CATERPILLAR®

Parts Manual

Models
TL1055C
TL1255C

S/N KDE00150 & After
S/N MDD00150 & After
S/N DHW00150 & After
S/N SXM00150 & After

31200724

Revised
August 21, 2012

EFFECTIVITY PAGE

May 4, 2012 - A - Original Issue Of Manual

August 21, 2012 - B - Revised Manual

EFFECTIVITY PAGE

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SMCS CODES - TELEHANDLER

1350 ENGINE COOLING SYSTEM

1351 RADIATOR & OIL COOLER

1353 RADIATOR

1354 EXPANSION TANK

1360 FAN GUARD

1374 HYDRAULIC OIL COOLER

1375 TORQUE CONVERTER / TRANSMISSION OIL COOLER

1380 COOLANT HOSE / LINES

1381 RADIATOR AND GUARD

1382 RADIATOR CAP

1384 ENGINE COOLANT HEATER

1386 HYDRAULIC FAN MOTOR

1387 HYDRAULIC FAN PUMP

1395 ENGINE COOLANT

1400 ELECTRICAL SYSTEM

1401 BATTERY

1402 BATTERY CABLE

1408 WIRING HARNESS

1416 START SWITCH

1417 FUSE / CIRCUIT BREAKER PANEL

1428 BACKUP LIGHT(S)

1429 LIGHT(S)

1430 DIRECTIONAL LIGHT

1431 BEACON LIGHT(S)

1432 STOP /LIGHT / TAILLIGHT

1434 CAB LIGHT

1434 FLOODLIGHT

OTHER ENGINE COMPONENTS

1801 ENGINE SOUND SUPPRESSION

1802 REFRIGERANT COMPRESSOR

1805 REFRIGERANT CONDENSER

1807 AIR CONDITIONER COMPRESSOR DRIVE

1808 AIR CONDITIONER LINES

1810 RADIATOR & REFRIGERANT CONDENSER

1812 HEATER / HOSE LINES

1813 RADIATOR HOSE

3000 TRANSMISSION & DRIVE LINE

3013 AXLE ARRANGEMENT

3020 DRIVE & STEERING AXLE

3061 TRANSMISSION GEARS

3063 TRANSMISSION SHAFT

3064 TRANSMISSION CASE

3065 TRANSMISSION CONTROL

3066 TRANSMISSION OIL PUMP

3067 TRANSMISSION OIL FILTER

3068 TRANSMISSION OIL FILTER BASE

3075 TRANSMISSION OUTPUT GEARS

3080 TRANSMISSION OIL

3081 TRANSMISSION OIL LEVEL

3082 TRANSMISSION MOUNT

3100 TORQUE CONVERTER, TORQUE DIVIDER, RETARDER

3101 TORQUE CONVERTER

3115 TORQUE CONVERTER/TRANSMISSION SCAVENGE PUMP

3133 TORQUE CONVERTER RELIEF VALVE

3139 MODULATING VALVE

3141 TORQUE CONVERTER SPEED SENSOR

3030 POWER SHIFT / HYDROSTATIC TRANSMISSION

3063 TRANSMISSION SHAFT

3064 TRANSMISSION CASE

3065 HYDROSTATIC CONTROL LINKAGE (EXTERNAL)

3066 POWER SHIFT TRANSMISSION OIL PUMP

3067 HYDROSTATIC TRANSMISSION OIL FILTER

3073 HYDROSTATIC MAIN CONTROL VALVE

3151 TRANSMISSION GOVERNOR

3154 TRANSMISSION LINES/HOSES

3155 TRANSMISSION CLUTCH

3157 TRANSMISSION SELECTOR VALVE

3159 TRANSFER GEARS

3160 TRANSMISSION PLANETARY

3167 TRANSMISSION HYDRAULIC CONTROL

3168 TRANSMISSION ELECTRONIC CONTROL

3174 SHIFT SOLENOID

3175 TRANSMISSION SPEED SENSOR

SMCS CODES - TELEHANDLER

3181 TRANSMISSION NEUTRALIZER CONTROL VALVE
3182 TRANSMISSION LUBRICATION RELIEF VALVE
3184 TRANSMISSION OIL COOLER BYPASS VALVE
3186 TRANSMISSION PLANET CARRIER
3187 TRANSMISSION CARRIER THRUST DISC/PLATE
3190 TRANSMISSION CLUTCH PLATE
3191 TRANSMISSION NEUTRALIZER
3194 TRANSMISSION TEMPERATURE SENSOR
3202 TRANSMISSION FLOW CONTROL VALVE
3203 DRIVE PUMP
3204 CHARGE PUMP
3205 SERVO CONTROL VALVE
3206 MANIFOLD/METERING VALVE
3207 SERVO CYLINDER
3210 HIGH PRESSURE RELIEF VALVE
3213 CHARGE & MAIN RELIEF VALVE
3214 SYNCHRONIZING VALVE
3215 POWER UNIT CONTROL LINKAGE
3216 TRANSMISSION UNDERSPEED/OVERSPEEDVALVE
3219 TRANSMISSION PILOT OVERSPEED VALVE
3220 TRAVEL SPEED CONTROL VALVE
3221 HYDROSTATIC POWER CASE
3222 PUMP HEAD
3223 TRANSMISSION UNDERSPEED OVERRIDE VALVE
3225 TRAVEL ELECTRONIC CONTROL
3226 DOWNSHIFT INHIBITOR

3250 DRIVE LINE/DRIVE AXLE

3251 UNIVERSAL JOINT
3252 FLEXIBLE COUPLING
3253 DRIVE SHAFT
3254 DRIVE LINE PINION
3256 BEVEL GEAR/SHAFT
3257 BEVEL GEAR SHAFT BEARING
3258 DIFFERENTIAL
3259 AXLE SHAFT
3260 AXLE HOUSING ASSEMBLY
3263 LIMITED SLIP DIFFERENTIAL
3267 DRIVE SHAFT SUPPORT
3268 AXLE HOUSING SUPPORT/TRUNNION
3269 PINION HOUSING
3274 CONSTANT VELOCITY UNIVERSAL JOINT
3275 DRIVE LINE BRAKE
3276 DRIVE LINE BRAKE DISC
3278 DRIVE AXLE
3281 BEVEL GEAR CASE
3282 AXLE
3283 DIFFERENTIAL CASE
3284 DIFFERENTIAL CARRIER

4000 DRIVE TRAIN

4004 BRAKE & AXLE
4005 STEERING & BRAKING SYSTEM

4050 FINAL DRIVE

4051 FINAL DRIVE & WHEEL
4052 FINAL DRIVE SEAL
4053 DRIVE AXLE HUB/GEAR ASSEMBLY
4054 FINAL DRIVE HUB
4055 FINAL DRIVE GEARS
4056 FINAL DRIVE - DRIVE SHAFT
4057 FINAL DRIVE PINION FLANGE
4059 FINAL DRIVE CASE/BORE
4084 FINAL DRIVE PLANETARY CARRIERS, HUB & RING GEAR
4091 FINAL DRIVE PINION
4092 PLANETARY FINAL DRIVE CARRIER
4093 FINAL DRIVE PLANETARY CARRIER THRUST SURFACE
4094 FINAL DRIVE PINION & FLANGE

4200 WHEEL & TIRE

4201 WHEEL
4202 RIM & TIRE
4203 TIRE
4208 WHEEL ASSEMBLY
4209 WHEEL RIM
4210 WHEEL STUD/BOLT/NUT
4220 MUD GUARD
4233 STEER TIRE, PNEUMATIC

SMCS CODES - TELEHANDLER

4250 BRAKING SYSTEM

4251 SERVICE BRAKE

4255 BRAKE DISC

4256 BRAKE CALIPER, HEAD ASSEMBLY

4257 BRAKE LINES

4258 BRAKE MASTER CYLINDER

4262 BRAKE ACTUATOR

4265 SERVICE BRAKE CONTROL VALVE

4267 PARKING BRAKE

4269 SERVICE BRAKE CONTROL

4273 FRICTION PADS

4282 PARKING/SECONDARY BRAKE CONTROL VALVE

4284 PARKING BRAKE CONTROL

4291 BRAKE HYDRAULIC RESERVOIR

4300 STEERING SYSTEM

4301 STEERING GEAR

4303 STEERING CYLINDER

4307 STEERING VALVE

4309 STEERING WHEEL

430S STEERING SENSOR

4310 STEERING COLUMN

4312 STEERING METERING PUMP

4313 STEERING AXLE

4314 KINGPIN

4318 TIE ROD

4321 STEERING KNUCKLE

4322 STEERING RELIEF VALVE

4329 TIE ROD END

4338 ADJUSTABLE STEERING COLUMN

4349 STEERING SELECTOR & PRESSURE CONTROL VALVE

4350 HYDROSTATIC DRIVE

4351 HYDRAULIC PROPEL/DRIVE MOTOR

4352 DRIVE CONTROL VALVE

4267 HYDROSTATIC DRIVE PARKING BRAKE

4354 BRAKE RELEASE PUMP

4355 HYDROSTATIC DRIVE GEAR REDUCER

4356 BRAKE & SHIFT VALVE

5000 IMPLEMENT CONTROLS

5001 IMPLEMENT CONTROL LOCK

5002 HYDRAULIC & FUEL TANK

5004 RIDE CONTROL SYSTEM

5005 AUXILIARY HYDRAULIC CIRCUIT

5050 HYDRAULIC SYSTEM

5051 HYDRAULIC CONTROL VALVE

5056 HYDRAULIC TANK

5057 HYDRAULIC HOSES/LINES

5059 PILOT CONTROL VALVE

505C PISTON CYLINDER

5063 IMPLEMENT CONTROL

5068 HYDRAULIC OIL FILTER

5069 MAIN SYSTEM RELIEF VALVE

506P IMPLEMENT PRIORITY VALVE

5070 PISTON PUMP

5071 HYDRAULIC OIL COOLER BYPASS VALVE

5072 PILOT SYSTEM RELIEF VALVE

5084 IMPLEMENT PUMP

5086 COMPENSATOR VALVE

5093 HYDRAULIC FILTER BYPASS VALVE

5095 HYDRAULIC OIL

509T HYDRAULIC OIL TEMPERATURE SENSOR

5100 LIFT, TILT, TIP & OTHER CONTROLS

5102 LIFT/HOIST CYLINDER

5103 LIFT CYLINDER TRUNNION

5104 TILT CYLINDER

5106 TIP CYLINDER

5116 ATTACHMENT CYLINDER

5130 LOCK VALVE

5141 HITCH LIFT CYLINDER

5144 FRAME LEVEL VALVE

5486 EXTENSION CYLINDER

SMCS CODES - TELEHANDLER

5700 IMPLEMENT ELECTRONIC CONTROLS

5701 IMPLEMENT ELECTRONIC CONTROL MODULE (PREPROGRAMMED)

5702 IMPLEMENT HYDRAULIC ELECTRONIC CONTROL

5705 JOYSTICK

5734 HYDRAULIC SYSTEM WIRING HARNESS

5735 FRAME LEVEL CONTROL

5800 OTHER CONTROLS

5804 SIDESHIFT CYLINDER

5811 LOAD CONTROL VALVE

5816 COMPENSATING CYLINDER

5823 FORK LEVEL CYLINDER

6400 MATERIAL HANDLING ATTACHMENTS

6402 STANDARD CARRIAGE

6404 LIFT CHAIN

6405 LIFT FORK

6408 ROTATING CARRIAGE

6409 WIDE CARRIAGE

6416 BALE CLAMP

6425 SIDESHIFT CARRIAGE

6459 LIFTING HOOK

6460 TELESCOPING BOOM

6461 MAN BASKET

7050 FRAME

7051 MAIN FRAME

7056 COUNTERWEIGHT

7059 FUEL TANK, SEAT & FRAME

7078 FRAME LEVEL CYLINDER

7100 HITCH

7105 FIXED DRAWBAR

7116 HITCH/TOW PIN

7150 GUARD

7151 CRANKCASE GUARD

7154 ENGINE GUARD

7155 RADIATOR GUARD

7159 OVERHEAD GUARD

7165 CAB/CANOPY SCREEN

7170 RADIATOR GRILLE

7177 ROPS ROLL BAR

7192 WHEEL CHOCK

7200 SUSPENSION

7221 OUTRIGGER

7250 BODY

7251 HOOD

7252 FENDER

7253 PLATFORM/DECK

7257 BATTERY BOX/SUPPORT

7261 PLATFORM SOUND SUPPRESSION

7262 FIREWALL

7263 ENGINE ENCLOSURE

7264 ROPS MOUNT REAR SUPPORT

7265 FLOORPLATE

7266 ROPS MOUNT

7267 BODY PANEL

726A ACCESS PANEL

726M FLOORMAT

7272 RADIATOR ENCLOSURE/SHROUD

7273 COMPARTMENT DOOR

7276 MACHINE ENCLOSURE

7300 OPERATOR STATION

7301 CAB

7302 CANOPY

7304 CAB HEATER

7305 WINDSHIELD WIPER

7306 WINDSHIELD WASHER

7307 SEAT/ARM CUSHION

7308 CAB DOOR

7309 HEATER & AIR CONDITIONER

7310 WINDOW GLASS

7312 SEAT ASSEMBLY

7314 DASH

7316 CAB AIR FAN

7319 MIRROR

SMCS CODES - TELEHANDLER

731S SEAT AIR COMPRESSOR

7320 AIR CONDITIONER

7321 SEAT FRAME

7322 AIR CONDITIONER RECEIVER/DRYER

7323 ROPS/FOPS CANOPY

7324 SUSPENSION SEAT

7325 ROPS/FOPS CAB

7327 SEAT BELT

7329 CAB LINER/SOUND SUPPRESSION

7330 CANOPY SOUND SUPPRESSION

7332 ELECTRIC SWITCH (MANUAL)

7338 RADIO

7340 WINDSHIELD

7342 CAB AIR FILTER

7400 PROTECTION DEVICES, ALARMS & INDICATORS

7402 WARNING HORN

7405 INSTRUCTION/WARNING PLATE/FILM

7406 BACK-UP ALARM

7407 ACTION ALARM

7420 LOW COOLANT TEMPERATURE ALARM

7421 LOW ENGINE OIL PRESSURE SHUTOFF

7431 WARNING/INDICATOR LIGHT

7450 GAUGES & INDICATORS

7451 INSTRUMENT PANEL/CONTROL PANEL

7452 AIR FILTER INDICATOR

7453 ENGINE COOLANT TEMPERATURE GAUGE

7455 ENGINE OIL PRESSURE GAUGE

7459 TRANSMISSION GEAR/SHIFT INDICATOR

7462 TACHOMETER

7463 SPEEDOMETER

7464 ODOMETER

7467 AMMETER

7470 COOLANT LEVEL GAUGE

7475 OIL FILTER INDICATOR

7477 TRANSMISSION/TORQUE CONVERTER TEMPERATURE GAUGE

7478 SERVICE METER

7479 SIGHT GAUGE

7480 ELECTRIC HOUR METER

7481 FUEL LEVEL GAUGE

7483 LOW FUEL LEVEL INDICATOR

7485 ENGINE LOW OIL PRESSURE INDICATOR

7486 PARKING BRAKE INDICATOR LIGHT

7488 HYDRAULIC OIL TEMPERATURE GAUGE

7490 ELECTRONIC MONITORING SYSTEM/PANEL

7493 GROUND SPEED SENSOR

7496 ALTERNATOR INDICATOR

7500 MAINTENANCE

7501 FIRST SERVICE INTERVAL

7502 SECOND SERVICCE INTERVAL

7503 THIRD SERVICE INTERVAL

7504 FOURTH SERVICE INTERVAL

7507 LIFT ARM SUPPORT

751B BATTERY CHARGER

7524 250 SERVICE HOUR MAINTENANCE

7525 500 SERVICE HOUR MAINTENANCE

7526 1000 SERVICE HOUR MAINTENANCE

7527 2000 SERVICE HOUR MAINTENANCE

7534 750 SERVICE HOUR MAINTENANCE

7542 SOS

7550 COMMON SUBJECTS

7551 BEARINGS

7552 GEARS

7553 FASTENERS, CONNECTORS & HARDWARE

7554 HOSES & LINES

7555 SEALS & GASKETS

7556 WIRE

7557 INFORMATION/IDENTIFICATION PLATES & TRANSFERS

7558 WEAR SLEEVES

7559 PAINTED SURFACES

755R RETAINER SYSTEM

7560 COMPARTMENT FLUID LEVEL

7561 DUO-CONE SEAL

7562 HYDRAULIC CYLINDERS

7569 TROUBLESHOOTING PROCEDURE

756P MAINTENANCE PARTS

7570 PRODUCT UPDATE PROGRAM

7571 SOS ENGINE PRODUCT INFORMATION

7573 SOS TRANSMISSION PRODUCT INFORMATION

7574 SOS DRIVE TRAIN PRODUCT INFORMATION

7575 SOS HYDRAULIC PRODUCT INFORMATION

7576 SOS OTHER PRODUCT INFORMATION

7577 SOS FLUID INFORMATION

7578 SOS FILTER INFORMATION

7579 FLUID

7581 PAINTING & LUBRICATION

7588 PRE-DELIVERY INSPECTION

7589 PRE-DELIVERY WARRANTY

7590 DELIVERY

7591 FIRST REVISIT

7592 SECOND REVISIT

7593 USER ACCEPTANCE/FIELD FOLLOW

7594 CONTRACT FIELD FOLLOW RECORDS

7595 GENERAL OVERHAUL (NO FAILURE)

7600 MACHINE ELECTRONIC CONTROLS & DATA MANAGEMENT SYSTEMS

7606 PRODUCT LINK SYSTEM

7610 PROGRAMMABLE CONTROL

7620 SOFTWARE

7630 INTERLOCK ELECTRONIC CONTROL MODULE

7631 MACHINE SECURITY SYSTEM

7700 SERVICE CLAIM CATEGORIES

7714 ROLL OVER PROTECTION STRUCTURE DECERTIFIED

7715 ROLL OVER PROTECTION STRUCTURE RECERTIFIED

7729 HEUI ACTUATION (OIL)

7730 REPAIR PROCEDURE (RP) PROGRAM

7750 DEFECTIVE PARTS STOCK

7751 PRODUCT IMPROVEMENT PROGRAM (PIP)

7752 PARTS STOCK CLAIM

7754 REMANUFACTURED COMPONENT

7755 PRODUCT SUPPORT PROGRAM (PSP)

7756 SERVICE ENGINEERING REQUESTED WORK

7760 INFORMATION RECORD ONLY

7762 DELIVERY DATE/SERVICE FEE

7770 SOS GENERAL INFORMATION

7771 SOS "URGENT" REPORTS

7851 FUEL FILTER INDICATOR

7856 STABILITY INDICATOR

7858 ANGLE INDICATOR

7859 ENGINE OIL TEMPERATURE GAUGE

7942 PERSONALITY MODULE - UPDATE ELECTRONIC COMPONENTS

7950 MISCELLANEOUS

79M4 OTHER ADJUSTMENTS

SECTION 1
FRAME & ATTACHING PARTS

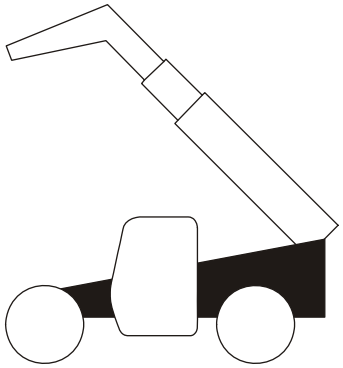

Figure 1-1 Frame and Attaching Parts

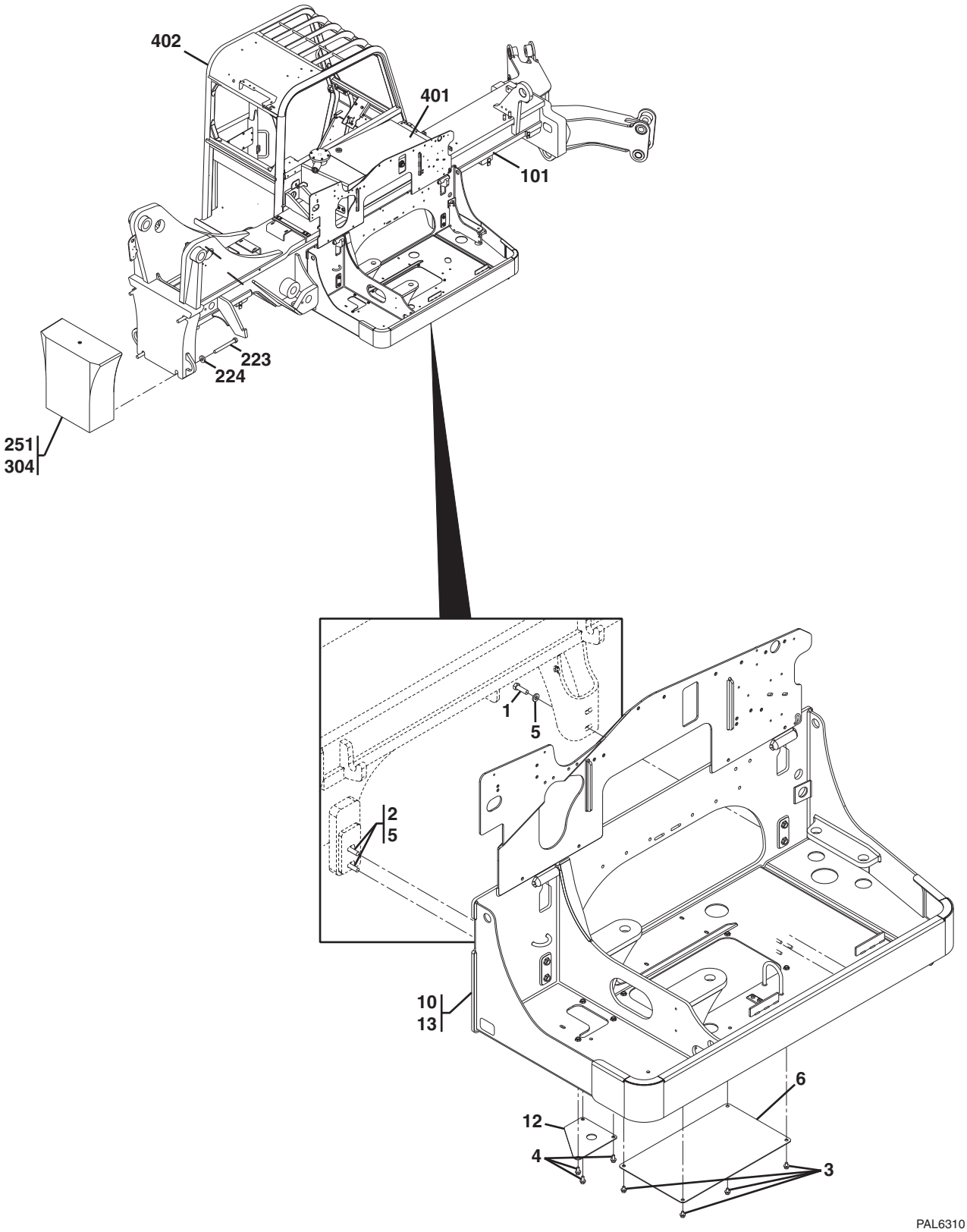

Figure 1-1 Frame and Attaching Parts

Item	Part Number	Qty.	Description	Rev.
	389-3468	Ref	ENGINE POD INSTALLATION, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, (not available to order, see items 1 thru 13 for service)	D
	389-3597	Ref	ENGINE POD INSTALLATION, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**, (not available to order, see items 1 thru 13 for service)	C
1	304-3781	2	HEX HD CAPSCREW, 5/8-11X2-1/4, GR8, (torque to 210 lb-ft/285 Nm)	
2		2	HEX HD CAPSCREW, 5/8-11X4, GR8, (torque to 210 lb-ft/285 Nm)	
3		4	SCREW, 3/8-16X1/2	
4	298-1358	3	SCREW, 3/8-16X3/4	
5	298-7393	4	WASHER, 5/8	
6	389-3446	1	COVER	
7		Ref	ENGINE INSTALLATION, (not shown), (see Figure 4-1 for details)	
8		Ref	RADIATOR INSTALLATION, (not shown), (see Figure 4-4 for details)	
9		Ref	FRAME ELECTRICAL INSTALLATION, (not shown), (see Figure 10-1 for details)	
10	389-3475	1	FOAM GASKET SEAL	
11		Ref	EXHAUST INSTALLATION, (not shown), (see Figure 4-6 for details)	
12	389-3536	1	COVER	
13	389-3445	1	ENGINE POD WELDMENT	
101	NSS	Ref	FRAME WELDMENT	
223		4	HEX HD CAPSCREW, 1-8X9-1/2, GR8, (torque to 860 lb-ft/1170 Nm)	
224	298-7875	4	WASHER	
251	389-3579	1	COUNTERWEIGHT, **(if equipped)**	
	389-3581	1	COUNTERWEIGHT W/ PINTLE HITCH ASSY, **(if equipped)**, (includes items 303 & 304)	A
303		Ref	PINTLE HOOK, (not shown), (see Figure 1-4 for details)	
304	389-3580	1	COUNTERWEIGHT	
401		Ref	HYDRAULIC TANK, (see Figure 9-14 for details)	
402		Ref	CAB WELDMENT, (see Figure 6-1 for details)	

Figure 1-2 Covers

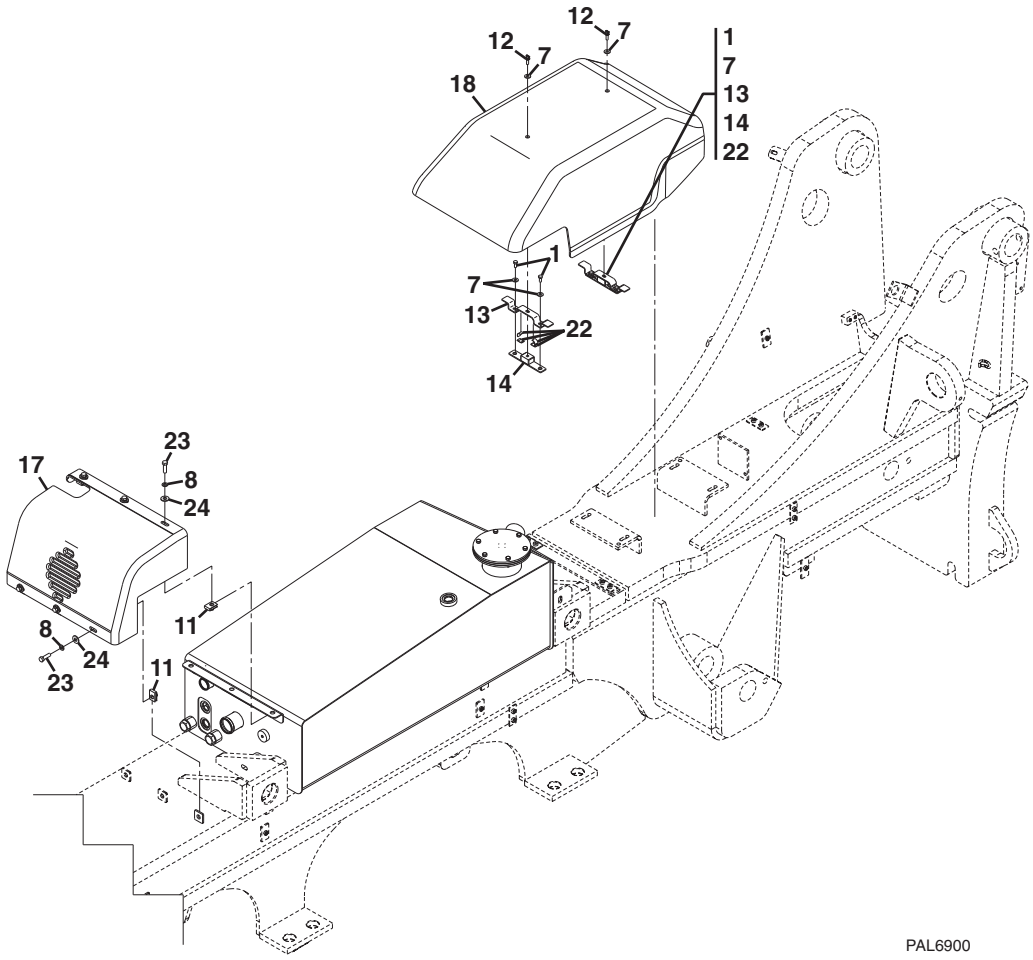

Figure 1-2 Covers

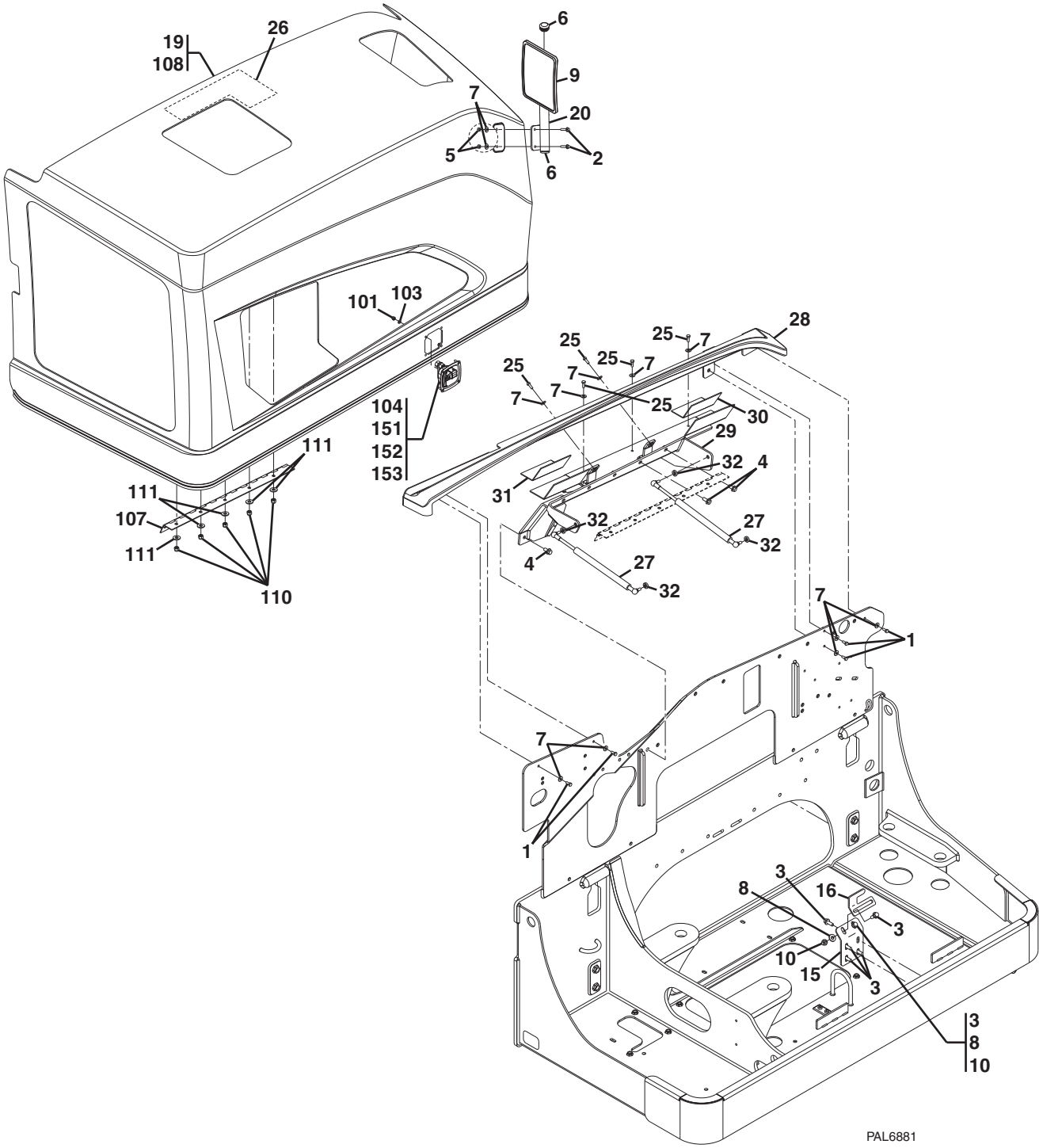

Figure 1-2 Covers

Item	Part Number	Qty.	Description	Rev.
	389-3550	Ref	HOOD & COVERS INSTALLATION, (not available to order, see items 1 thru 32 for service)	E
1	297-7010	9	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
2		2	SCREW, 1/4-20X1	
3	298-1359	6	SCREW, 3/8-16X1	
4		11	SCREW, 3/8-16X3/4, GR8, (torque to 45 lb-ft/60 Nm)	
5	298-0549	2	HEX LOCKNUT, 1/4-20	
6	298-0565	2	PLUG	
7	298-7372	18	WASHER, 1/4	
8	298-7374	8	WASHER, 3/8	
9	309-2991	1	RH MIRROR, (includes washer & locknut)	
10	298-8049	2	HEX NUT, 3/8-16	
11	298-1609	6	TINNERMAN NUT	
12	331-6124	2	THUMB SCREW, 1/4-20X3/4	
13	334-9473	2	BRACKET	
14	334-9476	2	BRACKET	
15	389-3454	1	BRACKET	
16	389-3455	1	BRACKET	
17	389-3544	1	COVER	
18	389-3551	1	COVER	
19	389-3562	1	HOOD COVER ASSY, (includes items 101, 103, 104, 107, 108, 110 & 111)	E
20	389-3564	1	BRACKET	
22	303-4911	8 in	TAPE, 1/16X1/2	
23	297-7032	3	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
24	298-7380	6	LOCKWASHER, 3/8	
25	297-7011	5	HEX HD CAPSCREW, 1/4-20X3/4	
26	389-3649	1	INSULATION	
27	399-5811	2	GAS SPRING	
28	389-3560	1	COVER HINGE	
29	389-3557	1	HINGE MOUNT SUPPORT	
30	422-1416	1	INSULATION	
31	422-1417	1	INSULATION	
32	298-7364	4	WASHER, 5/16	
101	303-4779	4	HEX LOCKNUT, M6X1	
103	4Y-4667	4	WASHER, 6mm	
104	303-4836	1	COMPRESSION LATCH, (includes items 151 thru 153)	E
107	389-3561	1	ENGINE COVER HINGE	
108	389-3578	1	ENGINE COVER	
110	418-0833	5	LOCKING NUT	
111	298-7374	5	WASHER, 3/8	
151	298-7363	6	LOCKWASHER	
152	303-4779	4	LOCKNUT	
153	5P-8500	1	KEY	

Figure 1-2 Covers

Item	Part Number	Qty.	Description	Rev.

Figure 1-3 Outrigger Installation

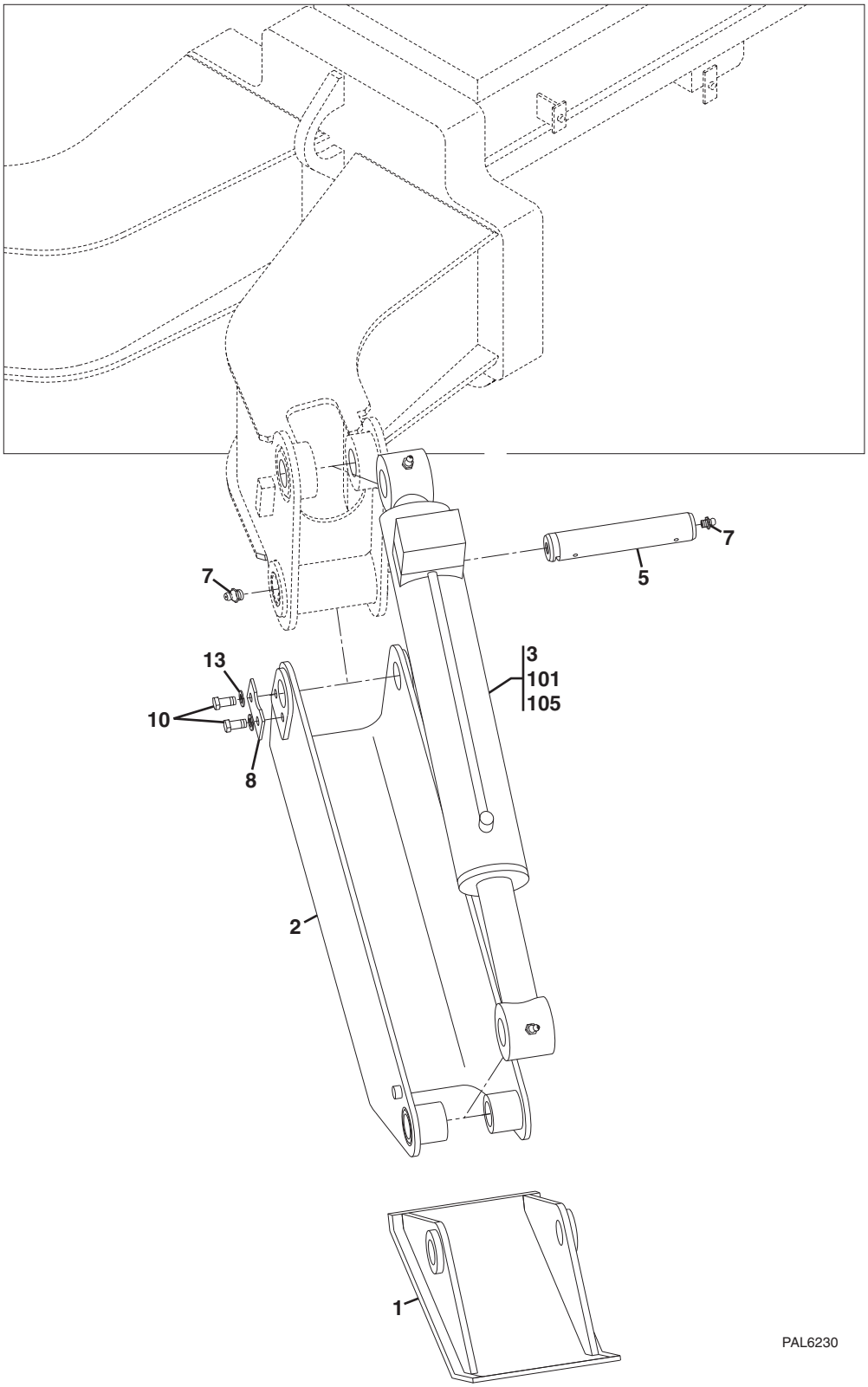

Figure 1-3 Outrigger Installation

Item	Part Number	Qty.	Description	Rev.
	389-3570	Ref	OUTRIGGER INSTALLATION, (not available to order, see items 1 thru 13 for service)	C
1	299-0278	2	OUTRIGGER SHOE	
2	299-0277	2	OUTRIGGER WELDMENT	
3	299-1323	2	OUTRIGGER CYLINDER ASSY, (includes items 101 & 105)	B
5	298-8430	2	PIN	
7	298-1612	4	GREASE FITTING	
8	298-6849	2	PLATE	
9	297-7036	2	HEX HD CAPSCREW, 3/8-16X4-1/4, GR5, (torque to 30 lb-ft/41 Nm)	
10	297-7039	4	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 75 lb-ft/102 Nm)	
13		4	WASHER, 1/2	
101		Ref	OUTRIGGER CYLINDER & ATTACHING HARDWARE, (see Figure 9-6 for details)	
105		Ref	STRAIGHT FITTING, (see Figure 8-14 for details)	

Figure 1-4 Pintle Hook

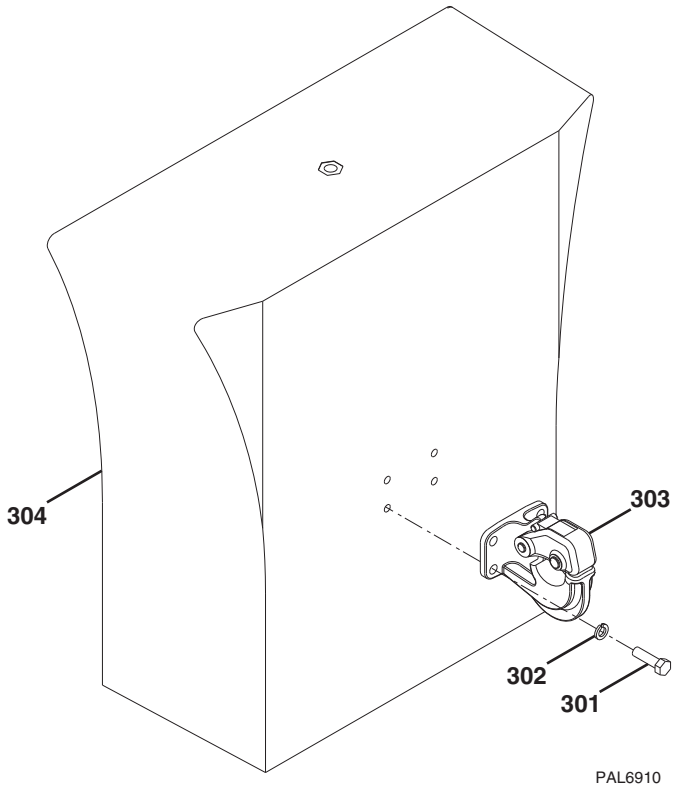

Figure 1-4 Pintle Hook

Item	Part Number	Qty.	Description	Rev.
301	298-7922	4	HEX HD CAPSCREW, 1/2-13X1-3/4, GR8, (torque to 105 lb-ft/145 Nm)	
302	303-4799	4	LOCKWASHER, 1/2	
303	299-0361	1	PINTLE HOOK	
304		Ref	COUNTERWEIGHT, (see Figure 1-1 for details)	

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SECTION 2
BOOM

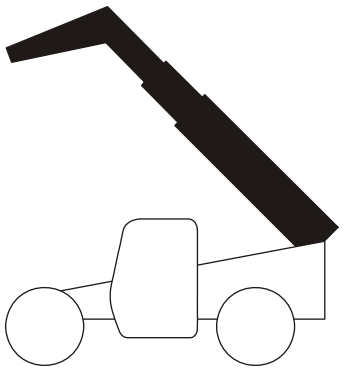


Figure 2-1 Boom Installation

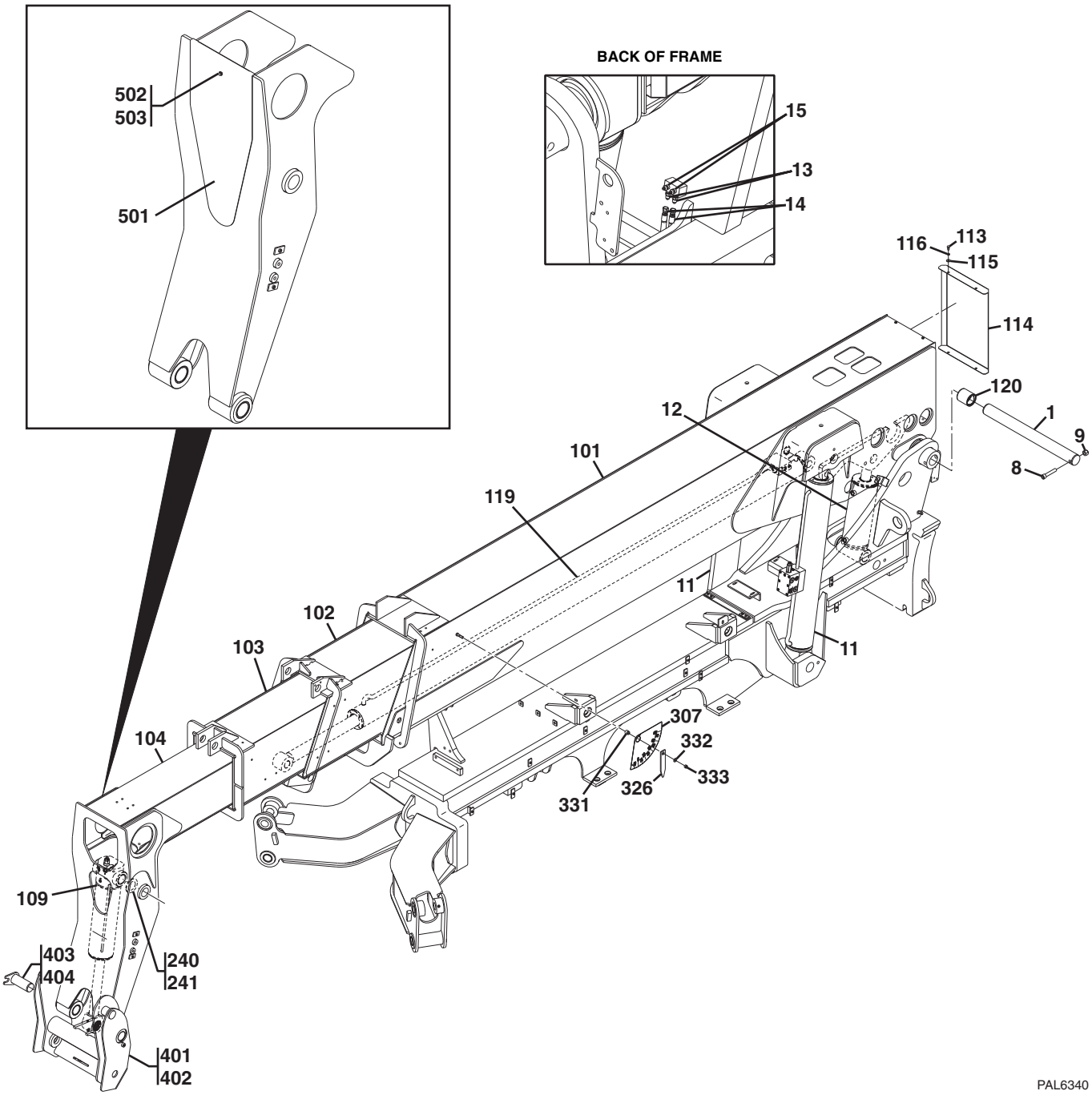


Figure 2-1 Boom Installation

Item	Part Number	Qty.	Description	Rev.
	299-1302	Ref	BOOM INSTALLATION, **(TL1055C)**, (not available to order, see items 1 thru 15 for service)	C,8
	299-1318	Ref	BOOM INSTALLATION, **(TL1255C)**, (not available to order, see items 1 thru 15 for service)	C,8
1	298-0563	1	PIN	
8	298-8027	1	SOCKET HD CAPSCREW, 3/4-10X6, GR8	
9	298-1577	1	LOCKNUT, 3/4-10	
11		Ref	LIFT CYLIINDER & MOUNTING HARDWARE, (see Figure 9-1 for details)	
12		Ref	COMPENSATION CYLINDER & MOUNTING HARDWARE, (see Figure 9-4 for details)	
13	298-1597	2	STRAIGHT FITTING	
14	298-7300	2	HOSE ASSY	
15	298-1612	2	GREASE FITTING	
	389-3620	1	BOOM ASSY, **(TL1055C)**, (includes items 101 thru 106, 109, 113 thru 116, 119, 122 thru 125, 197, 212, 240 & 241)	B
	389-3585	1	BOOM ASSY, **(TL1255C),** (includes items 101 thru 106, 109, 113 thru 116, 119, 122 thru 125, 197, 212, 240 & 241)	B
101		Ref	FIRST BOOM SECTION, (see Figure 2-2 for details)	
102		Ref	SECOND BOOM SECTION, (see Figure 2-3 for details)	
103		Ref	THIRD BOOM SECTION, (see Figure 2-4 for details)	
104		Ref	FOURTH BOOM SECTION, (see Figure 2-5 for details)	
105		Ref	EXTEND CHAINS, (not shown), (see Figure 2-6 for details)	
106		Ref	RETRACT CHAINS, (not shown), (see Figure 2-7 for details)	
109		Ref	TILT CYLINDER & MOUNTING HARDWARE, (see Figure 9-3 for details)	
113	297-7029	4	HEX HD CAPSCREW, 3/8-16X3/4, GR5, (torque to 35 lb-ft/48 Nm)	
114	331-3812	1	COVER, **(TL1055C)**	
	331-3813	1	COVER, **(TL1255C)**	
115	298-7374	4	WASHER, 3/4	
116	298-7380	4	WASHER	
119		Ref	EXTEND/RETRACT CYLINDER & MOUNTING HARDWARE, (see Figure 9-2 for details)	
120	298-6863	2	BUSHING	
125		Ref	BOOM HYDRAULICS, (not shown), (see Figure 8-11 for details)	
240		AR	SHIM, 2.5X3.875X.075	
241		AR	SHIM, 2.5X3.875X.134	
307		Ref	ANGLE DECAL, (see Figure 11-2 for details)	
326	320-7883	1	ANGLE INDICATOR	
331	320-7882	1	SPACER	
332	298-7365	1	WASHER, 3/8	
333	309-6301	1	HEX LOCKNUT, 3/8-16	
401		Ref	MANUAL QUICK COUPLER, (see Figure 2-8 for details)	
402		Ref	HYDRAULIC QUICK COUPLER, (see Figure 2-9 for details)	
403		Ref	PIN, (see Figure 2-8 for details)	
404		Ref	PIN, (see Figure 2-9 for details)	
	389-3619	Ref	FRONT BOOM COVER INSTALLATION, (not available to order, see items 501 thru 503 for service)	A
501	389-3618	1	BOOM HEAD COVER	
502	297-7011	1	HEX HD CAPSCREW, 1/4-20X3/4, GR5	

Figure 2-1 Boom Installation (Continued)

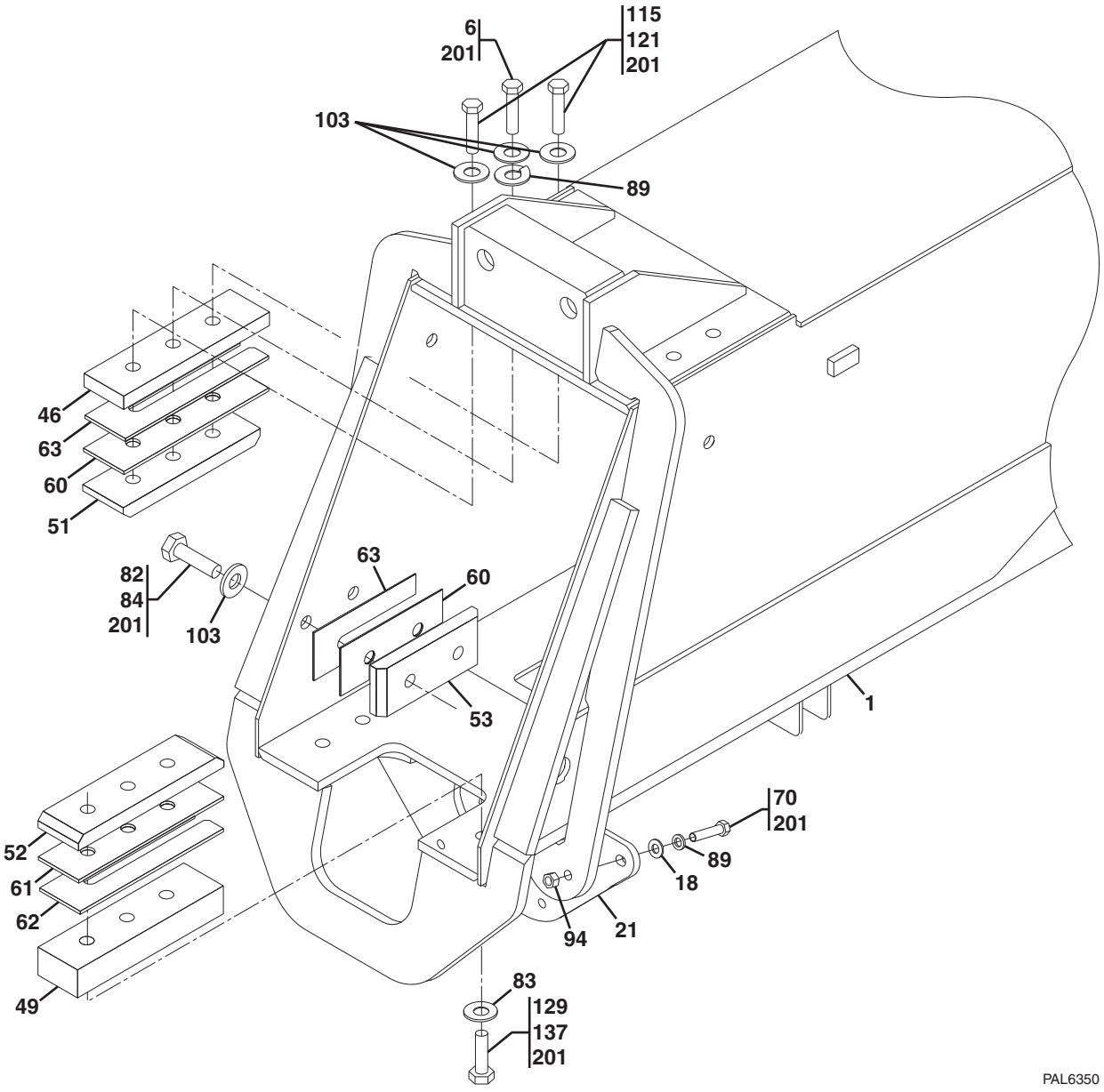
Item	Part Number	Qty.	Description	Rev.
503		AR	LOCTITE® 242™	

Figure 2-1 Boom Installation (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 2-2 First Boom Section

TL1055C



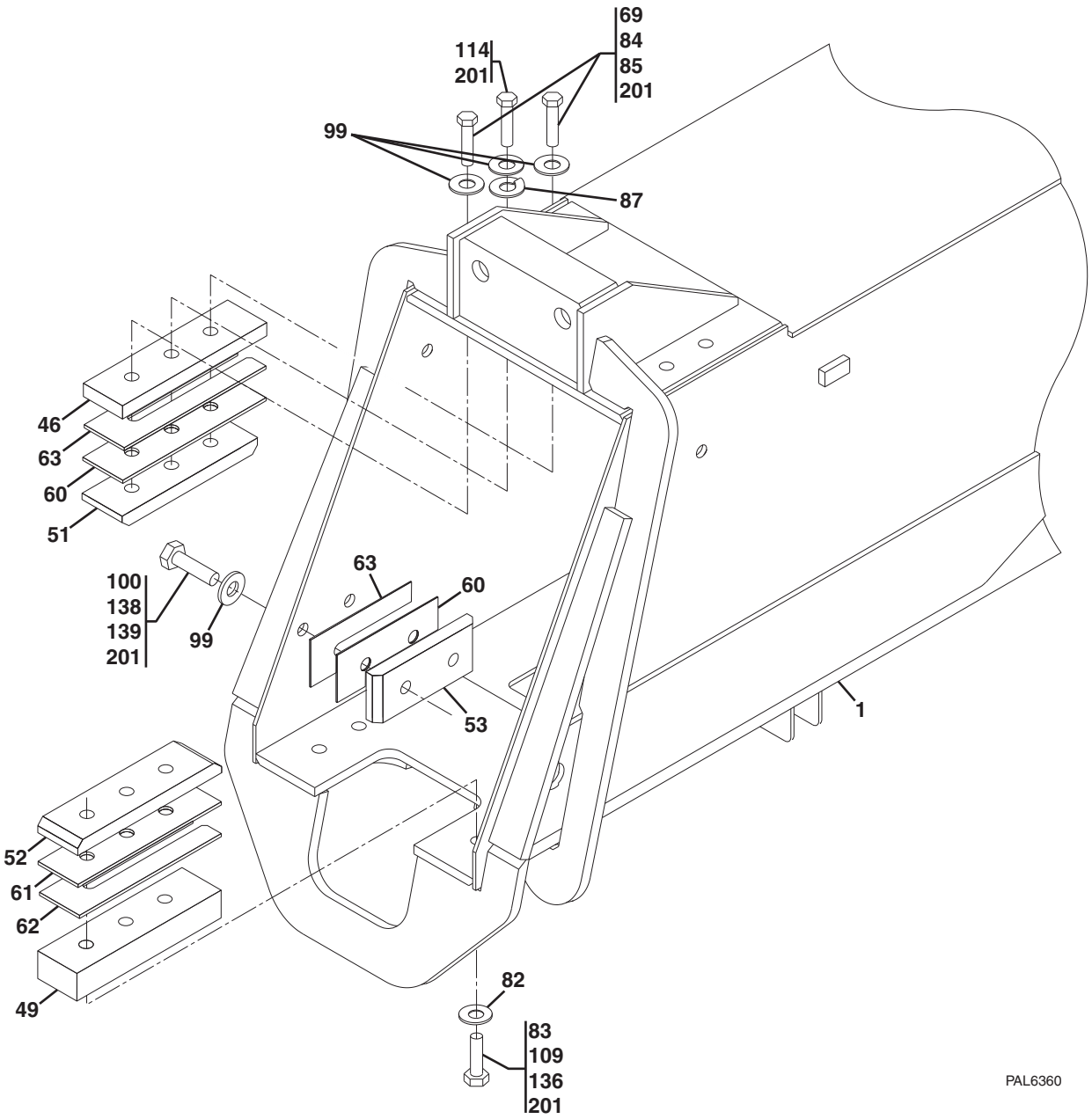
Note: Wear Pad Shimming:
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-2 First Boom Section

Item	Part Number	Qty.	Description	Rev.
1	354-3994	1	FIRST BOOM SECTION WELDMENT	
6	297-7041	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
18	298-7367	2	WASHER, 1/2	
21	300-6124	1	EXTEND/RETRACT CYLINDER SUPPORT PLATE	
46	298-6879	2	WEAR PAD SUPPORT	
49	298-6875	2	WEAR PAD SUPPORT	
51	298-6841	2	WEAR PAD	
52	364-1063	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
60	298-1644	6	SPACER	
61	298-1686	2	SPACER	
62	298-1687	AR	SHIM, 0.0598	
63	298-1636	AR	SHIM, 0.0598	
70	297-7044	2	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5, (torque to 85 lb-ft/116 Nm)	
82	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
83	298-7392	6	WASHER	
84	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
89	298-7382	4	SPRING LOCKWASHER	
94	298-0557	2	HEX NUT, 1/2-13	
103	298-1628	14	WASHER, 3/8	
115	297-7059	AR	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
121	297-7060	AR	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
129	297-7074	AR	HEX HD CAPSCREW, 1/2-20X2-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
137	297-7075	AR	HEX HD CAPSCREW, 1/2-20X2-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-2 First Boom Section

TL1255C



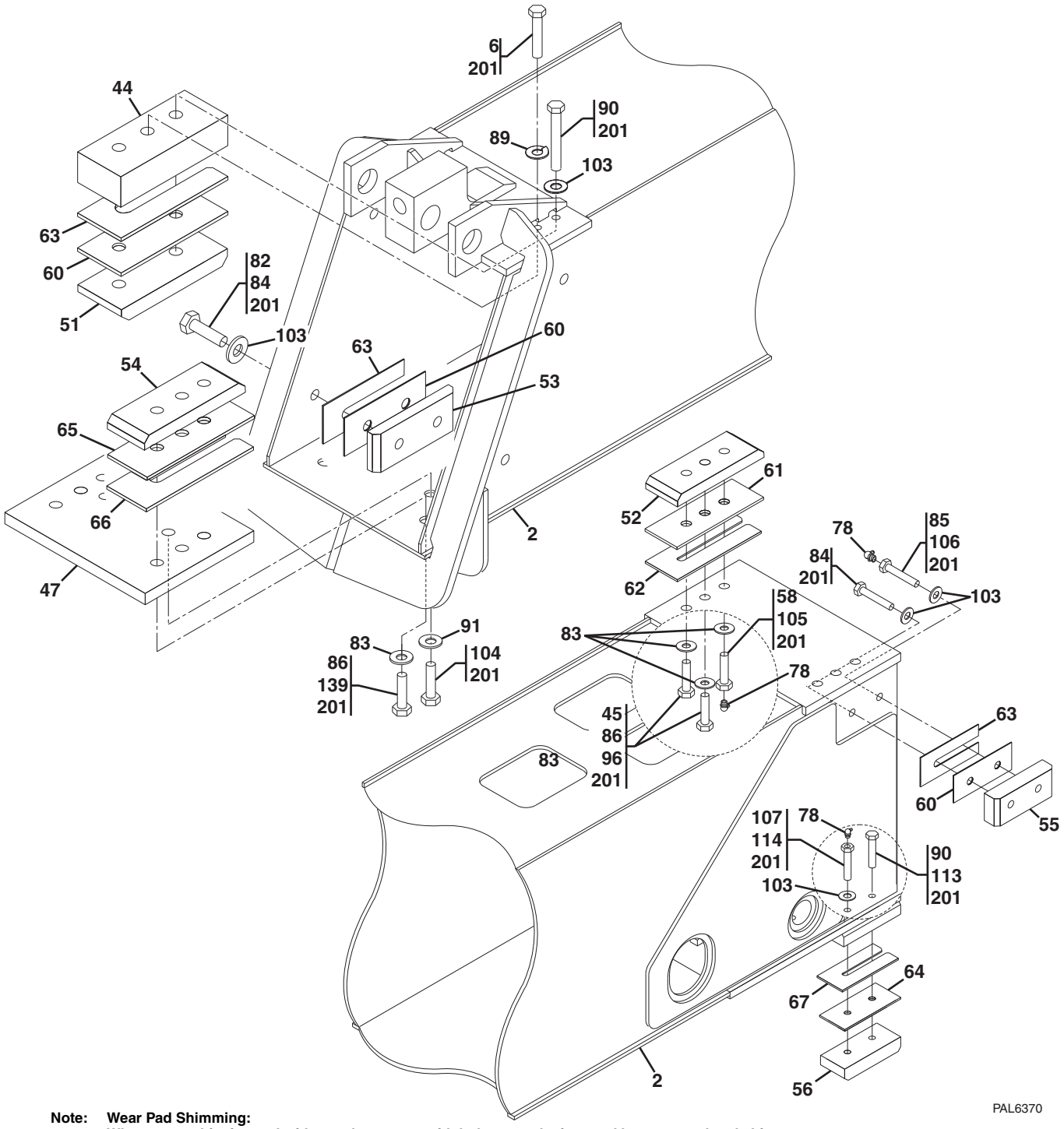
Note: Wear Pad Shimming:
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-2 First Boom Section

Item	Part Number	Qty.	Description	Rev.
1	354-5640	1	FIRST BOOM SECTION WELDMENT	
46	298-6879	2	WEAR PAD SUPPORT	
49	300-6121	2	WEAR PAD SUPPORT	
51	298-6841	2	WEAR PAD	
52	364-1063	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
60	298-1644	6	SPACER	
61	298-1686	2	SPACER	
62	298-1687	AR	SHIM, .0598	
63	298-1636	AR	SHIM, .0598	
69	297-7058	AR	HEX HD CAPSCREW, 3/8-24X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
82	298-7392	6	WASHER	
83	297-7075	AR	HEX HD CAPSCREW, 1/2-20X2-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
84	297-7060	AR	HEX HD CAPSCREW, 3/8-24X1-3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
85	297-7059	AR	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
87	298-7382	2	SPRING LOCKWASHER	
99	298-1628	14	WASHER, 3/8	
100	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
109	297-7074	AR	HEX HD CAPSCREW, 1/2-20X2-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
114	297-7039	2	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
136	297-7073	AR	HEX HD CAPSCREW, 1/2-20X2-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
138	297-7055	AR	HEX HD CAPSCREW, 3/8-24X.62, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
139	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-3 Second Boom Section

TL1055C

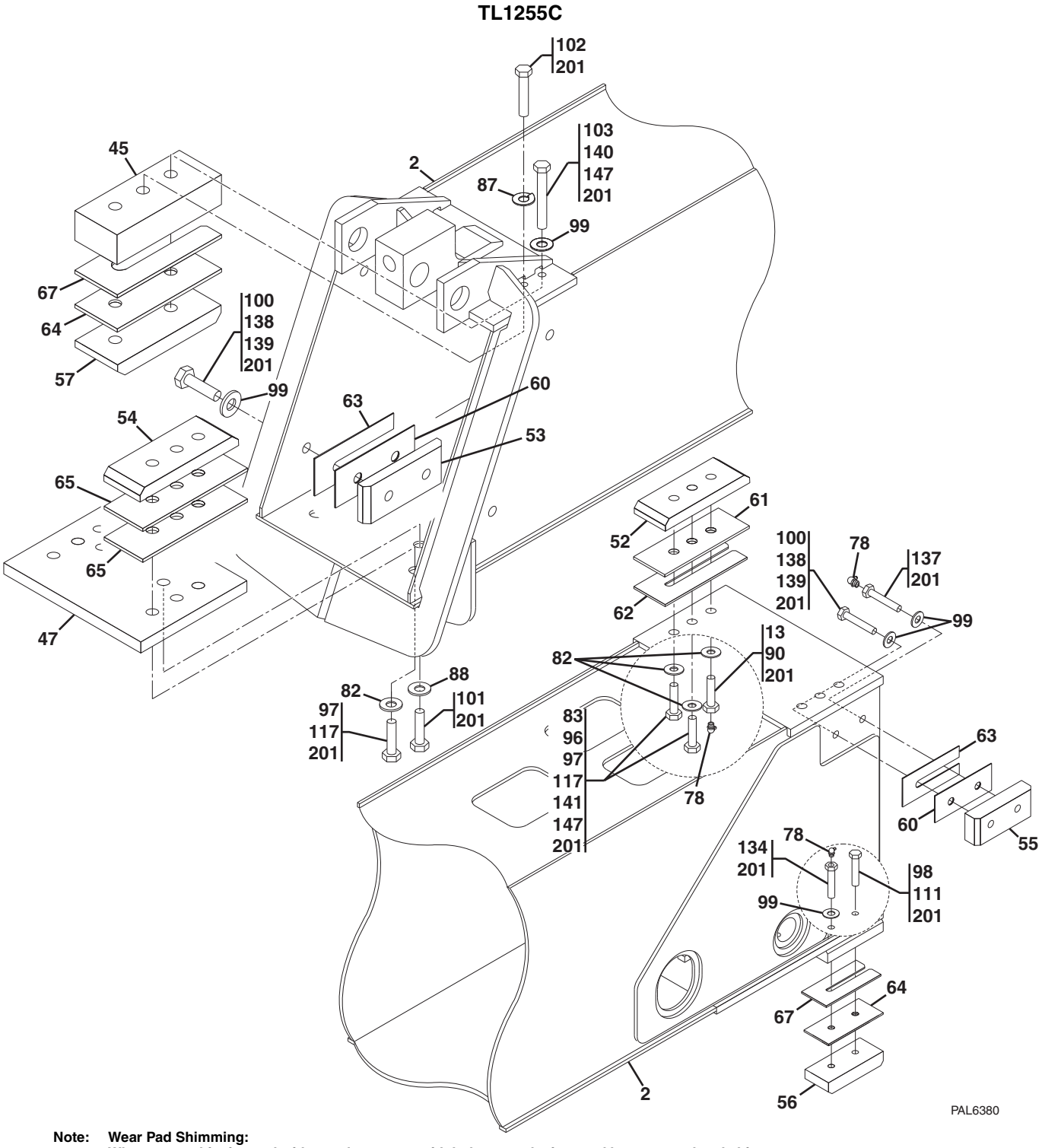


Note: **Wear Pad Shimming:**
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-3 Second Boom Section

Item	Part Number	Qty.	Description	Rev.
2		1	SECOND BOOM SECTION WELDMENT	
6	297-7041	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
44	298-6878	2	WEAR PAD SUPPORT	
45	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
47	355-9533	1	SUPPORT PLATE	
51	298-6841	2	WEAR PAD	
52	364-1063	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
54	364-1062	2	WEAR PAD	
55	298-6903	2	WEAR PAD	
56	298-6905	2	WEAR PAD	
58	298-1688	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 45-50 lb-ft/61-68 Nm)	
60	298-1644	8	SPACER	
61	298-1686	2	SPACER	
62	298-1687	AR	SHIM, .0598	
63	298-1636	AR	SHIM, .0598	
64	298-1834	2	SPACER	
65	298-1665	2	SPACER	
66	298-1664	AR	SHIM, .0598	
67	298-1661	AR	SHIM, .0598	
78	298-1615	6	GREASE FITTING	
82	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
83	298-7392	12	WASHER	
84	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
85	298-1690	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
86	297-7070	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
89	298-7382	2	SPRING LOCKWASHER	
90	297-7062	AR	HEX HD CAPSCREW, 3/8-24X2-1/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
91	298-7394	2	WASHER, 3/4	
96	297-7068	AR	HEX HD CAPSCREW, 1/2-20X1, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
103	298-1628	14	WASHER, 3/8	
104	297-7052	2	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5, (torque to 285 lb-ft/388 Nm)	
105	298-1689	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-1/2, (torque to 45-50 lb-ft/61-68 Nm)	
106	298-1721	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X7/8, (torque to 15-17 lb-ft/20-23 Nm)	
107	298-1722	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X2-1/4, (torque to 15-17 lb-ft/20-23 Nm)	
113	297-7061	AR	HEX HD CAPSCREW, 3/8-24X2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
114	298-1693	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X2, (torque to 15-17 lb-ft/20-23 Nm)	
139	297-7031	AR	HEX HD CAPSCREW, 1/2-20X1-3/8, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-3 Second Boom Section

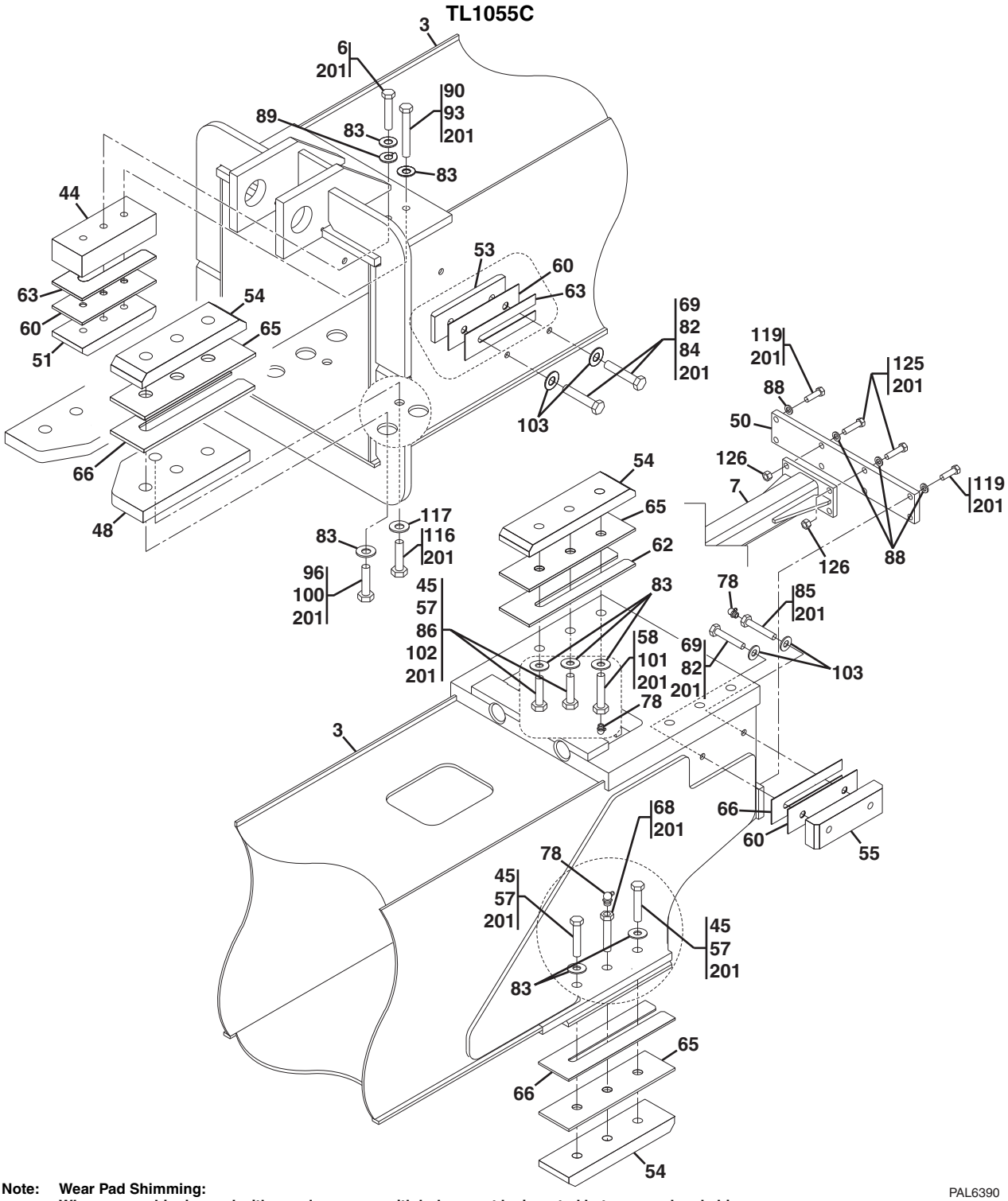


Note: **Wear Pad Shimming:**
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-3 Second Boom Section

Item	Part Number	Qty.	Description	Rev.
2		1	SECOND BOOM SECTION WELDMENT	
13	298-1688	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 45-50 lb-ft/61-68 Nm)	
45	367-6771	2	WEAR PAD SUPPORT	
47	298-6876	1	SUPPORT PLATE	
52	364-1063	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
54	364-1062	2	WEAR PAD	
55	298-6903	2	WEAR PAD	
56	298-6905	2	WEAR PAD	
57	298-8387	2	WEAR PAD	
60	298-1644	4	SPACER	
61	298-1686	2	SPACER	
62	298-1687	AR	SHIM, .0598	
63	298-1636	AR	SHIM, .0598	
64	298-1834	2	SPACER	
65	298-1665	4	SPACER	
67	298-1661	AR	SHIM, .0598	
78	298-1615	6	GREASE FITTING	
82	298-7392	6	WASHER	
83	297-7075	AR	HEX HD CAPSCREW, 1/2-20X2-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
87	298-7382	2	SPRING LOCKWASHER	
88	298-7394	2	WASHER, 3/4	
90	298-1689	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-1/2, (torque to 45-50 lb-ft/61-68 Nm)	
96	297-7068	AR	HEX HD CAPSCREW, 1/2-20X1, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
97	297-7070	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
98	297-7063	AR	HEX HD CAPSCREW, 3/8-24X2-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
99	298-1628	18	WASHER, 3/8	
100	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
101	297-7052	2	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
102	5S-2256	2	SOCKET HD CAPSCREW, 1/2-13X1-3/4	
103	298-8026	AR	SOCKET HD CAPSCREW, 3/8-24X3, (torque to 32-37 lb-ft/43-50 Nm)	
111	297-7064	AR	HEX HD CAPSCREW, 3/8-24X2-3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
117	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
134	298-8419	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X1/2, (torque to 15-17 lb-ft/20-23 Nm)	
137	298-1690	AR	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
138	297-7055	AR	HEX HD CAPSCREW, 3/8-24X.62, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
139	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
140	298-8025	AR	SOCKET HD CAPSCREW, 3/8-24X2-1/2, (torque to 32-37 lb-ft/43-50 Nm)	
141	297-7069	AR	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
143	297-7067	AR	HEX HD CAPSCREW, 1/2-20X.88, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
147	298-1617	AR	SOCKET HD CAPSCREW, 3/8-24X2-3/4, (torque to 32-37 lb-ft/43-50 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-4 Third Boom Section



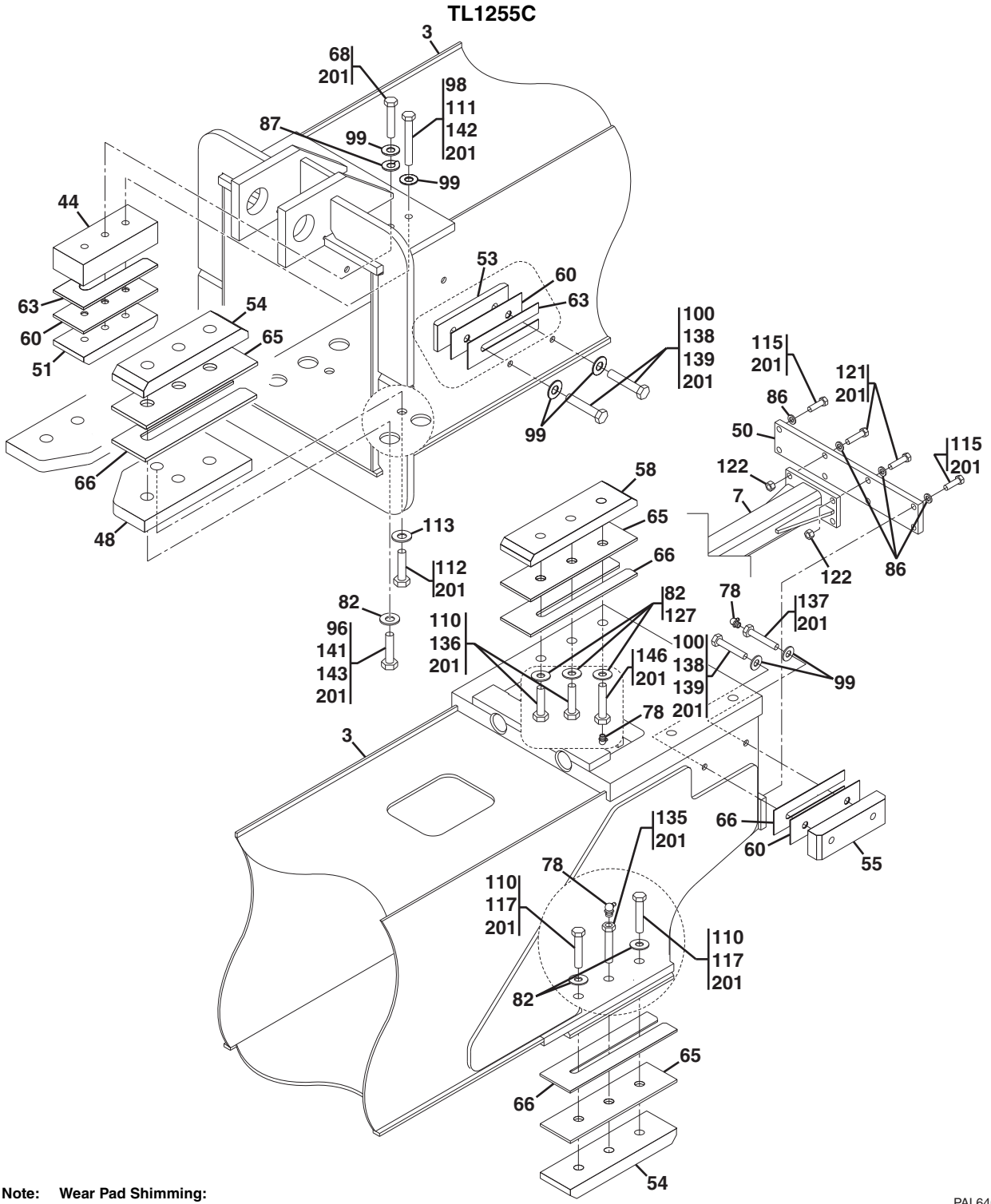
PAL6390

Note: Wear Pad Shimming:
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-4 Third Boom Section

Item	Part Number	Qty.	Description	Rev.
3		1	THIRD BOOM SECTION WELDMENT	
6	297-7041	2	HEX HD CAPSCREW, 1/2-13X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
7		Ref	BOOM HYDRAULIC INSTALLATION, (see Figure 8-11 for details)	
44	298-6878	2	WEAR PAD SUPPORT	
45	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
48	298-6877	1	SUPPORT PLATE	
50	298-6881	1	BRACKET	
51	298-6841	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
54	364-1062	6	WEAR PAD	
55	298-6903	2	WEAR PAD	
57	297-7072	AR	HEX HD CAPSCREW, 1/2-20X2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
58	298-1688	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 45-50 lb-ft/61-68 Nm)	
60	298-1644	8	SPACER	
62	298-1687	AR	SHIM, .0598	
63	298-1636	AR	SHIM, .0598	
65	298-1665	6	SPACER	
66	298-1664	AR	SHIM, .0598	
68	298-1692	2	HOLLOW HEX HD CAPSCREW, 1/2-20X2, (torque to 45-50 lb-ft/61-68 Nm)	
69	297-7055	AR	HEX HD CAPSCREW, 3/8-24X.62, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
78	298-1615	6	GREASE FITTING	
82	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
83	298-7392	22	WASHER	
84	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
85	298-1690	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
86	297-7070	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
88	298-7380	8	WASHER	
89	298-7382	2	SPRING LOCKWASHER	
90	297-7062	AR	HEX HD CAPSCREW, 3/8-24X2-1/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
93	297-7063	AR	HEX HD CAPSCREW, 3/8-24X2-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
96	297-7068	AR	HEX HD CAPSCREW, 1/2-20X1, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
100	297-7066	AR	HEX HD CAPSCREW, 1/2-20X3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
101	298-1723	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X1-1/2, (torque to 45-50 lb-ft/61-68 Nm)	
102	297-7069	AR	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
103	298-1628	12	WASHER, 3/8	
116	355-9534	2	HEX HD CAPSCREW, 5/8-11X1-1/4, GR5	
117	298-7393	2	WASHER	
119	297-7032	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
125	297-7033	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
126	298-0554	4	HEX NUT, 3/8-16	
201		AR	LOCTITE® 242™	

Figure 2-4 Third Boom Section



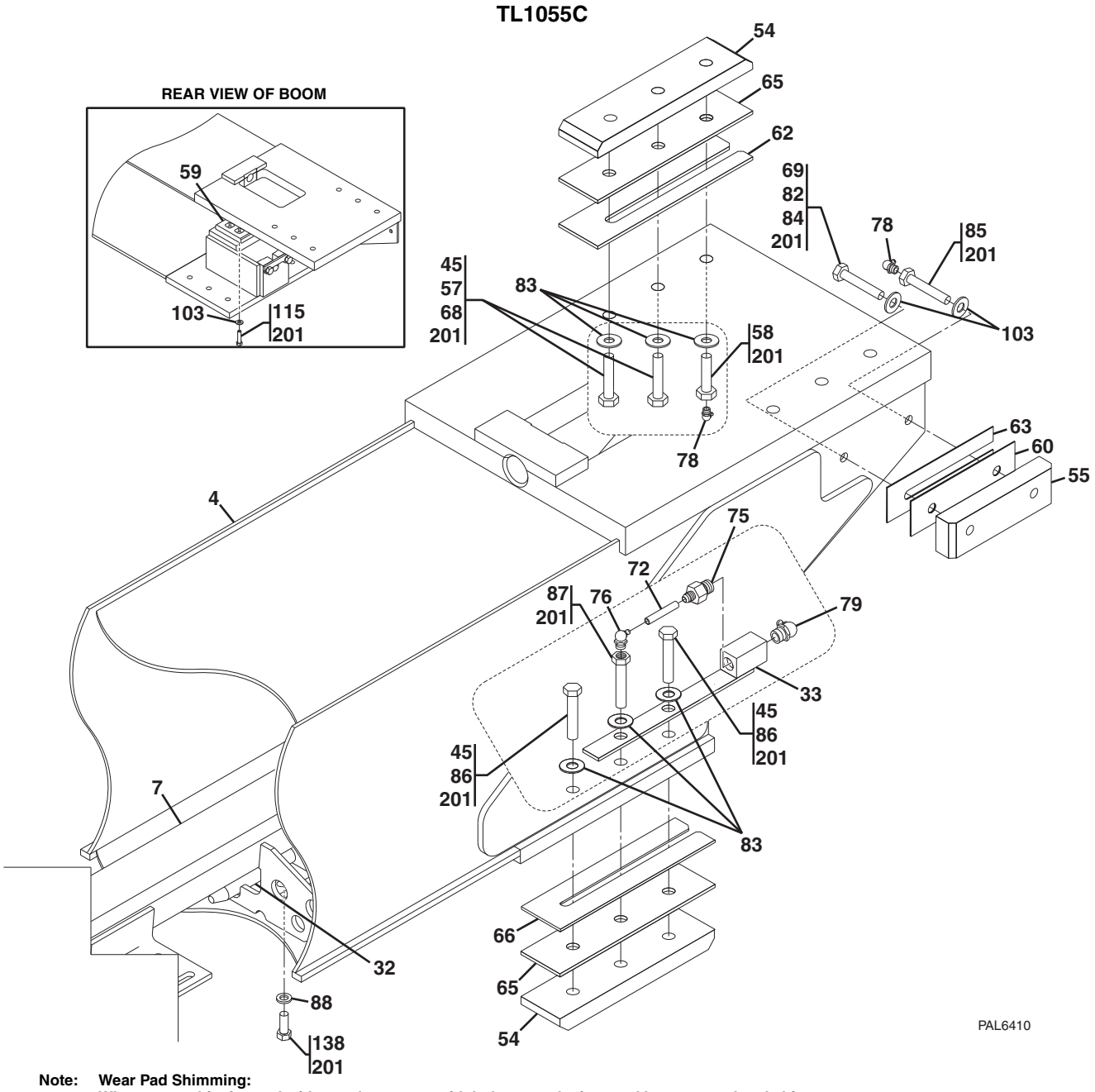
PAL6400

Note: Wear Pad Shimming:
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-4 Third Boom Section

Item	Part Number	Qty.	Description	Rev.
3	399-5796	1	THIRD BOOM SECTION WELDMENT	
7		Ref	BOOM HYDRAULIC INSTALLATION, (see Figure 8-11 for details)	
44	300-6122	2	WEAR PAD SUPPORT	
48	298-6877	1	SUPPORT PLATE	
50	298-6881	1	BRACKET	
51	298-6841	2	WEAR PAD	
53	298-6839	4	WEAR PAD	
54	364-1062	4	WEAR PAD	
55	298-6903	2	WEAR PAD	
58	364-1067	2	WEAR PAD	
60	298-1644	8	SPACER	
63	298-1636	AR	SHIM, .0598	
65	298-1665	6	SPACER	
66	298-1664	AR	SHIM, .0598	
68	297-7043	2	HEX HD CAPSCREW, 1/2-13X2, (torque to 76-86 lb-ft/103-117 Nm)	
78	298-1615	6	GREASE FITTING	
82	298-7392	16	WASHER	
86	298-7380	8	WASHER	
87	298-7382	2	SPRING LOCKWASHER	
96	297-7068	AR	HEX HD CAPSCREW, 1/2-20X1, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
98	297-7063	AR	HEX HD CAPSCREW, 3/8-24X2-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
99	298-1628	18	WASHER, 3/8	
100	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
110	297-7072	AR	HEX HD CAPSCREW, 1/2-20X2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
111	297-7064	AR	HEX HD CAPSCREW, 3/8-24X2-3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
112	297-7050	2	HEX HD CAPSCREW, 5/8-11X1, GR5	
113	298-7393	2	WASHER, 5/8	
115	297-7032	4	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5	
117	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
121	297-7033	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
122	298-0554	4	HEX NUT, 3/8-16	
127	298-1649	AR	SHIM, .0478 IN	
135	298-1692	2	HOLLOW HEX HD CAPSCREW, 1/2-20X2, (torque to 45-50 lb-ft/61-68 Nm)	
136	297-7073	AR	HEX HD CAPSCREW, 1/2-20X2-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
137	298-1690	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
138	297-7055	AR	HEX HD CAPSCREW, 3/8-24X.62, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
139	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
141	297-7069	AR	HEX HD CAPSCREW, 1/2-20X1-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
142	297-7062	AR	HEX HD CAPSCREW, 3/8-24X2-1/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
143	297-7067	AR	HEX HD CAPSCREW, 1/2-20X.88, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
146	298-8424	2	HOLLOW HEX HD CAPSCREW, 1/2-20X2-1/4, (torque to 45-50 lb-ft/61-68 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-5 Fourth Boom Section

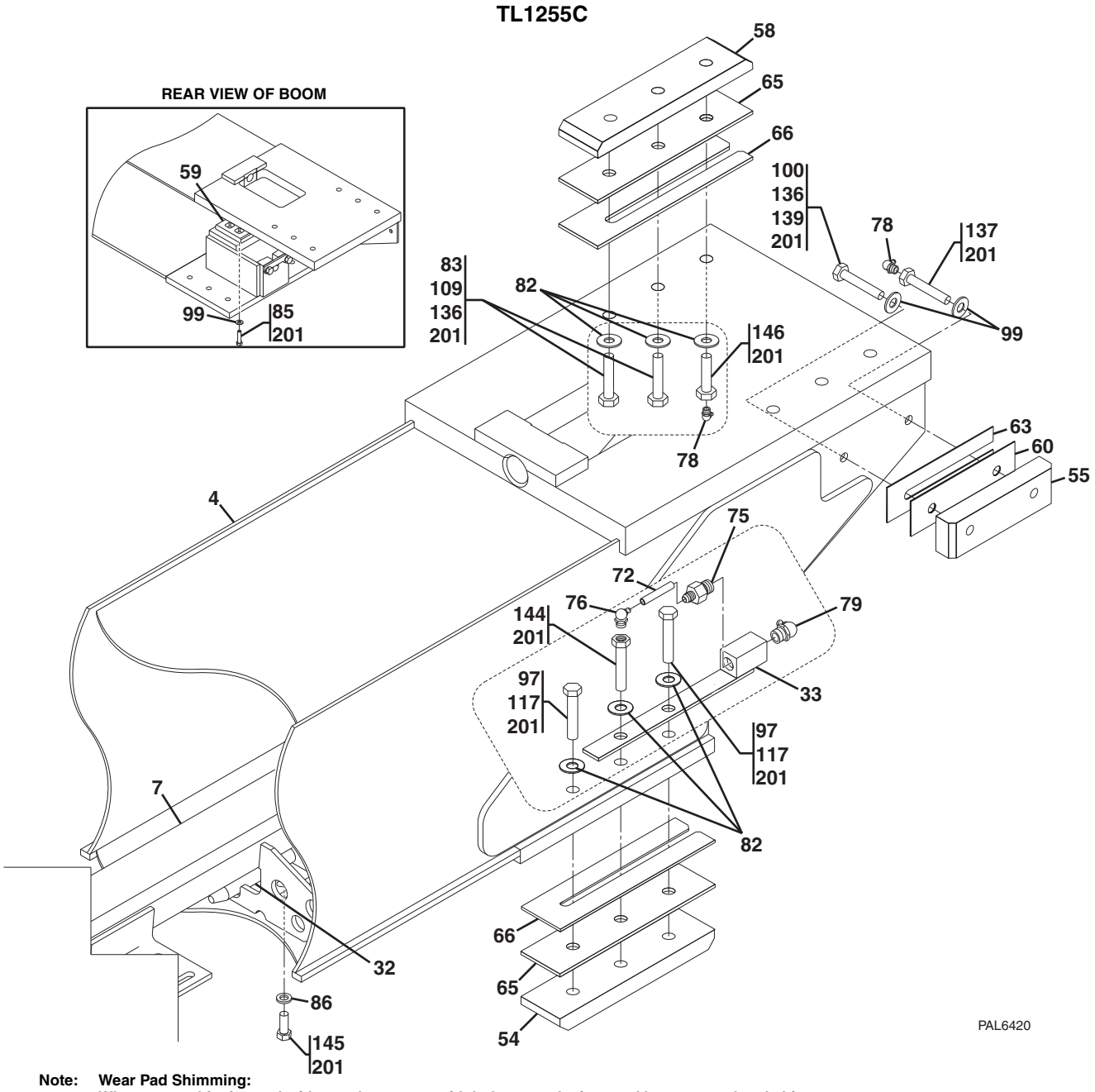


Note: Wear Pad Shimming:
Whenever a shim is used with a pad, a spacer with holes must be inserted between pad and shim.
The wear pad or wear pad insert must not sit directly on the slotted surface of shims.Add wear pad shims and spacers as required to shim boom to maintain a total minimum gap of 0.070 to 0.130 in (1,8 to 3,3 mm) in both horizontal and vertical directions.
Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-5 Fourth Boom Section

Item	Part Number	Qty.	Description	Rev.
4		1	FOURTH BOOM SECTION WELDMENT	
7		Ref	BOOM HYDRAULIC INSTALLATION, (see Figure 8-11 for details)	
32	299-0397	1	BRACKET	
33	298-8756	2	BRACKET	
45	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
54	364-1062	4	WEAR PAD	
55	298-6903	2	WEAR PAD	
57	297-7072	AR	HEX HD CAPSCREW, 1/2-20X2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
58	298-1688	2	HOLLOW HEX HD CAPSCREW, 1/2-20X1-3/4, (torque to 45-50 lb-ft/61-68 Nm)	
59	298-6840	1	WEAR PAD	
60	298-1644	2	SPACER	
62	298-1687	AR	SHIM, .0598	
63	298-1636	AR	SHIM, .0598	
65	298-1665	4	SPACER	
66	298-1664	AR	SHIM, .0598	
68	298-1692	AR	HOLLOW HEX HD CAPSCREW, 1/2-20X2, (torque to 45-50 lb-ft/61-68 Nm)	
69	297-7055	AR	HEX HD CAPSCREW, 3/8-24X.62, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
72	298-7264	15 in	NYLON TUBING, 1/4	
75	298-7978	2	STRAIGHT FITTING	
76	298-7979	2	GREASE FITTING	
78	298-1615	4	GREASE FITTING	
79	298-1614	2	GREASE FITTING	
82	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
83	298-7392	12	WASHER	
84	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
85	298-1690	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
86	297-7070	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
87	298-1691	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
88	298-7380	2	WASHER	
103	298-1628	6	WASHER, 3/8	
115	297-7059	2	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
138	297-7031	2	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 35 lb-ft/48 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-5 Fourth Boom Section



Note: Wear Pad Shimming:
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Wear pad bolts require one hardened washer. However, up to (2) hardened washers may be used except where noted otherwise.
Under no circumstances should more than (2) hardened washers ever be used.
The length of pad bolts depends on the number of the shims used. The bolt cannot extend past chamfer on wear pad.
Add CAT Advanced 3Moly – NLG1 Grade 2 to all wear pads and all wear pad slide pathways. If applicable, this includes all pad grease fittings at the rear of boom.

Figure 2-5 Fourth Boom Section

Item	Part Number	Qty.	Description	Rev.
4	399-5797	1	FOURTH BOOM SECTION WELDMENT	
7		Ref	BOOM HYDRAULIC INSTALLATION, (see Figure 8-11 for details)	
32	299-0397	1	BRACKET	
33	298-8756	2	BRACKET	
54	364-1062	2	WEAR PAD	
55	298-6903	2	WEAR PAD	
58	364-1067	2	WEAR PAD	
59	298-6840	1	WEAR PAD	
60	298-1644	2	SPACER	
63	298-1636	AR	SHIM, .0598	
65	298-1665	4	SPACER	
66	298-1664	AR	SHIM, .0598	
72	298-7264	15 in	NYLON TUBING, 1/4	
75	298-7978	2	STRAIGHT FITTING	
76	298-7979	2	GREASE FITTING	
78	298-1615	4	GREASE FITTING	
79	298-1614	2	GREASE FITTING	
82	298-7392	12	WASHER	
83	297-7075	AR	HEX HD CAPSCREW, 1/2-20X2-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
85	297-7059	2	HEX HD CAPSCREW, 3/8-24X1-1/2, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
86	298-7380	2	WASHER	
97	297-7070	AR	HEX HD CAPSCREW, 1/2-20X1-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
99	298-1628	6	WASHER, 3/8	
100	297-7056	AR	HEX HD CAPSCREW, 3/8-24X3/4, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
109	297-7074	AR	HEX HD CAPSCREW, 1/2-20X2-1/2, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
117	297-7071	AR	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
136	297-7073	AR	HEX HD CAPSCREW, 1/2-20X2-1/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
137	298-1690	2	HOLLOW HEX HD CAPSCREW, 3/8-24X3/4, (torque to 15-17 lb-ft/20-23 Nm)	
139	297-7057	AR	HEX HD CAPSCREW, 3/8-24X.88, GR5, (torque to 32-37 lb-ft/43-50 Nm)	
144	298-1691	2	HEX HD CAPSCREW, 1/2-20X1-3/4, GR5, (torque to 76-86 lb-ft/103-117 Nm)	
145	297-7031	2	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 35 lb-ft/48 Nm)	
146	298-8424	2	HOLLOW HEX HD CAPSCREW, 1/2-20X2-1/4, (torque to 45-50 lb-ft/61-68 Nm)	
201		AR	LOCTITE® 242™	

Figure 2-6 Extend Chains

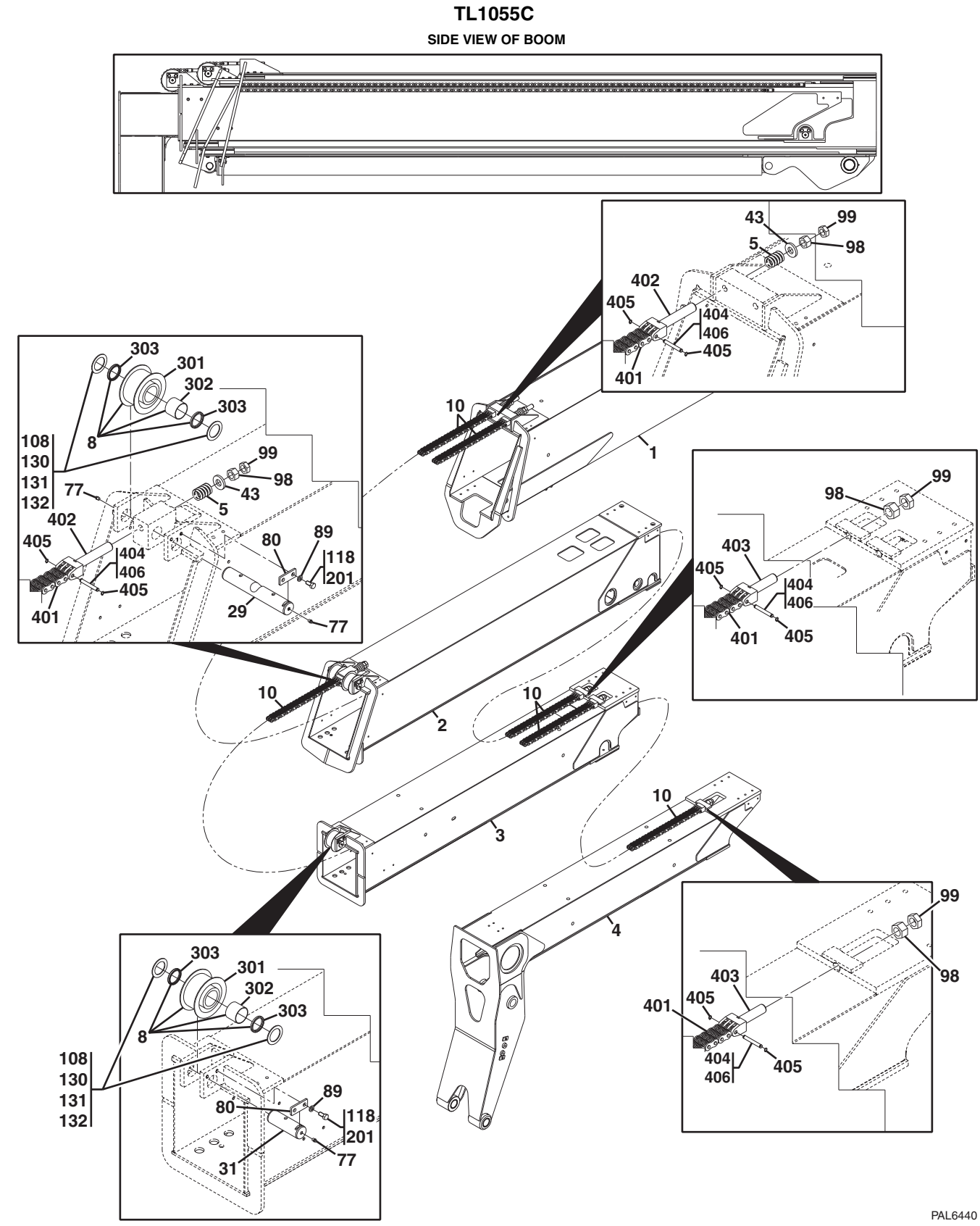

Figure 2-6 Extend Chains

Item	Part Number	Qty.	Description	Rev.
1		Ref	FIRST BOOM SECTION WELDMENT, (see Figure 2-2 for details)	
2		Ref	SECOND BOOM SECTION WELDMENT, (see Figure 2-3 for details)	
3		Ref	THIRD BOOM SECTION WELDMENT, (see Figure 2-4 for details)	
4		Ref	FOURTH BOOM SECTION WELDEMNT, (see Figure 2-5 for details)	
5	298-6896	3	SPRING	
8	299-0492	3	CHAIN ROLLER ASSY, (includes items 301 thru 303)	A
10	304-3166	3	CHAIN ASSY, (includes items 401 thru 406)	C
29	298-6888	1	PIN	
31	298-6889	1	PIN	
43	298-6887	3	WASHER	
77	298-0488	3	GREASE FITTING	
80	298-6920	2	PLATE	
89	298-7382	4	SPRING LOCKWASHER	
98	298-8061	6	HEX NUT, 7/8-14, GR5	
99	298-8065	6	HEX JAM NUT, 7/8-14, GR5, (torque to 100 lb-ft/136 Nm)	
108	298-1650	6	SHIM, 0.106 IN	
118	297-7039	4	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
130	298-1648	AR	SHIM, 0.060 IN	
131	298-1649	AR	SHIM, 0.0478 IN	
132	298-1651	AR	SHIM, 0.0359 IN	
201		AR	LOCTITE® 242™	
301	299-6652	1	ROLLER	
302	298-6904	1	BUSHING	
303	299-0358	2	SEAL	
401	299-0393	1	LEAF CHAIN, BL866	
402	303-4933	1	LEAF CHAIN CLEVIS, BL866	
403	303-4934	1	LEAF CHAIN CLEVIS, BL866	
404	298-7106	2	PIN	
405	298-7312	4	SNAP RING	
406		AR	ANTI-SIEZE LUBE	

Figure 2-6 Extend Chains

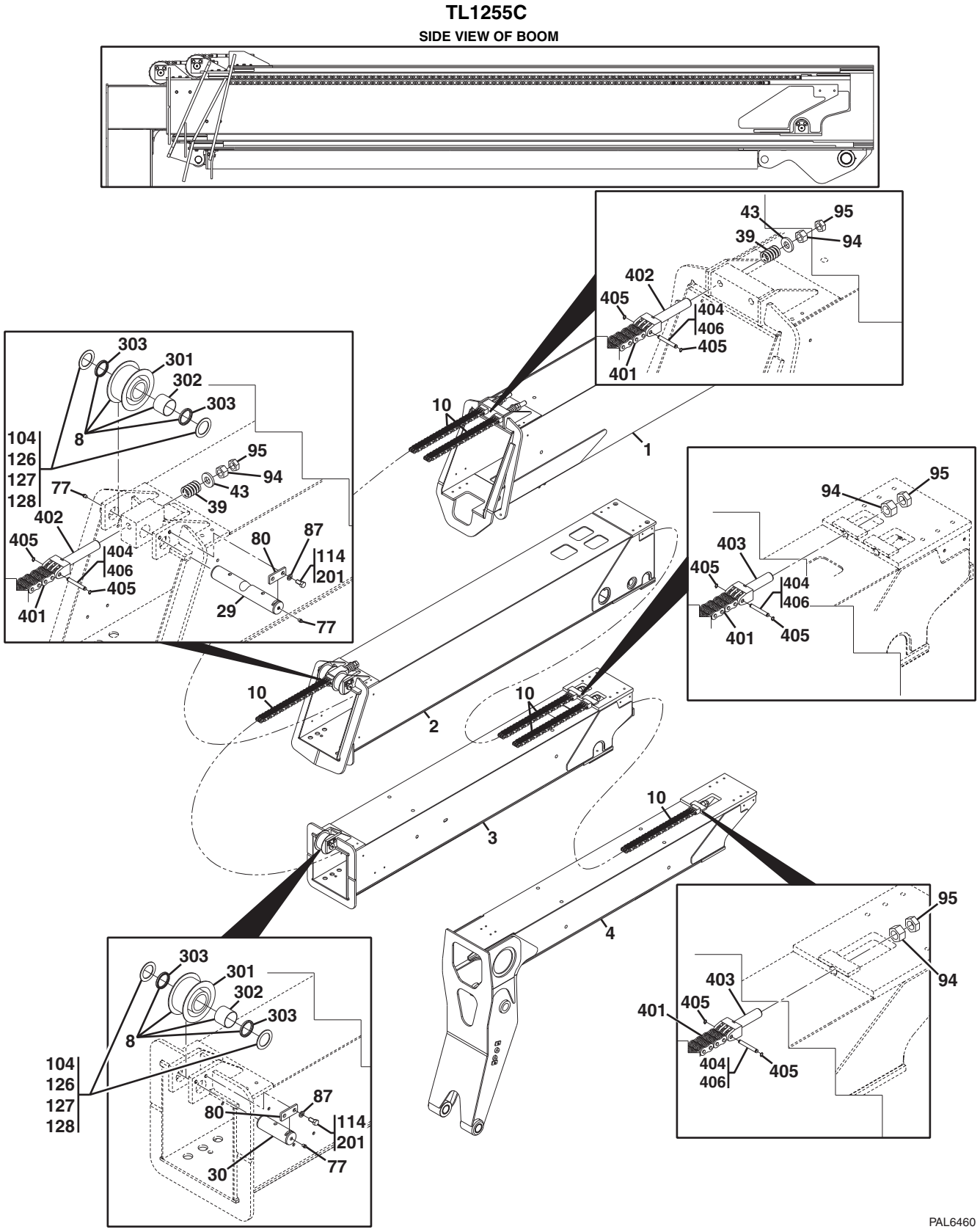

Figure 2-6 Extend Chains

Item	Part Number	Qty.	Description	Rev.
1		Ref	FIRST BOOM SECTION WELDMENT, (see Figure 2-2 for details)	
2		Ref	SECOND BOOM SECTION WELDMENT, (see Figure 2-3 for details)	
3		Ref	THIRD BOOM SECTION WELDMENT, (see Figure 2-4 for details)	
4		Ref	FOURTH BOOM SECTION WELDEMNT, (see Figure 2-5 for details)	
8	299-0261	3	CHAIN ROLLER ASSY, (includes items 301 thru 303)	D
10	304-3168	3	CHAIN ASSY, (includes items 401 thru 406)	C
29	399-6651	1	PIN	
30	298-8388	1	PIN	
39	298-8437	3	SPRING	
43	298-8373	3	WASHER	
77	298-0488	3	GREASE FITTING	
80	298-6920	2	PLATE	
87	298-7382	4	SPRING LOCKWASHER	
94	298-0560	6	HEX NUT, 1-1/4 GR5	
95	298-0561	6	HEX JAM NUT, 1-1/4, GR5, (torque to 100 lb-ft/136 Nm)	
104	298-1650	6	SHIM, .106 IN	
114	297-7039	4	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
126	298-1648	AR	SHIM, .060 IN	
127	298-1649	AR	SHIM, .0478 IN	
128	298-1651	AR	SHIM, .0359 IN	
201		AR	LOCTITE® 242™	
301	299-0551	1	ROLLER	
302	299-0550	1	BUSHING	
303	298-7032	2	SEAL	
401	298-8661	1	LEAF CHAIN, BL1066	
402	303-4936	1	LEAF CHAIN CLEVIS, BL1066	
403	303-4937	1	LEAF CHAIN CLEVIS, BL1066	
404	298-8278	2	PIN	
405	298-7313	4	SNAP RING	
406		AR	ANTI-SIEZE LUBE	

Figure 2-7 Retract Chains

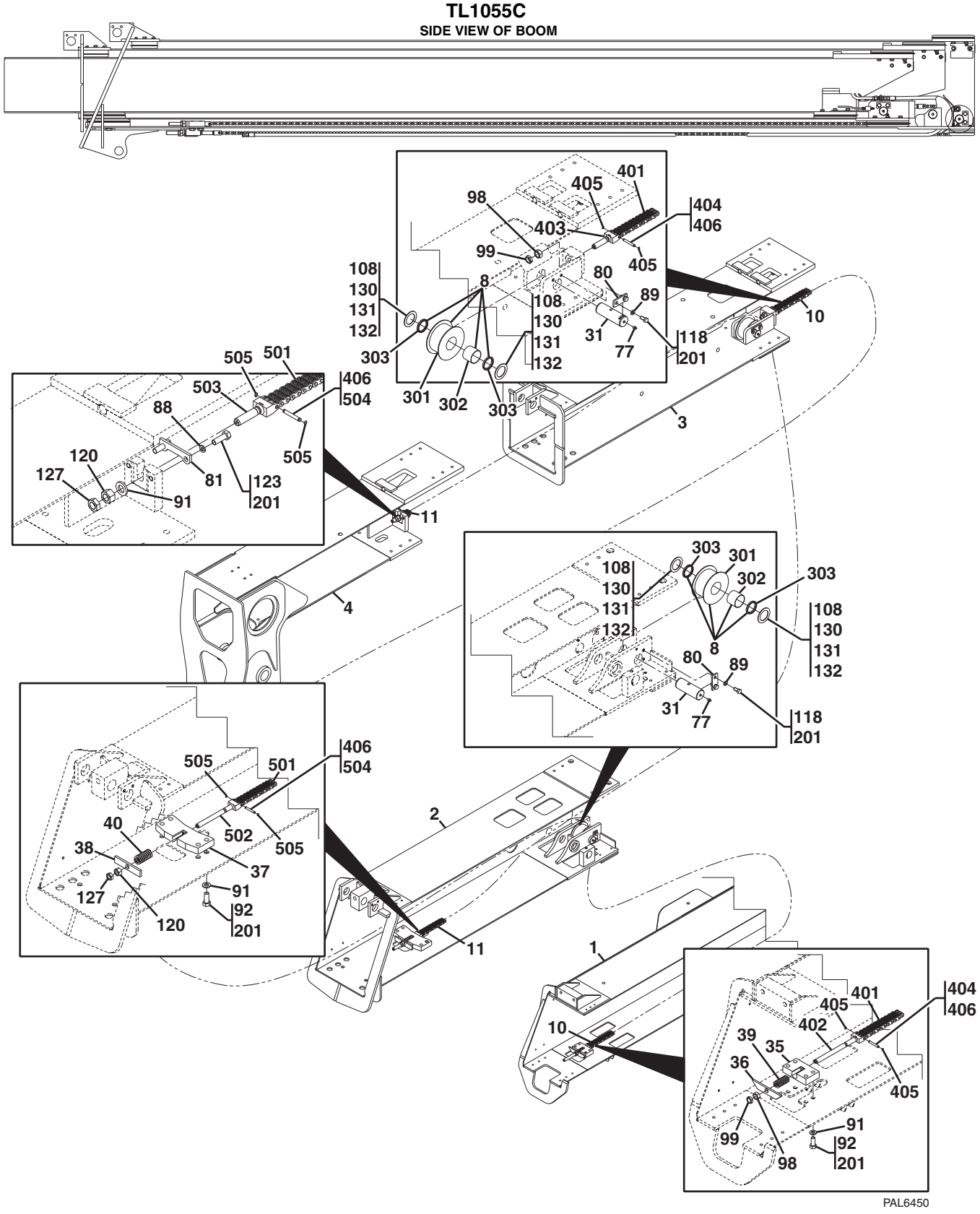

Figure 2-7 Retract Chains

Item	Part Number	Qty.	Description	Rev.
1		Ref	FIRST BOOM SECTION WELDMENT, (see Figure 2-2 for details)	
2		Ref	SECOND BOOM SECTION WELDMENT, (see Figure 2-3 for details)	
3		Ref	THIRD BOOM SECTION WELDMENT, (see Figure 2-4 for details)	
4		Ref	FOURTH BOOM SECTION WELDEMNT, (see Figure 2-5 for details)	
8	299-0492	2	CHAIN ROLLER ASSY, (includes items 301 thru 303)	A
10	304-3166	1	CHAIN ASSY, (includes items 401 thru 406)	C
11	304-2562	1	CHAIN ASSY, (includes items 406 & 501 thru 505)	C
31	298-6889	2	PIN	
35	298-8746	1	CHAIN ADJUSTMENT BLOCK	
36	298-6885	1	PLATE	
37	298-6884	1	CHAIN ADJUSTMENT BLOCK	
38	298-6886	1	PLATE	
39	298-6894	1	SPRING	
40	298-6895	1	SPRING	
77	298-0488	2	GREASE FITTING	
80	298-6920	2	PLATE	
81	300-6111	1	PLATE	
88	298-7380	2	WASHER	
89	298-7382	4	SPRING LOCKWASHER	
91	298-7394	9	WASHER, 3/4	
92	297-7083	8	HEX HD CAPSCREW, 3/4-10X1-3/4, GR5, (torque to 340-365 lb-ft/461-495 Nm)	
98	298-8061	2	HEX NUT, 7/8-14, GR5	
99	298-8065	2	HEX JAM NUT, 7/8-14, GR5, (torque to 100 lb-ft/136 Nm)	
108	298-1650	4	SHIM, 0.106 IN	
118	297-7039	4	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
120	298-8060	2	HEX NUT, 3/4-16, GR5, (torque to 100 lb-ft/136 Nm)	
123	297-7087	2	HEX HD CAPSCREW, 1/2-20X1-1/2, GR8, (torque to 110 lb-ft/150 Nm)	
127	298-8064	2	HEX JAM NUT, 3/4-16, GR5, (torque to 100 lb-ft/136 Nm)	
130	298-1648	AR	SHIM, 0.060 IN	
131	298-1649	AR	SHIM, 0.0478 IN	
132	298-1651	AR	SHIM, 0.0359 IN	
201		AR	LOCTITE® 242™	
301	299-6652	1	ROLLER	
302	298-6904	1	BUSHING	
303	299-0358	2	SEAL	
401	299-0393	1	LEAF CHAIN, BL866	
402	303-4933	1	LEAF CHAIN CLEVIS, BL866	
403	303-4934	1	LEAF CHAIN CLEVIS, BL866	
404	298-7106	2	PIN	
405	298-7312	4	SNAP RING	
406		AR	ANTI-SIEZE LUBE	
501	299-0394	1	LEAF CHAIN, BL666	
502	303-4930	1	LEAF CHAIN CLEVIS, BL666	
503	303-4931	1	LEAF CHAIN CLEVIS, BL666	
504	298-7109	2	PIN	
505	298-7318	4	SNAP RING	

Figure 2-7 Retract Chains

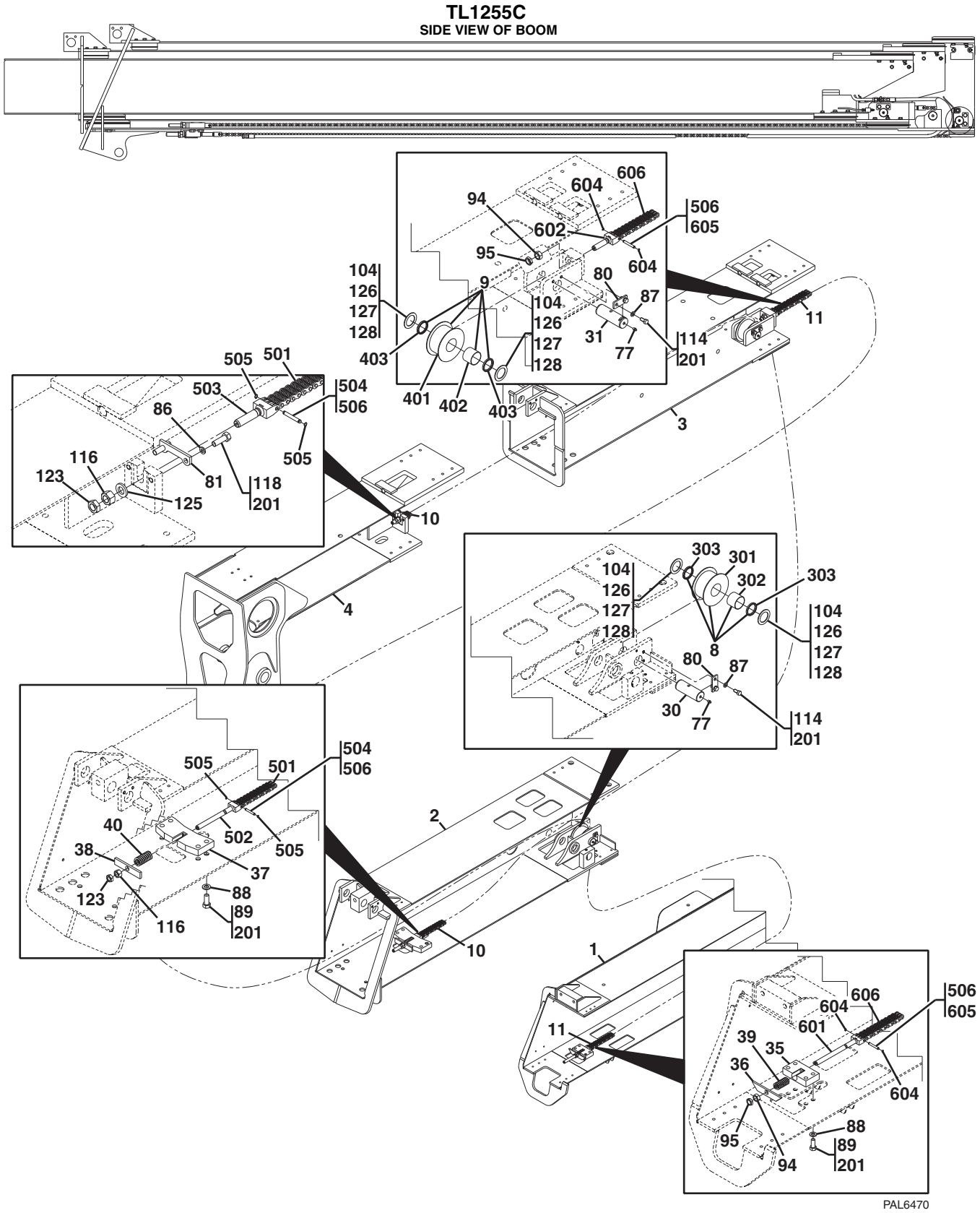

Figure 2-7 Retract Chains

Item	Part Number	Qty.	Description	Rev.
1		Ref	FIRST BOOM SECTION WELDMENT, (see Figure 2-2 for details)	
2		Ref	SECOND BOOM SECTION WELDMENT, (see Figure 2-3 for details)	
3		Ref	THIRD BOOM SECTION WELDMENT, (see Figure 2-4 for details)	
4		Ref	FOURTH BOOM SECTION WELDEMNT, (see Figure 2-5 for details)	
8	299-0261	1	CHAIN ROLLER ASSY, (includes items 301 thru 303)	D
9	299-0260	1	CHAIN ROLLER ASSY, (includes items 401 thru 403)	C
10	304-3168	1	CHAIN ASSY, (includes items 501 thru 506)	C
11	304-2564	1	CHAIN ASSY, (includes items 506, 601, 602 & 604 thru 606)	C
30	298-8388	1	PIN	
31	298-6889	1	PIN	
35	300-6119	1	CHAIN ADJUSTMENT BLOCK	
36	300-6127	1	PLATE	
37	354-7631	1	CHAIN ADJUSTMENT BLOCK	
38	354-6066	1	PLATE	
39	298-8437	1	SPRING	
40	298-6894	1	SPRING	
77	298-0488	2	GREASE FITTING	
80	298-6920	2	PLATE	
81	300-6111	1	PLATE	
86	298-7380	2	WASHER	
87	298-7382	4	SPRING LOCKWASHER	
88	298-7394	8	WASHER, 3/4	
89	297-7083	8	HEX HD CAPSCREW, 3/4-10X1-3/4, GR5, (torque to 340-365 lb-ft/461-495 Nm)	
94	298-0560	2	HEX NUT, 1-1/4 GR5	
95	298-0561	2	HEX JAM NUT, 1-1/4, GR5, (torque to 100 lb-ft/136 Nm)	
104	298-1650	4	SHIM, 0.106 IN	
114	297-7039	4	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
116	298-8061	2	HEX NUT, 7/8-14, GR5	
118	297-7029	2	HEX HD CAPSCREW, 3/8-16X3/4, GR5, (torque to 35 lb-ft/48 Nm)	
123	298-8065	2	HEX JAM NUT, 7/8-14, GR5, (torque to 100 lb-ft/136 Nm)	
125	298-7395	1	WASHER	
126	298-1648	AR	SHIM, 0.060 IN	
127	298-1649	AR	SHIM, 0.0478 IN	
128	298-1651	AR	SHIM, 0.0359 IN	
201		AR	LOCTITE® 242™	
301	299-0551	1	ROLLER	
302	299-0550	1	BUSHING	
303	298-7032	2	SEAL	
401	298-8659	1	ROLLER	
402	298-6904	1	BUSHING	
403	299-0358	2	SEAL	
501	298-8661	1	LEAF CHAIN, BL1066	
502	303-4936	1	LEAF CHAIN CLEVIS, BL1066	
503	303-4937	1	LEAF CHAIN CLEVIS, BL1066	
504	298-8278	2	PIN	
505	298-7313	4	SNAP RING	
506		AR	ANTI-SIEZE LUBE	
601	303-4933	1	LEAF CHAIN CLEVIS, BL866	
602	303-4934	1	LEAF CHAIN CLEVIS, BL866	

Figure 2-7 Retract Chains (Continued)

Item	Part Number	Qty.	Description	Rev.
604	298-7312	4	SNAP RING	
605	298-7106	2	PIN	
606	298-8662	1	LEAF CHAIN, BL866	

Figure 2-7 Retract Chains (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 2-8 Manual Quick Coupler

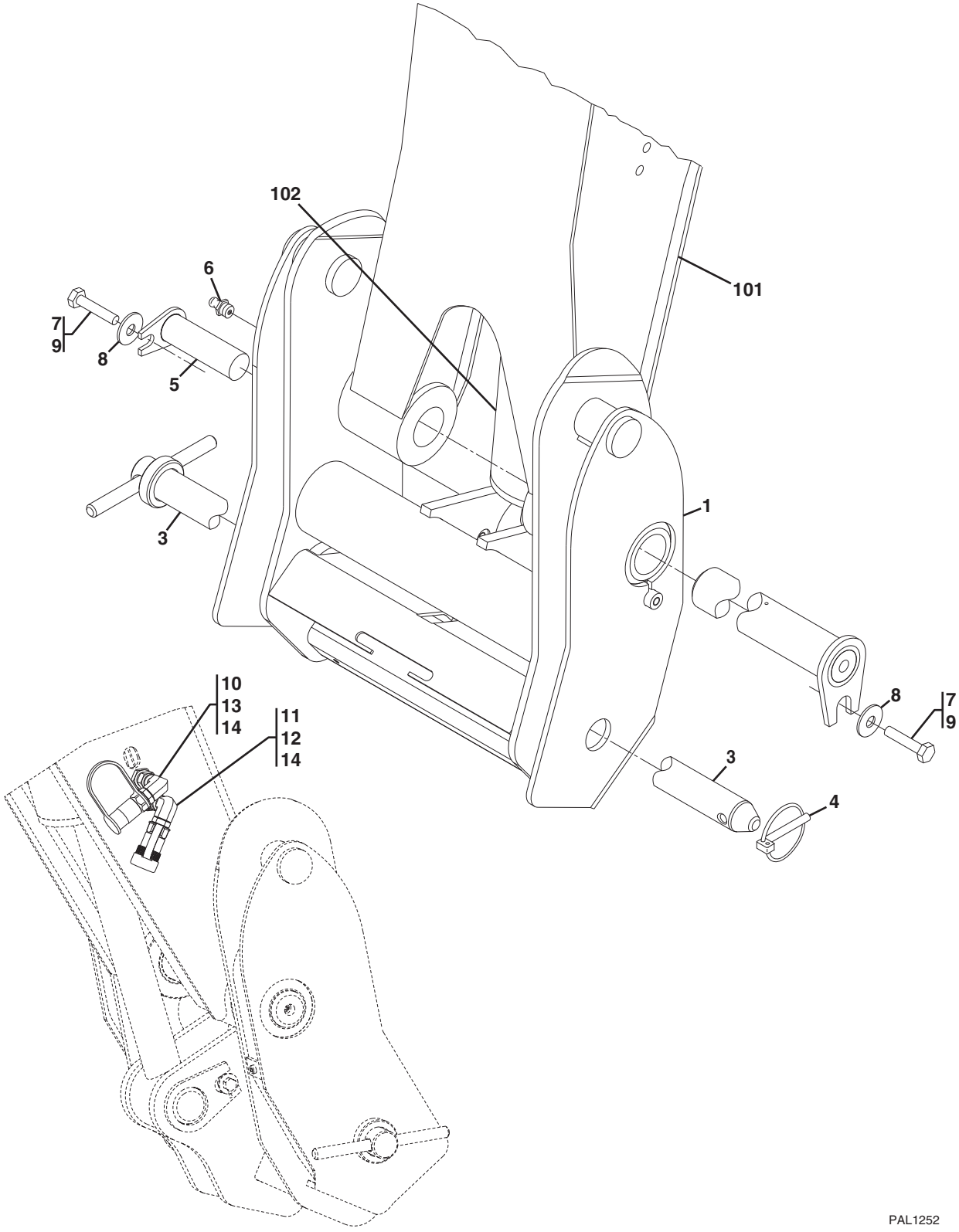

Figure 2-8 Manual Quick Coupler

Item	Part Number	Qty.	Description	Rev.
	304-3176	Ref	MANUAL QUICK COUPLER INSTALLATION, (not available to order, see items 1 thru 14 for service)	D
1	365-9208	1	QUICK COUPLER	
2	298-8734	1	PIN	
3	298-8724	1	PIN	
4	299-0305	1	PIN	
5	298-7057	1	PIN	
6	298-1612	2	GREASE FITTING	
7	297-7039	2	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
8	418-0027	2	WASHER, 1/2	
9		AR	LOCTITE® 242™	
10	300-6103	1	DUST CAP	
11	300-6078	1	FEMALE QUICK DISCONNECT COUPLING	
12	300-6084	1	DUST PLUG	
13	300-6079	1	MALE QUICK DISCONNECT COUPLING	
14	300-6095	2	FITTING, (includes o-ring)	
101		Ref	FOURTH BOOM SECTION, (see Figure 2-5 for details)	
102		Ref	TILT CYLINDER, (see Figure 9-3 for details)	

Figure 2-9 Hydraulic Quick Coupler

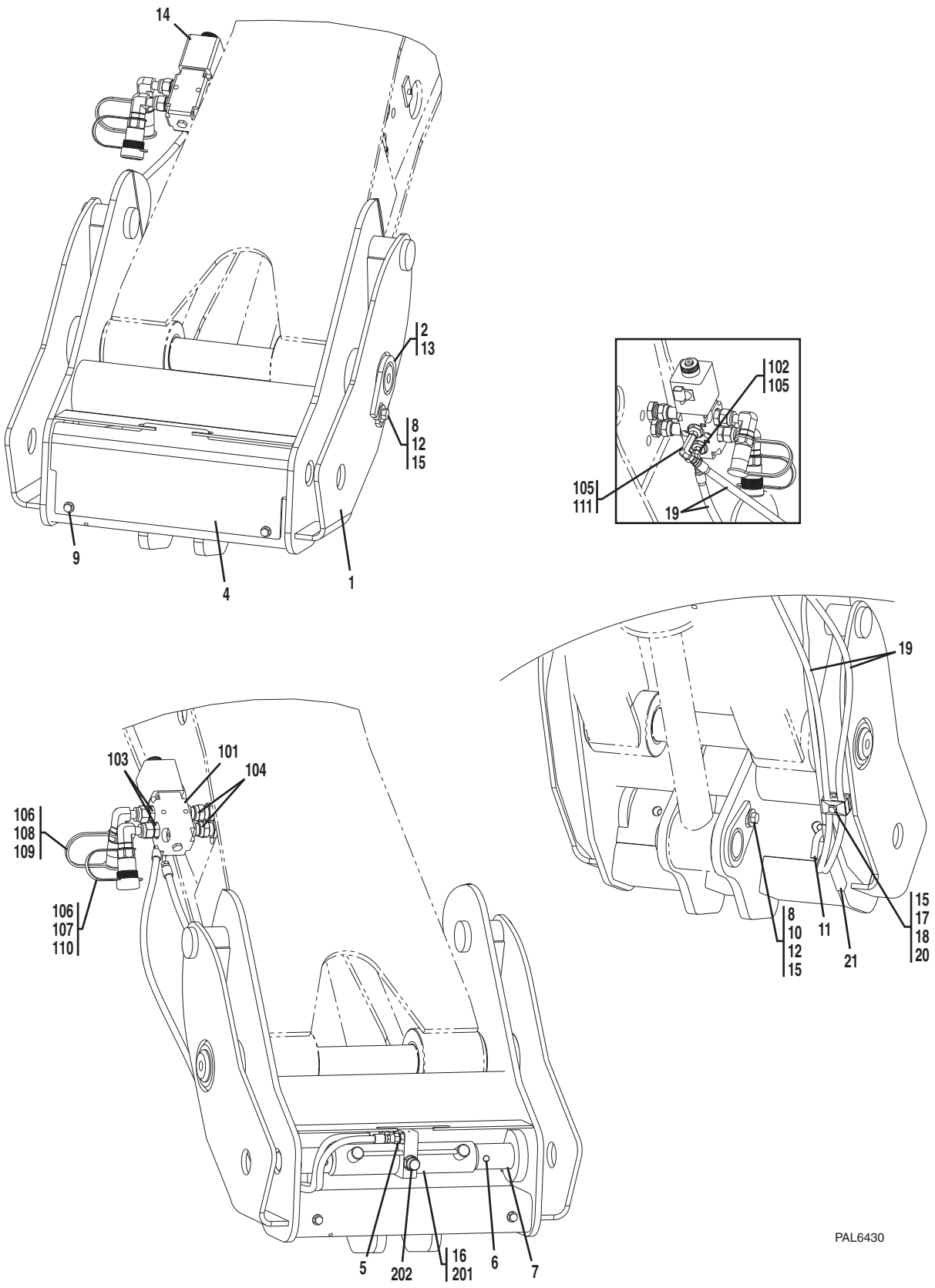

Figure 2-9 Hydraulic Quick Coupler

Item	Part Number	Qty.	Description	Rev.
	365-9209	Ref	HYDRAULIC QUICK COUPLER INSTALLATION, (not available to order, see items 1 thru 10 & 12 thru 21 for service)	A
1	365-9208	1	QUICK COUPLER	
2	298-8734	1	PIN	
4	365-9207	1	CYLINDER COVER	
5	298-7356	2	ADAPTER, (includes o-ring)	
6	308-0608	2	DOWEL PIN	
7	298-0407	2	PIN	
8	297-7039	2	HEX HD CAPSCREW, 1/2-13X1, GR5, (torque to 85 lb-ft/116 Nm)	
9	298-1358	2	SERRATED HEX HD SCREW, 3/8-16X3/4	
10	298-7057	1	PIN	
12	418-0027	2	WASHER, 1/2	
13	298-1612	2	GREASE FITTING	
14	299-1349	1	QUICK COUPLER VALVE ASSEMBLY, (includes items 101 thru 111)	G
15		AR	LOCTITE® 242™	
16	299-1351	1	QUICK COUPLER CYLINDER ASSEMBLY, (includes items 201 thru 202)	B
17	298-7437	1	CLAMP SET	
18	299-6644	1	COVER PLATE	
19	365-9211	2	HOSE ASSEMBLY	
20	297-7020	1	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5, (torque to 19 lb-ft/26 Nm)	
21	299-6624	AR	FLEX TRIM SHIELD	
101	226-6494	1	QUICK COUPLER VALVE	
102	298-0471	2	CONNECTOR	
103	298-0466	2	CONNECTOR	
104	298-0414	2	SWIVEL ADAPTER	
105	298-0416	2	STRAIGHT THREAD REDUCER/EXPANDER	
106	300-6095	2	ADAPTER, 90 DEGREES	
107	300-6078	1	FEMALE QUICK DISCONNECT COUPLING	
108	300-6079	1	MALE QUICK DISCONNECT COUPLING	
109	300-6103	1	DUST CAP	
110	300-6084	1	DUST PLUG	
111	309-6353	1	ADAPTER, 90 DEGREES	
201		Ref	QUICK COUPLER CYLINDER, (see Figure 9-8 for details)	
202	299-0308	1	CHECK PILOT VALVE	
	299-0285	1	SEAL KIT	

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SECTION 3
ATTACHMENTS

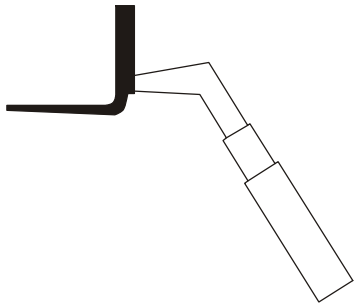


Figure 3-1 Standard Carriage

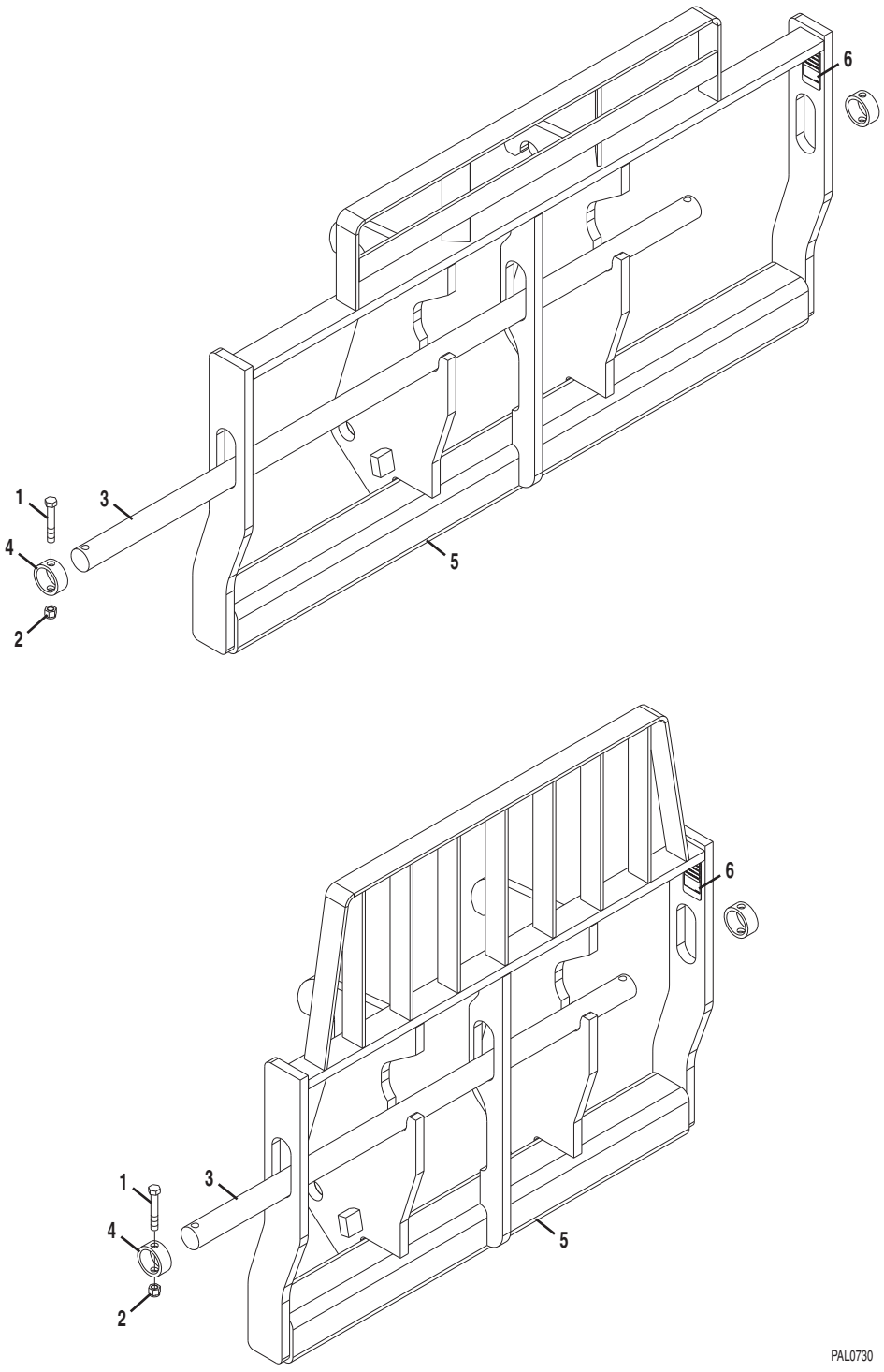


Figure 3-1 Standard Carriage

Item	Part Number	Qty.	Description	Rev.
	301-9757	1	50 IN (1270 mm) CARRIAGE, (includes items 1 thru 6)	B
	301-9758	1	72 IN (1828 mm) CARRIAGE, (includes items 1 thru 6)	B
1	303-4741	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
2	303-4782	2	LOCKNUT, 5/8	
3	303-4957	1	50 IN (1270 mm) FORK PIN	
	303-4958	1	72 IN (1828 mm) FORK PIN	
4	303-4988	2	COLLAR	
5	NSS	1	WELDMENT	
6	NSS	1	S/N PLATE	

Figure 3-2 Side Tilt Carriage

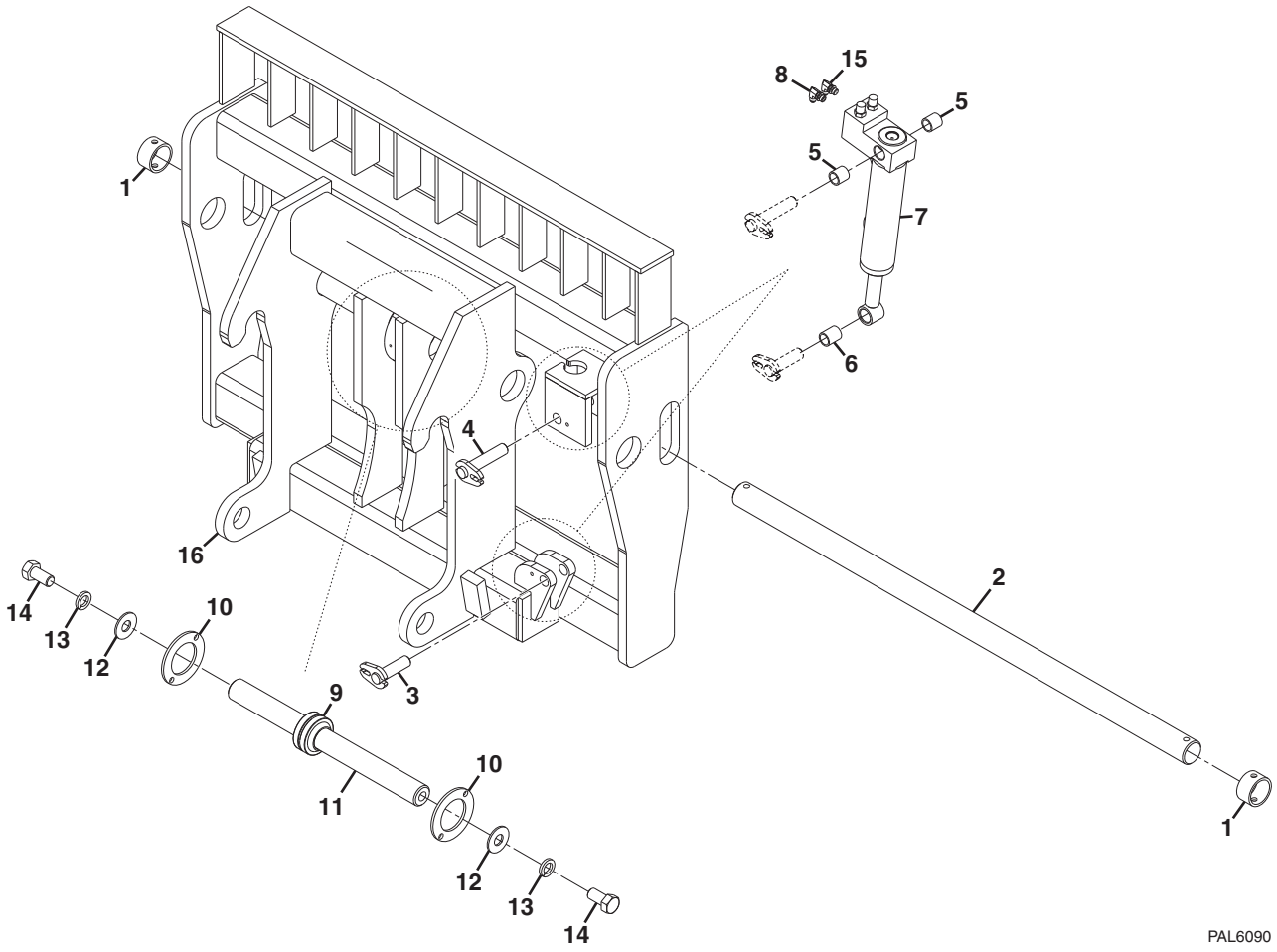


Figure 3-2 Side Tilt Carriage (Continued)

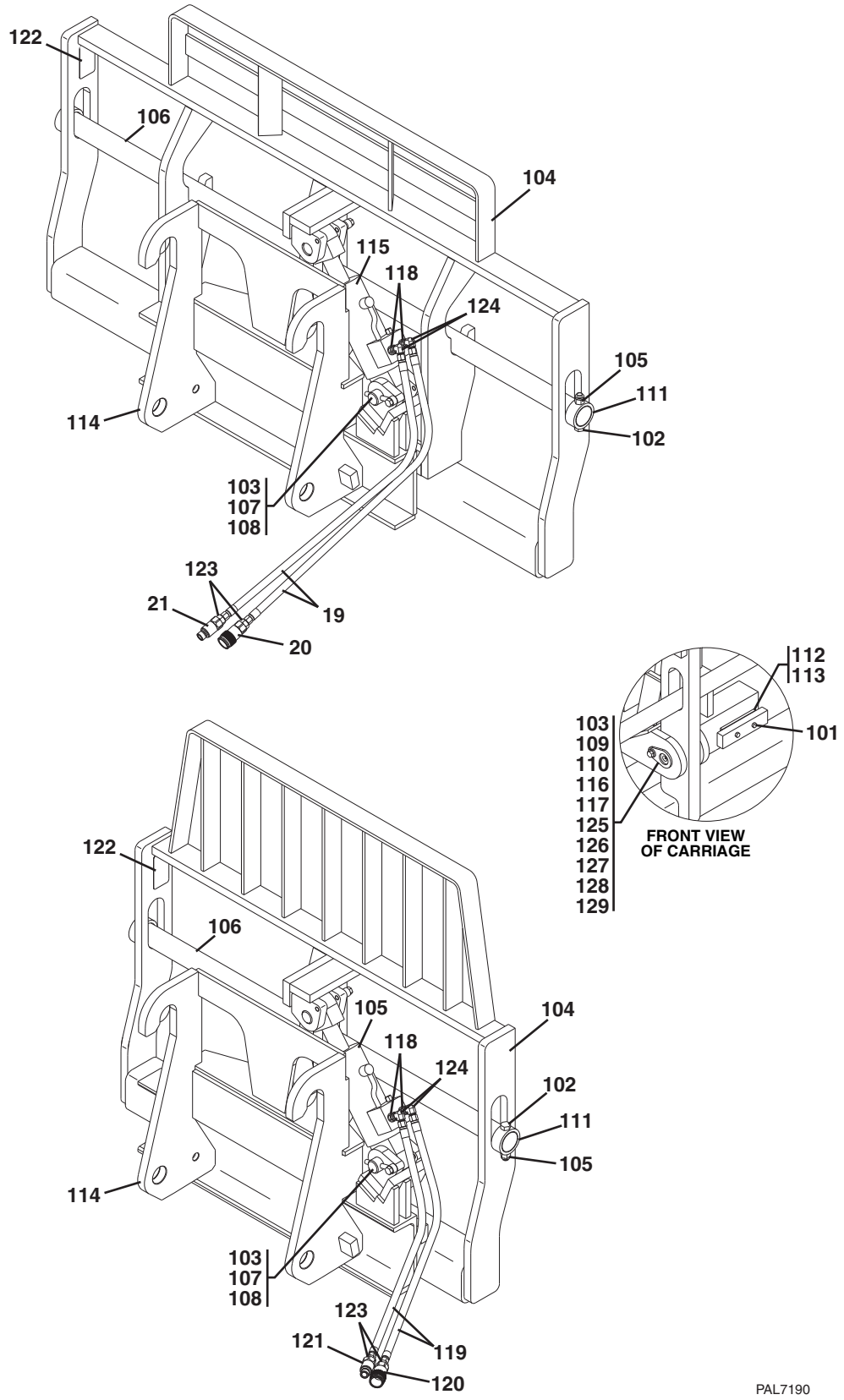


Figure 3-2 Side Tilt Carriage

Item	Part Number	Qty.	Description	Rev.
	341-3590	1	48 IN (1219 mm) SIDE TILT CARRIAGE, (includes items 1 thru 16)	B
1		2	COLLAR	
2		1	SHAFT	
3	327-6287	1	PIN	
4	327-6284	1	PIN	
5		Ref	BUSHING, (see Figure 9-9 for details)	
6		Ref	BUSHING, (see Figure 9-9 for details)	
7		Ref	CYLINDER, (see Figure 9-9 for details)	
8	327-6333	1	ADAPTER, 90 DEGREE	
9		1	BEARING	
10		2	RETAINER PLATE	
11		2	SHAFT	
12		2	WASHER	
13		2	LOCKWASHER	
14		2	BOLT	
15	327-6324	1	ADAPTER, 90 DEGREE W/ORIFICE	
16	NSS	1	WELDMENT	
	309-4315	1	50 IN (1270 mm) SIDE TILT CARRIAGE, (includes items 101 thru 129)	J
	309-4316	1	72 IN (1828 mm) SIDE TILT CARRIAGE, (includes items 101 thru 129)	J
101	297-7033	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
102	303-4741	2	HEX HD CAPSCREW, 5/8-11X4, GR5	
103	297-7077	3	HEX HD CAPSCREW, 1/2-13X1-1/4, GR8	
104	NSS	Ref	WELDMENT	
105	303-4782	2	NYLON COLLAR LOCKNUT, 5/8-11	
106	303-4957	1	50 IN (1270 mm) FORK PIN	
	303-4958	1	72 IN (1828 mm) FORK PIN	
107	309-4322	2	CYLINDER PIN	
108	309-4323	2	KEEPER, 1/2	
109	298-7392	1	FLAT WASHER, 1/2	
110	298-1612	1	STRAIGHT FITTING, 1/8	
111	303-4988	2	COLLAR	
112	309-4311	2	WEAR PAD	
113	309-4312	AR	SHIM	
114	NSS	Ref	WELDMENT	
115	309-4317	1	HYDRAULIC CYLINDER	
116	309-4318	1	BEARING	
117	339-4396	1	PIN	
118	298-7358	2	CONNECTOR, (includes o-ring)	
119	313-3349	2	HOSE ASSY	
120	300-6078	1	FEMALE QUICK DISCONNECT	
121	300-6079	1	MALE QUICK DISCONNECT	
122	NSS	1	S/N PLATE	
123	330-8325	2	CONNECTOR	
124	298-0507	2	ADAPTER, 90 DEGREE, (includes o-ring)	
125	339-4397	2	BEARING SPACER	
126		AR	LOCTITE® 242™	
127	375-0099	6	FLAT HD CAPSCREW, 3/8-16X1-1/4	
128	374-7352	1	SHIM	

Figure 3-2 Side Tilt Carriage (Continued)

Item	Part Number	Qty.	Description	Rev.
129	374-7353	1	PLATE	

Figure 3-3 Side Shift Carriage

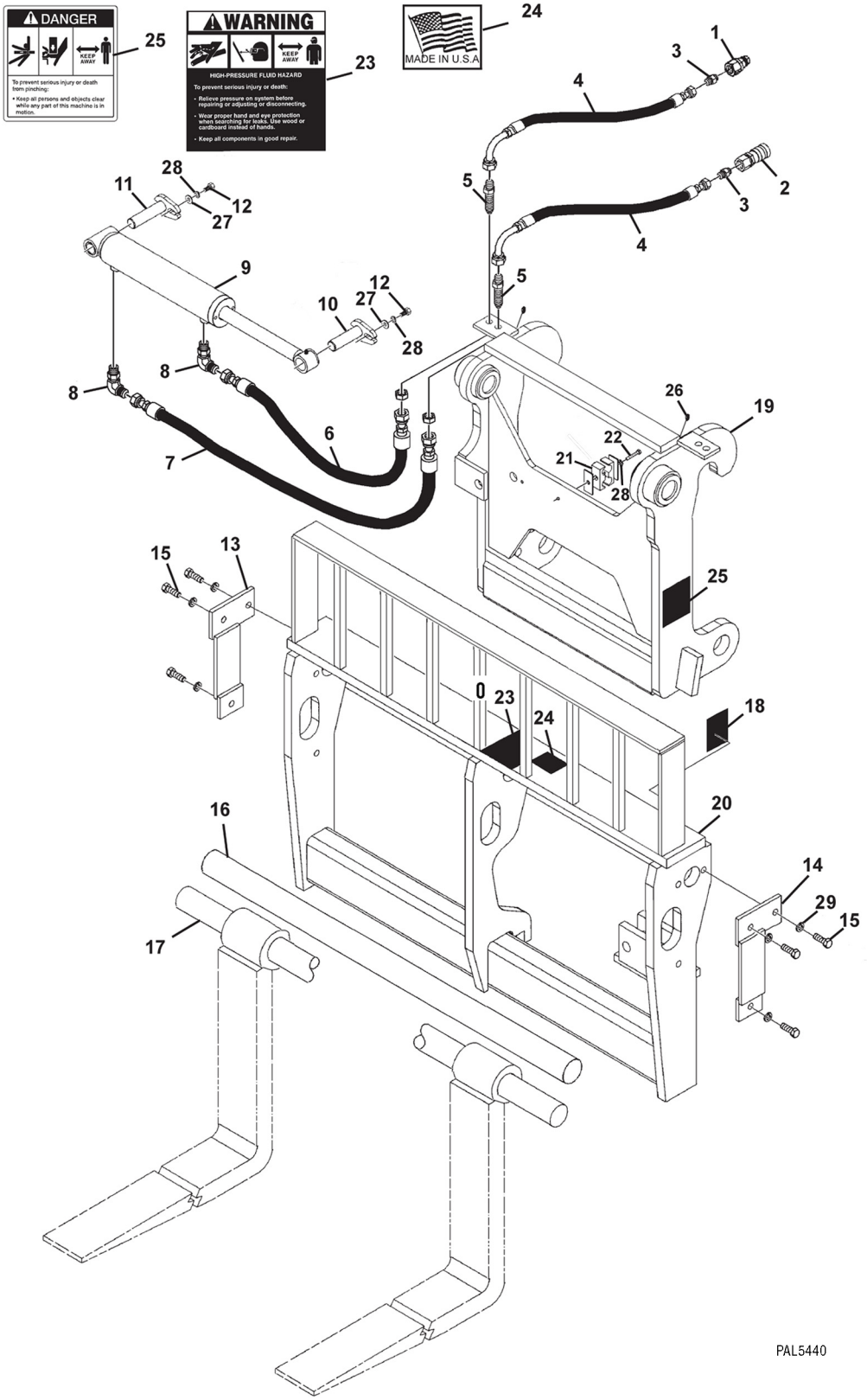


Figure 3-3 Side Shift Carriage

Item	Part Number	Qty.	Description	Rev.
	314-8479	1	48 IN (1219 mm) SIDE SHIFT CARRIAGE, (includes all items)	C
1	362-2110	1	MALE QUICK COUPLER	
2	362-2109	1	FEMALE QUICK COUPLER	
3	362-2111	2	CONNECTOR	
4	362-2119	2	HOSE ASSY	
5	362-2104	2	BULKHEAD STRAIGHT CONNECTOR	
6	362-2118	1	HOSE ASSY	
7	362-2117	1	HOSE ASSY	
8	327-6333	2	ELBOW, 90 DEGREES	
9		Ref	CYLINDER, (see Figure 9-10 for details)	
10	327-6287	1	PIN	
11	362-2122	1	PIN	
12	362-2108	2	HEX HD CAPSCREW, 0.3X1	
13	362-2116	1	RIGHT PIN RETAINER	
14	362-2114	1	LEFT PIN RETAINER	
15	362-2100	6	HEX HD CAPSCREW, 0.5X1.5	
16	362-2115	1	SIDE SHIFT PIN	
17	327-6277	1	FORK PIN	
18	NSS	1	S/N PLATE	
19	362-2112	1	REAR FRAME	
20	NSS	1	WELDMENT	
21	327-6305	1	HOSE CLAMP	
22	362-2101	1	HEX HD CAPSCREW, 0.31X1.75	
23	327-6325	1	HI PRESSURE WARNING DECAL	
24	362-2106	1	MADE IN USA DECAL	
25	327-6328	2	PINCH POINT DANGER DECAL	
26	362-2107	2	GREASE ZERK	
27	362-2103	2	FLAT WASHER, 0.31	
28	362-2102	3	LOCK WASHER, 0.31	
29	327-6329	6	LOCK WASHER, 0.5	

Figure 3-4 Dual Fork Positioning Carriage

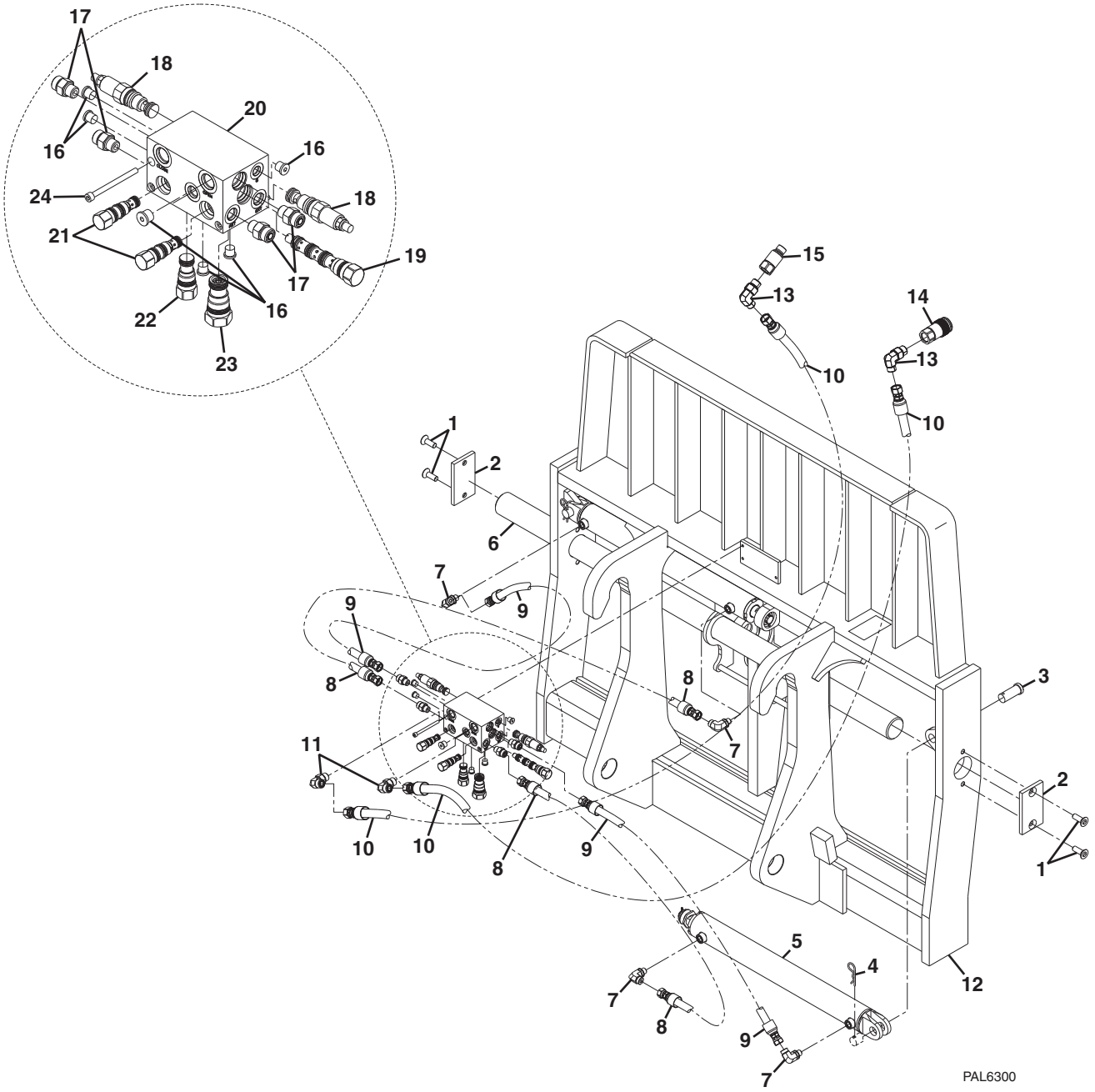


Figure 3-4 Dual Fork Positioning Carriage

Item	Part Number	Qty.	Description	Rev.
	397-6838	1	50 IN (1270 mm) FORK POSITIONING CARRIAGE, (includes all items)	A
1	417-9861	4	HEX HD CAPSCREW, M12X35	
2	417-9862	2	PLATE	
3	417-9863	2	PIN	
4	417-9864	2	COTTER PIN	
5		Ref	50 IN (1270 mm) FORK POSITIONING CARRIAGE CYLINDER, (see Figure 9-11 for details)	
6	417-9865	1	SHAFT	
7	417-9866	4	ADAPTER, 90 DEGREES	
8	417-9867	2	HOSE ASSY	
9	417-9868	2	HOSE ASSY	
10	417-9869	2	HOSE ASSY	
11	417-9870	2	ADAPTER, 90 DEGREES	
12	NSS	1	WELDMENT	
13	417-9871	2	ADAPTER, 90 DEGREES	
14	300-6078	1	FEMALE QUICK DISCONNECT	
15	300-6079	1	MALE QUICK DISCONNECT	
16	417-9872	6	PLUG	
17	417-9873	4	STRAIGHT ADAPTER	
18	417-9874	2	CARTRIDGE	
19	417-9875	1	CARTRIDGE	
20	417-9876	1	VALVE	
21	417-9877	2	CARTRIDGE	
22	417-9878	1	CARTRIDGE	
23	417-9879	1	CARTRIDGE	
24	417-9880	3	SOCKET HD CAPSCREW, M6X75	

Figure 3-5 100 Degree Swing Carriage

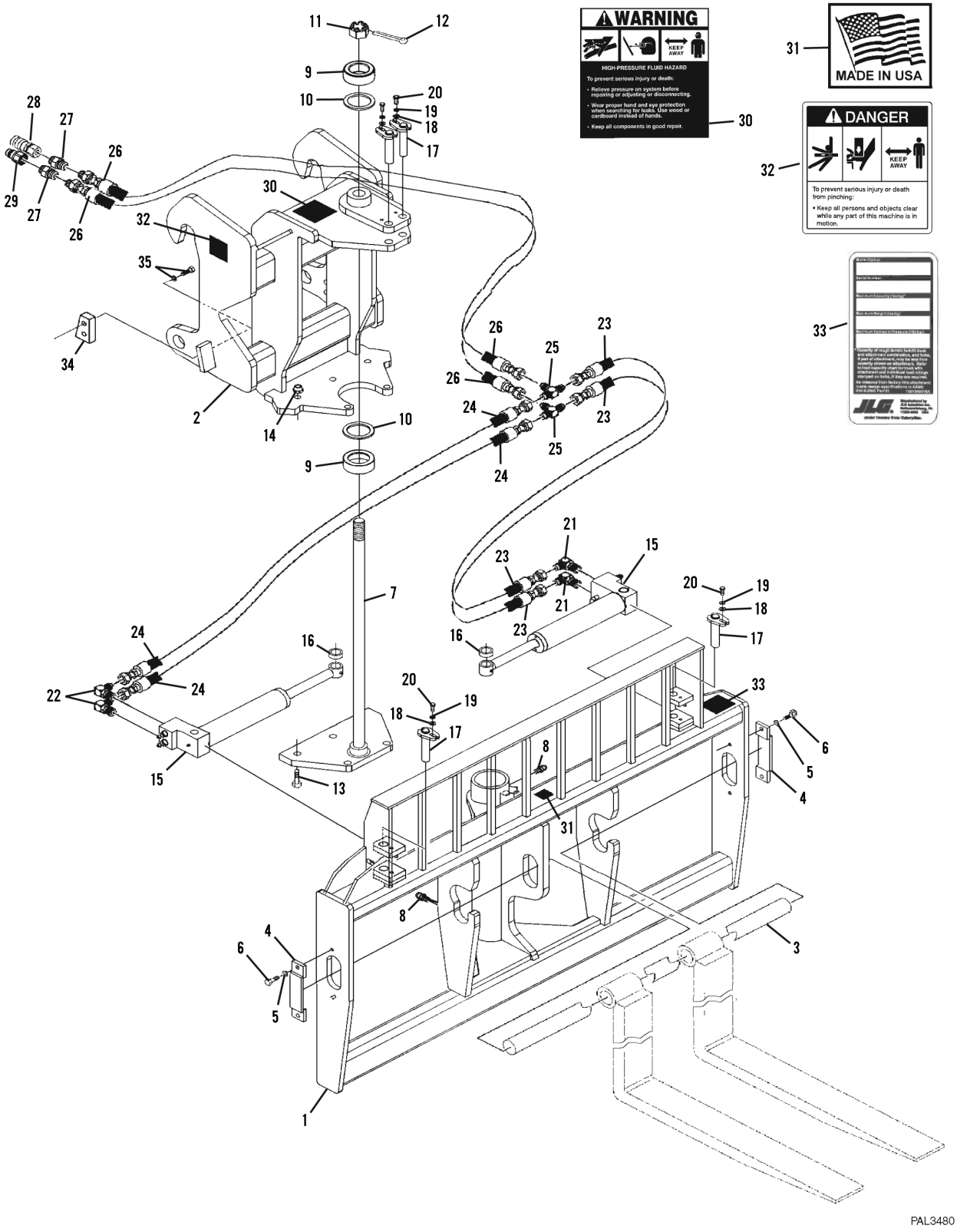


Figure 3-5 100 Degree Swing Carriage

Item	Part Number	Qty.	Description	Rev.
	318-9222	1	100 DEGREE SWING CARRIAGE, (includes all items)	D
1	NSS	1	WELDMENT	
2	375-4992	1	SWING WELDMENT	
3	375-4995	1	FORK PIN	
4	327-6320	2	FORK PIN RETAINER	
5	327-6329	4	LOCKWASHER, 1/2	
6	327-6321	4	HEX HD CAPSCREW, 1/2X1-1/4	
7	375-4994	1	SWING POST	
8	327-6327	2	LUBE FITTING, 1/8	
9	375-4998	2	BEARING	
10	375-4997	2	THRUST WASHER	
11	327-6326	1	CASTLE NUT	
12	327-6323	1	COTTER PIN	
13	375-4974	5	HEX HD CAPSCREW, 3/4-3	
14	375-4987	5	HEX LOCKNUT, 3/4-16	
15		Ref	SWING CARRIAGE CYLINDER, (see Figure 9-9 for details)	
16	375-4996	2	SPACER	
17	375-4990	4	LOCKING PIN	
18	375-4983	4	FLAT WASHER, 3/8	
19	327-6330	4	LOCKWASHER, 3/8	
20	375-4973	4	HEX HD CAPSCREW, 3/8X1	
21	327-6324	2	ELBOW, 90 DEGREES	
22	327-6333	2	ELBOW, 90 DEGREES	
23	327-6273	2	HOSE ASSY	
24	375-5000	2	HOSE ASSY	
25	327-6274	2	RUN TEE	
26	375-4999	2	HOSE ASSY	
27	362-2111	2	CONNECTOR	
28	362-2109	1	FEMALE QUICK COUPLER	
29	362-2110	1	MALE QUICK COUPLER	
30	327-6325	1	WARNING DECAL, HIGH PRESSURE	
31	362-2106	1	MADE IN USA DECAL	
32	327-6328	2	PINCH POINT DECAL	
33	NSS	1	S/N PLATE	
34		2	STOP BLOCK	
35		4	HEX HD CAPSCREW, 3/4X2-1/4, GR8	
		4	LOCKWASHER, 3/4	

Figure 3-6 180 Degree Swing Carriage

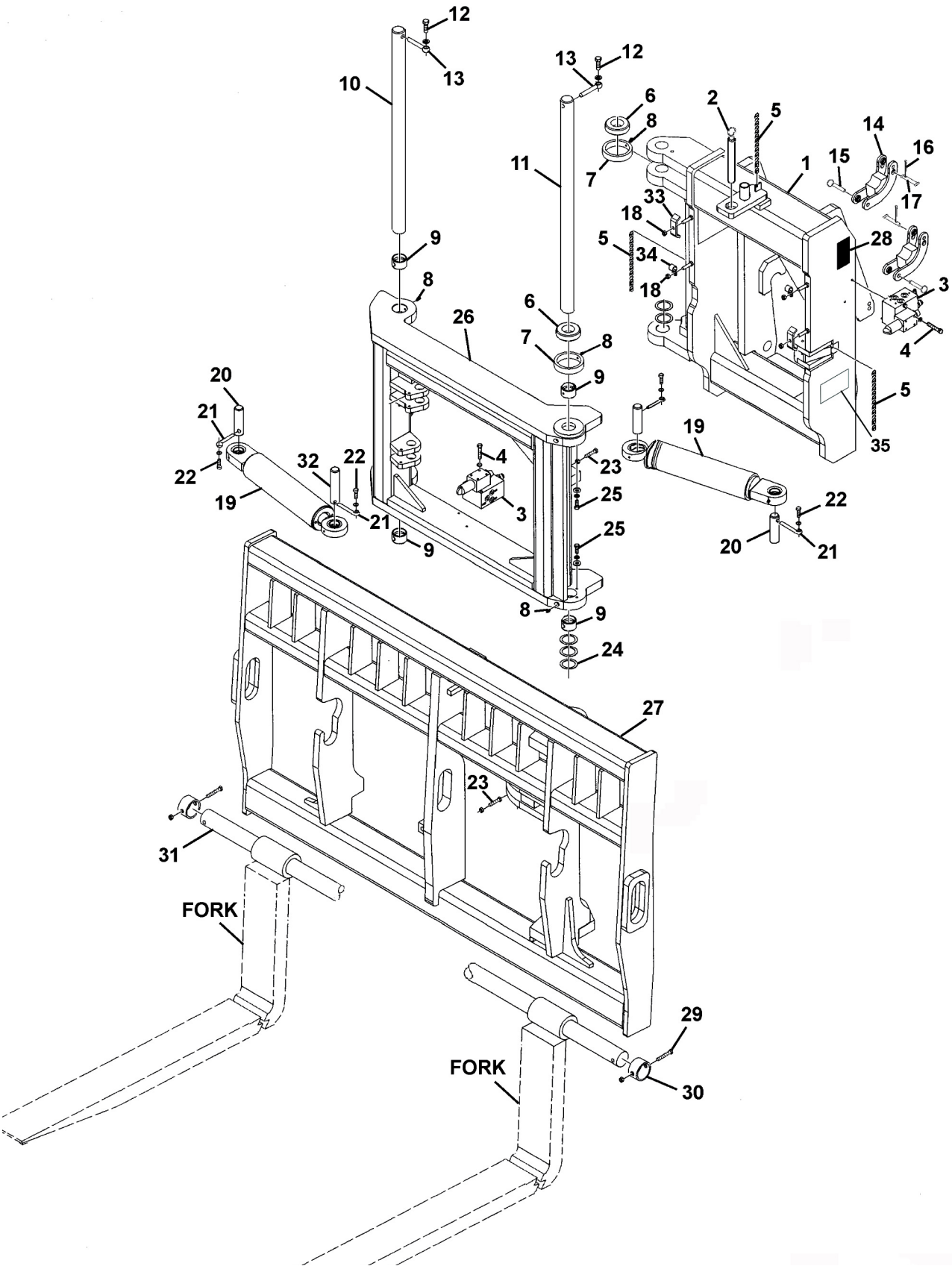


Figure 3-6 180 Degree Swing Carriage (Continued)

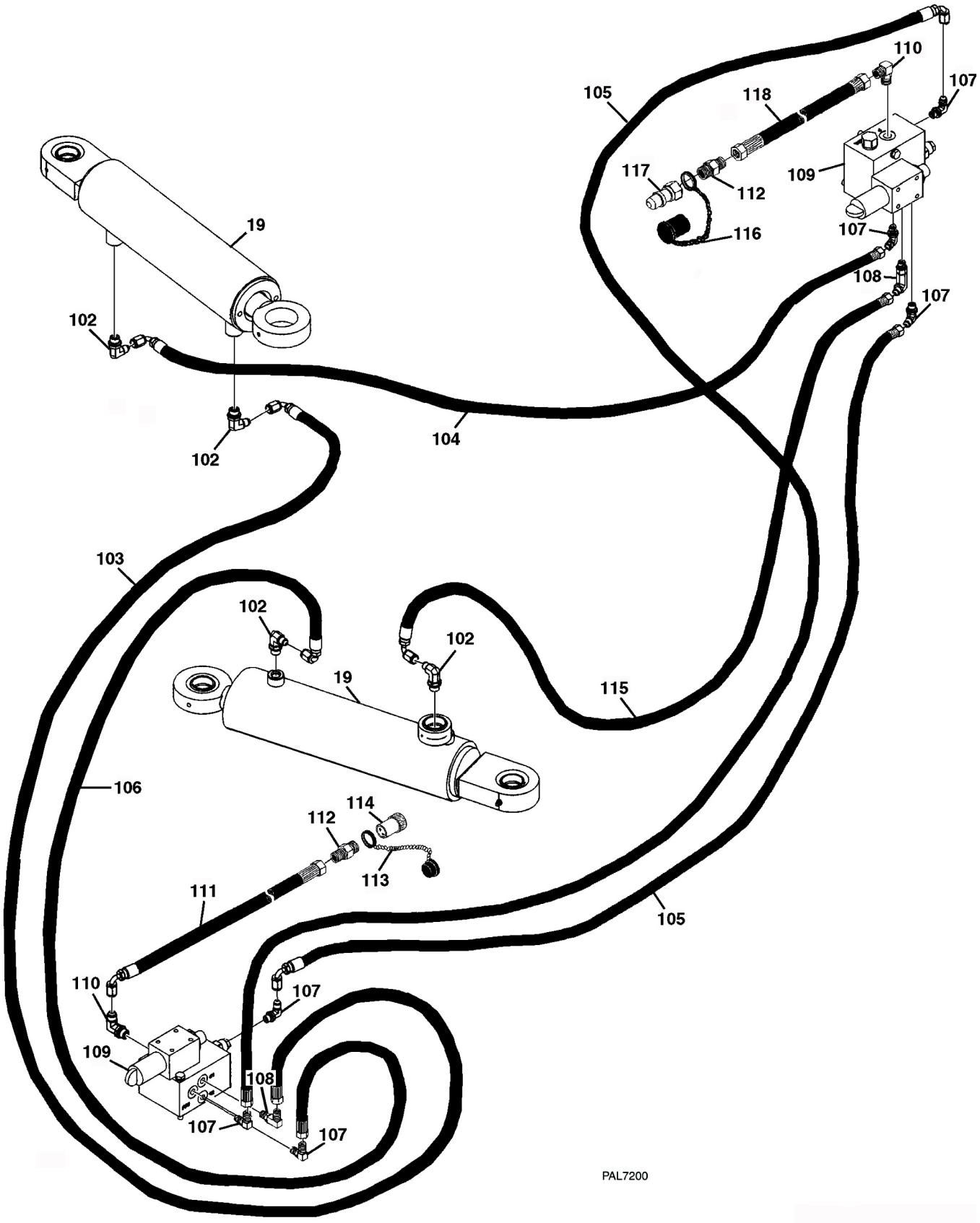


Figure 3-6 180 Degree Swing Carriage

Item	Part Number	Qty.	Description	Rev.
	341-3591	1	180 DEGREE SWING CARRIAGE, (includes all items)	B
1	NSS	1	BACK FRAME	
2		2	LOCK PIN	
3		2	VALVE	
4		4	HEX HD CAPSCREW, 5/16X3	
	362-2102	4	LOCK WASHER, 5/16	
5		3	CHAIN	
6		2	BEARING	
7		2	BEARING	
8	327-6331	10	GREASE FITTING	
9		4	BUSHING	
10		1	PIN	
11		1	PIN	
12	362-2100	2	HEX HD CAPSCREW, 1/2X1.5	
	327-6329	2	LOCK WASHER, 1/2	
13		2	PIN	
14	NSS	2	PIN SUPPORT	
15	NSS	2	PIN	
16	NSS	2	COTTER PIN	
17	NSS	2	CLEVIS PIN	
18	327-6301	6	LOCK NUT, 3/8	
19		Ref	CYLINDER ASSY, (see Figure 9-9 for details)	
20		3	PIN	
21		4	PIN	
22	333-0705	4	HEX HD CAPSCREW, 3/8X1.25	
	327-6330	4	LOCK WASHER, 3/8	
23		2	HEX HD CAPSCREW, 3/4X2.5	
		2	HEX NUT, 3/4	
24		5	WASHER	
25		6	HEX HD CAPSCREW, 3/8X.75	
	327-6330	6	LOCK WASHER, 3/8	
	375-4983	6	FLAT WASHER, 3/8	
26	NSS	1	MIDDLE FRAME	
27	NSS	1	FRONT FRAME	
28	NSS	1	S/N PLATE	
29		2	HEX HD CAPSCREW, 1/2X3.5	
		2	LOCK NUT, 1/2	
30		2	BUSHING	
31		1	PIN	
32		1	PIN	
33		3	CLAMP	
34		3	CLAMP	
102		4	ADAPTER, 90 DEGREES	
103		1	HOSE ASSY, 1/4X20.5	
104		1	HOSE ASSY, 1/4X63	
105		2	HOSE ASSY, 1/4X73	
106		1	HOSE ASSY, 1/4X57	
107		6	ADAPTER, 90 DEGREES	
108		2	ADAPTER, 90 DEGREES	

Figure 3-6 180 Degree Swing Carriage

Item	Part Number	Qty.	Description	Rev.
109		2	VALVE	
110	327-6333	2	ELBOW, 90 DEGREES	
111		1	HOSE ASSY, 3/8X93	
112	362-2111	2	STRAIGHT FITTING	
113	327-6334	1	DUST PLUG	
114	362-2109	1	FEMALE QUICK COUPLER	
115		1	HOSE ASSY, 1/4X15	
116	327-6332	1	DUST CAP	
117	362-2110	1	MALE QUICK COUPLER	
118		1	HOSE ASSY, 3/8X64	

Figure 3-7 Forks and Attaching Parts

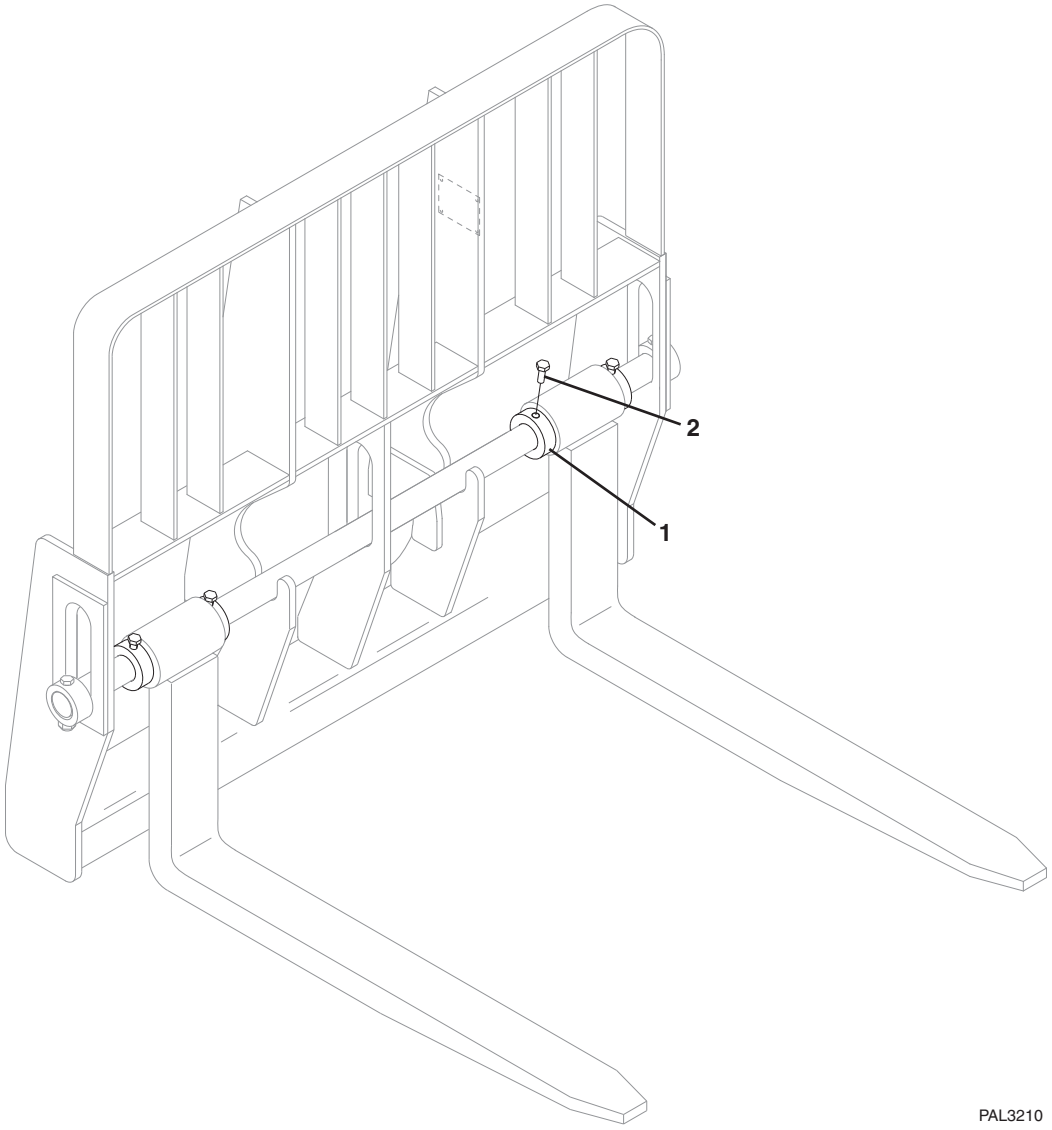


Figure 3-7 Forks and Attaching Parts

Item	Part Number	Qty.	Description	Rev.
	301-9752	6	48 IN (1219 mm) CUBING FORKS, 2 IN X 2 IN (50 mm X 50 mm), 11,640 LB (5280 kg)	A
	301-9755	2	48 IN (1219 mm) PALLET FORKS, 2.36 IN X 4 IN (60 mm X 102 mm), 13,700 LB (6300 kg)	A
	301-9753	2	48 IN (1219 mm) PALLET FORKS, 2.36 IN X 5 IN (60 mm X 127 mm), 13,700 LB (6300 kg)	A
	301-9756	2	60 IN (1524 mm) LUMBER FORKS, 1.75 IN X 7 IN (44 mm X 178 mm), 16,300 LB (7500 kg)	A
	301-9754	2	60 IN (1524 mm) LUMBER FORKS, 2.36 IN X 6 IN (60 mm X 152 mm), 16,300 LB (7500 kg)	A
	311-2854	2	72 IN (1828 kg) DUAL TAPER FORKS, 2 IN X 6 IN (50mm X 152 mm), 11,300 LB (5120 kg)	A
	310-6250	Ref	FORK CLAMP INSTALLATION, (not available to order, see items 1 & 2 for service)	A
1	310-6251	4	FORK CLAMP	
2		4	HEX HD CAPSCREW, 5/8-18X1-1/2	
	397-6114	2	90 IN FORK EXTENSION, (not shown), (includes items 101 & 102)	A
101		1	PIN, (not shown)	
102		1	CLIP, (not shown)	
N1	Note	Ref	FORKS RATED LESS THAN THE ATTACHMENT OR MACHINE'S CAPACITY DECREASE CAPACITY OF THE ATTACHMENT OR MACHINE TO THAT OF THE FORKS. FORKS RATED MORE THAN THE ATTACHMENT OR MACHINE'S CAPACITY DO NOT INCREASE ATTACHMENT OR MACHINE'S CAPACITY.	
N2	Note	Ref	PLEASE CONSULT THE LOCAL CATERPILLAR DEALER TO DETERMINE THE CORRECT FORKS APPLICABLE TO YOUR SPECIFIC CARRIAGE ASSEMBLY AND APPLICATION.	

Figure 3-8 Fork Mounted Platform

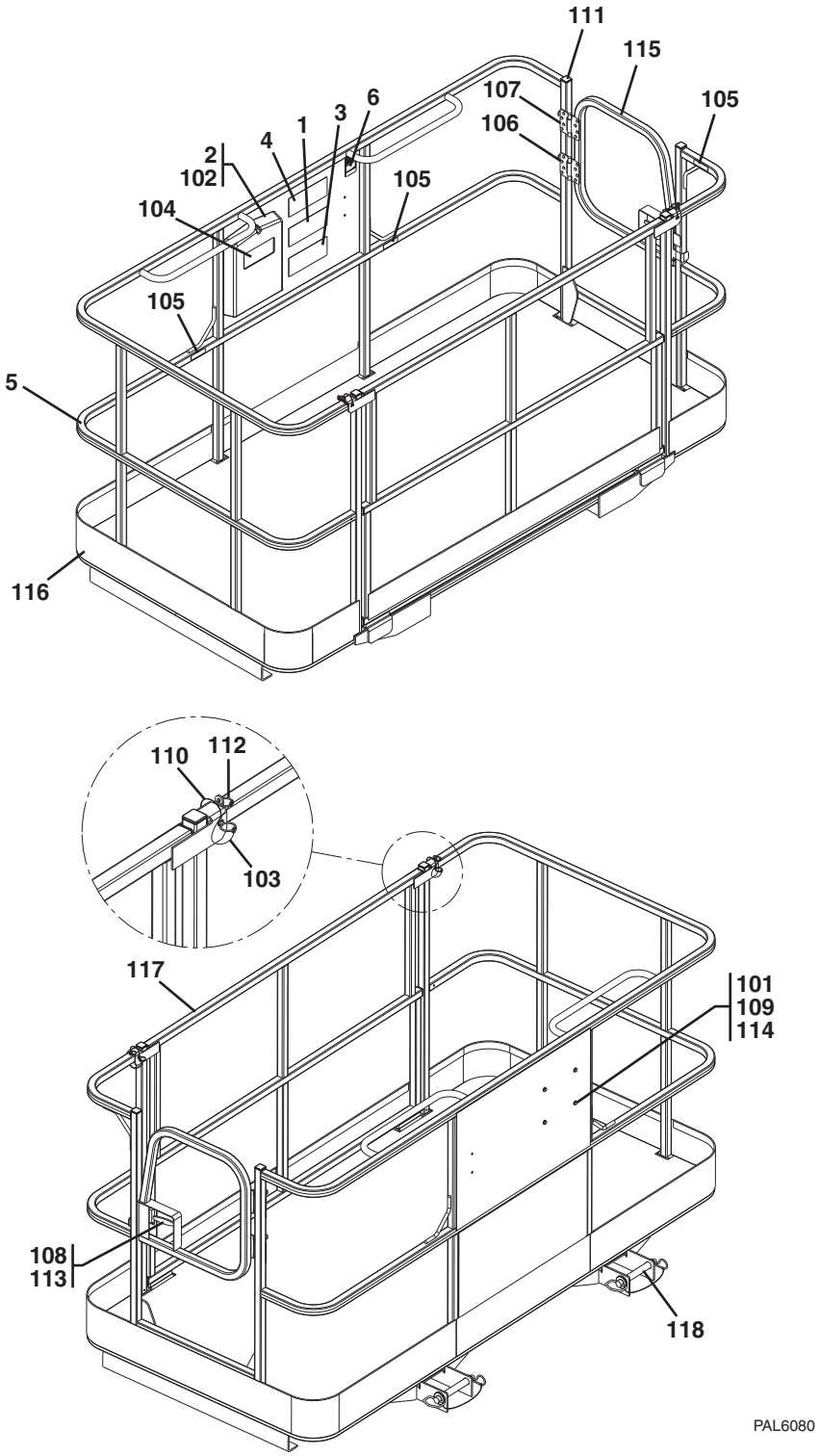
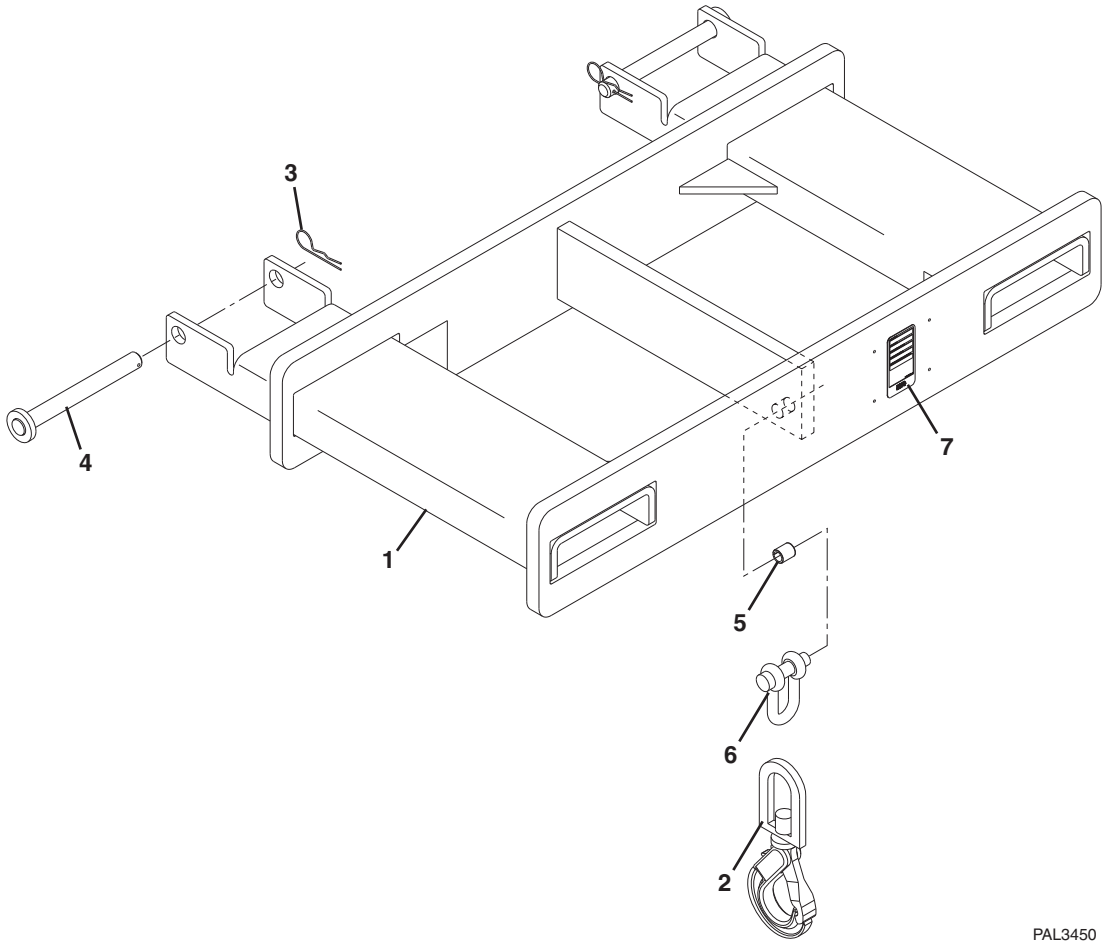


Figure 3-8 Fork Mounted Platform

Item	Part Number	Qty.	Description	Rev.
	343-9736	1	FORK MOUNTED PERSONNEL PLATFORM, **(ASME)**, (includes all items)	B
	343-9737	1	FORK MOUNTED PERSONNEL PLATFORM, **(ISO)**, (includes all items)	B
	343-9738	1	FORK MOUNTED PERSONNEL PLATFORM, **(FRENCH)**, (includes all items)	B
1	338-9998	1	WARNING DECAL, **(ASME)**	
	328-7293	1	WARNING DECAL, **(ISO)**	
		1	WARNING DECAL, **(FRENCH)**	
2		1	OPERATION & SAFTEY MANUAL, **(ASME)**	
		1	OPERATION & SAFETY MANUAL, **(ISO, SPANISH)**	
		1	OPERATION & SAFETY MANUAL, **(ISO, PORTUGUESE)**	
		1	OPERATION & SAFETY MANUAL, **(FRENCH)**	
3	338-9999	1	WARNING DECAL, **(ASME)**	
	328-7290	1	WARNING DECAL, **(ISO)**	
	328-7288	1	WARNING DECAL, **(FRENCH)**	
4	339-0000	1	CAPACITY DECAL, **(ASME)**	
	328-7291	1	CAPACITY DECAL, **(ISO)**	
		1	CAPACITY DECAL, **(FRENCH)**	
5	340-8976	1	FORK MOUNTED PLATFORM, (includes items 101 thru 118)	
6	NSS	1	S/N PLATE	
101	297-7010	4	HEX HD CAPSCREW, 1/4-20X5/8	
102	304-2566	1	MANUAL STORAGE BOX	
103	340-8977	2	LANYARD CABLE	
104	338-9997	1	MANUAL DECAL	
105	335-8059	3	LANYARD ATTACH DECAL	
106	335-8065	16	FASTENER	
107	335-8066	2	HINGE	
108	336-2804	1	LATCH	
109	298-0549	4	HEX NUT, 1/4-20	
110	340-8978	2	PIN	
111	335-8077	10	PLUG	
112		4	RING	
113	335-8080	4	RIVET	
114	298-7363	8	WASHER, 1/4	
115	335-8098	1	GATE WELDMENT	
116	NSS	1	PLATFORM	
117	340-8975	1	GATE WELDMENT	
118	340-8979	2	HITCH PIN	

Figure 3-9 Fork Mounted Hook



Item	Part Number	Qty.	Description	Rev.
	321-0556	1	FORK MOUNTED HOOK, (includes all items)	D
1	NSS	1	WELDMENT	
2	327-6335	1	HOOK	
3	327-6317	2	COTTER PIN	
4	327-6271	2	PIN WELDMENT	
5	327-6272	1	SPRING BUSHING	
6	327-6318	1	CHAIN SHACKLE	
7	NSS	1	S/N PLATE	

Figure 3-10 Winch Installation

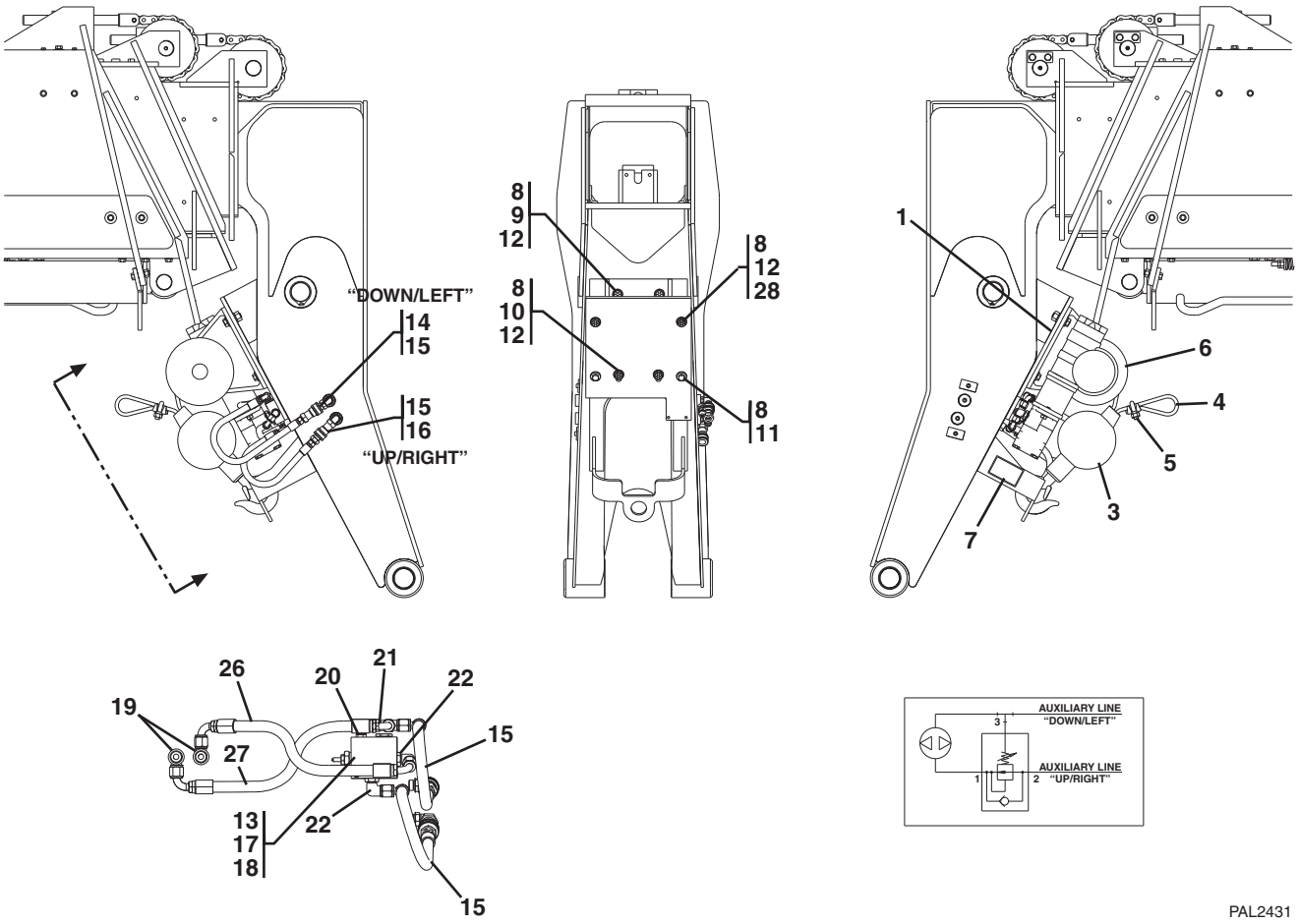


Figure 3-10 Winch Installation

Item	Part Number	Qty.	Description	Rev.
	305-3773	Ref	WINCH INSTALLATION, (not available to order, see items 1 thru 28 for service)	C
1	299-0275	1	WINCH BRACKET WELDMENT	
3	299-0362	1	HOOK WITH BALL	
4	298-7055	1	WIRE ROPE, 7/16	
5	298-6832	1	WIRE ROPE CLIP, 7/16	
6		Ref	8 IN WINCH, (see Figure 3-11 for details)	
7	298-1660	1	CAUTION DECAL	
8	298-1630	14	HARDENED WASHER, 5/8	
9	297-7081	2	HEX HD CAPSCREW, 5/8-11X2-1/2, GR8	
10	297-7082	2	HEX HD CAPSCREW, 5/8-11X3, GR8	
11	297-7079	2	HEX HD CAPSCREW, 5/8-11X1-1/2, GR8	
12	298-8051	6	HEX NUT, 5/8-11, GR5	
13		Ref	PRESSURE REDUCER VALVE, (see Figure 9-19 for details)	
14	300-6078	1	FEMALE QUICK COUPLING	
15	304-2581	2	HYDRAULIC HOSE	
16	300-6079	1	MALE QUICK COUPLING	
17	298-7373	2	FLAT WASHER, 5/16	
18	297-7021	2	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
19	298-0475	2	FITTING, 90 DEGREES	
20	303-4755	1	FITTING, 90 DEGREES	
21	298-0497	1	SWIVEL NUT RUN TEE	
22	298-0474	2	ELBOW, 90 DEGREES	
26	304-2582	1	HYDRAULIC HOSE	
27	304-2583	1	HYDRAULIC HOSE	
28	297-7080	2	HEX HD CAPSCREW, 5/8-11X2, GR8	

Figure 3-11 Winch

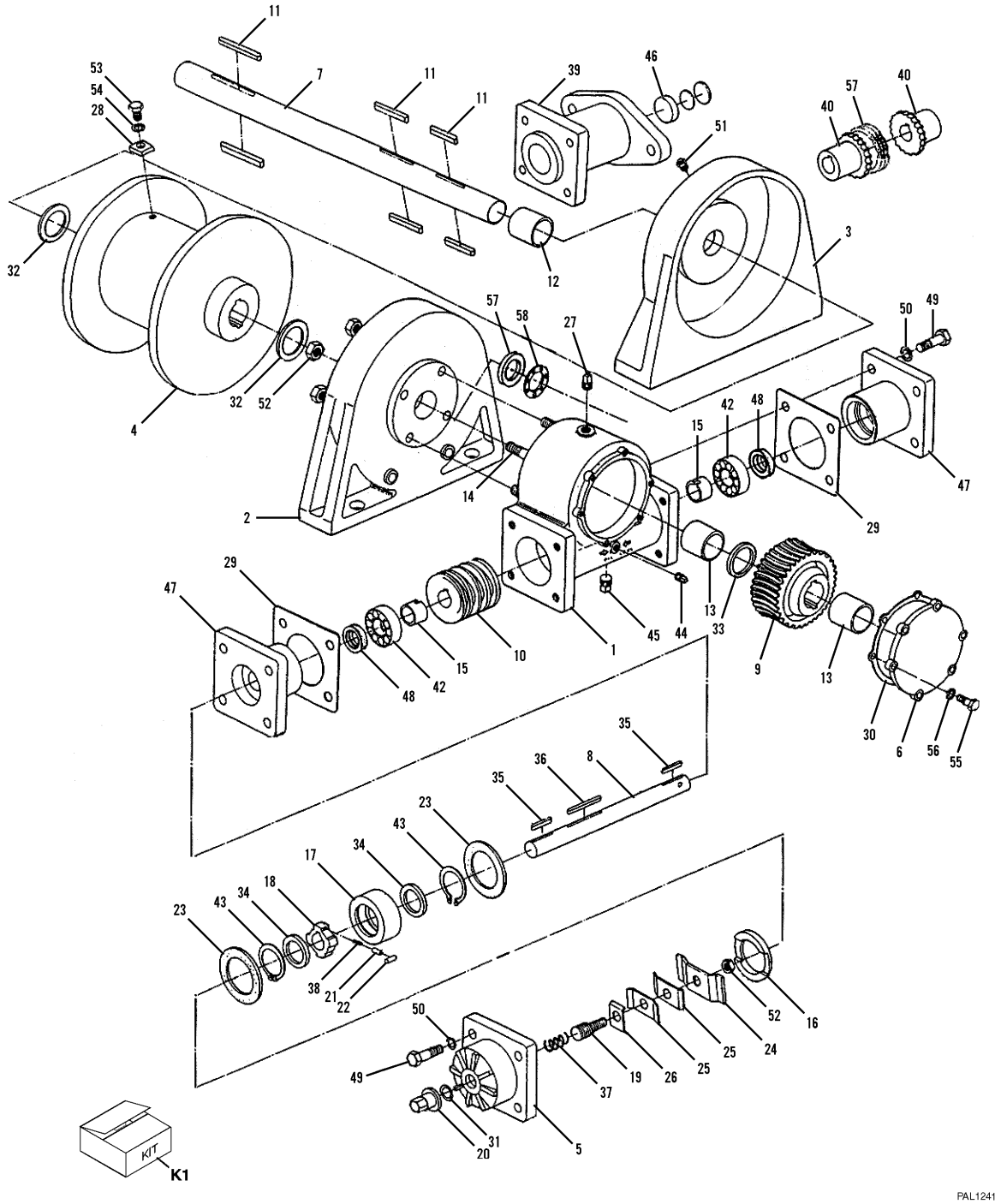


Figure 3-11 Winch

Item	Part Number	Qty.	Description	Rev.
	298-8596	1	8 IN WINCH, (includes all items)	
1	304-2302	1	GEAR CASE	
2	NSS	1	LOCK SET A	
3	304-3182	1	LOCK SET B	
4	304-4577	1	CABLE DRUM, 8 IN	
5	Use Kit K1	1	BRAKE DRUM	
6	304-2304	1	GEAR CASE COVER	
7	304-4578	1	CABLE DRUM SHAFT, 8 IN	
8	304-2305	1	WORM SHAFT, (includes item 10)	
9	NSS	1	WORM GEAR	
10	NSS	1	WORM	
11	304-4575	6	CABLE DRUM SHAFT KEY	
12	NSS	1	LOCK SEAT A BUSHING	
13	304-2307	2	BUSHING	
14	304-2308	4	STUD BOLT, 1/2X1-1/2	
15	304-2309	2	COLLAR	
16	Use Kit K1	1	BRAKE PLATE	
17	Use Kit K1	1	BRAKE HOUSING	
18	Use Kit K1	1	BRAKE DRUM	
19	Use Kit K1	1	ADJUSTING BOLT	
20	Use Kit K1	1	ADJUSTING NUT	
21	Use Kit K1	1	SPRING SEAT	
22	Use Kit K1	1	ROLLER	
23	Use Kit K1	2	BRAKE LINING	
24	Use Kit K1	1	BRAKE PLATE A	
25	Use Kit K1	2	BRAKE PLATE B	
26	Use Kit K1	1	FIXING PLATE	
27	NSS	1	OIL FILL PLUG	
28	NSS	1	BEARING SHIM	
29	303-8650	2	BEARING HUB GASKET	
30	304-2320	1	GEAR CASE GASKET	
31	Use Kit K1	1	O-RING	
32	304-2322	2	WASHER	
33	304-2323	1	BUSHING	
34	Use Kit K1	2	SEAL	
35	304-2324	2	WORM SHAFT KEY	
36	NSS	1	WORM SHAFT KEY	
37	Use Kit K1	1	SPRING	
38	Use Kit K1	1	BRAKE DRUM SPRING	
39	NSS	1	MOTOR MOUNT ADAPTER	
40	304-3812	1	COUPLER, WINCH SHAFT	
42	303-8651	2	BEARING	
43	Use Kit K1	2	V.C. TYPE LOCK RING	
44	304-2328	1	OIL LEVEL PLUG	
45	304-2329	1	OIL DRAIN PLUG	
46	NSS	1	COUPLER SPACER	
47	303-8652	2	BEARING HUB	
48	303-8653	2	OIL SEAL	
49	Use Kit K1	8	CAPSCREW, 3/8X1-1/2	

Figure 3-11 Winch (Continued)

Item	Part Number	Qty.	Description	Rev.
50	Use Kit K1	8	LOCK WASHER	
51	NSS	1	GREASE FITTING	
52	Use Kit K1	5	NUT	
53	304-3184	1	HEX HD CAPSCREW, 3/8X1	
54	NSS	1	LOCK WASHER	
55	NSS	1	HEX HD CAPSCREW, 3/8X1	
56	Use Kit K1	1	BRAKE COVER GASKET	
57	304-2334	2	OIL SEAL	
58	NSS	1	LOCK SEAT GASKET	
59		Ref	WINCH MOTOR, (not shown), (see Figure 3-12 for details)	
K1	320-4875	1	BRAKE LINING ASSY, (includes items 5, 16 thru 26, 31, 34, 37, 38, 43, 49, 50, 52 & 56)	

Figure 3-11 Winch (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 3-12 Winch Motor

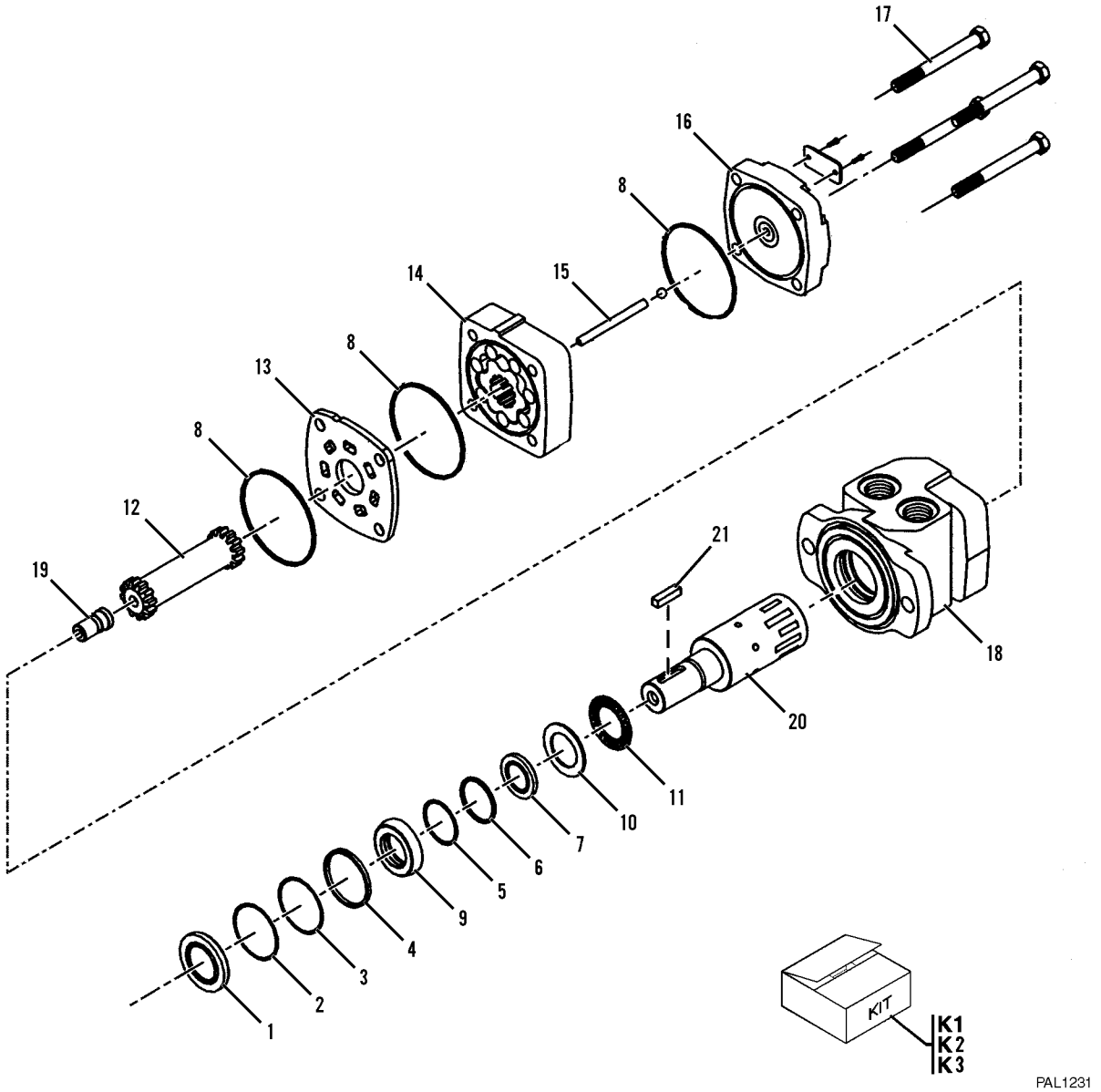


Figure 3-12 Winch Motor

Item	Part Number	Qty.	Description	Rev.
	303-8656	1	8 IN WINCH MOTOR, (includes all items)	
1	304-3192	1	DUST SEAL	
2	Use Kit K1 or K2	1	SPLIT WIRE RING	
3	Use Kit K1 or K2	1	METAL BACKUP SHIM	
4	Use Kit K1 or K2	1	HIGH PRESSURE SEAL	
5	Use Kit K1 or K2	1	METAL BACKUP SHIM	
6	Use Kit K1 or K2	1	TEFLON BACKUP SHIM	
7	Use Kit K1 or K2	1	SHAFT SEAL	
8	304-3193	1	BODY SEAL KIT	
9	Use Kit K1 or K3	1	SEAL CARRIER	
10	Use Kit K1 or K3	1	THRUST WASHER	
11	304-3194	1	THRUST BEARING	
12	304-3195	1	DRIVE LINK	
13	304-3196	1	MID MOUNT WEAR PLATE	
14	304-3197	1	ROTOR KIT	
15	304-3198	1	DRIVE LINK PIN	
16	304-3199	1	END COVER	
17	304-3200	1	BOLT SET	
18	304-3201	1	HOUSING	
19	304-3202	1	COOLING PLUG	
20	304-3203	1	SHAFT, (includes item 21)	
21	304-3204	1	KEY	
K1	304-3190	1	SEAL KIT, (includes items 1 thru 10)	
K2	304-3191	1	SEAL KIT, (includes items 1 thru 8)	
K3	304-2268	1	SEAL KIT, (includes items 9 & 10)	

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SECTION 4
ENGINE & ATTACHING PARTS

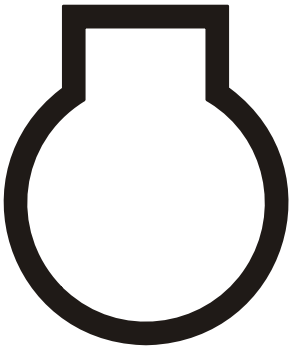

Figure 4-1 Engine Installation

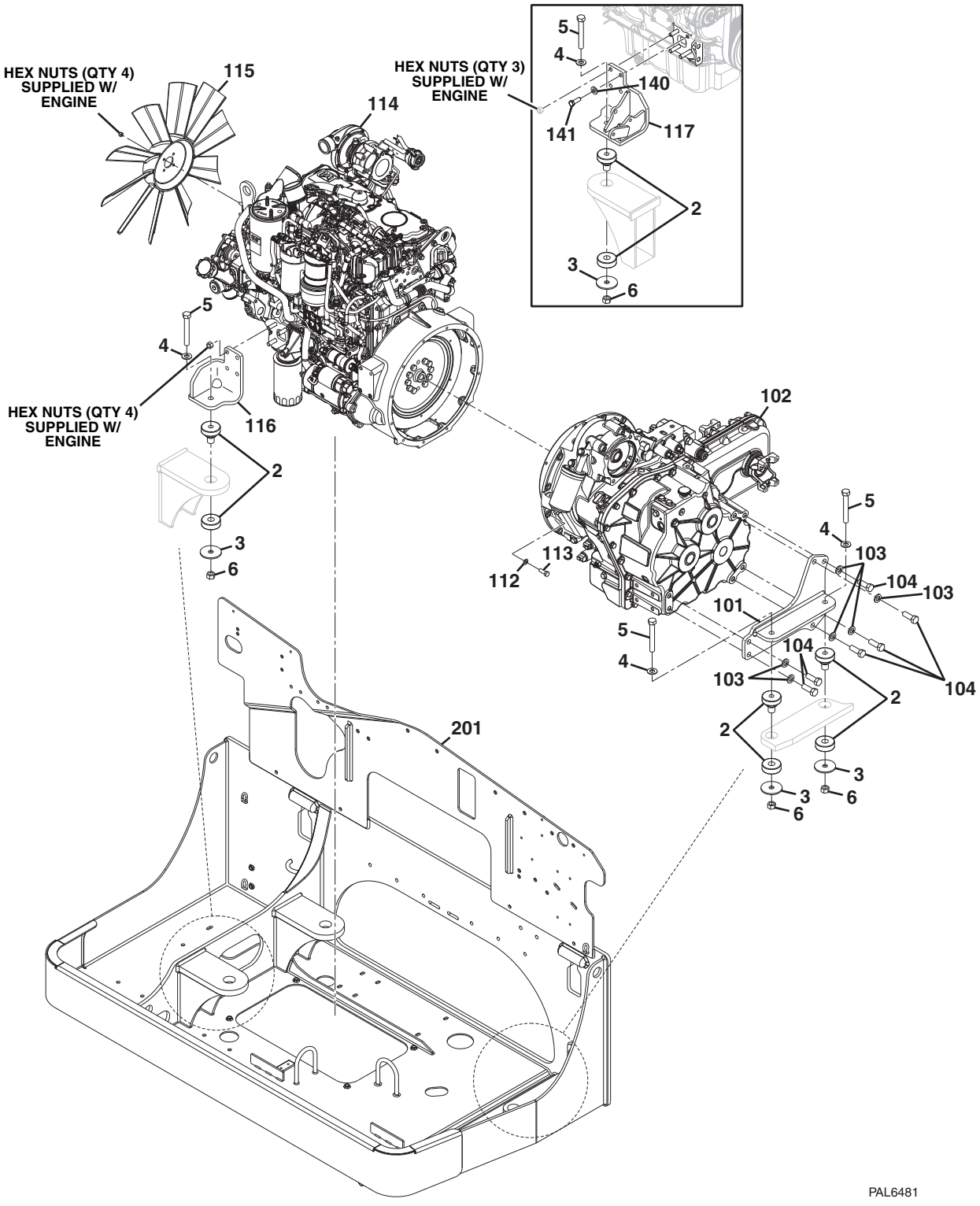

Figure 4-1 Engine Installation

Item	Part Number	Qty.	Description	Rev.
2		4	RUBBER MOUNT	
3		4	REBOUND WASHER	
4		4	WASHER, 5/8	
5		4	HEX HD CAPSCREW, 5/8-11X4-1/2, G8, (torque to 210 lb-ft/280 Nm)	
6		4	HEX LOCKNUT, 5/8-11, GR8	
101	389-3441	1	BRACKET	
102		Ref	TRANSMISSION, (see Figure 5-12 for details)	
103	312-3345	6	WASHER, 16mm	
104	297-7096	6	HEX HD CAPSCREW, M16X45, GR8.8, (torque to 162 lb-ft/219 Nm)	
112	8T-4121	10	WASHER, 10mm	
113		10	HEX HD CAPSCREW, M10X40, GR10.9	
114		Ref	CAT ENGINE, (see Figure 4-2 for details)	
115	389-3465	1	23 IN FAN	
116	416-1038	1	BRACKET	
117	416-1869	1	BRACKET	
140		1	WASHER, 1/2	
141		1	HEX HD CAPSCREW, M12X35, GR10.9, (torque to 65 lb-ft/88 Nm)	
201		Ref	ENGINE POD WELDMENT, (see Figure 1-1 for details)	

Figure 4-2 CAT Engine

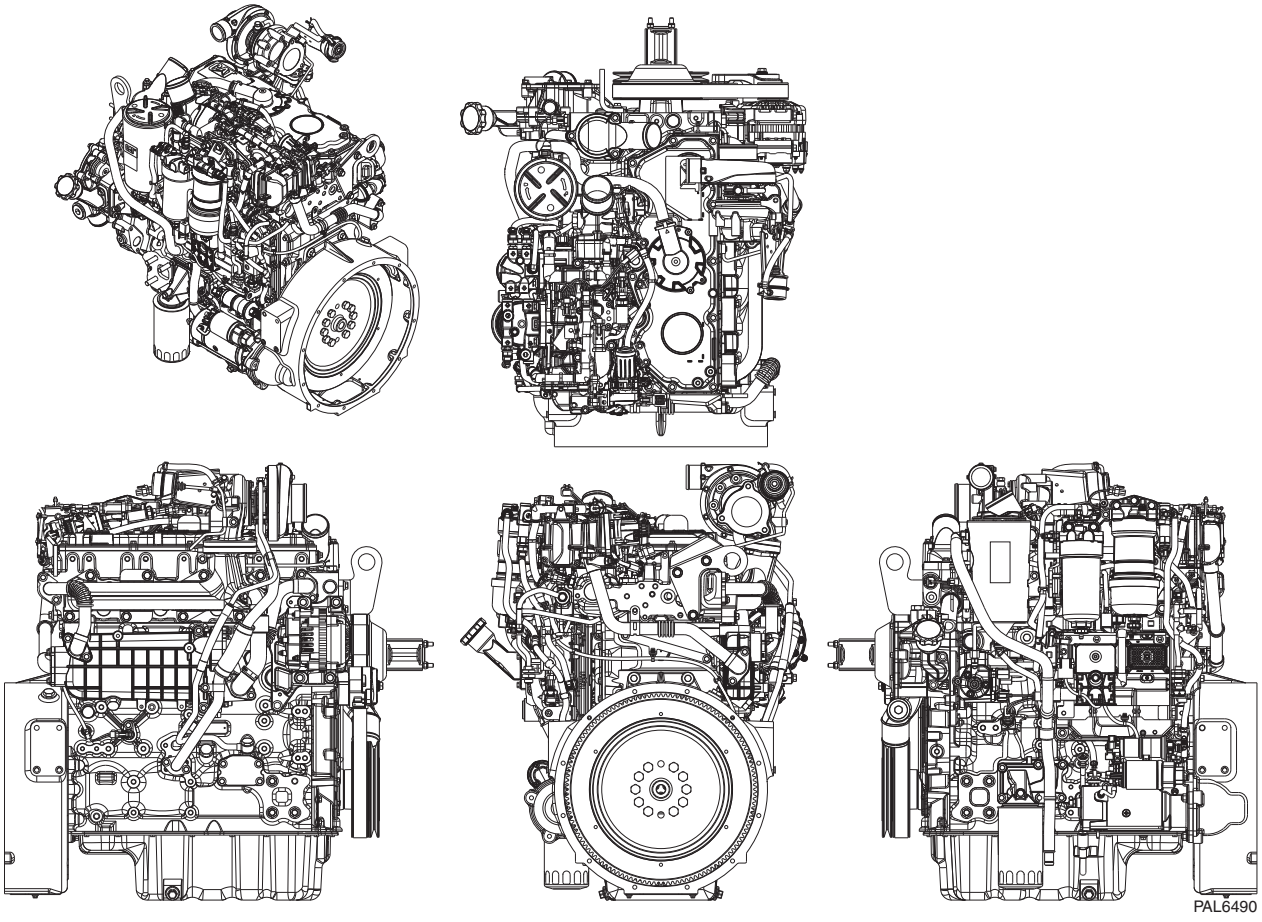

Figure 4-2 CAT Engine

Item	Part Number	Qty.	Description	Rev.
	389-3483	1	CAT ENGINE, 4.4L, 142HP, (includes all items)	B
	7C-0351	1	OIL PLUG	
	365-2968	1	BELT	
	7W-2326	1	OIL FILTER	
	339-1048	1	DISPOSAL FUMES FILTER KIT	
	367-7549	1	WATER TEMPERATURE REGULATOR	
	360-8960	1	FUEL FILTER ELEMENT	
	384-8512	1	FILTER SCREEN	
	363-6572	1	FUEL/WATER SEPARATOR ELEMENT	
	361-9874	1	GLOW PLUG	
			FOR ADDITIONAL ENGINE INFORMATION REFER TO SIS WEB OR TO THE FOLLOWING:	
	KENUR9133		FULL SERVICE MANUAL	
	SEBU8606-01		OPERATION & MAINTENANCE MANUAL (O&MM)	
	KENR9119-01		SYSTEMS OPERATION TEST AND ADJUST (SOTA)	
	KENR9120-01		DISASSEMBLY & ASSEMBLY (D&A)	
	KENR9118-01		SPECIFICATIONS MANUAL (Spec)	
	KENR9122-01		ELECTRIC SCHEMATIC (ES)	
	SENR9969-05		TROUBLESHOOTING	
	SEBP6149		PARTS MANUAL	

Figure 4-2 CAT Engine

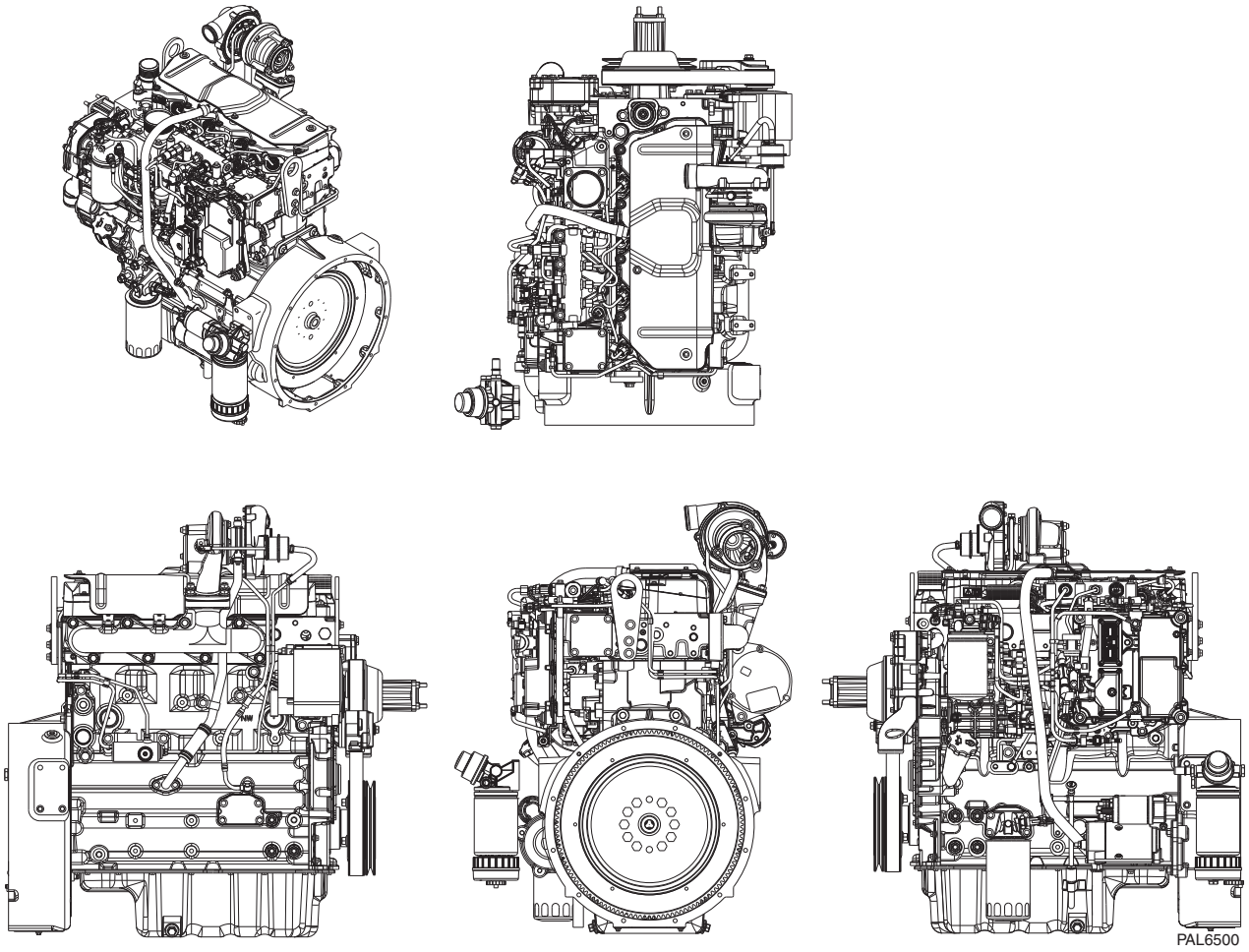

Figure 4-2 CAT Engine

Item	Part Number	Qty.	Description	Rev.
	362-9386	1	CAT ENGINE, 4.4L, 142HP, (includes all items)	B
	136-3608	1	OIL CAP	
	298-4546	1	GASKET VALVE COVER	
	7C-0351	1	BREATHER	
	130-9888	1	DRAIN PLUG	
	7W-2326	1	OIL CAP FILLER	
	367-1819	1	ENGINE OIL FILTER	
	281-8744	1	WATER TEMPERATURE REGULATOR	
	311-2376	1	FUEL FILTER	
	299-8229	1	FUEL FILTER ELEMENT	
	343-7104	1	FUEL FILTER	
	308-7298	1	FUEL/WATER SEPARATOR FILTER	
	361-9874	1	GLOW PLUG	
			FOR ADDITIONAL ENGINE INFORMATION REFER TO SIS WEB OR TO THE FOLLOWING:	
	KENR6217		FULL SERVICE MANUAL	
	SEBU8180-01		OPERATION & MAINTENANCE MANUAL (O&MM)	
	RENR9965		SYSTEMS OPERATION TEST AND ADJUST (SOTA)	
	KENR6216-01		DISASSEMBLY & ASSEMBLY (D&A)	
	RENR9961-01		SPECIFICATIONS MANUAL (Spec)	
	RENR9964-02		ELECTRICAL SCHEMATIC (ES)	
	SENR9969-05		TROUBLESHOOTING	
	SEBP4124		PARTS BOOK	

Figure 4-3 Fuel Tank and Lines

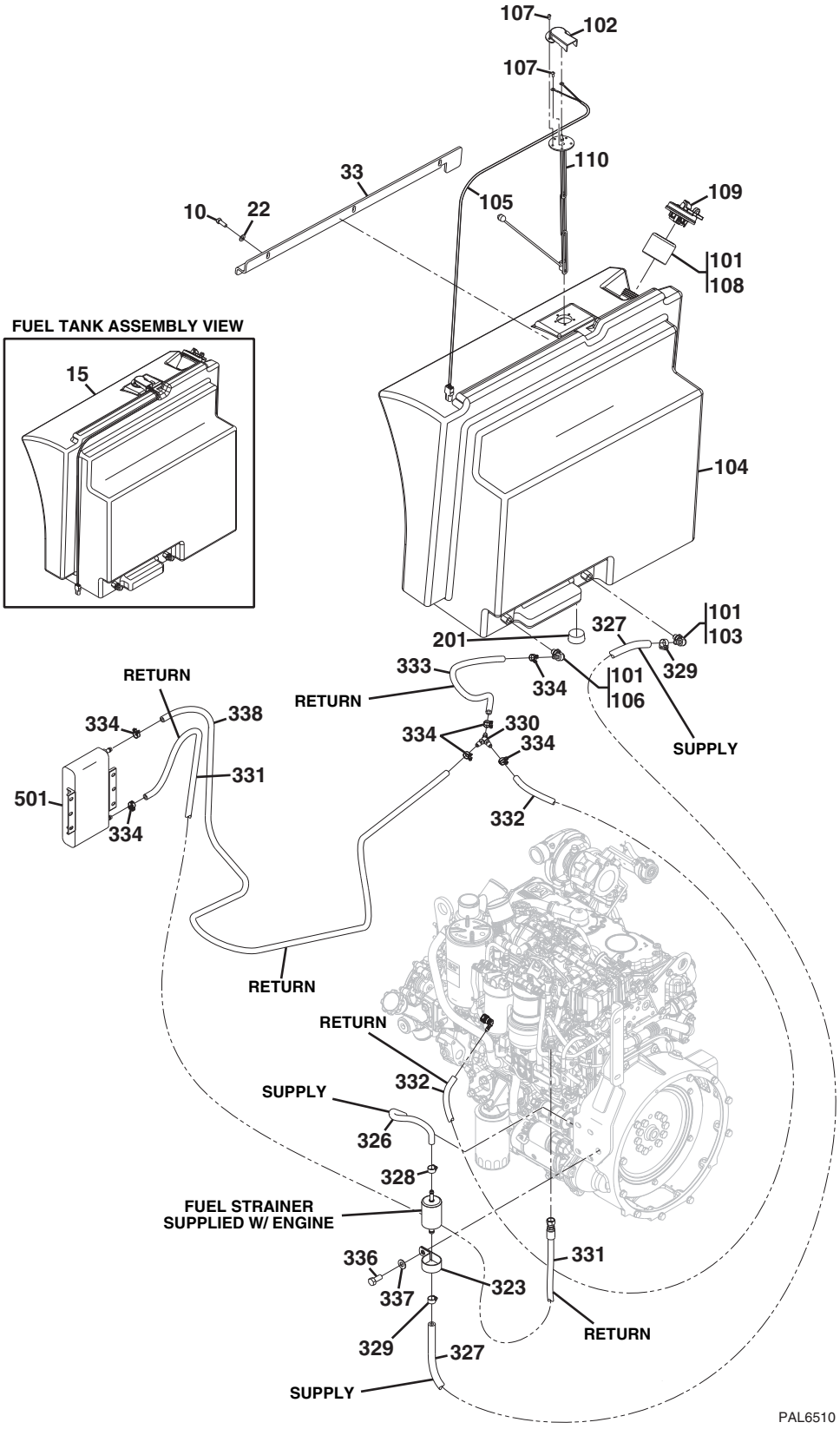

Figure 4-3 Fuel Tank and Lines

Item	Part Number	Qty.	Description	Rev.
10	297-7031	3	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 30 lb-ft/41 Nm)	
15	389-3533	1	FUEL TANK ASSY, (includes items 101 thru 110)	D
22	298-7365	3	WASHER, 3/8	
33	299-0400	1	BRACKET	
101		AR	LOCTITE® 30512™	
102	298-7243	1	FUEL SENDER COVER	
103	389-3647	1	ADAPTER, 90 DEGREES	
104		1	FUEL TANK, (includes item 201)	A
105	298-7254	1	FUEL SENDER HARNESS	
106		1	ADAPTER, 90 DEGREES	
107	298-8042	5	SCREW, 10-32X.44	
108	298-1540	1	FILLER NECK TANK ADAPTER	
109	142-8828	1	LOCKING FUEL CAP	
110	310-7936	1	FUEL SENDER	
201		1	PLUG	
323		1	2 IN CLAMP	
326	389-3537	1	HOSE	
327	389-3538	1	HOSE	
328	298-7980	1	CLAMP	
329	330-8103	2	CLAMP	
331	389-3553	1	HOSE	
332	389-3549	1	HOSE	
333	389-3548	1	HOSE	
334		6	CLAMP	
336	297-7040	1	HEX HD CAPSCREW, 1/2-13X1-1/8, GR5, (torque to 75 lb-ft/102 Nm)	
337	298-7367	1	WASHER, 1/2	
338	389-3633	1	HOSE	
407	323-7231	8	TIE-STRAP, (not shown)	
501		Ref	FUEL COOLER, (see Figure 4-4 for details)	

Figure 4-3 Fuel Tank and Lines

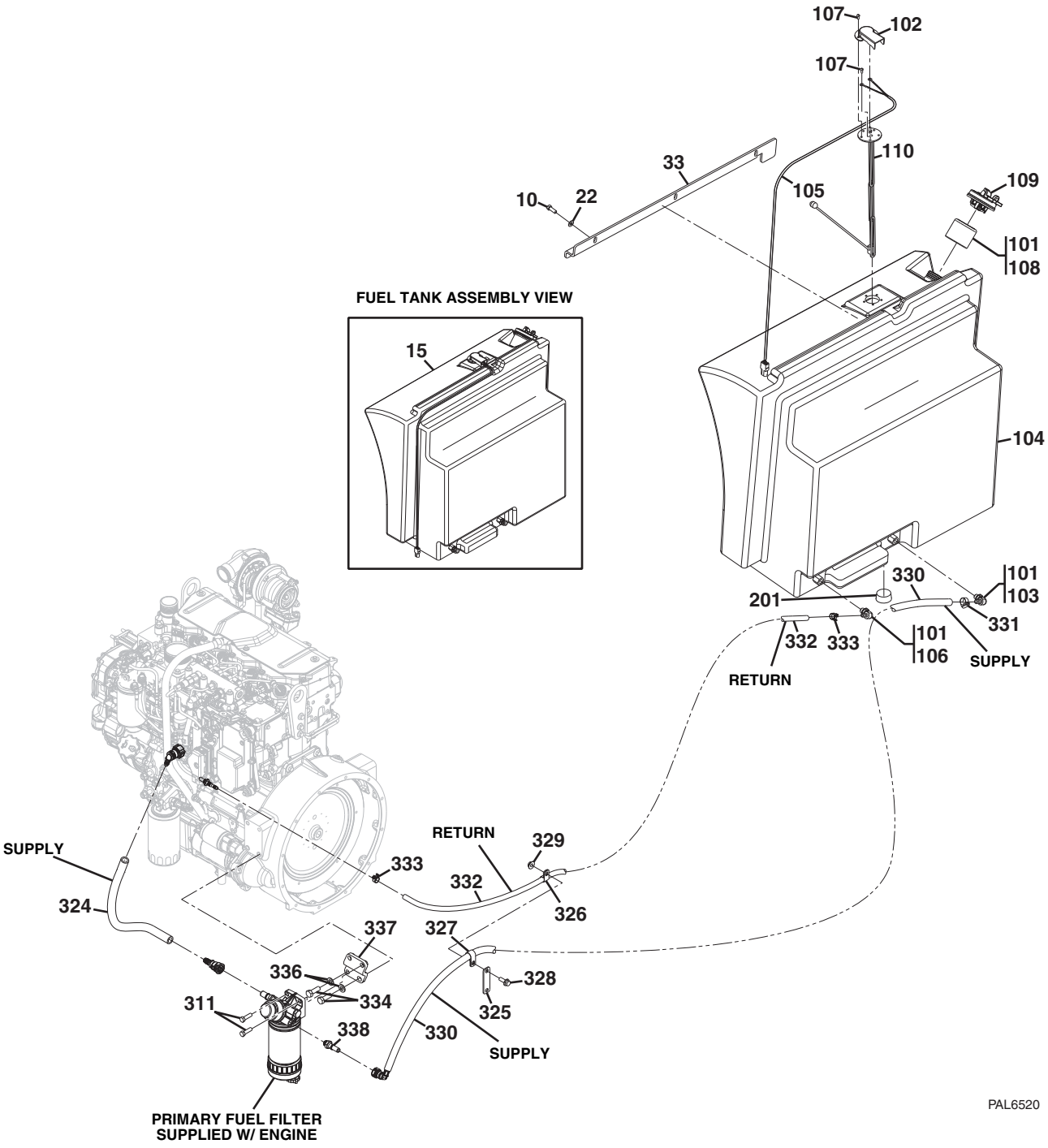

Figure 4-3 Fuel Tank and Lines

Item	Part Number	Qty.	Description	Rev.
10	297-7031	3	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 30 lb-ft/41 Nm)	
15	389-3533	1	FUEL TANK ASSY, (includes items 101 thru 110)	D
22	298-7365	3	WASHER, 3/8	
33	299-0400	1	BRACKET	
101		AR	LOCTITE® 30512™	
102	298-7243	1	FUEL SENDER COVER	
103	389-3647	1	ADAPTER, 90 DEGREES	
104		1	FUEL TANK, (includes item 201)	A
105	298-7254	1	FUEL SENDER HARNESS	
106		1	ADAPTER, 90 DEGREES	
107	298-8042	5	SCREW, 10-32X.44	
108	298-1540	1	FILLER NECK TANK ADAPTER	
109	142-8828	1	LOCKING FUEL CAP	
110	310-7936	1	FUEL SENDER	
201		1	PLUG	
311	297-7032	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5, (torque to 30 lb-ft/41 Nm)	
324	389-3607	1	HOSE	
325	361-2846	1	BRACKET	
326		1	CLIP	
327		1	CLIP	
328	298-1359	1	SCREW, 3/8-16X1	
329	303-4795	1	NUT, 3/8-16	
330	389-3606	1	HOSE	
331	330-8103	1	CLAMP	
332	389-3608	1	HOSE	
333		2	CLAMP	
334	8T-4956	2	HEX HD CAPSCREW, M12X35, GR8.8, (torque to 65 ft-lb/88 Nm)	
336	8T-4223	2	WASHER, 12mm	
337	389-3552	1	BRACKET	
338	416-2382	1	ADAPTER, (includes o-ring)	

Figure 4-4 Radiator Installation

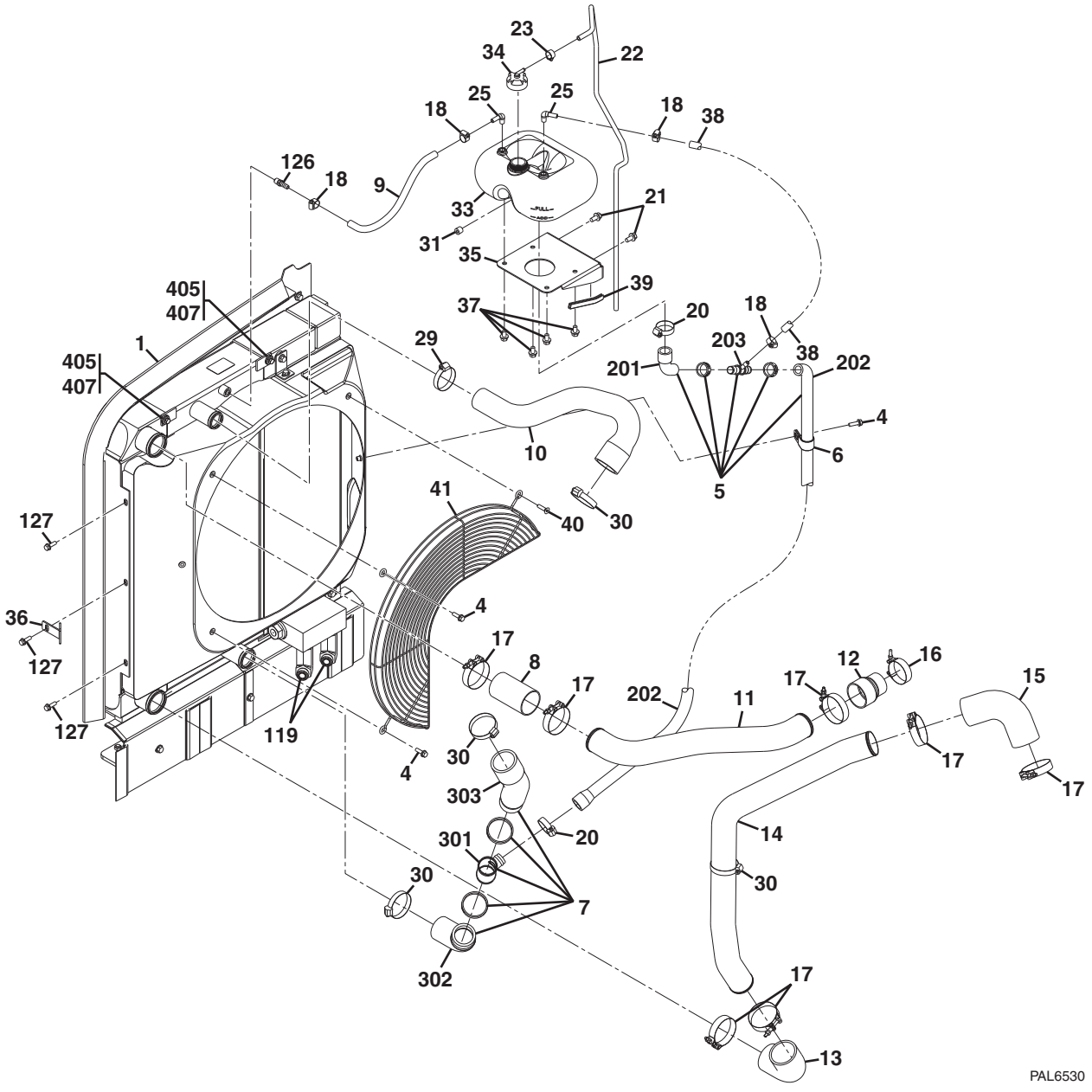

Figure 4-4 Radiator Installation (Continued)

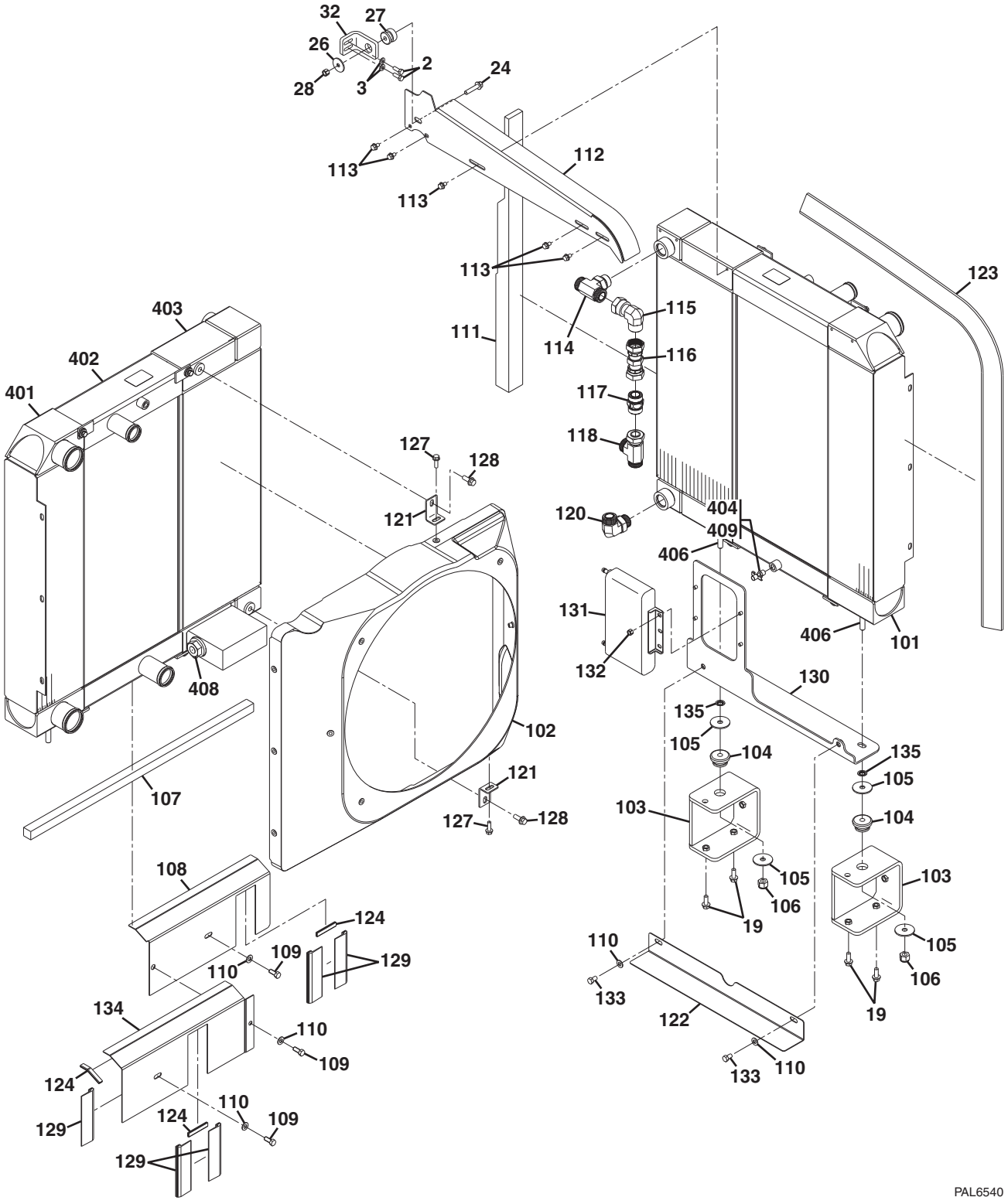

Figure 4-4 Radiator Installation

Item	Part Number	Qty.	Description	Rev.
	389-3470	Ref	RADIATOR INSTALLATION, (not available to order, see items 1 thru 41 for service)	D
1	389-3473	Ref	RADIATOR INSTALLATION, (not available to order, see items 101 thru 124 & 126 thru 135 for service)	E
2	8T-9043	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5, (torque to 17 lb-ft/23 Nm)	
3	298-7364	2	WASHER, 5/16	
4	334-5142	3	SCREW, 5/16-18X1	
5	398-8046	1	HOSE ASSY, (includes items 201 thru 203)	B
6	392-5185	1	CLIP	
7	389-3554	1	HOSE ASSY, (includes items 301 thru 303)	B
8		1	2-1/2 IN TUBE	
9	062-8043	1	HOSE	
10	389-3489	1	TUBE	
11	389-3487	1	PIPE	
12	390-6784	1	REDUCER TUBE	
13	389-3523	1	TUBE	
14	389-3522	1	TUBE	
15	389-3448	1	TUBE, 90 DEGREES	
16	298-7889	1	CLAMP	
17		7	T-BOLT CLAMP, (torque to 40-50 lb-ft/ 54-68 Nm)	
18	330-8103	4	CLAMP	
19		4	SCREW, 3/8-16X1	
20		2	1-3/4 IN CLAMP	
21		2	SCREW, 3/8-16X3/4	
22	323-6960	1	HOSE	
23	298-7980	1	CLAMP	
24		1	SCREW, 3/8-16X1-3/4	
25		2	FITTING, 90 DEGREES	
26	3P-8517	1	WASHER	
27		1	RUBBER MOUNT	
28		1	HEX LOCKNUT, 3/8	
29	323-7265	1	2-1/2 IN CLAMP	
30	309-4001	4	2-3/4 IN CLAMP	
31		1	PLUG	
32	389-3447	1	BRACKET	
33	389-3532	1	COOLANT TANK	
34	398-8041	1	CAP	
35	389-3555	1	BRACKET	
36	389-3644	1	BRACKET	
37		4	SCREW, 3/8-16X5/8	
38	398-8042	1	HOSE	
39		4.8 in	TRIM	
40		1	SCREW, .312-18X1-1/4, GR5	
41	389-3466	1	FAN GUARD	
101	389-3567	1	RADIATOR, (includes items 401 thru 409)	C,B
102	389-3477	1	23 IN FAN SHROUD	
103	389-3630	2	BRACKET	
104	364-5690	2	ISOLATOR MOUNT	
105		4	SPECIAL WASHER	

Figure 4-4 Radiator Installation

Item	Part Number	Qty.	Description	Rev.
106	298-1580	2	LOCKNUT, 1/2-13	
107	360-6617	1	FOAM SEAL	
108		1	PLATE	
109	297-7030	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5, (torque to 30 lb-ft/41 Nm)	
110	298-7365	5	WASHER, 3/8	
111	389-3464	1	FOAM SEAL	
112	389-3568	1	PLATE	
113		5	SCREW, 5/16-18X1/2	
114		1	ADAPTER, (includes o-ring)	
115	298-0509	1	ADAPTER, 90 DEGREES, (includes o-ring)	
116	368-0506	1	ADAPTER, (includes o-ring)	
117	361-2844	1	CHECK VALVE	
118	303-4762	1	ADAPTER, (includes o-ring)	
119	298-0491	2	ADAPTER, 90 DEGREES, (includes o-ring)	
120	303-4759	1	ADAPTER, 90 DEGREES, (includes o-ring)	
121	389-3456	2	BRACKET	
122	389-3632	1	BRACKET	
123	389-3569	1	FOAM SEAL	
124		9 in	TRIM	
126	303-4771	1	FITTING	
127	334-5142	5	SCREW, 5/16-18X1	
128	298-1359	2	SCREW, 3/8-16X1	
129	389-3617	5	SEAL	
130	389-3631	1	BRACKET	
131	389-3636	1	FUEL COOLER	
132		4	HEX NUT, .312-18	
133		2	HEX HD CAPSCREW,3/8-16X5/8, GR5, (torque to 30 lb-ft/41 Nm)	
134		1	PLATE	
135		2	SPECIAL NUT	
201	398-8043	1	TUBE	
202	398-8044	1	TUBE	
203	398-8045	1	TEE FITTING	
301	389-3458	1	TEE PIPE	
302	415-1483	1	TUBE	
303	415-1484	1	TUBE	
401	417-4953	1	CHARGE AIR COOLER	
402	417-4954	1	RADIATOR	
403	417-4955	1	COOLER	
404	417-4956	1	1/4 IN DRAINCOCK	
405	417-4957	6	HEX HD CAPSCREW, 5/16-18X1/2	
406	417-4958	2	STUD	
407	417-4959	6	WASHER	
408	417-4960	1	THERMOSTAT VALVE	
409		1	HOSE	

Figure 4-4 Radiator Installation

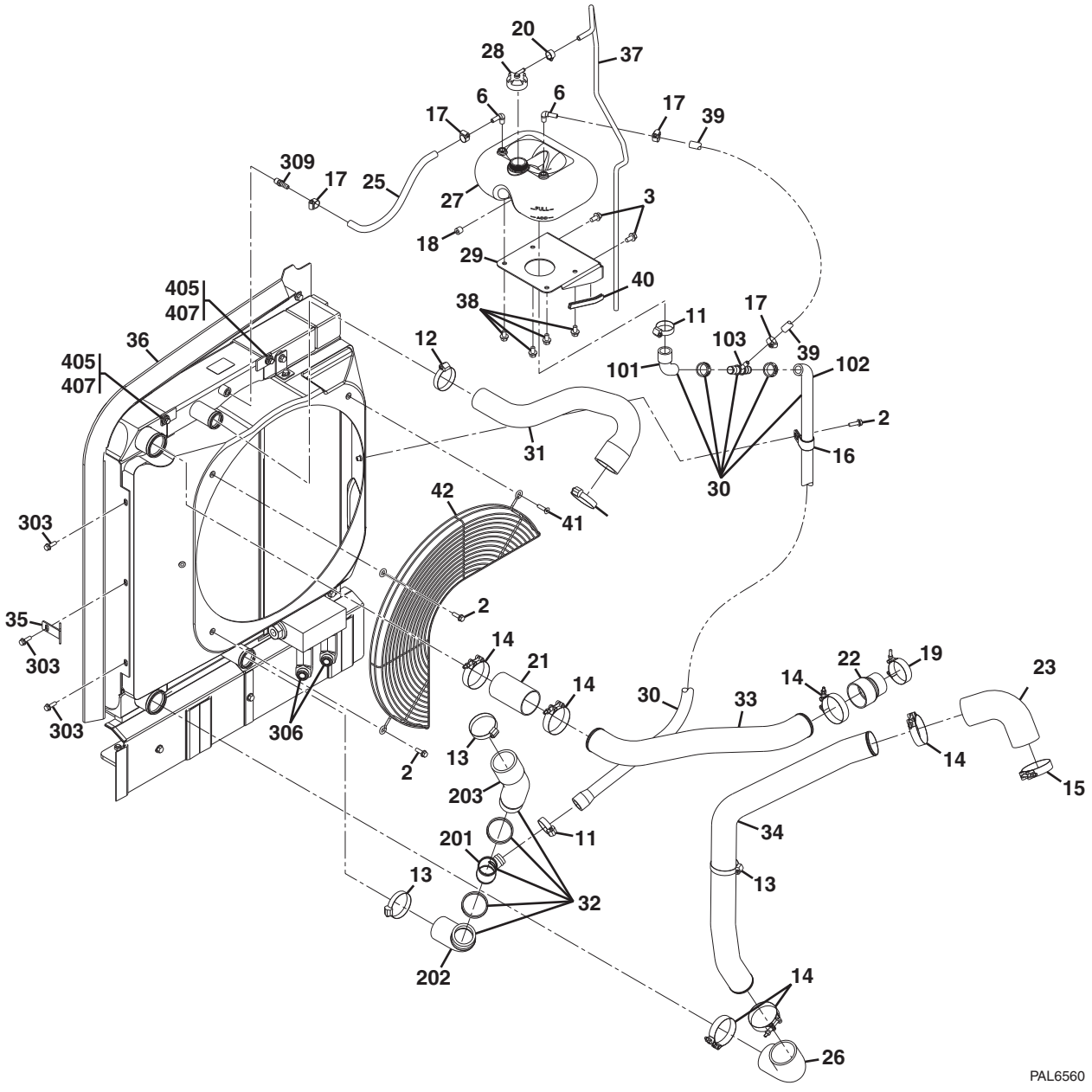

Figure 4-4 Radiator Installation (Continued)

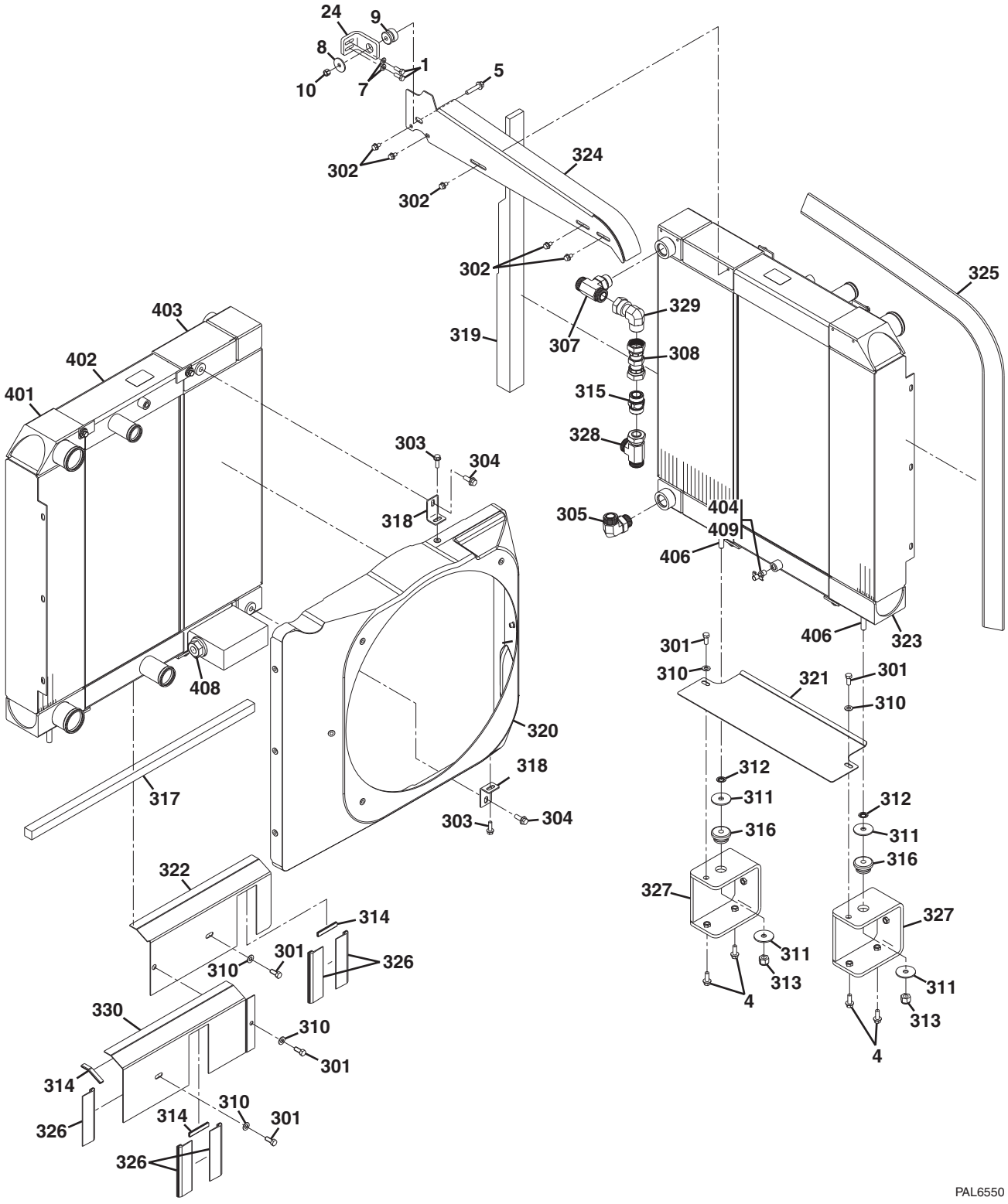

Figure 4-4 Radiator Installation

Item	Part Number	Qty.	Description	Rev.
	389-3598	Ref	COOLING SYSTEM INSTALLATION, (not available to order, see items 1 thru 42 for service)	D
1	8T-9043	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5, (torque to 17 lb-ft/23 Nm)	
2	334-5142	3	SCREW, 5/16-18X1	
3		2	SCREW, 3/8-16X3/4	
4		4	SCREW, 3/8-16X1	
5		1	SCREW, 3/8-16X1-3/4	
6		2	FITTING, 90 DEGREES	
7	298-7364	2	WASHER, 5/16	
8	3P-8517	1	WASHER	
9		1	RUBBER MOUNT	
10		1	HEX LOCKNUT, 3/8-16	
11		2	1-3/4 IN CLAMP	
12	323-7265	1	2-1/2 IN CLAMP	
13	309-4001	4	2-3/4 IN CLAMP	
14		6	T-BOLT CLAMP	
15		1	T-BOLT CLAMP	
16	392-5185	1	CLIP	
17	330-8103	4	CLAMP	
18		1	PLUG	
19	298-7889	1	CLAMP	
20	298-7980	1	CLAMP	
21		1	2-1/2 IN TUBE	
22	390-6784	1	REDUCER TUBE	
23	383-7348	1	TUBE, 90 DEGREES	
24	389-3447	1	BRACKET	
25	062-8043	1	HOSE	
26	389-3523	1	HOSE	
27	389-3532	1	COOLANT TANK	
28	398-8041	1	CAP	
29	389-3555	1	BRACKET	
30	398-8046	1	HOSE ASSY, (includes items 101 thru 103)	B
31	389-3599	1	HOSE	
32	389-3600	1	HOSE ASSY, (includes items 201 thru 203)	B
33	389-3601	1	TUBE	
34	389-3602	1	TUBE	
35	389-3644	1	BRACKET	
36	389-3648	Ref	RADIATOR INSTALLATION, (not available to order, see items 301 thru 330 for service)	B
37	323-6960	1	HOSE	
38		4	SCREW, 3/8-16X5/8	
39	398-8042	1	HOSE	
40		4.8 in	TRIM	
41		1	SCREW, .312-18X1-1/4, GR5	
42	389-3466	1	FAN GUARD	
101	398-8043	1	TUBE	
102	398-8044	1	TUBE	
103	398-8045	1	TEE FITTING	
201	389-3458	1	TEE PIPE	

Figure 4-4 Radiator Installation

Item	Part Number	Qty.	Description	Rev.
202	415-1483	1	TUBE	
203	415-1484	1	TUBE	
301	297-7030	5	HEX HD CAPSCREW, 3/8-16X7/8, GR5, (torque to 30 lb-ft/41 Nm)	
302		5	SCREW, 5/16-18X1/2	
303	334-5142	5	SCREW, 5/16-18X1	
304	298-1359	2	SCREW, 3/8-16X1	
305	303-4759	1	ADAPTER, 90 DEGREES, (includes o-ring)	
306	298-0491	2	ADAPTER, 90 DEGREES, (includes o-ring)	
307		1	ADAPTER, (includes o-ring)	
308	368-0506	1	ADAPTER, (includes o-ring)	
309	303-4771	1	FITTING	
310	298-7365	5	WASHER, 3/8	
311		4	SPECIAL WASHER	
312	298-7392	2	STEEL WASHER, 1/2	
313	298-1580	2	LOCKNUT, 1/2-13	
314		9 in	TRIM	
315	361-2844	1	CHECK VALVE	
316	364-5690	2	ISOLATOR MOUNT	
317	360-6617	1	FOAM SEAL	
318	389-3456	2	BRACKET	
319	389-3464	1	FOAM SEAL	
320	389-3477	1	23 IN FAN SHROUD	
321	389-3534	1	PLATE	
322		1	PLATE	
323	389-3567	1	RADIATOR, (includes items 401 thru 409)	C,B
324	389-3568	1	PLATE	
325	389-3569	1	FOAM SEAL	
326	389-3617	5	SEAL	
327	389-3630	2	BRACKET	
328	303-4762	1	ADAPTER, (includes o-ring)	
329	298-0509	1	ADAPTER, 90 DEGREES, (includes o-ring)	
330		1	PLATE	
401	417-4953	1	CHARGE AIR COOLER	
402	417-4954	1	RADIATOR	
403	417-4955	1	COOLER	
404	417-4956	1	1/4 IN DRAINCOCK	
405	417-4957	6	HEX HD CAPSCREW, 5/16-18X1/2	
406	417-4958	2	STUD	
407	417-4959	6	WASHER	
408	417-4960	1	THERMOSTAT VALVE	
409		1	HOSE	

Figure 4-5 Air Cleaner Installation

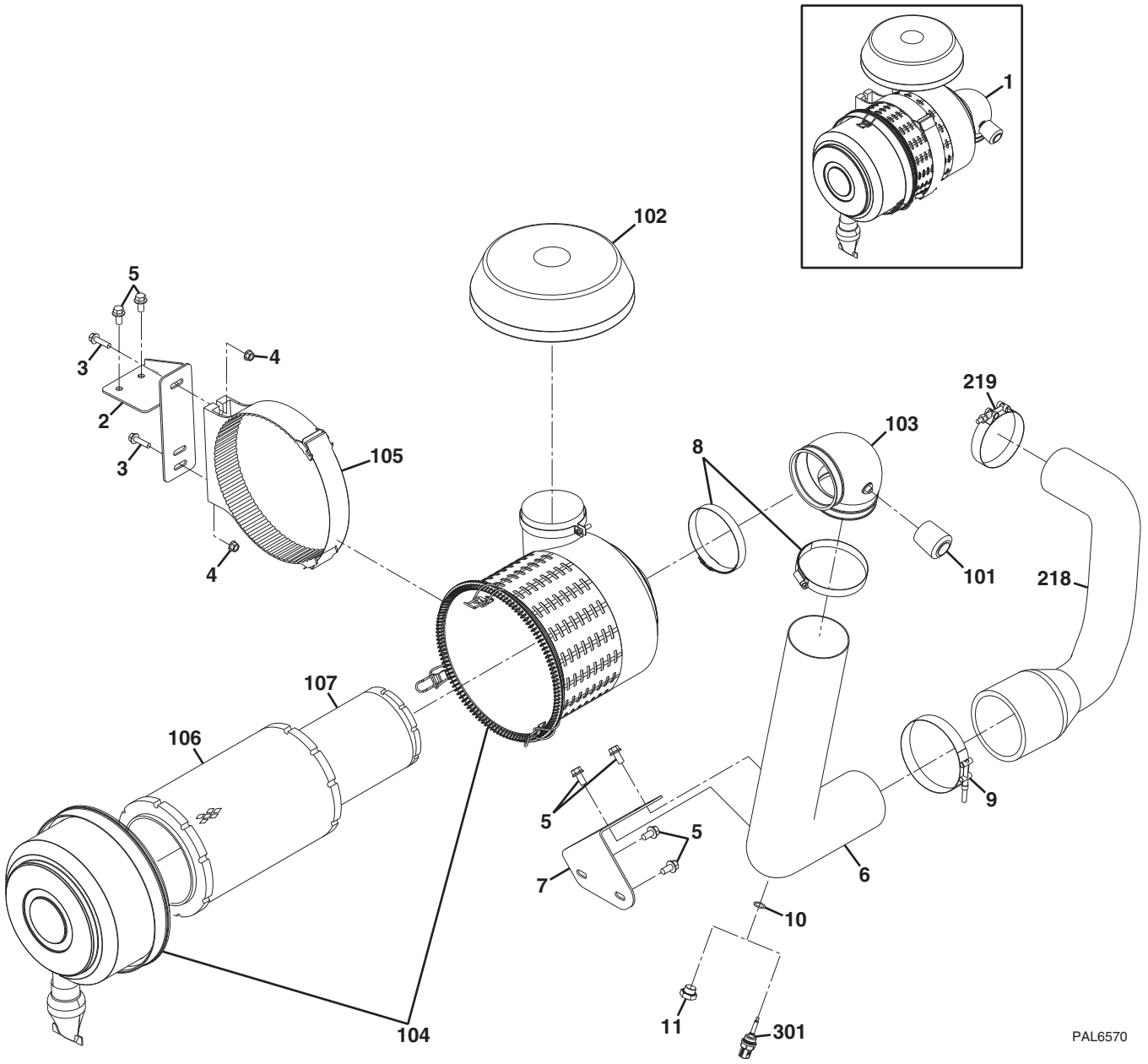

Figure 4-5 Air Cleaner Installation

Item	Part Number	Qty.	Description	Rev.
	389-3497	Ref	AIR CLEANER INSTALLATION, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, (not available to order, see items 1 thru 10 for service)	B
	389-3611	Ref	AIR CLEANER INSTALLATION, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**, (not available to order, see items 1 thru 11 for service)	A
1	389-3453	1	11 IN AIR CLEANER ASSY, (includes items 101 thru 107)	D
2	389-3443	1	BRACKET	
3		2	SCREW, 5/16-18X1-1/4, (torque to 11 lb-ft/15 Nm)	
4		2	NUT, .312-18	
5		6	SCREW, 3/8-16X3/4, GR8, (torque to 45-60 lb-ft/61-81 Nm)	
6	389-3449	1	PIPE	
7	298-8425	1	BRACKET	
8	343-7049	2	CLAMP, (torque to 40-50 lb-ft/54-68 Nm)	
9		1	CLAMP, (torque to 70-90 lb-ft/95-122 Nm)	
10	228-7103	1	O-RING	
11	389-3434	1	PLUG, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**	
101		1	INDICATOR	
102		1	RAIN CAP	
103		1	ELBOW	
104	NSS	1	COVER & BODY ASSY	
105		1	MOUNTING BAND	
106	383-8021	1	PRIMARY ELEMENT	
107	383-8023	1	SECONDARY ELEMENT	
218	389-3488	1	TUBE, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**	
	389-3605	1	TUBE, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**	
219		1	CLAMP, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**	
		1	CLAMP, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**	
301		Ref	AMBIENT TEMPERATURE SENSOR, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, (see Figure 4-2 for details)	

Figure 4-6 Exhaust Installation

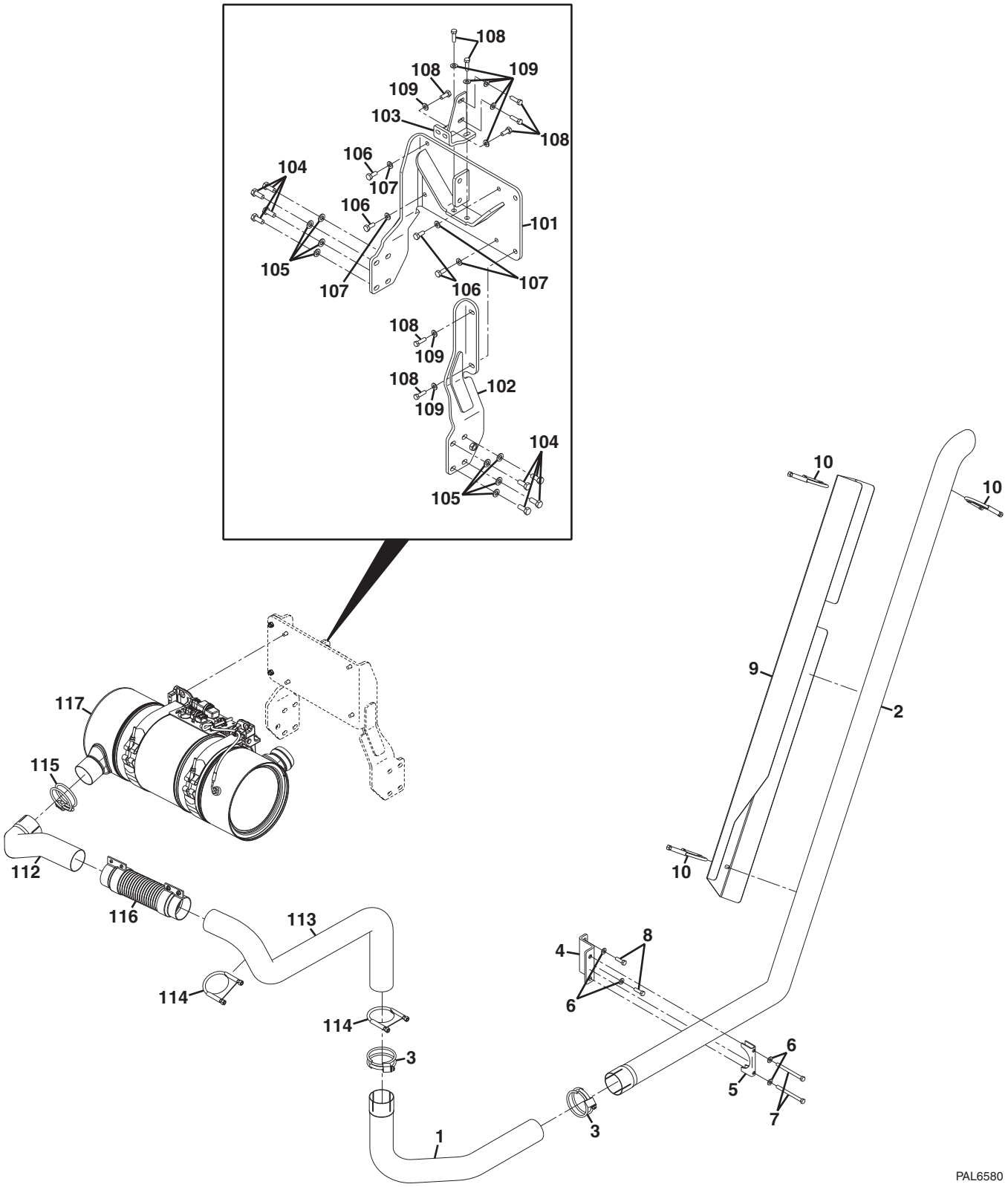

Figure 4-6 Exhaust Installation

Item	Part Number	Qty.	Description	Rev.
	389-3504	Ref	EXHAUST INSTALLATION, (not available to order, see items 1 thru 10 for service)	A
1	389-3451	1	PIPE	
2	389-3452	1	PIPE	
3	298-1758	2	CLAMP	
4	389-3565	1	BRACKET	
5	389-3566	1	BRACKET	
6	298-7365	4	WASHER, 3/8	
7		2	HEX HD CAPSCREW, 3/8-16X4-1/2, GR5, (torque to 30-41 lb-ft/41-56 Nm)	
8	297-7032	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5, (torque to 30-41 lb-ft/41-56 Nm)	
9	389-3505	1	SHIELD	
10	298-0530	3	3 IN CLAMP	
	389-3503	Ref	ENGINE POD EXHAUST INSTALLATION, (not available to order, see items 101 thru 109 & 112 thru 117 for service)	C
101	389-3518	1	BRACKET	
102	389-3592	1	BRACKET	
103	389-3593	1	BRACKET	
104	8T-4139	8	HEX HD CAPSCREW, M12X30, GR8.8, (torque to 65 lb-ft/88 Nm)	
105	8T-4223	8	WASHER, 12mm	
106	8T-4136	6	HEX HD CAPSCREW, M10X25, GR8.8, (torque to 37 lb-ft/50 Nm)	
107	8T-4121	6	WASHER, 10mm	
108	297-7032	6	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5, (torque to 30-41 lb-ft/41-56 Nm)	
109	298-7365	6	WASHER, 3/8	
112	389-3486	1	PIPE	
113	389-3501	1	PIPE	
114	298-0530	2	3 IN CLAMP	
115	298-1758	1	CLAMP	
116	389-3596	1	PIPE ASSY	
117	375-5062	1	MUFFLER ASSY	

Figure 4-6 Exhaust Installation

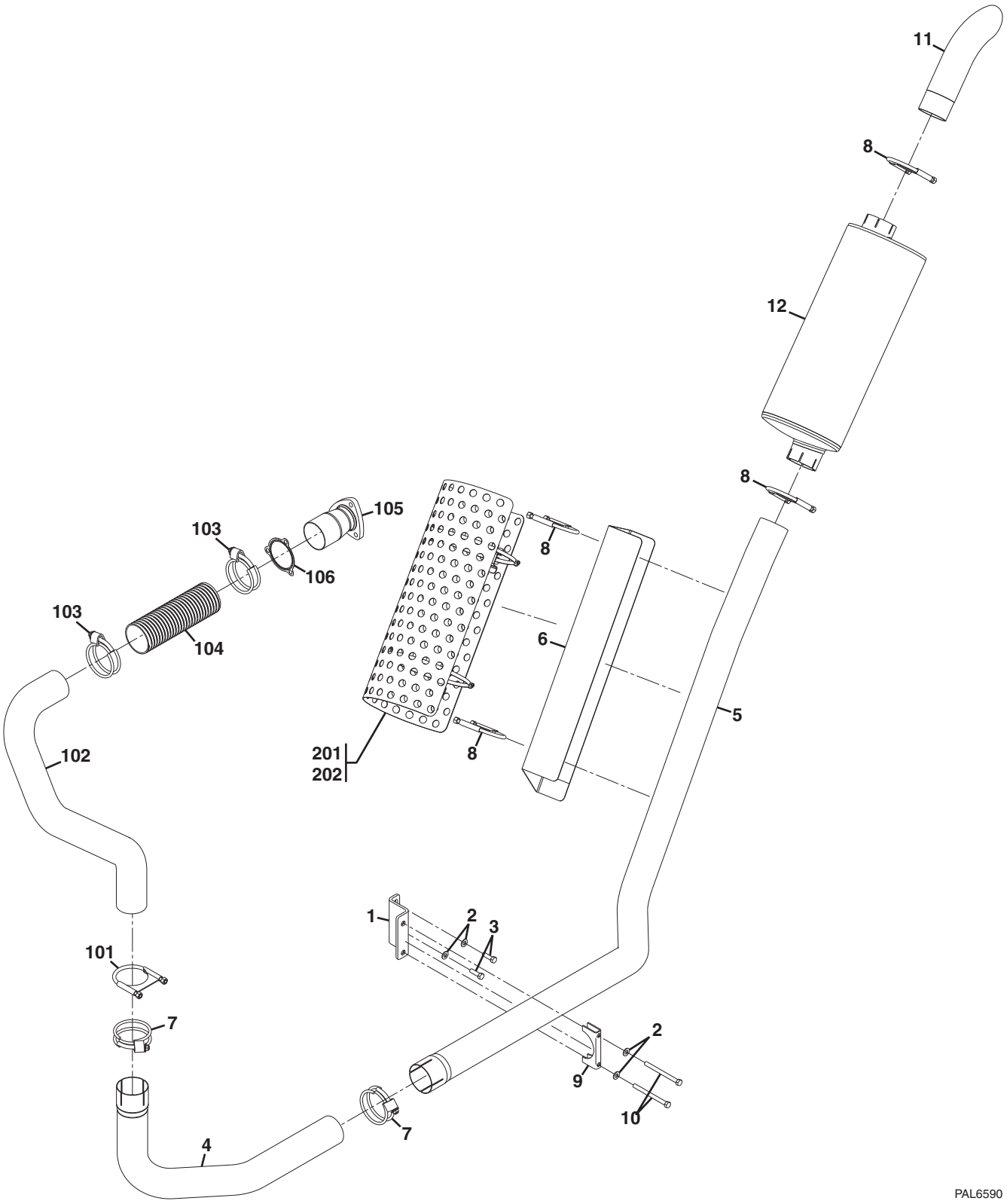

Figure 4-6 Exhaust Installation

Item	Part Number	Qty.	Description	Rev.
	389-3612	Ref	EXHAUST INSTALLATION, (not available to order, see items 1 thru 12 for service)	A
1	389-3565	1	BRACKET	
2	298-7365	4	WASHER, 3/8	
3	297-7032	2	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5, (torque to 30-41 lb-ft/41-56 Nm)	
4	389-3451	1	PIPE	
5	389-3613	1	PIPE	
6	325-1346	1	SHIELD	
7	298-1758	2	CLAMP, (torque to 35-40 lb-ft/47-54 Nm)	
8	298-0530	4	3 IN CLAMP	
9	389-3566	1	BRACKET	
10		2	HEX HD CAPSCREW, 3/8-16X4-1/2, GR5, (torque to 30-41 lb-ft/41-56 Nm)	
11	298-7066	1	PIPE	
12	299-0392	1	3 IN MUFFLER	
	389-3609	Ref	ENGINE POD EXHAUST INSTALLATION, (not available to order, see items 101 thru 106 for service)	A
101	298-0530	1	3 IN CLAMP	
102	389-3610	1	PIPE	
103	298-1758	2	CLAMP, (torque to 35-40 lb-ft/47-54 Nm)	
104	298-8145	1	TUBE	
105	389-3594	1	PIPE WITH FLANGE	
106		1	SEAL	
	325-1345	Ref	EXHAUST INSTALLATION, (not available to order, see items 201 & 202 for service)	A
201	325-1351	1	EXHAUST COVER ASSY	
202	325-1352	2	CLAMP	

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SECTION 5
DRIVE TRAIN

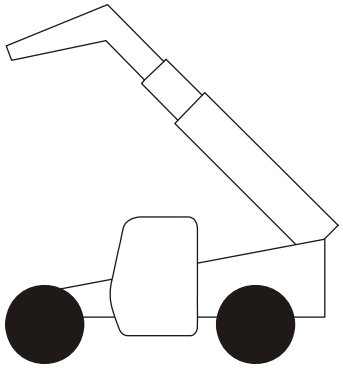

Figure 5-1 Drive Train Components

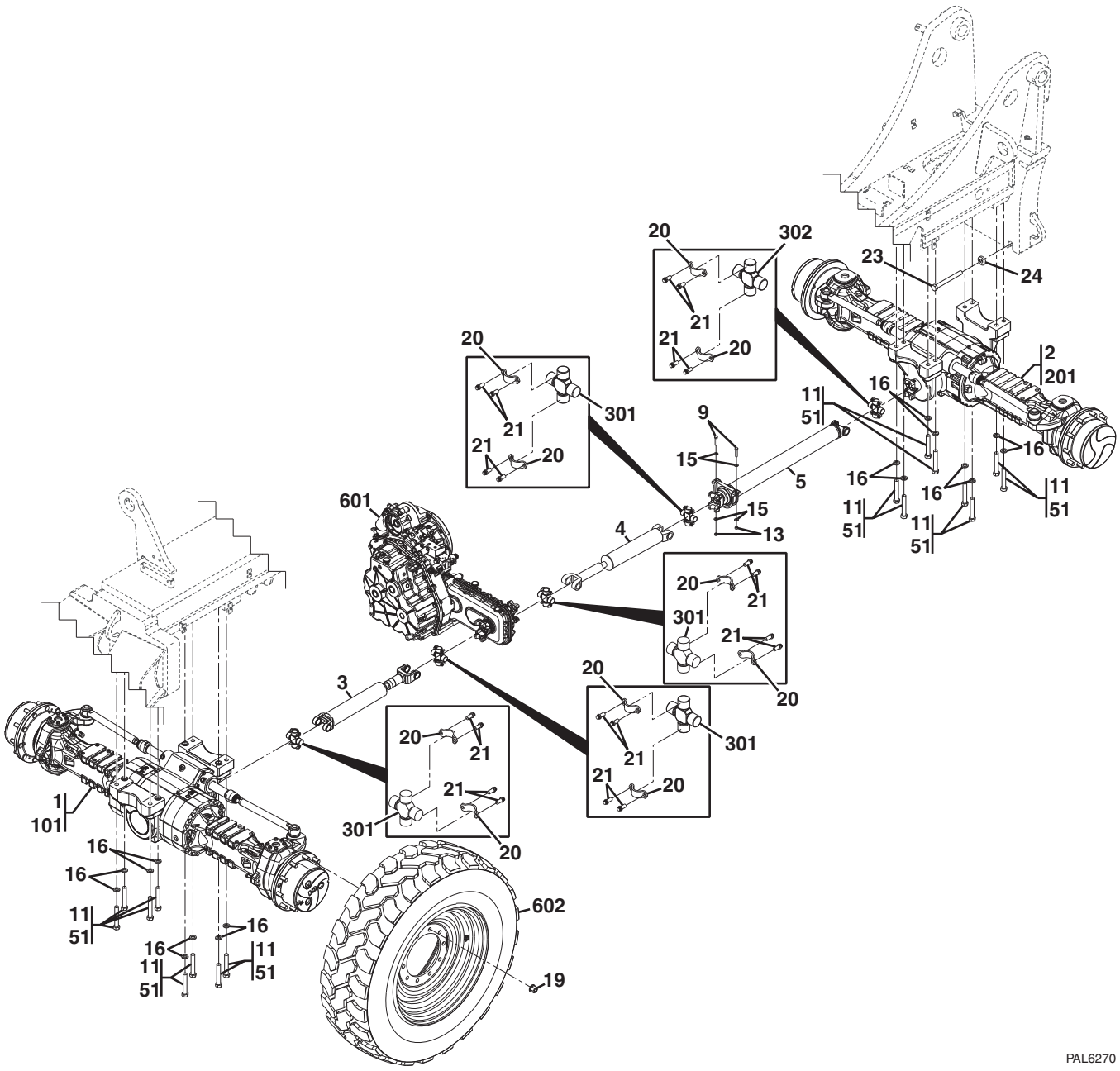

Figure 5-1 Drive Train Components (Continued)

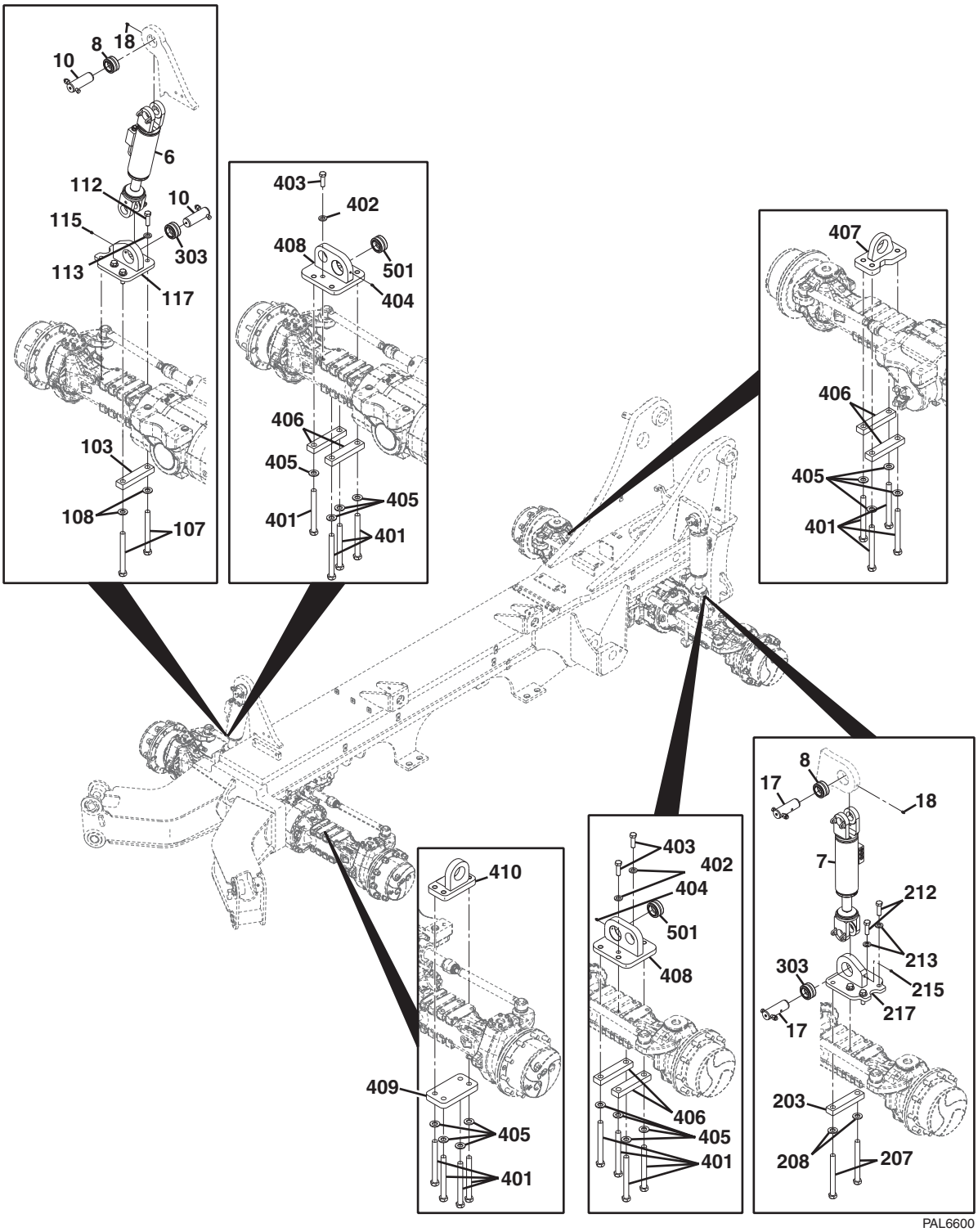

Figure 5-1 Drive Train Components

Item	Part Number	Qty.	Description	Rev.
	389-3482	Ref	AXLE MOUNTING INSTALLATION, (not available to order, see items 1 thru 11, 13, 15 thru 24 & 51 for service)	B
1	299-1306	Ref	FRONT AXLE INSTALLATION, (not available to order, see items 101, 103, 104, 107, 108, 112, 113, 115 & 117 for service)	D
2	299-1307	Ref	REAR AXLE INSTALLATION, (not available to order, see items 201, 203, 204, 207, 208, 212, 213, 215 & 217 for service)	F
3	298-8150	1	DRIVESHAFT, (includes item 301)	A
4		1	DRIVESHAFT, (includes item 301)	C
5	299-0561	1	DRIVESHAFT, (includes item 302)	B
6		Ref	FRAME LEVEL CYLINDER, (see Figure 9-5 for details)	
7		Ref	STABILIZER CYLINDER, (see Figure 9-7 for details)	
8	298-7280	2	BEARING	
9	297-7037	2	HEX HD CAPSCREW, 7/16-14X2, GR5, (torque to 55-75 lb-ft/75-102 Nm)	
10		Ref	FRAME LEVEL CYLINDER MOUNTING HARDWARE, (see Figure 9-5 for details)	
11	297-7085	16	HEX HD CAPSCREW, 7/8-9X5-1/2, GR8, (torque to 530-565 lb-ft/719-766 Nm)	
13	298-0556	2	LOCKNUT, 7/16-14, GR2	
15	298-7366	4	WASHER, 7/16	
16	298-7395	16	WASHER, 7/8	
17		Ref	STABILIZER CYLINDER MOUNTING HARDWARE, (see Figure 9-7 for details)	
18	298-1612	2	GREASE FITTING	
19	298-1744	40	LUG NUT, M22x1-1/2, (qty. 10 per wheel), (torque to 530-565 lb-ft/719-766 Nm)	
20	298-8599	10	STRAP	
21	298-1791	20	BOLT, (torque to 55-60 lb-ft/75-81 Nm)	
22		Ref	TRIM, (see Figure 6-1 for details)	
23		Ref	HEX HD CAPSCREW, 1-8X9-1/2, GR8 , (see Figure 1-1 for details)	
24		Ref	WASHER, (see Figure 1-1 for details)	
51		AR	LOCTITE® 242™	
101		Ref	FRONT AXLE, (see Figure 5-2 for details)	
103	298-8237	1	PLATE	
107	298-7432	2	HEX HD CAPSCREW, 1-8X10, (torque to 545-595 lb-ft/739-807 Nm)	
108	298-1632	2	WASHER, 1	
112	298-7878	4	HEX HD CAPSCREW, M20X65, (torque to 290-340 lb-ft/393-461 Nm)	
113	298-7852	4	WASHER, 7/8	
115	298-1612	1	GREASE FITTING	
117	323-2084	1	BRACKET ASSY, (includes item 303)	A
201		Ref	REAR AXLE, (see Figure 5-7 for details)	
203	298-8237	1	PLATE	
207	298-7432	2	HEX HD CAPSCREW, 1-8X10, (torque to 545-595 lb-ft/739-807 Nm)	
208	298-1632	2	WASHER, 1	
212	298-7878	4	HEX HD CAPSCREW, M20X65, (torque to 290-340 lb-ft/393-461 Nm)	
213	298-7852	4	WASHER, 7/8	
215	298-1612	1	GREASE FITTING	
217	323-2084	1	PLATE ASSY, (includes item 303)	
301	298-8173	4	UNIVERSAL JOINT KIT	
302	299-0666	1	UNIVERSAL JOINT KIT	
303	298-7280	1	BEARING	

Figure 5-1 Drive Train Components (Continued)

Item	Part Number	Qty.	Description	Rev.
	331-0806	Ref	HOIST LUG INSTALLATION, (not available to order, see items 401 thru 410 for service), **(if equipped)**	D
401	298-7432	16	HEX HD CAPSCREW, 1-8X10, (torque to 545-595 lb-ft/739-807 Nm)	
402	298-7852	4	WASHER, 7/8	
403	298-7878	4	HEX HD CAPSCREW, M20X65, (torque to 290-340 lb-ft/393-461 Nm)	
404	298-1612	2	GREASE FITTING	
405	298-1632	16	WASHER, 1	
406	298-8237	6	PLATE	
407	331-0807	1	BRACKET	
408		2	BRACKET ASSY, (includes item 501)	A
409		1	PLATE	
410		1	BRACKET	
501	298-7280	1	BEARING	
601		Ref	TRANSMISSION, (see Figure 5-12 for details)	
602		Ref	WHEEL ASSY, (see Figure 5-14 for details)	

Figure 5-2 Front Axle

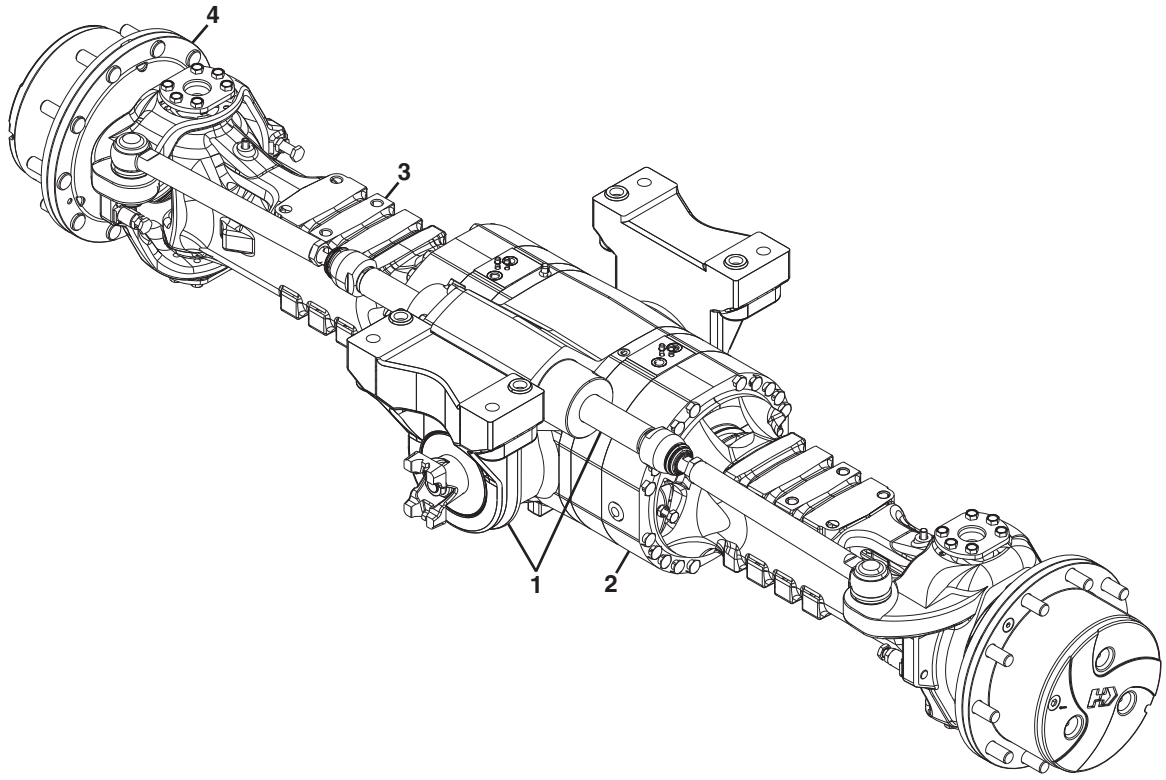

Figure 5-2 Front Axle

Item	Part Number	Qty.	Description	Rev.
	423-1440	1	FRONT AXLE, (includes all items)	A
1		Ref	CENTRAL HOUSING AND STEERING, (see Figure 5-3 for details)	
2		Ref	DIFFERENTIAL, (see Figure 5-4 for details)	
3		Ref	HUB REDUCTION, (see Figure 5-5 for details)	
4		Ref	BRAKES, (see Figure 5-6 for details)	

Figure 5-3 Front Axle - Central Housing and Steering

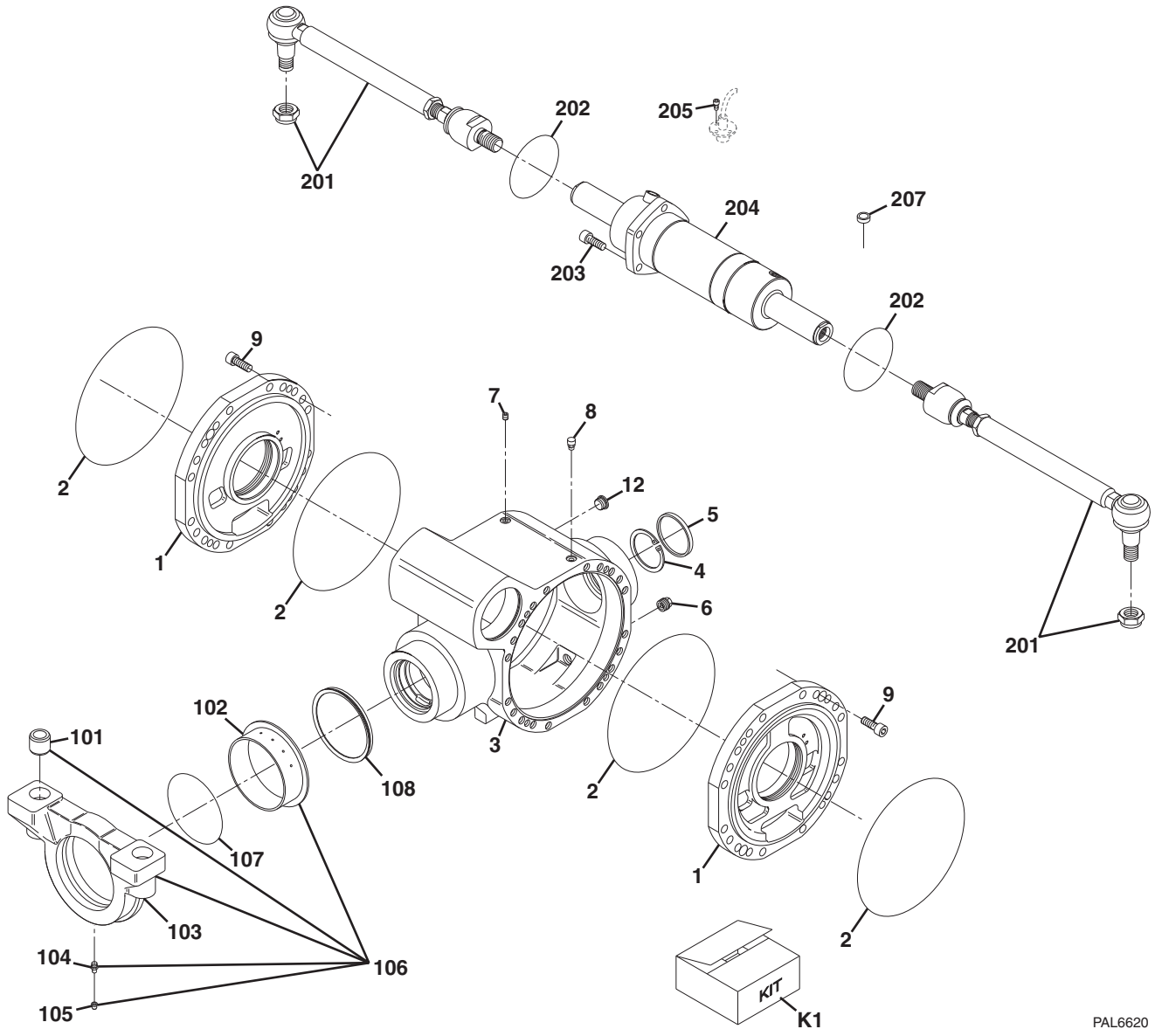

Figure 5-3 Front Axle - Central Housing and Steering

Item	Part Number	Qty.	Description	Rev.
1	399-1133	2	INTERMEDIATE COVER	
2	304-4560	4	O-RING	
3	363-6902	1	HOUSING	
4	299-0821	1	CIRCLIP	
5	299-7161	1	PLUG	
6	322-0771	1	PLUG	
7	305-2112	1	PLUG	
8	299-7134	1	VENT	
9	298-7872	4	BOLT	
12	299-7156	1	PLUG	
101	299-0800	4	BUSHING	
102	299-0221	2	BUSHING	
103	299-0801	2	SUPPORT	
104	298-1857	2	GREASE FITTING	
105	299-7103	2	PLUG	
106	305-2078	2	SUPPORT ASSY, (includes items 101 thru 105)	A
107	305-2079	2	O-RING	
108	305-2080	2	O-RING	
201	349-8593	2	TIE-ROD	
202	298-7871	2	O-RING	
203	298-7872	5	BOLT	
204	305-2050	1	STEERING CYLINDER	
205	305-5427	3	BOLT	
207	305-5428	1	PLUG	
K1	304-4561	1	STEERING CYLINDER SEAL KIT	

Figure 5-4 Front Axle - Differential

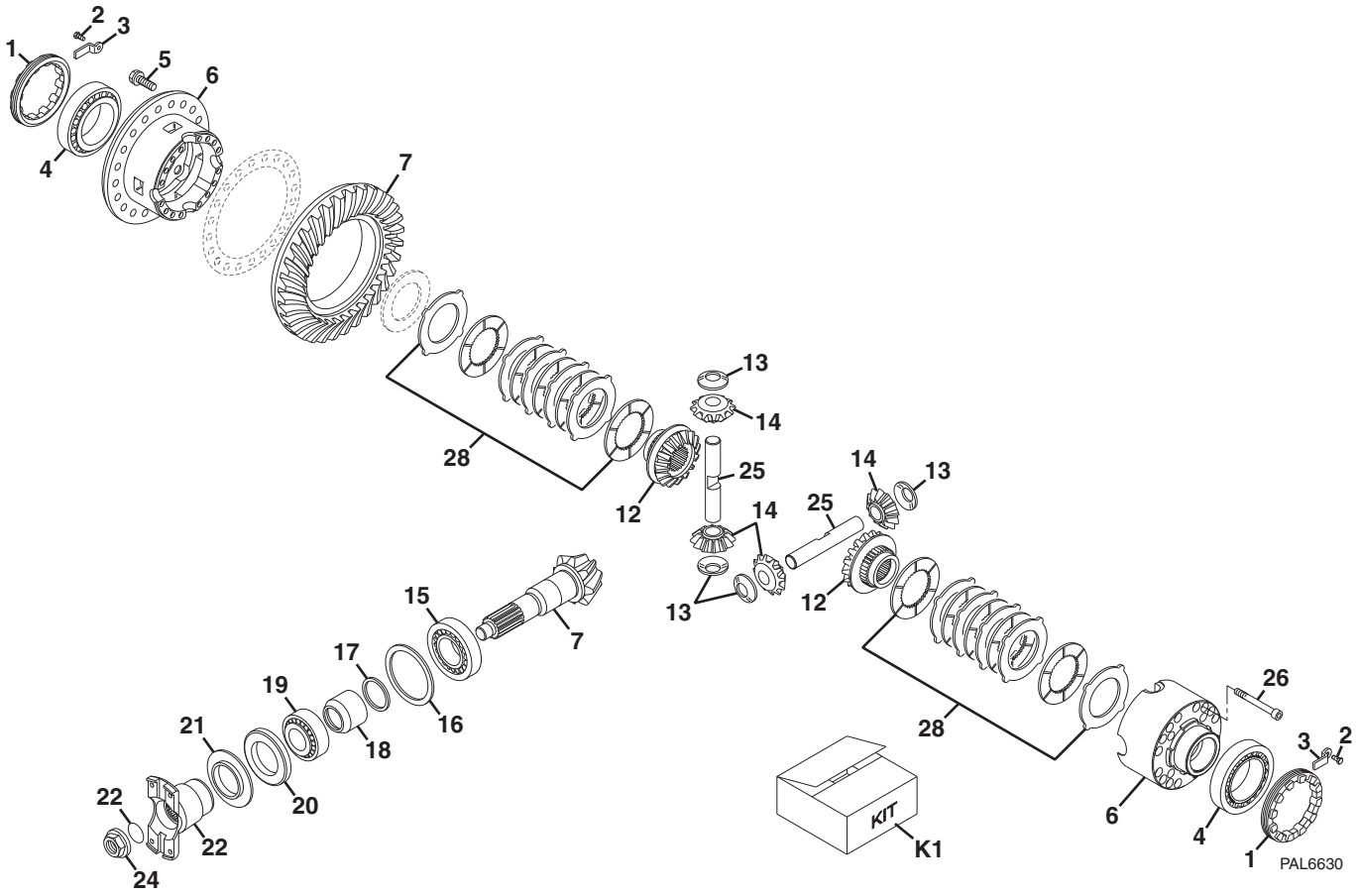

Figure 5-4 Front Axle - Differential

Item	Part Number	Qty.	Description	Rev.
1	305-2051	2	RING NUT	
2	305-2052	4	BOLT	
3	371-2519	2	LOCKING PLATE	
4	299-0824	2	ROLLER BEARING	
5	298-1865	20	BOLT	
6	399-1134	1	DIFFERENTIAL CARRIER	
7	305-5413	1	BEVEL GEAR SET	
12	299-0982	2	DIFFERENTIAL SIDE GEAR	
13	399-1154	4	FRICTION WASHER	
14	299-0822	4	DIFFERENTIAL PINION	
15	299-0825	1	ROLLER BEARING	
16	298-7863	AR	SHIM	
	298-7864	AR	SHIM	
	298-7865	AR	SHIM	
	298-7866	AR	SHIM	
17	392-1596	1	RING	
18	371-2503	1	SPACER	
19	299-0826	1	ROLLER BEARING	
20	299-0488	1	SEAL	
21	299-7162	1	COVER PLATE	
22	299-7163	1	FLANGE	
23	298-7862	1	O-RING	
24	298-7861	1	NUT	
25	399-1152	1	DIFFERENTIAL SHAFT	
26	298-1876	15	BOLT	
28	399-1185	2	CLUTCH DISC	
K1	399-1135	1	DIFFERENTIAL KIT, (includes items 6, 12 thru 14, 25, 26 & 28)	

Figure 5-5 Front Axle - Hub Reduction

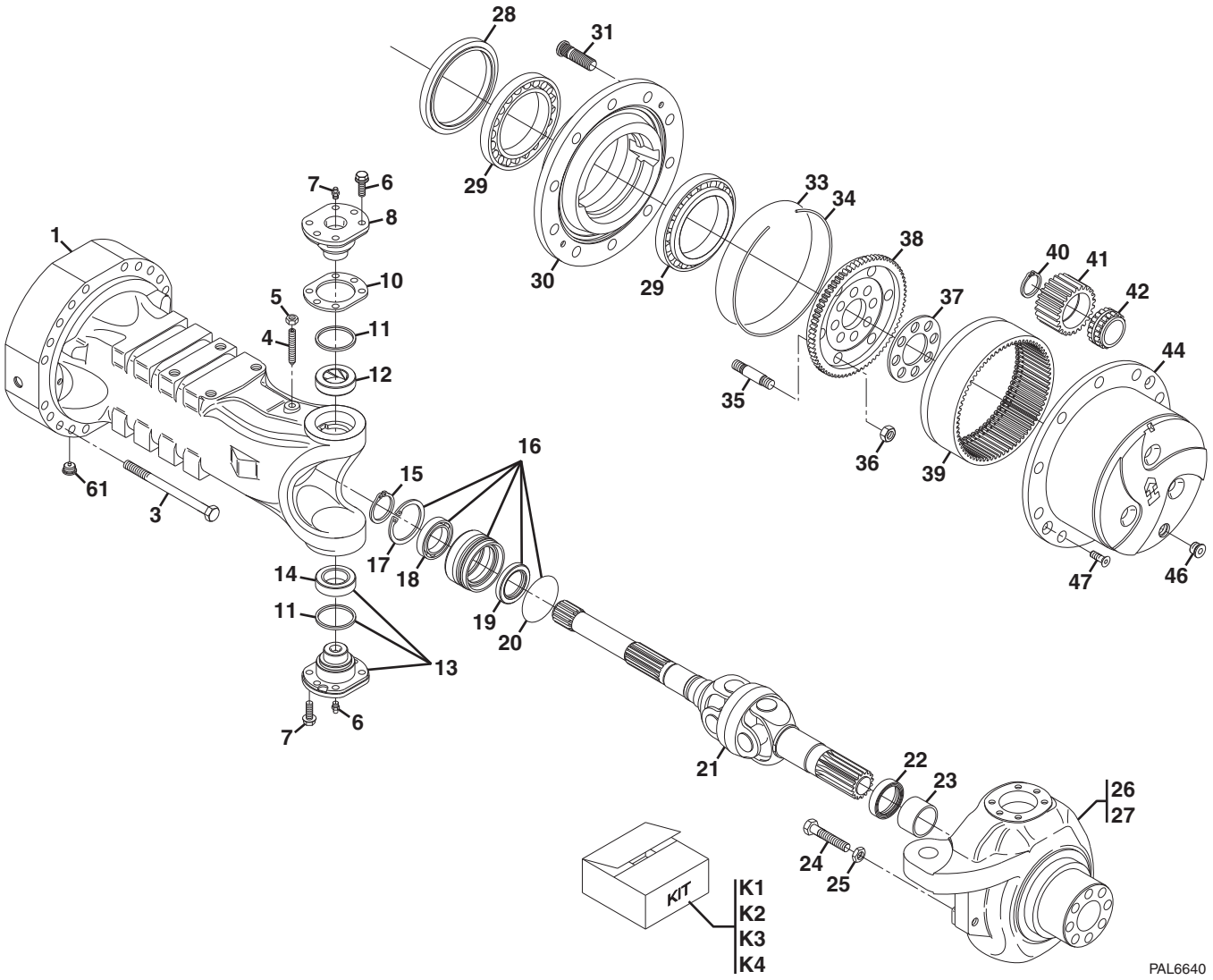

Figure 5-5 Front Axle - Hub Reduction

Item	Part Number	Qty.	Description	Rev.
1	399-1136	2	AXLE CASE	
3	399-1137	40	BOLT, M16X195	
4	305-2055	2	BOLT	
5	298-1853	2	NUT	
6	298-1865	24	BOLT	
7	298-1857	4	GREASE FITTING	
8	305-2081	2	PIVOT PIN	
10	298-1860	AR	SHIM, .006	
	298-1861	AR	SHIM, .008	
	298-1862	AR	SHIM, .019	
11	303-8572	2	DUST SEAL	
12	305-2082	2	BUSHING	
13	305-2083	2	PIVOT PIN KIT, (includes items 11 & 14)	
14	299-0223	2	BEARING	
15	299-0827	2	CIRCLIP	
16	299-0236	2	REDUCTION BUSHING, (includes items 17 thru 20)	
17	299-0821	2	CIRCLIP	
18	299-0235	2	BALL BEARING	
19	299-0520	2	SEAL	
20	298-1877	2	O-RING	
21	399-1138	2	DOUBLE UNIVERSAL JOINT	
22	303-8573	2	SEAL	
23	299-0227	1	THRUST BUSHING	
24	371-2487	4	STEERING ADJUSTING BOLT	
25	298-7868	4	NUT	
26	299-7094	1	RIGHT STEERING CASE	
27	299-7095	1	LEFT STEERING CASE	
28	299-0485	2	SEAL	
29	299-0828	4	TAPER ROLLER BEARING	
30	299-7168	2	WHEEL HUB	
31	298-7274	20	WHEEL STUD	
33	298-8297	2	O-RING	
34	299-0243	2	CIRCLIP	
35	298-8296	16	STUD	
36	298-8295	16	NUT	
37	299-7169	2	LOCKING PLATE	
38	299-0245	2	RING GEAR SUPPORT	
39	399-1139	2	RING GEAR	
40	299-0246	8	SNAP RING	
41	299-0247	8	PLANET GEAR	
42	299-0248	8	BEARING	
44	305-2085	2	PLANET GEAR CARRIER	
46	299-7170	4	PLUG	
47	298-8300	4	BOLT	
61	299-0195	2	MAGNET PLUG	
K1	305-5430	2	PLANET GEAR CARRIER KIT, (includes items 40 thru 41 & 44)	
K2	299-7094	1	RIGHT STEERING CASE KIT, (includes items 23 & 26)	
K3	299-7095	1	LEFT STEERING CASE KIT, (includes items 23 & 27)	
K4	399-1141	2	RING GEAR SUPPORT KIT, (includes items 34, 38 & 39)	

Figure 5-6 Front Axle - Brakes

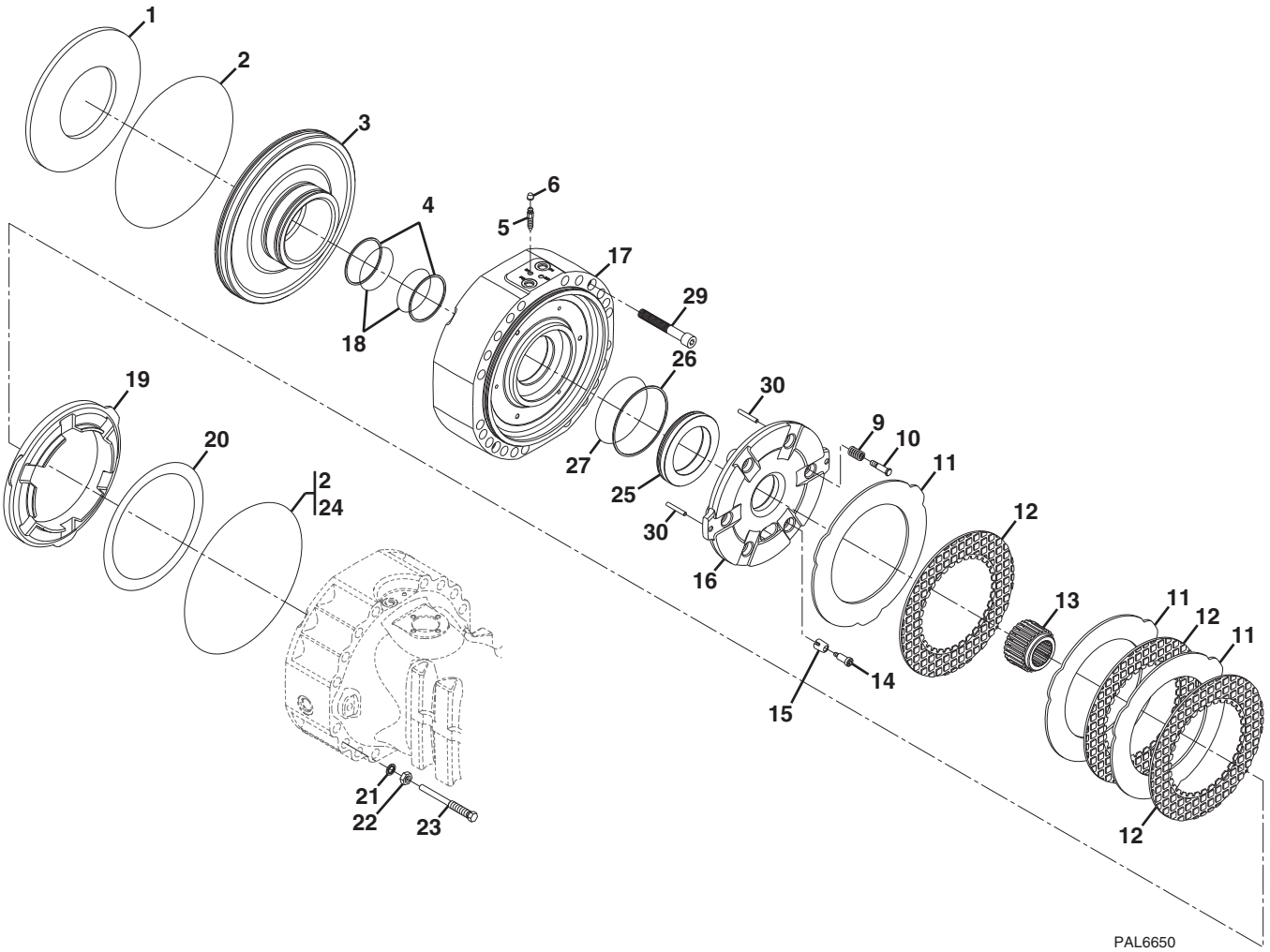

Figure 5-6 Front Axle - Brakes

Item	Part Number	Qty.	Description	Rev.
1	299-0237	2	SPRING	
2	305-2057	2	O-RING	
3	399-1142	2	PISTON	
4	305-2060	4	BACK-UP RING	
5	298-7873	4	BOLT	
6	299-7103	4	PLUG	
9	299-0240	6	SPRING	
10	399-1143	6	ADJUSTING BOLT	
11	299-7166	6	INTERMEDIATE BRAKE DISC	
12	299-0812	6	BRAKE DISC	
13	299-0811	2	REDUCTION BUSHING	
14	298-7431	6	BOLT	
15	299-0241	6	SPRING	
16	399-1145	2	INTERMEDIATE BRAKE DISC	
17	399-1146	2	COVER	
18	305-2061	4	SEAL	
19	298-1885	2	SPACER	
20	298-8292	AR	SHIM, .2mm	
	298-8293	AR	SHIM, .3mm	
	298-8294	AR	SHIM, .5mm	
21	298-7870	4	LOCKWASHER	
22	298-7867	4	NUT	
23	399-1147	4	BOLT, M12X122.5	
24	304-4560	2	O-RING, **(if equipped)**	
25	305-2062	2	PISTON	
26	305-2064	2	BACK-UP RING	
27	305-2063	2	O-RING	
29	399-1149	4	BOLT, M14X100	
30	399-1150	4	DOWEL	

Figure 5-7 Rear Axle

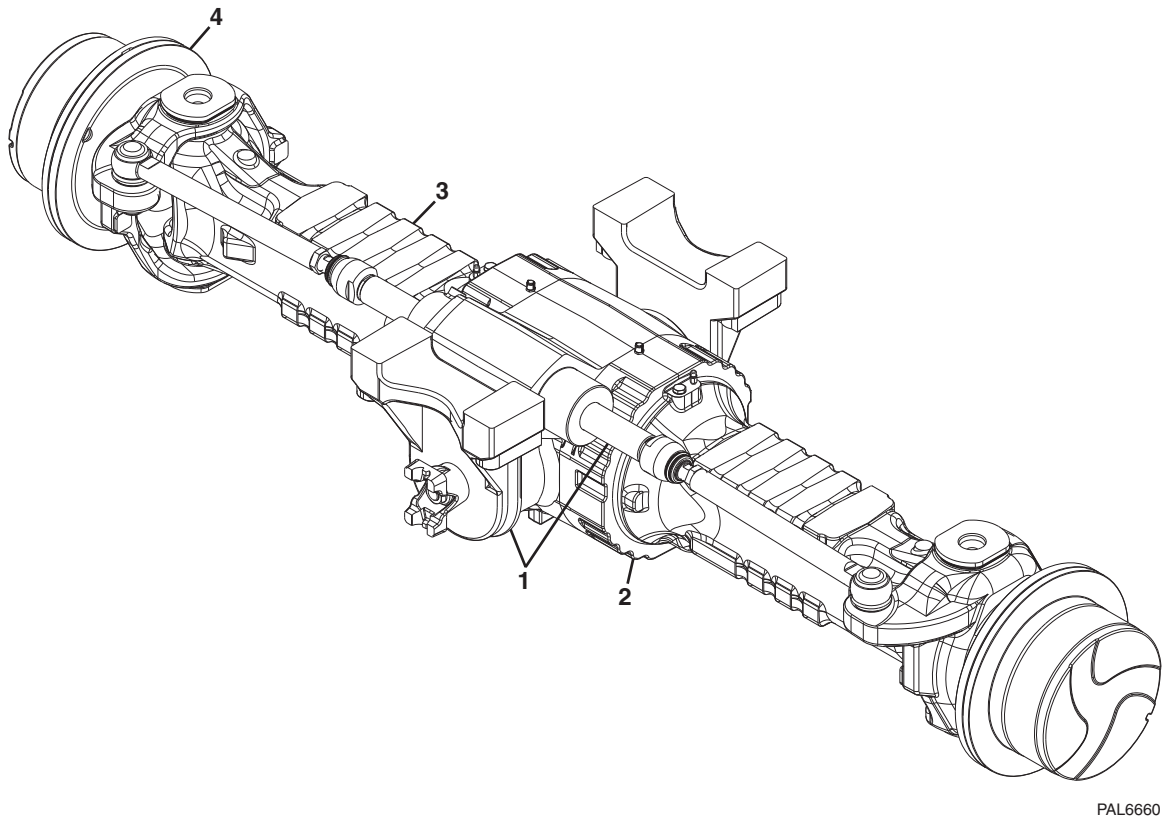

Figure 5-7 Rear Axle

Item	Part Number	Qty.	Description	Rev.
	423-1439	1	REAR AXLE, (includes all items)	A
1		Ref	CENTRAL HOUSING AND STEERING, (see Figure 5-8 for details)	
2		Ref	DIFFERENTIAL, (see Figure 5-9 for details)	
3		Ref	HUB REDUCTION, (see Figure 5-10 for details)	
4		Ref	BRAKES, (see Figure 5-11 for details)	

Figure 5-8 Rear Axle - Central Housing and Steering

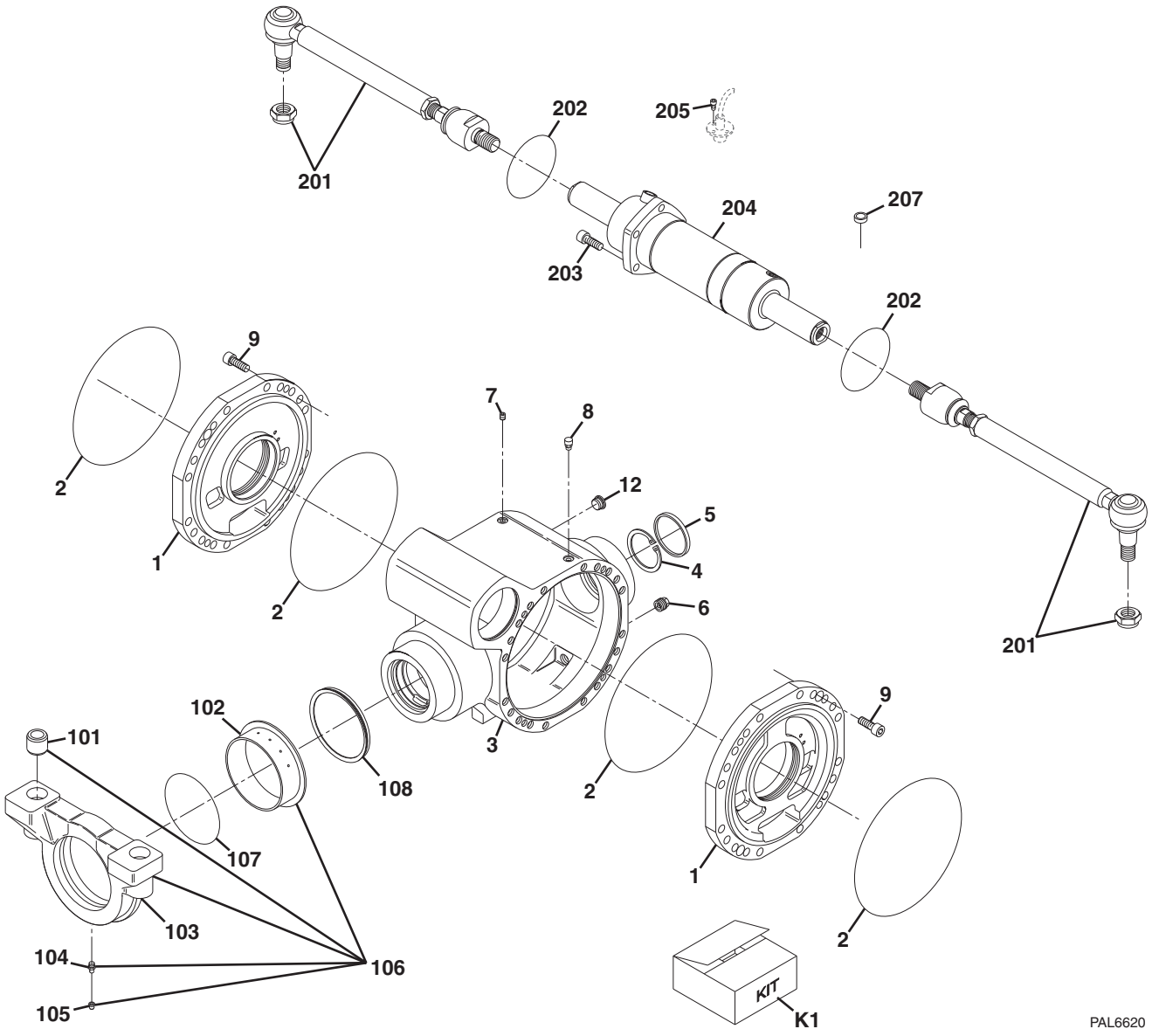

Figure 5-8 Rear Axle - Central Housing and Steering

Item	Part Number	Qty.	Description	Rev.
1	371-2485	2	INTERMEDIATE COVER	
2	304-4560	4	O-RING	
3	363-6902	1	HOUSING	
4	299-0821	1	CIRCLIP	
5	299-7161	1	PLUG	
6	322-0771	1	PLUG	
7	305-2112	1	PLUG	
8	299-7134	1	VENT	
9	298-7872	4	BOLT	
12	299-7156	1	PLUG	
101	299-0800	4	BUSHING	
102	299-0221	2	BUSHING	
103	299-0801	2	SUPPORT	
104	298-1857	2	GREASE FITTING	
105	299-7103	2	PLUG	
106	305-2078	2	SUPPORT ASSY, (includes items 101 thru 105)	
107	305-2079	2	O-RING	
108	305-2080	2	O-RING	
201	349-8593	2	TIE-ROD	
202	298-7871	2	O-RING	
203	298-7872	5	BOLT	
204	305-2050	1	STEERING CYLINDER	
205	305-5427	3	BOLT	
207	305-5428	1	PLUG	
K1	304-4561	1	STEERING CYLINDER SEAL KIT	

Figure 5-9 Rear Axle - Differential

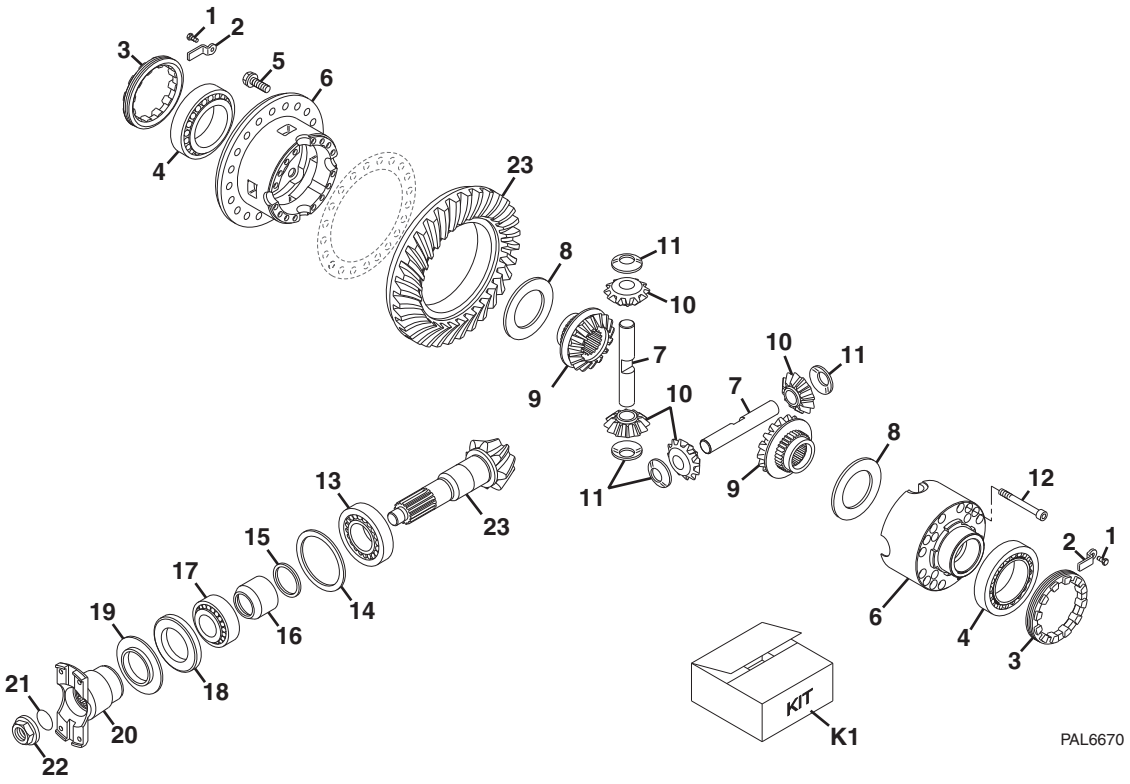

Figure 5-9 Rear Axle - Differential

Item	Part Number	Qty.	Description	Rev.
1	305-2052	4	BOLT	
2	371-2519	2	LOCKING PLATE	
3	305-2051	2	RING NUT	
4	299-0824	2	ROLLER BEARING	
5	298-1865	20	BOLT	
6	399-1151	1	DIFFERENTIAL CARRIER	
7	399-1152	2	DIFFERENTIAL SHAFT	
8	399-1153	2	FRICTION WASHER	
9	399-1157	2	DIFFERENTIAL SIDE GEAR	
10	299-0822	4	DIFFERENTIAL PINION	
11	399-1154	4	FRICTION WASHER	
12	399-1155	15	BOLT	
13	299-0825	1	ROLLER BEARING	
14	298-7863	AR	SHIM	
	298-7864	AR	SHIM	
	298-7866	AR	SHIM	
	298-7866	AR	SHIM	
15	392-1596	1	RING KIT	
16	371-2503	1	SPACER	
17	299-0826	1	ROLLER BEARING	
18		1	SEAL	
19	299-7162	1	COVER PLATE	
20	299-7163	1	FLANGE	
21	298-7862	1	O-RING	
22	298-7861	1	NUT	
23	305-5416	1	BEVEL GEAR SET	
K1	399-1156	1	DIFFERENTIAL KIT, (includes items 6 thru 12)	

Figure 5-10 Rear Axle - Hub Reduction

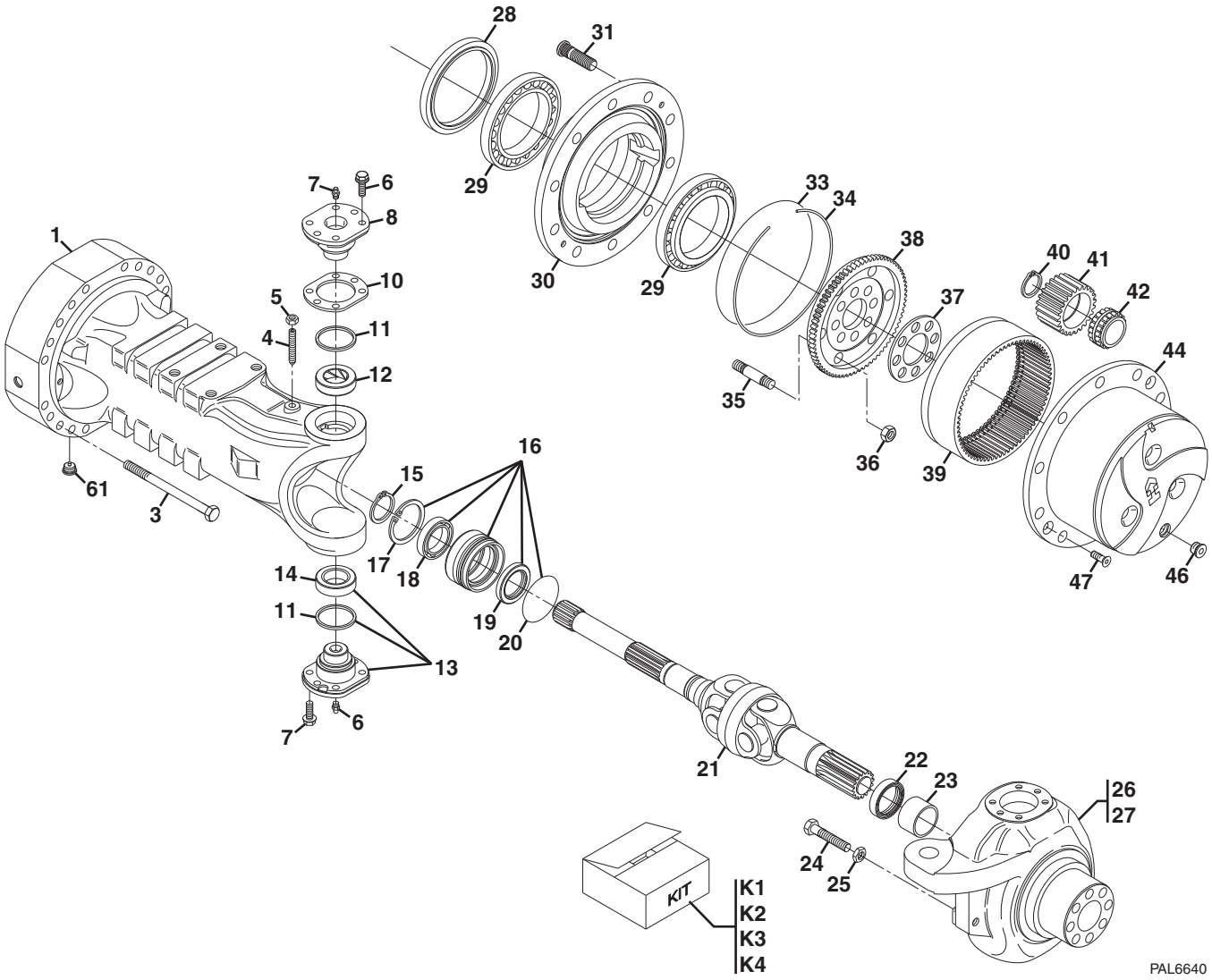

Figure 5-10 Rear Axle - Hub Reduction

Item	Part Number	Qty.	Description	Rev.
1	385-8769	2	AXLE CASE	
3	371-2488	40	BOLT, M16X195	
4	305-2055	2	BOLT	
5	298-1853	2	NUT	
6	298-1865	24	BOLT	
7	298-1857	4	GREASE FITTING	
8	305-2081	2	PIVOT PIN	
10	298-1860	AR	SHIM, .006	
	298-1861	AR	SHIM, .008	
	298-1862	AR	SHIM, .019	
11	303-8572	2	DUST SEAL	
12	305-2082	2	BUSHING	
13	305-2083	2	PIVOT PIN KIT, (includes items 11 & 14)	
14	299-0223	2	BEARING	
15	299-0827	2	CIRCLIP	
16	299-0236	2	REDUCTION BUSHING, (includes items 17 thru 20)	
17	299-0821	2	CIRCLIP	
18	299-0235	2	BALL BEARING	
19	299-0520	2	SEAL	
20	298-1877	2	O-RING	
21	371-2486	2	DOUBLE UNIVERSAL JOINT	
22	303-8573	2	SEAL	
23	299-0227	1	THRUST BUSHING	
24	371-2487	4	STEERING ADJUSTING BOLT	
25	298-7868	4	NUT	
26	299-7094	1	RIGHT STEERING CASE	
27	299-7095	1	LEFT STEERING CASE	
28	299-0485	2	SEAL	
29	299-0828	4	TAPER ROLLER BEARING	
30	299-7168	2	WHEEL HUB	
31	298-7274	20	WHEEL STUD	
33	298-8297	2	O-RING	
34	299-0243	2	CIRCLIP	
35	298-8296	16	STUD	
36	298-8295	16	NUT	
37	299-7169	2	LOCKING PLATE	
38	299-0245	2	RING GEAR SUPPORT	
39	399-1139	2	RING GEAR	
40	299-0246	8	SNAP RING	
41	299-0247	8	PLANET GEAR	
42	299-0248	8	BEARING	
44	305-2085	2	PLANET GEAR CARRIER	
46	299-7170	4	PLUG	
47	298-8300	4	BOLT	
61	299-0195	2	MAGNET PLUG	
K1	305-5430	2	PLANET GEAR CARRIER KIT, (includes items 40 thru 41 & 44)	
K2	299-7094	1	RIGHT STEERING CASE KIT, (includes items 23 & 26)	
K3	299-7095	1	LEFT STEERING CASE KIT, (includes items 23 & 27)	
K4	399-1141	2	RING GEAR SUPPORT KIT, (includes items 34, 38 & 39)	

Figure 5-11 Rear Axle - Brakes

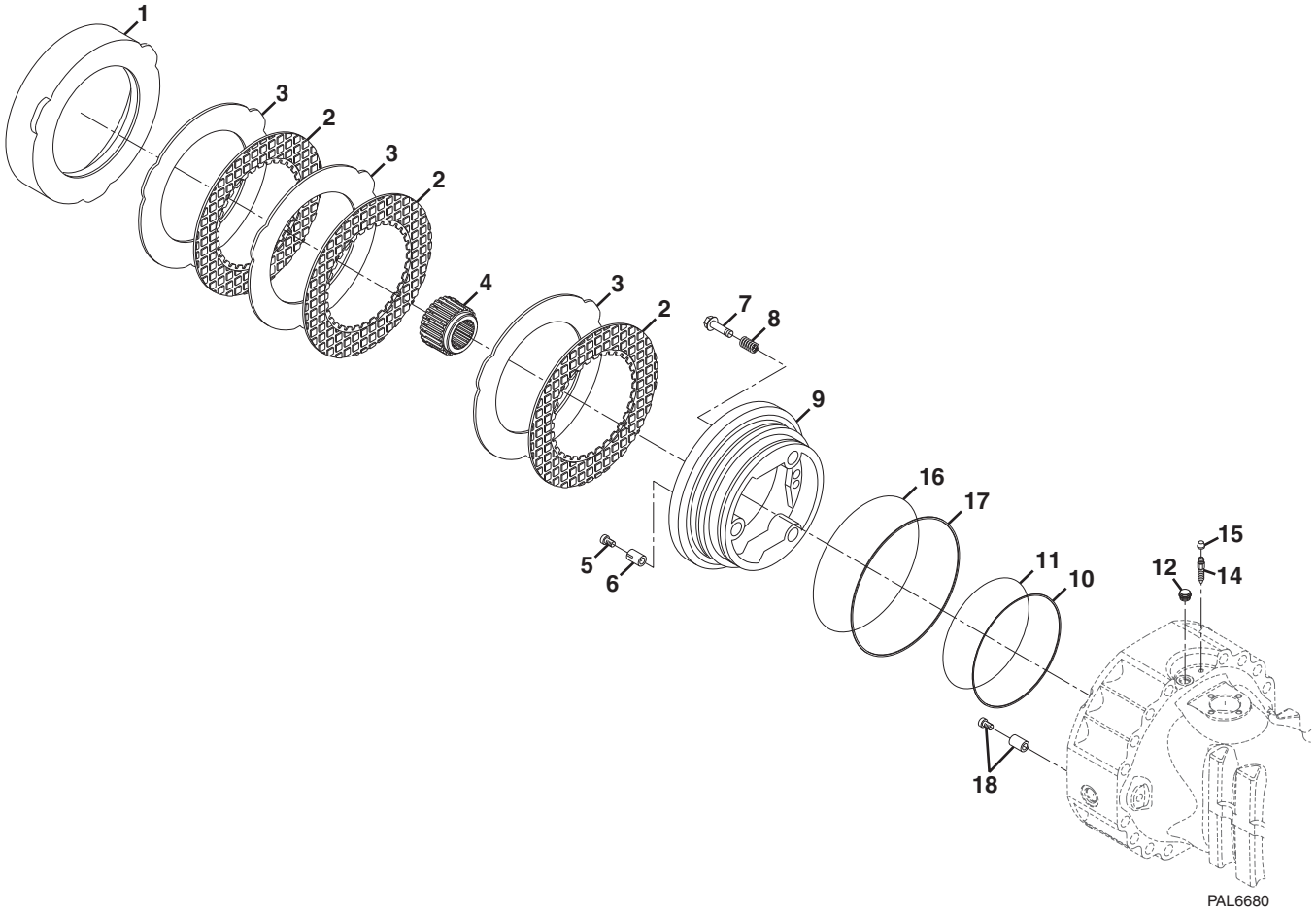

Figure 5-11 Rear Axle - Brakes

Item	Part Number	Qty.	Description	Rev.
1	349-8602	2	SPACER	
2	299-0812	6	BRAKE DISC	
3	299-7166	6	INTERMEDIATE BRAKE DISC	
4	299-0811	2	REDUCTION BUSHING	
5	349-8601	6	ADJUSTING BOLT	
6	299-0241	6	SPRING	
7	298-1881	6	ADJUSTING BOLT	
8	299-0240	6	SPRING	
9	399-1159	2	PISTON	
10	349-8595	2	BACK-UP RING	
11	349-8596	2	O-RING	
12	298-1878	2	PLUG	
14	298-7873	2	BLEEDING BOLT	
15	299-7103	2	PLUG	
16	349-8599	2	O-RING	
17	349-8597	2	BACK-UP RING	
18	350-2524	2	PILOT BOLT	

Figure 5-12 Transmission

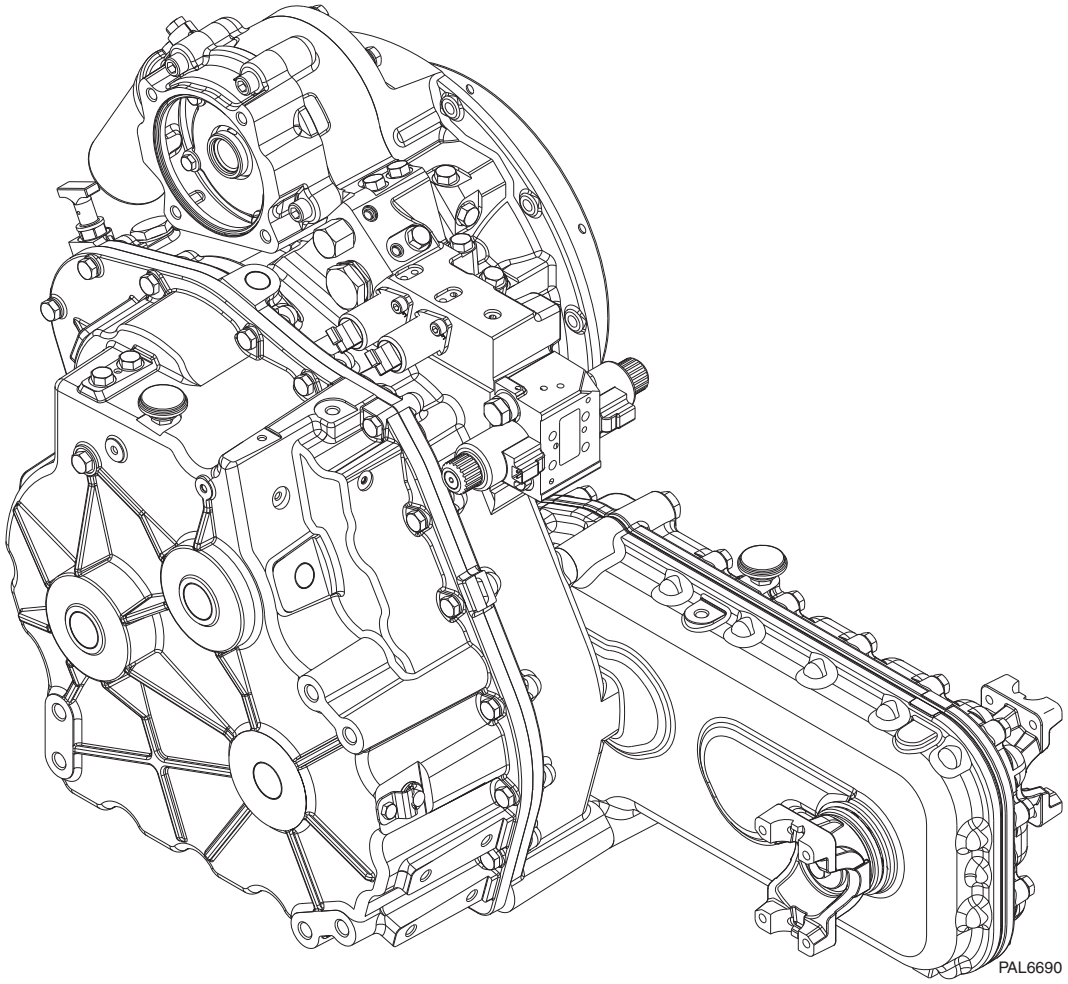

Figure 5-12 Transmission

Item	Part Number	Qty.	Description	Rev.
	363-3032	1	TRANSMISSION, (for parts information, refer to SIS Web)	B

Figure 5-13 Fender Installation

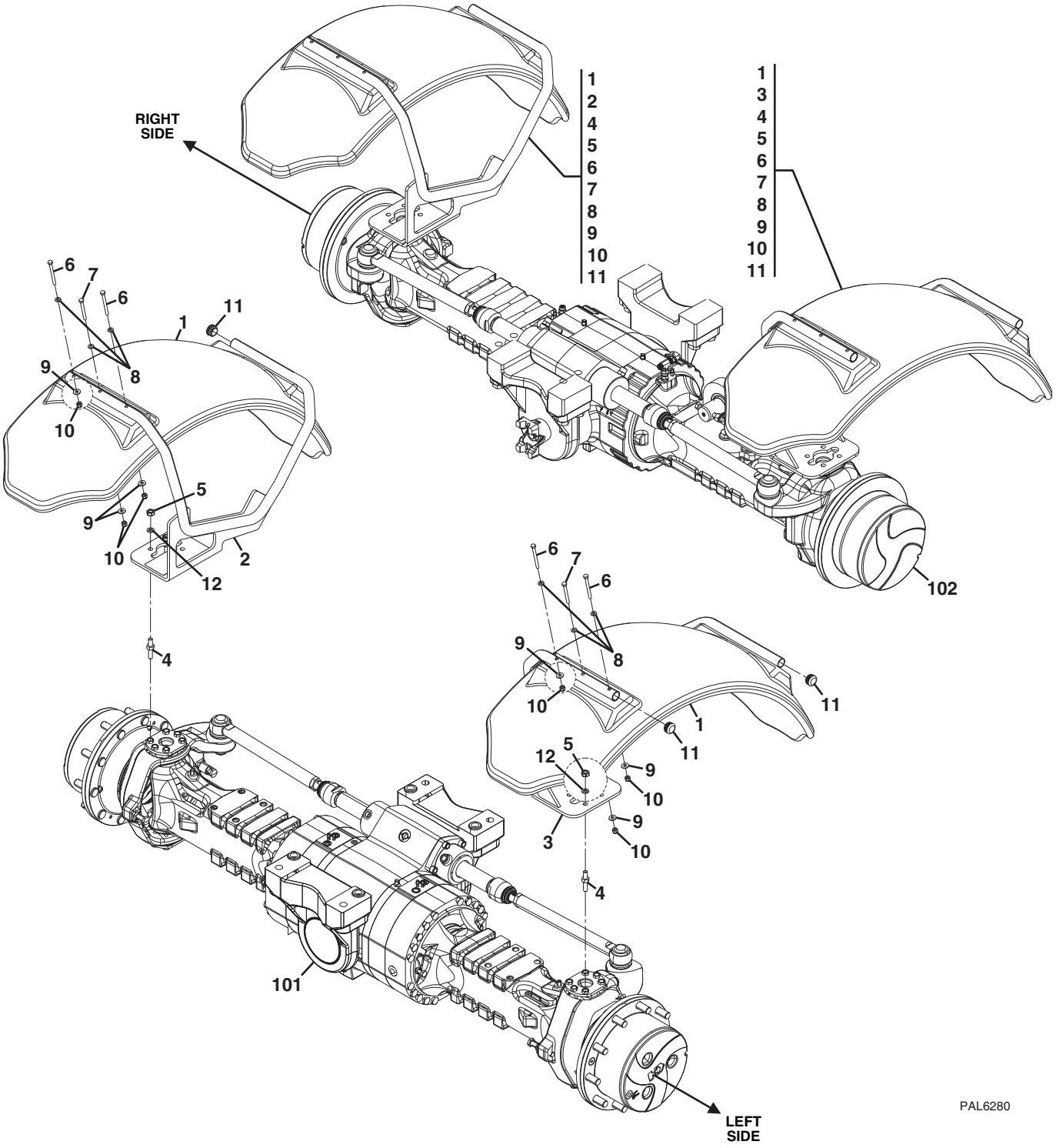

Figure 5-13 Fender Installation

Item	Part Number	Qty.	Description	Rev.
	305-2120	Ref	FENDER INSTALLATION, (not available to order, see items 1 thru 12 for service)	B
1	298-8604	4	FENDER	
2	299-0282	2	RH FENDER BRACKET	
3	299-0283	2	LH FENDER BRACKET	
4	298-8290	16	FENDER STUD, (torque to 94-104 lb-ft/127-141 Nm)	
5	298-1849	16	HEX NUT, M12X1.25	
6	297-7026	16	HEX HD CAPSCREW, 5/16-18X3-1/2, GR5	
7	297-7024	8	HEX HD CAPSCREW, 5/16-18X3, GR5	
8	298-7364	24	WASHER, 5/16	
9	298-7373	24	WASHER, 5/16	
10	6A-3335	24	LOCKNUT, 5/16-18	
11	298-0565	8	PLUG	
12	298-7904	16	LOCKWASHER, 12mm	
101		Ref	FRONT AXLE, (see Figure 5-2 for details)	
102		Ref	REAR AXLE, (see Figure 5-7 for details)	
201		Ref	CAB FENDER INSTALLATION, (not shown), (see Figure 6-1 for details)	

Figure 5-14 Wheel Assembly

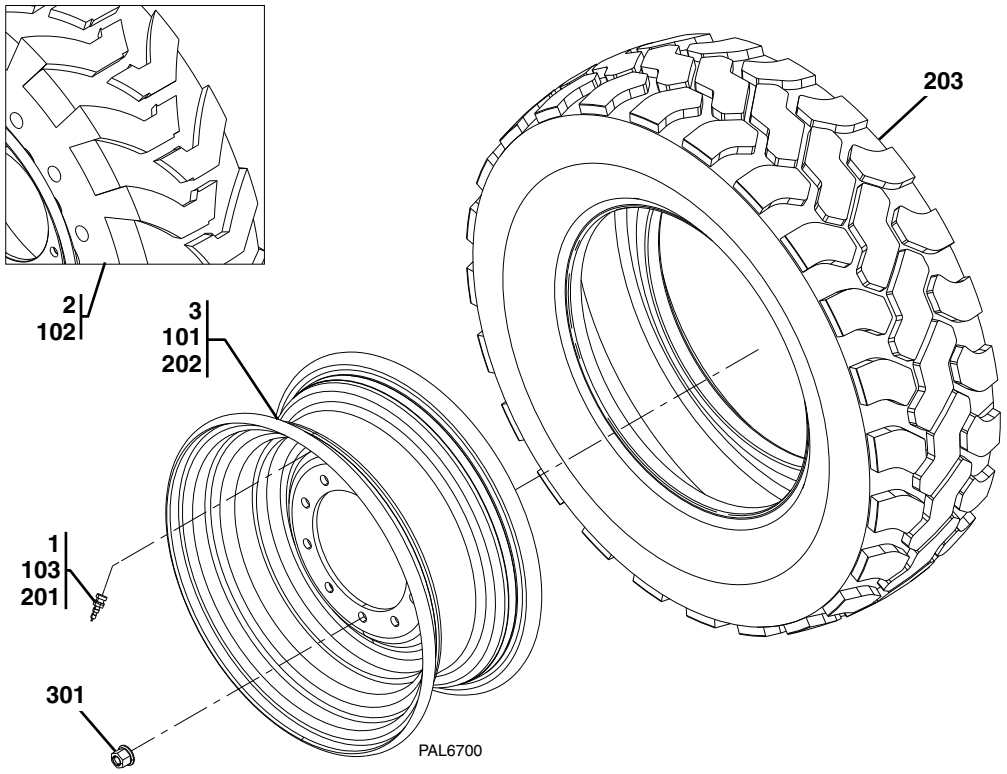

Figure 5-14 Wheel Assembly

Item	Part Number	Qty.	Description	Rev.
	4520481CP	1	PNEUMATIC TIRE SET, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**	A
	91355034CP	2	PNEUMATIC RIGHT TIRE AND WHEEL ASSY, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**, (includes items 1 thru 3)	D
	91355035CP	2	PNEUMATIC LEFT TIRE AND WHEEL ASSY, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**, (includes items 1 thru 1)	D
	4520482CP	1	FOAM TIRE SET, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**	B
	91355037CP	2	FOAM RIGHT TIRE AND WHEEL ASSY, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**, (includes items 1 thru 4)	F
	91355038CP	2	FOAM LEFT TIRE AND WHEEL ASSY, 14.00-24 BIAS, G-2, **(TL1055C, if equipped)**, (includes items 1 thru 4)	F
	4520518CP	1	PNEUMATIC TIRE SET, 17.50-25 BIAS, G-2	A
	91565028CP	2	PNEUMATIC RIGHT TIRE AND WHEEL ASSY, 117.50-25 BIAS, G-2, (includes items 101 thru 103)	F
	91565029CP	2	PNEUMATIC LEFT TIRE AND WHEEL ASSY, 17.50-25 BIAS, G-2, (includes items 101 thru 103)	F
	4520519CP	1	FOAM TIRE SET, 17.50-25 BIAS, G-2	A
	91565039CP	2	FOAM LEFT TIRE AND WHEEL ASSY, 117.50-25 BIAS, G-2, (includes items 101 thru 104)	E
	91565040CP	2	FOAM RIGHT TIRE AND WHEEL ASSY, 17.50-25 BIAS, G-2, (includes items 101 thru 104)	E
	1001121109CP	1	PNEUMATIC TIRE SET, 400/75-28, 16 PLY	B
	1001121103	4	PNEUMATIC TIRE AND WHEEL ASSY, 400/75-28, 16 PLY, (includes items 201 thru 203)	B
	1001125410CP	1	FOAM TIRE SET, 400/75-28, 16 PLY	B
	1001121105	4	FOAM TIRE AND WHEEL ASSY, 400/75, 16 PLY, (includes items 201 thru 204)	C
1	298-7311	1	VALVE STEM, **(TL1055C, if equipped)**	
2	91043084	1	TIRE, 14.00-24 BIAS, G-2, 12 PLY, **(TL1055C, if equipped)**	
3	298-8780	1	WHEEL, 24X9, **(TL1055C, if equipped)**	
4	NSS	720 lb	FOAM FILL, (not shown)	
101	299-0565	1	WHEEL, 25X13	
102	4520527	1	TIRE, 17.50-25 BIAS, G-2, 12 PLY	
103	299-0380	1	VALVE STEM	
104	NSS	785 lb	FOAM FILL, (now shown)	
201	298-7311	1	VALVE STEM	
202	372-5705	1	WHEEL, 28X12	
203	1001120179	1	TIRE, 400/75-28, 16 PLY	
204	NSS	570 lb	FOAM FILL, (not shown)	
301		Ref	LUG NUT, (see Figure 5-1 for details)	

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SECTION 6
CAB

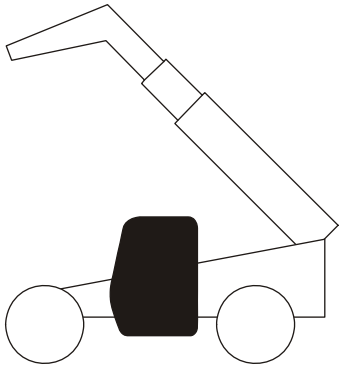

Figure 6-1 Cab Installation

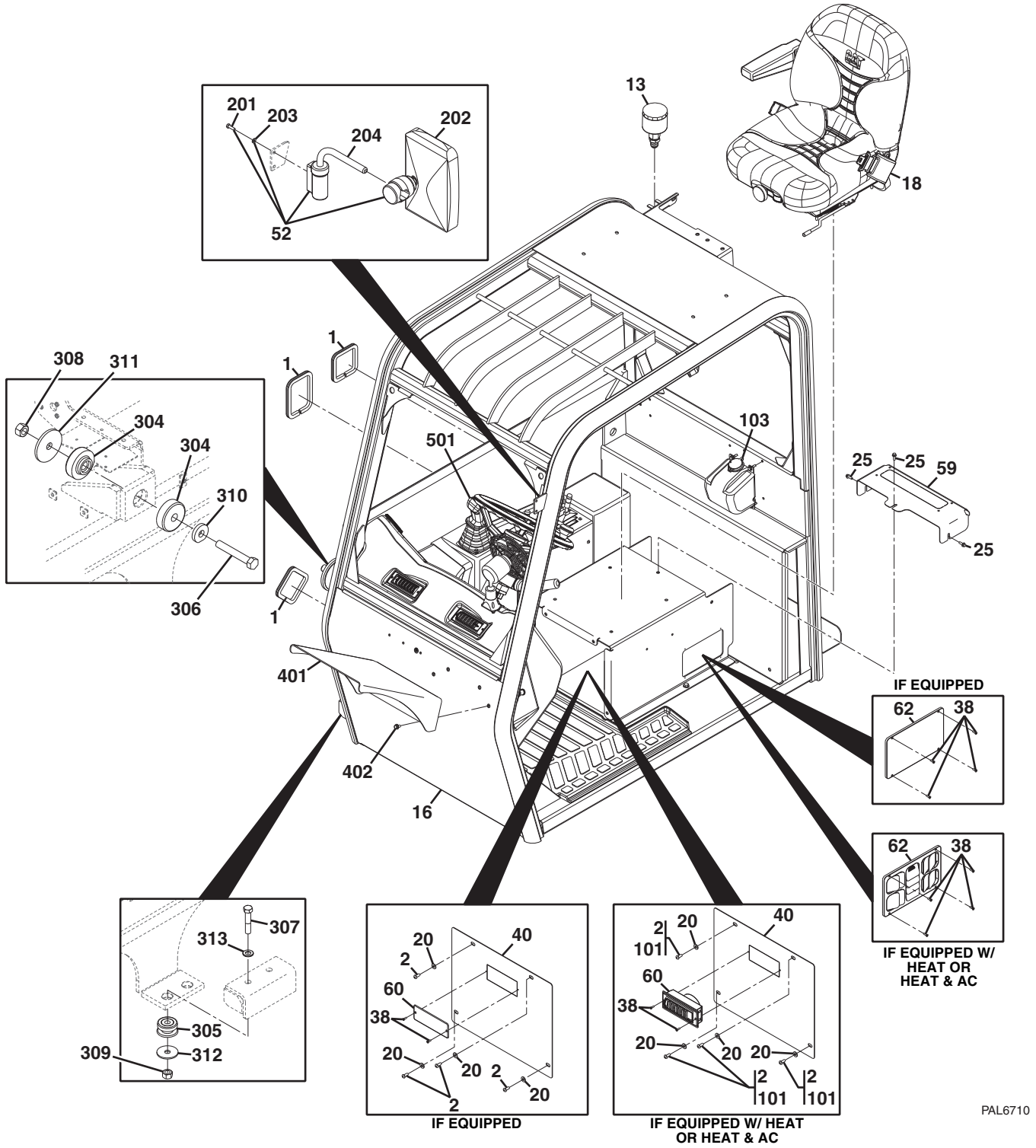

Figure 6-1 Cab Installation (Continued)

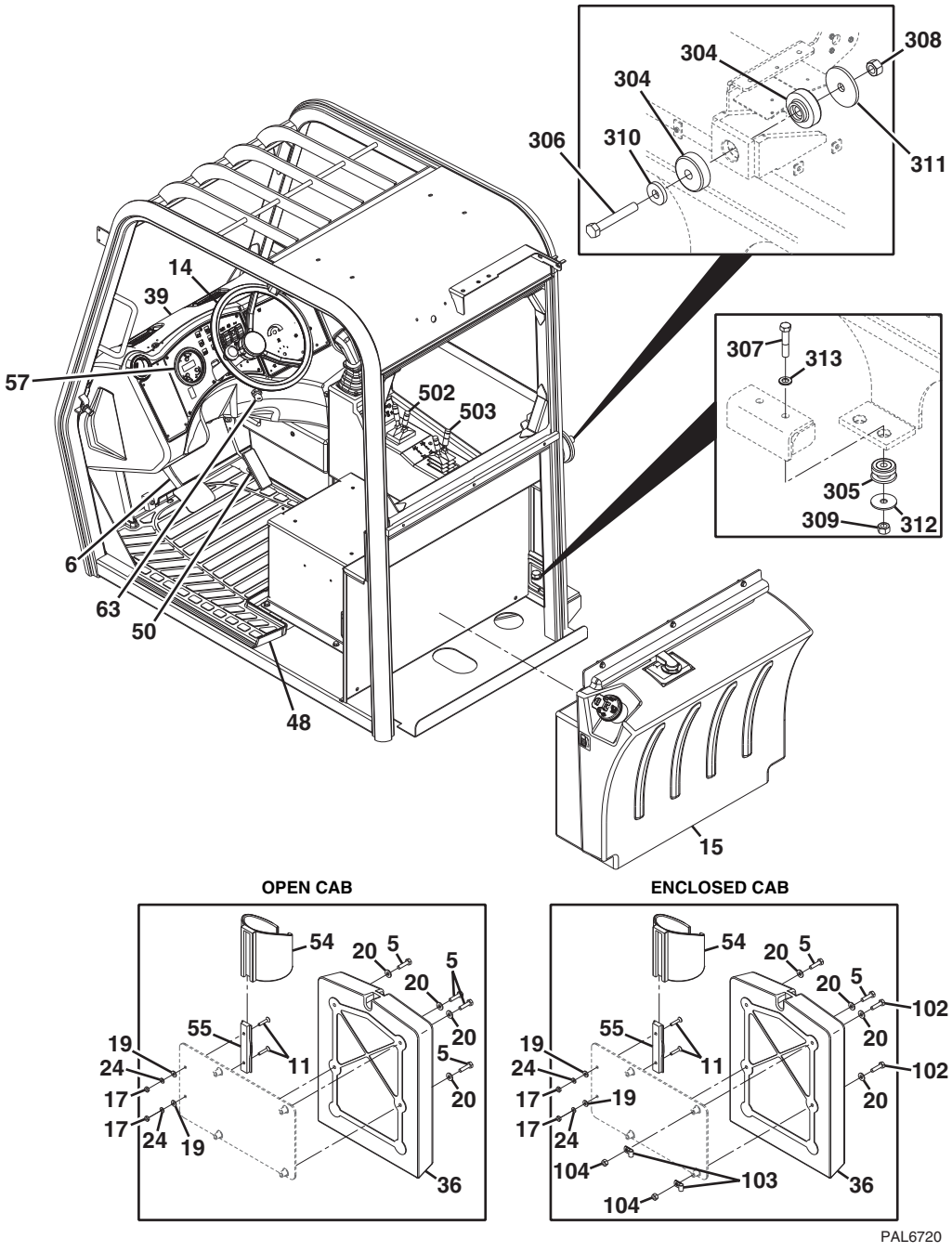

Figure 6-1 Cab Installation

Item	Part Number	Qty.	Description	Rev.
	389-3491	1	OPEN CAB ASSY, (includes items 1 thru 63)	C
	389-3493	1	ENCLOSED CAB ASSY W/ HEAT	A
		Ref	3 SPEED HEATER, (see Figure 6-7 for details)	
	389-3492	1	ENCLOSED CAB ASSY, (includes items 1 thru 63 & 101 thru 104)	F
	389-3494	1	ENCLOSED CAB ASSY W/ HEAT & A/C	F
		Ref	3 SPEED HEATER & A/C UNIT, (see Figure 6-8 for details)	
	389-3492	1	ENCLOSED CAB ASSY, (includes items 1 thru 63 & 101 thru 104)	F
1	299-0370	51 in	TRIM	
2	297-7008	6	BUTTON HD CAPSCREW, 1/4-20X5/8	
5	297-7012	4	HEX HD CAPSCREW, 1/4-20X1, GR5, **(OPEN CAB)**, (torque to 96 lb-ft/130 Nm)	
	297-7012	2	HEX HD CAPSCREW, 1/4-20X1, GR5, **(ENCLOSED CAB)**, (torque to 96 lb-ft/130 Nm)	
6		Ref	BRAKE & MOUNTING HARDWARE, (see Figure 7-1 for details)	
11	333-2416	2	SOCKET HD CAPSCREW, #10-24X1	
13		Ref	BREATHER & MOUNTING HARDWARE, (see Figure 9-14 for details)	
14		Ref	STEERING COLUMN & STEERING WHEELFigure 7-3 Steering Column	
15		Ref	FUEL TANK & MOUNTING HARDWARE, (see Figure 4-3 for details)	
16		Ref	CAB, (see Figure 6-2 for details)	
17	298-0546	2	HEX NUT, #10-24, GR2	
18		Ref	SEAT & SEAT MOUNTING HARDWARE, (see Figure 6-6 for details)	
19	298-7362	2	WASHER, #10	
20	298-7363	8	WASHER, 1/4	
24	298-7377	2	LOCKWASHER, #10	
25	303-4749	3	SCREW, 1/4-20X3/4	
36	298-7036	1	MANUAL STORAGE BOX	
38	298-1770	6	SCREW, #6X1/2	
39		Ref	CAB INTERIOR, (see Figure 6-4 for details)	
40	299-0549	1	SEAT RISER PANEL, **(OPEN CAB)**	
	344-7161	1	SEAT RISER PANEL, **(ENCLOSED CAB)**	
48	298-1539	1	FLOORMAT	
50		Ref	ACCELERATOR & MOUNTING HARDWARE, (see Figure 7-2 for details)	
52	418-3398	Ref	CAB MIRROR INSTALLATION, (not available to order, see items 201 thru 204 for service)	B
53		Ref	DASH HARNESS, (not shown),, (see Figure 10-14 for details)	
54	332-3846	1	CUP HOLDER TRAY	
55	332-3847	1	CUP HOLDER MOUNT	
56		Ref	TRANSMISSION RELAY HARNESS, (not shown), (see Figure 10-12 for details)	
57		Ref	DASH PANEL & CAB SWITCHES, (see Figure 10-5 for details)	
59		1	ACCESS PANEL	
60		1	COVER, **(if equipped without Heat or Heat & A/C)**	
		Ref	HEATING COMPONENTS, (see Figure 6-7 for details)	
62	350-2526	1	PANEL	
		Ref	COVER, **(if equipped with Heat or Heat & A/C)**, (see Figure 6-7 for details)	
63		Ref	CAB ELECTRICAL INSTALLATION, (see Figure 10-4 for details)	
101		AR	LOCTITE® 242™	
102		2	HEX HD CAPSCREW, 1/4-20X1-1/8, GR5, (torque to 96 lb-ft/130 Nm)	
103		Ref	WIPER COMPONENTS, (see Figure 6-5 for details)	

Figure 6-1 Cab Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
104	298-0548	2	HEX NUT, 1/4-20, GR2	
201	8T-4138	2	HEX HD CAPSCREW, M6X20, GR8.8	
202	329-0046	1	MIRROR	
203	2Y-6141	2	LOCKWASHER, 6mm	
204	418-3397	1	BRACKET	
	299-6707	Ref	CAB MOUNTING INSTALLATION, (not available to order, see items 304 thru 313 for service)	D
304	298-8665	4	CAB MOUNT ISOLATOR	
305	298-7030	4	RUBBER MOUNT	
306	297-7086	2	HEX HD CAPSCREW, 1-8X6-1/2. GR8, (torque to 680-720 lb-ft/921-976 Nm)	
307	298-7915	4	HEX HD CAPSCREW, 3/4-10X3-3/4, GR8, (torque to 280-308 lb-ft/380-417 Nm)	
308	298-8054	2	HEX NUT, 1-8	
309	298-8052	4	HEX NUT, 3/4-10	
310		2	TAIL WASHER	
311	298-8399	2	WASHER	
312	298-1740	4	TAIL WASHER	
313	298-1631	4	WASHER, 3/4	
	299-1283	Ref	CAB FENDER INSTALLATION, (not available to order, see items 401 & 402 for service)	A,1
401	299-0402	1	CAB FENDER	
402	298-7840	4	BOLT, 3/8-16X1	
501		Ref	BOOM JOYSTICK, (see Figure 7-4 for details)	
502		Ref	FRAME LEVEL JOYSTICK, (see Figure 7-5 for details)	
503		Ref	OUTRIGGER JOYSTICK, (see Figure 7-5 for details)	
	389-3545	1	CAB ENCLOSURE KIT WITH HEAT, (includes heater components, door components, rear window, skylight window, harnesses, hoses & other enclosed cab components)	C
	389-3546	1	CAB ENCLOSURE KIT WITH HEAT & A/C, (includes heater with a/c components, door components, rear window, skylight window, harnesses, hoses & other enclosed cab components)	E

Figure 6-2 Cab Assembly

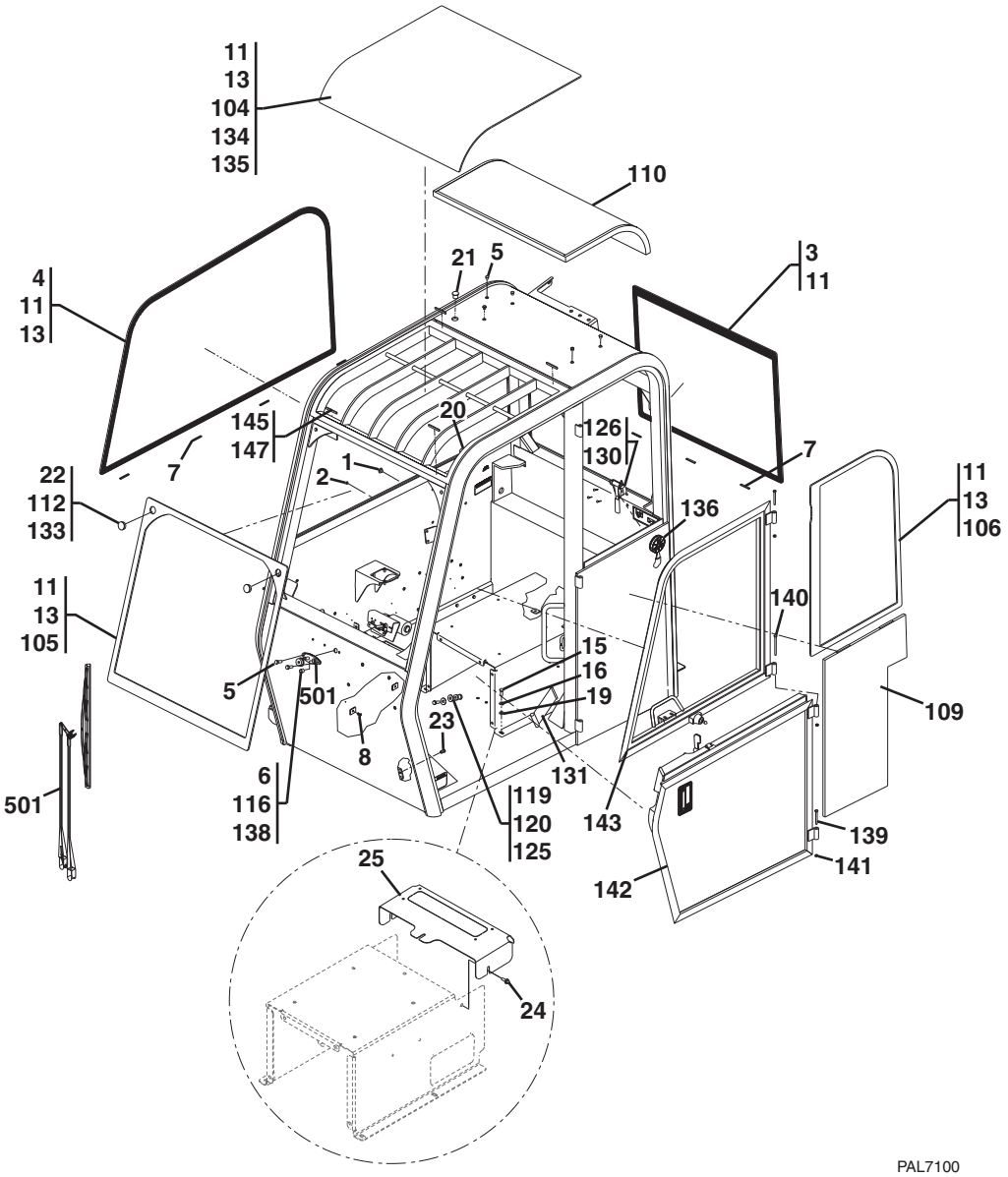

Figure 6-2 Cab Assembly

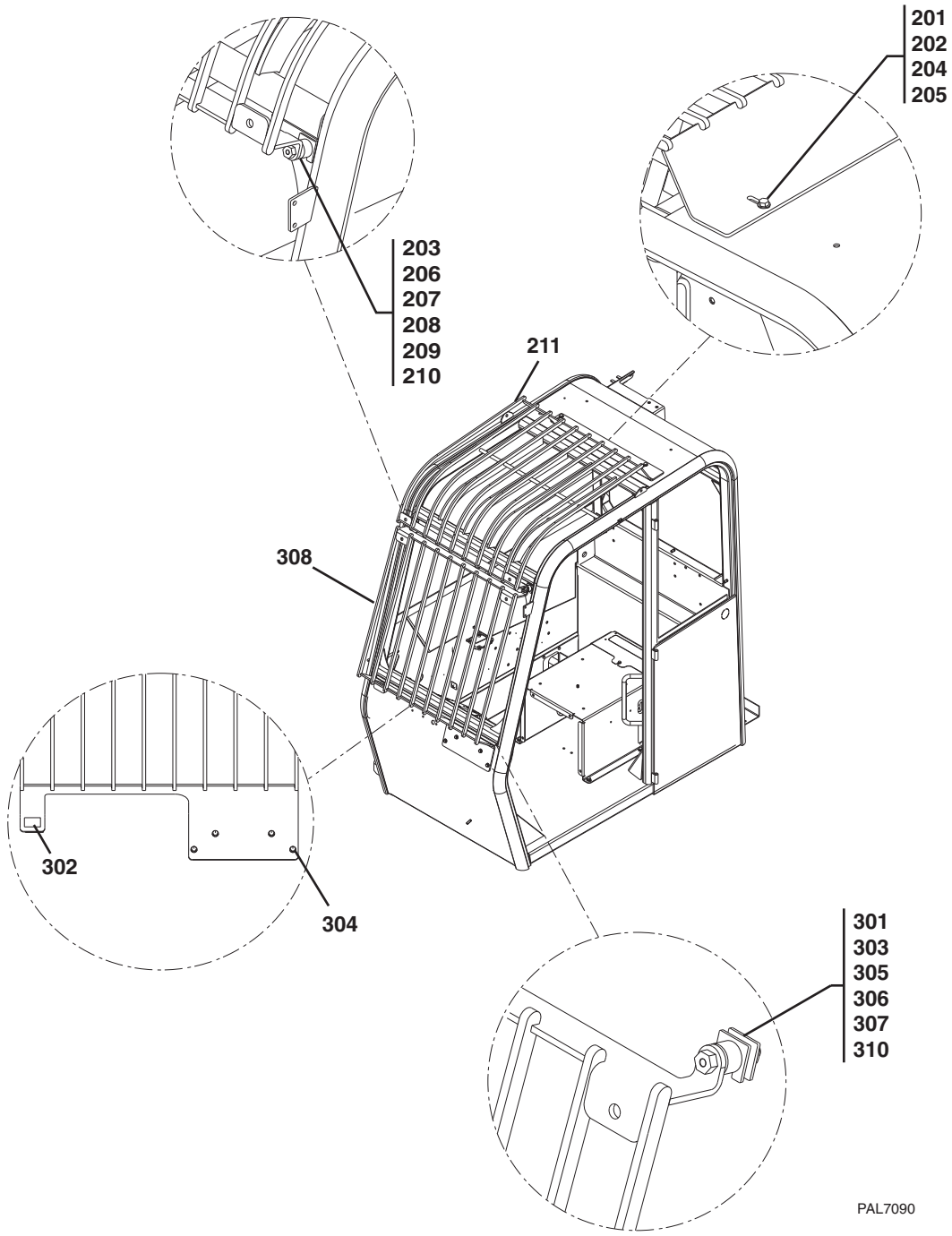

Figure 6-2 Cab Assembly

Item	Part Number	Qty.	Description	Rev.
	389-3542	1	OPEN CAB, (includes items 1 thru 25)	A
	389-3541	1	ENCLOSED CAB, (includes items 1 thru 143)	A
1	320-0520	6	PLUG	
2	303-8585	7	PLUG, 5/16	
3	303-8619	1	REAR WINDOW	
4	303-8618	1	RH SIDE WINDOW	
5	303-8585	10	PLUG, 5/16	
6	304-3181	1	HOLE PLUG, **(open cab)**	
7	304-3178	13	BLOCK	
8	331-6125	18	RIVNUT	
10	303-8612	1	ROPS WARNING DECAL	
11	320-0534	AR	URETHANE	
13	304-3815	AR	ACTIVATOR	
14	350-2521	1	SEAT RISER WELDMENT	
15	304-2636	4	HEX BOLT	
16	304-2648	4	WASHER	
19	304-2637	4	LOCKWASHER	
20	417-5017	1	VINYL GRIP	
21	417-5018	1	PLUG	
22		AR	SEALANT	
23	417-5019	1	RIVNUT	
24		Ref	SCREW, 1/4-20X3/4, (see Figure 6-1 for details)	
25		Ref	ACCESS PANEL, (see Figure 6-1 for details)	
104	303-8624	1	WINDOW SKY LIGHT	
105	303-8625	1	FRONT WINDOW	
106	303-4978	1	WINDOW	
109	303-8626	1	LH SIDE PANEL FOAM	
110	303-8627	1	HEAD LINER	
112	303-8628	2	HOLE PLUG	
116	303-8592	2	SCREW, **(enclosed cab)**	
119	303-8582	1	STRIKER BOLT	
120	303-8613	1	HEX BOLT	
125	303-8629	2	WASHER	
126	303-8630	3	RIVET	
127	303-8631	1	EMERGENCY EXIT DECAL	
130	303-8632	1	EMERGENCY EXIT HAMMER	
131	303-8597	1	STRAP	
133		AR	SEAM SEAL	
134		AR	BLACK URETHANE	
135	304-3815	AR	ACTIVATOR	
136	303-8633	1	DOOR HOLD OPEN	
138	303-8615	1	SPACER	
139	303-8590	2	BOLT	
140	303-8634	1	BOLT	
141	303-8635	3	NUT	
142		Ref	LOWER CAB DOOR, (see Figure 6-3 for details)	
143		Ref	UPPER CAB DOOR ASSY, (see Figure 6-3 for details)	
145	304-3178	15	BLOCK	
147		4	BLOCK	

Figure 6-2 Cab Assembly

Item	Part Number	Qty.	Description	Rev.
	328-1546	Ref	TOP BRICK GUARD INSTALLATION, (not available to order, see items 201 thru 211 for service)**, (if equipped)**	A
201	297-7031	2	HEX HD CAPSCREW, 3/8-16x1, GR5	
202	303-4774	2	HEX NUT, 3/8-16, GR8	
203	303-4961	4	KEEPER	
204	298-7365	4	WASHER, 3/8	
205	298-7380	2	LOCKWASHER, 3/8	
206	298-7382	2	LOCKWASHER, 1/2	
207		AR	SILICONE SEALANT	
208	298-8050	2	HEX NUT, 1/2	
209	298-1755	2	SPACER	
210	315-3424	2	BOLT, 1/2-13	
211	328-1545	1	BRICK GUARD BRACKET	
	328-1547	Ref	FRONT BRICK GUARD BRACKET INSTALLATION, (not available to order, see items 301 thru 310 for service)	B
301	303-4961	4	KEEPER	
302	317-0090	1	DOUBLE SIDED TAPE	
303	298-7382	2	LOCKWASHER, 1/2	
304	298-7840	4	WHIZ LOCK SCREW, 5/16-18X0.625	
305	298-8050	2	HEX NUT, 1/2-13	
306	298-1755	2	SPACER	
307	315-3424	2	BOLT, 1/2-13	
308	328-1544	1	BRICK GUARD BRACKET	
310		AR	SILICONE SEALANT	
401	328-1548	2	CAB WORK LIGHT HARNESS, (not shown), **(if equipped)**	
501		Ref	WIPERS, (see Figure 6-5 for details)	

Figure 6-3 Cab Door

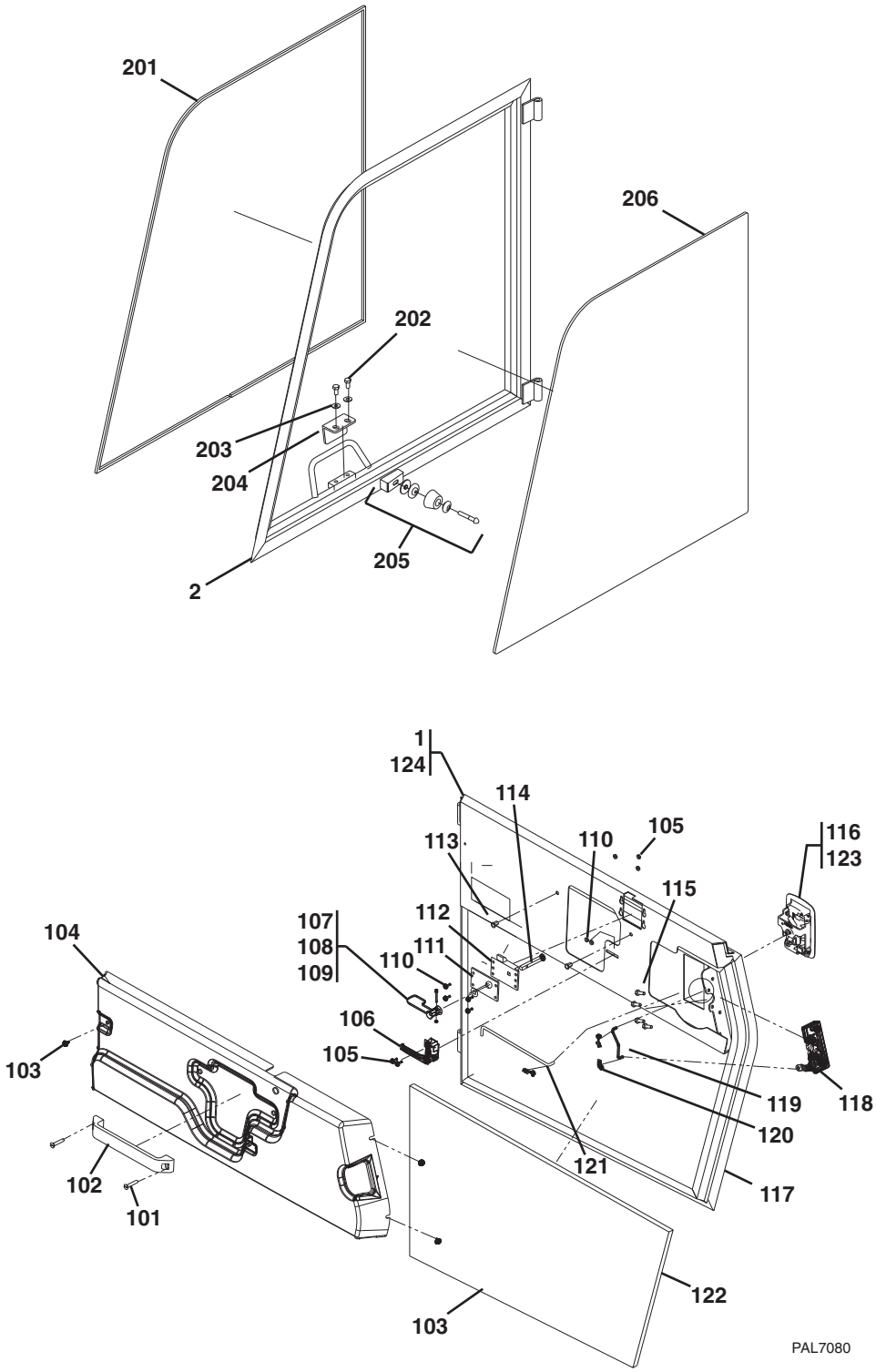

Figure 6-3 Cab Door

Item	Part Number	Qty.	Description	Rev.
1		1	LOWER DOOR ASSY, (includes items 101 thru 124)	
2		1	UPPER DOOR ASSY, (includes items 201 thru 206)	
101		2	FLAT HD SCREW, 1/4-20X1-1/4	
102	303-8642	1	GRAB HANDLE	
103	303-8578	3	SCREW, M6X1X12	
104	303-8638	1	PLASTIC DOOR COVER	
105	303-8587	6	WHIZ-LOCK SCREW, #10-24X0.5	
106	303-8588	1	INSIDE HANDLE ASY, LH	
107	303-8641	1	RELEASE LEVER, RH WINDOW AND LH DOOR	
108	303-8643	1	SOCKET HD SCREW, #8-32X1.12	
109	303-8644	1	NUT, #8-32	
110	303-8640	6	LOCKNUT, #10-24	
111	303-8646	1	SLAM LATCH STIFFENER	
112	303-8645	1	SLAM LATCH, LH	
113		2	RIVNUT, 1/4-20	
114	303-8647	1	LOWER DOOR DRIVE BAR WELDMENT	
115	304-2649	4	HEX SCREW, 1/4-20X3/4	
116	330-8272	1	PADDLE LATCH, LH, (includes item 323)	
117	303-8581	8 ft	BULB SEAL	
118	303-8583	1	CAM LATCH, RH	
119	303-8636	1	EXTERIOR RELEASE DOOR ROD	
120	303-8586	3	ROD END RETAINER CLIP	
121	303-8637	1	INTER RELEASE DOOR ROD	
122	303-8639	1	FOAM, LOWER DOOR	
123	303-8598	1	DOOR KEY	
124	NSS	1	DOOR WELDMENT	
201	303-8581	11 ft	BULB SEAL	
202	304-2301	2	HEX BOLT, 5/16-18X5/8	
203	303-8614	2	WASHER	
204	303-8649	1	SLAM LATCH	
205	303-8667	1	MALE DOOR HOLD-OPEN	
206	303-8648	1	UPPER GLASS	

Figure 6-4 Cab Interior

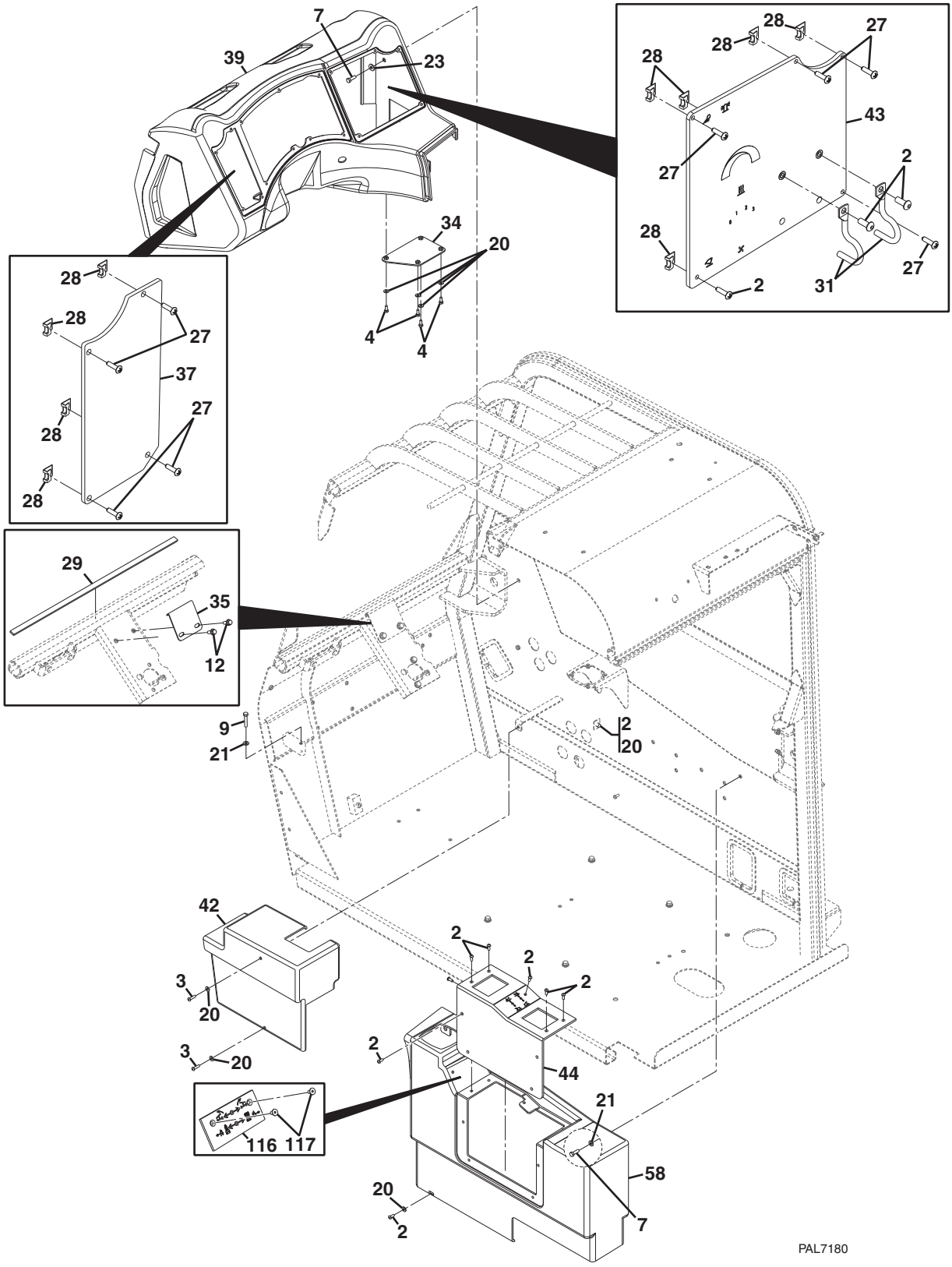

Figure 6-4 Cab Interior

Item	Part Number	Qty.	Description	Rev.
2	297-7008	12	BUTTON HD CAPSCREW, 1/4-20X5/8	
3	297-7009	2	BUTTON HD CAPSCREW, 1/4-20X1	
4	297-7010	4	HEX HD CAPSCREW, 1/4-20X5/8, GR5	
7	297-7017	2	HEX HD CAPSCREW, 5/16-18X1, GR5	
9	297-7021	1	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
12	298-1359	2	SCREW, 3/8-16X1	
20	298-7363	8	WASHER, 1/4	
21	298-7364	2	WASHER, 5/16	
23	298-7373	1	WASHER, 5/16	
27	298-7879	9	SCREW, #10-24X1, **(OPEN CAB)**	
	6V-7978	9	PAN HD CAPSCREW, #10, **(ENCLOSED CAB)**	
28	298-7880	9	SPECIAL NUT, #10-24	
29	298-6833	32 in	FOAM TAPE	
31	299-0395	2	CAPACITY CHART BRACKET	
34	298-8761	1	BRACKET	
35	298-1738	1	DASH CLAMP	
37	298-7049	1	LH COVER	
39	298-8608	1	DASH PLASTIC, **(OPEN CAB)**	
	350-2519	1	DASH PLASTIC, **(ENCLOSED CAB)**	
42	298-8402	1	RH LOWER PLASTIC	
43	298-8673	1	RH DASH PANEL	
44	298-8432	1	RH COVER PLATE	
58	344-7160	1	RH CONSOLE, **(OPEN CAB)**	
	344-7160	1	RH CONSOLE, **(ENCLOSED CAB)**	
116	344-7162	1	FRAME LEVEL/AUXILIARY PLATE	
117	297-7101	2	FLAT SOCKET HD CAPSCREW, 1/4-20X1/2	

Figure 6-5 Wipers

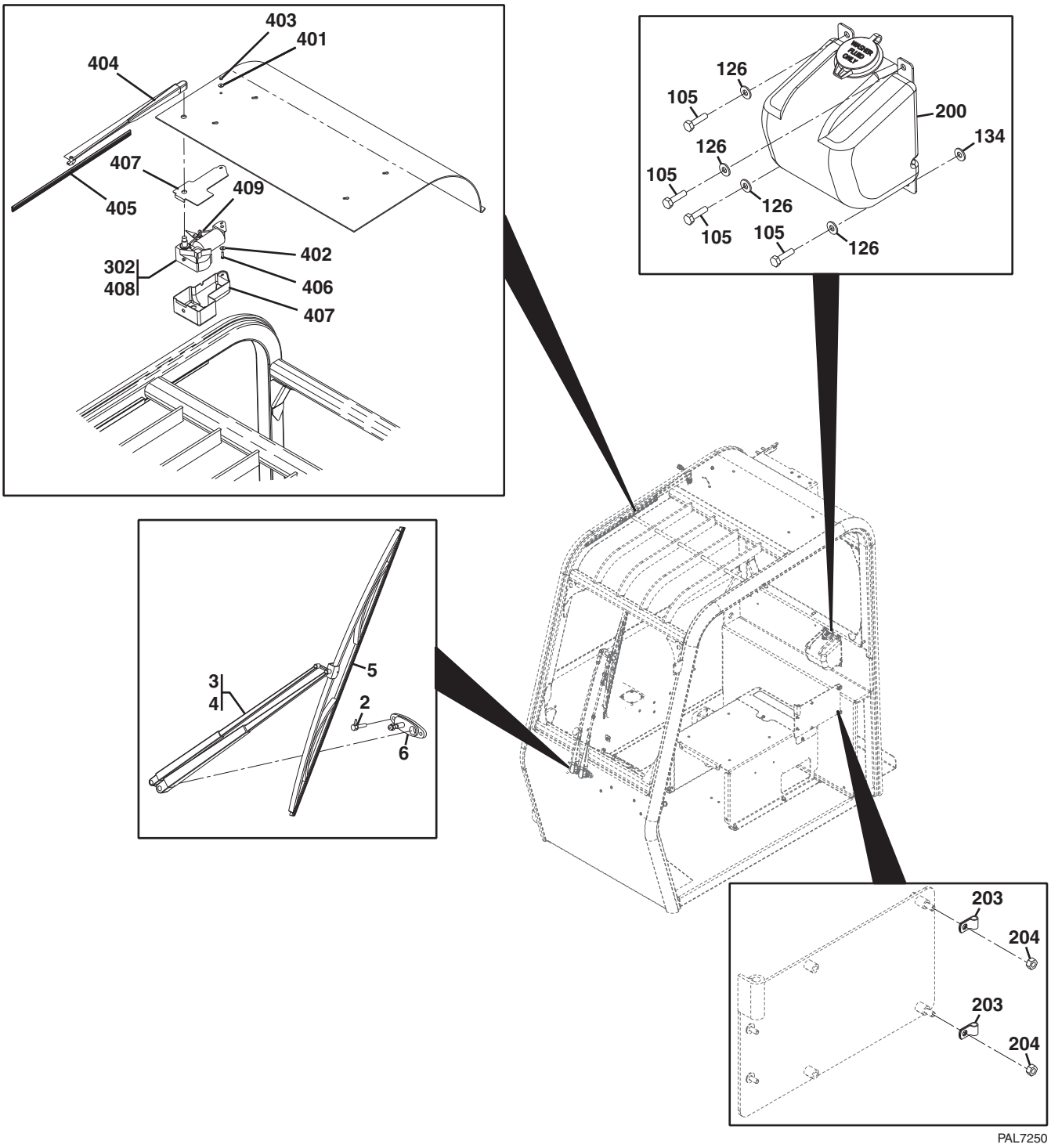

Figure 6-5 Wipers

Item	Part Number	Qty.	Description	Rev.
1	303-8589	1	WIPER DRIVE ARM, (not shown)	
2	336-7171	1	WET ARM ADAPTER	
3	339-9567	1	WET ARM KIT	
4	336-7169	1	WIPER ARM	
5		1	WIPER BLADE	
6	336-7168	1	ADAPTER MOUNT	
7	303-8611	1	WIPER MOTOR SHAFT, (not shown)	
8	304-3799	1	WIPER MOTOR, (not shown)	
105	297-7012	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
126	298-7363	4	WASHER, 1/4	
134		1	SPECIAL WASHER, 1/4	
200	349-6874	1	TANK, (includes cap)	
203		2	CLAMP	
204		Ref	HEX NUT, 1/4-20, (see Figure 6-1 for details)	
	417-4883	Ref	SKYLIGHT WIPER INSTALLATION, (not available to order, see items 301 thru 304 for service)	A
301		AR	LOCTITE® 242™	
302	343-7820	1	SKYLIGHT WIPER ASSY, (includes items 401 thru 409)	A
303		AR	SEALANT	
304	298-7281	53 in	CONDUIT	
401	339-0837	1	WASHER, 1/4	
402	339-1711	1	WASHER, 1/4	
403	339-1712	1	HEX NUT, #10-24	
404	320-0525	1	WIPER ARM	
405	320-0529	1	WIPER BLADE	
406	339-1713	1	HEX BOLT, #10-24X3/4	
407	339-1714	1	WIPER COVER	
408	343-7819	1	WIPER MOTOR	
409	325-1068	1	WIPER MOTOR HARNESS	

Figure 6-6 Seats

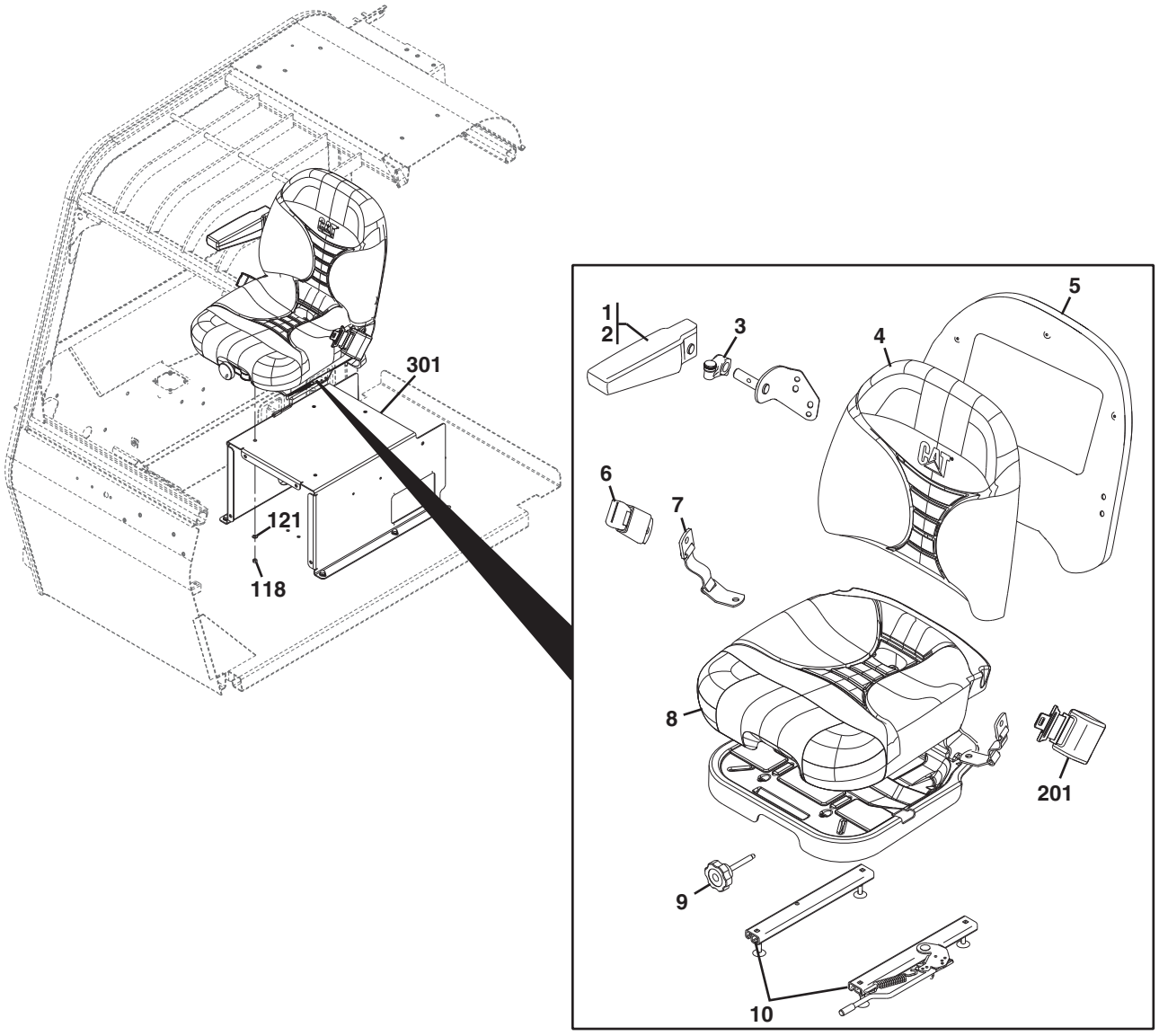

Figure 6-6 Seats

Item	Part Number	Qty.	Description	Rev.
	298-8722	1	SUSPENSION SEAT, (includes items 1 thru 10)	E
1	299-0927	1	ARMREST ASSY RH KIT, (includes items 2 & 3)	
2	NSS	1	ARMREST, MOLDED KIT	
3	NSS	1	ARMREST STOP ASSY	
4	304-2626	1	BACK CUSHION KIT	
5	299-0925	1	BACK PANEL KIT	
6	299-0928	1	SEAT BELT KIT	
7	299-6637	1	TETHER KIT	
8	299-0924	1	SEAT CUSHION KIT	
9	299-0922	1	KNOB KIT	
10	299-0921	1	SLIDE KIT	
118	298-0552	4	HEX NUT, 5/16-18, GR2	
121	298-7364	4	WASHER, 5/16	
201	298-8669	1	3 IN SEAT BELT, **(REQUIRED IN CALIFORNIA)**	
301		Ref	SEAT RISER & MOUNTING HARDWARE, (see Figure 6-2 for details)	

Figure 6-7 Heater Installation

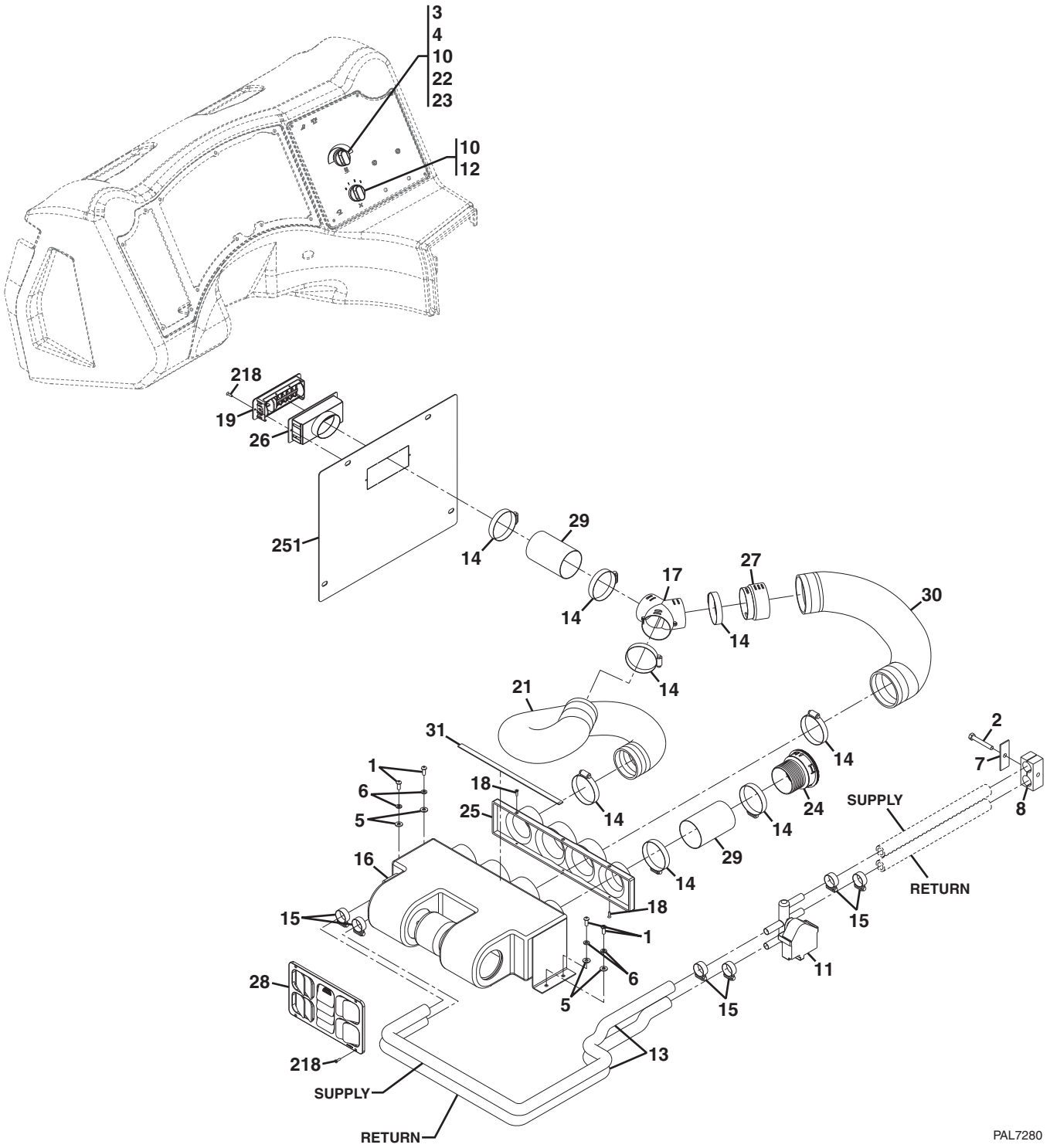

Figure 6-7 Heater Installation (Continued)

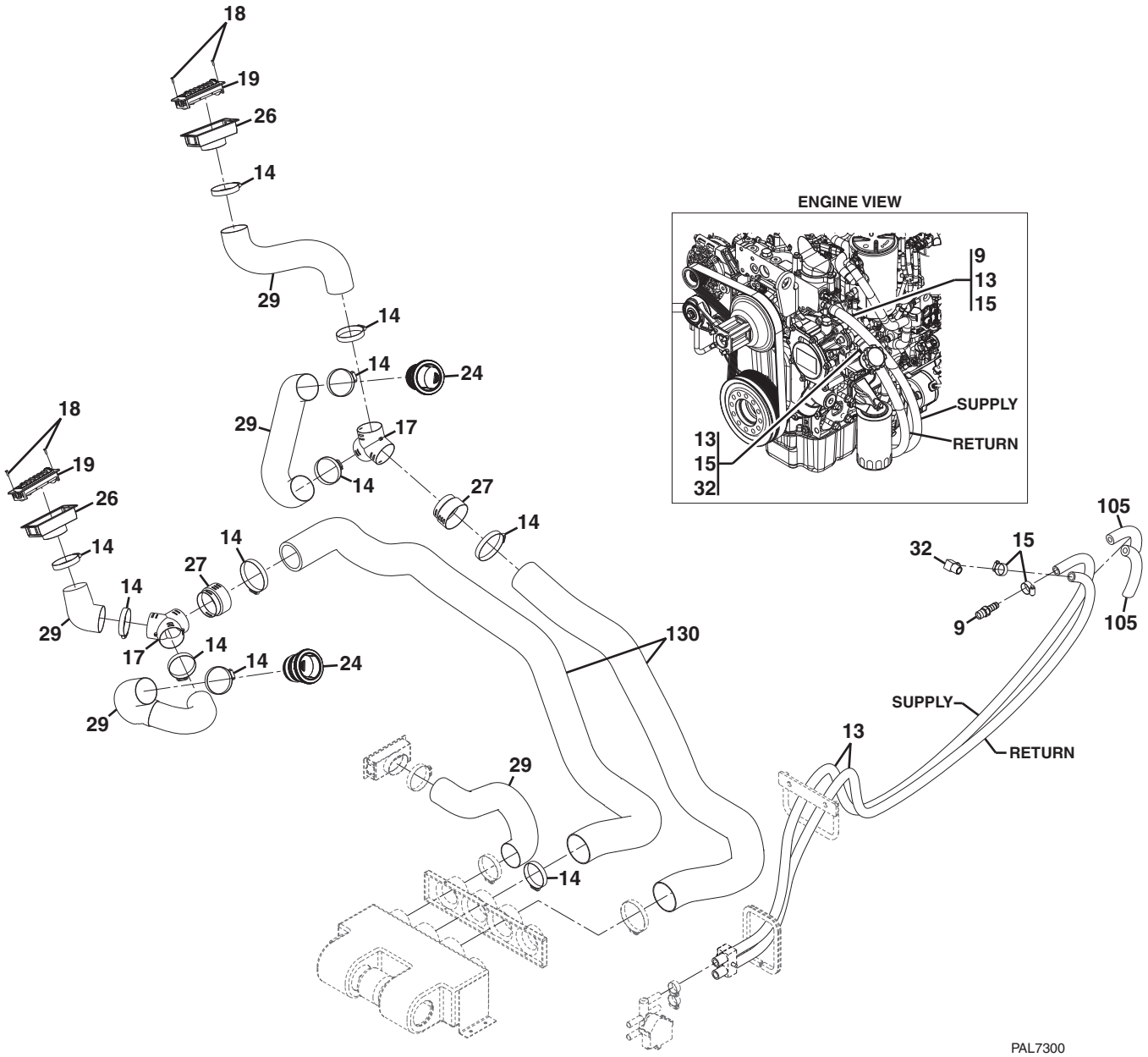

Figure 6-7 Heater Installation

Item	Part Number	Qty.	Description	Rev.
	389-3651	Ref	HEATER INSTALLATION, **(OPEN CAB)**, (not available to order, see items 1 thru 32 for service)	C
	389-3493	Ref	HEATER INSTALLATION, **(ENCLOSED CAB)**, (not available to order, see items 1 thru 20, 22 thru 29, 31, 32 & 105 for service)	A
1	297-7008	4	BUTTON HD CAPSCREW, 1/4-20X5/8	
2	297-7023	1	HEX HD CAPSCREW, 5/16-18X2-1/4, GR5	
3		Ref	SOCKET HD CAPSCREW, #6-32X.62, (see Figure 10-4 for details)	
4		Ref	HEX NUT, #6-32, GR2, (see Figure 10-4 for details)	
5	298-7363	4	WASHER, 1/4	
6	298-7378	4	LOCKWASHER, 1/4	
7	299-0949	1	COVER PLATE	
8	298-7834	1	CLAMP SET	
9	299-0328	1	ADAPTER	
10		Ref	KNOB, (see Figure 10-5 for details)	
11	299-0337	1	VALVE	
12		Ref	BLOWER SWITCH, (see Figure 10-5 for details)	
13	298-7290	21.8 ft	HOSE	
14	421-3800	8	CLAMP, **(OPEN CAB)**	
	421-3800	16	CLAMP, **(ENCLOSED CAB)**	
15	298-7977	8	CLAMP	
16	353-5231	1	3 SPEED HEATER ASSY	
17	350-2517	1	CONDUIT, **(OPEN CAB)**	
	350-2517	3	CONDUIT, **(ENCLOSED CAB)**	
18	298-1770	6	SCREW, #6X1/2, **(OPEN CAB)**	
	298-1770	10	SCREW, #6X1/2, **(ENCLOSED CAB)**	
19	350-2507	1	VENT, **(OPEN CAB)**	
	350-2507	3	VENT, **(ENCLOSED CAB)**	
20		Ref	ENCLOSED CAB OPTIONS HARNESS, (not shown), (see Figure 10-13 for details)	
21	298-7263	2.5 ft	HOSE, **(OPEN CAB)**	
22		Ref	POTENTIOMETER ASSY, (see Figure 10-5 for details)	
23		Ref	CLIP, (see Figure 10-4 for details)	
24	350-2506	1	VENT, **(OPEN CAB)**	
	350-2506	3	VENT	
25	350-2510	1	COVER	
26	350-2515	1	VENT BASE, **(OPEN CAB)**	
	350-2515	3	VENT BASE, **(OPEN CAB)**	
27	350-2518	1	CONDUIT, **(OPEN CAB)**	
	350-2518	2	CONDUIT, **(ENCLOSED CAB)**	
28	350-2525	1	COVER	
29	350-2511	11 in	HOSE, **(OPEN CAB)**	
	350-2511	73 in	HOSE, **(ENCLOSED CAB)**	
30	358-3070	1.4 ft	HOSE, **(OPEN CAB)**	
31	303-4911	2.7 ft	TAPE	
32	318-4732	1	ADAPTER, 90 DEGREES	
105		18 in	CONDUIT, **(ENCLOSED CAB)**	
130	358-3070	4 ft	HOSE, **(ENCLOSED CAB)**	
218		Ref	SCREW, #6X1/2, (see Figure 6-1 for details)	
251		Ref	SEAT RISER PANEL, (see Figure 6-1 for details)	

Figure 6-7 Heater Installation (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 6-8 Air Conditioning Installation

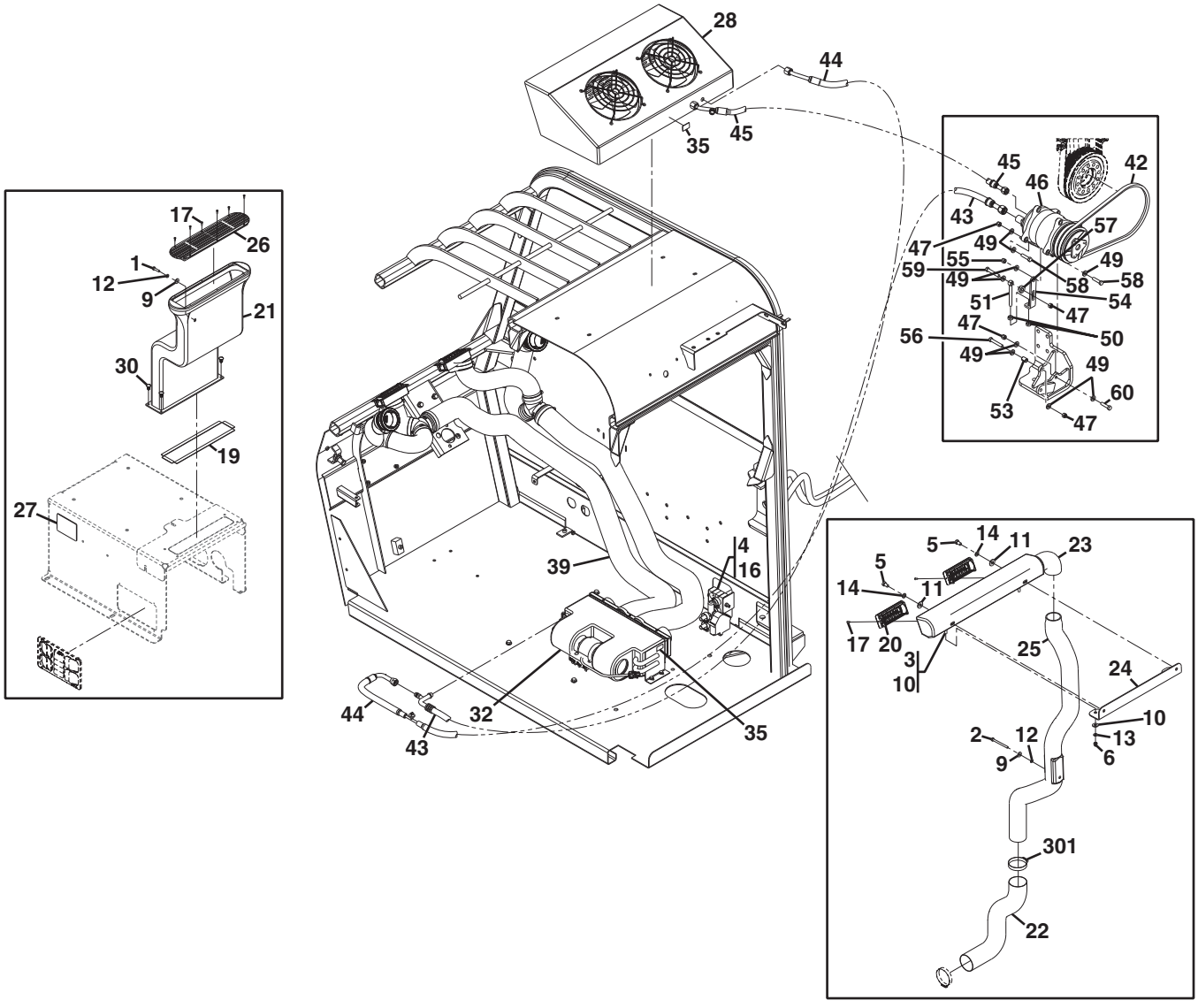

Figure 6-8 Air Conditioning Installation (Continued)

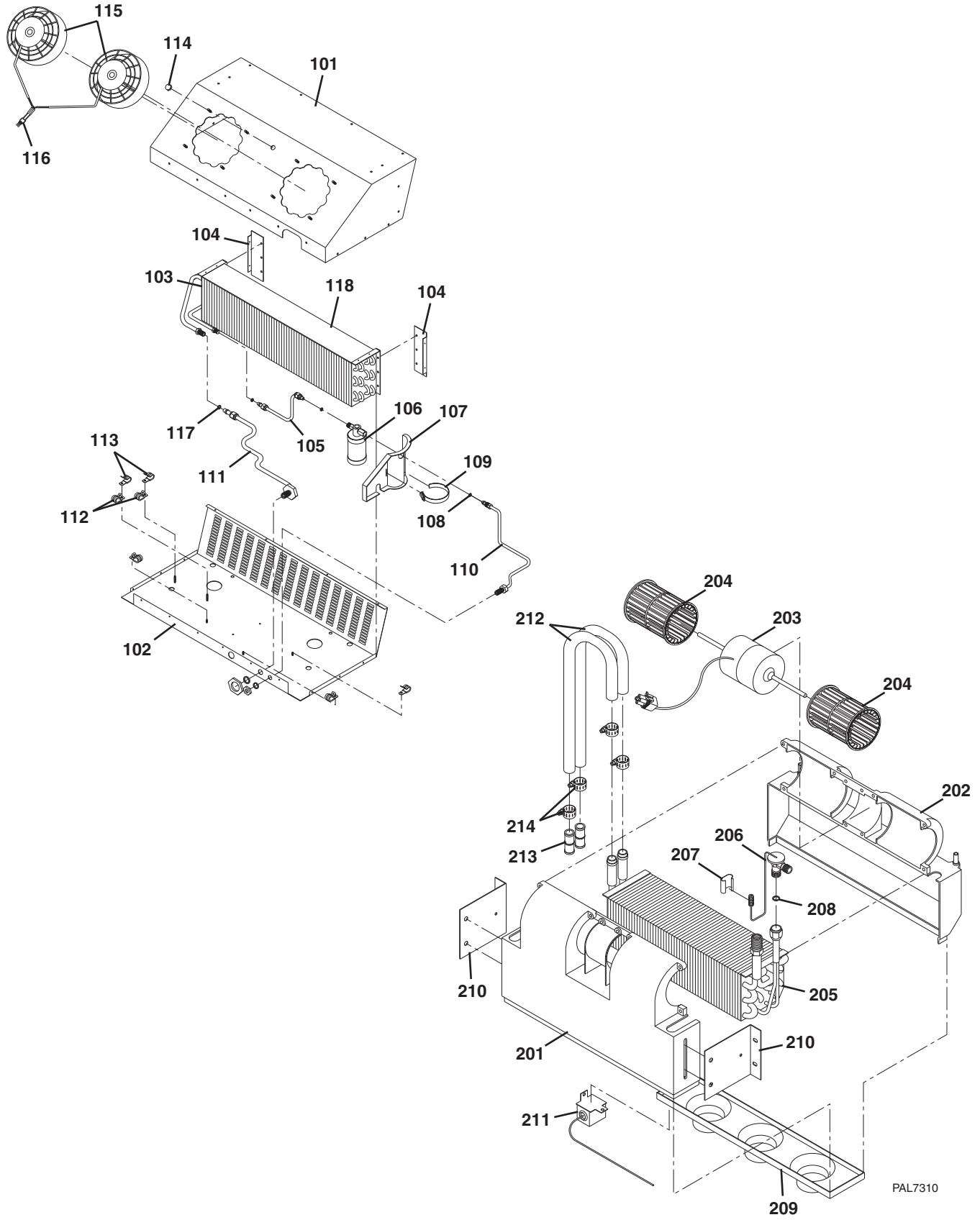

Figure 6-8 Air Conditioning Installation

Item	Part Number	Qty.	Description	Rev.
	389-3494	Ref	AIR CONDITIONING INSTALLATION, (not available to order, see items 1 thru 60 for service)	F
1	297-7012	1	HEX HD CAPSCREW, 1/4-20X1, GR5	
2	7X-0266	1	HEX HD CAPSCREW, 1/4-20X3, GR5	
3	8T-9043	2	HEX HD CAPSCREW, 5/16-18X7/8, GR5	
4	297-7027	1	HEX HD CAPSCREW, 5/16-18X4, GR5	
5		2	HEX HD CAPSCREW, 3/8-16X5/8, GR5	
6	421-3802	2	HEX LOCKNUT, 1/4-20, GR2	
7	299-0312	1	RELAY, (not shown)	
8	300-6101	5	TY-WRAP, (not shown)	
9	298-7372	2	WASHER, 1/4	
10	298-7373	4	WASHER, 5/16	
11	298-7374	2	WASHER, 3/8	
12	298-7378	2	LOCKWASHER, 1/4	
13	298-7379	2	LOCKWASHER, 5/16	
14	298-7380	2	LOCKWASHER, 3/8	
15		1	MALE TERMINAL, (not shown)	
16	298-7846	1	CLAMP SET	
17	298-1770	10	SCREW, #6X1/2	
18		Ref	A/C HARNESS, (not shown), (see Figure 10-20 for details)	
19	303-4911	28 in	TAPE	
20	350-2507	2	VENT	
21	350-2509	1	VENT	
22	350-2511	21 in	HOSE	
23	350-2513	1	TUBE	
24	350-2514	1	BRACKET	
25	350-2516	1	TUBE	
26	349-6875	1	FILTER	
27		Ref	A/C TEMPERATURE DECAL, (see Figure 11-1 for details)	
28	350-2528	1	A/C CONDENSER, (includes items 101 thru 122)	A
30	421-3801	4	CLIP	
32	421-3804	1	3 SPEED HEATER & A/C ASSY, (includes items 201 thru 225)	A
35		Ref	A/C REFRIGERANT DECAL, (see Figure 11-1 for details)	
39		Ref	HEATING & A/C DUCT COMPONENTS, (see Figure 6-7 for details)	
42	416-1871	1	BELT	
43	416-1872	1	HOSE ASSY	
44	350-2531	1	HOSE	
45	416-1873	1	HOSE ASSY	
46	349-6876	1	A/C COMPRESSOR CLUTCH	
47	418-0833	5	LOCKING NUT	
49	303-4789	10	WASHER, 3/8	
50	8T-4133	2	HEX NUT, M10X1.5	
51	421-3803	1	ROD END	
53	421-3805	1	BUSHING	
54	416-1870	1	BRACKET	
55	5S-7383	1	HEX HD CAPSCREW, 3/8-16X1-3/4, GR8	
56	8T-9377	1	HEX HD CAPSCREW, 3/8-16X2-1/4, GR8	
57	416-1875	1	SPACER	
58	4L-9377	1	HEX HD CAPSCREW, 3/8-16X1-1/2, GR8	

Figure 6-8 Air Conditioning Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
59		1	HEX HD CAPSCREW, 3/8-16X2-1/2, GR8	
60		1	HEX HD CAPSCREW, 3/8-16X2, GR8	
101	318-9237	1	CASE TOP	
102		1	CASE BOTTOM	
103	318-9238	1	COIL	
104		2	BRACKET	
105	298-8313	1	TUBE ASSY	
106	299-7180	1	DRIER	
107		1	BRACKET	
108	318-9245	3	O-RING	
109		1	CLAMP	
110	318-9239	1	TUBE ASSY	
111	318-9240	1	TUBE ASSY	
112		4	CLAMP	
113		3	CLAMP	
114		1	PLUG	
115	299-7184	2	FAN	
116	318-9241	1	FAN HARNESS	
117	318-9246	1	O-RING	
118		2 ft	FOAM	
120		4	BOLT, 3/8-16X1-3/4	
121		4	WASHER, 3/8	
122		4	LOCKWASHER,3/8	
201	355-4764	1	CASE TOP	
202	355-4765	1	CASE BOTTOM	
203	355-4771	1	BLOWER MOTOR	
204	356-3237	2	BLOWER WHEEL	
205		1	HEATER/COOLER COIL	
206	299-7182	1	VALVE	
207		1	CLAMP	
208	318-9246	1	O-RING	
209	NSS	1	3 HOLE TOP	
210		2	LEG	
211		1	THERMOSTAT	
212		2	HOSE	
213	NSS	2	HEATER SPLICE	
214		4	CLAMP	
215	355-4767	1	AIR RESTRICTER, (not shown)	
216	298-8317	1	METRO SWITCH, (not shown)	
217	318-9234	1	12V RELAY, (not shown)	
218	358-3071	3 ft	HOSE, (not shown)	
219	355-4769	1	DRAIN ELBOW, 3/8, (not shown)	
220	355-4770	1	DRAIN TEE, 3/8, (not shown)	
221	298-7278	1	PRESSURE SWITCH, (not shown)	
301	421-3800	1	CLAMP	

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SECTION 7
CONTROLS

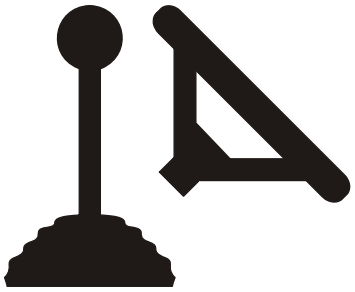

Figure 7-1 Brake

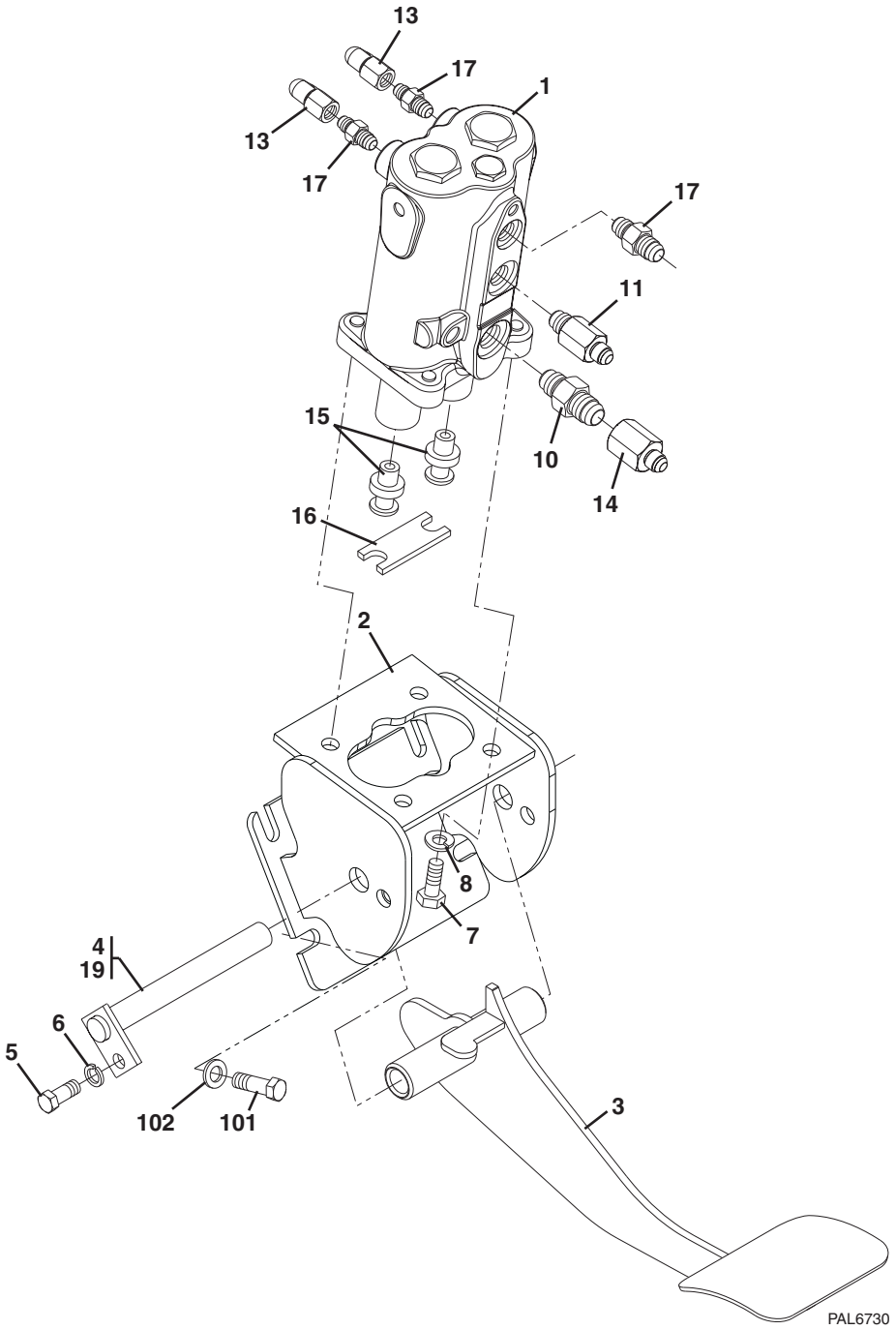

Figure 7-1 Brake

Item	Part Number	Qty.	Description	Rev.
	305-6011	Ref	BRAKE INSTALLATION, (not available to order, see items 1 thru 19 for service)	F
1		Ref	BRAKE VALVE, (see Figure 9-16 for details)	
2	305-2026	1	BRAKE BRACKET	
3	305-2025	1	BRAKE PEDAL	
4	299-0208	1	PIN	
5	297-7031	1	HEX HD CAPSCREW, 3/8-16X1, GR5	
6	298-7380	1	LOCKWASHER, 3/8	
7	8T-4195	4	HEX HD CAPSCREW, M10X30, GR8.8	
8	298-7388	4	LOCKWASHER, 10 mm	
10	298-0522	1	ADAPTER	
11	300-6104	1	ADAPTER	
13	298-0507	2	ADAPTER, 90 DEGREES, (swivel nut)	
14	300-6099	1	FITTING REDUCER	
15	298-8280	2	ACTUATOR	
16	298-8244	1	TIE BAR	
17	298-1610	3	ADAPTER	
19		AR	MOLY PASTE	
101	297-7016	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5, (torque to 17 lb-ft/23 Nm)	
102	298-7364	8	FLAT WASHER, 5/16	

Figure 7-2 Accelerator

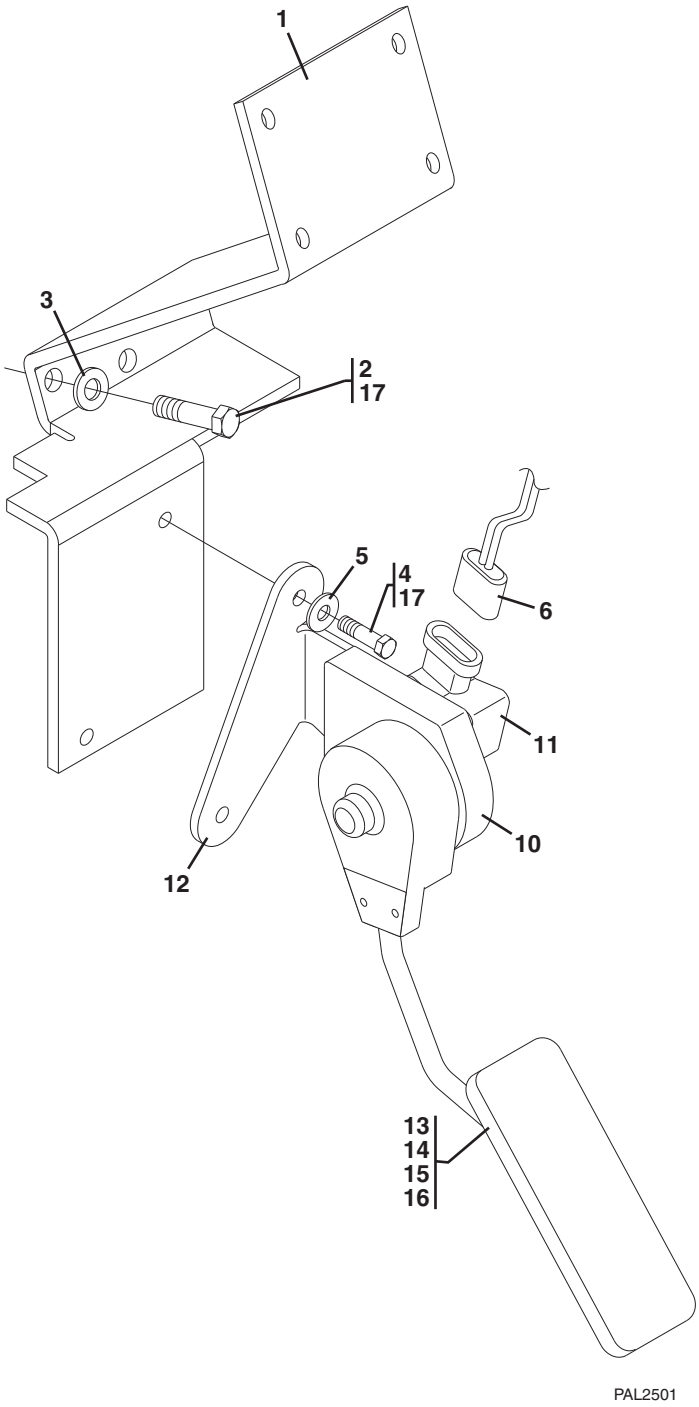

Figure 7-2 Accelerator

Item	Part Number	Qty.	Description	Rev.
1	298-8378	1	BRACKET	
2	297-7017	3	HEX HD CAPSCREW, 5/16-18X1, GR5, (torque to 17 lb-ft/23 Nm)	
3	298-7364	3	WASHER, 5/16	
4	297-7012	2	HEX HD CAPSCREW, 1/4-20X1, GR5, (torque to 96 lb-ft/130 Nm)	
5	298-7363	2	WASHER, 1/4	
6		Ref	ENGINE HARNESS, (see Figure 10-8 for details)	
10	298-0433	1	PEDAL, (includes items 11 thru 16)	C
11	305-2101	1	SENSOR KIT, (includes screws)	
12	NSS	1	BRACKET	
13	364-9559	1	PEDAL KIT, (includes items 14 & 16)	
14	NSS	1	PEDAL SPRING	
15	304-4558	1	PEDAL ARM	
16	NSS	1	PEDAL PIN	
17		AR	LOCTITE® 242™	

Figure 7-3 Steering Column

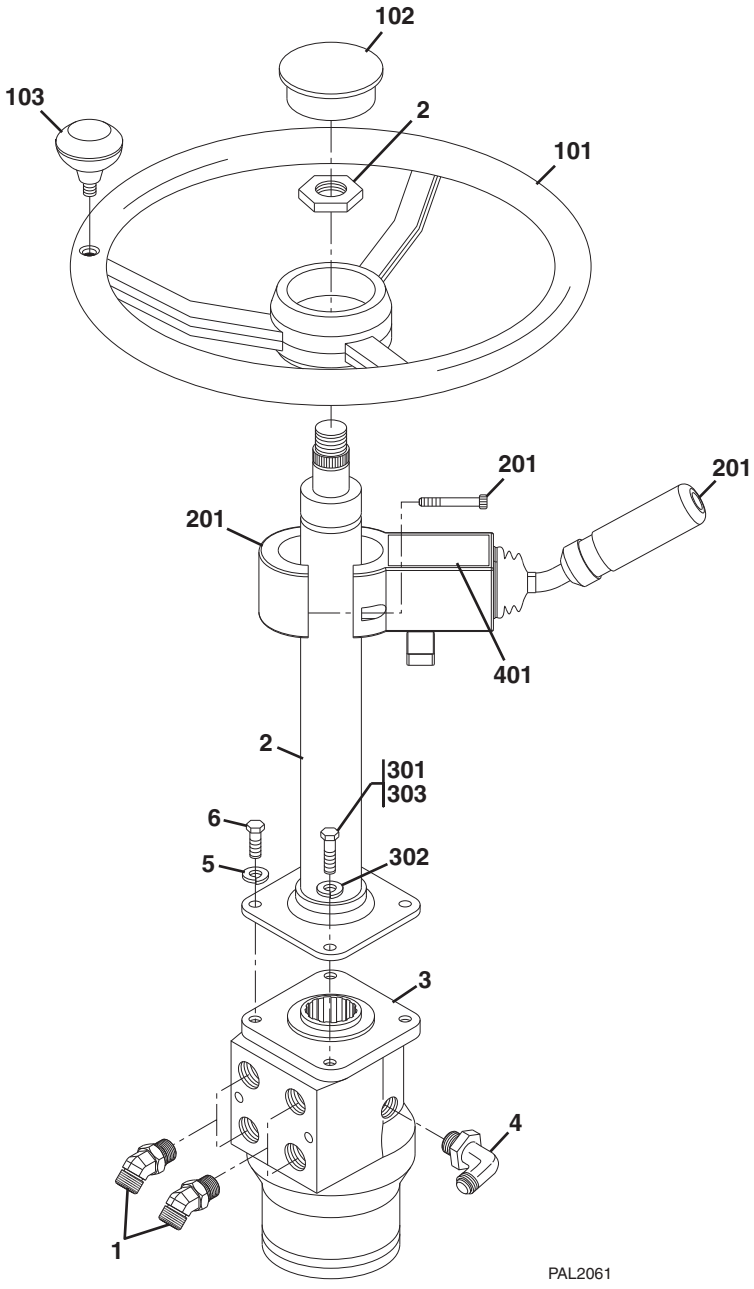

Figure 7-3 Steering Column

Item	Part Number	Qty.	Description	Rev.
	299-1324	1	STEERING COLUMN, (includes 1 thru 6)	A
1	298-0487	4	ADAPTER, 45 DEGREES, (includes o-ring)	
2	298-8637	1	STEERING COLUMN	
	298-1683	1	STEERING WHEEL NUT, (torque to 29-34 lb-ft/39-46 Nm)	
3	298-8745	1	STEERING CONTROL VALVE	
	303-8610	1	STEERING CONTROL VALVE SEAL KIT	
4	298-0471	1	ADAPTOR, 90 DEGREES, (includes o-ring)	
5	298-7380	2	LOCKWASHER	
6	297-7029	2	HEX HD CAPSCREW, 3/8-16X3/4, GR 5, (torque to 30 lb-ft/41 Nm)	
101	299-0560	1	STEERING WHEEL, (includes items 102 & 103)	
102	299-0913	1	CENTER CAP	
103	299-6632	1	SPINNER KNOB	
201	389-3472	1	F-N-R SHIFTER, (includes items 202 & 203)	
202	NSS	2	HEX HD CAPSCREW, (torque to 30-35 lb-ft/41-47 Nm)	
203	NSS	1	CLAMP SET	
301	297-7031	2	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 40 lb-ft/55 Nm)	
302	298-7365	2	WASHER, 3/8	
303		AR	LOCTITE® 242™	
401		Ref	SHIFTER DECAL, (see Figure 11-1 for details)	

Figure 7-4 Boom Joystick

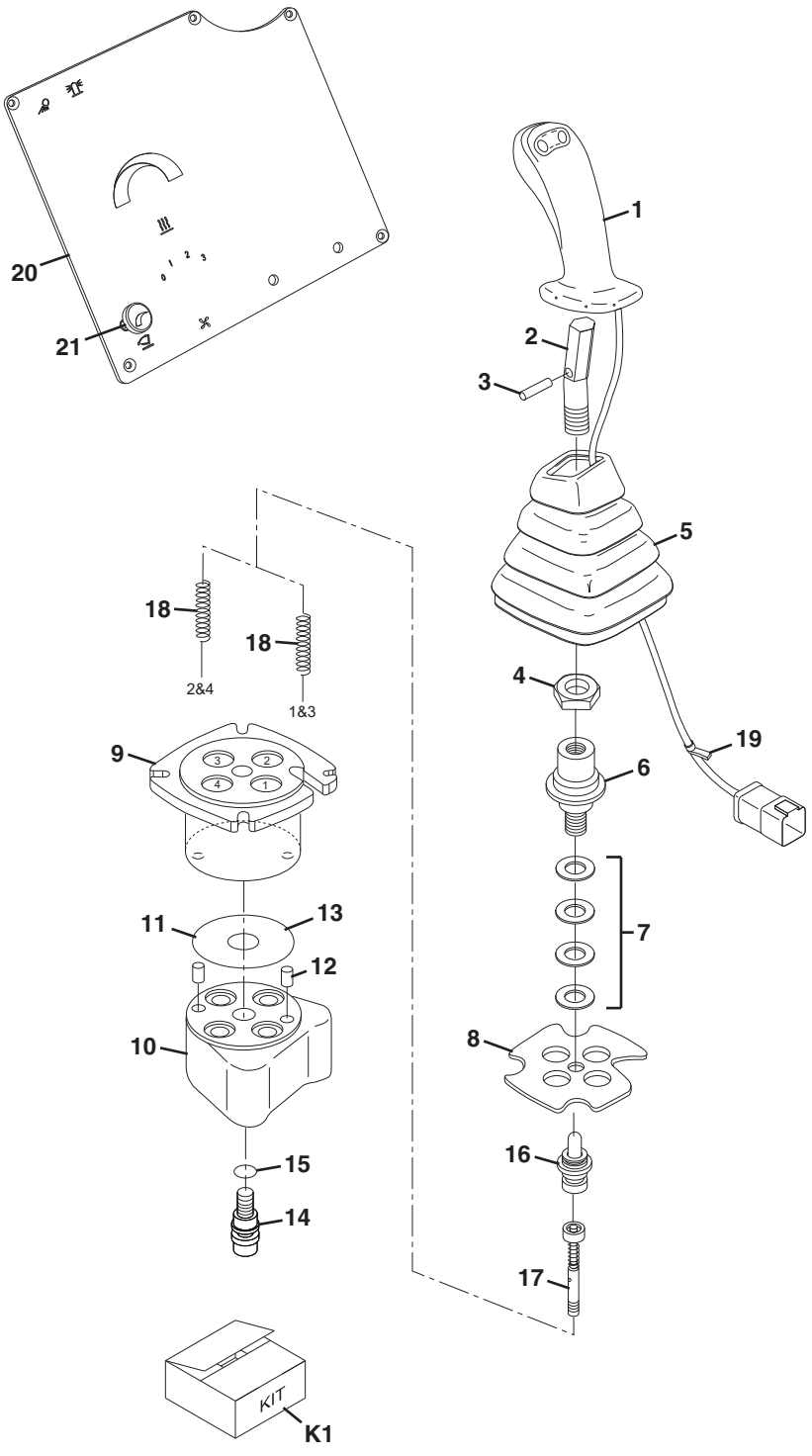

Figure 7-4 Boom Joystick

Item	Part Number	Qty.	Description	Rev.
	298-8645	1	BOOM JOYSTICK, (includes items 1 thru 19)	
1	299-0970	1	GRIP ASSY	
2	299-0966	1	BENT LEVER KIT, (includes items 3 & 4)	
3	NSS	1	SPRING PIN	
4	NSS	1	HEX NUT	
5	299-0954	1	BOOT	
6	299-0953	1	CARDON KIT, (includes item 7)	
7	NSS	AR	SHIM	
8	298-7082	1	RETAINING PLATE	
9	299-0967	1	UPPER BODY, (includes item 10)	
10	NSS	1	LOWER BODY	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	2	DOWEL PIN	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	SCREW ASSY	
15	Use Kit K1	1	O-RING	
16	299-0960	4	PLUNGER & GUIDE KIT	
17	299-0986	4	REGULATING UNIT	
18	299-0209	1	SPRING, (ports 1 & 3), (pack of two)	
	299-0210	1	SPRING, (ports 2 & 4), (pack of two)	
19	299-0834	1	GROMMET WITH CABLE TIE KIT	
20		Ref	RH DASH PANEL, (see Figure 6-4 for details)	
21		Ref	TILT RHEOSTAT SWITCH, (see Figure 10-5 for details)	
K1	299-0498	AR	SEAL KIT, (includes items 11 thru 15)	

Figure 7-5 Outrigger & Frame Level/Aux Controllers

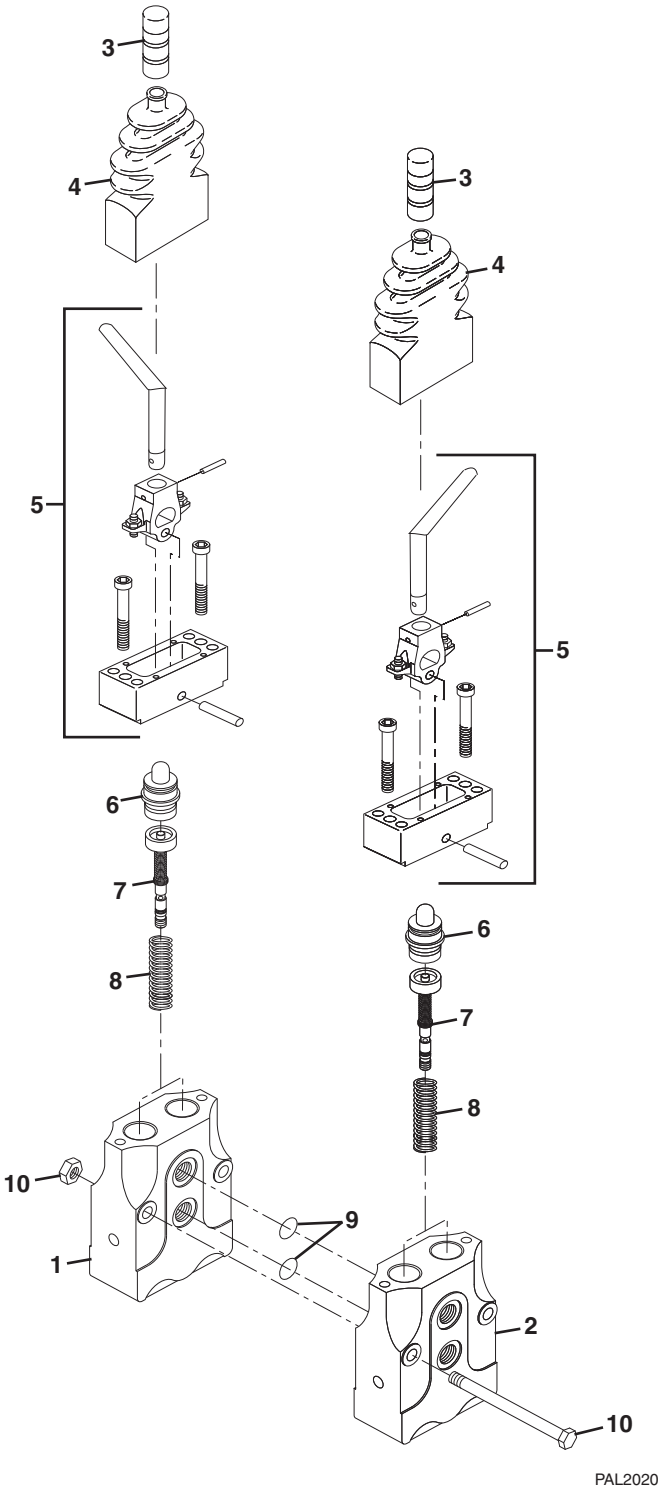

Figure 7-5 Outrigger & Frame Level/Aux Controllers

Item	Part Number	Qty.	Description	Rev.
	299-0558	2	HYDRAULIC CONTROLLER - OUTRIGGER & FRAME LEVEL/AUX, (includes all items)	A
1	299-0559	1	HYDRAULIC CONTROLLER, (includes one each of items 3 thru 8)	
2	299-0917	1	HYDRAULIC CONTROLLER, (includes one each of items 3 thru 8)	
3	299-7144	2	GRIP	
4	299-0976	2	RUBBER BOOT	
5	299-0915	2	LEVER OPERATION KIT	
6	299-0960	2	PLUNGER KIT	
7	299-0916	2	REGULATING UNIT KIT	
8	299-0210	2	RETURN SPRING	
9	299-0635	2	O-RING	
10	299-0636	1	BOLT & NUT KIT	

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SECTION 8
HYDRAULIC CIRCUITS

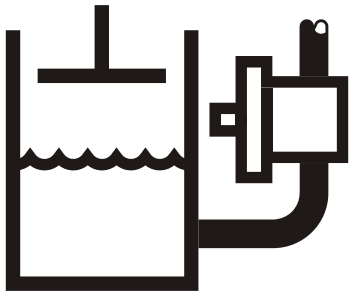

Figure 8-1 Supply Circuit

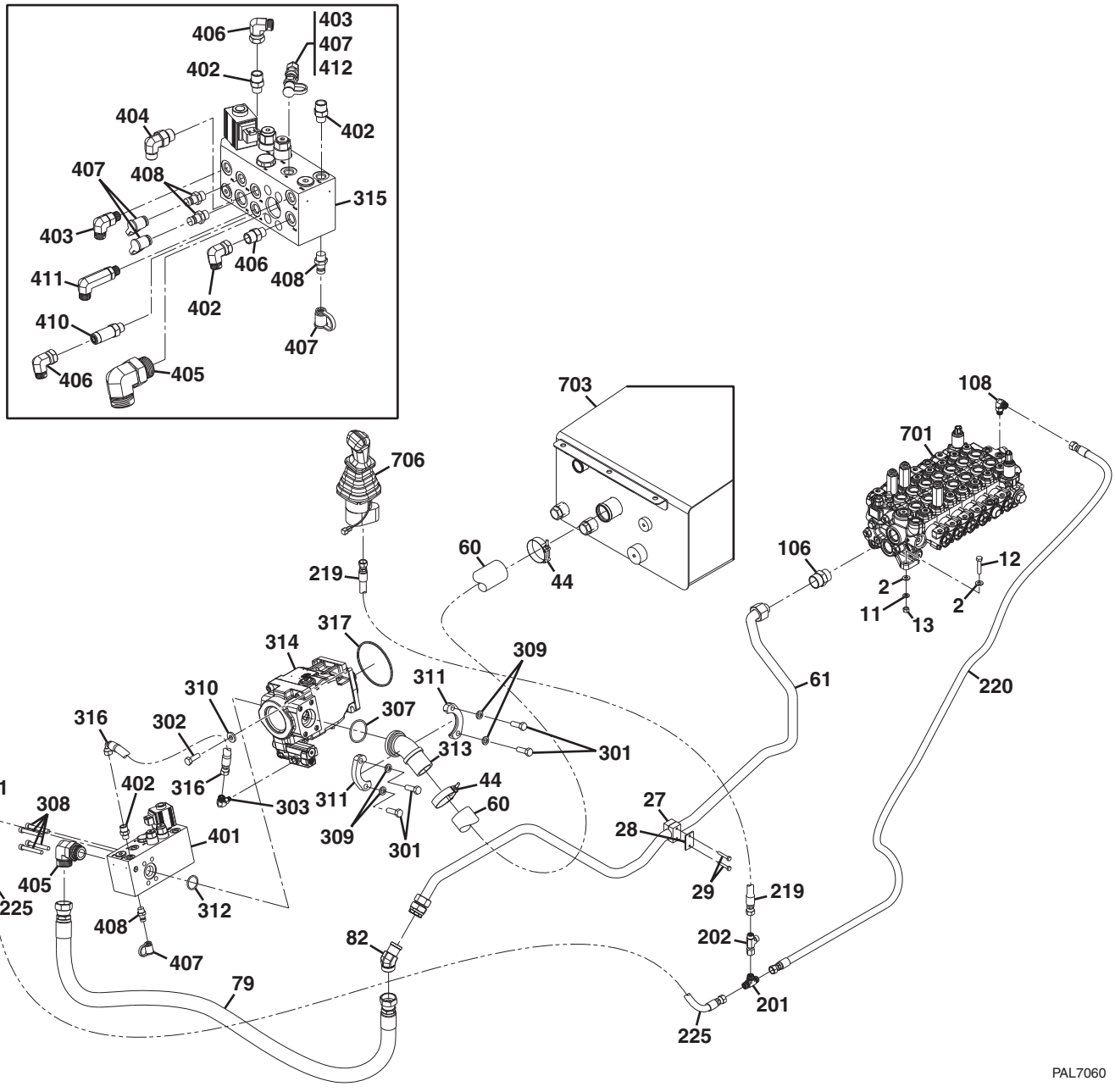

Figure 8-1 Supply Circuit (Continued)

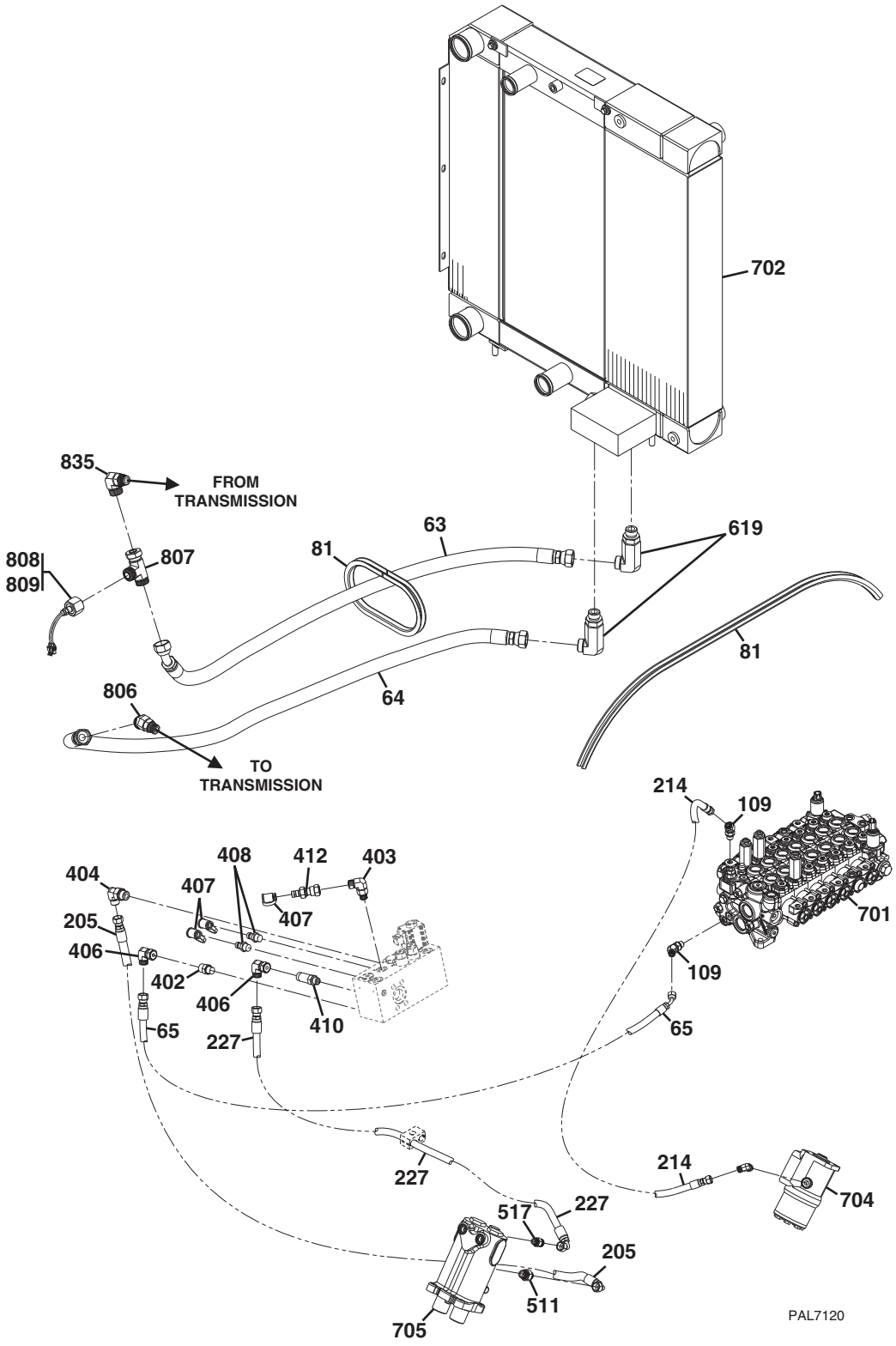

Figure 8-1 Supply Circuit

Item	Part Number	Qty.	Description	Rev.
2	298-7365	8	WASHER, 3/8	
11	298-7380	4	LOCKWASHER, 3/8	
12	297-7034	4	HEX HD CAPSCREW, 3/8-16X1-3/4, GR5	
13	298-0554	4	HEX NUT, 3/8-16, GR2	
27	298-7434	1	CLAMP	
28	299-0946	1	COVER PLATE	
29	297-7013	2	HEX HD CAPSCREW, 1/-20X1-1/2, GR5	
44		2	CLAMP	
60	389-3439	1	HOSE	
61	389-3474	1	TUBE ASSY	
63	389-3498	1	HOSE ASSY	
64	389-3499	1	HOSE ASSY	
65	389-3500	1	HOSE ASSY	
79	389-3476	1	HOSE ASSY	
81		67 in	TRIM	
82	389-3652	1	ADAPTER, 45 DEGREES, (includes o-ring)	
106	298-0470	1	STRAIGHT FITTING, (includes o-ring)	
108	298-0473	1	ADAPTER, 90 DEGREES, (includes o-ring)	
109	309-6346	2	ADAPTER, 45 DEGREES, (includes o-ring)	
116	298-0489	1	ADAPTER, 90 DEGREES, (includes o-ring)	
201		Ref	TEE FITTING, (see Figure 8-5 for details)	
202		Ref	TEE FITTING, (see Figure 8-5 for details)	
205	389-3520	1	HOSE ASSY	
214	298-1518	1	HOSE ASSY	
219		Ref	HOSE ASSY, (see Figure 8-5 for details)	
220	298-1526	1	HOSE ASSY	
225	396-9559	1	HOSE ASSY	
227	389-3507	1	HOSE ASSY	
	422-1414	Ref	HYDRAULIC PUMP INSTALLATION, (not available to order, see items 301 thru 318 for service)	C
301	297-7042	4	HEX HD CAPSCREW, 1/2-13X1-1/2, GR5	
302	8T-4956	4	HEX HD CAPSCREW, M12X35, GR8.8	
303		1	ADAPTER, 90 DEGREES, (includes o-ring)	
304		Ref	TEE FITTING, (not shown), (see Figure 8-2 for details)	
307		1	O-RING	
308	299-0472	4	SOCKET HD CAPSCREW, 3/8-16X3	
309	298-7382	4	LOCKWASHER, 1/2	
310	298-7392	4	WASHER, 1/2	
311		2	#32 FLANGE	
312	298-1655	1	O-RING	
313	361-2839	1	PIPE, 45 DEGREES	
314		Ref	PISTON PUMP, (see Figure 9-13 for details)	
315	389-3437	Ref	HYDRAULIC MANIFOLD VALVE INSTALLATION, (not available to order, see items 401 thru 412 for service)	C
316	389-3438	1	HOSE ASSY	
317	298-7890	1	O-RING	
318		Ref	REDUCER ADAPTER, (not shown), (see Figure 8-2 for details)	
401		Ref	HYDRAULIC MANIFOLD VALVE, (see Figure 9-17 for details)	

Figure 8-1 Supply Circuit (Continued)

Item	Part Number	Qty.	Description	Rev.
402		Ref	STRAIGHT FITTING, (see Figure 8-2 for details)	
403	298-0473	2	ADAPTER, 90 DEGREES, (includes o-ring)	
404	303-4754	1	ADAPTER, 90 DEGREES, (includes o-ring)	
405	303-4759	1	ADAPTER, 90 DEGREES, (includes o-ring)	
406		Ref	ADAPTER, 90 DEGREES, (see Figure 8-2 for details)	
407	417-2855	4	DUST CAP	
408	389-3433	3	STRAIGHT FITTING, (includes o-ring)	
410		1	STRAIGHT FITTING, (includes o-ring)	
411	298-0489	1	ADAPTER, 90 DEGREES, (includes o-ring)	
412	309-6462	1	STRAIGHT FITTING, (includes o-ring)	
511	300-6104	1	STRAIGHT FITTING, (includes o-ring)	
517	298-1610	1	STRAIGHT FITTING, (includes o-ring)	
619	298-0491	2	ADAPTER, 90 DEGREES, (includes o-ring)	
701		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
702		Ref	RADIATOR, (see Figure 4-4 for details)	
703		Ref	HYDRAULIC TANK, (see Figure 9-14 for details)	
704		Ref	STEERING VALVE, (see Figure 7-3 for details)	
705		Ref	BRAKE VALVE, (see Figure 9-16 for details)	
706		Ref	BOOM JOYSTICK, (see Figure 7-4 for details)	
806		1	ADAPTER, 45 DEGREES, (includes o-ring)	
807	317-5982	1	TEE FITTING, (includes o-ring)	
808	389-3478	1	STRAIGHT FITTING, (includes o-ring)	
809		Ref	TEMPERATURE SWITCH, (see Figure 10-9 for details)	
835	303-4757	1	ADAPTER, 90 DEGREES, (includes o-ring)	

Figure 8-2 Dump Circuit

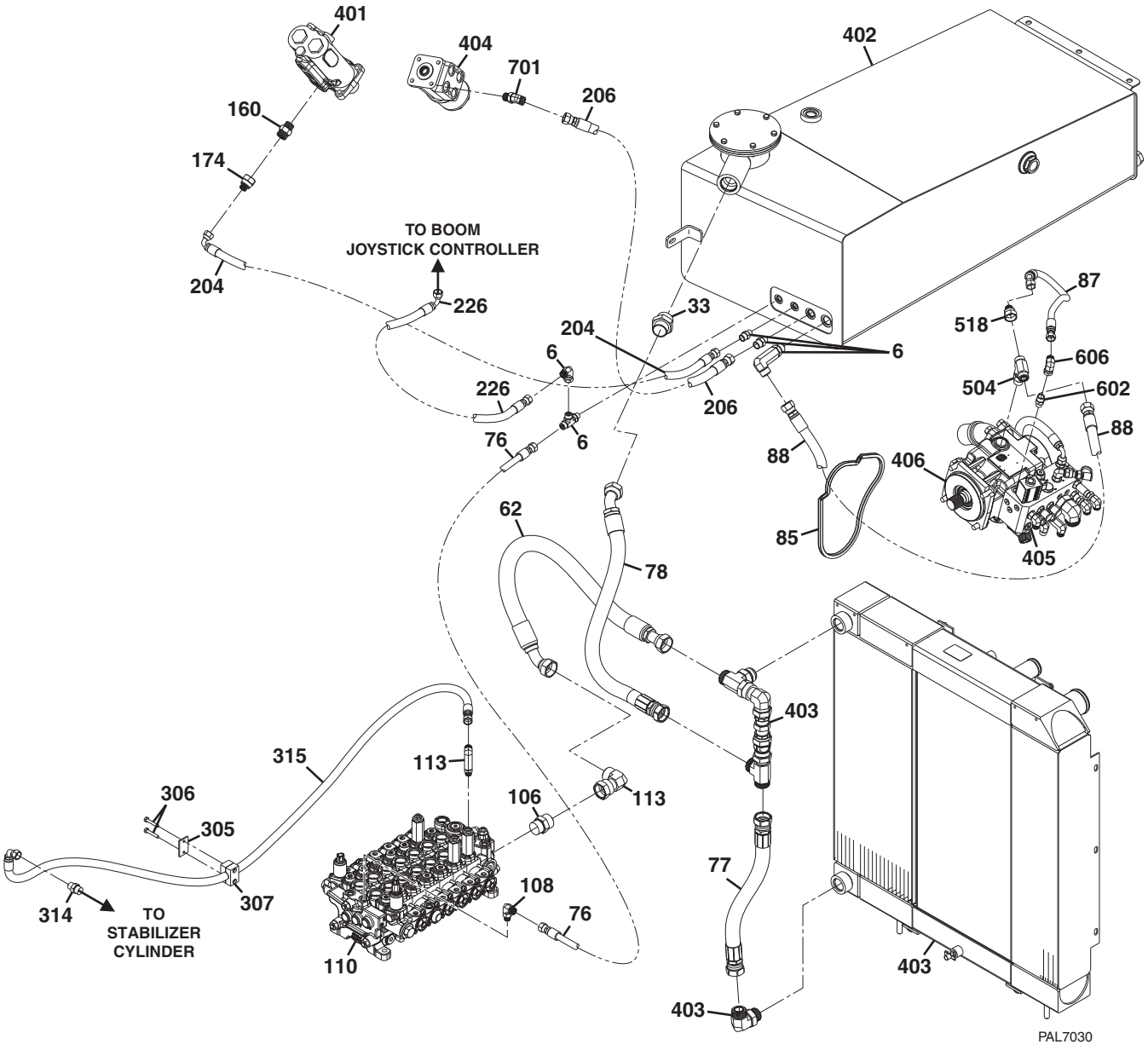

Figure 8-2 Dump Circuit

Item	Part Number	Qty.	Description	Rev.
6		Ref	HYDRAULIC TANK FITTINGS, (see Figure 9-14 for details)	
33	323-5621	1	STRAIGHT FITTING, (includes o-ring)	
62	389-3490	1	HOSE ASSY	
76	389-3461	1	HOSE ASSY	
77	389-3462	1	HOSE ASSY	
78	389-3463	1	HOSE ASSY	
85		32 in	TRIM	
87	399-9525	1	HOSE ASSY	
88	399-5810	1	HOSE ASSY	
106	298-0470	1	STRAIGHT FITTING, (includes o-ring)	
110		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
113	298-0509	1	ADAPTER, 90 DEGREES, (includes o-ring)	
116	298-0489	1	ADAPTER, 90 DEGREES, (includes o-ring)	
160	298-0522	1	STRAIGHT FITTING, (includes o-ring)	
174	300-6099	1	REDUCER ADAPTER, (includes o-ring)	
204	389-3519	1	HOSE ASSY	
206	389-3525	1	HOSE ASSY	
226	396-9560	1	HOSE ASSY	
305	299-0949	1	COVER PLATE	
306	297-7021	2	HEX HD CAPSCREW,5/16-18X1-3/4, GR5	
307	298-7927	1	CLAMP SET	
314	298-0462	1	STRAIGHT FITTING, (includes o-ring)	
315	298-1491	1	HOSE ASSY	
401		Ref	BRAKE VALVE, (see Figure 9-16 for details)	
402		Ref	HYDRAULIC TANK, (see Figure 9-14 for details)	
403		Ref	RADIATOR & FITTINGS, (see Figure 4-4 for details)	
404		Ref	STEERING VALVE, (see Figure 7-3 for details)	
405		Ref	HYDRAULIC MANIFOLD VALVE, (see Figure 9-17 for details)	
406		Ref	PISTON PUMP, (see Figure 9-13 for details)	
504	6V-8776	1	TEE FITTING, (includes o-ring)	
518	300-6099	1	REDUCER ADAPTER, (includes o-ring)	
602	298-7358	1	STRAIGHT FITTING, (includes o-ring)	
606	298-0507	1	ADAPTER, 90 DEGREES, (includes o-ring)	
701	298-0487	1	ADAPTER, 45 DEGREES, (includes o-ring)	

Figure 8-3 Steer Select Circuit

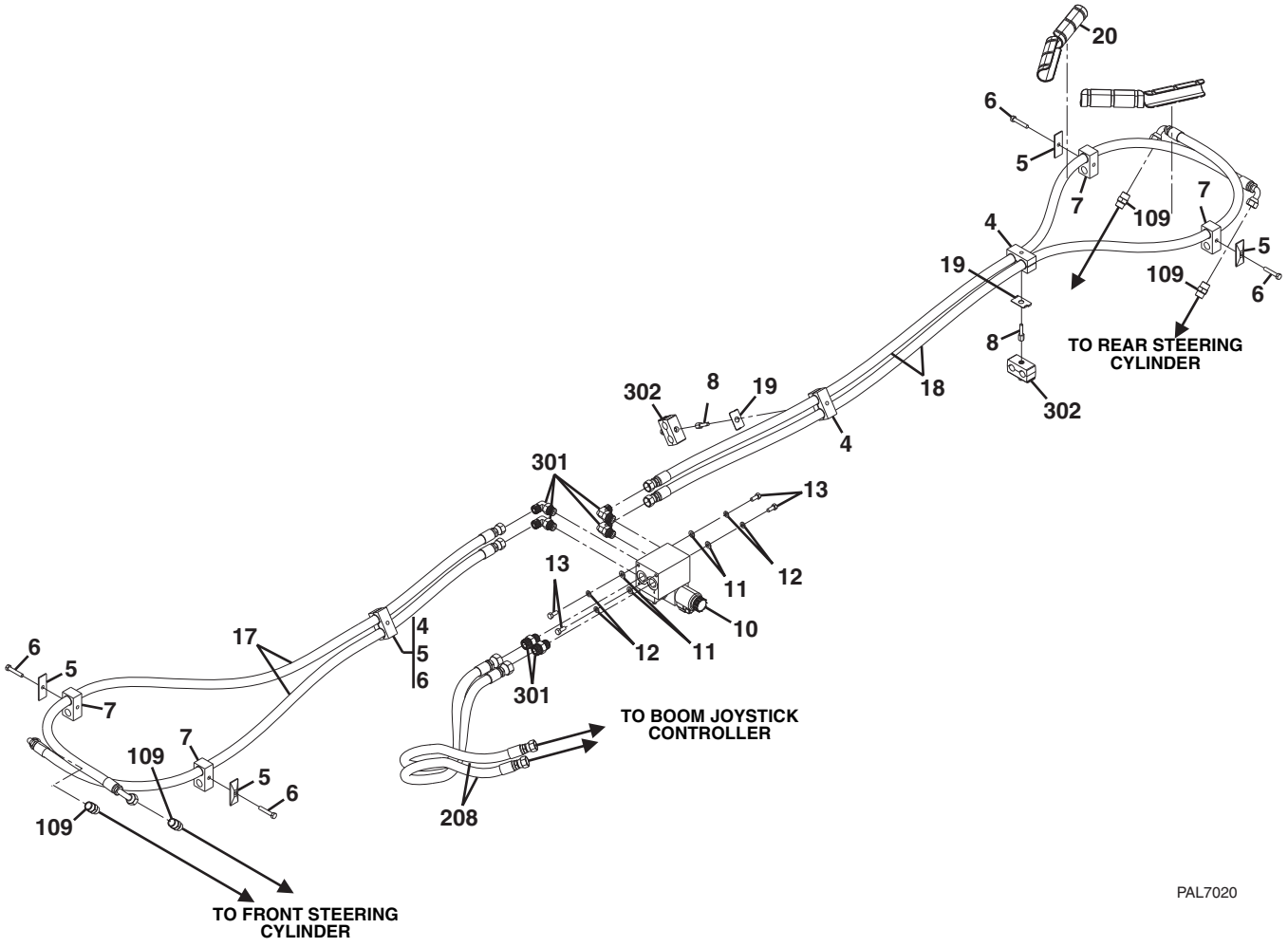

Figure 8-3 Steer Select Circuit

Item	Part Number	Qty.	Description	Rev.
4	298-7834	3	CLAMP SET	
5	299-0949	5	COVER PLATE	
6	297-7013	5	HEX HD CAPSCREW, 5/16-18X1-1/2, GR5	
7	298-7927	3	CLAMP SET	
8	298-7835	2	STACKING BOLT	
10		Ref	STEER SELECT VALVE, (see Figure 9-15 for details)	
11	298-7364	4	WASHER, 5/16	
12	298-7379	4	LOCKWASHER, 5/16	
13	297-7016	4	HEX HD CAPSCREW, 5/16-18X3/4, GR5	
17	328-5218	2	HOSE ASSY	
18	328-5220	2	HOSE ASSY	
19	298-7837	2	SAFETY CLIP	
20		4	6 IN HOSE SHIELD	
109	298-0463	4	STRAIGHT FITTING, (includes o-ring)	
208	298-1371	2	HOSE ASSY	
301		Ref	STEER SELECT ADAPTERS, (see Figure 9-13 for details)	
302		Ref	CLAMP SET, (see Figure 8-4 for details)	

Figure 8-4 Service Brake Circuit

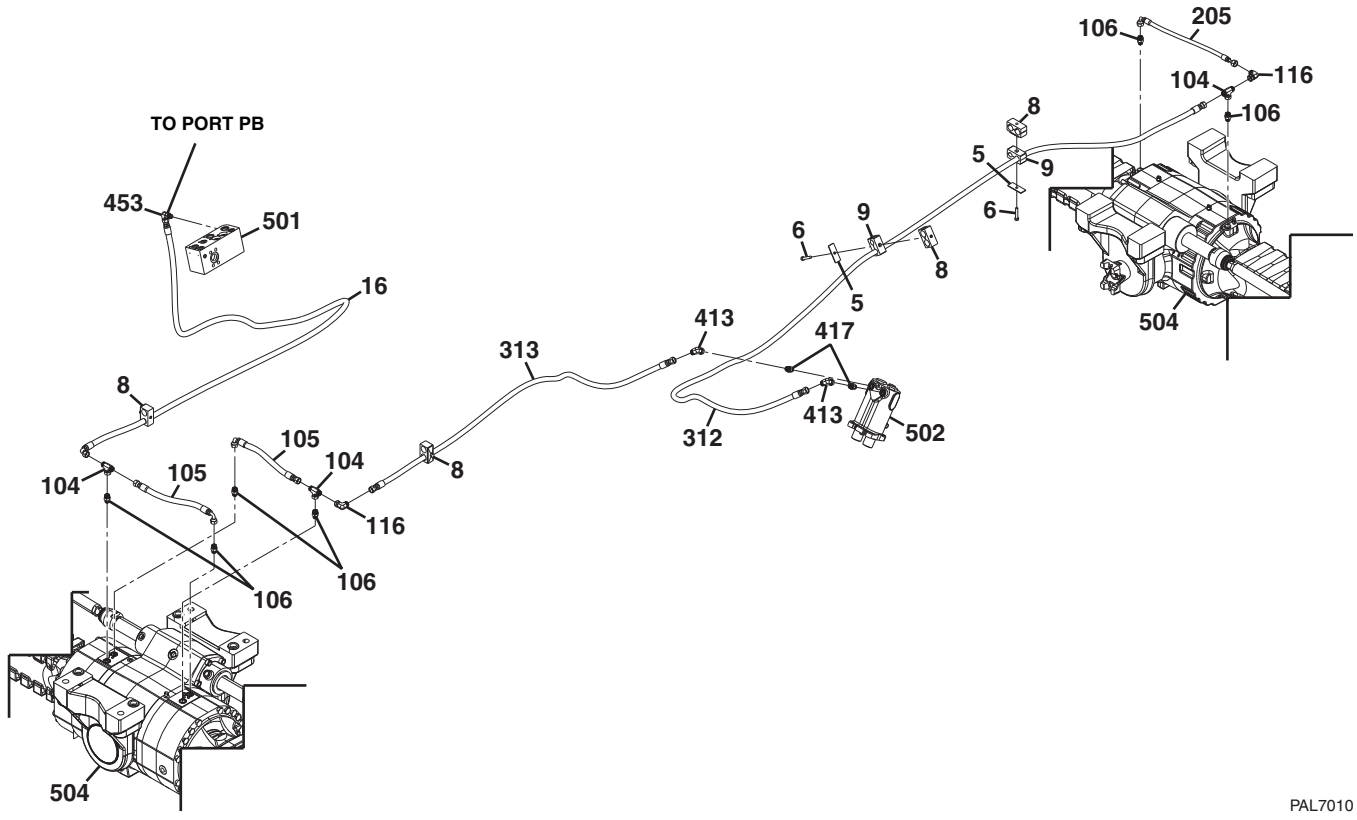

Figure 8-4 Service Brake Circuit

Item	Part Number	Qty.	Description	Rev.
5	299-0949	2	COVER PLATE	
6	297-7021	2	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5	
8		Ref	CLAMP SET, (see Figure 8-3 for details)	
9	298-7436	2	TWIN CLAMP	
16	389-3502	1	HOSE ASSY	
104	298-0498	3	TEE FITTING, (includes o-ring)	
105	298-1392	2	HOSE ASSY	
106	298-1610	6	STRAIGHT FITTING, (includes o-ring)	
116	298-0507	2	ADAPTER, 90 DEGREES, (includes o-ring)	
205	331-4369	1	HOSE ASSY	
312	415-9845	1	HOSE ASSY	
313	298-1514	1	HOSE ASSY	
413	298-0507	2	ADAPTER, 90 DEGREES, (includes o-ring)	
417	298-1610	2	STRAIGHT FITTING, (includes o-ring)	
453	298-0473	1	ADAPTER, 90 DEGREES, (includes o-ring)	
501		Ref	HYDRAULIC MANIFOLD, (see Figure 9-17 for details)	
502		Ref	BRAKE VALVE, (see Figure 9-16 for details)	
503		Ref	FRONT AXLE, (see Figure 5-2 for details)	
504		Ref	REAR AXLE, (see Figure 5-7 for details)	

Figure 8-5 Boom Joystick Circuit

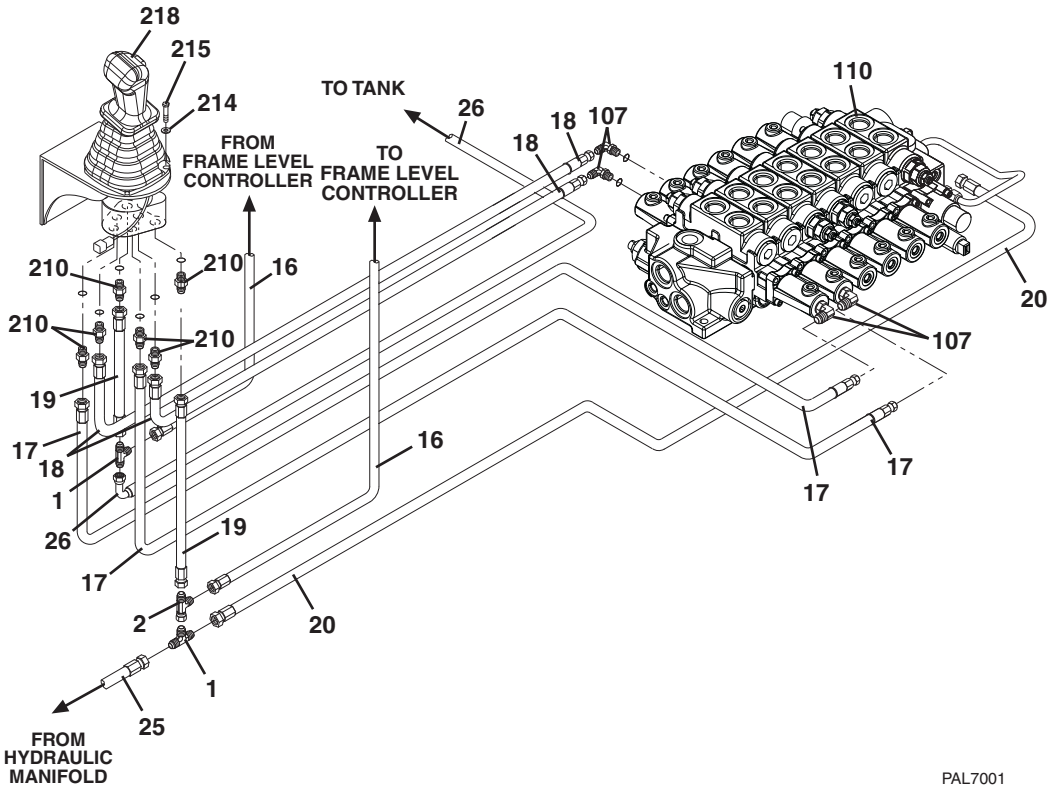

Figure 8-5 Boom Joystick Circuit

Item	Part Number	Qty.	Description	Rev.
1	298-0494	2	TEE FITTING, (includes o-ring)	
2	298-0496	1	TEE FITTING, (includes o-ring)	
16		Ref	HOSE ASSY, (see Figure 8-6 for details)	
17	298-1522	2	HOSE ASSY	
18	298-1523	2	HOSE ASSY	
19	298-1524	2	HOSE ASSY	
20		Ref	HOSE ASSY, (see Figure 8-1 for details)	
25		Ref	HOSE ASSY, (see Figure 8-1 for details)	
26		Ref	HOSE ASSY, (see Figure 8-2 for details)	
107	298-0472	4	ADAPTER, 90 DEGREES, (includes o-ring)	
110		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
210	298-7356	6	STRAIGHT FITTING, (includes o-ring)	
214	298-7363	4	WASHER, 1/4	
215	297-7012	4	HEX HD CAPSCREW, 1/4-20X1, GR5	
218		Ref	BOOM JOYSTICK, (see Figure 7-1 for details)	

Figure 8-6 Frame Level/Auxiliary Controller

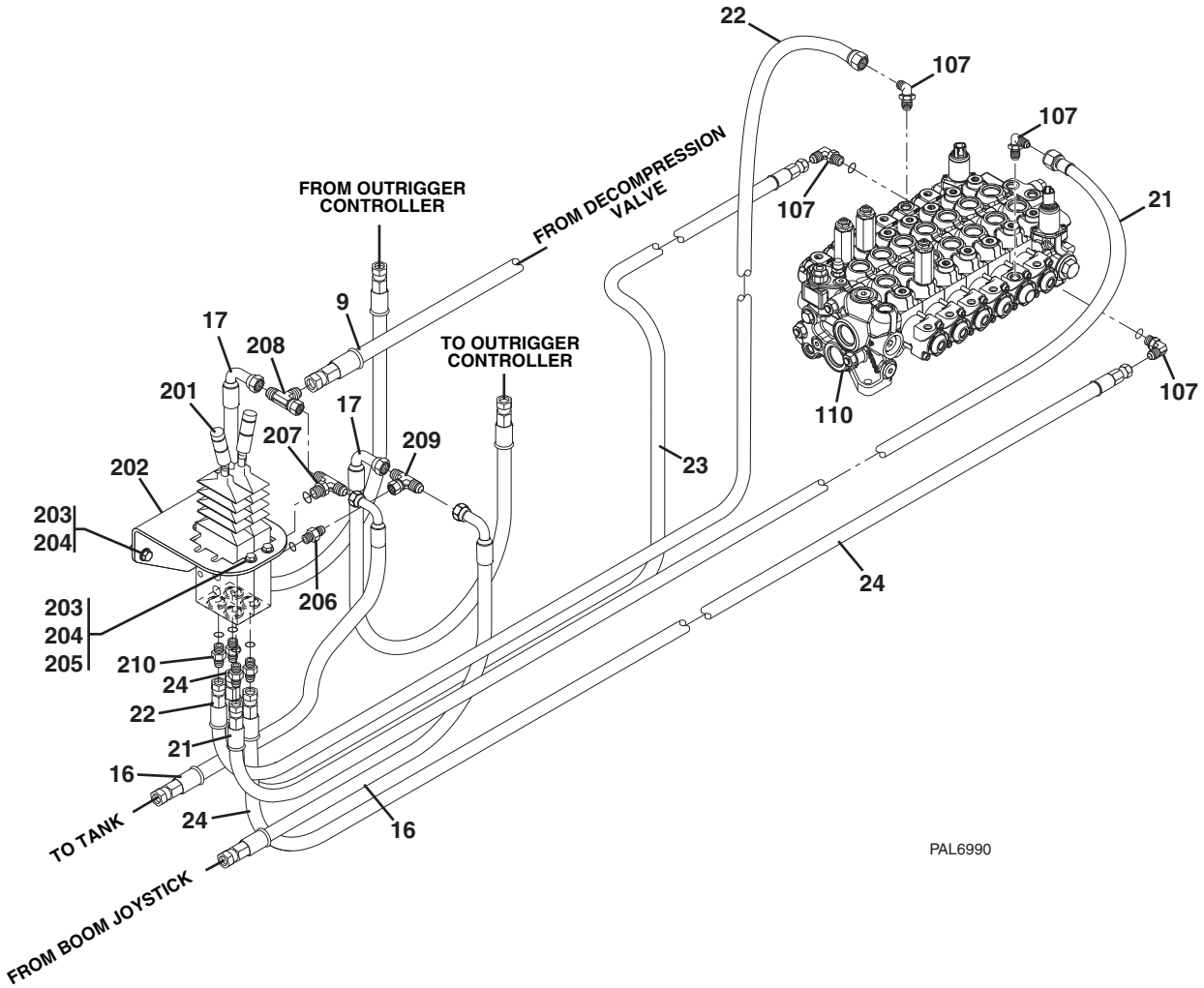

Figure 8-6 Frame Level/Auxiliary Controller

Item	Part Number	Qty.	Description	Rev.
9		Ref	DECOMPRESSION VALVE ASSY, (see Figure 9-18 for details)	
16	298-1521	2	HOSE ASSY	
17		Ref	HOSE ASSY, (see Figure 8-7 for details)	
21	298-1528	1	HOSE ASSY	
22	298-1529	1	HOSE ASSY	
23	298-1532	1	HOSE ASSY	
24	298-1533	1	HOSE ASSY	
107	298-0472	4	ADAPTER, 90 DEGREES, (includes o-ring)	
110		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
201		Ref	FRAME LEVEL/AUX CONTROLLER, (see Figure 7-5 for details)	
202	300-6123	1	BRACKET	
203	298-7364	7	WASHER, 5/16	
204	297-7017	7	HEX HD CAPSCREW, 5/16-18X1, GR5	
205	298-0553	4	HEX NUT, 5/16-18	
206	298-7358	1	STRAIGHT ADAPTER, (includes o-ring)	
207	298-0493	1	TEE FITTING, (includes o-ring)	
208	298-0496	1	TEE FITTING, (includes o-ring)	
209	298-0498	1	TEE FITTING, (includes o-ring)	
210	298-7356	4	STRAIGHT FITTING, (includes o-ring)	

Figure 8-7 Outrigger Controller

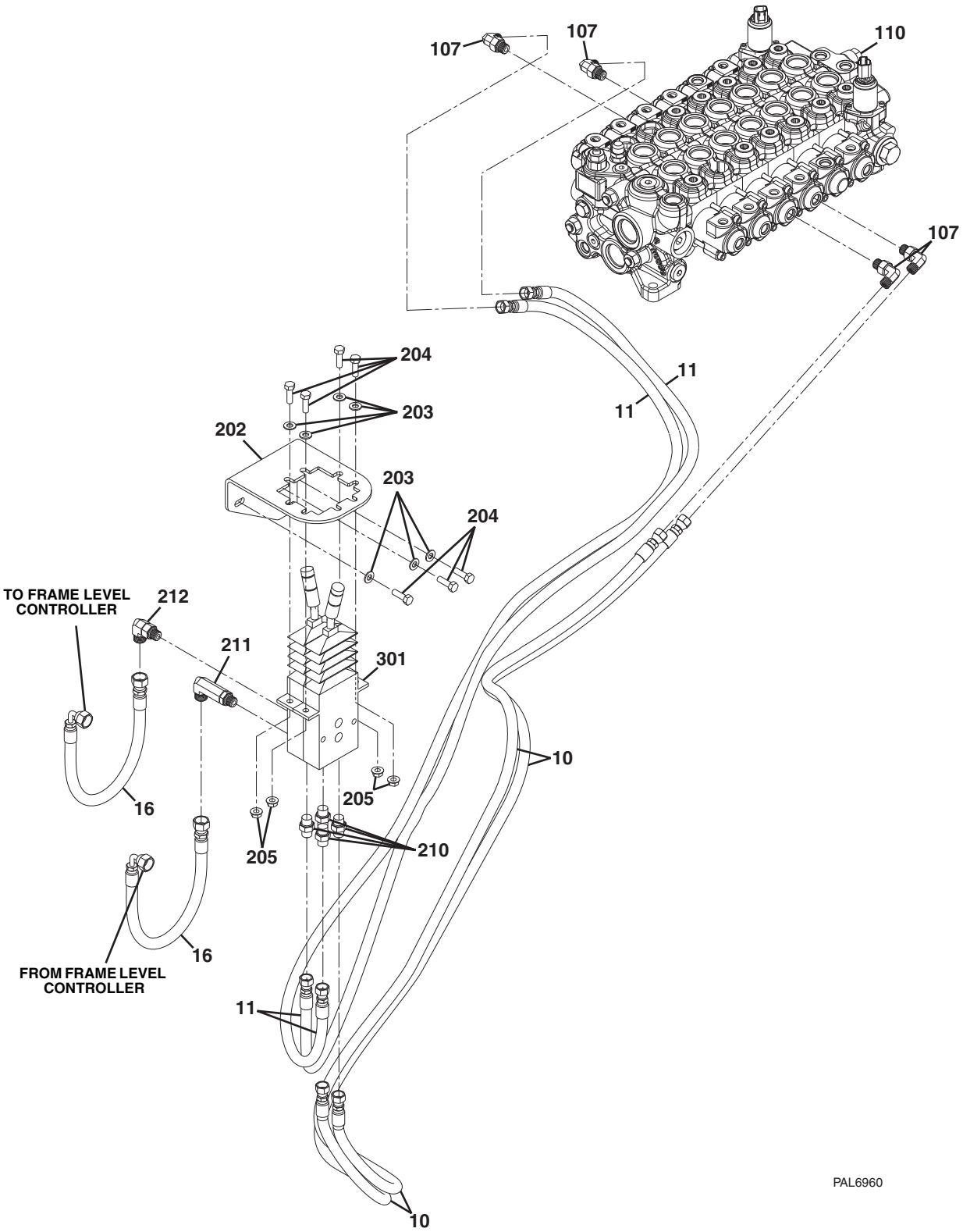

Figure 8-7 Outrigger Controller

Item	Part Number	Qty.	Description	Rev.
10	298-1510	2	HOSE ASSY	
11	298-1511	2	HOSE ASSY	
16	298-1521	2	HOSE ASSY	
107	298-0472	4	ADAPTER, 90 DEGREES, (includes o-ring)	
110		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
202	300-6123	1	BRACKET	
203	298-7364	7	WASHER, 5/16	
204	297-7017	7	HEX HD CAPSCREW, 5/16-18X1, GR5	
205	298-0553	4	HEX NUT, 5/16-18	
210	298-7356	4	STRAIGHT FITTING, (includes o-ring)	
211	298-0489	1	ADAPTER, 90 DEGREES, (includes o-ring)	
212	298-0473	1	ADAPTER, 90 DEGREES, (includes o-ring)	
301		Ref	OUTRIGGER CONTROLLER, (see Figure 7-5 for details)	

Figure 8-8 Lift Cylinder Circuit

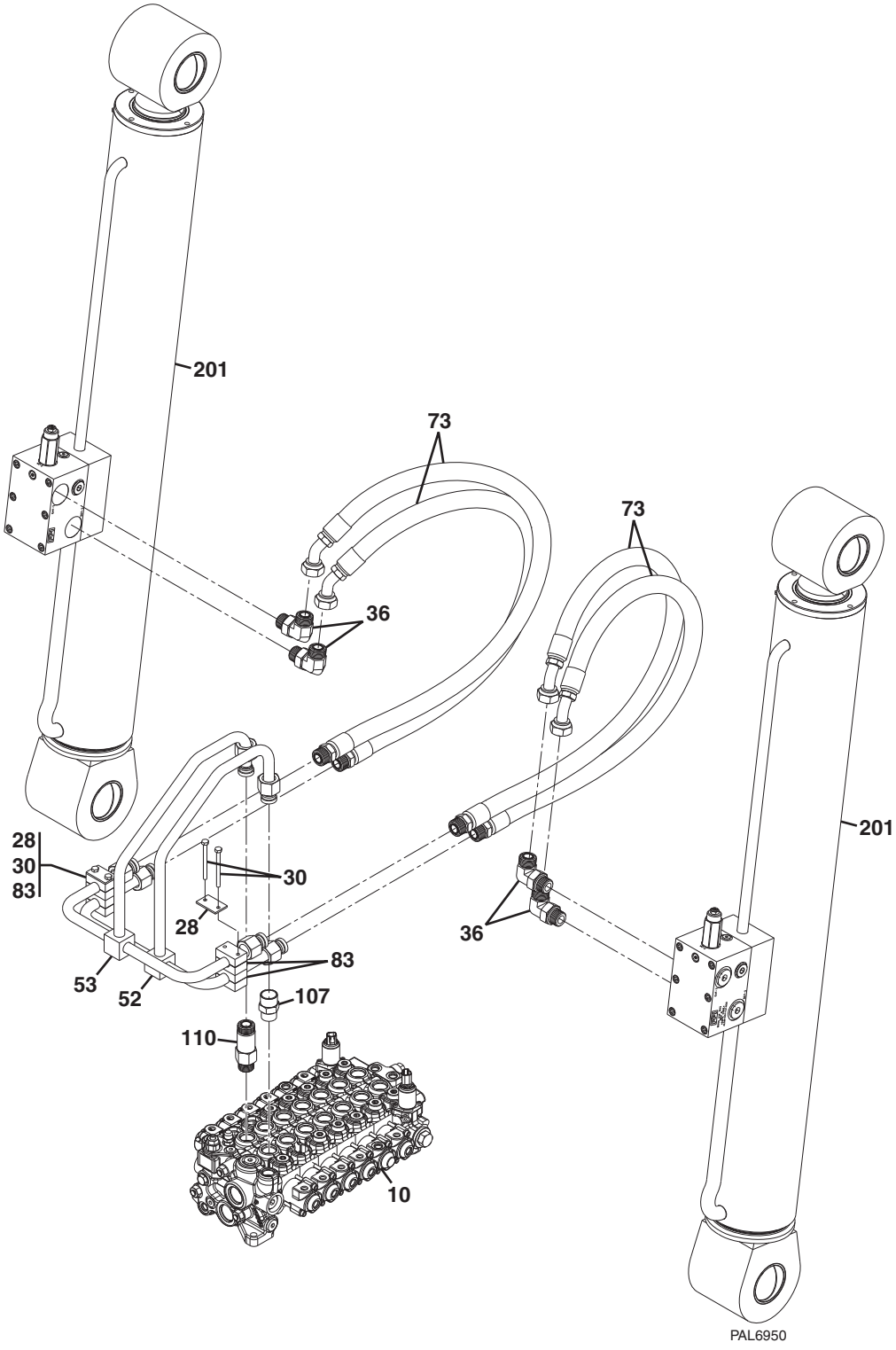

Figure 8-8 Lift Cylinder Circuit

Item	Part Number	Qty.	Description	Rev.
10		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
28	299-0946	2	COVER PLATE	
30	7X-0266	4	HEX HD CAPSCREW, 1/4-20X3, GR5	
36	298-0476	4	ADAPTER, 90 DEGREE, (includes o-ring)	
52	334-9466	1	TUBE ASSY	
53	334-9467	1	TUBE ASSY	
73	330-6533	4	HOSE ASSY	
83	298-7434	4	CLAMP	
105	298-0468	1	STRAIGHT FITTING, (includes o-ring)	
110	334-4065	1	STRAIGHT FITTING, (includes o-ring)	
201		Ref	LIFT CYLINDER, (see Figure 9-1 for details)	

Figure 8-9 Extend/Retract Cylinder Circuit

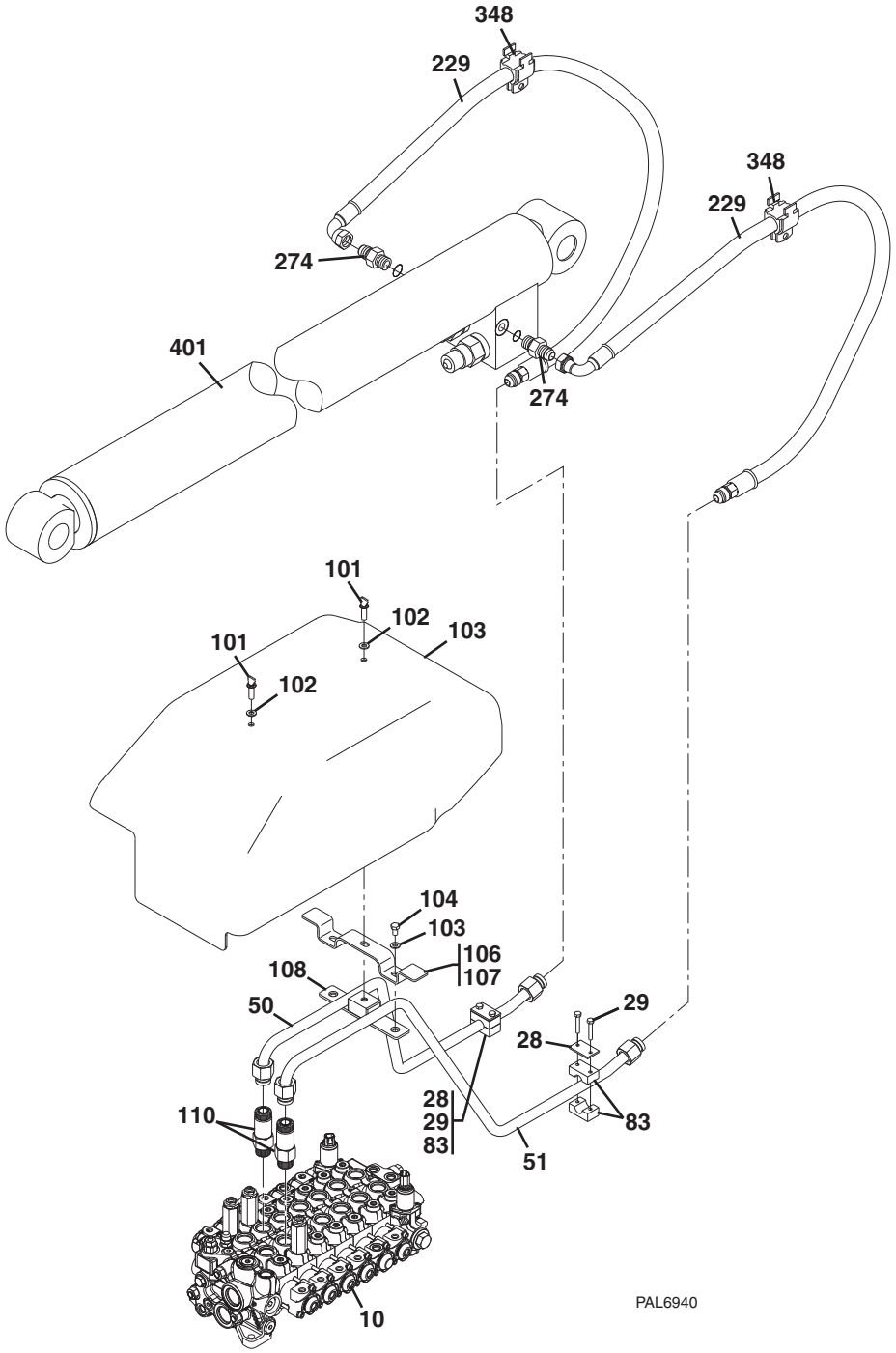

Figure 8-9 Extend/Retract Cylinder Circuit

Item	Part Number	Qty.	Description	Rev.
10		Ref	MAIN CONTROL VALVE ASSY, (see Figure 9-12 for details)	
28	299-0946	2	PLATE COVER	
29	297-7013	4	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5	
50	334-9464	1	TUBE ASSY	
51	334-9465	1	TUBE ASSY	
83	298-7434	2	CLAMP SET	
101		Ref	THUMB SCREW, (see Figure 1-2 for details)	
102		Ref	WASHER, 1/4, (see Figure 1-2 for details)	
103		Ref	COVER, (see Figure 1-2 for details)	
104		Ref	HEX HD CAPSCREW, 1/4-20X5/8, GR5, (see Figure 1-2 for details)	
106		Ref	BRACKET, (see Figure 1-2 for details)	
107		Ref	NEOPRENE TAPE, (see Figure 1-2 for details)	
108		Ref	BRACKET, (see Figure 1-2 for details)	
110	334-4065	2	STRAIGHT FITTING, (includes o-ring)	
229	298-0378	2	HOSE ASSY	
274	298-0468	2	STRAIGHT FITTING, (includes o-ring)	
348	298-1635	2	CUSHION CLAMP	
401		Ref	EXTEND/RETRACT CYLINDER, (see Figure 9-2 for details)	

Figure 8-10 Tilt Cylinder and Compensation Cylinder Circuit

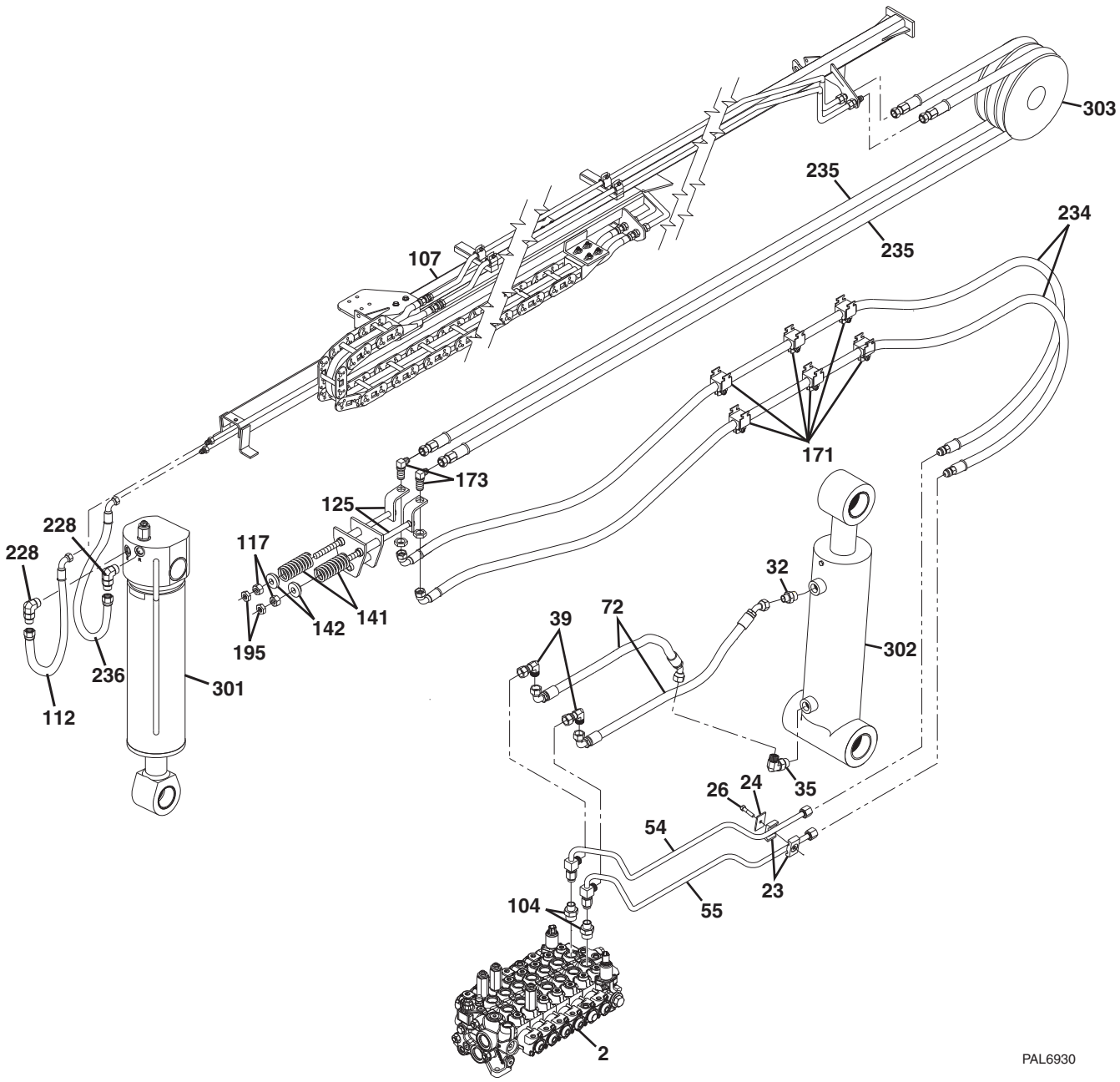

Figure 8-10 Tilt Cylinder and Compensation Cylinder Circuit

Item	Part Number	Qty.	Description	Rev.
2		Ref	MAIN CONTROL VALVE ASSY, (see Figure 9-12 for details)	
23	298-7438	1	CLAMP SET	
24	299-6644	1	COVER PLATE	
26	297-7019	1	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
32	298-0464	1	STRAIGHT FITTING, (includes o-ring)	
35	298-0475	1	ADAPTER, 90 DEGREES, (includes o-ring)	
39	298-0508	2	ADAPTER, 90 DEGREES, (includes o-ring)	
54	334-9468	1	TUBE ASSY	
55	334-9469	1	TUBE ASSY	
72	328-5222	2	HOSE ASSY	
104	298-0465	2	STRAIGHT FITTING, (includes o-ring)	
107		Ref	BOOM HYDRAULICS ASSY, (see Figure 8-12 for details)	
112	396-3665	1	HOSE ASSY	
117	298-8050	2	HEX NUT, 1/2-13	
125	330-7727	2	HOSE TENSION ROD	
141	298-6859	2	COMPRESSION SPRING	
142	298-6856	2	SPRING RETAINER	
171	298-1639	6	CUSHION CLAMP	
173	298-0505	2	ADAPTER, 90 DEGREE	
195	298-8057	2	HEX JAM NUT, 1/2-13	
228	300-6096	2	ADAPTER, 90 DEGREE, (includes o-ring)	
234	298-0379	2	HOSE ASSY	
235	298-0380	2	HOSE ASSY	
236	396-3664	1	HOSE ASSY	
301		Ref	TILT CYLINDER, (see Figure 9-3 for details)	
302		Ref	COMPENSATION CYLINDER, (see Figure 9-4 for details)	
303		Ref	HOSE SHEAVE, (see Figure 8-12 for details)	

Figure 8-11 Boom Hydraulic Assembly

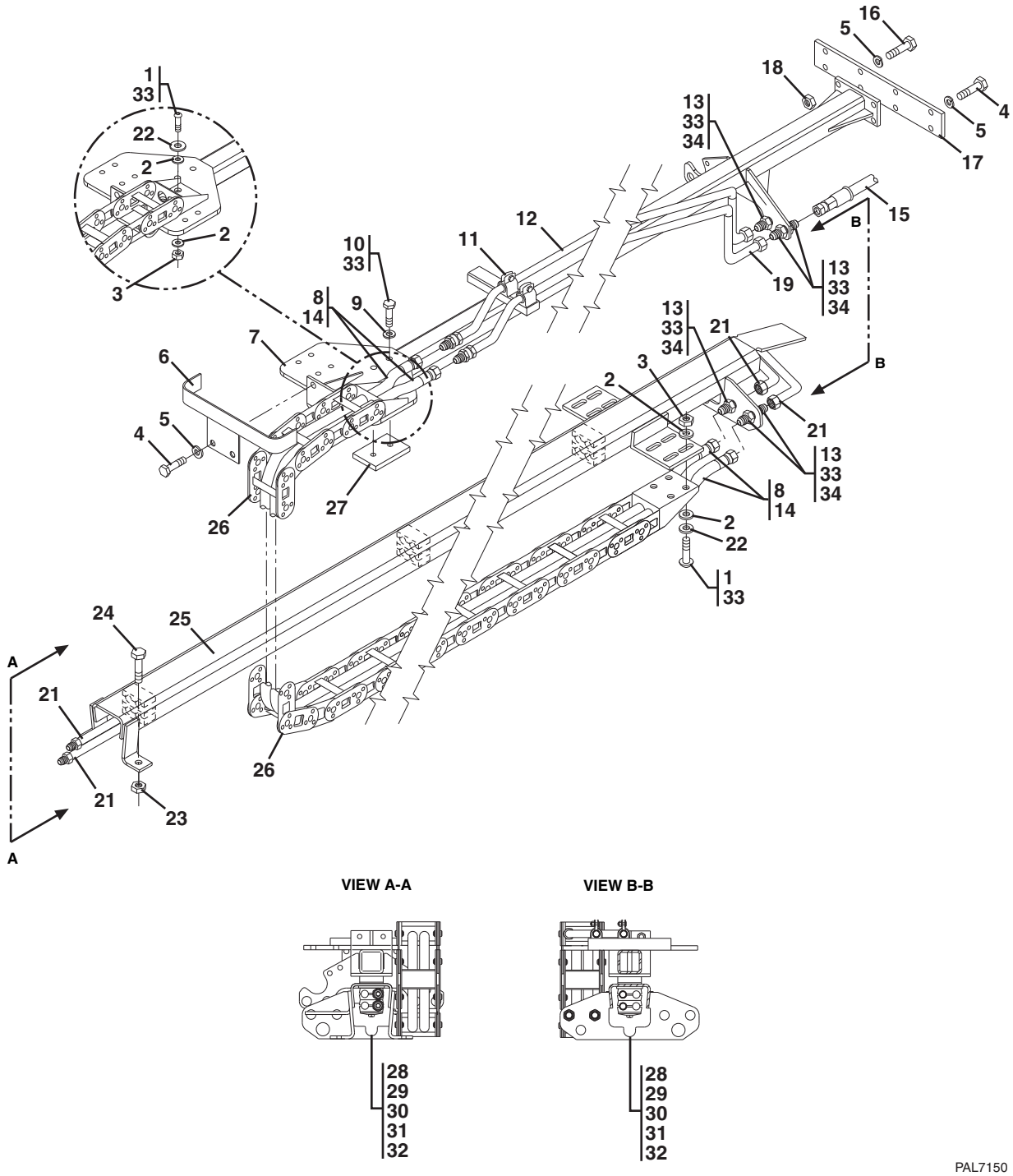

Figure 8-11 Boom Hydraulic Assembly

Item	Part Number	Qty.	Description	Rev.
		1	BOOM HYDRAULIC SUB ASSEMBLY, (includes all items except 4, 5, 6, 15 thru 18, 23 and 24)	G
1	303-4783	8	SOCKET BUTTON HD CAPSCREW, 3/8-16X1-1/4	
2	298-7374	16	LOCKWASHER, 3/8	
3	298-1582	8	HEX LOCKNUT, 3/8-16	
4		Ref	HEX HD CAPSCREW, 3/8-16X1-1/4, GR5, (see Figure 2-4 for details)	
5		Ref	LOCKWASHER, 3/8, (see Figure 2-4 for details)	
6	354-5223	1	GUIDE BRACKET	
7	303-4822	1	HYDRAULICS CARRIER	
8	331-8189	2	HOSE ASSY	
9	298-7380	2	LOCKWASHER, 3/8	
10	8T-7008	2	HEX HD CAPSCREW, 3/8-16X3, GR5	
11	298-1657	6	TUBE CLAMP	
12	298-0390	1	TUBE ASSY	
13	298-0503	4	STRAIGHT FITTING, (includes o-ring)	
14	298-6828	4	TY-RAP	
15		Ref	HOSE ASSY	
16	297-7033	4	HEX HD CAPSCREW, 3/8-16X1-1/2, GR5	
17		Ref	BRACKET, (see Figure 2-4 for details)	
18		Ref	HEX NUT, 3/8-16, (see Figure 2-4 for details)	
19	298-0389	1	TUBE ASSY	
21	298-0385	2	TUBE ASSY	
22	298-7365	8	FLAT WASHER, 3/8	
23	299-0961	2	HEX LOCKNUT, 1/2-20	
24	297-7087	2	HEX HD CAPSCREW, 1/2-20X1-1/2, GR8	
25	303-4823	1	HYDRAULICS CARRIER	
26	298-6917	1	HOSE CARRIER	
27	298-6840	1	BEARING PAD	
28	298-7437	6	CLAMP SET	
29	299-6644	3	COVER PLATE	
30	298-7836	3	STACK BOLT	
31	298-7837	3	SAFETY CLIP	
32	305-2110	3	HEX HD CAPSCREW	
34		AR	LOCTITE® 242™	

Figure 8-12 Auxiliary Hydraulic Circuit

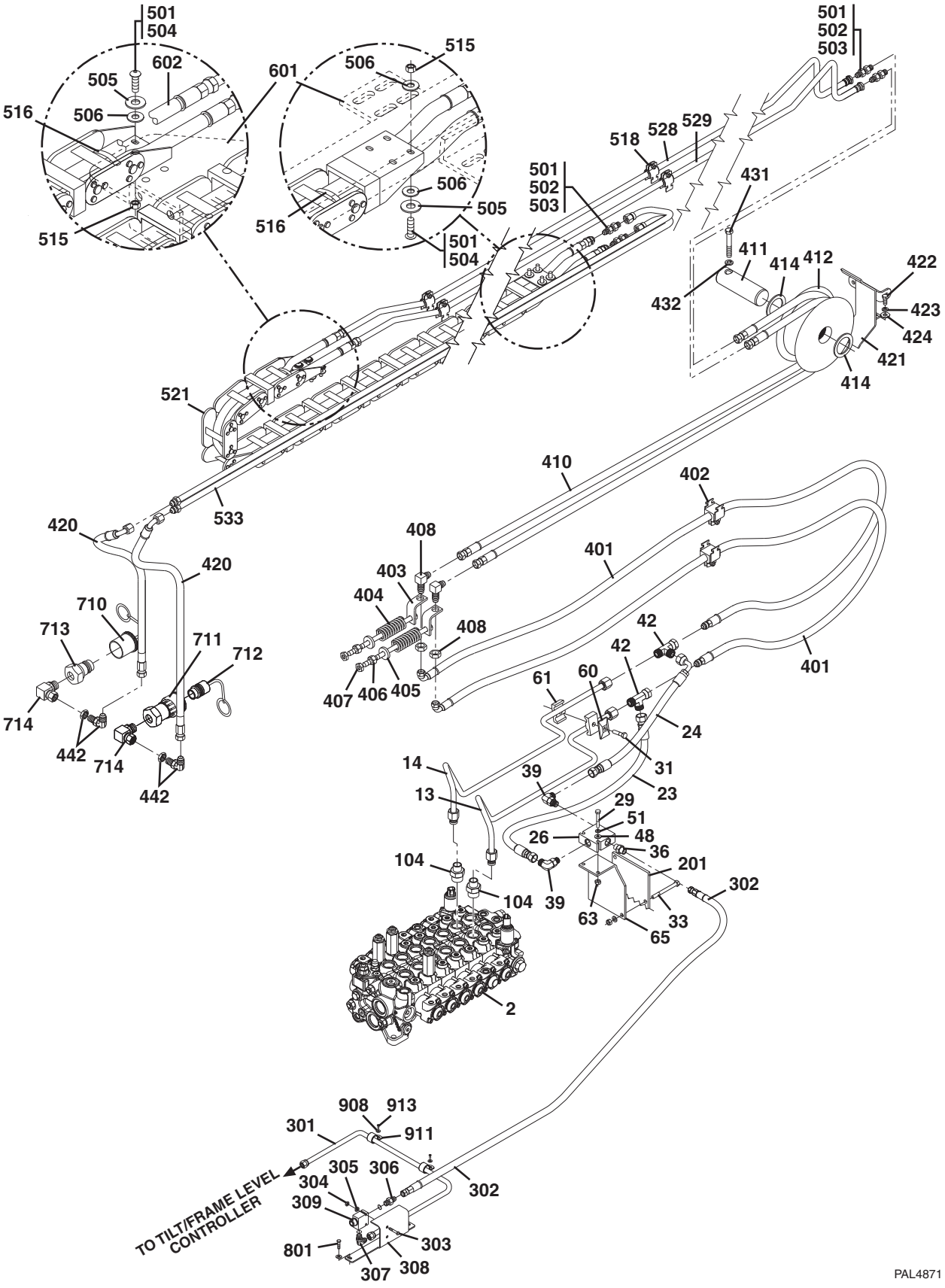

Figure 8-12 Auxiliary Hydraulic Circuit

Item	Part Number	Qty.	Description	Rev.
2		Ref	MAIN CONTROL VALVE, (see Figure 9-12 for details)	
13	334-9462	1	TUBE ASSY	
14	334-9463	1	TUBE ASSY	
23	298-1508	1	HOSE ASSY	
24	298-1509	1	HOSE ASSY	
26	298-8207	1	DECOMPRESSION SHUTTLE VALVE	
29		2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
31	297-7019	1	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
36	298-7356	1	STRAIGHT FITTING, (includes o-ring)	
39	298-0473	2	ADAPTER, 90 DEGREES, (includes o-ring)	
42	298-0497	2	TEE FITTING, (includes o-ring)	
48	298-7363	2	WASHER, 1/4	
51	298-7378	2	LOCKWASHER, 1/4	
60	299-6644	1	COVER PLATE	
61	298-7438	1	CLAMP SET	
63	298-8047	2	HEX NUT, 1/4-20	
65	298-8383	1	BRACKET	
104	298-0465	2	STRAIGHT FITTING, (includes o-ring)	
201	NSS	1	FRAME	
	299-1322	1	DECOMPRESSION VALVE ASSY, (includes items 301 thru 309)	A, 1
301	298-1530	1	HOSE ASSY	
302	298-1531	1	HOSE ASSY	
303	298-7988	2	HEX HD CAPSCREW, 1/4-20X1-3/4, GR5	
304	298-8047	2	HEX NUT, 1/4-20	
305	298-1585	2	LOCKWASHER, 1/4	
306	298-7356	1	STRAIGHT FITTING, (includes o-ring)	
307	298-0472	1	ADAPTER, 90 DEGREES, (includes o-ring)	
308	298-8204	1	COVER PLATE	
309		Ref	DECOMPRESSION VALVE, (see Figure 9-18 for details)	
	299-1315	Ref	AUXILIARY HYDRAULICS INSTALLATION, (not available to order, see items 401 thru 445 for service)	H, 11
401	298-0379	2	HOSE ASSY	
402	298-1639	6	CLAMP	
403	330-7727	2	TENSION ROD	
404	298-6859	2	COMPRESSION SPRING	
405	298-6856	2	SPRING RETAINER	
406	298-8050	2	HEX NUT, 1/2-13, GR5	
407	298-8057	2	HEX NUT, 1/2-13, GR5	
408	298-0505	2	ADAPTER, 90 DEGREE, (includes o-ring)	
410	298-0380	2	HOSE ASSY	
411	300-6100	1	HOSE SHEAVE PIN	
412	298-6864	1	HOSE SHEAVE	
414	298-1648	AR	SHIM WASHER	
	298-1649	AR	SHIM WASHER	
	298-1650	AR	SHIM WASHER	
	298-1651	AR	SHIM WASHER	
420	298-0384	2	HOSE ASSY	

Figure 8-12 Auxiliary Hydraulic Circuit

Item	Part Number	Qty.	Description	Rev.
421	299-0276	1	HOSE GUIDE	
422	297-7030	3	HEX HD CAPSCREW, 3/8-16X7/8, GR5	
423	298-7380	3	LOCKWASHER, 3/8	
424	298-7374	3	WASHER, 3/8	
431	297-7046	1	HEX HD CAPSCREW, 1/2-13X3-1/4, GR5	
432	298-7382	1	LOCKWASHER, 1/2	
442	298-0503	2	ADAPTER, 90 DEGREES, (includes o-ring)	
445	298-0488	1	GREASE FITTING, (not shown)	
501		AR	LOCTITE® 243™	
502		AR	LOCTITE® 545™	
503	298-0503	4	STRAIGHT FITTING, (includes o-ring)	
504	303-4783	8	BUTTON HD CAPSCREW, 3/8-16X1-1/4	
505	298-7365	8	WASHER, 3/8	
506	298-7374	16	WASHER, 3/8	
515	298-1582	8	HEX LOCKNUT, 3/8-16	
516	298-6828	4	CABLE TIE	
518	298-1657	6	CUSHION CLAMP	
521	298-6917	1	HOSE CARRIER	
528	298-0387	1	TUBE ASSY	
529	298-0388	1	TUBE ASSY	
532	298-0385	1	TUBE ASSY	
533	298-0386	1	TUBE ASSY	
	330-7726	Ref	BOOM HYDRAULICS SUB-ASSY INSTALLATION, (not available to order, see items 601 & 602 for service)	B
601		Ref	BOOM HYDRAULICS ASSY, (see Figure 8-11 for details)	
602	331-8189	2	HOSE ASSY	
710	300-6103	1	DUST CAP	
711	300-6078	1	FEMALE QUICK DISCONNECT	
712	300-6084	1	DUST PLUG	
713	300-6079	1	MALE QUICK DISCONNECT	
714	300-6095	2	ADAPTER, 90 DEGREES	
801		Ref	HEX HD CAPSCREW, (see Figure 6-1 for details)	
908	298-7362	2	WASHER, #10	
911	298-7972	2	SUPPORT CLAMP	
913	298-1770	2	SELF TAPPING SCREW, #6	

Figure 8-12 Auxiliary Hydraulic Circuit

Item	Part Number	Qty.	Description	Rev.

Figure 8-13 Frame Level Circuit

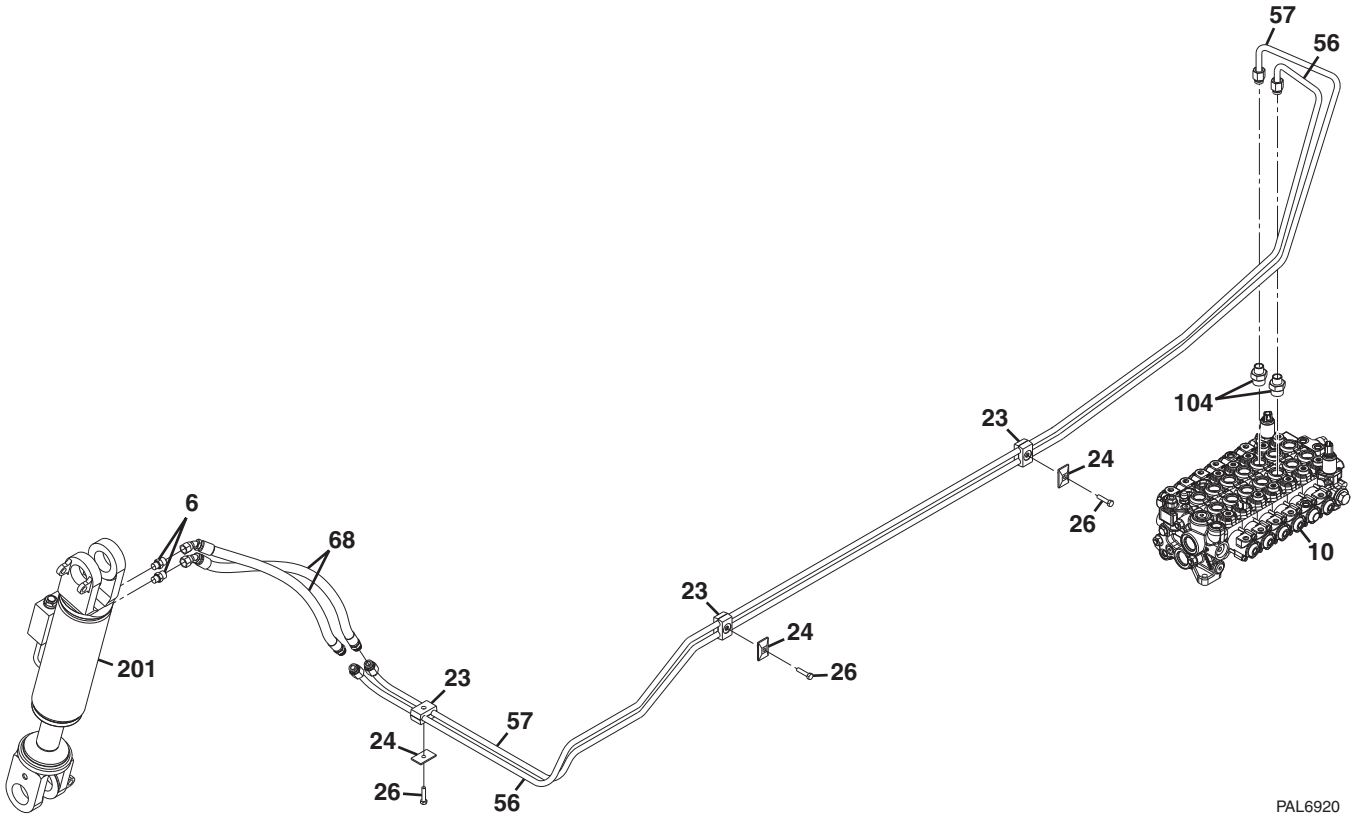

Figure 8-13 Frame Level Circuit

Item	Part Number	Qty.	Description	Rev.
6	298-7358	2	STRAIGHT FITTING, (includes o-ring)	
10		Ref	MAIN CONTROL VALVE ASSY, (see Figure 9-12 for details)	
23	298-7438	3	CLAMP SET	
24	299-6644	3	COVER PLATE	
26	297-7019	3	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
56		1	TUBE ASSY	
57		1	TUBE ASSY	
68	298-1487	2	HOSE ASSY	
104	298-0465	2	STRAIGHT FITTING, (includes o-ring)	
201		Ref	FRAME LEVEL CYLINDER, (see Figure 9-5 for details)	

Figure 8-14 Outrigger Circuit

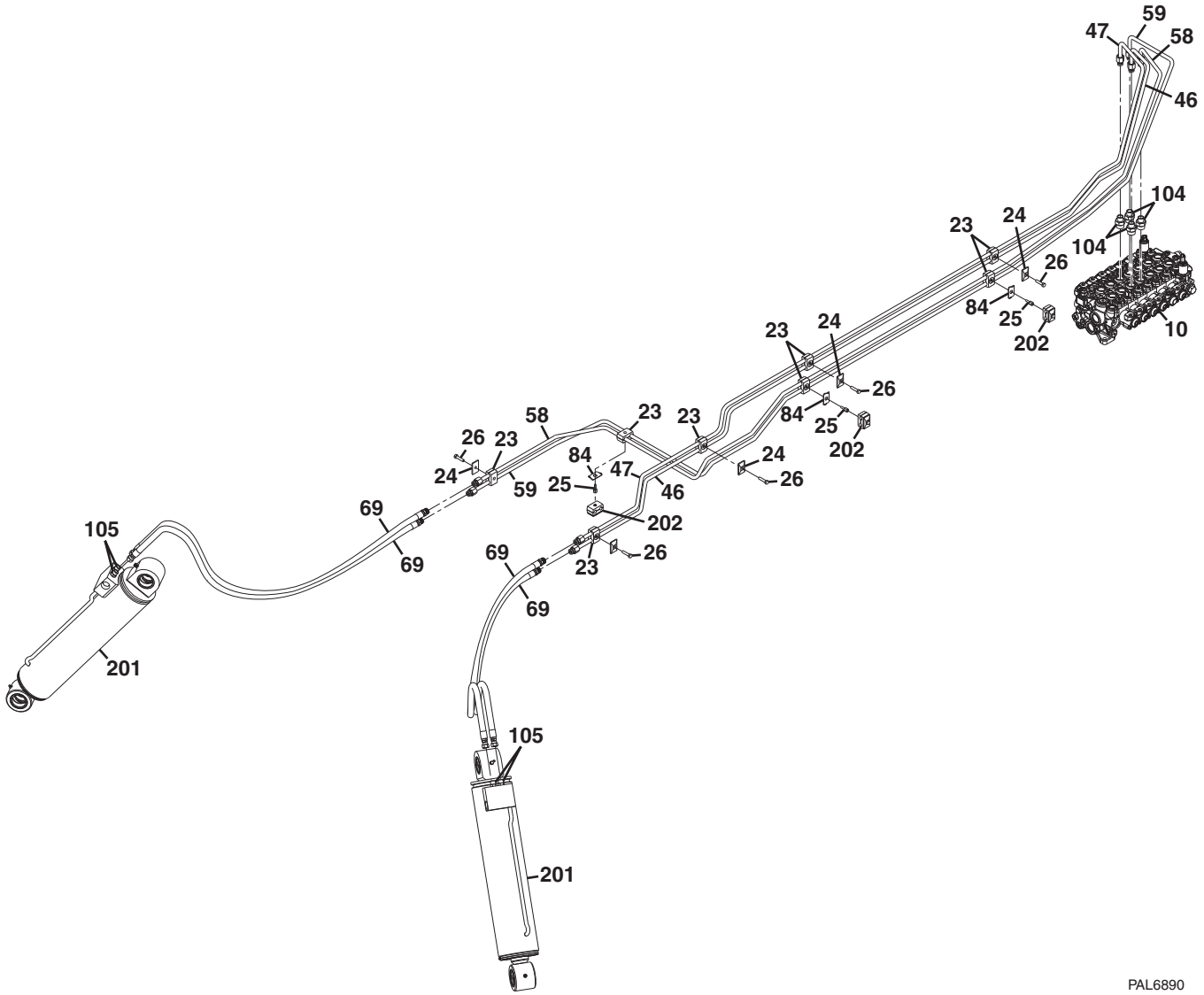

Figure 8-14 Outrigger Circuit

Item	Part Number	Qty.	Description	Rev.
10		Ref	MAIN CONTROL VALVE, (see , (see Figure 9-12 for details) for details)	
23	298-7438	8	CLAMP	
24	299-6644	8	COVER PLATE	
25	298-7836	3	STACK BOLT	
26	297-7019	5	HEX HD CAPSCREW, 5/16-18X1-3/8, GR5	
46	334-9458	1	TUBE ASSY	
47	334-9459	1	TUBE ASSY	
58		1	TUBE ASSY	
59		1	TUBE ASSY	
69	298-1499	4	HOSE ASSY	
84	298-7837	3	SAFETY CLIP	
104	298-0465	4	STRAIGHT FITTING, (includes o-ring)	
105	298-7358	4	STRAIGHT FITTING, (includes o-ring)	
201		Ref	OUTRIGGER CYLINDER, (see Figure 9-6 for details)	
202		Ref	CLAMP & HARDWARE, (see Figure 8-13 for details)	

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SECTION 9
HYDRAULIC COMPONENTS

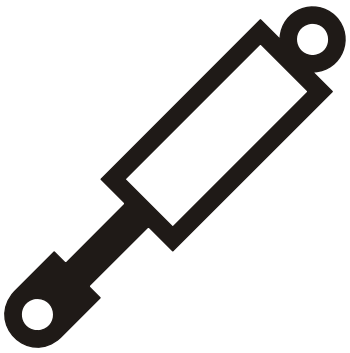

Figure 9-1 Lift Cylinder and Hardware

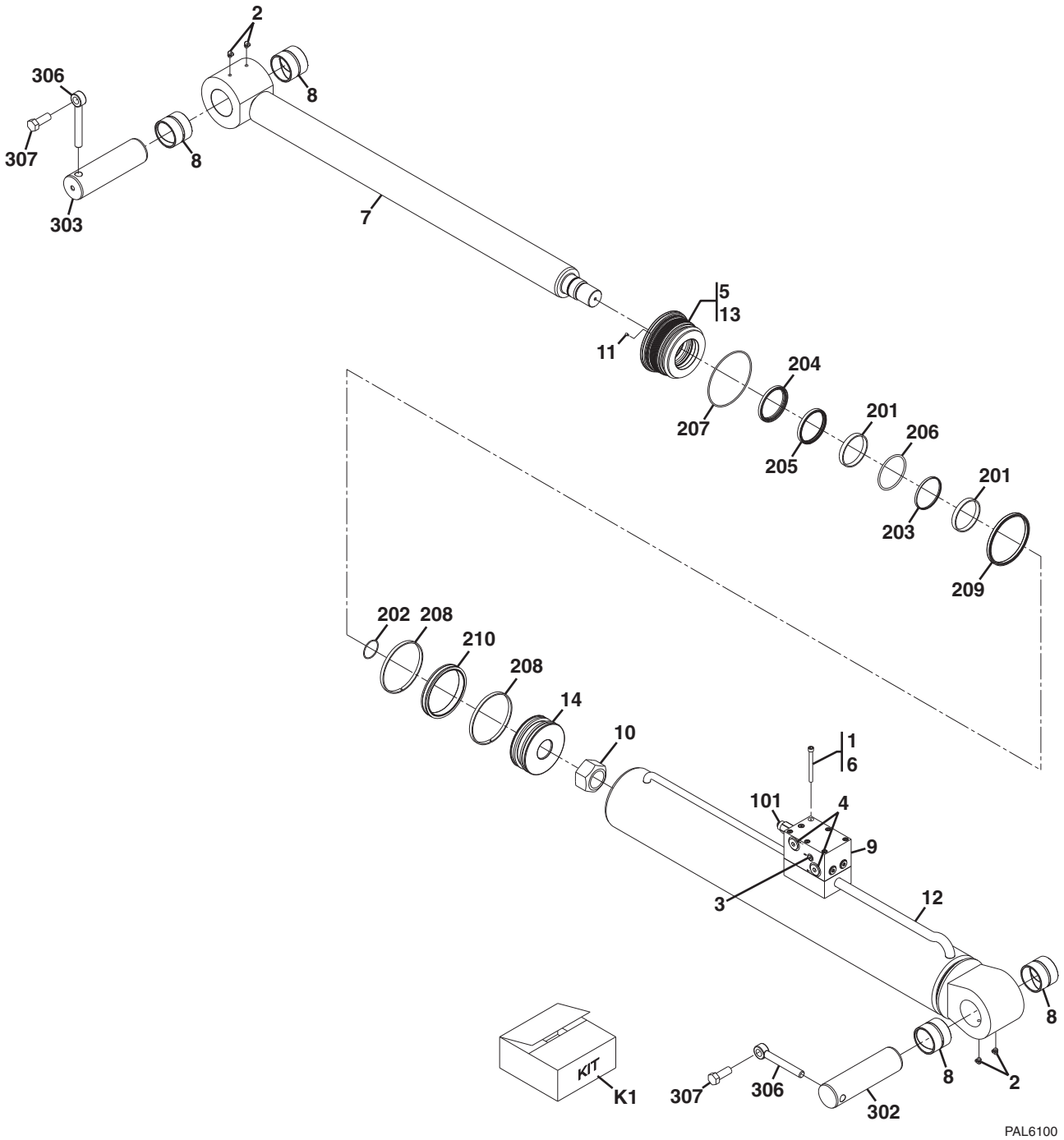

Figure 9-1 Lift Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	391-2076	2	LIFT CYLINDER, **(TL1055C)**, (includes items 1 thru 210)	A
	418-6273	2	LIFT CYLINDER, **(TL1255C)**, (includes items 1 thru 210)	A
1		AR	LOCTITE® 242™	
2		4	GREASE FITTING	
3		2	PLUG, (includes o-ring)	
4		4	PLUG, (includes o-ring)	
5		AR	ANTI-SEIZE LUBE	
6		6	SOCKET HD CAPSCREW, 3/8-16X4	
7		1	ROD	
8	418-6277	4	BEARING	
9	399-0951	1	VALVE ASSY, (includes items 101 & o-rings)	B
10	396-1284	1	LOCKNUT	
11		1	SET SCREW, #8-32	
12	391-2077	1	BARREL, **(TL1055C)**	
	418-9269	1	BARREL, **(TL1255C)**	
13	391-2078	1	GLAND, **(TL1055C)**, (torque to 120 lb-ft/163 Nm)	
		1	GLAND, **(TL1255C)**, (torque to 120 lb-ft/163 Nm)	
14	391-2079	1	PISTON, **(TL1055C)**	
		1	PISTON, **(TL1255C)**	
101		1	CARTRIDGE, (includes o-ring), (torque to 45-50 lb-ft/61-67 Nm)	
201	Use Kit K1	1	WEAR RING	
202	Use Kit K1	1	O-RING	
203	Use Kit K1	1	BUFFER SEAL	
204	Use Kit K1	1	WIPER RING	
205	Use Kit K1	1	ROD SEAL	
206	Use Kit K1	1	O-RING	
207	Use Kit K1	1	O-RING	
208	Use Kit K1	2	WEAR RING	
209	Use Kit K1	1	GLAND SEAL	
210	Use Kit K1	1	PISTON SEAL	
302	298-8390	2	PIN	
303	337-7992	2	PIN	
306	299-0313	4	ROD KEEPER	
307	297-7084	4	HEX HD CAPSCREW, 3/4-10X2, GR8	
K1	391-2080	2	SEAL KIT, (includes items 201 thru 210), **(TL1055C)**	A
	418-6274	2	SEAL KIT, (includes items 201 thru 210), **(TL1255C)**	A

Figure 9-2 Extend/Retract Cylinder and Hardware

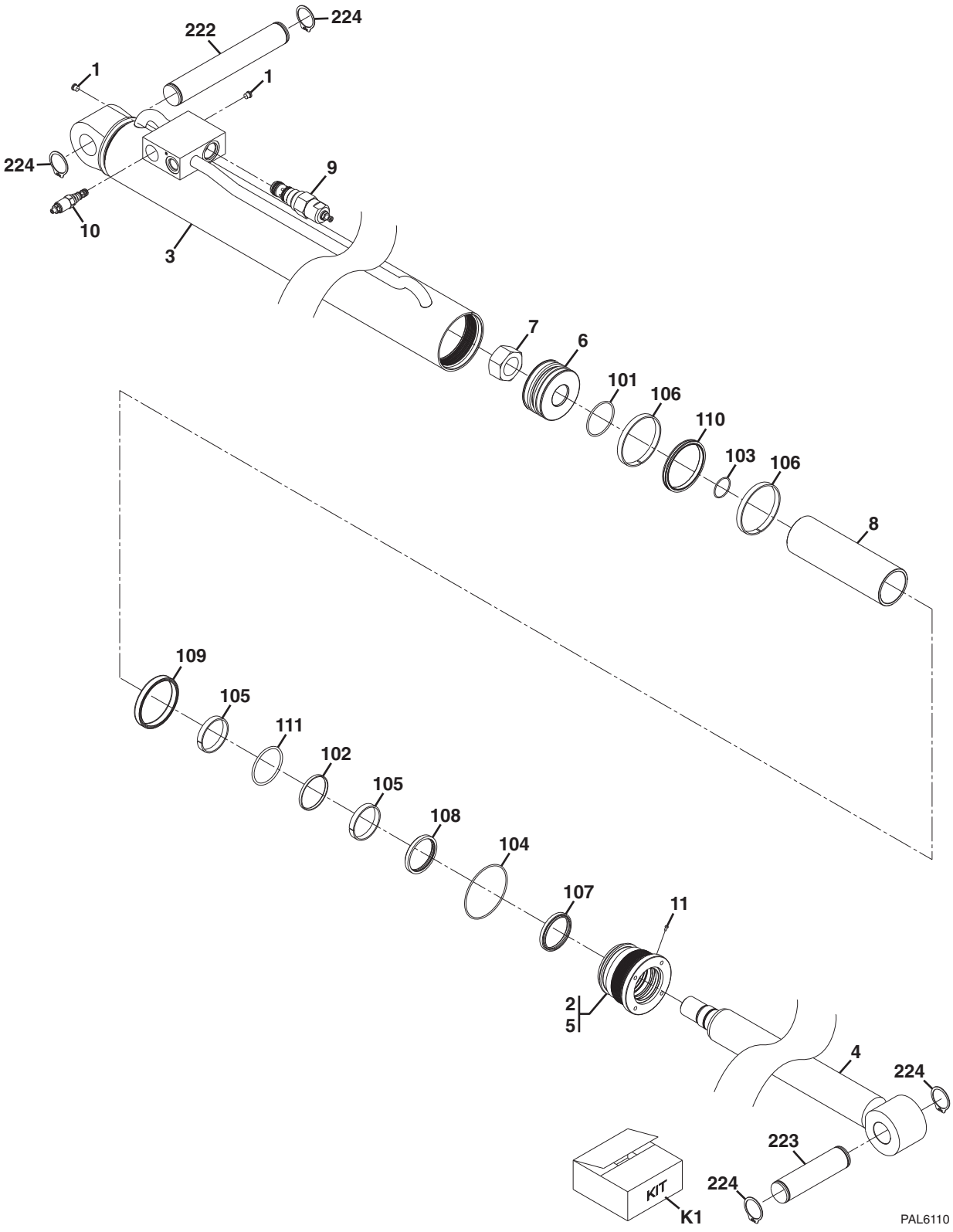

Figure 9-2 Extend/Retract Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	418-6275	1	EXTEND/RETRACT CYLINDER, (includes items 1 thru 111)	C
1		2	PLUG, (includes o-ring)	
2		AR	ANTI-SEIZE LUBE	
3	418-9270	1	BARREL	
4		1	ROD	
5		1	GLAND, (torque to 100 lb-ft/136 Nm)	
6		1	PISTON	
7	396-1285	1	LOCKNUT	
8	418-6280	1	SPACER	
9	418-6279	1	COUNTERBALANCE VALVE, (includes o-ring)	
10	418-6278	1	COUNTERBALANCE VALVE, (includes o-ring)	
11		1	SET SCREW, #8-32	
101	Use Kit K1	1	O-RING	
102	Use Kit K1	1	BUFFER SEAL	
103	Use Kit K1	1	O-RING	
104	Use Kit K1	1	O-RING	
105	Use Kit K1	2	WEAR RING	
106	Use Kit K1	2	WEAR RING	
107	Use Kit K1	1	WIPER RING	
108	Use Kit K1	1	ROD SEAL	
109	Use Kit K1	1	GLAND SEAL	
110	Use Kit K1	1	PISTON SEAL	
111	Use Kit K1	1	O-RING	
222	298-6873	1	PIN	
223	298-6874	1	PIN, **(TL1055C)**	
	298-8457	1	PIN, **(TL1255C)**	
224	298-7314	4	RETAINING RING	
K1	418-6276	1	SEAL KIT, (includes items 101 thru 111)	

Figure 9-3 Tilt Cylinder and Hardware

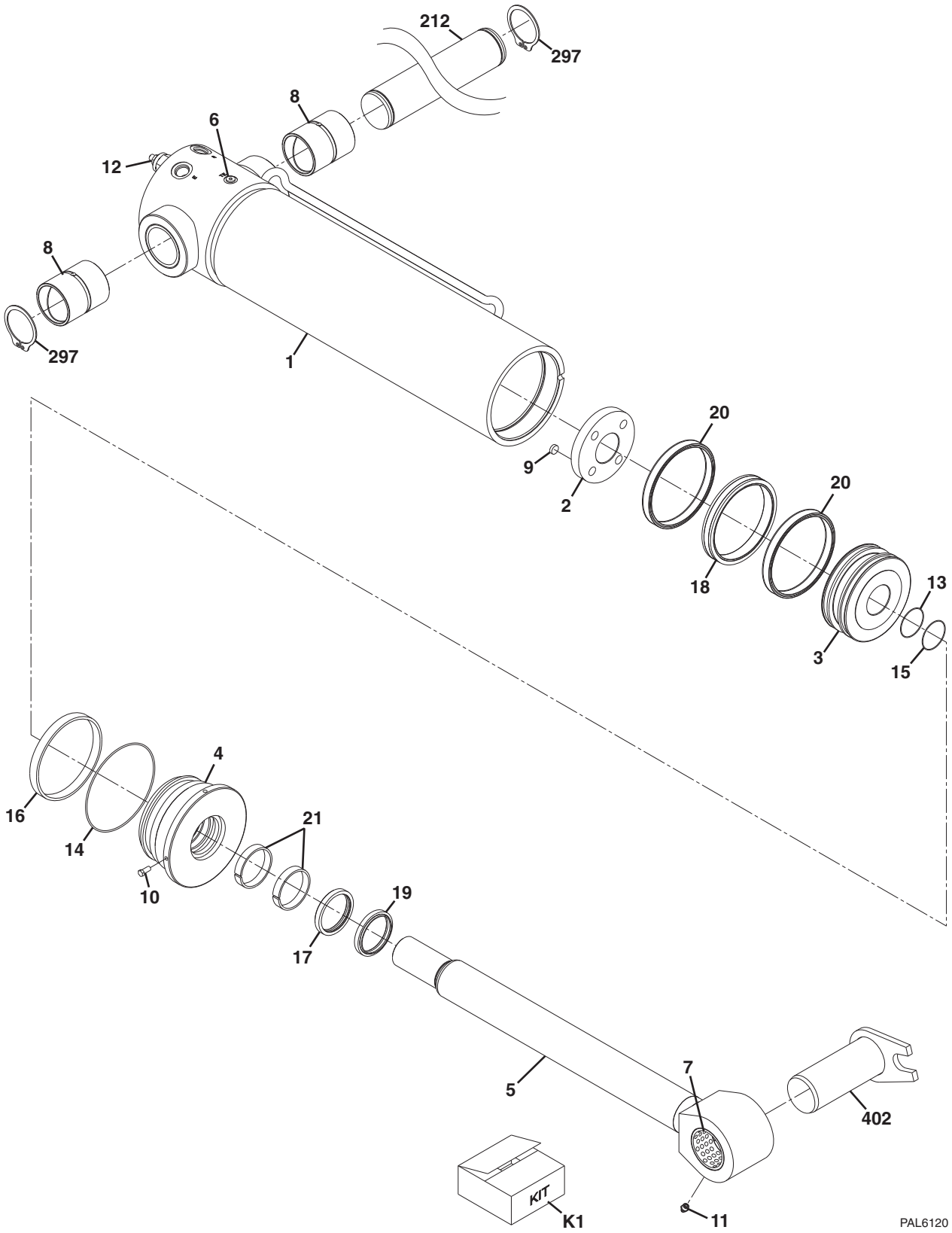

Figure 9-3 Tilt Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	396-3663	1	TILT CYLINDER, (includes items 1 thru 21), **(TL1055C)**	B
	396-3662	1	TILT CYLINDER, (includes items 1 thru 21), **(TL1255C)**	B
1	417-5764	1	BARREL, **(TL1055C)**	
	417-5759	1	BARREL, **(TL1255C)**	
2	417-5776	1	LOCKING COLLAR	
3	417-5755	1	PISTON, **(TL1055C)**	
	417-5750	1	PISTON, **(TL1255C)**	
4	417-5756	1	GLAND, **(TL1055C)**	
	417-5751	1	GLAND, **(TL1255C)**	
5	417-5760	1	ROD	
6	417-5761	1	PLUG	
7	417-5762	1	BUSHING	
8	417-5763	2	BEARING	
9	315-4278	4	SET SCREW, 3/8-16X3/4	
10	417-5005	1	TAPPING SCREW	
11	315-4253	1	GREASE FITTING	
12	417-5779	1	COUNTERBALANCE VALVE	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	O-RING	
15	Use Kit K1	1	BACKUP RING	
16	Use Kit K1	1	RING	
17	Use Kit K1	1	SEAL	
18	Use Kit K1	1	PISTON SEAL	
19	Use Kit K1	1	ROD WIPER	
20	Use Kit K1	2	WEARBAND	
21	Use Kit K1	2	WEARBAND	
212	298-8405	1	PIN	
297	298-7315	2	RETAINING RING	
402		Ref	PIN, (see Figures 2-8 & 2-9 for details)	
K1	417-5758	1	SEAL KIT, (includes items 13 thru 21), **(TL1055C)**	
	417-5753	1	SEAL KIT, (includes items 13 thru 21), **(TL1255C)**	

Figure 9-4 Compensation Cylinder and Hardware

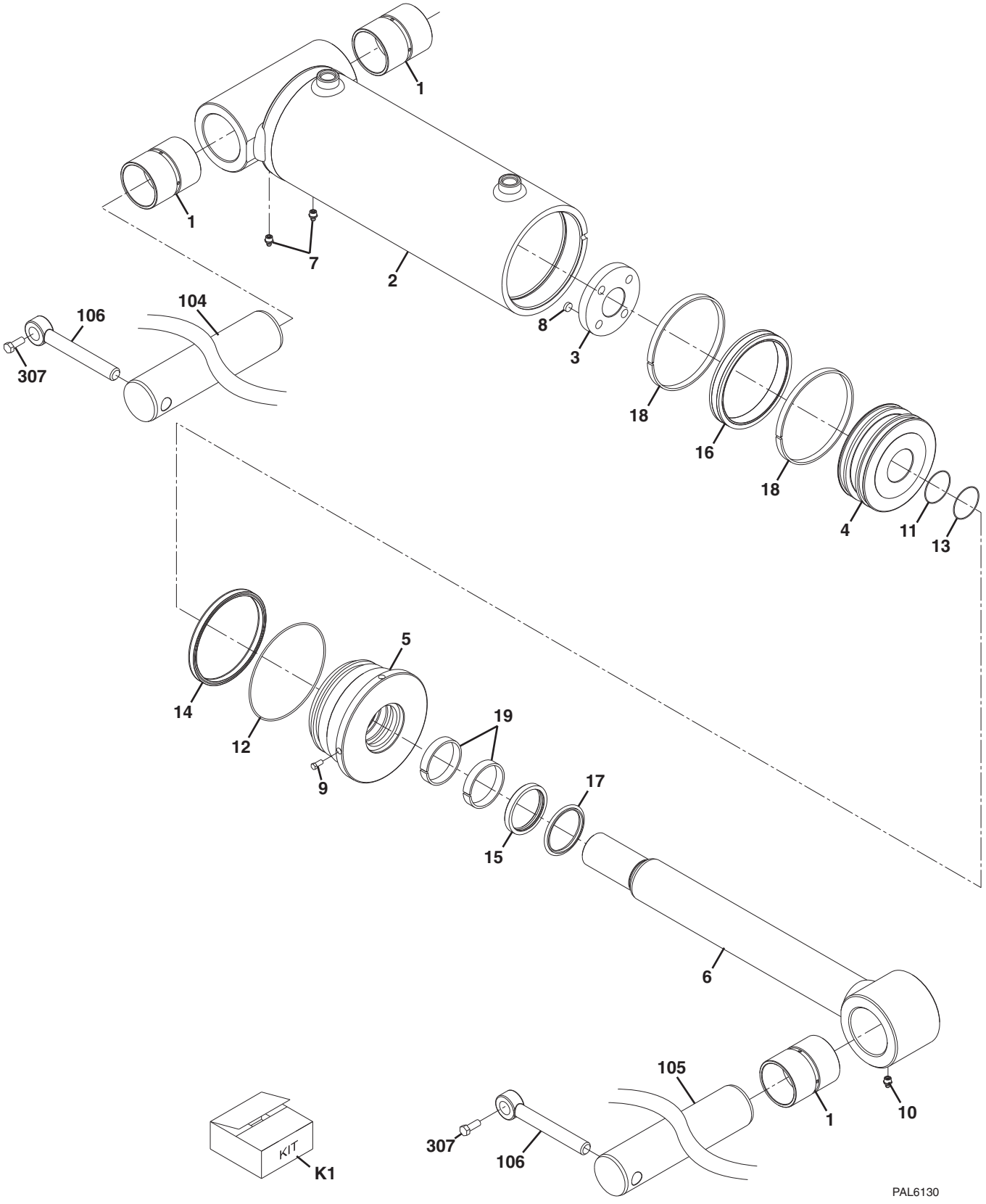

Figure 9-4 Compensation Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	396-3661	1	COMPENSATION CYLINDER, (includes items 1 thru 19), **(TL1055C)**	B
	396-3660	1	COMPENSATION CYLINDER, (includes items 1 thru 19), **(TL1255C)**	B
1	417-5754	3	BEARING	
2	417-5746	1	BARREL, **(TL1055C)**	
	417-5754	1	BARREL, **(TL1255C)**	
3	417-5776	1	LOCKING COLLAR	
4	417-5755	1	PISTON, **(TL1055C)**	
	417-5750	1	PISTON, **(TL1255C)**	
5	417-5756	1	GLAND, **(TL1055C)**	
	417-5751	1	GLAND, **(TL1255C)**	
6	417-5757	1	ROD, **(TL1055C)**	
	417-5752	1	ROD, **(TL1255C)**	
7	417-5777	2	GREASE FITTING	
8	315-4278	4	SET SCREW, 3/8-16X3/4	
9	417-5005	1	TAPPING SCREW	
10	315-4253	1	GREASE FITTING	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	1	O-RING	
13	Use Kit K1	2	BACKUP RING	
14	Use Kit K1	1	POLYPAK	
15	Use Kit K1	1	SEAL	
16	Use Kit K1	1	CAP SEAL	
17	Use Kit K1	1	ROD WIPER	
18	Use Kit K1	2	WEARBAND	
19	Use Kit K1	2	WEARBAND	
104	298-8391	1	PIN	
105		1	PIN	
106	299-0313	2	ROD KEEPER	
107	297-7084	2	HEX HD CAPSCREW, 3/4-10X2, GR8	
K1	417-5758	1	SEAL KIT, (includes items 11 thru 19), **(TL1055C)**	
	417-5753	1	SEAL KIT, (includes items 11 thru 19), **(TL1255C)**	

Figure 9-5 Frame Level Cylinder and Hardware

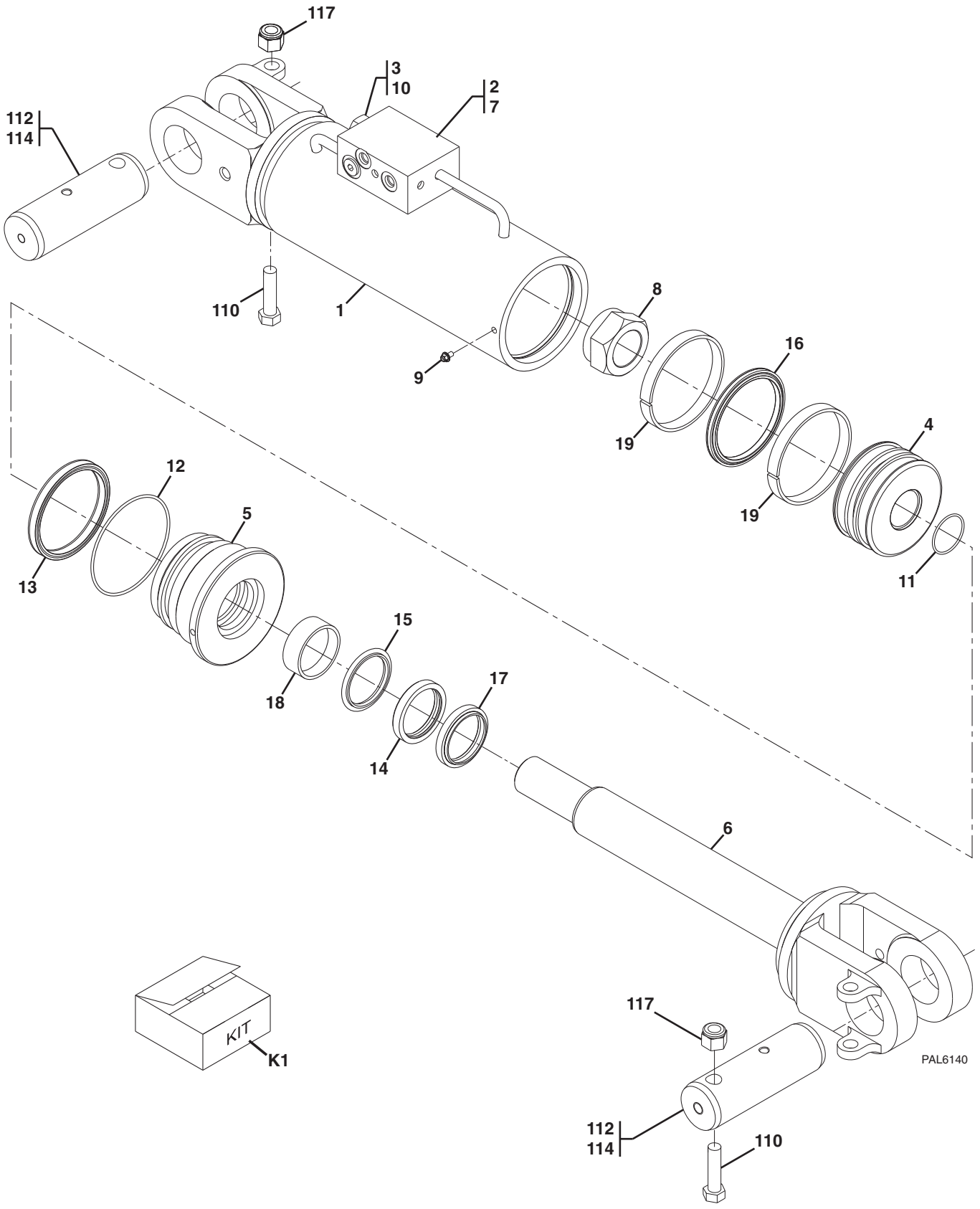

Figure 9-5 Frame Level Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	380-8344	1	FRAME LEVEL CYLINDER, (includes items 1 thru 19)	A
1	417-4997	1	BARREL	
2	417-4998	1	O-RING	
3	417-4999	1	O-RING	
4	417-5000	1	PISTON	
5	417-5001	1	GLAND	
6	417-5002	1	ROD	
7	417-5003	1	PLUG	
8	417-5004	1	LOCKNUT, 1-1/4	
9	417-5005	1	TAPPING SCREW	
10	299-0931	1	CHECK VALVE	
11	Use Kit K1	1	O-RING	
12	Use Kit K1	1	O-RING	
13	Use Kit K1	1	GLAND SEAL	
14	Use Kit K1	1	ROD SEAL	
15	Use Kit K1	1	BUFFER SEAL	
16	Use Kit K1	1	PISTON SEAL	
17	Use Kit K1	1	ROD WIPER	
18	Use Kit K1	1	WEARBAND	
19	Use Kit K1	2	WEARBAND	
110		2	HEX HD CAPSCREW, 1/2-13X4, GR5	
112	298-0510	2	FITTING PLUG, 1/8	
114	298-0562	2	CYLINDER PIN	
117	298-1580	2	LOCKNUT, 1/2-13	
K1	417-5006	1	SEAL KIT, (includes items 11 thru 19)	

Figure 9-6 Outrigger Cylinder and Hardware

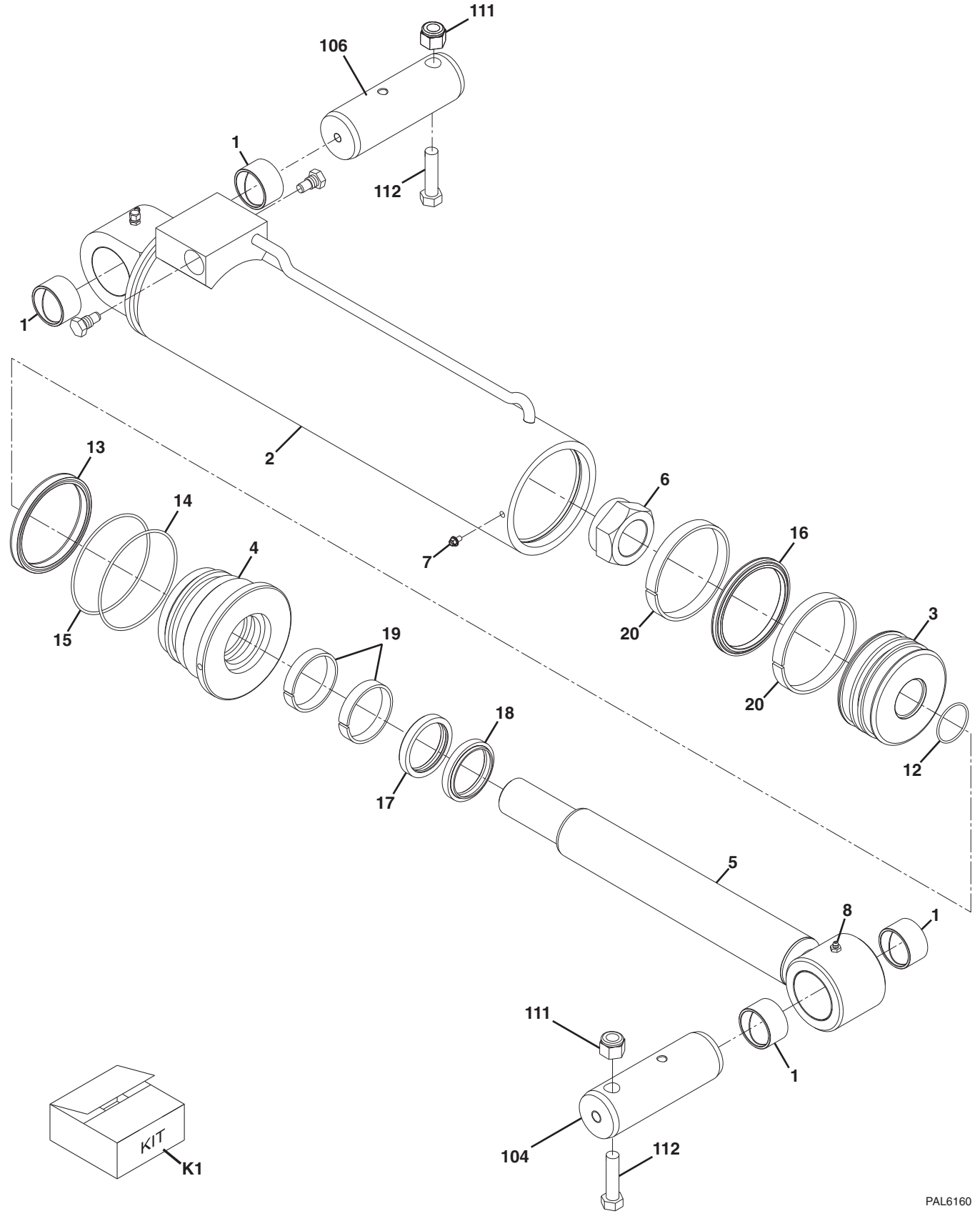

Figure 9-6 Outrigger Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	380-8343	2	OUTRIGGER CYLINDER, (includes items 1 thru 20)	A
1	315-4248	4	BUSHING	
2	417-6008	1	BARREL	
3	417-6009	1	PISTON	
4	417-6015	1	GLAND	
5	417-6022	1	ROD	
6	315-4278	1	SET SCREW, 3/8-16X3/4	
7	417-5005	1	TAPPING SCREW	
8	315-4253	1	GREASE FITTING	
9	417-6023	1	GREASE FITTING	
10	417-6024	1	CHECK VALVE	
11	417-6025	1	CHECK VALVE	
12	Use Kit K1	1	O-RING	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	O-RING	
15	Use Kit K1	1	BACKUP RING	
16	Use Kit K1	1	PISTON SEAL	
17	Use Kit K1	1	ROD SEAL	
18	Use Kit K1	1	ROD WIPER	
19	Use Kit K1	2	WEARBAND	
20	Use Kit K1	2	WEARBAND	
104	298-8431	2	PIN	
106	298-8429	2	PIN	
111	298-0541	2	LOCKNUT	
112	298-0574	2	SOCKET HD CAPSCREW	
K1	417-6026	2	SEAL KIT, (includes items 12 thru 20)	

Figure 9-7 Stabilizer Cylinder and Hardware

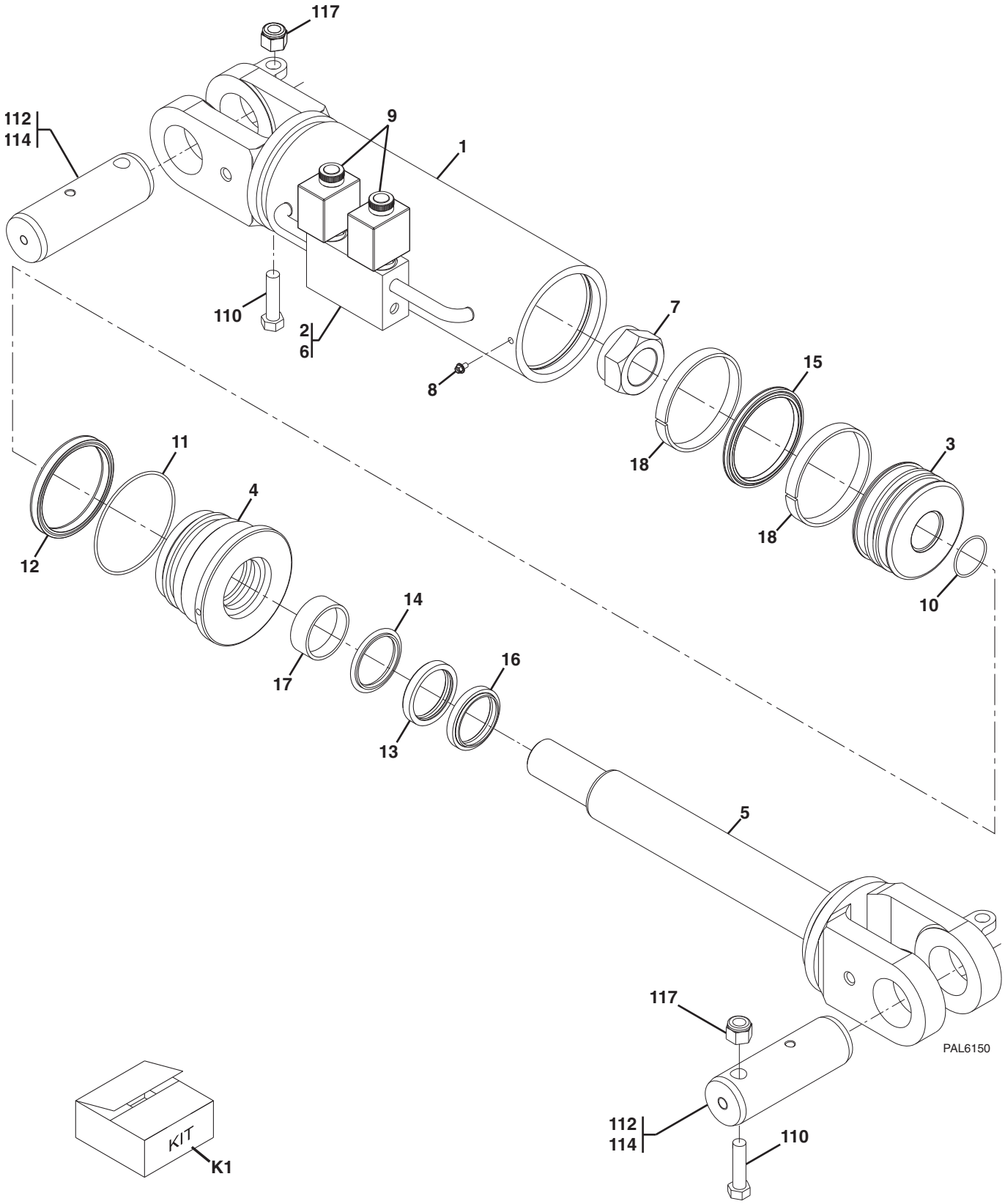

Figure 9-7 Stabilizer Cylinder and Hardware

Item	Part Number	Qty.	Description	Rev.
	380-8345	1	STABILIZER CYLINDER, (includes items 1 thru 18)	A
1	417-5007	1	BARREL	
2	417-5008	2	O-RING	
3	417-5000	1	PISTON	
4	417-5001	1	GLAND	
5	417-5009	1	ROD	
6	417-5003	2	PLUG	
7	417-5004	1	LOCKNUT, 1-1/4	
8	417-5005	1	TAPPING SCREW	
9	417-5010	2	SOLENOID VALVE	
10	Use Item K1	1	O-RING	
11	Use Item K1	1	O-RING	
12	Use Item K1	1	GLAND SEAL	
13	Use Item K1	1	ROD SEAL	
14	Use Item K1	1	BUFFER SEAL	
15	Use Item K1	1	PISTON SEAL	
16	Use Item K1	1	ROD WIPER	
17	Use Item K1	1	WEARBAND	
18	Use Item K1	2	WEARBAND	
110		2	HEX HD CAPSCREW, 1/2-13X4, GR5	
112	298-0510	2	FITTING PLUG, 1/8	
114	298-0562	2	CYLINDER PIN	
117	298-1580	2	LOCKNUT, 1/2-13	
K1	417-5006	1	SEAL KIT, (includes items 10 thru 18)	

Figure 9-8 Quick Coupler Cylinder

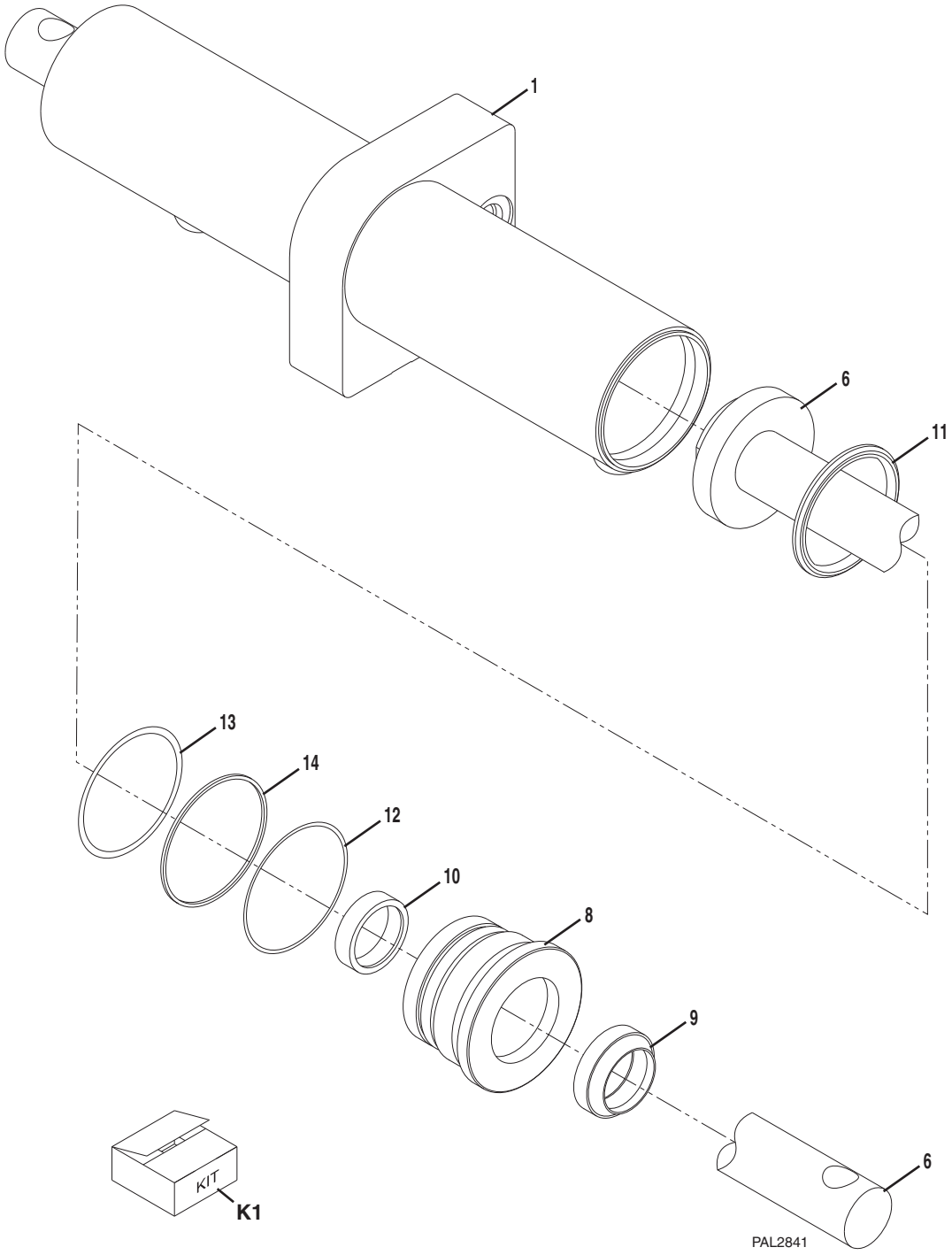

Figure 9-8 Quick Coupler Cylinder

Item	Part Number	Qty.	Description	Rev.
	295-3419	1	QUICK COUPLER CYLINDER, (includes all items)	B
1	315-3678	1	CASE ASSEMBLY	
6	315-3680	2	ROD ASSEMBLY	
8	315-3679	2	HEAD ASSEMBLY	
9	Use Kit K1	2	WIPER RING	
10	Use Kit K1	2	SEAL	
11	Use Kit K1	2	PISTON SEAL	
12	use kit K1	2	O-RING	
13	Use Kit K1	2	O-RING	
14	Use Kit K1	2	BACKRING	
K1	305-6015	1	SEAL KIT, (includes items 9 thru 14)	

Figure 9-9 Swing Carriage and Side Tilt Carriage Cylinder

100 DEGREE SWING CARRIAGE
SIDE TILT CYLINDER

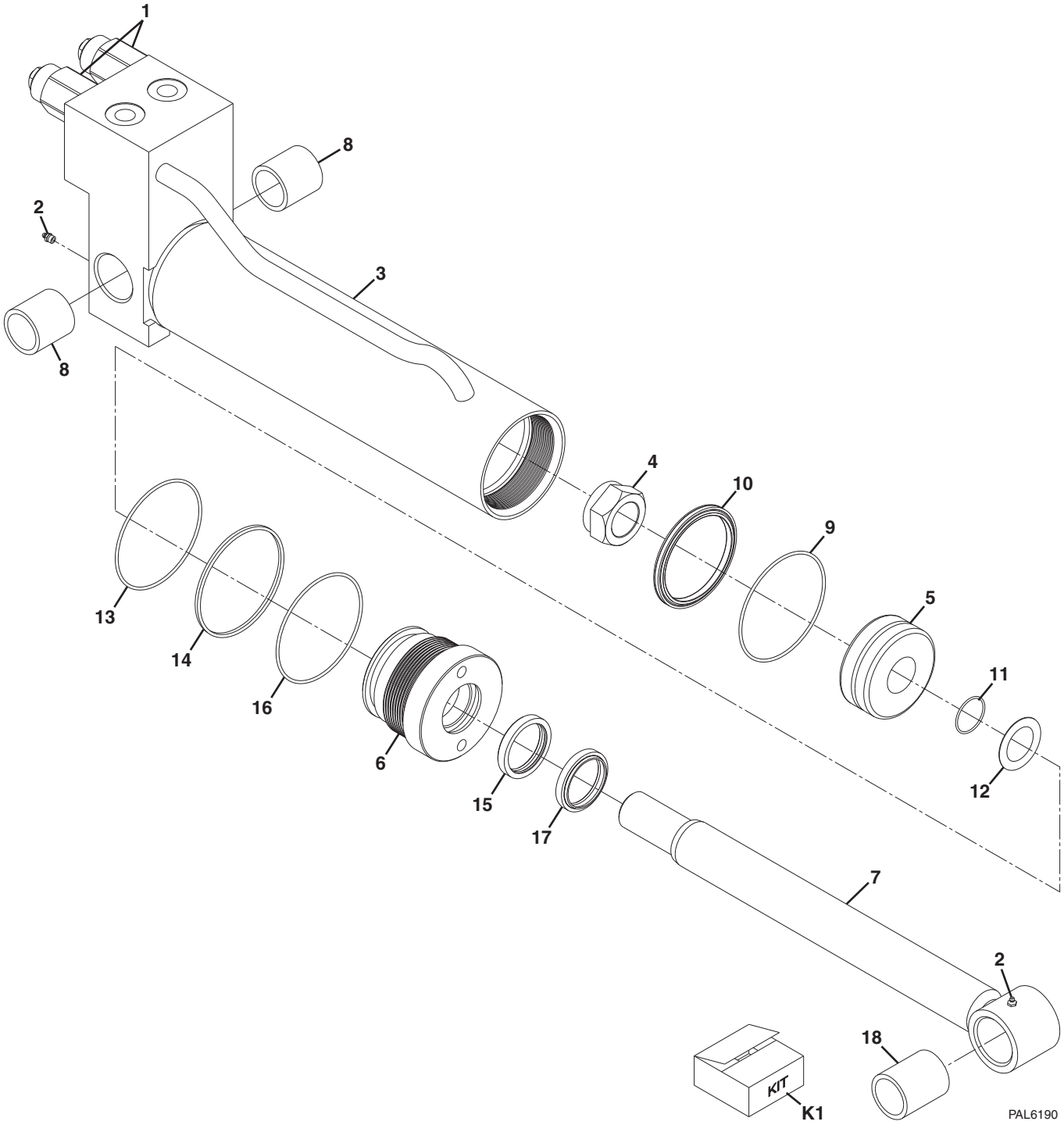

Figure 9-9 Swing Carriage and Side Tilt Carriage Cylinder (Continued)

180 DEGREE SWING CARRIAGE

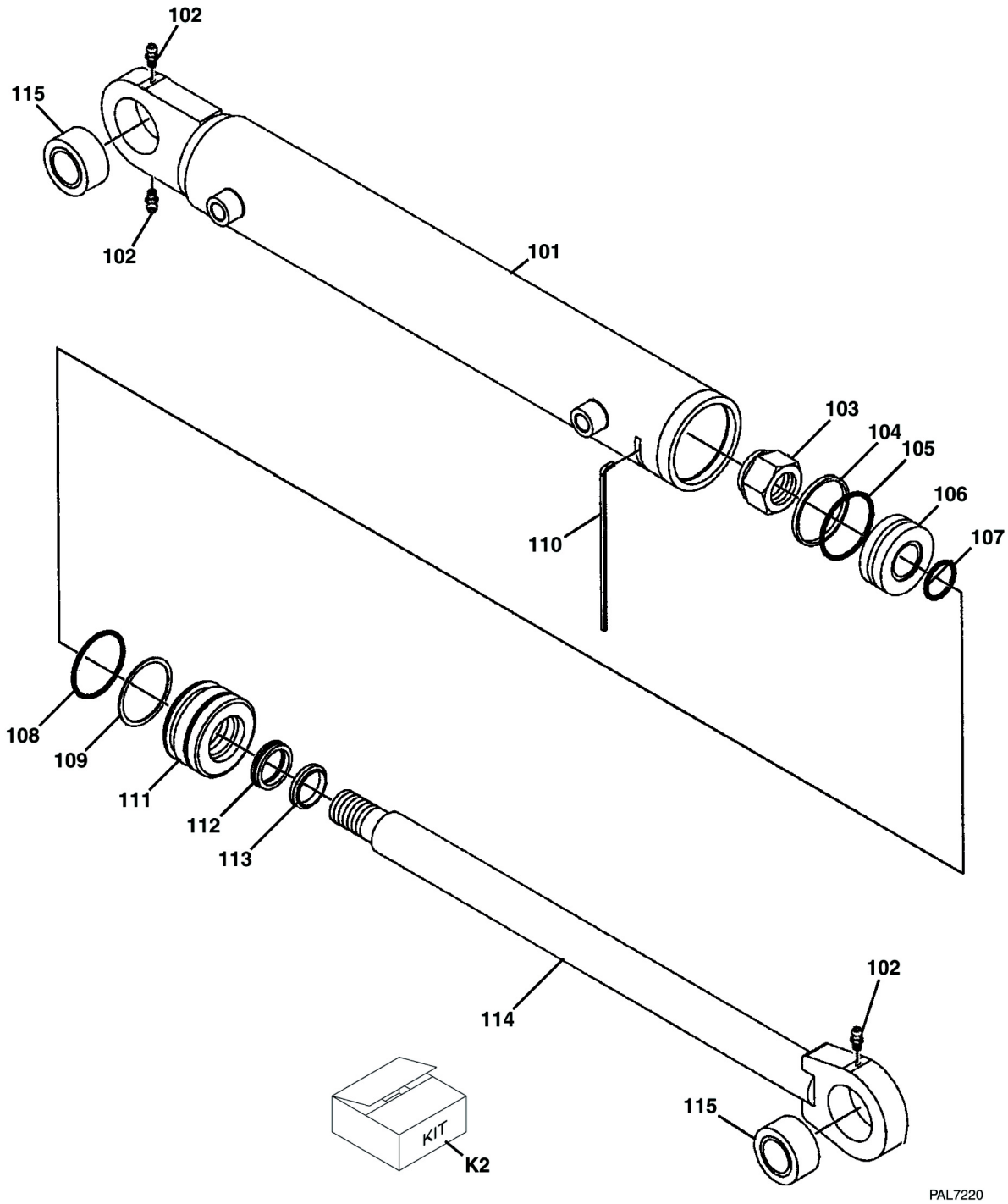

Figure 9-9 Swing Carriage and Side Tilt Carriage Cylinder

Item	Part Number	Qty.	Description	Rev.
	375-5001	2	100 DEGREE SWING CARRIAGE CYLINDER, (includes items 1 thru 18)	D
	327-6297	1	48 IN SIDE TILT CARRIAGE CYLINDER, (includes items 1 thru 18)	B
1		2	COUNTERBALANCE VALVE	
2	327-6331	2	GREASE FITTING	
3	327-6316	1	BARREL, (includes block valve), **(SWING)**	
	334-0276	1	BARREL, (includes block valve), **(48 IN SIDE TILT)**	
4	327-6307	1	HEX NUT, (torque to 244-249 lb-ft/311-338 Nm)	
5	327-6313	2	PISTON	
6	327-6310	1	GLAND	
7	327-6309	1	ROD, **(SWING)**	
	334-0274	1	ROD, **(48 IN SIDE TILT)**	
8	327-6312	2	BUSHING	
9	Use Kit K1	1	O-RING	
10	Use Kit K1	1	PISTON RING	
11	Use Kit K1	1	O-RING	
12	327-6308	1	WASHER	
13	Use Kit K1	1	O-RING	
14	Use Kit K1	1	BACK-UP RING	
15	Use Kit K1	1	SEAL	
16	Use Kit K1	1	O-RING	
17	Use Kit K1	1	ROD WIPER	
18	327-6311	1	BUSHING	
K1	327-6314	1	SEAL KIT, (includes items 9, 10, 11 & 13 thru 17)	
		1	180 DEGREE SWING CARRIAGE CYLINDER, (includes items 101 thru 115)	A
101		1	BARREL ASSY	
102	327-6331	3	GREASE FITTING	
103	327-6307	1	HEX NUT	
104	Use Kit K2	1	PISTON RING	
105	Use Kit K2	1	O-RING	
106		1	PISTON	
107	Use Kit K2	1	O-RING	
108	Use Kit K2	1	O-RING	
109	Use Kit K2	1	BACKUP WASHER	
110	Use Kit K2	1	RETAINER RING	
111		1	GLAND	
112	Use Kit K2	1	POLY-PAK SEAL, TYPE B	
113	Use Kit K2	1	ROD WIPER	
114		1	ROD ASSY	
115		2	BUSHING	
K2		1	SEAL KIT, (includes items 104, 105, 107 thru 110, 112 & 113)	

Figure 9-9 Swing Carriage and Side Tilt Carriage Cylinder

Item	Part Number	Qty.	Description	Rev.

Figure 9-10 Side Shift Carriage Cylinder

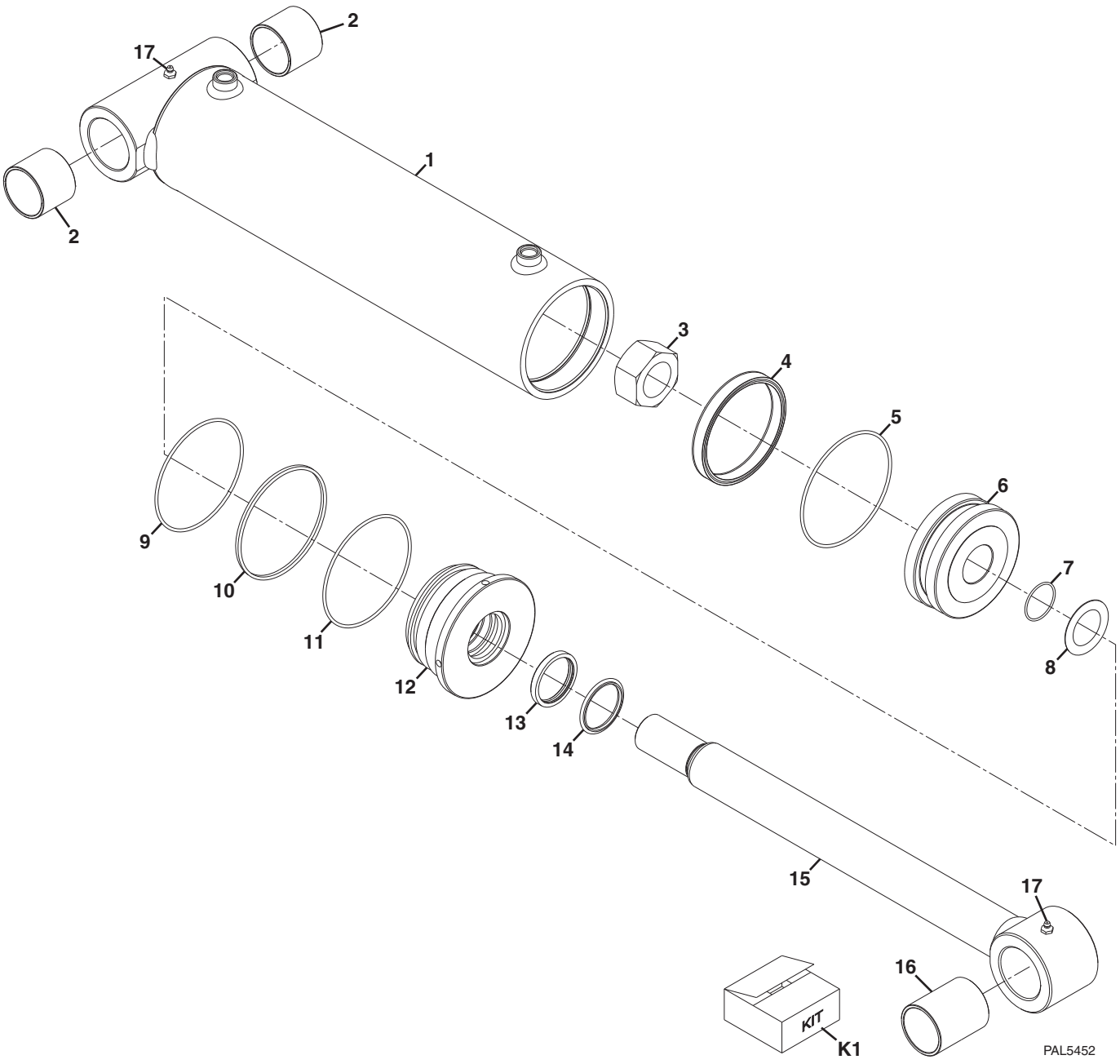

Figure 9-10 Side Shift Carriage Cylinder

Item	Part Number	Qty.	Description	Rev.
	362-2120	1	48 IN (1219 mm) SIDE SHIFT CARRIAGE CYLINDER, (includes items 1 thru 17)	C
1	362-2121	1	BARREL	
2	327-6312	2	BUSHING	
3	327-6307	1	HEX NUT	
4	Use Kit K1	1	PISTON RING	
5	Use Kit K1	1	O-RING	
6	327-6313	1	PISTON	
7	Use Kit K1	1	O-RING	
8	327-6308	1	WASHER	
9	Use Kit K1	1	O-RING	
10	Use Kit K1	1	BACKUP RING	
11	Use Kit K1	1	O-RING	
12	327-6310	1	GLAND	
13	Use Kit K1	1	SEAL	
14	Use Kit K1	1	ROD WASHER	
15	327-6309	1	ROD	
16	327-6311	1	BUSHING	
17	327-6331	2	GREASE FITTING	
K1	327-6314	1	SEAL KIT, (includes items 4, 5, 7, 9 thru 11, 13 & 14)	

Figure 9-11 Duel Fork Positioning Carriage Cylinder

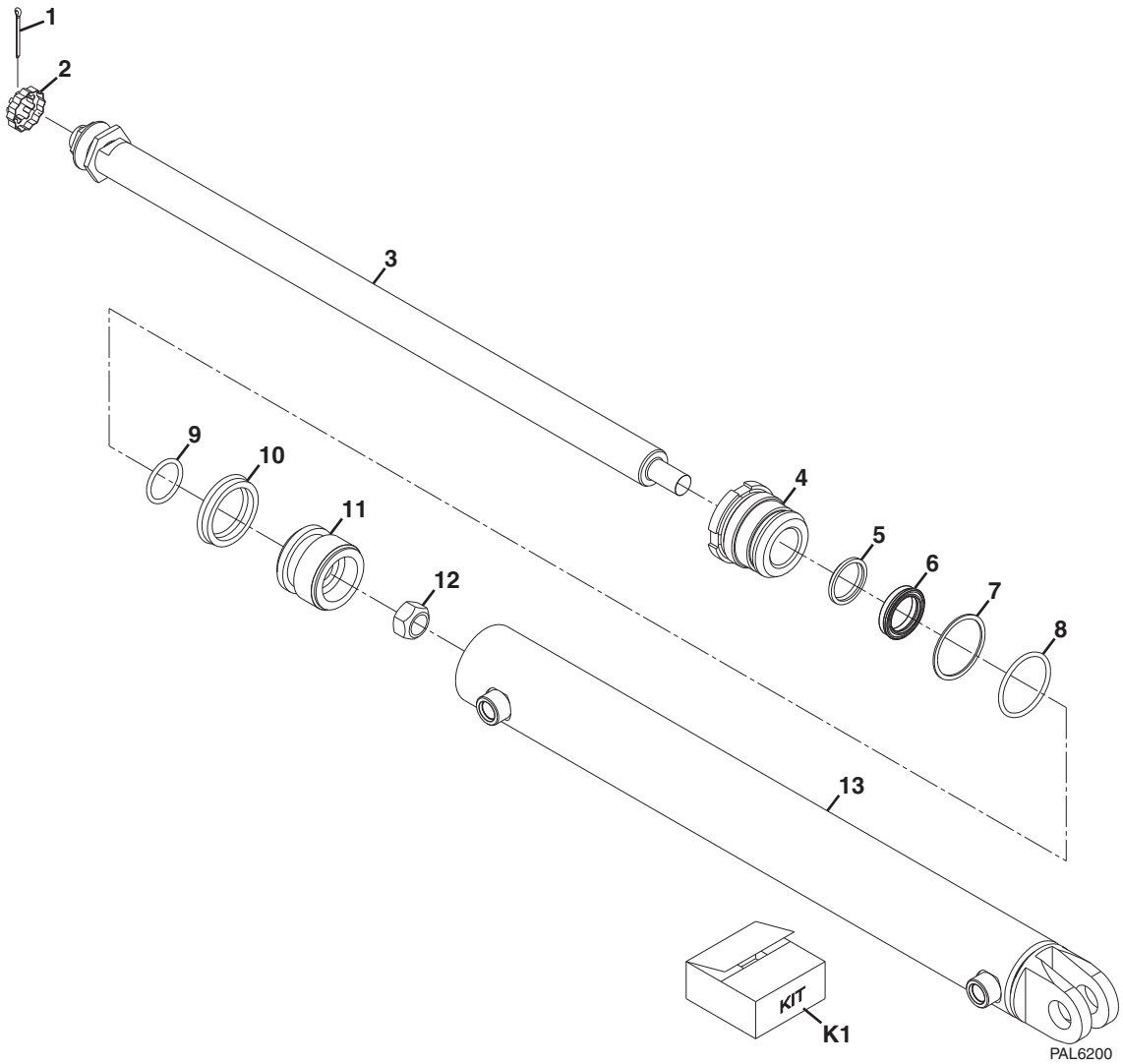

Figure 9-11 Duel Fork Positioning Carriage Cylinder

Item	Part Number	Qty.	Description	Rev.
	417-9881	2	50 IN (1270 mm) DUEL FORK POSITIONING CARRIAGE CYLINDER, (includes all items)	A
1	417-9882	1	COTTER PIN	
2	417-9883	1	RETAINER	
3	417-9884	1	ROD	
4	417-9885	1	GLAND	
5	Use Kit K1	1	WIPER	
6	Use Kit K1	1	SEAL	
7	Use Kit K1	1	BU RING	
8	Use Kit K1	1	O-RING	
9	Use Kit K1	1	O-RING	
10	Use Kit K1	1	SEAL	
11	417-9886	1	PISTON	
12	417-9887	1	HEX NUT	
13	417-9888	1	BARREL	
K1	417-9889	1	SEAL KIT, (includes items 6 thru 10)	

Figure 9-12 Main Control Valve

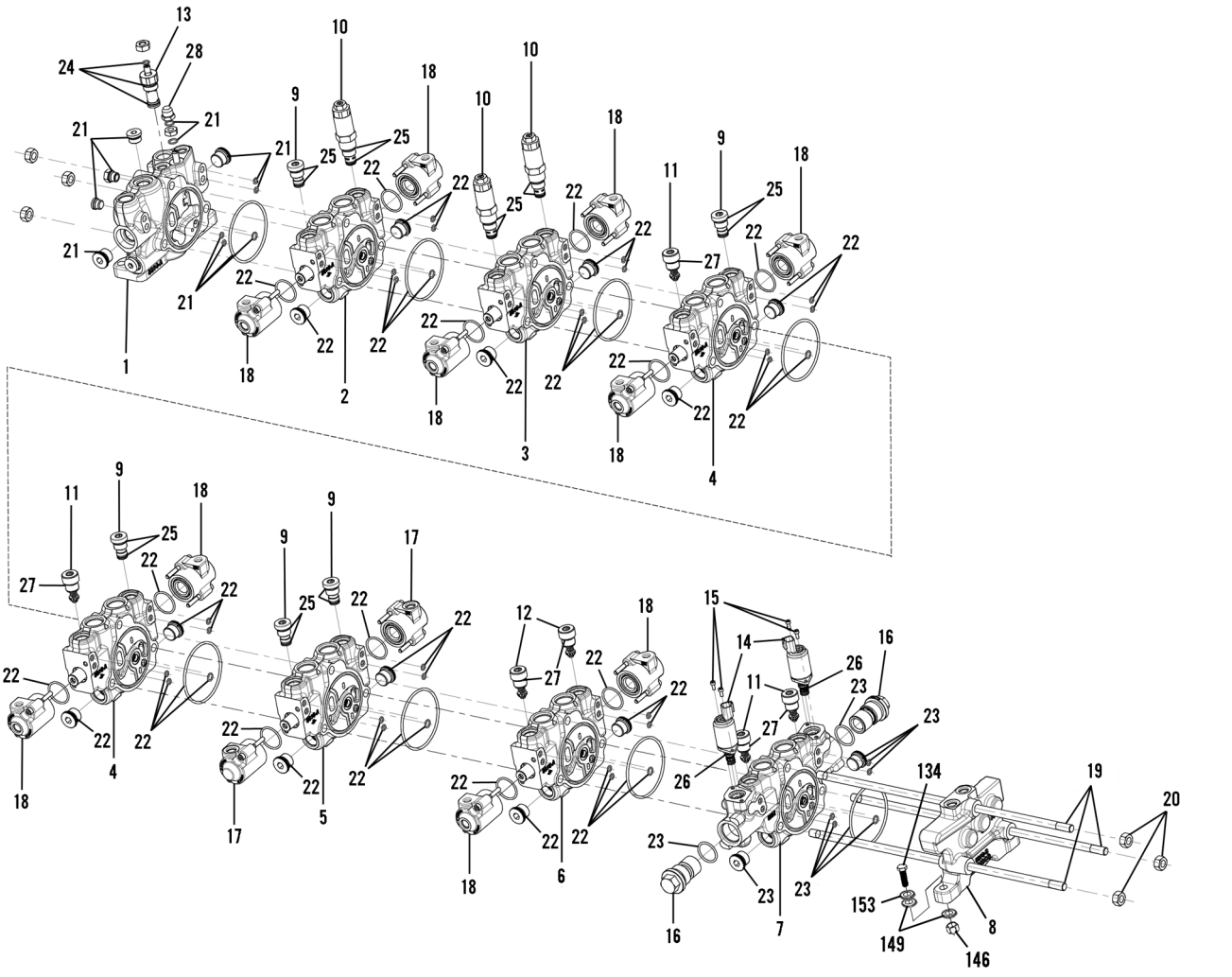

Figure 9-12 Main Control Valve

Item	Part Number	Qty.	Description	Rev.
	335-0646	1	MAIN CONTROL VALVE ASSY, (includes items 1 thru 28)	C
1	336-3679	1	INLET SECTION ASSY, (includes items 21, 28 and all items required to replace the Inlet Section Assembly)	
2	336-3680	1	SPOOL SECTION ASSY, LIFT, (includes items 18, 22 and all other seals required to replace one Lift Section Assembly)	
3	336-3681	1	SPOOL SECTION ASSY, EXTEND/RETRACT, (includes items 18, 22 and all other seals required to replace one Crowd Section Assembly)	
4	336-3682	2	SPOOL SECTION ASSY, OUTRIGGER, (includes items 18, 22 and all other seals required to replace one Outrigger Section Assembly)	
5	336-3683	1	SPOOL SECTION ASSY, FRAME LEVEL, (includes items 17, 22 and all other seals required to replace one Sway Section Assembly)	
6	336-3684	1	SPOOL SECTION ASSY, AUX, (includes items 18, 22 and all other seals required to replace one Aux Section Assembly)	
7	336-3685	1	SPOOL SECTION ASSY, TILT, (includes items 14 thru 16, 23, 26 and all other seals required to replace one Tilt Section Assembly)	
8	336-3686	1	OUTLET SECTION ASSY, (includes all items required to replace one Outlet Section Assembly)	
9	336-3687	5	SHUT-OFF PLUG ASSY	
10	336-3688	3	RELIEF VALVE, FULL FLOW	
11	336-3689	4	RELIEF VALVE, 280	
12	336-3690	2	RELIEF VALVE, 185	
13	336-3691	1	DRAIN REGULATOR ASSY	
14	336-3692	2	CARTRIDGE VALVE SOLENOID	
15	336-3695	4	HEX HD CAPSCREW, METRIC	
16	336-3696	2	END MECHANISM KIT, (includes all components and seals required to replace one End Mechanism)	
17	336-3697	2	END MECHANISM PO KIT, (includes all components and seals required to replace one End Mechanism PO)	
18	336-3698	10	SPOOL END GROUP, (includes all components and seals required to replace one Spool End)	
19	336-3699	3	TIE ROD, METRIC	
20	336-3700	6	TIE ROD NUT, METRIC	
21	336-3701	1	INLET SEAL KIT	
22	336-3702	1	PO SECTION SEAL KIT	
23	336-3703	1	EH SECTION SEAL KIT	
24	336-3704	1	DRAIN REGULATOR SEAL KIT	
25	336-3705	1	SHUT-OFF PLUG/FULL FLOW RV SEAL KIT	
26	336-3707	1	PPRV SEAL KIT	
27	336-3709	1	O-RING	
28		1	SPECIAL NUT	
134	297-7034	3	HEX HD CAPSCREW, 3/8-16X1-3/4, GR5	
146	298-0554	3	HEX NUT, 3/8-16	
149	298-7365	6	FLAT WASHER, 3/8	
153	298-7380	3	LOCKWASHER, 3/8	

Figure 9-13 Piston Pump

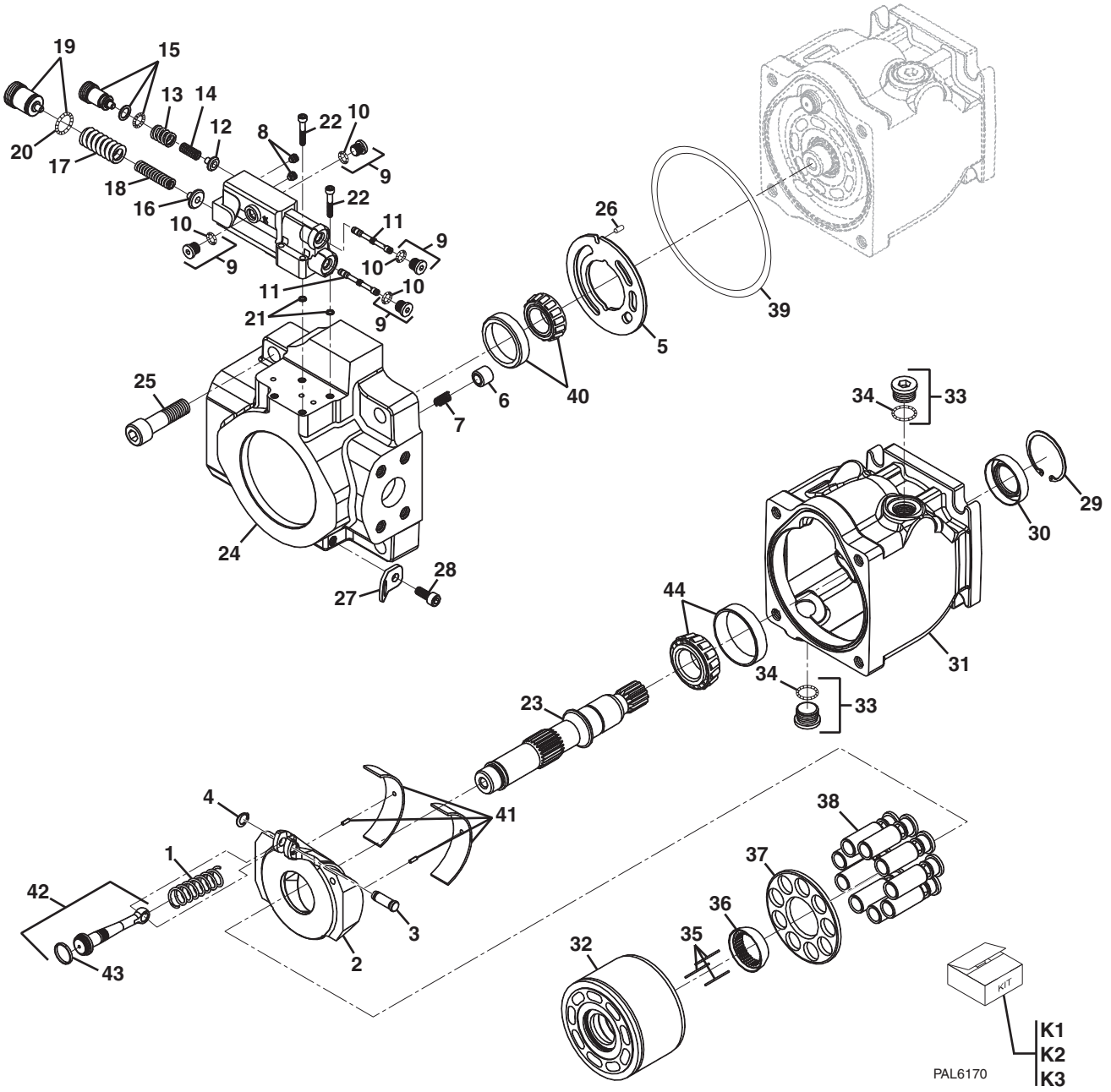

Figure 9-13 Piston Pump

Item	Part Number	Qty.	Description	Rev.
	389-3435	1	PISTON PUMP, (includes all items)	B
1	392-1301	1	BIAS SPRING	
2	260-3416	1	SWASHPLATE	
3	392-1425	1	RETAINER PIN	
4	392-1428	1	RETAINING RING	
5	260-3147	1	RH PLATE	
6	392-1429	1	CHECK VALVE POPPET	
7	392-1302	1	SPRING	
8	392-1303	2	SET SCREW	
9	5E-8775	4	PLUG ASSY, (includes item 10)	
10	077-3100	4	O-RING	
11	392-1536	2	SPOOL	
12	392-1999	1	LH SPRING GUIDE	
13	248-1257	1	LEFT SIDE OUTER SPRING	
14	248-1259	1	LEFT SIDE INNER SPRING	
15	307-3049	1	LEFT SIDE ADJUSTING PLUG	
16	392-2000	1	PC SPRING GUIDE	
17	248-1260	1	PC OUTER SPRING	
18	248-1261	1	PC INNER SPRING	
19	392-1430	1	PC ADJUSTING SPRING, (includes item 20)	
20	392-0697	1	O-RING	
21	234-4173	4	SEAL RING	
22	392-0696	4	SCREW	
23	263-5514	1	SHAFT, (14 tooth)	
24	392-1304	1	RADIAL END CAP	
25	392-0695	4	SCREW	
26	231-7260	4	SLOTTED PIN	
27	392-2001	1	LIFTING BRACKET	
28	122-8716	1	SCREW	
29	351-6033	1	RETAINING RING	
30	317-5891	1	LIP SEAL	
31	392-2002	1	HOUSING	
32	392-2003	1	CYLINDER BLOCK ASSY	
33	7R-3417	2	PLUG, (includes item 34)	
34	077-3234	2	O-RING	
35	165-9762	3	HOLD DOWN PIN	
36	392-2004	1	SLIPPER RETAINER GUIDE	
37	392-2005	1	SLIPPER RETAINER	
38	392-2006	9	PISTON ASSY	
39	351-6018	1	END CAP SEAL	
40		1	REAR BEARING KIT	
41		1	SWASHPLATE BEARING KIT	
42		1	PISTON ASSY, (includes item 43)	
43		1	PISTON RING	
44		1	FRONT BEARING KIT	
K1		1	CONTROL KIT, (includes items 8 thru 22)	
K2		1	SEAL KIT, (includes items 9, 15, 20, 21, 30, 34 & 39)	
K1		1	CYLINDER BLOCK KIT, (includes items 32 & 35 thru 38)	

Figure 9-14 Hydraulic Tank

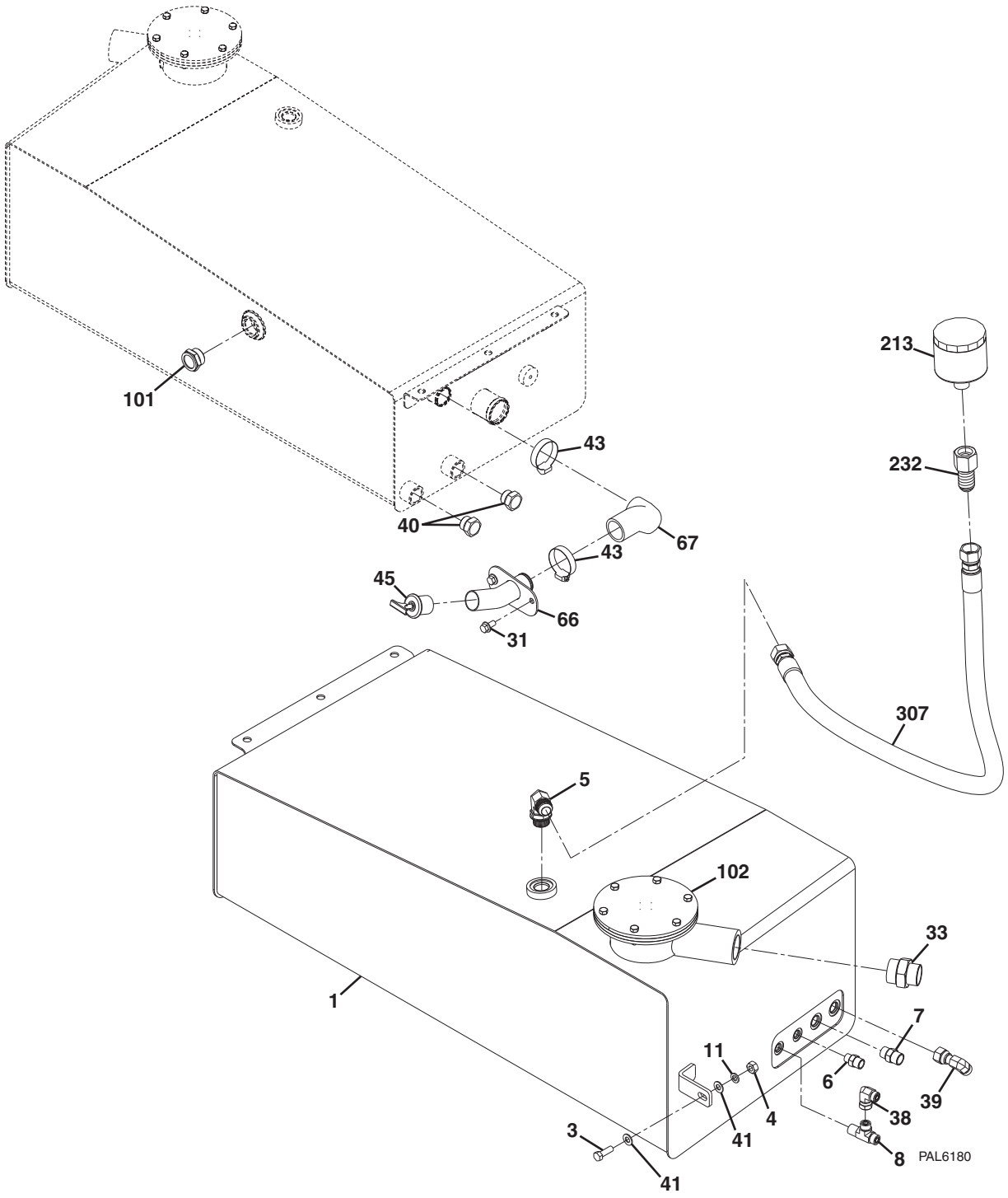

Figure 9-14 Hydraulic Tank

Item	Part Number	Qty.	Description	Rev.
1	389-3442	1	HYDRAULIC TANK, (includes items 101 & 102)	E
3	309-2833	1	HEX HD CAPSCREW, 3/8-16X1-1/8, GR5, (torque to 30 lb-ft/41 Nm)	
4	298-8049	1	HEX NUT, 3/8-16	
5	305-2032	1	ADAPTER, 90 DEGREES, (includes o-ring)	
6	298-7358	1	STRAIGHT FITTING, (includes o-ring)	
7	298-0463	1	STRAIGHT FITTING, (includes o-ring)	
8	298-0496	1	TEE-FITTING, (includes o-ring)	
11	298-7380	1	LOCKWASHER, 3/8	
31		2	SCREW, 3/8-16X3/4	
33	323-5621	1	STRAIGHT FITTING, (includes o-ring)	
38	298-0507	1	ADAPTER, 90 DEGREES, (includes o-ring)	
39	298-0508	1	ADAPTER, 90 DEGREES, (includes o-ring)	
40	148-8408	2	PLUG, (includes o-ring)	
41	298-7374	2	WASHER, 3/8	
43	332-1989	2	CLAMP, 2-1/4 IN	
45	298-8588	1	CAP	
66	389-3530	1	FILL PIPE	
67	389-3531	1	FILL HOSE	
101	423-2609	1	SIGHT GUAGE	
102	423-2608	1	FILTER KIT, (includes filter & gasket)	
213	299-0310	1	AIR BREATHER	
232	298-1695	1	ADAPTER	
307	389-3528	1	HOSE ASSY	

Figure 9-15 Steer Select Valve

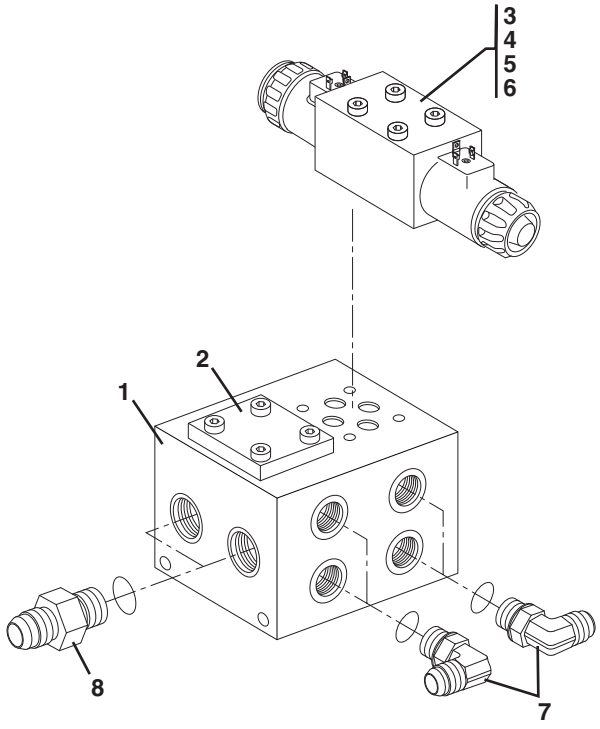

Figure 9-15 Steer Select Valve

Item	Part Number	Qty.	Description	Rev.
	298-1361	1	STEER SELECT VALVE, (includes all items)	C
1	305-2102	1	STEERING MANIFOLD	
2	305-2103	1	COVER PLATE	
3	304-2657	1	DIRECTIONAL CONTROL VALVE, (includes items 4 thru 6)	
4	303-8658	2	COIL	
5	305-5433	2	NUT	
6	303-8565	1	SEAL KIT	
7	298-1602	4	ELBOW, 90 DEGREES, (includes o-ring)	
8	303-4803	2	CONNECTOR, (includes o-ring)	

Figure 9-16 Brake Valve

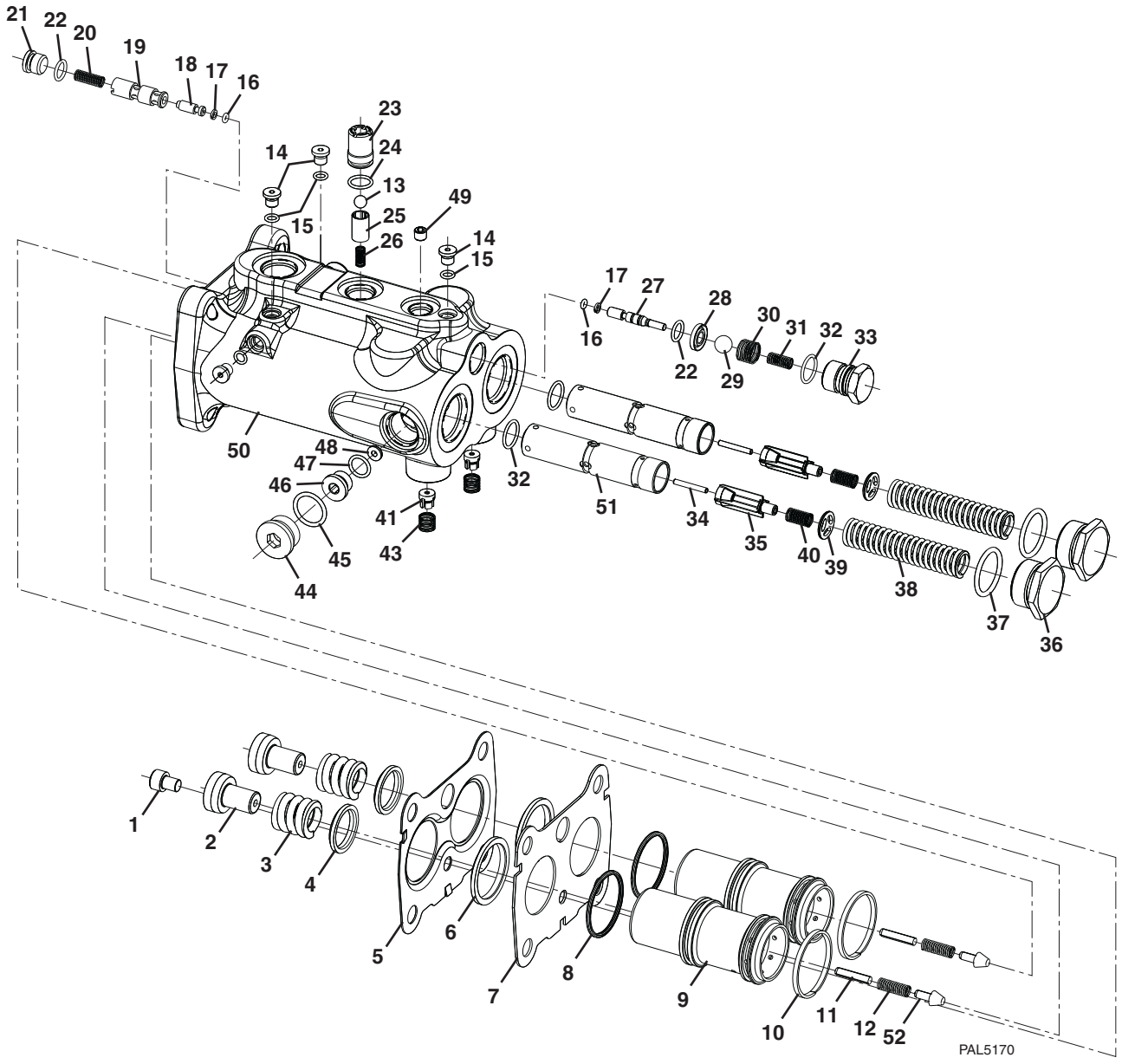

Figure 9-16 Brake Valve

Item	Part Number	Qty.	Description	Rev.
	344-0924	1	BRAKE VALVE, (includes items 1 thru 52)	A
1	304-3213	1	SCREW	
2	299-0192	2	PIN	
3	317-0601	2	SPRING	
4	299-7131	2	WIPER	
5	317-0602	1	COVER	
6	299-7130	2	WIPER	
7	317-0603	1	COVER	
8	299-0191	2	QUAD RING	
9	317-0604	2	PISTON	
10	317-0605	2	PISTON RING	
11	385-8773	2	PIN	
12	304-3211	2	SPRING	
13	298-8175	1	BALL	
14	304-3212	4	PLUG	
15	298-1796	4	O-RING	
16	298-1797	2	O-RING	
17	299-0985	2	BACKUP RING	
18	304-3214	1	DUMP PISTON	
19	304-3215	1	DUMP SPOOL	
20	317-0607	1	SPRING	
21	304-3216	1	PLUG	
22	298-8303	2	O-RING	
23	317-0608	1	INLET SEAT	
24	317-0609	1	O-RING	
25	317-0610	1	RETAINER	
26	317-0611	1	SPRING	
27	299-0194	1	PISTON	
28	299-0193	1	SEAT	
29	317-0612	1	BALL	
30	317-0613	1	SPRING	
31	317-0614	1	SPRING	
32	298-8302	3	O-RING	
33	317-0615	1	PLUG	
34	317-0616	2	NEEDLE ROLLER	
35	317-0617	2	MAKE-UP CHECK	
36	304-3209	2	PLUG	
37	298-1794	2	O-RING	
38	317-0618	2	SPRING	
39	317-0619	2	SPRING GUIDE	
40	317-0620	2	SPRING	
41	317-0621	2	ORIFICE	
43	317-0622	2	SPRING	
44	317-0623	1	PLUG	
45	317-0624	1	O-RING	
46	317-0625	1	PLUG	
47	317-0626	1	O-RING	
48	317-0627	1	ORIFICE	
49	385-8775	1	ORIFICE	

Figure 9-16 Brake Valve (Continued)

Item	Part Number	Qty.	Description	Rev.
50	NSS	1	HOUSING	
51	NSS	2	SPOOL	
52	385-8774	2	POPPET	

Figure 9-16 Brake Valve (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 9-17 Hydraulic Manifold Valve

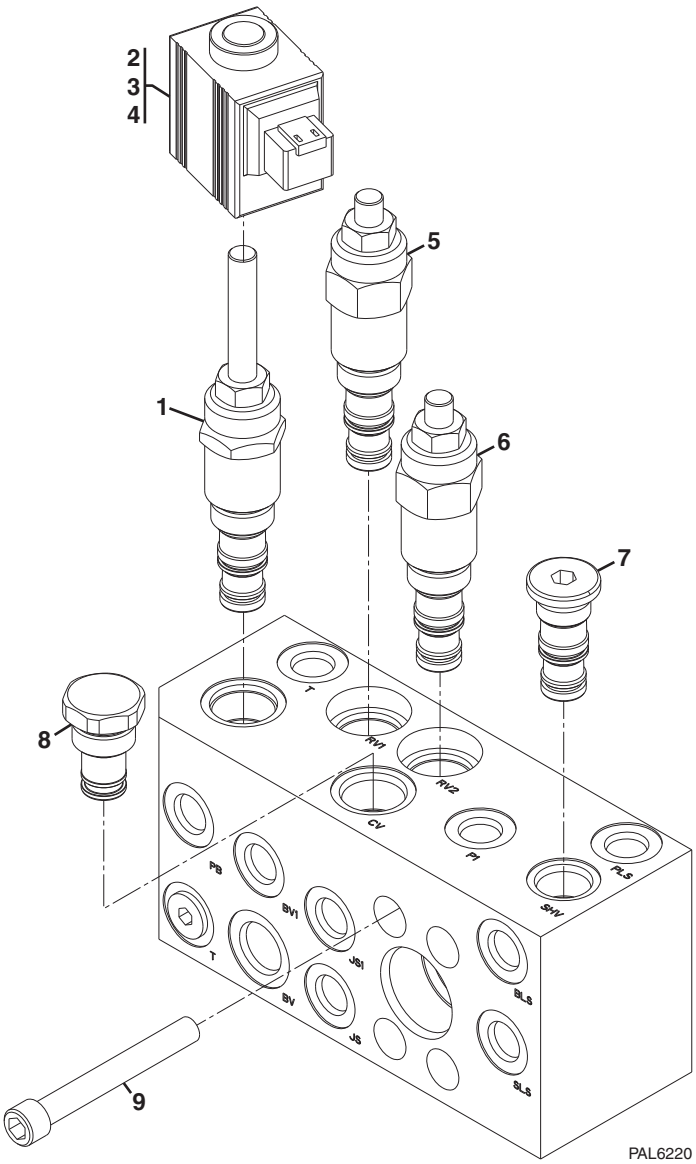

Figure 9-17 Hydraulic Manifold Valve

Item	Part Number	Qty.	Description	Rev.
	389-3436	1	HYDRAULIC MANIFOLD VALVE, (includes all items)	C
1		1	SOLENOID CARTRIDGE, (torque to 33-41 lb-ft/42-56 Nm)	
		1	SOLENOID CARTRIDGE SEAL KIT	
2	NSS	2	O-RING	
3		1	COIL, (torque to 3.5 lb-ft/4.8 Nm)	
4	NSS	1	COIL NUT	
5		1	RELIEF VALVE, (torque to 30-35 lb-ft/41-47 Nm)	
		1	RELIEF VALVE SEAL KIT	
6		1	RELIEF VALVE, (torque to 30-35 lb-ft/41-47 Nm)	
		1	RELIEF VALVE SEAL KIT	
7		1	SHUTTLE VALVE, (torque to 25-30 lb-ft/34-41 Nm)	
		1	SHUTTLE VALVE SEAL KIT	
8		1	CHECK VALVE, (torque to 30-35 lb-ft/41-47 Nm)	
		1	CHECK VALVE SEAL KIT	
9		4	SOCKET HD CAPSCREW, 3/8-16X3	

Figure 9-18 Decompression Valve

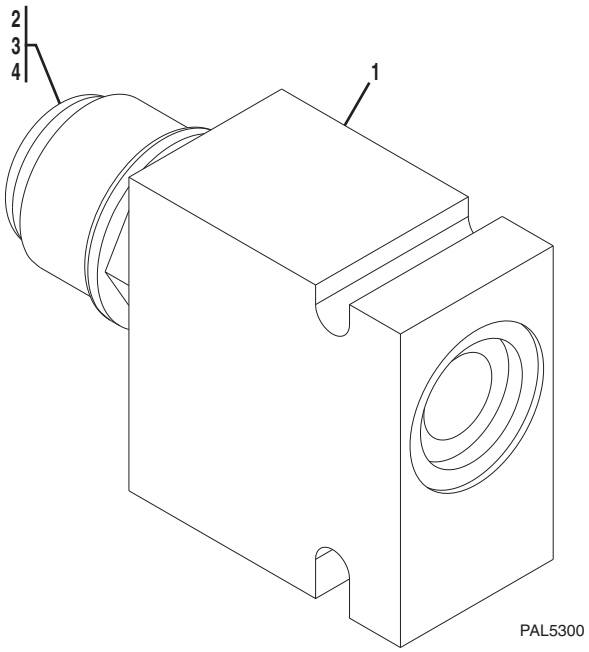

Figure 9-18 Decompression Valve

Item	Part Number	Qty.	Description	Rev.
	298-8206	1	DECOMPRESSION VALVE, (includes all items)	A
1	299-7145	1	VALVE BODY	
2	299-7146	1	VALVE, (includes items 3 & 4)	
3	299-0514	1	SEAL KIT	
4	299-7147	1	PUSH BUTTON	

Figure 9-19 Pressure Reducer Valve

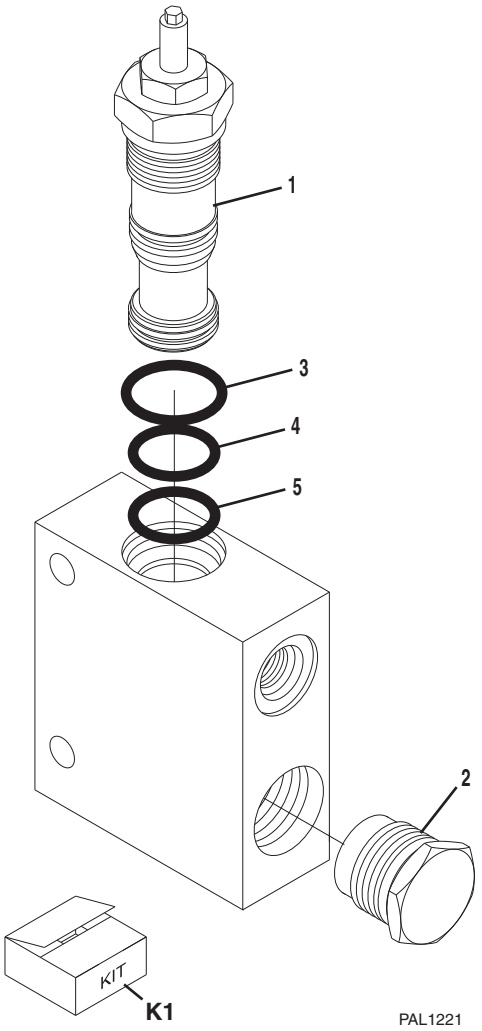

Figure 9-19 Pressure Reducer Valve

Item	Part Number	Qty.	Description	Rev.
	298-7099	1	PRESSURE REDUCER VALVE, 1360 PSI, (includes all items)	1
1	304-3189	1	PRESSURE REDUCING CARTRIDGE	
2	304-3188	1	CHECK CARTRIDGE	
3	Use Kit K1	1	O-RING	
4	Use Kit K1	1	O-RING	
5	Use Kit K1	1	O-RING	
K1	304-3187	1	SEAL KIT, (includes items 3 thru 5)	

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SECTION 10
ELECTRICAL

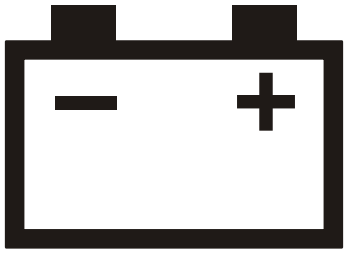


Figure 10-1 Engine Compartment Electrical Installation

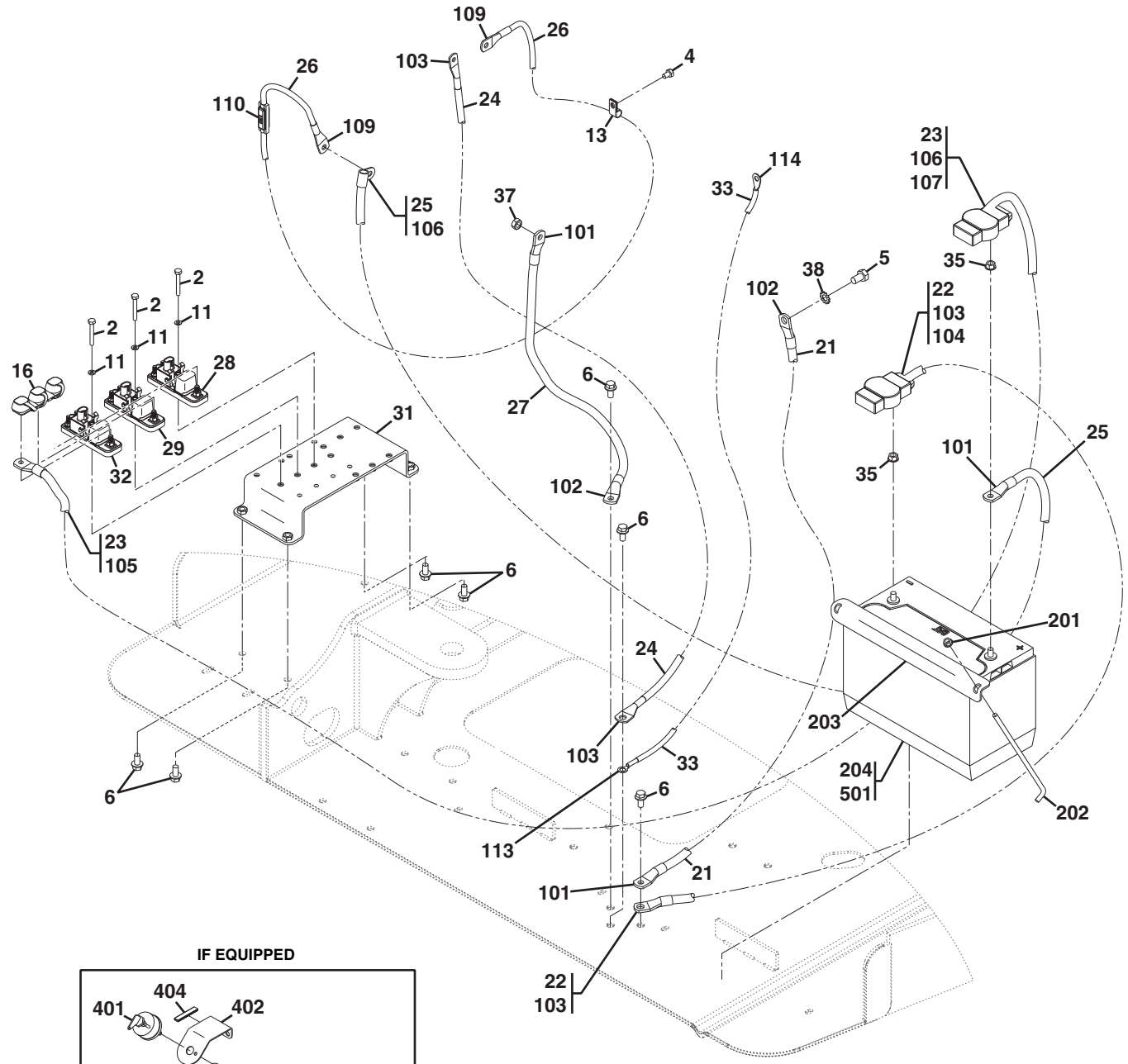


Figure 10-1 Engine Compartment Electrical Installation (Continued)

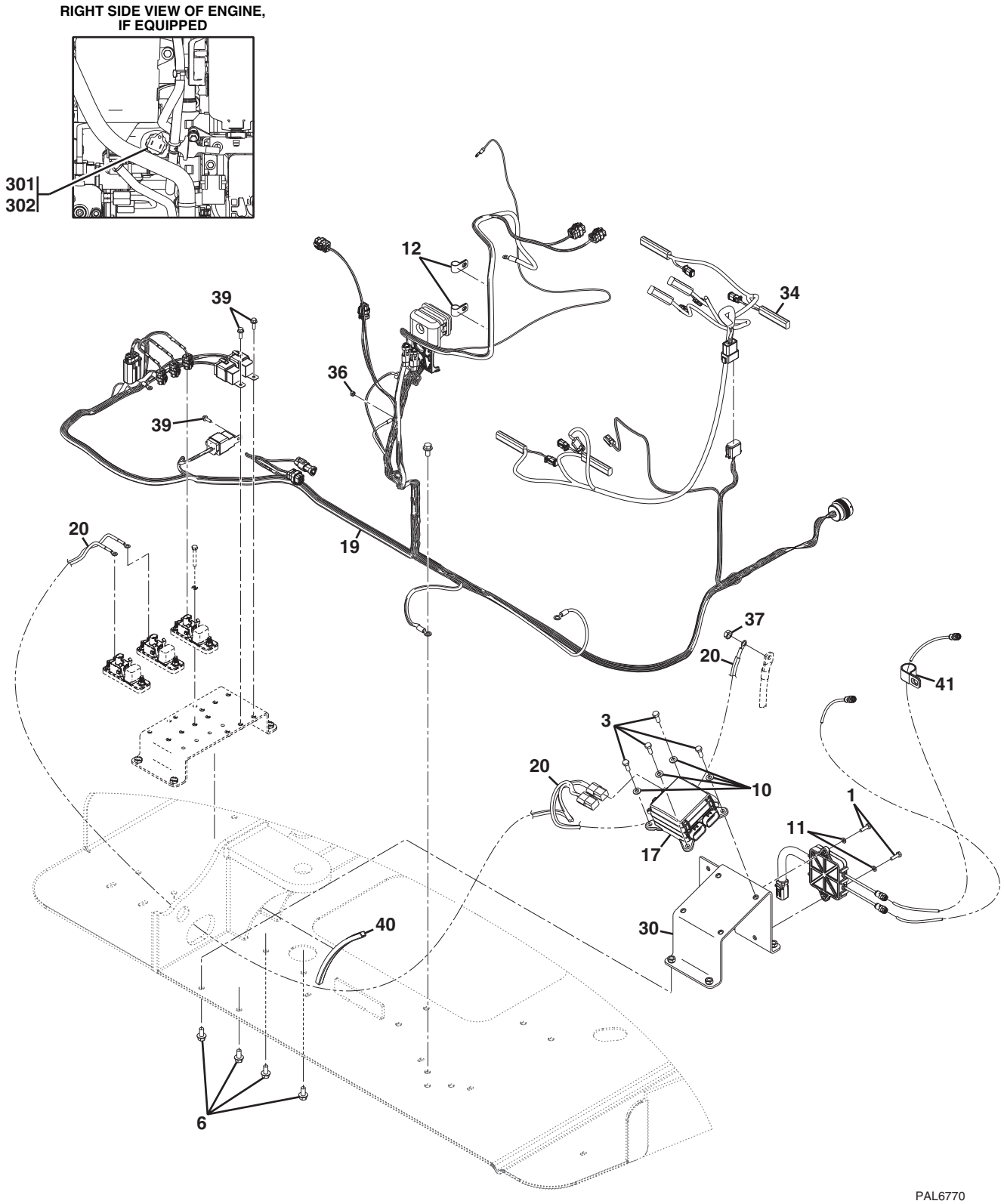


Figure 10-1 Engine Compartment Electrical Installation

Item	Part Number	Qty.	Description	Rev.
	389-3471	Ref	ENGINE COMPARTMENT ELECTRICAL INSTALLATION, (not available to order, see items 1 thru 41 for service)	G
1	303-4735	2	HEX HD CAPSCREW, 1/4-20X7/8, GR5, (torque to 96 lb-ft/130 Nm)	
2	312-3279	3	HEX HD CAPSCREW, 1/4-20X1-7/8, GR5, (torque to 96 lb-ft/130 Nm)	
3	8T-9043	4	HEX HD CAPSCREW, 5/16-18X7/8, GR5, (torque to 17 lb-ft/23 Nm)	
4	8T-4199	1	HEX HD CAPSCREW, M8X12, GR8.8, (torque to 19 lb-ft/26 Nm)	
5	8T-4179	1	HEX HD CAPSCREW, M12X20, GR8.8, (torque to 65 lb-ft/88 Nm)	
6	298-1358	11	SCREW, 3/8-16X3/4	
9	346-2986	8	TIE STRAP, (not shown)	
10	298-7364	4	WASHER, 5/16	
11	298-7378	5	LOCKWASHER, 1/4	
12		2	CLIP	
13		1	CLIP	
16	312-3330	1	INSULATOR	
17	360-0048	1	VEC CONTROL MODULE	
19		Ref	ENGINE HARNESS, (see Figure 10-8 for details)	
20		Ref	VEC HARNESS, (see Figure 10-21 for details)	
21	389-3510	1	BATTERY GROUND CABLE, (includes items 101 & 102)	B
22	389-3511	1	NEGATIVE BATTERY CABLE, (includes items 103 & 104)	F
23	389-3513	1	BATTERY-INSULATOR CABLE, (includes items 105 thru 107)	E
24	389-3514	1	STARTER GROUND CABLE, (includes item 103)	D
25	389-3515	1	BATTERY-STARTER CABLE, (includes items 101, 106 & 108)	D
26	389-3516	1	STARTER-ENGINE CABLE WITH FUSE, (includes items 109 & 110)	D
27	389-3517	1	ALTERNATOR GROUND CABLE, (includes items 111 & 112)	D
28	399-7789	1	RED POWER MODULE RELAY, (includes fuse)	
29	399-7791	1	GREEN POWER MODULE RELAY, (includes fuse)	
30	389-3526	1	BRACKET	
31	389-3527	1	BRACKET	
32	389-3540	1	YELLOW POWER MODULE RELAY, (includes fuse)	
33	389-3558	1	CAB GROUND CABLE, (includes items 113 & 114)	D
34		Ref	TRANSMISSION HARNESS, (see Figure 10-9 for details)	
35		2	HEX NUT, 3/8-16	
36	5C-2890	1	HEX NUT, M6X1	
37	8T-4133	1	HEX NUT, M10X1.5	
38		1	STAR LOCKWASHER, 12mm	
39	303-4749	3	SCREW, 1/4-20X3/4	
40		9 in	TRIM	
41	392-5185	1	CLIP	
101		1	3/8 IN TERMINAL RING	
102		1	1/2 IN TERMINAL RING	
103		2	3/8 IN TERMINAL RING	
104		1	BOOT	
105		1	5/16 IN TERMINAL RING	
106	389-3584	1	3/8 IN TERMINAL RING	
107		1	BOOT	
108	NSS	1	BOOT, (not shown)	
109		2	3/8 IN TERMINAL RING	
110	389-3624	1	150 AMP FUSE	
111		1	3/8 IN TERMINAL RING	

Figure 10-1 Engine Compartment Electrical Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
112		1	1/2 IN TERMINAL RING	
113		1	3/8 IN TERMINAL RING	
114		1	5/16 IN TERMINAL RING	
	416-8112	Ref	SINGLE BATTERY INSTALLATION, (not available to order, see items 201 thru 204 for service)	A
201	298-0553	2	HEX NUT, 5/16-18	
202	298-6850	2	HOLD DOWN BOLT	
203	298-6925	1	BRACKET	
204	175-4390	1	12V CAT BATTERY	
301	384-2284	1	BLOCK HEATER	
302		AR	LOCTITE® 30512™	
	389-3521	Ref	BATTERY DISCONNECT INSTALLATION, (not available to order, see items 401 thru 404 for service)	C
401	295-3466	1	SWITCH, (includes items 451 thru 455)	A
402	389-3495	1	BRACKET	
403	389-3512	1	DISCONNECT SWITCH GROUND CABLE, (includes item 456)	A
404		3 in	TRIM	
451	2H-3922	2	LOCKWASHER	
452	8H-5303	1	NUT	
453	9F-5644	2	LOCKWASHER	
454	6F-7045	2	NUT	
455	8H-5306	1	BATTERY DISCONNECT KEY	
456		2	3/8 IN TERMINAL RING	
501		Ref	ARCTIC KIT & DUAL BATTERY INSTALLATION, (see Figure 10-2 for details)	

Figure 10-1 Engine Compartment Electrical Installation

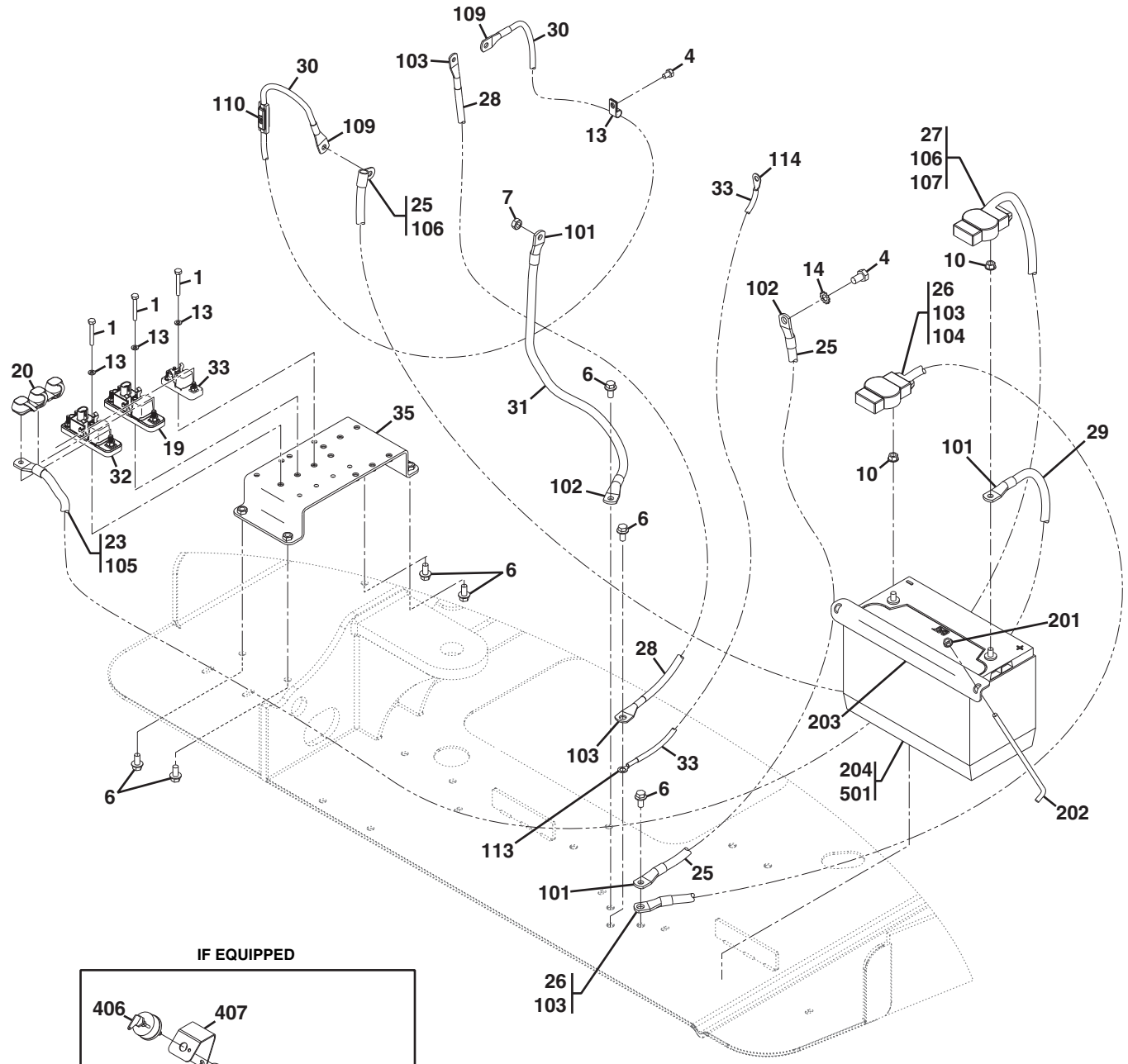


Figure 10-1 Engine Compartment Electrical Installation (Continued)

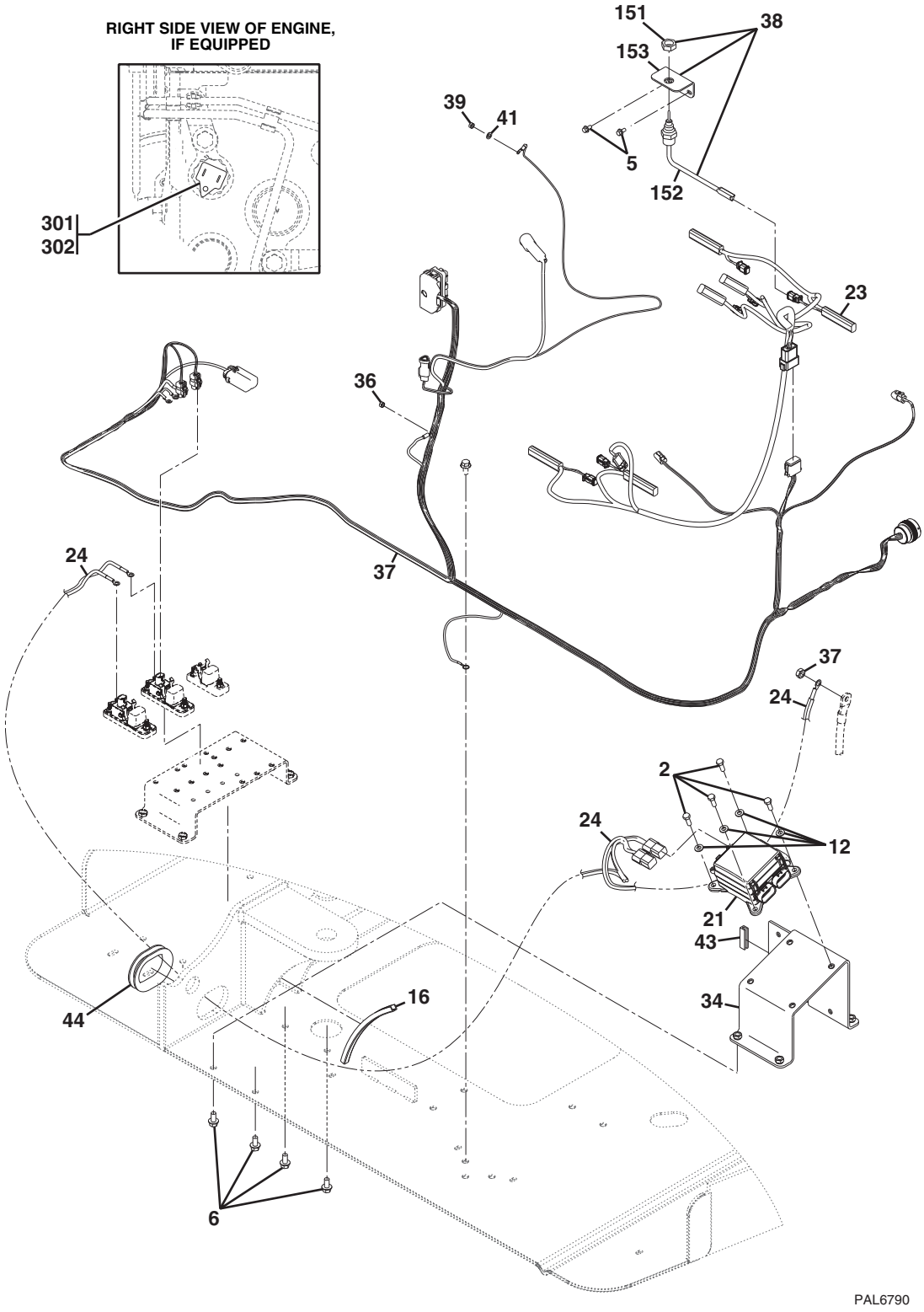


Figure 10-1 Engine Compartment Electrical Installation

Item	Part Number	Qty.	Description	Rev.
	389-3595	Ref	ENGINE COMPARTMENT ELECTRICAL INSTALLATION, (not available to order, see items 1 thru 44 for service)	E
1	312-3279	3	HEX HD CAPSCREW, 1/4-20X1-7/8, GR5, (torque to 96 lb-ft/130 Nm)	
2	8T-9043	4	HEX HD CAPSCREW, 5/16-18X7/8, GR5, (torque to 17 lb-ft/23 Nm)	
4	8T-4139	1	HEX HD CAPSCREW, M12X30, GR8.8, (torque to 65 lb-ft/88 Nm)	
5		2	SCREW, 1/4-20X1/2	
6	298-1358	11	SCREW, 3/8-16X3/4	
7	5C-2890	2	HEX NUT, M6X1	
8	8T-4133	1	HEX NUT, M10X1.5	
10		2	HEX NUT, 3/8-16	
11	346-2986	4	TIE STRAP, (not shown)	
12	298-7364	4	WASHER, 5/16	
13	298-7378	3	LOCKWASHER, 1/4	
14		1	STAR LOCKWASHER, 12mm	
16		9 in	TRIM	
19	312-3294	1	GREEN POWER MODULE RELAY, (includes fuse)	
20	312-3330	1	INSULATOR	
21	360-0048	1	VEC CONTROL MODULE	
23		Ref	TRANSMISSION HARNESS, (see Figure 10-9 for details)	
24		Ref	VEC HARNESS, (see Figure 10-21 for details)	
25	389-3510	1	BATTERY GROUND CABLE, (includes items 101 & 102)	B
26	389-3511	1	NEGATIVE BATTERY CABLE, (includes items 103 & 104)	
27	389-3513	1	BATTERY-INSULATOR CABLE, (includes items 105 thru 107)	
28	389-3514	1	STARTER GROUND CABLE, (includes item 103)	
29	389-3515	1	BATTERY-STARTER CABLE, (includes items 101, 106 & 108)	
30	389-3516	1	STARTER-ENGINE CABLE WITH FUSE, (includes items 109 & 110)	
31	389-3517	1	ALTERNATOR GROUND CABLE, (includes items 111 & 112)	
32	399-7792	1	RED POWER MODULE RELAY, (includes fuse)	
33	398-1982	1	POWER MODULE RELAY, (includes fuse)	
34	389-3526	1	BRACKET	
35	389-3527	1	BRACKET	
36	389-3558	1	CAB GROUND CABLE, (includes items 113 & 114)	D
37		Ref	ENGINE HARNESS, (see Figure 10-8 for details)	
38	389-3646	1	TEMPERATURE SENSOR ASSY, (includes items 151 thru 153)	A
39	303-4777	1	HEX NUT, M5X.8	
40	303-4787	1	LOCKWASHER, 6mm	
41		1	LOCKWASHER, 5mm	
42		1	STAR LOCKWASHER, 6mm	
43	299-0369	2 in	TRIM	
44		10 in	TRIM	
101		1	3/8 IN TERMINAL RING	
102		1	1/2 IN TERMINAL RING	
103		2	3/8 IN TERMINAL RING	
104		1	BOOT	
105		1	5/16 IN TERMINAL RING	
106	389-3584	1	3/8 IN TERMINAL RING	
107		1	BOOT	
108	NSS	1	BOOT, (not shown)	
109		2	3/8 IN TERMINAL RING	

Figure 10-1 Engine Compartment Electrical Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
110	389-3624	1	150 AMP FUSE	
111		1	3/8 IN TERMINAL RING	
112		1	1/2 IN TERMINAL RING	
113		1	3/8 IN TERMINAL RING	
114		1	5/16 IN TERMINAL RING	
151	310-9978	1	HEX NUT, 3/4-16	
152	310-9977	1	TEMPERATURE SENSOR	
153	389-3645	1	BRACKET	
	416-8112	Ref	SINGLE BATTERY INSTALLATION, (not available to order, see items 201 thru 204 for service)	A
201	298-0553	2	HEX NUT, 5/16-18	
202	298-6850	2	HOLD DOWN BOLT	
203	298-6925	1	BRACKET	
204	175-4390	1	12V CAT BATTERY	
301	384-2284	1	BLOCK HEATER	
302		AR	LOCTITE® 30512™	
	389-3615	Ref	BATTERY DISCONNECT INSTALLATION, (not available to order, see items 401 thru 408 for service)	C
401	8T-4956	2	HEX HD CAPSCREW, M12X35, GR8.8, (torque to 65 lb-ft/88 Nm)	
405	8T-4223	2	WASHER, 12mm	
406	295-3466	1	SWITCH, (includes items 451 thru 455)	A
407	389-3616	1	BRACKET	
408	389-3512	1	DISCONNECT SWITCH GROUND CABLE, (includes item 456)	A
451	2H-3922	2	LOCKWASHER	
452	8H-5303	1	NUT	
453	9F-5644	2	LOCKWASHER	
454	6F-7045	2	NUT	
455	8H-5306	1	BATTERY DISCONNECT KEY	
456		2	3/8 IN TERMINAL RING	
501		Ref	ARCTIC KIT & DUAL BATTERY INSTALLATION, (see Figure 10-2 for details)	

Figure 10-2 Arctic Kit

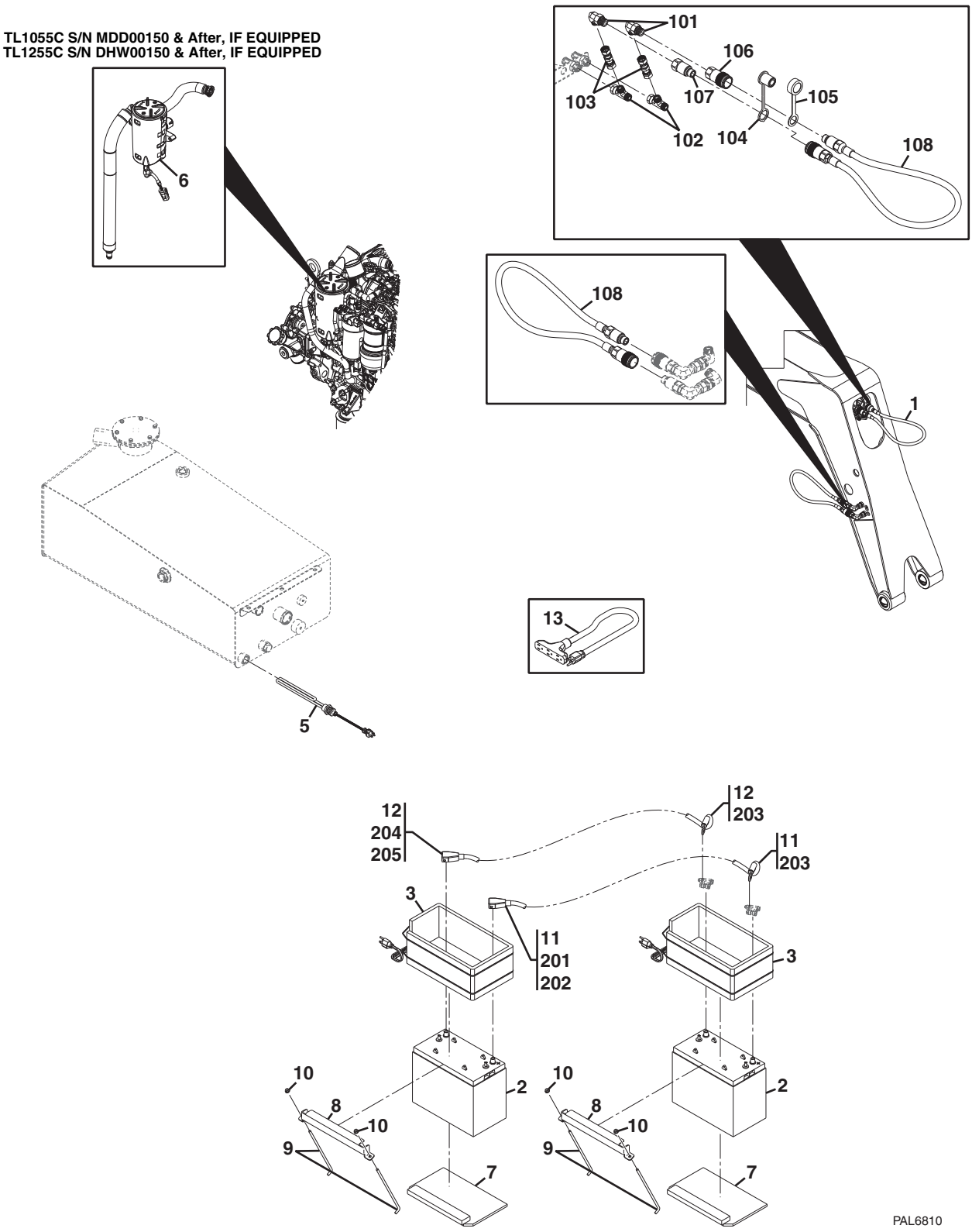


Figure 10-2 Arctic Kit

Item	Part Number	Qty.	Description	Rev.
	389-3496	Ref	ARCTIC KIT, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, **(if equipped)**, (not available to order, see items 1 thru 13 for service)	C
	416-8114	Ref	ARCTIC KIT, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**, **(if equipped)**, (not available to order, see items 1 thru 5 & 7 thru 13 for service)	C
1	389-3589	Ref	ARCTIC RECIRCULATION INSTALLATION, (not available to order, see items 101 thru 108 for service)	A
2	331-4656	2	12V BATTERY	
3	311-0679	2	BATTERY HEATER	
4		1	OIL PAN HEATER, (not shown)	
5		1	HYDRAULIC IMMERSION HEATER	
6	381-6286	1	INSULATED FILTER HEATER, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**	
7		2	BATTERY BASE INSULATION	
8	416-8113	2	BRACKET	
9	298-6850	4	HOLD DOWN BOLT	
10	298-0553	4	HEX NUT, 5/16-18	
11	416-6934	1	BATTERY GROUND CABLE, (includes items 201 thru 203)	B
12	359-9986	1	BATTERY NEGATIVE CABLE, (includes items 203 thru 205)	B
13		2	3-WAY EXTENSION CORD	
101	298-0475	2	ADAPTER, 90 DEGREES, (includes o-ring)	
102	298-0497	2	TEE FITTING, (includes o-ring)	
103	331-4672	2	ADAPTER, (includes o-ring)	
104	300-6103	1	DUST CAP	
105	300-6084	1	DUST PLUG	
106	300-6078	1	FEMALE QUICK DISCONNECT	
107	300-6079	1	MALE QUICK DISCONNECT	
108	331-4658	2	HOSE ASSY	
201		1	BATTERY TERMINAL, (includes item 202 & bolt)	
202		1	BOOT	
203		1	TERMINAL RING	
204		1	BATTERY TERMINAL, (includes item 205 & bolt)	
205	NSS	1	BOOT	

Figure 10-3 Boom and Frame Electrical Installation

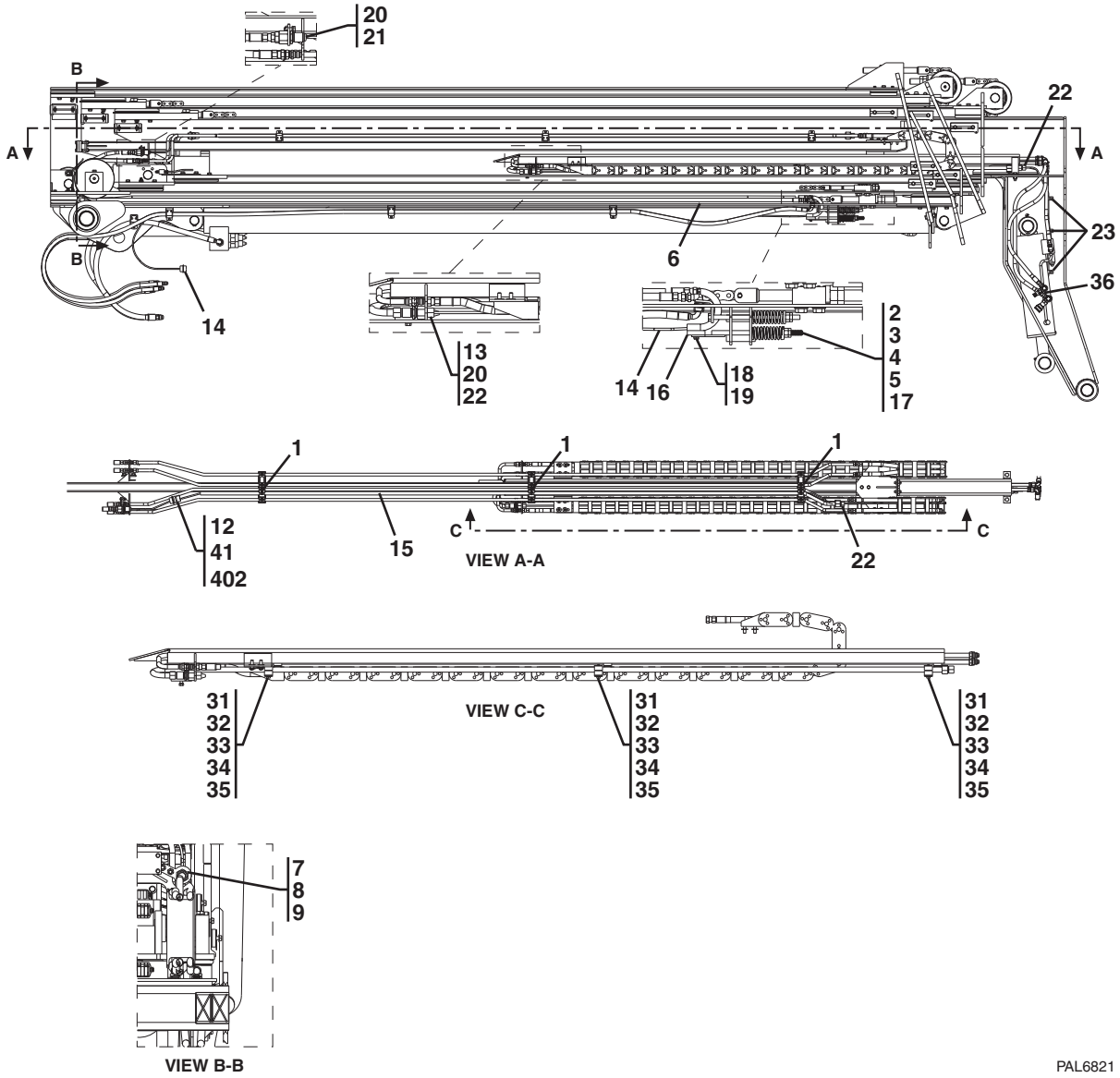


Figure 10-3 Boom and Frame Electrical Installation (Continued)

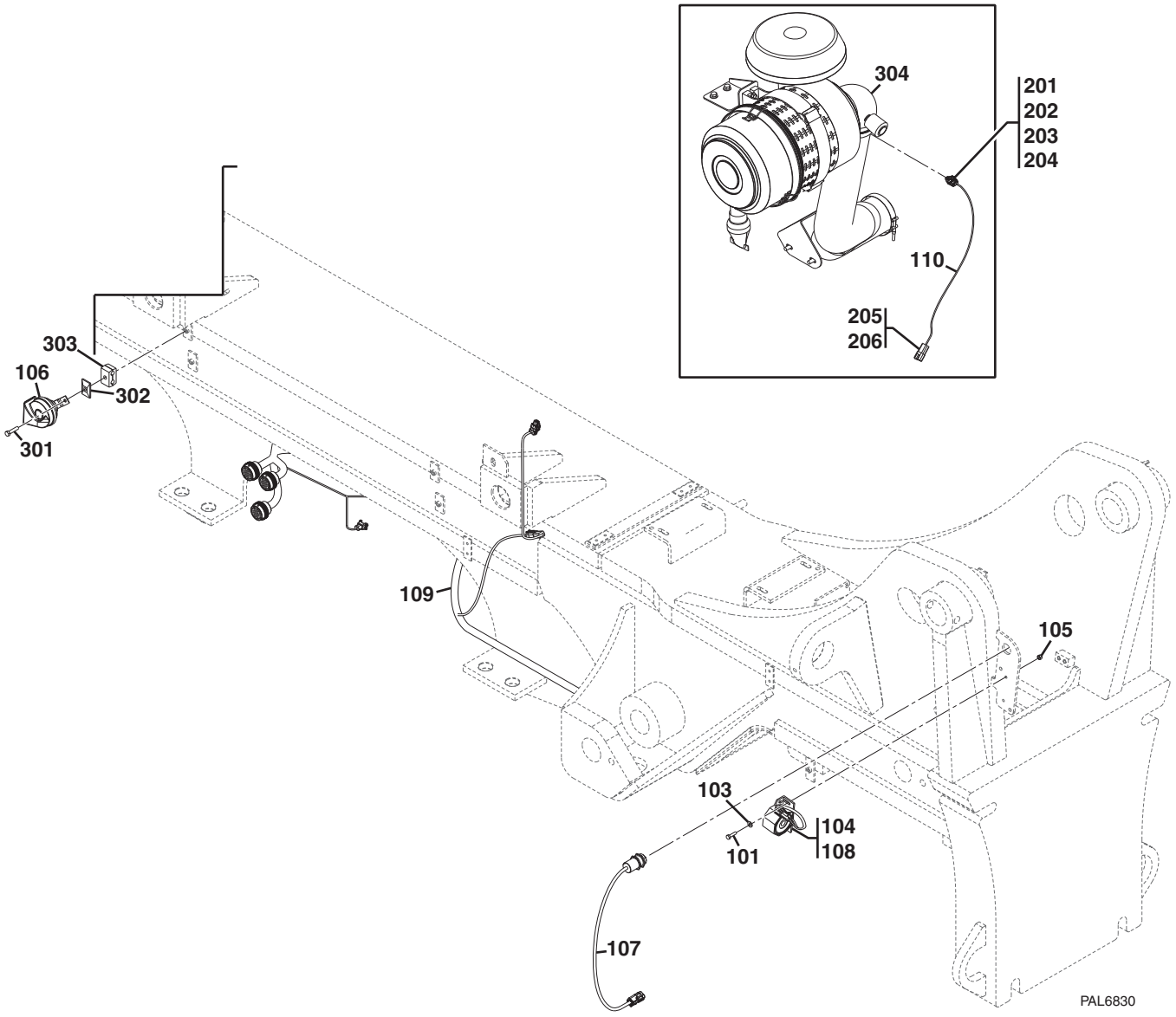


Figure 10-3 Boom and Frame Electrical Installation

Item	Part Number	Qty.	Description	Rev.
	299-1316	Ref	BOOM AUXILIARY ELECTRICAL INTALLATION, (not available to order, see items 1 thru 36 for service)	F,9
1		3	CUSHION CLAMP	
2	298-6859	1	COMPRESSION SPRING	
3	298-6856	1	SPRING RETAINER	
4	298-0557	1	HEX NUT, 1/2-13	
5	298-0558	1	HEX NUT, 1/2-13	
7	300-6112	1	PLATE	
8	297-7031	2	HEX HD CAPSCREW, 3/8-16X1, GR5, (torque to 30 lb-ft/41 Nm)	
9	298-7380	2	LOCKWASHER, 0.38	
12	389-2746	1	AUXILIARY ELECTRIC BOOM HARNESS, (includes items 401 & 402)	
13	298-6893	1	TUBE ASSY	
14	298-6914	1	AUX BOOM WIRE HARNESS	
15	298-6913	1	TUBE ASSY	
16	299-0399	1	HOSE TAKE-UP WELDMENT	
17	299-0384	1	CABLE TAKE-UP WELDMENT	
18	297-7015	2	HEX HD CAPSCREW, 5/16-18X5/8, GR5, (torque to 17 lb-ft/23 Nm)	
19	298-7379	2	LOCKWASHER, 5/16	
20	298-1695	2	ADAPTER, (includes o-ring)	
21	323-6653	1	ADAPTER, (includes o-ring)	
22	299-0386	3	CORD CONNECTOR	
23	298-7305	3	TIE STRAP	
31	298-7436	3	TUBE CLAMP, 3/4	
32	298-7836	3	STACK BOLT	
33	297-7021	3	HEX HD CAPSCREW, 5/16-18X1-3/4, GR5, (torque to 17 lb-ft/23 Nm)	
34	299-0949	3	COVER PLATE	
35	298-7837	3	SAFETY CLIP	
36	298-0434	1	Q.C. VALVE HARNESS	
	416-2450	Ref	FRAME ELECTRICAL INSTALLATION, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, (not available to order, see items 101 thru 110 for service)	B
	389-3524	Ref	FRAME ELECTRICAL INSTALLATION, **(TL1055C S/N MDD00150 & After, TL1255C S/N SXM00150 & After)**, (not available to order, see items 101 thru 109 for service)	F
101	297-7012	2	HEX HD CAPSCREW, 1/4-20X1	
102		7	TIE STRAP, (not shown)	
103	298-7363	2	WASHER, 1/4	
104	298-7293	1	BACK-UP ALARM	
105	298-7900	2	HEX LOCKNUT, 1/4-20	
106		1	HORN	
107	299-1353	1	PROXIMITY SENSOR,	
108	367-4967	1	MOLDED RESISTOR	
109		Ref	FRAME HARNESS, (see Figure 10-10 for details)	
110	392-5125	1	AIR TEMPERATURE HARNESS, **(TL1055C S/N KDE00150 & After, TL1255C S/N DHW00150 & After)**, (includes items 201 thru 20X)	A
201	323-7237	1	CONNECTOR	
202		1	WEDGE LOCK	
203	303-4969	2	TERMINAL	
204		2	PLUG	

Figure 10-3 Boom and Frame Electrical Installation (Continued)

Item	Part Number	Qty.	Description	Rev.
205	230-4011	1	CONNECTOR	
206	303-4970	2	TERMINAL	
301		Ref	HEX HD CAPSCREW, 5/16-18X1-3/8, (see Figure 8-14 for details)	
302		Ref	COVER PLATE, (see Figure 8-14 for details)	
303		Ref	CLAMP SET, (see Figure 8-14 for details)	
304		Ref	AIR CLEANER INSTALLATION, (see Figure 4-5 for details)	
401	298-7271	1	CONNECTOR	
402		1	STRAIN RELIEF	

Figure 10-4 Cab Electrical Installation

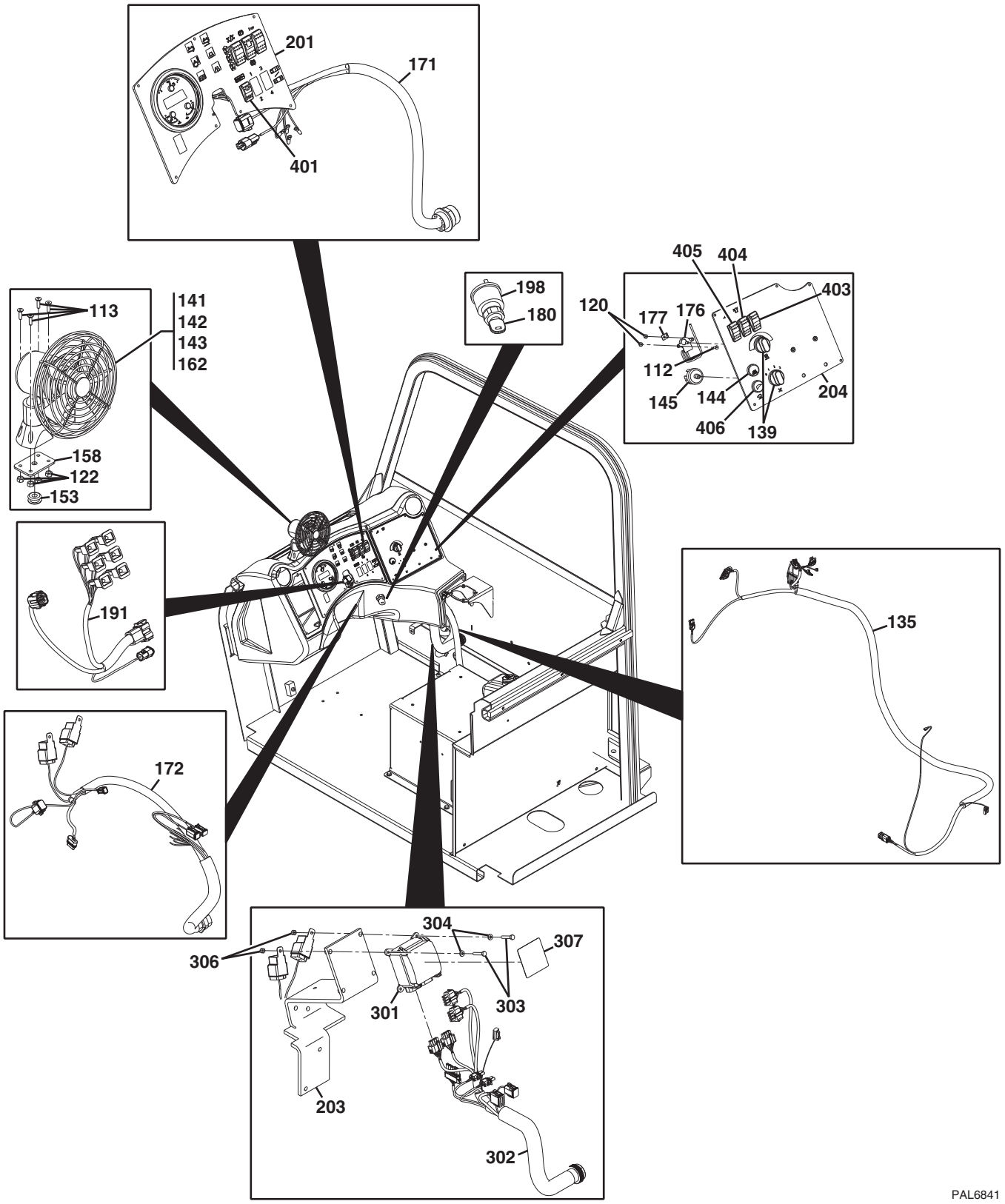


Figure 10-4 Cab Electrical Installation

Item	Part Number	Qty.	Description	Rev.
112	297-7099	4	FLAT HD CAPSCREW, #6-32X.62, **(if equipped)**	
113	297-7100	4	FLAT HD CAPSCREW, #10-24X3/4, **(ENCLOSED CAB)**	
120	298-0544	2	HEX NUT, #6-32, GR2, **(if equipped)**	
122	298-0547	4	HEX LOCKNUT, #10-24, GR2, **(ENCLOSED CAB)**	
135		Ref	ENCLOSED CAB OPTIONS HARNESS, **(if equipped)**, (see Figure 10-13 for details)	
139		Ref	KNOB, (see Figure 10-5 for details)	
141	299-0341	1	WEATHERPACK SHROUD, **(ENCLOSED CAB)**	
142	299-0346	2	WEATHERPACK SEAL, **(ENCLOSED CAB)**	
143	298-7282	2	MALE WEATHERPACK PIN, **(ENCLOSED CAB)**	
144		Ref	WIPER SWITCH, (see Figure 10-5 for details)	
145		Ref	BLOWER SWITCH, (see Figure 10-5 for details)	
153	298-6843	1	GROMMET, **(ENCLOSED CAB)**	
158	298-7013	1	PLATE, **(ENCLOSED CAB)**	
162	298-8590	1	FAN, **(ENCLOSED CAB)**	
171		Ref	DASH HARNESS, (see Figure 10-14 for details)	
172		Ref	TRANSMISSION RELAY HARNESS, (see Figure 10-12 for details)	
176		Ref	POTENTIOMETER ASSY, (see Figure 10-5 for details)	
177	298-7319	1	CLIP, **(if equipped)**	
180	5P-8500	1	KEY	
191		Ref	DASH INSTRUMENT PANEL HARNESS, (see Figure 10-15 for details)	
198	333-2415	1	IGNITION SWITCH	
201		Ref	INSTRUMENT PANEL, (see Figure 10-5 for details)	
203		Ref	BRACKET, (see Figure 7-2 for details)	
204		Ref	RH DASH PANEL, (see Figure 6-1 for details)	
	305-3772	Ref	CAB ELECTRICAL INSTALLATION, (not available to order, see items 301 thru 307 for service)	E
301	375-3920	1	VEC OPTIONS BOX	
302		Ref	VEC OPTIONS HARNESS, (see Figure 10-8 for details)	
303	297-7013	4	HEX HD CAPSCREW, 1/4-20X1-1/2, GR5, (torque to 96 lb-ft/130 Nm)	
304	298-7371	4	WASHER, 1/2	
305	300-6101	2	TIE WRAP, (not shown)	
306	298-0548	4	HEX NUT, 1/4-20	
307		Ref	PRESSURE WASH DECAL, (see Figure 11-1 for details)	
401		Ref	QUICK COUPLER SWITCH, (see Figure 10-5 for details)	
403		Ref	HAZARD SWITCH, (see Figure 10-5 for details)	
404		Ref	BEACON LIGHT SWITCH, (see Figure 10-5 for details)	
405		Ref	WORK LIGHT SWITCH, (see Figure 10-5 for details)	
406		Ref	TILT RHESTAT, (see Figure 10-5 for details)	

Figure 10-5 Cab Switches

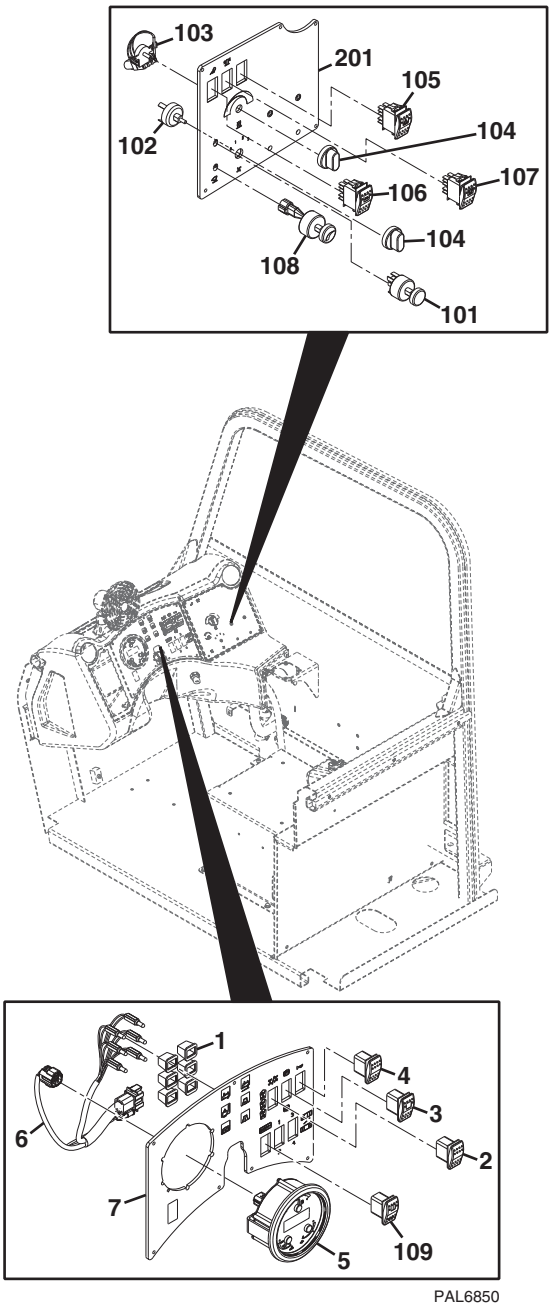


Figure 10-5 Cab Switches

Item	Part Number	Qty.	Description	Rev.
	333-1338	1	INSTRUMENT PANEL, (includes items 1 thru 7)	N
1	NSS	6	BULB HOUSING	
2	298-8147	1	STEER SELECT SWITCH	
3	303-8662	1	PARK BRAKE SWITCH	
4	304-2613	1	HORN SWITCH	
5	334-0787	1	3-IN-1 GAUGE	
6		Ref	INSTRUMENT PANEL HARNESS, (see Figure 10-15 for details)	
7	334-0788	1	DASH PANEL	
101	298-7283	1	WIPER SWITCH, **(ENCLOSED CAB)**	
102	298-7285	1	BLOWER SWITCH, **(if equipped)**	
103	299-1352	1	POTENTIOMETER ASSY, **(if equipped)**	
104	299-6646	2	KNOB, **(if equipped)**	
105	304-2594	1	HAZARD SWITCH, **(if equipped)**	
106	304-4551	1	WORK LIGHT SWITCH, **(if equipped)**	
107	304-4552	1	BEACON LIGHT SWITCH, **(if equipped)**	
108	334-9480	1	TILT RHEOSTAT SWITCH	
109	298-7221	1	HYDRAULIC QUICK COUPLER SWITCH, **(if equipped)**	
201		Ref	RH PANEL, (see Figure 6-1 for details)	

Figure 10-6 Work Lights

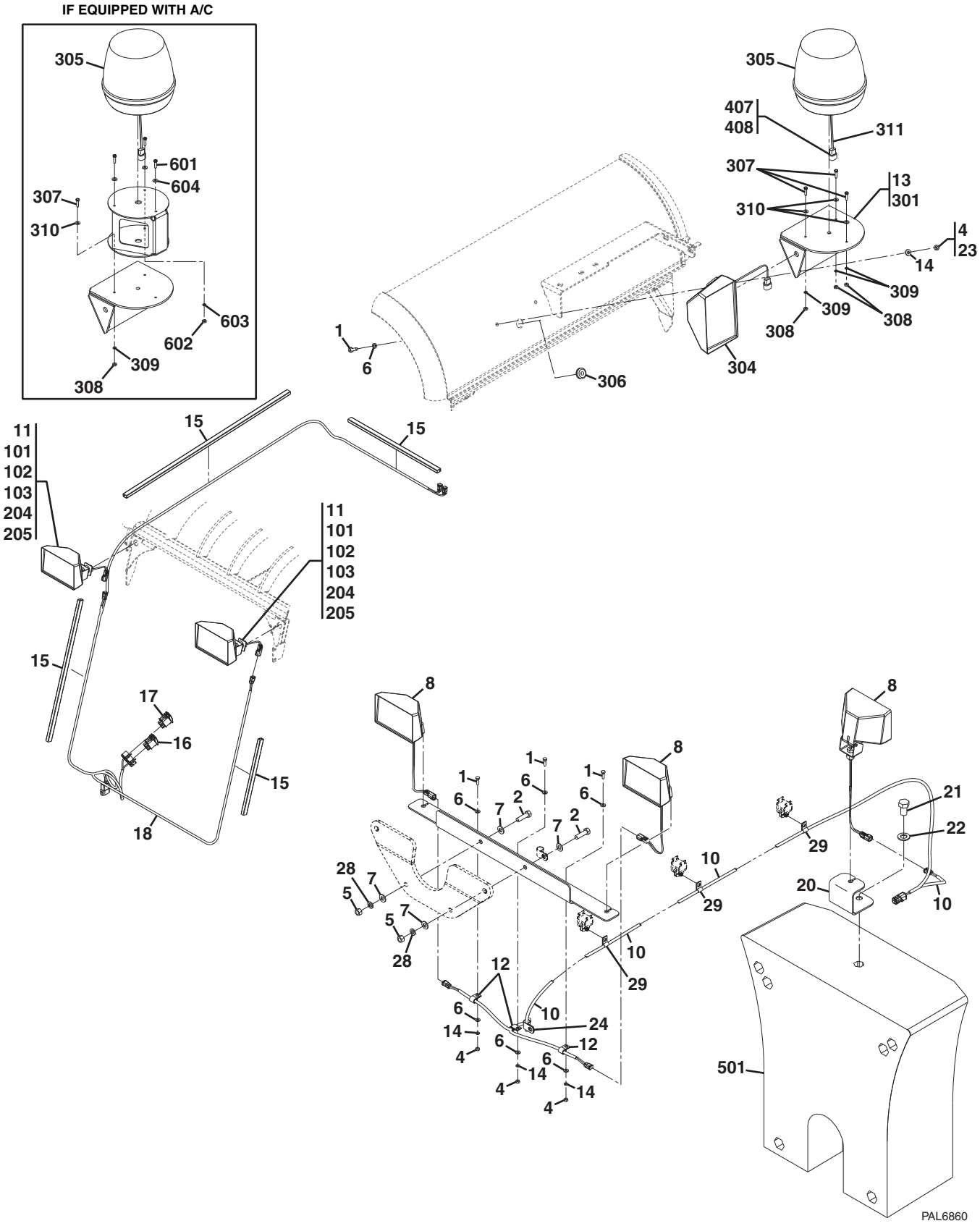


Figure 10-6 Work Lights

Item	Part Number	Qty.	Description	Rev.
	375-3905	Ref	WORK LIGHT WITH BEACON INSTALLATION, **(if equipped)**, (not available to order, see items 1 thru 29 for service)	B,B
	375-3909	Ref	BEACON LIGHT INSTALLATION, **(if equipped)**, (not available to order, see items 1, 4, 6, 14, 15, 17, 18, 23, 301, 306 thru 310, 407 & 408 for service)	3,A
1	303-4735	5	HEX HD CAPSCREW, 1/4-20X7/8, GR5, (torque to 96 lb-ft/130 Nm), **(WORK LIGHT WITH BEACON INSTALLATION)**	
	303-4735	2	HEX HD CAPSCREW, 1/4-20X7/8, GR5, (torque to 96 lb-ft/130 Nm), **(BEACON LIGHT INSTALLATION)**	
2	08T-8919	2	HEX HD CAPSCREW, 1/2-13X2-3/4, GR5, (torque to 75 lb-ft/102 Nm)	
3	304-2569	1	BRACKET	
4	298-0548	5	HEX NUT, 1/4-20, GR2, **(WORK LIGHT WITH BEACON INSTALLATION)**	
	298-0548	2	HEX NUT, 1/4-20, GR2, **(BEACON LIGHT INSTALLATION)**	
5	298-0557	2	HEX NUT, 1/2-13, GR2	
6	298-7363	8	WASHER, 1/4, **(WORK LIGHT WITH BEACON INSTALLATION)**	
	298-7363	2	WASHER, 1/4, **(BEACON LIGHT INSTALLATION)**	
7	298-7367	8	WASHER, 1/2	
8	315-2027	3	LIGHT ASSY, (includes items 101 thru 103)	B
10		Ref	BOOM WORK LIGHT HARNESS, (see Figure 10-17 for details)	
11	303-4924	2	LIGHT ASSY, (includes items 101 thru 103, 204 & 205)	B
12		3	3/8 IN CLAMP	
13	303-4925	Ref	BEACON/WORK LIGHT INSTALLATION, (not available to order, see items 301 thru 311 for service)	D
14	298-7378	5	LOCKWASHER, 1/4, **(WORK LIGHT WITH BEACON INSTALLATION)**	
	298-7378	2	LOCKWASHER, 1/4, **(BEACON LIGHT INSTALLATION)**	
15	298-7281	7.3 ft	CONDUIT, **(WORK LIGHT WITH BEACON INSTALLATION)**	
	298-7281	6 ft	CONDUIT, **(BEACON LIGHT INSTALLATION)**	
16		Ref	HAZARD SWITCH, (see Figure 10-5 for details)	
17		Ref	BEACON SWITCH, (see Figure 10-5 for details)	
18		Ref	CAB WORK LIGHT HARNESS, (see Figure 10-19 for details)	
20	303-4923	1	BRACKET	
21	297-7052	1	HEX HD CAPSCREW, 3/4-10X1-1/4, GR5	
22	298-7369	1	WASHER, 3/4	
23		AR	SILICONE SEALANT	
24	317-5987	1	3/4 IN CLAMP	
28	298-7382	2	LOCKWASHER, 1/2	
29		3	3/8 IN CLAMP	
101	323-7236	1	CONNECTOR	
	334-4128	1	WEDGE LOCK	
102	303-4969	2	TERMINAL	
103	299-0338	1	LIGHT, (includes hardware)	
	299-0849	1	BULB	
204	298-1755	1	SPACER	
205	298-1773	1	BOLT	
301	304-2571	1	BRACKET	
302	323-7236	2	CONNECTOR	
	334-4128	2	WEDGE LOCK	
303	303-4969	2	TERMINAL	
304	320-8435	1	LIGHT ASSY, (includes item 351 & hardware)	
	299-0849	1	BULB	

Figure 10-6 Work Lights (Continued)

Item	Part Number	Qty.	Description	Rev.
305	299-0398	1	BEACON LIGHT	
	298-6910	1	BULB	
306	303-4927	1	GROMMET	
307	332-1348	3	SCREW, #10-24X3/4	
308	298-0546	3	HEX NUT, 10-24, GR2	
309	5W-8686	3	WASHER, #10	
310	298-7377	3	LOCKWASHER, #10	
311		2.3 ft	INSULATION	
407	303-4971	2	TERMINAL, **(BEACON LIGHT INSTALLATION)**	
408	303-4972	1	CONNECTOR, **(BEACON LIGHT INSTALLATION)**	
	NSS	1	WEDGE LOCK, **(BEACON LIGHT INSTALLATION)**	
501		Ref	COUNTERWEIGHT, (see Figure 1-1 for details)	
	323-0971	Ref	BEACON LIGHT MOUNTING INSTALLATION, **(if equipped with A/C)**, (not available to order, see items 601 thru 605 for service)	A
601	332-1348	3	SCREW, #10-24X3/4	
602	298-0546	3	HEX NUT, 10-24, GR2	
603	5W-8686	3	WASHER, #10	
604	298-7377	3	LOCKWASHER, #10	
605	323-0972	1	BRACKET	

Figure 10-6 Work Lights (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 10-7 Drive Lights

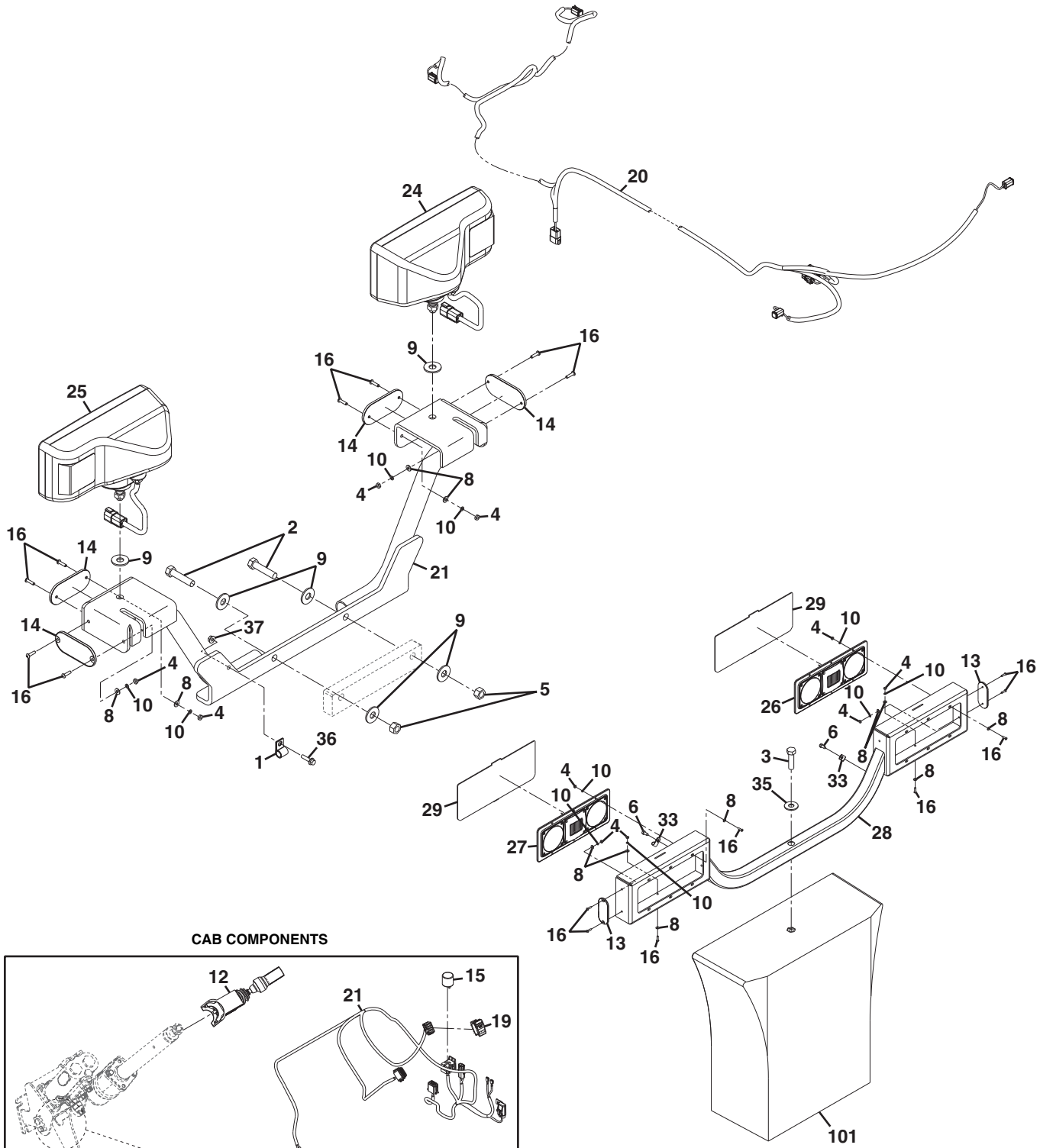


Figure 10-7 Drive Lights

Item	Part Number	Qty.	Description	Rev.
	305-3790	Ref	DRIVE LIGHT INSTALLATION, **(if equipped)**, (not available to order, see items 1 thru 37 for service)	4,A
1	298-7971	1	1/2 IN CLAMP	
2	297-7044	2	HEX HD CAPSCREW, 1/2-13X2-1/4, GR5	
3		1	HEX HD CAPSCREW, 3/4-10X2-3/4, GR5	
4	298-0546	26	HEX NUT, #10-24, GR2	
5	298-0559	2	HEX LOCKNUT, 1/2-13, GR2	
6		2	SCREW, 5/16X3/4	
7	303-4973	1	CONNECTOR, (not shown)	
8	298-7362	28	WASHER, #10	
9	298-7375	6	WASHER, 1/2	
10	298-7377	26	LOCKWASHER, #10	
11	303-4979	1	TERMINAL, (not shown)	
12	303-4980	1	TURN SIGNAL SELECTOR	
13	324-9529	2	RED REFLECTOR	
14	324-9530	4	YELLOW REFLECTOR	
15	298-7289	1	FLASHER	
16	324-9531	26	BUTTON HD CAPSCREW, #10-24X3/4	
17	298-6866	1	STOPLIGHT SWITCH	
18	298-8614	1	MOUNTING TAB	
19		Ref	HAZARD SWITCH, (see Figure 10-5 for details)	
20		Ref	FRAME ROAD LIGHT HARNESS, (see Figure 10-16 for details)	
21		Ref	CAB ROAD LIGHT HARNESS, (see Figure 10-18 for details)	
23	315-5795	1	BRACKET	
24	315-5797	1	RH LIGHT, (includes hardware), (torque to 50 lb-ft/68 Nm)	
		1	BULB	
	334-5873	1	CONNECTOR	
		1	WEDGE LOCK	
25	315-5798	1	LH LIGHT, (includes hardware), (torque to 50 lb-ft/68 Nm)	
		1	BULB	
	334-5873	1	CONNECTOR	
		1	WEDGE LOCK	
26	315-5799	1	RH LIGHT	
		1	BULB	
	334-5873	1	CONNECTOR	
		1	WEDGE LOCK	
27	315-5800	1	LH LIGHT	
		1	BULB	
	334-5873	1	CONNECTOR	
		1	WEDGE LOCK	
28	315-5802	1	BRACKET	
29	315-5806	2	COVER	
33		2	3/8 IN CLAMP	
35	4B-5276	1	WASHER, 1/2	
36		1	FLANGE HEX HD CAPSCREW, 1/4-20X1	
37	211-0089	1	FLANGE NUT, 1/4-20	
101		Ref	COUNTERWEIGHT, (see Figure 1-1 for details)	

Figure 10-8 Engine Harness

TO CHASSIS HARNESS

X61

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU IGN	ORN	16 AWG	GXL	S120 (1)
2					
3					
4	ENG GND	BLK	14 AWG	GXL	S94 (1)
5	SHIFT PWR 1	BLU	16 AWG	GXL	RL188 (2)
6	PRK BRK SOL	VIO	16 AWG	GXL	S74 (2)
7	ENG WARN LT	VIO	18 AWG	GXL	J1 (29)
8	ENG STOP LT	ORG	18 AWG	GXL	J1 (28)
9	ALT EXC	RED	16 AWG	GXL	EC95-D+ (1)
10	911	ORG	18 AWG	GXL	S80 (2)
11	915-THR SGN	GRN	18 AWG	GXL	J1 (66)
12	914	BLK	18 AWG	GXL	S81 (2)
13	ST RLY	ORN	16 AWG	GXL	RL187 (1)
13	STRT SIG	ORN	16 AWG	GXL	RL187 (1)
14	CAN H	YEL	18 AWG	GXL	S82 (1)
15	CAN L	GRN	18 AWG	GXL	S93 (1)
16	KEY STRT	GRN	16 AWG	GXL	RL187 (2)
17	TRANS TMP SW	DBL	16 AWG	GXL	X62 (10)
18	IVS	VIO	18 AWG	GXL	J1 (22)
19	TRANS SOL Y1	BRN	16 AWG	GXL	X62 (1)
20	WAIT TO START LT	WHT	18 AWG	GXL	J1 (19)
21	REVERSE SOL	BRN	16 AWG	GXL	X62 (2)
22	TRANS SOL Y3	BRN	16 AWG	GXL	X62 (3)
23	ON IDLE	YEL	18 AWG	GXL	S186 (2)
24					
25	TRANS SOL	BRN	16 AWG	GXL	X62 (4)
26	TRANS SOL Y5	BRN	16 AWG	GXL	X62 (5)
27					
28	TRANS SOL Y6	BRN	16 AWG	GXL	X62 (6)
29					
30	AIR TMP	GRN	18 AWG	GXL	J1 (17)
31	AIR TMP RTN	BLK	18 AWG	GXL	S81 (2)

TO BRAKE VALVE

HV73

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	PRK BRK SOL	VIO	16 AWG	GXL	S74 (1)
2	ENG GND	BLK	16 AWG	GXL	S94 (2)

TO TRANSMISSION

X62

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL Y1	BRN	16 AWG	GXL	X61 (19)
2	REVERSE SOL	BRN	16 AWG	GXL	X61 (21)
3	TRANS SOL Y3	BRN	16 AWG	GXL	X61 (22)
4	TRANS SOL	BRN	16 AWG	GXL	X61 (25)
5	TRANS SOL Y5	BRN	16 AWG	GXL	X61 (26)
6	TRANS SOL Y6	BRN	16 AWG	GXL	X61 (28)
7					
8	PRK BRK SOL	VIO	16 AWG	GXL	S74 (1)
9					
10	TRANS TMP SW	DBL	16 AWG	GXL	X61 (17)
11	ENG GND	BLK	16 AWG	GXL	S94 (2)
12	ENG GND	BLK	16 AWG	GXL	S94 (2)

TO ENGINE GROUND

MS76-2

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	DPF SOOT GND	BLK	18 AWG	GXL	SN99 (2)
1	ECM GND	BLK	8 AWG	GXL	S77 (1)
1	PUMP BAT -	BLK	16 AWG	GXL	EC119 (2)

MS86

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	CAN2 L	GRN	18 AWG	GXL	S88 (2)
B	CAN2 H	YEL	18 AWG	GXL	S89 (2)
C					

MS90

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	CAN L	GRN	18 AWG	GXL	S93 (2)
B	CAN H	YEL	18 AWG	GXL	S92 (2)
C					

TO WATER SEPARATOR

SN68

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	WTR FUEL	BLU	18 AWG	GXL	J1 (35)
2	WTR FUEL RTN	BLK	18 AWG	GXL	S97 (2)
3	WTR FUEL SUP	ORG	18 AWG	GXL	J1 (4)

TO ARCTIC HEATER BREATHER

X184

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	JUMPER	GRN	16 AWG	GXL	X184 (2)
2	JUMPER	GRN	16 AWG	GXL	X184 (1)
3	ECU IGN	WHT	16 AWG	GXL	S120 (2)
4	ENG GND	BLK	16 AWG	GXL	S94 (2)

TO GLOW PLUG

EC65

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	GLOW PLUG	ORG	6 AWG	GXL	RL64-Y (1)

TO ALTERNATOR

EC95-D+

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ALT EXC	RED	16 AWG	GXL	X61 (9)

TO DPF INLET TEMP SENSOR

SN98

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	DPF TMP SUP	ORG	18 AWG	GXL	S80 (1)
2	DPF TMP RTN	BLK	18 AWG	GXL	S81 (1)
3	DPF TMP	BLU	18 AWG	GXL	J1 (26)
4					

TO DPF MODULE

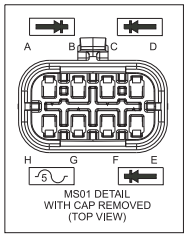
CO70

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	DPF ID SUP	ORG	18 AWG	GXL	S80 (1)
2					
3	DPF ID SGN	VIO	18 AWG	GXL	J1 (14)
4					
5					
6	DPF ID RTN	BLK	18 AWG	GXL	S97 (1)

TO ECM

J1

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1					
2	+5 SUP	ORG	18 AWG	GXL	S80 (1)
3	ANLG SNR RTN	BLK	18 AWG	GXL	S81 (1)
4	WTR FUEL SUP	ORG	18 AWG	GXL	SN68 (3)
5	DIG SNR RTN	BLK	18 AWG	GXL	S97 (1)
6					
7					
8					
9					
10					
11					
12					
13					
14	DPF ID SGN	VIO	18 AWG	GXL	CO70 (3)
15					
16					
17	AIR TMP	GRN	18 AWG	GXL	X61 (30)
18	SW IN RTN	BLK	18 AWG	GXL	S186 (1)
19	WAIT TO START LT	WHT	18 AWG	GXL	X61 (20)
20	GLOW	VIO	18 AWG	GXL	S110 (2)
21	FUEL PUMP	GRN	18 AWG	GXL	S122 (2)
22	IVS	VIO	18 AWG	GXL	X61 (18)
23					
24					
25					
26	DPF TMP	BLU	18 AWG	GXL	SN98 (3)
27					
28	ENG STOP LT	ORG	18 AWG	GXL	X61 (8)
29	ENG WARN LT	VIO	18 AWG	GXL	X61 (7)
30					
31					
32					
33					
34	CAN L	GRN	18 AWG	GXL	S93 (2)
35	WTR FUEL	BLU	18 AWG	GXL	SN68 (1)
36					
37	CAN2 H	YEL	18 AWG	GXL	S89 (2)
38	CAN2 L	GRN	18 AWG	GXL	S88 (2)
39					
40					
41					
42					
43					
44					
45					
46	ELEVATED IDLE	GRN	18 AWG	GXL	RL188 (3)
47					
48	ECM PWR	RED	14 AWG	GXL	S75 (2)
49					
50	CAN H	YEL	18 AWG	GXL	S92 (2)
51					
52	ECM PWR	RED	14 AWG	GXL	S75 (2)
53	ECM PWR	RED	14 AWG	GXL	S75 (2)
54					
55	ECM PWR	RED	14 AWG	GXL	S75 (2)
56					
57	ECM PWR	RED	14 AWG	GXL	S75 (2)
58					
59	GLOW RTN	BLK	16 AWG	GXL	S111 (2)
60					
61	ECM GND	BLK	14 AWG	GXL	S77 (2)
62					
63	ECM GND	BLK	14 AWG	GXL	S77 (2)
64					
65	ECM GND	BLK	14 AWG	GXL	S77 (2)
66	915-THR SGN	GRN	18 AWG	GXL	X61 (11)
67	ECM GND	BLK	14 AWG	GXL	S77 (2)
68					
69	ECM GND	BLK	14 AWG	GXL	S77 (2)
70	ECU IGN	ORG	18 AWG	GXL	S120 (2)



MS01 DETAIL
WITH CAP REMOVED
(TOP VIEW)

BUSSMAN DIODE RELAY

MS01

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	GLOW RTN	BLK	16 AWG	GXL	S111 (2)
B	GLOW	VIO	18 AWG	GXL	S110 (2)
C	ST RLY	ORN	16 AWG	GXL	S113 (2)
D	ENG GND	BLK	16 AWG	GXL	S112 (2)
E	FUEL PUMP	GRN	18 AWG	GXL	S122 (2)
F	FUEL PUMP IGN	ORG	18 AWG	GXL	S123 (2)
G	DPF SOOT PWR	ORG	18 AWG	GXL	SN99 (1)
H	DPF SOOT PWR	ORG	18 AWG	GXL	S120 (2)

TO POWER BUSSBAR

T189

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECM PWR	RED	8 AWG	GXL	S75 (1)

TO STARTER RELAY

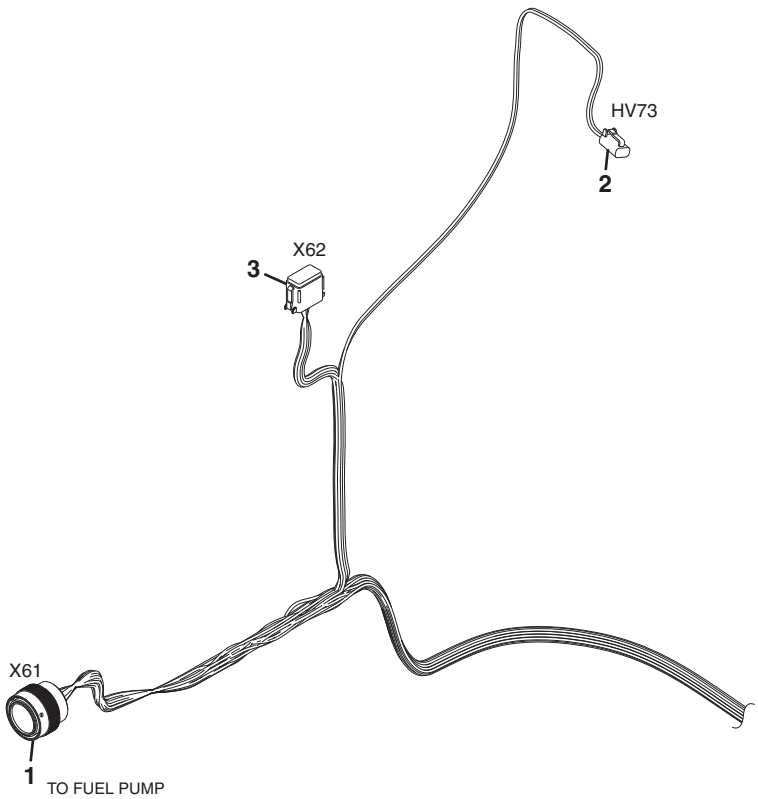
RL63

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ST RLY	ORN	16 AWG	GXL	S113 (1)
2	ENG GND	BLK	16 AWG	GXL	S112 (1)

TO ELEVATED IDLE RELAY

RL185

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	SW IN RTN	BLK	12 AWG	GXL	S186 (1)
2	PRK BRK SOL	VIO	16 AWG	GXL	S74 (1)
3	NUTR SENSE	ORN	16 AWG	GXL	RL188 (1)
4					
5	ENG GND	BLK	16 AWG	GXL	S94 (1)



TO DPF SOOT MODULE

SN99

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	DPF SOOT PWR	ORG	18 AWG	GXL	MS01 (G)
2	DPF SOOT GND	BLK	18 AWG	GXL	MS76-2 (1)
3					
4	CAN2 L	GRN	18 AWG	GXL	S83 (2)
5	CAN2 H	YEL	18 AWG	GXL	S82 (2)
6					

MS84

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	CAN2 L	GRN	18 AWG	GXL	S83 (2)
B	CAN2 H	YEL	18 AWG	GXL	S82 (2)
C					

TO NEUTRAL MONITOR RELAY

RL188

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	NUTR SENSE	ORN	16 AWG	GXL	RL185 (3)
2	SHIFT PWR 1	BLU	16 AWG	GXL	X61 (5)
3	ELEVATED IDLE	GRN	18 AWG	GXL	J1 (46)
4					
5	ENG GND	BLK	16 AWG	GXL	S94 (1)

TO STARTER RELAY

RL63-Y

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT SOL	ORG	10 AWG	GXL	EC102 (1)

TO FUEL PUMP

RL114

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	FUEL PUMP	GRN	18 AWG	GXL	S122 (1)
2	FUEL PUMP IGN	ORG	18 AWG	GXL	S123 (1)

TO FUEL PUMP

EC119

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	PUMP BAT +	ORN	16 AWG	GXL	RL114-Y (1)
2	PUMP BAT -	BLK	16 AWG	GXL	MS76-2 (1)

TO START MONITOR RELAY

RL187

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT SIG	ORN	16 AWG	GXL	X61 (13)
2	KEY STRT	GRN	16 AWG	GXL	X61 (16)
3					
4	STRT MONITOR	WHT	16 AWG	GXL	S113 (2)
5	ENG GND	BLK	16 AWG	GXL	S94 (1)

TO GLOW PLUG

RL64-Y

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	GLOW PLUG	ORG	6 AWG	GXL	EC65 (1)

TO FUEL PUMP

RL114-Y

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	PUMP BAT +	ORN	16 AWG	GXL	EC119 (1)

TO POWER BUSSBAR

RL64

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	GLOW RTN	BLK	16 AWG	GXL	S111 (1)
2	GLOW	VIO	18 AWG	GXL	S110 (1)

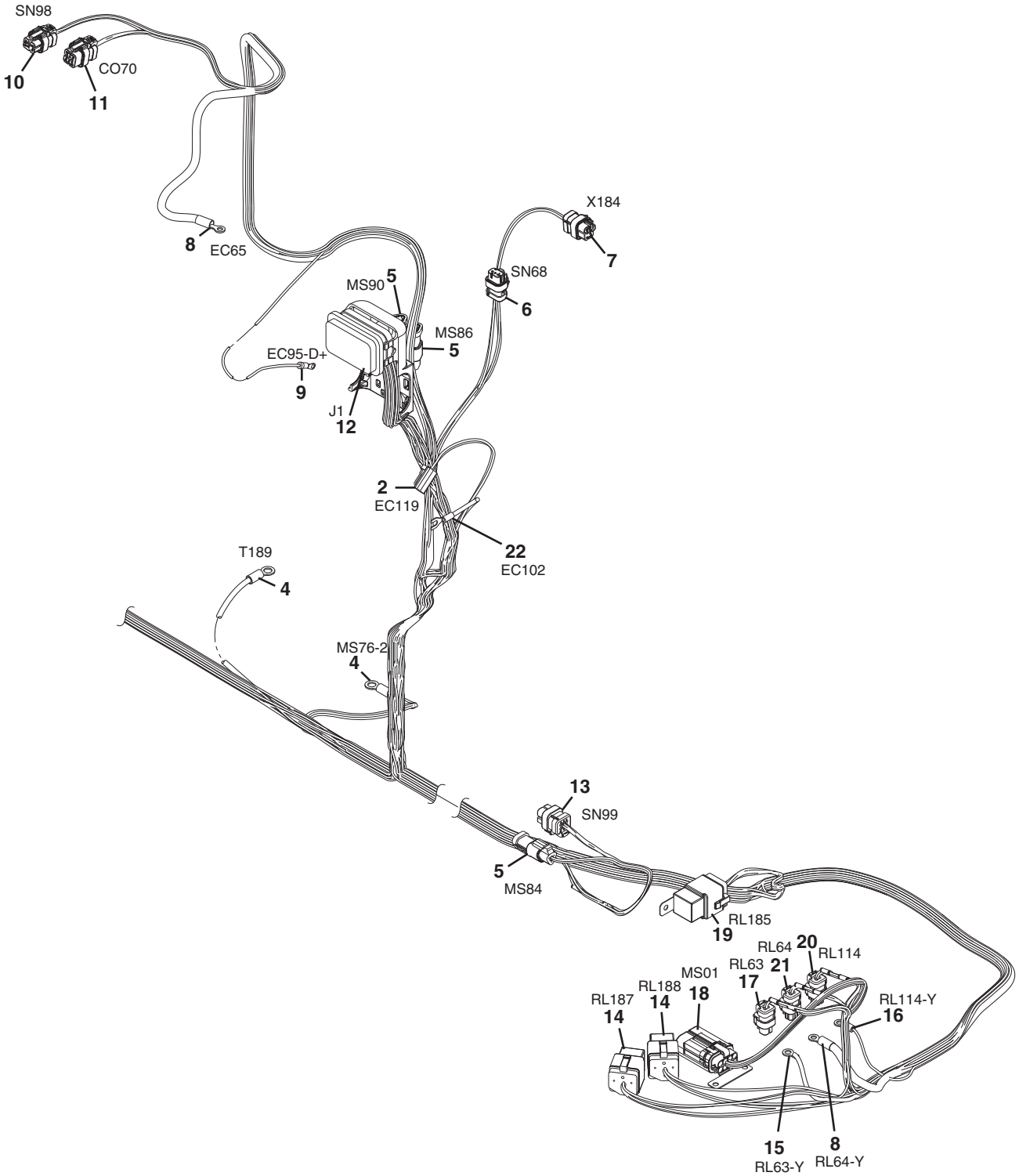
TO STARTER SOLENOID

EC102

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT SOL	ORG	10 AWG	GXL	RL63-Y (1)

PAL7050

Figure 10-8 Engine Harness (Continued)



PAL7040

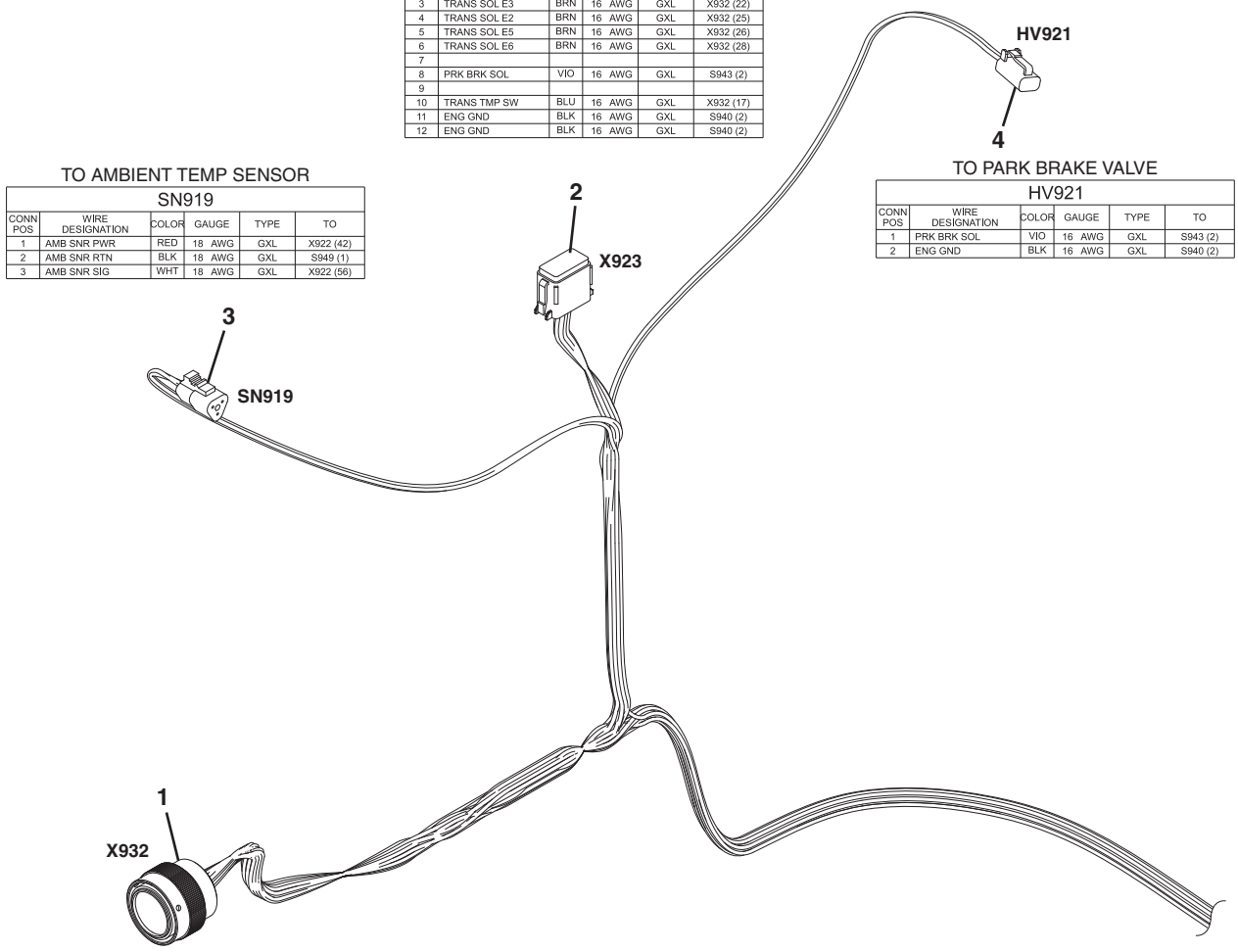
Figure 10-8 Engine Harness

Item	Part Number	Qty.	Description	Rev.
	389-3508	1	ENGINE HARNESS, (includes all items)	H
1		1	PLUG CONNECTOR	
	303-4970	22	TERMINAL	
		7	PLUG	
		1	TERMINAL CABLE CLAMP	
	356-2911	2	TERMINAL	
2	334-5871	2	PLUG CONNECTOR, (includes rear seal)	
	305-5449	1	LOCKING WEDGE	
	303-4970	2	TERMINAL	
3		1	PLUG CONNECTOR, (includes rear seal)	
	299-7106	1	LOCKING WEDGE	
	303-4970	10	TERMINAL	
		2	PLUG	
4	334-5880	2	RING TERMINAL	
5		3	PLUG CONNECTOR, (includes rear seal)	
		1	LOCKING WEDGE	
	356-2911	2	TERMINAL	
		1	PLUG	
6		1	CONNECTOR	
	356-2911	3	TERMINAL	
7	230-5008	1	CONNECTOR	
	356-2911	4	TERMINAL	
8	334-5882	2	RING TERMINAL	
9	334-5865	1	RING TERMINAL	
10		1	CONNECTOR	
	303-4970	3	TERMINAL	
		1	PLUG	
11		1	CONNECTOR	
	303-4970	3	TERMINAL	
		3	PLUG	
12	160-7689	1	CONNECTOR	
	391-8693	1	WIRE DRESS COVER	
		37	PLUG	
	356-2911	33	TERMINAL	
13		1	CONNECTOR	
	303-4970	2	TERMINAL	
	356-2911	2	TERMINAL	
		2	PLUG	
14		2	CONNECTOR	
	299-0312	1	RELAY	
	196-2413	2	TERMINAL	
15	334-5867	1	RING TERMINAL	
16	334-5864	1	RING TERMINAL	
17	230-4011	1	CONNECTOR	
	303-4970	2	TERMINAL	
18	299-0956	1	CONNECTOR	
	299-6629	1	LOCK CONNECTOR	
	389-3559	3	MINI DIODE FUSE	
	141-2759	1	MIN FUSE, AMP	

Figure 10-8 Engine Harness (Continued)

Item	Part Number	Qty.	Description	Rev.
	391-8695	1	DIODE PACK CAP	
	196-2412	8	TERMINAL	
		8	TERMINAL SEAL	
19		1	CONNECTOR	
	299-0312	1	RELAY	
		1	TERMINAL	
	196-2413	3	TERMINAL	
		1	PLUG	
20		1	CONNECTOR	
	303-4970	2	TERMINAL	
21		1	CONNECTOR	
	303-4970	2	TERMINAL	
22		1	FORK TERMINAL	

Figure 10-8 Engine Harness



TO TRANSMISSION HARNESS

X923

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E1	BRN	16 AWG	GXL	X932 (19)
2	TRANS SOL E4	BRN	16 AWG	GXL	X932 (21)
3	TRANS SOL E3	BRN	16 AWG	GXL	X932 (22)
4	TRANS SOL E2	BRN	16 AWG	GXL	X932 (25)
5	TRANS SOL E5	BRN	16 AWG	GXL	X932 (26)
6	TRANS SOL E6	BRN	16 AWG	GXL	X932 (28)
7					
8	PRK BRK SOL	VIO	16 AWG	GXL	S943 (2)
9					
10	TRANS TMP SW	BLU	16 AWG	GXL	X932 (17)
11	ENG GND	BLK	16 AWG	GXL	S940 (2)
12	ENG GND	BLK	16 AWG	GXL	S940 (2)

TO AMBIENT TEMP SENSOR

SN919

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	AMB SNR PWR	RED	18 AWG	GXL	X922 (42)
2	AMB SNR RTN	BLK	18 AWG	GXL	S949 (1)
3	AMB SNR SIG	WHT	18 AWG	GXL	X922 (56)

TO PARK BRAKE VALVE

HV921

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	PRK BRK SOL	VIO	16 AWG	GXL	S943 (2)
2	ENG GND	BLK	16 AWG	GXL	S940 (2)

TO CHASSIS HARNESS

X932

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU IGN	ORG	16 AWG	TXL	S937 (1)
2					
3					
4	ENG GND	BLK	16 AWG	GXL	S940 (1)
5					
6	PRK BRK SOL	VIO	16 AWG	GXL	S943 (1)
7	ENG WARN LT	VIO	18 AWG	GXL	X922 (59)
8	ENG STOP LT	ORG	18 AWG	GXL	X922 (60)
9	ALT EXCITE	RED	16 AWG	GXL	EC918-D+ (1)
10	THR SUP/911	BRN	18 AWG	GXL	X922 (41)
11	THR SGN/915	GRN	18 AWG	GXL	X922 (54)
12	THR RTN/914	YEL	18 AWG	GXL	S949 (2)
13	STRT RLY	WHT	16 AWG	GXL	S942 (1)
14	CAN H/904	YEL	16 AWG	GXL	S947 (2)
15	CAN L/905	GRN	16 AWG	GXL	S948 (2)
16	CAN SHIELD/020	SHIELD	18 AWG	SHLD	X922 (22)
17	TRANS TMP SW	BLU	16 AWG	GXL	X923 (10)
18	IVS	VIO	18 AWG	GXL	X922 (45)
19	TRANS SOL E1	BRN	16 AWG	GXL	X923 (1)
20	WAIT TO START LT	WHT	18 AWG	GXL	X922 (63)
21	TRANS SOL E4	BRN	16 AWG	GXL	X923 (2)
22	TRANS SOL E3	BRN	16 AWG	GXL	X923 (3)
23	ON-IDLE	ORG	18 AWG	GXL	X922 (35)
24					
25	TRANS SOL E2	BRN	16 AWG	GXL	X923 (4)
26	TRANS SOL E5	BRN	16 AWG	GXL	X923 (5)
27					
28	TRANS SOL E6	BRN	16 AWG	GXL	X923 (6)
29					
30					
31					

TO GLOW PWR

RL916-Y

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	GLOW PWR	RED	8 AWG	GXL	X933 (1)

TO ENGINE ALTERNATOR

EC918-D+

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ALT EXCITE	RED	16 AWG	GXL	X932 (9)

TO GLOW PLUG

X933

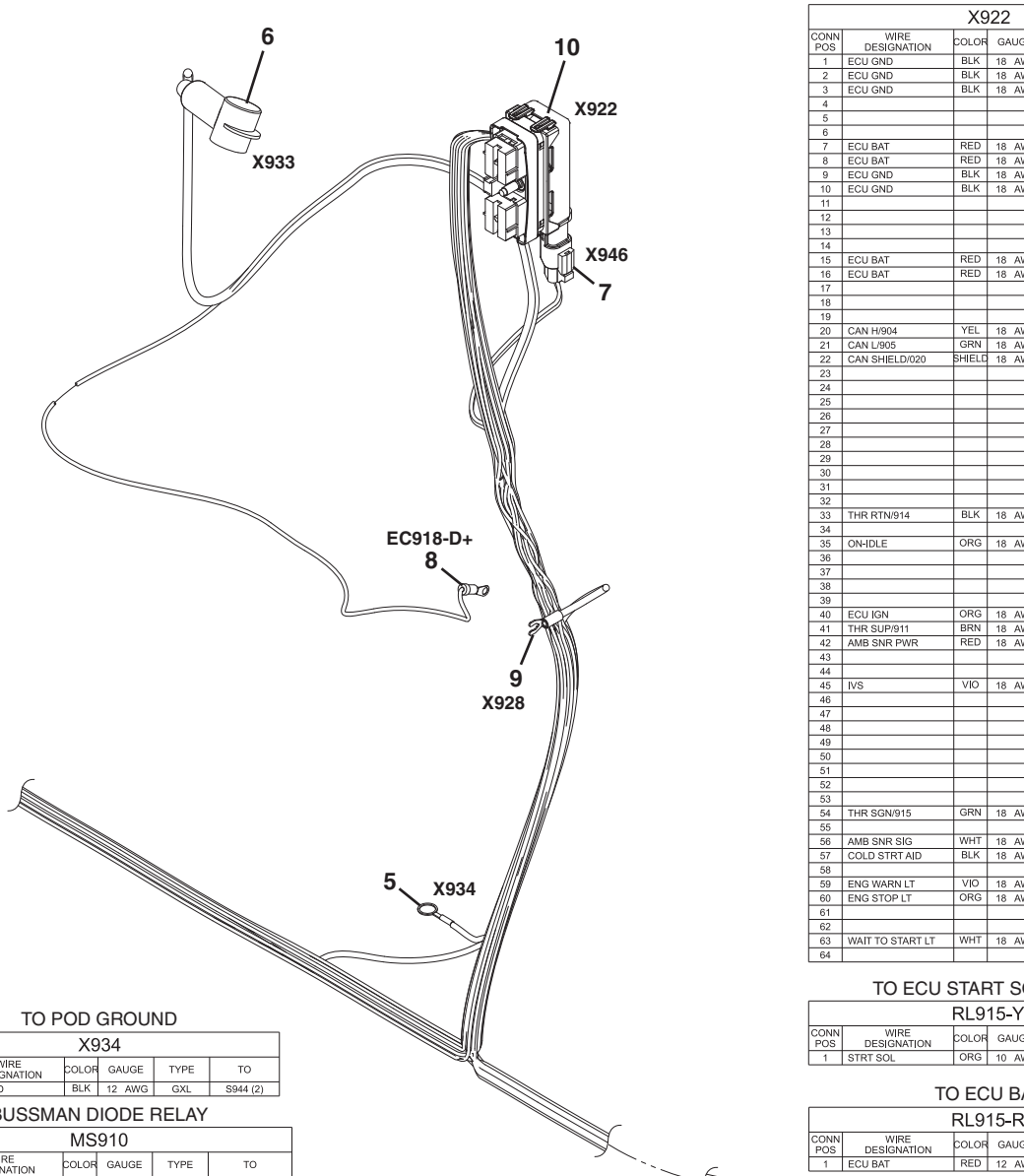
CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	GLOW PWR	RED	8 AWG	GXL	RL916-Y (1)

X946

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	CAN H/904	YEL	16 AWG	GXL	S947 (1)
2	CAN L/905	GRN	16 AWG	GXL	S948 (1)
3					

PAL6970

Figure 10-8 Engine Harness (Continued)



TO ECM

X922

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU GND	BLK	18 AWG	GXL	S944 (1)
2	ECU GND	BLK	18 AWG	GXL	S944 (1)
3	ECU GND	BLK	18 AWG	GXL	S944 (1)
4					
5					
6					
7	ECU BAT	RED	18 AWG	GXL	S945 (1)
8	ECU BAT	RED	18 AWG	GXL	S945 (1)
9	ECU GND	BLK	18 AWG	GXL	S944 (1)
10	ECU GND	BLK	18 AWG	GXL	S944 (1)
11					
12					
13					
14					
15	ECU BAT	RED	18 AWG	GXL	S945 (1)
16	ECU BAT	RED	18 AWG	GXL	S945 (1)
17					
18					
19					
20	CAN H/904	YEL	18 AWG	GXL	S947 (1)
21	CAN L/905	GRN	18 AWG	GXL	S948 (1)
22	CAN SHIELD/020	SHIELD	18 AWG	SHLD	X932 (16)
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33	THR RTN/914	BLK	18 AWG	GXL	S949 (1)
34					
35	ON-IDLE	ORG	18 AWG	GXL	X932 (23)
36					
37					
38					
39					
40	ECU IGN	ORG	18 AWG	GXL	S937 (2)
41	THR SUP/911	BRN	18 AWG	GXL	X932 (10)
42	AMB SNR PWR	RED	18 AWG	GXL	SN919 (1)
43					
44					
45	IVS	VIO	18 AWG	GXL	X932 (18)
46					
47					
48					
49					
50					
51					
52					
53					
54	THR SGN/915	GRN	18 AWG	GXL	X932 (11)
55					
56	AMB SNR SIG	WHT	18 AWG	GXL	SN919 (3)
57	COLD STRT AID	BLK	18 AWG	GXL	S938 (1)
58					
59	ENG WARN LT	VIO	18 AWG	GXL	X932 (7)
60	ENG STOP LT	ORG	18 AWG	GXL	X932 (8)
61					
62					
63	WAIT TO START LT	WHT	18 AWG	GXL	X932 (20)
64					

TO ECU START SOLENOID

RL915-Y

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT SOL	ORG	10 AWG	GXL	X928 (1)

TO ECU BAT

RL915-R

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU BAT	RED	12 AWG	GXL	S945 (2)

TO POD GROUND

X934

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU GND	BLK	12 AWG	GXL	S944 (2)

BUSSMAN DIODE RELAY

MS910

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	ECU IGN	ORG	18 AWG	GXL	S939 (2)
B	COLD STRT AID	BLK	18 AWG	GXL	S938 (2)
C	STRT RLY	WHT	18 AWG	GXL	S942 (2)
D	ENG GND	BLK	18 AWG	GXL	S941 (2)
E					
F					
G					
H					

TO ECU

RL915

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT RLY	WHT	18 AWG	GXL	S942 (2)
2	ENG GND	BLK	18 AWG	GXL	S941 (2)

TO GLOW 50A

RL916

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	ECU IGN	ORG	18 AWG	GXL	S939 (2)
2	COLD STRT AID	BLK	18 AWG	GXL	S938 (2)

TO STARTER SOLENOID

X928

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	STRT SOL	ORG	10 AWG	GXL	RL915-Y (1)

PAL6980

Figure 10-8 Engine Harness

Item	Part Number	Qty.	Description	Rev.
	389-3634	1	ENGINE HARNESS, (includes all items)	A
1		1	CONNECTOR	
	303-4970	23	TERMINAL	
		8	PLUG	
2		1	CONNECTOR, (includes rear seal)	
	299-7106	1	LOCK WEDGE	
	303-4970	10	TERMINAL	
		2	PLUG	
3		1	CONNECTOR, (includes rear seal)	
		1	LOCK WEDGE	
	303-4970	3	TERMINAL	
4	334-5871	1	CONNECTOR, (includes rear seal)	
	305-5449	1	LOCK WEDGE	
	303-4970	2	TERMINAL	
5		1	RING TERMINAL	
6		1	RING TERMINAL	
		1	BATTERY CABLE BOOT	
7		1	CONNECTOR	
		1	LOCK WEDGE	
	303-4970	2	TERMINAL	
		1	PLUG	
8	334-5865	1	RING TERMINAL	
9		1	FORK TERMINAL	
10		1	CONNECTOR	
	305-2096	1	COVER	
	305-2097	1	LOCK	
	9X-1056	24	TERMINAL	
	368-3140	40	PLUG	
11	334-5867	2	RING TERMINAL	
12			RING TERMINAL	
13	299-0956	1	CONNECTOR	
	389-3559	2	MINI DIODE FUSE	
	391-8695	1	DIODE PACK CAP	
		4	TERMINAL	
		4	TERMINAL SEAL	
		4	PLUG	
14	230-4011	1	CONNECTOR	
	303-4970	2	TERMINAL	
15		1	CONNECTOR	
	303-4970	2	TERMINAL	

Figure 10-8 Engine Harness (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 10-9 Transmission Harness

TO ENGINE HARNESS

H2

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E1	BRN	16 AWG	GXL	DIODE 10 (1)
2	TRANS SOL E4	BRN	16 AWG	GXL	DIODE 13 (1)
3	TRANS SOL E3	BRN	16 AWG	GXL	DIODE 12 (1)
4	TRANS SOL E2	BRN	16 AWG	GXL	DIODE 11 (1)
5	TRANS SOL E5	BRN	16 AWG	GXL	DIODE 14 (1)
6	TRANS SOL E6	VIO	16 AWG	GXL	DIODE 15 (1)
7					
8					
9					
10	TRANS TMP SW	BLU	16 AWG	GXL	TEM SW (1)
11	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (1)
12	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (1)

TO TRANSMISSION E1

SOL E1

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL Y1	BRN	16 AWG	GXL	DIODE 10 (1)
2	ENG GND	BLK	16 AWG	GXL	DIODE 10 (2)

TO TRANSMISSION E2

SOL E2

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	TRANS SOL Y2	BRN	16 AWG	GXL	DIODE 11 (1)
B	ENG GND	BLK	16 AWG	GXL	DIODE 11 (2)

TO TRANSMISSION E3

SOL E3

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	TRANS SOL Y3	BRN	16 AWG	GXL	DIODE 12 (1)
B	ENG GND	BLK	16 AWG	GXL	DIODE 12 (2)

TO TRANSMISSION E4

SOL E4

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	TRANS SOL Y4	BRN	16 AWG	GXL	DIODE 13 (1)
B	ENG GND	BLK	16 AWG	GXL	DIODE 13 (2)

TO TRANSMISSION E5

SOL E5

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	TRANS SOL Y5	BRN	16 AWG	GXL	DIODE 14 (1)
B	ENG GND	BLK	16 AWG	GXL	DIODE 14 (2)

TO TRANSMISSION E6

SOL E6

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
A	TRANS SOL Y6	BRN	16 AWG	GXL	DIODE 15 (1)
B	ENG GND	BLK	16 AWG	GXL	DIODE 15 (2)

TO TEMPERATURE SENSOR

TEM SW

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS TMP SW	BLU	16 AWG	GXL	H3 (10)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)

DIODE 10

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E1	BRN	16 AWG	GXL	H3 (1)
1	TRANS SOL Y1	BRN	16 AWG	GXL	SOL E1 (1)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)
2	ENG GND	BLK	16 AWG	GXL	SOL E1 (2)

DIODE 11

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E2	BRN	16 AWG	GXL	H3 (4)
1	TRANS SOL Y2	BRN	16 AWG	GXL	SOL E2 (1)
2	ENG GND	BLK	16 AWG	GXL	SOL E2 (2)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)

DIODE 12

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E3	BRN	16 AWG	GXL	H3 (3)
1	TRANS SOL Y3	BRN	16 AWG	GXL	SOL E3 (1)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)
2	ENG GND	BLK	16 AWG	GXL	SOL E3 (2)

DIODE 13

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E4	BRN	16 AWG	GXL	H3 (2)
1	TRANS SOL Y4	BRN	16 AWG	GXL	SOL E4 (1)
2	ENG GND	BLK	16 AWG	GXL	SOL E4 (2)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)

DIODE 14

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E5	BRN	16 AWG	GXL	H3 (5)
1	TRANS SOL Y5	BRN	16 AWG	GXL	SOL E5 (1)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)
2	ENG GND	BLK	16 AWG	GXL	SOL E5 (2)

DIODE 15

CONN POS	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	TRANS SOL E6	VIO	16 AWG	GXL	H3 (6)
1	TRANS SOL Y6	BRN	16 AWG	GXL	SOL E6 (1)
2	ENG GND	BLK	16 AWG	GXL	SPLICE 12 (2)
2	ENG GND	BLK	16 AWG	GXL	SOL E6 (2)

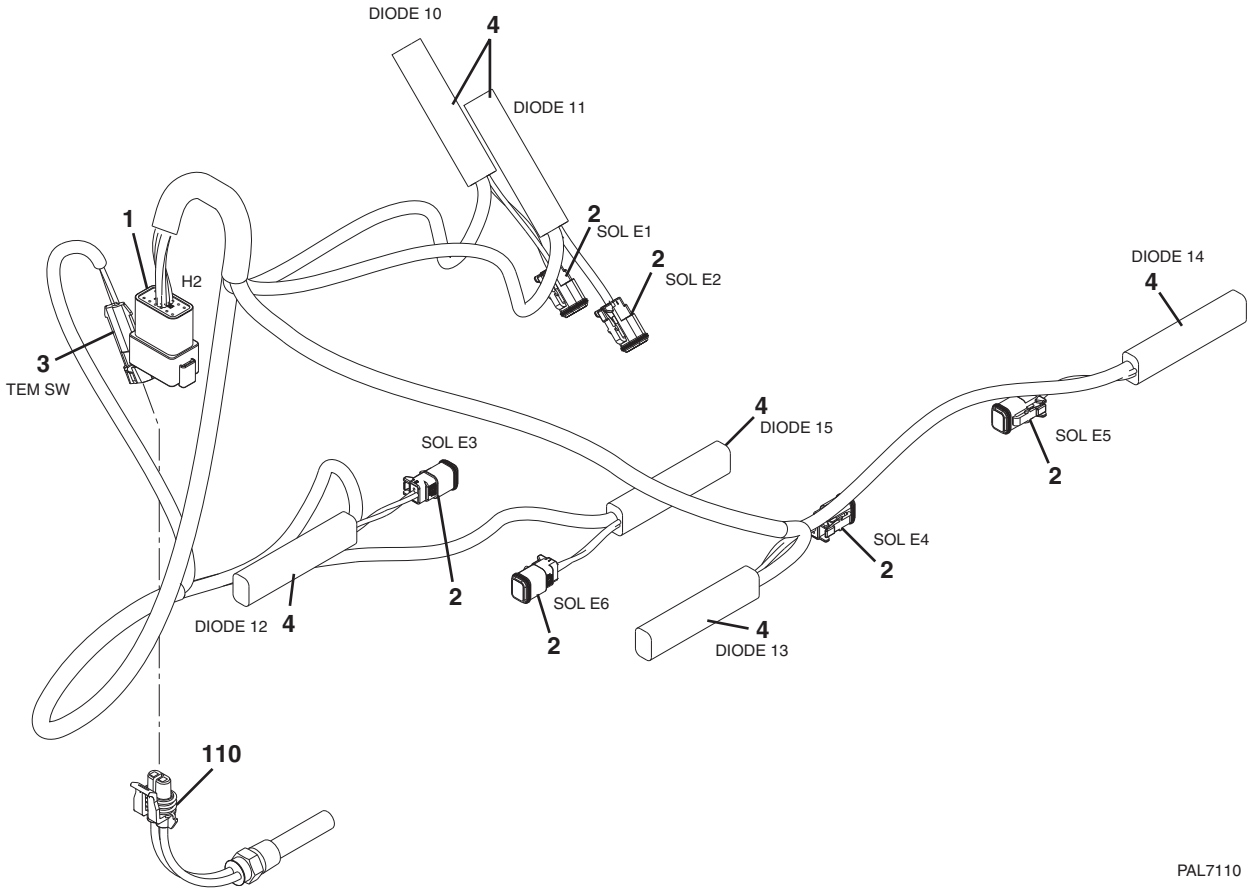


Figure 10-9 Transmission Harness

Item	Part Number	Qty.	Description	Rev.
	389-3440	1	TRANSMISSION HARNESS, (includes items 1 thru 4)	B
1		1	CONNECTOR, (includes rear seal)	
	304-2647	1	SECONDARY LOCK WEDGE	
2	334-5871	6	CONNECTOR, (includes rear seal)	
	305-5449	1	SECONDARY LOCK WEDGE	
3	362-6743	1	SEALED CONNECTOR	
		1	PACKARD TPA	
4	303-4997	6	MOLDED DIODE	
110	389-3479	1	TEMPERATURE SWITCH	

Figure 10-10 Frame Harness

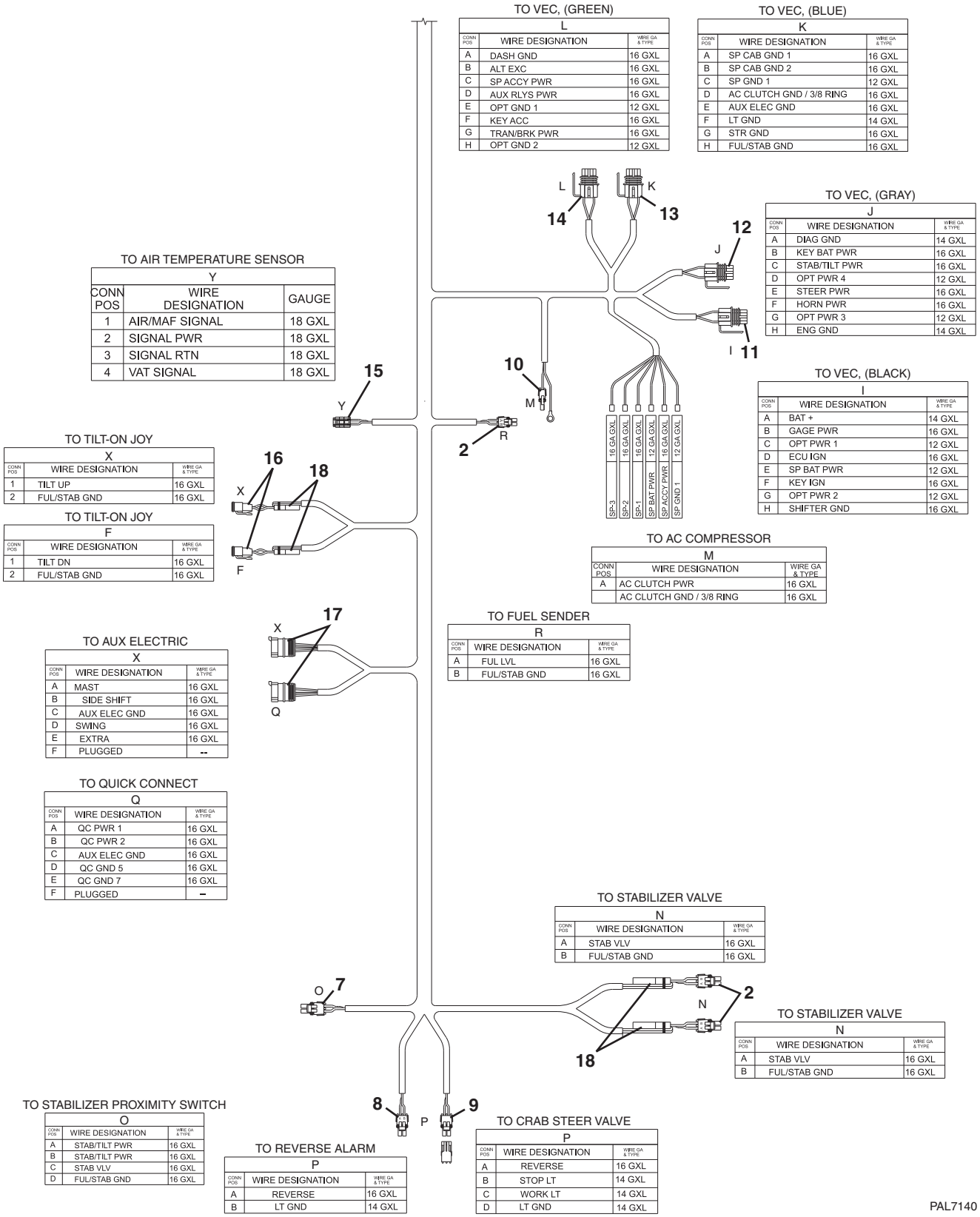
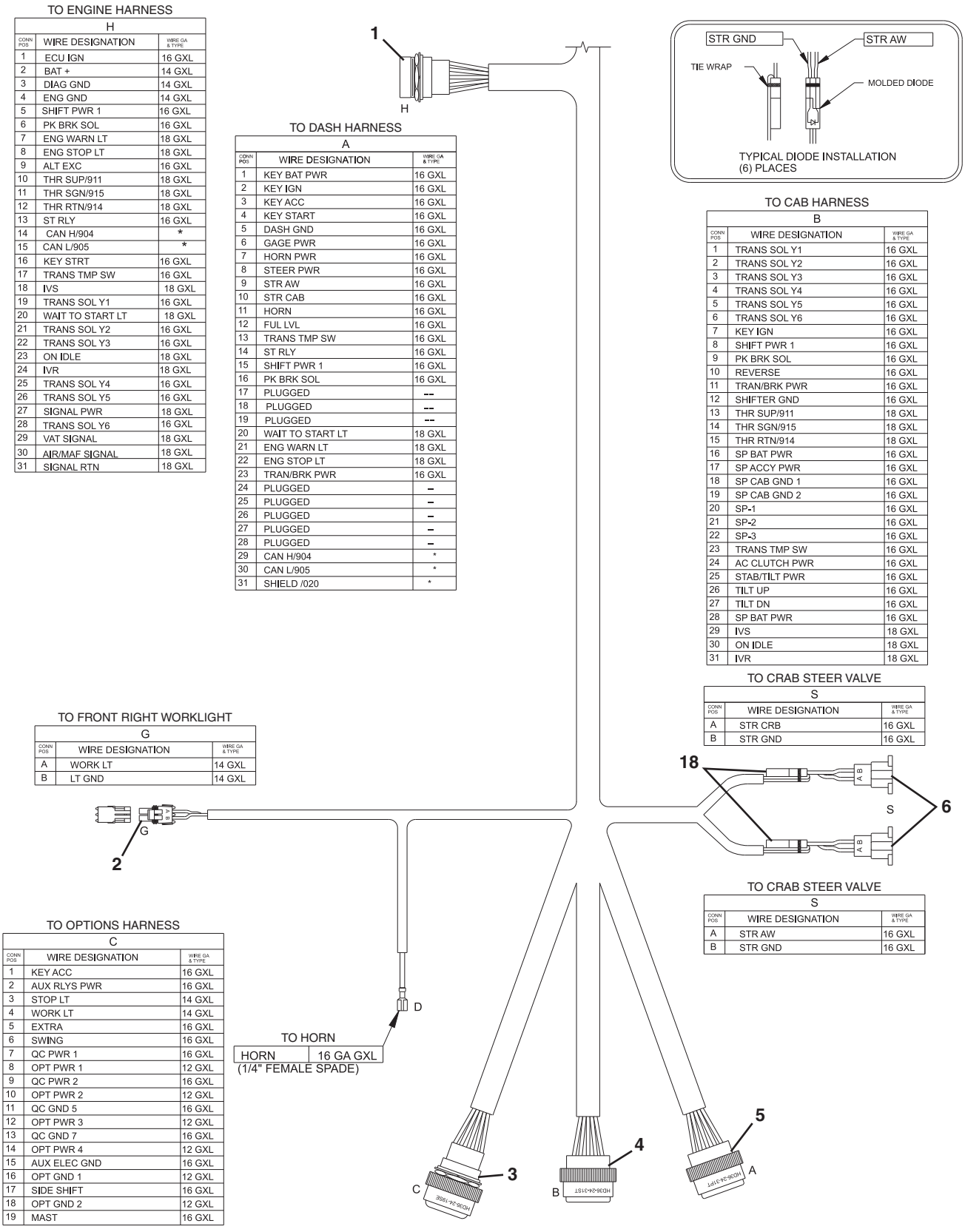


Figure 10-10 Frame Harness (Continued)



CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	ECU IGN	16 GXL
2	BAT +	14 GXL
3	DIAG GND	14 GXL
4	ENG GND	14 GXL
5	SHIFT PWR 1	16 GXL
6	PK BRK SOL	16 GXL
7	ENG WARN LT	18 GXL
8	ENG STOP LT	18 GXL
9	ALT EXC	16 GXL
10	THR SUP/911	18 GXL
11	THR SGN/915	18 GXL
12	THR RTN/914	18 GXL
13	ST RLY	16 GXL
14	CAN H/904	*
15	CAN L/905	*
16	KEY STRT	16 GXL
17	TRANS TMP SW	16 GXL
18	IVS	18 GXL
19	TRANS SOL Y1	16 GXL
20	WAIT TO START LT	18 GXL
21	TRANS SOL Y2	16 GXL
22	TRANS SOL Y3	16 GXL
23	ON IDLE	18 GXL
24	IVR	18 GXL
25	TRANS SOL Y4	16 GXL
26	TRANS SOL Y5	16 GXL
27	SIGNAL PWR	18 GXL
28	TRANS SOL Y6	16 GXL
29	VAT SIGNAL	18 GXL
30	AIR/MAF SIGNAL	18 GXL
31	SIGNAL RTN	18 GXL

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY BAT PWR	16 GXL
2	KEY IGN	16 GXL
3	KEY ACC	16 GXL
4	KEY START	16 GXL
5	DASH GND	16 GXL
6	GAGE PWR	16 GXL
7	HORN PWR	16 GXL
8	STEER PWR	16 GXL
9	STR AW	16 GXL
10	STR CAB	16 GXL
11	HORN	16 GXL
12	FUL LVL	16 GXL
13	TRANS TMP SW	16 GXL
14	ST RLY	16 GXL
15	SHIFT PWR 1	16 GXL
16	PK BRK SOL	16 GXL
17	PLUGGED	--
18	PLUGGED	--
19	PLUGGED	--
20	WAIT TO START LT	18 GXL
21	ENG WARN LT	18 GXL
22	ENG STOP LT	18 GXL
23	TRAN/BRK PWR	16 GXL
24	PLUGGED	–
25	PLUGGED	–
26	PLUGGED	–
27	PLUGGED	–
28	PLUGGED	–
29	CAN H/904	*
30	CAN L/905	*
31	SHIELD /020	*

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	TRANS SOL Y1	16 GXL
2	TRANS SOL Y2	16 GXL
3	TRANS SOL Y3	16 GXL
4	TRANS SOL Y4	16 GXL
5	TRANS SOL Y5	16 GXL
6	TRANS SOL Y6	16 GXL
7	KEY IGN	16 GXL
8	SHIFT PWR 1	16 GXL
9	PK BRK SOL	16 GXL
10	REVERSE	16 GXL
11	TRAN/BRK PWR	16 GXL
12	SHIFTER GND	16 GXL
13	THR SUP/911	18 GXL
14	THR SGN/915	18 GXL
15	THR RTN/914	18 GXL
16	SP BAT PWR	16 GXL
17	SP ACCY PWR	16 GXL
18	SP CAB GND 1	16 GXL
19	SP CAB GND 2	16 GXL
20	SP-1	16 GXL
21	SP-2	16 GXL
22	SP-3	16 GXL
23	TRANS TMP SW	16 GXL
24	AC CLUTCH PWR	16 GXL
25	STAB/TILT PWR	16 GXL
26	TILT UP	16 GXL
27	TILT DN	16 GXL
28	SP BAT PWR	16 GXL
29	IVS	18 GXL
30	ON IDLE	18 GXL
31	IVR	18 GXL

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	STR CRB	16 GXL
B	STR GND	16 GXL

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	STR AW	16 GXL
B	STR GND	16 GXL

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	WORK LT	14 GXL
B	LT GND	14 GXL

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY ACC	16 GXL
2	AUX RLYS PWR	16 GXL
3	STOP LT	14 GXL
4	WORK LT	14 GXL
5	EXTRA	16 GXL
6	SWING	16 GXL
7	QC PWR 1	16 GXL
8	OPT PWR 1	12 GXL
9	QC PWR 2	16 GXL
10	OPT PWR 2	12 GXL
11	QC GND 5	16 GXL
12	OPT PWR 3	12 GXL
13	QC GND 7	16 GXL
14	OPT PWR 4	12 GXL
15	AUX ELEC GND	16 GXL
16	OPT GND 1	12 GXL
17	SIDE SHIFT	16 GXL
18	OPT GND 2	12 GXL
19	MAST	16 GXL

PAL7130

Figure 10-10 Frame Harness

Item	Part Number	Qty.	Description	Rev.
	416-7721	1	FRAME HARNESS, (includes all items)	B
1		1	CONNECTOR	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
	303-4969	29	TERMINAL	
2		4	WEATHER PACK CONNECTOR	
		2	WEATHER PACK SOCKET TERMINAL	
	299-0346	2	SEAL	
3	305-2039	1	CONNECTOR	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
	303-4970	11	SOCKET TERMINAL	
		8	SOCKET TERMINAL	
		1	CONNECTOR CAP	
		1	CONTACT	
4	356-2912	1	CONNECTOR	
	303-4970	31	SOCKET ERMINAL	
5	305-5423	1	CONNECTOR	
	303-4969	20	TERMINAL	
		8	PLUG	
6	303-8664	2	CONNECTOR	
	303-8665	2	TERMINAL	
7	305-2115	1	CONNECTOR	
	299-0349	4	TERMINAL	
	299-0346	4	SEAL	
8	362-6360	1	CONNECTOR	
		1	SECONDARY LOCK	
	196-2412	1	TERMINAL	
	7R-2750	1	SEAL	
	267-9572	1	TERMINAL	
	299-0346	1	SEAL	
9	305-2115	1	CONNECTOR	
	299-0349	1	TERMINAL	
	299-0346	1	SEAL	
	267-9572	3	TERMINAL	
	7R-2750	3	SEAL	
	299-0343	1	CONNECTOR	
	299-0350	1	DUST CAP	
10	299-0339	1	CONNECTOR	
		2	TERMINAL	
	299-0346	1	CABLE SEAL, GREEN	
11		1	CONNECTOR, (Black)	
	299-6629	1	CONNECTOR LOCK	
		4	TERMINAL	
	267-9572	4	TERMINAL	
	299-0346	4	SEAL	
	299-0348	4	SEAL	
12	299-0958	1	CONNECTOR, (Black)	
	299-6629	1	CONNECTOR LOCK	

Figure 10-10 Frame Harness (Continued)

Item	Part Number	Qty.	Description	Rev.
		4	TERMINAL	
	267-9572	4	TERMINAL	
	299-0346	4	SEAL	
	299-0348	4	SEAL	
13	299-0957	1	CONNECTOR, (Blue)	
	299-6629	1	CONNECTOR LOCK	
		6	TERMINAL	
	267-9572	2	TERMINAL	
	299-0346	6	SEAL	
	299-0348	2	SEAL	
14	299-0956	1	CONNECTOR, (Green)	
	299-6629	1	CONNECTOR LOCK	
		6	TERMINAL	
	267-9572	2	TERMINAL	
	299-0346	6	SEAL	
	299-0348	2	SEAL	
15	334-5870	1	CONNECTOR	
	303-4970	4	TERMINAL	
	305-5450	1	CONNECTOR LOCK	
16	334-5871	2	CONNECTOR	
	305-5449	1	CONNECTOR LOCK	
	303-4970	2	TERMINAL	
17	305-2038	2	CONNECTOR	
	303-4969	5	TERMINAL	
		1	PLUG	
	305-2043	1	CONNECTOR CAP	
18	303-4997	6	MOLDED DIODE	

Figure 10-10 Frame Harness

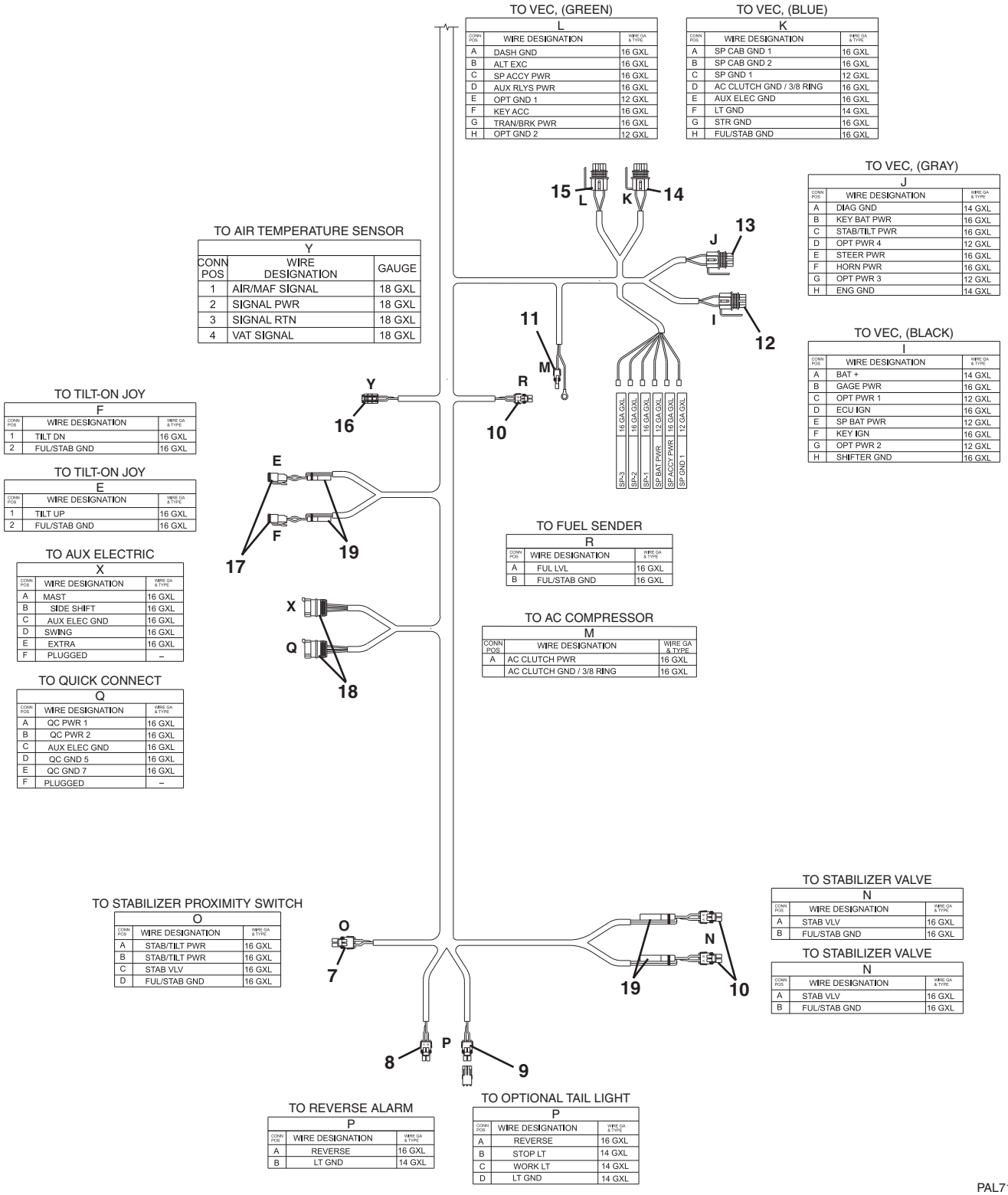
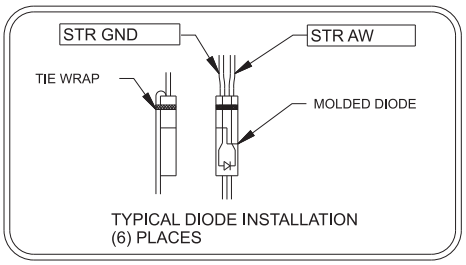
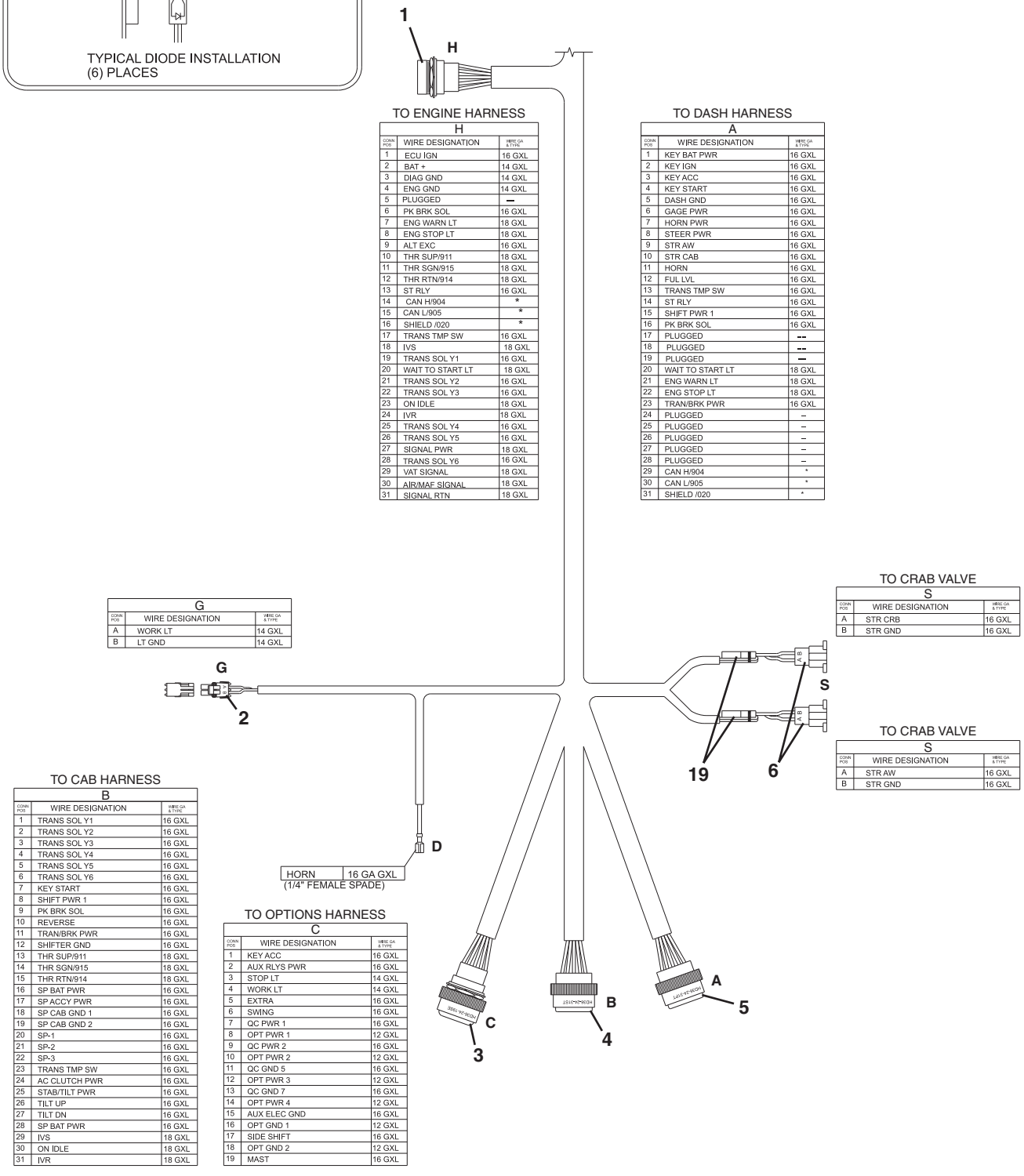


Figure 10-10 Frame Harness (Continued)





TO ENGINE HARNESS

H		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	ECU IGN	16 GXL
2	BAT +	14 GXL
3	DIAG GND	14 GXL
4	ENG GND	14 GXL
5	PLUGGED	—
6	PK BRK SOL	16 GXL
7	ENG WARN LT	18 GXL
8	ENG STOP LT	18 GXL
9	ALT EXC	16 GXL
10	THR SUP/911	18 GXL
11	THR SGN/915	18 GXL
12	THR RTN/914	18 GXL
13	ST RLY	16 GXL
14	CAN H/904	*
15	CAN L/905	*
16	SHIELD /020	*
17	TRANS TMP SW	16 GXL
18	IVS	18 GXL
19	TRANS SOL Y1	16 GXL
20	WAIT TO START LT	18 GXL
21	TRANS SOL Y2	16 GXL
22	TRANS SOL Y3	16 GXL
23	ON IDLE	18 GXL
24	IVR	18 GXL
25	TRANS SOL Y4	16 GXL
26	TRANS SOL Y5	16 GXL
27	SIGNAL PWR	18 GXL
28	TRANS SOL Y6	16 GXL
29	VAT SIGNAL	18 GXL
30	AIR/MAF SIGNAL	18 GXL
31	SIGNAL RTN	18 GXL

TO DASH HARNESS

A		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY BAT PWR	16 GXL
2	KEY IGN	16 GXL
3	KEY ACC	16 GXL
4	KEY START	16 GXL
5	DASH GND	16 GXL
6	GAGE PWR	16 GXL
7	HORN PWR	16 GXL
8	STEER PWR	16 GXL
9	STR AW	16 GXL
10	STR CAB	16 GXL
11	HORN	16 GXL
12	FUL LVL	16 GXL
13	TRANS TMP SW	16 GXL
14	ST RLY	16 GXL
15	SHIFT PWR 1	16 GXL
16	PK BRK SOL	16 GXL
17	PLUGGED	--
18	PLUGGED	--
19	PLUGGED	—
20	WAIT TO START LT	18 GXL
21	ENG WARN LT	18 GXL
22	ENG STOP LT	18 GXL
23	TRAN/BRK PWR	16 GXL
24	PLUGGED	–
25	PLUGGED	–
26	PLUGGED	–
27	PLUGGED	–
28	PLUGGED	–
29	CAN H/904	*
30	CAN L/905	*
31	SHIELD /020	*

G		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	WORK LT	14 GXL
B	LT GND	14 GXL

TO CRAB VALVE

S		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	STR CRB	16 GXL
B	STR GND	16 GXL

TO CRAB VALVE

S		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	STR AW	16 GXL
B	STR GND	16 GXL

TO CAB HARNESS

B		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	TRANS SOL Y1	16 GXL
2	TRANS SOL Y2	16 GXL
3	TRANS SOL Y3	16 GXL
4	TRANS SOL Y4	16 GXL
5	TRANS SOL Y5	16 GXL
6	TRANS SOL Y6	16 GXL
7	KEY START	16 GXL
8	SHIFT PWR 1	16 GXL
9	PK BRK SOL	16 GXL
10	REVERSE	16 GXL
11	TRAN/BRK PWR	16 GXL
12	SHIFTER GND	16 GXL
13	THR SUP/911	18 GXL
14	THR SGN/915	18 GXL
15	THR RTN/914	18 GXL
16	SP BAT PWR	16 GXL
17	SP ACCY PWR	16 GXL
18	SP CAB GND 1	16 GXL
19	SP CAB GND 2	16 GXL
20	SP-1	16 GXL
21	SP-2	16 GXL
22	SP-3	16 GXL
23	TRANS TMP SW	16 GXL
24	AC CLUTCH PWR	16 GXL
25	STAB/TILT PWR	16 GXL
26	TILT UP	16 GXL
27	TILT DN	16 GXL
28	SP BAT PWR	16 GXL
29	IVS	18 GXL
30	ON IDLE	18 GXL
31	IVR	18 GXL

TO OPTIONS HARNESS

C		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY ACC	16 GXL
2	AUX RLYS PWR	16 GXL
3	STOP LT	14 GXL
4	WORK LT	14 GXL
5	EXTRA	16 GXL
6	SWING	16 GXL
7	QC PWR 1	16 GXL
8	OPT PWR 1	12 GXL
9	QC PWR 2	16 GXL
10	OPT PWR 2	12 GXL
11	QC GND 5	16 GXL
12	OPT PWR 3	12 GXL
13	QC GND 7	16 GXL
14	OPT PWR 4	12 GXL
15	AUX ELEC GND	16 GXL
16	OPT GND 1	12 GXL
17	SIDE SHIFT	16 GXL
18	OPT GND 2	12 GXL
19	MAST	16 GXL

PAL7160

Figure 10-10 Frame Harness

Item	Part Number	Qty.	Description	Rev.
	389-3506	1	FRAME HARNESS, (includes all items)	F
1		1	CONNECTOR,	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
	303-4969	27	TERMINAL	
		1	PLUG	
2		1	WEATHER PACK CONNECTOR	
		2	WEATHER PACK SOCKET TERMINAL	
	299-0346	2	SEAL	
	305-2041	1	DUST CAP	
3	305-2039	1	CONNECTOR	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
	303-4970	11	SOCKET TERMINAL	
		8	SOCKET TERMINAL	
		1	CONNECTOR CAP	
		1	CONTACT	
4	356-2912	1	CONNECTOR	
	303-4970	31	SOCKET ERMINAL	
5	305-5423	1	CONNECTOR	
	303-4969	20	TERMINAL	
		8	PLUG	
6	303-8664	2	CONNECTOR	
	303-8665	2	TERMINAL	
7	305-2115	1	CONNECTOR	
	299-0349	4	TERMINAL	
	299-0346	4	SEAL	
8	362-6360	1	CONNECTOR	
		1	SECONDARY LOCK	
	196-2412	1	TERMINAL	
	7R-2750	1	SEAL	
	267-9572	1	TERMINAL	
	299-0346	1	SEAL	
9	305-2115	1	CONNECTOR	
	299-0349	1	TERMINAL	
	299-0346	1	SEAL	
	267-9572	3	TERMINAL	
	7R-2750	3	SEAL	
	299-0343	1	CONNECTOR	
	299-0350	1	DUST CAP	
10		3	WEATHER PACK CONNECTOR	
		2	WEATHER PACK SOCKET TERMINAL	
	299-0346	2	SEAL	
11	299-0339	1	CONNECTOR	
		2	TERMINAL	
	299-0346	2	CABLE SEAL, GREEN	
12		1	CONNECTOR, (Black)	
	299-6629	1	CONNECTOR LOCK	
		4	TERMINAL	

Figure 10-10 Frame Harness (Continued)

Item	Part Number	Qty.	Description	Rev.
	267-9572	4	TERMINAL	
	299-0346	4	SEAL	
	299-0348	4	SEAL	
13	299-0958	1	CONNECTOR, (Black)	
	299-6629	1	CONNECTOR LOCK	
		4	TERMINAL	
	267-9572	4	TERMINAL	
	299-0346	4	SEAL	
	299-0348	4	SEAL	
14	299-0957	1	CONNECTOR, (Blue)	
	299-6629	1	CONNECTOR LOCK	
		6	TERMINAL	
	267-9572	2	TERMINAL	
	299-0346	6	SEAL	
	299-0348	1	SEAL	
	7R-2750	1	SEAL	
15	299-0956	1	CONNECTOR, (Green)	
	299-6629	1	CONNECTOR LOCK	
		6	TERMINAL	
	267-9572	2	TERMINAL	
	299-0346	6	SEAL	
	299-0348	2	SEAL	
16	334-5870	1	CONNECTOR	
	303-4970	4	TERMINAL	
	305-5450	1	CONNECTOR LOCK	
17	334-5871	2	CONNECTOR	
	305-5449	1	CONNECTOR LOCK	
	303-4970	2	TERMINAL	
18	305-2038	2	CONNECTOR	
	303-4969	5	TERMINAL	
		1	PLUG	
	305-2043	1	CONNECTOR CAP	
19	303-4997	6	MOLDED DIODE	

Figure 10-11 VEC Options Harness

TO VEC OPTIONS, (BLACK)

A		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	OPT PWR 4	12 GXL
B	OPT PWR 3	12 GXL
C	OPT PWR 2	12 GXL
D	5A ROOF WIPER PWR	16 GXL
E	AUX SW GND	16 GXL
F	OPT PWR 1	12 GXL
G	15A OPT 2	16 GXL
H	25A OPT	12 GXL

TO VEC OPTIONS, (GRAY)

B		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	D FAN GND	16 GXL
B	OPT GND 2	12 GXL
C	OPT GND 1	12 GXL
D	5A ROOF WIPER GND	16 GXL
E	15A OPT 2 GND	16 GXL
F	25A OPT GND	12 GXL
G	PLUGGED	–
H	PLUGGED	–

TO ROOF WIPER MOTOR

K		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	5A ROOF WIPER PWR	16 GXL
B	5A ROOF WIPER GND	16 GXL

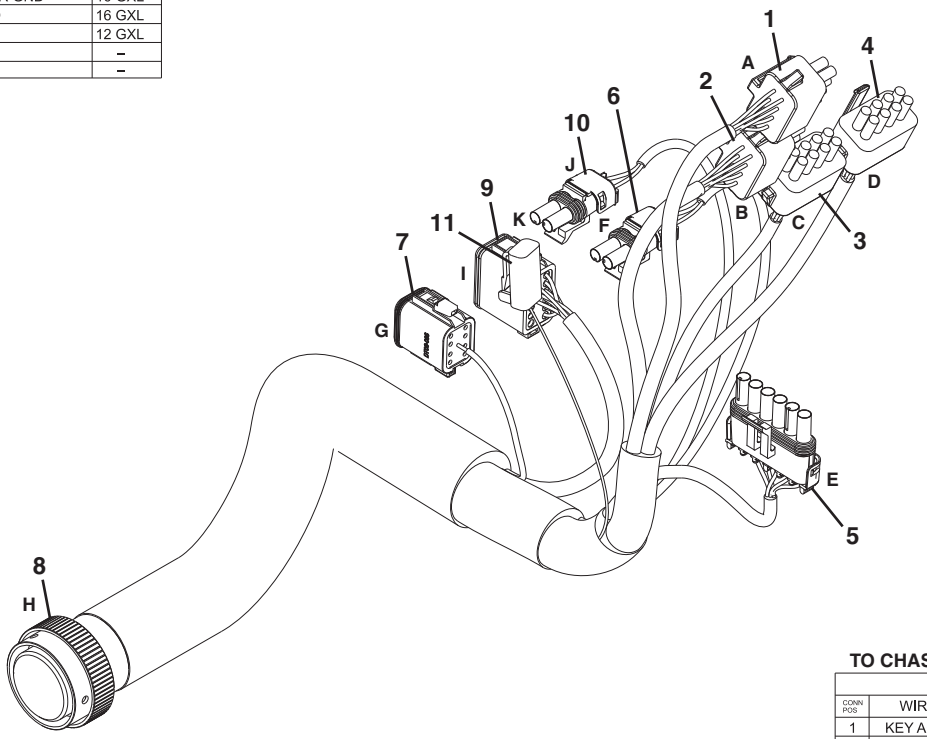
TO AC RELAY

F		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	25A OPT	12 GXL
B	25A OPT GND	12 GXL

J		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	15A OPT 2	16 GXL
B	15A OPT 2 GND	16 GXL

TO WORKLIGHT/BEACON OPTION HARNESS

G		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	STOP LT	14 GXL
2	S/W LT PWR	14 GXL
3	BCN PWR	16 GXL
4	DOME LT	14 GXL
5	DOME/BCN GND	14 GXL
6	CAB LT PWR	14 GXL
7	CAB LT GND	14 GXL
8	WORK LT	14 GXL



TO AUX ELECTRIC OPTION

I		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	QC GND	16 GXL
2	QC GND	16 GXL
3	SW2 87A	16 GXL
4	SW2 86	16 GXL
5	QC PWR	16 GXL
6	SW1 87A	16 GXL
7	QC PWR	16 GXL
8	SW1 86	16 GXL
9	AUX SW GND	16 GXL
10	PLUGGED	--
11	PLUGGED	--
12	PLUGGED	--

TO CHASSIS OPTIONS HARNES

H		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY ACC	16 GXL
2	AUX RLYS PWR	16 GXL
3	STOP LT	14 GXL
4	WORK LT	14 GXL
5	PLUGGED	--
6	PLUGGED	--
7	QC PWR	16 GXL
8	OPT PWR 1	12 GXL
9	QC PWR	16 GXL
10	OPT PWR 2	12 GXL
11	QC GND	16 GXL
12	OPT PWR 3	12 GXL
13	QC GND	16 GXL
14	OPT PWR 4	12 GXL
15	PLUGGED	--
16	OPT GND 1	12 GXL
17	PLUGGED	--
18	OPT GND 2	12 GXL
19	PLUGGED	--

TO VEC OPTIONS, (BLUE)

C		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	SW1 86	16 GXL
B	HEATER GND	12 GXL
C	CAB LT GND	14 GXL
D	DOME/BCN GND	14 GXL
E	AUX RLYS PWR	16 GXL
F	SW1 87A	16 GXL
G	SW2 86	16 GXL
H	SW2 87A	16 GXL

TO VEC OPTIONS, (GREEN)

D		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	WIPER PWR	12 GXL
B	HEATER PWR	12 GXL
C	KEY ACC	16 GXL
D	BCN PWR	16 GXL
E	D FAN PWR	16 GXL
F	DOME LT	14 GXL
G	CAB LT PWR	14 GXL
H	S/W LT PWR	14 GXL

TO ENCLOSED CAB HARNESS

E		
CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	D FAN PWR	16 GXL
B	HEATER PWR	12 GXL
C	WIPER PWR	12 GXL
D	HEATER GND	12 GXL
E	D FAN GND	16 GXL
F	PLUGGED	–

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Figure 10-11 VEC Options Harness

Item	Part Number	Qty.	Description	Rev.
	375-3914	1	VEC OPTIONS HARNESS, (includes all items)	A
1		1	CONNECTOR, (Black)	
	299-6629	1	CONNECTOR LOCK	
	196-2412	3	TERMINAL	
	299-0350	1	DUST CAP	
	299-0346	3	SEAL	
	267-9572	5	TERMINAL	
	299-0348	5	SEAL	
2	299-0958	1	CONNECTOR, (Gray)	
	299-6629	1	CONNECTOR LOCK	
	196-2412	3	TERMINAL	
	299-0350	1	DUST CAP	
	299-0346	3	SEAL	
	267-9572	3	TERMINAL	
	299-0348	3	SEAL	
3	299-0957	1	CONNECTOR, (Blue)	
	299-6629	1	CONNECTOR LOCK	
	196-2412	5	TERMINAL	
	299-0350	1	DUST CAP	
	299-0346	5	SEAL	
	267-9572	3	TERMINAL	
	299-0348	3	SEAL	
	7R-2750	8	SEAL	
4	299-0956	1	CONNECTOR, (Green)	
	299-6629	1	CONNECTOR LOCK	
	196-2412	3	TERMINAL	
	299-0350	1	DUST CAP	
	299-0346	3	SEAL	
	267-9572	5	TERMINAL	
	299-0348	5	SEAL	
	7R-2750	8	SEAL	
5		1	CONNECTOR	
	299-0349	2	TERMINAL	
		3	TERMINAL	
	299-0346	2	SEAL	
	299-0348	3	SEAL	
	299-0350	1	DUST CAP	
6		1	CONNECTOR	
		2	TERMINAL	
	299-0348	2	SEAL	
7	299-0929	1	CONNECTOR	
		1	CONNECTOR LOCK	
	303-4970	1	TERMINAL	
		7	TERMINAL	
8	305-5466	1	CONNECTOR	
	303-4969	6	TERMINAL	
	303-4971	6	TERMINAL	
		5	PLUG	
		2	TERMINAL	

Figure 10-11 VEC Options Harness (Continued)

Item	Part Number	Qty.	Description	Rev.
9		1	CONNECTOR	
	299-7106	1	CONNECOTR LOCK	
	303-4970	9	TERMINAL	
		3	PLUG	
10		1	CONNECTOR	
		2	TERMINAL	
	299-0346	2	SEAL	
11	334-5871	1	CONNECTOR, (includes rear seal)	
	305-5449	1	LOCKWEDGE	
	303-4970	2	TERMINAL	

Figure 10-11 VEC Options Harness (Continued)

Item	Part Number	Qty.	Description	Rev.

Figure 10-12 Transmission Relay Harness

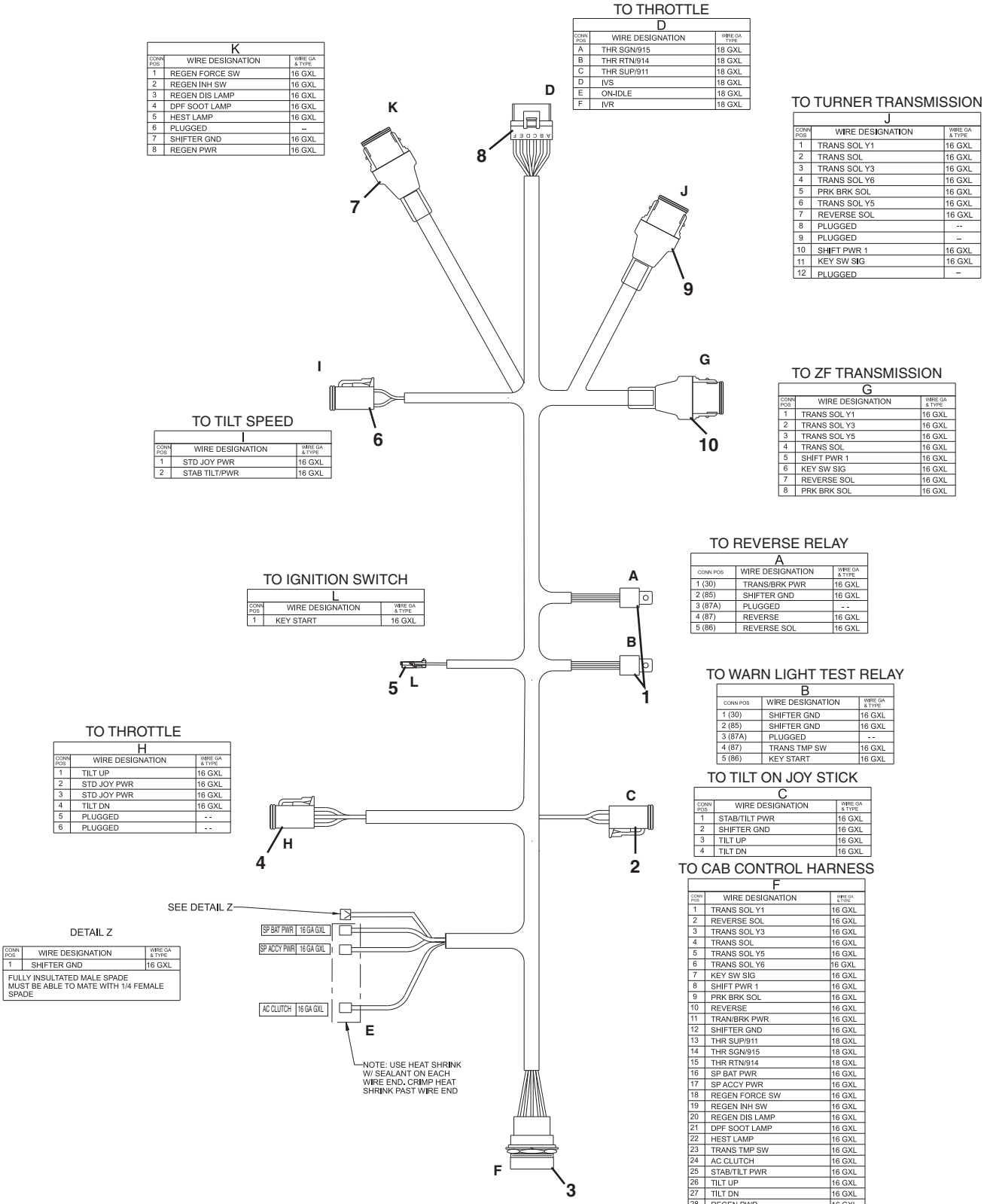

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Figure 10-12 Transmission Relay Harness

Item	Part Number	Qty.	Description	Rev.
	420-8959	1	TRANSMISSION RELAY HARNESS, (includes all items)	B
1	299-0312	2	RELAY	
		1	METRI-PACK RELAY	
	196-2413	4	TERMINAL	
		1	PLUG	
2	334-5870	1	CONNECTOR	
	305-5450	1	CONNECTOR LOCK	
	303-4970	4	TERMINAL	
3	331-9918	1	CONNECTOR	
	303-4969	31	TERMINAL	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
4	305-5465	1	CONNECTOR	
	305-5467	1	CONNECTOR LOCK	
	298-7269	4	CONTACT	
		2	PLUG	
5		1	CONNECTOR	
		1	TERMINAL	
		1	CABLE SEAL, RED	
6	304-2606	1	CONNECTOR	
	305-5449	1	CONNECTOR LOCK	
	298-7269	2	CONTACT	
7	334-5869	1	CONNECTOR	
	299-7107	1	WEDGE LOCK	
	298-7269	7	CONTACT	
		1	PLUG	
		1	BOOT	
8	362-6742	1	CONNECTOR	
	305-5502	6	TERMINAL	
9	299-7106	1	WEDGE LOCK	
	303-4970	9	TERMINAL	
10	334-5874	1	CONNECTOR	
	299-7107	1	WEDGE LOCK	
	303-4970	8	TERMINAL	

Figure 10-13 Enclosed Cab Options Harness

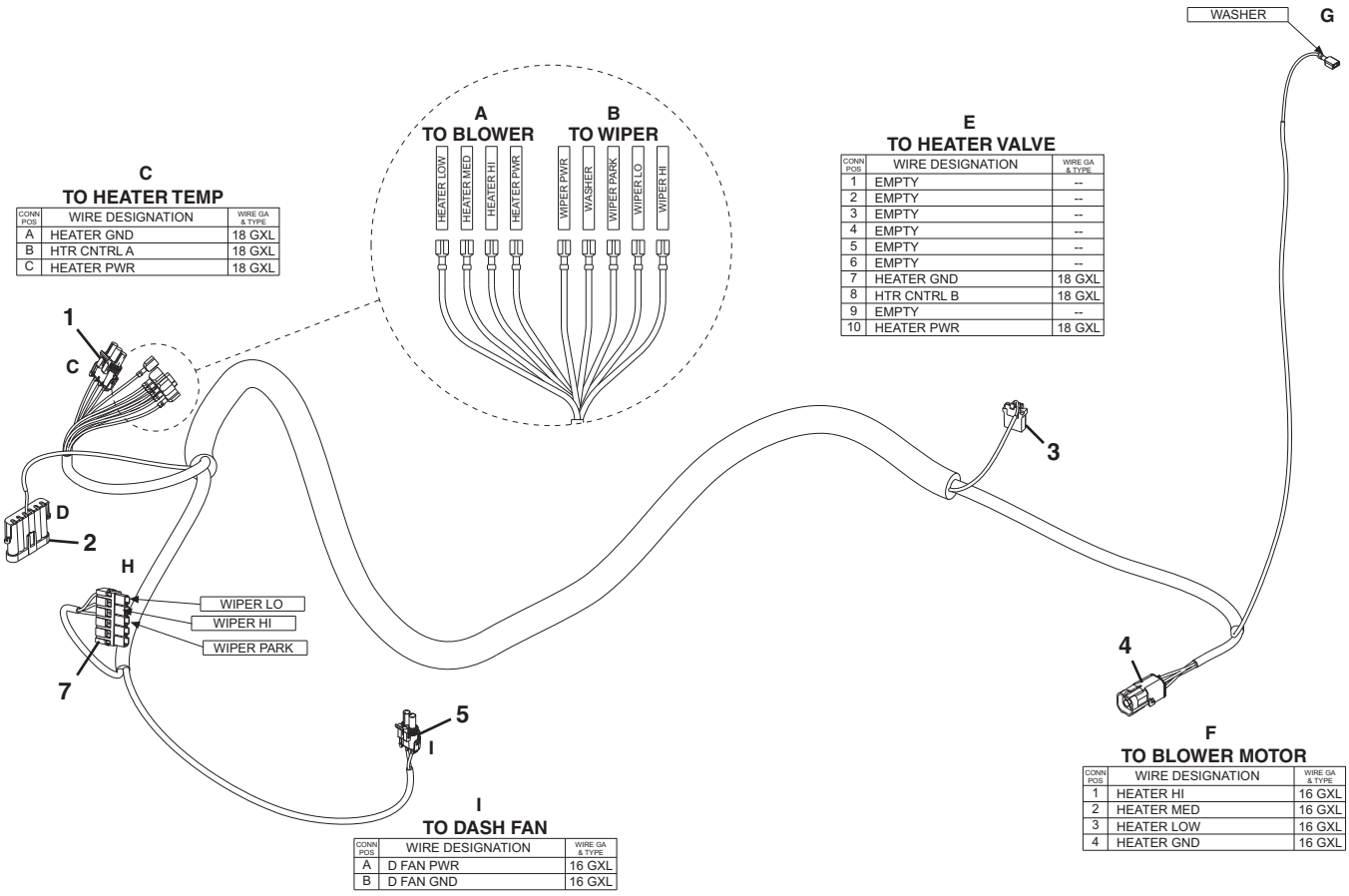
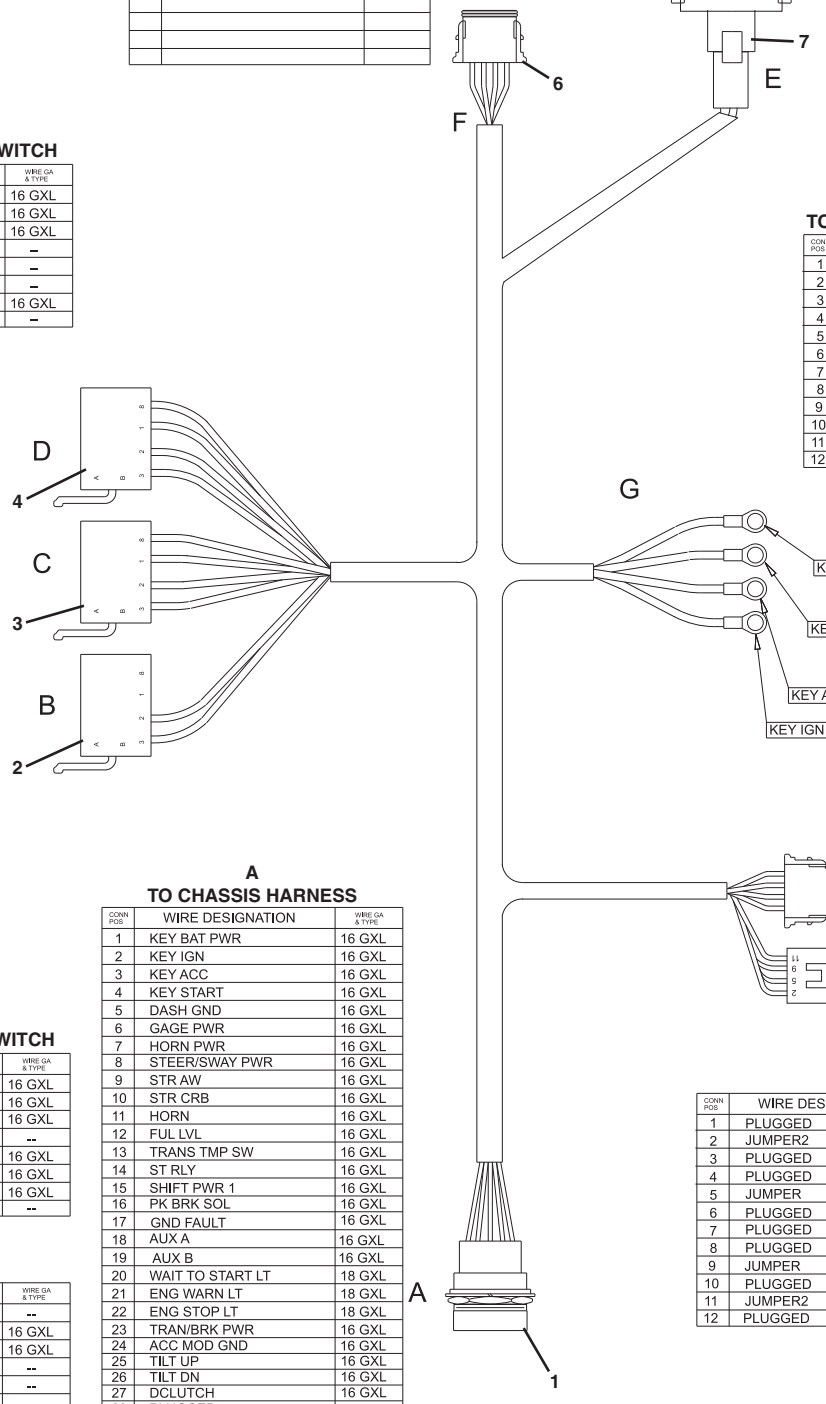


Figure 10-13 Enclosed Cab Options Harness

Item	Part Number	Qty.	Description	Rev.
	298-8426	1	ENCLOSED CAB OPTION HARNESS, (includes all items)	B
1	357-6165	1	CONNECTOR	
		3	TERMINAL	
	299-0346	3	SEAL	
2	299-0345	1	CONNECTOR	
		2	TERMINAL	
	305-5503	3	TERMINAL	
	299-0346	2	SEAL	
	299-0348	3	SEAL	
		1	PLUG	
3	299-0909	1	CONNECTOR	
	299-6630	3	TERMINAL	
4	299-0343	1	CONNECTOR	
		4	TERMINAL	
	299-0346	4	SEAL	
5		1	CONNECTOR	
		2	TERMINAL	
	299-0346	2	SEAL	
6	299-0910	1	CONNECTOR	

Figure 10-14 Dash Harness



F
TO DASH CONNECTOR

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	FUL LVL	16 GXL
2	DASH GND	16 GXL
3	GAGE PWR	16 GXL
4	ENG STOP LT	18 GXL
5	TRANS TMP SW	16 GXL
6	ENG WARN LT	18 GXL
7	WAIT TO START LT	18 GXL
8	PLUGGED	–

E
TO ACCY MODULE

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
A	CAN H/904	18 GXL
B	CAN L/905	18 GXL
C	SHIELD /020	--

D
TO STEER MODE SWITCH

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	STR CRB	16 GXL
2	STEER/SWAY PWR	16 GXL
3	STR AW	16 GXL
4	OPEN	–
5	OPEN	–
6	OPEN	–
7	DASH GND	16 GXL
8	OPEN	–

H
TO ACCY MODULE CONNECTOR

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	DCLUTCH IN	16 GXL
2	KEY IGN	16 GXL
3	TILT UP	16 GXL
4	TILT DN	16 GXL
5	DCLUTCH	16 GXL
6	AUX A	16 GXL
7	AUX B	16 GXL
8	ACC MOD GND	16 GXL
9	PK BRK SOL	16 GXL
10	PLUGGED	–
11	GND FAULT	16 GXL
12	PLUGGED	–

C
TO PARK BRAKE SWITCH

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	PK BRK SOL	16 GXL
2	TRAN/BRK PWR	16 GXL
3	DCLUTCH IN	16 GXL
4	OPEN	--
5	SHIFT PWR 1	16 GXL
6	ST RLY	16 GXL
7	DASH GND	16 GXL
8	OPEN	--

B
TO HORN

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	OPEN	--
2	HORN PWR	16 GXL
3	HORN	16 GXL
4	OPEN	--
5	OPEN	--
6	OPEN	--
7	OPEN	--
8	OPEN	--

A
TO CHASSIS HARNESS

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	KEY BAT PWR	16 GXL
2	KEY IGN	16 GXL
3	KEY ACC	16 GXL
4	KEY START	16 GXL
5	DASH GND	16 GXL
6	GAGE PWR	16 GXL
7	HORN PWR	16 GXL
8	STEER/SWAY PWR	16 GXL
9	STR AW	16 GXL
10	STR CRB	16 GXL
11	HORN	16 GXL
12	FUL LVL	16 GXL
13	TRANS TMP SW	16 GXL
14	ST RLY	16 GXL
15	SHIFT PWR 1	16 GXL
16	PK BRK SOL	16 GXL
17	GND FAULT	16 GXL
18	AUX A	16 GXL
19	AUX B	16 GXL
20	WAIT TO START LT	18 GXL
21	ENG WARN LT	18 GXL
22	ENG STOP LT	18 GXL
23	TRAN/BRK PWR	16 GXL
24	ACC MOD GND	16 GXL
25	TILT UP	16 GXL
26	TILT DN	16 GXL
27	DCLUTCH	16 GXL
28	PLUGGED	--
29	CAN H/904	18 GXL
30	CAN L/905	18 GXL
31	SHIELD /020	--

J

CONN POS	WIRE DESIGNATION	WIRE GA & TYPE
1	PLUGGED	--
2	JUMPER2	16 GXL
3	PLUGGED	–
4	PLUGGED	–
5	JUMPER	16 GXL
6	PLUGGED	–
7	PLUGGED	–
8	PLUGGED	–
9	JUMPER	16 GXL
10	PLUGGED	–
11	JUMPER2	16 GXL
12	PLUGGED	–

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Figure 10-14 Dash Harness

Item	Part Number	Qty.	Description	Rev.
	370-1094	1	DASH HARNESS, (includes all items)	D
1	344-7164	1	CONNECTOR	
	303-4970	29	TERMINAL	
		1	PLUG	
	303-4983	1	NUT	
	303-4982	1	LOCKWASHER	
2	344-7165	2	METRI-PACK CONNECTOR	
3	344-7165	6	METRI-PACK CONNECTOR	
4	344-7165	4	METRI-PACK CONNECTOR	
5	299-0339	1	CONNECTOR	
		1	TERMINAL	
6		1	CONNECTOR	
		1	WEDGELOCK	
	303-4970	7	TERMINAL	
		1	PLUG	
7		1	CONNECTOR, (includes rear seal)	
	305-5503	1	CONNECTOR LOCK	
	356-2911	2	TERMINAL	
	323-7238	1	CONNECTOR	
		1	CONNECTOR	
	305-5503	1	CONNECTOR LOCK	
8	299-0908	1	CONNECTOR	
	299-7106	1	CONNECTOR LOCK	
	303-4970	10	TERMINAL	
		2	PLUG	
9		1	CONNECTOR	
	304-2647	1	CONNECTOR LOCK	
	303-4970	4	TERMINAL	
		8	PLUG	

Figure 10-15 Instrument Panel Harness

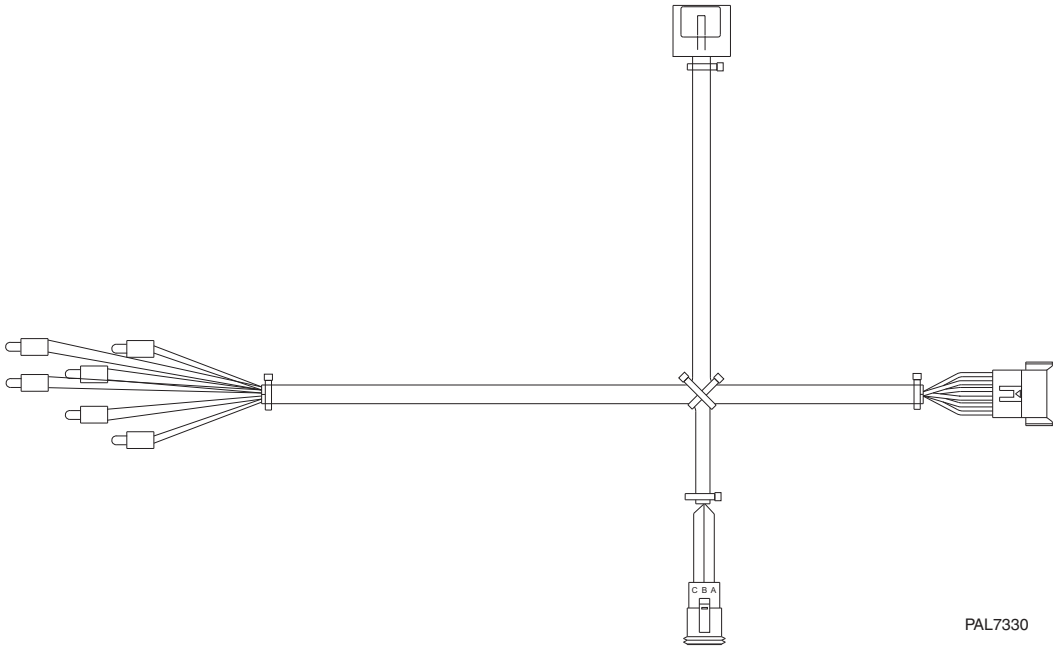


Figure 10-15 Instrument Panel Harness

Item	Part Number	Qty.	Description	Rev.
	334-0789	1	INSTRUMENT PANEL HARNESS	B

Figure 10-16 Frame Road Light Harness

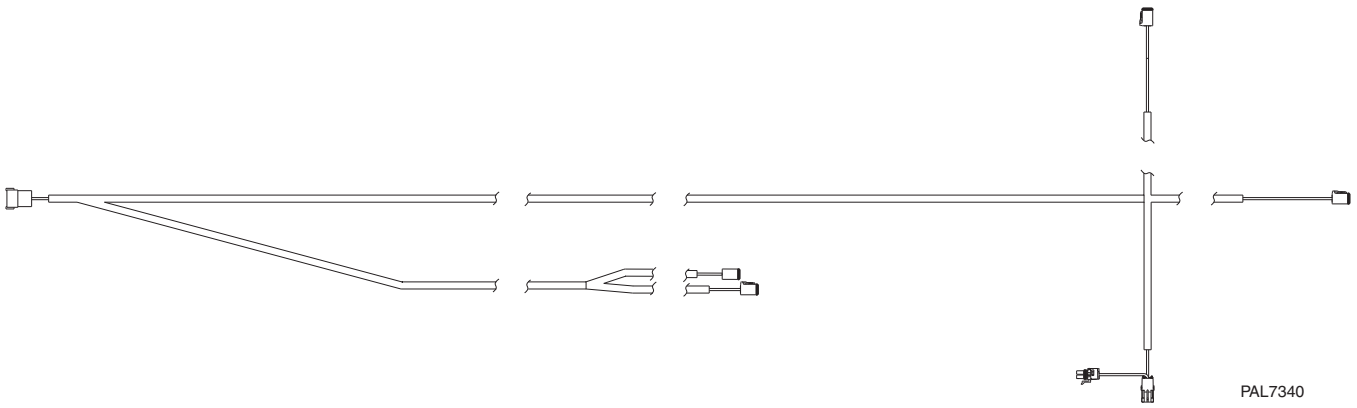


Figure 10-16 Frame Road Light Harness

Item	Part Number	Qty.	Description	Rev.
	375-3916	1	FRAME ROAD LIGHT HARNESS	A

Figure 10-17 Boom Work Light Harness

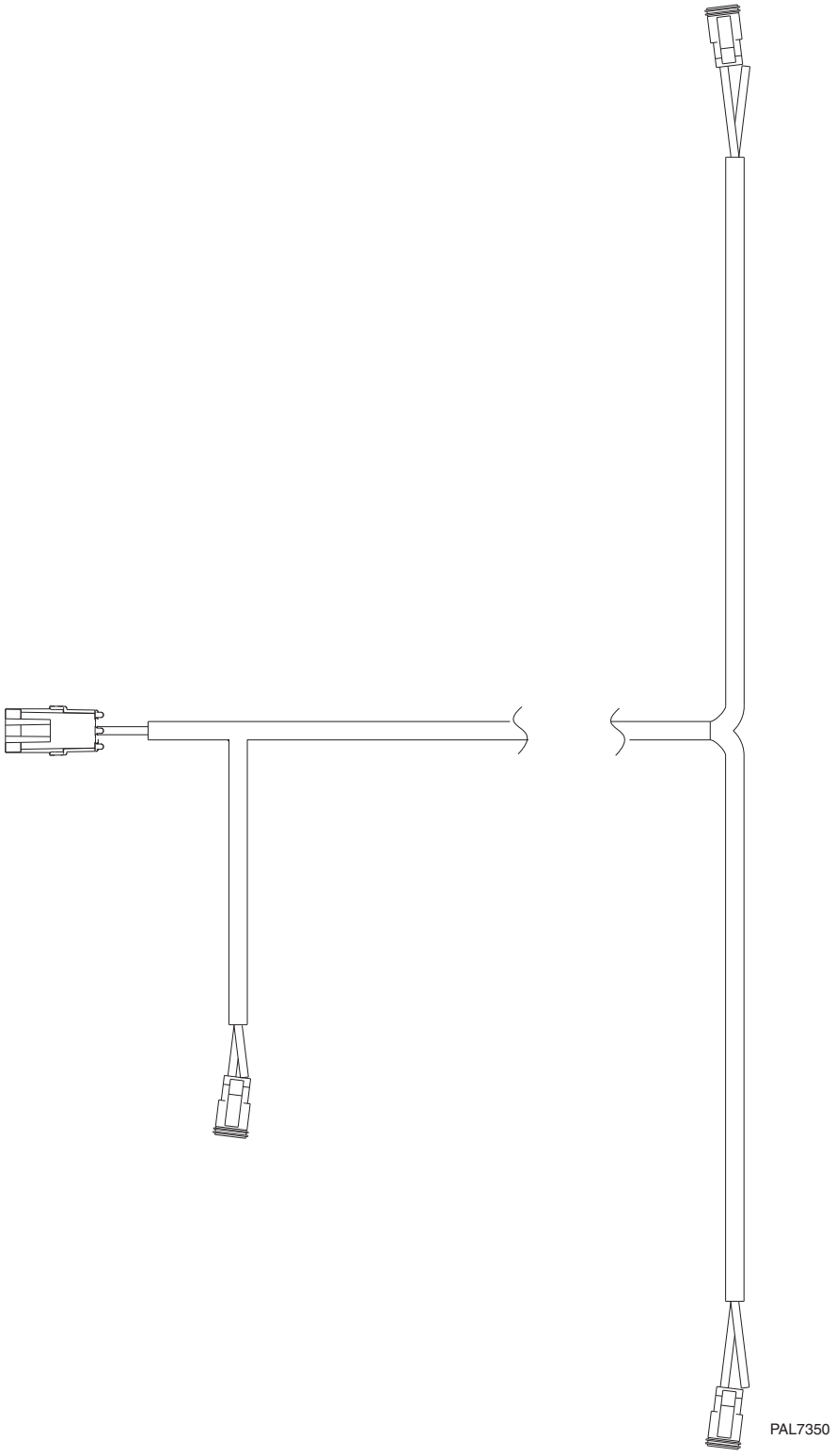


Figure 10-17 Boom Work Light Harness

Item	Part Number	Qty.	Description	Rev.
	375-3913	1	BOOM WORKLIGHT HARNESS	A

Figure 10-18 Cab Road Light Harness

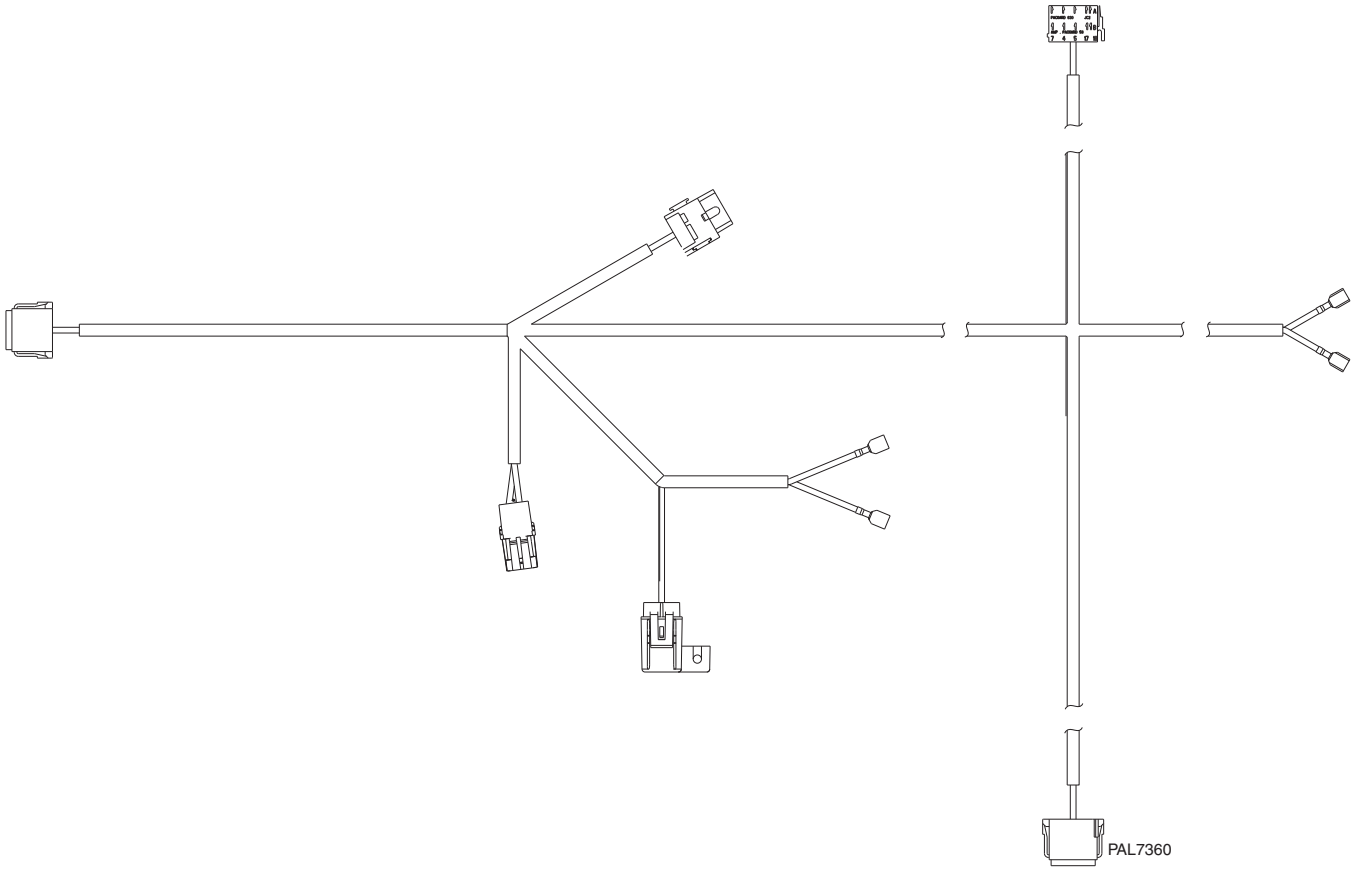
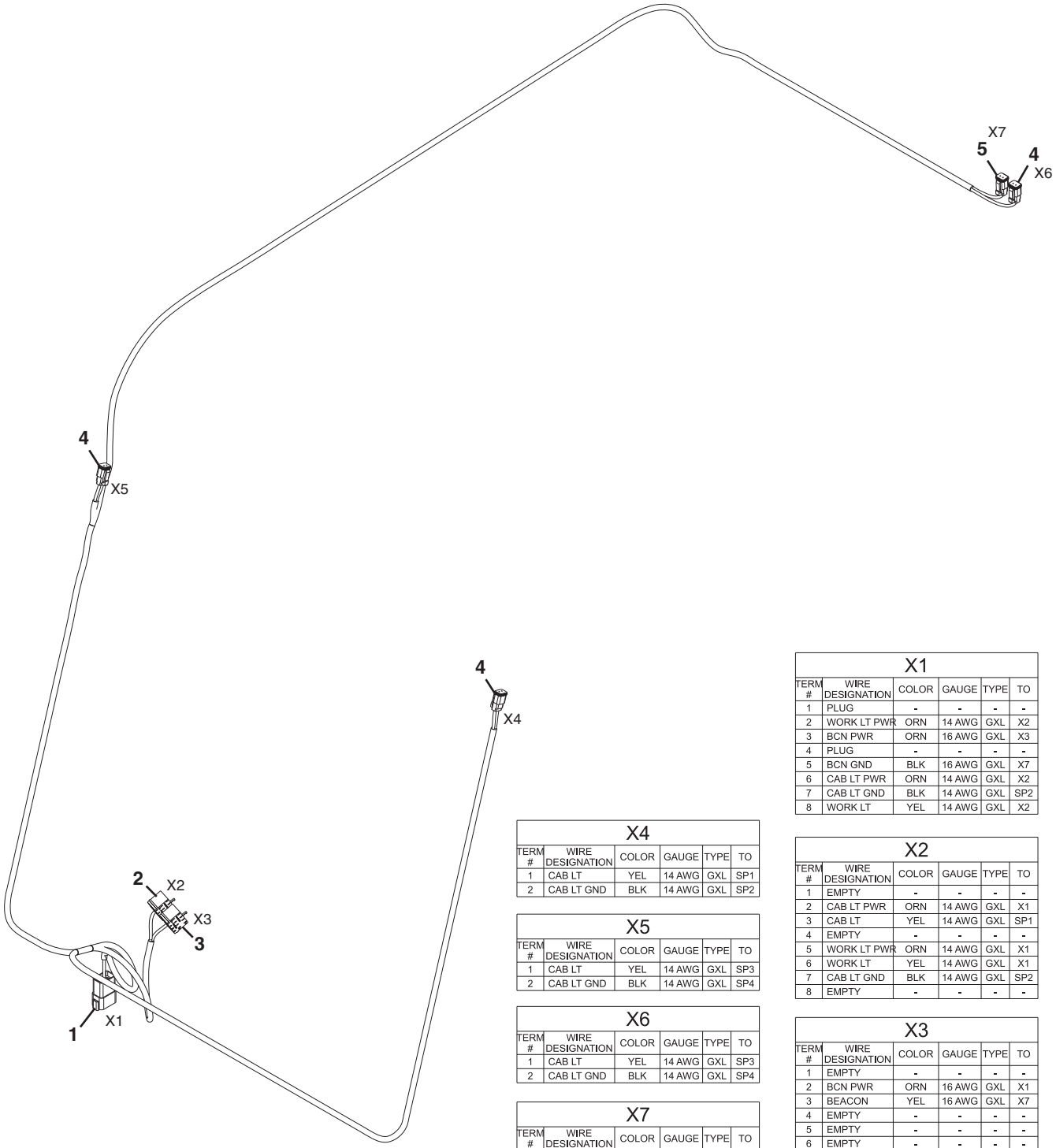


Figure 10-18 Cab Road Light Harness

Item	Part Number	Qty.	Description	Rev.
	303-4918	1	CAB ROAD LIGHT HARNESS	C

Figure 10-19 Cab Work Light Harness



X1					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	PLUG	-	-	-	-
2	WORK LT PWR	ORN	14 AWG	GXL	X2
3	BCN PWR	ORN	16 AWG	GXL	X3
4	PLUG	-	-	-	-
5	BCN GND	BLK	16 AWG	GXL	X7
6	CAB LT PWR	ORN	14 AWG	GXL	X2
7	CAB LT GND	BLK	14 AWG	GXL	SP2
8	WORK LT	YEL	14 AWG	GXL	X2

X4					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	CAB LT	YEL	14 AWG	GXL	SP1
2	CAB LT GND	BLK	14 AWG	GXL	SP2

X2					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	EMPTY	-	-	-	-
2	CAB LT PWR	ORN	14 AWG	GXL	X1
3	CAB LT	YEL	14 AWG	GXL	SP1
4	EMPTY	-	-	-	-
5	WORK LT PWR	ORN	14 AWG	GXL	X1
6	WORK LT	YEL	14 AWG	GXL	X1
7	CAB LT GND	BLK	14 AWG	GXL	SP2
8	EMPTY	-	-	-	-

X5					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	CAB LT	YEL	14 AWG	GXL	SP3
2	CAB LT GND	BLK	14 AWG	GXL	SP4

X6					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	CAB LT	YEL	14 AWG	GXL	SP3
2	CAB LT GND	BLK	14 AWG	GXL	SP4

X7					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	BEACON	YEL	16 AWG	GXL	X3
2	BCN GND	BLK	16 AWG	GXL	X1

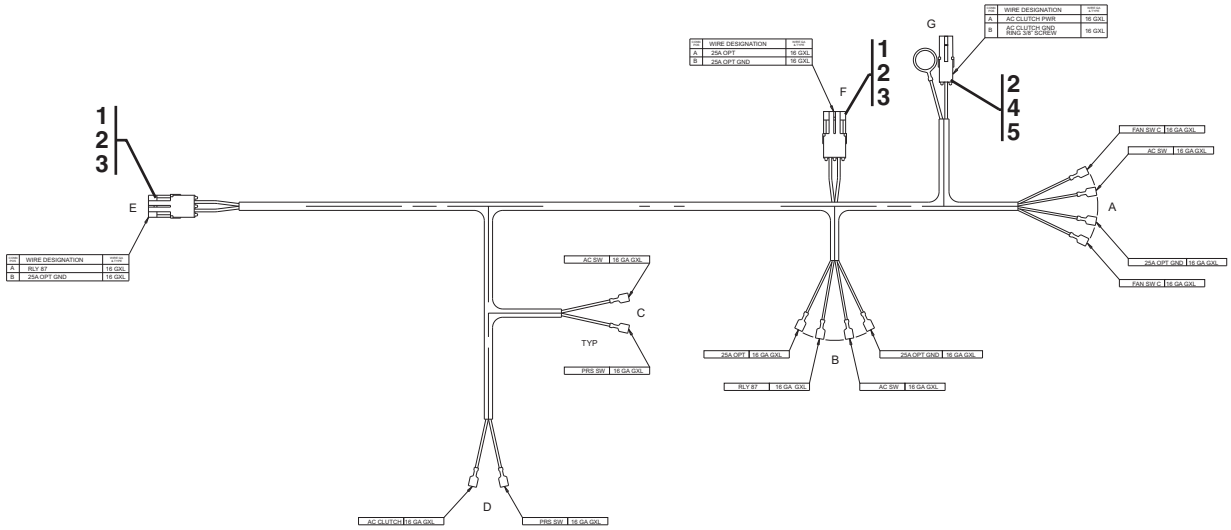
X3					
TERM #	WIRE DESIGNATION	COLOR	GAUGE	TYPE	TO
1	EMPTY	-	-	-	-
2	BCN PWR	ORN	16 AWG	GXL	X1
3	BEACON	YEL	16 AWG	GXL	X7
4	EMPTY	-	-	-	-
5	EMPTY	-	-	-	-
6	EMPTY	-	-	-	-
7	CAB LT GND	BLK	14 AWG	GXL	SP2
8	EMPTY	-	-	-	-

PAL7070

Figure 10-19 Cab Work Light Harness

Item	Part Number	Qty.	Description	Rev.
	375-3915	1	CAB WORK LIGHT HARNESS, (includes all items)	A
1		1	DEUTSCH CONNECTOR	
		1	WEDGELOCK	
	303-4970	2	SOCKET TERMINAL	
		4	SOCKET TERMINAL	
		2	PLUG	
2	304-2612	1	CONNECTOR	
		5	TERMINAL	
3	304-2612	1	CONNECTOR	
		3	TERMINAL	
4	334-5871	3	PLUG CONNECTOR, (includes rear seal)	
	305-5449	1	WEDGELOCK	
		2	SOCKET TERMINAL	
5	334-5871	3	PLUG CONNECTOR, (includes rear seal)	
	305-5449	1	WEDGELOCK	
	303-4970	2	SOCKET TERMINAL	

Figure 10-20 A/C Harness



PAL3011

WIRE CHART										
WIRE DESIGNATION	WIRE COLOR/STRIPE	WIRE GAGE	WIRE END A	WIRE END B	WIRE END C	WIRE END D	WIRE END E	WIRE END F	WIRE END G	REMARKS
25A OPT	ORANGE	16		1/4 FEMALE SPADE				PACKARD ASSY		25 AMP OPTION
25A OPT GND	BLACK	16	1/4 FEMALE SPADE	1/4 FEMALE SPADE			PACKARD ASSY	PACKARD ASSY	RING 3/8" SCREW	25 AMP OPTION GROUND
AC SW	YELLOW	16	1/4 FEMALE SPADE	1/4 FEMALE SPADE	1/4 FEMALE SPADE					AC SWITCH
AC CLUTCH	WHITE	16				1/4 FEMALE SPADE			PACKARD ASSY	AC CLUTCH
FAN SW C	GREEN	16	1/4 FEMALE SPADE 2X							AC SWITCH TO FAN C
PRS SW	VIOLET	16			1/4 FEMALE SPADE	1/4 FEMALE SPADE				PRESSURE SWITCH
RLY 87	ORANGE	16		1/4 FEMALE SPADE			PACKARD ASSY			RELAY 87

Figure 10-20 A/C Harness

Item	Part Number	Qty.	Description	Rev.
	298-8453	1	A/C HARNESS, (includes items 1 thru 5)	D
1	299-0341	2	SHROUD	
2	298-7282	3	TERMINAL	
3	299-0348	2	CABLE SEAL	
4	299-0339	1	CONNECTOR	
5	299-0346	1	CABEL SEAL, GREEN	

Figure 10-21 VEC Harness

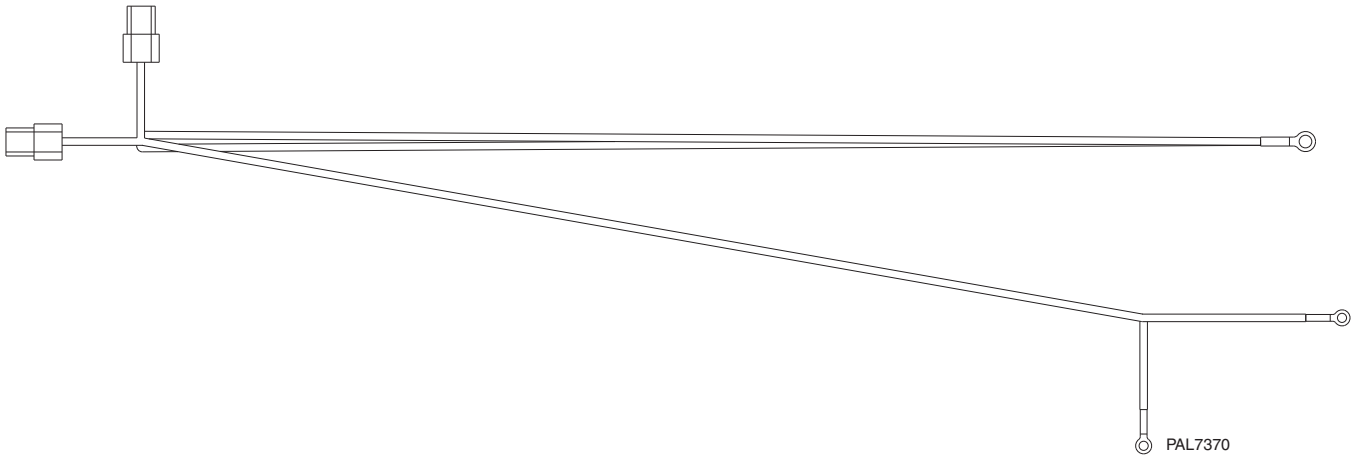


Figure 10-21 VEC Harness

Item	Part Number	Qty.	Description	Rev.
	389-3509	1	VEC HARNESS	D

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SECTION 11
DECALS

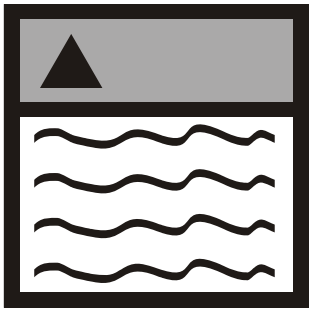


Figure 11-1 Cab and Frame Decals

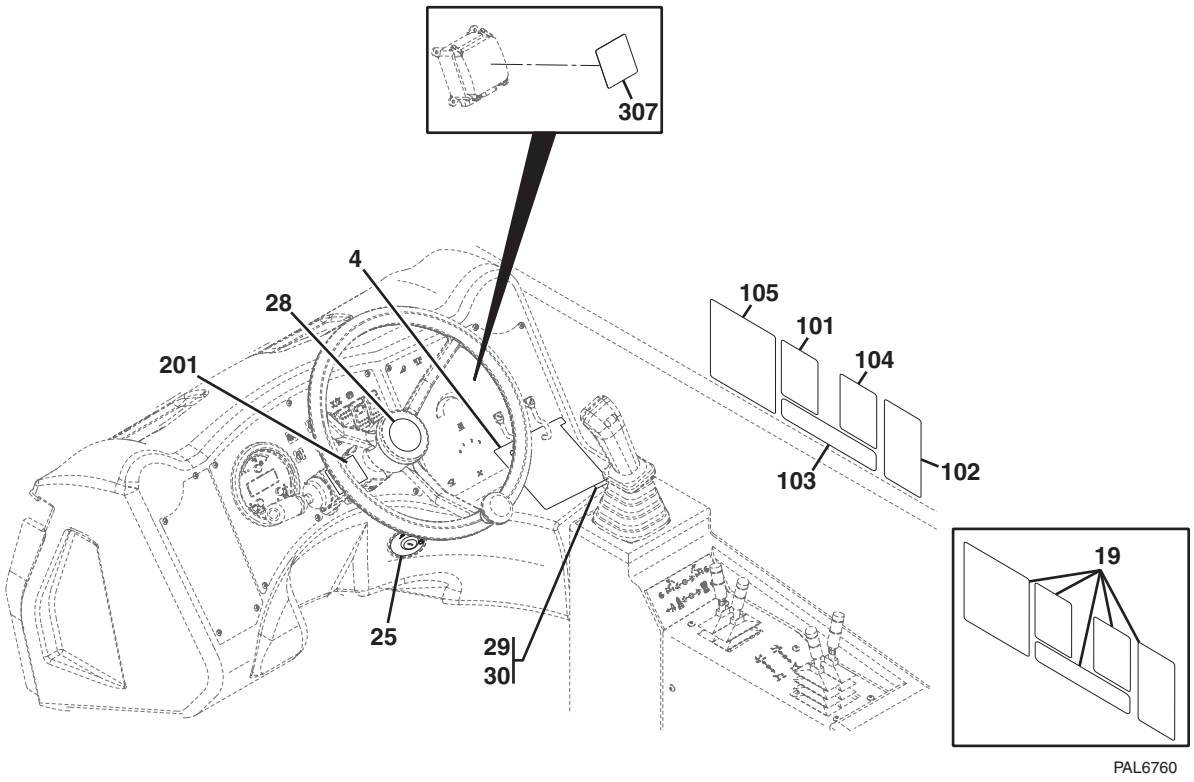


Figure 11-1 Cab and Frame Decals (Continued)

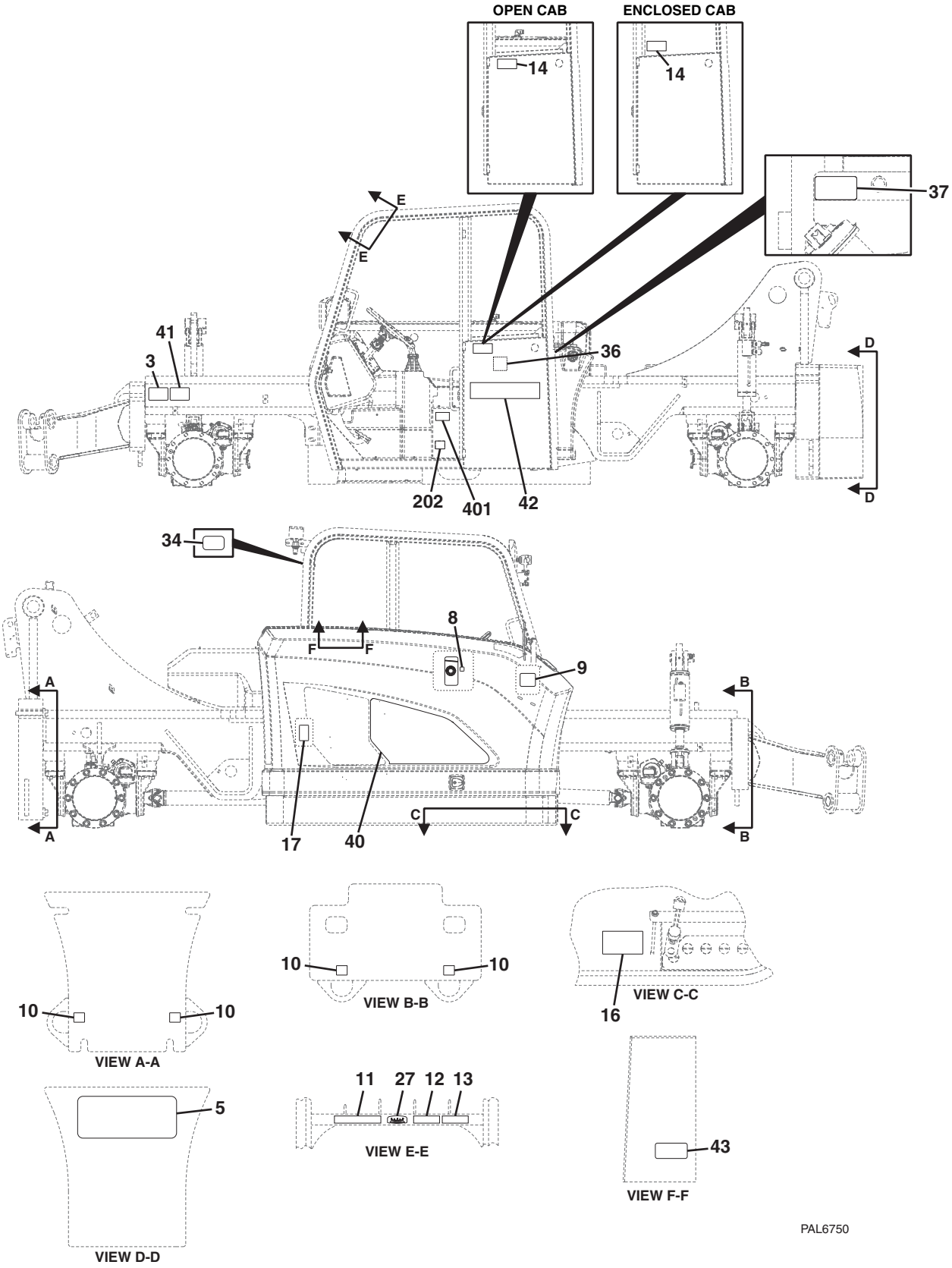


Figure 11-1 Cab and Frame Decals

Item	Part Number	Qty.	Description	Rev.
	389-3627	Ref	DECAL INSTALLATION, **(ENGLISH-TL1055C)**, (not available to order, see items 1 thru 43 for service)	C
	389-3571	Ref	DECAL INSTALLATION, **(ENGLISH-TL1255C)**, (not available to order, see items 1 thru 43 for service)	D
	389-3628	Ref	DECAL INSTALLATION, **(ISO-TL1055C)**, (not available to order, see items 1 thru 36 & 40 thru 43 for service)	D
	389-3575	Ref	DECAL INSTALLATION, **(ISO-TL1255C)**, (not available to order, see items 1 thru 36 & 40 thru 43 for service)	E
	389-3629	Ref	DECAL INSTALLATION, **(FRENCH-TL1055C)**, (not available to order, see items 1 thru 43 for service)	D
	389-3576	Ref	DECAL INSTALLATION, **(FRENCH-TL1255C)**, (not available to order, see items 1 thru 43 for service)	E
1		Ref	LH DECAL, (not shown), (see Figure 11-2 for details)	
2		Ref	RH DECAL, (not shown), (see Figure 11-2 for details)	
3	NSS	1	S/N PLATE	
4	389-3641	1	CAPACITY CHART BOOKLET, **(ENGLISH-TL1055C)**	A
		1	COVER/STANDARD CARRIAGE **(ENGLISH-TL1055C)**	
		1	STANDARD/ROTATE CARRIAGE, **(ENGLISH-TL1055C)**	
			ROTATE/100 DEGREE SWING CARRIAGE, **(ENGLISH-TL1055C)**	
		1	100 DEGREE SWING/FORK POSITIONING CARRIAGE, **(ENGLISH-TL1055C)**	
		1	FORK POSITIONING/TRUSS BOOM, **(ENGLISH-TL1055C)**	
		1	TRUSS BOOM/BUCKET, **(ENGLISH-TL1055C)**	
		1	BUCKET/MULTI-PURPOSE BUCKET, **(ENGLISH-TL1055C)**	
		1	MULTI-PURPOSE BUCKET/FORK MOUNTED HOOK, **(ENGLISH-TL1055C)**	
		1	FORK MOUNTED HOOK/COVER, **(ENGLISH-TL1055C)**	
		1	CAPACITY CHART BOOKLET, **(ISO-TL1055C)**	A
			COVER/STANDARD CARRIAGE **(ISO-TL1055C)**	
		1	STANDARD/ROTATE CARRIAGE, **(ISO-TL1055C)**	
		1	ROTATE/100 DEGREE SWING CARRIAGE, **(ISO-TL1055C)**	
		1	100 DEGREE SWING/FORK POSITIONING CARRIAGE, **(ISO-TL1055C)**	
		1	FORK POSITIONING/TRUSS BOOM, **(ISO-TL1055C)**	
		1	TRUSS BOOM/BUCKET, **(ISO-TL1055C)**	
		1	BUCKET/MULTI-PURPOSE BUCKET, **(ISO-TL1055C)**	
		1	MULTI-PURPOSE BUCKET/FORK MOUNTED HOOK, **(ISO-TL1055C)**	
		1	FORK MOUNTED HOOK/COVER, **(ISO-TL1055C)**	
	389-3637	1	CAPACITY CHART BOOKLET, **(ENGLISH-TL1255C)**	A
	417-9130	1	COVER/STANDARD CARRIAGE **(ENGLISH-TL1255C)**	
	417-9131	1	STANDARD/ROTATE CARRIAGE, **(ENGLISH-TL1255C)**	
	417-9132	1	ROTATE/100 DEGREE SWING CARRIAGE, **(ENGLISH-TL1255C)**	
	417-9133	1	100 DEGREE SWING/FORK POSITIONING CARRIAGE, **(ENGLISH-TL1255C)**	
	417-9134	1	FORK POSITIONING/TRUSS BOOM, **(ENGLISH-TL1255C)**	
	417-9135	1	TRUSS BOOM/BUCKET, **(ENGLISH-TL1255C)**	
	417-9136	1	BUCKET/MULTI-PURPOSE BUCKET, **(ENGLISH-TL1255C)**	
	417-9137	1	MULTI-PURPOSE BUCKET/FORK MOUNTED HOOK, **(ENGLISH-TL1255C)**	

Figure 11-1 Cab and Frame Decals (Continued)

Item	Part Number	Qty.	Description	Rev.
	417-9147	1	FORK MOUNTED HOOK/COVER, **(ENGLISH-TL1255C)**	
	389-3638	1	CAPCITY CHART BOOKLET, **(ISO-TL1255C)**	A
	417-9138	1	COVER/STANDARD CARRIAGE **(ISO-TL1255C)**	
	417-9139	1	STANDARD/ROTATE CARRIAGE, **(ISO-TL1255C)**	
	417-9140	1	ROTATE/100 DEGREE SWING CARRIAGE, **(ISO-TL1255C)**	
	417-9141	1	100 DEGREE SWING/FORK POSITIONING CARRIAGE, **(ISO-TL1255C)**	
	417-9142	1	FORK POSITIONING/TRUSS BOOM, **(ISO-TL1255C)**	
	417-9143	1	TRUSS BOOM/BUCKET, **(ISO-TL1255C)**	
	417-9144	1	BUCKET/MULTI-PURPOSE BUCKET, **(ISO-TL1255C)**	
	417-9145	1	MULTI-PURPOSE BUCKET/FORK MOUNTED HOOK, **(ISO-TL1255C)**	
	417-9146	1	FORK MOUNTED HOOK/COVER, **(ISO-TL1255C)**	
	389-3642	1	SUPPLEMENTIAL CAPACITY CHART, **(ENGLISH-TL1055C)**	B
		1	COVER/WINCH, **(ENGLISH-TL1055C)**	
		1	WINCH/180 DEGREE SWING CARRIAGE, **(ENGLISH-TL1055C)**	
		1	180 DEGREE SWING CARRIAGE/TRUSS BOOM, **(ENGLISH-TL1055C)**	
		1	TRUSS BOOM/FORK POSITIONING CARRIAGE, **(ENGLISH-TL1055C)**	
		1	FORK POSITIONING CARRIAGE/COVER, **(ENGLISH-TL1055C)**	
	389-3643	1	SUPPLEMENTIAL CAPACITY CHART, **(ISO-TL1055C)**	
		1	COVER/WINCH, **(ISO-TL1055C)**	
		1	WINCH/180 DEGREE SWING CARRIAGE, **(ISO-TL1055C)**	
		1	180 DEGREE SWING CARRIAGE/TRUSS BOOM, **(ISO-TL1055C)**	
		1	TRUSS BOOM/FORK POSITIONING CARRIAGE, **(ISO-TL1055C)**	
		1	FORK POSITIONING CARRIAGE/COVER, **(ISO-TL1055C)**	
	389-3639	1	SUPPLEMENTIAL CAPACITY CHART, **(ENGLISH-TL1255C)**	B
	421-2917	1	COVER/WINCH, **(ENGLISH-TL1255C)**	
	421-2918	1	WINCH/180 DEGREE SWING CARRIAGE, **(ENGLISH-TL1255C)**	
	421-2919	1	180 DEGREE SWING CARRIAGE/SWING CARRIAGE, **(ENGLISH-TL1255C)**	
	421-2920	1	SWING CARRIAGE/TRUSS BOOM, **(ENGLISH-TL1255C)**	
	421-2921	1	TRUSS BOOM/FORK POSITIONING CARRIAGE, **(ENGLISH-TL1255C)**	
		1	FORK POSITIONING CARRIAGE/COVER, **(ENGLISH-TL1255C)**	
	389-3640	1	SUPPLEMENTIAL CAPACITY CHART, **(ISO-TL1255C)**	B
	421-2922	1	COVER/WINCH, **(ISO-TL1255C)**	
	421-2923	1	WINCH/180 DEGREE SWING CARRIAGE, **(ISO-TL1255C)**	
	421-2924	1	180 DEGREE SWING CARRIAGE/SWING CARRIAGE, **(ISO-TL1255C)**	
	421-2925	1	SWING CARRIAGE/TRUSS BOOM, **(ISO-TL1255C)**	
	421-2926	1	TRUSS BOOM/FORK POSITIONING CARRIAGE, **(ISO-TL1255C)**	
		1	FORK POSITIONING CARRIAGE/COVER, **(ISO-TL1255C)**	
5	303-4906	1	CAT LOGO DECAL	
6		Ref	EXTEND DECAL, (not shown), (see Figure 11-2 for details)	
7		Ref	ANGLE DECAL, (not shown), (see Figure 11-2 for details)	
8	389-3574	1	OIL LEVEL DECAL	
9	303-4962	1	HYDRAULIC OIL DECAL	
10	330-4921	4	TIE DOWN DECAL, **(ENGLISH)**	
	303-4963	4	TIE DOWN DECAL, **(ISO & FRENCH)**	

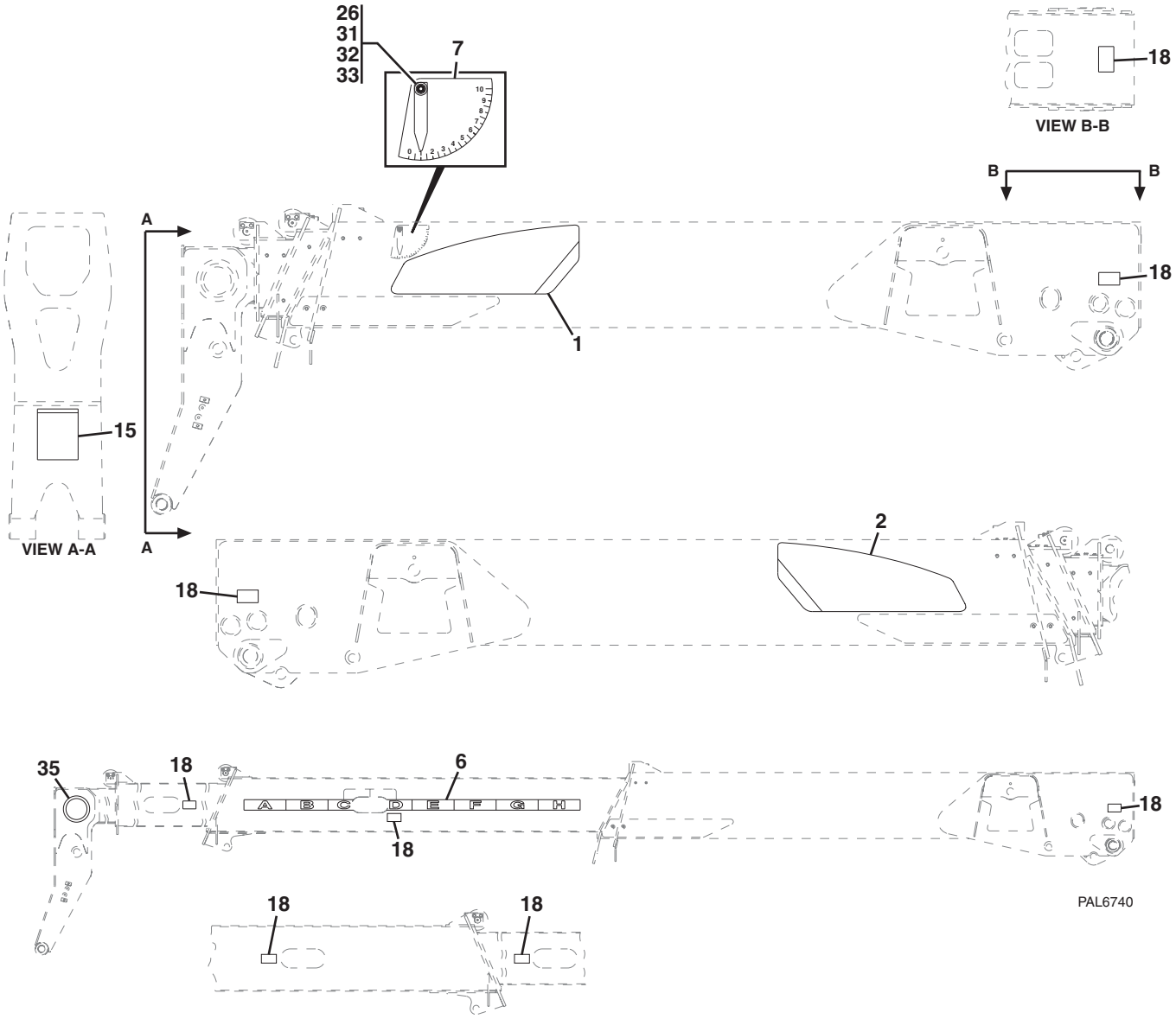
Figure 11-1 Cab and Frame Decals (Continued)

Item	Part Number	Qty.	Description	Rev.
11	303-4946	1	TIP OVER DECAL, **(ENGLISH)**	
	314-5324	1	TIP OVER DECAL, **(ISO)**	
	314-2338	1	TIP OVER DECAL, **(FRENCH)**	
12	303-4941	1	ELECTROCUTION HAZARD DECAL, **(ENGLISH)**	
	314-5321	1	ELECTROCUTION HAZARD DECAL, **(ISO)**	
	314-2339	1	ELECTROCUTION HAZARD DECAL, **(FRENCH)**	
13	303-4949	1	CRUSH HAZARD WARNING DECAL, **(ENGLISH)**	
	314-5315	1	CRUSH HAZARD WARNING DECAL, **(ISO)**	
	314-2340	1	CRUSH HAZARD WARNING DECAL, **(FRENCH)**	
14	303-4948	1	NO RIDERS DECAL, **(ENGLISH)**	
	314-5316	1	NO RIDERS DECAL, **(ISO)**	
	314-2341	1	NO RIDERS DECAL, **(FRENCH)**	
15		Ref	CARRY PERSONNEL DECAL, (not shown), (see Figure 11-2 for details)	
16	303-4939	1	BATTERY DECAL, **(ENGLISH)**	
	314-5318	1	BATTERY DECAL, **(ISO)**	
	314-2343	1	BATTERY DECAL, **(FRENCH)**	
17	303-4942	1	ROTATING PARTS DECAL, **(ENGLISH)**	
	314-5322	1	ROTATING PARTS DECAL, **(ISO)**	
	314-2344	1	ROTATING PARTS DECAL, **(FRENCH)**	
18		Ref	PINCH POINT DECAL, (see Figure 11-2 for details)	
19	305-3791	1	RH DASH DECAL KIT, (includes items 101 thru 105), **(ENGLISH)**	2
	314-5317	1	RH DASH DECAL KIT, (includes items 101 thru 105), **(ISO)**	1
	314-2350	1	RH DASH DECAL KIT, (includes items 101 thru 105), **(FRENCH)**	1
25	303-4909	1	CAT IGNITION SWITCH DECAL	
26		Ref	BOOM ANGLE INDICATOR, (not shown), (see Figure 2-1 for details)	
27	299-0354	1	TILT ANGLE GAUGE	
28	303-4819	1	CAT LOGO DECAL	
29	389-3577	1	MAINTENANCE CHART	
30	373-2716	1	LUBRICATION CHART	
31		Ref	BOOM ANGLE SPACER, (not shown), (see Figure 2-1 for details)	
32		Ref	WASHER, 3/8, (not shown), (see Figure 2-1 for details)	
33		Ref	HEX LOCKNUT, 3/8-16, (not shown), (see Figure 2-1 for details)	
34	330-4923	1	ETHER START WARNING DECAL, **(ENGLISH)**	
	323-5615	1	ETHER START WARNING DECAL, **(ISO & FRENCH)**	
35		Ref	GOOSENECK DECAL, (not shown), (see Figure 11-2 for details)	
36	335-8056	1	MANUAL DECAL	
37	421-2305	1	ULTRA LOW SULFUR DIESEL DECAL, **(ENGLISH, if equipped)**	
	398-2032	1	ULTRA LOW SULFUR DIESEL DECAL, **(FRENCH, if equipped)**	
40	389-3590	1	CAT LOGO DECAL	
41	421-2306	1	PATENT DECAL	
42	399-5807	1	MODEL DECAL, **(TL1055C)**	
	399-5806	1	MODEL DECAL, **(TL1255C)**	
43	399-7818	1	WARNING DECAL, **(ENGLISH)**	
	398-2033	1	WARNING DECAL, **(ISO)**	
	398-2031	1	WARNING DECAL, **(FRENCH)**	
101	303-4950	1	TIP OVER DECAL, **(ENGLISH)**	
	314-5320	1	TIP OVER DECAL, **(ISO)**	
	314-2345	1	TIP OVER DECAL, **(FRENCH)**	

Figure 11-1 Cab and Frame Decals (Continued)

Item	Part Number	Qty.	Description	Rev.
102	303-4945	1	RUN OVER DECAL, **(ENGLISH)**	
	314-5327	1	RUN OVER DECAL, **(ISO)**	
	314-2346	1	RUN OVER DECAL, **(FRENCH)**	
103	303-4944	1	READ MANUAL DECAL, **(ENGLISH)**	
	314-5323	1	READ MANUAL DECAL, **(ISO)**	
	314-2347	1	READ MANUAL DECAL, **(FRENCH)**	
104	303-4947	1	MACHINE ROLL DECAL, **(ENGLISH)**	
	314-5325	1	MACHINE ROLL DECAL, **(ISO)**	
	314-2348	1	MACHINE ROLL DECAL, **(FRENCH)**	
105	298-1844	1	BOOM OPERATION DECAL	
201	298-1694	1	SHIFTER DECAL	
202	298-1833	1	AUX HYDRAULIC DECAL	
307	375-3919	1	PRESSURE WASH DECAL	
401	350-2522	1	A/C TEMPERATURE DECAL, **(if equipped)**	
402	314-2893	2	A/C REFRIGERANT DECAL, (not shown)**, (if equipped)**	

Figure 11-2 Boom Decals



VIEW A - A

Figure 11-2 Boom Decals

Item	Part Number	Qty.	Description	Rev.
1	389-3625	1	LH DECAL, **(TL1055C)**	
	389-3572	1	LH DECAL, **(TL1255C)**	
2	389-3626	1	RH DECAL, **(TL1055C)**	
	389-3573	1	RH DECAL, **(TL1255C)**	
6	303-4910	1	EXTEND DECAL	
7	298-0576	1	ANGLE DECAL	
15	303-4940	1	CARRY PERSONNEL DECAL, **(ENGLISH)**	
	314-5319	1	CARRY PERSONNEL DECAL, **(ISO)**	
	314-2342	1	CARRY PERSONNEL DECAL, **(FRENCH)**	
18	303-4943	7	PINCH POINT DECAL, **(ENGLISH)**	
	314-5326	7	PINCH POINT DECAL, **(ISO)**	
	314-2349	7	PINCH POINT DECAL, **(FRENCH)**	
26		Ref	BOOM ANGLE INDICATOR, (see Figure 2-1 for details)	
31		Ref	BOOM ANGLE SPACER, (see Figure 2-1 for details)	
32		Ref	WASHER, 3/8, (see Figure 2-1 for details)	
33		Ref	HEX LOCKNUT, 3/8-16, (see Figure 2-1 for details)	
35	330-5287	2	GOOSENECK 10 DECAL	
	330-5288	2	GOOSENECK 12 DECAL	

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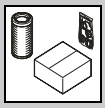
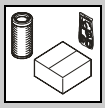
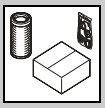


Part Number	Qty per Machine	Description
		BOOM
396-3664	1	TILT CYLINDER HOSE, (see Figure 8-10)
396-3665	1	TILT CYLINDER HOSE, (see Figure 8-10)
331-8189	4	BOOM HOSE, (see Figure 8-11 & Figure 8-12)
299-0393	3	EXTEND CHAIN, (TL1055), (see Figure 2-6)
298-8661	3	EXTEND CHAIN, (TL1255), (see Figure 2-6)
299-0393	1	RETRACT CHAIN, (Third to First Section), (TL1055), (see Figure 2-7)
299-0394	1	RETRACT CHAIN, (Fourth to Second Section), (TL1055), (see Figure 2-7)
298-8662	1	RETRACT CHAIN, (Third to First Section), (TL1255), (see Figure 2-7)
298-8661	1	RETRACT CHAIN, (Fourth to Second Section), (TL1255), (see Figure 2-7)
298-6841	6	WEAR PAD, (see Section 2)
364-1063	4	WEAR PAD, (see Section 2)
298-6839	12	WEAR PAD, (see Section 2)
364-1062	12	WEAR PAD, (see Section 2)
298-6903	6	WEAR PAD, (see Section 2)
298-6905	2	WEAR PAD, (see Section 2)
298-8387	2	WEAR PAD, (see Section 2)
364-1067	4	WEAR PAD, (see Section 2)
298-1687	AR	SHIM, 0.0598, (see Section 2)
298-1636	AR	SHIM, 0.0598, (see Section 2)
298-1664	AR	SHIM, 0.0598, (see Section 2)
298-1661	AR	SHIM, 0.0598, (see Section 2)
298-1644	24	SPACER, (see Section 2)
298-1686	4	SPACER, (see Section 2)
298-1834	2	SPACER, (see Section 2)
298-1665	14	SPACER, (see Section 2)
298-6840	1	WEAR PAD, BOOM HYDRAULICS, (see Figure 2-5)
298-6840	1	WEAR PAD, BOOM HYDRAULICS, (see Figure 8-11)
298-8724	1	QUICK SWITCH PIN, (see Figure 2-8)
299-0305	1	QUICK RELEASE PIN, (see Figure 2-8)
		ENGINE
		S/N KDE00150 & AFTER, S/N DHW00150 & AFTER
360-8960	1	FUEL FILTER ELEMENT, (see Figure 4-2)
363-6572	1	FUEL/WATER SEPARATOR ELEMENT, (see Figure 4-2)
384-8512	1	FILTER SCREEN, (see Figure 4-2)
7W-2326	1	OIL FILTER, (see Figure 4-2)
365-2968	1	BELT, (see Figure 4-2)
		S/N MDD00150 & AFTER, S/N SXM00150 & AFTER
311-2376	1	FUEL FILTER, (see Figure 4-2)
299-8229	1	FUEL FILTER ELEMENT, (see Figure 4-2)
343-7104	1	FUEL FILTER, (see Figure 4-2)
308-7298	1	FUEL/WATER SEPARATOR FILTER, (see Figure 4-2)
367-1819	1	OIL FILTER, (see Figure 4-2)

Part Number	Qty per Machine	Description
383-8021	1	PRIMARY AIR FILTER ELEMENT, (see Figure 4-5)
383-8023	1	SECONDARY AIR FILTER ELEMENT, (see Figure 4-5)
389-3465	1	FAN, (see Figure 4-1)
142-8828	1	LOCKING FUEL CAP, (see Figure 4-3)
		DRIVE TRAIN
389-3472	1	F-N-R SHIFTER, (see Figure 7-3)
303-8573	4	WHEEL END SEAL, (see Section 5)
299-0227	4	WHEEL END BUSHING, (see Section 5)
299-0485	4	WHEEL HUB SEAL, (see Section 5)
299-0666	1	UNIVERSAL JOINT KIT, (see Figure 5-1)
298-8173	4	UNIVERSAL JOINT KIT, (see Figure 5-1)
		HYDRAULICS
298-8645	1	BOOM JOYSTICK, (see Figure 7-4)
299-0970	1	BOOM JOYSTICK GRIP ASSY, (see Figure 7-4)
391-2080	2	LIFT CYLINDER SEAL KIT, (TL1055C), (see Figure 9-1)
418-6274	2	LIFT CYLINDER SEAL KIT, (TL1255C), (see Figure 9-1)
1001133220	1	EXTEND/RETRACT CYLINDER SEAL KIT, (see Figure 9-2)
417-5758	1	TILT CYLINDER SEAL KIT, (TL1055C), (see Figure 9-3)
417-5753	1	TILT CYLINDER SEAL KIT, (TL1255C), (see Figure 9-3)
417-5758	1	COMPENSATING CYLINDER SEAL KIT, (TL1055C), (see Figure 9-4)
417-5753	1	COMPENSATING CYLINDER SEAL KIT, (TL1255C), (see Figure 9-4)
417-5006	1	FRAME LEVEL CYLINDER SEAL KIT, (see Figure 9-5)
417-5006	1	STABILIZER CYLINDER SEAL KIT, (see Figure 9-7)
417-6026	2	OUTRIGGER CYLINDER SEAL KIT, (see Figure 9-6)
70024152	1	HYDRAULIC TANK FILTER KIT, (see Figure 9-14)
70024153	1	HYDRAULIC TANK SIGHT GAUGE, (see Figure 9-14)
1299-0310CP	1	HYDRAULIC TANK BREATHER, (see Figure 9-14)
		ELECTRICAL
389-3479	1	TRANSMISSION TEMP SWITCH, (see Figure 10-9)
TBD	1	AMBIENT TEMP SENSOR, **(S/N KDE00150 & After, S/N DHW00150 & After)**, (see Figure 4-2)
310-9977	1	AMBIENT TEMP SENSOR, **(S/N MDD00150 & After, S/N SXM00150 & After)**, (see Figure 10-1)
310-7936	1	FUEL LEVEL SENDER, (see Figure 4-3)
298-7293	1	BACKUP ALARM, (see Figure 10-3)
333-2415	1	IGNITION SWITCH, (see Figure 10-4)
10713707	1	HORN, (see Figure 10-3)



Part Number	Qty per Machine	Description
		MISCELLANEOUS
5P-8500	1	KEY
304-4563	1	BATTERY DISCONNECT KEY
31200748	1	OPERATION & MAINTENANCE MANUAL
31200793	1	SERVICE MANUAL
31200724	1	PARTS MANUAL
		SPECIAL TOOLS
336-1959	1	GAUGE, T17, AXLE



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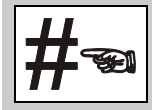

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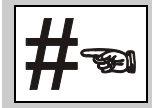

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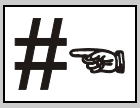

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