## 3546455H LF230 CORE DRILL ASSEMBLY S/N 2007- 193 & UP

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	COPIC 5
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3003870 SPOOLING DEVICE, WIRELINE	
5404756 HOUSING ASM	
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3548558 COOLER GRP, HYDAC ELH6 COMBO TIER 3	CUMMINS ENGINE ONLY
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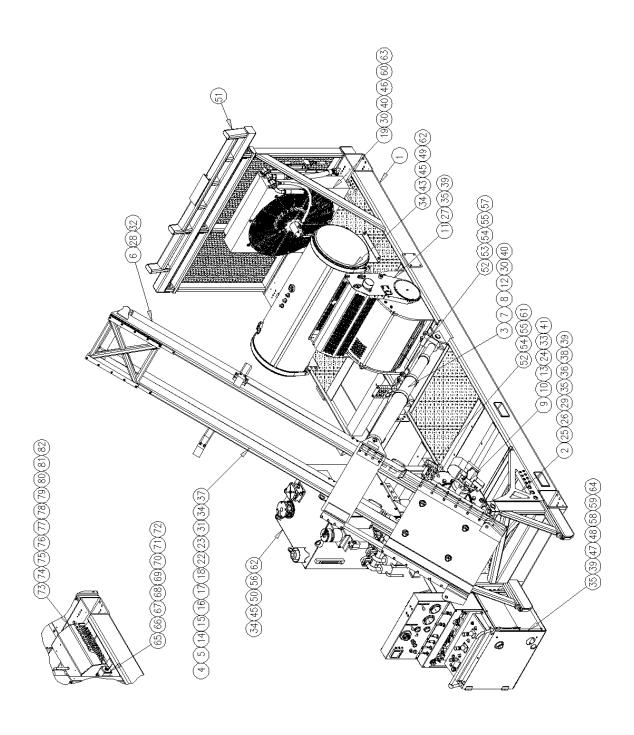
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3546809 CABLE ASM, HOIST 7/8 DIA	j
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5004353 HOIST PLUG ASM	J
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3546892 PIPING GRP, OUTRIGGER LF 230 04	
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5403120 TRACK DRIVE GRP, LF230 BASIC	
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MUD MIXER GROUP	
102306 MUD MIXER ASSEMBLY	
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3546871 CATWALK GRP, STAIRS & RAILING PRIOR TO S/N 2010-065	
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3542304 TRUCK MOUNT SUB-FRAME ASM PRIOR TO S/N 2010-065	
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5400781 LF230 Recommended Spare	
Appendix B:Parts Index	



## 5003418 BASE FRAME MODULE, LF230

5003418 BASE FRAME MODULE, LF230





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44508

Item	Part No.	Name	Qty	Service
1	5007173	BASE FRAME WELDMENT S/N 2010-065 AND UP	1	E
2	3546206	PIVOT, TELESCOPIC MAST	1	D
3	3541887	CYLINDER, 3-STAGE DOUBLE ACTING TELESCOPIC	2	С
Comments	for Part Num. 354188	7		
SEAL KIT #		RTRIDGE # 3542446		
4	3546191	SLIDE, 40K TELESCOPIC MAST	1	D
5	3546649	SLIDE ASM, LF230 LOWER MAST	1	D
6	3546386	LEG ASM, MAST SLIDE SUPPORT LF230	2	D
7	3541835	PIN, TOP MAST RAISING CYL.	2	С
8	3546315	PIN, MAST RAISING CYLINDER	2	С
9	5000157	HOIST ASM, PLANETARY 40K	1	D
10	3545064	FLAT BAR	1	D
11	3003981	WINCH, WIRELINE c/w LEVELWIND 3300 m CAPACITY	1	D
12	3541834	SNAP RING	4	D
13	3547703	GUARD, MOTOR	1	D
14	3548047	SUPPORT, MAST DUMP CYLINDER	2	D
15	3541120	WEAR STRIP, MAST SLIDE (TOP)	2	В
16	3541119	WEAR STRIP, MAST SLIDE (BOTTOM)	2	В
17	3544182	SHIM, .030 MAST SLIDE (BOTTOM)	4	С
18	3544183	SHIM, .015 MAST SLIDE (TOP)	2	С
19	5000333	COOLER GRP, HEAVY DUTY ELH10 S/N 2009-007 AND UP	1	С
20	17958	PLATE, SERIAL NUMBER	1	E
21	38298	PLATE, ASSEMBLY IDENTIFICATION	1	E
22	3544067	SUPPORT BAR, CABLE HOIST	1	D
23	102229	M/SCR, FL HD 1/4 UNC X 3/4 G8	22	F
24	3543406	C/SCR, HH Dia1 1/4-12 UNF x 3 1/2	4	F
25	44516	C/SCR, HH 3/4 UNC X 1-3/4 GR8	1	F
26	44748	C/SCR, HH 3/4 UNC X 2 G8	7	F
27	44569	C/SCR, HH 3/4 UNC X 2-3/4 G8	4	F
28	44636	C/SCR, HH 3/4 UNC X 4-1/2 G8	4	F

LF230 2007-193 Thru Current

3

C/SCR, HH 3/8 UNC X 3 G8



Item	Part No.	Name	Qty	Service
30	44668	C/SCR, HH 3/8 UNC x 5/8 LG.	4	F
31	44531	C/SCR, SH 1/2 UNC X 1-1/2 G8	4	F
32	306283	L/NUT, 3/4 UNC NYLOCK G8	4	F
33	44576	L/WASHER, 1/4	4	F
34	44521	L/WASHER, 1/2 SAE G8	16	F
35	44523	L/WASHER, 3/4 SAE G8	30	F
36	44520	L/WASHER, 3/8 SAE G8	3	F
37	101420	L/NUT, NYLOK 1/4 UNC	10	F
38	3546890	MANIFOLD, 40K MAINLINE WINCH	1	D
39	44524	NUT, HEX 3/4 UNC G8	14	F
40	44611	WASHER, FLAT 3/8 USS G2	4	F
41	46099	NUT, HEX 1 1/4-12 UNF	4	F
43	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	4	F
45	44621	WASHER, FLAT 1/2 SAE G8	10	F
46	46510	WASHER, FLAT 5/16 SAE G8	4	F
47	3543259	BAR, ADJUSTING CONSOLE	2	D
48	3549237	CONTROL CONSOLE ASM S/N 2007-193 AND UP	1	D
49	5007235	FUEL TANK 149 GAL S/N 2010-065 AND UP	1	D
FUEL CAP		DER (AFTER 2014-460) 5405376		
50	3549284	HYDRAULIC RESERVOIR ASM S/N 2008-15 AND UP	1	D
51	5007033	MAST REST, LF230	1	D
52	5006866	HOSE CLAMP, NYLON INSERT	6	D
53	5007174	NYLON INSERT, HOSE CLAMP	4	D
54	5007175	NYLON INSERT, HOSE CLAMP	6	D
55	5006871	TOP PLATE, HOSE CLAMP	3	D
56	44651	C/SCR, HH 1/2 UNC X 2-1/4 G8	6	F
57	5007060	C/SCR, SH M12 x 1.75 x 220	4	F
58	44505	C/SCR, HH 3/4 UNC X 2-1/2 G8	6	F
59	44517	C/SCR, HH 3/4 UNC X 2-1/4 G8	8	F
60	44533	C/SCR, HH 5/16 UNC X 2-1/2 G8	2	F



## 5003418 BASE FRAME MODULE, LF230

Item	Part No.	Name	Qty	Service	
61	93199	C/SCR, SH M12 x 1.75 x 160	2	F	
62	44525	NUT, HEX 1/2 UNC G8	10	F	
63	44552	NUT, HEX 5/16 UNC G8	2	F	
64	46091	WASHER, FLAT 3/4 SAE G8	14	F	
65	5402768	BRACKET, E-STOP	1	D	
66	5402748	E-STOP ASSEMBLY, SURFACE MOUNT	1	D	
67	93359	C/SCR,HH M6X1.0X10 GR10.9	4	F	
68	93375	C\SCR, HH M8-1.25 x 16	2	F	
69	93126	WASHER, SPRING M6	4	F	
70	93127	L/WASHER, M8 G2	2	F	
71	93250	WASHER, FLAT M6 SAE G2	4	F	
72	93251	WASHER, FLAT M8 SAE G2	2	F	
73	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	2	F	
74	46755	C/SCR, HH 1/4 UNC X 1-3/4	2	F	
75	44512	C/SCR, HH 3/8 UNC X 1 G8	7	F	
76	3546893	GUARD, DIRECTIONAL VALVE	1	D	
77	44518	L/WASHER, 1/4 SAE G8	2	F	
78	3546894	MOUNTING BASE, VAVLE DIRECTIONAL	1	D	
79	44567	NUT, HEX 1/4 UNC G8	2	F	
80	3546720	VALVE,HYD 12 SPOOL DIRECTIONAL CONTROL	1	С	
Comments for	or Part Num. 3546720				
CARTRIDGE, RELIEF VALVE P/N 5402614					
81	44859	WASHER, FLAT 3/8 SAE G8	12	F	
82	3541599	VALVE, HYD THREE-WAY SELECTOR 12 ORB	1	С	
Comments for Part Num. 3541599					
REPLACMENT KNOB KIT AVAILABLE UNDER P/N 5402692					

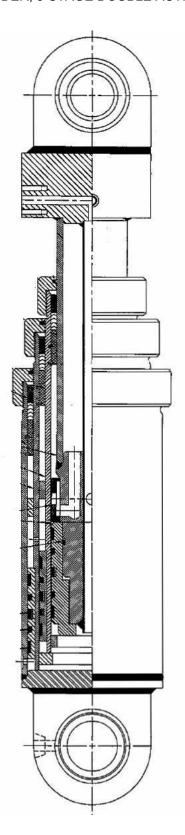
Comments for Page: 5003418 BASE FRAME MODULE, LF230

(#15 3541120)(#16 3541119)INCLUDED IN SPARES KIT 3547257



# 3541887 CYLINDER, 3-STAGE DOUBLE ACTING TELESCOPIC

3541887 CYLINDER, 3-STAGE DOUBLE ACTING TELESCOPIC





#### 3541887 CYLINDER, 3-STAGE DOUBLE ACTING TELESCOPIC

Item	Part No.	Name	Qty	Service
1	NOPARTNUMBER	NO PART NUMBER	3	
2	NOPARTNUMBER	NO PART NUMBER	3	
3	NOPARTNUMBER	NO PART NUMBER	6	
4	NOPARTNUMBER	NO PART NUMBER	3	
5	NOPARTNUMBER	NO PART NUMBER	6	
6	NOPARTNUMBER	NO PART NUMBER	1	
7	NOPARTNUMBER	NO PART NUMBER	2	
8	3542446	CARTRIDGE, COUNTERBALANCE VALVE	2	

Comments for Page: 3541887 CYLINDER, 3-STAGE DOUBLE ACTING TELESCOPIC

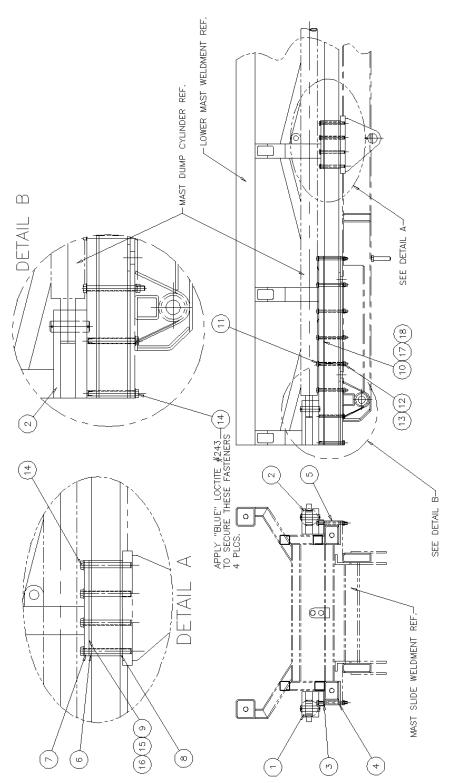
(#1 NOPARTNUMBER)(#2 NOPARTNUMBER)(#3 NOPARTNUMBER)(#4 NOPARTNUMBER)(#5 NOPARTNUMBER)(#6 NOPARTNUMBER)(#7 NOPARTNUMBER)SUPPLIED IN SEAL KIT # 3541889

(#8 3542446)NOT SHOWN ON THIS DRAWING



# 3546649 SLIDE ASM, LF230 LOWER MAST

3546649 SLIDE ASM, LF230 LOWER MAST





## 3546649 SLIDE ASM, LF230 LOWER MAST

Item	Part No.	Name	Qty	Service
1	3546684	BACKING PLATE, LH DUMP MAST	1	D
2	3546683	BACKING PLATE, RH DUMP MAST	1	D
3	3540670	WEAR STRIP, UPPER	2	В
4	3540671	WEAR STRIP, LOWER	2	В
5	3542116	SPACER BAR, EXTENDED	2	
6	3540783	WEAR STRIP, UPPER MAST RAISING	2	В
7	3540784	TOP CLAMPING BAR, MAST RAISING	2	D
8	3540786	WEAR STRIP, LOWER MAST RAISING	2	В
9	3543118	SHIM, WEAR STRIP LOWER	4	С
10	3543119	SHIM, WEAR STRIP LOWER	4	С
11	47528	C/SCR, HH 1/2 UNC X 6 G8	12	F
12	102955	L/WASHER, 1/2ID SAE G8	24	F
13	44525	NUT, HEX 1/2 UNC G8	12	F
14	44641	C/SCR, HH 1/2UNC x 5 LG	12	F
15	3548497	SHIM, WEAR STRIP LOWER .030	4	D
16	3548498	SHIM, WEAR STRIP LOWER .015	4	D
17	3548506	SHIM, WEAR STRIP UPPER .030	4	D
18	3548507	SHIM, WEAR STRIP .015 .015	4	D

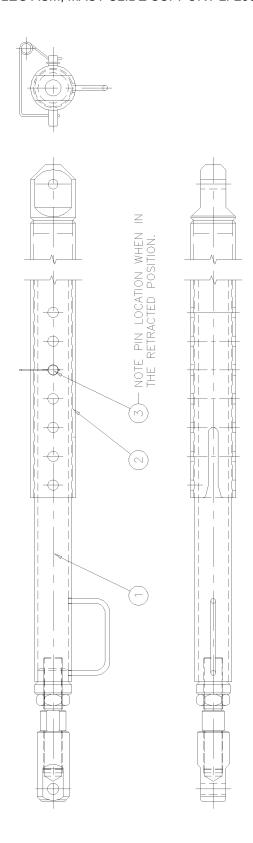
Comments for Page: 3546649 SLIDE ASM, LF230 LOWER MAST

(#3 3540670)(#4 3540671)(#6 3540783)INCLUDED IN SPARES KIT 3547257



## 3546386 LEG ASM, MAST SLIDE SUPPORT LF230

3546386 LEG ASM, MAST SLIDE SUPPORT LF230



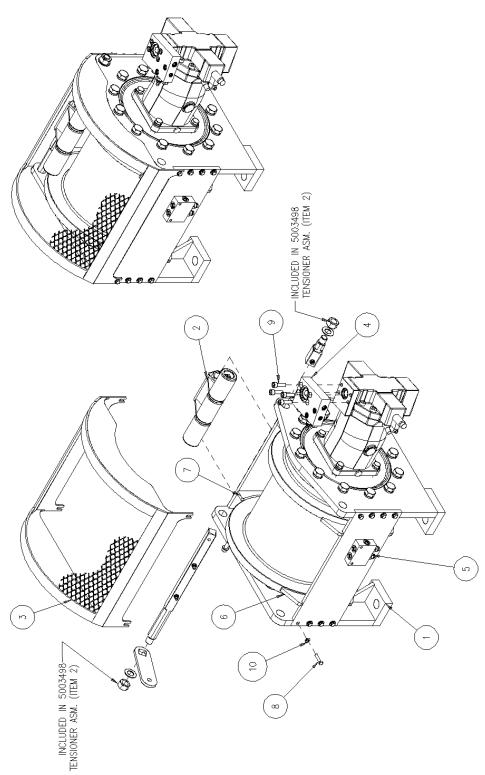


Item	Part No.	Name	Qty	Service
1	3546388	LEG ASM, INNER SUPPORT LF230 MAST SLIDE	1	D
2	3546390	LEG, LF230 OUTER SUPPORT	1	D
3	3540387	SNAP LOCK HITCH PIN Dia3/4 x 4LG	1	D



# 5000157 HOIST ASM, PLANETARY 40K

5000157 HOIST ASM, PLANETARY 40K



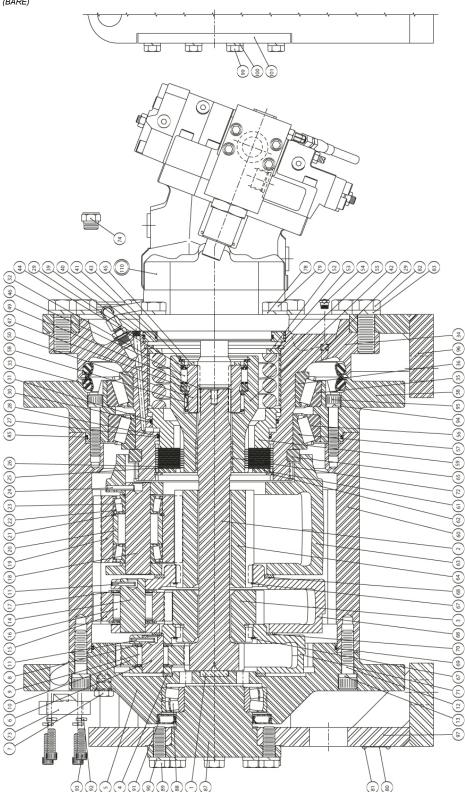


Item	Part No.	Name	Qty	Service	
1	3546045	HOIST, 40K PLANETARY (BARE)	1	С	
2	5003498	TENSIONER ASM, 40K WINCH	1	С	
3	5003511	GUARD, 40K HOIST	1	С	
4	3547014	MANIFOLD ASM, CABLE TENSION LF230	1	С	
5	3547707	MANIFOLD ASM, C/B CARTRIDGE LF90D/LF230	1	С	
Comments for Part Num. 3547707  REPLACEMENT COUNTERBALANCE VALVE CARTRIDGE # 103329 QTY 2					
6	3545152	STOP PLATE, WINCH CABLE	2	D	
7	5003510	STOP PLATE, HOIST CABLE	2	D	
8	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	4	F	
9	44531	C/SCR, SH 1/2 UNC X 1-1/2 G8	4	F	
10	44859	WASHER, FLAT 3/8 SAE G8	4	F	



## 3546045 HOIST, 40K PLANETARY

3546045 HOIST, 40K PLANETARY (BARE)



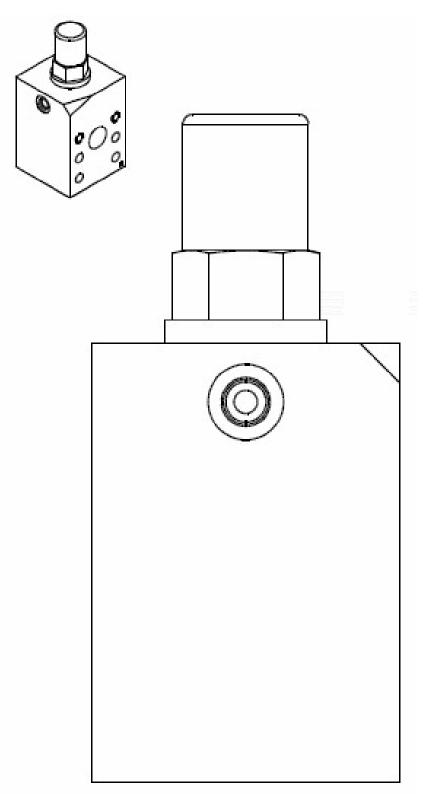


Item	Part No.	Name	Qty	Service		
12	3543668	C/SCR, SH 5/8-11 UNC X 2.5 G8	16			
40	5403424	ADAPTER, MOTOR	1	D		
73	5400938	ANCHOR, CABLE	1	В		
79	44748	C/SCR, HH 3/4 UNC X 2 G8	4	F		
83	44643	L/WASHER, SPLIT SPRING Ø7/8	12	F		
89	44514	C/SCR, HH 5/8 UNC X 1-3/4 G8	8	F		
90	44522	L/WASHER, 5/8 SAE G8	8	F		
91	5000581	SEAL	1	С		
93	46527	C/SCR, SH 3/8 UNC X 1-1/4 G8	4	F		
100	44521	L/WASHER, 1/2 SAE G8	16	F		
110	3546538	MOTOR, HYDRAULIC 2 SPEED (71 SERIES)	1	С		
Comments for	or Part Num. 3546538					
MOTOR DIS	PLACMENT CONTRO	L SOLENOID # 3546813				
200	3547274	MANIFOLD, 40K M/L HOIST BRAKE	1	D		
Comments for Part Num. 3547274						
CARTRIDGE	CARTRIDGE, HYD COUNTERBALANCE VALVE # 5404380					
300	3547275	CLUTCH ASM, SPRAGG	REF	В		



## 3547274 MANIFOLD, 40K M/L HOIST BRAKE

3546045 HOIST, 40K PLANETARY (BARE)



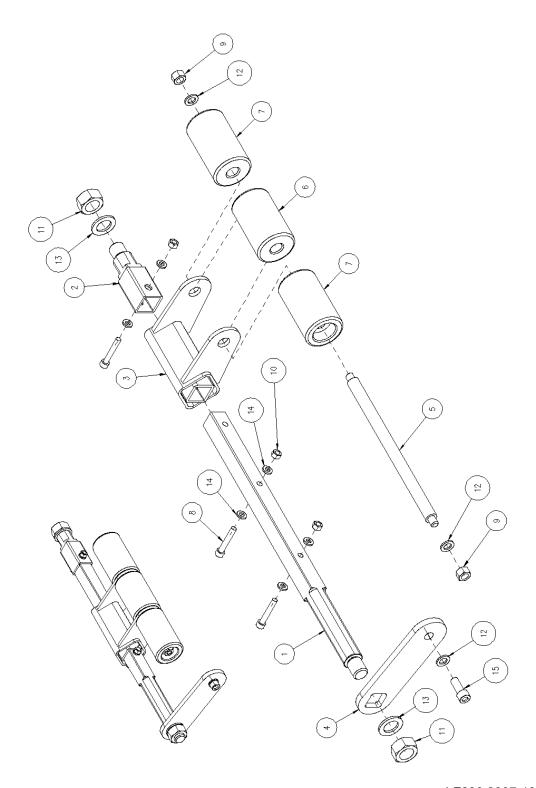


Item	Part No.	Name	Qty	Service
1	5404380	CARTRIDGE, COUNTERBALANCE VALVE 4.5:1	REF	В



# 5003498 TENSIONER ASM, 40K WINCH

5003498 TENSIONER ASM, 40K WINCH



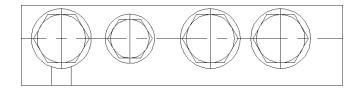


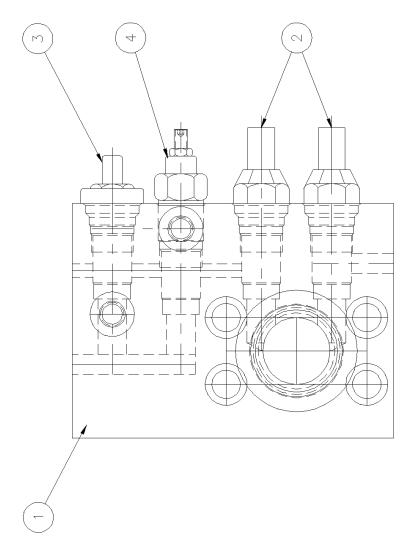
Item	Part No.	Name	Qty	Service
1	5004295	SHAFT, MALE TENSIONER	1	С
2	5004298	SHAFT, FEMALE TENSIONER	1	С
3	5003481	TENSION UNIT, RUBBER	1	С
4	5004296	LEVER, TENSION HOLDING	1	С
5	5003470	SHAFT, ROLLER	1	С
6	5003861	ROLLER, 2-1/2 x 103	1	В
7	5003471	ROLLER 2-1/2 x 109	2	В
8	93158	C/SCR, SH M8 x 1.25 x 50	3	F
9	67605	L/NUT, NYLOK THIN M12 X 1.75 GR8.8 ZP	2	F
10	57401	L/NUT, NYLOK M8 X 1.25 G8.8 ZP	3	F
11	93247	NUT, HEX M24-3.0 CL5	2	F
12	93253	WASHER, FLAT M12 SAE G2	3	F
13	93256	WASHER, FLAT M24	2	F
14	93251	WASHER, FLAT M8 SAE G2	6	F
15	93346	C/SCR, SH M12-1.75 X 30 G12.9	1	F



# 3547014 MANIFOLD ASM, CABLE TENSION LF230

3547014 MANIFOLD ASM, CABLE TENSION LF230







## 3547014 MANIFOLD ASM, CABLE TENSION LF230

Item	Part No.	Name	Qty	Service
1	3547012	MANIFOLD, CABLE TENSION	1	
2	3547013	SHUTTLE VALVE CARTRIDGE	2	
3	103316	VALVE, CARTRIDGE CHECK	1	С
4	3543453	VALVE, PRESS REDUCING	1	

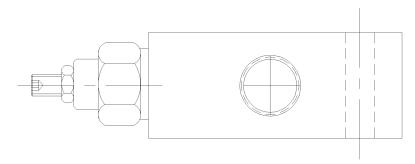
Comments for Page: 3547014 MANIFOLD ASM, CABLE TENSION LF230

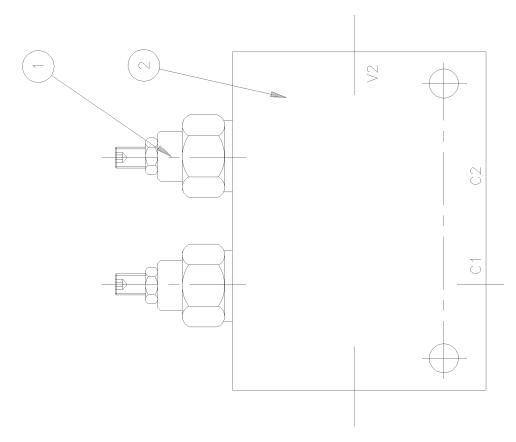
(#2 3547013)(#3 103316)(#4 3543453)INCLUDED IN HYD MANIFOLD SPARES KIT # 3547262



# 3547707 MANIFOLD ASM, C/B CARTRIDGE LF90D/LF230

3547707 MANIFOLD ASM, C/B CARTRIDGE LF90D/LF230





LF230 2007-193 Thru Current

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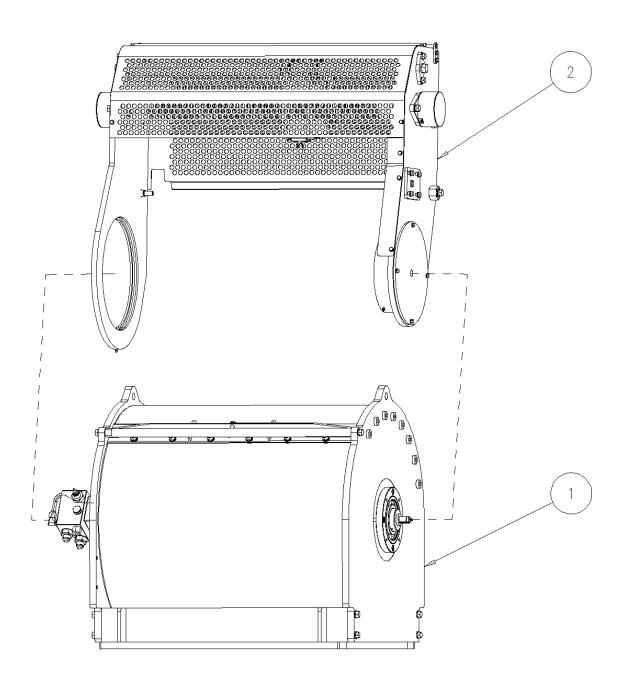


Item	Part No.	Name	Qty	Service
1	103329	COUNTER BALANCE CARTRIDGE	2	В
2	NOPARTNUMBER	NO PART NUMBER	1	



## 3003981 WINCH, WIRELINE c/w LEVELWIND 3300 m CAPACITY

3003981 WINCH, WIRELINE c/w LEVELWIND 3300 m CAPACITY



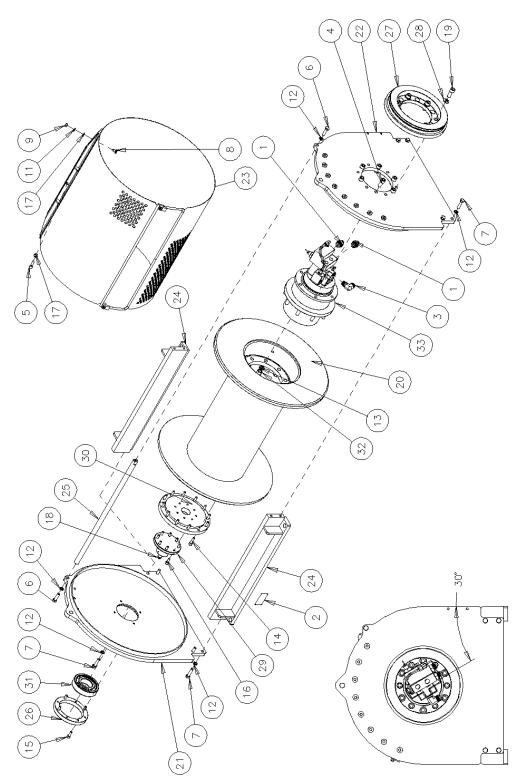


Item	Part No.	Name	Qty	Service
1	3003860	WIRE LINE HOIST ASSEMBLY	1	С
2	3003870	SPOOLING DEVICE, WIRELINE	1	С



#### 3003860 WIRE LINE HOIST ASSEMBLY

3003860 WIRE LINE HOIST ASSEMBLY





#### 3003860 WIRE LINE HOIST ASSEMBLY

Item	Part No.	Name	Qty	Service
1	36960	ADAP, HYD STR 12JIC 10ORB	2	F
2	17958	PLATE, SERIAL NUMBER	1	Е
3	36967	ADAP, HYD 90 12JIC 10ORB	1	F
4	62541	C/SCR, SH 5/8 UNC X 1-1/4 G8	6	F
5	68890	C/SCR, HH M10 X 1.5 X 50 G8.8	1	F
6	68921	C/SCR, HH M12 X 1.75 X 45 G8.8	2	
7	68922	C/SCR, HH M12 x 1.75 x 50	8	F
8	85271	C/SCR, BH M10-1.5 x 20	6	F
9	93115	NUT, HEX M10-1.5 CL8	6	F
11	93128	L/WASHER, SPRING M10	6	F
12	93129	L/WASHER, SPLIT SPRING M12	10	F
13	93130	L/WASHER, SPRING M16	9	F
14	93168	C/SCR, SH M10-1.5 X 40 G12.9	12	F
15	93232	SCREW CAP SOC HD M10-1.5 X 30	4	
16	93236	C/SCR, SH M10-1.5 X 25 G12.9	8	F
17	93252	WASHER, FLAT M10 SAE G2	7	F
18	93363	NIPPLE, GREASE M6-1 STR	1	
19	58938	C/SCR, SH M16 x 2.0 x 40	6	F
20	5400248	DRUM WELDMENT	1	С
21	3003856	WELDMENT, RH PLATE	1	D
22	3003857	WELDMENT, LH PLATE	1	D
23	3003858	GUARD WELDMENT	1	С
24	3003859	WELDMENT, BRACKET MOUNTING	2	D
25	3003861	BAR, TIE DOWN	1	D
26	3003872	FLANGE, BEARING	1	D
27	3003873	FLANGE, MOTOR MOUNT	1	D
28	94598	WASHER SAFETY 16ID	6	F
29	3003894	SHAFT, DRUM	1	С
30	5400249	PLATE, DRUM END	1	D
31	3070406	BALL BEARING 65x140 6313	1	В
32	3070423	NUT, HH 5/8 UNF - 18	9	F
33	3071120	DRIVE ASM, HYDRAULIC	1	В



#### 3003860 WIRE LINE HOIST ASSEMBLY

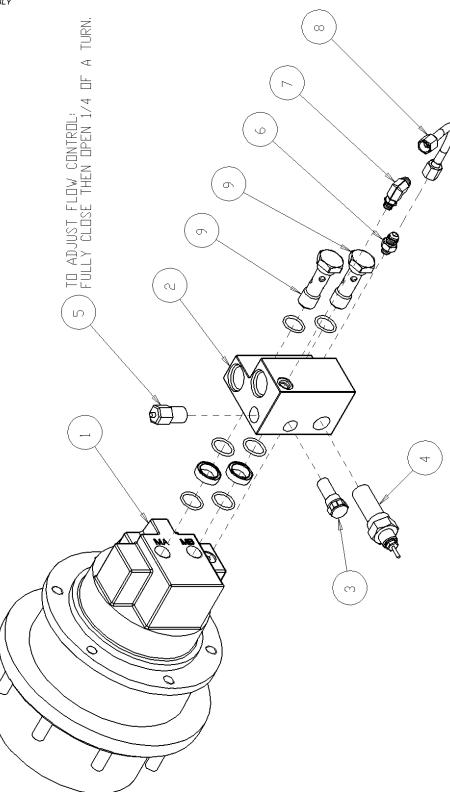
Comments for Page: 3003860 WIRE LINE HOIST ASSEMBLY

(#31 3070406)INCLUDED IN WIRELINE WINCH SPARES KIT # 3004204



## 3071120 DRIVE ASM, HYDRAULIC

3003860 WIRE LINE HOIST ASSEMBLY



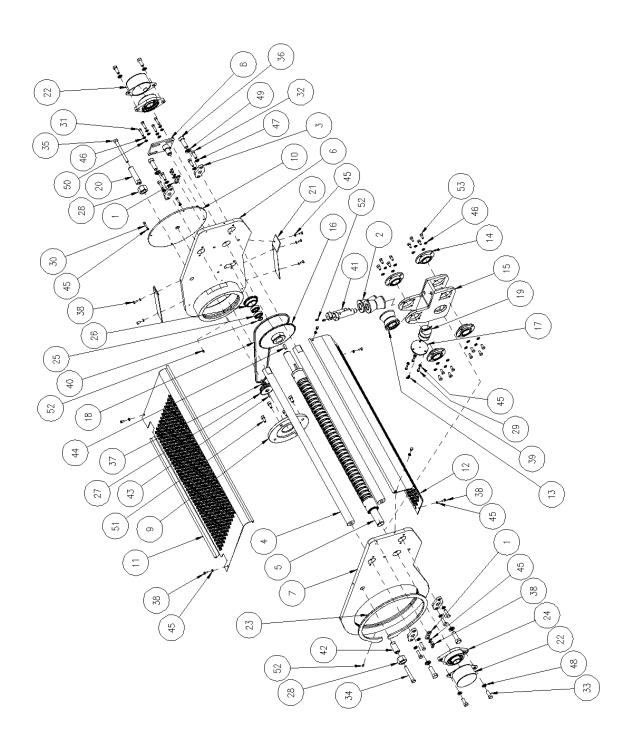


Item	Part No.	Name	Qty	Service
1	NPPA	NOT SOLD SEPARATELY	1	
2	NOPARTNUMBER	NO PART NUMBER	1	
3	3069480	CARTRIDGE, HYD SHUTTLE	1	В
4	3070567	CARTRIDGE, COUNTERBALANCE VALVE	1	В
5	3070718	CARTRIDGE, FLOW CONTROL	1	В
6	39511	ADAP, HYD 6 JIC - 4 ORB	1	
7	44302	ADAP, HYD 90 #6 JIC x #4 ORB	1	F
8	NOPARTNUMBER	NO PART NUMBER	1	
9	NOPARTNUMBER	NO PART NUMBER	2	

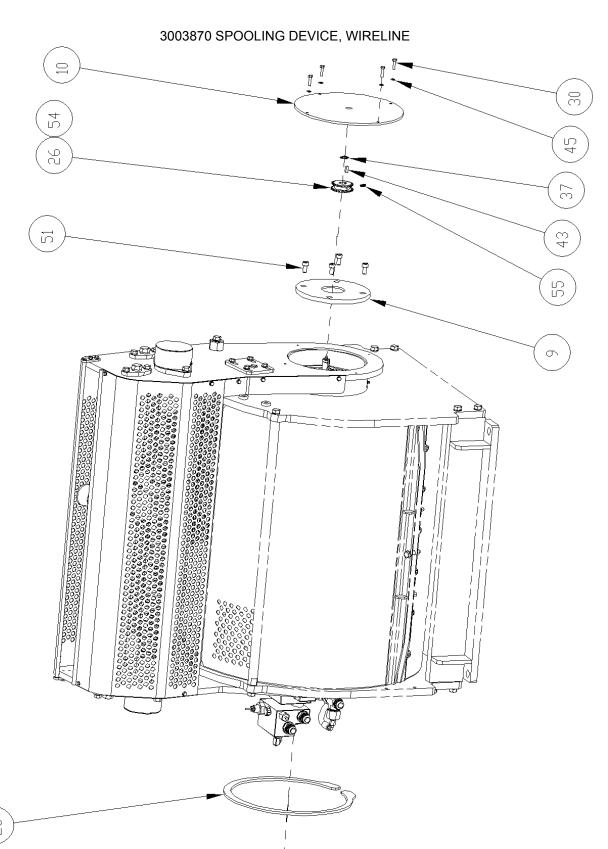


### 3003870 SPOOLING DEVICE, WIRELINE

3003870 SPOOLING DEVICE, WIRELINE







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Item	Part No.	Name	Qty	Service
1	3000557	PLATE, HINGE	2	В
2	5004467	ROLLER ASM, LONG CERAMIC	2	В
3	3003862	PLATE, KEEPER	4	С
4	3003867	BAR, TIE	2	С
5	3003868	SHAFT, SPOOLING	1	В
6	3003869	PLATE, LH SIDE	1	D
7	3003871	PLATE, RH SIDE	1	D
8	3003877	SHAFT, WELDMENT IDLER	1	С
9	3003895	PLATE, BEARING CAP	1	D
10	3003897	COVER, BEARING	1	D
11	3003898	GUARD, TOP	1	С
12	3003899	GUARD, BOTTOM	1	С
13	5004470	ROLLER ASM, SHORT CERAMIC	1	В
14	5404756	HOUSING, ASSEMBLY SPOOLING DEVICE	4	С
15	3003908	BLOCK, TRAVELLING	1	С
16	3003909	SPROCKET, 60T 3/8P	1	С
17	3003911	COVER	1	С
18	3003914	CHAIN, ROLLER 3/8P x 142 Lg.	1	А
19	3003916	FOLLOWER, SPOOLING DEVICE	1	В
20	3003926	FOLLOWER, THREAD SPOOLING DEVICE	1	С
21	3004326	GUARD, CHAIN	1	D
22	3004331	COVER, SPOOL SHAFT	2	D
23	3070407	RETAINING RING, 330 DIA	1	D
24	3070409	BEARING, FLANGE 35 ID Y-TYPE	2	В
25	89807	BEARING BALL 20ID	2	В
26	89733	SPROCKET, 22T 3/8P	1	В
27A	5404751	SPROCKET, COMPOUND 18T/19T	1	В
27B	5404752	SPROCKET, COMPOUND 20T/21T	1	В
28	59510	L/NUT, STOVER M24-3	2	F
29	68838	C/SCR, HH M6 X 1.0 X 20 G8.8	3	F
30	68839	C/SCR, HH M6-1.0 x 25	4	F
31	68863	C/SCR, HH M8 X 1.25 X 30 G8.8	4	F

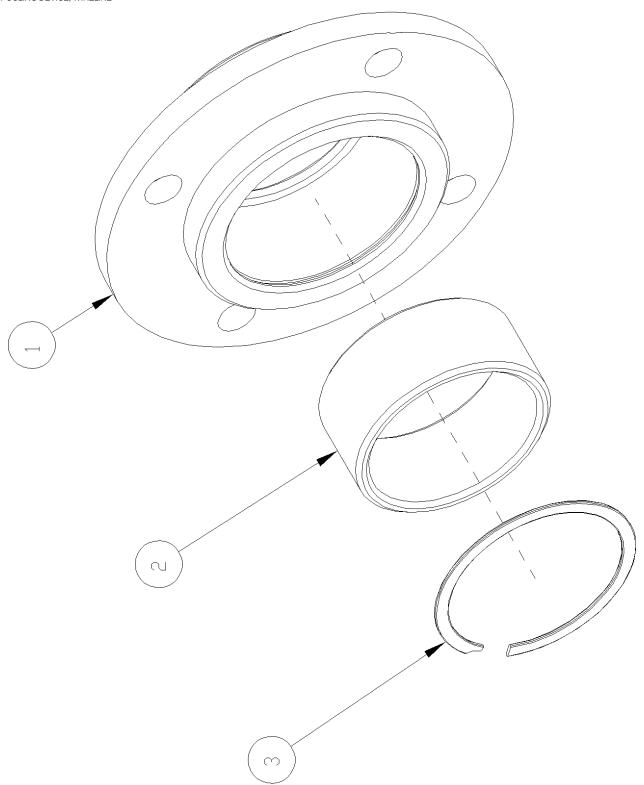


Item	Part No.	Name	Qty	Service
32	68886	C/SCR, HH M10 X 1.5 X 30 G8.8	8	F
33	68918	C/SCR, HH M12 X 1.75 X 30 G8.8	4	F
34	68928	C/SCR, HH M12-1.75 X 80 G8.8	1	F
35	68934	C/SCR, HH M12-1.75 x 120	1	F
36	68953	C/SCR, HH M16 X 2.0 X 45 G8.8	4	F
37	81777	CIRCLIP EXT 19 X 1.2	1	F
38	86514	C/SCR, HH M6-1 x 12	15	F
39	87171	NIPPLE, GREASE M-6 90 DEGREE	1	
40	87560	CIRCLIP EXT 20 X 1.2	1	F
41	89726	PIN, ROLLER	2	В
42	89738	SCREW, ADJ SHORT	1	В
43	89877	KEY 6 X 6 X 17	1	F
44	89878	KEY 7 X 8 X 25	1	F
45	93126	WASHER, SPRING M6	22	F
46	93127	L/WASHER, M8 G2	20	F
47	93128	L/WASHER, SPRING M10	8	F
48	93129	L/WASHER, SPLIT SPRING M12	4	F
49	93130	L/WASHER, SPRING M16	4	F
50	93251	WASHER, FLAT M8 SAE G2	4	F
51	93341	C/SCR, SH M10-1.5 x 20 GR12.9	4	F
52	93363	NIPPLE, GREASE M6-1 STR	4	
53	93375	C\SCR, HH M8-1.25 x 16	16	F
55	93019	S/SCR, SH M6 x 1 x 16	1	F



#### 5404756 HOUSING ASM

3003870 SPOOLING DEVICE, WIRELINE





Item	Part No.	Name	Qty	Service
1	5404754	HOUSING	1	D
2	5404755	BUSHING	1	В
3	5404757	SNAP RING, INTERNAL 1.75 DIA	1	В



### 3546384 COOLER GRP, ASA TIER 1 ENGINE PRIOR TO 2009-007

HYD COOLERS PRIOR TO 2009-007



LF230 2007-193 Thru Current



9

103968

NUT, HEX 3/8 UNC

Item	Part No.	Name	Qty	Service		
1	3546729	MOTOR, LF230/90D OIL COOLER	1			
2	3546730	COOLER, HYDRAULIC OIL ASA C/W FAN	1			
MOTOR NO	Comments for Part Num. 3546730  MOTOR NOT INCLUDED, MUST ORDER COMPLETE COOLER ASM 3546384  FAN #5003524  UNIBOSS #5003527					
3	3547425	GUARD, LF230/90D REMOTE COOLER	1			
4	19155	EYEBOLT, 3/8 UNC	2			
5	3547470	BUSHING, REMOTE COOLER FAN	1			
6	44512	C/SCR, HH 3/8 UNC X 1 G8	16	F		
7	44859	WASHER, FLAT 3/8 SAE G8	18	F		
8	44520	L/WASHER, 3/8 SAE G8	18	F		

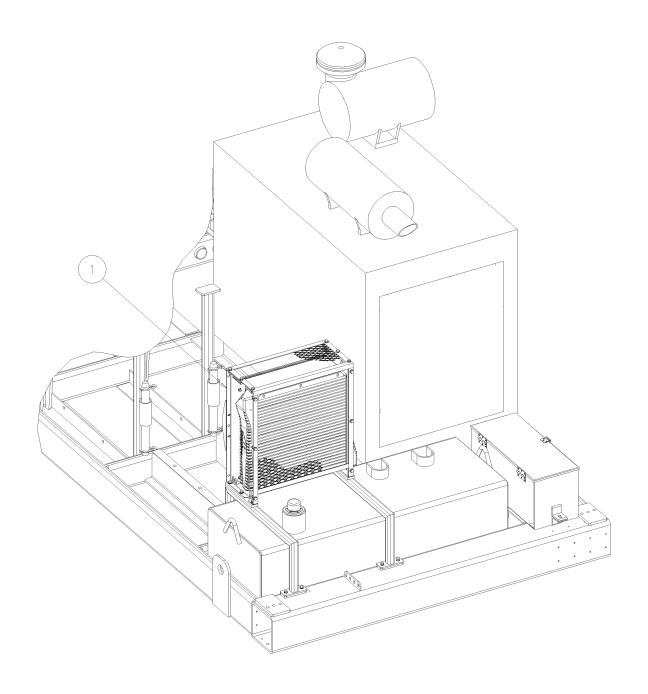
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### 3548558 COOLER GRP, HYDAC ELH6 COMBO TIER 3 CUMMINS ENGINE ONLY

HYD COOLERS PRIOR TO 2009-007



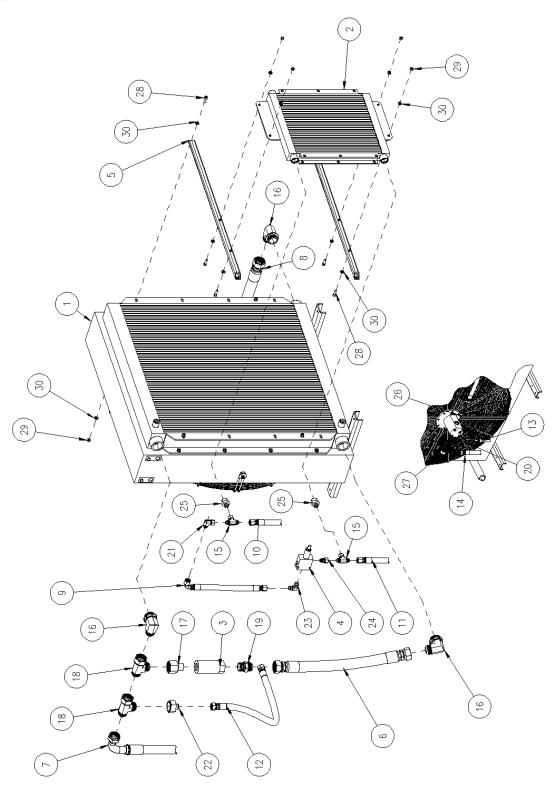


Item	Part No.	Name	Qty	Service
1	3548512	COOLER, HYD OIL DUAL CORE	1	В
2	44593	C/SCR, HH 3/8 UNC X 1-1/4 G8	4	F
3	44520	L/WASHER, 3/8 SAE G8	4	F
4	44859	WASHER, FLAT 3/8 SAE G8	4	F



### 5000333 COOLER GRP, HEAVY DUTY ELH10 S/N 2009-007 AND UP

5000333 COOLER GRP, HEAVY DUTY ELH10 S/N 2009-007 AND UP



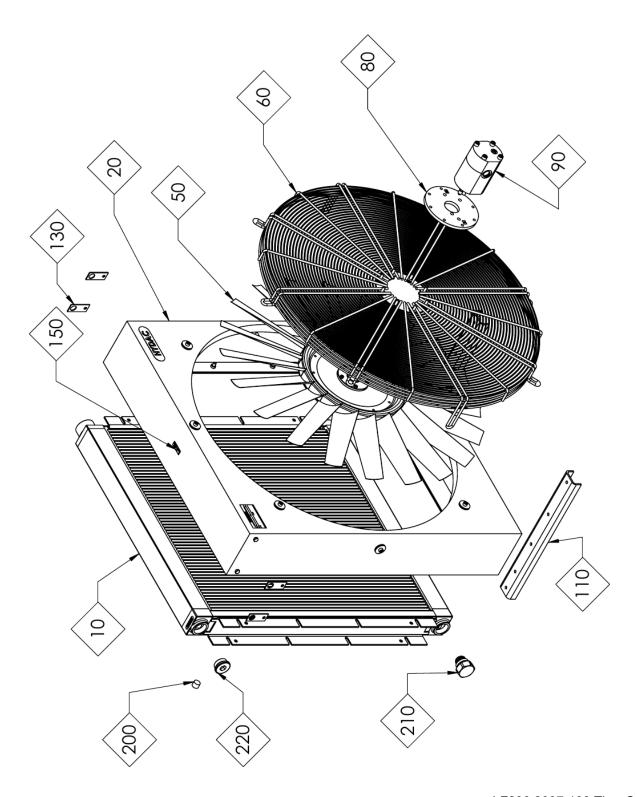


Item	Part No.	Name	Qty	Service
1	3549249	COOLER, HYD ELH 10	1	С
2	5002389	COOLER, AUXILLARY	1	В
3	3549196	VALVE, HYD CHECK 72 PSI	1	
4	5004508	VALVE ASM, HYD RELIEF	1	
5	5004473	MOUNT, HEAD COOLER	2	D
6	5000550	HOSE ASM, 1-1/4 X 26	1	
7	5004480	HOSE ASM, 1-1/4 X 119	1	
8	5004511	HOSE ASM, 1-1/4 X	1	
9	5004497	HOSE ASM, #8 X 11-1/2	1	
10	5004509	HOSE ASM, #8 X 273	1	
11	5004510	HOSE ASM, #8 X	1	
12	5000551	HOSE ASM, #12 X 34	1	
13	5004532	HOSE ASM, # 4 X 150	1	
14	5004531	HOSE ASM, #12 X 102	1	
15	33087	ADAPT, TEE #8 JIC(F) x #8 JIC	2	F
16	3540682	ADAP, HYD 90Deg 20 JIC x 24 ORB	3	F
17	5002546	ADAP, HYD STR 20 NPT - 20 JIC F	1	
18	5002547	ADAP, HYD TEE 20 JIC	2	
19	25464	ADAP, HYD STR 20JIC 20NPTF	1	F
20	37015	ADAP, HYD 90 4JIC 4ORB	1	F
21	39690	ADAP, HYD 90 8JIC 8JIC-F	1	F
22	5004454	ADAP, HYD STR 20 JIC (F) 12 JIC	1	F
23	32556	ADAP, HYD 90 8JIC 6ORB	1	F
24	34198	ADAPT, #8 JIC SWIVEL x #6 ORB	1	
25	36491	ADAP, HYD STR 8JIC 12ORB	2	F
26	36960	ADAP, HYD STR 12JIC 10ORB	1	F
27	36967	ADAP, HYD 90 12JIC 10ORB	1	F
28	104293	C/SCR, SH M8 x 1.25 x 25	8	F
29	93114	NUT, HEX M8-1.25 CL8	8	F
30	93251	WASHER, FLAT M8 SAE G2	16	F



#### 3549249 COOLER ASM, BARE

5000333 COOLER GRP, HEAVY DUTY ELH10 S/N 2009-007 AND UP



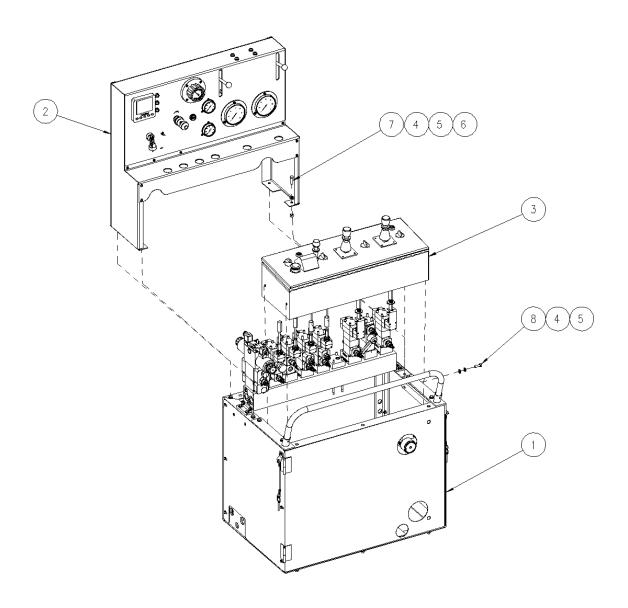


Item	Part No.	Name	Qty	Service
50	5002665	FAN	REF	
90	5002666	MOTOR, HYD COOLER	REF	В



#### 3549237 CONTROL CONSOLE ASM S/N 2007-193 AND UP

3549237 CONTROL CONSOLE ASM S/N 2007-193 AND UP



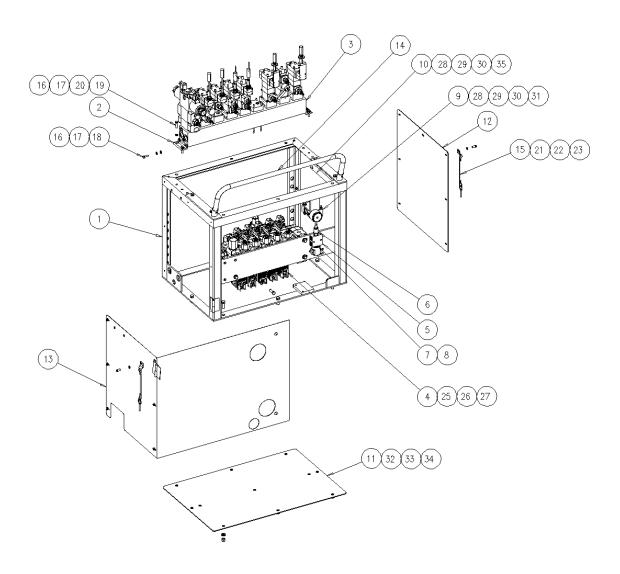


Item	Part No.	Name	Qty	Service
1	5001471	CONSOLE ASM, LOWER	1	D
2	5001470	CONSOLE ASM, UPPER	1	D
3	3549455	CONTROL PANEL ASSEMBLY (OCP)	1	D
4	44859	WASHER, FLAT 3/8 SAE G8	8	F
5	44520	L/WASHER, 3/8 SAE G8	8	F
6	44527	NUT, HEX 3/8 UNC G8	4	F
7	44593	C/SCR, HH 3/8 UNC X 1-1/4 G8	4	F
8	44512	C/SCR, HH 3/8 UNC X 1 G8	4	F



# 5001471 CONSOLE ASM, LOWER

5001471 CONSOLE ASM, LOWER





Item	Part No.	Name	Qty	Service	
1	3546959	FRAME, LOWER CONSOLE	1	D	
2	3546987	BRACKET, AUXILIARY VALVE SUPPORT	2	D	
3	3546800	MANIFOLD ASM, DO3/DO5	1	С	
4A	3546900	VALVE, HYD 6 SPOOL	REF		
Comments t	or Part Num. 3546900				
SPECIAL ORDER WITH HYDRAULIC ADAPTERS INSTALLED . ORDER VALVE 3546900 (NO FITTINGS) DRILL RIGS MANUFACTURED PRIOR TO S/N 2013-459 USE THIS 6 SPOOL VALVE ASM					
4B	5401691	VALVE ASM, HYD 5 SPOOL	1	D	
Comments f	or Part Num. 5401691		'		
		LIC ADAPTERS INSTALLED . ORDER VALVE 5400750 (NO FITTINGS)DRILL RIC 13-459 USE THIS 5 SPOOL VALVE ASM	GS		
5	3546028	MANIFOLD, PRE-TORQUE VALVE	1	С	
15	5001565	PIN ASM, QUICK RELEASE 1/4"	2	D	
6	5403096	CARTRIDGE, HYD RELIEF	1	В	
7	3547007	VALVE, SOLENOID	1	В	
8	3547008	COIL, SOLENOID	1	В	
9	5000379	VALVE, WATER PUMP CONTROL	1	В	
Comments f	or Part Num. 5000379				
SEAL KIT 5	405906				
10	3546962	BRACKET, CONTROL PANEL SUPPORT	2	D	
11	3546984	PANEL, LF230 CONSOLE BOTTOM	1	D	
12	3546985	PANEL, LF230 CONSOLE SIDE	1	D	
13	3546922	COVER, CONSOLE STAND ACCESS	1	D	
Comments f	or Part Num. 3546922				
COVER LO	CK # 3541849 - QTY 2 I	REQUIRED			
14	5001566	BAR, SAFETY	1	D	
16	46510	WASHER, FLAT 5/16 SAE G8	8	F	
17	44519	L/WASHER, 5/16 SAE G8	8	F	
18	44509	C/SCR, HH 5/16 UNC X 1 G8	4	F	
19	44557	C/SCR, HH 5/16 UNC X 1-1/4 G8	4	F	

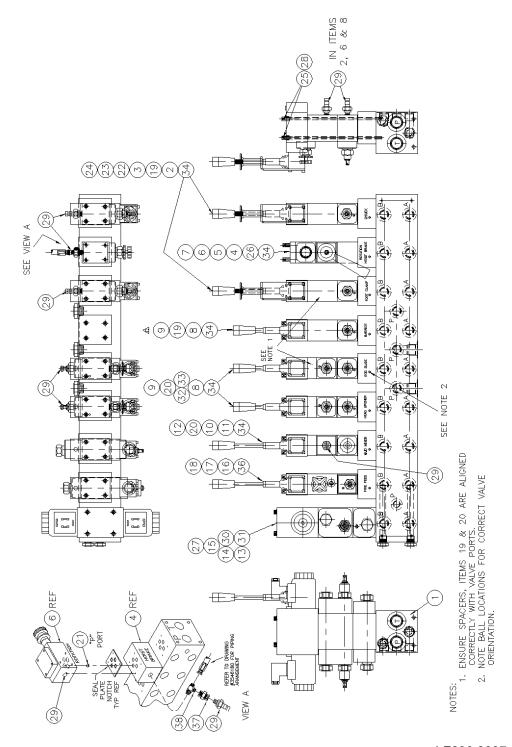


Item	Part No.	Name	Qty	Service
20	44552	NUT, HEX 5/16 UNC G8	4	F
21	46087	WASHER, FLAT 1/4 SAE G8	13	F
22	44518	L/WASHER, 1/4 SAE G8	9	F
23	44631	C/SCR, HH 1/4 UNC X 3/4	13	F
24	44567	NUT, HEX 1/4 UNC G8	9	F
25	45867	WASHER, FLAT 7/16 USS G2	4	F
26	44660	L/WASHER, 7/16 SAE G8	4	F
27	44659	C/SCR, HH 7/16 UNC X 1-1/4 G8	4	F
28	44859	WASHER, FLAT 3/8 SAE G8	6	F
29	44527	NUT, HEX 3/8 UNC G8	6	F
30	44520	L/WASHER, 3/8 SAE G8	6	F
31	44595	C/SCR, HH 3/8 UNC X 2-1/2 G8	2	F
32	44521	L/WASHER, 1/2 SAE G8	8	F
33	44525	NUT, HEX 1/2 UNC G8	8	F
34	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	8	F
35	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	4	F



#### 3546800 MANIFOLD ASM, DO3/DO5

5001471 CONSOLE ASM, LOWER





Item	Part No.	Name	Qty	Service		
1	3546799	MANIFOLD, DO5 9 STATION	1	D		
Comments for	or Part Num. 3546799					
PACKAGE -	0-RING, DO3 SIZE (10	0 PIECES) ORDER 3548596PACKAGE - O-RING, D05 SIZE (100 PIECES) ORDE	R 5406364			
2	100231	VALVE ASM, HYD PRESSURE, CONTROL	2	С		
Comments for	or Part Num. 100231					
	ENT CARTRIDGE # 97 E SEAL KIT # 96770	003				
3	3544273	VALVE, CTRL CHUCK & ROD CLAMP	2	С		
4	101664	VALVE, BODY HOIST BRAKE RELEASE	1	D		
5	100705	CARTRIDGE, HYD CONTROL 2 POSITION 3 WAY	1	Α		
6	100229	VALVE, HYD PRESS. CONTROL (ROTATION)	1	С		
Comments for	or Part Num. 100229					
	ENT CARTRIDGE # 97 E SEAL KIT # 96772					
7	100230	PLATE, CROSSOVER	1	D		
8	3543963	VALVE, PRESSURE REDUCING	3	С		
Comments for	or Part Num. 3543963					
REPLACEM	ENT CARTRIDGE # 97	001				
9	3544275	VALVE, CONTROL 4 WAY 3 POSITION	3	В		
10	101878	VALVE, HYD FEED MUD MIXER	1	С		
Comments for	or Part Num. 101878		'			
REPLACEM	ENT CARTRIDGE # 97	005				
11	100226	VALVE, HYD SEQUENCE MUD MIXER	1	С		
Comments for	Comments for Part Num. 100226					
CARTRIDGE	REPLACEMENT CARTRIDGE # 97006 CARTRIDGE SEAL KIT #96770 ISO SEAL PLATE WITH ORINGS - 96653					
12	3544272	VALVE, CONTROL MUD MIXER	1	С		
13	3543694	VALVE BODY, CHECK DUAL PO	1	В		



# 3546800 MANIFOLD ASM, DO3/DO5

Item	Part No.	Name	Qty	Service
14	3543693	CARTRIDGE, HYD PRESS REDUCING/RELIEVING	1	С
15	3546804	VALVE, D05/12V DIRECTIONAL	1	В
Comments for	or Part Num. 3546804		•	•
REPLACEME	ENT 12V COIL # 54062 I		l	l
16	104101	VALVE, PRESSURE REDUCING	1	В
Comments fo	or Part Num. 104101			
CARTRIDGE	E # 3541109			
17	3544270	VALVE, HYD FINE FEED RATE CONTROL	1	В
		,		
Comments fo	or Part Num. 3544270			
CARTRIDGE	# 3547424			
18	3544271	VALVE, CONTROL HEAD FEED	1	С
19	3544263	SPACER, 2-1/2"	3	D
20	3544262	SPACER, 3/4"	3	D
21	3544264	ORIFICE, FIXED (.018") (PORT "P")	1	С
22	3544239	PLATE, LOCKING	2	С
23	3544240	PLUNGER, LOCKING	2	С
24	3544241	SPRING, COMPRESSION	2	С
25	3544252	STUD, #10-24UNC x 6.56 LG	32	D
26	3546805	SPACER, 1 3/4"	1	D
27	3543811	STUD KIT, 1/4-20UNC NUT & ROD	1	D
28	100608	NUT, STUD #10-24 NC	32	F
29	60093	ADAP, HYD DIAGNOSTIC COUPLER 1/4 NPT (M)	7	F
30	3543688	VALVE, REDUCING/RELIEVING	2	В
31	3543297	CARTRIDGE, HYD CHECK	2	В
32	103329	COUNTER BALANCE CARTRIDGE	4	В
33	103330	COUNTER BALANCE VALVE BODY	2	С
34	3546802	VALVE ADAPTER, D05 MANIFOLD	7	С
36	3546888	MANIFOLD SPACER, D03 REWORK	1	С
37	33681	ADAP, HYD #4 JIC x # 4 ORB TEE	1	F
38	306220	ADAP, HYD #4 JIC(F) x #4 NPT(F)	1	F



#### 3546800 MANIFOLD ASM, DO3/DO5

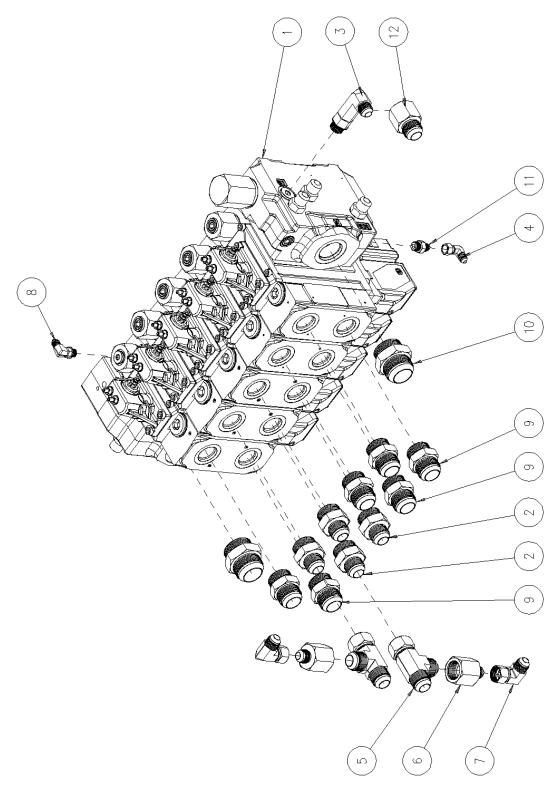
Comments for Page: 3546800 MANIFOLD ASM, DO3/DO5

(#2 100231)(#5 100705)(#6 100229)(#8 3543963)(#10 101878)(#11 100226)(#30 3543688)(#31 3543297)(#32 103329)INCLUDED IN SPARES KIT 3547262



# 5401691 VALVE ASM, HYD 5 SPOOL

5001471 CONSOLE ASM, LOWER





Item	Part No.	Name	Qty	Service
1	5400750	VALVE, HYD CONTROL 5 SPOOL	1	С

Comments for Part Num. 5400750

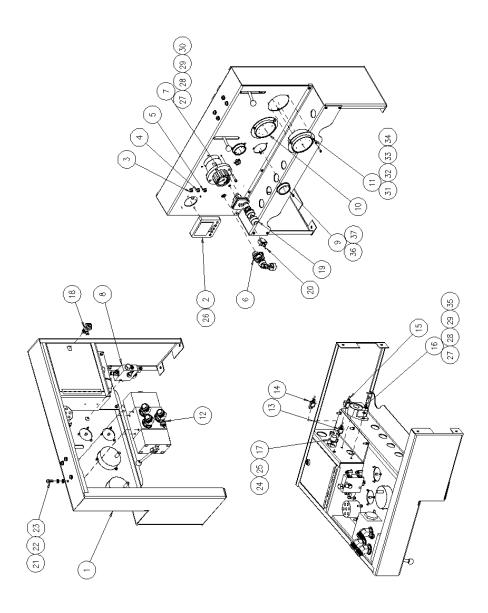
REPLACEMENT COIL # 5000114REPLACEMENT ROTATION SECTION # 5005939REPLACEMENT HANDLE PRIOR TO 2011 #5000160 REPLACEMENT HANDLE BASE AFTER 2011 # 5401951 (INTERNAL SET SCREW RETAINING TYPE)PVG120 CONTROL ACTIVATION REPAIR KIT # 3548425SPOOL CONTROL PIN # 5405368SEAL KIT, PVG120 (FOR REPAIR OF BASIC ONE SPOOL VALVE) # 5406029 (ORDER SOLENOID SEAL KIT SEPARATELY)SEAL KIT, SOLENOID # 563779MAIN RELIEF # 563705

2	37839	ADAP, HYD STR 12JIC 16ORB	4	F
3	37000	ADAP, HYD 90 DEG 8 JIC 8 ORB	1	F
4	33214	ADAP, HYD 90 4JIC 4JIC-F	1	F
5	33794	TEE, 1-1/16 JIC M-FS-M	2	F
6	36452	ADAP, HYD STR 12JIC-F 8JIC	2	F
7	39690	ADAP, HYD 90 8JIC 8JIC-F	2	F
8	37015	ADAP, HYD 90 4JIC 4ORB	1	F
9	25470	ADAP, HYD STR 16JIC 16ORB	6	F
10	33108	ADAP, HYD STR 20 JIC x 20 ORB	2	F
11	3549285	ADAP, HYD STR 4 JIC x 5 ORB	1	F
12	5000497	ADAP, HYD STR 8 JIC (F) - 12 JIC	1	F



# 5001470 CONSOLE ASM, UPPER

5001470 CONSOLE ASM, UPPER





	0540000			Service
	3549222	WELDMENT, UPPER CONSOLE	1	D
2	5400438	DISPLAY, ENGINE MONITOR	1	С
Comments for	Part Num. 5400438			
ODDED MON	UTOD # 5405000 IF DI	ICCIANT ANOTAGE IS DECUMPED		
		USSIAN LANGUAGE IS REQUIRED	l .	l _
	3549103	INDICATOR LED, RED	1	С
	3549118	INDICATOR LED, YELLOW	1	С
5	3549117	INDICATOR LED, BLUE	1	С
6	3549234	SWITCH, IGNITION	1	С
7	3548165	GAUGE ISOLATOR	1	В
8	3543400	MANIFOLD ASM, HOIST CONTROL	1	D
9	3548136	GAUGE, HYD PRESSURE 0-3000 PSI	2	А
10	3548533	GAUGE, PRESSURE 0-1500 psi	1	В
11	3548534	GAUGE, PRESSURE 0-5000 psi	1	В
12	3548540	CONTROL ASSEMBLY, WATER DIVERTER	1	С
13	3549489	SWITCH, SPDT MOMENTARY	1	С
14	3549488	SWITCH, SPST SPADE CONNECTOR	1	С
15	3549490	SWITCH, DPDT MOMENTARY	1	С
16	3549425	HORN	1	D
17	3549548	HARNESS, ELEC ENGINE CONTROL PANEL	1	С
18	3547340	LATCH, OPERATOR PANEL CAM	1	D
19	3547373	CONTROL, ELECTRONIC THROTTLE	1	В
20	3549485	SWITCH, SPST	1	С
21	44859	WASHER, FLAT 3/8 SAE G8	4	F
22	44520	L/WASHER, 3/8 SAE G8	4	F
23	3547792	C/SCR, BH 3/8-16 UNC x 1 Lg.	4	F
24	5001561	C/SCR, BH # 4-40 x 3/8"	4	F
25	5001562	NUT, HEX #4-40	4	F
	5001555	C/SCR, PH M47 X 10 G8	4	F
	46087	WASHER, FLAT 1/4 SAE G8	8	F
	44518	L/WASHER, 1/4 SAE G8	6	F
	44567	NUT, HEX 1/4 UNC G8	6	F
30	104477	C/SCR, SH 1/4-20 UNC x 1 1/4"	4	F



### 5001470 CONSOLE ASM, UPPER

Item	Part No.	Name	Qty	Service
31	44771	WASHER, FLAT #10 SAE G8	6	F
32	44540	L/WASHER, #10 G2	6	F
33	3540822	L/NUT, NYLOK #10 UNC G5	6	F
34	44727	C/SCR, HH #10-24 X 3/4" LG	6	F
35	44566	C/SCR, HH 1/4 UNC X 1 G8	2	F
36	5001560	C/SCR, FH SH # 6-32 UNC X 5/9 G8	6	F
37	5001563	L/NUT, NYLOK #6-32 UNC	6	F

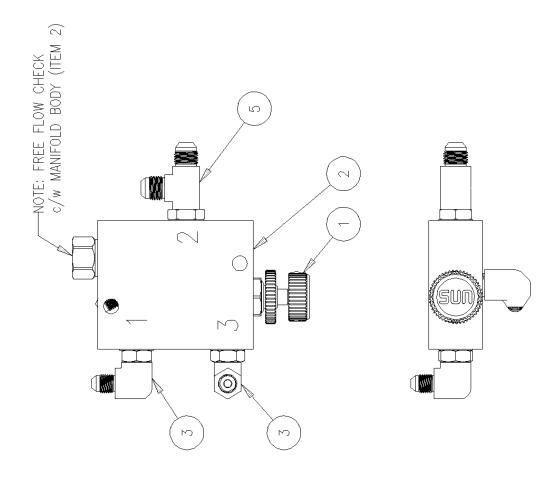
Comments for Page: 5001470 CONSOLE ASM, UPPER

(#2 5400438)(#3 3549103)(#4 3549118)(#5 3549117)(#6 3549234)(#7 3548165)(#9 3548136)(#10 3548533)(#11 3548534)(#13 3549489)(#14 3549488)(#15 3549490)(#19 3547373)(#20 3549485)INCLUDED IN SPARES KIT 5401633

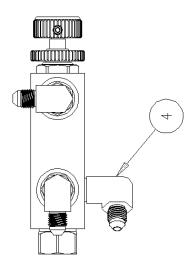


### 3543400 MANIFOLD ASM, HOIST CONTROL

#### 3543400 MANIFOLD ASM, HOIST CONTROL



PORT #1 - REDUCED PRESSURE
PORT #2 - INLET PRESSURE
PORT #3 - TANK
TORQUE ALL CARTIDGES
TO 30-35 ftlbs.





### 3543400 MANIFOLD ASM, HOIST CONTROL

Item	Part No.	Name	Qty	Service
1	3543401	VALVE, PRESS REDUCING	1	В
2	3543402	MANIFOLD, HOIST CABLE TENSION	1	D
3	40237	ADAP, HYD 90 4JIC 6ORB	2	F
4	28917	ADAP, HYD 90 4JIC 4NPTF	1	F
5	36996	ADAP, HYD TEE 6JIC 6ORB	1	F

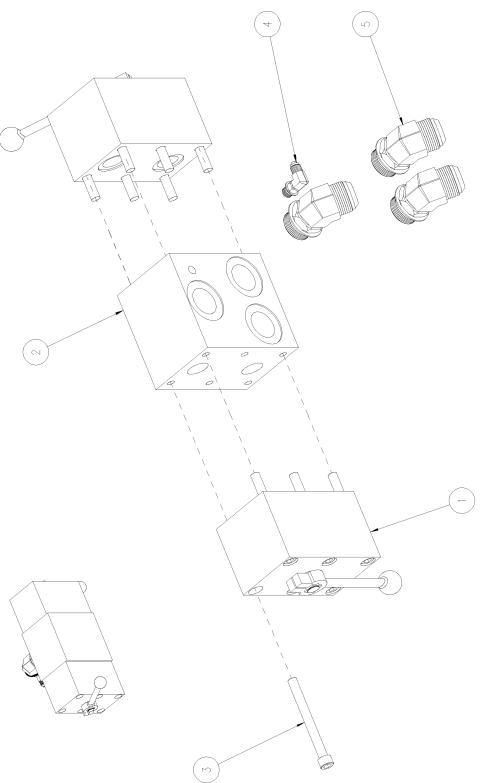
Comments for Page: 3543400 MANIFOLD ASM, HOIST CONTROL

(#1 3543401)INCLUDED IN HYD MANIFOLD SPARES KIT # 3547262



# 3548540 CONTROL ASSEMBLY, WATER DIVERTER

3548540 CONTROL ASSEMBLY, WATER DIVERTER





# 3548540 CONTROL ASSEMBLY, WATER DIVERTER

Item	Part No.	Name	Qty	Service		
1	3548541	VALVE, WATER DIVERTER	2	В		
	Comments for Part Num. 3548541					
REPLACEMI	REPLACEMENT HANDLE # 5404909					
2	3548542	MANIFOLD, WATER DIVERTER	1	D		
3	3548556	C/SCR, SH 3/8-16 UNC x 3 3/4 Lg.	12	F		
4	37015	ADAP, HYD 90 4JIC 4ORB	1	F		
5	36431	ADAP, HYD 45 16JIC 16ORB	3	F		

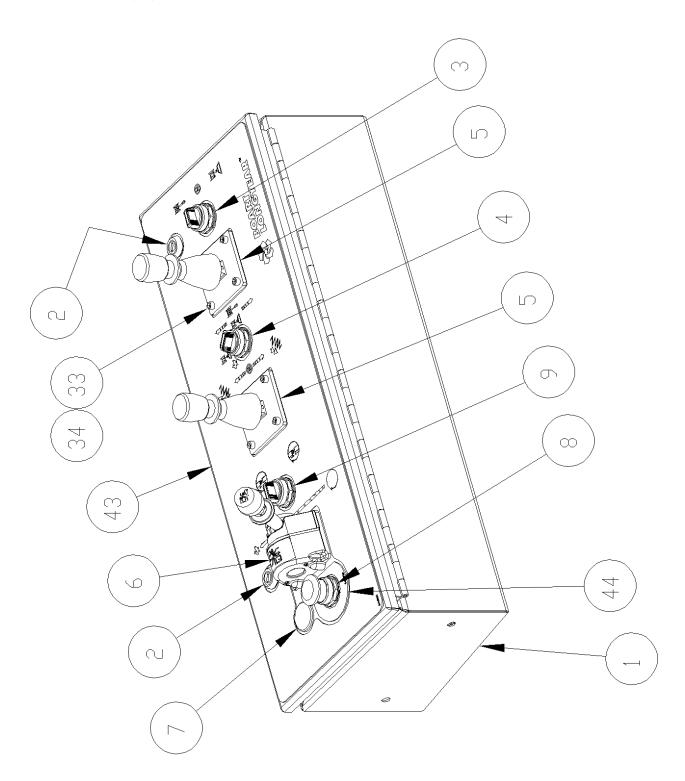
Comments for Page: 3548540 CONTROL ASSEMBLY, WATER DIVERTER

(#1 3548541)REPAIR KIT 5400611



# 3549455 CONTROL PANEL ASSEMBLY (OCP)

3549455 CONTROL PANEL ASSEMBLY (OCP)

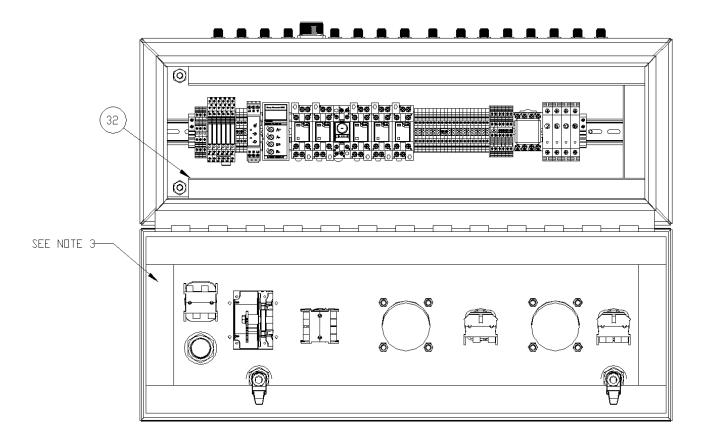


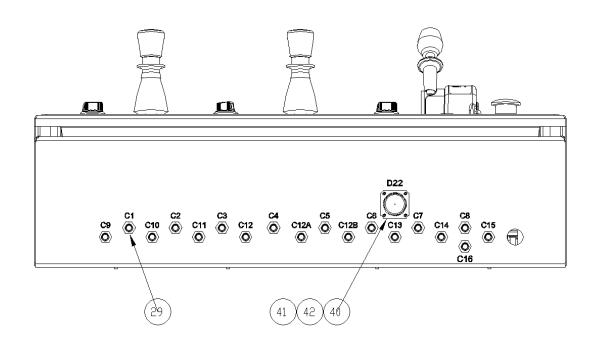


#### 3549455 CONTROL PANEL ASSEMBLY (OCP) (6) (≘) **⊗** ⊗ | | | | <u>\*</u> 0 (2) 0 0 ♦ (4) 0 (4) (A) 4 0 (N) [12] **⊗** ⊗ ⊗ ⊗ (⊕,(⊕) 9 (ਜ਼ [12] (%) (R) ੍ਹਹ\_) (g) (8) ॐ < \* \* ॐ 0 [임 **(\$)** . @ @ @ @ \* **7** (g) (S) **\$ ⊗ ®** 0 (8) (ಸ್ತ (ส) ဨ (E) (B (%) 8 (32) (2) (7) (8) (E) Ж



# 3549455 CONTROL PANEL ASSEMBLY (OCP)



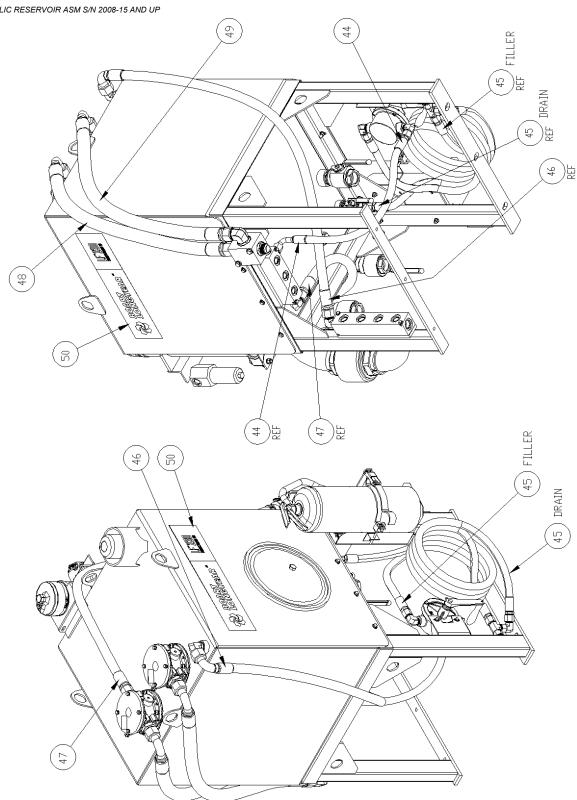




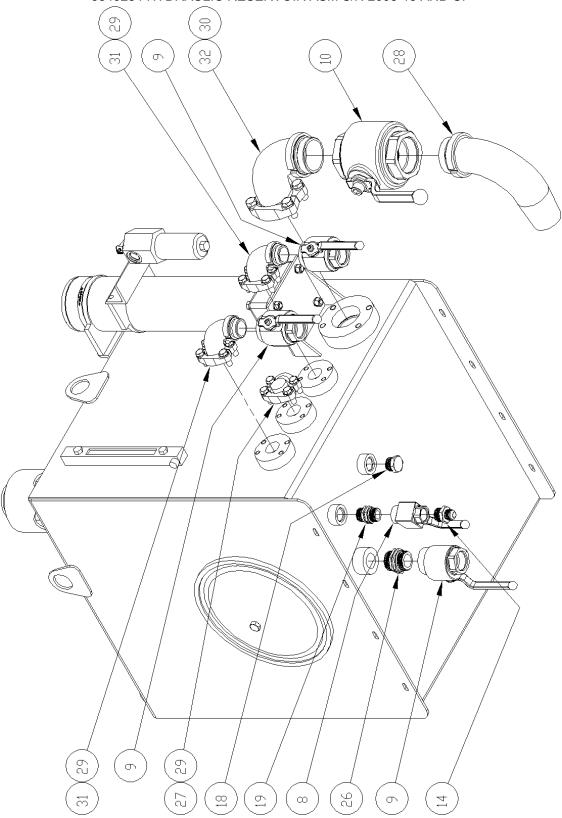
Item	Part No.	Name	Qty	Service
1	3549278	HOUSING, OPERATOR PANEL	1	D
2	3547340	LATCH, OPERATOR PANEL CAM	2	D
3	3542112	SWITCH, SELECTOR 3-POSITION	1	В
4	3540067	SWITCH SELECTOR, 2 POSITION	1	В
5	3549293	JOYSTICK, DANFOSS SAFETY	2	В
6	3549307	JOYSTICK, ROTATION PQ SAFETY	1	В
8	3547298	BUTTON, EMERGENCY STOP	1	В
9	3549308	SWITCH ASM, 3 POSITION	1	В
11	5003501	C/SCR, SH SS 8-32 UNC X 1/2	4	F
13	3547303	BREAKER, 15 AMP	1	Α
14	3541330	BREAKER, 10 AMP (MCB)	1	Α
15	3541331	BREAKER, 5 AMP	1	В
16	3547302	BREAKER, 2 AMP	1	В
17	3549446	BASE, 8 PIN RELAY	1	D
18	3549445	CUBE, MAKE/BREAK CIRCUIT	1	Α
20	3549448	TERMINAL BLOCK, 4 CIRCUIT	9	D
21	3549447	TERMINAL BLOCK, 2 CIRCUIT	23	D
22	3548410	BASE, 8 PIN RELAY	1	С
23	3548327	RELAY, 12VDC	1	Α
24	3547920	BASE, 8 PIN RELAY	1	С
25	3547921	RELAY, TIMER	1	В
26	3070514	BASE, 11 PIN RELAY	1	С
27	3070513	RAMP MODULE WIRELINE	1	В
28	3070515	RELAY, TIMER, OFF DELAY	1	В
29	3549481	CONNECTOR, PANEL 4 PIN TURCK	18	С
30	5003474	JUMPER, 2 POLE	2	D
31	5003475	JUMPER, 4 POLE	1	D
35	5003569	RELAY, 12VDC DIN MOUNTED	5	С
36	5004309	RELAY, 12/24 V TIMED	1	В
40	5404714	CONNECTOR, PANEL MOUNT 14 PIN	1	D
43	5405627	DECAL, LF230 CONTROL	1	D
44	5402676	DECAL, CONTROL PANEL ESTOP	1	D



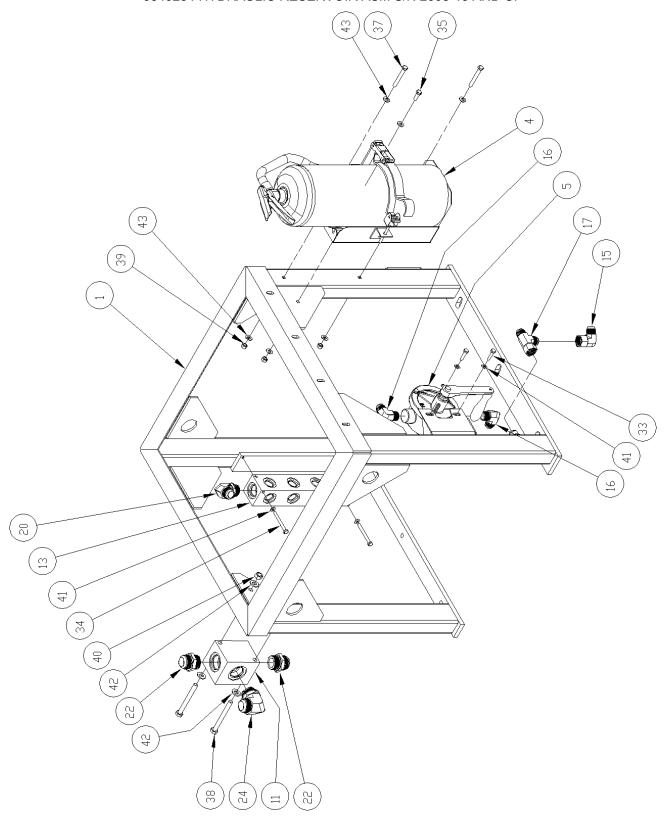
3549284 HYDRAULIC RESERVOIR ASM S/N 2008-15 AND UP



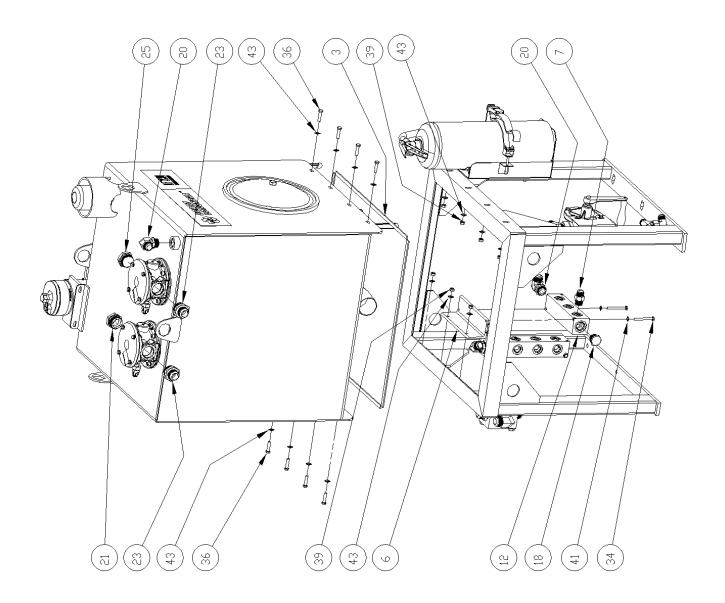












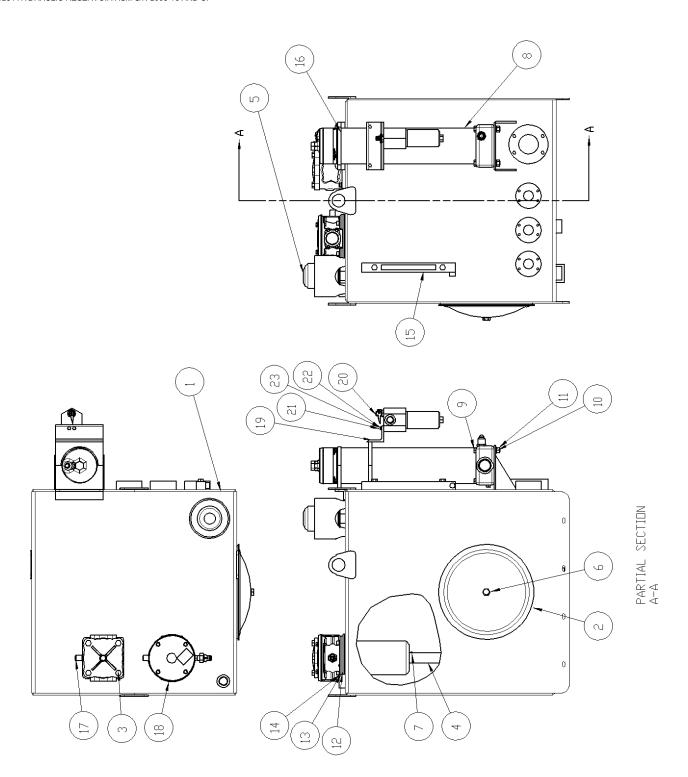


Item	Part No.	Name	Qty	Service
1	3546919	WLDMT, OIL RESERVOIR STAND	1	D
2	3549252	RESERVOIR ASM, 110 US GAL LF230	1	D
3	3541317	RUBBER	4	D
4	3548100	EXTINGUISHER GROUP, 20LB	1	D
5	60058	PUMP, ROTARY HAND	1	С
6	3546951	MOUNT, 3 PORT HEADER MANIFOLD	1	D
7	5404793	VALVE, HYD CHECK 1 PSI	1	D
8	3546945	VALVE, BALL 1" ORB	1	D
9	3546944	BALL VALVE, 1.5"	3	
10	3546943	VALVE, BALL 3" DIA ORB	1	D
11	5405637	MANIFOLD, 1 PORT HEADER	1	D
12	3544318	MANIFOLD, HEADER 3 STATION 90Deg	1	D
13	3546950	MANIFOLD, HEADER 4 STATION 90Deg	1	D
28	3546940	BARB TO THREAD, 3" x 90Deg	1	F
29	3549304	SPLIT FLANGE KIT, 1-1/2"	3	F
30	3540722	SPLIT FLANGE KIT, 3"	1	F
31	3546939	SPLIT TO THREAD, 1.5" x 90Deg	2	F
32	3546937	SPLIT TO THREAD, 3" x 90Deg	1	F
33	44557	C/SCR, HH 5/16 UNC X 1-1/4 G8	2	F
34	102525	C/SCR, HH 5/16 UNC X 3 G8	4	F
35	44512	C/SCR, HH 3/8 UNC X 1 G8	1	F
36	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	8	F
37	44638	C/SCR, HH 3/8 UNC X 2-3/4 G8	2	F
38	46124	C/SCR, HH 1/2-13 UNC x 4-1/2 - [L.C. #90214-340]	2	F
39	44527	NUT, HEX 3/8 UNC G8	11	F
40	44525	NUT, HEX 1/2 UNC G8	2	F
41	46510	WASHER, FLAT 5/16 SAE G8	6	F
42	44621	WASHER, FLAT 1/2 SAE G8	4	F
43	44859	WASHER, FLAT 3/8 SAE G8	22	F
50	3546918	DECAL, LF230 TANK/FUEL VINYL	2	D



# 3549252 RESERVOIR ASM, 110 US GAL LF230

3549284 HYDRAULIC RESERVOIR ASM S/N 2008-15 AND UP





Item	Part No.	Name	Qty	Service		
1	3549251	WELDMENT, HYD RESERVOIR	1	D		
2	104245	COVER, RESERVOIR END	1	D		
Comments for	or Part Num. 104245					
COVER SEA	IL # 96839 ASHER (CRUSH TYPE	E) # 180146				
3	3547602	FILTER, RETURN ASM	1			
Comments fo	Comments for Part Num. 3547602					
REPLACEMI	ENT ELEMENT # 1002 ENT CLOG INDICATOR 5405752 (INCLUDES T					
4	3549287	HOSE, RETURN FILTER	1			
5	3547605	FILTER ASM, BREATHER	1	С		
Comments for	or Part Num. 3547605					
SPIN ON FIL	TER ELEMENT # 100	190				
6	47843	C/SCR HH 5/8-11NC x 3-1/4 LG	1	F		
7	26046	P-CLAMP, HOSE SUPPORT	1	D		
8	104847	FILTER ASM, HIGH PRESSURE	1	С		
Comments for	or Part Num. 104847					
REPLACEMI SEAL KIT#!	ENT ELEMENT # 1002 5405895	36				
9	44560	C/SCR, HH 1/2 UNC X 3-1/2 G8	4	F		
10	44521	L/WASHER, 1/2 SAE G8	4	F		
11	44525	NUT, HEX 1/2 UNC G8	4	F		
12	46749	C/SCR, SH 3/8 UNC X 1-1/2 G8	8	F		
13	3547603	WASHER, SEALING	8	F		
14	44520	L/WASHER, 3/8 SAE G8	8	F		
15	3548020	GAUGE, FLUID LEVEL	1	В		
Comments for Part Num. 3548020						
REPLACEMI	ENT TEMP SWITCH #	5405604				
16	3546936	FLAT BAND U-BOLT CLAMP	2	F		
			0 2007 402 T			

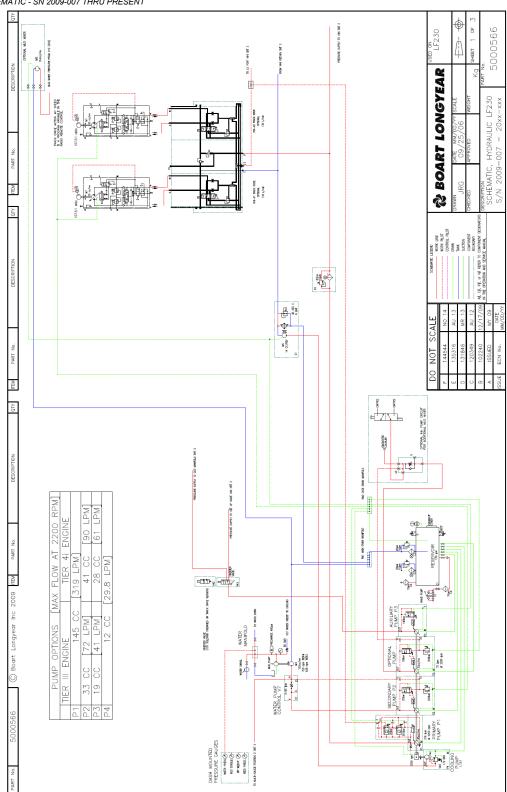


Item	Part No.	Name	Qty	Service		
17	3549185	INDICATOR, DIRTY FILTER	2	С		
18	5000314	RETURN FILTER ASM, 18"	1	D		
Comments for	Comments for Part Num. 5000314					
	REPLACEMENT RETURN FILTER ELEMENT (2 REQUIRED) P/N 100236 SEAL KIT # 5405896					
19	3541651	BRACKET, FILTER	1	D		
20	3542296	FILTER ASM, PRESSURE 25 MICRON	1	С		
Comments fo	or Part Num. 3542296					
	REPLACEMENT # 3542297 DIRTY FILTER INDICATOR # 5007295					
21	44631	C/SCR, HH 1/4 UNC X 3/4	2	F		
22	44518	L/WASHER, 1/4 SAE G8	2	F		
23	46087	WASHER, FLAT 1/4 SAE G8	2	F		



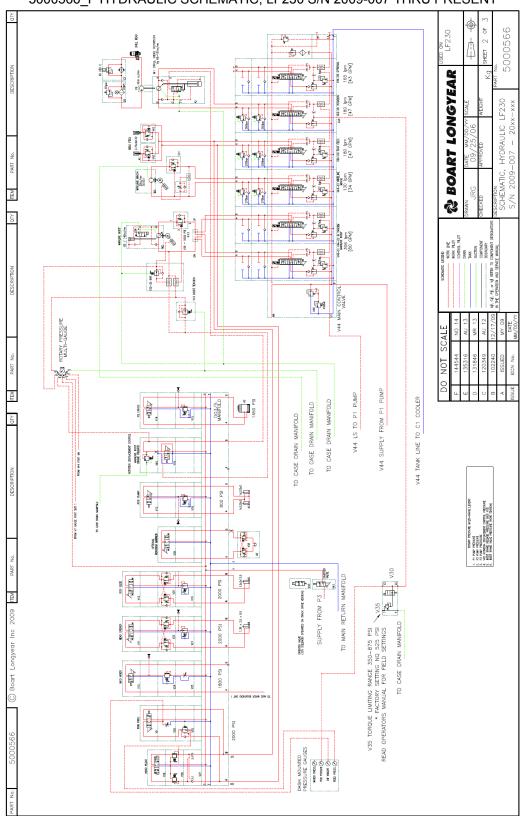
# 5000566\_F HYDRAULIC SCHEMATIC, LF230 S/N 2009-007 THRU PRESENT

5000566 HYDRAULIC SCHEMATIC - SN 2009-007 THRU PRESENT



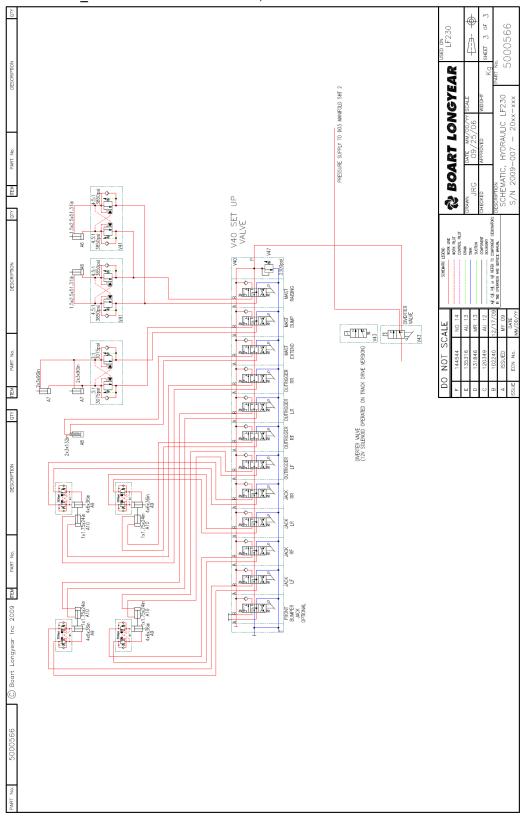


## 5000566\_F HYDRAULIC SCHEMATIC, LF230 S/N 2009-007 THRU PRESENT





# 5000566\_F HYDRAULIC SCHEMATIC, LF230 S/N 2009-007 THRU PRESENT



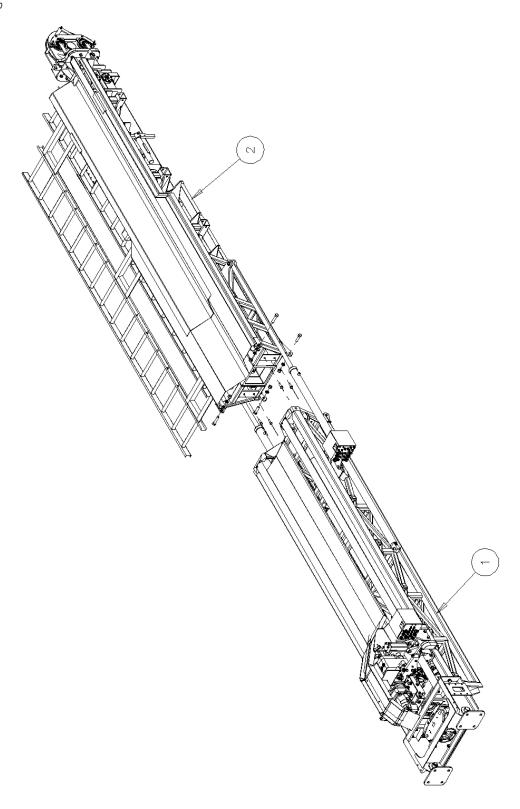


Item	Part No.	Name	Qty	Service
Ref	5000566	HYDRAULIC SCHEMATIC, LF230 S/N 2009-007 THRU PRESENT		



# 5003189 MAST ASM, LF230

5003189 MAST ASM, LF230





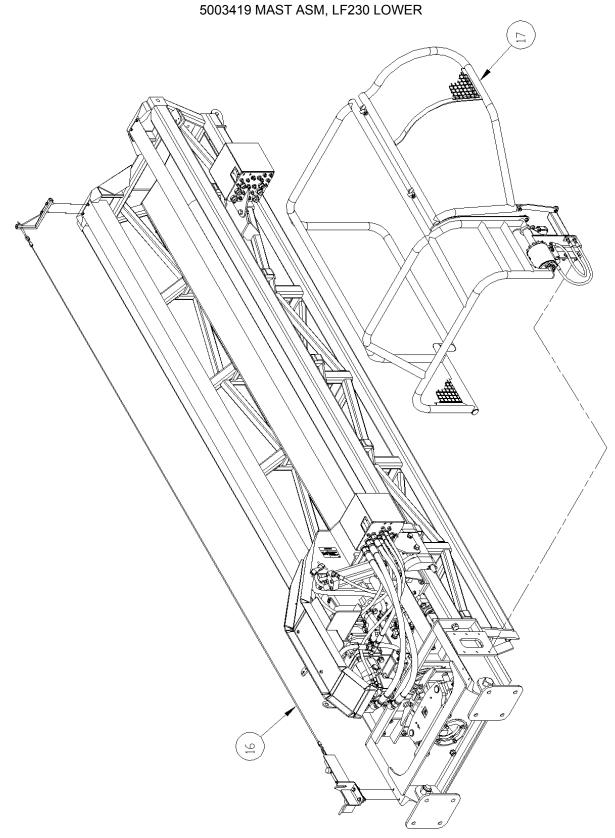
Item	Part No.	Name	Qty	Service
Ref	3546719	MAST ASM, LF230	1	D
1	5003419	MAST ASM, LF230 LOWER	1	D
2	3546118	MAST ASM, LF230 UPPER	1	D



# 5003419 MAST ASM, LF230 LOWER

5003419 MAST ASM, LF230 LOWER





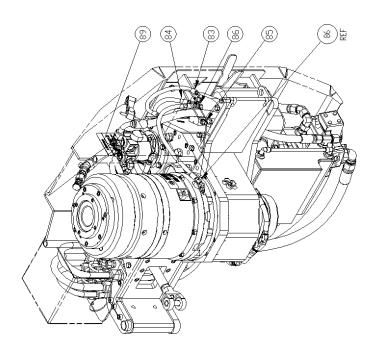


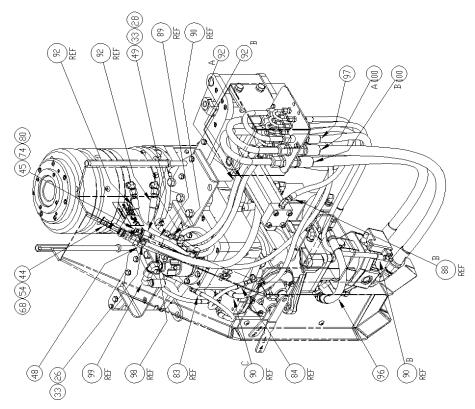
Item	Part No.	Name	Qty	Service
Ref	5003419	MAST ASM, LF230 LOWER	1	D
1	3546205	MAST, LF230 LOWER	1	D
2	3546603	SLIDE ASM, LF230 PQ HEAD	1	D
3	3546820	BASE ASM, ROD CLAMP & MAST LF230	1	D
4	3541161	HOSE HANGER, MAST SUB-ASM LF140/230	1	D
5	3546606	TRAY ASM, LF230 ROD SLIDE	1	D
6	3541214	SWITCH, LIMIT	1	В
7	3545102	GUARD, BULKHEAD HOSE	1	D
8	5404902	GUARD ASM	1	D
9	3546088	DRIVE MODULE, LF230 PQ	1	D
10	306283	L/NUT, 3/4 UNC NYLOCK G8	2	F
11	3540014	C/SCR, SH 10 UNC X 1 3/4 G8	4	F
12	44748	C/SCR, HH 3/4 UNC X 2 G8	2	F
13	44593	C/SCR, HH 3/8 UNC X 1-1/4 G8	2	F
14	44520	L/WASHER, 3/8 SAE G8	2	F
15	44527	NUT, HEX 3/8 UNC G8	2	F
16	5404298	ESTOP ASM	1	D
17	5404297	ROTATION BARRIER ASM	1	D



# 3546088 PQ HEAD ASM

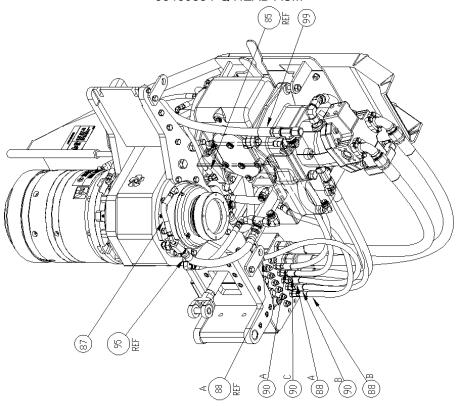
3546088 PQ HEAD ASM

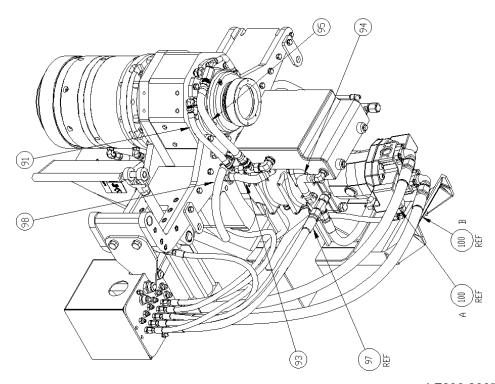




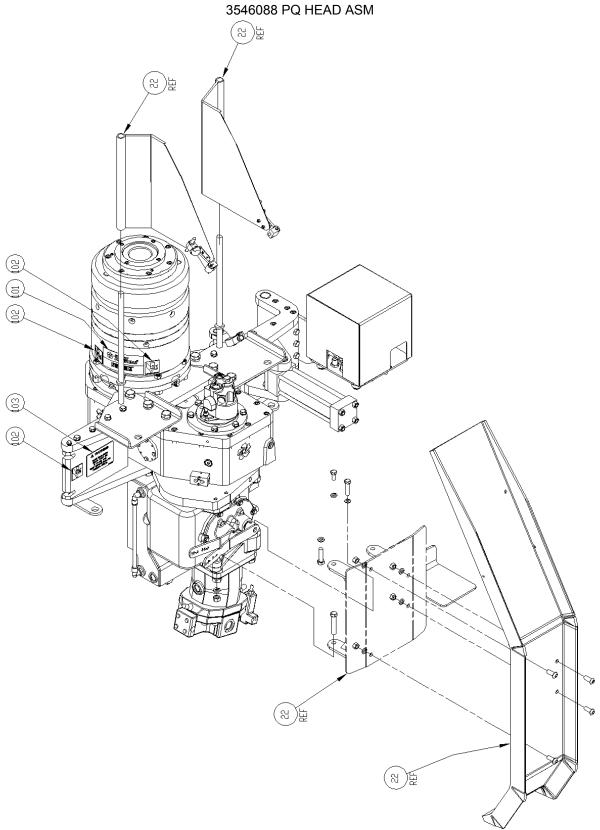


## 3546088 PQ HEAD ASM

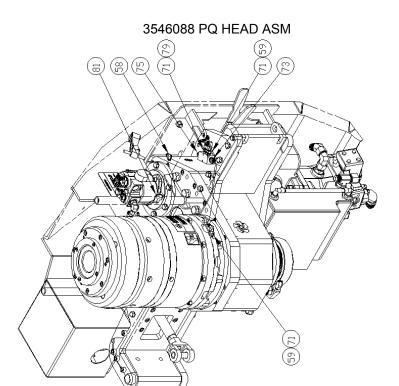


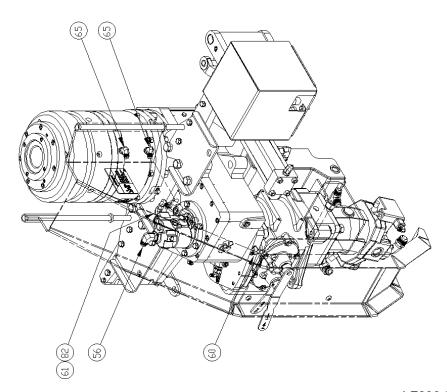




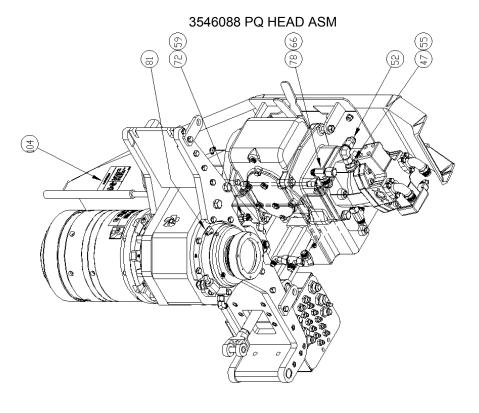


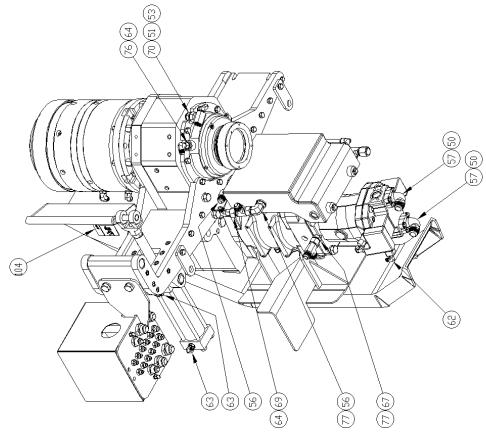




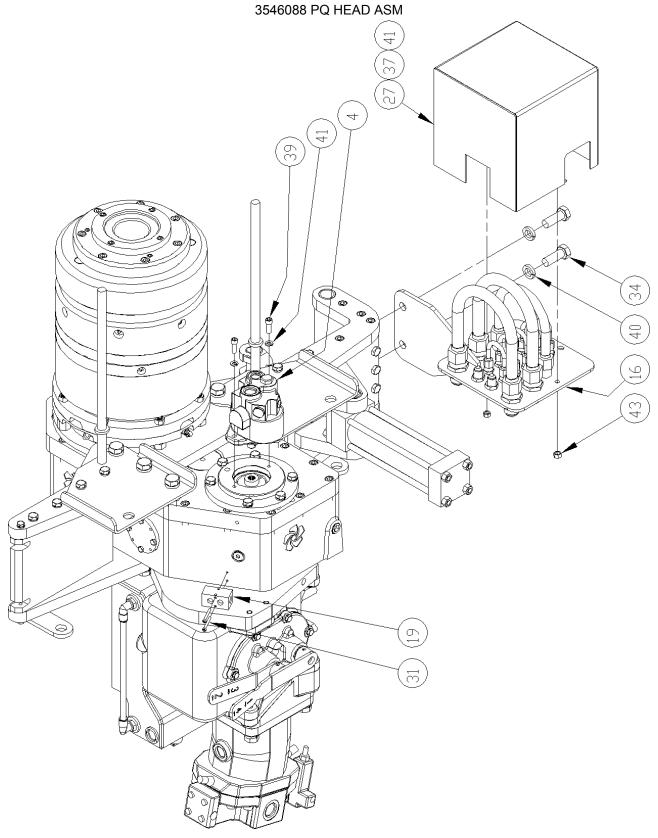




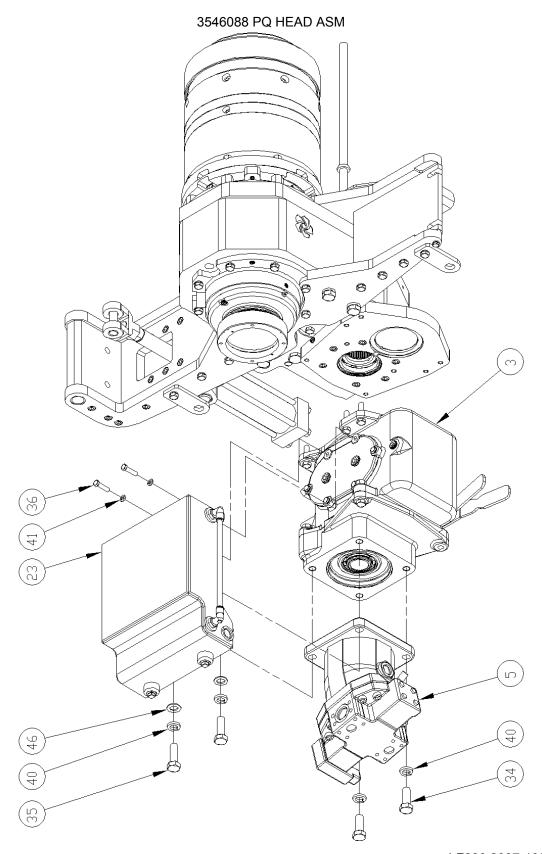






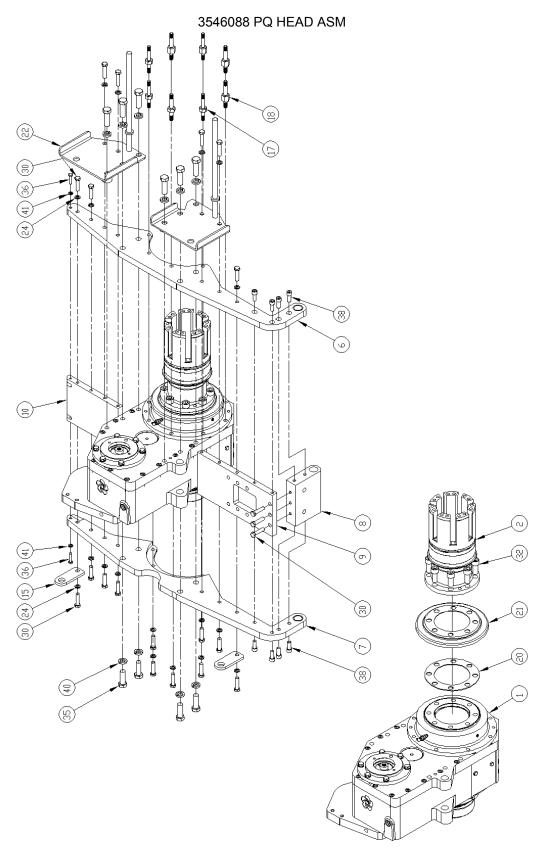




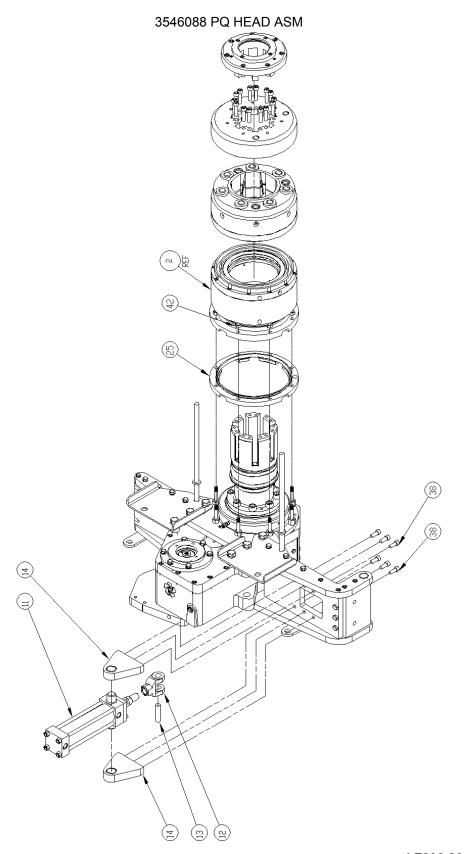


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Item	Part No.	Name	Qty	Service
Ref	3546088	DRIVE MODULE, LF230 PQ	1	D
1	3546087	HEAD ASM, BASIC PQ (134 ROD) 01	1	D
2	5404800	NITRO-CHUCK ASM, PQ	1	В
Comments	for Part Num. 5404800			
ALL LF DR	ILLS MANUFACTUREI	AFTER 2013 WERE SUPPLIED WITH THIS MODEL OF PQ CHUCK		
CHUCK SE	AL KIT # 3543526			
3	3540635	TRANSMISSION, 4 SPEED REWORK	1	В
4	3547044	PUMP, HYD GEAR 4.92 LF230 PQ	1	А
5	3546689	MOTOR, LF230 PQ HEAD HYD	1	В
Commonts	' for Part Num. 3546689		1	
Comments	ioi Fait Nuill. 3540069			
SEAL KIT#	± 3541832		1	
6	3546691	YOKE, LF230 UPPER MOUNTING	1	D
7	3546690	YOKE, LF230 LOWER MOUNTING	1	D
8	3546694	SPACER, HINGE SUPPORT	1	D
9	3546695	PLATE, P HEAD LATERAL SUPPORT	1	D
10	3546696	PLATE, P HEAD LATERAL SUPPORT	1	D
11	3546688	CYLINDER, LF230 HEAD OPENER	1	С
Comments	for Part Num. 3546688			
SEAL KIT#	F E 4 O 1 7 O 2			
		POP 0151/10	1.	
12	560034	ROD, CLEVIS	1	С
13	3544113	PIN, PIVOT MAST RAISING CYL	1	С
14	3546697	LUG, CYLINDER TRUNION	2	С
15	3547313	LUG, LF230 PQ HEAD LIFTING	2	D
16	3546647	HANGER ASM, LF230 HOSE	1	D
17	5405149	STUD, CHUCK SHORT HEX	4	D
18	5404330	STUD, CHUCK LONG HEX	4	D
19	3540055	MANIFOLD, 2 PORTS	1	D
20	5404329	SPACER	1	D
21	5403897	SHIELD, MUD	1	D
22	3546708	GUARD GROUP, LF230 PQ HEAD	1	D



Item	Part No.	Name	Qty	Service
23	3546873	RESERVOIR ASM, PQ HEAD	1	С
24	102955	L/WASHER, 1/2ID SAE G8	14	F
25	5404327	ADAPTER, CHUCK	1	D
26	45767	C/SCR, HH 7/16 UNC X 1-1/2 G8	1	F
27	3545102	GUARD, BULKHEAD HOSE	1	D
28	44680	NUT, HEX 7/16 UNC G8	1	F
29	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	1	F
30	44585	C/SCR, HH 1/2 UNC X 2 G8	21	F
31	3540014	C/SCR, SH 10 UNC X 1 3/4 G8	2	F
32	103243	C/SCR, SH 3/4 UNC X 1-3/4 G8	8	F
33	40012	WASHER, FLAT 7/16 SAE G8	2	F
34	44748	C/SCR, HH 3/4 UNC X 2 G8	4	F
35	44517	C/SCR, HH 3/4 UNC X 2-1/4 G8	6	F
36	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	4	F
37	44593	C/SCR, HH 3/8 UNC X 1-1/4 G8	2	F
38	44550	C/SCR, SH 1/2 UNC X 1-1/4 G8	14	F
39	44630	C/SCR, SH 3/8 UNC X 1 G8	2	F
40	44523	L/WASHER, 3/4 SAE G8	10	F
41	44520	L/WASHER, 3/8 SAE G8	8	F
42	44525	NUT, HEX 1/2 UNC G8	8	F
43	44527	NUT, HEX 3/8 UNC G8	2	F
44	21393	BREATHER,	1	С
45	102803	BREATHER, 1/8 NPT	1	С
46	44612	WASHER, FLAT 3/4 USS G2	2	F
47	5404317	VALVE, HYD CHECK 5PSI	1	С
48	22811	SUPT, CLAMP	1	D
49	26046	P-CLAMP, HOSE SUPPORT	1	D
50	5405427	ADAP, HYD SPLIT FLANGE KIT 16 SAE CODE 61	2	F
51	3541297	ADAP, HYD (REWORK) 90 DEG.	1	F
52	33749	ADAP, HYD 45 12JIC 12JIC-F	1	F
53	36993	ADAP, HYD 45 4NPTF 4NPTF-F	1	F
54	31188	ADAP, HYD 8NPTF 6NPTF-F	1	F



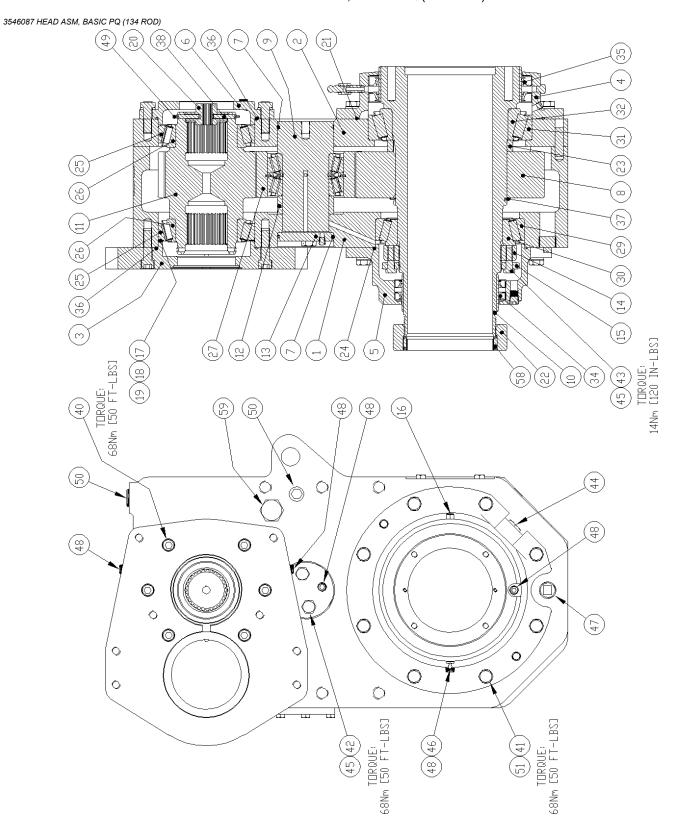
Item	Part No.	Name	Qty	Service
55	43072	ADAP, HYD 90 12JIC 12JIC-F	1	F
56	36980	ADAP, HYD 90 12JIC 12ORB	3	F
57	101531	ADAP, HYD 90 16JIC 16FLG61	2	F
58	19141	ADAP, HYD 90 4JIC 2NPTF	1	F
59	33214	ADAP, HYD 90 4JIC 4JIC-F	3	F
60	28917	ADAP, HYD 90 4JIC 4NPTF	1	F
61	36998	ADAP, HYD 90 6JIC 6JICFS	1	F
62	36478	ADAP, HYD 90 6JIC 6ORB	1	F
63	3541910	ADAP, HYD 90 6JIC 8ORB	2	F
64	39690	ADAP, HYD 90 8JIC 8JIC-F	2	F
65	36457	ADAP, HYD 90 08JIC 08ORB	2	F
66	40393	ADAP, HYD CAP NUT 12JIC-F	1	F
67	36960	ADAP, HYD STR 12JIC 10ORB	1	F
68	33504	ADAP, HYD STR 12JIC 8NPT-F	1	F
69	36452	ADAP, HYD STR 12JIC-F 8JIC	1	F
70	33065	ADAP, HYD STR 12NPTF	1	F
71	19972	ADAP, HYD STR 4JIC 1/4" NPTF	3	F
72	33477	ADAP, HYD STR 4JIC 4NPTF	1	F
73	39911	ADAP, HYD STR 4JIC 6NPTF	1	F
74	34075	ADAP, HYD STR 4NPTF 2NPTF-F	1	F
75	36469	ADAP, HYD STR 6JIC 6NPTF	1	F
76	36458	ADAP, HYD STR 08JIC 8ORB	1	F
77	33794	TEE, 1-1/16 JIC M-FS-M	2	F
78	33680	ADAP, HYD TEE 12JIC 12ORB	1	F
79	33791	ADAP, HYD TEE 4JIC 4JIC-F	1	F
80	19033	COUPLING, PIPE 1/4 NTP, 2000#	1	F
81	34123	ELBOW 90 1/4NPT M-F	2	F
82	33171	ADAP, HYD 90 6JIC 8 ORB	1	F
83	3540627	HOSE ASM, [1/4] x 23cm	1	D
84	3540628	HOSE ASM, [1/4] x 23cm	1	D
85	3540626	HOSE ASM, [1/4] x 41cm	1	D
86	61048	HOSE ASM, [1/4] x 66cm	1	D



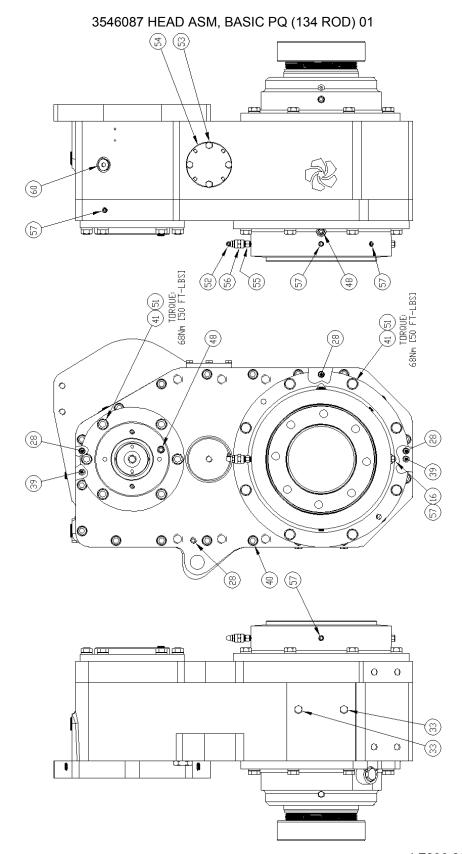
Item	Part No.	Name	Qty	Service
87	5405540	HOSE ASM, [3/8] x 20cm	1	D
88	62281	HOSE ASM, [3/8] x 61cm	2	D
89	5404933	HOSE ASM, [3/8] x 68cm	1	D
90	60483	HOSE ASM, [3/8] x 122cm	3	D
91	5405542	HOSE ASM, [1/2] x 29cm	1	D
92	63261	HOSE ASM, [1/2] x 91cm	2	D
93	5405538	HOSE ASM, [3/4] x 25cm	1	D
94	5405536	HOSE ASM, [3/4] x 33cm	1	D
95	5405537	HOSE ASM, [3/4] x 44cm	1	D
96	5405539	HOSE ASM, [3/4] x 48cm	1	D
97	63283	HOSE ASM, [3/4] x 91cm	1	D
98	5405541	HOSE ASM, [3/4] x 98cm	1	D
99	34569	HOSE ASM, [3/4] x 94cm	1	D
100	5005505	HOSE ASM, [1] x 130cm	2	D
101	5402618	DECAL, NITRO CHUCK	0	D
102	3548150	DECAL, PINCH POINTS	0	D
103	3541257	DECAL, HEAD LOCK DOWN WARNING	0	D
104	3549567	DECAL, ROTATION ENTANGLEMENT (ENG)	0	D



# 3546087 HEAD ASM, BASIC PQ (134 ROD) 01









Item	Part No.	Name	Qty	Service
Ref	3546087	HEAD ASM, BASIC PQ (134 ROD) 01	1	D
1	306473	HOUSING-MAIN	1	E
2	306474	COVER-HOUSING	1	E
3	306475	CARRIER-INPUT	1	D
4	306476	CAP- BEARING UPPER (OUTPUT)	1	D
5	306477	CAP- BEARING LOWER (OUTPUT)	1	D
6	3546714	COVER- LF230 PUMP MOUNTING	1	D
7	48761	O'RING, SHAFT INTERMEDIATE	2	Α
8	306468	GEAR-OUTPUT	1	С
9	306479	SHAFT-INTERMEDIATE IDLER	1	С
10	3546756	SPINDLE ASM, PQ HEAD 5.06 ID	1	С
11	306466	PINION AND SHAFT-INPUT	1	С
12	306481	SPACER-INTERMEDIATE	1	D
13	306482	PLATE-INTERMEDIATE LOCK	1	С
14	306483	RING-INNER LOCK	1	С
15	306484	RING-OUTER LOCK	1	С
16	5006702	FITTING, GREASE 1/8 NPT PURGE	2	F
17	306487	SHIM005 THICK	3	Α
18	306488	SHIM007 THICK	3	Α
19	306489	SHIM020 THICK	1	Α
20	3546712	ADAPTER ASM, PQ HEAD PUMP	1	В
21	3548734	O-RING, 276	1	А
22	3546085	NUT REWORK, SPINDLE PQ HEAD	1	С
23	306493	SPACER-OUTPUT	1	D
24	3548735	O-RING, 270	1	Α
25	306585	CUP-BEARING, O.D. 5.75	2	С
26	306587	CONE-BEARING, I.D. 3.625"	2	С
27	3540433	GEAR, INTERMEDIATE ASSEMBLY (PQ HEAD)	1	С
28	45676	C/SCR, SH 1/2-13 NC x 3/4 Lg.	4	F
29	306590	CUP-BEARING, O.D. 8.875"	1	С
30	306592	CONE-BEARING, I.D. 6.25"	1	С
31	306593	CUP-BEARING, O.D. 9.75	1	С



# 3546087 HEAD ASM, BASIC PQ (134 ROD) 01

Item	Part No.	Name	Qty	Service
32	306594	CONE-BEARING, I.D. 6.875"	1	С
33	44538	C/SCR, HH 3/8 UNC X 1/2 G8	2	F
34	306599	SEAL-OIL, ID 5.75" OD 6.625"	2	Α
35	306600	SEAL, OIL ID 8.5" OD 9.75	2	Α
36	3548736	O-RING, 257	2	Α
37	306603	RING-SNAP, Dia6.75" SHAFT	1	С
38	3546713	PIN, 1/4 DIA. x 1 1/4 LG DOWEL	2	В
39	3540648	DOWEL-GROOVED Dia1/2" x 1.75"LG.	2	D
40	46102	C/SCR, SH 1/2 UNC X 1-3/4 G8	25	F
41	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	22	F
42	306606	C/SCR,HH 1/2-13x1-1/4 Lg (Rwk)	2	F
43	306608	C/SCR,HH 3/8-16x1-1/4 Lg (Rwk)	6	F
44	39572	ADAP, HYD HH PLUG 8 ORB	1	F
45	44766	WIRE, .047 DIA SAFETY	A/R	Α
46	16634	GREASE NIPPLE, STR 1/8-27 NPT	1	F
47	3540054	PLUG-MAGNETIC PIPE [3/4 NPT]	1	D
48	22079	ADAP, HYD PLUG SH 1/4 NPT	7	F
49	306604	RING-SNAP, Dia3.625" SHAFT	1	С
50	28051	PLUG, 3/4 NPT HOLLOW HEX	2	F
51	44521	L/WASHER, 1/2 SAE G8	22	F
52	17273	FITTING, 90DEG 1/8"NPT GREASE	1	F
53	44551	C/SCR, HH 5/16 UNC X 3/4 G8	4	F
54	100327	COVER, SERVICE	1	С
55	34056	ADAP, HYD 1/8 NPT x 1/8 NPT	1	F
56	34099	ADAP, HYD 1/8NPT(F) x 1/8NPT(F)	1	F
57	38045	PLUG, 1/8 STEEL PIPE	4	D
58	44661	S/SCR, SH 1/4-UNC x 3/4 LG	2	F
59	36596	ADAP, HYD PLUG HH 12 ORB	1	F
60	49229	ADAP, HYD PLUG SH 8 ORB	1	F

Comments for Page: 3546087 HEAD ASM, BASIC PQ (134 ROD) 01

(#7 48761)(#17 306487)(#18 306488)(#19 306489)(#21 3548734)(#24 3548735)(#34 306599)(#35 306600)(#36 3548736)SUPPLIED IN BASIC HEAD



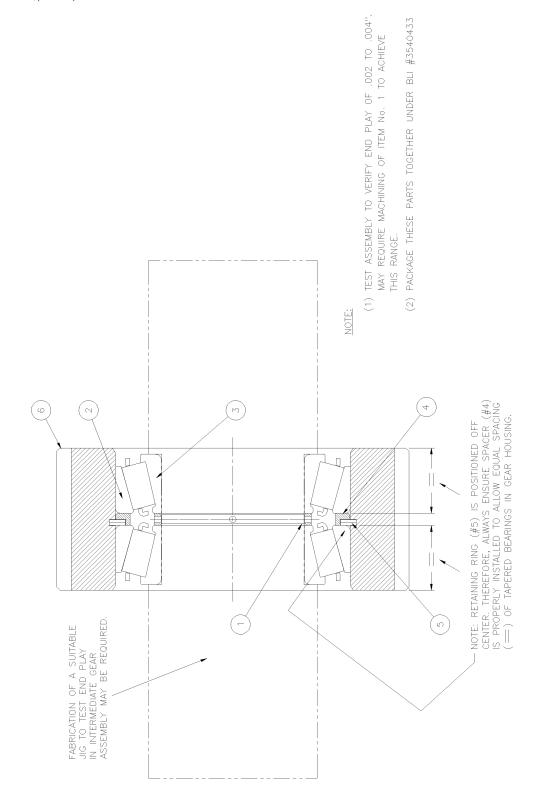
# 3546087 HEAD ASM, BASIC PQ (134 ROD) 01

SEAL KIT # 5000405



## 3540433 GEAR, INTERMEDIATE ASSEMBLY (PQ HEAD)

3546087 HEAD ASM, BASIC PQ (134 ROD)





## 3540433 GEAR, INTERMEDIATE ASSEMBLY (PQ HEAD)

Item	Part No.	Name	Qty	Service
Ref	3540433	GEAR, INTERMEDIATE ASSEMBLY (PQ HEAD)	1	С
1	306492	SPACER, BEARING (REWORK)	1	С
2	306588	CUP, BEARING O.D. 4.5276	2	С
3	306589	CONE, BEARING I.D. 2.7559	2	С
4	306597	SPACER, CUP	1	D
5	3540005	RING, RETAINING Dia4.5" HOUSING	1	В
6	306469	GEAR, INTERMEDIATE	1	С

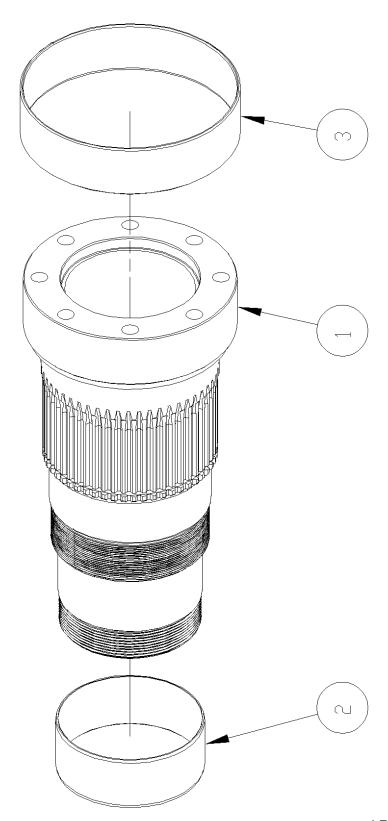
Comments for Page: 3540433 GEAR, INTERMEDIATE ASSEMBLY (PQ HEAD)

(#1 306492)(#2 306588)(#3 306589)(#5 3540005)INCLUDED IN GEARBOX OVERHAUL KIT # 5000545



# 3546756 SPINDLE ASM, PQ HEAD 5.06 ID

3546087 HEAD ASM, BASIC PQ (134 ROD)



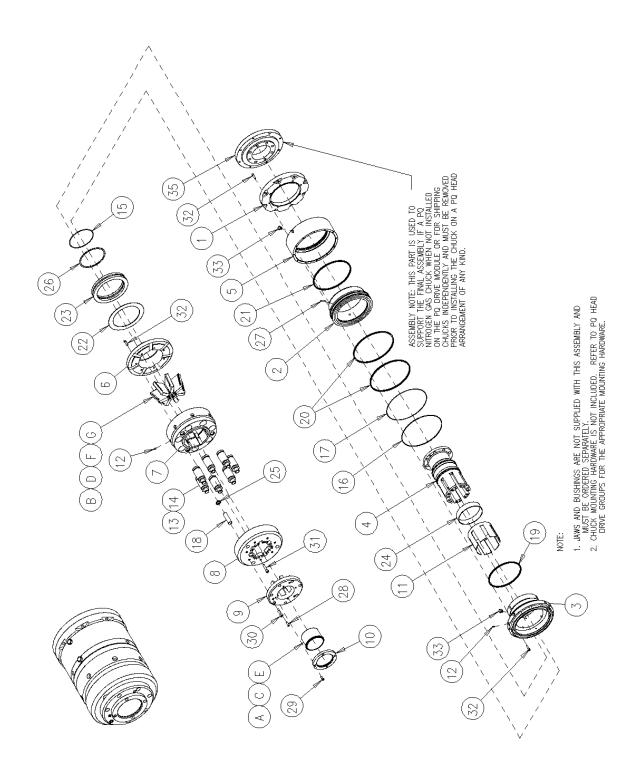


Item	Part No.	Name	Qty	Service
Ref	3546756	SPINDLE ASM, PQ HEAD 5.06 ID	1	С
1	5404855	ORDER ASM 3546756	1	D
2	3546752	SLEEVE, PQ SPINDLE WEAR (LOWER SPINDLE)	1	Α
3	306494	SLEEVE-OUTPUT WEAR	1	Α

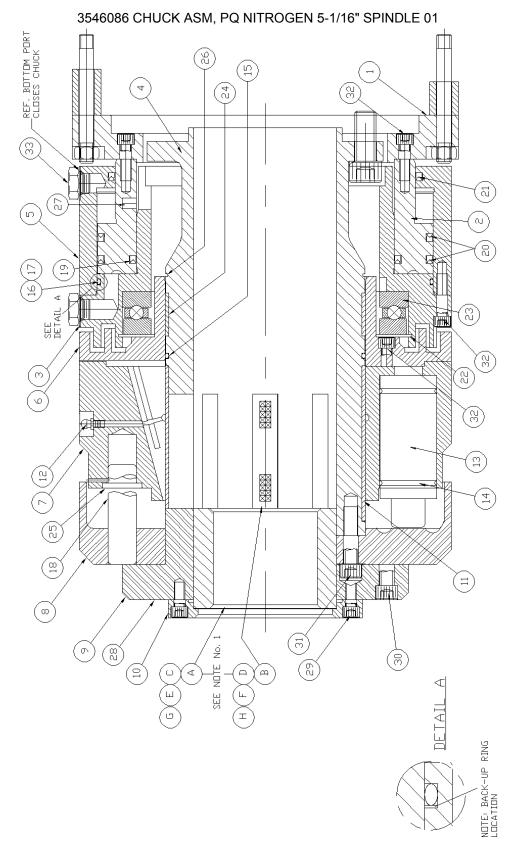


## 3546086 CHUCK ASM, PQ NITROGEN 5-1/16" SPINDLE 01

3546086 CHUCK ASM, PQ NITROGEN 5-1/16" SPINDLE









Item	Part No.	Name	Qty	Service
1	3543490	ADAPTER, MTG CHUCK NITRO	1	D
2	3543479	PISTON, PQ CHUCK NITRO	1	С
3	3543478	INNER CYLINDER, CHUCK NITRO	1	С
4	3546081	SPINDLE, PQ CHUCK 5.06 ID	1	С
5	3543480	CYLINDER, OUTER CHUCK NITRO	1	С
6	3543481	LABRINTH SEAL, CHUCK NITRO	1	С
7	3543515	BOWL, PQ CHUCK NITRO	1	С
8	3546083	RETAINER, SPRING PQ 5.06 ID	1	D
9	3546084	RETAINER, JAW PQ 5.06 ID	1	D
10	3543509	BUSHING, RETAINER GUIDE	1	В
11	3543514	SLEEVE, WEAR SPINDLE UPPER	1	В
12	17447	FITTING, HYD GREASE	9	F
13	5405230	GAS SPRING, NITROGEN	7	В

Comments for Part Num. 5405230

SEAL KIT # 5405231

SERVICE TOOL KIT # 5404930

## THIS GAS SPRING REPLACES OLDER VERSION 3543497 SEAL KIT 3543498

14	3543519	O'RING, GAS SPRING PQ CHUCK	7	Α
15	3543503	O'RING, PQ CHUCK SPINDLE	1	Α
16	3543505	O-RING, SAE 276 BUNA-N 70D	1	Α
17	3543506	RING, BACKUP PQ CHUCK CYLINDER	1	Α
18	3543510	PIN, DOWEL 1"DIA X 3-1/2"LG	3	В
19	3543500	CUP SEAL, INNER URETHANE	1	Α
20	3543501	CUP SEAL, OUTER URETHANE	2	Α
21	3543502	CUP SEAL, PISTON URETHANE	1	Α
22	3543499	RING, RETAINING INTERNAL	1	В
23	3543496	BEARING, BALL THRUST	1	В
24	3543507	RING, SPINDLE WEAR LOWER	1	В
25	3543508	SEAL, GUIDE PIN OIL	3	Α
26	3543524	RING, RETAINING EXTERNAL	1	В
27	3547565	PIN, 3/8 DIA x 1 LG GROOVED	3	В
28	3543521	SCREW, SET 1/2-13UNC x 1 1/4	3	F



#### 3546086 CHUCK ASM, PQ NITROGEN 5-1/16" SPINDLE 01

Item	Part No.	Name	Qty	Service
29	44570	C/SCR, SH 3/8 UNC X 3/4 G8	4	F
30	44531	C/SCR, SH 1/2 UNC X 1-1/2 G8	7	F
31	47226	C/SCR, SH 1/2-20UNF x 2 LG	14	F
32	46527	C/SCR, SH 3/8 UNC X 1-1/4 G8	27	F
33	39572	ADAP, HYD HH PLUG 8 ORB	2	F
34	3543876	GREASE, ULTRA DUTY 14oz TUBE	1	Е
35	3543774	SUPPORT PLT, PQ CHUCK	REF	

Comments for Part Num. 3543774

THIS COMPONENT ONLY USED AS A FIXTURE TO SHIP A CHUCK ASSEMBLY- NOT REQUIRED ON DRILL

А	3546862	BUSHING, GUIDE UPPER BQ	REF	В
В	3544188	JAW SET, BRQHP	REF	
С	3546861	BUSHING, GUIDE UPPER NQ	REF	В
D	3543471	JAW SET, BW CSG, NRQHP ROD	REF	
E	3546863	BUSHING, GUIDE UPPER HQ	REF	В
F	3543472	JAW SET, NW CSG, HRQHP ROD	REF	
G	3543473	JAW SET, HWT CSG, PQ ROD	REF	

Comments for Page: 3546086 CHUCK ASM, PQ NITROGEN 5-1/16" SPINDLE 01

(#13 3543497)GAS SPRING SEAL KIT P/N 3543498 - (7 REQUIRED)

(#14 3543519)(#15 3543503)(#16 3543505)(#17 3543506)(#19 3543500)(#20 3543501)(#21 3543502)(#25 3543508)SUPPLIED IN CHUCK SEAL KIT #3543526

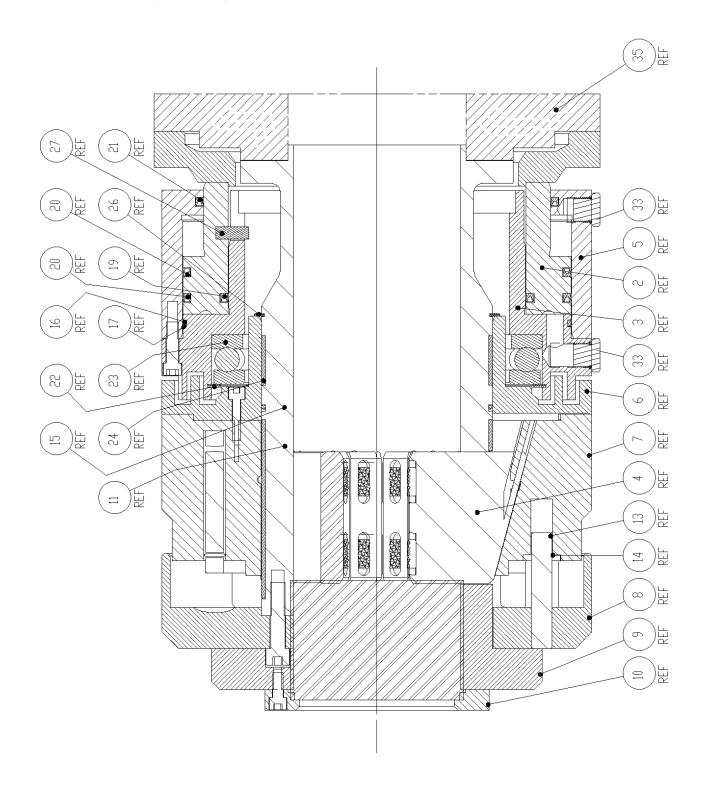
(#34 3543876)(#35 3543774)(#A 3546862)(#B 3544188)(#C 3546861)(#D 3543471)(#E 3546863)(#F 3543472)(#G 3543473)NOT SUPPLIED WITH THIS ASSEMBLY - MUST BE ORDERED SEPARATELY

(#34 3543876)Supplied w/Power Unit



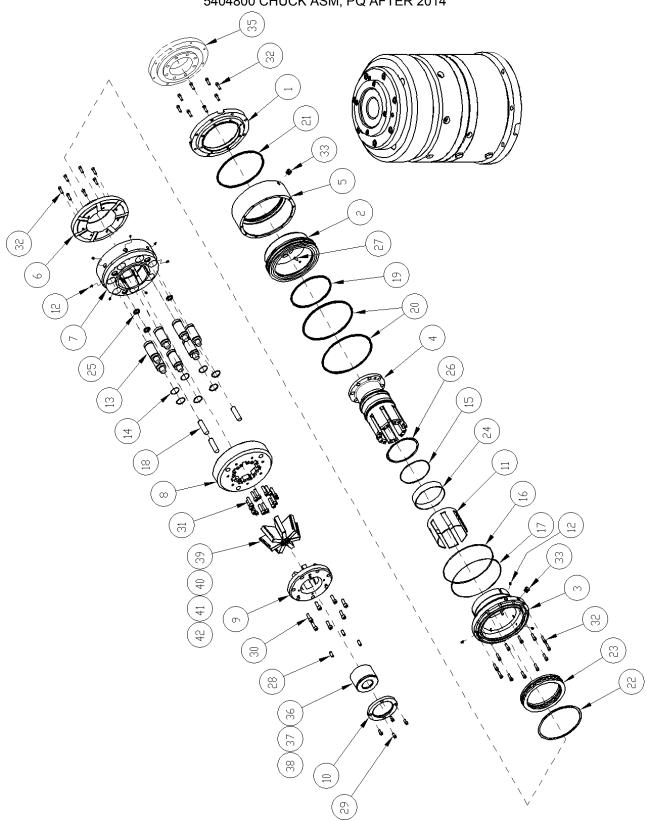
### 5404800 CHUCK ASM, PQ AFTER 2014

5404800 CHUCK ASM WITH MUD GUARD (S/N 2014-460 & UP)





# 5404800 CHUCK ASM, PQ AFTER 2014





Item	Part No.	Name	Qty	Service
Ref	5404800	NITRO-CHUCK ASM, PQ	1	В
Comments f	or Part Num. 5404800			
ALLEDDI		AFTER 2042 WERE CURRUED WITH THIS MOREL OF BO CHILD'S		
ALL LF DRII	LS MANUFACTURED	AFTER 2013 WERE SUPPLIED WITH THIS MODEL OF PQ CHUCK		
CHUCK SEA	AL KIT # 3543526			ı
1	5404326	MOUNTING PLATE, CHUCK	1	С
2	3543479	PISTON, PQ CHUCK NITRO	1	С
3	3543478	INNER CYLINDER, CHUCK NITRO	1	С
4	3546081	SPINDLE, PQ CHUCK 5.06 ID	1	С
5	3543480	CYLINDER, OUTER CHUCK NITRO	1	С
6	3543481	LABRINTH SEAL, CHUCK NITRO	1	С
7	3543515	BOWL, PQ CHUCK NITRO	1	С
8	3546083	RETAINER, SPRING PQ 5.06 ID	1	D
9	3546084	RETAINER, JAW PQ 5.06 ID	1	D
10	3543509	BUSHING, RETAINER GUIDE	1	В
11	3543514	SLEEVE, WEAR SPINDLE UPPER	1	В
12	17447	FITTING, HYD GREASE	10	F
13	5405230	GAS SPRING, NITROGEN	7	В
Comments f	or Part Num. 5405230			
SEAL KIT # SERVICE T	5405231 OOL KIT # 5404930			
THIS GAS S	PRING REPLACES OL	LDER VERSION 3543497 SEAL KIT 3543498		
14	3543519	O'RING, GAS SPRING PQ CHUCK	7	Α
15	3543503	O'RING, PQ CHUCK SPINDLE	1	Α
16	3543505	O-RING, SAE 276 BUNA-N 70D	1	Α
17	3543506	RING, BACKUP PQ CHUCK CYLINDER	1	Α
18	3543510	PIN, DOWEL 1"DIA X 3-1/2"LG	3	В
19	3543500	CUP SEAL, INNER URETHANE	1	Α
20	3543501	CUP SEAL, OUTER URETHANE	2	А
21	3543502	CUP SEAL, PISTON URETHANE	1	А
22	3543499	RING, RETAINING INTERNAL	1	В



#### 5404800 CHUCK ASM, PQ AFTER 2014

Item	Part No.	Name	Qty	Service
23	3543496	BEARING, BALL THRUST	1	В
24	3543507	RING, SPINDLE WEAR LOWER	1	В
25	3543508	SEAL, GUIDE PIN OIL	3	А
26	3543524	RING, RETAINING EXTERNAL	1	В
27	3547565	PIN, 3/8 DIA x 1 LG GROOVED	3	В
28	3543521	SCREW, SET 1/2-13UNC x 1 1/4	3	F
29	44570	C/SCR, SH 3/8 UNC X 3/4 G8	4	F
30	44531	C/SCR, SH 1/2 UNC X 1-1/2 G8	7	F
31	47226	C/SCR, SH 1/2-20UNF x 2 LG	14	F
32	46527	C/SCR, SH 3/8 UNC X 1-1/4 G8	27	F
33	39572	ADAP, HYD HH PLUG 8 ORB	2	F
39	3543494	JAW, BQ PQ-CHUCK	7	В
40	3543291	JAW, NQ PQ-CHUCK	7	В
41	3543290	JAW, HQ PQ-CHUCK	7	В
42	3543289	JAW, PQ PQ-CHUCK	7	В

Comments for Page: 5404800 CHUCK ASM, PQ AFTER 2014

ITEMS 14, 15, 16, 17, 19, 20, 21, 25 SUPPLIED IN CHUCK SEAL KIT # 3543526

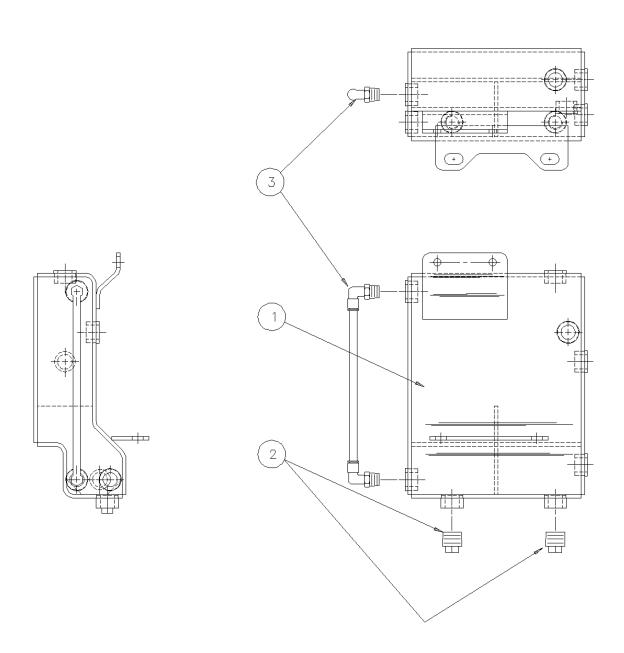
ITEMS 34, 35, 39,40,41,42 NOT SUPPLIED WITH THIS ASSEMBLY - MUST BE ORDERED SEPARATELY

LUBRICATE CHUCK WITH ULTRA DUTY GREASE (14 OZ TUBE # 3543876)



## 3546873 RESERVOIR, PQ HEAD HYDRAULIC

3546873 RESERVOIR, PQ HEAD HYDRAULIC



NOTE: TANK CAPACITY IS 2.6 GAL. (US)

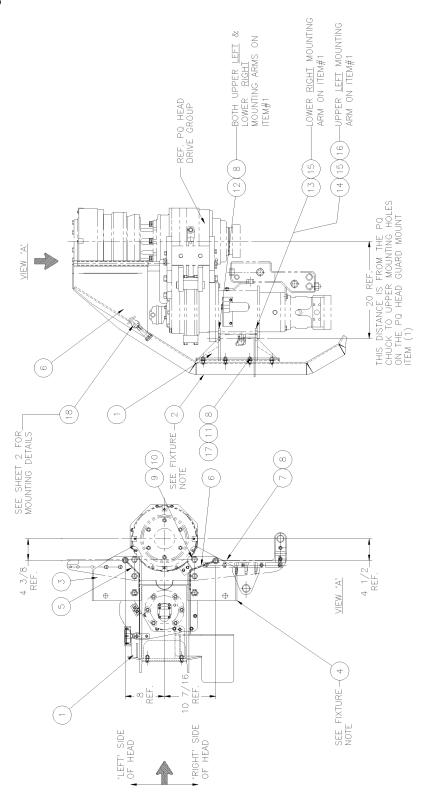


Item	Part No.	Name	Qty	Service		
1	3546874	RESERVOIR, PQ HEAD HYDRAULIC	1	D		
	Comments for Part Num. 3546874  ORDER ASSEMBLY P/N 3546873					
2	3540054	PLUG-MAGNETIC PIPE [3/4 NPT]	2	D		
3	3541761	GAUGE, SIGHT	1	В		



### 3546708 GUARD GRP, LF230 PQ HEAD

3546708 GUARD GRP, LF230 PQ HEAD



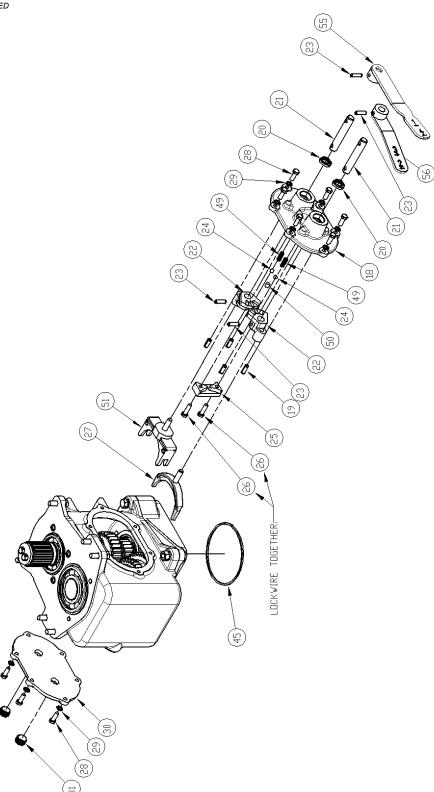


Item	Part No.	Name	Qty	Service
1	3542075	MOUNT, PQ HEAD GUARD	1	D
2	3542076	SLIDE, PQ HEAD GUARD	1	D
3	3546709	STEP, PQ HEAD GUARD LEFT	1	D
4	3546710	STEP, PQ HEAD GUARD RIGHT	1	D
5	3542079	WING, PQ HEAD GUARD LEFT (LEFT)	1	D
6	3542080	WING, PQ HEAD GUARD RIGHT (RIGHT)	1	D
7	44651	C/SCR, HH 1/2 UNC X 2-1/4 G8	4	F
8	102955	L/WASHER, 1/2ID SAE G8	10	F
9	44505	C/SCR, HH 3/4 UNC X 2-1/2 G8	6	F
10	44523	L/WASHER, 3/4 SAE G8	6	F
11	3540856	C/SCR BTN HD SOC 1/2UNCx1-1/4	4	
12	44585	C/SCR, HH 1/2 UNC X 2 G8	2	F
13	3542266	C/SCR, HH 9/16 UNC x 2	1	
14	46088	C/SCR, HH 9/16 UNC x 3	1	F
15	46093	L/WASHER, SPRING 9/16 ID	2	
16	62904	NUT, HEX 9/16 UNC	1	F
17	44525	NUT, HEX 1/2 UNC G8	4	F
18	103010	FASTENER, HOOD	2	D
19	46074	C/SCR, HH 5/16 UNC X 1/2 G8	2	F
20	44610	WASHER, FLAT 5/16 USS G2	2	F
21	3542264	M/SCR, RND HD #10-24 x 1/2	4	
22	3542265	NUT, HEX #10-24 NYLOK	4	

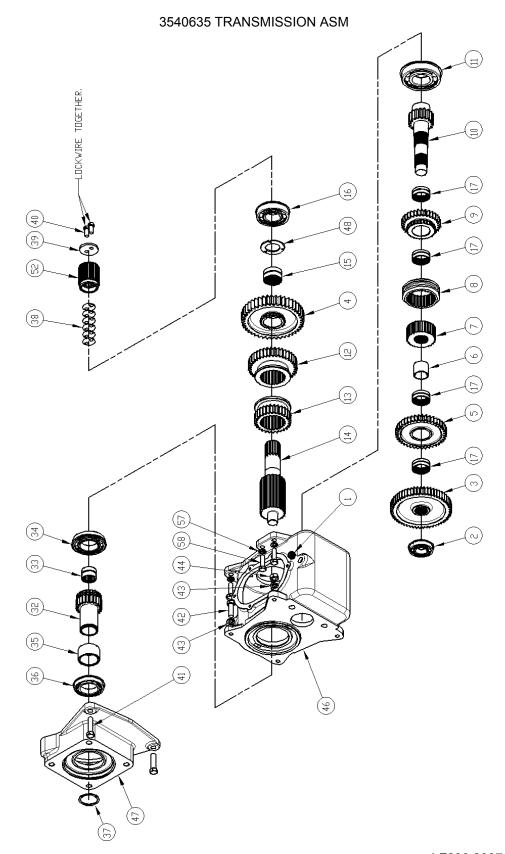


### 3540635 TRANSMISSION ASM

3540635 TRANSMISSION ASM, 4 SPEED









Item	Part No.	Name	Qty	Service
1	3540641	PIPE PLUG, MAGNETIC	1	D
2	3549020	BEARING, DEEP GROOVE BALL	1	В
3	95356	GEAR, COUNTERSHAFT	1	С
4	95366	GEAR	1	С
5	95362	GEAR	1	С
6	95357	SLEEVE, BEARING	1	В
7	95359	HUB, COLLAR SHAFT	1	С
8	95358	SHIFT COLLAR	1	С
9	95361	GEAR	1	С
10	95360	COUNTERSHAFT	1	С
11	95365	BEARING, DEEP GROVE BALL	1	В
12	95369	GEAR	1	С
13	95370	GEAR	1	С
14	95371	SHAFT, MAIN	1	С
15	95367	ROLLER, NEEDLE	1	А
16	95372	BEARING, DEEP GROOVE BALL	1	В
17	95363	BEARING, NEEDLE ROLLER	4	В
18	95402	COVER, TRANSMISSION SIDE	1	D
19	95410	ROLL PIN	4	В
20	95414	SEAL, OIL	2	В
21	95411	SHAFT, SECTOR	2	С
22	95405	SECTOR, SHIFTER	2	С
23	95413	ROLL PIN	4	В
24	95407	BALL	2	С
25	95406	BLOCK INHIBITOR	1	С
26	95409	C/SCR, HH 3/8-16 UNC x 1-1/4 DRILLED	2	F
27	95403	FORK, SHIFTER	1	С
28	44512	C/SCR, HH 3/8 UNC X 1 G8	12	F
29	96398	WASHER	12	
30	3540642	COVER	1	D
31	28051	PLUG, 3/4 NPT HOLLOW HEX	2	F
32	3540645	GEAR SHAFT, INPUT	1	В



### 3540635 TRANSMISSION ASM

Item	Part No.	Name	Qty	Service
33	79792	BEARING, NEEDLE ROLLER	1	В
34	95418	BEARING, DEEP GROOVE BALL C/W SNAP RING	1	В
35	95419	SPACER, BEARING	1	В
36	95420	BEARING, DEEP GROOVE BALL	1	В
37	95421	SNAP RING, EXTERNAL	1	В
38	103281	SPACER, SHIM	A/R	В
39	95389	WASHER, SPLINED ADAPTER RETAINER	1	F
40	95390	C/SCR, HH 7/16-20 UNF x 1 DRILLED	2	F
41	46096	C/SCR, HH 9/16-12 UNC x 2-1/4 G8	2	F
42	45906	C/SCR, HH 9/16 -12 UNC x 1-3/4	2	F
43	45784	L/WASHER SPLIT SPRING 9/16	4	F
44	63159	NUT, PLAIN HEX 9/16-12 UNC	2	F
45	3540646	O-RING, SQ SAE 258 BUNA N 70D	1	А
46	5002674	HOUSING, TRANSMISSION REWORKED	1	E
47	3549314	ADAPTER HOUSING, MOTOR	1	С
48	3541202	THRUST WASHER, PQ HEAD	1	В
49	3546620	SPRING, EXTRA HEAVY GREEN DIE	2	А
50	3546622	DISC, TRANMISSION INTERLOCK	1	Α
51	3542442	FORK, EXTENDED SLIDING	1	В
52	3548809	SPLINED ADAPTER	1	В
53	44766	WIRE, .047 DIA SAFETY	A/R	А
54	5402352	GREASE, COUPLING	A/R	F
55	3541838	HANDLE, SHIFTER	1	С
56	3541839	HANDLE, SHIFTER	1	С
57	44521	L/WASHER, 1/2 SAE G8	6	F
58	44640	C/SCR, HH 1/2 UNC X 1-3/4 G8	6	F

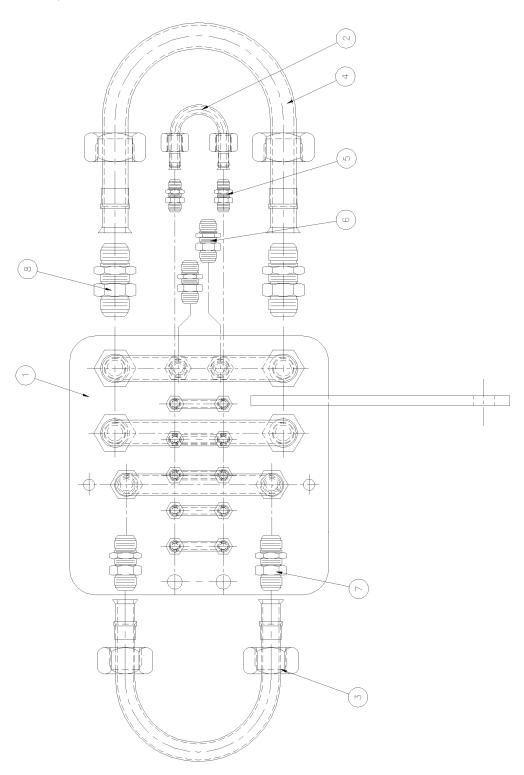
Comments for Page: 3540635 TRANSMISSION ASM

OVERHAUL KIT # 3541060



## 3546647 HANGER ASM, LF230 HOSE PQ HEAD DRIVE MODULE

3546647 HANGER ASM, LF230 HOSE PQ HEAD DRIVE MODULE



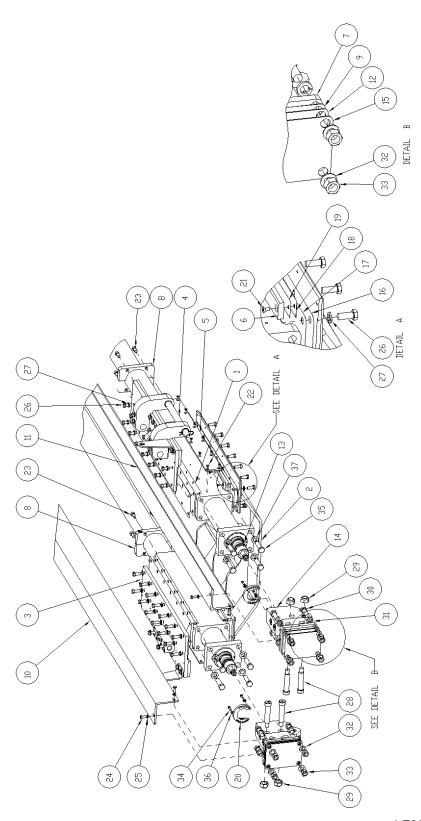


Item	Part No.	Name	Qty	Service
1	3546648	BRACKET, LF230 HOSE HANGER	1	D
2	3541154	TUBE ASM, HYD 3/8" OD	5	D
3	3541156	TUBE ASM, HYD 3/4" OD	1	D
4	3541157	TUBE ASM, HYD 1" OD	2	D
5	36516	ADAP, HYD STR BULKHEAD 6 JIC	10	F
6	31185	ADAP, HYD STR BULKHEAD 8 JIC	2	
7	36514	ADAP, HYD STR BULKHEAD 12 JIC	2	
8	36511	ADAP, HYD STR BULKHEAD 16 JIC	4	F

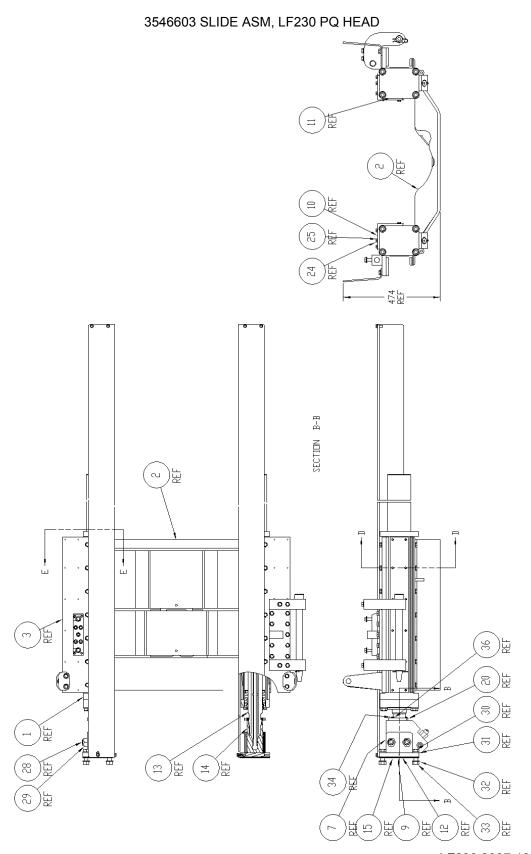


## 3546603 SLIDE ASM, LF230 PQ HEAD

3546603 SLIDE ASM, LF230 PQ HEAD



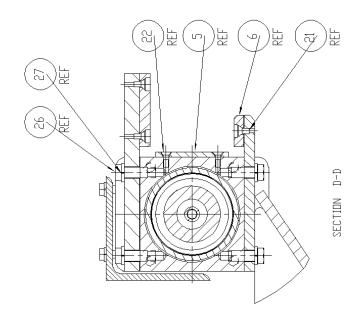


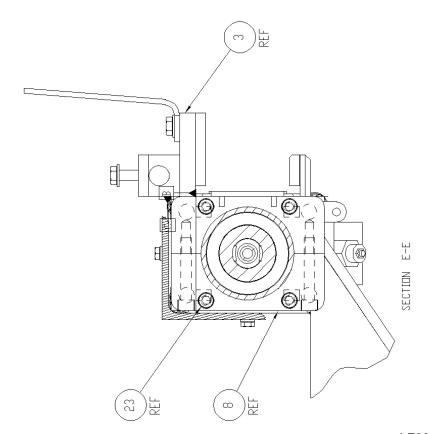


LF230 2007-193 Thru Current



# 3546603 SLIDE ASM, LF230 PQ HEAD





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Item	Part No.	Name	Qty	Service
1	3546391	SUPPORT, SLIDE FRAME CYLINDER	2	D
2	3546604	SUPPORT, PQ HEAD SLIDE	1	D
3	3546634	PLATE ASM, PQ HEAD LH SLIDE	1	D
4	3546615	PLATE ASM, PQ HEAD RH SLIDE	1	D
5	3546618	WEAR STRIP, CENTER	2	В
6	3546619	WEAR STRIP, LOWER	2	В
7	3546608	MOUNT, FEED CYL MANIFOLD	2	D
8	3546605	CLAMP ASM, LF230 FEED CYLINDER	2	D
9	3546643	SHIM, 22 GA FEED CYLINDER	2	D
10	3546609	GUARD, LH FEED CYLINDER	1	D
11	3546610	GUARD, RH FEED CYLINDER	1	D
12	3546641	SHIM, 1/16 THK MANIFOLD MTG	2	D
13	3546100	CYLINDER, FEED 132" STROKE [4" Bore, 2 3/4" Rod]	2	В
	or Part Num. 3546100 SEAL KIT # 3546115			
14	3547769	MANIEOLD ARM EEED CVI INDED	2	В
14	3547769	MANIFOLD ASM, FEED CYLINDER	2	Ь
Comments for	or Part Num. 3547769			
COUNTERB	ALANCE VALVE CAR	TRIDGE # 104864		
15	3546642	SHIM, 1/8 THK MANIFOLD MTG	2	С
16	3546636	SHIM, .005 HEAD SLIDE	4	С
17	3546637	SHIM, .010 HEAD SLIDE	4	С
18	3546639	SHIM, 28GA (.018) HEAD SLIDE	2	С
19	3546640	SHIM, 30GA (.015) HEAD SLIDE	2	С
20	3546464	RING, FEED CYLINDER ROD LOCKING	2	С
21	102166	M/SCR, FLT HD 1/4UNC X 1/2 BRASS	12	F
22	3540735	M/SCR, SH 1/4 UNC X 3/8	24	В
23	44543	C/SCR, SH 1/2-13 UNC x 1" - [L.C. #90223-109]	8	F
24	44512	C/SCR, HH 3/8 UNC X 1 G8	8	F
25	44520	L/WASHER, 3/8 SAE G8	8	F
26	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	56	F
27	44521	L/WASHER, 1/2 SAE G8	56	F

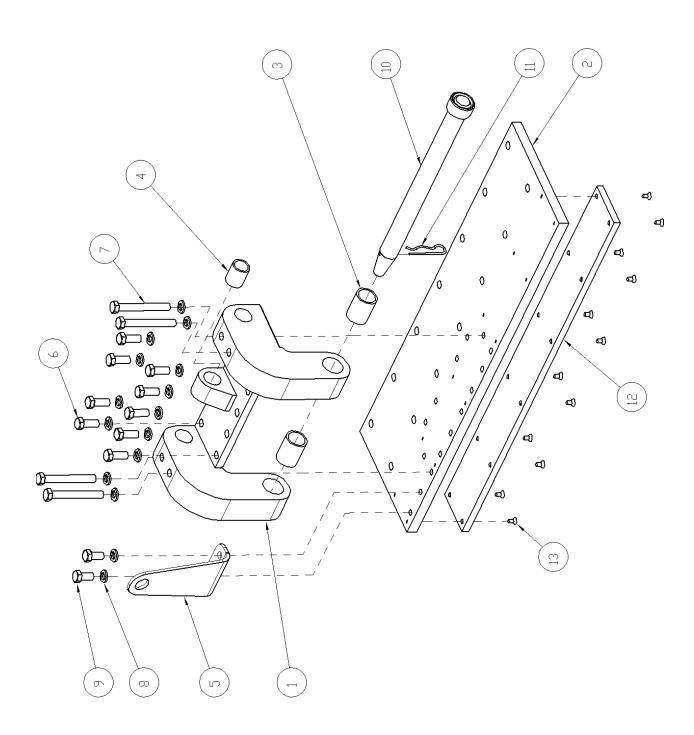


Item	Part No.	Name	Qty	Service
28	5003387	SHOULDER SCREW 1" X 4	4	F
29	103146	L/NUT, 1UNC STOVER	4	F
30	44517	C/SCR, HH 3/4 UNC X 2-1/4 G8	8	F
31	44523	L/WASHER, 3/4 SAE G8	8	F
32	44612	WASHER, FLAT 3/4 USS G2	8	F
33	44524	NUT, HEX 3/4 UNC G8	8	F
34	44566	C/SCR, HH 1/4 UNC X 1 G8	4	F
35	44569	C/SCR, HH 3/4 UNC X 2-3/4 G8	8	F
36	46087	WASHER, FLAT 1/4 SAE G8	4	F
37	46091	WASHER, FLAT 3/4 SAE G8	8	F



## 3546615 HINGE ASM, PQ HEAD SLIDE

3546603 SLIDE ASM, LF230 PQ HEAD



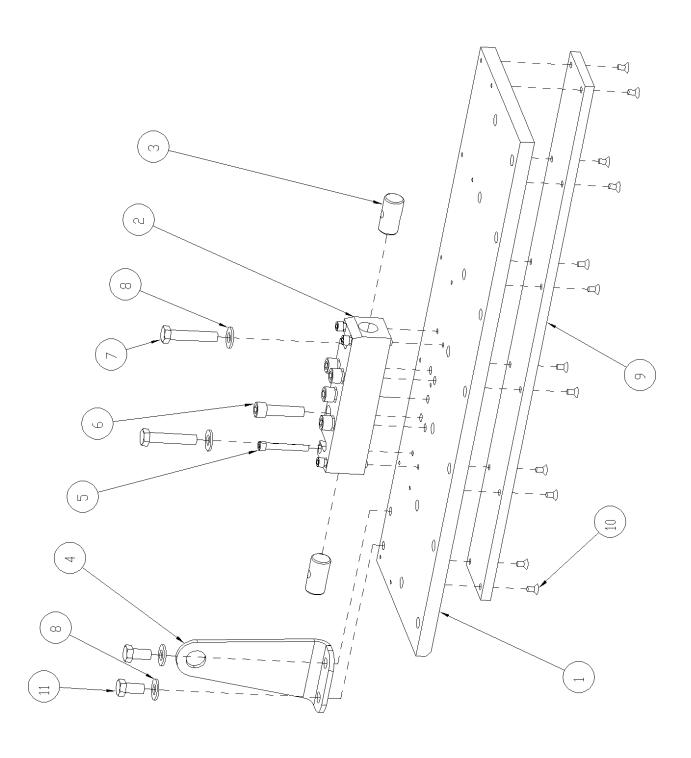


Item	Part No.	Name	Qty	Service
1	3546611	HINGE PLATE, RH PQ HEAD	1	С
2	3546614	MTG PLATE, PQ HEAD RH	1	D
3	3546627	BUSHING, 1 1/4 ID x 1 1/2 OD x 2	2	В
4	3546631	BUSHING, 1 ID x 1 1/4 OD x 1 1/2	1	В
5	3546633	LUG, ROD GUARD CABLE	1	D
6	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	9	F
7	44578	C/SCR, HH 1/2 UNC X 4 G8	4	F
8	44521	L/WASHER, 1/2 SAE G8	15	F
9	44513	C/SCR, HH 1/2 UNC X 1 G8	2	F
10	3546616	PIN, PQ HEAD HINGE	1	В
11	49370	HAIRPIN COTTER, 1"	1	F
12	3546617	WEAR STRIP, PQ HEAD UPPER	1	В
13	102166	M/SCR, FLT HD 1/4UNC X 1/2 BRASS	12	F



# 3546634 PLATE ASM, PQ HEAD LH SLIDE

3546603 SLIDE ASM, LF230 PQ HEAD



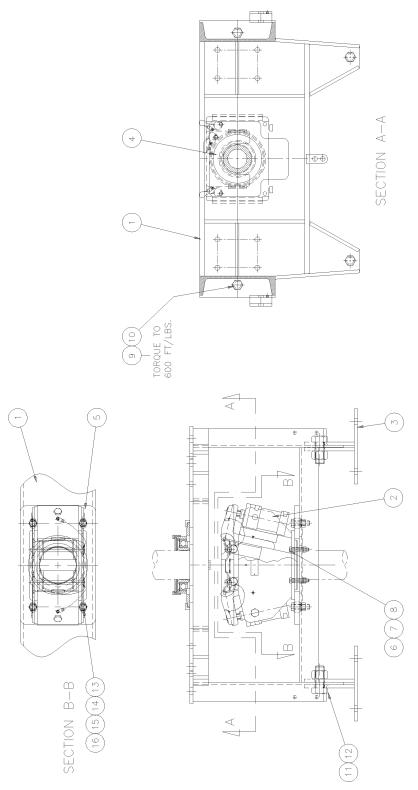


Item	Part No.	Name	Qty	Service
1	3546612	MTG PLATE, PQ HEAD LH	1	D
2	3540665	BAR, LOCKING	1	В
3	3540666	PIN, LOCKING PIVOT	2	В
4	3546633	LUG, ROD GUARD CABLE	1	D
5	5003388	C/SCR, SH 5/16 UNC X 2-1/4 GR8	4	F
6	47568	C/SCR, SH 1/2 UNC X 2 G8	5	F
7	44547	C/SCR, HH 1/2 UNC X 2-1/2 G8	2	F
8	44621	WASHER, FLAT 1/2 SAE G8	4	F
9	3546617	WEAR STRIP, PQ HEAD UPPER	1	В
10	102166	M/SCR, FLT HD 1/4UNC X 1/2 BRASS	12	F
11	44513	C/SCR, HH 1/2 UNC X 1 G8	2	F



## 3546820 BASE ASM, ROD CLAMP & MAST LF230

3546820 BASE ASM, ROD CLAMP & MAST LF230





Item	Part No.	Name	Qty	Service
1	3546646	BASE, ROD CLAMP MOUNTING	1	D
2	3540273	CLAMP ASM, ROD HWT	1	С

Comments for Part Num. 3540273

JAW SLIP SETS (SET OF 2 PIECES) MUST ORDER SEPARATELY

41613 BQ

41615 NQ

41617 HQ

50241 HWT CSG

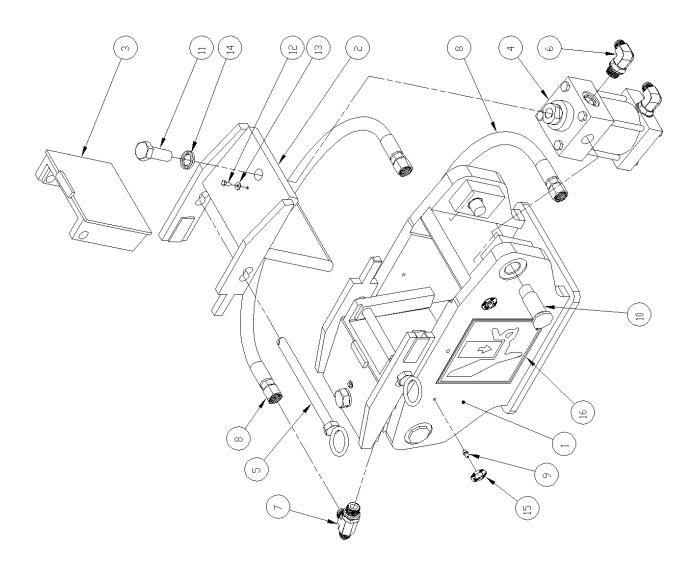
3547272 PW CSG

354/2/2 PW CSG				
3	3546273	FOOT, ROD CLAMP BASE	2	С
4	3542600	BEARING ASM, ROD SUPPORT LF140	1	С
5	3546860	MOUNTING BASE, ROD CLAMP	1	С
6	44532	C/SCR, HH 1/2 UNC X 2-3/4 G8	4	F
7	102955	L/WASHER, 1/2ID SAE G8	4	F
8	44525	NUT, HEX 1/2 UNC G8	4	F
9	48653	C/SCR, HH 1 UNF x 5	4	F
10	102957	WASHER, LOCK 1 ID	4	E
11	3540280	C/SCR, HH 1-1/2 UNC x 3-1/2	2	F
12	3540275	L/NUT, NYLOK 1-1/2 UNC	2	F
13	44505	C/SCR, HH 3/4 UNC X 2-1/2 G8	4	F
14	44524	NUT, HEX 3/4 UNC G8	4	F
15	44612	WASHER, FLAT 3/4 USS G2	8	F
16	44523	L/WASHER, 3/4 SAE G8	4	F



## 3540273 CLAMP ASM, ROD HWT

3546820 BASE ASM, ROD CLAMP & MAST LF230





### 3540273 CLAMP ASM, ROD HWT

Item	Part No.	Name	Qty	Service		
1	102806	BOWL, ROD CLAMP	1	D		
2	5403148	GUIDE WELD'T, FOOTCLAMP	2	D		
3	3540049	FOOT CLAMP ADAPTER	2	С		
4A	41621	CYLINDER, HYDRAULIC (1" ROD NPT VERSION)	2	В		
CYLINDER S	CYLINDER SEAL KIT - PARKER VERSION # 43021 - EATON VERSION # 5405754					
4B	5403411	CYLINDER, HYD (1-3/8: ROD ORB VERSION)	2			
	Comments for Part Num. 5403411  THIS CYLINDER INTRODUCED INTO PRODUCTION IN 2018 (SEAL KIT # 5406317)					
5	5403458	PIN , FOOTCLAMP	2	В		
6	40082	ADAP, HYD 90 8 JIC x 10 ORB	2	F		
7	5401957	ADAP, HYD TEE 8 JIC 10 ORB	2	F		
8	40096	HOSE ASM, [1/2]ID X 740	2	D		
9	17447	FITTING, HYD GREASE	4	F		
10	50229	BOLT, TRUNION	4	F		
11	43008	C/SCR, HH. 3/4-16 UNF x 2"Lg. 3/4-16 UNF x 2"	2	F		
12	44954	SCR, #10 UNC x 1/2 LG	2	F		
13	44771	WASHER, FLAT #10 SAE G8	2	F		
14	5305846	WASHER, NORD-LOCK 3/4"	2	F		
15	24587	DECAL, GREASE (CIRCULAR TYPE)	4	D		
16	5404788	DECAL, PINCH POINT (LARGE)	1	D		

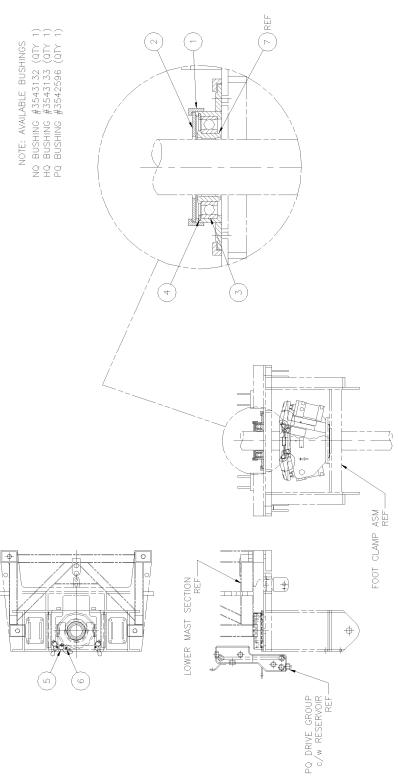
Comments for Page: 3540273 CLAMP ASM, ROD HWT

HYDRAULIC ADAPTERS SHOW ARE O RING BOSS (PRODUCTION UPDATE FOR NEW ORB CYLINDERS 2018)



## 3542600 BEARING ASM, ROD SUPPORT LF140

3546820 BASE ASM, ROD CLAMP & MAST LF230



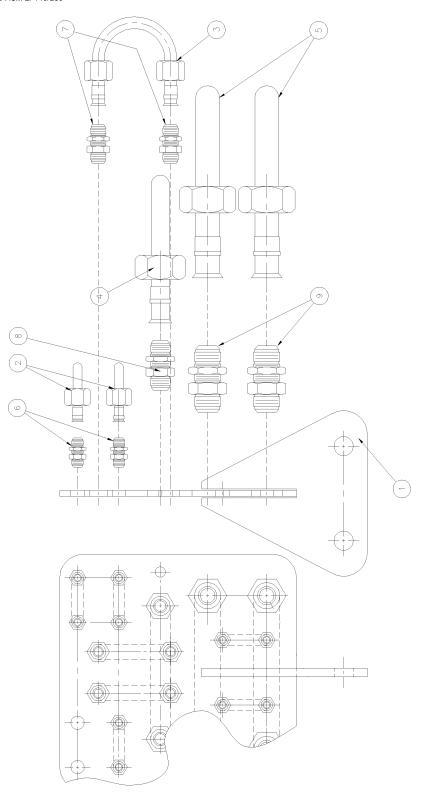


Item	Part No.	Name	Qty	Service
1	3542595	HOUSING, BEARING SUPPORT	1	С
2	3542598	KEEPER, BUSHING	1	С
3	3543208	BEARING, BALL SINGLE DEEP GROOVE	1	С
4	3543210	RING, RETAINING	1	С
5	3543252	PIN, QUICK RELEASE	3	С
6	44539	M/SCR, #10UNC x 3/8 LG	3	F
7	SEE BELOW	BUSHING, ROD SUPPORT	REF	



# 3541161 HOSE HANGER, MAST SUB-ASM LF140/230

3541161 HOSE HANGER, MAST SUB-ASM LF140/230



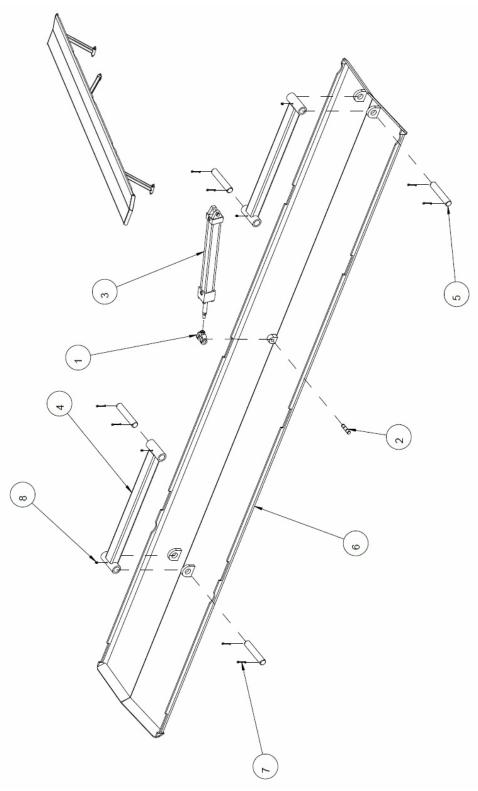


Item	Part No.	Name	Qty	Service
1	3541158	BRACKET, HOSE HANGER(MAST)	1	D
2	3541154	TUBE ASM, HYD 3/8" OD	5	D
3	3541155	TUBE ASM, HYD 1/2" OD	2	D
4	3541156	TUBE ASM, HYD 3/4" OD	1	D
5	3541157	TUBE ASM, HYD 1" OD	2	D
6	36516	ADAP, HYD STR BULKHEAD 6 JIC	10	F
7	31185	ADAP, HYD STR BULKHEAD 8 JIC	4	
8	36514	ADAP, HYD STR BULKHEAD 12 JIC	2	
9	36511	ADAP, HYD STR BULKHEAD 16 JIC	4	F



# 3546606 TRAY ASM, LF230 ROD SLIDE

3546606 TRAY ASM, LF230 ROD SLIDE



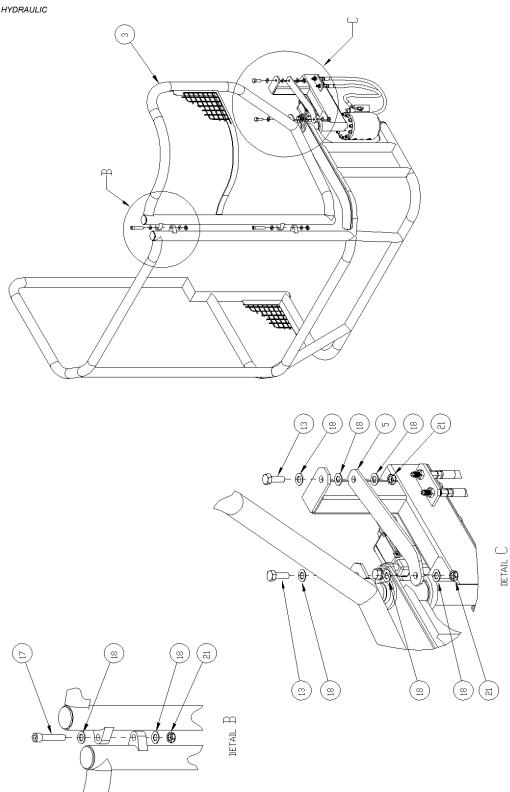


Item	Part No.	Name	Qty	Service		
1	62481	CLEVIS, HYD. CYL. FEMALE ROD	1	D		
2	3540775	PIN, REWORK HYD. CYL.	1	С		
3	3540776	CYLINDER, HYD ROD SLIDE	1	С		
	Comments for Part Num. 3540776  SEAL KIT # 5404567					
4	3540777	BRACE, ROD SLIDE TRAY	2	D		
5	3540778	PIN, BRACE ROD SLIDE TRAY	4	С		
6	3546607	TRAY, LF230 ROD SLIDE	1	С		
7	44881	PIN, COTTER 1/8 X 2-1/4 LG	8	F		
8	28281	FITTING, GREASE Dia1/4-28 UNF	4	F		



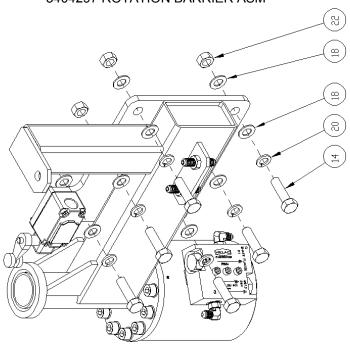
### 5404297 ROTATION BARRIER ASM

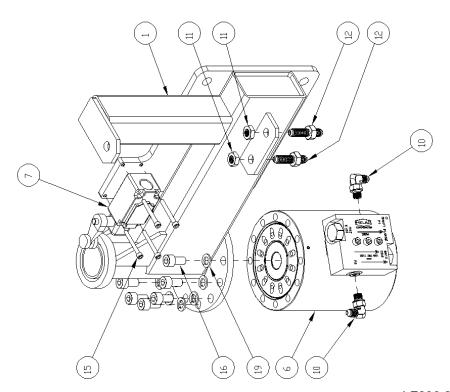
ROTATION BARRIER ASM, HYDRAULIC





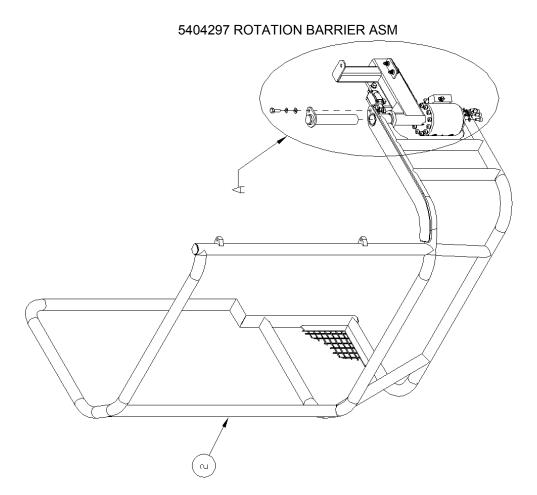
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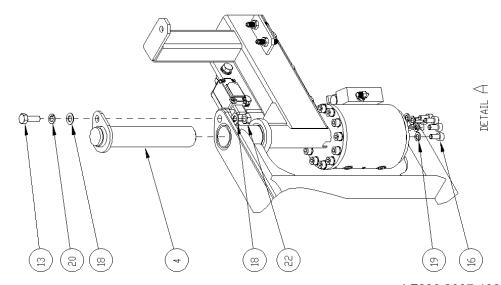




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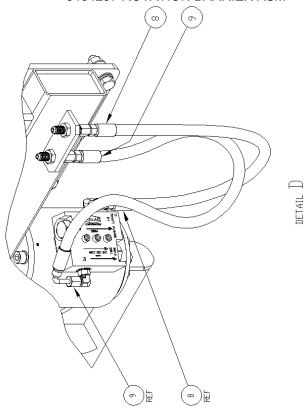


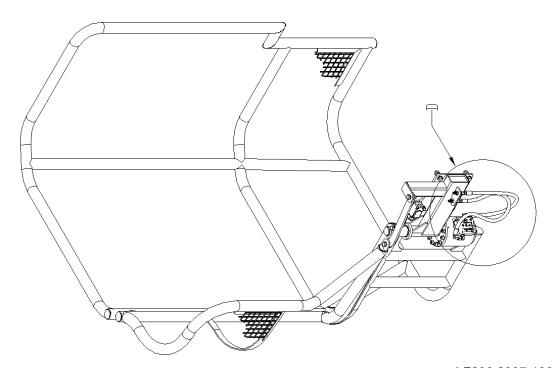


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# 5404297 ROTATION BARRIER ASM





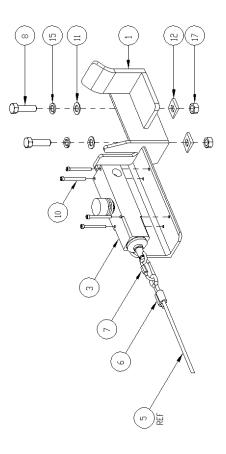


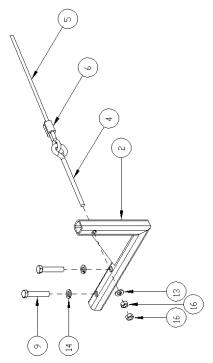
Item	Part No.	Name	Qty	Service
1	5003554	SUPPORT, ROTATION BARRIER	1	D
2	5003568	BARRIER, ROTATION	1	D
3	5003583	BARRIER, SPRUNG	1	D
4	5003574	PIN, ROTATION BARRIER	1	С
5	5400321	LINKAGE	1	D
6	5000327	ACTUATOR, 180 DEG HELAC	1	D
7	3541214	SWITCH, LIMIT	1	В
8	36400	HOSE ASM, 1/4 I.D. x 30" LG.	1	D
9	63262	HOSE ASM, #4 SAE x31" LG	1	D
10	37015	ADAP, HYD 90 4JIC 4ORB	2	F
11	33879	ADAP, HYD LOCK NUT 04JIC	2	F
12	37757	ADAP, HYD STR 4JIC B/HEAD	2	
13	68919	C/SCR, HH M12 X 1.75 X 35 G8.8	3	F
14	68921	C/SCR, HH M12 X 1.75 X 45 G8.8	6	
15	3540014	C/SCR, SH 10 UNC X 1 3/4 G8	4	F
16	93341	C/SCR, SH M10-1.5 x 20 GR12.9	20	F
17	93187	C/SCR, SH M12 x 1.75 x 60	2	F
18	93253	WASHER, FLAT M12 SAE G2	24	F
19	93128	L/WASHER, SPRING M10	20	F
20	93129	L/WASHER, SPLIT SPRING M12	7	F
21	67605	L/NUT, NYLOK THIN M12 X 1.75 GR8.8 ZP	4	F
22	93116	NUT, HEX M12-1.75 CL8	7	F



# 5404298 E STOP SUB ASSEMBLY

ROTATION BARRIER ASM, HYDRAULIC





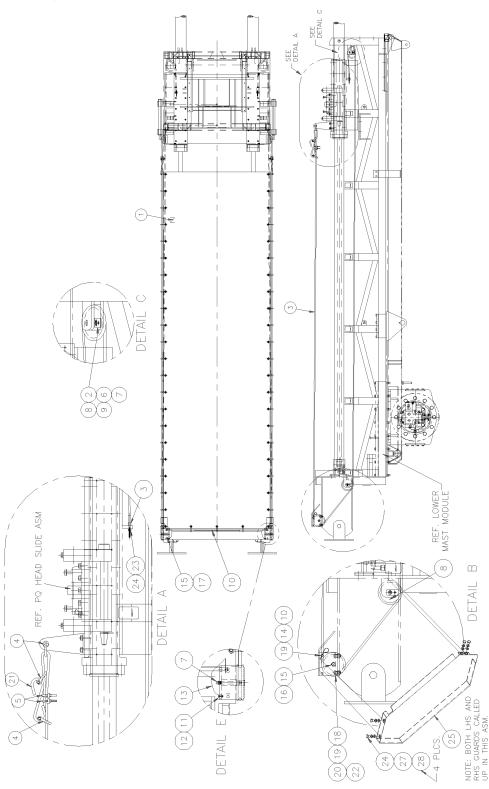


Item	Part No.	Name	Qty	Service
1	5003594	STRIKER, ROTATION BARRIER	1	D
2	3548445	BRACKET, TRIP WIRE	1	D
3	3549005	SWITCH, SAFETY PULL CORD	1	В
4	3549184	EYEBOLT, 5/16 - 18 UNC x 6	1	F
5	3549186	WIRE, 3/16 PVC COATED	1	Е
6	3549187	SLEEVE, 1/8 OVAL	2	D
7	3549183	LINK, 3/16 QUICK	1	D
8	68921	C/SCR, HH M12 X 1.75 X 45 G8.8	2	
9	44600	C/SCR, HH 3/8 UNC X 2 G8	2	F
10	51784	C/SCR, SH #10 UNC X 2 G8	4	F
11	93253	WASHER, FLAT M12 SAE G2	2	F
12	5003623	WASHER, M12 BEVEL	2	F
13	46510	WASHER, FLAT 5/16 SAE G8	1	F
14	44520	L/WASHER, 3/8 SAE G8	2	F
15	93129	L/WASHER, SPLIT SPRING M12	2	F
16	44552	NUT, HEX 5/16 UNC G8	2	F
17	93116	NUT, HEX M12-1.75 CL8	2	F



# 3546319 GUARD ASM, ROD ROTATION PRIOR TO 2013

ROTATION BARRIER ASM, (CURTAIN STYLE)



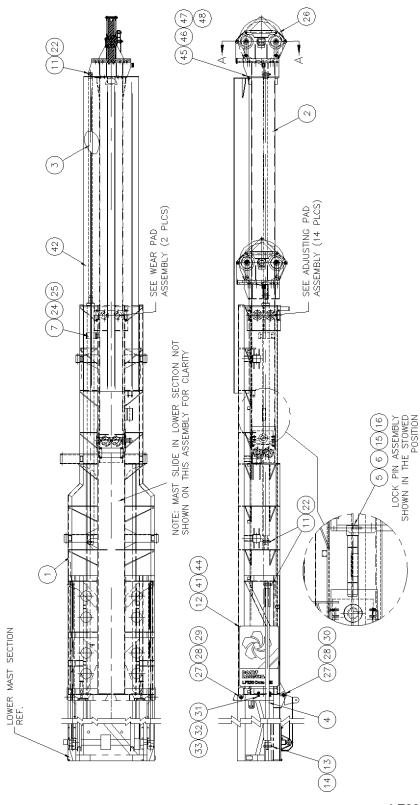


Item	Part No.	Name	Qty	Service
1	3546259	GUARD, LF230 COVER	1	
2	3543236	SHEAVE, 5" O.D.	6	
3	3546789	CABLE ASM, LF230 ROD GUARD	2	
4	3540830	SHACKLE, 1/4"	57	
5	3540832	U-BOLT CLIP, 3/8	4	
6	3540833	PIN, ROD GUARD SHEAVE	4	
7	16634	GREASE NIPPLE, STR 1/8-27 NPT	6	F
8	78810	C/SCR, HH 5/16UNC x 7/8 LG	4	
9	44519	L/WASHER, 5/16 SAE G8	4	F
10	3546791	BAR, ROD GUARD HOLDDOWN	1	
11	100975	C/SCR, SH #10 UNC x 1/2 LG	2	F
12	3540822	L/NUT, NYLOK #10 UNC G5	2	F
13	3540861	LANDYARD, 6" LG	2	
14	47595	PIN, 1/2 COTTER	2	
15	3541893	RETAINING RING	2	
16	3541895	BRACKET, SHEAVE WHEEL	1	
17	3544189	BRACKET, SHEAVE WHEEL	1	
18	44640	C/SCR, HH 1/2 UNC X 1-3/4 G8	4	F
19	102955	L/WASHER, 1/2ID SAE G8	4	F
20	44525	NUT, HEX 1/2 UNC G8	4	F
21	3543140	HOOK, 'S'	2	
22	17121	WASHER, 1/2 BEVEL	4	F
23	44527	NUT, HEX 3/8 UNC G8	2	F
24	44520	L/WASHER, 3/8 SAE G8	6	F
25	3547477	GUARD, RHS SHEAVE WHELL	1	
26	3547469	GUARD, LHS SHEAVE WHEEL	1	
27	44538	C/SCR, HH 3/8 UNC X 1/2 G8	4	F
28	44859	WASHER, FLAT 3/8 SAE G8	4	F



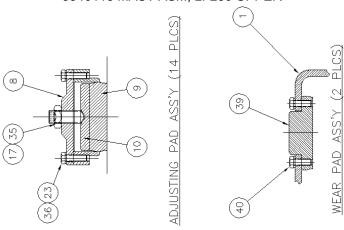
# 3546118 MAST ASM, LF230 UPPER

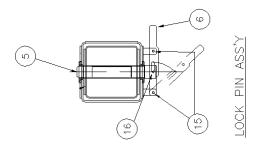
3546118 MAST ASM, LF230 UPPER

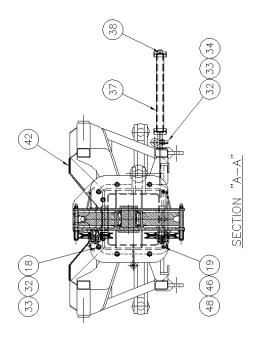




# 3546118 MAST ASM, LF230 UPPER









Item	Part No.	Name	Qty	Service
1	3546119	MAST, LOWER 40K TELESCOPIC	1	D
2	3542628	MAST, UPPER TELESCOPIC	1	D
3	3542629	CYLINDER, HYD MAST EXTEND	1	С
Comments for	or Part Num. 3542629			
SEAL KIT#	3547271			
4	3546266	CYLINDER, LF230 MAST DUMP	2	С
Comments for	or Part Num. 3546266		,	
SEAL KIT#				
5	3542650	PIN, MAST LOCK	1	С
6	3542651	LEVER, PIN REMOVAL	1	D
7	3542680	SUPPORT, CYL MAST EXTEND	1	D
8	3542685	COVER, PAD HOUSING	14	D
9	3542686	PAD, WEAR	14	С
10	3542687	PLATE, PAD BACKUP	14	С
11	3542794	PIN, CYL EXTEND	4	С
12	3546491	SIGN, LF230 IDENTIFICATION	2	D
13	3546490	PIN, TELSCOPIC MAST DUMP	2	D
14	NOPARTNUMBER	NO PART NUMBER	4	
15	3542693	PIN, QUICK REL Ï1/2 x 2.3 Lg	2	С
16	3542694	PIN, QUICK REL Ï1/2 x 3.3 Lg.	1	С
17	3542733	S/SCR, HS 3/4-16NF x 2.00 Lg.	14	F
18	44645	C/SCR, HH 3/4-10UNC x 3 LG	8	F
19	44532	C/SCR, HH 1/2 UNC X 2-3/4 G8	2	F
22	44619	PIN COTTER 1/8 X 1-1/2	4	F
23	44593	C/SCR, HH 3/8 UNC X 1-1/4 G8	112	F
24	44624	C/SCR, HH 5/8-11UNC x 1.00 LG	4	F
25	44522	L/WASHER, 5/8 SAE G8	4	F
26	3546740	CROWN BLOCK ASM, 24" SHEAVE LF230	1	С
27	44573	NUT, HEX 1" UNC G8	4	F
28	44575	L/WASHER, 1" SAE G8	4	F
29	102935	C/SCR, HH 1" UNC x 4 1/2 Lg.	2	F

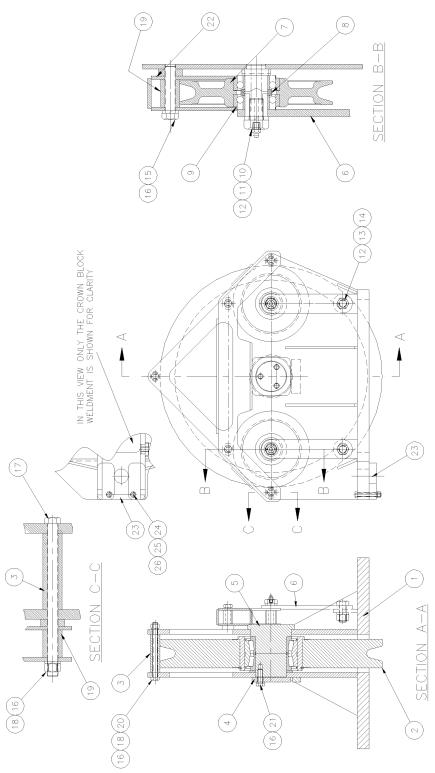


Item	Part No.	Name	Qty	Service
30	103457	C/SCR, HH 1" UNC x 3 1/2 LG	2	F
31	44517	C/SCR, HH 3/4 UNC X 2-1/4 G8	4	F
32	44523	L/WASHER, 3/4 SAE G8	13	F
33	44524	NUT, HEX 3/4 UNC G8	13	F
34	3541238	EYEBOLT, 3/4-10 X 2 LG	1	D
35	44582	NUT, JAM 3/4-16 UNF	14	F
36	44520	L/WASHER, 3/8 SAE G8	116	F
37	3543918	LADDER, EXT. TYPE 1A 300 LBS	1	D
38	3543377	PIN, HITCH 1/4"	8	F
39	3546189	PAD, TELESCOPIC MAST	2	D
40	44512	C/SCR, HH 3/8 UNC X 1 G8	4	F
41	44611	WASHER, FLAT 3/8 USS G2	8	F
42	3546120	SLIDE, UPPER 40K MAST	1	D
44	104024	L/NUT, NYLOK 3/8 UNC G5	8	F
45	44640	C/SCR, HH 1/2 UNC X 1-3/4 G8	4	F
46	44521	L/WASHER, 1/2 SAE G8	6	F
47	44621	WASHER, FLAT 1/2 SAE G8	4	F
48	44525	NUT, HEX 1/2 UNC G8	6	F



# 3546740 CROWN BLOCK ASM, 24" SHEAVE LF230

3546740 CROWN BLOCK ASM, 24" SHEAVE LF230





# 3546740 CROWN BLOCK ASM, 24" SHEAVE LF230

Item	Part No.	Name	Qty	Service
1	3546738	BLOCK, 24" SHEAVE WHEEEL	1	
2	3546732	SHEAVE ASM, LF230 CROWN BLOCK	1	
3	3546741	TUBE, W/L CABLE RETAINER	3	
4	3546739	RETAINER, SHAFT	1	
5	3546742	SHAFT, SHEAVE BLOCK	1	
6	3540261	SUPPORT BAR, WIRELINE SHEAVE	2	
7	104141	W/L SHEAVE, 8" (REWORK)	2	В
8	104171	BEARING SPACER	2	В
9	3547038	BEARING, LF230 W/L SHEAVE BALL	4	
10	104586	AXLE, BOLT (REWORK)	2	В
11	16634	GREASE NIPPLE, STR 1/8-27 NPT	2	F
12	44523	L/WASHER, 3/4 SAE G8	4	F
13	102231	NUT, HEX 3/4 UNC	2	F
14	103825	C/SCR, HH 3/4 UNC x 1 3/4" Lg.	2	
15	44547	C/SCR, HH 1/2 UNC X 2-1/2 G8	2	F
16	102955	L/WASHER, 1/2ID SAE G8	8	F
17	NOPARTNUMBER	NO PART NUMBER	2	
18	44525	NUT, HEX 1/2 UNC G8	3	F
19	3543447	TUBE, RETAINER W/L CABLE	4	
20	NOPARTNUMBER	NO PART NUMBER	1	
21	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	3	F
22	3543332	GUARD, WIRELINE SHEAVE WHEEL	1	
23	3546743	STOP PLATE, HOIST PLUG	1	
24	44595	C/SCR, HH 3/8 UNC X 2-1/2 G8	2	F
25	44520	L/WASHER, 3/8 SAE G8	2	F
26	44527	NUT, HEX 3/8 UNC G8	2	F

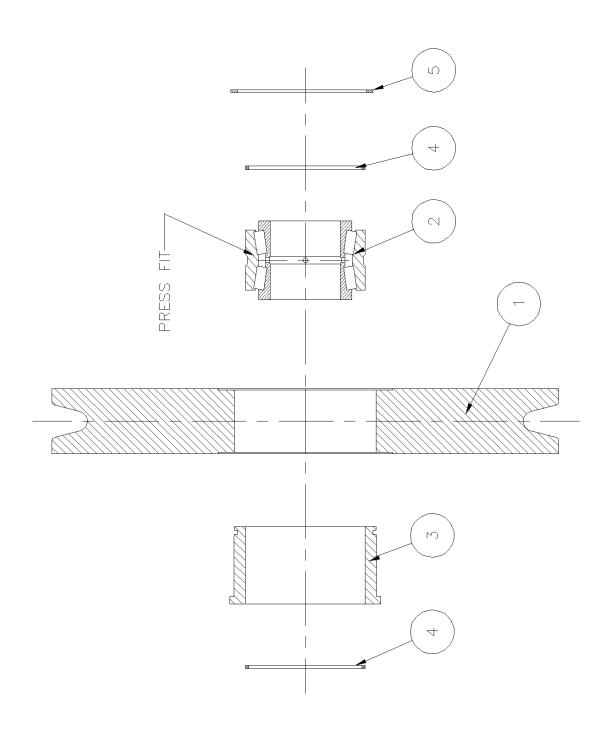
Comments for Page: 3546740 CROWN BLOCK ASM, 24" SHEAVE LF230

(#2 3546732)(#7 104141)(#9 3547038)INCLUDED IN CROWN BLOCK SPARES KIT # 3547259



# 3546732 SHEAVE ASM, LF230 CROWN BLOCK

3546740 CROWN BLOCK ASM, 24" SHEAVE LF230





# 3546732 SHEAVE ASM, LF230 CROWN BLOCK

Item	Part No.	Name	Qty	Service
1	3546733	WHEEL, 7/8" CABLE SHEAVE LF230 CROWN BLOCK ASM	1	
2	3546736	BEARING, SPEC (CUP & CONE)	1	
3	3546735	BUSHING	1	
4	3546737	SEAL	2	
5	5402852	RETAINING RING	1	

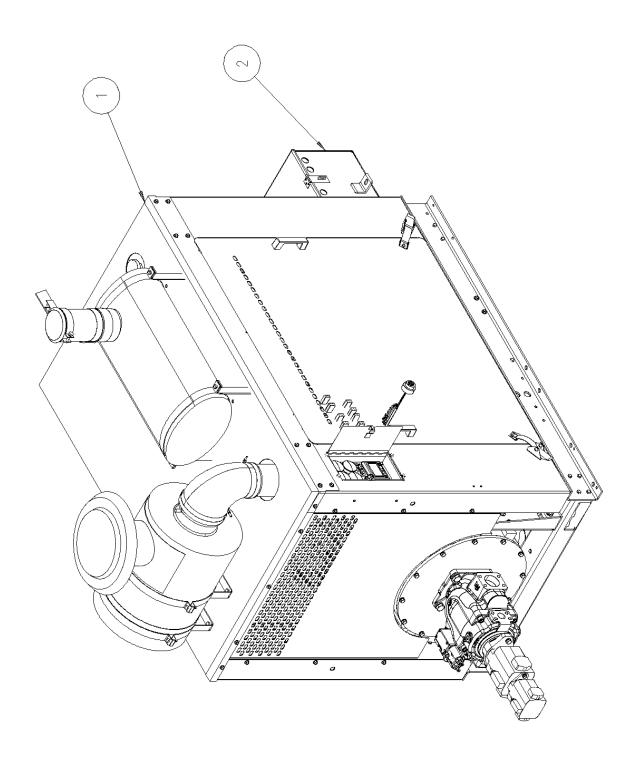
Comments for Page: 3546732 SHEAVE ASM, LF230 CROWN BLOCK

(#1 3546733)INCLUDED IN CROWN BLOCK SPARES KIT # 3547259



# 5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III



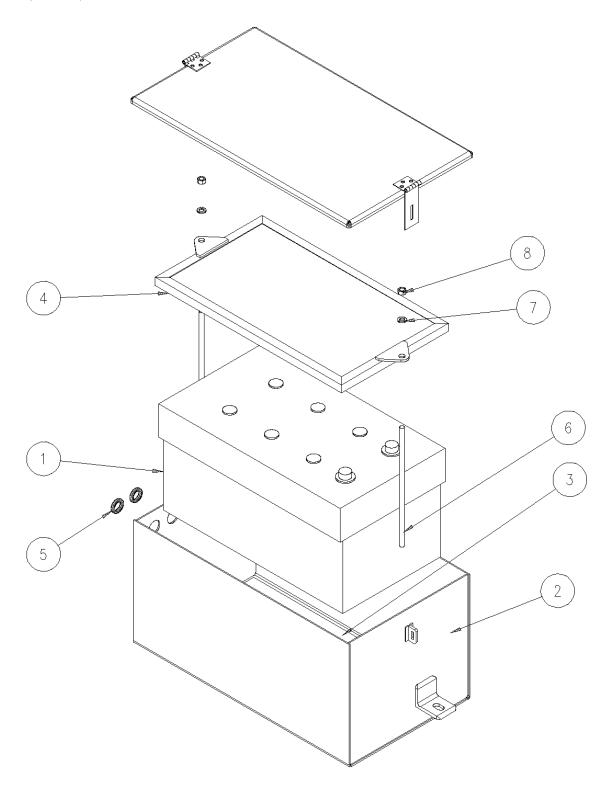


Item	Part No.	Name	Qty	Service
1	5003256	ENGINE ASM, CUMMINS QSC 8.3	1	D
2	5003255	ELECTRICAL GRP, 12V CUMMINS	1	D



# 3548505 BATTERY GROUP TIER 3

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III



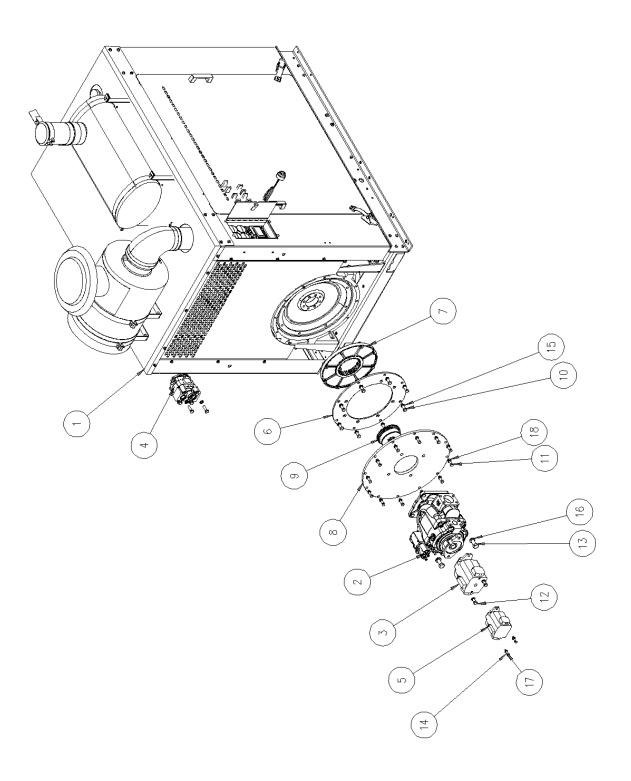


Item	Part No.	Name	Qty	Service
1	3546762	BATTERY, 8D SERIES 12V	1	D
2	3546764	BOX, 12V BATTERY	1	D
3	3546769	PAD, 12V BATTERY ISOLATOR	1	D
4	3546765	RETAINER, 12V BATTERY	1	D
5	3541367	GROMMET, 3/4 ID	6	D
6	5002864	ROD, THREADED	2	D
7	44520	L/WASHER, 3/8 SAE G8	2	F
8	44527	NUT, HEX 3/8 UNC G8	2	F



# 5003256 ENGINE ASM, CUMMINS QSC 8.3

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III





# 5003256 ENGINE ASM, CUMMINS QSC 8.3

Item	Part No.	Name	Qty	Service
1	3547581	ENGINE, CUMMINS QSC 8.3 TIER III (BARE)	1	D
2	3546726	PUMP, HYD PISTON 145 CC	1	С
Comments	or Part Num. 3546726			
PUMP COM	L KIT # 3547284 IPENSATOR # 500403 PLING # 5405512	8		
3	3544140	PUMP, HYD PISTON 33 CC	1	В
Comments	or Part Num. 3544140			
	3547283 JPLING (THRU DRIVE) ATOR # 5406201	# 5405513		
4	5004349	PUMP, HYD GEAR 12 CC	1	С
5	100184	PUMP, HYD PISTON 19 CC	1	В
Comments	or Part Num. 100184			
6	3548593	FLANGE, FLYWHEEL DRIVE CPLG	1	D
7	3548592	ADAPTER, 14" NYLON	1	В
8	3546722	PLATE, PUMP MOUNTING SAE 1	1	D
9	5000318	HUB, SAE D SPLINE	1	В
10	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	10	F
11	45767	C/SCR, HH 7/16 UNC X 1-1/2 G8	12	F
12	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	2	F
13	44748	C/SCR, HH 3/4 UNC X 2 G8	4	F
14	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	2	F
15	44521	L/WASHER, 1/2 SAE G8	12	F
16	44523	L/WASHER, 3/4 SAE G8	4	F
17	44520	L/WASHER, 3/8 SAE G8	2	F
18	44660	L/WASHER, 7/16 SAE G8	12	F

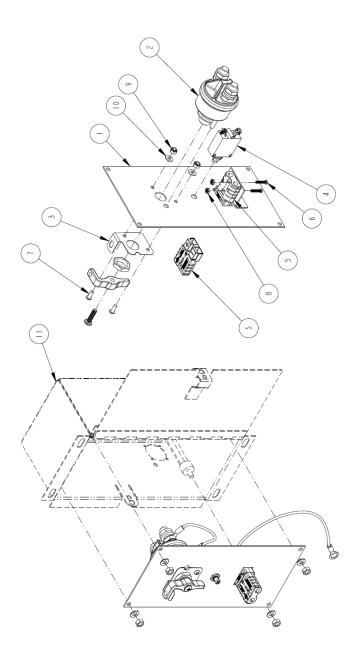
Comments for Page: 5003256 ENGINE ASM, CUMMINS QSC 8.3

 $(\#4\ 5004349) (USED\ WITH\ ELH\ 10\ COOLER\ ONLY\ S/N\ 2009-007\ \&\ UP).\ FOR\ 23\ CC\ PUMP\ ORDER\ 3549381$ 



# 3548035 MASTER DISCONNECT PANEL

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III





# 3548035 MASTER DISCONNECT PANEL

Item	Part No.	Name	Qty	Service
Ref	3548035	PANEL ASM, CUMMINS TIER III	1	D
1	3548033	DISCONNECT PANEL	1	D
2	3548351	SWITCH, 2000AMP DISCONNECT	1	С
3	3548039	LEVER, LOCKOUT	1	С
4	3548036	CIRCUIT BREAKER, 20A THERMAL	1	С
5	3548356	PLUG ASM, ELECT 2 PIN (RED)	2	С
6	5405672	M/SCR, BHD #6-32 x 3/4 G8	2	F
7	47234	M/SCR, BHD 10 UNC X 1/2 G8	2	F
8	5001563	L/NUT, NYLOK #6-32 UNC	2	F
9	3540822	L/NUT, NYLOK #10 UNC G5	2	F
10	44771	WASHER, FLAT #10 SAE G8	2	F

Comments for Page: 3548035 MASTER DISCONNECT PANEL

ITEM 11 ENCLOSURE NOT INCLUDED



# 5003255 ELECTRICAL GRP, 12V CUMMINS

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III

# NO DRAWING AVAILABLE FOR THIS BOM

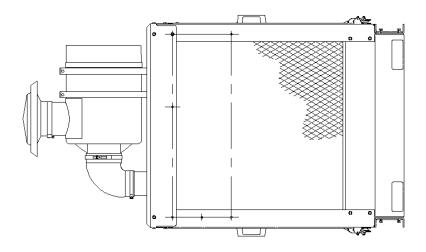


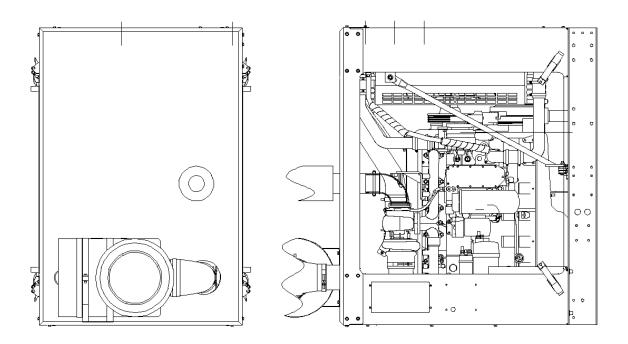
Item	Part No.	Name	Qty	Service
1	5003260	SCHEMATIC, BATTERY GRP	1	Е
2	5003259	CABLE GRP, 12V QSC8.3	1	E
3	3548035	PANEL ASM, CUMMINS TIER III	1	D
4	3548505	BATTERY GROUP TIER 3	1	D



# 3547581 ENGINE, CUMMINS QSC 8.3 TIER III (BARE)

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III





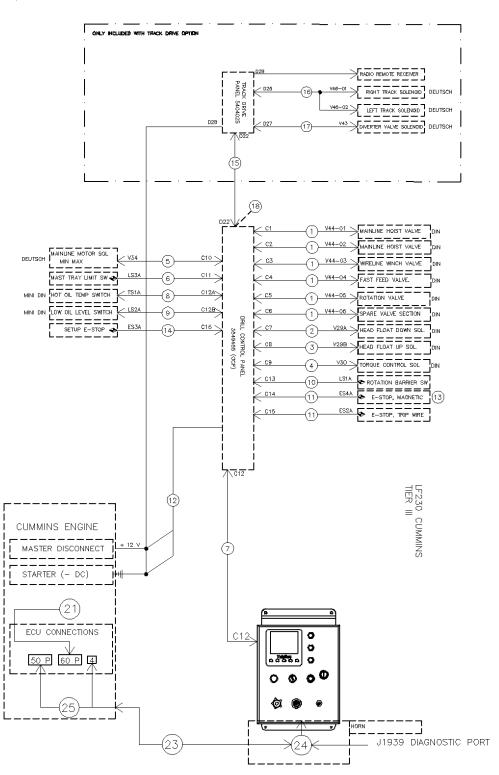


Item	Part No.	Name	Qty	Service		
1A	5401431	FILTER KIT, CUMMINS QSC8.3 1000HRS	1			
Comments for	Comments for Part Num. 5401431					
USED ON TI	USED ON TIER 3 ENGINES UP TO S/N 2012-XXX (FLEETGUARD AIR FILTER TYPE)					
1B	5405128	FILTER KIT, CUMMINS 8.3L 1000 HR	1			
Comments for	or Part Num. 5405128					
USED ON TIER 3 ENGINES FROM S/N 2012-XXX THRU CURRENT (NELSON AIR FILTER TYPE)						
2	5401432	KIT, QSC8.3 TIER3 SPARES	1			
3	5000357	ALTERNATOR, CUMMINS QSC 8.3 TIER 3	1			
4	5401455	THERMOSTAT, CUMMINS QSC 8.3 TIER 3	1			
5	5005191	FAN BELT, CUMMINS	1	Α		
6	5401458	TENSIONER, BELT QSC 8.3L	1			
7	3547358	STARTER, QSC 8.3L TIER 3	1			
8	5401457	WATER PUMP, CUMMINS QSC 8.3 L TIER 3	1			
9	5401462	FUSE, 5 AMP TYPE 0	1			
10	5401463	FUSE, 15 AMP	1	А		
11	5401464	FUSE. 30 AMP	1	А		



### 5003559 INTERCONNECTING GRP, LF230 02

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III





# 5003559 INTERCONNECTING GRP, LF230 02

Item	Part No.	Name	Qty	Service
1	5003452	CABLE ASM, TURK / DIN 1400 OAL	6	D
2	5003453	CABLE ASM, TURK / DIN 995 OAL	1	D
3	5003515	CABLE ASM, TURK / DIN 1400 OAL	1	D
4	3547347	CABLE ASM, TURK / DIN 1096 OAL	1	D
5	5402910	CABLE ASM, TURCK/DEUTSCH 3432 OAL	1	D
6	3547349	CABLE ASM, TURK / DIN 5974 OAL	1	D
7	3547350	CABLE ASM, TURK / DIN 2062 OAL	1	
8	5003454	CABLE ASM, TURK / DIN 3128 OAL	1	D
9	5003455	CABLE ASM, TURK / DIN 3115 OAL	1	D
10	3547353	CABLE ASM, TURK / DIN 2032 OAL	1	D
11	5003456	CABLE ASM, TURK / DIN 9194 OAL	2	D
12	5003557	CABLE ASM, POWER	REF	
13	3549272	EMERGENCY STOP, MAGNETIC REMOTE	1	С
14	5402737	CABLE, SETUP E-STOP C16	1	D
15	5404013	CABLE ASM, 14 PIN, x 56 LG	REF	D
16	5404014	CABLE ASM, TRACTION VALVE	REF	D
17	5404015	CABLE ASM, DIVERTER VALVE	REF	D

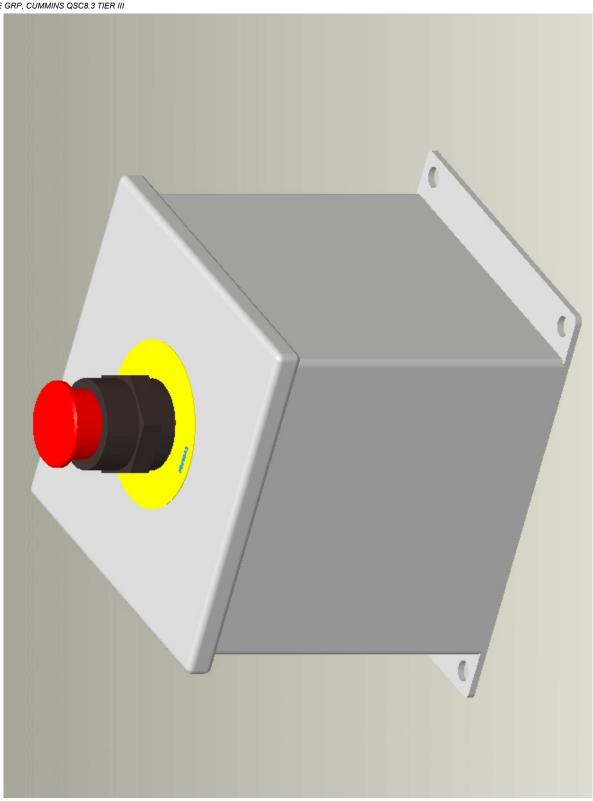
Comments for Page: 5003559 INTERCONNECTING GRP, LF230 02

(#15 5404013)(#16 5404014)(#17 5404015)(#18 NOPARTNUMBER)(#19 NOPARTNUMBER)ONLY INCLUDED WITH TRACK DRIVE OPTION



# 3549272 EMERGENCY STOP, MAGNETIC REMOTE

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III



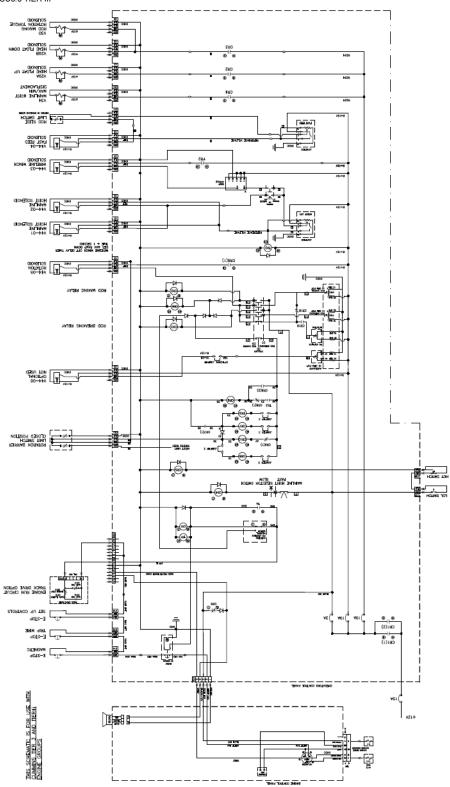


Item	Part No.	Name	Qty	Service
1	3549464	ENCLOSURE, E-STOP MAGNETIC	1	D
2	3549458	STRAIN RELIEF	1	
3	3549462	CABLE, 2 CONDUCTOR	1	
4	3549463	E-STOP BUTTON	1	С
5	3549456	BLOCK, CONTACT N.O.	1	D
6	3549457	BLOCK, CONTACT N.C.	1	D



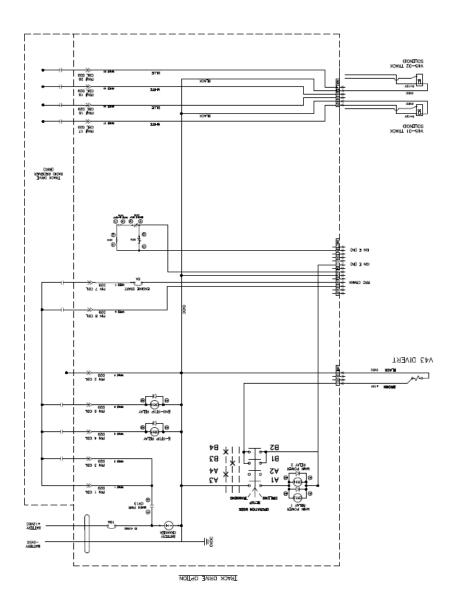
### 5003500 SCHMATIC LF230 ELECTRIC CONTROL

5003254 ENGINE GRP, CUMMINS QSC8.3 TIER III



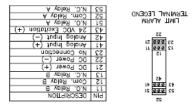


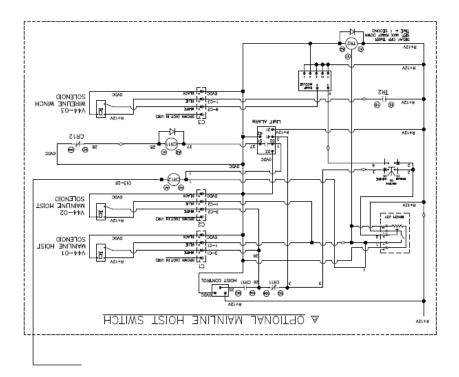
### 5003500 SCHMATIC LF230 ELECTRIC CONTROL





### 5003500 SCHMATIC LF230 ELECTRIC CONTROL





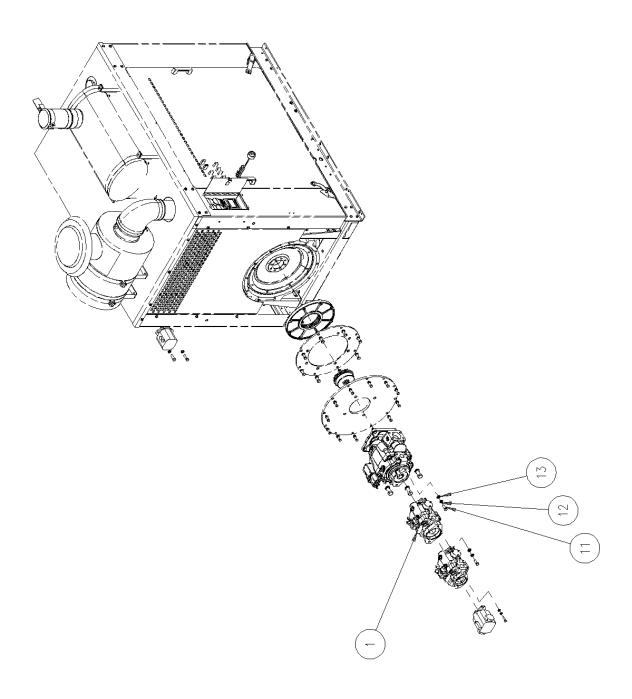


Item	Part No.	Name	Qty	Service
Ref	5003500	SCHEMATIC LF230 ELECTRIC CONTROL sn 2007-193 THRU CURRENT		



## 5400531 PUMP DRIVE GRP, 4 STACK TIER III 01

5400531 PUMP DRIVE GRP, 4 STACK TIER III



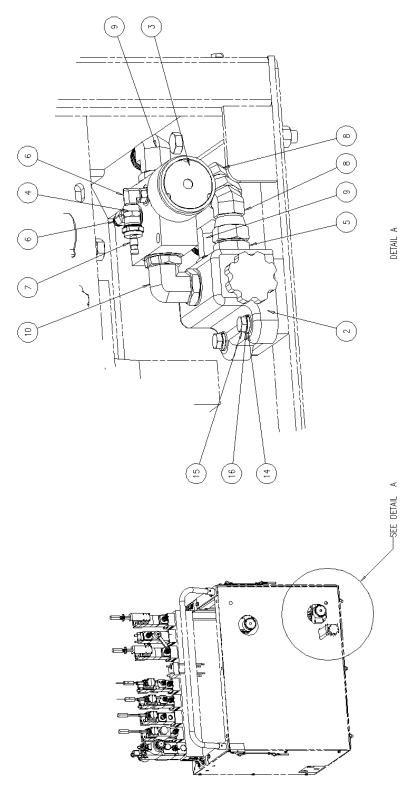


Item	Part No.	Name	Qty	Service
1	3546401	PUMP, HYD AXIAL PISTON 33CC OPTIONAL EQUIPMENT	1	
Comments fo	or Part Num. 3546401			
COUPLING,	HYD PUMP THRU DR	IVE 15T 5406397ROLL PIN, PUMP COUPLING 5406398		
2	3541599	VALVE, HYD THREE-WAY SELECTOR 12 ORB	1	С
Comments for	or Part Num. 3541599			
REPLACME	NT KNOB KIT AVAILAE	BLE UNDER P/N 5402692		
3	5000379	VALVE, WATER PUMP CONTROL	1	В
Comments for	or Part Num. 5000379			
SEAL KIT 54	05006			
	1	ADAD LIVE OTD 4 HOVE A ANDTYE	l ,	_
4	3549286	ADAP, HYD STR 4 JIC(F) x 4 NPT(F)	1	F
5	36463	ADAP, HYD STR 12JIC 12ORB	1	F
6	37015	ADAP, HYD 90 4JIC 4ORB	2	F
7	5000483	ADAP, HYD DIAGNOSTIC 1/4 NPT (F)	1	F
8	33749	ADAP, HYD 45 12JIC 12JIC-F	2	F
9	36980	ADAP, HYD 90 12JIC 12ORB	2	F
10	5401629	ADAP, HYD 90 12 ORB 12 ORB	1	
11	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	2	F
12	44521	L/WASHER, 1/2 SAE G8	2	F
13	44621	WASHER, FLAT 1/2 SAE G8	2	F
14	44859	WASHER, FLAT 3/8 SAE G8	2	F
15	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	2	F
16	44520	L/WASHER, 3/8 SAE G8	2	F



## 5400531 PUMP DRIVE GRP, 4 STACK TIER III 02

5400531 PUMP DRIVE GRP, 4 STACK TIER III





### 5400531 PUMP DRIVE GRP, 4 STACK TIER III 02

Item	Part No.	Name	Qty	Service
1	3546401	PUMP, HYD AXIAL PISTON 33CC OPTIONAL EQUIPMENT	1	
Comments for	or Part Num. 3546401			
COUPLING,	HYD PUMP THRU DR	IVE 15T 5406397ROLL PIN, PUMP COUPLING 5406398		
2	3541599	VALVE, HYD THREE-WAY SELECTOR 12 ORB	1	С
Comments for	or Part Num. 3541599			
REPLACME	NT KNOB KIT AVAILA	BLE UNDER P/N 5402692		
3	5000379	VALVE, WATER PUMP CONTROL	1	В
Comments for	or Part Num. 5000379			
SEAL KIT 54	05006			
4	3549286	ADAP, HYD STR 4 JIC(F) x 4 NPT(F)	1	F
5	36463	ADAP, HYD STR 12JIC 12ORB	1	F.
6	37015	ADAP, HYD 90 4JIC 4ORB	2	F
7	5000483	ADAP, HYD DIAGNOSTIC 1/4 NPT (F)	1	F
8	33749	ADAP, HYD 45 12JIC 12JIC-F	2	F
9	36980	ADAP, HYD 90 12JIC 12ORB	2	F
10	5401629	ADAP, HYD 90 12 ORB 12 ORB	1	
11	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	2	F
12	44521	L/WASHER, 1/2 SAE G8	2	F
13	44621	WASHER, FLAT 1/2 SAE G8	2	F
14	44859	WASHER, FLAT 3/8 SAE G8	2	F
15	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	2	F
16	44520	L/WASHER, 3/8 SAE G8	2	F

Comments for Page: 5400531 PUMP DRIVE GRP, 4 STACK TIER III 02  $\,$ 

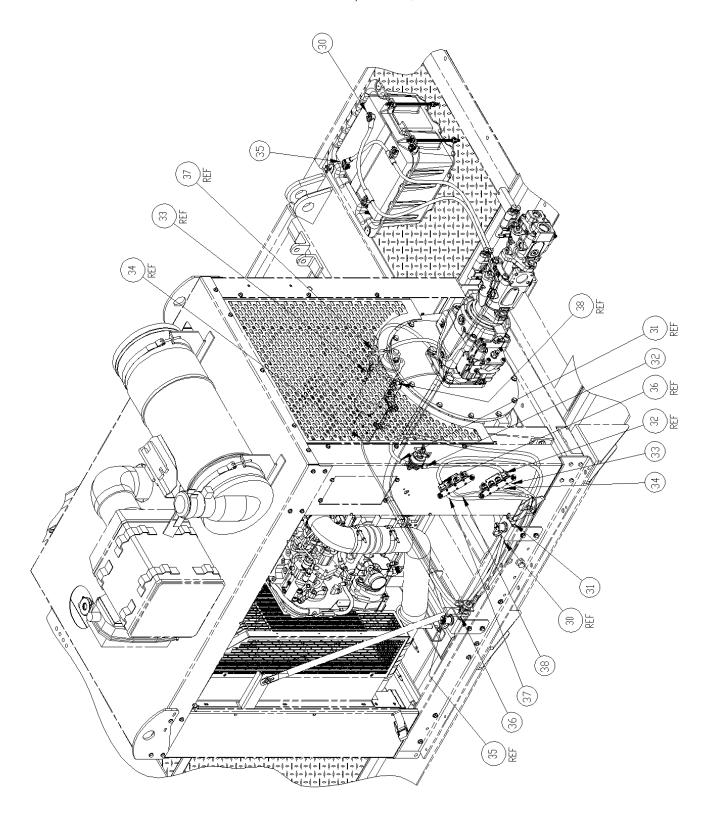
(#2 3541599)5402692 KNOB KIT REF



5405279 ENGINE GRP, LF230 QSL 9L TIER4i 5405279 ENGINE GRP, CUMMINS TIER 4i



# 5405279 ENGINE GRP, LF230 QSL 9L TIER4i



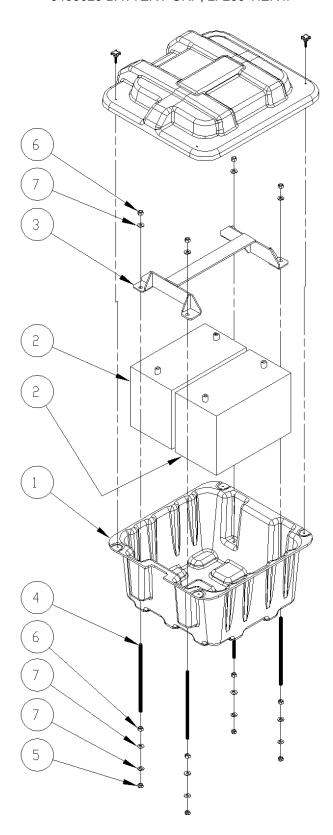


Item	Part No.	Name	Qty	Service
1	5404906	ENGINE ASM, QSL9L TIER4i	1	D
2	5405237	INTERCONNECTING GRP, LF230 TIER4i	1	D
3	5405628	BATTERY GROUP, LF230 Tier 4i	1	D
4	5405427	ADAP, HYD SPLIT FLANGE KIT 16 SAE CODE 61	1	F
5	3541047	SPLIT FLANGE KIT, 1 1/4" (CODE 62)	1	F
28	3540724	CLAMP, HOSE 3"	4	F
30	5405399	CABLE ASM, BATTERY TO CHARGE LUG	1	D
31	5405400	CABLE ASM, CHARGE LUG TO DISCONNECT	1	D
32	5405401	CABLE ASM, DISCONNECT TO BUSS	1	D
33	5405402	CABLE ASM, BUSS TO STARTER	1	D
34	5405403	CABLE ASM, BUSS TO ECM	1	D
35	5405404	CABLE ASM, BATTERY TO CHAGE LUG	1	D
36	5405406	CABLE ASM, CHARGE LUG TO BUSS	1	D
37	5405405	CABLE ASM, BUSS TO STARTER	1	D
38	5405407	CABLE ASM, BUSS TO ECM	1	D
56	5405104	UPPER CONSOLE WELDMENT	1	D
57	5405176	DECAL GRP, LF230 UPPER CONSOLE	1	



# 5405628 BATTERY GRP, LF230 TIER4i

5405279 ENGINE GRP, CUMMINS TIER 4i



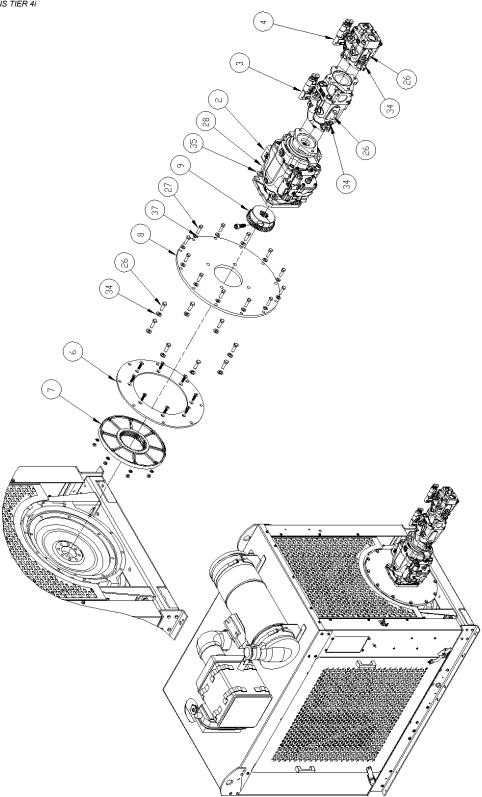


Item	Part No.	Name	Qty	Service
1	5405391	BATTERY BOX, DUAL TYPE 31	1	D
2	5405392	BATTERY, 12V 950 CCA	2	D
3	5405393	RETAINER, BATTERY	1	D
4	5405629	THREADED ROD, 3/8-16 UNC x 254	4	D
5	22915	L/NUT, HEX STOVER 3/8-16 UNC	4	F
6	44527	NUT, HEX 3/8 UNC G8	8	F
7	44859	WASHER, FLAT 3/8 SAE G8	12	F



# 5404906 ENGINE ASM, QSL9L TIER 4i

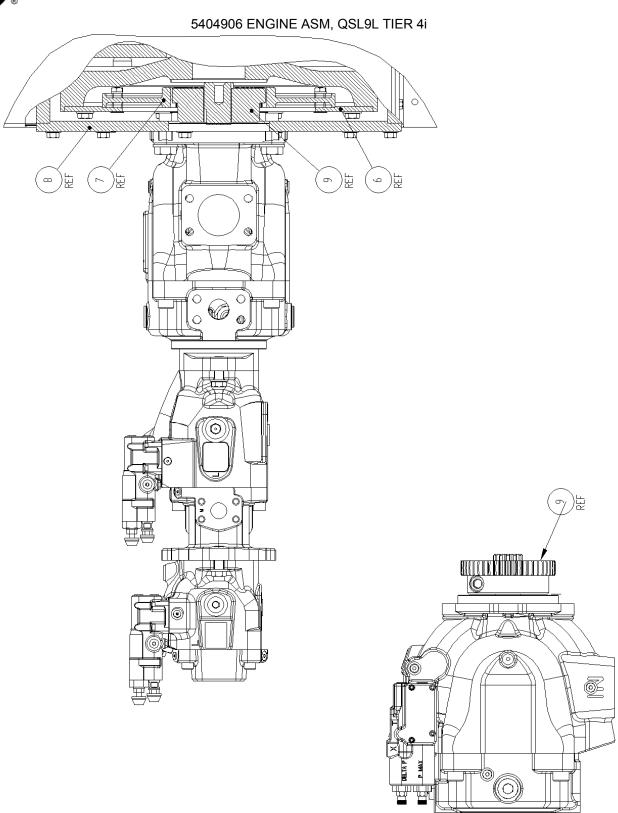
5405279 ENGINE GRP, CUMMINS TIER 4i



LF230 2007-193 Thru Current

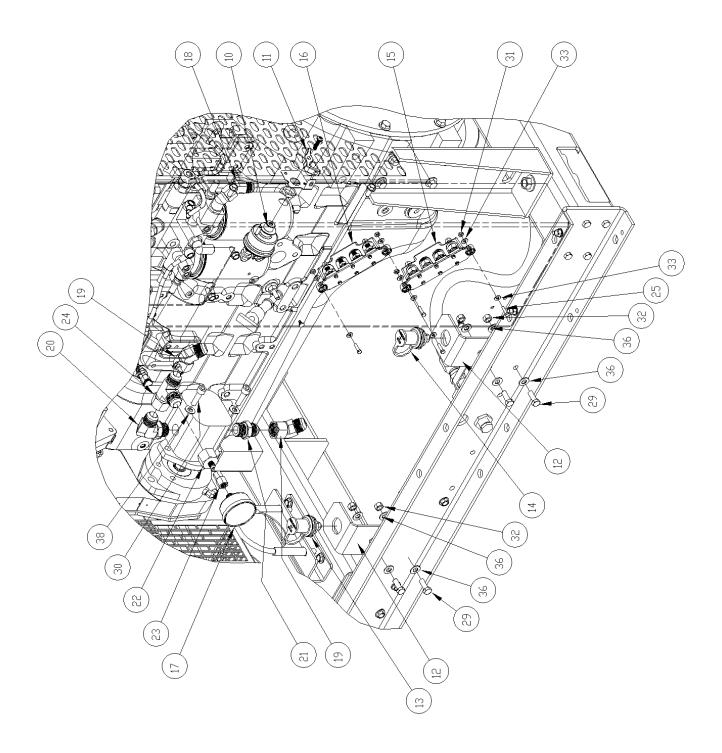
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# 5404906 ENGINE ASM, QSL9L TIER 4i





Item	Part No.	Name	Qty	Service
1	5404383	ENGINE, CUMMINS QSL 9.0 TIER 4i (BARE)	1	D
2	3546726	PUMP, HYD PISTON 145 CC	1	С
Comments f	or Part Num. 3546726			
PUMP COM	_ KIT # 3547284 PENSATOR # 5004038 PLING # 5405512	3		
3	5404396	PUMP, HYD AXIAL PISTON 41 CC	1	С
Comments f	or Part Num. 5404396		•	•
	L # 5405518		١.	
4	5404397	PUMP, HYD AXIAL PISTON 28 CC	1	С
Comments f	or Part Num. 5404397			
	.L # 5405519 NG # 5405613			
5	5004349	PUMP, HYD GEAR 12 CC	1	С
6	3548593	FLANGE, FLYWHEEL DRIVE CPLG	1	D
7	3548592	ADAPTER, 14" NYLON	1	В
8	3546722	PLATE, PUMP MOUNTING SAE 1	1	D
9	5000318	HUB, SAE D SPLINE	1	В
10	3548351	SWITCH, 2000AMP DISCONNECT	1	С
11	3548039	LEVER, LOCKOUT	1	С
12	5405398	BRACKET, CHARGING LUG	2	D
13	5405395	CHARGING LUG, NEGATIVE	1	D
14	5405394	CHARGING LUG, POSITIVE	1	D
15	5405396	BUSS BAR, POSITIVE (RED)	1	D
16	5405397	BUSS BAR, NEGATIVE (BLACK)	1	D
17	3548136	GAUGE, HYD PRESSURE 0-3000 PSI	1	А
18	38975	ELBOW 45° 7/8" JIF M-F SWIVEL	1	F
19	33749	ADAP, HYD 45 12JIC 12JIC-F	2	F
20	36980	ADAP, HYD 90 12JIC 12ORB	1	F
21	36463	ADAP, HYD STR 12JIC 12ORB	1	F
22	60831	ADAP, #12 JIC (F) x #4 JIC	1	F

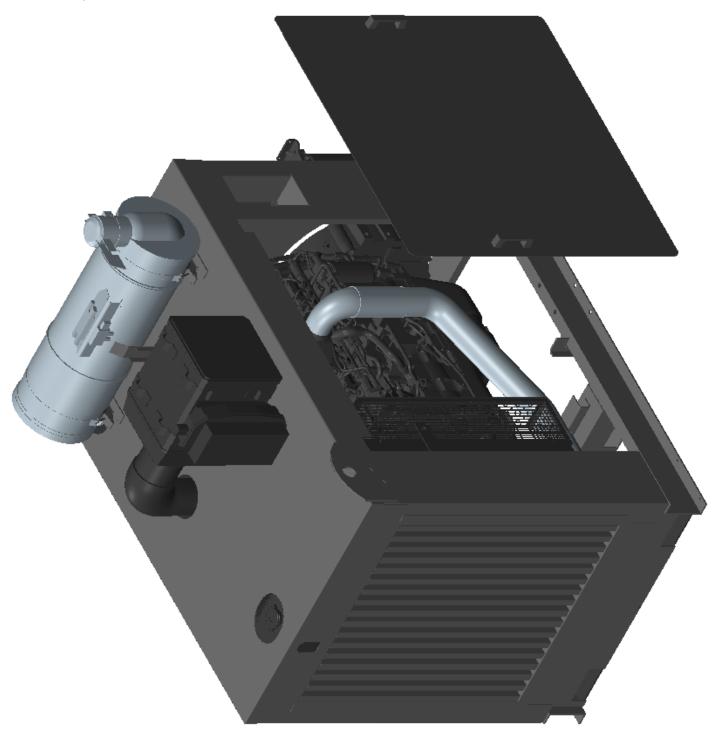


Item	Part No.	Name	Qty	Service
23	306220	ADAP, HYD #4 JIC(F) x #4 NPT(F)	1	F
24	33749	ADAP, HYD 45 12JIC 12JIC-F	1	F
25	44707	C/SCR, HH 10-24 UNC x 3/4	4	F
26	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	12	F
27	45767	C/SCR, HH 7/16 UNC X 1-1/2 G8	12	F
28	44748	C/SCR, HH 3/4 UNC X 2 G8	4	F
29	44512	C/SCR, HH 3/8 UNC X 1 G8	4	F
30	93280	C/SCR, SH M10-1.5 X 35 G12.9	2	F
31	44541	NUT, HEX #10 UNC G2	4	F
32	44527	NUT, HEX 3/8 UNC G8	4	F
33	44771	WASHER, FLAT #10 SAE G8	8	F
34	44621	WASHER, FLAT 1/2 SAE G8	12	F
35	46091	WASHER, FLAT 3/4 SAE G8	4	F
36	44859	WASHER, FLAT 3/8 SAE G8	8	F
37	40012	WASHER, FLAT 7/16 SAE G8	12	F
38	93252	WASHER, FLAT M10 SAE G2	2	F



# 5404383 ENGINE , CUMMINS QSL 9.0L TIER 4i (BARE)

5405279 ENGINE GRP, CUMMINS TIER 4i



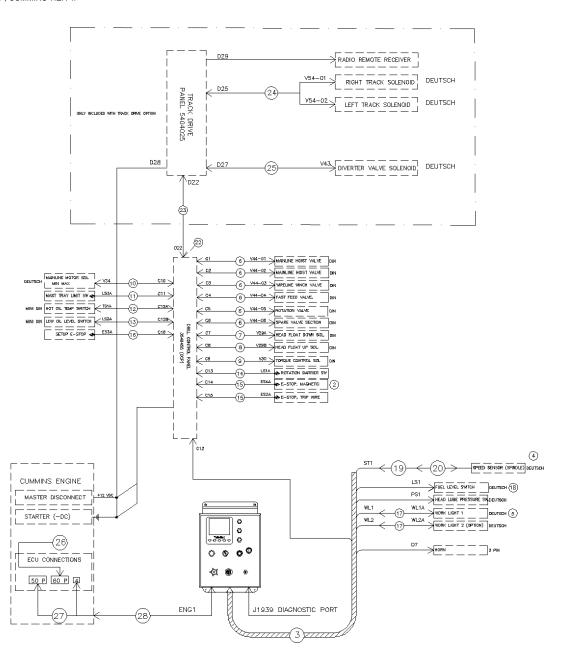


Item	Part No.	Name	Qty	Service
1	5405223	KIT, CUMMINS QSL FILTER SPARES 1000 HR	REF	Е
2	5405498	FAN, ENGINE BLOWER 30 IN	REF	С
3	5405499	ALTERNATOR, CUMMINS QSL 9 L 12VDC	REF	Α
4	5405501	THERMOSTAT, CUMMINS QSL9L	REF	С
5	5405502	BELT. V RIBBED	REF	Α
6	5405503	TENSIONER, BELT	REF	С
7	5405504	STARTER, CUMMINS QSL 9L 12VDC	REF	С
8	5405505	WATER PUMP, CUMMINS QSL 9L	REF	С
9	5405506	SENSOR, COOLANT LEVEL	REF	Α
10	5405507	RADIATOR, C/W CHARGE AIR COOLER	REF	С
11	5401463	FUSE, 15 AMP	REF	А
12	5401464	FUSE. 30 AMP	REF	А



#### 5405279 INTERCONNECTING GRP, LF230 TIER 4i

5405279 ENGINE GRP, CUMMINS TIER 4i



5405237 REV A LF230 CUMMINS TIER 4i

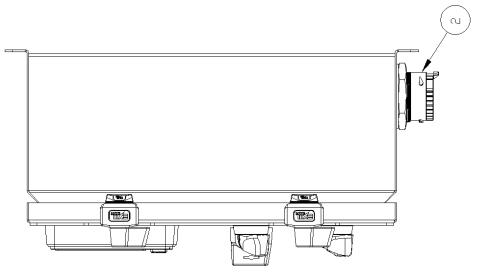


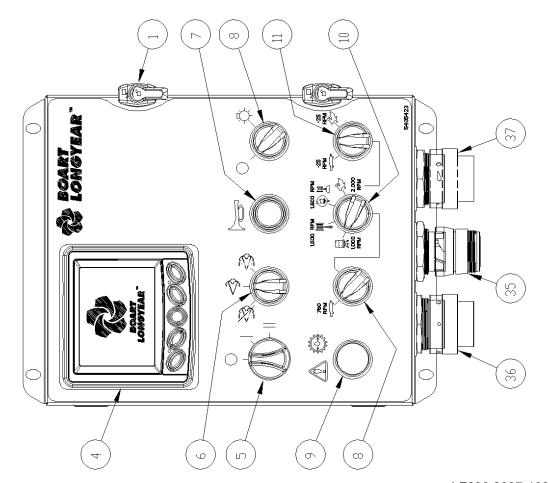
Item	Part No.	Name	Qty	Service
1	5404972	PANEL ASM, ENGINE CONTROL TIER 4i	1	D
Comments f	or Part Num. 5404972			
PANEL SPA	RES KIT # 5405891			
2	3549272	EMERGENCY STOP, MAGNETIC REMOTE	1	С
3	5405379	HARNESS ASM, LF230 OCP	1	D
4	5405035	SENSOR, HALL EFFECT	1	С
5	5405375	WORK LIGHT ASM, 12V LED	1	D
6	5003452	CABLE ASM, TURK / DIN 1400 OAL	6	D
7	5003453	CABLE ASM, TURK / DIN 995 OAL	1	D
8	5003515	CABLE ASM, TURK / DIN 1400 OAL	1	D
9	3547347	CABLE ASM, TURK / DIN 1096 OAL	1	D
10	5402910	CABLE ASM, TURCK/DEUTSCH 3432 OAL	1	D
11	3547349	CABLE ASM, TURK / DIN 5974 OAL	1	D
12	5003454	CABLE ASM, TURK / DIN 3128 OAL	1	D
13	5003455	CABLE ASM, TURK / DIN 3115 OAL	1	D
14	3547353	CABLE ASM, TURK / DIN 2032 OAL	1	D
15	5003456	CABLE ASM, TURK / DIN 9194 OAL	2	D
16	5402737	CABLE, SETUP E-STOP C16	1	D
17	5405360	CABLE ASM, WORK LIGHT	1	D
18	5405376	SENDER, FUEL TANK	1	D
19	5405363	TACH CABLE ASM, X1	1	D
20	5405364	TACH CABLE ASM, X2	1	D
23	5404013	CABLE ASM, 14 PIN, x 56 LG	REF	D
24	5404014	CABLE ASM, TRACTION VALVE	REF	D
25	5404015	CABLE ASM, DIVERTER VALVE	REF	D



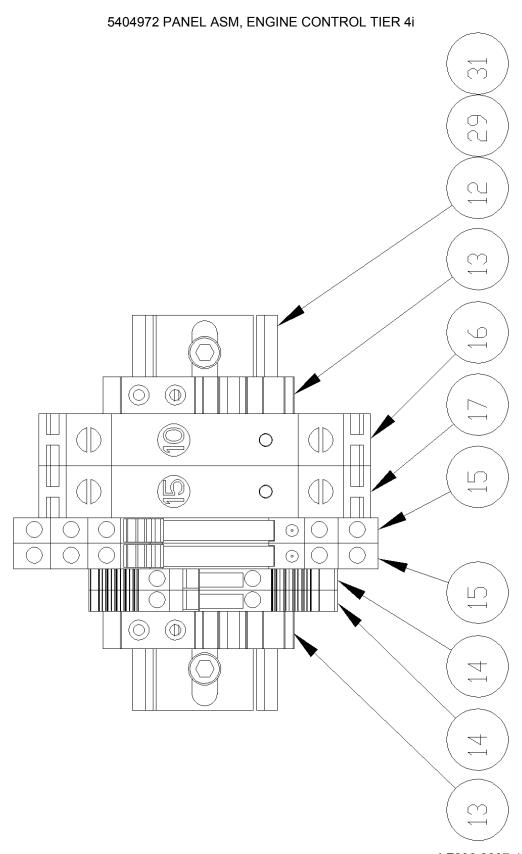
## 5404972 PANEL ASM, ENGINE CONTROL TIER 4i

5405279 ENGINE GRP, CUMMINS TIER 4i











Item	Part No.	Name	Qty	Service
4	5405235	DISPLAY, ENGINE MONITOR	1	А
5	3549234	SWITCH, IGNITION	1	С
6	5405280	SWITCH ASM, 3 POSITION	1	Α
7	5405283	BUTTON ASM, GREEN	1	Α
8	5405285	SWITCH ASM, 2 POSITION	2	А
9	5405287	LIGHT ASM, RED LED	1	Α
10	5405290	SWITCH ASM, 4 POSITION	1	А
11	5405292	SWITCH ASM, 3 POSITION	1	Α
15	5003569	RELAY, 12VDC DIN MOUNTED	2	С
16	3541330	BREAKER, 10 AMP (MCB)	1	Α
17	3547303	BREAKER, 15 AMP	1	А
33A	5405278	DECAL, ENGINE CONTROL PANEL LF230	REF	D
33B	5405423	DECAL, ENGINE CONTROL PANEL LF90D	REF	D

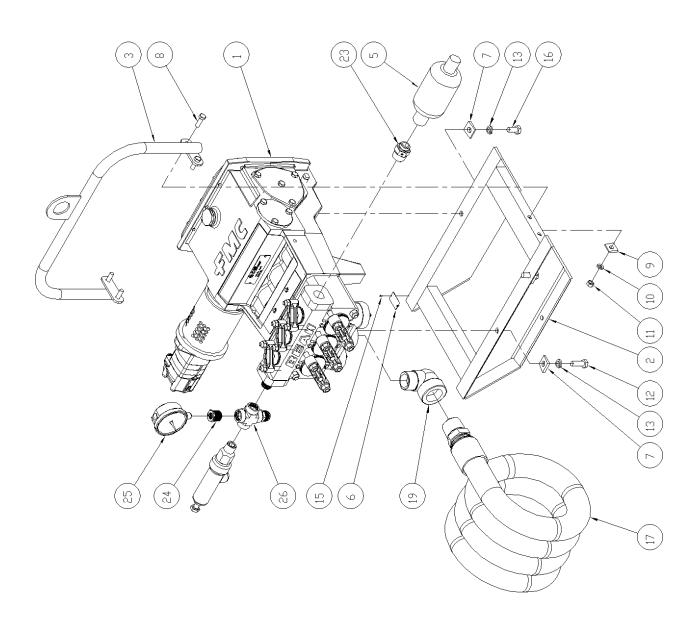


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### 3547029 W11 CIRCULATION PUMP

3547029 W11 CIRCULATION PUMP



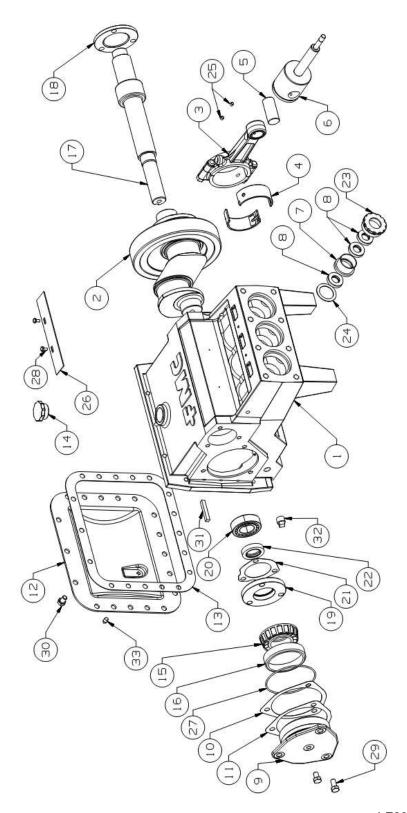


Item	Part No.	Name	Qty	Service
REF	3547029	WATER PUMP ASM, HYD 535 c/w SKID	REF	D
1	3549549	WATER PUMP ASM, HYD 535 FLUID CIRCULATION	1	D
2	3543281	SKID, WATER PUMP (W11)	1	D
3	3543282	BAR, LIFTING (W11) PUMP	1	D
5	3544479	ACCUMULATOR, 1 QUART	1	
6	38298	PLATE, ASSEMBLY IDENTIFICATION	1	E
7	19325	WASHER, BEVEL 5/8ID G2	3	F
8	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	4	F
9	17121	WASHER, 1/2 BEVEL	4	F
10	44521	L/WASHER, 1/2 SAE G8	4	F
11	44525	NUT, HEX 1/2 UNC G8	4	F
12	44514	C/SCR, HH 5/8 UNC X 1-3/4 G8	2	F
13	44522	L/WASHER, 5/8 SAE G8	3	F
15	23183	SCREW, DRIVE	2	E
16	44544	C/SCR, HH 5/8 UNC X 1-3/4 G8	1	F
17	14570	HOSE ASM, SUCTION 2" X 20FT	1	D
19	28020	INTAKE ASSEMBLY, SUCTION 18682A	1	F
23	5406603	ADAP, HYD STR 1-1/4 NPT 16 ORB	1	
24	34081	ADAP HYD 1" NPT x 1/2 NPT-F	1	
25	3548141	GAUGE, PRESSURE	1	В
26	34197	ADAP HYD CROSS 1" NPT	1	



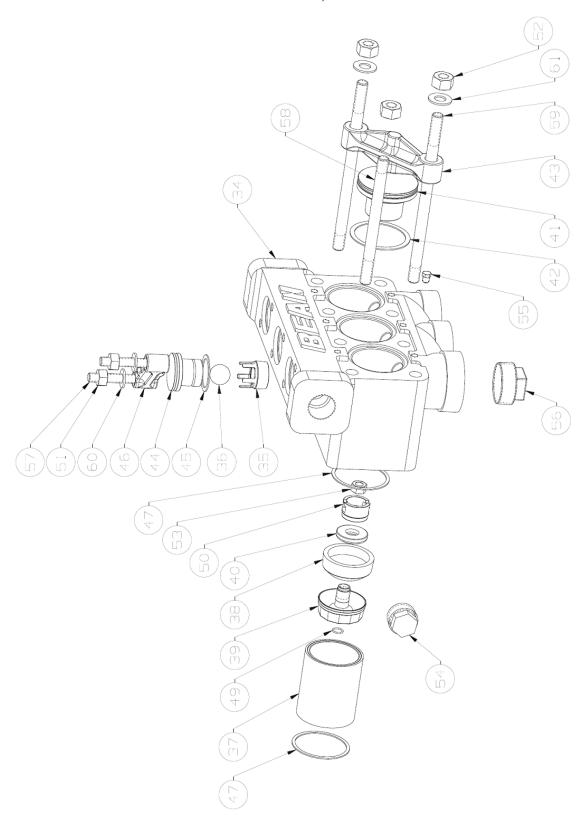
# 24821 PUMP ASSEMBLY, WATER 35GPM

3547029 W11 CIRCULATION PUMP





# 24821 PUMP ASSEMBLY, WATER 35GPM





Item	Part No.	Name	Qty	Service
1	79105	PUMP CASE	1	D
2	79122	CRANKSHAFT	1	С
3	75077	CONNECTING ROD	3	С
3a	75032	BUSHING, CONNECTING ROD	3	В
3b	78547	BOLT, CONNECTING ROD	6	F
3c	60899	NUT, ELASTIC STOP 1/2-20 UNF	6	F
4	75033	BEARING INSERT 1 PR 1284709	3	В
5	75076	PIN, WRIST	3	С
6	75072	CROSSHEAD & ROD ASSEMBLY	3	С
7	79320	SLEEVE, PACKING NUT	3	
8	79321	SEAL, OIL CROSSHEAD W11 AND L16 PUMPS	9	В
9	79114	HOUSING, CRANKSHAFT BEARING	2	С
10	75044	GASKET, CRANKSHAFT BEARING	2	В
11	79113	SHIM .005" THICK	2	В
12	79123	COVER, PLATE	1	D
13A	75045	GASKET, COVER	1	В
13B	3548244	GASKET, COVER 18 HOLE	1	С
14	79081	CAP, OIL FILLER	1	С
15	79121	CONE, BEARING	2	В
16	79120	CUP, BEARING	2	В
17	79116	PINION SHAFT	1	С

Comments for Part Num. 79116

Replacement 5405387 PINION SHAFT. Bearing set changed, 4033641 BEARING, SPERICAL ROLLER. Order PTO Kit - 5405389 PINION SHAFT, FIELD KIT UPGRADE. Includes 5405387 and 4033641.

18	79108	CAP, PINION BEARING	1	С
19	3670370	CAP-BEARING, PINION(OPEN)	1	D
20	18208	BALL BEARING, CRANKSHAFT	2	В
21	75043	GASKET, PINION BEARING	2	В
22	3670327	SEAL, SHAFT	1	В
23	79326	NUT, OIL SEAL RETAINING	3	В
24	3670508	GASKET, PACKING NUT	3	В
25	79904	S/SCR, SH 5/16-18 UNC x 5/16"	6	F



Item	Part No.	Name	Qty	Service		
29	44530	C/SCR, HH 1/2 UNC X 1-1/4 G8	12	F		
30	44529	C/SCR, HH 1/2 UNC X 3/4 G8	18	F		
32	79112	PLUG, MAGNETIC 1/2"NPT	2	С		
34	79325	VALVE, CHAMBER	1	В		
35	79324	SEAT, W11 VALVE	6	В		
36	26157	BALL, 1-1/8 S/S	6	В		
37	79103	CERAMIC LINED STEEL	3	В		
38A	79606	CUP, PLUNGER W11 TYPE A	3	В		
	Comments for Part Num. 79606					
STANDARD	STYLE PISTON CUP -	- EASY INSTALLATION	I			
38B	75003	CUP, PLUNGER W11 TYPE B	3			
Comments for	or Part Num. 75003					
		HIGH ABRASIVE / SEVERE CONDITIONS - MORE DIFFICULT INSTALLATION- I ATION INSTRUCTIONS	REFER TO OP	ERATORS		
39	75037	HOLDER, PISTON CUP	3	В		
40	75062	WASHER, PLUNGER CUP	3	В		
41	63684	COVER, CYLINDER	3	В		
42A	79323	GASKET, CYLINDER HEAD (KEVLAR) NEW STYLE	3	В		
42B	75071	GASKET, CYLINDER HEAD (COPPER) OLD STYLE	REF	E		
43	79101	CLAMP, CYLINDER HEAD	3	В		
44	79882	COVER, VALVE	3	В		
45A	79334	GASKET, VALVE COVER KEVLAR	3	В		
45B	75069	GASKET, VALVE COVER (COPPER) OLD STYLE	REF	В		
46	78541	CLAMP, VALVE COVER	3	В		
47A	79322	GASKET, CYL JOINT NITRILE	6	В		
47B	75070	GASKET, CYLINDER JOINT (COPPER) OLD STYLE	REF	E		
49	79327	O-RING, PACK HOLDER	3	А		
50	75012	NUT, PACKING	3	А		
51	44525	NUT, HEX 1/2 UNC G8	6	F		
52	44526	NUT, HEX 5/8 UNC G8	8	F		
53	75027	NUT, PLUNGER	3	В		



## 24821 PUMP ASSEMBLY, WATER 35GPM

Item	Part No.	Name	Qty	Service
54	18183	ADAP, HYD PLUG HH 1 -1/4 NPT	1	F
55	94411	PLUG, LM37 1/8 NPT	6	F
56	28097	PLUG, 2" NPT SQ HD	2	С
57	75022	STUD 1/2 x 3-1/4" Lg.	6	В
58	75042	STUD, CYLINDER	2	В
59	75041	STUD, LONG 5/8" DIA.	6	В
100	75019	TOOL, PLUNGER / PACKING SERVICE	1	В
101	79333	TOOL, VALVE SEAT REMOVER	1	В

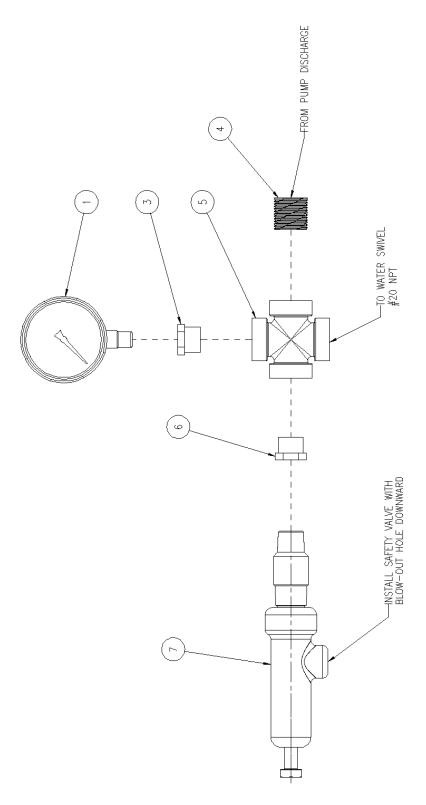
Comments for Page: 24821 PUMP ASSEMBLY, WATER 35GPM

36686 KIT, 435 BEAN W11 SPARES



## 18185 DISCHARGE ASM, PUMP #20 NPT

3547029 W11 CIRCULATION PUMP





### 18185 DISCHARGE ASM, PUMP #20 NPT

Item	Part No.	Name	Qty	Service
1	3548141	GAUGE, PRESSURE	1	В
3	18922	BUSHING, HEX PIPE #20 x #8 NPT	1	В
4	20720	NIPPLE, #20 NPT x 2 LG XH	1	F
5	21063	CROSS, PIPE #20 NPT	1	С
6	17944	BUSHING, HEX PIPE #20 x #16 NPT	1	В
7	3546492	VALVE ASM, WATER PRESSURE RELIEF	1	В

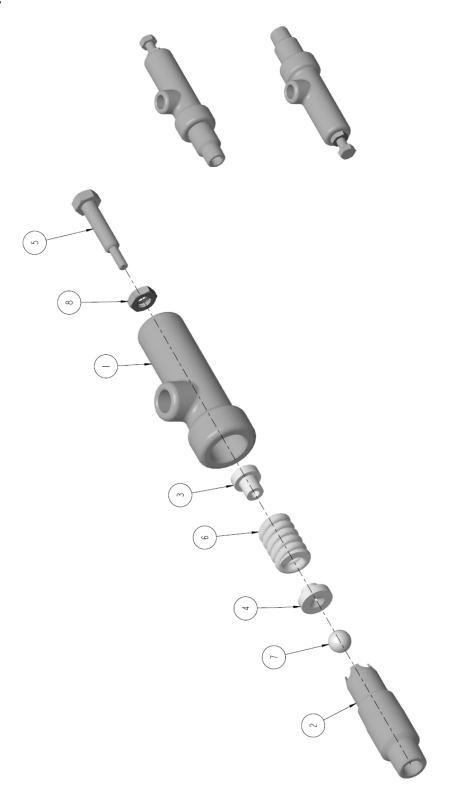
Comments for Page: 18185 DISCHARGE ASM, PUMP #20 NPT

(#1 3548141)INCLUDED IN FLUID CIRCULATION SPARES KIT 5401789



# 3546492 VALVE, PRESSURE RELIEF

3547029 W11 CIRCULATION PUMP





Item	Part No.	Name	Qty	Service
Ref	3546492	VALVE ASM, WATER PRESSURE RELIEF	1	В
1	3546493	BODY, RELIEF VALVE	1	В
2	5406235	SEAT, RELIEF VALVE	1	В
3	3546494	GUIDE, RELIEF VALVE SPRING	1	В
4	3546495	HOLDER, RELIEF VALVE BALL	1	В
5	21841	C/SCR, RELIEF VALVE ADJ	1	В
6	24313	SPRING, COMPRESSION NQ	1	В
7	21837	BALL, 15/16" S/S	1	В
8	22179	NUT, JAM HEX 5/8 UNC BRASS	1	F





5004472 HOISTING GROUP, LF230

# NO DRAWING AVAILABLE FOR THIS BOM



Item	Part No.	Name	Qty	Service
1	3546809	CABLE ASM, HOIST 7/8 DIA	1	С
2	5003978	PIN ASM, HOIST	1	С
3	5004353	HOIST PLUG, HEAVY DUTY	1	С



## 67321 WATER-SWIVEL, UNIVERSAL

5004472 HOISTING GROUP, LF230



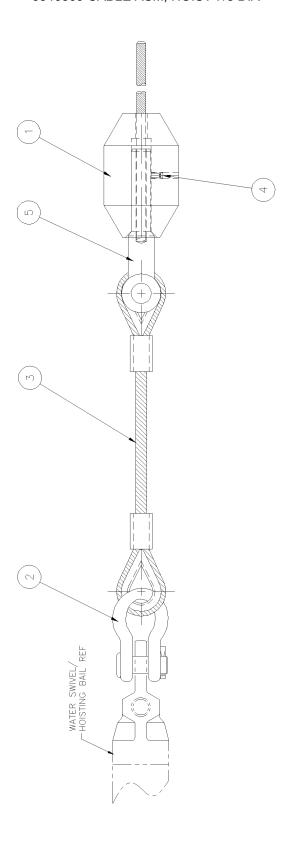


Item	Part No.	Name	Qty	Service
Ref	67321	W/SWIV, STANDARD DUTY		А
Comments	for Part Num. 67321			
WATER SW	/IVEL SPARE PARTS	KIT # 67628		
1	39169	CAP, UNIVERSAL W/SWIV	1	В
2	39168	SPRING, COMPRESSION	1	В
3	39171	PACKING, STD W/SWIV	1	В
4	29737	O-RING, SAE 332 BUNA-N 70D(10)	1	В
5	39172	HOUSING, STD DUTY W/SWIV PACKING	1	В
6	67325	NUT, UNIVERSAL W/SWIV SPINDLE	1	В
7	67186	L/WASHER, STD W/SWIV	1	В
8	67322	SPACER, UNIVERSAL W/SWIV	1	В
9	40965	RING, RETAINING	1	В
10	19906	BEARING, ANGULAR CONTACT BALL	1	В
11	39170	EXTN, STD W/SWIV SPINDLE	1	В
12	67324	SPINDLE, UNIVERSAL W/SWIV	1	В
13	67187	BEARING, THRUST	1	В
14	67631	BODY, UNIVERSAL W/SWIV	1	В
15	17447	FITTING, HYD GREASE	1	F
REF	88111	OPTIONAL SPINDLE EXTENSION	1	
101	67628	SPARES PARTS KIT, UNIVERSAL SWIVEL	1	А



# 3546809 CABLE ASM, HOIST 7/8 DIA

5004472 HOISTING GROUP, LF230





## 3546809 CABLE ASM, HOIST 7/8 DIA

Item	Part No.	Name	Qty	Service
1	3546812	WEIGHT, LF230 HOIST CABLE	1	
2	3546811	SHACKLE, 25 TON	1	
3	3546810	PIGTAIL, 7/8 HOIST CABLE	1	
4	45676	C/SCR, SH 1/2-13 NC x 3/4 Lg.	1	F
5	3548582	CABLE, 22mm X 96' HOIST	1	

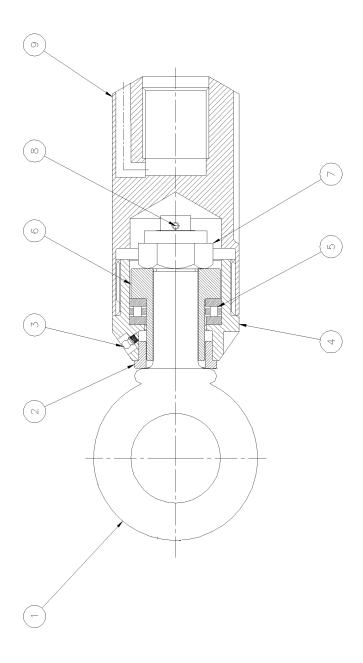
Comments for Page: 3546809 CABLE ASM, HOIST 7/8 DIA

(#5 3548582)REF 5400556 - 34M LONG CABLE FOR USE IN APAC REGION TO ACCOMOMODATE THEIR ROD HANDLING (NOT INCLUDED IN THIS ASSEMBLY)



# 3542898 HOIST PLUG ASM, HEAVY DUTY

HOIST PLUG, HEAVY DUTY ( 2 VERSIONS )



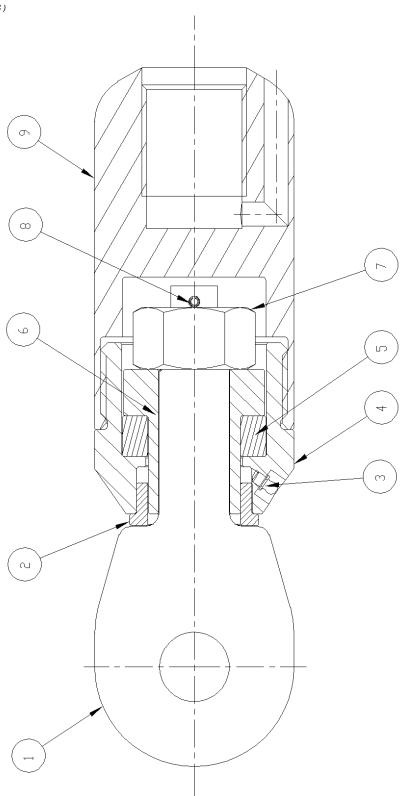


Item	Part No.	Name	Qty	Service
1	3542899	BOLT, EYE REWORK 30K HOIST PLUG	1	
2	3542900	SLEEVE, WEAR 30K HOIST PLUG	1	С
3	17447	FITTING, HYD GREASE	1	F
4	3542901	BEARING HOUSING, 30K HOIST PLUG	1	
5	3542902	BEARING, 30K HOIST PLUG	1	С
6	3542903	SLEEVE, SHAFT 30K HOIST PLUG	1	В
7	3542914	L/NUT, 1-1/2 UNF STOVER GR 8	1	В
8	24307	PIN, SPRING 1/4 x 2 LG	1	
9	3542904	LOWER HOUSING, 30K HOIST PLUG	1	



## 5004353 HOIST PLUG ASM

HOIST PLUG, HEAVY DUTY ( 2 VERSIONS )



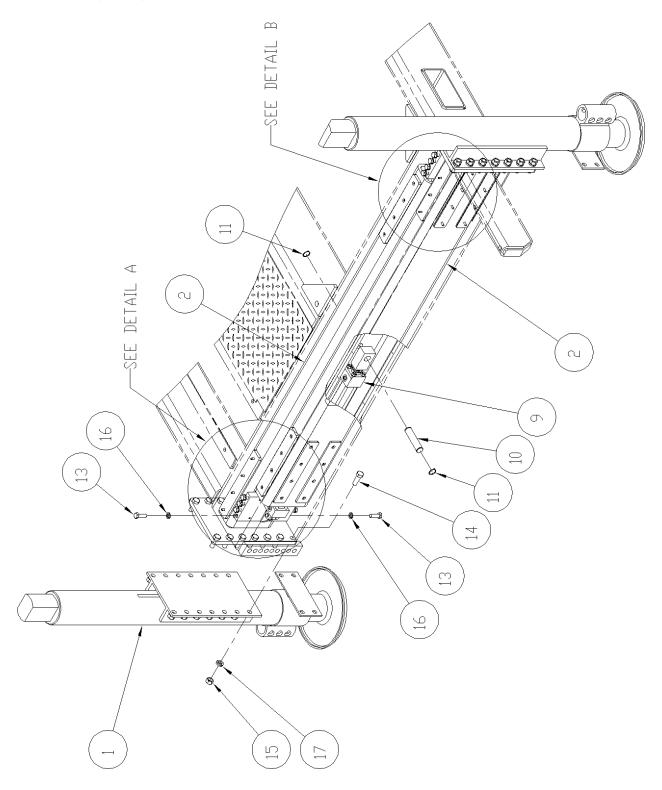


Item	Part No.	Name	Qty	Service
1	5003668	EYEBOLT, HOIST PLUG	1	С
2	3542900	SLEEVE, WEAR 30K HOIST PLUG	1	С
3	17447	FITTING, HYD GREASE	1	F
4	5004355	HOUSING, BEARING	1	С
5	3542902	BEARING, 30K HOIST PLUG	1	С
6	3542903	SLEEVE, SHAFT 30K HOIST PLUG	1	В
7	3542914	L/NUT, 1-1/2 UNF STOVER GR 8	1	В
8	3542936	PIN, SPRING 1/4 x 2 LG	1	В
9	5004354	HOUSING, LOWER HOIST PLUG	1	С



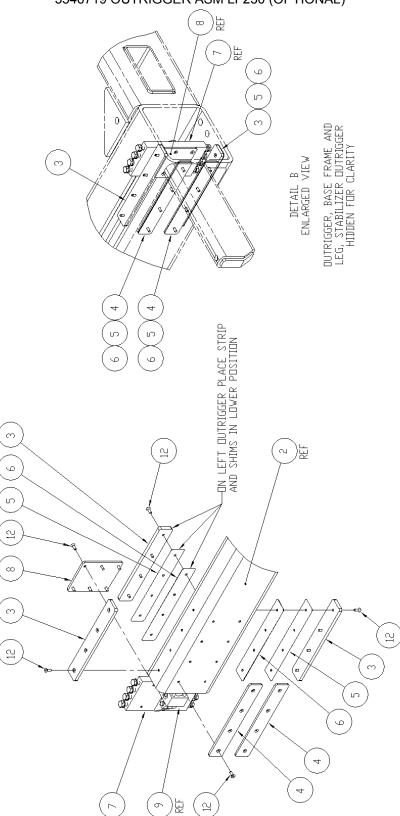
# 3546719 OUTRIGGER ASM LF230 (OPTIONAL)

3546719 OUTRIGGER ASM LF230 (OPTIONAL)





# 3546719 OUTRIGGER ASM LF230 (OPTIONAL)





Item	Part No.	Name	Qty	Service			
1	3541598	JACK, HYD RIG STABILIZER (39" STROKE)	4	D			
Comments f	or Part Num. 3541598						
1401/0541	IACK SEAL KIT P/N 5000082COLINTERRALANCE VALVE CARTRIDGE P/N 5405238 (LISED AFTER TANLIARY 2012)MANIFOLD ASM FIELD						
	JACK SEAL KIT P/N 5000082COUNTERBALANCE VALVE CARTRIDGE P/N 5405238 (USED AFTER JANUARY 2012)MANIFOLD ASM FIELD KIT P/N 5404370 (USED AFTER JANUARY 2012)						
2A	5406383	OUTRIGGER WELDMENT	4	D			
Comments t	r Part Num 5406383		'	'			
	Comments for Part Num. 5406383						
JACK MOUI	NTING PAD CENTERE I	D AFTER S/N XXXXX I		I			
2B	3542422	OUTRIGGER WELDMENT	REF	D			
Comments f	or Part Num. 3542422						
JACK MOUI	NTING PAD OFFSET O	N PRODUCTION RIGS MANUFACTURED PRIOR TO 2018-XXX					
3	3542426	STRIP, WEAR OUTRIGGER	20	С			
4	3542427	STRIP, WEAR OUTRIGGER	16	С			
5	3544096	SHIM, (.030 THK)	20	С			
6	3544095	SHIM, (.060 THK)	20	С			
7	3542423	MOUNT, CYLINDER OUTRIGGER	4	D			
8	3542428	STRIP, WEAR OUTRIGGER	4	С			
9	3541601	CYLINDER, HYDRAULIC OUTRGGER	4	С			
10	3542425	PIN, CYLINDER OUTRIGGER	4	С			
11	3542429	RETAINING RING, EXT 1.00 "	8	D			
12	3543350	M/SCR, FLT HD 1/4-20UNC x 3/4 BRASS	168	F			
13	44510	C/SCR, HH 1/2 UNC X 1-1/2 G8	16	F			
14	44514	C/SCR, HH 5/8 UNC X 1-3/4 G8	56	F			
15	44526	NUT, HEX 5/8 UNC G8	56	F			
16	44521	L/WASHER, 1/2 SAE G8	32	F			
17	44522	L/WASHER, 5/8 SAE G8	56	F			
18	3546892	PIPING GRP, OUTRIGGER LF230	1	E			



**HOSE END LEGEND** 

#### 3546892 PIPING GRP, OUTRIGGER LF230 01

3546892 PIPING GRP, OUTRIGGER LF230

E - Male JIC Split Flange (Code 62) 00R2AT 100R2AT 00R2AT 00R2A7 00R1A 00R1A 00R2A7 00R2A1 00R1A 00R1A 00R2A D - Male NPT B - Female JIC Swivel 90° HOSE ASSEMBLIES END **AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA** .06 - **5** Long) Female JIC Swivel 90° (Extra 90° Split Flange (Code 61 - Female Swivel 45° Female JIC Swivel 2

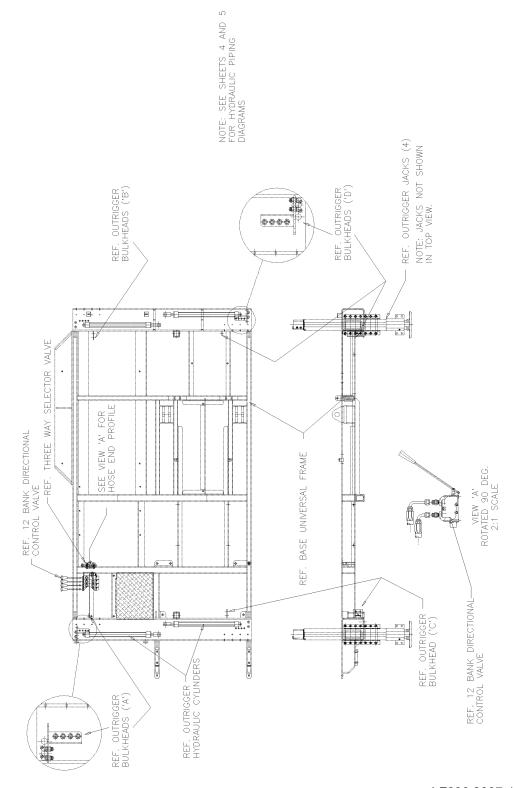


3546892 PIPING GRP, OUTRIGGER LF230

		ADAPTERS	
<u>8</u>	PART NO	DESCRIPTION	<u>OT</u>
21	36478 36465	Adap, Hyd #6 JIC x #6 ORB x 90° Adap, Hyd #6 JIC x #6 ORB	တထ
23	39224 36067	Z Z	16
25 25	36463	Ž Ž	14
26	36980	Adap, Hyd #12 JIC x 12 ORB x 90°	დ -
28	36960	Z Z	
29	36516	H,	12
30	33726	Hyd	4
31	39572	Hyd	7
32		Adap, Hyd #12 ORB (F) x #24 ORB (M)	_
	36445	Hyd	01
	MISCELL	MISCELLANEOUS COMPONENTS	
<u>0</u>	PART NO	DESCRIPTION	QTY
34	27878	CLAMP, HOSE	4

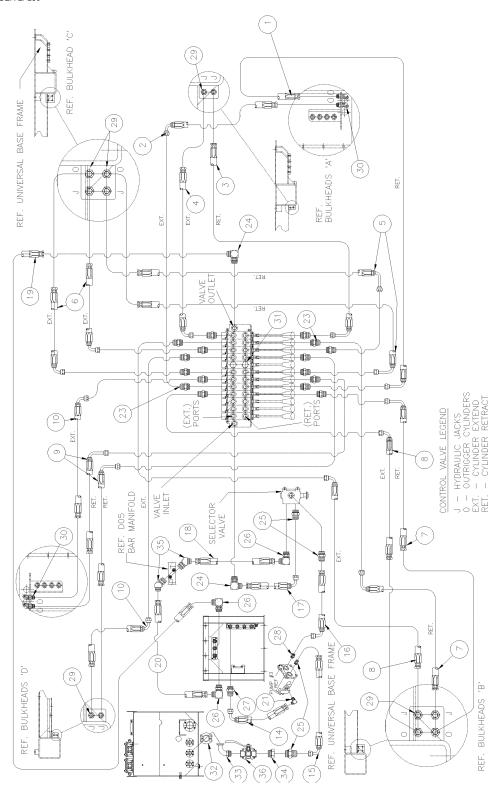


3546892 PIPING GRP, OUTRIGGER LF230



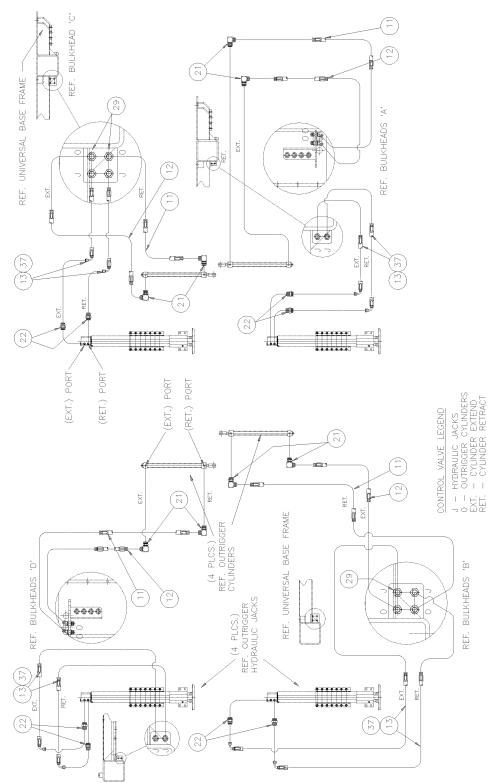


3546892 PIPING GRP, OUTRIGGER LF230





#### 3546892 PIPING GRP, OUTRIGGER LF230





## 5003424 MAINLINE HOIST LIMITER (OPTIONAL)

5003424 MAINLINE HOIST LIMITER (OPTIONAL)

# NO DRAWING AVAILABLE FOR THIS BOM

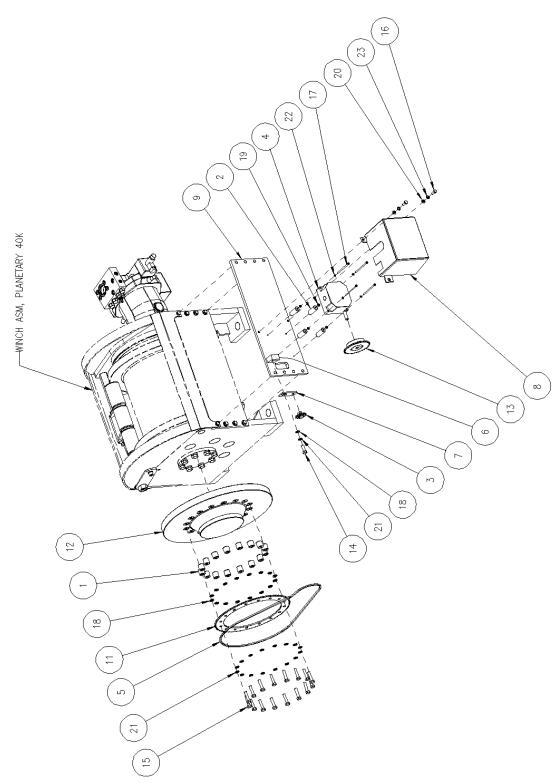


Item	Part No.	Name	Qty	Service
1	3004168	KIT, LF230 MAIN HOIST LIMITER	1	D



# 3004168 KIT, HOIST LIMITER 40K

3004168 KIT, HOIST LIMITER 40K



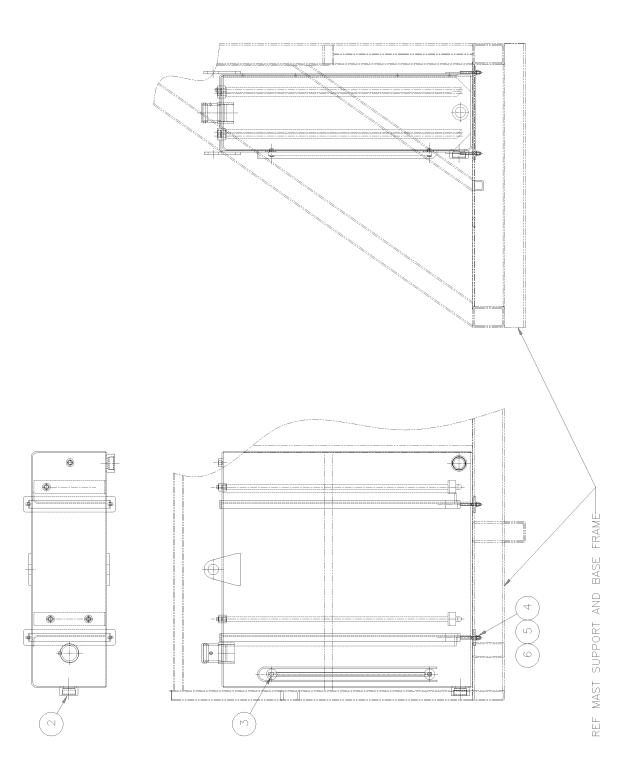


Item	Part No.	Name	Qty	Service
Ref	3004168	KIT, LF230 MAIN HOIST LIMITER	1	D
1	3004180	SPACER 25 OD x 11 ID x 20	16	
2	3004181	SPACER 20 OD x 6 ID x 50	4	
3	3004185	SPROCKET, IDLER 15T	1	
4	3004186	SWITCH, 40:1 ROTARY LIMIT	1	
5	3004187	CHAIN 3/8 PITCH x 6.5 FT	1	
6	3004188	BLOCK, ADJUSTING IDLER	1	
7	3004189	ARM, ADJUSTING IDLER	1	
8	5003972	COVER, SWITCH	1	
9	3004192	PLATE, TIE REWORK	1	
11	3004194	SPROCKET, 114T x 3/8 PITCH	1	
12	3004373	FLANGE REWORK, WINCH	1	
13	5003523	SPROCKET, 38 T x 3/8 PITCH	1	
14	68886	C/SCR, HH M10 X 1.5 X 30 G8.8	1	F
15	68889	C/SCR, HH M10 x 1.5 x 45	16	F
16	68861	C/SCR, HH M8 X 1.25 X 20 G8.8	2	F
17	93360	C/SCR, SH M5-0.8 X 90 G12.9	4	F
18	93252	WASHER, FLAT M10 SAE G2	17	F
19	93249	WASHER FLAT 5ID P	4	F
20	93251	WASHER, FLAT M8 SAE G2	2	F
21	93128	L/WASHER, SPRING M10	17	F
22	93125	L/WASHER, M5 G2	4	F
23	93127	L/WASHER, M8 G2	2	F



## 3547006 TANK ASM, 128 GAL FUEL LF230

3547006 TANK ASM, 128 GAL FUEL LF230





## 3547006 TANK ASM, 128 GAL FUEL LF230

Item	Part No.	Name	Qty	Service
1	34347	ADAP, HYD PLUG HH 32 ORB	1	F
2	3543931	GAUGE, FLUID LEVEL	1	
3	44621	WASHER, FLAT 1/2 SAE G8	4	F
4	44521	L/WASHER, 1/2 SAE G8	4	F
5	44525	NUT, HEX 1/2 UNC G8	4	F

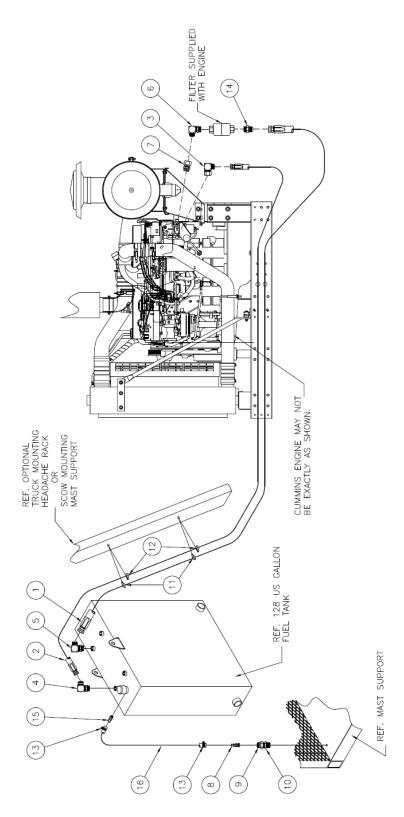
Comments for Page: 3547006 TANK ASM, 128 GAL FUEL LF230

(#5 44525)Supplied w/Power Unit



## 3547454 PIPING, LF230 FUEL TANK 128 US GALLON

3547006 TANK ASM, 128 GAL FUEL LF230



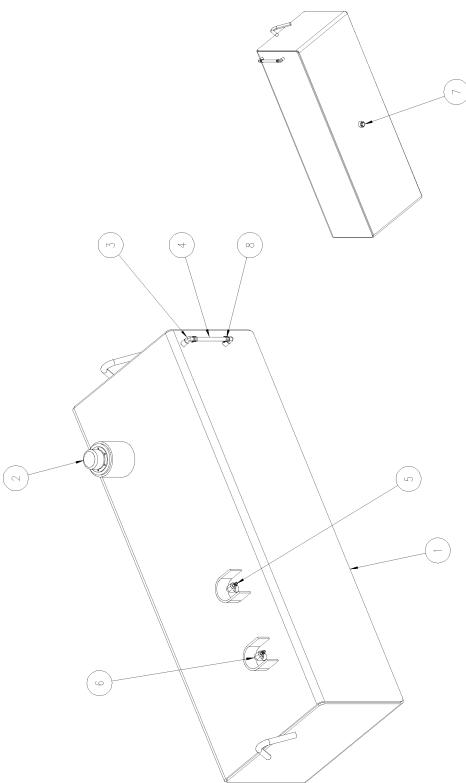


Item	Part No.	Name	Qty	Service
1	NOPARTNUMBER	HOSE ASM, 5/8" HOSE X 168" LG.	1	
2	NOPARTNUMBER	HOSE ASM, 1/2" HOSE X 192" LG.	1	
3	39690	ADAP, HYD 90 8JIC 8JIC-F	2	F
4	36457	ADAP, HYD 90 08JIC 08ORB	1	F
5	36404	ADAP, HYD 90 10JIC 8ORB	1	
6	35895	ADAP, HYD 12 JIC - 12 ORB x 90°	1	
7	103289	ADAP, HYD #10 ORB x #10JIC(F)	1	
8	NOPARTNUMBER	ADAP, 1/4 JIC(F) X 1/4 TUBE	1	
9	37757	ADAP, HYD STR 4JIC B/HEAD	1	
10	33879	ADAP, HYD LOCK NUT 04JIC	1	F
11	NOPARTNUMBER	CLAMP, 1' ID HOSE	2	
12	NOPARTNUMBER	CLAMP, 7/8 ID HOSE	2	
13	50392	CLAMP, HOSE	1	
14	33648	ADAP, HYD STR 10JIC 10ORB	1	F
15	101581	ADAPT, 1/4" NPTx 1/4" TUBE	1	
16	104552	HOSE, LOW PRESSURE [Ï1/4]	1	



# 3548571 TANK GROUP, 225 GAL FUEL LF230

3548571 TANK GROUP, 225 GAL FUEL LF230



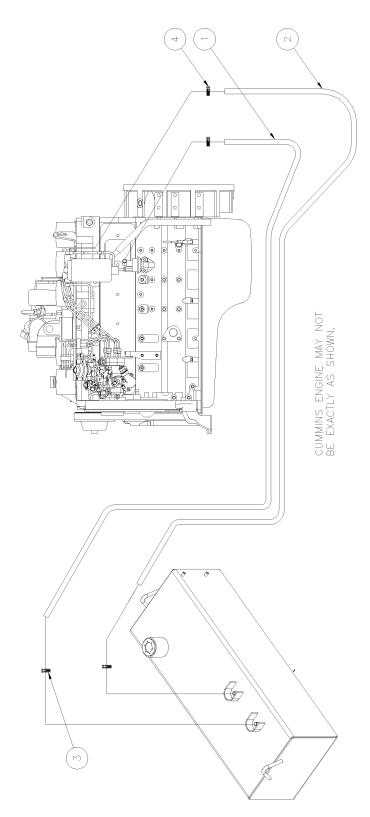


Item	Part No.	Name	Qty	Service
1	3548628	FUEL TANK, 225 US GAL	1	
2	100290	FILLER, BREATHER CAP	1	Α
3	100996	FITTING, HOSE END	1	
4	102017	HOSE, CLEAR PLASTIC 3/8 ID	1	F
5	NOPARTNUMBER	NO PART NUMBER	1	
6	NOPARTNUMBER	NO PART NUMBER	1	
8	NOPARTNUMBER	NO PART NUMBER	1	



## 3548254 FUEL PIPING GROUP 225 GAL TANK

3548571 TANK GROUP, 225 GAL FUEL LF230



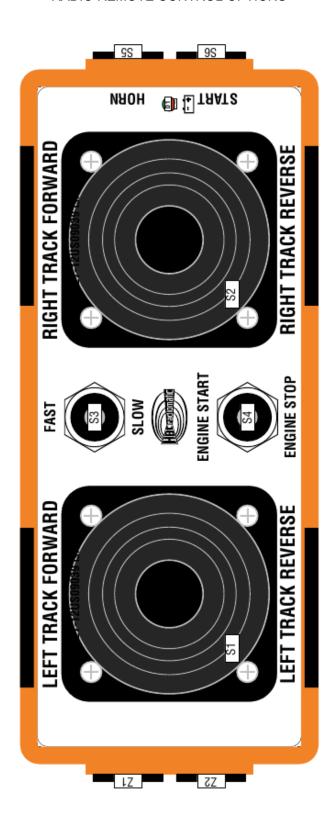


Item	Part No.	Name	Qty	Service
1	3542252	HOSE Ø1/2 X 120" Lg.	1	
2	3544544	HOSE, 5/16 ID SAE30R7	1	
3	8500435	CLAMP. HOSE SIZE 8	2	
4	306143	CLAMP, HOSE 5/8 OD	2	F



#### RADIO REMOTE CONTROL OPTIONS

RADIO REMOTE OPTIONS





Item	Part No.	Name	Qty	Service
1A	5401547	SYSTEM, RADIO REMOTE CONTROL CE (PRIOR TO 2017-508)		D

Comments for Part Num. 5401547

REPLACEMENT BATTERY # 8501177

REPLACEMENT BATTERY CHARGER 5405644

REPLACEMENT DATA CABLE (TETHER) 5405645

REPLACEMENT ANTENNAE CABLE 5405646

**REPLACEMENT ANTENNAE 5405647** 

1B 5401556 SYSTEM, RADIO REMOTE CONTROL FCC D

Comments for Part Num. 5401556

THIS RADIO FREQUENCY IS ONLY FOR USE IN USA, CANADA, AND MEXICO

**REPLACEMENT BATTERY #8501177** 

REPLACEMENT BATTERY CHARGER 5405644

REPLACEMENT DATA CABLE (TETHER) 5405645

REPLACEMENT ANTENNAE CABLE 5405646

**REPLACEMENT ANTENNAE 5405647** 

1C 5406025 SYSTEM, RADIO REMOTE CONTROL CE 2.4 GHz

Comments for Part Num. 5406025

THIS RADIO FREQUENCY (2.4 GHz) IS FOR USE IN ALL COUNTRIES

REPLACEMENT BATTERY # 8501177

REPLACEMENT BATTERY CHARGER 5405644

REPLACEMENT DATA CABLE (TETHER) 5405645

REPLACEMENT ANTENNAE CABLE TBA

REPLACEMENT ANTENNAE TBA

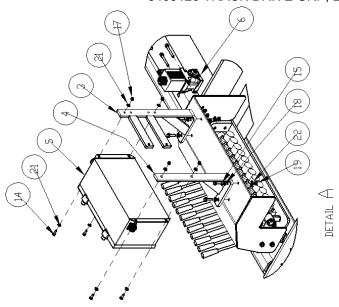


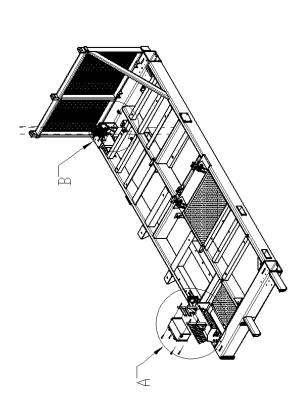
# 5403120 TRACK DRIVE GRP, LF230 BASIC

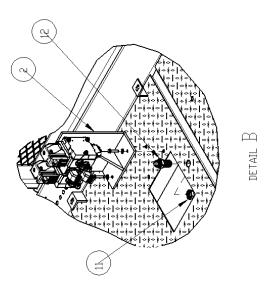
5403120 TRACK DRIVE GRP, LF230 BASIC



# 5403120 TRACK DRIVE GRP, LF230 BASIC







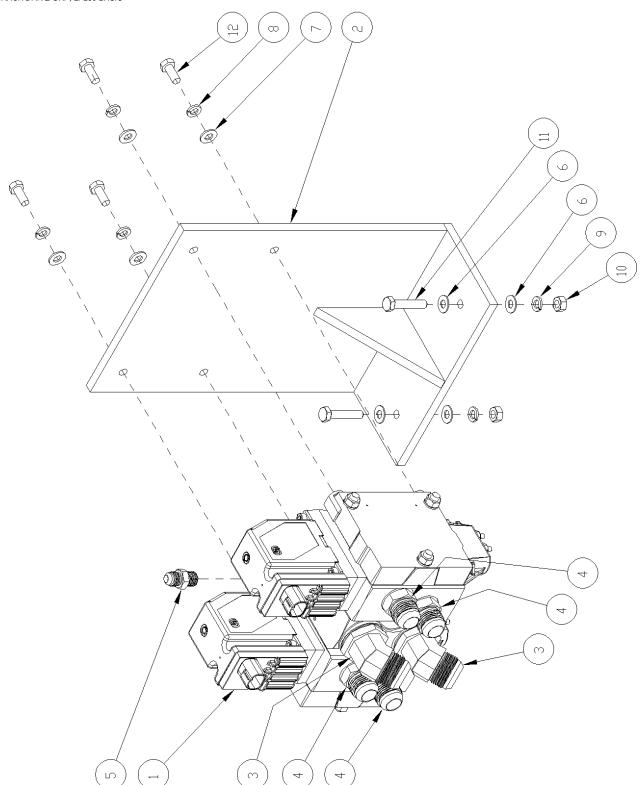


Item	Part No.	Name	Qty	Service
REF	5403120	TRACK DRIVE GRP, LF230 BASIC	1	D
1	5401837	TRACK MOUNT, LF230	1	D
2	5404315	VALVE ASM, TRACK DRIVE	1	D
3	5402885	BRACKET, ENCLOSURE MOUNTING LH	1	D
4	5402886	BRACKET, ENCLOSURE MOUNTING RH	1	D
5	5404025	ENCLOSURE, ELECTRICAL	1	D
6	5403090	VALVE ASM, HYD 3-WAY 12VDC	1	D
7	43516	VALVE, HYD SHUTTLE 6 ORB	1	D
8	5404013	CABLE ASM, 14 PIN, x 56 LG	1	D
9	5404014	CABLE ASM, TRACTION VALVE	1	D
10	5404015	CABLE ASM, DIVERTER VALVE	1	D
11	33884	ADAP, HYD LOCK NUT 12JIC	1	F
12	36514	ADAP, HYD STR BULKHEAD 12 JIC	1	
13	5404368	BRACKET, TIE-DOWN	6	D
14	68838	C/SCR, HH M6 X 1.0 X 20 G8.8	4	F
15	68863	C/SCR, HH M8 X 1.25 X 30 G8.8	4	F
16	44505	C/SCR, HH 3/4 UNC X 2-1/2 G8	24	F
17	93340	L/NUT, NYLOK M6-1 G8.8 ZP	4	F
18	93127	L/WASHER, M8 G2	4	F
19	93114	NUT, HEX M8-1.25 CL8	4	F
20	22918	L/NUT, 3/4" UNC GR8 SLOTTED ESL	24	F
21	93250	WASHER, FLAT M6 SAE G2	8	F
22	93251	WASHER, FLAT M8 SAE G2	4	F
23	46091	WASHER, FLAT 3/4 SAE G8	48	F



#### 5404315 VALVE ASM, LF230 TRACK DRIVE

5403120 TRACK DRIVE GRP, LF230 BASIC



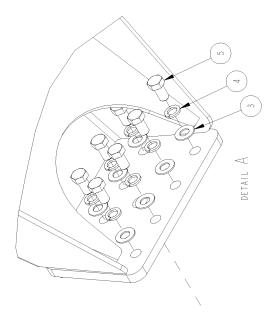


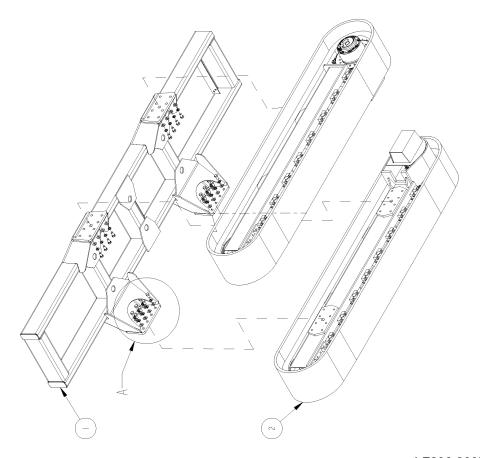
Item	Part No.	Name	Qty	Service		
1	5403098	VALVE, HYD 2 SPOOL 11-32V	1			
Comments for Part Num. 5403098						
REPLACEME	ENT VALVE SOLENOI	D 11-32V DEUTSCH 5403099				
2	5403865	BRACKET, LF230 TRACTION VALVE MOUNTING	1			
3	36431	ADAP, HYD 45 16JIC 16ORB	2	F		
4	36960	ADAP, HYD STR 12JIC 10ORB	4	F		
5	36465	ADAP, HYD STR 6JIC 6ORB	1	F		
6	93251	WASHER, FLAT M8 SAE G2	6	F		
7	46510	WASHER, FLAT 5/16 SAE G8	4	F		
8	44519	L/WASHER, 5/16 SAE G8	4	F		
9	93127	L/WASHER, M8 G2	3	F		
10	93114	NUT, HEX M8-1.25 CL8	3	F		
11	68865	C/SCR, HH M8 X 1.25 X 40	3	F		
12	44551	C/SCR, HH 5/16 UNC X 3/4 G8	4	F		



#### 5401837 TRACK MOUNT, LF230

5401837 TRACK MOUNT, LF230





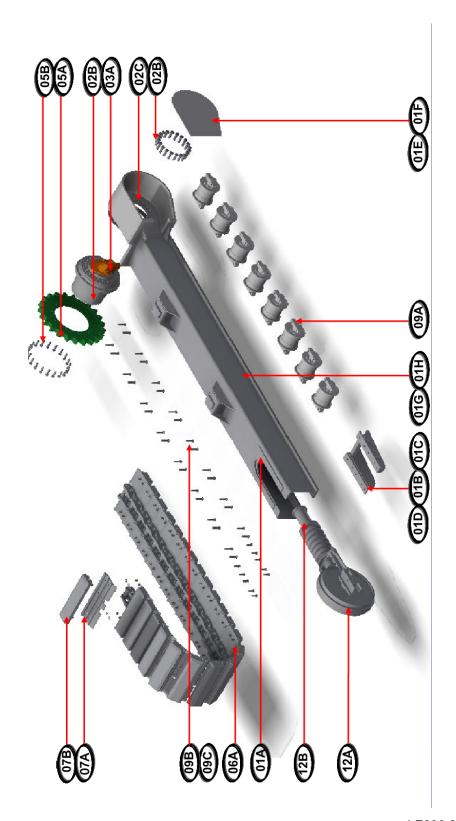


Item	Part No.	Name	Qty	Service	
REF	5401837	TRACK MOUNT, LF230	1	D	
1	5401834	ADAPTER, LF230 TRACK	1	D	
2	5401833	TRACK ASM, WELDED	1	D	
Comments for Part Num. 5401833 SEE PARTS BREAKDOWN UNDER P/N 5401552					
3	59528	WASHER SAFETY 24ID	32	F	
4	5003069	L/WASHER, M24 GR10.9	32		
5	93557	C/SCR HH M24-3 X 45 G8.8	32	F	



#### 5401552 TRACK FRAME ASM

5401837 TRACK MOUNT, LF230



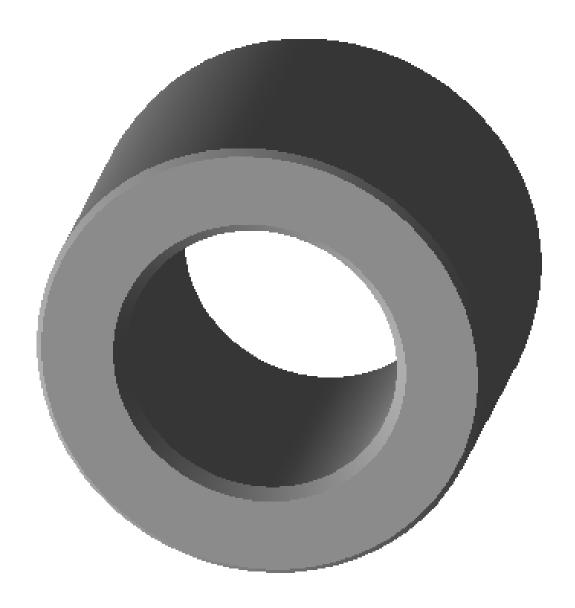


Item	Part No.	Name	Qty	Service			
REF	5401552	TRACK FRAME ASM, (BARE)	REF	D			
Comments fo	Comments for Part Num. 5401552						
BARE TRAC	KS NOT AVAILABLE V	VITHOUT MOUNTING PLATES - ORDER # 5401833					
2B	5404767	FINAL DRIVE, BREVINI CTU3200 LF230	REF	D			
ЗА	5404766	MOTOR, TRACK FRAME LF230	REF	D			
5A	5404768	SPROCKET, TRACK FRAME LF230	REF	D			
6A	5404771	LINK ASM, TRACK FRAME LF230	REF	D			
7A	5404770	SHOE, TRACK FRAME LF230	REF	D			
9A	5404769	ROLLER, TRACK FRAME LF230	REF	D			
12A	5404764	IDLER GRP, TRACK FRAME LF230	REF	D			
12B	5404763	VALVE, TRACK ADJUSTER GREASE LF90D	REF	D			
12C	5403899	COUPLER, GREASE GUN (FOR BUTTON HEAD TYPE FITTING)	REF	D			
REF2	5404765	VALVE, MC TRACK FRAME LF230	REF	D			



#### 3546455M-F070 OC UPPER GUIDE BUSHING (5.06 SPINDLE)

CHUCK UPPER GUIDE BUSHING





Item	Part No.	Name	Qty	Service
1	3546862	BUSHING, GUIDE UPPER BQ	1	В
2	3546861	BUSHING, GUIDE UPPER NQ	1	В
3	3546863	BUSHING, GUIDE UPPER HQ	1	В



#### 3548366-F050 OC PQ CHUCK JAW

PQ CHUCK JAWS



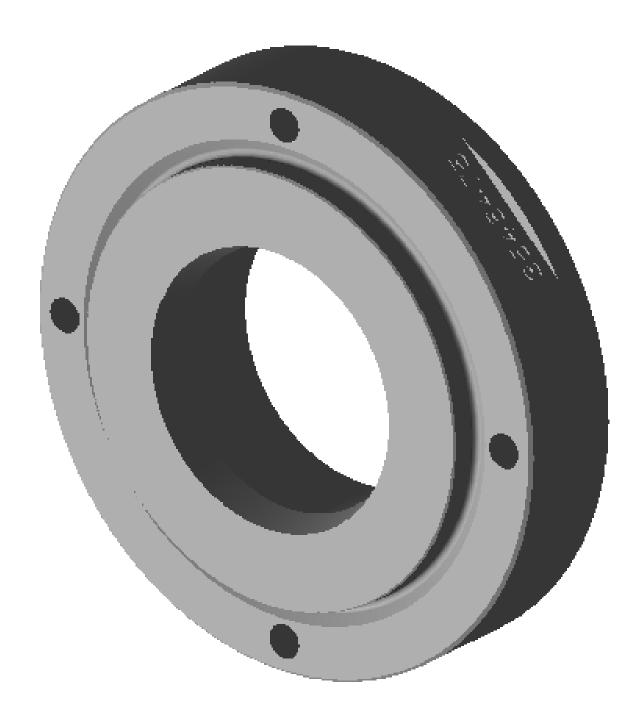


Item	Part No.	Name	Qty	Service
1	3543494	JAW, BQ PQ-CHUCK	7	В
2	3543291	JAW, NQ PQ-CHUCK	7	В
3	3543290	JAW, HQ PQ-CHUCK	7	В
4	3543289	JAW, PQ PQ-CHUCK	7	В



#### 3546455M-F060 OC HEAD LOWER SPINDLE BUSHING (5.06 SPINDLE)

HEAD LOWER SPINDLE BUSHINGS





Item	Part No.	Name	Qty	Service
1	3546867	BUSHING, BQ SPINDLE	1	В
2	3546475	BUSHING, NQ SPINDLE	1	В
3	3546476	BUSHING, HQ SPINDLE	1	В



#### 101752-F050 OC ROD CLAMP JAWS

ROD CLAMP SLIP SETS





Item	Part No.	Name	Qty	Service
1	41614	JAW, SLIP BOT BQ FT CLAMP (41613 SET OF 2)	2	В
2	41616	JAW, SLIP BOT NQ FT CLAMP (41615 SET OF 2)	2	В
3	41618	JAW, SLIP BOT HQ FT CLAMP (41617 SET OF 2)	2	В
4	50240	JAW, SLIP HWT CSG (50241 SET OF 2)	2	В
5	3546644	JAW, SLIP PW CSG (3547272 SET OF 2)	2	В



#### 3546455M-F080 OC ROD SUPPORT BUSHING

ROD SUPPORT BUSHING





Item	Part No.	Name	Qty	Service
Ref	3546455M-F080	OC ROD SUPPORT BUSHING	1	Е
65	3544176	BUSHING, BQ ROD SUPPORT	1	В
66	3543132	BUSHING, NQ ROD SUPPORT	1	В
67	3543133	BUSHING, HQ ROD SUPPORT	1	В
68	3542596	BUSHING, PQ ROD SUPPORT	1	В

#### 101752-F040 OC MUDFUNNEL ADAPTER



101752-F040 OC MUDFUNNEL ADAPTER

# NO DRAWING AVAILABLE FOR THIS BOM

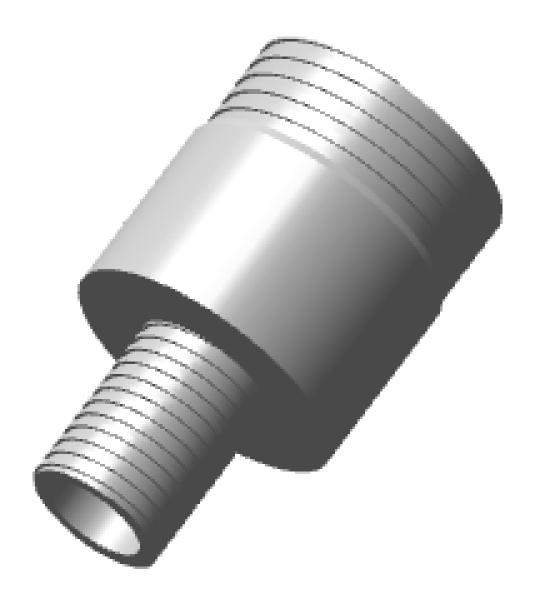


Item	Part No.	Name	Qty	Service
1	3546650	ADAPTER, BRQ MUDFUNNEL	1	D
2	3545366	ADAPTER, NQ MUDFUNNEL	1	D
3	3546196	ADAPTER, HQ MUDFUNNEL	1	D
4	3546204	ADAPTER, HWT MUDFUNNEL	1	D



#### 101752-F060 OC HOIST PLUG ADAPTER SUBS

101752-F060 OC HOIST PLUG ADAPTER SUBS



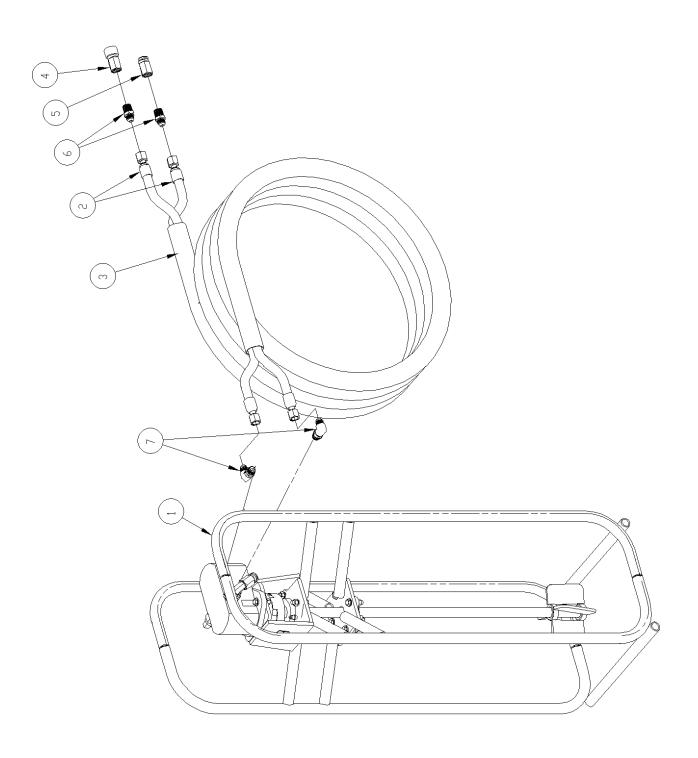


Item	Part No.	Name	Qty	Service
1	3542883	SUB, NW R/P BRQ R/P BULLNOSE	1	В
2	3542934	SUB, NW R/P BQ R/P BULLNOSE	1	В
3	3542884	SUB, NW R/P NRQ R/P BULLNOSE	1	В
4	3542932	SUB, NW R/P NQ R/P BULLNOSE	1	В
5	3542885	SUB, NW R/P HRQ R/P BULLNOSE	1	В
6	3542933	SUB, NW R/P HQ R/P BULLNOSE	1	В
7	102912	SUB, NW R/P PHD/HWT R/P	1	В
8	3544177	SUB, NW R/P SHD/PWT R/P	1	В



#### MUD MIXER GROUP

5405142 MUD MIXER GRP (OPTIONAL)

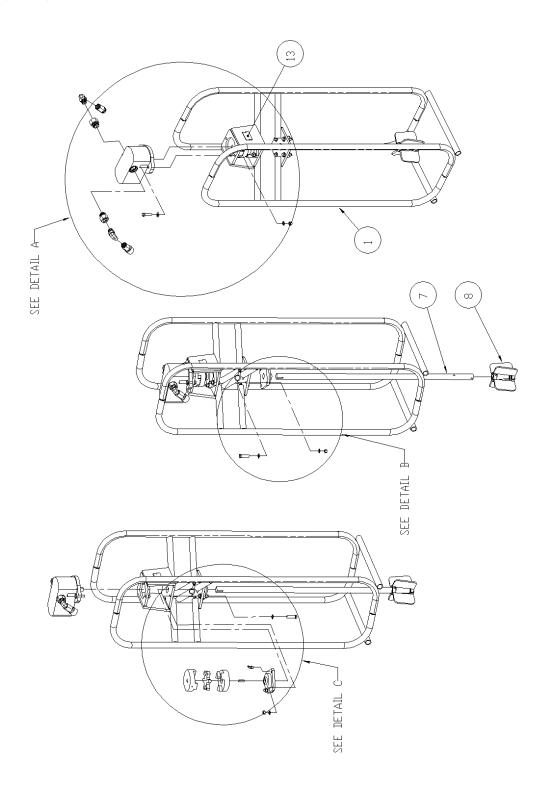




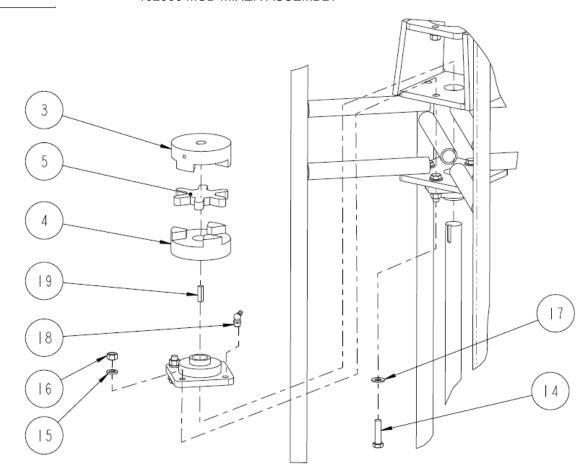
Item	Part No.	Name	Qty	Service
1	102306	MUD MIXER, HYD PORTABLE	1	С
2	5405330	HOSE ASM, 1/2" ID X 25 FT	2	С
3	101871	SLEEVE, HOSE 2" ID x (LGTH. in FEET)	24	E
4	101536	COUPLER, QD 1/2 NPTF	1	F
5	101537	NIPPLE, QD 1/2 NPTF	1	F
6	18891	ADAP, HYD STR 8JIC 8NPTF	2	F
7	36457	ADAP, HYD 90 08JIC 08ORB	2	F



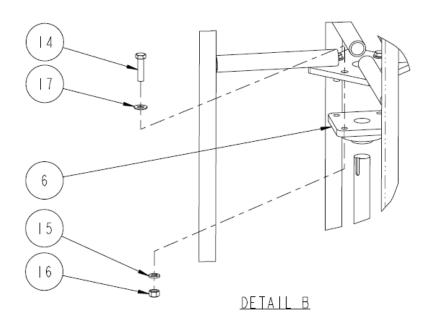
5405142 MUD MIXER GRP (OPTIONAL)



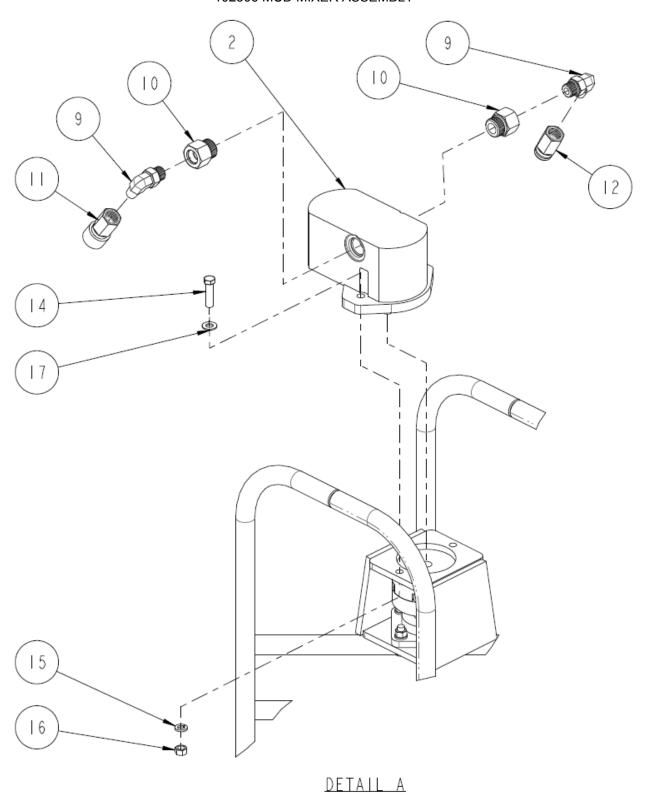




#### DETAIL C









Item	Part No.	Name	Qty	Service				
1	101486	FRAME ASM, PORTABLE MUD MIXER	1	D				
2	5402303	MOTOR, HYD MUD MIXER	1	С				
Comments for	Comments for Part Num. 5402303							
MOTOR SEA	AL KIT # 5402415 L # 3549579							
3	101557	CPLG, JAW 5/8 BORE	1	А				
4	101490	CPLG, 1 JAW	1	Α				
5	101494	SPIDER, RUBBER	1	Α				
6	101493	BEARING, BALL FLANGE	2	В				
7	101488	SHAFT, MUD MIXER	1	С				
8	101492	PROPELLER ASM, MUD MIXER	1	С				
9	102190	ADAP, HYD 90 8ORB x 8NPT	2	F				
10	34214	ADAP, HYD STR 120RB 80RBF	2	F				
11	101536	COUPLER, QD 1/2 NPTF	1	F				
12	101537	NIPPLE, QD 1/2 NPTF	1	F				
13	38298	PLATE, ASSEMBLY IDENTIFICATION	1	E				
14	44536	C/SCR, HH 3/8 UNC X 1-1/2 G8	10	F				
15	44520	L/WASHER, 3/8 SAE G8	10	F				
16	44527	NUT, HEX 3/8 UNC G8	10	F				
17	44859	WASHER, FLAT 3/8 SAE G8	2	F				
18	19917	FITTING, GREASE 1/8 NPT 45 DEG	2	F				
19	46152	KEY, 1/4 SQ X 1 LG	1	F				

Comments for Page: 102306 MUD MIXER ASSEMBLY

MUD MIXER SPARES KIT # 102633

OLD MOTOR SPARES ARE AS FOLLOWS:
EATON MOTOR - 3549626 NO LONGER AVAILABLE

SEAL KIT 3549578 SHAFT SEAL 3549579

CROSS MOTOR - 101491 NO LONGER AVAILABLE

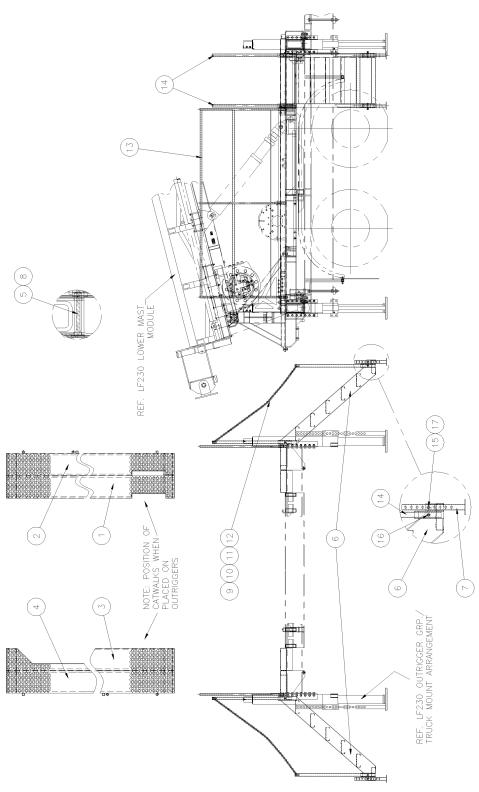


SEAL KIT 180133 SHAFT SEAL 96983



#### 3546871 CATWALK GRP, STAIRS & RAILING PRIOR TO S/N 2010-065

CATWALK GRP, STAIRS & RAILINGS



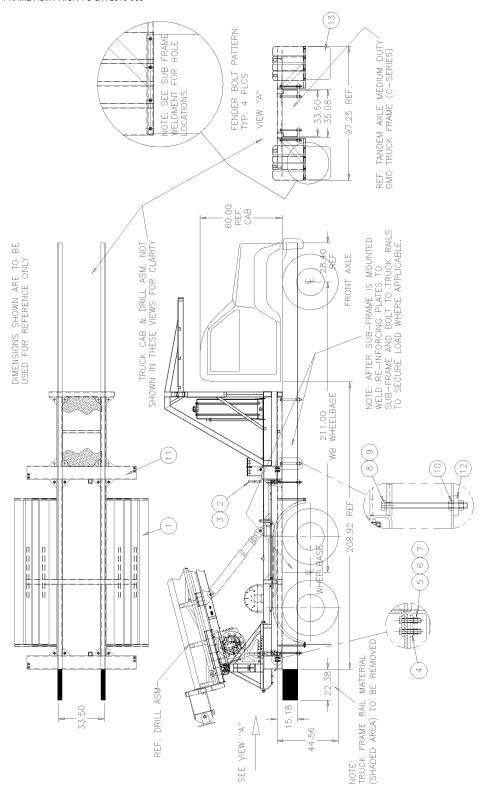


Item	Part No.	Name	Qty	Service
1	3543351	CATWALK, OUTRIGGER RIGHT SIDE	1	
2	3543352	CATWALK, OUTRIGGER RIGHT SIDE	1	
3	3546870	CATWALK, OUTRIGGER LEFT SIDE	1	
4	3546869	CATWALK, OUTRIGGER LEFT SIDE	1	
5	3543353	PIN, LOCKING CATWALK	4	D
6	3544094	STAIRS, CATWALK (DYNATEC)	2	D
7	3544114	SUPPORT LEG, STAIRS (DYNATEC)	4	D
8	102113	CLIP, HITCH PIN	4	F
9	24964	CHAIN, 1/4" (30.5" LONG QTY 2)	5.5	E
10	24964	CHAIN, 1/4" (30.5" LONG QTY 2)	5.5	E
11	24964	CHAIN, 1/4" (30.5" LONG QTY 2)	5.5	E
12	24964	CHAIN, 1/4" (30.5" LONG QTY 2)	5.5	E
13	3544153	RAILING, CATWALK LF140	2	
14	3544154	POST, RAILING (STAIRS) LF140	8	D
15	44532	C/SCR, HH 1/2 UNC X 2-3/4 G8	4	F
16	44513	C/SCR, HH 1/2 UNC X 1 G8	8	F
17	23936	L/NUT, NYLOK 1/2 UNC G8	4	F



#### 3542304 TRUCK MOUNT SUB-FRAME ASM PRIOR TO S/N 2010-065

3542304 TRUCK MOUNT SUB-FRAME ASM PRIOR TO S/N 2010-065





Item	Part No.	Name	Qty	Service
1	3543104	FENDER, ALUMINUM	2	
2	3543256	PIN, BULL UNIVERSAL BASE FRAME	2	
3	3542351	PIN, BENT PULL 1/2 DIA	2	
4	3543273	SPACER, UNIVERSAL BASE FRAME	8	
5	37628	C/SCR, HH 3/4 UNC X 3-1/2	8	F
6	44523	L/WASHER, 3/4 SAE G8	8	F
7	44524	NUT, HEX 3/4 UNC G8	8	F
8	TBA	ENGINE PIPING GPR	16	
9	44575	L/WASHER, 1" SAE G8	16	F
10	44573	NUT, HEX 1" UNC G8	32	F
11	3546850	FRAME, SUB-BASE TRUCK	1	
12	3546851	PLATE, TRUCK MOUNT CLAMPING	8	
13	3546852	MUD FLAP, LF230 TRUCK MOUNT	2	



## LF™230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### & BOART LONGYEAR

Drill Serial Number Range: LF230-2011-001 thru current

For Drill Build: DRILL MODULE, LF230 (3546455 Rev: L)
Document Number: 5400781 Rev. C

Effective Date: 1-May-2017

KIT SUM	ЛMARY					
Level	1	2	3	Description	QTY	For Base Drill / Option
1	3547262			KIT, HYD MANIFOLD SPARES	1	Basic Drill Assembly (5003188)
1	5401433			KIT, W/L HOIST SPARES LF230	1	Basic Drill Assembly (5003188)
1	3546954			KIT, 40K BRADEN HOIST SPARES	1	Basic Drill Assembly (5003188)
1	5401479			KIT, LF230 CTRL PANEL SPARES	1	Basic Drill Assembly (5003188)
1	5401398			KIT, LF230 HYD FILTER 1000HRS	1	Basic Drill Assembly (5003188)
1	3547260			KIT, HYDRAULIC TANK SPARES	1	Basic Drill Assembly (5003188)
1	3547257			KIT, LOWER MAST SPARES	1	Basic Drill Assembly (5003188)
1	3548175			KIT, PARKER P3 SEAL	1	Basic Drill Assembly (5003188)
1	3547271			KIT, MAST SLIDE CYLINDER SEAL (DUMP)	1	Basic Drill Assembly (5003188)
1	3547259			KIT, CROWN BLOCK SPARES	1	Basic Drill Assembly (5003188)
1	3547258			KIT, PQ HEAD SPARES LF230	1	PQ Nitro Chuck™ Head (3546088)
1	3544255			VALVE ASM, LOCK LEVELING JACK	1	Hydraulic Leveling Jacks (3546719)
1	3544256			KIT, LOCK VALVE ASM SEAL	1	Hydraulic Leveling Jacks (3546719)
1	5401431			KIT, QSC8.3 TIER 3 FILTER 1000HRS	1	TIER 3 Engine / Pump Module (5003254)
1	5401432			KIT, QSC8.3 TIER 3 SPARES	1	TIER 3 Engine / Pump Module (5003254)
1	5401633			KIT, UPPER CONSOLE SPARES TIER 3	1	TIER 3 Engine / Pump Module (5003254)
1	5405223			KIT, QSL9.0 TIER 4i FILTER 1000 HRS	1	TIER 4i Engine / Pump Module (5405279)
1	5405517			KIT, QSL9.0 TIER 4i SPARES	1	TIER 4i Engine / Pump Module (5405279)
1	5405516			KIT, UPPER CONSOLE SPARES QSL9.0 TIER 4i	1	TIER 4i Engine / Pump Module (5405279)
1	102631			KIT, W11 SPARES	1	W11 Fluid Circulation Pump (3547029)
1	5401289			KIT, L09 PUMP MODULE SPARES	1	Diesel Powered Supply Pump (3670446)
1	102633			KIT, MUD MIXER PORTABLE SPARES	1	Portable Mud Mixer (102306)
1	3541118			KIT, MUD MIXER 250GAL SPARES	1	Mud Tank & Mixer (3540997)

Level 1 - Part numbers to order for a complete kit.

Level 2 & 3 - Part numbers represent the items included in complete kits. They are also available for individual purchase. (Some exceptions apply)

#### SPARES FOR BASIC DRILL ASSEMBLY - DETAIL

Level	1	2	3	Description	QTY	For Base Drill / Option
1	3547262			KIT, HYD MANIFOLD SPARES	1	Basic Drill Assembly (5003188)
2		3543401		VALVE, PRESS REDUCING	1	
2		100705		VALVE, 2 POS 3-WAY CARTRIDGE	1	
2		3543688		VALVE, REDUCING/RELIEVING	1	
2		3543297		CARTRIDGE, HYD CHECK	1	
2		97001		VALVE, CARTRIDGE	1	
2		97003		CARTRIDGE, RELIEF VALVE	1	
2		97004		VALVE, CARTRIDGE RELIEF	1	
2		97005		CARTRIDGE, NEEDLE VALVE	1	
2		97006		CARTRIDGE, VALVE SEQUENCE	1	
2		103329		CARTRIDGE, COUNTER BALANCE	2	
2		3547013		CARTRIDGE, SHUTTLE VALVE	1	
2		103316		VALVE, CARTRIDGE CHECK	1	
2		3543453		VALVE, PRESSURE REDUCING	1	
OTHER SE	ERVICE PARTS					
1	3544255			VALVE ASM, LOCK LEVELING JACK	1	Hydraulic Leveling Jacks (3546719)
1	3544256			KIT, LOCK VALVE ASM SEAL	1	Hydraulic Leveling Jacks (3546719)
1	5000082			KIT, JACK CYL. REBUILD		
1	5401433			KIT, W/L HOIST SPARES LF230	1	Basic Drill Assembly (5003188)
2		89807		BEARING BALL 20ID	2	
2		3003914		CHAIN, 3/8P X 142P ROLLER	1	
2		3070409		BEARING, FLANGE 35ID Y-TYPE	2	
2		3070406		BRG, BALL DEEP GROOVE BALL	1	
OTHER SE	ERVICE PARTS					
1	3069480			VALVE, SHUTTLE	1	
1	3070567			CARTRIDGE, COUNTERBALANCE	1	
1	3070718			CARTRIDGE, FLOW CTRL	1	



# LF\*230 RECOMMENDED SPARES LIST

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### **№ BOART LONGYEAR**\*

1	3546942	KIT, 40K BRADEN HOIST SEAL	1	Basic Drill Assembly (5003188)
1	3547276	KIT, 40K M/L HOIST MOTOR SEAL	1	Basic Drill Assembly (5003188)



# LF 230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### & BOART LONGYEAR

#### SPARES FOR BASIC DRILL ASSEMBLY - DETAIL (continued)

Level	1	2	3	Description	QTY	For Base Drill / Option
1	3546954			KIT, 40K BRADEN HOIST SPARES	1	Basic Drill Assembly (5003188)
2		NA		WASHER, THRUST	1	Dasic Drill Assembly (5005100)
2		NA		WASHER, THRUST	6	
2		NA		ROLLER	51	1
2		NA		SPIROL PIN	6	1
2		NA		ROLLER	42	
2		NA		WASHER, THRUST	6	
2		NA		BEARING SPACER	3	1
2		NA		BEARING CUP	6	1
2		NA		BEARING CONE	6	
2		NA		ROLL PIN	3	
2		NA		FRICTION DISC	9	
2		NA		BRAKE DISC	9	
2		NA		SPRING	1	
2		NA		SIGHT GAUGE	1	
2		NA		BEARING CUP	1	-
2		NA		BEARING CONE	1	-
2		NA		HOSE ASSY	1	-
2		NA		HOSE ASSY	1	
2		3547275		SPRAG CLUTCH ASSY	1	
2		NA SS47275		BEARING CUP	1	
2		NA		BEARING CONE	1	
2		NA		WASHER, THRUST	1	
2		NA		WASHER, THRUST	1	
2		5400938		ANCHOR, CABLE	1	
2		NA S400330		SPHERIAL ROLLER BEARING	1	
2		NA		LOCKWASHER	4	
2		NA		CAPSCREW	4	
1	5401479	TOA		KIT, LF230 CTRL PANEL SPARES	1	Basic Drill Assembly (5003188)
2	3401473	3542112		SWITCH, SELECTOR 3 POSITION	1	Busic Brill Assembly (5000 200)
2		3540067		SWITCH, SELECTOR (2-POSITION)	1	
2		3549293		JOYSTICK, DANFOSS SAFETY	1	
2		3549307		JOYSTICK, PQ ROTATION C/W LOCK	1	
2		3541292		POTENTIOMETER, 1K	1	-
2		3547298		BUTTON, EMERGENCY STOP PUSH	1	
2		3549308		SWITCH ASM, LF230 MAKE/BREAK	1	
2		3547303		BREAKER, 15 AMP	1	
2		3541330		BREAKER, 10AMP CIRCUIT	1	
2		3541331		BREAKER, 5AMP CIRCUIT	1	1
2		3547302		BREAKER, 2 AMP	1	1
2		3549445		CUBE, MAKE/BREAK CIRCUIT	1	
2		3548327		RELAY, 12VDC	1	
2		3547921		RELAY, TIMER	1	1
2		3070513		RAMP GENERATOR, WIRELINE	1	
2		3070515		TIMER, DELAY ON RELEASE	1	
2		3549481		CONNECTOR, TURCK 4 PIN	4	
2		5003569		RELAY, 12VDC TERMINAL BLOCK	1	
2		5004309		RELAY, 12/24V TIMED	1	
2		5004309		CABLE, 2M LG MICRO M12	1	
2		3542393		CONNECTOR, ELECT DIN LED	1	
2		5003464		CONNECTOR, ELECT DIN MINI	1	
2		5003465		CONNECTOR, ELECT DIN MICRO	1	
1	5401398			KIT, LF230 HYD FILTER 1000HRS	1	Basic Drill Assembly (5003188)
2	J-101536	100236		ELEMENT, HYD FILTER OIL RETURN (High Pressure)	4	
2		3542297		ELEMENT, MEDIUM PRESS FILTER (Head)	4	
2		100190		ELEMENT, SPIN-ON FILTER	3	
OTHER SI	ERVICE PARTS	100130		CELINEAT, STITE ON TELLIA	3	
1	5007295			INDICATOR, DIRTY FILTER (Head)	1	
1	3549185			INDICATOR, DIRTY FILTER (Return Filter)	1	
1	5405752			SEAL KIT, RETURN FILTER	1	
1	3547260			KIT, HYDRAULIC TANK SPARES	1	Basic Drill Assembly (5003188)
2	3347200	3548020		GAUGE, FLUID LEVEL	1	Dasic Dilli Assertisty (3003100)
2		100236		ELEMENT, HYD FILTER OIL RETURN	6	
OTHER C	I ERVICE PARTS HY			CELIMENT, THE TIETEN OIL NETONIN	U	
1	96839			SEAL, 14" RESERVOIR COVER	1	1
1	180146			WASHER, 5/8 CRUSH	1	
1	100140			WASHER, 3/0 CROSH	1	



# LF™230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### & BOART LONGYEAR

#### SPARES FOR BASIC DRILL ASSEMBLY - DETAIL (continued)

Level	1	2	3	Description	QTY	For Base Drill / Option
1	3547257	2544222		KIT, LOWER MAST SPARES	1	Basic Drill Assembly (5003188)
2		3541889 3546115		SEAL KIT, TELESCOPIC CYLINDER (Mast Raise)	2 2	
2		43021		SEAL KIT, HYDRAULIC CYLINDER (Feed) SEAL KIT, HYD CYLINDER (Parker)	2	
2		3546617		WEAR STRIP, UPPER	2	
2		3546618		WEAR STRIP, CENTER	2	
2		3546619		WEAR STRIP, LOWER	2	
2		3546631		BUSHING, 1"ID 1-1/4"OD 1-1/2	1	
2		3546627		BUSHING, 1-1/4"ID 1-1/2 2"LG	2	
2		3541120 3541119		WEAR STRIP, TOP MAST SLIDE WEAR STRIP, BOTTOM MAST SLIDE	2	4
2		3541119		WEAR STRIP, BOTTOM MAST SLIDE WEAR STRIP, UPPER MAST SLIDE AS	2	4
2		3540671		WEAR STRIP,LOWER MAST SLIDE AS	2	1
2		3540783		WEAR STRIP, UPPER MAST RAISING	2	1
2		3540786		WEAR STRIP, LOWER MAST RAISING	2	
OTHER SE	RVICE PARTS					
1	104864			CARTRIDGE, HYD CB 3:1	1	Used in Feed Cyliner
1	5404567			SEAL KIT, ROD SLIDE CYLINDER	1	4
1	96770			KIT, CARTRIDGE SEAL	1	4
1	5405754 3548175			SEAL KIT, ROD CLAMP CYLINDER (EATON) KIT, PARKER P3 SEAL	1	Basic Drill Assembly (5003188)
1	3547271			KIT, MAST SLIDE CYLINDER SEAL (DUMP)	1	Basic Drill Assembly (5003188)
1	3547259			KIT, CROWN BLOCK SPARES	1	Basic Drill Assembly (5003188)
2		3546732		SHEAVE ASM, LF230 CROWN BLOCK	1	
2		104141		SHEAVE, W/L 8" REWORK	2	
2		3547038		BEARING, DOUBLE SHEILD BALL	4	
1	3547258			KIT, PQ HEAD SPARES LF230	1	PQ Nitro Chuck™ Head (3546088)
2		3541832		SEAL KIT, PQ ROTATION MOTOR	1	4
2		3543526		SEAL KIT, PQ N/CHUCK CUP SEAL, INNER URETHANE	1	
3				CUP SEAL, OUTER URETHANE	2	+
3				CUP SEAL, PISTON URETHANE	1	1
3				O'RING, PQ CHUCK SPINDLE	1	
3			3543505	O'RING, PQ CHUCK CYLINDER	1	
3				RING, BACK-UP PQ CHUCK CYLINDER	1	
3				SEAL, OIL GUIDE PIN	3	
3		5000405		O'RING, GAS SPRING PQ CHUCK	7	
2		5000405		SEAL KIT, PQ HEAD O-RING, SAE 237 BUNA-N 70D	1	
3				SHIM, .005 THICK	3	+
3				SHIM, .007 THICK	3	1
3				SHIM, .020 THICK	1	1
3			3548734	O-RING, SAE 276 VITON 75D	1	
3				O-RING, SAE 270 VITON 75D	1	
3				SEAL, ID 5.75" OD 6.625" OIL	2	
3				SEAL, ID 8.5" OD 9.75" OIL	2	
3				O-RING, SAE 235 BUNA-N 70D O-RING, SAE 257 VITON 75D	2	4
3				WIRE, O.47 DIA SAFETY (TRAX6")	6 IN	4
2		3541060		KIT, FUNK TRANS OVERHAUL	1	
3		-22.2000		SLEEVE, BEARING	1	
3				BEARING, 2ND,3RD CENTER SHFT	4	
3			3549020	BEARING, FUNK TRANS	1	
3				BRG, REAR	1	
3				ROLLER, 34 PER SET	34	
3				WASHER, PQ HEAD THRUST REWORK	1	
3				BEARING, GASKET,	1	
3				GASKET, GREASE, COUPLING	1	
3				DISC, TRANSMISSION INTERLOCK	1	
3				SPRING, EXTRA HEAVY GREEN DIE	2	
3				PIN, ROLL	4	
3				PIN, ROLL	4	
3				SEAL, OIL	2	
3				SEAL, RING FUNK TRANS LF140	1	
3				PILOT, BEARING TRANS	1	
3				BEARING, BALL SPACER,	1	
3				BEARING, FUNK TRANSMISSION	1	
3				SNAP RING	1	
3				SPACER, SHIM	6	
3				WIRE, O.47 DIA SAFETY (TRAX6")	36 IN	
2		3547044		PUMP, HYD GEAR 4.92 LF230 PQ	1	
2	011-001 th	3546626		BUSHING, 1.25"ID 1.5"OD 1"LG	2	Page / of



## LF\*230 RECOMMENDED SPARES LIST

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### **№ BOART LONGYEAR**\*

2		3549290	KIT, SPLINED ADAPTOR	1	
2		306494	WEAR SLEEVE, OUTPUT	1	
2		306602	SLEEVE, 5.75" DIA	2	
2		3546752	SLEEVE, PQ SPINDLE WEAR	1	
OTHER SE	RVICE PARTS				
1	3543498		Gas Spring Seal Kit (Old)	1	Nitro Spring (3543497) (Service Tool 5404930)
1	5405231		Gas Spring Seal Kit (New)	1	Nitro Spring (5405230) (Service Tool 5404930)
1	5404930		TOOL KIT, GAS SPRING SERVICE - (gas spring 5405230 & 3543497)		



The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### **№** BOART LONGYEAR

#### SPARES FOR OPTIONAL EQUIPMENT - CUMMINS QSC 8.3 TIER 3 ENGINE

Level	1	2	3	Description	QTY	For Base Drill / Option
1	5401431			KIT, QSC8.3 Tier 3 FILTER 1000HRS	1	TIER 3 Engine / Pump Module (5003254)
2		3548440		FILTER, PRIMARY FUEL 3 MICRON	2	
2		3548470		SEPARATOR, QSB6.7 TIER 3 FUEL	2	
2		3548441		FILTER, LUBE OIL	4	
2		3548442		FILTER, COOLANT	2	
2		3548443		FILTER, INNER AIR	2	
2		3548444		FILTER, OUTER AIR	2	
OTHER SER	VICE PARTS					
1		3070356		ELEMENT, SEPERATOR, WATER	1	Optional Racor Separator
1	5401432			KIT, QSC8.3 TIER 3 SPARES	1	TIER 3 Engine / Pump Module (5003254)
2		5401455		THERMOSTAT, QSC8.3 TIER3	1	
2		5000357		ALTERNATOR, CUMMINS QSC8.3 TIER III	1	
2		5400741		SUPPORT, FAN HUB ASM QSC8.3-P	1	
2		5401456		PUMP, TRANSFER FUEL QSC8.3	1	
2		5001979		HOSE, CHARGE AIR COOLER 4"ID	4	
2		5001983		CLAMP, HOSE 4" CAC	8	
2		3547358		STARTER, QSC CUMMINS ENGINE	1	
2		5401457		PUMP, WATER QSC8.3 TIER3	1	
2		5005191		FAN BELT, CUMMINS	1	
2		5401458		TENSIONER, BELT QSC8.3	1	
2		5001976		CLAMP, RAD HOSE #40	8	
2		5001981		HOSE, RAD LOWER	4	
2		5001977		CLAMP, RAD HOSE #10	2	
2		5401459		HOSE, FILL LINE 3/4 ID X 4 FT	1	7
2		5401460		HOSE, VENT LINE 3/8 ID X 3 FT	1	<b>1</b>
2		5401461		CLAMP, VENT LINE HOSE QSC8.3	2	<b>1</b>
2		5401462		FUSE, 5 AMP TYPE 0	2	<b>1</b>
2		5401463		FUSE, 15 AMP TYPE 0	2	<b>1</b>
2		5401464		FUSE, 30 AMP TYPE 0	2	7
2		3548592		ADAPTER, 14" NYLON FLYWHEEL	1	
1	5401633			KIT, UPPER CONSOLE SPARES QSC8.3 TIER 3	1	TIER 3 Engine / Pump Module (5003254)
2		5405236		MONITOR, CUMMINS ENGINE CONTROL TIER III	1	
2		3549103		INDICATOR, LED RED 10MM	1	
2		3549118		INDICATOR, YELLOW LED 10MM	1	7
2		3549117		INDICATOR, BLUE LED 10MM	1	7
2		3549234		KEY SWITCH, IGNITION	1	7
2		3548165		GAUGE, ISOLATOR	1	7
2		3548136		GAUGE, PRESSURE 0-3000 PSI BAR	1	7
2		3548533		GAUGE, PRESSURE (0-1500 PSI)	1	7
2		3548534		GAUGE, PRESSURE (0-5000 PSI)	1	7
2		3549489		SWITCH. SPDT MOMENTARY	1	
2		3549488		SWITCH, SPST	1	
2		3549490		SWITCH, DPDT MOMENTARY	1	
2		3547373		THROTTLE CONTROL, MANUAL ENGINE	1	
2		3549485		SWITCH, SPST	1	
OTHER SER	VICE PARTS					
1	3547283			KIT, PVP33 ROXROTH PUMP SEAL	1	TIER 3 Engine / Pump Module (5003254)
1	3547284			KIT, PVP3 ROXROTH PUMP SEAL	1	TIER 3 Engine / Pump Module (5003254)
1	3540345			SEAL KIT, HYD PUMP 19CC	1	TIER 3 Engine / Pump Module (5003254)
1	5405512			DRIVE COUPLING, PUMP P3	1	TIER 3 Engine / Pump Module (5003254)
1				·	1	
1	5405513			DRIVE COUPLING, PUMP P33	1	TIER 3 Engine / Pump Module (5003254)

#### SPARES FOR BASIC DRILL ASSEMBLY - DETAIL (continued)

Level	1	2	3	Description	QTY	For Base Drill / Option
1	102631			KIT, W11 SPARES	1	W11 Fluid Circulation Pump (3547029)
2		100625		COUPLING HUB, 1" BORE	1	
2		100627		INSERT, COUPLING	1	
2		102136		COUPLING HUB, 1.5 BORE	1	
2		19163		GAUGE, PRESSURE	1	
2		36686		SPARE PARTS KIT, BEAN W1122B	1	
3			79321	SEAL, OIL	6	
3			79103	LINER, CYL CERAMIC / STEEL	3	
3			75070	GASKET, CYL JOINT	3	
3			75071	GASKET, HEAD CYL COPPER	24	
3			79324	SEAT, W11 VALVE	6	
3			26157	BALL, 1 1/8 SS	6	
3			75069	GASKET, VALVE COVER COPPER	12	
3			79606	PACKING, W11 CARBOX & POLY/COT	12	
3			75012	NUT, PACKING	3	
3			79327	O-RING, PACK HOLDER	3	
ОТНЕК SI 230-2	BVICE PARTS t	<del>nru curre</del> r	nt	printed 5/3/2017		Page 6 of



# LF™230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### **№ BOART LONGYEAR**\*

					_
1	75045		GASKET, PUMP CASE COVER (16 HOLE)	1	Note bolt pattern hole quantity (Old Pump - confirm)
1	3548244		GASKET, W11 WATER PUMP COVER (18 HOLE)	1	Note bolt pattern hole quantity (Current Build)
1	3544481		SEAL KIT, MOTOR	1	W11 Fluid Circulation Pump (3547029)



41616

41617

41618

50241

50240

3547272

3546644

## LF™230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### & BOART LONGYEAR

	1	2	3	TAIL (continued)  Description	QTY	For Base Drill / Option
	5401289		3	KIT, L09 PUMP MODULE SPARES	1	Diesel Powered Supply Pump (3670446)
	3401269	19163		GAUGE, PRESSURE	1	Diesei Powereu Supply Pullip (3070440)
		36685		KIT, 420/520 L09 PUMP SPARES	1	-
		30003	79321	SEAL, OIL	6	
				CYLINDER, CERAMIC STEEL BACKED	3	-
				GASKET, CYL NITRILE	3	-
				GASKET, CYL HEAD NITRILE	24	┪
				SEAT, LO9 VALVE	6	┪
				BALL, 7/8" S/S	6	-
				GASKET, VALVE COVER NITRILE	12	-
				PACKING, L09 CARBOX & POLY/COT	12	-
				NUT, PACKING	3	-
				O-RING, PACK HOLDER	3	-
				HOLDER, 2-1/4 CYL SEAL	3	7
		3670443		BELT, DRIVE	1	
	102633			KIT, MUD MIXER PORTABLE SPARES	1	Portable Mud Mixer (102306)
		101557		CPLG, JAW 5/8 BORE	1	
		101494		SPIDER, RUBBER	1	
		101490		CPLG, 1 JAW	1	
		96770		KIT, CARTRIDGE SEAL	1	
		96653		KIT, PLATE SEAL	1	7
R SER\	VICE PARTS					
	3549578			KIT, MUD MIXER MOTOR SEAL (Eaton Motor)	1	7
	3549579			SHAFT SEAL, MUD MIXER MOTOR (Eaton Motor)	1	
	3541118			KIT, MUD MIXER 250GAL SPARES	1	Mud Tank & Mixer (3540997)
		3548491		MOTOR, HYDRAULIC MUD MIXER	1	
		34424		HUB, WOODS MODEL 6/J	1	
		34425		HUB, WOODS MODEL 6/J	1	
		34426		INSERT, COUPLING	2	
		3540349		SHAFT, ARBOR (MUD MIXER)	1	
		20324		BEARING, THRUST	4	
		3540353		SEAL, GREASE	6	
		34949		RETAINING RING,	4	1
RES	DETAIL EOR	DO CHIICK I	ΔWS & F	BUSHINGS, FOOTCLAMP SLIP JAWS		
	1	2	3	Description	QTY	For Base Drill / Option
	3544188	_		JAW SET, BQ JAWS PQ CHUCK	1	PQ Nitro Chuck™ Head
	0511100	3543494		JAW, BQ PQ-CHUCK	7	Teda
	3543471			KIT, NQ JAWS PQ CHUCK	1	PQ Nitro Chuck™ Head
		3543291		JAW, NQ PQ-CHUCK	7	
	3543472			KIT, HQ JAWS PQ CHUCK	1	PQ Nitro Chuck™ Head
		3543290		JAW, HQ PQ-CHUCK	7	
	3543473			KIT, PQ JAWS PQ CHUCK JAW	1	PQ Nitro Chuck™ Head
		3543289		JAW, PQ PQ-CHUCK	7	
				, , , , , , ,		
	3546862			BUSHING, GUIDE UPPER BQ	1	PQ Nitro Chuck™ Head (5.06 inch Spindle)
	3546861			BUSHING, GUIDE UPPER NQ	1	PQ Nitro Chuck™ Head (5.06 inch Spindle)
	3546863			BUSHING, GUIDE UPPER HQ	1	PQ Nitro Chuck™ Head (5.06 inch Spindle)
	3546867			BUSHING, BQ SPINDLE SPECIAL (LOWER - SPINDLE TO ROD)	1	PQ Head (5.06 inch Spindle)
	3546475			BUSHING, NQ SPINDLE SPECIAL (LOWER - SPINDLE TO ROD)	1	PQ Head (5.06 inch Spindle)
	3546476			BUSHING, HQ SPINDLE SPECIAL (LOWER - SPINDLE TO ROD)	1	PQ Head (5.06 inch Spindle)
	41613			SLIP SET, BQ ROD AW CSG BOT	1	3540273 Clamp Assembly
	41614			JAW, SLIP BOT BQ FT CLAMP	2	
	41614 41615			JAW, SLIP BOT BQ FT CLAMP SLIP SET, NQ ROD BW CSG BOT	2	3540273 Clamp Assembly

2

2

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1

3540273 Clamp Assembly

3540273 Clamp Assembly

3540273 Clamp Assembly

JAW, SLIP BOT NQ FT CLAMP

JAW, SLIP BOT HQ FT CLAMP

SLIP SET, HWT CSG / PQ ROD

JAW, SLIP HWT CSG

SLIP SET, PW CSG

JAW, SLIP PW CSG

SLIP SET, HQ ROD NW CSG BOT



# LF™230 RECOMMENDED SPARES LIST

The following spare kits are recommended to help maximize your drilling up-time. Please contact your Boart Longyear sales representative for more information.



### **№ BOART LONGYEAR**\*

#### SPARES FOR OPTIONAL EQUIPMENT - CUMMINS QSL 9.0 TIER 4i ENGINE

Level	1	2	3	Description	QTY	For Base Drill / Option
1	5405223			KIT, QSL9.0 TIER 4i FILTER 1000 HRS		TIER 4i Engine / Pump Module (5405279)
2		5405228		ELEMENT, SECONDARY AIR	2	
2		5405229		ELEMENT, PRIMARY AIR	2	
2		3548442		FILTER, ENGINE COOLANT	2	
2		5405227		FILTER, FUEL SEPARATOR	2	
2		5405224		ELEMENT, ENGINE CRANKCASE BREATHER	2	
2		3548440		FILTER, PRIMARY FUEL 3 MICRON	2	
2		3548441		FILTER, ENGINE OIL	4	
1	5405517			KIT, QSL9.0 TIER 4i SPARES		TIER 4i Engine / Pump Module (5405279)
2		5405498		FAN, ENGINE BLOWER 30 IN	1	
2		5405499		ALTERNATOR, CUMMINS QSL 9 L 12VDC	1	
2		5405501		THERMOSTAT, CUMMINS QSL 9L	1	
2		5405502		BELT. V RIBBED	1	
2		5405503		TENSIONER, BELT	1	
2		5405504		STARTER, QSL 9L 12VDC	1	
2		5405505		WATER PUMP, CUMMINS QSL 9 L	1	
2		5405506		SENSOR, COOLANT LEVEL	1	
2		5405507		RADIATOR, C/W CHARGE AIR COOLER QSL 9 L	1	
2		5401463		FUSE, 15 AMP TYPE 0	2	
2		5401464		FUSE, 30 AMP TYPE 0	2	
1	5405518			Pump 2 Shaft Seal	1	TIER 4i Engine / Pump Module (5405279)
1	5405519			Pump 3 Shaft Seal	1	TIER 4i Engine / Pump Module (5405279)
1	5405516			KIT, UPPER CONSOLE SPARES QSL9.0 TIER 4i	1	TIER 4i Engine / Pump Module (5405279)
2		5405235		DISPLAY, ENGINE MURPHY	1	
2		3549234		KEY SWITCH, IGNITION	1	
2		5405280		SWITCH ASM, 3 POSITION	1	
2		5405283		BUTTON ASM, GREEN	1	
2		5405285		SWITCH ASM, 2 POSITION	1	
2		5405287		LIGHT ASM, RED	1	
2		5405290		SWITCH ASM, 4 POSITION	1	
2		5405292		SWITCH ASM, 3 POSITION	1	
2		5003569		RELAY, 12VDC DIN MOUNTED	1	
2		3541330		BREAKER, 10 A	1	
2		3547303		BREAKER, 15 AMP	1	
OTHER SEF	RVICE PARTS					
1		3548136		GAUGE, PRESSURE 0-3000 PSI BAR	1	Remove?
1		3548533		GAUGE, PRESSURE (0-1500 PSI)	1	Remove?
1		3548534		GAUGE, PRESSURE (0-5000 PSI)	1	Remove?



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