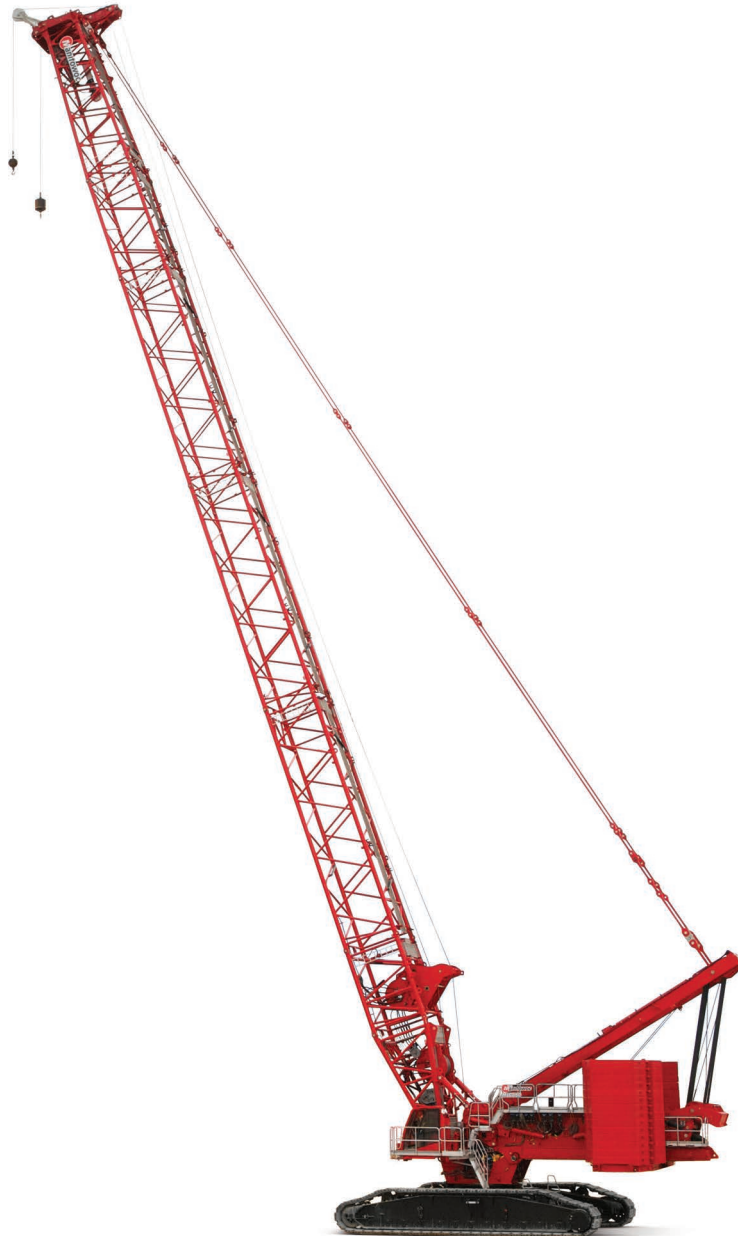


# Manitowoc MLC650

## 605679

### Parts Manual



ENU  
2016-09-27

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**1. ROTATING STRUCTURE**  
**1.1 PLATFORM ASSY GENERAL (810276991) Rev D**

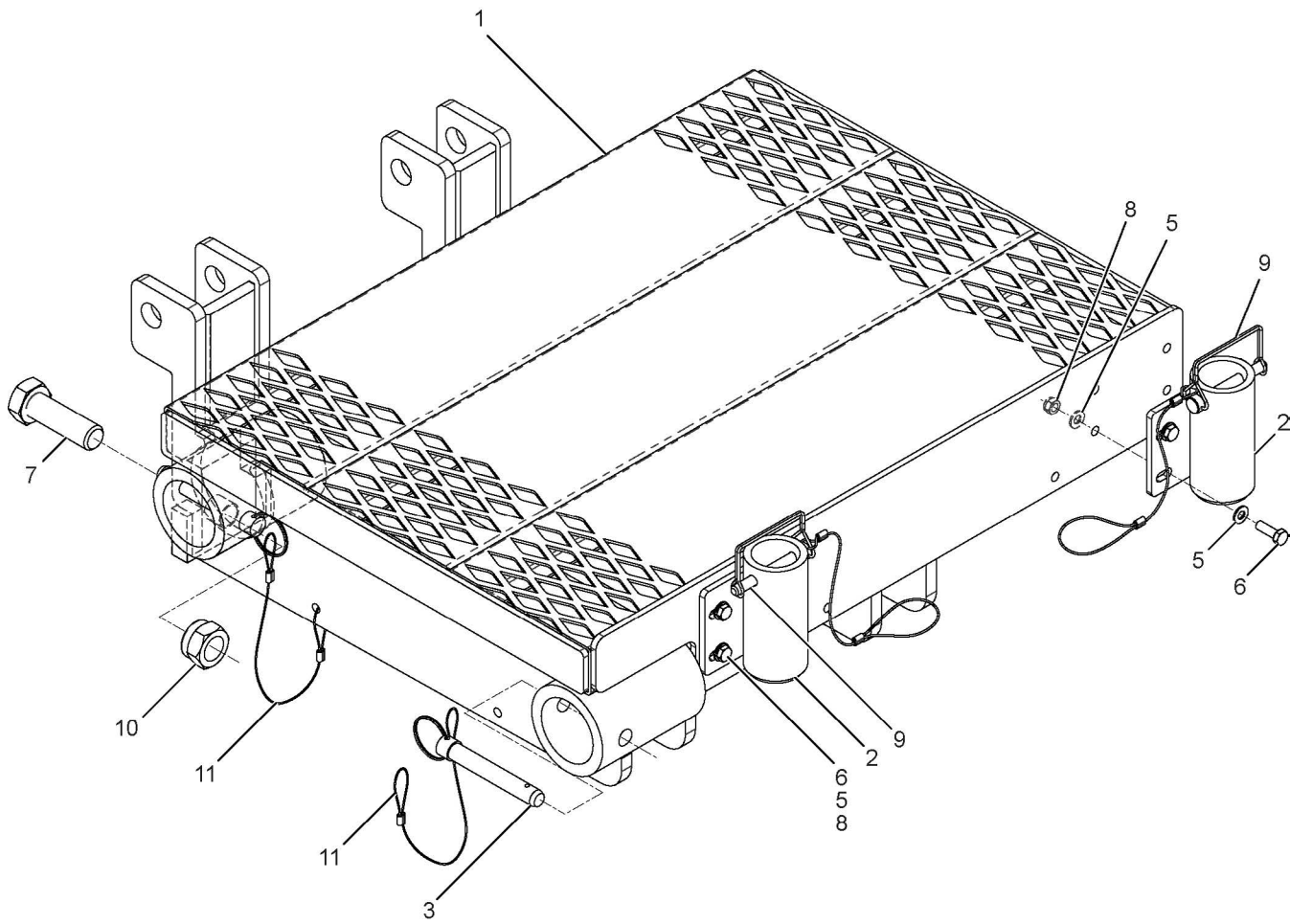
PLATFORM ASSY GENERAL (810276991) Rev D				
Pos.	Part	BOM Qty.	Foot Note	Description
1	81038176 ➡ page 1-6	2		PLATFORM ASSY CARBODY
2	810290992 ➡ page 1-16	1		PLATFORM ASSY ROT BED
3	810292622 ➡ page 1-20	1		PLATFORM ASSY REAR ROT BED LH
4	810292632 ➡ page 1-24	1		PLATFORM ASSY REAR ROT BED RH
5	810294972 ➡ page 1-28	1		PLATFORM ASSY 2469 X 1044 CAB REAR
7	810273442	2		HANDRAIL ROT BED REAR LH
9	810281332	1		HANDRAIL CAB SIDE
10	810281342	1		HANDRAIL CAB REAR
11	810284462	1		HANDRAIL CAB REAR
14	810291012	1		LADDER WELDMENT CAB TO BED
16	810291042	2		HANDRAIL ROTATING BED
17	810292052	2		HANDRAIL CAB REAR LADDER
18	810292592	2		HANDRAIL ROTATING BED
19	810292672	1		HANDRAIL ROTATING BED
20	810293652 ➡ page 1-14	4		LANYARD ASSY PIN
21	810294952 ➡ page 1-34	1		LADDER ASSY CAB REAR
22	810299471 ➡ page 1-38	1		HANDRAIL ASSY ROT BED FRONT RH
23	810299531 ➡ page 1-40	1		HANDRAIL ASSY ROT BED LH FRONT
24	810291022	1		LADDER WELDMENT FRONT LEFT
25	81039344	2		HANDRAIL ROT BED REAR
26	81039350	2		HANDRAIL ROT BED LH
27	81039355	2		HANDRAIL ROT BED REAR
28	81039745	1		HANDRAIL ROTATING BED
29	81040226	1		HANDRAIL ROT BED RH

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# 1. ROTATING STRUCTURE

## 1.1.2 PLATFORM ASSY ROT BED (810290992) Rev B

### 1.1.2 PLATFORM ASSY ROT BED (810290992) Rev B



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**1. ROTATING STRUCTURE**  
**1.1.4 PLATFORM ASSY REAR ROT BED RH (810292632) Rev B**

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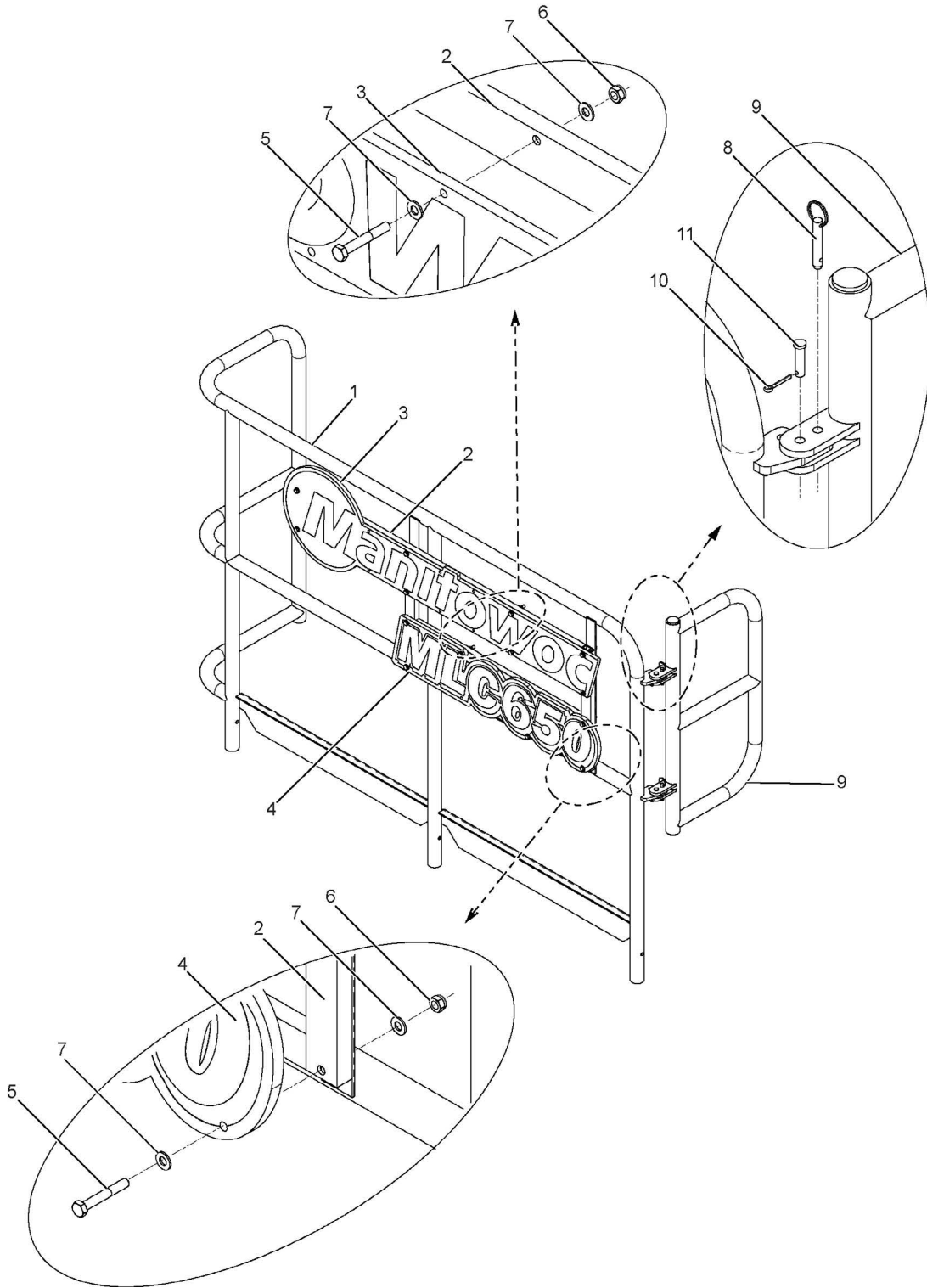
<b>LANYARD ASSY PIN (810293652) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	810070010	1 FT		WIRE ROPE 3/64 7X7 SS VC-1/16 CLEAR
2	810070020	2		SLEEVE 1/16 OVAL ALUMINUM
3	A126470	1		PIN SAFETY .38 DIA X 3.00 LG

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1. ROTATING STRUCTURE

1.1.8 HANDRAIL ASSY ROT BED FRONT RH (810299471) Rev B

1.1.8 HANDRAIL ASSY ROT BED FRONT RH (810299471) Rev B



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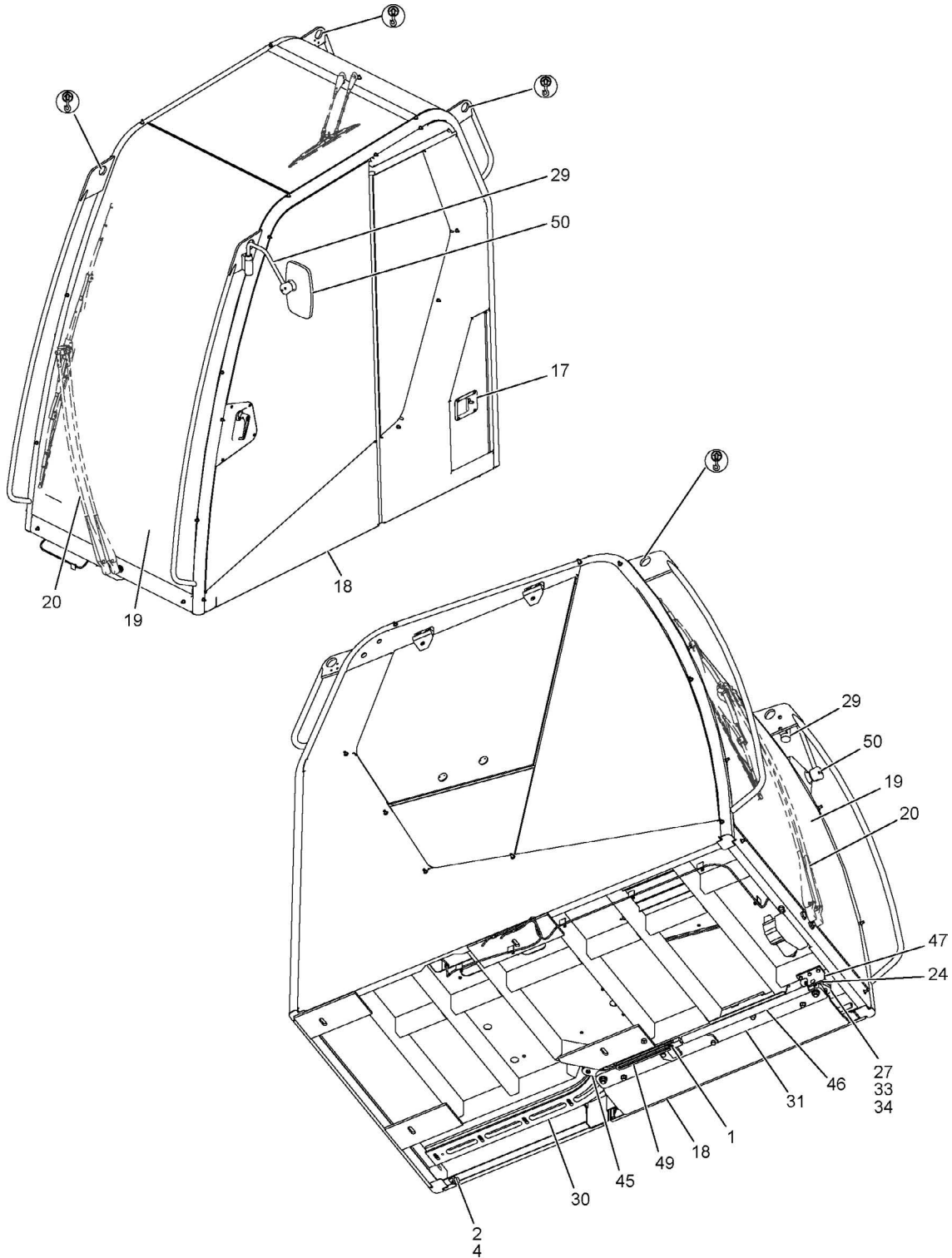
**1. ROTATING STRUCTURE**  
**1.3 CAB MOUNTING ASSY (810191411) Rev E**

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1. ROTATING STRUCTURE  
1.3.2 CAB ASSY 24V CANBUS (810219121) Rev J

EXTERIOR EQUIP CAB ASSY (810218742) Rev D



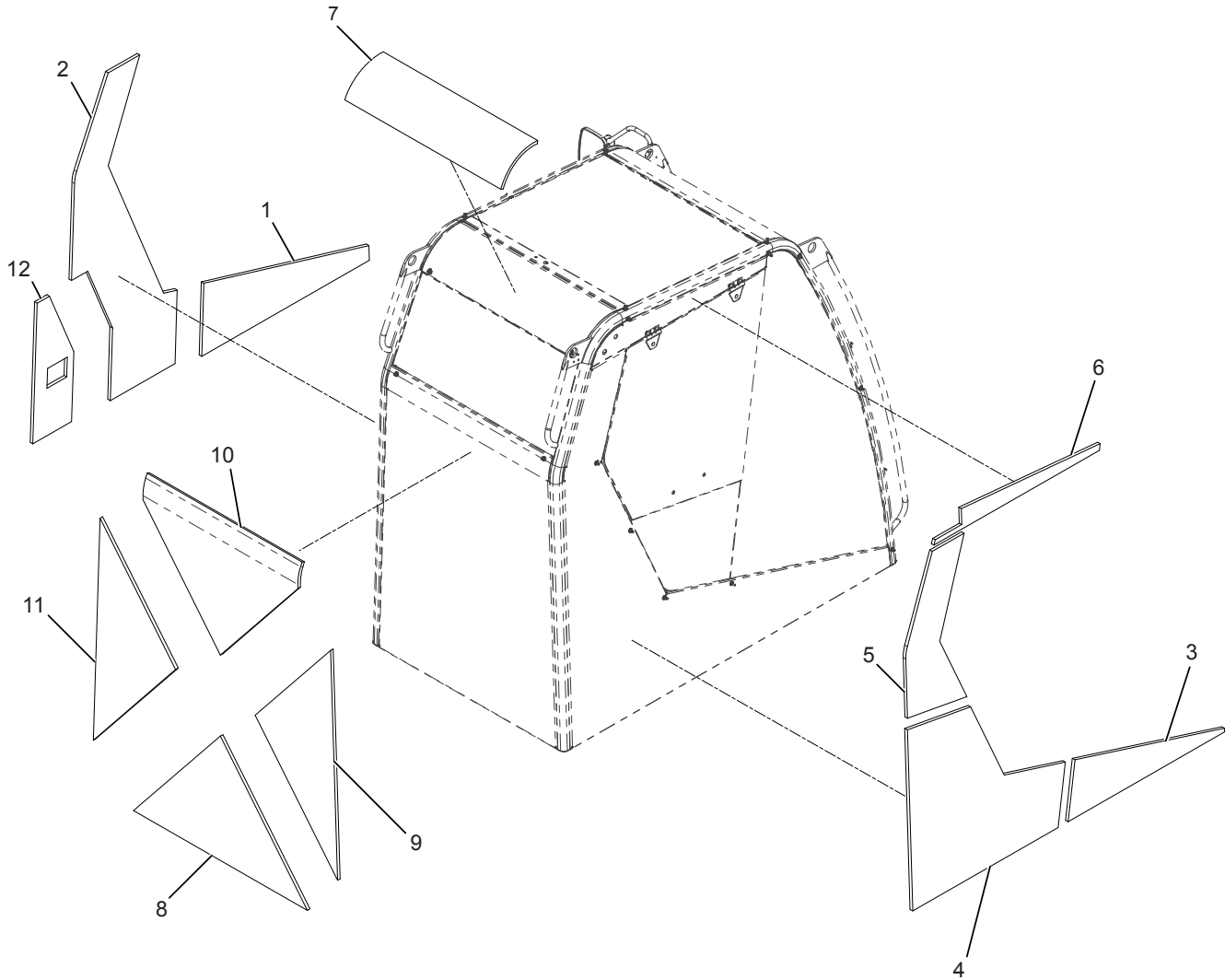
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**1. ROTATING STRUCTURE**  
**1.3.2 CAB ASSY 24V CANBUS (810219121) Rev J**

<b>WINDSHIELD WIPER ASSY CAB (810219011) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	4720140	1		GROMMET RUBBER 9/32 BORE
2	5366480	6		CABLE TIE MOUNT ADHESIVE BACK PLASTIC
3	6670070	6		STRAP NYLON CABLE TIE 7.4
4	A019660	1		WIPER ARM 1000MM, WET
5	A019670	1		WIPER BLADE 1360 MM
6	A019690	1		WIPER ARM 500MM, WET
7	A019700	1		WIPER BLADE 450MM
8	A019720	2		VALVE CHECK WASHER FLUID
9	A019730	2		CONNECTOR BULKHEAD DOGA
10	A025890	2		TUBING RUBBER 3MM ID X 5MM OD-16FT
11	A030802	1		BRACKET WIPER MOTOR BACKING PLT
13	A202790	1		WIPER WINDSHIELD MOTOR 24V 95D 2 SPD
14	A202800	1		MOTOR ELEC 24V WIPER 40D 2 SPEED

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INSULATION ASSY CAB (810218772) Rev A



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**1. ROTATING STRUCTURE**

**1.3.3 PLATFORM ASSY INSTALLATION CAB SIDE (810297791) Rev B**

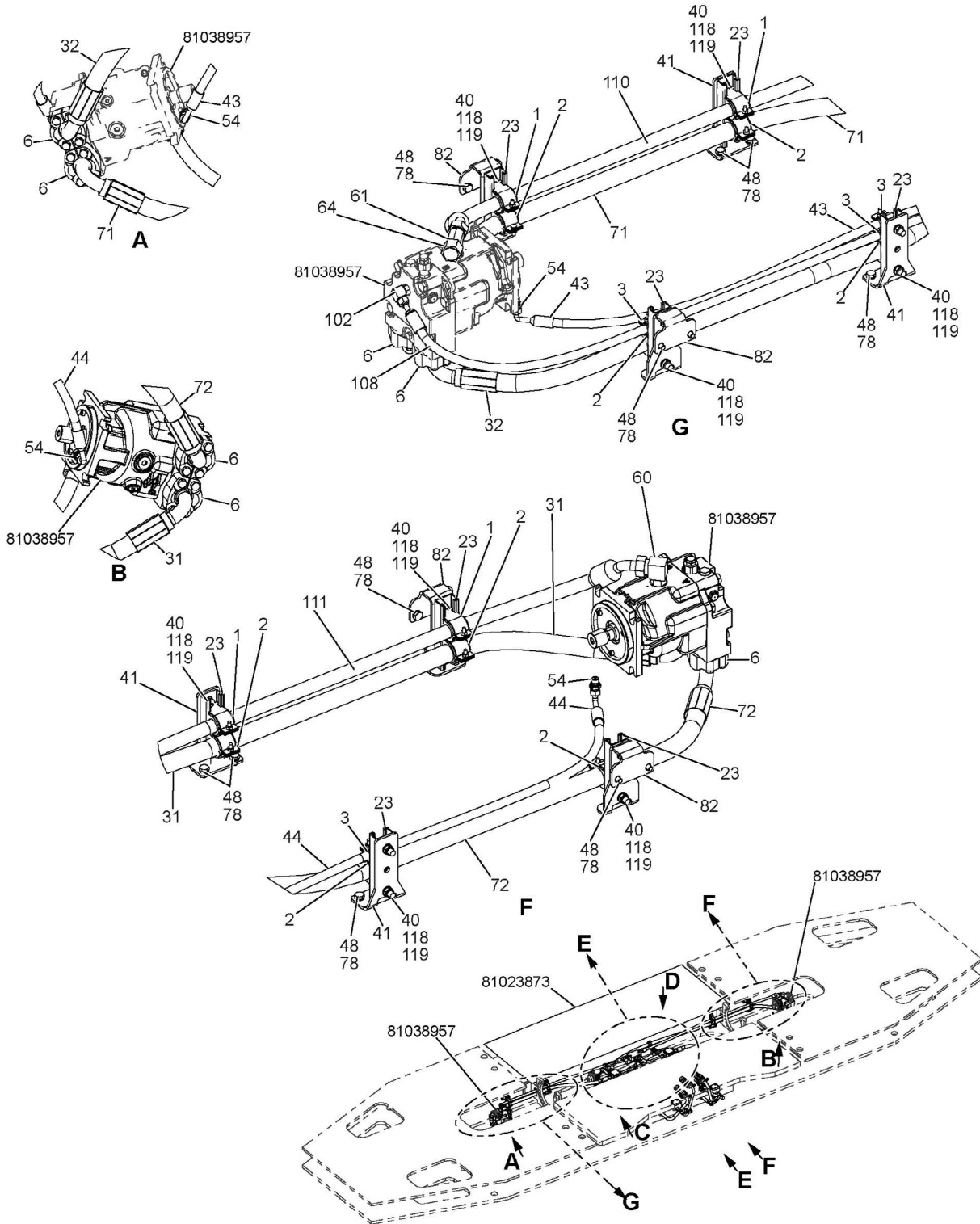
<b>PLATFORM ASSY INSTALLATION CAB SIDE (810297791) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	810292711 → page 1-94	1		PLATFORM ASSY 2185 MM X 609 MM CAB
2	810283012	2		BRACKET CAB PLATFORM
3	5637970	2		PIN QUICK RELEASE 3/4 X 3-3/4
4	810292732	2		PIN COTTER 2 HOLE 28.6 DIA X 88.9 LG
5	5620460	4		PIN COTTER 1/8 DIA X 1.75 LG
6	7951210014	8		F WASHER 12 200HV FLZN 7089
7	7126211253	8		HHCS M12X25 8.8 FLZN 4017
8	810284442	1		HANDRAIL CAB SIDE
9	810284452	1		HANDRAIL CAB SIDE
10	5638580	2		PIN 1 HOLE W/HD .375 DIA X 1.14 LG
11	810302482	2		PIN QUICK RELEASE 0.375 DIA X 1.50 LG
12	5620430	2		PIN COTTER 1/8 DIA X 1.00 LG

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# 1. ROTATING STRUCTURE

## 1.4.2 HYD LINES INSTL VPC TRAY (810224852) Rev L

### 1.4.2 HYD LINES INSTL VPC TRAY (810224852) Rev L



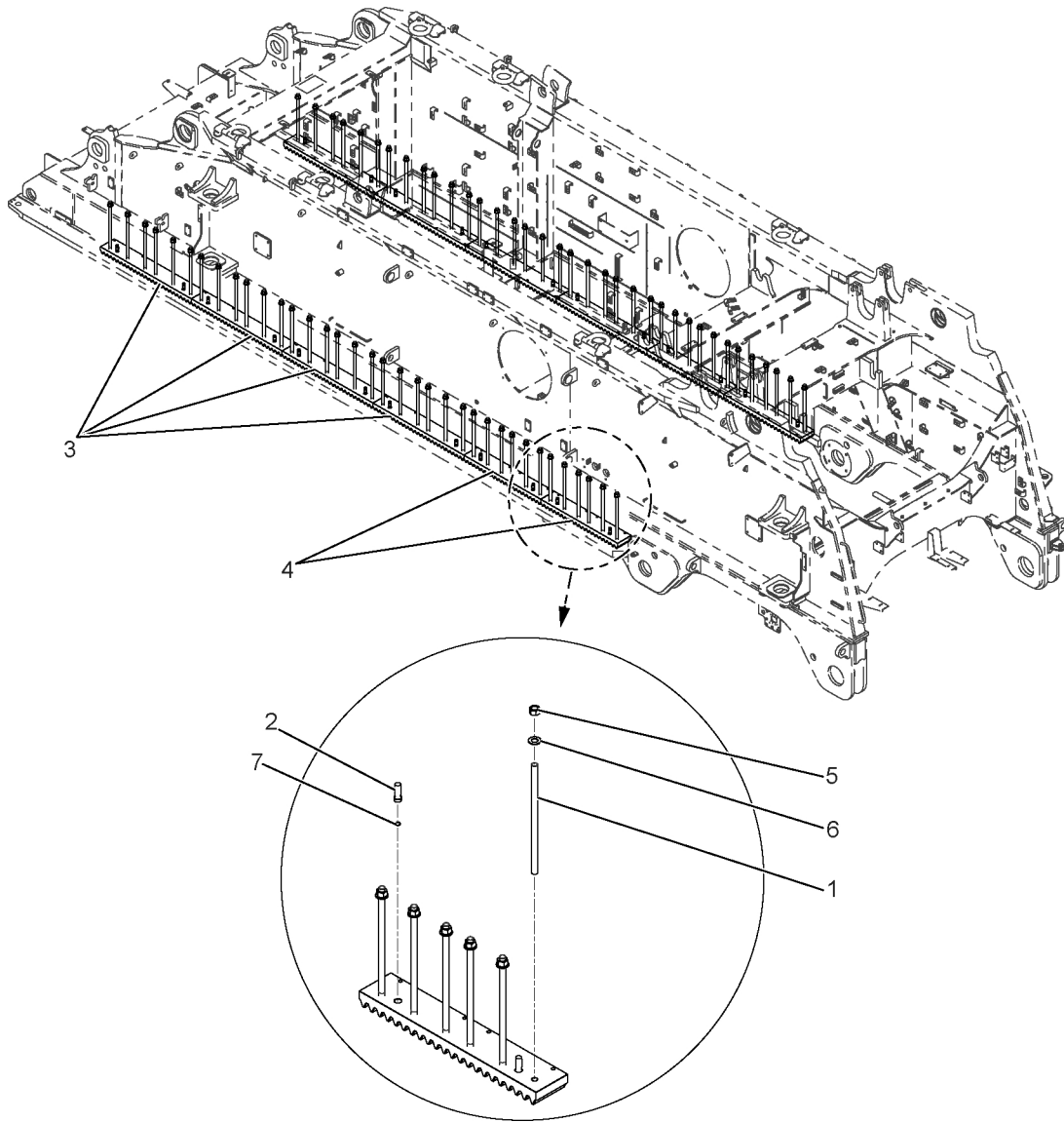
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**1. ROTATING STRUCTURE**  
**1.4.3 ESI CWT TRAY VPC (810241911) Rev F**

ESI CWT TRAY VPC (810241911) Rev F				
Pos.	Part	BOM Qty.	Foot Note	Description
1	810018650	1		ALARM DUAL TONE
2	810153250	2		RETAINER P-CLIP .375 DIA
4	84023436	1		WIRING HARNESS WVT1
5	84023437	1		WIRING HARNESS WVT2
6	7126151153	6		HHCS M6X20 8.8 FLZN 4017
8	7661150003	6		HEX NUT M6 8FLZN ISO4032
10	7951150014	4		F WASHER 6 ST ISO 7089
11	7951150220	6		L WASHER 6 ST DIN 127B
14	3455100	2		CLAMP TUBE 0.38 DIA SS
15	810289442	4		BRACKET VPC WARNING INDICATOR
16	810289450 → page 1-116	4		LIGHT ASSY VPC WARNING INDICATOR
17	7126131754	4		SCR SKT HD M5-0.8 X 50 10.9 PLN
18	7126211253	8		HHCS M12X25 8.8 FLZN 4017
19	7661130003	4		HEX NUT 5 8 ISO 4032
20	7661210003	8		HEX NUT M12 8FLZN ISO4032
21	7951130014	4		F WASHER 5 ST ISO 7089
22	7951130210	4		L WASHER 5 ST DIN 7980
23	7951210014	8		F WASHER 12 200HV FLZN 7089
24	7951210220	8		L WASHER 12 ST DIN 127B
25	6670060	50		STRAP NYLON CABLE TIE 4.0
26	A015990	2		RETAINER P-CLIP FOR 0.50 DIA
27	80042207	1		ELEC CONNECTOR MOUNT CLIP
28	7126191253	3		HHCS M10X25 8.8 FLZN 4017
29	7661190004	3		HEX NUT M10 10FLZN ISO4032
30	7951190220	3		L WASHER 10 ST DIN 127B
31	7951190014	3		F WASHER 10 ST ISO 7089

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# 1.7 GEAR RACK ASSY ROTATING BED (81037083) Rev B



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**1. ROTATING STRUCTURE**  
**1.10 LINK ASSY ROTATING BED ALIGNMENT (810272302) Rev B**

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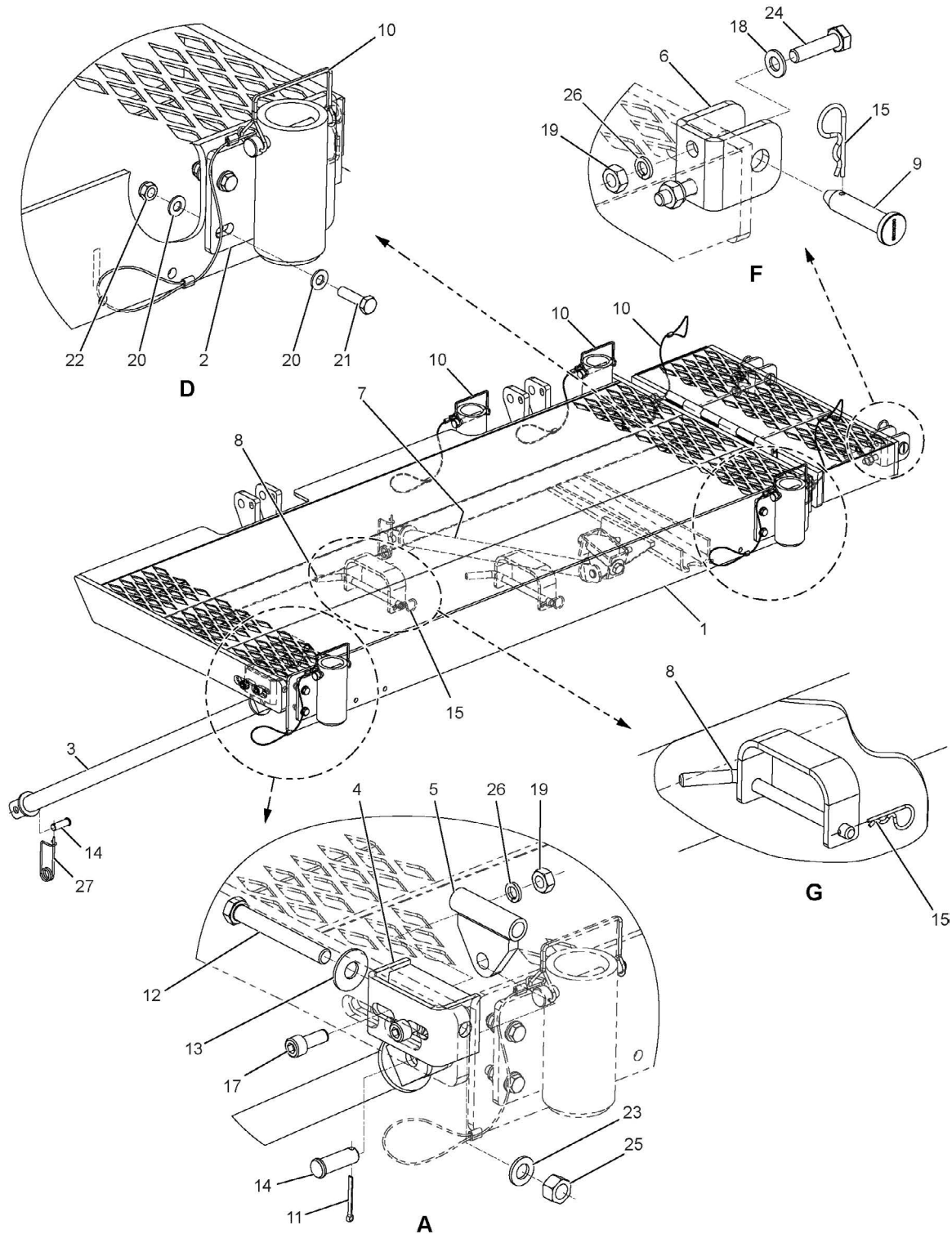
<b>LINK ASSY ROTATING BED ALIGNMENT (810272302) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	810165950	8		PIN SAFETY 1/2 DIA X 3.00 LG
2	810273532	4		PIN 2 HOLE 65.0 DIA X 267.0 LG

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# 1. ROTATING STRUCTURE

## 1.11.3 PLATFORM ASSY BED REAR LH (81039774) Rev B

### 1.11.3 PLATFORM ASSY BED REAR LH (81039774) Rev B



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**1. ROTATING STRUCTURE**  
**1.11.5 LANYARD ASSY PIN (810293652) Rev B**

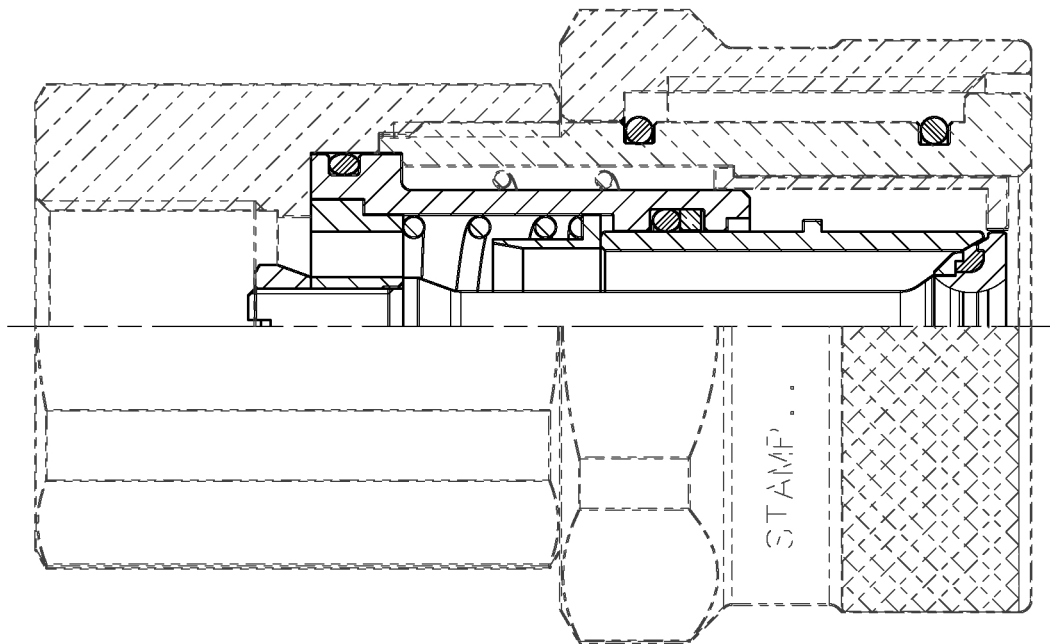
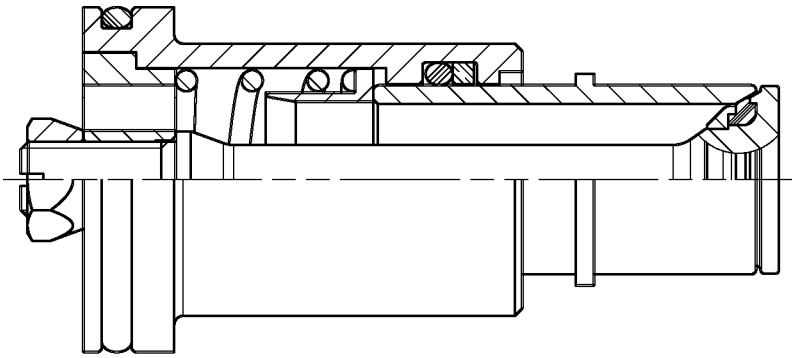
<b>LANYARD ASSY PIN (810293652) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	810070010	1 FT		WIRE ROPE 3/64 7X7 SS VC-1/16 CLEAR
2	810070020	2		SLEEVE 1/16 OVAL ALUMINUM
3	A126470	1		PIN SAFETY .38 DIA X 3.00 LG

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1. ROTATING STRUCTURE

1.12.1 PIPING HYD ASSY HOSE DOUBLE W/QD'S 40 FT (810307552) Rev A

**Q DISCON FITTING HYDR COUPLER -8ORBX-6 (810121640) Rev B**



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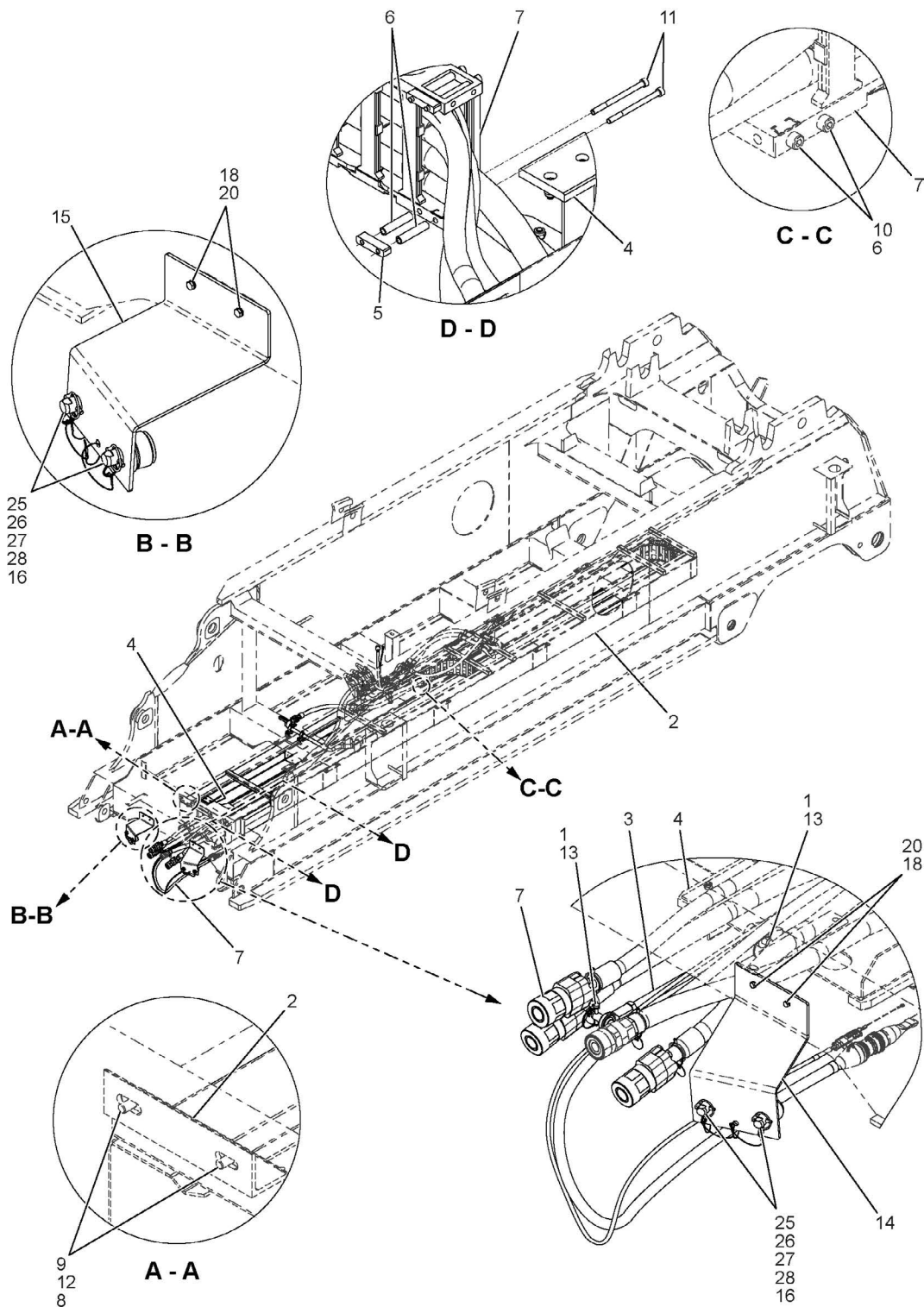
**1. ROTATING STRUCTURE**  
**1.12.2 PINPULLER ASSY HAND HELD (810307562) Rev A**

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<b>CYL HYD 57.2 X 370 X 250BAR (810276620) Rev C</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	90041547	1		ROD ASSEMBLY
2	90041549	1		KIT, SEAL

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# 1.15 GUIDE ROTATING BED VPC (810288981) Rev G



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**1. ROTATING STRUCTURE**  
**1.15.4 PIN HOSE STOWAGE (81042207) Rev B**

---

<b>PIN HOSE STOWAGE (81042207) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
2	81041503	1		PIN 1 HOLE 25.0 DIA X 60.0 LG
3	7661210804	1		HEX LOCK NUT M12 10FLZN ISO7040

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# 1. ROTATING STRUCTURE

## 1.19.1 HYD LINES INSTL DRUM 3 PREP (810271231) Rev K

HYD LINES INSTL DRUM 3 PREP (810271231) Rev K				
Pos.	Part	BOM Qty.	Foot Note	Description
1	3455110	2		CLAMP TUBE 0.75 DIA
2	3455160	4		CLAMP TUBE 1.50 DIA
3	4316470	4		SPLIT FLANGE KT -24 5/8-11UNC X2.25 6KSI
4	4316490	2		SPLIT FLANGE KIT -20 1/2-13 X 1.75
5	5967950	2		O-RING 2.415X1.859X.139X90
6	6149370	8		SHCS 5/8-11UNC X 2.00 A574
7	810039130 ▶ page 1-216	2		Q DISC FITTING HYDR COUPLER -12ORBX-12
13	810114700 ▶ page 1-218	2		Q DISC FITTING HYD CPLR-20 CODE 62X-24
15	810114770	2		SPLIT FLANGE ASSY -20 12X45 414BAR
16	810186270	1		NAMEPLATE ID TAG ROUND #027
17	810186280	1		NAMEPLATE ID TAG ROUND #028
18	810186290	1		NAMEPLATE ID TAG ROUND #029
19	810186300	1		NAMEPLATE ID TAG ROUND #030
24	810272070	2		TUBE PREFORMED 1.50 OD X .25 WALL C1026
25	810273940	2		FLANGE BLOCK 24 CODE 62 X 20 CODE 62
26	7447121201	2		FITTING ADPTR STRAIGHT -120RFS X -120RB
28	7555507001	1		HOSE ASSY .75 ID X 70 LG
30	7565406288	1		HOSE ASSY 1.50 ID X 62 LG
32	7568409873	1		HOSE ASSY 1.25 ID X 98 LG
33	7568409873	1		HOSE ASSY 1.25 ID X 98 LG
34	810292540	1		TUBE PREFORMED 1.50 OD X 0.25 WALL 1026
35	810292990	1		TUBE PREFORMED 1.50 OD X 0.25 WALL 1026
36	7126211350	4		HHCS 12 X 30 8.8
37	7661210803	4		HEX LOCK NUT M12 8FLZN ISO7040
43	7565406288	1		HOSE ASSY 1.50 ID X 62 LG
46	81037653	2		FITTING PLUG MOUNTING, -24 QD
47	81037652	2		FITTING PLUG MOUNTING, -12 QD
48	7128211354	2		SHCS 12 X 30 12.9
49	81038006	1		PLATE DRUM 3 STOWAGE
50	7126171153	2		HEXAGON BOLT
51	7661210804	2		HEX LOCK NUT M12 10FLZN ISO7040
52	7951170220	2		L WASHER 8 ST DIN 127B
53	7951210014	10		F WASHER 12 200HV FLZN 7089
54	81036919	1		VALVE CHECK 12 ORB TO 12 ORFS
55	81037281	1		BRACKET WELDMENT MOD HOSE SUPPORT
56	81040635	1		TUBE ASSY DRUM 3 CHARGE
57	81040651	1		HOSE ASSY DRUM 3 CHARGE
58	81040652	1		HOSE ASSY DRUM 3 CASE
62	81042207 ▶ page 1-220	2		PIN HOSE STOWAGE
63	81041239	2		PIN LOCKING 0.25 DIA X 1.38L

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**1. ROTATING STRUCTURE**  
**1.21 PIN ASSY VPC MAX PREP (81040138) Rev B**

<b>PIN ASSY VPC MAX PREP (81040138) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	81040141	2		PIN 120.7 DIA X 306.5 LG
2	81040144	2		PLATE KEEPER 20.0 MM
3	7126211453	4		HHCS M12X35 8.8 FLZN 4017
4	7951210014	4		F WASHER 12 200HV FLZN 7089
5	5621790	2		PIN COTTER 1/2 DIA X 6.00 LG
6	81041864	2		PIN 1 HOLE 101.6 DIA X 205.0 LG

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## 2. UPPERWORKS MACHINERY

UPPERWORKS MACHINERY				
Pos.	Part	BOM Qty.	Foot Note	Description
2995	81037479 ➤ page 2-238	1		PIPING HYD ASSY ROTATING BED JACKING
3000	81037480 ➤ page 2-245	1		HYD LINES INSTL ROT BED ACCESSORIES
3010	81037594 ➤ page 2-249	1		PIPING HYDR ASSY TRANSDUCER MANIFOLD
3220	81036814 ➤ page 2-253	1		PIPING HYD ASSY FAN T4

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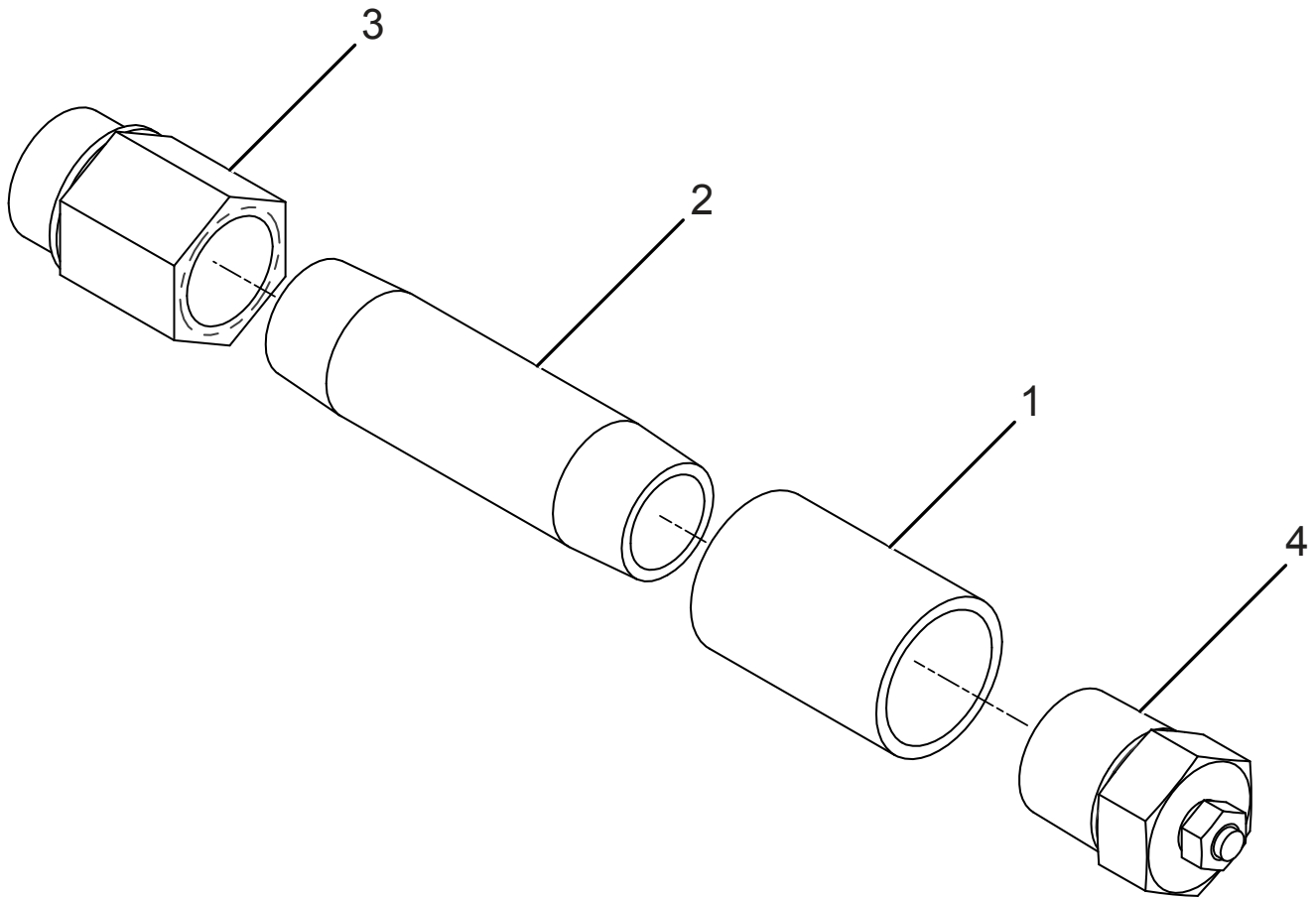
**2. UPPERWORKS MACHINERY**  
**2.2.1 DRUM ASSY LIVE MAST HOIST (810193181) Rev E**

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<b>HYD MOTOR PISTON VAR 160/44 CC/RE (810221140) Rev C</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	90038630	1		SPOOL
2	90038631	1		SHUTTLE VALVE ASSY MOTOR
3	90038632	1		COIL KIT
4	90038633	1		SEAL KIT OVERHAUL

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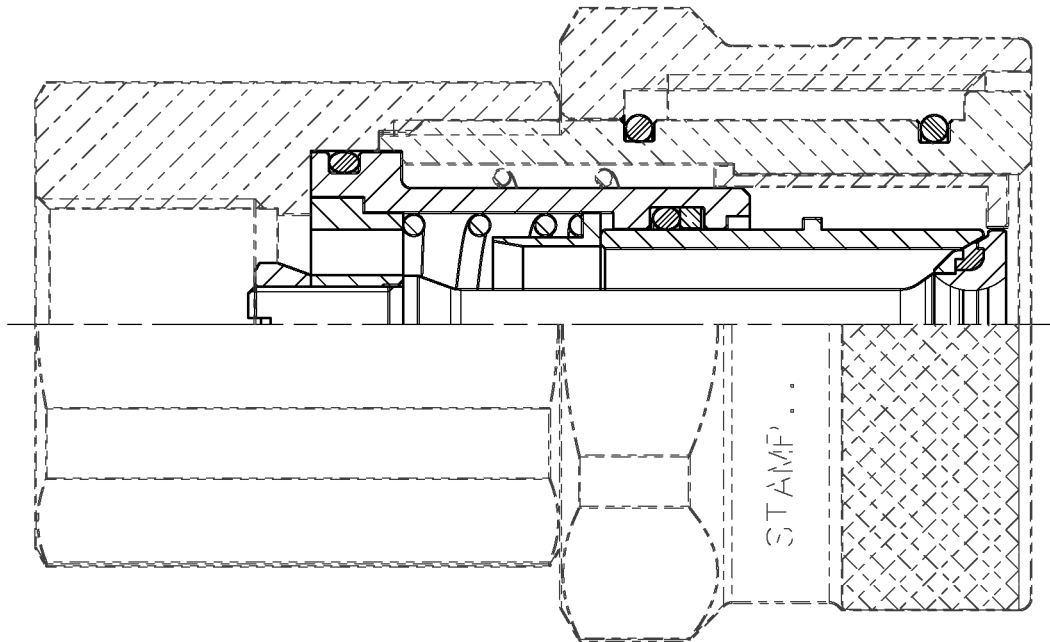
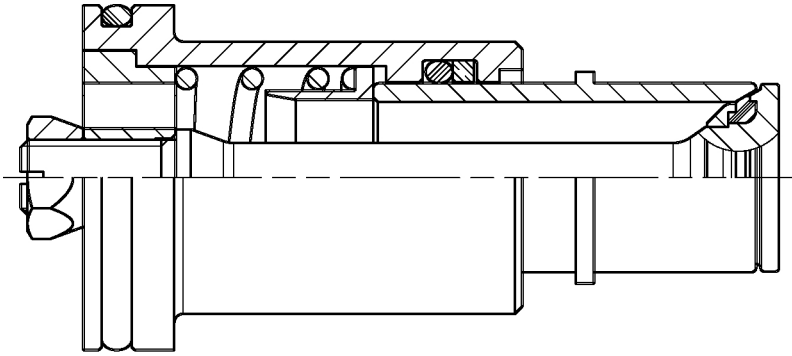
**BREATHER ASSY (84028201) Rev A**



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**Q DISCON FITTING HYDR COUPLER -8ORBX-6 (810121640) Rev B**



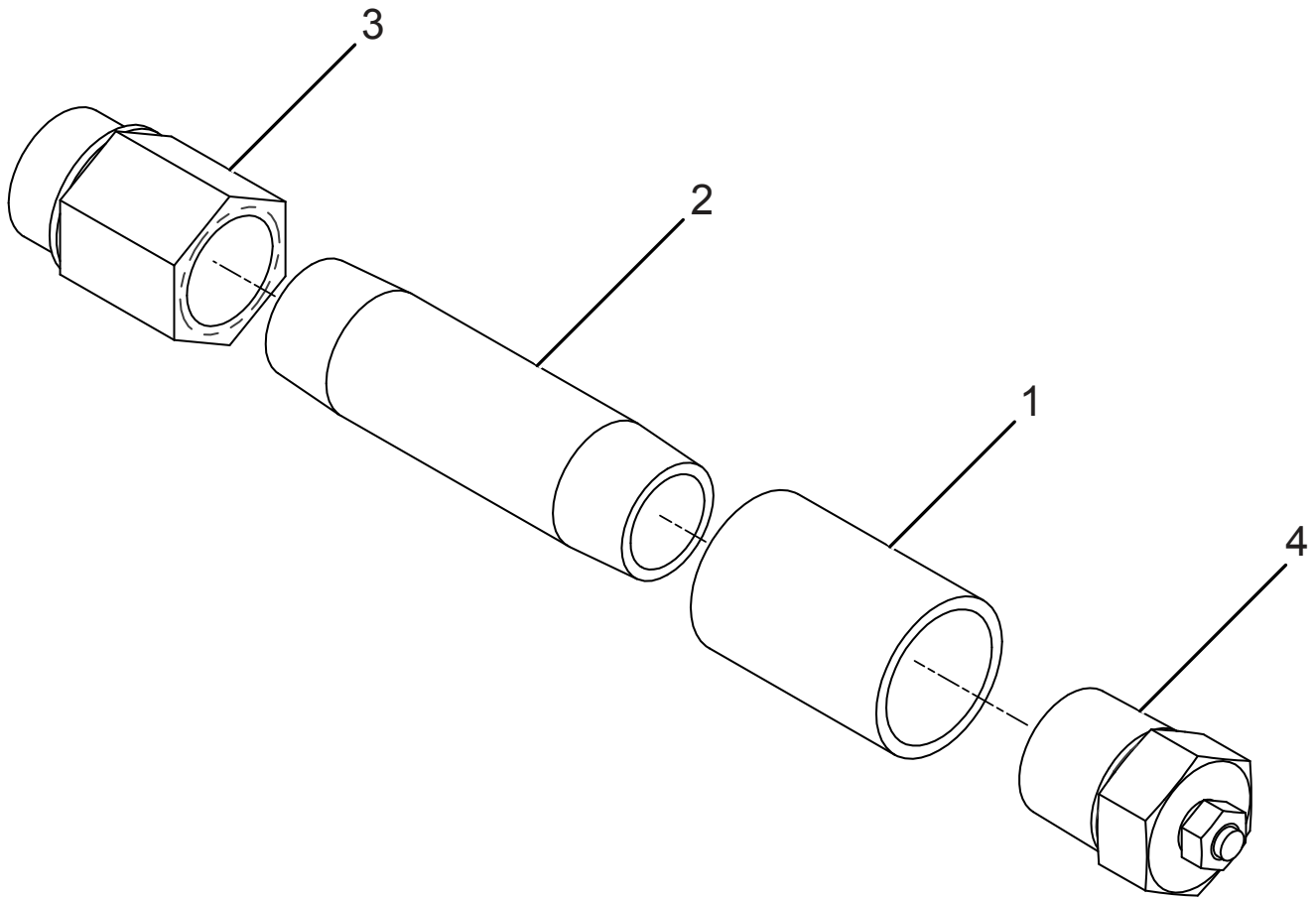
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**2. UPPERWORKS MACHINERY**  
**2.3 DRUM ASSY WHIP LINE HOIST (810191491) Rev D**

DRUM ASSY WHIP LINE HOIST (810191491) Rev D				
Pos.	Part	BOM Qty.	Foot Note	Description
1	0785752	2		PIN 2 HOLE 1.50 DIA X 3.97 LG
2	5621080	4		PIN COTTER 1/4 DIA X 2.25 LG
3	5621300	4		PIN COTTER 5/16 DIA X 3.00 LG
4	5621740	2		PIN COTTER 1/2 DIA X 4.50 LG
10	810271482	2		PLATE KEEPER 12.0 MM
11	7127211354	4		SCR SKT HD M12-1.75 X 30 10.9 PLN
12	7127271653	15		HHCS FULL THREAD 20 X 45 10.9
13	7128292054	24		SHCS 24 X 65 12.9
14	7951210014	4		F WASHER 12 200HV FLZN 7089
15	7951270220	15		L WASHER 20 ST DIN 127B
16	A059702	2		PIN 2 HOLE 2.50 DIA X 4.47 LG
17	A162622	2		PIN 2 HOLE 30.2 OD X 48.0 LG
18	A163912	1		PIN KEEPER 63.5MM DIA X 116.0MM LG
19	A164552	1		PIN KEEPER 63.5MM DIA X 140.0MM LG
20	810165950	2		PIN SAFETY 1/2 DIA X 3.00 LG
101	810243660	1		WIRE ROPE 28MM ASSY X 615M LG
201	810255860	1		WIRE ROPE 28MM ASSY X 615 M LG
301	810255960	1		WIRE ROPE 28MM ASSY X 615 M LG

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## 2.4.5 BREATHER ASSY (84028201) Rev A



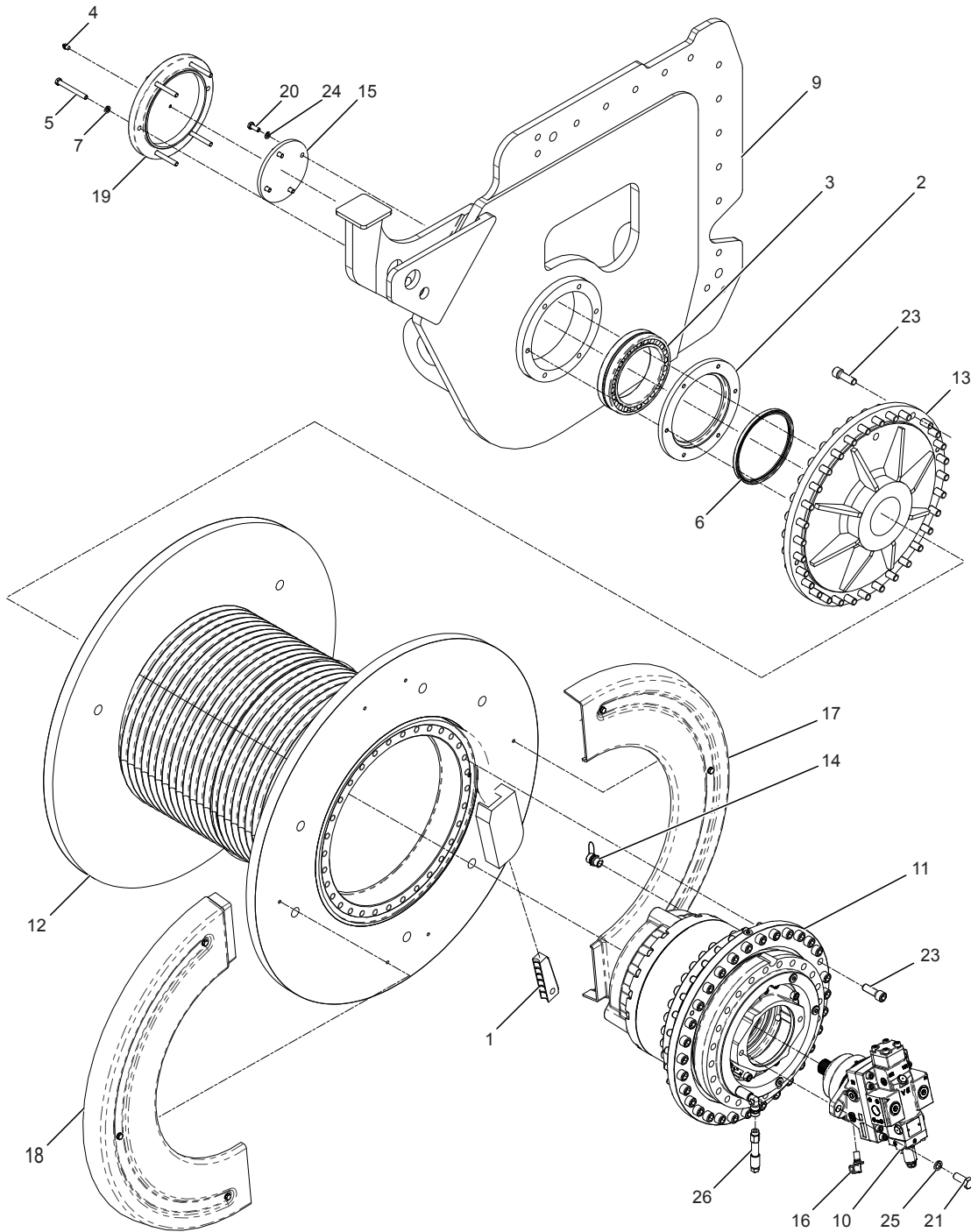
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**2. UPPERWORKS MACHINERY**  
**2.6.1 MOTOR HYD PISTON FIXED 75 CC/REV (A056890) Rev E**

<b>SEAL KIT OVERHAUL (5364675)</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	9632220246	1		GASKET, END CAP
2	9632220035	2		O-RING
3	7031235	1		O-RING
4	9722221350	1		SEAL, LIP
5	9754220027	1		O RING

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## 2.8 DRUM ASSY WHIP HOIST (810211011) Rev E



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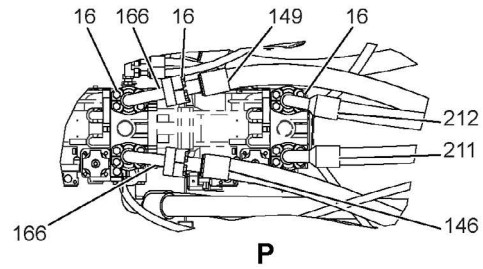
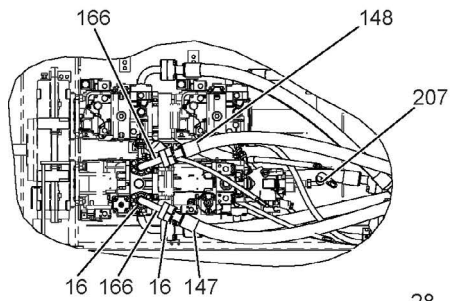
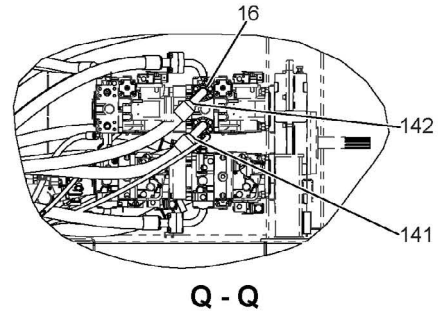
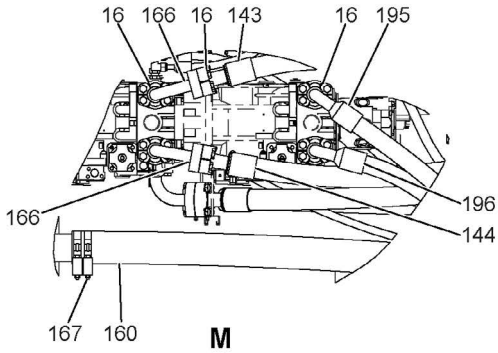
**2. UPPERWORKS MACHINERY**  
**2.8.5 BREATHER ASSY (84028201) Rev A**

<b>BREATHER ASSY (84028201) Rev A</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	3774030	1		PIPE COUPLING .50 SST
2	5434960	1		PIPE NIPPLE .50 DIA 3.0LG X SCH 40 SST
3	810294850	1		FITTING ADPTR STRT M22 X .5 NPT
4	84027889	1		BREATHER RELIEF .50 NPT

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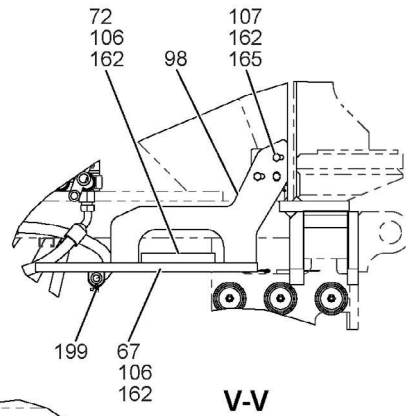
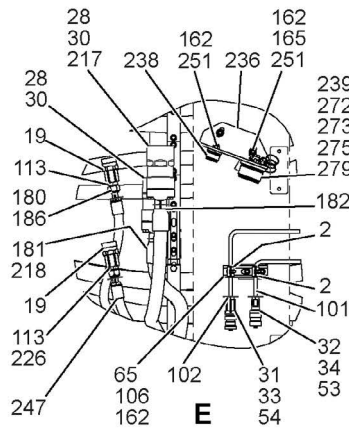
## 2. UPPERWORKS MACHINERY

### 2.10 HYD LINES INSTL ROT BED RTE TO AF (810217871) Rev R

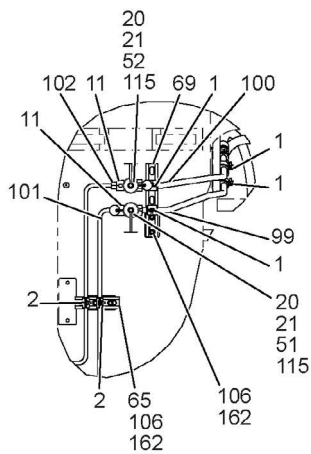


**R - R**

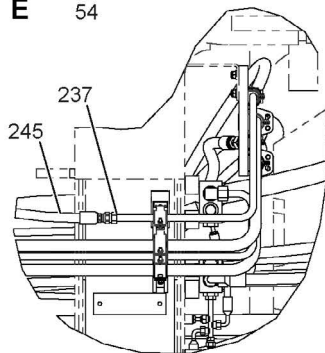
**P**



**V - V**



**F**



**X**

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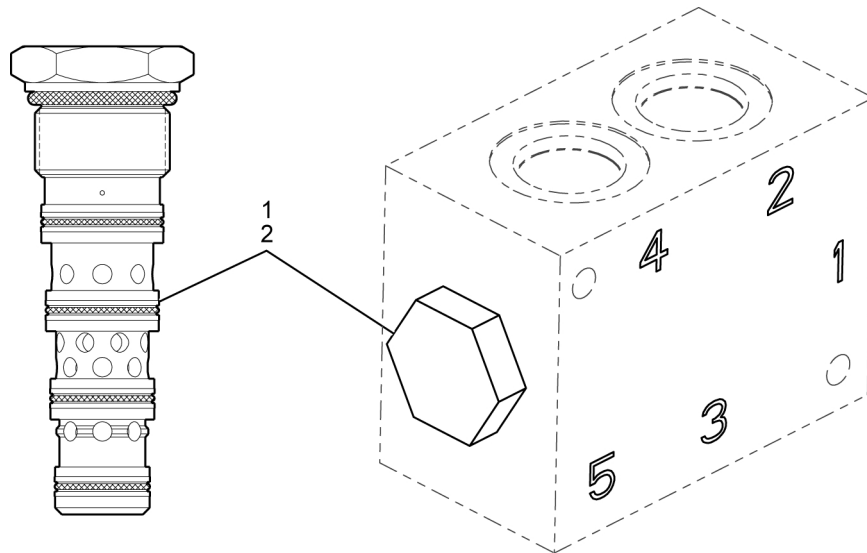
**2. UPPERWORKS MACHINERY**  
**2.10.2 Q DISCON FITTING HYD NIPPLE -12ORBX-12 (810039140) Rev B**

---

<b>Q DISCON FITTING HYD NIPPLE -12ORBX-12 (810039140) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	810120120	1		FITTING QUICK DISC NIPPLE
2	90021777	1		CARTRIDGE KIT

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## 2.10.7 VALVE DIRECTIONAL CNTRL SELECTOR (A113480) Rev D



**2. UPPERWORKS MACHINERY**  
**2.11.1 MANIFOLD BLOCK -20CD62 6GPM 200PSI (810232850) Rev C**

<b>MANIFOLD BLOCK -20CD62 6GPM 200PSI (810232850) Rev C</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	7034767	1		CARTRIDGE, SEQUENCE
2	7026575	1		SEAL KIT
3	90040059	1		SOLENOID VALVE 2 WAY SCREW TYPE
4	90040060	1		SEAL KIT
5	7034766	1		CARTRIDGE FLOW CONTROL
6	3855833	1		SEAL KIT
7	4280020	1		FITTING PLUG O-RING
8	4295320	1		FITTING PLUG -6 ORB
9	810122910	3		FITTING, PLUG
10	90040116	3		PLUG, SAE-2
11	90013220	2		O-RING

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## 2. UPPERWORKS MACHINERY

### 2.13 HYD LINES INSTL COOLANT HOSE ROUTING (810250881) Rev K

HYD LINES INSTL COOLANT HOSE ROUTING (810250881) Rev K				
Pos.	Part	BOM Qty.	Foot Note	Description
2	3455130	1		CLAMP TUBE 1.25 DIA
3	3456870	7		CLAMP TUBE 3.00 DIA
4	4282270	6		FITTING ADPTR 90 DEG 160RFS X 160RB
8	4282380	1		FITTING ADAPTER 90 DEG -120RFS/-120R
10	4283380	1		FITTING ADAPTER 90 DEG
11	4283400	1		FITTING ADAPTER 90 DEG -120 X -100
12	4284070	1		FITTING CAP ORS 08
15	4317330	2		FLANGE ASSY SPLIT CODE 61 W/HARDWARE
16	5968030	2		O-RING 1.262 X .984 X .139 X 90
17	6125770	8		HHCS 1/2-13UNC X 4.00 GR 5
19	810113680	1		TUBE PREFORMED 3.00 OD X .065 WALL
20	810160830	2		FLANGE SPLIT CODE 62 -12 6.0 KSI
21	810161080	2		FLANGE SPLIT KIT 48 16 X 45
23	810246660	1		VALVE DIRECTIONAL THERMAL BYPASS 600 LPM
24	810250110	5		CHANNEL ANCHOR CLAMP 25.4 DP X 152.4 LG
25	810250150	2		CHANNEL ANCHOR CLAMP 25.4 DP X 304.8LG
26	810250170	2		CHANNEL ANCHOR CLAMP 25.4 DP X 609.6 LG
27	810250480	3		FLANGE 40 CODE 61 X -32 ORB
28	810251030	1		TUBE PREFORMED 3.00 OD X .065 WALL
29	810251040	1		TUBE PREFORMED 3.00 OD X .065 WALL
30	810309980	1		MANIFOLD ASSY HYD TANK RETURN
31	810255780	2		VALVE CHECK 2 BAR -32 CODE 61 1000 LPM
32	810256020	2		TUBE PREFORMED 2.00 OD X .083 WALL
35	810268620	1		PRESSURE SENSOR 7500 PSI 6 SAE
37	7126211454	10		SHCS M12 X 35 8.8 ISO 4762
39	7555202302	1		HOSE ASSY .38 ID X 23" LG
41	7555503801	1		HOSE ASSY .75 ID X 38 LG
44	7555602700	1		HOSE ASSY 1.00 ID X 27 LG
46	7555602901	1		HOSE ASSY 1.00 ID X 29 LG
48	7555603600	1		HOSE ASSY 1.00 ID X 36 LG
49	7555603300	2		HOSE ASSY 1.00 ID X 33 LG
50	7555604200	1		HOSE ASSY 1.00 ID X 42 LG
51	7566400800	1		HOSE ASSY 2.00 ID X 8 LG
52	7566401100	1		HOSE ASSY 2.00 ID X 11 LG
53	7566504000	1		HOSE ASSY 2.50 OD X 40.00 LG
54	7566505100	1		HOSE ASSY 2.50 ID X 51 LG
55	7566601000	1		HOSE ASSY 3.00 OD X 10 LG
56	7566601200	1		HOSE ASSY 3.00 ID X 12 LG
57	7566606900	1		HOSE ASSY 3.00 ID X 69 LG
58	7661210803	8		HEX LOCK NUT M12 8FLZN ISO7040
59	7661210804	10		HEX LOCK NUT M12 10FLZN ISO7040
61	7951210014	20		F WASHER 12 200HV FLZN 7089

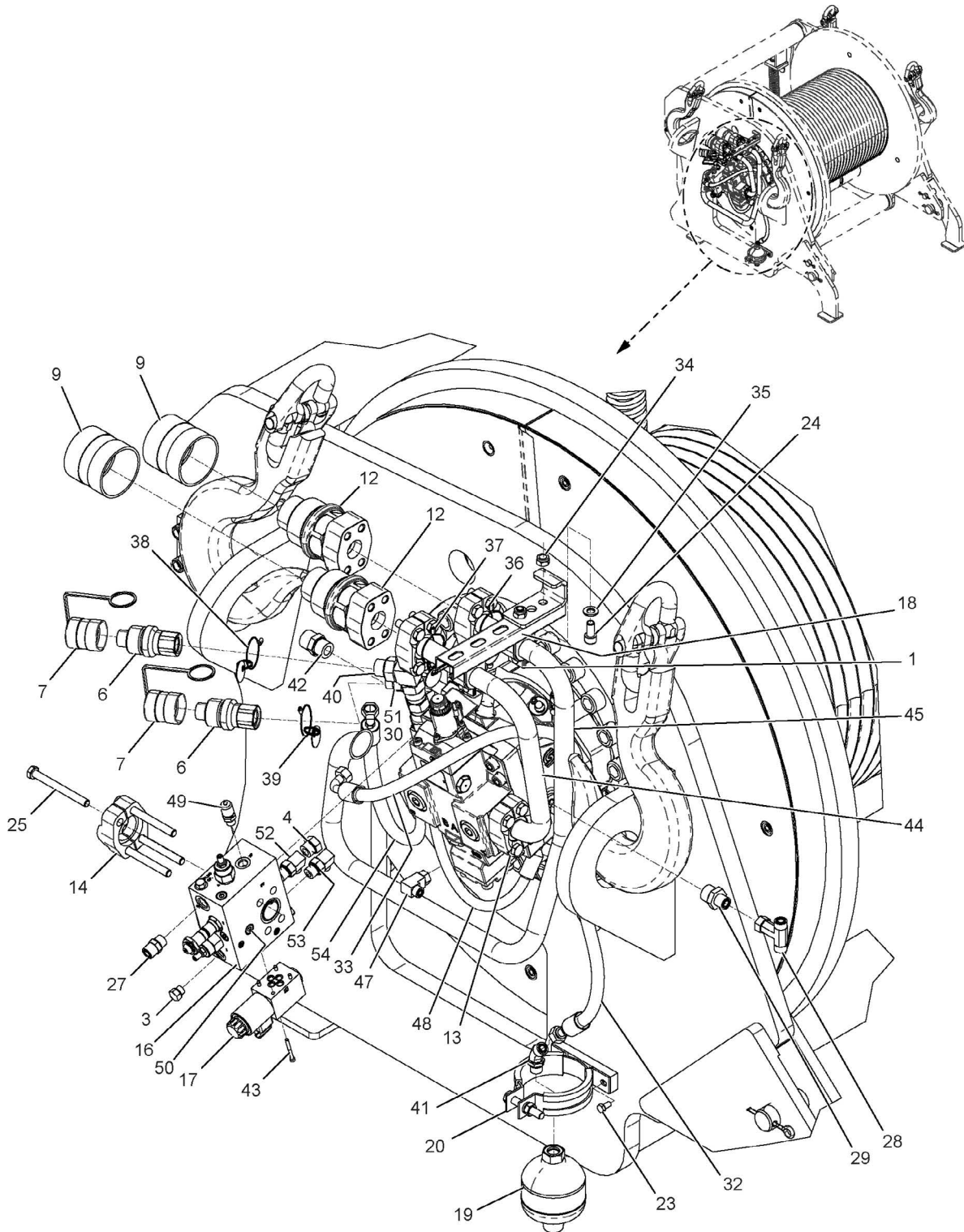
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**2. UPPERWORKS MACHINERY**  
**2.16.1 MOTOR HYD PISTON FIXED 75 CC/REV (A056890) Rev E**

<b>MOTOR HYD PISTON FIXED 75 CC/REV (A056890) Rev E</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	9722220095	2		PLUG
2	9632220005	2		PLUG
3	9632220246	1		GASKET, END CAP
4	9722220239	2		PLUG
5	9632220208	2		PLUG
6	9632220035	2		O-RING
7	7031232	1		KIT, CPRV CARTRIDGE 5364970 HYD MOTOR
8	9632220035	1		O-RING
9	7031235	1		O-RING
10	5834415	1	AU	SHAFT SEAL KIT (EN)
10-1	9754220027	1		O RING
10-2	9794220040	1		LIP SEAL A05689 HYD MOTOR
11	9722221350	1		SEAL, LIP
12	9754220027	1		O RING
13	5364675 → page 2-169	1	AU	SEAL KIT OVERHAUL
AU = PART NOT SHOWN				

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# 2.19 PIPING HYD ASSY WHIP HOIST DRUM 3 (810271451) Rev F



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**2. UPPERWORKS MACHINERY**  
**2.19.4 VALVE DIRECTIONAL CNTRL DO3 2 POS 4 WAY (810239070) Rev A**

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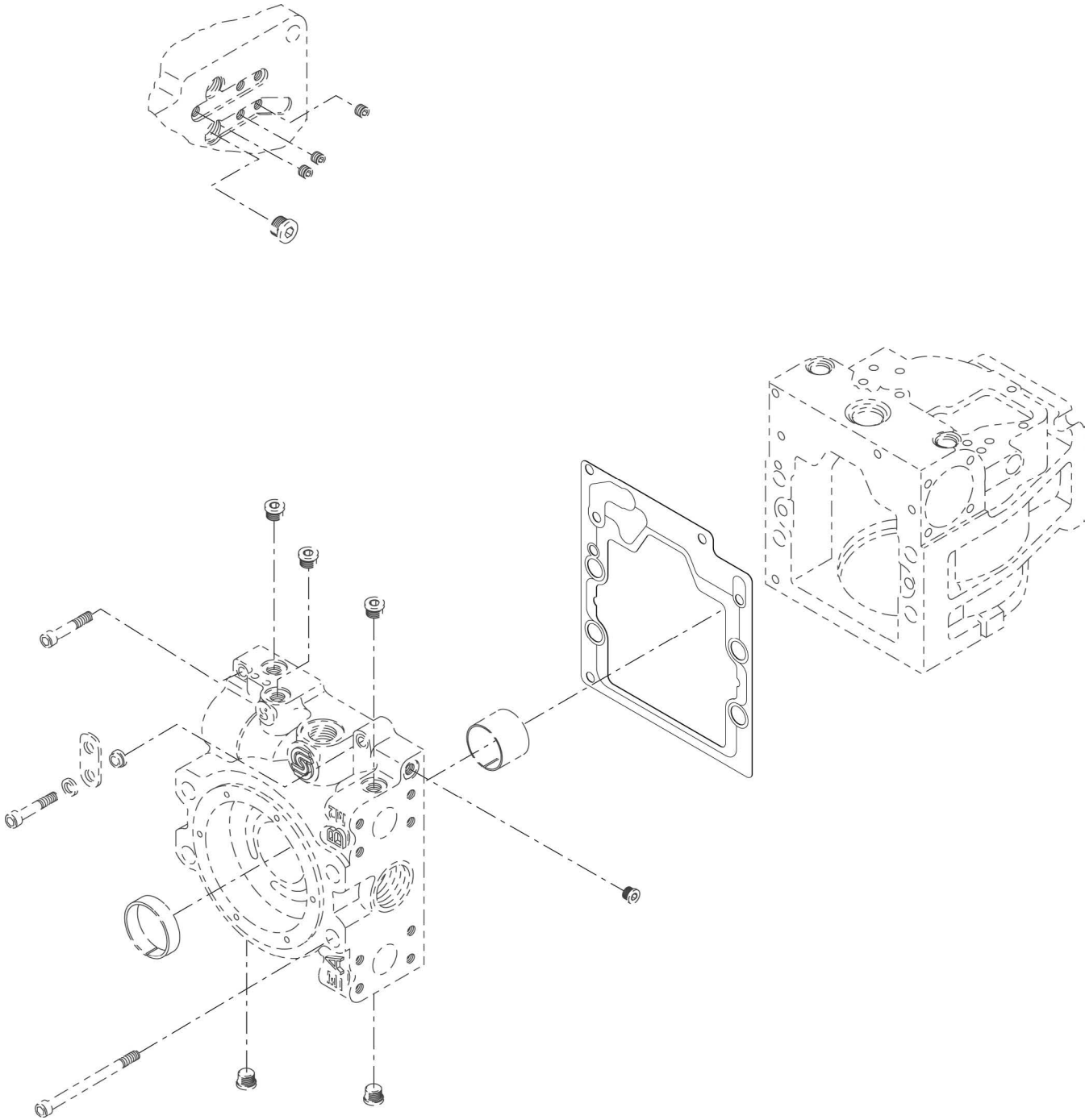
VALVE DIRECTIONAL CNTRL DO3 2 POS 4 WAY (810239070) Rev A				
Pos.	Part	BOM Qty.	Foot Note	Description
1	90038353	1		COIL 810239070 VALVE
2	90038354	1		SEAL KIT 810239070 VALVE

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## 2. UPPERWORKS MACHINERY

### 2.20.1 PUMP HYD VARIABLE 100 CC/REV (810120620) Rev B

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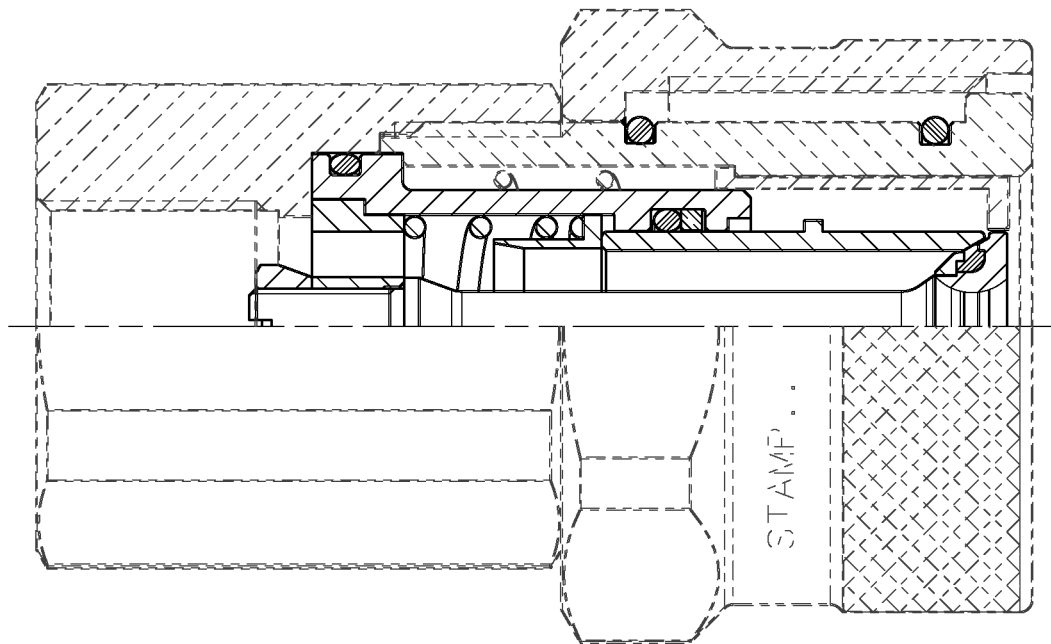
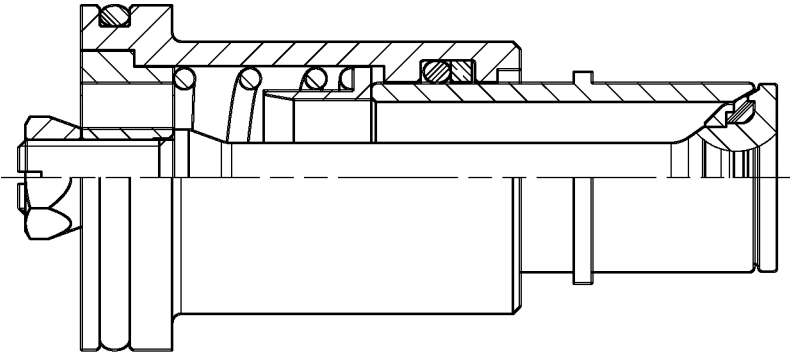
**2. UPPERWORKS MACHINERY**  
**2.21.1 VALVE HYD SUN DBL C-BAL (7041130) Rev FA**

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VALVE HYD SUN DBL C-BAL (7041130) Rev FA				
Pos.	Part	BOM Qty.	Foot Note	Description
1	7041136	2		CART.DOUBLE
2	9926107803	2		SEAL KIT

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### 2.22.3 Q DISCON FITTING HYDR COUPLER -8ORBX-6 (810121640) Rev B



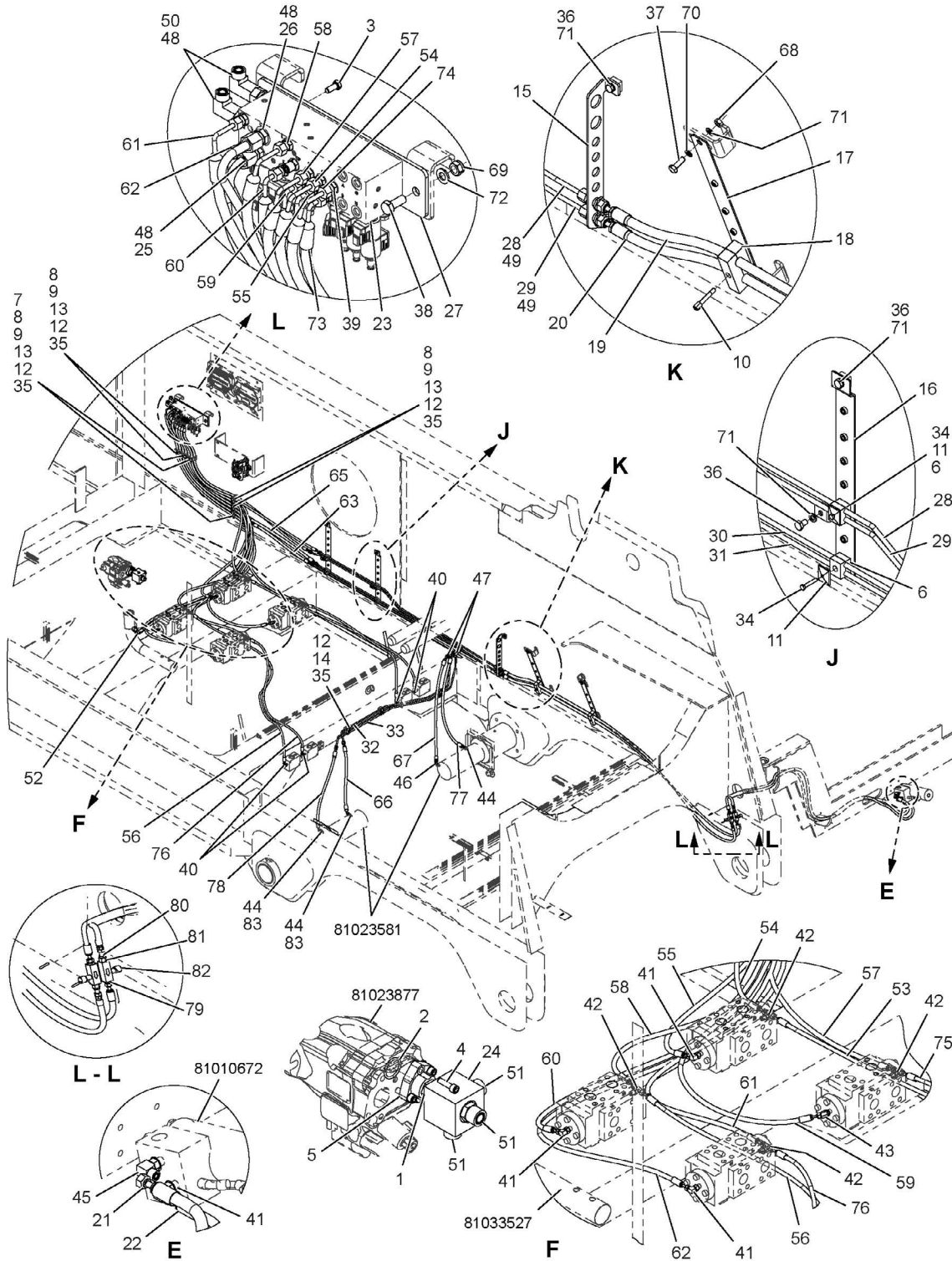
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**2. UPPERWORKS MACHINERY**  
**2.23.2 PIPING HYD ASSY SELF-ERECT LIVE MAST (810288141) Rev C**

PIPING HYD ASSY SELF-ERECT LIVE MAST (810288141) Rev C				
Pos.	Part	BOM Qty.	Foot Note	Description
1	3455150	22		CLAMP TUBE 0.50 DIA
2	810269870	2		CHANNEL 25.4 DP X 203.2 LG
3	810285670	4		TUBE PREFORMED 0.50 OD X 0.065 WALL
4	810285690	1		TUBE PREFORMED 0.50 OD X 0.065 WALL
5	810285700	1		TUBE PREFORMED 0.50 OD X 0.065 WALL
8	7126211254	4		SHCS M12-25MM 8.8
9	7447081201	2		FITTING ADAPTER STRAIGHT -80RFS X -120RB
10	7555302082	1		HOSE ASSY .50 ID X 20 LG
11	7555302582	1		HOSE ASSY .50 ID X 25 LG
12	7555303060	2		HOSE ASSY .50 ID X 30 LG
14	7661210803	4		HEX LOCK NUT M12 8FLZN ISO7040
15	A153690	2		JOINT ROTATING UNION DBLE AXIS3K 80RFS
16	810298520	2		CLAMP 12.7 DIA GROUP 2 DIN
17	810297970	1		TUBE PREFORMED .50 OD X .065 WALL
18	810297980	1		TUBE PREFORMED .50 OD X .065 WALL
19	7128151254	4		SHCS 6 X 25 12.9
20	1721869	2		ADAPTER DRWG REV A & BEYOND

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# 2.26 HYD LINES INSTL ROT BED ACCESSORIES (81037480) Rev E

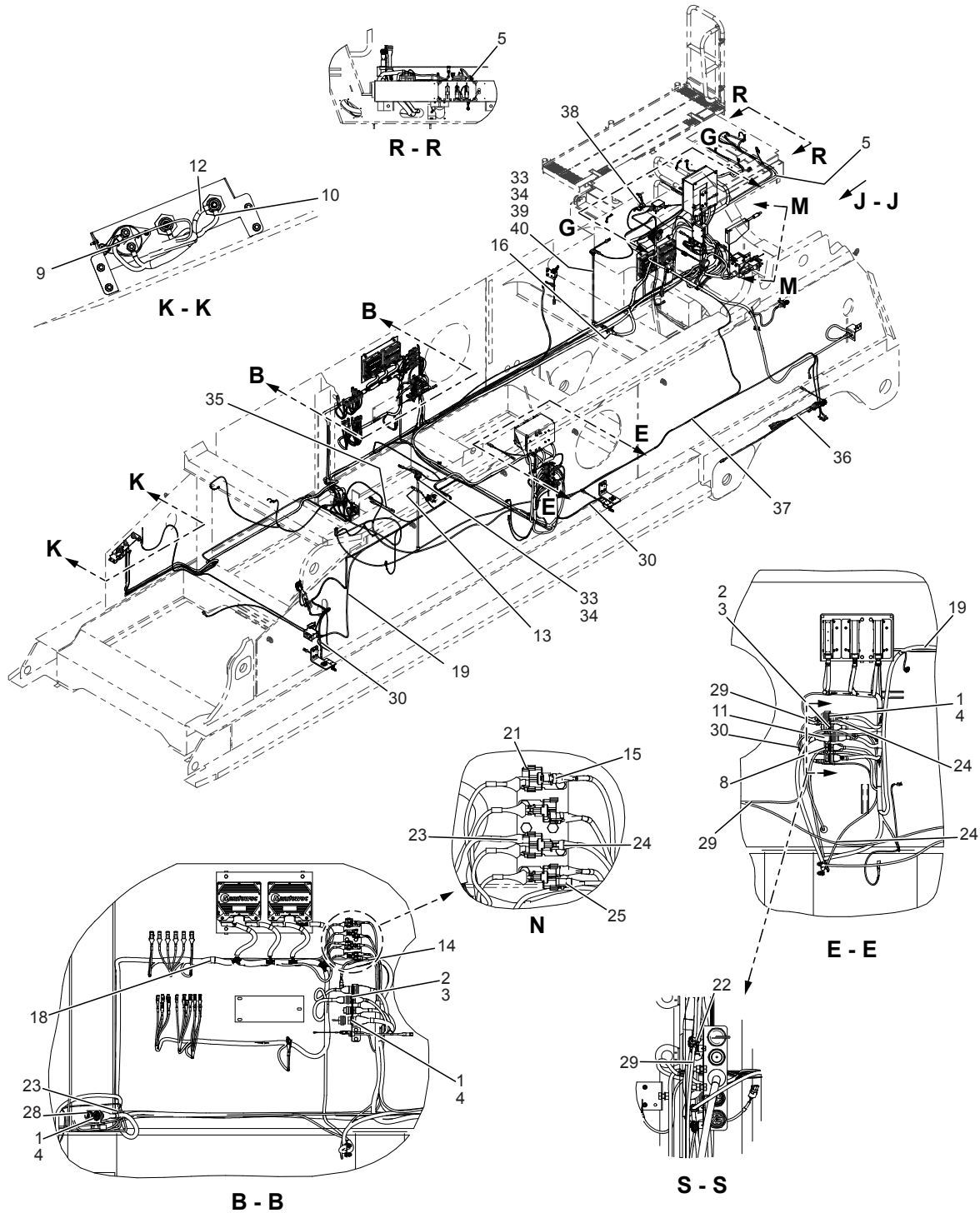


### 3. CONTROLS, ELECTRICAL

CONTROLS, ELECTRICAL				
Pos.	Part	BOM Qty.	Foot Note	Description
370	810192971 ➔ page 3-4	1		ESI QSX15 T4F
870	810230382 ➔ page 3-9	1		FLOOR PLATE ASSY CAB
900	810233711 ➔ page 3-11	1		ESI BOOM BUTT
1060	81037025 ➔ page 3-13	1		ESI ROTATING BED
1130	810242161 ➔ page 3-49	1		ESI ADAPTER FRAME
1200	810245211 ➔ page 3-51	1		CONSOLE CONTROL ASSY CAB
1210	810245352 ➔ page 3-81	1		ESI DRUM 3
1330	810253921 ➔ page 3-83	1		ESI CAMERA BED INSTL
1340	810254951 ➔ page 3-85	1		ESI CAMERA BUTT INSTL
1350	810254981 ➔ page 3-87	1		ESI CAMERA BOOM INSERT
1360	810255011 ➔ page 3-89	1		ACCESSORY CAMERA MONITORS CAB
1450	810258081 ➔ page 3-93	1		SWITCH ROCKER DRUM 3 CAB
1460	810258091 ➔ page 3-95	1		SWITCH ROCKER DRUM 5 CAB
1490	810258121 ➔ page 3-97	1		SWITCH ROCKER CAB TILT CAB
1500	810258131 ➔ page 3-99	1		SWITCH ROCKER TIER 4 ENGINE CAB
1510	810258141 ➔ page 3-101	1		SWITCH ROCKER AIRCRAFT WARNING LIGHT
1550	810258181 ➔ page 3-103	1		SWITCH ROCKER CAMERA LIGHTS CAB
1560	810259061 ➔ page 3-105	1		ESI CAB INTERIOR WIRING
1570	810259091 ➔ page 3-107	1		ESI CARBODY
1580	810259101 ➔ page 3-109	1		ESI CRAWLER
1610	81026040 ➔ page 3-111	1		ESI LIVE MAST
1730	810268201 ➔ page 3-113	1		ESI UPPER WORKS JACKING
1840	810271251 ➔ page 3-115	1		COLD WEATHER KIT ROT BED INSTL
1870	810271801 ➔ page 3-121	1		ESI 1M BOOM CAP WIRING

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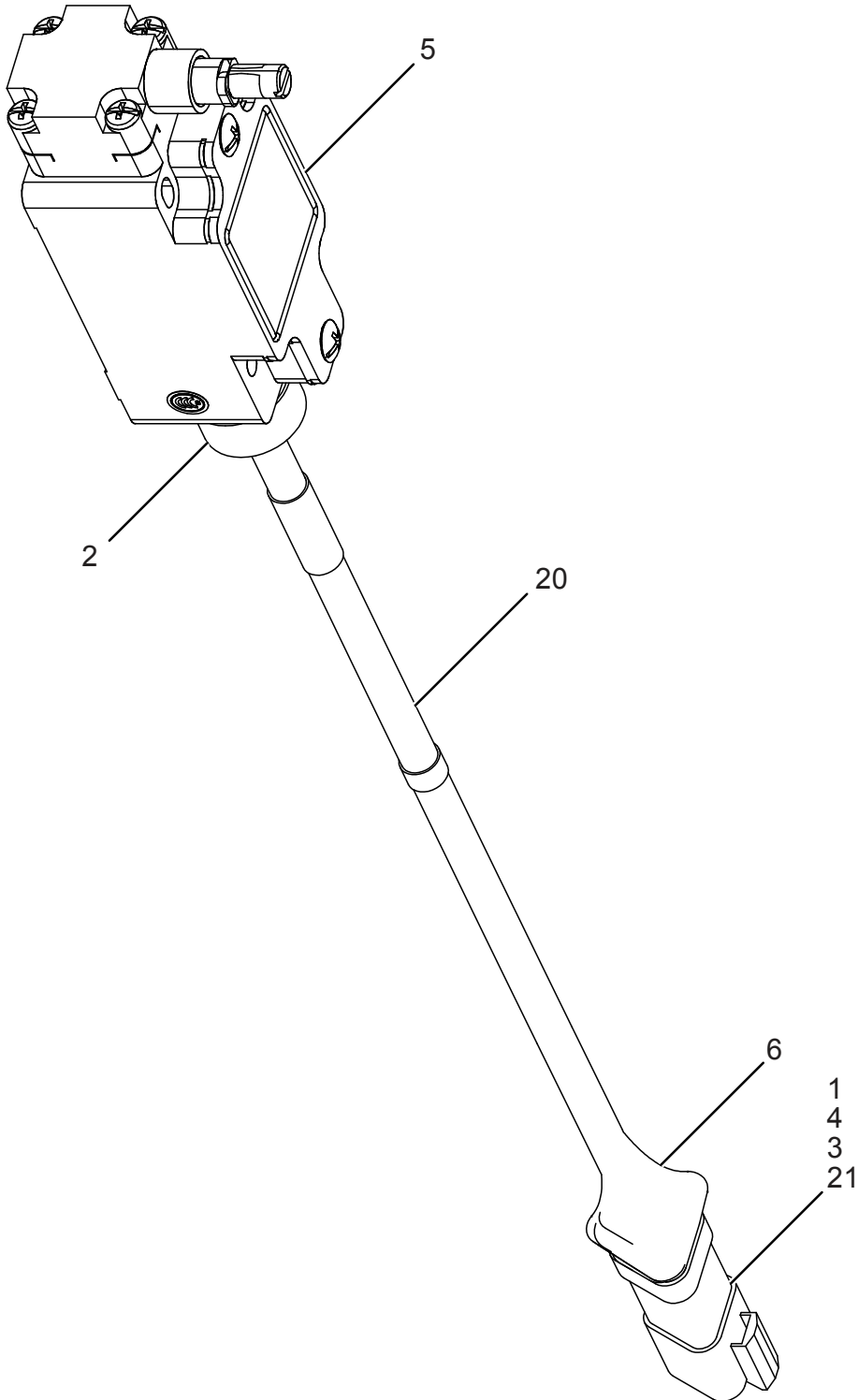
### 3.4 ESI ROTATING BED (81037025) Rev K



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LIMIT SWITCH SUBASSY (810238652) Rev C



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**3. CONTROLS, ELECTRICAL**  
**3.4.3 ESI SERVICE LIGHTS (81040940) Rev B**

<b>ESI SERVICE LIGHTS (81040940) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	81038813 → page 3-47	3		LIGHT SERVICE LIGHT ASSY
2	81040874	6		ELEC CABLE BED TO LIGHT EXT

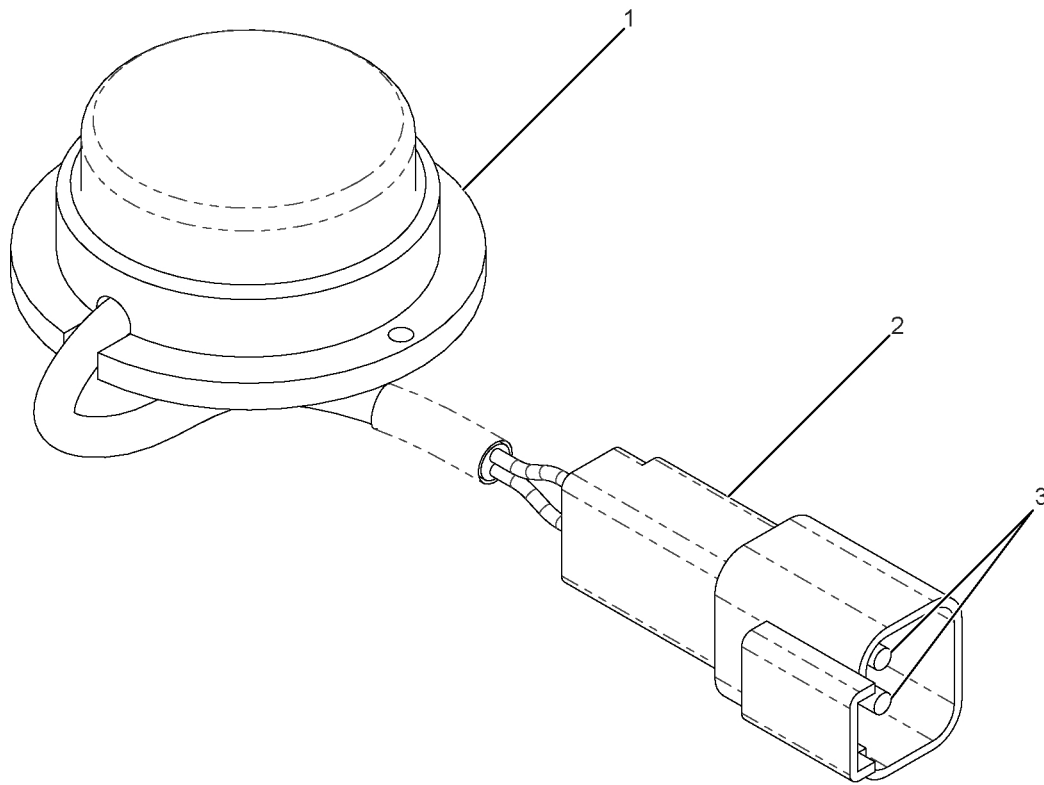
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3. CONTROLS, ELECTRICAL

3.6.1 CONSOLE LEFT HAND ASSY (810197471) Rev D

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**LIGHT ASSY CONSOLE BACKLIGHT 24 VDC (810174260) Rev B**



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**3. CONTROLS, ELECTRICAL**  
**3.6.2 CONSOLE RIGHT HAND ASSY (81037044) Rev E**

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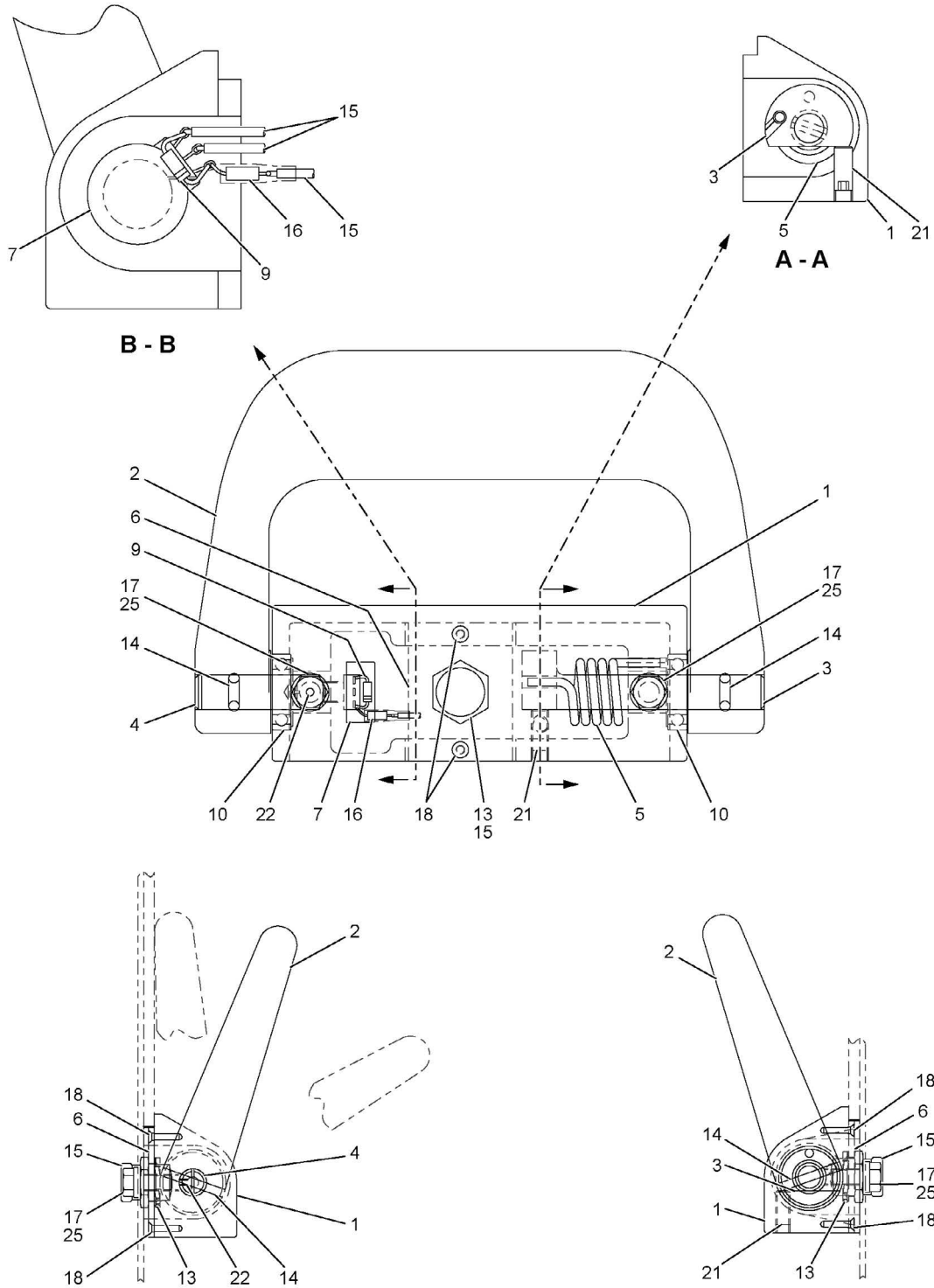
<b>DISPLAY CCS COLOR (84020921) Rev B</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	03140562	1		INDICATOR PLATE
2	80075725	1		CCS COLOR DISPLAY

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### 3. CONTROLS, ELECTRICAL

#### 3.6.3 PEDAL FOOT ASSY THROTTLE CONTROL (A020191) Rev FA

## 3.6.3 PEDAL FOOT ASSY THROTTLE CONTROL (A020191) Rev FA

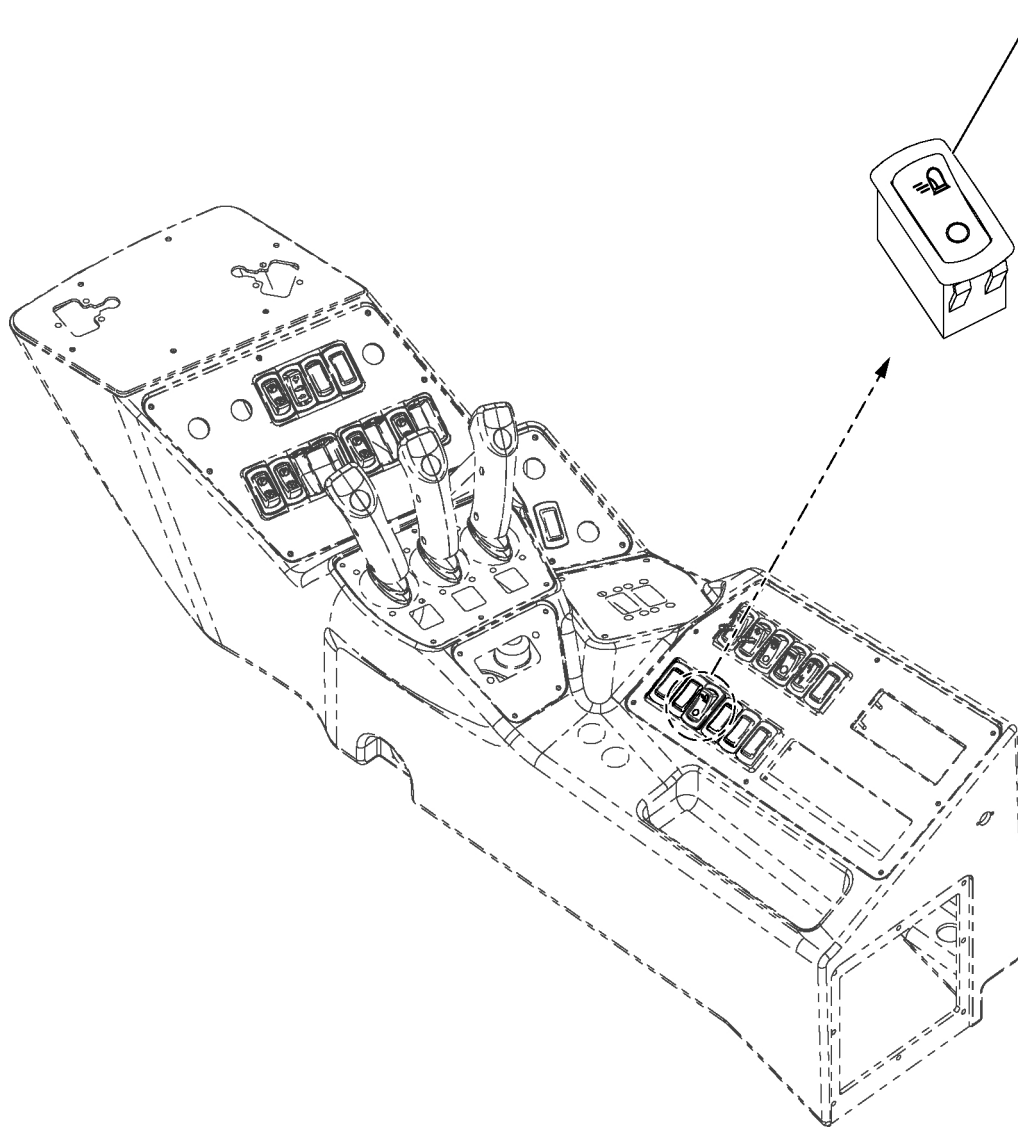


**3. CONTROLS, ELECTRICAL**  
**3.11 ACCESSORY CAMERA MONITORS CAB (810255011) Rev D**

ACCESSORY CAMERA MONITORS CAB (810255011) Rev D				
Pos.	Part	BOM Qty.	Foot Note	Description
1	5460520	8		HEX NUT 1/4-20UNC SS
2	6670070	4		STRAP NYLON CABLE TIE 7.4
3	7103020	11		L WASHER MEDIUM 1/4 ST B18.21.1
4	810034210	4		PHIL TMS 10-32UNF X .75 GR 1
5	810064122	1		BRACKET MOUNTING MONITOR
6	810065650	2		MOUNT MONITOR CCTV 7 INCH
7	810137520	4		MOUNT CABLE TIE TYPE HDM 2
8	810244000 → page 3-91	1		DISPLAY MONITOR ASSY CCTV 7" LED DDIN
9	810261500	11		PHIL TMS 1/4-20UNC X 0.75 GR 1
10	810010960	2		RECEPTACLE WWEDGE LOCK 2 POLE
11	810251290	1		WIRING HARNESS WCR2
12	7689100044	4		TERMINAL
14	81041508	1		CABLE ELEC CCTV SPLITTER
15	84020654	1		DISPLAY LED 7 INCH

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# 3.16 SWITCH ROCKER AIRCRAFT WARNING LIGHT (810258141) Rev B



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**3. CONTROLS, ELECTRICAL**  
**3.21 ESI LIVE MAST (81026040) Rev H**

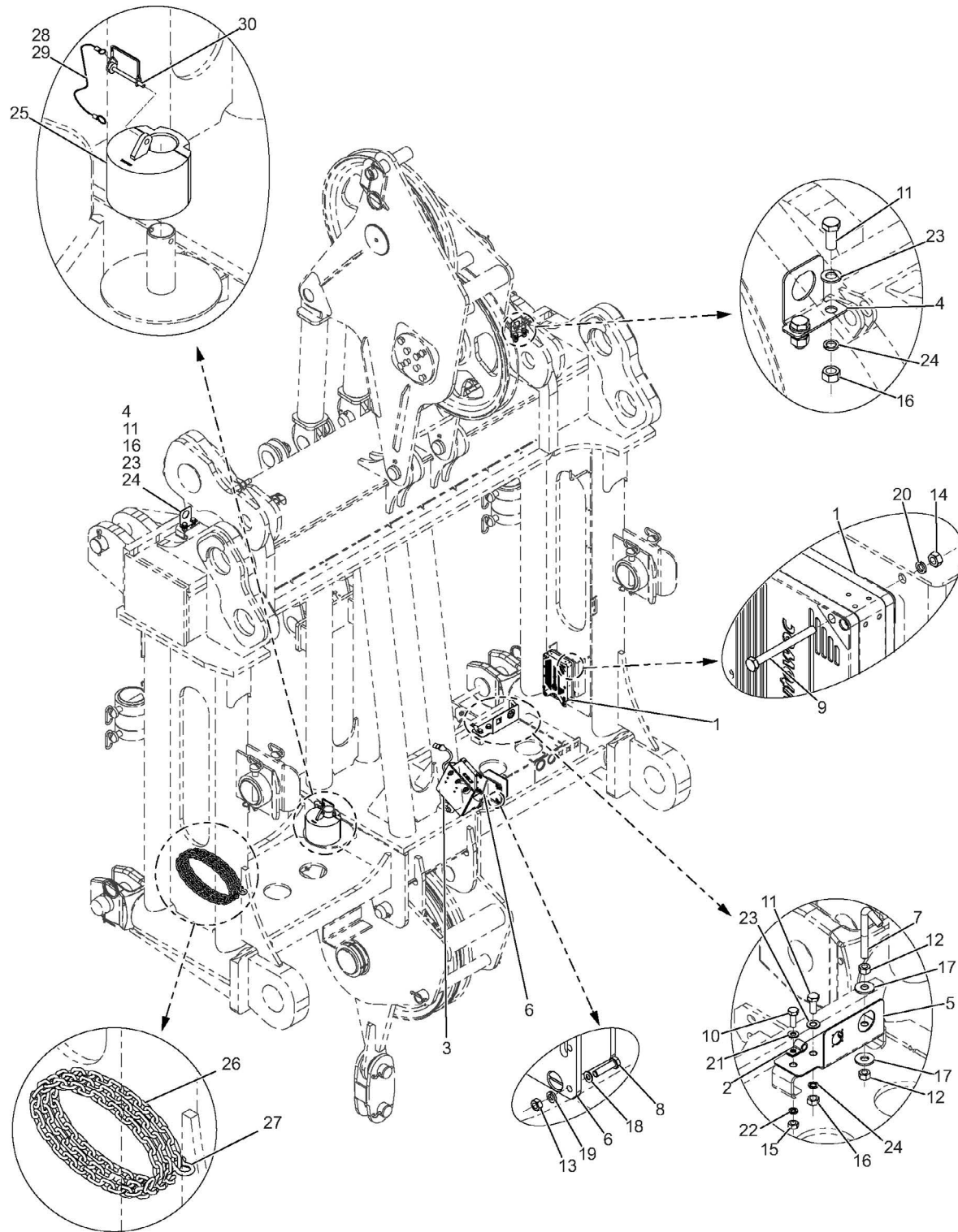
ESI LIVE MAST (81026040) Rev H				
Pos.	Part	BOM Qty.	Foot Note	Description
3	7951130014	4		F WASHER 5 ST ISO 7089
5	810291390	1		SENSOR ANGLE MEMS 200 DEG
6	81040550	1		WIRING HARNESS WRM1
10	A015990	1		RETAINER P-CLIP FOR 0.50 DIA
11	7951150014	2		F WASHER 6 ST ISO 7089
12	7951170014	2		F WASHER 8 ST ISO 7089
13	7126131253	5		SCR CAP HEX HD M5-0.8 X 25 8.8 7C
14	7661130003	5		HEX NUT 5 8 ISO 4032
15	7951130220	5		LOCK WASHER 5 ST DIN 127B
16	81042201	1		CABLE ELEC LIVE MAST GROUND
17	A183320	2		L WASHER COUNTERSUNK E-T 1/4 ST B18.21.1
18	7126150753	2		HHCS 6 X 10 8.8 FULL THREAD
19	84032353	1		ELEC CABLE GROUNDING CAP
20	810070010	1 FT		WIRE ROPE 3/64 7X7 SS VC-1/16 CLEAR
21	810070020	2		SLEEVE 1/16 OVAL ALUMINUM
22	84036878	1		ELEC CABLE BRD GND STRAP 84.00
23	7126191153	1		HHCS M10X20 8.8 FLZN 4017
24	7951190590	1		SERRATED L WASHER 10 FLZN DIN6798A

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### 3. CONTROLS, ELECTRICAL

#### 3.24.1 ESI 1 METER BOOM CAP MTG (810271811) Rev C

## 3.24.1 ESI 1 METER BOOM CAP MTG (810271811) Rev C



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**3. CONTROLS, ELECTRICAL**  
**3.25 ESI RCL LIGHT (810282471) Rev H**

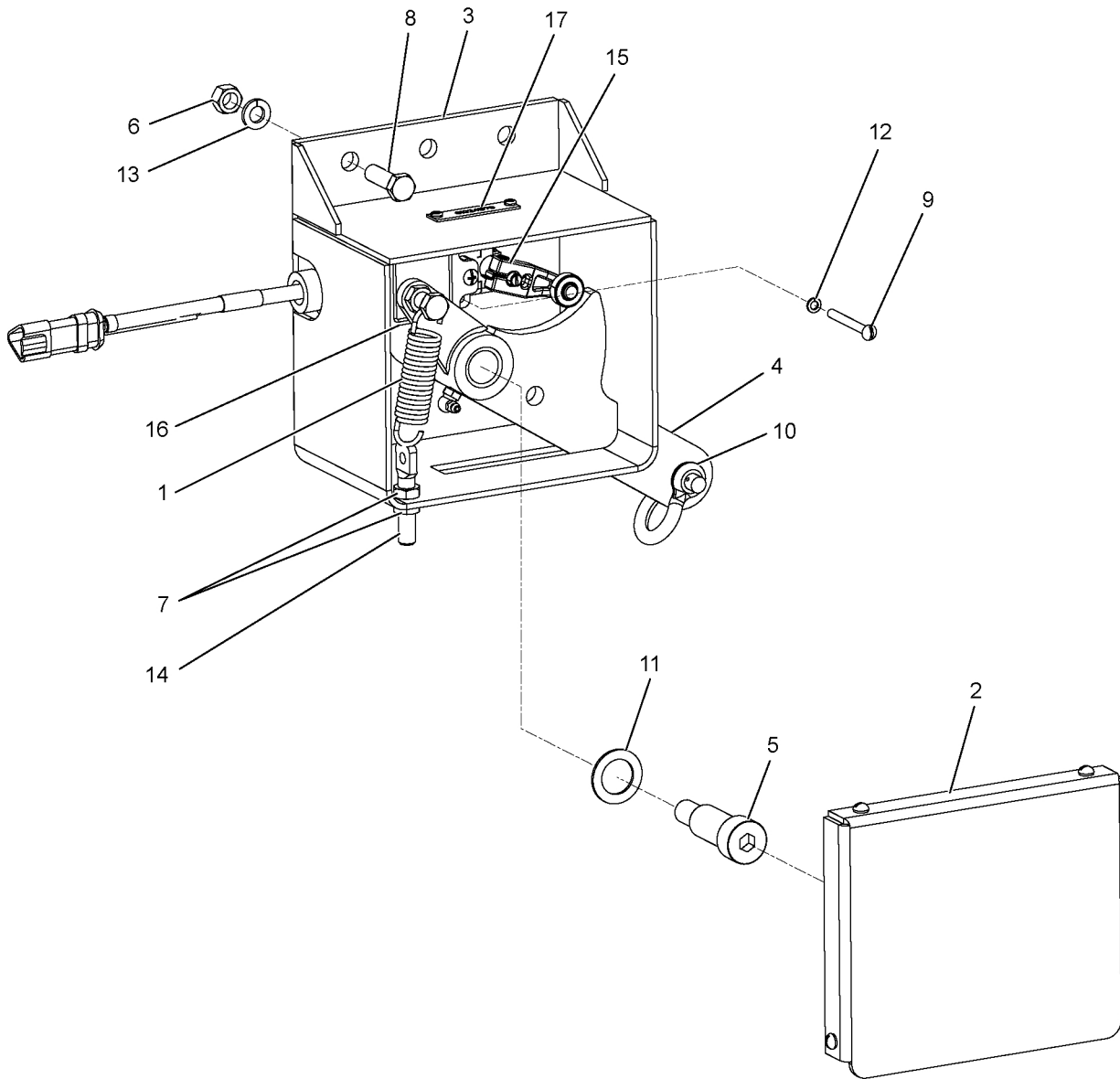
ESI RCL LIGHT (810282471) Rev H				
Pos.	Part	BOM Qty.	Foot Note	Description
1	4717170	1		CORD GRIP .50 NPT .25 - .375 CORD
2	5725230	2		PLUG SEALING SIZE 12&16
3	84022975	1		HEAT SHRINK TUBING 24/6
4	810356270	1		ELEC CONNECTOR DT06-4S-CE13
5	81041059	1		LIGHT RCL BEACON
6	84026634	1		BRACKET BEACON MOUNT
7	810283890	1		WIRING HARNESS WCE4
9	810290670	4		HHCS FULL THREAD 8-1.00 X 30 8.8
11	7826100004	4		WIRE TERMINAL SOCKET 16-20GA AU
12	7892000824	1		RECEPTACLE DT04-6P(W6P)
13	7951150010	2		F WASHER 6 ST ISO 7089
14	7951150210	1		L WASHER 6 ST DIN 7980
15	7951170210	4		L WASHER 8 ST DIN 7890
16	810190450	1		PLUG ELEC SEALING CAP ASSY
18	810134310	2		STRAP SS 10.2 CABLE TIE
19	81032427	1		BAR SHORT 44.0X25.4X6.35
20	7661150803	2		HEX LOCK NUT M6 8FLZN ISO7040
21	7126151453	1		HHCS M6X35 8.8 FLZN 4017
22	81035515	1		HANDLE CLAMPING M6X1 35MM

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### 3. CONTROLS, ELECTRICAL

#### 3.26.1 ESI EXT UPPER POINT MTG (810313241) Rev C

### SWITCH A2B DEVICE (810245702) Rev A



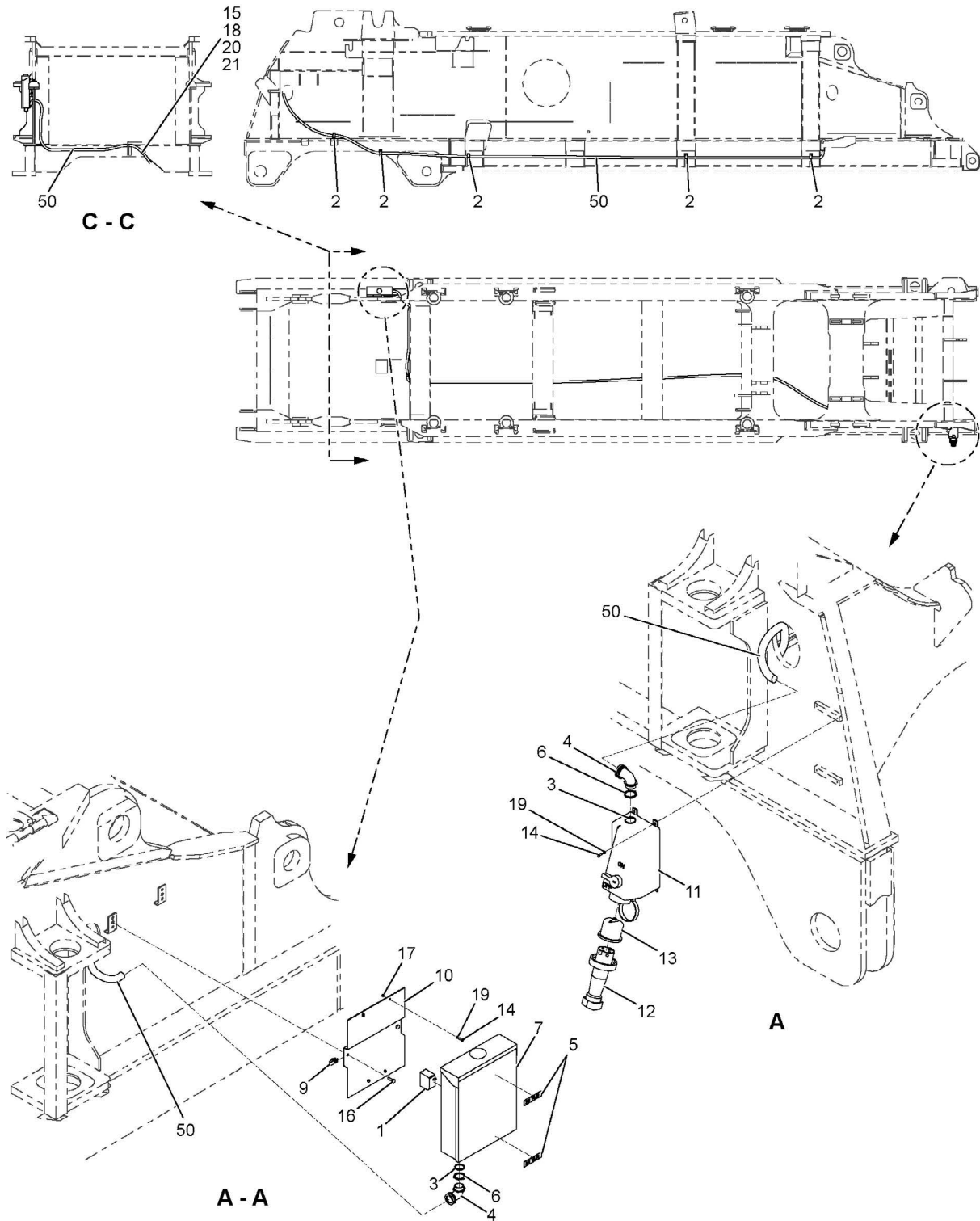
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**3. CONTROLS, ELECTRICAL**  
**3.27 ESI 12M INSERT (810338531) Rev D**

<b>ESI 12M INSERT (810338531) Rev D</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	5460560	2		HEX NUT 1/2-13UNC GR 5
2	5911160	1		REEL CABLE FOR 350' OF 16/2 WIRE
3	7094600	1		F WASHER 1/2 ST USS
4	7103060	1		L WASHER MEDIUM 1/2 ST B18.21.1
5	84025425	1		CABLE REEL HAND CRANK
6	810256660	1		ELEC CABLE WN130,000
7	810329362	1		HOOK BOLT J 1/2 INCH
8	810329920	1		WIRING HARNESS WBR1
9	7126191253	8		HHCS M10X25 8.8 FLZN 4017
10	7661190003	8		HEX NUT M10 8FLZN ISO4032
11	7951190014	8		F WASHER 10 ST ISO 7089

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# 3.29 ESI AC COMMON (81038149) Rev B

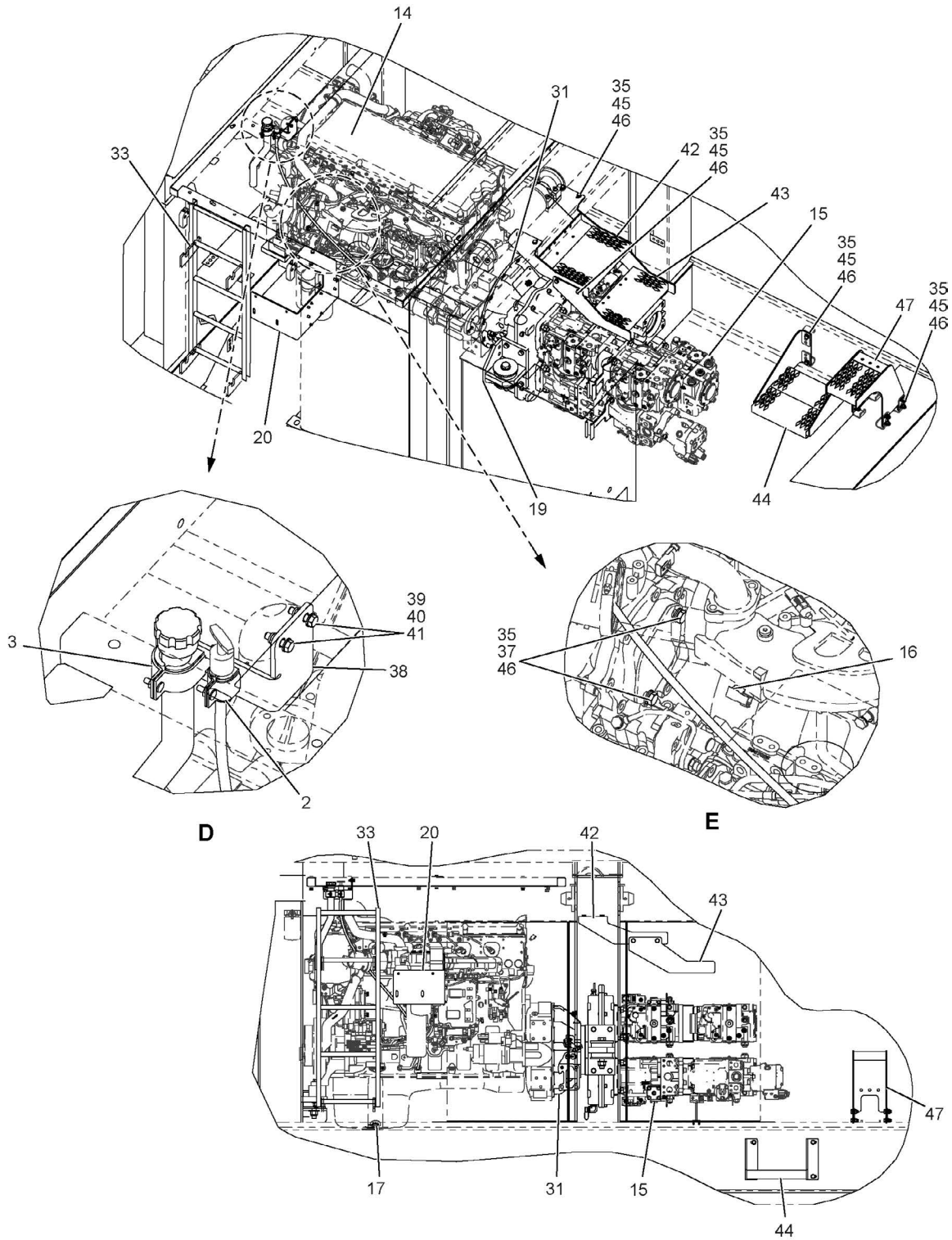


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## 4. POWER PLANT

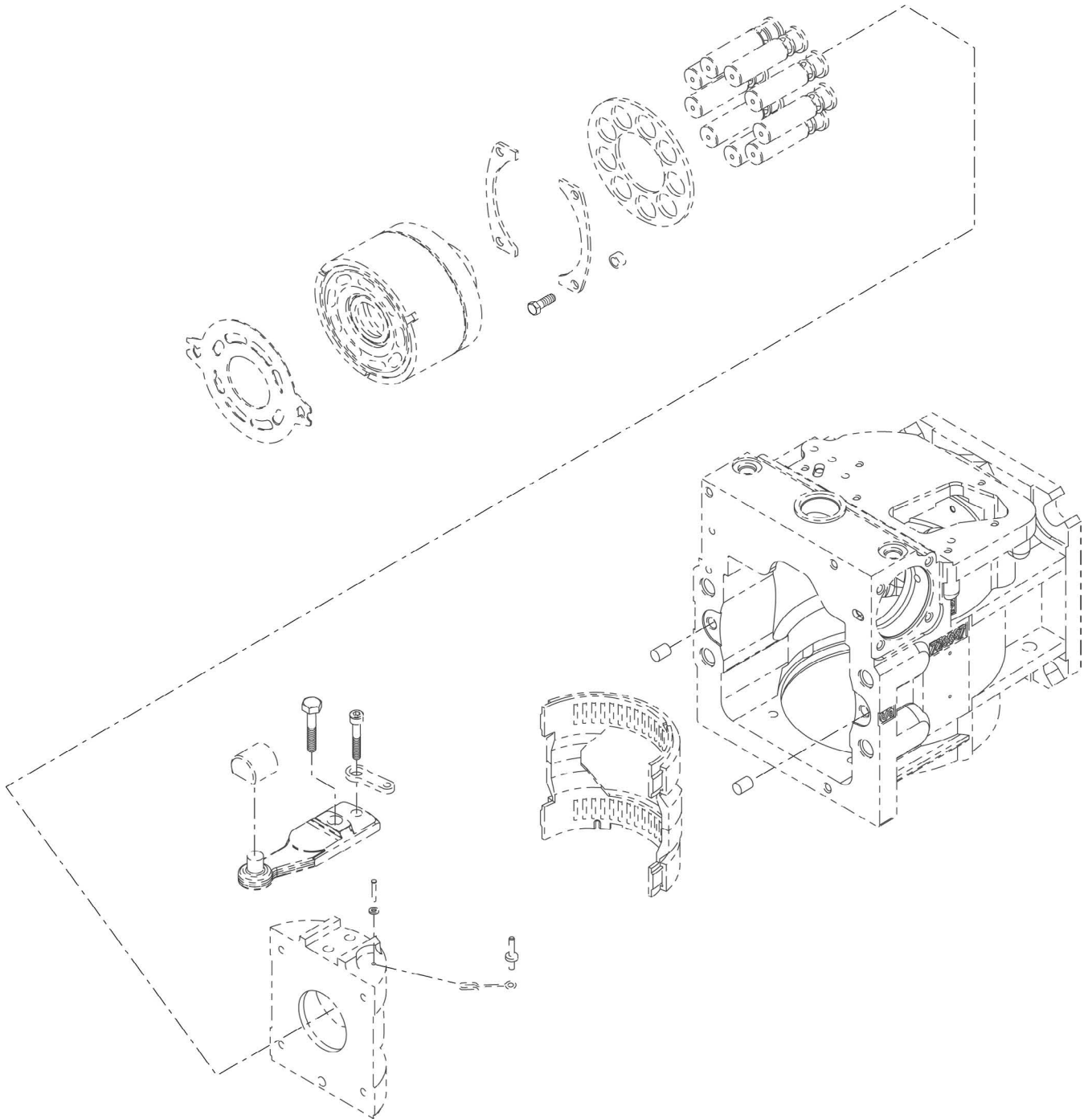
POWER PLANT				
Pos.	Part	BOM Qty.	Foot Note	Description
310	810272472 ➡ page 4-3	1		ENCLOSURE ASSY T3 & T4 POWER PLANT
320	810192891 ➡ page 4-13	1		POWERTRAIN QSX15 TIER 4F
340	810192931 ➡ page 4-57	1		EXHAUST ASSY QSX15 TIER 4 FINAL
350	810192951 ➡ page 4-61	1		BATTERY ASSY QSX15
360	810192961 ➡ page 4-63	1		FUEL CIRCUIT QSX15 TIER 4 600HP
380	810192981 ➡ page 4-66	1		COOLER INSTL QSX15 TIER 4 FINAL
390	810193101 ➡ page 4-70	1		HVAC QSX15
670	810222841 ➡ page 4-75	1		CLUTCH RELEASE ASSY
1430	810257031 ➡ page 4-79	1		TANK FUEL ASSY INSTALLATION
2180	810287261 ➡ page 4-87	1		TANK HYD ASSY INSTALLATION
2700	810310621 ➡ page 4-97	1		EXHAUST SYST DEF SYSTEM INSTL
2710	810310631 ➡ page 4-103	1		INTAKE ASSY QSX15 TIER 4 FINAL
2910	81036066 ➡ page 4-107	1		GENERATOR ASSY EQUIP
2920	81036067 ➡ page 4-113	1		GENERATOR ASSY PREP
3350	81041204 ➡ page 4-125	1		APU EQUIP ELECTRICAL HARNESSSES
3420	81035215 ➡ page 4-131	1		FUEL FILLER ASSY FAST FILL

# 4.2 POWERTRAIN QSX15 TIER 4F (810192891) Rev G



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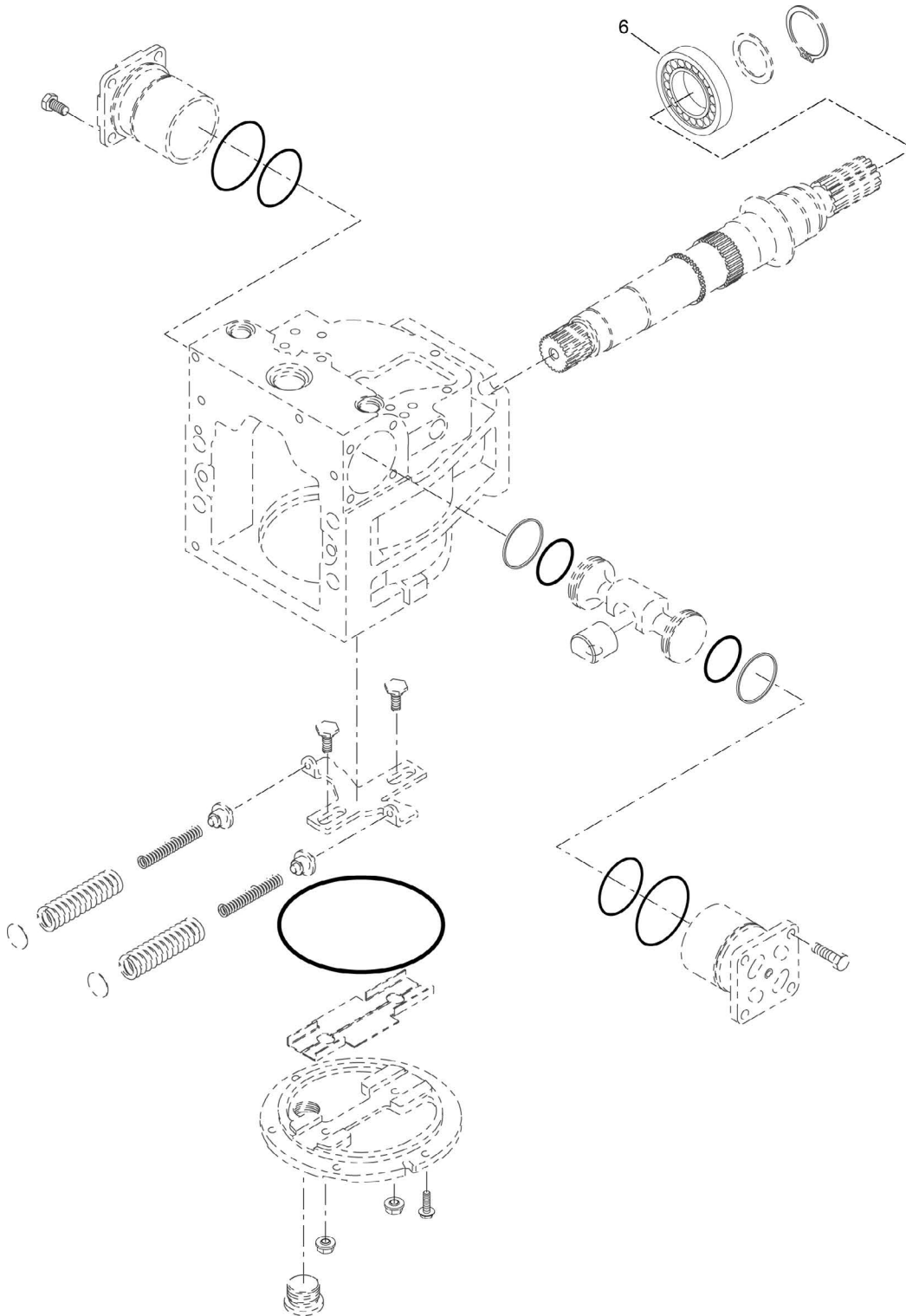
4. POWER PLANT  
4.2.2 GEARBOX ASSY 600 HP (810192911) Rev F



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# 4. POWER PLANT

## 4.2.2 GEARBOX ASSY 600 HP (810192911) Rev F



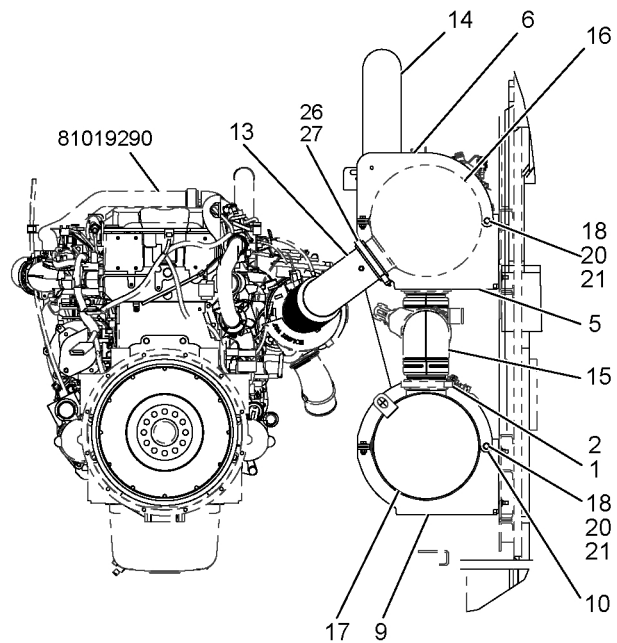
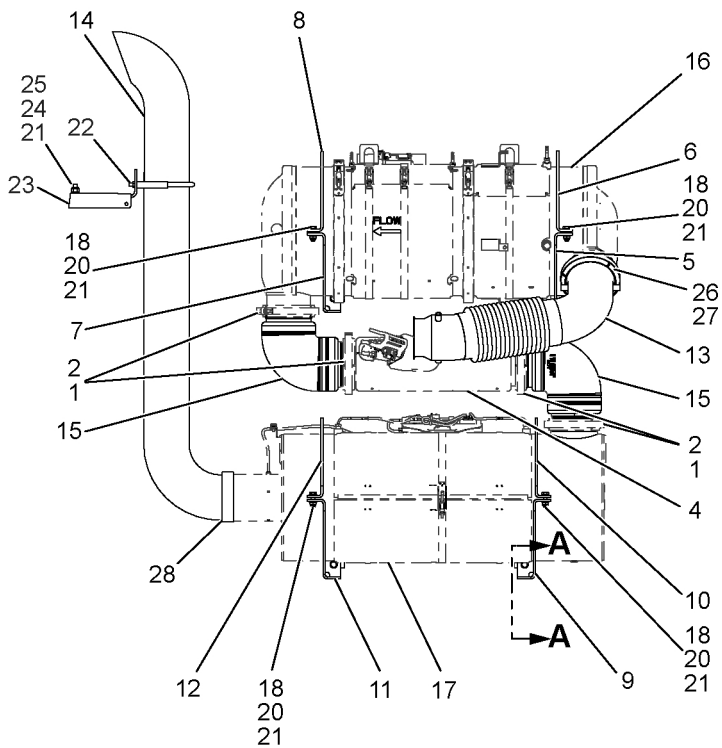
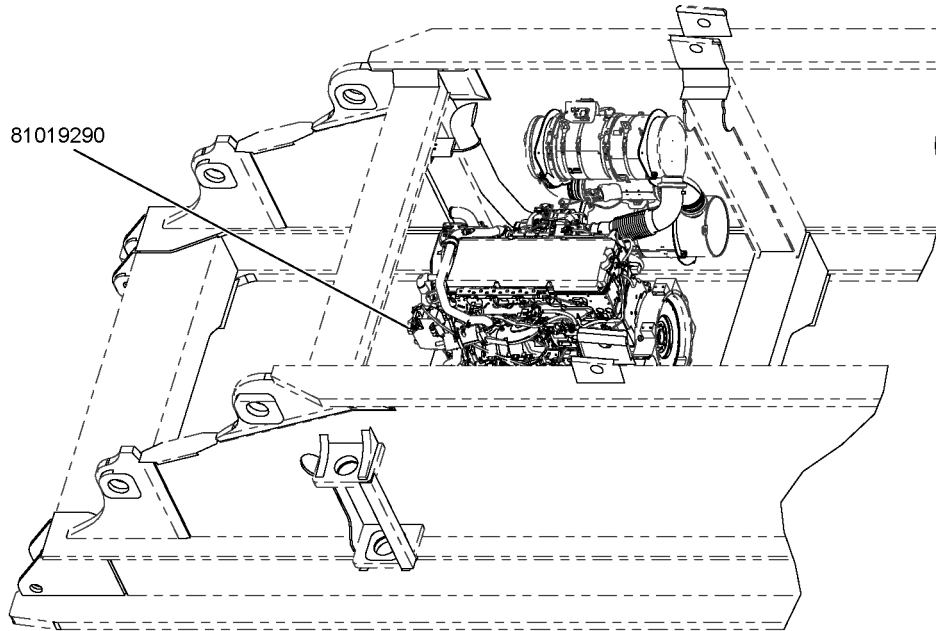
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**4. POWER PLANT**  
**4.2.2 GEARBOX ASSY 600 HP (810192911) Rev F**

<b>PUMP HYD PISTON VARIABLE 100 CC/REV (810238630) Rev C</b>				
<b>Pos.</b>	<b>Part</b>	<b>BOM Qty.</b>	<b>Foot Note</b>	<b>Description</b>
1	7041720 ➡ page 4-47	2		VALVE
2	7031230	1		RELIEF VALVE
3	7041770 ➡ page 4-49	1		VALVE EDC CONTROL
4	7041710	1		VALVE PCP
4-1	9722220261	3		O-RING
4-2	9722220560	1		O-RING
5	9722220391	1		CHARGE PUMP SET
6	9722220557	1		BEARING, ROLLER
7	90023737	1	AU	BASE PUMP SEAL KIT, 10C
AU = PART NOT SHOWN				

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# 4.3 EXHAUST ASSY QSX15 TIER 4 FINAL (810192931) Rev C



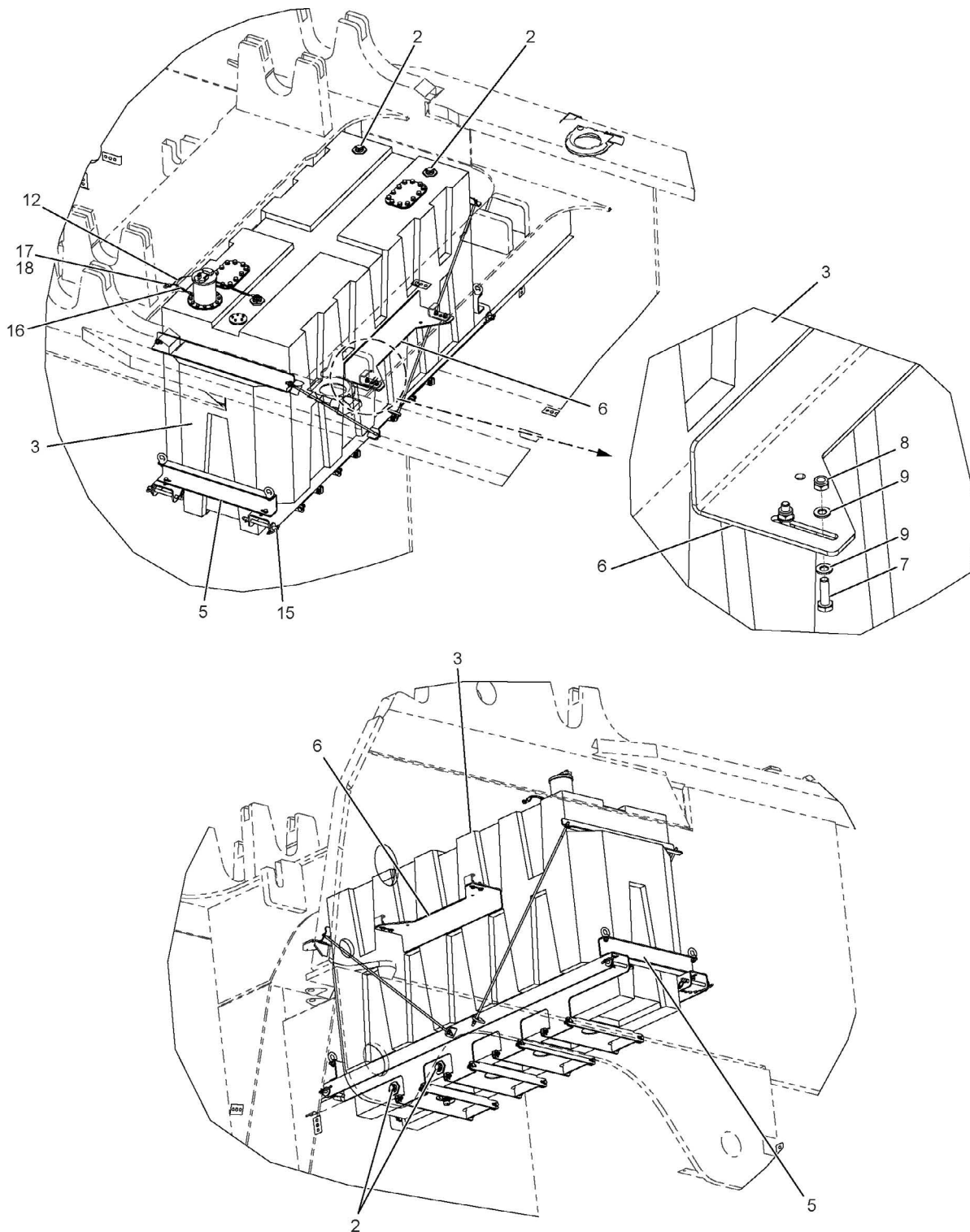
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**4. POWER PLANT**  
**4.6 COOLER INSTL QSX15 TIER 4 FINAL (810192981) Rev D**

COOLER INSTL QSX15 TIER 4 FINAL (810192981) Rev D				
Pos.	Part	BOM Qty.	Foot Note	Description
1	3454760	1		CLAMP WORM DRIVE .44 - 1.00 ID
2	3520010	2		VALVE CLUTCH VENT BRASS 1/4" MALE
3	4284090	1		FITTING ADAPTER STRAIGHT .75 ID X .75 NP
4	5717260	1		PIPE PLUG .75 SST
5	6124540	4		HHCS 3/8-16UNC X 1.00 GR5
6	7103040	4		LOCK WASHER 3/8 ST B18.21.1
7	810029990	3		FITTING 90 DEG .25 NPT X .38 HOSE BARB
8	810091120	2		FITTING ADPTR STRT .125 NPT X .38 BARB
10	810140370	1		PIPE NIPPLE .75 X 2.00 LG X SCH 40
11	810141530	1		PIPE ELBOW 90 DEG STREET 0.75 NPT
12	810149860	1		REDUCER RUBBER SILICONE 3.0ID TO 2.5ID
13	810149990	2		HOSE ASSY 3.00 ID X 8.5" LG
14	810152620	1		SENSOR COOLANT LEVEL
15	810168740	1		HOSE ASSY .38 ID X 5592 X 30.00 LG
16	810161990	1		FITTING M12-1.5X0.38 BARB .125 ORIFICE
17	810190400	2		CLAMP T BOLT 1.11 TO 1.25 ID
18	810190860	8		CLAMP T BOLT .67 - .75 ID
19	810192990	1		COOLER ASSY QSX15 600 HP
20	810238230	1		TUBE PREFORMED 4.50 X .065 SSTEEL
21	810238240	1		TUBE PREFORMED 4.50 X .065 SSTEEL
22	810238250	1		TUBE PREFORMED 3.00 X .065
23	810238260	1		TUBE PREFORMED 3.00 X .065
24	810246410	1		REDUCER RUBBER SILICONE 3.0ID TO 2.5ID
25	81042655	1		BRACKET COOLANT PIPING
26	810246982	1		BRACKET COOLANT PIPING
27	810255040	1		HOSE 0.75 ID X 5598 X 33.0 LG
28	810263580	1		HOSE ASSY 0.31 ID X#5541X65.00
29	810223180	1		HOSE 0.38 ID X 5592 X 96
31	7126211553	4		HHCS M12X40 8.8 FLZN 4017
32	7126191353	8		HHCS M10X30 8.8 FLZN 4017
33	7661190804	12		HEX LOCK NUT M10 10FLZN ISO7040
35	7661210804	4		HEX LOCK NUT M12 10FLZN ISO7040
36	7951190014	24		F WASHER 10 ST ISO 7089
37	7951210014	8		F WASHER 12 200HV FLZN 7089
38	810223180	1		HOSE 0.38 ID X 5592 X 96
39	A034610	2		HOSE CHARGE AIR SILICONE 4.0 X 4.5 X 6"
40	A034850	6		CLAMP SPRING HEAVY DUTY 4.63-4.98 ID
41	A035640	1		FITTING ADPTR SPECIAL M27-2ORBX.750 NPTF
42	A035990	2		CLAMP SPRING HEAVY DUTY 4.06-4.41 ID SS
43	A080600	2		CLAMP SPRING LIGHT DUTY 2.80-3.10 ID SS
44	A085820	6		CLAMP SPRING LIGHT DUTY 3.31-3.61 ID SS
45	A117910	2		HOSE CHARGE AIR 4.50 ID X 6.00 LG

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# 4.9 TANK FUEL ASSY INSTALLATION (810257031) Rev C



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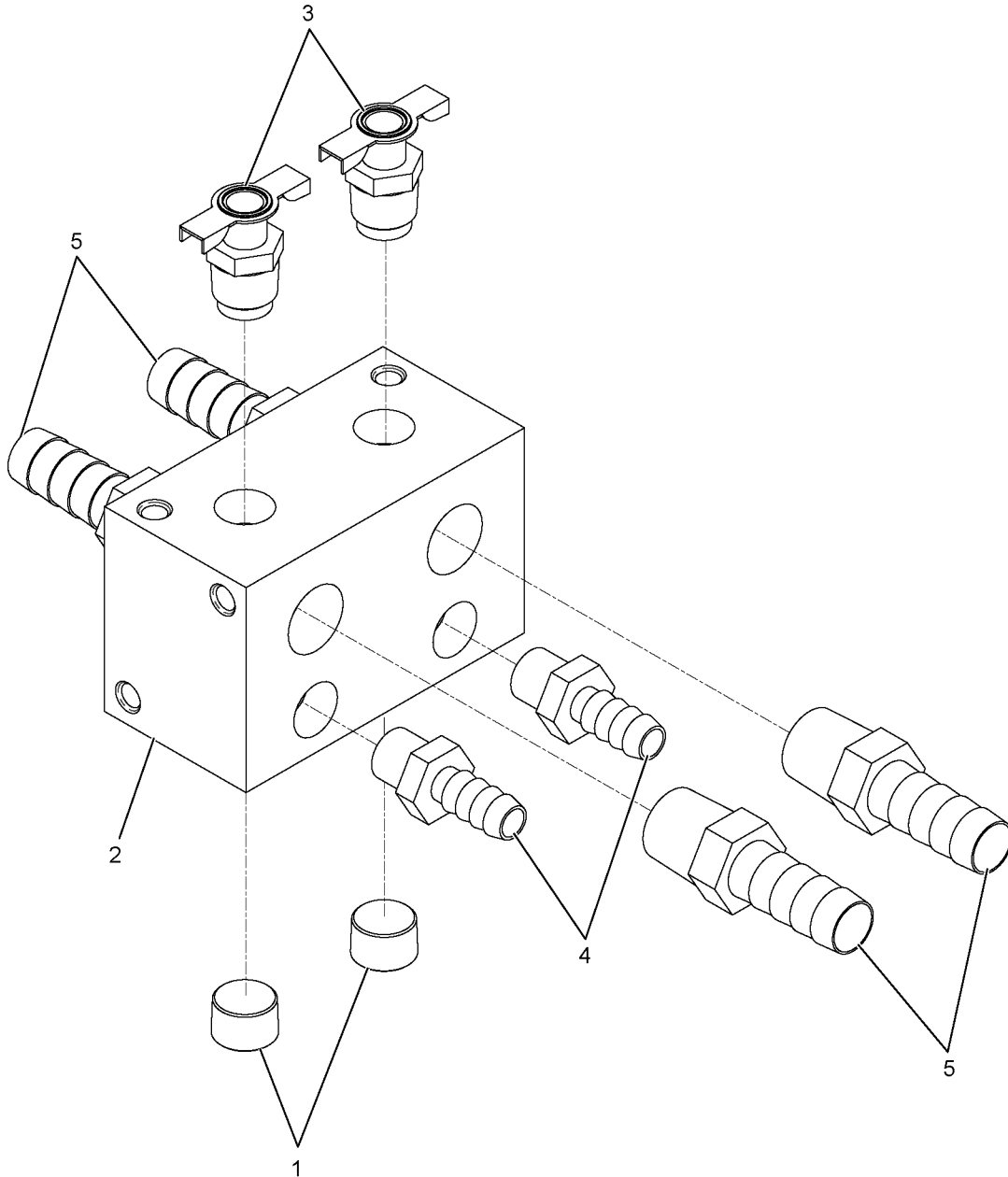
4. POWER PLANT

4.10.1 TANK HYD ASSY 250 GAL (810239030) Rev P

TANK HYD ASSY 250 GAL (810239030) Rev P				
Pos.	Part	BOM Qty.	Foot Note	Description
1	2886130	1		BUSHING .50X.38X.83 LG
2	2888300	2		HEX BUSHING PIPE .25 X .125
3	3456870	3		CLAMP TUBE 3.00 DIA
4	3753030	1		COUPLING PLUG 1/8 NPT
5	3753040	1		CAP DUST COUPLING
6	4296170	1		FITTING ADAPTOR 1/8
7	5966920	2		O-RING 2.040 X 1.484 X .139
8	810153260	1		VALVE BUTTERFLY CODE61-125
10	810223690	1		COVER, ACCESS FOR HYDRAULIC AN
12	81039292	1		TUBE PREFORMED 5.00 OD X .065 WALL
14	810348232	1		HANDLE HYDR TANK SHUTOFF
15	810242040	1		GAUGE LEVEL HYDR FLUID 24IN W/TEMP
16	810244880	3		FILTER HYDRAULIC RETURN TO TANK
17	810249260	1		VALVE QUICK DRAIN 1-11.5 NPT
18	810251050	3		TUBE PREFORMED 2.50 OD X .083 WALL
19	810309360	1		MANIFOLD ASSY HYDR TANK FILTERS
21	7126191253	12		HHCS M10X25 8.8 FLZN 4017
22	7126191353	8		HHCS M10X30 8.8 FLZN 4017
23	7126241654	4		SHCS 16 X 45 8.8
24	7566501300	3		HOSE CODED 2.50 ID X 13 LG
25	A030720	1		VALVE CHECK .125 NPT AIR TANK
26	A080600	12		CLAMP SPRING LIGHT DUTY 2.80-3.10 ID SS
27	A110360	1		FLANGE ASSY SPLIT 5.00 PA CODE 61
28	A119270	1		SENSOR HYD FLUID TEMP -40 TO 130 DEG C
29	A164380 ➡ page 4-93	1		BREATHER VENT TANK H2O VAPOR 35CFM
30	A164650	1		FITTING ADAPTER SPECIAL
31	A175152	2		COVER ACCESS 10" ASSY FOR HYD AND FUEL
32	A175650	3		FLANGE SPLIT CODE 61 40 12 X 45 175 BAR
33	A195710	2		FLANGE ASSY 1.25 BLANKING PLATE #61
34	3759550	1		Q DISCON FITTING HYDR COUPLING-18 UNF
38	84041621	1		SWITCH VACUUM HYDRAULIC
42	1770022	1		COVER
43	1770032	1		GASKET COVER
44	6124520	8		HHCS 3/8 16UNC X 0.75 GR 5
45	810013090	1		GASKET
46	810224440	1		COVER, FLANGE HYDRAULIC TANK
47	7104100811	5		SCREW MACH PAN HEAD SLOTTED #10-32UNF
48	4272850	1		FILTER HYDR
49	810039140 ➡ page 4-95	1		Q DISCON FITTING HYD NIPPLE -12ORBX-12
50	810039150	1		CAP DUST -12
51	810122980	1		FITTING PLUG -32 ORB

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### 4.11.1 MANIFOLD ASSY DEF COOLANT (810219310) Rev A



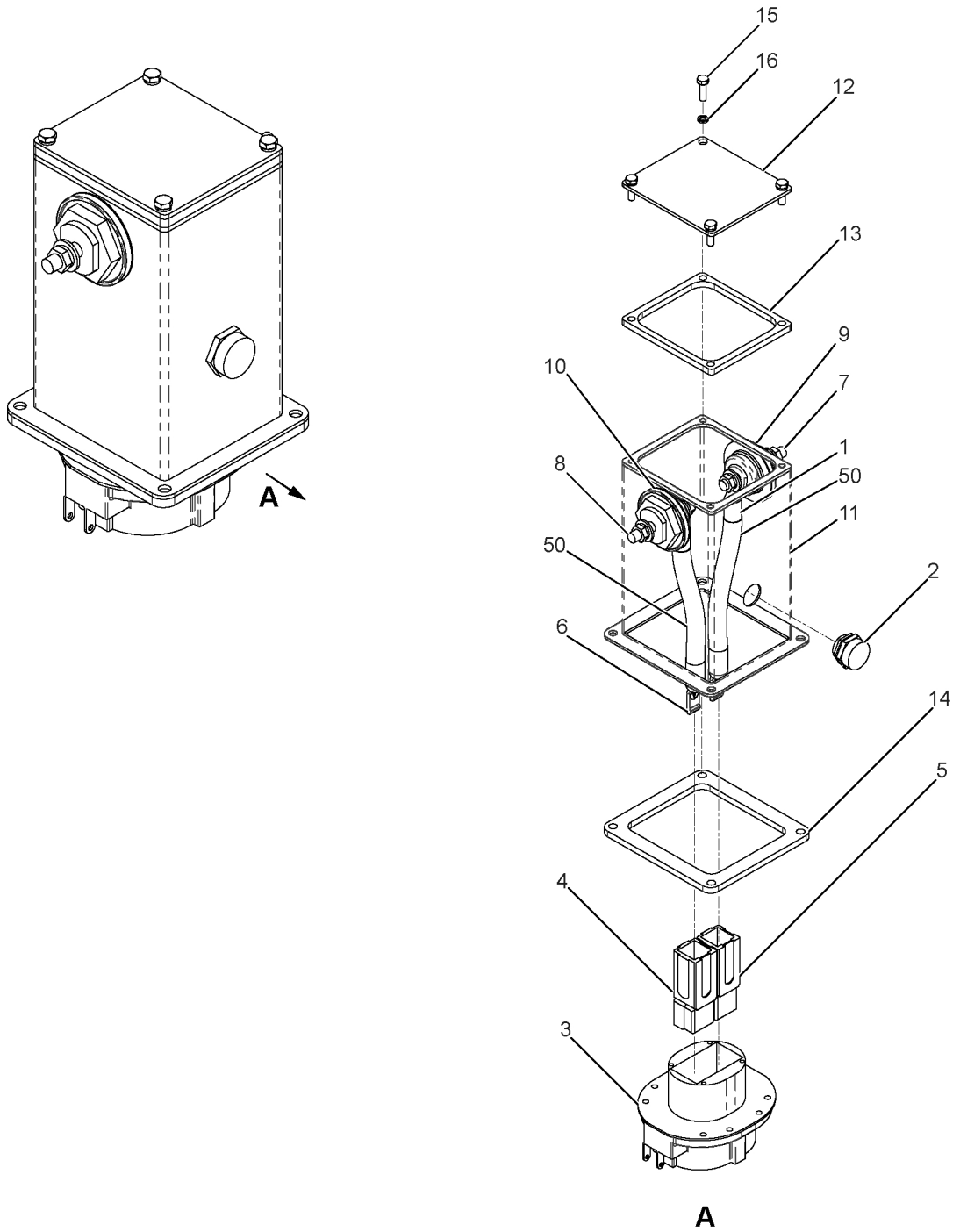
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4. POWER PLANT

4.14.4 ESI APU PREP (81041150) Rev D

**JUNCTION BOX ASSY APU DC (81040179) Rev C**

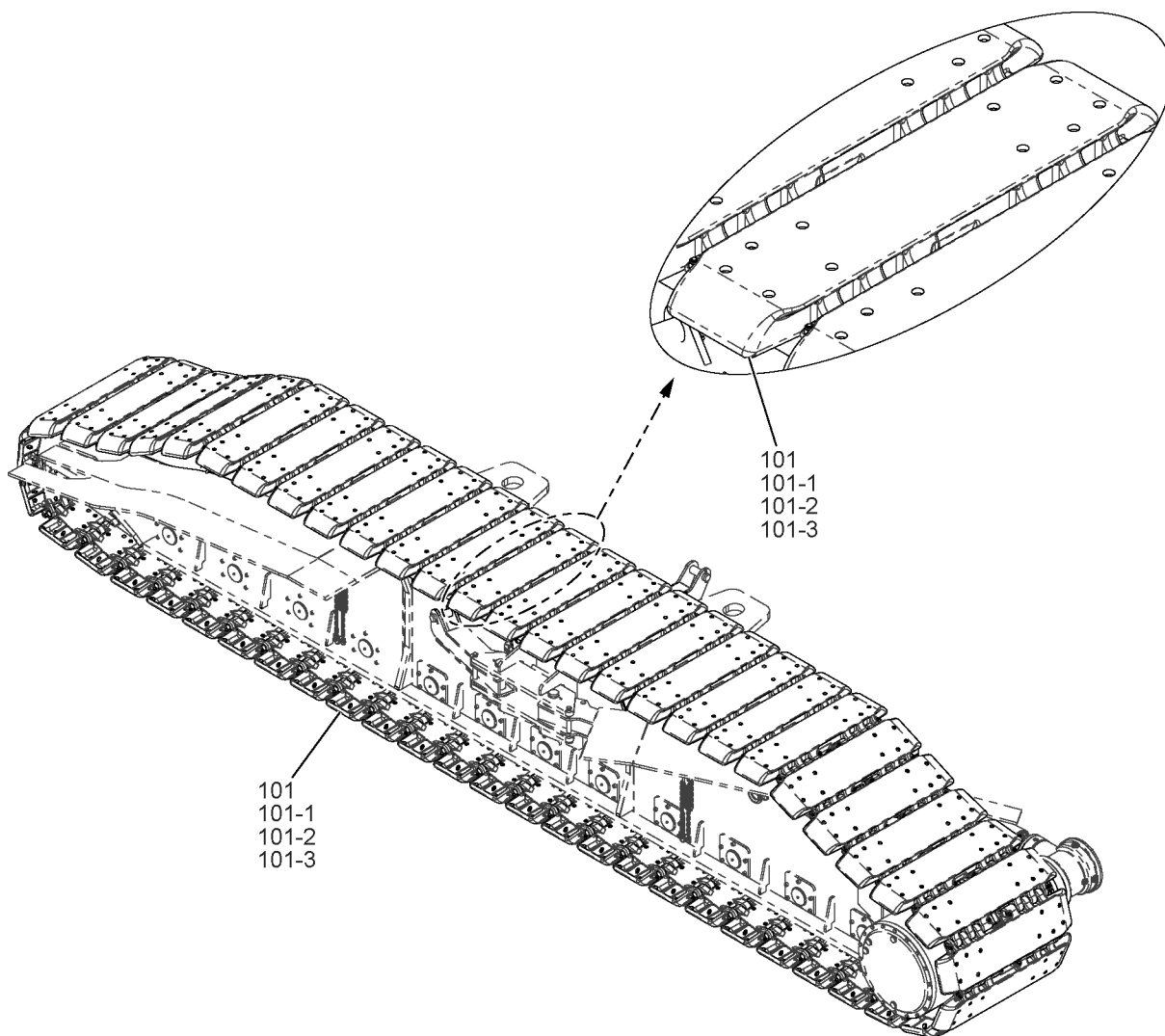


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## 5. LOWERWORKS

LOWERWORKS				
Pos.	Part	BOM Qty.	Foot Note	Description
160	81018142A ➡ page 5-3	1		CRAWLER ASSY
180	810181425 ➡ page 5-13	1		CRAWLER ASSY OPT 5 W/60" OPEN TOE PADS
200	810181426 ➡ page 5-15	1		CRAWLER ASSY CHAIN SLINGS
210	81018581A ➡ page 5-17	1		CRAWLER DRIVE ASSY
220	810191113 ➡ page 5-21	1		CARBODY ASSY
440	81019884A ➡ page 5-27	1		CRAWLER ASSY GREASE PIPING
530	810207211 ➡ page 5-33	1		PIPING HYDR ASSY CARBODY
1040	810235821 ➡ page 5-37	1		PINPULLER ASSY FRONT ADAPTER FRAME
1050	810238291 ➡ page 5-41	1		JOINT ROTATING UNION MOUNTING ASSY
1120	810242001 ➡ page 5-45	1		GREASE PIPING ASSY TURNTABLE BEARING
1600	810259292 ➡ page 5-57	1		PIN PULLER ASSY CARBODY-CRAWLER
1670	81026363A ➡ page 5-61	1		CRAWLER TENSIONING ASSY
2750	81031503A ➡ page 5-63	1		CRAWLER ASSY GREASE GUARD
3090	A056141 ➡ page 5-65	1		PEDESTAL CARBODY ASSY

## 5.2 CRAWLER ASSY OPT 5 W/60" OPEN TOE PADS (810181425) Rev G



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## 5.5.1 GEAR BOX DUAL INPUT OIL USHED BRAKES (810222460) Rev C

GEAR BOX DUAL INPUT OIL USHED BRAKES (810222460) Rev C				
Pos.	Part	BOM Qty.	Foot Note	Description
1	90038609	1		BEARING EXTENSION CARRIER
2	9490220422	1		BEARING
3	9490220423	2		BEARING, BALL
4	9490220424	2		BEARING
5	9490220425	1		BEARING, BALL
6	9490220426	1		BEARING, BALL
7	90000091	1		SIGHT GAGE (1")
8	90038610	2		BRAKE ASSY NEGATIVE
8-1	9069220009	1		BALL BEARING
8-2	9490220607	1		BALL BEARING

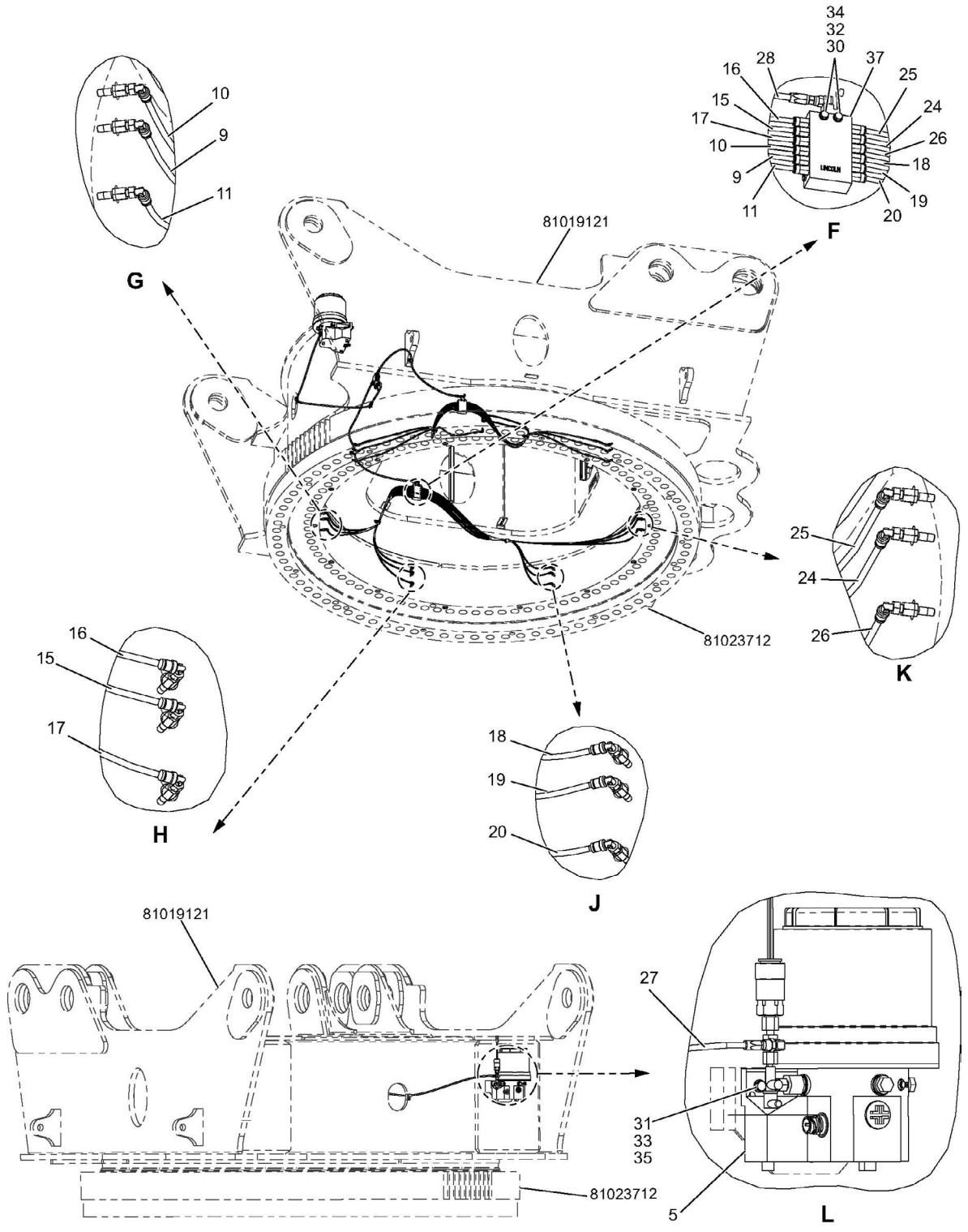
## 5. LOWERWORKS

### 5.7 PIPING HYDR ASSY CARBODY (810207211) Rev F

PIPING HYDR ASSY CARBODY (810207211) Rev F				
Pos.	Part	BOM Qty.	Foot Note	Description
1	1799462	4		FLANGE TEE -20 CODE 62
4	3455150	4		CLAMP TUBE 0.50 DIA
6	3455160	4		CLAMP TUBE 1.50 DIA
7	4282430	1		FITTING ADPTR STRT 120RFS X 80RB
9	4316420	1		FLANGE ASSY SPLIT CODE 61 W/HARDWARE
10	4316470	6		SPLIT FLANGE KT -24 5/8-11UNC X2.25 6KSI
11	5966920	8		O-RING 2.040 X 1.484 X .139
12	810114770	4		SPLIT FLANGE ASSY -20 12X45 414BAR
13	810160850	4		FLANGE SPLIT CODE 62 -20 6.0 KSI
14	810238710	2		TUBE PREFORMED 1.00 OD X .120 WALL
15	810238850	1		TUBE PREFORMED 2.00 OD X .083 WALL
16	810245050	2		TUBE PREFORMED 1.00 OD X .120 WALL
17	810250190	2		CHANNEL ANCHOR CLAMP 25.4 DP X 914.4 LG
20	7127211354	4		SCR SKT HD M12-1.75 X 30 10.9 PLN
22	7126212950	16		HHCS 12 X 130 8.8
23	7447040401	2		FITTING ADAPTER STRAIGHT -40 X -40
24	7447040434	3		FITTING ADAPTER TEE -40RFS X -40RFS
26	7447040801	1		FITTING ADPTR 40RFS X 80RB
28	7447060451	8		FITTING ADAPTER STRAIGHT
29	7447080833	1		FITTING ADAPTER 90 DEG -80RFS X -80RFS
31	7447121201	2		FITTING ADPTR STRAIGHT -120RFS X -120RB
35	7447161203	2		FITTING ADAPTER 90 DEG -160RFS X -120RB
36	7447161601	2		FITTING ADPTR STRAIGHT -160RFS X -160RB
37	7555101402	1		HOSE ASSY .25 X 14 LG
38	7555101402	1		HOSE ASSY .25 X 14 LG
39	7555110002	1		HOSE ASSY .25 X 100 LG STR X EL 45
40	7555112402	1		HOSE ASSY .25 X 124 LG
41	7555202001	1		HOSE ASSY .38 ID X 20 LG
42	7555202001	1		HOSE ASSY .38 ID X 20 LG
50	7555302701	1		HOSE ASSY .50 ID X 27 LG
51	7555303501	1		HOSE ASSY .50 ID X 35 LG
52	7555502001	1		HOSE ASSY .75 ID X 20 LG
53	7555502001	1		HOSE ASSY .75 ID X 20 LG
58	7555607600	1		HOSE ASSY 1.00 X 76 LG
59	7555610200	1		HOSE ASSY 1.00 ID X 102 LG
60	7565305263	1		HOSE ASSY 1.25 ID X 52 LG
61	7565305563	1		HOSE ASSY 1.25 X 55 LG
62	7565306163	1		HOSE ASSY 1.25 X 61 LG
63	7565306263	1		HOSE ASSY 1.25 X 62 LG
64	7565310073	1		HOSE ASSY 1.25 ID X 100 LG
65	7565310073	1		HOSE ASSY 1.25 ID X 100 LG
66	7565310273	1		HOSE ASSY

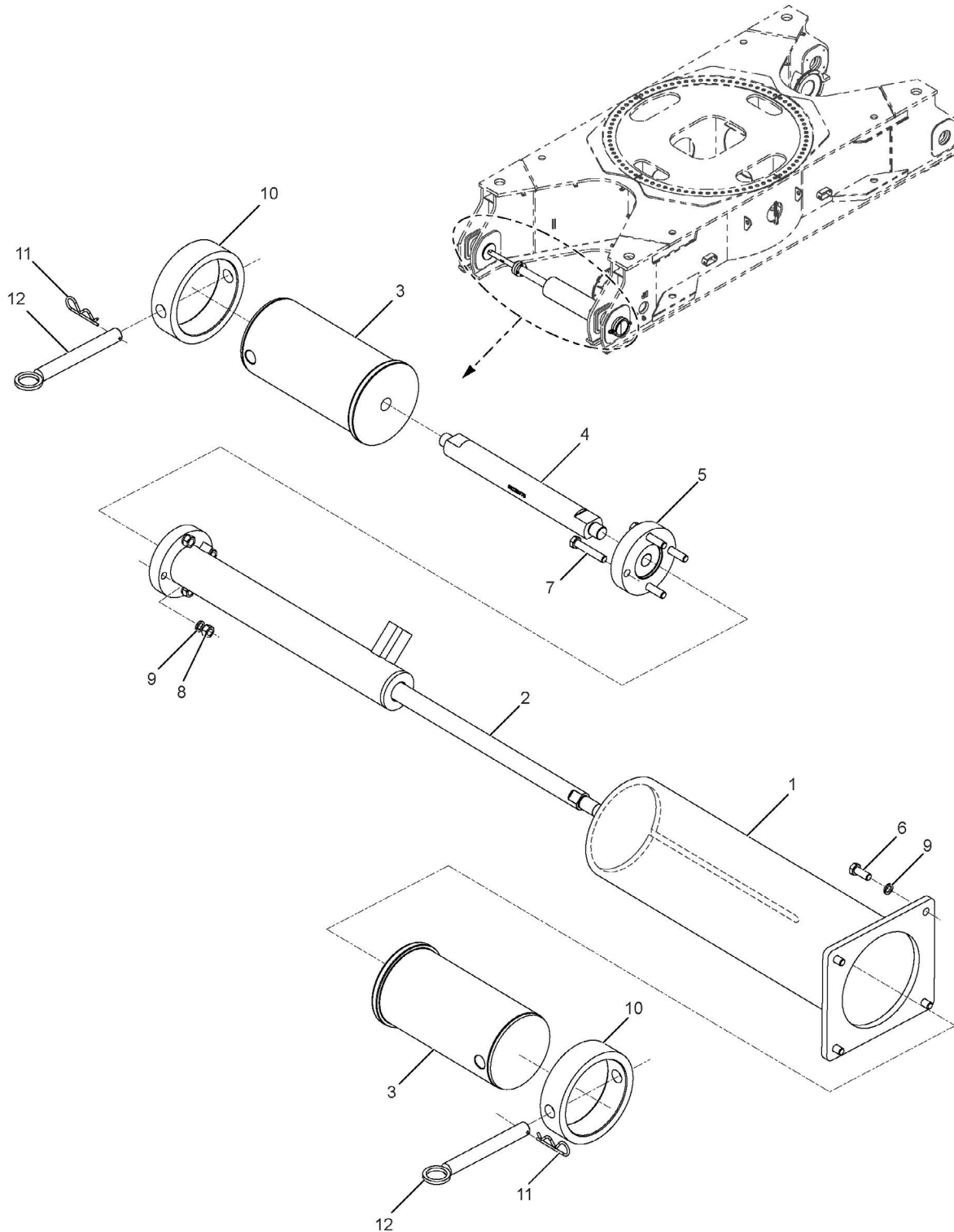
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**5. LOWERWORKS**  
**5.10 GREASE PIPING ASSY TURNTABLE BEARING (810242001) Rev B**



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# 5.11 PIN PULLER ASSY CARBODY-CRAWLER (810259292) Rev D

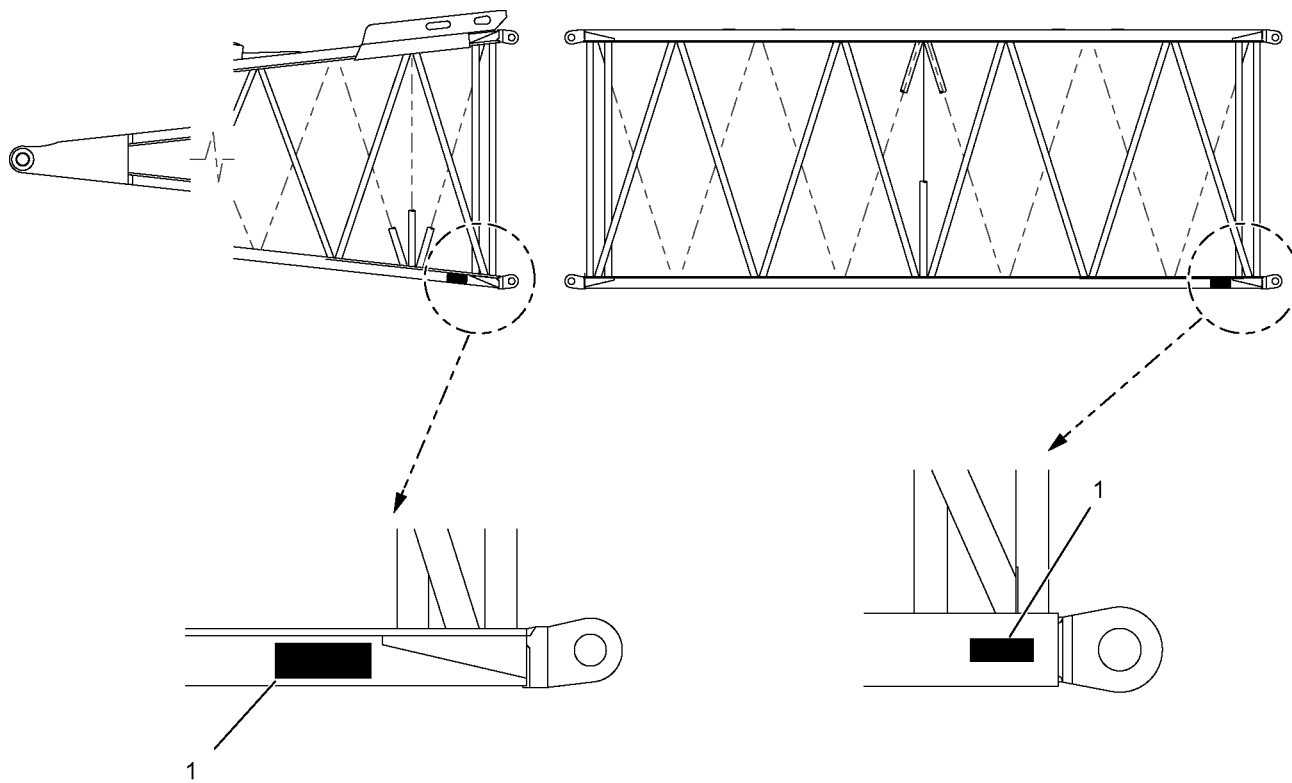


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ATTACHMENTS				
Pos.	Part	BOM Qty.	Foot Note	Description
	84022926 ➔ page 6-5	1		GUIDE ASSY - WIRE ROPE
	84027344 ➔ page 6-11	1		HOOK BLOCK 160MT 3SH 32WR
10	1759161 ➔ page 6-13	1		DECAL DANGER BOOM SECTIONS
20	1687791 ➔ page 6-15	1		BOOM ANGLE INDICATOR ASSEMBLY
30	810040241 ➔ page 6-17	1		BOOM #680 ASSY LADDER STORAGE
40	810088299 ➔ page 6-19	1		SIGN BOOM MANITOWOC 790 X 3070
50	810099781 ➔ page 6-21	1		POINT ASSY EXT UPPER #58WA
60	81009978B ➔ page 6-25	1		POINT ASSY EXT UPPER W/SEALED SHEAVES
270	810191421 ➔ page 6-33	1		MAST WITH BACKHITCH ASSY
280	810191423 ➔ page 6-39	1		MAST/BACKHITCH ASSY W/BRIDON ROPE
470	810203031 ➔ page 6-41	1		BUTT ASSY #680, 6.0M
480	810203061 ➔ page 6-45	1		INSERT ASSY #680, 4.00M
489	810204271 ➔ page 6-47	1		INSERT ASSY #680, 6.00M HEAVY
490	810204241 ➔ page 6-49	1		INSERT ASSY #680, 12.00M HEAVY
570	810212041 ➔ page 6-51	1		INSERT ASSY #681, 6M
585	810213101 ➔ page 6-53	1		INSERT #680/681, 12.00M
590	810217141 ➔ page 6-57	1		TRANSITION INSERT ASSY #681/682, 6M
600	810217421 ➔ page 6-59	1		GUIDE DR1 WR ASSY 4.0M INS
630	810219961 ➔ page 6-65	1		INSERT ASSY #680 12M W/SHV
640	810220041 ➔ page 6-67	1		INSERT ASSY #681, 3M
650	810220481 ➔ page 6-69	1		BOOM STOP ASSY #680 BOOM
740	810225541 ➔ page 6-73	1		DRUM ASSY DRUM 3 - 4.0M INSERT PREP
760	810226041 ➔ page 6-79	1		INSERT ASSY 680 12M HV W/EQ
770	810226272 ➔ page 6-81	1		GANTRY ASSY

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# 6.3 DECAL DANGER BOOM SECTIONS (1759161) Rev FA



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## 6. ATTACHMENTS

### 6.9 MAST WITH BACKHITCH ASSY (810191421) Rev L

MAST WITH BACKHITCH ASSY (810191421) Rev L				
Pos.	Part	BOM Qty.	Foot Note	Description
54	810183892	8		LANYARD
55	810301682	4		PIN 35.0 DIA X 118.0 LG
56	810301692	2		PIN 35.0 DIA X 80.0 LG
57	810301702	2		PIN 1 HOLE W/HD 35.0 DIA X 106.0 LG
58	810326540	4		WASHER THRUST 300OD X 202ID X 6.35 THK
59	810327640	12		BOLT EYE SHOULDER M6 X 1.0 X 12
60	810329132	2		PIN 2 HOLE .750 DIA X 5.52 LG
61	7128292754	2		SHCS M24 X 110 12.9 ISO 4762
62	81038777 → page 6-37	2		CYL HYD MAST RAISING
63	81040169	2		ARM MAST RAISING
64	81042170	4		BUSHING 215 X 200 X 18 POLY

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6. ATTACHMENTS

6.12 INSERT ASSY #680, 4.00M (810203061) Rev G

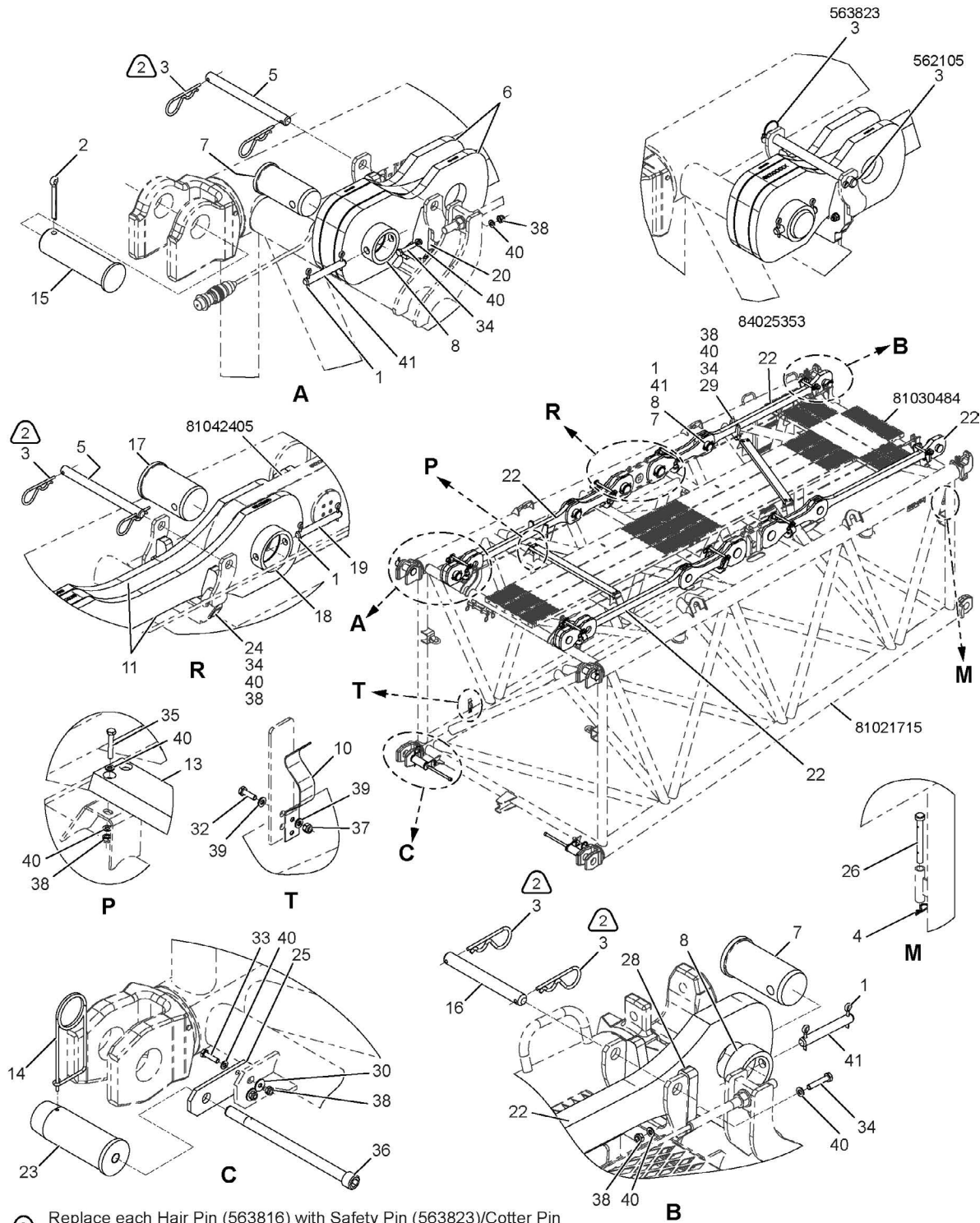
INSERT ASSY #680, 4.00M (810203061) Rev G				
Pos.	Part	BOM Qty.	Foot Note	Description
1	5621050	14		PIN COTTER 1/4 DIA X 1.50 LG
2	5621720	2		PIN COTTER 1/2 DIA X 4.00 LG
4	810204772	4		PIN 1 HOLE W/HD 79.3 DIA X 121.1 LG
5	810204782	4		COLLAR 80.2 MM I.D.
8	810225392	2		STRAP 4.00M #680 BOOM 50.8 X 88.0
9	810247942	2		PIN 1 HOLE 38.1 DIA X 188.5 LG
10	810248262	2		BRACKET STRAP
11	810314572	4		PLATE 12 X 150 X 269.5
12	1959802	4		PIN 2 HOLE .750 DIA X 3.53 LG
13	810254722	2		CLAMP CABLE SPRING CLIP
14	810266282	2		PIN 1 HOLE W/HD 110.7 DIA X 225.5 LG
15	810267912	2		BRACKET PINPULLER
17	810272362	4		LINK #680 4M INSERT
18	810274342	2		BRACKET STRAP
19	810278020	2		PIN SAFETY .250 DIA X 5.20 LG
20	810278232	2		PIN 1 HOLE W/HD 69.95 DIA X 211.0 LG
21	7126151153	4		HHCS M6X20 8.8 FLZN 4017
22	7126191550	4		HHCS 10 X 40 8.8
23	7126191850	8		HHCS M10X55 8.8 FLZN 4014
24	7128294254	2		SHCS 24 X 320 12.9
25	7661150803	4		HEX LOCK NUT M6 8FLZN ISO7040
26	7661190803	12		HEX LOCK NUT M10 8FLZN ISO7040
27	7951150014	8		F WASHER 6 ST ISO 7089
28	7951190014	20		F WASHER 10 ST ISO 7089
29	A126470	2		PIN SAFETY .38 DIA X 3.00 LG
30	A168042	4		PIN 2 HOLE 19.05 DIA X 117.0 LG
31	5638230	2		PIN SAFETY .25 DIA X 1.75 LG
32	7951270014	8		F WASHER 20 ST ISO 7089
33	81034274	4		F WASHER FENDER M10 X 2.5 X 30.0 OD SS
35	81038828	4		BUSHING 100 X 53 X 25.4
36	5638710	2		PIN SAFETY .375 DIA X 2.25 LG

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6. ATTACHMENTS

6.17 TRANSITION INSERT ASSY #681/682, 6M (810217141) Rev C

6.17 TRANSITION INSERT ASSY #681/682, 6M (810217141) Rev C

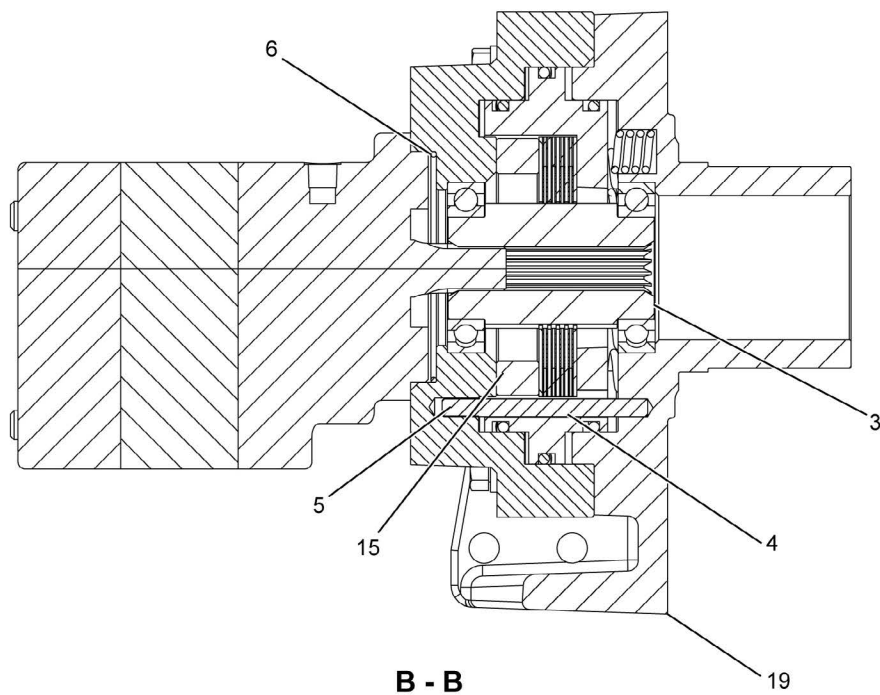
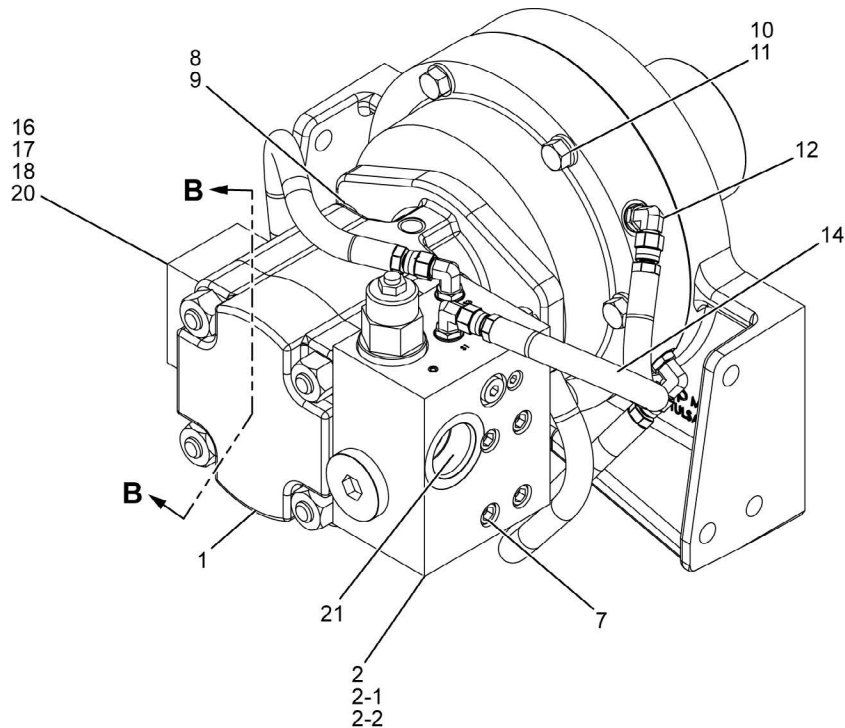


**6. ATTACHMENTS**  
**6.20 INSERT ASSY #681, 3M (810220041) Rev C**

INSERT ASSY #681, 3M (810220041) Rev C				
Pos.	Part	BOM Qty.	Foot Note	Description
1	5621050	8		PIN COTTER 1/4 DIA X 1.50 LG
2	5621720	2		PIN COTTER 1/2 DIA X 4.00 LG
3	5621050	4		PIN COTTER 1/4 DIA X 1.50 LG
3	5638230	4		PIN SAFETY .25 DIA X 1.75 LG
4	84024200	2		SAFETY PIN 3.2 DIA X 50.8 LG
5	810003992	2		PIN 2 HOLE 25.4 DIA X 282.0 LG
6	810204762	4		LINK #680 BOOM
7	810204772	4		PIN 1 HOLE W/HD 79.3 DIA X 121.1 LG
8	810204782	4		COLLAR 80.2 MM I.D.
10	810225522	2		STRAP 3.0 M #680 BOOM 50.8 X 88.0
11	810254722	2		CLAMP CABLE SPRING CLIP
12	810277952	1		TIMBER 38.1X88.9X1325.0
13	810278020	2		PIN SAFETY .250 DIA X 5.20 LG
14	810278232	2		PIN 1 HOLE W/HD 69.95 DIA X 211.0 LG
15	810279842	2		PIN 2 HOLE 25.4 DIA X 195 LG
16	810302602	2		BRACKET STRAP
18	810311452	2		PIN 1 HOLE W/HD 81.7 DIA X 173.5 LG
19	81031553	2		BRACKET STRAP
20	810316522	2		BRACKET PINPULLER
21	810325482	2		PIN 2 HOLE 19.1 DIA X 29.0 LG & 133.0 LG
22	81042546	2		BRACKET STRAP
23	81034274	4		F WASHER FENDER M10 X 2.5 X 30.0 OD SS
24	7126151153	4		HHCS M6X20 8.8 FLZN 4017
25	7126191550	4		HHCS 10 X 40 8.8
26	7126191850	12		HHCS M10X55 8.8 FLZN 4014
27	7126192050	4		HHCS M10X65 8.8 FLZN 4014
28	7128294554	2		SCR SKT HD M24-3 X 380 12.9 PLN
29	7661150803	4		HEX LOCK NUT M6 8FLZN ISO7040
30	7661190803	20		HEX LOCK NUT M10 8FLZN ISO7040
31	7951150014	8		F WASHER 6 ST ISO 7089
32	7951190014	36		F WASHER 10 ST ISO 7089
33	A168042	4		PIN 2 HOLE 19.05 DIA X 117.0 LG

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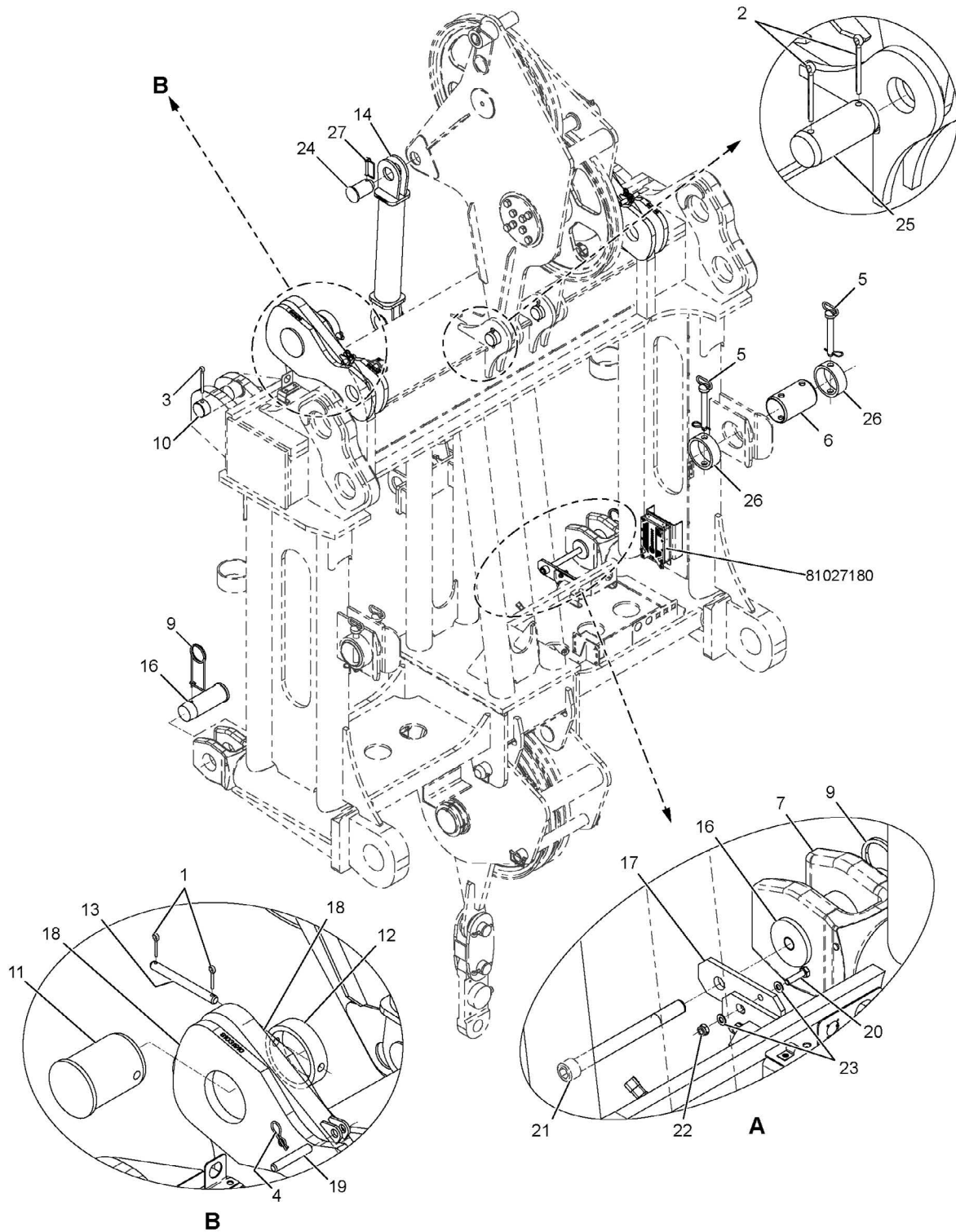


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6. ATTACHMENTS

6.27 TOP ASSY #682 1 METER CAP (810262721) Rev E

6.27 TOP ASSY #682 1 METER CAP (810262721) Rev E



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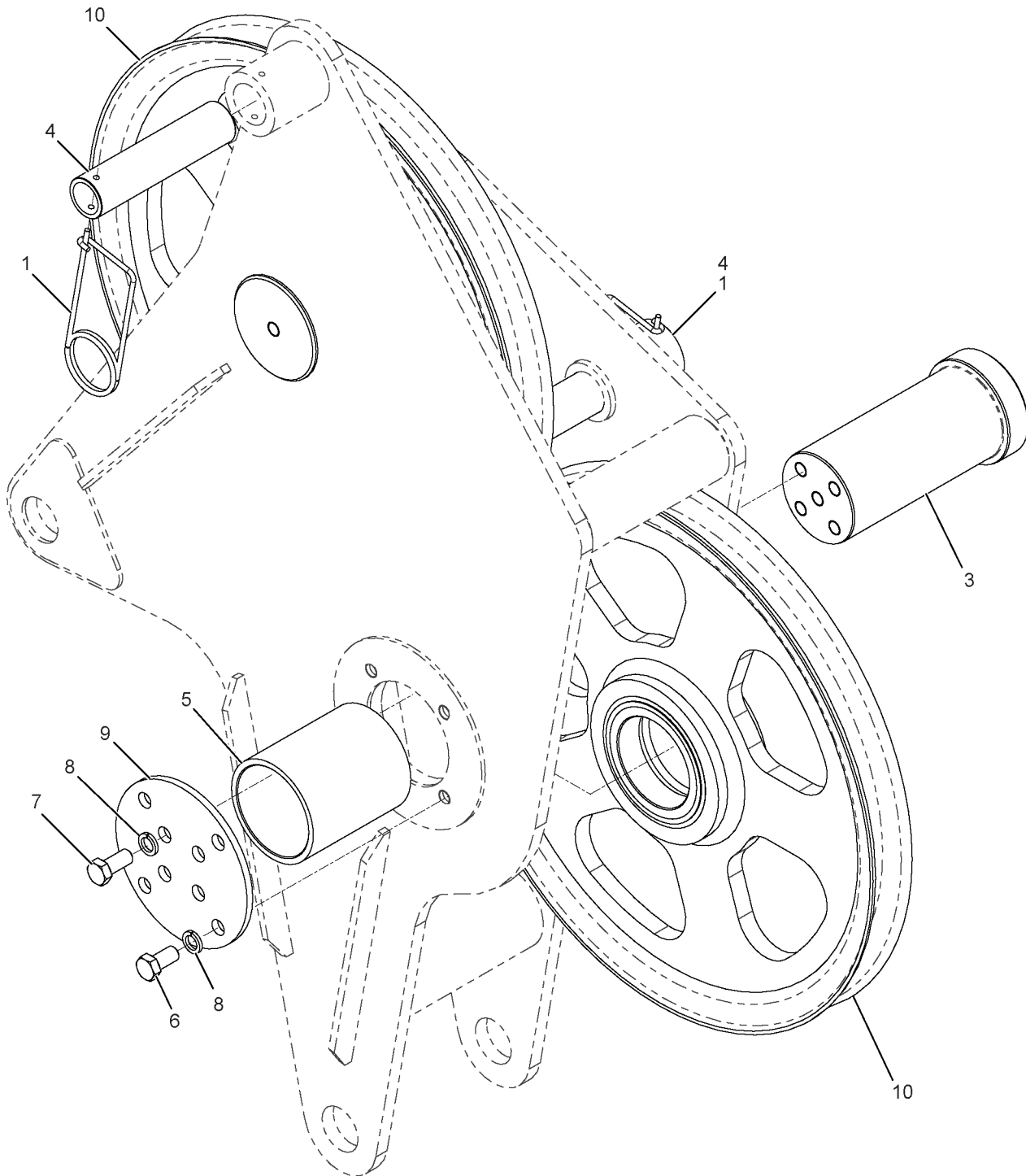
## 6.32 CATWALK ASSY #680, 6.0 M BOOM BUTT (810274211) Rev B

CATWALK ASSY #680, 6.0 M BOOM BUTT (810274211) Rev B				
Pos.	Part	BOM Qty.	Foot Note	Description
1	810166910	18		WASHER SHOULDER GRIP STRUT DIAMOND PATRN
2	810278992	1		CATWALK 724 MM X 2238 MM
3	810279082	1		CATWALK 1080 MM X 1981 MM
4	810279342	2		CATWALK 299 MM X 1152 MM
5	810280262	1		CATWALK 241 MM X 1552 MM
6	810280272	1		CATWALK 241 MM X 1552 MM
7	7114153664	18		C BOLT SQ GR 4 5/16-18UNC X 4.50
8	7660152500	18		HEX LOCK NUT PA 5/16-18UNC SS
9	7950150141	18		F WASHER 5/16 ST B18.21.1 NARROW

6. ATTACHMENTS

6.37 ROPE GUIDE ASSY SEALED SHEAVES (810301151) Rev C

6.37 ROPE GUIDE ASSY SEALED SHEAVES  
(810301151) Rev C



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6.39.1 SHEAVE ASSY 30"FOR 1.25"WR (810338461) Rev A

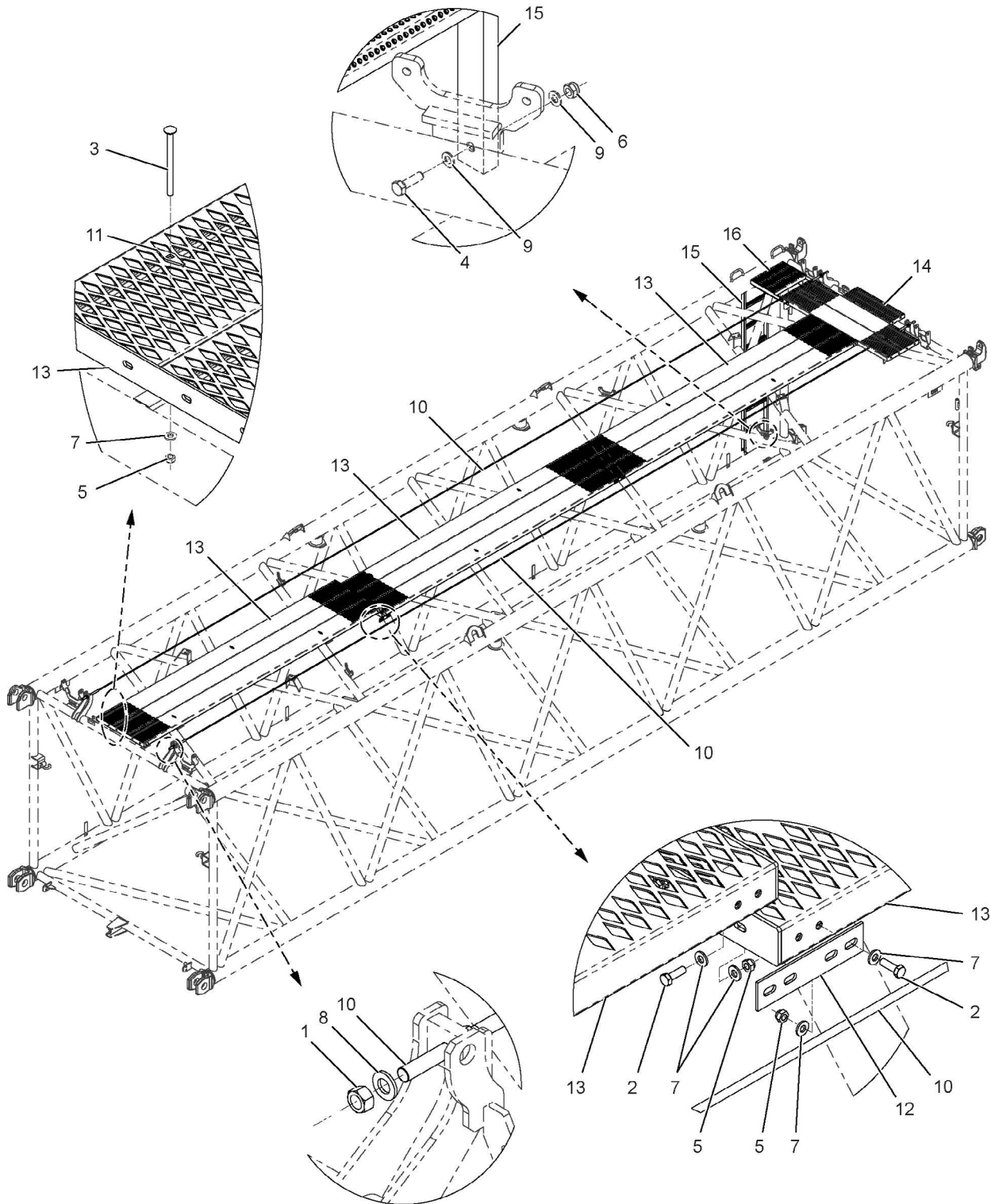
SHEAVE ASSY 30"FOR 1.25"WR (810338461) Rev A				
Pos.	Part	BOM Qty.	Foot Note	Description
2	2250190	1		BEARING TAPER ROLLER 7.19 X 5.00 X 3.69
3	6227720	2		OIL SEAL 6.1095 X 7.1875 X .3
101	81033847	1		SHEAVE 30" OD 1.25 FORGED

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6. ATTACHMENTS

6.45 CATWALK ASSY 12.0 M #681 (81034751) Rev A

6.45 CATWALK ASSY 12.0 M #681 (81034751) Rev A



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## 6.49 INSERT L J PREP-12M HEAVY (81035617) Rev D

INSERT L J PREP-12M HEAVY (81035617) Rev D				
Pos.	Part	BOM Qty.	Foot Note	Description
1	1959802	4		PIN 2 HOLE .750 DIA X 3.53 LG
2	5621050	6		PIN COTTER 1/4 DIA X 1.50 LG
3	5638230	2		PIN SAFETY .25 DIA X 1.75 LG
3	5621050	2		PIN COTTER 1/4 DIA X 1.50 LG
4	5638230	2		PIN SAFETY .25 DIA X 1.75 LG
5	810003992	2		PIN 2 HOLE 25.4 DIA X 282.0 LG
7	810248272	2		BRACKET STRAP
8	810248282	2		BRACKET STRAP
9	810314572	4		PLATE 12 X 150 X 269.5
11	7126191850	16		HHCS M10X55 8.8 FLZN 4014
12	7661190803	16		HEX LOCK NUT M10 8FLZN ISO7040
13	7951190014	32		F WASHER 10 ST ISO 7089
14	7951270014	8		F WASHER 20 ST ISO 7089
15	81039227	2		BRACKET STRAP
16	81039282	2		BRACKET STRAP

## 7. Recommended Spare Parts List

### 7.2 Maintenance

# 7.2 Maintenance

Part	Description	RPL Quantity/Emergency			BOM Qty.	Assembly
		Year 1-2	Year 3-4	Year > 5		
4272850 Rev C	FILTER HYDR			1	1	810239030 Rev P ➡ page 4-90
810006580 Rev A	BATTERY 12V 1375CCA 8D			1	2	810192951 Rev D ➡ page 4-62
A104130 Rev FA	FILTER ENGINE OIL			1	1	81019290 Rev E ➡ page 4-18
					1	81019290 Rev E ➡ page 4-18
					1	81019290 Rev E ➡ page 4-18
A179240 Rev B	HYD ELEMENT FILTER			1	1	81019290 Rev E ➡ page 4-18
					1	81019290 Rev E ➡ page 4-18

680829 (TERMINAL FEMALE .187 (VFM RE-LAYS)) . . . . .	3-42	7041710 (VALVE PCP) . . . . .	2-202, 2-204, 4-27, 4-30, 4-37, 4-40, 4-46, 4-50
6808380 (TERMINAL RING 22/16 AWG #10 STUD) . . . . .	3-42	7041720 (VALVE) . . . . .	4-46
6808520 (TERMINAL PARALLEL SPLICE AMP #34320) . . . . .	3-42	7041770 (VALVE EDC CONTROL) . . . . .	4-46
6808530 (TERMINAL PARALLEL SPLICE AMP #34319) . . . . .	3-42	7041800 (EDC KIT) . . . . .	2-202, 4-27, 4-37
6926560 (TRIM LOK FLEXIBLE 1/8 BLACK) . . . . .	3-74, 4-6, 4-8, 4-12, 5-5, 5-18	7041810 (VALVE) . . . . .	2-202, 4-27, 4-37
6926570 (SEAL TRIM FLEXIBLE 1/8 BLACK) . . . . .	3-116	7091510 (F WASHER SHIM 1.25 X 0.81 X .06 COPPER) . . . . .	3-128, 3-140, 3-146
<b>7</b>		7094020 (F WASHER #10 ST USS) . . . . .	1-81
7026575 (SEAL KIT) . . . . .	2-52, 2-146, 2-188	709402 (ASSY- REP KI) . . . . .	1-64
7030730 (VALVE SWING CHECK .75" 125# BRASS) . . . . .	4-65	7094200 (F WASHER 1/4 ST USS) . . . . .	3-74, 4-108
7031225 (SEAL KIT) . . . . .	4-48	7094300 (F WASHER 5/16 ST USS) . . . . .	1-121, 2-74, 4-77
7031230 (RELIEF VALVE) . . . . .	4-46	7094400 (F WASHER 3/8 ST USS) . . . . .	4-86
7031232 (KIT, CPRV CARTRIDGE 5364970 HYD MOTOR) . . . . .	2-78, 2-168	7094600 (F WASHER 1/2 ST USS) . . . . .	1-141, 1-145, 1-149, 1-161, 2-158, 3-156
7031235 (O-RING) . . . . .	2-78, 2-80, 2-168, 2-170	7094800 (F WASHER 5/8 ST USS) . . . . .	1-48, 1-57
7034010 (VALVE, EXPANSION) . . . . .	1-89	7094900 (F WASHER 3/4 ST USS) . . . . .	3-6, 4-15
7034255 (SEAL KIT (SELECTOR VALVE)) . . . . .	2-134	7095020 (F WASHER #10 ST SAE) . . . . .	4-12
7034390 (VALVE PRESSURE RELIEF 270864) . . . . .	5-30, 5-50	7095100 (F WASHER 1 ST USS) . . . . .	4-15
7034766 (CARTRIDGE FLOW CONTROL) . . . . .	2-52, 2-146, 2-188	7095900 (F WASHER 2.00 ST SAE) . . . . .	2-39
7034767 (CARTRIDGE, SEQUENCE) . . . . .	2-52, 2-146, 2-188	7097020 (F WASHER 1/2 ST SAE) . . . . .	1-155, 4-20
7034800 (HYD VALVE SELECT DS-100HP .06SAE PORT) . . . . .	2-132	7097030 (F WASHER SHIM 3/8 ST SAE) . . . . .	1-64, 4-62
7034900 (VALVE DIVIDER LUBE) . . . . .	5-32	7097440 (F WASHER SHIM 5/16 ST F436) . . . . .	1-64, 1-139
7040825 (KIT) . . . . .	1-51	7097460 (F WASHER 7/16 ST SAE) . . . . .	1-106
7041130 (VALVE HYD SUN DBL C-BAL) . . . . .	2-208	7097470 (F WASHER 5/8 ST F436) . . . . .	2-74
7041136 (CART.DOUBLE) . . . . .	2-212	7097860 (F WASHER 3/4 ST SAE) . . . . .	2-194, 4-20
7041190 (VALVE FLOW CNTRL .01-8.0 GPM SAE -08) . . . . .	2-247	7103000 (L WASHER MEDIUM #6 ST B18.21.1) . . . . .	1-81, 3-42
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7041705 (GASKET) . . . . .	2-204, 4-30, 4-40, 4-50	7103020 (L WASHER MEDIUM 1/4 ST B18.21.1) . . . . .	1-57, 1-64, 1-121, 3-42, 3-74, 3-90, 3-138, 4-108
		7103030 (L WASHER MEDIUM 5/16 ST B18.21.1) . . . . .	1-121, 3-64, 3-152, 4-53, 4-82
		7103040 (LOCK WASHER 3/8 ST B18.21.1) . . . . .	1-145, 3-6, 3-52, 3-80, 3-146, 4-62, 4-68, 4-77

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