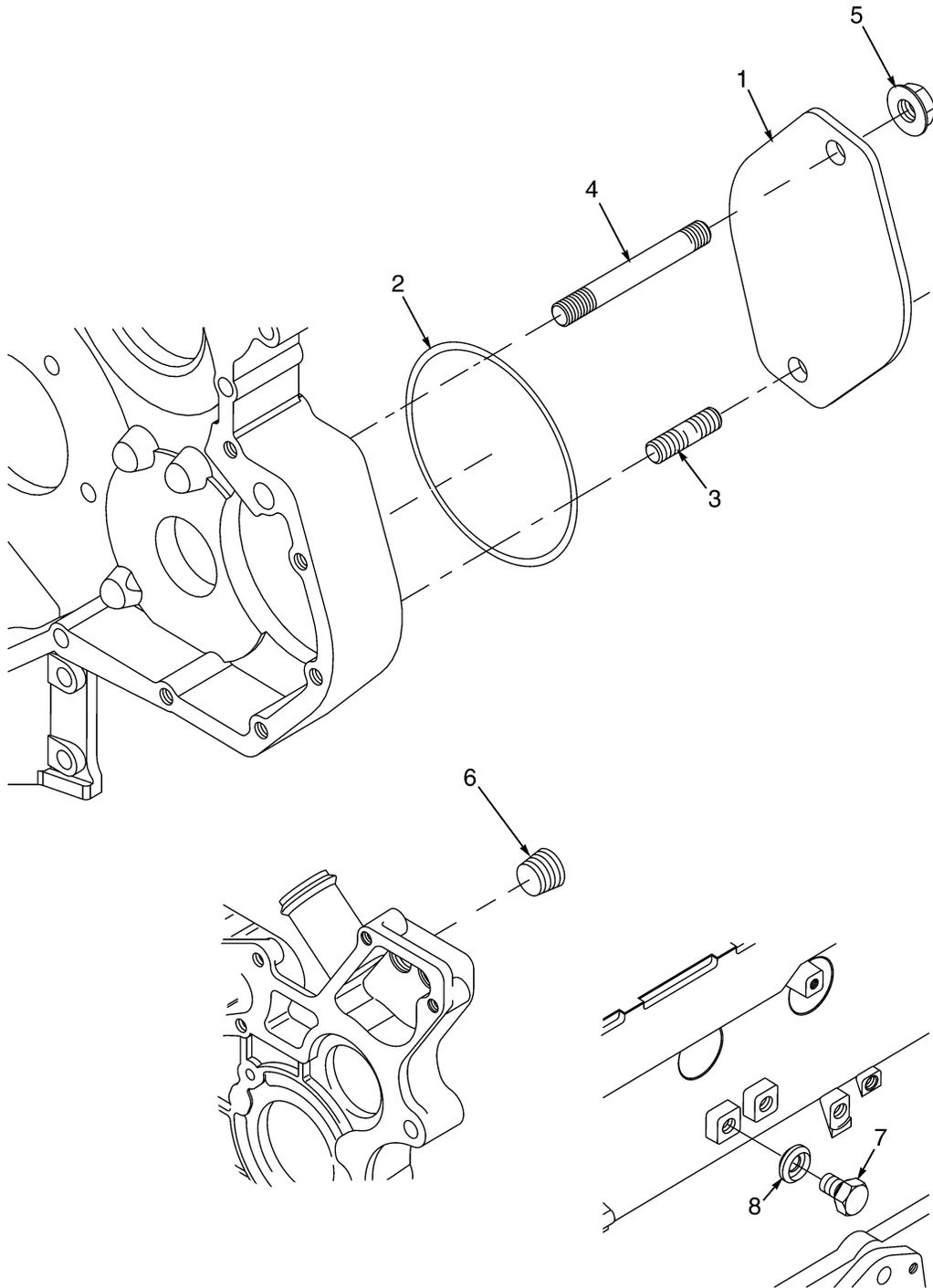


BP090049

**BLANKING PLUG, OIL FEED AND HOSES
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537300	Tube Assy	1
2	.....	Pipe	1
3	51455	Fitting	2
4	16193	Fitting	2
5	385956	Clip	1
6	161520	Washer	1
7	1306371	Screw	1
8	981608	Fitting	1
9	1497397	Hose	1
10	1319033	Fitting	2
11	130845	Clamp	1
12	986475	Washer	2
13	1497398	Adapter	2
14	1306219	Screw	1
15	1515805	Washer	1
16	1537301	Hose	1

BLANKING PLATE AND PLUGS (FIGURE 2-26) PERKINS DIESEL

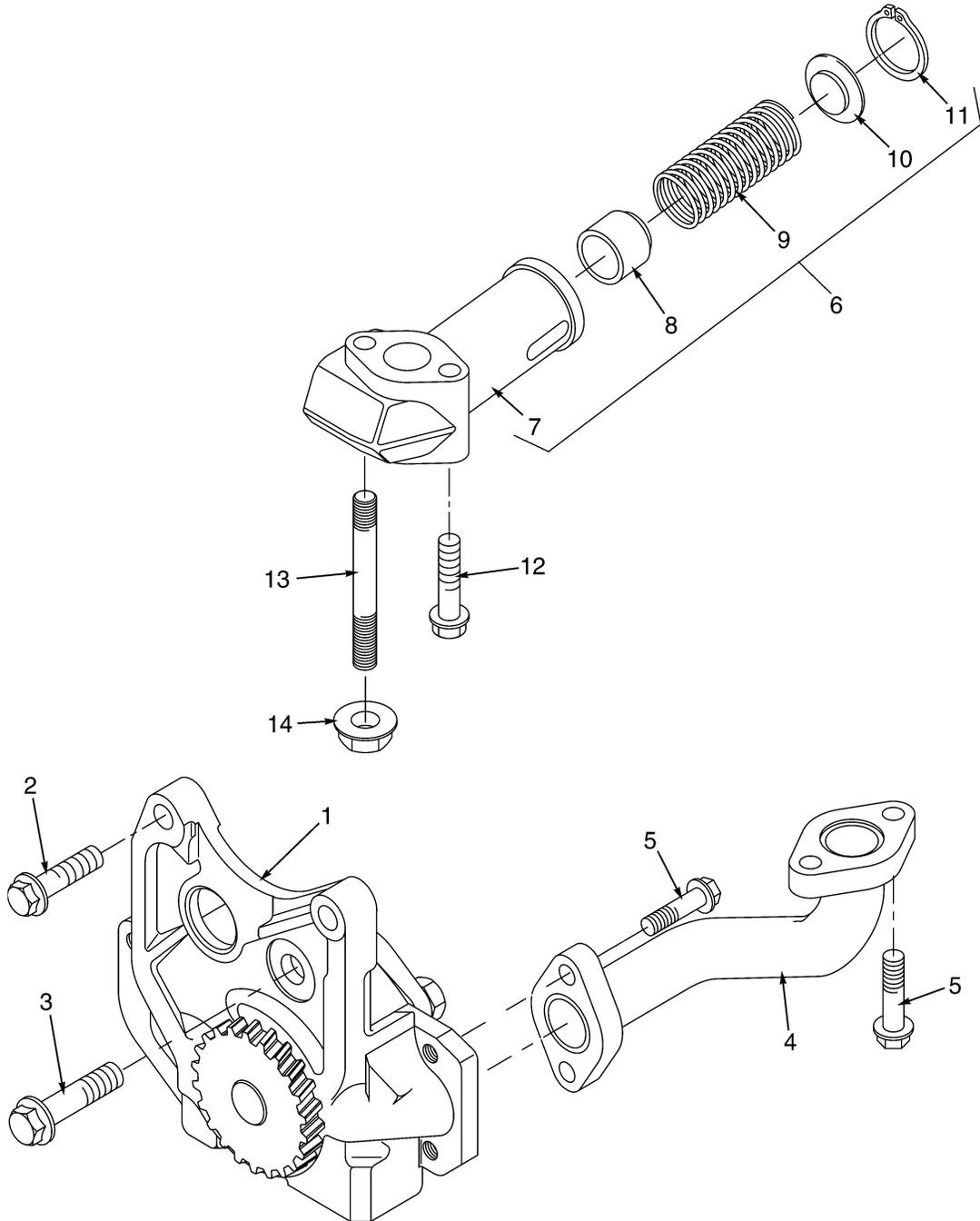


BP090059

**BLANKING PLATE AND PLUGS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537355	Cover	1
2	1380214	O-Ring	1
3	1380210	Stud	1
4	1380211	Stud	1
5	1370949	Nut	3
6	15962	Fitting	1
7	1306219	Screw	1
8	1515805	Washer	1

OIL PUMP AND DELIVERY HOUSING (FIGURE 2-27) PERKINS DIESEL

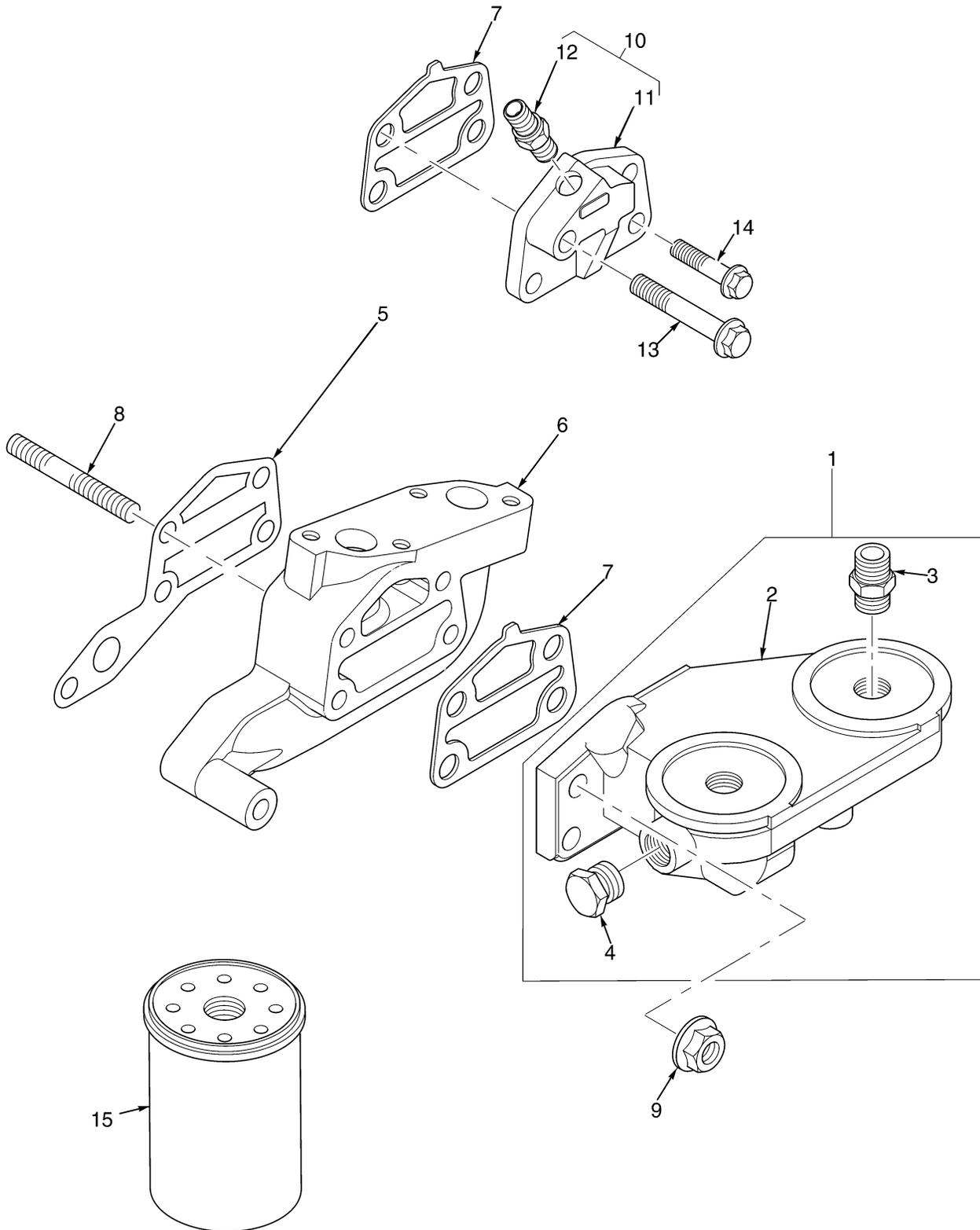


BP090050

**OIL PUMP AND DELIVERY HOUSING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537302	Engine Oil Pump	1
2	1306358	Screw	2
3	1307881	Screw	1
4	1537303	Tube Assy	1
5	1306358	Screw	4
6	1318920	Valve	1
7	.....	Body	1
8	301749	Plunger	1
9	301750	Spring	1
10	301751	Cap	1
11	1306328	Snap Ring	1
12	1318968	Screw	1
13	1536252	Stud	1
14	1306359	Nut	1

OIL FILTER AND ATTACHING PARTS (FIGURE 2-28) PERKINS DIESEL

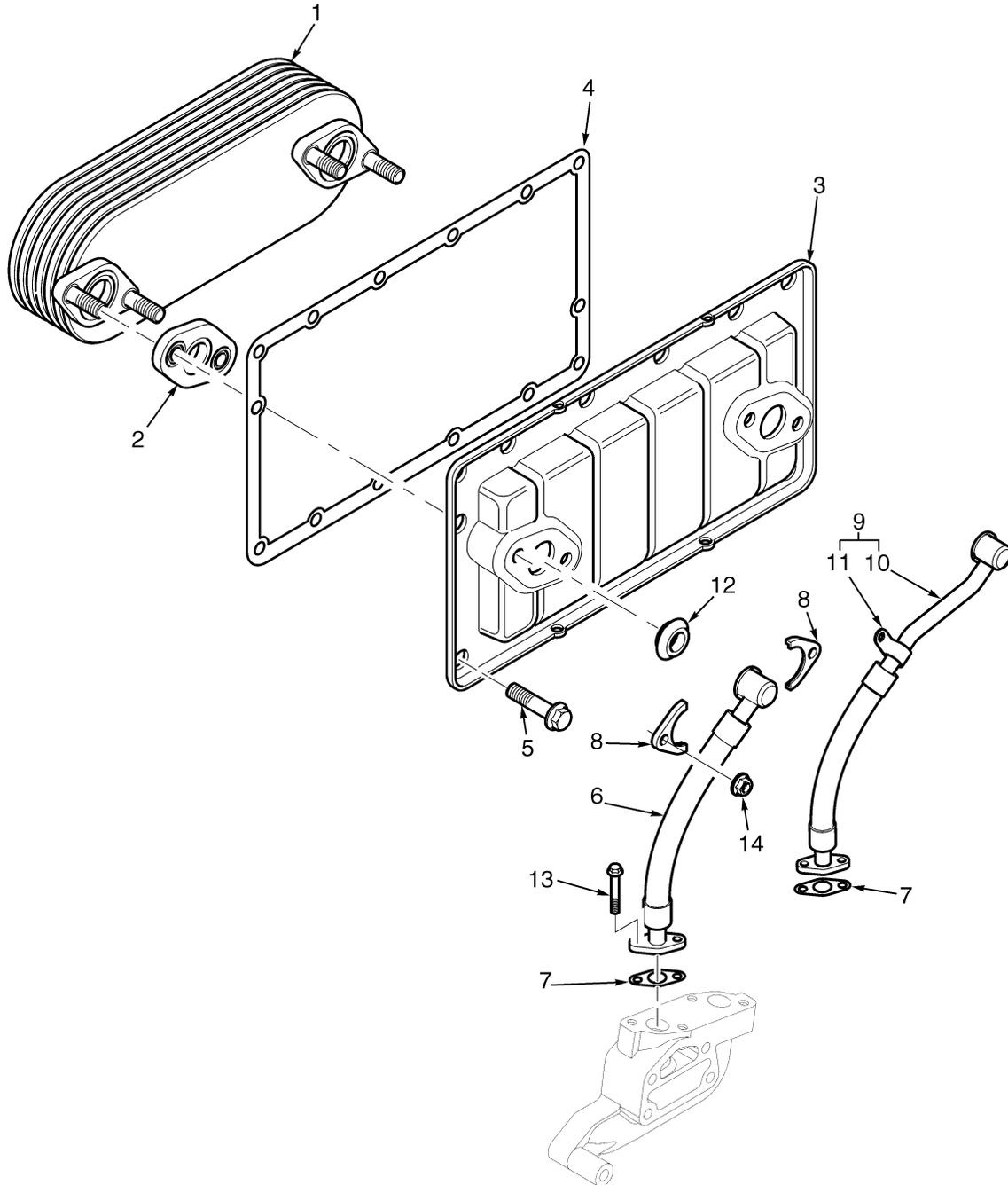


BP090038

**OIL FILTER AND ATTACHING PARTS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537287	Filter Head	1
2	.....	Head	1
3	1382954	Fitting	2
4	1537423	Plug	1
5	1357098	Gasket	1
6	1382960	Adapter	1
7	1345800	Gasket	2
8	1451721	Stud	5
9	1307891	Nut	5
10	1537288	Adapter	1
11	.....	Adapter	1
12	1537289	Fitting	1
13	1382963	Screw	1
14	1307910	Capscrew	3
15	195852	Oil Filter	2
	1537352	Kit-Gasket (Bottom)	1

OIL COOLER AND CONNECTIONS (FIGURE 2-29) PERKINS DIESEL

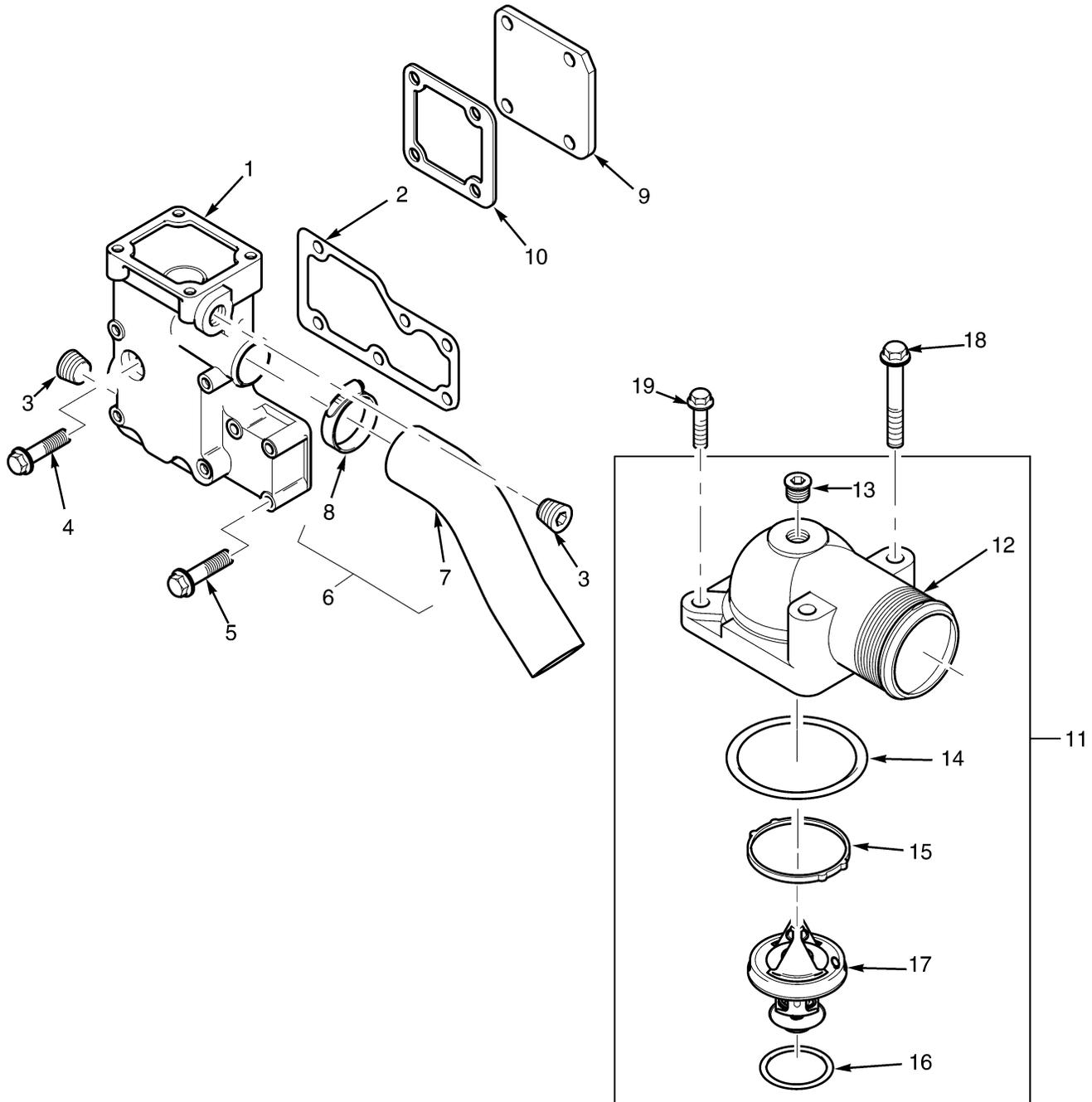


BP090037

**OIL COOLER AND CONNECTIONS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1460103	Oil Cooler	1
2	1451727	Seal	2
3	1639696	Housing	1
4	1537279	Gasket	1
5	1307881	Screw	14
6	1537281	Tube Assy	1
7	1537282	Gasket	2
8	1451729	Flange	4
9	1537283	Tube Assy	1
10	.....	Pipe	1
11	1537284	Clip	1
12	1537286	Seal	2
13	386459	Screw	4
14	1306359	Nut	4
15	1558471	Stud (Not Illustrated)	2
	1537280	Kit-Oil Cooler	1
	1537352	Kit-Gasket (Bottom)	1

THERMOSTAT AND WATER OUTLET HOUSING (FIGURE 2-30) PERKINS DIESEL



BP090041

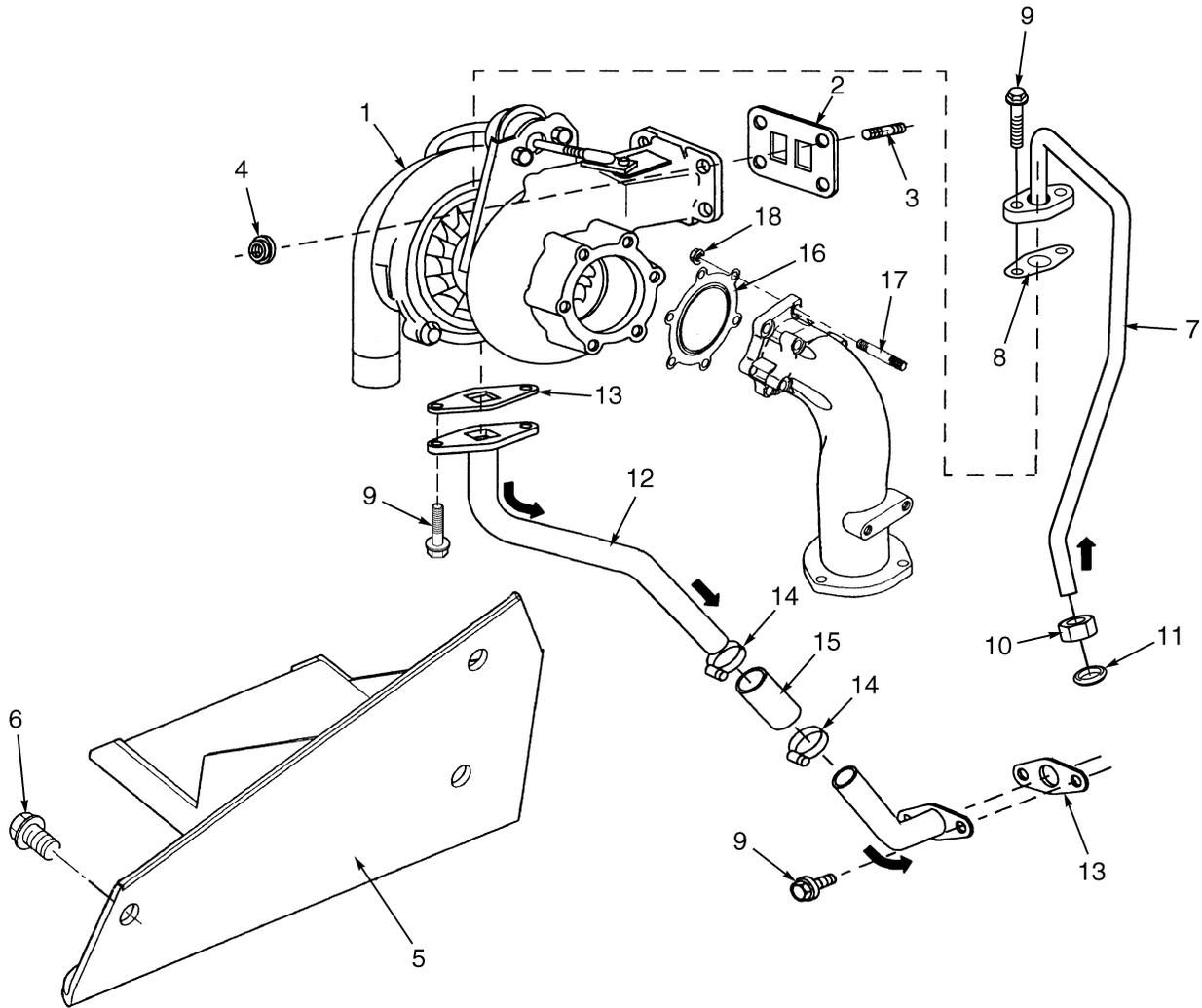
**THERMOSTAT AND WATER OUTLET HOUSING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537292	Thermostat Housing	1
2	1537293	Gasket	1
3	15962	Fitting	2
4	1307898	Screw	5
5	1318921	Screw	1
6	1451736	Kit-Hose	1
7	.....	Hose	1
8	127045	Clamp (Hose)	2
9	1456742	Plate	1
10	1451739	Gasket	1
11	1537294	Fitting	1
12	.....	Connection	1
13	1465811	Plug	1
14	1465810	O-Ring	1
15	1465812	Ring	1
16	1451737	O-Ring	1
17	1466053	Thermostat	1
18	1318968	Screw	2
19	1306358	Screw	2
	1537343	Kit-Gasket (Top)	1

**WATER PUMP
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	.....	Water Pump	1
2	.....	Body	1
3	.....	Cover	1
4	.....	Impeller	1
5	.....	Seal	1
6	.....	Oil Seal	1
7	.....	Snap Ring	1
8	.....	Snap Ring	1
9	.....	Shaft	1
10	.....	Bearing	1
11	.....	Bearing	1
12	.....	Gear	1
13	1451733	Gasket	1
14	1307909	Screw	2
15	1307908	Screw	3
16	1315497	Screw	1
17	1306354	Screw	3
18	1318965	Screw	1
	1537291	Kit-Repair Water Pump	1
	1537290	Water Pump	1
	1537352	Kit-Gasket (Bottom)	1

TURBOCHARGER AND ATTACHING PARTS (FIGURE 2-32) PERKINS DIESEL

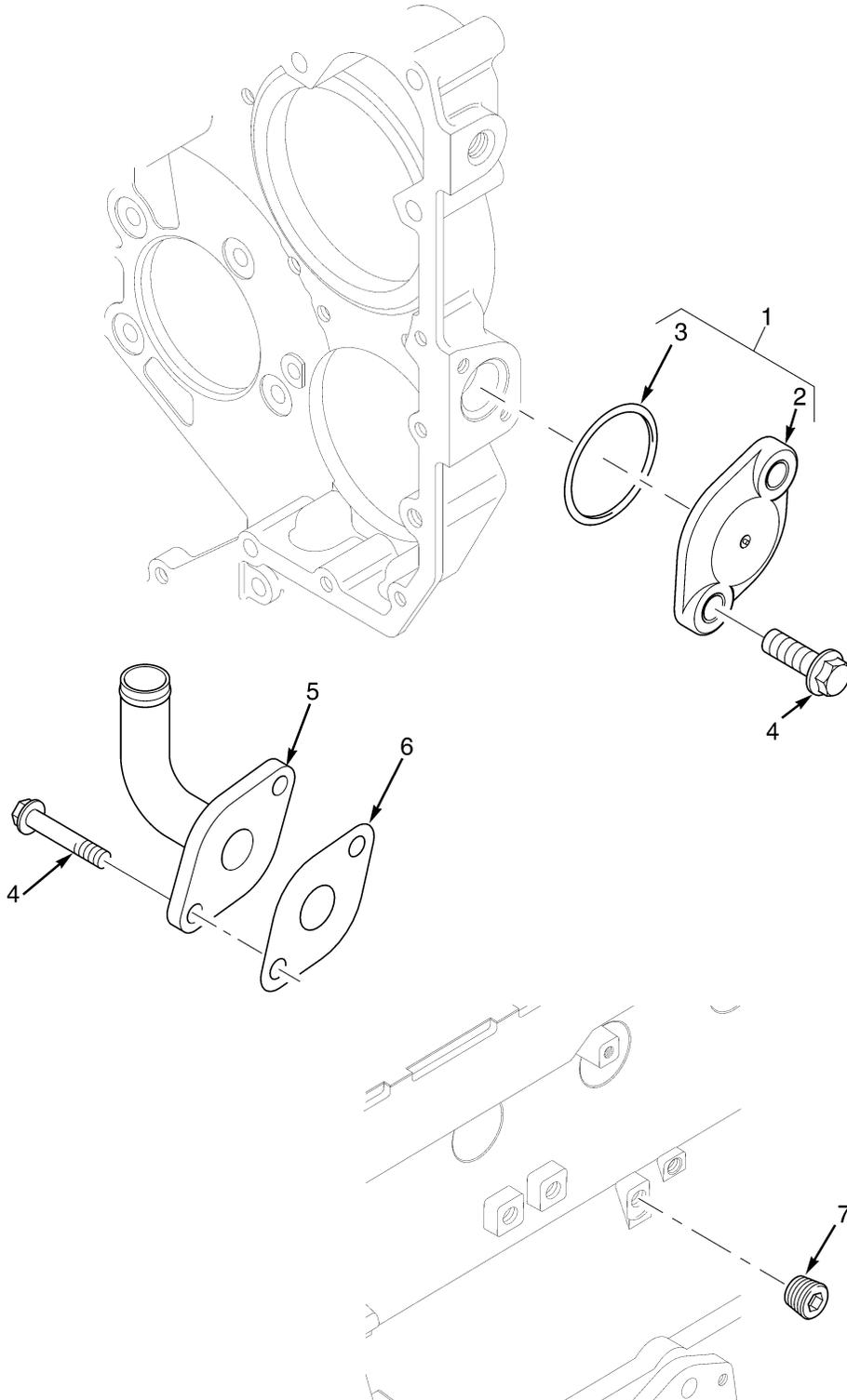


BP090051

**TURBOCHARGER AND ATTACHING PARTS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537304	Turbocharger	1
2	1451760	Gasket	1
3	1537305	Stud	4
4	1451753	Nut	4
5	1451764	Heat Shield	1
6	1307881	Screw	3
7	1537306	Pipe	1
8	1344924	Gasket	1
9	386459	Screw	8
10	14773	Fitting	1
11	158160	Sleeve	1
12	361320	Pipe	1
13	1357097	Gasket	1
14	1380250	Clip	2
15	1537307	Hose	1
16	1537314	Gasket	1
17	1382471	Stud	6
18	1460066	Nut	6
	1537343	Kit-Gasket (Top)	1
	1537352	Kit-Gasket (Bottom)	1

TURBO DRAIN PIPE AND BLANKING PLATE (FIGURE 2-33) PERKINS DIESEL

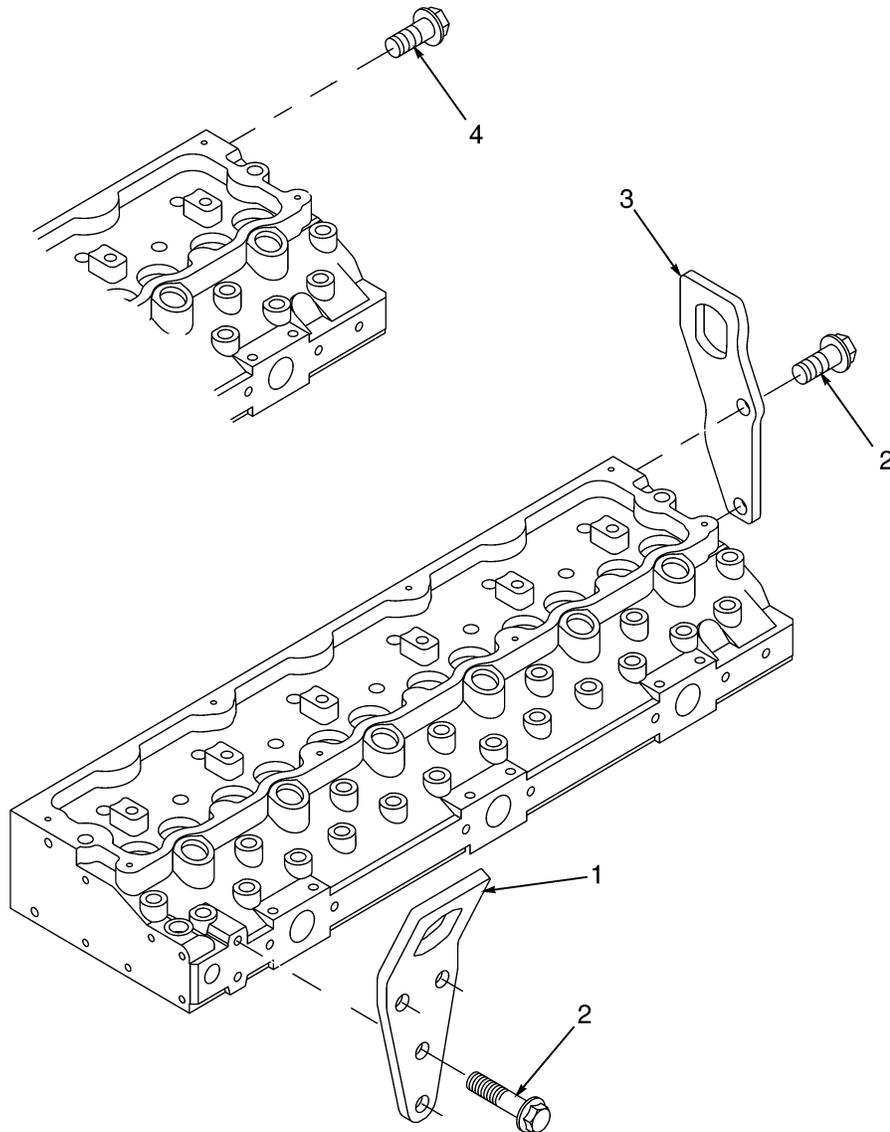


BP090033

**TURBO DRAIN PIPE AND BLANKING PLATE
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1497394	Plate	1
2	.....	Blanking Plate	1
3	1497395	O-Ring	1
4	386459	Screw	4
5	1537277	Pipe	1
6	1345751	Gasket	1
7	150879	Fitting	1
	1537352	Kit-Gasket (Bottom)	1

ENGINE LIFTING EYES (FIGURE 2-34) PERKINS DIESEL

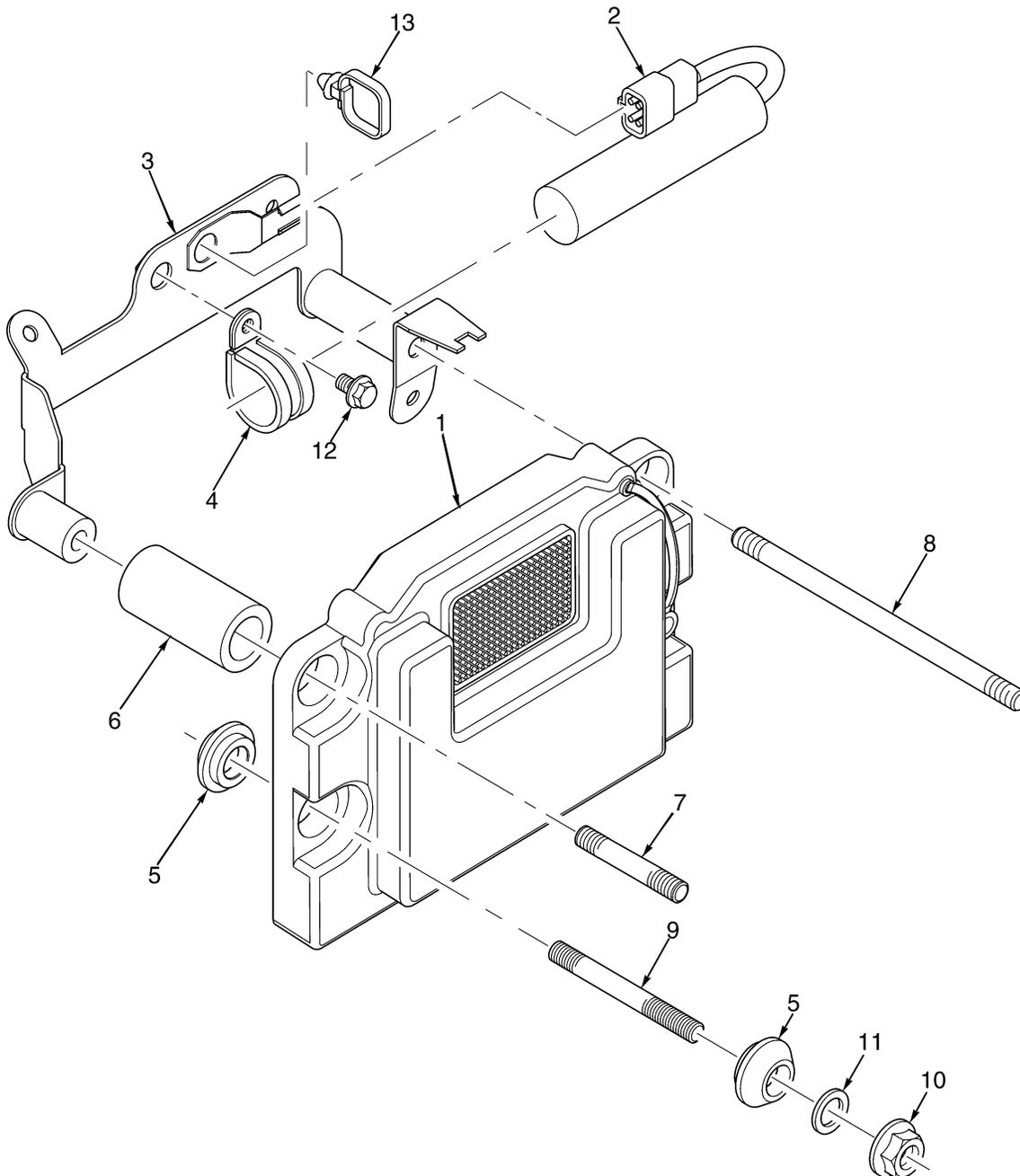


BP090053

**ENGINE LIFTING EYES
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
1	1537339	Plate	1
2	1307910	Capscrew	4
3	1451772	Plate	1
4	1307881	Screw	3

ELECTRONIC CONTROL MODULE AND MOUNTING (FIGURE 2-35) PERKINS DIESEL

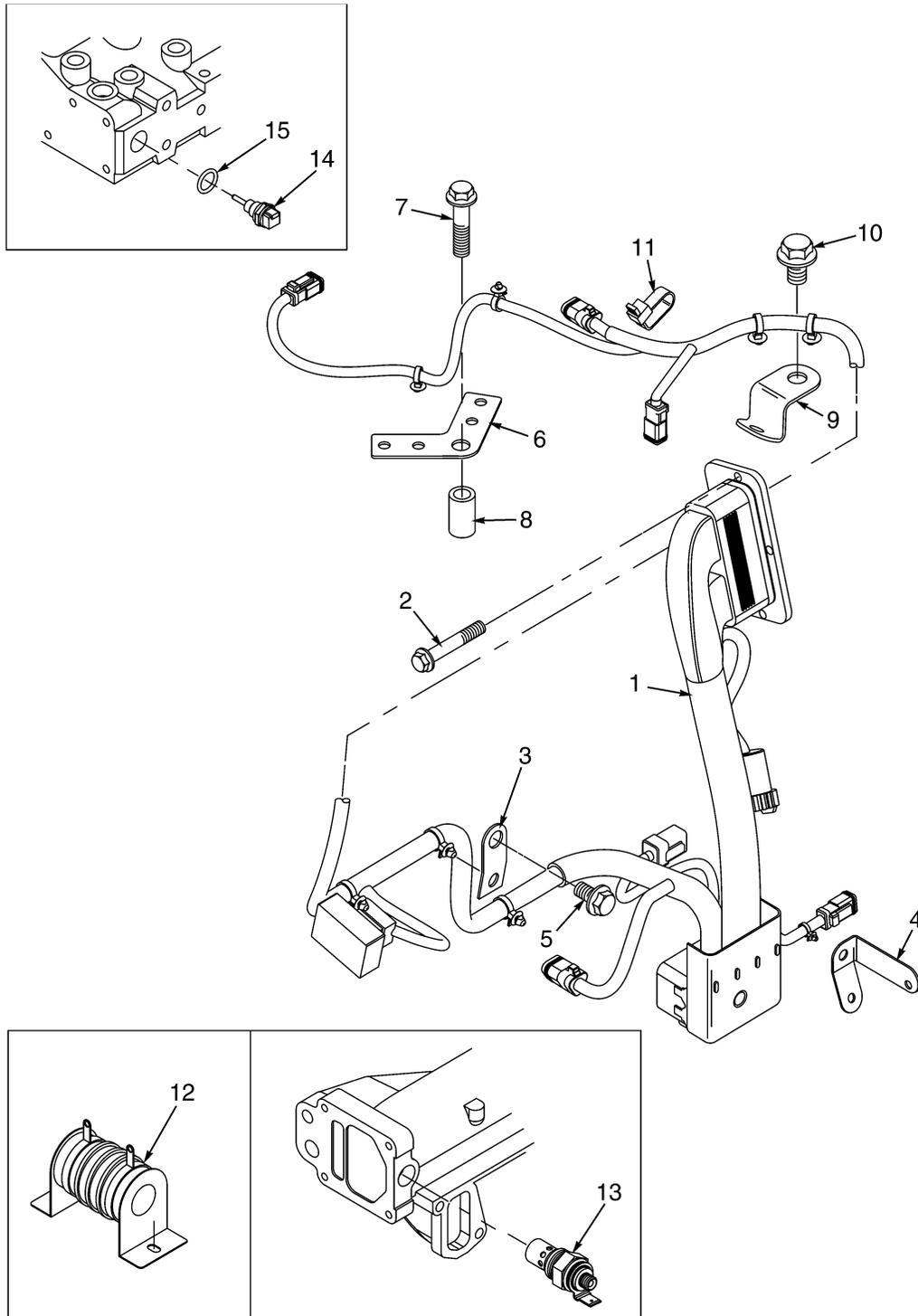


BP090029

**ELECTRONIC CONTROL MODULE AND MOUNTING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537247	Electronic Control Module	1
2	1537248	Module	1
3	1537249	Bracket	1
4	1537250	Clip	1
5	1537251	Mount	5
6	1537252	Spacer	4
7	1451731	Stud	1
8	1537253	Stud	1
9	1537254	Stud	1
10	1306359	Nut	4
11	1537255	Washer	7
12	1457815	Screw	2
13	1537256	Clip	1

WIRING LOOMS (FIGURE 2-36) PERKINS DIESEL

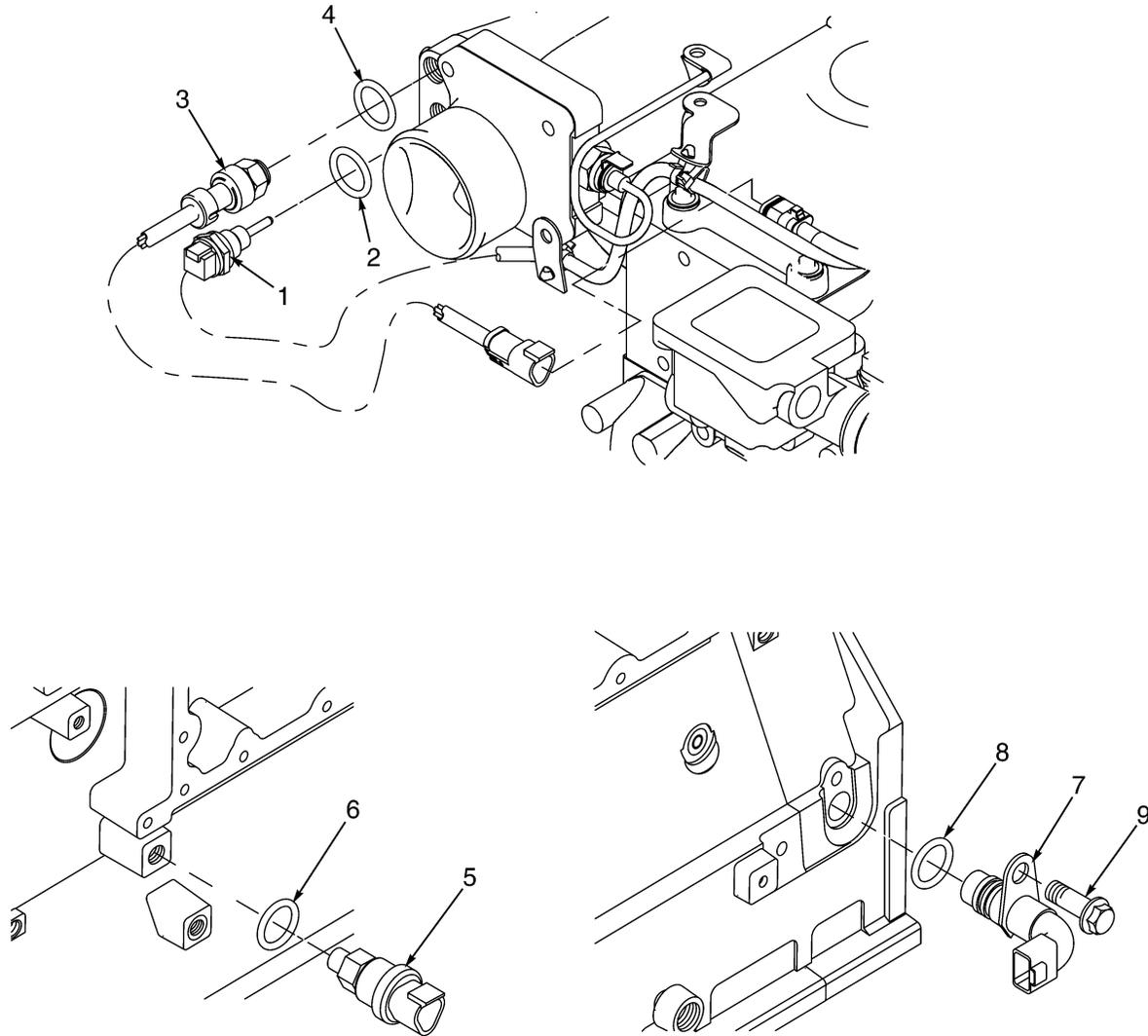


BP090055

**WIRING LOOMS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537345	Wire Loom	1
2	1537346	Screw	3
3	1537347	Clip	2
4	1537348	Bracket	1
5	1307886	Screw	3
6	1537349	Bracket	1
7	1382963	Screw	1
8	1537332	Spacer	1
9	1537350	Clip	1
10	1457815	Screw	1
11	1537351	Strap Clamp	1
12	1453391	Resistor	1
13	1537338	Heater	1
14	1537257	Sensor (Coolant Temperature)	2
15	1537258	O-Ring	2
	1537343	Kit-Gasket (Top)	1

PICK-UP SENSORS (FIGURE 2-37) PERKINS DIESEL

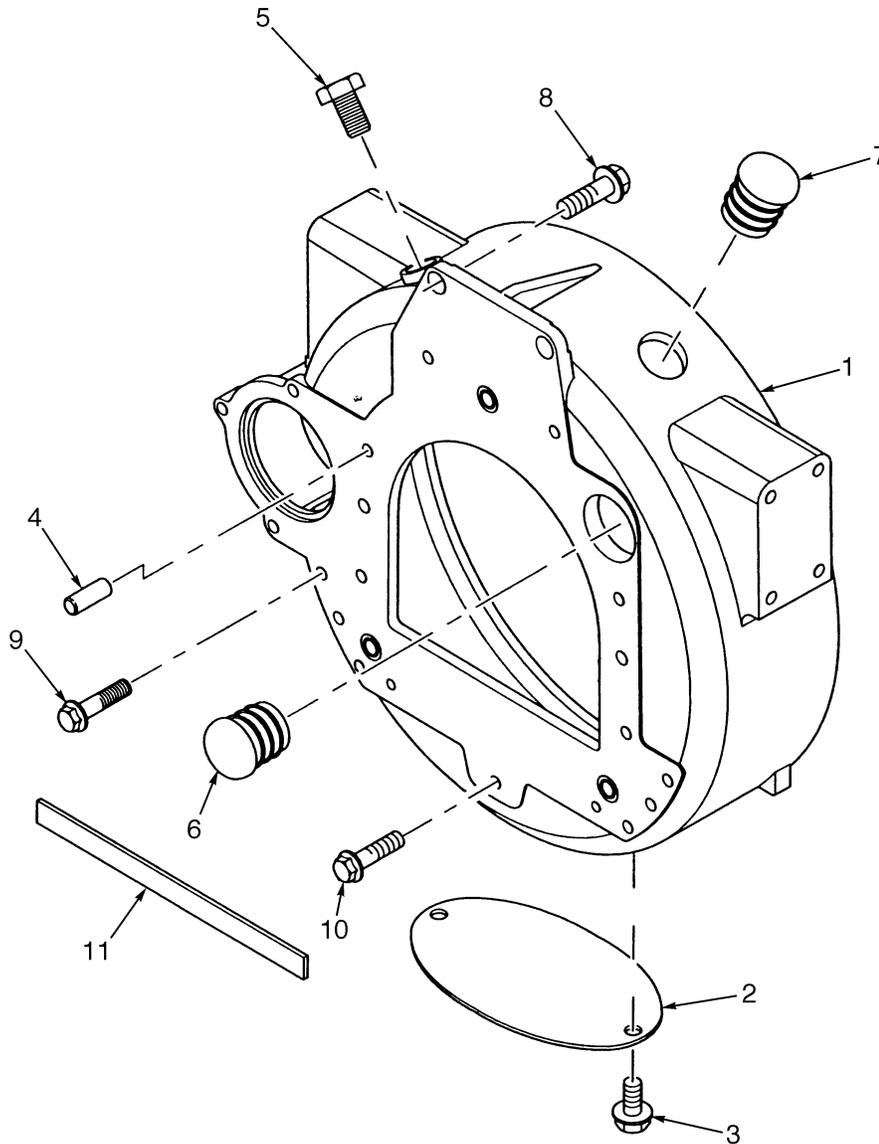


BP090056

**PICK-UP SENSORS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
1	1537257	Sensor (Intake Manifold Temperature)	2
2	1537258	O-Ring	2
3	1537261	Sensor (Intake Manifold Pressure)	1
4	1537262	O-Ring	1
5	1644562	Kit-Sensor (Oil Pressure)	1
6	1537265	O-Ring	1
7	1537266	Sensor (Crankshaft Speed/Position)	1
8	1537267	O-Ring	1
9	1457815	Screw	1
	1537343	Kit-Gasket (Top)	1

FLYWHEEL HOUSING (FIGURE 2-38) PERKINS DIESEL

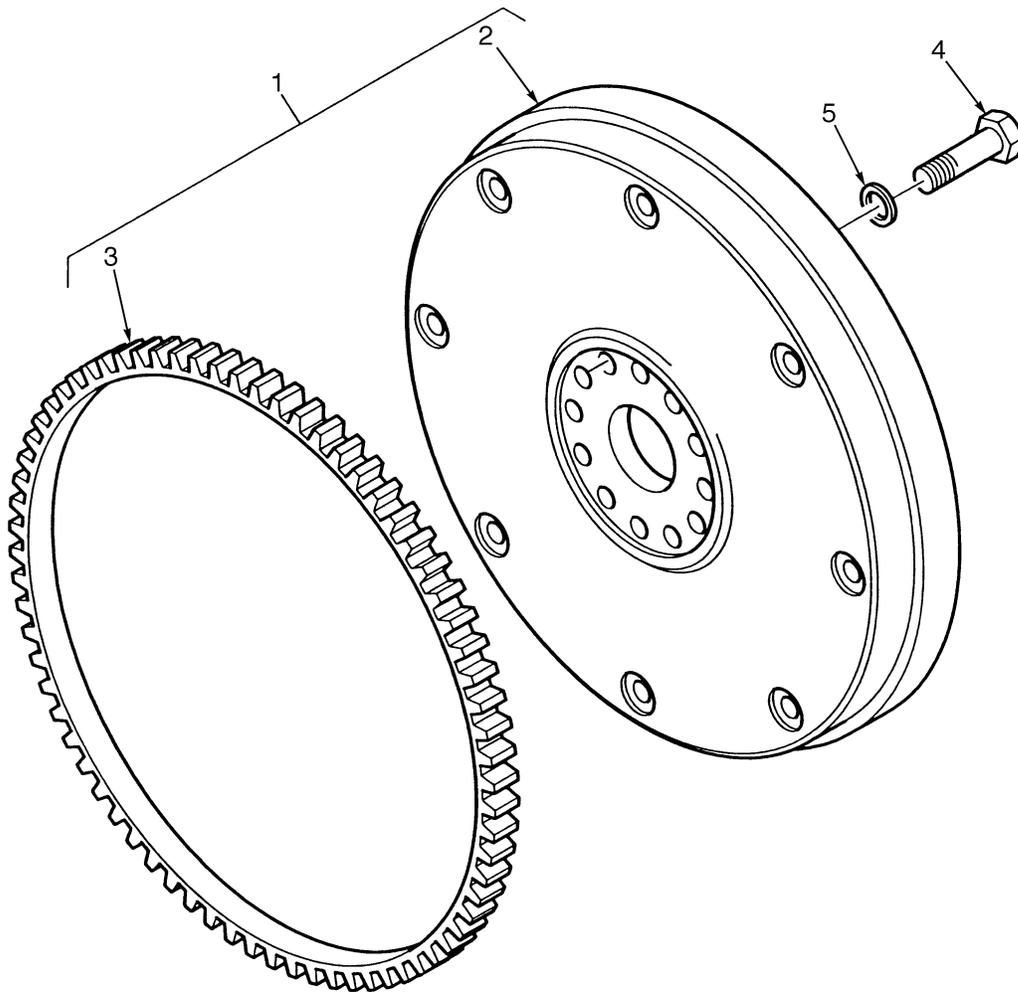


HP091051

**FLYWHEEL HOUSING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake)	1
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
1	1558450	Flywheel Housing	1
2	349439	Cover	1
3	1307883	Screw	2
4	982143	Dowel	2
5	1371704	Plug	1
6	1558451	Plug	1
7	1558466	Plug	1
8	1306355	Screw	2
9	1558467	Screw	6
10	1311074	Screw	3
11	342189	Cover	1

FLYWHEEL AND STARTER RING (FIGURE 2-39) PERKINS DIESEL

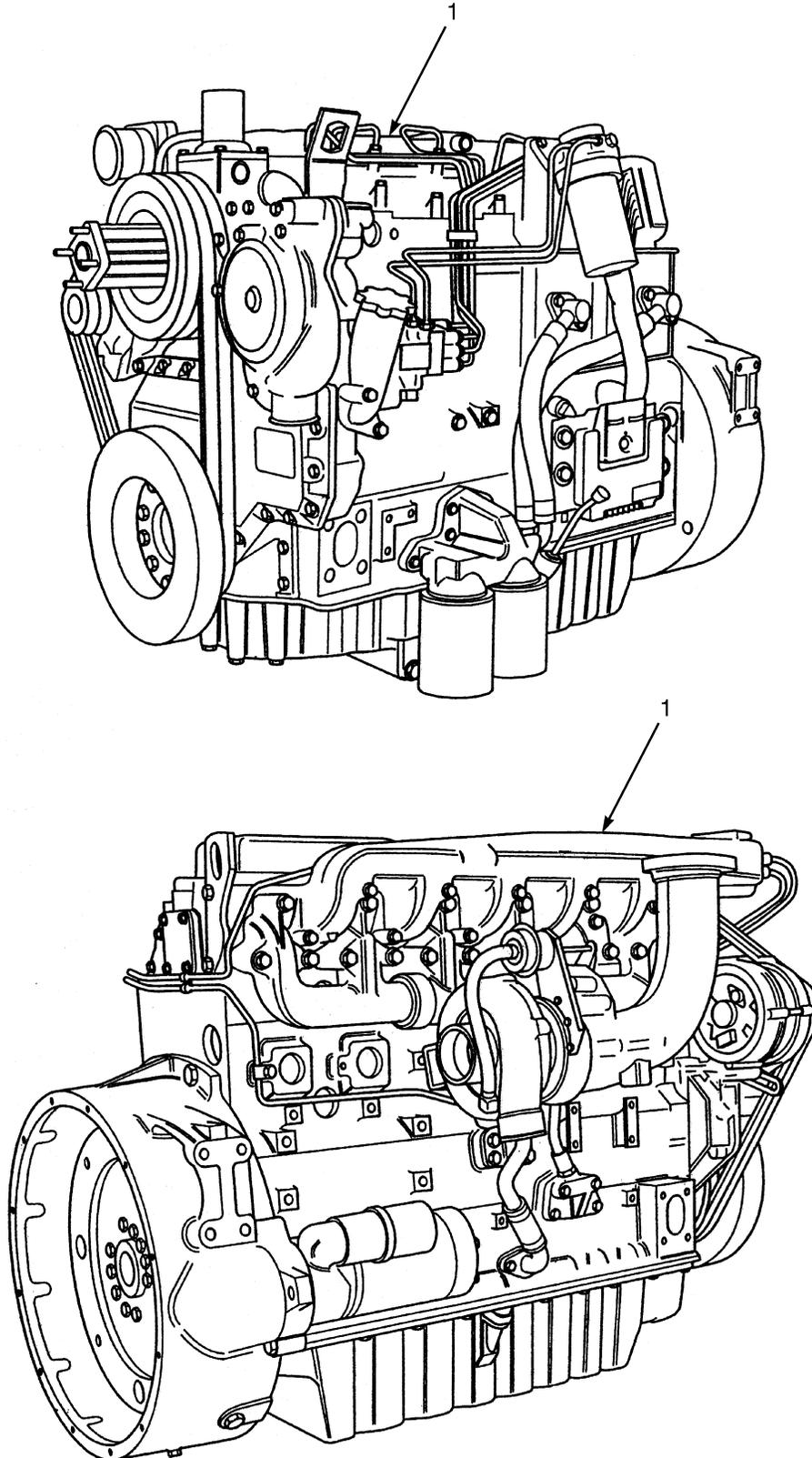


HP091052

**FLYWHEEL AND STARTER RING
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1558468	Flywheel	1
2	.....	Flywheel	1
3	146049	Ring Gear	1
4	173905	Capscrew	10
5	224433	Washer	10

ENGINE ASSEMBLY (FIGURE 2-40) CUMMINS DIESEL



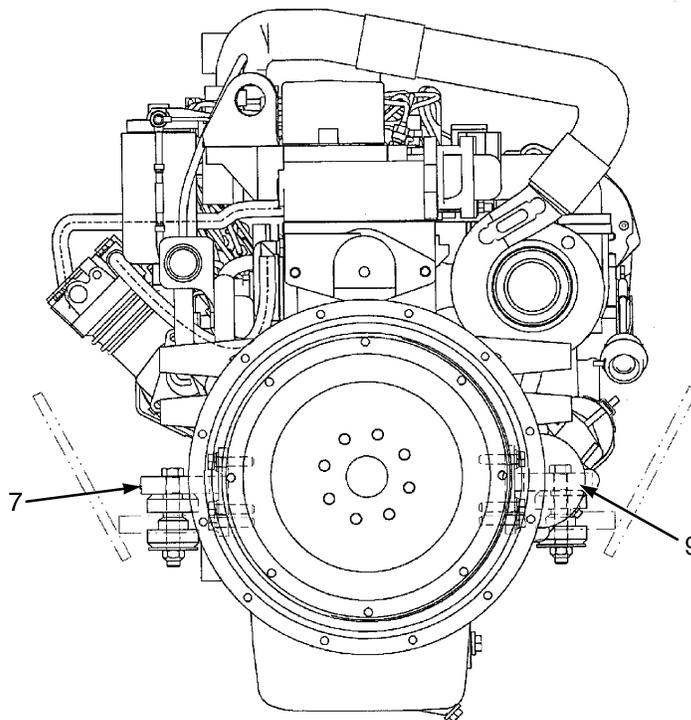
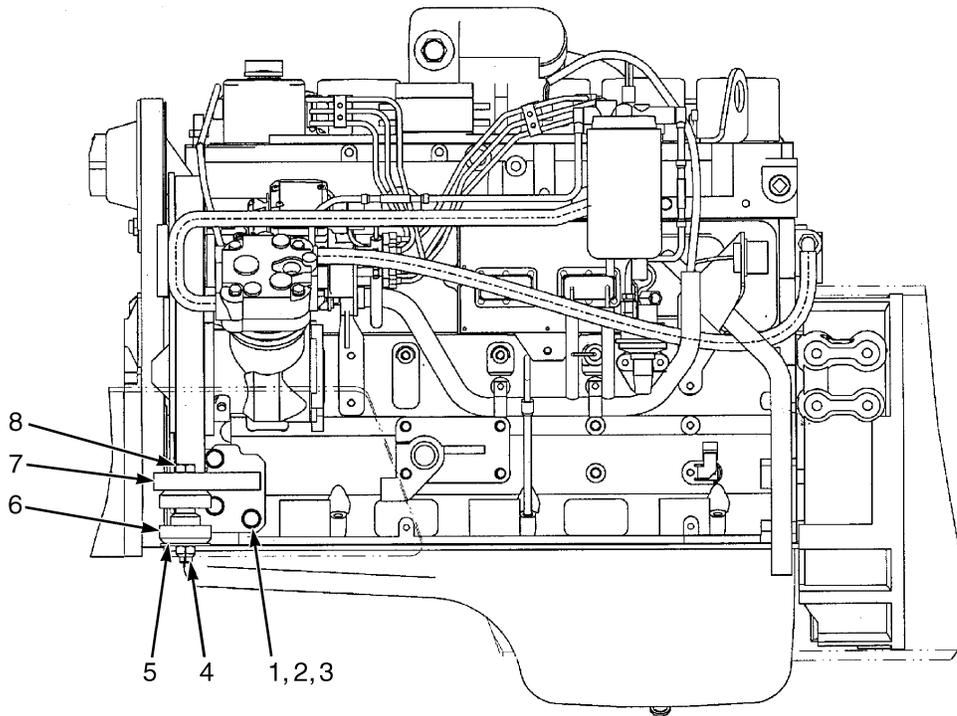
BP090054

**ENGINE ASSEMBLY
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
1	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
1	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
1	c 2097641	Engine Assy-Diesel (With Wet Brake)	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

ENGINE MOUNT (FIGURE 2-41) CUMMINS DIESEL

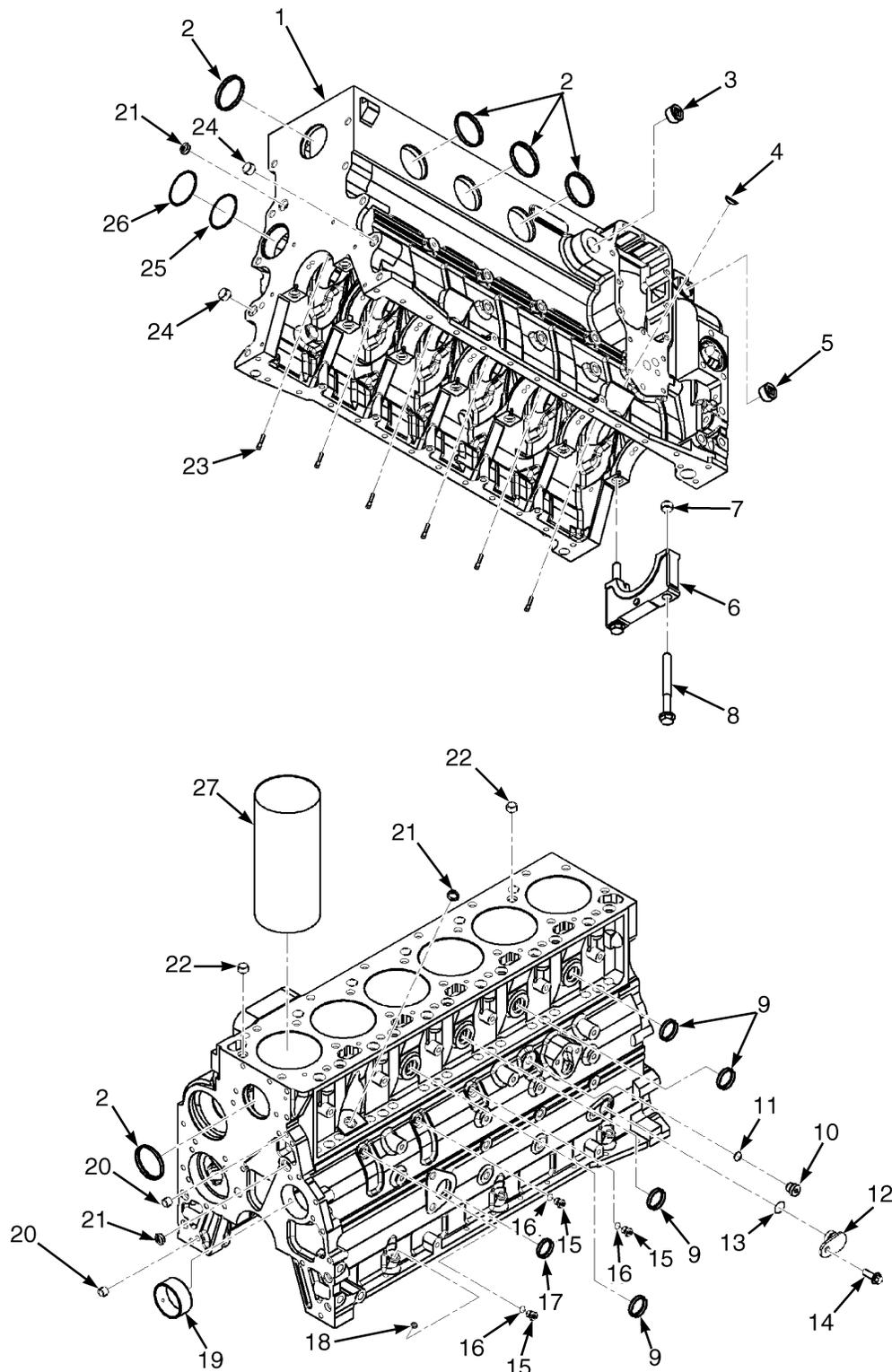


BP090096

**ENGINE MOUNT
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	292683	Lockwasher	6
2	320161	Washer	6
3	287837	Capscrew	6
4	221357	Locknut	2
5	1452404	Washer	2
6	1393708	Isolator	2
7	1475500	Motor Mount (RH)	1
8	18612	Capscrew	2
9	1475502	Motor Mount (LH)	1

CYLINDER BLOCK (FIGURE 2-42) CUMMINS DIESEL



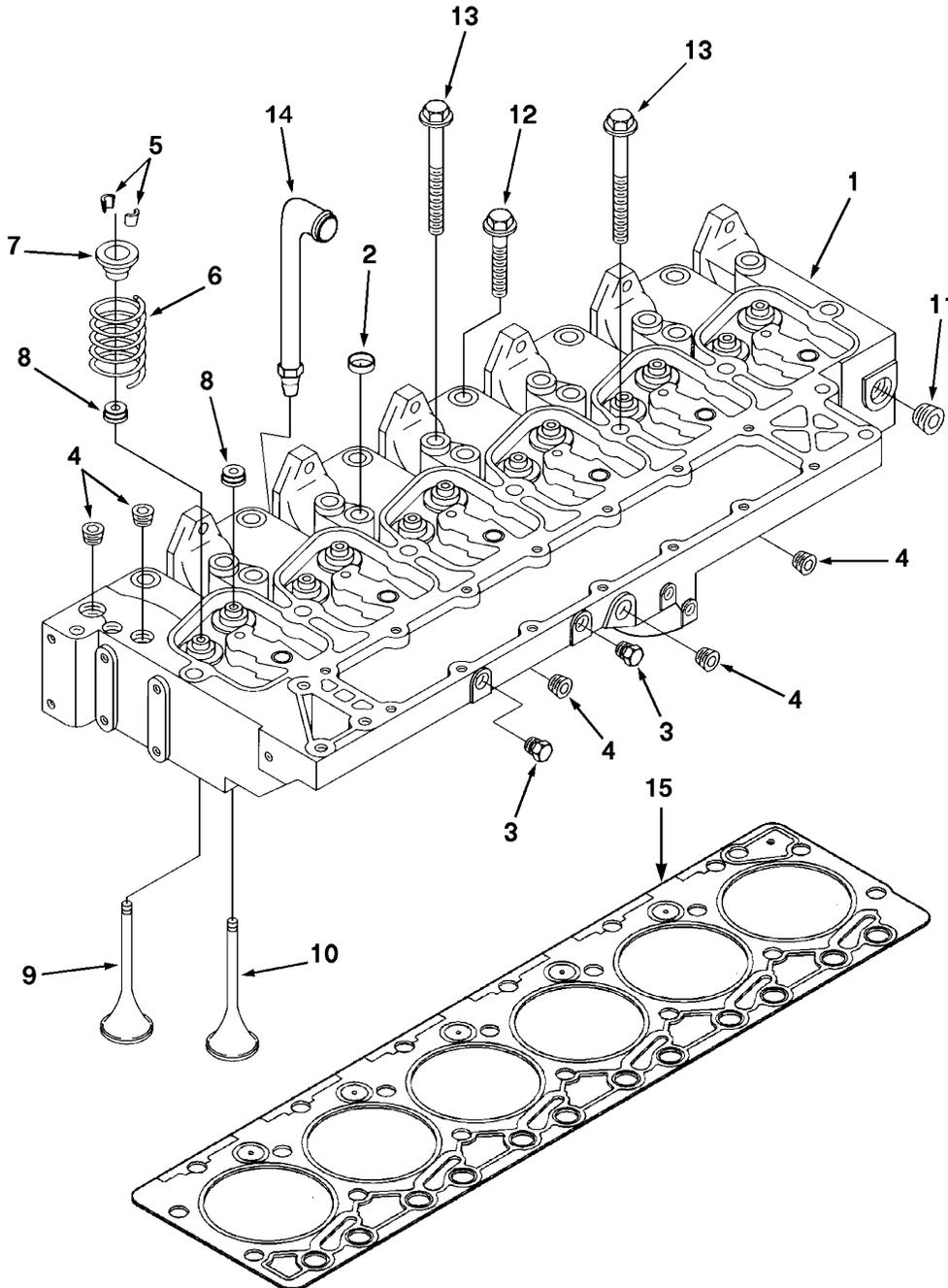
HP091187

**CYLINDER BLOCK
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1589514	Cylinder Block	1
2	1618178	Plug	5
3	1512292	Plug	1
4	1514339	Plug	2
5	1511952	Fitting	1
6	1635307	Cap (Main Bearing)	7
7	1521685	Ring	2
8	1521683	Capscrew	14
9	1512585	Plug	4
10	1521695	Plug	1
11	1517119	O-Ring	1
12	1521697	Fitting	1
13	1543321	Sealing Ring	1
14	1511970	Capscrew	1
15	1517010	Plug	3
16	1517011	O-Ring	1
17	1521694	Plug	1
18	1512130	Plug	3
19	1521682	Bushing	1
20	1513878	Dowel	2
21	1512304	Plug	3
22	1521691	Ring	2
23	1521692	Nozzle	6
24	1521685	Ring	2
25	1521696	O-Ring	1
26	1521693	Plug	1
27	1585284	Sleeve	AR
	1521686	Kit-Cylinder Block	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

CYLINDER HEAD (FIGURE 2-43) CUMMINS DIESEL



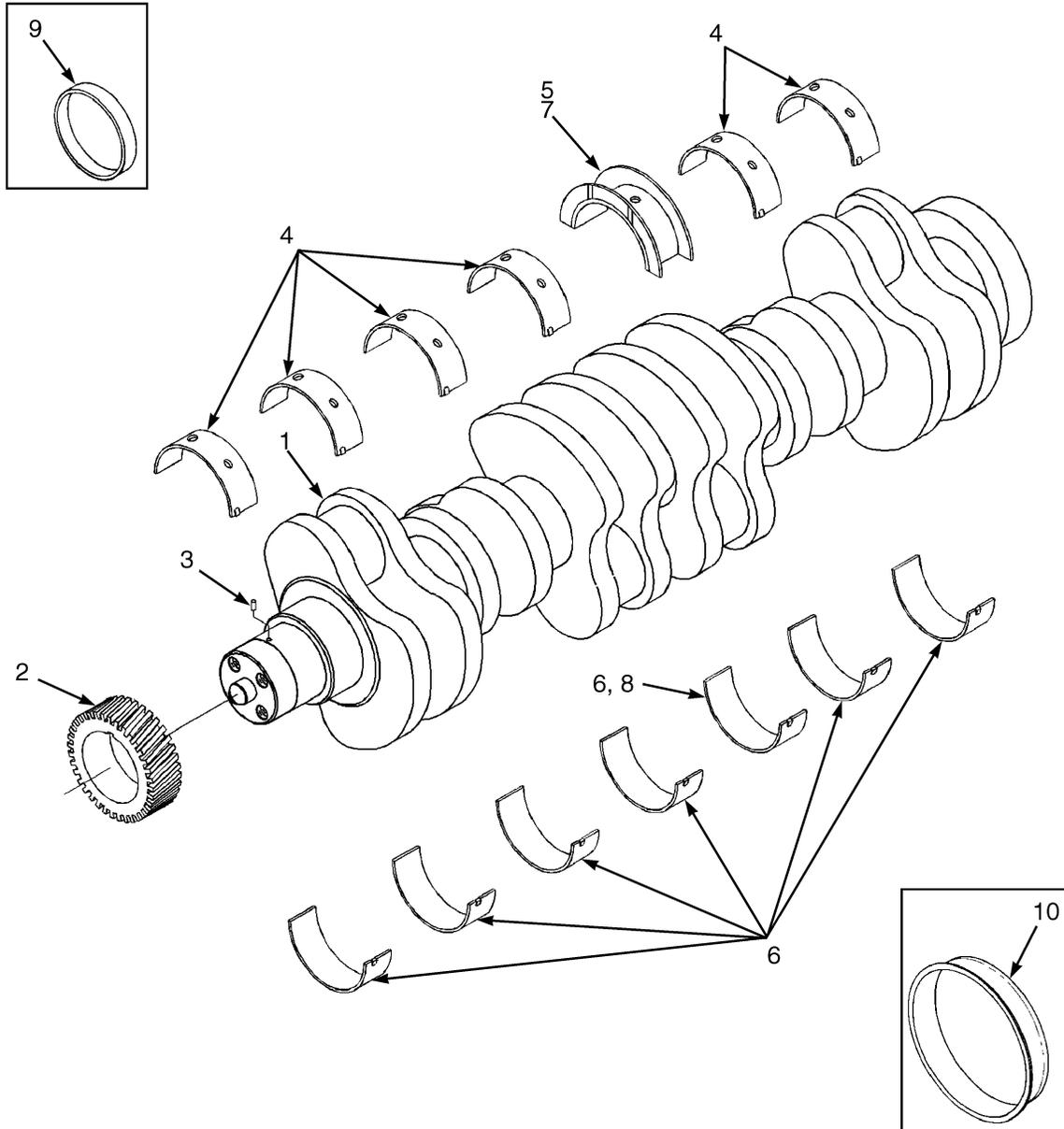
HP091191

**CYLINDER HEAD
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	d 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	d 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	a 1543452	Cylinder Head	1
1	c 1588107	Cylinder Head	1
2	1597817	Plug	5
3	1512448	Fitting	2
4	1511952	Fitting	5
5	1517185	Keeper	2
6	1543456	Spring	12
7	1543708	Retainer	12
7	1588104	Retainer	12
8	a 1543455	Seal (Valve Stem)	12
8	c 1588103	Seal (Valve Stem)	12
9	a 1543453	Valve (Intake)	6
9	c 1588094	Inlet Valve (Intake)	6
10	a 1543454	Valve (Exhaust)	6
10	c 1588095	Exhaust Valve (Exhaust)	6
11	1512292	Plug	1
12	1543450	Screw	6
13	1543451	Screw	14
14	1589657	Tube (Aftercooler)	1
15	1618648	Cylinder Head Gasket (Standard)	1
15	1638854	Cylinder Head Gasket (0.25 mm, OS)	1
15	1638852	Cylinder Head Gasket (0.50 mm, OS)	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C ↔ S/N G007E03205E**c** S/N G007E02038C →**d** S/N G007E03206E →

**CRANKSHAFT AND MAIN BEARINGS (FIGURE 2-44)
CUMMINS DIESEL**



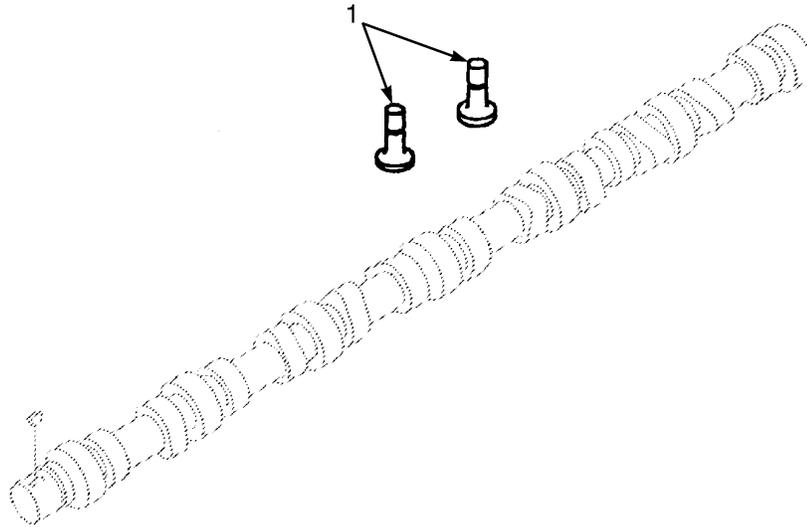
HP091188

**CRANKSHAFT AND MAIN BEARINGS
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1543320	Crankshaft	1
2	1521701	Gear	1
3	1514346	Dowel	1
4	1543317	Bearing (Standard)	6
4	1585002	Bearing (0.25 mm O/S)	6
4	1584992	Bearing (0.50 mm O/S)	6
4	1584995	Bearing (0.75 mm O/S)	6
4	1585000	Bearing (1.00 mm O/S)	6
5	1554044	Thrust Bearing (Standard)	1
5	.....	Thrust Bearing (.010 in.)	1
5	.....	Thrust Bearing (.020 in.)	1
5	.....	Thrust Bearing (.030 in.)	1
5	.....	Thrust Bearing (.040 in.)	1
6	1543318	Bearing (Standard)	7
6	1584991	Bearing (.010 in.)	7
6	1584994	Bearing (.020 in.)	7
6	1584997	Bearing (.030 in.)	7
6	1585000	Bearing (1.00 mm O/S)	7
7	.....	Thrust Bearing (.020 in.)	1
7	.....	Thrust Bearing (.040 in.)	1
8	1584994	Bearing (.020 in.)	1
8	1584998	Bearing (.040 in.)	1
9	1554045	Kit-Wear Sleeve (Front) (Front)	1
10	1514354	Kit-Wear Sleeve (Rear) (Rear)	1
	1554043	Kit-Bearing (Standard)	1
	1521705	Bearing Set (.010 in.)	1
12	4007075	Bearing Set (.010 in.) (Alternate Part)	1
	1521706	Bearing Set (.020 in.)	1
	1521707	Bearing Set (.030 in.)	1
	1521708	Bearing Set (.040 in.)	1
	1521709	Kit-Thrust Bearing (.020 in.) (With Oversize Thrust Face)	1
	1521710	Kit-Thrust Bearing (.040 in.) (With Oversize Thrust Face)	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

VALVE TAPPET (FIGURE 2-45) CUMMINS DIESEL



HP091189

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1513734	Valve (Tappet)	12

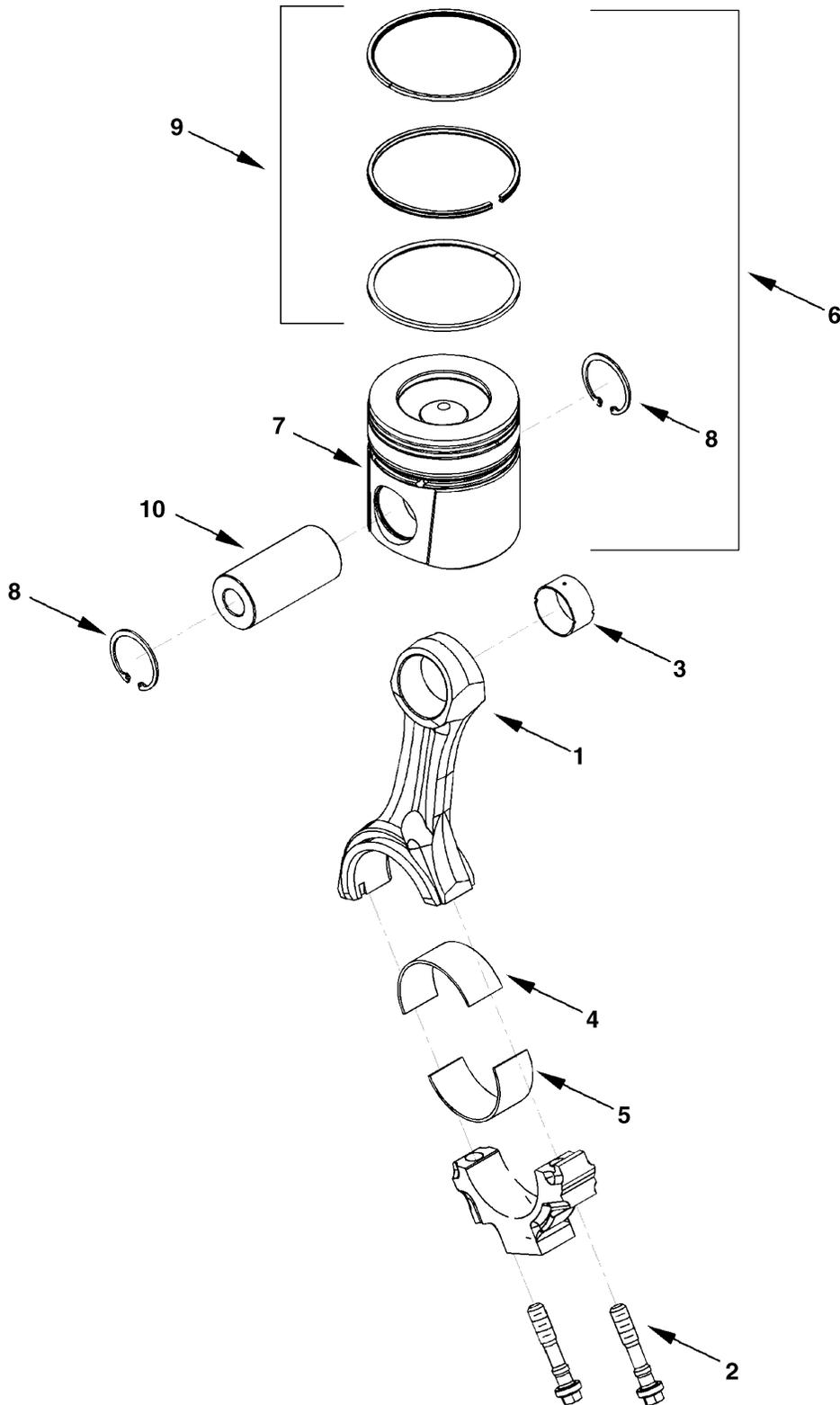
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

PISTON AND CONNECTING ROD (FIGURE 2-46) CUMMINS DIESEL



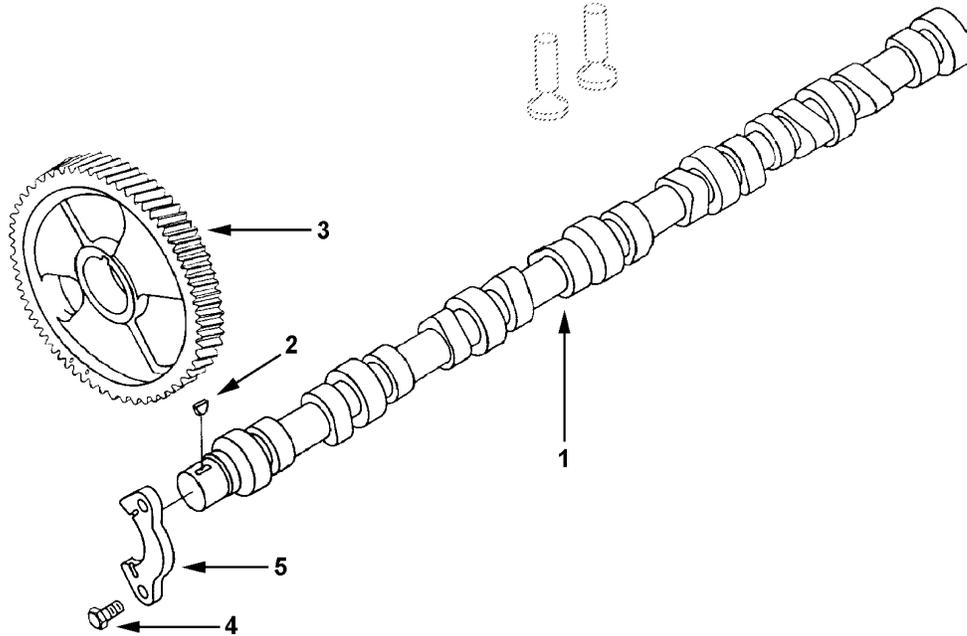
HP091197

**PISTON AND CONNECTING ROD
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1597832	Piston Rod	6
2	1553261	Capscrew	2
3	1553262	Bushing	1
4	1543446	Bearing (Standard) (Upper)	6
4	1512150	Bearing (.010 in.)	AR
4	1512151	Bearing (.020 in.)	AR
4	1512152	Bearing (.030 in.)	AR
4	1512153	Bearing (.040 in.)	AR
5	1543445	Bearing (Standard) (Lower)	6
5	1584817	Bearing (.010 in.)	AR
5	1584818	Bearing (.020 in.)	AR
5	1584819	Bearing (.030 in.)	AR
5	1584820	Bearing (.040 in.)	AR
6	1588111	Kit-Piston	6
7	1543448	Piston	1
8	1512146	Retaining Ring	2
9	1588110	Kit-Piston Ring	1
10	1512149	Pin	6

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

CAMSHAFT (FIGURE 2-47) CUMMINS DIESEL



HP091195

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512160	Camshaft	1
2	1512161	Woodruff Key	1
3	1543442	Gear (Camshaft)	1
4	1512163	Capscrew	2
5	1512164	Support	1

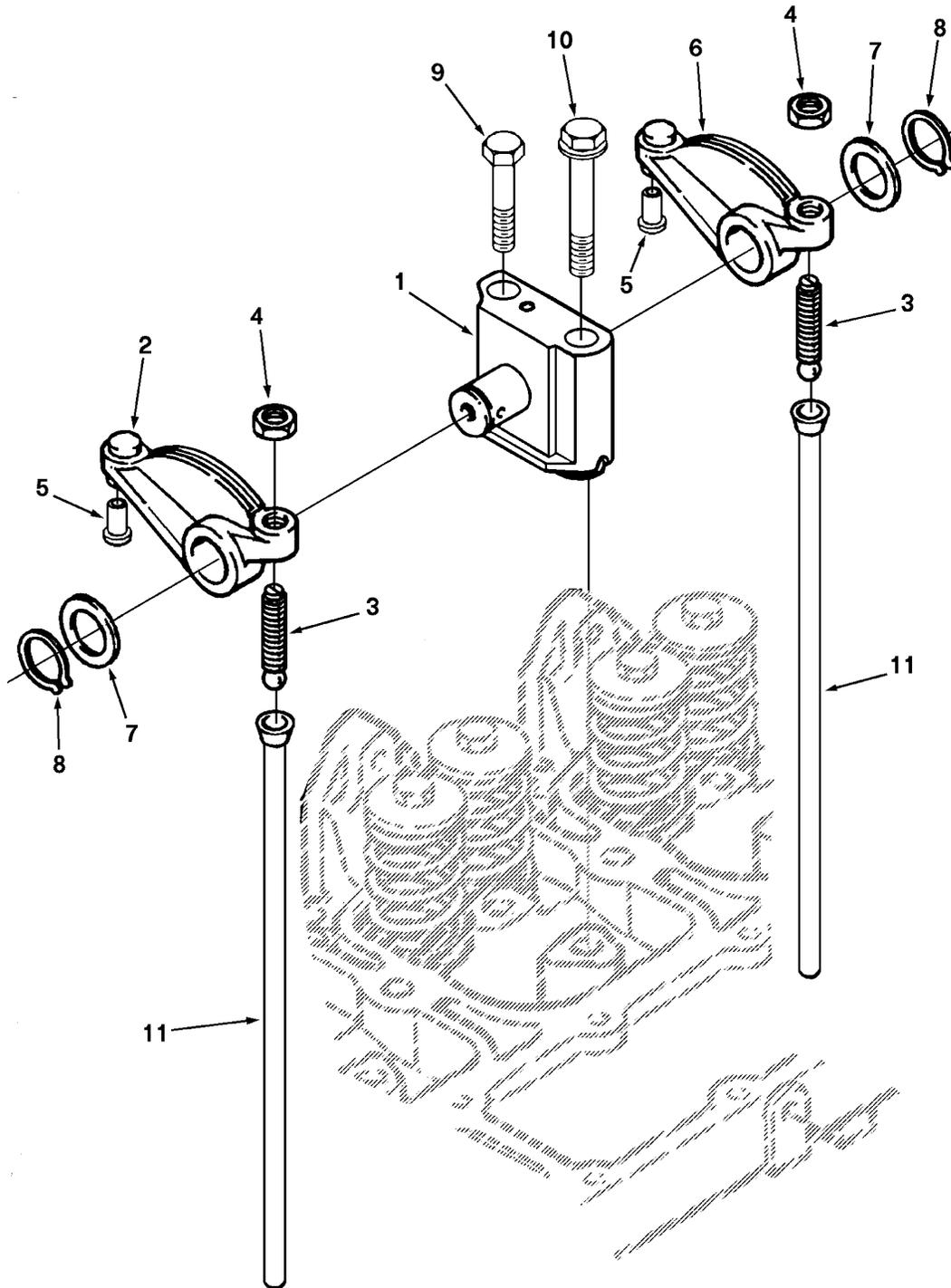
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

ROCKER LEVERS (FIGURE 2-48) CUMMINS DIESEL



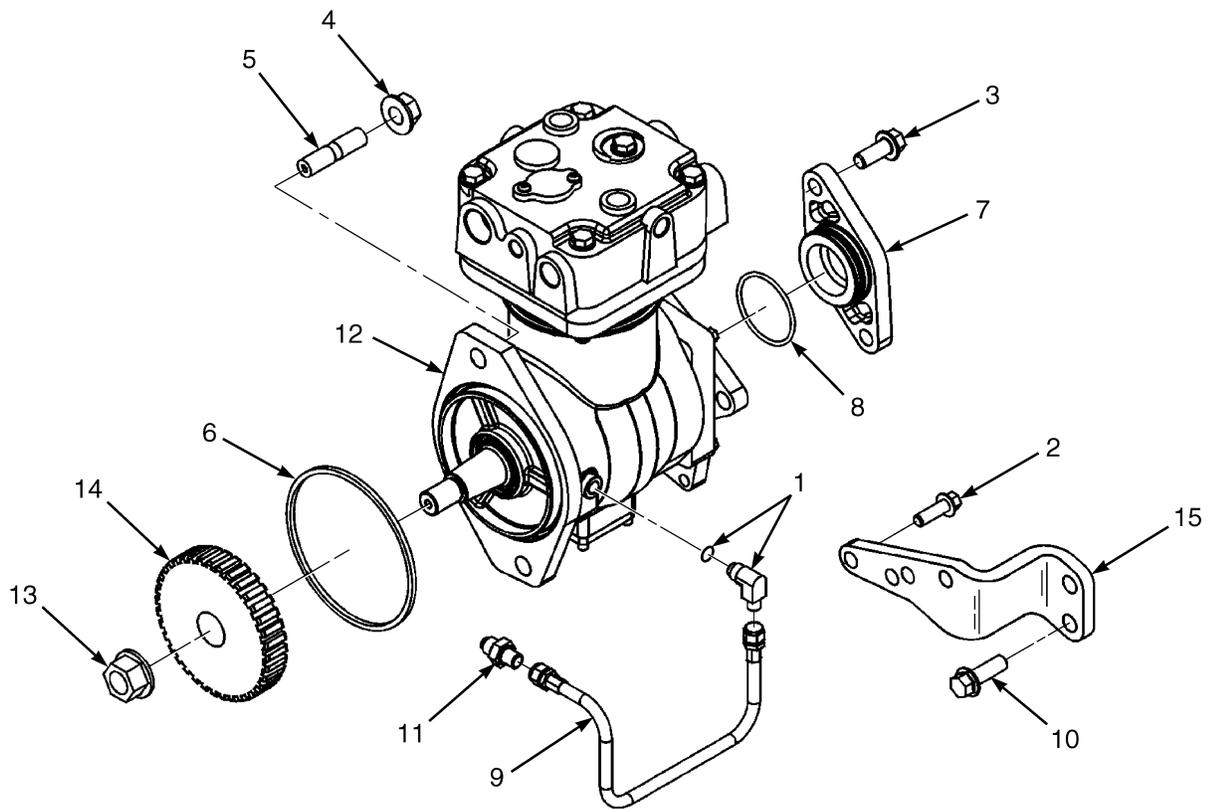
HP091192

**ROCKER LEVERS
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1543891	Support	6
1	1543892	Support	1
2	1543889	Rocker (Intake)	1
3	1543886	Screw	1
4	1513806	Nut	1
5	1543884	Insert	1
6	1543885	Rocker (Exhaust)	1
7	1543882	Washer	12
8	1543881	Retaining Ring	12
9	1543878	Capscrew	6
10	1543879	Capscrew	6
11	1543877	Rod	12
	1543883	Rocker (Exhaust)	6
	1543887	Rocker (Intake)	6

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

AIR COMPRESSOR (FIGURE 2-49) DRY BRAKE — CUMMINS DIESEL



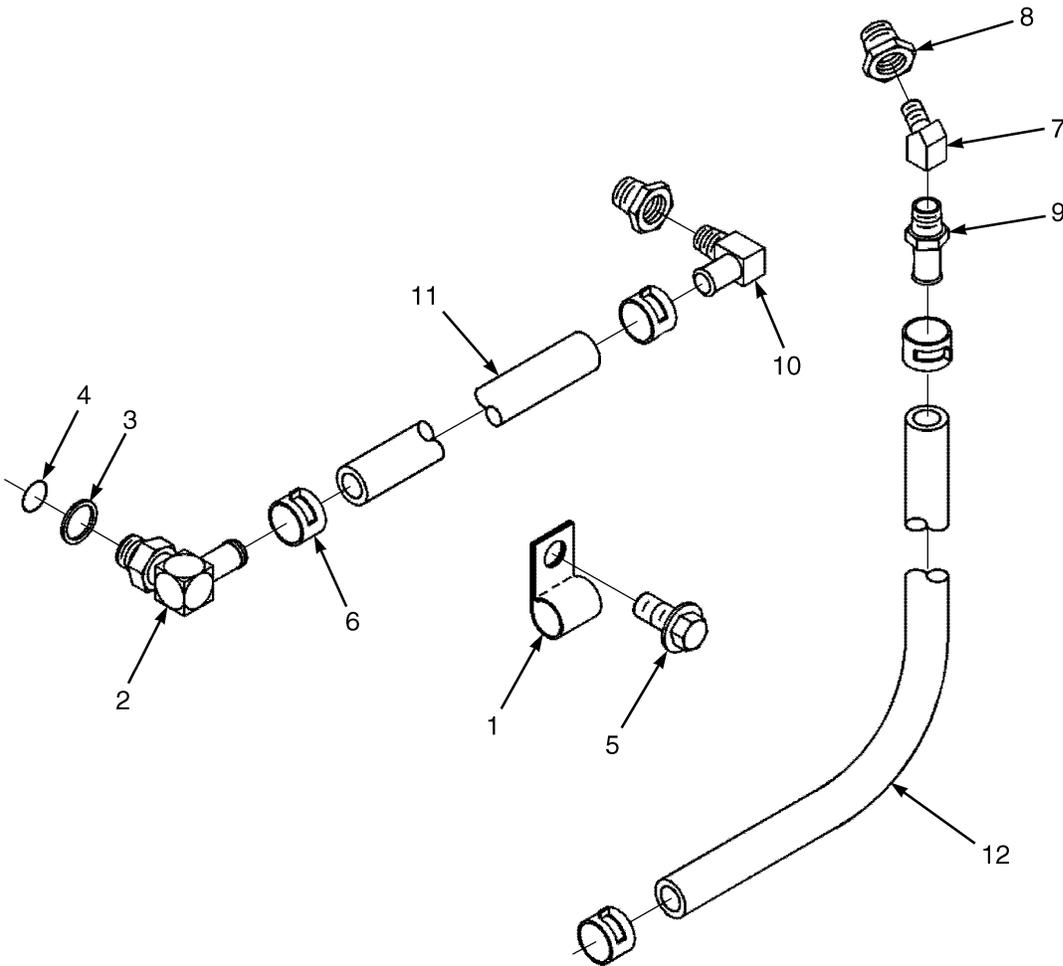
BP090170

**AIR COMPRESSOR
DRY BRAKE – CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512729	Adapter	1
1	1512616	O-Ring	1
2	1512005	Capscrew	2
3	1512503	Capscrew	2
4	1511978	Nut	2
5	1588934	Stud	2
6	1588097	Seal	1
7	1588935	Cover	1
8	1588098	O-Ring	1
9	1588100	Hose	1
10	1543337	Capscrew	2
11	1543341	Fitting	1
12	1588109	Compressor	1
13	1588937	Nut	1
14	1588938	Drive Gear (Accessory Drive)	1
15	1588936	Brace	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

AIR COMPRESSOR COOLANT PLUMBING (FIGURE 2-50) DRY BRAKE — CUMMINS DIESEL



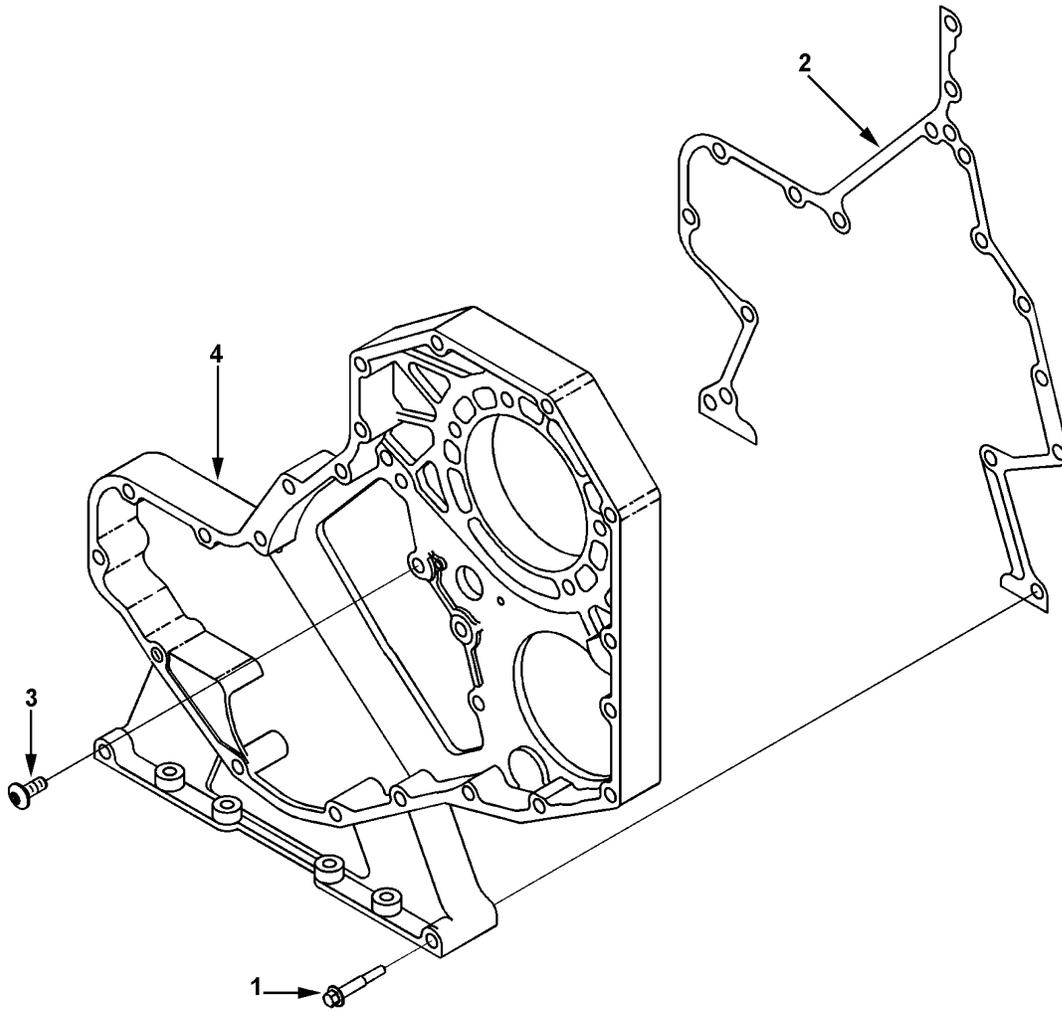
BP090171

**AIR COMPRESSOR COOLANT PLUMBING
DRY BRAKE – CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1588919	Clip	2
2	1588092	Coupling	2
3	1588920	Retaining Ring	1
4	1515895	O-Ring	1
5	1512418	Capscrew	2
6	1511955	Hose Clamp	4
7	1588921	Elbow	1
8	1511956	Bushing	2
9	1511957	Coupling	1
10	1511958	Coupling (Elbow)	1
11	1543330	Hose	1
12	1588105	Hose	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

FRONT GEAR HOUSING (FIGURE 2-51) CUMMINS DIESEL



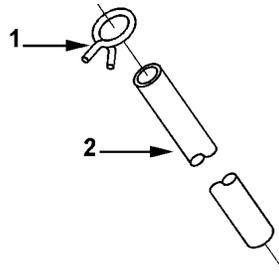
HP091144

**FRONT GEAR HOUSING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1513725	Capscrew	2
2	1521712	Gasket	1
3	1552204	Capscrew	5
4	1543340	Housing (Gear)	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

**CRANKCASE BREATHER (FIGURE 2-53)
CUMMINS DIESEL**



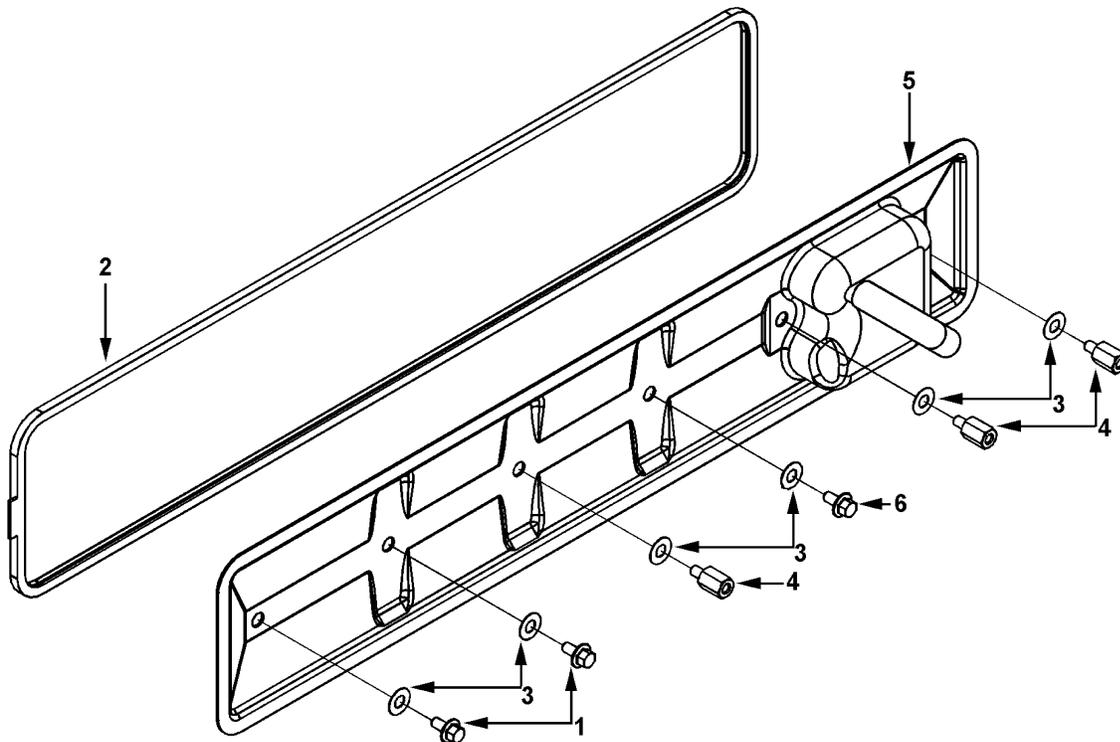
HP091146

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1511971	Hose Clamp	1
2	1511972	Hose	1

FOOTNOTES:

- a** → S/N G007E02037C
- b** S/N G007E02038C ↔ S/N G007E03205E
- c** S/N G007E03206E →

CAM FOLLOWER COVER (FIGURE 2-54) CUMMINS DIESEL



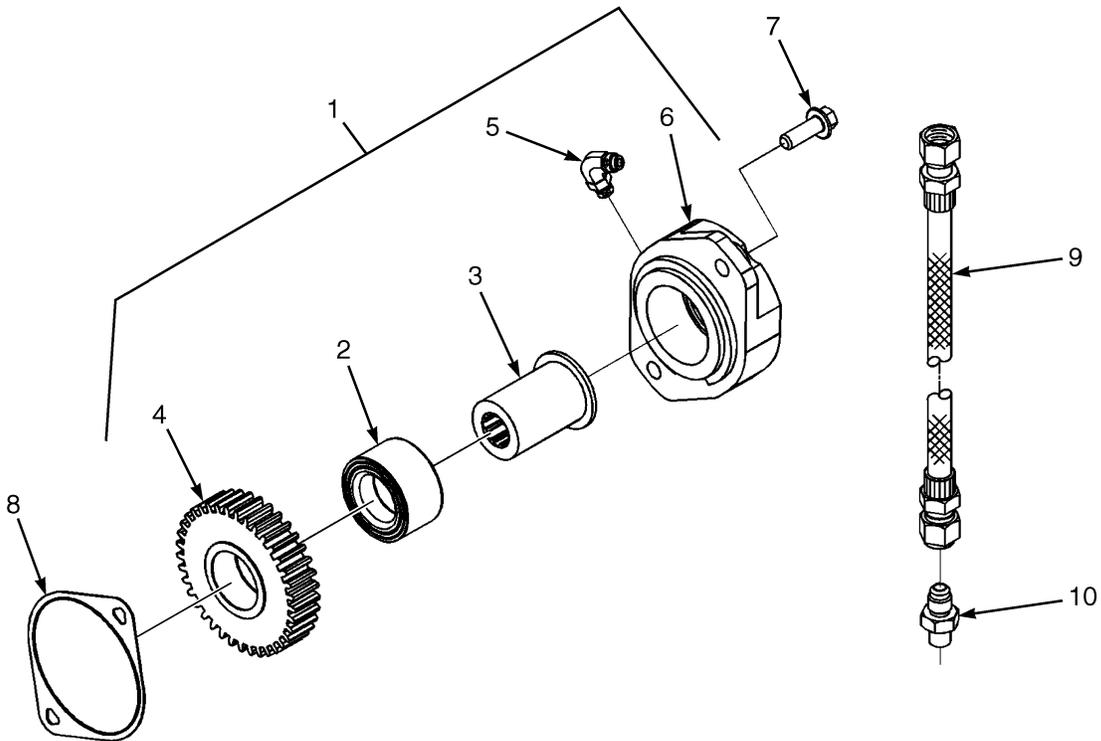
HP091147

**CAM FOLLOWER COVER
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1521810	Capscrew	3
2	1511974	Gasket	1
3	1511969	Seal	6
4	1517122	Spacer	2
5	1543336	Cover (Push Rod)	1
6	1513789	Capscrew	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

FRONT GEAR TRAIN ACCESSORY DRIVE (FIGURE 2-56) WET BRAKE — CUMMINS DIESEL



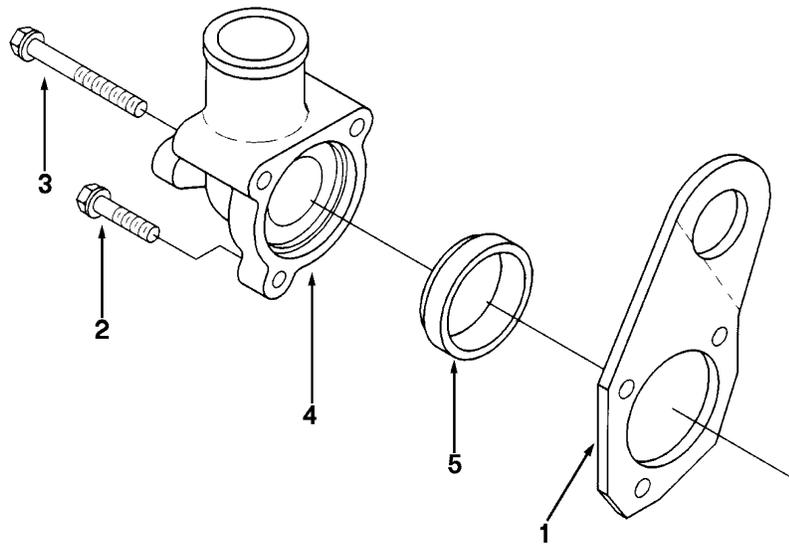
HP091149

**FRONT GEAR TRAIN ACCESSORY DRIVE
WET BRAKE – CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
1	1543347	Adapter (Hydraulic Pump)	1
2	1512330	Bearing	1
3	1512331	Drive Shaft	1
4	1602497	Drive Gear	1
5	1543348	Elbow	1
6	.....	Adapter (Body)	1
7	1511976	Capscrew	2
8	1512336	Gasket	1
9	1588101	Hose	1
10	1543341	Fitting	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

THERMOSTAT HOUSING (FIGURE 2-57) CUMMINS DIESEL



HP091174

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512302	Bracket	1
2	1512033	Capscrew	1
3	1544127	Capscrew	2
4	1544128	Thermostat Housing	1
5	1544129	Gasket	1
	1588087	Kit-Gasket	1

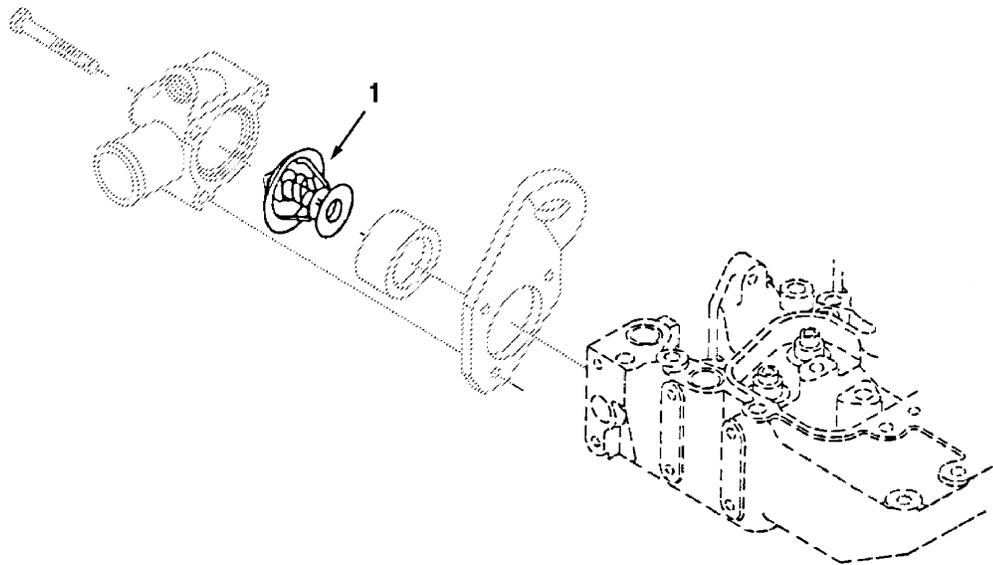
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

**THERMOSTAT (FIGURE 2-58)
CUMMINS DIESEL**



HP091150

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1603897	Thermostat	1

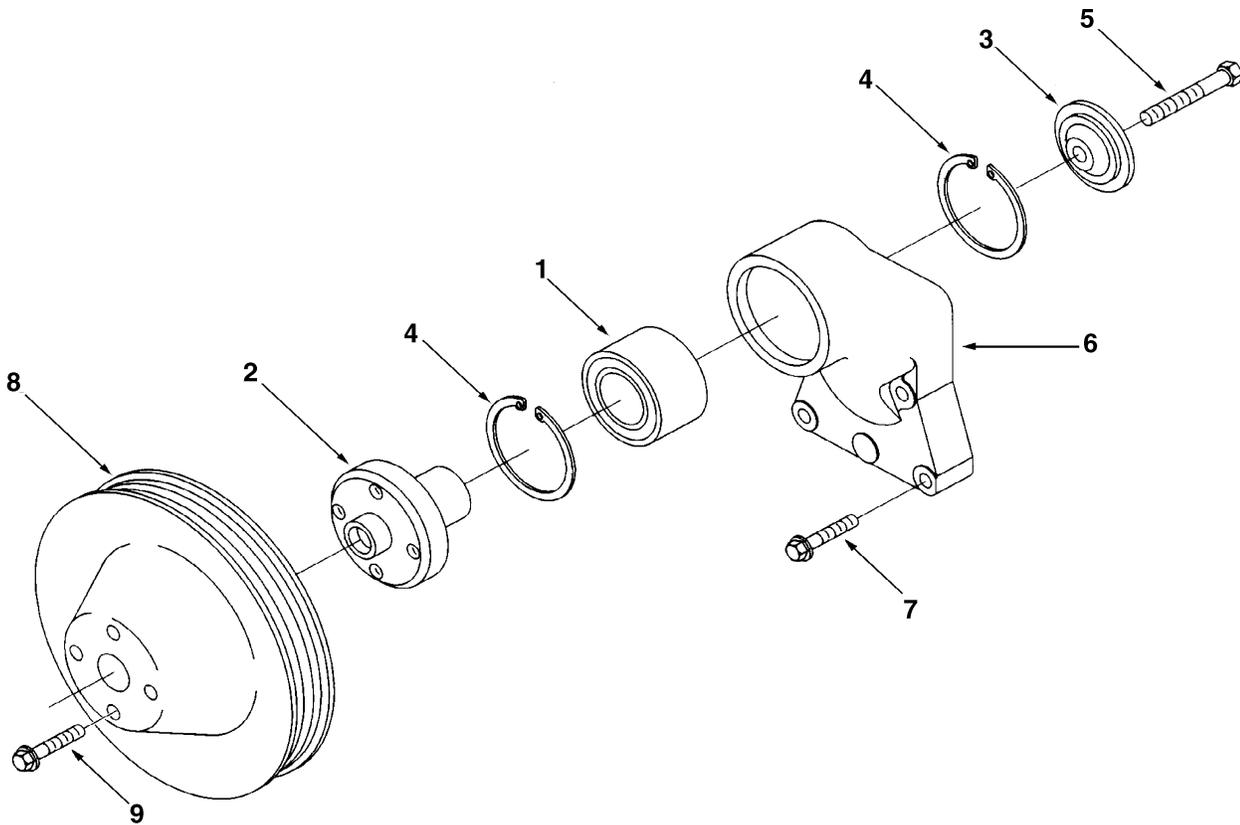
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

FAN DRIVE (FIGURE 2-59) CUMMINS DIESEL



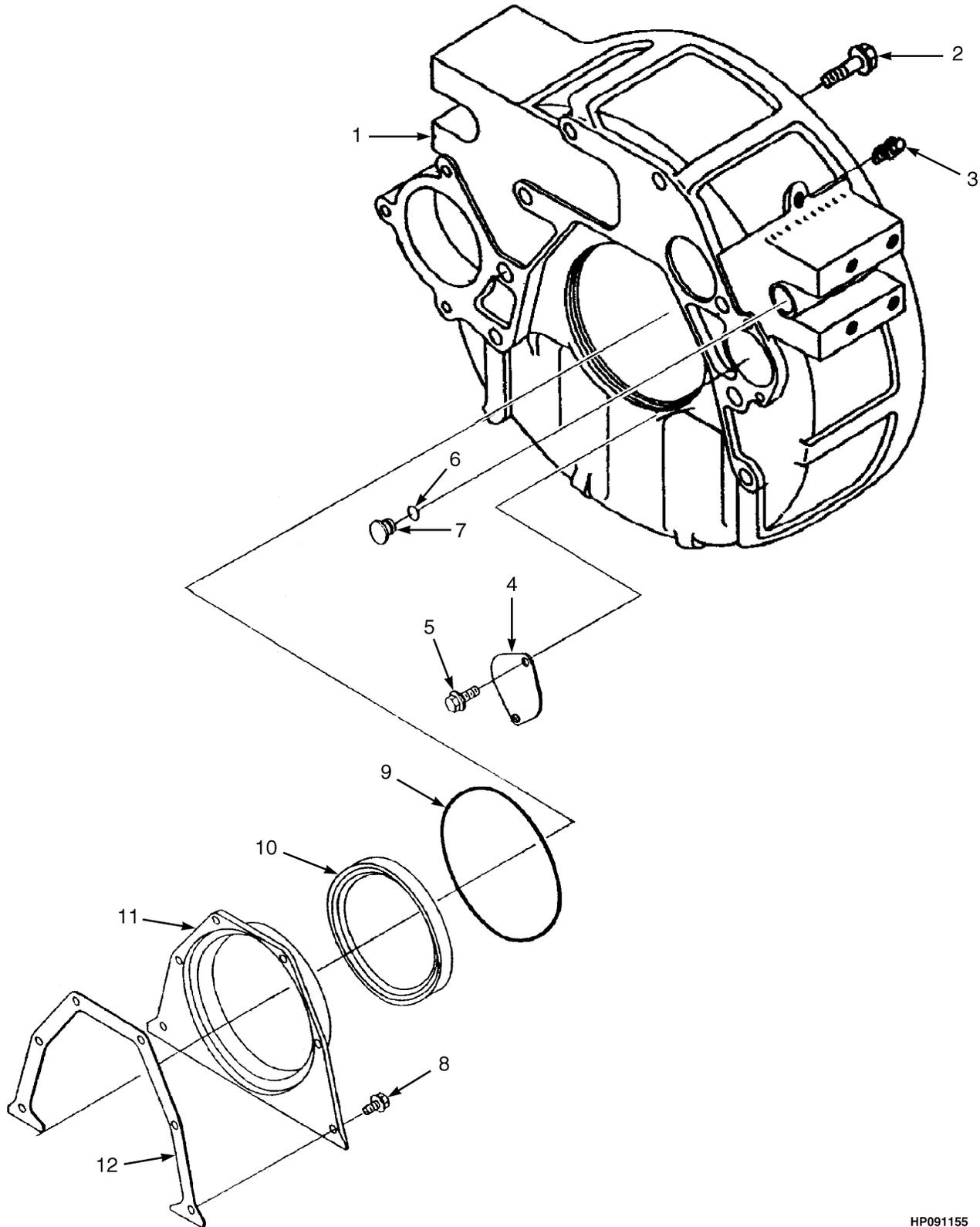
HP091152

**FAN DRIVE
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512015	Ball Bearing	1
2	1512024	Hub (Fan)	1
3	1512025	Hub	1
4	1512026	Retaining Ring	2
5	1512027	Capscrew	1
6	1512014	Support	1
7	1512029	Screw	4
8	1512425	Fan Pulley (Fan)	1
9	1512328	Capscrew	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

FLYWHEEL HOUSING (FIGURE 2-60) CUMMINS DIESEL



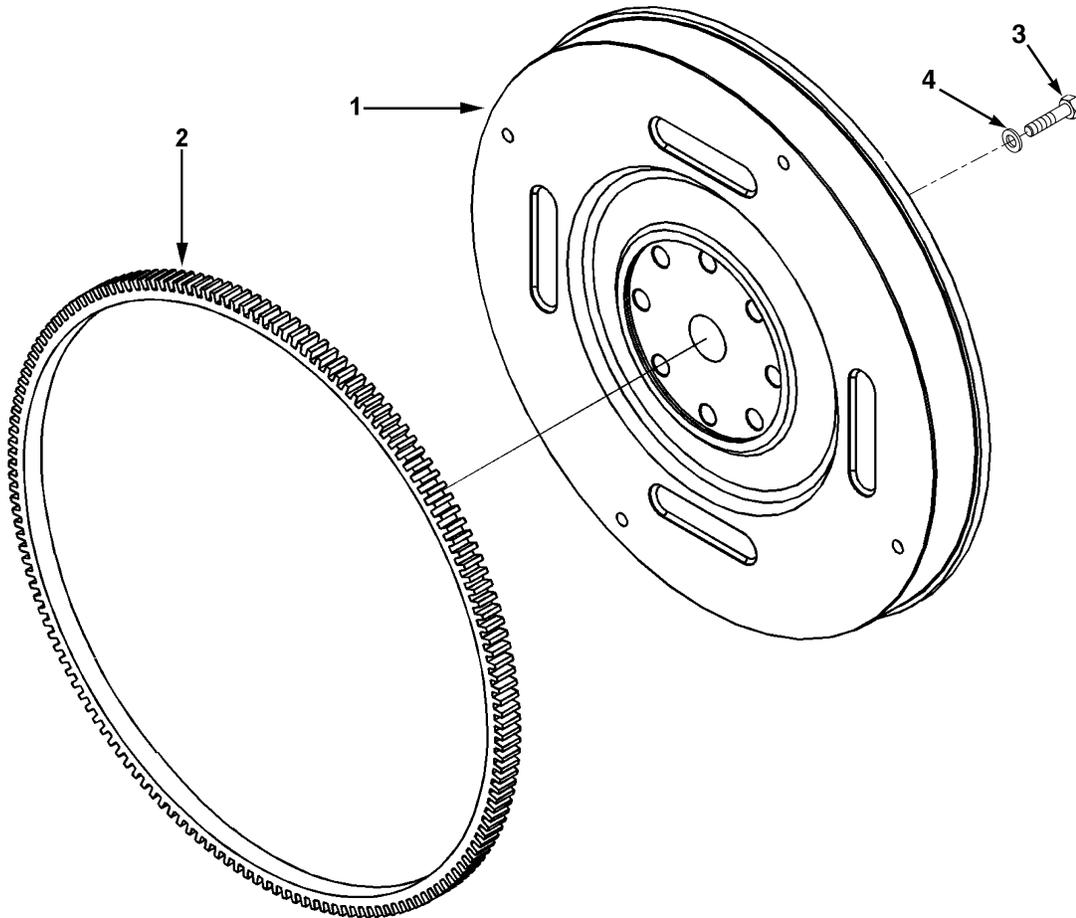
HP091155

**FLYWHEEL HOUSING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1543361	Flywheel Housing (Flywheel)	1
2	1512053	Capscrew	8
3	1512046	Plug	1
4	1512056	Cover Plate	1
5	1512045	Screw	2
6	1512048	O-Ring	1
7	1512047	Fitting	1
8	1543362	Capscrew	6
9	1512050	O-Ring	1
10	1564992	Kit-Seal (Crankshaft) (Crankshaft)	1
10	.....	Oil Seal	1
11	1597819	Cover (Rear)	1
12	1512052	Gasket	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

FLYWHEEL (FIGURE 2-61) CUMMINS DIESEL



HO091161

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1598354	Flywheel	1
2	1512445	Ring Gear	1
3	1512106	Capscrew	8
4	1512107	Washer	8

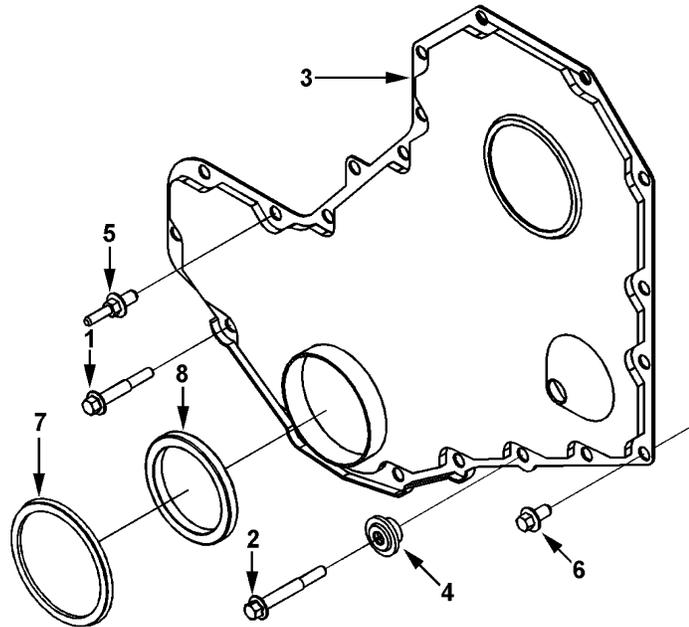
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

**FRONT GEAR COVER (FIGURE 2-62)
CUMMINS DIESEL**



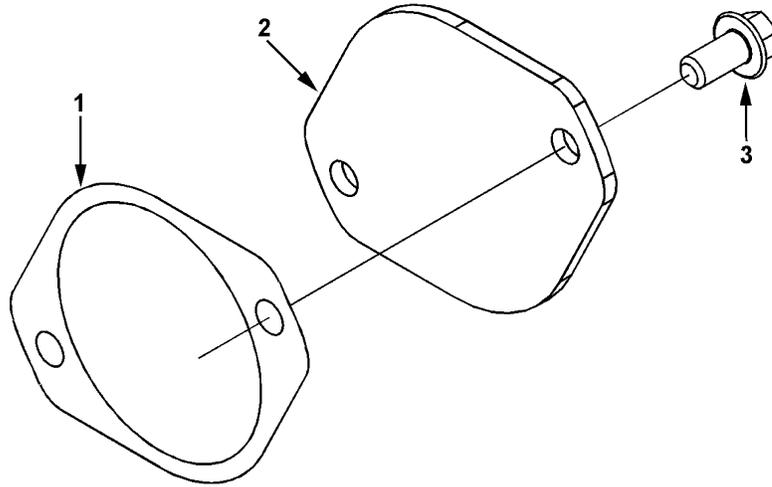
HP091162

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	d 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	d 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1513725	Capscrew	8
2	a 1513725	Capscrew	1
2	c 1543421	Capscrew	1
3	1543422	Cover	1
4	c 1521880	Retainer	1
5	1513789	Capscrew	2
6	1521875	Screw	9
7	c 1543426	Dust Shield	1
8	.....	Oil Seal	1
	c 1543425	Kit-Seal	1

FOOTNOTES:

- | | | | |
|----------|-----------------------------------|----------|-------------------|
| a | → S/N G007E02037C | c | S/N G007E02038C → |
| b | S/N G007E02038C ↔ S/N G007E03205E | d | S/N G007E03206E → |

**AUXILIARY PUMP COVER (FIGURE 2-64)
WET BRAKE — CUMMINS DIESEL**



HP091164

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
1	1512326	Gasket	1
2	1512327	Cover Plate	1
3	1512328	Capscrew	2

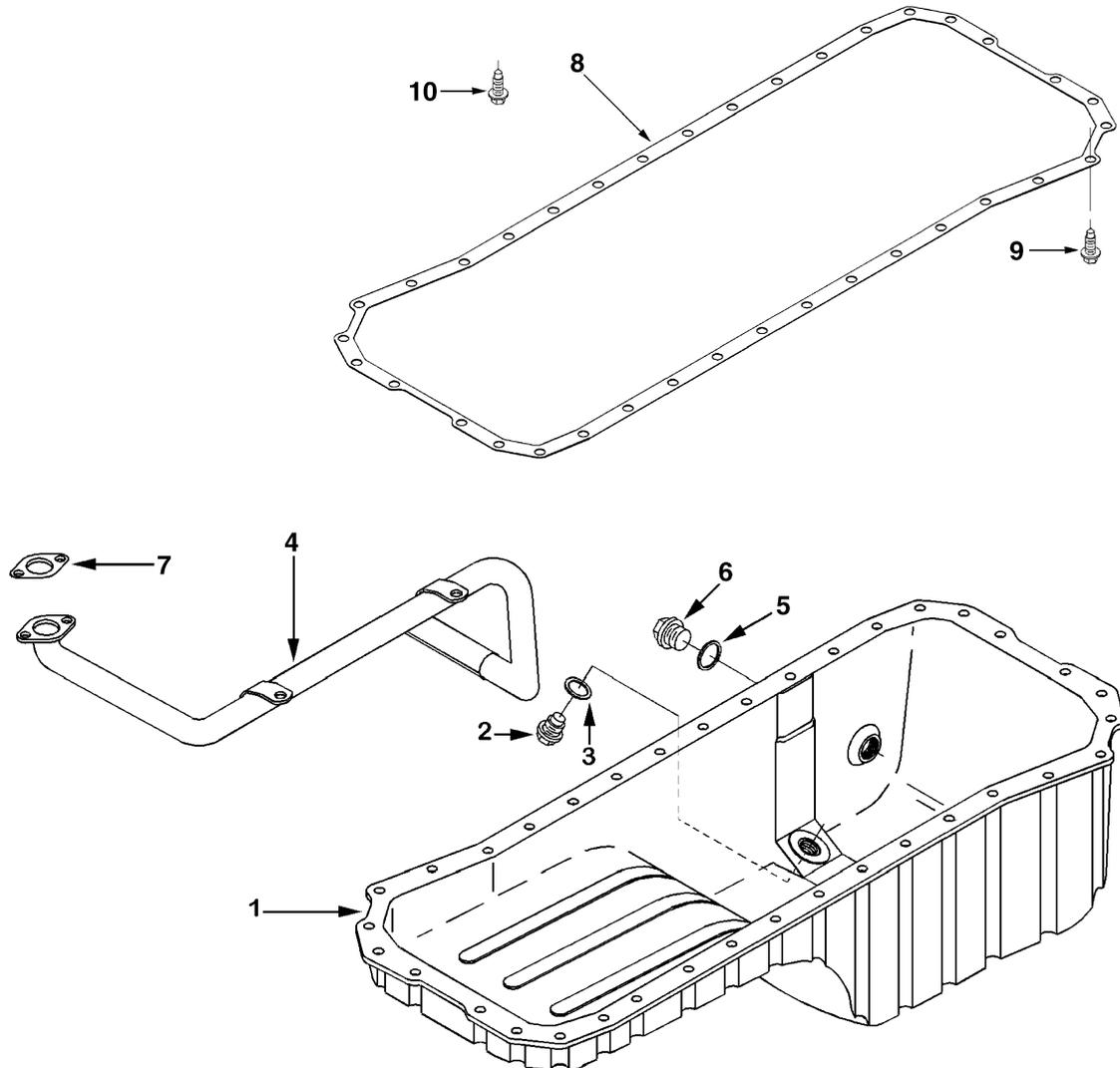
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

OIL PAN (FIGURE 2-65) CUMMINS DIESEL



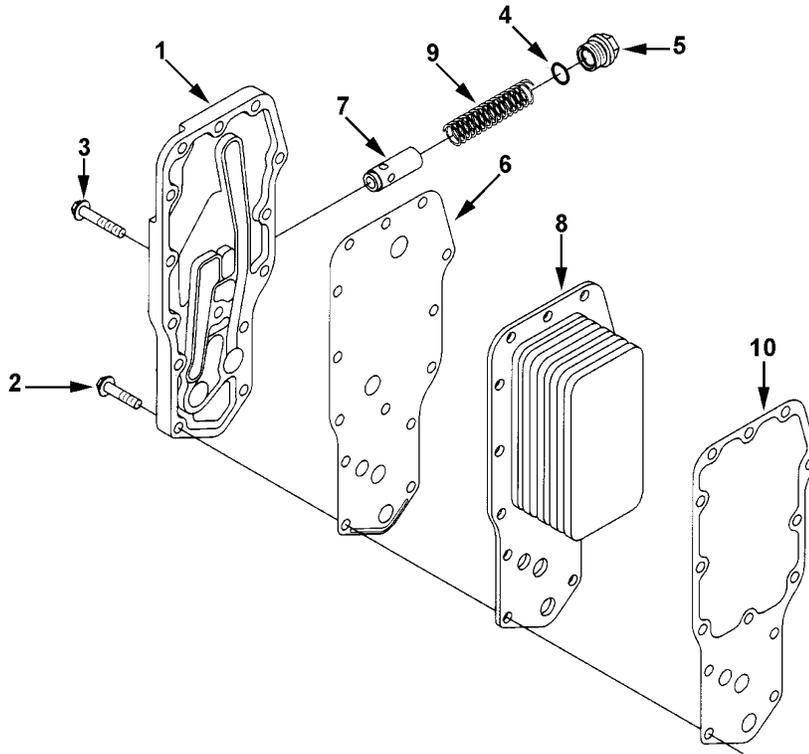
HP091190

**OIL PAN
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	.....	Oil Pan	1
2	1512134	Plug	1
3	1512135	Seal	1
4	1512136	Adapter (Oil Suction)	1
5	1512137	Seal	1
6	1512138	Plug	1
7	1512139	Gasket	1
8	1543424	Gasket	1
9	1513794	Capscrew	36
10	1512004	Capscrew	4
	1588086	Kit-Gasket	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

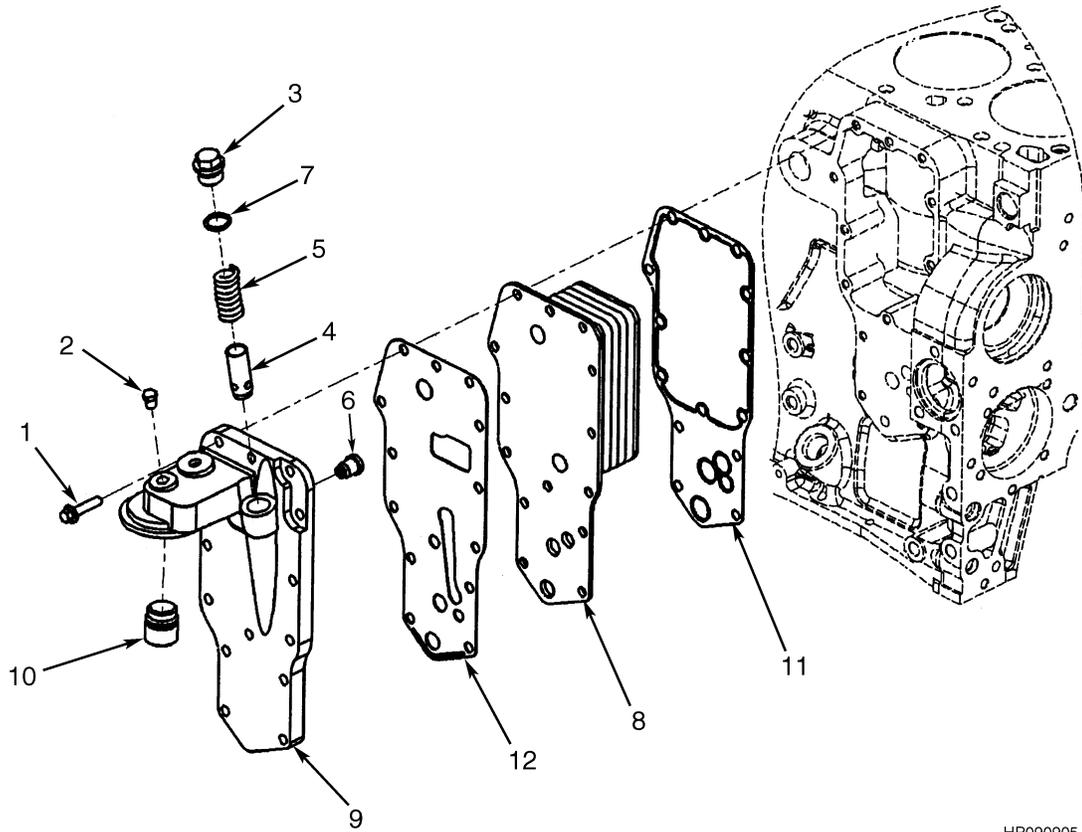
ENGINE OIL COOLER (FIGURE 2-66) CUMMINS DIESEL (→ S/N G007E02037C)



HP091165

ITEM	PART NO.	DESCRIPTION	QTY
	2060717	Engine Assy-Diesel (With Wet Brake)	1
	2060718	Engine Assy-Diesel (With Dry Brake)	1
1	1512121	Cover	1
2	1512033	Capscrew	13
3	1512111	Capscrew	1
4	1512118	O-Ring	1
5	1512117	Plug	1
6	1512116	Gasket	1
7	1512119	Plunger	1
8	1552286	Core	1
9	1512112	Spring	1
10	1638856	Gasket	1

**ENGINE OIL COOLER (FIGURE 2-67)
CUMMINS DIESEL (S/N G007E02038C →)**



HP090905

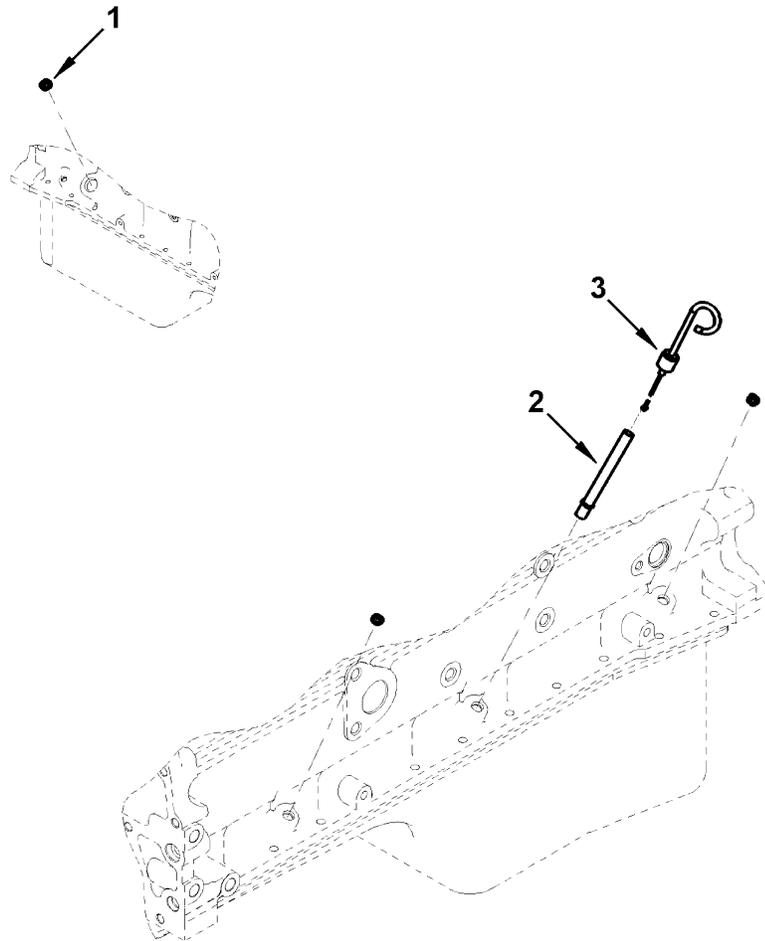
ITEM	PART NO.	DESCRIPTION	QTY
	a 2074944	Engine Assy-Diesel (With Wet Brake)	1
	b 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2074945	Engine Assy-Diesel (With Dry Brake)	1
	b 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512033	Capscrew	14
2	1512448	Fitting	1
3	1512453	Plug	3
4	1512119	Plunger	1
5	1512112	Spring	1
6	1513772	Relief Valve (Pressure)	1
7	1512118	O-Ring	1
8	1512114	Core	1
9	1512449	Filter Head	1
10	1512451	Adapter	1
11	1638856	Gasket	1
12	1512452	Gasket	1

FOOTNOTES:

a S/N G007E02038C ↔ S/N G007E03205E

b S/N G007E03206E →

OIL LEVEL GAUGE (FIGURE 2-68) CUMMINS DIESEL



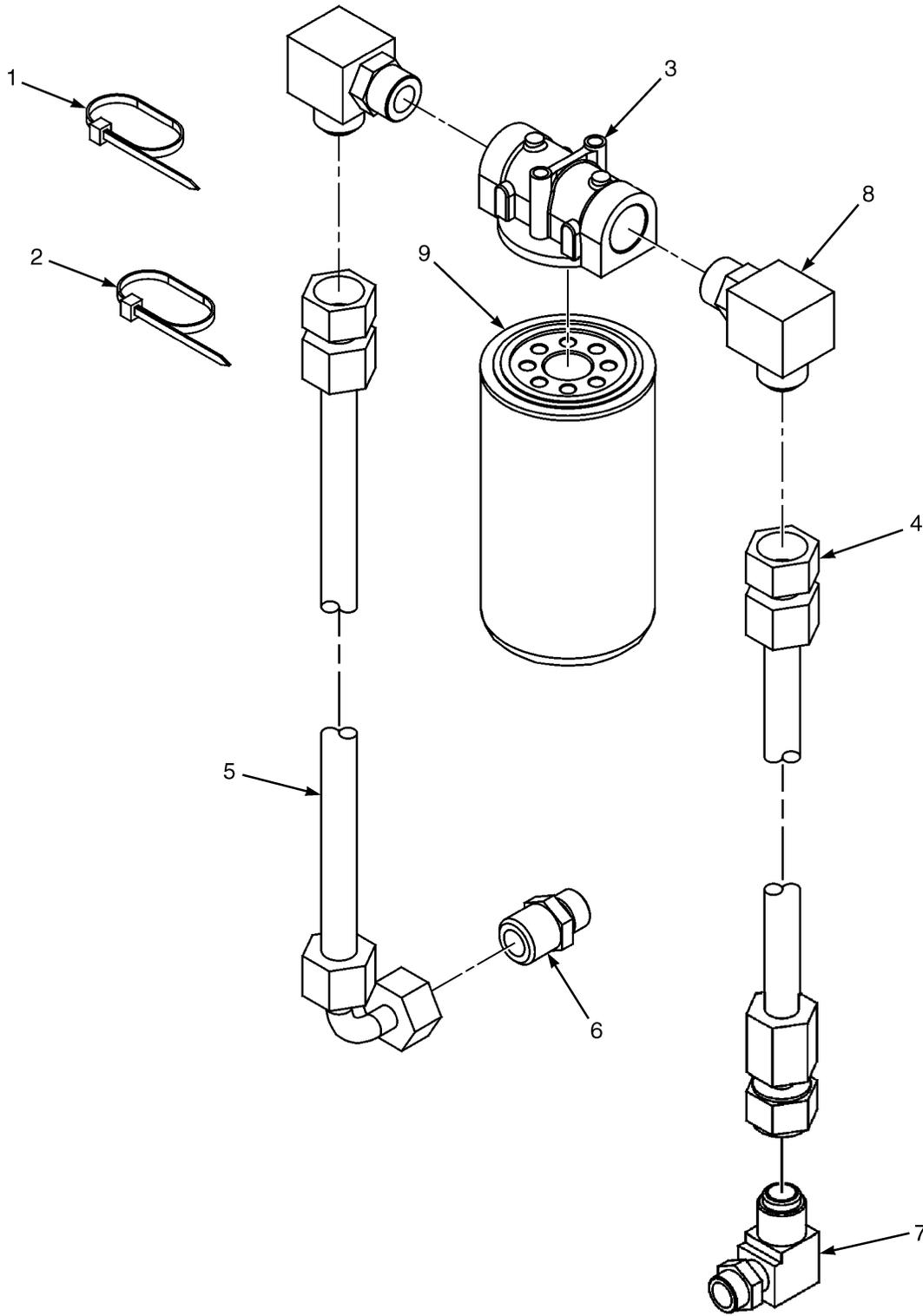
HP091166

**OIL LEVEL GAUGE
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512130	Plug	3
2	1624829	Dipstick Tube	1
3	1512132	Dipstick	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

OIL FILTER (FIGURE 2-69) CUMMINS DIESEL



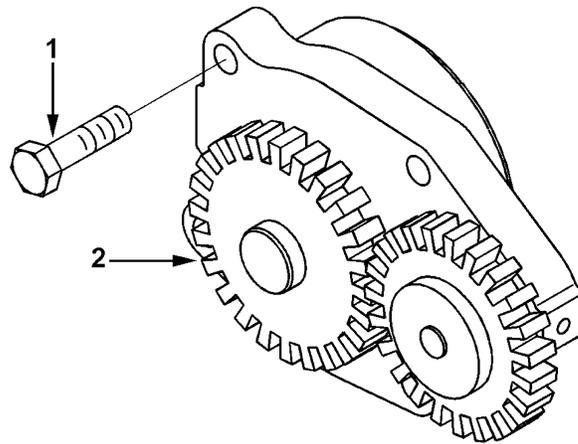
HP091256

**OIL FILTER
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512128	Strap Clamp	2
2	1591915	Strap Clamp	1
3	1591916	Filter Head	1
4	1512127	Hose	1
5	1512126	Hose	1
6	1512115	Fitting	1
7	1512113	Adapter (Elbow)	1
8	1512124	Fitting (Elbow)	2
9	1588143	Oil Filter	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

OIL PUMP (FIGURE 2-70) CUMMINS DIESEL



HP091167

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512456	Capscrew	4
2	1661076	Oil Pump	1

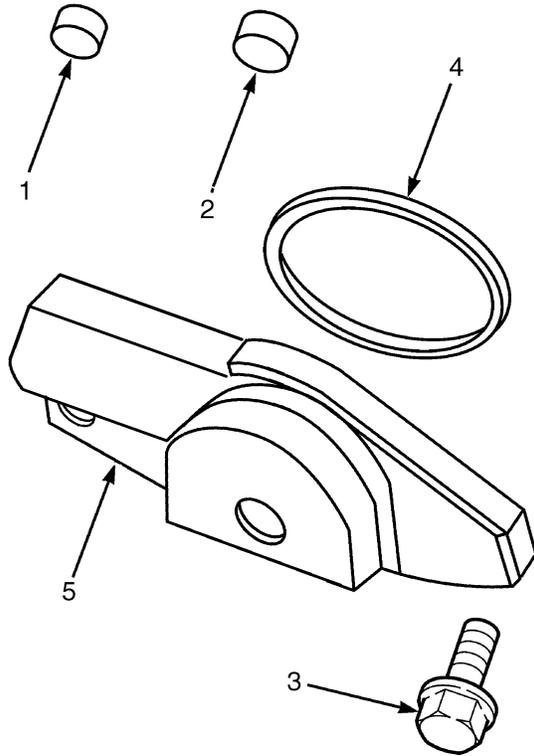
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

**CAB HEATER PLUMBING (FIGURE 2-71)
DRY BRAKE — CUMMINS DIESEL**



HP091182

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1511952	Fitting	6
2	1512292	Plug	1
3	1511953	Capscrew	2
4	1511954	Sealing Ring	1
5	1511959	Connector (Water Transfer)	1

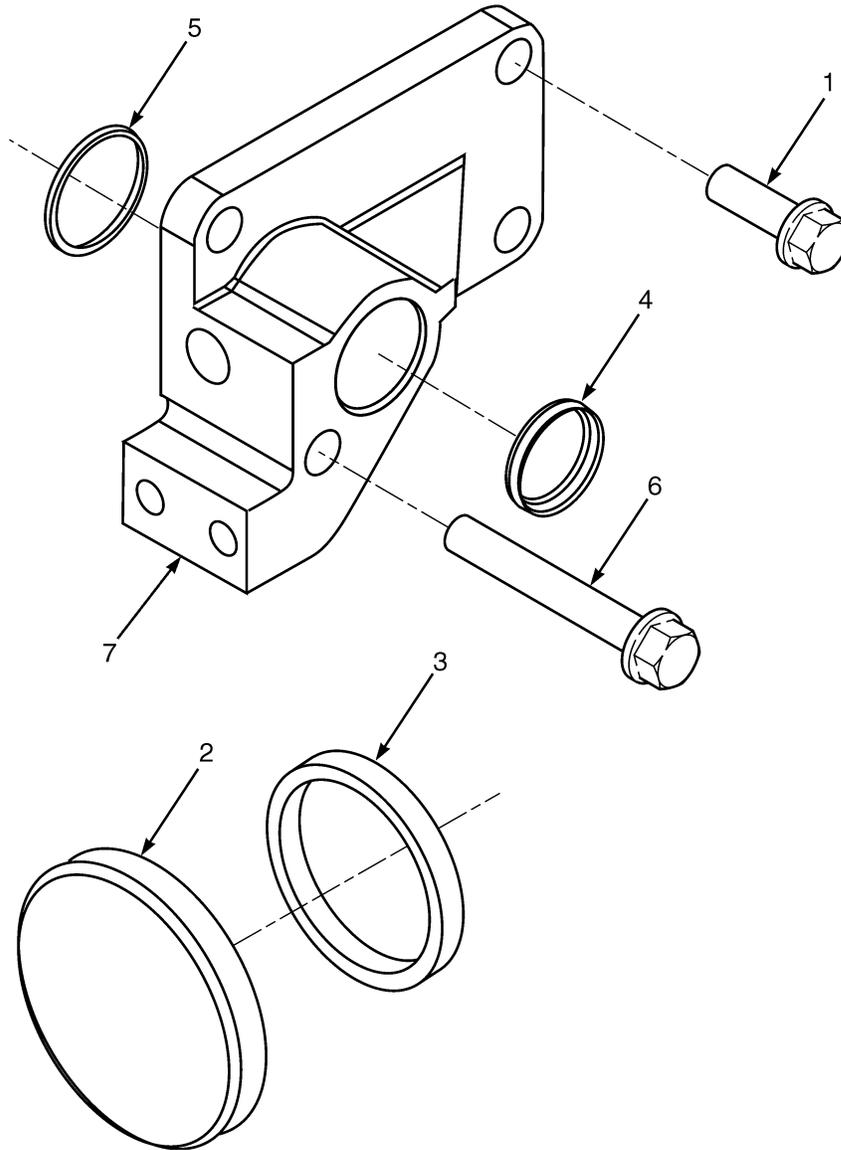
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

**OIL DRAIN CONNECTION AND ACCESSORY HOLE COVER (FIGURE 2-73)
DRY BRAKE — CUMMINS DIESEL**



HP091181

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1511976	Capscrew	3
2	1512011	Cover	1
3	1512012	Sealing Ring	1
4	1513788	Plug	1
5	1511979	O-Ring	1
6	1511981	Capscrew	1
7	1511983	Connector (Oil Drain)	1

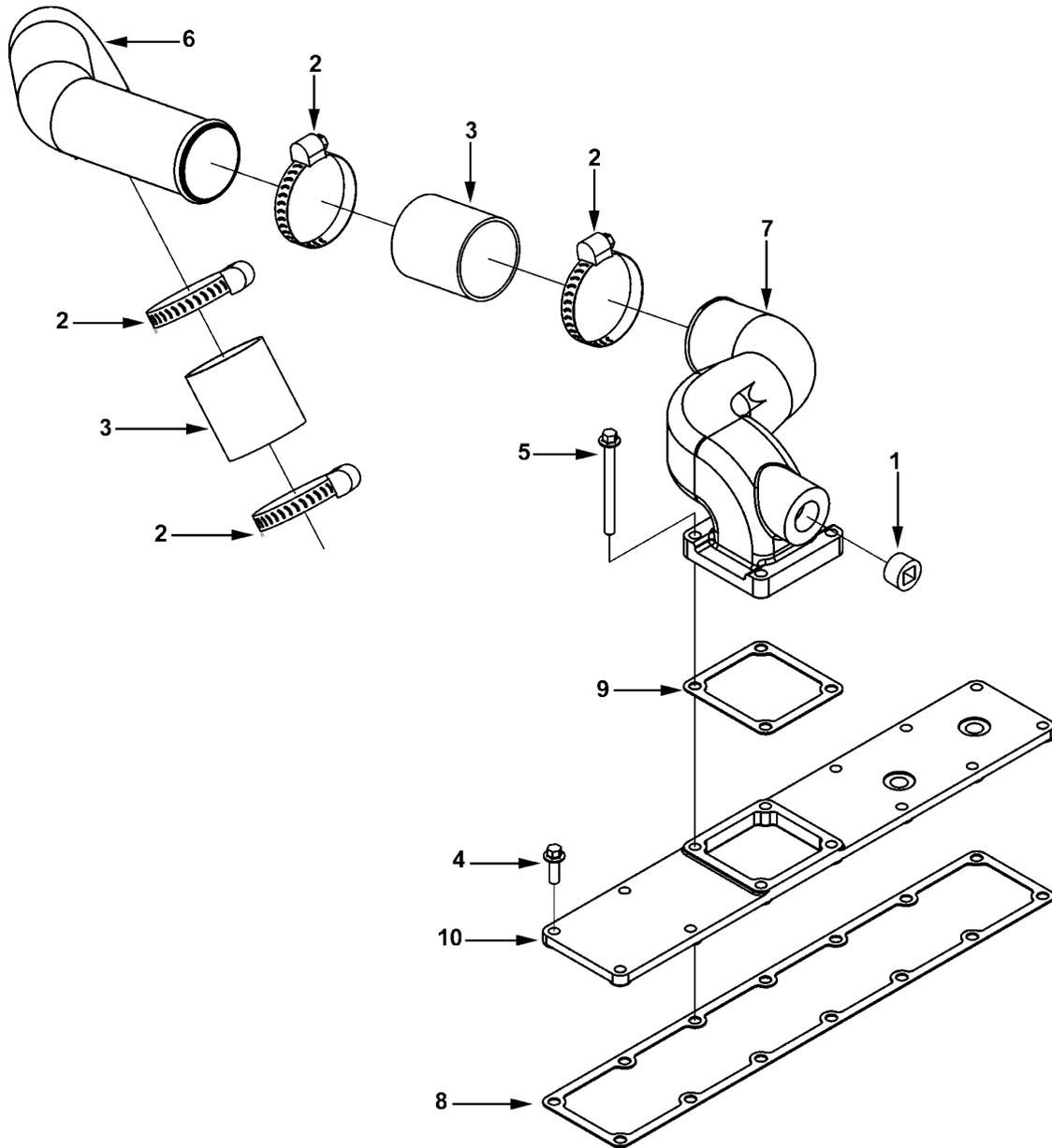
FOOTNOTES:

a → S/N G007E02037C

c S/N G007E03206E →

b S/N G007E02038C ↔ S/N G007E03205E

AIR CROSSOVER CONNECTION (FIGURE 2-75) CUMMINS DIESEL



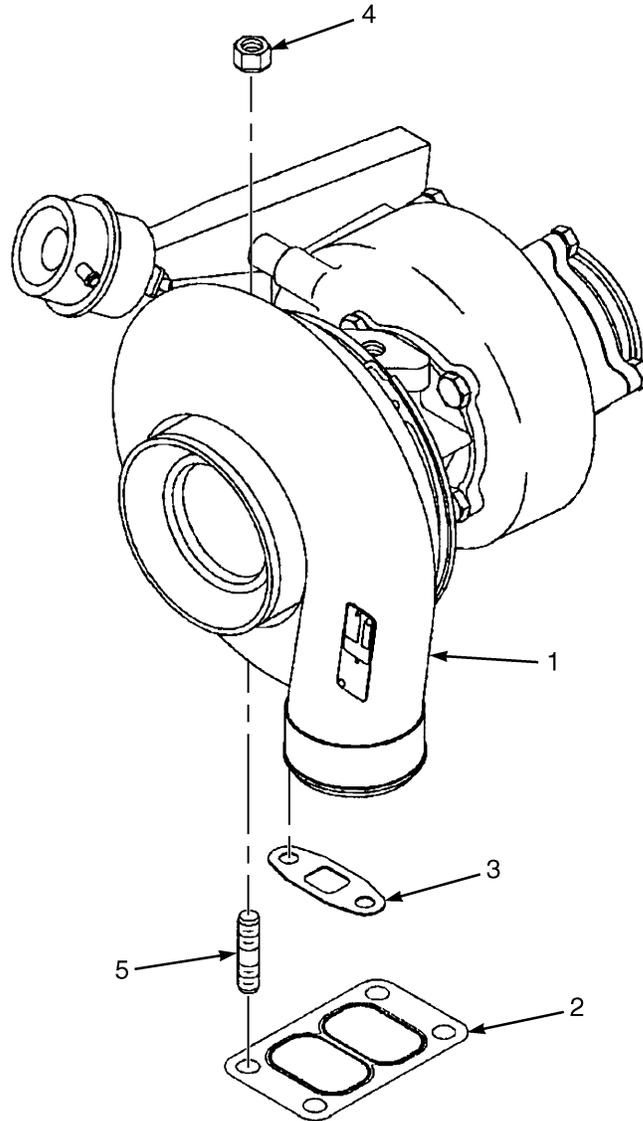
HP091173

**AIR CROSSOVER CONNECTION
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1512292	Plug	1
2	1512293	Hose Clamp	4
3	1588108	Hose	2
4	1512295	Capscrew	3
5	1512296	Capscrew	4
6	1512298	Tube	1
7	1543898	Connector (Air Crossover)	1
8	1512300	Gasket	1
9	1596648	Gasket	1
10	1543899	Cover (Intake Manifold)	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

TURBOCHARGER (FIGURE 2-76) CUMMINS DIESEL

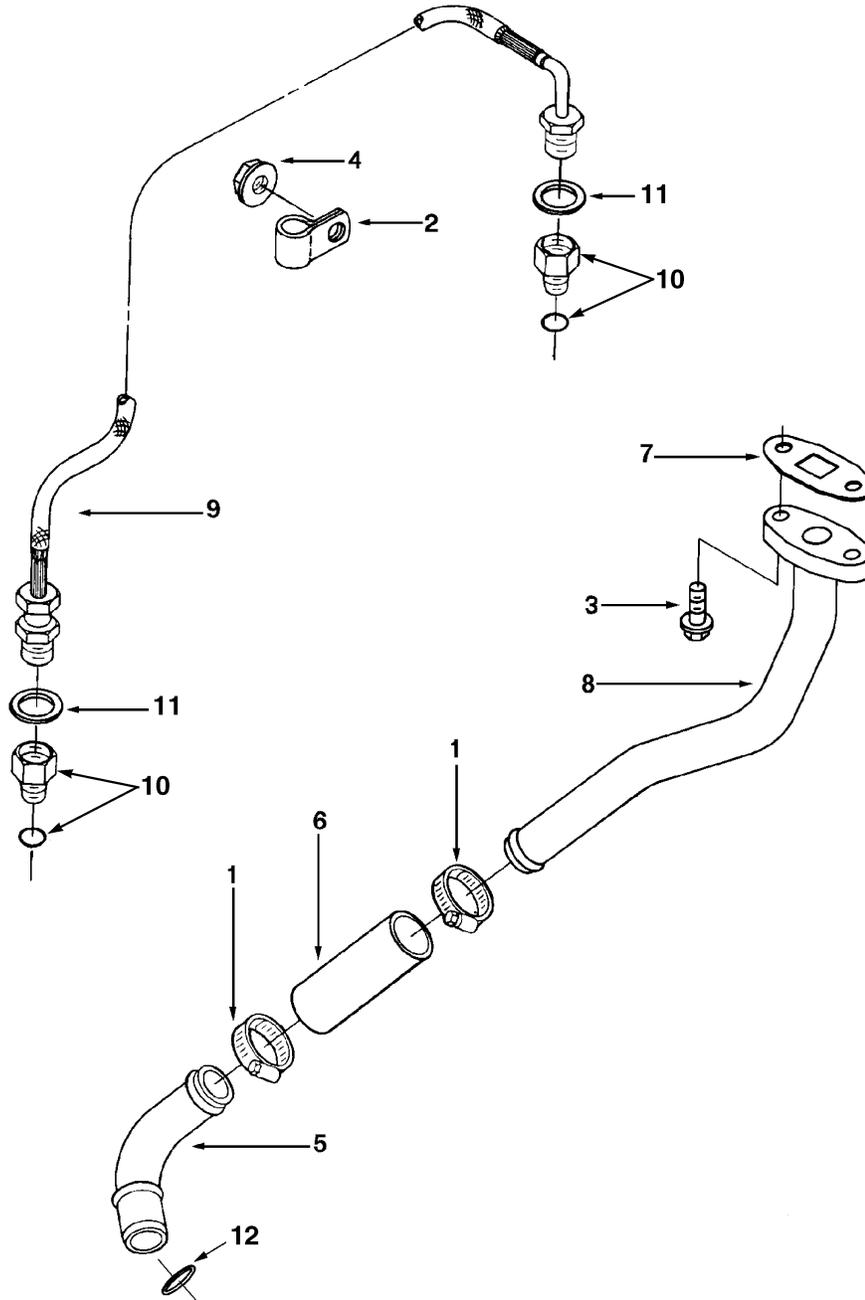


BP090169

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	.....	Turbocharger	1
2	1517238	Gasket	1
3	1514565	Gasket (Oil Drain)	1
4	1513338	Nut	4
5	1513337	Stud	4
	1588112	Turbocharger	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

TURBOCHARGER OIL PLUMBING (FIGURE 2-77) CUMMINS DIESEL



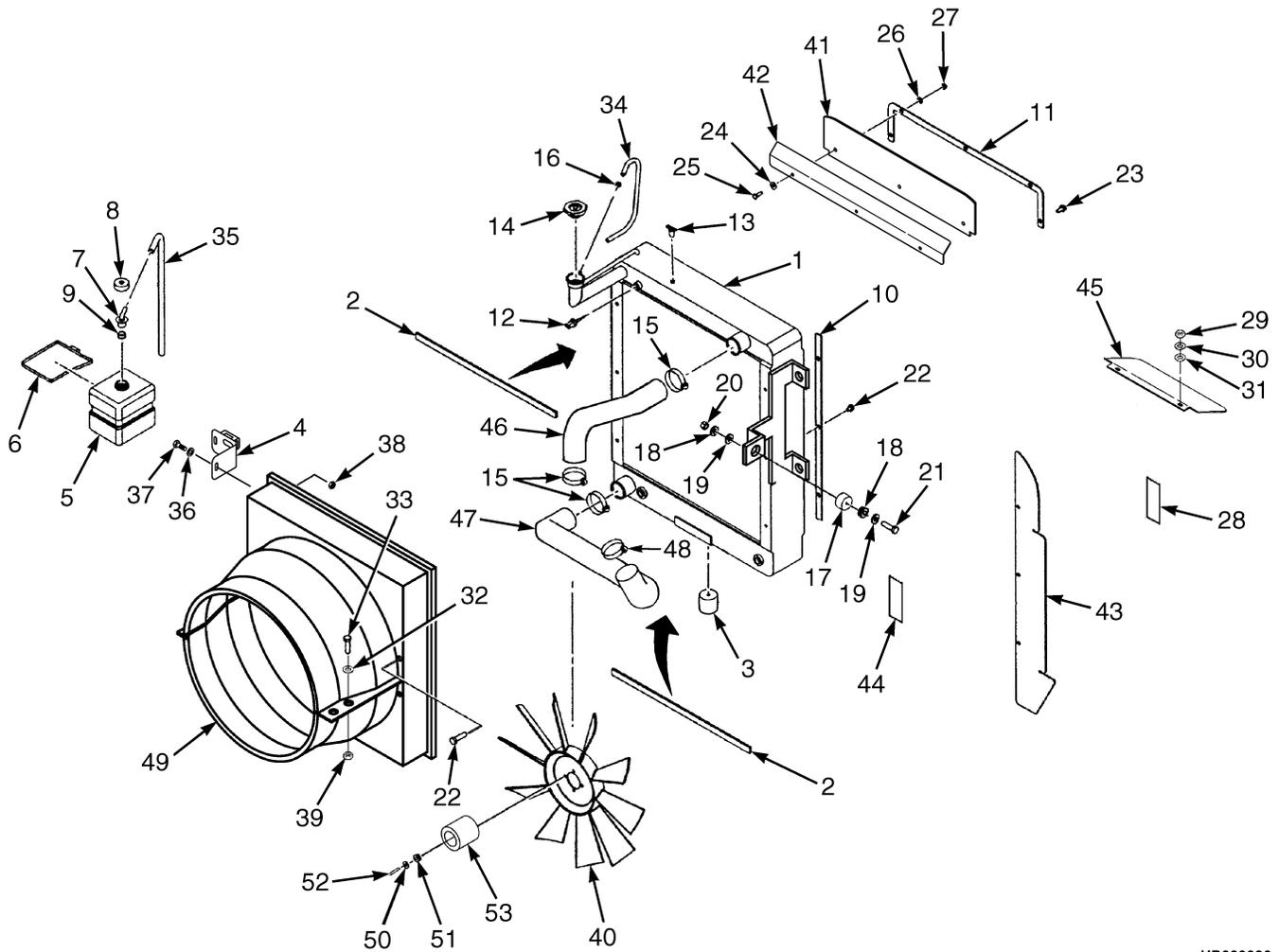
HP091175

**TURBOCHARGER OIL PLUMBING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	d 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	d 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1517268	Hose Clamp	2
2	1588106	Clamp	1
3	1512004	Capscrew	2
4	1514483	Nut	1
5	1521962	Tube	1
6	1517269	Hose	1
7	1514565	Gasket (Oil Drain)	1
8	1588834	Pipe (Oil Drain)	1
9	a 1588090	Hose	1
9	c 1588836	Hose	1
10	1514566	Connector	2
11	1514568	Sealing Ring	2
12	1517270	O-Ring	1
	1514339	Plug (Not Illustrated)	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C ↔ S/N G007E03205E**c** S/N G007E02038C →**d** S/N G007E03206E →

COOLING (FIGURE 2-78) CUMMINS DIESEL



HP060020

**COOLING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	2053634	Radiator	1
2	1557528	Foam Tape	1
3	376649	Isolator	1
4	1602371	Bracket Wldmt	1
5	344432	Reservoir	1
6	340204	Strap	1
7	345453	Outlet (Reservoir)	1
8	345454	Cap	1
9	336550	Bushing	1
10	1523853	Plate	2
11	1523854	Bracket	1
12	1401160	Sender (Coolant Level)	1
13	12815	Drain Valve (Drain)	2
14	178899	Radiator Cap (Radiator)	1
15	119236	Clamp	3
16	353310	Clamp	2
17	1307730	Mount	2
18	15134	Washer	4
19	15156	Lockwasher	4
20	15056	Nut	2
21	16805	Capscrew	2
22	139589	Screw	12
23	157233	Screw	2
24	15175	Lockwasher	3
25	18496	Capscrew	3
26	18515	Washer	3
27	15114	Locknut	3
28	212899	Foam Tape	AR
29	136692	Nut	2
30	320160	Washer	10
31	292682	Lockwasher	2
32	320156	Washer	8
33	292500	Capscrew	4
34	1329240	Hose	1
35	1663877	Hose	1
36	320157	Washer	1
37	176640	Bolt	1
38	302400	Nut	1
39	313805	Nut	4
40	1544141	Fan (Puller)	1
40	1538813	Fan (Pusher) (Optional)	1
41	a 1523852	Screen (Rubber)	1
41	b 1524478	Screen (Rubber)	1
42	b 1544847	Plate	1
43	a 1523851	Screen (Rubber)	2
43	b 1524477	Screen (Rubber)	2
44	1303390	Tape	2
45	1479369	Baffle	1
46	1524086	Radiator Hose (Upper)	1
47	1537654	Radiator Hose (Lower)	1

COOLING CUMMINS DIESEL

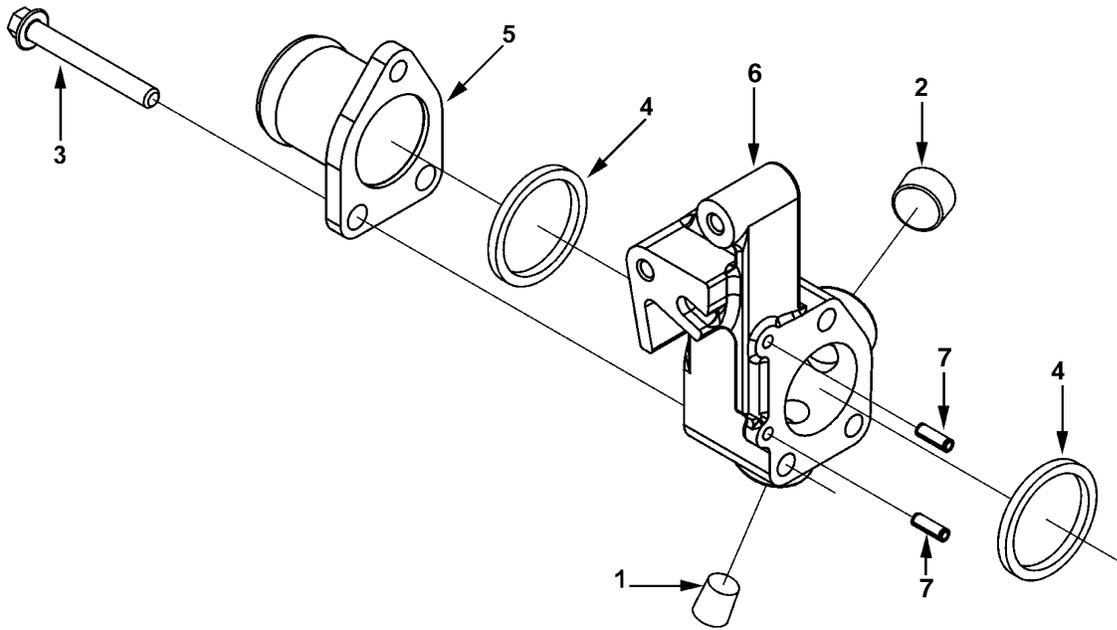
ITEM	PART NO.	DESCRIPTION	QTY
48	119236	Clamp	1
49	1525754	Shroud (Puller)	2
49	1520706	Shroud (Pusher)	2
50	292682	Lockwasher	4
51	136692	Nut	4
52	1504609	Stud	4
53	1512287	Spacer (Fan Pilot)	1
	1557679	Clip (Not Illustrated)	4

FOOTNOTES:

a H170-210HD

b H230-280HD

WATER INLET CONNECTION (FIGURE 2-80) CUMMINS DIESEL



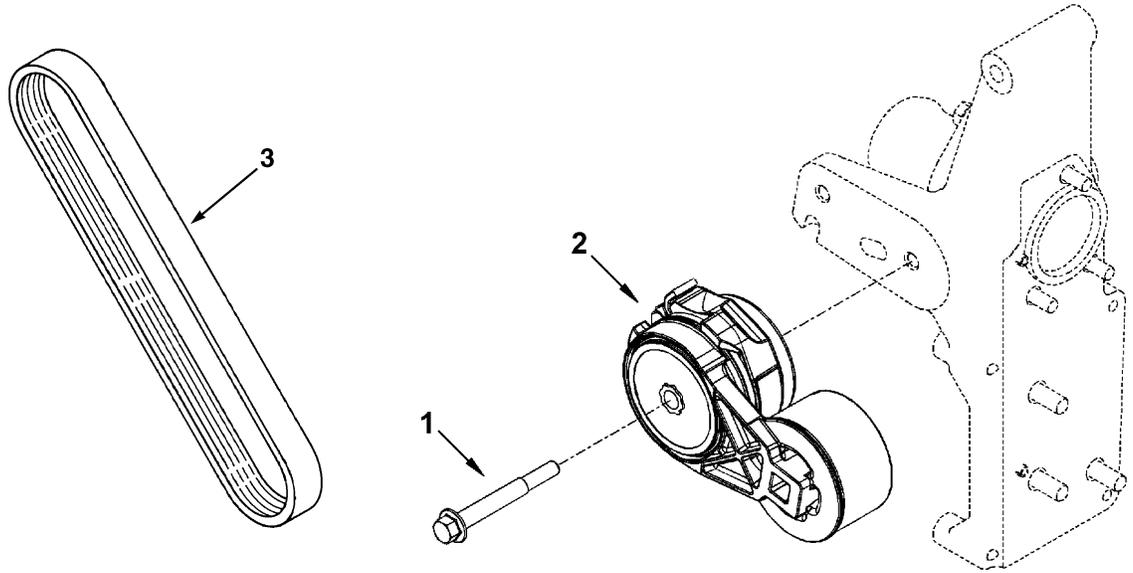
HP091177

**WATER INLET CONNECTION
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	c 2097641	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	c 2097642	Engine Assy-Diesel (With Dry Brake)	1
1	1511952	Fitting	1
2	1512292	Plug	1
3	1521938	Capscrew	3
4	1512305	O-Ring	2
5	1521969	Water Inlet (Water Inlet)	1
6	1521970	Water Inlet (Water Inlet)	1
7	1521971	Roll Pin	2

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E03206E →**b** S/N G007E02038C ↔ S/N G007E03205E

**ACCESSORY DRIVE BELT AND TENSIONER (FIGURE 2-82)
CUMMINS DIESEL**



HP091179

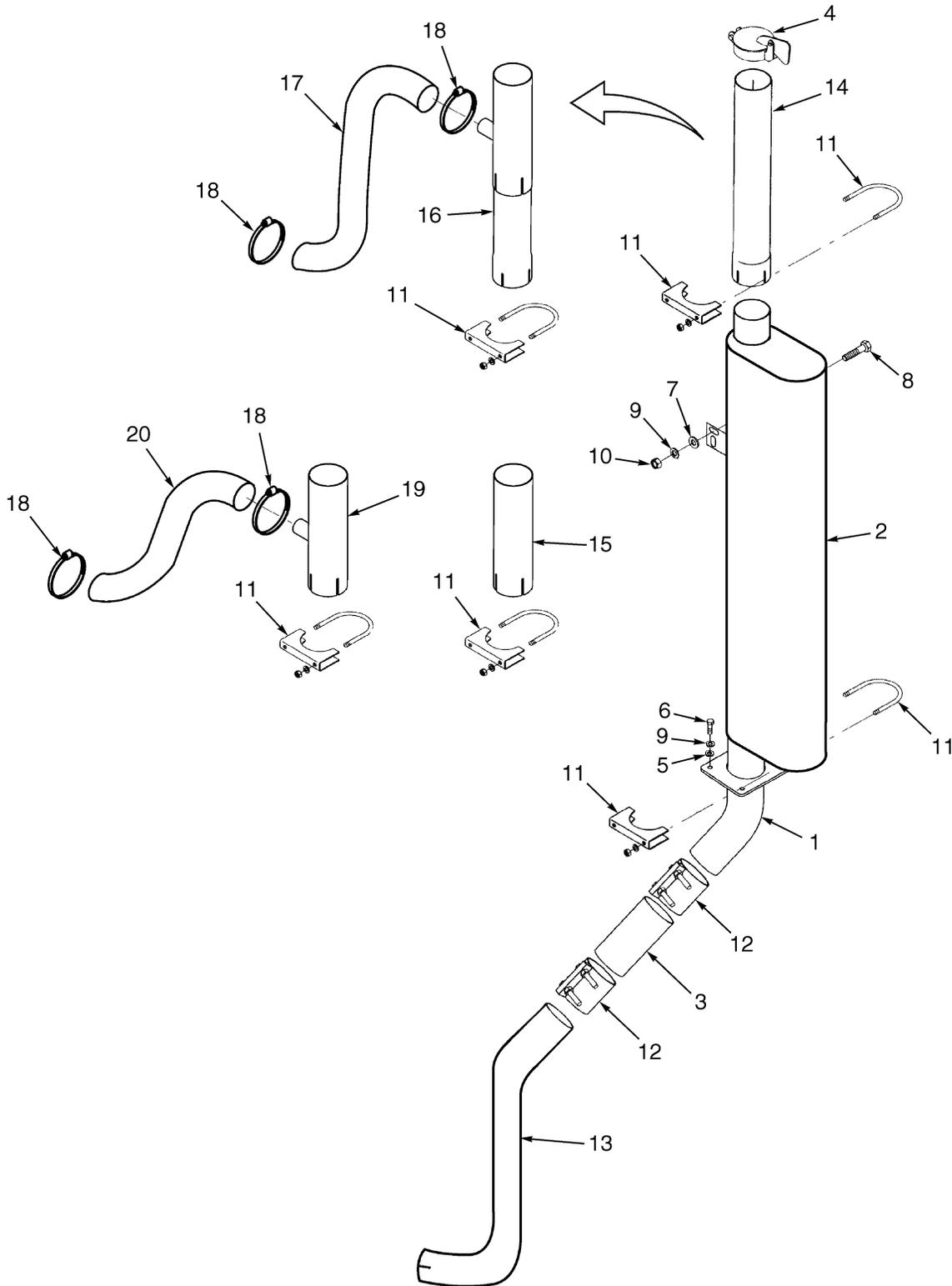
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1514360	Capscrew	1
2	1673978	Belt Tensioner	1
3	1544132	V-Belt	1

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

EXHAUST (FIGURE 2-83) CUMMINS DIESEL



HP110004

**EXHAUST
CUMMINS DIESEL**

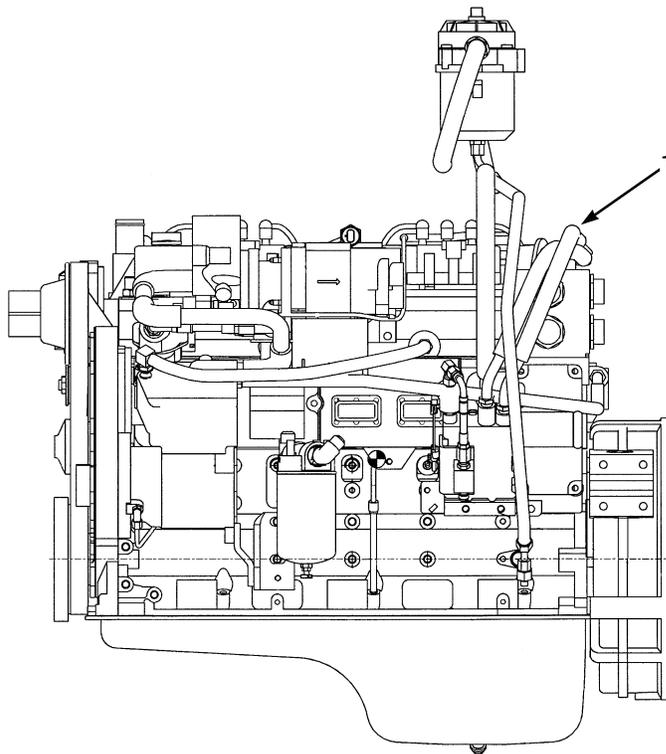
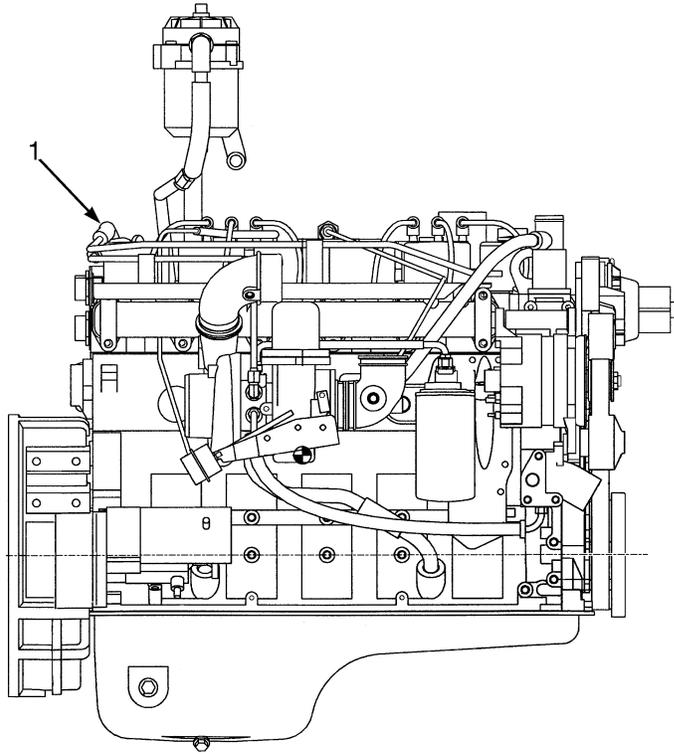
ITEM	PART NO.	DESCRIPTION	QTY
1	c 1519642	Exhaust Pipe	1
1	d 1583882	Exhaust Pipe	1
2	2052978	Muffler	1
3	1544774	Flex Tube	1
4	1361200	Rain Cap	1
5	320157	Washer	3
6	18497	Capscrew	3
7	320158	Washer	4
8	136749	Screw	2
9	292681	Lockwasher	5
10	239503	Nut	2
11	c 30375	Clamp	2
12	270826	Clamp	2
13	c 1525364	Exhaust Pipe	1
13	d 1583879	Exhaust Pipe	1
14	b 1474875	Exhaust Pipe	1
15	b 1544775	Exhaust Pipe (Low Mast)	1
16	a 1487206	Exhaust Pipe	1
17	a 1489639	Hose (Air Duct)	1
18	ab 127045	Clamp (Hose)	2
19	a 1358326	Exhaust Pipe (Ejector) (Low Mast)	1
20	a 1525409	Hose (Low Mast)	1
21	d 1598359	Clamp	1

FOOTNOTES:

- a** With Aspirated Pre-Cleaner
b Without Aspirated Pre-Cleaner

- c** → S/N G007E02257C
d S/N G007E02258C →

ENGINE ASSEMBLY (FIGURE 2-84) CUMMINS LPG

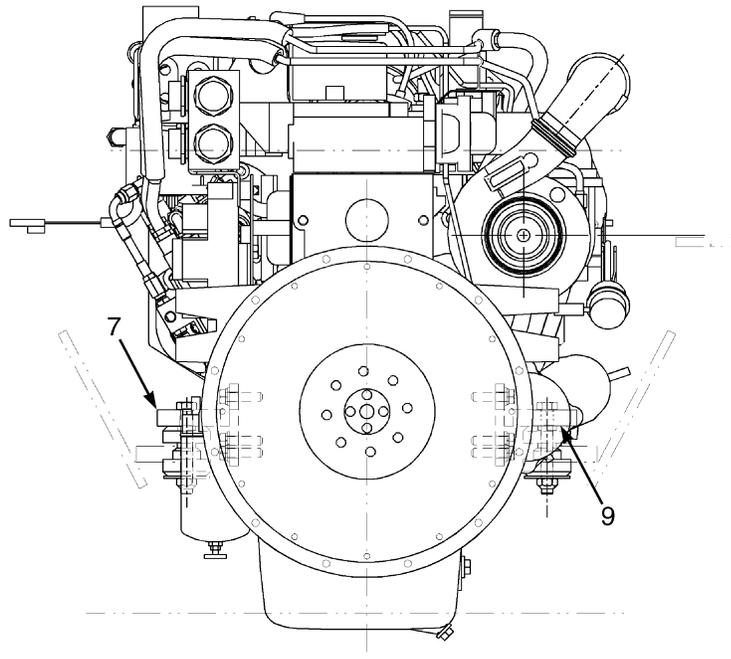
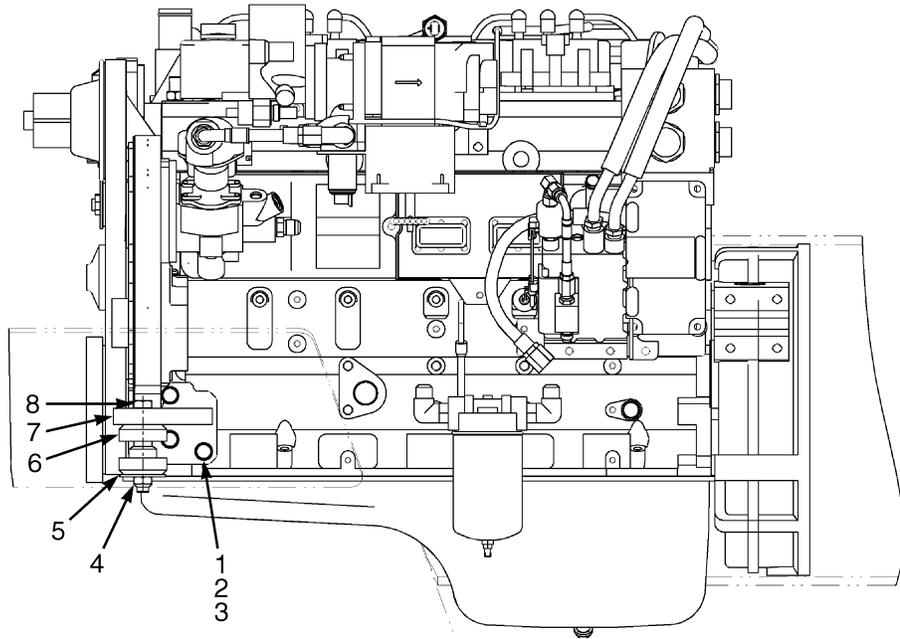


BP090222

**ENGINE ASSEMBLY
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	2076902	Engine Assy-Lpg (With Wet Brake)	1
1	2076903	Engine Assy-Lpg (With Dry Brake)	1

ENGINE MOUNT (FIGURE 2-85) CUMMINS LPG

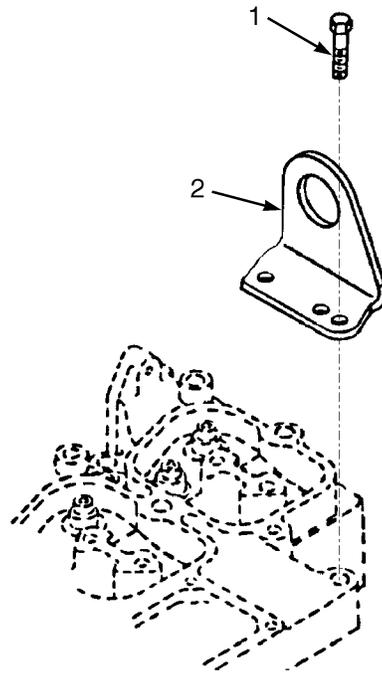


BP090219

**ENGINE MOUNT
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	292683	Lockwasher	6
2	320161	Washer	6
3	287837	Capscrew	6
4	221357	Locknut	2
5	1452404	Washer	2
6	1393708	Isolator	2
7	1475500	Motor Mount (RH)	1
8	18612	Capscrew	2
9	1475502	Motor Mount (LH)	1

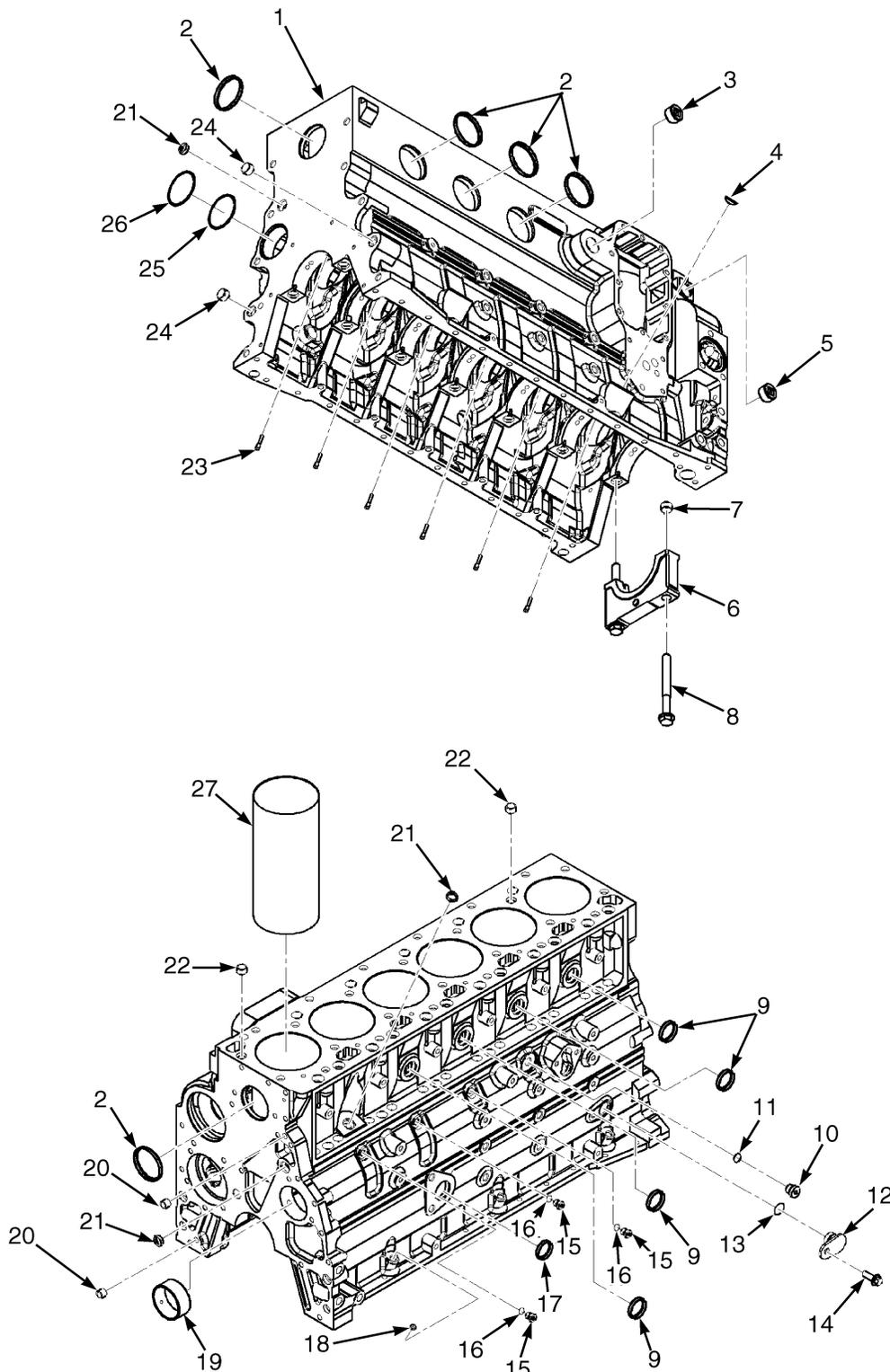
LIFTING BRACKET (FIGURE 2-86) CUMMINS LPG



BP090257

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1511953	Capscrew	2
2	1512109	Bracket	1

CYLINDER BLOCK (FIGURE 2-87) CUMMINS LPG

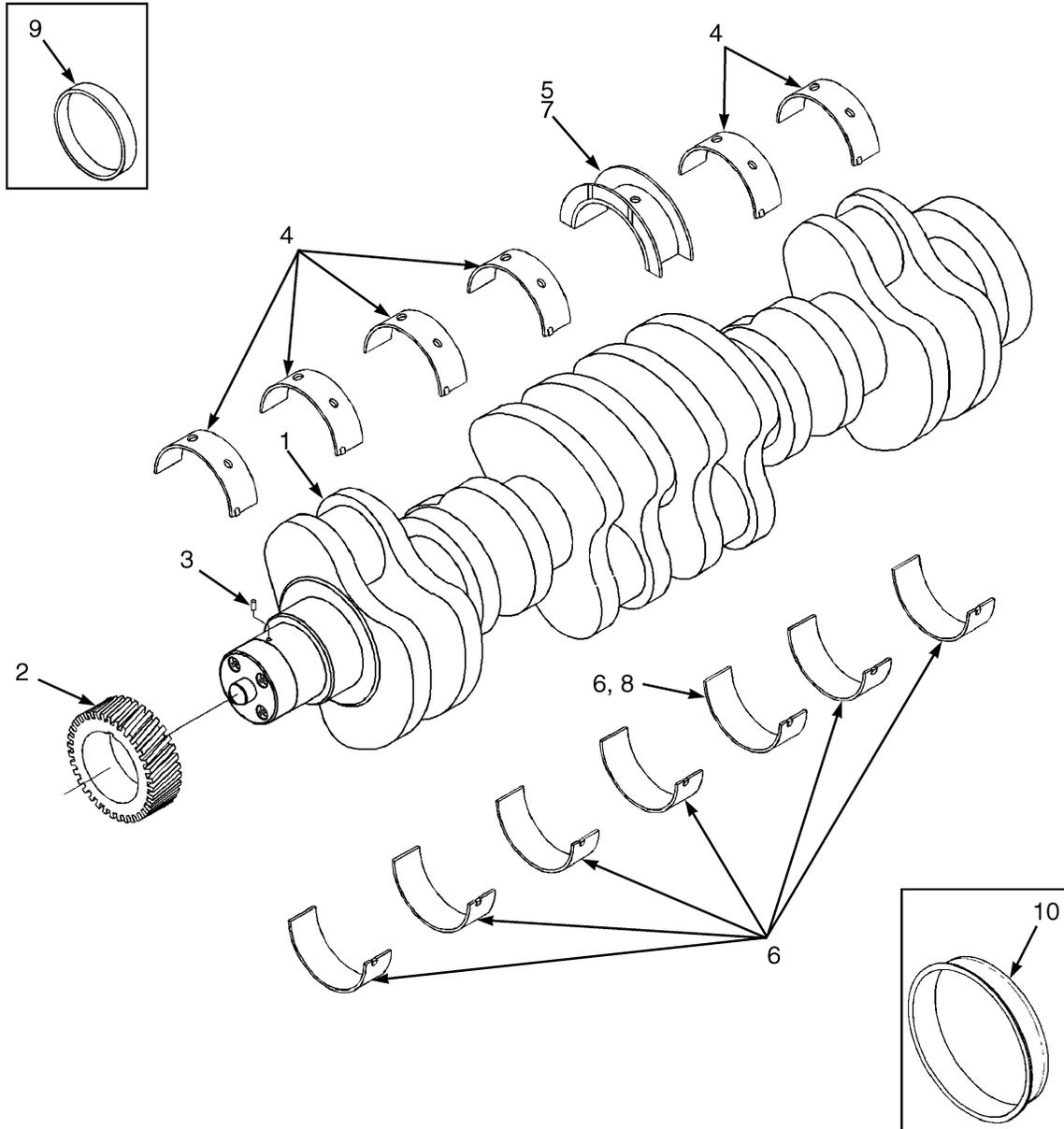


HP091187

**CYLINDER BLOCK
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1589514	Cylinder Block	1
2	1618178	Plug	5
3	1512292	Plug	1
4	1514339	Plug	2
5	1511952	Fitting	1
6	1635307	Cap (Main Bearing)	7
7	1521685	Ring	2
8	1521683	Capscrew	14
9	1512585	Plug	4
10	1521695	Plug	1
11	1517119	O-Ring	1
12	1521697	Fitting	1
13	1543321	Sealing Ring	1
14	1511970	Capscrew	1
15	1517010	Plug	3
16	1517011	O-Ring	1
17	1521694	Plug	1
18	1512130	Plug	3
19	1521682	Bushing	1
20	1513878	Dowel	2
21	1512304	Plug	3
22	1521691	Ring	2
23	1521692	Nozzle	6
24	1521685	Ring	2
25	1521696	O-Ring	1
26	1521693	Plug	1
27	1585284	Sleeve	AR
	1521686	Kit-Cylinder Block	1

CRANKSHAFT AND MAIN BEARINGS (FIGURE 2-88) CUMMINS LPG

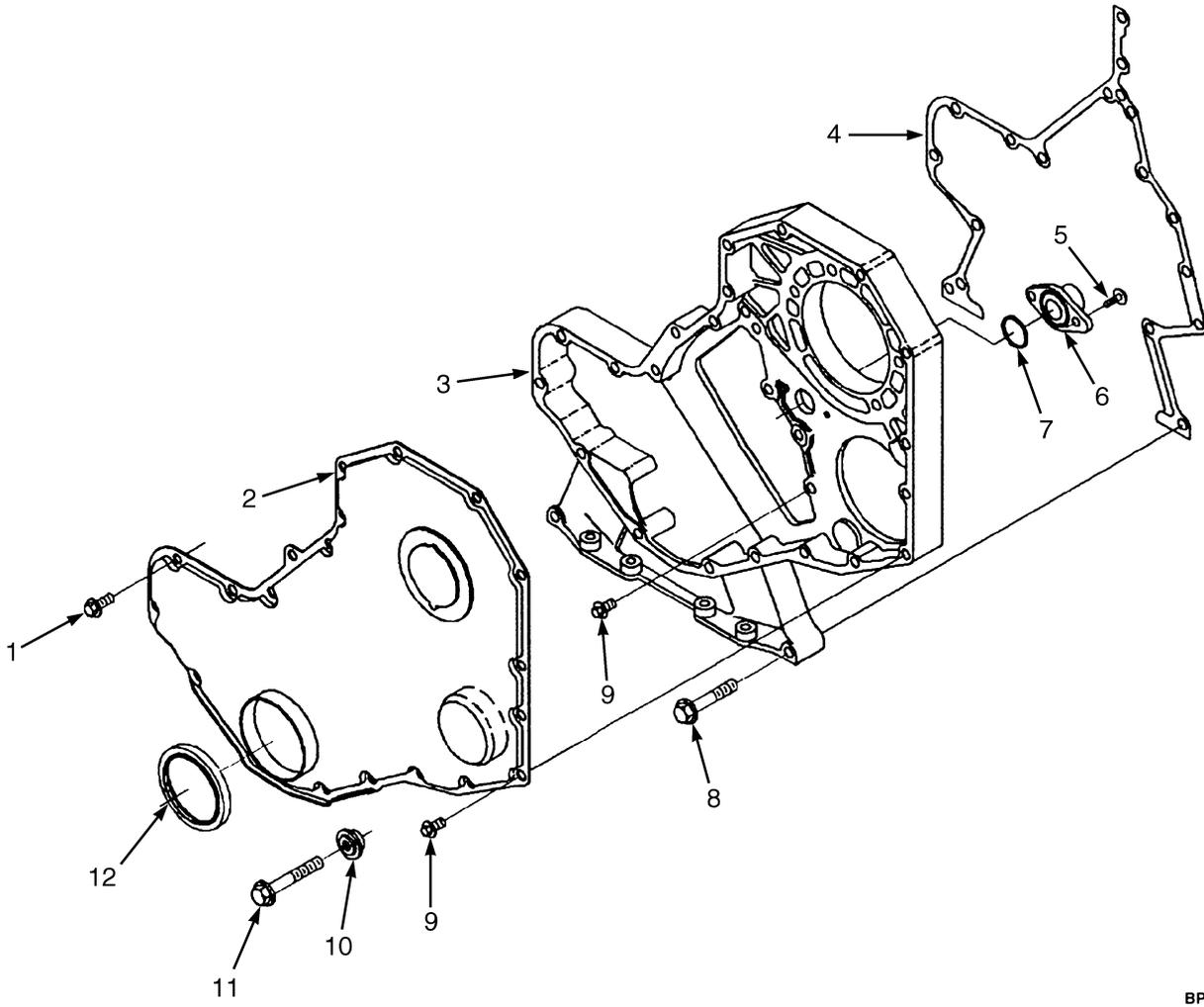


HP091188

**CRANKSHAFT AND MAIN BEARINGS
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076903	Engine Assy-Lpg (With Dry Brake)	1
	2076902	Engine Assy-Lpg (With Wet Brake)	1
1	1543320	Crankshaft	1
2	1521701	Gear	1
3	1514346	Dowel	1
4	1543317	Bearing (Standard)	6
4	1585002	Bearing (0.25 mm O/S)	6
4	1584992	Bearing (0.50 mm O/S)	6
4	1584995	Bearing (0.75 mm O/S)	6
4	1585000	Bearing (1.00 mm O/S)	6
5	1554044	Thrust Bearing (Standard)	1
5	.....	Thrust Bearing (.010 in.)	1
5	.....	Thrust Bearing (.020 in.)	1
5	.....	Thrust Bearing (.030 in.)	1
5	.....	Thrust Bearing (.040 in.)	1
6	1543318	Bearing (Standard)	7
6	1584991	Bearing (.010 in.)	7
6	1584994	Bearing (.020 in.)	7
6	1584997	Bearing (.030 in.)	7
6	1585000	Bearing (1.00 mm O/S)	7
7	.....	Thrust Bearing (.020 in.)	1
7	.....	Thrust Bearing (.040 in.)	1
8	1584994	Bearing (.020 in.)	1
8	1584998	Bearing (.040 in.)	1
9	1554045	Kit-Wear Sleeve (Front) (Front)	1
10	1514354	Kit-Wear Sleeve (Rear) (Rear)	1
	1554043	Kit-Bearing (Standard)	1
	1521705	Bearing Set (.010 in.)	1
12	4007075	Bearing Set (.010 in.) (Alternate Part)	1
	1521706	Bearing Set (.020 in.)	1
	1521707	Bearing Set (.030 in.)	1
	1521708	Bearing Set (.040 in.)	1
	1521709	Kit-Thrust Bearing (.020 in.) (With Oversize Thrust Face)	1
	1521710	Kit-Thrust Bearing (.040 in.) (With Oversize Thrust Face)	1

**FRONT GEAR COVER AND HOUSING (FIGURE 2-89)
CUMMINS LPG**

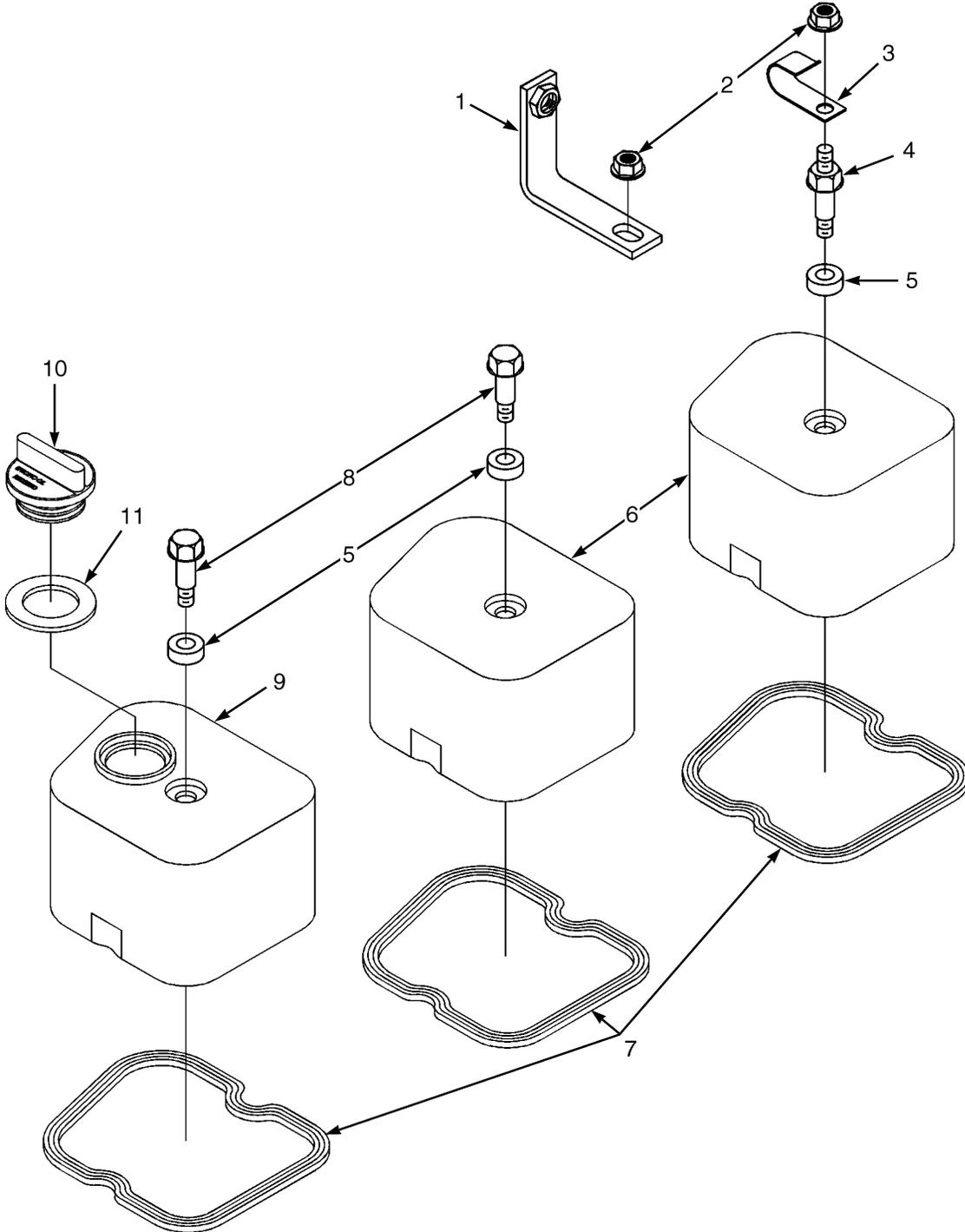


BP090223

**FRONT GEAR COVER AND HOUSING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076903	Engine Assy-Lpg (With Dry Brake)	1
	2076902	Engine Assy-Lpg (With Wet Brake)	1
1	1513751	Screw	5
2	1614579	Cover	1
3	1614580	Clutch Housing	1
4	1521712	Gasket	1
5	1513736	Capscrew	2
6	1614544	Bracket (Sensor)	1
7	1513748	Sealing Ring	1
8	1513725	Capscrew	10
9	1521875	Screw	11
10	1521880	Retainer	1
11	1553781	Capscrew	1
12	. . . . .	Oil Seal	1
	1600388	Kit-Seal	1
	1588086	Kit-Gasket	1

VALVE COVER (FIGURE 2-90) CUMMINS LPG



BP090254

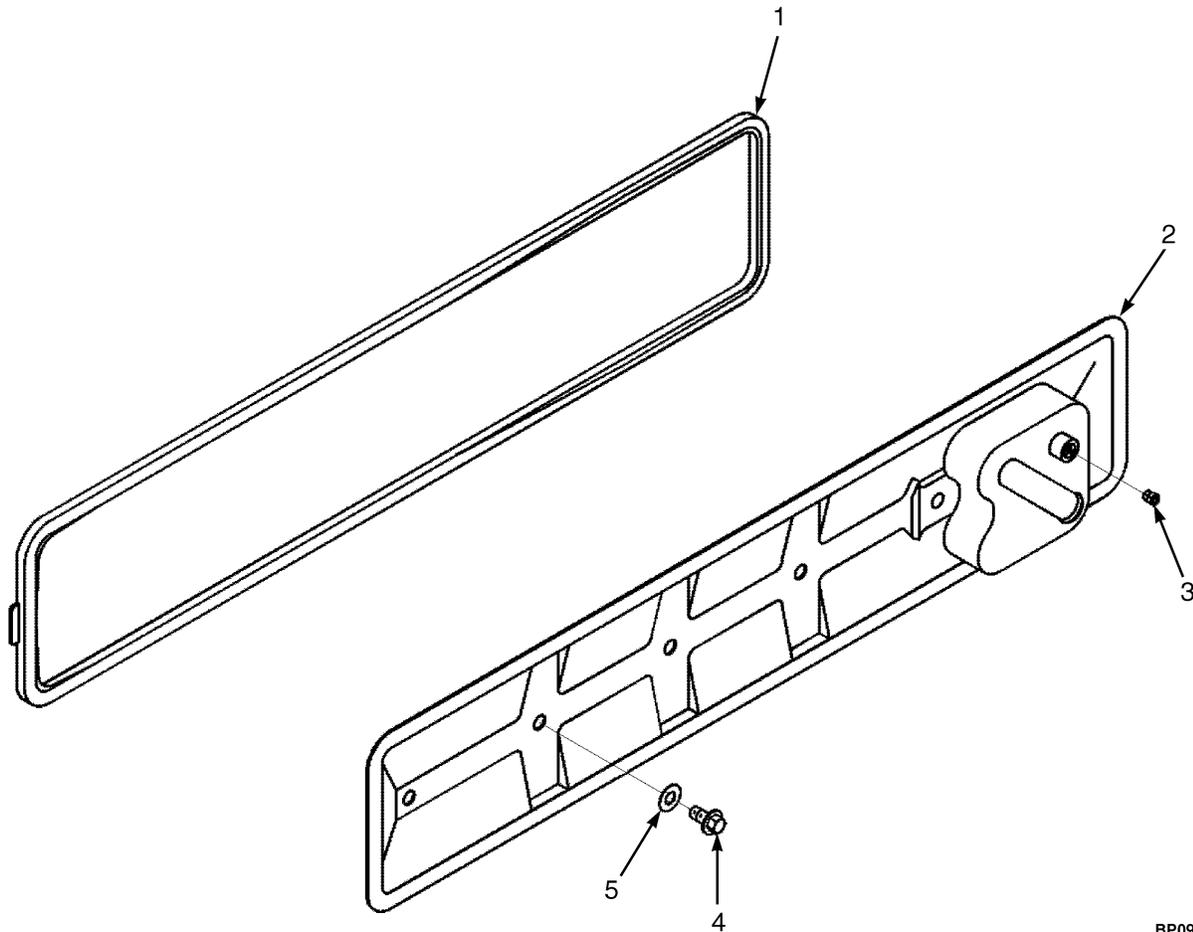
**VALVE COVER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614577	Brace	1
2	1513712	Nut	2
3	1614532	Clip	1
4	1614531	Capscrew	2
5	1512308	Isolator	6
6	1512310	Cover	5
7	1512307	Gasket	6
8	1512309	Capscrew	4
9	1512311	Cover	1
10	1614548	Cap	1
11	1512312	Sealing Ring	1
	1588087	Kit-Gasket	1

**ROCKER LEVERS
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076903	Engine Assy-Lpg (With Dry Brake)	1
	2076902	Engine Assy-Lpg (With Wet Brake)	1
1	1543891	Support	6
1	1543892	Support	1
2	1543889	Rocker (Intake)	1
3	1543886	Screw	1
4	1513806	Nut	1
5	1543884	Insert	1
6	1543885	Rocker (Exhaust)	1
7	1543882	Washer	12
8	1543881	Retaining Ring	12
9	1543878	Capscrew	6
10	1543879	Capscrew	6
11	1543877	Rod	12
	1543883	Rocker (Exhaust)	6
	1543887	Rocker (Intake)	6

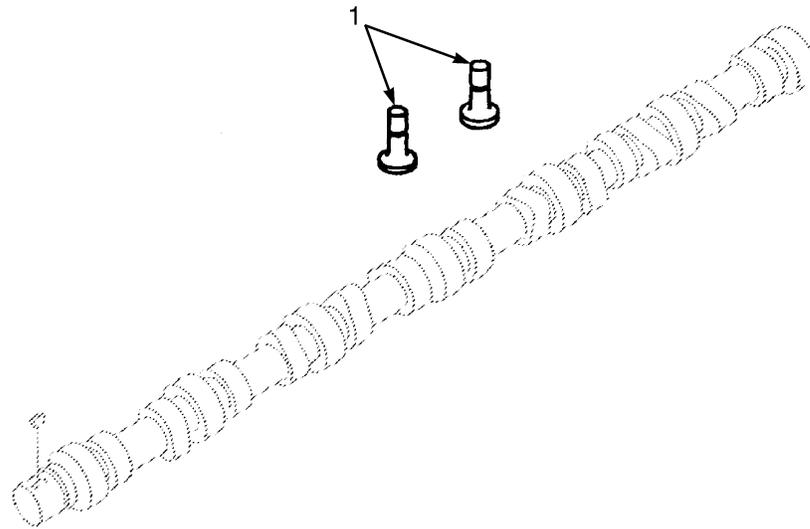
CAM FOLLOWER COVER (FIGURE 2-92) CUMMINS LPG



BP090233

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1511974	Gasket	1
2	1614628	Cover	1
3	1513191	Fitting	1
4	1511970	Capscrew	6
5	1511969	Seal	6

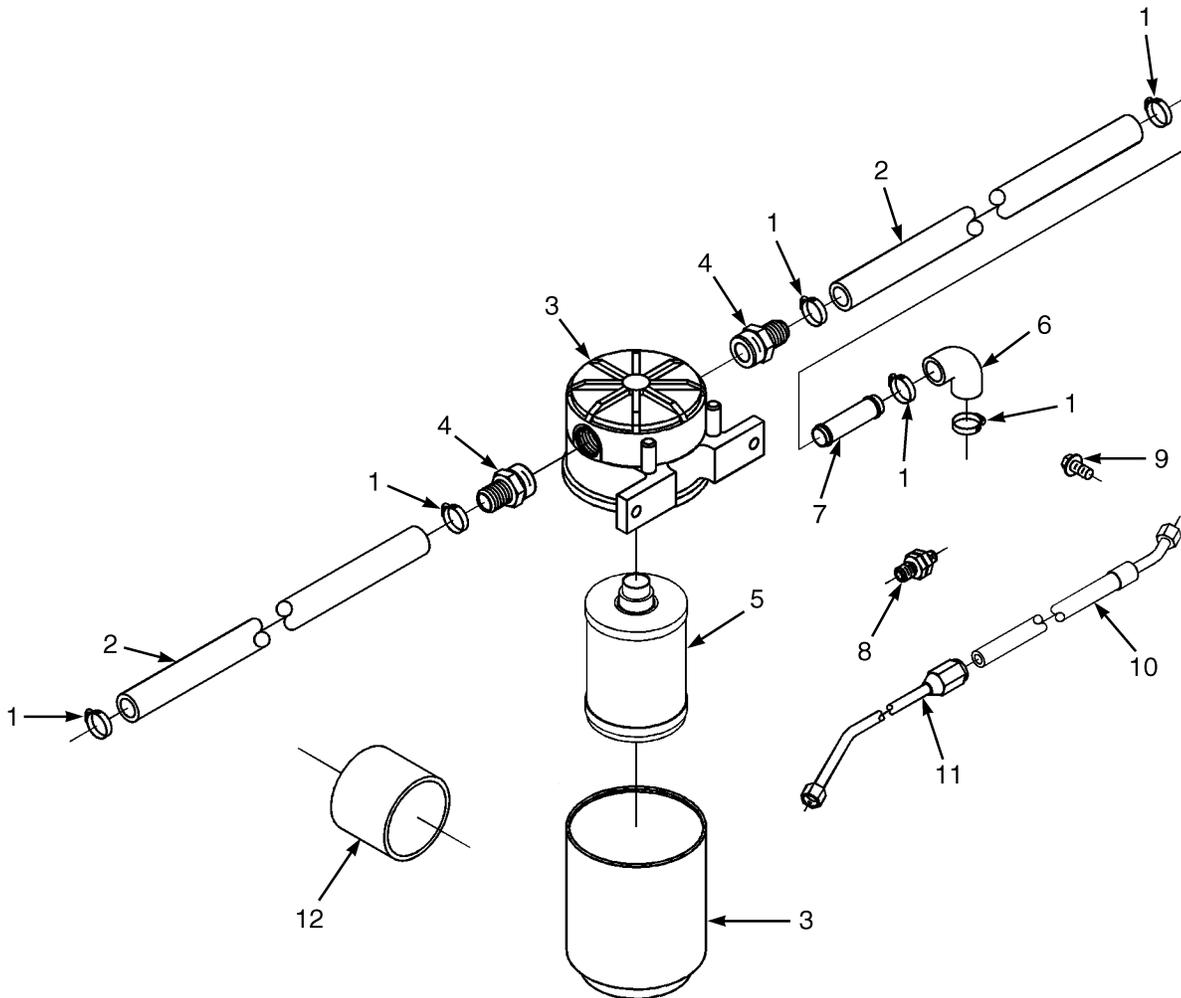
**VALVE TAPPET (FIGURE 2-93)
CUMMINS LPG**



HP091189

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1513734	Valve (Tappet)	12

CRANKCASE BREATHER (FIGURE 2-94) CUMMINS LPG

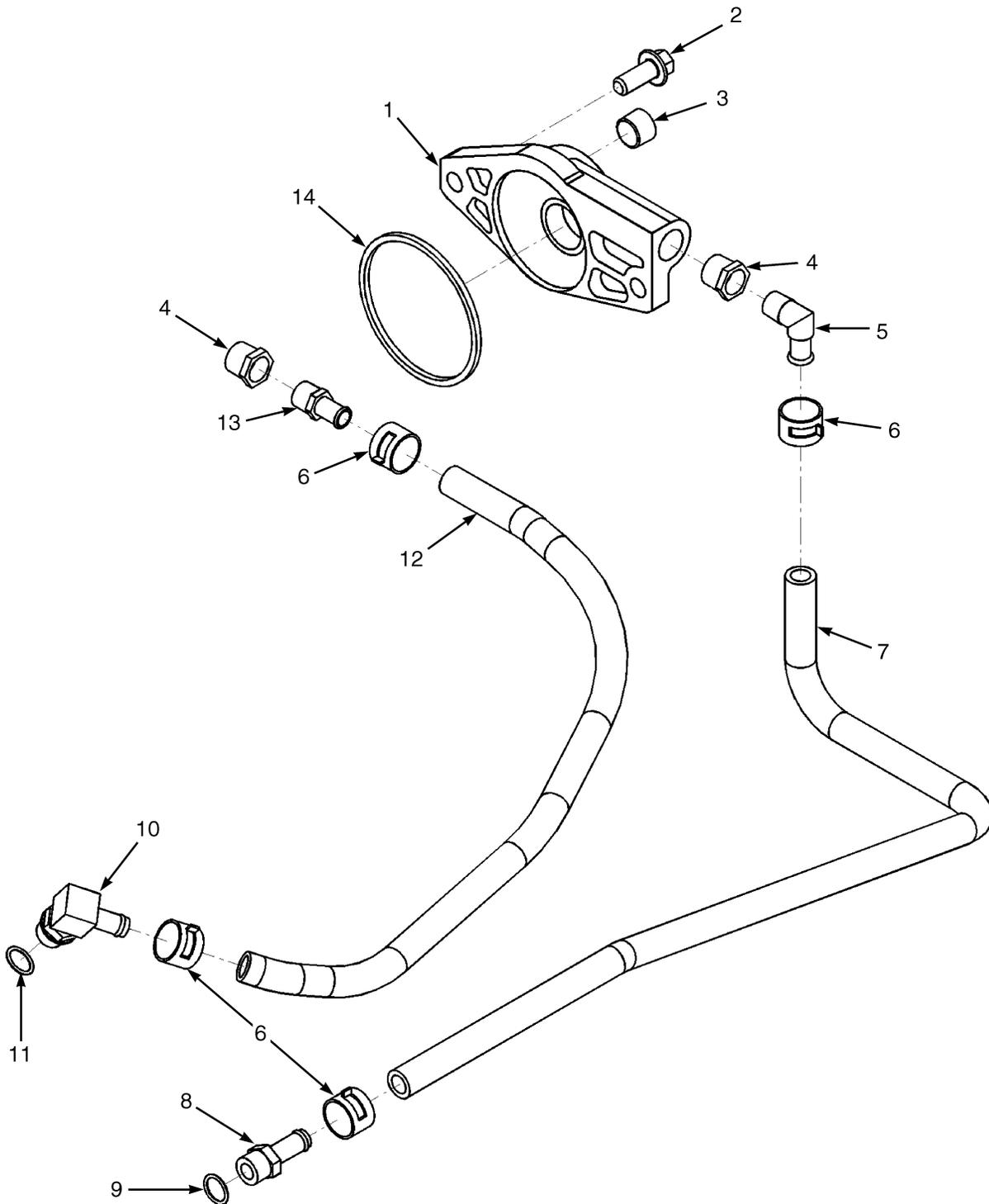


BP090230

**CRANKCASE BREATHER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614524	Hose Clamp	10
2	1614572	Hose	2
3	1614568	Breather	1
3	1614489	Breather	1
4	1618220	Adapter	2
5	1614488	Breather	1
6	1614583	Hose (Elbow)	2
7	1614569	Tube (Coupling)	2
8	1614490	Check Valve	1
9	1512328	Capscrew	1
10	1614573	Hose	1
11	1614574	Connector	1
12	1614312	Hose	1

AIR COMPRESSOR COOLANT PLUMBING (FIGURE 2-95) DRY BRAKE — CUMMINS LPG

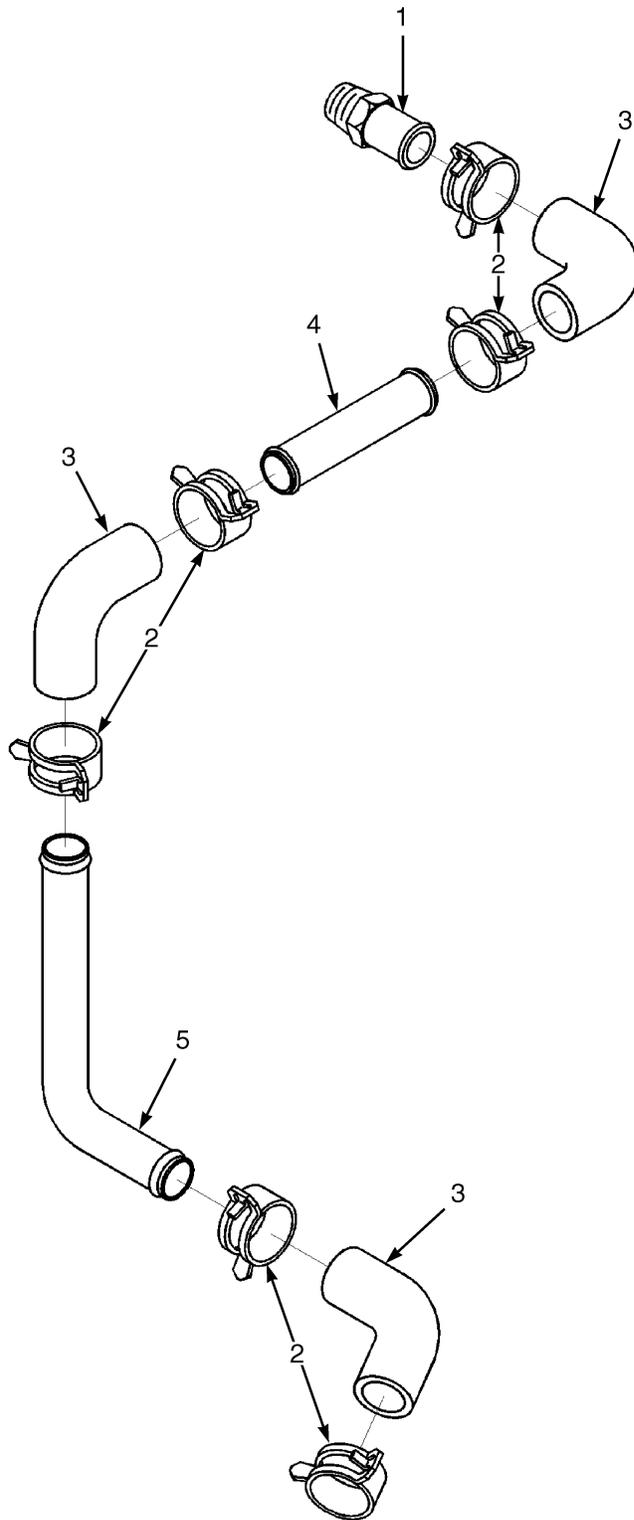


BP090231

**AIR COMPRESSOR COOLANT PLUMBING
DRY BRAKE – CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1511959	Connector	1
2	1511953	Capscrew	2
3	1511952	Fitting	1
4	1511956	Bushing	2
5	1511958	Coupling	1
6	1511955	Hose Clamp	4
7	1511963	Hose	1
8	1511962	Coupling	1
9	1511961	O-Ring	1
10	1512443	Coupling	1
11	1511961	O-Ring	1
12	1511960	Hose	1
13	1511957	Coupling	1
14	1511954	Sealing Ring	1

AIR COMPRESSOR INLET CONNECTION (FIGURE 2-96) DRY BRAKE — CUMMINS LPG

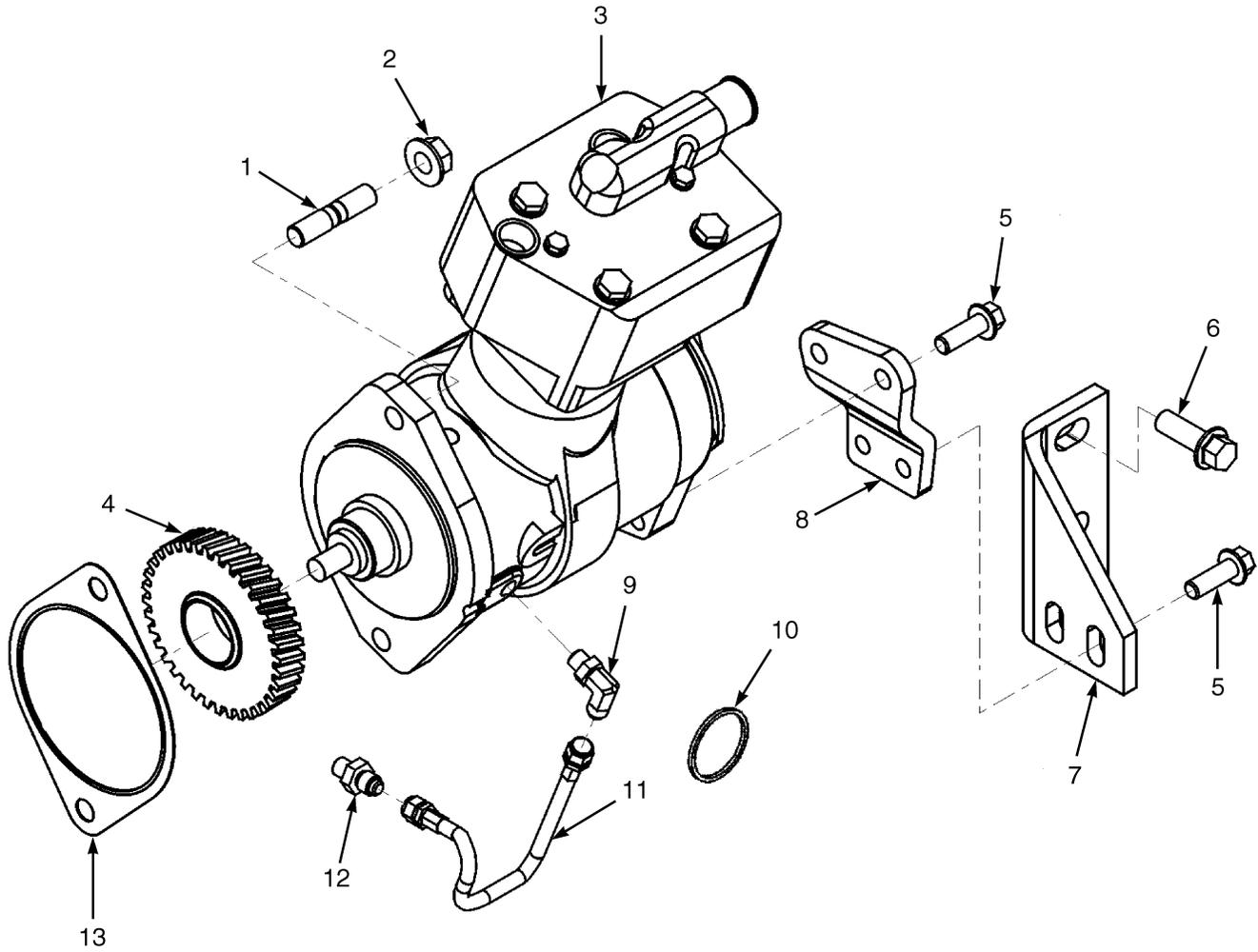


BP090232

**AIR COMPRESSOR INLET CONNECTION
DRY BRAKE – CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1511966	Coupling	1
2	1618998	Hose Clamp	6
3	1618997	Hose	3
4	1618999	Tube	1
5	1619000	Tube	1

AIR COMPRESSOR (FIGURE 2-97) DRY BRAKE — CUMMINS LPG

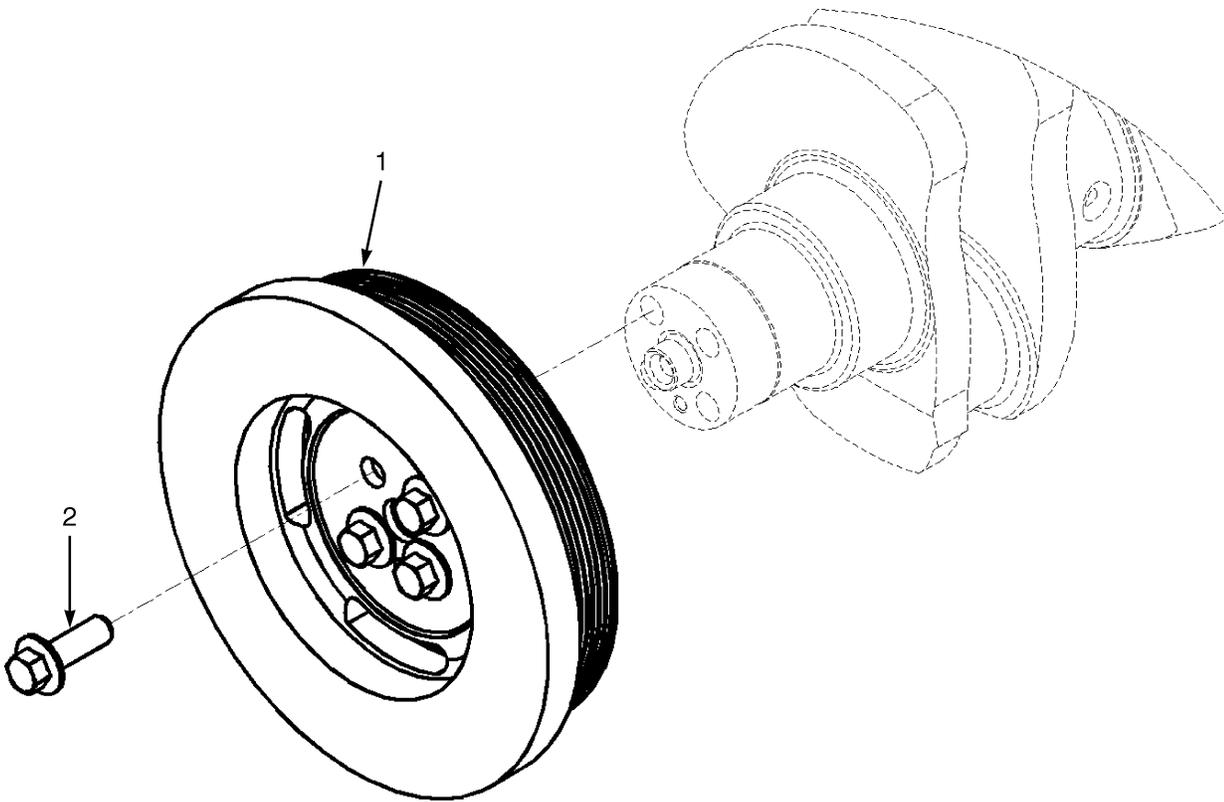


BP090234

**AIR COMPRESSOR
DRY BRAKE – CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1543338	Stud	2
2	1511978	Nut	2
3	1673011	Compressor	1
4	1511986	Drive Gear	1
5	1543337	Capscrew	4
6	1511976	Capscrew	2
7	1619001	Brace	1
8	1619004	Spacer	1
9	1511989	Elbow	1
10	1511979	O-Ring	1
11	1588100	Hose	1
12	1543341	Fitting	1
13	1511984	Gasket	1

**VIBRATION DAMPER (FIGURE 2-98)
CUMMINS LPG**

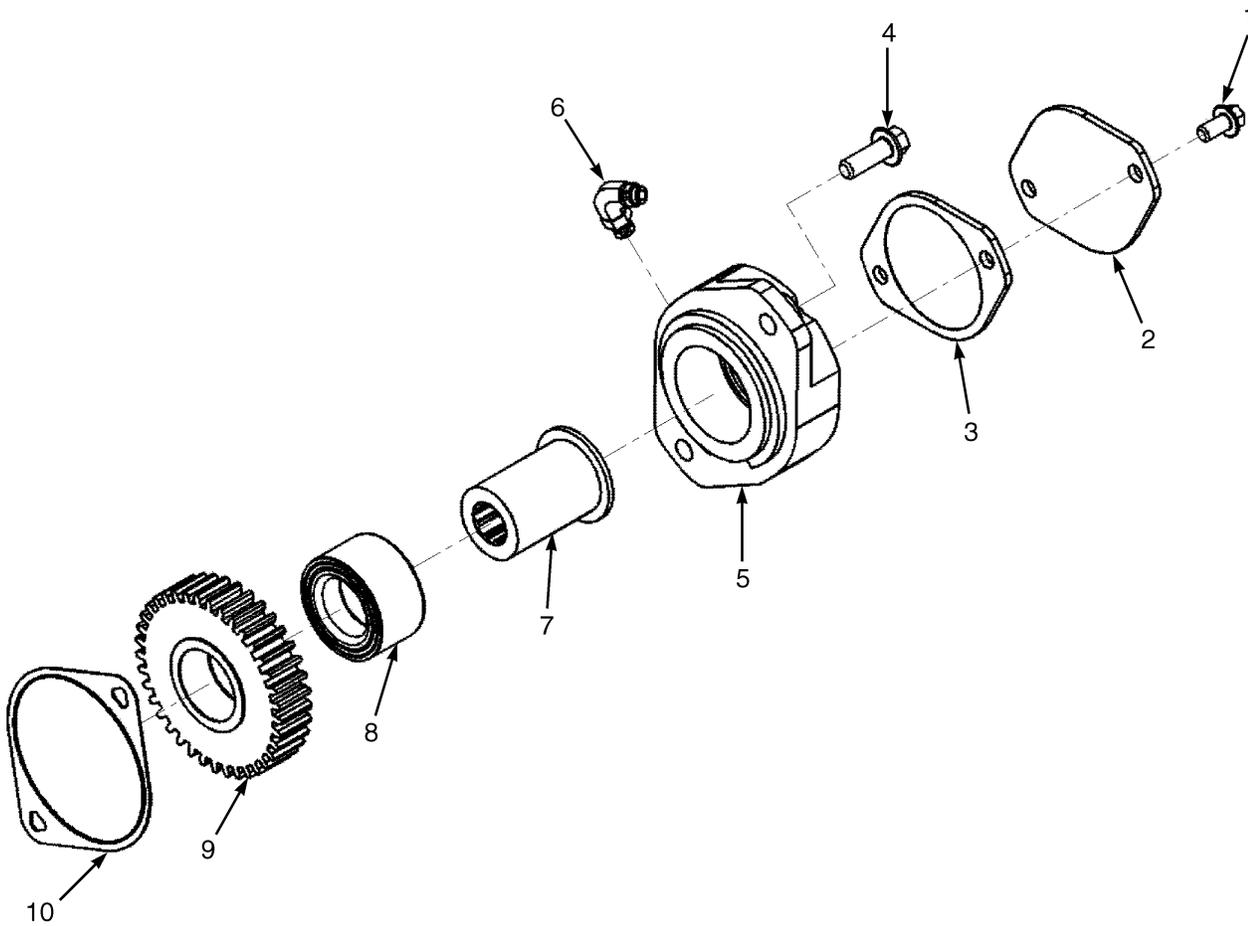


BP090235

**VIBRATION DAMPER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614522	Vibration Damper	1
2	1511996	Capscrew	4

FRONT GEAR TRAIN ACCESSORY DRIVE (FIGURE 2-99) WET BRAKE — CUMMINS LPG

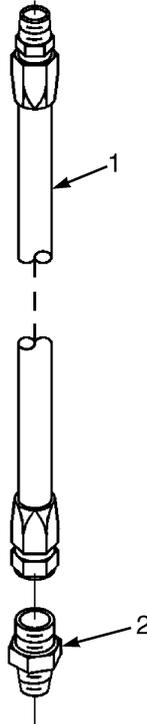


BP090236

**FRONT GEAR TRAIN ACCESSORY DRIVE
WET BRAKE – CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512328	Capscrew	2
2	1512327	Cover Plate	1
3	1512326	Gasket	1
4	1511976	Capscrew	2
5	1543347	Adapter	1
6	1543348	Elbow	1
7	1512331	Drive Shaft	1
8	1512330	Bearing	1
9	1602497	Drive Gear	1
10	1512336	Gasket	1

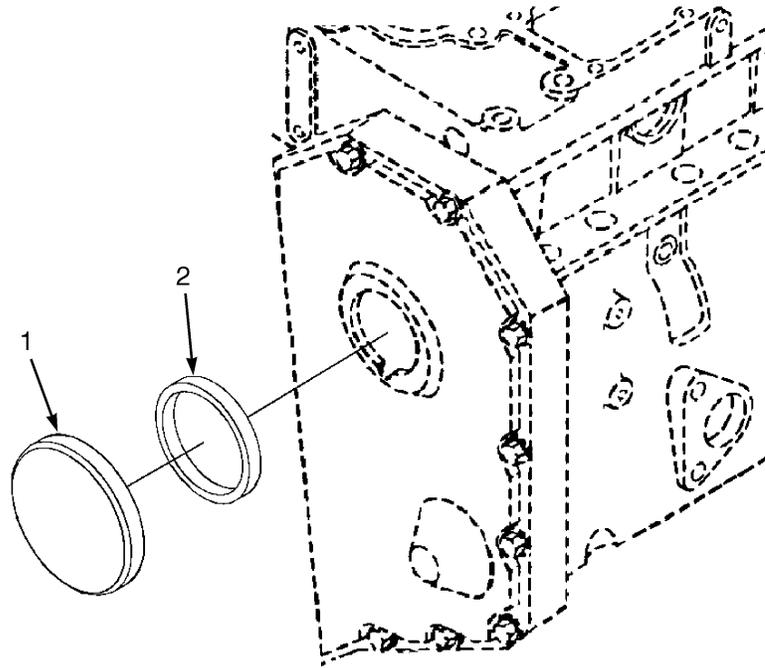
FRONT GEAR TRAIN ACCESSORY DRIVE PLUMBING (FIGURE 2-100) WET BRAKE — CUMMINS LPG



BP090237

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1588101	Hose	1
2	1543341	Fitting	1

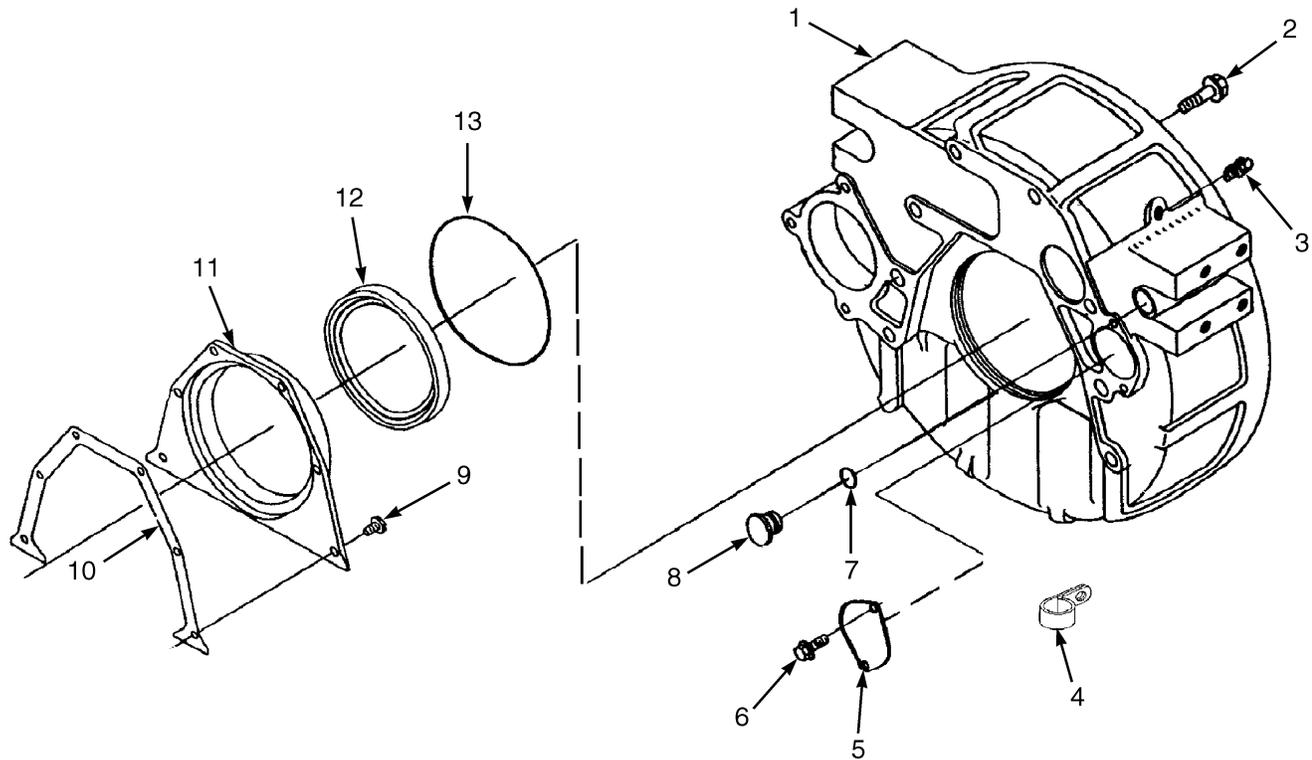
**ACCESSORY HOLE COVER (FIGURE 2-101)
CUMMINS LPG**



BP090239

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512011	Cover	1
2	1512012	Sealing Ring	1

FLYWHEEL HOUSING (FIGURE 2-102) CUMMINS LPG

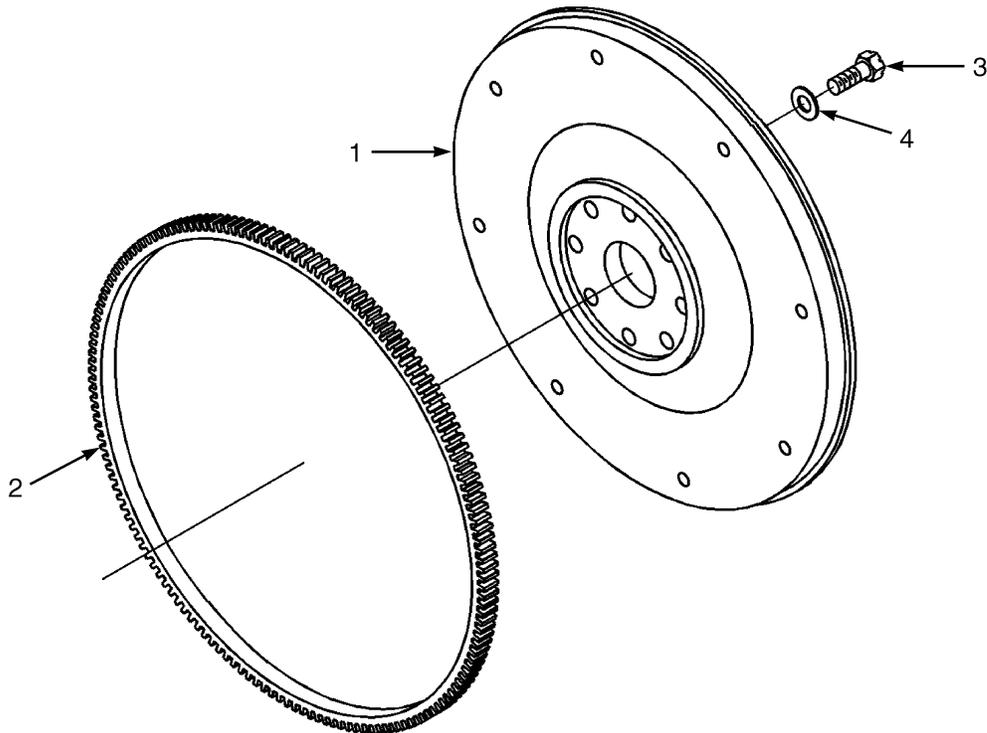


BP090260

**FLYWHEEL HOUSING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1543361	Flywheel Housing	1
2	1512053	Capscrew	8
3	1512046	Plug	1
4	1512435	Clip	1
5	1512056	Cover Plate	1
6	1512045	Screw	2
7	1512048	O-Ring	1
8	1512047	Fitting	1
9	1543362	Capscrew	6
10	1512052	Gasket	1
11	1543363	Cover	1
12	1564992	Kit-Seal (Crankshaft)	1
13	1512050	O-Ring	1

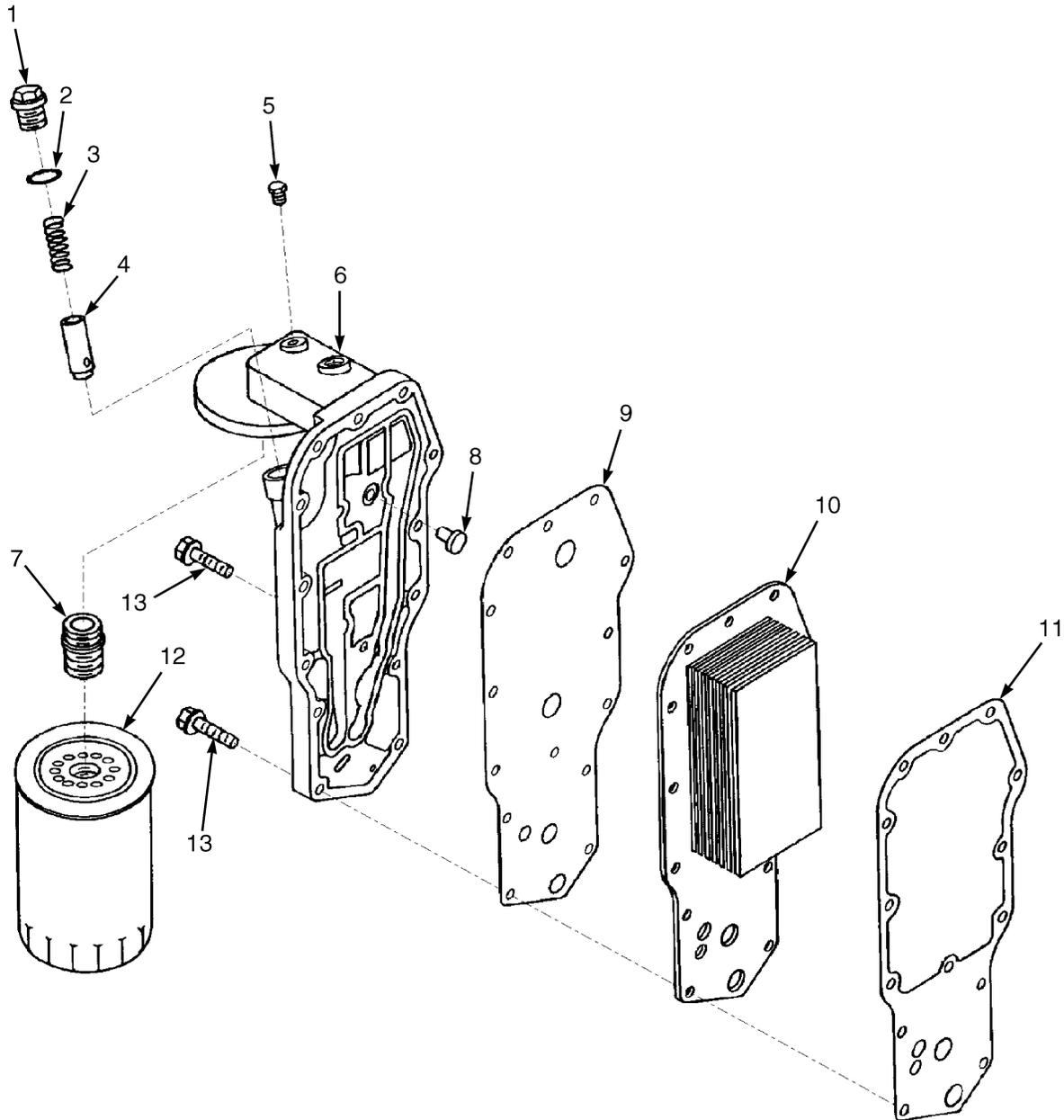
FLYWHEEL (FIGURE 2-103) CUMMINS LPG



BP090261

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1598354	Flywheel	1
1	1600416	Flywheel	1
2	1512445	Ring Gear	1
3	1512106	Capscrew	8
4	1512107	Washer	8

ENGINE OIL COOLER (FIGURE 2-104) CUMMINS LPG

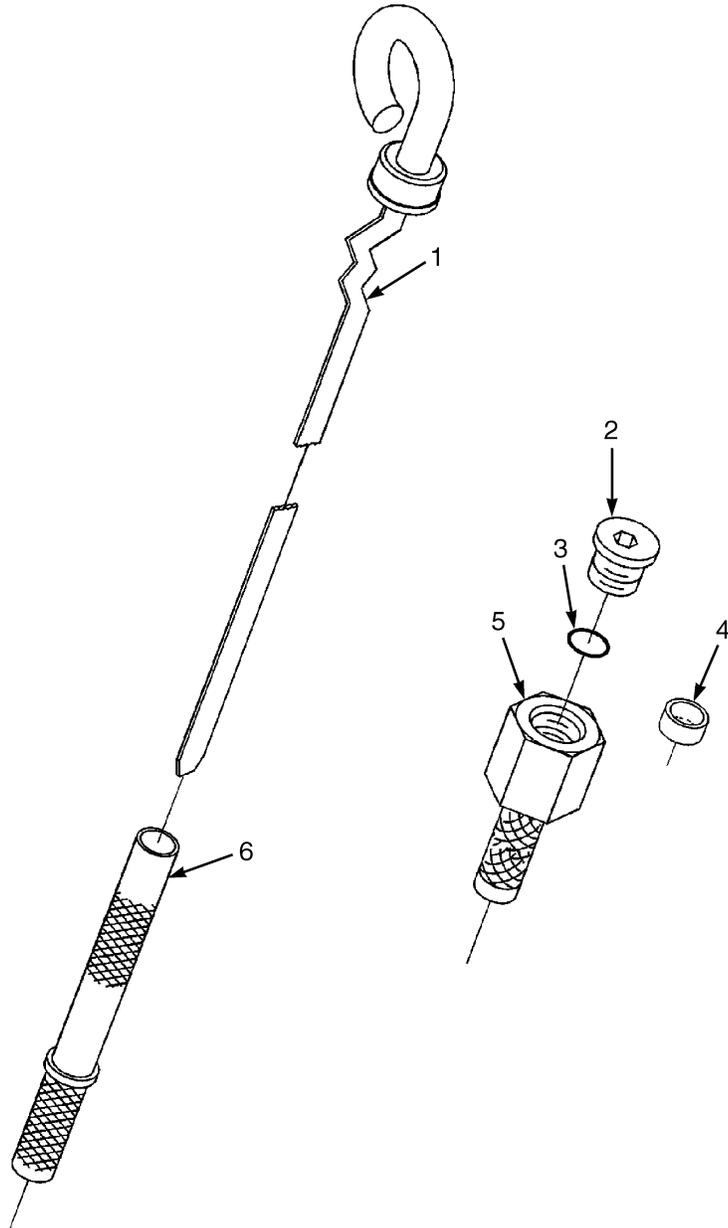


BP090243

**ENGINE OIL COOLER
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512453	Plug	1
2	1512118	O-Ring	1
3	1512112	Spring	1
4	1512119	Plunger	1
5	1512448	Fitting	1
6	1512449	Filter Head	1
7	1512451	Adapter	1
8	1513772	Relief Valve (Pressure)	1
9	1512452	Gasket	1
10	1552286	Core	1
11	1638856	Gasket	1
12	1512123	Oil Filter (Filter)	1
13	1512033	Capscrew	14

OIL LEVEL GAUGE (FIGURE 2-105) CUMMINS LPG

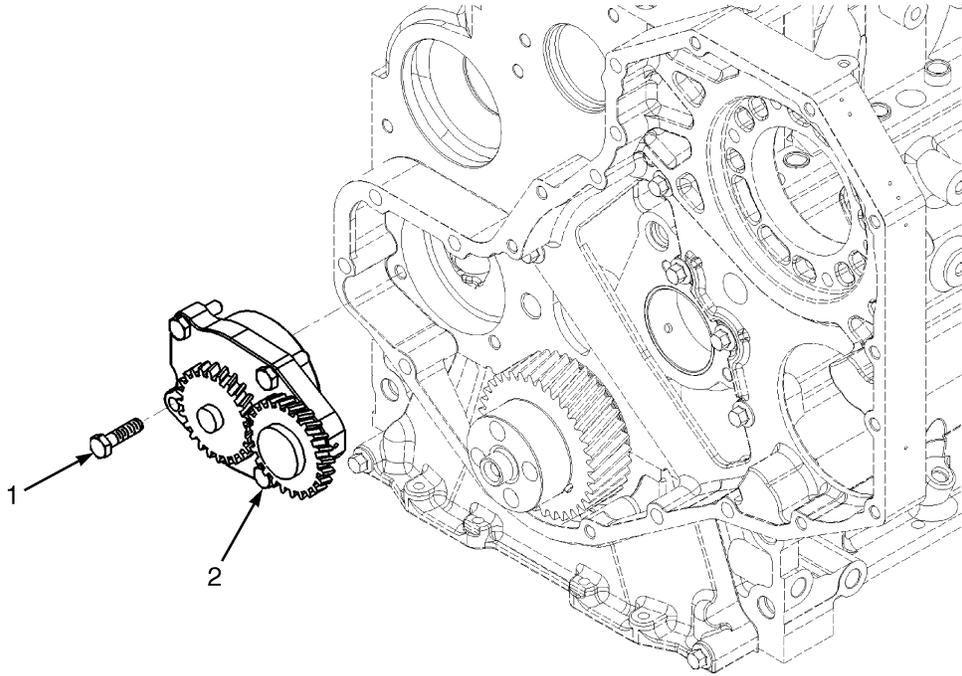


BP090244

**OIL LEVEL GAUGE
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512132	Dipstick	1
2	1614453	Plug (Threaded)	1
3	1614452	O-Ring	1
4	1512130	Plug	2
5	1614575	Adapter	1
6	1624829	Dipstick Tube	1

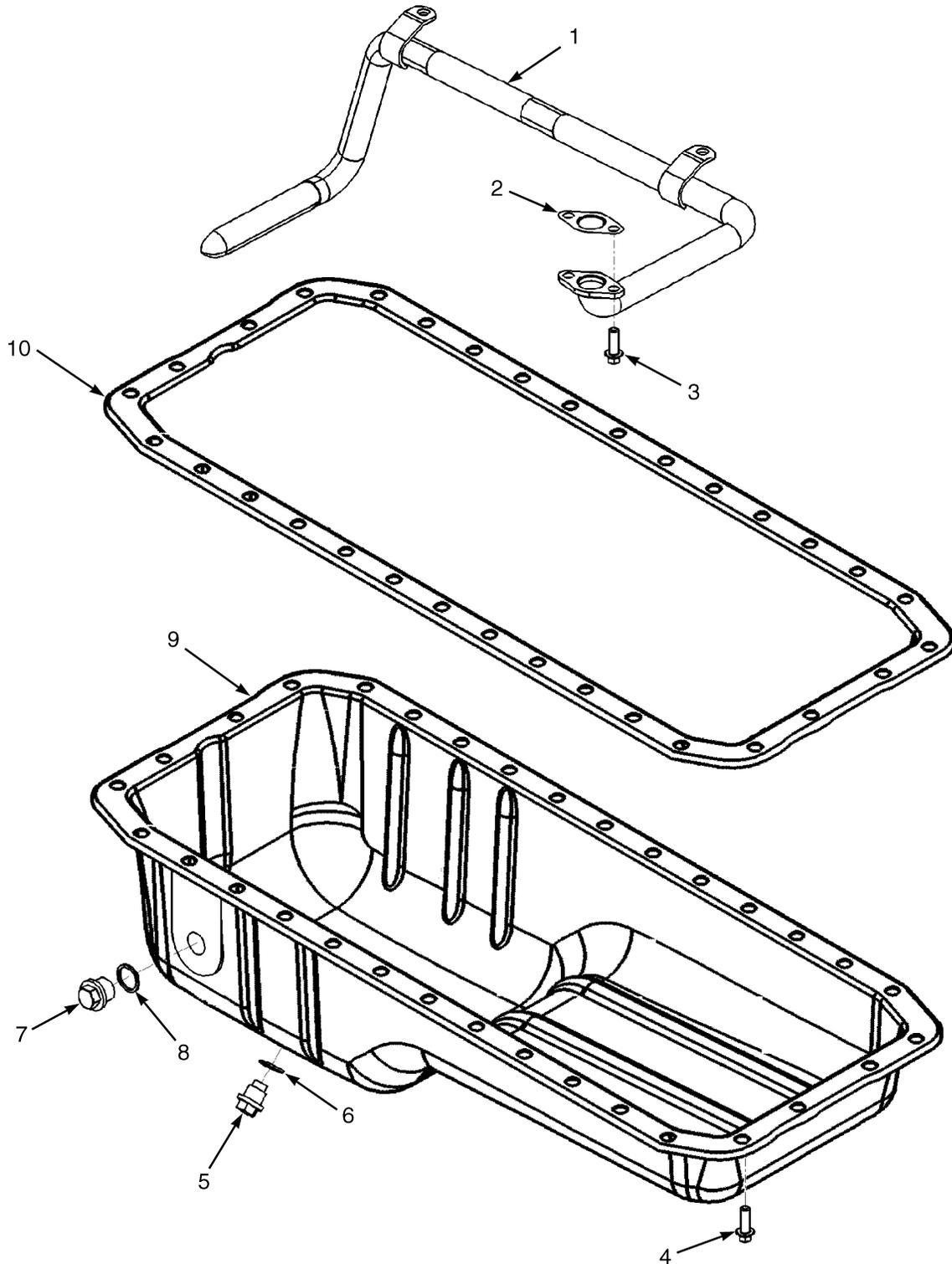
OIL PUMP (FIGURE 2-106) CUMMINS LPG



BP090245

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512456	Capscrew	4
2	1661076	Oil Pump	1

OIL PAN (FIGURE 2-107) CUMMINS LPG



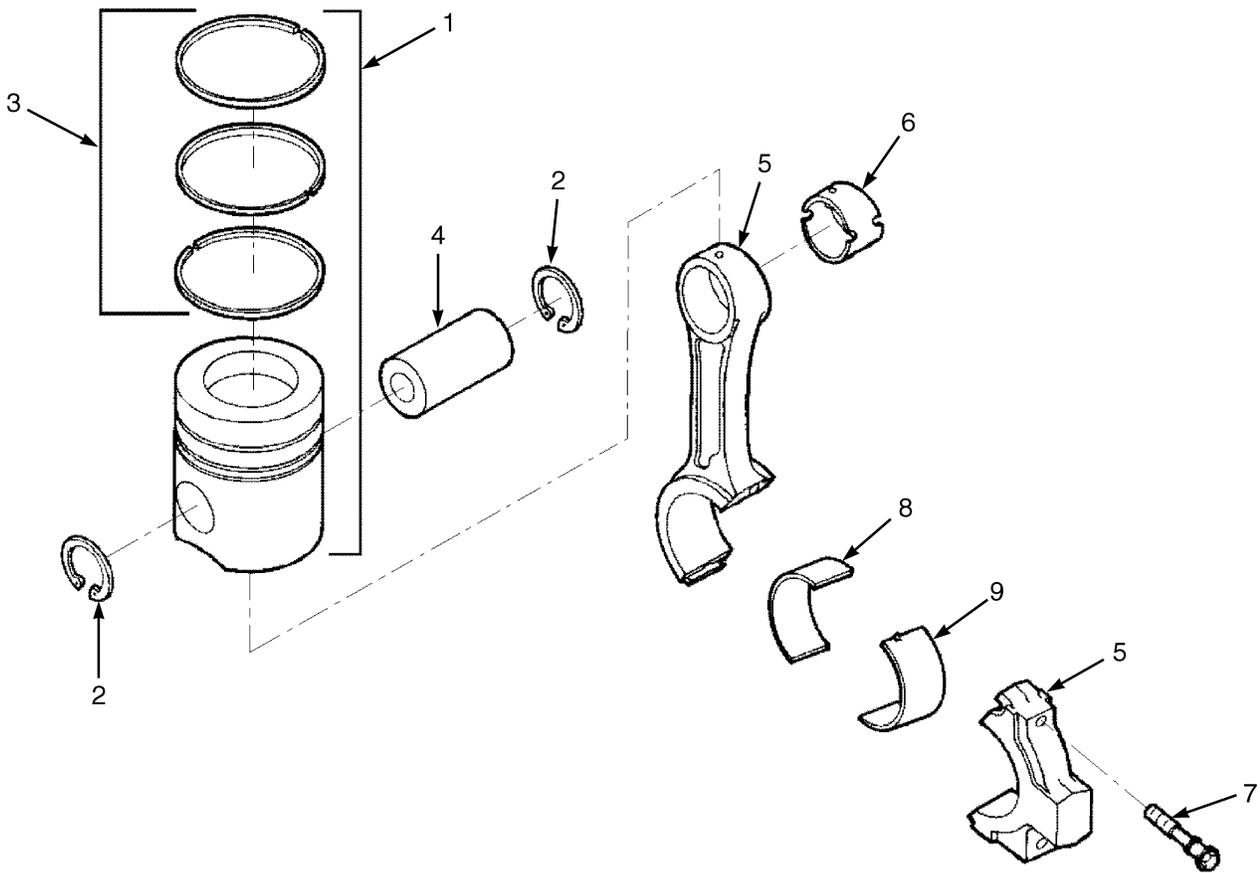
BP090270

**OIL PAN
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512136	Adapter (Oil Suction)	1
2	1512139	Gasket	1
3	1512004	Capscrew	2
4	1513794	Capscrew	36
5	1512134	Plug	1
6	1512135	Seal	1
7	1512138	Plug	1
8	1512137	Seal	1
9	1543430	Kit-Service	1
9	1543429	Oil Pan	1
10	1543424	Gasket	1
	a 1513769	Capscrew	4
	a 1543432	Clamping Plate	1
	1588086	Kit-Gasket	1
	1588087	Kit-Gasket	1

FOOTNOTES:**a** Not Illustrated

PISTON AND CONNECTING ROD (FIGURE 2-108) CUMMINS LPG

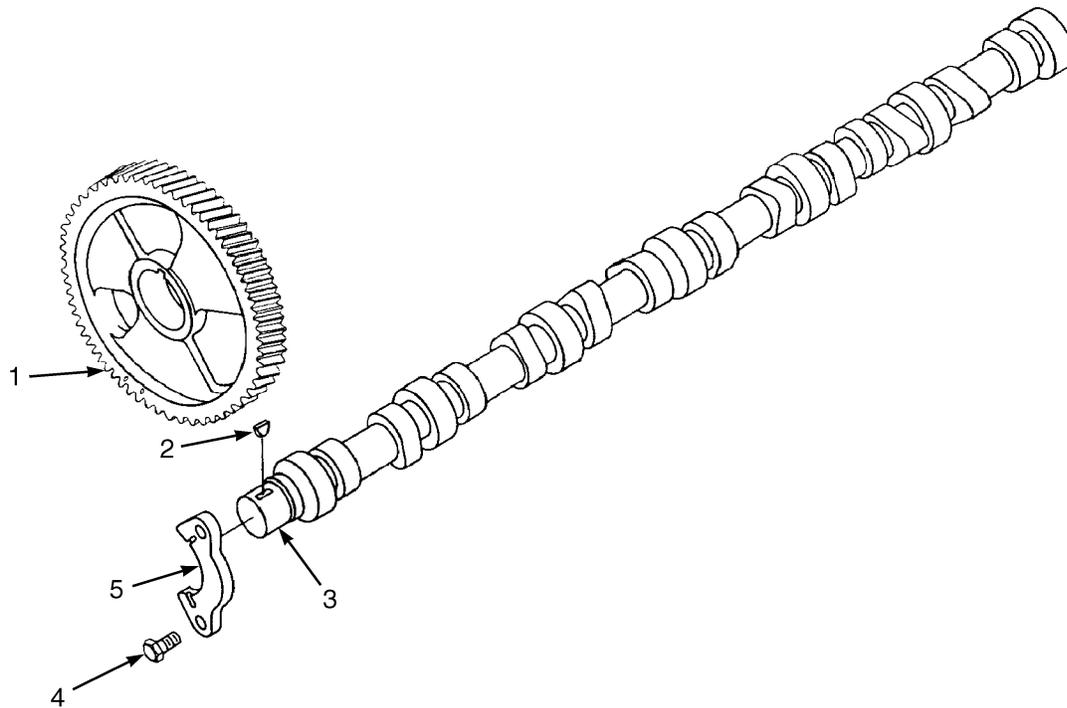


BP090247

**PISTON AND CONNECTING ROD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614496	Kit-Piston (Standard)	6
1	1614497	Kit-Piston (.020 in)	6
1	1614498	Kit-Piston (.040 in)	6
2	1512146	Retaining Ring	2
3	1614495	Kit-Piston Ring (Standard)	1
3	1614499	Kit-Piston Ring (.020 in)	1
3	1614500	Kit-Piston Ring (.040 in)	1
4	1512149	Pin	6
5	1618590	Piston Rod	6
6	1553262	Bushing	1
7	1553261	Capscrew	2
8	1614511	Bearing (Standard)	6
9	1543445	Bearing (Standard)	6

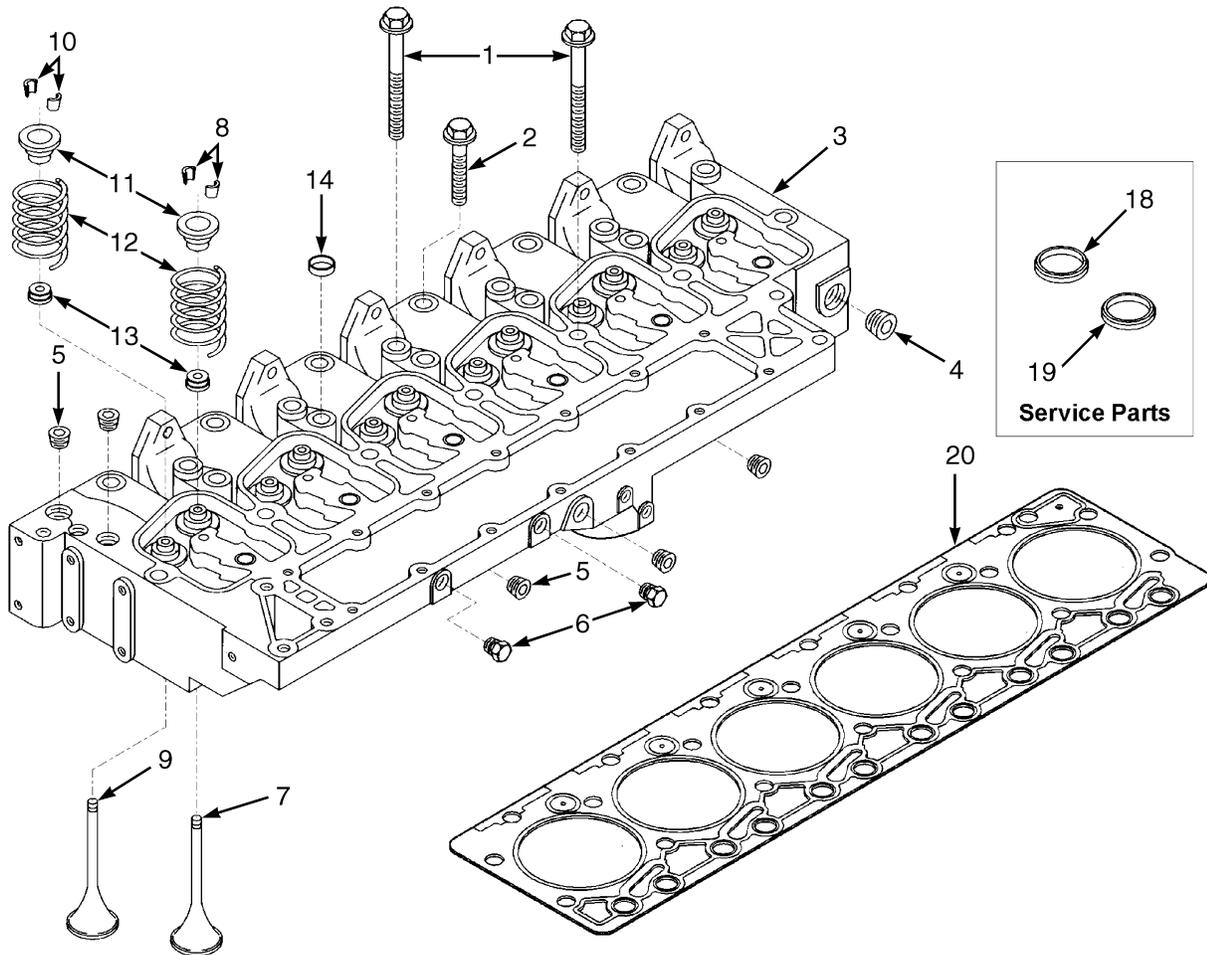
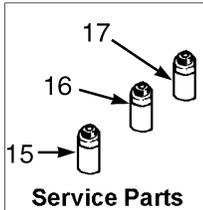
CAMSHAFT (FIGURE 2-109) CUMMINS LPG



BP090246

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614607	Gear	1
2	1512161	Woodruff Key	1
3	1614551	Camshaft	1
4	1512163	Capscrew	2
5	1512164	Support	1

CYLINDER HEAD (FIGURE 2-110) CUMMINS LPG

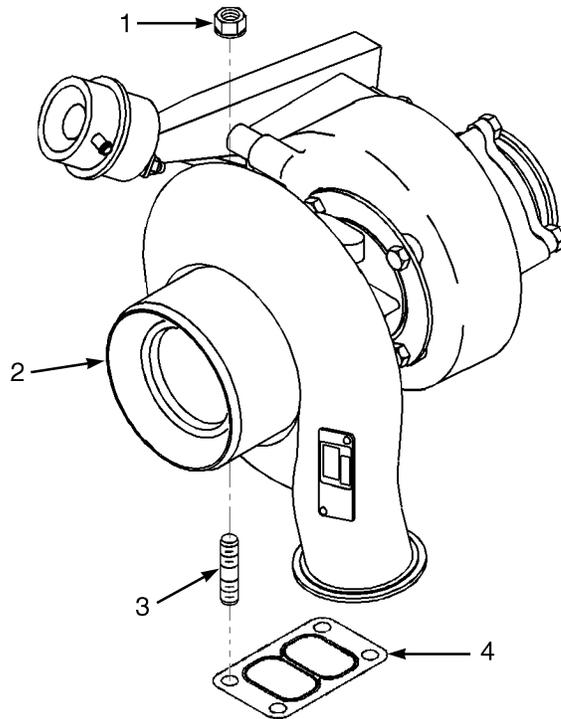


BP090248

**CYLINDER HEAD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1543451	Screw	14
2	1543450	Screw	6
3	1615829	Cylinder Head	1
4	1512292	Plug	1
5	1511952	Fitting	2
6	1512448	Fitting	2
7	1614493	Exhaust Valve	6
8	1517185	Keeper	2
9	1614492	Inlet Valve (Intake)	6
10	1517185	Keeper	2
11	1588104	Retainer	12
12	1614504	Spring	12
13	1543455	Seal (Valve Stem)	12
14	1597817	Plug	5
15	1598680	Guide (Thick Wall) (2.382 in.)	AR
16	1598681	Guide (Thick Wall) (2.038 in.)	AR
17	1598682	Guide (Thin Wall) (Intake And Exhaust)	AR
18	1614538	Insert (Valve)	AR
19	1614539	Insert (Valve)	AR
20	1618648	Cylinder Head Gasket (Standard)	1
20	1638854	Cylinder Head Gasket (0.25 mm, OS)	1
20	1638852	Cylinder Head Gasket (0.50 mm, OS)	1
	1588087	Kit-Gasket	1

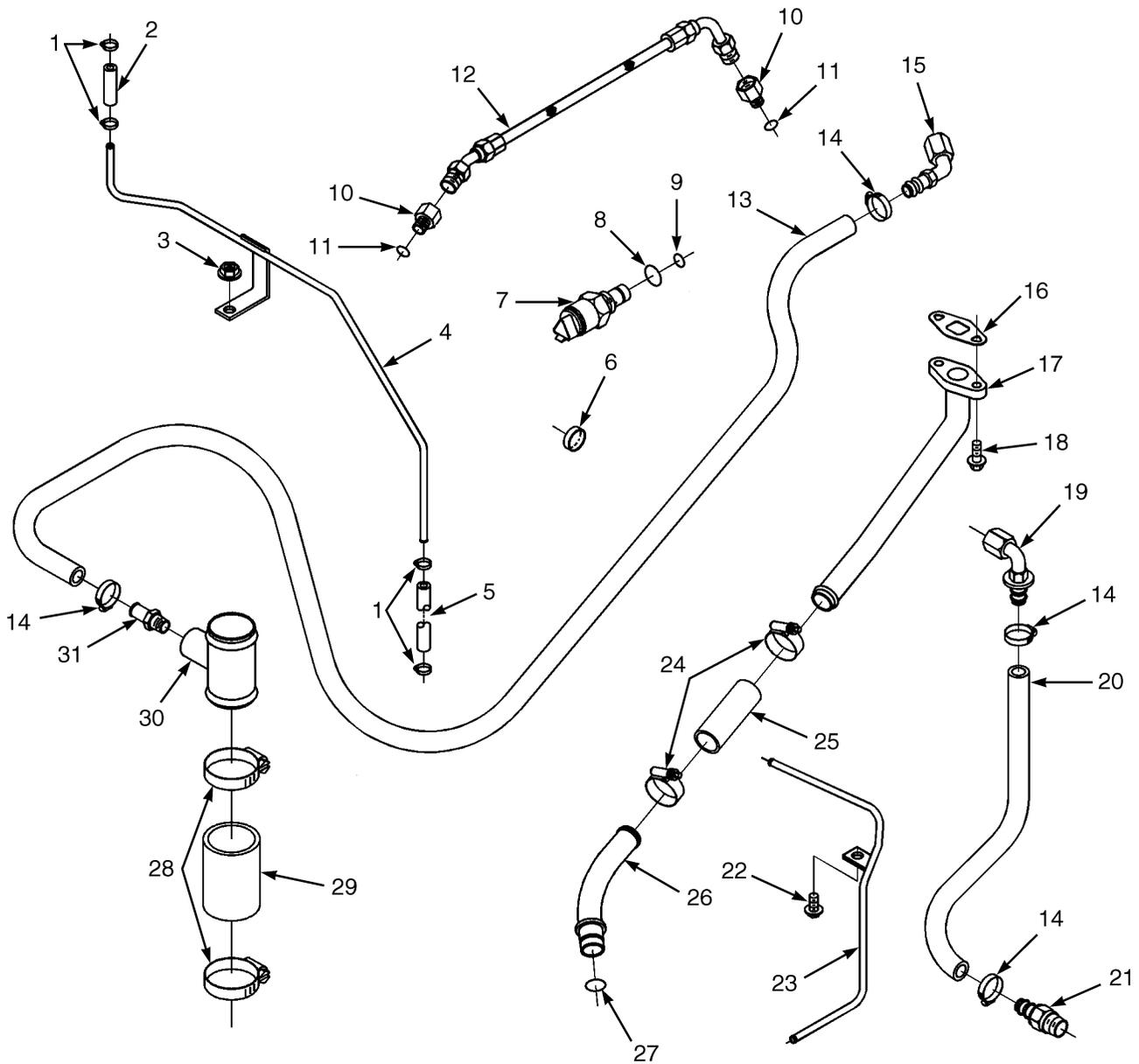
TURBOCHARGER (FIGURE 2-111) CUMMINS LPG



BP090249

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1513338	Nut	4
2	.....	Turbocharger	1
3	1513337	Stud	4
4	1584657	Gasket	1
	1624872	Kit-Repair Turbocharger	1

TURBOCHARGER PLUMBING (FIGURE 2-112) CUMMINS LPG

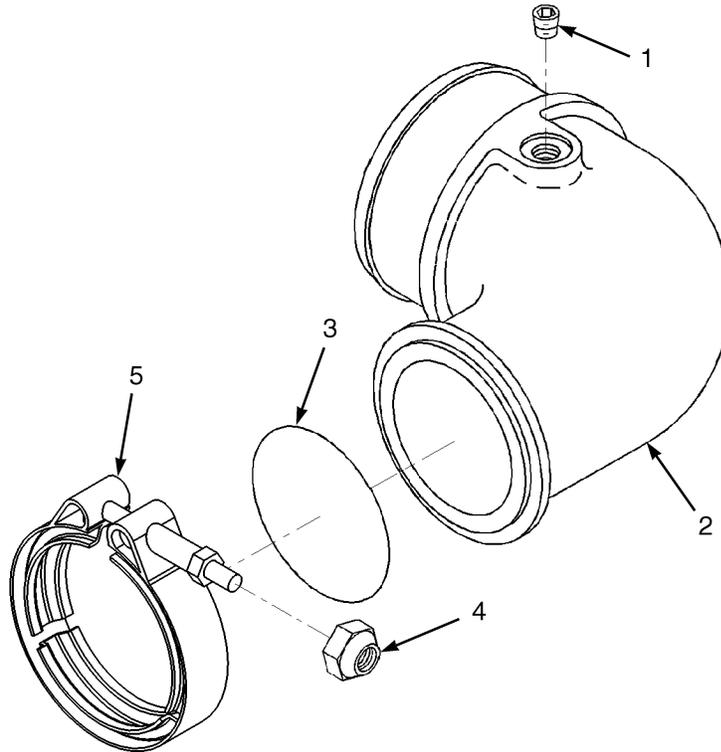


BP090253

**TURBOCHARGER PLUMBING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1612804	Clamp	4
2	1662047	Hose	1
3	1514483	Nut	1
4	1625567	Tube (Air Fuel Control)	1
5	1662048	Hose	1
6	1514339	Plug	1
7	1614570	Valve (Air Control)	1
8	1614560	O-Ring	1
9	1614561	O-Ring	1
10	1514566	Connector	2
11	1513294	O-Ring	1
12	1625570	Hose (Flexible)	1
13	1625569	Hose (Plain)	1
14	1614501	Hose Clamp	4
15	1625568	Coupling (Hose)	1
16	1514565	Gasket (Oil Drain)	1
17	1588834	Pipe	1
18	1512004	Capscrew	2
19	1614542	Coupling	2
20	1614578	Hose	1
21	1614550	Coupling	1
22	1513749	Capscrew	1
23	1625566	Tube (Air Transfer)	1
24	1517268	Hose Clamp	2
25	1517269	Hose	1
26	1521962	Tube	1
27	1517270	O-Ring	1
28	1513411	Hose Clamp	2
29	1614311	Hose	1
30	1614541	Tube	1
31	1511957	Coupling	1
	1588087	Kit-Gasket	1

TURBOCHARGER COMPRESSOR OUTLET CONNECTION (FIGURE 2-113) CUMMINS LPG



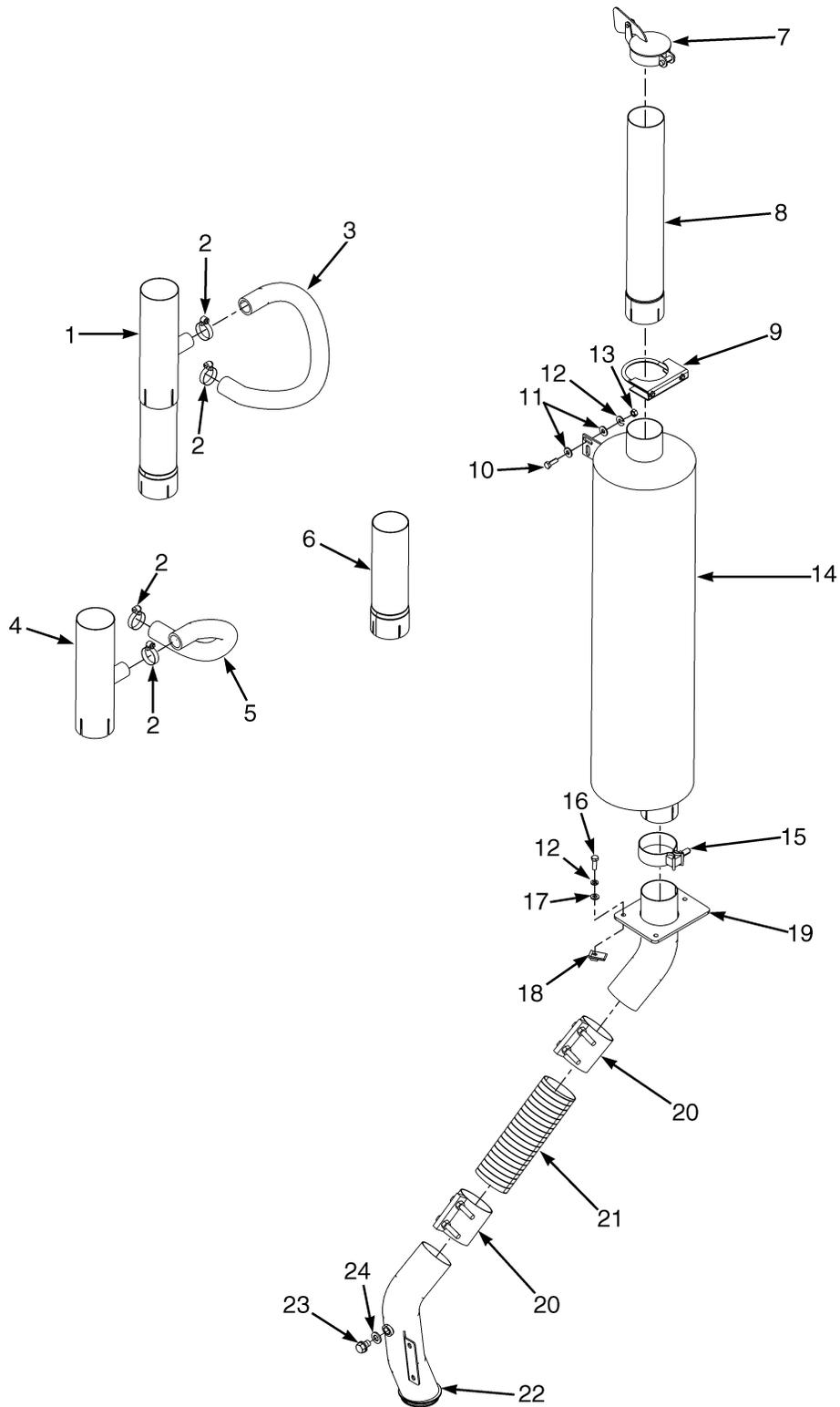
BP090241

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1513191	Fitting	1
2	1521891	Pipe	1
3	1515787	O-Ring	1
4	1517094	Locknut	1
5	1597806	Clamp	1
	a 1614322	Fitting	1

FOOTNOTES:

a Not Illustrated

EXHAUST (FIGURE 2-114) CUMMINS LPG



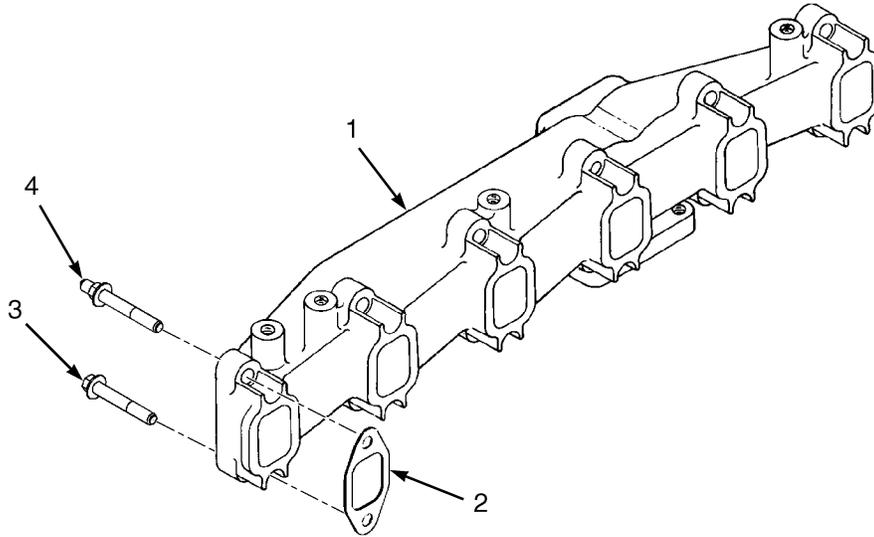
BP110032

**EXHAUST
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	a 1487206	Exhaust Pipe	1
2	a 127045	Clamp (Hose)	2
3	a 1489639	Hose (Air Duct)	1
4	a 1358326	Exhaust Pipe (Ejector) (Low Mast)	1
5	a 1525409	Hose (Low Mast)	1
6	b 1544775	Exhaust Pipe (Low Mast)	1
7	1361200	Rain Cap	1
8	b 1474875	Exhaust Pipe	1
9	30375	Clamp	1
10	136749	Screw	2
11	320158	Washer	4
12	292681	Lockwasher	5
13	239503	Nut	2
14	2078825	Catalytic Converter	1
15	1598359	Clamp	1
16	18497	Capscrew	3
17	320157	Washer	3
18	376397	Retainer	3
19	1600769	Exhaust Pipe	1
20	270826	Clamp	2
21	1544774	Flex Tube	1
22	1607664	Exhaust Pipe	1
23	1396518	Plug	1
23	1509104	Plug	1
24	1509103	Ring (Copper)	1

FOOTNOTES:**a** With Aspirated Pre-Cleaner**b** Without Aspirated Pre-Cleaner

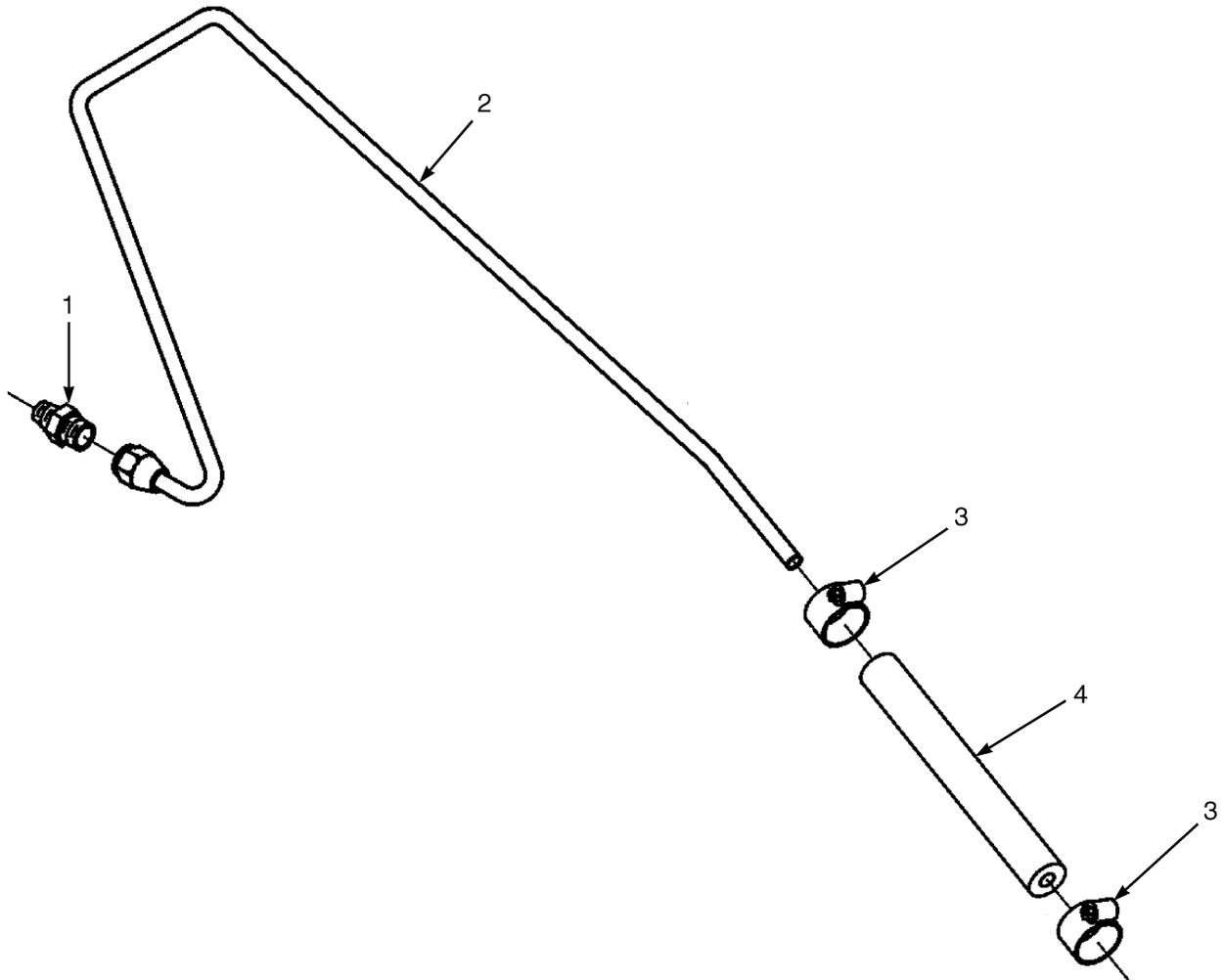
EXHAUST MANIFOLD (FIGURE 2-115) CUMMINS LPG



BP090251

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614563	Exhaust Manifold	1
2	1614066	Gasket	6
3	1543895	Screw	11
4	1543897	Screw	1
	1588087	Kit-Gasket	1

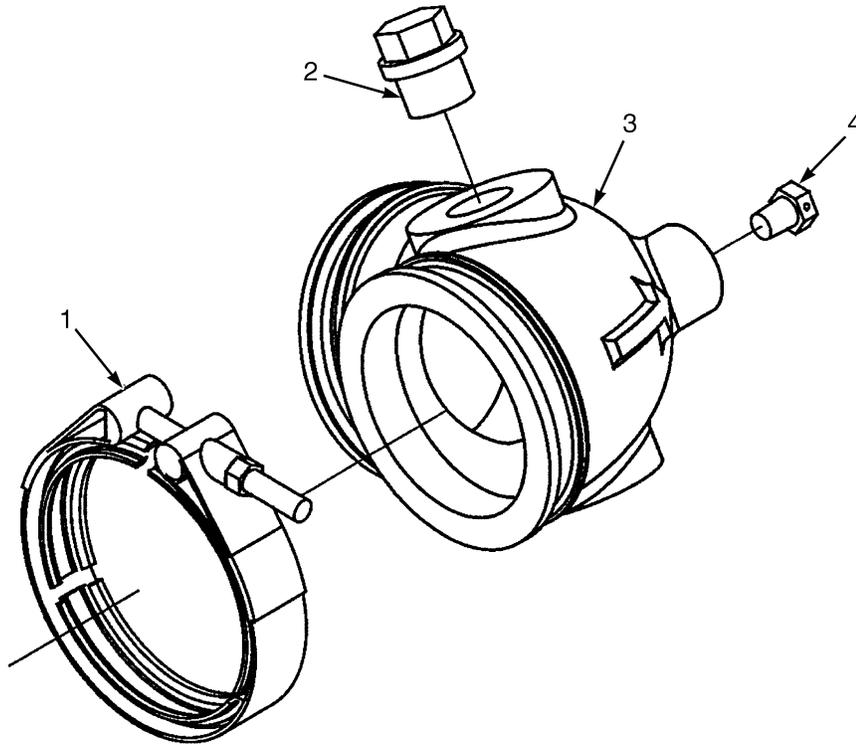
**EXHAUST GAS SENSOR PLUMBING (FIGURE 2-116)
CUMMINS LPG**



BP090269

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1624852	Connector	1
2	1624871	Tube	1
3	1614323	Hose Clamp	2
4	1614615	Hose	1

EXHAUST OUTLET CONNECTION (FIGURE 2-117) CUMMINS LPG



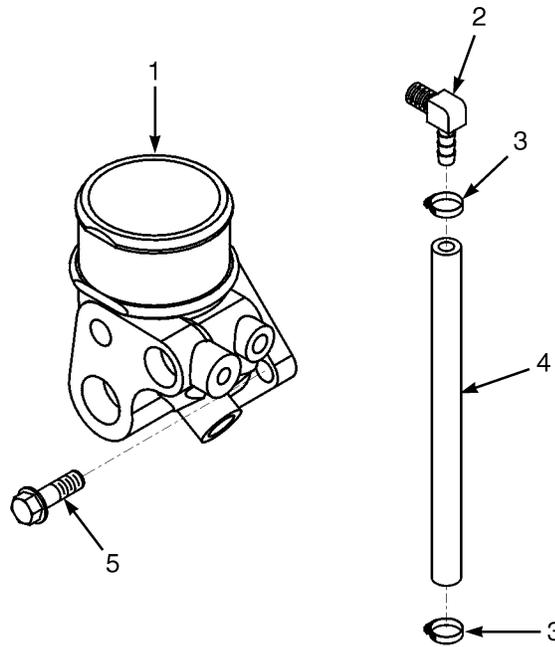
BP090271

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1373430	Clamp	2
2	1614503	Plug	1
3	1614635	Adapter	1
4	1614454	Fitting (Pipe)	1
a	1512607	Washer	4
a	1614473	Coupling	1
a	1512107	Washer	8
a	1614510	Capscrew	4
a	1512106	Capscrew	8

FOOTNOTES:

a Not Illustrated

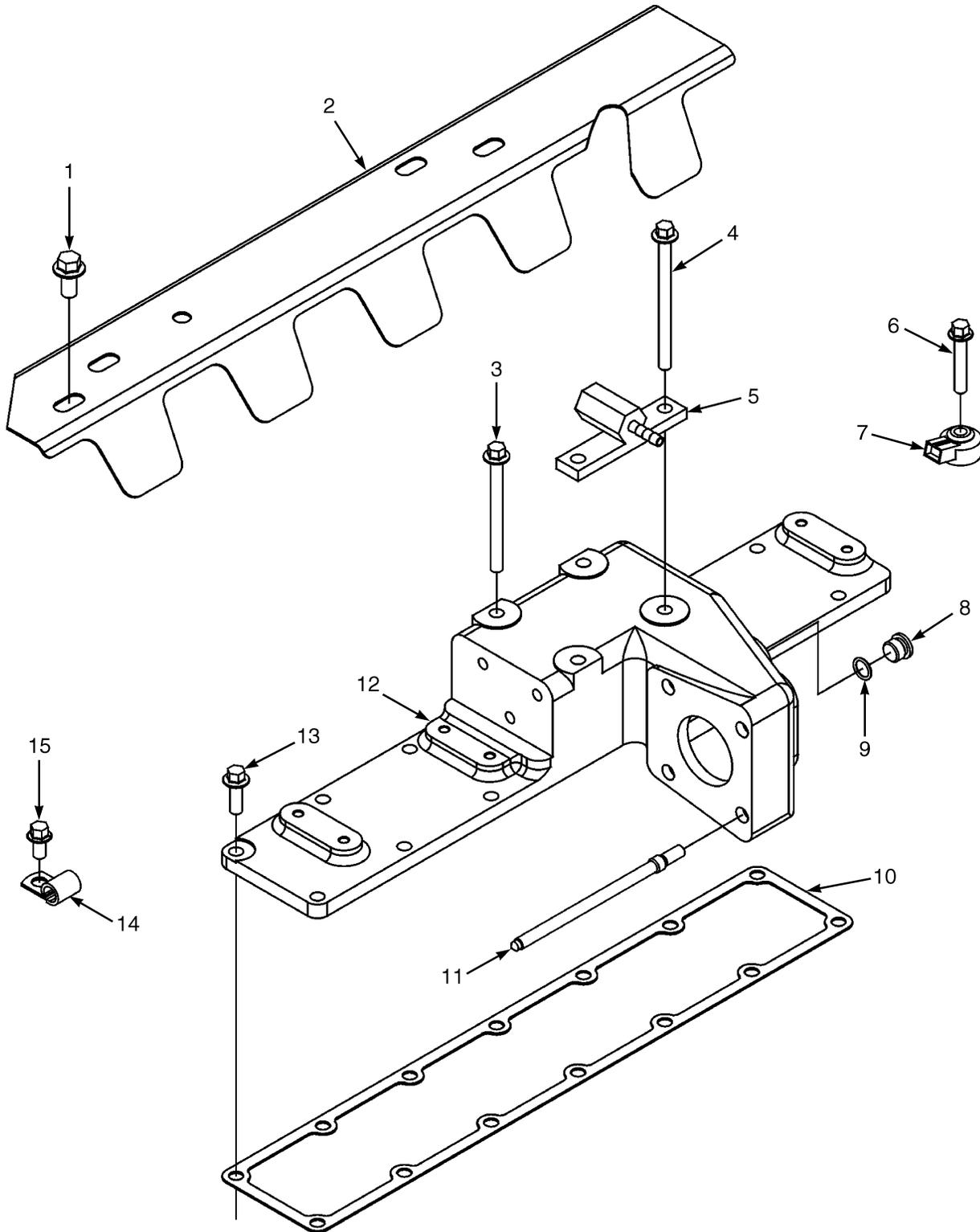
**AIR INTAKE CONNECTION (FIGURE 2-118)
CUMMINS LPG**



BP090242

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614597	Connector	1
2	1614549	Coupling	1
3	1612804	Clamp	2
4	1614631	Hose	1
5	1512005	Capscrew	3

INTAKE MANIFOLD (FIGURE 2-119) CUMMINS LPG

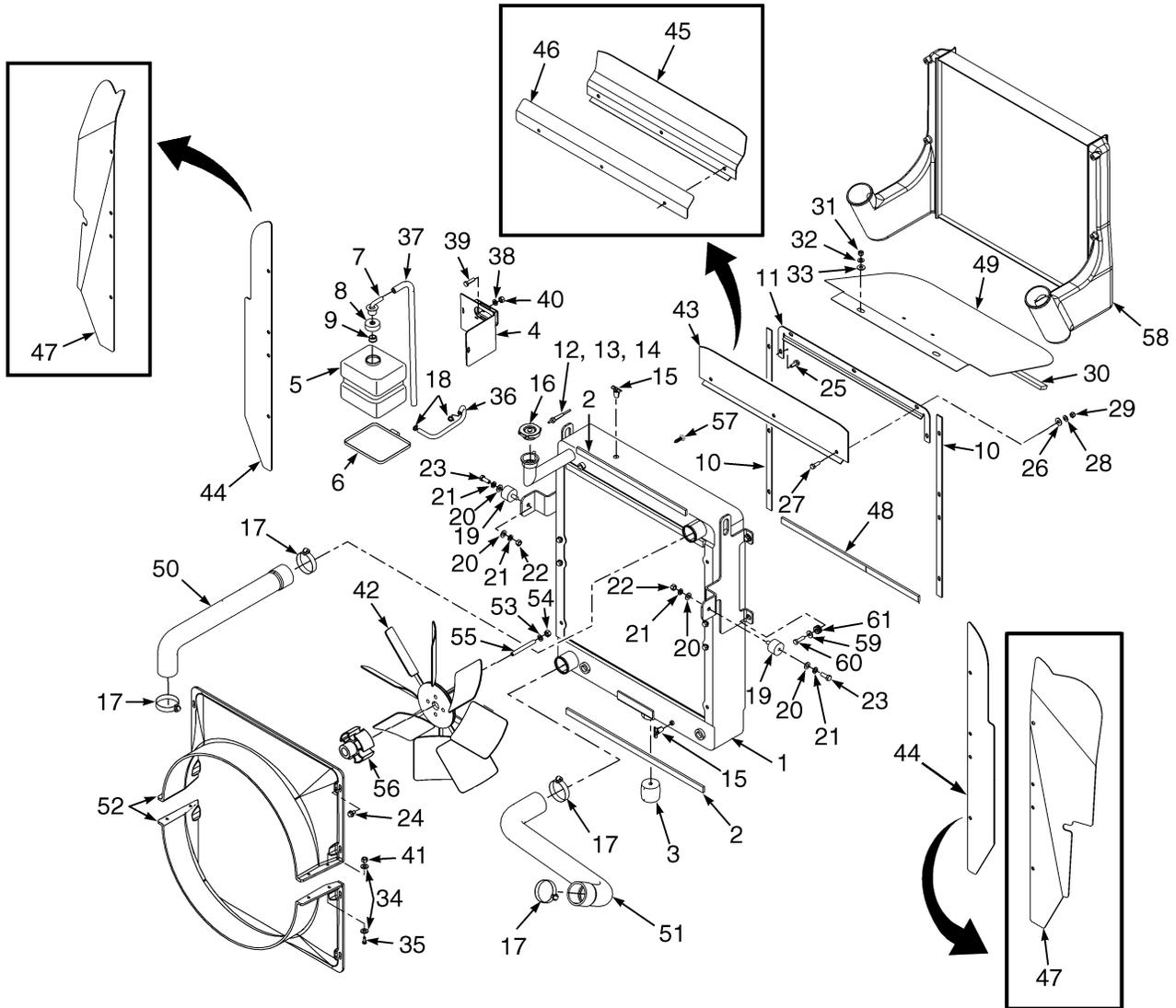


BP090250

**INTAKE MANIFOLD
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614576	Capscrew	3
2	1624994	Heat Shield	1
3	1512296	Capscrew	2
4	1614582	Capscrew	1
5	1614591	Bracket	1
6	1512111	Capscrew	1
7	1614491	Sensor (Knock)	3
8	1512587	Plug	2
9	1512588	O-Ring	1
10	1512300	Gasket	1
11	1614633	Stud	4
12	1614593	Cover (Intake Manifold)	1
13	1512295	Capscrew	9
14	1513776	Clip	1
15	1513749	Capscrew	1
	1588087	Kit-Gasket	1

COOLING (FIGURE 2-120) CUMMINS LPG



BP060024

**COOLING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	2053634	Radiator	1
2	1557528	Foam Tape	2
3	376649	Isolator	1
4	1602371	Bracket Wldmt	1
5	344432	Reservoir	1
6	340204	Strap	1
7	345453	Outlet (Reservoir)	1
8	345454	Cap	1
9	336550	Bushing	1
10	1523853	Plate	2
11	1523854	Bracket	1
12	1401160	Sender (Coolant Level)	1
13	320156	Washer	1
14	15002	Nut	1
15	12815	Drain Valve (Drain)	2
16	178899	Radiator Cap (Radiator)	1
17	119236	Clamp	3
18	353310	Clamp	2
19	1307730	Mount	2
20	15134	Washer	4
21	15156	Lockwasher	4
22	15056	Nut	2
23	16805	Capscrew	2
24	139589	Screw	14
25	157233	Screw	2
26	15175	Lockwasher	3
27	18496	Capscrew	3
28	18515	Washer	3
29	15114	Locknut	3
30	212899	Foam Tape	AR
31	136692	Nut	2
32	320160	Washer	2
33	292682	Lockwasher	6
34	320156	Washer	8
35	292500	Capscrew	4
36	1329240	Hose	1
37	1663877	Hose	1
38	320157	Washer	1
39	176640	Bolt	1
40	302400	Nut	1
41	313805	Nut	4
42	1597757	Fan (Puller)	1
43	a 1523852	Screen (Rubber)	1
44	a 1523851	Screen (Rubber)	2
45	b 1524478	Screen (Rubber)	1
46	b 1544847	Plate	1
47	b 1524477	Screen (Rubber)	2
48	1303390	Tape	1
49	1479369	Baffle	1
50	1605372	Radiator Hose (Upper)	1

COOLING CUMMINS LPG

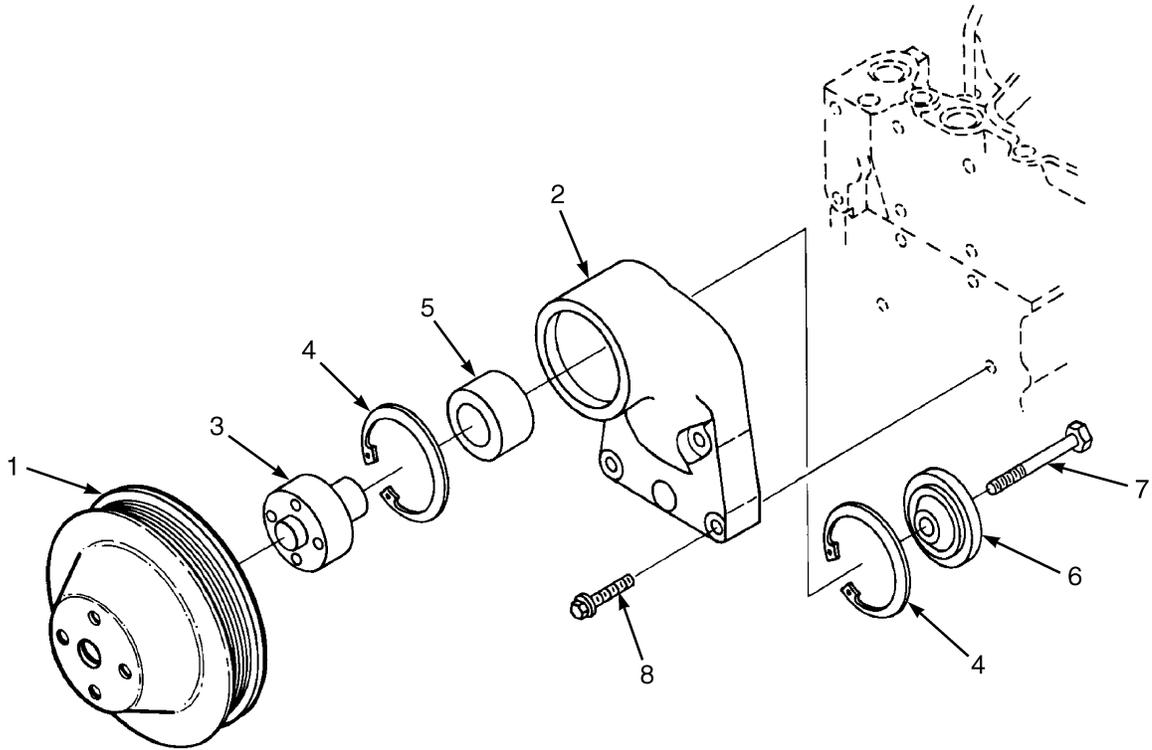
ITEM	PART NO.	DESCRIPTION	QTY
51	1524480	Radiator Hose (Lower)	1
52	1525754	Shroud	2
53	292682	Lockwasher	4
54	136692	Nut	4
55	1504609	Stud	4
56	1512287	Spacer (Fan Pilot)	1
57	1557679	Clip	4
58	1509810	Cooler (Charge Air)	1
59	320158	Washer	8
60	1531036	Capscrew	4
61	108464	Grommet	4

FOOTNOTES:

a H170-210HD

b H230-280HD

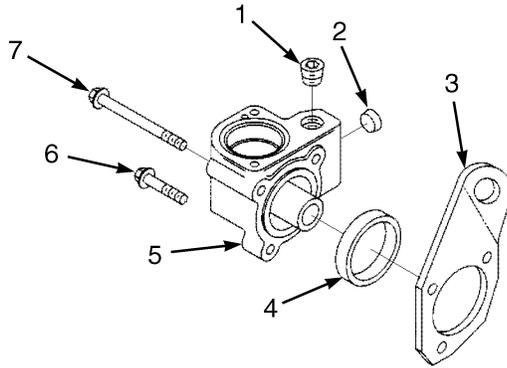
**FAN DRIVE (FIGURE 2-121)
CUMMINS LPG**



BP090240

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512425	Fan Pulley (Fan)	1
2	1512014	Support	1
3	1512024	Hub (Fan)	1
4	1512026	Retaining Ring	2
5	1512015	Ball Bearing	1
6	1512025	Hub	1
7	1512027	Capscrew	1
8	1512029	Screw	4

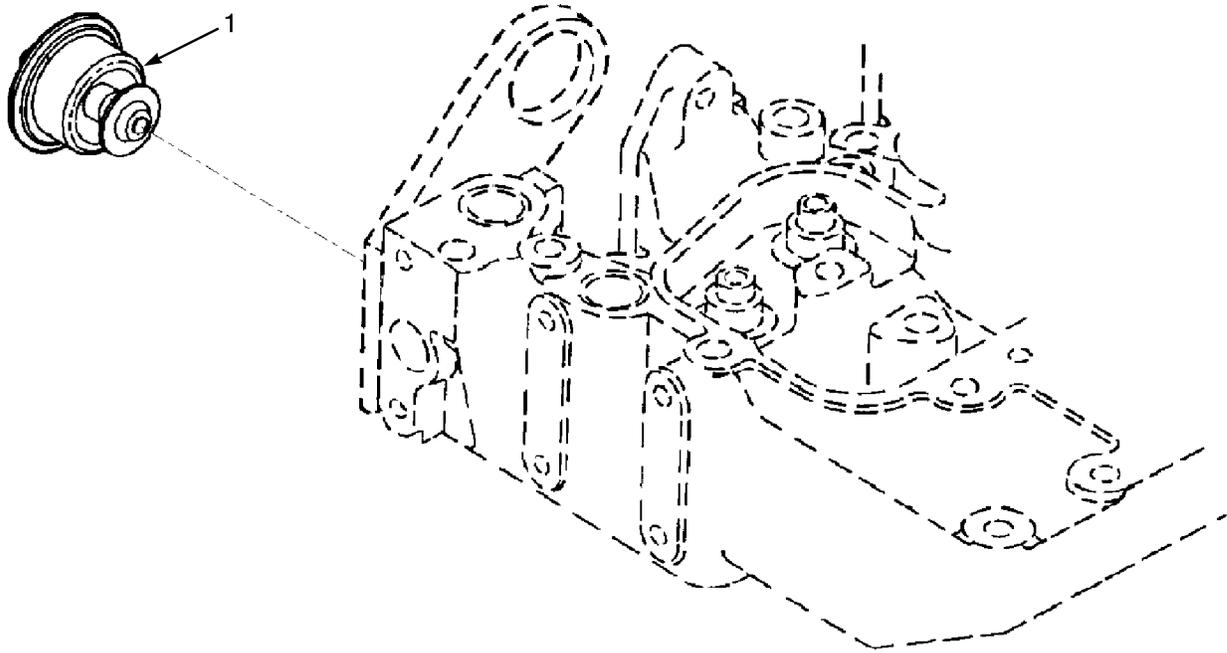
THERMOSTAT HOUSING (FIGURE 2-122) CUMMINS LPG



BP090252

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512304	Plug	1
2	1511952	Fitting	1
3	1512302	Bracket	1
4	1512305	O-Ring	1
5	1614459	Thermostat Housing	1
6	1512296	Capscrew	2
7	1512029	Screw	1

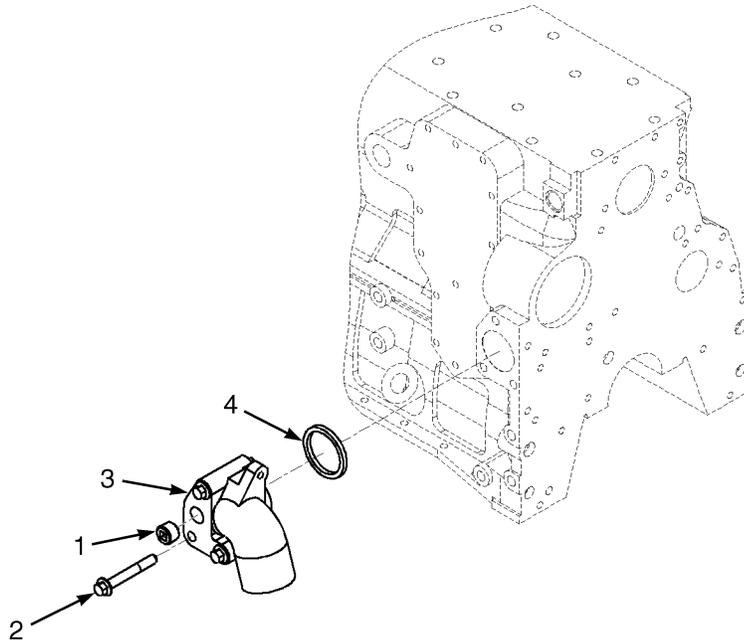
**THERMOSTAT (FIGURE 2-123)
CUMMINS LPG**



BP090238

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1603897	Thermostat	1

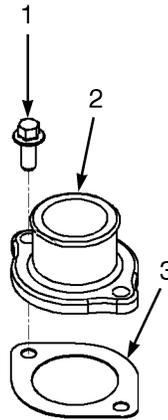
WATER INLET CONNECTION (FIGURE 2-124) CUMMINS LPG



BP090255

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1511952	Fitting	1
2	1512316	Screw	3
3	1512315	Water Inlet	1
4	1512305	O-Ring	1

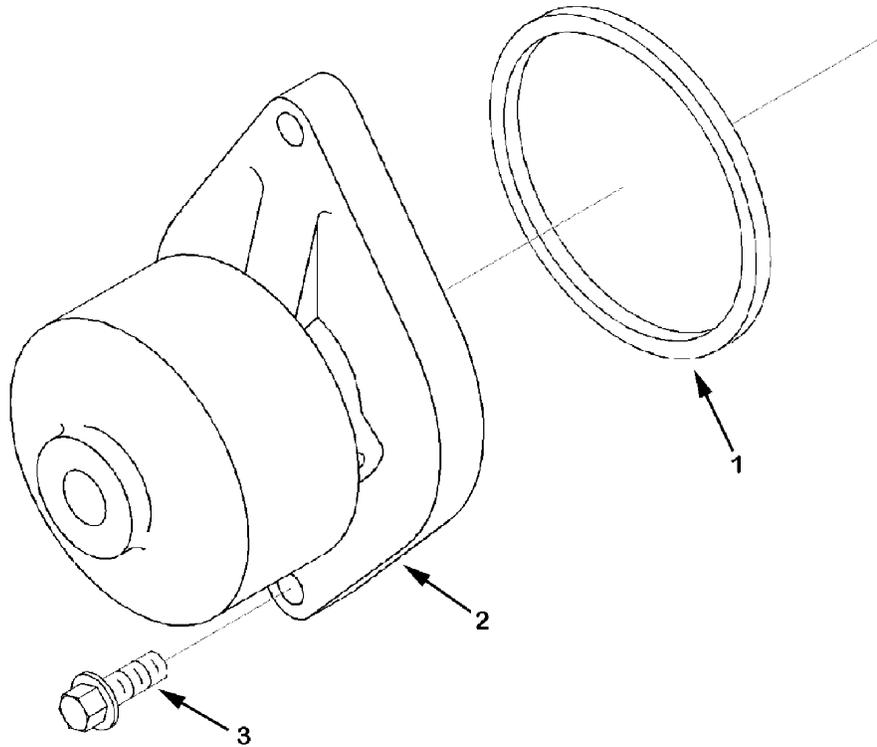
**WATER OUTLET CONNECTION (FIGURE 2-125)
CUMMINS LPG**



BP090256

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512004	Capscrew	2
2	1512318	Connector	1
3	1512319	Gasket	1

WATER PUMP (FIGURE 2-126) CUMMINS LPG



HP091178

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614513	O-Ring	1
1	1512322	Sealing Ring	1
2	.....	Water Pump	1
3	1597807	Capscrew (Flange)	2
	1512321	Kit-Repair Water Pump	1
4	1521975	Kit-Repair Water Pump (Alternate Part)	1

3

FUEL SYSTEM

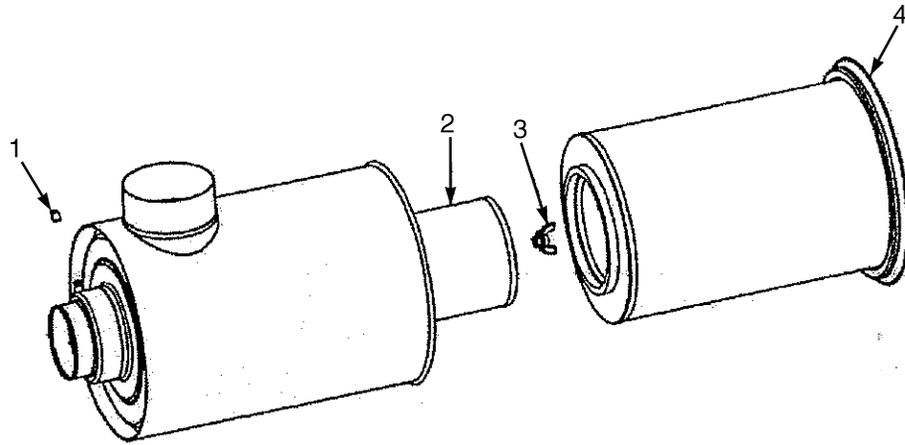
**SECTION 3
FUEL SYSTEM**

DESCRIPTION	PAGE
AIR CLEANER ASSEMBLY	3-3
AIR FILTER SYSTEM	
WITH AND WITHOUT ASPIRATED PRE-CLEANER - LPG	3-50
WITH ASPIRATED PRE-CLEANER - DIESEL	3-8
WITHOUT ASPIRATED PRE-CLEANER - DIESEL	3-4
FUEL CONTROL MODULE	
CUMMINS LPG	3-58
FUEL FILTER	
CUMMINS DIESEL	3-34
CUMMINS LPG	3-62
FUEL FILTER ASSEMBLY	
PERKINS DIESEL	3-24
FUEL FILTER PLUMBING	
CUMMINS DIESEL	3-36
FUEL INJECTION PUMP	
CUMMINS DIESEL	3-38
FUEL INJECTION PUMP AND GEAR	
PERKINS DIESEL	3-14
FUEL INJECTION SUPPLY AND RETURN LINES	
PERKINS DIESEL	3-18
FUEL INJECTOR PLUMBING	
CUMMINS DIESEL	3-48
FUEL PLUMBING	
CUMMINS DIESEL	3-46
FUEL PUMP MOUNTING	
CUMMINS DIESEL	3-42
FUEL STRAINER	
CUMMINS DIESEL	3-45
FUEL SYSTEM	
CUMMINS DIESEL (→ S/N G007E02257C)	3-28
CUMMINS DIESEL (S/N G007E02258C ↔ S/N G007E02674D)	3-30
CUMMINS DIESEL (S/N G007E02675D →)	3-32
CUMMINS LPG	3-52
PERKINS DIESEL	3-12
FUEL SYSTEM ACCESSORIES	
CUMMINS LPG	3-61
FUEL TANK MOUNTING	
CUMMINS LPG	3-56
FUEL TRANSFER PUMP	
CUMMINS DIESEL	3-44
HIGH PRESSURE FUEL PIPES	
PERKINS DIESEL	3-16
INJECTOR	
CUMMINS DIESEL	3-40
LIFT PUMP AND FUEL FILTER LINES	
PERKINS DIESEL	3-20
LIFT PUMP ASSEMBLY	
PERKINS DIESEL	3-22
MONOTROL PEDAL	3-72

SECTION 3
FUEL SYSTEM

DESCRIPTION	PAGE
THROTTLE PEDAL LINKAGE	
FORWARD AND REVERSE LEVER	3-64
MONOTROL PEDAL	3-68
WATER SEPERATOR	
PERKINS DIESEL	3-26

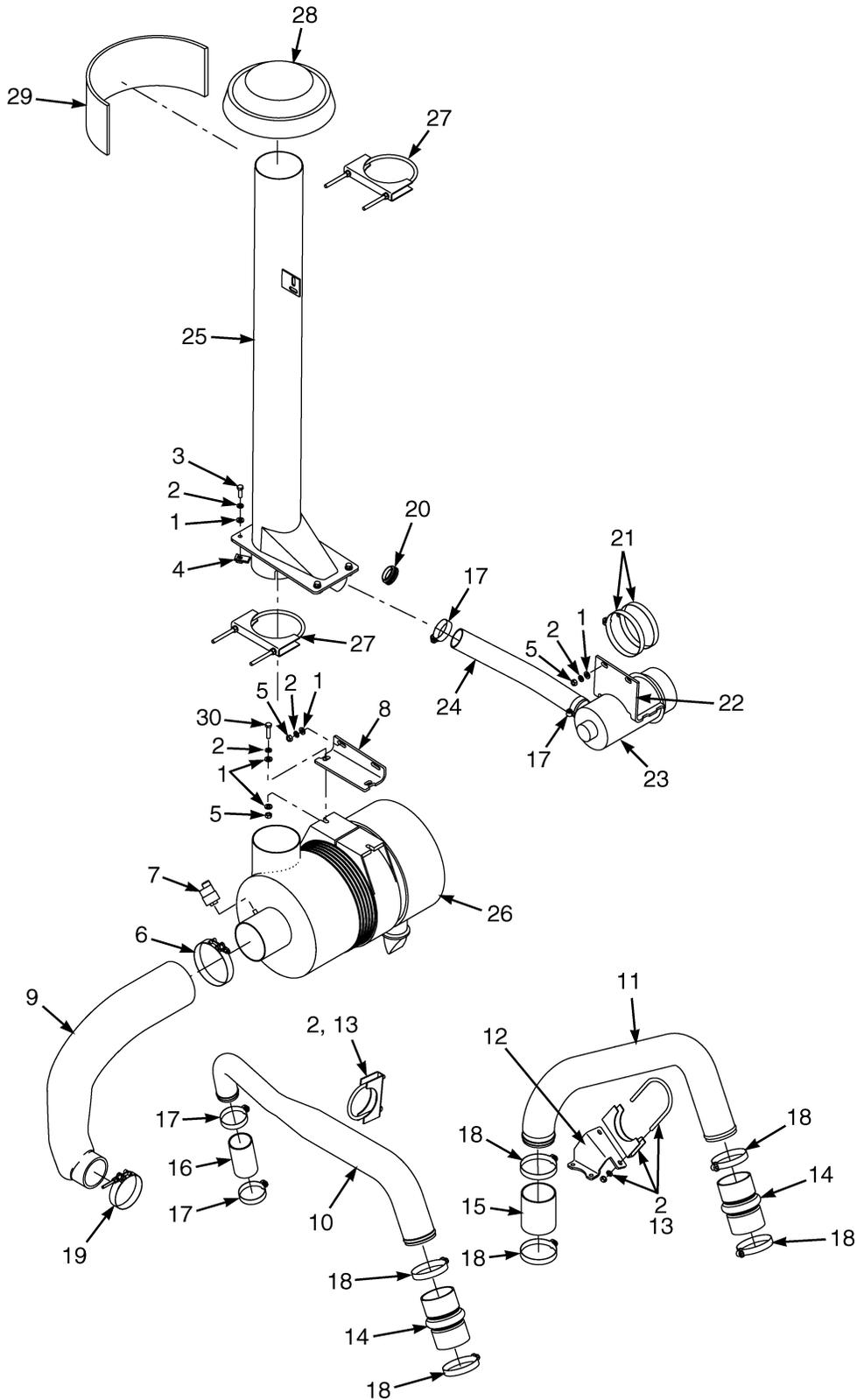
AIR CLEANER ASSEMBLY (FIGURE 3-1)



HP130426

ITEM	PART NO.	DESCRIPTION	QTY
	2091695	Air Filter	1
1	.....	Cap	1
2	2091698	Filter Element (Safety)	1
3	1580286	Nut	1
4	2091697	Filter Element (Main)	1

AIR FILTER SYSTEM (FIGURE 3-2) WITHOUT ASPIRATED PRE-CLEANER — DIESEL



BP130055

AIR FILTER SYSTEM

WITHOUT ASPIRATED PRE-CLEANER – DIESEL

KEY:**A: With Wet Brake****B: With Dry Brake**

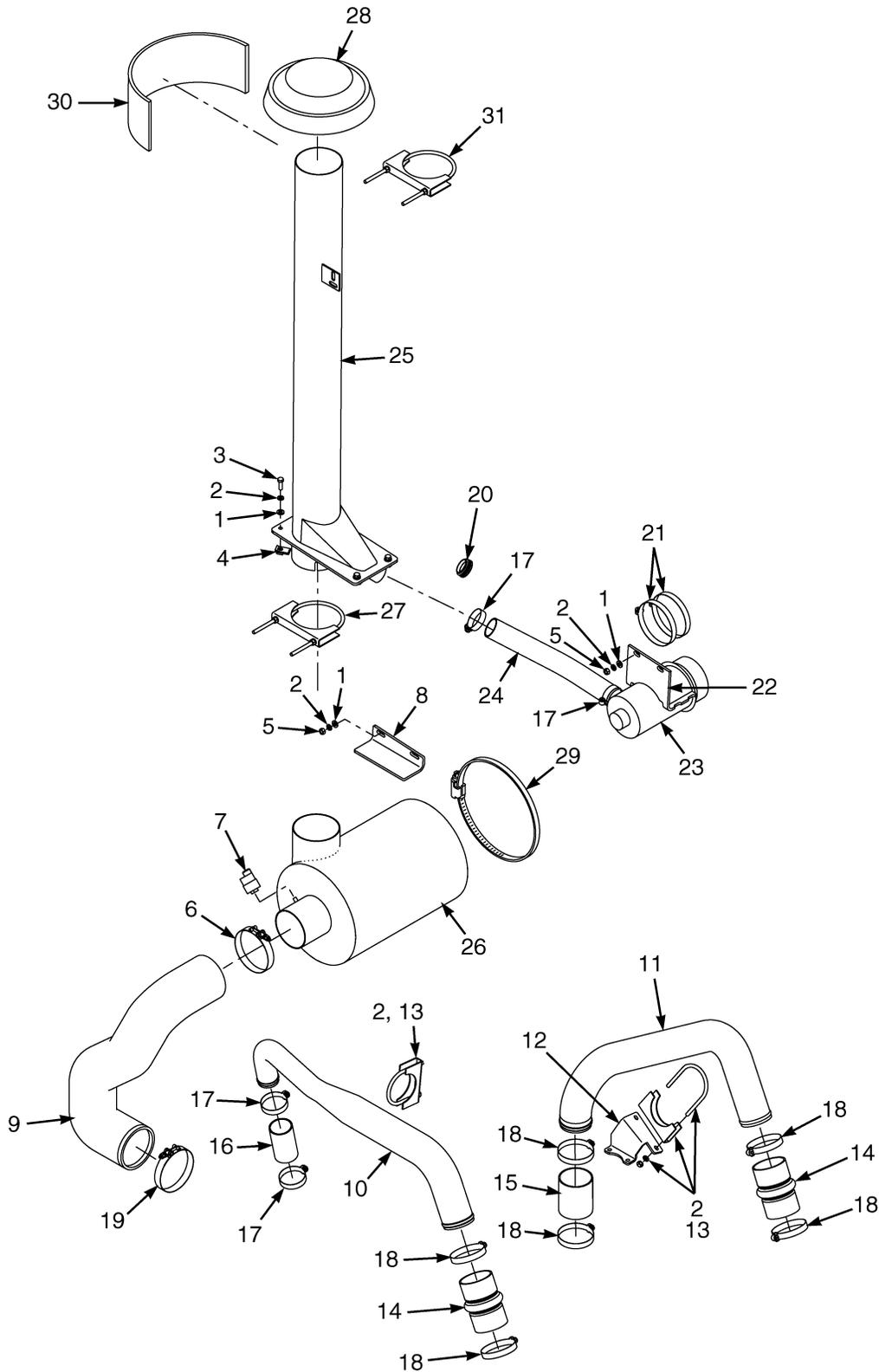
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	320157	Washer	10	12
2	292681	Lockwasher	8	10
3	18497	Capscrew	4	4
4	376397	Retainer	4	4
5	239503	Nut	4	6
6	1514903	Clamp	1	1
7	1486218	Switch (Vacuum)	1	1
8	1490488	Bracket (Air Cleaner)	1	1
9	a 1490481	Hose (Air Cleaner)	1	1
9	b 1552495	Hose Assy (Air Cleaner)	1	1
10	b 1507022	Tube (Air Cooler)	1	1
11	b 1507036	Tube (Air Cooler)	1	1
12	b 1524209	Bracket	1	1
13	b 30375	Clamp	2	2
14	b 1524553	Hose (Charge Air Cooler)	2	2
15	b 1524554	Hose (Charge Air Cooler)	1	1
16	b 1524630	Hose	1	1
17	b 119236	Clamp	2	4
18	b 115696	Hose Clamp	6	6
19	a 1512814	Clamp	1	1
19	b 816585	Clamp	1	1
20	c 1555939	Plug	1	1
20	d 1613632	Plug	1	1
21	227220	Clamp .....	..	1
22	1479385	Bracket .....	..	1
23	1352669	Air Filter .....	..	1
23	.....	Body .....	..	1
23	1352670	Filter Element .....	..	1
23	1360191	Nut .....	..	1
23	1360192	Clamp .....	..	1
23	1360193	Cup .....	..	1
23	1360194	Baffle .....	..	1
24	1475627	Hose Assy .....	..	1
25	1552353	Air Duct	1	1
26	2041833	Air Filter	1	1
26	2043587	Filter Element	1	1
26	2043589	Bracket	1	1
26	2044180	Cover	1	1
26	2044181	Valve	1	1
26	2044182	Cap	1	1
27	1455926	Clamp (Noise Reduction)	1	1
27	1455926	Clamp	1	1
28	152944	Cap	1	1
29	1480199	Cap (Noise Reduction)	1	1
30	132861	Capscrew	2	2

FOOTNOTES:

a Cummins Diesel
b Perkins Diesel

c → S/N G007E02505C
d S/N G007E02506C →

AIR FILTER SYSTEM (FIGURE 3-3) WITH ASPIRATED PRE-CLEANER — DIESEL



BP130056

AIR FILTER SYSTEM
WITH ASPIRATED PRE-CLEANER – DIESEL

KEY:**A: With Wet Brake****B: With Dry Brake**

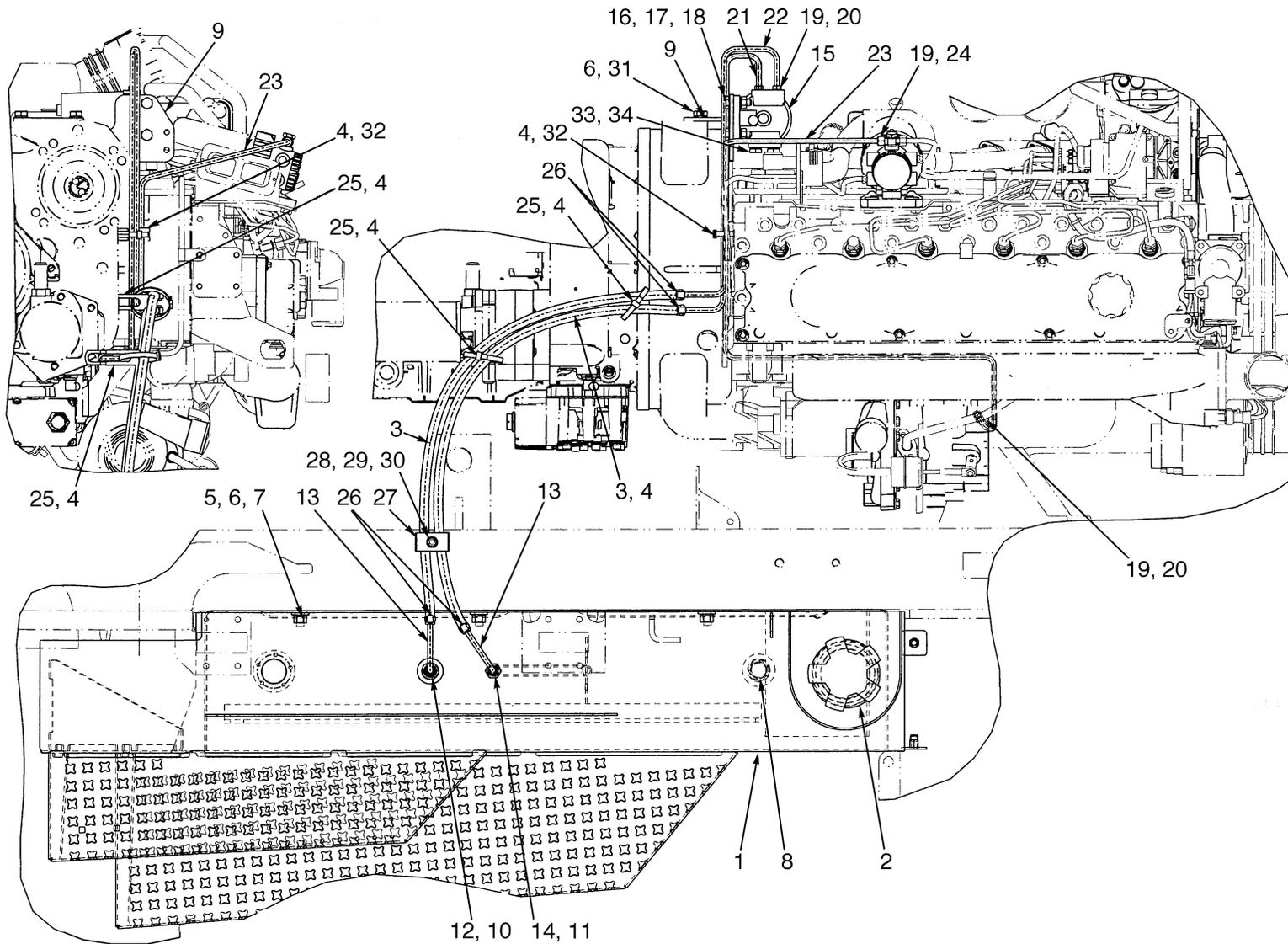
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	320157	Washer	10	12
2	292681	Lockwasher	8	10
3	18497	Capscrew	4	4
4	376397	Retainer	4	4
5	239503	Nut	4	6
6	1514903	Clamp	1	1
7	1486218	Switch (Vacuum)	1	1
8	1562104	Bracket (Air Cleaner)	1	1
9	b 1552495	Hose Assy (Air Cleaner)	1	1
9	a 1490481	Hose (Air Cleaner)	1	1
10	b 1507022	Tube (Air Cooler)	1	1
11	b 1507036	Tube (Air Cooler)	1	1
12	b 1524209	Bracket	1	1
13	b 30375	Clamp	2	2
14	b 1524553	Hose (Charge Air Cooler)	2	2
15	b 1524554	Hose (Charge Air Cooler)	1	1
16	b 1524630	Hose	1	1
17	b 119236	Clamp	2	4
18	b 115696	Hose Clamp	6	6
19	b 816585	Clamp	1	1
19	a 1512814	Clamp	1	1
20	c 1555939	Plug	1	1
20	d 1613632	Plug	1	1
21	227220	Clamp .....	..	1
22	1479385	Bracket .....	..	1
23	1352669	Air Filter .....	..	1
23	.....	Body .....	..	1
23	1352670	Filter Element .....	..	1
23	1360191	Nut .....	..	1
23	1360192	Clamp .....	..	1
23	1360193	Cup .....	..	1
23	1360194	Baffle .....	..	1
24	1475627	Hose Assy .....	..	1
25	1552226	Air Duct	1	1
26	2091695	Air Filter	1	1
26	.....	Body	1	1
26	2043588	Filter Element (Main)	1	1
26	2067399	Filter Element (Safety)	1	1
26	1580286	Nut	1	1
27	1486165	Clamp	1	1
28	1524555	Pre-Cleaner (Aspirated)	1	1
29	1561964	Clamp	1	1
30	1480199	Cap (Noise Reduction)	1	1
31	1455926	Clamp (Noise Reduction)	1	1

FOOTNOTES:

a Cummins
b Perkins

c → S/N G007E02505C
d S/N G007E02506C →

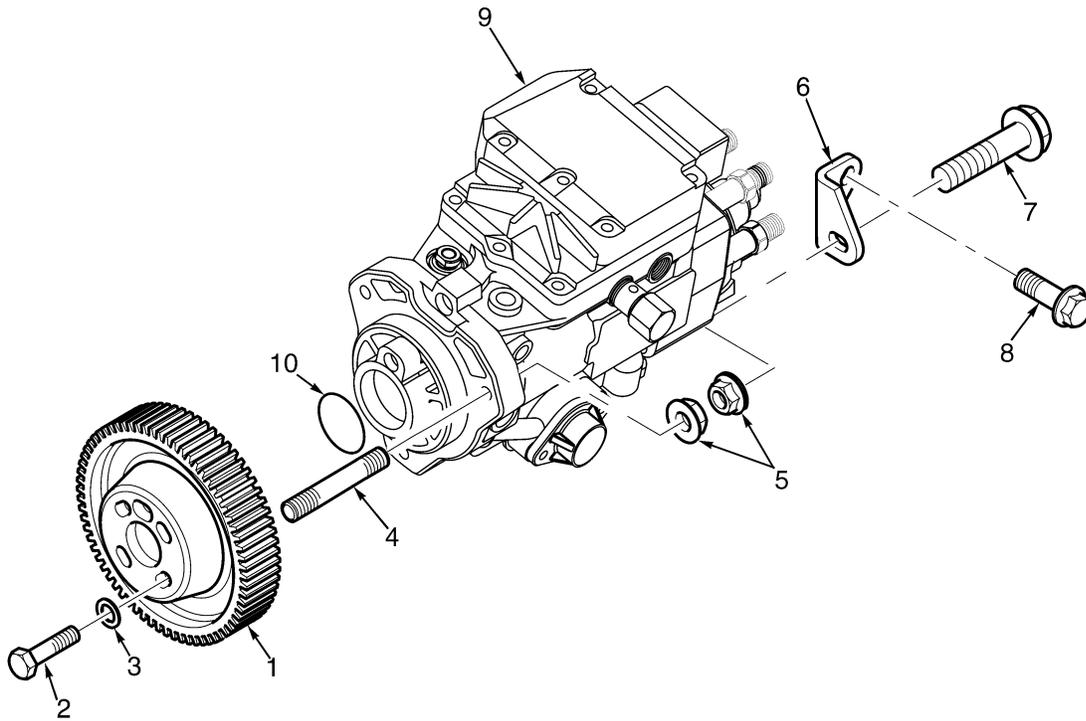
FUEL SYSTEM (FIGURE 3-4) PERKINS DIESEL



**FUEL SYSTEM
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	1523482	Fuel Tank Wldmt	1
2	1569867	Fuel Cap (Non-Locking)	1
2	1569866	Fuel Cap (Locking)	1
3	1567507	Hose	2
4	129563	Strap Clamp	3
5	320162	Washer	3
6	292683	Lockwasher	5
7	216877	Nut	3
8	14388	Fitting	1
9	1537472	Bracket	1
10	12836	Fitting	1
11	16872	Fitting	1
12	14327	Fitting	1
13	1491258	Tube Assy	2
14	14326	Fitting	1
15	1396256	Water Separator (☞ Figure 3-11).....	1
16	287860	Capscrew	2
17	292682	Lockwasher	2
18	136692	Nut	2
19	16177	Fitting	4
20	16100	Fitting	3
21	1452382	Tube	1
22	1537469	Tube	1
23	1537467	Tube	1
24	14773	Fitting	1
25	1350911	Strap	2
26	168718	Clamp	4
27	1393803	Clamp	1
28	18515	Washer	1
29	15155	Lockwasher	1
30	15055	Nut	1
31	292527	Capscrew	2
32	1345023	Strap	1
33	173941	Plug	2
34	981260	Washer	2

FUEL INJECTION PUMP AND GEAR (FIGURE 3-5) PERKINS DIESEL

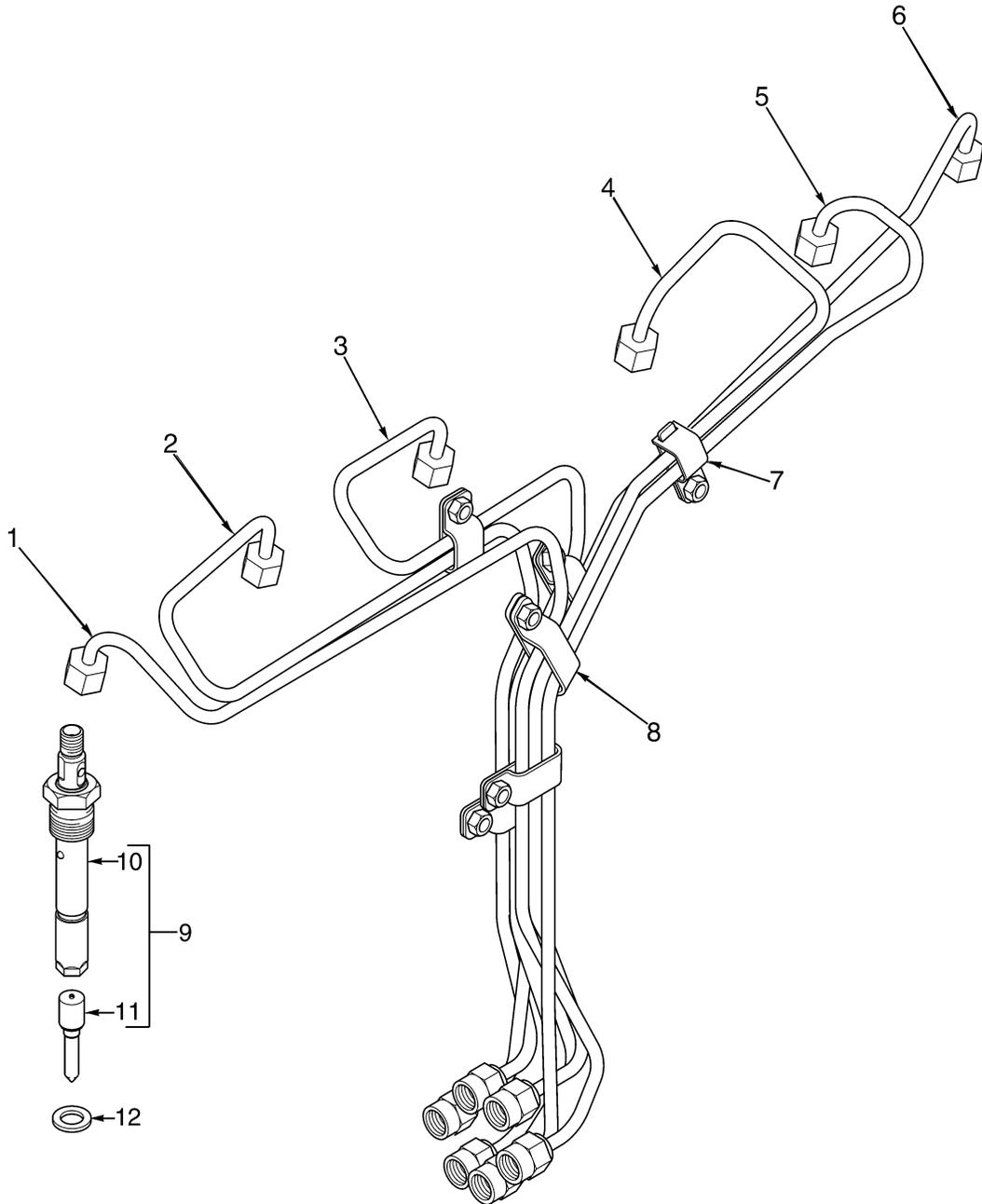


BP090027

**FUEL INJECTION PUMP AND GEAR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537235	Gear	1
2	136681	Capscrew	4
3	167549	Washer	4
4	1456726	Stud	3
5	1306359	Nut	4
6	1537236	Bracket	1
7	386459	Screw	1
8	1306371	Screw	1
9	1537237	Injection Pump	1
10	1537238	O-Ring	1
	1537352	Kit-Gasket (Bottom)	1

HIGH PRESSURE FUEL PIPES (FIGURE 3-6) PERKINS DIESEL

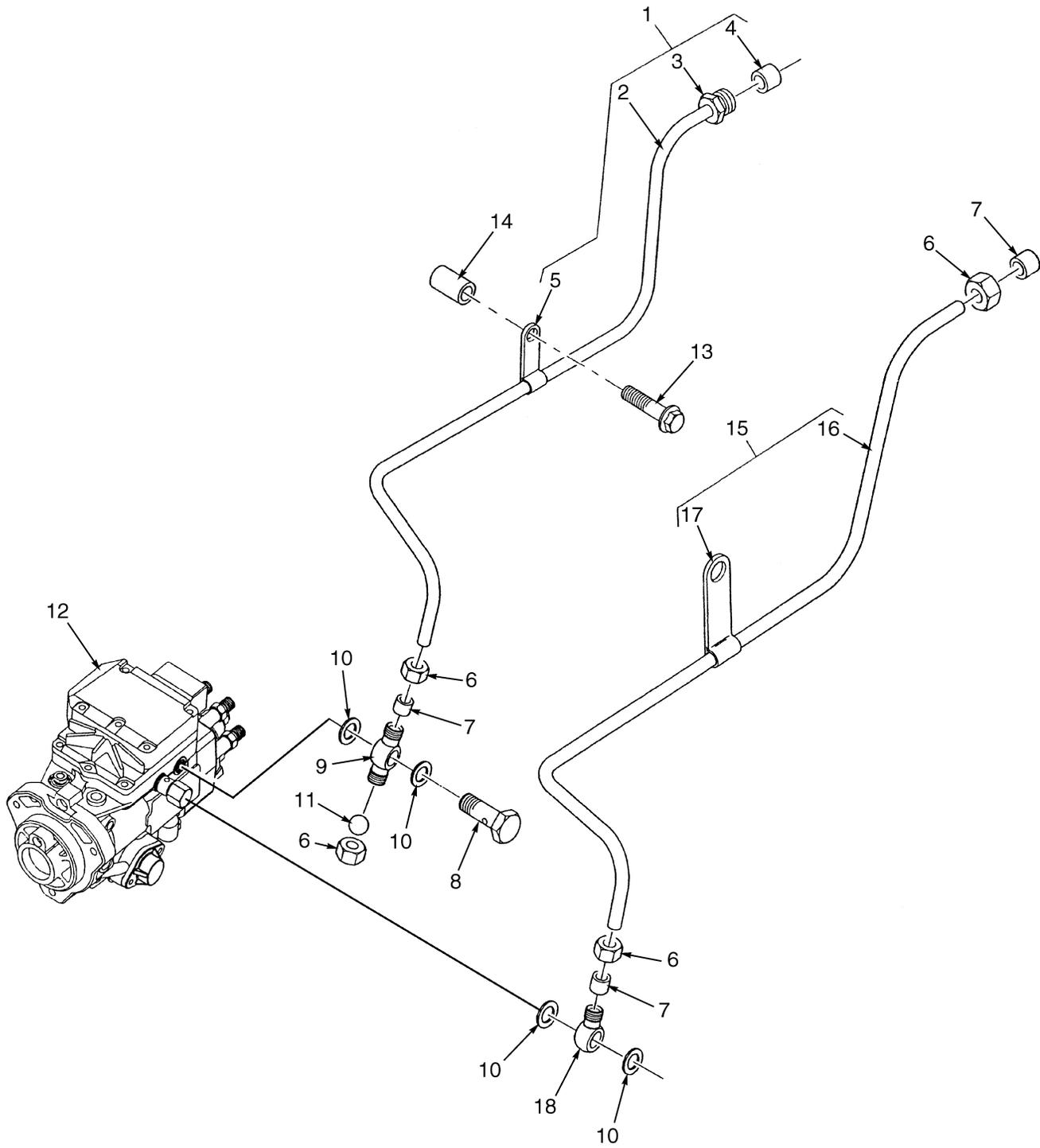


BP090028

**HIGH PRESSURE FUEL PIPES
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537239	Tube Assy (No. 1)	1
2	1537240	Tube Assy (No. 2)	1
3	1537241	Tube Assy (No. 3)	1
4	1537242	Tube Assy (No. 4)	1
5	1537243	Tube Assy (No. 5)	1
6	1537244	Tube Assy (No. 6)	1
7	1382454	Clip	3
8	1382455	Clip	3
9	1537245	Atomizer	6
10	.....	Holder (Atomizer)	1
11	.....	Atomizer	1
12	1537246	Washer	6
	1537343	Kit-Gasket (Top)	1

FUEL INJECTION SUPPLY AND RETURN LINES (FIGURE 3-7) PERKINS DIESEL



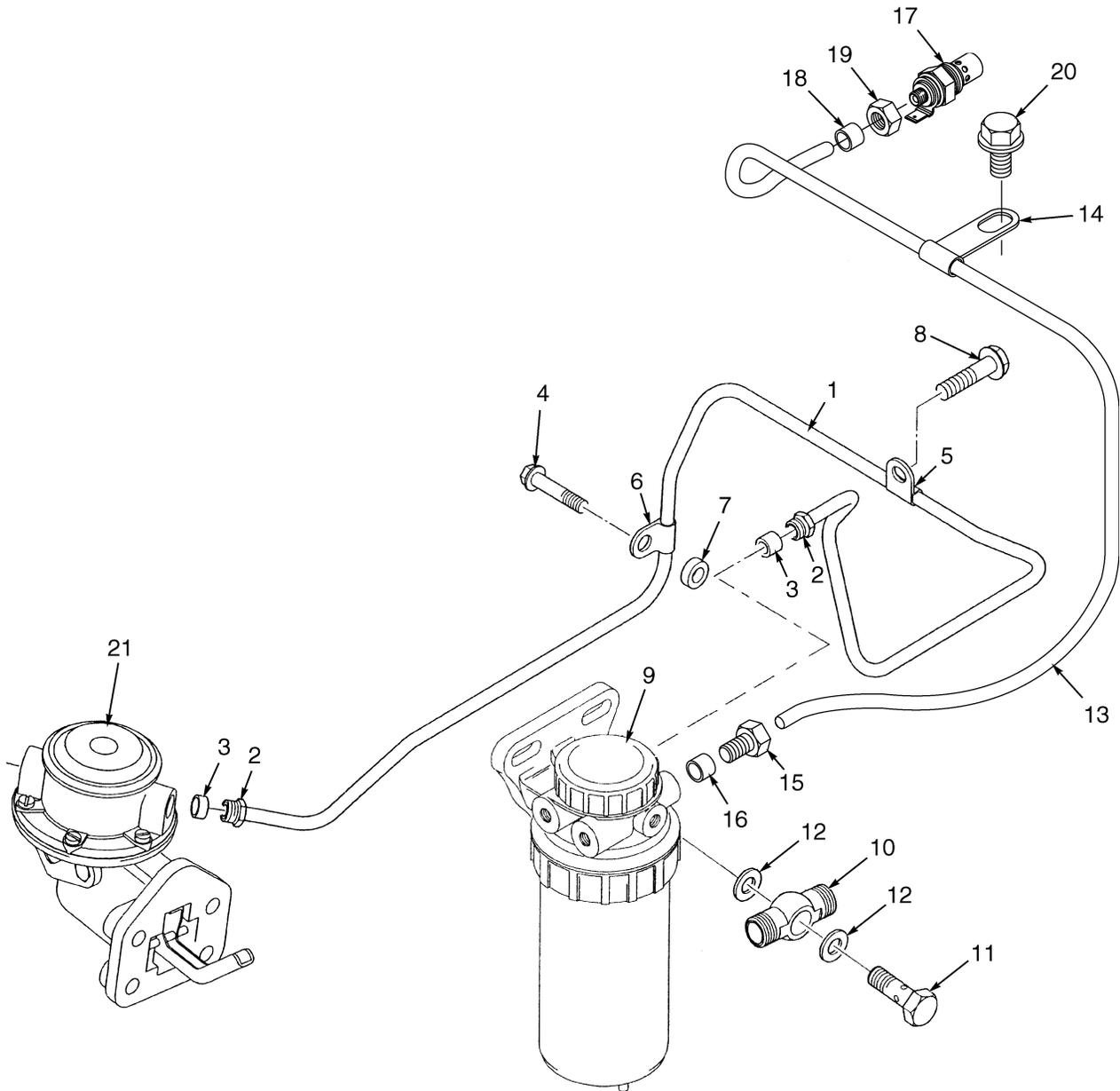
BP090058

**FUEL INJECTION SUPPLY AND RETURN LINES
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537326	Tube Assy (Fuel Filter)	1
2	.....	Pipe	1
3	16100	Fitting	1
4	167023	Sleeve	1
5	1537325	Clip	1
6	a 167945	Nut	5
7	167023	Sleeve	4
8	1537327	Bolt	1
9	a 1537328	Fitting	1
9	b 1537334	Fitting	1
10	1537329	Washer	4
11	a 1537330	Ball	1
12	1537237	Injection Pump	1
13	1537331	Screw	1
14	1537332	Spacer	1
15	1537333	Tube Assy (Return)	1
16	.....	Pipe	1
17	1456521	Clip	1
18	1537334	Fitting	1

FOOTNOTES:**a** → 5/2007**b** 5/2007 →

LIFT PUMP AND FUEL FILTER LINES (FIGURE 3-8) PERKINS DIESEL

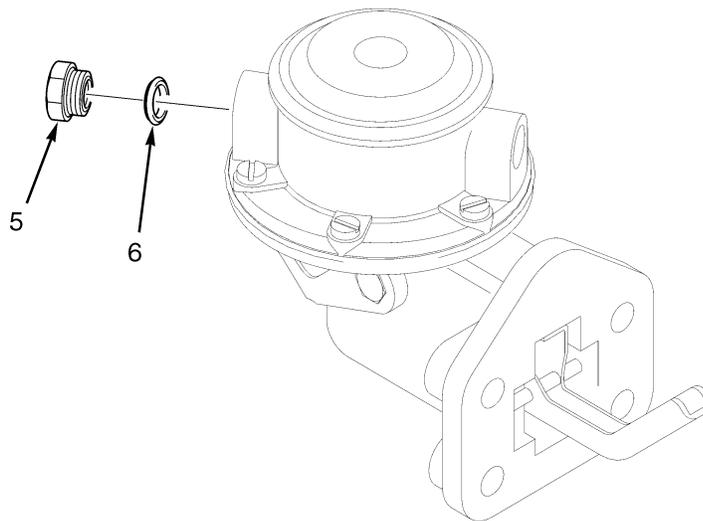
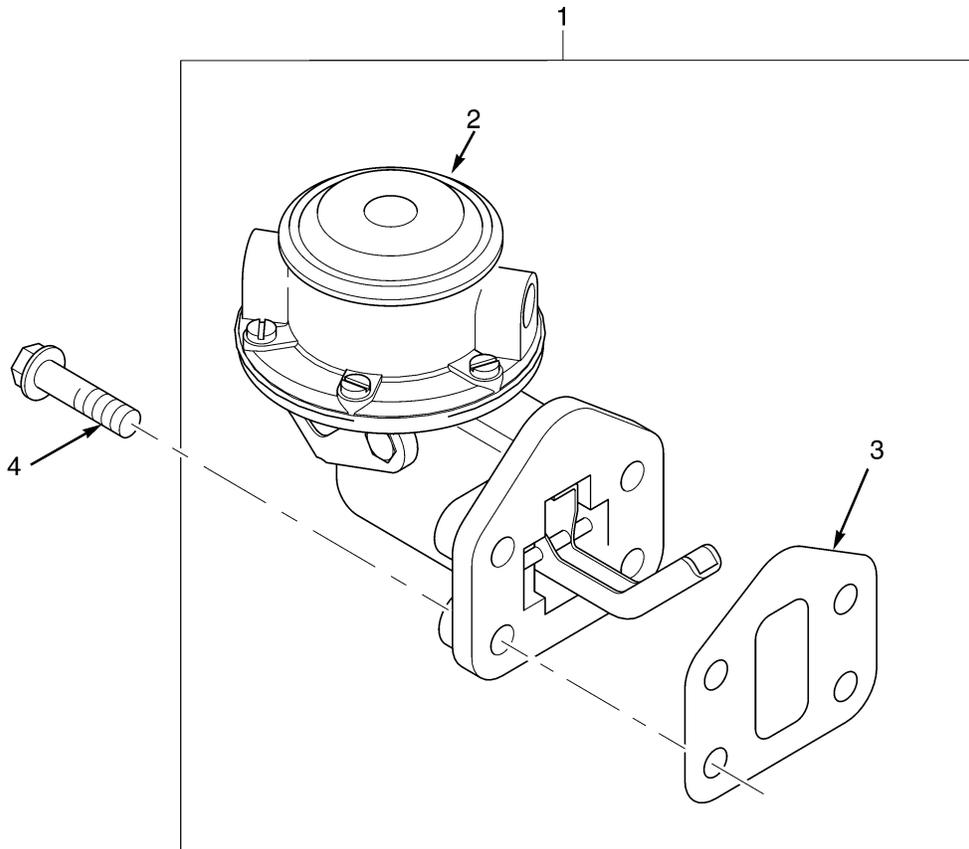


BP090057

**LIFT PUMP AND FUEL FILTER LINES
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537326	Tube Assy	1
2	16100	Fitting	2
3	167023	Sleeve	2
4	1307879	Screw	1
5	1537324	Clip	1
6	1537325	Clip	1
7	1319058	Spacer	1
8	386459	Screw	1
9	1537336	Fuel Filter (☞Figure 3-10).....	1
10	1537335	Fitting	1
11	1456522	Bolt	1
12	1456524	Washer	2
13	1537342	Heater	1
14	1306338	Clip	3
15	1308007	Nut	1
16	1306337	Olive	1
17	1537338	Heater	1
18	152608	Olive	1
19	152609	Nut	1
20	1457815	Screw	2
21	1537321	Lift Pump (☞Figure 3-9).....	1

LIFT PUMP ASSEMBLY (FIGURE 3-9) PERKINS DIESEL

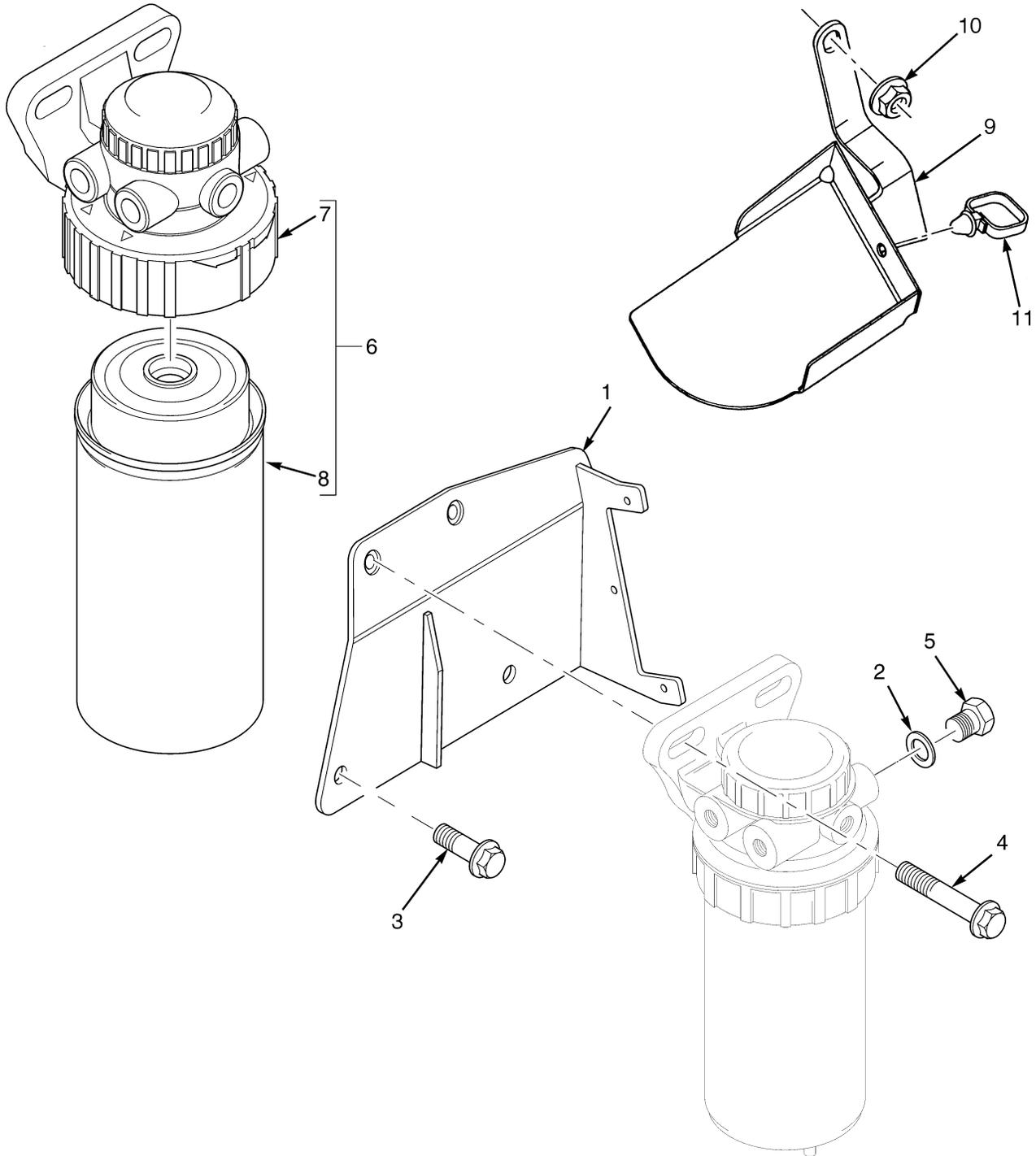


BP090034

**LIFT PUMP ASSEMBLY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1537321	Lift Pump	1
2	.....	Lift Pump	1
3	1345754	Gasket	1
4	1306362	Screw	4
5	16100	Fitting	1
6	16177	Fitting	1
	1537352	Kit-Gasket (Bottom)	1

FUEL FILTER ASSEMBLY (FIGURE 3-10) PERKINS DIESEL

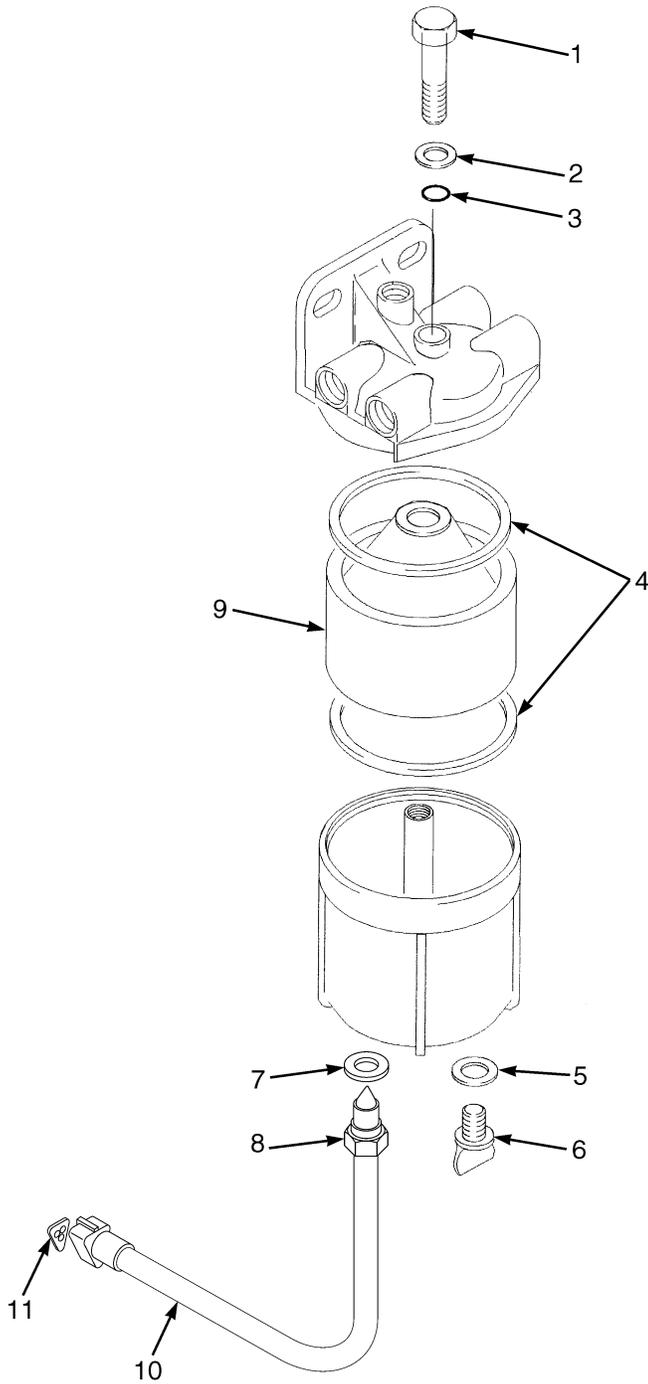


BP090120

**FUEL FILTER ASSEMBLY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake) (Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1464110	Bracket	1
2	1537322	Washer	1
3	1306371	Screw	3
4	1307910	Capscrew	2
5	173941	Plug	1
6	1537336	Fuel Filter	1
7	.....	Fuel Filter Head	1
8	1537337	Fuel Filter	1
9	1558473	Tray	1
10	1307891	Nut	1
11	1537256	Clip	1

WATER SEPERATOR (FIGURE 3-11) PERKINS DIESEL

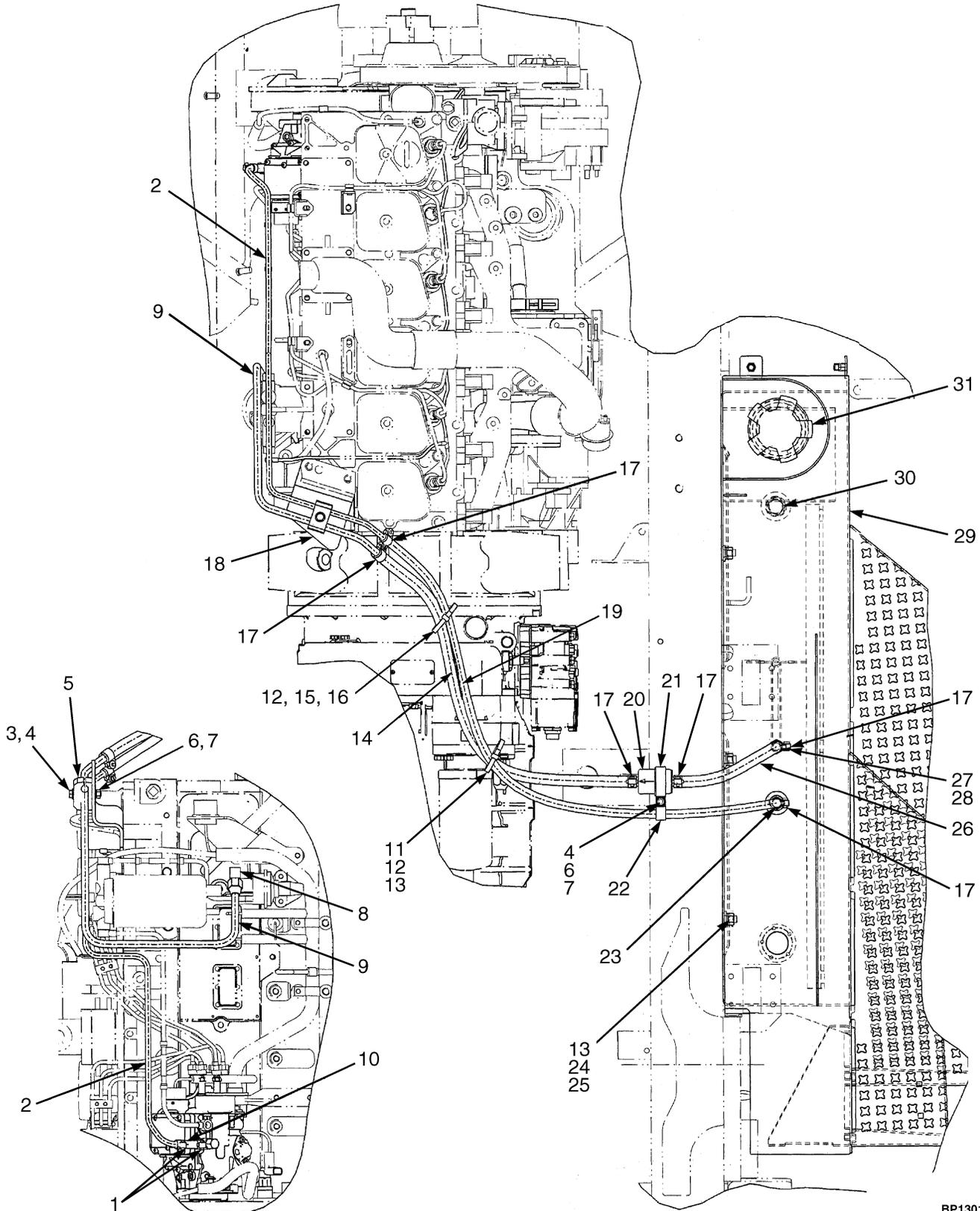


HP130905

**WATER SEPERATOR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1396256	Water Separator	1
1	1464543	Bolt	1
2	1464541	Washer	1
3	1464540	Sealing Ring	1
4	256160	Gasket	2
5	1308006	Washer	1
6	1464544	Drain Plug	1
7	1464545	Washer	1
8	1464546	Sensor (Water)	1
9	.....	Element	1
10	1330410	Connector	1
11	1363885	Terminal (Pin)	3

FUEL SYSTEM (FIGURE 3-12) CUMMINS DIESEL (→ S/N G007E02257C)

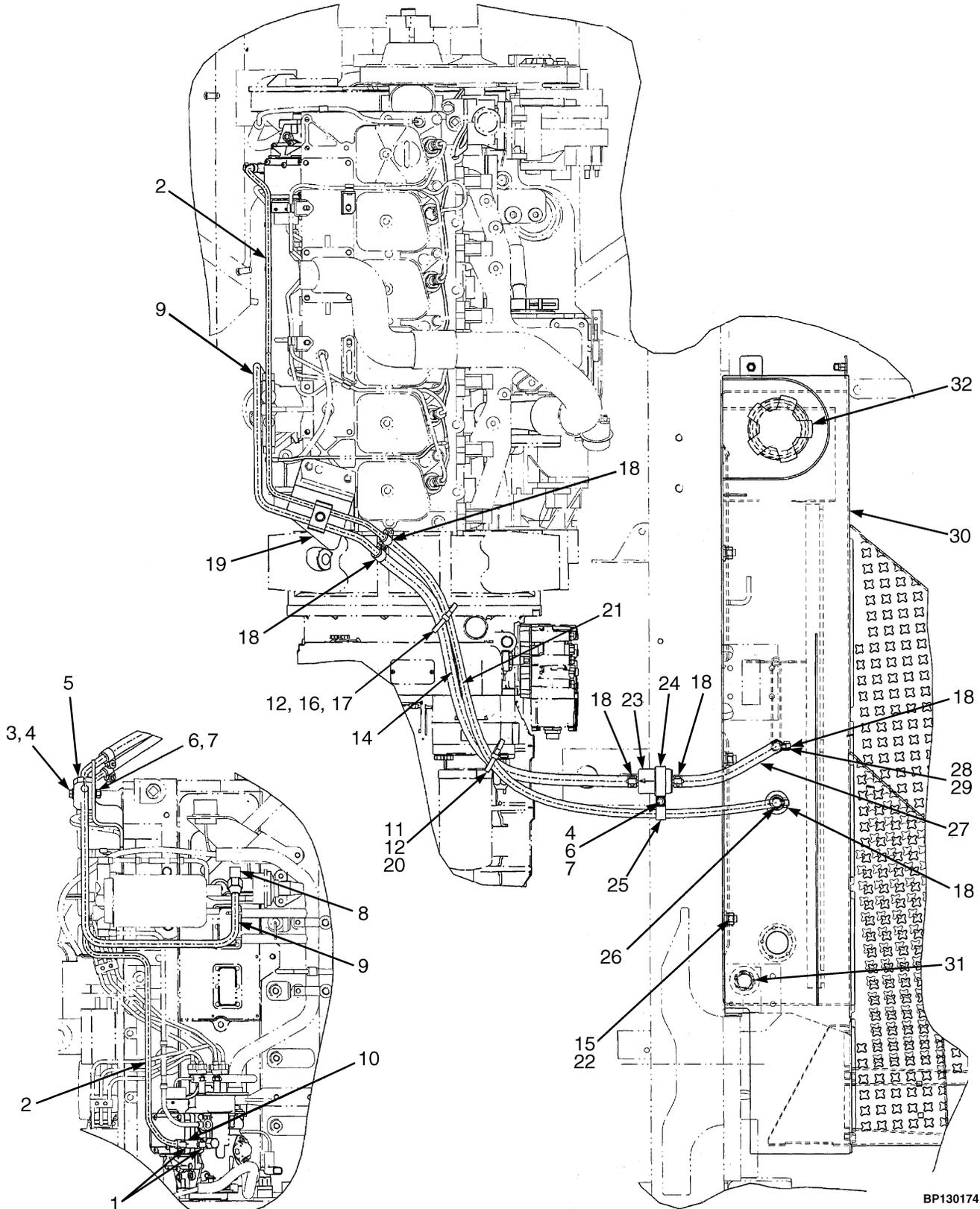


BP130144

FUEL SYSTEM
CUMMINS DIESEL (→ S/N G007E02257C)

ITEM	PART NO.	DESCRIPTION	QTY
1	168718	Clamp	2
2	1551531	Tube	1
3	16835	Capscrew	1
4	18515	Washer	2
5	1504815	Clamp	1
6	15155	Lockwasher	2
7	15055	Nut	2
8	17084	Fitting	1
9	1538319	Tube Assy	1
10	1551632	Hose	1
11	1350911	Strap	1
12	129563	Strap Clamp	3
13	320162	Washer	3
14	1477439	Hose	1
15	1350914	Strap	3
16	320159	Washer	1
17	166857	Clamp	6
18	1538321	Bracket	1
19	386394	Hose	1
20	1512095	Strainer	1
21	181899	Clamp	1
22	128408	Clamp	1
23	141776	Fitting	1
24	292683	Lockwasher	3
25	216877	Nut	3
26	1504816	Hose	1
27	12827	Fitting	1
28	102919	Fitting	1
29	1523482	Fuel Tank Wldmt	1
30	14388	Fitting	1
31	1569867	Fuel Cap (Non-Locking)	1
31	1569866	Fuel Cap (Locking)	1

FUEL SYSTEM (FIGURE 3-13) CUMMINS DIESEL (S/N G007E02258C ↔ S/N G007E02674D)

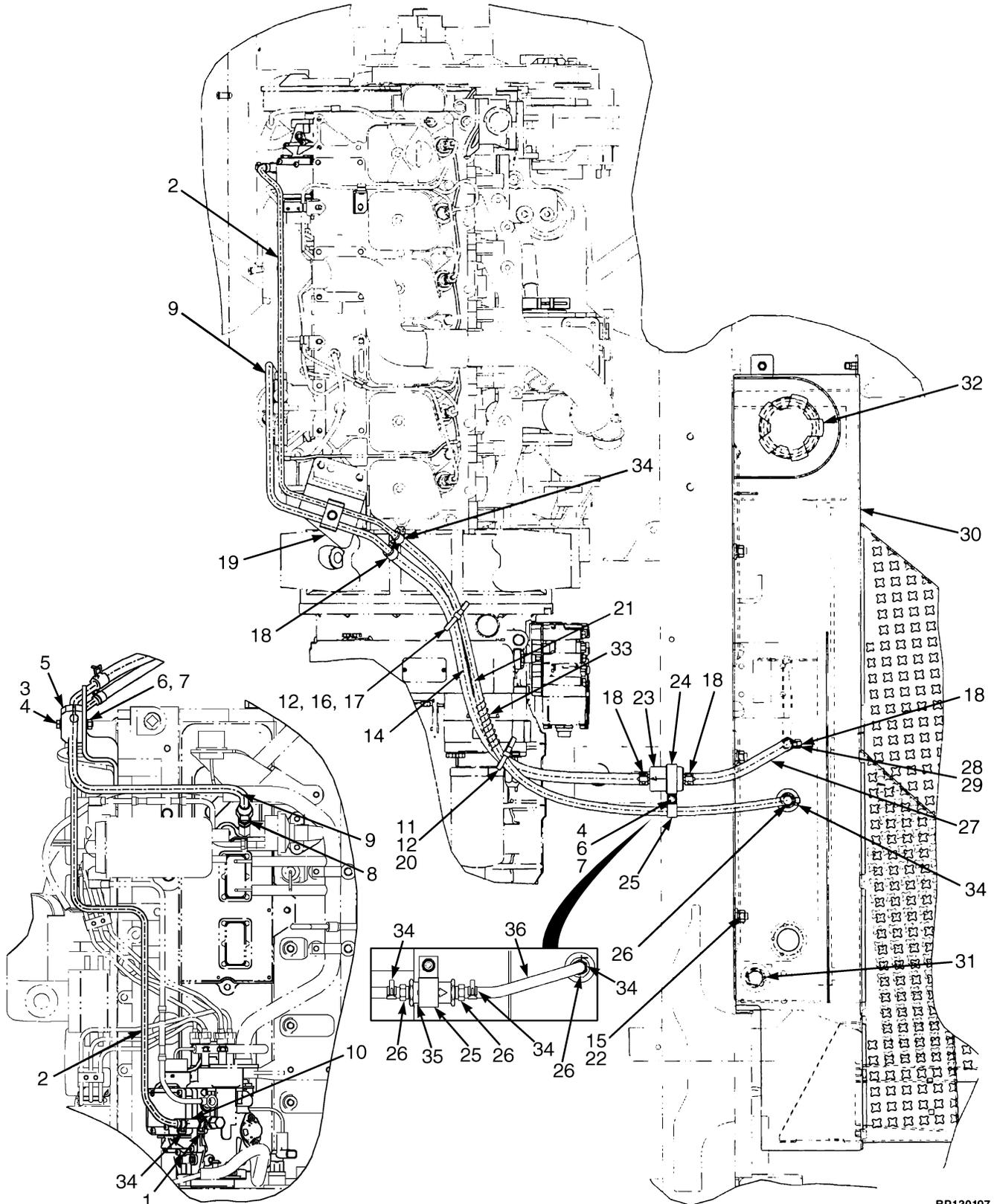


BP130174

FUEL SYSTEM
CUMMINS DIESEL (S/N G007E02258C ↔ S/N G007E02674D)

ITEM	PART NO.	DESCRIPTION	QTY
1	168718	Clamp	2
2	1551531	Tube	1
3	16835	Capscrew	1
4	18515	Washer	2
5	1504815	Clamp	1
6	15155	Lockwasher	2
7	15055	Nut	2
8	17084	Fitting	1
9	1538319	Tube Assy	1
10	1551632	Hose	1
11	1350911	Strap	1
12	129563	Strap Clamp	2
13	320162	Washer	3
14	1613661	Hose	1
15	292683	Lockwasher	3
16	320159	Washer	1
17	1350914	Strap	1
18	166857	Clamp	6
19	1538321	Bracket	1
20	15157	Lockwasher	1
21	1613662	Hose	1
22	216877	Nut	3
23	1512095	Strainer	1
24	181899	Clamp	1
25	128408	Clamp	1
26	141776	Fitting	1
27	1567504	Hose	1
28	12827	Fitting	1
29	102919	Fitting	1
30	1523482	Fuel Tank Wldmt	1
31	14388	Fitting	1
32	1569867	Fuel Cap (Non-Locking)	1
32	1569866	Fuel Cap (Locking)	1

FUEL SYSTEM (FIGURE 3-14) CUMMINS DIESEL (S/N G007E02675D →)



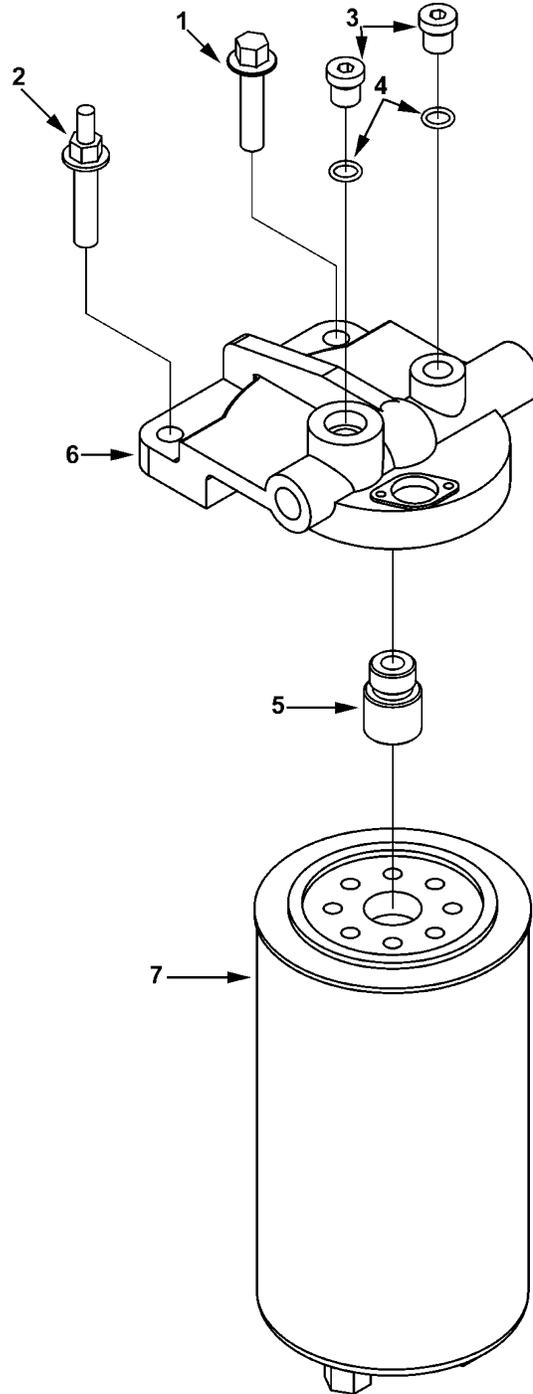
BP130197

FUEL SYSTEM
CUMMINS DIESEL (S/N G007E02675D →)

ITEM	PART NO.	DESCRIPTION	QTY
1	1625338	Hose Clamp	1
2	1551531	Tube	1
3	16835	Capscrew	1
4	18515	Washer	2
5	1504815	Clamp	1
6	15155	Lockwasher	2
7	15055	Nut	2
8	17072	Fitting	1
9	1625334	Tube Assy	1
10	1551632	Hose	1
11	1350911	Strap	1
12	129563	Strap Clamp	2
13	320162	Washer	3
14	1613661	Hose	1
15	292683	Lockwasher	3
16	320159	Washer	1
17	1350914	Strap	1
18	1502006	Hose Clamp	4
19	1538321	Bracket	1
20	15157	Lockwasher	1
21	a 1567506	Hose	1
21	b 1652101	Hose	1
22	216877	Nut	3
23	1512095	Strainer	1
24	181899	Clamp	1
25	a 128408	Clamp	1
25	b 279033	Clamp	1
26	a 141776	Fitting	1
26	b 141776	Fitting	3
27	1567504	Hose	1
28	12827	Fitting	1
29	102919	Fitting	1
30	1523482	Fuel Tank Wldmt	1
31	14388	Fitting	1
32	1569867	Fuel Cap (Non-Locking)	1
32	1569866	Fuel Cap (Locking)	1
33	316596	Sleeve (Coil)	1
34	a 1569616	Hose Clamp	3
34	b 1569616	Hose Clamp	5
35	b 1652098	Check Valve	1
36	b 1652102	Hose	1

FOOTNOTES:**a** → PENDING PER ECN 68246-74**b** PENDING PER ECN 68246-74 →

FUEL FILTER (FIGURE 3-15) CUMMINS DIESEL



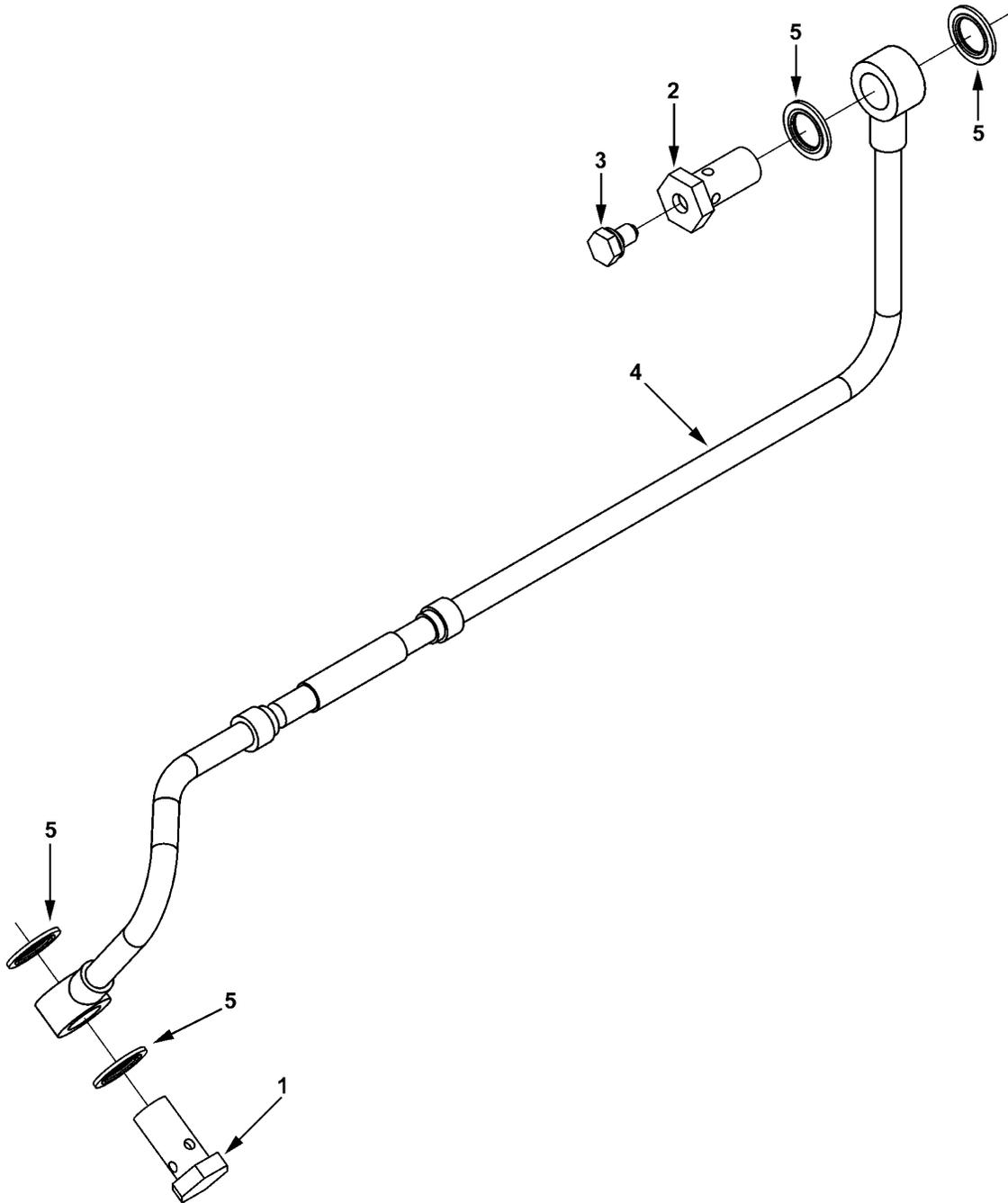
HP091153

**FUEL FILTER
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1512033	Capscrew	1
2	1521876	Screw	1
3	1517010	Plug	2
4	1517011	O-Ring	1
5	1521837	Adapter	1
6	a 1521838	Head	1
6	b 1675439	Filter Head	1
7	1543356	Fuel Filter	1
7	.....	Water Sensor	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

**FUEL FILTER PLUMBING (FIGURE 3-16)
CUMMINS DIESEL**



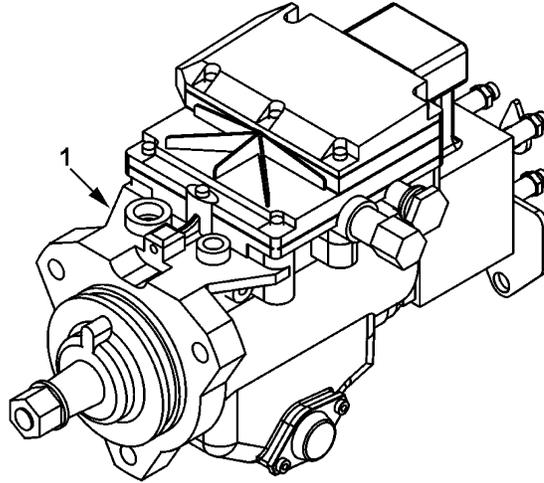
HP091154

**FUEL FILTER PLUMBING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1514371	Capscrew	1
2	1543357	Screw	1
3	1543358	Capscrew	1
4	1543360	Tube Assy	1
5	1543359	Sealing Ring	4

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

FUEL INJECTION PUMP (FIGURE 3-17) CUMMINS DIESEL



HP091156

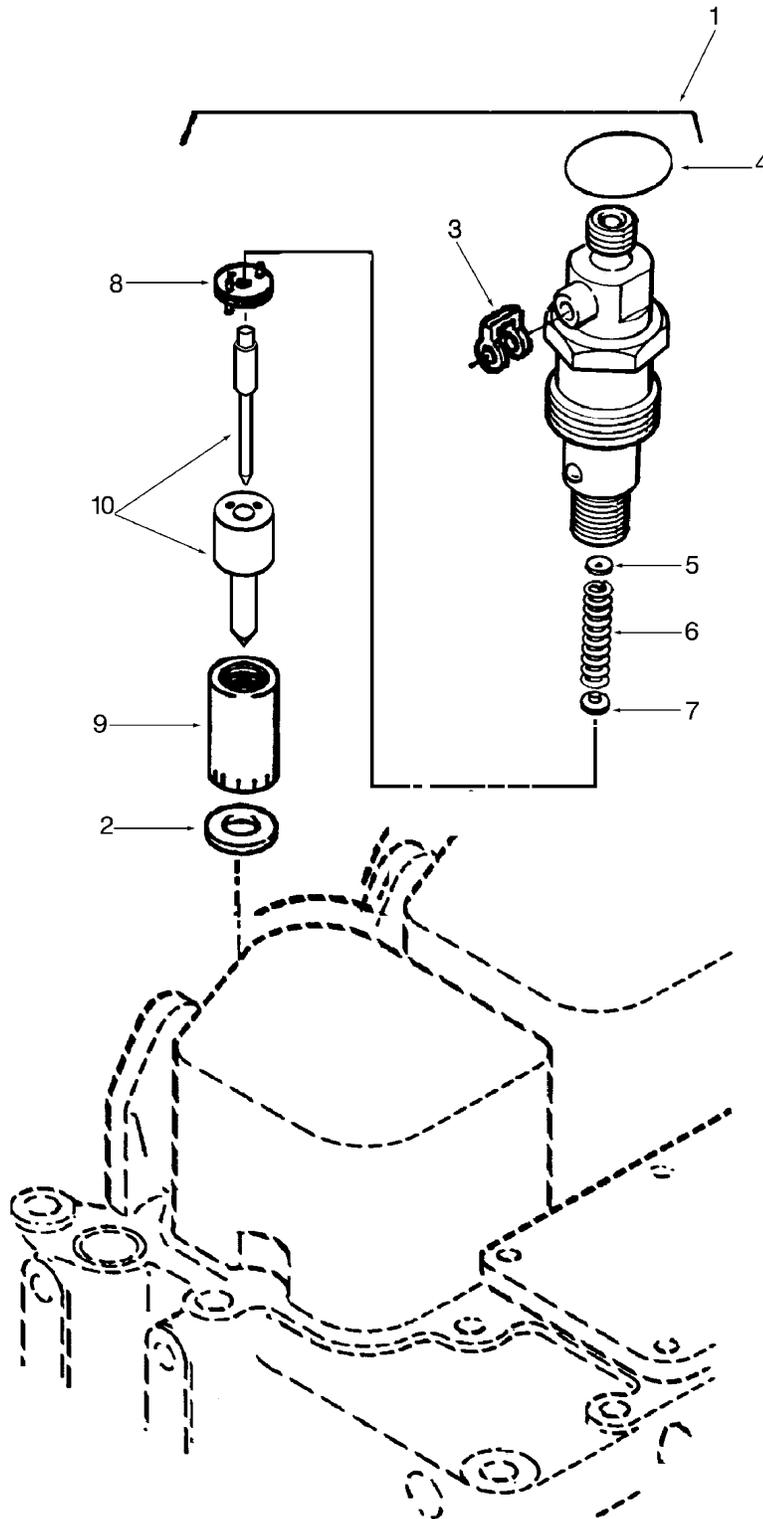
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1543408	Injection Pump	1

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

INJECTOR (FIGURE 3-18) CUMMINS DIESEL



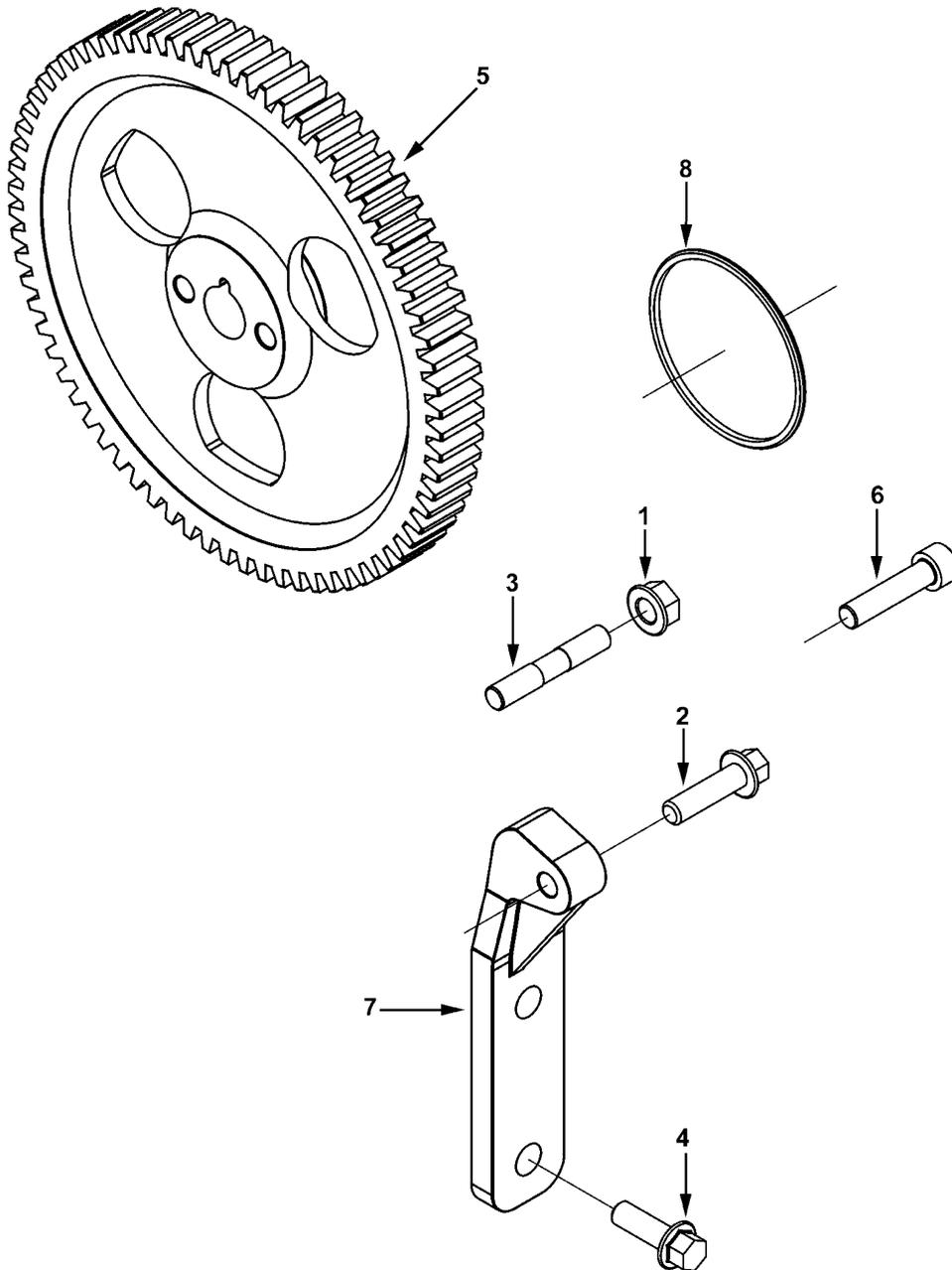
HP091196

**INJECTOR
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
1	1512166	Kit-Injector	6
2	1512168	Seal (Injector)	1
3	1512169	Seal (Banjo Connector)	1
4	1512173	Sealing Ring	1
5	1512182	Shim (1.00 mm)	AR
5	1512188	Shim (1.04 mm)	AR
5	1512193	Shim (1.08 mm)	AR
5	1512197	Shim (1.10 mm)	AR
5	1512201	Shim (1.14 mm)	AR
5	1512202	Shim (1.18 mm)	AR
5	1512203	Shim (1.20 mm)	AR
5	1512204	Shim (1.24 mm)	AR
5	1512205	Shim (1.28 mm)	AR
5	1512206	Shim (1.30 mm)	AR
5	1512207	Shim (1.34 mm)	AR
5	1512208	Shim (1.38 mm)	AR
5	1512209	Shim (1.40 mm)	AR
5	1512211	Shim (1.44 mm)	AR
5	1512212	Shim (1.48 mm)	AR
5	1512213	Shim (1.50 mm)	AR
5	1512214	Shim (1.54 mm)	AR
5	1512215	Shim (1.58 mm)	AR
5	1512216	Shim (1.60 mm)	AR
5	1512217	Shim (1.64 mm)	AR
5	1512218	Shim (1.68 mm)	AR
5	1512219	Shim (1.70 mm)	AR
5	1512220	Shim (1.74 mm)	AR
5	1512221	Shim (1.78 mm)	AR
5	1512222	Shim (1.80 mm)	AR
5	1512223	Shim (1.84 mm)	AR
5	1512224	Shim (1.88 mm)	AR
5	1512225	Shim (1.90 mm)	AR
5	1512226	Shim (1.94 mm)	AR
5	1512227	Shim (1.98 mm)	AR
6	1512228	Spring	6
7	1589625	Spindle	6
8	1589626	Disk (Intermediate)	6
9	1584546	Sealing Ring	6
10	1512242	Nozzle	6

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

FUEL PUMP MOUNTING (FIGURE 3-19) CUMMINS DIESEL



HP091157

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1513712	Nut	1
2	1512004	Capscrew	1
3	1543365	Stud	2
4	1512005	Capscrew	2

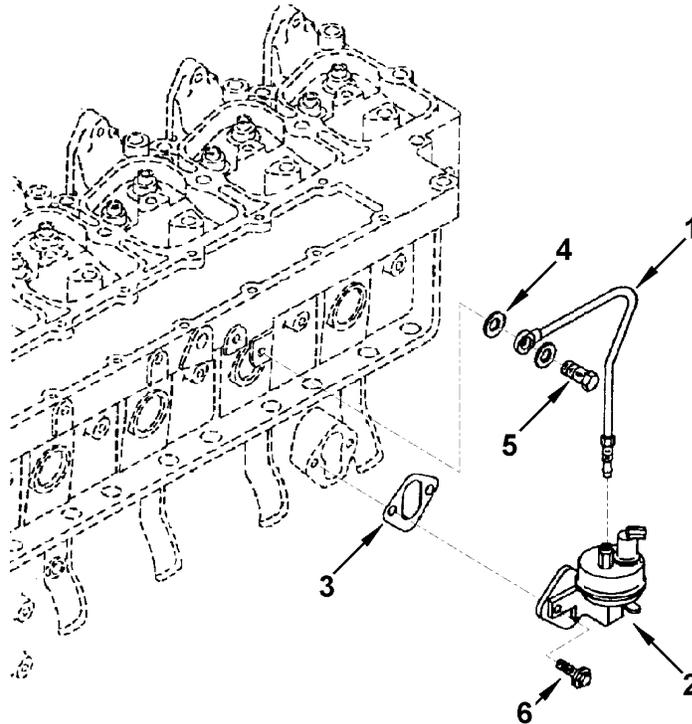
ITEM	PART NO.	DESCRIPTION	QTY
5	1543411	Gear	1
6	1543410	Capscrew	1
7	1543412	Brace (Fuel Pump)	1
8	1553402	Seal	1

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

FUEL TRANSFER PUMP (FIGURE 3-20) CUMMINS DIESEL



HP091158

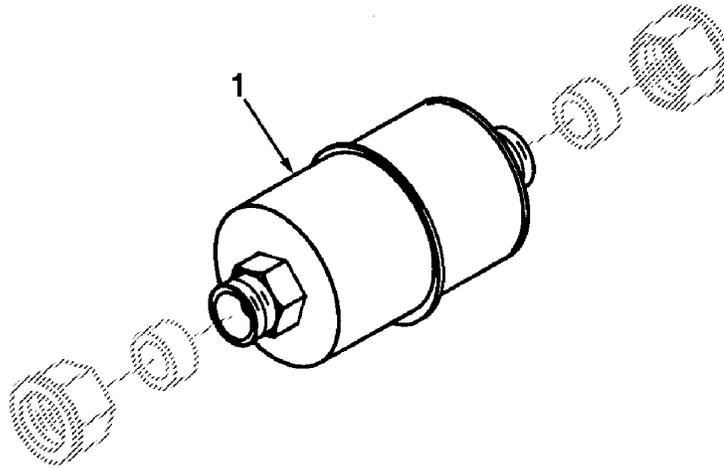
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1674279	Tube Assy	1
2	1596646	Fuel Pump	1
3	1513743	Gasket (Cover Plate)	1
4	1543359	Sealing Ring	2
5	1512091	Screw	1
6	1512005	Capscrew	2

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

**FUEL STRAINER (FIGURE 3-21)
CUMMINS DIESEL**



HP091159

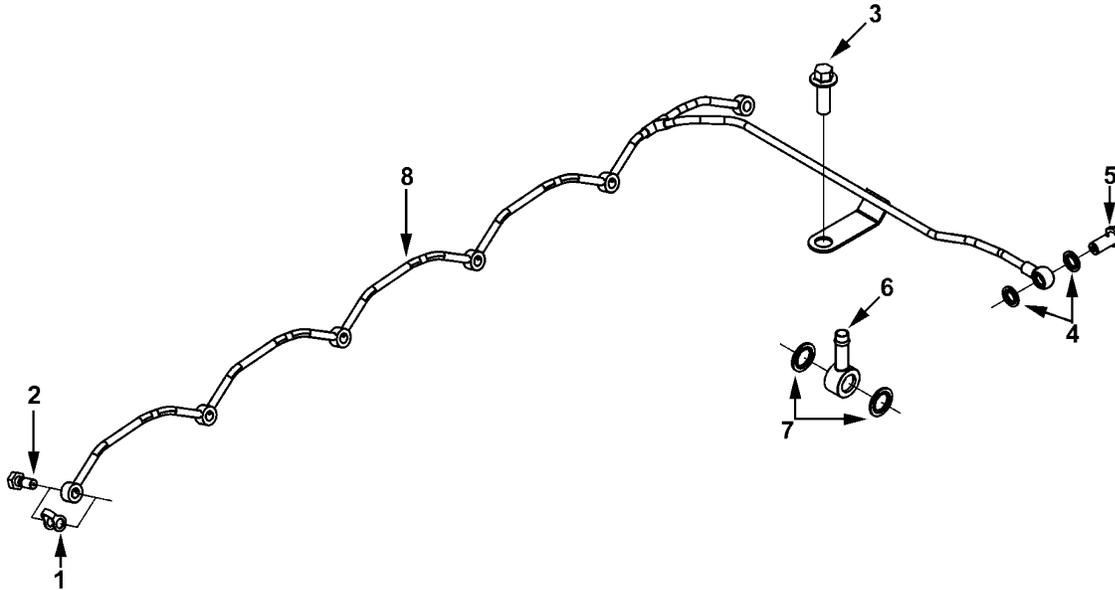
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1512095	Strainer	1

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

FUEL PLUMBING (FIGURE 3-22) CUMMINS DIESEL



HP091160

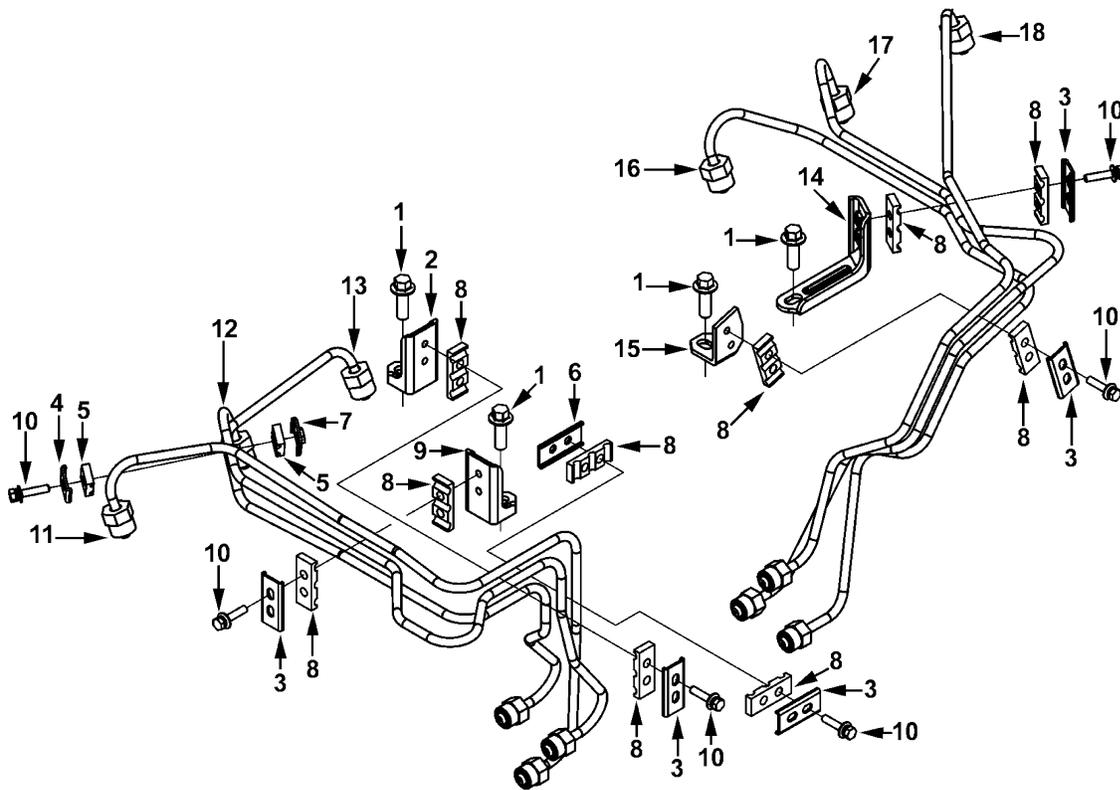
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1512169	Seal	6
2	1543416	Screw	6
3	1512295	Capscrew	1
4	1514493	Sealing Ring	1
5	1514495	Check Valve	1
5	1513209	Ball	2
5	1543417	Roll Pin	2
5	1543415	Screw	2
6	1543418	Connector (Banjo)	1
7	1543359	Sealing Ring	1
8	1543419	Manifold	1

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

FUEL INJECTOR PLUMBING (FIGURE 3-23) CUMMINS DIESEL



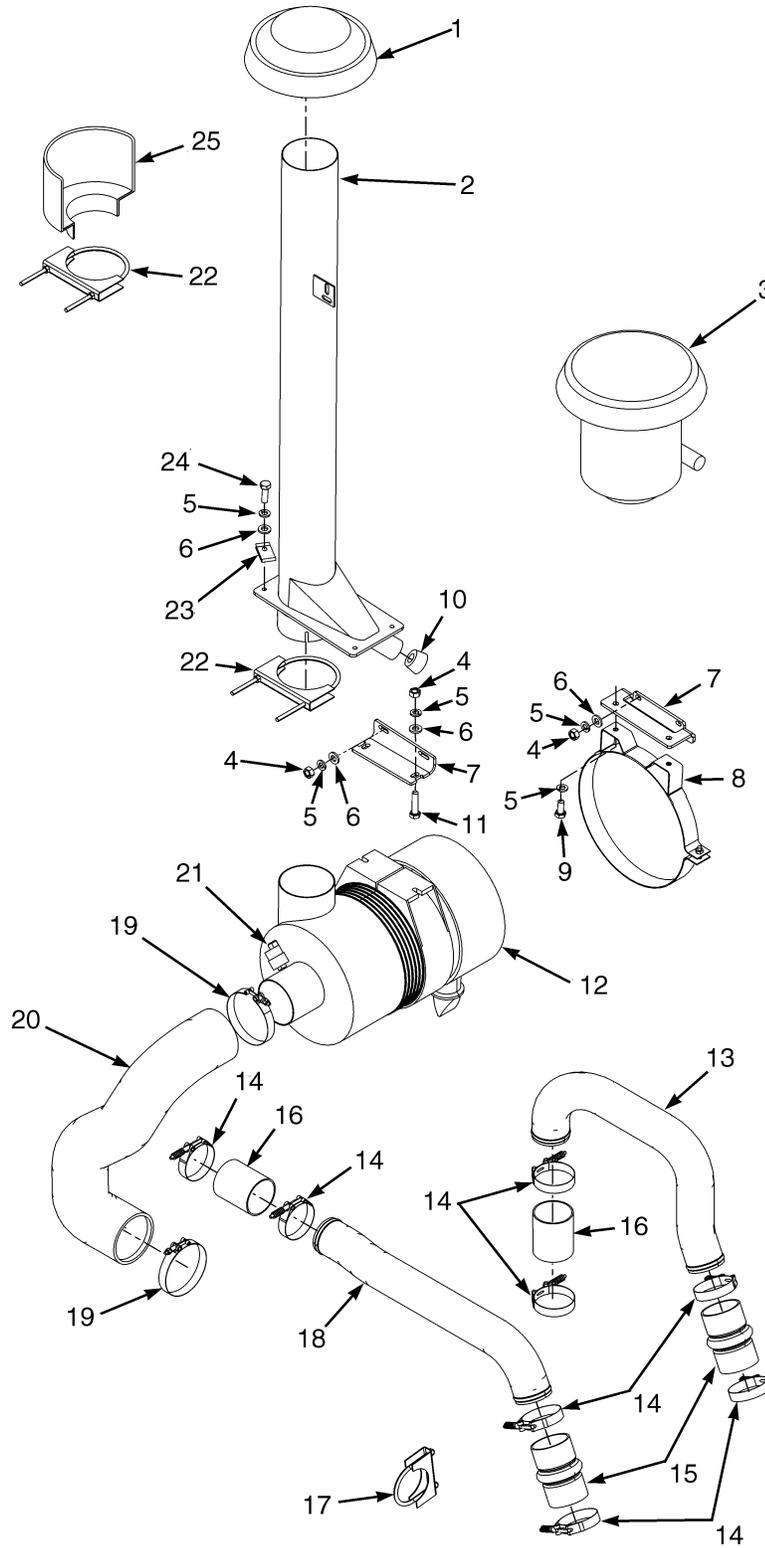
HP091170

**FUEL INJECTOR PLUMBING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1512295	Capscrew	4
2	1514496	Brace	1
3	1514497	Brace	1
4	1514498	Brace	1
5	1514501	Isolator	2
6	1514499	Brace	1
7	1514500	Brace	1
8	1514502	Isolator	10
9	1543868	Brace	1
10	1514504	Capscrew	11
11	1543869	Tube Assy	1
12	1543870	Tube Assy	1
13	1543871	Tube Assy	1
14	1543873	Brace	1
15	1514497	Brace	2
16	1543874	Tube Assy	1
17	1543875	Tube Assy	1
18	1543876	Tube Assy	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

AIR FILTER SYSTEM (FIGURE 3-24) WITH AND WITHOUT ASPIRATED PRE-CLEANER — LPG



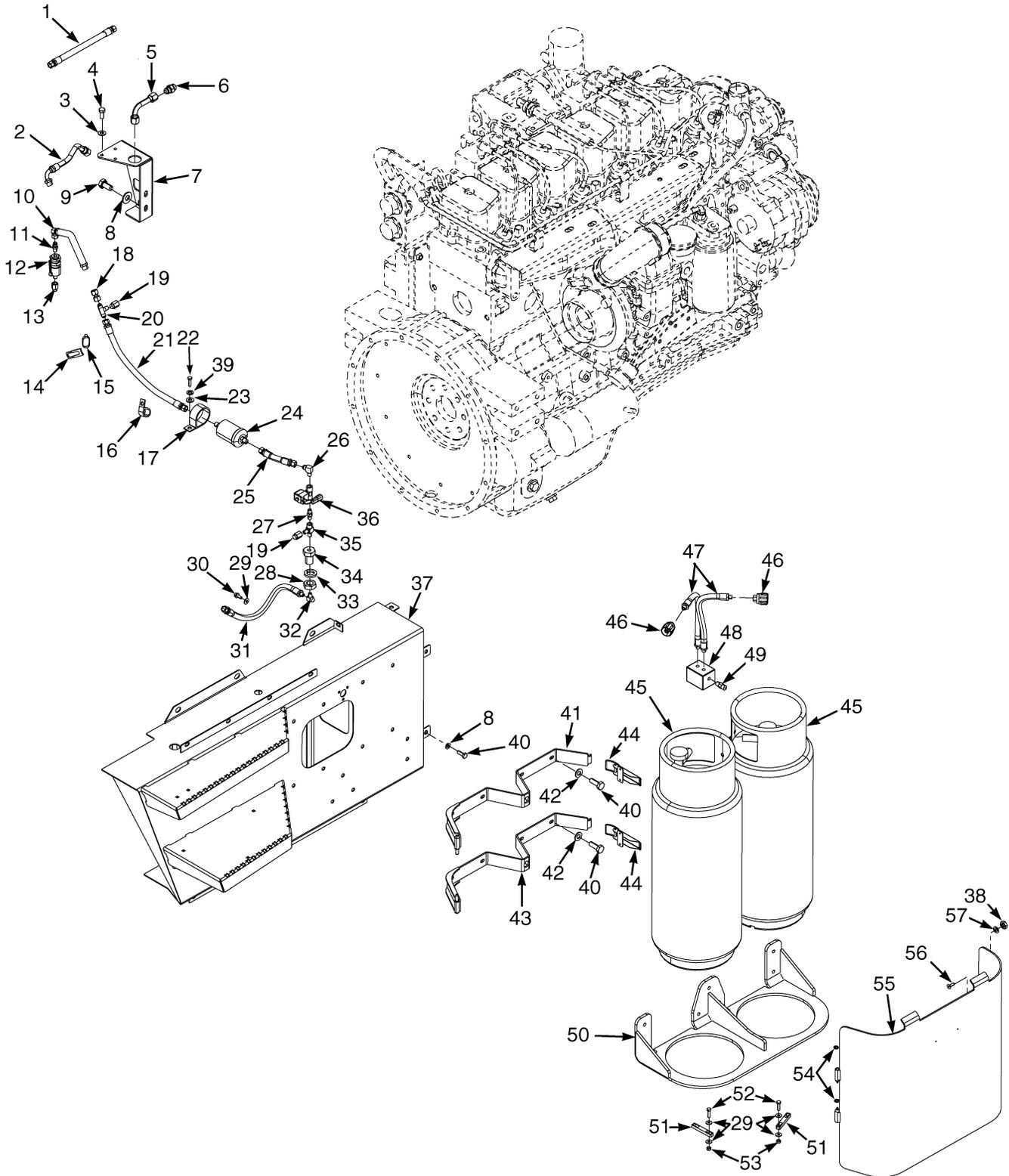
BP130187

AIR FILTER SYSTEM
WITH AND WITHOUT ASPIRATED PRE-CLEANER – LPG

KEY:**A: Without Aspirated Pre-Cleaner****B: With Aspirated Pre-Cleaner**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
1	152944	Cap	1	..
2	1552353	Air Duct	1	..
2	1552226	Air Duct .....	..	1
3	1524555	Pre-Cleaner (Aspirated) .....	..	1
4	239503	Nut	4	4
5	292681	Lockwasher	10	10
6	320157	Washer	10	10
7	1490488	Bracket (Air Cleaner)	1	..
7	1562104	Bracket (Air Cleaner) .....	..	1
8	1561964	Clamp .....	..	1
9	136681	Capscrew .....	..	2
10	1613632	Plug	1	1
11	132861	Capscrew	2	..
12	2041833	Air Filter	1	..
12	2043587	Filter Element	1	..
12	2044180	Cover	1	..
12	2044181	Valve	1	..
12	.....	Body	1	..
12	.....	Outlet Tube	1	..
12	2043589	Bracket	1	..
12	2091695	Air Filter .....	..	1
12	.....	Body .....	..	1
12	2043588	Filter Element .....	..	1
12	2067399	Filter Element .....	..	1
12	1580286	Nut .....	..	1
13	1600490	Tube (Charge Air Cooler)	1	1
14	1612634	Clamp (Air Cleaner)	8	8
15	1524553	Hose (Charge Air Cooler)	2	2
16	1524554	Hose (Charge Air Cooler)	2	2
17	30375	Clamp .....	..	1
18	1600772	Tube (Charge Air Cooler)	1	1
19	1514903	Clamp	2	2
19	1507394	Clamp (Alternate Part)	2	2
20	1601364	Hose (Air Cleaner)	1	1
20	2099769	Hose (Alternate Part)	1	1
21	1486218	Switch (Vacuum)	1	1
22	1455926	Clamp	2	1
22	1486165	Clamp .....	..	1
23	376397	Retainer	4	4
24	18497	Capscrew	4	4
25	1480199	Cap (Noise Reduction)	1	..

FUEL SYSTEM (FIGURE 3-25) CUMMINS LPG



HP130423

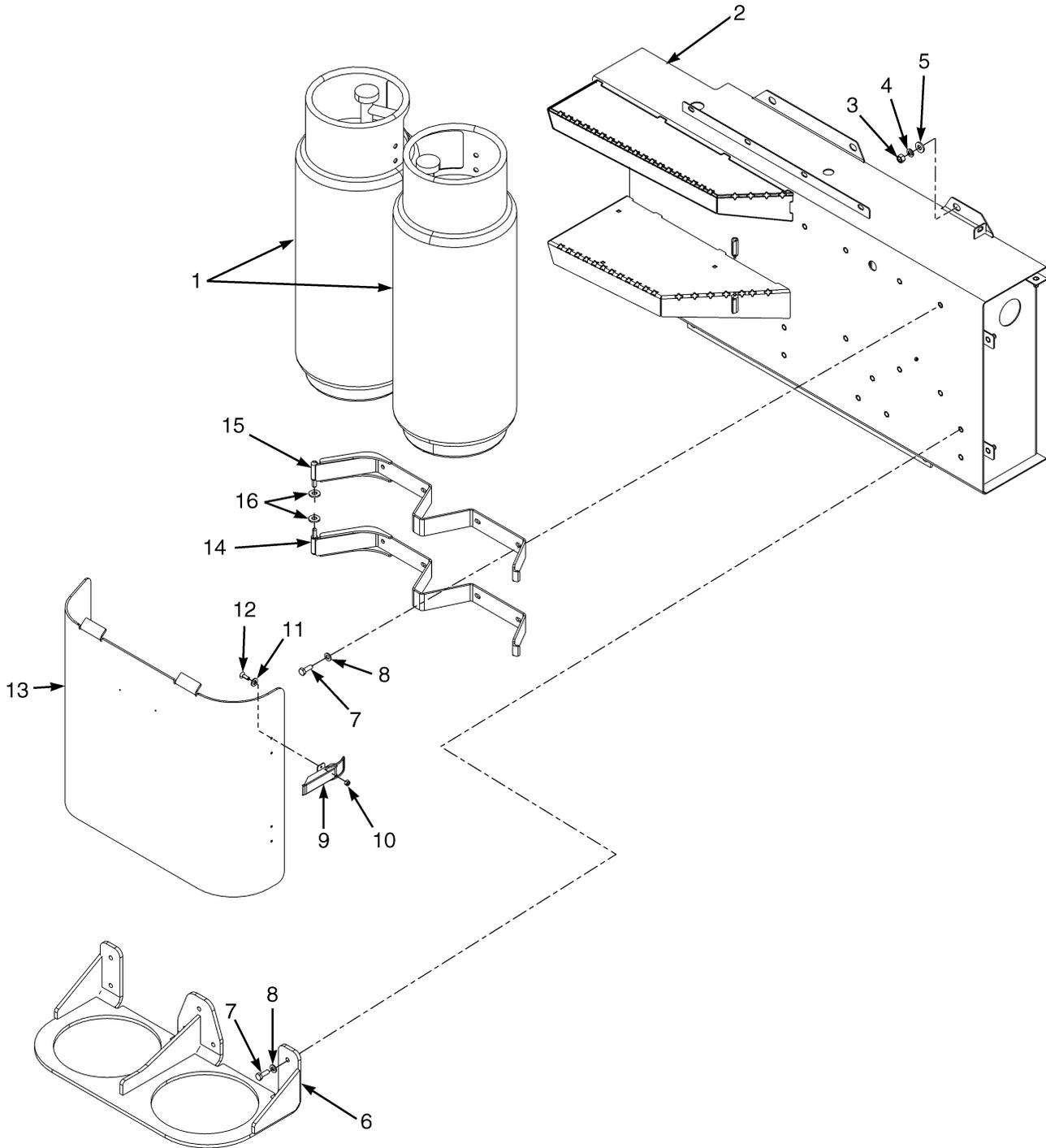
**FUEL SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	1646948	Hose Assy	1
2	2091539	Hose Assy	1
3	18515	Washer	4
4	199567	Capscrew	3
5	1606426	Tube	1
6	16542	Connector	1
6	16485	O-Ring	1
7	1606452	Bracket	1
8	320162	Washer	5
9	132860	Capscrew	2
10	1646947	Hose Assy	1
11	1647994	Fitting	1
12	1646950	Valve	1
12	1646949	Valve	1
12	1465468	Connector	1
12	1323583	Terminal	2
12	1336874	Seal	1
13	1490617	Fitting	1
13	16483	O-Ring	1
14	1350911	Strap	1
15	129563	Strap Clamp	1
16	321487	Clamp	3
17	1384699	Clamp	1
18	1634854	Fitting	1
19	14345	Fitting	2
20	1641021	Fitting	1
21	2079080	Hose Assy	1
22	15055	Nut	1
23	15155	Lockwasher	1
24	1608426	Fuel Filter	1
25	2079078	Hose Assy	1
26	1641024	Fitting	1
27	16271	Fitting	1
28	15036	Nut	1
29	320158	Washer	11
30	1527880	Capscrew	3
31	2076168	Hose Assy	1
32	1641022	Fitting	1
33	15166	Lockwasher	1
34	121347	Fitting	1
35	17672	Fitting	1
36	1609865	Valve	1
36	.....	Shut-Off Valve	1
36	1493465	Connector	1
36	1330414	Connector (Secondary Lock)	1
36	1330437	Terminal (Pin)	2
37	1605573	Cover	1
38	216877	Nut	3
39	292683	Lockwasher	3
40	136985	Capscrew	15

**FUEL SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
41	1603778	Bracket Wldmt	1
42	320159	Washer	15
43	1603777	Bracket Wldmt	1
43	3047451	Hinge	1
44	1603361	Clamp (Toggle)	2
45	1328896	Kit-Lpg Tank (LPG)	2
46	97999	Fitting	2
47	2091553	Hose Assy	2
48	1641025	Manifold	1
49	101809	Relief Valve	1
50	1603706	Bracket	1
51	1641027	Plate	2
52	176640	Bolt	4
53	302400	Nut	4
54	1301700	Ring (Brass)	2
55	1605568	Door	1
56	296204	Capscrew	4
57	320155	Washer	4
58	302398	Locknut	4

FUEL TANK MOUNTING (FIGURE 3-26) CUMMINS LPG



BP130188

**FUEL TANK MOUNTING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	1328896	Kit-Lpg Tank (LPG)	2
2	1605573	Cover	1
3	216877	Nut	3
4	292683	Lockwasher	3
5	320162	Washer	3
6	1603706	Bracket	1
7	136985	Capscrew	15
8	320159	Washer	15
9	1603361	Clamp (Toggle)	2
10	302398	Locknut	4
11	320155	Washer	4
12	296204	Capscrew	4
13	1605568	Door	1
14	1603778	Bracket Wldmt	1
15	1603777	Bracket Wldmt	1
15	3047451	Hinge	1
16	1301700	Ring (Brass)	2

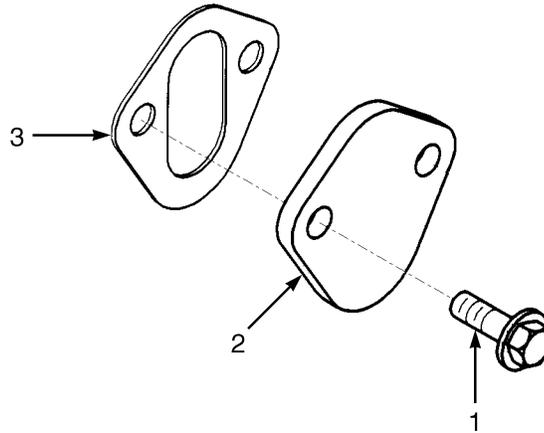
**FUEL CONTROL MODULE
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614558	T-Fitting	1
2	1511952	Fitting	1
3	1614502	Coupling (Hose)	1
4	1516981	Hose Clamp	2
5	1614567	Hose	1
6	1624515	Tube	1
7	1512778	Clamp (Tube)	3
8	1513793	Nut	1
9	1513791	Screw	1
10	1624514	Tube	1
11	1624512	Elbow	1
12	1614619	Sealing Ring	1
13	1511965	Clamp (Hose)	4
14	1614319	Hose	2
15	1512503	Capscrew	4
16	1614642	Sensor (Pressure)	1
17	1543435	O-Ring	1
18	1614552	Screen	1
19	1614620	Kit-Evaporator	1
19	.....	Evaporator	1
20	1614608	Bracket	1
21	1614644	Capscrew	6
22	1513421	Lockwasher	6
23	1614609	Bracket	1
24	1614610	Bracket	1
25	1614315	Fitting	2
26	1512588	O-Ring	1
27	1614603	Hose	1
28	1614604	Elbow	1
29	1614621	Kit-LPG Shutoff Valve	1
30	.....	O-Ring	1
31	.....	Wire Harness	1
32	1614595	Plug (Threaded)	1
33	1614596	O-Ring	1
34	1614624	Hose	1
35	1614557	Hose	1
36	1614600	Hose	1
37	1614320	O-Ring	4
38	1614623	Actuator	1
39	1614626	Support	1
40	1614461	Capscrew (Flat Head)	3
41	1614622	Mixer	1
42	1513712	Nut	4
43	1662042	Sensor (Temperature)	1
44	1517116	O-Ring	1
45	1614586	Flow Valve (Fuel Flow)	1
46	1614564	O-Ring	2
47	1614565	O-Ring	1

**FUEL CONTROL MODULE
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
48	1512743	Fitting	2
49	1512051	Capscrew	6
50	1614601	Cover	1
51	1614566	O-Ring	2
52	1614590	Housing	1
53	1614618	O-Ring	1
54	1553768	Stud	4
55	1514483	Nut	4
56	1512587	Plug	2
57	1512588	O-Ring	1
58	1614559	Sensor (Fuel Flow)	1
59	1614467	O-Ring	1
60	1614562	Screen	1
61	1614466	O-Ring	1
62	1614458	Capscrew (Hex Head)	4
63	1614547	Adapter	1
64	1512739	Fitting	1
65	1512740	O-Ring	1
	1614620	Kit-Evaporator	1

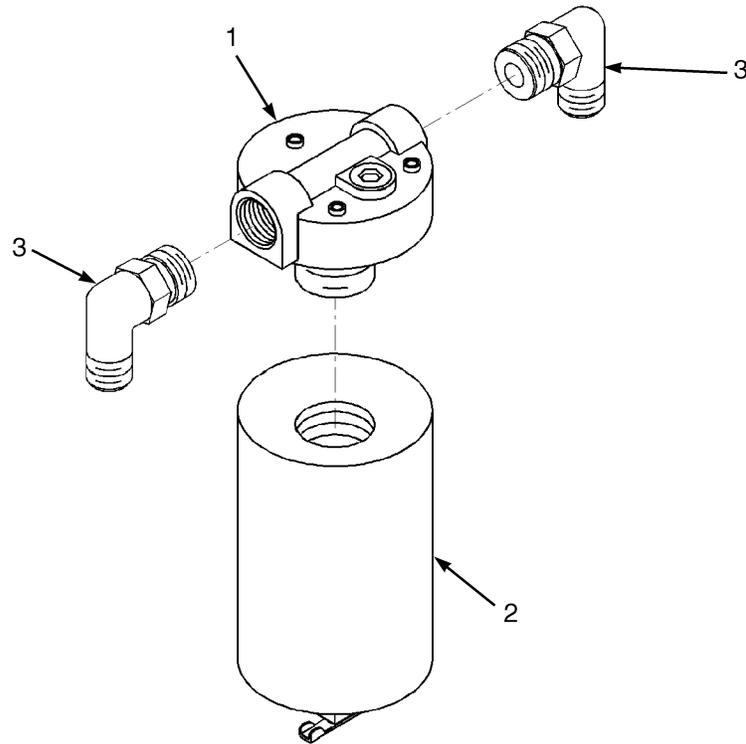
**FUEL SYSTEM ACCESSORIES (FIGURE 3-28)
CUMMINS LPG**



BP130192

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1512004	Capscrew	2
2	1517110	Cover Plate	1
3	1513743	Gasket (Cover Plate)	1

FUEL FILTER (FIGURE 3-29) CUMMINS LPG



BP130191

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614486	Fuel Filter	1
1	1614483	Filter Head	1
2	1614485	Fuel Filter	1
3	1614484	Elbow	2

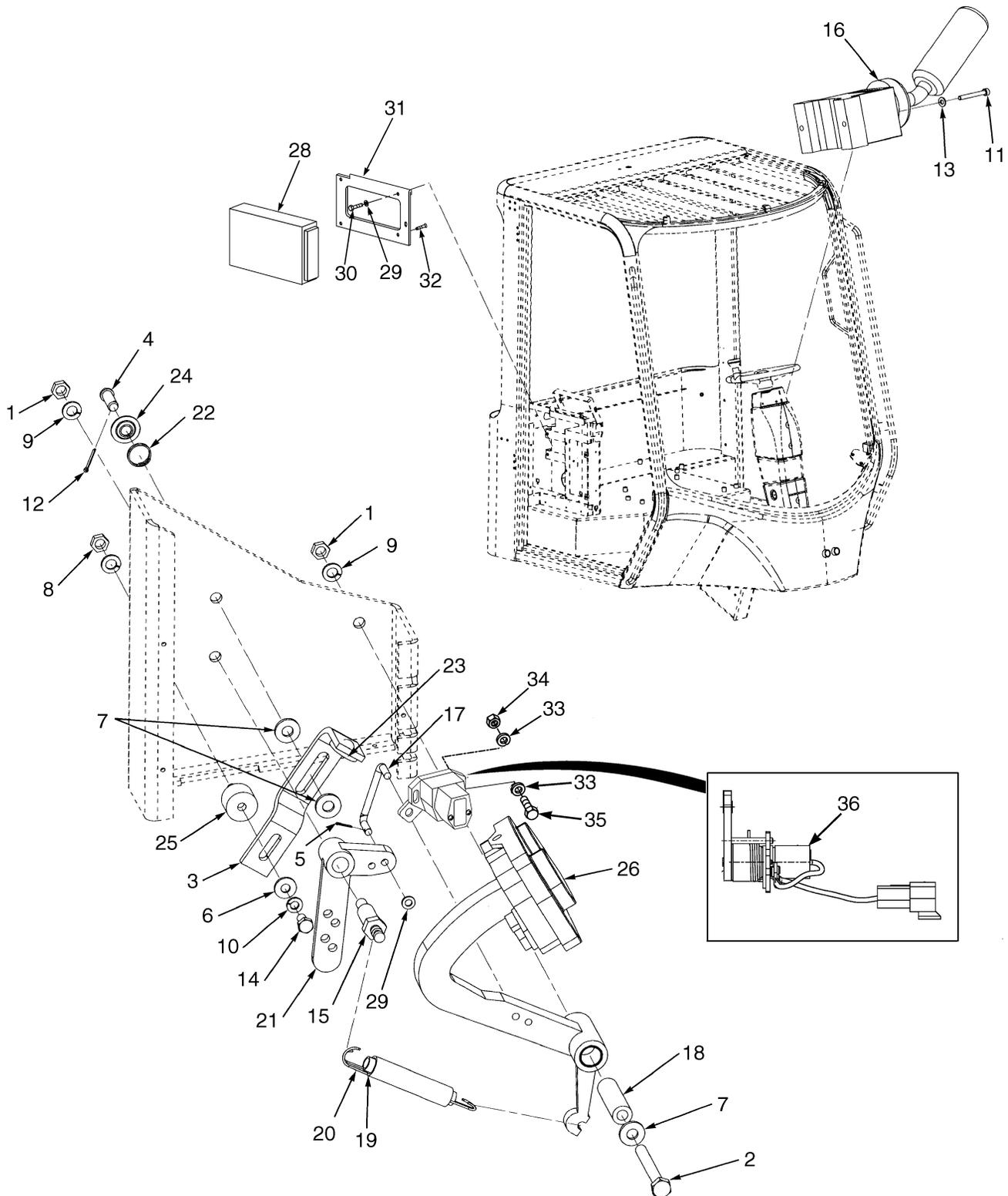
**THROTTLE PEDAL LINKAGE
FORWARD AND REVERSE LEVER**

ITEM	PART NO.	DESCRIPTION	QTY
1	293613	Capscrew	2
2	320156	Washer	2
3	1567941	Screw	4
4	1558050	Bracket (Transmission Controller)	1
5	15200	Cotter Pin	2
6	1558054	Screw	2
7	320160	Washer	2
8	292682	Lockwasher	3
9	296128	Nut	1
10	292521	Capscrew	1
11	325708	Tube Assy	1
12	352485	Shaft	1
13	352499	Pedal	1
14	352885	Rubber Pad	1
15	1571269	Rod	1
16	353142	Spring	1
17	353143	Spring	1
18	1494675	Bracket (Pedal Stop)	1
19	353164	Crank	1
20	353195	Bumper	1
21	296415	Washer	2
22	a 2066609	Controller (24 V) (Perkins Diesel)	1
22	h 2071312	Controller (12 V) (Perkins Diesel)	1
22	a 2066610	Controller (24 V) (Cummins Diesel)	1
22	e 2071313	Controller (12 V) (Cummins Diesel)	1
22	d 2076601	Controller (12 V) (Cummins Diesel)	1
22	f 2079013	Controller (12 V) (Cummins Diesel)	1
22	g 2092719	Controller (12 V-APC 200) (Cummins Diesel)	1
22	c 2082798	Controller (12 V) (Cummins LPG)	1
22	g 2092720	Controller (12 V) (Cummins LPG)	1
23	320156	Washer	4
24	1494677	Shifter (With Autoshift)	1
24	1494678	Shifter (Without Autoshift)	1
25	287854	Capscrew	1
26	136692	Nut	2
27	292504	Capscrew	2
28	1506738	Washer	4
29	316834	Nut	2
30	b 1569801	Sensor (Pedal Position)	1
30	i 2076661	Sensor (Throttle and Inching)	1
31	296128	Nut (Not Illustrated)	1
32	15212	Cotter Pin (Not Illustrated)	1
	1516917	Kit-Monotrol to Fwd/Rev Lever (With Autoshift)	1
	1516919	Kit-Monotrol to Fwd/Rev Lever (Without Autoshift)	1

FOOTNOTES:

- a** → 7/2004
- b** → S/N G007E01782B
- c** → S/N G007E03001D
- d** 4/2005 ↔ S/N G007E02516C
- e** 7/2004 ↔ 4/2005
- f** S/N G007E02517C ↔ S/N G007E03001D
- g** S/N G007E03002D →
- h** 7/2004 →
- i** S/N G007E01783B →

THROTTLE PEDAL LINKAGE (FIGURE 3-31) MONOTROL PEDAL



BP130142

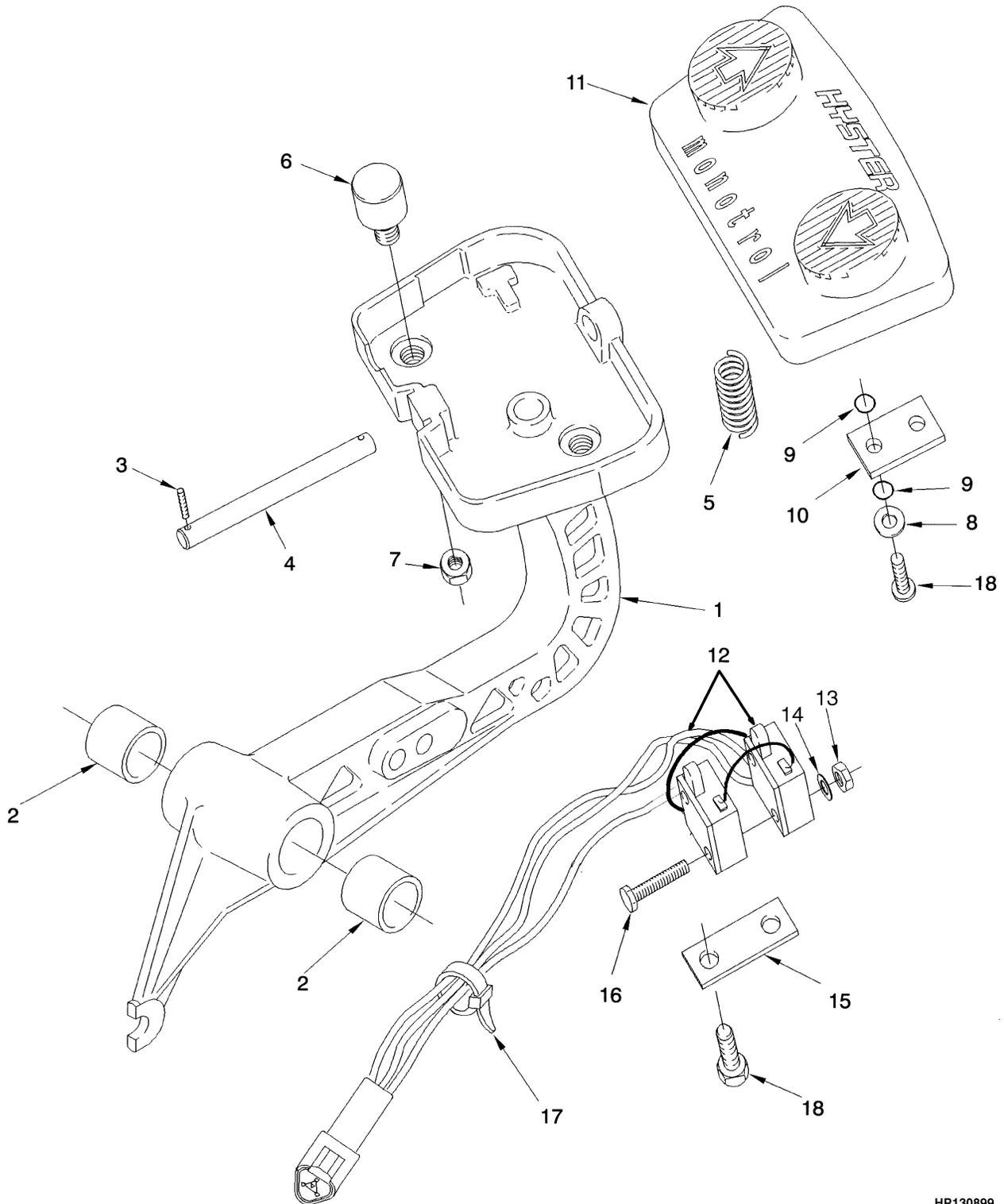
**THROTTLE PEDAL LINKAGE
MONOTROL PEDAL**

ITEM	PART NO.	DESCRIPTION	QTY
1	136692	Nut	3
2	292523	Capscrew	1
3	1494690	Bracket (Pedal Stop)	1
4	142	Pin	1
5	15200	Cotter Pin	2
6	320158	Washer	2
7	320160	Washer	3
8	239503	Nut	1
9	292682	Lockwasher	2
10	292681	Lockwasher	2
11	1558054	Screw	2
12	15212	Cotter Pin	1
13	296415	Washer	2
14	287851	Capscrew	1
15	352485	Shaft	1
16	1494691	Shifter	1
17	1571269	Rod	1
18	353141	Tube Assy (Pivot)	1
19	353142	Spring	1
20	353143	Spring	1
20	1558049	Spring	1
21	353164	Crank	1
22	353172	Spring	1
23	353195	Bumper	1
24	353230	Cap (Spring)	1
25	353453	Mount	1
26	1352575	Monotrol Pedal (☞ Figure 3-32).....	1
27	292502	Capscrew	4
28	a 2066609	Controller (24 V) (Perkins Diesel)	1
28	i 2071312	Controller (12 V) (Perkins Diesel)	1
28	a 2066610	Controller (24 V) (Cummins Diesel)	1
28	e 2071313	Controller (12 V) (Cummins Diesel)	1
28	d 2076601	Controller (12 V) (Cummins Diesel)	1
28	f 2076601	Controller (12 V) (Cummins Diesel)	1
28	g 2092719	Controller (12 V-APC 200) (Cummins Diesel)	1
28	b 2082798	Controller (12 V) (Cummins LPG)	1
28	g 2092720	Controller (12 V) (Cummins LPG)	1
29	320156	Washer	2
30	293613	Capscrew	2
31	1558050	Bracket (Transmission Controller)	1
32	1567941	Screw	4
33	1506738	Washer	4
34	316834	Nut	2
35	292504	Capscrew	2
36	c 1569801	Sensor (Pedal Position)	1
36	h 2076661	Sensor (Throttle and Inching)	1

FOOTNOTES:

- | | | | |
|----------|--------------------------|----------|-----------------------------------|
| a | → 7/2004 | f | S/N G007E02517C ↔ S/N G007E03001D |
| b | → S/N G007E03001D | g | S/N G007E03002D → |
| c | → S/N G007E03039D | h | S/N G007E03040D → |
| d | 4/2005 ↔ S/N G007E02516C | i | 7/2004 → |
| e | 7/2004 ↔ 4/2005 | | |

MONOTROL PEDAL (FIGURE 3-32)



HP130899

MONOTROL PEDAL

ITEM	PART NO.	DESCRIPTION	QTY
	1352575	Monotrol Pedal	1
1	353397	Pedal	1
2	135685	Bushing	2
3	220932	Setscrew	2
4	353154	Pin	1
5	353168	Spring	1
6	353422	Magnet	2
7	353432	Nut	2
8	353448	Washer	4
9	57568	O-Ring	8
10	359207	Plate	2
11	353175	Pad	1
12	1352090	Switch	1
13	16865	Nut	2
14	53162	Lockwasher	2
15	353165	Retainer	1
16	220434	Screw	2
17	114312	Strap Clamp	3
18	352969	Screw	6

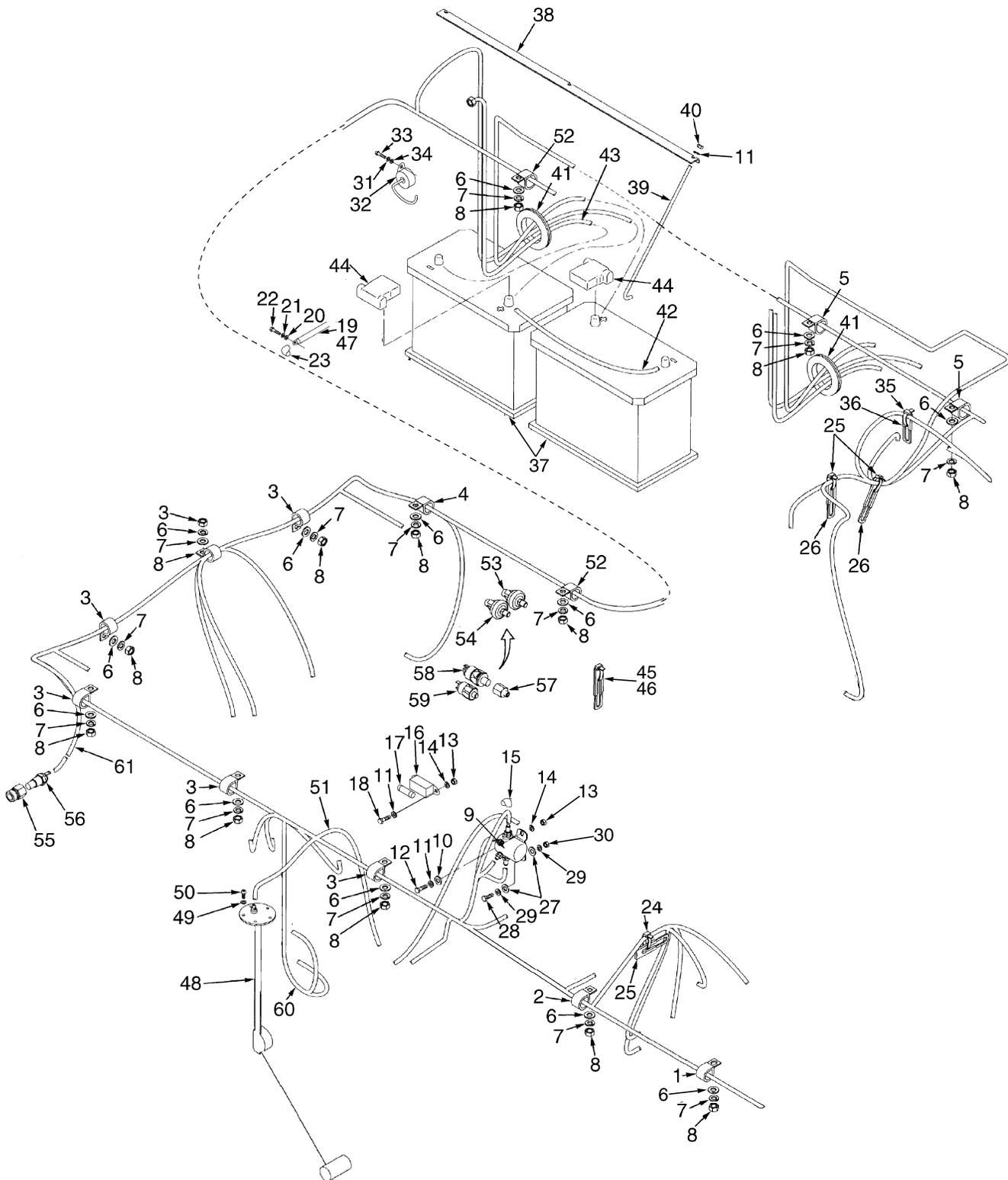
**SECTION 4
ELECTRICAL SYSTEM**

DESCRIPTION	PAGE
ACCESSORY DRIVE BELT AND TENSIONER	
CUMMINS LPG	4-38
ALTERNATOR AND MOUNTING	
CUMMINS DIESEL	4-36
CUMMINS LPG	4-40
ALTERNATOR AND PULLEY	
PERKINS DIESEL	4-34
ALTERNATOR BRACKET AND ATTACHING PARTS	
PERKINS DIESEL	4-32
CONTROL PANEL	
AIR CONDITIONER	4-22
HEATER	4-20
DC-DC CONVERTER AND ATTACHING PARTS	4-24
ELECTRICAL SYSTEM	
CUMMINS DIESEL (→ S/N G007E02606D)	4-8
CUMMINS DIESEL (S/N G007E02607D →)	4-12
CUMMINS LPG	4-16
PERKINS DIESEL	4-4
ENGINE CONTROL SYSTEM	
CUMMINS DIESEL	4-26
CUMMINS LPG	4-46
ENGINE IGNITION SYSTEM	
CUMMINS LPG	4-42
JOYSTICK ASSEMBLY	4-48
STARTER MOTOR	
CUMMINS DIESEL	4-30
CUMMINS LPG	4-44
PERKINS DIESEL	4-28
WIRE HARNESS	
AIR DRYER (S/N G007E02676D →)	4-144
ARMREST - WITH CLOSED CAB	4-118
ARMREST - WITH OPEN CAB	4-120
AUXILIARY HYDRAULIC OIL COOLER	4-160
BACK-UP ALARM	4-164
BRAKE TEMPERATURE - NON-ECH AND EC3 (→ S/N G007E02863D)	4-162
BRAKE TEMPERATURE - EC4 (→ S/N G007E02863D)	4-163
BRAKE TEMPERATURE (S/N G007E02864D →)	4-165
CAB LIGHTS	4-158
CAB SIDE CONSOLE - SHEET 1 OF 3	4-126
CAB SIDE CONSOLE - SHEET 2 OF 3	4-130
CAB SIDE CONSOLE (RELAYS AND FUSES) - SHEET 3 OF 3	4-134
CAB TILT	4-124
CAB UNDERFLOOR (→ S/N G007E03039D)	4-137
CAB UNDERFLOOR (S/N G007E03040D →)	4-139
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (→ 10/2004)	4-60
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (→ 10/2004)	4-64
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)	4-68
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)	4-72
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)	4-76

**SECTION 4
ELECTRICAL SYSTEM**

DESCRIPTION	PAGE
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)	4-80
CHASSIS, CUMMINS DIESEL - SHEET 1 OF 2 (S/N G007E03040D →)	4-84
CHASSIS, CUMMINS DIESEL - SHEET 2 OF 2 (S/N G007E03040D →)	4-88
CHASSIS, CUMMINS LPG - SHEET 1 OF 2 (→ S/N G007E03039D)	4-92
CHASSIS, CUMMINS LPG - SHEET 2 OF 2 (→ S/N G007E03039D)	4-96
CHASSIS, CUMMINS LPG - SHEET 1 OF 2 (S/N G007E03040D →)	4-100
CHASSIS, CUMMINS LPG - SHEET 2 OF 2 (S/N G007E03040D →)	4-104
CHASSIS, PERKINS DIESEL - SHEET 1 OF 2	4-50
CHASSIS, PERKINS DIESEL - SHEET 2 OF 2	4-54
CLOSED CAB (→ S/N G007E02505C)	4-110
CLOSED CAB (S/N G007E02506C →)	4-112
ENGINE CONTROL SYSTEM - CUMMINS DIESEL	4-108
ENGINE CONTROL SYSTEM - CUMMINS LPG	4-122
FRONT END - FOUR FUNCTION (→ 10/2006)	4-166
FRONT END - FIVE FUNCTION (→ 10/2006)	4-167
FRONT END - SIX FUNCTION (→ 10/2006)	4-168
FRONT END - FOUR, FIVE, AND SIX FUNCTION (11/2006 →)	4-170
FRONT LIGHTS	4-154
FRONT LIGHTS - WITH FRONT FENDER AND MAST WORK LIGHTS	4-156
FUSE AND RELAY - PERKINS DIESEL	4-58
MAST LIGHT EXTENSION - LEFT HAND	4-148
MAST LIGHT EXTENSION - RIGHT HAND	4-149
MAST WORKLIGHT EXTENSION	4-152
OIL COOLER	4-159
OPEN CAB	4-114
REAR DRIVE LIGHT EXTENSION	4-150
REAR WIPER	4-116
STEERING COLUMN	4-142
TWO STAGE LIMITED FREE-LIFT	4-146

ELECTRICAL SYSTEM (FIGURE 4-1) PERKINS DIESEL



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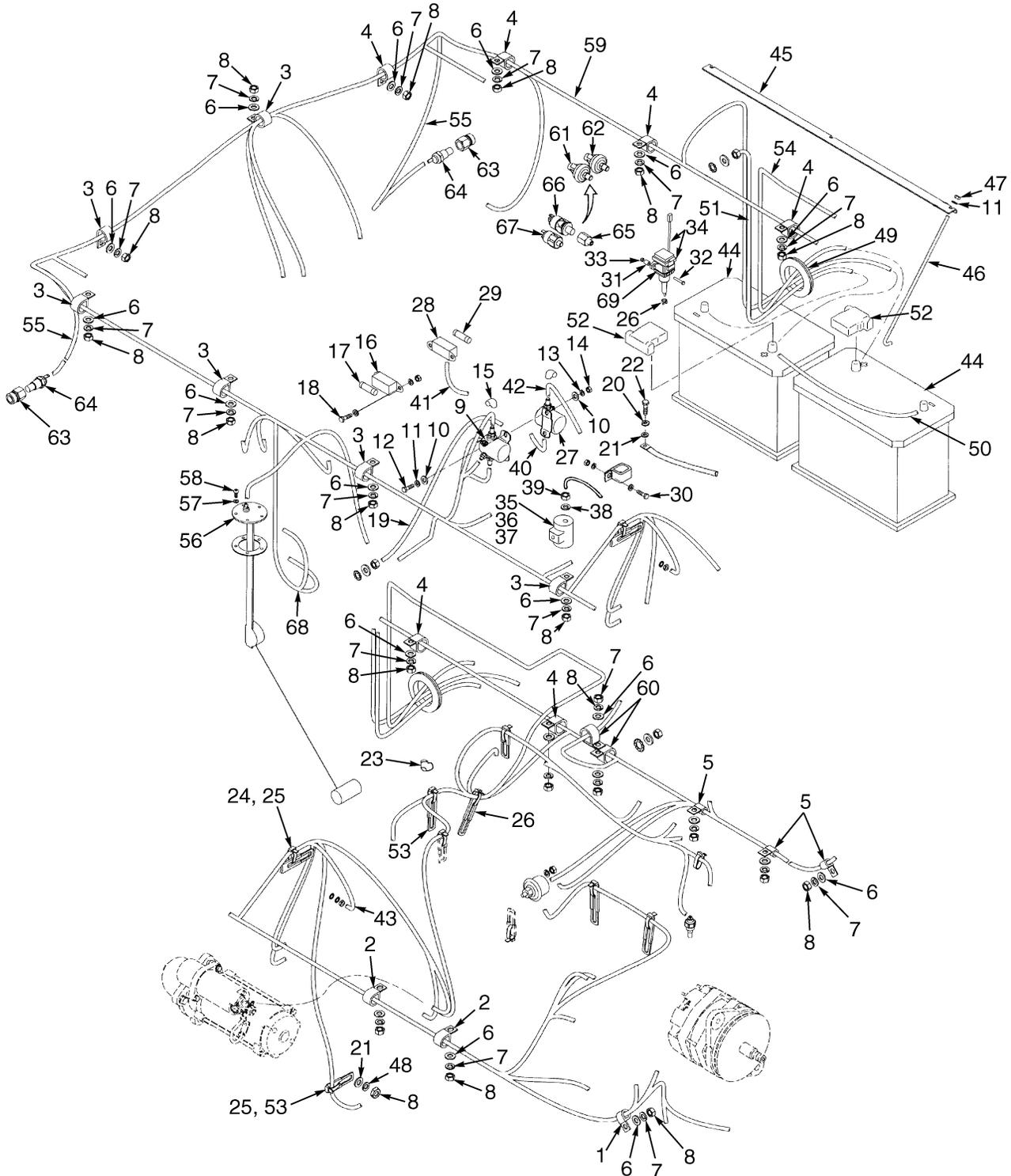
**ELECTRICAL SYSTEM
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
1	136516	Clamp	1
2	173247	Clamp	4
3	153069	Clamp	7
4	166112	Clamp	5
5	164488	Clamp	3
6	320159	Washer	25
7	292682	Lockwasher	23
8	136692	Nut	26
9	1307121	Switch	1
10	320157	Washer	4
11	320156	Washer	7
12	287816	Capscrew	2
13	136687	Nut	4
14	292680	Washer	4
15	204223	Boot	2
16	1385519	Fuse Holder	1
17	1529581	Fuse (100 Amp)	1
18	302048	Screw	2
19	1541841	Battery Cable	1
20	296408	Lockwasher	3
21	320160	Washer	4
22	287854	Capscrew	1
23	370009	Boot	1
24	1350914	Strap	1
25	129563	Strap Clamp	10
26	144312	Strap	3
27	320154	Washer	4
28	2065989	Capscrew	2
29	292678	Lockwasher	2
30	1463912	Nut	2
31	1534793	Spacer	2
32	2062054	Wire Harness (Fuse and Relay) (☞Figure 4-22).....	1
33	.....	Capscrew	2
34	302398	Locknut	2
35	1362277	Strap	1
36	292513	Capscrew	1
37	305522	Start Battery Wet (Wet)	2
38	1301406	Battery Hold Down	1
39	1529558	Link	3
40	302399	Nut	3
41	1347854	Grommet	1
42	1310689	Battery Cable	1
43	1336228	Battery Cable	1
44	321158	Boot	4
45	1345023	Strap	2
46	1489689	Battery Cable (Battery)	1
47	275496	Conduit	AR
48	1480332	Fuel Sender	1
49	15931	Lockwasher	5
50	16708	Screw	5

**ELECTRICAL SYSTEM
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
51	2062050	Wire Harness (Chassis) (☞Figure 4-20).....	1
52	178119	Clamp	2
53	1301299	Pressure Switch (Low Pressure) (Air Brake)	1
54	1484562	Pressure Switch (Dry Brake) (Air Brake)	1
55	1483927	Adapter	2
56	2043634	Switch (Temperature)	2
57	12856	Fitting	1
58	1558581	Pressure Switch (Wet Brake)	1
59	1332206	Pressure Switch (Wet Brake, light Switch) (Wet Brake)	1
60	2043224	Wire Harness (Oil Cooler) (Wet Brake) (☞Figure 4-59).....	1
61	2043507	Wire Harness (Brake Temperature) (☞Figure 4-61).....	2

ELECTRICAL SYSTEM (FIGURE 4-2) CUMMINS DIESEL (→ S/N G007E02606D)



HP081370

ELECTRICAL SYSTEM
CUMMINS DIESEL (→ S/N G007E02606D)

ITEM	PART NO.	DESCRIPTION	QTY
1	136516	Clamp	1
2	173247	Clamp	4
3	153069	Clamp	7
4	166112	Clamp	5
5	164488	Clamp	3
6	320159	Washer	23
7	292682	Lockwasher	23
8	136692	Nut	26
9	1307121	Switch	1
10	320157	Washer	4
11	320156	Washer	10
12	287816	Capscrew	2
13	292680	Washer	7
14	136687	Nut	7
15	204223	Boot	4
16	1385519	Fuse Holder	1
17	1529581	Fuse (100 Amp)	1
18	302048	Screw	4
19	1541841	Battery Cable	1
20	296408	Lockwasher	1
21	320160	Washer	4
22	287854	Capscrew	1
23	370009	Boot	1
24	1350914	Strap	1
25	129563	Strap Clamp	10
26	114312	Strap Clamp	4
27	1307121	Switch	1
28	1385519	Fuse Holder	1
29	1508300	Fuse (125 Amp)	1
30	292501	Capscrew	1
31	1534793	Spacer	1
32	2072353	Capscrew	1
33	302398	Locknut	1
34	2062055	Fuse Box (Sealed)	1
35	3061454	Washer (Copper)	1
36	1475493	Fitting (Adapter)	1
37	1514215	Pressure Sender	1
38	292679	Washer	1
39	292668	Nut	1
40	1598360	Power Cable	1
41	1544027	Battery Cable	1
42	2063012	Wire	1
43	2046001	Wire Harness (Empty Container Handling Attachment)	1
44	2083769	Start Battery Wet (Wet)	2
44	305681	Start Battery Dry (Dry)	2
45	1301406	Battery Hold Down	1
46	1529558	Link	3
47	302399	Nut	3
48	296408	Lockwasher	2
49	1347854	Grommet	1

ELECTRICAL SYSTEM CUMMINS DIESEL (→ S/N G007E02606D)

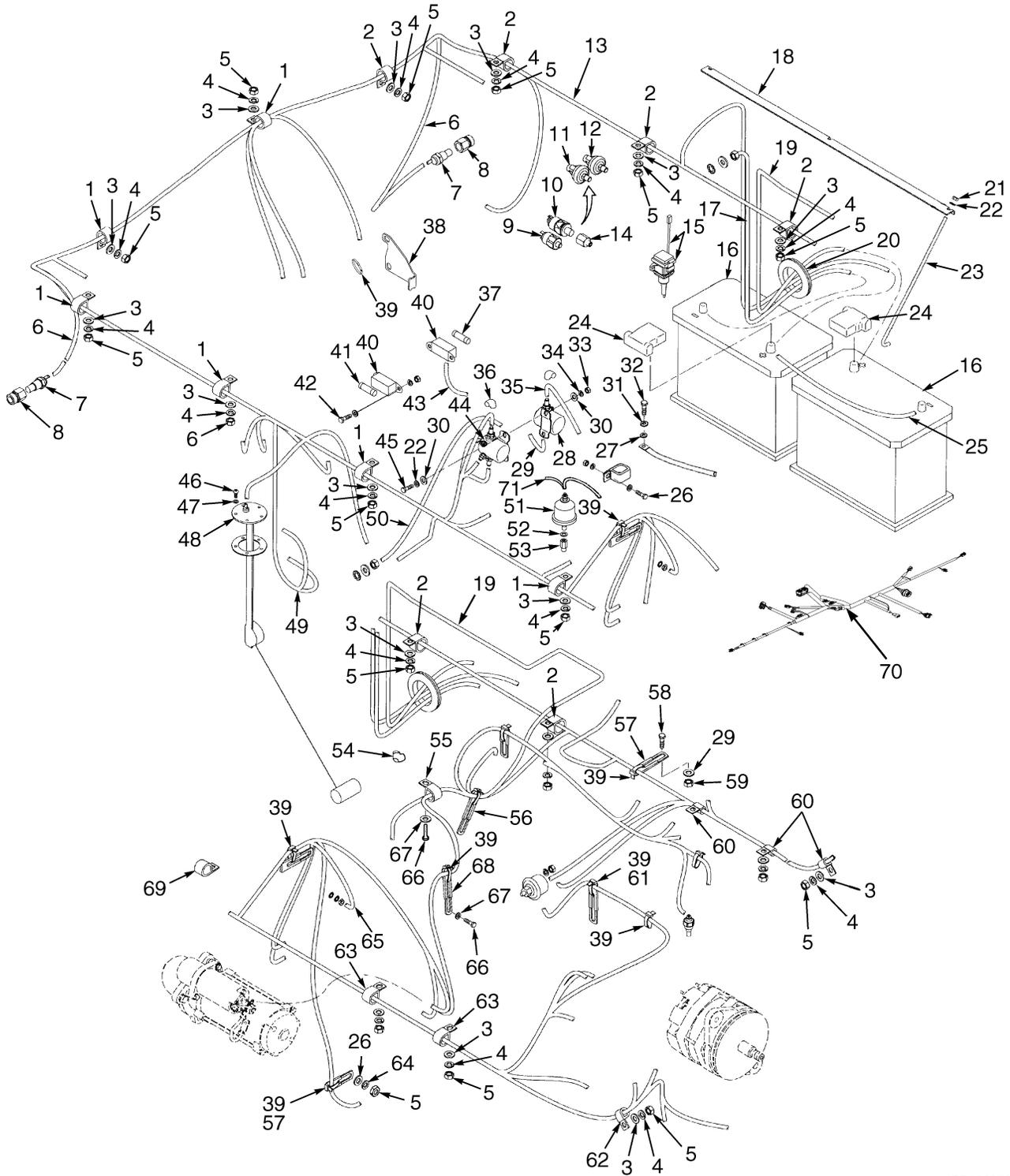
ITEM	PART NO.	DESCRIPTION	QTY
50	1310689	Battery Cable	1
51	1336228	Battery Cable	1
52	321158	Boot	4
53	1345023	Strap	2
54	1489689	Battery Cable (Battery)	1
55	b 2046000	Wire Harness (Brake Temperature) (EC4) (☞ Figure 4-62).....	2
55	b 2043507	Wire Harness (Brake Temperature) (Non-ECH and EC3) (☞ Figure 4-61).....	2
56	1480332	Fuel Sender	1
57	15931	Lockwasher	5
58	16708	Screw	5
59	2062052	Wire Harness (Chassis, Cummins Diesel)	1
60	178119	Clamp	2
61	a 1301299	Pressure Switch (Low Pressure)	1
62	a 1484562	Pressure Switch (Dry Brake)	1
63	b 1483927	Adapter	2
64	b 2043634	Switch (Temperature)	2
65	b 12856	Fitting	1
66	1558581	Pressure Switch (Wet Brake)	1
67	b 1332206	Pressure Switch (Wet Brake, light Switch)	1
68	b 2043224	Wire Harness (Oil Cooler) (Wet Brake)	1
69	137852	Strap Clamp	1

FOOTNOTES:

a Dry Brake

b Wet Brake

ELECTRICAL SYSTEM (FIGURE 4-3) CUMMINS DIESEL (S/N G007E02607D →)



BP080379

ELECTRICAL SYSTEM
CUMMINS DIESEL (S/N G007E02607D →)

ITEM	PART NO.	DESCRIPTION	QTY
1	153069	Clamp	7
2	166112	Clamp	5
3	320159	Washer	19
4	292682	Lockwasher	19
5	136692	Nut	22
6	ce 2046000	Wire Harness (Brake Temperature) (EC4) (☞ Figure 4-62).....	2
6	ce 2043507	Wire Harness (Brake Temperature) (Non-ECH and EC3) (☞ Figure 4-61).....	2
6	cg 2089088	Wire Harness (Brake Temperature) (EC4) (☞ Figure 4-64).....	2
6	cg 2089087	Wire Harness (Brake Temperature) (Non-ECH and EC3) (☞ Figure 4-64).....	2
7	ce 2043634	Switch (Temperature)	2
7	cg 1627991	Switch	2
8	ce 1483927	Adapter	2
8	cg 222454	Fitting	2
8	cg 16485	O-Ring	1
9	c 1332206	Pressure Switch (Wet Brake, light Switch)	1
10	1558581	Pressure Switch (Wet Brake)	1
11	a 1301299	Pressure Switch (Low Pressure)	1
12	a 1484562	Pressure Switch (Dry Brake)	1
13	d 2062052	Wire Harness (Chassis, Cummins Diesel) (☞ Figure 4-23, ☞ Figure 4-24).....	1
13	f 2079042	Wire Harness (Chassis, Cummins Diesel) (☞ Figure 4-27, ☞ Figure 4-28).....	1
13	h 2088033	Wire Harness (Chassis, Cummins Diesel) (☞ Figure 4-29).....	1
14	c 12856	Fitting	1
15	2080833	Fuse Box (Fuse Box) (Sealed)	1
16	2083769	Start Battery Wet (Wet)	2
17	1336228	Battery Cable	1
18	1301406	Battery Hold Down	1
19	1489689	Battery Cable (Battery)	1
20	1347854	Grommet	1
21	302399	Nut	3
22	320156	Washer	10
23	1529558	Link	3
24	321158	Boot	4
25	1310689	Battery Cable	1
26	292501	Capscrew	1
27	320160	Washer	4
28	1307121	Switch (Starter Rely)	1
29	1598360	Power Cable	1
30	320157	Washer	6
31	296408	Lockwasher	1
32	287854	Capscrew	1
33	136687	Nut	7
34	292680	Washer	7
35	2063012	Wire	1
36	204223	Boot	4
37	1508300	Fuse (125 Amp)	1
38	2080826	Bracket	1
39	129563	Strap Clamp	10
40	1385519	Fuse Holder	1
41	1529581	Fuse (100 Amp)	1
42	302048	Screw	4

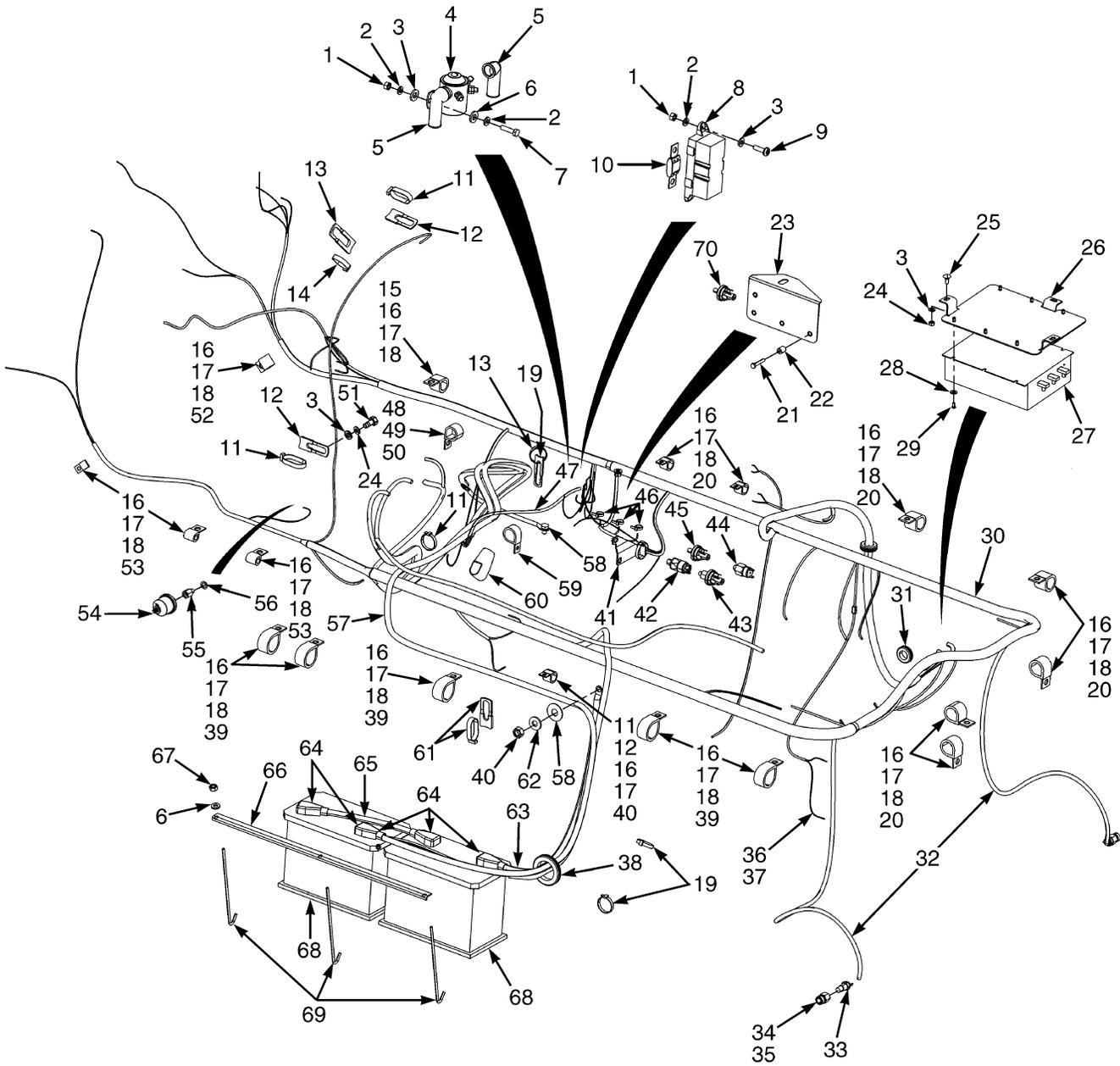
ELECTRICAL SYSTEM CUMMINS DIESEL (S/N G007E02607D →)

ITEM	PART NO.	DESCRIPTION	QTY
43	1544027	Battery Cable	1
44	1307121	Switch (Grid Heater Relay)	1
45	287816	Capscrew	2
46	16708	Screw	5
47	15931	Lockwasher	5
48	1480332	Fuel Sender	1
49	c 2043224	Wire Harness (Oil Cooler) (Wet Brake)	1
50	1541841	Battery Cable	1
51	1652018	Pressure Sender (Oil)	1
52	3061454	Washer (Copper)	1
53	1475493	Fitting (Adapter)	1
54	370009	Boot	1
55	279033	Clamp (Insulated)	1
56	114312	Strap Clamp	3
57	1345023	Strap	3
58	136749	Screw	1
59	302400	Nut	1
60	164488	Clamp	3
61	1362277	Strap	1
62	136516	Clamp	1
63	173247	Clamp	2
64	296408	Lockwasher	2
65	.....	Wire Harness (Attachment) (Optional)	1
66	292527	Capscrew	2
67	320161	Washer	2
68	1350911	Strap	2
69	144067	Clamp (Insulated)	1
70	1544134	Wire Harness (Electronic Control Module) (☞ Figure 4-35).....	1
70	1618092	Relay (24-Volt) (Fuel Pump)	1
71	1652017	Wire	1
	b 275494	Conduit	1

FOOTNOTES:

- | | | | |
|----------|-------------------|----------|-----------------------------------|
| a | Dry Brake | e | → S/N G007E02863D |
| b | Not Illustrated | f | S/N G007E02607D ↔ S/N G007E03039D |
| c | Wet Brake | g | S/N G007E02864D → |
| d | → S/N G007E02606D | h | S/N G007E03040D → |

ELECTRICAL SYSTEM (FIGURE 4-4) CUMMINS LPG



BP080432

**ELECTRICAL SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
1	136687	Nut	4
2	292680	Washer	4
3	320157	Washer	9
4	1307121	Switch	1
5	204223	Boot	2
6	320156	Washer	7
7	287816	Capscrew	2
8	1385519	Fuse Holder	1
9	302048	Screw	2
10	1529581	Fuse (100 Amp)	1
11	129563	Strap Clamp	AR
12	1345023	Strap	2
13	1350911	Strap	2
14	1345023	Strap	1
15	173247	Clamp	2
16	320159	Washer	19
17	292682	Lockwasher	19
18	136692	Nut	19
19	129563	Strap Clamp	AR
20	153069	Clamp	7
21	2072353	Capscrew	4
22	1534793	Spacer	4
23	1606764	Bracket	1
24	302400	Nut	4
25	1533520	Capscrew	3
26	1606513	Bracket	1
27	1606515	Converter (DC-DC, 60 Amp) (☞ Figure 4-7).....	1
28	320155	Washer	6
29	a 2046866	Capscrew	6
29	c 2044515	Capscrew	6
30	b 2079266	Wire Harness (Chassis, Cummins LPG) (☞ Figure 4-31, ☞ Figure 4-32).....	1
30	d 2088386	Wire Harness (Chassis, Cummins LPG) (☞ Figure 4-33).....	1
31	279752	Grommet	2
32	2043507	Wire Harness (Brake Temperature) (☞ Figure 4-61).....	2
33	1483927	Adapter	2
34	2043634	Switch (Temperature)	2
35	12856	Fitting	1
36	2043224	Wire Harness (Oil Cooler) (Wet Brake) (☞ Figure 4-59).....	1
37	1566965	Sealant	AR
38	1347854	Grommet	1
39	166112	Clamp	5
40	136692	Nut	3
41	2080826	Bracket	1
42	1558581	Pressure Switch (Wet Brake)	1
43	1484562	Pressure Switch (Dry Brake)	1
44	1332206	Pressure Switch (Wet Brake, light Switch)	1
45	1301299	Pressure Switch (Low Pressure)	1
46	114312	Strap Clamp	3
47	1544027	Battery Cable	1
48	279033	Clamp	1

ELECTRICAL SYSTEM CUMMINS LPG

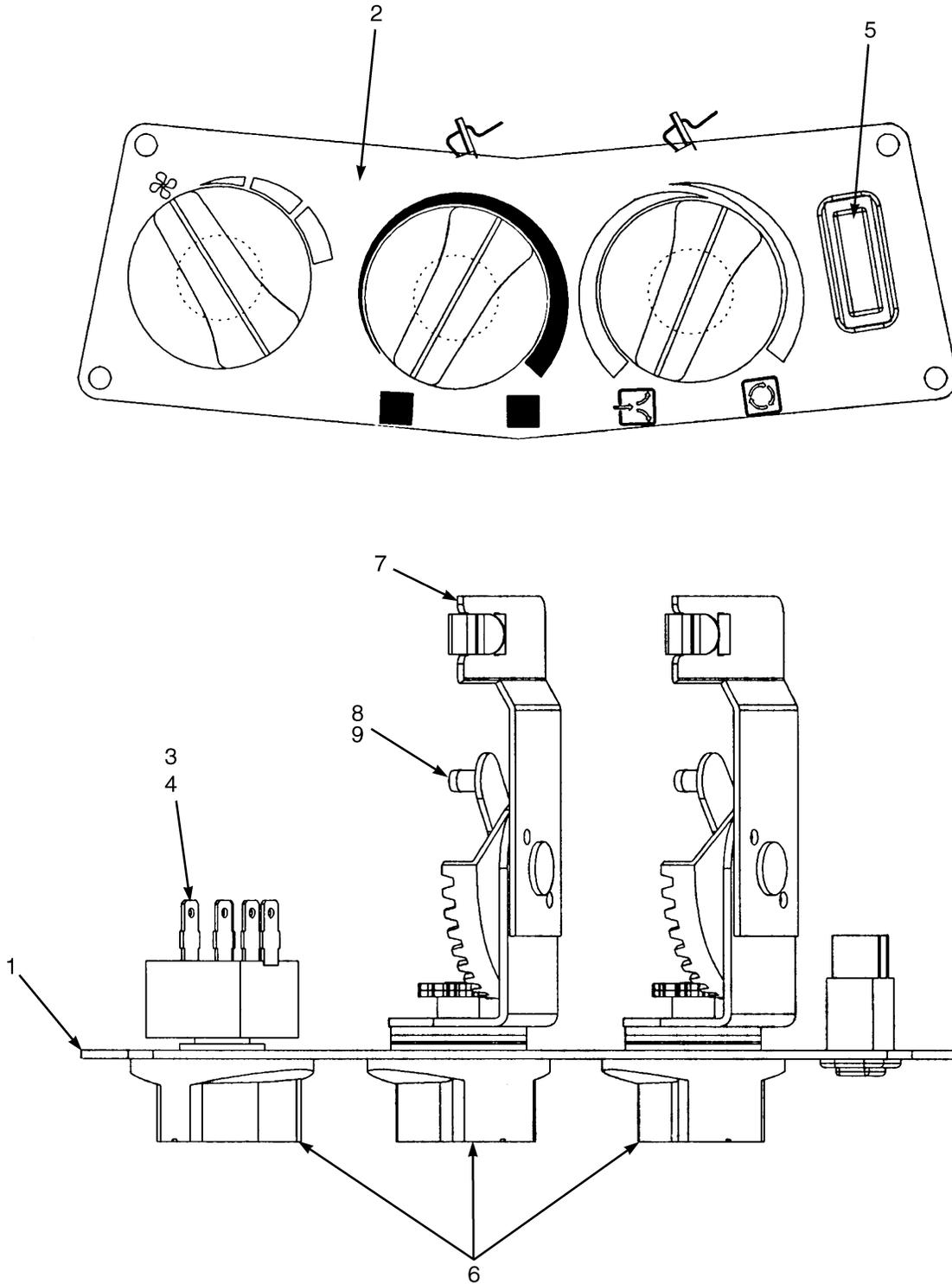
ITEM	PART NO.	DESCRIPTION	QTY
49	292527	Capscrew	2
50	320161	Washer	2
51	136749	Screw	1
52	136516	Clamp	1
53	164488	Clamp	3
54	1514215	Pressure Sender	1
55	1475493	Fitting (Adapter)	1
56	3061454	Washer (Copper)	1
57	1489689	Battery Cable (Battery)	1
58	1541841	Battery Cable	1
58	296408	Lockwasher	1
58	320160	Washer	4
58	287854	Capscrew	1
59	144067	Clamp	1
60	370009	Boot	1
61	1345023	Strap	1
61	129563	Strap Clamp	1
62	296408	Lockwasher	2
63	1336228	Battery Cable	1
64	321158	Boot	4
65	1310689	Battery Cable	1
66	1301406	Battery Hold Down	1
67	302399	Nut	3
68	2083769	Start Battery Wet (Wet)	2
69	1529558	Link	3
70	1301648	Pressure Switch (LPG)	2

FOOTNOTES:

a → S/N G007E02505C
b → S/N G007E03039D

c S/N G007E02506C →
d S/N G007E03040D →

**CONTROL PANEL (FIGURE 4-5)
HEATER**

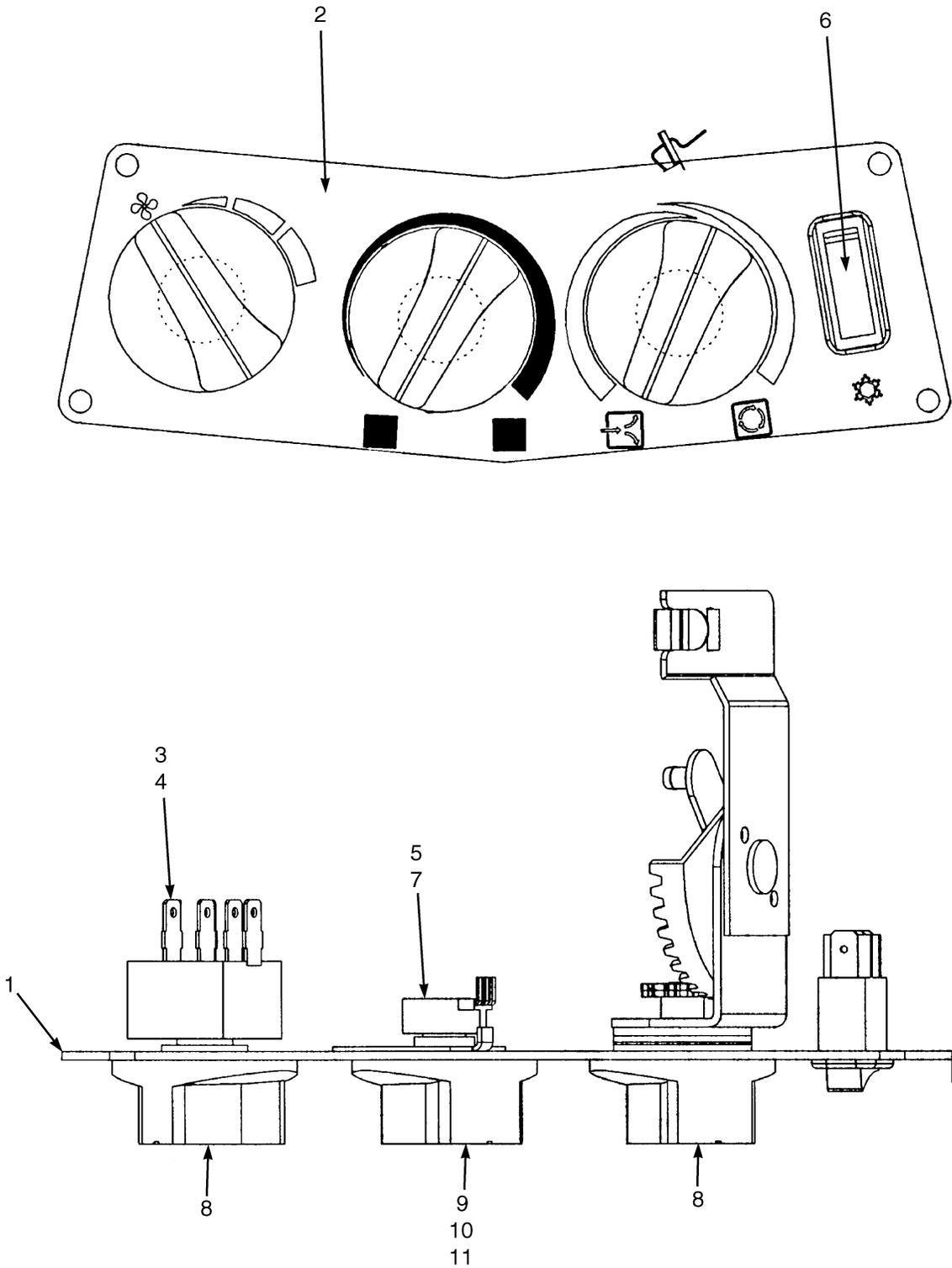


**CONTROL PANEL
HEATER**

ITEM	PART NO.	DESCRIPTION	QTY
	1558033	Control Panel (Heater)	1
1	.....	Plate (Mounting)	1
2	.....	Decal	1
3	1566205	Switch (Fan Speed)	2
4	1566206	Nut	1
5	1566216	Plug	1
6	1566210	Knob	3
7	1560556	Clip	1
8	1560555	Valve	1
	a 1560626	Push-Pull Cable	1

FOOTNOTES:**a** Not Illustrated

CONTROL PANEL (FIGURE 4-6) AIR CONDITIONER



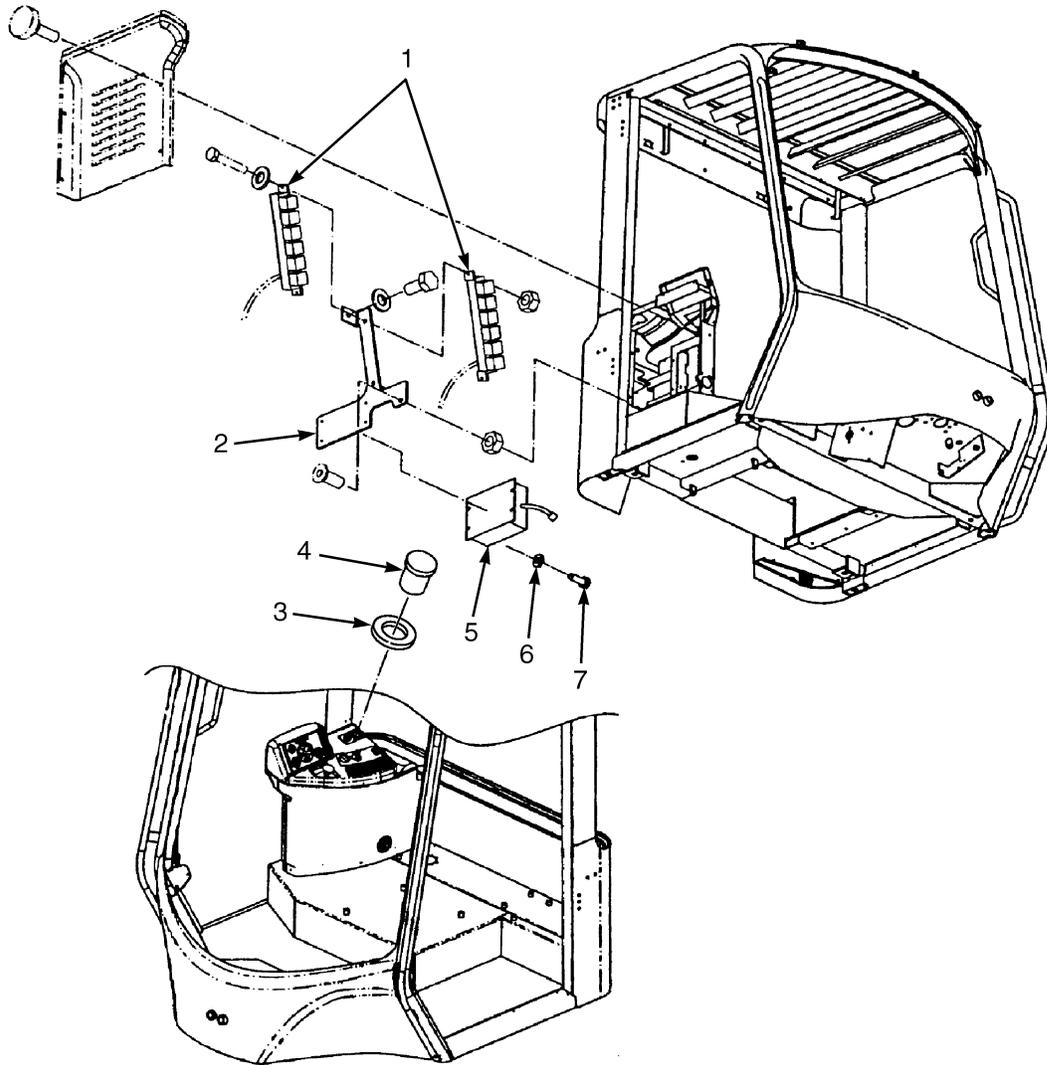
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**CONTROL PANEL
AIR CONDITIONER**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1558046	Control Panel (Air Conditioning)	1
	b 1615364	Control Panel (Heater and Air Conditioner)	1
1	.....	Plate (Mounting)	1
2	.....	Decal	1
3	1566205	Switch (Fan Speed)	1
4	1566206	Nut	1
5	a 1566207	Potentiometer	1
5	b 1615363	Potentiometer	1
6	1566208	Switch (Air Conditioner)	1
7	1566209	Wire Harness	1
8	1566210	Knob (Fan Switch)	2
9	1566211	Knob (Potentiometer)	1
10	1566212	O-Ring	1
11	1566213	Washer	1

FOOTNOTES:**a** → S/N G007E02503C**b** S/N G007E02504C →

DC-DC CONVERTER AND ATTACHING PARTS (FIGURE 4-7)

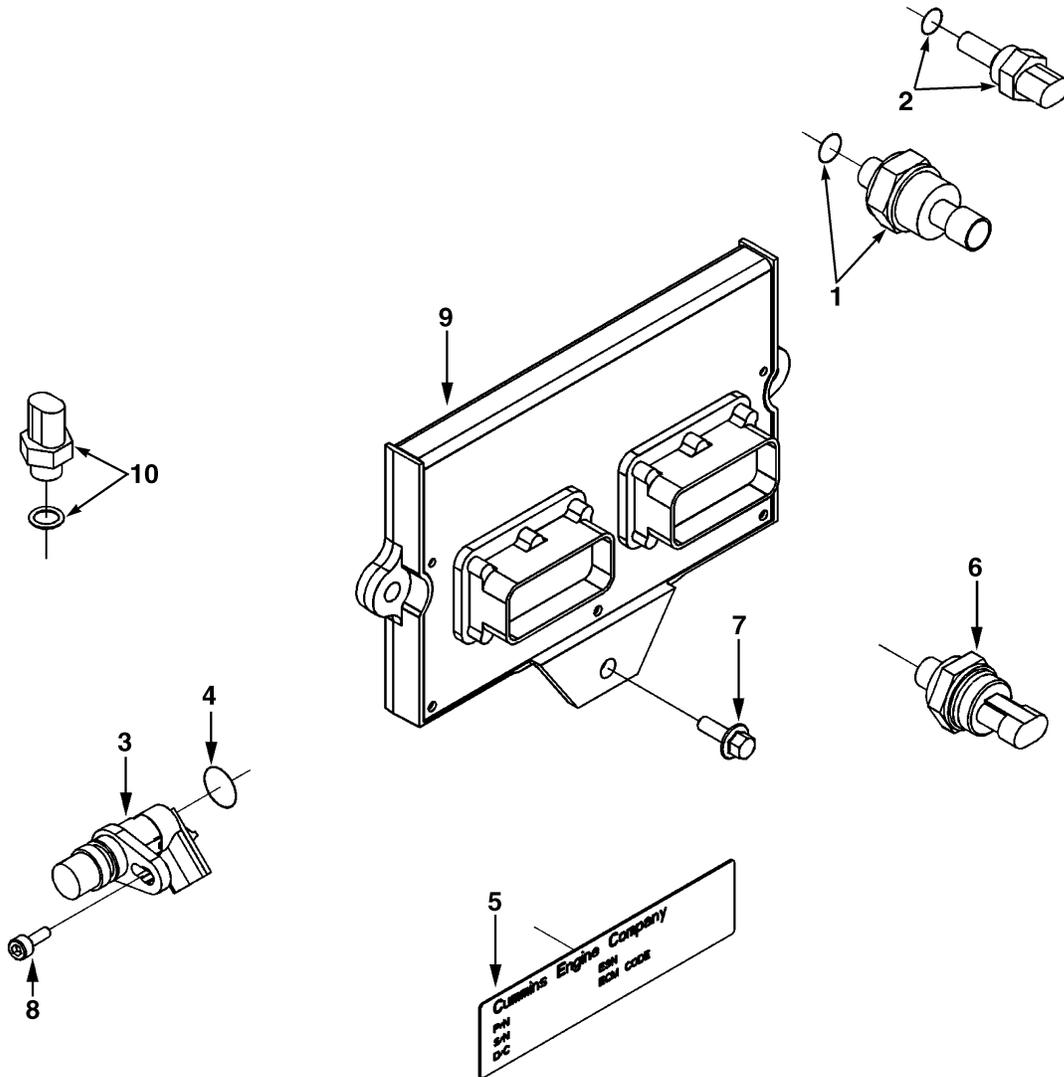


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DC-DC CONVERTER AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	2079043	Wire Harness (Side Console) (Side Console) (☞Figure 4-45, ☞Figure 4-46).....	1
1	2066200	Wire Harness (Side Console) (☞Figure 4-46).....	1
2	1566765	Bracket	1
3	1558027	Label	1
4	1566764	Socket (12 Volt)	1
5	2055678	DC-DC Converter	1
6	296415	Washer	4
7	1571789	Screw	4

ENGINE CONTROL SYSTEM (FIGURE 4-8) CUMMINS DIESEL



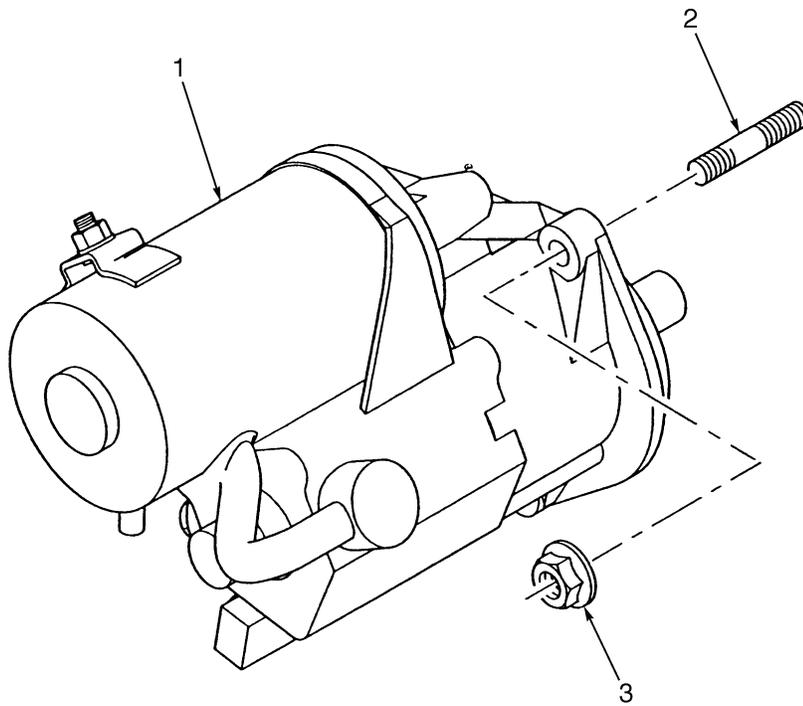
HP091194

**ENGINE CONTROL SYSTEM
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1659572	Sensor (Boost Pressure)	1
2	1517118	Sensor (Air Intake)	1
3	1619371	Sensor (Camshaft Position)	1
4	1552288	O-Ring	1
5	1517120	Data Plate	1
6	1543436	Sensor (Coolant)	1
7	1512004	Capscrew	3
8	1543437	Capscrew	1
9	1543438	Electronic Control Module	1
10	1543439	Oil Pressure Sensor	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

STARTER MOTOR (FIGURE 4-9) PERKINS DIESEL

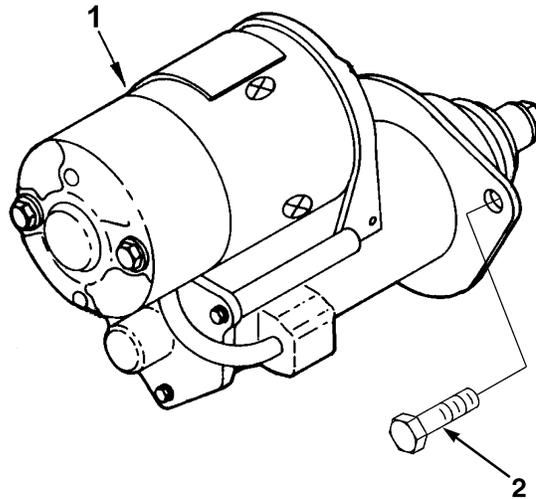


HP091053

**STARTER MOTOR
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1558469	Starter	1
2	1391216	Stud	3
3	1307891	Nut	3

STARTER MOTOR (FIGURE 4-10) CUMMINS DIESEL



HP091171

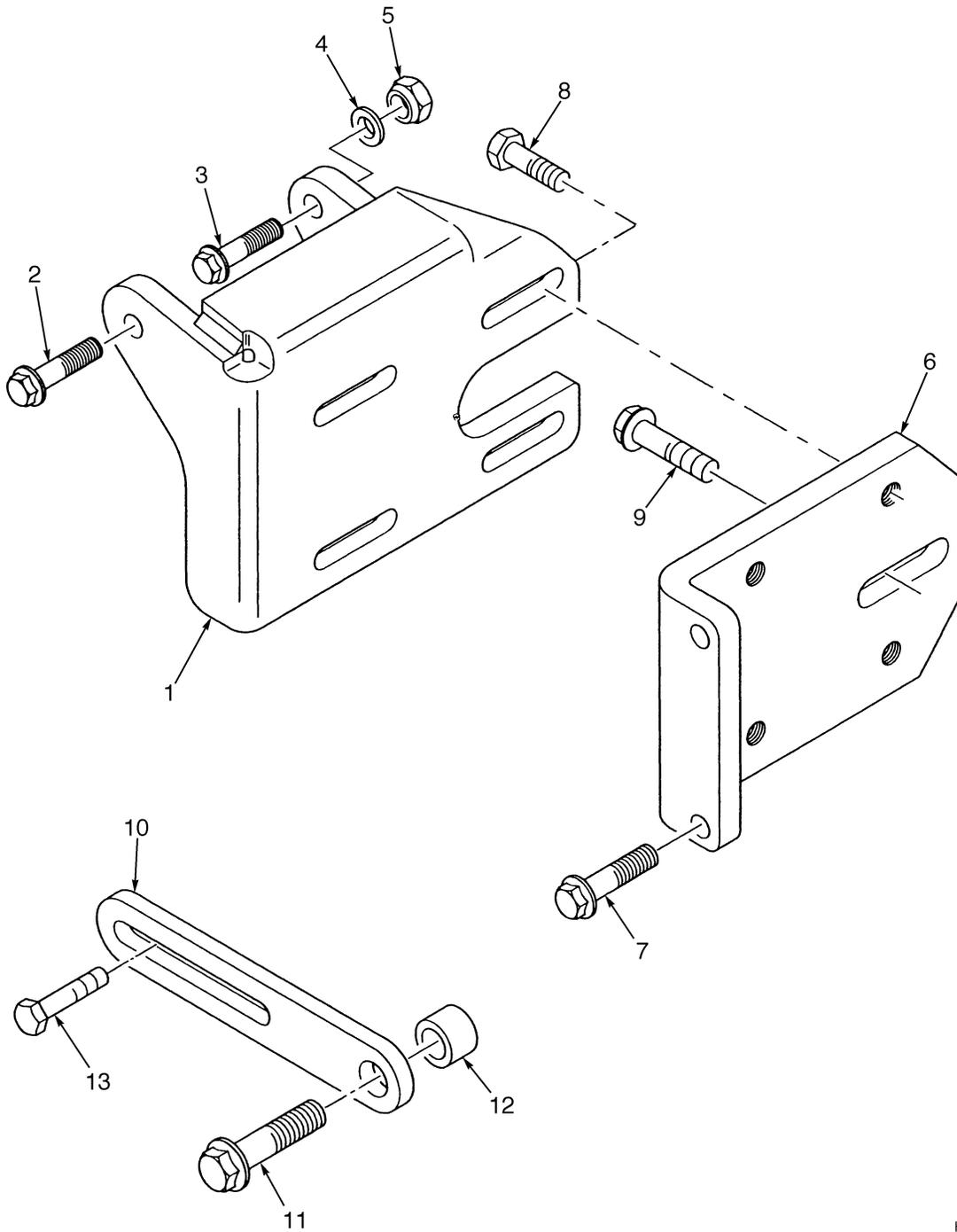
ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1552880	Starter	1
2	1588828	Capscrew	2

FOOTNOTES:

a → S/N G007E02037C

b S/N G007E02038C →

ALTERNATOR BRACKET AND ATTACHING PARTS (FIGURE 4-11) PERKINS DIESEL

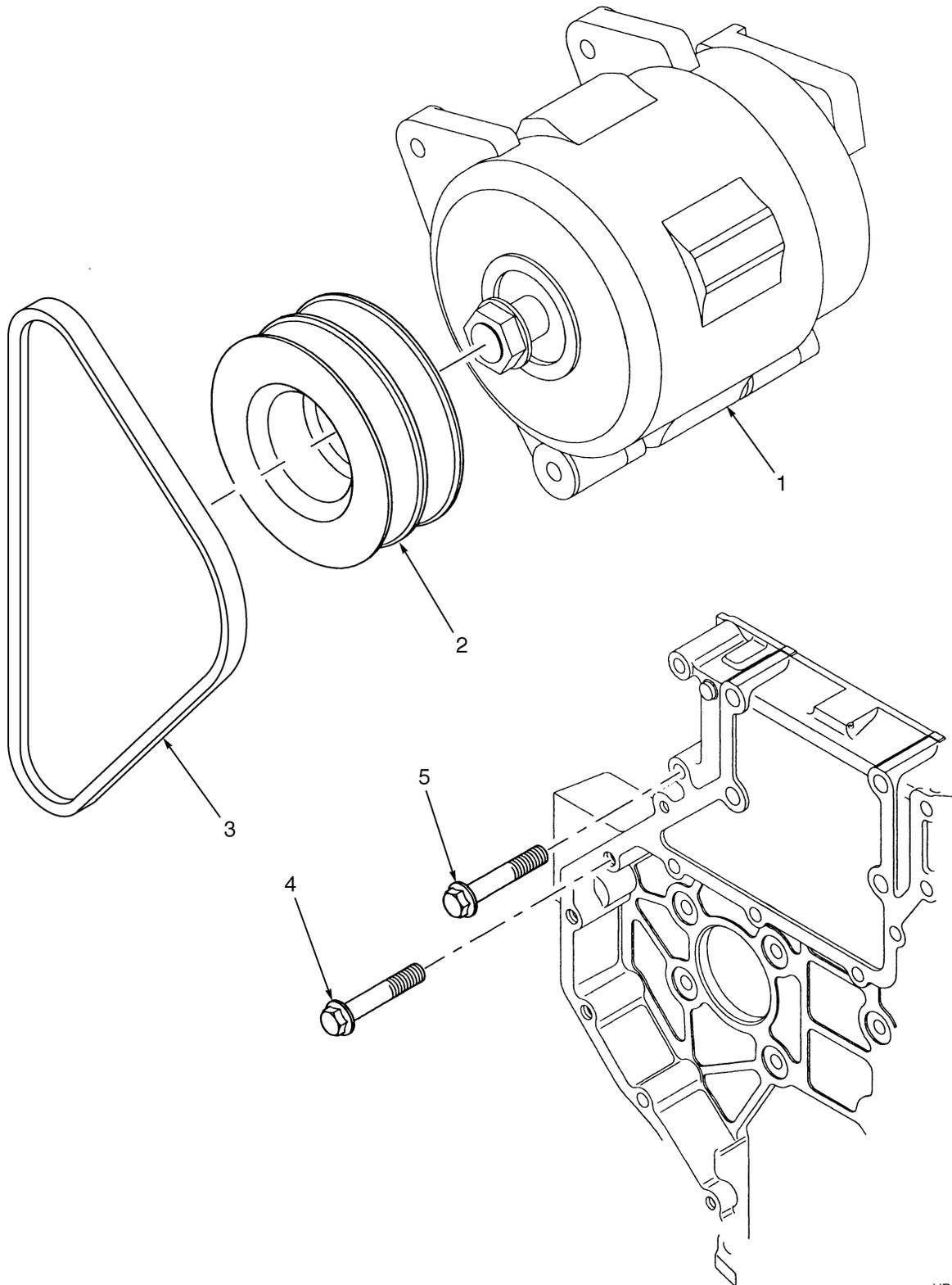


HP091055

**ALTERNATOR BRACKET AND ATTACHING PARTS
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1556257	Bracket	1
2	1307879	Screw	1
3	1307898	Screw	1
4	296418	Washer	2
5	1454156	Locknut	2
6	1556260	Plate	1
7	1306357	Screw	2
8	1307881	Screw	4
9	1307910	Capscrew	1
10	1556258	Lever	1
11	1306355	Screw	1
12	1464115	Spacer	1
13	1306358	Screw	1

ALTERNATOR AND PULLEY (FIGURE 4-12) PERKINS DIESEL

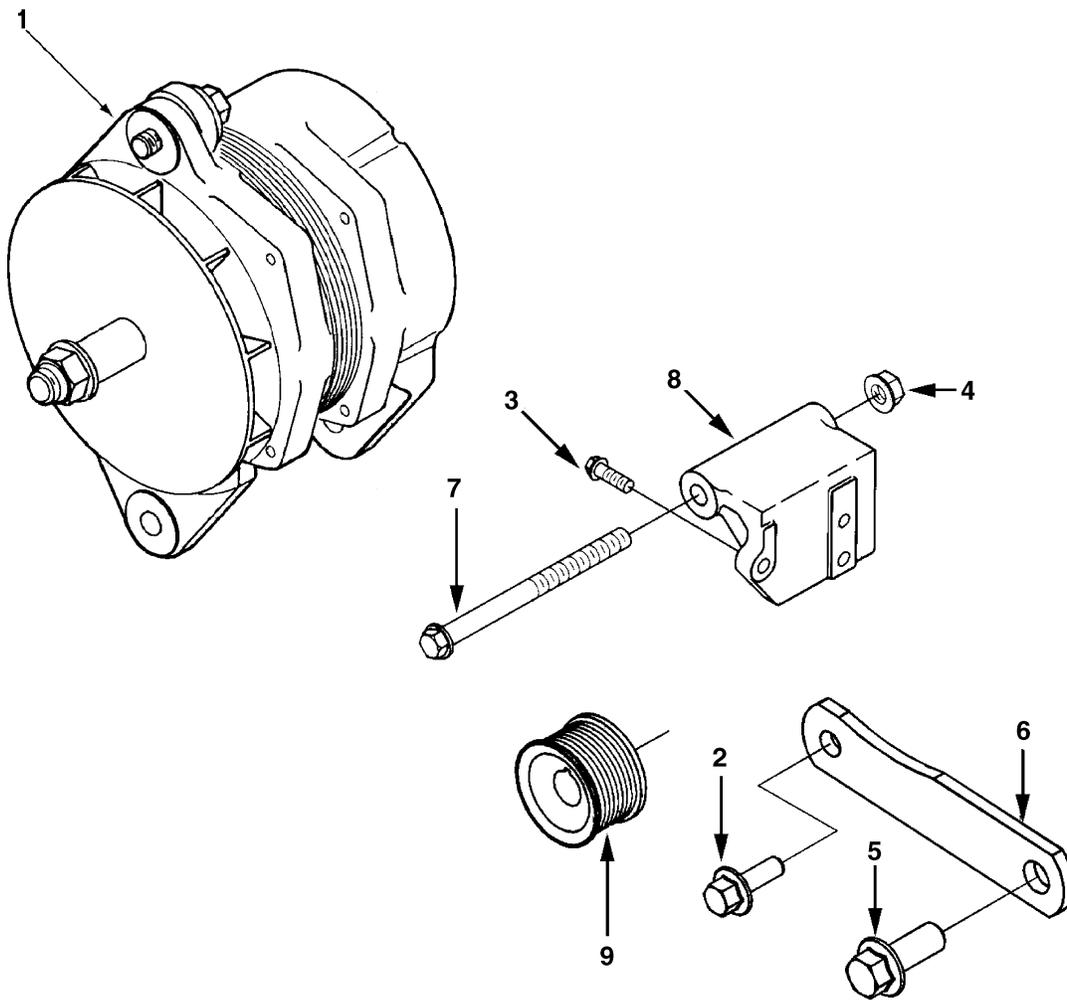


HP091054

**ALTERNATOR AND PULLEY
PERKINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	1536378	Engine Assy-Diesel (1106C-E60TA, With Dry Brake)	1
	1536379	Engine Assy-Diesel (1106C-E60TA, With Wet Brake) (Wet Brake)	1
1	1556256	Alternator	1
2	1556259	Pulley	1
3	1520833	V-Belt	2
4	1306362	Screw	2
5	1306357	Screw	1

ALTERNATOR AND MOUNTING (FIGURE 4-13) CUMMINS DIESEL



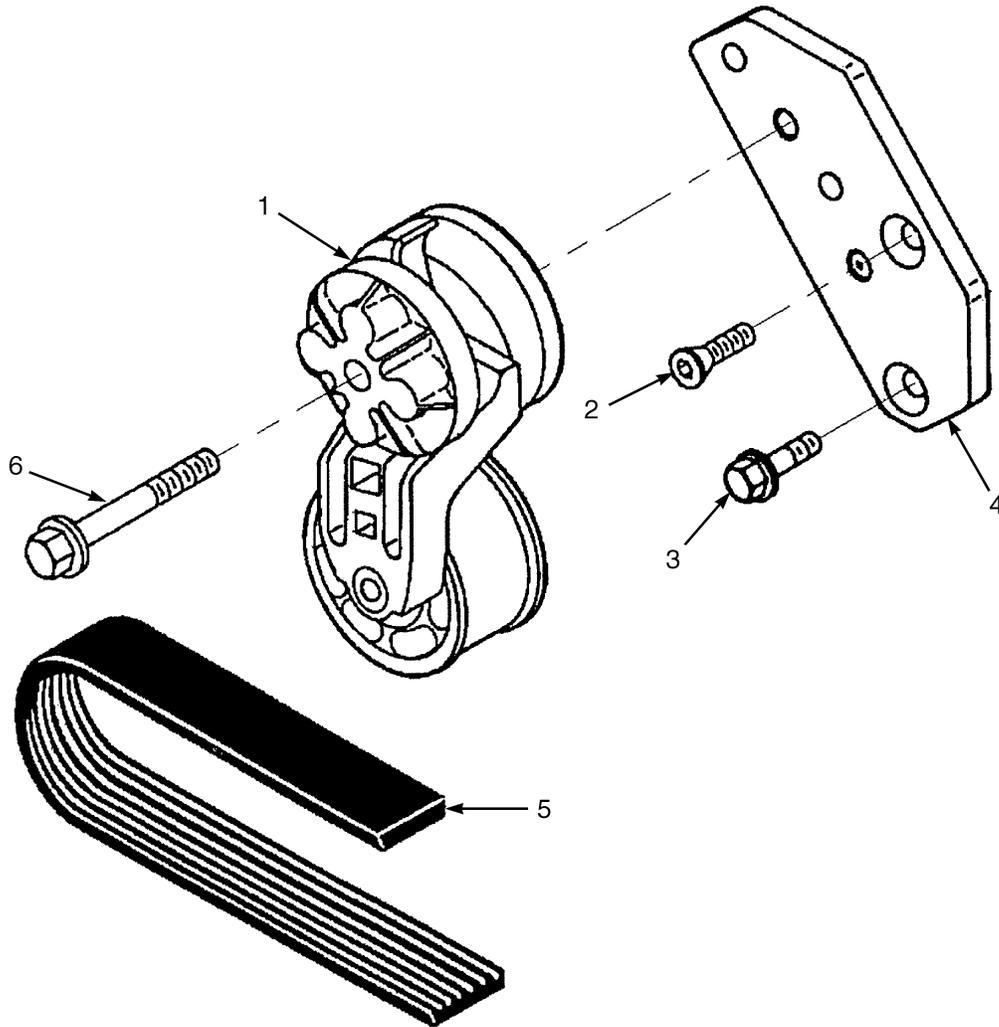
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**ALTERNATOR AND MOUNTING
CUMMINS DIESEL**

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	c 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	c 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	a 1512631	Alternator	1
1	b 1588820	Alternator	1
1	d 1649349	Alternator	1
2	1512003	Capscrew	1
3	1512005	Capscrew	3
4	1511978	Nut	1
5	1512503	Capscrew	1
6	1543352	Brace	1
7	1512006	Capscrew	1
8	1543351	Support	1
9	1521827	Pulley	1

FOOTNOTES:**a** → S/N G007E02037C**c** S/N G007E02038C →**b** S/N G007E02038C ↔ 10/2006**d** 11/2006 →

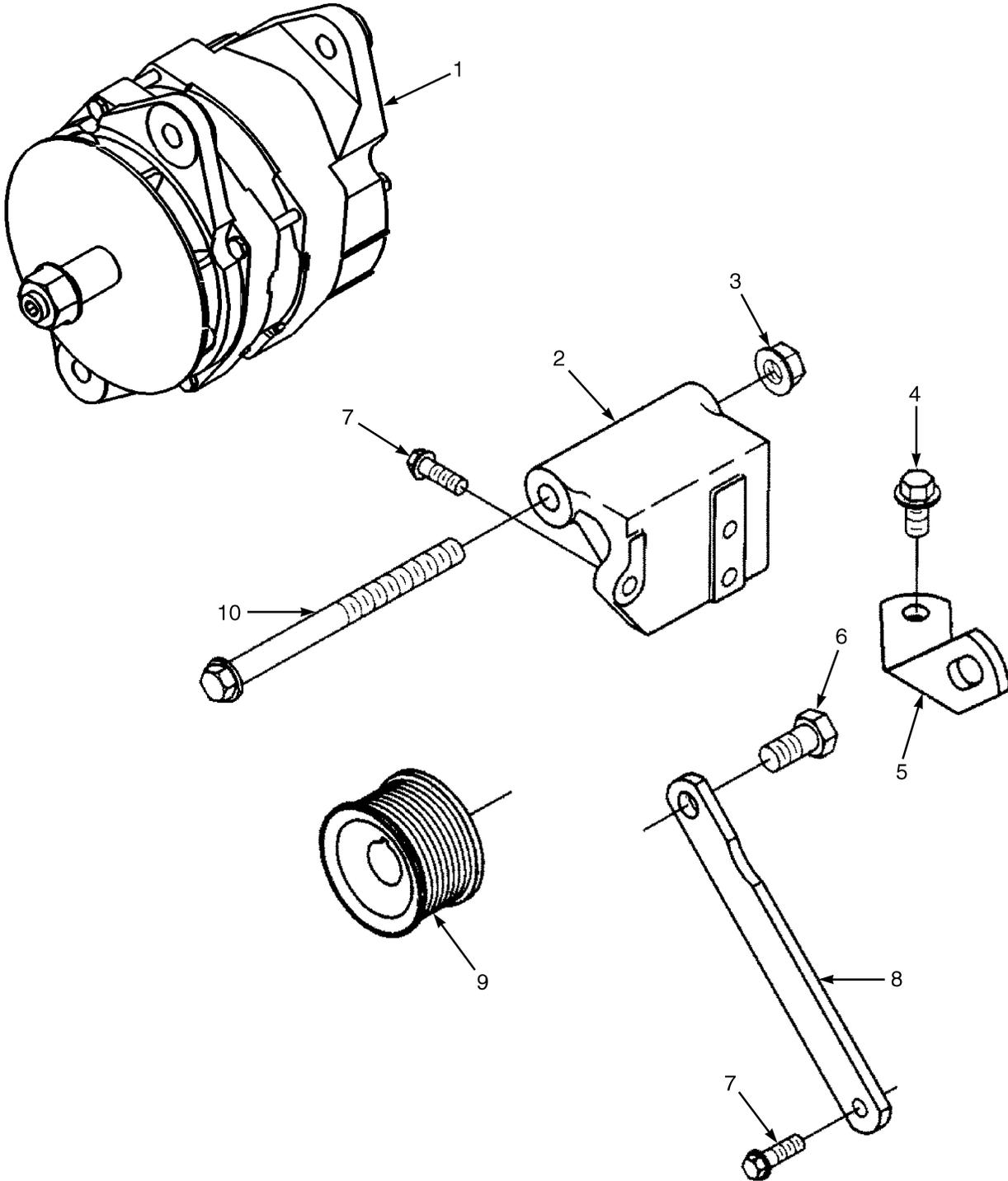
ACCESSORY DRIVE BELT AND TENSIONER (FIGURE 4-14) CUMMINS LPG



BP080439

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614627	Belt Tensioner	1
2	1514359	Screw	1
3	1512005	Capscrew	1
4	1614546	Bracket	1
5	1614464	V-Belt	1
6	1614515	Capscrew	1

ALTERNATOR AND MOUNTING (FIGURE 4-15) CUMMINS LPG



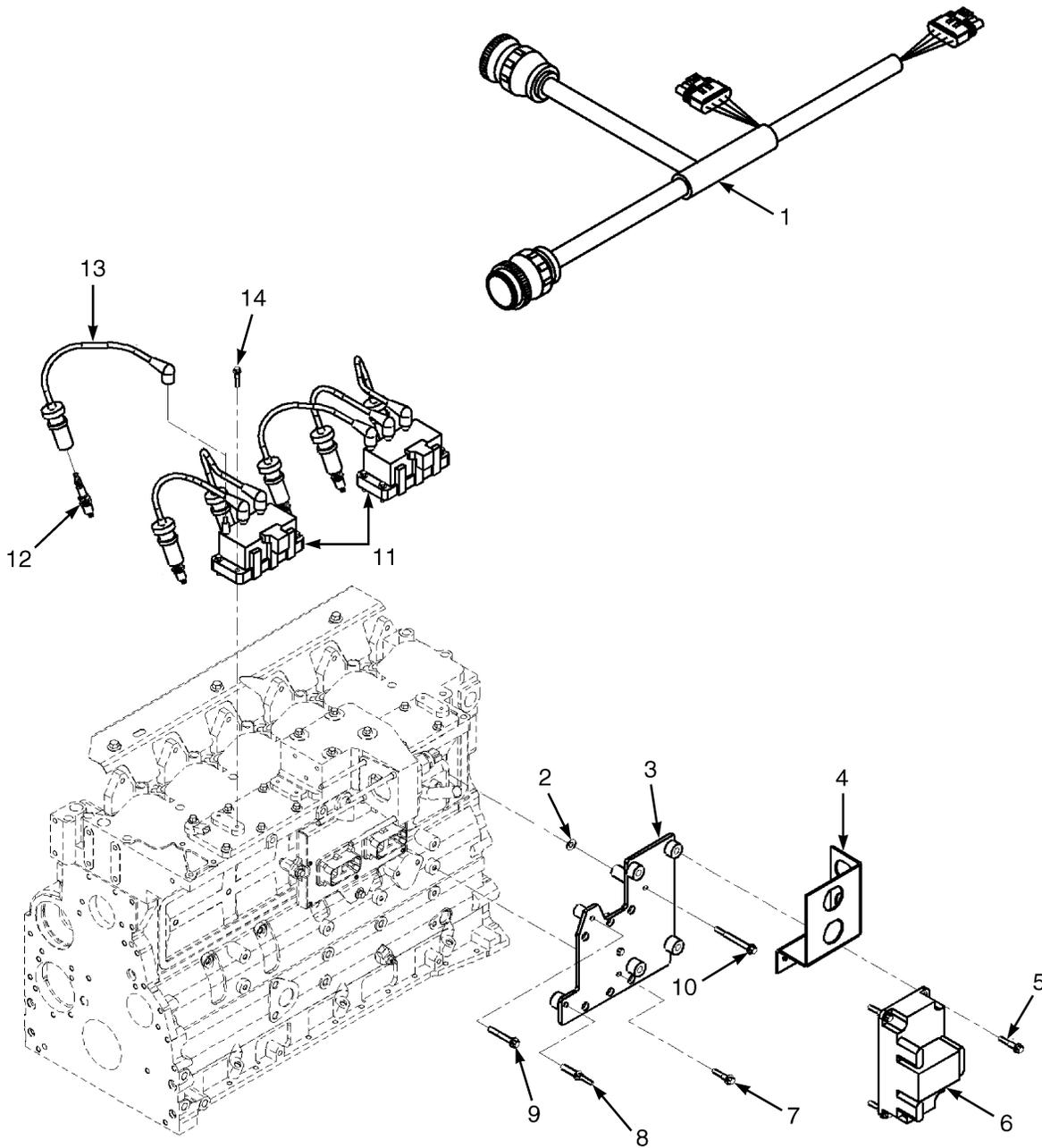
BP080438

**ALTERNATOR AND MOUNTING
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	a 1588820	Alternator	1
1	b 1649349	Alternator	1
2	1543351	Support	1
3	1511978	Nut	1
4	1512328	Capscrew	1
5	1614523	Brace	1
6	1512003	Capscrew	1
7	1512005	Capscrew	4
8	1614534	Brace	1
9	1521827	Pulley	1
10	1614526	Capscrew	1

FOOTNOTES:**a** → 10/2006**b** 11/2006 →

ENGINE IGNITION SYSTEM (FIGURE 4-16) CUMMINS LPG

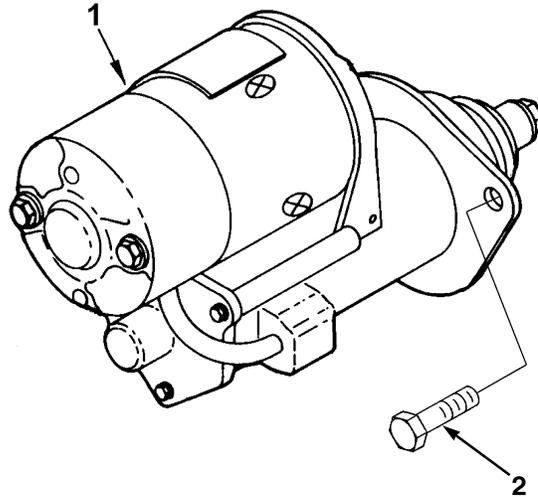


BP080440

**ENGINE IGNITION SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1614598	Wire Harness	1
2	1511969	Seal	1
3	1614592	Bracket	1
4	1614599	Bracket	1
5	1565007	Capscrew	4
6	1614616	Control Module (Ignition)	1
7	1614516	Capscrew	1
8	1614545	Capscrew	1
9	1512033	Capscrew	2
10	1514535	Screw	1
11	1614584	Ignition Coil	2
12	. . . . .	Spark Plug	1
13	1614605	Ignition Cable	6
14	1513791	Screw	8
	1614641	Spark Plug	6

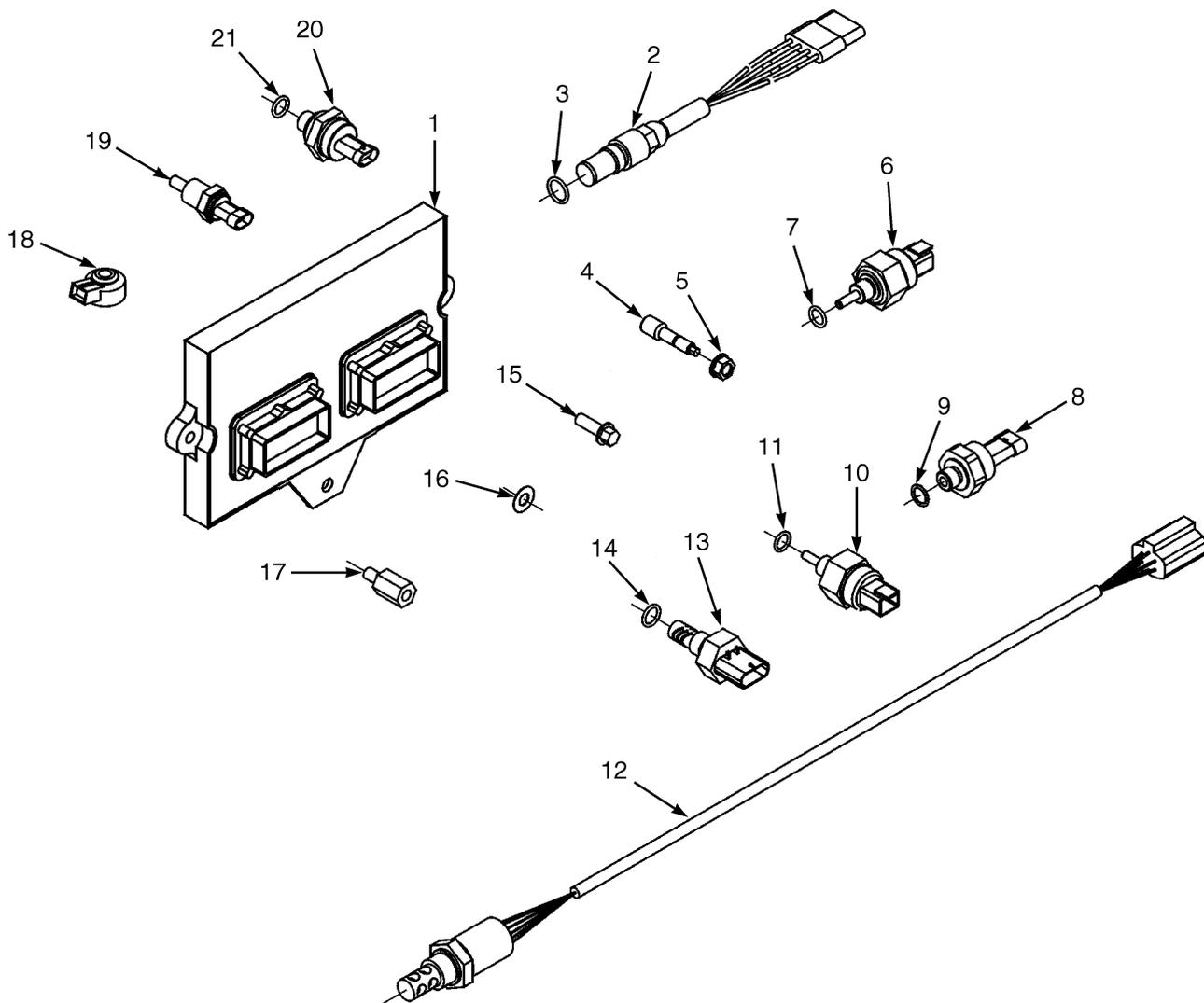
STARTER MOTOR (FIGURE 4-17) CUMMINS LPG



HP091171

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1552880	Starter	1
2	1588828	Capscrew	2

ENGINE CONTROL SYSTEM (FIGURE 4-18) CUMMINS LPG

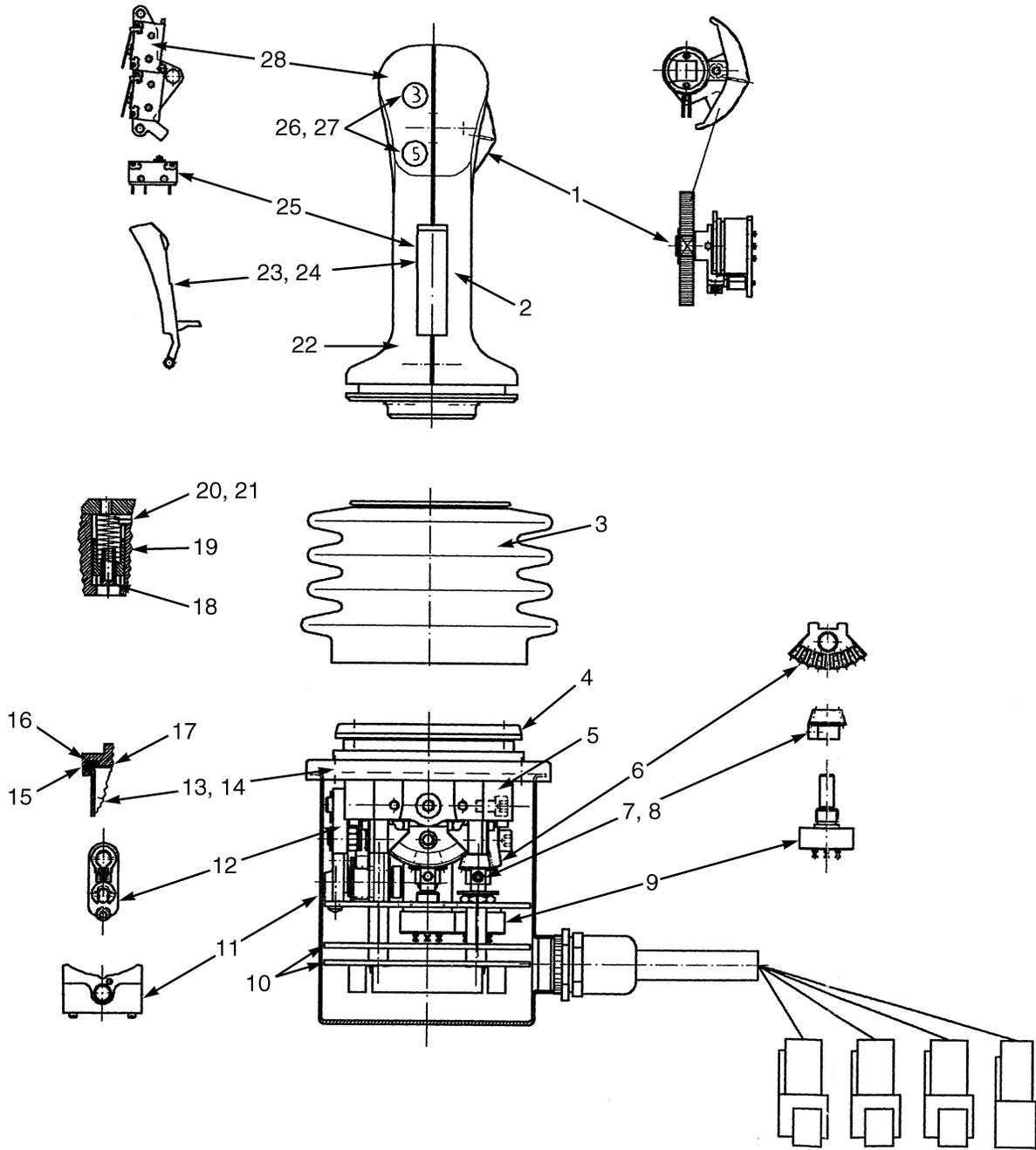


BP080441

**ENGINE CONTROL SYSTEM
CUMMINS LPG**

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	.....	Control Module (Electronic)	1
2	1568719	Sensor (Camshaft Position)	1
3	1511961	O-Ring	1
4	1614632	Stud	1
5	1513712	Nut	1
6	1662042	Sensor (Temperature)	1
7	1517116	O-Ring	1
8	1662045	Sensor (Pressure)	1
9	1512588	O-Ring	1
10	1674275	Thermal Sensor (Pressure)	1
11	1515836	O-Ring	1
12	1614636	Sensor	1
13	1614640	Sensor	1
14	1614638	O-Ring	1
15	1512005	Capscrew	2
16	1511969	Seal	2
17	1517122	Spacer	2
18	1614491	Sensor (Knock)	1
19	1543436	Sensor (Coolant)	1
20	1662044	Sensor (Pressure)	1
21	1517116	O-Ring	1

JOYSTICK ASSEMBLY (FIGURE 4-19)

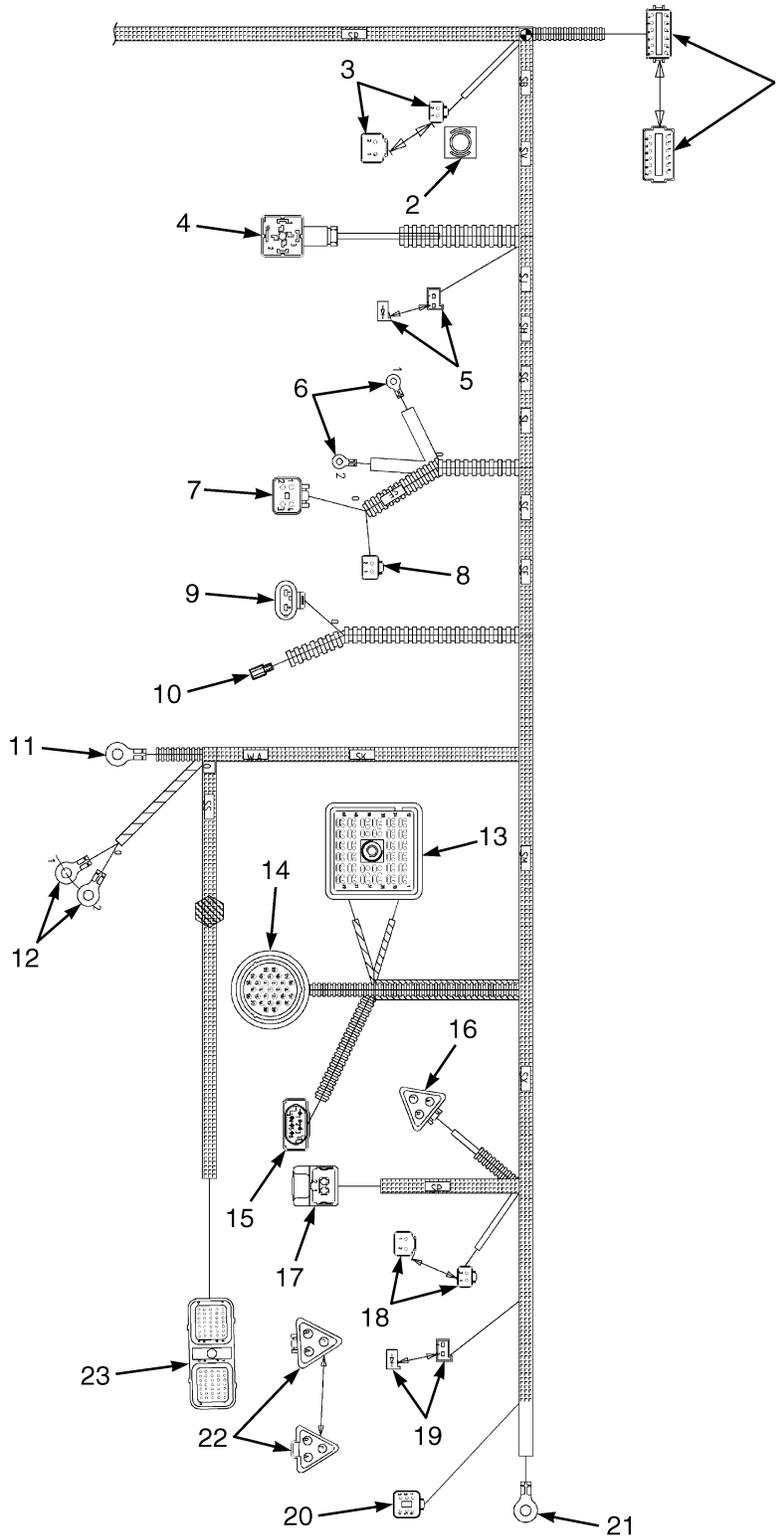


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JOYSTICK ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	1504059	Joystick	1
1	1584827	Potentiometer	1
1	1584828	Switch (See Saw)	1
2	1584848	Grip (LH)	1
3	1584846	Boot	1
4	1584835	Gate	1
5	1584829	Drive Assy-Upper Mechanical	1
6	1584834	Bevel Gear	1
7	1584838	Bevel Gear	2
8	1504917	Pin	2
9	1584837	Potentiometer	2
10	1584867	Printed Circuit Board	1
11	1584836	Bearing (Detent)	2
12	1584839	Plate (Complete)	2
13	1584843	Housing	1
14	1584844	Screw	4
15	1584845	Gasket	1
16	1584841	Gasket	1
17	1584842	Gasket	1
18	1584833	Screw	4
19	1584830	Plunger	4
20	1584831	Spring	4
21	1584832	Spring	4
22	1584847	Grip (RH)	1
23	1584824	Twistlock	1
24	1584825	Spring	1
25	1584826	Microswitch	1
26	1584852	Push Button (Red)	2
27	1584853	Spring	2
28	1584854	Contact	1

WIRE HARNESS (FIGURE 4-20) CHASSIS, PERKINS DIESEL — SHEET 1 OF 2



HP081890

WIRE HARNESS
CHASSIS, PERKINS DIESEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	2062050	Wire Harness (Chassis)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1363886	Terminal (Socket)	2
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1500925	Connector	1
1	1352603	Connector	1
1	1330439	Plug	12
2	1607774	Label	1
3	.....	Connector Assembly (RH Hub Temperature)	1
3	1490242	Connector	1
3	1490243	Connector	1
3	1330438	Terminal (Socket)	2
3	1493465	Connector	2
4	.....	Connector Assembly (Park Brake Solenoid)	1
4	1493449	Connector Body	1
4	1484394	Crimp Ferrule	2
4	1570616	Seal	1
5	.....	Connector Assembly (Park Brake Diode)	1
5	1582102	Housing	1
5	1484718	Terminal (Socket)	2
5	1582103	Diode	1
6	.....	Connector Assembly (Battery Box)	1
6	1493459	Ring	2
6	1484383	Heat Shrink	1
6	1516237	Heat Shrink	1
7	.....	Connector Assembly (Fuse Box Connector)	1
7	1489656	Connector (4-Way)	1
7	1489657	Connector	1
7	1330438	Terminal (Socket)	4
8	.....	Connector Assembly (Fuel Pump Relay)	1
8	1545202	Connector	1
8	1546697	Connector	1
8	1363886	Terminal (Socket)	2
9	.....	Connector Assembly (Turbine Speed)	1
9	1508206	Connector (2 Way)	1
9	2787349	Terminal	2
9	2060555	Wire Seal	2
10	.....	Connector Assembly (Converter Output Temperature Switch)	1
10	1484598	Terminal	1
10	1484651	Cover	1
11	.....	Connector Assembly (24V)	1
11	1493455	Ring	1
11	1516237	Heat Shrink	1
12	.....	Connector Assembly (Ground)	1
12	1493455	Ring	2
12	1493443	Heat Shrink	2
13	.....	Connector Assembly (Cab Signals)	1

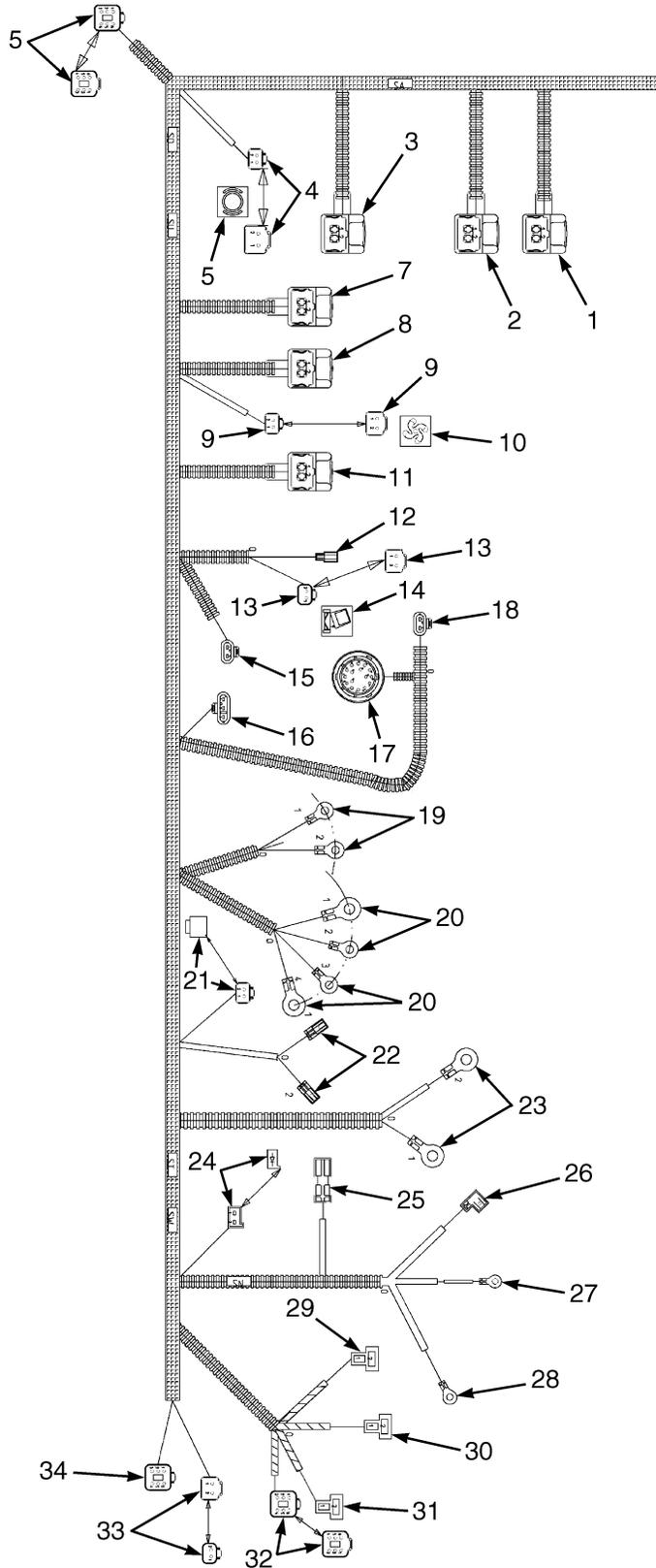
WIRE HARNESS CHASSIS, PERKINS DIESEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
13	1493431	Housing (Socket)	1
13	1493432	Retainer (Socket)	1
13	1463141	Terminal (Socket)	49
13	1330438	Terminal (Socket)	6
13	1363886	Terminal (Socket)	5
14	.....	Connector Assembly (Cab Supplies)	1
14	1484650	Connector (Socket)	1
14	1363886	Terminal (Socket)	2
14	1518112	Terminal (Socket)	2
14	1330438	Terminal (Socket)	27
15	.....	Connector Assembly (Accelerator Pedal)	1
15	1569973	Connector Body	1
15	1607776	Terminal (Plug)	1
15	1525596	Terminal	5
15	1569975	Seal	5
16	.....	Connector Assembly (Separator)	1
16	1484397	Connector (3-Way)	1
16	1463194	Connector	1
16	1330438	Terminal (Socket)	3
17	.....	Connector Assembly (Air Filter)	1
17	1493435	Connector (2-Way)	1
17	1493436	Terminal (Socket)	2
17	1479109	Seal	2
18	.....	Connector Assembly (Air Dryer)	1
18	1490242	Connector	1
18	1490243	Connector	1
18	1330438	Terminal (Socket)	2
18	1493465	Connector	1
18	1330439	Plug	2
19	.....	Connector Assembly (Air Dryer Diode)	1
19	1582102	Housing	1
19	1484718	Terminal (Socket)	2
19	1582103	Diode	1
20	.....	Connector Assembly (RH Rear Lamps)	1
20	1493430	Connector	1
20	1529052	Connector	1
20	1330439	Plug	1
20	1330438	Terminal (Socket)	5
21	.....	Connector Assembly (Coolant Level)	1
21	1493448	E-Ring	1
21	1484383	Heat Shrink	1
22	.....	Connector Assembly (Terminating Resistor)	1
22	1484397	Connector (3-Way)	1
22	1610944	Lock	1
22	1330439	Plug	1
22	1518112	Terminal (Socket)	2
22	1607772	Connector (Termination)	1
23	.....	Connector Assembly (Machine Interface)	1
23	1607773	Housing	1
23	1330439	Plug	54

WIRE HARNESS
CHASSIS, PERKINS DIESEL – SHEET 1 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
23	1518112	Terminal (Socket)	14
23	1607781	Terminal	2

WIRE HARNESS (FIGURE 4-21) CHASSIS, PERKINS DIESEL — SHEET 2 OF 2



HP081889

WIRE HARNESS
CHASSIS, PERKINS DIESEL – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
	2062050	Wire Harness (Chassis)	1
1	.....	Connector Assembly (Lift, Green Housing)	1
1	1493447	Connector	1
1	1493436	Terminal (Socket)	2
1	1479109	Seal	2
1	1502922	Adapter	1
2	.....	Connector Assembly (Auxiliary, Brown Housing)	1
2	1493446	Connector	1
2	1493436	Terminal (Socket)	2
2	1479109	Seal	2
3	.....	Connector Assembly (Tilt, Black Housing)	1
3	1493435	Connector (2-Way)	1
3	1493436	Terminal (Socket)	2
3	1479109	Seal	2
4	.....	Connector Assembly (LH Hub Temperature)	1
4	1490242	Connector	1
4	1490243	Connector	1
4	1330438	Terminal (Socket)	2
4	1493465	Connector	1
4	1330439	Plug	2
5	1607774	Label	1
6	.....	Connector Assembly (Front Lamps)	1
6	1493430	Connector	1
6	1529052	Connector	1
6	1363886	Terminal (Socket)	2
6	1330438	Terminal (Socket)	4
6	1525589	Connector	1
6	1330439	Plug	6
7	.....	Connector Assembly (Tilt, Black Housing)	1
7	1493435	Connector (2-Way)	1
7	1493436	Terminal (Socket)	2
7	1479109	Seal	2
8	.....	Connector Assembly (Auxiliary, Brown Housing)	1
8	1493446	Connector	1
8	1493436	Terminal (Socket)	2
8	1479109	Seal	2
9	.....	Connector Assembly (Hydraulic Cooler)	1
9	1490242	Connector	1
9	1490243	Connector	1
9	1330438	Terminal (Socket)	2
9	1493465	Connector	1
9	1330439	Plug	2
10	1607775	Label	1
11	.....	Connector Assembly (Lower, Green Housing)	1
11	1493447	Connector	1
11	1493436	Terminal (Socket)	2
11	1479109	Seal	2
12	.....	Connector Assembly (Fuel Sender)	1
12	1484598	Terminal	1
12	1484651	Cover	1

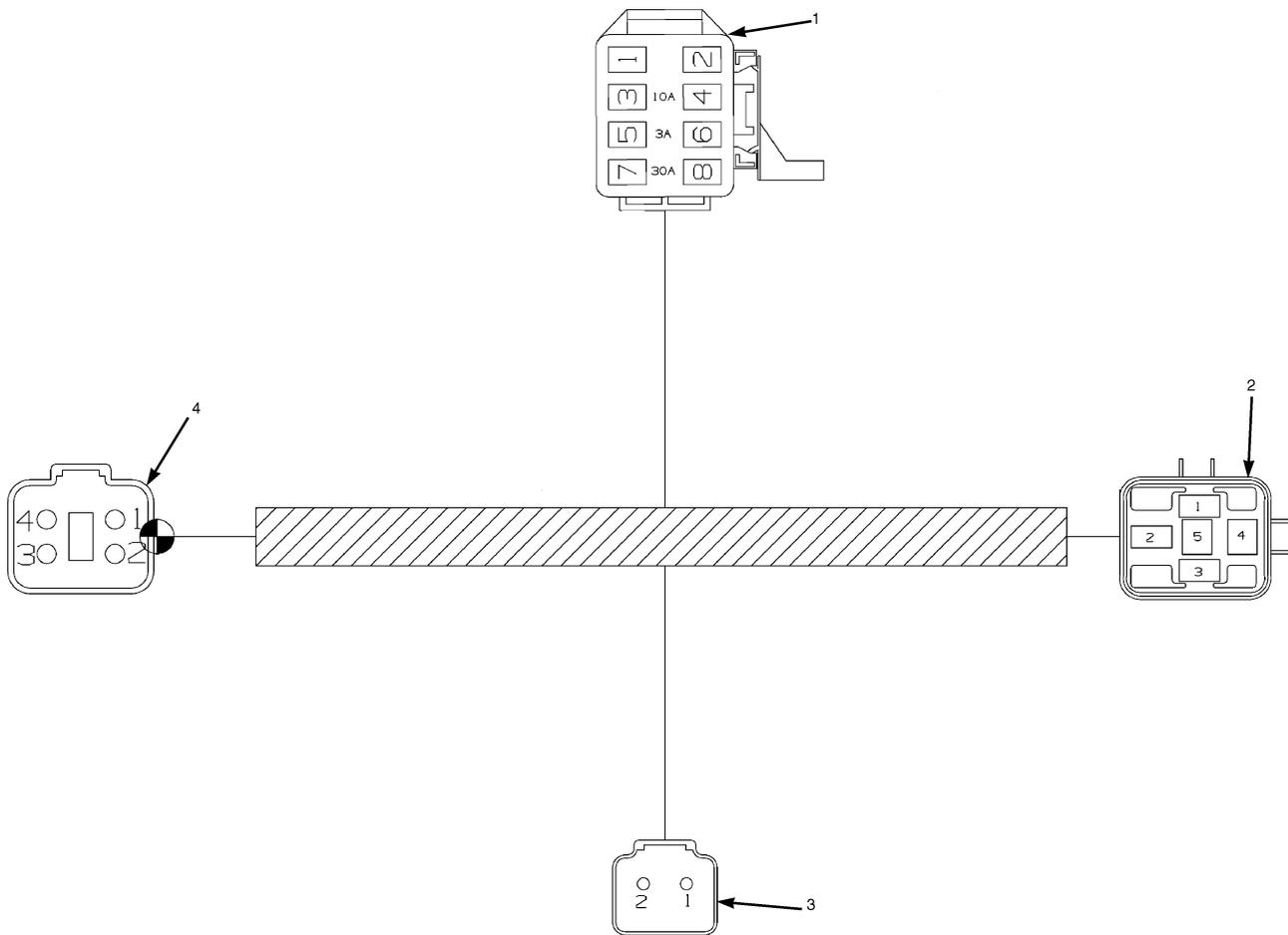
WIRE HARNESS CHASSIS, PERKINS DIESEL – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
13	.....	Connector Assembly (Cab Tilt Power)	1
13	1490242	Connector	1
13	1490243	Connector	1
13	1363886	Terminal (Socket)	2
13	1493465	Connector	1
13	1330439	Plug	2
14	1605545	Label	1
15	.....	Connector Assembly (Output Speed Sensor)	1
15	1508206	Connector (2 Way)	1
15	2787349	Terminal	2
15	2060555	Wire Seal	2
16	.....	Connector Assembly (Engine Speed)	1
16	2787344	Connector (3 Way)	1
16	2787349	Terminal	3
16	2060555	Wire Seal	3
17	.....	Connector Assembly (Valve)	1
17	1607771	Boot	1
17	1598469	Connector (16-Way)	1
17	1598470	Terminal (Pin)	16
18	.....	Connector Assembly (Drum Speed)	1
18	1508206	Connector (2 Way)	1
18	2787349	Terminal	2
18	2060555	Wire Seal	2
19	.....	Connector Assembly (Fuse)	1
19	1607801	Terminal (Ring)	2
19	1493443	Heat Shrink	2
20	.....	Connector Assembly (Start Solenoid)	1
20	1484383	Heat Shrink	4
20	1493459	Ring	2
20	1502921	Ring	1
20	1493448	E-Ring	1
21	.....	Connector Assembly (Resistor)	1
21	1490242	Connector	1
21	1490243	Connector	1
21	1330438	Terminal (Socket)	2
22	.....	Connector Assembly (Resistor)	1
22	1484375	Terminal	2
22	1484651	Cover	2
23	.....	Connector Assembly (Start)	1
23	1493455	Ring	1
23	1493443	Heat Shrink	1
23	1484383	Heat Shrink	1
23	1502921	Ring	1
24	.....	Connector Assembly (Back-Up Diode)	1
24	1582102	Housing	1
24	1484718	Terminal (Socket)	2
24	1582103	Diode	1
25	.....	Connector Assembly (Air Conditioner)	1
25	1493444	Terminal	1
25	1493445	Cover	1

WIRE HARNESS
CHASSIS, PERKINS DIESEL – SHEET 2 OF 2

ITEM	PART NO.	DESCRIPTION	QTY
26	.....	Connector Assembly (Thermo-Start)	1
26	1493439	Terminal	1
26	1493440	Boot	1
27	.....	Connector Assembly (Alternator Signals)	1
27	1493448	E-Ring	1
27	1484383	Heat Shrink	1
28	.....	Connector Assembly (Alternator)	1
28	1493457	Ring	1
28	1493443	Heat Shrink	1
29	.....	Connector Assembly (Rear Wash Pump)	1
29	1484395	Housing (Socket)	1
29	1484396	Terminal	2
30	.....	Connector Assembly (Roof Wash Pump)	1
30	1484395	Housing (Socket)	1
30	1484396	Terminal	2
31	.....	Connector Assembly (Front Wash Pump)	1
31	1484395	Housing (Socket)	1
31	1484396	Terminal	2
32	.....	Connector Assembly (Air Conditioner Condenser)	1
32	1493430	Connector	1
32	1529052	Connector	1
32	1330439	Plug	1
32	1363886	Terminal (Socket)	2
32	1330438	Terminal (Socket)	3
32	1525589	Connector	1
32	1330439	Plug	6
33	.....	Connector Assembly (Reverse Alarm)	1
33	1493465	Connector	1
33	1330414	Connector (Secondary Lock)	1
33	1330437	Terminal (Pin)	2
33	1330439	Plug	2
33	1490242	Connector	1
33	1490243	Connector	1
34	.....	Connector Assembly (LH Rear Lamps)	1
34	1493430	Connector	1
34	1529052	Connector	1
34	1330439	Plug	1
34	1330438	Terminal (Socket)	5

WIRE HARNESS (FIGURE 4-22) FUSE AND RELAY — PERKINS DIESEL

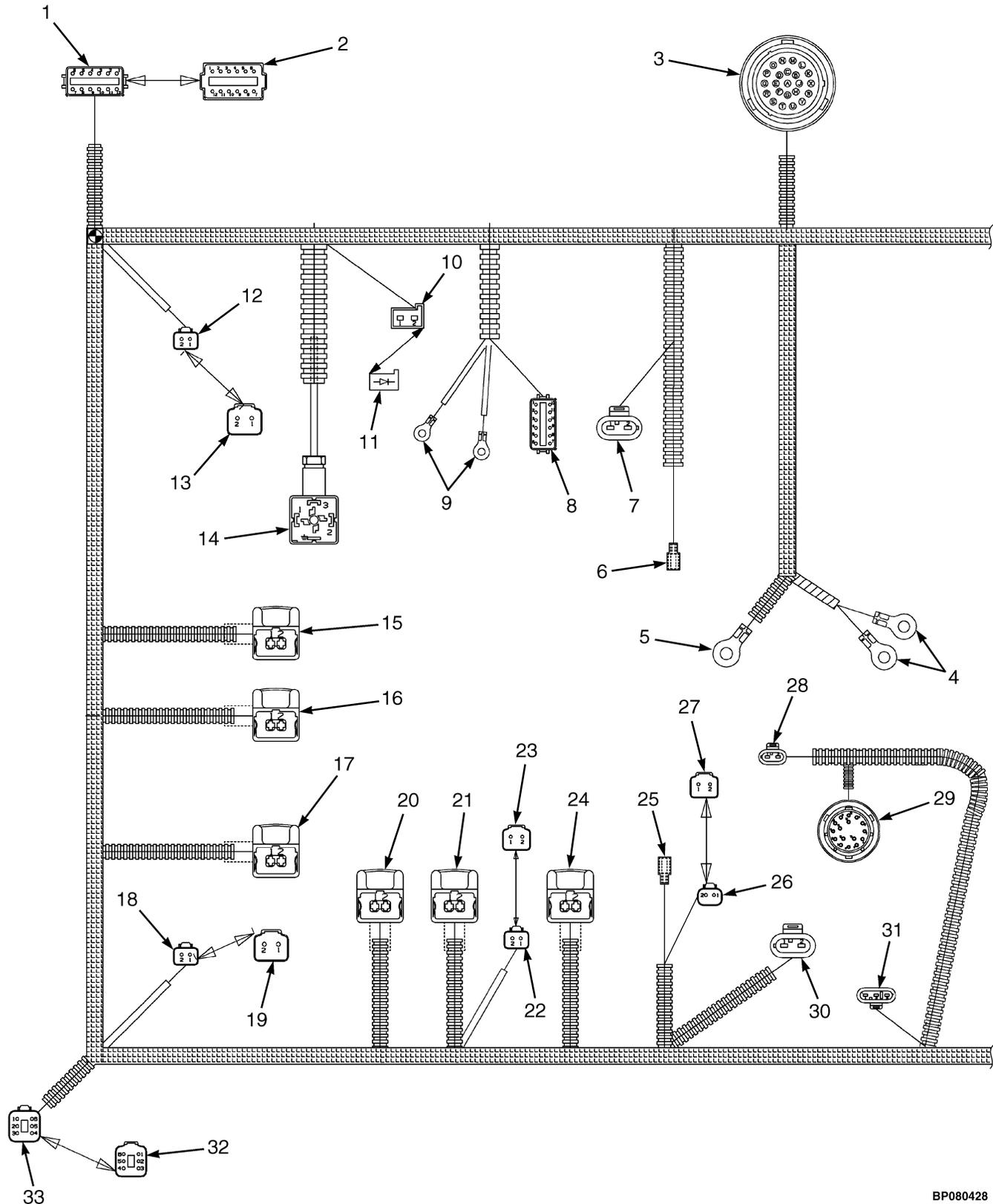


BP080534

ITEM	PART NO.	DESCRIPTION	QTY
	2062054	Wire Harness	1
1	1573113	Fuse Box	1
1	1573114	Cover	1
1	1573115	Terminal	6
1	1484715	Clip	1
1	370647	Fuse (10 Amp)	1
1	1337828	Fuse (3 Amp)	1
1	1320669	Fuse (30 Amp)	1
1	1573116	Cover	1
2	1607524	Socket	1
2	1484714	Clip	1
2	1607527	Cover	1
2	1607525	Terminal	2
2	1607532	Seal	4
2	1490251	Bridge (5-Way)	2
2	1607528	Seal	1
3	1607749	Housing	1
3	1480188	Connector	1

ITEM	PART NO.	DESCRIPTION	QTY
3	1484709	Terminal (Pin)	2
4	1489655	Connector (4 Way)	1
4	1330416	Connector	1
4	1330437	Terminal (Pin)	4
	3066781	Relay	1

WIRE HARNESS (FIGURE 4-23) CHASSIS, CUMMINS DIESEL — SHEET 1 OF 2 (→ 10/2004)



BP080428

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
	2062052	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector Assembly (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (Engine)	1
3	1503634	Connector	1
3	1484362	Terminal (Socket)	1
3	1330439	Plug	12
4	.....	Connector Assembly (Ground)	1
4	1493455	Ring	1
4	1493443	Heat Shrink	1
5	.....	Connector Assembly (+ 24 V)	1
5	1493455	Ring	1
5	1516237	Heat Shrink	1
6	1484598	Terminal	1
6	1484651	Cover	1
7	.....	Connector Assembly (Turbine Speed)	1
7	1508206	Connector (2 Way)	1
7	2787349	Terminal	2
7	2060555	Wire Seal	2
8	.....	Connector Assembly (Fuse Box)	1
8	1493428	Connector (12-Way)	1
8	1500913	Connector	1
8	1330438	Terminal (Socket)	2
8	1330438	Terminal (Socket)	10
9	.....	Connector Assembly (Battery Box)	1
9	1493459	Ring	2
9	1484383	Heat Shrink	1
9	1516237	Heat Shrink	1
10	.....	Connector Assembly (Park Brake Diode)	1
10	1610953	Diode	1
10	1484718	Terminal (Socket)	2
11	.....	Diode (Insert)	1
12	.....	Connector Assembly (RH Hub Temperature)	1
12	1490242	Connector	1
12	1490243	Connector	1
12	1330438	Terminal (Socket)	2
13	1502920	Connector (Insert)	1
14	.....	Connector Assembly (Park Brake Solenoid)	1
14	1493449	Connector Body	1
14	1484394	Crimp Ferrule	2
15	.....	Connector Assembly (Lift)	1
15	1493447	Connector	1
15	1493436	Terminal (Socket)	2

WIRE HARNESS

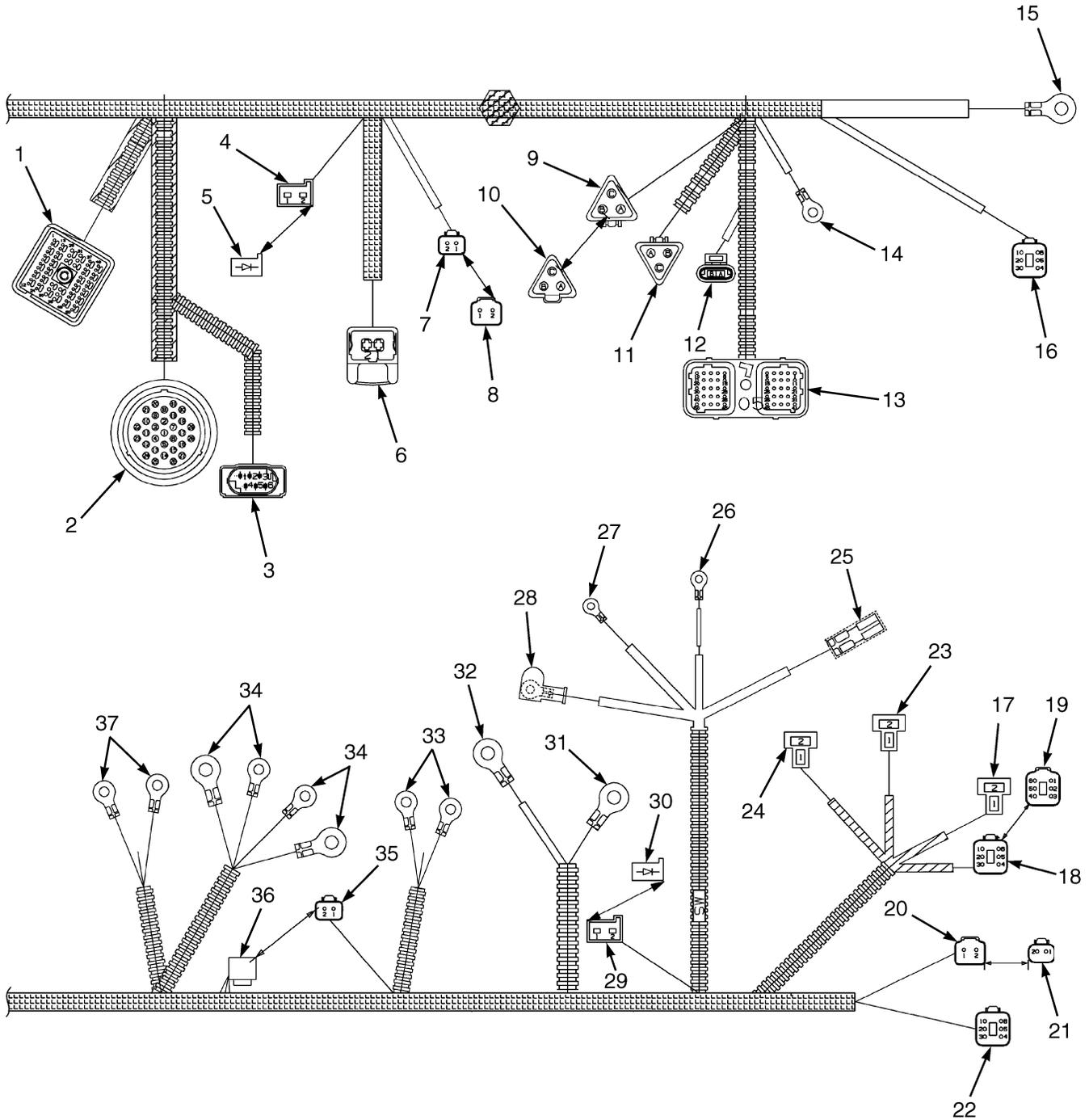
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
15	1479109	Seal	2
16	.....	Connector Assembly (Auxiliary)	1
16	1493446	Connector	1
16	1493436	Terminal (Socket)	2
16	1479109	Seal	2
17	.....	Connector Assembly (Tilt)	1
17	1493435	Connector (2-Way)	1
17	1493436	Terminal (Socket)	2
17	1479109	Seal	2
18	.....	Connector Assembly (LH Hub Temperature)	1
18	1490242	Connector	1
18	1490243	Connector	1
18	1330438	Terminal (Socket)	2
19	1502920	Connector (Insert)	1
20	.....	Connector Assembly (Tilt)	1
20	1493435	Connector (2-Way)	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Oil Cooler Harness)	1
22	1490242	Connector	1
22	1490243	Connector	1
22	1330438	Terminal (Socket)	2
23	1502920	Connector (Insert)	1
24	.....	Connector Assembly (Low)	1
24	1493447	Connector	1
24	1493436	Terminal (Socket)	2
24	1479109	Seal	2
25	.....	Connector Assembly (Fuel Sender)	1
25	1484598	Terminal	2
25	1484651	Cover	2
26	.....	Connector Assembly (Cab Tilt Power)	1
26	1490242	Connector	1
26	1490243	Connector	1
26	1484362	Terminal (Socket)	2
27	.....	Connector Assembly (Insert)	1
28	.....	Connector Assembly (Drum Speed)	1
28	1508206	Connector (2 Way)	1
28	2787349	Terminal	2
28	2060555	Wire Seal	2
29	.....	Connector Assembly (Valve)	1
29	1607771	Boot	1
29	1598469	Connector (16-Way)	1
29	.....	Connector	16
30	.....	Connector Assembly (Output Speed)	1
30	1508206	Connector (2 Way)	1
30	2787349	Terminal	2

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
30	2060555	Wire Seal	2
31	.....	Connector Assembly (Engine Speed)	1
31	2787344	Connector (3 Way)	1
31	2787349	Terminal	3
31	2060555	Wire Seal	3
32	1500914	Housing (Insert)	1
33	.....	Connector Assembly (Lamps)	1
33	1493430	Connector	1
33	1463194	Connector	1
33	1484362	Terminal (Socket)	2
33	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-24) CHASSIS, CUMMINS DIESEL — SHEET 2 OF 2 (→ 10/2004)



BP080429

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
	2062052	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	48
1	1330438	Terminal (Socket)	7
1	1484362	Terminal (Socket)	4
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1363886	Terminal (Socket)	1
2	1330438	Terminal (Socket)	26
2	1330439	Plug	1
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1569973	Connector Body	1
3	1525596	Terminal	6
3	1569975	Seal	6
4	.....	Connector Assembly (Air Dryer Diode)	1
4	1484718	Terminal (Socket)	2
5	.....	Diode (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1484395	Housing (Socket)	1
6	1484396	Terminal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	2
7	1330438	Terminal (Socket)	1
8	1502920	Connector (Insert)	1
9	.....	Connector Assembly (Terminating Resistor)	1
9	1484397	Connector (3-Way)	1
9	1610944	Lock	1
9	1518112	Terminal (Socket)	1
9	1330439	Plug	2
10	1607772	Connector (Termination) (Insert)	1
11	.....	Connector Assembly (CAN Connector)	1
11	1484397	Connector (3-Way)	1
11	1463194	Connector	1
11	1518112	Terminal (Socket)	2
11	1330439	Plug	1
12	.....	Connector Assembly (Water In Fuel Sensor)	1
12	1323586	Connector	1
12	1323576	Terminal	2
13	.....	Connector Assembly (ECM)	1
13	1611032	Socket (Socket)	1
13	1484377	Plug	41
13	1507725	Terminal	9
14	.....	Connector Assembly (Engine Oil Pressure)	1
14	1493448	E-Ring	1
14	1484383	Heat Shrink	1
15	.....	Connector Assembly (Coolant Level)	1

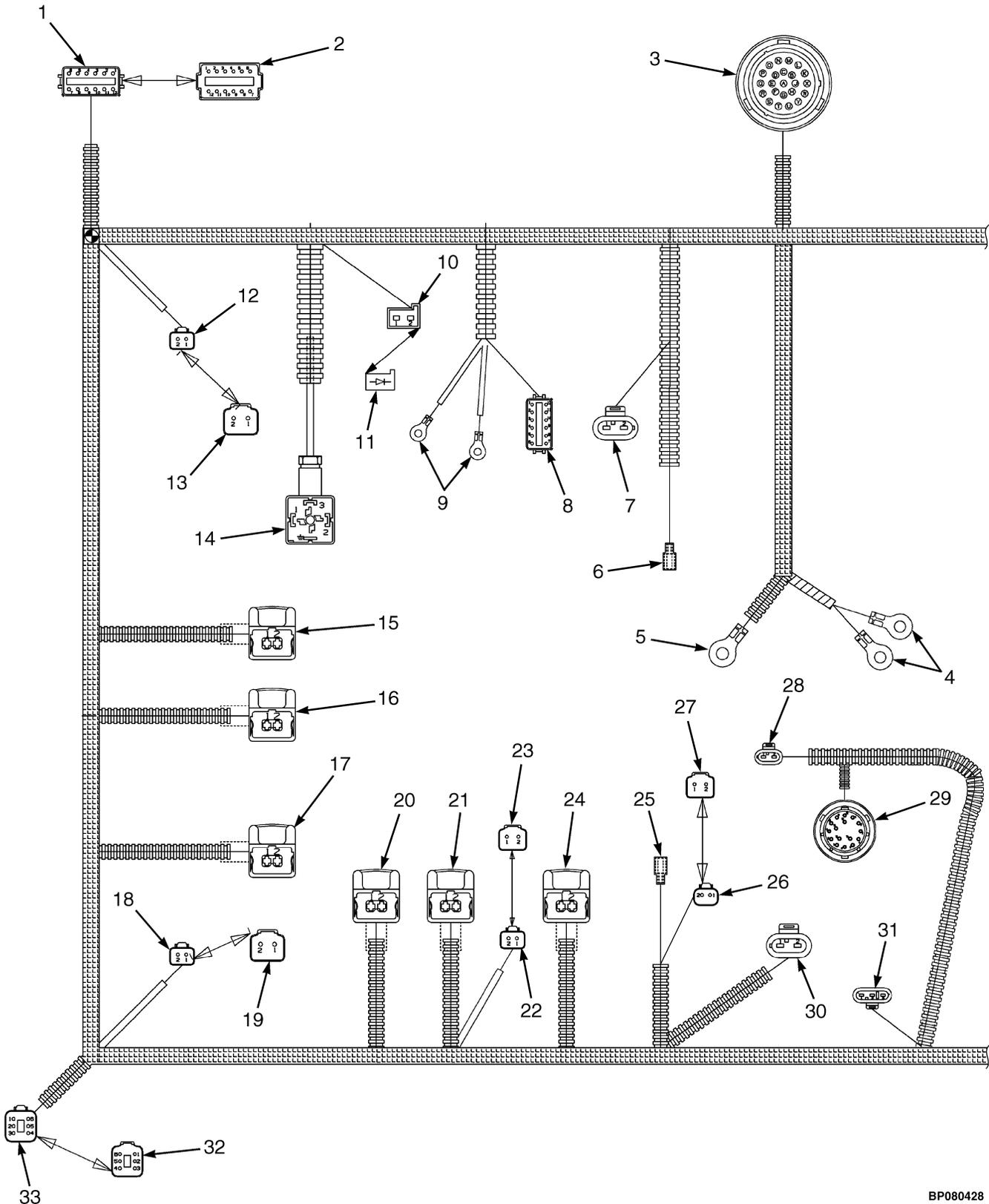
WIRE HARNESS CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
15	1493448	E-Ring	1
15	1484383	Heat Shrink	1
16	.....	Connector Assembly (RH Rear Lamp)	1
16	1493430	Connector	1
16	1463194	Connector	1
16	1330438	Terminal (Socket)	5
16	1330439	Plug	1
17	.....	Connector Assembly (Front Window Washer Pump)	1
17	1484395	Housing (Socket)	1
17	1484396	Terminal	2
18	.....	Connector Assembly (Air Conditioner Condensor)	1
18	1493430	Connector	1
18	1463194	Connector	1
18	1484362	Terminal (Socket)	2
18	1330438	Terminal (Socket)	3
18	1330439	Plug	1
19	1500914	Housing (Insert)	1
20	.....	Connector Assembly (Reverse Alarm)	1
20	1502920	Connector	1
20	1330414	Connector (Secondary Lock)	1
20	1330437	Terminal (Pin)	2
21	.....	Insert	1
21	1490242	Connector	1
21	1490243	Connector	1
22	.....	Connector Assembly (LH Rear Lamp)	1
22	1493430	Connector	1
22	1463194	Connector	11
22	1330438	Terminal (Socket)	5
22	1330439	Plug	1
23	.....	Connector Assembly (Roof Window Washer Pump)	1
23	1484395	Housing (Socket)	1
23	1484396	Terminal	2
24	.....	Connector Assembly (Rear Window Washer Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (AC)	1
25	1493444	Terminal	1
25	1493445	Cover	1
26	.....	Connector Assembly (Alternator Ground)	1
26	1496883	Ring	1
26	1484383	Heat Shrink	1
27	.....	Connector Assembly (Alternator)	1
27	1493448	E-Ring	1
27	1484383	Heat Shrink	1
28	.....	Connector Assembly (Alternator + VE)	1
28	1493457	Ring	1
28	1516237	Heat Shrink	1
29	.....	Connector Assembly (Backup Diode)	1
29	1610953	Diode	1
29	1484718	Terminal (Socket)	2

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (→ 10/2004)

ITEM	PART NO.	DESCRIPTION	QTY
30	.....	Diode (Insert)	1
31	.....	Connector Assembly (+ 24 V)	1
31	1493455	Ring	1
31	1493441	Housing	1
32	.....	Connector Assembly (Start)	1
32	1502921	Ring	1
32	1484383	Heat Shrink	1
33	.....	Connector Assembly (Grid Heater Relay)	1
33	1493448	E-Ring	2
33	1493443	Heat Shrink	2
34	.....	Connector Assembly (Start Solenoid)	1
34	1493459	Ring	2
34	1484383	Heat Shrink	4
34	1502921	Ring	1
34	1493448	E-Ring	1
35	.....	Connector Assembly (Resistor Harness)	1
35	1490242	Connector	1
35	1490243	Connector	1
35	1330438	Terminal (Socket)	2
36	2058005	Wire Harness (Resistor) (Insert)	1
36	1493465	Connector	1
36	1330414	Connector (Secondary Lock)	1
36	1330437	Terminal (Pin)	2
36	1484598	Terminal	2
36	1484651	Cover	2
36	1561540	Warning Light (Red)	1
37	.....	Connector Assembly (Fuse)	1
37	1607801	Terminal (Ring)	2
37	1493443	Heat Shrink	2

WIRE HARNESS (FIGURE 4-25) CHASSIS, CUMMINS DIESEL — SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)



BP080428

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
	2075183	Wire Harness (Chassis)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector Assembly (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (Engine)	1
3	1503634	Connector	1
3	1484362	Terminal (Socket)	1
3	1330439	Plug	12
4	.....	Connector Assembly (Ground)	1
4	1493455	Ring	1
4	1493443	Heat Shrink	1
5	.....	Connector Assembly (+ 24 V)	1
5	1493455	Ring	1
5	1516237	Heat Shrink	1
6	1484598	Terminal	1
6	1484651	Cover	1
7	.....	Connector Assembly (Turbine Speed)	1
7	1508206	Connector (2 Way)	1
7	2787349	Terminal	2
7	2060555	Wire Seal	2
8	.....	Connector Assembly (Fuse Box)	1
8	1493428	Connector (12-Way)	1
8	1500913	Connector	1
8	1330438	Terminal (Socket)	2
8	1330438	Terminal (Socket)	10
9	.....	Connector Assembly (Battery Box)	1
9	1493459	Ring	2
9	1484383	Heat Shrink	1
9	1516237	Heat Shrink	1
10	.....	Connector Assembly (Park Brake Diode)	1
10	1610953	Diode	1
10	1484718	Terminal (Socket)	2
11	.....	Diode (Insert)	1
12	.....	Connector Assembly (RH Hub Temperature)	1
12	1490242	Connector	1
12	1490243	Connector	1
12	1330438	Terminal (Socket)	2
13	1502920	Connector (Insert)	1
14	.....	Connector Assembly (Park Brake Solenoid)	1
14	1493449	Connector Body	1
14	1484394	Crimp Ferrule	2
15	.....	Connector Assembly (Lift)	1
15	1493447	Connector	1
15	1493436	Terminal (Socket)	2

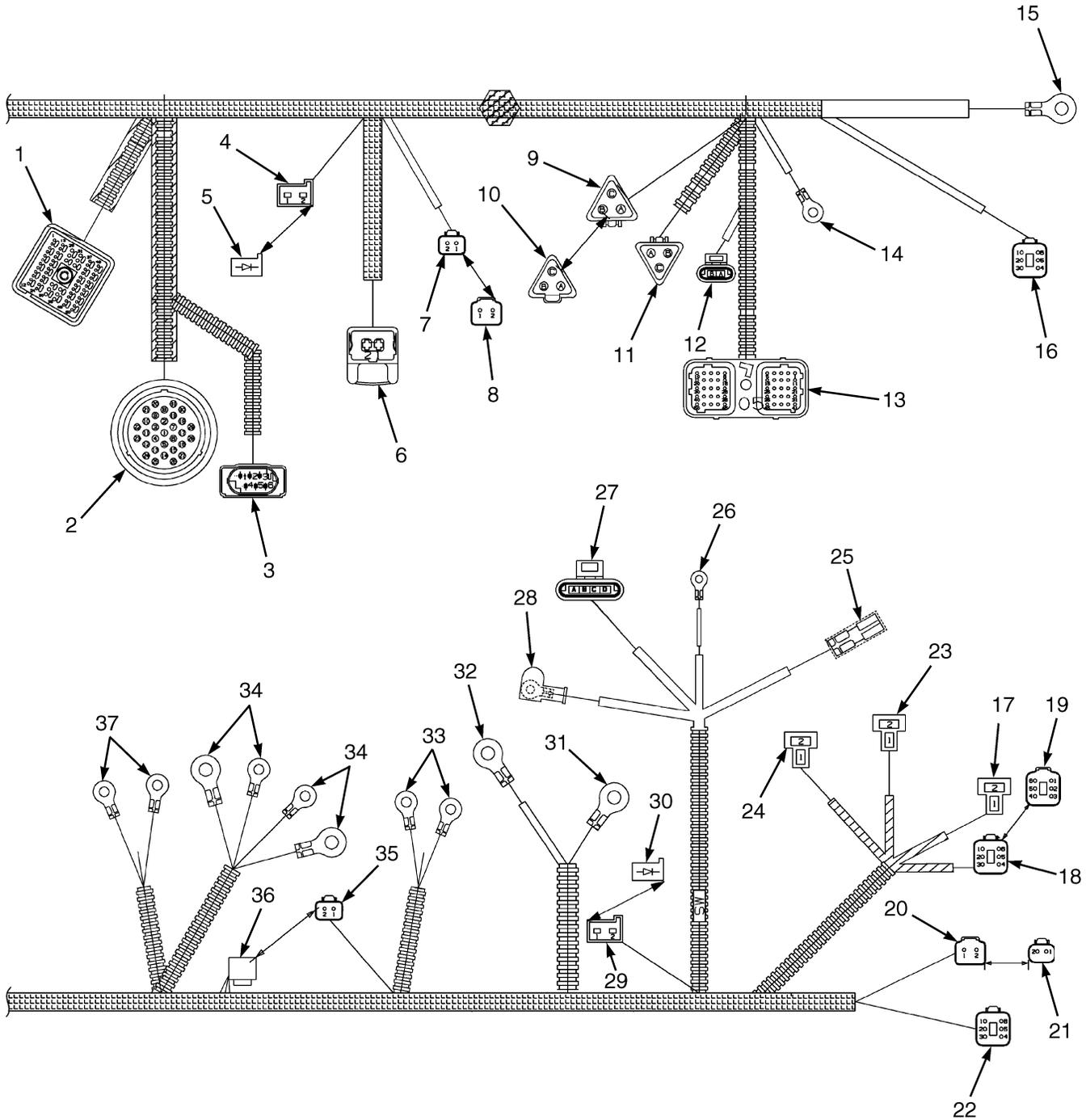
WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
15	1479109	Seal	2
16	.....	Connector Assembly (Auxiliary)	1
16	1493446	Connector	1
16	1493436	Terminal (Socket)	2
16	1479109	Seal	2
17	.....	Connector Assembly (Tilt)	1
17	1493435	Connector (2-Way)	1
17	1493436	Terminal (Socket)	2
17	1479109	Seal	2
18	.....	Connector Assembly (LH Hub Temperature)	1
18	1490242	Connector	1
18	1490243	Connector	1
18	1330438	Terminal (Socket)	2
19	1502920	Connector (Insert)	1
20	.....	Connector Assembly (Tilt)	1
20	1493435	Connector (2-Way)	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Oil Cooler Harness)	1
22	1490242	Connector	1
22	1490243	Connector	1
22	1330438	Terminal (Socket)	2
23	1502920	Connector (Insert)	1
24	.....	Connector Assembly (Low)	1
24	1493447	Connector	1
24	1493436	Terminal (Socket)	2
24	1479109	Seal	2
25	.....	Connector Assembly (Fuel Sender)	1
25	1484598	Terminal	2
25	1484651	Cover	2
26	.....	Connector Assembly (Cab Tilt Power)	1
26	1490242	Connector	1
26	1490243	Connector	1
26	1484362	Terminal (Socket)	2
27	.....	Connector Assembly (Insert)	1
28	.....	Connector Assembly (Drum Speed)	1
28	1508206	Connector (2 Way)	1
28	2787349	Terminal	2
28	2060555	Wire Seal	2
29	.....	Connector Assembly (Valve)	1
29	1607771	Boot	1
29	1598469	Connector (16-Way)	1
29	.....	Connector	16
30	.....	Connector Assembly (Output Speed)	1
30	1508206	Connector (2 Way)	1
30	2787349	Terminal	2

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
30	2060555	Wire Seal	2
31	.....	Connector Assembly (Engine Speed)	1
31	2787344	Connector (3 Way)	1
31	2787349	Terminal	3
31	2060555	Wire Seal	3
32	1500914	Housing (Insert)	1
33	.....	Connector Assembly (Lamps)	1
33	1493430	Connector	1
33	1463194	Connector	1
33	1484362	Terminal (Socket)	2
33	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-26) CHASSIS, CUMMINS DIESEL — SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)



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WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
	2075183	Wire Harness (Chassis)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	48
1	1330438	Terminal (Socket)	7
1	1484362	Terminal (Socket)	4
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1363886	Terminal (Socket)	1
2	1330438	Terminal (Socket)	26
2	1330439	Plug	1
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1569973	Connector Body	1
3	1525596	Terminal	3
3	1569975	Seal	3
3	1607776	Terminal (Plug)	3
4	.....	Connector Assembly (Air Dryer Diode)	1
4	1484718	Terminal (Socket)	2
5	.....	Diode (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1484395	Housing (Socket)	1
6	1484396	Terminal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	2
7	1330438	Terminal (Socket)	1
8	1502920	Connector (Insert)	1
9	.....	Connector Assembly (Terminating Resistor)	1
9	1484397	Connector (3-Way)	1
9	1610944	Lock	1
9	1518112	Terminal (Socket)	1
9	1330439	Plug	2
10	1607772	Connector (Termination) (Insert)	1
11	.....	Connector Assembly (CAN Connector)	1
11	1484397	Connector (3-Way)	1
11	1463194	Connector	1
11	1518112	Terminal (Socket)	2
11	1330439	Plug	1
12	.....	Connector Assembly (Water In Fuel Sensor)	1
12	1323586	Connector	1
12	1323576	Terminal	2
13	.....	Connector Assembly (ECM)	1
13	1611032	Socket (Socket)	1
13	1484377	Plug	43
13	1507725	Terminal	7
14	.....	Connector Assembly (Engine Oil Pressure)	1
14	1493448	E-Ring	1
14	1484383	Heat Shrink	1

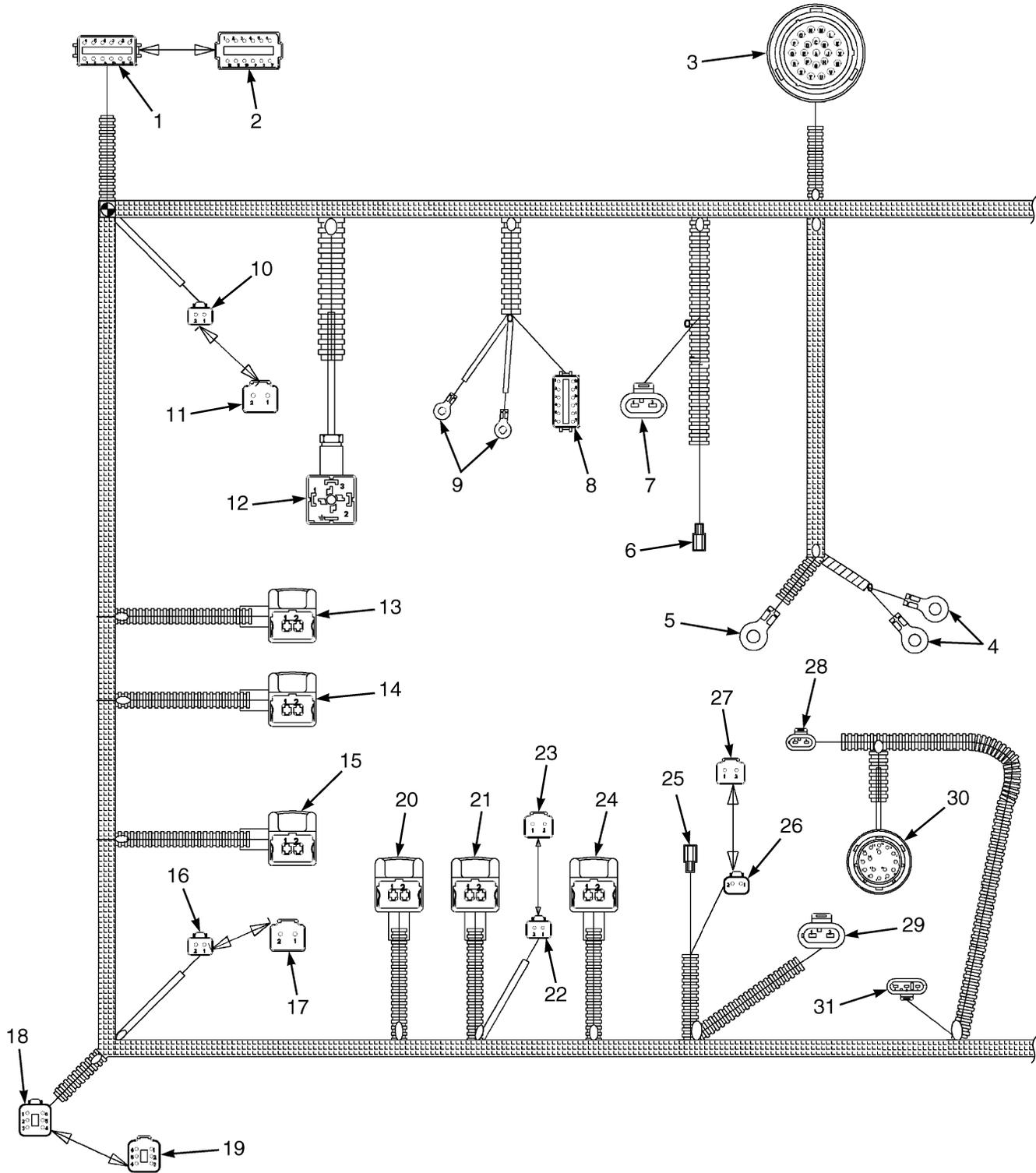
WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
15	.....	Connector Assembly (Coolant Level)	1
15	1493448	E-Ring	1
15	1484383	Heat Shrink	1
16	.....	Connector Assembly (RH Rear Lamp)	1
16	1493430	Connector	1
16	1463194	Connector	1
16	1330438	Terminal (Socket)	5
16	1330439	Plug	1
17	.....	Connector Assembly (Front Window Washer Pump)	1
17	1484395	Housing (Socket)	1
17	1484396	Terminal	2
18	.....	Connector Assembly (Air Conditioner Condensor)	1
18	1493430	Connector	1
18	1463194	Connector	1
18	1484362	Terminal (Socket)	2
18	1330438	Terminal (Socket)	3
18	1330439	Plug	1
19	1500914	Housing (Insert)	1
20	.....	Connector Assembly (Reverse Alarm)	1
20	1502920	Connector	1
20	1330414	Connector (Secondary Lock)	1
20	1330437	Terminal (Pin)	2
21	.....	Insert	1
21	1490242	Connector	1
21	1490243	Connector	1
22	.....	Connector Assembly (LH Rear Lamp)	1
22	1493430	Connector	1
22	1463194	Connector	11
22	1330438	Terminal (Socket)	5
22	1330439	Plug	1
23	.....	Connector Assembly (Roof Window Washer Pump)	1
23	1484395	Housing (Socket)	1
23	1484396	Terminal	2
24	.....	Connector Assembly (Rear Window Washer Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (AC)	1
25	1493444	Terminal	1
25	1493445	Cover	1
26	.....	Connector Assembly (Alternator Ground)	1
26	1496883	Ring	1
26	1484383	Heat Shrink	1
27	.....	Connector Assembly (Alternator)	1
27	1501919	Connector	1
27	1482663	Connector	1
27	1330355	Terminal	1
27	1498492	Seal	1
27	1498498	Fitting	3
28	.....	Connector Assembly (Alternator + VE)	1
28	1607801	Terminal (Ring)	1

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (10/2004 ↔ S/N G007E02516C)

ITEM	PART NO.	DESCRIPTION	QTY
28	1516237	Heat Shrink	1
29	.....	Connector Assembly (Backup Diode)	1
29	1610953	Diode	1
29	1484718	Terminal (Socket)	2
30	.....	Diode (Insert)	1
31	.....	Connector Assembly (+ 24 V)	1
31	1493455	Ring	1
31	1493441	Housing	1
32	.....	Connector Assembly (Start)	1
32	1502921	Ring	1
32	1484383	Heat Shrink	1
33	.....	Connector Assembly (Grid Heater Relay)	1
33	1493448	E-Ring	2
33	1493443	Heat Shrink	2
34	.....	Connector Assembly (Start Solenoid)	1
34	1493459	Ring	2
34	1484383	Heat Shrink	4
34	1502921	Ring	1
34	1493448	E-Ring	1
35	.....	Connector Assembly (Resistor Harness)	1
35	1490242	Connector	1
35	1490243	Connector	1
35	1330438	Terminal (Socket)	2
36	2058005	Wire Harness (Resistor) (Insert)	1
36	1493465	Connector	1
36	1330414	Connector (Secondary Lock)	1
36	1330437	Terminal (Pin)	2
36	1484598	Terminal	2
36	1484651	Cover	2
36	1561540	Warning Light (Red)	1
37	.....	Connector Assembly (Fuse)	1
37	1607801	Terminal (Ring)	2
37	1493443	Heat Shrink	2

WIRE HARNESS (FIGURE 4-27) CHASSIS, CUMMINS DIESEL — SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)



BP080433

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
	2079042	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (Engine)	1
3	1503634	Connector	1
3	1484362	Terminal (Socket)	11
3	1330439	Plug	12
4	.....	Connector (Ground)	1
4	1493455	Ring	1
4	1493443	Heat Shrink	1
5	.....	Connector	1
5	1493455	Ring	1
5	1516237	Heat Shrink	1
6	1484598	Terminal	1
6	1484651	Cover	1
7	.....	Connector Assembly (Turbine Speed)	1
7	1508206	Connector (2 Way)	1
7	2787349	Terminal	2
7	2060555	Wire Seal	2
8	.....	Connector Assembly (Fuse Box)	1
8	1493428	Connector (12-Way)	1
8	1500913	Connector	1
8	1330439	Plug	2
8	1330438	Terminal (Socket)	10
9	.....	Connector Assembly (Battery Box)	1
9	1493459	Ring	2
9	1484383	Heat Shrink	1
9	1516237	Heat Shrink	1
10	.....	Connector Assembly (RH Hub Temperature)	1
10	1490242	Connector	1
10	1490243	Connector	1
10	1330438	Terminal (Socket)	2
11	1502920	Connector (Insert)	1
12	.....	Connector Assembly (Park Brake Solenoid)	1
12	1493449	Connector Body	1
12	1484394	Crimp Ferrule	2
13	.....	Connector Assembly (Lift)	1
13	1493447	Connector	1
13	1493436	Terminal (Socket)	2
13	1479109	Seal	2
14	.....	Connector Assembly (Auxiliary)	1
14	1493446	Connector	1
14	1493436	Terminal (Socket)	2

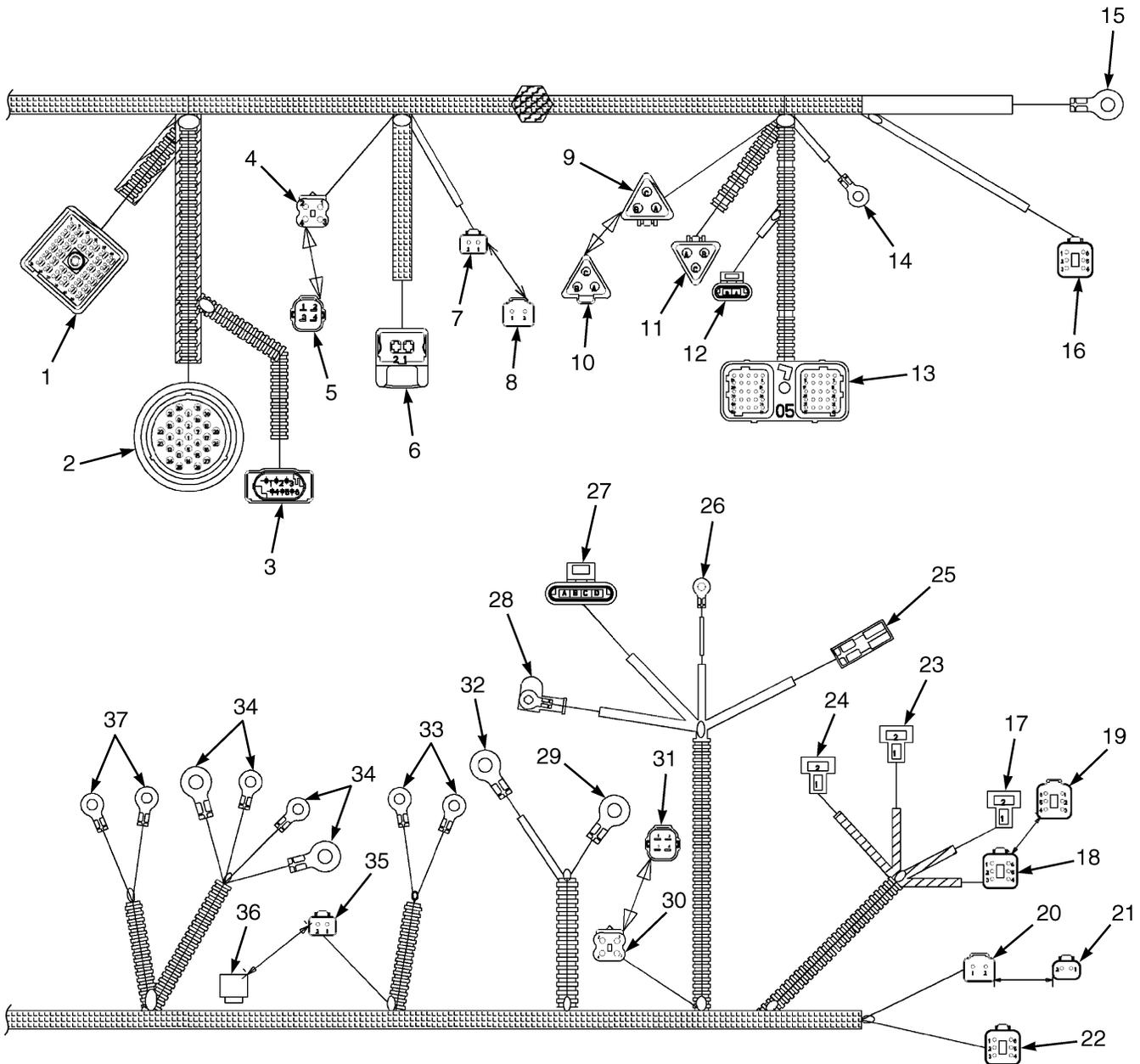
WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
14	1479109	Seal	2
15	.....	Connector Assembly (Tilt)	1
15	1493435	Connector (2-Way)	1
15	1493436	Terminal (Socket)	2
15	1479109	Seal	2
16	.....	Connector Assembly (LH Hub Temperature)	1
16	1490242	Connector	1
16	1490243	Connector	1
16	1330438	Terminal (Socket)	2
17	1502920	Connector (Insert)	1
18	.....	Connector Assembly (Lamps)	1
18	1484362	Terminal (Socket)	3
18	1330438	Terminal (Socket)	4
20	.....	Connector Assembly (Tilt)	1
20	1493435	Connector (2-Way)	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Oil Cooler Harness)	1
22	1490242	Connector	1
22	1490243	Connector	1
22	1330438	Terminal (Socket)	2
23	1502920	Connector (Insert)	1
24	.....	Connector Assembly (Low)	1
24	1493447	Connector	1
24	1493436	Terminal (Socket)	2
24	1479109	Seal	2
25	.....	Connector Assembly (Fuel Sender)	1
25	1484598	Terminal	1
25	1484651	Cover	1
26	.....	Connector Assembly (Cab Tilt Power)	1
26	1490242	Connector	1
26	1490243	Connector	1
26	1484362	Terminal (Socket)	2
27	1502920	Connector (Insert)	1
28	.....	Connector Assembly (Drum Speed)	1
28	1508206	Connector (2 Way)	1
28	2787349	Terminal	2
28	2060555	Wire Seal	2
29	.....	Connector Assembly (Output Speed)	1
29	1507725	Terminal	1
29	2787349	Terminal	2
29	2060555	Wire Seal	2
30	.....	Connector Assembly (Valve)	1
30	1607771	Boot	1
30	1598469	Connector (16-Way)	1
30	.....	Connector	16

WIRE HARNESS**CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)**

ITEM	PART NO.	DESCRIPTION	QTY
31	. . . . .	Connector Assembly (Engine Speed)	1
31	2787344	Connector (3 Way)	1
31	2787349	Terminal	3
31	2060555	Wire Seal	3

WIRE HARNESS (FIGURE 4-28) CHASSIS, CUMMINS DIESEL — SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)



BP080434

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
	2079042	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	48
1	1463141	Terminal (Socket)	7
1	1330438	Terminal (Socket)	5
1	1484362	Terminal (Socket)	5
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1484362	Terminal (Socket)	1
2	1330438	Terminal (Socket)	28
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1569973	Connector Body	1
3	1525596	Terminal	3
3	1569975	Seal	3
3	1607776	Terminal (Plug)	3
4	.....	Connector Assembly (Park Brake And Air Dryer Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1484656	Terminal (Socket)	4
4	1482659	Seal (Rubber)	4
5	1610953	Diode (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1493435	Connector (2-Way)	1
6	1493436	Terminal (Socket)	2
6	1479109	Seal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	2
7	1330438	Terminal (Socket)	1
8	1502920	Connector (Insert)	1
9	.....	Connector Assembly (Terminating Resistor)	1
9	1484397	Connector (3-Way)	1
9	1610944	Lock	1
9	1518112	Terminal (Socket)	1
9	1330439	Plug	2
10	1607772	Connector (Termination) (Insert)	1
11	.....	Connector Assembly (CAN Connector)	1
11	1484397	Connector (3-Way)	1
11	1463194	Connector	1
11	1518112	Terminal (Socket)	2
11	1330439	Plug	1
12	.....	Connector Assembly (Water In Fuel Sensor)	1
12	1323586	Connector	1
12	1323576	Terminal	2
13	.....	Connector Assembly (ECM)	1
13	1611032	Socket (Socket)	1
13	1484377	Plug	41
13	1507725	Terminal	9
14	.....	Connector Assembly (Engine Oil Pressure)	1

WIRE HARNESS

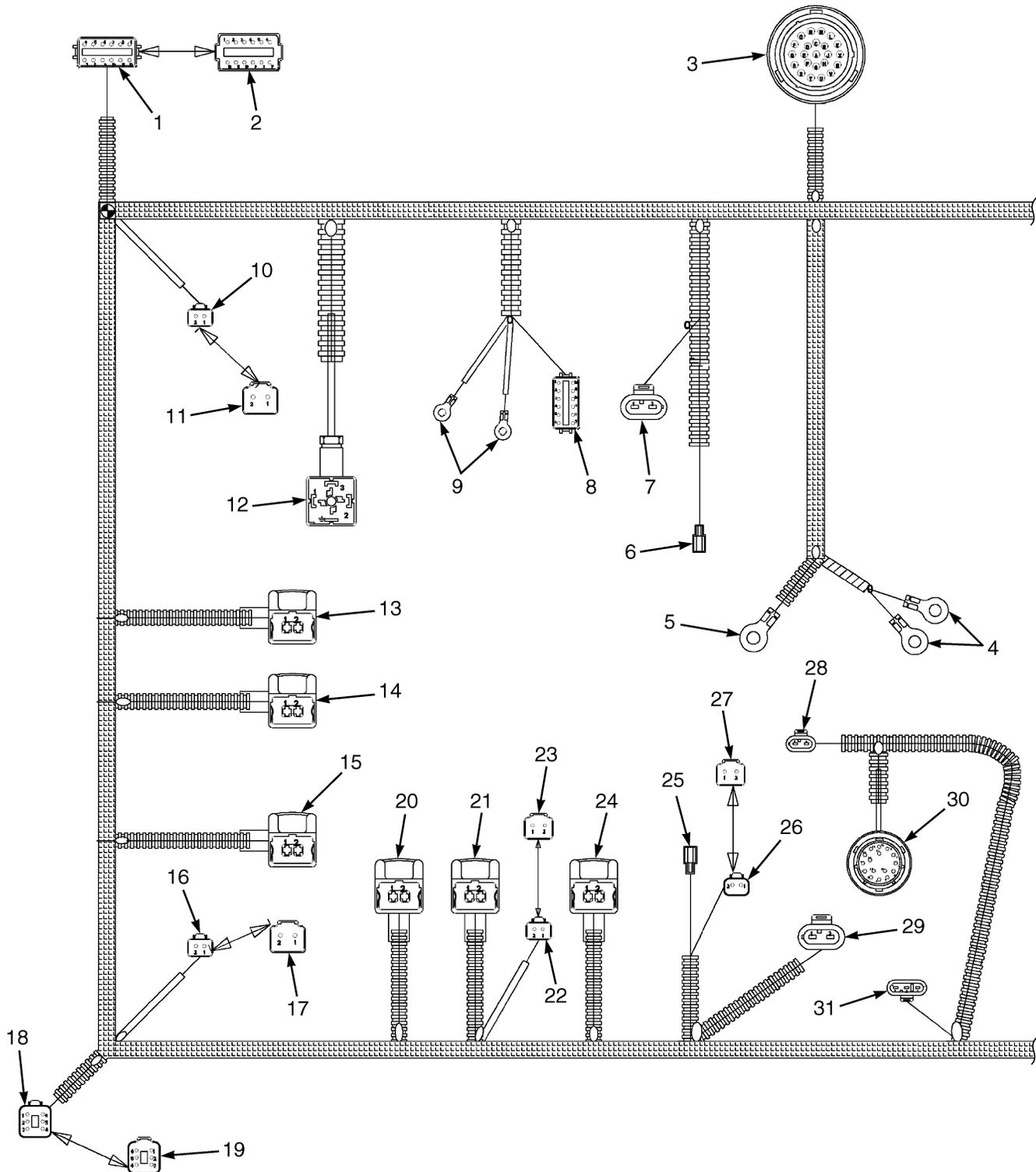
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
14	1493448	E-Ring	1
14	1500914	Housing	1
15	.....	Connector Assembly (Coolant Level)	1
15	1493448	E-Ring	1
15	1500914	Housing	1
16	.....	Connector Assembly (RH Rear Lamp)	1
16	1493430	Connector	1
16	1463194	Connector	1
16	1330438	Terminal (Socket)	5
16	1330439	Plug	1
17	.....	Connector Assembly (Front Window Washer Pump)	1
17	1484395	Housing (Socket)	1
17	1484396	Terminal	2
18	.....	Connector Assembly (AC)	1
18	1493430	Connector	1
18	1463194	Connector	1
18	1484362	Terminal (Socket)	2
18	1330438	Terminal (Socket)	4
19	1500914	Housing (Insert)	1
20	.....	Connector Assembly (Reverse Alarm)	1
20	1502920	Connector	1
20	1330414	Connector (Secondary Lock)	1
20	1330437	Terminal (Pin)	2
21	.....	Connector (Insert)	1
21	1490242	Connector	1
21	1490243	Connector	2
22	.....	Connector Assembly (LH Rear Lamp)	1
22	1493430	Connector	1
22	1463194	Connector	11
22	1330438	Terminal (Socket)	5
22	1330439	Plug	1
23	.....	Connector Assembly (Roof Window Washer Pump)	1
23	1484395	Housing (Socket)	1
23	1484396	Terminal	2
24	.....	Connector Assembly (Rear Window Washer Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (AC)	1
25	1493444	Terminal	1
25	1493445	Cover	1
26	.....	Connector Assembly (Alternator Ground)	1
26	1496883	Ring	1
26	1484383	Heat Shrink	1
27	.....	Connector Assembly (Alternator)	2
27	1482663	Connector	1
27	1330355	Terminal	1
27	1498492	Seal	1
27	1498498	Fitting	3
28	.....	Connector Assembly (Alternator + VE)	1
28	1607801	Terminal (Ring)	1

WIRE HARNESS**CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E02517C ↔ S/N G007E03039D)**

ITEM	PART NO.	DESCRIPTION	QTY
28	1516237	Heat Shrink	1
29	.....	Connector Assembly (+ 24 V)	1
29	1493455	Ring	1
29	1493443	Heat Shrink	1
30	.....	Connector Assembly (Backup Diode)	1
30	1610950	Housing (Sealed) (4-Way)	1
30	1610941	Seal (Dummy)	2
30	1484656	Terminal (Socket)	2
30	1482659	Seal (Rubber)	2
31	1610953	Diode (Insert)	1
32	.....	Connector Assembly (Start Relay)	1
32	1493459	Ring	1
32	1493448	E-Ring	1
32	1484383	Heat Shrink	1
33	.....	Connector Assembly (Grid Heater Relay)	1
33	1493448	E-Ring	2
33	1493443	Heat Shrink	2
34	.....	Connector Assembly (Start Solenoid)	1
34	1502921	Ring	1
34	1484383	Heat Shrink	1
35	.....	Connector Assembly (Resistor Harness)	1
35	1490242	Connector	1
35	1490243	Connector	1
35	1330438	Terminal (Socket)	2
36	2058055	Wire Harness (Resistor) (Insert)	1
37	.....	Connector Assembly (Fuse)	1
37	1607801	Terminal (Ring)	2
37	1493443	Heat Shrink	2

WIRE HARNESS (FIGURE 4-29) CHASSIS, CUMMINS DIESEL — SHEET 1 OF 2 (S/N G007E03040D →)



BP080433

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
	2088033	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (Engine)	1
3	1503634	Connector	1
3	1484362	Terminal (Socket)	11
3	1330439	Plug	12
4	.....	Connector (Ground)	1
4	1493455	Ring	1
4	1493443	Heat Shrink	1
5	.....	Connector	1
5	1493455	Ring	1
5	1516237	Heat Shrink	1
6	1484598	Terminal	1
6	1484651	Cover	1
7	.....	Connector Assembly (Turbine Speed)	1
7	1508206	Connector (2 Way)	1
7	2787349	Terminal	2
7	2060555	Wire Seal	2
8	.....	Connector Assembly (Fuse Box)	1
8	1493428	Connector (12-Way)	1
8	1500913	Connector	1
8	1330439	Plug	2
8	1330438	Terminal (Socket)	10
9	.....	Connector Assembly (Battery Box)	1
9	1493459	Ring	2
9	1484383	Heat Shrink	1
9	1516237	Heat Shrink	1
10	.....	Connector Assembly (RH Hub Temperature)	1
10	1490242	Connector	1
10	1490243	Connector	1
10	1330438	Terminal (Socket)	2
11	1502920	Connector (Insert)	1
12	.....	Connector Assembly (Park Brake Solenoid)	1
12	1493449	Connector Body	1
12	1484394	Crimp Ferrule	2
13	.....	Connector Assembly (Lift)	1
13	1493447	Connector	1
13	1493436	Terminal (Socket)	2
13	1479109	Seal	2
14	.....	Connector Assembly (Auxiliary)	1
14	1493446	Connector	1
14	1493436	Terminal (Socket)	2

WIRE HARNESS

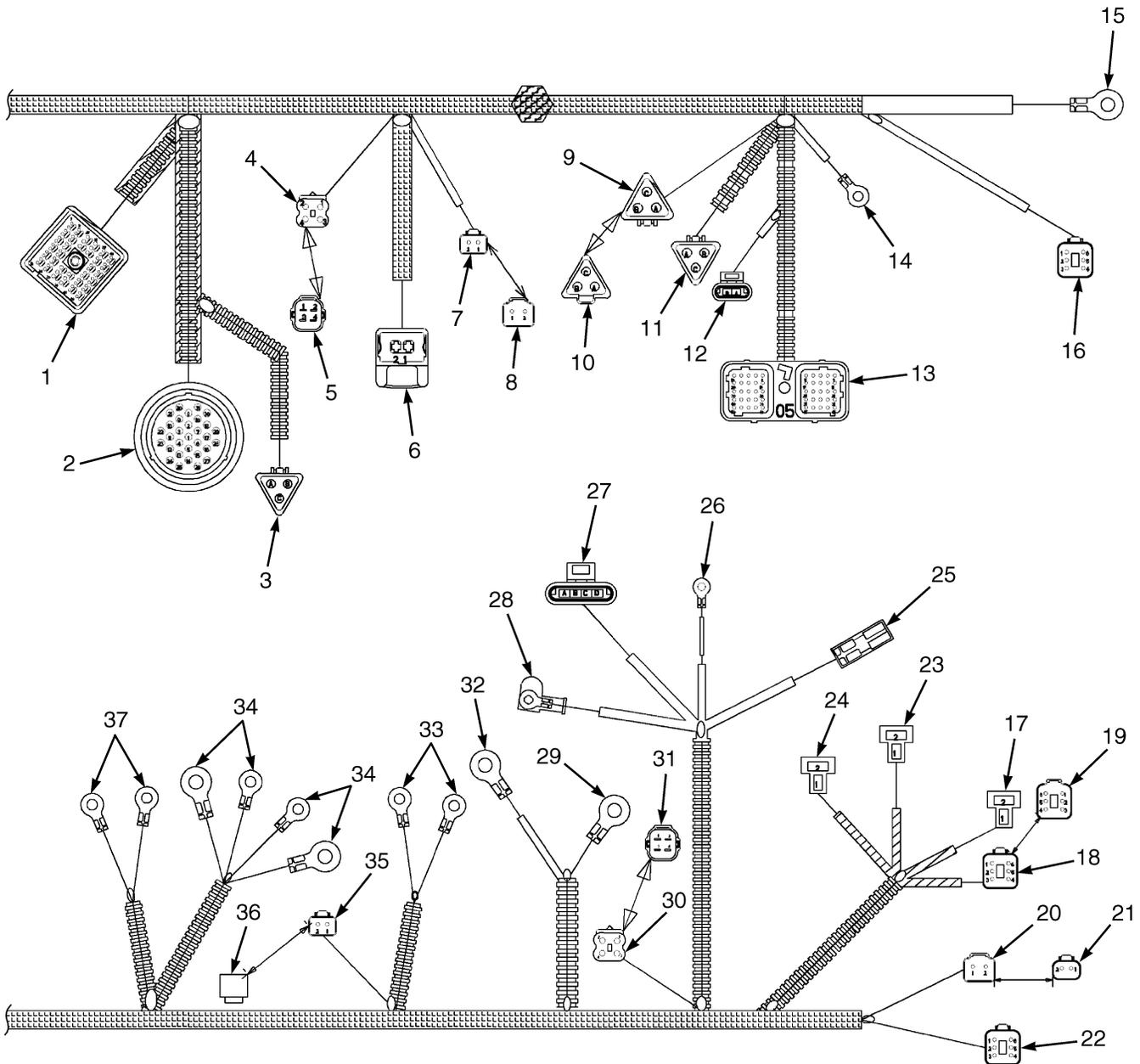
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
14	1479109	Seal	2
15	.....	Connector Assembly (Tilt)	1
15	1493435	Connector (2-Way)	1
15	1493436	Terminal (Socket)	2
15	1479109	Seal	2
16	.....	Connector Assembly (LH Hub Temperature)	1
16	1490242	Connector	1
16	1490243	Connector	1
16	1330438	Terminal (Socket)	2
17	1502920	Connector (Insert)	1
18	.....	Connector Assembly (Lamps)	1
18	1484362	Terminal (Socket)	3
18	1330438	Terminal (Socket)	4
20	.....	Connector Assembly (Tilt)	1
20	1493435	Connector (2-Way)	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Oil Cooler Harness)	1
22	1490242	Connector	1
22	1490243	Connector	1
22	1330438	Terminal (Socket)	2
23	1502920	Connector (Insert)	1
24	.....	Connector Assembly (Low)	1
24	1493447	Connector	1
24	1493436	Terminal (Socket)	2
24	1479109	Seal	2
25	.....	Connector Assembly (Fuel Sender)	1
25	1484598	Terminal	1
25	1484651	Cover	1
26	.....	Connector Assembly (Cab Tilt Power)	1
26	1490242	Connector	1
26	1490243	Connector	1
26	1484362	Terminal (Socket)	2
27	1502920	Connector (Insert)	1
28	.....	Connector Assembly (Drum Speed)	1
28	1508206	Connector (2 Way)	1
28	2787349	Terminal	2
28	2060555	Wire Seal	2
29	.....	Connector Assembly (Output Speed)	1
29	1507725	Terminal	1
29	2787349	Terminal	2
29	2060555	Wire Seal	2
30	.....	Connector Assembly (Valve)	1
30	1607771	Boot	1
30	1598469	Connector (16-Way)	1
30	.....	Connector	16

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
31	.....	Connector Assembly (Engine Speed)	1
31	2787344	Connector (3 Way)	1
31	2787349	Terminal	3
31	2060555	Wire Seal	3

WIRE HARNESS (FIGURE 4-30) CHASSIS, CUMMINS DIESEL — SHEET 2 OF 2 (S/N G007E03040D →)



BP080473

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
	2088033	Wire Harness (Chassis, Cummins Diesel)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	48
1	1463141	Terminal (Socket)	7
1	1330438	Terminal (Socket)	5
1	1484362	Terminal (Socket)	5
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1484362	Terminal (Socket)	1
2	1330438	Terminal (Socket)	28
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1484397	Connector (3-Way)	1
3	1463194	Connector	3
3	1330438	Terminal (Socket)	3
4	.....	Connector Assembly (Park Brake And Air Dryer Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1484656	Terminal (Socket)	4
4	1482659	Seal (Rubber)	4
5	1610953	Diode (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1493435	Connector (2-Way)	1
6	1493436	Terminal (Socket)	2
6	1479109	Seal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	2
7	1330438	Terminal (Socket)	1
8	1502920	Connector (Insert)	1
9	.....	Connector Assembly (Terminating Resistor)	1
9	1484397	Connector (3-Way)	1
9	1610944	Lock	1
9	1518112	Terminal (Socket)	1
9	1330439	Plug	2
10	1607772	Connector (Termination) (Insert)	1
11	.....	Connector Assembly (CAN Connector)	1
11	1484397	Connector (3-Way)	1
11	1463194	Connector	1
11	1518112	Terminal (Socket)	2
11	1330439	Plug	1
12	.....	Connector Assembly (Water In Fuel Sensor)	1
12	1323586	Connector	1
12	1323576	Terminal	2
13	.....	Connector Assembly (ECM)	1
13	1611032	Socket (Socket)	1
13	1484377	Plug	41
13	1507725	Terminal	9
14	.....	Connector Assembly (Engine Oil Pressure)	1
14	1493448	E-Ring	1

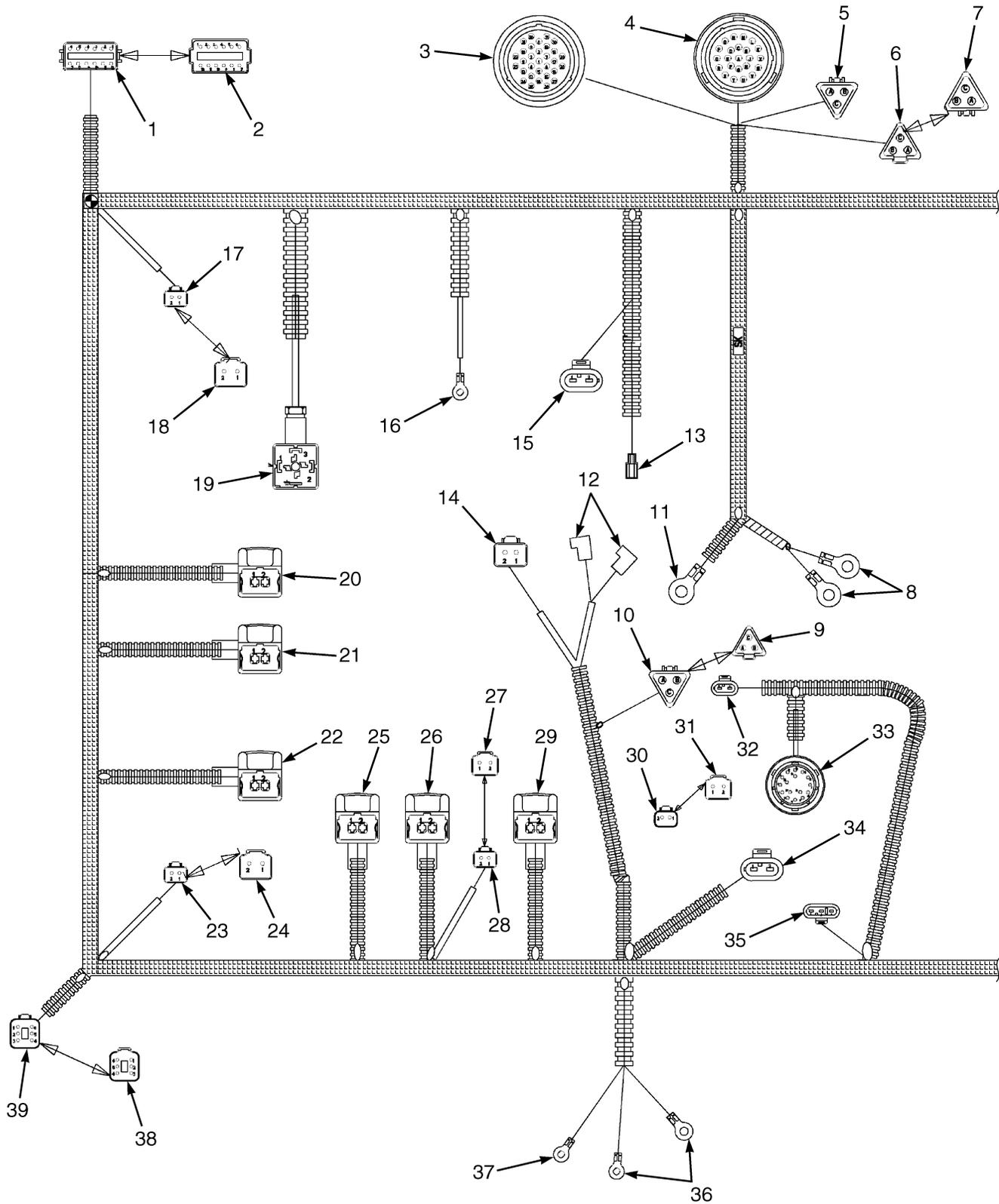
WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
14	1500914	Housing	1
15	.....	Connector Assembly (Coolant Level)	1
15	1493448	E-Ring	1
15	1500914	Housing	1
16	.....	Connector Assembly (RH Rear Lamp)	1
16	1493430	Connector	1
16	1463194	Connector	1
16	1330438	Terminal (Socket)	5
16	1330439	Plug	1
17	.....	Connector Assembly (Front Window Washer Pump)	1
17	1484395	Housing (Socket)	1
17	1484396	Terminal	2
18	.....	Connector Assembly (AC)	1
18	1493430	Connector	1
18	1463194	Connector	1
18	1484362	Terminal (Socket)	2
18	1330438	Terminal (Socket)	4
19	1500914	Housing (Insert)	1
20	.....	Connector Assembly (Reverse Alarm)	1
20	1502920	Connector	1
20	1330414	Connector (Secondary Lock)	1
20	1330437	Terminal (Pin)	2
21	.....	Connector (Insert)	1
21	1490242	Connector	1
21	1490243	Connector	2
22	.....	Connector Assembly (LH Rear Lamp)	1
22	1493430	Connector	1
22	1463194	Connector	11
22	1330438	Terminal (Socket)	5
22	1330439	Plug	1
23	.....	Connector Assembly (Roof Window Washer Pump)	1
23	1484395	Housing (Socket)	1
23	1484396	Terminal	2
24	.....	Connector Assembly (Rear Window Washer Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (AC)	1
25	1493444	Terminal	1
25	1493445	Cover	1
26	.....	Connector Assembly (Alternator Ground)	1
26	1496883	Ring	1
26	1484383	Heat Shrink	1
27	.....	Connector Assembly (Alternator)	2
27	1482663	Connector	1
27	1330355	Terminal	1
27	1498492	Seal	1
27	1498498	Fitting	3
28	.....	Connector Assembly (Alternator + VE)	1
28	1607801	Terminal (Ring)	1
28	1516237	Heat Shrink	1

WIRE HARNESS
CHASSIS, CUMMINS DIESEL – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
29	.....	Connector Assembly (+ 24 V)	1
29	1493455	Ring	1
29	1493443	Heat Shrink	1
30	.....	Connector Assembly (Backup Diode)	1
30	1610950	Housing (Sealed) (4-Way)	1
30	1610941	Seal (Dummy)	2
30	1484656	Terminal (Socket)	2
30	1482659	Seal (Rubber)	2
31	1610953	Diode (Insert)	1
32	.....	Connector Assembly (Start Relay)	1
32	1493459	Ring	1
32	1493448	E-Ring	1
32	1484383	Heat Shrink	1
33	.....	Connector Assembly (Grid Heater Relay)	1
33	1493448	E-Ring	2
33	1493443	Heat Shrink	2
34	.....	Connector Assembly (Start Solenoid)	1
34	1502921	Ring	1
34	1484383	Heat Shrink	1
35	.....	Connector Assembly (Resistor Harness)	1
35	1490242	Connector	1
35	1490243	Connector	1
35	1330438	Terminal (Socket)	2
36	2058055	Wire Harness (Resistor) (Insert)	1
37	.....	Connector Assembly (Fuse)	1
37	1607801	Terminal (Ring)	2
37	1493443	Heat Shrink	2

WIRE HARNESS (FIGURE 4-31) CHASSIS, CUMMINS LPG — SHEET 1 OF 2 (→ S/N G007E03039D)



BP080426

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
	2079266	Wire Harness (Chassis, Cummins LPG)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (ECM)	1
3	1611032	Socket (Socket)	1
3	1484377	Plug	27
3	1507725	Terminal	4
4	.....	Connector Assembly (Engine)	1
4	1503634	Connector	1
4	1484362	Terminal (Socket)	16
5	.....	Connector Assembly	1
5	1484397	Connector (3-Way)	1
5	1463194	Connector	1
5	1518112	Terminal (Socket)	2
5	1330439	Plug	1
6	.....	Connector Assembly (Terminating Resistor)	1
6	1484397	Connector (3-Way)	1
6	1463194	Connector	1
6	1518112	Terminal (Socket)	2
6	1330439	Plug	1
6	1607772	Connector (Termination)	1
7	.....	Connector (Insert)	1
8	.....	Terminal (Ground)	1
8	1493455	Ring	1
8	1493443	Heat Shrink	1
9	1607772	Connector (Termination) (Insert)	1
10	.....	Connector Assembly (Terminating Resistor)	1
10	1484397	Connector (3-Way)	1
10	1463194	Connector	1
10	1518112	Terminal (Socket)	2
10	1330439	Plug	1
11	.....	Terminal (Ground)	1
11	1493455	Ring	1
11	1516237	Heat Shrink	1
12	1402849	Connector Body (Low Pressure Switch)	2
13	.....	Connector Assembly (Temperature Sensor)	1
13	1484598	Terminal	1
13	1484651	Cover	1
14	.....	Connector Assembly (Turbine Speed)	1
14	1508206	Connector (2 Way)	1
14	2787349	Terminal	2
14	2060555	Wire Seal	2
15	.....	Connector Assembly (LPG Solenoid)	1

WIRE HARNESS

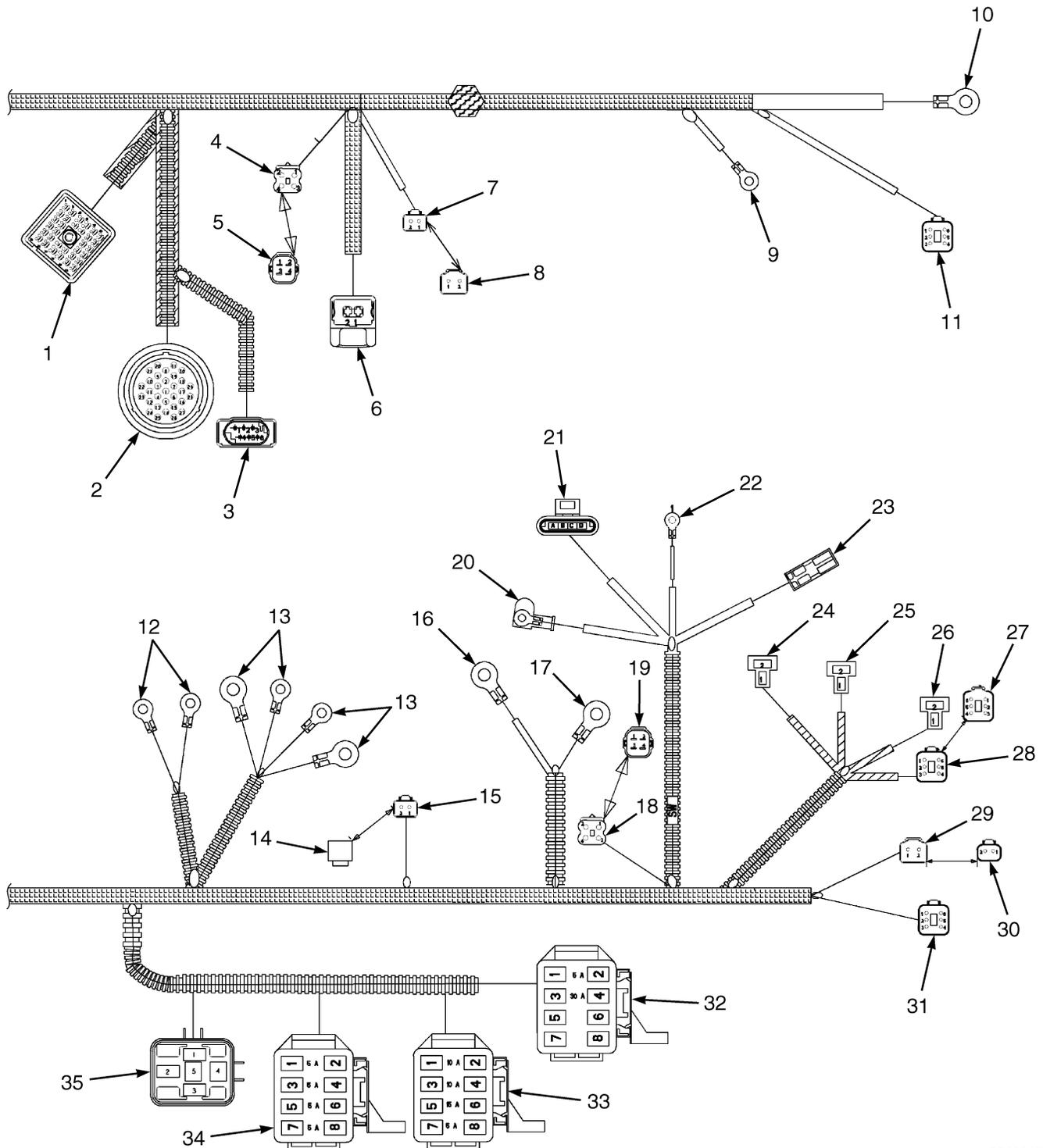
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
15	1490242	Connector	1
15	1490243	Connector	1
15	1330438	Terminal (Socket)	2
16	.....	Connector Assembly (Battery Box)	1
16	1493459	Ring	1
16	1484383	Heat Shrink	1
17	.....	Connector Assembly (RH HUB Temperature)	1
17	1490242	Connector	1
17	1490243	Connector	1
17	1330438	Terminal (Socket)	2
18	1502920	Connector (Insert)	1
19	.....	Connector Assembly (Park Brake Solenoid)	1
19	1493449	Connector Body	1
19	1484394	Crimp Ferrule	2
20	.....	Connector Assembly (Lift)	1
20	1493447	Connector	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Tilt)	1
22	1493435	Connector (2-Way)	1
22	1493436	Terminal (Socket)	2
22	1479109	Seal	2
23	.....	Connector Assembly (LH Hub Temperature)	1
23	1490242	Connector	1
23	1490243	Connector	1
23	1330438	Terminal (Socket)	2
24	1502920	Connector (Insert)	1
25	.....	Connector Assembly (Tilt)	1
25	1493435	Connector (2-Way)	1
25	1493436	Terminal (Socket)	2
25	1479109	Seal	2
26	.....	Connector Assembly (Auxiliary)	1
26	1493446	Connector	1
26	1493436	Terminal (Socket)	2
26	1479109	Seal	2
27	1502920	Connector (Insert)	1
28	.....	Connector Assembly (Oil Cooler Harness)	1
28	1490242	Connector	1
28	1490243	Connector	1
28	1330438	Terminal (Socket)	2
29	.....	Connector Assembly (Low)	1
29	1493447	Connector	1
29	1493436	Terminal (Socket)	2
29	1479109	Seal	2
30	.....	Connector Assembly (Cab Tilt Power)	1
30	1490242	Connector	1

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
30	1490243	Connector	1
30	1484362	Terminal (Socket)	2
31	1502920	Connector (Insert)	1
32	.....	Connector Assembly (Drum Speed)	1
32	1508206	Connector (2 Way)	1
32	2787349	Terminal	2
32	2060555	Wire Seal	2
33	.....	Connector Assembly (Valve)	1
33	1607771	Boot	1
33	1598469	Connector (16-Way)	1
33	.....	Terminal)	16
34	.....	Connector Assembly (Output Speed)	1
34	1508206	Connector (2 Way)	1
34	2787349	Terminal	2
34	2060555	Wire Seal	2
35	.....	Connector Assembly (Engine Speed)	1
35	2787344	Connector (3 Way)	1
35	2787349	Terminal	3
35	2060555	Wire Seal	3
36	1493459	Ring (DC/DC Converter)	2
37	.....	Terminal (Ring) (DC/DC Converter)	1
38	1500914	Housing (Insert)	1
39	.....	Connector Assembly (Lamps)	1
39	1493430	Connector	1
39	1463194	Connector	1
39	1484362	Terminal (Socket)	2
39	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-32) CHASSIS, CUMMINS LPG — SHEET 2 OF 2 (→ S/N G007E03039D)



BP080427

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
	2079266	Wire Harness (Chassis, Cummins LPG)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	47
1	1330438	Terminal (Socket)	7
1	1484362	Terminal (Socket)	5
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1484362	Terminal (Socket)	1
2	1330438	Terminal (Socket)	28
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1569973	Connector Body	1
3	1525596	Terminal	3
3	1569975	Seal	3
4	.....	Connector Assembly (Park Brake And Air Dryer Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1484656	Terminal (Socket)	4
4	1482659	Seal (Rubber)	4
4	1610953	Diode	1
5	.....	Connector (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1493435	Connector (2-Way)	1
6	1493436	Terminal (Socket)	2
6	1479109	Seal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	1
7	1330438	Terminal (Socket)	2
8	.....	Connector (Insert)	1
9	.....	Connector Assembly (Engine Oil pressure)	1
9	1493448	E-Ring	1
9	1484383	Heat Shrink	1
10	.....	Connector Assembly (Coolant Level)	1
10	1493448	E-Ring	1
10	1484383	Heat Shrink	1
11	.....	Connector Assembly (RH Rear Lamps)	1
11	1493430	Connector	1
11	1463194	Connector	1
11	1330438	Terminal (Socket)	5
11	1330439	Plug	1
12	.....	Connector Assembly (Fuse)	1
12	1607801	Terminal (Ring)	1
12	1493443	Heat Shrink	1
13	.....	Connector Assembly (Starter Relay)	4
13	1493459	Ring	2
13	1484383	Heat Shrink	4
13	1493448	E-Ring	1
13	1502921	Ring	1

WIRE HARNESS

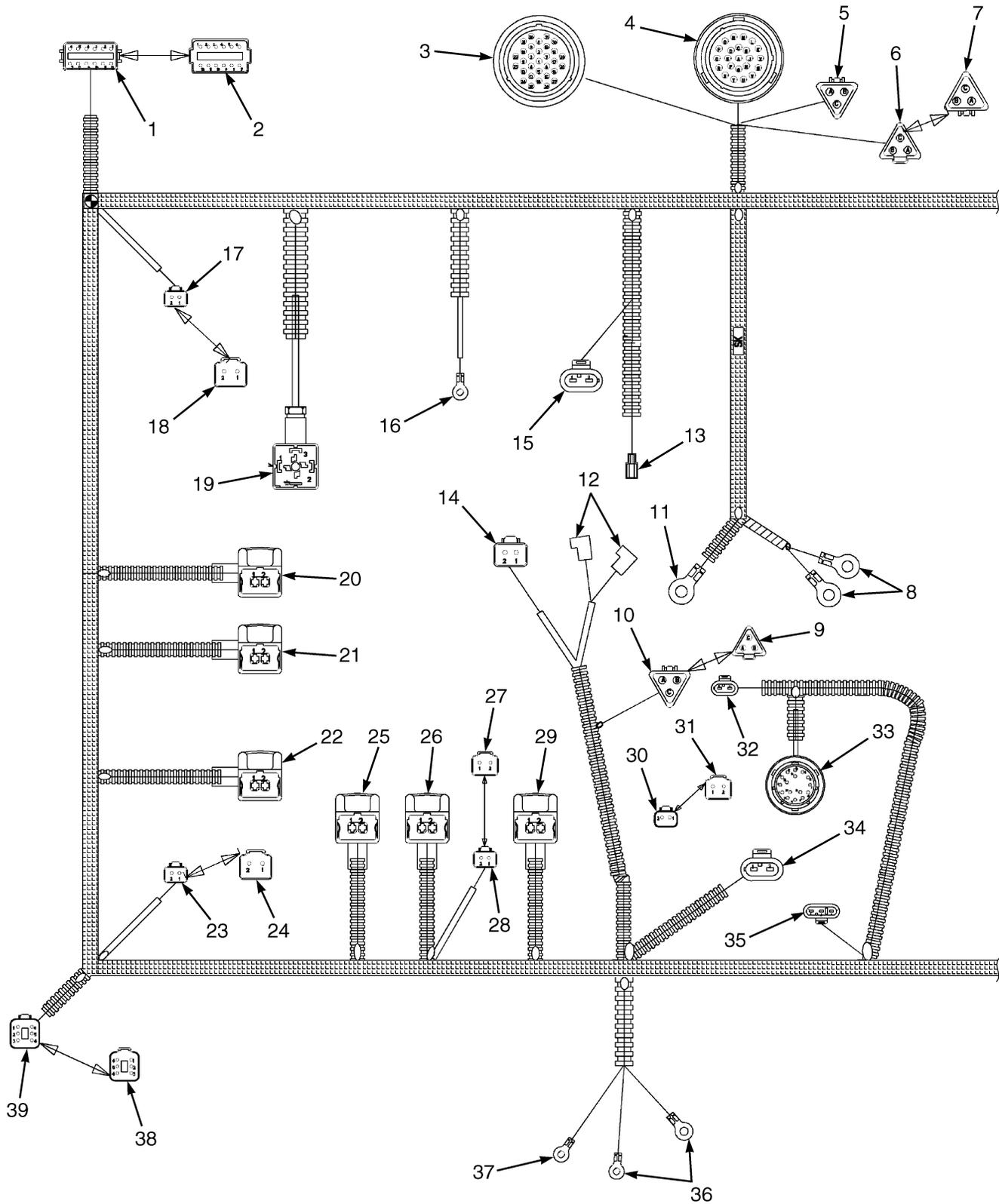
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
14	2058005	Wire Harness (Resistor) (Insert)	1
14	1493465	Connector	1
14	1330414	Connector (Secondary Lock)	1
14	1330437	Terminal (Pin)	2
14	1484598	Terminal	2
14	1484651	Cover	2
14	1561540	Warning Light (Red)	1
15	.....	Connector Assembly (Resistor Harness)	1
15	1490242	Connector	1
15	1490243	Connector	1
15	1330438	Terminal (Socket)	2
16	.....	Connector Assembly (Starter Solenoid)	1
16	1502921	Ring	1
16	1484383	Heat Shrink	1
17	.....	Connector Assembly (+24 V)	1
17	1493455	Ring	1
17	1493443	Heat Shrink	1
18	.....	Connector Assembly (Backup Diode)	1
18	1610950	Housing (Sealed) (4-Way)	1
18	1610941	Seal (Dummy)	2
18	1484656	Terminal (Socket)	2
18	1482659	Seal (Rubber)	2
19	1610953	Diode (Insert)	1
20	.....	Connector Assembly (Alternator + VE)	1
20	1607801	Terminal (Ring)	1
20	1516237	Heat Shrink	1
21	.....	Connector Assembly (Alternator)	1
21	.....	Connector	1
21	1482663	Connector	1
21	1498498	Fitting	3
21	1330355	Terminal	1
21	1498492	Seal	1
22	.....	Connector Assembly (Alternator Ground)	1
22	1496883	Ring	1
22	1484383	Heat Shrink	1
23	.....	Connector Assembly (AC)	1
23	1493444	Terminal	1
23	1493445	Cover	1
24	.....	Connector Assembly (Rear Window Wash Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (Roof Window Wash Pump)	1
25	1484395	Housing (Socket)	1
25	1484396	Terminal	2
26	.....	Connector Assembly (Front Window Wash Pump)	1
26	1484395	Housing (Socket)	1
26	1484396	Terminal	2
27	1500914	Housing (Insert)	1
28	.....	Connector Assembly (Air Conditioning Condensor)	1
28	1493430	Connector	1

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (→ S/N G007E03039D)

ITEM	PART NO.	DESCRIPTION	QTY
28	1463194	Connector	1
28	1484362	Terminal (Socket)	2
28	1330438	Terminal (Socket)	3
28	1330439	Plug	1
29	.....	Connector Assembly (Reverse Alarm)	1
29	1502920	Connector	1
29	1330414	Connector (Secondary Lock)	1
29	1330437	Terminal (Pin)	2
30	.....	Connector (Insert)	1
30	1490242	Connector	1
30	1490243	Connector	1
31	.....	Connector Assembly (LH Rear Lamp)	1
31	1493430	Connector	1
31	1463194	Connector	1
31	1330438	Terminal (Socket)	5
31	1330439	Plug	1
32	.....	Connector Assembly (Fuse Box 3)	1
32	1573113	Fuse Box	1
32	1573114	Cover	1
32	1573115	Terminal	3
32	.....	Terminal	1
33	.....	Connector Assembly (Fuse Box 2)	1
33	1573113	Fuse Box	1
33	1573114	Cover	1
33	1573115	Terminal	8
34	.....	Connector Assembly (Fuse Box 1)	1
34	1573113	Fuse Box	1
34	1573114	Cover	1
34	1573115	Terminal	8
35	.....	Connector Assembly (LPG Relay)	1
35	1607524	Socket	1
35	1607527	Cover	1
35	.....	Clip	1
35	1607525	Terminal	2
35	1607532	Seal	2
35	.....	Terminal	2
35	.....	Seal	2
43	.....	Seal	1

WIRE HARNESS (FIGURE 4-33) CHASSIS, CUMMINS LPG — SHEET 1 OF 2 (S/N G007E03040D →)



BP080426

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
	2088386	Wire Harness (Chassis, Cummins LPG)	1
1	.....	Connector Assembly (Front End)	1
1	1493428	Connector (12-Way)	1
1	1500913	Connector	1
1	1330438	Terminal (Socket)	9
1	1330439	Plug	1
1	1484362	Terminal (Socket)	2
2	.....	Connector (Insert)	1
2	1352603	Connector	1
2	1500925	Connector	1
3	.....	Connector Assembly (ECM)	1
3	1611032	Socket (Socket)	1
3	1484377	Plug	27
3	1507725	Terminal	4
4	.....	Connector Assembly (Engine)	1
4	1503634	Connector	1
4	1484362	Terminal (Socket)	16
5	.....	Connector Assembly	1
5	1484397	Connector (3-Way)	1
5	1463194	Connector	1
5	1518112	Terminal (Socket)	2
5	1330439	Plug	1
6	.....	Connector Assembly (Terminating Resistor)	1
6	1484397	Connector (3-Way)	1
6	1463194	Connector	1
6	1518112	Terminal (Socket)	2
6	1330439	Plug	1
6	1607772	Connector (Termination)	1
7	.....	Connector (Insert)	1
8	.....	Terminal (Ground)	1
8	1493455	Ring	1
8	1493443	Heat Shrink	1
9	1607772	Connector (Termination) (Insert)	1
10	.....	Connector Assembly (Terminating Resistor)	1
10	1484397	Connector (3-Way)	1
10	1463194	Connector	1
10	1518112	Terminal (Socket)	2
10	1330439	Plug	1
11	.....	Terminal (Ground)	1
11	1493455	Ring	1
11	1516237	Heat Shrink	1
12	1402849	Connector Body (Low Pressure Switch)	2
13	.....	Connector Assembly (Temperature Sensor)	1
13	1484598	Terminal	1
13	1484651	Cover	1
14	.....	Connector Assembly (Turbine Speed)	1
14	1508206	Connector (2 Way)	1
14	2787349	Terminal	2
14	2060555	Wire Seal	2
15	.....	Connector Assembly (LPG Solenoid)	1

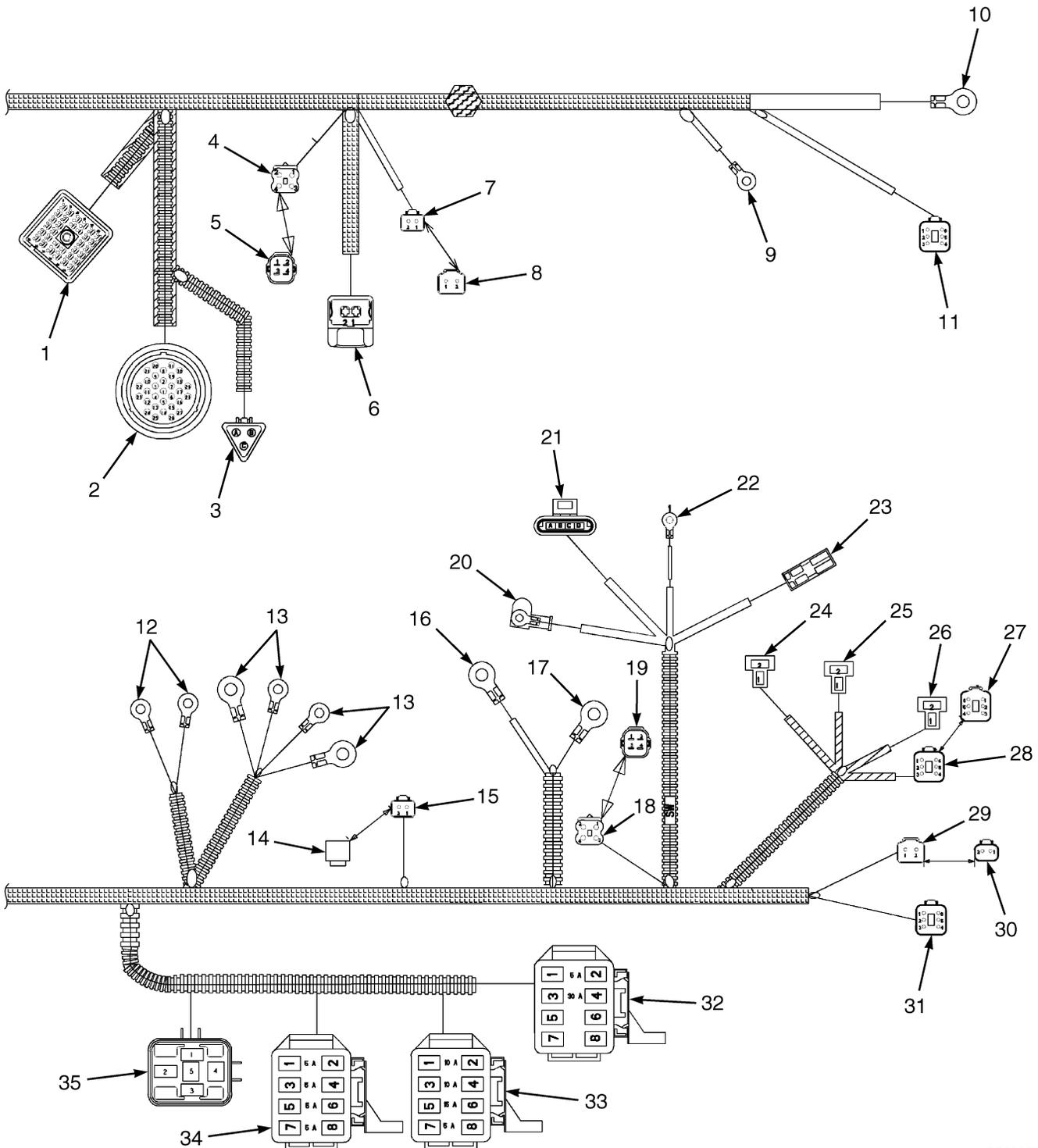
WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
15	1490242	Connector	1
15	1490243	Connector	1
15	1330438	Terminal (Socket)	2
16	.....	Connector Assembly (Battery Box)	1
16	1493459	Ring	1
16	1484383	Heat Shrink	1
17	.....	Connector Assembly (RH HUB Temperature)	1
17	1490242	Connector	1
17	1490243	Connector	1
17	1330438	Terminal (Socket)	2
18	1502920	Connector (Insert)	1
19	.....	Connector Assembly (Park Brake Solenoid)	1
19	1493449	Connector Body	1
19	1484394	Crimp Ferrule	2
20	.....	Connector Assembly (Lift)	1
20	1493447	Connector	1
20	1493436	Terminal (Socket)	2
20	1479109	Seal	2
21	.....	Connector Assembly (Auxiliary)	1
21	1493446	Connector	1
21	1493436	Terminal (Socket)	2
21	1479109	Seal	2
22	.....	Connector Assembly (Tilt)	1
22	1493435	Connector (2-Way)	1
22	1493436	Terminal (Socket)	2
22	1479109	Seal	2
23	.....	Connector Assembly (LH Hub Temperature)	1
23	1490242	Connector	1
23	1490243	Connector	1
23	1330438	Terminal (Socket)	2
24	1502920	Connector (Insert)	1
25	.....	Connector Assembly (Tilt)	1
25	1493435	Connector (2-Way)	1
25	1493436	Terminal (Socket)	2
25	1479109	Seal	2
26	.....	Connector Assembly (Auxiliary)	1
26	1493446	Connector	1
26	1493436	Terminal (Socket)	2
26	1479109	Seal	2
27	1502920	Connector (Insert)	1
28	.....	Connector Assembly (Oil Cooler Harness)	1
28	1490242	Connector	1
28	1490243	Connector	1
28	1330438	Terminal (Socket)	2
29	.....	Connector Assembly (Low)	1
29	1493447	Connector	1
29	1493436	Terminal (Socket)	2
29	1479109	Seal	2
30	.....	Connector Assembly (Cab Tilt Power)	1
30	1490242	Connector	1

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 1 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
30	1490243	Connector	1
30	1484362	Terminal (Socket)	2
31	1502920	Connector (Insert)	1
32	.....	Connector Assembly (Drum Speed)	1
32	1508206	Connector (2 Way)	1
32	2787349	Terminal	2
32	2060555	Wire Seal	2
33	.....	Connector Assembly (Valve)	1
33	1607771	Boot	1
33	1598469	Connector (16-Way)	1
33	.....	Terminal)	16
34	.....	Connector Assembly (Output Speed)	1
34	1508206	Connector (2 Way)	1
34	2787349	Terminal	2
34	2060555	Wire Seal	2
35	.....	Connector Assembly (Engine Speed)	1
35	2787344	Connector (3 Way)	1
35	2787349	Terminal	3
35	2060555	Wire Seal	3
36	1493459	Ring (DC/DC Converter)	2
37	.....	Terminal (Ring) (DC/DC Converter)	1
38	1500914	Housing (Insert)	1
39	.....	Connector Assembly (Lamps)	1
39	1493430	Connector	1
39	1463194	Connector	1
39	1484362	Terminal (Socket)	2
39	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-34) CHASSIS, CUMMINS LPG — SHEET 2 OF 2 (S/N G007E03040D →)



BP080474

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
	2088386	Wire Harness (Chassis, Cummins LPG)	1
1	.....	Connector Assembly (Cab Signals)	1
1	1493431	Housing (Socket)	1
1	1493432	Retainer (Socket)	1
1	1463141	Terminal (Socket)	47
1	1330438	Terminal (Socket)	7
1	1484362	Terminal (Socket)	5
2	.....	Connector Assembly (Cab Supplies)	1
2	1484650	Connector (Socket)	1
2	1518112	Terminal (Socket)	2
2	1484362	Terminal (Socket)	1
2	1330438	Terminal (Socket)	28
3	.....	Connector Assembly (Accelerator Pedal)	1
3	1484397	Connector (3-Way)	1
3	1463194	Connector	1
3	1330438	Terminal (Socket)	3
4	.....	Connector Assembly (Park Brake And Air Dryer Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1484656	Terminal (Socket)	4
4	1482659	Seal (Rubber)	4
4	1610953	Diode	1
5	.....	Connector (Insert)	1
6	.....	Connector Assembly (Air Filter)	1
6	1493435	Connector (2-Way)	1
6	1493436	Terminal (Socket)	2
6	1479109	Seal	2
7	.....	Connector Assembly (Air Dryer)	1
7	1490242	Connector	1
7	1490243	Connector	1
7	1330438	Terminal (Socket)	2
8	.....	Connector (Insert)	1
9	.....	Connector Assembly (Engine Oil pressure)	1
9	1493448	E-Ring	1
9	1484383	Heat Shrink	1
10	.....	Connector Assembly (Coolant Level)	1
10	1493448	E-Ring	1
10	1484383	Heat Shrink	1
11	.....	Connector Assembly (RH Rear Lamps)	1
11	1493430	Connector	1
11	1463194	Connector	1
11	1330438	Terminal (Socket)	5
11	1330439	Plug	1
12	.....	Connector Assembly (Fuse)	1
12	1607801	Terminal (Ring)	1
12	1493443	Heat Shrink	1
13	.....	Connector Assembly (Starter Relay)	4
13	1493459	Ring	2
13	1484383	Heat Shrink	4
13	1493448	E-Ring	1
13	1502921	Ring	1

WIRE HARNESS

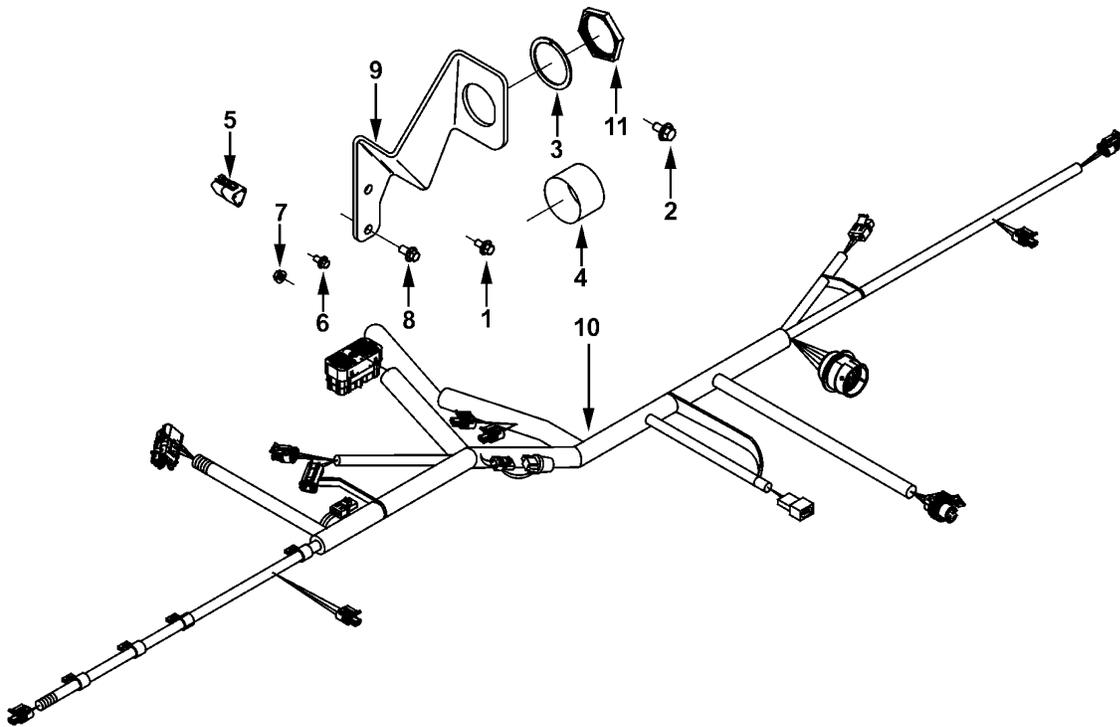
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
14	2058005	Wire Harness (Resistor) (Insert)	1
14	1493465	Connector	1
14	1330414	Connector (Secondary Lock)	1
14	1330437	Terminal (Pin)	2
14	1484598	Terminal	2
14	1484651	Cover	2
14	1561540	Warning Light (Red)	1
15	.....	Connector Assembly (Resistor Harness)	1
15	1490242	Connector	1
15	1490243	Connector	1
15	1330438	Terminal (Socket)	2
16	.....	Connector Assembly (Starter Solenoid)	1
16	1502921	Ring	1
16	1484383	Heat Shrink	1
17	.....	Connector Assembly (+24 V)	1
17	1493455	Ring	1
17	1493443	Heat Shrink	1
18	.....	Connector Assembly (Backup Diode)	1
18	1610950	Housing (Sealed) (4-Way)	1
18	1610941	Seal (Dummy)	2
18	1484656	Terminal (Socket)	2
18	1482659	Seal (Rubber)	2
19	1610953	Diode (Insert)	1
20	.....	Connector Assembly (Alternator + VE)	1
20	1607801	Terminal (Ring)	1
20	1516237	Heat Shrink	1
21	.....	Connector Assembly (Alternator)	1
21	.....	Connector	1
21	1482663	Connector	1
21	1498498	Fitting	3
21	1330355	Terminal	1
21	1498492	Seal	1
22	.....	Connector Assembly (Alternator Ground)	1
22	1496883	Ring	1
22	1484383	Heat Shrink	1
23	.....	Connector Assembly (AC)	1
23	1493444	Terminal	1
23	1493445	Cover	1
24	.....	Connector Assembly (Rear Window Wash Pump)	1
24	1484395	Housing (Socket)	1
24	1484396	Terminal	2
25	.....	Connector Assembly (Roof Window Wash Pump)	1
25	1484395	Housing (Socket)	1
25	1484396	Terminal	2
26	.....	Connector Assembly (Front Window Wash Pump)	1
26	1484395	Housing (Socket)	1
26	1484396	Terminal	2
27	1500914	Housing (Insert)	1
28	.....	Connector Assembly (Air Conditioning Condensor)	1
28	1493430	Connector	1

WIRE HARNESS
CHASSIS, CUMMINS LPG – SHEET 2 OF 2 (S/N G007E03040D →)

ITEM	PART NO.	DESCRIPTION	QTY
28	1463194	Connector	1
28	1484362	Terminal (Socket)	2
28	1330438	Terminal (Socket)	3
28	1330439	Plug	1
29	.....	Connector Assembly (Reverse Alarm)	1
29	1502920	Connector	1
29	1330414	Connector (Secondary Lock)	1
29	1330437	Terminal (Pin)	2
30	.....	Connector (Insert)	1
30	1490242	Connector	1
30	1490243	Connector	1
31	.....	Connector Assembly (LH Rear Lamp)	1
31	1493430	Connector	1
31	1463194	Connector	1
31	1330438	Terminal (Socket)	5
31	1330439	Plug	1
32	.....	Connector Assembly (Fuse Box 3)	1
32	1573113	Fuse Box	1
32	1573114	Cover	1
32	1573115	Terminal	3
32	.....	Terminal	1
33	.....	Connector Assembly (Fuse Box 2)	1
33	1573113	Fuse Box	1
33	1573114	Cover	1
33	1573115	Terminal	8
34	.....	Connector Assembly (Fuse Box 1)	1
34	1573113	Fuse Box	1
34	1573114	Cover	1
34	1573115	Terminal	8
35	.....	Connector Assembly (LPG Relay)	1
35	1607524	Socket	1
35	1607527	Cover	1
35	.....	Clip	1
35	1607525	Terminal	2
35	1607532	Seal	2
35	.....	Terminal	2
35	.....	Seal	2
43	.....	Seal	1

**WIRE HARNESS (FIGURE 4-35)
ENGINE CONTROL SYSTEM — CUMMINS DIESEL**



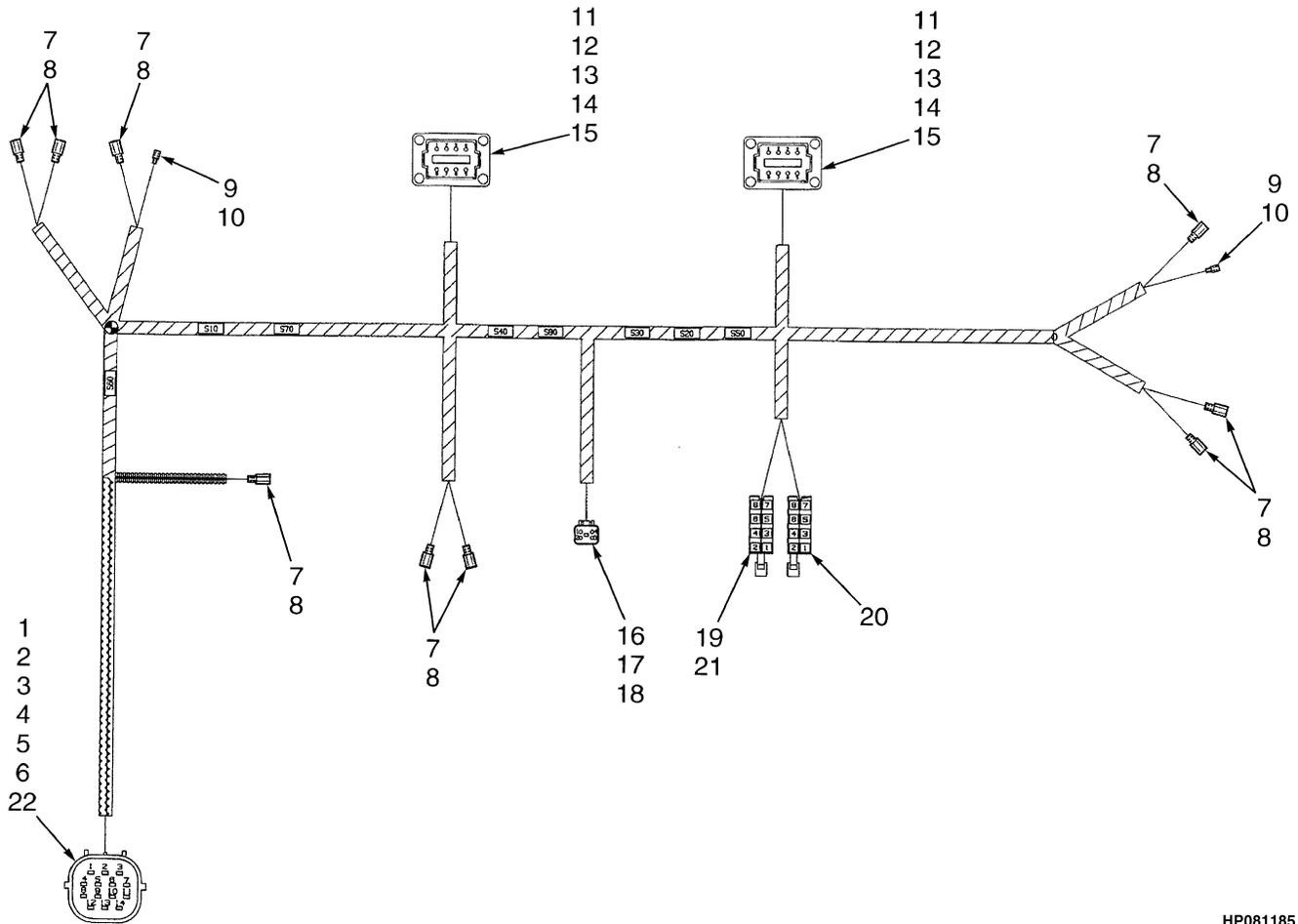
HP091180

WIRE HARNESS
ENGINE CONTROL SYSTEM – CUMMINS DIESEL

ITEM	PART NO.	DESCRIPTION	QTY
	a 2060717	Engine Assy-Diesel (With Wet Brake)	1
	b 2074944	Engine Assy-Diesel (With Wet Brake)	1
	a 2060718	Engine Assy-Diesel (With Dry Brake)	1
	b 2074945	Engine Assy-Diesel (With Dry Brake)	1
1	1517266	Capscrew	2
2	1512460	Capscrew	1
3	1517299	Lockwasher	1
4	1521981	Cover (Protective)	1
5	1521982	Cover (Protective)	1
6	1512097	Capscrew	2
6	1517194	Screw	2
7	1513793	Nut	2
8	1513749	Capscrew	2
9	1544133	Brace	1
10	1544134	Wire Harness (Electronic Control Module)	1
10	1618092	Relay (24-Volt)	1
11	1515694	Nut	1

FOOTNOTES:**a** → S/N G007E02037C**b** S/N G007E02038C →

WIRE HARNESS (FIGURE 4-36) CLOSED CAB (→ S/N G007E02505C)

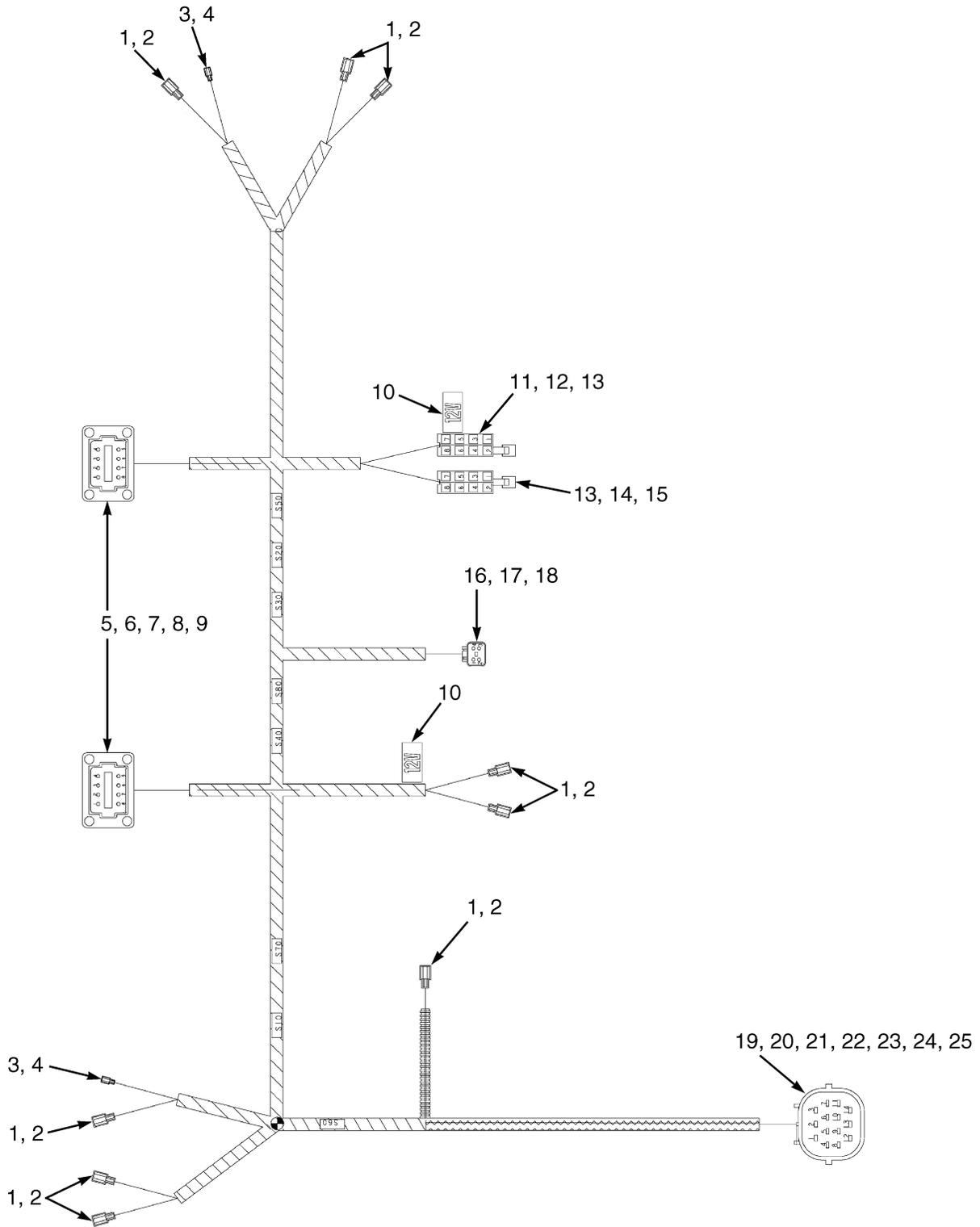


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WIRE HARNESS
CLOSED CAB (→ S/N G007E02505C)

ITEM	PART NO.	DESCRIPTION	QTY
	2042506	Wire Harness	1
1	1484592	Connector	1
2	1484593	Retainer (Pin)	1
3	1484594	Terminal (Pin)	4
4	1484595	Seal (Brown)	4
5	1484596	Terminal (Pin)	8
6	1484597	Seal (Blue)	8
7	1484598	Terminal	8
8	1484599	Housing	8
9	1484600	Terminal	2
10	1484383	Heat Shrink	2
11	1490244	Housing (With Flange)	2
12	1330418	Connector	2
13	1330437	Terminal (Pin)	8
14	1363885	Terminal (Pin)	2
15	1330439	Plug	6
16	1330438	Terminal (Socket)	4
17	1484607	Connector (Socket)	1
18	1330427	Connector	1
19	1484608	Housing (Socket)	1
20	1484609	Housing (Socket) (Black)	1
21	1484610	Terminal	4
22	1484611	Seal (Blanking) (Brown)	2

WIRE HARNESS (FIGURE 4-37) CLOSED CAB (S/N G007E02506C →)

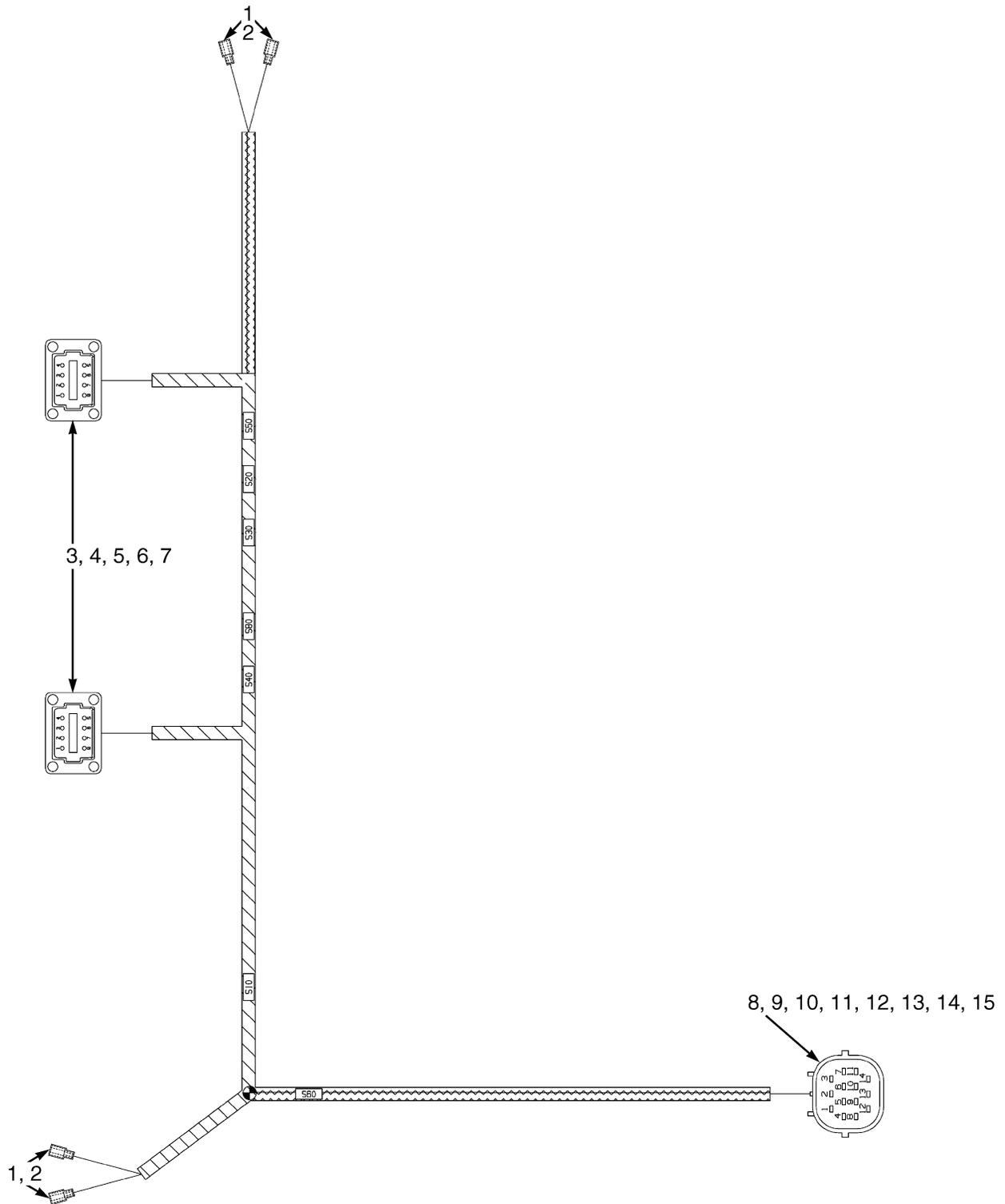


BP080364

WIRE HARNESS
CLOSED CAB (S/N G007E02506C →)

ITEM	PART NO.	DESCRIPTION	QTY
	2079044	Wire Harness	1
1	1484598	Terminal	9
2	1484599	Housing	9
3	1484600	Terminal	2
4	1484383	Heat Shrink	2
5	1570603	Housing	2
6	1330418	Connector	2
7	1330437	Terminal (Pin)	8
8	1363885	Terminal (Pin)	2
9	1330439	Plug	6
10	1570645	Label (12 Volt)	2
11	1484609	Housing (Socket)	1
12	1484719	Terminal	1
13	1570601	Gasket	2
14	1484608	Housing (Socket)	1
15	1484610	Terminal	4
16	1489656	Connector (4-Way)	1
17	1489657	Connector	1
18	1330438	Terminal (Socket)	4
19	1484592	Connector	1
20	1484593	Retainer	1
21	1484594	Terminal (Pin)	4
22	1484595	Seal	4
23	1484596	Terminal (Pin)	8
24	1454597	Bar	8
25	1484611	Seal (Blanking)	2

**WIRE HARNESS (FIGURE 4-38)
OPEN CAB**

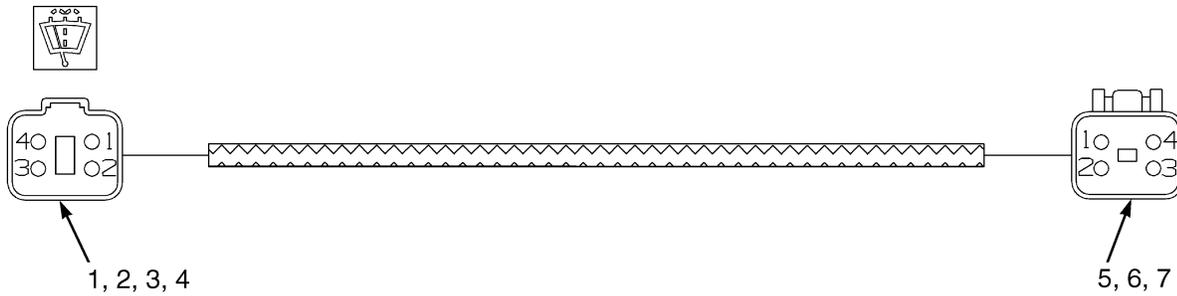


BP080363

**WIRE HARNESS
OPEN CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2042507	Wire Harness (Open Cab)	1
1	1484598	Terminal	4
2	1484599	Housing	4
3	1570603	Housing	2
4	1330418	Connector	2
5	1330437	Terminal (Pin)	8
6	1363885	Terminal (Pin)	2
7	1330439	Plug	6
8	1484592	Connector	1
9	1484593	Retainer	1
10	1484594	Terminal (Pin)	4
11	1484595	Seal (Brown)	4
12	1484596	Terminal (Pin)	3
13	1484597	Seal (Blue)	3
14	1484611	Seal (Blanking) (Brown)	1
15	1570601	Gasket	2

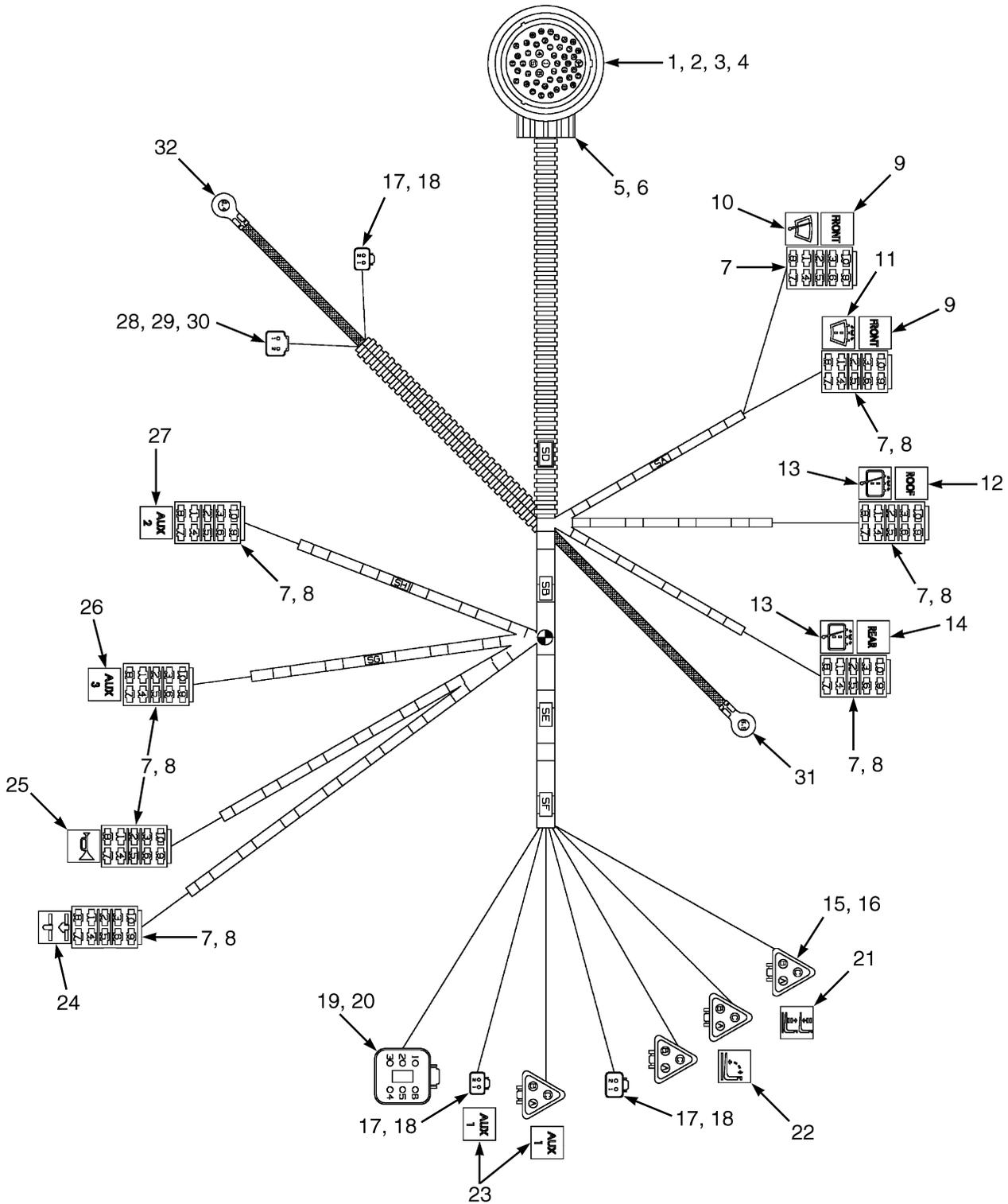
WIRE HARNESS (FIGURE 4-39) REAR WIPER



BP080355

ITEM	PART NO.	DESCRIPTION	QTY
	2043546	Wire Harness (Rear Wiper)	1
1	1489655	Connector (4 Way)	1
2	1330416	Connector	1
3	1330437	Terminal (Pin)	4
4	1570644	Label	1
5	1489656	Connector (4-Way)	1
6	1489657	Connector	1
7	1330438	Terminal (Socket)	4

WIRE HARNESS (FIGURE 4-40) ARMREST — WITH CLOSED CAB

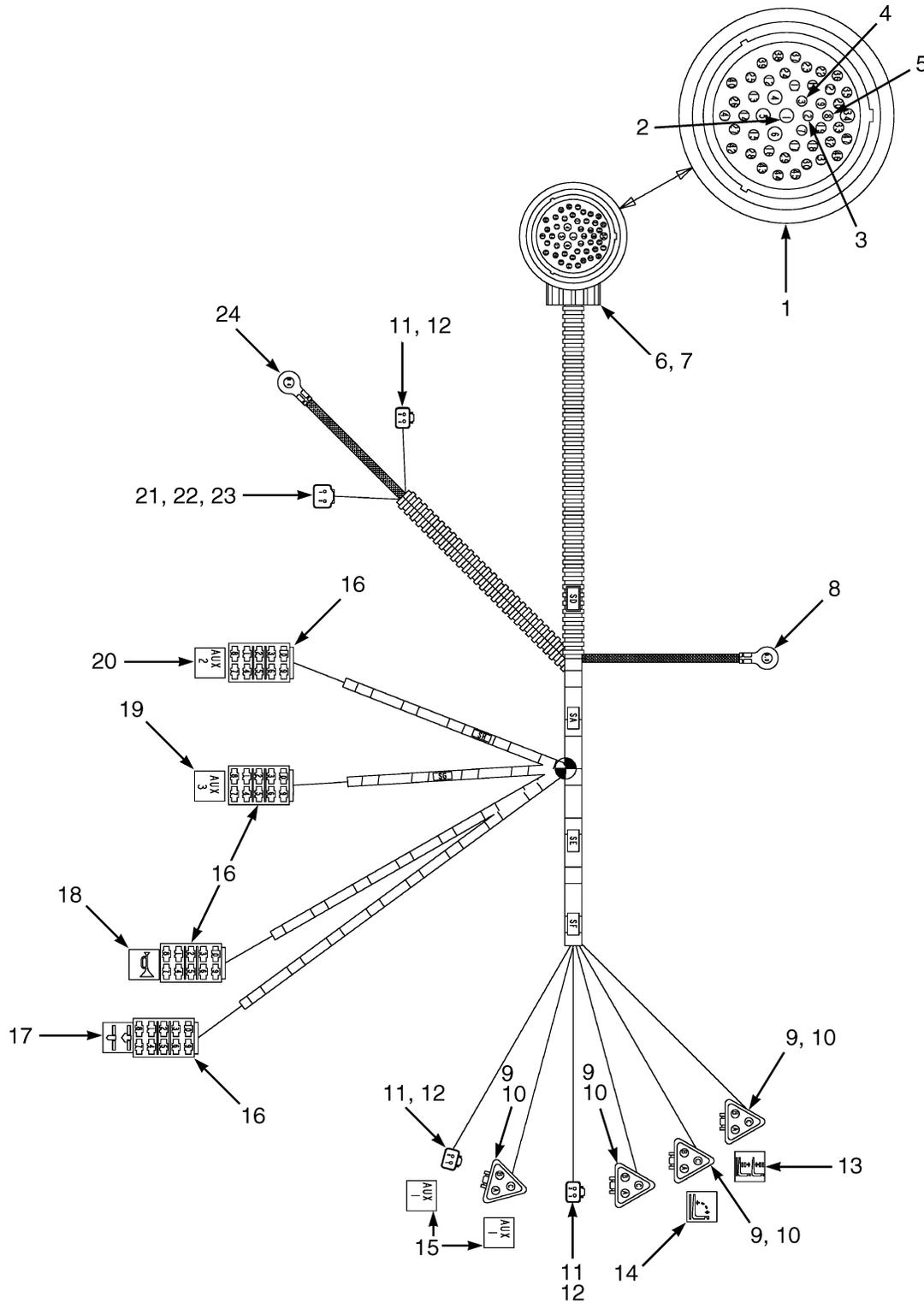


BGP080368

**WIRE HARNESS
ARMREST – WITH CLOSED CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2054225	Wire Harness (Armrest) (Closed Cab)	1
1	1484554	Connector	1
2	1330438	Terminal (Socket)	29
3	1463141	Terminal (Socket)	31
4	1484377	Plug	11
5	1506881	Cap	1
6	1506883	Clip	8
7	1484555	Switch (10-Way)	8
8	1484556	Terminal	29
9	1570608	Label (Front)	1
10	1570611	Label (Front Wiper Switch)	1
11	1570614	Label (Wash)	1
12	1570609	Label (Roof)	1
13	1570612	Label (RR/Roof Wash Wiper Switch)	2
14	1570610	Label (Rear)	1
15	1484397	Connector (3-Way)	4
16	1463194	Connector	4
17	1490242	Connector	3
18	1490243	Connector	3
19	1493430	Connector	1
20	1529052	Connector	1
21	1497364	Label (Hoist)	1
22	1497365	Label (Tilt)	1
23	1497366	Label (AUX 1)	1
24	1570613	Label (Twist Lock)	1
25	1570617	Label (Horn)	1
26	1607748	Label (AUX 3)	1
27	1607747	Label (AUX 2)	1
28	1493465	Connector	1
29	1330414	Connector (Secondary Lock)	1
30	1330437	Terminal (Pin)	2
31	1493459	Ring	1
32	1506885	Ring	1

WIRE HARNESS (FIGURE 4-41) ARMREST — WITH OPEN CAB

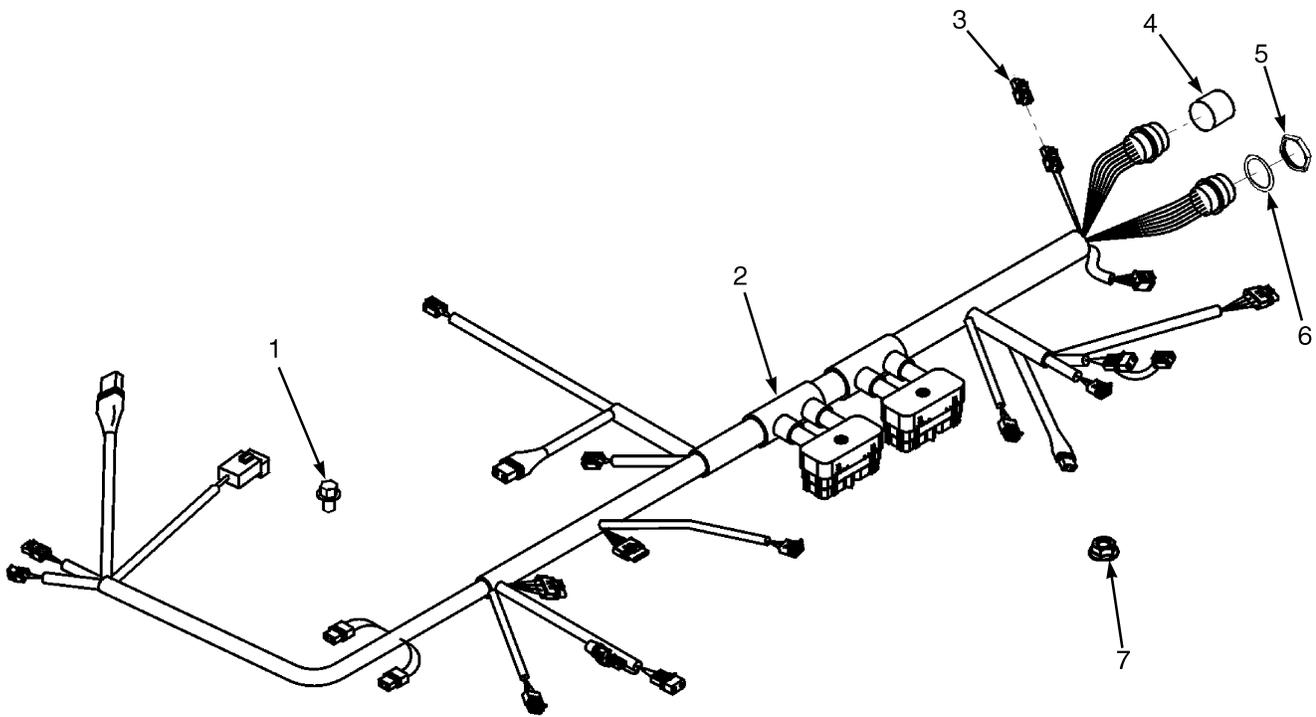


BP080373

**WIRE HARNESS
ARMREST – WITH OPEN CAB**

ITEM	PART NO.	DESCRIPTION	QTY
	2054224	Wire Harness (Armrest) (Open Cab)	1
1	1484554	Connector (Side Console)	1
2	1330438	Terminal (Socket)	20
3	1463141	Terminal (Socket)	21
4	1484377	Plug	21
5	1330439	Plug	3
6	1506881	Cap	1
7	1506883	Clip	1
8	1506885	Ring	1
9	1484397	Connector (3-Way)	4
10	1463194	Connector	4
11	1490242	Connector	3
12	1490243	Connector	3
13	1497364	Label (Hoist)	1
14	1497365	Label (Tilt)	1
15	1497366	Label (AUX 1)	2
16	1484555	Switch (10-Way) (10 Way)	4
17	1570613	Label (Twist Lock)	1
18	1570617	Label (Horn)	1
19	1607748	Label (AUX 3)	1
20	1607747	Label (AUX 2)	1
21	1493465	Connector (Operator Presense Switch)	1
22	1330414	Connector (Secondary Lock)	1
23	1330437	Terminal (Pin)	2
24	1493459	Ring	1

WIRE HARNESS (FIGURE 4-42) ENGINE CONTROL SYSTEM — CUMMINS LPG

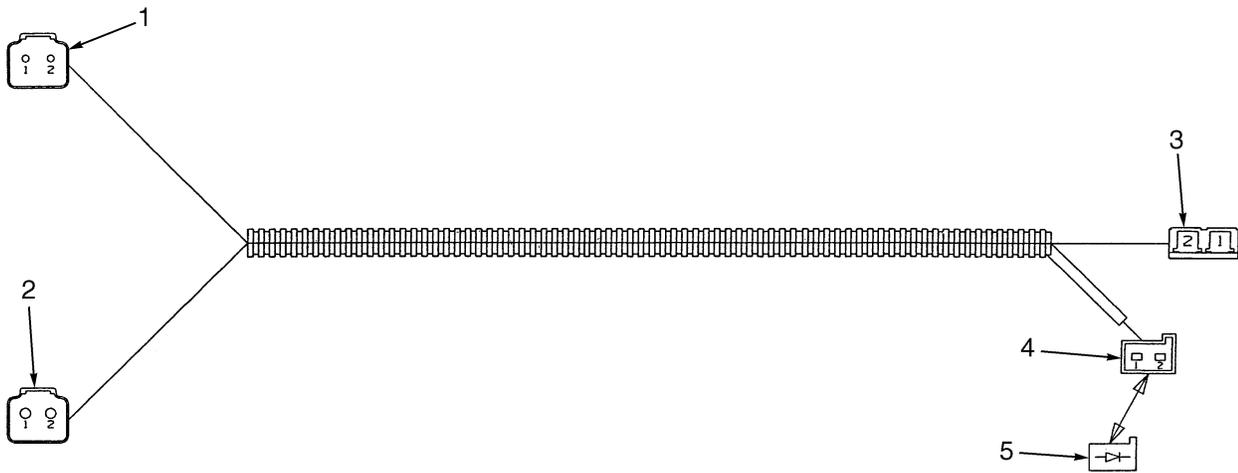


BP080442

WIRE HARNESS
ENGINE CONTROL SYSTEM – CUMMINS LPG

ITEM	PART NO.	DESCRIPTION	QTY
	2076902	Engine Assy-Lpg (With Wet Brake)	1
	2076903	Engine Assy-Lpg (With Dry Brake)	1
1	1513749	Capscrew	1
2	1614617	Wire Harness (Engine Control System)	1
3	1521982	Cover (Protective)	1
4	1521981	Cover (Protective)	1
5	1515694	Nut	2
6	1517299	Lockwasher	2
7	1513793	Nut	1

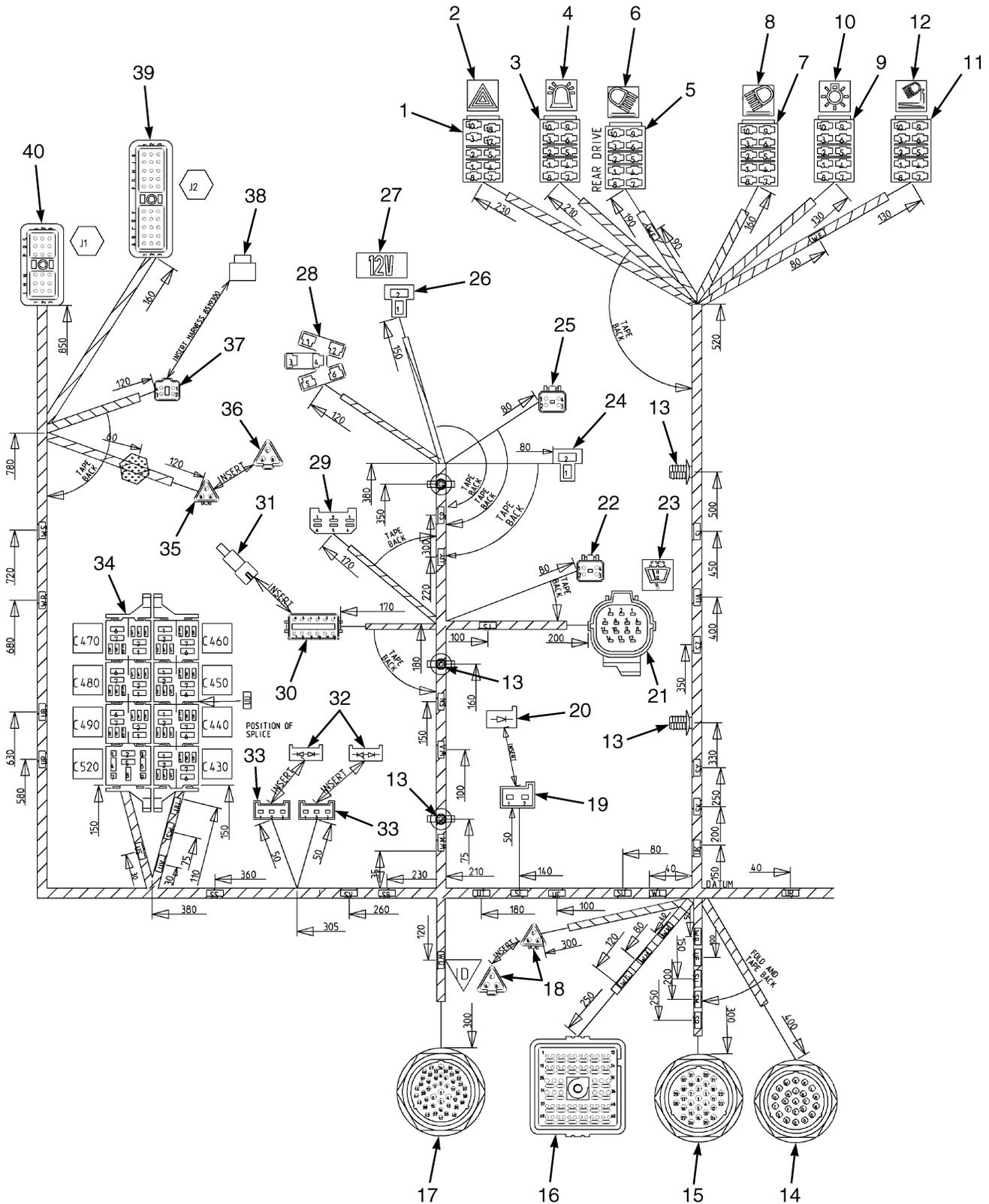
WIRE HARNESS (FIGURE 4-43) CAB TILT



BP080161

ITEM	PART NO.	DESCRIPTION	QTY
	2049849	Wire Harness (Cab Tilt)	1
1	2051270	Connector (Frame Harness)	1
1	1493465	Connector	1
1	1330414	Connector (Secondary Lock)	1
1	1363885	Terminal (Pin)	2
2	2051279	Connector (Tilt Pump)	1
2	1545202	Connector	1
2	1546697	Connector	1
2	1493434	Terminal (Socket)	2
3	2051205	Connector (Tilt Switch)	1
3	346330	Connector Body	1
3	1484375	Terminal	2
4	2051228	Connector (Pump Diode)	1
4	1484687	Connector (Socket)	1
4	1484718	Terminal (Socket)	2
5	1490252	Diode (Single)	1

WIRE HARNESS (FIGURE 4-44) CAB SIDE CONSOLE — SHEET 1 OF 3



HP081695

WIRE HARNESS

CAB SIDE CONSOLE – SHEET 1 OF 3

KEY:

- A: Harness 2066200 (Perkins)**
B: Harness 2076603 (Cummins)
C: Harness 2079043 (Cummins)

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	a 2066200	Wire Harness (Side Console)	1	..	..
	b 2076603	Wire Harness (Side Console) .....	..	1	..
	c 2079043	Wire Harness (Side Console) .....	..	..	1
1	1484675	Switch (Hazard Light)	1	1	1
1	233141	Terminal	2	2	2
1	1484556	Terminal	7	7	7
2	1570638	Label (Hazard Light) (Hazard)	1	1	1
3	1484555	Switch (10-Way) (Beacon/Strobe)	1	1	1
3	1484556	Terminal	3	3	3
4	1570639	Label (Beacon Switch) (Beacon/Strobe)	1	1	1
5	1484555	Switch (10-Way) (Rear Drive Light)	1	1	1
5	1484556	Terminal	4	4	4
6	1497362	Label (Rear Worklight Switch) (Rear Drive Light)	1	1	1
7	1484555	Switch (10-Way) (Front Flood Light)	1	1	1
7	233141	Terminal	4	4	4
8	1497361	Label (Front Worklight Switch) (Front Floor Light)	1	1	1
9	1484555	Switch (10-Way) (Side/Front Drive Light)	1	1	1
9	1484556	Terminal	4	4	4
10	1570641	Label (Roadlight Switch) (Side/Front Drive Light)	1	1	1
11	1484555	Switch (10-Way) (Mast Lights)	1	1	1
11	1484556	Terminal	2	2	2
11	233141	Terminal	2	2	2
12	1570643	Label (Mast And Attachment Worklight) (Mast Lights)	1	1	1
13	1500927	Clip	1	1	1
14	1500919	Connector (Not Used On This Unit)	1	1	1
14	1484685	Locknut (Not Used On This Unit)	1	1	1
14	1484686	Washer (Spring) (Not Used On This Unit)	1	1	1
14	1330439	Plug (Not Used On This Unit)	16	16	16
14	1330437	Terminal (Pin) (Not Used On This Unit)	7	7	7
15	1484666	Housing (Engine Power)	1	1	1
15	1484685	Locknut	1	1	1
15	1484686	Washer (Spring)	1	1	1
15	1502712	Terminal (Pin)	2	2	2
15	1493434	Terminal (Socket)	3	3	3
15	1330437	Terminal (Pin)	28	28	28
16	1484363	Housing (Socket) (PowerTrain Signal)	1	1	1
16	1484662	Key (Retainer Pin)	1	1	1
16	1502712	Terminal (Pin)	2	2	2
16	1484709	Terminal (Pin)	2	..	2
16	1330439	Plug .....	..	2	..
17	1484666	Housing (Arm Rest Harness)	1	1	1
17	1484686	Washer (Spring)	1	1	1
17	1484686	Washer (Spring)	1	1	1
17	1330437	Terminal (Pin)	5	5	5

WIRE HARNESS CAB SIDE CONSOLE – SHEET 1 OF 3

KEY:

- A: Harness 2066200 (Perkins)**
- B: Harness 2076603 (Cummins)**
- C: Harness 2079043 (Cummins)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
17	1463140	Terminal (Pin)	29	29	29
17	1484377	Plug	11	11	11
18	1484397	Connector (3-Way) (Converter)	1	1	1
18	1330438	Terminal (Socket)	3	3	3
19	1582102	Housing (Park Brake Diode)	1	1	1
19	1484718	Terminal (Socket)	2	2	2
20	1582103	Diode	1	1	1
21	1484654	Connector (14-Way) (Cabin Roof)	1	1	1
21	1484655	Retainer (Socket)	1	1	1
21	1484708	Terminal (Socket)	4	4	4
21	1484595	Seal	4	49	4
21	1484656	Terminal (Socket)	9	9	9
21	1484597	Seal	9	9	9
22	1489656	Connector (4-Way) (Rear Wiper)	1	1	1
22	1489657	Connector	1	1	1
22	1330438	Terminal (Socket)	4	4	4
23	1570644	Label (Rear Wiper)	1	1	1
24	1465378	Connector Body (Map Light)	1	1	1
24	1484556	Terminal	2	2	2
25	1489656	Connector (4-Way) (Heater)	1	1	1
25	1489657	Connector	1	1	1
25	1330438	Terminal (Socket)	2	2	2
25	1363886	Terminal (Socket)	2	2	2
26	1465378	Connector Body (12 Volt Accessory)	1	1	1
26	1484556	Terminal	2	2	2
27	1570645	Label (12 Volt)	1	1	1
28	370728	Connector Body (Ignition Switch)	1	1	1
28	1484375	Terminal	3	3	3
28	141462	Terminal	1	1	1
29	1484676	Housing (Socket) (Front Wiper Timer)	1	1	1
29	1484556	Terminal	6	6	6
30	1493428	Connector (12-Way) (Indicator Display)	1	1	1
30	1500913	Connector	1	1	1
30	1330438	Terminal (Socket)	10	10	10
30	1330439	Plug	2	2	2
31	.....	Lift Interrupt Bypass Harness (Not Used On This Unit)	1	1	1
32	1484717	Diode	2	2	2
33	2047859	Connector Body (Flyback Diode)	2	2	2
33	1484718	Terminal (Socket)	8	8	8
34	1484714	Clip (RH) (☞ Figure 4-46).....	2	2	2
34	1484715	Clip (LH)	2	2	2
35	1484397	Connector (3-Way) (Resistor)	1	1	1
35	1610944	Lock	2	2	2
36	1607772	Connector (Termination)	1	1	1

WIRE HARNESS
CAB SIDE CONSOLE – SHEET 2 OF 3**KEY:****A: Harness 2066200 (Perkins)****B: Harness 2076603 (Cummins)****C: Harness 2079043 (Cummins)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	a 2066200	Wire Harness (Side Console)	1	..	..
	b 2076603	Wire Harness (Side Console) .....	..	1	..
	c 2079043	Wire Harness (Side Console) .....	..	..	1
1	.....	Connector (Instrument Cluster)	1	1	1
1	1484677	Plug (24-Way)	1	1	1
1	1484716	Terminal	16	16	16
2	1484394	Crimp Ferrule (Park Brake Switch)	4	4	4
3	1500928	Switch (2-way)	1	1	1
4	1561756	Cover (Lower)	1	1	1
5	1567676	Cover (Upper)	1	1	1
6	1570606	Strap Clamp	1	1	1
7	1610948	Receptacle	2	2	2
8	1610947	Receptacle (Buzzer)	2	2	2
9	1490245	Clip	3	3	3
10	1484681	Fuse Box (10-Way) (☞Figure 4-46).....	4	4	4
10	1484682	Fuse Box	4	4	4
10	1489957	Connector (1-Way)	50	50	50
10	1389479	Terminal	15	15	15
10	1490250	Terminal (2-Way)	5	5	5
11	1490242	Connector (Service Power)	1	1	1
11	1490243	Connector	1	1	1
11	1330438	Terminal (Socket)	2	2	2
12	1493465	Connector	1	1	1
13	1525589	Connector (PWM Trimer)	1	1	1
13	1330417	Connector	1	1	1
13	1330437	Terminal (Pin)	4	4	4
13	1330439	Plug	2	2	2
13	1330438	Terminal (Socket)	6	6	6
14	1500912	Clip	1	1	1
15	1484668	Socket	1	1	1
16	1484397	Connector (3-Way) (Diagnostic Plug)	1	1	1
16	1610944	Lock	1	1	1
16	1518112	Terminal (Socket)	2	2	2
17	1493466	Connector	1	1	1
18	1493466	Connector (Lights) .....	..	..	1
18	1330437	Terminal (Pin) .....	..	..	3
18	2082215	Wire Harness (Lights) (Insert, Closed Cab) .....	..	..	1
18	2082217	Wire Harness (Lights) (Insert, Open Cab) .....	..	..	1
19	1506762	Housing (4-Way) (Transmission Diagnostic)	1	1	1
19	1490246	Terminal (Socket)	3	3	3
20	1607843	Cap	1	1	1
21	.....	Connector Assembly (ECM CAN)	1	1	1
21	1493430	Connector	1	1	1
21	1529052	Connector	1	1	1

WIRE HARNESS CAB SIDE CONSOLE – SHEET 2 OF 3

KEY:

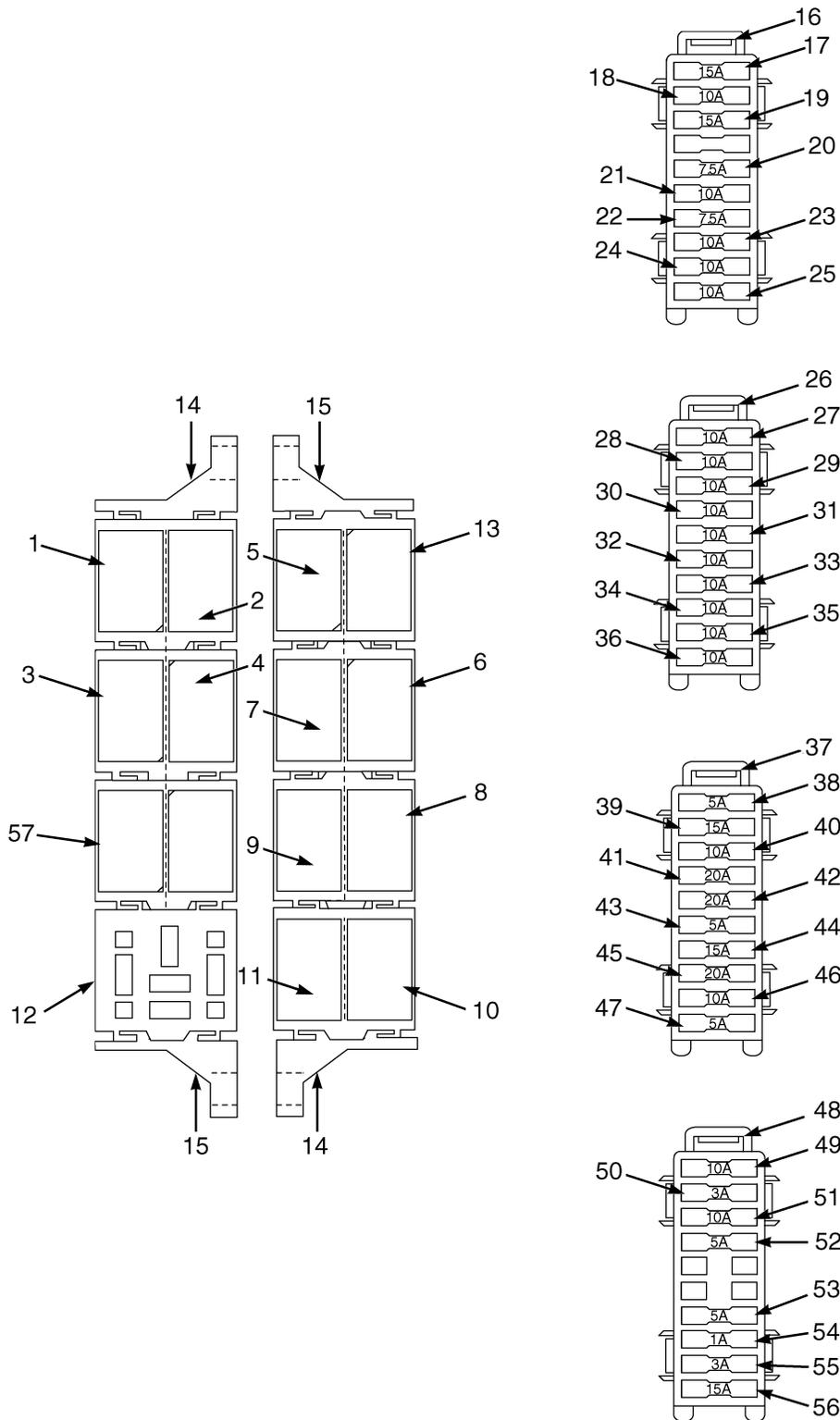
- A: Harness 2066200 (Perkins)**
- B: Harness 2076603 (Cummins)**
- C: Harness 2079043 (Cummins)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
21	1330439	Plug	4	4	4
21	1330438	Terminal (Socket)	2	2	2
22	1490242	Connector (EMC Power)	1	1	1
22	1490243	Connector	1	1	1
22	1330438	Terminal (Socket)	2	2	2
23	1493430	Connector (Auxiliary 1 CAN)	1	1	1
23	1529052	Connector	1	1	1
23	1330439	Plug	4	4	4
23	1330438	Terminal (Socket)	2	2	2
24	1490242	Connector (Auxiliary 1 Power)	1	1	1
24	1490243	Connector	1	1	1
24	1330438	Terminal (Socket)	2	2	2
25	1493430	Connector (Auxiliary 2 ECM CAN)	1	1	1
25	1529052	Connector	1	1	1
25	1330439	Plug	4	4	4
25	1330438	Terminal (Socket)	2	2	2
26	1490242	Connector (Auxiliary 2 Power)	1	1	1
26	1490243	Connector	1	1	1
26	1330438	Terminal (Socket)	2	2	2
27	1484650	Connector (Socket) (Under Floor)	1	1	1
27	1330438	Terminal (Socket)	25	25	25
27	1330439	Plug	5	5	5
27	1363886	Terminal (Socket)	4	4	4
28	1500927	Clip	1	1	1
29	1493428	Connector (12-Way) (Auxiliary 2 Signal)	1	1	1
29	1500913	Connector	1	1	1
29	1330439	Plug	7	7	7
29	1330438	Terminal (Socket)	4	4	4
30	1493428	Connector (12-Way) (Auxiliary 1 Signal)	1	1	1
30	1500913	Connector	1	1	1
30	1330438	Terminal (Socket)	13	13	13
31	1493428	Connector (12-Way) (Hydraulic ECM Signal)	1	1	1
31	1500913	Connector	1	1	1
31	1330439	Plug	1	1	1
31	1330438	Terminal (Socket)	11	11	11

FOOTNOTES:

- a** → S/N G007E02257C
- b** S/N G007E02258C ↔ S/N G007E02599D
- c** S/N G007E02600D →

WIRE HARNESS (FIGURE 4-46) CAB SIDE CONSOLE (RELAYS AND FUSES) — SHEET 3 OF 3



HP081697

WIRE HARNESS

CAB SIDE CONSOLE (RELAYS AND FUSES) – SHEET 3 OF 3

KEY:**A: Harness 2066200 (Perkins Diesel)****B: Harness 2076603 (Cummins Diesel)****C: Harness 2079043 (Cummins Diesel And LPG)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	a 2066200	Wire Harness (Side Console)	1	..	..
	b 2076603	Wire Harness (Side Console) .....	..	1	..
	c 2079043	Wire Harness (Side Console) (Cummins) .....	..	..	1
1	1484683	Relay (Base) (Dual)	7	7	7
2	1489960	Relay (24 Volt) (Over Ride)	1	1	1
3	1489960	Relay (24 Volt) (Seat Switch) .....	..	1	1
4	1489960	Relay (24 Volt) (Ignition)	1	1	1
5	1489960	Relay (24 Volt) (Flood Lights)	1	1	1
6	1489960	Relay (24 Volt) (Neutral)	1	1	1
7	1489960	Relay (24 Volt) (Start Inhibit)	1	1	1
8	1489960	Relay (24 Volt) (Reverse)	1	1	1
9	1489960	Relay (24 Volt) (Lower Interupt)	1	1	1
10	1489960	Relay (24 Volt) (Horn)	1	1	1
11	1489960	Relay (24 Volt) (12-Volt) .....	..	.1	1
12	1484684	Single Mini Relay Base (Single)	1	1	1
13	1489960	Relay (24 Volt) (Lights)	1	1	1
14	1484715	Clip	2	2	2
15	1484714	Clip	2	2	2
16	1484681	Fuse Box (10-Way) (Fuse Box #1)	1	1	1
17	1310630	Fuse (15 Amp) (Hydraulic Controls)	1	1	1
18	370647	Fuse (10 Amp) (Transmission)	1	1	1
19	1310630	Fuse (15 Amp) (Attachment Controls)	1	1	1
20	1300057	Fuse (7.5 Amp) (Transmission B+)	1	1	1
21	370647	Fuse (10 Amp) (Park Brake)	1	1	1
22	1300057	Fuse (7.5 Amp) (Transmission B+)	1	1	1
23	370647	Fuse (10 Amp) (Front Wiper)	1	1	1
24	370647	Fuse (10 Amp) (Roof Wiper)	1	1	1
25	370647	Fuse (10 Amp) (Rear Wiper)	1	1	1
26	1484681	Fuse Box (10-Way) (Fuse Box #2)	1	1	1
27	370647	Fuse (10 Amp) (Front Inner Flood Lights)	1	1	1
28	370647	Fuse (10 Amp) (Front Outer Flood Lights)	1	1	1
29	370647	Fuse (10 Amp) (Rear Drive Lights)	1	1	1
30	370647	Fuse (10 Amp) (Beacon/Strobe)	1	1	1
31	370647	Fuse (10 Amp) (Stop Lights)	1	1	1
32	370647	Fuse (10 Amp) (Mast Lights)	1	1	1
33	370647	Fuse (10 Amp) (Directional Indicators)	1	1	1
34	370647	Fuse (10 Amp) (Hazard Lights)	1	1	1
35	370647	Fuse (10 Amp) (Side/Tail Lights)	1	1	1
36	370647	Fuse (10 Amp) (Front Drive Lights)	1	1	1
37	1484681	Fuse Box (10-Way) (Fuse Box #3)	1	1	1
38	370646	Fuse (5 Amp) (Engine Start)	1	1	1
39	1310630	Fuse (15 Amp) (Air Conditioning)	1	1	1
40	370647	Fuse (10 Amp) (Instrumentation)	1	1	1
41	370648	Fuse (20 Amp) (Cab Tilt Power Assist)	1	1	1

WIRE HARNESS CAB SIDE CONSOLE (RELAYS AND FUSES) – SHEET 3 OF 3

KEY:

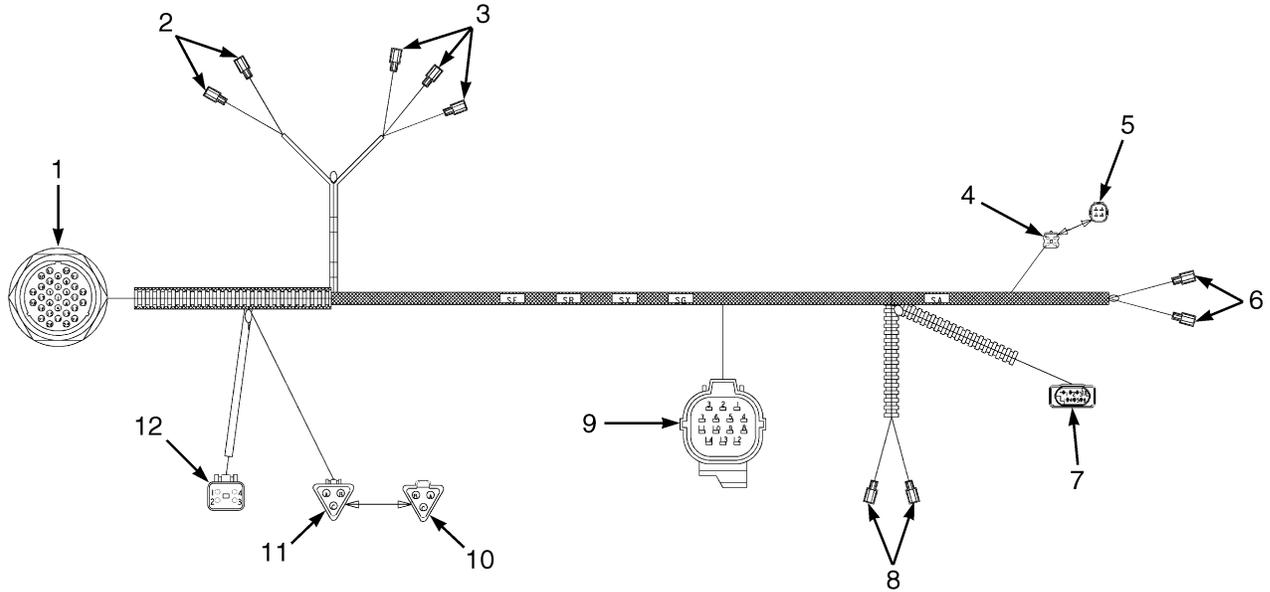
- A: Harness 2066200 (Perkins Diesel)**
- B: Harness 2076603 (Cummins Diesel)**
- C: Harness 2079043 (Cummins Diesel And LPG)**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
42	370647	Fuse (10 Amp) (Horn)	1	1	1
43	370646	Fuse (5 Amp) (Interior Lighting)	1	1	1
44	1310630	Fuse (15 Amp) (Seat Suspension Compression)	1	1	1
45	370648	Fuse (20 Amp) (Heater/AC/Ventilation Fan)	1	1	1
46	370647	Fuse (10 Amp) (Oil Cooler/Air Drier)	1	1	1
47	370646	Fuse (5 Amp) (Reverse Lights/Alarm)	1	1	1
48	1484681	Fuse Box (10-Way) (Fuse Box #4)	1	1	1
49	370647	Fuse (10 Amp) (Console Accessory Socket)	1	1	1
50	1337828	Fuse (3 Amp) (Radio/CB/Intercom)	1	1	1
51	370647	Fuse (10 Amp) (Convertor for Accessories)	1	1	1
52	1337828	Fuse (3 Amp) (12 Volt Relay)	1	1	1
53	370646	Fuse (5 Amp) (LPG Relay) .....	..	..	1
54	1378661	Fuse (1 Amp) (Engine Controller)	1	..	..
55	1337828	Fuse (3 Amp) (Start Aid, Perkins)	1	..	..
56	1310630	Fuse (15 Amp) (Start Aid ,Perkins)	1	..	..
57	1489960	Relay (24 Volt) (Start Aid, Perkins)	1	..	..

FOOTNOTES:

- a** → S/N G007E02257C
- b** S/N G007E02258C ↔ S/N G007E02516C
- c** S/N G007E02517C →

**WIRE HARNESS (FIGURE 4-47)
CAB UNDERFLOOR (→ S/N G007E03039D)**



BP080400

ITEM	PART NO.	DESCRIPTION	QTY
	2066203	Wire Harness (Cab Underfloor)	1
1	.....	Connector Assembly (Side Console)	1
1	1484666	Housing	1
1	1484685	Locknut	1
1	1484686	Washer (Spring)	1
1	1330437	Terminal (Pin)	26
1	1330439	Plug	4
1	1363885	Terminal (Pin)	1
2	.....	Connector (Brake Light Switch)	2
2	1484598	Terminal	1
2	1484651	Cover	1
3	.....	Connector (Low Air Pressure)	3
3	1484598	Terminal	1
3	1484651	Cover	1
4	a 1582102	Housing (Horn Diode)	1
4	b	Connector Assembly (Horn Diode)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1610941	Seal (Dummy)	2
4	1484656	Terminal (Socket)	2
4	1482659	Seal (Rubber)	2
5	a 1582103	Diode (Insert)	1
5	b 1611029	Diode (1-Way) (Insert)	1
6	.....	Connector (Horn)	2
6	1484598	Terminal	1
6	1484651	Cover	1
7	.....	Connector Assembly (Inching Pedal)	1

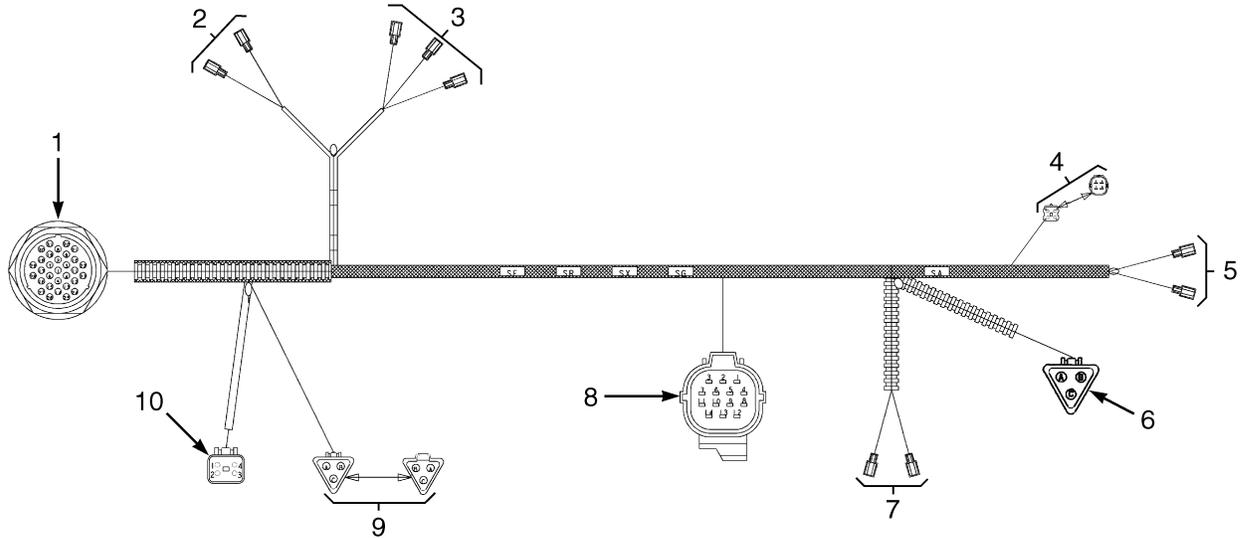
ITEM	PART NO.	DESCRIPTION	QTY
7	1569973	Connector Body	1
7	1569974	Terminal	3
7	1533810	Seal	3
7	1607894	Seal	3
8	.....	Connector (Inching Switch)	2
8	1484598	Terminal	1
8	1484651	Cover	1
9	.....	Connector Assembly (Steering Column)	1
9	1484654	Connector (14-Way)	1
9	1484655	Retainer (Socket)	1
9	1484656	Terminal (Socket)	16
9	1484597	Seal	14
10	1493466	Connector (Insert)	1
11	.....	Connector Assembly (Monotrol Pedal)	1
11	1484397	Connector (3-Way)	1
11	1463194	Connector	1
11	1330438	Terminal (Socket)	3
12	.....	Connector Assembly (Front Wiper)	1
12	1489656	Connector (4-Way)	1
12	1489657	Connector	1
12	1330438	Terminal (Socket)	4

FOOTNOTES:

a → S/N G007E02516C

b S/N G007E02517C →

**WIRE HARNESS (FIGURE 4-48)
CAB UNDERFLOOR (S/N G007E03040D →)**

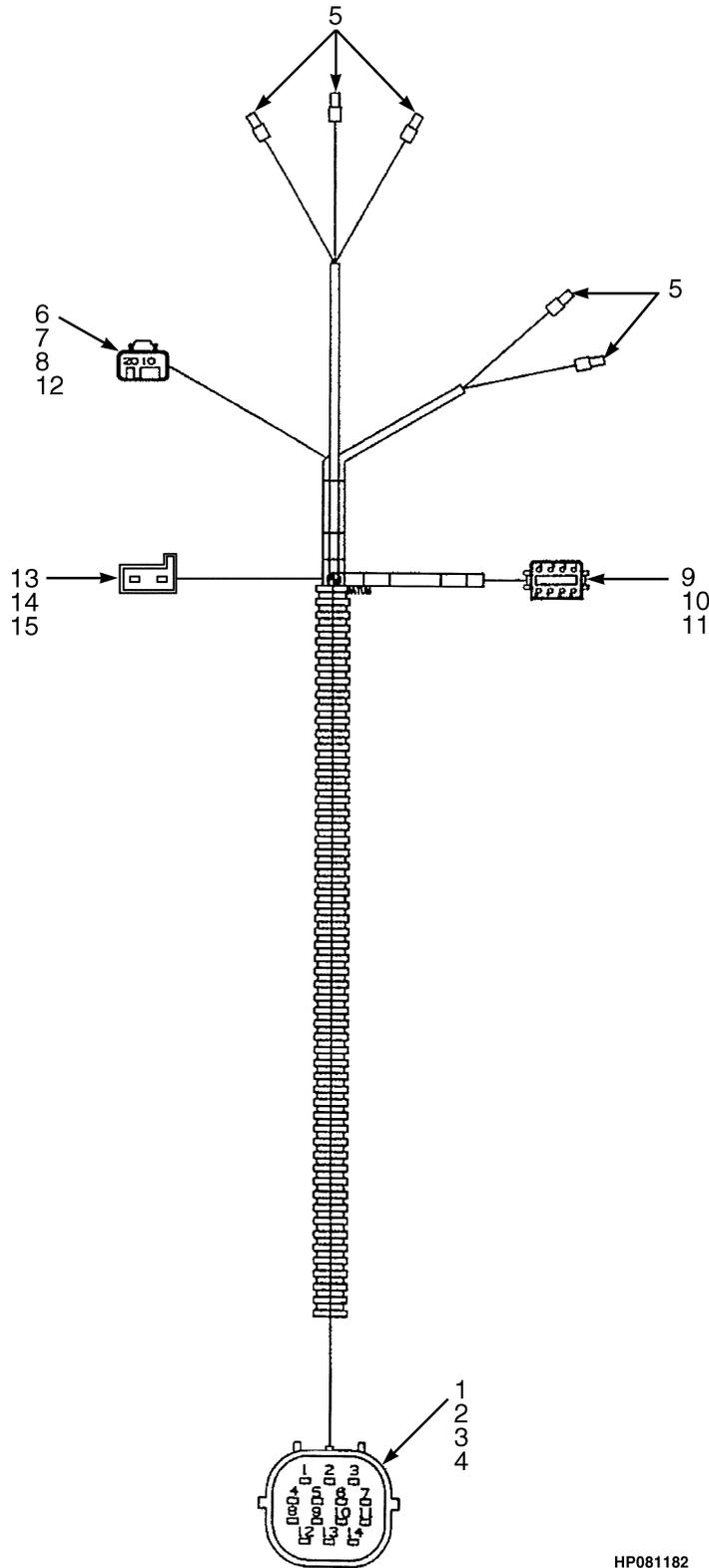


BP080472

ITEM	PART NO.	DESCRIPTION	QTY
	2088035	Wire Harness (Cab Underfloor)	1
1	.....	Connector Assembly (Side Console)	1
1	1484666	Housing	1
1	1484685	Locknut	1
1	1484686	Washer (Spring)	1
1	1330437	Terminal (Pin)	25
1	1330439	Plug	5
1	1363885	Terminal (Pin)	1
2	.....	Connector Assembly (Brake Light Switch)	1
2	1484598	Terminal	2
2	1484651	Cover	2
3	.....	Connector Assembly (Low Air Pressure)	1
3	1484598	Terminal	3
3	1484651	Cover	3
4	.....	Connector Assembly (Horn Diode)	1
4	1611029	Diode (1-Way)	1
4	1610950	Housing (Sealed) (4-Way)	1
4	1610941	Seal (Dummy)	2
4	1484656	Terminal (Socket)	2
4	1482659	Seal (Rubber)	2
5	.....	Connector Assembly (Horn)	1
5	1484598	Terminal	2
5	1484651	Cover	2
6	.....	Connector Assembly (Inching Pedal)	1
6	1484397	Connector (3-Way)	1
6	1463194	Connector	1

ITEM	PART NO.	DESCRIPTION	QTY
6	1330438	Terminal (Socket)	3
7	.....	Connector Assembly (Inching Switch)	1
7	1484598	Terminal	2
7	1484651	Cover	2
8	.....	Connector Assembly (Steering Column)	1
8	1484654	Connector (14-Way)	1
8	1484655	Retainer (Socket)	1
8	1484656	Terminal (Socket)	14
8	1484597	Seal	14
9	.....	Connector Assembly (Monotrol Pedal)	1
9	1484397	Connector (3-Way)	1
9	1463194	Connector	1
9	1330438	Terminal (Socket)	3
9	1493466	Connector	1
9	1330439	Plug	3
10	.....	Connector Assembly (Front Wiper)	1
10	1489656	Connector (4-Way)	1
10	1489657	Connector	1
10	1330438	Terminal (Socket)	4

**WIRE HARNESS (FIGURE 4-49)
STEERING COLUMN**

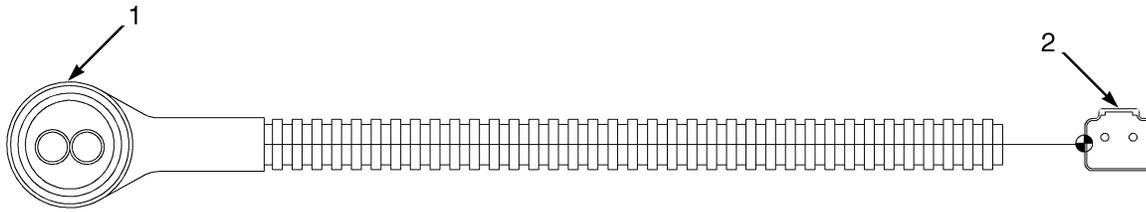


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**WIRE HARNESS
STEERING COLUMN**

ITEM	PART NO.	DESCRIPTION	QTY
	2066204	Wire Harness (Steering Column)	1
1	1484592	Connector	1
2	1484593	Retainer	1
3	1484596	Terminal (Pin)	14
4	1484597	Seal (Blue)	14
5	1484394	Crimp Ferrule	5
6	1484557	Connector	1
7	1484558	Connector	1
8	1463141	Terminal (Socket)	1
9	1484647	Housing (Socket)	1
10	1330429	Connector	1
11	1330438	Terminal (Socket)	8
12	1484377	Plug	1
13	1582102	Housing	1
14	1582103	Diode	1
15	1484718	Terminal (Socket)	2

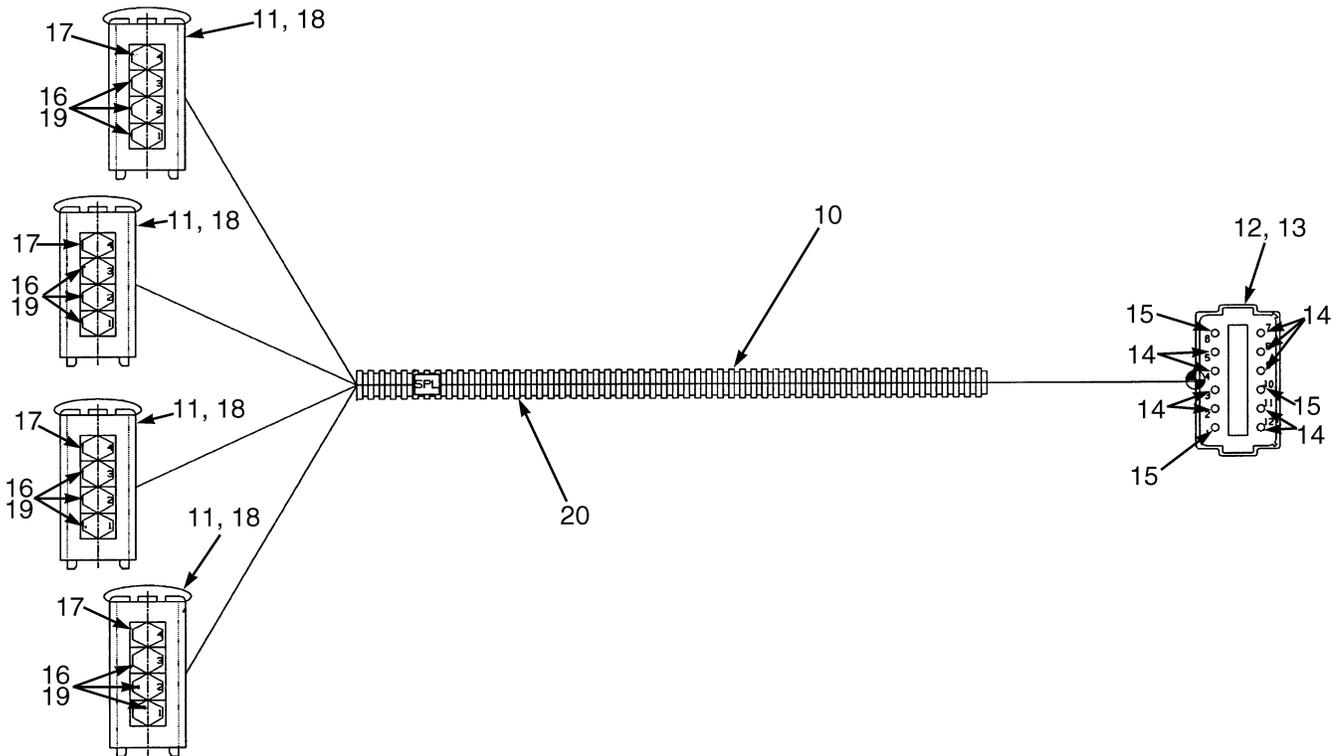
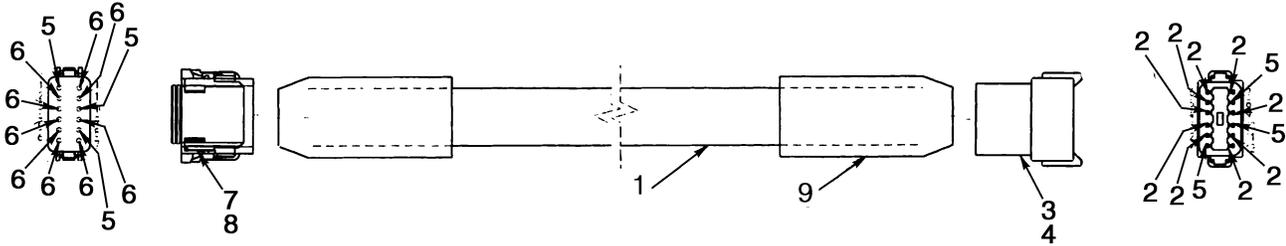
WIRE HARNESS (FIGURE 4-50) AIR DRYER (S/N G007E02676D →)



BP080202

ITEM	PART NO.	DESCRIPTION	QTY
	1602329	Wire Harness (Air Dryer)	1
1	.....	Connector Assembly (Air Dryer)	1
1	1569877	Tube Wldmt-Cylinder	1
1	1493465	Connector	1
1	1516244	Socket	2
1	1516245	Seal	2
2	.....	Connector Assembly (Frame Harness)	1
2	1607779	Housing	1
2	1330414	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	2

**WIRE HARNESS (FIGURE 4-51)
TWO STAGE LIMITED FREE-LIFT**



BP080308

**WIRE HARNESS
TWO STAGE LIMITED FREE-LIFT**

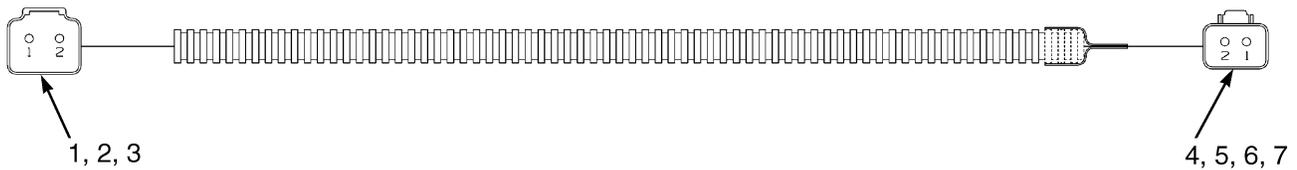
ITEM	PART NO.	DESCRIPTION	QTY
	a 2054251	Wire Harness (3686 mm)	1
	a 2054252	Wire Harness (4586 mm)	1
	a 2054253	Wire Harness (5336 mm)	1
	b 2054254	Wire Harness (3686 mm)	1
	b 2054255	Wire Harness (4586 mm)	1
	b 2054256	Wire Harness (5336 mm)	1
	b 2054257	Wire Harness (6130 mm)	1
	b 2054258	Wire Harness (6630 mm)	1
1	c 1627842	Hose	1
1	d 1569800	Cable	1
2	1330433	Terminal	9
3	1352602	Connector	1
4	1352603	Connector	1
5	1330439	Plug	6
6	1330434	Terminal	9
7	1351068	Connector	1
8	1351069	Connector	1
9	222524	Heat Shrink	AR
10	2055828	Wire Harness (Front End)	1
11	1560114	Dust Cap	4
12	1500925	Connector	1
13	1352603	Connector	1
14	1330437	Terminal (Pin)	9
15	1330439	Plug	3
16	1479109	Seal	12
17	1502919	Plug	4
18	1560115	Housing	4
19	1560116	Terminal	12
20	1493450	Heat Shrink	1

FOOTNOTES:

a H170-H210HD
b H230-H280HD

c → 1/2005
d 1/2005 →

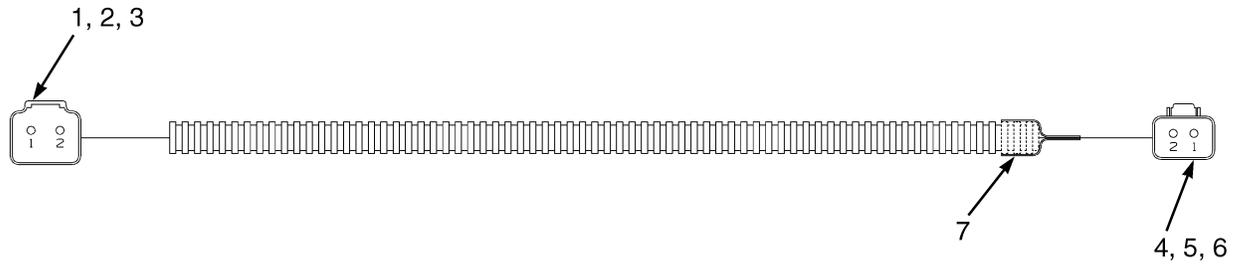
WIRE HARNESS (FIGURE 4-52) MAST LIGHT EXTENSION — LEFT HAND



BP080352

ITEM	PART NO.	DESCRIPTION	QTY
	2043480	Wire Harness (Mast Light Extension, LH)	1
1	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
3	1330437	Terminal (Pin)	2
4	1490242	Connector	1
5	1490243	Connector	1
6	1330438	Terminal (Socket)	2
7	1502750	Heat Shrink	1

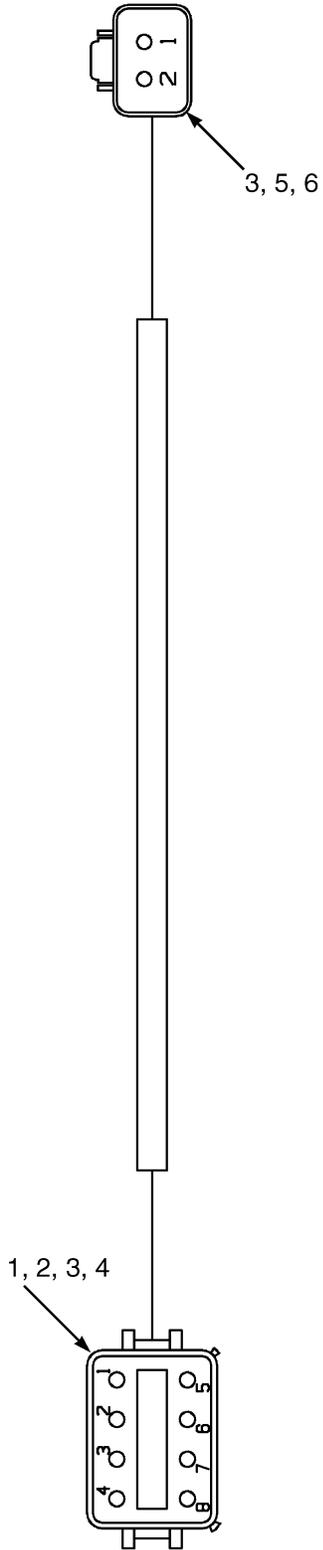
**WIRE HARNESS (FIGURE 4-53)
MAST LIGHT EXTENSION — RIGHT HAND**



BP080345

ITEM	PART NO.	DESCRIPTION	QTY
	2043478	Wire Harness (Mast Light Extension, RH) (RH)	1
1	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
3	1330437	Terminal (Pin)	2
4	1490242	Connector	1
5	1490243	Connector	1
6	1330438	Terminal (Socket)	2
7	1502750	Heat Shrink	AR

**WIRE HARNESS (FIGURE 4-54)
REAR DRIVE LIGHT EXTENSION**

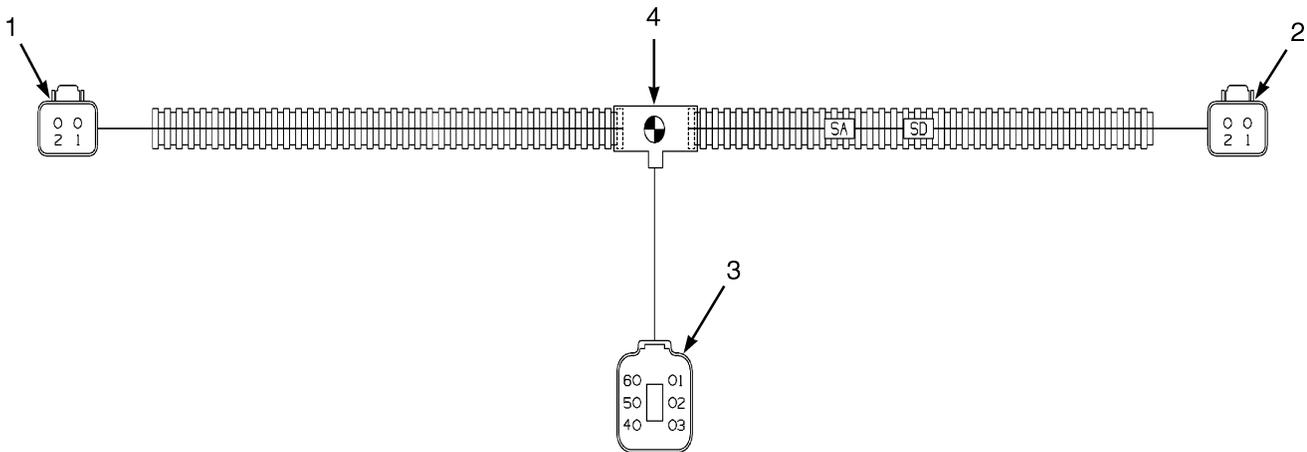


BP080366

**WIRE HARNESS
REAR DRIVE LIGHT EXTENSION**

ITEM	PART NO.	DESCRIPTION	QTY
	2043678	Wire Harness (Rear Drive Light Extension)	1
1	1502625	Connector	1
2	1502626	Connector	1
3	1330438	Terminal (Socket)	4
4	1330439	Plug	6
5	1490242	Connector	1
6	1490243	Connector	1

WIRE HARNESS (FIGURE 4-55) MAST WORKLIGHT EXTENSION



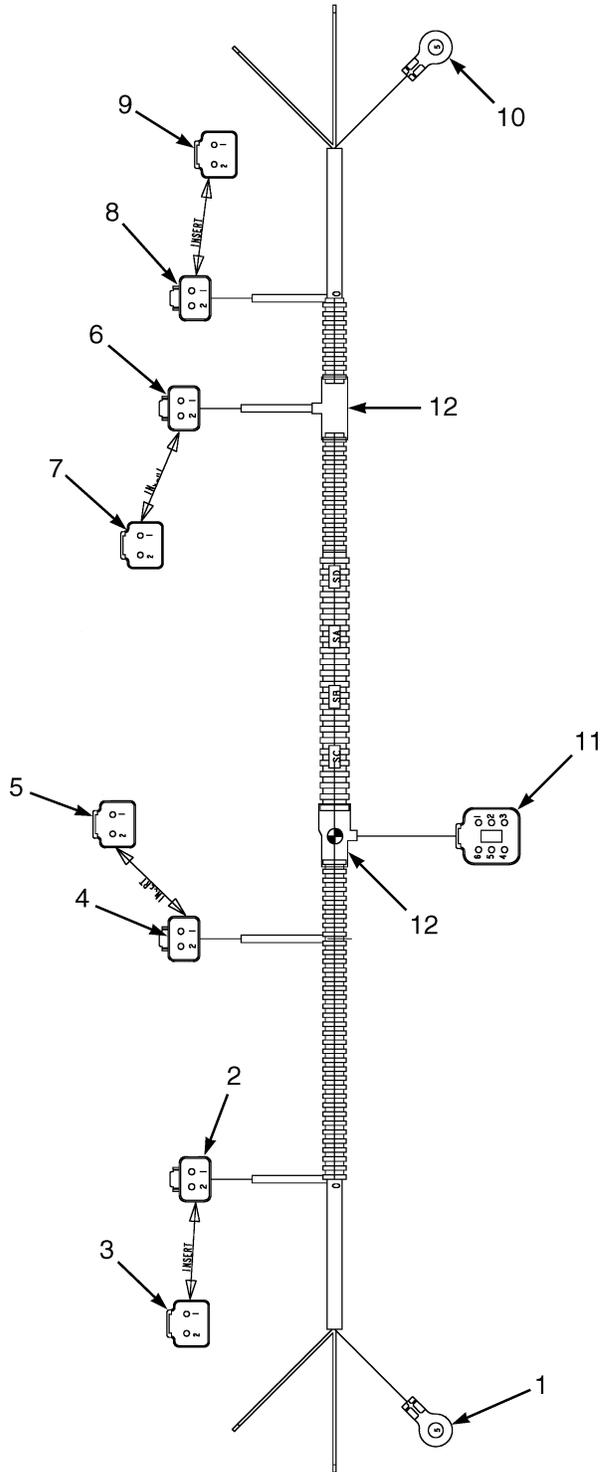
BP080367

ITEM	PART NO.	DESCRIPTION	QTY
	2043677	Wire Harness Mast (Worklight Extension)	1
1	.....	Connector Assembly (Left Hand Mast Light)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1330438	Terminal (Socket)	1
a	1570643	Label (Mast And Attachment Worklight)	1
2	.....	Connector Assembly (Right Hand Mast Light)	1
2	1490242	Connector	1
2	1490243	Connector	2
2	1330438	Terminal (Socket)	2
a	1570643	Label (Mast And Attachment Worklight)	1
3	.....	Connector Assembly (Frame Connection)	1
3	1525589	Connector	1
3	1330417	Connector	1
3	1330437	Terminal (Pin)	2
3	1330439	Plug	4
4	1502490	Connector (Tee)	1

FOOTNOTES:

a Not Illustrated

WIRE HARNESS (FIGURE 4-56) FRONT LIGHTS



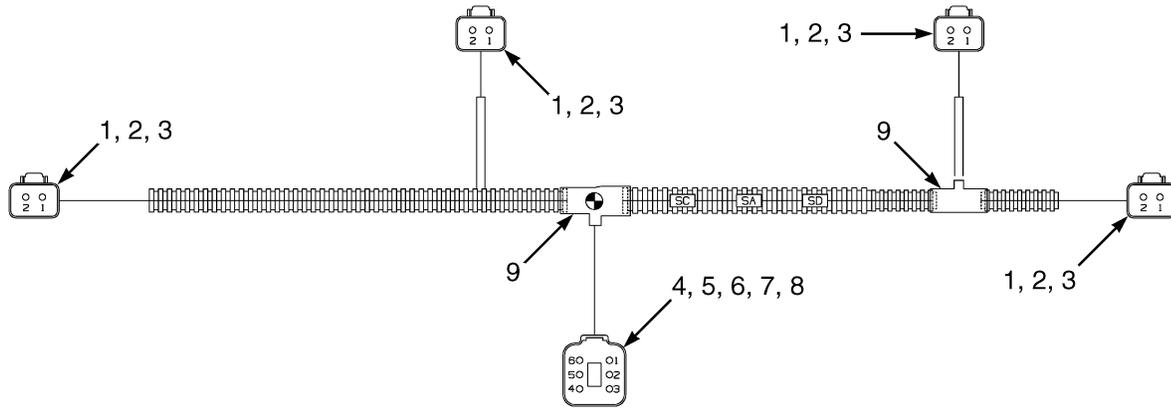
BP080365

**WIRE HARNESS
FRONT LIGHTS**

ITEM	PART NO.	DESCRIPTION	QTY
	2042889	Wire Harness (Front Lights) (Front Lights)	1
1	.....	Connector Assembly (Left Hand Indicators)	1
1	1484394	Crimp Ferrule	2
1	1493448	E-Ring	1
1	1484383	Heat Shrink	1
2	.....	Connector Assembly (Left Hand Drive Light)	1
2	1490242	Connector	1
2	1490243	Connector	1
2	1330438	Terminal (Socket)	2
3	.....	Connector Assembly (Insert)	1
3	1493465	Connector	1
3	1330439	Plug	2
4	.....	Connector Assembly (Left Hand Mast Light)	1
4	1490242	Connector	1
4	1490243	Connector	1
4	1330438	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
5	.....	Connector Assembly (Insert)	1
5	1493465	Connector	1
5	1330439	Plug	2
6	.....	Connector Assembly (Right Hand Mast Light)	1
6	1490242	Connector	1
6	1490243	Connector	1
6	1330438	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
7	.....	Connector Assembly (Insert)	1
7	1493465	Connector	1
7	1330439	Plug	2
8	.....	Connector Assembly (Right Hand Drive Light)	1
8	1490242	Connector	1
8	1490243	Connector	1
8	1330438	Terminal (Socket)	2
9	.....	Connector Assembly (Insert)	1
9	1493465	Connector	1
9	1330439	Plug	2
10	.....	Connector Assembly (Right Side Indicators)	1
10	1484394	Crimp Ferrule	2
10	1493448	E-Ring	1
10	1484383	Heat Shrink	1
11	.....	Connector Assembly (Frame Connector)	1
11	1525589	Connector	1
11	1330417	Connector	1
11	1484712	Terminal (Pin)	2
11	1330437	Terminal (Pin)	4
12	1670534	Connector (T-Piece)	2

FOOTNOTES:**a** Not Illustrated

WIRE HARNESS (FIGURE 4-57) FRONT LIGHTS — WITH FRONT FENDER AND MAST WORK LIGHTS



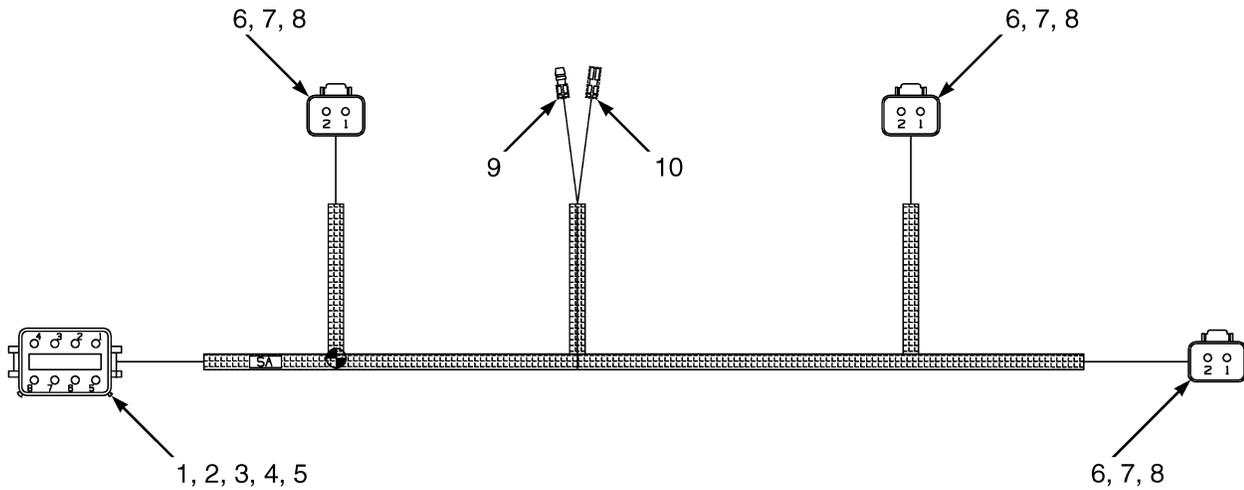
HP081946

WIRE HARNESS
FRONT LIGHTS – WITH FRONT FENDER AND MAST WORK LIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
	2043867	Wire Harness (Front Lights) (Front Lights)	1
1	.....	Connector Assembly (Left Hand Mast Light)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1493434	Terminal (Socket)	2
2	.....	Connector Assembly Left Hand Mast Light	1
2	1490242	Connector	1
2	1490243	Connector	1
2	1493434	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
3	.....	(Connector Assembly) Right Hand Mast Light	1
3	1490242	Connector	1
3	1490243	Connector	1
3	1493434	Terminal (Socket)	2
	a 1570643	Label (Mast And Attachment Worklight)	1
4	.....	Connector Assembly (Right Hand Drive Light)	1
4	1490242	Connector	1
4	1490243	Connector	1
4	1493434	Terminal (Socket)	2
5	.....	Connector Assembly Frame Connector	1
5	1525589	Connector	1
5	1330417	Connector	1
5	1484712	Terminal (Pin)	2
5	1330437	Terminal (Pin)	1
5	1330439	Plug	3

FOOTNOTES:**a** Not Illustrated

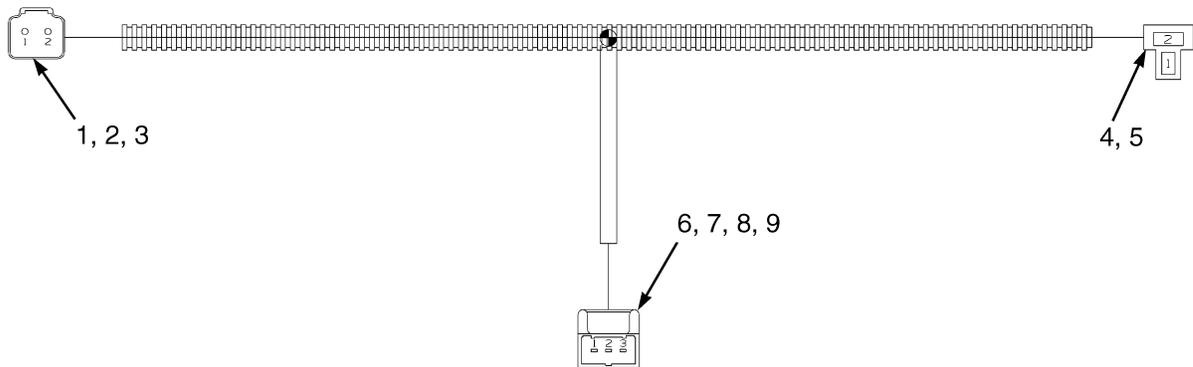
WIRE HARNESS (FIGURE 4-58) CAB LIGHTS



BP080362

ITEM	PART NO.	DESCRIPTION	QTY
	2042724	Wire Harness (Cab Lights)	1
1	1502625	Connector	1
2	1502626	Connector	1
3	1363886	Terminal (Socket)	1
4	1330438	Terminal (Socket)	4
5	1330439	Plug	3
6	1490242	Connector	3
7	1490243	Connector	3
8	1330438	Terminal (Socket)	6
9	1493444	Terminal	1
9	1493445	Cover	1
10	1497358	Terminal	1
10	1497287	Cover	1

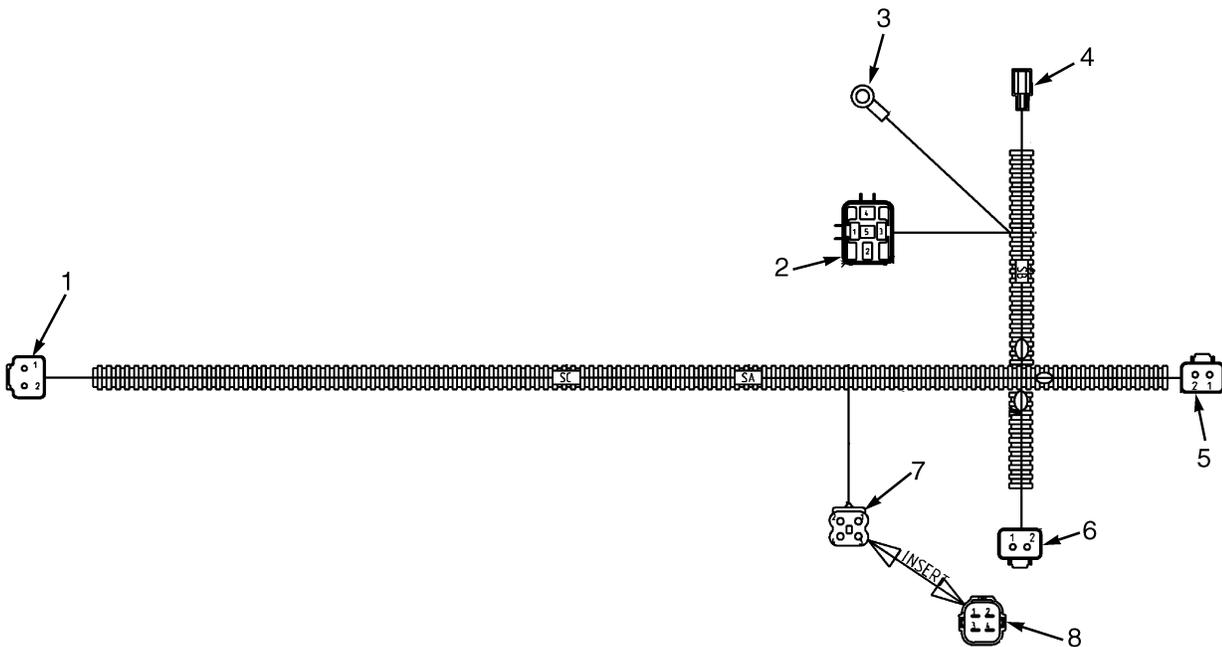
**WIRE HARNESS (FIGURE 4-59)
OIL COOLER**



BP080353

ITEM	PART NO.	DESCRIPTION	QTY
	2043224	Wire Harness (Oil Cooler) (Wet Brake)	1
1	1502920	Connector	1
2	1330414	Connector (Secondary Lock)	1
3	1330437	Terminal (Pin)	2
4	1484395	Housing (Socket)	1
5	1484396	Terminal	2
6	1496777	Housing	1
7	1493436	Terminal (Socket)	2
8	1479109	Seal	2
9	1502919	Plug	1

WIRE HARNESS (FIGURE 4-60) AUXILIARY HYDRAULIC OIL COOLER

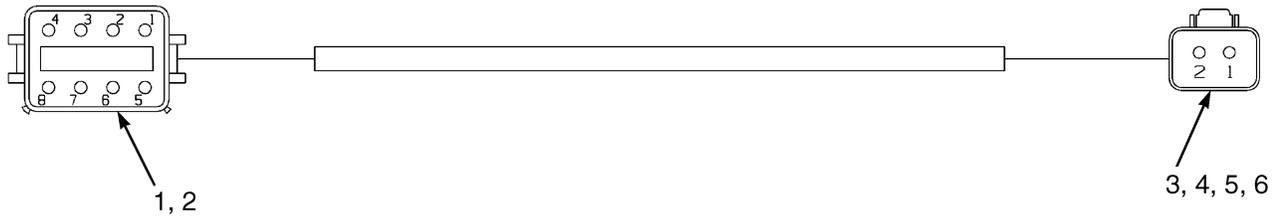


BP080612

ITEM	PART NO.	DESCRIPTION	QTY
	2090340	Wire Harness (Auxiliary Oil Cooler)	1
1	.....	Connector Assembly (Frame)	1
1	1480188	Connector	1
1	1484709	Terminal (Pin)	2
1	1607749	Housing	1
2	.....	Connector Assembly (Cooler Relay)	1
2	1607529	Terminal	1
2	1607527	Cover	1
2	1607528	Seal	1
2	1607525	Terminal	2
2	1607529	Terminal	2
2	1607532	Seal	4
3	.....	Connector Assembly (Ground)	1
3	1664586	Ring Terminal	1
4	.....	Connector Assembly (Thermostat)	1
4	1610948	Receptacle	1
4	1610947	Receptacle	1
5	.....	Connector Assembly (Fan)	1
5	1616227	Housing	1
5	1490243	Connector	1
5	1363886	Terminal (Socket)	2
6	.....	Connector Assembly (Fan)	1
6	1616227	Housing	1
6	1490243	Connector	1
6	1363886	Terminal (Socket)	2
7	.....	Connector Assembly (Diode)	1

ITEM	PART NO.	DESCRIPTION	QTY
7	1610950	Housing (Sealed) (4-Way)	1
7	1610941	Seal (Dummy)	2
7	1484656	Terminal (Socket)	2
7	1482659	Seal (Rubber)	2
8	.....	Insert (Diode)	1
8	1610953	Diode	1

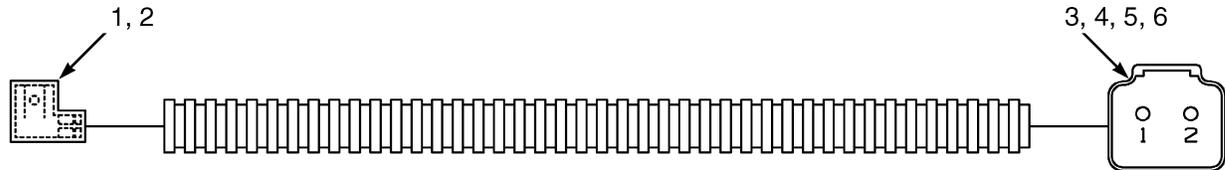
WIRE HARNESS (FIGURE 4-61)
BRAKE TEMPERATURE — NON-ECH AND EC3 (→ S/N G007E02863D)



BP080351

ITEM	PART NO.	DESCRIPTION	QTY
	2043507	Wire Harness (Brake Temperature)	1
1	1493437	Terminal	1
2	1493438	Cover	1
3	1493465	Connector	1
4	1330414	Connector (Secondary Lock)	1
5	1330437	Terminal (Pin)	1
6	1330439	Plug	1

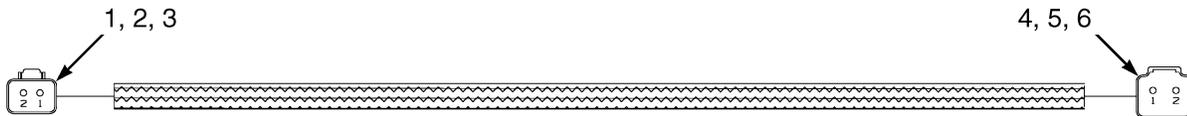
WIRE HARNESS (FIGURE 4-62)
BRAKE TEMPERATURE — EC4 (→ S/N G007E02863D)



BP0803360

ITEM	PART NO.	DESCRIPTION	QTY
	2046000	Wire Harness (Brake Temperature)	1
1	1493437	Terminal	1
2	1493438	Cover	1
3	1493465	Connector	1
4	1330414	Connector (Secondary Lock)	1
5	1330437	Terminal (Pin)	1
6	1330439	Plug	1

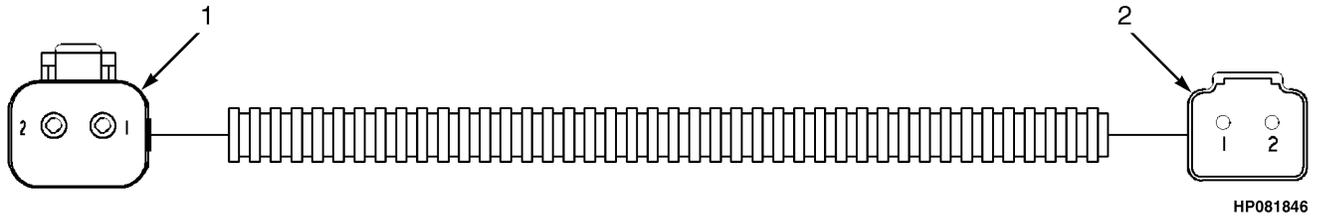
WIRE HARNESS (FIGURE 4-63) BACK-UP ALARM



BP080361

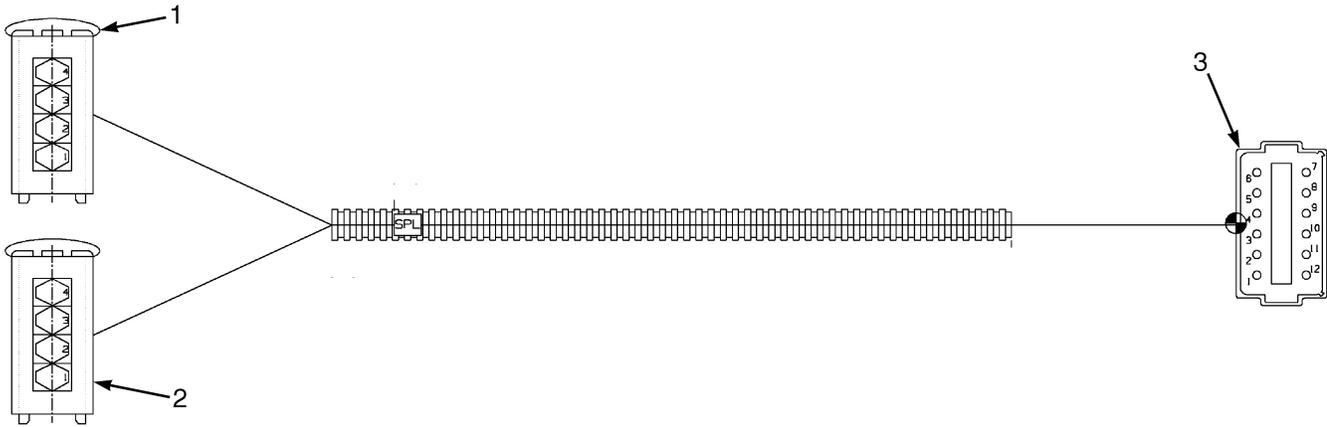
ITEM	PART NO.	DESCRIPTION	QTY
	2045885	Wire Harness (Back-Up Alarm)	1
1	1490242	Connector	1
2	1490243	Connector	1
3	1330438	Terminal (Socket)	2
4	1493465	Connector	1
5	1330414	Connector (Secondary Lock)	1
6	1330437	Terminal (Pin)	2

**WIRE HARNESS (FIGURE 4-64)
BRAKE TEMPERATURE (S/N G007E02864D →)**



ITEM	PART NO.	DESCRIPTION	QTY
	2089087	Wire Harness (Brake Temperature) (Non-ECH and EC3)	1
	2089088	Wire Harness (Brake Temperature) (EC4)	1
1	.....	Connector Assembly (Sensor)	1
1	1490242	Connector	1
1	1490243	Connector	1
1	1493437	Terminal	2
2	.....	Connector Assembly (Frame Harness)	1
2	1493465	Connector	1
2	1330414	Connector (Secondary Lock)	1
2	1330437	Terminal (Pin)	2

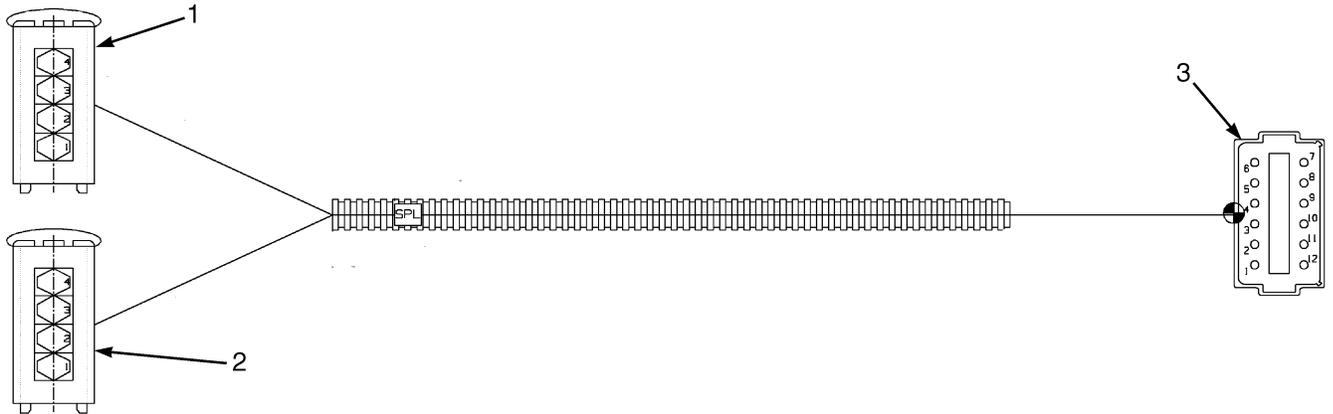
WIRE HARNESS (FIGURE 4-65) FRONT END — FOUR FUNCTION (→ 10/2006)



BP080596

ITEM	PART NO.	DESCRIPTION	QTY
	2087294	Wire Harness (Front End)	1
1	.....	Connector Assembly (Valve Block 1)	1
1	1560115	Housing	1
1	1560114	Dust Cap	1
1	1479109	Seal	3
1	1560116	Terminal	3
1	1502919	Plug	1
2	.....	Connector Assembly (Valve Block 2)	1
2	1560115	Housing	1
2	1560114	Dust Cap	1
2	1479109	Seal	3
2	1560116	Terminal	3
2	1502919	Plug	1
3	.....	Connector Assembly (Mast)	1
3	1500925	Connector	1
3	1352603	Connector	1
3	1330439	Plug	7
3	1330437	Terminal (Pin)	5

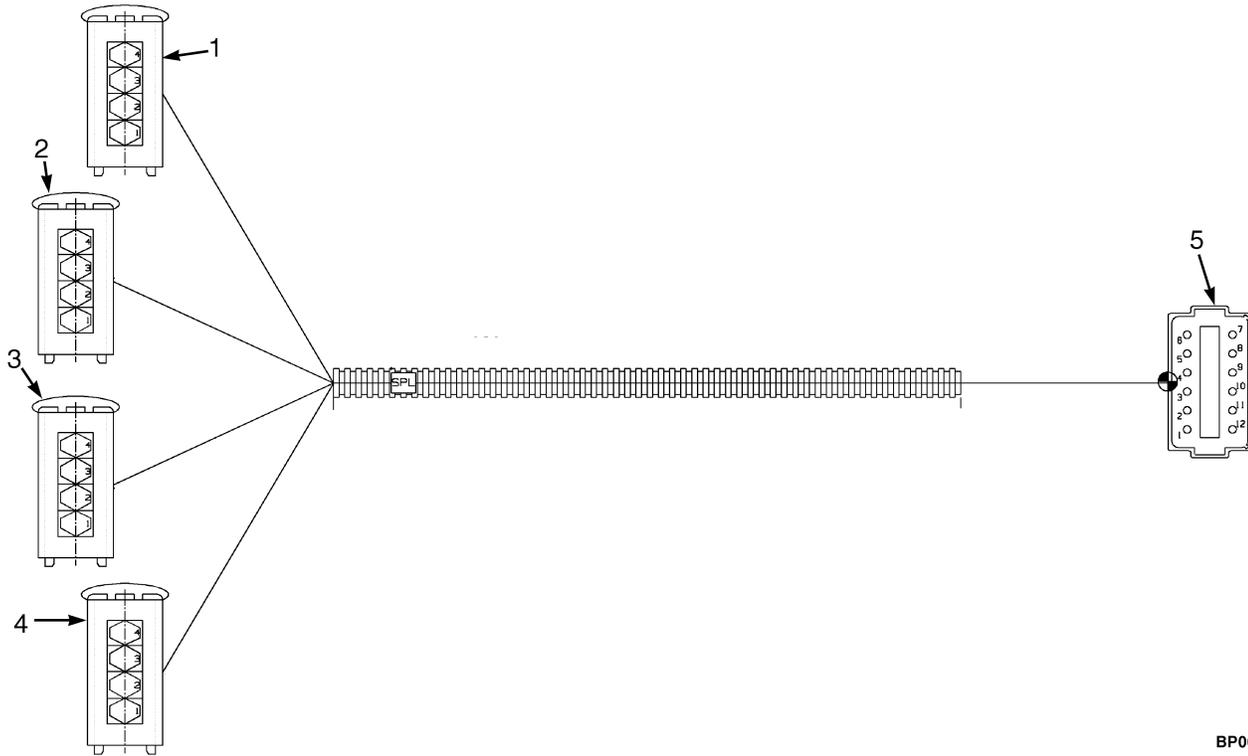
**WIRE HARNESS (FIGURE 4-66)
FRONT END — FIVE FUNCTION (→ 10/2006)**



BP080594

ITEM	PART NO.	DESCRIPTION	QTY
	2087295	Wire Harness (Front End)	1
1	.....	Connector Assembly (Valve Block 1)	1
1	1560115	Housing	1
1	1560114	Dust Cap	1
1	1479109	Seal	3
1	1560116	Terminal	3
1	1502919	Plug	1
2	.....	Connector Assembly (Valve Block 2)	1
2	1560115	Housing	1
2	1560114	Dust Cap	1
2	1479109	Seal	3
2	1560116	Terminal	3
2	1502919	Plug	1
3	.....	Connector Assembly (Mast)	1
3	1500925	Connector	1
3	1352603	Connector	1
3	1330439	Plug	7
3	1330437	Terminal (Pin)	5

WIRE HARNESS (FIGURE 4-67) FRONT END — SIX FUNCTION (→ 10/2006)

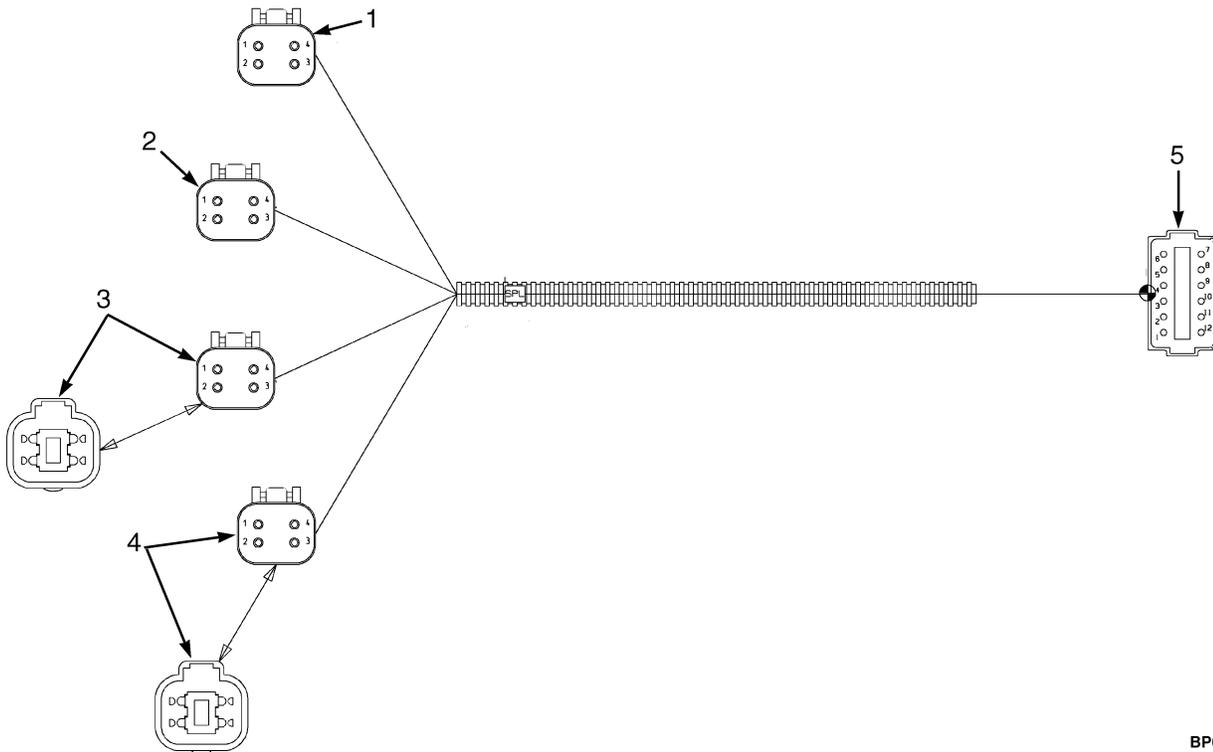


BP0080597

ITEM	PART NO.	DESCRIPTION	QTY
	2055828	Wire Harness (Front End)	1
1	.....	Connector Assembly (Valve Block 1)	1
1	1560115	Housing	1
1	1560114	Dust Cap	1
1	1479109	Seal	3
1	1560116	Terminal	3
1	1502919	Plug	1
2	.....	Connector Assembly (Valve Block 2)	1
2	1560115	Housing	1
2	1560114	Dust Cap	1
2	1479109	Seal	3
2	1560116	Terminal	3
2	1502919	Plug	1
3	.....	Connector Assembly (Valve Block 3)	1
3	1560115	Housing	1
3	1560114	Dust Cap	1
3	1479109	Seal	3
3	1560116	Terminal	3
3	1502919	Plug	1
4	.....	Connector Assembly (Valve Block 4)	1
4	1560115	Housing	1
4	1560114	Dust Cap	1
4	1479109	Seal	3
4	1560116	Terminal	3
4	1502919	Plug	1
5	.....	Connector Assembly (Mast)	1

ITEM	PART NO.	DESCRIPTION	QTY
5	1500925	Connector	1
5	1352603	Connector	1
5	1330439	Plug	3
5	1330437	Terminal (Pin)	9

WIRE HARNESS (FIGURE 4-68) FRONT END — FOUR, FIVE, AND SIX FUNCTION (11/2006 →)



BP080595

ITEM	PART NO.	DESCRIPTION	QTY
	2092486	Wire Harness (Front End)	1
1	.....	Connector Assembly (Valve Block 1)	1
1	1489656	Connector (4-Way)	1
1	1489657	Connector	1
1	1330438	Terminal (Socket)	3
1	1330439	Plug	1
2	.....	Connector Assembly (Valve Block 2)	1
2	1489656	Connector (4-Way)	1
2	1489657	Connector	1
2	1330438	Terminal (Socket)	3
2	1330439	Plug	1
3	.....	Connector Assembly (Valve Block 3)	1
3	1489656	Connector (4-Way)	1
3	1489657	Connector	1
3	1330438	Terminal (Socket)	3
3	1330439	Plug	1
3	.....	Connector Assembly (End Cap)	1
3	1330439	Plug	5
3	1489655	Connector (4 Way)	1
4	.....	Connector Assembly (Valve Block 4)	1
4	1489656	Connector (4-Way)	1
4	1489657	Connector	1
4	1330438	Terminal (Socket)	3
4	1330439	Plug	1
4	.....	Connector Assembly (End Cap)	1
4	1330439	Plug	5

ITEM	PART NO.	DESCRIPTION	QTY
4	1489655	Connector (4 Way)	1
5	.....	Connector Assembly (Mast)	1
5	1500925	Connector	1
5	1352603	Connector	1
5	1330439	Plug	3
5	1330437	Terminal (Pin)	9

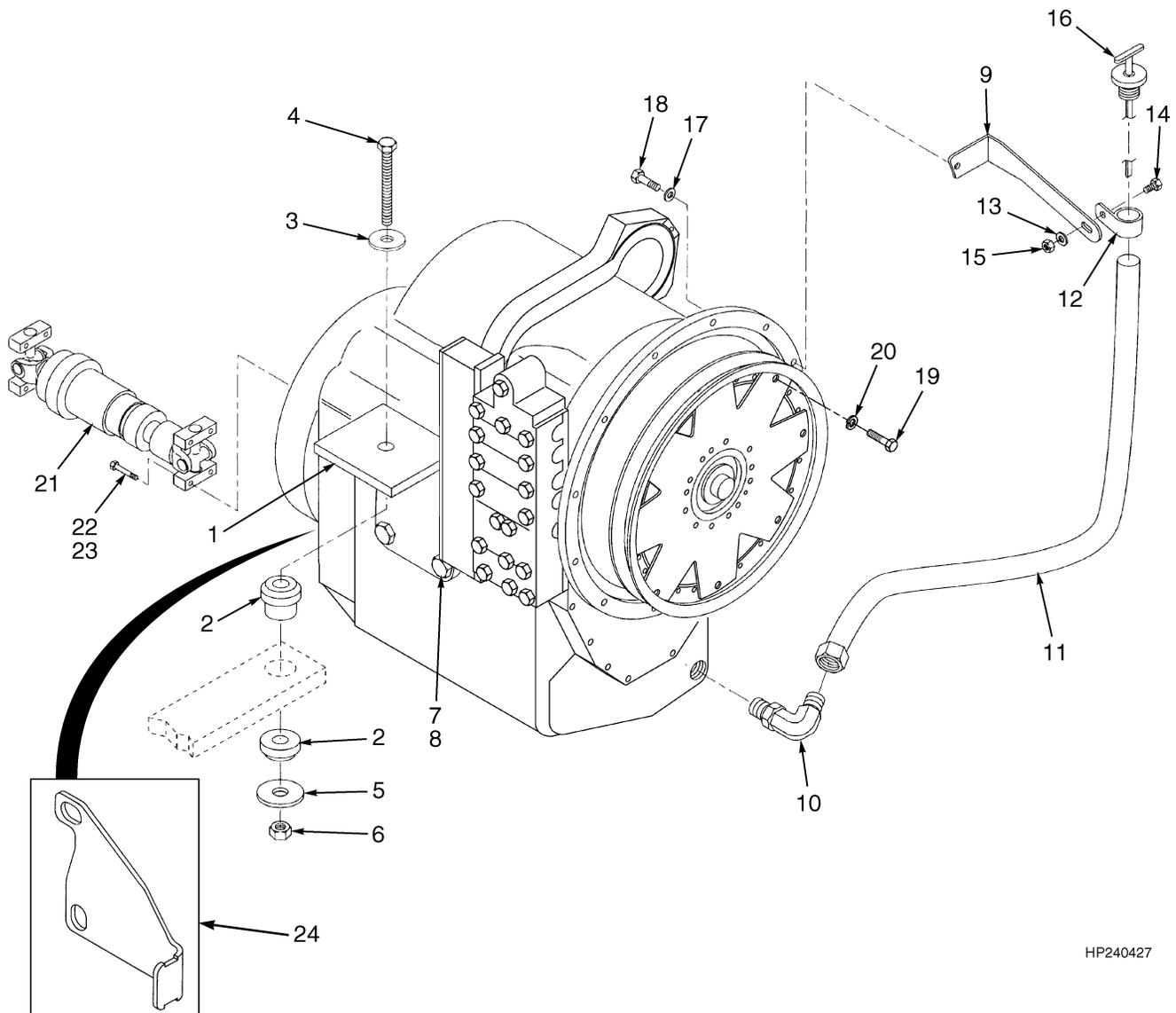
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TRANSMISSION

**SECTION 5
TRANSMISSION**

DESCRIPTION	PAGE
AUXILIARY PUMP DRIVE	
→ S/N G007E01732B (PERKINS) → S/N G007E01719B (CUMMINS)	5-32
S/N G007E01733B → (PERKINS) S/N G007E01720B → (CUMMINS)	5-34
CHARGE PUMP AND FILTER ASSEMBLY	5-16
CONTROL VALVE ASSEMBLY	5-12
DRIVE GEAR	5-30
DRIVE PLATE	5-48
FORWARD CLUTCH	5-22
GEAR CLUTCH INSTALLATION	5-36
IDLER SHAFT	
REVERSE	5-28
LOW CLUTCH	5-20
OUTPUT SHAFT	5-18
REVERSE AND SECOND CLUTCH	5-24
THIRD CLUTCH	5-26
TORQUE CONVERTER ASSEMBLY	
CUMMINS (→ S/N G007E01719B)	5-42
CUMMINS (S/N G007E01720B →)	5-44
PERKINS (→ S/N G007E01732B)	5-38
PERKINS (S/N G007E01733B →)	5-40
TORQUE CONVERTER HOUSING AND ATTACHING PARTS	5-6
TRANSMISSION CASE	
→ S/N G007E01732B (PERKINS) → S/N G007E01719B (CUMMINS)	5-8
S/N G007E01733B → (PERKINS) S/N G007E01720B → (CUMMINS)	5-10
TRANSMISSION MOUNT AND ATTACHING PARTS	
CUMMINS	5-4
PERKINS	5-2
TURBINE SHAFT AND STATOR SUPPORT	5-46

TRANSMISSION MOUNT AND ATTACHING PARTS (FIGURE 5-1) PERKINS

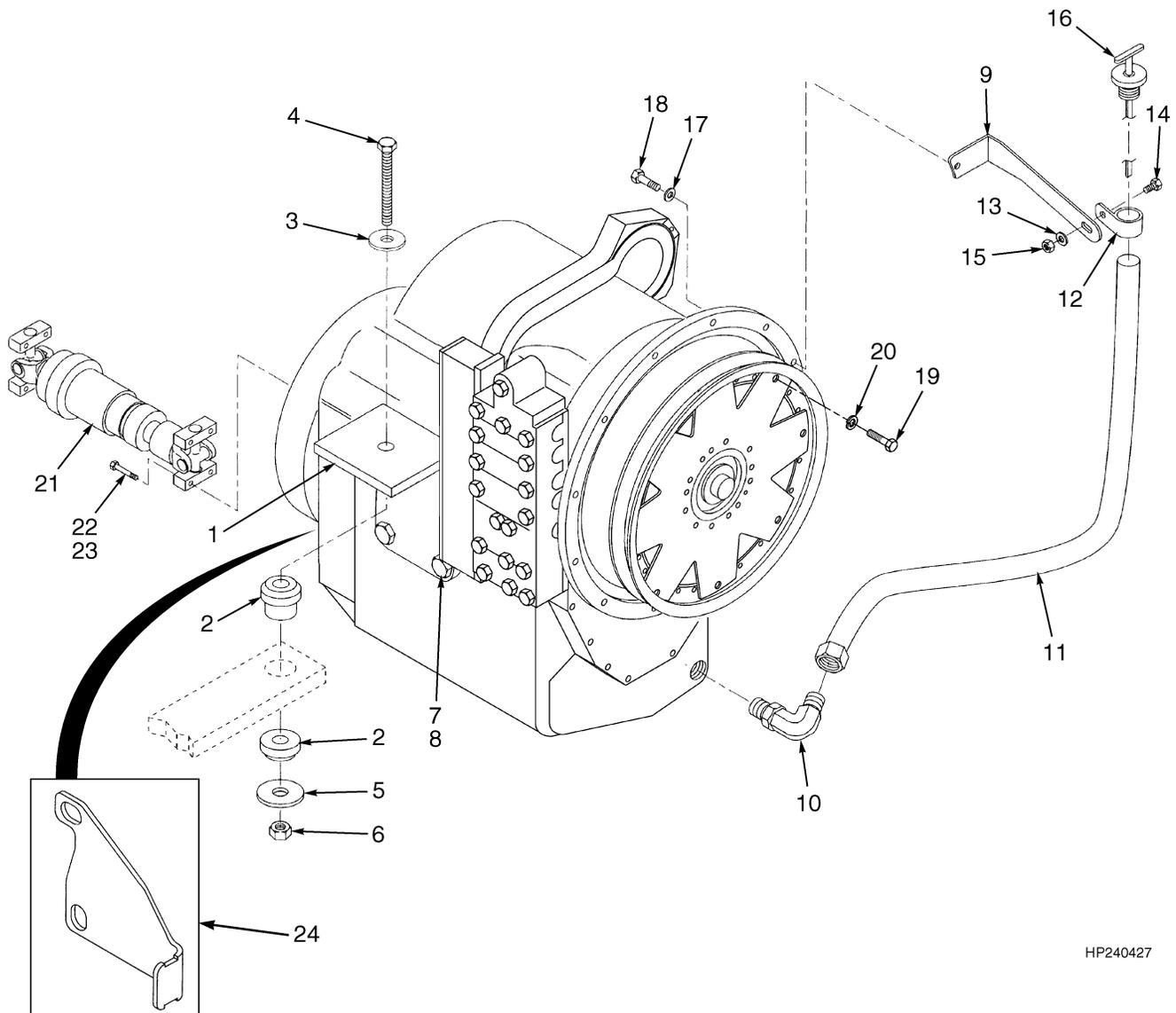


HP240427

**TRANSMISSION MOUNT AND ATTACHING PARTS
PERKINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1530333	Bracket (RH)	1
1	1530334	Bracket (LH)	1
2	1393707	Isolator	2
3	221775	Washer	2
4	1490469	Capscrew (12 point Flange Head)	2
5	1452404	Washer	2
6	221357	Locknut	2
7	292687	Lockwasher	8
8	292582	Capscrew	8
9	1539118	Bracket (Dipstick)	1
10	222392	Fitting	1
11	2059716	Dipstick Tube (Dipstick)	1
12	88194	Clamp	1
13	320157	Washer	2
14	136681	Capscrew	1
15	302400	Nut	1
16	2056545	Dipstick	1
17	292682	Lockwasher	10
18	292515	Capscrew	10
19	221507	Capscrew	8
20	15156	Lockwasher	8
21	1532822	Shaft	1
21	1312827	Kit-Bearing (Cross And Bearing)	2
21	1312822	Yoke (Assembly) (Slip)	1
21	1312823	Yoke (Slip)	1
21	1312824	Plug	1
21	1367556	Dust Cap	1
22	16594	Capscrew	8
23	264134	Loctite	AR
24	2080826	Bracket	1

TRANSMISSION MOUNT AND ATTACHING PARTS (FIGURE 5-2) CUMMINS

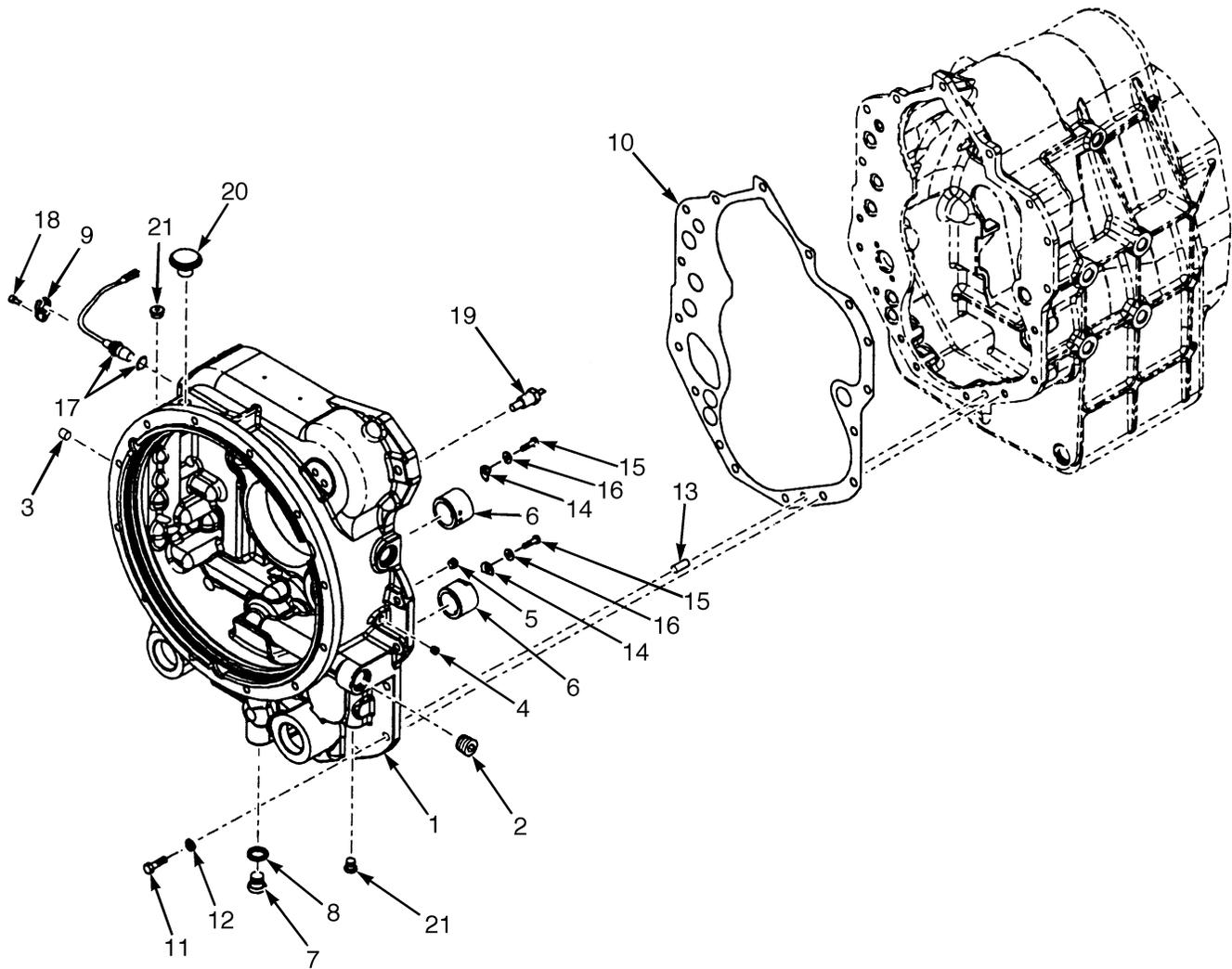


HP240427

**TRANSMISSION MOUNT AND ATTACHING PARTS
CUMMINS**

ITEM	PART NO.	DESCRIPTION	QTY
1	1532909	Bracket	2
2	1393707	Isolator	2
3	221775	Washer	2
4	18612	Capscrew	2
5	1452404	Washer	2
6	221357	Locknut	2
7	292687	Lockwasher	8
8	292582	Capscrew	8
9	1584908	Bracket	1
10	142500	Fitting	1
11	2074432	Dipstick Tube	1
12	88194	Clamp	1
13	320157	Washer	2
14	136681	Capscrew	1
15	302400	Nut	1
16	2056545	Dipstick	1
17	292682	Lockwasher	12
18	292515	Capscrew	10
18	287854	Capscrew	2
19	221507	Capscrew	8
20	15156	Lockwasher	8
21	1532822	Shaft	1
21	1312827	Kit-Bearing (Cross And Bearing)	2
21	1312822	Yoke (Assembly)	1
21	1312823	Yoke (Slip)	1
21	1312824	Plug	1
21	1367556	Dust Cap	1
22	1490469	Capscrew (12 point Flange Head)	8
23	264134	Loctite	AR
24	2080826	Bracket	1

TORQUE CONVERTER HOUSING AND ATTACHING PARTS (FIGURE 5-3)



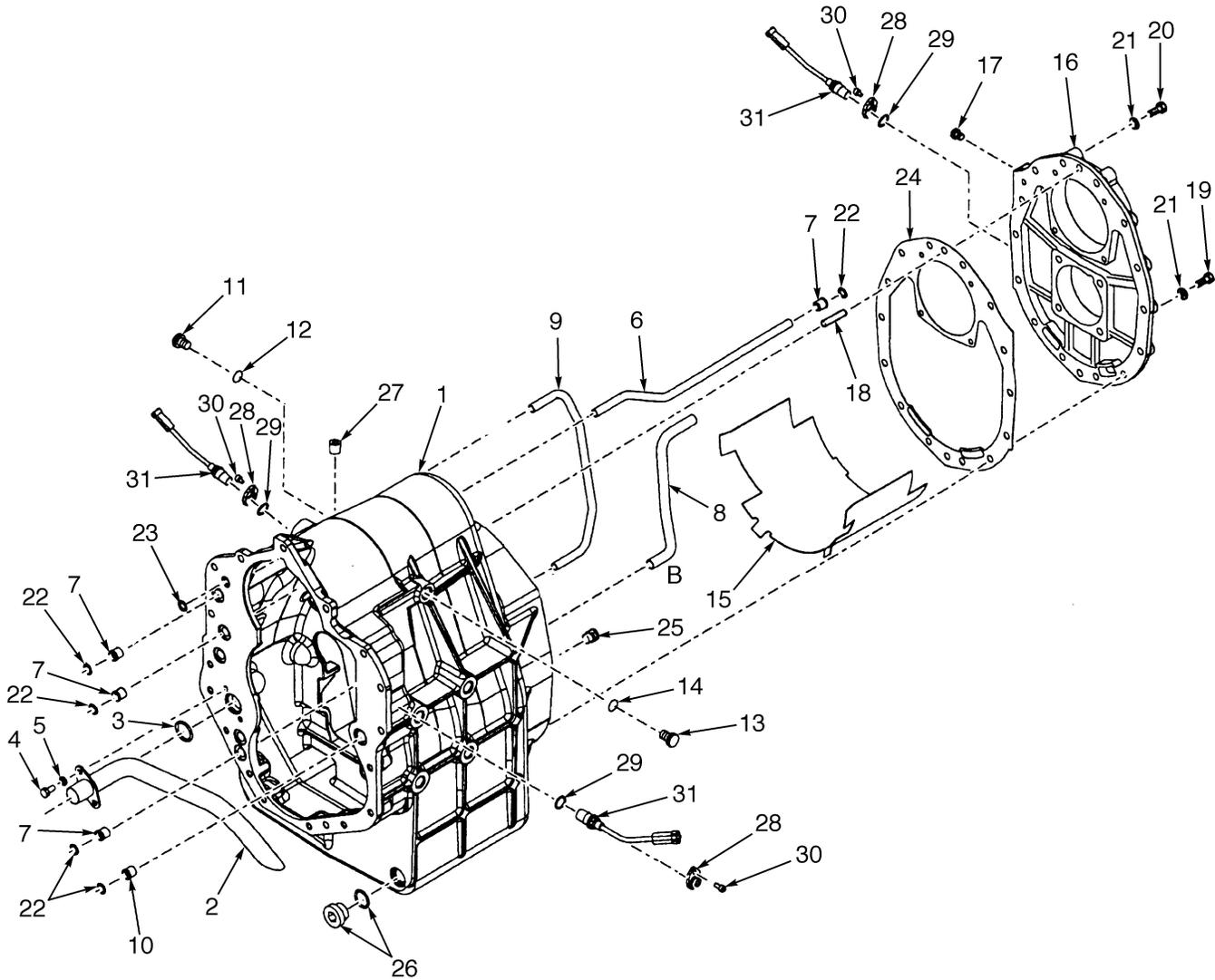
BP240138

TORQUE CONVERTER HOUSING AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	ab 1556790	Converter Housing	1
1	cd 1579006	Converter Housing	1
2	1531587	Plug (Orifice)	1
3	.....	Plug (Expansion)	1
4	330666	Plug	1
5	330511	Plug	1
6	1312260	Sleeve	2
7	14595	Plug	1
8	16484	O-Ring	1
9	1556908	Support (Speed Sensor)	1
10	ab 1556791	Gasket	1
10	cd 1579008	Gasket	1
11	221532	Capscrew	17
12	15157	Lockwasher	17
13	ab 330502	Pin	1
13	cd 1579009	Pin	1
14	330520	Washer	2
15	16374	Capscrew	2
16	15155	Lockwasher	2
17	ab 1556909	Sensor	1
17	ab 1556920	O-Ring (Speed Sensor)	1
17	cd 1579010	Speed and Temperature Sensor	1
17	cd 1579011	O-Ring (Speed Sensor)	1
18	1556910	Capscrew	1
19	1556912	Sensor (Converter Oil Temperature)	1
20	1676815	Breather	1
21	1389313	Plug	2
21	16483	O-Ring	1

FOOTNOTES:**a** → S/N G007E01719B Cummins**b** → S/N G007E01732B Perkins**c** S/N G007E01720B → Cummins**d** S/N G007E01733B → Perkins

TRANSMISSION CASE (FIGURE 5-4) (→ S/N G007E01732B (PERKINS)) (→ S/N G007E01719B (CUMMINS))



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TRANSMISSION CASE

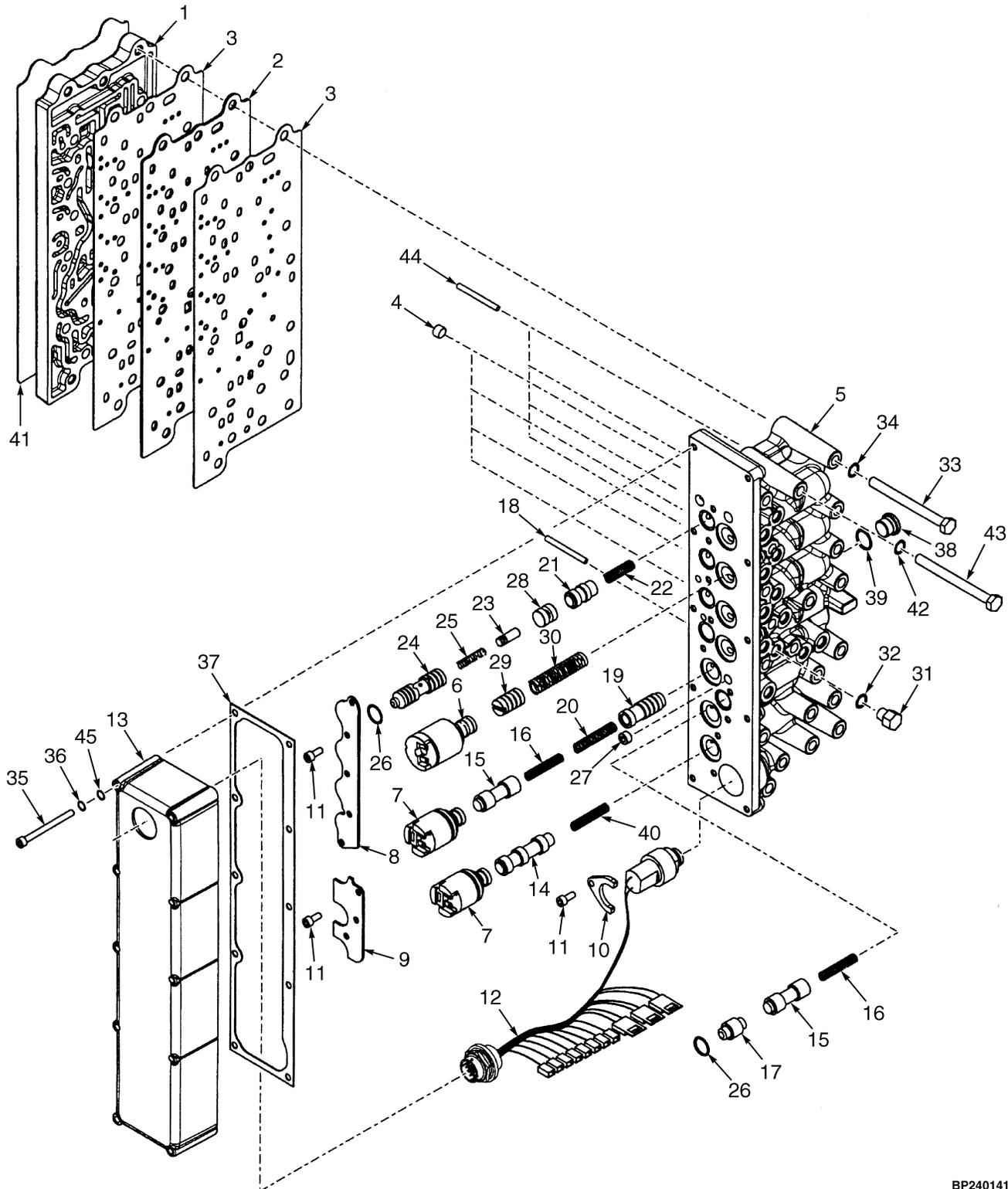
(→ S/N G007E01732B (PERKINS)) (→ S/N G007E01719B (CUMMINS))

ITEM	PART NO.	DESCRIPTION	QTY
	1532819	Transmission Assy (Perkins)	1
	1538096	Transmission Assy (Cummins)	1
1	1556913	Transmission Housing	1
2	1556914	Tube (Suction)	1
3	79975	O-Ring	1
4	16374	Capscrew	2
5	15155	Lockwasher	2
6	1556915	Tube (Low Speed Clutch)	1
7	330504	Nut	4
8	1556916	Tube	1
9	1312266	Tube (Third Speed Clutch)	1
10	1311550	Sleeve	1
11	1389313	Plug	1
12	16483	O-Ring	1
13	235691	Fitting	1
14	16484	O-Ring	1
15	1556917	Baffle (Oil)	1
16	1312268	Cover	1
17	330511	Plug	1
18	330502	Pin	2
19	1384794	Screw	12
20	1390042	Screw	2
21	15157	Lockwasher	14
22	130625	O-Ring	5
23	87281	O-Ring	1
24	1312269	Gasket	1
25	1311544	Drain Plug	1
26	1556918	Plug	1
26	16486	O-Ring	1
27	15316	Fitting	1
28	1556908	Support	3
29	1556920	O-Ring	3
30	1556910	Capscrew	3
31	1556921	Sensor (Turbine Out)	3

TRANSMISSION CASE
(S/N G007E01733B → (PERKINS)) (S/N G007E01720B → (CUMMINS))

ITEM	PART NO.	DESCRIPTION	QTY
	2071311	Transmission Assy (Cummins)	1
	2071309	Transmission Assy (Perkins)	1
1	1579015	Transmission Housing	1
2	1579016	Tube Assy (Suction)	1
3	1579017	Clip	1
4	1579018	Capscrew	1
5	15157	Lockwasher	1
6	1579019	O-Ring	1
7	330504	Nut	4
8	1556915	Tube (Low Speed)	1
9	1312266	Tube (Third Clutch)	1
10	15316	Fitting	1
11	1389313	Plug	1
12	16483	O-Ring	1
13	235691	Fitting	1
14	16484	O-Ring	1
15	1579020	Baffle	1
16	1312268	Cover	1
17	330511	Plug	1
18	330502	Pin	2
19	1384794	Screw	12
20	1390042	Screw	2
21	15157	Lockwasher	14
22	130625	O-Ring	3
23	1312269	Gasket	1
24	1311544	Drain Plug (Drain)	1
25	1556918	Plug (Dipstick)	1
25	16486	O-Ring	1
26	1579021	Sensor (Speed)	3
27	1579011	O-Ring	3

CONTROL VALVE ASSEMBLY (FIGURE 5-6)



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CONTROL VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	c 1532819	Transmission Assy (Perkins)	1
	f 2071309	Transmission Assy (Perkins)	1
	b 1538096	Transmission Assy (Cummins)	1
	e 2071311	Transmission Assy (Cummins)	1
	bc 1556995	Hydraulic Control Valve	1
	df 1579138	Hydraulic Control Valve	1
	g 1657710	Hydraulic Control Valve	1
1	1557000	Plate (Adapter)	1
2	1556999	Side Plate (Spacer)	1
3	1557001	Gasket	2
4	1585087	Plug	4
5	.....	Spool Body	1
6	1565474	Solenoid (VFS)	4
7	bc 1565475	Solenoid (24 Volt)	3
7	ef 1579141	Solenoid (12 Volt)	3
8	1585088	Clamp	1
9	1585089	Clamp	1
10	1557002	Clamp	1
11	1557003	Screw	9
12	1659579	Wire Harness	1
13	1565472	Cover (Solenoid)	1
14	.....	Spool	2
15	.....	Spool	2
16	1641836	Spring (Pilot Valve)	4
17	.....	Spool (Pilot Switch)	1
18	1585091	Pin (Parallel)	4
19	.....	Spool (Pressure Reducer)	1
20	1641838	Spring (Pressure Reducer)	1
21	.....	Spool (Pressure Check)	4
22	.....	Spring (Pressure Check)	4
23	.....	Pin (Stop)	1
24	.....	Spool (Intensifier)	4
25	1641840	Spring	4
26	1530732	O-Ring	5
27	1565473	Plug	1
28	.....	Spool (Stop)	4
29	.....	Spool (Accumulator)	4
30	1641841	Spring (Accumulator)	4
31	1557007	Plug	13
32	1557008	O-Ring	13
33	1557009	Capscrew	6
34	1556998	Lockwasher	6
35	1557010	Screw	10
36	1557011	Lockwasher	10
37	1557012	Gasket	1
38	bc 1557013	Plug	4
39	bc 1530732	O-Ring	5
40	.....	Pilot Valve Spring	3
41	1556996	Gasket	1
42	1556998	Lockwasher	15
43	1556997	Screw	15

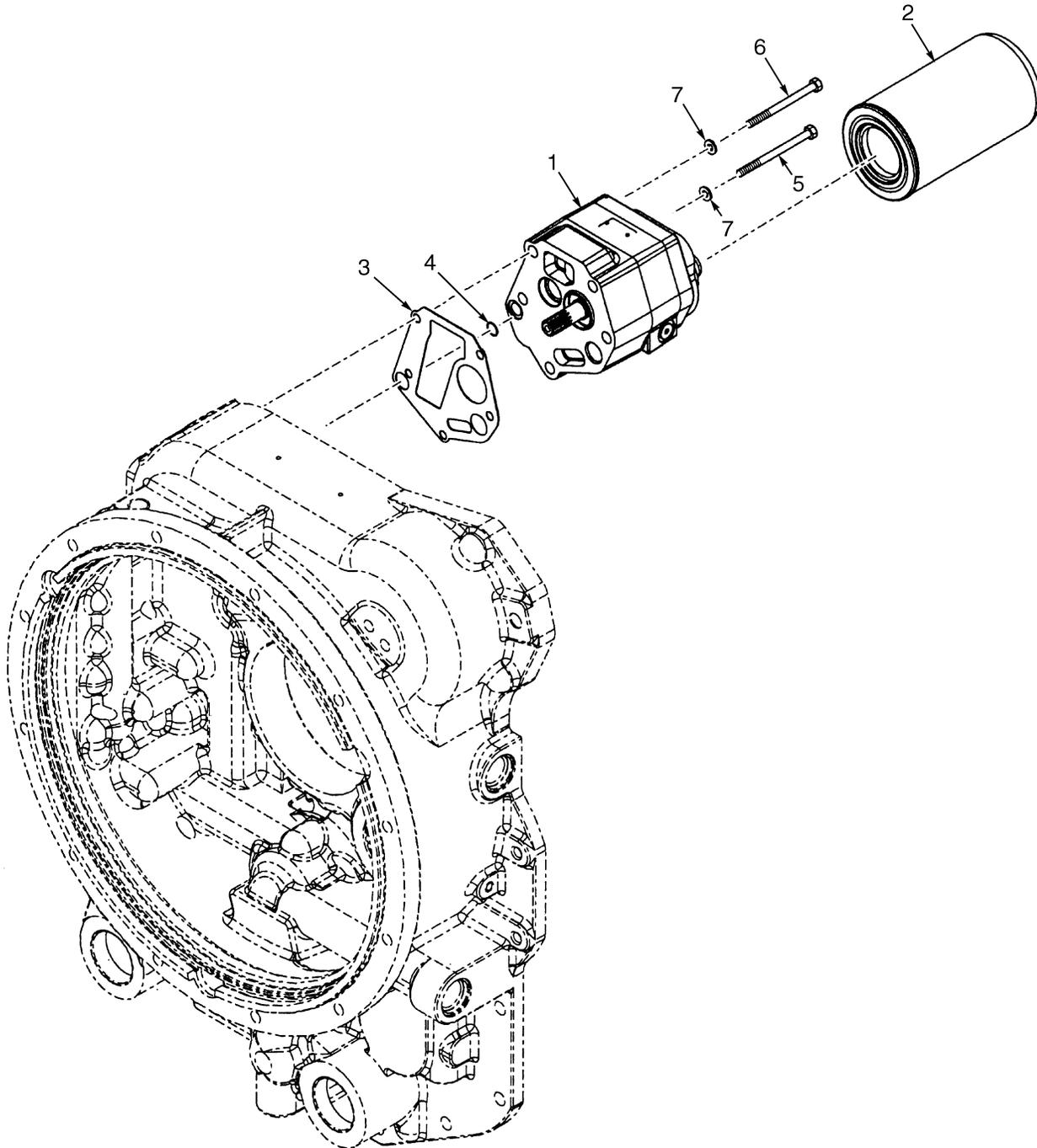
CONTROL VALVE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
44	1641837	Pin	1
45	1609937	Washer	10
	a 1557014	Strap	4
	1608583	Kit-Seal	1
	1641835	Kit-Seal	1

FOOTNOTES:

- | | |
|---|------------------------------------|
| a Not Illustrated | e S/N G007E01720B → CUMMINS |
| b → S/N G007E01719B CUMMINS | f S/N G007E01733B → PERKINS |
| c → S/N G007E01732B PERKINS | g S/N G007E03343E → |
| d S/N G007E01720B ↔ S/N G007E03342E
CUMMINS | |

CHARGE PUMP AND FILTER ASSEMBLY (FIGURE 5-7)



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CHARGE PUMP AND FILTER ASSEMBLY

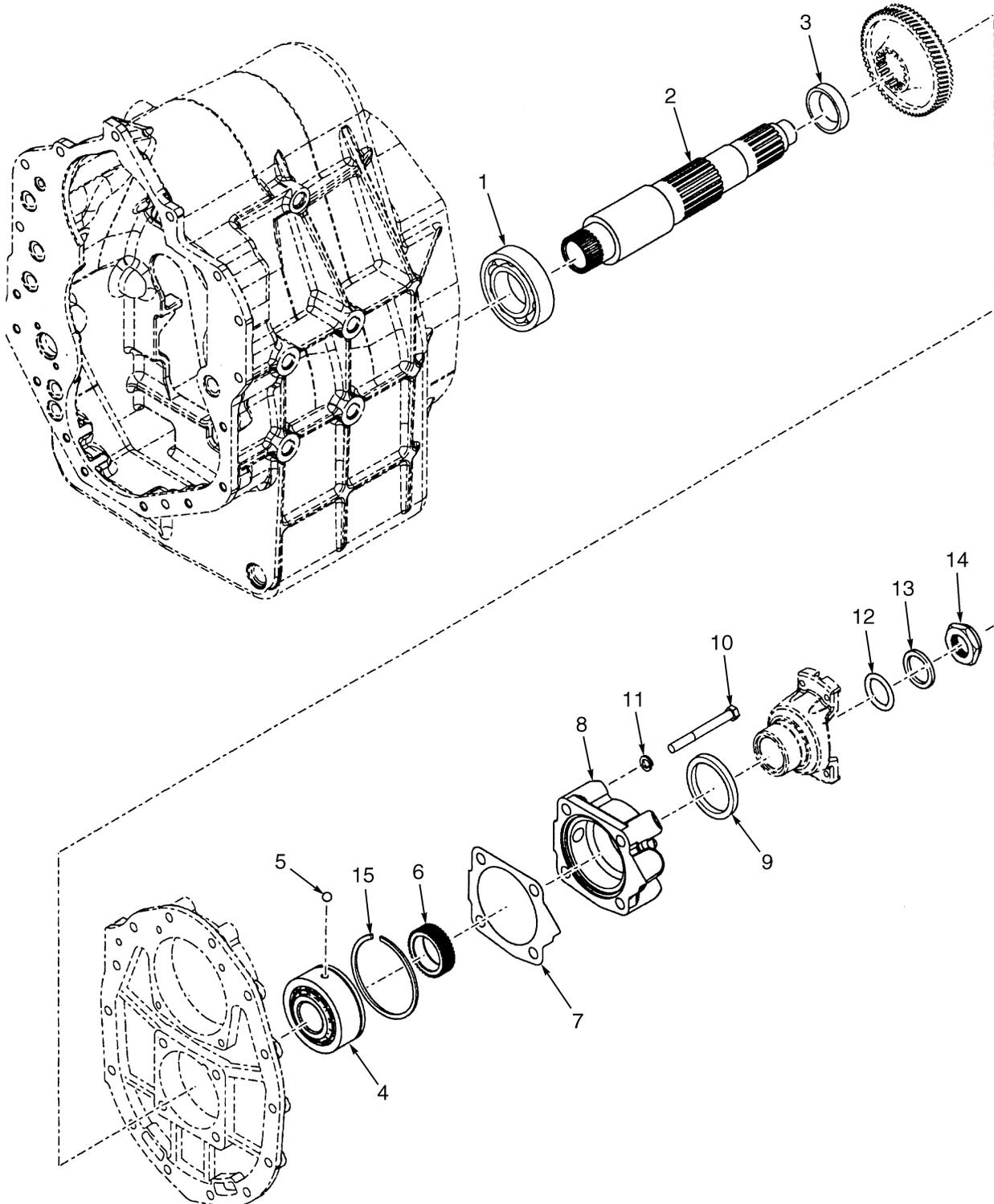
ITEM	PART NO.	DESCRIPTION	QTY
	c 1532819	Transmission Assy (Perkins)	1
	e 2071309	Transmission Assy (Perkins)	1
	b 1538096	Transmission Assy (Cummins)	1
	d 2071311	Transmission Assy (Cummins)	1
1	a	Charge Pump	1
2	1556992	Transmission Filter	1
3	1311695	Gasket	1
4	87281	O-Ring	1
5	1556993	Screw	4
6	1556994	Screw	1
7	15157	Lockwasher	5
	1335619	Kit-Charge Pump	1

FOOTNOTES:

a Not Serviced Separately
b → S/N G007E01719B
c → S/N G007E01732B

d S/N G007E01720B →
e S/N G007E01733B →

OUTPUT SHAFT (FIGURE 5-8)



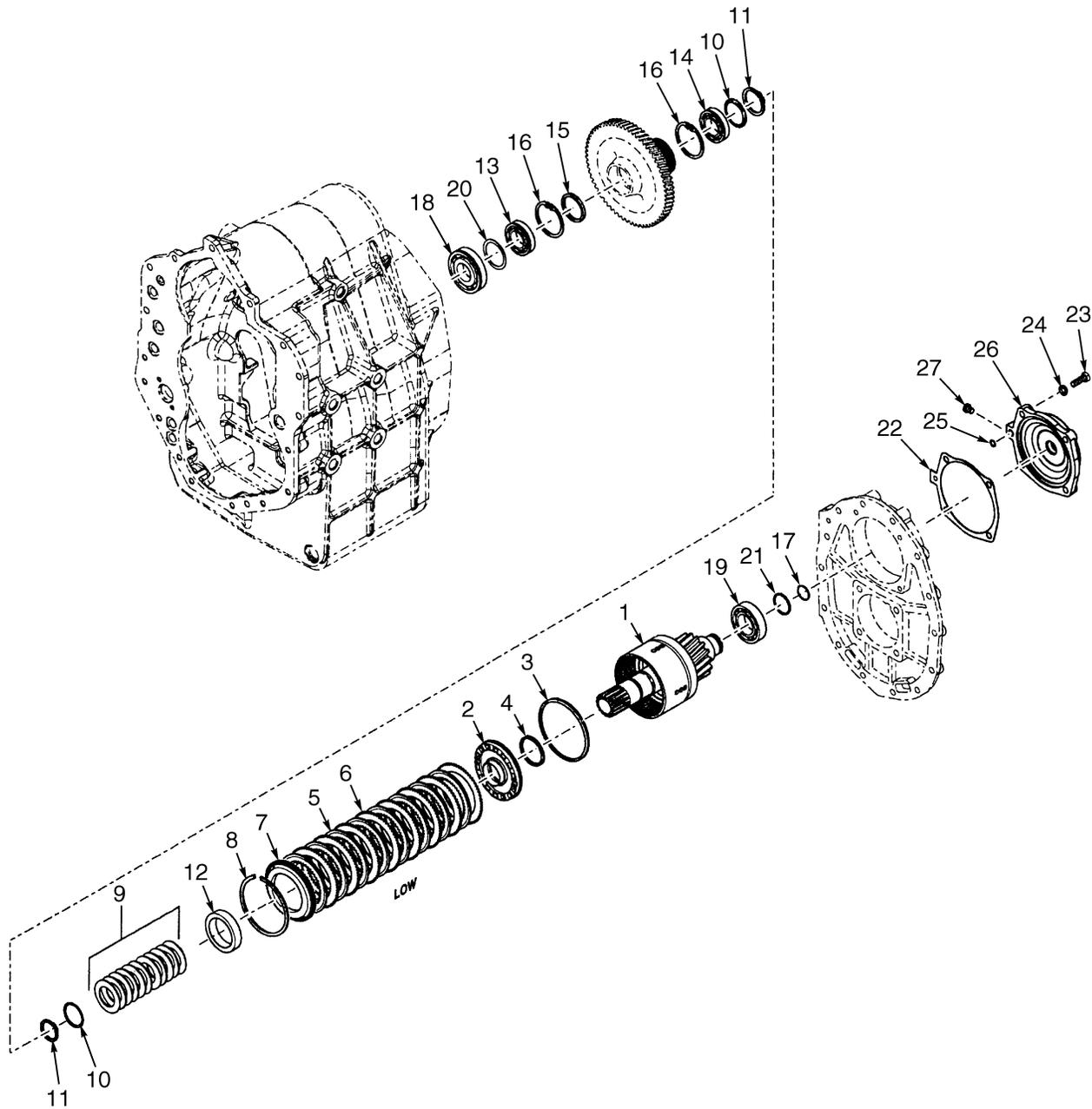
HP240442

OUTPUT SHAFT

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	43310	Bearing	1
2	1556982	Shaft (Output)	1
3	1311827	Spacer	1
4	330607	Bearing (Rear)	1
5	330596	Ball	1
6	330605	Spacer	1
7	330604	Gasket	1
8	330603	Cap (Bearing)	1
9	330602	Seal	1
10	1556989	Capscrew	4
11	1556990	Lockwasher	4
12	86553	O-Ring	1
13	330614	Washer	1
14	330615	Nut	1
15	330606	Ring	1

FOOTNOTES:**a** → S/N G007E01719B**b** → S/N G007E01732B**c** S/N G007E01720B →**d** S/N G007E01733B →

LOW CLUTCH (FIGURE 5-9)



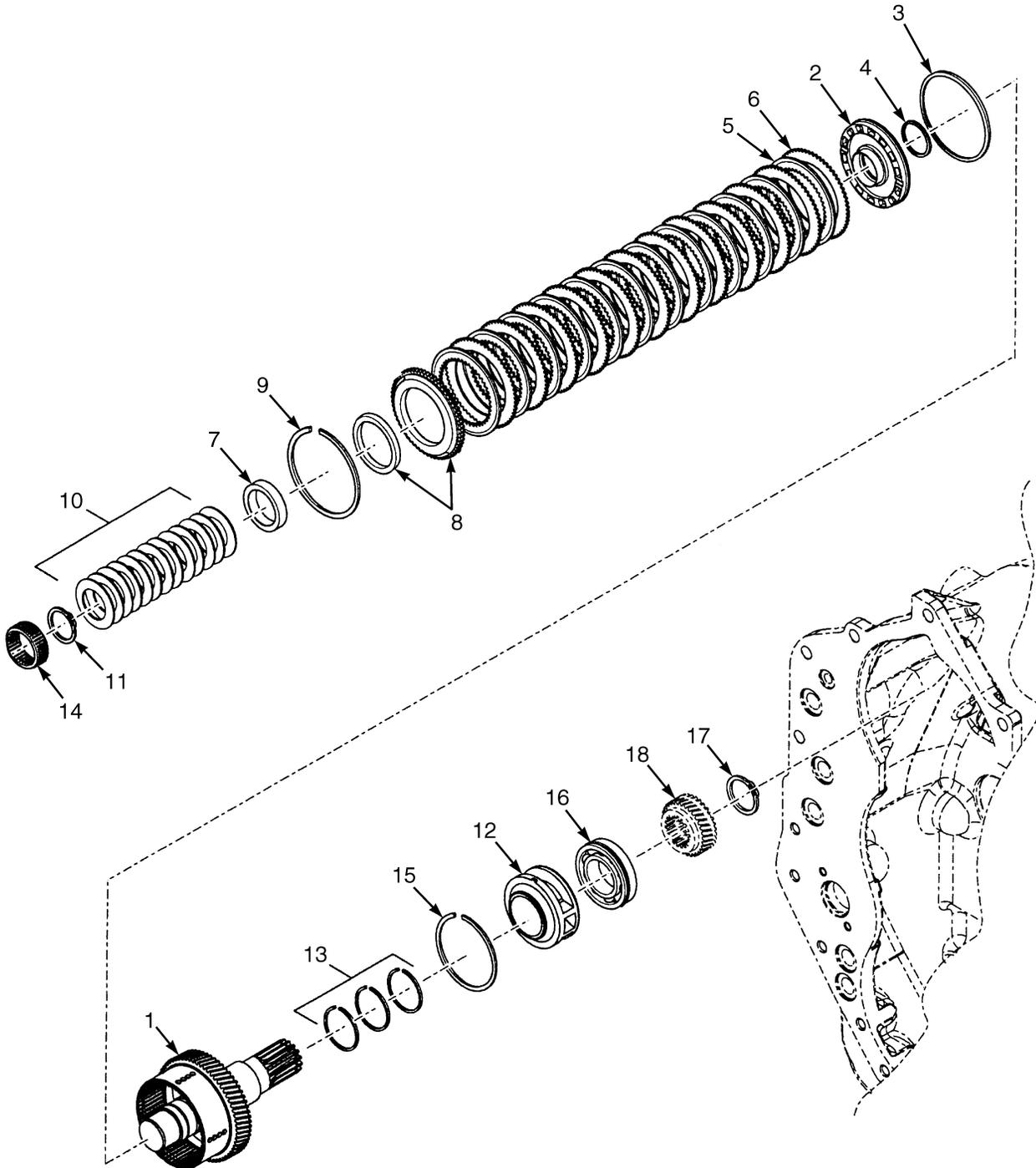
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LOW CLUTCH

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1556972	Housing (Low Shaft, Hub and Drum)	1
2	1556973	Piston (Piston)	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1556964	Friction Disk (Inner)	13
6	1556965	Separator Plate (Outer)	13
7	1556978	Clutch Plate	1
8	1311810	Snap Ring	1
9	1556975	Disk Spring (Disc)	1
10	1556976	Retainer	2
11	382269	Snap Ring	2
12	1556966	Spacer	1
13	1312359	Bearing (Low Speed)	1
14	330590	Bearing	1
15	1312385	Spacer (Low Speed)	1
16	382262	Snap Ring	2
17	1556977	Piston Ring	1
18	382283	Bearing	1
19	330597	Bearing	1
20	1311818	Spacer	1
21	330598	Retaining Ring	1
22	1312362	Gasket	1
23	18557	Capscrew	4
24	15157	Lockwasher	4
25	79970	O-Ring	1
26	1312363	Bearing Cap	1
27	14589	Plug	1
	1557263	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E01719B**b** → S/N G007E01732B**c** S/N G007E01720B →**d** S/N G007E01733B →

FORWARD CLUTCH (FIGURE 5-10)



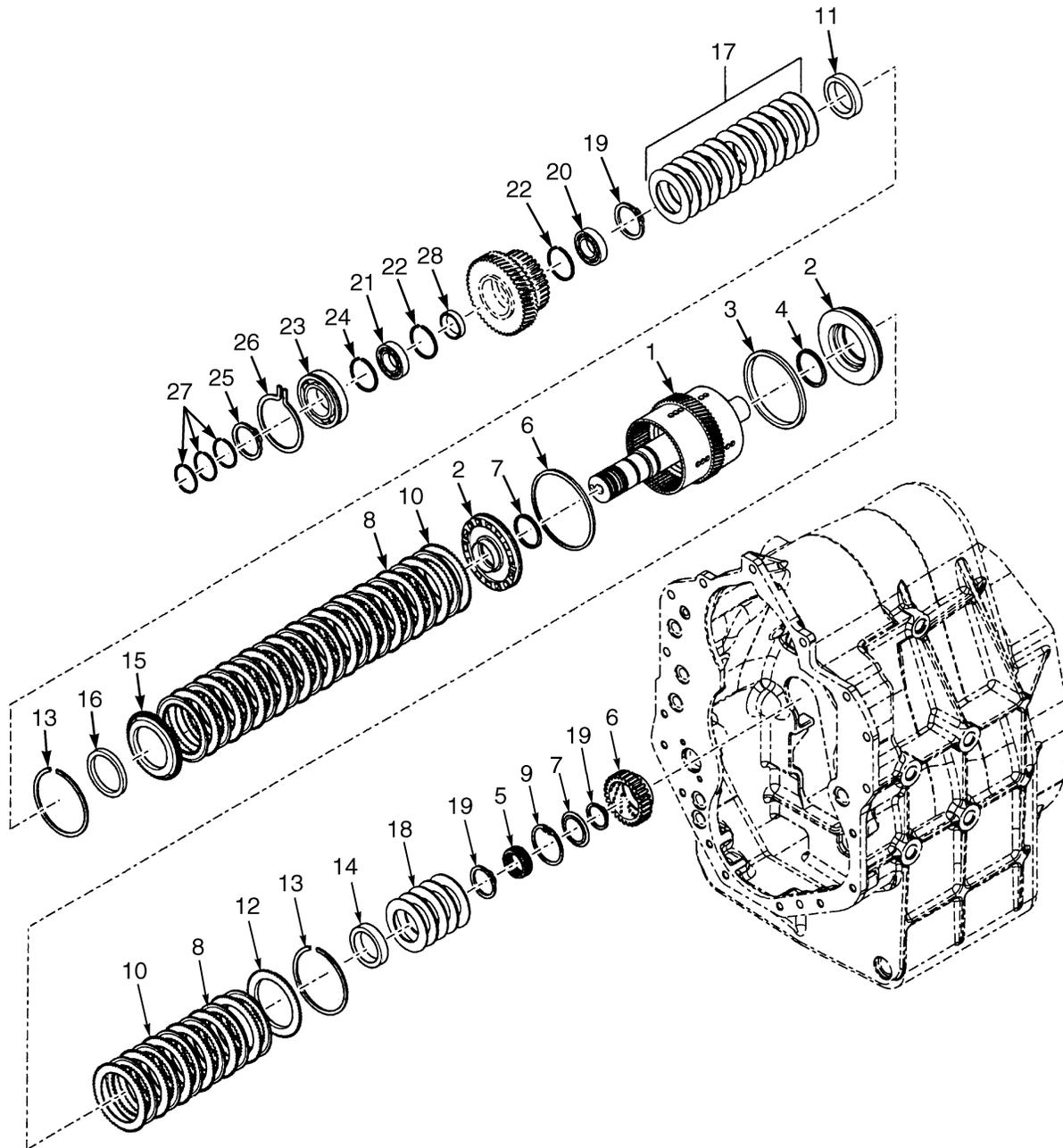
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FORWARD CLUTCH

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1556961	Shaft (Forward)	1
2	1556963	Piston	1
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1556964	Friction Disk (Inner)	12
6	1556965	Separator Plate (Outer)	12
7	1556966	Spacer	1
8	1556967	Plate	1
8	1556968	Seal	1
9	1311810	Snap Ring	1
10	1556969	Disk Spring	1
11	382269	Snap Ring	1
12	1311668	Sleeve	1
13	1311555	Spring	3
13	1311646	Ring	3
14	1311666	Bearing	1
15	1311816	Retaining Ring	1
16	1311817	Bearing	1
17	1311825	Retaining Ring	1
18	.....	Gear (Forward Shaft)	1
	1557263	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E01719B**b** → S/N G007E01732B**c** S/N G007E01720B →**d** S/N G007E01733B →

REVERSE AND SECOND CLUTCH (FIGURE 5-11)



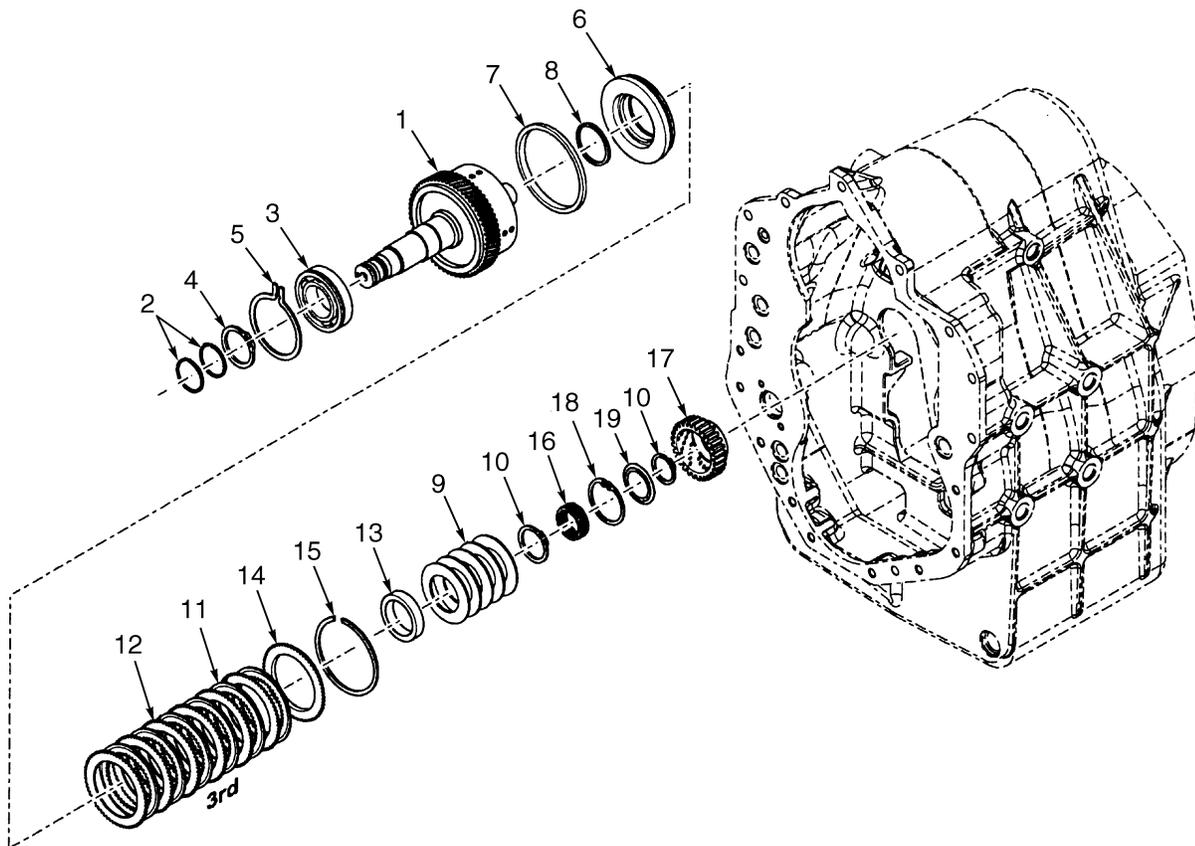
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REVERSE AND SECOND CLUTCH

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1556971	Housing	1
2	1556963	Piston	2
3	1311811	Piston Seal	1
4	1311812	Piston Seal	1
5	1311658	Bearing	1
6	1484565	Clutch Gear	1
7	1312097	Retainer	1
8	1556964	Friction Disk (Inner)	18
9	1312356	Retaining Ring	1
10	1556965	Separator Plate (Outer)	18
11	1556966	Spacer	1
12	1556978	Clutch Plate	1
13	1311810	Snap Ring	2
14	1556979	Spacer	1
15	1556967	Plate	1
16	1556968	Seal	1
17	1556969	Disk Spring	1
18	1556983	Disk Spring	1
19	382269	Snap Ring	3
20	44308	Ball Bearing	1
21	1556984	Ball Bearing	1
22	1311806	Retaining Ring	2
23	1312351	Bearing	1
24	330570	Retaining Ring	1
25	304527	Snap Ring	1
26	330586	Ring	1
27	1556985	Piston Ring	3
28	1311807	Spacer	1
	1557263	Kit-Gasket	1

FOOTNOTES:**a** → S/N G007E01719B**b** → S/N G007E01732B**c** S/N G007E01720B →**d** S/N G007E01733B →

THIRD CLUTCH (FIGURE 5-12)



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THIRD CLUTCH

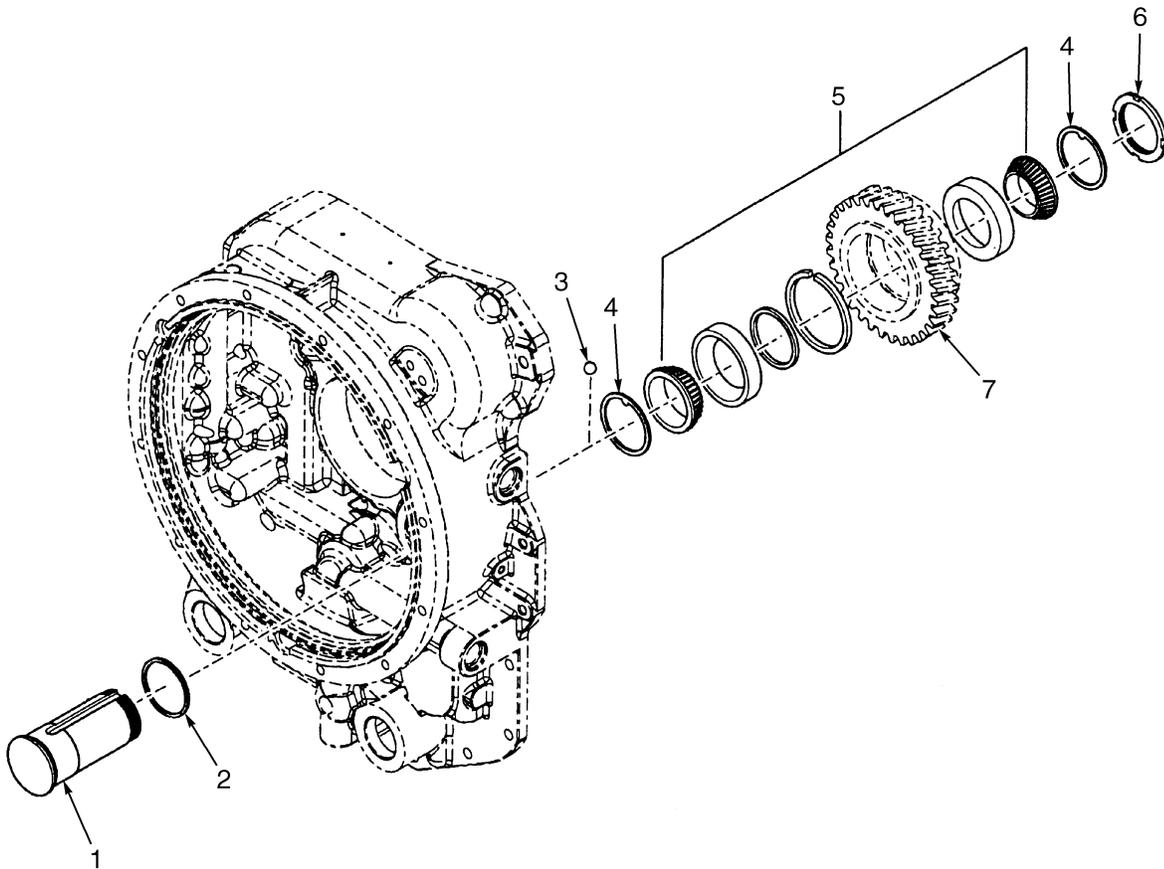
ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1556981	Housing	1
2	1556985	Piston Ring	2
3	1312351	Bearing	1
4	304527	Snap Ring	1
5	330586	Ring	1
6	1556963	Piston	1
7	1311811	Piston Seal	1
8	1311812	Piston Seal	1
9	1556983	Disk Spring	1
10	382269	Snap Ring	2
11	1556964	Friction Disk (Inner)	6
12	1556965	Separator Plate (Outer)	6
13	1556979	Spacer	1
14	1556978	Clutch Plate	1
15	1311810	Snap Ring	1
16	1311658	Bearing	1
17	1484565	Clutch Gear	1
18	1312356	Retaining Ring	1
19	1312097	Retainer	1
	1557263	Kit-Gasket	1

FOOTNOTES:

a → S/N G007E01719B
b → S/N G007E01732B

c S/N G007E01720B →
d S/N G007E01733B →

IDLER SHAFT (FIGURE 5-13) REVERSE



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**IDLER SHAFT
REVERSE**

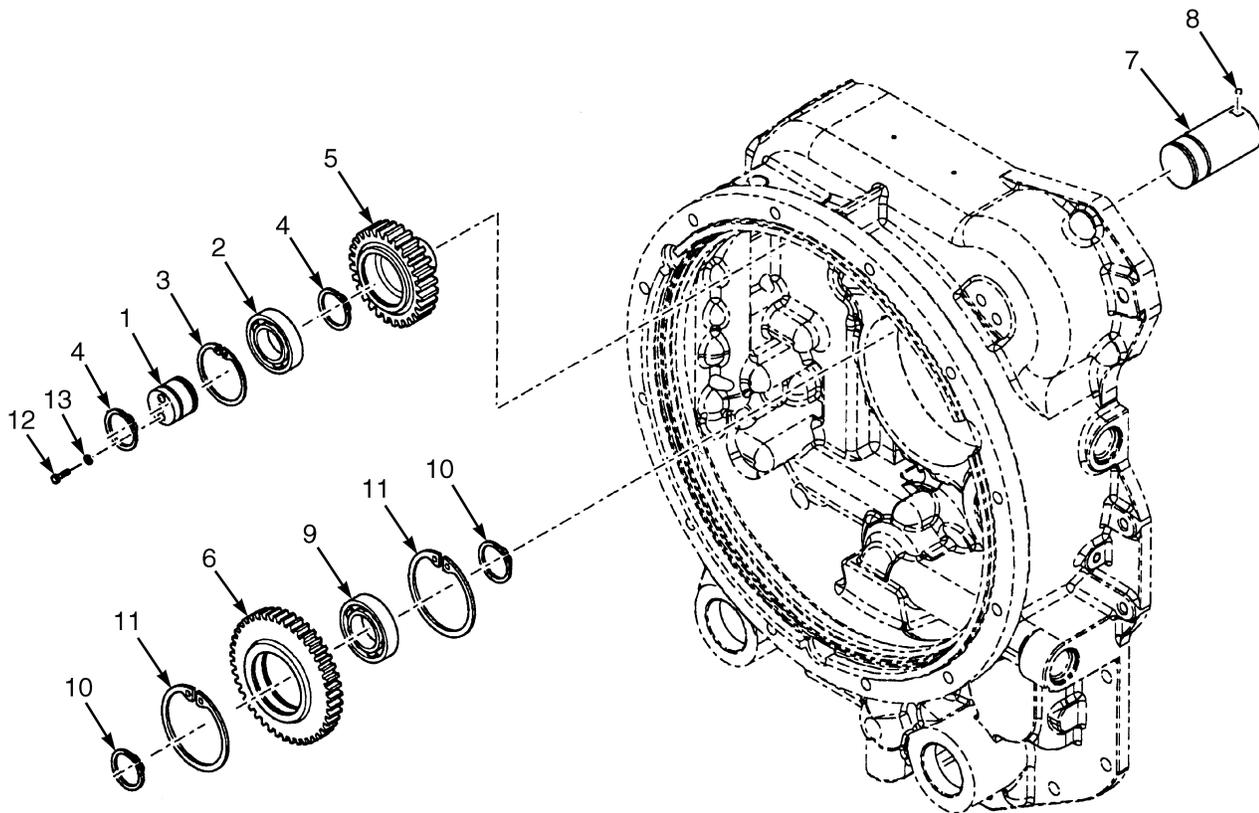
ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1311649	Drive Shaft (Reverse)	1
2	1556970	O-Ring	1
3	55280	Ball	1
4	1311671	Thrust Plate	2
5	1311822	Bearing Set	1
6	1311823	Nut	1
7	.....	Gear (Reverse Idler)	1

FOOTNOTES:

a → S/N G007E01719B
b → S/N G007E01732B

c S/N G007E01720B →
d S/N G007E01733B →

DRIVE GEAR (FIGURE 5-14)



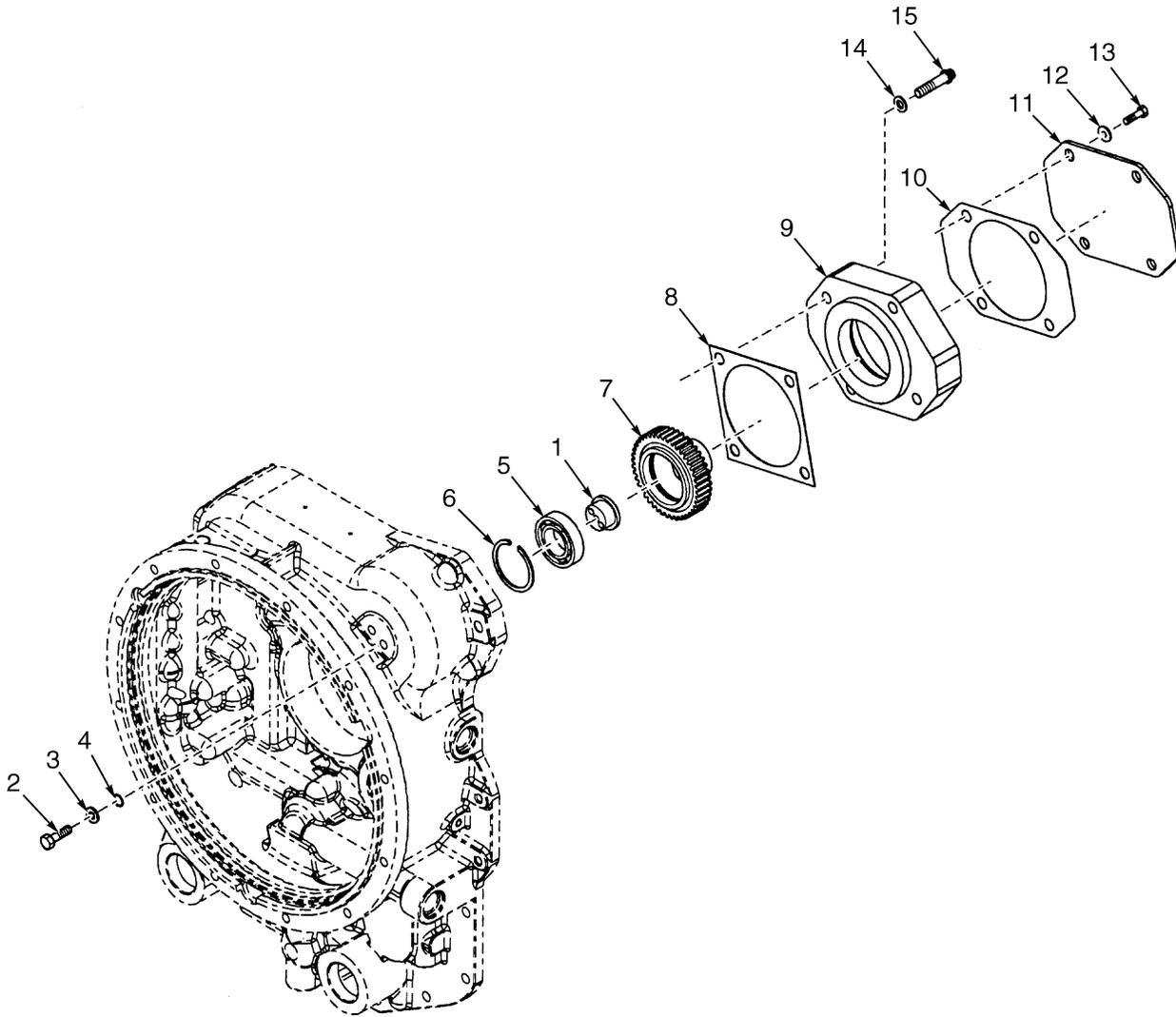
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DRIVE GEAR

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1311567	Support	1
2	1311571	Ball Bearing	1
3	37065	Snap Ring	2
4	1311805	Retaining Ring	1
5	1556957	Gear (Drive Pump)	1
6	1556958	Gear (Idler Pump)	1
7	1556959	Shaft	1
8	61141	Ball	1
9	41308	Bearing	1
10	330570	Retaining Ring	2
11	330612	Ring	2
12	1471366	Screw	2
13	15156	Lockwasher	2

FOOTNOTES:**a** → S/N G007E01719B**b** → S/N G007E01732B**c** S/N G007E01720B →**d** S/N G007E01733B →

AUXILIARY PUMP DRIVE (FIGURE 5-15) (→ S/N G007E01732B (PERKINS)) (→ S/N G007E01719B (CUMMINS))

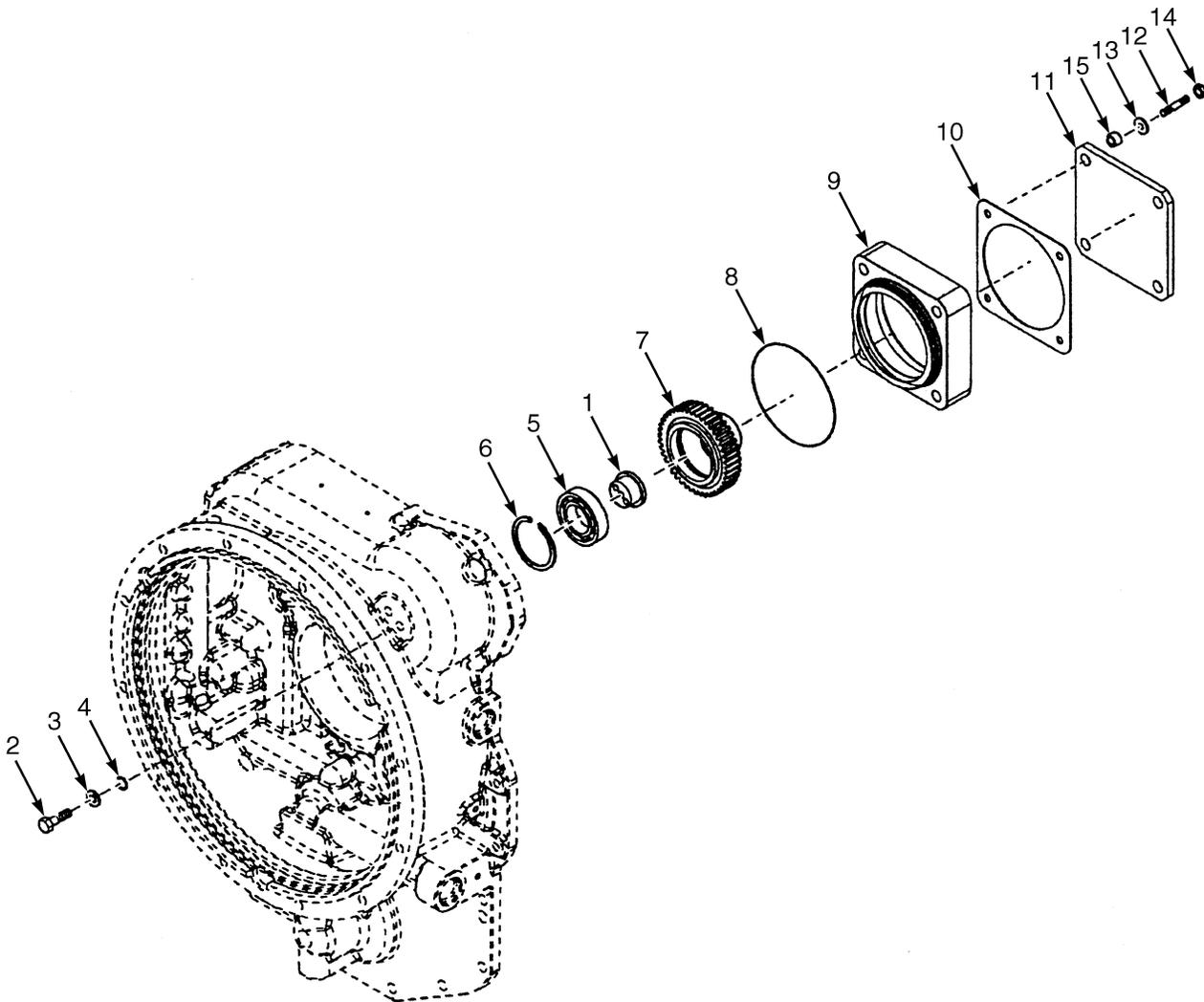


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AUXILIARY PUMP DRIVE
(→ S/N G007E01732B (PERKINS)) (→ S/N G007E01719B (CUMMINS))

ITEM	PART NO.	DESCRIPTION	QTY
	1532819	Transmission Assy (Perkins)	1
	1538096	Transmission Assy (Cummins)	1
1	1556950	Support	1
2	16815	Capscrew	2
3	330552	Washer	2
4	1556951	Washer	2
5	1583613	Bearing	1
6	330591	Ring (Bearing)	1
7	1556952	Gear (Drive Pump)	1
8	330567	Cover	1
9	1556953	Adapter	1
10	1556954	Gasket	1
11	1556955	Cover	1
12	1313903	Lockwasher	4
13	1556956	Capscrew	4
14	15158	Washer	4
15	185926	Screw	4

AUXILIARY PUMP DRIVE (FIGURE 5-16) (S/N G007E01733B → (PERKINS)) (S/N G007E01720B → (CUMMINS))

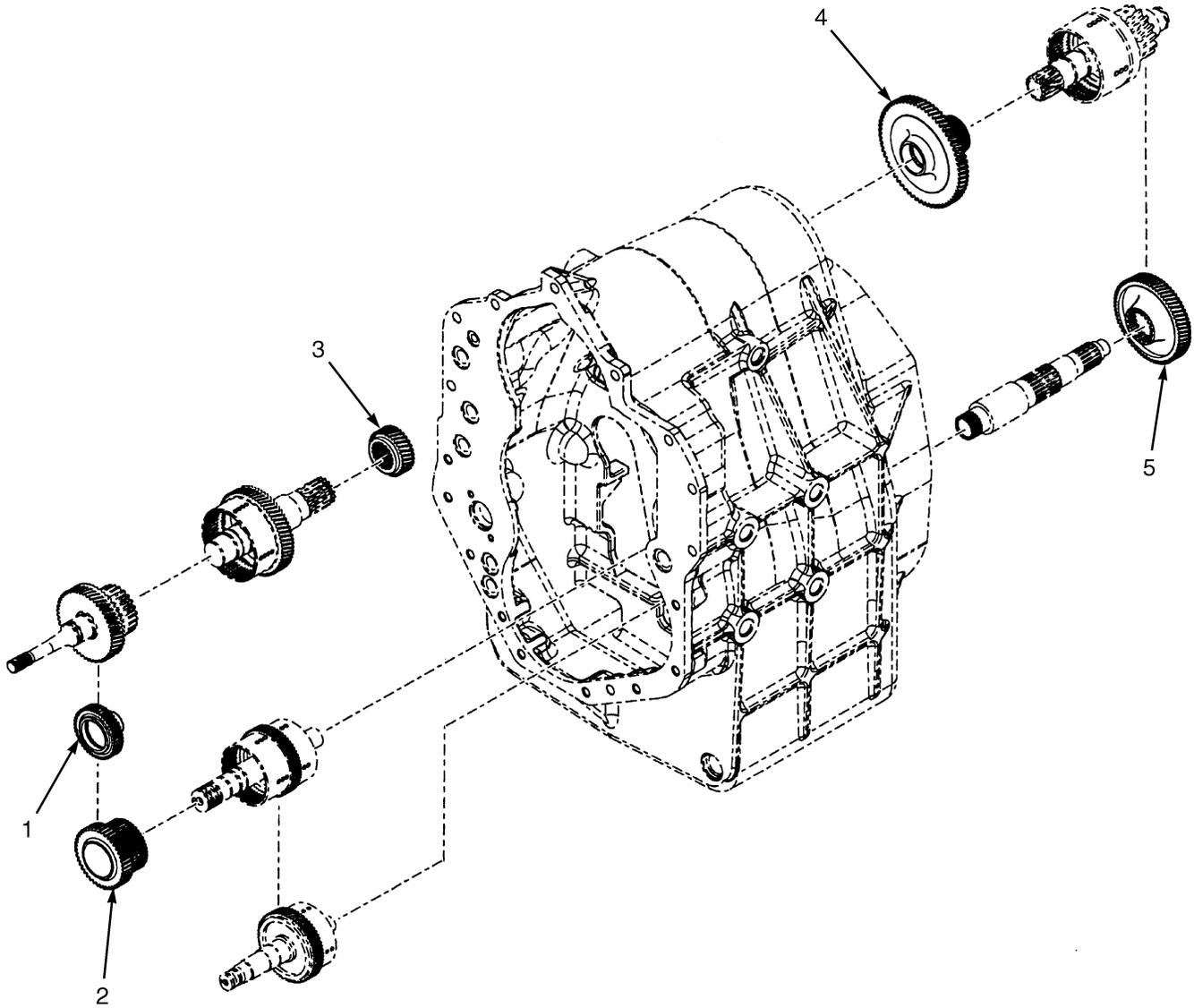


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AUXILIARY PUMP DRIVE
(S/N G007E01733B → (PERKINS)) (S/N G007E01720B → (CUMMINS))

ITEM	PART NO.	DESCRIPTION	QTY
	2071309	Transmission Assy (Perkins)	1
	2071311	Transmission Assy (Cummins)	1
1	1556950	Support	1
2	16815	Capscrew	2
3	330552	Washer	2
4	1556951	Washer	2
5	1583613	Bearing	1
6	330591	Ring	1
7	1556952	Gear	1
8	1471371	O-Ring	1
9	1579125	Adapter (Pump)	1
10	1471383	Gasket (Cover)	1
11	330566	Cover	1
12	1579126	Stud	4
13	15158	Washer	4
14	1579127	Nut	4
15	1579128	Spacer	4

GEAR CLUTCH INSTALLATION (FIGURE 5-17)



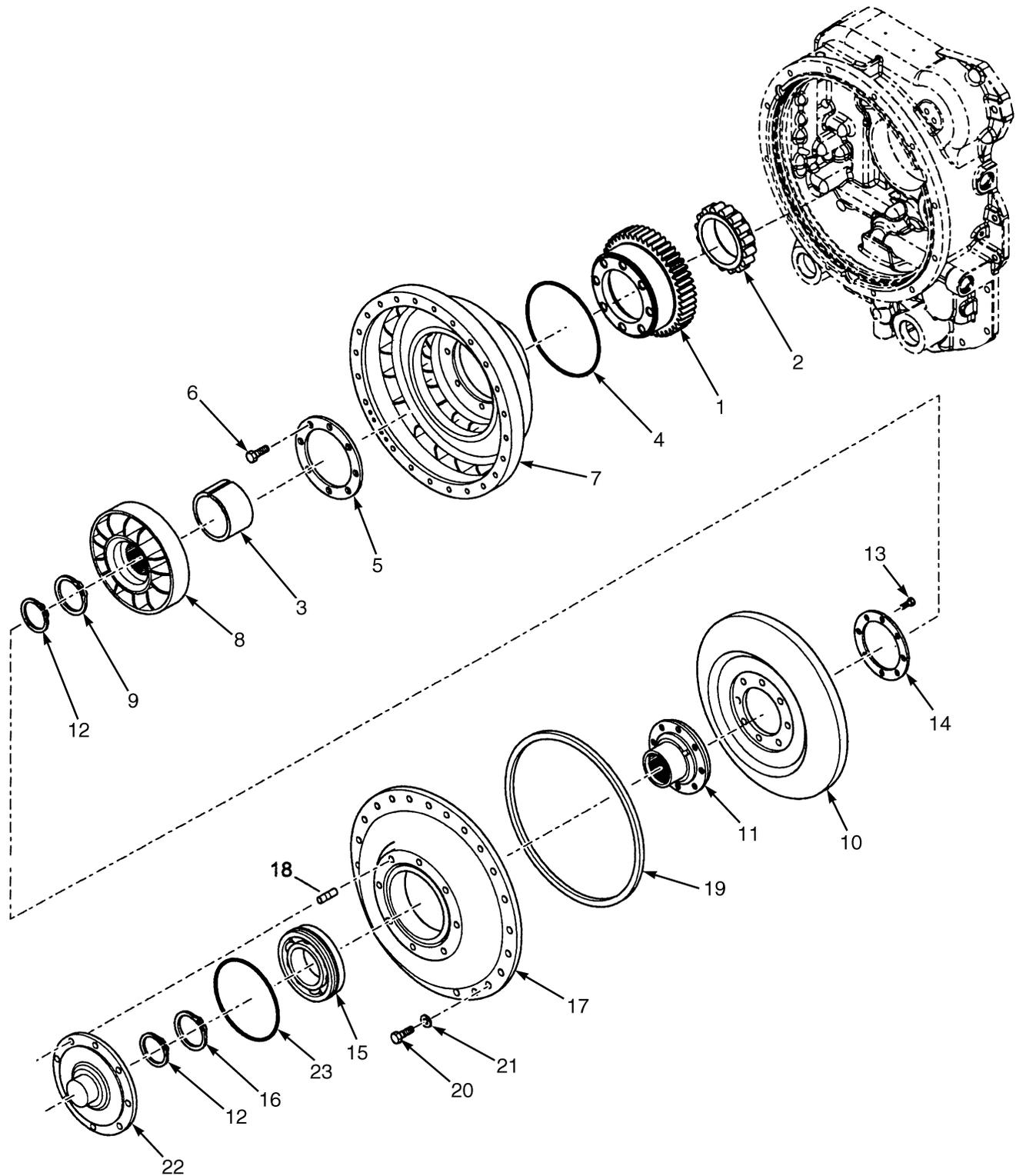
HP240434

GEAR CLUTCH INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	1556945	Gear (Idler) (☞Figure 5-13).....	1
2	1556946	Gear (Reverse Clutch)	1
3	1556947	Gear (Forward Shaft)	1
4	1556948	Gear (Low Clutch) (☞Figure 5-9).....	1
5	1556949	Gear (Output Gear) (☞Figure 5-8).....	1

FOOTNOTES:**a** → S/N G007E01719B**c** S/N G007E01720B →**b** → S/N G007E01732B (Perkins)**d** S/N G007E01733B →

TORQUE CONVERTER ASSEMBLY (FIGURE 5-18) PERKINS (→ S/N G007E01732B)

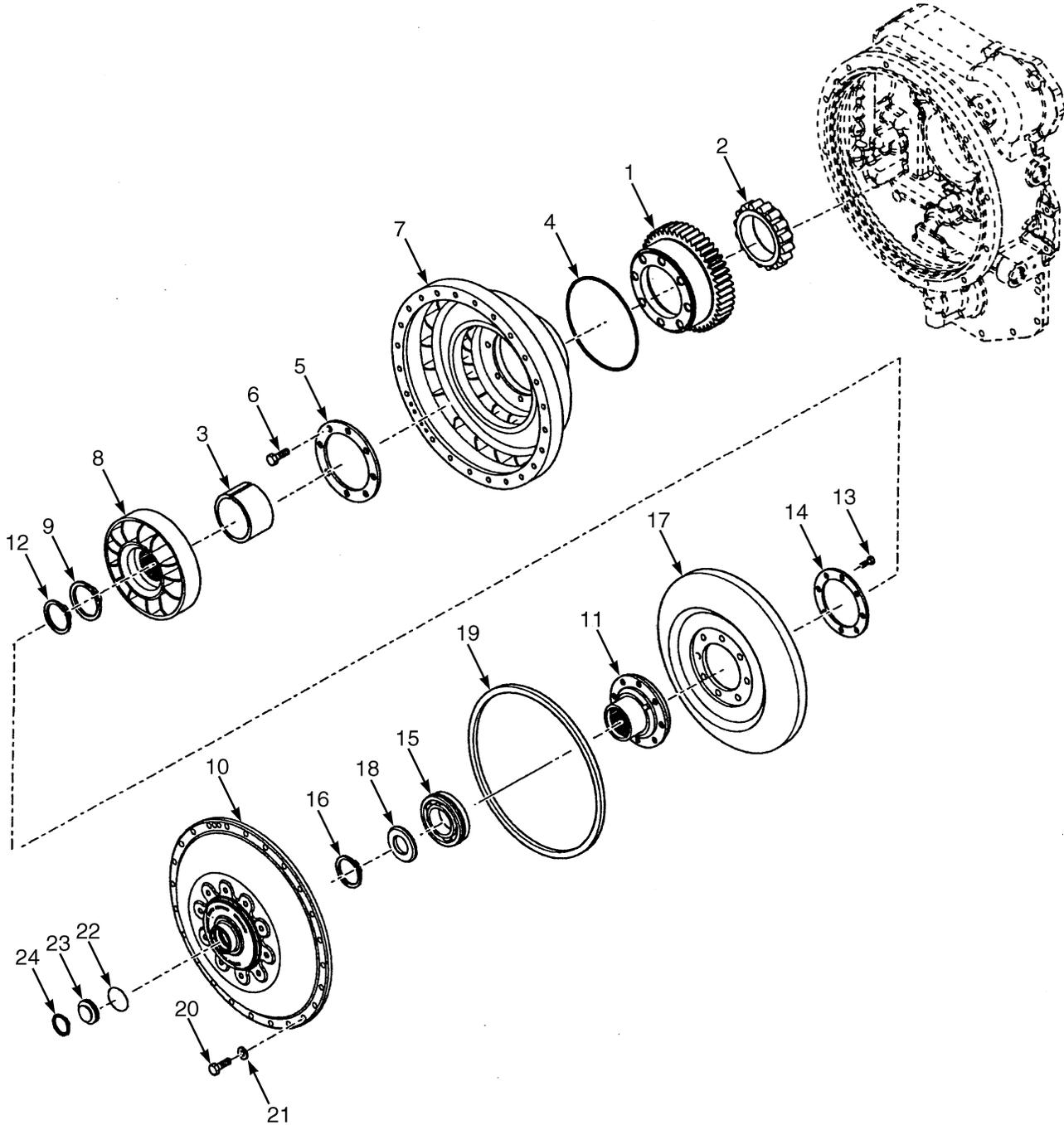


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TORQUE CONVERTER ASSEMBLY
PERKINS (→ S/N G007E01732B)

ITEM	PART NO.	DESCRIPTION	QTY
	1532819	Transmission Assy (Perkins)	1
1	1556934	Gear (Impeller)	1
2	1312279	Bearing	1
3	1312379	Spacer	1
4	1311721	O-Ring	1
5	1556935	Ring	1
6	1556936	Screw	8
7	1556937	Impeller (27 Blade)	1
8	1312275	Stator (15 Blade)	1
9	1312377	Retaining Ring	1
10	1312282	Turbine (18 Blade)	1
11	1312283	Hub (Turbine)	1
12	1312280	Retaining Ring	2
13	1307910	Capscrew	12
14	1311802	Back-Up Ring	1
15	1312285	Bearing	1
16	1312286	Retaining Ring	1
17	1312284	Cover	1
18	1312381	Stud	10
19	330558	O-Ring	1
20	330593	Screw	24
21	15156	Lockwasher	24
22	1312287	Cap (Impeller Cover)	1
23	15894	O-Ring	1

TORQUE CONVERTER ASSEMBLY (FIGURE 5-19) PERKINS (S/N G007E01733B →)

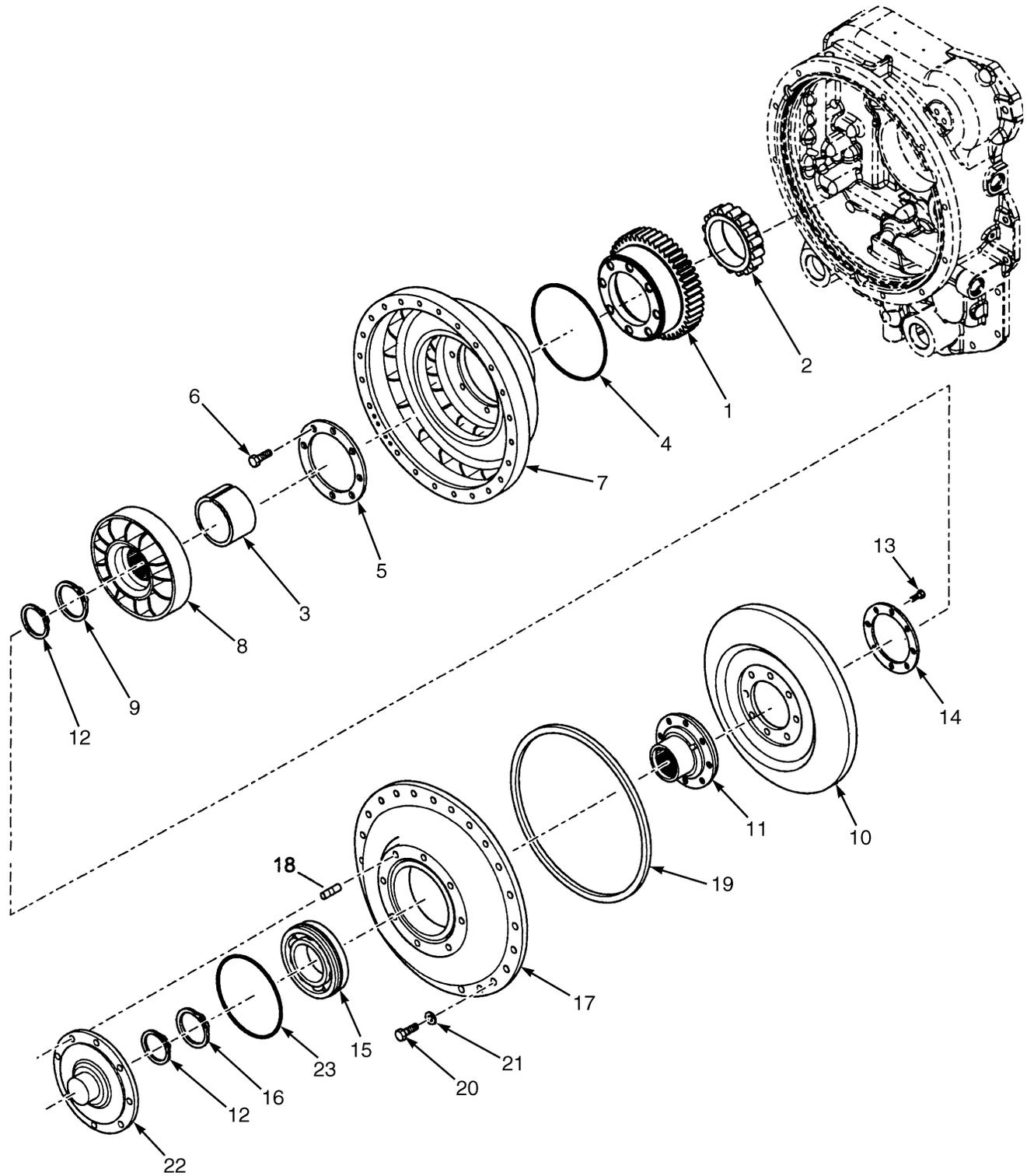


HP240478

TORQUE CONVERTER ASSEMBLY
PERKINS (S/N G007E01733B →)

ITEM	PART NO.	DESCRIPTION	QTY
	2071309	Transmission Assy (Perkins)	1
1	1556934	Gear (Impeller)	1
2	1312279	Bearing	1
3	1312379	Spacer	1
4	1311721	O-Ring	1
5	1556935	Ring	1
6	1579117	Screw	8
7	1556937	Impeller	1
8	1312275	Stator	1
9	1312377	Retaining Ring	1
10	1579119	Cover (Impeller)	1
11	1579118	Hub	1
12	1312280	Retaining Ring	1
13	1307970	Screw	12
14	1311802	Back-Up Ring	1
15	1312285	Bearing	1
16	213069	Snap Ring	1
17	1312282	Turbine	1
18	1579120	Spacer	1
19	330558	O-Ring	1
20	330593	Screw	24
21	15156	Lockwasher	24
22	1579121	O-Ring	1
23	1311566	Plug	1
24	1311844	Retaining Ring	1

TORQUE CONVERTER ASSEMBLY (FIGURE 5-20) CUMMINS (→ S/N G007E01719B)

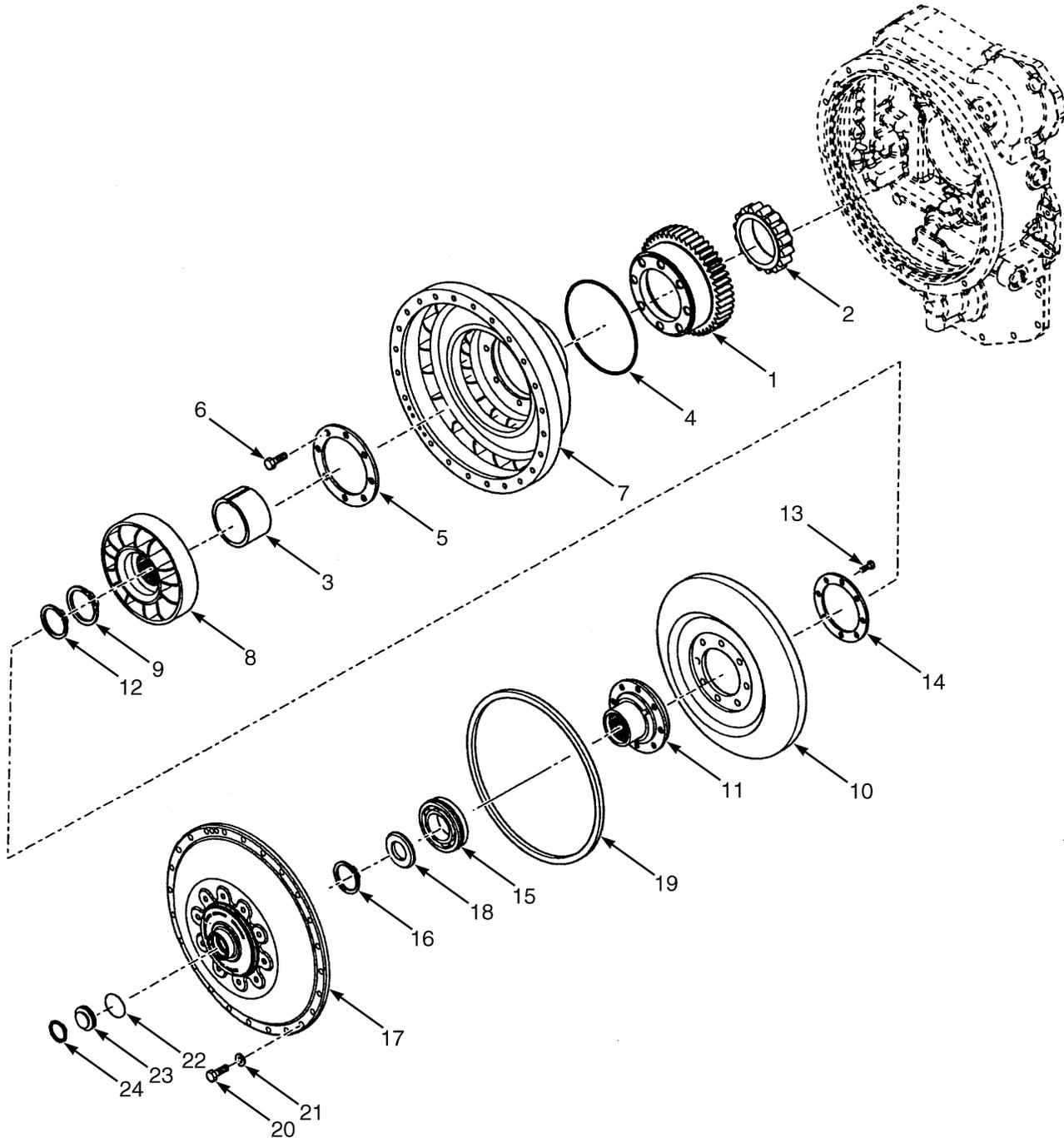


HP240433

TORQUE CONVERTER ASSEMBLY
CUMMINS (→ S/N G007E01719B)

ITEM	PART NO.	DESCRIPTION	QTY
	1538096	Transmission Assy (Cummins)	1
1	1556934	Gear (Impeller)	1
2	1312279	Bearing	1
3	1312379	Spacer	1
4	1311721	O-Ring	1
5	1556935	Ring	1
6	1556936	Screw	8
7	1556937	Impeller	1
8	1556938	Stator (15 Blade)	1
9	1312377	Retaining Ring	1
10	1556941	Turbine (18 Blade)	1
11	1312283	Hub	1
12	1312280	Retaining Ring	2
13	1307970	Screw	12
14	1311802	Back-Up Ring	1
15	1312285	Bearing	1
16	1312286	Retaining Ring	1
17	1556943	Cover	1
18	1312381	Stud	10
19	1556944	O-Ring	1
20	330593	Screw	24
21	15156	Lockwasher	24
22	1312287	Cap	1
23	15894	O-Ring	1

TORQUE CONVERTER ASSEMBLY (FIGURE 5-21) CUMMINS (S/N G007E01720B →)

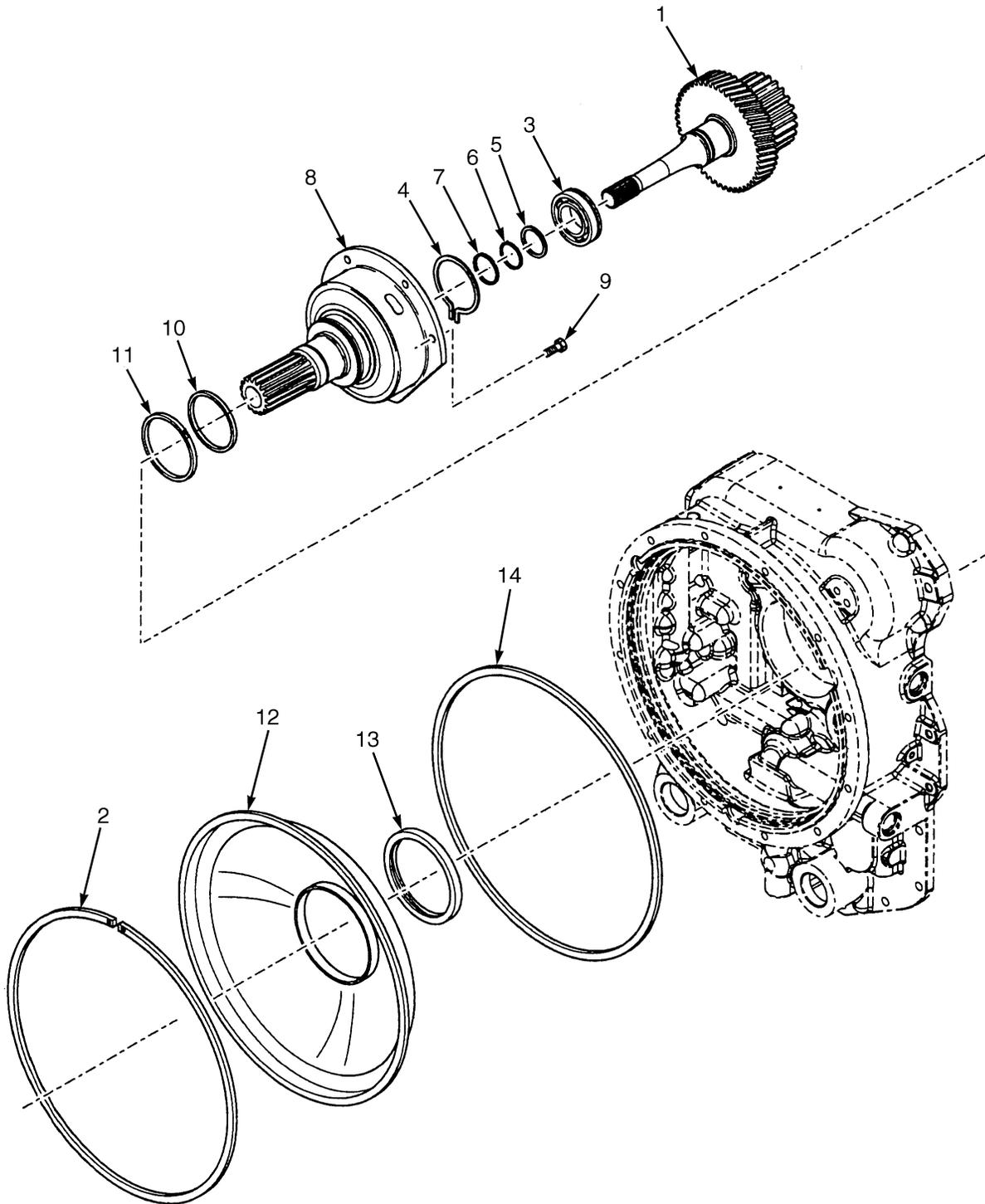


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TORQUE CONVERTER ASSEMBLY
CUMMINS (S/N G007E01720B →)

ITEM	PART NO.	DESCRIPTION	QTY
	2071311	Transmission Assy (Cummins)	1
1	1556934	Gear (Impeller)	1
2	1312279	Bearing	1
3	1312379	Spacer	1
4	1311721	O-Ring	1
5	1556935	Ring	1
6	1579117	Screw	8
7	1556937	Impeller	1
8	1556938	Stator	1
9	1312377	Retaining Ring	1
10	1556941	Turbine	1
11	1579118	Hub (Turbine)	1
12	1312280	Retaining Ring	1
13	1307970	Screw	12
14	1311802	Back-Up Ring	1
15	1312285	Bearing	1
16	213069	Snap Ring	1
17	1579123	Cover (Impeller)	1
18	1579120	Spacer	1
19	1556944	O-Ring	1
20	330593	Screw	24
21	15156	Lockwasher	24
22	1579121	O-Ring	1
23	1311566	Plug	1
24	1311844	Retaining Ring	1

TURBINE SHAFT AND STATOR SUPPORT (FIGURE 5-22)



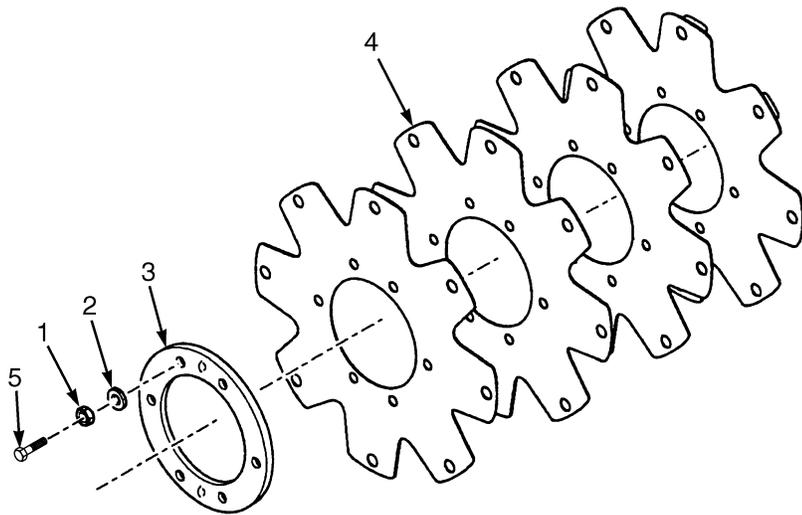
BP240140

TURBINE SHAFT AND STATOR SUPPORT

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	e 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	ab 1556919	Shaft	1
1	ce 1579023	Shaft	1
1	1311715	Retaining Ring	1
2	1312376	Retaining Ring	1
3	382283	Bearing	1
4	1311719	Ring	1
5	1311716	Washer	1
6	1311717	Retaining Ring	1
7	1311718	Piston Ring	1
8	1312272	Support (Stator)	1
9	1312378	Screw	1
10	1312374	Piston Ring	1
11	1556922	Spring (Piston)	1
12	1312274	Baffle And Seal Assembly (Oil)	1
13	330532	Seal	1
14	1312375	Seal	1

FOOTNOTES:**a** → S/N G007E01719B (Cummins)**b** → S/N G007E01732B (Perkins)**c** S/N G007E01720B → (Cummins)**d** S/N G007E01720B → Cummins**e** S/N G007E01733B → (Perkins)

DRIVE PLATE (FIGURE 5-23)



HP240476

DRIVE PLATE

ITEM	PART NO.	DESCRIPTION	QTY
	b 1532819	Transmission Assy (Perkins)	1
	d 2071309	Transmission Assy (Perkins)	1
	a 1538096	Transmission Assy (Cummins)	1
	c 2071311	Transmission Assy (Cummins)	1
1	ab 15026	Nut	10
2	15156	Lockwasher	10
3	1312373	Back-Up Ring	1
4	.....	Drive Plate	3
5	cd 18535	Capscrew	10
6	1312271	Kit-Drive Plate Torque Conv	1

FOOTNOTES:**a** → S/N G007E01719B (Cummins)**b** → S/N G007E01732B (Perkins)**c** S/N G007E01720B → (Cummins)**d** S/N G007E01733B → (Perkins)

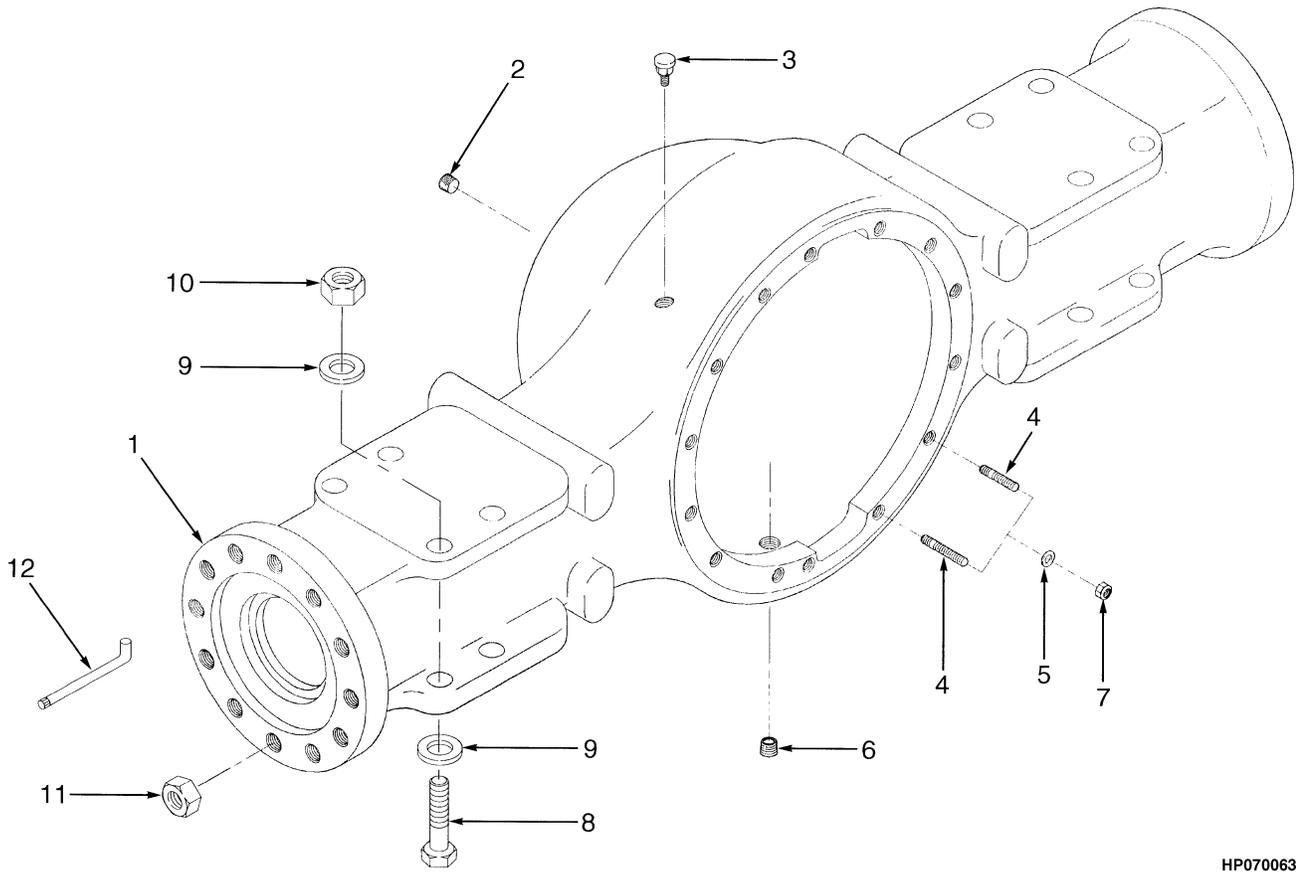
6

DRIVE AXLE

**SECTION 6
DRIVE AXLE**

DESCRIPTION	PAGE
AXLE HOUSING AND ATTACHING PARTS	6-2
DIFFERENTIAL AND CARRIER	
DRY BRAKE	6-4
WET BRAKE - 425 SERIES	6-8
WET BRAKE - 475 SERIES	6-12
HUB AND SHAFT ASSEMBLY	
DRY BRAKE	6-16
WET BRAKE - 425 SERIES	6-18
WET BRAKE - 475 SERIES	6-20

AXLE HOUSING AND ATTACHING PARTS (FIGURE 6-1)



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AXLE HOUSING AND ATTACHING PARTS

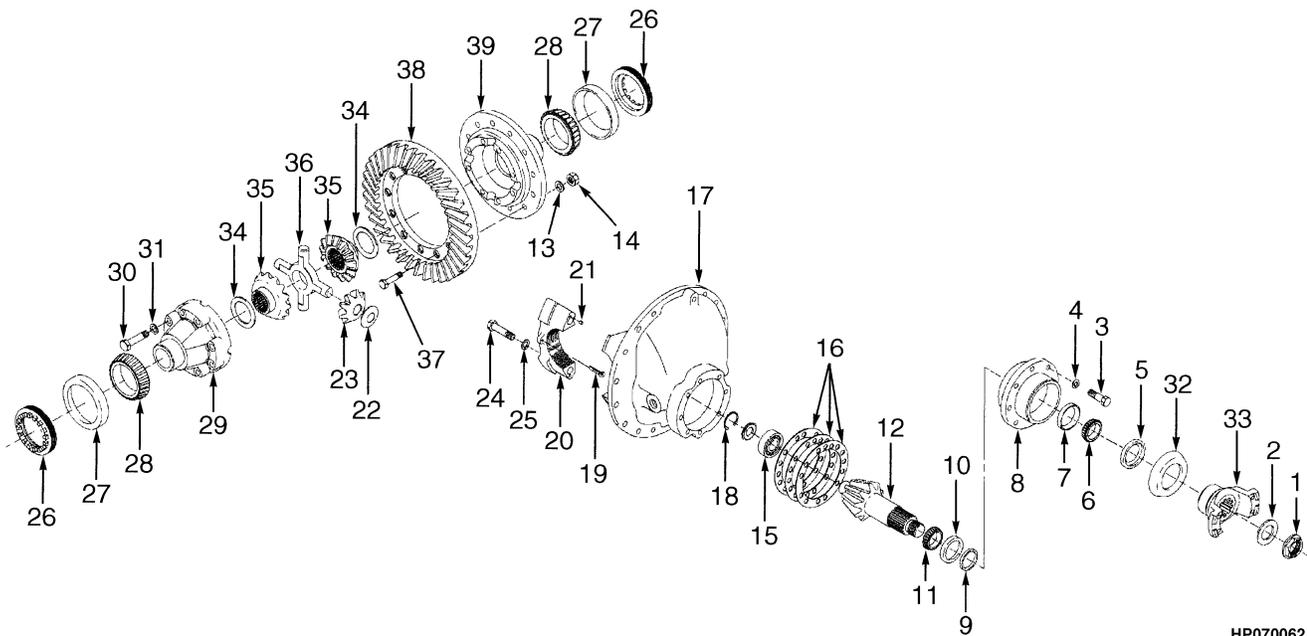
ITEM	PART NO.	DESCRIPTION	QTY
	b 1530290	Drive Axle (Turbo) (Dry Brake)	1
	e 1634414	Drive Axle (Turbo) (Dry Brake)	1
	c 1530292	Drive Axle (Turbo) (Wet Brake 425 Series)	1
	f 1634413	Drive Axle (Turbo) (Wet Brake 425 Series)	1
	a 1541588	Drive Axle (Turbo) (Wet Brake 475 Series)	1
	d 1634401	Drive Axle (Turbo) (Wet Brake 475 Series)	1
1	1493168	Housing (Dry Brake)	1
1	1493233	Housing (Wet Brake)	1
2	15316	Fitting	1
3	1613651	Breather (Assembly)	1
4	1380784	Stud (Long)	4
4	214195	Bolt (Short)	8
5	86007	Washer	12
6	321293	Plug	1
7	358099	Nut	12
8	1323889	Capscrew	8
9	221780	Washer	16
10	221720	Nut	8
11	376026	Wheel Nut	20
12	49189	Extension	2

FOOTNOTES:

a → S/N G007E02675D
b → S/N G007E03049D
c → S/N G007E03092D

d S/N G007E02676D →
e S/N G007E03050D →
f S/N G007E03093D → EXC. 03094-03095, 03103,
03116, 03

DIFFERENTIAL AND CARRIER (FIGURE 6-2) DRY BRAKE



HP070062

**DIFFERENTIAL AND CARRIER
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1530290	Drive Axle (Turbo)	1
	b 1634414	Drive Axle (Turbo)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	1347819	Capscrew	8
4	1450861	Washer	8
5	1642099	Oil Seal	1
6	1347812	Bearing Cone (Outer)	1
7	200972	Bearing Cup (Outer)	1
8	a 1374091	Cage	1
8	b 1642098	Cage	1
9	.....	Spacer (8,75 mm)	2
9	.....	Spacer (8,78 mm)	2
9	.....	Spacer (8,80 mm)	2
9	.....	Spacer (8,83 mm)	2
9	.....	Spacer (8,85 mm)	2
9	.....	Spacer (8,98 mm)	2
9	.....	Spacer (9,10 mm)	2
9	.....	Spacer (9,13 mm)	2
9	.....	Spacer (9,15 mm)	2
9	.....	Spacer (9,18 mm)	2
9	.....	Spacer (9,20 mm)	2
10	30062	Bearing Cup (Inner)	1
11	1347774	Bearing Cone (Inner)	1
12	1493167	Gear	1
13	125428	Washer	12
14	1374550	Nut	12
15	296844	Bearing	1
16	.....	Shim (0.003 in.)	AR
16	.....	Shim (0.005 in.)	AR
16	.....	Shim (0.010 in.)	AR
16	.....	Shim (0.020 in.)	AR
17	a 1380893	Differential Carrier	1
17	b 1642096	Differential Carrier	1
18	240683	Snap Ring	1
19	86008	Cotter Pin	2
20	.....	Cap (Assembly)	1
21	1380777	Ball	2
22	a 200982	Washer	4
22	b 1642104	Thrust Washer	4
23	a	Pinion	4
23	b 1347835	Pinion	4
24	293716	Capscrew	4
25	1347770	Washer	4
26	1347839	Ring (LH and RH)	2
27	1475420	Bearing Cup (LH and RH)	2
28	1475421	Bearing Cone (LH and RH)	2
29	a	Case	1
29	b 1642101	Differential Housing	1
30	1347831	Capscrew	16

DIFFERENTIAL AND CARRIER DRY BRAKE

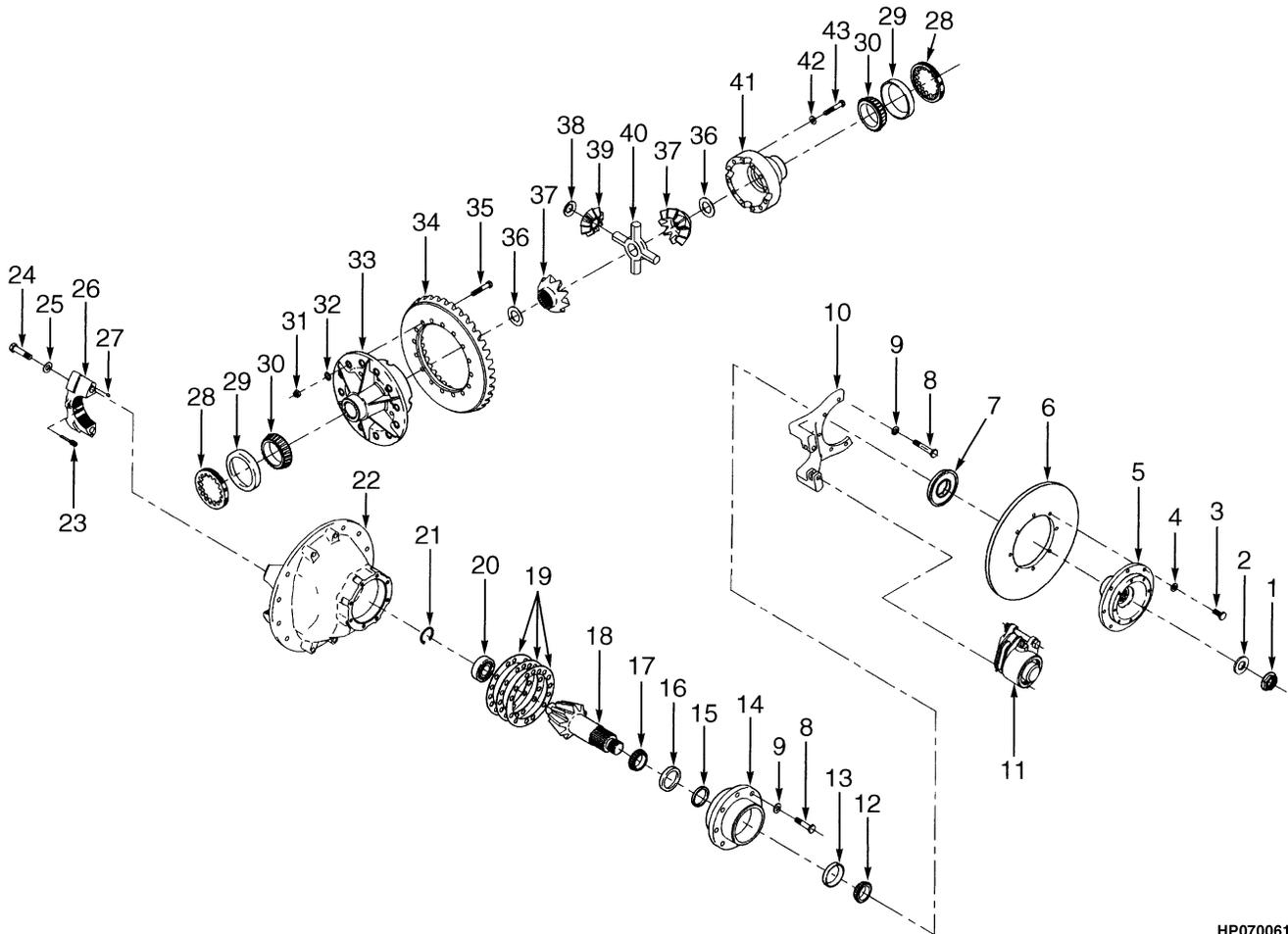
ITEM	PART NO.	DESCRIPTION	QTY
31	1450861	Washer	16
32	1374089	Deflector	1
33	1374088	Yoke	1
34	a 1380797	Thrust Washer	2
34	b 1642103	Thrust Washer	2
35	a 1380776	Gear	2
35	b 1379753	Gear	2
36	a 1318626	Spider	1
36	b 1502130	Spider	1
37	1347822	Bolt	12
38	.....	Gear (Assembly Turbo)	1
39	.....	Case (Flange Half)	1
39	1489290	Differential Housing	1
39	1489291	Case	1
	1347800	Kit-Spacer	1
	a 1489286	Kit-Differential	1
	b 1642102	Kit-Differential	1
	a 1489287	Kit-Hardware	1
	b 1374099	Kit-Capscrew	1
	1493183	Gear Set	1
	a 1374552	Kit-Shim	1
	b 1642097	Kit-Shim	1

FOOTNOTES:

a → S/N G007E03049D

b S/N G007E03050D →

DIFFERENTIAL AND CARRIER (FIGURE 6-3) WET BRAKE — 425 SERIES



HP070061

**DIFFERENTIAL AND CARRIER
WET BRAKE – 425 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1530292	Drive Axle (Turbo)	1
	b 1634413	Drive Axle (Turbo)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	a 293653	Capscrew	8
3	b 16815	Capscrew	8
4	221767	Washer	8
5	a 1578546	Yoke	1
5	c 1489405	Yoke	1
6	1382918	Brake Disk	1
7	1642099	Oil Seal	1
8	a 1541612	Capscrew	8
8	b 1566125	Capscrew	8
9	1450861	Washer	8
10	a 1541613	Adapter	1
10	b 1489407	Adapter (Brake)	1
11	a 1489408	Brake Assembly (Disc) (☞ Figure 8-12).....	1
11	b 1561604	Brake Assembly (☞ Figure 8-12).....	1
12	a 1347812	Bearing Cone	1
12	b 1347774	Bearing Cone	1
13	200972	Bearing Cup	1
14	1347772	Pinion (Cage Assembly Pinion)	1
15	.....	Spacer (0.344 in.)	AR
15	.....	Spacer (0.345 in.)	AR
15	.....	Spacer (0.346 in.)	AR
15	.....	Spacer (0.347 in.)	AR
15	.....	Spacer (0.348 in.)	AR
15	.....	Spacer (0.354 in.)	AR
15	.....	Spacer (0.358 in.)	AR
15	.....	Spacer (0.359 in.)	AR
15	.....	Spacer (0.360 in.)	AR
15	.....	Spacer (0.361 in.)	AR
15	.....	Spacer (0.362 in.)	AR
16	30062	Bearing Cup	1
17	1347774	Bearing Cone	1
18	.....	Pinion Gear	1
19	.....	Shim (0.003 in.)	AR
19	.....	Shim (0.005 in.)	AR
19	.....	Shim (0.010 in.)	AR
19	.....	Shim (0.020 in.)	AR
20	296844	Bearing	1
21	240683	Snap Ring	1
22	a 1380893	Differential Carrier	1
22	b 1642096	Differential Carrier	1
23	86008	Cotter Pin	1
24	293716	Capscrew	1
25	1347770	Washer	1
26	.....	Bearing Cap Assy	1
27	1380777	Ball	1
28	1347839	Ring (LH and RH)	2

DIFFERENTIAL AND CARRIER WET BRAKE – 425 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
29	1475420	Bearing Cup (LH and RH)	2
30	1475421	Bearing Cone (LH and RH)	2
31	1374550	Nut	12
32	125428	Washer	12
33	a 1489290	Differential Housing	1
33	b 1642101	Differential Housing	1
34	.....	Gear Assy	1
35	1347822	Bolt	12
36	a 1380797	Thrust Washer	1
36	b 1642103	Thrust Washer	2
37	a 1380776	Gear	1
37	b 1379753	Gear	2
38	a 1642104	Thrust Washer	1
38	b 1642104	Thrust Washer	4
39	1347835	Pinion	4
40	a 1318626	Spider	1
40	b 1502130	Spider	1
41	1347827	Differential Housing	1
42	1450861	Washer	16
43	1347831	Capscrew	16
	a 1489287	Kit-Hardware	1
	b 1374099	Kit-Capscrew	1
	a 1374552	Kit-Shim	1
	b 1642097	Kit-Shim	1
	1347800	Kit-Spacer	1
	a 1489290	Differential Housing	1
	b 1642102	Kit-Differential	1

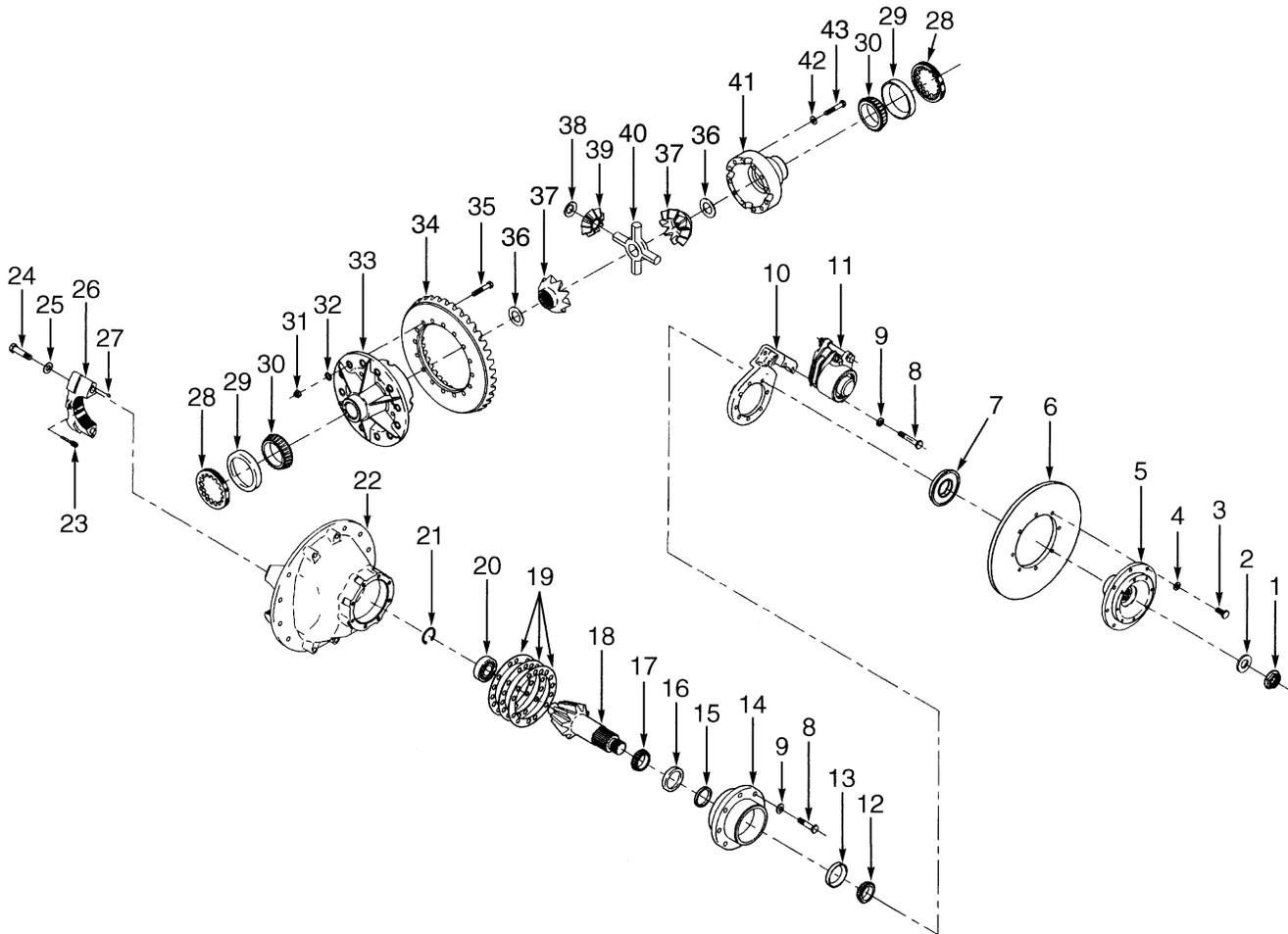
FOOTNOTES:

a → S/N G007E03092D

b S/N G007E03093D → EXC. 03094-03095, 03103, 03116, 03

c S/N G007E03093D → EXC. 03094-03095, 03103, 03116, 03121, 03137

DIFFERENTIAL AND CARRIER (FIGURE 6-4) WET BRAKE — 475 SERIES



BP070058

**DIFFERENTIAL AND CARRIER
WET BRAKE – 475 SERIES**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1541588	Drive Axle (Turbo)	1
	b 1634401	Drive Axle (Turbo)	1
1	1357734	Locknut	1
2	1312083	Washer	1
3	a 293653	Capscrew	8
3	b 16815	Capscrew	8
4	221767	Washer	8
5	a 1578546	Yoke	1
5	b 1489405	Yoke	1
6	1382918	Brake Disk	1
7	1642099	Oil Seal	1
8	a 1541612	Capscrew	3
8	b 1566125	Capscrew	3
9	1450861	Washer	8
10	a 1541613	Adapter	1
10	b 1489407	Adapter (Brake)	1
11	a 1489408	Brake Assembly (Disc) (☞ Figure 8-7, ☞ Figure 8-12).....	1
11	b 1561604	Brake Assembly (☞ Figure 8-7, ☞ Figure 8-12).....	1
12	1347812	Bearing Cone	1
13	200972	Bearing Cup	1
14	a 1541614	Cage (Assembly Pinion)	1
14	b 1347772	Pinion (Cage Assembly Pinion)	1
15	.....	Spacer (0.344 in.)	AR
15	.....	Spacer (0.345 in.)	AR
15	.....	Spacer (0.346 in.)	AR
15	.....	Spacer (0.347 in.)	AR
15	.....	Spacer (0.348 in.)	AR
15	.....	Spacer (0.354 in.)	AR
15	.....	Spacer (0.358 in.)	AR
15	.....	Spacer (0.359 in.)	AR
15	.....	Spacer (0.360 in.)	AR
15	.....	Spacer (0.361 in.)	AR
15	.....	Spacer (0.362 in.)	AR
16	30062	Bearing Cup	1
17	1347774	Bearing Cone	1
18	.....	Gear Set	1
19	.....	Shim (0.003 in.)	AR
19	.....	Shim (0.005 in.)	AR
19	.....	Shim (0.010 in.)	AR
19	.....	Shim (0.020 in.)	AR
20	296844	Bearing	1
21	240683	Snap Ring	1
22	a 1380893	Differential Carrier	1
22	b 1642096	Differential Carrier	1
23	86008	Cotter Pin	2
24	293716	Capscrew	4
25	1347770	Washer	4
26	.....	Bearing Cap	2
27	1380777	Ball	4
28	1347839	Ring (LH and RH)	2

DIFFERENTIAL AND CARRIER WET BRAKE – 475 SERIES

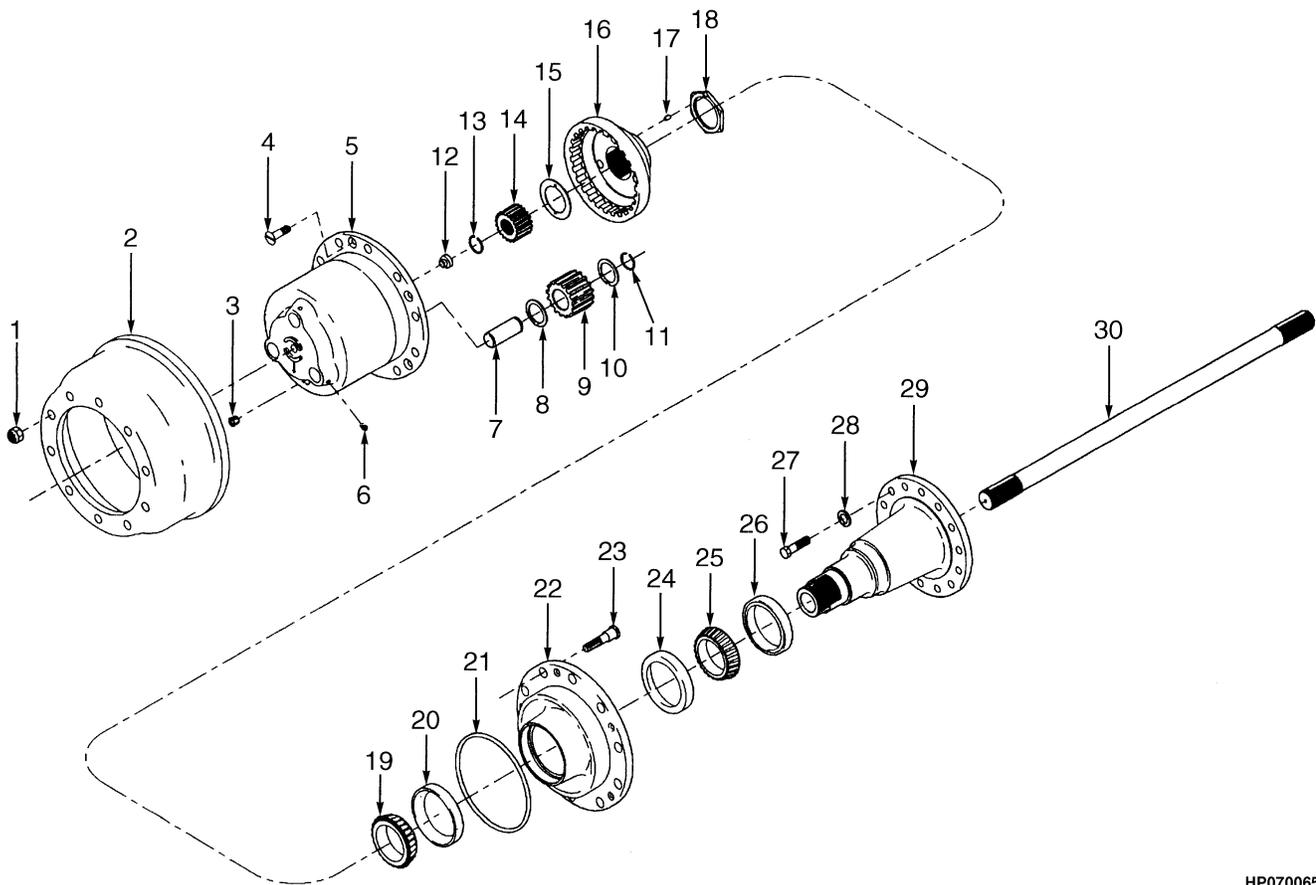
ITEM	PART NO.	DESCRIPTION	QTY
29	1475420	Bearing Cup (LH and RH)	2
30	1475421	Bearing Cone (LH and RH)	1
31	1374550	Nut	12
32	125428	Washer	12
33	a 1489290	Differential Housing	1
33	.....	Case, Flange	1
33	.....	Case, Plain	1
33	b 1642101	Differential Housing	1
34	.....	Gear Assy	1
35	1347822	Bolt	12
36	b 1642103	Thrust Washer	2
36	a 1380797	Thrust Washer	2
37	a 1380776	Gear	2
37	b 1379753	Gear	2
38	a 200982	Washer	4
38	b 1642104	Thrust Washer	4
39	1347835	Pinion	4
40	a 1318626	Spider	1
40	b 1502130	Spider	1
41	1347827	Differential Housing	1
42	1450861	Washer	16
43	1347831	Capscrew	16
	a 1489286	Kit-Differential	1
	b 1642102	Kit-Differential	1
	1347800	Kit-Spacer	1
	a 1374552	Kit-Shim	1
	b 1642097	Kit-Shim	1
	a 1489287	Kit-Hardware	1
	b 1374099	Kit-Capscrew	1
	1514331	Kit-Repair Parking Brake	1

FOOTNOTES:

a → S/N G007E02675D

b S/N G007E02676D →

HUB AND SHAFT ASSEMBLY (FIGURE 6-5) DRY BRAKE



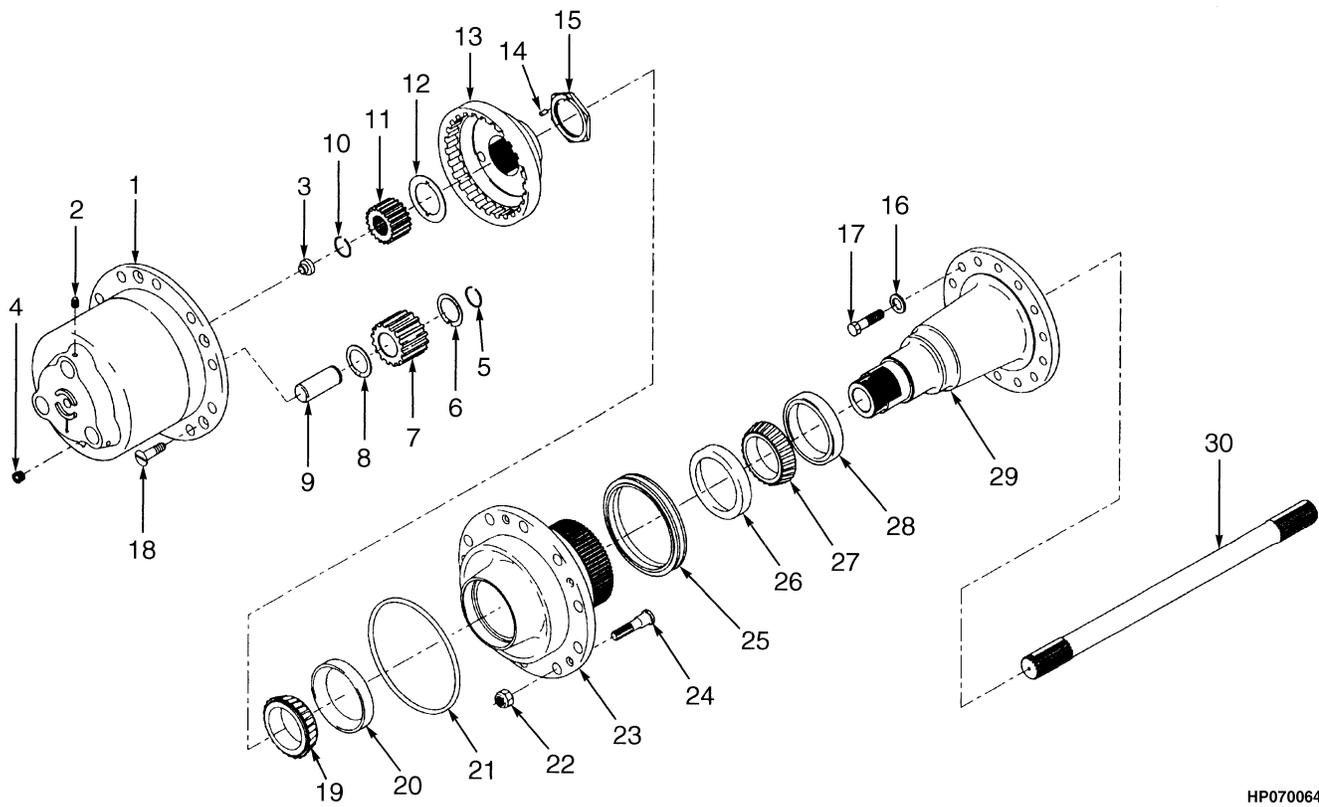
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**HUB AND SHAFT ASSEMBLY
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1530290	Drive Axle (Turbo)	1
	c 1634414	Drive Axle (Turbo)	1
1	2306253	Nut	4
2	1633026	Brake Drum	2
3	321293	Plug	2
4	1385715	Screw	10
5	1358201	Spider	1
5	1358202	Spider	2
6	321290	Setscrew	3
7	1358203	Shaft (Pinion)	3
8	1313868	Washer (Outer)	3
9	1312601	Gear	3
10	1313894	Washer (Inner)	3
11	1309860	Snap Ring	3
12	1303551	Button (Thrust)	1
13	1450074	Snap Ring	2
14	1450075	Gear	2
15	1313895	Thrust Washer	2
16	1522056	Gear	2
17	a 1312803	Pin	1
17	c 1522055	Pin	1
18	1616273	Nut	2
19	276228	Bearing Cone (Outer)	2
20	392197	Bearing Cup (Outer)	1
21	1312805	O-Ring	2
22	1482766	Hub	2
23	1511548	Wheel Stud	20
23	376026	Wheel Nut	20
24	132462	Bearing Cup (Inner)	1
25	132461	Bearing Cone (Inner)	2
26	1312807	Seal	2
27	1482764	Bolt	30
28	1482765	Washer	30
29	1482763	Spindle	2
30	a 1482771	Axle Shaft (RH)	1
30	b 1642141	RH Axle	1
30	a 1482772	Axle Shaft (LH)	1
30	c 1642142	LH Axle	1

FOOTNOTES:**a** → S/N G007E03049D**c** S/N G007E03050D →**b** S/N G007E02050D →

HUB AND SHAFT ASSEMBLY (FIGURE 6-6) WET BRAKE — 425 SERIES



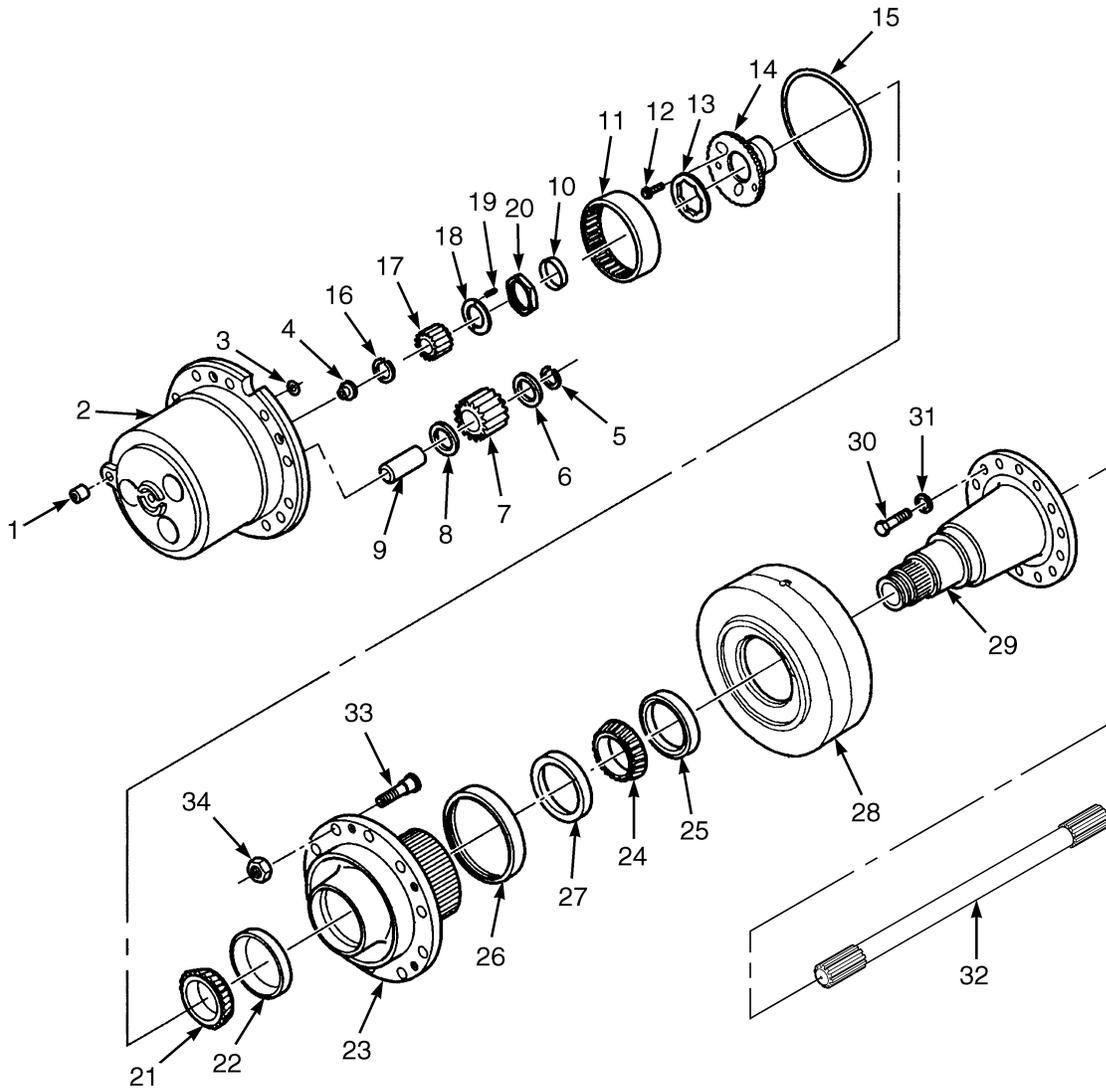
HP070064

HUB AND SHAFT ASSEMBLY
WET BRAKE – 425 SERIES

ITEM	PART NO.	DESCRIPTION	QTY
	a 1530292	Drive Axle (Turbo)	1
	b 1634413	Drive Axle (Turbo)	1
	1491245	Spider (Planetary)	2
1	1491246	Spider	1
2	321293	Plug	1
3	1303551	Button (Thrust)	1
4	321290	Setscrew	3
5	1309860	Snap Ring	3
6	1313894	Washer (Inner)	3
7	1312601	Gear	3
8	1313868	Washer (Outer)	3
9	1358203	Shaft	3
10	1450074	Snap Ring	2
11	1450075	Gear	2
12	1313895	Thrust Washer	2
13	1522056	Gear	2
14	1522055	Pin	1
15	.....	Nut	1
16	296431	Washer	26
17	1489308	Capscrew	26
18	1385715	Screw	3
19	276228	Bearing Cone (Outer)	2
20	392197	Bearing Cup (Outer)	1
21	1312805	O-Ring	2
22	376026	Wheel Nut	10
23	1491242	Hub	2
24	1511548	Wheel Stud	20
25	1489420	Seal (Assembly)	2
26	132462	Bearing Cup (Inner)	1
27	132461	Bearing Cone (Inner)	1
28	1489421	Seal	2
29	1491256	Spindle (Cup)	2
30	a 1482771	Axle Shaft (RH)	1
30	b 1642141	RH Axle	1
30	a 1482772	Axle Shaft (LH)	1
30	b 1642142	LH Axle	1
	1522081	Gear	1
	1616273	Nut Wheel Bearing Nut Assembly	1

FOOTNOTES:**a** → S/N G007E03092D**b** S/N G007E03093D → EXC. 03094-03095, 03103, 03116, 03

HUB AND SHAFT ASSEMBLY (FIGURE 6-7) WET BRAKE — 475 SERIES



BP070029

**HUB AND SHAFT ASSEMBLY
WET BRAKE – 475 SERIES**

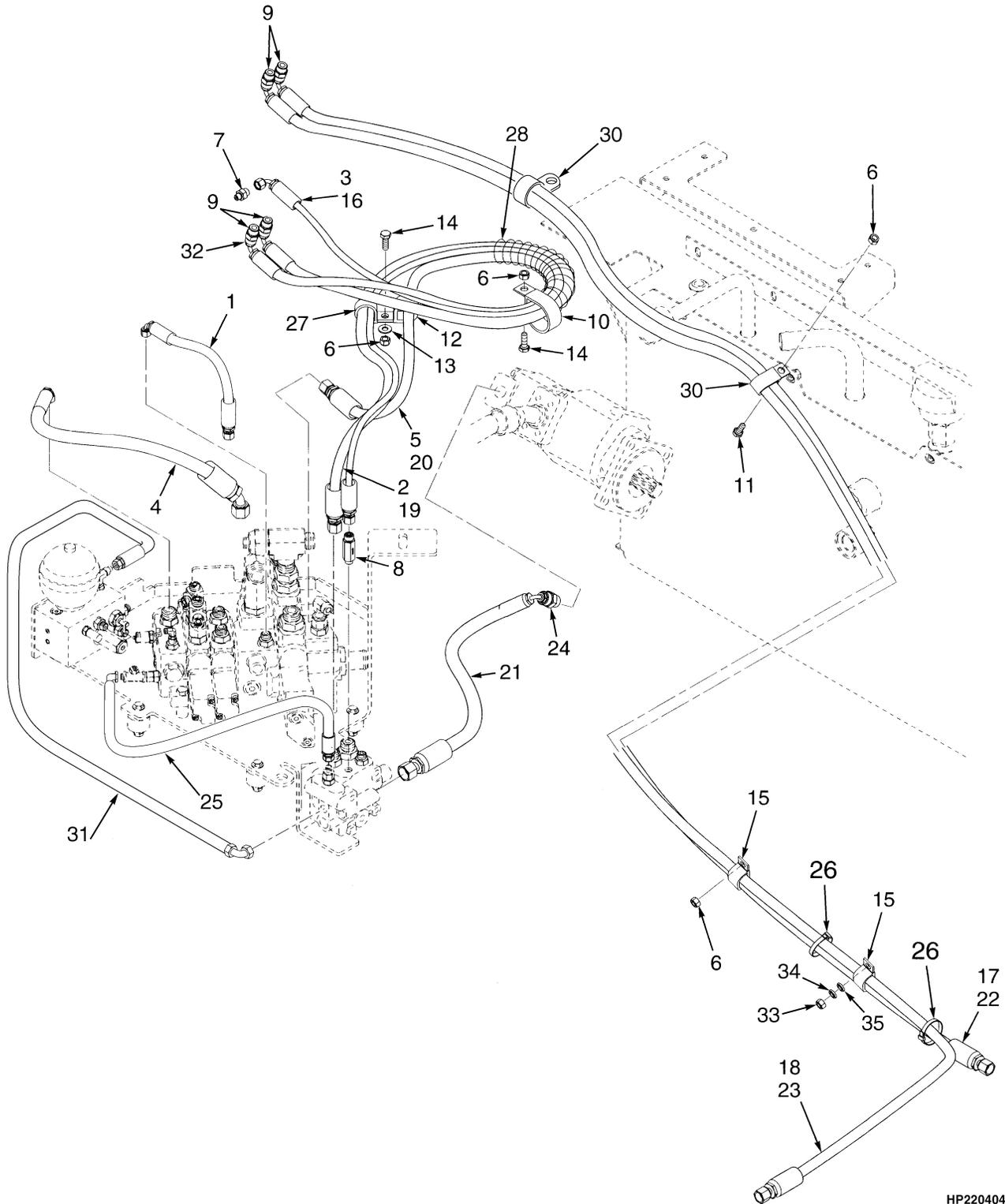
ITEM	PART NO.	DESCRIPTION	QTY
	a 1541588	Drive Axle (Turbo)	1
	b 1634401	Drive Axle (Turbo)	1
1	321293	Plug	2
2	1489416	Spider	2
2	1489417	Spider	1
3	273969	Button (Thrust)	3
4	1303551	Button (Thrust)	1
5	1489302	Lockring	3
6	1316044	Washer	3
7	1489303	Pinion	3
8	1489304	Thrust Washer (Outer)	3
9	1489305	Shaft	3
9	1489306	O-Ring	1
10	.....	Sleeve	2
11	1489298	Gear	2
12	1489299	Capscrew	8
13	1489300	Lock	2
14	1489301	Hub	2
15	1312805	O-Ring	2
16	1450074	Snap Ring	2
17	1489297	Gear	2
18	1316045	Thrust Washer	2
19	.....	Pin	2
20	1316042	Nut	2
21	170379	Bearing Cone	2
22	170380	Bearing Cup	2
23	1489419	Hub	2
24	1316314	Bearing Cone	1
25	1489421	Seal	1
26	1489420	Seal	2
27	132462	Bearing Cup	2
28	1491247	Brake Assembly (☞ Figure 8-7).....	2
29	a 1489309	Spindle	2
29	b 1643612	Drive Axle	2
30	1489308	Capscrew	26
31	296431	Washer	26
32	a 1561605	Axle Shaft (RH)	1
32	b 1643610	RH Axle	1
32	a 1561606	Axle Shaft (LH)	1
32	b 1643611	LH Axle	1
33	a 1561614	Wheel Stud	20
33	b 1511548	Wheel Stud	20
34	376026	Wheel Nut	20

FOOTNOTES:**a** → S/N G007E02675D**b** S/N G007E02676D →

**SECTION 7
STEERING SYSTEM**

DESCRIPTION	PAGE
STEERING AXLE	7-8
STEERING COLUMN AND ATTACHING PARTS	7-4
STEERING COLUMN ASSEMBLY	7-6
STEERING CYLINDER	
→ S/N G007E02599D	7-12
S/N G007E02600D →	7-14
STEERING SYSTEM	7-2

STEERING SYSTEM (FIGURE 7-1)

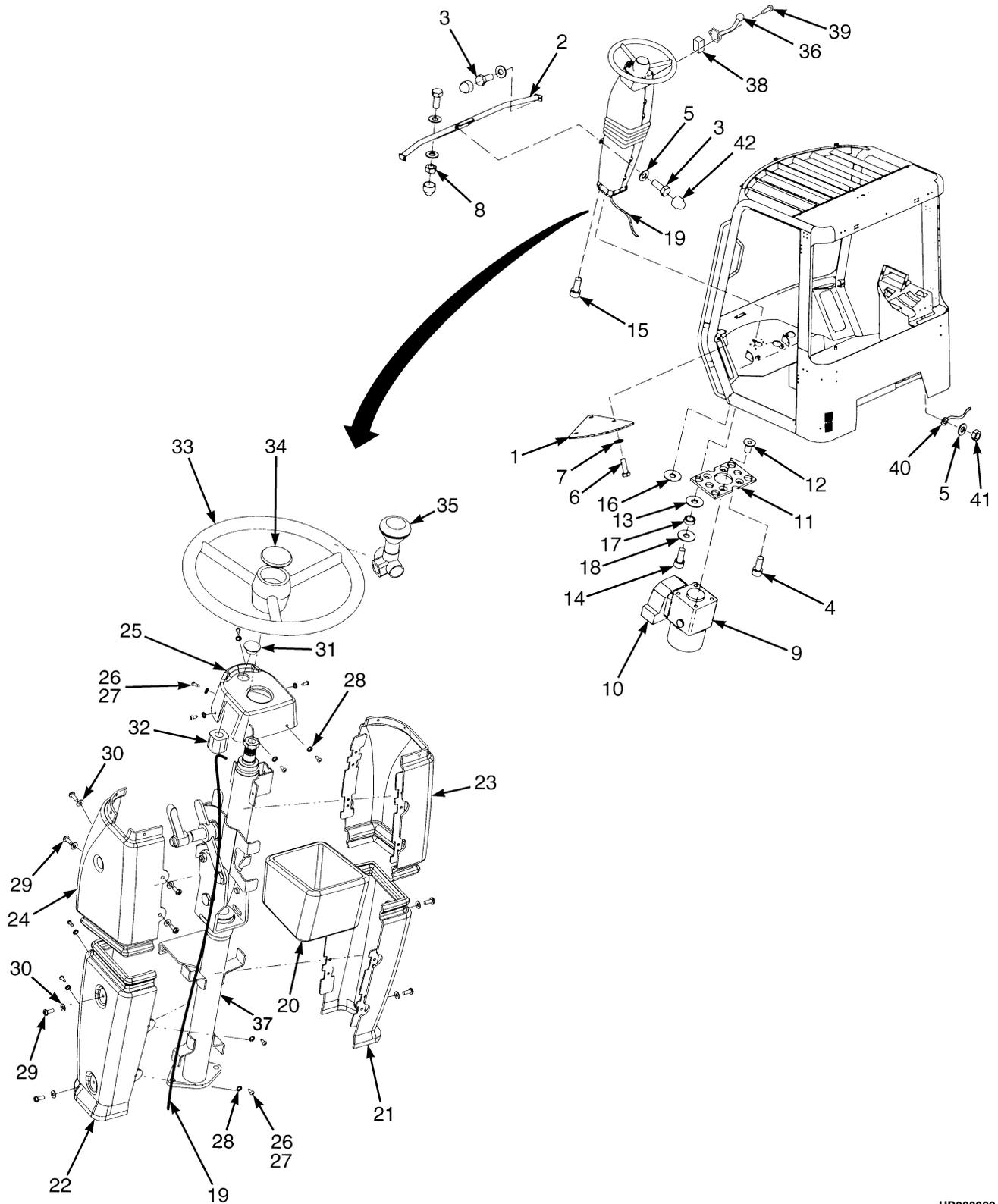


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STEERING SYSTEM

ITEM	PART NO.	DESCRIPTION	QTY
1	1476688	Hose Assy	1
2	1476697	Hose Assy	1
3	1494372	Hose Assy	1
4	1476704	Hose Assy	1
5	1476696	Hose Assy	1
6	316826	Nut	6
7	1486737	Fitting	1
8	1494299	Check Valve	1
9	1473887	Fitting	4
10	1384699	Clamp	2
11	287854	Capscrew	1
12	1347202	Clamp	1
13	296421	Washer	4
14	136985	Capscrew	4
15	79377	Clamp	1
16	1464629	Identification Band	2
17	342684	Identification Band (L)	2
18	1307815	Identification Band (R)	2
19	342687	Identification Band (P)	2
20	342688	Identification Band (T)	2
21	1476705	Hose Assy	1
22	1510748	Hose Assy (L)	1
23	1510749	Hose Assy (R)	1
24	1486749	Fitting	1
25	1500217	Hose Assy	1
26	129563	Strap Clamp	2
27	279033	Clamp	1
28	239308	Sleeve	1
29	302402	Locknut	1
30	110322	Clamp	2
31	2046767	Hose Assy	1
32	1473897	Fitting	1
33	136692	Nut	2
34	292682	Lockwasher	2
35	320159	Washer	2

STEERING COLUMN AND ATTACHING PARTS (FIGURE 7-2)

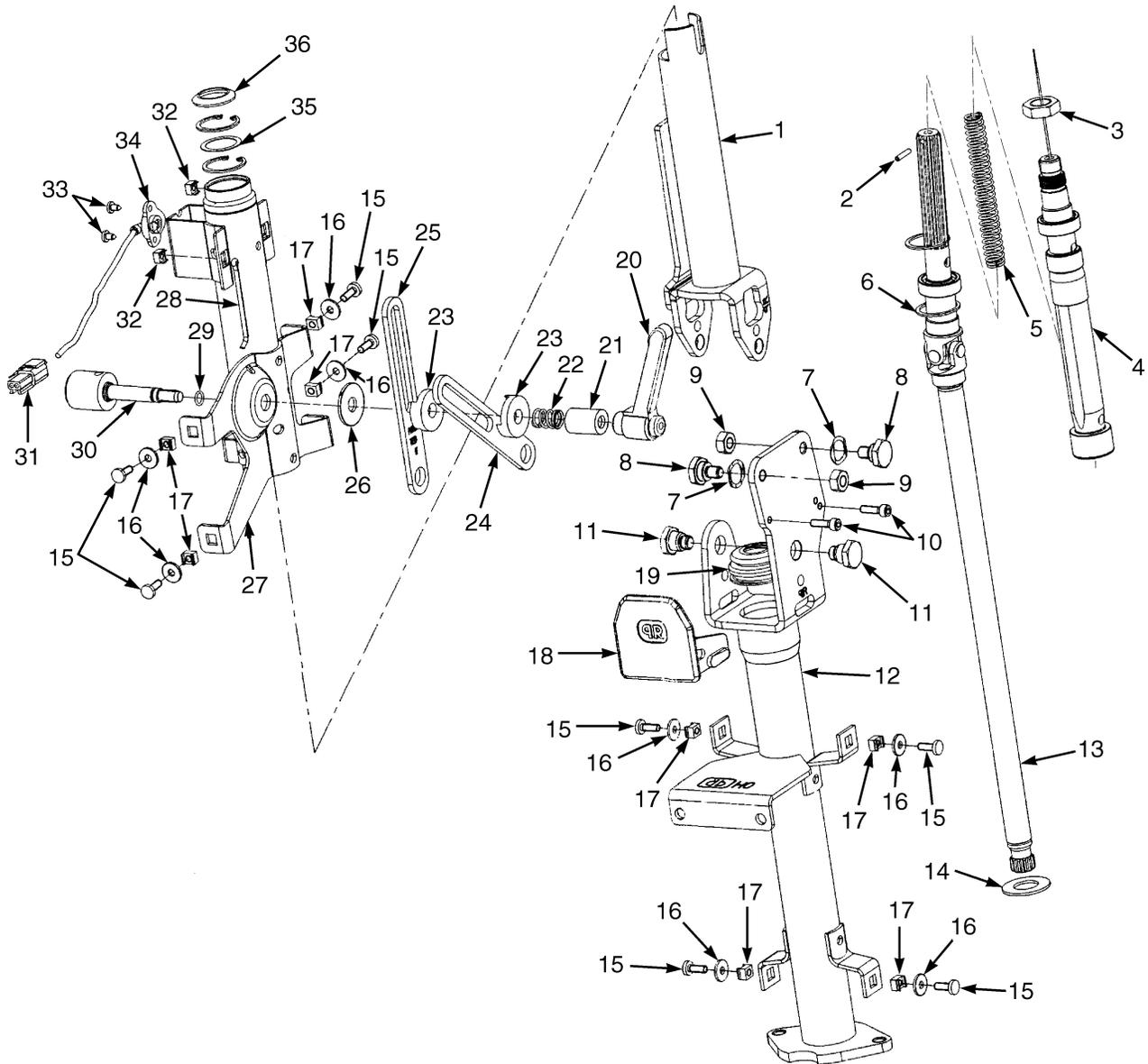


HP220399

STEERING COLUMN AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1492236	Plate	2
2	1492237	Support (Column)	1
3	136681	Capscrew	4
4	296025	Capscrew	6
5	320158	Washer	8
6	292501	Capscrew	6
7	1468321	Washer (Plastic)	6
8	239503	Nut	2
9	1558043	Steering Pump	1
9	1563036	Kit-Seal	1
10	1524173	Valve Block	1
10	366066	Kit-Repair Valve	1
10	1462890	O-Ring	4
10	1462891	Screw	2
11	1477228	Plate (Steering Pump)	1
12	16080	Capscrew	4
13	216735	Grommet	4
14	296012	Capscrew	4
15	296025	Capscrew	2
16	339969	Grommet	1
17	376505	Spacer	4
18	1300117	Washer	4
19	2066204	Wire Harness (Steering Column)	1
20	1492252	Cover (Boot)	1
21	1489848	Cover (Lower RH)	1
22	1489847	Cover (Lower LH)	1
23	1489846	Cover (Upper RH)	1
24	1489845	Cover (Upper LH)	1
25	1520541	Cover (Upper)	1
26	1468319	Screw	10
27	1492139	Nut	10
28	1492140	Washer	10
29	302047	Screw	8
30	1506738	Washer	8
31	1520542	Warning Light (With Circuit Board)	1
32	1492255	Socket (Warning Light)	1
33	1329250	Steering Wheel	1
34	371666	Horn Button	1
35	895468	Wheelspinner	1
36	1514033	Switch (Turn Signal)	1
37	2043287	Steering Column (Assembly) (☞ Figure 7-3).....	1
38	2003859	Flasher	1
39	1566411	Screw	2
40	1492214	Wire (Ground)	1
41	316835	Nut	1
42	1476584	Cover (Capscrew Head)	6

STEERING COLUMN ASSEMBLY (FIGURE 7-3)



HP220434

STEERING COLUMN ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
	2043287	Steering Column	1
1	1487124	Pipe (Upper)	1
2	1479473	Pin	1
3	1388428	Nut	1
4	1487107	Shaft (Upper)	1
5	1487131	Spring	1
6	1388434	Snap Ring	4
7	1504861	O-Ring	2
8	1487111	Screw	2
9	1504862	Nut (Zinc Plated)	2
10	1487132	Screw	2
11	1487108	Screw	2
12	1487103	Pipe (Lower)	1
13	1487126	Shaft (Lower)	1
14	1504865	Support	1
15	1487123	Screw	8
16	1487121	Washer	8
17	1487110	Nut	8
18	1487133	Bracket	1
19	1487109	Boot	1
20	1388438	Handle	1
21	1487114	Spacer	1
22	1487130	Spring	1
23	1487112	Nut (Stop)	2
24	1487105	Lever (Back)	1
25	1487106	Lever (Front)	1
26	1487115	Washer	1
27	1487104	Support	1
28	1487120	Cotter Pin	1
29	1504867	Ring	1
30	1504864	Regulator	1
31	1504868	Connector	1
32	1504866	Nut	2
33	1487129	Screw	2
34	1504863	Support	1
35	1388435	Ring	1
36	1388436	Boot	1

STEERING AXLE

ITEM	PART NO.	DESCRIPTION	QTY
1	1485296	Hub	2
2	1311407	Wheel Stud	10
3	264893	Bearing Cup	1
4	97705	Bearing Cup	1
5	247667	Wear Sleeve	1
6	1485292	Cap	2
7	15255	Cotter Pin	2
8	1313375	Nut	2
9	1313374	Washer	2
10	15158	Washer	6
11	18588	Capscrew	6
12	247093	Bearing Cone	2
13	1485294	Bearing Cap	2
14	164639	Wear Sleeve	1
15	30189	Bearing Cup	1
16	247097	Shim (0.005 in.)	AR
16	247098	Shim (0.007 in.)	AR
16	247099	Shim (0.020 in.)	AR
17	44542	Seal	2
18	247041	Seal	2
19	264892	Bearing Cone	2
20	97678	Bearing Cone	2
21	247672	Seal	2
22	176224	Bearing Cup	2
23	176223	Bearing Cone	2
24	247101	Seal	2
25	13963	Grease Fitting	6
26	1498274	Pin	2
27	185860	Plug	2
28	1498273	Pin	2
29	270854	Seal	8
30	a 1485308	Spindle (LH)	1
30	d 1628478	Spindle (LH)	1
31	a 1485309	Spindle (RH)	1
31	d 1628480	Spindle (RH)	1
32	293708	Capscrew	8
33	320169	Washer	8
34	b 1485304	Steering Axle	1
34	e 1591500	Steering Axle	1
35	1337773	Shaft	2
35	b 1337774	Shaft	2
35	e 1591498	Shaft	2
36	257291	Adhesive	AR
37	183611	Capscrew	4
38	195566	Anchor	4
39	280472	Sealant	AR
40	c 376091	Steering Cylinder (☞ Figure 7-5).....	1
40	f 2083131	Steering Cylinder (☞ Figure 7-6).....	1
41	16568	Fitting	1
41	16484	O-Ring	1
42	16559	Fitting	1

STEERING AXLE

ITEM	PART NO.	DESCRIPTION	QTY
42	16484	O-Ring	1
43	131193	Sealing Ring	1
44	131190	Shim (0.110 in.)	AR
44	131191	Shim (0.040 in.)	AR
45	1335873	Bushing	2
46	1335870	Flange	2
47	376026	Wheel Nut	20
48	1485310	Tie Rod	2
49	192814	Bushing	4
50	376156	Plate	2
51	16279	Capscrew	4
52	15162	Lockwasher	4
53	292561	Capscrew	4
54	1593338	Nut	4
55	15134	Washer	4

FOOTNOTES:

a → 1/2006

b → S/N G007E02496C

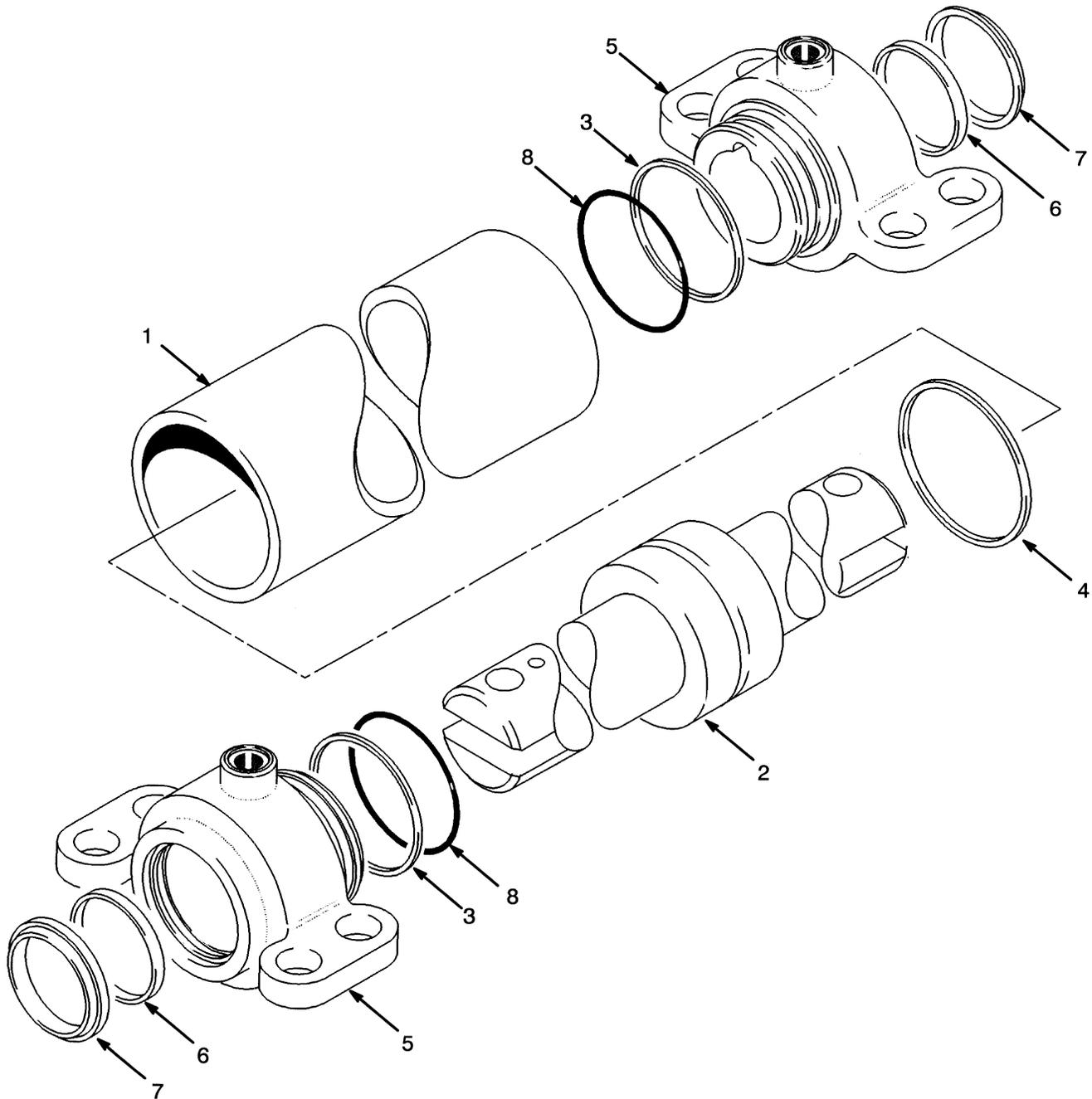
c → S/N G007E02599D

d 1/2006 →

e S/N G007E02497C →

f S/N G007E02600D →

STEERING CYLINDER (FIGURE 7-5) (→ S/N G007E02599D)

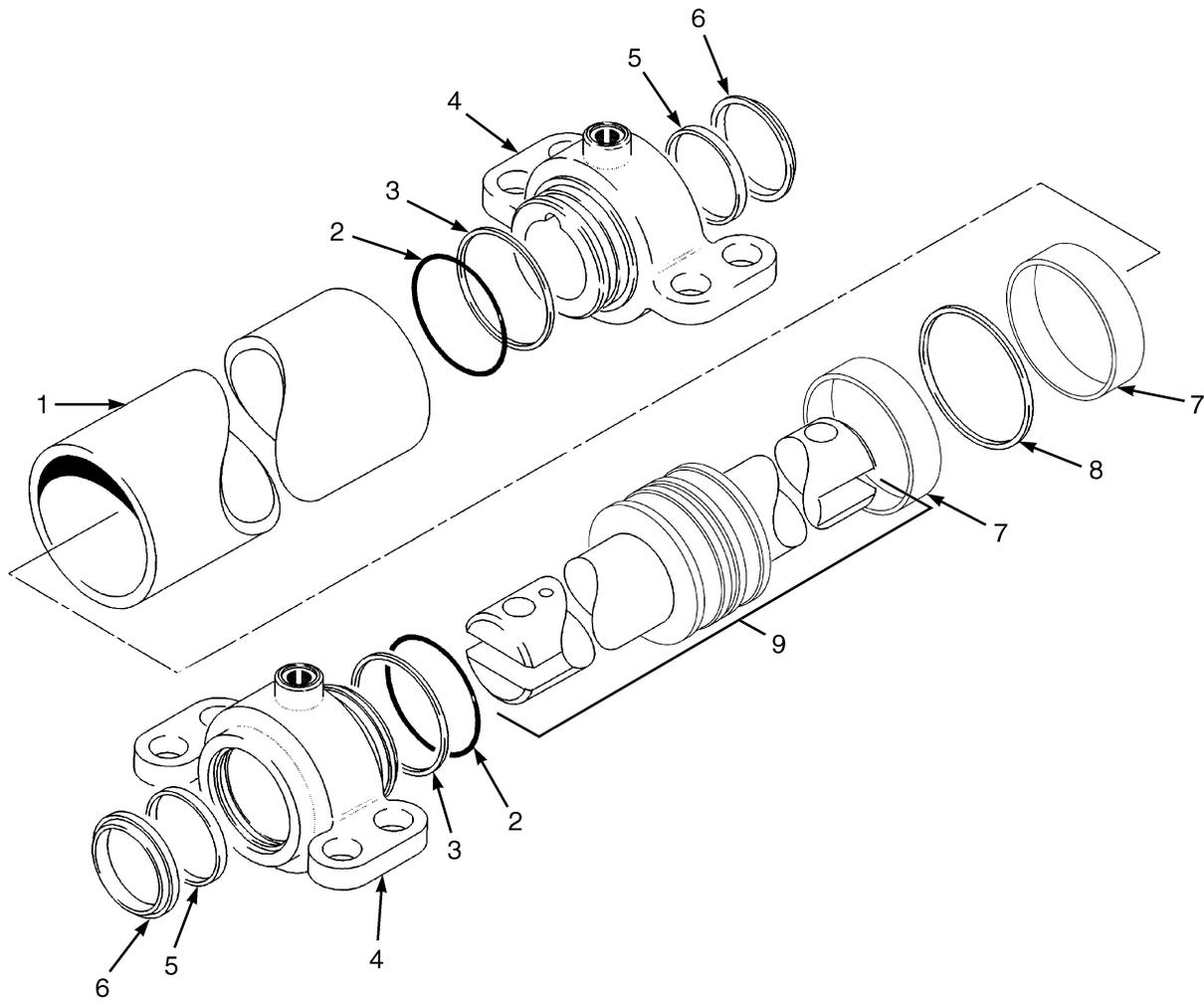


BP220037

STEERING CYLINDER
(→ S/N G007E02599D)

ITEM	PART NO.	DESCRIPTION	QTY
	376091	Steering Cylinder	1
1	376087	Tube Wldmt-Cylinder	1
2	376090	Cylinder Rod	1
2	376088	Piston	1
2	376089	Rod	1
3	270330	Back-Up Ring	2
4	1380886	Piston Seal	1
4	247125	Quad Ring	1
5	376086	End Cap	2
6	816581	Rod Seal	2
7	816579	Rod Wiper	2
8	46629	O-Ring	2
	1538811	Kit-Seal (Shell)	1
	1311358	Kit-Seal (Steering Cylinder)	1

STEERING CYLINDER (FIGURE 7-6) (S/N G007E02600D →)



BP220077

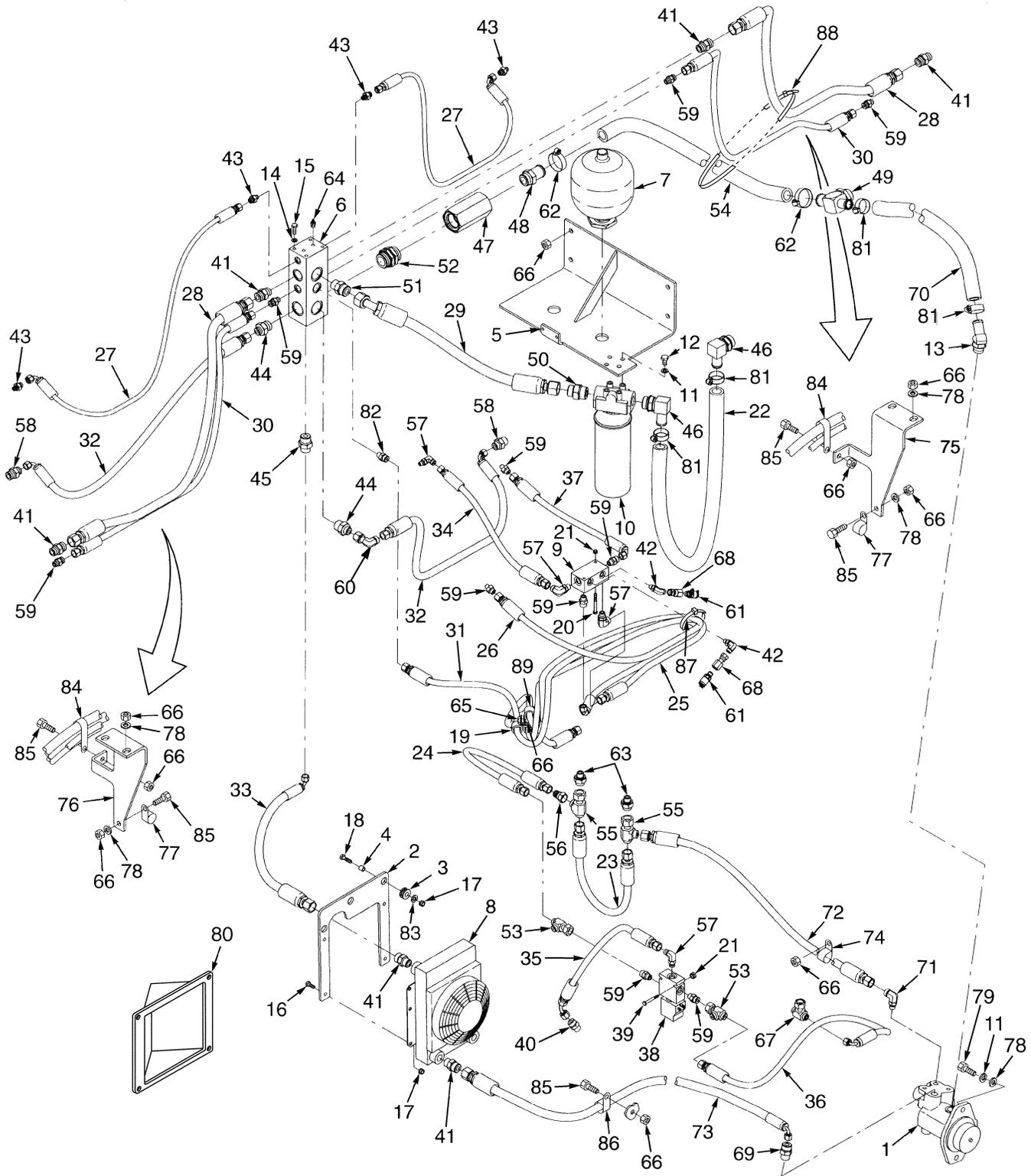
STEERING CYLINDER
(S/N G007E02600D →)

ITEM	PART NO.	DESCRIPTION	QTY
	2083131	Steering Cylinder	1
1	376087	Tube Wldmt-Cylinder	1
2	46629	O-Ring	2
3	270330	Back-Up Ring	2
4	1610992	End Cap	2
5	2032492	Seal	2
6	2079273	Rod Wiper	2
7	636951	Wear Ring	2
8	2044372	Piston Seal	1
9	1612390	Piston Rod	1
9	1612393	Piston	1
9	376089	Rod	1
	1538811	Kit-Seal (Shell)	1
	1611146	Kit-Seal (Steering Cylinder)	1

**SECTION 8
BRAKE SYSTEM**

DESCRIPTION	PAGE
ACCUMULATOR CHARGE VALVE	8-12
AIR DRYER	
S/N G007E02676D →	8-44
SHEET 1 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)	8-36
SHEET 2 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)	8-38
AIR DRYER AND ATTACHING PARTS	
→ S/N G007E01572B	8-30
S/N G007E01573B ↔ S/N G007E02675D	8-32
AIR DRYER ASSEMBLY	
→ S/N G007E01572B	8-34
AIR DRYER SYSTEM	
S/N G007E02676D →	8-40
BRAKE ACCUMULATOR	8-16
BRAKE ASSEMBLY	
DRY BRAKE	8-20
WET BRAKE	8-18
BRAKE CHAMBER	8-22
BRAKE SYSTEM	
DRY	8-6
WET	8-2
BRAKE VALVE	
DRY BRAKE	8-26
WET BRAKE	8-24
HYDRAULIC PUMP	
WET BRAKE - PERKINS	8-10
OIL COOLER	
WET BRAKE	8-14
PARK BRAKE	
WET BRAKE	8-28

BRAKE SYSTEM (FIGURE 8-1) WET



**BRAKE SYSTEM
WET**

ITEM	PART NO.	DESCRIPTION	QTY
1	1520478	Hydraulic Pump (Perkins)	1
1	1480609	Hydraulic Pump (Cummins)	1
1	1492367	Kit-Seal (Cummins)	1
1	1492368	Charge Valve	1
2	1479613	Mounting Plate	1
3	216735	Grommet	3
4	1485871	Spacer	3
5	1488551	Bracket Wldmt	1
6	1459178	Manifold	1
7	1494147	Accumulator	2
8	1488199	Oil Cooler	1
9	1384517	Manifold	1
10	2043084	Hydraulic Filter	1
10	.....	Filter Head	1
10	2043981	Filter Element	1
11	292682	Lockwasher	4
12	292514	Capscrew	4
13	89056	Fitting	1
14	292681	Lockwasher	4
15	136749	Screw	4
16	136681	Capscrew	4
17	316835	Nut	7
18	176640	Bolt	3
19	173247	Clamp	3
20	292507	Capscrew	2
21	316834	Nut	4
22	1491104	Hose	1
23	1486081	Hose Assy	1
24	1486082	Hose Assy	1
25	1486083	Hose Assy	1
26	1486093	Hose Assy	1
27	1490566	Hose Assy (EC3 and Fork Lift Truck)	2
27	1496049	Hose Assy (EC4)	2
28	1486088	Hose Assy (EC3 and Fork Lift Truck)	2
28	1496046	Hose Assy (EC4)	2
29	1486092	Hose Assy	1
30	1486089	Hose Assy (EC3 and Fork Lift Truck)	2
30	1496047	Hose Assy (EC4)	2
31	1486095	Hose Assy	1
32	1486090	Hose Assy (EC3 and Fork Lift Truck)	2
32	1496048	Hose Assy (EC4)	2
33	1486087	Hose Assy	1
34	1486094	Hose Assy	1
35	1486085	Hose Assy	1
36	1490814	Hose Assy	1
37	1486084	Hose Assy	1
38	a 1484563	Solenoid Valve (Park Brake) (Park Brake)	1
38	a 1502388	Kit-Seal	1
38	a 1502389	Solenoid (24 Volt DC)	1
38	b	Solenoid Valve	1

BRAKE SYSTEM WET

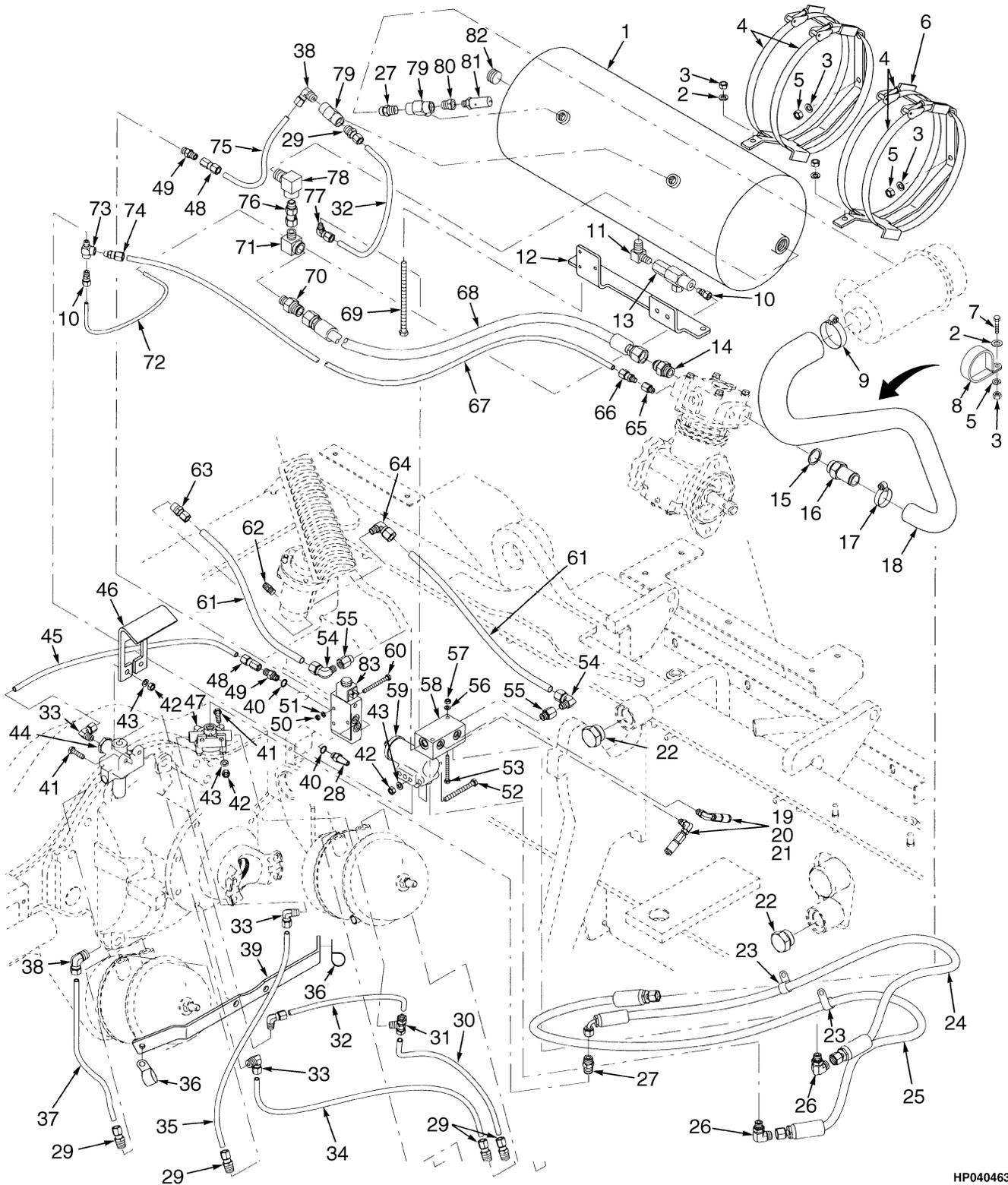
ITEM	PART NO.	DESCRIPTION	QTY
38	b 1655098	Manifold (Valve)	1
38	b 1655099	Cartridge (Solenoid)	1
39	292505	Capscrew	2
40	1486741	Fitting	1
41	1486749	Fitting	6
42	1487058	Fitting	3
43	1486737	Fitting	6
44	1486747	Fitting	2
45	1486751	Fitting	1
46	112470	Fitting	2
47	816232	Check Valve	1
48	78459	Fitting	1
49	1486246	Fitting	1
50	1473919	Fitting	1
51	1473888	Fitting	1
52	1459254	Fitting	1
53	1487097	Fitting	2
54	1486091	Hose	1
55	1487095	Fitting	2
56	1473949	Fitting	1
57	1487063	Fitting	2
58	1486746	Fitting	2
59	1486740	Fitting	10
60	1486772	Fitting	1
61	1473927	Quick Disconnect Fitting	2
62	369804	Clamp	4
63	1473887	Fitting	2
64	267262	Plug	2
65	136985	Capscrew	1
66	302401	Locknut	14
67	1488464	Fitting	1
68	1490813	Fitting	2
69	1486749	Fitting	1
70	1486079	Hose (Fork Lift Truck)	1
70	1491104	Hose (Container Handler)	1
71	1487064	Fitting	1
72	1486080	Hose Assy (Fork Lift Truck)	1
72	1491105	Hose Assy (Container Handler)	1
73	1486086	Hose Assy (Fork Lift Truck)	1
73	1491106	Hose Assy (Container Handler)	1
74	251994	Clamp	2
75	1498251	Bracket (RH) (EC4)	1
75	1503006	Bracket (RH) (Fork Lift Truck)	1
75	1491361	Bracket (RH) (Container Handler)	1
76	1498250	Bracket (LH) (EC4)	1
76	1503007	Bracket (LH) (Fork Lift Truck)	1
76	1491362	Bracket (LH) (Container Handler)	1
77	166112	Clamp	2
78	320160	Washer	6
79	296027	Capscrew (Cummins)	2

**BRAKE SYSTEM
WET**

ITEM	PART NO.	DESCRIPTION	QTY
80	1562350	Cover	1
81	251994	Clamp	2
82	1486742	Fitting	1
83	320158	Washer	3
84	153667	Clamp (EC4)	2
85	287854	Capscrew	5
86	153069	Clamp	1
87	127045	Clamp (Hose)	4
87	129563	Strap Clamp (EC3 and Fork Lift Truck)	5
88	258590	Clamp	1
89	110322	Clamp	1

FOOTNOTES:**a** → PENDING PER ECN 68246-48**b** PENDING PER ECN 68246-48 →

BRAKE SYSTEM (FIGURE 8-2) DRY



HP040463

**BRAKE SYSTEM
DRY**

ITEM	PART NO.	DESCRIPTION	QTY
1	295197	Reservoir	1
2	320159	Washer	11
2	a 320159	Washer	13
3	136692	Nut	11
3	a 136692	Nut	12
4	162562	Hose Clamp	4
5	292682	Lockwasher	11
5	a 292682	Lockwasher	12
6	1494476	Bracket	4
7	a 292515	Capscrew	1
8	a 258590	Clamp	1
9	b 129563	Strap Clamp	1
10	1488747	Fitting	2
11	17144	Fitting	1
12	1488659	Plate	1
13	128398	Drain Valve	1
14	1474001	Fitting (Adapter) (Diesel)	1
14	1511889	Fitting (Adapter) (LPG)	1
15	a 992522	Washer	1
16	a 1352671	Fitting	1
17	a 127045	Clamp (Hose)	1
18	1479386	Hose (Air Filter)	1
19	1487058	Fitting	2
20	1490813	Fitting (Swivel)	2
21	1473927	Quick Disconnect Fitting	2
22	14604	Plug	2
23	173247	Clamp	2
24	1490712	Hose Assy	1
25	1490711	Hose Assy	1
26	1487063	Fitting	2
27	1488408	Fitting	2
28	1658153	Silencer	1
29	1301539	Fitting	5
30	266535	Hose	1
31	1519702	Fitting	1
32	1326041	Tube	2
33	1331034	Fitting	2
34	217977	Hose	2
35	217980	Tube	1
36	166112	Clamp	2
37	1490713	Tube	2
38	1309503	Fitting	3
39	c 1550874	Bracket	1
39	d 1639100	Bracket	1
40	888329	Seal	3
41	176640	Bolt	4
42	239503	Nut	6
43	292681	Lockwasher	6
44	1331033	Check Valve (Double Check)	1
45	217973	Tube	1

BRAKE SYSTEM DRY

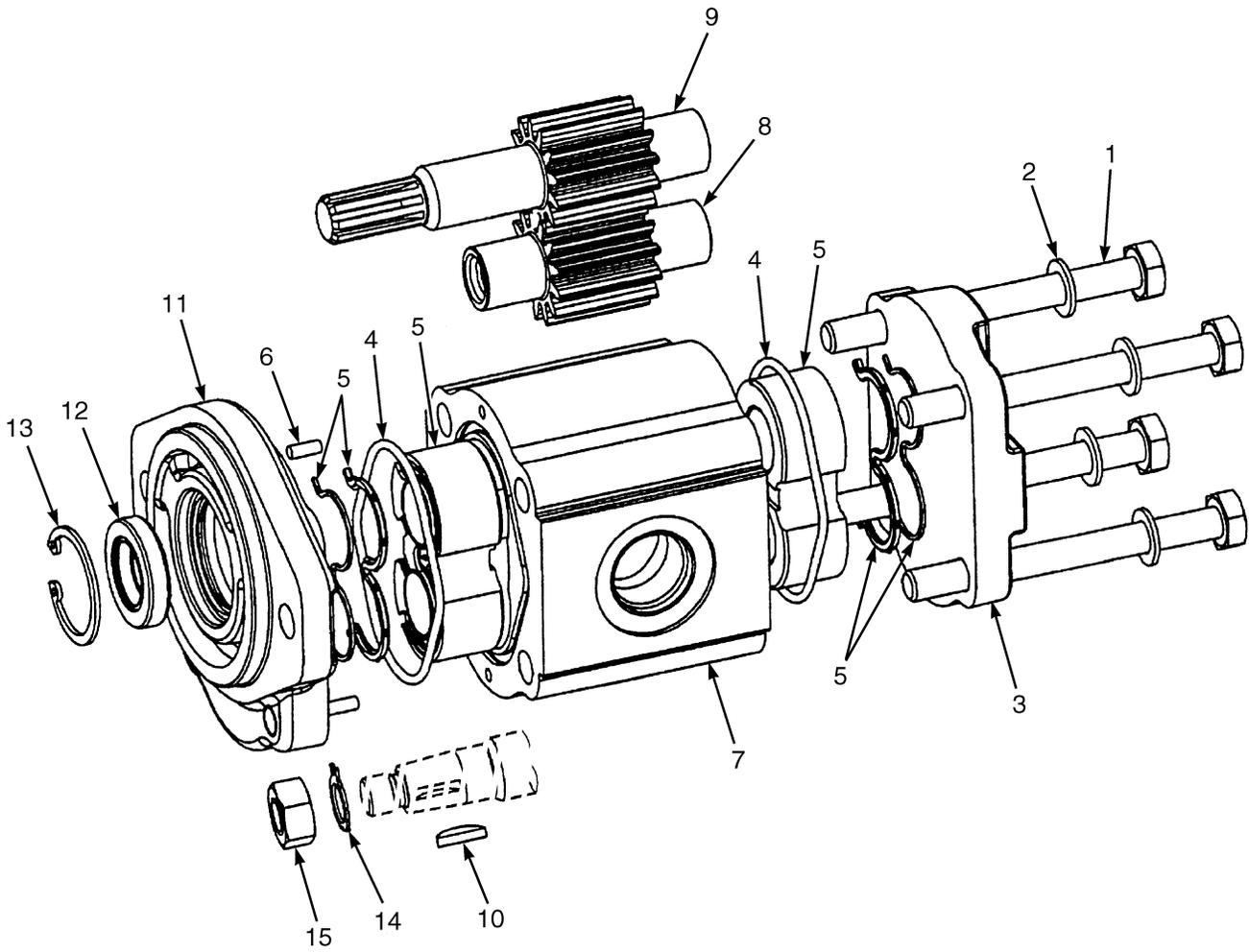
ITEM	PART NO.	DESCRIPTION	QTY
46	1494655	Bracket	1
47	1519701	Brake Valve (Quick Release)	1
47	1525711	Kit-Seal	1
48	1490612	Fitting	2
49	1478838	Fitting (Adapter)	2
50	885707	Nut	3
51	292679	Washer	3
52	292512	Capscrew	2
53	292507	Capscrew	2
54	1332128	Fitting (Elbow)	2
55	1490617	Fitting	2
56	292680	Washer	2
57	136687	Nut	2
58	1384517	Manifold	1
59	b 355750	Governor	1
60	2043980	Capscrew	3
61	1494519	Tube	2
62	14387	Fitting	3
63	1332125	Fitting	1
64	1311356	Fitting	1
65	1475493	Fitting (Adapter)	1
66	1301537	Fitting	1
67	b 255158	Tube	1
68	b 1494646	Hose (Air)	1
69	136985	Capscrew	5
70	b 16396	Fitting	1
71	b 16143	Fitting	1
72	b 1490714	Tube	1
73	b 16186	Fitting	1
74	1301537	Fitting	1
75	245521	Tube	1
76	b 281190	Check Valve	1
77	1301542	Fitting	1
78	b 17741	Fitting	1
79	17665	Fitting	2
80	63108	Fitting	1
81	319050	Valve (Safety)	1
82	246869	Plug (Magnetic)	1
83	1475075	Brake Valve (Park Brake)	1
83	1492369	Connector	1
83	1492370	Coil	1
	1310611	Clamp	2
	a 119236	Clamp	1

FOOTNOTES:

a Cummins Diesel Engine Only
b Without Air Dryer

c → 3/2006
d 4/2006 →

HYDRAULIC PUMP (FIGURE 8-3) WET BRAKE — PERKINS

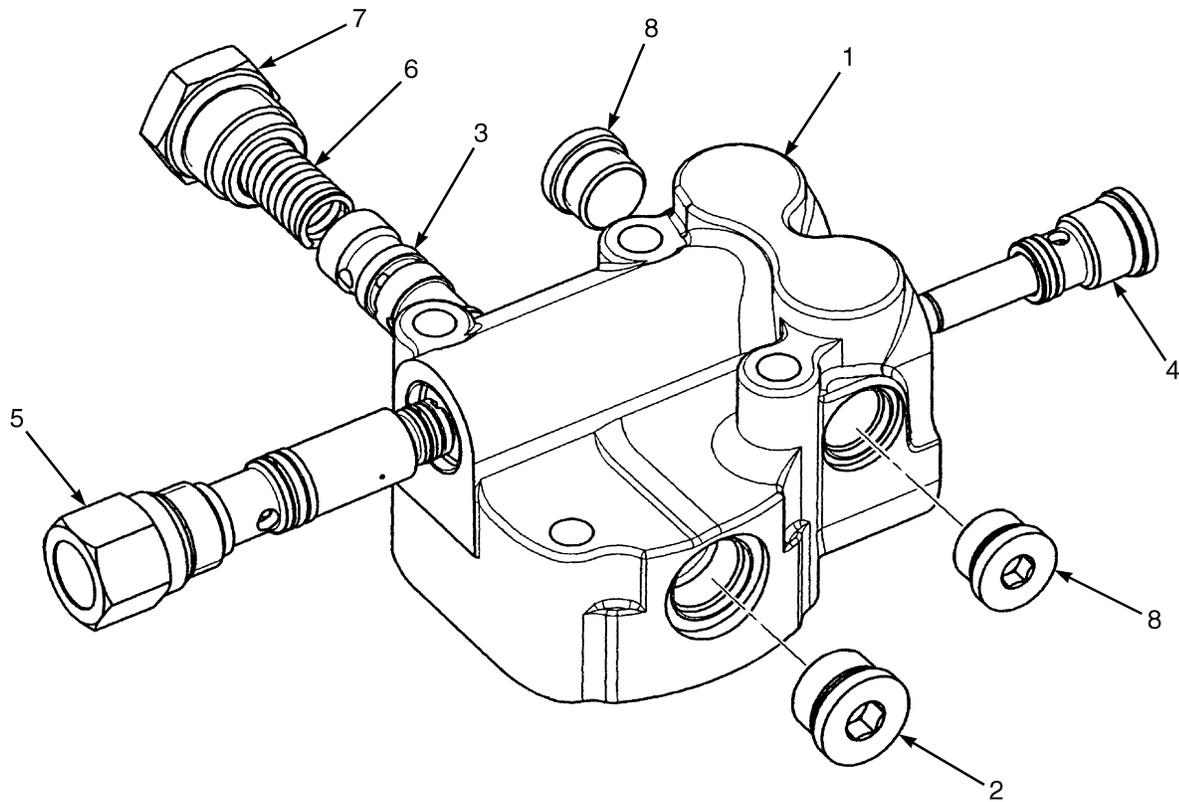


BP040050

**HYDRAULIC PUMP
WET BRAKE – PERKINS**

ITEM	PART NO.	DESCRIPTION	QTY
	1520478	Hydraulic Pump	1
1	1590849	Bolt	3
1	1590851	Bolt	1
2	1590852	Spring Washer	4
3	.....	End Cover	1
4	1590854	O-Ring	2
5	1590855	Thrust Block	2
6	1457466	Dowel	2
7	1590856	Body	1
8	1590857	Gear (Driven) (Short)	1
9	1590858	Drive Gear (Drive) (Long)	1
10	1590859	Woodruff Key	1
11	1590860	Flange	1
12	1590861	Seal (Shaft)	2
13	1496282	Clamp	1
14	1590862	Washer	1
15	1590863	Locknut	1
16	1492368	Charge Valve (Not Illustrated) (☞ Figure 8-4).....	1
	1591290	Gear (Not Illustrated)	1

ACCUMULATOR CHARGE VALVE (FIGURE 8-4)

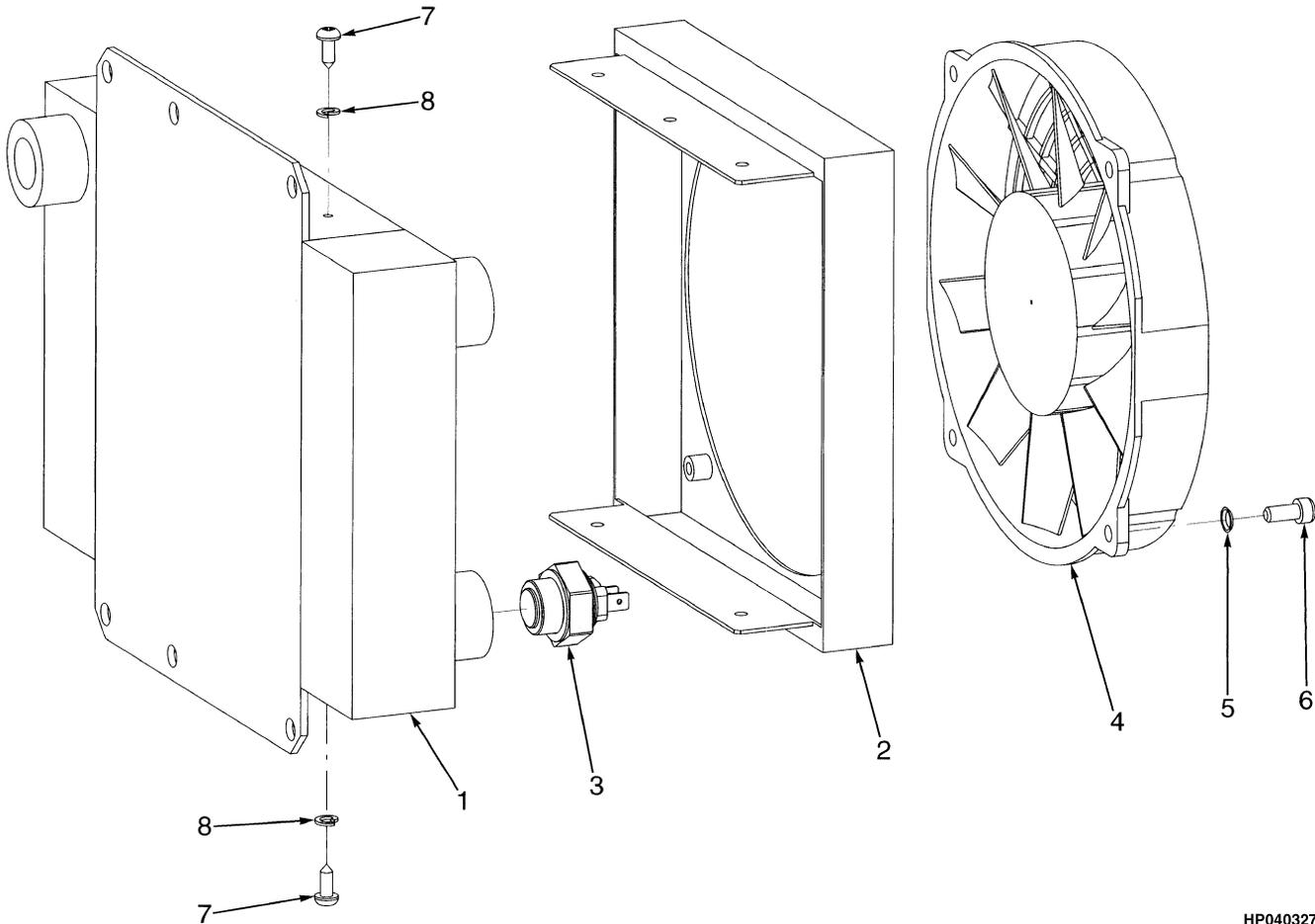


BP040049

ITEM	PART NO.	DESCRIPTION	QTY
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ITEM	PART NO.	DESCRIPTION	QTY
	1492368	Charge Valve	1
1	Body	1
2	1591320	Plug	1
3	.....	Spool Assembly	1
4	1591322	Check Valve	1
5	1591323	Valve (Unloader)	1
6	1591324	Spring	1
7	1591325	Spring Seat	1
8	1358860	Plug	2

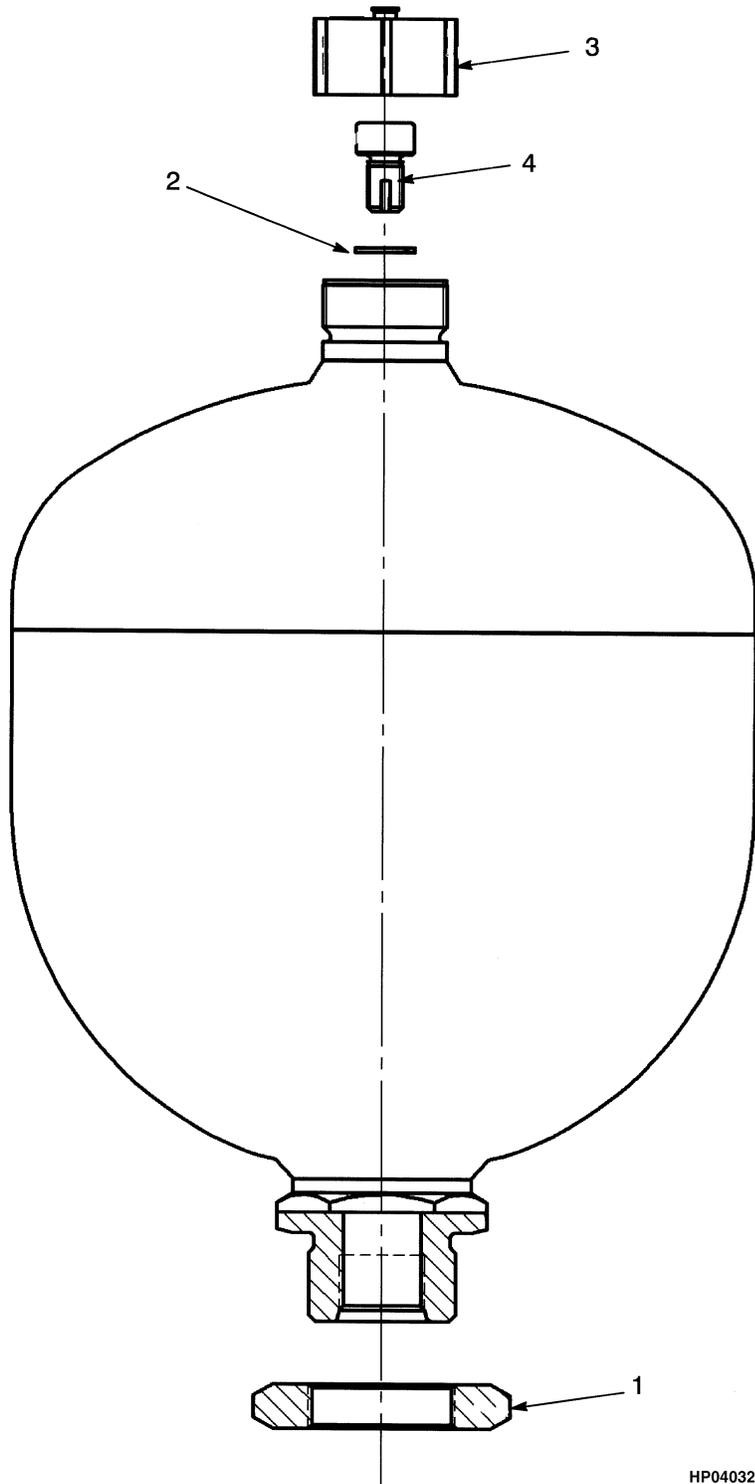
OIL COOLER (FIGURE 8-5) WET BRAKE



HP040327

ITEM	PART NO.	DESCRIPTION	QTY
	1488199	Oil Cooler	1
1	1500966	Oil Cooler	1
2	1500967	Housing	1
3	1500968	Thermostat (50-60°)	1
4	1500969	Fan	1
5	1500970	Lockwasher	4
6	1500971	Capscrew	4
7	1500972	Screw	5
8	1500973	Lockwasher	5

BRAKE ACCUMULATOR (FIGURE 8-6)

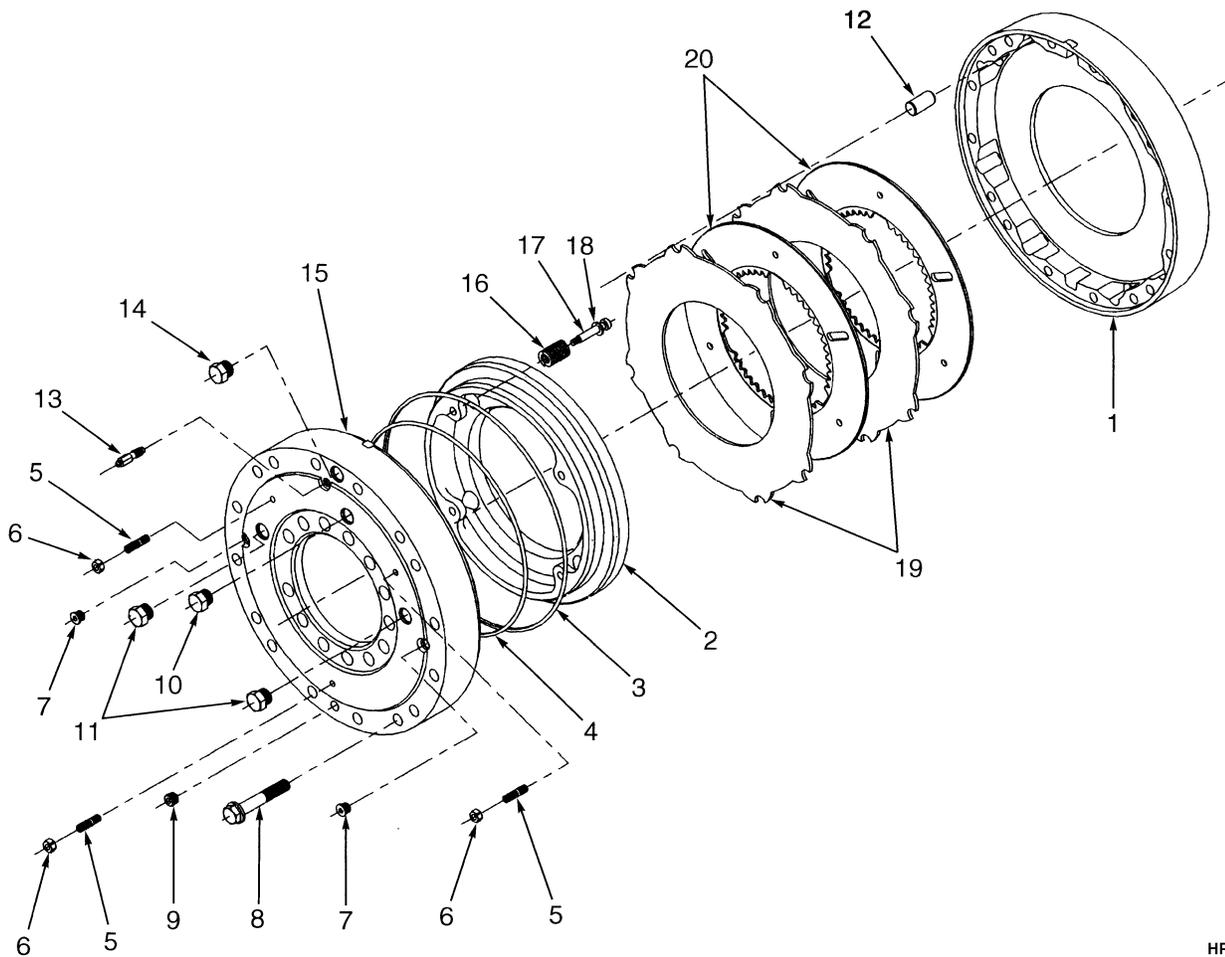


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BRAKE ACCUMULATOR

ITEM	PART NO.	DESCRIPTION	QTY
	1494147	Accumulator	1
1	1492358	Nut	1
2	1492359	Seal	1
3	1492360	Cap	1
4	1492361	Bolt	1

BRAKE ASSEMBLY (FIGURE 8-7) WET BRAKE

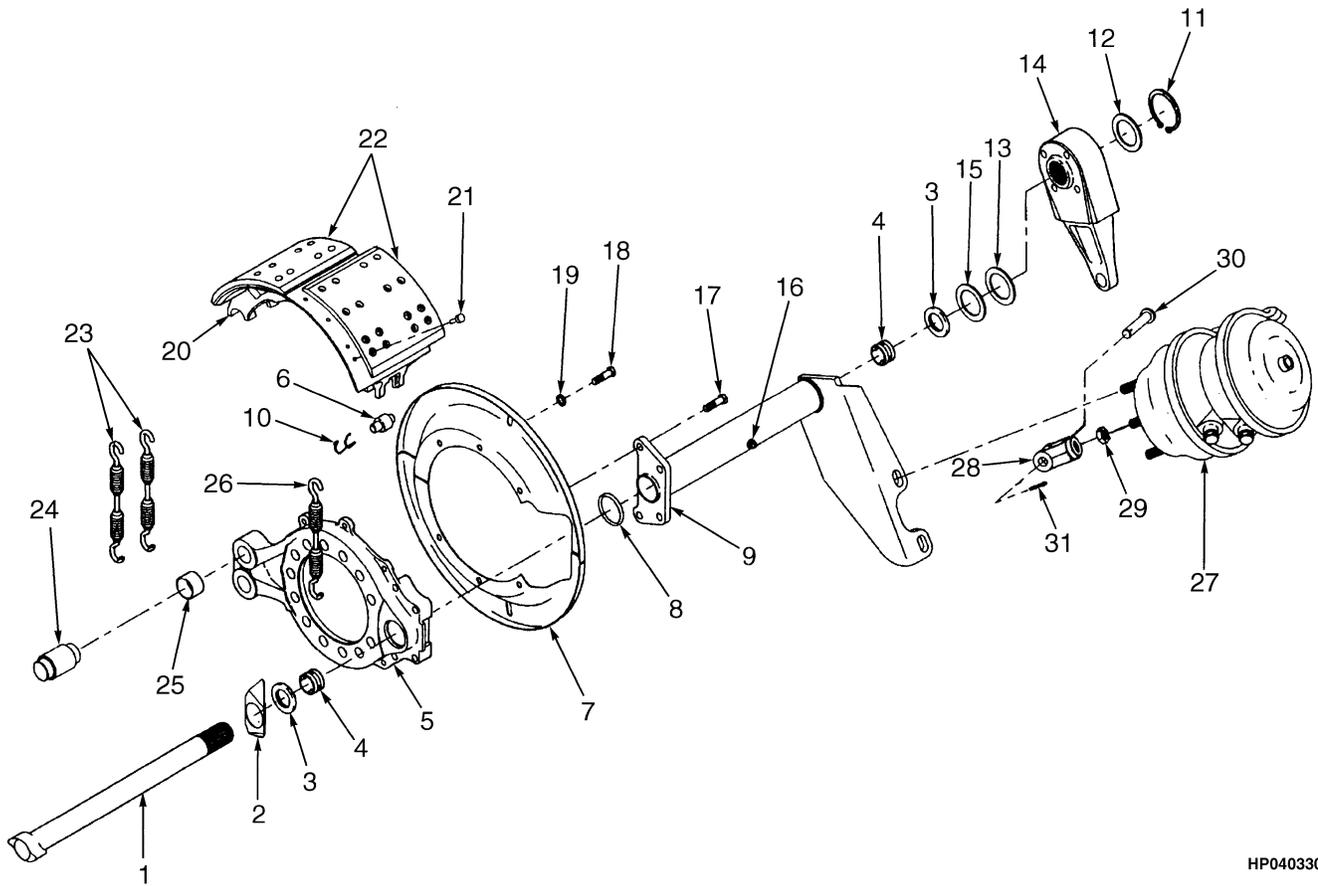


HP040329

**BRAKE ASSEMBLY
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1491247	Brake Assembly	1
1	1489426	Piston	1
1	1491248	Housing	1
3	1489427	Piston Seal (Outer)	1
4	1489428	Piston Seal (Inner)	1
5	1489429	Screw	3
6	1489430	Nut	3
7	1384859	Plug	2
7	1382902	O-Ring	1
8	1489431	Capscrew	16
9	1482765	Washer	16
10	1384864	Plug	1
11	1384865	Plug	1
11	1384863	O-Ring	1
12	1491249	Dowel	8
13	1489432	Screw (Bleeder)	1
14	1489433	Plug	1
14	1384863	O-Ring	1
15	1489434	Cover (RH)	1
15	1489435	Cover (LH)	1
16	1489436	Spring	4
17	1489437	Screw	4
18	1489438	Washer	4
19	1489439	Separator Plate (Brake)	4
20	1489440	Friction Disk	4

BRAKE ASSEMBLY (FIGURE 8-8) DRY BRAKE

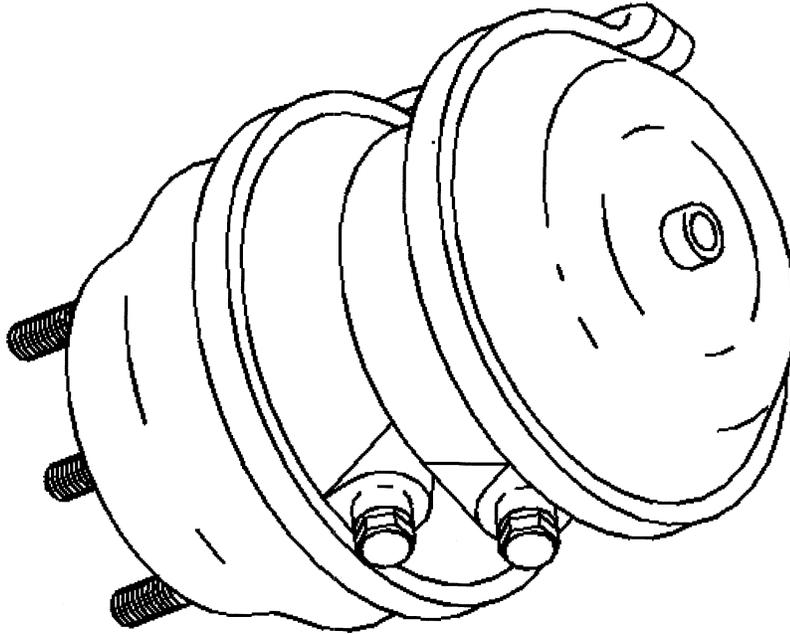


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**BRAKE ASSEMBLY
DRY BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	1482780	Brake Assembly (RH)	1
	1482782	Brake Assembly (LH)	1
1	1489313	Brake Camshaft (LH)	1
1	1489314	Brake Camshaft (RH)	1
2	1455057	Washer	1
3	301986	Seal	1
4	1493171	Bushing	1
4	97647	Bushing	1
5	1493172	Spider (Assembly)	1
6	321296	Roller	1
7	321709	Dust Shield (RH)	1
7	321712	Dust Shield (LH)	1
8	1374086	O-Ring	1
9	1315624	Bracket (LH)	1
9	1312611	Bracket (RH)	1
9	1482784	Capscrew	2
9	1485419	Plate	1
9	221767	Washer	2
9	1312614	Clamp	1
10	1382966	Retainer	1
11	1489315	Retainer	1
12	1489316	Washer	2
13	1374588	Washer	2
14	1489317	Adjuster	1
15	322428	Washer	1
16	1316383	Grease Fitting	1
17	1493173	Capscrew	4
18	221491	Capscrew	6
19	15156	Lockwasher	6
20	1493176	Brake Shoe	2
21	1342836	Rivet	6
22	1515411	Brake Lining (Cam And Anchor End)	1
23	1493178	Spring	2
24	1493179	Pin (Anchor)	2
25	1493180	Bushing	2
26	1493181	Return Spring (Return)	1
27	1492440	Brake Chamber (☞Figure 8-9).....	1
28	1384412	Yoke	1
29	15030	Nut	1
30	.....	Pin (Yoke)	1
31	.....	Split Pin	1

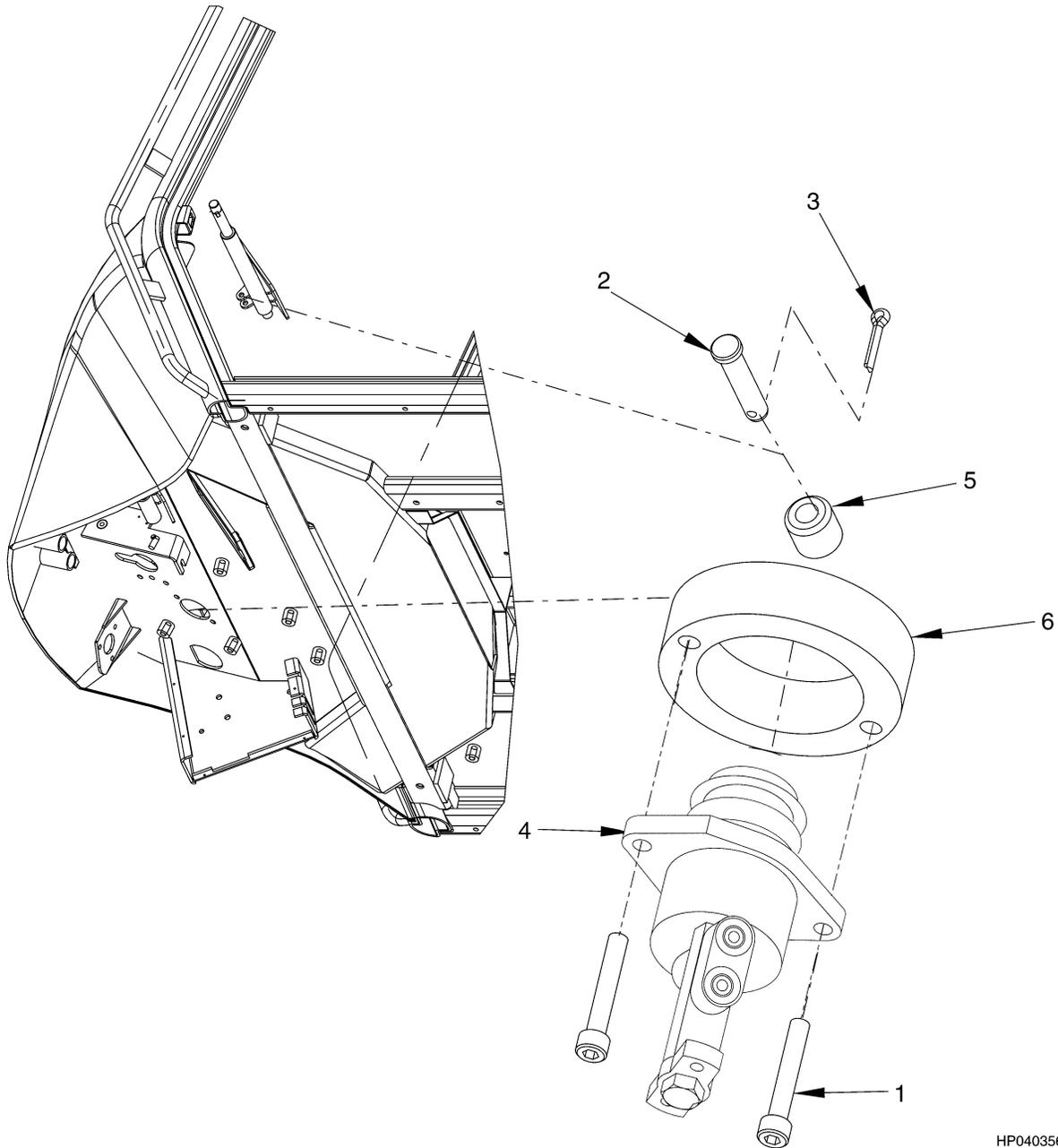
BRAKE CHAMBER (FIGURE 8-9)



HP040331

ITEM	PART NO.	DESCRIPTION	QTY
	1492440	Brake Chamber	1
	1499076	Chamber (Pressure)	1
	1499078	Clamp (Ring Assembly)	1
	1309065	Bolt	1
	1497996	Diaphragm	1
	1332782	Kit-Capscrew	1
	1384408	Kit-End Cap (Seal)	1
	1499077	Chamber (Non-pressure)	1
	1309427	Kit-Nut and Washer	1
	15030	Nut	1
	1332787	Return Spring	1
	1497997	Push Rod	1
	1499079	Kit-Brake Chamber	1

BRAKE VALVE (FIGURE 8-10) WET BRAKE

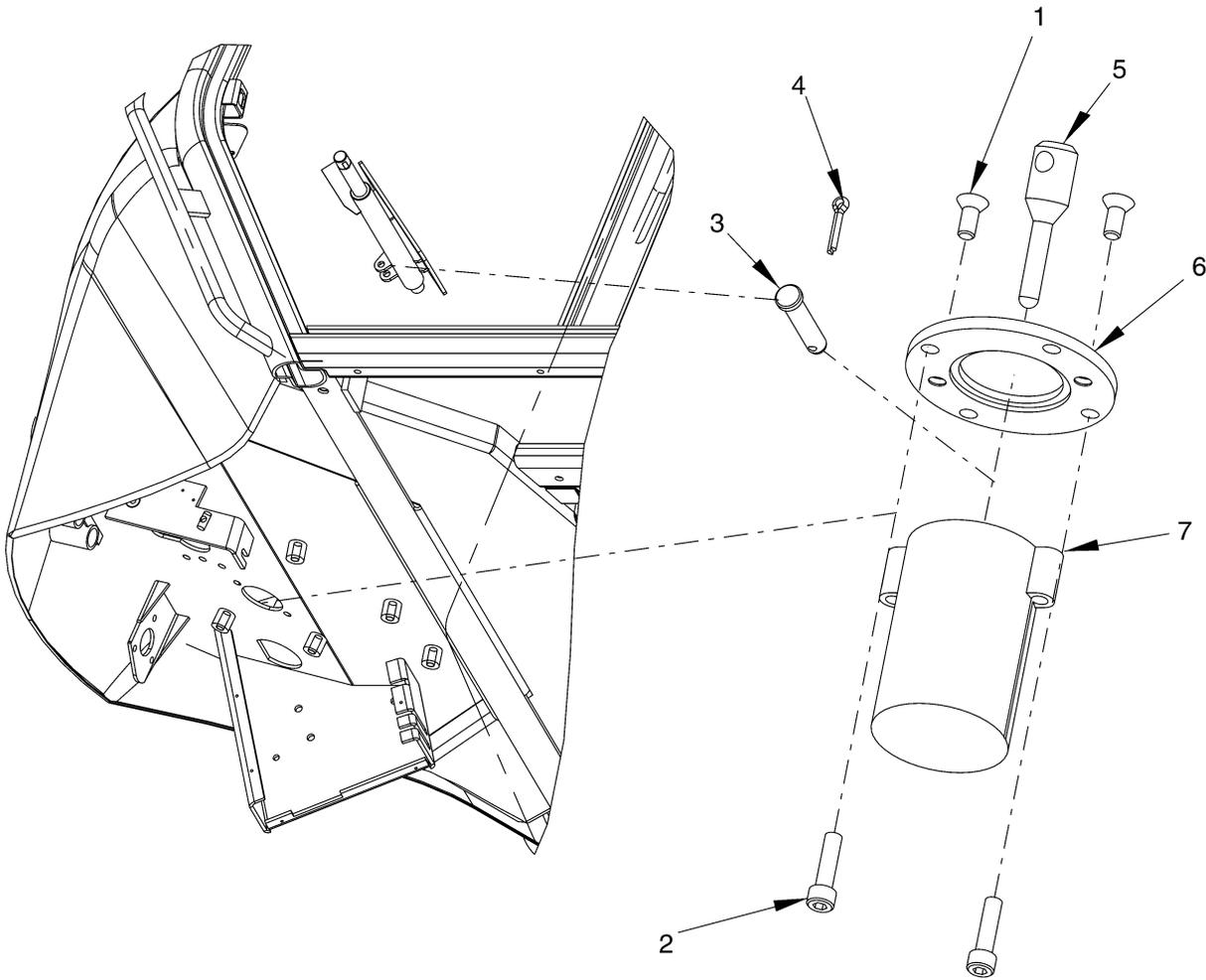


HP040356

**BRAKE VALVE
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
1	296016	Capscrew	2
2	327591	Pin	1
3	15222	Cotter Pin	1
4	1487209	Brake Valve	1
4	1391744	Kit-Seal	1
4	1391745	Kit-Hardware	1
4	1450390	Kit-Shim	1
5	1480674	Roller	1
6	1487208	Spacer	1

BRAKE VALVE (FIGURE 8-11) DRY BRAKE



HP040357

**BRAKE VALVE
DRY BRAKE**

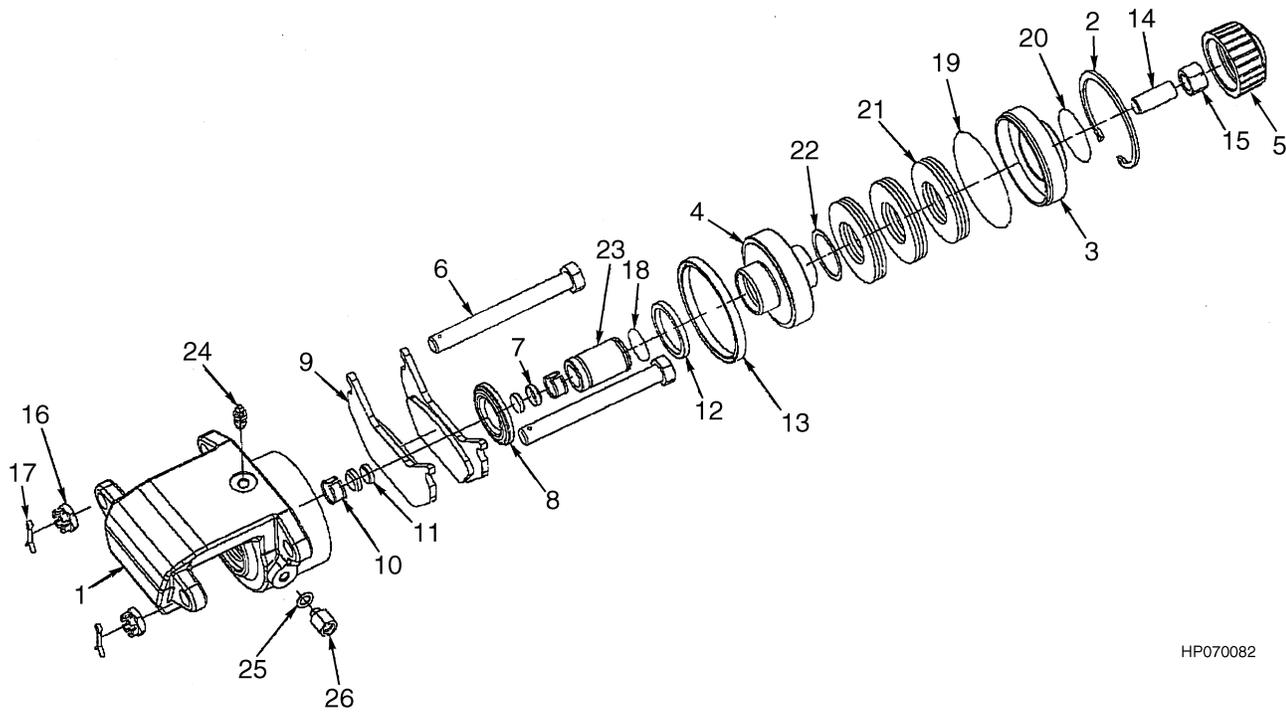
ITEM	PART NO.	DESCRIPTION	QTY
1	18897	Capscrew	2
2	296010	Capscrew	2
3	327591	Pin	1
4	15222	Cotter Pin	1
5	b 1506753	Rod	1
5	c 1646626	Rod	1
6	1477323	Spacer	1
7	ab 1477426	Brake Valve	1
7	ac 1646627	Brake Valve	1
7	b 1309403	Spring	1
7	c 1332084	Spring	1
7	357427	Kit-Repair Valve	1

FOOTNOTES:

a Located Under Brake Pedal
b → S/N G007E03001D

c S/N G007E03002D →

PARK BRAKE (FIGURE 8-12) WET BRAKE



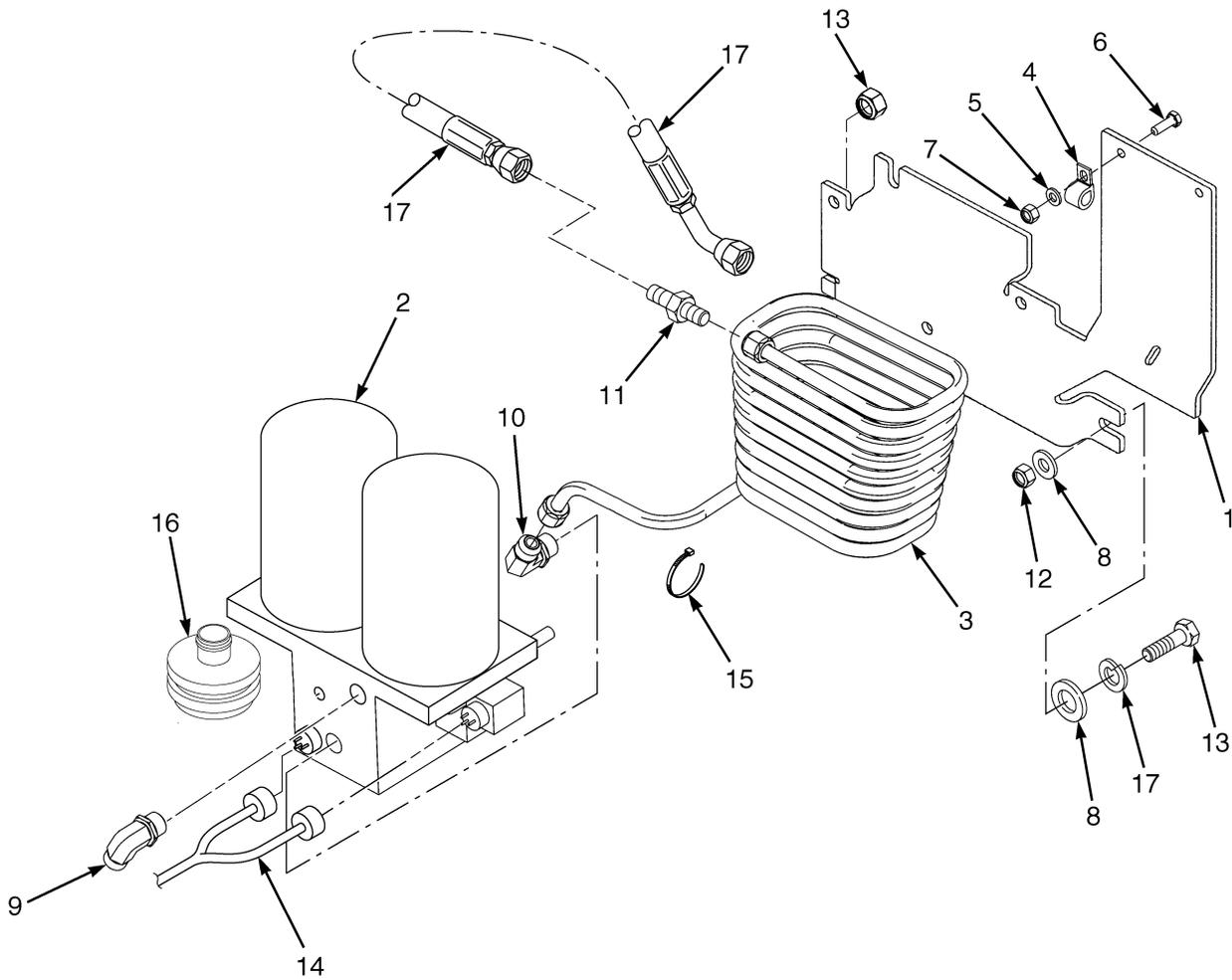
HP070082

**PARK BRAKE
WET BRAKE**

ITEM	PART NO.	DESCRIPTION	QTY
	a 1489408	Brake Assembly (Disc)	1
	b 1561604	Brake Assembly	1
1	1495623	Housing	1
2	1495624	Retaining Ring	1
3	1495625	Piston (Stop)	1
4	1495626	Piston	1
5	1495627	Cap	1
6	1495628	Bolt	2
7	1495629	Cup	2
8	1495630	Boot	1
9	1495631	Brake Lining	2
10	1495632	Sleeve (Friction)	2
11	1495633	Magnet	2
11	.....	Retaining Ring	1
12	1495634	Seal (Cup)	1
13	1495635	Seal (Cup)	1
14	1495636	Setscrew	1
15	1495637	Locknut	1
16	1495638	Nut	2
17	1495639	Cotter Pin	2
18	1495640	O-Ring	1
19	1495641	O-Ring	1
20	1495642	O-Ring	1
21	1495643	Disk Spring	6
22	1495644	Wear Plate	1
23	1495645	Cylinder Rod	1
24	1495646	Bleeder Valve	1
25	1495647	Washer	1
26	1495648	Adapter	1
	1514331	Kit-Repair Parking Brake	1

FOOTNOTES:**a** → 8/2006**b** 8/2006 →

AIR DRYER AND ATTACHING PARTS (FIGURE 8-13) (→ S/N G007E01572B)



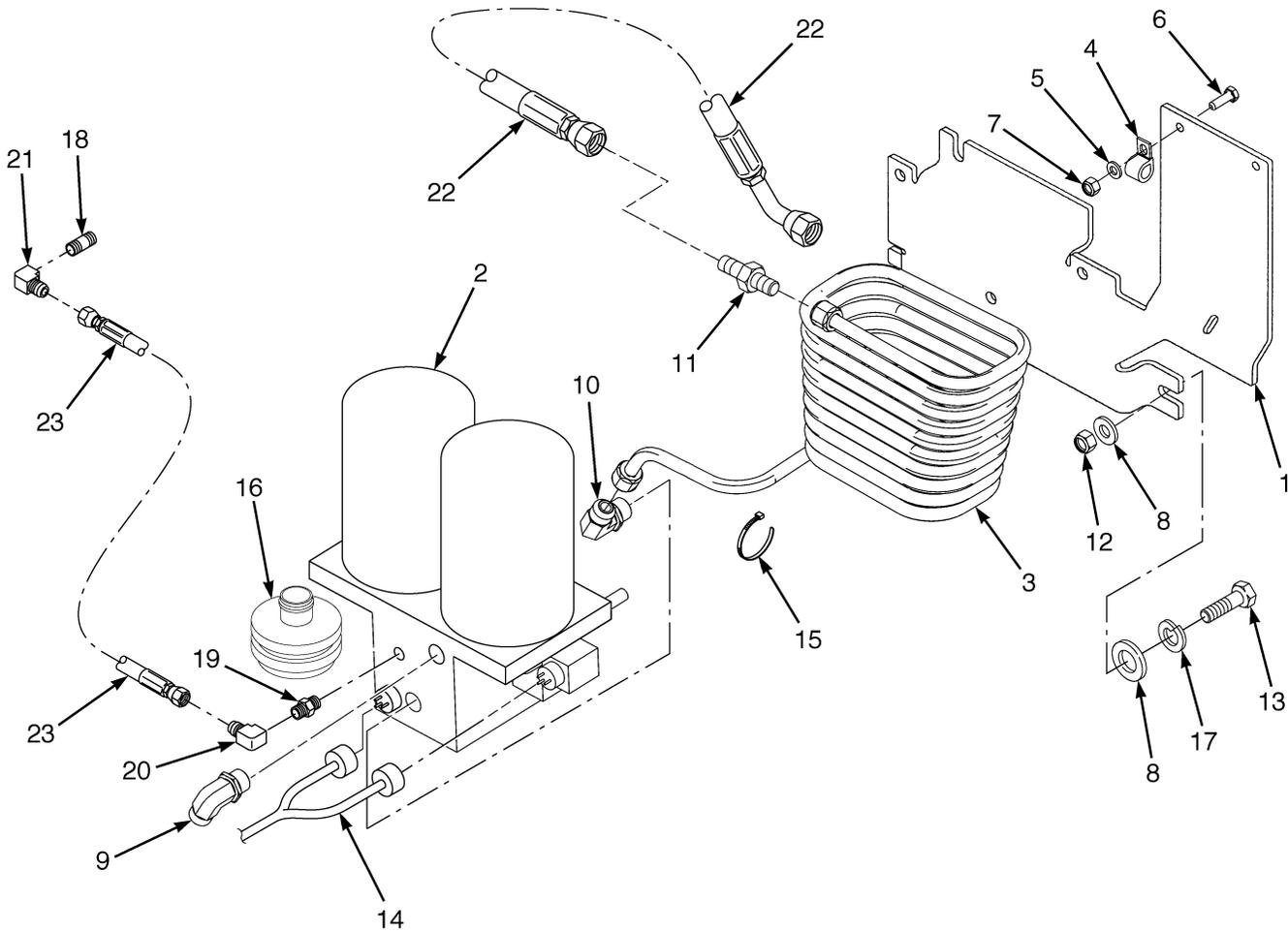
BP040091

AIR DRYER AND ATTACHING PARTS
(→ S/N G007E01572B)

ITEM	PART NO.	DESCRIPTION	QTY
1	1492725	Plate	1
2	2047824	Air Dryer (☞ Figure 8-15).....	1
3	1480202	Tube	1
4	173246	Clamp	3
5	320157	Washer	4
6	136749	Screw	3
7	302400	Nut	3
8	320162	Washer	6
9	1390646	Fitting	1
10	1507238	Fitting	1
11	147751	Fitting	1
12	302402	Locknut	3
13	1500520	Locknut	3
14	2049850	Wire Harness (Air Dryer)	1
15	114312	Strap Clamp	2
16	2050522	Silencer (Air Outlet)	1
17	a 1480410	Hose Assy	1
17	b 1508987	Hose Assy	1

FOOTNOTES:**a** H170HD-H210HD**b** H230HD-H280HD

AIR DRYER AND ATTACHING PARTS (FIGURE 8-14) (S/N G007E01573B ↔ S/N G007E02675D)



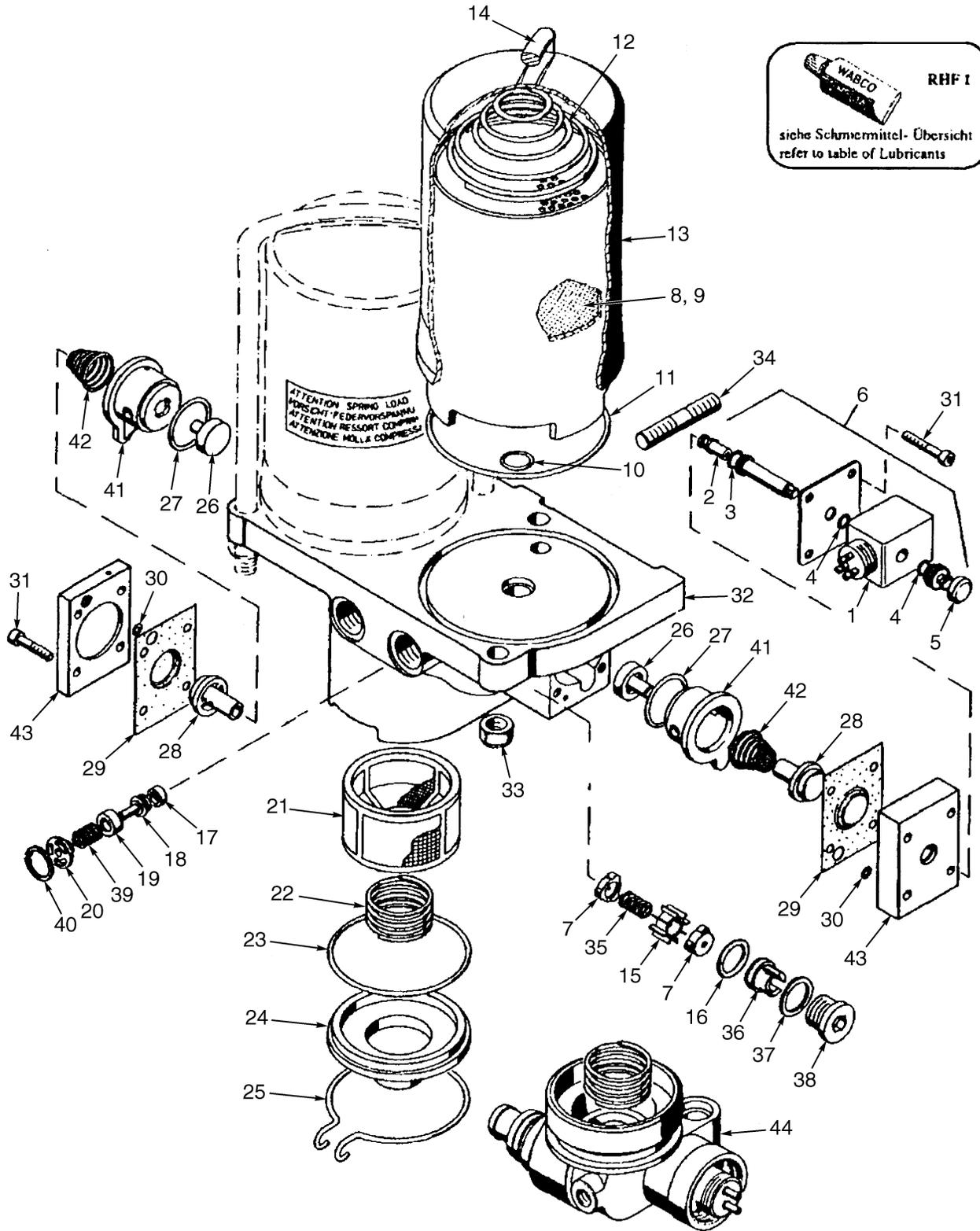
BP090123

AIR DRYER AND ATTACHING PARTS
(S/N G007E01573B ↔ S/N G007E02675D)

ITEM	PART NO.	DESCRIPTION	QTY
1	1544584	Plate	1
2	2063639	Air Dryer (☞Figure 8-16, ☞Figure 8-17).....	1
3	1548205	Tube Assy	1
4	173246	Clamp	3
5	320157	Washer	4
6	136749	Screw	3
7	302400	Nut	3
8	320162	Washer	6
9	1580823	Fitting	1
10	1580820	Fitting	1
11	147751	Fitting	1
12	302402	Locknut	3
13	1547492	Capscrew	3
14	2063999	Wire Harness (Air Dryer)	1
15	114312	Strap Clamp	2
16	2066064	Silencer	1
17	292683	Lockwasher	3
18	15372	Fitting	1
19	1547768	Adapter	1
20	1309503	Fitting	1
21	1546716	Fitting	1
22	a 1480410	Hose Assy	1
22	b 1508987	Hose Assy	1
23	a 1303463	Tube	1
23	b 255158	Tube	1

FOOTNOTES:**a** H170HD-H210HD**b** H230HD-H280HD

AIR DRYER ASSEMBLY (FIGURE 8-15) (→ S/N G007E01572B)

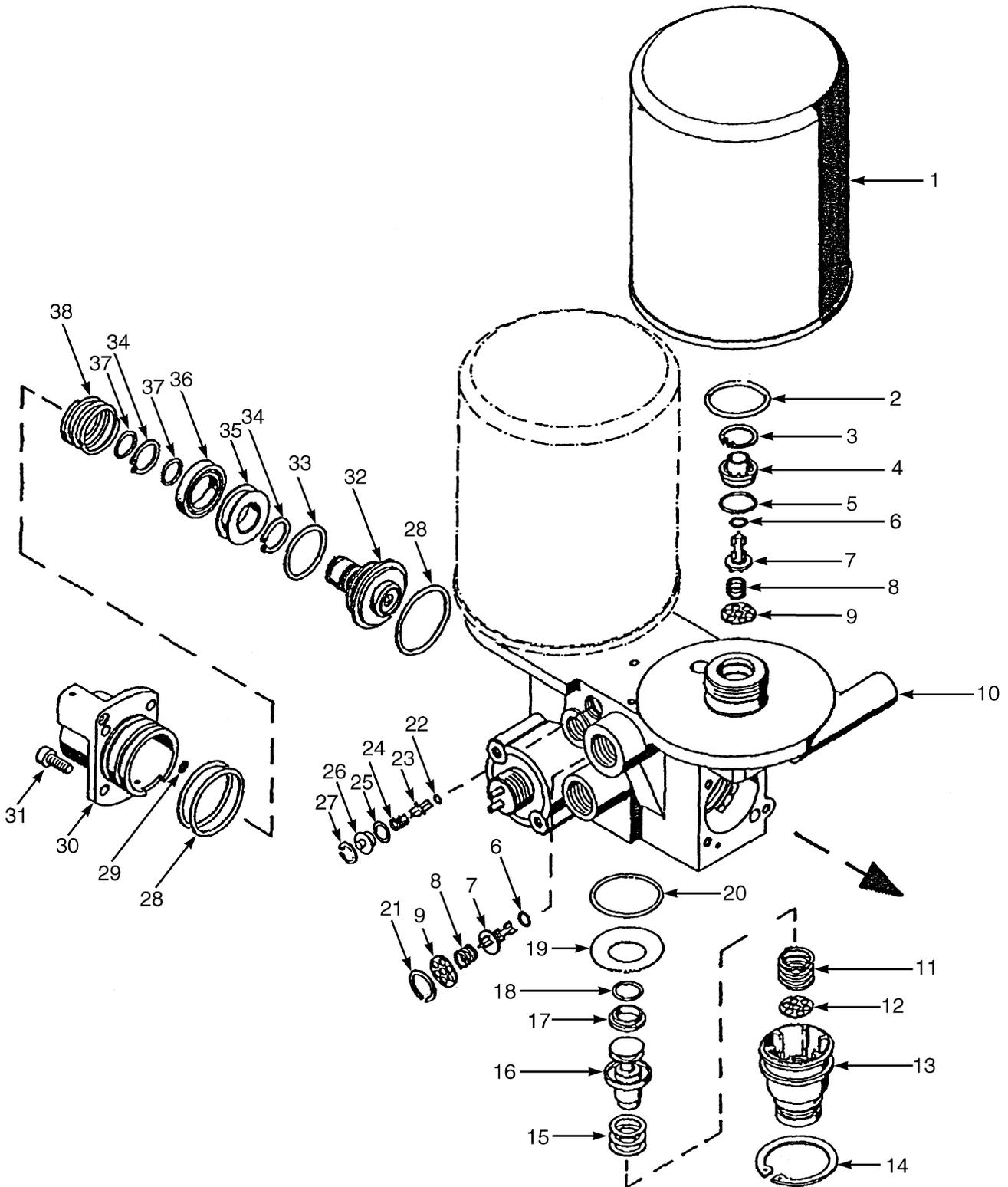


BP090098

AIR DRYER ASSEMBLY
(→ S/N G007E01572B)

ITEM	PART NO.	DESCRIPTION	QTY
	2047824	Air Dryer	1
1	1551472	Solenoid Valve	1
2	.....	Anchor	1
3	.....	O-Ring	1
4	1551475	O-Ring	2
5	.....	Cover	1
6	1551477	Spool	1
7	1551523	Valve	2
8	1551482	Insert (Dryer) (With O-Rings)	2
9	1551483	Insert (Dryer) (Without O-Rings)	1
10	.....	O-Ring	1
11	.....	O-Ring	1
12	1551486	Spring	2
13	1551487	Cover (Filter)	2
14	1551488	Handle	2
15	1551490	Bushing	1
16	.....	O-Ring	1
17	.....	Valve Seal	1
18	.....	Piston	1
19	.....	Cup	1
20	.....	Bushing	1
21	1551504	Filter	1
22	1551505	Spring	1
23	.....	O-Ring	1
24	1551512	Cap	1
25	1551513	Snap Ring	1
26	1551514	Valve	2
27	.....	O-Ring	2
28	1551516	Piston	2
29	1551517	Seal	2
30	.....	O-Ring	2
31	.....	Screw	8
32	.....	Filter Head	1
33	.....	Nut	4
34	.....	Stud	3
35	.....	Pressure Spring	1
36	.....	Valve Seat	1
37	.....	Seal	1
38	.....	Plug	1
39	.....	Pressure Spring	1
40	.....	Snap Ring	1
41	.....	Bushing	2
42	.....	Piston Spring	2
43	.....	Block	2
44	2064475	Control Unit	1
	1565058	Kit-Repair	1
	1551492	Kit-Repair Air Dryer	1

AIR DRYER (FIGURE 8-16) SHEET 1 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)

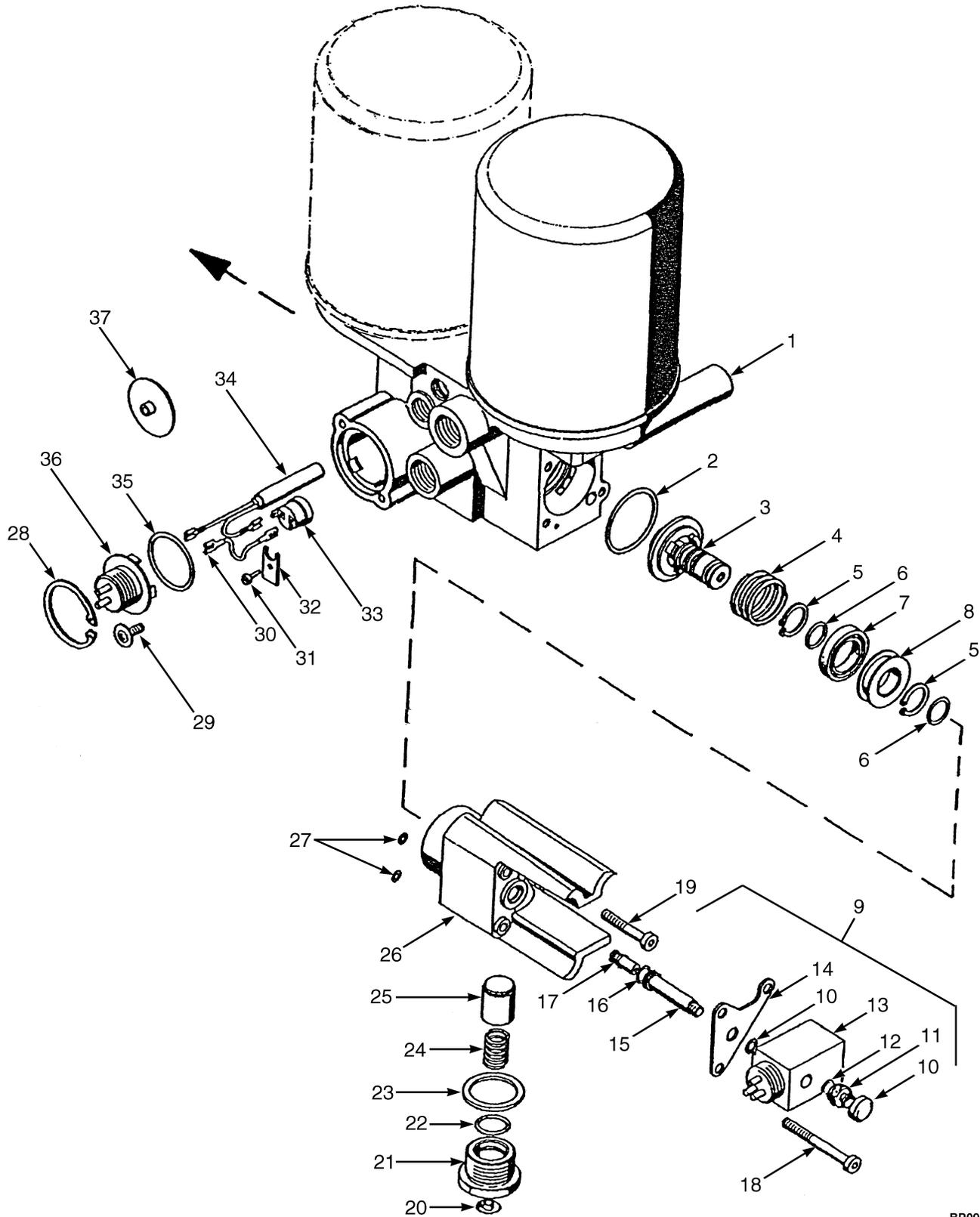


BP090160

AIR DRYER
SHEET 1 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)

ITEM	PART NO.	DESCRIPTION	QTY
	2063639	Air Dryer	1
1	1585138	Cartridge	2
2	.....	O-Ring	2
3	.....	Snap Ring	2
4	1585137	Valve Seat	2
5	.....	O-Ring	3
6	.....	O-Ring	3
7	.....	Valve	1
8	.....	Spring (Compression)	3
9	.....	Disk (Perforated)	3
10	.....	Base Plate	1
11	1585118	Spring (Compression)	1
12	.....	Disk (Perforated)	1
13	1585123	Air Conditioner Ground	1
14	.....	Snap Ring	1
15	.....	Spring	AR
16	.....	Piston	1
17	1332107	Valve (Air)	1
18	.....	O-Ring	1
19	.....	Valve Disk	1
20	.....	O-Ring	1
21	.....	Connector	1
22	.....	O-Ring	1
23	.....	Valve Body	1
24	.....	Spring (Compression)	1
25	.....	O-Ring	AR
26	.....	Cover	AR
27	.....	Snap Ring	1
28	.....	O-Ring	4
29	.....	O-Ring	3
30	.....	Housing	1
31	.....	Capscrew	1
32	.....	Piston	1
33	.....	O-Ring	1
34	.....	Snap Ring	4
35	1585126	Guide	2
36	.....	Ring	2
37	.....	O-Ring	4
38	1585121	Spring (Compression)	2
	1585211	Kit-Repair Air Dryer (Dryer)	1

AIR DRYER (FIGURE 8-17) SHEET 2 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)



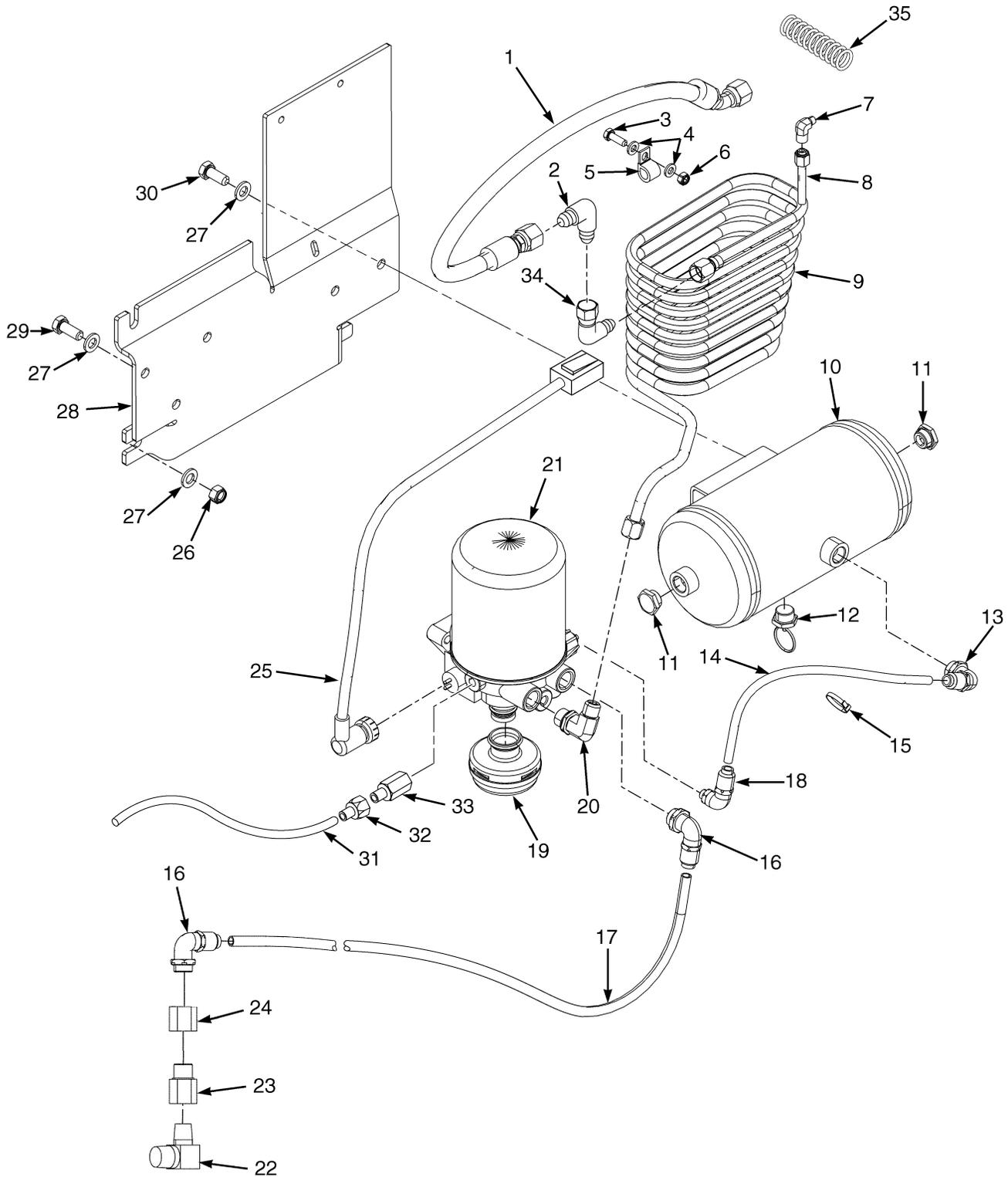
BP090161

AIR DRYER

SHEET 2 OF 2 (S/N G007E01573B ↔ S/N G007E02675D)

ITEM	PART NO.	DESCRIPTION	QTY
	2063639	Air Dryer	1
1	.....	Base Plate	1
2	.....	O-Ring	4
3	.....	Piston	1
4	.....	Spring (Compression)	2
5	.....	Snap Ring	4
6	.....	O-Ring	4
7	.....	Piston Ring	2
8	1585126	Guide	2
9	1585131	Switch (Magnetic)	1
10	.....	Cap	1
11	1585132	Connector	1
12	1551475	O-Ring	2
13	1551477	Spool	1
14	.....	Flange	1
15	.....	Anchor Pin	1
16	.....	O-Ring	1
17	.....	Anchor	1
18	.....	Screw	3
19	.....	Screw	1
20	.....	Cap	1
21	.....	Fitting	1
22	.....	O-Ring	3
23	.....	Seal Ring	1
24	1585122	Spring (Compression)	1
25	.....	Valve	1
26	.....	Housing	1
27	.....	O-Ring	3
28	.....	Snap Ring	AR
29	.....	Screw	2
30	.....	Cable	1
31	.....	Screw	1
32	1585136	Clamp	1
33	1585135	Switch	1
34	1585133	Heater (24 Volt)	1
34	1585134	Heater Element	1
35	.....	O-Ring	1
36	1585215	Connector	2
37	.....	Cover	1
	1585211	Kit-Repair Air Dryer (Dryer)	1
	1585214	Kit-Repair Air Dryer (Heater)	1

AIR DRYER SYSTEM (FIGURE 8-18) (S/N G007E02676D →)



BP040067

AIR DRYER SYSTEM
(S/N G007E02676D →)**KEY:****A: 8-9 Ton****B: 10-12 Ton****C: 13-16 Ton**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	b 1601758	Hose (8-9 Ton)	1	..	..
1	b 1480410	Hose Assy (10-12 Ton) .....	..	1	..
1	c 1480410	Hose Assy (8-9 Ton)	1	..	..
1	c 1624698	Hose Assy (Air) (10-12 Ton) .....	..	1	..
1	1508987	Hose Assy (13-16 Ton) .....	..	..	1
2	1510811	Fitting	1	1	1
3	136749	Screw	3	3	3
4	320157	Washer	6	6	6
5	173246	Clamp	3	3	3
6	302400	Nut	3	3	3
7	1301542	Fitting	1	1	1
8	1312214	Tube	1	1	1
9	1548205	Tube Assy	1	1	1
10	1603302	Air Tank	1	1	1
11	1603304	Fitting	2	2	2
12	1603525	Drain Valve	1	1	1
13	1613771	Fitting (Quick Disconnect)	1	1	1
14	1647751	Tube	1	1	1
15	137852	Strap Clamp	3	3	3
16	1613799	Fitting (Quick Disconnect)	2	2	2
17	1613929	Tube (8-9 Ton)	1	1	1
17	1601764	Tube (10-12 Ton)	1	1	1
17	1602285	Tube (13-16 Ton)	1	1	1
18	1613740	Fitting (Quick Connect)	1	1	1
19	2066064	Silencer	1	1	1
20	1580820	Fitting	1	1	1
20	.....	Washer	1	1	1
20	.....	Retaining Ring	1	1	1
20	.....	O-Ring	1	1	1
21	1603300	Air Dryer (24 V) (☞Figure 8-19).....	1	1	1
22	17745	Fitting	1	1	1
23	1614664	Adapter	1	1	1
24	1651353	Fitting (Air Dryer)	1	1	1
25	1602329	Wire Harness (Air Dryer)	1	1	1
26	302402	Locknut	3	3	3
27	320161	Washer	8	8	8
28	1601267	Plate	1	1	1
29	1547492	Capscrew	3	3	3
30	292527	Capscrew	2	2	2
31	c 1624074	Tube (8-9 Ton)	1	..	..
31	c 128216	Tube (10-12 Ton) .....	..	1	..
31	255115	Tube (13-16 Ton) .....	..	..	1
32	c 1635179	Fitting	1	1	1
33	c 1547766	Adapter (Male)	1	1	1

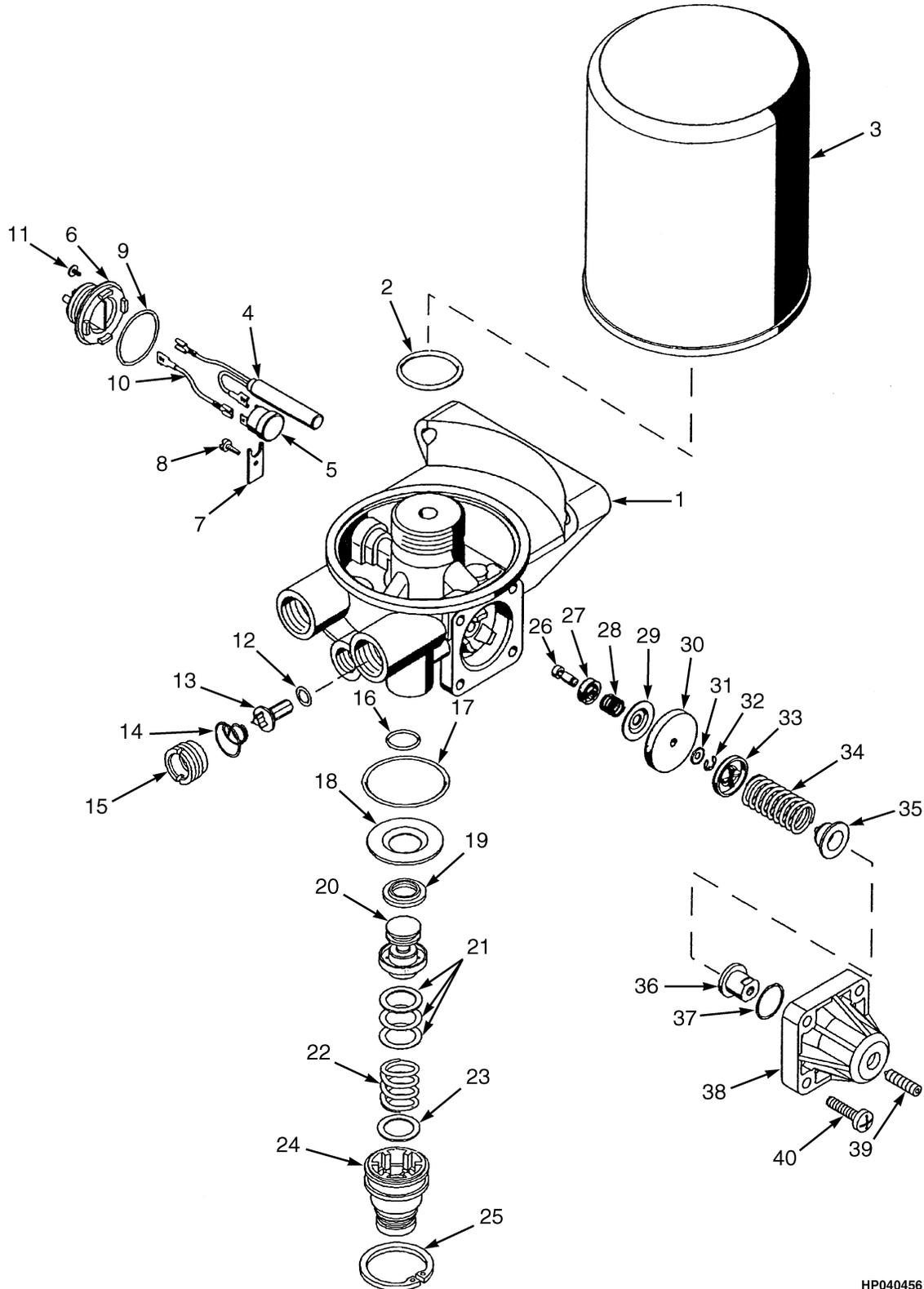
AIR DRYER SYSTEM (S/N G007E02676D →)

KEY:**A:** 8-9 Ton**B:** 10-12 Ton**C:** 13-16 Ton

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
34	c 16882	Fitting	1	1	1
35	316596	Sleeve (Coil)	1	1	..
36	28584	Fitting	1	1	1
	a 1310611	Clamp (13-16 Ton) .....	..	..	1
	a 320159	Washer (13-16 Ton) .....	..	..	1
	a 302401	Locknut (13-16 Ton) .....	..	..	1

FOOTNOTES:**a** Not Illustrated**c** S/N G007E02676D →**b** → S/N G007E02675D

AIR DRYER (FIGURE 8-19) (S/N G007E02676D →)



HP040456

AIR DRYER
(S/N G007E02676D →)

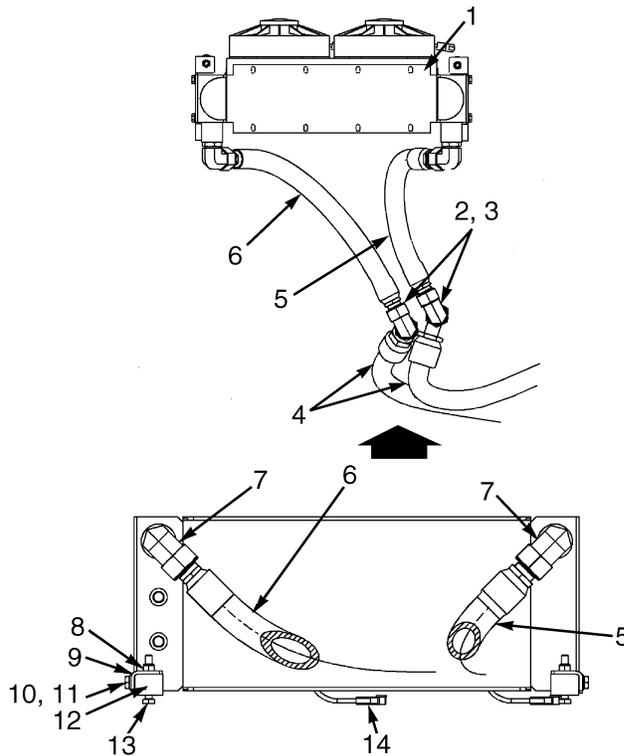
ITEM	PART NO.	DESCRIPTION	QTY
	1603300	Air Dryer (24 V)	1
1	.....	Body	1
2	.....	O-Ring	1
3	1585138	Cartridge	1
4	1585133	Heater (24 Volt)	1
	a 1585134	Heater Element	1
5	1585135	Switch	1
6	1585215	Connector	1
7	.....	Support	1
8	.....	Screw	1
9	.....	O-Ring	1
10	.....	Cable	1
11	.....	Screw	2
12	.....	O-Ring	1
13	.....	Valve Body	1
14	.....	Conical Spring	1
15	.....	Valve Seat	1
16	.....	O-Ring	1
17	.....	O-Ring	2
18	.....	Valve Head	1
19	.....	Valve	1
20	.....	Piston	1
21	.....	Disc	AR
22	.....	Pressure Spring	1
23	1634764	Washer	3
24	.....	Button	1
25	.....	Retaining Ring	1
26	1332113	Piston and Rod	1
	a 1332114	Valve	1
	a 1332115	Piston (Leather)	1
27	.....	Valve	1
28	.....	Pressure Spring	1
29	.....	Cap	1
30	.....	Piston Cup	1
31	.....	Cap	1
32	.....	Retaining Washer	1
33	.....	Cap	1
34	.....	Pressure Spring	1
35	.....	Cap	1
36	1332116	Nut	1
37	.....	O-Ring	1
38	.....	Cover	1
39	.....	Set Screw	1
40	.....	Oval Head Screw	4
	1634763	Kit-Repair Air Dryer	1

FOOTNOTES:**a** Not Illustrated

SECTION 9 HYDRAULIC SYSTEM

DESCRIPTION	PAGE
ACCUMULATOR	
PISTON TYPE	9-8
AUXILIARY HYDRAULIC OIL COOLER	9-2
CONTROL LEVERS	9-36
ELECTRONIC LEVER ASSEMBLY	
THREE, FOUR, FIVE, AND SIX FUNCTION	9-42
WITH CLAMP ATTACHMENT	9-40
END CAP PARTS	
LIFT SECTION	9-26
HYDRAULIC CONTROL VALVE	9-22
HYDRAULIC PUMP	
S/N G007E02725D → (DIESEL) S/N G007E02724D → (LPG)	9-16
DIESEL (→ S/N G007E02724D)	9-12
LPG (→ S/N G007E02723D)	9-14
HYDRAULIC SUPPLY AND RETURN	9-4
HYDRAULIC TANK AND ATTACHING PARTS	9-10
HYDRAULIC VALVE AND ATTACHING PARTS	9-18
JOYSTICK CONTROL	9-34
LIFT ACCUMULATOR AND ATTACHING PARTS	9-7
PILOT VALVE	9-32
TILT CYLINDER	9-30
TILT CYLINDER AND ATTACHING PARTS	9-28

AUXILIARY HYDRAULIC OIL COOLER (FIGURE 9-1)



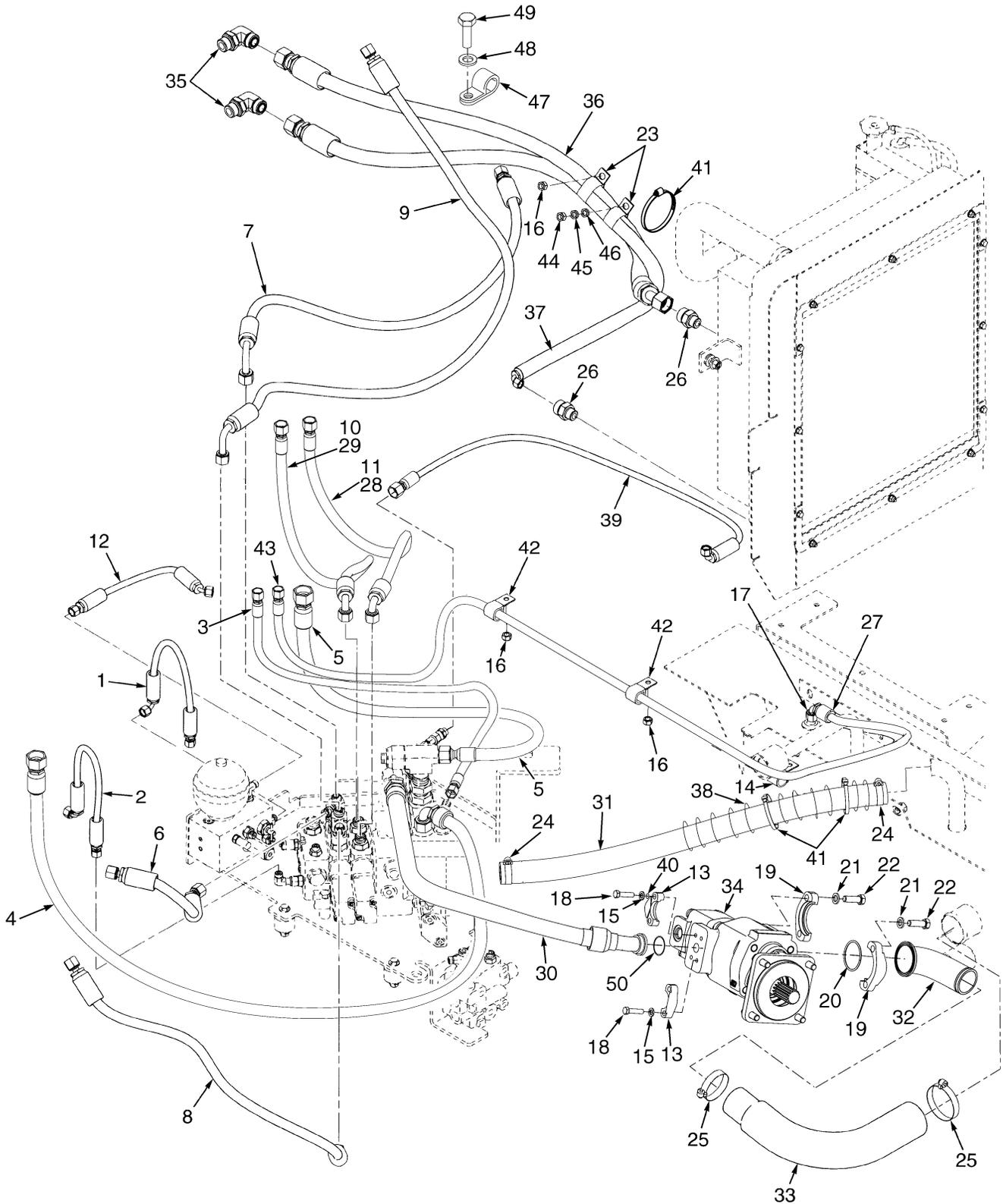
BP150027

ITEM	PART NO.	DESCRIPTION	QTY
1	1636246	Oil Cooler	1
2	1528584	Fitting	2
3	1528606	Locknut	2
4	1636789	Hose Assy	2
5	1636788	Hose Assy	1
6	1636787	Hose Assy	1
7	1473923	Fitting	2
8	302401	Locknut	4
9	1636247	Bracket	2
10	320159	Washer	4
11	287854	Capscrew	4
12	1597192	Isolator	4
13	292514	Capscrew	4
14	2090340	Wire Harness (Auxiliary Oil Cooler)	1
	a 1527982	Hose Clamp (☞ Figure 9-2).....	2
	a 1614161	Hose Assy (☞ Figure 9-2).....	1

FOOTNOTES:

a Not Illustrated

HYDRAULIC SUPPLY AND RETURN (FIGURE 9-2)



BP150120

HYDRAULIC SUPPLY AND RETURN

ITEM	PART NO.	DESCRIPTION	QTY
1	1476681	Hose Assy	1
2	1476678	Hose Assy	1
3	2056296	Hose Assy (To Header Hose)	1
4	1476736	Hose Assy (To Lift Cylinder)	1
5	1476735	Hose Assy (To Lift Cylinder)	1
6	1476689	Hose Assy (To Tilt Cylinder)	1
7	1476692	Hose Assy (To Tilt Cylinder)	1
8	1476691	Hose Assy (To Tilt Cylinder)	1
9	1476694	Hose Assy (To Tilt Cylinder)	1
10	2056208	Hose Assy (To Header Hose)	1
11	2056209	Hose Assy (To Header Hose)	1
12	1476682	Hose Assy	1
13	190757	Clamp (Split Half)	2
14	178119	Clamp	3
15	15156	Lockwasher	4
16	316826	Nut	2
17	1473887	Fitting	1
18	16815	Capscrew	4
19	222531	Clamp (Split Half)	2
20	198518	O-Ring	1
21	15158	Washer	4
22	18588	Capscrew	4
23	212786	Clamp	3
24	bd 369804	Clamp	2
24	fh 1549372	Hose Clamp	2
24	a 1527982	Hose Clamp	2
25	112989	Hose Clamp	2
26	1486754	Fitting	2
27	341524	Identification Band	2
28	342675	Identification Band	2
29	342676	Identification Band	2
30	1476737	Hose Assy	1
31	bd 1301668	Hose	1
31	fh 1633276	Hose Assy	1
31	a 1614161	Hose Assy	1
32	222590	Fitting	1
33	bd 1532908	Hose (Suction)	1
33	fh 1625612	Hose (Suction)	1
34	d 1493892	Hydraulic Pump (Diesel) (☞ Figure 9-6).....	1
34	h 1625615	Hydraulic Pump (Diesel) (☞ Figure 9-8).....	1
34	b 816702	Hydraulic Pump (LPG) (☞ Figure 9-7).....	1
34	f 1625617	Hydraulic Pump (LPG) (☞ Figure 9-8).....	1
35	1473898	Fitting	2
36	1486078	Hose Assy (To Oil Cooler)	1
37	1476707	Hose Assy (To Oil Cooler)	1
38	239308	Sleeve	5
39	1493503	Hose Assy	1
40	169787	O-Ring	1
41	129563	Strap Clamp	1
42	101625	Clamp	2
43	1490266	Hose Assy (To Lift Cylinder)	1

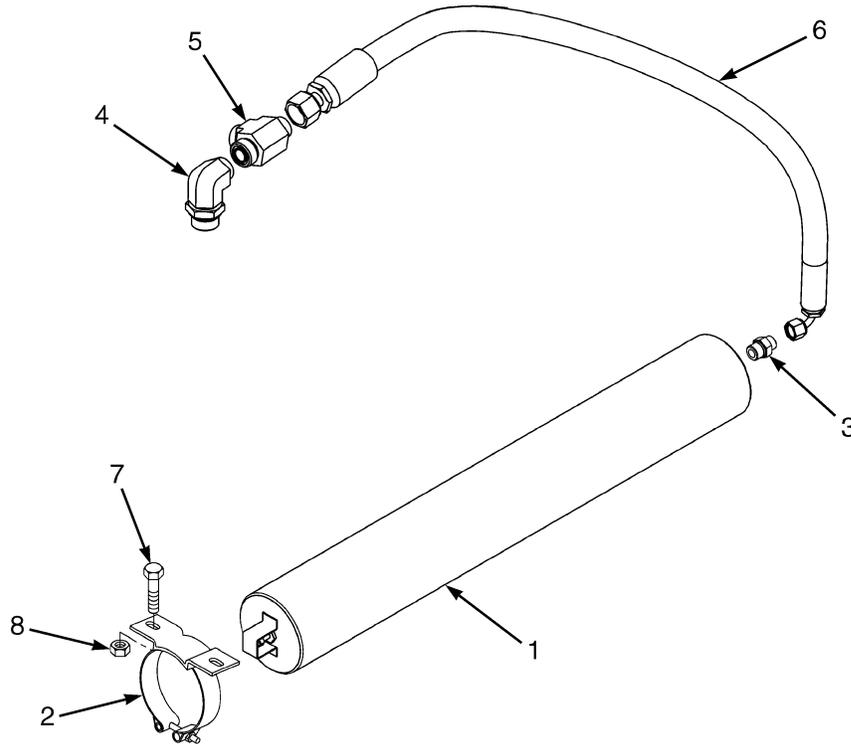
HYDRAULIC SUPPLY AND RETURN

ITEM	PART NO.	DESCRIPTION	QTY
44	136692	Nut	2
45	292682	Lockwasher	2
46	320159	Washer	2
47	79377	Clamp	1
48	320161	Washer	1
49	132860	Capscrew	1
50	169787	O-Ring	1

FOOTNOTES:

- | | | | |
|----------|----------------------------|----------|----------------------------|
| a | Hydraulic Cooler Option | f | S/N G007E02724D → |
| b | → S/N G007E02723D | g | S/N G007E02724D → (LPG) |
| c | → S/N G007E02723D (LPG) | h | S/N G007E02725D → |
| d | → S/N G007E02724D | i | S/N G007E02725D → (Diesel) |
| e | → S/N G007E02724D (Diesel) | | |

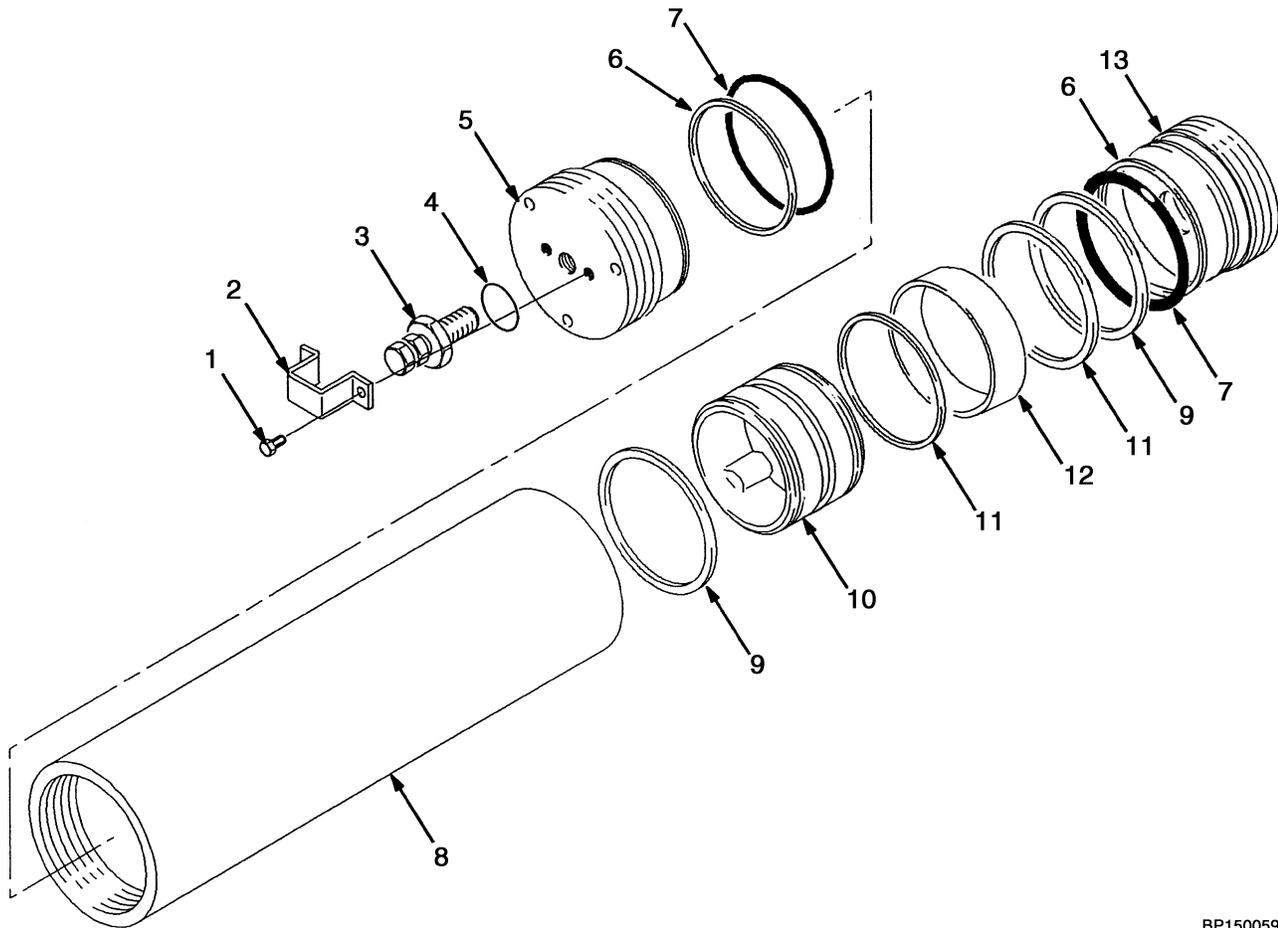
LIFT ACCUMULATOR AND ATTACHING PARTS (FIGURE 9-3)



HP150860

ITEM	PART NO.	DESCRIPTION	QTY
1	1500717	Accumulator (☞ Figure 9-4).....	1
2	1500718	Clamp	2
3	1486746	Fitting	1
4	1487073	Fitting	1
5	1473892	Fitting	1
6	2046552	Hose Assy	1
7	136749	Screw	4
8	302400	Nut	4

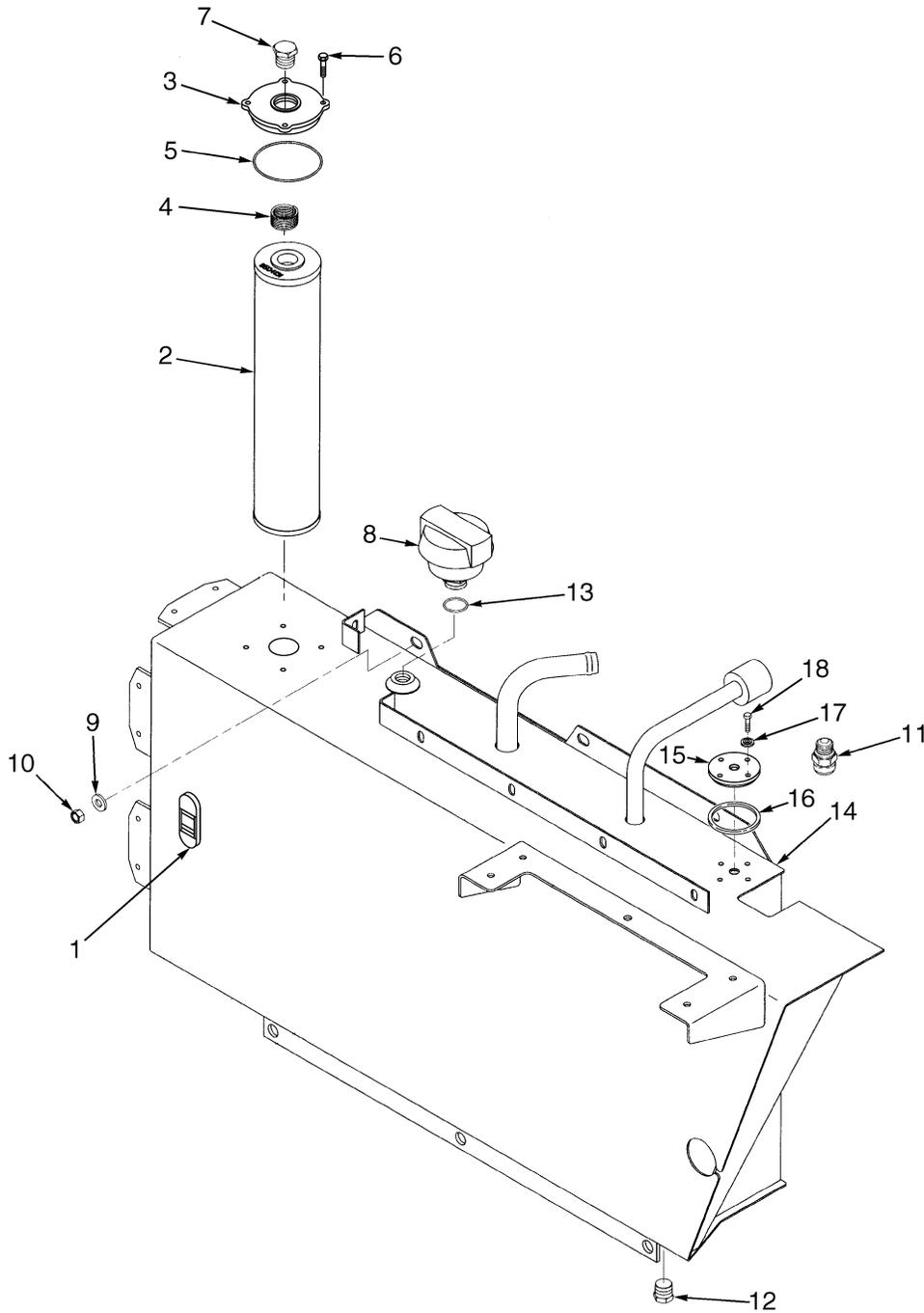
ACCUMULATOR (FIGURE 9-4) PISTON TYPE



BP150059

ITEM	PART NO.	DESCRIPTION	QTY
	1500717	Accumulator	1
1	1502888	Screw	2
2	1503082	Protector	1
3	.....	Gas Valve	1
4	1502887	O-Ring	1
5	.....	Gasoline End Cap	1
6	.....	Back-Up Washer	2
7	.....	O-Ring	2
8	.....	Shell	1
9	1503078	Washer	2
10	1503083	Piston	1
11	1503079	Wear Strip	2
12	.....	O-Ring	1
13	.....	Hydraulic End Cap	1
	1503076	Kit-Accumulator	1

HYDRAULIC TANK AND ATTACHING PARTS (FIGURE 9-5)

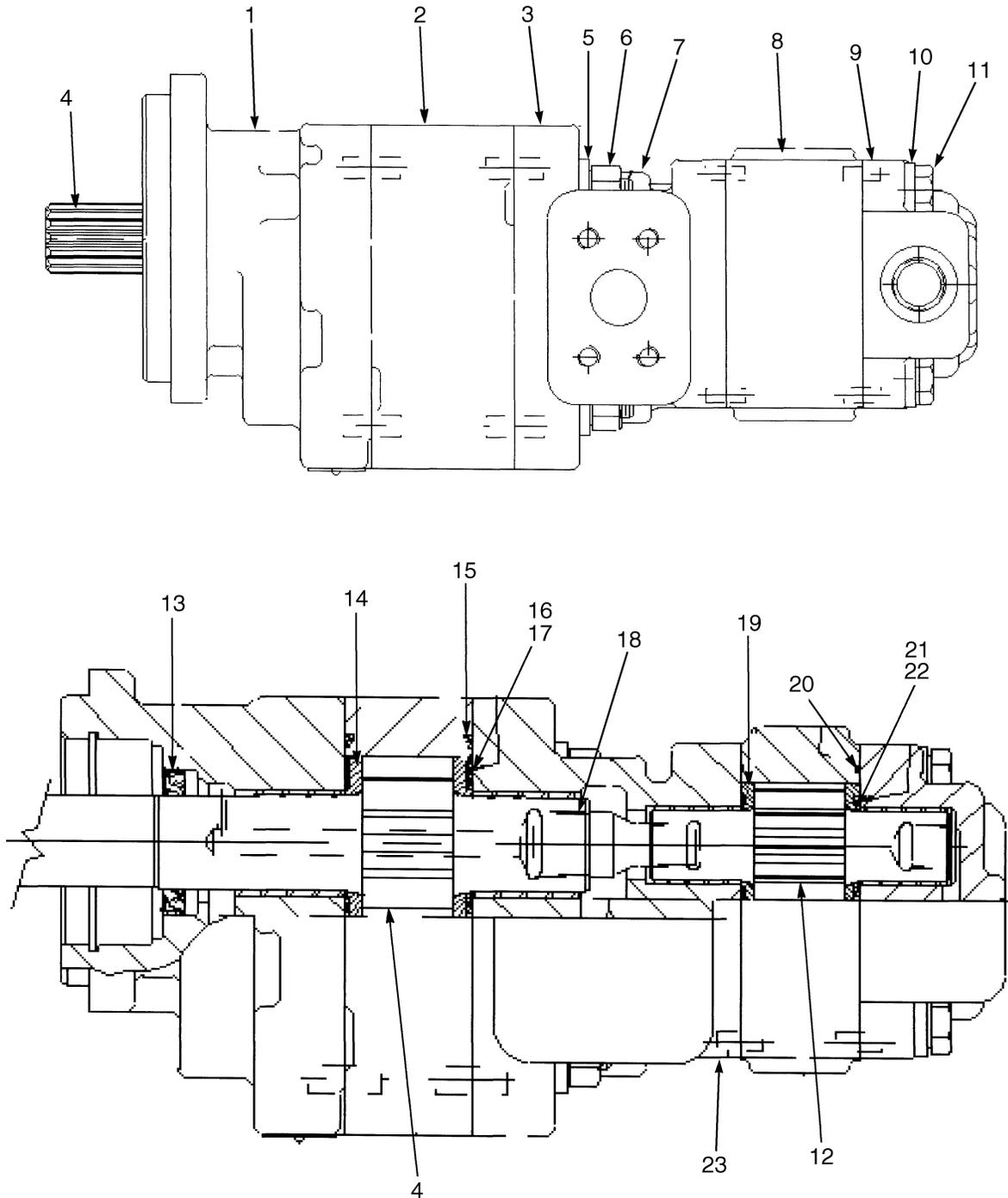


BP150057

HYDRAULIC TANK AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1528144	Indicator	1
2	2059720	Hydraulic Filter	1
3	1528456	Filter Head	1
4	1533477	Spring	1
5	39756	O-Ring	1
6	176640	Bolt	4
7	1538936	Plug	1
7	14595	Plug	1
7	16484	O-Ring	1
8	1564721	Breather (With Indicator and Sandpipe)	1
8	1563867	Pipe	1
8	39373	O-Ring	1
8	1494312	Filter Element	1
9	320162	Washer	3
10	302402	Locknut	3
11	1486741	Fitting	1
12	35503	Fitting	1
13	888333	Seal	1
14	1523560	Hydraulic Tank	1
15	1536288	Cover	1
16	39743	O-Ring	1
17	1536311	Sealing Ring	4
18	136749	Screw	4

HYDRAULIC PUMP (FIGURE 9-6) DIESEL (→ S/N G007E02724D)

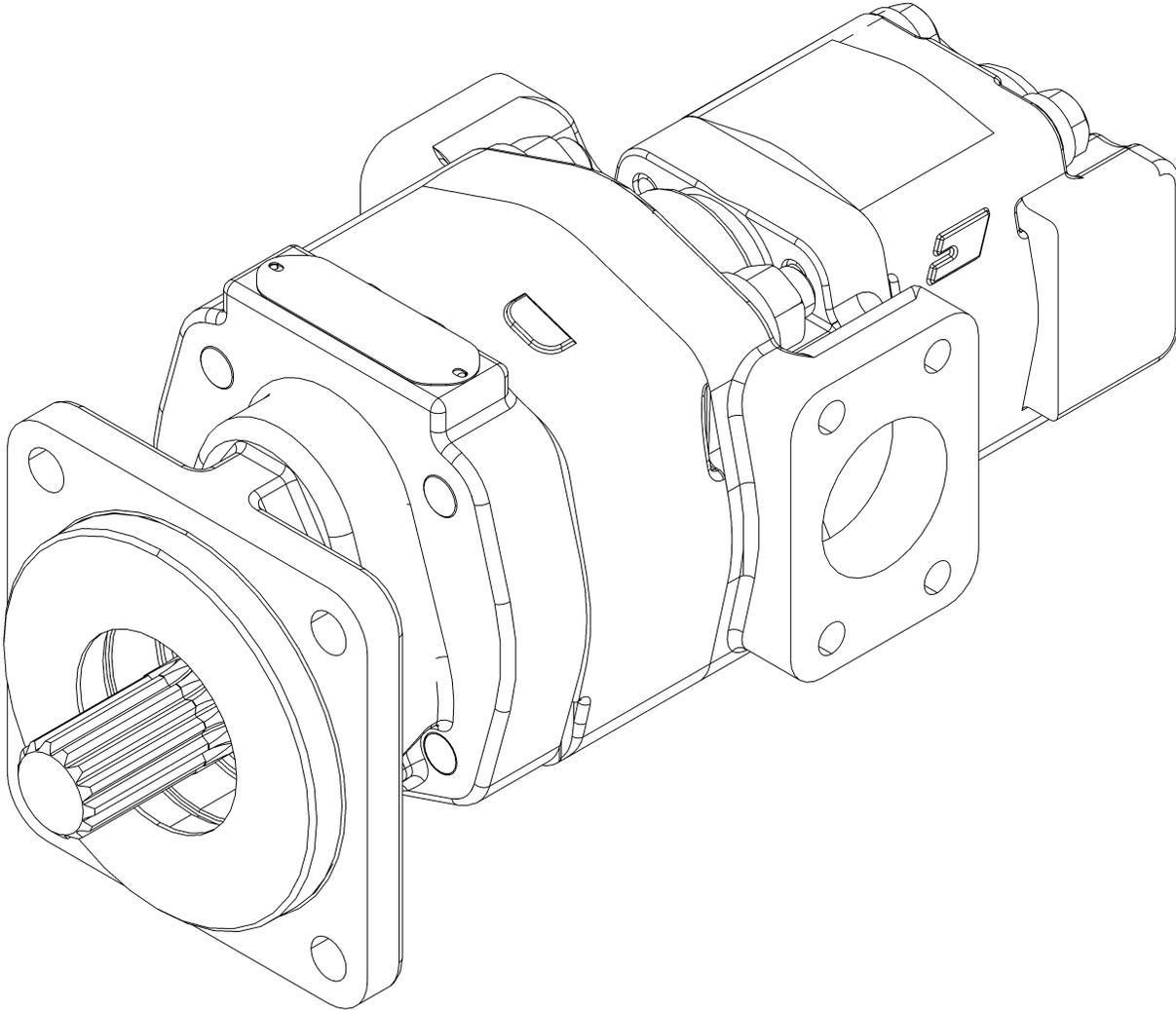


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**HYDRAULIC PUMP
DIESEL (→ S/N G007E02724D)**

ITEM	PART NO.	DESCRIPTION	QTY
	1493892	Hydraulic Pump (Diesel)	1
1	1374988	Housing (Shaft End Cover)	1
2	1485619	Housing (Gear)	1
3	1485618	Housing	1
4	1485620	Gear (Shaft Set)	1
5	176167	Washer	4
6	15060	Nut	4
7	1311795	Stud	4
8	1496893	Housing	1
9	1485621	Housing	1
10	1375000	Washer	4
11	1566739	Capscrew	4
12	1496894	Gear Set	1
13	189996	Seal	1
14	1374991	Thrust Plate	2
15	1375010	Seal	2
16	1485625	Seal	2
17	1485626	Seal	2
18	1375001	Shaft	1
19	1375003	Thrust Plate	2
20	1375004	Seal	2
21	1453835	Seal	2
22	1453834	Seal	2
23	1374997	Pin	4
	1151722	Dowel (Not Illustrated)	4
	1496892	Kit-Repair Pump	1
	1491526	Kit-Seal	1
	1491527	Kit-Seal	1

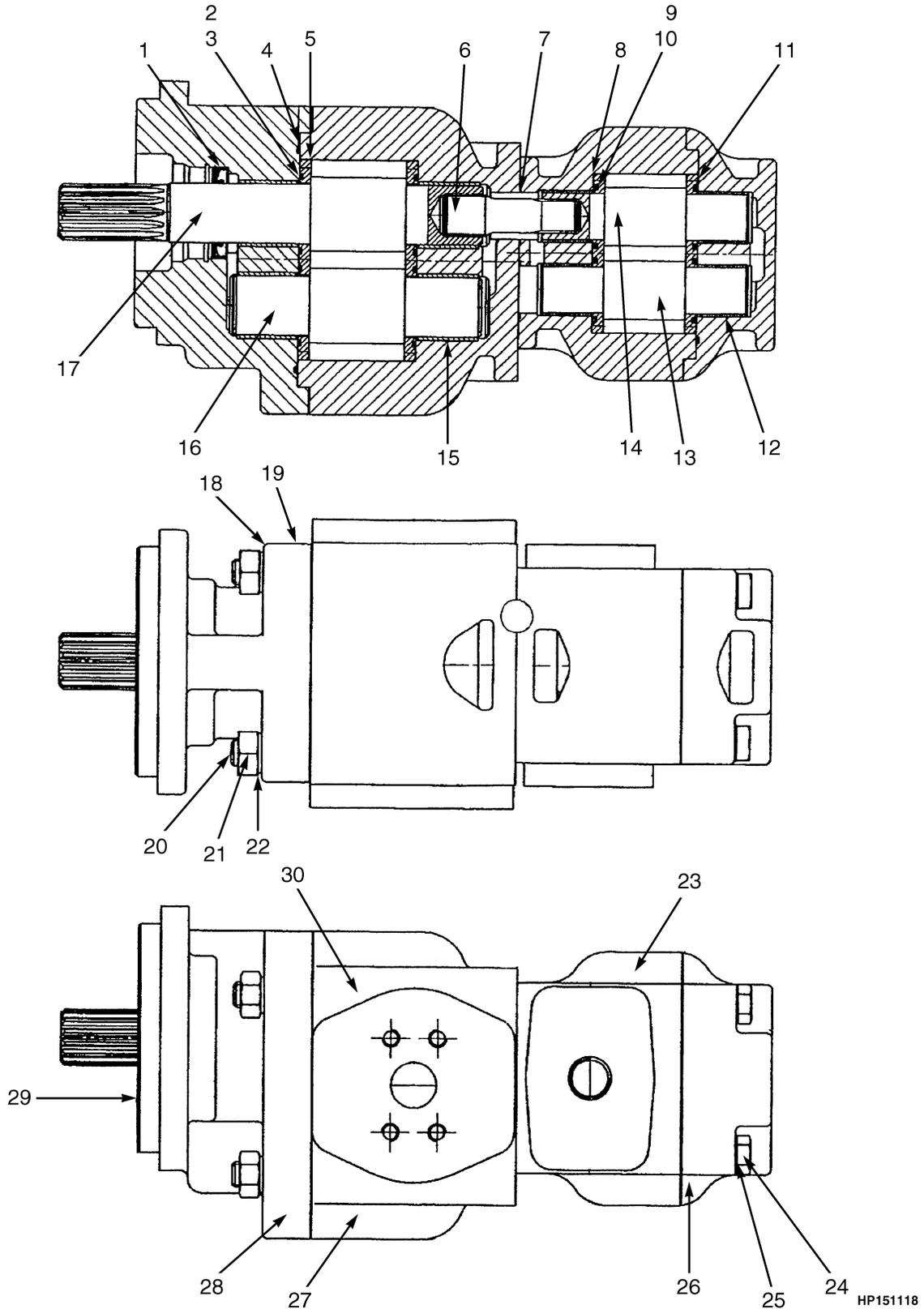
HYDRAULIC PUMP (FIGURE 9-7) LPG (→ S/N G007E02723D)



BP150145

ITEM	PART NO.	DESCRIPTION	QTY
	816702	Hydraulic Pump	1
	1491526	Kit-Seal	1
	1491527	Kit-Seal	1
	1491529	Kit-Repair Pump	1

HYDRAULIC PUMP (FIGURE 9-8) (S/N G007E02725D → (DIESEL)) (S/N G007E02724D → (LPG))

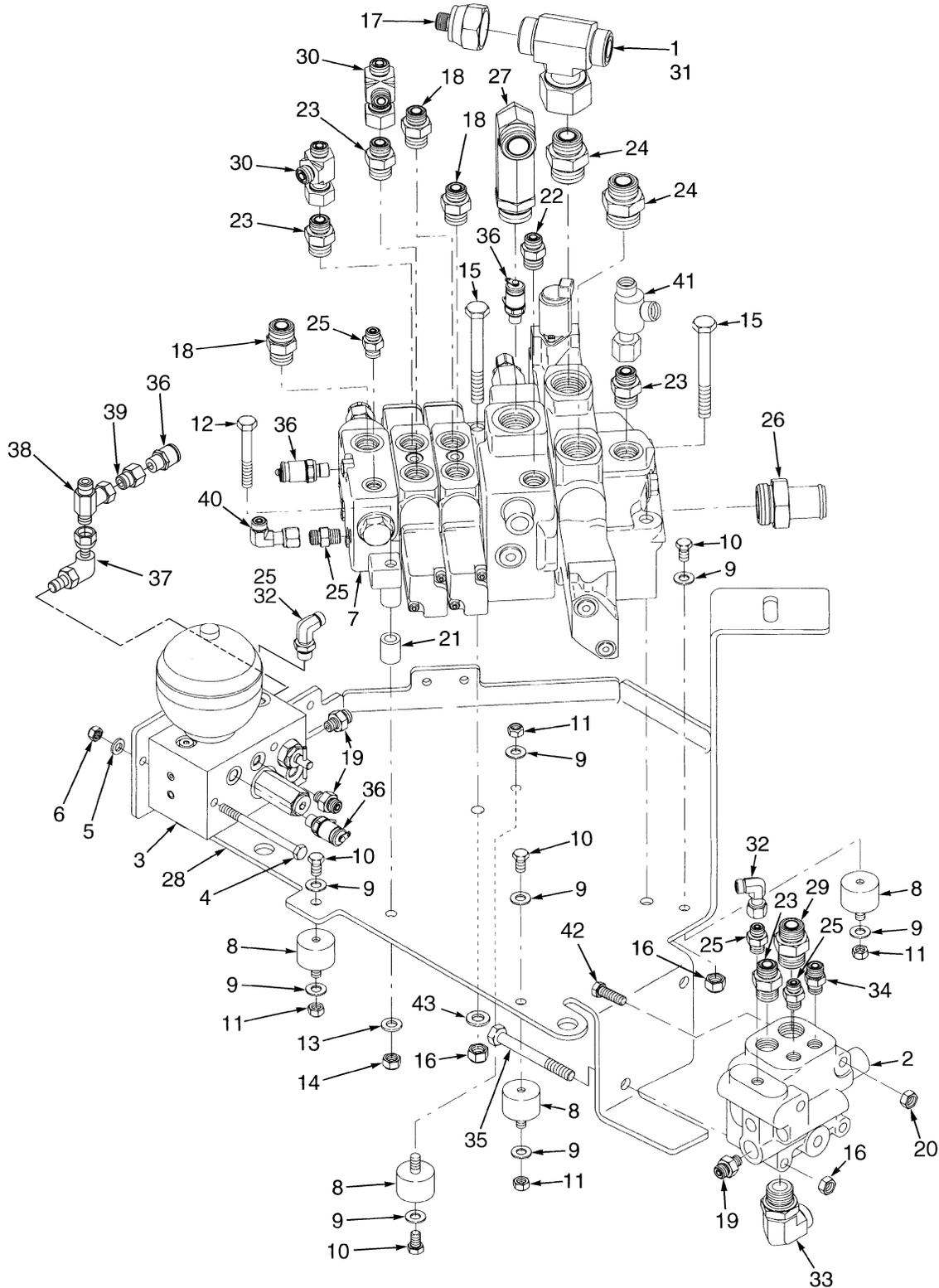


HYDRAULIC PUMP
(S/N G007E02725D → (DIESEL)) (S/N G007E02724D → (LPG))

KEY:**A: Diesel****B: LPG**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	1625615	Hydraulic Pump	1	..
	1625617	Hydraulic Pump .....	..	1
1	189996	Seal (Lip)	1	1
2	1638375	Seal (Channel)	2	2
3	1638376	Seal (Back-Up)	2	2
4	1638377	Seal (Section)	1	1
5	1638374	Thrust Plate	2	2
6	1638381	Shaft	1	..
6	1638509	Shaft .....	..	1
7	1638379	O-Ring	3	3
8	1638371	Thrust Plate	2	2
9	1638372	Seal (Energizer)	2	2
10	1638373	Seal (Element)	2	2
11	1638380	Seal	1	1
12	1638370	Bushing	4	4
13	.....	Driven Gear	1	1
14	.....	Drive Gear	1	1
15	1638356	Bushing	4	4
16	.....	Driven Gear	1	1
17	.....	Drive Gear	1	1
18	.....	Nameplate	1	1
19	1311790	Screw (For Nameplate)	2	2
20	1638366	Screw	4	4
21	1638367	Nut	4	4
22	1638365	Washer	4	4
23	.....	Body	1	1
24	313850	Capscrew	4	..
24	1638803	Screw .....	..	4
25	1638368	Washer	4	4
26	1638351	Cover	1	1
27	.....	Body	1	1
28	1638350	Flange	1	1
29	176159	Plug	1	1
30	1638378	Sleeve	2	2

HYDRAULIC VALVE AND ATTACHING PARTS (FIGURE 9-9)



HP150794

HYDRAULIC VALVE AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1487088	Fitting	1
1	1527819	O-Ring (Face Seal)	2
2	1500407	Flow Valve (Steering Priority Valve)	1
2	1613877	Cartridge	1
3	1494804	Pilot Valve (☞ Figure 9-14).....	1
4	1307994	Capscrew	2
5	320157	Washer	2
6	302400	Nut	2
7	2052832	Hydraulic Control Valve (☞ Figure 9-10).....	1
8	1307730	Mount	5
9	15134	Washer	10
10	18535	Capscrew	4
11	145641	Locknut (Prevailing Torque)	5
12	136718	Capscrew	1
13	320159	Washer	1
14	302401	Locknut	1
15	292540	Capscrew	2
16	302402	Locknut	3
17	1487166	Fitting	1
18	1486749	Fitting	3
18	1527818	O-Ring (Face Seal)	1
18	16485	O-Ring (Straight)	1
19	1486737	Fitting	4
19	1527813	O-Ring (Face Seal)	1
19	16481	O-Ring (Straight)	1
20	216877	Nut	1
21	1493136	Spacer	1
22	1486742	Fitting	1
22	1527816	O-Ring (Face Seal)	1
22	16484	O-Ring (Straight)	1
23	1486746	Fitting	4
23	1527817	O-Ring (Face Seal)	1
23	16485	O-Ring (Straight)	1
24	1473919	Fitting	2
24	1527819	O-Ring (Face Seal)	1
24	16487	O-Ring (Straight)	1
25	1486738	Fitting	4
25	1527813	O-Ring (Face Seal)	1
25	16483	O-Ring (Straight)	1
26	78459	Fitting	1
27	1486557	Fitting	1
27	1527820	O-Ring (Face Seal)	1
27	16487	O-Ring (Straight)	1
28	1492530	Plate	1
29	1486751	Fitting	1
29	1527818	O-Ring (Face Seal)	1
29	16486	O-Ring (Straight)	1
30	1487095	Fitting	2
30	1527817	O-Ring (Face Seal)	2
31	1487148	Fitting	1
31	1527813	O-Ring (Face Seal)	1

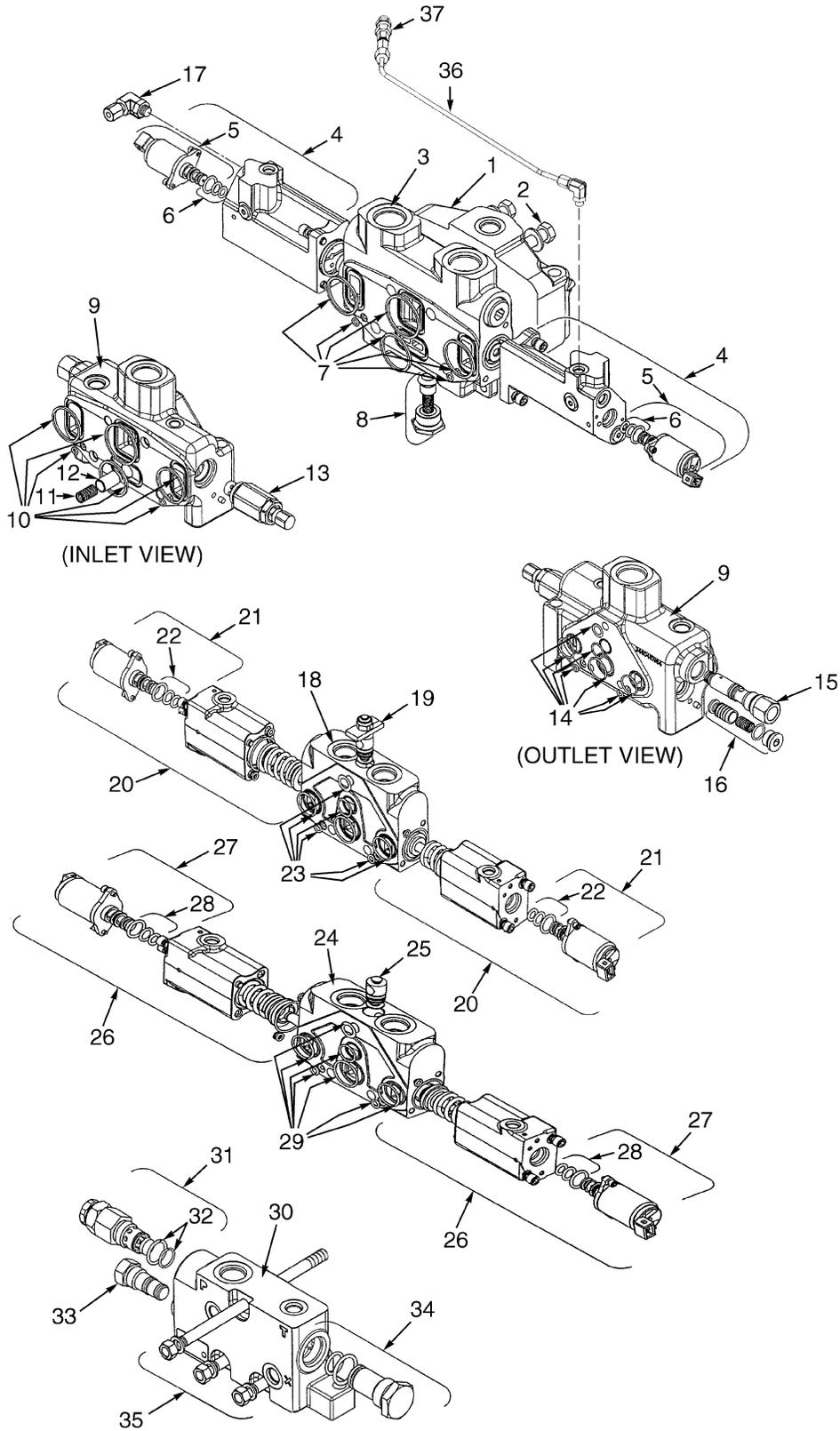
HYDRAULIC VALVE AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
32	1486770	Fitting	1
32	1527813	O-Ring (Face Seal)	1
33	1487069	Fitting	1
33	16486	O-Ring (Straight)	1
33	1527818	O-Ring (Face Seal)	1
34	1486740	Fitting	1
34	1527816	O-Ring (Face Seal)	1
34	16483	O-Ring (Straight)	1
35	292538	Capscrew	2
36	1473927	Quick Disconnect Fitting	3
37	1486578	Fitting	1
37	16483	O-Ring (Straight)	1
38	1488464	Fitting	1
38	1527816	O-Ring (Face Seal)	2
39	1502373	Fitting	1
40	1487094	Fitting	1
40	1527813	O-Ring (Face Seal)	2
41	a 1487095	Fitting	1
41	1527817	O-Ring (Face Seal)	1

FOOTNOTES:

a S/N G007E01868B →

HYDRAULIC CONTROL VALVE (FIGURE 9-10)



BP140071

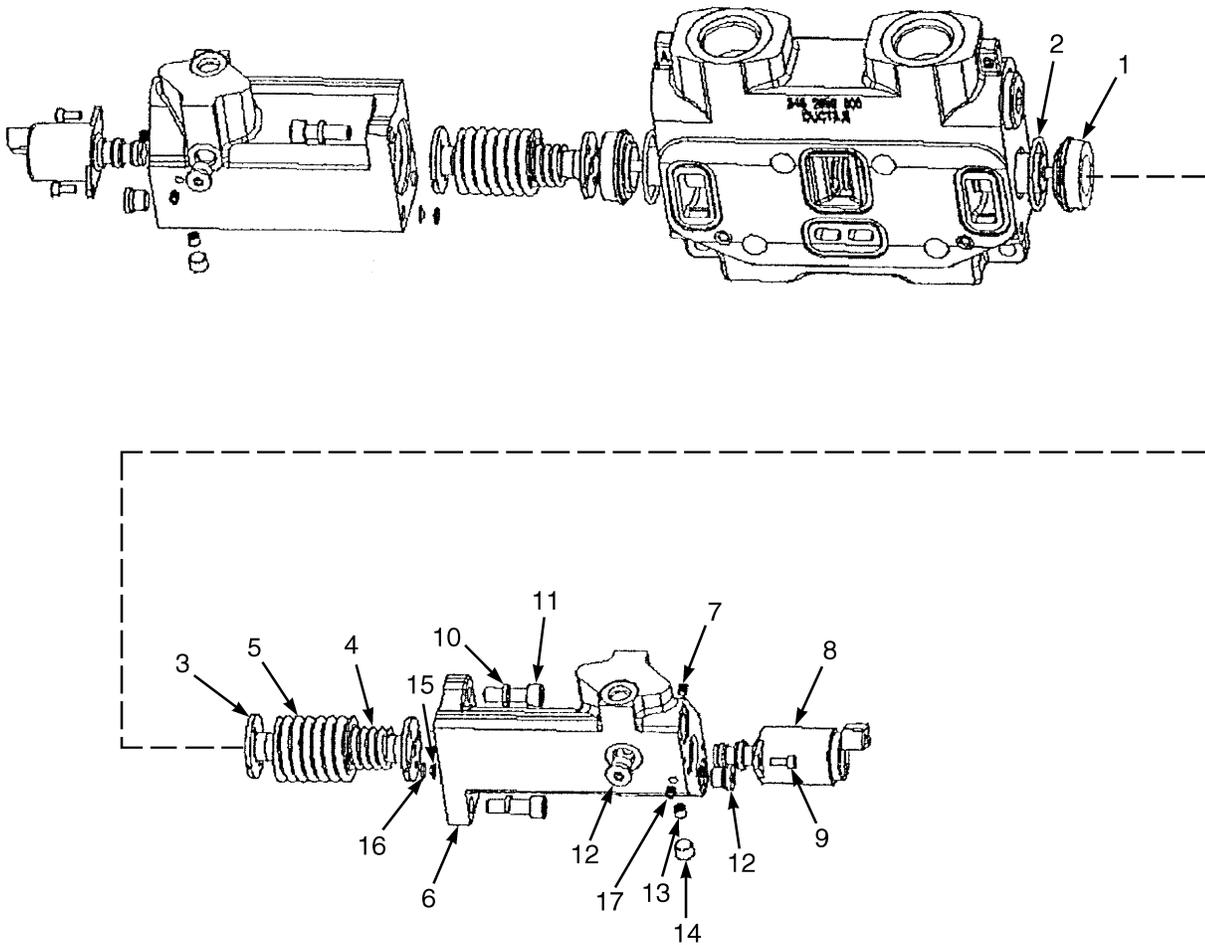
HYDRAULIC CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
	2052832	Hydraulic Control Valve	1
1	1502570	Valve Section (Outlet)	1
2	1491779	Kit-Tie Rod (Outlet)	1
2	1636372	Washer	1
2	1636373	Capscrew	1
3	1502571	Valve Section (Lift)	1
4	1491772	Kit-End Cap	1
5	1491773	Solenoid	2
6	1496902	Kit-Seal	2
7	1491765	Kit-Seal	1
8	1491775	Valve	2
8	16486	O-Ring	1
9	1513597	Valve Section (Center)	1
10	1491765	Kit-Seal (Inlet Side)	1
11	.....	Spring	1
12	.....	Check Valve	1
13	1502582	Relief Valve	1
13	1491767	Kit-Seal	1
14	1491764	Kit-Seal (Outlet Side)	1
15	1527128	Cartridge Valve	1
16	1491855	Connector	1
17	1491777	Kit-Check Valve (End Cap Piping, Fitting, and Check Valve)	1
17	1613901	Kit-Piping (Without Check Valve)	1
17	1635556	Kit-Piping	1
17	1635557	Fitting	1
17	1613902	Kit-Check Valve	1
18	1520807	Valve Section	1
19	1615156	Kit-Check Valve	1
20	1491771	End Cap (With Spring and Check Valve)	1
21	1491773	Solenoid	2
22	1496902	Kit-Seal	2
23	1491764	Kit-Seal	1
23	1494320	O-Ring	1
23	1514865	Shim	1
24	1502574	Valve Section (Tilt)	1
25	1491774	Check Valve	1
26	1491771	End Cap (With Spring and Check Valve)	1
27	1491773	Solenoid	2
28	1496902	Kit-Seal	2
29	1491764	Kit-Seal	1
30	1502576	Valve Section (Inlet)	1
31	1615157	Relief Valve	1
32	1467948	Kit-Relief Valve	1
32	1495260	O-Ring	1
32	1495259	O-Ring	1
32	1619729	Sealing Ring	1
33	1491768	Plug	1
33	1495263	O-Ring	1
33	1495262	O-Ring	1
34	1496901	Kit-Plug	1
34	16486	O-Ring	1

HYDRAULIC CONTROL VALVE

ITEM	PART NO.	DESCRIPTION	QTY
34	1615154	O-Ring	1
35	1520332	Kit-Tie Rod (Inlet)	1
36	1613901	Kit-Piping (Without Check Valve)	1
37	1613902	Kit-Check Valve	1
	1496900	Kit-Seal (Main Valve)	1

END CAP PARTS (FIGURE 9-11) LIFT SECTION

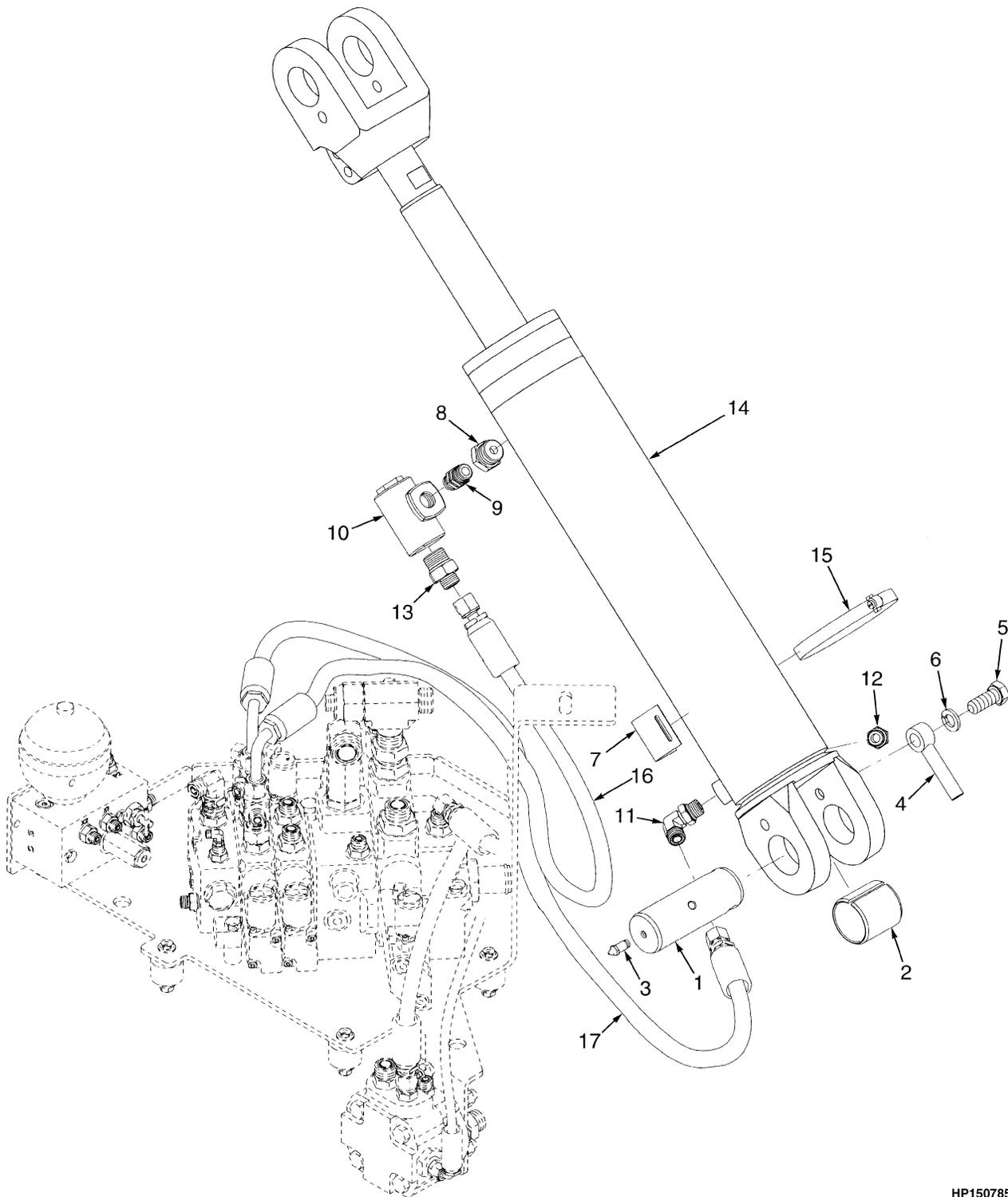


BP140072

**END CAP PARTS
LIFT SECTION**

ITEM	PART NO.	DESCRIPTION	QTY
	1491772	Kit-End Cap	2
1	1624020	Seal	2
2	1619731	O-Ring	2
3	1624021	Spring Guide	4
4	1624022	Spring	2
5	1624023	Spring	2
6	1624024	End Cap	2
7	1624025	Plug	6
8	1491773	Solenoid	2
8	1496902	Kit-Seal	1
9	1624026	Capscrew	4
10	1624027	Lockwasher	4
11	1624028	Capscrew	4
12	1491858	Plug	4
12	1495265	O-Ring	1
13	1624029	Plug	2
14	1624030	Plug	2
15	1619734	Filter	2
16	1619732	O-Ring	2
17	1672803	Plug	2
	1496900	Kit-Seal (Main Valve)	1

TILT CYLINDER AND ATTACHING PARTS (FIGURE 9-12)



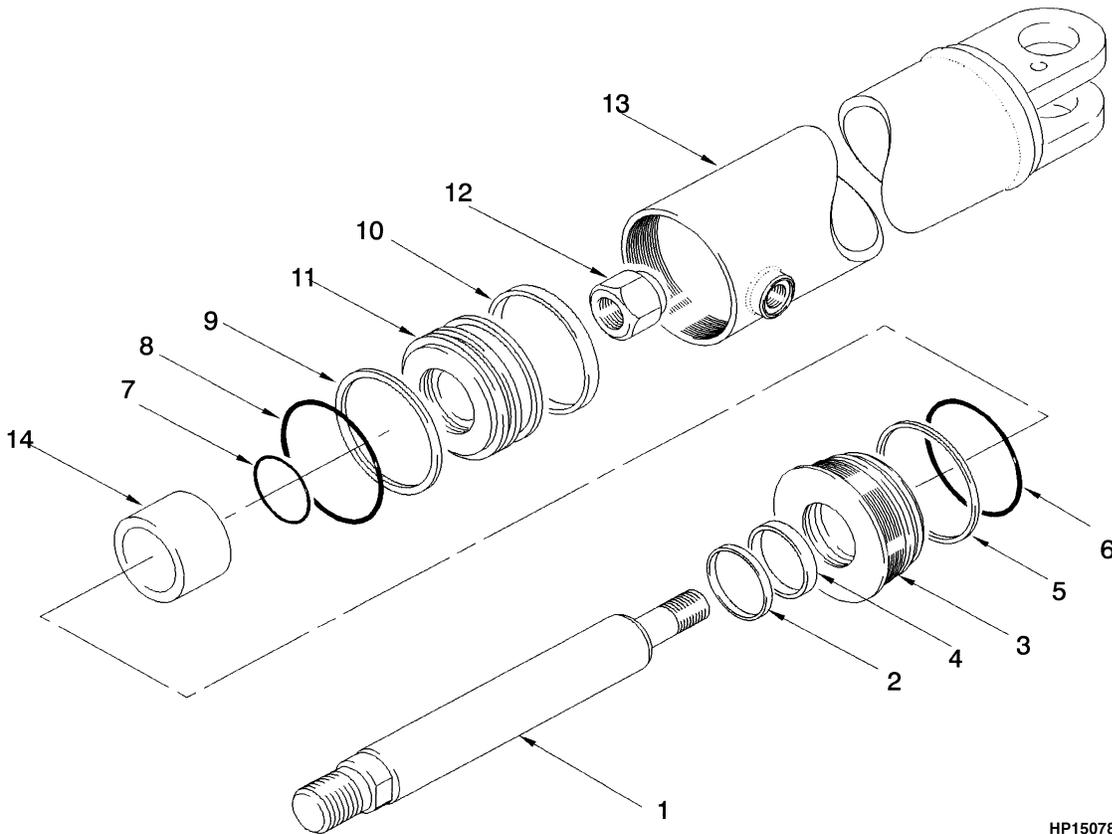
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TILT CYLINDER AND ATTACHING PARTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1347862	Pin (Tilt)	2
2	376051	Bushing	2
3	16006	Grease Fitting	2
4	1347861	Anchor	2
5	292560	Capscrew	2
6	292685	Lockwasher	2
7	87911	Clamp	2
8	1336112	Fitting	2
9	1473887	Fitting	2
10	1564349	Relief Valve	2
10	1580023	Cartridge	1
11	1473897	Fitting	2
12	14595	Plug	2
13	1473887	Fitting	2
14	d 1455573	Tilt Cylinder (☞ Figure 9-13).....	2
14	bc 2037391	Tilt Cylinder (☞ Figure 9-13).....	2
14	a 2055486	Tilt Cylinder (☞ Figure 9-13).....	2
15	1476692	Hose Assy (RH)	1
15	1476689	Hose Assy (LH)	1
16	1476694	Hose Assy (RH)	1
16	1476691	Hose Assy (LH)	1

FOOTNOTES:**a** 15° Forward/10° Back**b** 15° Forward/12° Back**c** 20.5° Forward/7° Back**d** 5° Forward/6° Back (Three Stage Full Free-Lift)

TILT CYLINDER (FIGURE 9-13)



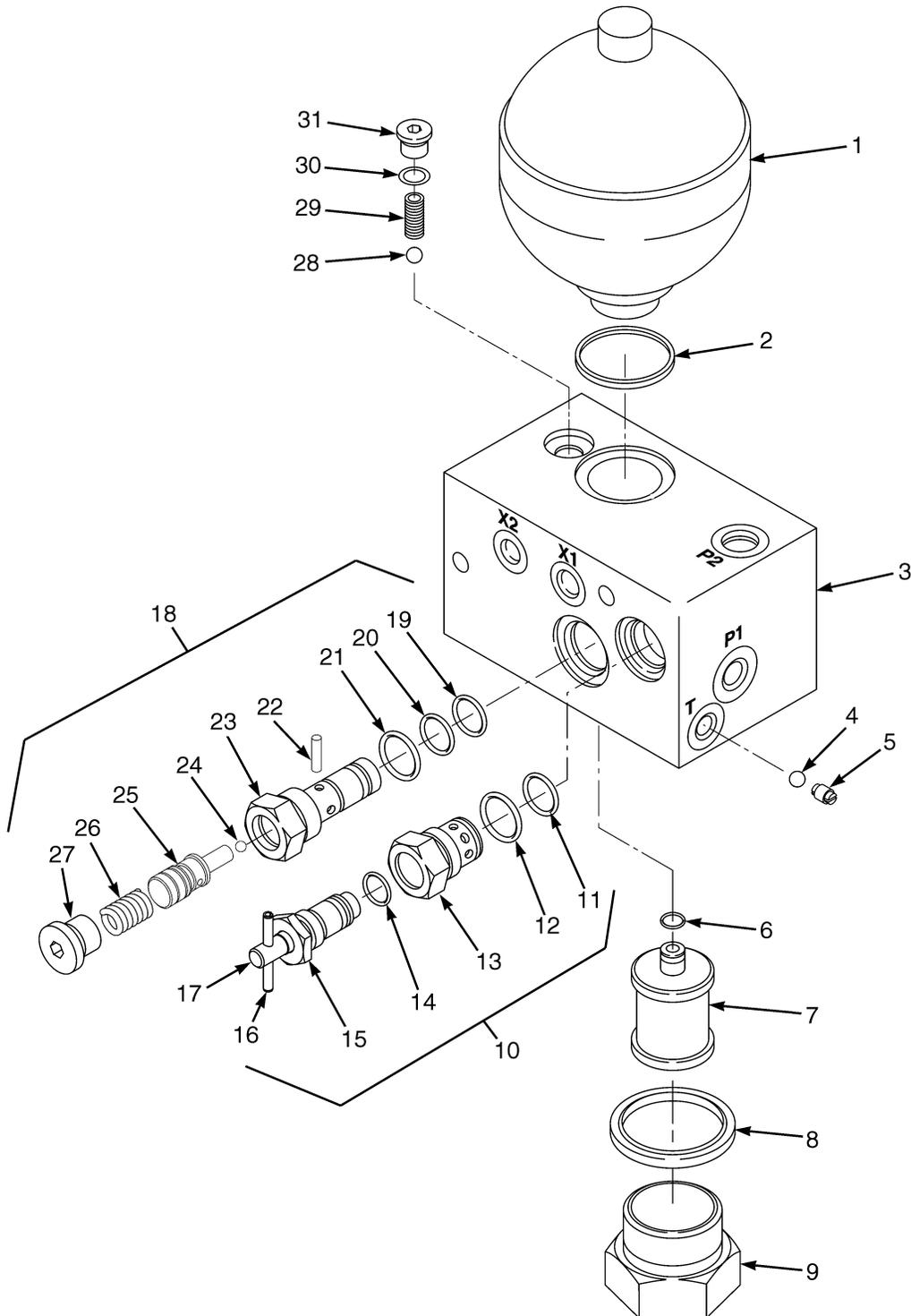
HP150787

ITEM	PART NO.	DESCRIPTION	QTY
	d 1455573	Tilt Cylinder	1
	bc 2037391	Tilt Cylinder	1
	a 2055486	Tilt Cylinder	1
1	d 1455574	Cylinder Rod (Piston)	1
1	bc 2013810	Cylinder Rod (Piston)	1
1	a 1526202	Cylinder Rod (Piston)	1
2	816578	Rod Wiper	1
3	2013364	End Plug	1
4	816580	Rod Seal	1
5	615148	Back-Up Ring	1
6	15887	O-Ring	1
7	198518	O-Ring	1
9	2049287	Seal	1
10	376187	Wear Ring	1
11	376182	Piston	1
12	221377	Locknut	1
13	bcd 2013370	Tube Wldmt-Cylinder	1
14	d 1455599	Spacer	1
14	a 1526203	Spacer	1
	376385	Kit-Seal	1

FOOTNOTES:

- a** 15° Forward/10° Back
- b** 15° Forward/12° Back
- c** 20.5° Forward/7° Back
- d** 5° Forward/6° Back (Three Stage Full Free-Lift)

PILOT VALVE (FIGURE 9-14)

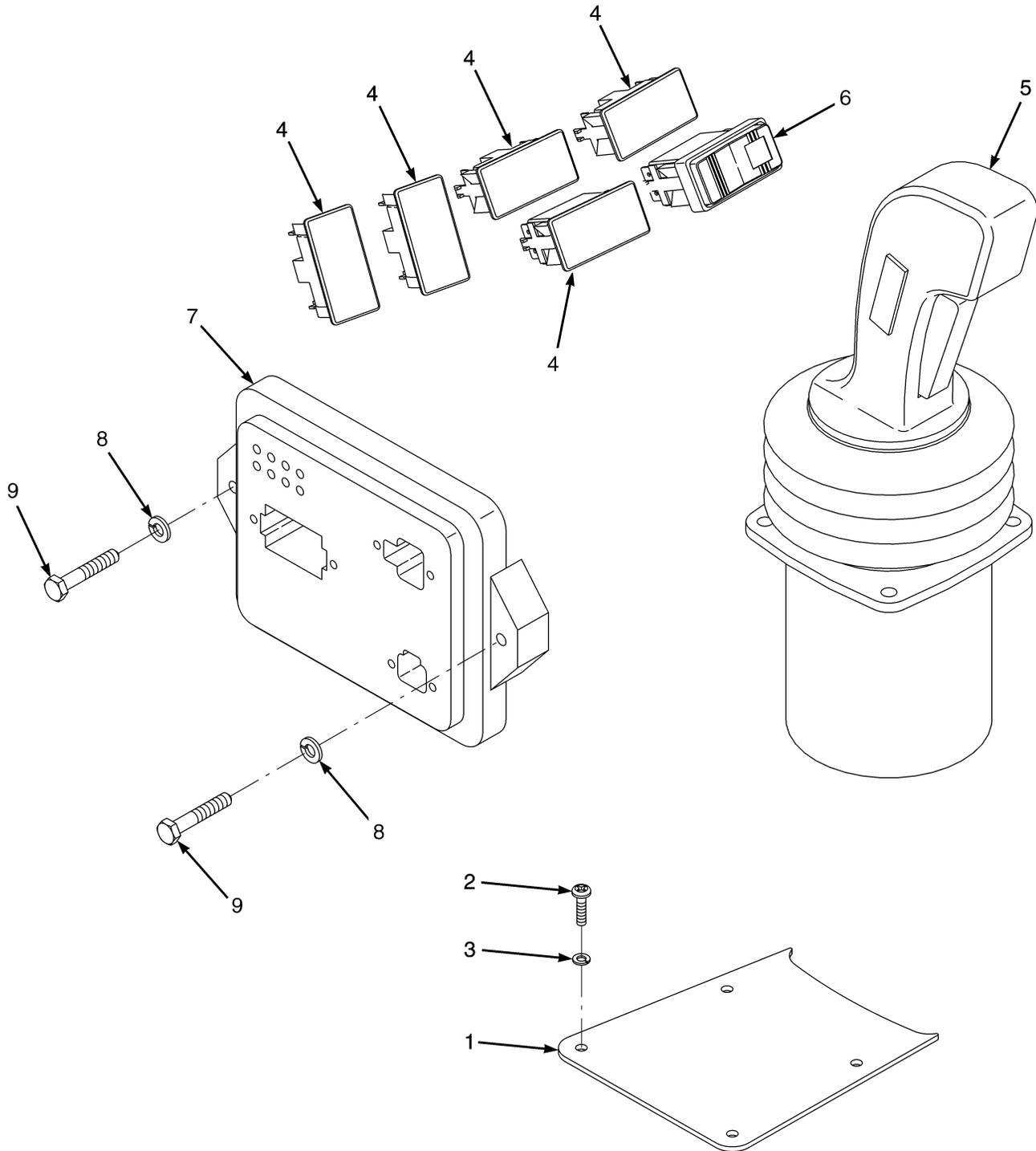


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PILOT VALVE

ITEM	PART NO.	DESCRIPTION	QTY
	1494804	Pilot Valve	1
1	1491782	Accumulator	1
2	1495267	Seal	1
3	.....	Block	1
4	1495289	Ball (0.20 in.)	1
5	1495288	Setscrew	1
6	1495266	O-Ring	1
7	1491783	Hydraulic Filter	1
8	1491786	Seal	1
9	1495258	Plug	1
10	1491784	Converter	1
11	1495259	O-Ring	1
12	1495260	O-Ring	1
13	.....	Cartridge	1
14	1495261	O-Ring	1
15	1636539	Plug	1
16	1636540	Pin	1
17	.....	Spindle	1
18	1495187	Cartridge (Pressure Reducing)	1
19	1495262	O-Ring	1
20	1467940	O-Ring	1
21	1491719	O-Ring	1
22	1636536	Pin	1
23	.....	Cartridge	1
24	1636535	Ball	1
25	.....	Piston	1
26	1636543	Spring	1
27	1636534	Plug	1
28	1495287	Ball (0.25 in.)	1
29	1495286	Spring	1
30	1495265	O-Ring	1
31	1491858	Plug	1
31	1495265	O-Ring	1
	1491787	Kit-Seal	1
	1495188	Kit-Seal (Valve)	1

JOYSTICK CONTROL (FIGURE 9-15)

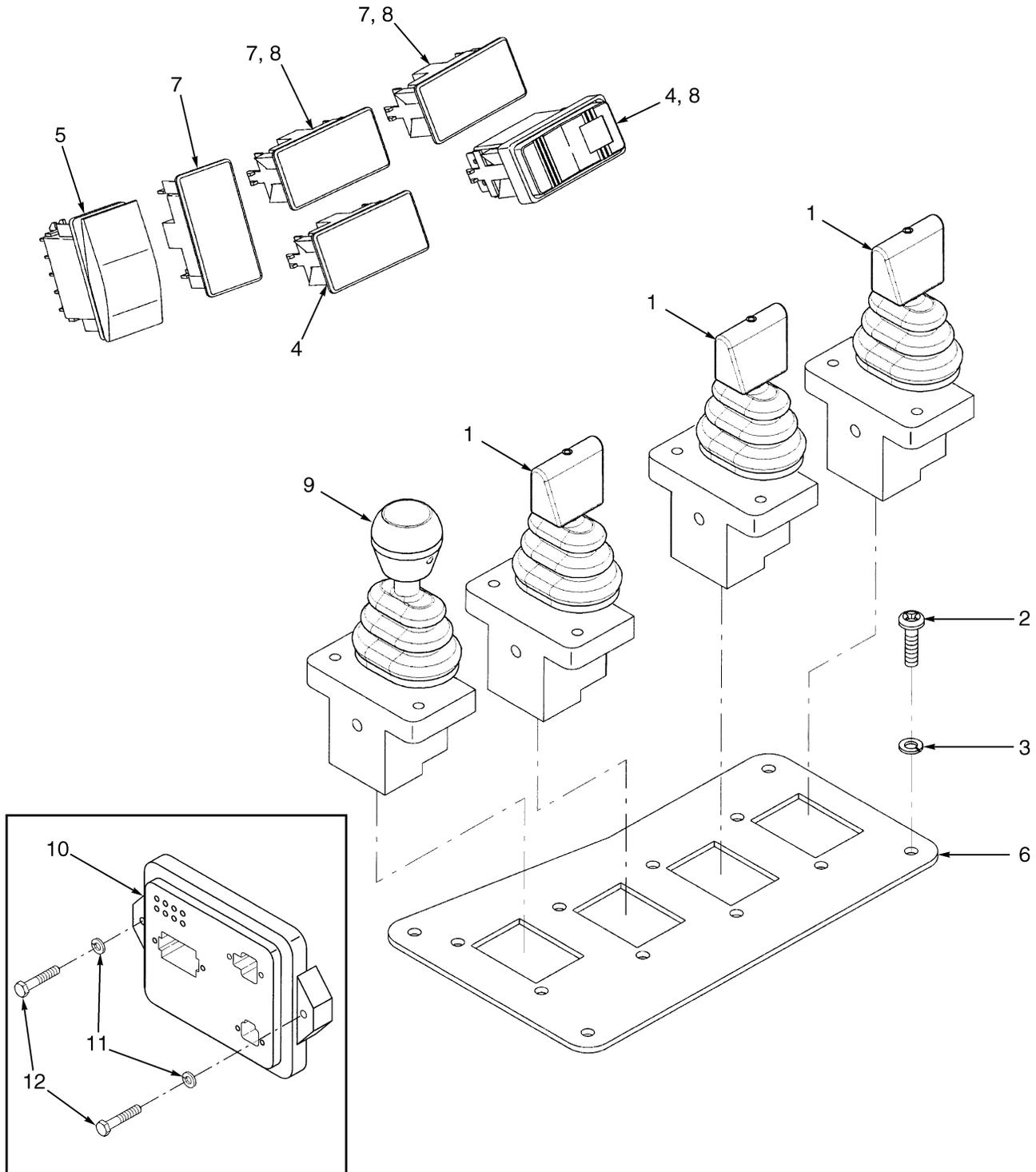


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JOYSTICK CONTROL**KEY:****A: Three Function****B: Three Function (With Simultaneous Fork Positioner)****C: Four Function****D: Five Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1487427	Plate	1	1	1	1
2	1494516	Screw	8	8	8	8
3	1494518	Washer	8	8	8	8
4	1487428	Switch (Blank)	6	5	5	4
5	1504059	Joystick	1	1	1	1
6	2054005	Switch .....	..	1	1	2
7	2041923	Controller (I/O)	1	1	1	1
7	2051062	Label	1	1	1	1
8	292680	Washer	2	2	2	2
9	292503	Capscrew	2	2	2	2

CONTROL LEVERS (FIGURE 9-16)



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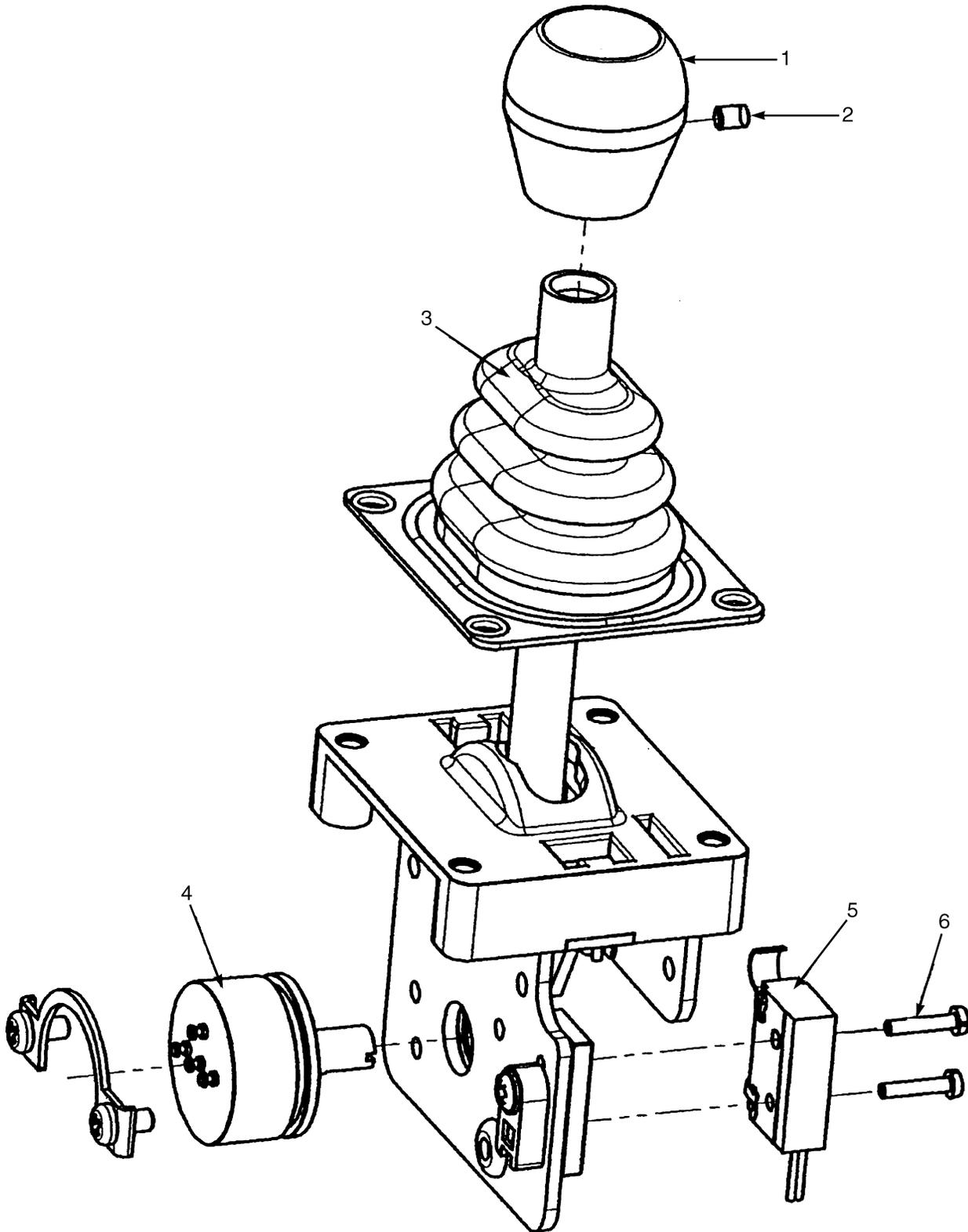
CONTROL LEVERS**KEY:****A: Three Function****B: Four Function****C: Five Function****D: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1518879	Mini-Lever (Electronic) (☞ Figure 9-18).....	3	4	4	4
2	1494516	Screw	4	4	4	4
3	1494518	Washer	4	4	4	4
4	1487428	Switch (Blank)	2	2	2	2
5	2043344	Switch (Horn)	1	1	1	1
6	j 1524147	Plate (Cover)	1	..	..	..
6	g 1524147	Plate (Cover) .....	..	1	..	..
6	f 1524147	Plate (Cover) .....	..	..	1	..
6	h 1524148	Plate (Cover)	1	..	..	..
6	e 1524148	Plate (Cover) .....	..	1	..	..
6	c 1524146	Plate (Cover) .....	..	1	..	..
6	d 1524146	Plate (Cover) .....	..	1	..	..
6	a 1524146	Plate (Cover) .....	..	..	1	..
6	b 1524146	Plate (Cover) .....	..	..	1	..
6	i 1524146	Plate (Cover) .....	..	..	..	1
7	j 1487428	Switch (Blank)	3	..	..	..
7	h 1487428	Switch (Blank)	2	..	..	..
7	c 1487428	Switch (Blank) .....	..	3	..	..
7	g 1487428	Switch (Blank) .....	..	2	..	..
7	e 1487428	Switch (Blank) .....	..	1	..	..
7	d 1487428	Switch (Blank) .....	..	3	..	..
7	a 1487428	Switch (Blank) .....	..	..	2	..
7	f 1487428	Switch (Blank) .....	..	..	1	..
7	b 1487428	Switch (Blank) .....	..	..	2	..
7	i 1487428	Switch (Blank) .....	..	..	..	1
8	h 2054005	Switch	1	..	..	..
8	g 2054005	Switch .....	..	1	..	..
8	e 2054005	Switch .....	..	2	..	..
8	a 2054005	Switch .....	..	..	1	..
8	f 2054005	Switch .....	..	..	2	..
8	b 2054005	Switch .....	..	..	1	..
8	i 2054005	Switch .....	..	..	..	2
9	k 1518880	Mini-Lever (Electronic) (☞ Figure 9-17).....	..	1	1	..
9	1583721	Boot .....	..	1	1	..
10	2041923	Controller (I/O)	1	1	1	1
11	292680	Washer	2	2	2	2
12	292503	Capscrew	2	2	2	2

FOOTNOTES:

- a** Five Function Control Lever
- b** Five Function Control lever With Clamp Attachment
- c** Four Function Control Lever
- d** Four Function Control Lever Wiith Clamp Attachment
- e** Individual Fork Positioner
- f** Side-Shift, And Individual Fork Positioner
- g** Side-Shift, And Simultaneous Fork Positioner
- h** Simultaneous Fork Positioner
- i** Six Function Control lever
- j** Three Function Control Lever
- k** With Clamp Attachment

ELECTRONIC LEVER ASSEMBLY (FIGURE 9-17) WITH CLAMP ATTACHMENT

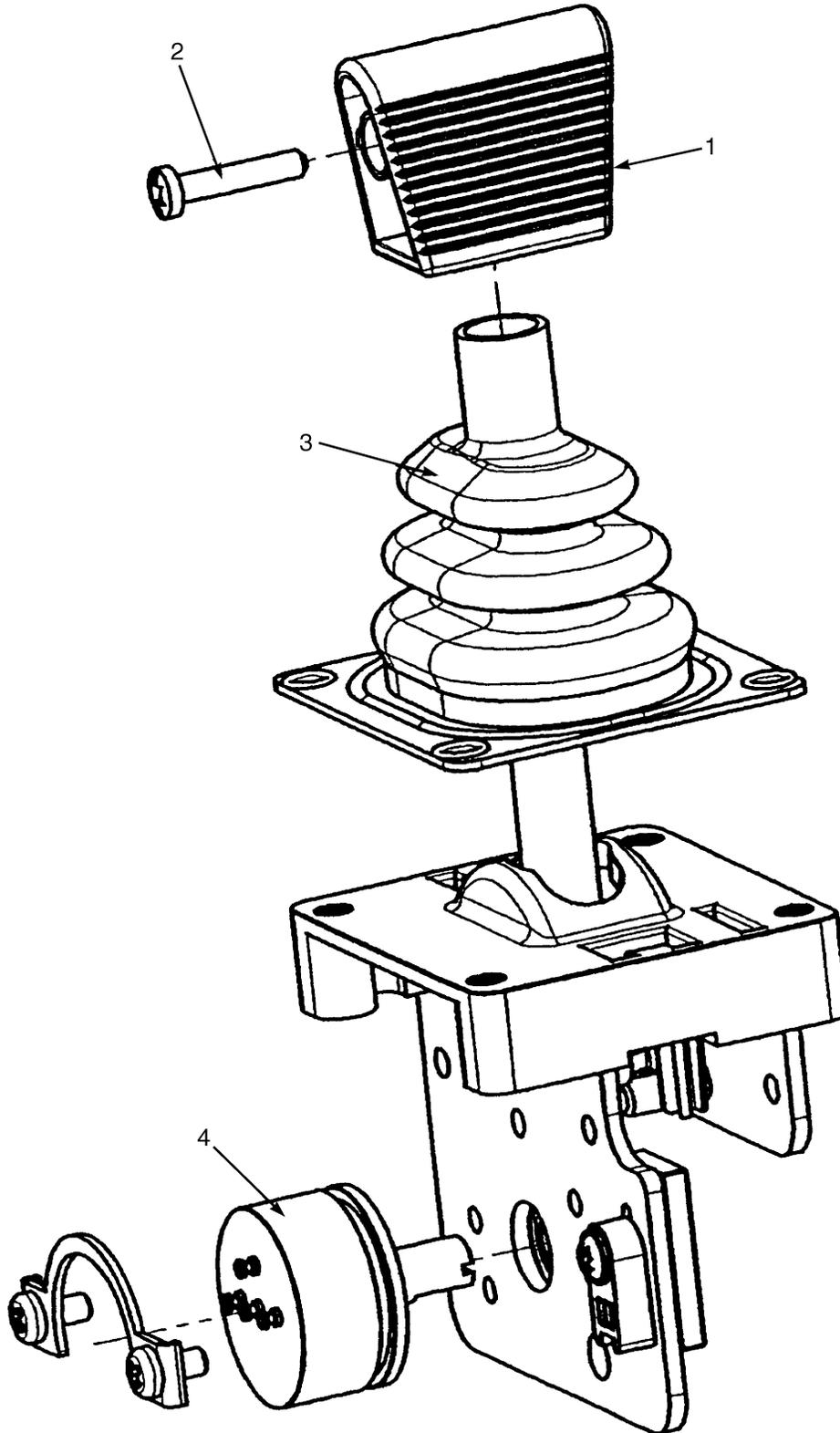


BP150109

**ELECTRONIC LEVER ASSEMBLY
WITH CLAMP ATTACHMENT**

ITEM	PART NO.	DESCRIPTION	QTY
	1638188	Mini-Lever	1
1	1639761	Knob (Round)	1
2	1592675	Setscrew	1
3	1583721	Boot	1
4	1592673	Potentiometer	1
5	1592676	Microswitch	1
6	1592677	Screw	2

ELECTRONIC LEVER ASSEMBLY (FIGURE 9-18) THREE, FOUR, FIVE, AND SIX FUNCTION



BP150108

**ELECTRONIC LEVER ASSEMBLY
THREE, FOUR, FIVE, AND SIX FUNCTION**

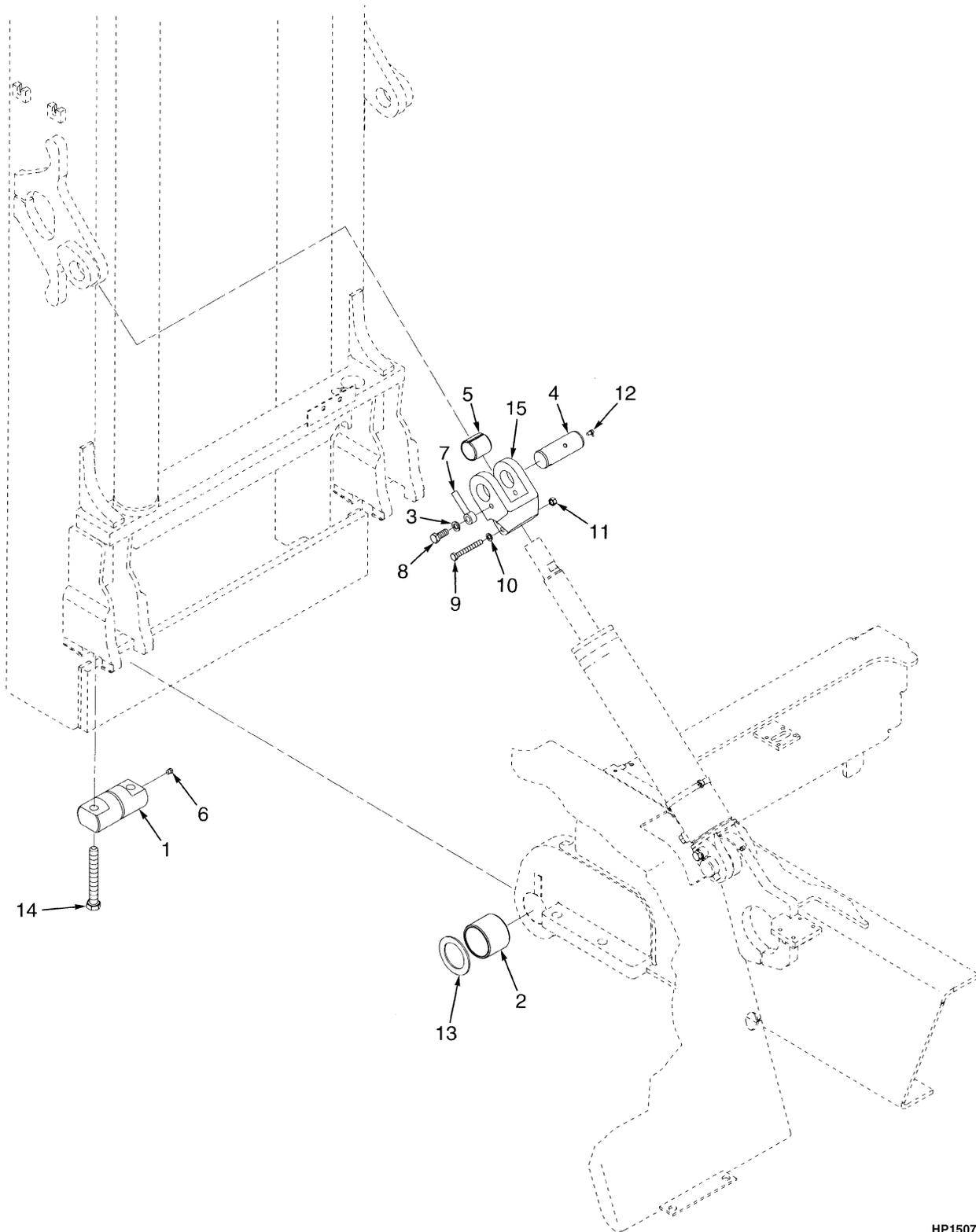
ITEM	PART NO.	DESCRIPTION	QTY
	1518879	Mini-Lever (Electronic)	1
1	1592671	Knob	1
2	1592672	Screw	1
3	1583721	Boot	1
4	1592673	Potentiometer	1

SECTION 10

MAST-TWO STAGE LIMITED FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) - TWO STAGE LIMITED FREE-LIFT	10-34
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) - TWO STAGE LIMITED FREE-LIFT	10-38
THREE FUNCTION WITHOUT HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	10-28
WITH HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	10-30
FORK POSITIONING CYLINDER	10-42
HEADER HOSE	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-44
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-48
INNER MAST	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-8
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-10
LIFT	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-12
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-16
MAIN LIFT CYLINDER	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-20
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-24
MAST INSTALLATION	10-2
OUTER MAST	
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)	10-4
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)	10-6

MAST INSTALLATION (FIGURE 10-1)

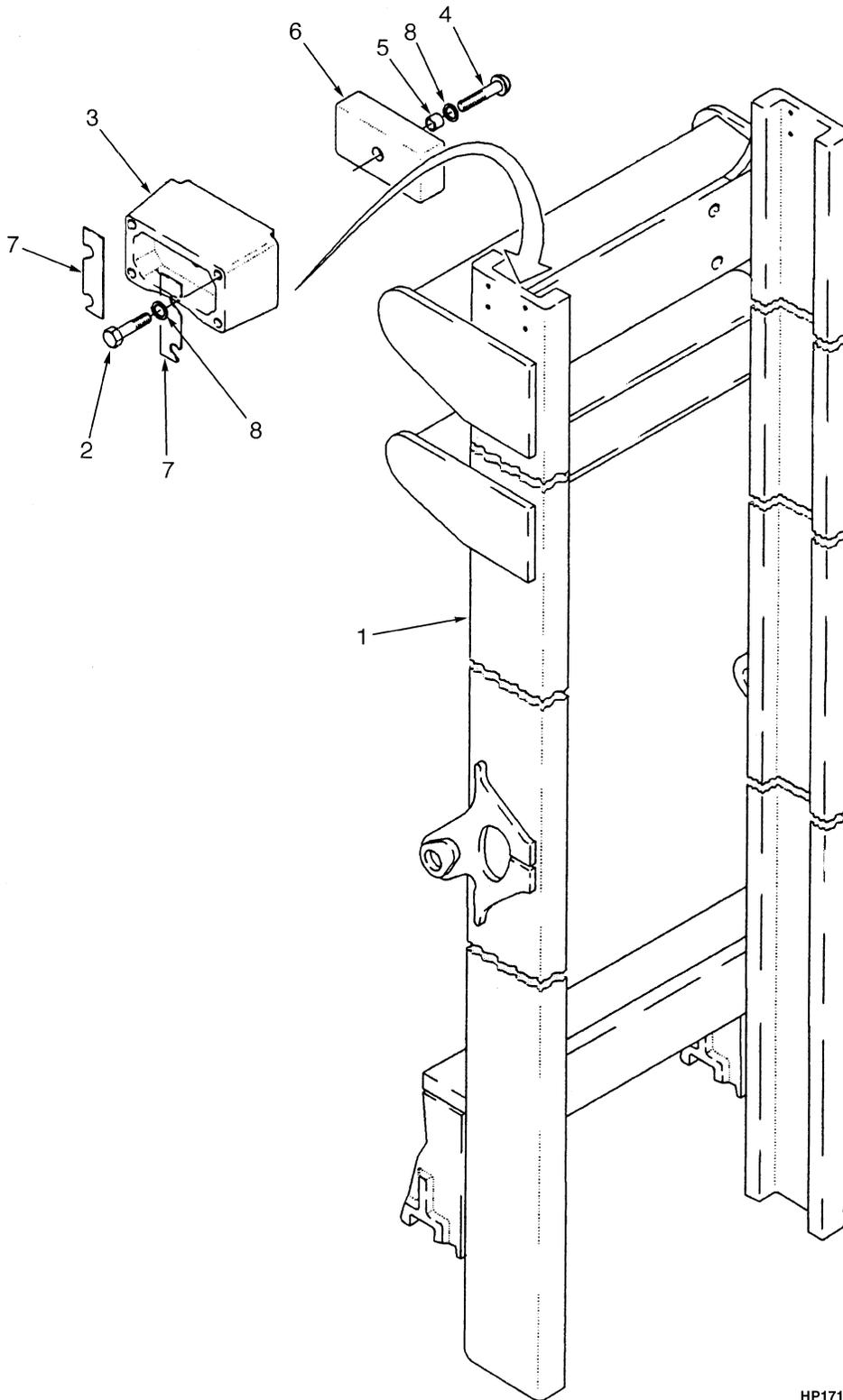


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MAST INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
1	1385549	Pin (Mast Mounting)	2
2	1482449	Bushing (Mast Mounting Optional)	2
2	376038	Bushing (Mast Mounting)	2
3	292685	Lockwasher	2
4	1347862	Pin (Mast Tilt)	2
5	376051	Bushing (Mast Tilt)	2
6	16001	Grease Fitting	2
7	1347861	Anchor	2
8	292560	Capscrew	2
9	292538	Capscrew	4
10	292683	Lockwasher	4
11	216877	Nut	4
12	16015	Grease Fitting	2
13	1359101	Shim	AR
14	293720	Capscrew	4
15	1347863	Rod End (15° Forward Tilt/12° Back Tilt)	2
15	1347864	Rod End (20.5° Forward Tilt/7° Back Tilt)	2

OUTER MAST (FIGURE 10-2) TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)



HP171276

OUTER MAST
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)
H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Mast Assy	2043409	2043410	2043411
1	Outer Mast	1488098	1488099	1488100

H230HD-H280HD

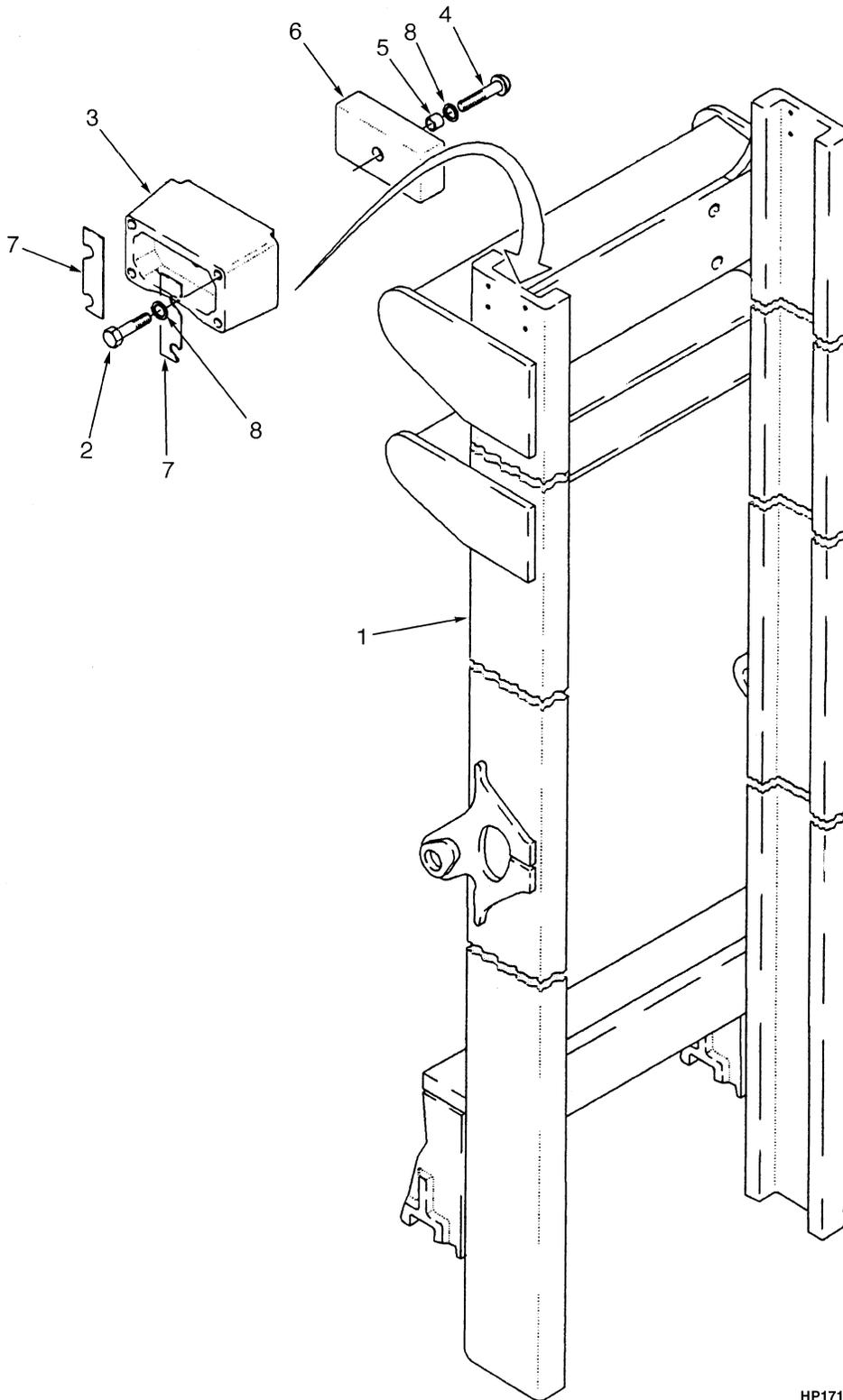
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Mast Assy	2043412	2043413	2043414	2043415	2043416
1	Outer Mast	1487787	1487788	1487789	1487790	1487791

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	177461	Capscrew (H170HD-H210HD)	8
2	221506	Capscrew (H230HD-H280HD)	8
3	1301018	Bracket	4
4	376203	Capscrew	4
5	1301016	Spacer	4
6	1335179	Bearing	4
7	1310592	Shim (0.030 in.)	AR
8	15156	Lockwasher	12

FOOTNOTES:

a Refer to Table

OUTER MAST (FIGURE 10-3) TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)



HP171276

OUTER MAST
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)
H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Mast Assy	2071678	2071679	2071680
1	Outer Mast	1488098	1488099	1488100

H230HD-H280HD

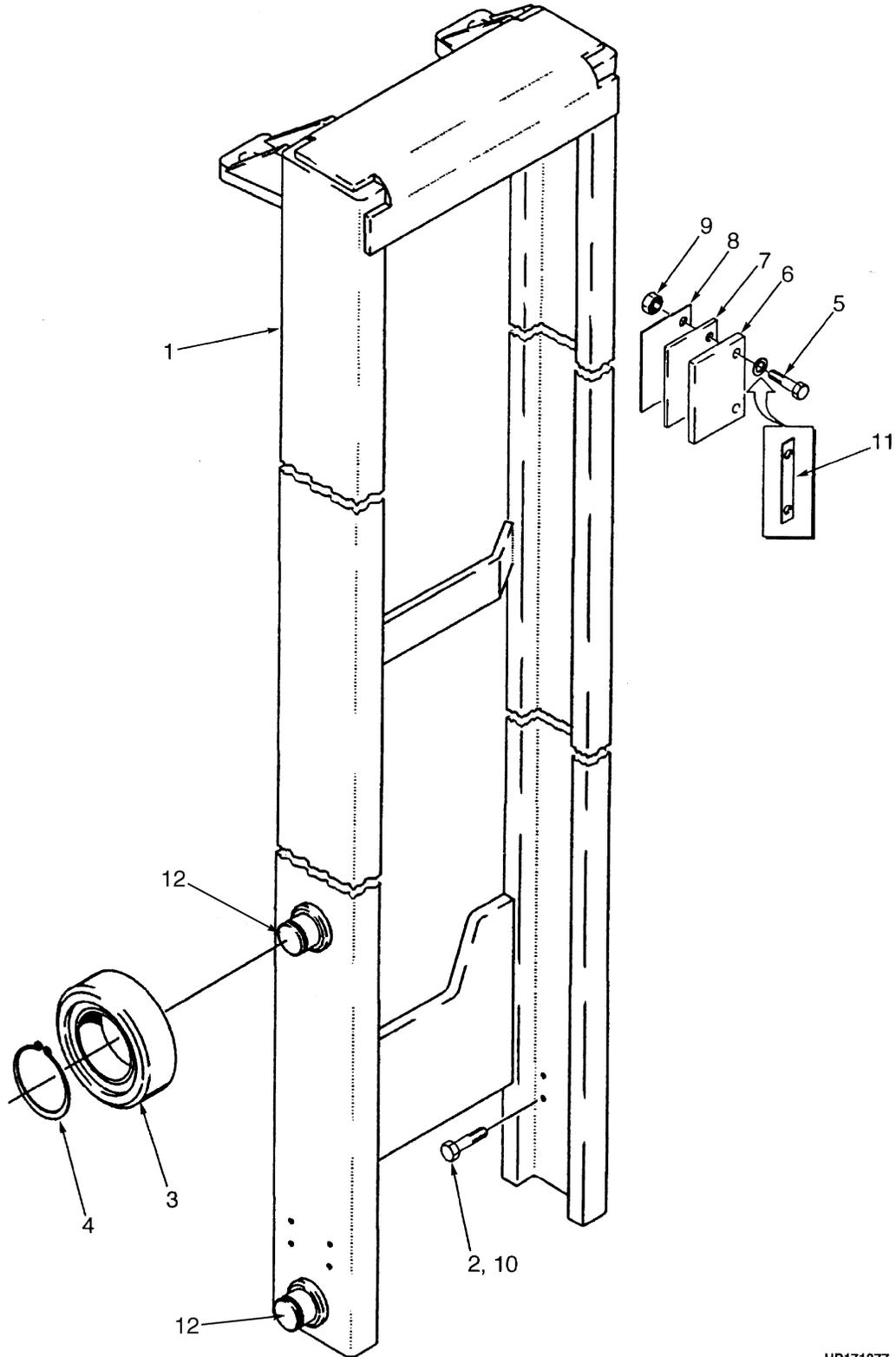
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Mast Assy	2071681	2071674	2071675	2071676	2071677
1	Outer Mast	1487787	1487788	1487789	1487790	1487791

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	177461	Capscrew (H170HD-H210HD)	8
2	221506	Capscrew (H230HD-H280HD)	8
3	1301018	Bracket	4
4	376203	Capscrew	4
5	1301016	Spacer	4
6	1335179	Bearing	4
7	1310592	Shim (0.030 in.)	AR
8	15156	Lockwasher	12

FOOTNOTES:

a Refer to Table

INNER MAST (FIGURE 10-4) TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)



HP171277

INNER MAST
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Mast Assy	2043409	2043410	2043411
1	Inner Mast	1487849	1487850	1487851

H230HD-H280HD

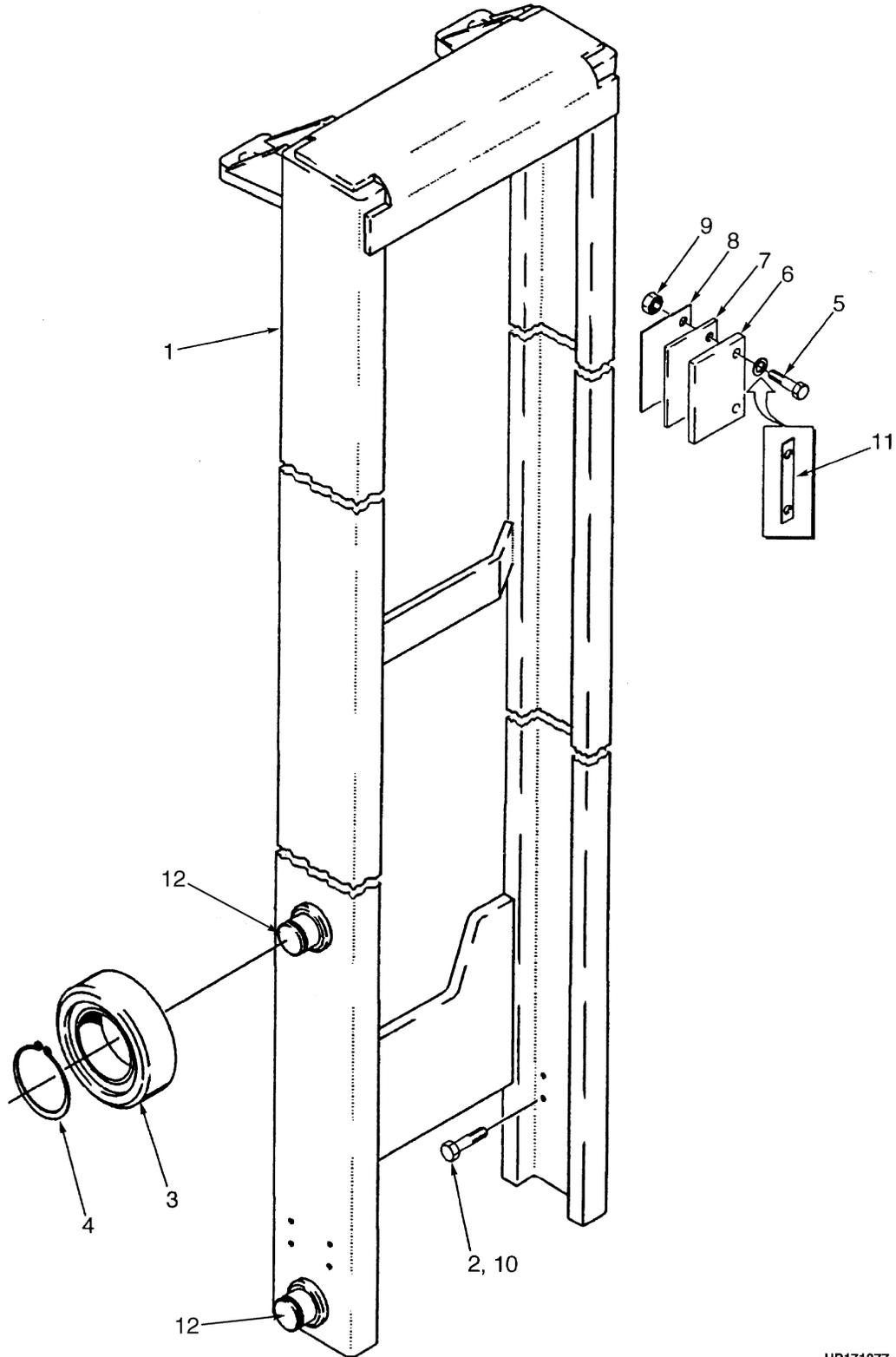
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Mast Assy	2043412	2043413	2043414	2043415	2043416
1	Inner Mast	1487860	1487861	1487863	1487864	1487865

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Inner Mast	1
2	139140	Capscrew (H170HD-H210HD)	8
2	220159	Capscrew (H230HD-H280HD)	8
3	376056	Load Roller	4
4	41459	Snap Ring	4
5	292529	Capscrew	6
6	1346892	Wear Plate	2
7	1346973	Shim	AR
8	1346974	Shim	AR
9	300937	Nut	4
10	321197	Loctite	AR
11	1347851	Plate	2
12	376624	Stubshaft	4

FOOTNOTES:

a Refer to Table

INNER MAST (FIGURE 10-5) TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)



HP171277

INNER MAST
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)
H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Mast Assy	2071678	2071679	2071680
1	Inner Mast	1487849	1487850	1487851

H230HD-H280HD

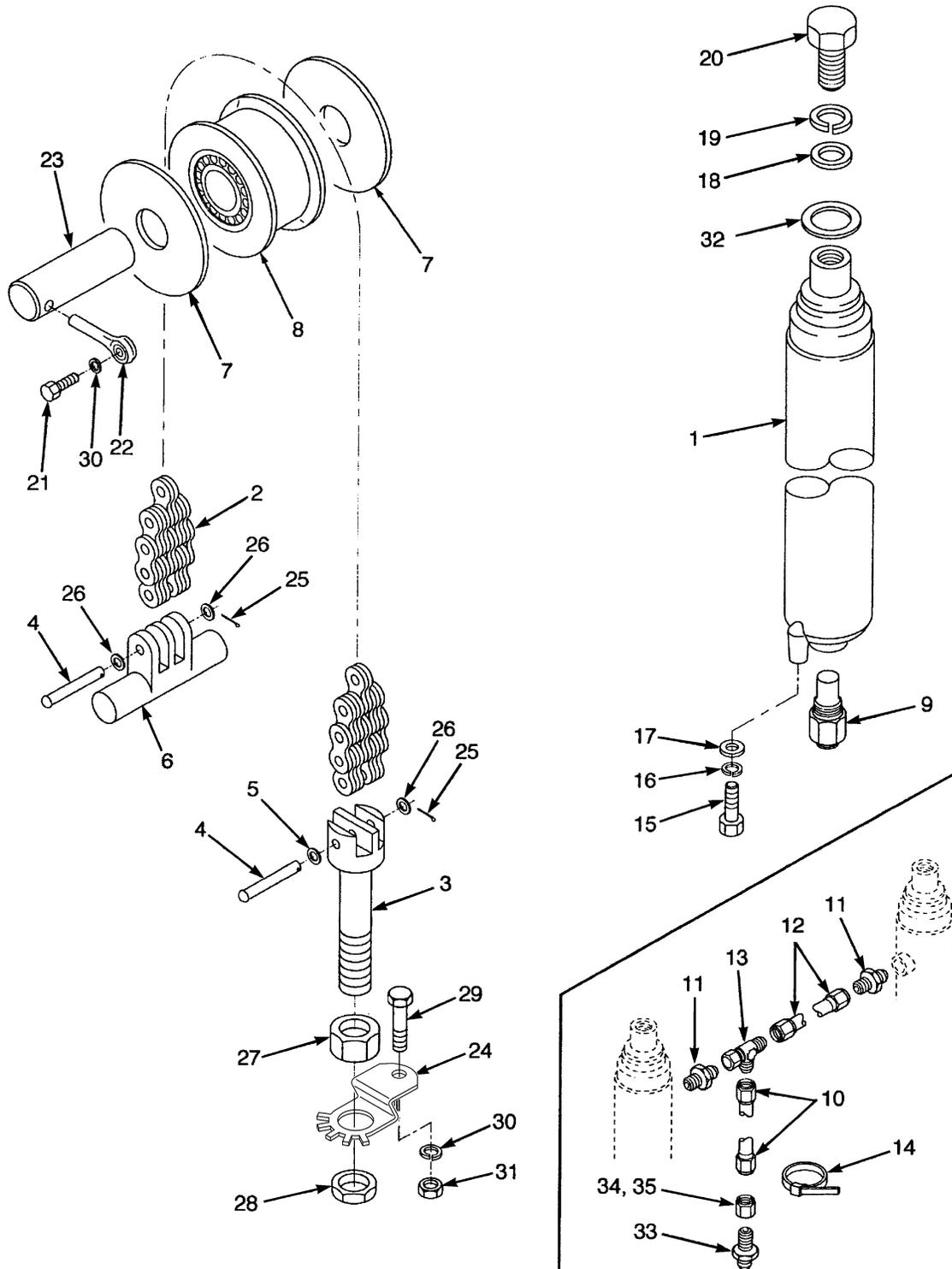
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Mast Assy	2071681	2071674	2071675	2071676	2071677
1	Inner Mast	1487860	1487861	1487863	1487864	1487865

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Inner Mast	1
2	139140	Capscrew (H170HD-H210HD)	8
2	220159	Capscrew (H230HD-H280HD)	8
3	376056	Load Roller	4
4	41459	Snap Ring	4
5	292529	Capscrew	6
6	1346892	Wear Plate	2
7	1346973	Shim	AR
8	1346974	Shim	AR
9	300937	Nut	4
10	321197	Loctite	AR
11	1347851	Plate	2
12	376624	Stubshaft	4

FOOTNOTES:

a Refer to Table

LIFT (FIGURE 10-6) TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)



BP170186

LIFT
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number		
	Mast Assy	2043409	2043410	2043411
2	Chain	355770	376643	376644
10	Hose Assy	1488907	1488908	1488909

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number				
	Mast Assy	2043412	2043413	2043414	2043415	2043416
2	Chain	1311469	98883	98885	376646	376647
10	Hose Assy	1488910	1488911	1488912	1488913	1488914

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Mast Assy	1	1
1	. . . . .	Lift Cylinder (☞ Figure 10-8).....	2	2
2	a	Chain	2	2
3	1301377	Chain Anchor	2	..
3	271693	Chain Anchor .....	..	2
4	1565022	Pin	4	..
4	1301301	Pin .....	..	4
5	320162	Washer	2	..
6	1565021	Chain Anchor	2	..
6	98877	Chain Anchor .....	..	2
7	25633	Washer .....	..	4
7	270173	Spacer	4	..
8	1328932	Sheave Assembly	2	..
8	1328933	Chain Sheave	1	..
8	40667	Snap Ring	2	..
8	126764	Load Roller	2	..
8	1328934	Sheave Assembly .....	..	2
8	1328935	Chain Sheave .....	..	1
8	67551	Snap Ring .....	..	2
8	334932	Ball Bearing .....	..	2

LIFT
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

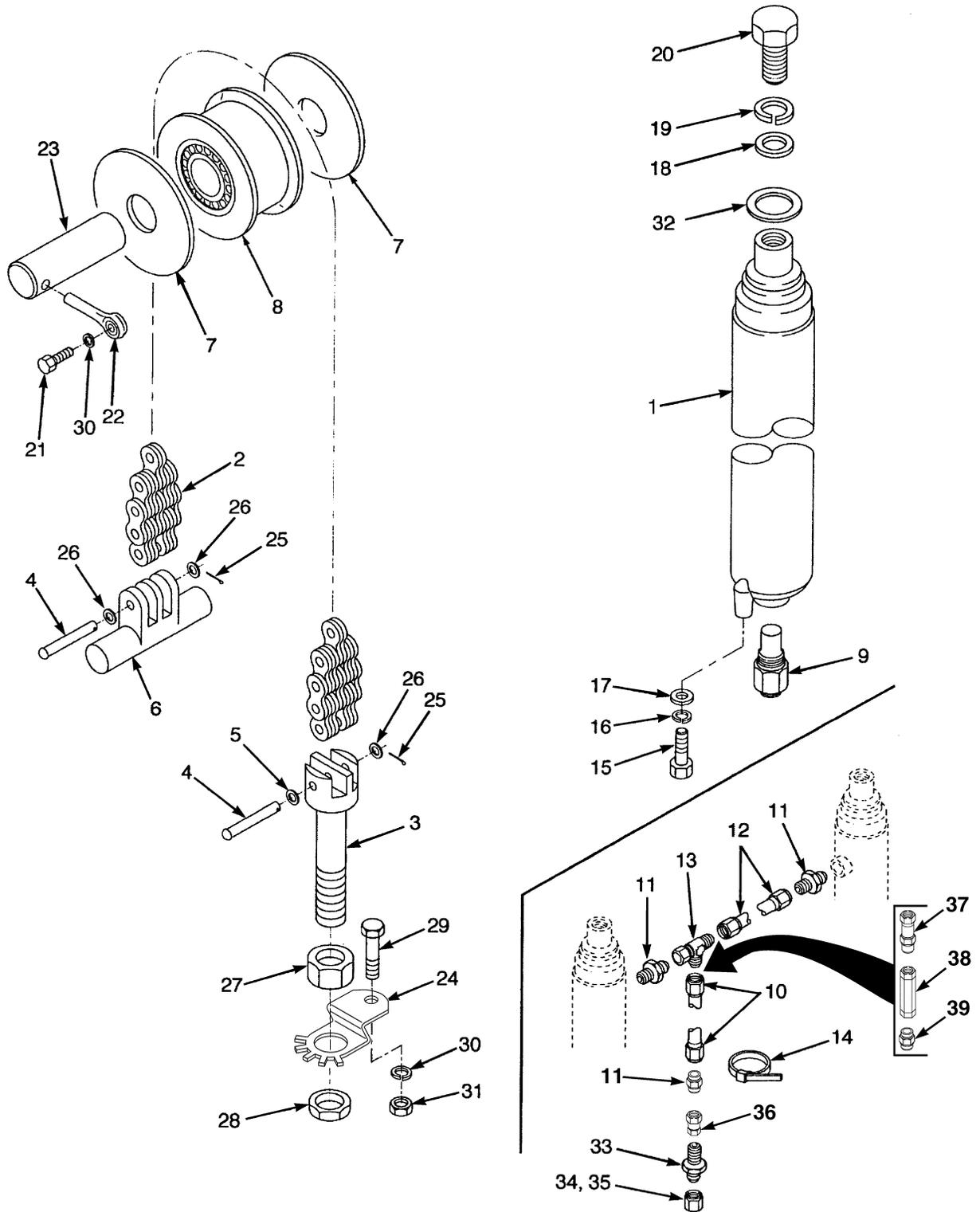
KEY:
A: H170HD-H210HD
B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
9	2043536	Lowering Control Valve	2	..
9	2043537	Lowering Control Valve .....	..	2
9	16983	O-Ring	1	1
9	244167	O-Ring	1	1
10	a	Hose Assy	1	1
11	1486745	Fitting	2	2
11	1527817	O-Ring	1	1
11	16483	O-Ring	1	1
12	1488906	Hose Assy	1	1
13	1487095	Fitting	1	1
13	1527817	O-Ring	2	2
14	273775	Strap Clamp	2	2
15	136985	Capscrew	2	2
16	292682	Lockwasher	2	2
17	1303391	Washer	2	2
18	15181	Washer	2	2
19	292687	Lockwasher	2	2
20	292580	Capscrew	2	2
21	292527	Capscrew	2	2
22	82270	Eyebolt	2	2
23	98571	Pin	2	2
24	1563927	Lockplate	2	2
25	15235	Cotter Pin	4	4
26	320162	Washer	4	4
27	221725	Nut	2	2
28	17411	Locknut	2	2
29	292529	Capscrew	6	6
30	292683	Lockwasher	4	4
31	216877	Nut	2	2
32	192830	Shim (0.060 in.)	AR	AR
33	816591	Fitting	1	1
34	816593	Locknut	1	1
35	383789	Thread Sealant	AR	AR

FOOTNOTES:

a Refer to Table

LIFT (FIGURE 10-7) TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)



HP171359

LIFT
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number		
	Mast Assy	2071678	2071679	2071680
2	Chain	355770	376643	376644
10	Hose Assy	2071665	2071666	2071667

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number				
	Mast Assy	2071681	2071674	2071675	2071676	2071677
2	Chain	1311469	98883	98885	376646	376647
10	Hose Assy	2071668	2071669	2071670	2071671	2071672

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Mast Assy	1	1
1	. . . . .	Lift Cylinder	2	2
2	a	Chain	2	2
3	1301377	Chain Anchor	2	..
3	271693	Chain Anchor .....	..	2
4	1565022	Pin	4	..
4	1301301	Pin .....	..	4
5	320162	Washer	2	..
6	1565021	Chain Anchor	2	..
6	98877	Chain Anchor .....	..	2
7	25633	Washer .....	..	4
7	270173	Spacer	4	..
8	1328932	Sheave Assembly	2	..
8	1328933	Chain Sheave	1	..
8	40667	Snap Ring	2	..
8	126764	Load Roller	2	..
8	1328934	Sheave Assembly .....	..	2
8	1328935	Chain Sheave .....	..	1
8	67551	Snap Ring .....	..	2
8	334932	Ball Bearing .....	..	2

LIFT

TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)

KEY:

A: H170HD-H210HD

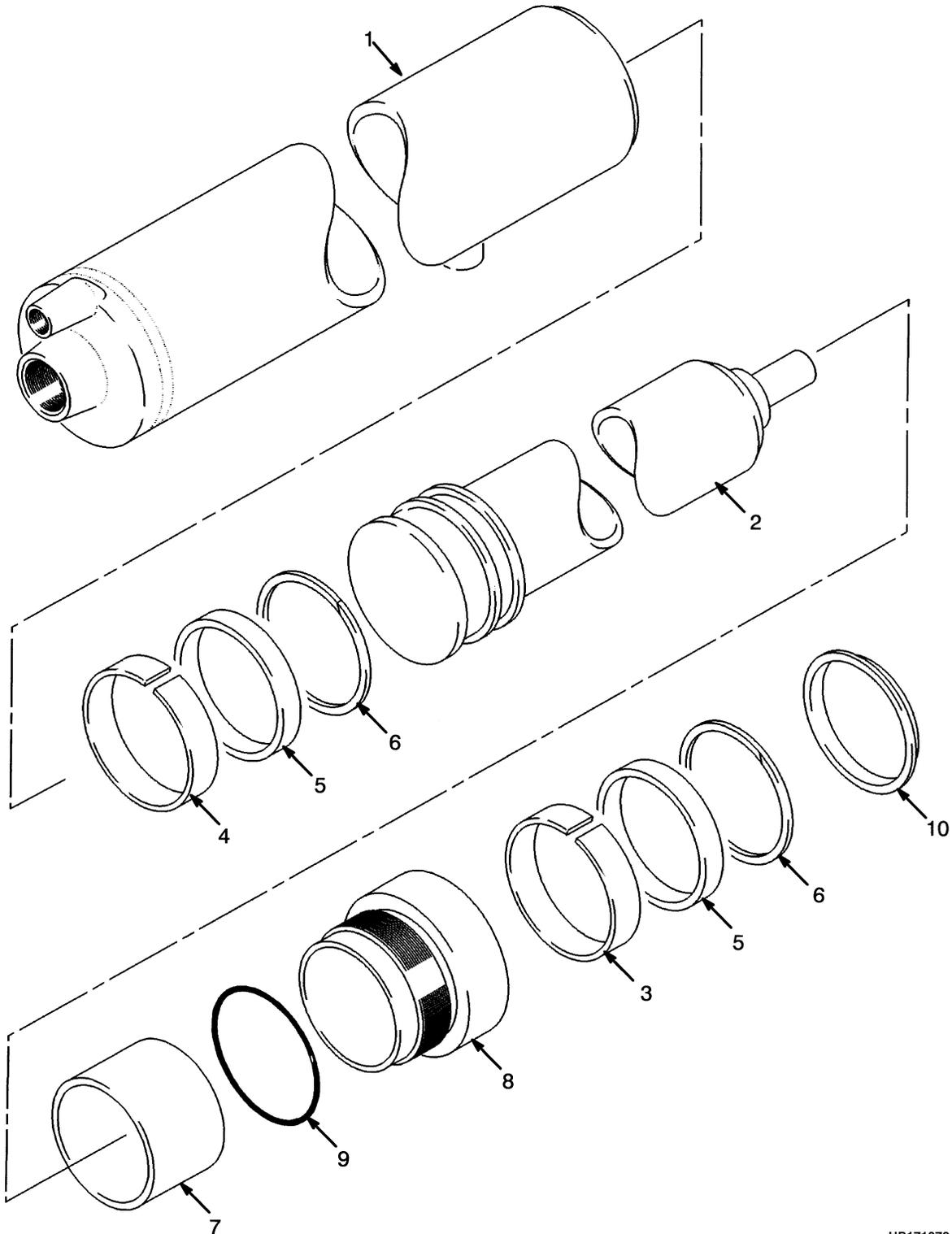
B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
9	2043536	Lowering Control Valve	2	..
9	2043537	Lowering Control Valve .....	..	2
9	244167	O-Ring	1	1
9	16983	O-Ring	1	1
10	a	Hose Assy	1	1
11	1486738	Fitting	2	2
11	1527817	O-Ring	1	1
11	16483	O-Ring	1	1
12	2071664	Hose Assy	1	1
13	1487094	Fitting	1	1
13	1527817	O-Ring	2	2
14	273775	Strap Clamp	2	2
15	136985	Capscrew	2	2
16	292682	Lockwasher	2	2
17	1303391	Washer	2	2
18	15181	Washer	2	2
19	292687	Lockwasher	2	2
20	292580	Capscrew	2	2
21	292527	Capscrew	2	2
22	82270	Eyebolt	2	2
23	98571	Pin	2	2
24	1563927	Lockplate	2	2
25	15235	Cotter Pin	4	4
26	320162	Washer	4	4
27	221725	Nut	2	2
28	17411	Locknut	2	2
29	292529	Capscrew	6	6
30	292683	Lockwasher	4	4
31	216877	Nut	2	2
32	192830	Shim (0.060 in.)	AR	AR
33	816591	Fitting	1	1
34	816593	Locknut	1	1
35	383789	Thread Sealant	AR	AR
36	1487144	Fitting	1	1
37	1573001	Fitting (Swivel)	1	1
38	1572993	Check Valve	1	1
39	1486737	Fitting	1	1

FOOTNOTES:

a Refer to Table

MAIN LIFT CYLINDER (FIGURE 10-8) TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)



HP171279

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Cylinder Group Number	1385897	1385898	1385899
	Cylinder Assy	1385897	1385898	1385899
1	Tube Wldmt- Cylinder	1385901	1385902	1385903
2	Cylinder Rod	1385876	1385877	1385878

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Cylinder Group Number	1385909	1385910	1385911	1385912	1385913
	Cylinder Assy	1385909	1385910	1385911	1385912	1385913
1	Tube Wldmt- Cylinder	1385915	1385916	1385917	1385918	1385919
2	Cylinder Rod	1385879	1385880	1385881	1385882	1385883

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Cylinder Assy	2	2
1	a	Tube Wldmt-Cylinder	1	1
2	a	Cylinder Rod	1	1
3	636949	Wear Ring	1	..
3	636951	Wear Ring .....	..	1
4	636950	Wear Ring	1	..
4	636952	Wear Ring .....	..	1
5	637162	Rod Seal	2	..
5	637164	Rod Seal .....	..	2
6	636071	Back-Up Ring	2	..
6	638253	Back-Up Ring .....	..	2
7	376192	Spacer	1	..
7	376193	Spacer .....	..	1

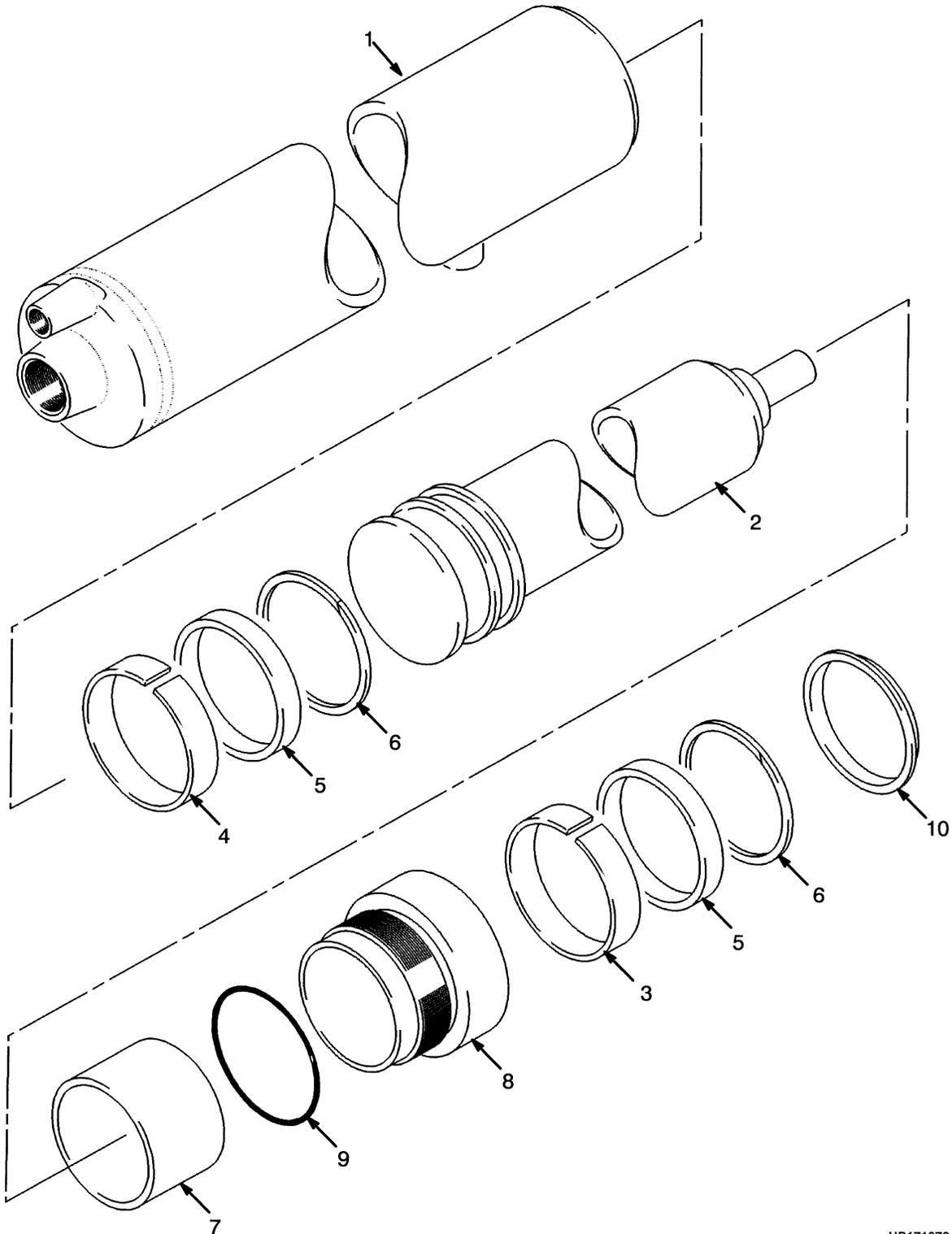
MAIN LIFT CYLINDER TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
8	1328944	Retainer	1	..
8	1328945	Retainer .....	..	1
9	376398	O-Ring .....	..	1
9	376547	O-Ring	1	..
10	1332404	Rod Wiper	1	..
10	815615	Rod Wiper .....	..	1
	1385962	Kit-Seal	1	1
	1385964	Kit-Seal	1	1

FOOTNOTES:**a** Refer to Table

MAIN LIFT CYLINDER (FIGURE 10-9) TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)



HP171279

MAIN LIFT CYLINDER
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)
H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
	Cylinder Group Number	8526385	8526386	8526387
	Cylinder Assy	2071035	2071036	2071037
1	Tube Wldmt-Cylinder	1385901	1385902	1385903
2	Cylinder Rod	1568380	1568381	1568382

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
	Cylinder Group Number	8526388	8526389	8526390	8526391	8526392
	Cylinder Assy	2071038	2071039	2071040	2071041	2071042
1	Tube Wldmt-Cylinder	1385915	1385916	1385917	1385918	1385919
2	Cylinder Rod	1568383	1568384	1568385	1568386	1568387

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	a	Cylinder Assy	2	2
1	a	Tube Wldmt-Cylinder	1	1
2	a	Cylinder Rod	1	1
3	636949	Wear Ring	1	..
3	636951	Wear Ring .....	..	1
4	636950	Wear Ring	1	..
4	636952	Wear Ring .....	..	1
5	637162	Rod Seal	2	..
5	637164	Rod Seal .....	..	2
6	636071	Back-Up Ring	2	..
6	638253	Back-Up Ring .....	..	2
7	376192	Spacer	1	..
7	376193	Spacer .....	..	1

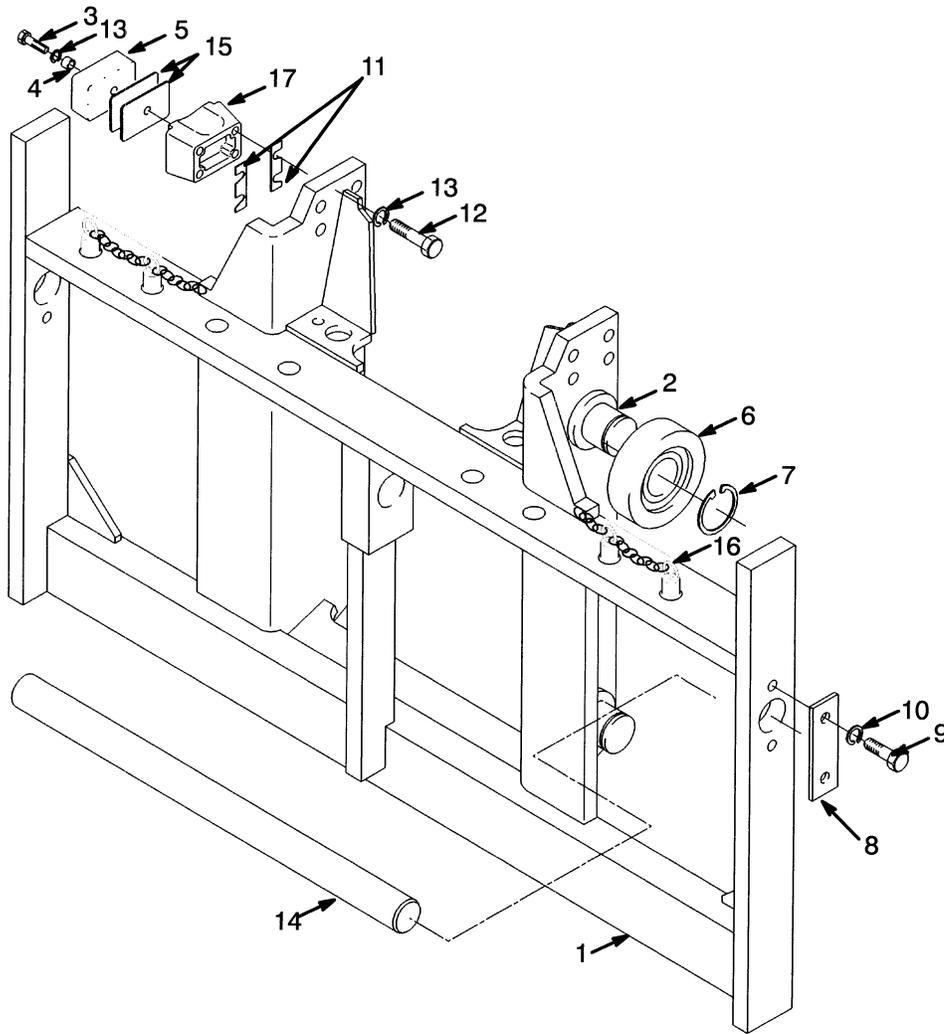
MAIN LIFT CYLINDER TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
8	1328944	Retainer	1	..
8	1328945	Retainer .....	..	1
9	376398	O-Ring .....	..	1
9	376547	O-Ring	1	..
10	1332404	Rod Wiper	1	..
10	815615	Rod Wiper .....	..	1
	1385962	Kit-Seal	1	..
	1385964	Kit-Seal .....	..	1

FOOTNOTES:**a** Refer to Table

CARRIAGE (FIGURE 10-10) THREE FUNCTION WITHOUT HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



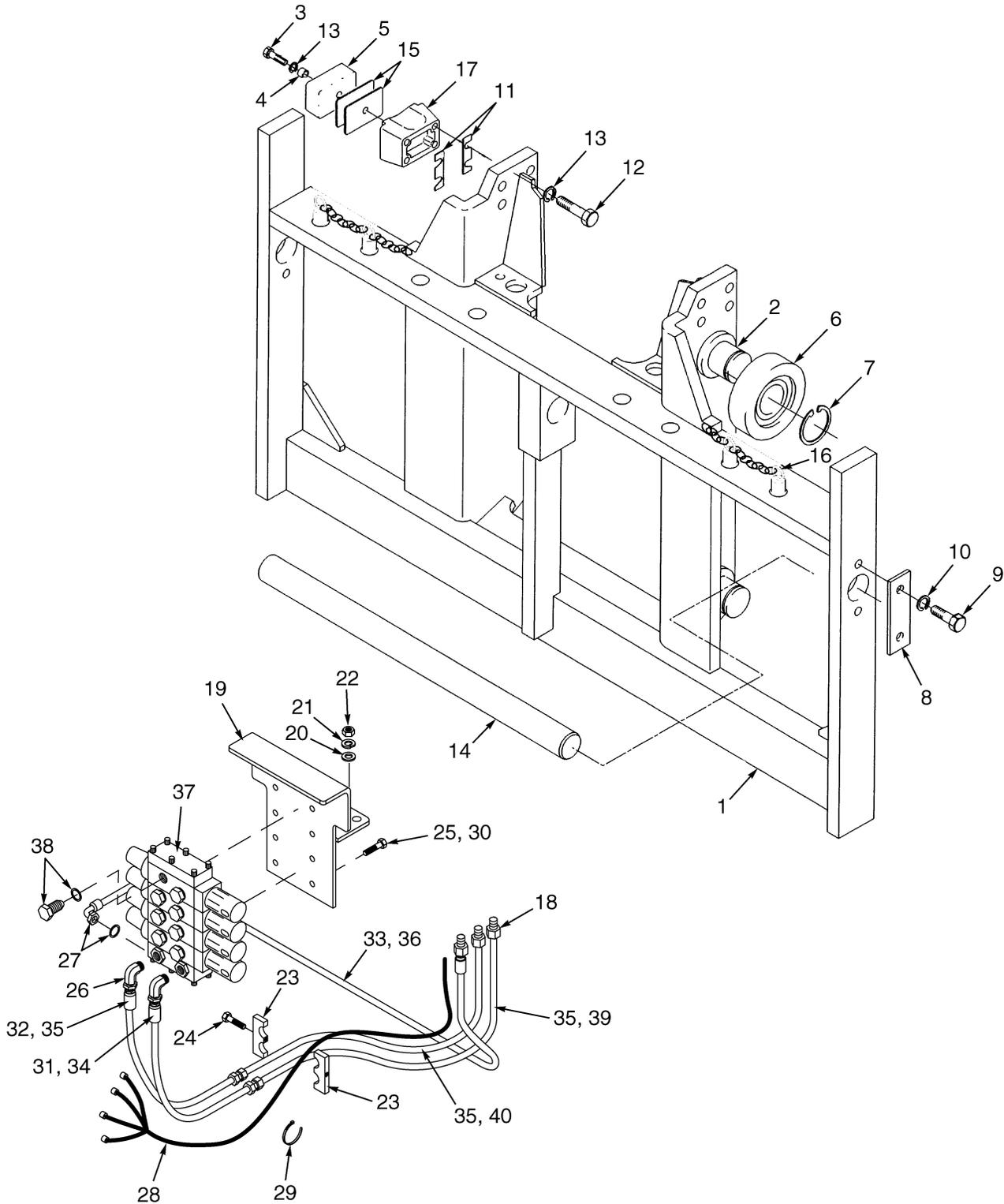
HP171280

CARRIAGE
THREE FUNCTION WITHOUT HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2056927	Carriage	1	..
	2056928	Carriage .....	..	1
1	1499579	Carriage Wldmt	1	..
1	376624	Stubshaft	4	..
1	1499578	Frame .....	..	1
2	376624	Stubshaft .....	..	4
3	376203	Capscrew	4	4
4	1301016	Spacer	4	4
5	1335179	Bearing	4	4
6	376056	Load Roller	4	4
7	41459	Snap Ring	4	4
8	376776	Plate	2	2
9	293647	Capscrew	4	4
10	292683	Lockwasher	4	4
11	1310592	Shim (0.030 in.)	AR	AR
12	221506	Capscrew	16	16
13	15156	Lockwasher	20	20
14	376127	Pin	2	2
15	1301014	Shim (0.050 in.) (Optional)	AR	AR
16	1334581	Pin (Fork Locking)	2	2
17	1301018	Bracket	4	4

CARRIAGE (FIGURE 10-11) WITH HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



HP170465

CARRIAGE

WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	e 2046319	Carriage	1	..
	b 2056657	Carriage	1	..
	a 2056658	Carriage	1	..
	d 2056659	Carriage .....	..	1
	e 2046322	Carriage .....	..	1
	b 2056666	Carriage .....	..	1
	a 2056667	Carriage .....	..	1
	d 2056668	Carriage .....	..	1
1	1499579	Carriage Wldmt	1	..
1	376624	Stubshaft	4	..
1	1499578	Frame .....	..	1
2	376624	Stubshaft .....	..	4
3	376203	Capscrew	4	4
4	1301016	Spacer	4	4
5	1335179	Bearing	4	4
6	376056	Load Roller	4	4
7	41459	Snap Ring	4	4
8	376776	Plate	2	2
9	293647	Capscrew	4	4
10	292683	Lockwasher	4	4
11	1310592	Shim (0.030 in.)	AR	AR
12	221506	Capscrew	16	16
13	15156	Lockwasher	20	20
14	376127	Pin	2	2
15	1301014	Shim (0.050 in.) (Optional)	AR	AR
16	1334581	Pin (Fork Locking)	2	2
17	1301018	Bracket	4	4
18	.....	Cap (Three Function)	2	2
19	1527372	Bracket Wldmt	1	1
20	320162	Washer	2	2
21	292683	Lockwasher	2	2
22	302402	Locknut	2	2
23	1393802	Clamp	2	2
24	221463	Capscrew	1	1
25	16836	Capscrew	4	4
26	1487069	Fitting	2	2
26	16485	O-Ring	1	1
26	1527818	O-Ring	1	1
27	1486740	Fitting	1	1
27	16483	O-Ring	1	1
27	1527813	O-Ring	1	1
28	g 2087294	Wire Harness (Front End) (Four Functions)	1	1
28	g 2087295	Wire Harness (Front End) (FiveFunction)	1	1
28	g 2055828	Wire Harness (Front End) (Six Function)	1	1
28	h 2092486	Wire Harness (Front End) (Four, Five, And Six Function)	1	1

CARRIAGE WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

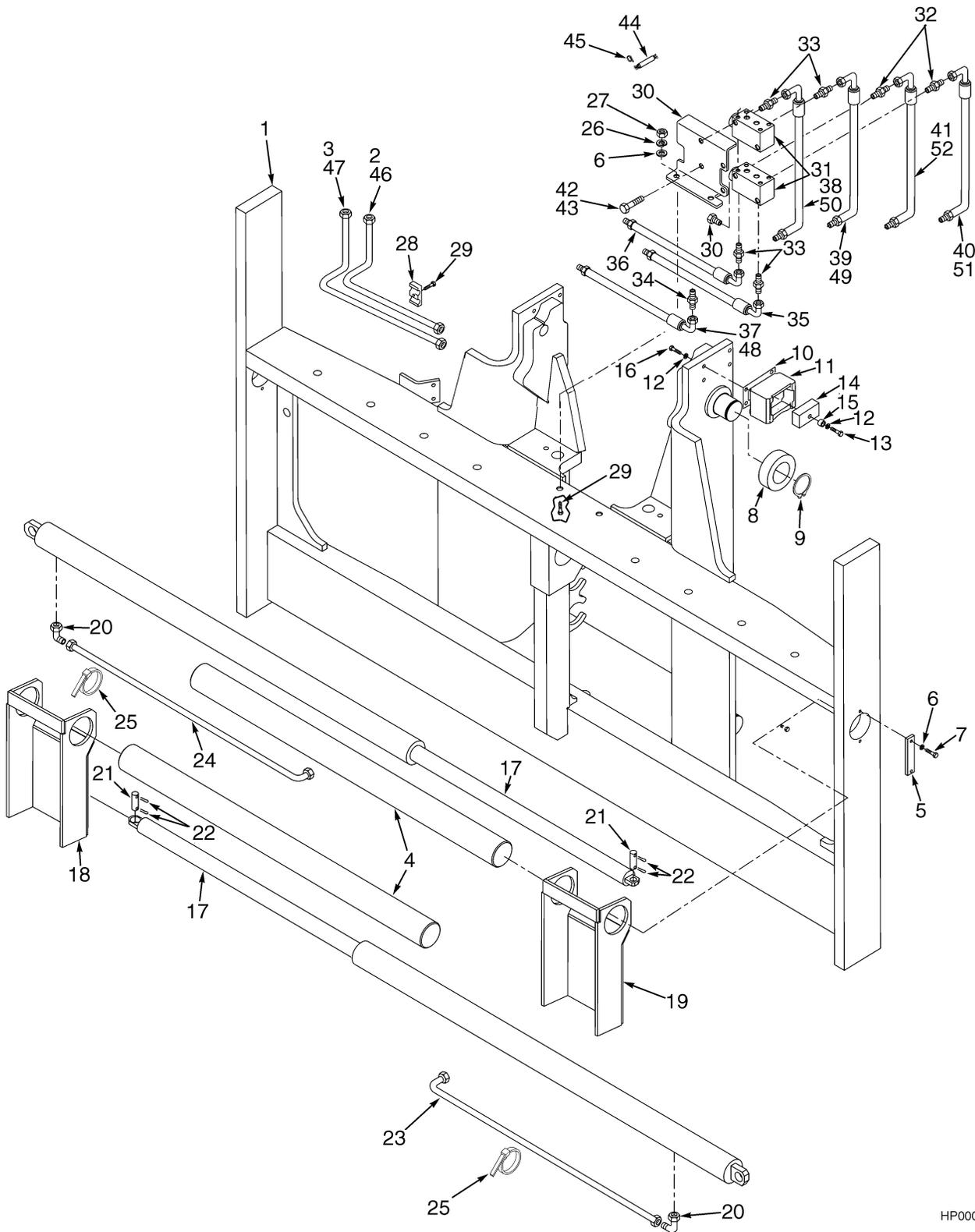
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
29	137852	Strap Clamp	16	16
30	3066037	Loctite	AR	AR
31	2056068	Hose Assy	1	1
31	2056069	Hose Assy (Alternate Part)	1	1
32	2056069	Hose Assy	1	1
33	2057864	Hose Assy	1	1
34	342675	Identification Band	4	4
35	342676	Identification Band	4	4
36	342677	Identification Band	2	2
37	g 2055960	Directional Control Valve, Two-Section (Four Function) (☞Figure 12-1).....	1	1
37	h 2092483	Directional Control Valve, Two-Section (Four Function) (☞Figure 12-1).....	1	1
37	g 2055961	Directional Control Valve, Three-Section (Five Function) (☞Figure 12-1).....	1	1
37	h 2092484	Directional Control Valve, Three-Section (Five Function) (☞Figure 12-1).....	1	1
37	g 2055962	Directional Control Valve, Four-Section (Six Function) (☞Figure 12-1).....	1	1
37	h 2092485	Directional Control Valve, Four-Section (Six Function) (☞Figure 12-1).....	1	1
38	216590	Fitting (Four Function)	4	4
38	16485	O-Ring	1	1
38	216590	Fitting (Five Function)	6	6
38	16485	O-Ring	1	1
38	216590	Fitting (Six Function)	8	8
38	16485	O-Ring	1	1
39	f 2056662	Tube	1	..
39	f 2056664	Tube .....	..	1
40	f 2056663	Tube	1	..
40	f 2056665	Tube .....	..	1
	c 1486772	Fitting	1	1

FOOTNOTES:

- a** Five Function
- b** Four Function
- c** Not Illustrated
- d** Six Function

- e** Three Function
- f** Without Side-Shift
- g** → 11/2006
- h** 11/2006 →

CARRIAGE (FIGURE 10-12) INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) — TWO STAGE LIMITED FREE-LIFT



HP000440

CARRIAGE

INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2056660	Carriage	1	..
	2056661	Carriage .....	..	1
1	1501170	Frame	1	..
1	376624	Stubshaft	4	..
1	1501172	Frame .....	..	1
1	376624	Stubshaft .....	..	4
2	2046711	Tube Assy	1	..
2	2047066	Tube Assy .....	..	1
3	2046712	Tube Assy	1	..
3	2047067	Tube Assy .....	..	1
4	376127	Pin	2	2
5	376776	Plate	2	2
6	292683	Lockwasher	6	6
7	293647	Capscrew	4	4
8	376056	Load Roller	4	4
9	41459	Snap Ring	4	4
10	1310592	Shim (0.030 in.)	AR	AR
11	1301018	Bracket	4	4
12	15156	Lockwasher	20	20
13	221506	Capscrew	16	16
14	1335179	Bearing	4	4
15	1301016	Spacer	4	4
16	376203	Capscrew	4	4
17	2046669	Cylinder Assy (☞Figure 10-14).....	2	2
18	1501460	Guide (RH)	1	1
19	1501461	Guide (LH)	1	1
20	1487064	Fitting	4	4
20	16483	O-Ring	2	2
20	1527817	O-Ring	2	2
21	1502390	Pin	4	4
22	15236	Cotter Pin	8	8
23	2046745	Tube Assy	1	1
24	2046746	Tube Assy	1	1
25	112989	Hose Clamp	4	4
26	320162	Washer	2	2
27	302402	Locknut	2	2
28	1393802	Clamp	1	1
29	221463	Capscrew	1	1
30	1527372	Bracket Wldmt	1	1
31	a 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
31	b 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
32	1487069	Fitting	2	2
32	16485	O-Ring	2	2
32	1527818	O-Ring (Straight)	2	2
33	1486743	Fitting	4	4

CARRIAGE

INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

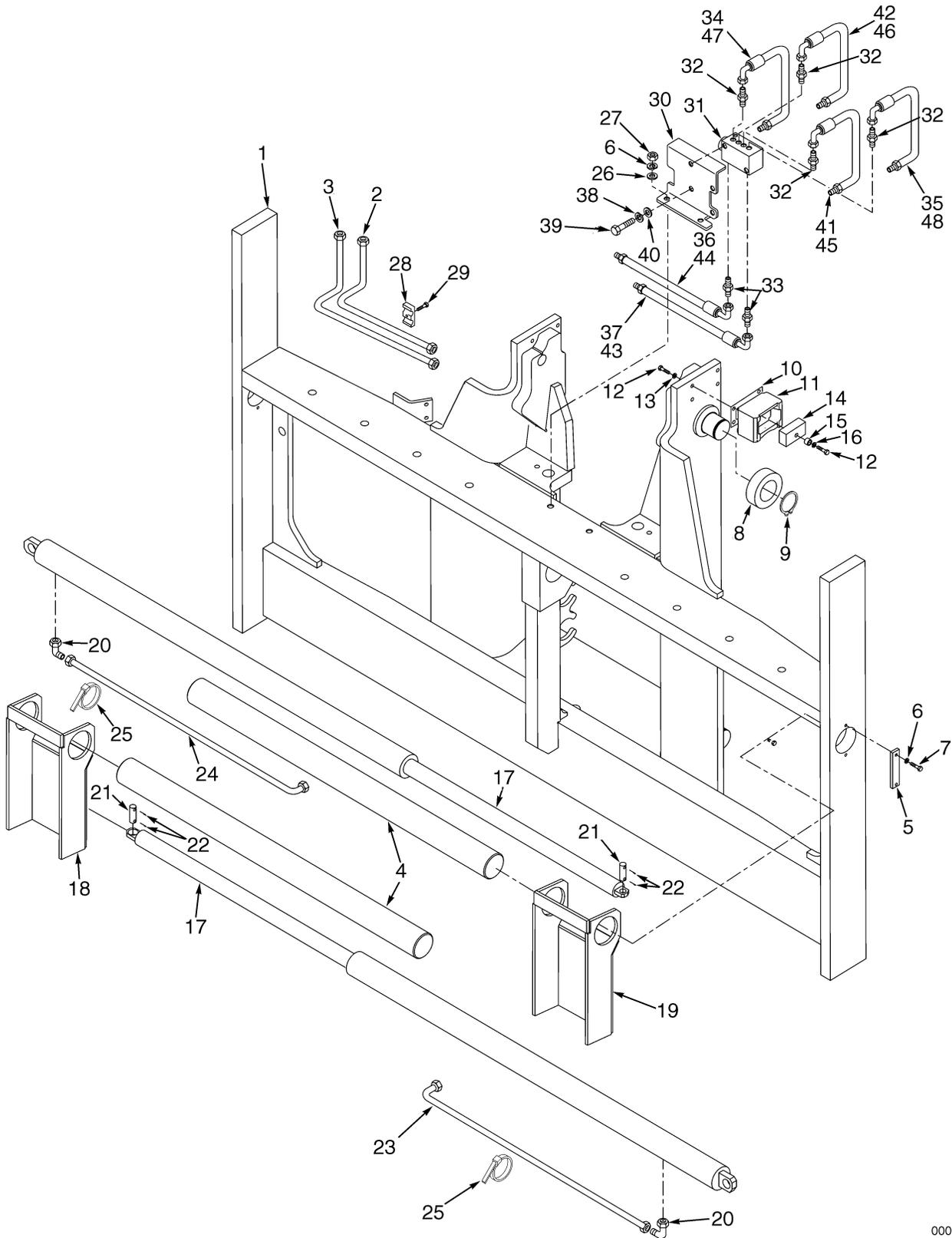
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
33	16484	O-Ring	2	2
33	1527817	O-Ring	2	2
34	1486740	Fitting	1	1
34	16483	O-Ring	2	2
34	1527816	O-Ring	2	2
35	2056760	Hose Assy	1	1
36	2056756	Hose Assy	1	1
37	2057864	Hose Assy	1	1
38	2056759	Hose Assy	1	1
39	2056757	Hose Assy	1	1
40	2056761	Hose Assy	1	1
41	2056758	Hose Assy	1	1
42	16836	Capscrew	4	4
43	3066037	Loctite	AR	AR
44	a 2087294	Wire Harness (Front End)	1	1
44	b 2092486	Wire Harness (Front End)	1	1
45	137852	Strap Clamp	16	16
46	342675	Identification Band	4	4
47	342676	Identification Band	4	4
48	342677	Identification Band	2	2
49	1332233	Identification Band	2	2
50	1332234	Identification Band	2	2
51	1332235	Identification Band	2	2
52	1332236	Identification Band	2	2

FOOTNOTES:

a → 11/2006

b 11/2006 →

CARRIAGE (FIGURE 10-13) SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) — TWO STAGE LIMITED FREE-LIFT



000445

CARRIAGE

SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	2047071	Carriage	1	..
	2047072	Carriage .....	..	1
1	1501170	Frame	1	..
1	376624	Stubshaft	4	..
1	1501172	Frame .....	..	1
1	376624	Stubshaft .....	..	4
2	2046711	Tube Assy	1	..
2	1491350	Fitting	2	..
2	1487164	Fitting	2	..
2	2047066	Tube Assy .....	..	1
2	1491350	Fitting .....	..	2
2	1487164	Fitting .....	..	2
3	2046712	Tube Assy	1	..
3	1491350	Fitting	2	..
3	1487164	Fitting	2	..
3	2047067	Tube Assy .....	..	1
3	1491350	Fitting .....	..	2
3	1487164	Fitting .....	..	2
4	376127	Pin	2	2
5	376776	Plate	2	2
6	292683	Lockwasher	6	6
7	293647	Capscrew	4	4
8	376056	Load Roller	4	4
9	41459	Snap Ring	4	4
10	1310592	Shim (0.030 in.)	AR	AR
11	1301018	Bracket	4	4
12	15156	Lockwasher	20	20
13	221506	Capscrew	16	16
14	1335179	Bearing	4	4
15	1301016	Spacer	4	4
16	376203	Capscrew	4	4
17	2046669	Cylinder Assy (☞Figure 10-14).....	2	2
18	1501460	Guide (RH)	1	1
19	1501461	Guide (LH)	1	1
20	1487064	Fitting	4	4
20	16483	O-Ring	1	1
20	1527816	O-Ring	1	1
21	1502390	Pin	4	4
22	15236	Cotter Pin	8	8
23	2046745	Tube Assy	1	1
23	1491350	Fitting	2	2
23	1487164	Fitting	2	2
24	2046746	Tube Assy	1	1
24	1491350	Fitting	2	2
24	1487164	Fitting	2	2

CARRIAGE

SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

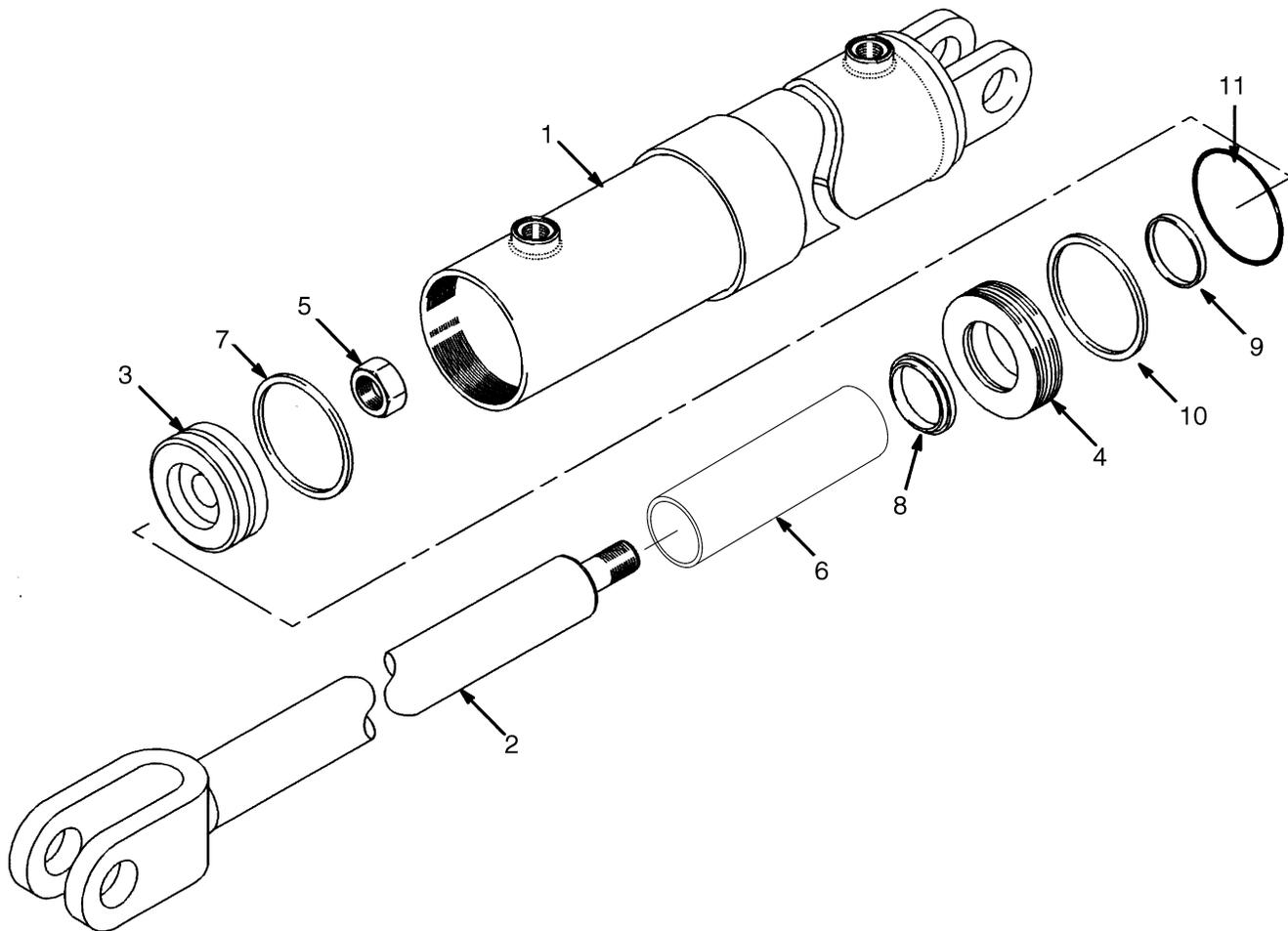
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
25	112989	Hose Clamp	4	4
26	320162	Washer	2	2
27	302402	Locknut	2	2
28	1393802	Clamp	1	1
29	221463	Capscrew	1	1
30	1503084	Bracket Wldmt	1	1
31	a 1551865	Hydraulic Control Valve	1	1
31	b 1600818	Manifold	1	1
31	1560246	Manifold	1	1
31	a 1589219	Cartridge	1	1
31	b 1600819	Valve	1	1
31	1560248	Relief Valve	2	2
32	1486740	Fitting	2	2
32	16483	O-Ring	1	1
32	1527816	O-Ring	1	1
33	1486745	Fitting	4	4
33	16483	O-Ring	1	1
33	1527817	O-Ring	1	1
34	2047116	Hose Assy	1	1
35	2047117	Hose Assy	1	1
36	2046072	Hose Assy	1	1
37	2049945	Hose Assy	1	1
38	292681	Lockwasher	1	1
39	136749	Screw	1	1
40	320157	Washer	1	1
41	2047554	Hose Assy	1	1
42	2047555	Hose Assy	4	4
43	342675	Identification Band	AR	AR
44	342676	Identification Band (Front End)	1	1
45	1332233	Identification Band	16	16
46	1332234	Identification Band	4	4
47	1332235	Identification Band	4	4
48	1332236	Identification Band	2	2

FOOTNOTES:

a → S/N G007E02235C

b S/N G007E02236C →

FORK POSITIONING CYLINDER (FIGURE 10-14)

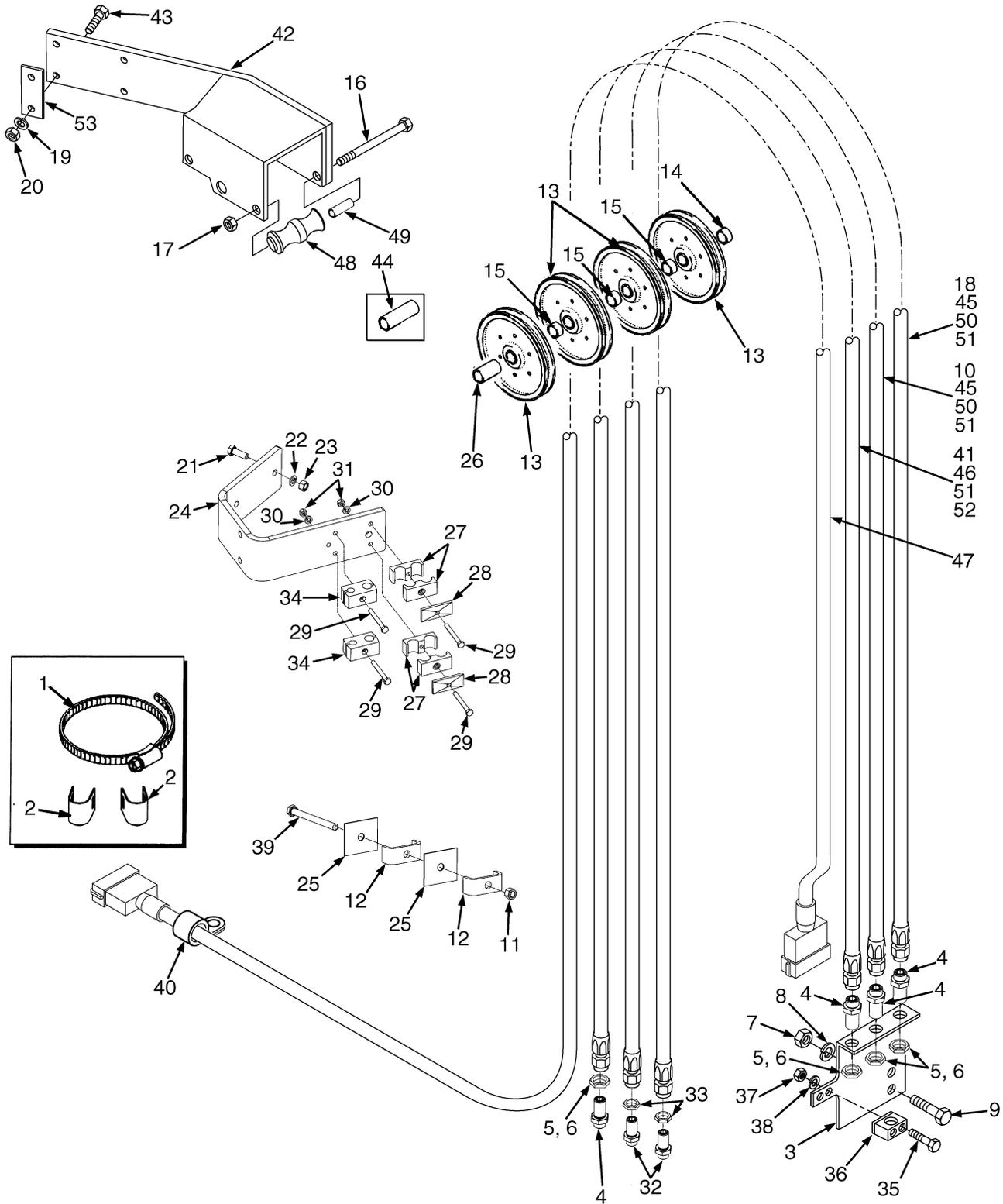


HP171339

FORK POSITIONING CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY
	2046669	Cylinder Assy	1
1	1504621	Tube Wldmt-Cylinder	1
2	1504622	Cylinder Rod	1
3	1504623	Piston	1
4	1504624	Retainer	1
5	1504625	Nut	1
6	1504635	Spacer	1
7	1504628	Piston Seal (Piston)	1
8	1504629	Rod Seal (Rod)	1
9	1504632	Wiper	1
10	1504633	Back-Up Ring	1
11	1504634	O-Ring	1
12	1504626	Kit-Seal	1

HEADER HOSE (FIGURE 10-15) TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)



BP170167

HEADER HOSE
TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
45	Hose Assy	2058685	2058167	2058168
46	Hose Assy	2071804	2071805	2071807
47	Wire Harness	2054251	2054252	2054253

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
45	Hose Assy	2058169	2058170	2058171	2058172	2058173
46	Hose Assy	2071808	2071809	2071810	2071811	2071812
47	Wire Harness	2054254	2054255	2054256	2054257	2054258

KEY:**A: Three Function****B: Four, Five, And Six Function****C: Dual Side-Shift Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	144157	Hose Clamp	4	5	5
2	87911	Clamp	4	8	6
3	1529355	Bracket	1	1	1
4	816591	Fitting	2	4	2
5	816593	Locknut	2	4	2
6	383789	Thread Sealant	AR	AR	AR
7	136692	Nut	2	2	2
8	292682	Lockwasher	2	2	2
9	136985	Capscrew	2	2	2
10	342675	Identification Band	2	2	2
11	300937	Nut	1	1	1
12	254950	Clamp	1	2	2
13	189451	Hose Sheave	2	4	3
14	1301650	Spacer	1	1	1
15	280610	Spacer	1	3	1
16	221155	Capscrew	3	3	3
17	221357	Locknut	3	3	3
18	342676	Identification Band	2	2	2
19	292685	Lockwasher	4	4	4

HEADER HOSE TWO STAGE LIMITED FREE-LIFT (→ S/N G007E01867B)

KEY:

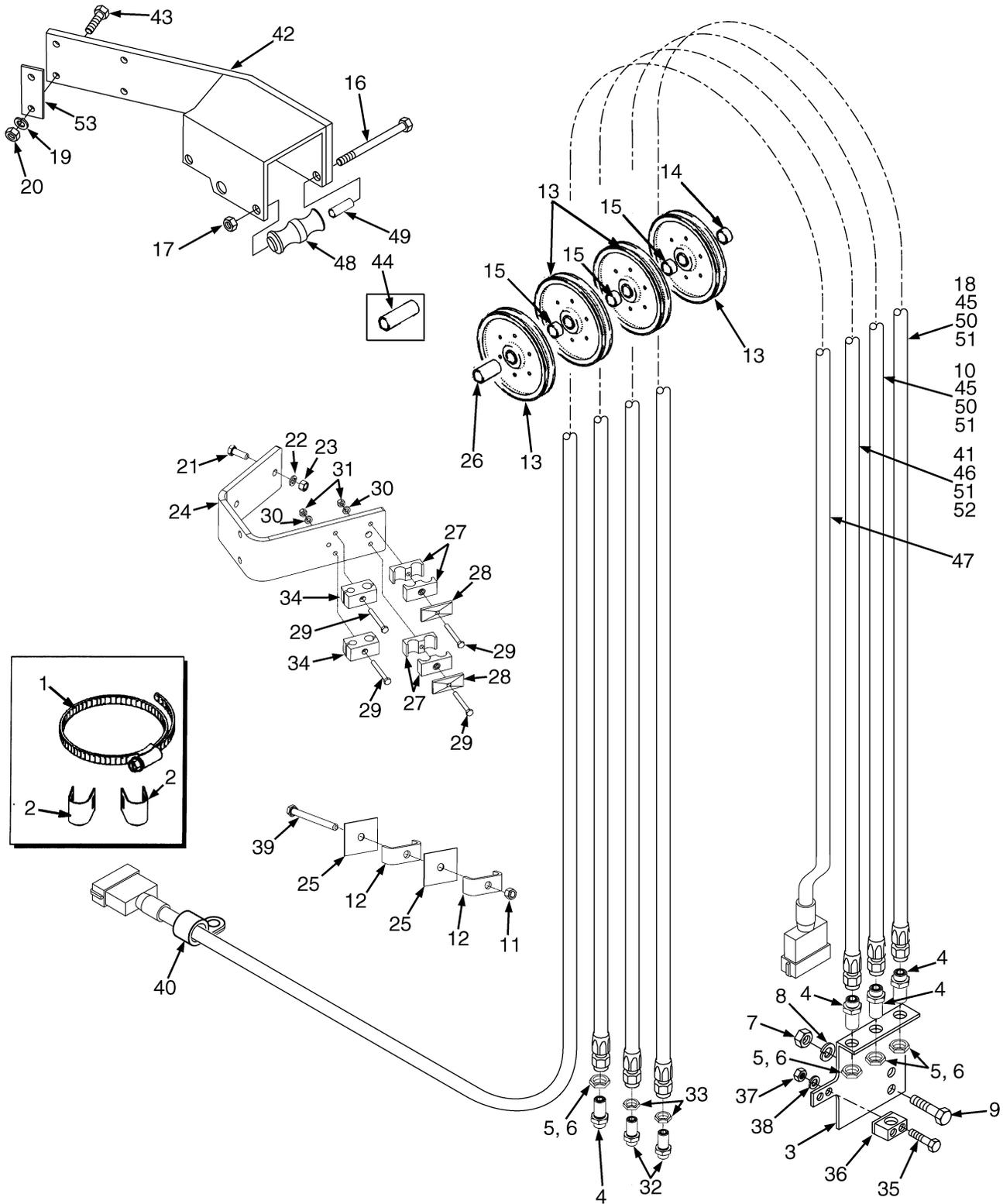
- A: Three Function**
- B: Four, Five, And Six Function**
- C: Dual Side-Shift Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
20	292600	Nut	4	4	4
21	292528	Capscrew	2	2	2
22	292683	Lockwasher	2	2	2
23	216877	Nut	2	2	2
24	1491107	Bracket	1	1	1
25	138929	Plate	1	2	2
26	356237	Spacer .....	..	1	1
27	1533665	Clamp	4	4	4
28	1530668	Cover Plate	2	2	2
29	136703	Capscrew	2	4	4
30	292681	Lockwasher	2	4	4
31	239503	Nut	2	4	4
32	1498506	Fitting	2	2	2
33	1528603	Locknut	2	2	2
34	d 1373335	Clamp .....	..	2	2
34	e 1569803	Clamp .....	..	2	2
35	18475	Capscrew .....	..	2	2
36	d 1391418	Clamp .....	..	1	1
36	e 1569747	Clamp .....	..	1	1
37	221703	Nut .....	..	2	2
38	15127	Washer .....	..	2	2
39	292533	Capscrew	1	..	..
39	292538	Capscrew .....	..	1	1
40	101625	Clamp .....	..	1	1
41	342677	Identification Band .....	..	2	..
42	a 1510788	Bracket Wldmt	1	1	1
42	b 1496482	Bracket Wldmt	1	1	1
43	a 292568	Capscrew	4	4	4
43	b 292564	Capscrew	4	4	4
44	1510841	Spacer	1	..	..
44	342691	Spacer .....	..	..	1
45	c	Hose Assy	2	2	2
46	c	Hose Assy .....	..	1	..
47	c	Wire Harness .....	..	1	1
48	e 1574072	Roller .....	..	2	2
49	e 1574093	Spacer .....	..	2	2
50	1564900	Strap Clamp (Green)	6	8	..
51	1564897	Strap Clamp (Yellow)	2	6	..
52	1564902	Strap Clamp (White) .....	..	2	..
53	a 1489621	Plate	4	4	4

FOOTNOTES:

- a** H170HD-H210HD
- b** H230HD-H280HD
- c** Refer to Table
- d** → 1/2005
- e** 1/2005 →

HEADER HOSE (FIGURE 10-16) TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)



BP170167

HEADER HOSE
TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)

H170HD-H210HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS		
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)
		Mast Group Number	-	-
45	Hose Assy	2058685	2058167	2058168
46	Hose Assy	2058180	2058181	2058182
47	Wire Harness	2054251	2054252	2054253

H230HD-H280HD

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS				
		3686 mm (145.1 in.)	4586 mm (180.6 in.)	5336 mm (210.1 in.)	6130 mm (241.3 in.)	6630 mm (261.0 in.)
		Mast Group Number	-	-	-	-
45	Hose Assy	2058169	2058170	2058171	2058172	2058173
46	Hose Assy	2058183	2058184	2058185	2058186	2058187
47	Wire Harness	2054254	2054255	2054256	2054257	2054258

KEY:**A: Three Function****B: Four, Five, And Six Function****C: Dual Side-Shift Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
1	144157	Hose Clamp	2	4	4
2	87911	Clamp	4	8	6
3	1529355	Bracket	1	1	1
4	816591	Fitting	2	4	2
5	816593	Locknut	2	4	2
6	383789	Thread Sealant	AR	AR	AR
7	136692	Nut	2	2	2
8	292682	Lockwasher	2	2	2
9	136985	Capscrew	2	2	2
10	342675	Identification Band	2	2	2
11	300937	Nut	1	1	1
12	254950	Clamp	1	2	2
13	189451	Hose Sheave	2	4	3
14	1301650	Spacer	1	1	1
15	280610	Spacer	1	3	1
16	221155	Capscrew	3	3	3
17	221357	Locknut	3	3	3
18	342676	Identification Band	2	2	2
19	292685	Lockwasher	4	4	4

HEADER HOSE TWO STAGE LIMITED FREE-LIFT (S/N G007E01868B →)

KEY:

- A: Three Function**
- B: Four, Five, And Six Function**
- C: Dual Side-Shift Fork Positioner**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
20	292600	Nut	4	4	4
21	292528	Capscrew	2	2	2
22	292683	Lockwasher	2	2	2
23	216877	Nut	2	2	2
24	1491107	Bracket	1	1	1
25	138929	Plate	1	2	2
26	356237	Spacer .....	..	1	1
27	1533665	Clamp	4	4	4
28	1530668	Cover Plate	2	2	2
29	136703	Capscrew	2	4	4
30	292681	Lockwasher	2	4	4
31	239503	Nut	2	4	4
32	1498506	Fitting	2	2	2
33	1528603	Locknut	2	2	2
34	1569803	Clamp .....	..	2	2
35	18475	Capscrew .....	..	2	2
36	1569747	Clamp .....	..	1	1
37	221703	Nut .....	..	2	2
38	15127	Washer .....	..	2	2
39	292533	Capscrew	1	..	..
39	292538	Capscrew .....	..	1	1
40	101625	Clamp .....	..	1	1
41	342677	Identification Band .....	..	2	..
42	a 1510788	Bracket Wldmt	1	1	1
42	b 1496482	Bracket Wldmt	1	1	1
43	a 292568	Capscrew	4	4	4
43	b 292564	Capscrew	4	4	4
44	1510841	Spacer	1	..	..
44	342691	Spacer .....	..	..	1
45	c	Hose Assy	2	2	2
46	c	Hose Assy .....	..	1	..
47	c	Wire Harness .....	..	1	1
48	1574072	Roller .....	..	2	2
49	1574093	Spacer .....	..	2	2
50	1564900	Strap Clamp (Green)	6	8	..
51	1564897	Strap Clamp (Yellow)	2	6	..
52	1564902	Strap Clamp (White) .....	..	2	..
53	a 1489621	Plate	4	4	4

FOOTNOTES:

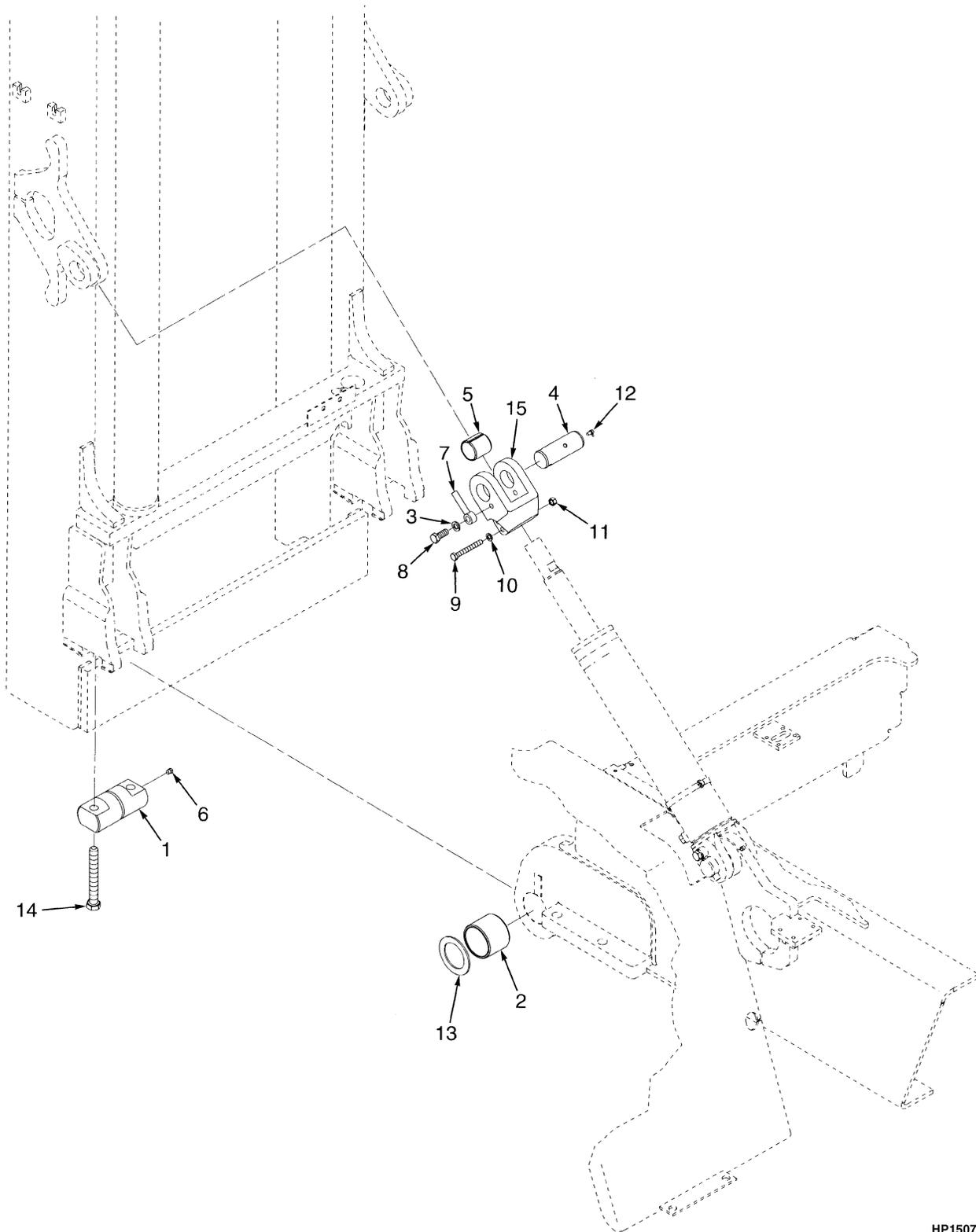
- a** H170HD-H210HD
- b** H230HD-H280HD
- c** Refer to Table

SECTION 11

MAST-THREE STAGE FULL FREE-LIFT

DESCRIPTION	PAGE
CARRIAGE	
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT	11-18
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) - THREE STAGE FULL FREE-LIFT	11-24
THREE FUNCTION - THREE STAGE FULL FREE-LIFT	11-16
FREE-LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-12
HEADER HOSE	
THREE STAGE FULL FREE-LIFT	11-14
MAIN LIFT CYLINDER	
THREE STAGE FULL FREE-LIFT	11-11
MAST ASSEMBLY	
THREE STAGE FULL FREE-LIFT - SHEET 1 OF 3	11-4
THREE STAGE FULL FREE-LIFT - SHEET 2 OF 3	11-6
THREE STAGE FULL FREE-LIFT - SHEET 3 OF 3	11-8
MAST INSTALLATION	11-2
STANDARD PIN CARRIAGE	
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) - THREE STAGE FULL FREE-LIFT	11-22

MAST INSTALLATION (FIGURE 11-1)

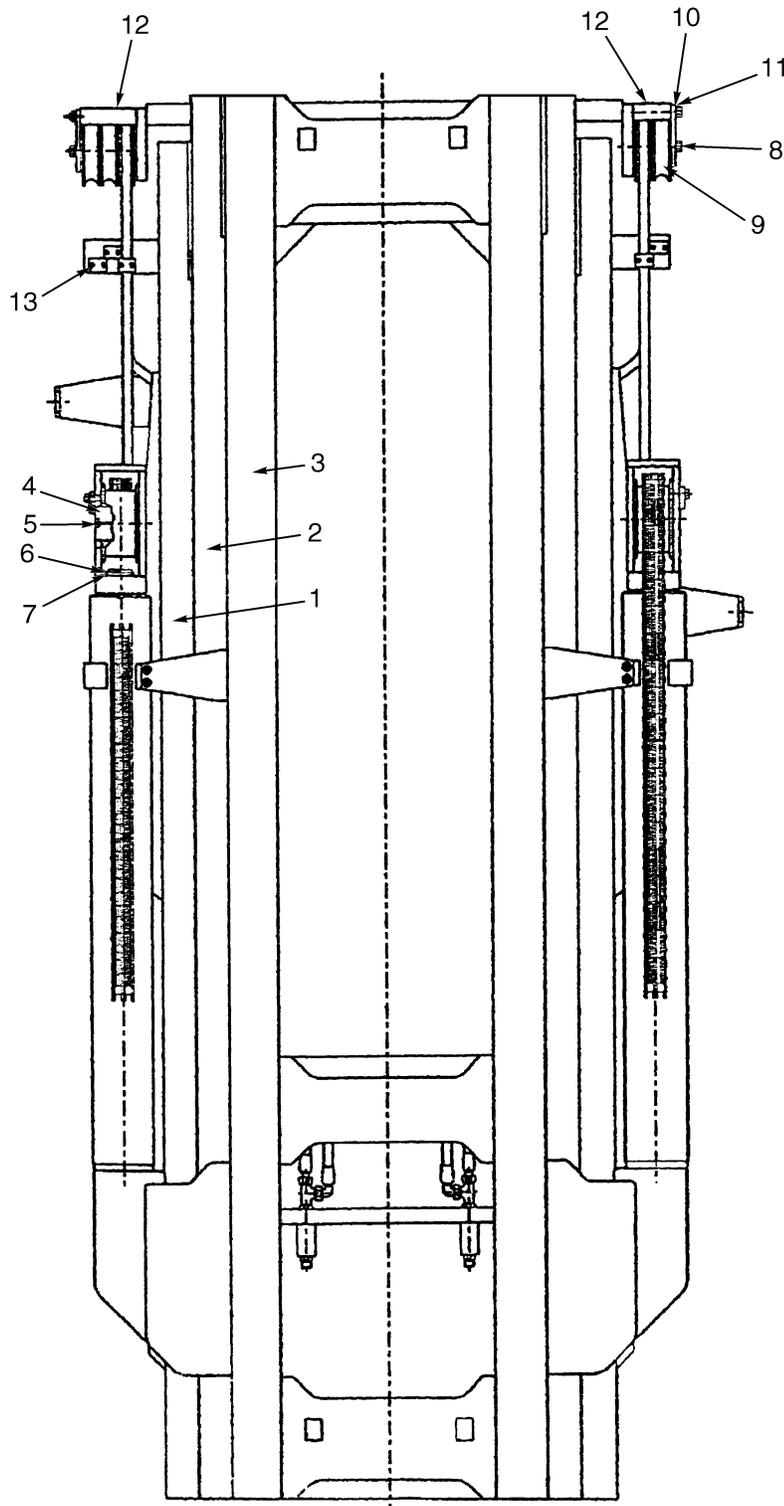


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MAST INSTALLATION

ITEM	PART NO.	DESCRIPTION	QTY
1	1385549	Pin (Mast Mounting)	2
2	1482449	Bushing (Mast Mounting Optional)	2
2	376038	Bushing (Mast Mounting)	2
3	292685	Lockwasher	2
4	1347862	Pin (Mast Tilt)	2
5	376051	Bushing (Mast Tilt)	2
6	16001	Grease Fitting	2
7	1347861	Anchor	2
8	292560	Capscrew	2
9	292538	Capscrew	4
10	292683	Lockwasher	4
11	216877	Nut	4
12	16015	Grease Fitting	2
13	1359101	Shim	AR
14	293720	Capscrew	4
15	1347863	Rod End (15° Forward Tilt/12° Back Tilt)	2
15	1347864	Rod End (20.5° Forward Tilt/7° Back Tilt)	2

MAST ASSEMBLY (FIGURE 11-2)
THREE STAGE FULL FREE-LIFT — SHEET 1 OF 3



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MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 1 OF 3

A024

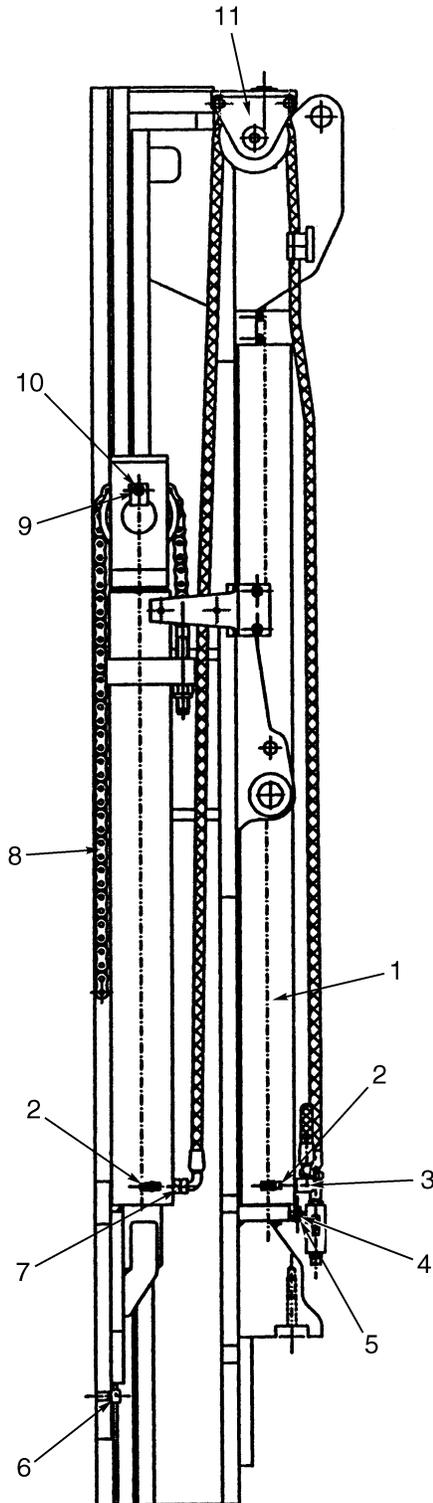
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
		Mast Group Number	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
1	Outer Mast	1528803	1529161	1529170	1529179
2	Intermediate Mast	1528804	1529162	1529171	1529180
3	Inner Mast	1529152	1529163	1529172	1529181

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	a	Outer Mast	1
2	a	Intermediate Mast	1
3	a	Inner Mast	1
4	1529196	Pulley	2
5	1529197	Grease Fitting	2
6	1529198	Snap Ring	2
7	1529199	Ring	2
8	1529209	Screw	2
9	1529210	Hose Reel	5
10	1529211	Washer	6
11	1529212	Nut	4
12	1538899	Roller (Hose)	4
13	1529227	Clamp	5

FOOTNOTES:

a Refer to Table

**MAST ASSEMBLY (FIGURE 11-3)
THREE STAGE FULL FREE-LIFT — SHEET 2 OF 3**



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MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 2 OF 3

A024

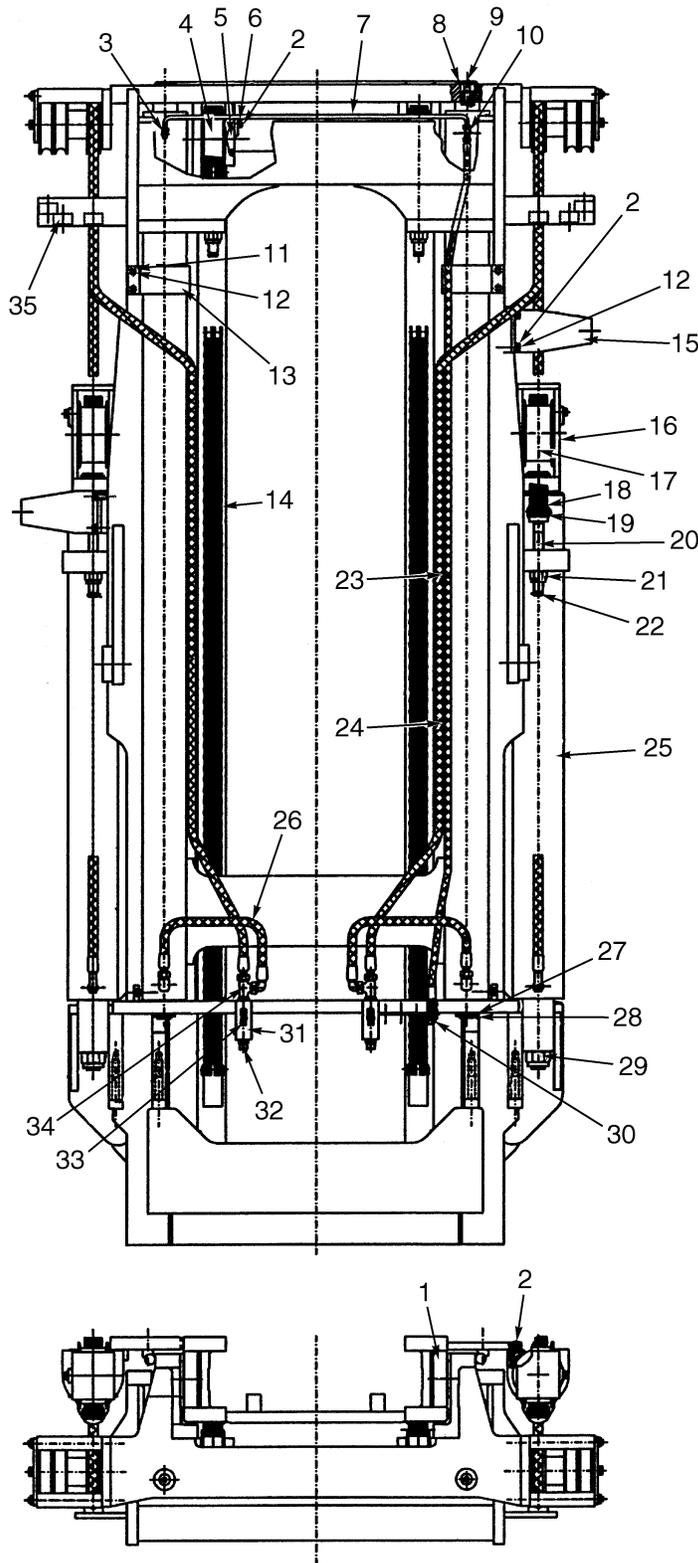
ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
		Mast Group Number	-	-	-
	Mast Assy	2054512	2054513	2054514	2054515
8	Chain	1538182	1538475	1538476	1538477

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	. . . . .	Lift Cylinder (☞ Figure 11-5).....	2
2	1529219	Valve	2
3	1529228	Fitting	2
4	1529222	Washer	4
5	1529220	Screw	4
6	1538485	Screw	2
7	1529223	Fitting	2
8	a	Chain	2
9	1529191	Washer	2
10	1529193	Screw	2
11	1529226	Flange	2

FOOTNOTES:

a Refer to Table

MAST ASSEMBLY (FIGURE 11-4)
THREE STAGE FULL FREE-LIFT — SHEET 3 OF 3



HP170448

MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 3 OF 3

A024

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
		Mast Group Number			
	Mast Assy	2054512	2054513	2054514	2054515
14	Chain	1538185	1538472	1538473	1538474
23	Hose Assy (Drainage)	1538179	1538478	1538479	1538480
24	Hose Assy	1538178	1538481	1538482	1538483

ITEM	PART NO.	DESCRIPTION	QTY
	a	Mast Assy	1
1	1529236	Load Roller (Combined)	8
1	1532830	Kit-Load Roller	1
1	1532831	Kit-Side Roller	1
2	1529208	Screw	6
3	1529238	Capscrew	1
4	1529213	Pulley (Chain)	2
5	1529214	Pin (Pulley)	2
6	1529191	Washer	2
7	1529234	Hose	1
8	1529216	Ring	2
9	1529188	Screw	2
10	1529235	Fitting	1
11	1529190	Screw	4
12	1529191	Washer	6
13	1529189	Support	2
14	a	Chain	2
15	1529192	Bracket (Light)	2
16	1529194	Support (Pulley)	2
17	1529200	Pulley	2
18	1529237	Cotter Pin	16
19	1529201	Pin (Chain)	8
20	1529202	Chain Anchor	4
21	1529203	Locknut	4
22	1529204	Cotter Pin	4
23	a	Hose Assy (Drainage)	1
24	a	Hose Assy	2
25	. . . . .	Free-Lift Cylinder (☞ Figure 11-6).....	2
26	1529230	Hose	2
27	1529206	Ring	2
28	1529207	Snap Ring	2
29	1529205	Locknut	2
30	1529221	Fitting	1
31	1529218	Block (Connection)	2
32	1529217	Fitting	2

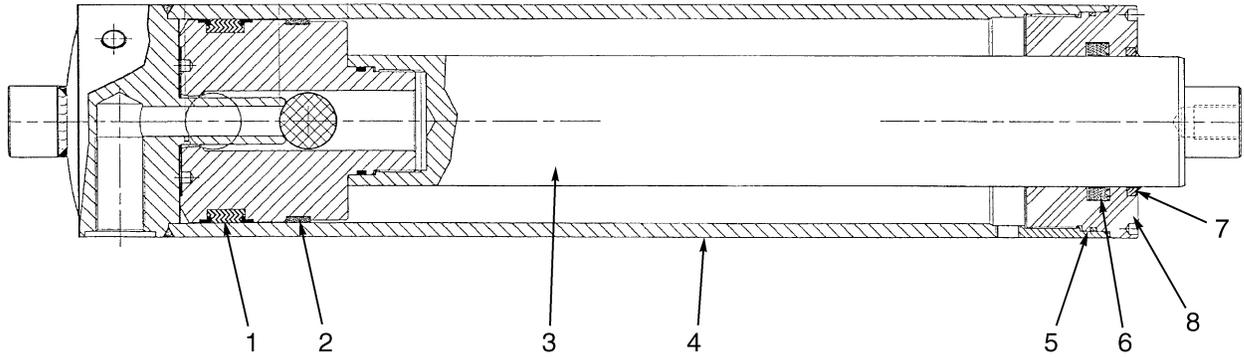
MAST ASSEMBLY
THREE STAGE FULL FREE-LIFT – SHEET 3 OF 3

ITEM	PART NO.	DESCRIPTION	QTY
33	1529219	Valve	2
34	1529229	Fitting	2
35	1538177	Clamp	1

FOOTNOTES:

- a Refer to Table

**MAIN LIFT CYLINDER (FIGURE 11-5)
THREE STAGE FULL FREE-LIFT**



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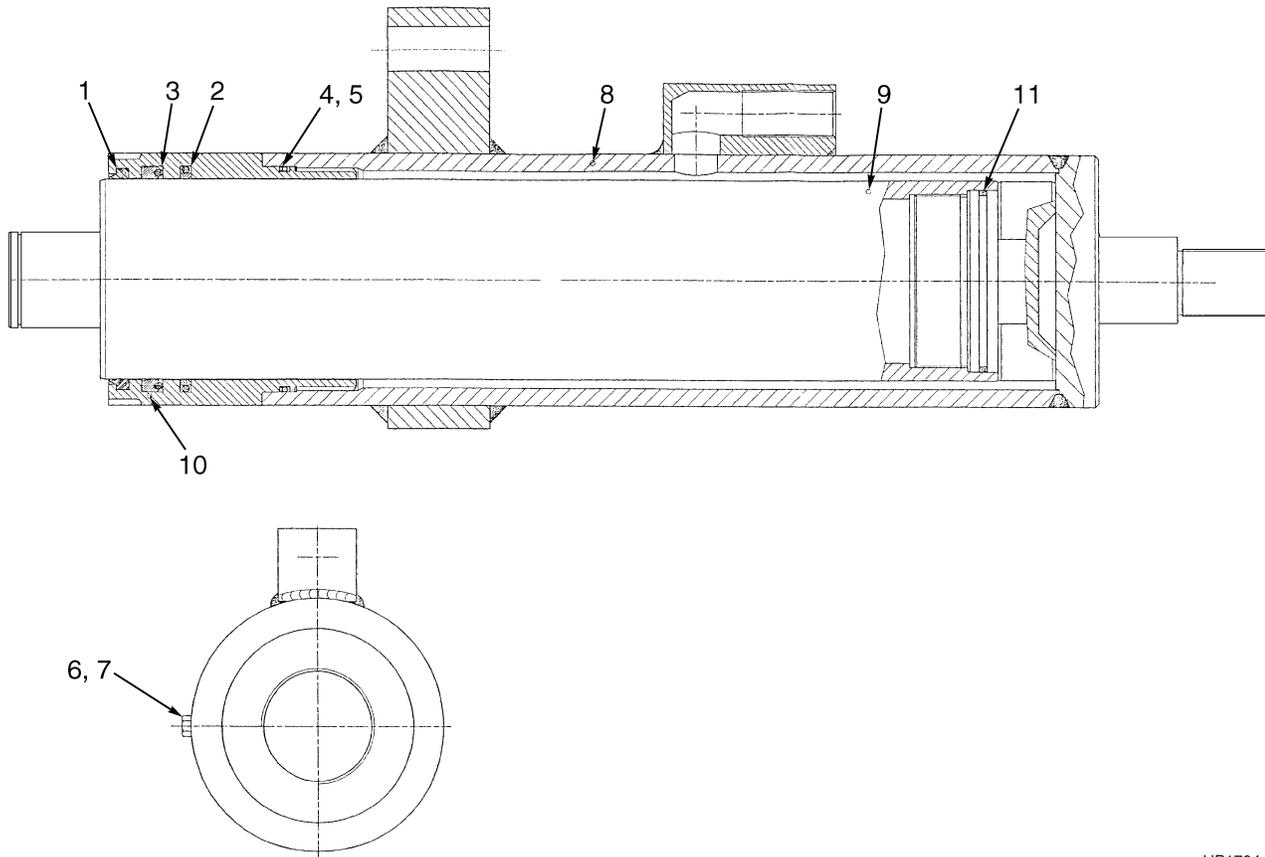
ITEM	PART NO.	DESCRIPTION	QTY
	a 1529154	Cylinder Assy	2
	b 1529165	Cylinder Assy	2
	c 1529174	Cylinder Assy	2
	d 1529183	Cylinder Assy	2
1	.....	Wear Ring	1
2	.....	Slide Ring	1
3	.....	Piston Rod	1
4	.....	Tube	1
5	.....	O-Ring	1
6	.....	Seal	1
7	.....	Wiper Ring	1
8	.....	Plug	1
	1529259	Kit-Seal	1

FOOTNOTES:

a 2054512-Mast Assembly
b 2054513-Mast Assembly

c 2054514-Mast Assembly
d 2054515-Mast Assembly

FREE-LIFT CYLINDER (FIGURE 11-6) THREE STAGE FULL FREE-LIFT



HP170445

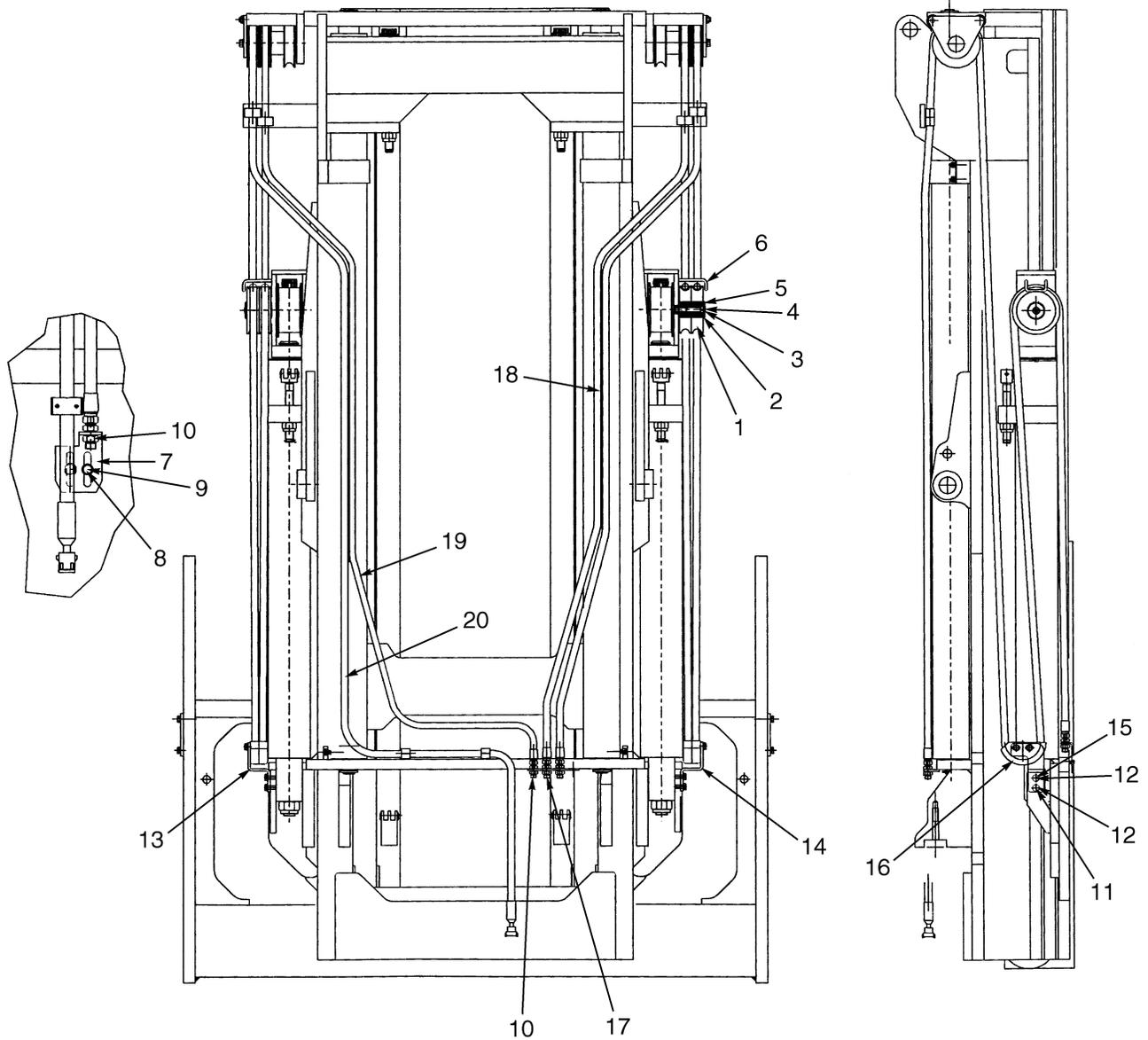
ITEM	PART NO.	DESCRIPTION	QTY
	a 1538468	Cylinder Assy	1
	b 1538469	Cylinder Assy	1
	c 1538470	Cylinder Assy	1
	d 1538471	Cylinder Assy	1
1	.....	Wiper Ring	1
2	.....	Gasket	2
3	.....	Gasket	1
4	.....	O-Ring	1
5	.....	Retaining Ring	1
6	.....	Washer	1
7	.....	Screw	1
8	.....	Tube	1
9	.....	Piston Rod	1
10	.....	Plug	1
11	.....	O-Ring	1
	1529215	Kit-Seal	1

FOOTNOTES:

a 2054512-Mast Assembly
b 2054513-Mast Assembly

c 2054514-Mast Assembly
d 2054515-Mast Assembly

**HEADER HOSE (FIGURE 11-7)
THREE STAGE FULL FREE-LIFT**



HP170476

**HEADER HOSE
THREE STAGE FULL FREE-LIFT**

A024

ITEM	DESCRIPTION 1 2 3 4	LIFT HEIGHT TO BOTTOM OF FORKS			
		5525 mm (217.5 in.)	5925 mm (233.3 in.)	6425 mm (253.0 in.)	6925 mm (272.6 in.)
		Mast Group Number	-	-	-
18	Hose Assy	1534548	1534610	1534613	1534616
19	Hose Assy	1534549	1534611	1534614	1534617
20	Wire Harness	1534550	1534612	1534615	1534618

KEY:

A: Three Function

B: Four, Five, And Six Function

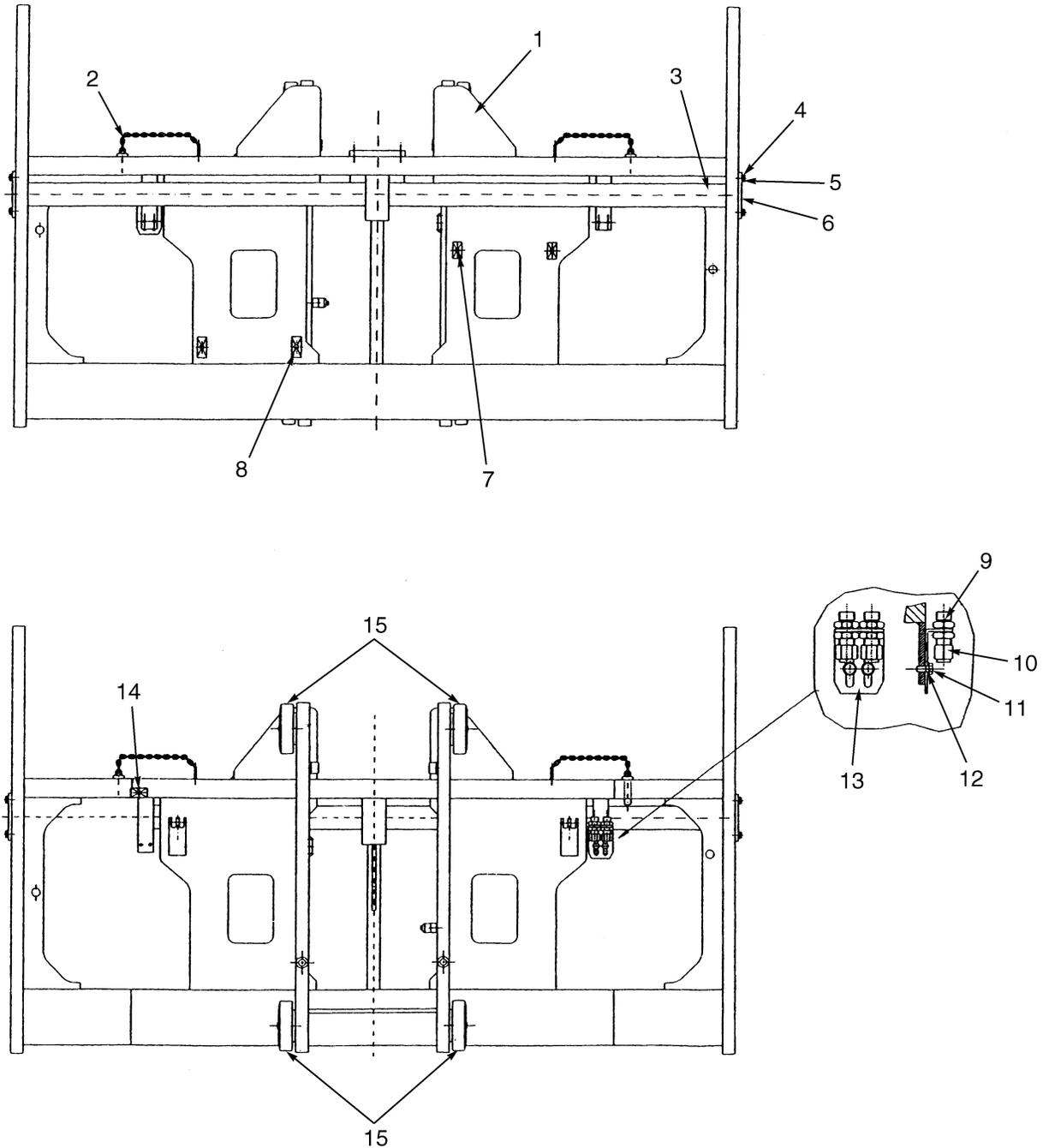
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	ae 2054512	Mast Assy	1	1
	be 2054513	Mast Assy	1	1
	ce 2054514	Mast Assy	1	1
	de 2054515	Mast Assy	1	1
1	1529210	Hose Reel	4	4
2	1529198	Snap Ring	2	2
3	1534505	Screw	2	2
4	1529211	Washer	2	2
5	1534506	Bracket	2	2
6	1534507	Pulley (Shaft) (Hose Pulley)	2	2
7	1534508	Support .....	..	1
8	1534509	Screw .....	..	2
9	1534510	Washer .....	..	2
10	1529221	Fitting .....	..	2
11	1534511	Screw	4	4
12	1529191	Washer	8	8
13	1534543	Plate (LH) .....	..	1
14	1534545	Plate (RH)	1	1
15	1534546	Screw	4	4
16	1534547	Pulley	2	2
17	1534551	Fitting	2	2
18	e	Hose Assy	2	2
19	e	Hose Assy .....	..	1
20	e	Wire Harness .....	..	1

FOOTNOTES:

a 8516820
b 8516821
c 8516822

d 8516823
e Refer to Table

CARRIAGE (FIGURE 11-8)
THREE FUNCTION — THREE STAGE FULL FREE-LIFT

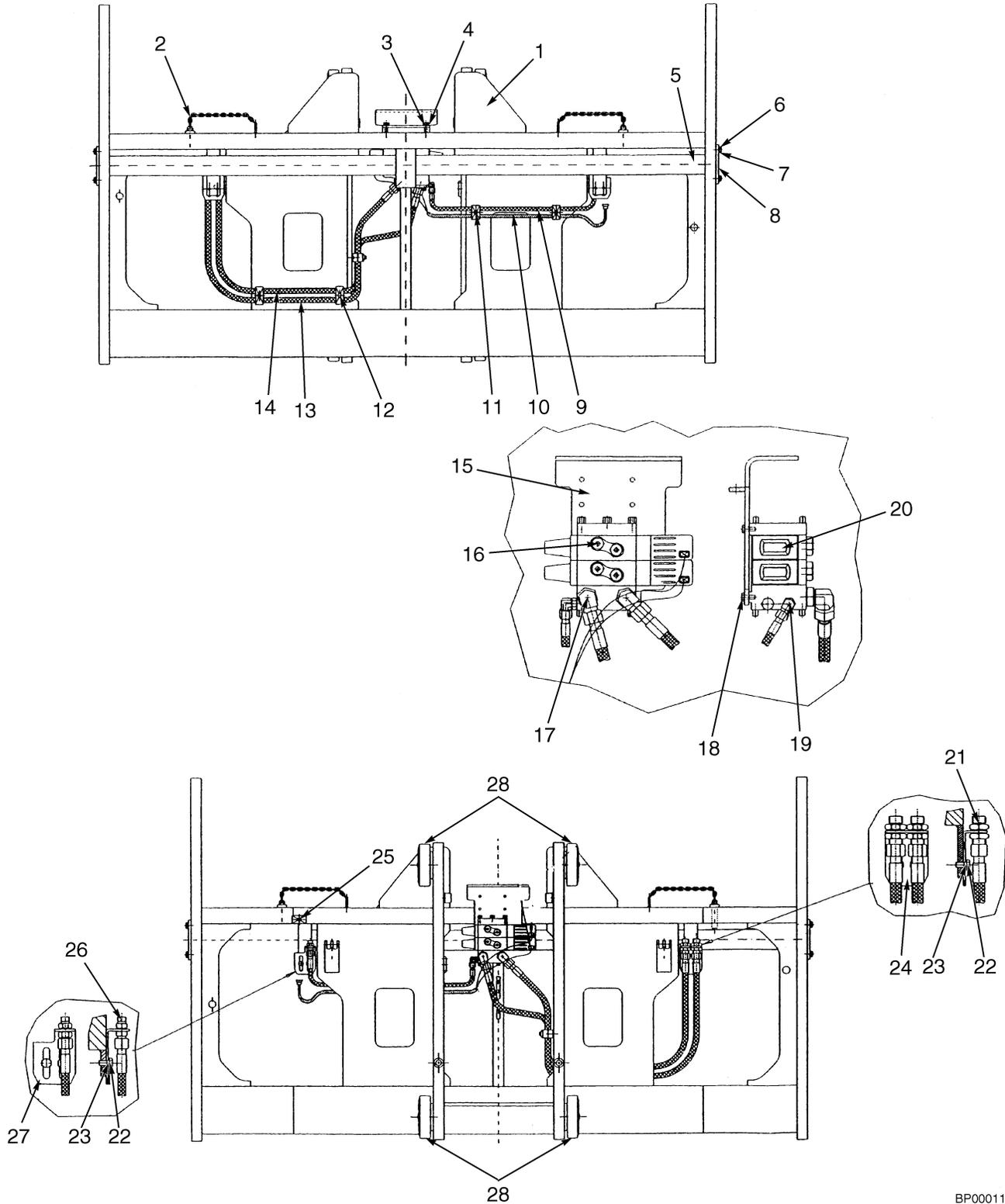


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CARRIAGE
THREE FUNCTION – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	2055513	Carriage	1
1	.....	Frame	1
2	1536893	Pin (Fork Locking)	2
3	1536894	Pin (Load Arm)	1
4	1529191	Washer	4
5	1529190	Screw	4
6	1536892	Support (Shaft)	2
7	1536890	Clamp	2
8	1536891	Clamp	3
9	1534551	Fitting	2
10	1536887	Fitting	2
11	1536888	Bolt	2
12	1534510	Washer	2
13	1536889	Support	1
14	1529227	Clamp	1
15	1529236	Load Roller	4
15	1532830	Kit-Load Roller	1
15	1532831	Kit-Side Roller	1

CARRIAGE (FIGURE 11-9) FOUR, FIVE, AND SIX FUNCTION — THREE STAGE FULL FREE-LIFT



BP000112

CARRIAGE

FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT

KEY:**A: Four Function****B: Five Function****C: Six Function**

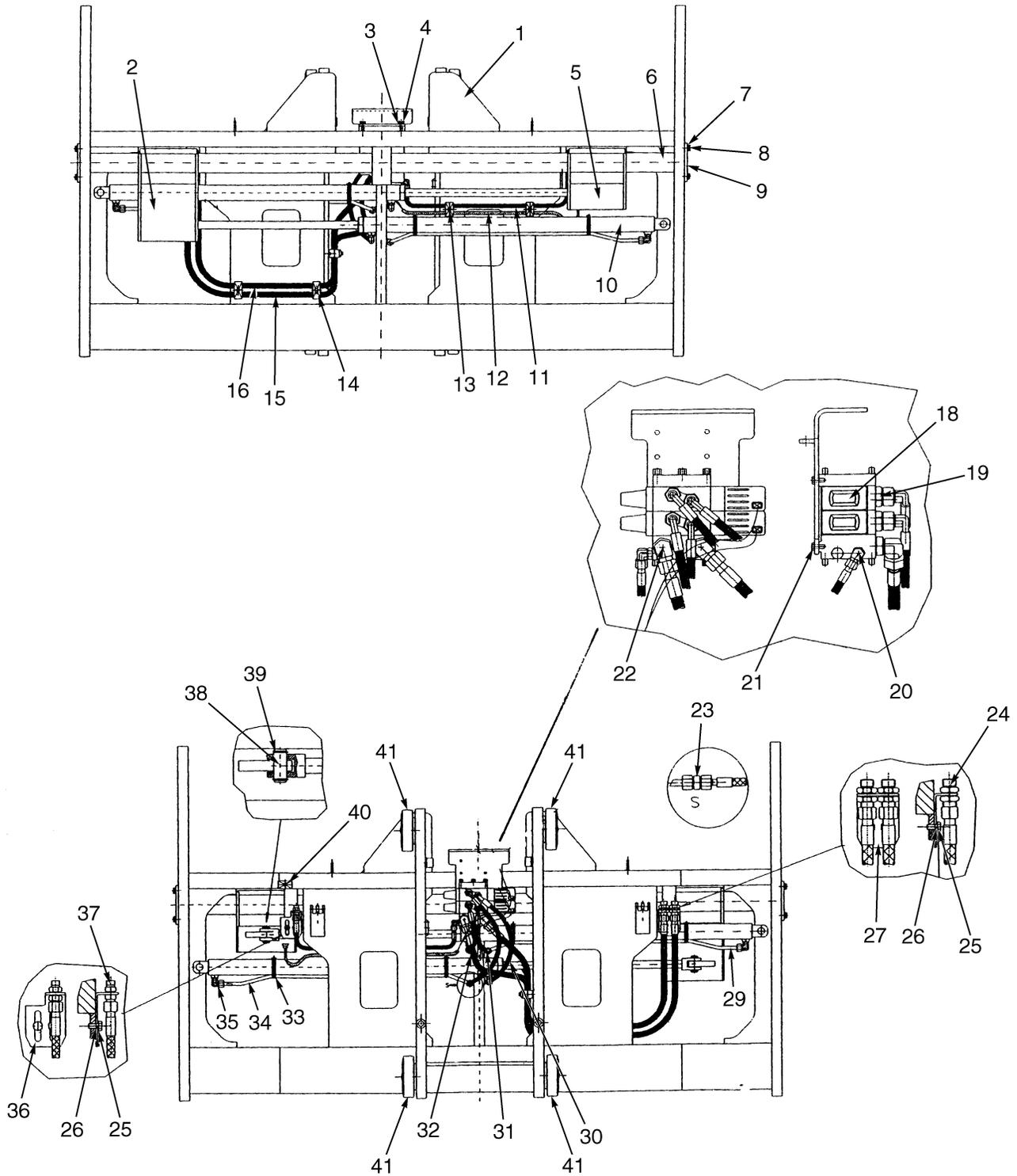
ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2055514	Carriage (Four Function)	1	..	..
	2055515	Carriage (Five Function) .....	..	1	..
	2055516	Carriage (Six Function) .....	..	..	1
1	.....	Frame	1	1	1
2	1536893	Pin (Fork Locking)	2	2	2
3	1529191	Washer	2	2	2
4	1536906	Bolt	2	2	2
5	1536894	Pin (Load Arm)	1	1	1
6	1529191	Washer	4	4	4
7	1529190	Screw	4	4	4
8	1536892	Support (Shaft)	2	2	2
9	1536903	Hose	1	1	1
10	a 2087294	Wire Harness (Front End)	1	..	..
10	a 2087295	Wire Harness (Front End) .....	..	1	..
10	a 2055828	Wire Harness (Front End) .....	..	..	1
10	b 2092486	Wire Harness (Front End)	1	1	1
11	1536890	Clamp	2	2	2
12	1536891	Clamp	3	3	3
13	1536905	Hose	1	1	1
14	1536904	Hose	1	1	1
15	1536901	Support	1	1	1
16	1536897	Fitting	4	6	8
17	1536899	Fitting	2	2	2
18	1536898	Bolt	4	4	4
19	1536900	Fitting	1	1	1
20	a 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	..	..
20	b 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	..	..
20	a 2055961	Directional Control Valve, Three-Section (☞Figure 12-1).....	..	1	..
20	b 2092484	Directional Control Valve, Three-Section (☞Figure 12-1).....	..	1	..
20	a 2055962	Directional Control Valve, Four-Section (☞Figure 12-1).....	..	..	1
20	b 2092485	Directional Control Valve, Four-Section (☞Figure 12-1).....	..	..	1
21	1534551	Fitting	2	2	2
22	1536888	Bolt	4	4	4
23	1534510	Washer	4	4	4
24	1536889	Support	1	1	1
25	1529227	Clamp	1	1	1
26	1529221	Fitting	1	1	1
27	1534508	Support	1	1	1
28	1529236	Load Roller	4	4	4
28	1532830	Kit-Load Roller	1	1	1
28	1532831	Kit-Side Roller	1	1	1

FOOTNOTES:

a → 11/2006

b 11/2006 →

STANDARD PIN CARRIAGE (FIGURE 11-10) INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) — THREE STAGE FULL FREE-LIFT



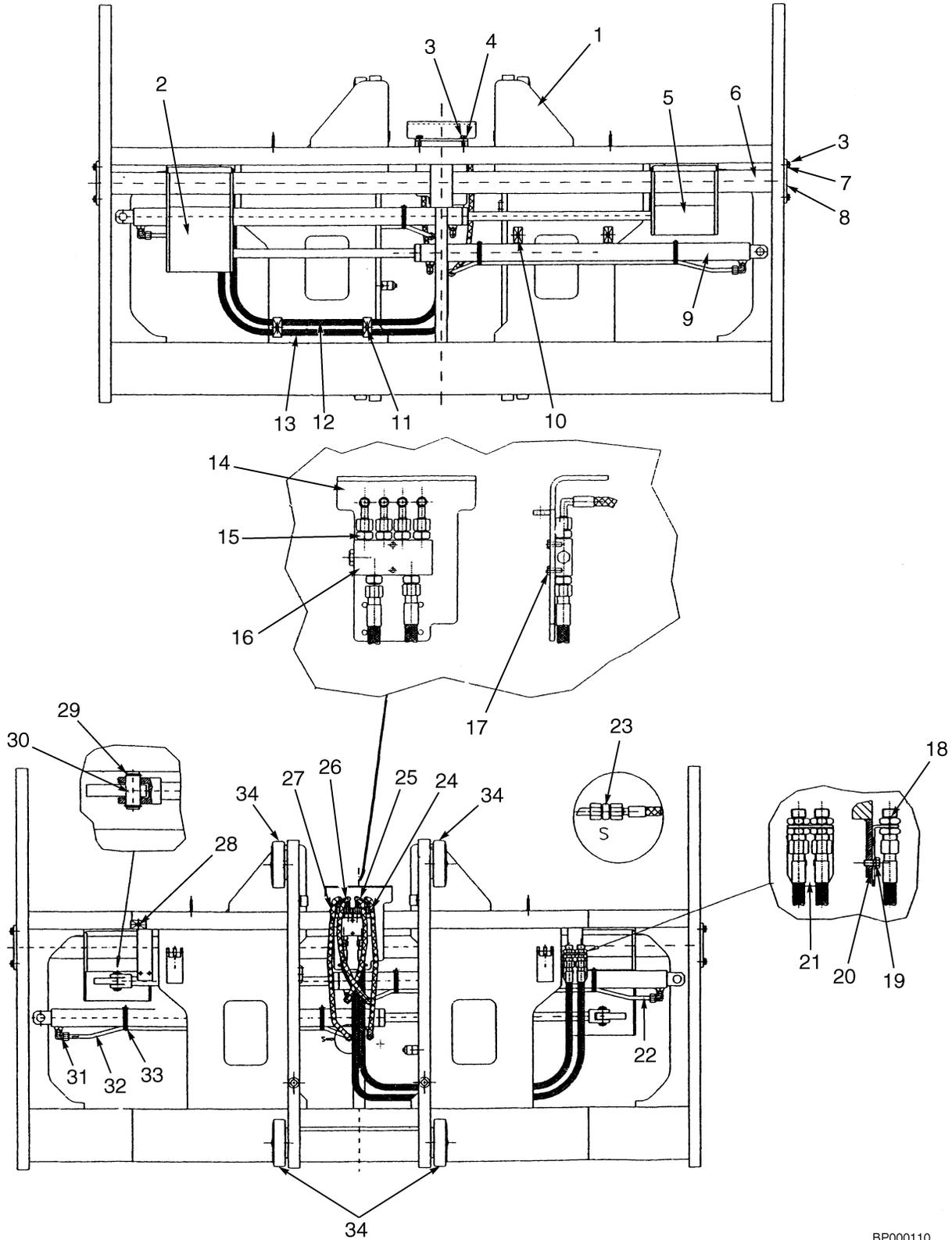
BP000109

**STANDARD PIN CARRIAGE
INDIVIDUAL FORK POSITIONER (FOUR FUNCTION) – THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	2097289	Carriage (Three Stage with Individual Fork Positioner)	1
1	.....	Frame	1
2	1537025	Guide (RH)	1
3	1529191	Washer	2
4	1536906	Bolt	2
5	1537024	Guide (LH)	1
6	1536894	Pin (Load Arm)	1
7	1529191	Washer	4
8	1529190	Screw	4
9	1536892	Support (Shaft)	2
10	2046669	Cylinder Assy (☞Figure 10-14).....	2
11	1536903	Hose	1
12	a 2087294	Wire Harness (Front End)	1
12	b 2092486	Wire Harness (Front End)	1
13	1536890	Clamp	2
14	1536891	Clamp	3
15	1536905	Hose	1
16	1536904	Hose	1
17	1536901	Support	1
18	a 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1
18	b 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1
19	1536972	Fitting	4
20	1536900	Fitting	1
21	1536898	Bolt	4
22	1536899	Fitting	2
23	1536902	Fitting	2
24	1534551	Fitting	2
25	1536888	Bolt	3
26	1534510	Washer	4
27	1536889	Support	1
28	1537118	Hose	1
29	1537015	Tube	1
30	1537117	Hose	1
31	1537122	Hose	1
32	1537123	Hose	1
33	1537017	Clamp	4
34	1537016	Tube	1
35	1536900	Fitting	4
36	1534508	Support	1
37	1529221	Fitting	1
38	1537023	Pin (Fork Position Cylinder)	4
39	1537022	Snap Ring	8
40	1529227	Clamp	1
41	1529236	Load Roller	4
41	1532830	Kit-Load Roller	1
41	1532831	Kit-Side Roller	1

FOOTNOTES:**a** → 11/2006**b** 11/2006 →

CARRIAGE (FIGURE 11-11) SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) — THREE STAGE FULL FREE-LIFT



BP000110

CARRIAGE
SIMULTANEOUS FORK POSITIONER (THREE FUNCTION) – THREE STAGE FULL FREE-LIFT

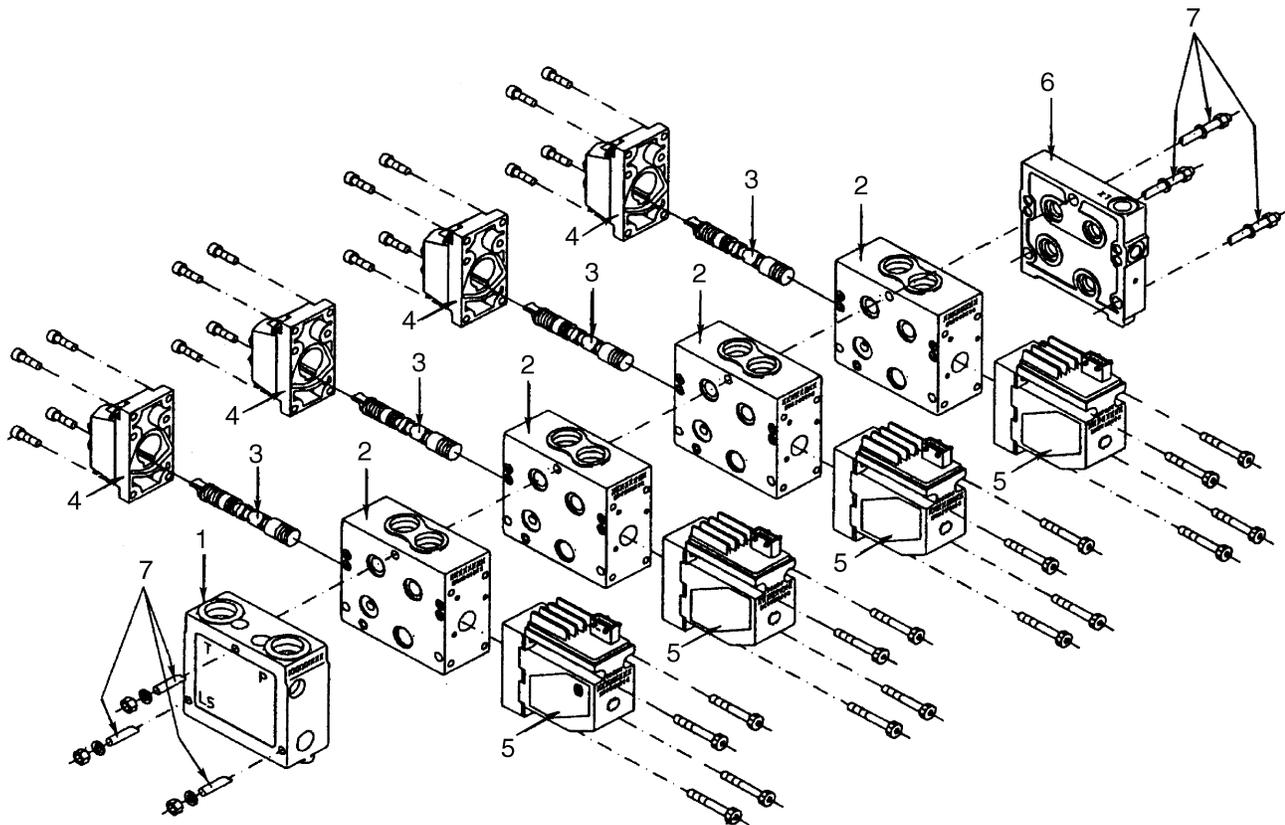
ITEM	PART NO.	DESCRIPTION	QTY
	2055518	Carriage (Simultaneous Fork Positioner)	1
1	.....	Frame	1
2	1537025	Guide (RH)	1
3	1529191	Washer	6
4	1536906	Bolt	2
5	1537024	Guide (LH)	1
6	1536894	Pin (Load Arm)	1
7	1529190	Screw	4
8	1536892	Support (Shaft)	2
9	2046669	Cylinder Assy (☞ Figure 10-14).....	2
10	1536890	Clamp	2
11	1536891	Clamp	3
12	1537120	Hose	1
13	1537121	Hose	1
14	1536901	Support	1
15	1537033	Connector	6
16	a 1551865	Hydraulic Control Valve	1
16	b 1600818	Manifold	1
16	1560246	Manifold	1
16	a 1589219	Cartridge	1
16	b 1600819	Valve	1
16	1560248	Relief Valve	2
17	1537032	Bolt	2
18	1534551	Fitting	2
19	1536888	Bolt	2
20	1534510	Washer	2
21	1536889	Support	1
22	1537015	Tube	1
23	1536902	Fitting	2
24	1537119	Hose	1
25	1537118	Hose	1
26	1537117	Hose	1
27	1537116	Hose	1
28	1529227	Clamp	1
29	1537022	Snap Ring	8
30	1537023	Pin (Fork Position Cylinder)	4
31	1536900	Fitting	4
32	1537016	Tube	1
33	1537017	Clamp	4
34	1529236	Load Roller	4
34	1532830	Kit-Load Roller	1
34	1532831	Kit-Side Roller	1

FOOTNOTES:**a** → S/N G007E02235C**b** S/N G007E02236C →

SECTION 12 ATTACHMENTS

DESCRIPTION	PAGE
DIRECTIONAL CONTROL VALVE	12-2
FORKS	
IDENTIFY BY PART NUMBER	12-4
SIDE-SHIFT CARRIAGE	
DUAL FUNCTION WITH FORK POSITIONER - TWO STAGE LIMITED FREE-LIFT	12-8
FOUR, FIVE, AND SIX FUNCTION - THREE STAGE FULL FREE-LIFT	12-14
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) - TWO STAGE LIMITED FREE-LIFT	12-18
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) - THREE STAGE FULL FREE-LIFT	12-22
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) - TWO STAGE LIMITED FREE-LIFT	12-26
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) - THREE STAGE FULL FREE-LIFT	12-30
THREE FUNCTION - THREE STAGE FULL FREE-LIFT	12-34
WITH HOSE GROUP - TWO STAGE LIMITED FREE-LIFT	12-36
SIDE-SHIFT CYLINDER	12-6
DUAL FUNCTION WITH FORK POSITIONER - TWO STAGE LIMITED FREE-LIFT	12-12

DIRECTIONAL CONTROL VALVE (FIGURE 12-1)



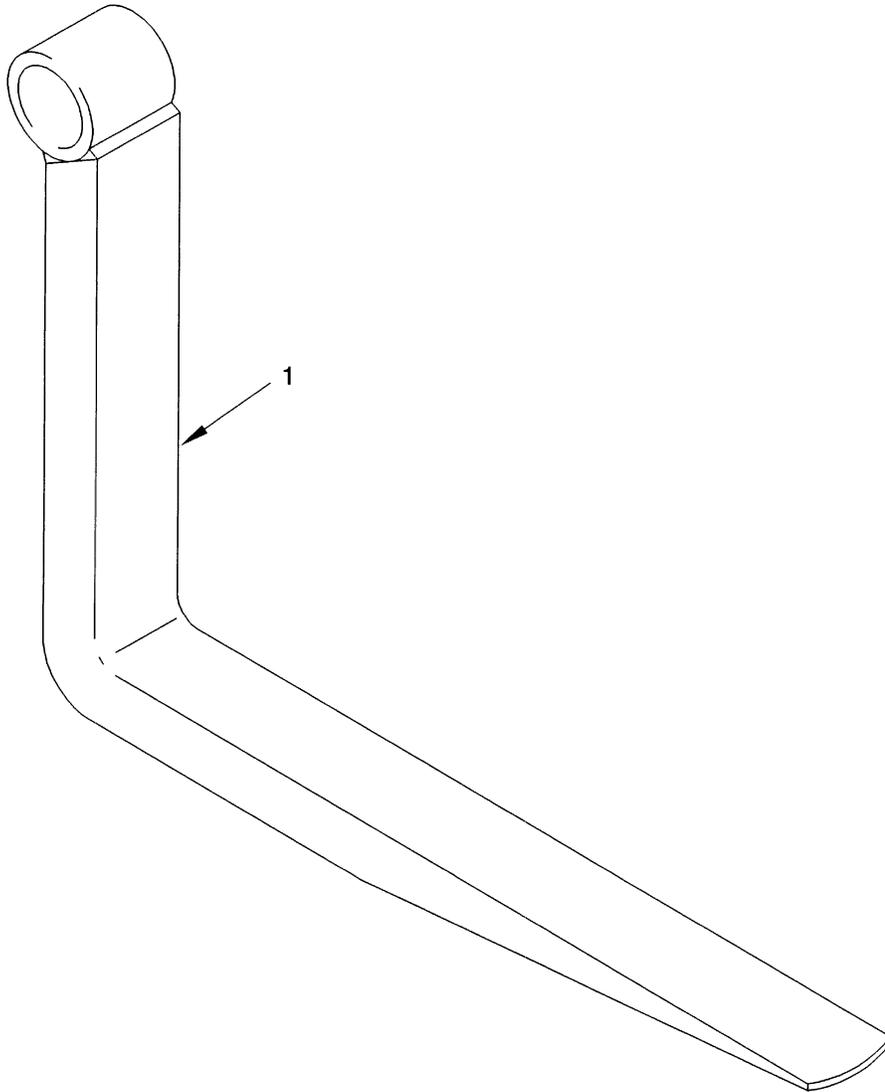
BP000114

DIRECTIONAL CONTROL VALVE**KEY:****A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	a 2055960	Directional Control Valve, Two-Section	1	..	..
	b 2092483	Directional Control Valve, Two-Section	1	..	..
	a 2055961	Directional Control Valve, Three-Section .....	..	1	..
	b 2092484	Directional Control Valve, Three-Section .....	..	1	..
	a 2055962	Directional Control Valve, Four-Section .....	..	..	1
	b 2092485	Directional Control Valve, Four-Section .....	..	..	1
1	1539225	Module (Inlet)	1	1	1
2	1539226	Valve	2	3	4
3	1539227	Spool	2	3	4
4	1539228	Manifold (End Cap)	2	3	4
4	1539234	Kit-Seal	1	1	1
5	1662992	Module (Electrical) (Two Section)	2	3	4
5	1539235	Kit-Seal	1	1	1
5	1539229	Module (Electrical) (Four Section)	2	3	4
5	1539235	Kit-Seal	1	1	1
6	1539230	Module (End)	1	1	1
7	1539231	Kit-Valve	1	..	..
7	1539232	Kit-Valve .....	..	1	..
7	1539233	Kit-Valve .....	..	..	1

FOOTNOTES:**a** → 11/2006**b** 11/2006 →

**FORKS (FIGURE 12-2)
IDENTIFY BY PART NUMBER**



HP171282

FORKS

IDENTIFY BY PART NUMBER

KEY:

- A:** Standard Taper and SS (H170-210HD)
B: Standard Taper and SS (H170-280HD)
C: Polished And Full Bottom Taper
D: Dual Function Side-Shift With Fork Positioner

ITEM	PART NO.	DESCRIPTION	QTY			
			A	B	C	D
1	1333400	Fork (48 in.)	2	..	..	..
1	a 1507083	Fork (48 in.)	2	..	..	..
1	1567090	Fork (48 in.) .....	..	..	2	..
1	1454457	Fork (48 in.) .....	..	..	..	2
1	1333401	Fork (54 in.)	2	..	..	..
1	a 1507084	Fork (54 in.)	2	2	..	..
1	1567091	Fork (54 in.) .....	..	..	2	..
1	1454458	Fork (54 in.) .....	..	..	..	2
1	1333402	Fork (60 in.)	2	..	..	..
1	a 1507085	Fork (60 in.)	2	2	..	..
1	1567092	Fork (60 in.) .....	..	..	2	..
1	1454459	Fork (60 in.) .....	..	..	..	2
1	1507086	Fork (72 in.) .....	..	2	..	..
1	1508105	Fork (64 in.)	2	..	..	..
1	1567087	Fork (72 in.) .....	..	2	..	..
1	1567093	Fork (72 in.) .....	..	..	2	..
1	1454460	Fork (72 in.) .....	..	..	..	2
1	1454461	Fork (84 in.) .....	..	..	..	2
1	1507088	Fork (96 in.)	2	2	..	..
1	1567089	Fork (96 in.) .....	..	2	..	..
1	1454462	Fork (96 in.) .....	..	..	..	2
1	1333403	Fork (64 in.)	2	..	..	..
1	1333404	Fork (72 in.)	2	..	..	..
1	1333405	Fork (96 in.)	2	..	..	..
1	1567084	Fork (48 in.) .....	..	2	..	..
1	1567086	Fork (60 in.) .....	..	2	..	..
1	1567088	Fork (84 in.) .....	..	2	..	..
1	1452066	Bushing .....	..	..	..	1
1	1454339	Snap Ring .....	..	..	..	2

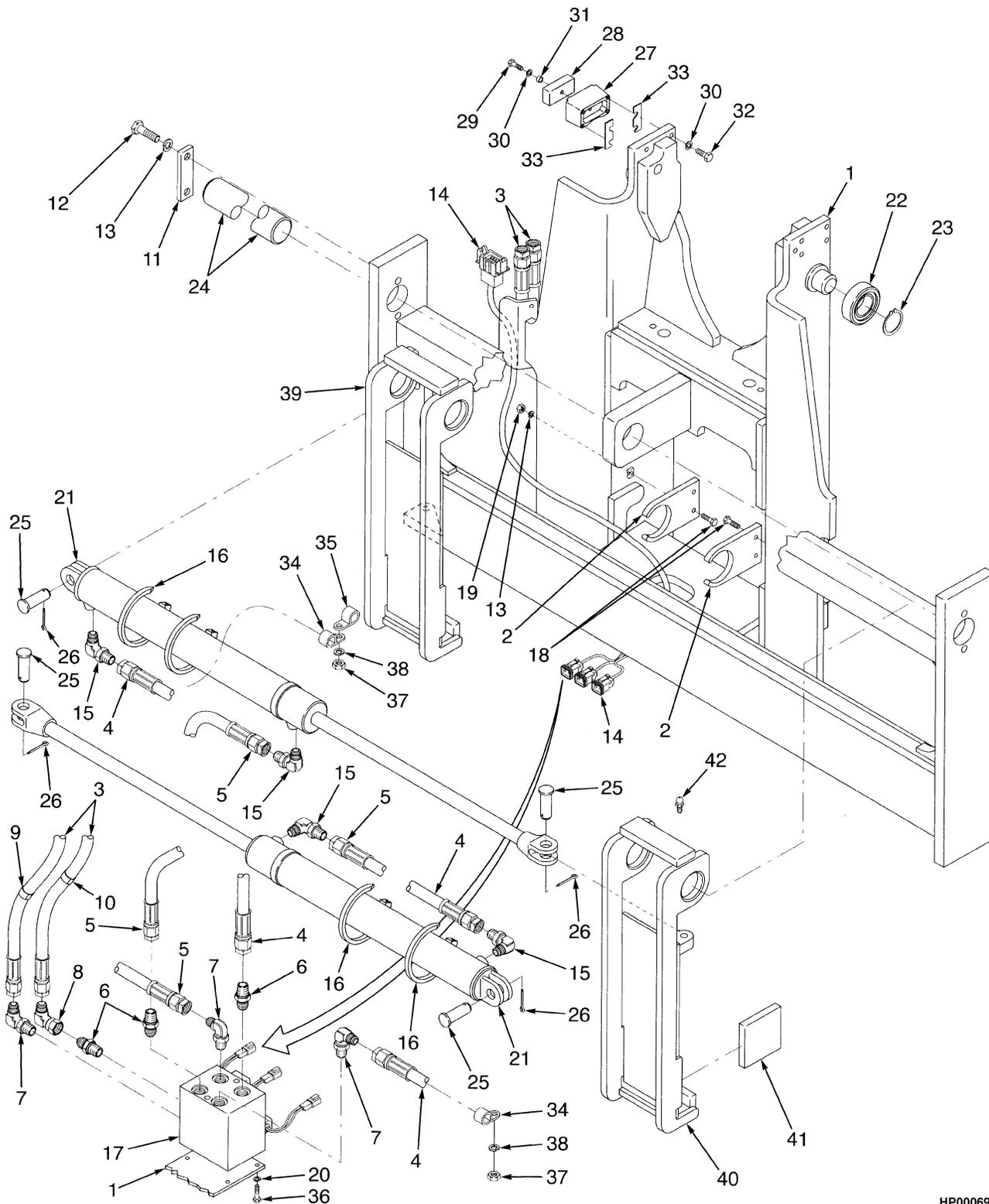
FOOTNOTES:

- a** Optional

SIDE-SHIFT CYLINDER

ITEM	PART NO.	DESCRIPTION	QTY
	376770	Sideshift Cylinder	1
1	376817	Tube Wldmt-Cylinder	1
2	376813	Cylinder Rod	1
3	376815	Retainer	1
4	307275	Snap Ring	1
5	376839	Retaining Ring	1
6	330692	Rod Seal	1
7	154358	Back-Up Ring	1
8	15880	O-Ring	1
9	376814	Piston	1
10	638292	Back-Up Ring	1
11	637161	Rod Seal	1
12	53157	Locknut	1
13	203367	Wiper	1
	376883	Kit-Seal	1

SIDE-SHIFT CARRIAGE (FIGURE 12-4) DUAL FUNCTION WITH FORK POSITIONER — TWO STAGE LIMITED FREE-LIFT



HP000690

SIDE-SHIFT CARRIAGE
DUAL FUNCTION WITH FORK POSITIONER – TWO STAGE LIMITED FREE-LIFT

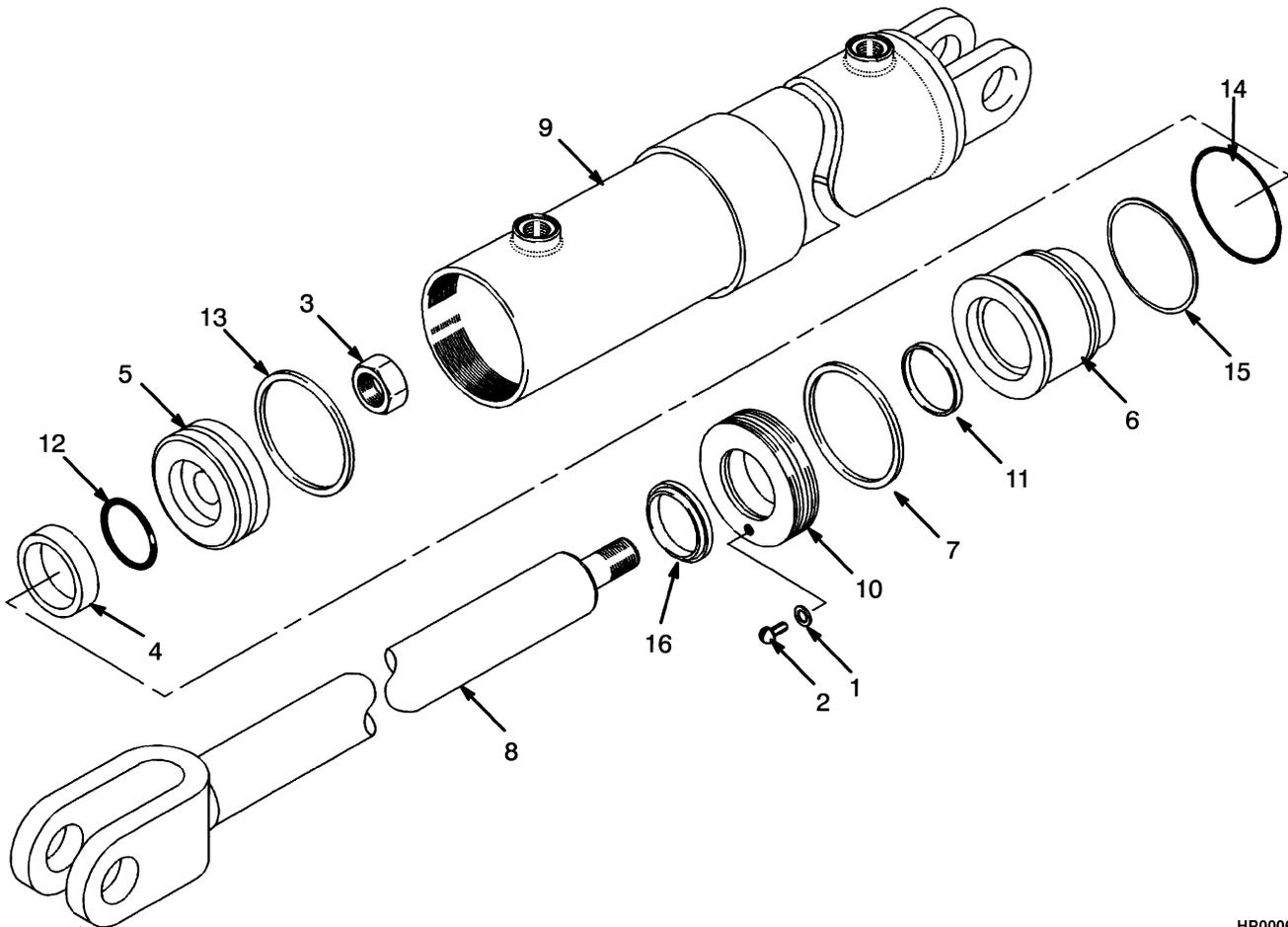
ITEM	PART NO.	DESCRIPTION	QTY
	a 2043328	Carriage	1
	b 2043330	Carriage	1
1	b 1451134	Carriage Wldmt	1
1	376624	Stubshaft	4
1	a 1451318	Carriage Wldmt	1
1	376624	Stubshaft	4
2	1451155	Bracket	2
3	1490466	Hose Assy	2
4	1490489	Hose Assy	2
5	1490490	Hose Assy	2
6	1486746	Fitting	3
6	16485	O-Ring	1
6	1527817	O-Ring	1
7	1487065	Fitting	3
7	16485	O-Ring	1
7	1527817	O-Ring	1
8	1486772	Fitting	1
8	1527817	O-Ring	1
9	342675	Identification Band (B)	2
10	342676	Identification Band (C)	2
11	1453728	Plate (Keeper)	2
12	293647	Capscrew	4
13	292683	Lockwasher	8
14	2054264	Wire Harness (Selector Valve)	1
14	1330419	Connector	1
14	1330424	Connector	1
14	1352602	Connector	1
14	1352603	Connector	1
14	1330434	Terminal	4
15	1473897	Fitting	4
15	16484	O-Ring	1
15	1527817	O-Ring	1
16	323864	Strap Clamp	4
17	1372994	Selector Valve	1
17	1452130	Cartridge (Includes Solenoid)	3
17	1452131	Kit-Seal	1
17	1452132	Plug	3
17	1452138	Bolt	4
17	1452134	Cover Plate	1
17	1452135	Washer	4
18	292529	Capscrew	4
19	216877	Nut	4
20	292682	Lockwasher	2
21	1451149	Cylinder Assy (☞Figure 12-3).....	2
22	376056	Load Roller	4
23	41459	Snap Ring	4
24	1528881	Pin	1
25	1373216	Pin	4
26	302456	Roll Pin	8
27	1301018	Bracket (Bearing)	4

SIDE-SHIFT CARRIAGE
DUAL FUNCTION WITH FORK POSITIONER – TWO STAGE LIMITED FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
28	1335179	Bearing	4
29	376203	Capscrew	4
30	15156	Lockwasher	20
31	1301016	Spacer	4
32	221510	Capscrew (2.0 in.)	16
33	1310592	Shim (0.030 in.)	AR
34	198678	Clamp	2
35	251994	Clamp	1
36	292515	Capscrew	2
37	239503	Nut	2
38	292681	Lockwasher	2
39	1451923	Carrier (RH)	1
40	1451786	Carrier (LH)	1
41	1451839	Block (Bearing)	2
42	16001	Grease Fitting	2

FOOTNOTES:**a** H170HD-H210HD**b** H230HD-H280HD

SIDE-SHIFT CYLINDER (FIGURE 12-5) DUAL FUNCTION WITH FORK POSITIONER — TWO STAGE LIMITED FREE-LIFT

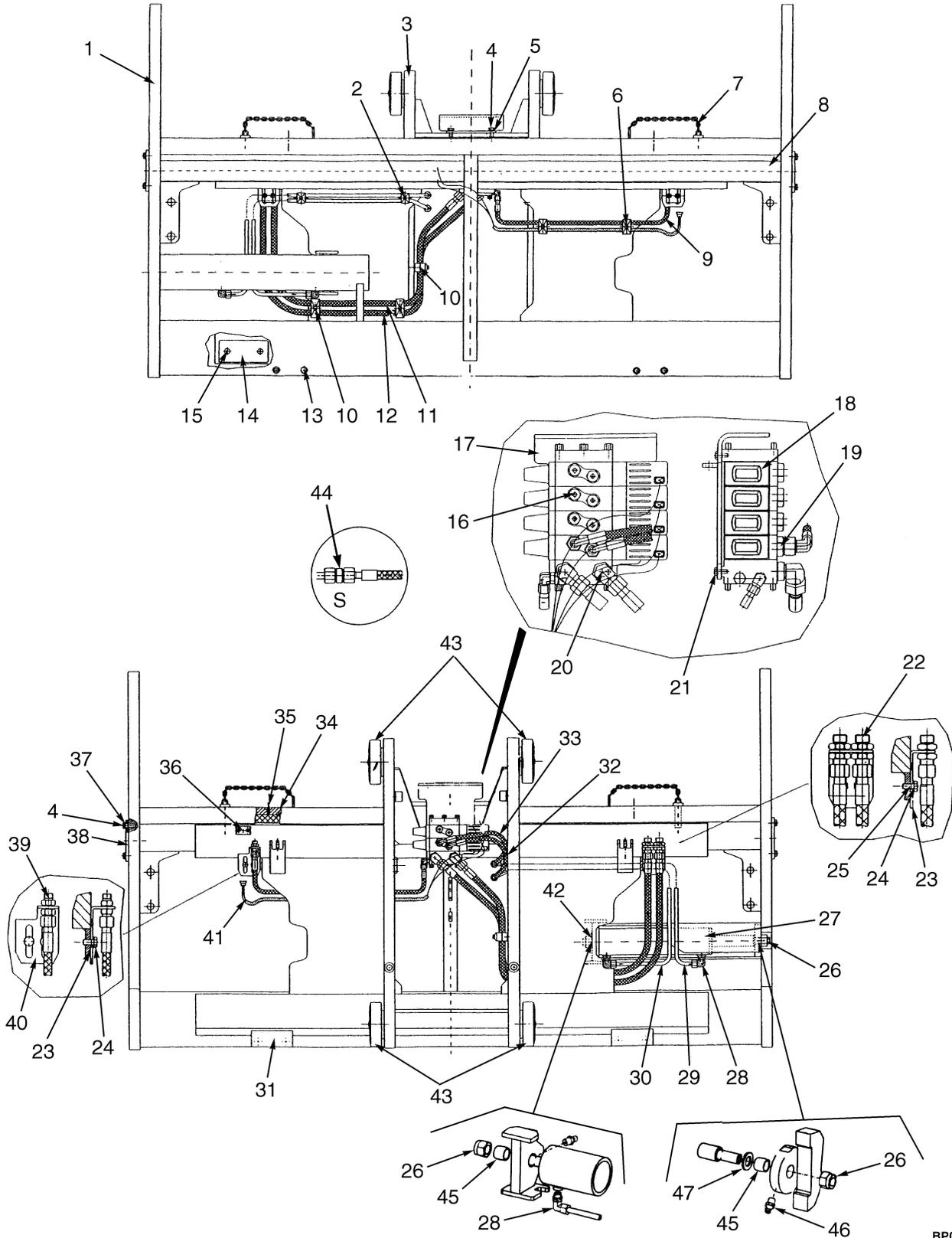


HP000691

**SIDE-SHIFT CYLINDER
DUAL FUNCTION WITH FORK POSITIONER – TWO STAGE LIMITED FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	1451149	Cylinder Assy	1
1	1347405	Lockwasher	1
2	18704	Capscrew	1
3	1455367	Nut	1
4	1455368	Spacer	1
5	1455369	Piston	1
6	1455363	Bearing	1
7	1455364	Retainer	1
8	1455365	Rod Assy	1
9	1455366	Tube Assy	1
10	1455370	Rod Wiper	1
11	1455371	Ring	1
12	1455373	O-Ring	1
13	1455372	Seal	1
14	15880	O-Ring	1
15	154358	Back-Up Ring	1
16	361000	Plug	1
	1455362	Kit-Seal	1

SIDE-SHIFT CARRIAGE (FIGURE 12-6) FOUR, FIVE, AND SIX FUNCTION — THREE STAGE FULL FREE-LIFT



BP020018

SIDE-SHIFT CARRIAGE

FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT

KEY:**A: Four Function****B: Five Function****C: Six Function**

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
	2054857	Side-Shift Carriage (Four Function)	1	..	..
	2054858	Side-Shift Carriage (Five Function) .....	..	1	..
	2054859	Side-Shift Carriage (Six Function) (Illustrated) .....	..	..	1
1	.....	Frame	1	1	1
2	1536973	Clamp	2	2	2
3	.....	Frame (Mobile)	1	1	1
4	1529191	Washer	6	6	6
5	1536906	Bolt	2	2	2
6	1536890	Clamp	2	2	2
7	1536893	Pin (Fork Locking)	2	2	2
8	1536894	Pin (Load Arm)	2	2	2
9	1536903	Hose	1	1	1
10	1536891	Clamp	3	3	3
11	1536904	Hose	1	1	1
12	1536905	Hose	1	1	1
13	1536980	Bolt	4	4	4
14	1536985	Pad (Lower)	3	3	3
15	1536984	Bolt	6	6	6
16	1536897	Fitting	2	4	6
17	1536901	Support	1	..	..
18	2055960	Directional Control Valve, Two-Section (☞Figure 12-3).....	1	..	..
18	2055961	Directional Control Valve, Three-Section (☞Figure 12-3).....	..	1	..
18	2055962	Directional Control Valve, Four-Section (☞Figure 12-3).....	..	..	1
19	1536972	Fitting	2	2	2
20	1536899	Fitting	2	2	2
21	1536898	Bolt	4	4	4
22	1534551	Fitting	2	2	2
23	1536889	Support	1	1	1
24	1534510	Washer	1	1	1
25	1536888	Bolt	4	4	4
26	1536979	Nut	2	2	2
27	376770	Sideshift Cylinder (☞Figure 12-3).....	1	1	1
28	1536900	Fitting	2	2	2
29	1536975	Tube	1	1	1
30	1536974	Tube	1	1	1
31	1536981	Hook (Lower)	2	2	2
32	1536976	Hose Assy	1	1	1
33	1536977	Hose Assy	1	1	1
34	1536983	Pad (Upper)	3	3	3
35	1536982	Grease Fitting	3	3	3
36	1529227	Clamp	1	1	1
37	1529190	Screw	4	4	4
38	1536892	Support (Shaft)	2	2	2
39	1529221	Fitting	1	1	1

SIDE-SHIFT CARRIAGE FOUR, FIVE, AND SIX FUNCTION – THREE STAGE FULL FREE-LIFT

KEY:

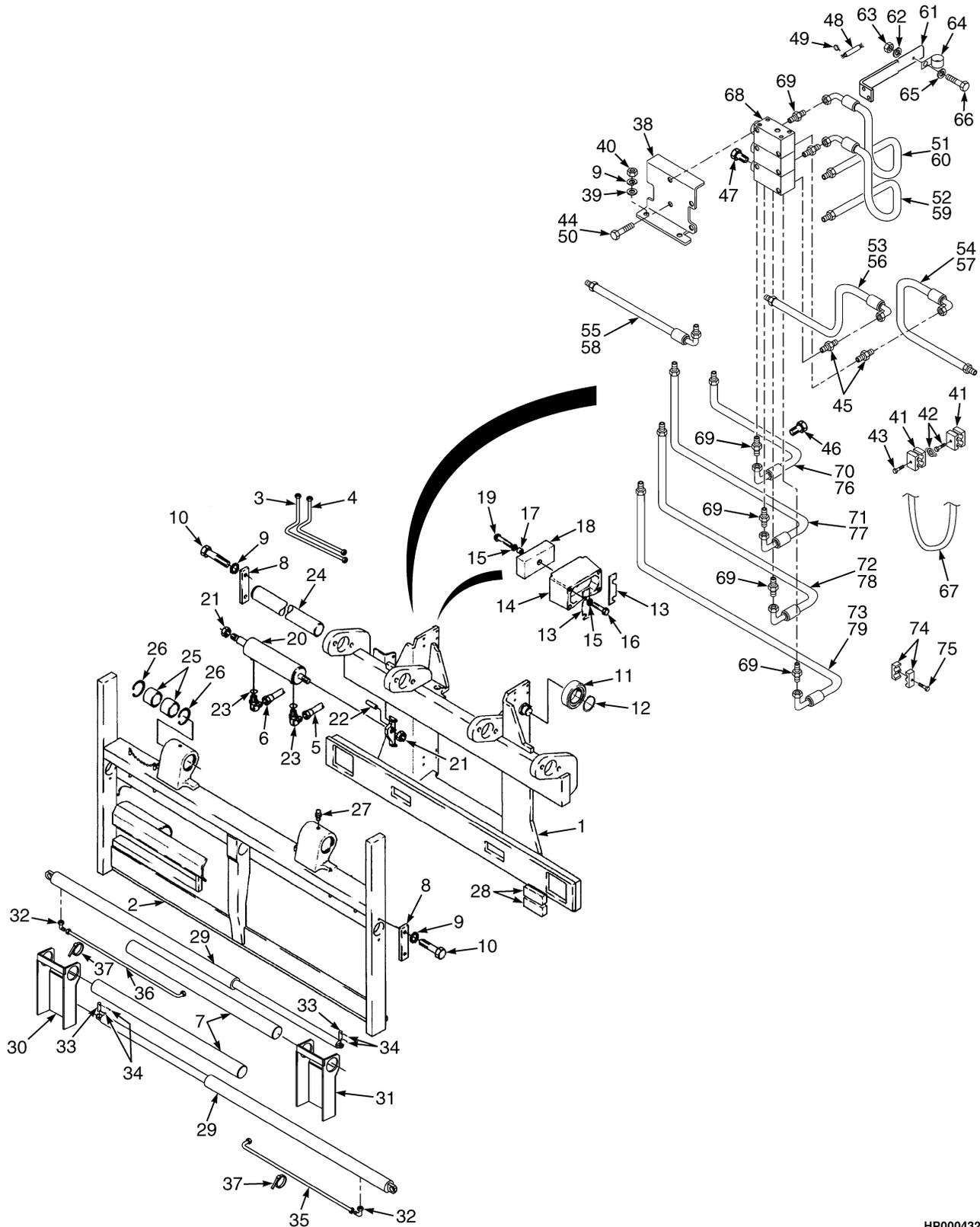
A: Four Function

B: Five Function

C: Six Function

ITEM	PART NO.	DESCRIPTION	QTY		
			A	B	C
40	1534508	Support	1	1	1
41	2087295	Wire Harness (Front End) .....	..	1	..
41	2055828	Wire Harness (Front End)	1	..	1
42	1536978	Pin	1	1	1
43	1529236	Load Roller	4	4	4
43	1532830	Kit-Load Roller	1	1	1
43	1532831	Kit-Side Roller	1	1	1
44	1536902	Fitting	2	2	2
45	1624055	Bushing (Spherical)	2	2	2
46	1671705	Grease Fitting	2	2	2
47	15133	Washer	1	1	1

SIDE-SHIFT CARRIAGE (FIGURE 12-7) INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) — TWO STAGE LIMITED FREE-LIFT



HP000432

SIDE-SHIFT CARRIAGE
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	b 2056102	Side-Shift Carriage .....	..	1
	c 2086191	Side-Shift Carriage .....	..	1
	b 2056099	Side-Shift Carriage	1	..
	c 2086189	Side-Shift Carriage	1	..
1	1503376	Frame	1	..
1	376624	Stubshaft	4	..
1	1503462	Frame .....	..	1
1	376624	Stubshaft .....	..	4
2	1503450	Apron	1	1
3	2056106	Tube	1	..
3	2056110	Tube .....	..	1
4	2056107	Tube	1	..
4	2056111	Tube .....	..	1
5	2056108	Tube	1	..
5	2056112	Tube .....	..	1
6	2056109	Tube	1	..
6	2056113	Tube .....	..	1
7	376127	Pin	2	2
8	376776	Plate	6	6
9	292683	Lockwasher	14	14
10	293647	Capscrew	12	12
11	376056	Load Roller	4	4
12	41459	Snap Ring	4	4
13	1310592	Shim (0.030 in.)	AR	AR
14	1301018	Bracket	4	4
15	15156	Lockwasher	20	20
16	221506	Capscrew	16	16
17	1301016	Spacer	4	4
18	1335179	Bearing	4	4
19	376203	Capscrew	4	4
20	376770	Sideshift Cylinder (☞Figure 12-3).....	1	1
21	53157	Locknut	2	2
23	1487064	Fitting	2	2
24	376128	Bar	2	2
25	376773	Bushing	4	4
26	183609	Snap Ring	4	4
27	16001	Grease Fitting	2	2
28	351458	Bearing	6	6
29	2046669	Cylinder Assy (☞Figure 10-14).....	2	2
30	1501460	Guide (RH)	1	1
31	1501461	Guide (LH)	1	1
32	1487064	Fitting	4	4
33	1502390	Pin	4	4
34	15236	Cotter Pin	8	8
35	2046745	Tube Assy	1	1

SIDE-SHIFT CARRIAGE INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
35	1491350	Fitting	2	2
35	1487164	Fitting	2	2
36	2046746	Tube Assy	1	1
36	1491350	Fitting	2	2
36	1487164	Fitting	2	2
37	112989	Hose Clamp	4	4
38	1527372	Bracket Wldmt	1	1
39	320162	Washer	2	2
40	302402	Locknut	2	2
41	1393802	Clamp	2	2
42	221463	Capscrew	1	1
43	1496449	Clamp	4	4
44	.....	Washer	1	1
45	1487069	Fitting	2	2
45	16485	O-Ring	1	1
45	1527818	O-Ring	1	1
46	1486743	Fitting	2	2
46	16484	O-Ring	1	1
46	1527817	O-Ring	1	1
47	1486740	Fitting	1	1
47	16483	O-Ring	1	1
47	1527816	O-Ring	1	1
48	b 2087295	Wire Harness (Front End)	1	1
48	c 2092486	Wire Harness (Front End)	1	1
49	137852	Strap Clamp	16	16
50	3066037	Loctite	AR	AR
51	2056066	Hose Assy	1	1
52	2056067	Hose Assy	1	1
53	2056068	Hose Assy	1	1
53	2056069	Hose Assy (Alternate Part)	1	1
54	2056069	Hose Assy	1	1
55	2056776	Hose Assy	1	1
56	342675	Identification Band	4	4
57	342676	Identification Band	4	4
58	342677	Identification Band	2	2
59	1332237	Identification Band	4	4
60	1350854	Identification Band	4	4
61	1506110	Bracket	1	1
62	320157	Washer	2	2
63	302400	Nut	2	2
64	1506109	Hose Clamp	2	2
65	292681	Lockwasher	1	1
66	293615	Capscrew	1	1
67	239308	Sleeve	2	2
68	b 2055961	Directional Control Valve, Three-Section (☞ Figure 12-1).....	1	1

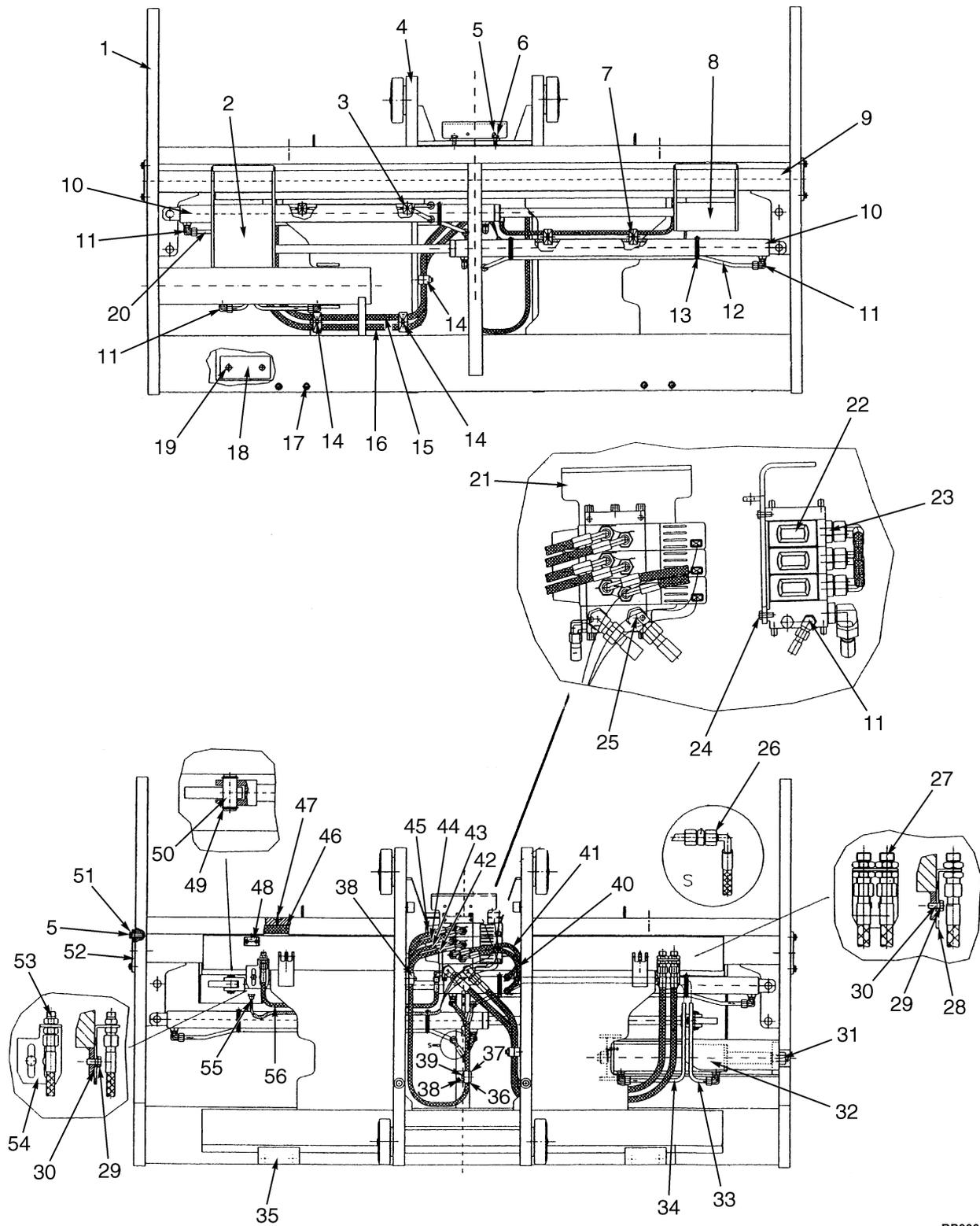
SIDE-SHIFT CARRIAGE
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A:** H170HD-H210HD**B:** H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
68	c 2092484	Directional Control Valve, Three-Section (☞Figure 12-1).....	1	1
69	1486743	Fitting	4	4
69	16484	O-Ring	1	1
69	1527817	O-Ring	1	1
70	2056070	Hose Assy	1	1
71	2056071	Hose Assy	1	1
72	2056072	Hose Assy	1	1
73	2056073	Hose Assy	1	1
74	1506109	Hose Clamp	1	1
75	293615	Capscrew	1	1
76	1350855	Identification Band	2	2
77	1350856	Identification Band	2	2
78	1350857	Identification Band	2	2
79	1350858	Identification Band	2	2
	ac 15133	Washer	1	1
	ac 16041	Grease Fitting	1	1
	ac 16046	Grease Fitting	1	1
	ac 1624055	Bushing (Spherical)	2	2
	1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**c** 11/2006 →**b** → 11/2006

SIDE-SHIFT CARRIAGE (FIGURE 12-8) INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) — THREE STAGE FULL FREE-LIFT



BP000388

SIDE-SHIFT CARRIAGE
INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	b 2055180	Side-Shift Carriage (Individual Fork Positioner)	1
	c 2086270	Side-Shift Carriage (Individual Fork Positioner)	1
1	.....	Frame	1
2	1537025	Guide (RH)	1
3	1536973	Clamp	2
4	.....	Frame (Mobile)	1
5	1529191	Washer	6
6	1536906	Bolt	2
7	1536890	Clamp	2
8	1537024	Guide (LH)	1
9	1536894	Pin (Load Arm)	2
10	2046669	Cylinder Assy (☞Figure 10-14).....	2
11	1536900	Fitting	7
12	1537016	Tube	1
13	1537017	Clamp	4
14	1536891	Clamp	3
15	1536904	Hose	1
16	1536905	Hose	1
17	1536980	Bolt	4
18	1536985	Pad (Lower)	3
19	1536984	Bolt	6
20	1537015	Tube	1
21	1536901	Support	1
22	b 2055961	Directional Control Valve, Three-Section (☞Figure 12-1).....	1
22	c 2092484	Directional Control Valve, Three-Section (☞Figure 12-1).....	1
23	1536972	Fitting	6
24	1536898	Bolt	4
25	1536899	Fitting	2
26	1536902	Fitting	2
27	1534551	Fitting	1
28	1534510	Washer	4
29	1536889	Support	2
30	1536888	Bolt	4
31	1536979	Nut	2
32	376770	Sideshift Cylinder (☞Figure 12-3).....	1
33	1536975	Tube	1
34	1536974	Tube	1
35	1536981	Hook (Lower)	2
36	1537011	Nut	2
37	1537010	Support	1
38	1537014	Support	2
39	1537012	Bolt	2
40	1536976	Hose Assy	1
41	1536977	Hose Assy	1
42	1537018	Hose Assy	1
43	1537019	Hose Assy	1
44	1537020	Hose Assy	1
45	1537021	Hose Assy	1
46	1536983	Pad (Upper)	3
47	1536982	Grease Fitting	3

SIDE-SHIFT CARRIAGE INDIVIDUAL FORK POSITIONER (FIVE FUNCTION) – THREE STAGE FULL FREE-LIFT

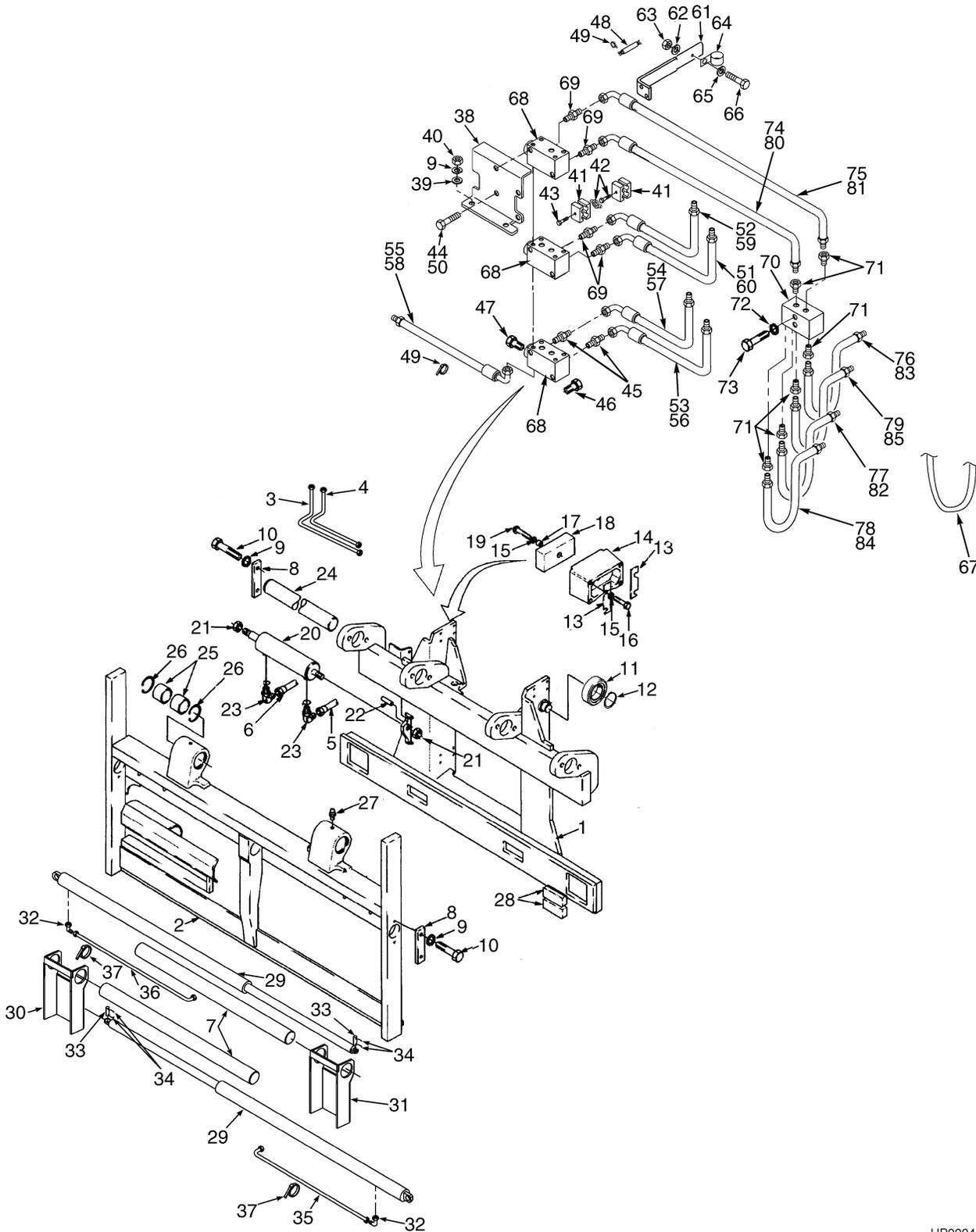
ITEM	PART NO.	DESCRIPTION	QTY
48	1529227	Clamp	1
49	1537022	Snap Ring	8
50	1537023	Pin (Fork Position Cylinder)	4
51	1529190	Screw	4
52	1536892	Support (Shaft)	2
53	1529221	Fitting	1
54	1534508	Support	1
55	b 2087295	Wire Harness (Front End)	1
55	c 2092486	Wire Harness (Front End)	1
56	1536903	Hose	1
	a 1671705	Grease Fitting	2

FOOTNOTES:

a Not Illustrated
b → 11/2006

c 10/2006 →

SIDE-SHIFT CARRIAGE (FIGURE 12-9) SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) — TWO STAGE LIMITED FREE-LIFT



HP000439

SIDE-SHIFT CARRIAGE

SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	b 2056103	Side-Shift Carriage .....	..	1
	d 2086192	Side-Shift Carriage .....	..	1
	b 2056100	Side-Shift Carriage	1	..
	d 2086190	Side-Shift Carriage	1	..
1	1503376	Frame	1	..
1	376624	Stubshaft	4	..
1	1503462	Frame .....	..	1
1	376624	Stubshaft .....	..	4
2	1503450	Apron	1	1
3	2056106	Tube	1	..
3	2056110	Tube .....	..	1
4	2056107	Tube	1	..
4	2056111	Tube .....	..	1
5	2056108	Tube	1	..
5	2056112	Tube .....	..	1
6	2056109	Tube	1	..
6	2056113	Tube .....	..	1
7	376127	Pin	2	2
8	376776	Plate	6	6
9	292683	Lockwasher	14	14
10	293647	Capscrew	12	12
11	376056	Load Roller	4	4
12	41459	Snap Ring	4	4
13	1310592	Shim (0.030 in.)	AR	AR
14	1301018	Bracket	4	4
15	15156	Lockwasher	20	20
16	221506	Capscrew	16	16
17	1335179	Bearing	4	4
18	1301016	Spacer	4	4
19	376203	Capscrew	4	4
20	376770	Sideshift Cylinder (☞Figure 12-3).....	1	1
21	53157	Locknut	2	2
22	68551	Roll Pin	1	1
23	1487064	Fitting	2	2
23	16483	O-Ring	1	1
23	1527817	O-Ring	1	1
24	376128	Bar	2	2
25	376773	Bushing	4	4
26	183609	Snap Ring	4	4
27	16001	Grease Fitting	2	2
28	351458	Bearing	6	6
29	2046669	Cylinder Assy (☞Figure 10-14).....	2	2
30	1501460	Guide (RH)	1	1
31	1501461	Guide (LH)	1	1
32	1487064	Fitting	4	4

SIDE-SHIFT CARRIAGE SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:
A: H170HD-H210HD
B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
32	16483	O-Ring	1	1
32	1527817	O-Ring	1	1
33	1502390	Pin	4	4
34	15236	Cotter Pin	8	8
35	2046745	Tube Assy	1	1
36	2046746	Tube Assy	1	1
37	112989	Hose Clamp	4	4
38	1527372	Bracket Wldmt	1	1
39	320162	Washer	2	2
40	302402	Locknut	2	2
41	1393802	Clamp	2	2
42	1496449	Clamp	1	1
43	221463	Capscrew	1	1
44	16836	Capscrew	4	4
45	1487069	Fitting	2	2
45	16485	O-Ring	1	1
45	1527818	O-Ring	1	1
46	1486743	Fitting	2	2
46	16484	O-Ring	1	1
46	1527817	O-Ring	1	1
47	1486740	Fitting	1	1
47	16483	O-Ring	1	1
47	1527816	O-Ring	1	1
48	b 2087294	Wire Harness (Front End)	1	1
48	d 2092486	Wire Harness (Front End)	1	1
49	137852	Strap Clamp	16	16
50	3066037	Loctite	AR	AR
51	2056066	Hose Assy	1	1
52	2056067	Hose Assy	1	1
53	2056068	Hose Assy	1	1
53	2056069	Hose Assy (Alternate Part)	1	1
54	2056069	Hose Assy	1	1
55	2056776	Hose Assy	1	1
56	342675	Identification Band	4	4
57	342676	Identification Band	4	4
58	342677	Identification Band	2	2
59	1332237	Identification Band	4	4
60	1350854	Identification Band	4	4
61	1506110	Bracket	1	1
62	320157	Washer	2	2
63	302400	Nut	2	2
64	1506109	Hose Clamp	2	2
65	292681	Lockwasher	1	1
66	293615	Capscrew	1	1
67	239308	Sleeve	2	2

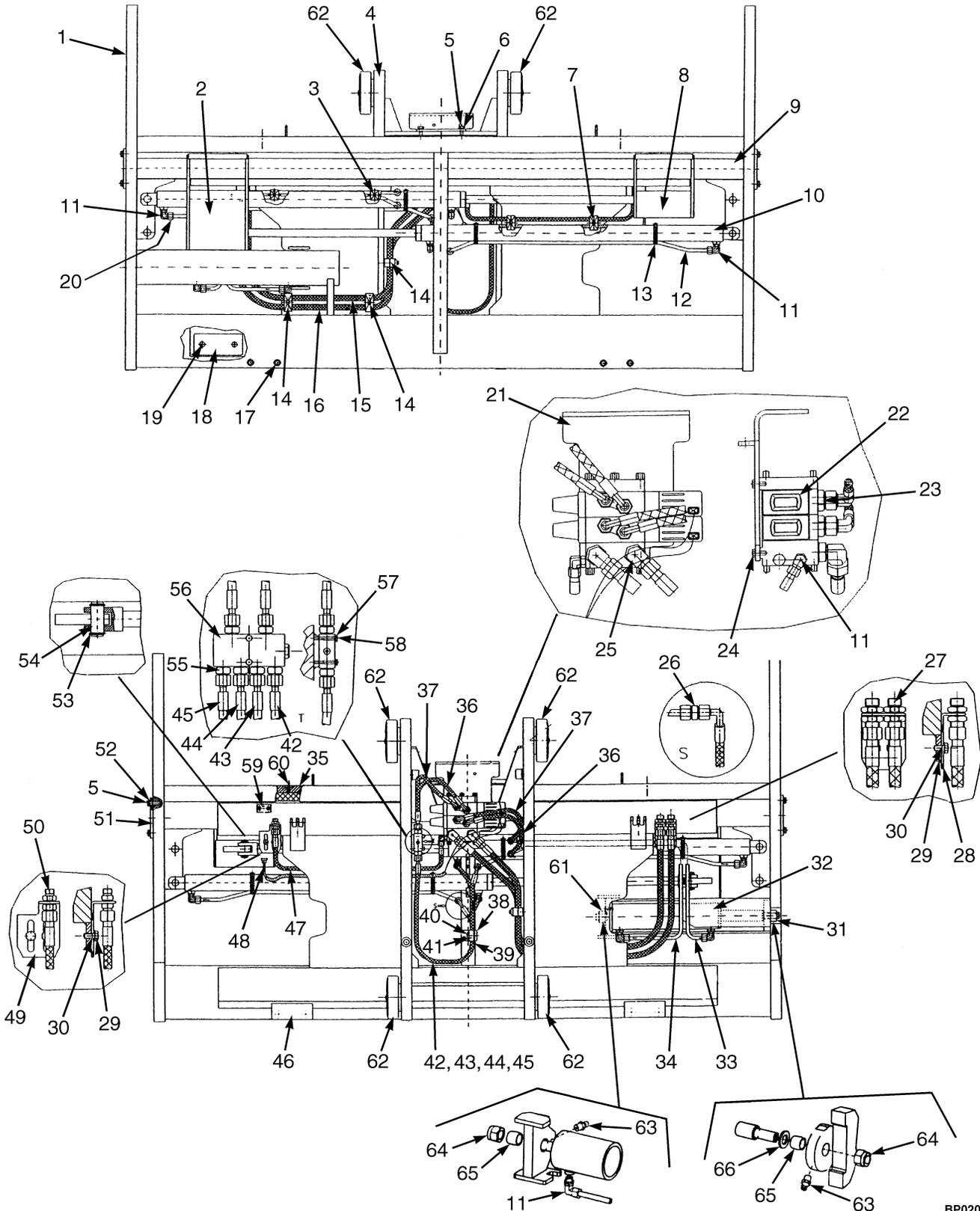
SIDE-SHIFT CARRIAGE
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
68	b 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
68	d 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
69	1486743	Fitting	2	2
69	16484	O-Ring	1	1
69	1527817	O-Ring	1	1
70	c 1551865	Hydraulic Control Valve	1	1
70	e 1600818	Manifold	1	1
70	1560246	Manifold	1	1
70	c 1589219	Cartridge	1	1
70	e 1600819	Valve	1	1
70	1560248	Relief Valve	2	2
71	1486740	Fitting	6	6
71	16483	O-Ring	1	1
71	1527816	O-Ring	1	1
72	320156	Washer	2	2
73	293606	Capscrew	2	2
74	2056074	Hose Assy	1	1
75	2056075	Hose Assy	1	1
76	2047812	Hose Assy	1	1
77	2047813	Hose Assy	1	1
78	2047814	Hose Assy	1	1
79	2047815	Hose Assy	1	1
80	1332233	Identification Band	2	2
81	1332234	Identification Band	2	2
82	1350855	Identification Band	2	2
83	1350856	Identification Band	2	2
84	1350857	Identification Band	2	2
85	1350858	Identification Band	2	2
	ad 15133	Washer	1	1
	ad 16041	Grease Fitting	1	1
	ad 16046	Grease Fitting	1	1
	ad 1624055	Bushing (Spherical)	2	2
	a 1486772	Fitting	1	1

FOOTNOTES:**a** Not Illustrated**b** → 11/2006**c** → S/N G007E02235C**d** 11/2006 →**e** S/N G007E02236C →

SIDE-SHIFT CARRIAGE (FIGURE 12-10) SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) — THREE STAGE FULL FREE-LIFT



BP020016

SIDE-SHIFT CARRIAGE
SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
	a 2055181	Side-Shift Carriage (Simultaneous Fork Positioner)	1
	d 2086271	Side-Shift Carriage (Simultaneous Fork Positioner)	1
1	.....	Frame	1
2	1537025	Guide (RH)	1
3	1536973	Clamp	2
4	.....	Frame (Mobile)	1
5	1529191	Washer	6
6	1536906	Bolt	2
7	1536890	Clamp	2
8	1537024	Guide (LH)	1
9	1536894	Pin (Load Arm)	1
10	2046669	Cylinder Assy (☞Figure 10-14).....	2
11	1536900	Fitting	7
12	1537016	Tube	1
13	1537017	Clamp	4
14	1536891	Clamp	3
15	1536904	Hose	1
16	1536905	Hose	1
17	1536980	Bolt	4
18	1536985	Pad (Lower)	3
19	1536984	Bolt	6
20	1537015	Tube	1
21	1536901	Support	1
22	a 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1
22	d 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1
23	1536972	Fitting	6
24	1536898	Bolt	4
25	1536899	Fitting	2
26	1536902	Fitting	2
27	1534551	Fitting	2
28	1536889	Support	1
29	1534510	Washer	4
30	1536888	Bolt	4
31	1536979	Nut	2
32	376770	Sideshift Cylinder (☞Figure 12-3).....	1
33	1536975	Tube	1
34	1536974	Tube	1
35	1536983	Pad (Upper)	3
36	1536976	Hose Assy	2
37	1536977	Hose Assy	2
38	1537010	Support	1
39	1537011	Nut	2
40	1537012	Bolt	2
41	1537014	Support	2
42	1537027	Hose	1
43	1537028	Hose	1
44	1537029	Hose	1
45	1537030	Hose	1
46	1536981	Hook (Lower)	2
47	1536903	Hose	1

SIDE-SHIFT CARRIAGE SIMULTANEOUS FORK POSITIONER (FOUR FUNCTION) – THREE STAGE FULL FREE-LIFT

ITEM	PART NO.	DESCRIPTION	QTY
48	a 2087294	Wire Harness (Front End)	1
48	d 2092486	Wire Harness (Front End)	1
49	1534508	Support	1
50	1529221	Fitting	1
51	1536892	Support (Shaft)	2
52	1529190	Screw	4
53	1537022	Snap Ring	8
54	1537023	Pin (Fork Position Cylinder)	4
55	1537033	Connector	6
56	b 1551865	Hydraulic Control Valve	1
56	c 1600818	Manifold	1
56	1560246	Manifold	1
56	b 1589219	Cartridge	1
56	c 1600819	Valve	1
56	1560248	Relief Valve	2
57	1537032	Bolt	2
58	1537031	Washer	2
59	1529227	Clamp	1
60	1536982	Grease Fitting	3
61	1536978	Pin	1
62	1529236	Load Roller	4
	1532830	Kit-Load Roller	1
	1532831	Kit-Side Roller	1
63	1671705	Grease Fitting	2
64	1536979	Nut	2
65	1624055	Bushing (Spherical)	2
66	15133	Washer	1

FOOTNOTES:

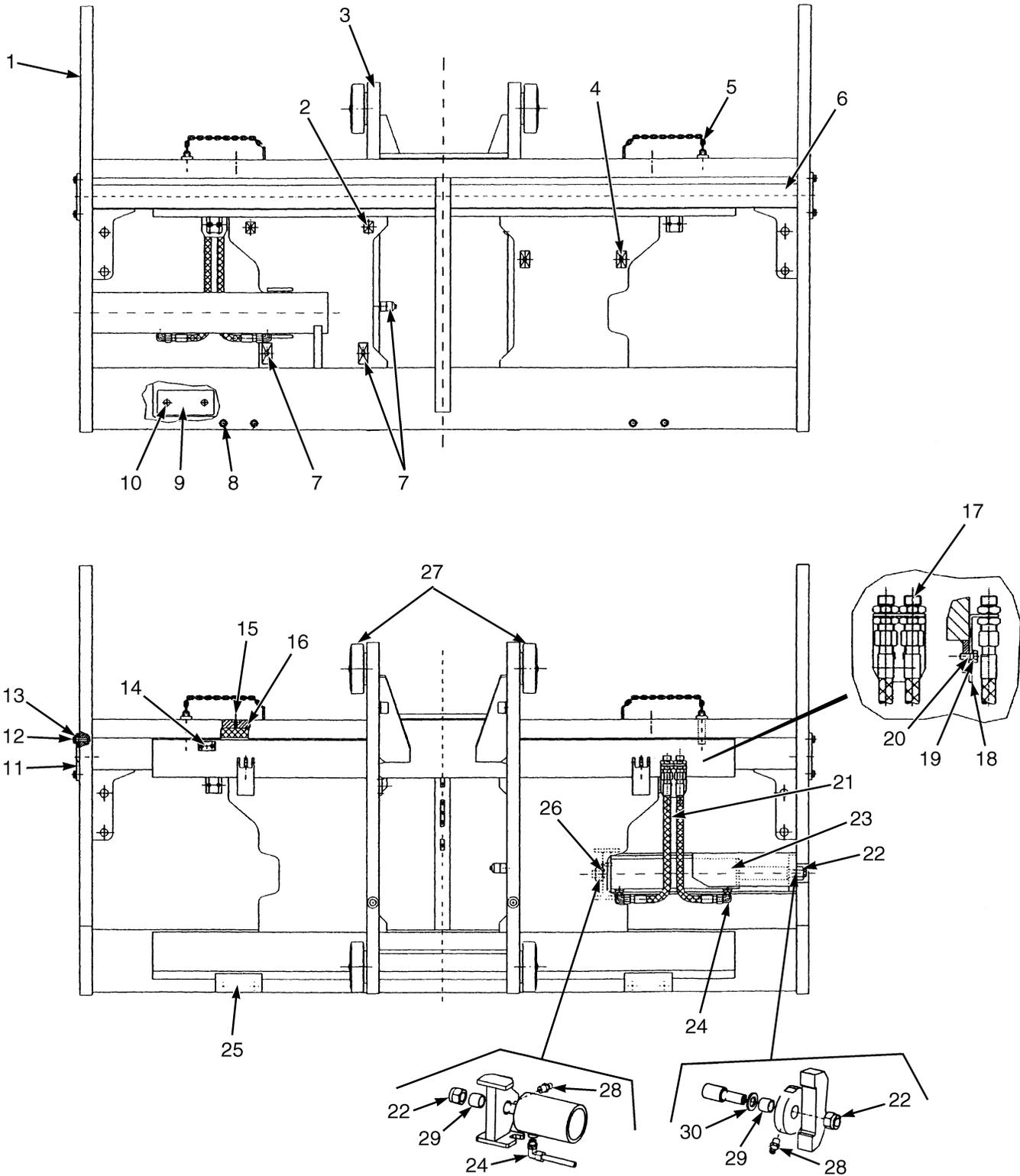
a → 11/2006

b → S/N G007E02235C

c → S/N G007E02236C

d 11/2006 →

SIDE-SHIFT CARRIAGE (FIGURE 12-11) THREE FUNCTION — THREE STAGE FULL FREE-LIFT

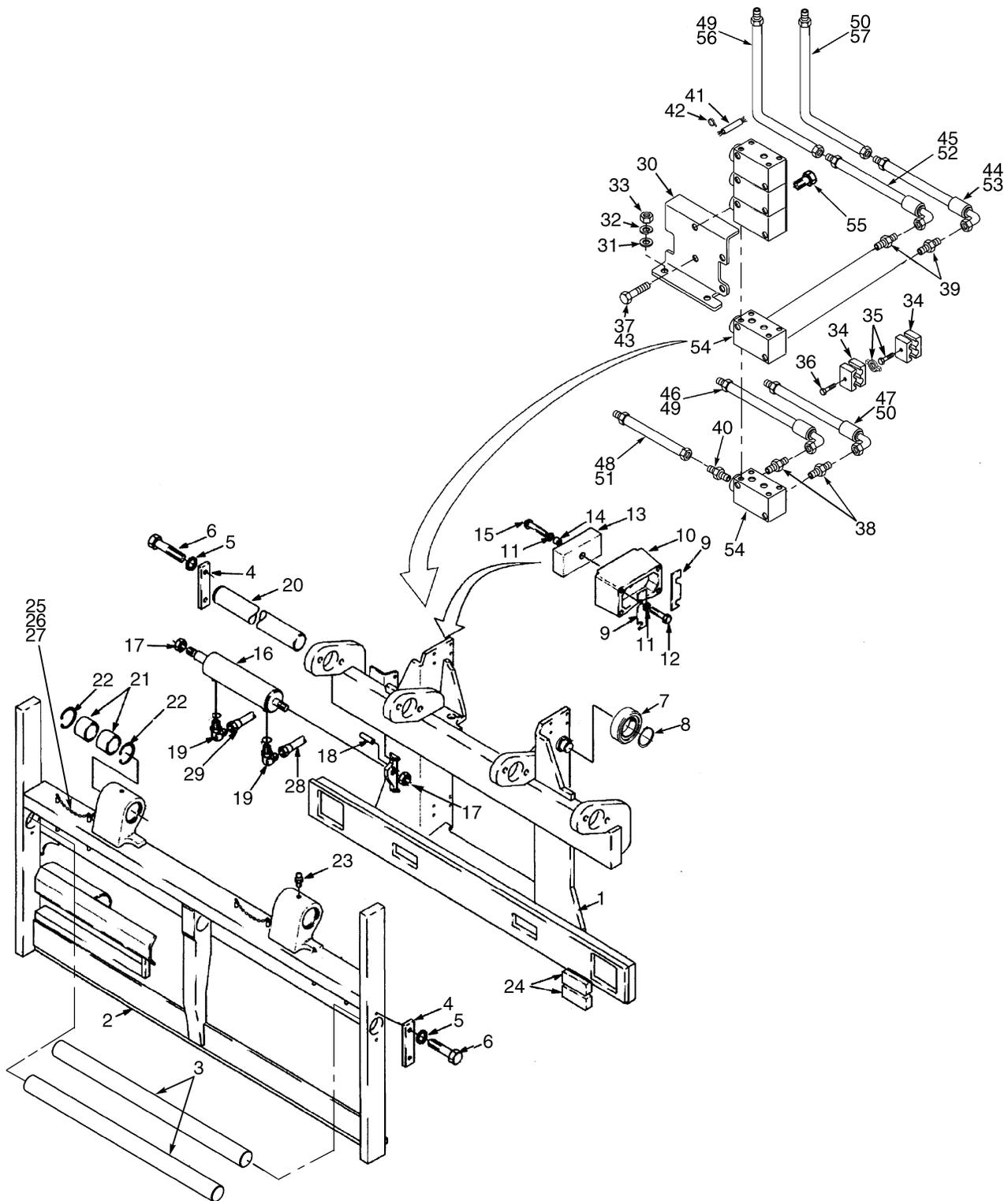


BP020015

**SIDE-SHIFT CARRIAGE
THREE FUNCTION – THREE STAGE FULL FREE-LIFT**

ITEM	PART NO.	DESCRIPTION	QTY
	2054856	Side-Shift Carriage (Three Function)	1
1	.....	Frame	1
2	1536973	Clamp	2
3	.....	Frame (Mobile)	1
4	1536890	Clamp	2
5	1334581	Pin (Fork Locking)	1
6	1536894	Pin (Load Arm)	1
7	1536891	Clamp	3
8	1536980	Bolt	4
9	1536985	Pad (Lower)	3
10	1536984	Bolt	6
11	1536892	Support (Shaft)	2
12	1529191	Washer	6
13	1529190	Screw	4
14	1529227	Clamp	1
15	1536982	Grease Fitting	3
16	1536983	Pad (Upper)	3
17	1534551	Fitting	2
18	1536889	Support	1
19	1536888	Bolt	4
20	1534510	Washer	4
21	1537128	Hose	2
22	1536979	Nut	2
23	376770	Sideshift Cylinder (☞ Figure 12-3).....	1
24	1536900	Fitting	2
25	1536981	Hook (Lower)	1
26	1536978	Pin	1
27	1529236	Load Roller	4
27	1532830	Kit-Load Roller	1
27	1532831	Kit-Side Roller	1
28	1671705	Grease Fitting	2
29	1624055	Bushing (Spherical)	2
30	15133	Washer	1

SIDE-SHIFT CARRIAGE (FIGURE 12-12) WITH HOSE GROUP — TWO STAGE LIMITED FREE-LIFT



HP000436

SIDE-SHIFT CARRIAGE WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:**A: H170 HD-H210HD****B: H230HD-H280HD**

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
	fg 2056091	Side-Shift Carriage	1	..
	fh 2086258	Side-Shift Carriage	1	..
	fg 2056095	Side-Shift Carriage .....	..	1
	fh 2086262	Side-Shift Carriage .....	..	1
	bg 2056092	Side-Shift Carriage	1	..
	bh 2086259	Side-Shift Carriage	1	..
	bg 2056096	Side-Shift Carriage .....	..	1
	bh 2086263	Side-Shift Carriage .....	..	1
	ag 2056093	Side-Shift Carriage	1	..
	ah 2086260	Side-Shift Carriage	1	..
	ag 2056097	Side-Shift Carriage .....	..	1
	ah 2086264	Side-Shift Carriage .....	..	1
	eg 2056094	Side-Shift Carriage	1	..
	eh 2086261	Side-Shift Carriage	1	..
	eg 2056098	Side-Shift Carriage .....	..	1
	eh 2086265	Side-Shift Carriage .....	..	1
1	1503376	Frame	1	..
1	376624	Stubshaft	4	..
1	1503462	Frame .....	..	1
1	376624	Stubshaft .....	..	4
2	1503450	Apron	1	1
3	376127	Pin	2	1
4	376776	Plate	6	6
5	292683	Lockwasher	12	12
6	293647	Capscrew	12	12
7	376056	Load Roller	4	4
8	41459	Snap Ring	4	4
9	1310592	Shim (0.030 in.)	AR	AR
10	1301018	Bracket	4	4
11	15156	Lockwasher	20	20
12	221506	Capscrew	16	16
13	1335179	Bearing	4	4
14	1301016	Spacer	4	4
15	376203	Capscrew	4	4
16	376770	Sideshift Cylinder (☞Figure 12-3).....	1	1
17	53157	Locknut	2	2
19	1487064	Fitting	2	2
19	16483	O-Ring	1	1
19	1527817	O-Ring	1	1
20	376128	Bar	2	2
21	376773	Bushing	4	4
22	183609	Snap Ring	4	4
23	16001	Grease Fitting	2	2
24	351458	Bearing	6	6
25	1456622	Cable	2	2

SIDE-SHIFT CARRIAGE WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT

KEY:

A: H170 HD-H210HD

B: H230HD-H280HD

ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
26	1334581	Pin (Fork Locking)	4	4
27	815848	Shackle	2	2
28	f 2049840	Tube	1	1
28	c 2056109	Tube	1	..
28	c 2056113	Tube .....	..	1
29	f 2049842	Tube	1	1
29	c 2056108	Tube	1	..
29	c 2056112	Tube .....	..	1
30	1527372	Bracket Wldmt	1	1
31	320162	Washer	2	2
32	292683	Lockwasher	2	2
33	302402	Locknut	2	2
34	1393802	Clamp	2	2
35	1496449	Clamp	1	1
36	221463	Capscrew	1	1
37	16836	Capscrew	4	4
38	1487069	Fitting	2	2
38	16485	O-Ring	1	1
38	1527818	O-Ring	1	1
39	1486743	Fitting	2	2
39	16484	O-Ring	1	1
39	1527817	O-Ring	1	1
40	1486740	Fitting	1	1
40	16483	O-Ring	1	1
40	1527816	O-Ring	1	1
41	bg 2087294	Wire Harness (Front End)	1	1
41	ag 2087295	Wire Harness (Front End)	1	1
41	eg 2055828	Wire Harness (Front End)	1	1
41	ch 2092486	Wire Harness (Front End)	1	1
42	137852	Strap Clamp	16	16
43	3066037	Loctite	AR	AR
44	2056066	Hose Assy	1	1
45	2056067	Hose Assy	1	1
46	2056068	Hose Assy	1	1
46	2056069	Hose Assy (Alternate Part)	1	1
47	2056069	Hose Assy	1	1
48	2056776	Hose Assy	1	1
49	342675	Identification Band	4	4
50	342676	Identification Band	4	4
51	342677	Identification Band	4	4
52	1332237	Identification Band	4	4
53	1350854	Identification Band	4	4
54	bg 2055960	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
54	bh 2092483	Directional Control Valve, Two-Section (☞Figure 12-1).....	1	1
54	ag 2055961	Directional Control Valve, Three-Section (☞Figure 12-1).....	1	1

**SIDE-SHIFT CARRIAGE
WITH HOSE GROUP – TWO STAGE LIMITED FREE-LIFT**

KEY:**A: H170 HD-H210HD****B: H230HD-H280HD**

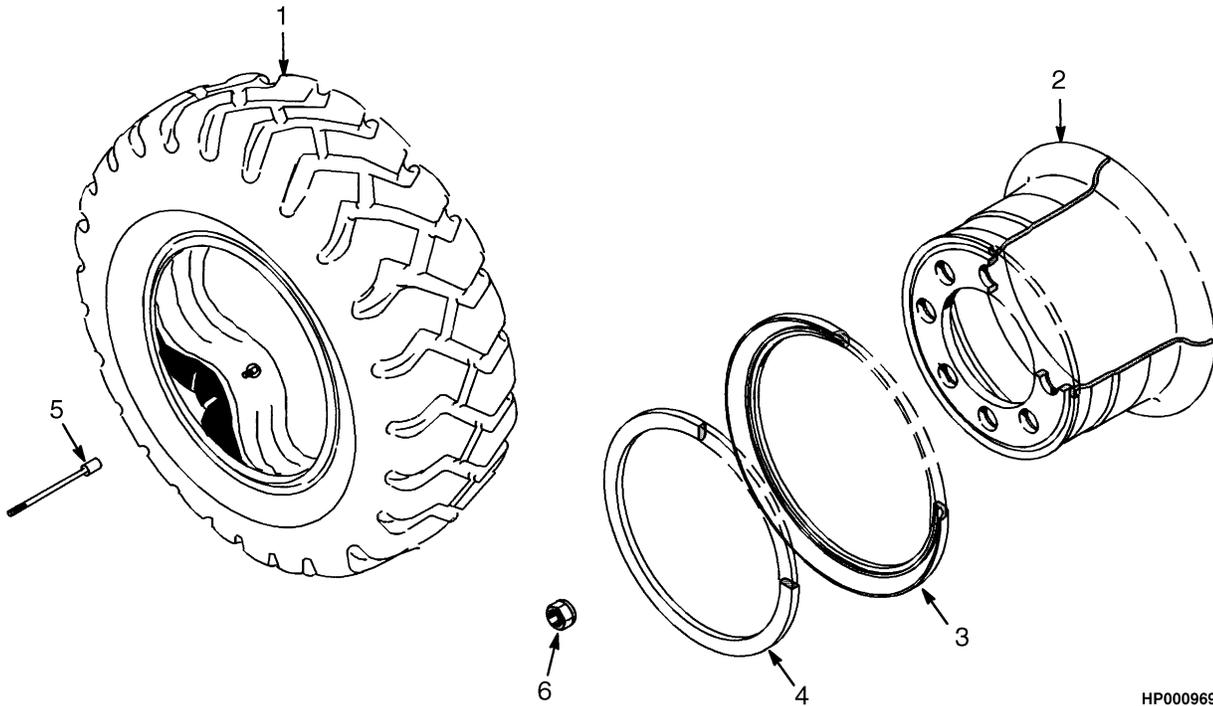
ITEM	PART NO.	DESCRIPTION	QTY	
			A	B
54	ah 2092484	Directional Control Valve, Three-Section (☞Figure 12-1).....	1	1
54	eg 2055962	Directional Control Valve, Four-Section (☞Figure 12-1).....	1	1
54	eh 2092485	Directional Control Valve, Four-Section (☞Figure 12-1).....	1	1
55	b 216590	Fitting	2	2
55	16485	O-Ring	1	1
55	a 216590	Fitting	4	4
55	16485	O-Ring	1	1
55	e 216590	Fitting	6	6
55	16485	O-Ring	1	1
56	c 2056106	Tube	1	..
56	c 2056110	Tube .....	..	1
57	c 2056107	Tube	1	..
57	c 2056111	Tube .....	..	1
	dh 15133	Washer	1	1
	dh 16041	Grease Fitting	1	1
	dh 16046	Grease Fitting	1	1
	dh 1624055	Bushing (Spherical)	2	2
	d 1486772	Fitting	1	1

FOOTNOTES:**a** Five Function**b** Four Function**c** Four, Five, And Six Function**d** Not Illustrated**e** Six Function**f** Three Function**g** → 11/2006**h** 11/2006 →

**SECTION 13
OPTIONS**

DESCRIPTION	PAGE
CAB MOUNTED DRIVE LIGHTS	13-14
FRONT FENDER, BRAKE AND BACK-UP LIGHTS	13-12
LIFTING EYES	13-18
MAST AND REAR WORK LIGHTS	13-10
REVERSE ALARM	13-20
STROBE LIGHT	13-16
TIRES AND WHEELS	
BERGOUGNAN ELITE - 9.00 X 20, SOLID TIRE	13-6
BERGOUGNAN ELITE - 10.00 X 20, SOLID TIRE	13-7
BRIDGESTONE - 9.00 X 20, 14 PLY	13-2
BRIDGESTONE - 10.00 X 20, 16 PLY	13-3
MICHELIN XZM - 9.00 X 20	13-8
MICHELIN XZM - 10.00 X 20	13-9
TRELLEBORG - 9.00 X 20, 14 PLY	13-4
TRELLEBORG - 10.00 X 20, 16 PLY	13-5

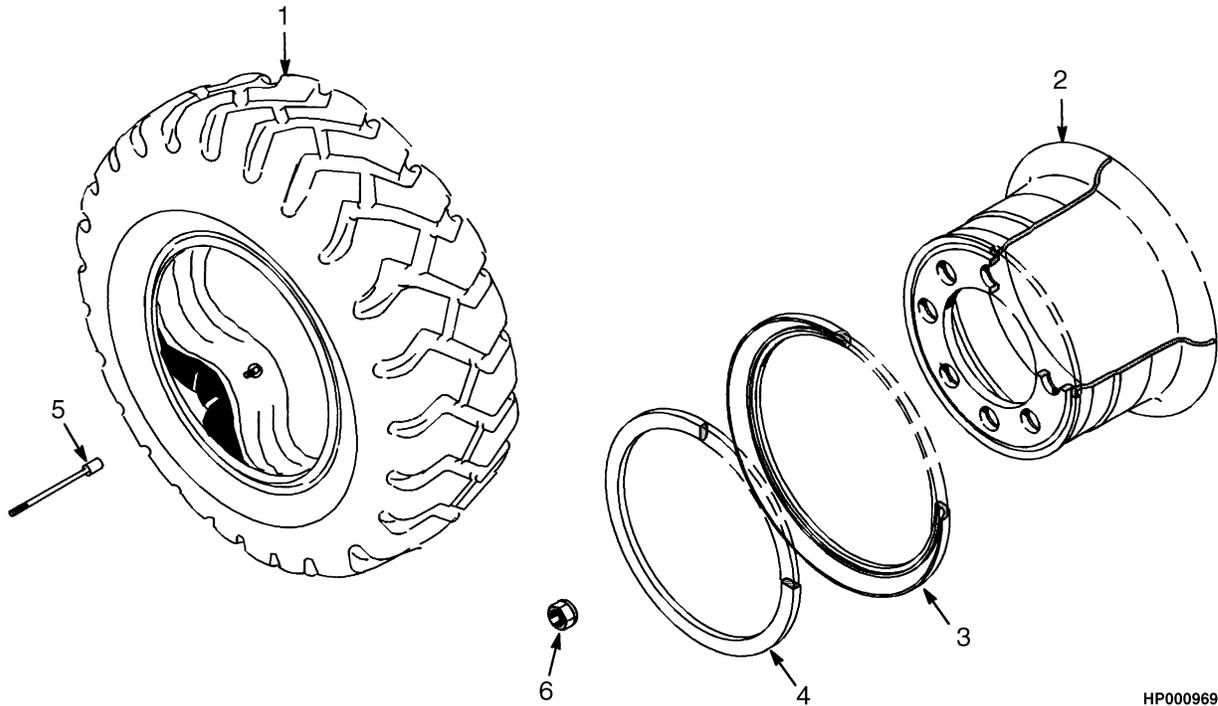
TIRES AND WHEELS (FIGURE 13-1) BRIDGESTONE — 9.00 X 20, 14 PLY



HP000969

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1393119	Pneumatic Tire	1
1	1393120	Pneumatic Tire	1
1	21655	Pneumatic Tire	1
2	1688640	Wheel Assy	1
2	1391651	Wheel Rim	1
3	1391652	Wheel Side Ring	1
4	1391650	Wheel Lock Ring	1
5	49189	Extension	2
6	376026	Wheel Nut	20

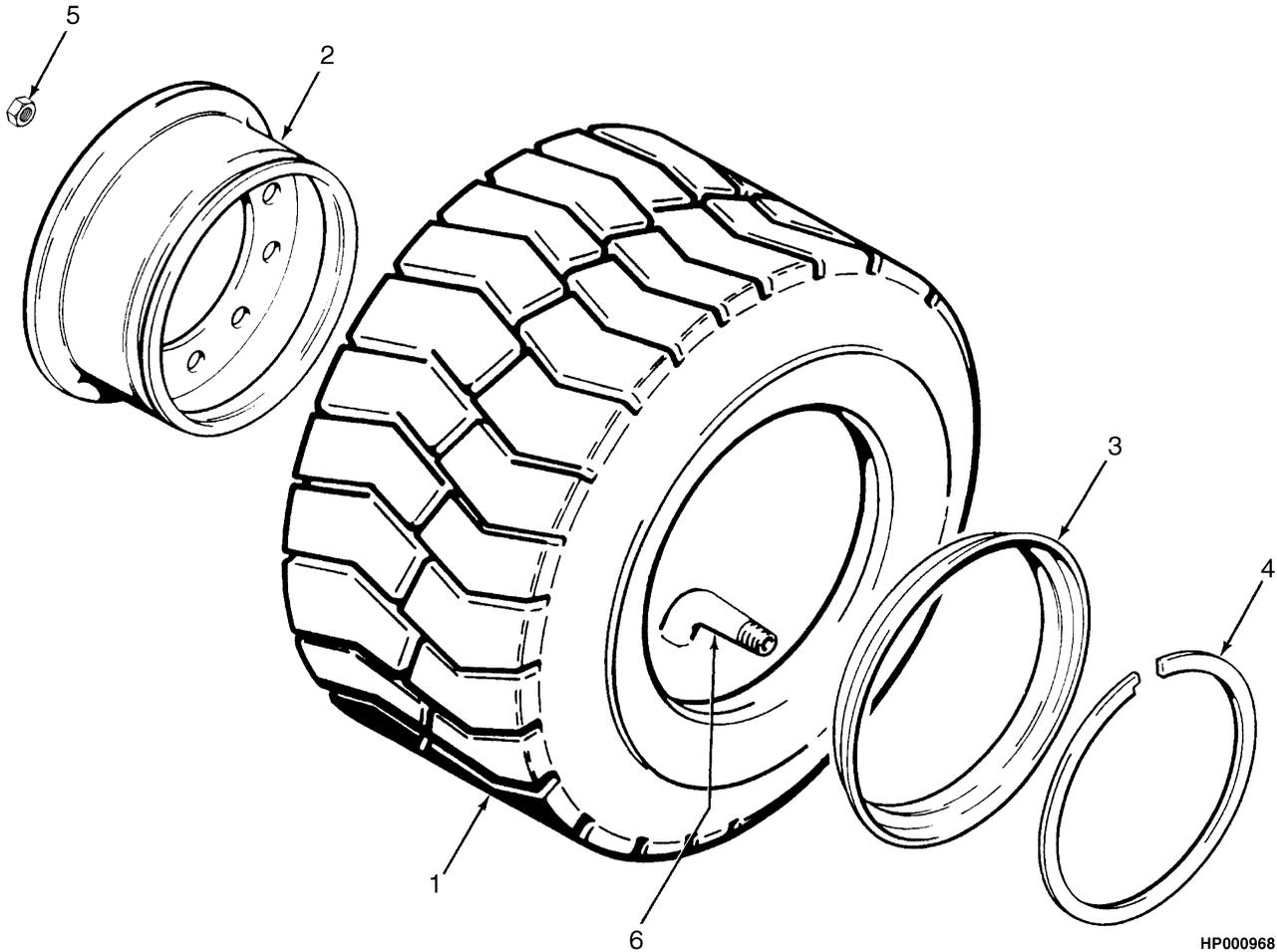
TIRES AND WHEELS (FIGURE 13-2)
BRIDGESTONE — 10.00 X 20, 16 PLY



HP000969

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1369100	Pneumatic Tire	1
1	1369104	Pneumatic Tire	1
1	1369101	Pneumatic Tire	1
2	1688640	Wheel Assy	1
2	1391651	Wheel Rim	1
3	1391652	Wheel Side Ring	1
4	1391650	Wheel Lock Ring	1
5	49189	Extension	2
6	376026	Wheel Nut	20

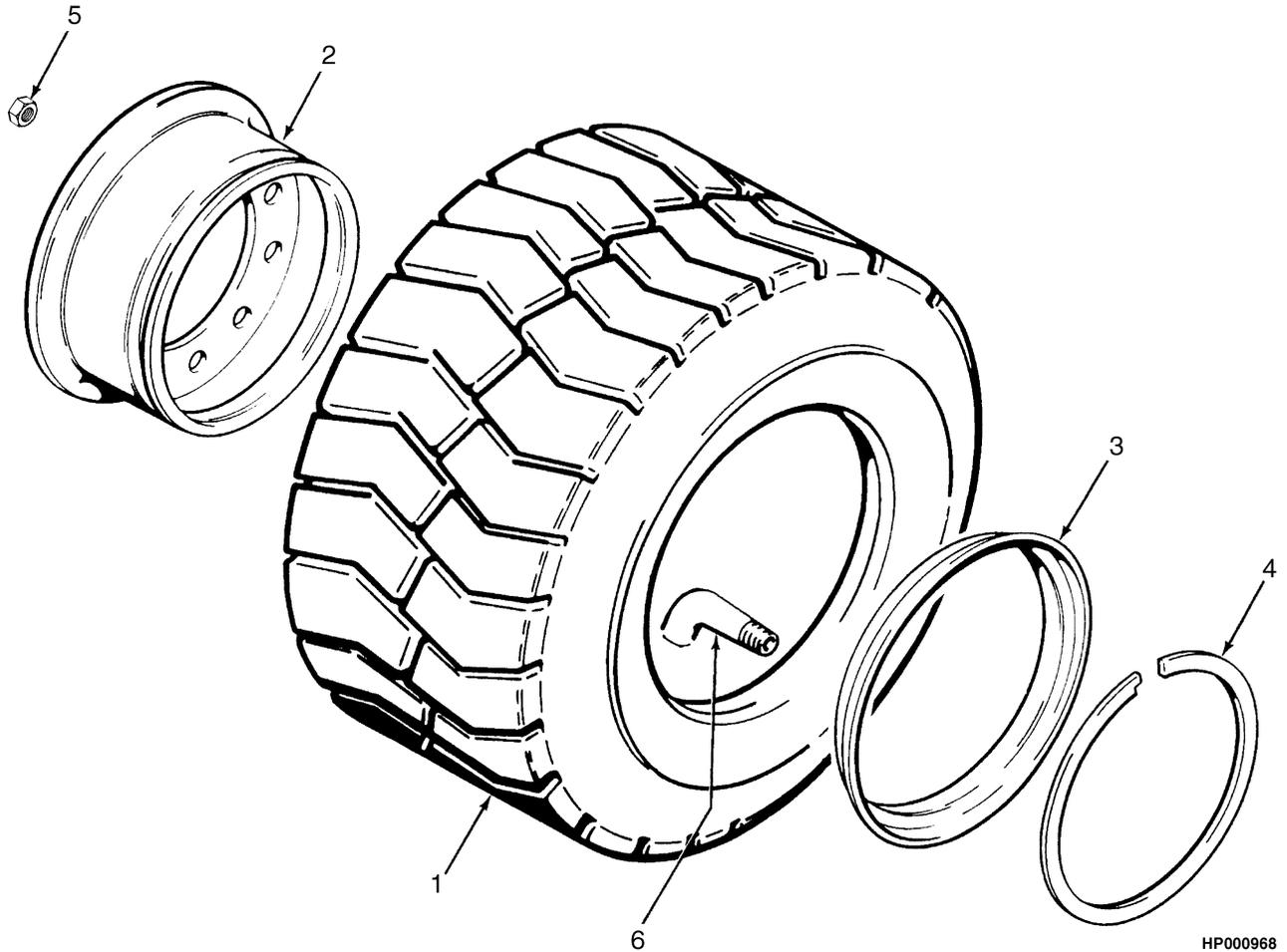
TIRES AND WHEELS (FIGURE 13-3) TRELLEBORG — 9.00 X 20, 14 PLY



HP000968

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1594931	Pneumatic Tire	1
1	1594936	Pneumatic Tire	1
1	21655	Pneumatic Tire	1
1	130587	Pneumatic Tire	1
2	1688640	Wheel Assy	1
2	1391651	Wheel Rim	1
3	1391652	Wheel Side Ring	1
4	1391650	Wheel Lock Ring	1
5	376026	Wheel Nut	20
6	49189	Extension	2

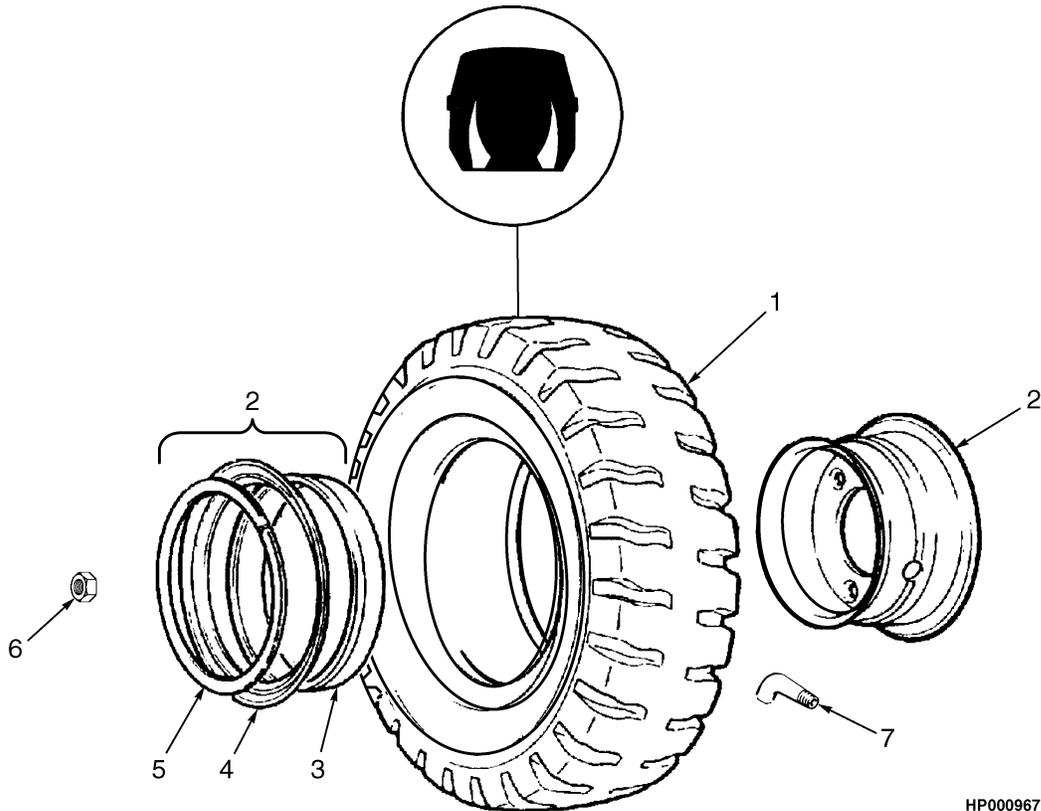
TIRES AND WHEELS (FIGURE 13-4)
TRELLEBORG — 10.00 X 20, 16 PLY



HP000968

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1369100	Pneumatic Tire	1
1	1369101	Pneumatic Tire	1
1	1369104	Pneumatic Tire	1
1	130587	Pneumatic Tire	1
2	1688640	Wheel Assy	1
2	1391651	Wheel Rim	1
3	1391652	Wheel Side Ring	1
4	1391650	Wheel Lock Ring	1
5	376026	Wheel Nut	20
6	49189	Extension	2

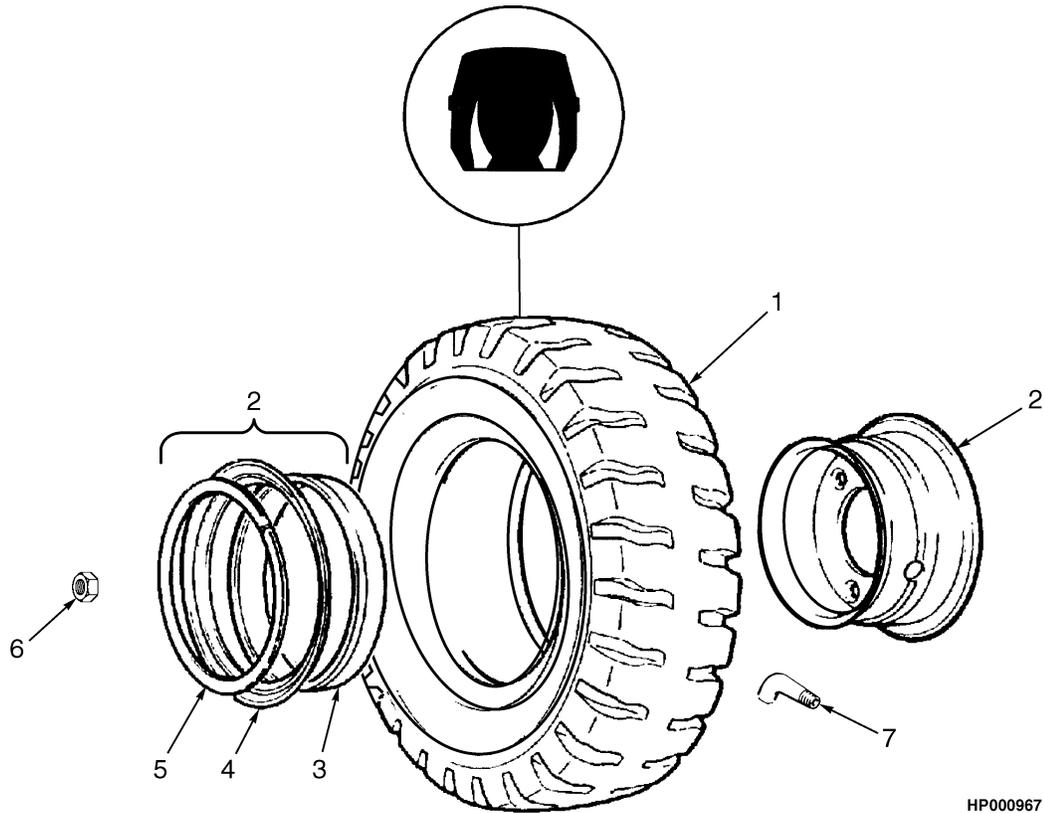
TIRES AND WHEELS (FIGURE 13-5) BERGOUGNAN ELITE — 9.00 X 20, SOLID TIRE



HP000967

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	127403	Pneumatic Tire (Solid Pnuematic)	1
2	1366712	Rim (Solid)	1
2	1391653	Wheel Rim	1
3	1391655	Wheel Side Ring	1
4	1391656	Shoulder Ring	1
5	1391654	Wheel Lock Ring	1
6	376026	Wheel Nut	20
7	49189	Extension	2

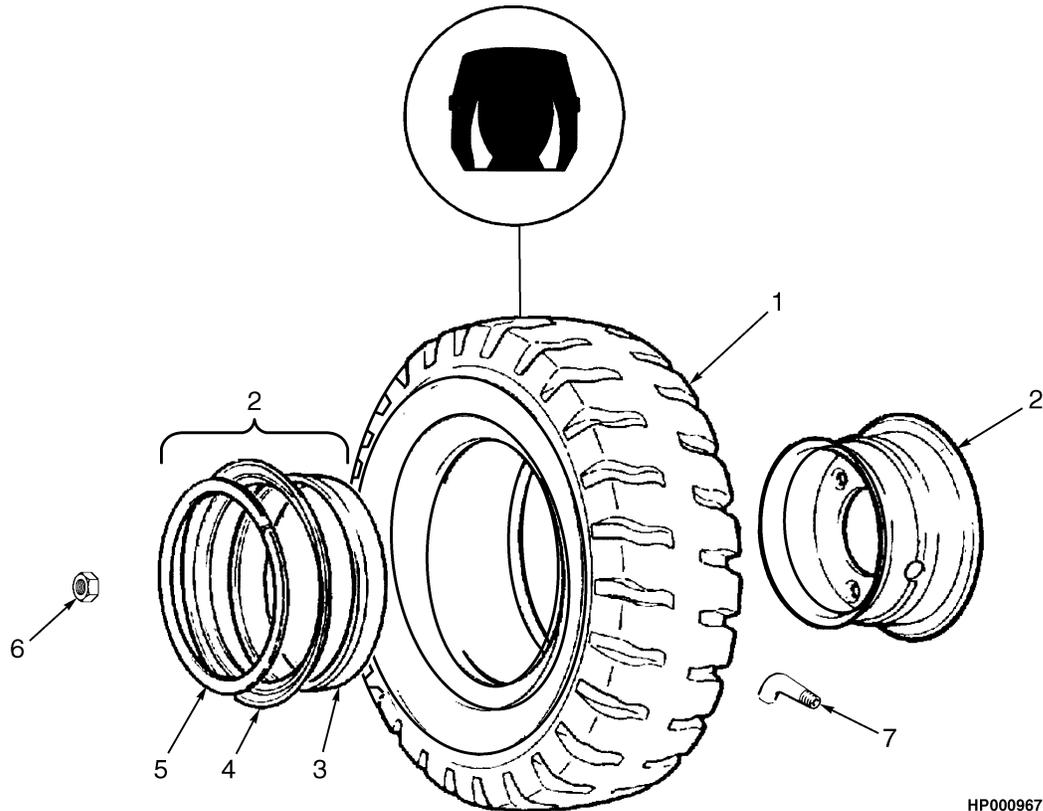
**TIRES AND WHEELS (FIGURE 13-6)
BERGOUGNAN ELITE — 10.00 X 20, SOLID TIRE**



HP000967

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	321181	Pneumatic Tire (Solid Pnuematic)	1
2	1688642	Wheel Rim	1
3	1377130	Ring	1
4	1377131	Shoulder Ring	1
5	1377132	Wheel Lock Ring	1
6	376026	Wheel Nut	20
7	49189	Extension	2

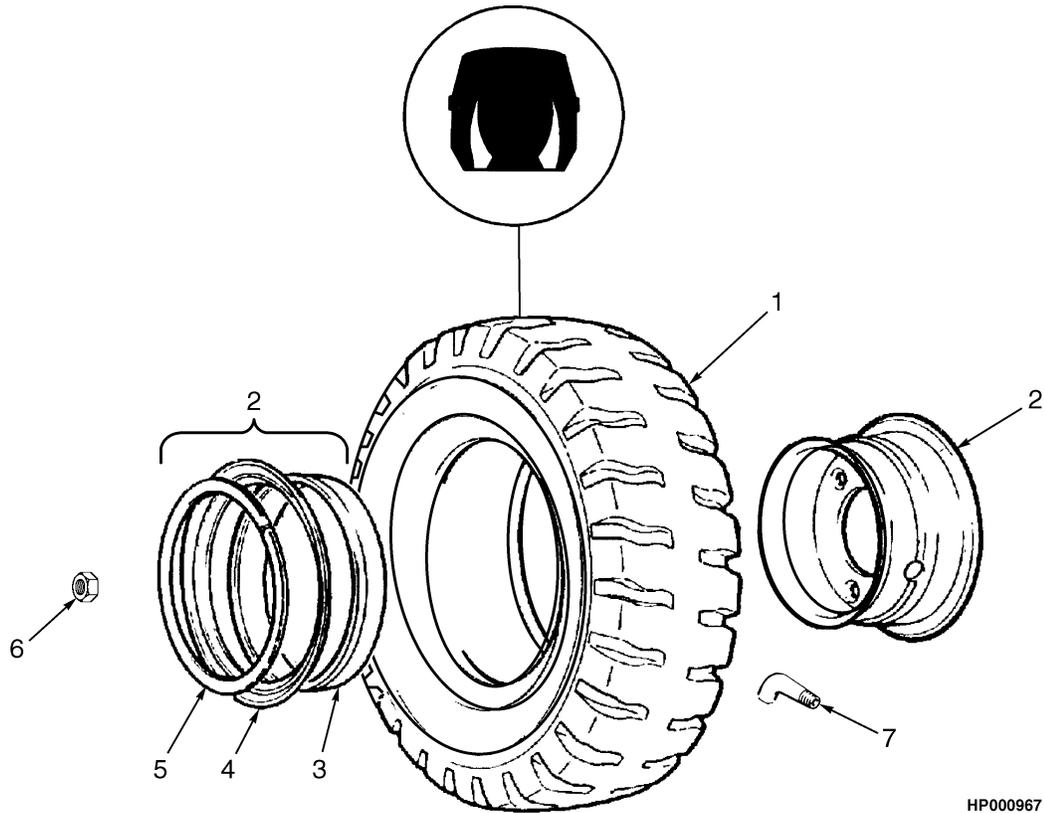
TIRES AND WHEELS (FIGURE 13-7) MICHELIN XZM — 9.00 X 20



HP000967

ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1562020	Pneumatic Tire (Tubeless)	1
1	1471600	Tire Flap	1
1	1471922	Tubeless Bead Seal Valve	1
1	1562021	Pneumatic Tire (Radial)	1
2	1688641	Rim	1
3	1377130	Ring	1
4	1377131	Shoulder Ring	1
5	1377132	Wheel Lock Ring	1
6	376026	Wheel Nut	20
7	141721	Extension	2

TIRES AND WHEELS (FIGURE 13-8)
MICHELIN XZM — 10.00 X 20



ITEM	PART NO.	DESCRIPTION	QTY
	.....	Wheel And Tire Assembly	4
1	1471839	Pneumatic Tire (Tubeless)	1
1	1366718	Pneumatic Tire (Radial)	1
1	1471600	Tire Flap	1
1	1471922	Tubeless Bead Seal Valve	1
2	1688641	Rim	1
3	1377130	Ring	1
4	1377131	Shoulder Ring	1
5	1377132	Wheel Lock Ring	1
6	376026	Wheel Nut	20
7	141721	Extension	2

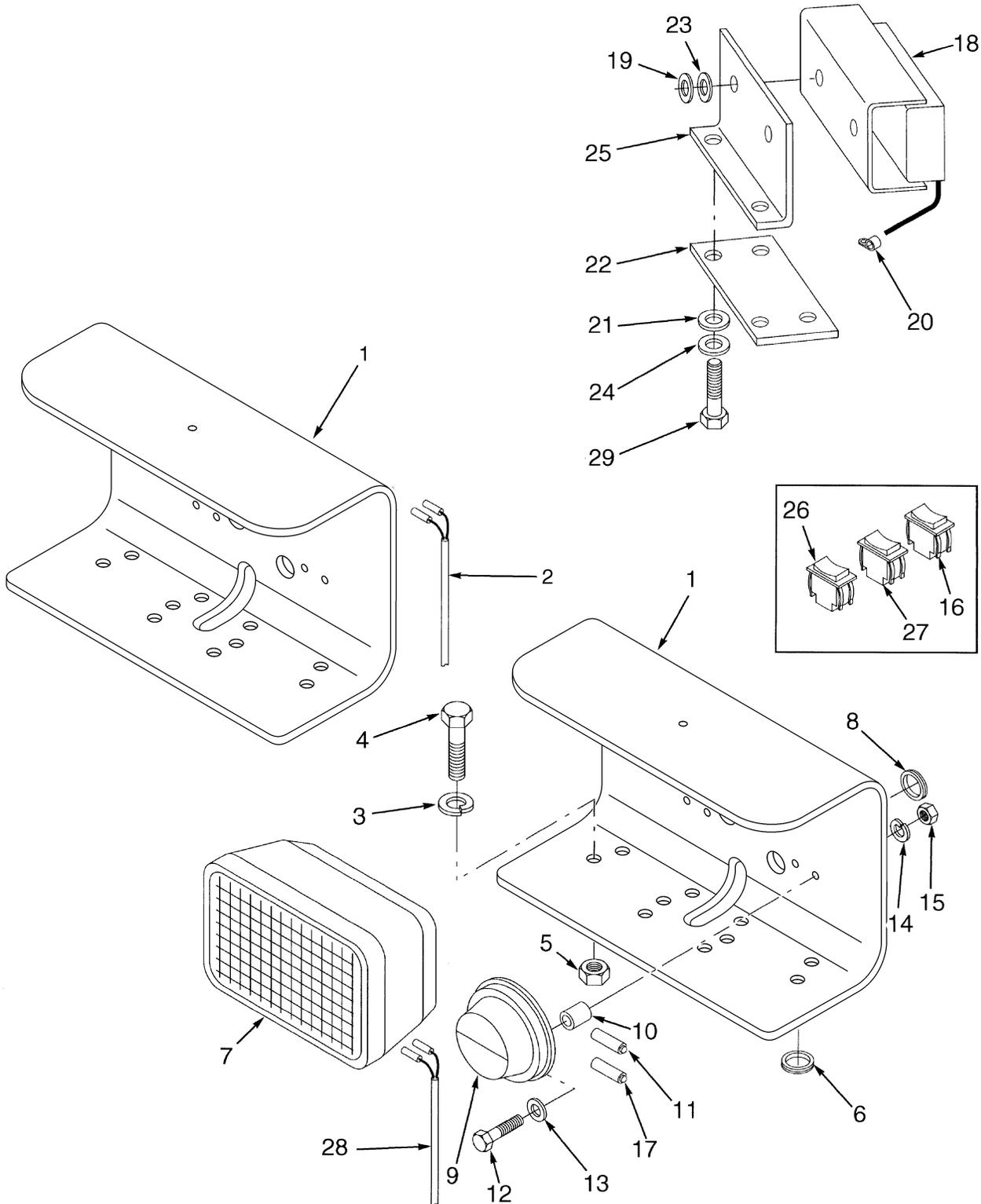
MAST AND REAR WORK LIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1460312	Bracket	1
2	816442	Bracket Wldmt	2
3	1311209	Bracket (Mast)	1
4	1382867	Head/Work Light (Halogen)	6
4	1476614	Work Light (24 Volt)	1
4	1383998	Head/Work Light	1
4	1330409	Connector	1
4	1330414	Connector (Secondary Lock)	1
4	1363885	Terminal (Pin)	2
5	1480201	Plate (Rear Work Light)	2
6	292683	Lockwasher	4
7	216877	Nut	4
8	292528	Capscrew	4
9	292682	Lockwasher	8
10	287854	Capscrew	10
11	136692	Nut	6
12	320161	Washer	1
13	1350911	Strap	1
14	287837	Capscrew	2
15	320159	Washer	2
16	1356947	Strap	2
17	136985	Capscrew	2
18	137852	Strap Clamp	9
19	323864	Strap Clamp	6
20	2052773	Switch (Mast Work Light)	1
21	2052776	Switch (Rear Work Light)	1
22	2043478	Wire Harness (Mast Light Extension, RH) (RH)	1
23	a 2043480	Wire Harness (Mast Light Extension, LH) (LH)	1
	2043678	Wire Harness (Rear Drive Light Extension)	2

FOOTNOTES:

- a** For Mast Height of 6610 mm and Up Use Quantity of Two

FRONT FENDER, BRAKE AND BACK-UP LIGHTS (FIGURE 13-10)



HP000700

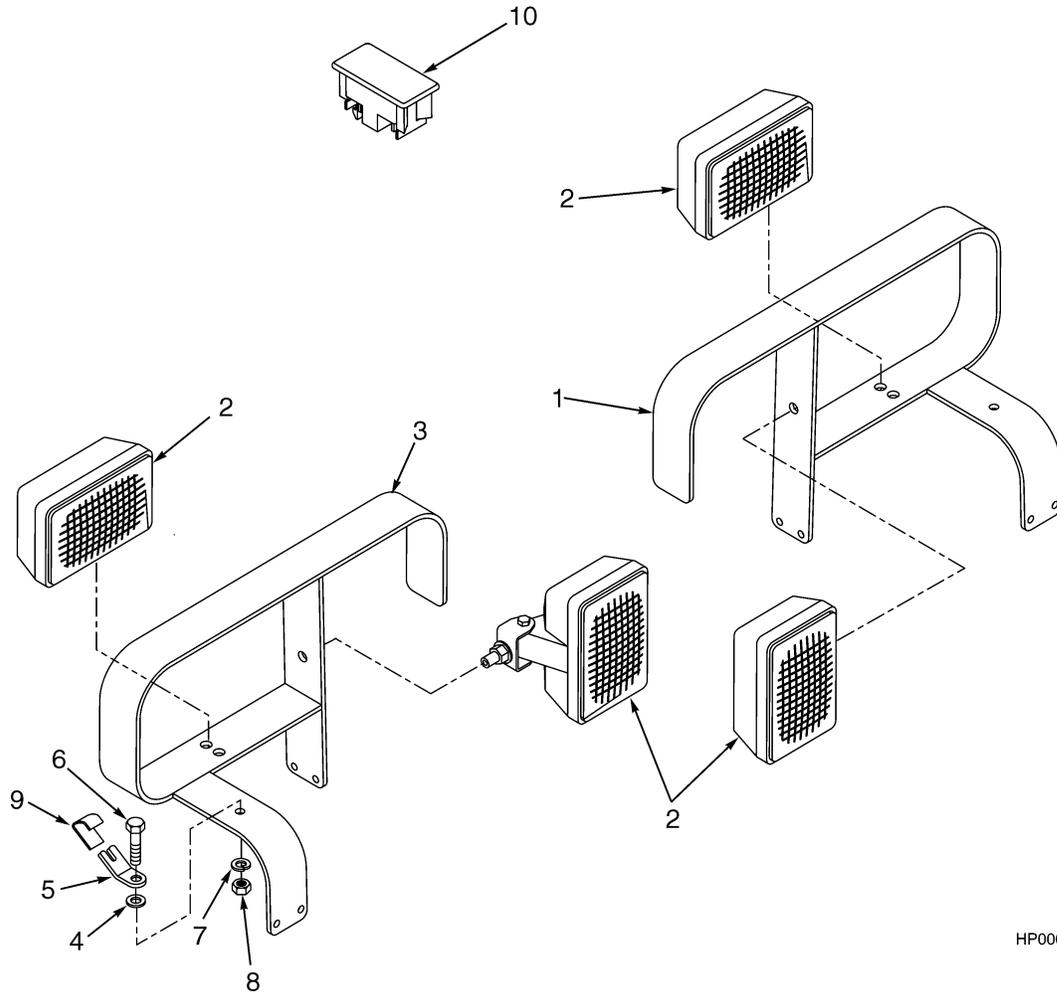
FRONT FENDER, BRAKE AND BACK-UP LIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1545532	Bracket (Front Fender)	2
2	2043677	Wire Harness (Mast Work Lights)	1
3	292682	Lockwasher (Front Fender)	4
4	287860	Capscrew (Front Fender)	4
5	136692	Nut (Front Fender)	4
6	339969	Grommet (Front Fender)	4
7	1382867	Head/Work Light (Halogen) (Front Fender)	2
7	1476614	Work Light (24 Volt)	1
7	1383998	Head/Work Light	1
7	1330409	Connector	1
7	1330414	Connector (Secondary Lock)	1
7	1363885	Terminal (Pin)	2
8	339969	Grommet	2
9	373091	Turn Signal Light (Turn Signal)	2
9	378070	Lens	1
10	376505	Spacer	4
11	1310638	Bulb	2
12	302037	Screw	4
13	197067	Washer	4
14	292679	Washer	4
15	292668	Nut	4
16	2043351	Switch	1
17	384014	Bulb (Side Light)	2
18	1479898	Rear Light (In Counterweight)	2
18	1491816	Rear Light	1
18	1491810	Strap Clamp	1
18	1491811	Bulb (24 Volt)	1
18	1491813	Bulb (24 Volt)	1
18	1491814	Wire Harness	1
19	320155	Washer	4
20	137852	Strap Clamp	2
21	320158	Washer	4
22	1474791	Bracket	2
23	292679	Washer	4
24	292681	Lockwasher	4
25	1469659	Bracket (Tail Light)	2
26	2052774	Switch (Front and Side Light)	1
27	1487428	Switch (Blank)	1
28	2042889	Wire Harness (Front Lights) (Front Light)	1
28	a 2043867	Wire Harness (Front Lights) (Front Light)	1

FOOTNOTES:

a Only with front fender and mast work lights.

CAB MOUNTED DRIVE LIGHTS (FIGURE 13-11)

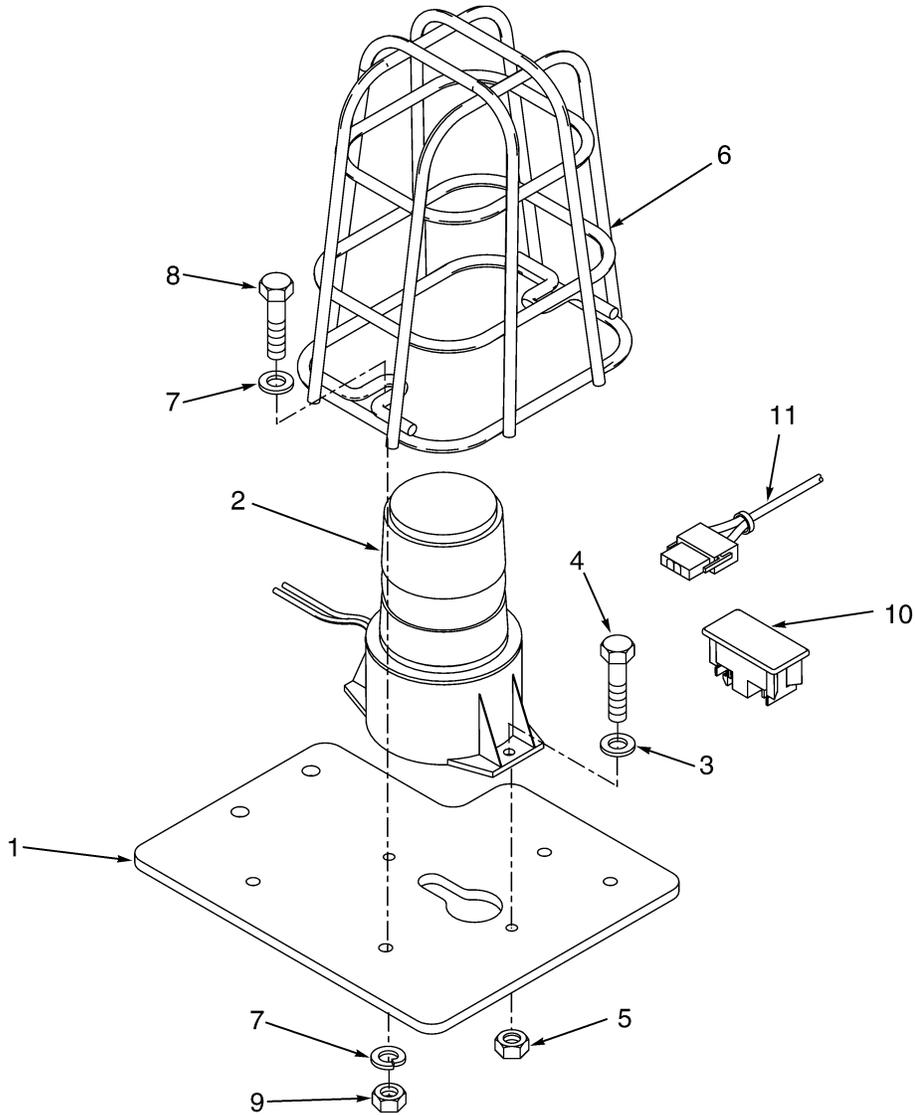


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CAB MOUNTED DRIVE LIGHTS

ITEM	PART NO.	DESCRIPTION	QTY
1	1480231	Bracket Wldmt (LH)	1
2	1382867	Head/Work Light (Halogen)	4
2	1476614	Work Light (24 Volt)	1
2	1383998	Head/Work Light	1
2	1330409	Connector	1
2	1330414	Connector (Secondary Lock)	1
2	1363885	Terminal (Pin)	2
3	1480232	Bracket Wldmt (RH)	1
4	320159	Washer	2
5	1356947	Strap	2
6	287854	Capscrew	2
7	292682	Lockwasher	2
8	136692	Nut	2
9	137852	Strap Clamp	2
10	2052775	Switch	1
	2042724	Wire Harness (Cab Lights) (Not Illustrated)	1

STROBE LIGHT (FIGURE 13-12)

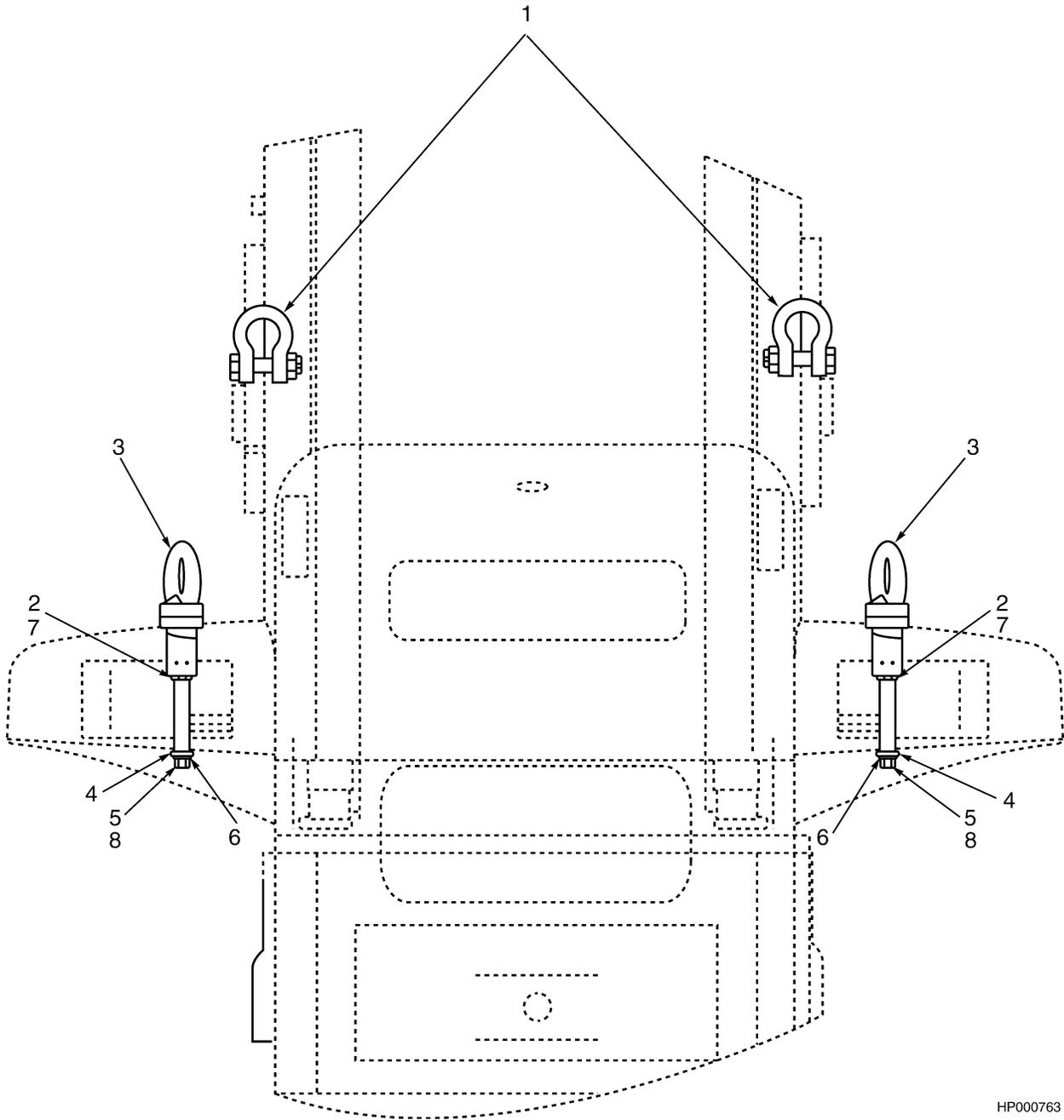


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STROBE LIGHT

ITEM	PART NO.	DESCRIPTION	QTY
1	1480236	Bracket	1
2	1399474	Strobe Light	1
2	1382130	Strobe Light	1
2	1526082	Lens (Amber)	1
2	1309775	Strobe Light	1
2	1324308	Terminal	1
2	1324307	Terminal	1
2	1324310	Terminal	1
2	1324309	Sleeve	1
3	292681	Lockwasher	2
4	136749	Screw	2
5	239503	Nut	2
6	1302024	Guard	1
7	320155	Washer	4
8	2072353	Capscrew	2
9	302398	Locknut	2
10	1487428	Switch (Blank)	1
11	2043879	Wire Harness (Strobe Light Adaptor)	1
11	1497230	Terminal	2

LIFTING EYES (FIGURE 13-13)

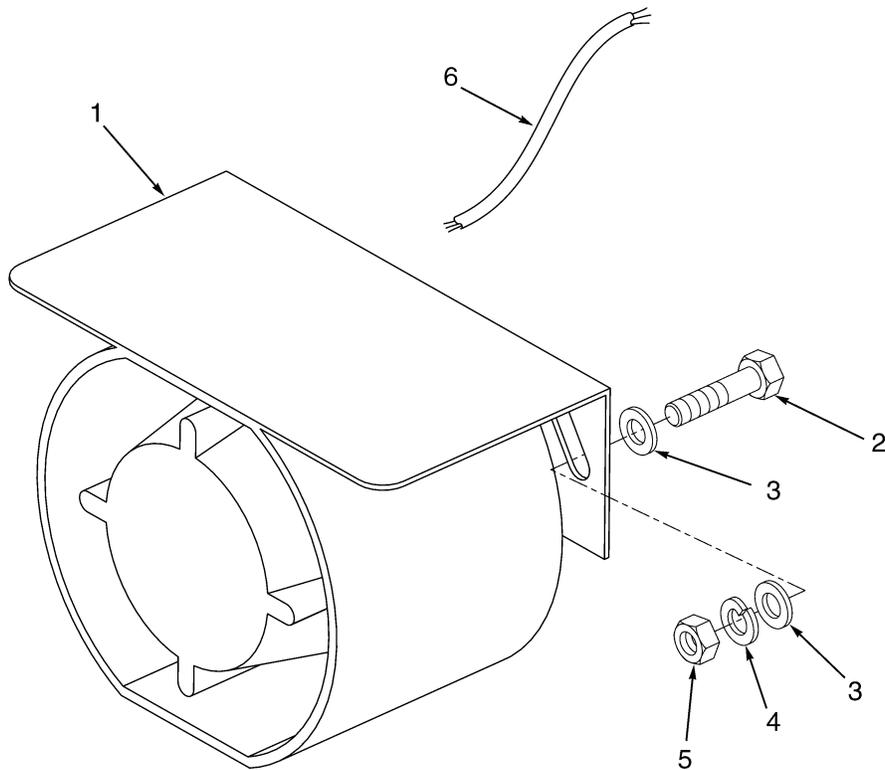


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LIFTING EYES

ITEM	PART NO.	DESCRIPTION	QTY
1	1616697	Shackle	2
2	1507358	Nut	2
3	1507360	Lifting Eye	2
4	1301086	Washer	2
5	1507479	Capscrew	2
6	296430	Washer	2
7	1507480	Compound	AR
8	264134	Loctite	AR

REVERSE ALARM (FIGURE 13-14)



HP000768

REVERSE ALARM

ITEM	PART NO.	DESCRIPTION	QTY
1	1367282	Back-Up Alarm	1
1	1367281	Alarm	1
2	136681	Capscrew	2
3	320157	Washer	4
4	292681	Lockwasher	2
5	239503	Nut	2
6	2045885	Wire Harness (Back-Up Alarm)	1

SECTION 14
FIELD CONVERSION KITS

DESCRIPTION	PAGE
AIR CONDITIONING KITS	14-2
ASPIRATED PRE-CLEANER CONVERSION KIT	14-2
DIRECTIONAL CONTROL CONVERSION KIT	14-2
MAST HOSE SHEAVE KIT	14-2

MAST HOSE SHEAVE KIT

DESCRIPTION	PART NUMBER
Kit-Sheave	1678312
Kit-Sheave	1678313
Kit-Sheave	1678314

ASPIRATED PRE-CLEANER CONVERSION KIT

DESCRIPTION	PART NUMBER
Kit-Conversion	1653426

DIRECTIONAL CONTROL CONVERSION KIT

DESCRIPTION	PART NUMBER
Kit-Fwd/Rev Lever to Monotrol	1543664
Kit-Monotrol to Fwd/Rev Lever	1543665

AIR CONDITIONING KITS

DESCRIPTION	PART NUMBER
Air Conditioner	1611767
Air Conditioner	1615855
Kit-Heater and Airco	a 1675205

FOOTNOTES:

a With Cummins Engine

**SECTION 15
NUMERICAL INDEX**

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
142	3-69	4		10-50	38		5-7	12	16001	10-3	6
12815	2-15	13	15133	12-16	47		5-9	21		11-3	6
	2-147	13		12-21			5-11	5		12-10	42
	2-221	15		12-29			5-11	21		12-19	27
12827	3-29	27		12-32	66		5-17	7		12-27	27
	3-31	28		12-35	30		5-21	24		12-37	23
	3-33	28		12-39		15158	5-33	14	16006	9-29	3
12836	3-13	10	15134	1-41	11		5-35	13	16015	10-3	12
12845	2-7	12		2-15	18		7-9	10		11-3	12
12856	4-6	57		2-147	18		9-5	21	16041	12-21	
	4-10	65		2-221	20	15162	7-10	52		12-29	
	4-13	14		7-10	55	15166	3-53	33		12-39	
	4-17	35		9-19	9	15168	1-11	5	16046	12-21	
13963	7-9	25	15135	1-55	17	15175	2-15	24		12-29	
14326	3-13	14		1-63	17		2-147	24		12-39	
14327	3-13	12	15155	1-26	54		2-221	26	16080	7-5	12
14345	3-53	19		3-13	29	15181	10-14	18	16100	3-13	20
14387	8-8	62		3-29	6		10-18	18		3-19	3
14388	3-13	8		3-31	6	15189	1-11	12		3-21	2
	3-29	30		3-33	6	15200	3-65	5		3-23	5
	3-31	31		3-53	23		3-69	5	16143	8-8	71
	3-33	31		5-7	16	15201	1-97	19	16156	1-35	6
14589	5-21	27		5-9	5	15212	3-65	32	16177	3-13	19
14595	5-7	7	15156	1-41	12		3-69	12		3-23	6
	9-11	7		2-15	19	15222	8-25	3	16186	8-8	73
	9-29	12		2-147	19		8-27	4	16193	2-55	4
14604	8-7	22		2-221	21	15235	1-25	14	16271	3-53	27
14773	2-69	10		5-3	20		10-14	25	16279	7-10	51
	3-13	24		5-5	20		10-18	25	16374	5-7	15
15002	2-221	14		5-31	13	15236	10-35	22		5-9	4
15026	2-35	15		5-39	21		10-39	22	16396	8-8	70
	5-49	1		5-41	21		12-19	34	16481	9-19	19
15030	8-21	29		5-43	21		12-28	34	16483	3-53	13
	8-22			5-45	21	15255	7-9	7		5-7	21
15036	3-53	28		5-49	2	15316	5-9	27		5-9	12
15055	1-25	20		8-21	19		5-11	10		5-11	12
	3-13	30		9-5	15		6-3	2		9-19	25
	3-29	7		10-5	8	15372	8-33	18		9-20	34
	3-31	7		10-7	8	15880	12-7	8		9-20	37
	3-33	7		10-29	13		12-13	14		10-14	11
	3-53	22		10-31	13	15887	9-30	6		10-18	11
15056	2-15	20		10-35	12	15894	5-39	23		10-31	27
	2-147	20		10-39	12		5-43	23		10-35	20
	2-221	22		12-10	30	15931	4-5	49		10-36	34
15060	9-13	6		12-19	15		4-10	57		10-39	20
15114	2-15	27		12-27	15		4-14	47		10-40	32
	2-147	27		12-37	11	15962	2-27	22		10-40	33
	2-221	29	15157	3-31	20		2-57	6		12-20	47
15127	10-46	38		3-33	20		2-65	3		12-27	23

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	12-28	32	16805	2-15	21		3-31	4		13-2	5
	12-28	47		2-147	21		3-33	4		13-3	5
	12-29	71		2-221	23		3-53	3		13-4	6
	12-37	19	16815	2-7	19	18535	5-49	5		13-5	6
	12-38	40		5-33	2		9-19	10		13-6	7
16484	5-7	8		5-35	2	18557	5-21	23		13-7	7
	5-9	14		6-9	3	18588	7-9	11	51455	2-55	3
	5-11	14		6-13	3		9-5	22	53157	12-7	12
	7-9	41		9-5	18	18612	2-17	5		12-19	21
	7-10	42	16816	1-41	13		2-87	8		12-27	21
	9-11	7	16835	3-29	3		2-159	8		12-37	17
	9-19	22		3-31	3		5-5	4	53162	3-73	14
	10-36	33		3-33	3	18704	12-13	2	55280	5-29	3
	12-9	15	16836	10-31	25	18897	8-27	1	57568	3-73	9
	12-20	46		10-36	42	21655	13-2	1	59184	2-31	10
	12-21	69		12-28	44		13-4	1	61141	5-31	8
	12-28	46		12-38	37	25633	10-13	7	63108	8-8	80
	12-29	69	16865	3-73	13		10-17	7	67551	10-13	8
	12-38	39	16872	3-13	11	28584	8-42	36		10-17	8
16485	3-53	6	16882	8-42	34	30062	6-5	10	68551	12-27	22
	4-13	8	16983	10-14	9		6-9	16	78459	8-4	48
	9-19	18		10-18	9		6-13	16		9-19	26
	9-19	23	17072	3-33	8	30189	7-9	15	79377	7-3	15
	10-31	26	17084	3-29	8	30375	2-155	11		9-6	47
	10-32	38		3-31	8		2-213	9	79970	5-21	25
	10-32	38	17144	8-7	11		3-5	13	79975	5-9	3
	10-32	38	17216	2-7	27		3-9	13	82270	10-14	22
	10-35	32	17411	10-14	28		3-51	17		10-18	22
	12-9	6		10-18	28	35503	9-11	12	86007	6-3	5
	12-9	7	17665	8-8	79	37065	5-31	3	86008	6-5	19
	12-20	45	17672	3-53	35	39373	9-11	8		6-9	23
	12-28	45	17741	8-8	78	39743	9-11	16		6-13	23
	12-38	38	17742	1-37	5	39756	9-11	5	86553	5-19	12
	12-39	55	17745	8-41	22	40667	10-13	8	87281	5-9	23
	12-39	55	18475	10-46	35		10-17	8		5-17	4
	12-39	55		10-50	35	41308	5-31	9	87911	9-29	7
16486	5-9	26	18496	2-15	25	41459	10-9	4		10-45	2
	5-11	25		2-147	25		10-11	4		10-49	2
	9-19	29		2-221	27		10-29	7	88194	5-3	12
	9-20	33	18497	2-13	6		10-31	7		5-5	12
	9-23	8		2-155	6		10-35	9	89056	8-3	13
	9-23	34		2-213	16		10-39	9	91946	1-9	18
16487	9-19	24		3-5	3		12-9	23	97647	8-21	4
	9-19	27		3-9	3		12-19	12	97678	7-9	20
16542	3-53	6		3-51	24		12-27	12	97705	7-9	4
16559	7-9	42	18498	1-5	27		12-37	8	97999	3-54	46
16568	7-9	41	18515	1-26	53	43310	5-19	1	98571	10-14	23
16594	5-3	22		2-15	26	44308	5-25	20		10-18	23
16708	4-5	50		2-147	26	44542	7-9	17	98877	10-13	6
	4-10	58		2-221	28	46629	7-13	8		10-17	6
	4-14	46		3-13	28		7-15	2	98883	10-13	2
16794	2-25	10		3-29	4	49189	6-3	12		10-17	2

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
98885	10-13	2	125428	6-5	13	132860	2-7	19		9-6	44
	10-17	2		6-10	32		3-53	9		10-45	7
99576	2-25	9		6-14	32		9-6	49		10-49	7
99610	2-31	9	126764	10-13	8	132861	1-35	2		13-11	11
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99722	2-35	16		2-155	18		3-51	11		10-50	29
99723	2-35	17		2-213	2	135685	3-73	2	136718	9-19	12
99725	2-35	12		8-5	87	136516	4-5	1	136749	1-9	14
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	2-147	15	131190	7-10	44		3-69	1		8-41	15
	2-148	48	131191	7-10	44		4-5	8		10-32	29
	2-221	17	131193	7-10	43		4-9	8		10-36	45
	3-5	17	132461	6-17	25		4-13	5		12-20	49
	3-9	17		6-19	27		4-17	18		12-28	49
	8-8		132462	6-17	24		4-17	40		12-38	42
121347	3-53	34		6-19	26		7-3	33		13-11	18
123798	1-37	11		6-21	27		8-7	3		13-13	20
125303	1-35	8	132796	1-39	29		8-7	3		13-15	9

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
138929	10-46	25		4-14	60		3-54	52		4-9	15
	10-50	25		4-18	53		8-3	18		4-13	36
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	2-147	22		4-13	2	177461	10-5	2		2-147	28
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150879	2-27	15	170379	6-21	21	189451	10-45	13		3-57	3
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	3-51	1		8-41	5	192814	7-10	49		10-46	23
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	2-147	23	176167	9-13	5	199337	1-35	19	220932	3-73	3
	2-221	25	176223	7-9	23		1-41	33	221155	10-45	16
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158187	2-35	19	176640	1-25	30	200972	6-5	7	221357	2-17	4
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162562	8-7	4		2-15	37	201757	2-7	13		10-45	17
164488	4-5	5		2-147	37	203367	12-7	13		10-49	17
	4-9	5		2-221	39	204223	4-5	15	221377	9-30	12

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
221463	10-31	24		12-28	67	258487	1-37	2		1-97	24
	10-35	29	239503	1-5	11	258590	8-5	88		3-69	14
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	12-28	43		1-35	14	264134	5-3	23		3-65	25
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	12-19	16		2-213	13		10-17	7		13-11	10
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221703	10-46	37		10-46	31	271693	10-13	3		2-147	33
	10-50	37		10-50	31		10-17	3		2-221	35
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233141	4-127	1	251994	8-4	74		4-5	12		8-3	12
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	1-37	11	255158	8-8	67		2-87	3	292517	1-25	36
	7-3	28		8-33	23		2-159	3	292521	3-65	10
	9-5	38	256160	3-27	4		13-11	14	292523	3-69	2
	12-20	67	257291	7-9	36	287851	1-25	16	292527	3-13	31

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-14	66	292680	1-5	5	4-17	17	293606	12-29	73	
	4-18	49		4-5	14	5-3	17	293613	1-14	46	
	8-41	30		4-9	13	5-5	17		1-93		
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	10-18	21		4-17	2	8-3	11		3-69	30	
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	1-67			9-35	8	8-7	5		12-21	75	
	1-67	5		9-37	11	9-6	45		12-28	66	
	1-68	7	292681	1-5	16	10-14	16	293628	1-86	7	
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	10-18	29		1-41	28	292683	1-5	22	12-37	6	
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292533	10-46	39		2-13	9	2-159	1		6-13	3	
	10-50	39		2-15	43	3-13	6	293708	7-9	32	
292535	1-5	18		2-155	9	3-29	24	293716	6-5	24	
	1-25	21		2-213	12	3-31	15		6-9	24	
292538	9-20	35		3-5	2	3-33	15		6-13	24	
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	10-46	39		3-51	5	3-57	4		11-3	14	
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292564	10-46	43		12-20	65	10-35	6	296016	8-25	1	
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	4-9	39		2-221	33		10-3	3	296229	1-19	17
	13-13	15		2-222	53		10-45	19		1-21	17
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	8-8	51		4-5	7		5-5	7		4-13	31
	13-13	14		4-9	7		10-14	19		4-14	64
	13-13	23		4-13	4		10-18	19		4-18	58

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
	4-18	62		2-15	38		8-42	35		2-7	2
296415	1-98	49		2-147	38	316826	7-3	6		2-9	2
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	4-25	6		4-14	59	316834	1-13	20		2-147	36
296418	4-33	4		4-17	24		1-19	28		2-155	5
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296430	13-19	6		8-31	7		1-85	9		3-5	1
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300088	1-5	38		8-42			8-3	17		5-5	13
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300939	1-25	19		8-31	12		2-9	6		10-40	40
301749	2-59	8		8-33	12		3-54	57		12-20	62
301750	2-59	9		8-41	26		3-57	11		12-28	62
301751	2-59	10		9-11	10		4-17	28		13-21	3
301785	2-29	14		9-19	16		13-13	19	320158	1-5	14
301791	2-48	5		10-31	22		13-17	7		1-9	7
301986	8-21	3		10-35	27	320156	1-5	4		1-13	3
302014	1-97	28		10-40	27		1-13	22		1-35	3
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302037	13-13	12		12-28	40		1-86	4		1-39	26
302047	7-5	29		12-38	33		1-93			1-85	6
302048	1-85	28	302440	1-11	13		1-97	20		1-97	23
	4-5	18	302456	12-9	26		2-15	32		1-101	12
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	4-13	42	302712	2-48	3		2-221	13		2-16	58
	4-17	9	302713	2-48	7		2-221	34		2-155	7
302398	2-7	8	303493	1-39	2		3-65	2		2-213	11
	2-9	7		1-41	2		3-65	23		2-222	59
	3-54	58	304527	5-25	25		3-69	29		3-53	29
	3-57	10		5-27	4		4-5	11		3-69	6
	4-5	34	305522	4-5	37		4-9	11		7-5	5
	4-9	33	305681	4-9	44		4-13	22		8-5	83
	13-17	9	307275	12-7	4		4-17	6		13-13	21
302399	4-5	40	309666	1-5	3		12-29	72	320159	1-39	14
	4-9	47	313805	2-15	39	320157	1-5	28		1-41	15
	4-13	21		2-147	39		1-25	29		3-29	16
	4-18	67		2-221	41		1-35	13		3-31	16
302400	1-9	16	313850	9-17	24		1-39	9		3-33	16
	1-83	4	313860	1-98			1-41	29		3-54	42
	2-7	1	316448	1-89	35		1-83	7		3-57	8
	2-9	1	316596	3-33	33		1-83	14		4-5	6

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-9	6		12-28	39	330590	5-21	14		12-20	57
	4-13	3		12-38	31	330591	5-33	6		12-28	57
	4-17	16	320169	1-25	13		5-35	6		12-38	50
	7-3	35		7-9	33	330593	5-39	20	342677	10-32	36
	8-7	2	321158	4-5	44		5-41	20		10-36	48
	8-7	2		4-10	52		5-43	20		10-46	41
	8-42			4-13	24		5-45	20		10-50	41
	9-2	10		4-18	64	330596	5-19	5		12-20	58
	9-6	46	321181	13-7	1	330597	5-21	19		12-28	58
	9-19	13	321197	10-9	10	330598	5-21	21		12-38	51
	13-11	15		10-11	10	330602	5-19	9	342684	7-3	17
	13-15	4	321290	6-17	6	330603	5-19	8	342687	7-3	19
320160	1-5	29		6-19	4	330604	5-19	7	342688	7-3	20
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	1-97	37		6-17	3	330606	5-19	15		10-50	44
	2-15	30		6-19	2	330607	5-19	4	344432	2-15	5
	2-147	30		6-21	1	330612	5-31	11		2-147	5
	2-221	32	321296	8-21	6	330614	5-19	13		2-221	5
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	4-9	21	321712	8-21	7	334932	10-13	8	345454	2-15	8
	4-13	27	322428	8-21	15		10-17	8		2-147	8
	4-18	58	322668	1-91	1	336550	2-15	9		2-221	8
	8-4	78	323864	12-9	16		2-147	9	346330	4-124	3
320161	2-87	2		13-11	19		2-221	9	349439	2-81	2
	2-159	2	325708	3-65	11	339969	7-5	16	350399	2-39	6
	4-14	67	325983	1-9	10		13-13	6	351458	12-19	28
	4-18	50	327591	8-25	2		13-13	8		12-27	28
	8-41	27		8-27	3	340204	2-15	6		12-37	24
	9-6	48	328047	2-47	5		2-147	6	352485	3-65	12
	13-11	12	329069	1-9	29		2-221	6		3-69	15
320162	1-5	20	330502	5-7	13	340213	1-97	39	352499	3-65	13
	1-9	1		5-9	18	341524	9-5	27	352885	3-65	14
	2-7	20		5-11	18	342189	2-81	11	352969	3-73	18
	3-13	5	330504	5-9	7	342675	9-5	28	353141	3-69	18
	3-29	13		5-11	7		10-32	34	353142	3-65	16
	3-31	13	330511	5-7	5		10-36	46		3-69	19
	3-33	13		5-9	17		10-40	43	353143	3-65	17
	3-53	8		5-11	17		10-45	10		3-69	20
	3-57	5	330520	5-7	14		10-49	10	353154	3-73	4
	8-31	8	330532	5-47	13		12-9	9	353164	3-65	19
	8-33	8	330552	5-33	3		12-20	56		3-69	21
	9-11	9		5-35	3		12-28	56	353165	3-73	15
	10-13	5	330558	5-39	19		12-38	49	353168	3-73	5
	10-14	26		5-41	19	342676	9-5	29	353172	3-69	22
	10-17	5	330566	5-35	11		10-32	35	353175	3-73	11
	10-18	26	330567	5-33	8		10-36	47	353195	3-65	20
	10-31	20	330570	5-25	24		10-40	44		3-69	23
	10-35	26		5-31	10		10-45	18	353230	3-69	24
	10-40	26	330586	5-25	26		10-49	18	353310	2-15	16
	12-20	39		5-27	5		12-9	10		2-147	16

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	2-221	18		4-136	49		12-37	3		12-37	1
353397	3-73	1		4-136	51	376128	12-19	24	376643	10-13	2
353422	3-73	6	370648	4-135	41		12-27	24		10-17	2
353432	3-73	7		4-136	45		12-37	20	376644	10-13	2
353448	3-73	8	370728	4-128	28	376156	7-10	50		10-17	2
353453	3-69	25	370776	1-25	5	376182	9-30	11	376646	10-13	2
355750	8-8	59	371666	7-5	34	376187	9-30	10		10-17	2
355770	10-13	2	373091	13-13	9	376192	10-21	7	376647	10-13	2
	10-17	2	374159	1-97	27		10-25	7		10-17	2
356237	10-46	26	376026	6-3	11	376193	10-21	7	376649	2-15	3
	10-50	26		6-17	23		10-25	7		2-147	3
357427	8-27	7		6-19	22	376203	10-5	4		2-221	3
358099	6-3	7		6-21	34		10-7	4	376770	12-7	
359207	3-73	10		7-10	47		10-29	3		12-15	27
361000	12-13	16		13-2	6		10-31	3		12-19	20
361320	2-69	12		13-3	6		10-35	16		12-23	32
361336	2-27	18		13-4	5		10-39	16		12-27	20
362030	1-5	1		13-5	5		12-10	29		12-31	32
365854	2-25	15		13-6	6		12-19	19		12-35	23
366066	7-5	10		13-7	6		12-27	19		12-37	16
367394	2-35	20		13-8	6		12-37	15	376773	12-19	25
369804	8-4	62		13-9	6	376300	1-5	13		12-27	25
	9-5	24	376038	10-3	2	376319	1-11	3		12-37	21
370009	4-5	23		11-3	2	376385	9-30		376776	10-29	8
	4-9	23	376051	9-29	2	376397	1-5	15		10-31	8
	4-14	54		10-3	5		2-213	18		10-35	5
	4-18	60		11-3	5		3-5	4		10-39	5
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370258	1-89	15		10-11	3		3-51	23		12-27	8
370646	4-135	38		10-29	6	376398	10-22	9		12-37	4
	4-136	43		10-31	6		10-26	9	376813	12-7	2
	4-136	47		10-35	8	376505	7-5	17	376814	12-7	9
	4-136	53		10-39	8		13-13	10	376815	12-7	3
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	4-135	18		12-19	11		10-26	9	376839	12-7	5
	4-135	21		12-27	11	376624	10-9	12	376883	12-7	
	4-135	23		12-37	7		10-11	12	377976	2-43	14
	4-135	24	376086	7-13	5		10-29	1	378070	13-13	9
	4-135	25	376087	7-13	1		10-29	2	382262	5-21	16
	4-135	27		7-15	1		10-31	1	382269	5-21	11
	4-135	28	376088	7-13	2		10-31	2		5-23	11
	4-135	29	376089	7-13	2		10-35	1		5-25	19
	4-135	30		7-15	9		10-35	1		5-27	10
	4-135	31	376090	7-13	2		10-39	1	382283	5-21	18
	4-135	32	376091	7-9	40		10-39	1		5-47	3
	4-135	33		7-13			12-9	1	383789	10-14	35
	4-135	34	376127	10-29	14		12-9	1		10-18	35
	4-135	35		10-31	14		12-19	1		10-45	6
	4-135	36		10-35	4		12-19	1		10-49	6
	4-135	40		10-39	4		12-27	1	384014	13-13	17
	4-136	42		12-19	7		12-27	1	385107	1-39	27
	4-136	46		12-27	7		12-37	1	385531	2-25	12

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
	2-27	16	816593	10-14	34	1301299	4-6	53		4-33	7
385847	2-47	4		10-18	34		4-10	61		4-35	5
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386394	3-29	19		10-49	5		4-17	45		2-39	9
386459	2-19	13	816702	9-5	34	1301301	10-13	4		2-43	21
	2-37	5		9-14			10-17	4		2-45	11
	2-43	10	842799	2-31	6	1301377	10-13	3		2-59	2
	2-43	23	842800	2-31	7		10-17	3		2-59	5
	2-63	13	885707	8-8	50	1301406	4-5	38		2-65	19
	2-69	9	887317	1-101	4		4-9	45		4-33	13
	2-71	4	888012	1-89	37		4-13	18	1306359	2-39	11
	3-15	7	888329	8-7	40		4-18	66		2-43	25
	3-21	8	888333	9-11	13	1301410	1-89	14		2-59	14
389688	1-89	23	895468	7-5	35	1301411	1-89	13		2-63	14
392197	6-17	20	980727	2-27	14	1301537	8-8	66		2-75	10
	6-19	20	981260	3-13	34		8-8	74		3-15	5
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636071	10-21	6	983484	2-41	3		8-41	7		2-39	8
	10-25	6	984632	2-25	18	1301648	4-18	70		3-23	4
636949	10-21	3	986475	2-55	12	1301650	10-45	14		4-35	4
	10-25	3	990429	2-35	3		10-49	14	1306364	2-41	9
636950	10-21	4	992393	2-25	14	1301668	9-5	31	1306365	2-19	12
	10-25	4	992522	8-7	15	1301685	1-83	9	1306368	2-51	6
636951	7-15	7	1151722	9-13		1301700	3-54	54	1306371	2-55	7
	10-21	3	1300057	4-135	20		3-57	16		3-15	8
	10-25	3		4-135	22	1302024	13-17	6		3-25	3
636952	10-21	4	1300117	7-5	18	1303390	2-15	44	1306374	2-43	13
	10-25	4	1301014	10-29	15		2-147	44	1307121	4-5	9
637161	12-7	11		10-31	15		2-221	48		4-9	9
637162	10-21	5	1301016	10-5	5	1303391	10-14	17		4-9	27
	10-25	5		10-7	5		10-18	17		4-13	28
637164	10-21	5		10-29	4	1303463	8-33	23		4-14	44
	10-25	5		10-31	4	1303551	6-17	12		4-17	4
638253	10-21	6		10-35	15		6-19	3	1307730	2-15	17
	10-25	6		10-39	15		6-21	4		2-147	17
638292	12-7	10		12-10	31	1306033	2-39	12		2-221	19
815615	10-22	10		12-19	17	1306041	2-47	3		9-19	8
	10-26	10		12-27	18	1306143	2-43	18	1307755	1-97	9
815848	12-38	27		12-37	14	1306219	2-55	14	1307815	7-3	18
816232	8-4	47	1301018	10-5	3		2-57	7	1307875	2-43	7
816442	13-11	2		10-7	3	1306328	2-59	11	1307879	3-21	4
816578	9-30	2		10-29	17	1306337	3-21	16		4-33	2
816579	7-13	7		10-31	17	1306338	3-21	14	1307880	2-43	17
816580	9-30	4		10-35	11	1306350	2-33	9	1307881	2-53	7
816581	7-13	6		10-39	11	1306353	2-35	22		2-59	3
816585	3-5	19		12-9	27	1306354	2-67	17		2-63	5
	3-9	19		12-19	14	1306355	2-81	8		2-69	6
816591	10-14	33		12-27	14		4-33	11		2-73	4
	10-18	33		12-37	10	1306356	2-41	6		4-33	8
	10-45	4	1301086	1-11	11	1306357	2-37	8	1307883	2-81	3
	10-49	4		13-19	4		2-39	10	1307886	2-77	5

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1307891	2-61	9	1311054	2-25	22		5-23	3	1312286	5-39	16
	3-25	10	1311055	2-25	22		5-25	3		5-43	16
	4-29	3	1311056	2-25	22		5-27	7	1312287	5-39	22
1307894	2-43	5	1311057	2-25	22	1311812	5-21	4		5-43	22
1307898	2-65	4	1311074	2-19	10		5-23	4	1312351	5-25	23
	4-33	3		2-81	10		5-25	4		5-27	3
1307908	2-67	15	1311209	13-11	3		5-27	8	1312356	5-25	9
1307909	2-67	14	1311356	8-8	64	1311816	5-23	15		5-27	18
1307910	2-61	14	1311358	7-13		1311817	5-23	16	1312359	5-21	13
	2-73	2	1311407	7-9	2	1311818	5-21	20	1312362	5-21	22
	3-25	4	1311423	1-89	4	1311822	5-29	5	1312363	5-21	26
	4-33	9	1311469	10-13	2	1311823	5-29	6	1312373	5-49	3
	5-39	13		10-17	2	1311825	5-23	17	1312374	5-47	10
1307913	2-16	55	1311544	5-9	25	1311827	5-19	3	1312375	5-47	14
	2-51	5		5-11	24	1311844	5-41	24	1312376	5-47	2
1307970	5-41	13	1311550	5-9	10		5-45	24	1312377	5-39	9
	5-43	13	1311555	5-23	13	1312083	6-5	2		5-41	9
	5-45	13	1311566	5-41	23		6-9	2		5-43	9
1307994	9-19	4		5-45	23		6-13	2		5-45	9
1308006	3-27	5	1311567	5-31	1	1312097	5-25	7	1312378	5-47	9
1308007	3-21	15	1311571	5-31	2		5-27	19	1312379	5-39	3
1309065	8-22		1311646	5-23	13	1312214	8-41	8		5-41	3
1309403	8-27	7	1311649	5-29	1	1312226	1-97	9		5-43	3
1309427	8-22		1311658	5-25	5	1312260	5-7	6		5-45	3
1309503	8-7	38		5-27	16	1312266	5-9	9	1312381	5-39	18
	8-33	20	1311666	5-23	14		5-11	9		5-43	18
1309524	1-35	10	1311668	5-23	12	1312268	5-9	16	1312385	5-21	15
1309775	13-17	2	1311671	5-29	4		5-11	16	1312601	6-17	9
1309860	6-17	11	1311695	5-17	3	1312269	5-9	24		6-19	7
	6-19	5	1311715	5-47	1		5-11	23	1312611	8-21	9
1310592	10-5	7	1311716	5-47	5	1312271	5-49	6	1312614	8-21	9
	10-7	7	1311717	5-47	6	1312272	5-47	8	1312803	6-17	17
	10-29	11	1311718	5-47	7	1312274	5-47	12	1312805	6-17	21
	10-31	11	1311719	5-47	4	1312275	5-39	8		6-19	21
	10-35	10	1311721	5-39	4		5-41	8		6-21	15
	10-39	10		5-41	4	1312279	5-39	2	1312807	6-17	26
	12-10	33		5-43	4		5-41	2	1312822	5-3	21
	12-19	13		5-45	4		5-43	2		5-5	21
	12-27	13	1311790	9-17	19		5-45	2	1312823	5-3	21
	12-37	9	1311795	9-13	7	1312280	5-39	12		5-5	21
1310611	8-8		1311802	5-39	14		5-41	12	1312824	5-3	21
	8-42			5-41	14		5-43	12		5-5	21
1310630	4-135	17		5-43	14		5-45	12	1312827	5-3	21
	4-135	19		5-45	14	1312282	5-39	10		5-5	21
	4-135	39	1311805	5-31	4		5-41	17	1313374	7-9	9
	4-136	44	1311806	5-25	22	1312283	5-39	11	1313375	7-9	8
	4-136	56	1311807	5-25	28		5-43	11	1313868	6-17	8
1310638	13-13	11	1311810	5-21	8	1312284	5-39	17		6-19	8
1310689	4-5	42		5-23	9	1312285	5-39	15	1313894	6-17	10
	4-10	50		5-25	13		5-41	15		6-19	6
	4-13	25		5-27	15		5-43	15	1313895	6-17	15
	4-18	65	1311811	5-21	3		5-45	15		6-19	12

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
1313903	5-33	12		10-17	8		4-152	3		4-166	3
1315497	2-67	16	1328934	10-13	8		4-155	11		4-167	3
1315624	8-21	9		10-17	8		4-157	5		4-169	5
1316042	6-21	20	1328935	10-13	8	1330418	4-111	12		4-171	5
1316044	6-21	6		10-17	8		4-113	6	1330438	4-51	1
1316045	6-21	18	1328944	10-22	8		4-115	4		4-51	3
1316314	6-21	24		10-26	8	1330419	12-9	14		4-51	7
1316383	8-21	16	1328945	10-22	8	1330424	12-9	14		4-52	13
1316496	1-35	1		10-26	8	1330427	4-111	18		4-52	14
	1-41	31	1329240	2-15	34	1330429	4-143	10		4-52	16
1318626	6-6	36		2-147	34	1330433	4-147	2		4-52	18
	6-10	40		2-221	36	1330434	4-147	6		4-52	20
	6-14	40	1329250	7-5	33		12-9	14		4-55	4
1318920	2-59	6	1330355	4-74	27	1330437	3-53	36		4-55	6
1318921	2-65	5		4-82	27		4-57	33		4-55	9
1318940	2-43	8		4-90	27		4-59	4		4-56	21
1318943	2-43	19		4-98	21		4-66	20		4-57	32
1318946	2-43	27		4-106	21		4-67	36		4-57	34
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1326041	8-7	32		13-11	4		4-155	11		4-75	35
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	10-17	8		4-129	37		4-164	6		4-78	18
1328933	10-13	8	1330417	4-131	13		4-165	2		4-78	22

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
4-81	1		4-121	2		4-57	34		4-131	13	
4-81	2		4-128	18		4-61	1		4-132	21	
4-81	7		4-128	22		4-61	3		4-132	23	
4-82	16		4-128	25		4-65	2		4-132	25	
4-82	18		4-128	30		4-65	9		4-132	27	
4-82	22		4-131	11		4-65	11		4-132	29	
4-83	35		4-131	13		4-66	16		4-132	31	
4-85	1		4-132	21		4-66	18		4-137	1	
4-85	8		4-132	22		4-66	22		4-139	1	
4-85	10		4-132	23		4-69	1		4-140	9	
4-86	16		4-132	24		4-69	3		4-147	5	
4-86	18		4-132	25		4-73	2		4-147	15	
4-86	22		4-132	26		4-73	9		4-151	4	
4-89	1		4-132	27		4-73	11		4-152	3	
4-89	2		4-132	29		4-74	16		4-155	3	
4-89	3		4-132	30		4-74	18		4-155	5	
4-89	7		4-132	31		4-74	22		4-155	7	
4-90	16		4-138	11		4-77	1		4-155	9	
4-90	18		4-138	12		4-77	3		4-157	5	
4-90	22		4-140	6		4-77	8		4-158	5	
4-91	35		4-140	9		4-81	9		4-162	6	
4-93	1		4-140	10		4-81	11		4-163	6	
4-94	15		4-143	11		4-82	16		4-166	3	
4-94	17		4-148	6		4-82	22		4-167	3	
4-94	23		4-149	6		4-85	1		4-169	5	
4-94	28		4-151	3		4-85	3		4-170	1	
4-95	39		4-152	1		4-85	8		4-170	2	
4-97	1		4-152	2		4-89	9		4-170	3	
4-97	2		4-155	2		4-89	11		4-170	3	
4-97	7		4-155	4		4-90	16		4-170	4	
4-97	11		4-155	6		4-90	22		4-170	4	
4-98	15		4-155	8		4-93	1		4-171	5	
4-99	28		4-158	4		4-93	5	1330917	1-89	8	
4-99	31		4-158	8		4-93	6	1330920	1-89	28	
4-101	1		4-164	3		4-93	10	1331033	8-7	44	
4-102	15		4-170	1		4-97	11	1331034	8-7	33	
4-102	17		4-170	2		4-99	28	1332084	8-27	7	
4-102	23		4-170	3		4-99	31	1332107	8-37	17	
4-102	28		4-170	4		4-101	1	1332113	8-45	26	
4-103	39	1330439	4-51	1		4-101	5	1332114	8-45		
4-105	1		4-51	1		4-101	6	1332115	8-45		
4-105	2		4-52	18		4-101	10	1332116	8-45	36	
4-105	3		4-52	20		4-105	11	1332125	8-8	63	
4-105	7		4-52	22		4-107	28	1332128	8-8	54	
4-105	11		4-52	23		4-107	31	1332206	4-6	59	
4-106	15		4-55	4		4-111	15		4-10	67	
4-107	28		4-55	6		4-113	9		4-13	9	
4-107	31		4-55	9		4-115	7		4-17	44	
4-111	16		4-56	13		4-121	5	1332233	10-36	49	
4-113	18		4-57	32		4-127	14		10-40	45	
4-116	7		4-57	32		4-127	16		12-29	80	
4-119	2		4-57	33		4-128	30	1332234	10-36	50	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	10-40	46	1344924	2-69	8	1347851	10-9	11		4-77	2
	12-29	81	1345023	3-13	32		10-11	11		4-85	2
1332235	10-36	51		4-5	45	1347854	4-5	41		4-93	2
	10-40	47		4-10	53		4-9	49		4-101	2
1332236	10-36	52		4-14	57		4-13	20		4-147	4
	10-40	48		4-17	12		4-17	38		4-147	13
1332237	12-20	59		4-17	14	1347861	9-29	4		4-166	3
	12-28	59		4-18	61		10-3	7		4-167	3
	12-38	52	1345751	2-71	6		11-3	7		4-169	5
1332404	10-22	10	1345754	3-23	3	1347862	9-29	1		4-171	5
	10-26	10	1345786	2-43	4		10-3	4		12-9	14
1332782	8-22		1345800	2-61	7		11-3	4	1352669	3-5	23
1332787	8-22		1345939	1-89	1	1347863	10-3	15		3-9	23
1333400	12-5	1	1346892	10-9	6		11-3	15	1352670	3-5	23
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1333402	12-5	1	1346893	1-89	20		11-3	15	1352671	8-7	16
1333403	12-5	1	1346973	10-9	7	1350854	12-20	60	1354165	1-91	4
1333404	12-5	1		10-11	7		12-28	60	1356947	1-83	15
1333405	12-5	1	1346974	10-9	8		12-38	53		13-11	16
1334581	10-29	16		10-11	8	1350855	12-21	76		13-15	5
	10-31	16	1347202	7-3	12		12-29	82	1357097	2-69	13
	12-35	5	1347405	12-13	1	1350856	12-21	77	1357098	2-61	5
	12-38	26	1347770	6-5	25		12-29	83	1357734	6-5	1
1335126	1-89	19		6-9	25	1350857	12-21	78		6-9	1
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	10-7	6	1347774	6-5	11	1350911	2-7	11	1358203	6-17	7
	10-29	5		6-9	12		3-13	25		6-19	9
	10-31	5		6-9	17		3-29	11	1358326	2-13	19
	10-35	14		6-13	17		3-31	11		2-155	19
	10-39	14	1347800	6-6			3-33	11		2-213	4
	12-10	28		6-10			3-53	14	1358860	8-13	8
	12-19	18		6-14			4-14	68	1359101	10-3	13
	12-27	17	1347812	6-5	6		4-17	13		11-3	13
	12-37	13		6-9	12		13-11	13	1359458	1-41	14
1335619	5-17			6-13	12	1350914	3-29	15	1360191	3-5	23
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1336112	9-29	8		6-10	35		4-5	24		3-9	23
1336228	4-5	43		6-14	35		4-9	24	1360193	3-5	23
	4-10	51	1347827	6-10	41	1351068	4-147	7		3-9	23
	4-13	17		6-14	41	1351069	4-147	8	1360194	3-5	23
	4-18	63	1347831	6-5	30	1351996	2-43	20		3-9	23
1336874	3-53	12		6-10	43	1352090	3-73	12	1361200	2-13	4
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1337774	7-9	35	1347835	6-5	23		3-73			2-213	7
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	4-136	50		6-14	39		12-9	14		2-9	9
	4-136	52	1347839	6-5	26	1352603	4-51	1	1362277	4-5	35
	4-136	55		6-9	28		4-61	2		4-14	61
1342836	8-21	21		6-13	28		4-69	2	1363885	3-27	11

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-111	14	1374099	6-6		1380755	2-25	19	1384859	8-19	7
	4-113	8		6-10		1380776	6-6	35	1384863	8-19	11
	4-115	6		6-14			6-10	37		8-19	14
	4-124	1	1374550	6-5	14		6-14	37	1384864	8-19	10
	4-137	1		6-10	31	1380777	6-5	21	1384865	8-19	11
	4-139	1		6-14	31		6-9	27	1385099	1-89	31
	13-11	4	1374552	6-6			6-13	27	1385130	1-89	33
	13-13	7		6-10		1380784	6-3	4	1385519	4-5	16
	13-15	2		6-14		1380797	6-6	34		4-9	16
1363886	4-51	1	1374588	8-21	13		6-10	36		4-9	28
	4-51	8	1374750	1-54	10		6-14	36		4-13	40
	4-52	13		1-62	10	1380886	7-13	4		4-17	8
	4-52	14	1374980	2-35	18	1380893	6-5	17	1385549	10-3	1
	4-55	6	1374988	9-13	1		6-9	22		11-3	1
	4-56	13	1374991	9-13	14		6-13	22	1385703	2-43	9
	4-57	32	1374997	9-13	23	1382064	2-31	5	1385704	2-43	15
	4-65	2	1375000	9-13	10	1382065	2-31	5	1385715	6-17	4
	4-73	2	1375001	9-13	18	1382066	2-31	5		6-19	18
	4-128	25	1375003	9-13	19	1382069	2-31	5	1385876	10-21	2
	4-132	27	1375004	9-13	20	1382130	13-17	2	1385877	10-21	2
	4-158	3	1375010	9-13	15	1382332	1-5	31	1385878	10-21	2
	4-160	5	1377130	13-7	3	1382454	3-17	7	1385879	10-21	2
	4-160	6		13-8	3	1382455	3-17	8	1385880	10-21	2
1366712	13-6	2		13-9	3	1382462	2-48	2	1385881	10-21	2
1366718	13-9	1	1377131	13-7	4	1382463	2-48	8	1385882	10-21	2
1367281	13-21	1		13-8	4	1382464	2-48	1	1385883	10-21	2
1367282	13-21	1		13-9	4	1382471	2-69	17	1385897	10-21	
1367556	5-3	21	1377132	13-7	5	1382479	2-41	5	1385898	10-21	
	5-5	21		13-8	5	1382766	1-6		1385899	10-21	
1369100	13-3	1		13-9	5	1382867	13-11	4	1385901	10-21	1
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1370945	2-27	20	1379774	2-53	1	1382960	2-61	6	1385910	10-21	
1370947	2-35	4	1380200	2-53	4	1382963	2-61	13	1385911	10-21	
1370948	2-35	21	1380201	2-53	2		2-77	7	1385912	10-21	
1370949	2-19	5	1380202	2-53	3	1382966	8-21	10	1385913	10-21	
	2-35	24	1380205	2-53	8	1383998	13-11	4	1385915	10-21	1
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1371704	2-81	5	1380210	2-19	4		13-15	2	1385916	10-21	1
1372994	12-9	17		2-57	3	1384408	8-22			10-25	1
1373216	12-9	25	1380211	2-19	6	1384412	8-21	28	1385917	10-21	1
1373335	10-46	34		2-57	4	1384517	8-3	9		10-25	1
1373430	2-216	1	1380214	2-19	3		8-8	58	1385918	10-21	1
1373791	1-41	17		2-57	2	1384699	2-7	21		10-25	1
1374086	8-21	8	1380250	2-29	15		3-53	17	1385919	10-21	1
1374088	6-6	33		2-69	14		7-3	10		10-25	1
1374089	6-6	32	1380253	2-25	20	1384794	5-9	19	1385962	10-22	
1374091	6-5	8	1380261	2-43	11		5-11	19		10-26	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1385964	10-22			10-40	28	1451721	2-61	8	1455367	12-13	3
	10-26			12-20	41	1451727	2-63	2	1455368	12-13	4
1388387	2-25	13		12-28	41	1451729	2-63	8	1455369	12-13	5
1388428	7-7	3		12-38	34	1451731	2-75	7	1455370	12-13	10
1388434	7-7	6	1393803	3-13	27	1451733	2-67	13	1455371	12-13	11
1388435	7-7	35	1396256	3-13	15	1451736	2-65	6	1455372	12-13	13
1388436	7-7	36		3-27		1451737	2-65	16	1455373	12-13	12
1388438	7-7	20	1396518	2-213	23	1451739	2-65	10	1455573	9-29	14
1389313	5-7	21	1399474	13-17	2	1451747	2-53	6		9-30	
	5-9	11	1401160	2-15	12	1451753	2-69	4	1455574	9-30	1
	5-11	11		2-147	12	1451760	2-69	2	1455578	2-16	54
1389479	4-131	10		2-221	12	1451764	2-69	5	1455599	9-30	14
1390042	5-9	20	1402849	4-93	12	1451772	2-73	3	1455926	3-5	27
	5-11	20		4-101	12	1451786	12-10	40		3-5	27
1390281	1-39	17	1450074	6-17	13	1451839	12-10	41		3-9	31
1390646	8-31	9		6-19	10	1451923	12-10	39		3-51	22
1391216	4-29	2		6-21	16	1452066	12-5	1	1456521	3-19	17
1391246	2-29	9	1450075	6-17	14	1452130	12-9	17	1456522	3-21	11
1391418	10-46	36		6-19	11	1452131	12-9	17	1456524	3-21	12
1391650	13-2	4	1450390	8-25	4	1452132	12-9	17	1456622	12-37	25
	13-3	4	1450861	6-5	4	1452134	12-9	17	1456697	2-25	21
	13-4	4		6-6	31	1452135	12-9	17	1456704	2-27	5
	13-5	4		6-9	9	1452138	12-9	17	1456726	3-15	4
1391651	13-2	2		6-10	42	1452382	3-13	21	1456742	2-65	9
	13-3	2		6-13	9	1452404	2-17	3	1457466	8-11	6
	13-4	2		6-14	42		2-87	5	1457815	2-75	12
	13-5	2	1451134	12-9	1		2-159	5		2-77	10
1391652	13-2	3	1451149	12-9	21		5-3	5		2-79	9
	13-3	3		12-13			5-5	5		3-21	20
	13-4	3	1451155	12-9	2	1452863	2-35		1458329	2-33	10
	13-5	3	1451318	12-9	1	1453031	1-47	2	1459178	8-3	6
1391653	13-6	2	1451416	1-89	6		1-59	2	1459254	8-4	52
1391654	13-6	5	1451602	2-33	12	1453391	2-77	12	1460066	2-69	18
1391655	13-6	3	1451606	2-33	4	1453728	12-9	11	1460103	2-63	1
1391656	13-6	4	1451609	2-51	1	1453834	9-13	22	1460312	13-11	1
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1391745	8-25	4	1451625	2-25	11	1454154	2-16	53	1460544	2-33	6
1393119	13-2	1	1451627	2-27	21	1454156	4-33	5	1460546	2-33	6
1393120	13-2	1	1451628	2-25	2	1454339	12-5	1	1460559	2-29	13
1393463	1-13	13	1451629	2-27	4	1454457	12-5	1	1461081	1-86	3
1393473	1-13	39	1451632	2-27	10	1454458	12-5	1	1462890	7-5	10
1393474	1-14	40	1451633	2-27	9	1454459	12-5	1	1462891	7-5	10
1393528	1-101	3	1451636	2-27	8	1454460	12-5	1	1463140	4-128	17
1393707	5-3	2	1451639	2-27	12	1454461	12-5	1	1463141	4-52	13
	5-5	2	1451642	2-35	13	1454462	12-5	1		4-65	1
1393708	2-17	2	1451643	2-35	9	1454597	4-113	24		4-73	1
	2-87	6	1451644	2-35	8	1455057	8-21	2		4-81	1
	2-159	6		2-35	11	1455362	12-13			4-89	1
1393781	1-93	23	1451645	2-35	6	1455363	12-13	6		4-97	1
1393802	1-26	52	1451649	2-39	4	1455364	12-13	7		4-105	1
	10-31	23	1451650	2-39	1	1455365	12-13	8		4-119	3
	10-35	28	1451651	2-39	2	1455366	12-13	9		4-121	3

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-143	8		4-128	26		9-5	17		1-95	11
1463194	4-52	16	1465468	3-53	12		9-29	9		7-5	42
	4-63	33	1465810	2-65	14		9-29	13	1476614	13-11	4
	4-65	11	1465811	2-65	13	1473888	8-4	51		13-13	7
	4-66	16	1465812	2-65	15	1473892	9-7	5		13-15	2
	4-66	18	1466053	2-65	17	1473897	7-3	32	1476660	1-5	41
	4-66	22	1466859	2-35	14		9-29	11	1476661	1-5	41
	4-71	33	1467522	1-53	3		12-9	15	1476678	9-5	2
	4-73	11		1-61	3	1473898	9-5	35	1476681	9-5	1
	4-74	16		1-67	6	1473919	8-4	50	1476682	9-5	12
	4-74	18	1467531	1-68	10		9-19	24	1476688	7-3	1
	4-74	22		1-71	3	1473923	9-2	7	1476689	9-5	6
	4-81	11	1467624	1-11	18	1473927	8-4	61		9-29	15
	4-82	16	1467625	1-11	18		8-7	21	1476691	9-5	8
	4-82	18	1467696	1-11	1		9-20	36		9-29	16
	4-82	22	1467940	9-33	20	1473949	8-4	56	1476692	9-5	7
	4-89	3	1467948	9-23	32	1474001	8-7	14		9-29	15
	4-89	11	1468306	1-83	20	1474791	13-13	22	1476694	9-5	9
	4-90	16	1468311	1-95	14	1474875	2-13	14		9-29	16
	4-90	18	1468312	1-14	42		2-155	14	1476696	7-3	5
	4-90	22	1468313	1-98	53		2-213	8	1476697	7-3	2
	4-93	5	1468318	1-16	7	1474921	1-25	6	1476704	7-3	4
	4-93	6		1-95	7	1475075	8-8	83	1476705	7-3	21
	4-93	10		1-97	7	1475211	1-11	15	1476707	9-5	37
	4-95	39		1-97	12	1475212	1-11	16	1476735	9-5	5
	4-97	11		1-97	42	1475213	1-11	17	1476736	9-5	4
	4-99	28		1-98	48	1475214	1-11	6	1476737	9-5	30
	4-99	31		1-101	18	1475420	6-5	27	1477228	7-5	11
	4-101	5	1468319	1-93	4		6-10	29	1477323	8-27	6
	4-101	6		1-97	10		6-14	29	1477426	8-27	7
	4-101	10		1-101	7	1475421	6-5	28	1477439	3-29	14
	4-103	39		7-5	26		6-10	30	1477508	1-5	20
	4-105	3	1468320	1-101	23		6-14	30		1-5	30
	4-105	11	1468321	1-19	14	1475493	4-9	36	1477512	1-5	21
	4-107	28		1-21	14		4-14	53	1478838	8-8	49
	4-107	31		1-85	28		4-18	55	1478957	1-5	42
	4-119	16		1-95	11		8-8	65	1478958	1-5	42
	4-121	10		1-103	6	1475500	2-87	7	1479059	1-5	40
	4-138	11		7-5	7		2-159	7	1479060	1-5	40
	4-139	6	1469659	13-13	25	1475502	2-87	9	1479109	4-52	17
	4-140	9	1470155	1-67	6		2-159	9		4-55	1
1463912	4-5	30	1471366	5-31	12	1475627	3-5	24		4-55	2
1464110	3-25	1	1471371	5-35	8		3-9	24		4-55	3
1464115	4-33	12	1471383	5-35	10	1475732	1-25	8		4-55	7
1464540	3-27	3	1471600	13-8	1		1-33			4-55	8
1464541	3-27	2		13-9	1	1475749	2-17	1		4-55	11
1464543	3-27	1	1471839	13-9	1	1475872	1-11	9		4-62	15
1464544	3-27	6	1471922	13-8	1	1476421	1-85	10		4-62	16
1464545	3-27	7		13-9	1	1476584	1-13	4		4-62	17
1464546	3-27	8	1473851	1-83	1		1-13	9		4-62	20
1464629	7-3	16	1473887	7-3	9		1-69	16		4-62	21
1465378	4-128	24		8-4	63		1-85	1		4-62	24

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-70	15	1479870	1-5	25	1482765	6-17	28	1482909	1-53	6
	4-70	16	1479871	1-5	19		8-19	9		1-61	6
	4-70	17	1479898	13-13	18	1482766	6-17	22		1-68	10
	4-70	20	1480017	1-83	1	1482771	6-17	30	1482910	1-53	5
	4-70	21	1480186	1-25	8		6-19	30		1-54	6
	4-70	24	1480187	1-25	8	1482772	6-17	30		1-61	5
	4-77	13	1480188	1-25	8		6-19	30		1-62	6
	4-78	14		4-58	3	1482780	8-21			1-68	7
	4-78	15		4-160	1	1482782	8-21			1-68	10
	4-78	20	1480199	3-5	29	1482784	8-21	9	1482911	1-54	11
	4-78	21		3-9	30	1482798	1-53	1		1-62	11
	4-78	24		3-51	25		1-61	1	1482912	1-54	11
	4-81	6	1480201	13-11	5		1-67			1-62	11
	4-85	13	1480202	8-31	3	1482800	1-53	3	1482913	1-54	11
	4-86	14	1480216	1-97	11		1-61	3		1-62	11
	4-86	15	1480217	1-97	9	1482801	1-54	7		1-67	4
	4-86	20	1480231	13-15	1		1-62	7	1482914	1-53	3
	4-86	21	1480232	13-15	3		1-68	11		1-54	6
	4-86	24	1480236	13-17	1	1482802	1-53	2		1-61	3
	4-89	6	1480237	1-9	9		1-61	2		1-62	6
	4-94	20	1480245	1-35	9		1-67	3	1482915	1-67	
	4-94	21	1480318	1-39	21	1482803	1-54	8	1482917	1-53	3
	4-94	22		1-41	26		1-62	8		1-53	5
	4-94	25	1480332	4-5	48		1-69	12		1-53	6
	4-94	26		4-10	56	1482804	1-53	4		1-54	7
	4-94	29		4-14	48		1-61	4		1-54	9
	4-97	6	1480410	8-31	17		1-67	5		1-55	14
	4-102	20		8-33	22	1482805	1-53	5		1-55	15
	4-102	21		8-41	1		1-61	5		1-55	16
	4-102	22		8-41	1		1-68	7		1-55	17
	4-102	25	1480609	8-3	1	1482806	1-54	9		1-55	19
	4-102	26	1480674	8-25	5		1-62	9		1-61	3
	4-102	29	1482449	10-3	2		1-67	1		1-61	5
	4-105	6		11-3	2	1482903	1-53	6		1-61	6
	4-147	16	1482659	4-81	4		1-54	12		1-62	7
	4-159	8		4-83	30		1-61	6		1-62	9
	4-166	1		4-89	4		1-62	12		1-63	14
	4-166	2		4-91	30	1482904	1-53	6		1-63	15
	4-167	1		4-97	4		1-61	6		1-63	16
	4-167	2		4-98	18		1-68	10		1-63	17
	4-168	1		4-105	4	1482905	1-53	6		1-64	20
	4-168	2		4-106	18		1-61	6		1-67	
	4-168	3		4-137	4		1-68	10		1-67	1
	4-168	4		4-139	4	1482906	1-53	6		1-67	4
1479369	2-15	47		4-161	7		1-61	6		1-68	7
	2-147	45	1482663	4-74	27		1-68	10		1-68	10
	2-221	49		4-82	27	1482907	1-53	6		1-68	11
1479385	3-5	22		4-90	27		1-61	6		1-71	1
	3-9	22		4-98	21		1-68	10		1-71	2
1479386	8-7	18		4-106	21	1482908	1-53	6		1-71	5
1479473	7-7	2	1482763	6-17	29		1-61	6		1-71	5
1479613	8-3	2	1482764	6-17	27		1-68	10		1-71	6

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	<u>PART NO.</u>	<u>PAGE</u>	<u>ITEM</u>
	1-75	2		1-55	15		1-62	8		1-61	6
	1-79	2		1-55	16		1-62	8		1-68	10
1482919	1-53	3		1-55	17		1-62	9	1482971	1-54	7
	1-53	4		1-61	3		1-62	11		1-62	7
	1-53	5		1-61	5		1-63	14		1-68	11
	1-53	6		1-61	6		1-63	15	1482972	1-54	8
	1-54	9		1-62	7		1-63	19		1-62	8
	1-61	3		1-62	9		1-67	1	1482973	1-54	8
	1-61	4		1-63	15		1-68	7		1-62	8
	1-61	5		1-63	16		1-68	9	1482974	1-54	9
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	1-67	5		1-71	2		1-71	1	1482976	1-54	12
	1-68	7		1-72	6		1-71	5		1-62	12
	1-68	10	1482952	1-53	5		1-71	5		1-71	3
	1-69	11		1-54	6		1-75	3	1482977	1-54	12
1482920	1-53	4		1-54	7		1-76	7		1-54	13
	1-61	4		1-54	8	1482954	1-53	1		1-55	17
	1-67	5		1-54	8		1-61	1		1-62	12
1482922	1-54	11		1-54	9		1-67			1-62	13
	1-62	11		1-54	11	1482955	1-53	2		1-63	17
1482923	1-53	4		1-55	15		1-61	2	1482978	1-54	13
	1-53	5		1-61	5		1-67	3		1-62	13
	1-61	4		1-62	6	1482956	1-54	8		1-71	4
	1-61	5		1-62	7		1-62	8	1482979	1-54	13
1482924	1-53	2		1-62	8		1-69	12		1-55	17
	1-53	2		1-62	8	1482957	1-53	2		1-62	13
	1-53	5		1-62	9		1-61	2		1-63	17
	1-54	8		1-62	11		1-67	3		1-71	4
	1-54	9		1-63	15	1482958	1-53	2	1482980	1-54	13
	1-61	2		1-67	1		1-61	2		1-55	16
	1-61	2		1-68	7		1-67	3		1-55	17
	1-61	5		1-68	9	1482959	1-53	3		1-62	13
	1-62	8		1-68	10		1-61	3		1-63	16
	1-62	9		1-68	11		1-67	4		1-63	17
	1-67	1		1-69	12	1482960	1-53	4		1-71	2
	1-67	3		1-69	12		1-61	4		1-71	4
	1-67	3		1-71	1		1-67	5		1-72	6
	1-67	4	1482953	1-53	5	1482961	1-53	4		1-76	7
	1-68	7		1-54	6		1-53	5	1482981	1-54	13
	1-68	10		1-54	7		1-61	4		1-55	16
1482925	1-68	6		1-54	8		1-61	5		1-55	17
1482948	1-68	6		1-54	8		1-67	5		1-62	13
1482949	1-68	6		1-54	9		1-68	7		1-63	16
1482950	1-68	6		1-54	11	1482968	1-54	8		1-63	17
1482951	1-53	3		1-55	14		1-62	8		1-71	2
	1-53	5		1-55	15	1482969	1-53	5		1-71	4
	1-53	6		1-61	5		1-61	5		1-72	6
	1-54	7		1-62	6		1-68	7	1482982	1-62	14
	1-54	9		1-62	7	1482970	1-53	6		1-71	5

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1482989	1-63	14		1-79	1		1-75	6	1483030	1-56	25
	1-71	5	1483002	1-55	18		1-76	7		1-79	8
	1-75			1-79	1		1-79	2	1483031	1-56	25
1482990	1-55	14	1483003	1-55	18		1-79	7		1-64	24
	1-55	17		1-55	19		1-80	11		1-75	7
	1-55	19		1-56	24	1483011	1-55	19		1-76	11
	1-63	14		1-63	18		1-56	27		1-79	7
	1-63	17		1-63	19		1-79	2		1-79	8
	1-64	20		1-63	20		1-80	10		1-80	9
	1-71	5		1-64	23	1483012	1-55	20		1-80	11
	1-71	5		1-75	1		1-79	3	1483032	1-56	26
	1-71	6		1-75	2	1483013	1-55	20		1-79	9
	1-75	2		1-75	3		1-79	3	1483033	1-79	9
	1-76	7		1-75	6	1483014	1-56	22	1483034	1-56	27
	1-79	2		1-76	7		1-79	4		1-80	10
1482991	1-54	14		1-76	9	1483015	1-56	21	1483036	1-56	27
	1-71	5		1-79	1		1-79	6		1-80	10
1482992	1-55	14		1-79	2	1483016	1-56	21	1483037	1-56	28
	1-71	5		1-79	7		1-79	6		1-80	11
	1-79		1483004	1-55	18	1483017	1-56	21	1483039	1-80	11
1482993	1-55	15		1-56	24		1-79	6	1483040	1-63	19
	1-63	15		1-63	18	1483018	1-56	21		1-75	3
	1-71	1		1-63	19		1-79	6	1483041	1-63	19
1482994	1-55	15		1-64	23		1-80	9		1-75	3
	1-63	15		1-75	1	1483019	1-56	21	1483042	1-63	20
	1-71	1		1-75	3		1-79	6		1-75	2
1482995	1-55	15		1-75	6	1483020	1-56	22	1483043	1-63	20
	1-55	16		1-76	7		1-79	4		1-75	2
	1-55	17		1-76	9	1483021	1-56	22	1483044	1-64	21
	1-63	15		1-79	1		1-79	4	1483047	1-64	21
	1-63	16		1-79	7	1483022	1-56	22		1-71	3
	1-63	17	1483005	1-63	18		1-79	4		1-75	2
	1-71	1		1-75	1	1483023	1-56	22		1-75	4
	1-71	2	1483006	1-63	18		1-79	4	1483049	1-64	22
1482996	1-55	16		1-75	1	1483024	1-56	23		1-75	5
	1-63	16	1483007	1-55	19		1-79	5	1483050	1-64	23
	1-71	2		1-79	2	1483025	1-56	23		1-75	6
1482997	1-55	16	1483008	1-55	19		1-64	22	1483051	1-64	23
	1-55	17		1-79	2		1-79	5		1-75	6
	1-63	16	1483009	1-55	19	1483026	1-56	23	1483052	1-64	24
	1-63	17		1-56	24		1-64	22		1-75	7
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1482998	1-55	17		1-64	23		1-79	8		1-75	7
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	1-71	6		1-75	6	1483027	1-56	24		1-75	7
1482999	1-55	17		1-79	2		1-79	7	1483055	1-64	24
	1-63	17		1-79	7	1483028	1-56	24		1-76	7
	1-71	6	1483010	1-55	19		1-79	7	1483056	1-64	25
1483000	1-55	17		1-56	24	1483029	1-56	24		1-76	9
	1-63	17		1-63	20		1-64	23	1483057	1-64	25
	1-71	6		1-64	23		1-75	6		1-76	9
1483001	1-55	18		1-75	2		1-79	7	1483058	1-64	25

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	1-75	6		4-89	1		4-83	34		4-106	24
	1-76	9		4-89	2		4-85	9		4-106	25
1483059	1-64	25		4-90	18		4-90	26		4-106	26
	1-76	9		4-93	1		4-91	32		4-159	4
1483060	1-64	25		4-93	4		4-91	34	1484396	4-57	29
	1-64	26		4-95	30		4-94	16		4-57	30
	1-76	8		4-95	39		4-97	9		4-57	31
	1-76	9		4-97	1		4-97	10		4-65	6
	1-76	10		4-97	2		4-97	13		4-66	17
1483061	1-64	26		4-99	28		4-98	16		4-66	23
	1-76	8		4-101	1		4-98	22		4-66	24
1483062	1-64	26		4-101	4		4-102	16		4-73	6
	1-76	8		4-103	30		4-105	9		4-74	17
	1-76	9		4-103	39		4-105	10		4-74	23
	1-76	10		4-105	1		4-105	13		4-74	24
1483063	1-64	26		4-105	2		4-106	16		4-82	17
1483067	1-76	10		4-107	28		4-106	22		4-82	23
1483069	1-64	28	1484363	4-127	16		4-111	10		4-82	24
1483070	1-64	28	1484375	4-56	22		4-113	4		4-90	17
1483226	1-19	3		4-124	3		4-155	1		4-90	23
	1-21	3		4-128	28		4-155	10		4-90	24
	1-22	7	1484377	4-65	13	1484394	4-51	4		4-98	24
1483388	1-56	20		4-73	13		4-61	14		4-98	25
	1-79	3		4-81	13		4-69	14		4-98	26
1483425	1-97	25		4-89	13		4-77	12		4-106	24
1483927	4-6	55		4-93	3		4-85	12		4-106	25
	4-10	63		4-101	3		4-94	19		4-106	26
	4-13	8		4-119	4		4-102	19		4-159	5
	4-17	33		4-121	4		4-131	2	1484397	4-52	16
1484362	4-61	1		4-128	17		4-143	5		4-52	22
	4-61	3		4-143	12		4-155	1		4-65	9
	4-62	26	1484383	4-51	6	1484395	4-155	10		4-65	11
	4-63	33		4-52	21		4-57	29		4-73	9
	4-65	1		4-56	20		4-57	30		4-73	11
	4-66	18		4-56	23		4-57	31		4-81	9
	4-69	1		4-57	27		4-65	6		4-81	11
	4-69	3		4-61	9		4-66	17		4-89	3
	4-70	26		4-65	14		4-66	23		4-89	9
	4-71	33		4-66	15		4-66	24		4-89	11
	4-73	1		4-66	26		4-73	6		4-93	5
	4-74	18		4-66	27		4-74	17		4-93	6
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	4-78	18		4-69	9		4-82	17		4-101	6
	4-78	26		4-73	14		4-82	23		4-101	10
	4-81	1		4-74	15		4-82	24		4-105	3
	4-81	2		4-74	26		4-90	17		4-119	15
	4-82	18		4-75	32		4-90	23		4-121	9
	4-85	1		4-75	34		4-90	24		4-128	18
	4-85	3		4-77	9		4-98	24		4-128	35
	4-86	18		4-82	26		4-98	25		4-131	16
	4-86	26		4-83	32		4-98	26		4-138	11

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
	4-139	6		4-140	8		4-132	27	1484675	4-127	1
	4-140	9		4-143	4	1484651	4-51	10	1484676	4-128	29
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	4-121	16		4-62	25		4-62	25		4-135	26
	4-127	3		4-67	36		4-67	36		4-135	37
	4-127	5		4-69	6		4-69	6		4-136	48
	4-127	7		4-70	25		4-70	25	1484682	4-131	10
	4-127	9		4-75	36		4-75	36	1484683	4-135	1
	4-127	11		4-77	6		4-77	6	1484684	4-135	12
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	4-127	3		4-86	25		4-86	25		4-137	1
	4-127	5		4-93	13		4-93	13		4-139	1
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	4-127	11		4-101	13		4-101	13		4-127	15
	4-128	24		4-106	14		4-106	14		4-127	17
	4-128	26		4-111	7		4-137	2		4-127	17
	4-128	29		4-113	1		4-137	3		4-137	1
1484557	4-143	6		4-115	1		4-137	6		4-139	1
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	4-10	62		4-137	6		4-139	3	1484709	1-25	8
	4-13	12		4-138	8		4-139	5		4-59	3
	4-17	43		4-139	2		4-140	7		4-127	16
1484563	8-3	38		4-139	3	1484654	4-128	21		4-160	1
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	5-27	17		4-140	7		4-140	8		4-157	5
1484592	4-111	1	1484599	4-111	8	1484655	4-128	21	1484714	4-58	2
	4-113	19		4-113	2		4-138	9		4-128	34
	4-115	8		4-115	2		4-140	8		4-135	15
	4-143	1	1484600	4-111	9	1484656	4-81	4	1484715	4-58	1
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	4-113	20	1484607	4-111	17		4-89	4		4-135	14
	4-115	9	1484608	4-111	19		4-91	30	1484716	4-131	1
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1484594	4-111	3	1484609	4-111	20		4-98	18	1484718	4-51	5
	4-113	21		4-113	11		4-105	4		4-52	19
	4-115	10	1484610	4-111	21		4-106	18		4-56	24
1484595	4-111	4		4-113	15		4-128	21		4-61	10
	4-113	22	1484611	4-111	22		4-137	4		4-65	4
	4-115	11		4-113	25		4-138	9		4-66	29
	4-128	21		4-115	14		4-139	4		4-69	10
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	4-113	23	1484650	4-52	14		4-161	7		4-75	29
	4-115	12		4-65	2	1484662	4-127	16		4-124	4
	4-143	3		4-73	2	1484666	4-127	15		4-128	19
1484597	4-111	6		4-81	2		4-127	17		4-128	33
	4-115	13		4-89	2		4-137	1		4-143	15
	4-128	21		4-97	2		4-139	1	1484719	4-113	12
	4-138	9		4-105	2	1484668	4-131	15	1485263	1-9	25

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1485264	1-9	26	1486246	8-4	49		12-29			1-41	25
1485265	1-9	24	1486535	1-25	2		12-39		1487126	7-7	13
1485271	1-25	9		1-31		1486825	1-25	37	1487129	7-7	33
1485292	7-9	6	1486539	1-25	22	1487058	8-4	42	1487130	7-7	22
1485294	7-9	13	1486540	1-25	10		8-7	19	1487131	7-7	5
1485296	7-9	1	1486557	9-19	27	1487063	8-4	57	1487132	7-7	10
1485304	7-9	34	1486578	9-20	37		8-7	26	1487133	7-7	18
1485308	7-9	30	1486630	1-25	12	1487064	8-4	71	1487144	10-18	36
1485309	7-9	31	1486737	7-3	7		10-35	20	1487148	9-19	31
1485310	7-10	48		8-4	43		10-39	20	1487164	10-39	2
1485419	8-21	9		9-19	19		12-19	23		10-39	2
1485427	1-83	2		10-18	39		12-19	32		10-39	3
1485618	9-13	3	1486738	9-19	25		12-27	23		10-39	3
1485619	9-13	2		10-18	11		12-27	32		10-39	23
1485620	9-13	4	1486740	8-4	59		12-37	19		10-39	24
1485621	9-13	9		9-20	34	1487065	12-9	7		12-20	35
1485625	9-13	16		10-31	27	1487069	9-20	33		12-20	36
1485626	9-13	17		10-36	34		10-31	26	1487166	9-19	17
1485871	8-3	4		10-40	32		10-35	32	1487204	1-25	3
1485953	1-39	23		12-20	47		12-20	45	1487206	2-13	16
	1-41	36		12-28	47		12-28	45		2-155	16
1485954	1-39	12		12-29	71		12-38	38		2-213	1
1485956	1-39	13		12-38	40	1487073	9-7	4	1487208	8-25	6
1485957	1-39	4	1486741	8-4	40	1487088	9-19	1	1487209	8-25	4
	1-41	1		9-11	11	1487094	9-20	40	1487427	9-35	1
1486067	1-25	25	1486742	8-5	82		10-18	13	1487428	9-35	4
1486068	1-25	26		9-19	22	1487095	8-4	55		9-37	4
1486069	1-25	27	1486743	10-35	33		9-19	30		9-37	7
1486070	1-25	28		12-20	46		9-20	41		9-37	7
1486078	9-5	36		12-21	69		10-14	13		9-37	7
1486079	8-4	70		12-28	46	1487097	8-4	53		9-37	7
1486080	8-4	72		12-29	69	1487103	7-7	12		9-37	7
1486081	8-3	23		12-38	39	1487104	7-7	27		9-37	7
1486082	8-3	24	1486745	10-14	11	1487105	7-7	24		9-37	7
1486083	8-3	25		10-40	33	1487106	7-7	25		9-37	7
1486084	8-3	37	1486746	8-4	58	1487107	7-7	4		9-37	7
1486085	8-3	35		9-7	3	1487108	7-7	11		9-37	7
1486086	8-4	73		9-19	23	1487109	7-7	19		13-13	27
1486087	8-3	33		12-9	6	1487110	7-7	17		13-17	10
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1486089	8-3	30	1486749	7-3	24	1487112	7-7	23		10-7	1
1486090	8-3	32		8-4	41	1487114	7-7	21	1487788	10-5	1
1486091	8-4	54		8-4	69	1487115	7-7	26		10-7	1
1486092	8-3	29		9-19	18	1487118	1-39	24	1487789	10-5	1
1486093	8-3	26	1486751	8-4	45		1-41	3		10-7	1
1486094	8-3	34		9-19	29	1487120	7-7	28	1487790	10-5	1
1486095	8-3	31	1486754	9-5	26	1487121	7-7	16		10-7	1
1486165	3-9	27	1486770	9-20	32	1487122	1-39	3	1487791	10-5	1
	3-51	22	1486772	8-4	60		1-41	22		10-7	1
1486218	3-5	7		10-32		1487123	7-7	15	1487849	10-9	1
	3-9	7		12-9	8	1487124	7-7	1		10-11	1
	3-51	21		12-21		1487125	1-39	6	1487850	10-9	1

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	10-11	1	1488752	1-29		1489419	6-21	23	1489689	4-5	46
1487851	10-9	1	1488762	1-29		1489420	6-19	25		4-10	54
	10-11	1	1488906	10-14	12		6-21	26		4-13	19
1487860	10-9	1	1488907	10-14	10	1489421	6-19	28		4-18	57
	10-11	1	1488908	10-14	10		6-21	25	1489845	7-5	24
1487861	10-9	1	1488909	10-14	10	1489426	8-19	1	1489846	7-5	23
	10-11	1	1488910	10-14	10	1489427	8-19	3	1489847	7-5	22
1487863	10-9	1	1488911	10-14	10	1489428	8-19	4	1489848	7-5	21
	10-11	1	1488912	10-14	10	1489429	8-19	5	1489957	4-131	10
1487864	10-9	1	1488913	10-14	10	1489430	8-19	6	1489960	4-135	2
	10-11	1	1488914	10-14	10	1489431	8-19	8		4-135	3
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	10-11	1	1489090	1-83	1	1489433	8-19	14		4-135	5
1488000	1-53		1489092	1-5	8	1489434	8-19	15		4-135	6
1488002	1-53		1489286	6-6		1489435	8-19	15		4-135	7
1488098	10-5	1		6-14		1489436	8-19	16		4-135	8
	10-7	1	1489287	6-6		1489437	8-19	17		4-135	9
1488099	10-5	1		6-10		1489438	8-19	18		4-135	10
	10-7	1		6-14		1489439	8-19	19		4-135	11
1488100	10-5	1	1489290	6-6	39	1489440	8-19	20		4-135	13
	10-7	1		6-10	33	1489621	10-46	53		4-136	57
1488199	8-3	8		6-10			10-50	53	1490242	4-51	3
	8-14			6-14	33	1489639	2-13	17		4-52	18
1488408	8-7	27	1489291	6-6	39		2-155	17		4-55	4
1488464	8-4	67	1489297	6-21	17		2-213	3		4-55	9
	9-20	38	1489298	6-21	11	1489655	4-59	4		4-56	13
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1488635	1-89	36	1489300	6-21	13		4-129	37		4-57	33
1488637	1-89	36	1489301	6-21	14		4-170	3		4-61	12
1488638	1-89	36	1489302	6-21	5		4-171	4		4-62	18
1488640	1-89	36	1489303	6-21	7	1489656	4-51	7		4-62	22
1488641	1-89	36	1489304	6-21	8		4-113	16		4-62	26
1488643	1-89	36	1489305	6-21	9		4-116	5		4-65	7
1488659	8-7	12	1489306	6-21	9		4-128	22		4-66	21
1488675	1-25	34	1489308	6-19	17		4-128	25		4-67	35
1488676	1-25	35		6-21	30		4-138	12		4-69	12
1488689	1-31	1	1489309	6-21	29		4-140	10		4-70	18
1488703	1-29	2	1489313	8-21	1		4-170	1		4-70	22
	1-33	7	1489314	8-21	1		4-170	2		4-70	26
1488704	1-31		1489315	8-21	11		4-170	3		4-73	7
1488705	1-31		1489316	8-21	12		4-170	4		4-74	21
1488725	1-33		1489317	8-21	14	1489657	4-51	7		4-75	35
1488726	1-33	10	1489401	1-5	37		4-113	17		4-77	10
1488727	1-33	9	1489405	6-9	5		4-116	6		4-78	16
1488728	1-33			6-13	5		4-128	22		4-78	22
1488729	1-33	1	1489407	6-9	10		4-128	25		4-78	26
1488730	1-33	6		6-13	10		4-138	12		4-81	7
1488735	1-29	1	1489408	6-9	11		4-140	10		4-82	21
	1-33	3		6-13	11		4-170	1		4-83	35
1488736	1-33	2		8-29			4-170	2		4-85	10
1488747	8-7	10	1489416	6-21	2		4-170	3		4-86	16
1488751	1-29	3	1489417	6-21	2		4-170	4		4-86	22

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-86	26	4-62	26		4-155	2		1491242	6-19	23
	4-89	7	4-65	7		4-155	4		1491245	6-19	
	4-90	21	4-66	21		4-155	6		1491246	6-19	1
	4-91	35	4-67	35		4-155	8		1491247	6-21	28
	4-94	15	4-69	12		4-157	1			8-19	
	4-94	17	4-70	18		4-157	2	1491248		8-19	1
	4-94	23	4-70	22		4-157	3	1491249		8-19	12
	4-94	28	4-70	26		4-157	4	1491256		6-19	29
	4-94	30	4-73	7		4-158	7	1491258		3-13	13
	4-97	7	4-74	21		4-160	5	1491350		10-39	2
	4-98	15	4-75	35		4-160	6			10-39	2
	4-99	30	4-77	10		4-164	2			10-39	3
	4-102	15	4-78	16		4-165	1			10-39	3
	4-102	17	4-78	22	1490244	4-111	11			10-39	23
	4-102	23	4-78	26	1490245	4-131	9			10-39	24
	4-102	28	4-81	7	1490246	4-131	19			12-20	35
	4-102	30	4-82	21	1490250	4-131	10			12-20	36
	4-105	7	4-83	35	1490251	4-58	2	1491360		1-9	6
	4-106	15	4-85	10	1490252	4-124	5	1491361		8-4	75
	4-107	30	4-86	16	1490266	9-5	43	1491362		8-4	76
	4-119	17	4-86	22	1490398	1-89	18	1491468		1-101	2
	4-121	11	4-86	26	1490466	12-9	3	1491495		1-101	17
	4-131	11	4-89	7	1490469	5-3	4	1491526		9-13	
	4-132	22	4-90	21		5-5	22			9-14	
	4-132	24	4-91	35	1490481	3-5	9	1491527		9-13	
	4-132	26	4-94	15		3-9	9			9-14	
	4-148	4	4-94	17	1490488	3-5	8	1491529		9-14	
	4-149	4	4-94	23		3-51	7	1491719		9-33	21
	4-151	5	4-94	28	1490489	12-9	4	1491764		9-23	14
	4-152	1	4-95	30	1490490	12-9	5			9-23	23
	4-152	2	4-97	7	1490566	8-3	27			9-23	29
	4-155	2	4-98	15	1490612	8-8	48	1491765		9-23	7
	4-155	4	4-99	30	1490617	3-53	13			9-23	10
	4-155	6	4-102	15		8-8	55	1491767		9-23	13
	4-155	8	4-102	17	1490711	8-7	25	1491768		9-23	33
	4-157	1	4-102	23	1490712	8-7	24	1491771		9-23	20
	4-157	2	4-102	28	1490713	8-7	37			9-23	26
	4-157	3	4-103	30	1490714	8-8	72	1491772		9-23	4
	4-157	4	4-105	7	1490813	8-4	68			9-27	
	4-158	6	4-106	15		8-7	20	1491773		9-23	5
	4-164	1	4-107	30	1490814	8-3	36			9-23	21
	4-165	1	4-119	18	1491015	1-97	40			9-23	27
1490243	4-51	3	4-121	12	1491016	1-97	16			9-27	8
	4-52	18	4-131	11	1491020	1-97	15	1491774		9-23	25
	4-55	4	4-132	22	1491028	1-93	21	1491775		9-23	8
	4-55	9	4-132	24	1491029	1-93	3	1491777		9-23	17
	4-56	13	4-132	26	1491104	8-3	22	1491779		9-23	2
	4-56	21	4-148	5		8-4	70	1491782		9-33	1
	4-57	33	4-149	5	1491105	8-4	72	1491783		9-33	7
	4-61	12	4-151	6	1491106	8-4	73	1491784		9-33	10
	4-62	18	4-152	1	1491107	10-46	24	1491786		9-33	8
	4-62	22	4-152	2		10-50	24	1491787		9-33	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1491810	13-13	18	1492236	7-5	1	1493329	1-13	18		4-74	16
1491811	13-13	18	1492237	7-5	2	1493332	1-13	29		4-74	18
1491813	13-13	18	1492252	7-5	20	1493333	1-13	30		4-74	22
1491814	13-13	18	1492253	1-15	2	1493334	1-13	31		4-82	16
1491816	13-13	18	1492255	7-5	32	1493335	1-13	32		4-82	18
1491855	9-23	16	1492358	8-17	1	1493336	1-13	26		4-82	22
1491858	9-27	12	1492359	8-17	2	1493337	1-13	27		4-90	16
	9-33	31	1492360	8-17	3	1493339	1-13	34		4-90	18
1492133	1-93	1	1492361	8-17	4	1493340	1-13	35		4-90	22
1492139	1-83	22	1492367	8-3	1	1493341	1-13	36		4-95	39
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	1-95	3		8-11	16	1493372	1-103	9		4-98	28
	1-101	6		8-13		1493373	1-103	10		4-99	31
	7-5	27	1492369	8-8	83	1493377	1-97	29		4-103	39
1492140	1-16	6	1492370	8-8	83	1493379	1-25	38		4-105	11
	1-83	19	1492440	8-21	27	1493380	1-25	39		4-106	28
	1-93	9		8-22		1493381	1-25	40		4-107	31
	1-95	4	1492461	1-83	5	1493382	1-26	41		4-119	19
	1-101	8	1492530	9-19	28	1493383	1-26	42		4-131	21
	1-101	20	1492725	8-31	1	1493384	1-26	43		4-132	23
	7-5	28	1493136	9-19	21	1493385	1-26	44		4-132	25
1492141	1-93	7	1493167	6-5	12	1493386	1-26	45	1493431	4-52	13
1492143	1-93		1493168	6-3	1	1493387	1-26	46		4-65	1
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1492144	1-93	15	1493172	8-21	5		1-19	29		4-81	1
1492145	1-93	20	1493173	8-21	17		1-21	29		4-89	1
1492146	1-93	19	1493176	8-21	20		1-83	29		4-97	1
1492147	1-93	5	1493178	8-21	23		1-85	8		4-105	1
1492149	1-93	24	1493179	8-21	24	1493428	4-51	1	1493432	4-52	13
1492151	1-93	12	1493180	8-21	25		4-61	1		4-65	1
1492154	1-93	11	1493181	8-21	26		4-61	8		4-73	1
1492155	1-93	13	1493183	6-6			4-69	1		4-81	1
1492156	1-93		1493233	6-3	1		4-69	8		4-89	1
1492159	1-93	17	1493278	1-13	10		4-77	1		4-97	1
1492163	1-101	5	1493281	1-16	2		4-77	8		4-105	1
1492169	1-101	19	1493282	1-16	1		4-85	1	1493434	4-124	2
1492173	1-101	16	1493283	1-16	3		4-85	8		4-127	15
1492175	1-101	17	1493307	1-14	49		4-93	1		4-157	1
1492176	1-101	1	1493308	1-14	41		4-101	1		4-157	2
1492195	1-103	1		1-19	20		4-128	30		4-157	3
1492196	1-103	5		1-21	20		4-132	29		4-157	4
1492197	1-103	11	1493312	1-85	33		4-132	30	1493435	4-52	17
1492198	1-103	12	1493313	1-13	5		4-132	31		4-55	3
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	7-5	40	1493320	1-13	10		4-57	32		4-62	20
1492221	1-97	26	1493322	1-25	37		4-57	34		4-70	17
1492224	1-97	18		1-97	4		4-63	33		4-70	20
1492225	1-97	22	1493323	1-13	11		4-66	16		4-78	15
1492229	1-98		1493324	1-13	11		4-66	18		4-78	20
1492231	1-15	1	1493326	1-13	12		4-66	22		4-81	6
1492233	1-97	31	1493328	1-13	17		4-71	33		4-86	15

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
	4-86	20		4-102	26		4-158	9		4-105	9
	4-89	6		4-102	29	1493446	4-55	2		4-105	10
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	4-94	25		4-159	7		4-62	16		4-155	1
	4-97	6	1493437	4-162	1		4-62	21		4-155	10
	4-102	22		4-163	1		4-70	16	1493449	4-51	4
	4-102	25		4-165	1		4-70	21		4-61	14
	4-105	6	1493438	4-162	2		4-77	14		4-69	14
1493436	4-52	17		4-163	2		4-78	21		4-77	12
	4-55	1	1493439	4-57	26		4-85	14		4-85	12
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	4-55	3	1493441	4-67	31		4-94	21		4-102	19
	4-55	7		4-75	31		4-94	26	1493450	4-147	20
	4-55	8	1493443	4-51	12		4-102	21	1493455	4-51	11
	4-55	11		4-56	19		4-102	26		4-51	12
	4-61	15		4-56	23	1493447	4-55	1		4-56	23
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	4-62	17		4-61	4		4-61	15		4-61	5
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	4-62	21		4-67	37		4-69	15		4-69	4
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	4-70	17		4-77	4		4-85	13		4-77	5
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	4-86	15		4-106	17		4-67	34	1493459	4-51	6
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	4-86	21		4-66	25		4-74	15		4-61	9
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	4-89	6		4-82	25		4-75	34		4-69	9
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	4-94	25		4-158	9		4-83	33		4-85	9
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	4-97	6		4-74	25		4-91	32		4-95	36
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	4-102	21		4-90	25		4-97	9		4-102	16
	4-102	22		4-98	23		4-97	10		4-103	36
	4-102	25		4-106	23		4-97	13		4-105	13

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-119	31	1494480	1-5	32	1495454	1-19	25	1496900	9-24	
	4-121	24	1494516	9-35	2		1-21	25		9-27	
1493465	3-53	36		9-37	2	1495623	8-29	1	1496901	9-23	34
	4-51	3	1494518	9-35	3	1495624	8-29	2	1496902	9-23	6
	4-52	18		9-37	3	1495625	8-29	3		9-23	22
	4-55	4	1494519	8-8	61	1495626	8-29	4		9-23	28
	4-55	9	1494642	1-5	39	1495627	8-29	5		9-27	8
	4-56	13	1494643	1-5	39	1495628	8-29	6	1497230	13-17	11
	4-57	33	1494645	1-5	39	1495629	8-29	7	1497287	4-158	10
	4-67	36	1494646	8-8	68	1495630	8-29	8	1497358	4-158	10
	4-75	36	1494655	8-8	46	1495631	8-29	9	1497361	4-127	8
	4-98	14	1494675	3-65	18	1495632	8-29	10	1497362	4-127	6
	4-106	14	1494677	3-65	24	1495633	8-29	11	1497364	4-119	21
	4-119	28	1494678	3-65	24	1495634	8-29	12		4-121	13
	4-121	21	1494690	3-69	3	1495635	8-29	13	1497365	4-119	22
	4-124	1	1494691	3-69	16	1495636	8-29	14		4-121	14
	4-131	12	1494804	9-19	3	1495637	8-29	15	1497366	4-119	23
	4-144	1		9-33		1495638	8-29	16		4-121	15
	4-148	1	1494868	1-5	10	1495639	8-29	17	1497394	2-19	7
	4-149	1	1494869	1-5	9	1495640	8-29	18		2-71	1
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	4-155	5	1495188	9-33		1495642	8-29	20		2-71	3
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	4-155	9		2-21		1495644	8-29	22	1497398	2-55	13
	4-162	3		2-23		1495645	8-29	23	1497402	2-23	1
	4-163	3	1495258	9-33	9	1495646	8-29	24	1497403	2-23	11
	4-164	4	1495259	9-23	32	1495647	8-29	25	1497404	2-21	1
	4-165	2		9-33	11	1495648	8-29	26	1497405	2-21	8
1493466	4-131	17	1495260	9-23	32	1496046	8-3	28	1497406	2-21	9
	4-131	18		9-33	12	1496047	8-3	30	1497822	1-86	
	4-138	10	1495261	9-33	14	1496048	8-3	32	1497996	8-22	
	4-140	9	1495262	9-23	33	1496049	8-3	27	1497997	8-22	
1493474	1-85	19		9-33	19	1496282	8-11	13	1498250	8-4	76
1493476	1-83	21	1495263	9-23	33	1496296	1-25	7	1498251	8-4	75
1493478	1-83	23	1495265	9-27	12		1-25	33	1498273	7-9	28
1493480	1-83	24		9-33	30	1496368	1-26	49	1498274	7-9	26
1493485	1-83	26		9-33	31	1496449	12-20	43	1498336	1-86	6
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1493491	1-95	17	1495267	9-33	2		12-38	35	1498338	1-85	17
1493494	1-85	22	1495286	9-33	29	1496459	1-26	48		1-86	8
1493498	1-85	23	1495287	9-33	28	1496482	10-46	42	1498339	1-13	14
1493499	1-85	15	1495288	9-33	5		10-50	42	1498341	1-13	15
1493503	9-5	39	1495289	9-33	4	1496777	4-159	6	1498342	1-13	16
1493892	9-5	34	1495368	1-11	2	1496883	4-66	26	1498343	1-13	21
	9-13		1495371	1-19	10		4-74	26	1498344	1-13	38
1494147	8-3	7		1-21	10		4-82	26	1498347	1-13	24
	8-17		1495372	1-19	11		4-90	26	1498348	1-13	25
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1494312	9-11	8	1495431	1-19	12		4-106	22	1498356	1-85	27
1494320	9-23	23		1-21	12	1496892	9-13			1-93	
1494372	7-3	3	1495435	1-19	21	1496893	9-13	8	1498357	1-85	31
1494476	8-7	6	1495438	1-21	21	1496894	9-13	12		1-93	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
1498360	1-95	11		4-61	8	1501170	10-35	1	1502920	4-61	13
1498362	1-103	13		4-69	1		10-39	1		4-62	19
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1498365	1-16	5		4-77	1		10-39	1		4-65	8
1498371	1-97	32		4-77	8	1501460	10-35	18		4-66	20
1498372	1-97	35		4-85	1		10-39	18		4-69	13
1498373	1-97	36		4-85	8		12-19	30		4-70	19
1498375	1-95	13		4-93	1		12-27	30		4-70	23
1498376	1-95	10		4-101	1	1501461	10-35	19		4-73	8
1498377	1-95	2		4-128	30		10-39	19		4-74	20
1498378	1-93	22		4-132	29		12-19	31		4-77	11
1498383	1-83	31		4-132	30		12-27	31		4-78	17
1498385	1-85	7		4-132	31	1501919	4-74	27		4-78	23
1498387	1-98		1500914	4-63	32	1502005	1-41	32		4-78	27
1498492	4-74	27		4-66	19	1502006	3-33	18		4-81	8
	4-82	27		4-71	32	1502008	1-37	1		4-82	20
	4-90	27		4-74	19	1502130	6-6	36		4-85	11
	4-98	21		4-82	14		6-10	40		4-86	17
	4-106	21		4-82	15		6-14	40		4-86	23
1498498	4-74	27		4-82	19	1502373	9-20	39		4-86	27
	4-82	27		4-90	14	1502388	8-3	38		4-89	8
	4-90	27		4-90	15	1502389	8-3	38		4-90	20
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	4-106	21		4-95	38		10-39	21		4-94	24
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	10-50	32		4-103	38		12-28	33		4-95	31
1498750	1-13	10		4-106	27	1502490	4-152	4		4-99	29
	1-13	10	1500919	4-127	14	1502570	9-23	1		4-102	18
	1-13	10	1500925	4-51	1	1502571	9-23	3		4-102	24
	1-13	11		4-61	2	1502574	9-23	24		4-102	27
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1499936	1-86	1		4-171	5		4-149	7		4-83	34
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1500717	9-7	1		4-131	3		4-159	9		4-105	13
	9-8		1500966	8-14	1		4-166	1		4-106	16
1500718	9-7	2	1500967	8-14	2		4-166	2	1502922	4-55	1
1500869	1-41	9	1500968	8-14	3		4-167	1	1503006	8-4	75
1500870	1-41	16	1500969	8-14	4		4-167	2	1503007	8-4	76
1500871	1-41	10	1500970	8-14	5		4-168	1	1503076	9-8	
1500912	4-131	14	1500971	8-14	6		4-168	2	1503078	9-8	9
1500913	4-51	1	1500972	8-14	7		4-168	3	1503079	9-8	11
	4-61	1	1500973	8-14	8		4-168	4	1503082	9-8	2

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1503083	9-8	10	1506110	12-20	61	4-89	13		2-205	5	
1503084	10-40	30		12-28	61	4-93	3		2-224	2	
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	12-27	1	1506670	1-85	28	1508012	1-95	8	3-59	2	
	12-37	1	1506677	1-86	2	1508105	12-5	1	1511953	2-124	2
1503450	12-19	2	1506678	1-101	13	1508206	4-51	9	2-135	3	
	12-27	2	1506679	1-101	10	4-56	15		2-160	1	
	12-37	2	1506680	1-101	15	4-56	18		2-177	2	
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	12-27	1	1506738	1-19	27	4-62	28		2-177	14	
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	4-69	3		3-69	33	4-70	28	1511956	2-105	8	
	4-77	3		7-5	30	4-70	30		2-177	4	
	4-85	3	1506748	1-97	6	4-77	7	1511957	2-105	9	
	4-93	4		1-98	46	4-78	28		2-177	13	
	4-101	4	1506749	1-97	3	4-85	7		2-209	31	
1504059	4-49			1-98	47	4-86	28	1511958	2-105	10	
	9-35	5	1506750	1-97	5	4-93	14		2-177	5	
1504609	2-148	52	1506751	1-97	1	4-95	32	1511959	2-135	5	
	2-222	55	1506753	8-27	5	4-95	34		2-177	1	
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1504622	10-43	2	1506825	1-85	24	4-103	32	1511961	2-177	9	
1504623	10-43	3	1506827	1-85	20	4-103	34		2-177	11	
1504624	10-43	4	1506881	4-119	5	1508229	1-95	16	4-47	3	
1504625	10-43	5		4-121	6	1508300	4-9	29	1511962	2-177	8
1504626	10-43	12	1506883	4-119	6		4-13	37	1511963	2-177	7
1504628	10-43	7		4-121	7	1508987	8-31	17	1511965	3-59	13
1504629	10-43	8	1506885	4-119	32		8-33	22	1511966	2-179	1
1504632	10-43	9		4-121	8		8-41	1	1511969	2-111	3
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	3-31	5	1507036	3-5	11	1510210	1-39	19		2-163	14
	3-33	5		3-9	11	1510748	7-3	22		2-172	4
1504816	3-29	26	1507083	12-5	1	1510749	7-3	23	1511971	2-109	1
1504861	7-7	7	1507084	12-5	1	1510788	10-46	42	1511972	2-109	2
1504862	7-7	9	1507085	12-5	1		10-50	42	1511974	2-111	2
1504863	7-7	34	1507086	12-5	1	1510811	8-41	2		2-172	1
1504864	7-7	30	1507088	12-5	1	1510841	10-46	44	1511976	2-115	7
1504865	7-7	14	1507238	8-31	10		10-50	44		2-137	1
1504866	7-7	32	1507358	13-19	2	1511548	6-17	23		2-181	6
1504867	7-7	29	1507360	13-19	3		6-19	24		2-185	4
1504868	7-7	31	1507394	3-51	19		6-21	33	1511978	2-103	4
1504917	4-49	8	1507479	13-19	5	1511889	8-7	14		2-181	2
1504953	1-14	48	1507480	13-19	7	1511952	2-89	5		4-37	4
1504954	1-14	48	1507725	4-65	13		2-91	4		4-41	3
1504955	1-14	48		4-73	13		2-135	1	1511979	2-137	5
1506109	12-20	64		4-78	29		2-151	1		2-181	10
	12-21	74		4-81	13		2-163	5	1511981	2-137	6
	12-28	64		4-86	29		2-177	3	1511983	2-137	7

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1511984	2-181	13		2-189	6	1512130	2-89	18	1512212	3-41	5
1511986	2-181	4	1512046	2-121	3		2-131	1	1512213	3-41	5
1511989	2-181	9		2-189	3		2-163	18	1512214	3-41	5
1511996	2-112	2	1512047	2-121	7		2-195	4	1512215	3-41	5
	2-183	2		2-189	8	1512132	2-131	3	1512216	3-41	5
1512003	4-37	2	1512048	2-121	6		2-195	1	1512217	3-41	5
	4-41	6		2-189	7	1512134	2-127	2	1512218	3-41	5
1512004	2-127	10	1512050	2-121	9		2-199	5	1512219	3-41	5
	2-145	3		2-189	13	1512135	2-127	3	1512220	3-41	5
	2-199	3	1512051	3-60	49		2-199	6	1512221	3-41	5
	2-209	18	1512052	2-121	12	1512136	2-127	4	1512222	3-41	5
	2-227	1		2-189	10		2-199	1	1512223	3-41	5
	3-42	2	1512053	2-121	2	1512137	2-127	5	1512224	3-41	5
	3-61	1		2-189	2		2-199	8	1512225	3-41	5
	4-27	7	1512056	2-121	4	1512138	2-127	6	1512226	3-41	5
1512005	2-103	2		2-189	5		2-199	7	1512227	3-41	5
	2-217	5	1512091	3-44	5	1512139	2-127	7	1512228	3-41	6
	3-42	4	1512095	3-29	20		2-199	2	1512242	3-41	10
	3-44	6		3-31	23	1512146	2-97	8	1512287	2-148	53
	4-37	3		3-33	23		2-201	2		2-222	56
	4-38	3		3-45	1	1512149	2-97	10	1512292	2-89	3
	4-41	7	1512097	4-109	6		2-201	4		2-91	11
	4-47	15	1512106	2-122	3	1512150	2-97	4		2-135	2
1512006	4-37	7		2-190	3	1512151	2-97	4		2-141	1
1512011	2-136	1		2-216		1512152	2-97	4		2-151	2
	2-137	2	1512107	2-122	4	1512153	2-97	4		2-163	3
	2-187	1		2-190	4	1512160	2-98	1		2-205	4
1512012	2-136	2		2-216		1512161	2-98	2	1512293	2-141	2
	2-137	3	1512109	2-124	1		2-202	2	1512295	2-141	4
	2-187	2		2-160	2	1512163	2-98	4		2-219	13
1512014	2-119	6	1512111	2-128	3		2-202	4		3-46	3
	2-223	2		2-219	6	1512164	2-98	5		3-49	1
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	2-223	5		2-129	5	1512166	3-41	1		2-219	3
1512024	2-119	2		2-193	3	1512168	3-41	2		2-224	6
	2-223	3	1512113	2-133	7	1512169	3-41	3	1512298	2-141	6
1512025	2-119	3	1512114	2-129	8		3-46	1	1512300	2-141	8
	2-223	6	1512115	2-133	6	1512173	3-41	4		2-219	10
1512026	2-119	4	1512116	2-128	6	1512182	3-41	5	1512302	2-116	1
	2-223	4	1512117	2-128	5	1512188	3-41	5		2-224	3
1512027	2-119	5	1512118	2-128	4	1512193	3-41	5	1512304	2-89	21
	2-223	7		2-129	7	1512197	3-41	5		2-163	21
1512029	2-119	7		2-193	2	1512201	3-41	5		2-224	1
	2-223	8	1512119	2-128	7	1512202	3-41	5	1512305	2-151	4
	2-224	7		2-129	4	1512203	3-41	5		2-224	4
1512033	2-116	2		2-193	4	1512204	3-41	5		2-226	4
	2-128	2	1512121	2-128	1	1512205	3-41	5	1512307	2-149	1
	2-129	1	1512123	2-193	12	1512206	3-41	5		2-169	7
	2-193	13	1512124	2-133	8	1512207	3-41	5	1512308	2-149	3
	3-35	1	1512126	2-133	5	1512208	3-41	5		2-169	5
	4-43	9	1512127	2-133	4	1512209	3-41	5	1512309	2-149	2
1512045	2-121	5	1512128	2-133	1	1512211	3-41	5		2-169	8

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1512310	2-149	4	1512460	4-109	2	1513751	2-167	1	1514565	2-143	3
	2-169	6	1512503	2-103	3	1513769	2-199			2-145	7
1512311	2-149	5		3-59	15	1513772	2-129	6		2-209	16
	2-169	9		4-37	5		2-193	8	1514566	2-145	10
1512312	2-149	6	1512585	2-89	9	1513776	2-219	14		2-209	10
	2-169	11		2-163	9	1513788	2-137	4	1514568	2-145	11
1512313	2-149	7	1512587	2-219	8	1513789	2-111	6	1514600	2-7	22
1512315	2-226	3		3-60	56		2-123	5	1514601	2-7	6
1512316	2-226	2	1512588	2-219	9	1513791	3-59	9	1514683	2-7	25
1512318	2-227	2		3-59	26		4-43	14	1514865	9-23	23
1512319	2-227	3		3-60	57	1513793	3-59	8	1514903	3-5	6
1512321	2-152			4-47	9		4-109	7		3-9	6
	2-228		1512607	2-216			4-123	7		3-51	19
1512322	2-152	1	1512616	2-103	1	1513794	2-127	9	1515337	1-13	13
	2-228	1	1512631	4-37	1		2-199	4		1-19	2
1512323	2-152	3	1512729	2-103	1	1513806	2-101	4		1-21	2
1512326	2-125	1	1512739	3-60	64		2-171	4	1515411	8-21	22
	2-185	3	1512740	3-60	65	1513878	2-89	20	1515694	4-109	11
1512327	2-125	2	1512743	3-60	48		2-163	20		4-123	5
	2-185	2	1512778	3-59	7	1513947	1-89	24	1515787	2-210	3
1512328	2-119	9	1512814	3-5	19	1514033	7-5	36	1515805	2-55	15
	2-125	3		3-9	19	1514215	4-9	37		2-57	8
	2-175	9	1512822	1-103	3		4-18	54	1515836	4-47	11
	2-185	1	1513191	2-172	3	1514331	6-14		1515895	2-105	4
	4-41	4		2-210	1		8-29		1516237	4-51	6
1512330	2-115	2	1513209	3-46	5	1514338	1-41	23		4-51	11
	2-185	8	1513294	2-209	11	1514339	2-89	4		4-61	5
1512331	2-115	3	1513337	2-143	5		2-145			4-61	9
	2-185	7		2-206	3		2-163	4		4-66	28
1512336	2-115	8	1513338	2-143	4		2-209	6		4-69	5
	2-185	10		2-206	1	1514346	2-93	3		4-69	9
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1512425	2-119	8	1513421	3-59	22	1514354	2-93	10		4-77	5
	2-223	1	1513597	9-23	9		2-165	10		4-77	9
1512435	2-189	4	1513712	2-169	2	1514359	4-38	2		4-83	28
1512443	2-177	10		3-42	1	1514360	2-153	1		4-85	5
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	2-190	2		4-47	5	1514483	2-145	4		4-90	28
1512448	2-91	3	1513725	2-107	1		2-209	3		4-93	11
	2-129	2		2-123	1		3-60	55		4-98	20
	2-193	5		2-123	2	1514493	3-46	4		4-101	11
	2-205	6		2-167	8	1514495	3-46	5		4-106	20
1512449	2-129	9	1513734	2-94	1	1514496	3-49	2	1516244	4-144	1
	2-193	6		2-173	1	1514497	3-49	3	1516245	4-144	1
1512451	2-129	10	1513736	2-167	5		3-49	15	1516559	1-97	11
	2-193	7	1513743	3-44	3	1514498	3-49	4	1516917	3-65	
1512452	2-129	12		3-61	3	1514499	3-49	6	1516919	3-65	
	2-193	9	1513748	2-167	7	1514500	3-49	7	1516930	2-29	11
1512453	2-129	3	1513749	2-209	22	1514501	3-49	5	1516981	3-59	4
	2-193	1		2-219	15	1514502	3-49	8	1517010	2-89	15
1512456	2-134	1		4-109	8	1514504	3-49	10		2-163	15
	2-196	1		4-123	1	1514535	4-43	10		3-35	3

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1517011	2-89	16	1518879	9-37	1		2-165		1523853	2-15	10
	2-163	16		9-43		1521707	2-93			2-147	10
	3-35	4	1518880	9-37	9		2-165			2-221	10
1517094	2-210	4	1519642	2-13	1	1521708	2-93		1523854	2-15	11
1517110	3-61	2		2-155	1		2-165			2-147	11
1517116	3-59	44	1519644	2-13	13	1521709	2-93			2-221	11
	4-47	7	1519701	8-8	47		2-165		1523895	2-16	49
	4-47	21	1519702	8-7	31	1521710	2-93		1523896	2-16	50
1517118	4-27	2	1520332	9-24	35		2-165		1523897	2-15	4
1517119	2-89	11	1520478	8-3	1	1521712	2-107	2	1524086	2-147	46
	2-163	11		8-11			2-167	4	1524146	9-37	6
1517120	4-27	5	1520541	7-5	25	1521810	2-111	1		9-37	6
1517122	2-111	4	1520542	7-5	31	1521827	4-37	9		9-37	6
	4-47	17	1520596	1-97	17		4-41	9		9-37	6
1517185	2-91	5	1520706	2-15	48	1521837	3-35	5		9-37	6
	2-205	8		2-148	49	1521838	3-35	6	1524147	9-37	6
	2-205	10	1520807	9-23	18	1521875	2-123	6		9-37	6
1517194	4-109	6	1520824	1-91	6		2-167	9		9-37	6
1517238	2-143	2	1520833	4-35	3	1521876	3-35	2	1524148	9-37	6
1517266	4-109	1	1520841	1-25	24	1521880	2-123	4		9-37	6
1517268	2-145	1		1-97	14		2-167	10	1524173	7-5	10
	2-209	24	1520872	2-15	40	1521891	2-210	2	1524209	3-5	12
1517269	2-145	6	1521682	2-89	19	1521895	2-124	3		3-9	12
	2-209	25		2-163	19	1521938	2-151	3	1524477	2-15	46
1517270	2-145	12	1521683	2-89	8	1521962	2-145	5		2-147	43
	2-209	27		2-163	8		2-209	26		2-221	47
1517299	4-109	3	1521685	2-89	7	1521969	2-151	5	1524478	2-15	41
	4-123	6		2-89	24	1521970	2-151	6		2-147	41
1518112	4-52	14		2-163	7	1521971	2-151	7		2-221	45
	4-52	22		2-163	24	1521975	2-152	4	1524480	2-222	51
	4-53	23	1521686	2-89			2-228	4	1524553	3-5	14
	4-65	2		2-163		1521981	4-109	4		3-9	14
	4-65	9	1521691	2-89	22		4-123	4		3-51	15
	4-65	11		2-163	22	1521982	4-109	5	1524554	3-5	15
	4-73	2	1521692	2-89	23		4-123	3		3-9	15
	4-73	9		2-163	23	1522055	6-17	17		3-51	16
	4-73	11	1521693	2-89	26		6-19	14	1524555	3-9	28
	4-81	2		2-163	26	1522056	6-17	16		3-51	3
	4-81	9	1521694	2-89	17		6-19	13	1524630	3-5	16
	4-81	11		2-136	3	1522081	6-19			3-9	16
	4-89	2		2-163	17	1523482	3-13	1	1525364	2-155	13
	4-89	9	1521695	2-89	10		3-29	29	1525409	2-13	20
	4-89	11		2-163	10		3-31	30		2-155	20
	4-93	5	1521696	2-89	25		3-33	30		2-213	5
	4-93	6		2-163	25	1523533	1-93	6	1525589	4-55	6
	4-93	10	1521697	2-89	12	1523560	9-11	14		4-57	32
	4-97	2		2-163	12	1523851	2-15	46		4-131	13
	4-101	5	1521701	2-93	2		2-147	43		4-152	3
	4-101	6		2-165	2		2-221	44		4-155	11
	4-101	10	1521705	2-93		1523852	2-15	41		4-157	5
	4-105	2		2-165			2-147	41	1525596	4-52	15
	4-131	16	1521706	2-93			2-221	43		4-65	3

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	4-73	3		12-38	39	1529190	11-9	11	1529219	11-7	2
	4-81	3	1527818	9-19	18		11-17	5		11-10	33
	4-97	3		9-19	29		11-19	7	1529220	11-7	5
1525711	8-8	47		9-20	33		11-23	8	1529221	11-9	30
1525754	2-148	49		10-31	26		11-25	7		11-15	10
	2-222	52		10-35	32		12-15	37		11-19	26
1526082	13-17	2		12-20	45		12-24	51		11-23	37
1526202	9-30	1		12-28	45		12-32	52		12-15	39
1526203	9-30	14		12-38	38		12-35	13		12-24	53
1527128	9-23	15	1527819	9-19	1	1529191	11-7	9		12-32	50
1527372	10-31	19		9-19	24		11-9	6	1529222	11-7	4
	10-35	30	1527820	9-19	27		11-9	12	1529223	11-7	7
	12-20	38	1527880	3-53	30		11-15	12	1529226	11-7	11
	12-28	38	1527982	9-2			11-17	4	1529227	11-5	13
	12-38	30		9-5	24		11-19	3		11-17	14
1527813	9-19	19	1528144	9-11	1		11-19	6		11-19	25
	9-19	25	1528456	9-11	3		11-23	3		11-23	40
	9-19	31	1528584	9-2	2		11-23	7		11-25	28
	9-20	32	1528603	10-46	33		11-25	3		12-15	36
	9-20	40		10-50	33		12-15	4		12-24	48
	10-31	27	1528606	9-2	3		12-23	5		12-32	59
1527816	9-19	22	1528714	1-64	27		12-31	5		12-35	14
	9-20	34		1-76	10		12-35	12	1529228	11-7	3
	9-20	38	1528715	1-61		1529192	11-9	15	1529229	11-10	34
	10-36	34	1528716	1-61		1529193	11-7	10	1529230	11-9	26
	10-39	20	1528803	11-5	1	1529194	11-9	16	1529234	11-9	7
	10-40	32	1528804	11-5	2	1529196	11-5	4	1529235	11-9	10
	12-20	47	1528881	12-9	24	1529197	11-5	5	1529236	11-9	1
	12-28	47	1529052	4-52	20	1529198	11-5	6		11-17	15
	12-29	71		4-55	6		11-15	2		11-19	28
	12-38	40		4-57	32	1529199	11-5	7		11-23	41
1527817	9-19	23		4-57	34	1529200	11-9	17		11-25	34
	9-19	30		4-119	20	1529201	11-9	19		12-16	43
	9-20	41		4-131	21	1529202	11-9	20		12-32	62
	10-14	11		4-132	23	1529203	11-9	21		12-35	27
	10-14	13		4-132	25	1529204	11-9	22	1529237	11-9	18
	10-18	11	1529152	11-5	3	1529205	11-9	29	1529238	11-9	3
	10-18	13	1529154	11-11		1529206	11-9	27	1529259	11-11	
	10-35	20	1529161	11-5	1	1529207	11-9	28	1529355	10-45	3
	10-36	33	1529162	11-5	2	1529208	11-9	2		10-49	3
	10-40	33	1529163	11-5	3	1529209	11-5	8	1529558	4-5	39
	12-9	6	1529165	11-11		1529210	11-5	9		4-9	46
	12-9	7	1529170	11-5	1		11-15	1		4-13	23
	12-9	8	1529171	11-5	2	1529211	11-5	10		4-18	69
	12-9	15	1529172	11-5	3		11-15	4	1529581	4-5	17
	12-20	46	1529174	11-11		1529212	11-5	11		4-9	17
	12-21	69	1529179	11-5	1	1529213	11-9	4		4-13	41
	12-27	23	1529180	11-5	2	1529214	11-9	5		4-17	10
	12-28	32	1529181	11-5	3	1529215	11-12		1529665	1-9	19
	12-28	46	1529183	11-11		1529216	11-9	8	1529751	1-9	27
	12-29	69	1529188	11-9	9	1529217	11-9	32	1529813	1-9	20
	12-37	19	1529189	11-9	13	1529218	11-9	31	1529814	1-9	21

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1529815	1-9	20		12-32		1534549	11-15	19			2-69
1529816	1-9	21		12-35	27	1534550	11-15	20			2-71
1530290	6-3		1532831	11-9	1	1534551	11-15	17			2-73
	6-5			11-17	15		11-17	9			2-75
	6-17			11-19	28		11-19	21			2-77
1530292	6-3			11-23	41		11-23	24			2-79
	6-9			11-25	34		11-25	18			2-81
	6-19			12-16	43		12-15	22			2-83
1530333	5-3	1		12-32			12-23	27			3-15
1530334	5-3	1		12-35	27		12-31	27			3-17
1530385	1-85	26	1532908	9-5	33		12-35	17			3-19
1530386	1-85	30	1532909	5-5	1	1534610	11-15	18			3-21
1530668	10-46	28	1533477	9-11	4	1534611	11-15	19			3-23
	10-50	28	1533519	2-7	4	1534612	11-15	20			3-25
1530732	5-13	26		2-9	4	1534613	11-15	18			4-29
	5-13	39	1533520	2-7	3	1534614	11-15	19			4-33
1531036	2-15	45		2-9	3	1534615	11-15	20			4-35
	2-222	60		4-17	25	1534616	11-15	18	1536379		2-11
1531587	5-7	2	1533665	10-46	27	1534617	11-15	19			2-25
1532139	1-39	22		10-50	27	1534618	11-15	20			2-27
1532188	1-9	23	1533810	4-138	7	1534660	1-89	7			2-29
1532189	1-9	22	1534425	1-85	4	1534793	4-5	31			2-31
1532202	1-9	28	1534474	1-85	16		4-9	31			2-33
1532341	1-9	15	1534475	1-85	11		4-17	22			2-35
1532446	1-9	23	1534476	1-85	18	1536252	2-59	13			2-37
1532448	1-9	22	1534477	1-85	3	1536288	9-11	15			2-39
1532632	1-11	20	1534481	1-85	29	1536311	9-11	17			2-41
1532633	1-11	21	1534505	11-15	3	1536378	2-11	1			2-43
1532819	5-7		1534506	11-15	5		2-19				2-45
	5-9		1534507	11-15	6		2-21				2-47
	5-13		1534508	11-15	7		2-23				2-48
	5-17			11-19	27		2-25				2-51
	5-19			11-23	36		2-27				2-53
	5-21			12-16	40		2-29				2-57
	5-23			12-24	54		2-31				2-59
	5-25			12-32	49		2-33				2-61
	5-27		1534509	11-15	8		2-35				2-63
	5-29		1534510	11-15	9		2-37				2-65
	5-31			11-17	12		2-39				2-67
	5-33			11-19	23		2-41				2-69
	5-37			11-23	26		2-43				2-71
	5-39			11-25	20		2-45				2-73
	5-47			12-15	24		2-47				2-75
	5-49			12-23	28		2-48				2-77
1532822	5-3	21		12-31	29		2-51				2-79
	5-5	21		12-35	20		2-53				2-81
1532830	11-9	1	1534511	11-15	11		2-55				2-83
	11-17	15	1534543	11-15	13		2-59				3-15
	11-19	28	1534545	11-15	14		2-61				3-17
	11-23	41	1534546	11-15	15		2-63				3-19
	11-25	34	1534547	11-15	16		2-65				3-21
	12-16	43	1534548	11-15	18		2-67				3-23

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	3-25			11-25	6		11-23	4		12-35	10
	4-29			12-15	8		11-25	4	1536985	12-15	14
	4-33			12-23	9		12-15	5		12-23	18
	4-35			12-31	9		12-23	6		12-31	18
1536819	2-37	4		12-35	6		12-31	6		12-35	9
1536887	11-17	10	1536897	11-19	16	1536972	11-23	19	1537010	12-23	37
1536888	11-17	11		12-15	16		12-15	19		12-31	38
	11-19	22	1536898	11-19	18		12-23	23	1537011	12-23	36
	11-23	25		11-23	21		12-31	23		12-31	39
	11-25	19		12-15	21	1536973	12-15	2	1537012	12-23	39
	12-15	25		12-23	24		12-23	3		12-31	40
	12-23	30		12-31	24		12-31	3	1537014	12-23	38
	12-31	30	1536899	11-19	17		12-35	2		12-31	41
	12-35	19		11-23	22	1536974	12-15	30	1537015	11-23	29
1536889	11-17	13		12-15	20		12-23	34		11-25	22
	11-19	24		12-23	25		12-31	34		12-23	20
	11-23	27		12-31	25	1536975	12-15	29		12-31	20
	11-25	21	1536900	11-19	19		12-23	33	1537016	11-23	34
	12-15	23		11-23	20		12-31	33		11-25	32
	12-23	29		11-23	35	1536976	12-15	32		12-23	12
	12-31	28		11-25	31		12-23	40		12-31	12
	12-35	18		12-15	28		12-31	36	1537017	11-23	33
1536890	11-17	7		12-23	11	1536977	12-15	33		11-25	33
	11-19	11		12-31	11		12-23	41		12-23	13
	11-23	13		12-35	24		12-31	37		12-31	13
	11-25	10	1536901	11-19	15	1536978	12-16	42	1537018	12-23	42
	12-15	6		11-23	17		12-32	61	1537019	12-23	43
	12-23	7		11-25	14		12-35	26	1537020	12-23	44
	12-31	7		12-15	17	1536979	12-15	26	1537021	12-23	45
	12-35	4		12-23	21		12-23	31	1537022	11-23	39
1536891	11-17	8		12-31	21		12-31	31		11-25	29
	11-19	12	1536902	11-23	23		12-32	64		12-24	49
	11-23	14		11-25	23		12-35	22		12-32	53
	11-25	11		12-16	44	1536980	12-15	13	1537023	11-23	38
	12-15	10		12-23	26		12-23	17		11-25	30
	12-23	14		12-31	26		12-31	17		12-24	50
	12-31	14	1536903	11-19	9		12-35	8		12-32	54
	12-35	7		11-23	11	1536981	12-15	31	1537024	11-23	5
1536892	11-17	6		12-15	9		12-23	35		11-25	5
	11-19	8		12-24	56		12-31	46		12-23	8
	11-23	9		12-31	47		12-35	25		12-31	8
	11-25	8	1536904	11-19	14	1536982	12-15	35	1537025	11-23	2
	12-15	38		11-23	16		12-23	47		11-25	2
	12-24	52		12-15	11		12-32	60		12-23	2
	12-32	51		12-23	15		12-35	15		12-31	2
	12-35	11		12-31	15	1536983	12-15	34	1537027	12-31	42
1536893	11-17	2	1536905	11-19	13		12-23	46	1537028	12-31	43
	11-19	2		11-23	15		12-31	35	1537029	12-31	44
	12-15	7		12-15	12		12-35	16	1537030	12-31	45
1536894	11-17	3		12-23	16	1536984	12-15	15	1537031	12-32	58
	11-19	5		12-31	16		12-23	19	1537032	11-25	17
	11-23	6	1536906	11-19	4		12-31	19		12-32	57

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1537033	11-25	15	1537247	2-75	1	1537303	2-59	4	1537346	2-77	2
	12-32	55	1537248	2-75	2	1537304	2-69	1	1537347	2-77	3
1537116	11-25	27	1537249	2-75	3	1537305	2-69	3	1537348	2-77	4
1537117	11-23	30	1537250	2-75	4	1537306	2-69	7	1537349	2-77	6
	11-25	26	1537251	2-75	5	1537307	2-69	15	1537350	2-77	9
1537118	11-23	28	1537252	2-75	6	1537309	2-45	6	1537351	2-77	11
	11-25	25	1537253	2-75	8	1537310	2-45	7	1537352	2-37	
1537119	11-25	24	1537254	2-75	9	1537311	2-45	8		2-39	
1537120	11-25	12	1537255	2-75	11	1537312	2-45	9		2-43	
1537121	11-25	13	1537256	2-75	13	1537314	2-69	16		2-61	
1537122	11-23	31		3-25	11	1537315	2-45	1		2-63	
1537123	11-23	32	1537257	2-77	14	1537316	2-45	2		2-67	
1537128	12-35	21		2-79	1	1537317	2-45	3		2-69	
1537208	2-25		1537258	2-77	15	1537318	2-45	5		2-71	
1537209	2-25	16		2-79	2	1537319	2-45	10		3-15	
1537210	2-25	2	1537261	2-79	3	1537320	2-45	12		3-23	
1537211	2-25	2	1537262	2-79	4	1537321	3-21	21	1537353	2-39	7
1537212	2-31		1537265	2-79	6		3-23	1	1537355	2-57	1
1537213	2-31	2	1537266	2-79	7	1537322	3-25	2	1537423	2-61	4
1537214	2-31	3	1537267	2-79	8	1537324	3-21	5	1537467	3-13	23
1537215	2-31	4	1537268	2-51	7	1537325	3-19	5	1537469	3-13	22
1537216	2-31	8	1537269	2-43	6		3-21	6	1537472	3-13	9
1537217	2-31	4	1537270	2-29	1	1537326	3-19	1	1537654	2-147	47
1537218	2-31	4	1537271	2-29	4		3-21	1	1538096	5-7	
1537219	2-31	4	1537272	2-29	5	1537327	3-19	8		5-9	
1537220	2-33	1	1537273	2-29	6	1537328	3-19	9		5-13	
1537221	2-33	5	1537274	2-29	7	1537329	3-19	10		5-17	
1537223	2-25	23	1537275	2-29	8	1537330	3-19	11		5-19	
1537224	2-25	26	1537276	2-29	12	1537331	3-19	13		5-21	
1537225	2-25	27	1537277	2-71	5	1537332	2-77	8		5-23	
1537226	2-27	1	1537279	2-63	4		3-19	14		5-25	
1537227	2-27	6	1537280	2-63		1537333	3-19	15		5-27	
1537228	2-27	7	1537281	2-63	6	1537334	3-19	9		5-29	
1537229	2-27	11	1537282	2-63	7		3-19	18		5-31	
1537230	2-27	13	1537283	2-63	9	1537335	3-21	10		5-33	
1537231	2-27	17	1537284	2-63	11	1537336	3-21	9		5-37	
1537232	2-35	23	1537286	2-63	12		3-25	6		5-43	
1537233	2-35	25	1537287	2-61	1	1537337	3-25	8		5-47	
1537234	2-47	1	1537288	2-61	10	1537338	2-77	13		5-49	
1537235	3-15	1	1537289	2-61	12		3-21	17	1538177	11-10	35
1537236	3-15	6	1537290	2-67		1537339	2-73	1	1538178	11-9	24
1537237	3-15	9	1537291	2-67		1537342	3-21	13	1538179	11-9	23
	3-19	12	1537292	2-65	1	1537343	2-27		1538182	11-7	8
1537238	3-15	10	1537293	2-65	2		2-29		1538185	11-9	14
1537239	3-17	1	1537294	2-65	11		2-35		1538217	1-39	30
1537240	3-17	2	1537295	2-37	1		2-45			1-41	5
1537241	3-17	3	1537297	2-41	7		2-65		1538218	1-39	1
1537242	3-17	4	1537298	2-19	11		2-69			1-41	4
1537243	3-17	5	1537299	2-53	5		2-77			1-49	
1537244	3-17	6	1537300	2-55	1		2-79		1538319	3-29	9
1537245	3-17	9	1537301	2-55	16		3-17			3-31	9
1537246	3-17	12	1537302	2-59	1	1537345	2-77	1	1538321	3-29	18

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	3-31	19		4-18	58	1543421	2-123	2		2-171	5
	3-33	19	1541987	2-16	52	1543422	2-123	3	1543885	2-101	6
1538468	11-12		1542548	1-19	3	1543424	2-127	8		2-171	6
1538469	11-12			1-21	3		2-199	10	1543886	2-101	3
1538470	11-12			1-22	8	1543425	2-123			2-171	3
1538471	11-12		1543317	2-93	4	1543426	2-123	7	1543887	2-101	
1538472	11-9	14		2-165	4	1543429	2-199	9		2-171	
1538473	11-9	14	1543318	2-93	6	1543430	2-199	9	1543889	2-101	2
1538474	11-9	14		2-165	6	1543432	2-199			2-171	2
1538475	11-7	8	1543320	2-93	1	1543435	3-59	17	1543891	2-101	1
1538476	11-7	8		2-165	1	1543436	4-27	6		2-171	1
1538477	11-7	8	1543321	2-89	13		4-47	19	1543892	2-101	1
1538478	11-9	23		2-163	13	1543437	4-27	8		2-171	1
1538479	11-9	23	1543330	2-105	11	1543438	4-27	9	1543894	2-139	1
1538480	11-9	23	1543336	2-111	5	1543439	4-27	10	1543895	2-139	2
1538481	11-9	24	1543337	2-103	10	1543442	2-98	3		2-214	3
1538482	11-9	24		2-181	5	1543445	2-97	5	1543896	2-139	3
1538483	11-9	24	1543338	2-181	1		2-201	9	1543897	2-139	4
1538485	11-7	6	1543340	2-107	4	1543446	2-97	4		2-214	4
1538811	7-13		1543341	2-103	11	1543448	2-97	7	1543898	2-141	7
	7-15			2-115	10	1543450	2-91	12	1543899	2-141	10
1538813	2-147	40		2-181	12		2-205	2	1544027	4-9	41
1538899	11-5	12		2-186	2	1543451	2-91	13		4-14	43
1538936	9-11	7	1543347	2-115	1		2-205	1		4-17	47
1539034	1-85	5		2-185	5	1543452	2-91	1	1544127	2-116	3
	1-97	8	1543348	2-115	5	1543453	2-91	9	1544128	2-116	4
1539118	5-3	9		2-185	6	1543454	2-91	10	1544129	2-116	5
1539225	12-3	1	1543351	4-37	8	1543455	2-91	8	1544132	2-153	3
1539226	12-3	2		4-41	2		2-205	13	1544133	4-109	9
1539227	12-3	3	1543352	4-37	6	1543456	2-91	6	1544134	4-14	70
1539228	12-3	4	1543356	3-35	7	1543708	2-91	7		4-109	10
1539229	12-3	5	1543357	3-37	2	1543868	3-49	9	1544141	2-147	40
1539230	12-3	6	1543358	3-37	3	1543869	3-49	11	1544227	2-16	52
1539231	12-3	7	1543359	3-37	5	1543870	3-49	12	1544584	8-33	1
1539232	12-3	7		3-44	4	1543871	3-49	13	1544774	2-13	3
1539233	12-3	7		3-46	7	1543873	3-49	14		2-155	3
1539234	12-3	4	1543360	3-37	4	1543874	3-49	16		2-213	21
1539235	12-3	5	1543361	2-121	1	1543875	3-49	17	1544775	2-13	15
	12-3	5		2-189	1	1543876	3-49	18		2-155	15
1539259	2-7	18	1543362	2-121	8	1543877	2-101	11		2-213	6
1539260	2-7	16		2-189	9		2-171	11	1544847	2-147	42
1541588	6-3		1543363	2-189	11	1543878	2-101	9		2-221	46
	6-13		1543365	3-42	3		2-171	9	1545202	4-51	8
	6-21		1543408	3-38	1	1543879	2-101	10		4-124	2
1541612	6-9	8	1543410	3-43	6		2-171	10	1545532	13-13	1
	6-13	8	1543411	3-43	5	1543881	2-101	8	1546697	4-51	8
1541613	6-9	10	1543412	3-43	7		2-171	8		4-124	2
	6-13	10	1543415	3-46	5	1543882	2-101	7	1546716	8-33	21
1541614	6-13	14	1543416	3-46	2		2-171	7	1547492	8-33	13
1541841	4-5	19	1543417	3-46	5	1543883	2-101			8-41	29
	4-9	19	1543418	3-46	6		2-171		1547766	8-41	33
	4-14	50	1543419	3-46	8	1543884	2-101	5	1547768	8-33	19

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1548205	8-33	3		2-201	7	1556935	5-39	5	1556968	5-23	8
	8-41	9	1553262	2-97	3		5-41	5		5-25	16
1549372	9-5	24		2-201	6		5-43	5	1556969	5-23	10
1550874	8-7	39	1553402	3-43	8		5-45	5		5-25	17
1550921	1-49	1	1553404	1-14	43	1556936	5-39	6	1556970	5-29	2
1550922	1-49	2		1-19			5-43	6	1556971	5-25	1
1550923	1-49	3	1553405	1-14	43	1556937	5-39	7	1556972	5-21	1
	1-50	3		1-21			5-41	7	1556973	5-21	2
1550924	1-49	4	1553768	3-60	54		5-43	7	1556975	5-21	9
1551472	8-35	1	1553781	2-167	11		5-45	7	1556976	5-21	10
1551475	8-35	4	1554043	2-93		1556938	5-43	8	1556977	5-21	17
	8-39	12		2-165			5-45	8	1556978	5-21	7
1551477	8-35	6	1554044	2-93	5	1556941	5-43	10		5-25	12
	8-39	13		2-165	5		5-45	10		5-27	14
1551482	8-35	8	1554045	2-93	9	1556943	5-43	17	1556979	5-25	14
1551483	8-35	9		2-165	9	1556944	5-43	19		5-27	13
1551486	8-35	12	1554209	1-5	17		5-45	19	1556981	5-27	1
1551487	8-35	13	1554210	1-5	17	1556945	5-37	1	1556982	5-19	2
1551488	8-35	14	1554356	2-16	52	1556946	5-37	2	1556983	5-25	18
1551490	8-35	15	1555485	2-41	1	1556947	5-37	3		5-27	9
1551492	8-35		1555939	3-5	20	1556948	5-37	4	1556984	5-25	21
1551504	8-35	21		3-9	20	1556949	5-37	5	1556985	5-25	27
1551505	8-35	22	1556256	4-35	1	1556950	5-33	1		5-27	2
1551512	8-35	24	1556257	4-33	1		5-35	1	1556989	5-19	10
1551513	8-35	25	1556258	4-33	10	1556951	5-33	4	1556990	5-19	11
1551514	8-35	26	1556259	4-35	2		5-35	4	1556992	5-17	2
1551516	8-35	28	1556260	4-33	6	1556952	5-33	7	1556993	5-17	5
1551517	8-35	29	1556790	5-7	1		5-35	7	1556994	5-17	6
1551523	8-35	7	1556791	5-7	10	1556953	5-33	9	1556995	5-13	
1551531	3-29	2	1556908	5-7	9	1556954	5-33	10	1556996	5-13	41
	3-31	2		5-9	28	1556955	5-33	11	1556997	5-13	43
	3-33	2	1556909	5-7	17	1556956	5-33	13	1556998	5-13	34
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	3-31	10		5-9	30	1556958	5-31	6	1556999	5-13	2
	3-33	10	1556912	5-7	19	1556959	5-31	7	1557000	5-13	1
1551865	10-40	31	1556913	5-9	1	1556961	5-23	1	1557001	5-13	3
	11-25	16	1556914	5-9	2	1556963	5-23	2	1557002	5-13	10
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	12-32	56		5-11	8		5-27	6	1557007	5-13	31
1552204	2-107	3	1556916	5-9	8	1556964	5-21	5	1557008	5-13	32
1552226	3-9	25	1556917	5-9	15		5-23	5	1557009	5-13	33
	3-51	2	1556918	5-9	26		5-25	8	1557010	5-13	35
1552286	2-128	8		5-11	25		5-27	11	1557011	5-13	36
	2-193	10	1556919	5-47	1	1556965	5-21	6	1557012	5-13	37
1552288	4-27	4	1556920	5-7	17		5-23	6	1557013	5-13	38
1552353	3-5	25		5-9	29		5-25	10	1557014	5-14	
	3-51	2	1556921	5-9	31		5-27	12	1557263	5-21	
1552495	3-5	9	1556922	5-47	11	1556966	5-21	12		5-23	
	3-9	9	1556934	5-39	1		5-23	7		5-25	
1552880	4-30	1		5-41	1		5-25	11		5-27	
	4-44	1		5-43	1	1556967	5-23	8	1557528	2-147	2
1553261	2-97	2		5-45	1		5-25	15		2-221	2

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
1557679	2-148		1558307	1-19	26		4-168	4		8-29	
	2-222	57		1-21	26	1560246	10-40	31	1561605	6-21	32
1558014	1-95	1	1558440	1-21	1		11-25	16	1561606	6-21	32
1558015	1-95	15	1558441	1-21	3		12-29	70	1561614	6-21	33
1558017	1-95	18		1-22			12-32	56	1561756	4-131	4
1558020	1-13	1	1558442	1-21	5	1560248	10-40	31	1561964	3-9	29
1558021	1-13	1	1558443	1-21	6		11-25	16		3-51	8
1558022	1-13	6	1558444	1-21	7		12-29	70	1562020	13-8	1
1558023	1-13	6	1558445	1-21	8		12-32	56	1562021	13-8	1
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	1-15	7	1558450	2-81	1	1560538	1-59	3	1562350	8-5	80
1558031	1-95	9	1558451	2-81	6	1560539	1-59	4	1563036	7-5	9
1558032	1-45	1	1558466	2-81	7	1560540	1-59	5	1563863	1-83	8
	1-47		1558467	2-81	9	1560541	1-59	6	1563864	1-83	10
1558033	1-45	2	1558468	2-83	1	1560542	1-59	6	1563867	9-11	8
	4-21		1558469	4-29	1	1560543	1-59	6	1563906	1-83	
1558034	1-16	4	1558471	2-63	15	1560544	1-59	6	1563927	10-14	24
1558035	1-69	13	1558472	2-45	4	1560545	1-59	6		10-18	24
1558042	1-95	12	1558473	3-25	9	1560546	1-59	11	1564349	9-29	10
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	1-19	4		4-168	4		1-59	9	1565058	8-35	
	1-21	4	1560115	4-147	18		4-21	8	1565472	5-13	13
1558295	1-19	5		4-166	1	1560556	1-47	15	1565473	5-13	27
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1558297	1-19	7		4-167	1		4-21	7	1565475	5-13	7
1558298	1-19	8		4-167	2	1560623	1-47	3	1566125	6-9	8
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	1-21	15		4-168	4		4-21		1566206	4-21	4
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1558305	1-19	22		4-168	1		4-106	14		4-23	8
	1-21	22		4-168	2	1561604	6-9	11	1566211	4-23	9
1558306	1-19	23		4-168	3		6-13	11	1566212	4-23	10

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
1566213	4-23	11		3-33	32	1573113	4-58	1		5-45	22
1566216	4-21	5	1569877	4-144	1		4-99	32	1579123	5-45	17
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1566739	9-13	11		4-65	3		4-99	34	1579126	5-35	12
1566764	4-25	4		4-73	3		4-107	32	1579127	5-35	14
1566765	4-25	2		4-81	3		4-107	33	1579128	5-35	15
1566767	1-101	3		4-97	3		4-107	34	1579138	5-13	
1566770	1-93	10		4-138	7	1573114	4-58	1	1579141	5-13	7
1566965	4-17	37	1569974	4-138	7		4-99	32	1580023	9-29	10
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1567091	12-5	1	1570601	4-113	13		4-99	32	1582102	4-51	5
1567092	12-5	1		4-115	15		4-99	33		4-52	19
1567093	12-5	1	1570603	4-113	5		4-99	34		4-56	24
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1567676	4-131	5	1570610	4-119	14	1574072	10-46	48		4-52	19
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1568383	10-25	2	1570617	4-119	25		6-13	5	1583721	9-37	9
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1568386	10-25	2	1570639	4-127	4	1579009	5-7	13	1583879	2-155	13
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	3-31	32	1573001	10-18	37	1579121	5-41	22	1584835	4-49	4

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
1584836	4-49	11		8-45			4-41	1	1592671	9-43	1
1584837	4-49	9	1585135	8-39	33	1588828	4-30	2	1592672	9-43	2
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1584842	4-49	17	1585138	8-37	1	1588836	2-145	9	1592676	9-41	5
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1584845	4-49	15		8-39		1588921	2-105	7	1593629	1-19	
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1584848	4-49	2		8-45	6	1588936	2-103	15	1594936	13-4	1
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1584853	4-49	27		2-163	27	1588938	2-103	14	1596648	2-108	1
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1584867	4-49	10		2-167			11-25	16	1597154	2-108	2
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	2-165	6		2-116		1589514	2-89	1	1597806	2-210	5
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	2-165	6		2-169		1590815	1-14	44	1597819	2-121	11
	2-165	8		2-199			1-15		1597832	2-97	1
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	2-165	4		2-209		1590821	1-15	4		2-190	1
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	2-165	6		2-219		1590849	8-11	1		2-155	21
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	2-165	8	1588092	2-105	2	1590852	8-11	2	1598360	4-9	40
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	2-93	6	1588095	2-91	10	1590855	8-11	5	1598398	1-101	22
	2-165	4	1588097	2-103	6	1590856	8-11	7		1-103	4
	2-165	6	1588098	2-103	8	1590857	8-11	8	1598469	4-56	17
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	2-165	4		2-181	11	1590859	8-11	10		4-70	29
1585087	5-13	4	1588101	2-115	9	1590860	8-11	11		4-78	30
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1585091	5-13	18	1588104	2-91	7	1590863	8-11	15		4-103	33
1585118	8-37	11		2-205	11	1591290	8-11		1598470	4-56	17
1585121	8-37	38	1588105	2-105	12	1591320	8-13	2	1598680	2-205	15
1585122	8-39	24	1588106	2-145	2	1591322	8-13	4	1598681	2-205	16
1585123	8-37	13	1588107	2-91	1	1591323	8-13	5	1598682	2-205	17
1585126	8-37	35	1588108	2-141	3	1591324	8-13	6	1600388	2-167	
	8-39	8	1588109	2-103	12	1591325	8-13	7	1600416	2-190	1
1585131	8-39	9	1588110	2-97	9	1591498	7-9	35	1600490	3-51	13
1585132	8-39	11	1588111	2-97	6	1591500	7-9	34	1600769	2-213	19
1585133	8-39	34	1588112	2-143		1591591	1-41	7	1600772	3-51	18
	8-45	4	1588143	2-133	9	1591915	2-133	2	1600818	10-40	31
1585134	8-39	34	1588820	4-37	1	1591916	2-133	3		11-25	16

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM									
	12-29	70	1606784	1-6		1607781	4-53	23		4-66	29
	12-32	56	1607524	4-58	2	1607782	4-129	40		4-69	10
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	11-25	16		4-107	35		4-67	37		4-81	5
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	12-32	56		4-99	35		4-75	37		4-89	5
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1602285	8-41	17		4-107	35		4-97	12		4-106	19
1602329	4-144			4-160	2		4-98	20		4-161	8
	8-41	25	1607528	4-58	2		4-105	12	1610992	7-15	4
1602371	2-147	4		4-160	2		4-106	20	1611029	4-137	5
	2-221	4	1607529	4-160	2	1607842	4-129	39		4-139	4
1602497	2-115	4		4-160	2	1607843	4-131	20	1611032	4-65	13
	2-185	9	1607532	4-58	2	1607894	4-138	7		4-73	13
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	8-45			4-107	35	1608583	5-14			4-89	13
1603302	8-41	10		4-160	2	1609865	3-53	36		4-93	3
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	3-57	9		4-121	20	1610941	4-83	30	1612390	7-15	9
1603521	1-67		1607748	4-119	26		4-91	30	1612393	7-15	9
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1603522	1-67		1607749	4-58	3		4-106	18	1612804	2-209	1
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1603523	1-67		1607771	4-56	17		4-139	4	1613498	1-5	9
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1603777	3-54	43	1607772	4-52	22		4-128	35	1613662	3-31	21
	3-57	15		4-65	10		4-131	16	1613740	8-41	18
1603778	3-54	41		4-73	10	1610947	4-131	8	1613771	8-41	13
	3-57	14		4-81	10		4-160	4	1613799	8-41	16
1603897	2-117	1		4-89	10	1610948	4-131	7	1613877	9-19	2
	2-225	1		4-93	6		4-160	4	1613901	9-23	17
1605372	2-221	50		4-93	9	1610950	4-81	4		9-24	36
1605545	4-56	14		4-101	6		4-83	30	1613902	9-23	17
1605568	3-54	55		4-101	9		4-89	4		9-24	37
	3-57	13		4-128	36		4-91	30	1613929	8-41	17
1605573	3-53	37	1607773	4-52	23		4-97	4	1614066	2-214	2
	3-57	2	1607774	4-51	2		4-98	18	1614161	9-2	
1605597	1-41	20		4-55	5		4-105	4		9-5	31
1606426	3-53	5	1607775	4-55	10		4-106	18	1614311	2-209	29
1606452	3-53	7	1607776	4-52	15		4-137	4	1614312	2-175	12
1606513	4-17	26		4-73	3		4-139	4	1614315	3-59	25
1606515	4-17	27		4-81	3		4-161	7	1614319	3-59	14
1606764	4-17	23	1607779	4-144	2	1610953	4-61	10	1614320	3-59	37

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1614322	2-210		1614547	3-60	63	1614616	4-43	6	1615109	1-75	4
1614323	2-215	3	1614548	2-169	10	1614617	4-123	2	1615110	1-75	4
1614452	2-195	3	1614549	2-217	2	1614618	3-60	53	1615111	1-75	4
1614453	2-195	2	1614550	2-209	21	1614619	3-59	12		1-76	8
1614454	2-216	4	1614551	2-202	3	1614620	3-59	19		1-76	10
1614458	3-60	62	1614552	3-59	18		3-60		1615124	1-75	5
1614459	2-224	5	1614557	3-59	35	1614621	3-59	29	1615125	1-75	5
1614461	3-59	40	1614558	3-59	1	1614622	3-59	41	1615126	1-75	5
1614464	4-38	5	1614559	3-60	58	1614623	3-59	38		1-76	7
1614466	3-60	61	1614560	2-209	8	1614624	3-59	34		1-76	11
1614467	3-60	59	1614561	2-209	9	1614626	3-59	39	1615127	1-75	5
1614473	2-216		1614562	3-60	60	1614627	4-38	1		1-76	7
1614483	3-62	1	1614563	2-214	1	1614628	2-172	2		1-76	11
1614484	3-62	3	1614564	3-59	46	1614631	2-217	4	1615128	1-75	5
1614485	3-62	2	1614565	3-59	47	1614632	4-47	4	1615129	1-75	5
1614486	3-62	1	1614566	3-60	51	1614633	2-219	11	1615131	1-75	6
1614488	2-175	5	1614567	3-59	5	1614635	2-216	3	1615132	1-76	7
1614489	2-175	3	1614568	2-175	3	1614636	4-47	12	1615136	1-76	9
1614490	2-175	8	1614569	2-175	7	1614638	4-47	14	1615137	1-76	9
1614491	2-219	7	1614570	2-209	7	1614640	4-47	13	1615138	1-76	8
	4-47	18	1614572	2-175	2	1614641	4-43		1615139	1-76	8
1614492	2-205	9	1614573	2-175	10	1614642	3-59	16	1615140	1-76	10
1614493	2-205	7	1614574	2-175	11	1614644	3-59	21	1615141	1-76	10
1614495	2-201	3	1614575	2-195	5	1614664	8-41	23	1615143	1-76	11
1614496	2-201	1	1614576	2-219	1	1615055	1-69	12	1615144	1-76	11
1614497	2-201	1	1614577	2-169	1	1615056	1-67	4	1615147	1-67	2
1614498	2-201	1	1614578	2-209	20	1615057	1-67	4	1615149	1-67	2
1614499	2-201	3	1614579	2-167	2		1-68	7		1-67	2
1614500	2-201	3	1614580	2-167	3		1-68	10	1615150	1-67	2
1614501	2-209	14	1614582	2-219	4		1-69	11	1615152	1-69	
1614502	3-59	3	1614583	2-175	6	1615062	1-68	8	1615154	9-24	34
1614503	2-216	2	1614584	4-43	11	1615063	1-68	8	1615156	9-23	19
1614504	2-205	12	1614586	3-59	45	1615064	1-68	8	1615157	9-23	31
1614510	2-216		1614590	3-60	52	1615066	1-68	9	1615158	1-69	12
1614511	2-201	8	1614591	2-219	5	1615067	1-68	9	1615363	4-23	5
1614513	2-228	1	1614592	4-43	3	1615068	1-68	9	1615364	1-45	2
1614515	4-38	6	1614593	2-219	12	1615073	1-67			4-23	
1614516	4-43	7	1614595	3-59	32	1615075	1-79	2	1615829	2-205	3
1614522	2-183	1	1614596	3-59	33		1-80	9	1616227	4-160	5
1614523	4-41	5	1614597	2-217	1	1615076	1-79	2		4-160	6
1614524	2-175	1	1614598	4-43	1		1-80	9	1616273	6-17	18
1614526	4-41	10	1614599	4-43	4	1615077	1-79	2		6-19	
1614531	2-169	4	1614600	3-59	36		1-80	9	1616697	13-19	1
1614532	2-169	3	1614601	3-60	50	1615078	1-79	2	1616702	1-33	8
1614534	4-41	8	1614603	3-59	27		1-80	9	1618092	4-14	70
1614538	2-205	18	1614604	3-59	28	1615079	1-79	2		4-109	10
1614539	2-205	19	1614605	4-43	13		1-80	9	1618178	2-89	2
1614541	2-209	30	1614607	2-202	1	1615105	1-71	3		2-163	2
1614542	2-209	19	1614608	3-59	20		1-75	4	1618220	2-175	4
1614544	2-167	6	1614609	3-59	23	1615106	1-71	3	1618590	2-201	5
1614545	4-43	8	1614610	3-59	24		1-75	4	1618648	2-91	15
1614546	4-38	4	1614615	2-215	4	1615107	1-75	4		2-205	20

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1618997	2-179	3	1625567	2-209	4	1636787	9-2	6	1641634	1-22	3
1618998	2-179	2	1625568	2-209	15	1636788	9-2	5	1641635	1-22	4
1618999	2-179	4	1625569	2-209	13	1636789	9-2	4	1641636	1-22	5
1619000	2-179	5	1625570	2-209	12	1637675	1-49	3	1641637	1-22	14
1619001	2-181	7	1625612	9-5	33		1-50	3	1641638	1-22	13
1619004	2-181	8	1625615	9-5	34	1637676	1-49	3	1641639	1-22	6
1619371	4-27	3		9-17			1-50	3	1641640	1-22	15
1619729	9-23	32	1625617	9-5	34	1637677	1-49	3	1641641	1-22	11
1619731	9-27	2		9-17			1-50	3	1641642	1-22	10
1619732	9-27	16	1627842	4-147	1	1637678	1-49	3	1641643	1-22	12
1619734	9-27	15	1627991	4-13	7		1-50	3	1641644	1-22	4
1623364	1-98	51	1628478	7-9	30	1638188	9-41		1641645	1-22	1
1623420	1-59		1628480	7-9	31	1638350	9-17	28	1641835	5-14	
1623421	1-59		1628948	1-83	17	1638351	9-17	26	1641836	5-13	16
1623800	1-85	28	1628949	1-83	17	1638356	9-17	15	1641837	5-14	44
1623801	1-85	28	1628959	2-9	11	1638365	9-17	22	1641838	5-13	20
1623802	1-85	28	1628960	2-9	12	1638366	9-17	20	1641840	5-13	25
1623950	1-41	16	1628961	2-9	13	1638367	9-17	21	1641841	5-13	30
1624002	1-85		1628962	2-9	14	1638368	9-17	25	1642096	6-5	17
1624020	9-27	1	1628963	2-9	15	1638370	9-17	12		6-9	22
1624021	9-27	3	1628964	2-9	16	1638371	9-17	8		6-13	22
1624022	9-27	4	1633026	6-17	2	1638372	9-17	9	1642097	6-6	
1624023	9-27	5	1633276	9-5	31	1638373	9-17	10		6-10	
1624024	9-27	6	1634401	6-3		1638374	9-17	5		6-14	
1624025	9-27	7		6-13		1638375	9-17	2	1642098	6-5	8
1624026	9-27	9		6-21		1638376	9-17	3	1642099	6-5	5
1624027	9-27	10	1634413	6-3		1638377	9-17	4		6-9	7
1624028	9-27	11		6-9		1638378	9-17	30		6-13	7
1624029	9-27	13		6-19		1638379	9-17	7	1642101	6-5	29
1624030	9-27	14	1634414	6-3		1638380	9-17	11		6-10	33
1624055	12-16	45		6-5		1638381	9-17	6		6-14	33
	12-21			6-17		1638509	9-17	6	1642102	6-6	
	12-29		1634763	8-45		1638803	9-17	24		6-10	
	12-32	65	1634764	8-45	23	1638852	2-91	15		6-14	
	12-35	29	1634854	3-53	18		2-205	20	1642103	6-6	34
	12-39		1635179	8-41	32	1638854	2-91	15		6-10	36
1624074	8-41	31	1635307	2-89	6		2-205	20		6-14	36
1624093	1-41	24		2-163	6	1638856	2-128	10	1642104	6-5	22
1624512	3-59	11	1635556	9-23	17		2-129	11		6-10	38
1624514	3-59	10	1635557	9-23	17		2-193	11		6-10	38
1624515	3-59	6	1636182	1-83	18	1639100	8-7	39		6-14	38
1624698	8-41	1	1636183	1-83	18	1639696	2-63	3	1642141	6-17	30
1624829	2-131	2	1636246	9-2	1	1639697	2-33	6		6-19	30
	2-195	6	1636247	9-2	9	1639761	9-41	1	1642142	6-17	30
1624852	2-215	1	1636372	9-23	2	1641021	3-53	20		6-19	30
1624871	2-215	2	1636373	9-23	2	1641022	3-53	32	1643610	6-21	32
1624872	2-206		1636534	9-33	27	1641024	3-53	26	1643611	6-21	32
1624994	2-219	2	1636535	9-33	24	1641025	3-54	48	1643612	6-21	29
1625334	3-33	9	1636536	9-33	22	1641027	3-54	51	1644562	2-79	5
1625338	3-33	1	1636539	9-33	15	1641631	1-22	1	1644791	1-98	50
1625540	2-9	10	1636540	9-33	16	1641632	1-22	2	1644792	1-97	45
1625566	2-209	23	1636543	9-33	26	1641633	1-22	9	1644793	1-97	43

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
1646626	8-27	5	1663877	2-15	35		13-13	28	2043493	1-89	32
1646627	8-27	7		2-147	35	2043079	1-5	10	2043507	4-6	61
1646947	3-53	10		2-221	37	2043084	8-3	10		4-10	55
1646948	3-53	1	1664586	4-160	3	2043194	1-25	1		4-13	6
1646949	3-53	12	1665756	1-29			1-29			4-17	32
1646950	3-53	12	1670534	4-155	12	2043224	4-6	60		4-162	
1647751	8-41	14	1671705	12-16	46		4-10	68	2043536	10-14	9
1647994	3-53	11		12-24			4-14	49		10-18	9
1648559	1-97	33		12-32	63		4-17	36	2043537	10-14	9
1648560	1-98			12-35	28		4-159			10-18	9
1648561	1-98		1672803	9-27	17	2043287	7-5	37	2043546	1-13	37
1649349	4-37	1	1673011	2-181	3		7-7			4-116	
	4-41	1	1673978	2-153	2	2043328	12-9		2043587	3-5	26
1651321	2-19	2	1674275	4-47	10	2043330	12-9			3-51	12
1651353	8-41	24	1674279	3-44	1	2043344	9-37	5	2043588	3-9	26
1652017	4-14	71	1674584	1-59	5	2043351	13-13	16		3-51	12
1652018	4-14	51	1675439	3-35	6	2043352	1-83	33	2043589	3-5	26
1652098	3-33	35	1676815	5-7	20	2043353	1-83	32		3-51	12
1652101	3-33	21	1686766	1-49	4	2043354	1-83	30	2043634	4-6	56
1652102	3-33	36	1687037	1-69		2043409	10-5			4-10	64
1654661	1-41	4	1688640	13-2	2		10-9			4-13	7
	1-50			13-3	2		10-13			4-17	34
1654662	1-41	5		13-4	2	2043410	10-5		2043677	4-152	
1654935	1-101	21		13-5	2		10-9			13-13	2
	1-103	2	1688641	13-8	2		10-13		2043678	4-151	
1655098	8-4	38		13-9	2	2043411	10-5			13-11	
1655099	8-4	38	1688642	13-7	2		10-9		2043801	1-89	17
1655365	1-97	2	2003859	1-93			10-13		2043867	4-157	
	1-97	44		7-5	38	2043412	10-5			13-13	28
1656585	1-41	36	2004005	1-26	47		10-9		2043879	13-17	11
1656590	1-41	24	2013364	9-30	3		10-13		2043980	8-8	60
1656599	1-45	1	2013370	9-30	13	2043413	10-5		2043981	8-3	10
	1-59		2013810	9-30	1		10-9		2044002	1-89	34
1656600	1-59	6	2032492	7-15	5		10-13		2044180	3-5	26
1656601	1-59		2034459	1-89	3	2043414	10-5			3-51	12
1656603	1-59	11	2037391	9-29	14		10-9		2044181	3-5	26
1656604	1-59	15		9-30			10-13			3-51	12
1657710	5-13		2038853	1-11	14	2043415	10-5		2044182	3-5	26
1658153	8-7	28	2038854	1-11	19		10-9		2044372	7-15	8
1659572	4-27	1	2038855	1-11	14		10-13		2044400	1-89	22
1659579	5-13	12	2038856	1-11	19	2043416	10-5		2044515	4-17	29
1659935	1-50	1	2041833	3-5	26		10-9		2045885	4-164	
1659936	1-50	4		3-51	12		10-13			13-21	6
1661076	2-134	2	2041923	9-35	7	2043468	1-89	10	2046000	4-10	55
	2-196	2		9-37	10	2043469	1-89	11		4-13	6
1662042	3-59	43	2042506	4-111		2043471	1-89	12		4-163	
	4-47	6	2042507	1-93		2043476	1-89	9	2046001	4-9	43
1662044	4-47	20		1-95	6	2043478	4-149		2046072	10-40	36
1662045	4-47	8		4-115			13-11	22	2046118	1-13	10
1662047	2-209	2	2042724	4-158		2043479	1-89	2	2046119	1-13	10
1662048	2-209	5		13-15		2043480	4-148		2046166	1-89	38
1662992	12-3	5	2042889	4-155			13-11	23	2046319	10-31	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
2046322	10-31		2050044	1-91	3	2054258	4-147			12-3	
2046552	9-7	6	2050522	8-31	16		10-46	47		12-15	18
2046669	10-35	17	2051062	9-35	7		10-50	47		12-20	68
	10-39	17	2051205	4-124	3	2054264	12-9	14		12-23	22
	10-43		2051228	4-124	4	2054512	11-5			12-38	54
	11-23	10	2051270	4-124	1		11-7		2055962	10-32	37
	11-25	9	2051279	4-124	2		11-9			11-19	20
	12-19	29	2052773	13-11	20		11-15			12-3	
	12-23	10	2052774	13-13	26	2054513	11-5			12-15	18
	12-27	29	2052775	13-15	10		11-7			12-39	54
	12-31	10	2052776	13-11	21		11-9		2056066	12-20	51
2046711	10-35	2	2052832	9-19	7		11-15			12-28	51
	10-39	2		9-23		2054514	11-5			12-38	44
2046712	10-35	3	2052978	2-13	2		11-7		2056067	12-20	52
	10-39	3		2-155	2		11-9			12-28	52
2046745	10-35	23	2053634	2-15	1		11-15			12-38	45
	10-39	23		2-147	1	2054515	11-5		2056068	10-32	31
	12-19	35		2-221	1		11-7			12-20	53
	12-28	35	2053895	1-93	14		11-9			12-28	53
2046746	10-35	24	2054005	9-35	6		11-15			12-38	46
	10-39	24		9-37	8	2054856	12-35		2056069	10-32	31
	12-20	36		9-37	8	2054857	12-15			10-32	32
	12-28	36		9-37	8	2054858	12-15			12-20	53
2046767	7-3	31		9-37	8	2054859	12-15			12-20	54
2046866	1-83	25		9-37	8	2055180	12-23			12-28	53
	4-17	29		9-37	8	2055181	12-31			12-28	54
2046918	1-41	8		9-37	8	2055486	9-29	14		12-38	46
2047066	10-35	2	2054224	1-83			9-30			12-38	47
	10-39	2		4-121		2055513	11-17		2056070	12-21	70
2047067	10-35	3	2054225	1-83		2055514	11-19		2056071	12-21	71
	10-39	3		4-119		2055515	11-19		2056072	12-21	72
2047071	10-39		2054251	4-147		2055516	11-19		2056073	12-21	73
2047072	10-39			10-46	47	2055518	11-25		2056074	12-29	74
2047116	10-40	34		10-50	47	2055678	4-25	5	2056075	12-29	75
2047117	10-40	35	2054252	4-147		2055720	1-97	30	2056091	12-37	
2047554	10-40	41		10-46	47	2055828	4-147	10	2056092	12-37	
2047555	10-40	42		10-50	47		4-168		2056093	12-37	
2047812	12-29	76	2054253	4-147			10-31	28	2056094	12-37	
2047813	12-29	77		10-46	47		11-19	10	2056095	12-37	
2047814	12-29	78		10-50	47		12-16	41	2056096	12-37	
2047815	12-29	79	2054254	4-147			12-38	41	2056097	12-37	
2047824	8-31	2		10-46	47	2055960	10-32	37	2056098	12-37	
	8-35			10-50	47		10-35	31	2056099	12-19	
2047859	4-128	33	2054255	4-147			11-19	20	2056100	12-27	
2048063	1-89	30		10-46	47		11-23	18	2056102	12-19	
2049287	9-30	9		10-50	47		12-3		2056103	12-27	
2049840	12-38	28	2054256	4-147			12-15	18	2056106	12-19	3
2049842	12-38	29		10-46	47		12-29	68		12-27	3
2049849	1-25	11		10-50	47		12-31	22		12-39	56
	4-124		2054257	4-147			12-38	54	2056107	12-19	4
2049850	8-31	14		10-46	47	2055961	10-32	37		12-27	4
2049945	10-40	37		10-50	47		11-19	20		12-39	57

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
2056108	12-19	5		4-106	14		4-95	32		4-27	
	12-27	5	2058006	4-129	38		4-95	34		4-30	
	12-38	29	2058055	4-83	36		4-95	35		4-37	
2056109	12-19	6		4-91	36		4-101	14		4-109	
	12-27	6	2058167	10-46	45		4-103	32	2060718	2-85	1
	12-38	28		10-50	45		4-103	34		2-89	
2056110	12-19	3	2058168	10-46	45		4-103	35		2-91	
	12-27	3		10-50	45	2060717	2-85	1		2-93	
	12-39	56	2058169	10-46	45		2-89			2-94	
2056111	12-19	4		10-50	45		2-91			2-97	
	12-27	4	2058170	10-46	45		2-93			2-98	
	12-39	57		10-50	45		2-94			2-101	
2056112	12-19	5	2058171	10-46	45		2-97			2-103	
	12-27	5		10-50	45		2-98			2-105	
	12-38	29	2058172	10-46	45		2-101			2-107	
2056113	12-19	6		10-50	45		2-107			2-108	
	12-27	6	2058173	10-46	45		2-108			2-109	
	12-38	28		10-50	45		2-109			2-111	
2056208	9-5	10	2058180	10-50	46		2-111			2-112	
2056209	9-5	11	2058181	10-50	46		2-112			2-116	
2056296	9-5	3	2058182	10-50	46		2-115			2-117	
2056447	1-93	16	2058183	10-50	46		2-116			2-119	
2056545	5-3	16	2058184	10-50	46		2-117			2-121	
	5-5	16	2058185	10-50	46		2-119			2-122	
2056657	10-31		2058186	10-50	46		2-121			2-123	
2056658	10-31		2058187	10-50	46		2-122			2-124	
2056659	10-31		2058685	10-46	45		2-123			2-127	
2056660	10-35			10-50	45		2-124			2-128	
2056661	10-35		2058930	1-89	17		2-125			2-131	
2056662	10-32	39	2059716	5-3	11		2-127			2-133	
2056663	10-32	40	2059720	9-11	2		2-128			2-134	
2056664	10-32	39	2060555	4-51	9		2-131			2-135	
2056665	10-32	40		4-56	15		2-133			2-137	
2056666	10-31			4-56	16		2-134			2-139	
2056667	10-31			4-56	18		2-136			2-141	
2056668	10-31			4-61	7		2-139			2-143	
2056756	10-36	36		4-62	28		2-141			2-145	
2056757	10-36	39		4-63	30		2-143			2-149	
2056758	10-36	41		4-63	31		2-145			2-151	
2056759	10-36	38		4-69	7		2-149			2-152	
2056760	10-36	35		4-70	28		2-151			2-153	
2056761	10-36	40		4-71	30		2-152			3-35	
2056776	12-20	55		4-71	31		2-153			3-37	
	12-28	55		4-77	7		3-35			3-38	
	12-38	48		4-78	28		3-37			3-41	
2056927	10-29			4-78	29		3-38			3-42	
2056928	10-29			4-79	31		3-41			3-44	
2057864	10-32	33		4-85	7		3-42			3-45	
	10-36	37		4-86	28		3-44			3-46	
2058005	4-67	36		4-86	29		3-45			3-49	
	4-75	36		4-87	31		3-46			4-27	
	4-98	14		4-93	14		3-49			4-30	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	<u>PART NO.</u>	<u>PAGE</u>	<u>ITEM</u>
	4-37			5-25			10-11			2-141	
	4-109			5-27			10-17			2-143	
2062050	4-6	51		5-29		2071679	10-7			2-145	
	4-51			5-31			10-11			2-149	
	4-55			5-35			10-17			2-151	
2062052	4-10	59		5-37		2071680	10-7			2-152	
	4-13	13		5-41			10-11			2-153	
	4-61			5-47			10-17			3-35	
	4-65			5-49		2071681	10-7			3-37	
2062054	4-5	32	2071311	5-7			10-11			3-38	
	4-58			5-11			10-17			3-41	
2062055	4-9	34		5-13		2071804	10-46	46		3-42	
2063012	4-9	42		5-17		2071805	10-46	46		3-44	
	4-13	35		5-19		2071807	10-46	46		3-45	
2063639	8-33	2		5-21		2071808	10-46	46		3-46	
	8-37			5-23		2071809	10-46	46		3-49	
	8-39			5-25		2071810	10-46	46		4-27	
2063999	8-33	14		5-27		2071811	10-46	46		4-30	
2064475	8-35	44		5-29		2071812	10-46	46		4-37	
2065989	4-5	28		5-31		2072353	4-9	32		4-109	
2066064	8-33	16		5-35			4-17	21	2074945	2-85	1
	8-41	19		5-37			13-17	8		2-89	
2066200	1-93			5-45		2074432	5-5	11		2-91	
	4-25	1		5-47		2074944	2-85	1		2-93	
	4-127			5-49			2-89			2-94	
	4-131		2071312	3-65	22		2-91			2-97	
	4-135			3-69	28		2-93			2-98	
2066203	1-98		2071313	3-65	22		2-94			2-101	
	4-137			3-69	28		2-97			2-103	
2066204	4-143		2071326	1-9	17		2-98			2-105	
	7-5	19	2071664	10-18	12		2-101			2-107	
2066609	3-65	22	2071665	10-18	10		2-107			2-108	
	3-69	28	2071666	10-18	10		2-108			2-109	
2066610	3-65	22	2071667	10-18	10		2-109			2-111	
	3-69	28	2071668	10-18	10		2-111			2-112	
2067399	3-9	26	2071669	10-18	10		2-112			2-116	
	3-51	12	2071670	10-18	10		2-115			2-117	
2071035	10-25		2071671	10-18	10		2-116			2-119	
2071036	10-25		2071672	10-18	10		2-117			2-121	
2071037	10-25		2071674	10-7			2-119			2-122	
2071038	10-25			10-11			2-121			2-123	
2071039	10-25			10-17			2-122			2-124	
2071040	10-25		2071675	10-7			2-123			2-127	
2071041	10-25			10-11			2-124			2-129	
2071042	10-25			10-17			2-125			2-131	
2071309	5-7		2071676	10-7			2-127			2-133	
	5-11			10-11			2-129			2-134	
	5-13			10-17			2-131			2-135	
	5-17		2071677	10-7			2-133			2-137	
	5-19			10-11			2-134			2-139	
	5-21			10-17			2-136			2-141	
	5-23		2071678	10-7			2-139			2-143	

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
	2-145		2-195			2-201			2082622	1-91	2
	2-149		2-196			2-202			2082798	3-65	22
	2-151		2-199			2-205				3-69	28
	2-152		2-201			2-206			2083131	7-9	40
	2-153		2-202			2-209				7-15	
	3-35		2-205			2-210			2083769	4-9	44
	3-37		2-206			2-214				4-13	16
	3-38		2-209			2-215				4-18	68
	3-41		2-210			2-216			2086189	12-19	
	3-42		2-214			2-217			2086190	12-27	
	3-44		2-215			2-219			2086191	12-19	
	3-45		2-216			2-223			2086192	12-27	
	3-46		2-217			2-224			2086258	12-37	
	3-49		2-219			2-225			2086259	12-37	
	4-27		2-223			2-226			2086260	12-37	
	4-30		2-224			2-227			2086261	12-37	
	4-37		2-225			2-228			2086262	12-37	
	4-109		2-226			3-59			2086263	12-37	
2075183	4-69		2-227			3-61			2086264	12-37	
	4-73		2-228			3-62			2086265	12-37	
2075658	1-89	39	3-59			4-38			2086270	12-23	
2076168	3-53	31	3-61			4-41			2086271	12-31	
2076601	3-65	22	3-62			4-43			2087294	4-166	
	3-69	28	4-38			4-44				10-31	28
	3-69	28	4-41			4-47				10-36	44
2076603	1-93		4-43			4-123				11-19	10
	4-127		4-44		2078825	2-213	14			11-23	12
	4-131		4-47		2079013	3-65	22			12-28	48
	4-135		4-123		2079040	1-93	14			12-32	48
2076661	1-98		2076903 2-157	1	2079042	4-13	13			12-38	41
	3-65	30	2-160			4-77		2087295		4-167	
	3-69	36	2-163			4-81				10-31	28
2076902	2-157	1	2-165		2079043	1-93				11-19	10
	2-160		2-167			4-25	1			12-16	41
	2-163		2-169			4-127				12-20	48
	2-165		2-171			4-131				12-24	55
	2-167		2-172			4-135				12-38	41
	2-169		2-173		2079044	4-113		2088033		4-13	13
	2-171		2-175		2079078	3-53	25			4-85	
	2-172		2-177		2079080	3-53	21			4-89	
	2-173		2-179		2079266	4-17	30	2088035		1-98	
	2-175		2-181			4-93				4-139	
	2-177		2-183			4-97		2088386		4-17	30
	2-179		2-185		2079273	7-15	6			4-101	
	2-181		2-186		2080826	4-13	38			4-105	
	2-183		2-187			4-17	41	2089087		4-13	6
	2-185		2-189			5-3	24			4-165	
	2-186		2-190			5-5	24	2089088		4-13	6
	2-187		2-193		2080833	4-13	15			4-165	
	2-189		2-195		2081196	1-91	5	2090340		4-160	
	2-190		2-196		2082215	4-131	18			9-2	14
	2-193		2-199		2082217	4-131	18	2091539		3-53	2

NUMERICAL INDEX (continued)

PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM	PART NO.	PAGE	ITEM
2091553	3-54	47		2-89			2-101			4-56	16
2091695	3-3			2-91			2-103			4-56	18
	3-9	26		2-93			2-105			4-61	7
	3-51	12		2-94			2-107			4-62	28
2091697	3-3	4		2-97			2-108			4-62	30
2091698	3-3	2		2-98			2-109			4-63	31
2092483	10-32	37		2-101			2-111			4-69	7
	10-35	31		2-107			2-112			4-70	28
	11-19	20		2-108			2-116			4-70	30
	11-23	18		2-109			2-117			4-71	31
	12-3			2-111			2-119			4-77	7
	12-29	68		2-112			2-121			4-78	28
	12-31	22		2-115			2-122			4-78	29
	12-38	54		2-116			2-123			4-79	31
2092484	10-32	37		2-117			2-124			4-85	7
	11-19	20		2-119			2-127			4-86	28
	12-3			2-121			2-129			4-86	29
	12-21	68		2-122			2-131			4-87	31
	12-23	22		2-123			2-133			4-93	14
	12-39	54		2-124			2-134			4-95	32
2092485	10-32	37		2-125			2-135			4-95	34
	11-19	20		2-127			2-137			4-95	35
	12-3			2-129			2-139			4-101	14
	12-39	54		2-131			2-141			4-103	32
2092486	4-170			2-133			2-143			4-103	34
	10-31	28		2-134			2-145			4-103	35
	10-36	44		2-136			2-149		3047451	3-54	43
	11-19	10		2-139			2-151			3-57	15
	11-23	12		2-141			2-152		3061454	4-9	35
	12-20	48		2-143		2098895	1-45			4-14	52
	12-24	55		2-145		2099769	3-51	20		4-18	56
	12-28	48		2-149		2306253	6-17	1	3066037	10-32	30
	12-32	48		2-151		2787344	4-56	16		10-36	43
	12-38	41		2-152			4-63	31		12-20	50
2092719	3-65	22	2097642	2-85	1		4-71	31		12-28	50
	3-69	28		2-89			4-79	31		12-38	43
2092720	3-65	22		2-91			4-87	31	3066781	4-59	
	3-69	28		2-93			4-95	35	4001209	1-98	70
2097289	11-23			2-94			4-103	35	4007075	2-93	12
2097620	1-41	8		2-97		2787349	4-51	9		2-165	12
2097641	2-85	1		2-98			4-56	15			

