



Illustrated Parts Manual

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450AJ

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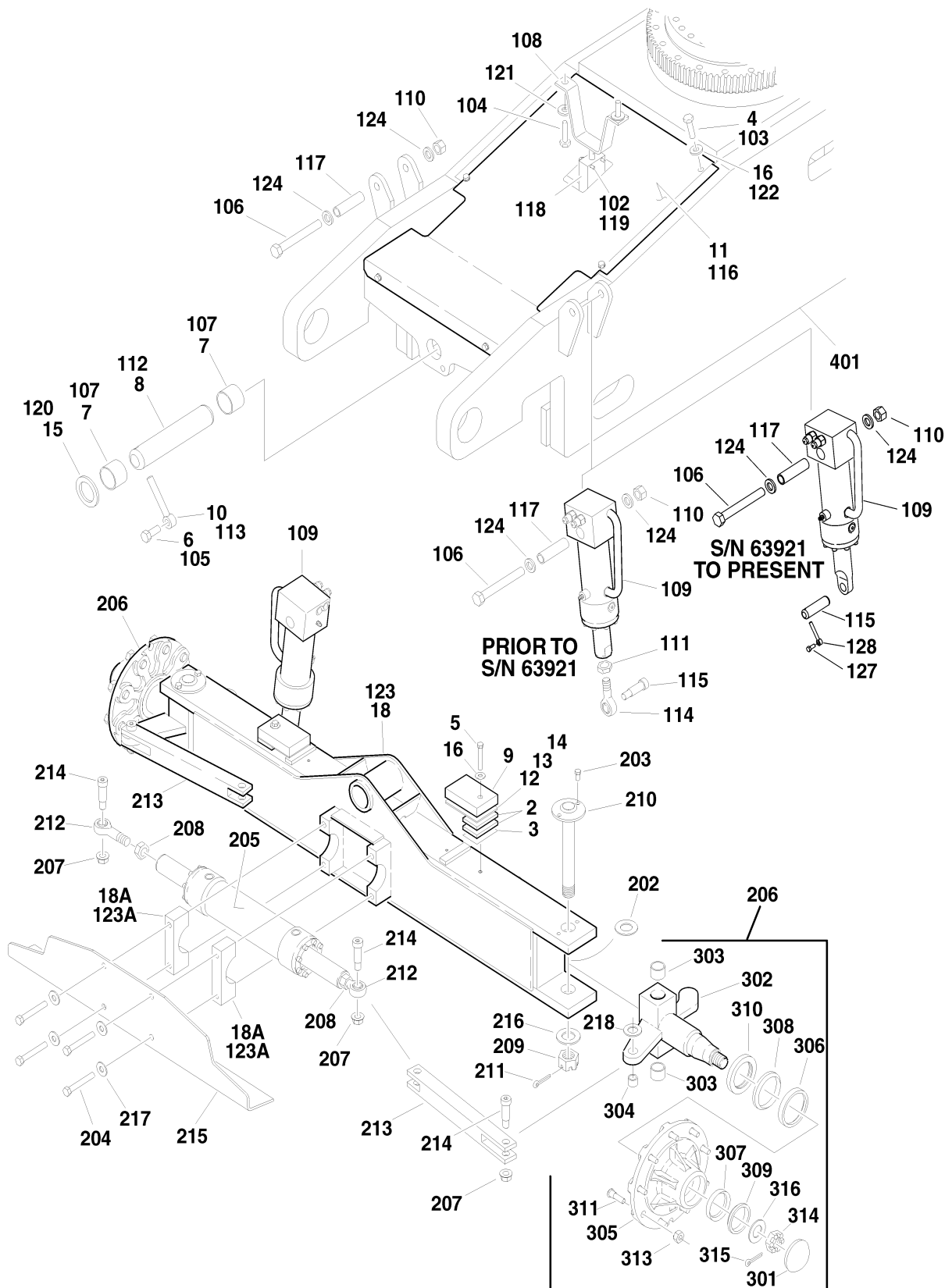
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SECTION 1 FRAME

FIGURE 1-1. AXLE AND STEERING INSTALLATION - 2WD WITHOUT TOW BAR





SECTION 1 FRAME

FIGURE 1-1. AXLE AND STEERING INSTALLATION - 2WD WITHOUT TOW BAR

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258026	FIXED AXLE INSTALLATION	Ref.	C
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0362763	Bar, Stop	4	
3	0362764	Bar, Stop	2	
4	0641606	Bolt 3/8"-16NC x 3/4"	6	
5	0641626	Bolt 3/8"-16NC x 3 1/4"	2	
6	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
7	0961950	Bushing, Garmax	2	
8		Pin, Axle Pivot Options:	1	
	Use 3422592	Prior to S/N 56275 (Was p/n 3422431)		
	3422592	S/N 56275 to Present		
9	3570901	Plate, Stop	2	
10	3841258	Keeper, Pin	1	
11	4060951	Shield, Frame	1	
12	4070972	Shim 3/16"	A/R	
13	4070973	Shim 1/8"	A/R	
14	4070974	Shim 1/16"	A/R	
15	4740158	Thrustwasher	1	
16	4751600	Flatwasher 3/8"	8	
17	Not Used			
18	4845643	Axle Weldment	1	
18A	0561300	Steer Cylinder Mounting Block Assembly	2	
	0258024	OSCILLATING AXLE INSTALLATION	Ref.	G
101	0100011	Loctite #242 (Not Shown)	A/R	
102	0641414	Bolt 1/4"-20NC x 1 3/4"	4	
103	0641606	Bolt 3/8"-16NC x 3/4"	6	
104	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
105	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
106	0682248	Bolt 3/4"-10NC x 6"	2	
107	0961950	Bushing, Garmax	2	
108	1100107	Cam, Lockout	1	
109		Lockout Cylinder Assembly Options (See Section 5 for Break-down):	2	
	1683575	Prior to S/N 63921		
	1684139	S/N 63921 to Present		
110	3272201	Nut 3/4"-10NC	2	
111	3322201	Nut 3/4"-16NF	2	
112		Pin, Axle Pivot Options:	1	
	Use 3422592	Prior to S/N 56275 (Was p/n 3422431)		
	3422592	S/N 56275 to Present		
113	3841258	Keeper, Pin	1	
114	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	



SECTION 1 FRAME

FIGURE 1-1. AXLE AND STEERING INSTALLATION - 2WD WITHOUT TOW BAR (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
115		Hardware Options:	2	
	3900109	Screw, Shoulder (Prior to S/N 63921)		
	3422936	Pin (S/N 63921 to Present)		
116	4060951	Shield, Frame	1	
117	4567462	Tube, Mounting	2	
118	4640871	Lockout Valve Assembly	1	
	7012693	Seal Kit - 4640871 Valve	1	
	7002840	Anit-Rotation Pin Removal Tool	1	
119	4711400	Flatwasher 1/4" Narrow	4	
120	4740158	Thrustwasher	1	
121	4751800	Flatwasher 1/2"	4	
122	4751600	Flatwasher 3/8"	6	
123	4845643	Axle Weldment	1	
123A	0561300	Steer Cylinder Mounting Block Assembly	2	
124	4892200	Flatwasher 3/4"	4	
125	Not Used			
126	0100019	Loctite #271 (Not Shown)	A/R	
127	0641607	Bolt 3/8"-16NC x 7/8" (S/N 63921 to Present)	2	
128	3841520	Keeper 3/8" (S/N 63921 to Present)	2	
	0258022	STEERING INSTALLATION	Ref.	B
201	0100011	Loctite #242 (Not Shown)	A/R	
202	0440162	Thrustwasher	2	
203	0641606	Bolt 3/8"-16NC x 3/4"	4	
204	0681828	Bolt 1/2"-13NC x 3 1/2"	4	
205	1683614	Steer Cylinder Assembly (See Section 5 for Breakdown)	1	
206	2780230	Hub/Spindle Assembly (See 301 to 313 for Breakdown)	2	
207	3312008	Nut 5/8"-11NC	4	
208	3322201	Nut 3/4"-16NF	2	
209	3323003	Nut 1 1/4"-12NF	2	
210	3422692	Kingpin	2	
211	3450812	Pin, Cotter 1/4" x 3"	2	
212	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	
213	3841377	Tie-Rod	2	
214	3900109	Screw, Shoulder	4	
215	4060950	Shield, Frame	1	
216	4713000	Flatwasher 1 1/4"	2	
217	4751800	Flatwasher 1/2"	4	
218	4740086	Washer, Thrust	2	



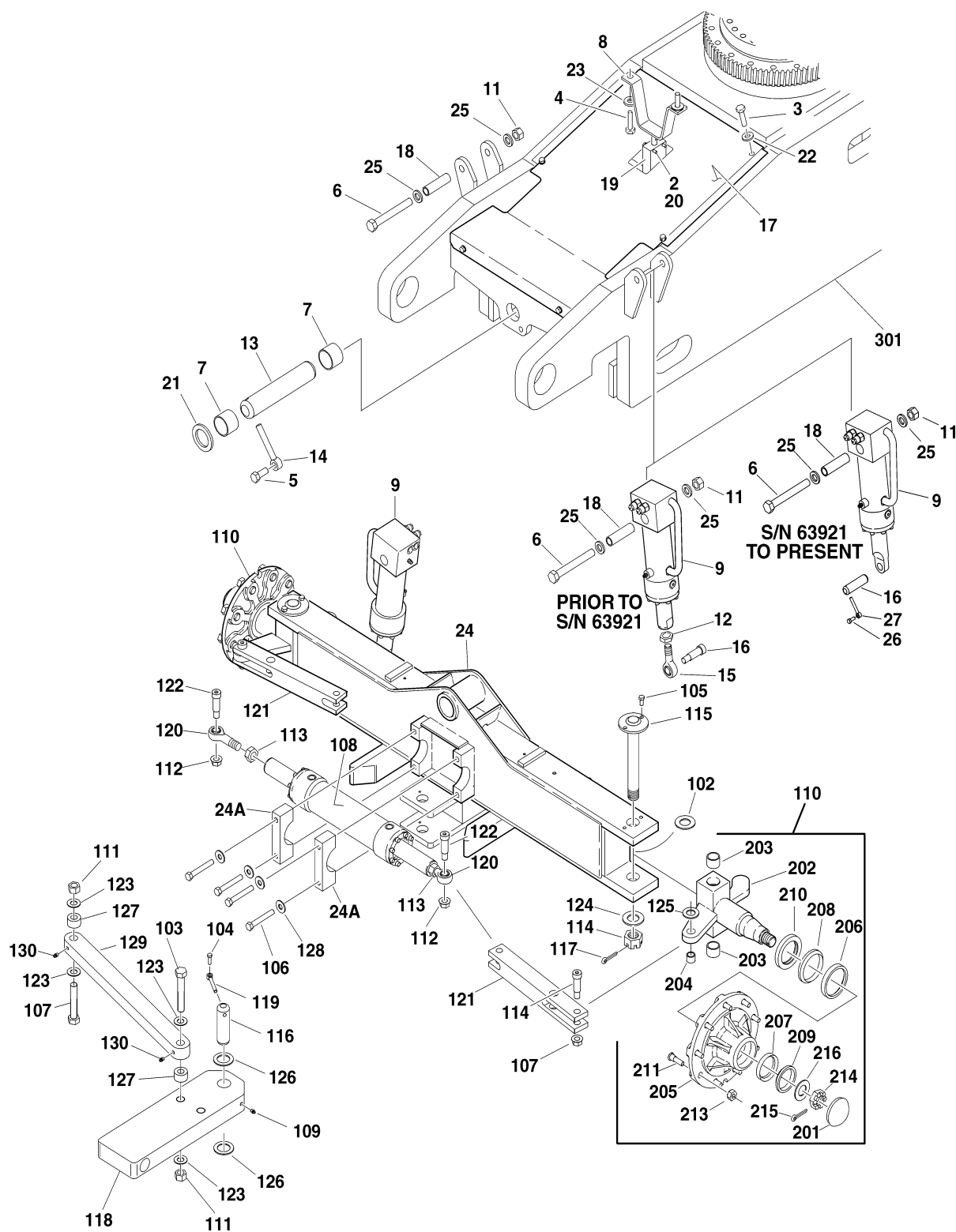
SECTION 1 FRAME

FIGURE 1-1. AXLE AND STEERING INSTALLATION - 2WD WITHOUT TOW BAR (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2780230	HUB ASSEMBLY	Ref.	A
301	7020033	Cap, Dust (1 per Assembly) -----	2	
302	7020034	Spindle Assembly (1 per Assembly)	2	
303	0961951	Bushing, Garmax (2 per Assembly)	4	
304	0962140	Bearing, Garmax (1 per Assembly)	2	
305	7020035	Hub (1 per Assembly) (Includes 306 & 307)	2	
306	7020036	Cup, Bearing - Inner(1 per Assembly)	2	
307	7020038	Cup, Bearing - Outer (1 per Assembly)	2	
308	7020037	Cone, Bearing - Inner (1 per Assembly)	2	
309	7020039	Cone, Bearing - Outer (1 per Assembly)	2	
310	7020040	Seal (1 per Assembly)	2	
311	7020041	Stud, Wheel (9 per Assembly)	18	
312	Not Used			
313	7020042	Lugnut (9 per Assembly)	18	
314	7020054	Nut, Castle (1 Per Assembly)	2	
315	3450608	Pin, Cotter (1 Per Assembly)	2	
316	7020055	Washer, Spindle (1 Per Assembly)	2	
401		FRAME WELDMENT OPTIONS	Ref.	
	2360460	Frame Weldment - Standard	1	
	2360536	Frame Weldment - With Semi Track	1	

SECTION 1 FRAME

FIGURE 1-2. AXLE AND STEERING INSTALLATION - 2WD WITH TOW BAR





SECTION 1 FRAME

FIGURE 1-2. AXLE AND STEERING INSTALLATION - 2WD WITH TOW BAR

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0259967	OSCILLATING AXLE INSTALLATION	Ref.	C
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0641414	Bolt 1/4"-20NC x 1 3/4"	4	
3	0641606	Bolt 3/8"-16NC x 3/4"	10	
4	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
5	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
6	0682248	Bolt 3/4"-10NC x 6"	2	
7	0961950	Bushing, Garmax	2	
8	1100107	Cam, Lockout	1	
9		Lockout Cylinder Assembly Options (See Section 5 for Break-down):	2	
	1683575	Prior to S/N 63921		
	1684139	S/N 63921 to Present		
10	Not Used			
11	3272201	Nut 3/4"-10NC	2	
12	3322201	Nut 3/4"-16NF	2	
13	3422592	Pin, Axle Pivot	1	
14	3841258	Keeper, Pin	1	
15	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	
16		Hardware Options:	2	
	3900109	Screw, Shoulder (Prior to S/N 63921)		
	3422936	Pin (S/N 63921 to Present)		
17	4060951	Shield, Frame	1	
18	4567462	Tube, Mounting	2	
19	4640871	Lockout Valve Assembly	1	
	7012693	Seal Kit - 4640871 Valve	1	
	7002840	Anit-Rotation Pin Removal Tool	1	
20	4711400	Flatwasher 1/4" Narrow	4	
21	4740158	Thrustwasher	1	
22	4751600	Flatwasher 3/8"	6	
23	4751800	Flatwasher 1/2"	4	
24	4846167	Axle Weldment	1	
24A	0561300	Steer Cylinder Mounting Block Assembly	2	
25	4892200	Flatwasher 3/4"	4	
26	0641607	Bolt 3/8"-16NC x 7/8" (S/N 63921 to Present)	2	
27	3841520	Keeper 3/8" (S/N 63921 to Present)	2	
	0259966	STEERING INSTALLATION	Ref.	B
101	0100011	Loctite #242 (Not Shown)	A/R	
102	0440162	Thrustwasher	2	
103	0630544	Bolt 1"-8NC x 6"	1	
104	0641508	Bolt 5/16"-18NC x 1"	1	
105	0641606	Bolt 3/8"-16NC x 3/4"	4	
106	0681828	Bolt 1/2"-13NC x 3 1/2"	4	
107	0682648	Bolt 1"-8NC x 6"	1	



SECTION 1 FRAME

FIGURE 1-2. AXLE AND STEERING INSTALLATION - 2WD WITH TOW BAR (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
108	1683614	Steer Cylinder Assembly (See Section 5 for Breakdown)	1	
109	2160002	Fitting, STR Grease	1	
110	2780230	Hub/Spindle Assembly (See 201 to 213 for Breakdown)	2	
111	3272605	Locknut 1"-8NC	2	
112	3312008	Nut 5/8"-11NC	4	
113	3322201	Nut 3/4"-16NF	4	
114	3323003	Nut 1 1/4"-12NF	2	
115	3422692	Kingpin	2	
116	3422848	Pin, Hitch	1	
117	3450812	Pin, Cotter 1/4" x 3"	2	
118	3571975	Plate, Tow Bar Pivot	1	
119	3841143	Keeper	1	
120	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	
121	3841377	Tie-Rod	2	
122	3900109	Screw, Shoulder	6	
123	4712600	Flatwasher 1"	4	
124	4713000	Flatwasher 1 1/4"	2	
125	4740086	Washer, Thrust	2	
126	4740155	Washer, Thrust	2	
127	4740491	Washer, Thrust	2	
128	4751800	Flatwasher 1/2"	4	
129	4846162	Weldment, Link	1	
130	2160001	Fitting, Grease	2	
	2780230	HUB ASSEMBLY	Ref.	A
201	7020033	Cap, Dust (1 per Assembly)	2	

202	7020034	Spindle Assembly (1 per Assembly)	2	
203	0961951	Bushing, Garmax (2 per Assembly)	4	
204	0962140	Bearing, Garmax (1 per Assembly)	2	
205	7020035	Hub (1 per Assembly) (Includes 306 & 307)	2	
206	7020036	Cup, Bearing - Inner(1 per Assembly)	2	
207	7020038	Cup, Bearing - Outer (1 per Assembly)	2	
208	7020037	Cone, Bearing - Inner (1 per Assembly)	2	
209	7020039	Cone, Bearing - Outer (1 per Assembly)	2	
210	7020040	Seal (1 per Assembly)	2	
211	7020041	Stud, Wheel (9 per Assembly)	18	
212	Not Used			
213	7020042	Lugnut (9 per Assembly)	18	
214	7020054	Nut, Castle (1 Per Assembly)	2	
215	3450608	Pin, Cotter (1 Per Assembly)	2	
216	7020055	Washer, Spindle (1 Per Assembly)	2	
301		FRAME WELDMENT OPTIONS	Ref.	
	2360460	Frame Weldment - Standard	1	
	2360536	Frame Weldment - With Semi Track	1	



SECTION 1 FRAME

FIGURE 1-2. AXLE AND STEERING INSTALLATION - 2WD WITH TOW BAR (CONTINUED)

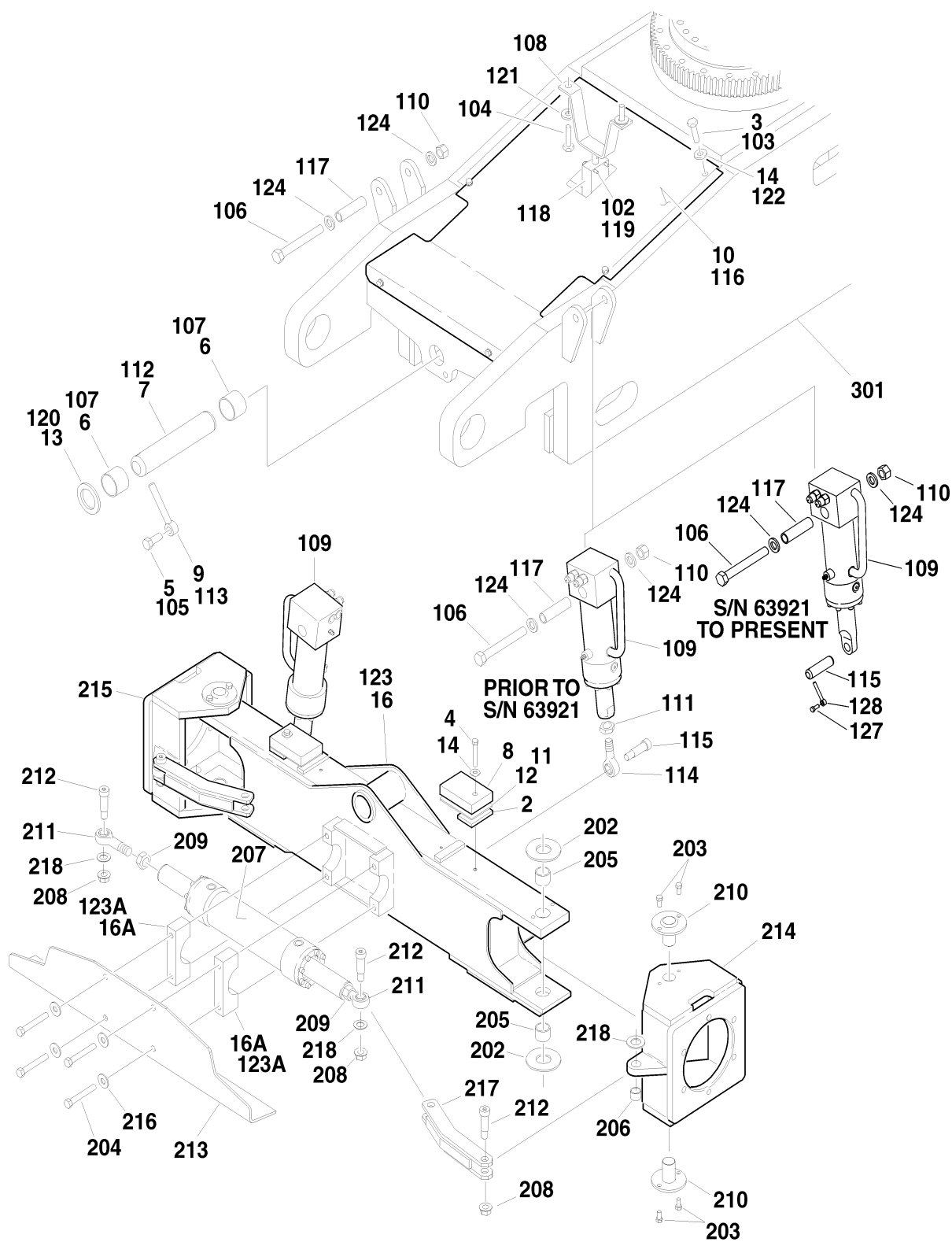
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

SECTION 1
FRAME



SECTION 1 FRAME

FIGURE 1-3. AXLE AND STEERING INSTALLATION - 4WD





SECTION 1 FRAME

FIGURE 1-3. AXLE AND STEERING INSTALLATION - 4WD

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258027	FIXED AXLE INSTALLATION	Ref.	C
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0362763	Bar, Stop	2	
3	0641606	Bolt 3/8"-16NC x 3/4"	6	
4	0641620	Bolt 3/8"-16NC x 2 1/4"	2	
5	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
6	0961950	Bushing, Garmax	2	
7		Pin, Axle Pivot Options:	1	
	Use 3422592	Prior to S/N 56275 (Was p/n 3422431)		
	3422592	S/N 56275 to Present		
8	3570901	Plate, Stop	2	
9	3841258	Keeper, Pin	1	
10	4060951	Shield, Frame	1	
11	4070973	Shim 1/8"	A/R	
12	4070974	Shim 1/16"	A/R	
13	4740158	Thrustwasher	1	
14	4751600	Flatwasher 3/8"	8	
15	Not Used			
16	4845700	Axle Weldment	1	
16A	0561300	Steer Cylinder Mounting Block Assembly	2	
	0258025	OSCILLATING AXLE INSTALLATION	Ref.	F
101	0100011	Loctite #242 (Not Shown)	A/R	
102	0641414	Bolt 1/4"-20NC x 1 3/4"	4	
103	0641606	Bolt 3/8"-16NC x 3/4"	6	
104	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
105	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
106	0682248	Bolt 3/4"-10NC x 6"	2	
107	0961950	Bushing, Garmax	2	
108	1100107	Cam, Lockout	1	
109		Lockout Cylinder Assembly Options (See Section 5 for Breakdown):	2	
	1683575	Prior to S/N 63921		
	1684139	S/N 63921 to Present		
110	3272201	Nut 3/4"-10NC	2	
111	3322201	Nut 3/4"-16NF	2	
112		Pin, Axle Pivot Options:	1	
	Use 3422592	Prior to S/N 56275 (Was p/n 3422431)		
	3422592	S/N 56275 to Present		
113	3841258	Keeper, Pin	1	
114	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	
115		Hardware Options:	2	
	3900109	Screw, Shoulder (Prior to S/N 63921)		
	3422936	Pin (S/N 63921 to Present)		
116	4060951	Shield, Frame	1	



SECTION 1 FRAME

FIGURE 1-3. AXLE AND STEERING INSTALLATION - 4WD (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
117	4567462	Tube, Mounting	2	
118	4640871	Lockout Valve Assembly	1	
	7012693	Seal Kit - 4640871 Valve	1	
	7002840	Anit-Rotation Pin Removal Tool	1	
119	4711400	Flatwasher 1/4" Narrow	4	
120	4740158	Thrustwasher	1	
121	4751800	Flatwasher 1/2"	4	
122	4751600	Flatwasher 3/8"	6	
123	4845700	Axle Weldment	1	
123A	0561300	Steer Cylinder Mounting Block Assembly	2	
124	4892200	Flatwasher 3/4"	4	
125	Not Used			
126	0100019	Loctite #271 (Not Shown)	A/R	
127	0641607	Bolt 3/8"-16NC x 7/8" (S/N 63921 to Present)	2	
128	3841520	Keeper 3/8" (S/N 63921 to Present)	2	
	0258023	STEERING INSTALLATION	Ref.	B
201	0100011	Loctite #242 (Not Shown)	A/R	
202	0440161	Thrustwasher	4	
203	0641606	Bolt 3/8"-16NC x 3/4"	8	
204	0681828	Bolt 1/2"-13NC x 3 1/2"	4	
205	0961951	Bushing, Garmax	4	
206	0962140	Bearing, Garmax	2	
207	1683614	Steer Cylinder Assembly (See Section 5 for Break-down)	1	
208	3312008	Nut 5/8"-11NC	4	
209	3322201	Nut 3/4"-16NF	2	
210	3422716	Kingpin	4	
211	3841367	Rod-End with Grease Fitting	2	
	7020180	Grease Fitting	1	
212	3900109	Screw, Shoulder	4	
213	4060950	Shield, Frame	1	
214	4130363	Spindle (Left Side)	1	
215	4130364	Spindle (Right Side)	1	
216	4751800	Flatwasher 1/2"	4	
217	4845711	Tie-Rod	2	
218	4740086	Thrustwasher	4	
301		FRAME WELDMENT OPTIONS	Ref.	
	2360460	Frame Weldment - Standard	1	
	2360536	Frame Weldment - With Semi Track	1	



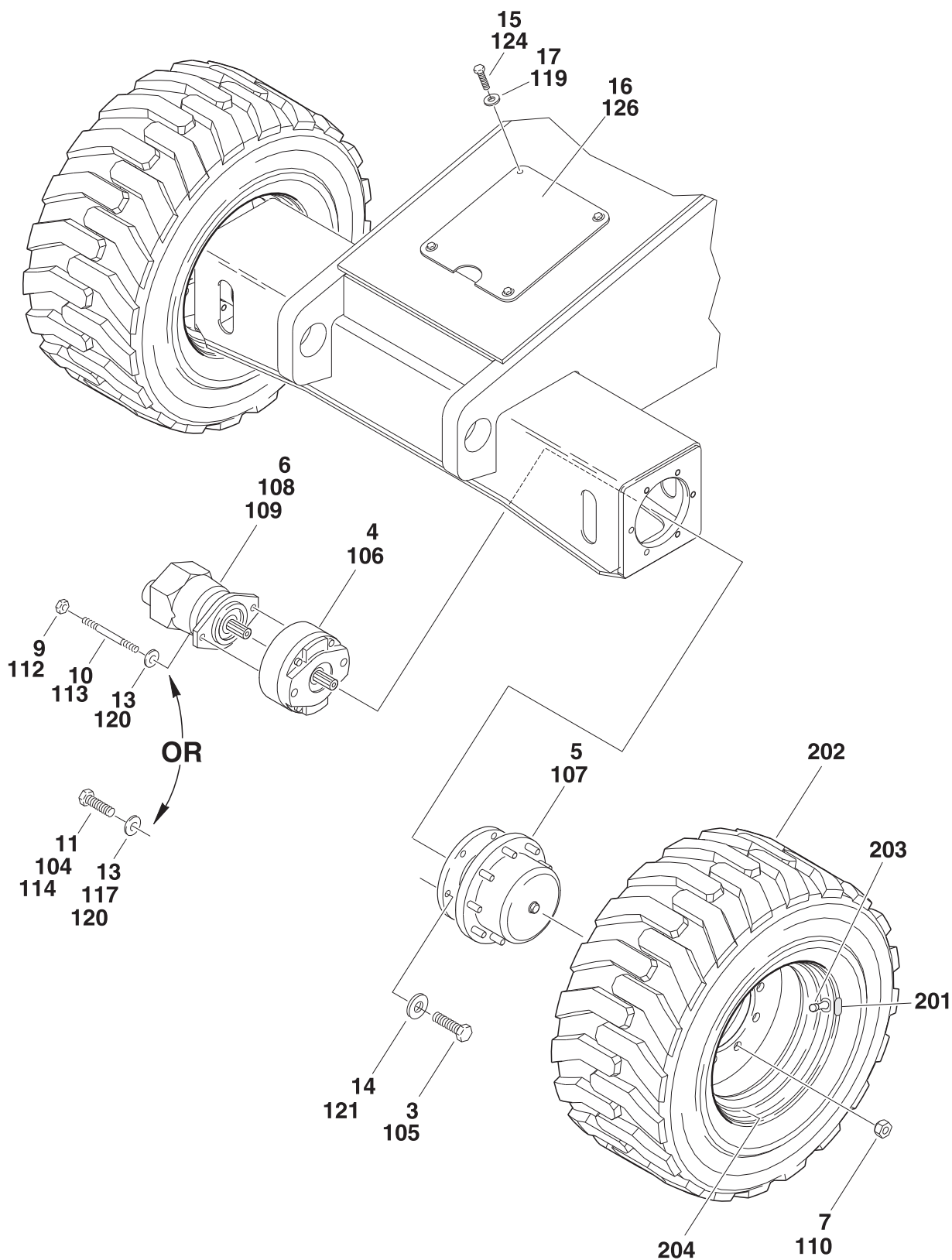
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FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.



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FIGURE 1-4. TIRE AND WHEEL DRIVE INSTALLATIONS





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FIGURE 1-4. TIRE AND WHEEL DRIVE INSTALLATIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		WHEEL DRIVE INSTALLATION (2WD)	Ref.	
	0258020	Prior to S/N 56958	Ref.	E
	0270207	S/N 56958 to Present	Ref.	B
1	0100011	Loctite #242 (Not Shown)	A/R	
2	Not Used			
3	0682014	Bolt 5/8"-11NC x 1 3/4"	12	
4		Drive Brake Assembly (See Figure 1-5 for Breakdown)	2	
	0920112	Prior to S/N 56958		
	0920117	S/N 56958 to Present		
5		Drive Hub Assembly Options:	2	
		Note: Do NOT Mix Hub Assemblies on Machine!		
	2780224	Prior to S/N 39594 (See Figure 1-6 for Breakdown)		
	2780235	S/N 39594 to Present (See Figure 1-7 for Breakdown)		
6	3160158	Drive Motor Assembly (See Figure 1-8 For Breakdown)	2	
7	3300106	Lugnut	18	
8	Not Used			
9	3311801	Nut 1/2"-13NC	4	
10	4300120	Stud	4	
11	0641836	Bolt 1/2"-13NC x 3"	4	
12	Not Used			
13	4891800	Flatwasher 1/2"	4	
14	4892000	Flatwasher 5/8"	12	
15	0641606	Bolt 3/8"-16NC x 3/4"	4	
16	4060970	Shield (S/N38566 to Present Only)	1	
17	4751600	Flatwasher 3/8"	4	
		WHEEL DRIVE INSTALLATION (4WD)	Ref.	
	0258021	Prior to S/N 56958	Ref.	F
	0270208	S/N 56958 to Present	Ref.	C
101	0100011	Loctite #242 (Not Shown)	A/R	
102	Not Used			
103	Not Used			
104	0641810	Bolt 1/2"-13NC x 1 1/4"	4	
105	0642014	Bolt 5/8"-11NC x 1 3/4"	24	
106		Drive Brake Assembly (Rear Only) (See Figure 1-5 for Breakdown)	2	
	0920112	Prior to S/N 56958		
	0920117	S/N 56958 to Present		
107		Drive Hub Assembly Options:	4	
		Note: Do NOT Mix Hub Assemblies on Machine!		
	2780224	Prior to S/N 39594 (See Figure 1-6 for Breakdown)		
	2780235	S/N 39594 to Present (See Figure 1-7 for Breakdown)		
108	3160158	Drive Motor Assembly - Rear (See Figure 1-8 For Breakdown)	1	
109	Use	Drive Motor Assembly-Front (See Figure 1-9 For Breakdown) (was p/n 3160227)	1	
110	1001096417			
	3300106	Lugnut	36	



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FIGURE 1-4. TIRE AND WHEEL DRIVE INSTALLATIONS (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
111	Not Used			
112	3311801	Nut 1/2"-13NC	4	
113	4300120	Stud	4	
114	0641836	Bolt 1/2"-13NC x 3"	4	
115 to 116	Not Used			
117	4711800	Flatwasher 1/2" Narrow	4	
118	Not Used			
119	4751600	Flatwasher 3/8"	4	
120	4891800	Flatwasher 1/2"	4	
121	4892000	Flatwasher 5/8"	24	
122 to 123	Not Used			
124	0641606	Bolt 3/8"-16NC x 3/4"	4	
125	Not Used			
126	4060970	Shield (S/N38566 to Present Only)	1	
127 to 128	Not Used			
129	3960526	Gasket, Brake (Not Shown - Located Between Drive Motor & Hub on Front of Machine)	2	
TIRE AND WHEEL INSTALLATIONS				
	0258028	12 x 16.5 Pneumatic	Ref.	A
	0258030	12 x 16.5 Foam-Filled	Ref.	A
	0259642	12 x 21.5 Pneumatic	Ref.	A
	0259643	12 x 21.5 Foam-Filled	Ref.	A
	0258029	33/1550 x 16.5 Pneumatic	Ref.	A
	0258031	33/1550 x 16.5 Foam-Filled	Ref.	A
	0258831	33/16LL x 16.1 Pneumatic (Requires special counter-weighting)	Ref.	A
	0259129	33/16LL x 16.1 Foam-Filled (Requires special counter-weighting)	Ref.	A
	0257740	12 x 16.5 Pneumatic Right Side	2	C
	0257746	12 x 16.5 Pneumatic Left Side	2	C
	0259637	12 x 21.5 Pneumatic Right Side	2	A
	0259635	12 x 21.5 Pneumatic Left Side	2	A
	0258009	12 x 16.5 Foam-Filled Right Side	2	C
	0258010	12 x 16.5 Foam-Filled Left Side	2	C
	0259638	12 x 21.5 Foam-Filled Right Side	2	A
	0259636	12 x 21.5 Foam-Filled Left Side	2	A
	0257755	33/1550 x 16.5 Pneumatic Right Side	2	C
	0257756	33/1550 x 16.5 Pneumatic Left Side	2	C
	0258011	33/1550 x 16.5 Foam-Filled Right Side	2	C
	0258012	33/1550 x 16.5 Foam-Filled Left Side	2	C
	0258830	33/16LL x 16.1 Pneumatic (Requires special counter-weighting)	4	
	0259128	33/16LL x 16.1 Foam-Filled (Requires special counter-weighting)	4	



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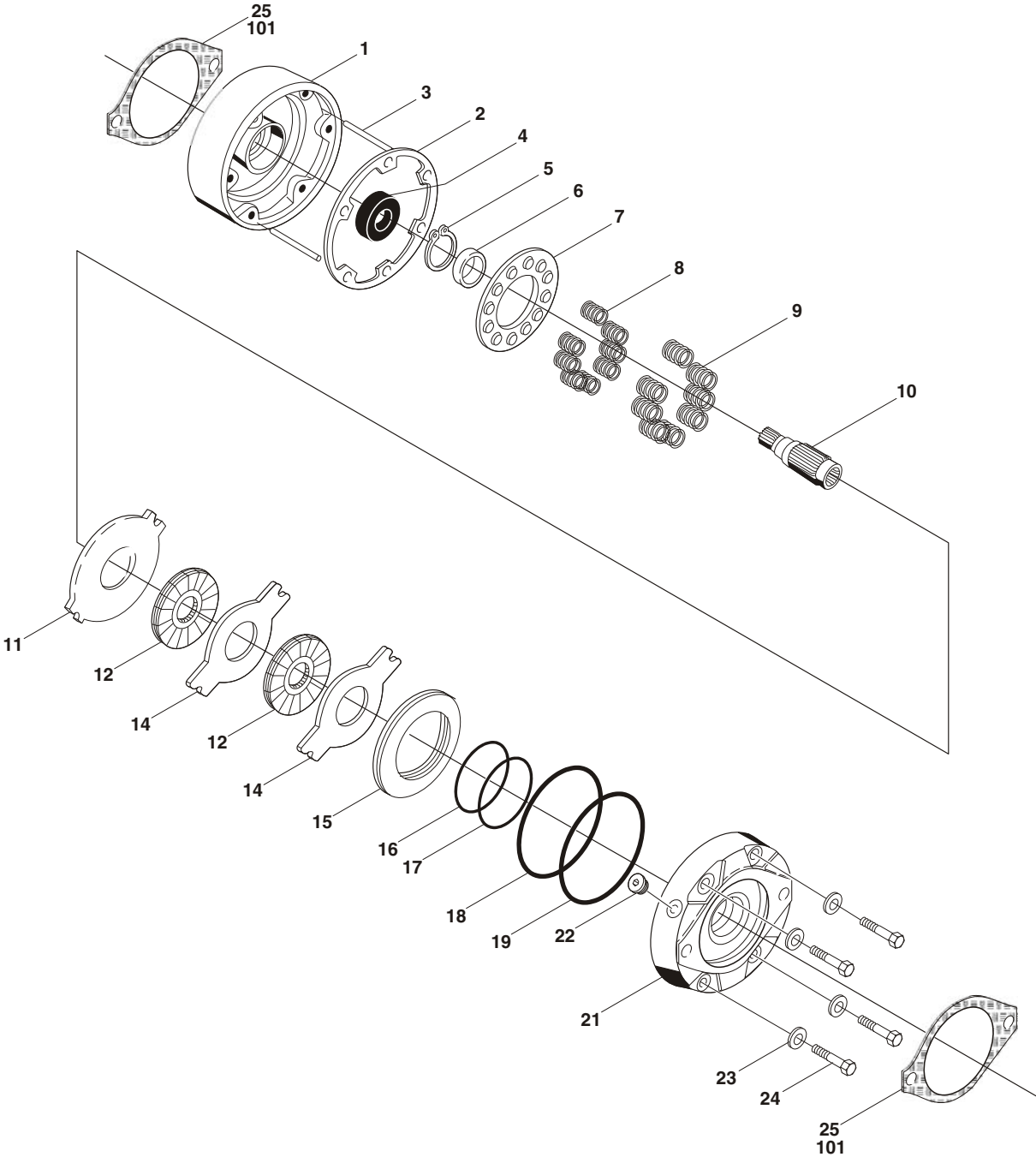
FIGURE 1-4. TIRE AND WHEEL DRIVE INSTALLATIONS (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
201		Note: Assemblies may require ballast/foam filling to manufacturer's specifications prior to installing on a machine. Refer to Operation & Safety or Service & Maintenance Manuals. Purchase individual tire and/or rim only if able to foam fill tire & wheel assembly, otherwise, purchase complete assembly,		
		Decal Options (Pneumatic Only):	1	
	1702740	Decal - 90PSI	1	
202	1703067	Decal - 40PSI	1	
		Tire Options:	1	
	Use 4520216	12 x 16.5 NHS (Prior to S/N 43177) (was p/n 4520202 Galaxy brand tire)		
	4520216	12 x 16.5 NHS (OTR Brand) (S/N 43177 to Present)		
	4520223	12 x 21.5 NHS (OTR Brand)		
	Use 4520217	33/1550 x 16.5 NHS (Prior to S/N 43177) (was p/n 4520203 Galaxy brand tire)		
	4520217	33/1550 x 16.5 NHS (OTR Brand) (S/N 43177 to Present)		
	4520212	33/16LL x 16.1		
	203 4640113	Valve, Air (Pneumatic Only)	1	
	204	Rim, Wheel	1	
	4860203	21.5 x 8.5 (Use with 12 x 21.5 Tires)		
	4860178	16.5 x 9.75 (Use with 12 x 16.5 Tires)		
	4860179	16.5 x 12 (Use with 33/1550 x 16.5 Tires)		
	4860193	16.1 x 14 (Use with 33/16LL x 16.1 Tires)		



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FIGURE 1-5. DRIVE BRAKE ASSEMBLY



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FIGURE 1-5. DRIVE BRAKE ASSEMBLY

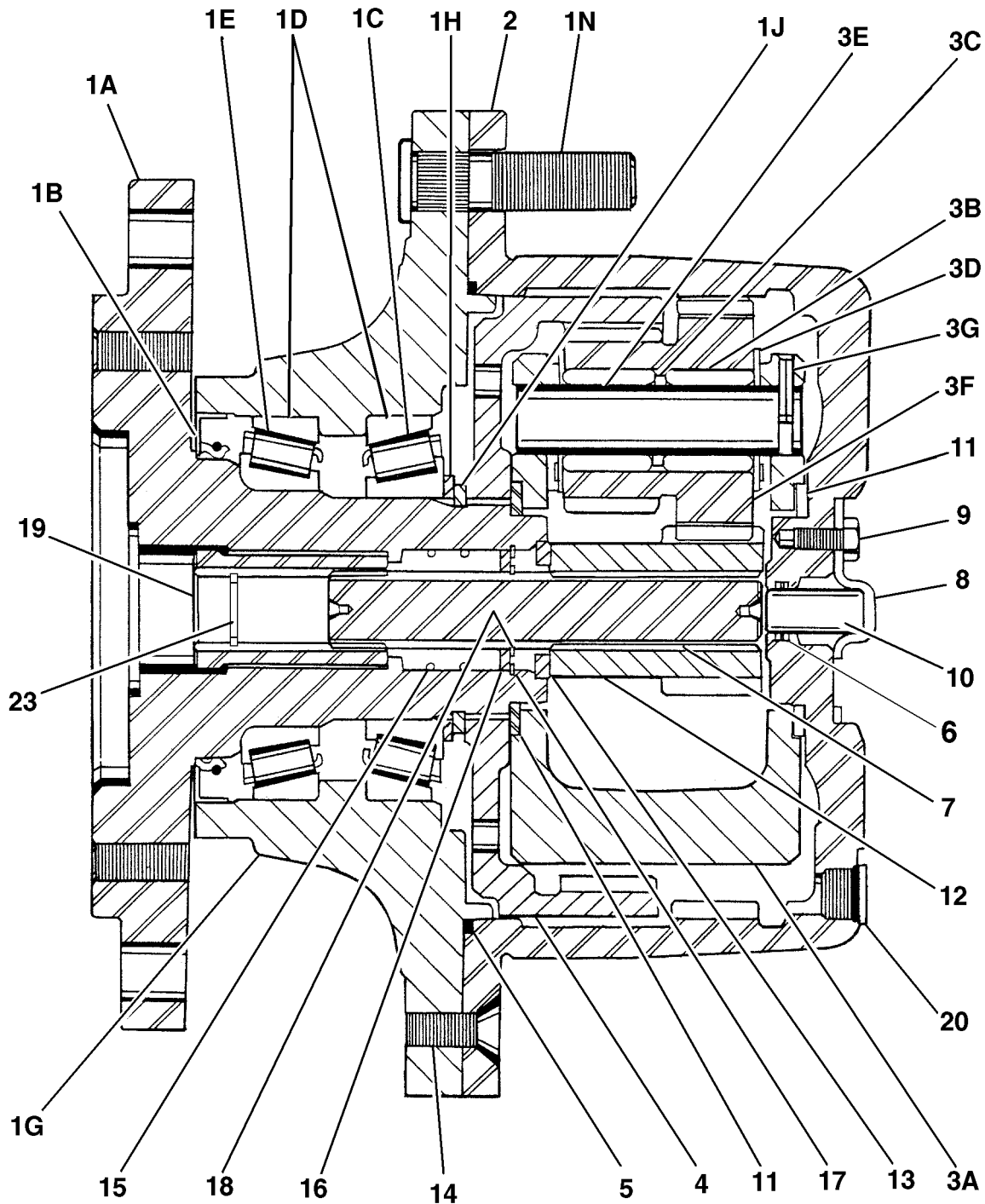
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0920112	DRIVE BRAKE ASSEMBLY (PRIOR TO S/N 56958)	Ref.	D
1	7003451	Housing	1	
2	7003452	Gasket	1	
3	7003094	Pin, Torque	2	
4	7003049	Bearing, Ball	1	
5	7003453	Ring, Retaining	1	
6	7003050	Seal	1	
7	7003454	Retainer, Spring	1	
8	7000798	Spring, Compression (Small)	10	
9	7000782	Spring, Compression (Large)	10	
10	7003455	Shaft	1	
11	7003456	Disc, Primary	1	
12	7003457	Disc, Rotating	2	
13	Not Used			
14	7003459	Disc, Stationary	2	
15	7003460	Piston	1	
16	7000722	Ring, Back-Up	1	
17	7000723	O-Ring	1	
18	7000724	Ring, Back-Up	1	
19	7000725	O-Ring	1	
20	Not Used			
21	7003461	Plate, Power	1	
22	7000728	Plug, Protective	1	
23	7003462	Flatwasher 1/2"	4	
24	7003463	Bolt 1/2"-13NC	4	
25	7000731	Gasket	2	

	Not Available	Seal Kit - 0920112 Brake	1	
	0920117	DRIVE BRAKE ASSEMBLY (NOT SHOWN) (S/N 56958 TO PRESENT)	Ref.	B
101	7000731	Gasket (Located between Hub/Brake & Brake/Motor)	2	
	7018612	Kit, Repair - 0920117 Brake	1	
	7018613	Screw, Washer Head Cap (Securing Pressure Plate to Cover Plate)	2	
		Note: No Other Serviceable Parts Available.	Ref.	



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FIGURE 1-6. DRIVE HUB ASSEMBLY (PRIOR TO S/N 39594)





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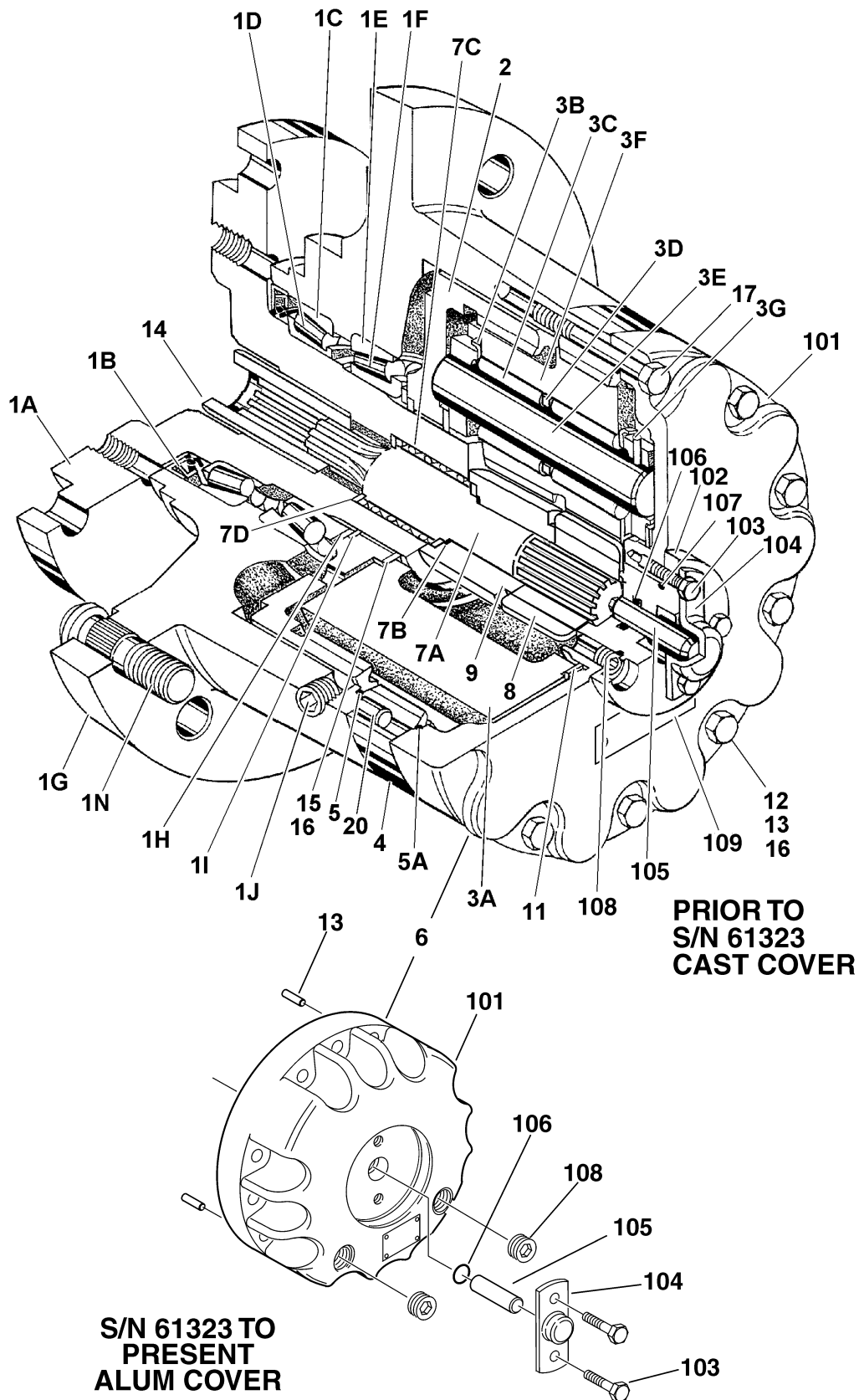
FIGURE 1-6. DRIVE HUB ASSEMBLY (PRIOR TO S/N 39594)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2780224	DRIVE HUB ASSEMBLY	Ref.	A
1	Not Available	Spindle/Housing Assembly	1	
1A	7017004	Spindle	1	
1B	7017010	Seal	1	
1C	7017006	Cone, Bearing	1	
1D	7017007	Cup, Bearing	2	
1E	7017008	Cone, Bearing	1	
1F	Not Used			
1G	7017005	Housing	1	
1H	7017009	Washer, Thrust	1	
1J	7017021	Ring, Retaining	1	
1K	Not Used			
1L	Not Used			
1M	Not Used			
1N	7007640	Stud, Wheel	9	
2	7017018	Gear, Ring	1	
3	Not Available	Carrier Assembly	1	
3A	7017015	Carrier	1	
3B	7017019	Bearing, Needle	96	
3C	7000263	Spacer, Thrust	3	
3D	7017014	Flatwasher, Tanged	6	
3E	7017013	Shaft, Planet	3	
3F	7017016	Gear, Cluster	3	
3G	7010474	Rollpin	3	
4	7017017	Gear, Internal	1	
5	7017011	O-Ring	1	
6	7000213	O-Ring	1	
7	7017024	Shaft, Input	1	
8	7000211	Cap, Disengage	1	
9	0641404	Bolt 1/2"-20NC x 1/2"	2	
10	7017029	Rod, Disengage	1	
11	7000253	Washer, Thrust	2	
12	7017012	Gear, Sun	1	
13	7017020	Washer, Thrust	1	
14	7017022	Screw, Socket Head Countersunk 3/8"-16NC	3	
15	7017026	Spring	1	
16	7010421	Washer, Thrust	1	
17	7007620	Ring, Retaining	1	
18	7017027	Ring, Retaining	1	
19	7017025	Coupling	1	
20	7017023	Plug, Pipe	2	
21	Not Available	Plate, ID (Not Shown)	1	
22	7000281	Screw, Drive (Not Shown - Installs Item 21)	4	
23	7017028	Ring, Retaining	1	



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FIGURE 1-7. DRIVE HUB ASSEMBLY (S/N 39594 TO PRESENT)





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FIGURE 1-7. DRIVE HUB ASSEMBLY (S/N 39594 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2780235	DRIVE HUB ASSEMBLY	Ref.	B
1	Not Available	Spindle/Housing Assembly	1	
1A	7017059	Spindle	1	
1B	7001998	Seal	1	
1C/1D	7010429	Cone & Cup, Bearing (Includes 1C & 1D)	1	
1E	7000257	Cone, Bearing	1	
1F	7000258	Cup, Bearing	1	
1G	7007601	Housing	1	
1H	7000232	Washer, Thrust	1	
1I	7000229	Ring, Retaining	1	
1J	Not Available	Plug, Pipe	1	
1K/1L/1M	Not Used			
1N	7007640	Stud, Wheel	9	
2	7000246	Gear, Ring	1	
3	Not Available	Carrier Assembly	1	
3A	7001931	Carrier	1	
3B	7001985	Flatwasher, Tanged	6	
3C	7001909	Bearing, Needle	96	
3D	7000263	Spacer, Thrust	3	
3E	7001911	Shaft, Planet	3	
3F	7007643	Gear, Cluster	3	
3G	7010474	Rollpin	3	
4	7000203	Gear, Internal	1	
5	7000230	O-Ring	1	
5A	7000230	O-Ring (Black) (Prior to S/N 61323)	1	
	7017070	O-Ring (White) (S/N 61323 to Present)	1	
6	Not Available	Cover Assembly (Includes Items 101 - 109)	1	
7	Not Available	Input Shaft Assembly	1	
7A	7000250	Shaft, Input	1	
7B	7000261	Ring, Retaining	1	
7C	7000262	Spring	1	
7D	7000263	Spacer, Thrust	2	
8	7000201	Gear, Sun	1	
9	7000252	Spacer, Thrust	1	
10	Not Used			
11		Spacer, Thrust Options:	A/R	
	7000253	Prior to S/N 61323	2	
	7017096	S/N 61323 to Present	1	
12		Bolt (Grade 8) Options:	12	
	7000217	Prior to S/N 61323		
	7017067	S/N 61323 to Present		
13		Hardware Options:	4	
	7000214	Bolt, Shoulder (Grade 8) (Prior to S/N 61323)		
	7017080	Dowel Pin (S/N 61323 to Present)		
14	7017060	Coupling	1	
15	Not Used			
16	7007603	Flatwasher	12	
	7017063	Seal Kit	1	



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FIGURE 1-7. DRIVE HUB ASSEMBLY (S/N 39594 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		COVER ASSEMBLIES	Ref.	
	See Kit Options	PRIOR TO S/N 61323	Ref.	
	See Kit Options	S/N 61323 TO PRESENT	Ref.	
101		Cover Options:	1	
	See Kit Options	Prior to S/N 61323		
	7017091	S/N 61323 to Present		
102		Cap Options:	1	
	7000227	Prior to S/N 61323		
	Not Required	S/N 61323 to Present		
103		Bolt Options:	A/R	
	7000220	Bolt 1/4"-20NC x 3/4" (Prior to S/N 61323)	4	
	7000216	Bolt 1/4"-20NC x 1/2" (S/N 61323 to Present)	2	
104		Cap, Disengage Options:	1	
	7000211	Prior to S/N 61323		
	7017093	S/N 61323 to Present		
105		Rod, Disengage Options:	1	
	7017062	Prior to S/N 61323		
	7017092	S/N 61323 to Present		
106		O-Ring Options:	1	
	7000213	Prior to S/N 61323		
	7017095	S/N 61323 to Present		
107		O-Ring Options:	1	
	7000215	Prior to S/N 61323		
	Not Required	S/N 61323 to Present		
108		Plug, Pipe	A/R	
	7017048	Prior to S/N 61323	1	
	7017094	S/N 61323 to Present	2	
109	Not Serviced	Plate, Identification	1	
		COVER KIT OPTIONS:		
	No Longer Available	Cast Cover (Prior to S/N 61323)	1	
	7017099	Aluminum Cover Replacement for Cast Cover (Includes Items 5, 5A, 11, 12, 13, 101, & 103-109) (Prior to S/N 61323)	1	
	7017090	Aluminum Cover (Includes Items 5A & 101) (S/N 61323 to Present)	1	



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FIGURE 1-7. DRIVE HUB ASSEMBLY (S/N 39594 TO PRESENT) (CONTINUED)

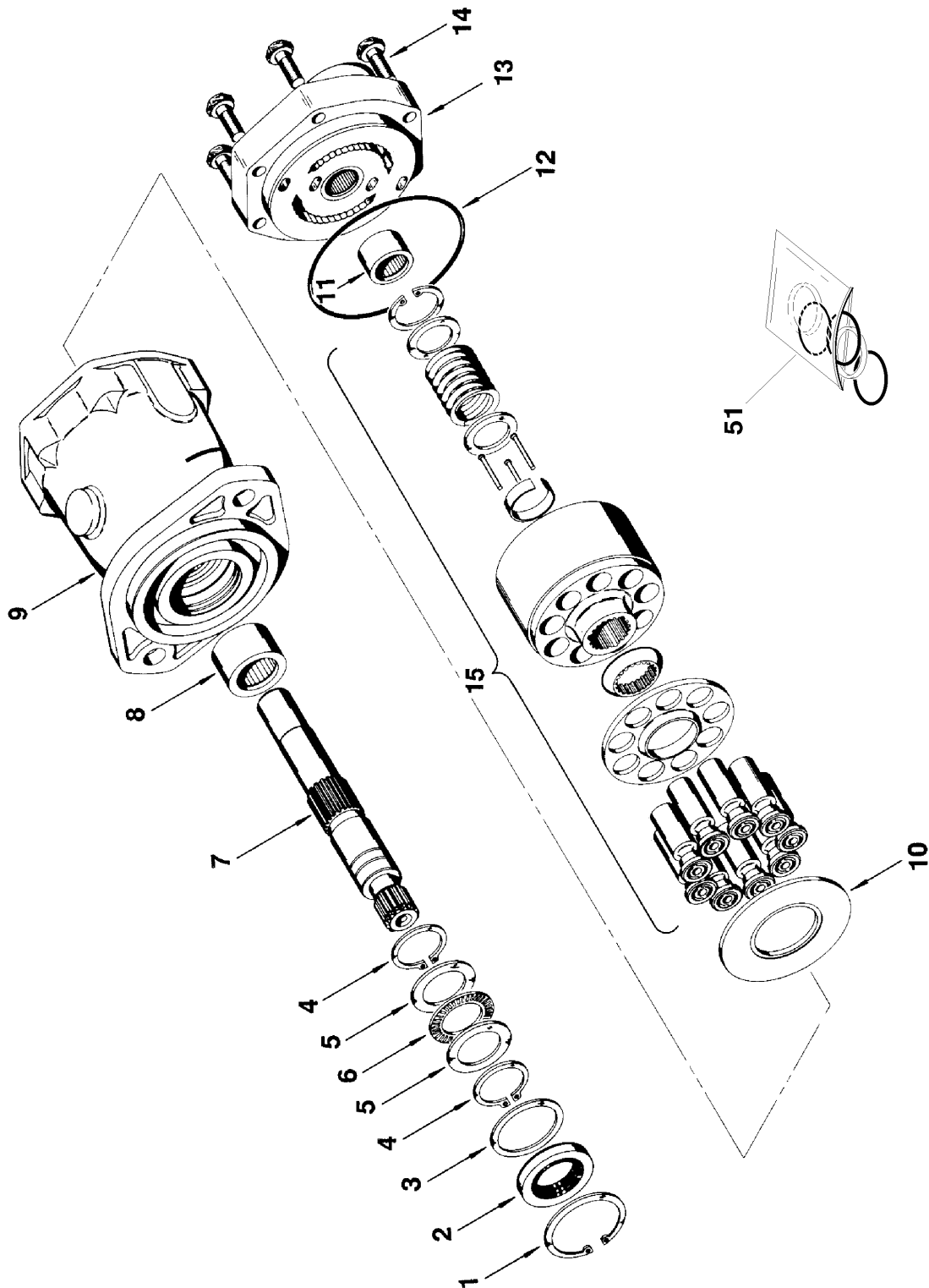
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 1-8. DRIVE MOTOR ASSEMBLY - REAR





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FIGURE 1-8. DRIVE MOTOR ASSEMBLY - REAR

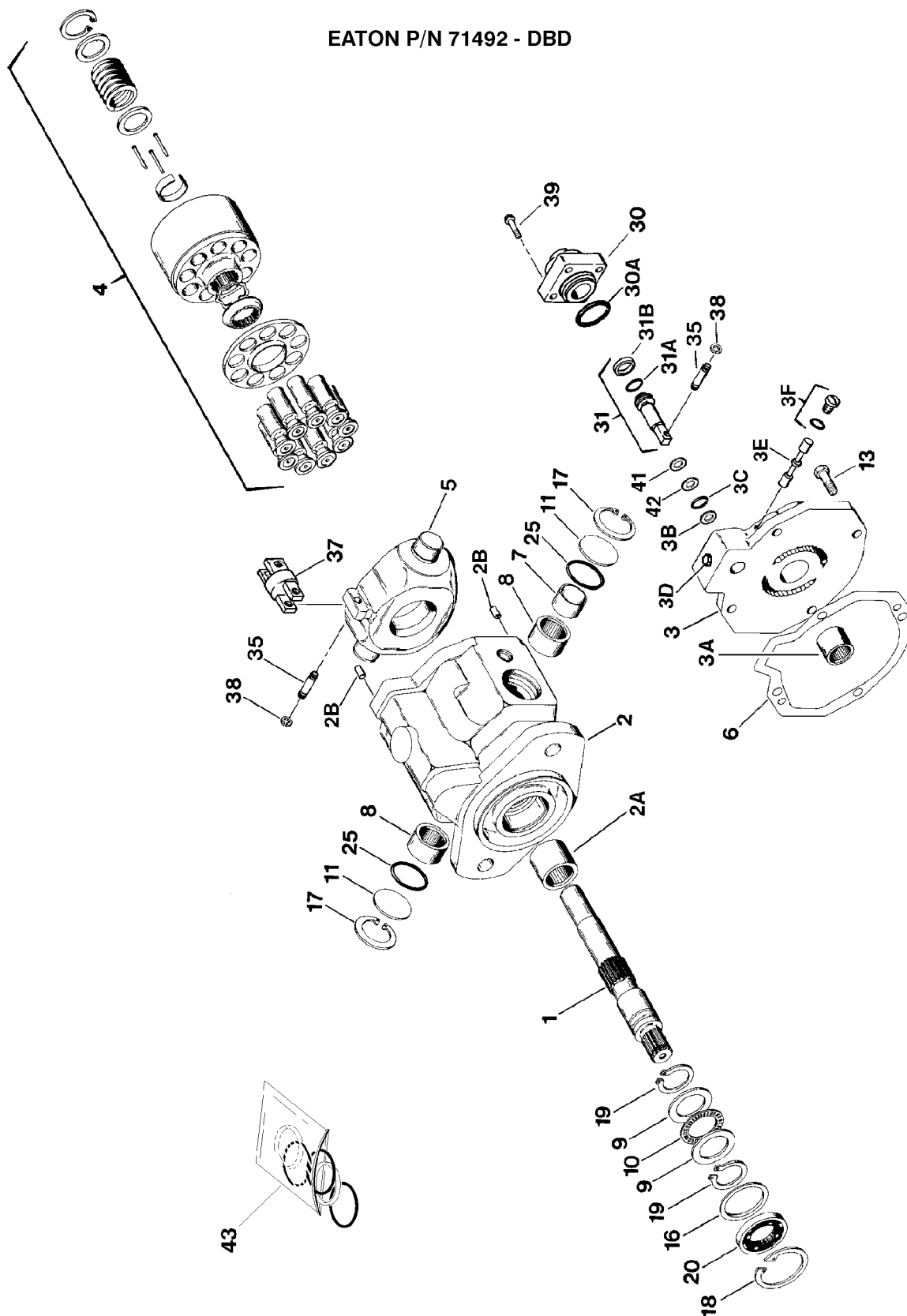
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	3160158	DRIVE MOTOR ASSEMBLY - REAR	Ref.	—
1	Use Item 51	Ring, Retaining	1	
2	Use Item 51	Seal, Shaft	1	
3	7004906	Washer	1	
4	Use Item 51	Ring, Retaining	2	
5	7004907	Race, Thrust	2	
6	7004908	Bearing, Thrust	1	
7	7007874	Shaft, Splined	1	
8	7004910	Bearing	1	
9	7007875	Housing Assembly (Includes Item 8)	1	
10	7007876	Insert, Camplate	1	
11	7004917	Bearing	1	
12	Use Item 51	O-Ring	1	
13	7007878	Back Plate Assembly (Includes Item 11)	1	
14	7007879	Bolt	6	
15	7007880	Rotating Kit Assembly (Sold As An Assembly Only)	1	

51	2900714	Seal Kit (Includes Items 1, 2, 4 and 12)	1	



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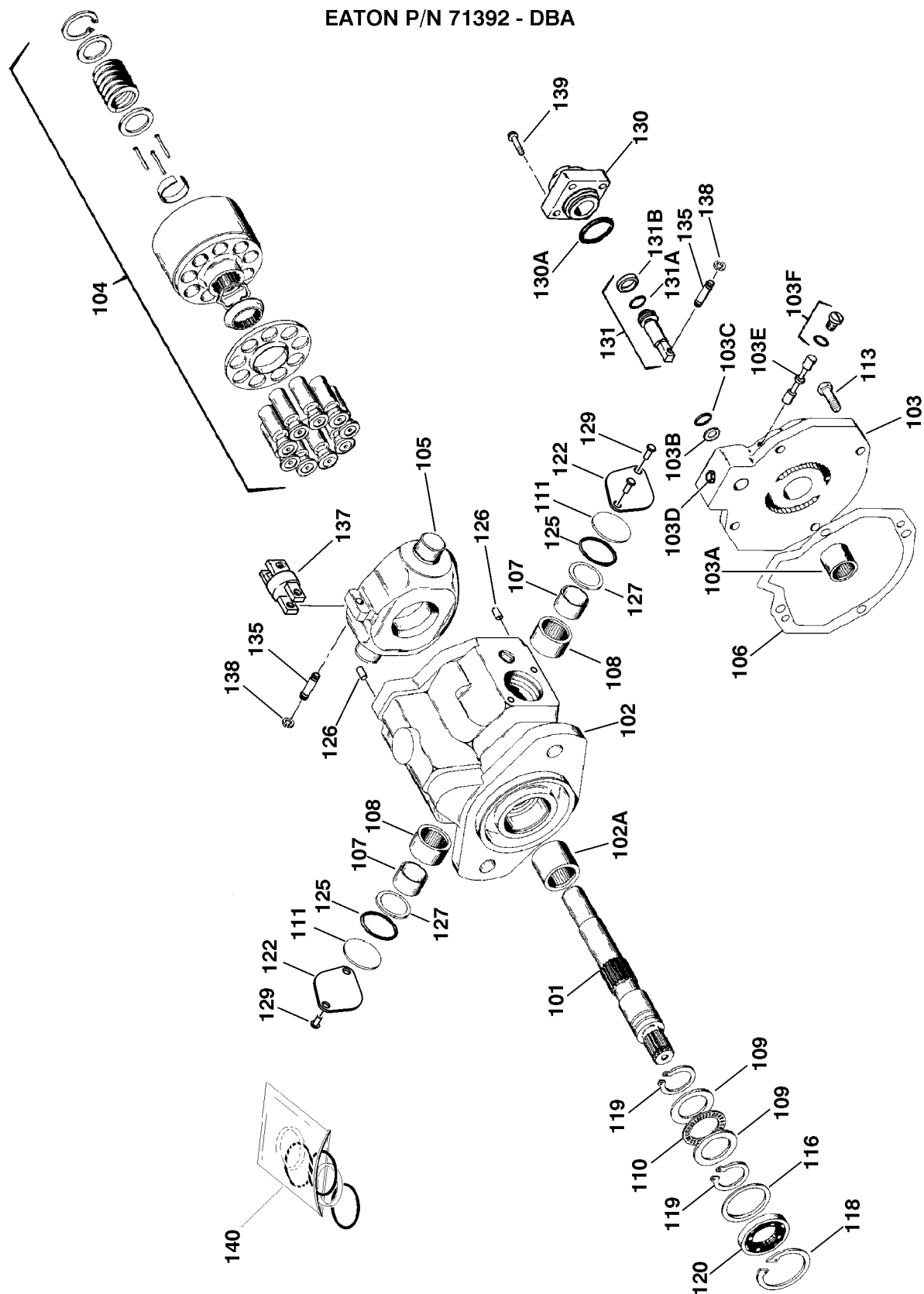
FIGURE 1-9. DRIVE MOTOR ASSEMBLY - FRONT





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FIGURE 1-9. DRIVE MOTOR ASSEMBLY - FRONT

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Note: Drive Motor p/n 3160227 is no longer available. Replace complete drive motor with Service Replacement Drive Motor p/n 1001096417	Ref.	
		Note: Visually identify the drive motor by Eaton part number before ordering replacement parts.	Ref.	
	3160227	DRIVE MOTOR ASSEMBLY - FRONT (EATON P/N 71492 - DBD)	Ref.	B
1	7020313	Shaft, Splined	1	
2	7020314	Housing	1	
2A	7004910	Bearing	1	
2B	Not Serviced	Rollpin	2	
3	7020344	Back Plate Assembly	1	
3A	7004917	Bearing	1	
3B	Use Item 43	Washer	1	
3C	Use Item 43	O-Ring	1	
3D	7020350	Plug	1	
3E	7020349	Spool, Shuttle	1	
3F	7020348	Plug	2	
4	7020315	Rotating Kit Assembly (Sold As An Assembly Only)	1	
5	7020316	Camplate	1	
6	7020317	Gasket	1	
7	7020318	Race, Inner	1	
8	7020319	Bearing, Needle	2	
9	7020320	Race, Thrust	2	
10	7020321	Bearing, Thrust	1	
11	7020322	Cover, Trunnion	2	
12	Not Used			
13	7020323	Bolt	4	
14 to 15	Not Used			
16	7020324	Washer	1	
17	7020325	Ring, Retaining	2	
18	7020326	Ring, Retaining	1	
19	7020327	Ring, Retaining	2	
20	7020328	Seal, Shaft	1	
21 to 24	Not Used			
25	7020329	O-Ring	2	
26 to 29	Not Used			
30	7020330	Housing, Control Piston	1	
30A	Use Item 43	O-Ring	1	
31	7020331	Piston Control	1	
31A	Use Item 43	O-Ring	1	
31B	Use Item 43	Ring, Slipper	1	
32 to 34	Not Used			
35	7020345	Pin, Connector	2	
36	Not Used			
37	7020332	Plate, Connector	2	
38	7020333	Ring, Retaining	2	



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FIGURE 1-9. DRIVE MOTOR ASSEMBLY - FRONT (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
39	7020334	Bolt	4	
40	Not Used			
41	Use Item 43	Washer	1	
42	Use Item 43	O-Ring	1	
43	7020347	Seal Kit - Complete (Includes items 3B,3C,6,16,17,18,19,20, 25,30A,31A,31B,38,41&42)	1	
	1001096417	DRIVE MOTOR ASSEMBLY - FRONT (EATON P/N 71392 - DBA)	Ref.	A
101	7004912	Shaft, Splined	1	
102	Not Available	Housing	1	
102A	7004910	Bearing	1	
103	70002542	Back Plate Assembly	1	
103A	Not Available	Bearing	1	
103B	Use Item 43	Washer	1	
103C	Use Item 43	O-Ring	1	
103D	Not Available	Plug	1	
103E	Not Available	Spool, Shuttle	1	
103F	Not Available	Plug	2	
104	7004916	Rotating Kit Assembly (Sold As An Assembly Only)	1	
105	70002534	Camplate	1	
106	Use Item 43	Gasket	1	
107	7004911	Race, Inner	2	
108	7004914	Bearing, Needle	2	
109	7004907	Race, Thrust	2	
110	7004908	Bearing, Thrust	1	
111	70002535	Cover, Trunnion	2	
112	Not Used			
113	7020323	Bolt	4	
114 to 115	Not Used			
116	7004906	Washer	1	
117	Not Used			
118	Use Item 43	Ring, Retaining	1	
119	Use Item 43	Ring, Retaining	2	
120	Use Item 43	Seal, Shaft	1	
121	Not Used			
122	70002536	Cover	2	
123	Not Used			
124	70002537	Plate, Valve (Not Shown - Located Between Items 102 & 103)	1	
125	Use Item 43	O-Ring	2	
126	70002538	Rollpin	2	
127	70002539	Washer	2	
128	Not Used			
129	70002540	Screw, Pan Head	4	
130	7004939	Housing, Control Piston	1	
130A	Use Item 43	O-Ring	1	
131	70002541	Piston Control	1	
131A	Use Item 43	O-Ring	1	



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FIGURE 1-9. DRIVE MOTOR ASSEMBLY - FRONT (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
131B	Use Item 43	Ring, Slipper	1	
132 to 134	Not Used			
135	7004929	Pin, Connector	2	
136	Not Used			
137	7004928	Plate, Connector	2	
138	Use Item 43	Ring, Retaining	2	
139	7004938	Bolt	4	
140	7020347	Seal Kit - Complete (Includes items 103B,103C,106,118,119, 120,125,130A,131A,131B & 138)	1	

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FIGURE 1-9. DRIVE MOTOR ASSEMBLY - FRONT (CONTINUED)

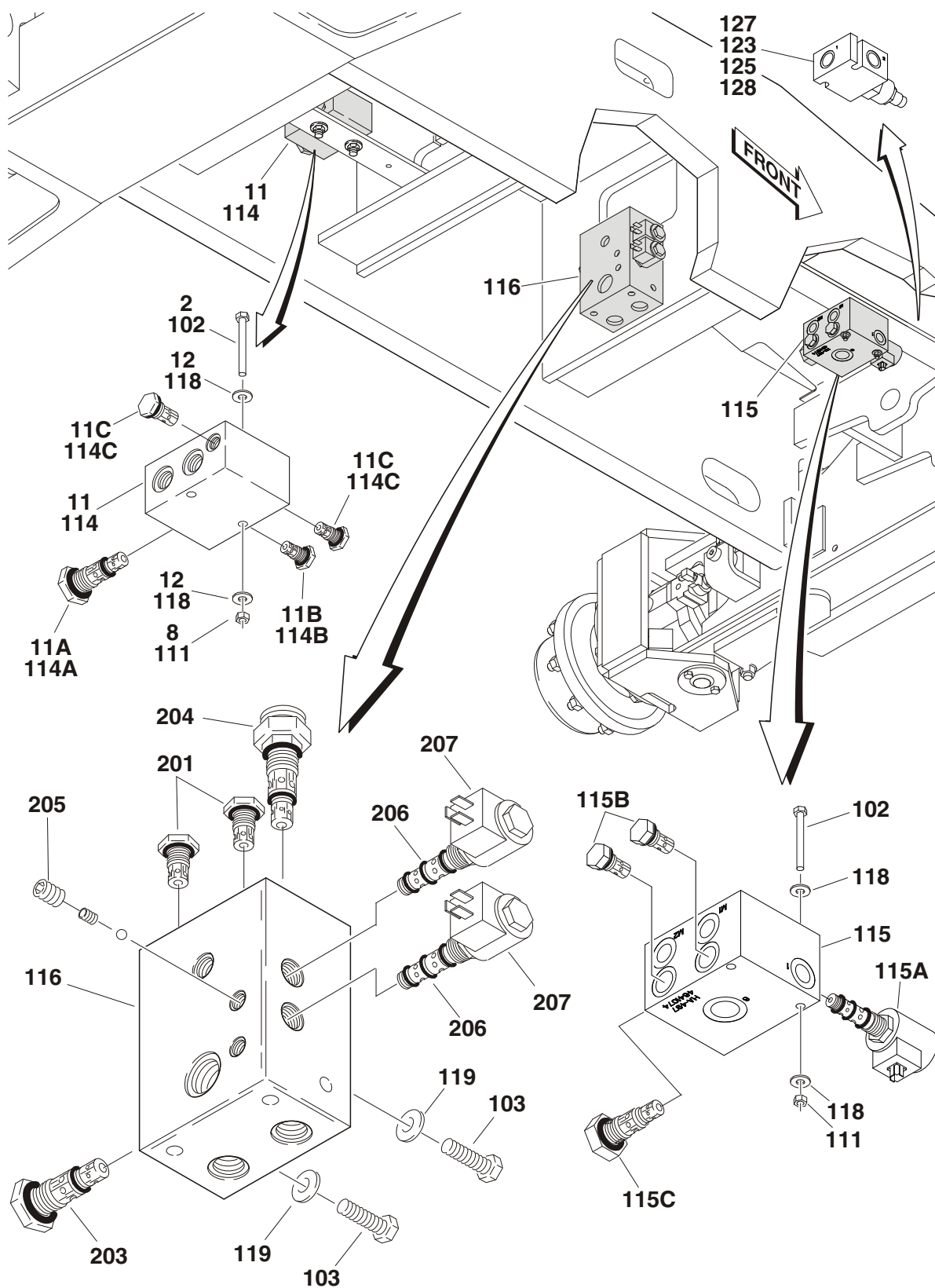
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 1-10. DRIVE VALVES INSTALLATIONS





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FIGURE 1-10. DRIVE VALVES INSTALLATIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		DRIVE VALVES INSTALLATION - 2WD	Ref.	
	0258020	Prior to S/N 56958	Ref.	E
	0270207	S/N 56958 to Present	Ref.	B
1	Not Used			
2	0641532	Bolt 5/16"-18NC x 4"	2	
3 to 7	Not Used			
8	3311505	Locknut 5/16"-18NC	2	
9 to 10	Not Used			
11		Flow Divider Valve Assembly Options:	1	
	4640923	Valve (Not Shown - Prior to S/N37577)		
	7012992	Valve, Cartridge	1	
	7021625	Seal Kit - 7012992 Cartridge	1	
	7012993	Orifice	1	
	4641041	Valve (S/N37577 to Present)		C
11A	Use 7022396	Valve, Cartridge (Flow Divider) (Was p/n 7017442)	1	
	7021625	Seal Kit - 7022396 Cartridge	1	
11B	Use 7022398	Valve, Cartridge (Load Shuttle) (Was p/n 7010542)	1	
	7023900	Seal Kit - 7022398 Cartridge	1	
11C	Use 7022397	Valve, Cartridge (Check) (Was p/n 7012930)	2	
	7022399	Seal Kit - 7022397 Cartridge	2	
	Not Available	Orifice	1	
12	4751500	Flatwasher 5/16"	4	
		DRIVE VALVES INSTALLATION - 4WD	Ref.	
	0258021	Prior to S/N 56958	Ref.	F
	0270208	S/N 56958 to Present	Ref.	C
101	0100011	Loctite #242 (Not Shown)	A/R	
102	0641532	Bolt 5/16"-18NC x 4"	4	
103	0641612	Bolt 3/8"-16NC x 1 1/2"	2	
104 to 110	Not Used			
111	3311505	Locknut 5/16"-18NC		
112 to 113	Not Used			
114		Flow Divider Valve Assembly Options:	1	
	4640923	Valve (Not Shown - Prior to S/N37577)		
	7012992	Valve, Cartridge	1	
	7021625	Seal Kit - 7012992 Cartridge	1	
	7012993	Orifice	1	
	4641041	Valve (S/N37577 to Present)		C
114A	Use 7022396	Valve, Cartridge (Flow Divider) (Was p/n 7017442)	1	
	7021625	Seal Kit - 7022396 Cartridge	1	
114B	Use 7022398	Valve, Cartridge (Load Shuttle) (Was p/n 7010542)	1	
	7023900	Seal Kit - 7022398 Cartridge	1	
114C	Use 7022397	Valve, Cartridge (Check) (Was p/n 7012930)	2	
	7022399	Seal Kit - 7022397 Cartridge	2	
	Not Available	Orifice	1	



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FIGURE 1-10. DRIVE VALVES INSTALLATIONS (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
115		Flow Divider Valve Assembly Options:	1	B
	4640937	Valve (Not Shown - Prior to S/N37577)		
	7012993	Orifice	1	
	7012978	Valve, Cartridge	1	
	7021625	Seal Kit - 7012978 Cartridge	1	
	4641074	Valve (S/N37577 to Present)		
	7012994	Orifice	1	
115A	7012943	Coil	1	
	7017475	Valve, Cartridge (Solenoid)	1	
	7012901	Seal Kit - 7017475 Cartridge	1	
115B	7012930	Valve, Cartridge (Check)	2	D
	2900756	Seal Kit - 7012930 Cartridge	2	
115C	Use 7021657	Valve, Cartridge (Flow Divider) (Was p/n 7012980)	1	
	7021625	Seal Kit - 7021657 Cartridge	1	
116	4641039	Valve Assembly (See Items 201 to 207 for Breakdown)	1	
117	Not Used			
118	4751500	Flatwasher 5/16"	8	
119	4751600	Flatwasher 3/8"	2	
120 to 122	Not Used			
123	0641418	Bolt 1/4"-20NC x 2 1/4"	1	D
124	Not Used			
125	3311405	Locknut 1/4"-20NC	1	
126	Not Used			
127	4641073	Valve Assembly (S/N38566 to Present Only)	1	
	7012901	Seal Kit - 4641073 Valve	1	
128	4751400	Flatwasher 1/4"	2	
	4641039	VALVE ASSEMBLY	Ref.	
201	Use 4641193	Valve, Cartridge (Check) (was p/n 7012930)	2	
	7017496	Seal Kit - 7012930 & 4641193 Valves (1 per Cartridge)	2	
202	Not Used			D
203		Valve, Cartridge Options (Fixed Flow Control):	1	
	Use 7021658	Valve (Prior to S/N37577 - Was p/n 7017442)		
	7021658	Valve (S/N37577 to Present - Was p/n 7012979)		
	7021625	Seal Kit - 7021658 Valve	1	
204	7017439	Valve, Cartridge (Flow Divider/Combiner)	1	
	7012925	Seal Kit - 7017439 Valve	1	
205	7017440	Valve, Cartridge (Shuttle)	1	
	7017441	Seal Kit - 7017440 Valve	1	
206	7021612	Valve, Cartridge Less Coil (Select & High Speed)	2	
	7010543	Seal Kit - 7021612 Valve (1 per Cartridge)	2	D
207	7012944	Coil	2	
	7017403	Waterproof Kit	1	



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FIGURE 1-10. DRIVE VALVES INSTALLATIONS (CONTINUED)

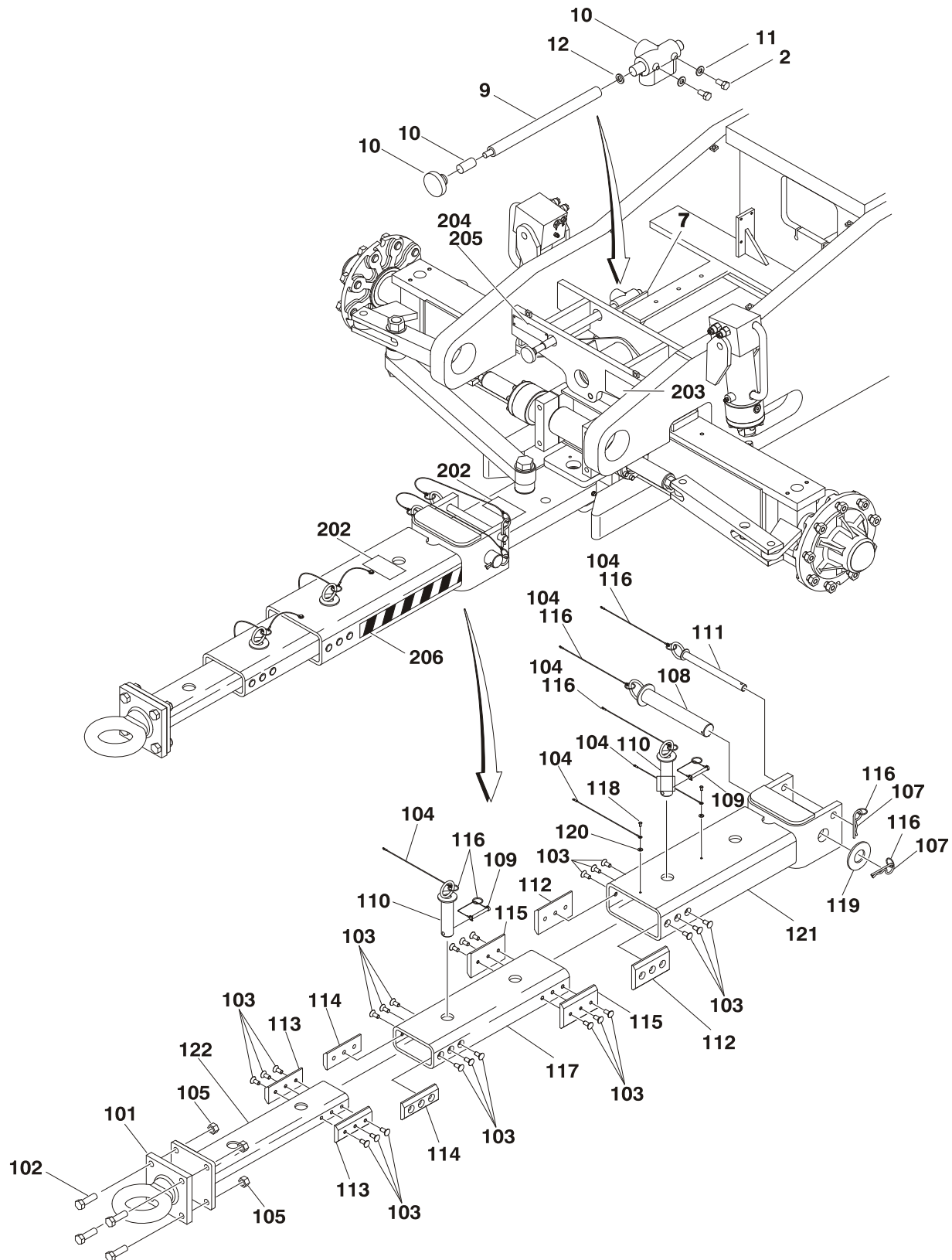
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 1-11. TOW BAR INSTALLATION





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FIGURE 1-11. TOW BAR INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0259845	TOW BAR INSTALLATION - 2WD	Ref.	B
1	Not Used			
2	0641505	Bolt 5/16"-18NC x 5/8"	2	
3 to 6	Not Used			
7	3572102	Plate (Weld on Part)	1	
8	Not Used			
9	3841329	Rod, Extension	1	
10	4640261	Steer/Tow Select Valve	1	
11	4711500	Flatwasher 5/16"	2	
12	4761600	Lockwasher 3/8"	1	
	0259853	TOW BAR ASSEMBLY	Ref.	B
101	0362910	Pintle, Draw Eye	1	
102	0682016	Bolt 5/8"-11NC x 2"	4	
103	0741607	Flat Head Socket Screw 3/8"-16NC x 5/8"	24	
104	1060584	Cable, Lanyard	6	
105	3272005	Locknut 5/8"-11NC	4	
106	0100011	Loctite #242 (Not Shown)	A/R	
107	3420372	Pin, Cotter	2	
108	3420447	Pin, Towing	1	
109	3421565	Pin, Snapper	2	
110	3422841	Pin	2	
111	3422847	Pin	1	
112	3572009	Plate, Slide Stop	2	
113	3572010	Plate, Slide Stop	2	
114	3572011	Plate, Slide Stop	2	
115	3572012	Plate, Slide Stop	2	
116	3760170	Ring, Split	8	
117	4568033	Tube, Tow Bar	1	
118	0721004	Screw #10-24NC x 1/2"	8	
119	4740036	Flatwasher	1	
120	4751000	Flatwasher #10 (Wide)	2	
121	4846168	Weldment, Tow Bar Attach	1	
122	4846169	Weldment, Pintle Attach	1	
	0270115	TOW BAR DECAL INSTALLATION	Ref.	1
201	1704482	Decal - Tow Instructions (Not Shown Located on Frame Shield)	1	
202	1704578	Decal - Crushing	3	
203	1703450	Decal - Warning	1	
204	3250872	Nameplate - Steer/Tow Select Valve	1	
205	3820001	Rivet	4	
206	4420051	Tape	43in/ 109.2cm	

FIGURE 1-12. SEMI-TRACK INSTALLATION





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FIGURE 1-12. SEMI-TRACK INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		SEMI-TRACK INSTALLATIONS		
	0270183	IDLER INSTALLATION	Ref.	2
1	0259665	Mount, Idler (Left) (See Items 101-116 for Breakdown)	1	
2	0259674	Mount, Idler (Right) (See Items 101-116 for Breakdown)	1	
3	0681822	Bolt 1/2"-13NC x 2 3/4" (Grade 8)	8	
4	3271805	Locknut 1/2"-13NC (Grade 8)	8	
5	3571860	Plate, Spacer	4	
6	4891800	Flatwasher 1/2" Hardened	8	
		TRACK INSTALLATIONS		
	0270185	12" Soft Track	Ref.	1
	0270184	12" Steel Track	Ref.	1
	0270192	14" Steel Track	Ref.	1
7		Wheel Assembly Options (See Items 201-204 for Breakdown):	2	
	0270029	12" Track		
	0270030	14" Track		
8	3300255	Nut	10	
9		Track Options:	2	
	Not Available at Time of Printing	12" Soft Track		
	0270086	12" Steel Track (See Items 401-405 for Breakdown)		
	0270259	14" Steel Track (See Items 401-405 for Breakdown)		
		IDLER MOUNT ASSEMBLIES		
	0259665	Left Side	Ref.	C
	0259674	Right Side	Ref.	C
101	0020005	Absorber, Rubber Spring	1	
102	0641408	Bolt 1/4"-20NC x 1"	1	
103	0641808	Bolt 1/2"-13NC x 1"	1	
104	0681856	Bolt 1/2"-13NC x 7" (Grade 8)	1	
105	0961948	Bearing	2	
106	0962293	Bushing, Track Spring	1	
107	2780221	Hub Assembly (See Items 301-307 for Breakdown)	1	
108	3271805	Locknut 1/2"-13NC (Grade 8)	1	
109	3422786	Pin	1	
110	3571818	Plate	1	
111	3571833	Cover, Bottom	1	
112	3841203	Keeper, Pin	1	
113	4711400	Flatwasher 1/4" Narrow	1	
114	4891800	Flatwasher 1/2" Hardened	2	
115		Arm Weldment Options:	1	
	4846113	Left Side		
	4846112	Right Side		
116		Bracket Weldment Options:	1	
	4846114	Left Side		
	4846126	Right Side		
117	0100011	Loctite #242 (Not Shown)	A/R	



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FIGURE 1-12. SEMI-TRACK INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		WHEEL ASSEMBLIES		
	0270029	12" Track	Ref.	B
	0270030	14" Track	Ref.	A
201	1704586	Decal, Tire Pressure	1	
202		Tire Options:	1	
	4520224	12" Track		
	4520234	14" Track		
203	4640113	Valve, Air	1	
204		Rim, Wheel Options:	1	
	4860218	12" Track	1	
	4860215	14" Track	1	
	2780221	HUB ASSEMBLY	Ref.	—
301	7012519	Cup, Inner Bearing	1	
302	7012520	Cone, Inner Bearing	1	
303	7012521	Cup, Outer Bearing	1	
304	7012522	Cone, Outer Bearing	1	
305	7012523	Seal	1	
306	7012524	Cap, Dust	1	
307	7016360	Stud, Wheel 1/2"-20NF		
		STEEL TRACK ASSEMBLY	Ref.	
	0270086	12" Steel Track	Ref.	
	0270259	14" Steel Track	Ref.	
401		Pad Options:		
	7020279	12" Track Pad	30	
	7020287	14" Track Pad	32	
	7020280	12" Track Pad Complete with Links, Bushings & Hdw	30	
	7020288	14" Track Pad Complete with Links, Bushings & Hdw	32	
402	7020281	Link (2 Per Pad)	A/R	
403	7020282	Bushing (4 Per Pad)	A/R	
404	7020283	Bolt, Carriage 1/2"NF x 1 7/8" (4 Per Pad)	A/R	
405	7020284	Nut 1/2"NF (4 Per Pad)	A/R	
		Track Rebuild Kits Options:	1	
	7020285	Hardware & Bushing Kit for 12" Steel Track		
	7020289	Hardware & Bushing Kit for 14" Steel Track		
	7020286	Link, Hardware & Bushing Kit for 12" Steel Track		
	7020290	Link, Hardware & Bushing Kit for 14" Steel Track		
		TREAD ACCESSORIES (NOT SHOWN)		
	0270180	Soft Puck	Ref.	A
	0240049	Puck, Soft	64	
	0270186	Flotation Plate	Ref.	A
	0240050	Plate, Flotation	64	
	0270187	Ice Pick	Ref.	A
	0240047	Plate, Flotation	32	



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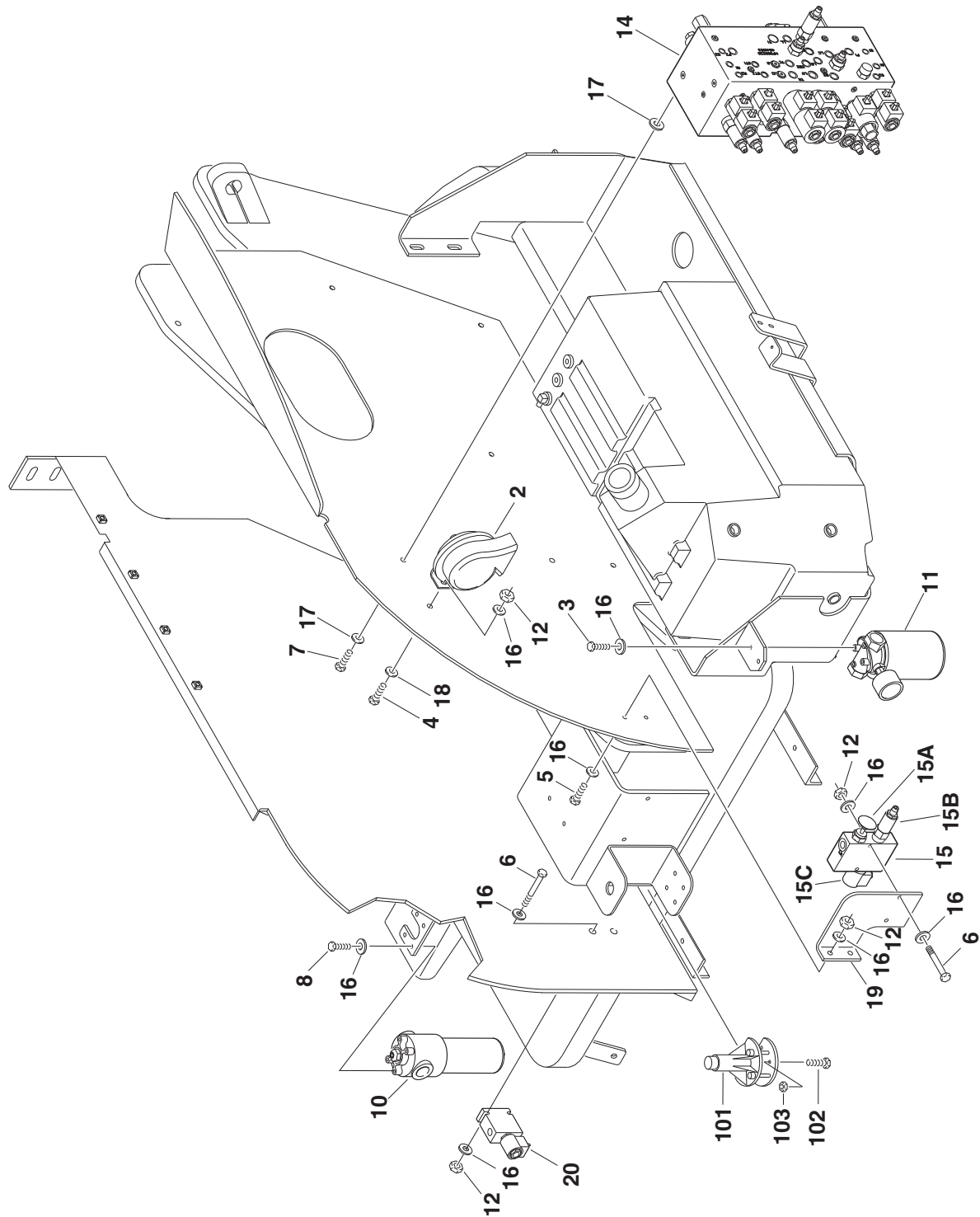
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FIGURE 2-1. CONTROL VALVES INSTALLATIONS





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FIGURE 2-1. CONTROL VALVES INSTALLATIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		VALVES INSTALLATIONS		
	0258388	450A with Proportional Valves	Ref.	A
	0258389	450AJ with Proportional Valves	Ref.	B
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0140001	Horn	1	
3	0641405	Bolt 1/4"-20NC x 5/8"	2	
4	0641406	Bolt 1/4"-20NC x 3/4"	1	
5	0641408	Bolt 1/4"-20NC x 1"	2	
6	0641416	Bolt 1/4"-20NC x 2"	4	
7	0641607	Bolt 3/8"-16NC x 7/8"	4	
8	0651406	Bolt 1/4"-24NF x 3/4"	4	
9	Not Used			
10	2120163	Pressure Filter Assembly	1	
	2120150	Element, Filter	1	
	7020020	Indicator	1	
	7023206	O-Ring	1	
	7023207	Ring, Back-up	1	
11	2120165	Hydraulic Oil Filter Assembly	1	
	2120158	Element, Filter	1	
	7020021	Indicator, Clogged	1	
12	3311405	Locknut 1/4"-20NC	6	
13	4921927	Harness, Jib (450AJ Only) (Not Shown - See Section 7 for Breakdown)	1	
14		Main Control Valve Assembly Options:	1	
	4641056	450A w/Proportional Valve (See Fig. 2-2 for Breakdown)		
	4641057	450AJ w/Proportional Valve (See Fig. 2-2 for Breakdown)		
15	4641059	Valve Assembly - Level	1	
15A	7017466	Cartridge	1	
	2900708	Seal Kit - 7017466 Cartridge	1	
	7012959	Knob	1	
15B	7012981	Cartridge without Coil	1	
	7012998	Seal Kit - 7012981 Cartridge	1	
15C	7012944	Coil	1	
	7017467	Cartridge without Coil	1	
	7012967	Seal Kit - 7017467 Cartridge	1	
16	4711400	Flatwasher 1/4" Narrow	24	
17	4711600	Flatwasher 3/8" Narrow	8	
18	4791400	Starwasher 1/4"	1	
19	0902459	Bracket, Mounting - Leveling Valve	1	
20	4640907	Solenoid Valve Assembly (Brake)	1	
	7012944	Coil	1	
	7012941	Cartridge without Coil	1	
	7012907	Seal Kit - 7012941 Cartridge	1	

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FIGURE 2-1. CONTROL VALVES INSTALLATIONS (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0254603	TILT INDICATOR INSTALLATION	Ref.	—/I
101	4360371	Sensor, Level	1	
102	0641406	Bolt 1/4"-20NC x 3/4"	2	
103	3311405	Locknut 1/4"-20NC	2	

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FIGURE 2-1. CONTROL VALVES INSTALLATIONS (CONTINUED)

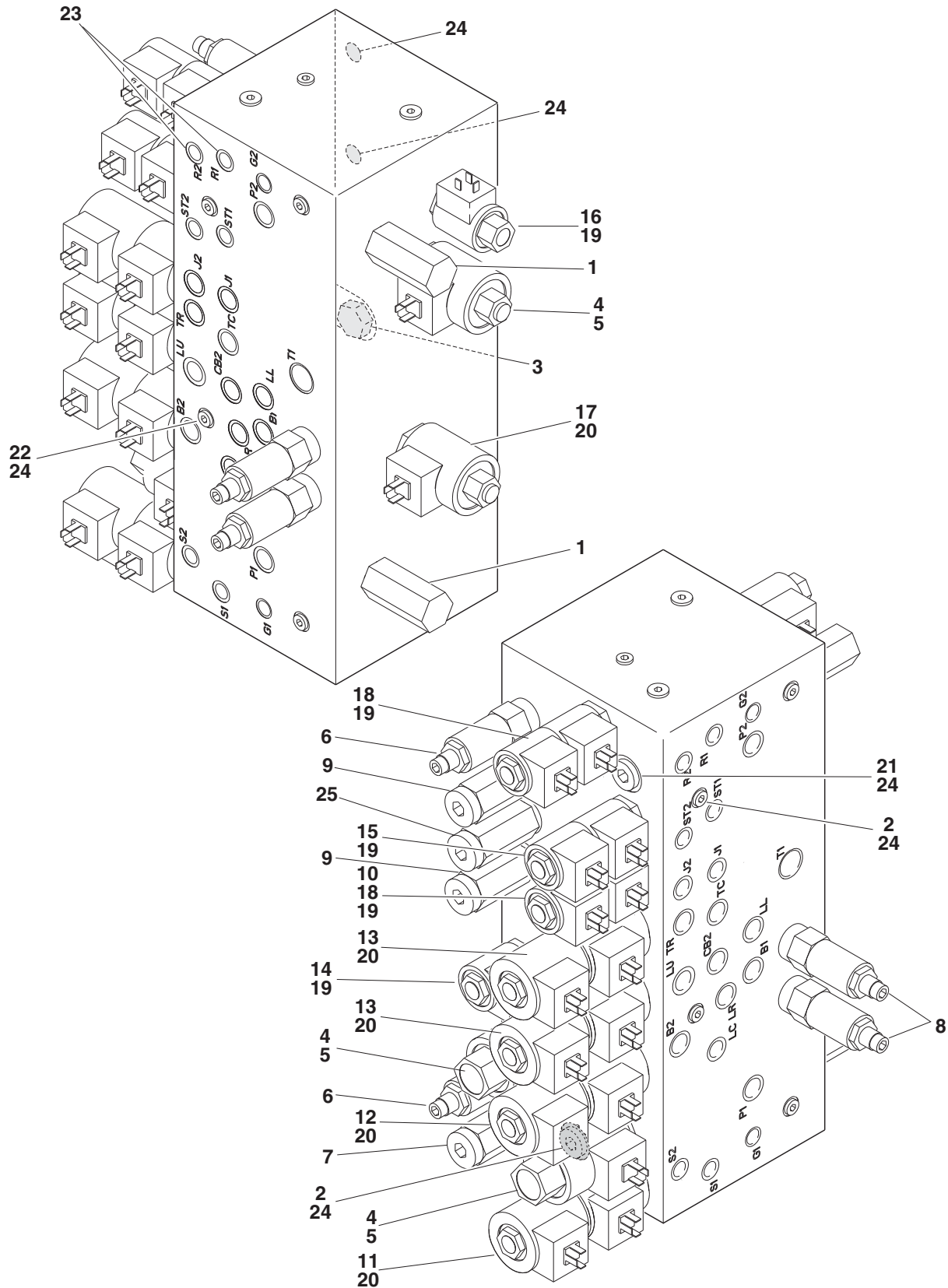
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-2. MAIN CONTROL VALVE ASSEMBLY - PROPORTIONAL





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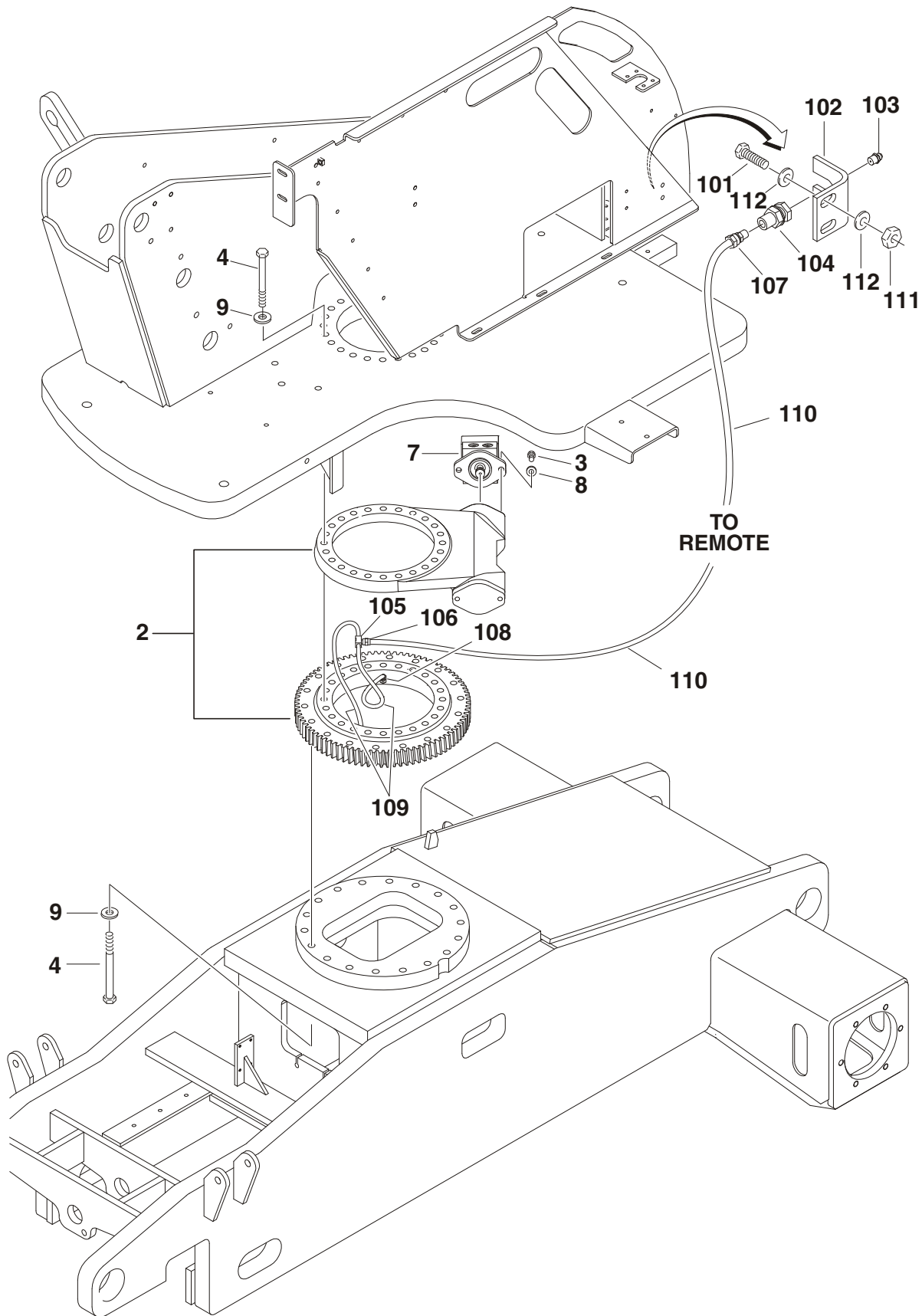
FIGURE 2-2. MAIN CONTROL VALVE ASSEMBLY - PROPORTIONAL

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		PROPORTIONAL VALVE ASSEMBLY		
	4641056	450A	Ref.	G
	4641057	450AJ	Ref.	F
1	7022360	Cartridge, Sequence (Lift And Steer) (Was p/n 7017464)	2	
	7022361	Seal Kit - 7022360 Cartridge	2	
2	7017440	Cartridge (Load Sensing Shuttle)	2	
	7017441	Seal Kit - 7017440 Cartridge	2	
3	7012914	Cartridge	1	
	7012918	Seal Kit - 7012914 Cartridge	1	
4	7022362	Cartridge without Coil (Lift & Swing) (Was p/n 7017450)	3	
	7022363	Seal Kit - 7022362 Cartridge	3	
5	7017451	Coil	3	
6	7021613	Cartridge, Relief Valve (Main) (Was p/n 7017418)	2	
	7012998	Seal Kit - 7021613 Cartridge	2	
7	7021614	Cartridge, Relief Valve (Swing) (Was p/n 7017460)	1	
	7017461	Seal Kit - 7021614 Cartridge	1	
8	7017448	Cartridge, Relief Valve (Level)	2	
	7012967	Seal Kit - 7017448 Cartridge	2	
9	7017468	Cartridge, Relief Valve (Steer & Telescope)	2	
	7017461	Seal Kit - 7017468 Cartridge	2	
10	7017471	Cartridge (450A Prior to S/N 46672 Only - Not Shown)	1	
11	7017469	Cartridge without Coil (Swing)	1	
	7012903	Seal Kit - 7017469 Cartridge	1	
12	7017470	Cartridge without Coil (Lift)	1	
	7012903	Seal Kit - 7017461 Cartridge	1	
13	7017454	Cartridge without Coil (Telescope & Tower)	2	
	7012903	Seal Kit - 7017454 Cartridge	2	
14	7017453	Cartridge without Coil (Level)	1	
	7017402	Seal Kit - 7017453 Cartridge	1	
15	7017433	Cartridge without Coil (Steer)	1	
	7017402	Seal Kit - 7017433 Cartridge	1	
16	7017410	Cartridge without Coil (Dump)	1	
	7012967	Seal Kit - 7017410 Cartridge	1	
17	7017455	Cartridge without Coil (Level)	1	
	7012967	Seal Kit - 7017455 Cartridge	1	
18	7017452	Cartridge without Coil (Rotate & Jib)	A/R	
	7017402	Seal Kit - 7017452 Cartridge	A/R	
19	7012944	Coil	A/R	
20	7012943	Coil	9	
21	7012994	Orifice	1	
22	7017457	Orifice	2	
23	7017458	Orifice	2	
24	Not Serviced	Plug	A/R	
25	7017460	Cartridge, Relief Valve (Jib) (450AJ Only)	1	
	7017461	Seal Kit - 7017460 Cartridge	1	



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FIGURE 2-3. TURNTABLE AND SWING DRIVE INSTALLATIONS



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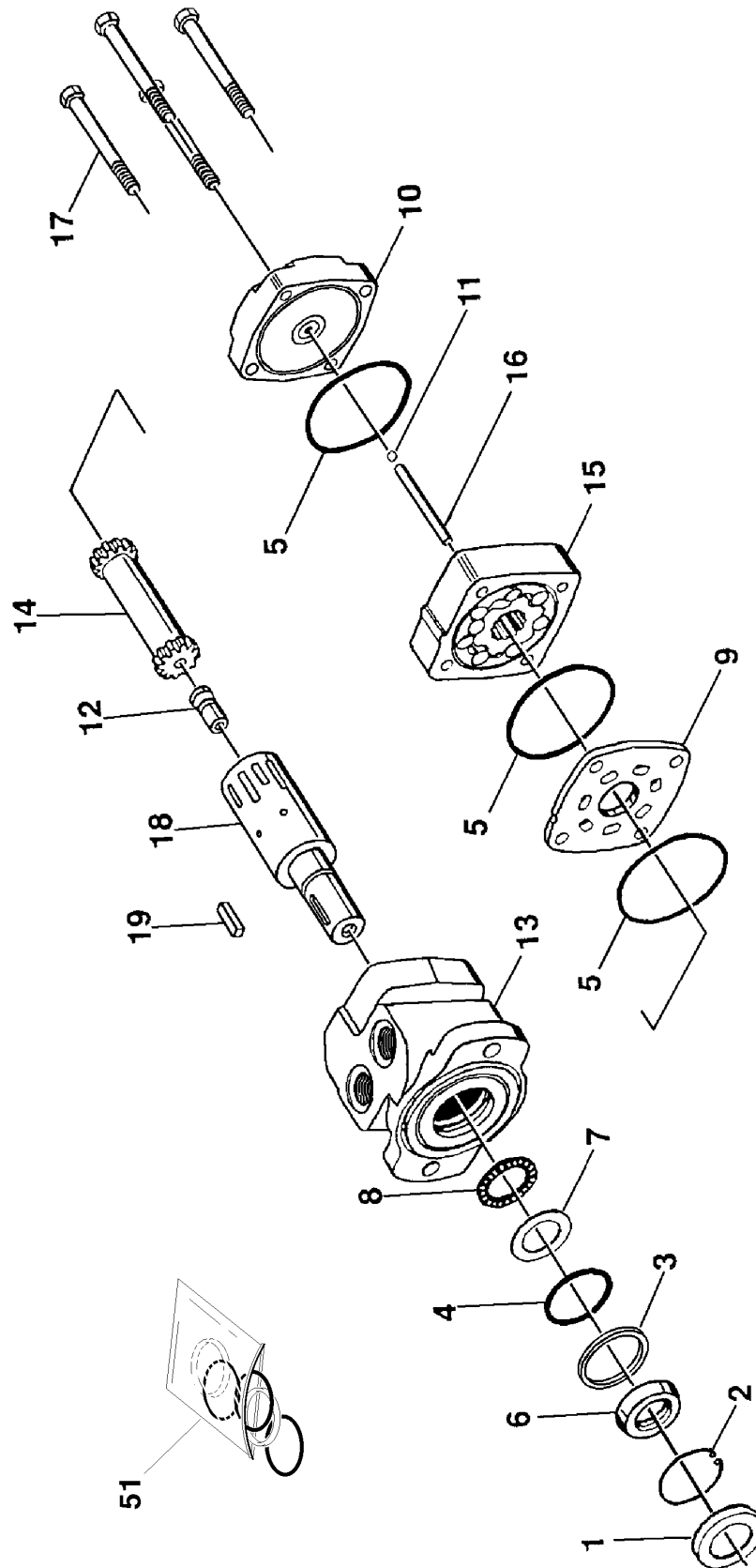
FIGURE 2-3. TURNTABLE AND SWING DRIVE INSTALLATIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	4620115	TURNTABLE WELDMENT: Standard Machines	Ref.	A
	0258032	SWING DRIVE INSTALLATION	Ref.	
1	0100019	Loctite #271 (Not Shown)	A/R	
2	Use 0440339	Swing Bearing and Rotation Box Assembly (See Figure 2-5 for Breakdown) (was p/n 0440203)	1	
3	0681814	Bolt 1/2"-13NC x 1 3/4"	2	
4	0682038	Bolt 5/8"-11NC x 4 3/4"	42	
5	3020029	Lube, Bearing Grease (Not Shown)	A/R	
6	3020036	Gear, Lube (Not Shown)	A/R	
7	3160182	Swing Motor Assembly (See Figure 2-4 for Breakdown)	1	
8	4891800	Flatwasher 1/2"	2	
9	4892000	Flatwasher 5/8"	42	B
	0258400	REMOTE BEARING LUBE INSTALLATION	Ref.	
101	0641609	Bolt 3/8"-16NC x 1 1/8"	2	
102	Use 0902520	Bracket (was p/n 0902109)	1	
103	2160002	Fitting, Grease	1	
104	2180344	Fitting, Bulkhead	1	
105	2180822	Fitting, Tee	1	
106	2200261	Fitting, Coupling	1	
107	2220001	Fitting, Straight	1	
108	2220124	Fitting, 45°	2	
109	2750529	Hose	2	
110	2750807	Hose	1	
111	3311605	Locknut 3/8"-16NC	2	
112	4751600	Flatwasher 3/8"	4	



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FIGURE 2-4. SWING MOTOR ASSEMBLY





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FIGURE 2-4. SWING MOTOR ASSEMBLY

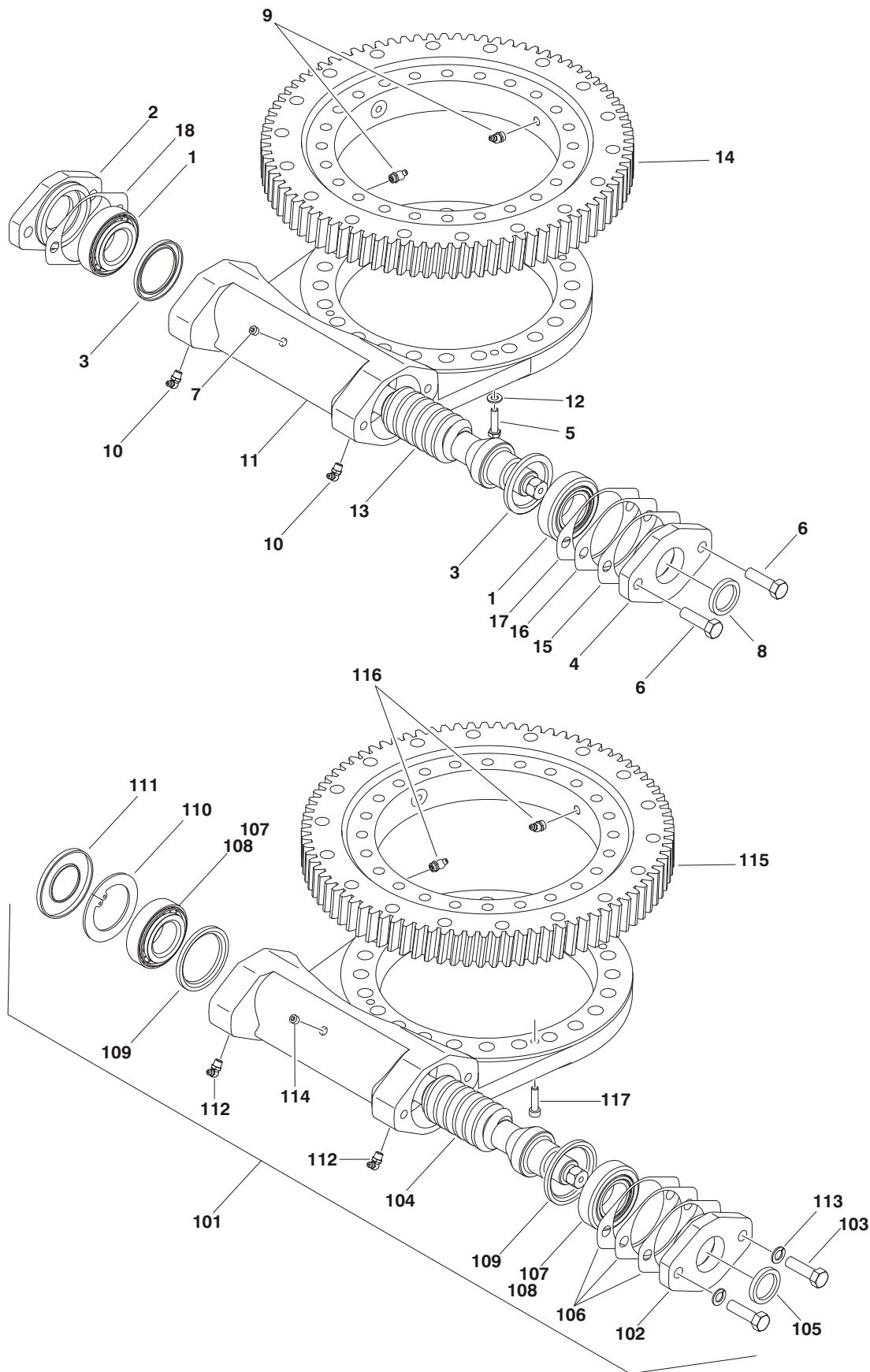
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	3160182	SWING MOTOR ASSEMBLY	Ref.	—
1	Use Item 51	Seal, Dust	1	
2	Use Item 51	Ring, Retaining	1	
3	Use Item 51	Shim, Back-Up	1	
4	Use Item 51	Seal, Housing	1	
5	Use Item 51	Seal, Body	3	
6	Use Item 51	Seal, Shaft	1	
	Use Item 51	Ring, Teflon Back-Up	1	
	Use Item 51	Shim, Back-Up	1	
7	Not Available	Washer, Thrust	1	
8	7005809	Bearing, Thrust	1	
9	7005812	Plate, Wear	1	
10	7005874	Cover, End	1	
11	Not Available	Ball (Part of Item 10)	A/R	
12	7005876	Plug, Cooling	1	
13	7005804	Housing	1	
14	7005811	Link, Drive	1	
15	7005877	Rotor Set Assembly	1	
16	7005878	Pin, Drive Link	A/R	
17	7005821	Bolt	4	
18	7005879	Shaft	1	
19	7005880	Key	1	
		—————		
51	7005881	Seal Kit (Includes Items 1-6)	1	

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FIGURE 2-5. SWING BEARING ASSEMBLY





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FIGURE 2-5. SWING BEARING ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Note: Visually identify the brand before ordering replacement parts.	Ref.	
	0440339	SWING BEARING ASSEMBLY (PERFECTION GEAR) (S/N 97888 TO PRESENT)	Ref.	C
1	7026042	Bearing, Cup	2	
	7026043	Bearing, Cone	2	
2	7027356	Adapter, Motor	1	
3	7027361	Seal	2	
4	7027354	Cap, End	1	
5	0641510	Bolt 5/16"-18NC x 1 1/4"	2	
6	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
7	70000865	Plug	1	
8	7027360	Seal	1	
9	7027359	Straight Fitting, Grease	2	
	2160003	Fitting, Grease - 45°	2	
10	7027358	90° Fitting, Grease	2	
11	Not Available	Housing	1	
12	4891500	Flatwasher 5/16" (Hardened)	2	
13	7027363	Gear, Worm	1	
14	70000868	Ring, Bearing	1	
15	7027352	Gasket (.010 - Brown)	A/R	
16	7027351	Gasket (.0075 - Clear)	A/R	
17	7027350	Gasket (.005 - Blue)	A/R	
18	7027353	Gasket (.020 - Yellow)	1	
	0440203	SWING BEARING ASSEMBLY (KAYDON) (PRIOR TO S/N 97888)	Ref.	G
		Note: When replacing major components, consider replacing with p/n 0440339 Complete Bearing Assembly.		
101	7012597	Swing Rotation Box Assembly	1	
102	7023484	Cap, End	1	
103	Not Available	Bolt 1/2"-13NC x 1 1/2" Grade 8	2	
104	Not Available	Gear, Worm	1	
105	7012654	Seal, Outer - Capped End (1.75 O.D.)	1	
106	7016682	Shims Kit (Includes Qty 3 each of .005, .0075 & .010 Shims)	1	
107	70001677	Cup, Bearing	2	
108	90206369	Cone, Bearing	2	
109	7016676	Seal, Outer - Capped End (2.063 O.D.)	1	
110	70001864	Ring, Retaining	1	
111	7012655	Seal, Outer - Motor End	1	
112	2160001	Fitting, Grease - 90°	2	
113	Not Available	Lockwasher 1/2"	2	
114		Component Options:	1	
	Not Available	Plug, Pipe		
	2160001	Fitting, Grease - 45°		



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FIGURE 2-5. SWING BEARING ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
115	7012596	Bearing, Turntable	1	
116	2160003	Fitting, Grease - 45°	2	
117	Not Available	Capscrew, Socket Head 5/16"-18NC	4	
	Not Available	Washer 5/16" (Not Shown)	4	

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FIGURE 2-5. SWING BEARING ASSEMBLY (CONTINUED)

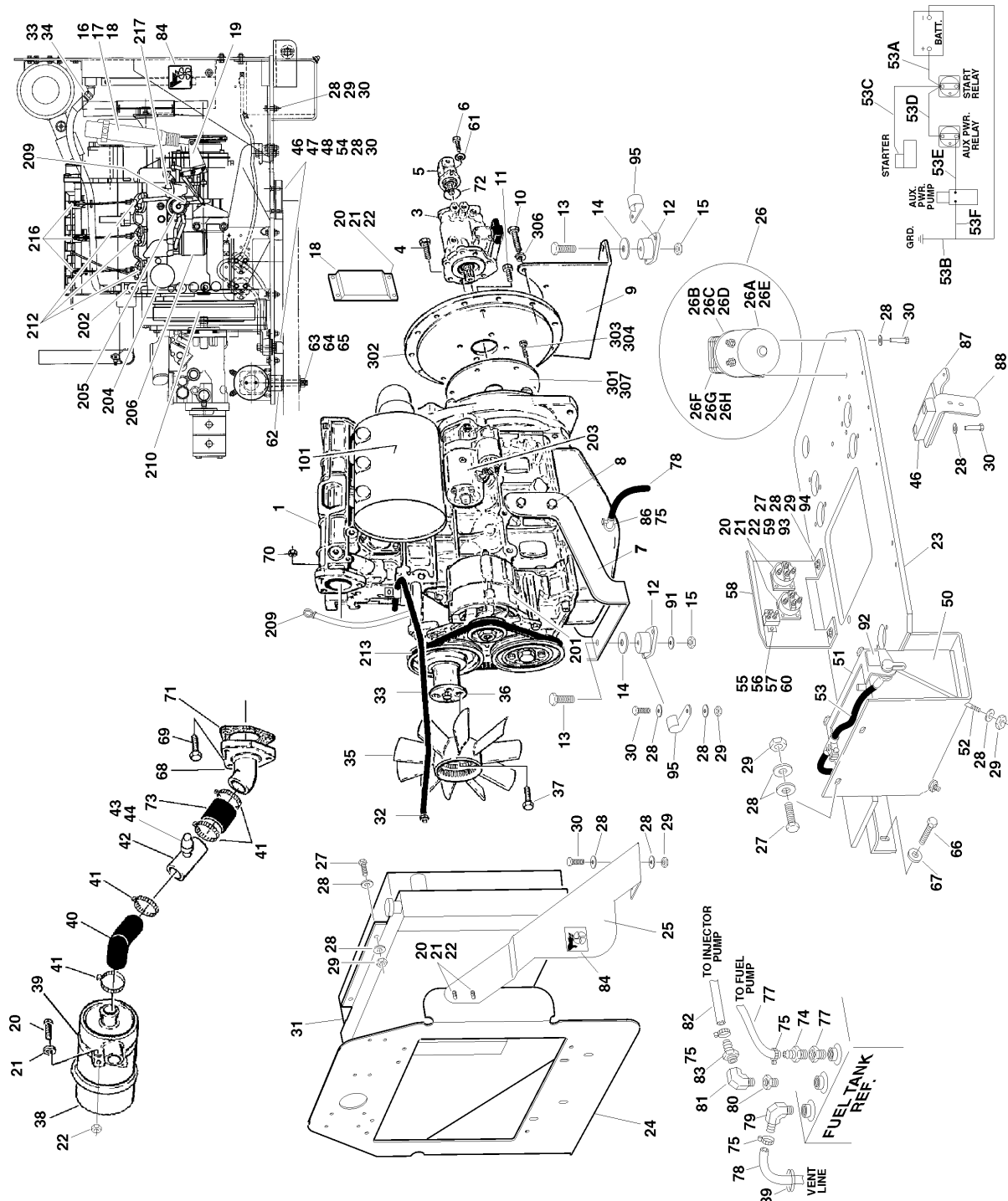
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-6. DEUTZ ENGINE INSTALLATION





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FIGURE 2-6. DEUTZ ENGINE INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		DEUTZ ENGINE INSTALLATIONS		
	0257949	Standard Machines	Ref.	11/G
1		Engine Assembly Options:	1	
	2000154	Prior to S/N 41036		
	2000162	S/N 41036 to Present		
2	Not Used			
3		Piston Pump Assembly Options (See Figure 2-15 for Breakdown):	1	
	3600260	Prior to S/N 43370		
	3600290	S/N 43370 to Present		
4	0641812	Bolt 12"-13NC x 1 1/2"	2	
5	3600271	Gear Pump Assembly	1	
	7011046	Seal Kit - 3600271 Pump	1	
6	3931620	Capscrew, Socket Head 3/8"-16NC x 1 1/4"	2	
7	3570800	Plate, Front Mounting	1	
8	0701414	Bolt, Metric 14mm x 30mm	4	
9	3570801	Plate, Rear Mounting	1	
10	0701015	Bolt, Metric 10mm x 35mm	4	
11	0701012	Bolt, Metric 10mm x 25mm	4	
12	3200378	Mount, Rubber Motor	4	
13	0641820	Bolt 12"-13NC x 2 1/2"	4	
14	4740274	Washer, Snubbing	4	
15	3311805	Locknut 1/2"-13NC	4	
16	0902461	Bracket, Throttle Mount (Part of Item 17)	1	
17	2901637	Throttle Mounting Kit	1	
18	Use 2910000	Actuator Assembly (Was p/n 0060033) (See Section 7 for Breakdown)	1	
19	0902464	Bracket, Throttle Mounting (Part of Item 17)	1	
20	0641406	Bolt 1/4"-20NC x 3/4"	12	
21	4751400	Flatwasher 1/4"	20	
22	3311405	Locknut 1/4"-20NC	12	
23	4845613	Tray, Engine	1	
24	3570571	Plate, Radiator Mount	1	
25	3570607	Plate, Radiator Support	1	
26	3600279	Auxiliary Pump Assembly	1	
26A	7016768	Motor, Replacement	1	
	7013757	Brush Kit	1	
26B	7013711	Coupling, Drive	1	
26C	7016769	Bracket, Mounting	1	
26D	7016744	Screw 5/16"-18NC x 1"	4	
26E	7016745	Capscrew, Socket Head 5/16"-24NF x 4 3/4"	2	
26F	7016746	Adapter, Mounting	1	
26G	7013766	Pin	1	
26H	7013771	Pump, Replacement	1	
	7013701	Seal Kit	1	
27	0641609	Bolt 3/8"-16NC x 1 1/8"	8	
28	4751600	Flatwasher 3/8"	50	



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FIGURE 2-6. DEUTZ ENGINE INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
29	3311605	Locknut 3/8"-16NC	22	D
30	0641610	Bolt 3/8"-16NC x 1 1/4"	18	
31	3620033	Cooler, Oil	1	
32	2220451	Fitting, Straight	2	
33		Hose Options:	2	
	2720398	Prior to S/N58667		
	2720467	S/N58667 to Present		
34	2220409	Fitting, 45°	1	
35	2060025	Fan	1	
36	0080231	Spacer, Fan	1	
37	0700816	Bolt, Metric 8mm x 40mm	4	
38	1340060	Air Cleaner Assembly	1	
	7012664	Element, Air Cleaner	1	
39	0340041	Band, Mounting	2	
40	2720434	Elbow	1	
41	1320016	Clamp, Hose	4	
42	4567495	Tube, Air Intake	1	
43	4360392	Switch, Restrictor Indicator	1	
44	2180798	Fitting	1	
45	0100020	Sealant, Pipe (Not Shown)	A/R	
46	3340399	Pad, Wear	3	
47	4070497	Shim 1/8"	4	
48	4070498	Shim 1/16"	2	
49	0100011	Loctite #242 (Not Shown)	A/R	
50		Battery Options:	1	
	0400075	Battery (Wet)		
	7016180	Battery (Dry)		
51	0181727	Tie-Down, Battery	1	
52	0630498	Bolt, Tie-Down	2	
53	2901575	Cable Kit - Battery	1	
53A	7016817	Cable - Battery to Starter Relay	1	
53B	7016818	Cable - Battery & Auxiliary Pump to Ground	1	
53C	7016819	Cable - Starter Relay to Starter	1	
53D	7016803	Cable - Starter Relay to Auxiliary Relay	1	
53E	7016820	Cable - Auxiliary Relay to Auxiliary Pump	1	
54	0741610	Screw, Flathead 3/8"-16NC x 2"	2	
55	0721006	Bolt #10-24NC x 3/4"	2	
56	4751000	Flatwasher #10	3	
57	3311005	Locknut #10-24NC	2	
58		Plate, Relay Mounting Options:	1	
	3570808	Prior to S/N 57566		
	3572672	S/N 57566 to S/N 58667		
	3572728	S/N 58667 to Present		
59	3740067	Relay	2	
60		Breaker, Circuit Options:	1	
	4360294	Prior to S/N 58667		
	4360501	S/N 58667 to Present		
61	4891600	Washer, Hardened 3/8"	2	
62	0962172	Bushing, Flanged	1	



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FIGURE 2-6. DEUTZ ENGINE INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
63	3900254	Bolt Shoulder 3/4" x 4"	1	
64	4752200	Flatwasher 3/4"	2	
65	3312005	Locknut 5/8"-11NC	1	
66	0642010	Bolt 5/8"-11NC x 1 1/4"	1	
67	4752000	Flatwasher 5/8"	1	
68	4845395	Air Intake Adapter Weldment	1	
69	0641510	Bolt 5/16"-18NC x 1 1/4"	3	
70	3311505	Locknut 5/16"-18NC	3	
71	3960407	Gasket	1	
72	3790152	O-Ring	1	
73	2720351	Coupling, Rubber	4in/10cm	
74	2220794	Fitting, Barb	1	
75	1320022	Clamp, Hose	6	
76	2720058	Hose	12ft/3.7m	
77	2220273	Fitting, Reducer	1	
78	2750532	Hose	7ft/2.1m	
79	2220313	Fitting, 90°	1	
80	2220250	Fitting, Reducer	1	
81	2220459	Fitting, 90°	1	
82	2720271	Hose	12ft/3.7m	
83	2180536	Fitting, Straight	1	
84	1703162	Decal - Fan	2	
85	1701505	Decal - Diesel Fuel (Not Shown)	1	
86	4640751	Valve, Oil Drain	1	
87	0902444	Bracket, Hood Support	1	
88	0902443	Bracket, Latch Mount	1	
89	4240099	Tie-Strap	1	
90	2200222	Plug, Pipe (Not Shown - Located at Bottom of Fuel Tank)	1	
91	4751800	Flatwasher 1/2"	4	
92	1703876	Decal - Engine Tray Swing	1	
93	4791400	Starwasher 1/4"	4	
94	4791600	Starwasher 3/8"	2	
95	1320222	J-Clamp (S/N 45905 to Present)	4	
		MUFFLER INSTALLATION OPTIONS	Ref.	
101		Muffler Options:	1	
	3220110	Standard		
	3220112	Catalytic		
		Muffler Components:		
	1320176	Saddle Clamp	1	
	7020169	Tube, Exhaust	1	
		ENGINE COMPONENTS	Ref.	
	2000154	Prior to S/N 41036	B	
	2000162	S/N 41036 to Present	B	
201	Use 7020410	Alternator (was p/n 7016329)	1	
	70000851	Bracket, Alternator Mounting	1	



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FIGURE 2-6. DEUTZ ENGINE INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
202	7016330	Switch, Oil Pressure	1	
203	7016332	Starter	1	
204	Use 7016331	Filter, Oil - Complete (was p/n 7016641)	1	
	7016331	Element, Oil Filter	1	
205	7020463	Pump, Fuel Supply	1	
	7020411	O-Ring (Pump to Engine)	1	
206	7020023	Filter, Fuel	1	
207	7020024	Breather, Crankcase (Not Shown)	1	
208	Use 7016359	Solenoid, Shutdown (Not Shown) (was p/n 7020438)	1	
	7027250	Spring, Tension		
209	7020026	Dipstick	1	
	70001002	Housing, Dipstick	1	
210	7020027	Flywheel/Ring Gear Assembly	1	
	7020477	Ring Gear	1	
211	7020025	Switch, Oil Temperature (Not Shown)	1	
212	7020022	Pump, Fuel Injection (Engine p/n 2000154)	3	
	7024318	Pump, Fuel Injection (Engine p/n 2000162)	3	
213	7020408	V-Belt	1	
214	7020446	Timing Belt Kit (Not Shown)	1	
215		Gasket, Cylinder Head Options (Not Shown):	1	
	70003039	1 Notch		
	70003040	2 Notches		
	70003041	3 Notches		
216	7026522	Injection, Fuel	3	
217	7020465	Cap, Filler	1	
218	7020471	Gasket, Exhaust Manifold (Not Shown)	3	
219	70000787	Support, Fan (Not Shown)	1	
	0256847	PUMP COUPLING INSTALLATION	Ref.	
301	1660234	Coupling, Hayes	1	
302	0080163	Plate, Pump Adapter	1	
303	0700810	Bolt Metric 8mm x 20mm	6	
304	4831900	Lockwasher 8mm	6	
305	Not Used			
306	4832000	Lockwasher 10mm	8	
307	3020021	Grease, Coupling (Not Shown)	A/R	

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FIGURE 2-6. DEUTZ ENGINE INSTALLATION (CONTINUED)

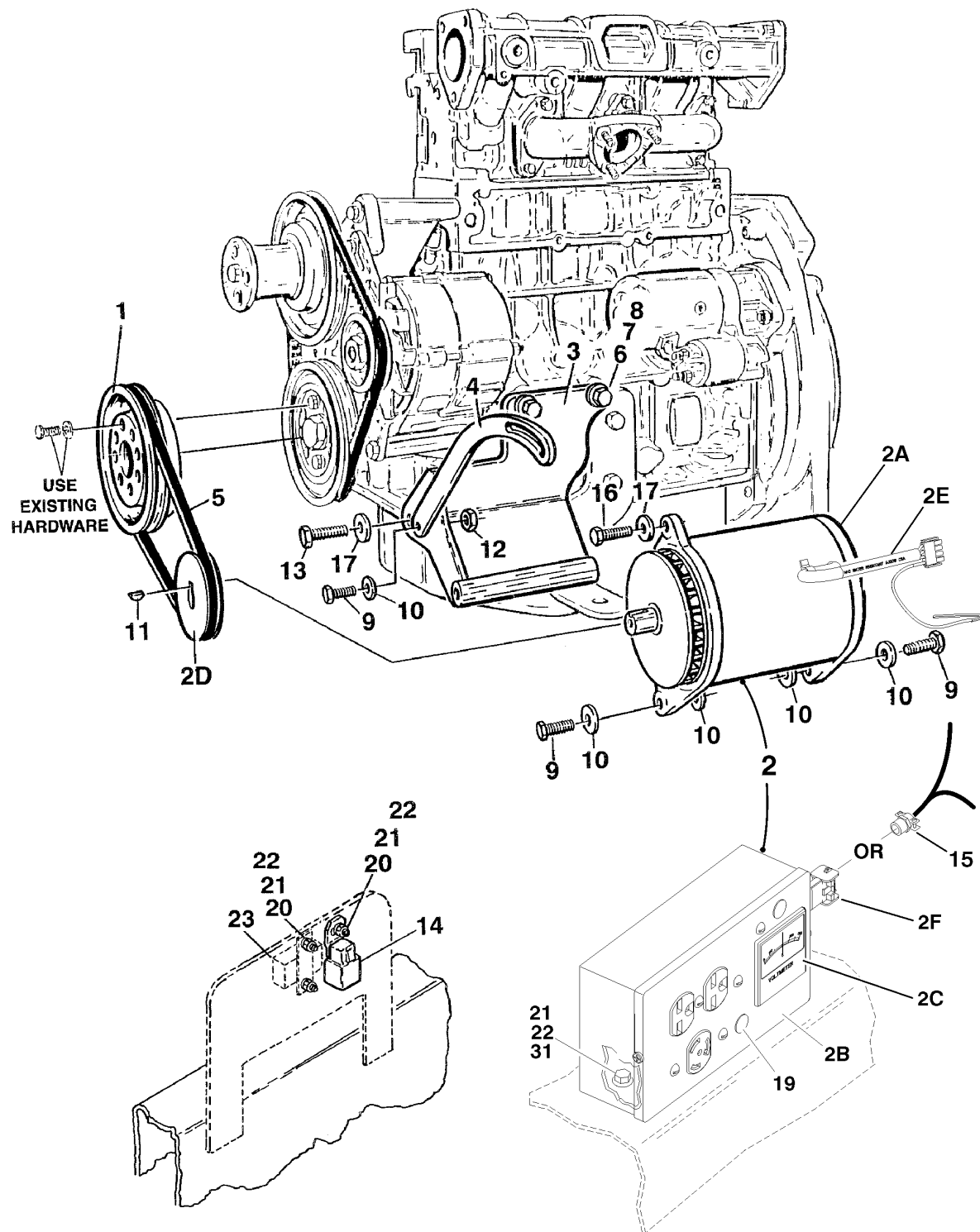
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-7. GENERATOR INSTALLATION - DEUTZ MACHINES (OPTIONAL)





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FIGURE 2-7. GENERATOR INSTALLATION - DEUTZ MACHINES (OPTIONAL)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		GENERATOR INSTALLATION OPTIONS:		
	0258313	110V Generator	Ref.	4/C
	0258315	220V Generator	Ref.	3/B
1	3580158	Pulley	1	
2		Generator and Control Box Assembly Options:	1	
	2460011	110Volt Assembly (Prior to S/N 39711)		
	2460032	110Volt Assembly (S/N 39711 to Present)		
	Use 2460056	220Volt Assembly (was p/n 2460034)		
2A	7012558	Generator - 110V	1	
		Note: Replacement Generator p/n 7012558 come standard with p/n 3580134 pulley. This pulley may not be correct for all applications. Refer to pulley options below.	Ref.	
	1001100321	Generator - 220V	1	
		Armature Options:	1	
	7026199	110Volt		
	70000123	220Volt		
	7020109	Holder, Brush	4	
	7020108	Brush	4	
	7012513	Cap, Brush Holder	4	
	7012514	Fan	1	
	7020110	Bell, Front	1	
	7020111	Bell, Rear	1	
	7020190	Bearing	2	
2B	7003657	Box, Control - 110V	1	
		Note: Replacement 110V Control Box comes with 2 std Receptacles p/n 4460190. Optional Industrial Twist Lock Receptacles p/n 4460027 must be ordered separately.		
		Box, Control - 220V Options:	1	
	70002235	Generator 2460034		
	70000127	Generator 2460056		
		Breaker, Circuit Options:	1	
	4360542	110Volt		
	70000126	220Volt		
		Receptacle Options:	1	
	70000124	Receptacle, Double (220V/50Hz Only)		
	70000125	Receptacle, Single (220V/50Hz Only)		
		Lamp Options:	1	
	2920162	Generators 2460011, 2460032 & 2460034		
	Not Required	Generator 2460056		
		Switch, Toggle Options:	1	
	7020191	Generators 2460011, 2460032 & 2460034		
	Not Required	Generator 2460056		
	3520028	Plug, Hole	2	
2C		Voltmeter Options:	1	
	2420203	110Volt		
	7020192	220Volt		



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FIGURE 2-7. GENERATOR INSTALLATION - DEUTZ MACHINES (OPTIONAL) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
2D		Pulley Options:	1	
	3580134	Generators 2460011 & 2460056		
	3580276	Generators 2460032 & 2460034		
2E	7020193	Cord, Power	1	
2F	4460961	Connector - 4 Position (Generator 2460056 Only)	1	
	4460705	Terminal, Male Pin (Generator 2460056 Only)	4	
3	4845531	Bracket, Generator Mounting	1	
4	0200530	Arm, Adjusting	1	
5	0480050	V-Belt (Prior to S/N 39711)	1	
	0480111	V-Belt (S/N 39711 to Present)	1	
6	0701414	Bolt, Metric 14mm x 30mm	2	
7	4751900	Flatwasher 9/16"	2	
8	0100011	Loctite #242 (Not Shown)	A/R	
9	0681612	Bolt 3/8"-16NC x 1 1/2" (Grade 8)	3	
10	4751600	Flatwasher 3/8"	6	
11	2860012	Key, Woodruff	1	
12	3311605	Locknut 3/8"-16NC	1	
13	0700819	Bolt, Metric 8mm x 55mm	1	
14	3740080	Relay	1	
15	4460023	Connector, Strain Relief	1	
16	0641508	Bolt 5/16"-18NC x 1"	1	
17	4751500	Flatwasher 5/16"	2	
18	Not Used			
19	3520028	Plug, Hole	1	
20	0721006	Bolt #10-24NC x 3/4"	A/R	
21	3311005	Locknut #10-24NC	A/R	
22	4751000	Flatwasher #10	A/R	
23		Breaker, Circuit - 30 Amp Options:	1	
	4360294	Prior to S/N 62239		
	4360501	S/N 62239 to Present		
24	Not Used			
25	4360336	Switch, Toggle (Not Shown - Located at Platform)	1	
26	4740397	Washer (Not Shown - Located at Platform)	1	
27	4060802	Guard, Switch (Not Shown - Located at Platform)	1	
28	Not Used			
29	2820031	Heatshrink (Not Shown - Located at Platform)	1	
30	3251102	Decal (Not Shown - Located at Platform)	1	
31	0721008	Bolt #10-24NC x 1"	2	



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FIGURE 2-7. GENERATOR INSTALLATION - DEUTZ MACHINES (OPTIONAL) (CONTINUED)

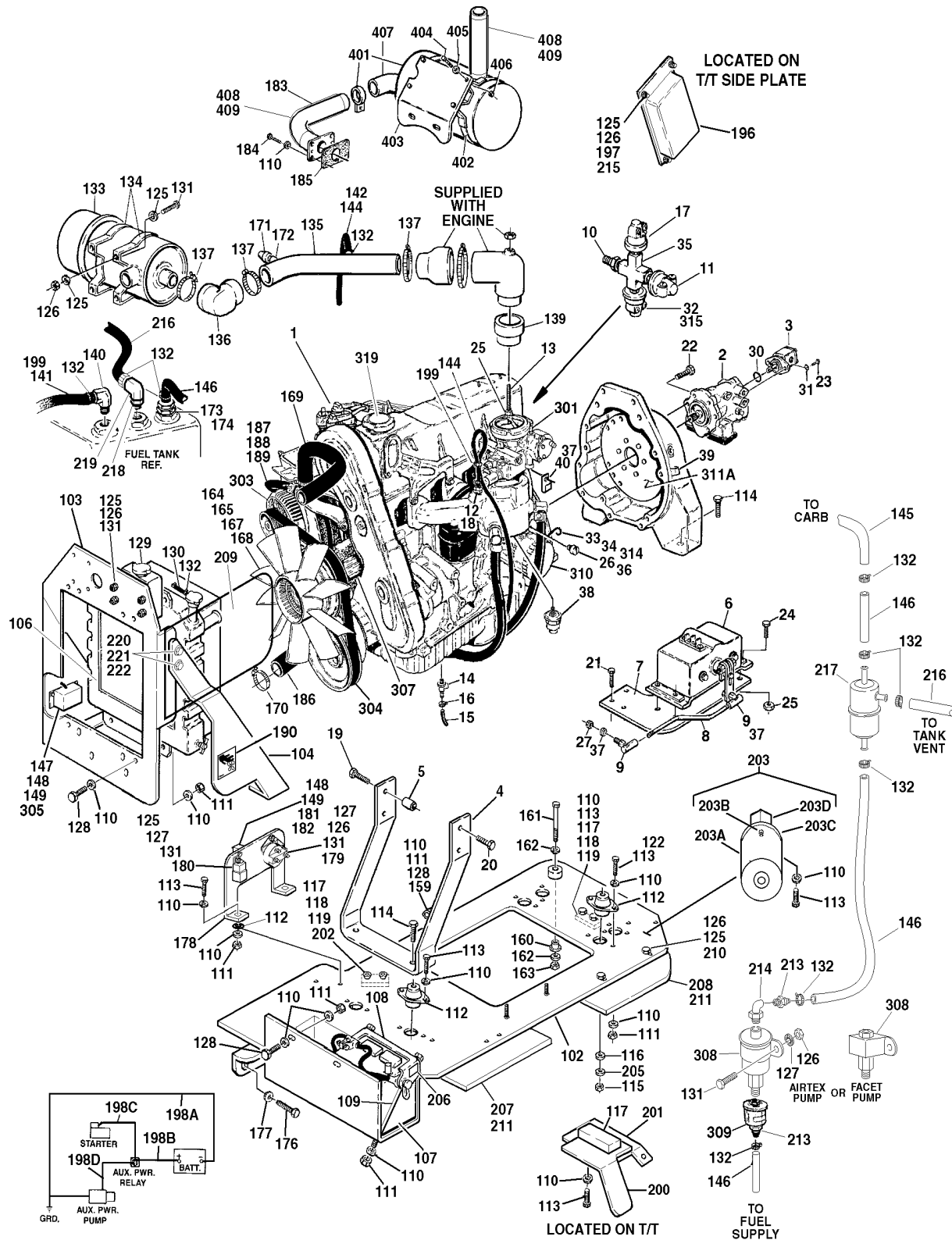
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)





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FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		ENGINE ASSEMBLIES		
	0258340	Standard Gas Machines	Ref.	3
	0258052	Dual Fuel Machines	Ref.	3
1		Engine - Ford LRG-425 Options:	1	
	2000156	Prior to S/N 39831		
	2000160	S/N 39831 to S/N 46089		
2		Piston Pump Assembly Options (See Figure 2-15 for Breakdown):	1	
	3600260	Prior to S/N 43370		
	3600290	S/N 43370 to S/N 46089		
3	3600271	Gear Pump Assembly	1	
	7011046	Seal Kit - 3600271 Pump	1	
4	3539972	Plate, Engine Mounting - Front	1	
5	4566605	Tube, Spacer	1	
6	2500005	Actuator, Precision Governor	1	
7	0902088	Bracket, Precision Governor	1	
8	3841255	Rod, Throttle	1	
9	1660157	Coupling, Ball joint	2	
10	2220437	Fitting, Reducer	1	
11	4360037	Switch, Oil Pressure	1	
12	2220273	Fitting, Reducer	1	
13	4300056	Stud, Carburetor	1	
14	4640989	Valve, Oil Drain	1	
15	2750532	Hose	1ft/30.5cm	
16	1320022	Clamp	2	
17	4360405	Switch, Oil Pressure	1	
18	2180536	Fitting, Barbed	1	
19	0701022	Bolt, Metric 10mm-1.5 x 70mm	2	
20	0701014	Bolt, Metric 10mm-1.5 x 30mm	2	
21	0700810	Bolt, Metric 8mm-1.25 x 20mm	3	
22	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
23	3931620	Capscrew, Socket Head 3/8"-16NC x 1 1/4"	2	
24	0641408	Bolt 1/4"-20NC x 1"	4	
25	3311405	Locknut 1/4"-20NC	5	
26	2220250	Fitting, Reducer	1	
27	3321401	Nut 1/4"-28NF	2	
28	0100011	Loctite #242 (Not Shown)	A/R	
29	0100020	Sealant, Pipe (Not Shown)	A/R	
30	3790152	O-Ring	1	
31	4891600	Washer, Hardened 3/8"	2	
32	4360065	Switch, Oil Pressure	1	
33	4564281	Tube, Dipstick	1	
34	2420187	Dipstick	1	
35	2220994	Fitting, Cross	1	
36	4360157	Switch, Water Temperature	1	
37	4751000	Flatwasher #10	2	
38	4360455	Switch, Temperature	1	



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**FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)
(CONTINUED)**

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
39	1320223	Clamp, J-Clip	2	
40	1320222	Clamp, J-Clip	1	
		ENGINE INSTALLATIONS		
	0258341	Standard Gas Machines	Ref.	8/G
	0257883	Dual Fuel Machines	Ref.	9/H
101	Not Used			
102	4845613	Tray Weldment	1	
103	3570571	Mount, Radiator	1	
104	3570607	Support, Radiator - Left Side	1	
105	Not Used			
106	3620040	Radiator	1	
	7019656	Cap, Radiator	1	
107		Battery Options:	1	
	0400075	Battery (Wet)		
	7016180	Battery (Dry)		
108	0181727	Tie-Down	1	
109	0630498	Bolt, Tie-Down	2	
110	4751600	Flatwasher 3/8"	43	
111	3311605	Locknut 3/8"-16NC	21	
112	3200378	Mount, Rubber	4	
113	0641610	Bolt 3/8"-16NC x 1 1/4"	16	
114	0641820	Bolt 1/2"-13NC x 2 1/2"	4	
115	3311805	Locknut 1/2"-13NC	4	
116	4740274	Washer, Snubbing	4	
117	3340399	Pad, Wear	3	
118	4070497	Shim 1/8"	4	
119	4070498	Shim 1/16"	2	
120	Not Used			
121	Not Used			
122	0641612	Bolt 3/8"-16NC x 1 1/2"	2	
123	Not Used			
124	Not Used			
125	4751400	Flatwasher 1/4"	21	
126	3311405	Locknut 1/4"-20NC	19	
127	4791400	Starwasher 1/4"	9	
128	0641609	Bolt 3/8"-16NC x 1 1/8"	7	
129	1580011	Tank, Coolant Recovery	1	
130	2720058	Hose, Coolant Recovery	2ft/51cm	
131	0641406	Bolt 1/4"-20NC x 3/4"	11	
132	1320022	Clamp	13	
133	1340060	Air Cleaner Assembly	1	
	7012664	Element, Air Cleaner	1	
134	0340041	Band, Air Cleaner	2	
135	4845035	Tube, Air Intake	1	
136	0080201	Elbow, Rubber	1	
137	1320016	Clamp	4	
138	Not Used			



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FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
139	0080091	Adapter, Choke	1	
140	2220313	Fitting, 90° Barbed	1	
141	2750532	Hose	7ft/2.1m	
142	2220720	Fitting, Barbed	1	
143	0100020	Sealant, Pipe (Not Shown)	A/R	
144	2720271	Hose, Vacuum	5ft/1.5m	
145	4567169	Tube, Fuel Line	1	
146	2720058	Hose, Fuel Line	13ft/4m	
147	0721006	Bolt #10-24NC x 3/4"	2	
148	4751000	Flatwasher #10	4	
149	3311005	Locknut #10-24NC	4	
150 to 158	Not Used			
159	1320060	Clamp	1	
160	0962172	Bushing, Flanged	1	
161	3900254	Screw, Shoulder 3/4" x 4"	1	
162	4752200	Flatwasher 3/4"	2	
163	3312005	Locknut 5/8"-11NC	1	
164	2060025	Fan	1	
165	0080214	Spacer, Fan	1	
166	0100011	Loctite #242 (Not Shown)	A/R	
167	0700819	Bolt, Metric 8mm x 55mm	4	
168	4831900	Lockwasher, Metric 8mm	4	
169	2720436	Hose, Radiator - Top	1	
170	1320012	Clamp, Hose	4	
171	4360392	Indicator, Clogged Filter	1	
172	2180798	Fitting, Restrictor Indicator	1	
173	2220794	Fitting, Barbed	1	
174	2220273	Fitting, Reducer	1	
175	2200233	Plug, Pipe (Prior to S/N 39831 Only) (Not Shown - Located at Vent on Fuel Tank)	1	
176	0642010	Bolt 5/8"-11NC x 1 1/4"	1	
177	4752000	Flatwasher 5/8"	1	
178	3570808	Plate, Relay Mounting	1	
179	3740067	Relay (Auxiliary Power)	1	
180	3740080	Relay, Bosch	1	
181	4360294	Breaker, Circuit	1	
182	0701004	Bolt #10-24NC x 1/2"	2	
183	4567537	Tube, Exhaust	1	
184	0701012	Bolt, Metric 10mm-1.5 x 25mm	4	
185	4832000	Lockwasher, Metric 10mm	4	
186	2720435	Hose, Radiator - Bottom	1	
187	4100025	Sleeve, Fiberglass	18in/46cm	
188	1320060	Clamp	1	
189	4240099	Tie-Strap	2	
190	1703162	Decal - Fan Blade	2	
191	Not Used			
192	Not Used			
193	1701542	Decal - Gas (Not Shown - Located on Hood)	1	
194	Not Used			



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**FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)
(CONTINUED)**

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
195	Not Used			
196	1600211	Controller, Governor	1	
197	0641410	Bolt 1/4"-20NC x 1 1/4"	2	
198	2901574	Battery Cable Kit	1	D
198A		Cable (Battery - to Ground)	1	
	7016823	Prior to S/N 43336 (With 24in #10 Black Lead)		
	7016832	S/N 43336 to S/N 46089 (With 30in #10 Black Lead)		
198B	7016817	Cable (Battery + to Auxiliary Relay)	1	
198C	7016820	Cable (Auxiliary Relay to Starter)	1	
198D	7016808	Cable (Auxiliary Relay to Auxiliary Pump)	1	
199	4240018	Tie-Strap	2	
200	0902443	Bracket, Latch Mounting	1	
201	0902444	Bracket, Hood Support	1	
202	0741610	Screw, Socket Head Countersunk 3/8"-16NC x 1 1/4"	2	
203	3600279	Auxiliary Pump Assembly	1	
203A	7016768	Motor, Replacement	1	
	7013757	Brush Kit	1	
203B	7013711	Coupling, Drive	1	
203C	7016769	Bracket, Mounting	1	
	7016745	Capscrew, Socket Head 5/16"-24NF x 4 3/4"	2	
	7016746	Adapter, Mounting	1	
	7013766	Pin	1	
203D	7013771	Pump, Replacement	1	
	7013701	Seal Kit	1	
	7016744	Screw 5/16"-18NC x 1"	4	
204	2200222	Plug, Pipe (Not Shown - Located at bottom of Fuel Tank)	1	
205	4751800	Flatwasher 1/2"	4	
206	1703876	Decal - Engine Tray Swing	1	
207	3571008	Plate, Baffle	1	
208	3571009	Plate, Baffle	1	
209	3571019	Plate, Air Panel	1	
210	0641408	Bolt 1/4"-20NC x 1"	2	
211	3960438	Seal, Hood	28in/46cm	
212	4791600	Starwasher 3/8"	2	
213	2220315	Fitting, Barbed (S/N 39831 to S/N 46089 Only)	2	
214	2180749	Fitting, 45° (S/N 39831 to S/N 46089 Only)	1	
215	4891400	Washer, Hardened 1/4" (S/N 39831 to S/N 46089 Only)	4	
216	2720015	Hose, Fuel Line (S/N 39831 to S/N 46089 Only)	13ft/4m	
217	2120169	Filter, Fuel (S/N 39831 to S/N 46089 Only)	1	
218	2220250	Fitting, Reducer (S/N 39831 to S/N 46089 Only)	1	
219	2220317	Fitting, 90° Barbed (S/N 39831 to S/N 46089 Only)	1	
220	4751500	Flatwasher 5/16"	4	
221	3311505	Locknut 5/16"-18NC	2	
222	0641506	Bolt 5/16"-18NC x 3/4"	2	



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**FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)
(CONTINUED)**

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		ENGINE COMPONENTS	Ref.	
	2000156	Prior to S/N 39831		
	2000160	S/N 39831 to S/N 46089		
301	Use 7019988	Carburetor (was p/n 7019974)	1	
	7019933	Kit, Carburetor Repair	1	
	7027292	Float Assembly	1	
	70000163	Needle, Spring Loaded (Fuel Valve)	1	
	7025122	Base, Carburetor	1	
	7016605	Choke, Automatic	1	
	Use 7000646	Gasket, Carburetor (Bottom) (was p/n 7019975)	1	
	7024321	Gasket, Carburetor (Top)	1	
302	7012679	Starter (Not Shown)	1	
303	7019977	Alternator	1	
	7019997	Regulator	1	
304	Use 7027402	Belt, Drive (was p/n 7019979)	1	
	7019978	Tensioner, Belt	1	
305	Use 7023687	Module, Ignition (was p/n 7019961)	1	
306	7019980	Harness, Engine Wiring (Not Shown)	1	
307		Water Pump Assembly Options:	1	
	Not Available	Engine 2000156		
	7022153	Engine 2000160		
	7019985	Pulley, Water Pump	1	
	7022156	Thermostat, Assembly	1	
	7019982	Inlet Tube, Water Pump	1	
	7025134	Gasket, Water Outlet Connection (Not Shown)	1	
308		Fuel Pump Assembly Options:	1	
	7016600	Engine 2000156 (Facet)		
	7019983	Engine 2000160 (Airtex)		
309	7016601	Strainer, Fuel	1	
310	7021869	Filter, Oil (was p/n 7014501)	1	
311	7019976	Flywheel (Not Shown)	1	
	7022180	Ring Gear (Not Shown)	1	
311A	Use 1660250	Coupling, Pump (15 Tooth) (was p/n 7016662)	1	
312	70002307	Gasket (Exhaust Manifold to Pipe)	1	
313	7022143	Gasket (Exhaust Manifold to Head) (Not Shown)	1	
	7019924	Gasket (Exhaust Manifold - Turbo) (Not Shown)	1	
	Use 7025126	Gasket (Intake Manifold) (was p/n 7019923) (Not Shown)	1	
	7025125	Gasket, Intake (Manifold to Cylinder Head) (Not Shown)	1	
314	7019981	Indicator, Oil Level	1	
315		Switch, Oil Sender Options:	1	
	Not Available	Engine 2000156		
	7023637	Engine 2000160		
316		Spark Plug Options (Not Shown):	4	
	Not Available	Engine 2000156		
	7019932	Engine 2000160		
	7019930	Coil, Ignition (Not Shown)	1	



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**FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)
(CONTINUED)**

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
316 (cont'd)		Wire Set, Spark Plug (Not Shown) Options:	1	
	7022157	Engine 2000156		
	7019931	Engine 2000160		
317	7000884	Solenoid, Fuel (Not Shown)	1	
318	7022178	Sensor, Crank Shaft (Not Shown)	1	
319	7022151	Cap, Oil Fill	1	
		MUFFLER INSTALLATIONS		
	0258252	Standard Spark Arresting	Ref.	3
	0258253	Optional Catalytic	Ref	2
401		Muffler Options:	1	
	3220113	Standard Spark Arresting		
	3220114	Optional Catalytic		
	70001017	Clamp	1	
402	0340046	Band	2	
403	0902457	Bracket, Muffler	1	
404	0641507	Bolt 5/16"-18NC x 7/8"	4	
405	4711500	Flatwasher 5/16" Narrow	8	
406	3311505	Locknut 5/16"-18NC	4	
407	4567073	Tube, Exhaust	1	
	70001017	Clamp	1	
408	4100025	Sleeve, Fiberglass	21in/53cm	
409	4920385	Wire, Mechanics	16in/41cm	

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FIGURE 2-8. FORD ENGINE INSTALLATION (WITH CARBURETOR) (PRIOR TO S/N 46089)
(CONTINUED)

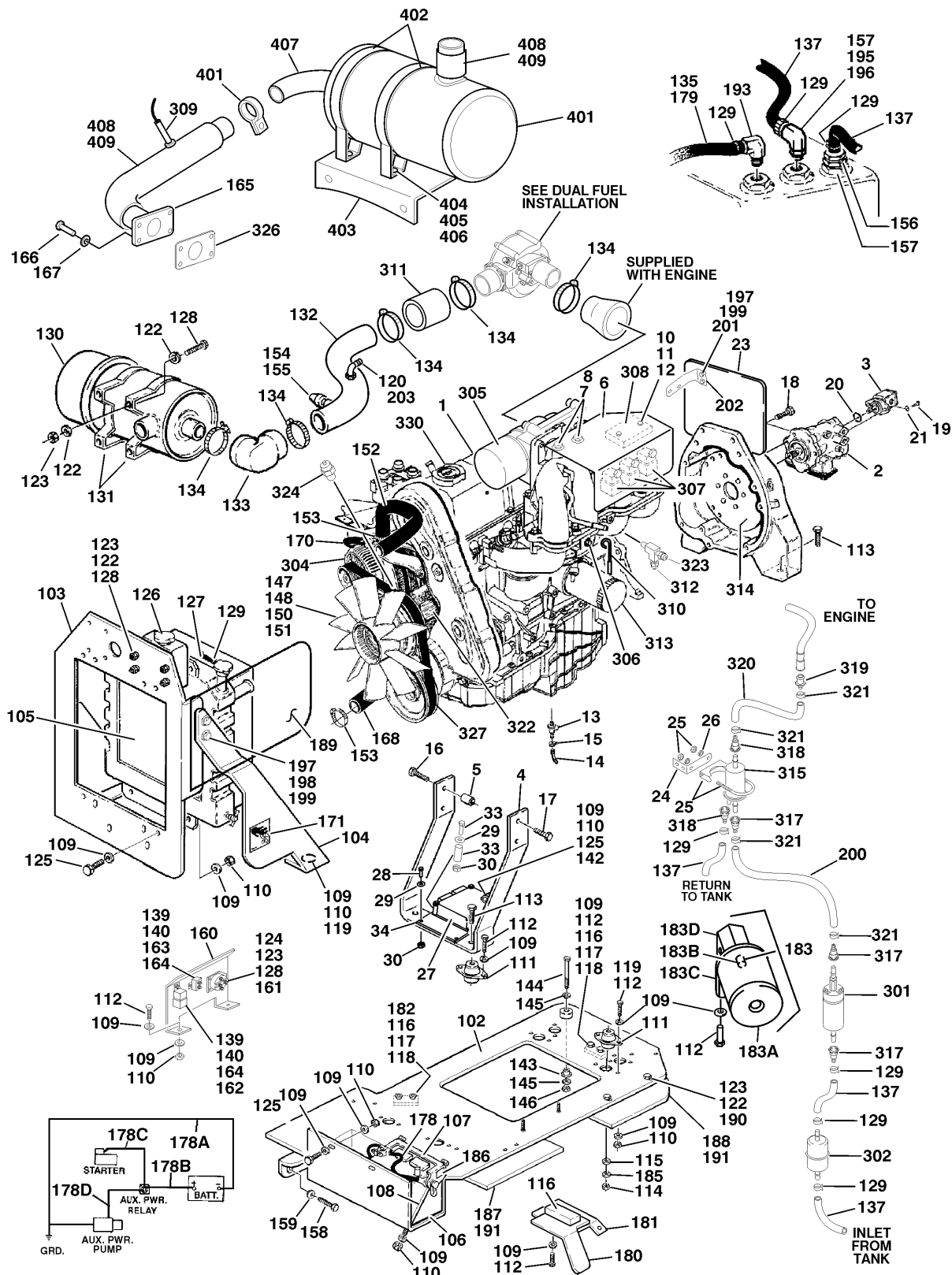
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT)





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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		ENGINE ASSEMBLIES		
	0259470	Standard Gas Machines	Ref.	4/D
	0259253	Dual Fuel Machines	Ref.	4/D
1		Engine - Ford LRG-425 Options:	1	
	2000164	Standard Gas Machines		
	2000166	Dual Fuel Machines		
2	3600290	Piston Pump Assembly (See Figure 2-15 for Breakdown):	1	
3	3600271	Gear Pump Assembly	1	
	7011046	Seal Kit - 3600271 Pump	1	
4	3539972	Plate, Engine Mounting - Front	1	
5	4566605	Tube, Spacer	1	
6	3571498	Plate, Module Mounting	1	
7	0700810	Bolt, Metric 8mm-1.25 x 20mm	2	
8	4751500	Flatwasher 5/16"	2	
9	0721010	Bolt #10-24NC x 1 1/4"	2	
10	3311005	Locknut #10-24NC	5	
11	4751000	Flatwasher #10	8	
12	0721006	Bolt #10-24NC x 3/4"	3	
13	4640989	Valve, Oil Drain	1	
14	2750532	Hose	1ft/30.5cm	
15	1320022	Clamp	2	
16	0701022	Bolt, Metric 10mm-1.5 x 70mm	2	
17	0701014	Bolt, Metric 10mm-1.5 x 30mm	2	
18	0641812	Bolt 1/2"-13NC x 1 1/2"	2	
19	3931620	Capscrew, Socket Head 3/8"-16NC x 1 1/4"	2	
20	3790152	O-Ring	1	
21	4891600	Washer, Hardened 3/8"	2	
22	0100011	Loctite #242 (Not Shown)	A/R	
23	3571502	Plate, Heat Shield	1	
24	0902539	Bracket, Fuel Filter/Pressure Regulator	1	
25	1320019	Clamp, Exhaust	2	
26	4761500	Lockwasher 5/16"	2	
27	1600297	Controller, ECM	1	
	3124114	Service Manual, Ford EFI System Diagnostic	1	
28	0641408	Bolt 1/4"-20NC x 1"	2	
29	4751400	Flatwasher 1/4"	6	
30	3311405	Locknut 1/4"-20NC	6	
31	1320060	Clamp (S/N 48739 to Present) (Not Shown)	1	
32	1641422	Bolt 1/4"-20NC x 2 3/4"	4	
33	4568158	Stand-Off	4	
34	3572600	Plate, Mounting - ECM	1	



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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		ENGINE INSTALLATIONS		
	0259419	Standard Gas Machines	Ref.	8/G
	0259254	Dual Fuel Machines	Ref.	9/H
101	Not Used			
102	4845613	Tray Weldment	1	
103	3570571	Mount, Radiator	1	
104	3570607	Support, Radiator - Left Side	1	
105	3620040	Radiator	1	
	7019656	Cap, Radiator	1	
106		Battery Options:	1	
	0400075	Battery (Wet)		
	7016180	Battery (Dry)		
107	0181727	Tie-Down	1	
108	0630498	Bolt, Tie-Down	2	
109	4751600	Flatwasher 3/8"	43	
110	3311605	Locknut 3/8"-16NC	21	
111	3200378	Mount, Rubber	4	
112	0641610	Bolt 3/8"-16NC x 1 1/4"	22	
113	0641820	Bolt 1/2"-13NC x 2 1/2"	4	
114	3311805	Locknut 1/2"-13NC	4	
115	4740274	Washer, Snubbing	4	
116	3340399	Pad, Wear	3	
117	4070497	Shim 1/8"	4	
118	4070498	Shim 1/16"	2	
119	0641612	Bolt 3/8"-16NC x 1 1/2"	2	
120	2180467	Fitting, Barbed 90°	A/R	
121	Not Used			
122	4751400	Flatwasher 1/4"	27	
123	3311405	Locknut 1/4"-20NC	20	
124	4791400	Starwasher 1/4"	9	
125	0641609	Bolt 3/8"-16NC x 1 1/8"	7	
126	1580011	Tank, Coolant Recovery	1	
127	2720058	Hose, Coolant Recovery	2ft/51cm	
128	0641406	Bolt 1/4"-20NC x 3/4"	10	
129	1320022	Clamp	9	
130	1340060	Air Cleaner Assembly	1	
	7012664	Element, Air Cleaner	1	
131	0340041	Band, Air Cleaner	2	
132		Tube, Air Intake Options:	1	
	4846011	Standard Gas Machines		
	4846046	Dual Fuel Machines		
133	0080201	Elbow, Rubber	1	
134	1320016	Clamp	2	
135	2750532	Hose	7ft/2.1m	
136	0100020	Sealant, Pipe (Not Shown)	A/R	
137	2720058	Hose, Fuel Line	11ft/3.4m	
138	Not Used			
139	4751000	Flatwasher #10	4	



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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
140	3311005	Locknut #10-24NC	4	
141	Not Used			
142	1320060	Clamp	1	
143	0962172	Bushing, Flanged	1	
144	3900254	Screw, Shoulder 3/4" x 4"	1	
145	4752200	Flatwasher 3/4"	2	
146	3312005	Locknut 5/8"-11NC	1	
147	2060025	Fan	1	
148	0080214	Spacer, Fan	1	
149	0100011	Loctite #242 (Not Shown)	A/R	
150	0700819	Bolt, Metric 8mm x 55mm	4	
151	4831900	Lockwasher, Metric 8mm	4	
152	2720436	Hose, Radiator - Top	1	
153	1320012	Clamp, Hose	4	
154	4360392	Indicator, Clogged Filter	1	
155	2180798	Fitting, Restrictor Indicator	1	
156	2220794	Fitting, Barbed	1	
157	2220273	Fitting, Reducer	1	
158	0642010	Bolt 5/8"-11NC x 1 1/4"	1	
159	4752000	Flatwasher 5/8"	1	
160		Plate, Relay Mounting Options:	1	
	3570808	Prior to S/N 57566		
	3572672	S/N 57566 to S/N 58667		
	3572728	S/N 58667 to Present		
161	3740067	Relay (Auxiliary Power)	1	
162	3740080	Relay, Bosch	1	
163		Breaker, Circuit Options:	1	
	4360294	Prior to S/N 58667		
	4360501	S/N 58667 to Present		
164	0701004	Bolt #10-24NC x 1/2"	2	
165	4567878	Tube, Exhaust	1	
166	0701012	Bolt, Metric 10mm-1.5 x 25mm	4	
167	4832000	Lockwasher, Metric 10mm	4	
168	2720435	Hose, Radiator - Bottom	1	
169	Not Used			
170	4240099	Tie-Strap	2	
171	1703162	Decal - Fan Blade	2	
172	Not Used			
173	Not Used			
174	1701542	Decal - Gas (Not Shown - Located on Hood)	1	
175	Not Used			
176	Not Used			
177	0641410	Bolt 1/4"-20NC x 1 1/4"	2	
178	2901574	Battery Cable Kit	1	E
178A	7016832	Cable (Battery - to Ground) (With 30in #10 Black Lead)	1	
178B	7016817	Cable (Battery + to Auxiliary Relay)	1	
178C	7016820	Cable (Auxiliary Relay to Starter)	1	



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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
178D		Cable Options (Auxiliary Relay to Auxiliary Pump):	1	
	7016808	12" Length		
	7016836	24" Length		
179	4240018	Tie-Strap	2	
180	0902443	Bracket, Latch Mounting	1	
181	0902444	Bracket, Hood Support	1	
182	0741610	Screw, Socket Head Countersunk 3/8"-16NC x 1 1/4"	2	
183	3600279	Auxiliary Pump Assembly	1	
183A	7016768	Motor, Replacement	1	
	7013757	Brush Kit	1	
183B	7013711	Coupling, Drive	1	
183C	7016769	Bracket, Mounting	1	
	7016745	Capscrew, Socket Head 5/16"-24NF x 4 3/4"	2	
	7016746	Adapter, Mounting	1	
	7013766	Pin	1	
183D	7013771	Pump, Replacement	1	
	7013701	Seal Kit	1	
	7016744	Screw 5/16"-18NC x 1"	4	
184	2200222	Plug, Pipe (Not Shown - Located at bottom of Fuel Tank)	1	
185	4751800	Flatwasher 1/2"	4	
186	1703876	Decal - Engine Tray Swing	1	
187	3571008	Plate, Baffle	1	
188	3571009	Plate, Baffle	1	
189	3571019	Plate, Air Panel	1	
190	0641408	Bolt 1/4"-20NC x 1"	2	
191	3960438	Seal, Hood	28in/46cm	
192	4791600	Starwasher 3/8"	2	
193	2220313	Fitting, Barbed	1	
194	Not Used			
195	2220250	Fitting, Reducer	1	
196	2220805	Fitting, 90° Barbed	1	
197	0641506	Bolt 5/16"-18NC x 3/4"	A/R	
198	4751500	Flatwasher 5/16"	4	
199	3311505	Locknut 5/16"-18NC	2	
200	2720473	Hose, High Pressure	1	
201		Flatwasher 5/16" (S/N 62669 to Present)	4	
	Not Required	Standard Gas Machines		
	4711500	Dual Fuel Machines		
202		Bracket, LP Mounting (S/N 62669 to Present)	1	
	Not Required	Standard Gas Machines		
	0902724	Dual Fuel Machines		
203	1320032	Clamp (S/N 62669 to Present)	1	



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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		ENGINE COMPONENTS	Ref.	
	2000164	Standard Gas Machines	C	
	2000166	Dual Fuel Machines	C	
301	3600377	Fuel Pump & Isolator Assembly (was p/n 7022133)	1	
	7022134	Harness, Fuel Pump Wiring	1	
302	91083218	Filter, Fuel (was p/n 7022135)	1	
303	7019986	Starter (Not Shown)	1	
304	7019977	Alternator with Pulley & Regulator	1	
	7000897	Alternator without Pulley & Regulator	1	
305	7022136	Actuator, Throttle	1	
306	7019996	Sensor, Air Temperature	1	
307	Use 7023663	Harness, ECM (was p/n 7022137)	1	
	7023613	Relay	3	
308	7022139	Sensor, MAP	1	
309	7019994	Sensor, EGR	1	
310	2420187	Dipstick (was p/n 7022140)	1	
	4564281	Tube, Dipstick (was p/n 7022146)	1	
311	2720341	Horn, Rubber Air (was p/n 7022141)	1	
312	7022142	Switch, Oil Pressure		
313	7021868	Filter, Oil (was p/n's 7022147, 7022173 & 7014501)	1	
314	1660250	Coupling, Pump (was p/n 7016662)	1	
	7019976	Flywheel	1	
	7022180	Ring Gear	1	
315	7019993	Pressure Regulator & Filter Assembly	1	
316	7022143	Gasket, Exhaust Manifold to Head (Not Shown)	1	
317	7022158	Connector	3	
318	7022159	Connector	2	
319	7022160	Connector	1	
320	7022161	Tube, Supply	2	
321	7022162	Clamp	2	
322	7022153	Pump, Water	1	
	7022154	Gasket, Water Pump	1	
	7022155	Sensor, Water Temperature (Not Shown)	1	
	7022164	Sensor, High Coolant Temperature (Not Shown)	1	
	7022156	Thermostat (Not Shown)	1	
	7023644	Hose, Water Pump (By-Pass) (Not Shown)	1	
	7025134	Gasket, Water Outlet Connection (Not Shown)	1	
323	7023637	Switch, Shutdown Pressure	1	
324	7022178	Sensor, Crank Shaft	1	
325	2720341	Horn, Rubber Air	1	
326	70002307	Gasket (Exhaust Manifold to Pipe)	1	
327	7022150	Belt, Drive	1	
	70002567	Tensioner, Belt	1	
328	7019925	PCV Valve (Not Shown)	1	
329	7019930	Coil, Ignition (Not Shown)	1	
	7022157	Wire Set, Spark Plug (Not Shown)	1	
	7019932	Spark Plug (was p/n 7012595)	4	
330	7022151	Cap, Oil Fill	1	



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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
331	7022149	Gasket Kit, Lower Manifold (Not Shown)	1	
	7025124	Gasket Kit, Upper Manifold (was p/n 7022148) (Not Shown)	1	
332	7022144	Gasket, Upper Manifold Throttle (Not Shown)	1	
	7022179	Sensor, Camshaft (Not Shown)	1	
		MUFFLER INSTALLATIONS		
	0258252	Standard Spark Arresting	Ref.	2
	0258253	Optional Catalytic	Ref	3
401		Muffler Options:	1	
	3220113	Standard Spark Arresting		
	3220114	Optional Catalytic		
	70001017	Clamp	1	
402	0340046	Band	2	
403	0902457	Bracket, Muffler	1	
404	0641507	Bolt 5/16"-18NC x 7/8"	4	
405	4711500	Flatwasher 5/16" Narrow	8	
406	3311505	Locknut 5/16"-18NC	4	
407	4567073	Tube, Exhaust	1	
	70001017	Clamp	1	
408	4100025	Sleeve, Fiberglass	21in/53cm	
409	4920385	Wire, Mechanics	16in/41cm	

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FIGURE 2-9. FORD ENGINE INSTALLATION (WITH EFI) (S/N 46089 TO PRESENT) (CONTINUED)

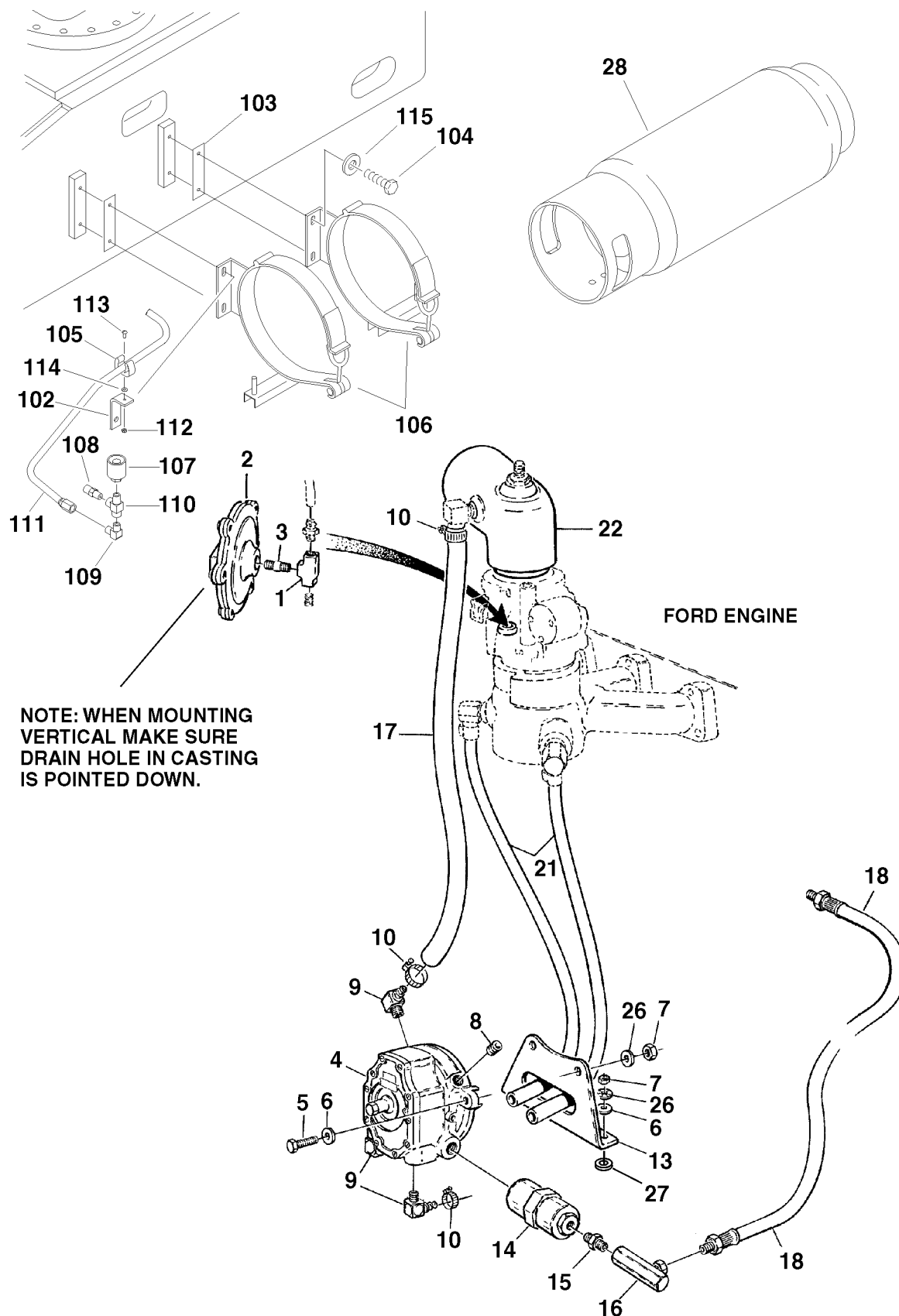
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-10. DUAL FUEL INSTALLATIONS (FORD MACHINE OPTION) (PRIOR TO S/N 46089)





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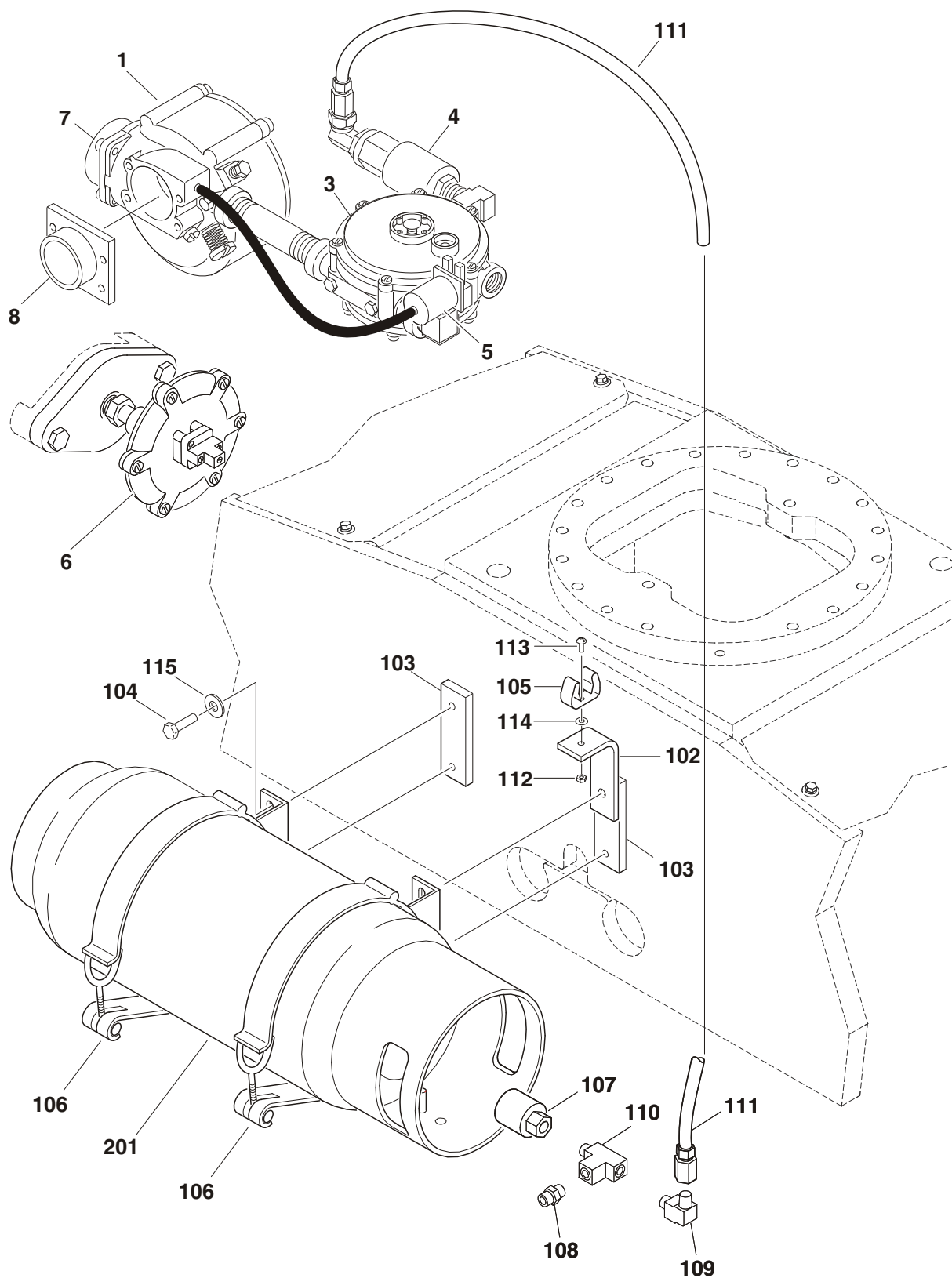
FIGURE 2-10. DUAL FUEL INSTALLATIONS (FORD MACHINE OPTION) (PRIOR TO S/N 46089)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		DUAL FUEL INSTALLATION	Ref.	A
1	2180360	Fitting, Tee	1	
2	4360188	Switch, Vacuum	1	
3	2180104	Fitting, Nipple	1	
4	4700005	Vaporizer/Regulator	1	
	7017515	Rebuild Kit - 4700005 Regulator	1	
5	0641416	Bolt 1/4"-20NC x 2"	2	
6	4751400	Flatwasher 1/4"	4	
7	3311405	Locknut 1/4"-20NC	4	
8	2200204	Plug, Pipe	1	
9	2220675	Fitting, 90°	3	
10	1320017	Clamp, Hose	4	
11 to 12	Not Used			
13	0902132	Bracket, Vaporizer	1	
14	2120077	Filter, Fuel Lock	1	
15	2180418	Fitting, LP	1	
16	2220064	Fitting, 90°	1	
17	2720112	Hose, LP	A/R	
18	2720144	Hose, LP	1	
19 to 20	Not Used			
21	Not Available	Hose	30in/76cm	
22	0080124	Adapter, Air Horn	1	
23	Not Used			
24	1701543	Decal - LPG (Not Shown)	1	
25	See Section 8	Decal - Liquid Withdrawal System (Not Shown)	1	
26	4791400	Starwasher 1/4"	2	
27	3311401	Nut 1/4"-20NC	2	
28		Tank, LP Options:	1	
	4400275	Aluminum		
	4400420	Steel		
	0258033	LP TANK AND BRACKETS INSTALLATION	Ref.	A
101	0100011	Loctite #242 (Not Shown)	A/R	
102	0181949	Angle, Support	1	
103	0362519	Bar, Mounting	2	
104	0641607	Bolt 3/8"-16NC x 7/8"	4	
105	1320218	Clamp, Spring	1	
106	1320220	Clamp Kit	1	
	1320127	Toggle	1	
107	2180387	Fitting, LP	1	
108	2180389	Fitting	1	
109	2180504	Fitting, 90°	1	
110	2220290	Fitting, Tee	1	
111	2720149	Hose	1	
112	3310805	Locknut #8-32NC	1	
113	3910808	Screw #8-32NC x 1"	1	
114	4750800	Flatwasher #8	1	
115	4751600	Flatwasher 3/8"	4	



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FIGURE 2-11. DUAL FUEL INSTALLATIONS (FORD MACHINE OPTION) (S/N 46089 TO PRESENT)





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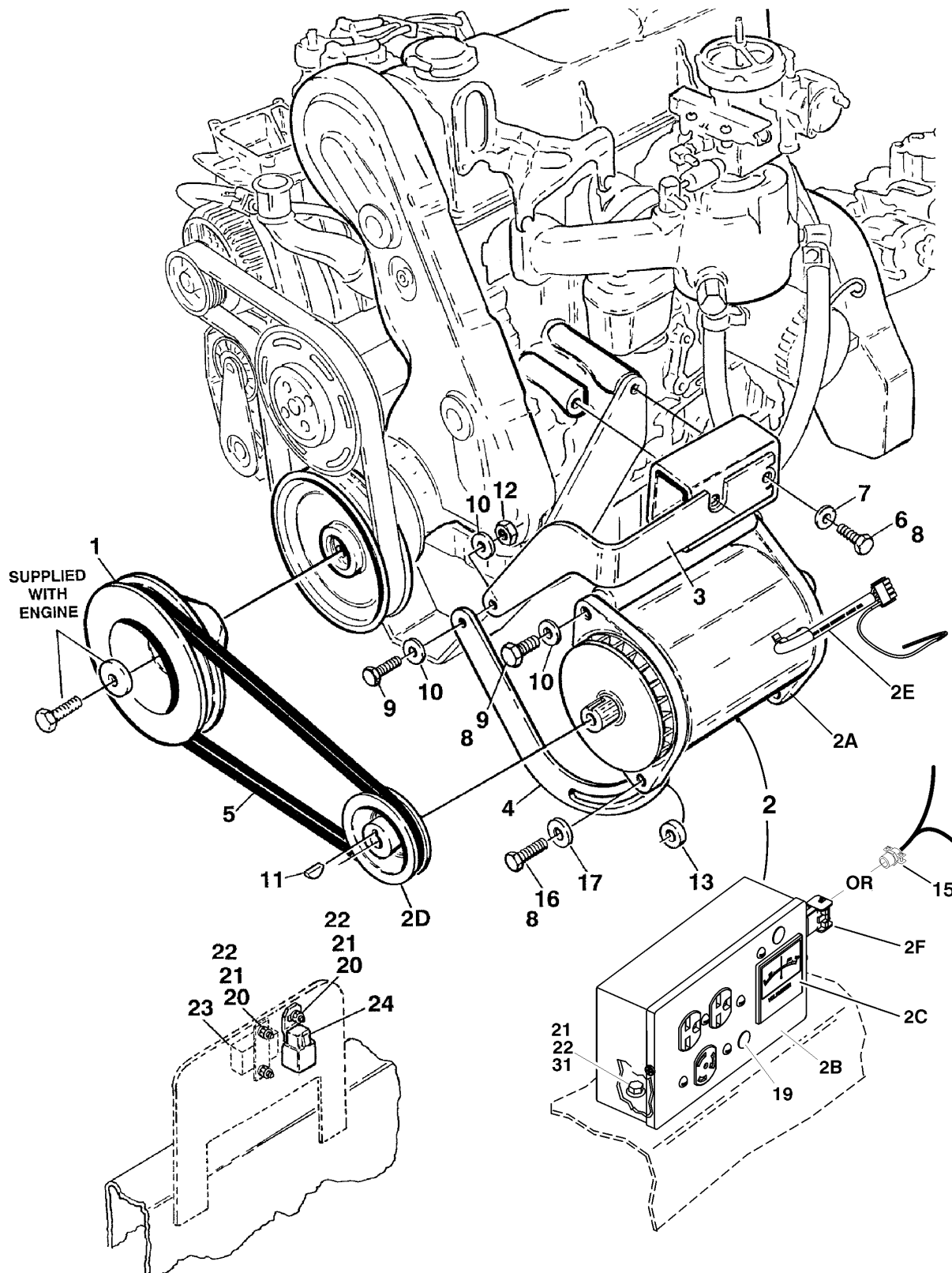
FIGURE 2-11. DUAL FUEL INSTALLATIONS (FORD MACHINE OPTION) (S/N 46089 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2000166	DUAL FUEL ENGINE COMPONENTS	Ref.	C
	Not Available - See Your Ford Dealer	Dual Fuel Conversion Kit (Note: Includes hose, fittings, clamps and items indented below. For replacement hose, fit- tings and clamps supply locally.)	1	
1	7022165	Mixer	1	
	7022171	Repair Kit - 7022165 Mixer	1	
	7023645	Gasket, Mixer	1	
2	Not Used			
3	7022167	Convertor	1	
	7022170	Repair Kit - 7022167 Convertor	1	
4	Use 7023680	Filter, LP Shut-Off (was p/n 7022169)	1	
	Use 7023680	Electrical Connector Kit (No Longer Available - was p/n 7023679)	1	
5	7022168	Valve, Solenoid	1	
6	4360188	Switch, Vacuum	1	
7	7023603	Adaptor	1	
8	7022166	Adaptor	1	
		LP TANK AND BRACKETS INSTALLATIONS	Ref.	
	0258033	Standard Machines	Ref.	A
	0270290	Semi-Track Machines (Not Shown - Located on Rear of Frame)	Ref.	A
101	0100011	Loctite #242 (Not Shown)	A/R	
102		Angle, Support Options:	A/R	
	0181949	Angle, Support (Standard Machines)	1	
	4846259	Bracket, Support (Semi-Track Machines)	2	
103	0362519	Bar, Mounting (Standard Machines Only)	2	
104	0641607	Bolt 3/8"-16NC x 7/8"	4	
105	1320218	Clamp, Spring (Standard Machines Only)	1	
106		Clamp Kit Options:	1	
	1320220	Standard Machines		
	1320127	Toggle	1	
	1320023	Semi-Track Machines		
107	2180387	Fitting, LP	1	
108	2180389	Fitting	1	
109	2180504	Fitting, 90° (Standard Machines Only)	1	
110	2220290	Fitting, Tee	1	
111		Hose Options:	1	
	2720149	Standard Machines		
	2720468	Semi-Track Machines		
112	3310805	Locknut #8-32NC (Standard Machines Only)	1	
113	3910808	Screw #8-32NC x 1" (Standard Machines Only)	1	
114	4750800	Flatwasher #8 (Standard Machines Only)	1	
115	4751600	Flatwasher 3/8"	4	
		LP TANK (OPTIONAL)	Ref.	
201	4400275	Aluminum	1	
	4400420	Steel	1	



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FIGURE 2-12. GENERATOR INSTALLATION - FORD MACHINES (OPTIONAL)





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FIGURE 2-12. GENERATOR INSTALLATION - FORD MACHINES (OPTIONAL)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		GENERATOR INSTALLATION OPTIONS:		
	0258312	110V Generator	Ref.	5/C
	0258314	220V Generator	Ref.	3/B
1	3580250	Pulley	1	
2		Generator and Control Box Assembly Options:	1	
	2460011	110Volt Assembly (Prior to S/N 39711)		
	2460032	110Volt Assembly (S/N 39711 to Present)		
	Use 2460056	220Volt Assembly (was p/n 2460034)		
2A	7012558	Generator - 110V	1	
		Note: Replacement Generator p/n 7012558 come standard with p/n 3580134 pulley. This pulley may not be correct for all applications. Refer to pulley options below.	Ref.	
	1001100321	Generator - 220V	1	
		Armature Options:	1	
	7026199	110Volt		
	70000123	220Volt		
	7020109	Holder, Brush	4	
	7020108	Brush	4	
	7012513	Cap, Brush Holder	4	
	7012514	Fan	1	
	7020110	Bell, Front	1	
	7020111	Bell, Rear	1	
	7020190	Bearing	2	
2B	7003657	Box, Control - 110V	1	
		Note: Replacement 110V Control Box comes with 2 std Receptacles p/n 4460190. Optional Industrial Twist Lock Receptacles p/n 4460027 must be ordered separately.		
		Box, Control - 220V Options:	1	
	70002235	Generator 2460034		
	70000127	Generator 2460056		
		Breaker, Circuit Options:	1	
	4360542	110Volt		
	70000126	220Volt		
		Receptacle Options:	1	
	70000124	Receptacle, Double (220V/50Hz Only)		
	70000125	Receptacle, Single (220V/50Hz Only)		
		Lamp Options:	1	
	2920162	Generators 2460011, 2460032 & 2460034		
	Not Required	Generator 2460056		
		Switch, Toggle Options:	1	
	7020191	Generators 2460011, 2460032 & 2460034		
	Not Required	Generator 2460056		
	3520028	Plug, Hole	2	
2C		Voltmeter Options:	1	
	2420203	110Volt		
	7020192	220Volt		



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FIGURE 2-12. GENERATOR INSTALLATION - FORD MACHINES (OPTIONAL) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
2D		Pulley Options:	1	
	3580134	Generators 2460011 & 2460056		
	3580276	Generators 2460032 & 2460034		
2E	7020193	Cord, Power	1	
2F	4460961	Connector - 4 Position (Generator 2460056 Only)	1	
	4460705	Terminal, Male Pin (Generator 2460056 Only)	4	
3	0902210	Bracket, Generator Mounting	1	
4	0200547	Arm, Adjusting	1	
5	0480050	V-Belt (Prior to S/N 39711)	1	
	0480111	V-Belt (S/N 39711 to Present)	1	
6	0701015	Bolt, Metric 10mm-1.5 x 35mm	2	
7	4812000	Flatwasher 10mm	2	
8	0100011	Loctite #242 (Not Shown)	A/R	
9	0681612	Bolt 3/8"-16NC x 1 1/2" (Grade 8)	3	
10	4751600	Flatwasher 3/8"	6	
11	2860012	Key, Woodruff	1	
12	3311605	Locknut 3/8"-16NC	1	
13	4564417	Spacer, Tube	1	
14	Not Used			
15	4460023	Connector, Strain Relief	1	
16	0641508	Bolt 5/16"-18NC x 1"	1	
17	4751500	Flatwasher 5/16"	2	
18	Not Used			
19	3520028	Plug, Hole	1	
20	0721006	Bolt #10-24NC x 3/4"	A/R	
21	3311005	Locknut #10-24NC	A/R	
22	4751000	Flatwasher #10	A/R	
23		Breaker, Circuit - 30 Amp Options:	1	
	4360294	Prior to S/N 62239		
	4360501	S/N 62239 to Present		
24	3740080	Relay, Bosch	1	
25	4360336	Switch, Toggle (Not Shown - Located at Platform)	1	
26	4740397	Washer (Not Shown - Located at Platform)	1	
27	4060802	Guard, Switch (Not Shown - Located at Platform)	1	
28	Not Used			
29	2820031	Heatshrink (Not Shown - Located at Platform)	1	
30	3251102	Decal (Not Shown - Located at Platform)	1	
31	0721008	Bolt #10-24NC x 1"	2	

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FIGURE 2-12. GENERATOR INSTALLATION - FORD MACHINES (OPTIONAL) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

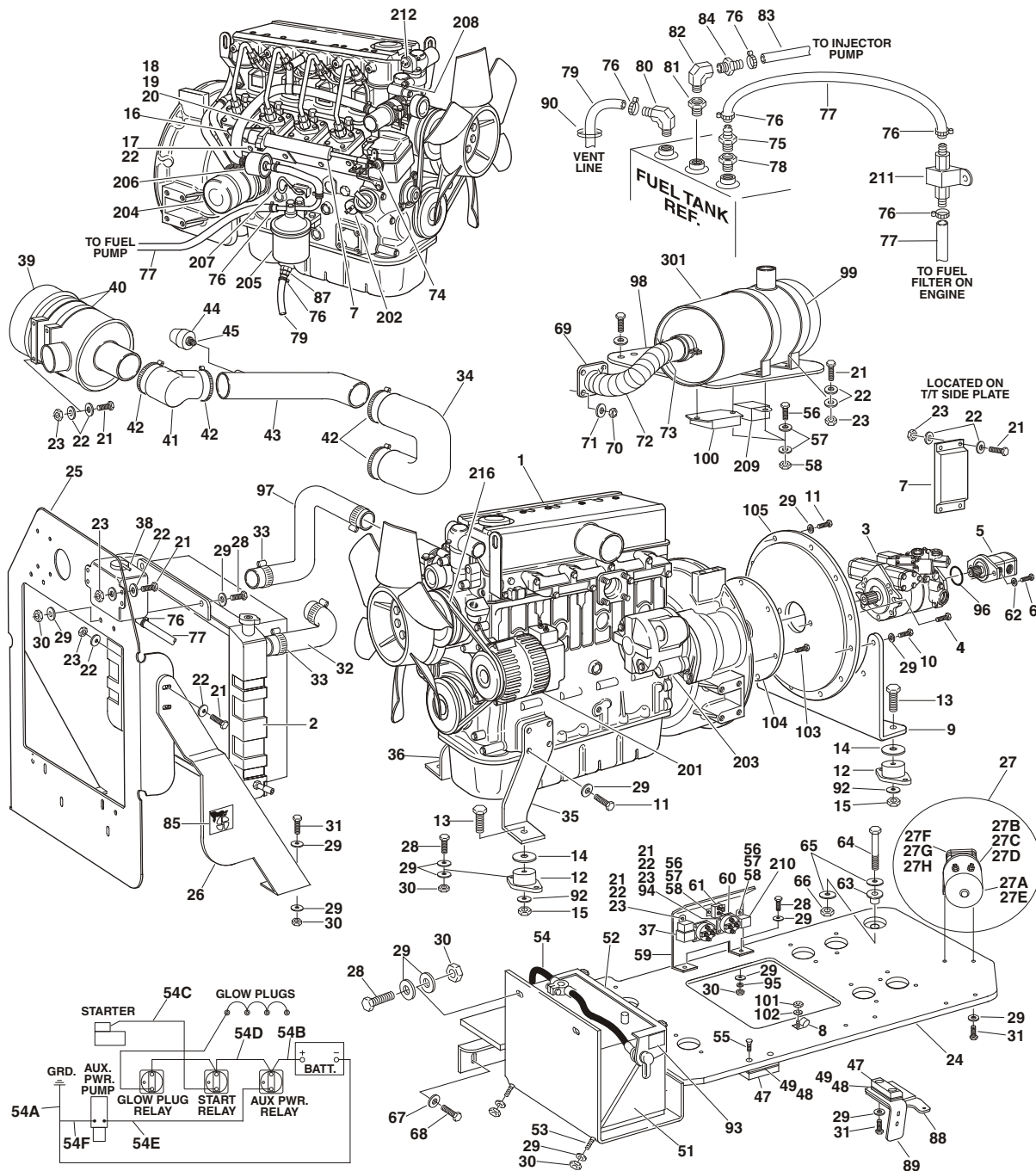
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FIGURE 2-13. ISUZU ENGINE INSTALLATION

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FIGURE 2-13. ISUZU ENGINE INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258939	ISUZU ENGINE INSTALLATIONS	Ref.	7/D
		Standard Machines		
1	2000163	Engine Assembly	1	
2	3620040	Radiator	1	
	7019656	Cap, Radiator	1	
3		Piston Pump Assembly Options (See Figure 2-15 for Breakdown):	1	
	3600260	Prior to S/N 43370		
	3600290	S/N 43370 to Present		
4	0641812	Bolt 12"-13NC x 1 1/2"	2	
5	3600271	Gear Pump Assembly	1	
	7011046	Seal Kit - 3600271 Pump	1	
6	3931620	Capscrew, Socket Head 3/8"-16NC x 1 1/4"	2	
7	Use 2910000	Actuator Assembly (Was p/n 0060033) (See Section 7 for Breakdown)	1	
8	1320223	J-Clamp	1	
9	3571201	Plate, Rear Mounting	1	
10	0701015	Bolt, Metric 10mm x 35mm	6	
11	0701012	Bolt, Metric 10mm x 25mm	10	
12	3200378	Mount, Rubber Motor	4	
13	0641820	Bolt 12"-13NC x 2 1/2"	4	
14	4740274	Washer, Snubbing	4	
15	3311805	Locknut 1/2"-13NC	4	
16	3571266	Bracket, Throttle Mount	1	
17	0700610	Screw, Metric 6mm x 20mm	4	
18	3900217	Bolt, Shoulder	1	
19	0962031	Bushing	1	
20	4740442	Washer, Belleville	1	
21	0641406	Bolt 1/4"-20NC x 3/4"	20	
22	4751400	Flatwasher 1/4"	41	
23	3311405	Locknut 1/4"-20NC	20	
24	4845613	Tray, Engine	1	
25	3570571	Plate, Radiator Mount	1	
26	3570607	Plate, Radiator Support	1	
27	3600279	Auxiliary Pump Assembly	1	
27A	7016768	Motor, Replacement	1	
	7013757	Brush Kit	1	
27B	7013711	Coupling, Drive	1	
27C	7016769	Bracket, Mounting	1	
27D	7016744	Screw 5/16"-18NC x 1"	4	
27E	7016745	Capscrew, Socket Head 5/16"-24NF x 4 3/4"	2	
27F	7016746	Adapter, Mounting	1	
27G	7013766	Pin	1	
27H	7013771	Pump, Replacement	1	
	7013701	Seal Kit	1	
28	0641609	Bolt 3/8"-16NC x 1 1/8"	8	
29	4751600	Flatwasher 3/8"	61	



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FIGURE 2-13. ISUZU ENGINE INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
30	3311605	Locknut 3/8"-16NC	22	D
31	0641610	Bolt 3/8"-16NC x 1 1/4"	18	
32	2720441	Hose, Radiator (Top)	1	
33	1320012	Clamp	4	
34	0080232	Adaptor, Air Intake	1	
35	3571192	Plate, Engine (Front Left Side)	1	
36	3571265	Plate, Engine (Front Right Side)	1	
37	3740080	Relay (Prior to S/N 62293)	1	
38	1580011	Container, Coolant Overflow	1	
39	1340060	Air Cleaner Assembly	1	
	7012664	Element, Air Cleaner	1	
40	0340041	Band, Mounting	2	
41	0080201	Elbow	1	
42	1320016	Clamp, Hose	4	
43	4567817	Tube, Air Intake	1	
44	4360392	Switch, Restrictor Indicator	1	
45	2180798	Fitting	1	
46	0100020	Sealant, Pipe (Not Shown)	A/R	
47	3340399	Pad, Wear	3	
48	4070497	Shim 1/8"	4	
49	4070498	Shim 1/16"	2	
50	0100011	Loctite #242 (Not Shown)	A/R	
51		Battery Options:	1	
	0400075	Battery (Wet)		
	7016180	Battery (Dry)		
52	0181727	Tie-Down, Battery	1	
53	0630498	Bolt, Tie-Down	2	
54	2901575	Cable Kit - Battery	1	
54A	7016817	Cable - Battery to Starter Relay	1	
54B	7016818	Cable - Battery & Auxiliary Pump to Ground	1	
54C	7016819	Cable - Starter Relay to Starter	1	
54D	7016803	Cable - Starter Relay to Auxiliary Relay	1	
54E	7016820	Cable - Auxiliary Relay to Auxiliary Pump	1	
55	0741610	Screw, Flathead 3/8"-16NC x 2"	2	
56	0721006	Bolt #10-24NC x 3/4"	5	
57	4751000	Flatwasher #10	6	
58	3311005	Locknut #10-24NC	5	
59		Plate, Relay Mounting Options:	1	
	3570808	Prior to S/N 58667		
	3572728	S/N 58667 to Present		
60	3740067	Relay	2	
61		Breaker, Circuit Options:	1	
	4360294	Prior to S/N 58667		
	4360501	S/N 58667 to Present		
62	4891600	Washer, Hardened 3/8"	2	
63	0962172	Bushing, Flanged	1	
64	3900254	Bolt Shoulder 3/4" x 4"	1	
65	4752200	Flatwasher 3/4"	2	
66	3312005	Locknut 5/8"-11NC	1	



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FIGURE 2-13. ISUZU ENGINE INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
67	0642010	Bolt 5/8"-11NC x 1 1/4"	1	
68	4752000	Flatwasher 5/8"	1	
69	4567821	Exhaust Intake Adapter Weldment	1	
70	3290801	Nut, Metric 8mm	4	
71	4831900	Lockwasher, Metric 8mm	4	
72	4100025	Sleeve, Fiberglass	1ft/31cm	
73	4920385	Wire, Safety	1ft/31cm	
74	2901775	Throttle Mounting Kit	1	
75	2220794	Fitting, Barbed	1	
76	1320022	Clamp	10	
77	2720058	Hose	13ft/4m	
78	2220273	Fitting, Reducer	1	
79	2750532	Hose	8.5ft/2.6m	
80	2220313	Fitting, 90°	1	
81	2220250	Fitting, Reducer	1	
82	2220459	Fitting, 90°	1	
83	2720271	Hose	12ft/3.7m	
84	2180536	Fitting, Straight Barbed	1	
85	1703162	Decal - Fan	2	
86	1701505	Decal - Diesel Fuel (Not Shown)	1	
87	4641019	Valve, Oil Drain	1	
88	0902444	Bracket, Hood Support	1	
89	0902443	Bracket, Latch Mount	1	
90	4240099	Tie-Strap	1	
91	2200222	Plug, Pipe (Not Shown - Located at Bottom of Fuel Tank)	1	
92	4751800	Flatwasher 1/2"	4	
93	1703876	Decal - Engine Tray Swing	1	
94	4791400	Starwasher 1/4"	6	
95	4791600	Starwasher 3/8"	2	
96	3790152	O-Ring	1	
97	2720448	Hose, Radiator (Bottom)	1	
98	3571279	Plate, Muffler Mounting	1	
99	0340046	Band, Muffler Mounting	2	
100	0259198	Timer, Fuel-On Coil (See Section 7 for Breakdown)	1	
101	3311401	Nut 1/4"-20NC	1	
102	4761400	Lockwasher 1/4"	1	
103	0681606	Bolt 3/8"-16NC x 3/4" (Grade 8)	8	
104	1660239	Coupling, Pump	1	
105	0080181	Plate, Pump Adapter	1	
		ENGINE COMPONENTS	Ref.	
201	7022123	Alternator	1	
202	7022127	Switch, Oil Pressure	1	
203	7022122	Starter	1	
204	7022111	Filter, Oil	1	
205	7022120	Pump, Fuel Injection	1	
206	7022113	Filter, Fuel	1	
207	7022107	Dipstick	1	



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FIGURE 2-13. ISUZU ENGINE INSTALLATION (CONTINUED)

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FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
208	7022128	Sensor, Water Temperature	1	
209	7022130	Control, Glow Plug	1	
210	7022125	Relay, Safety Start	1	
211	7022129	Pump, Fuel	1	
212	7022126	Switch, Water Temperature	1	
213	7022114	Pump, Water	1	
214	7022118	Cooler, Oil (Not Shown)	1	
215	7022124	Plug, Glow	4	
216	7022123	Belt, Alternator	1	
217	7022131	Manual, Owner's (Not Shown)	1	
		MUFFLER INSTALLATION	Ref.	
301		Muffler Options:	1	
	3220113	Standard		
	3220114	Catalytic		
	70001017	Clamp	1	

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FIGURE 2-13. ISUZU ENGINE INSTALLATION (CONTINUED)

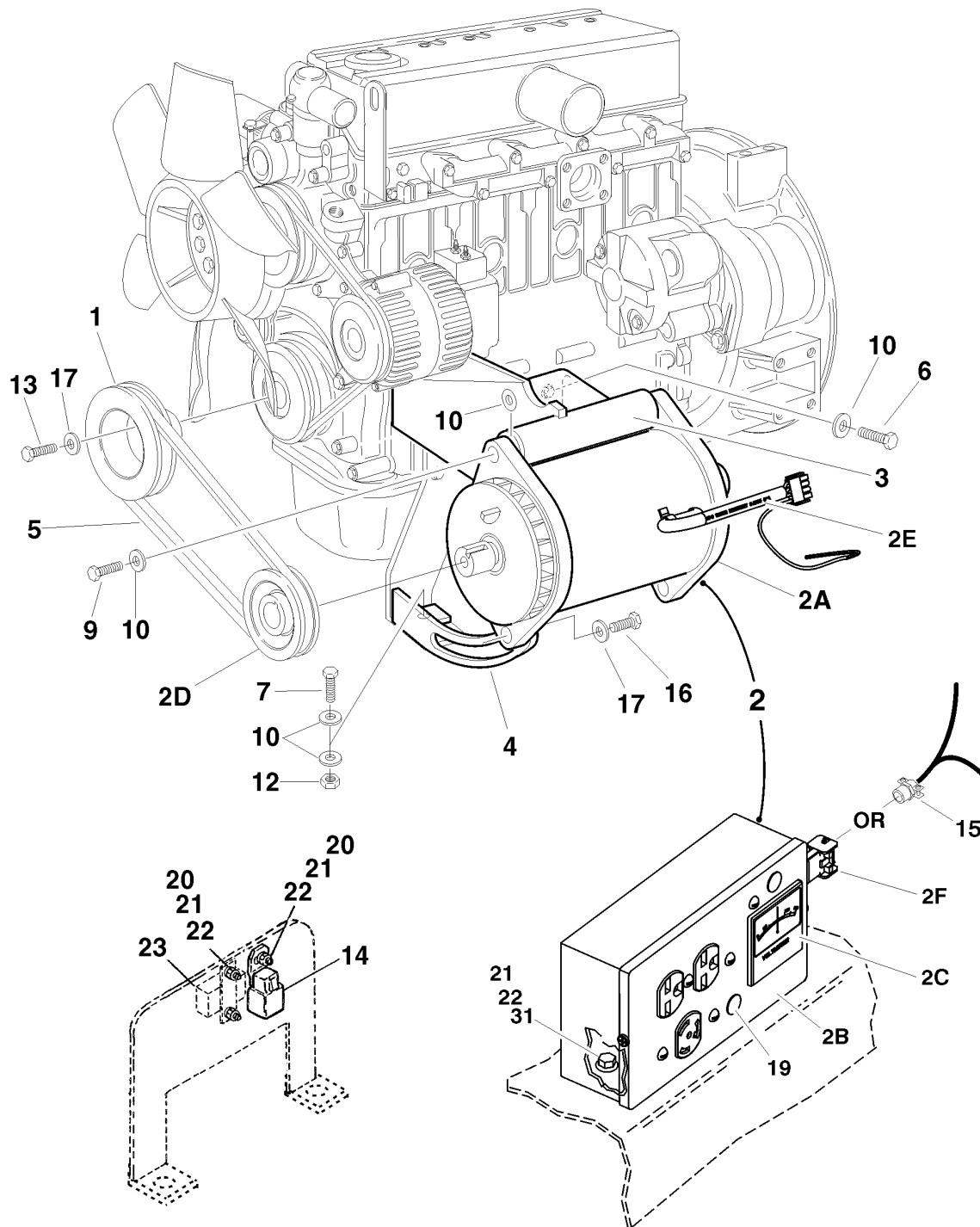
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-14. GENERATOR INSTALLATION - ISUZU MACHINES (OPTIONAL)





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FIGURE 2-14. GENERATOR INSTALLATION - ISUZU MACHINES (OPTIONAL)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		GENERATOR INSTALLATION OPTIONS:		
	0259000	110V Generator	Ref.	3/B
	0259001	220V Generator	Ref.	3/B
1	3580280	Pulley	1	
2		Generator and Control Box Assembly Options:	1	
	2460032	110Volt Assembly		
	Use 2460056	220Volt Assembly (was p/n 2460034)		
2A	7012558	Generator - 110V	1	
		Note: Replacement Generator p/n 7012558 come standard with p/n 3580134 pulley. This pulley may not be correct for all applications. Refer to pulley options below.	Ref.	
	1001100321	Generator - 220V	1	
		Armature Options:	1	
	7026199	110Volt		
	70000123	220Volt		
	7020109	Holder, Brush	4	
	7020108	Brush	4	
	7012513	Cap, Brush Holder	4	
	7012514	Fan	1	
	7020110	Bell, Front	1	
	7020111	Bell, Rear	1	
	7020190	Bearing	2	
2B	7003657	Box, Control - 110V	1	
		Note: Replacement 110V Control Box comes with 2 std Receptacles p/n 4460190. Optional Industrial Twist Lock Receptacles p/n 4460027 must be ordered separately.		
		Box, Control - 220V Options:	1	
	70002235	Generator 2460034		
	70000127	Generator 2460056		
		Breaker, Circuit Options:	1	
	4360542	110Volt		
	70000126	220Volt		
		Receptacle Options:	1	
	70000124	Receptacle, Double (220V/50Hz Only)		
	70000125	Receptacle, Single (220V/50Hz Only)		
		Lamp Options:	1	
	2920162	Generators 2460032 & 2460034		
	Not Required	Generator 2460056		
		Switch, Toggle Options:	1	
	7020191	Generators 2460032 & 2460034		
	Not Required	Generator 2460056		
	3520028	Plug, Hole	2	
2C		Voltmeter Options:	1	
	2420203	110Volt		
	7020192	220Volt		



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FIGURE 2-14. GENERATOR INSTALLATION - ISUZU MACHINES (OPTIONAL) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
2D		Pulley Options:	1	
	3580134	Generator 2460056		
	3580276	Generators 2460032 & 2460034		
2E	7020193	Cord, Power	1	
2F	4460961	Connector - 4 Position (Generator 2460056 Only)	1	
	4460705	Terminal, Male Pin (Generator 2460056 Only)	4	
3	4845969	Bracket, Generator Mounting	1	
4	0200664	Arm, Adjusting	1	
5	0480056	V-Belt	1	
6	0701012	Bolt, Metric 14mm x 30mm	2	
7	0641610	Bolt, 3/8"-16NC x 1 1/4"	1	
8	0100011	Loctite #242 (Not Shown)	A/R	
9	0681612	Bolt 3/8"-16NC x 1 1/2" (Grade 8)	2	
10	4751600	Flatwasher 3/8"	8	
11	Not Used			
12	3311605	Locknut 3/8"-16NC	1	
13	0700814	Bolt, Metric 8mm x 30MM	4	
14	3740080	Relay	1	
15	4460023	Connector, Strain Relief	1	
16	0641508	Bolt 5/16"-18NC x 1"	1	
17	4751500	Flatwasher 5/16"	5	
18	Not Used			
19	3520028	Plug, Hole	1	
20	0721006	Screw, #10-24NC x 3/4"	A/R	
21	3311005	Locknut #10-24NC	A/R	
22	4751000	Flatwasher #10	A/R	
23		Breaker, Circuit - 30 Amp Options:	1	
	4360294	Prior to S/N 62239		
	4360501	S/N 62239 to Present		
24	Not Used			
25	4360336	Switch, Toggle (Not Shown - Located at Platform)	1	
26	4740397	Bushing	1	
27	4060802	Guard, Switch (Not Shown - Located at Platform)	1	
28	Not Used			
29	2820031	Heatshrink (Not Shown - Located at Platform)	1	
30	3251102	Decal (Not Shown - Located at Platform)	1	
31	0721008	Screw, #10-24NC x 1"	2	

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FIGURE 2-14. GENERATOR INSTALLATION - ISUZU MACHINES (OPTIONAL) (CONTINUED)

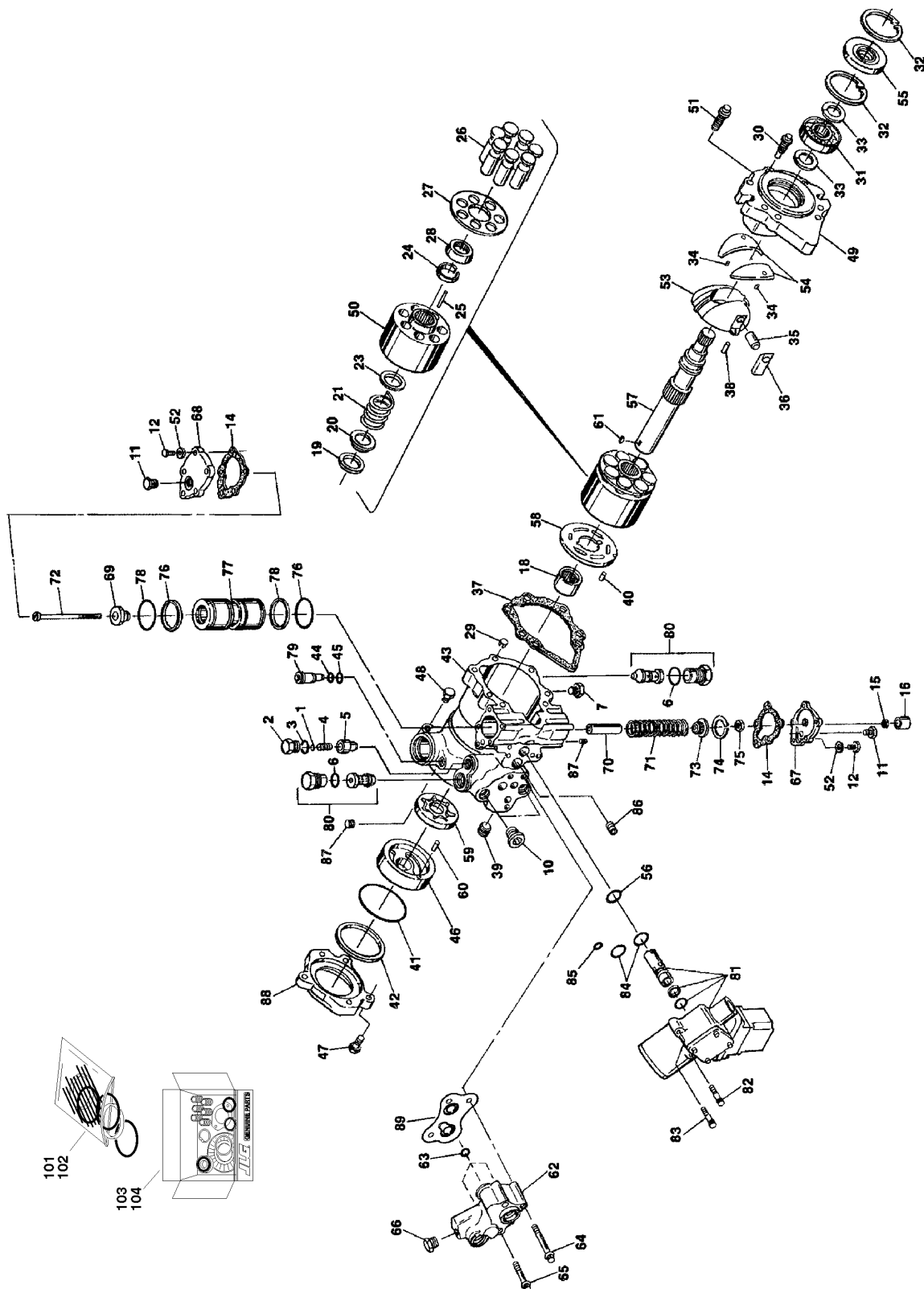
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-15. PISTON PUMP ASSEMBLY





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FIGURE 2-15. PISTON PUMP ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		PISTON PUMP ASSEMBLIES		
	3600260	Prior to S/N 43370	Ref.	1/A
	3600290	S/N 43370 to Present	Ref.	1/A
1	Not Available	Shim Kit - Relief Valve	1	
2	7007414	Plug	1	
3	Use Item 101	O-Ring	1	
4	7021200	Spring, Relief Valve	1	
5	7007417	Valve, Relief	1	
6	Use Item 101	O-Ring	2	
7	7007419	Plug	2	
8	Not Used			
9	Not Used			
10	7007420	Plug	2	
11	7007208	Plug	2	
12	7007421	Screw	10	
13	Not Used			
14	Use Item 101	Gasket, Servo Cover	2	
15	7007423	Nut, Special	1	
16	7007424	Cover, Adjustment	1	
17	Not Used			
18	7007425	Bearing, Needle	1	
19	Use Item 104	Ring, Retaining	1	
20	Use Item 104	Washer	1	
21	Use Item 104	Spring	1	
22	Not Used			
23	Use Item 104	Washer	1	
24	Use Item 104	Retainer	1	
25	Use Item 104	Pin, Slipper Holddown	3	
26	Use Item 104	Piston Assembly	7	
27	Use Item 104	Guide, Slipper	1	
28	Use Item 104	Guide, Retainer	1	
29	7007435	Pin, Spring	1	
30	7007436	Screw, 12 Point Head	1	
31	7007437	Bearing, Ball	1	
32	7007438	Ring	2	
33	7007439	Ring	2	
34	7007440	Pin, Spring	2	
35	7007441	Handle, Pin	1	
36	7007442	Sleeve, Bearing	1	
37	Use Item 101	Gasket, Front Cover	1	
38	7007444	Pin	1	
39	7007445	Plug, Expansion	1	
40	Use Item 104	Pin	1	
41	See Note	O-Ring (Note: Use Items 101 or 103)	1	
42	See Note	Ring, Load Temper (Note: Use Items 101 or 103)	1	
43	7007449	Housing, Pump	1	



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FIGURE 2-15. PISTON PUMP ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
44	Use Item 101	Ring, Back-up	1	
45	Use Item 101	O-Ring	1	
46	Use Item 103	Cover, Gerotor	1	
47	7007453	Bolt, Hex	3	
48	7007208	Plug	1	
49	7007454	Cover, Front	1	
50	Use Item 104	Block, Cylinder	1	
51	7007456	Screw, 12 Point Head	6	
52	7001438	Washer	10	
53	Use Item 104	Swashplate	1	
54	7007458	Journal, Bearing	1	
55	See Note	Seal, Lip (Note: Use Items 101 or 104)	1	
56	Use Item 101	O-Ring	1	
57	7010121	Shaft, Main Pump	1	
58	Use Item 104	Plate, Valve	1	
59	Use Item 103	Gerotor Assembly	1	
60	Use Item 103	Pin	1	
61	Use Item 103	Key, Woodruff	1	
62	7007466	Adaptor, Remote Filtration (Without Bypass)	1	
63	Use Item 101	O-Ring	3	
64	7007468	Screw	2	
65	7007469	Screw	2	
66	7007470	Plug	1	
67	7007471	Cover, Servo (With Adjuster)	1	
	7007490	Stop, Servo (Not Shown)	2	
	7007491	Nut, Special (Not Shown)	2	
	7007492	Ring, External (Not Shown)	2	
68	7007482	Cover, Servo (Without Adjuster)	1	
69	7007483	Guide, Spring	1	
70	7007484	Stop, Servo	1	
71	7007485	Spring	1	
72	7007486	Screw	1	
73	7007487	Guide, Spring	1	
74	7007488	Ring, Retaining	1	
75	7007499	Locknut	1	
76	See Note	Ring, Piston (Note: Use Items 101 or 102)	2	
77	7007494	Piston, Servo	1	
78	See Note	O-Ring (Note: Use Items 101 or 102)	2	
79	7007472	Valve, Bypass	1	
80	Use 7010122	Valve, Pressure Release (Includes Item 6) (was p/n 7007473)	2	
81	7007474	Control, Dual Oil-Filled	1	
	7007496	Coil Assembly (Pilot)	1	
	7007497	Plug (Pump)	1	
	7007498	Plug (Valve Harness)	1	
82	7007478	Screw	2	
83	7001498	Screw	2	
84	Use Item 101	O-Ring	2	
85	Use Item 101	O-Ring	1	



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FIGURE 2-15. PISTON PUMP ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
86	7007475	Plug, Orifice/Screen (.156)	1	
87		Plug, Orifice Options:(.37)	2	
	7007477	.037 (3600260 Pump		
	7021226	.034 (3600290 Pump)		
88	7007476	Adapter, Auxiliary Pump	1	
89	7010120	Spacer/Gasket	1	

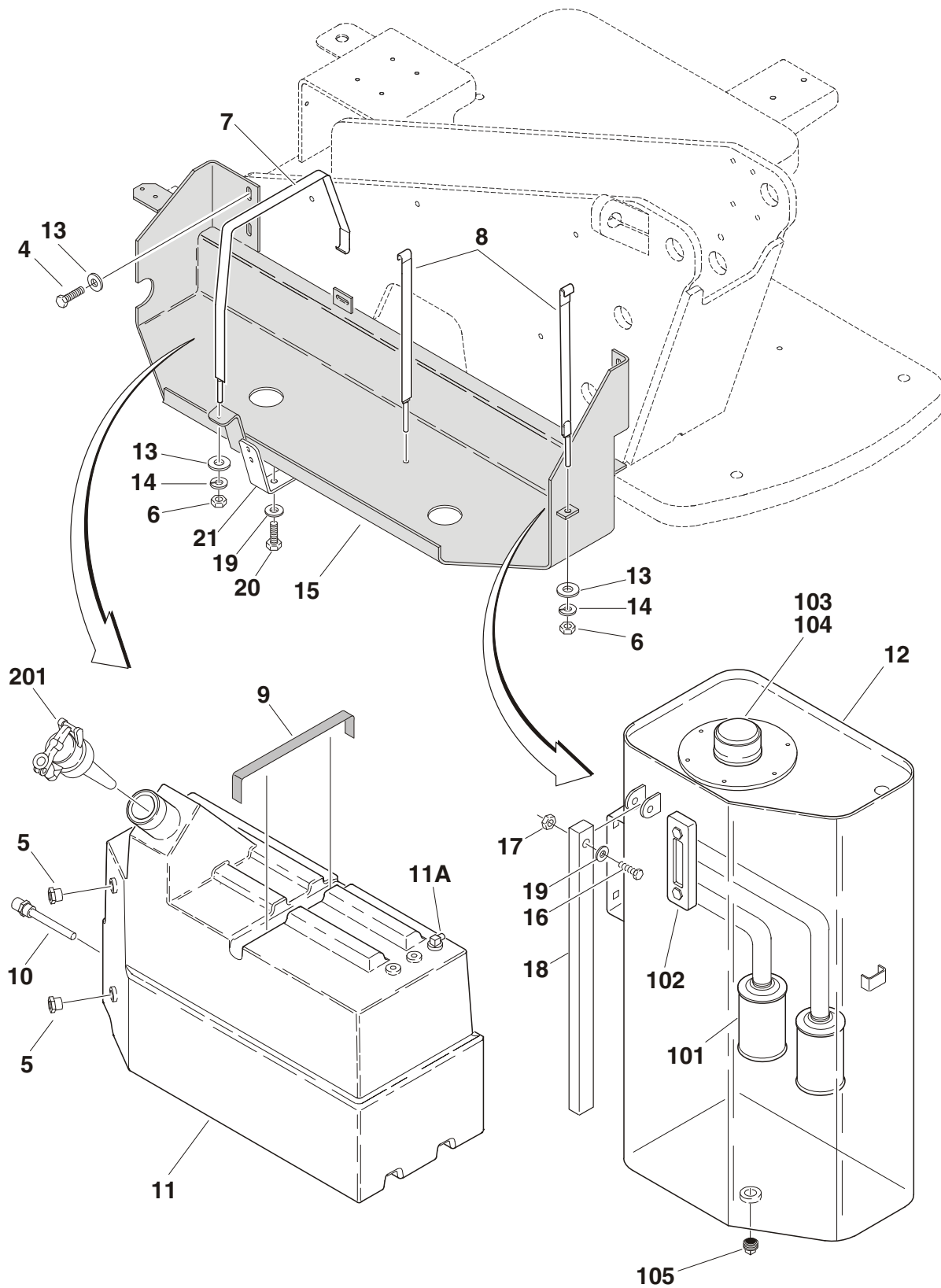
101	2900752	Seal Kit - Complete (Includes Items 3,6,14,37,41,42,44,45, 55,56,63,68,76,78,84,85 and 89)	1	
102	7007412	Seal Kit - Servo Piston (Includes Items 76 and 78)	1	
103	2900826	Charge Pump Kit (Includes Items 41,42,46,59,60 and 61)	1	
104	2900827	Cylinder Block Kit (Includes Items 19-28,40-50,53,55 and 58)	1	



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FIGURE 2-16. TANK INSTALLATIONS

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FIGURE 2-16. TANK INSTALLATIONS

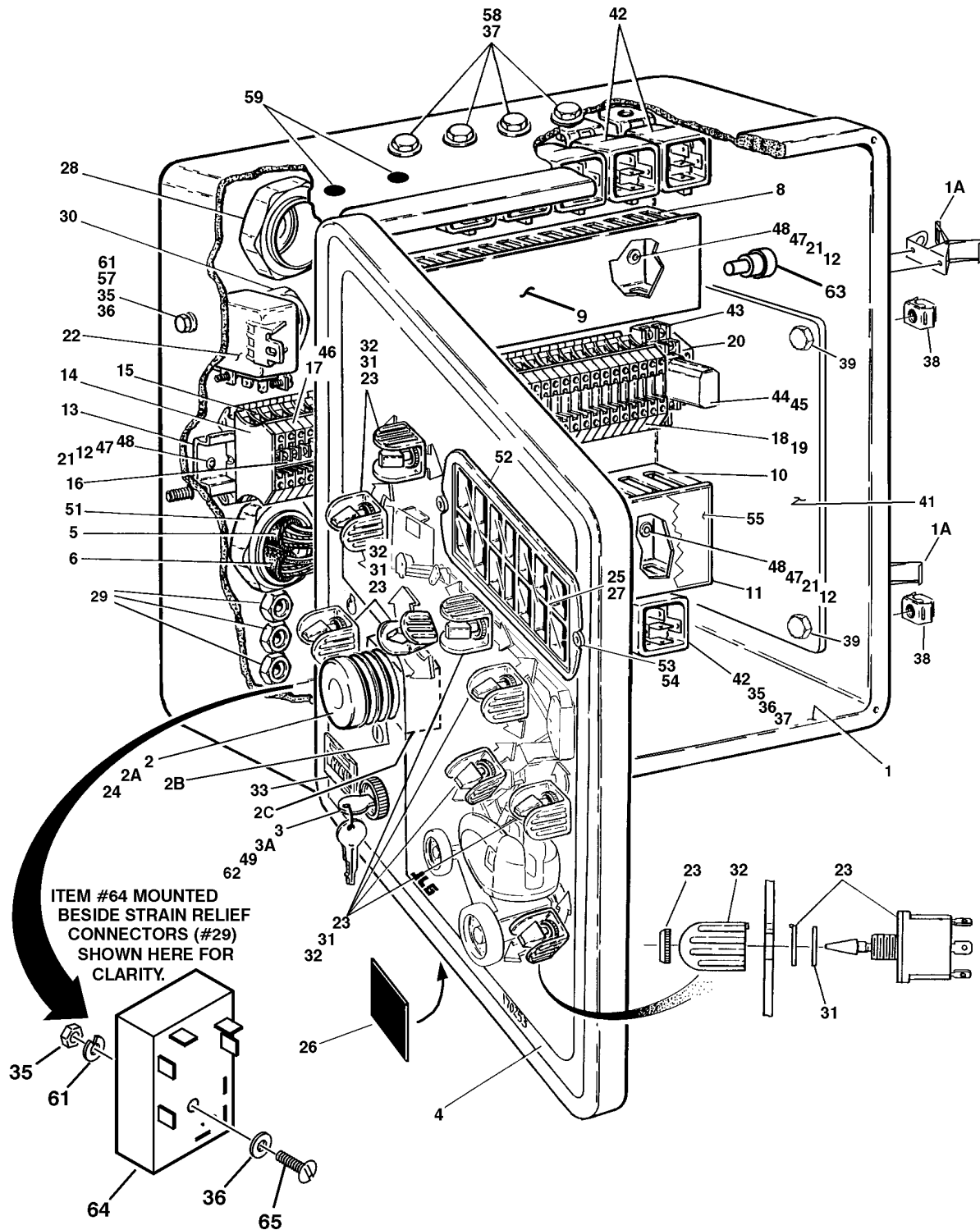
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0257757	TANKS INSTALLATION	Ref.	F
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0100020	Sealant, Pipe (Not Shown)	A/R	
3	0100079	Permatex (Not Shown)	A/R	
4	0641608	Bolt 3/8"-16NC x 1"	4	
5	2420115	Gauge, Sight	2	
6	3311601	Nut 3/8"-16NC	3	
7	4240133	Strap, Tank Mount	1	
8	4240136	Strap, Tank Mount	2	
9	4280295	Strip, Bumper	30in/76cm	
10	4360436	Switch, Fuel Level	1	
11	4400408	Tank, Fuel (Includes p/n 7016314)	1	
11A	7020056	Fitting and Hose (Supply Line)	1	
12	4400409	Hydraulic Tank Assembly (See Items 101-102 for Break-down)	1	
13	4751600	Flatwasher 3/8"	7	
14	4761600	Lockwasher 3/8"	3	
15		Tray Weldment Options:	1	
	Use 4846000	Prior to S/N 41977 (was p/n 4845590)		
	4846000	S/N 41977 to Present		
16	0641416	Bolt 1/4"-20NC x 2"	1	
17	3311405	Locknut 1/4"-20NC	1	
18	4567627	Tube, Hood Prop	1	
19	4751400	Flatwasher 1/4"	4	
20	0641405	Bolt 1/4"-20NC x 5/8"	2	
21		Bracket, Hood Latch Options:	1	
	0902449	Prior to S/N 41977		
	0902535	S/N 41977 to Present		
	4400409	HYDRAULIC TANK ASSEMBLY	Ref.	H
101	7014801	Strainer	1	
102	7014802	Gauge, Sight	1	
103	7014810	Filler	1	
	7023495	O-Ring	1	
104	7014811	Breather	1	
105	7014813	Plug, Magnetic	1	
201		FUEL CAP OPTIONS	Ref.	
	7016314	Standard Non-Locking Cap		
	1120484	Locking Cap (Red)		
	1120487	Locking Cap (Blue)		



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FIGURE 2-17. GROUND CONTROL BOX ASSEMBLY

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FIGURE 2-17. GROUND CONTROL BOX ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		GROUND CONTROL BOX ASSEMBLIES		
	0861224	450A with Deutz Engine	Ref.	4
	0861225	450AJ with Deutz Engine	Ref.	4
	0861222	450A with Ford Engine Prior to S/N 43370	Ref.	2
	0861294	450A with Ford Engine S/N 43370 to S/N 46089	Ref.	4
	0861287	450A with Ford Engine S/N 46089 to Present	Ref.	5
	0861223	450AJ with Ford Engine Prior to S/N 43370	Ref.	2
	0861295	450AJ with Ford Engine S/N 43370 to S/N 46089	Ref.	3
	0861288	450AJ with Ford Engine S/N 46089 to Present	Ref.	4
	0861160	450A with Isuzu Engine	Ref.	2
	0861161	450AJ with Isuzu Engine	Ref.	3
1		Box, Fiberglass Options:	1	
	0861162	Prior to S/N 44666		
	0861304	S/N 44666 to Present		
1A	7020246	Latch	2	
2		Switch, Emergency Stop Options:	1	
	4360289	Prior to S/N 44666		
	4360475	S/N 44666 to Present		
2A	7012611	Cap, Mushroom Head (Prior to S/N 44666)	1	
2A	7020175	Cap, Mushroom Head (S/N 44666 to Present)	1	
2B	7012612	Boot (Prior to S/N 44666)	1	
2C	7020176	Block, Contact (S/N 44666 to Present)	1	
3		Switch, Key Options:	1	
	4360315	Prior to S/N 44666		
	4360469	S/N 44666 to Present (Common Key Style)		
3A		Key Options:	1	
	7012560	Prior to S/N 44666		
	2860030	S/N 44666 to Present (Common Key Style)		
4		Decal - Faceplate	1	
	1703690	450A		
	1703691	450AJ		
5		Engine Harness Assembly (See Section 7 for Breakdown)	1	
	4922050	Deutz Engine Machines		
	4922049	Ford Engine Machines with Carburetor (Prior to S/N 46089)		
	4922269	Ford Engine Machines with EFI (S/N 46089 to Present)		
	4922242	Isuzu Engine Machines		
6	4922048	Valve Harness Assembly (See Section 7 for Breakdown)	1	
7	Not Used			
8	1840012	Duct, Wiring - 2in/5cm	1	
9	1840013	Duct, Cover - 2in/5cm	1	
10	1840014	Duct, Wiring - 3in/7.6cm	1	
11	1840015	Duct, Cover - 3in/7.6cm	1	
12	3910608	Screw #6-32NC x 1/2"	6	
13	3640970	Rail	1	
14	4460602	Barrier, Terminal	1	
15	4460601	Block, Terminal	10	



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FIGURE 2-17. GROUND CONTROL BOX ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
16	4460603	Bussbar - 10 Position (Requires being cut into (2) 5 position bussbars)	1	
17	4460631	Marker, Terminal (Negative)	1	
18	4460600	Block, Terminal	46	
19	4460628	Marker, Terminal (1-50)	2	
20	4460607	Stop, Terminal	1	
21	4750600	Flatwasher #6	12	
22	3740112	Relay, Bosch	1	
23	4360314	Switch, Toggle	A/R	
24		Switch, Contact Block Options:	1	
	4360282	Prior to S/N 44666		
	4360476	S/N 44666 to Present		
25	2760105	Housing, Display Light	1	
26	4420038	Insulation, Adhesive Foam	4in/10cm	
27	1702610	Decal - Ground Control Display	1	
28	4460526	Connector, Strain Relief	1	
29	4460428	Connector, Strain Relief	3	
30	4460426	Connector, Strain Relief	1	
31	4740444	Washer, Special	A/R	
32	4060906	Shield, Toggle Switch	A/R	
33	2420172	Gauge, Hourmeter	1	
34	0721005	Screw #10-24NC x 5/8"	1	
35	3311001	Nut #10-24NC	3	
36	4751000	Flatwasher #10	5	
37	3900268	Screw #10-24NC x 1/2"	9	
38	3300205	Nut, Retainer	4	
39	0641506	Bolt 5/16"-18NC x 3/4"	4	
40	0100011	Loctite #242 (Not Shown)	A/R	
41	3539219	Plate, Reinforcement	1	
42	3740049	Relay - SPDT	9	
43	4120012	Socket, Relay	A/R	
44	3740057	Relay	A/R	
45	3740066	Spring, Relay	A/R	
46	4460630	Marker, Terminal (Ignition)	1	
47	4760600	Lockwasher #6	6	
48	3310601	Nut #6-32NC	6	
49		Hardware Options:	A/R	
	3300390	Nut with Weather Resistant Boot (Prior to S/N 44666)	1	
	4070987	Shim, Switch (Common Key) (S/N 44666 to Present)	A/R	
50	Not Used			
51	4460711	Connector, Strain Relief	1	
52	1670829	Bezel	1	
53	0630518	Capscrew, Button Head	2	
54	3300408	Locknut, Plastic Insert	2	
55	1703622	Decal - Service Manual Reference	1	
56	4460234	Base, Tie-Strap (Not Shown)	6	
57	0721008	Screw #10-24Nc x 1"	1	
58	3300408	Insert, Locknut	A/R	
59	3520174	Plug, Hole	A/R	



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FIGURE 2-17. GROUND CONTROL BOX ASSEMBLY (CONTINUED)

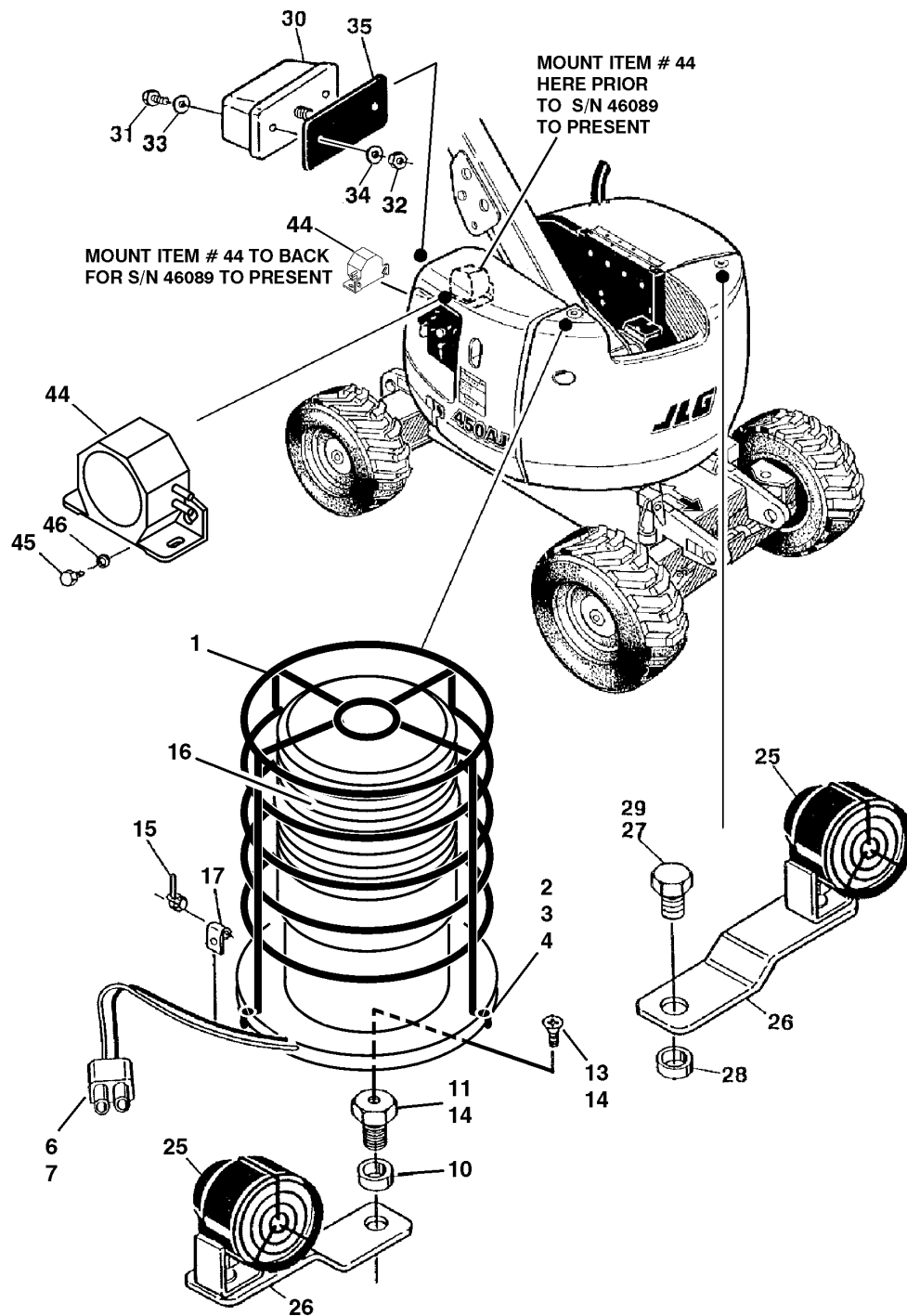
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
60	0100009	Silicone (Not Shown)	A/R	
61	4761000	Lockwasher #10	4	
62	3910804	Screw #8-32NC x 1/4"	6	
63		Switch, Push Button Options:	1	
	Not Required	All except Ford Engine Machines S/N 46089 to Present		
	4360387	Ford Engine Machines S/N 46089 to Present		
64		Relay, Timer Options:	1	
	Not Required	All except Ford Engine Machines S/N 46089 to Present		
	3740113	Ford Engine Machines S/N 46089 to Present		
65	3911024	Screw #10-24NC x 1 1/2"	A/R	
	0258431	2WD/4WD ELECTRICAL COMPONENTS INSTALLATION (NOT SHOWN)	Ref.	3
	3740118	Timer, Delay	1	
	4922140	Harness - 2WD/4WD (See Section 7 for Breakdown)	1	
		GENERATOR TIMER RELAY INSTALLATION (NOT SHOWN)	Ref.	
		Note: Required S/N 56107 to Present Only.	Ref.	
	4922432	Harness, Timer to Relay (See Section 7 for Breakdown)	1	
	3740118	Timer, Delay	1	
	3911024	Screw #10-24NC x 1 1/2"	1	
	4751000	Flatwasher #10	2	
	4761000	Lockwasher #10	1	
	3311001	Nut #10-24NC	1	



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FIGURE 2-18. ELECTRICAL OPTIONS INSTALLATION (TURNTABLE MOUNTED)

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FIGURE 2-18. ELECTRICAL OPTIONS INSTALLATION (TURNTABLE MOUNTED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258307	STROBE LIGHT INSTALLATIONS (AMBER) (OPTIONAL)	Ref.	2
1		Guard Options:	1	
	4060907	Prior to S/N37923		
	4060865	S/N37923 to Present		
2	0721008	Screw, Machines #10-24NC x 1"	2	
3	4751000	Flatwasher #10	4	
4	3311005	Locknut #10-24NC	2	
5	2820035	Loom (Not Shown)	12ft/31cm	
6	4460320	Plug, Terminal	1	
7	4460267	Pin, Male	2	
8 to 9	Not Used			
10	4220162	Spacer, Stop	1	
11	0630491	Bolt, Special	1	
12	3539281	Plate, Mounting	1	
13	0741606	Screw, Flathead Countersunk 3/8"-16NC x 3/4"	1	
14	0100011	Loctite #242 (Not Shown)	A/R	
15	4240032	Wire-Tile	1	
16		Strobe Light/Harness Assembly Options:	1	
	0255917	Assembly Prior to S/N37923 (Includes Guard p/n 4060907)		
	7016380	Bulb, Replacement	1	
	2920146	Assembly S/N37923 to Present		
	7016319	Bulb, Replacement	1	
	7016372	Lens	1	
17	4460234	Clamp	1	
18	0100048	Sealant, Silicone (Not Shown)	A/R	
19 to 24	Not Used			
	0258306	LIGHTS INSTALLATIONS (OPTIONAL)	Ref.	1
25	2920110	Headlight	2	
26	0902206	Bracket, Mounting	2	
27	0642612	Bolt 1"-8NC x 1 1/2"	1	
28	4220162	Spacer	2	
29	0100011	Loctite#242	A/R	
30	2920113	Taillight	2	
31	3911040	Screw, Machine #10-24NC x 2 1/2"	4	
32	3311005	Nut #10-24NC	4	
33	4751000	Flatwasher #10	4	
34	4740362	Washer, Fender	4	
35	3960461	Gasket	2	
36	Not Used			
37	4240032	Tie-Strap (Not Shown)	12	
38	4460234	Mount, Tie-Strap (Not Shown)	12	
39	4360336	Switch, Toggle (Not Shown - Located on Console)	1	
40	3790012	O-Ring (Not Shown - Located on Console)	1	
41 to 43	Not Used			

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FIGURE 2-18. ELECTRICAL OPTIONS INSTALLATION (TURNTABLE MOUNTED) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258308	ALARMS INSTALLATIONS	Ref.	2
44	0257887	Alarm/Harness Assembly	1	
45	0641406	Bolt 1/4"-20NC x 3/4"	2	
46	4711400	Flatwasher 1/4"	2	
47	0100048	Sealant, Silicone (Not Shown)	A/R	

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FIGURE 2-18. ELECTRICAL OPTIONS INSTALLATION (TURNTABLE MOUNTED) (CONTINUED)

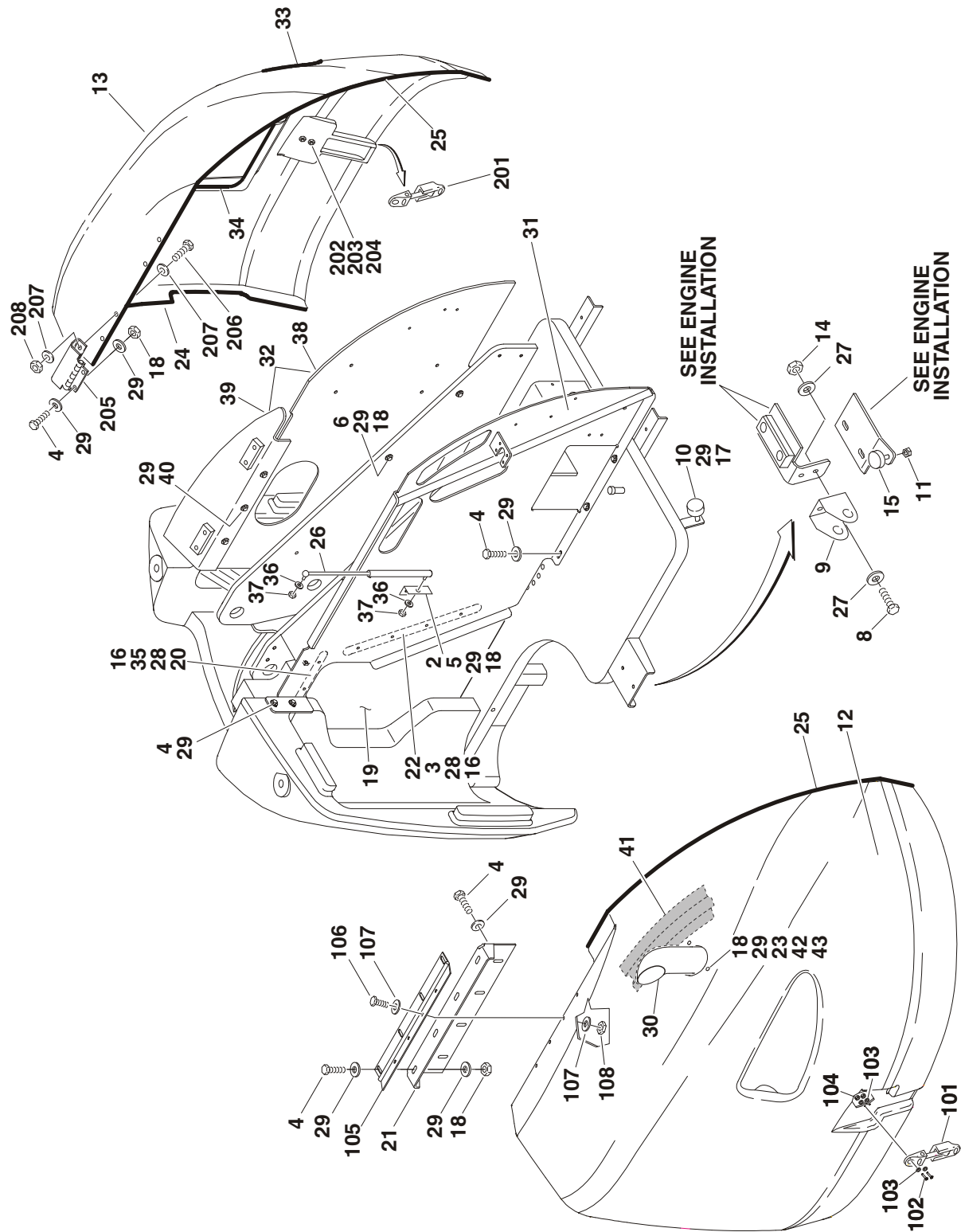
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 2-19. HOODS INSTALLATION





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FIGURE 2-19. HOODS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		HOODS INSTALLATION	Ref.	
	0258219	Deutz & Isuzu Engine Machines	Ref.	F
	0258219	Ford Engine Machines Prior to S/N 55436	Ref.	F
	0270713	Ford Engine Machines S/N 55436 to Present	Ref.	A
1	0100011	Loctite #242 (Not Shown)	A/R	
2		Angle, Gas Spring Mounting Options:	1	
	0181963	Prior to S/N 38924		
	0902504	S/N 38924 to Present		
3	0641410	Bolt 1/4"-20NC x 1 1/4"	4	
4	0641608	Bolt 3/8"-16NC x 1"	13	
5	0641610	Bolt 3/8"-16NC x 1 1/4"	2	
6	0641614	Bolt 3/8"-16NC x 1 3/4"	4	
7	0721004	Bolt #10-24NC x 1/2"	4	
8	0721006	Bolt #10-24NC x 3/4"	4	
9	0902465	Bracket, Lock Hasp (Prior to S/N 42043 Only)	2	
10	0940071	Bumper	1	
11	0940083	Bumper	2	
12	2680438	Hood (Engine Side) (See Items 101-108 for Breakdown)	1	
13	2680439	Hood (Tank Side) (See Items 201-208 for Breakdown)	1	
14	3311005	Locknut #10-24NC	4	
15	3311401	Nut 1/4"-20NC	2	
16	3311405	Locknut 1/4"-20NC	6	
17	3311601	Nut 3/8"-16NC	2	
18	3311605	Locknut 3/8"-16NC	13	
19	3380445	Panel, Rubber	1	
20	3539957	Plate, Hold-Down (Prior to S/N 38924)	1	
	0641408	Bolt 1/4"-20NC x 1" (S/N 38924 to Present)	6	
21	3570695	Plate, Hinge Mounting	1	
22	3570981	Plate, Hold-Down (Prior to S/N 49107)	1	
23	3900232	Capscrew, Button Head 3/8"-16NC 1 1/4"	3	
24	3960462	Seal, Hood	9ft/2.74m	
25	3960464	Seal, Hood	9ft/2.74m	
26	4160170	Spring, Gas	1	
27	4750800	Flatwasher #8	12	
28	4751400	Flatwasher 1/4"	6	
29	4751600	Flatwasher 3/8"	39	
30	4845194	Exhaust Tube Weldment	1	
31	4845665	Hood Mounting Weldment	1	
32	4845789	Hood Mounting Weldment (Prior to S/N 44585 Only) (Note: Items 38-40 may be used as an adjustable replacement)	1	
33	3960438	Seal	4.4ft/1.4m	
34	4060806	Shield	16ft/41cm	
35	4740362	Washer, Fender	6	
36	4751500	Flatwasher 5/16"	2	
37	3311505	Locknut 5/16"-18NC	2	
38	4846038	Hood Mounting Weldment (S/N 44585 to Present Only)	1	
39	4846037	Hood Mounting Weldment (S/N 44585 to Present Only)	1	
40	0641606	Bolt 3/8"-16NC x 3/4"	3	



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FIGURE 2-19. HOODS INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
41	2820130	Insulation, Heat Shield (Ford Engine Machines S/N 55436 to Present)	1	
42	4061010	Shield, Heat Shield (Ford Engine Machines S/N 55436 to Present)	1	
43	4740500	Washer, Special (Ford Engine Machines S/N 55436 to Present)	3	
	2680438	HOOD ASSEMBLY (ENGINE SIDE) Note: Replacement Decals Must Be Ordered Separately - See Section 8.	Ref.	
101	2940109	Latch	1	
102	0721008	Screw, Machine #10-24NC x 1"	2	
103	4750800	Flatwasher #10	4	
104	3311005	Locknut #10-24NC	2	
105	2600210	Hinge	1	
106	3900232	Screw, Button Head 3/8"-16NC x 1 1/4"	4	
107	4751600	Flatwasher 3/8"	8	
108	3311605	Locknut 3/8"-16NC	4	
	2680439	HOOD ASSEMBLY (TANK SIDE) Note: Replacement Decals Must Be Ordered Separately - See Section 8.	Ref.	H
201	2940109	Latch	1	
202	0721008	Screw, Machine #10-24NC x 1"	2	
203	4750800	Flatwasher #8	4	
204	3311005	Locknut #10-24NC	2	
205	2600246	Hinge	2	
206	0721006	Screw, Machine #10-24NC x 3/4"	4	
207	4750800	Flatwasher #8	8	
208	3311005	Locknut #10-24NC	4	



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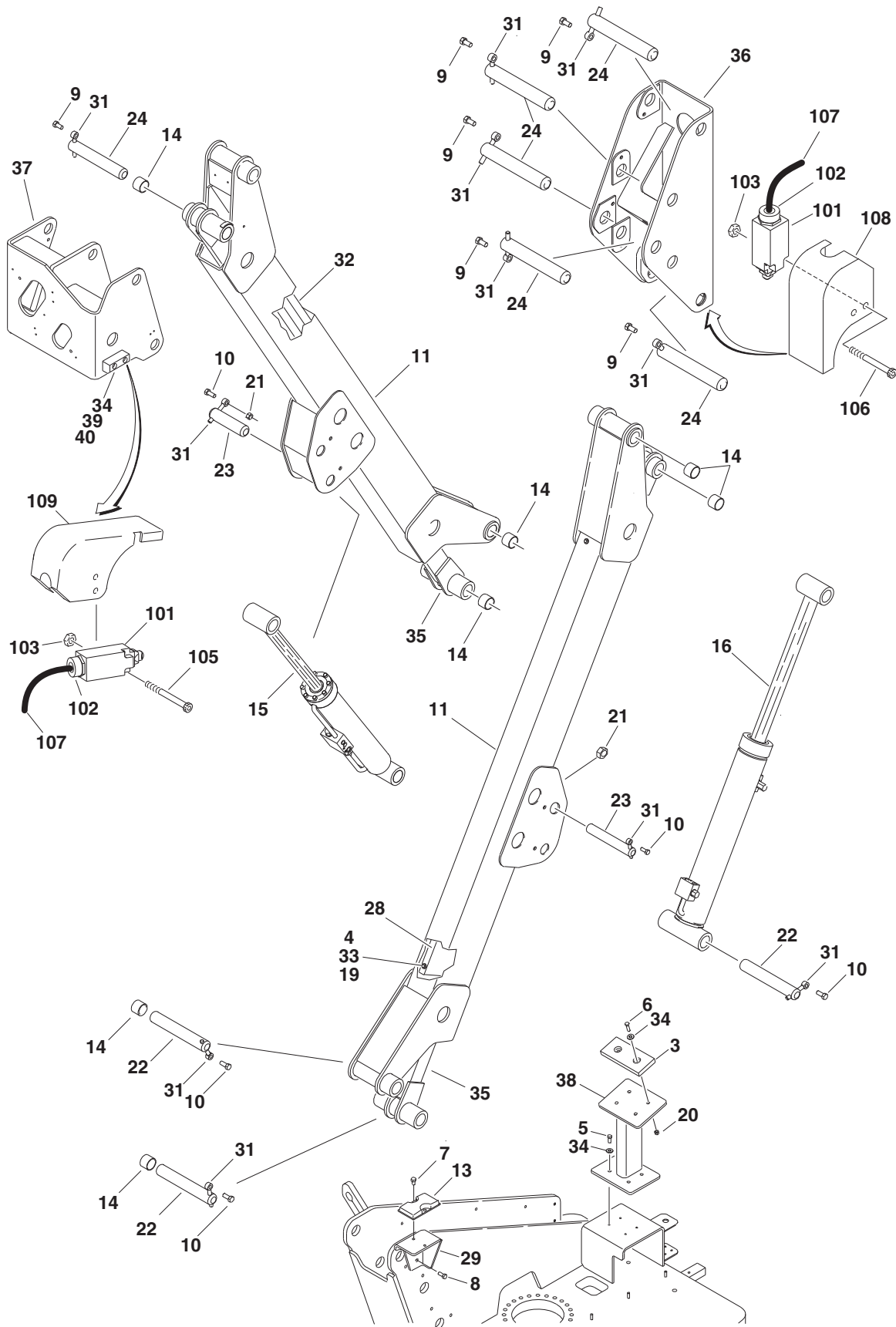
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FIGURE 3-1. TOWER/MID BOOMS AND CYLINDERS INSTALLATION



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FIGURE 3-1. TOWER/MID BOOMS AND CYLINDERS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		BOOMS AND CYLINDERS INSTALLATIONS		
	0257868	450A	Ref.	D
	0257869	450AJ	Ref.	E
1	0100011	Loctite #242 (Not Shown)	A/R	
2	Not Used			
3	0561076	Block, Boom Rest	1	
4	0641507	Bolt 5/16"-18NC x 7/8"	4	
5	0641607	Bolt 3/8"-16NC x 7/8"	A/R	
6	0641610	Bolt 3/8"-16NC x 1 1/4"	2	
7	0641806	Bolt 1/2"-13NC x 3/4"	2	
8	0641809	Bolt 1/2"-13NC x 1 1/8"	3	
9	0642010	Bolt 5/8"-11NC x 1 1/4"	6	
10	0642012	Bolt 5/8"-11NC x 1 1/2"	5	
11	0801128	Boom, Tower/Mid	2	
12	Not Used			
13	0940048	Bumper	1	
14	0961950	Bearing, Garmax	14	
15	1683563	Mid Lift Cylinder Assembly (See Section 5 for Breakdown)	1	
16	1683568	Tower Lift Cylinder Assembly (See Section 5 for Breakdown)	1	
17 to 18	Not Used			
19	3311505	Locknut 5/16"-18NC	4	
20	3311605	Locknut 3/8"-16NC	A/R	
21	3312005	Locknut 5/8"-20NC	2	
22	3422664	Pin	3	
23	3422665	Pin	2	
24	3422666	Pin	6	
25 to 27	Not Used			
28	3570531	Plate, Hose Guard	1	
29	3570533	Bracket, Boom Rest	1	
30	Not Used			
31	3841258	Keeper, Pin	11	
32	4566356	Tube	1	
33	4751500	Flatwasher 5/16"	4	
34	4751600	Flatwasher 3/8"	A/R	
35	4845566	Link Weldment	2	
36	4845575	Upright Weldment - Lower	1	
37	4845576	Upright Weldment - Upper	1	
38		Extension Weldment	A/R	
	Not Required	450A	0	
	4845681	450AJ	1	
39	3340843	Pad, Wear (S/N37698 to Present Only)	2	
40	0641608	Bolt 3/8"NC x 1"	4	



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FIGURE 3-1. TOWER/MID BOOMS AND CYLINDERS INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258300	VALVES AND SWITCHES INSTALLATION	Ref.	4
101	4360321	Switch, Limit	2	
102	4460428	Connector, Strain Relief	2	
103	3311005	Locknut #10-24NC	4	
104	Not Used			
105	3900246	Capscrew, Socket Head #10-24NC x 1 3/4"	2	
106	3900104	Capscrew, Socket Head #10-24NC x 2 1/4"	2	
107	1060341	Cable, Electrical 16/2	66ft/20.1m	
108	1670832	Cover, Switch (Tower Boom)	1	
109		Cover, Switch Options (Main Boom):	1	
	1670833	Prior to S/N 42510		
	1670898	S/N 42510 to Present		

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FIGURE 3-1. TOWER/MID BOOMS AND CYLINDERS INSTALLATION (CONTINUED)

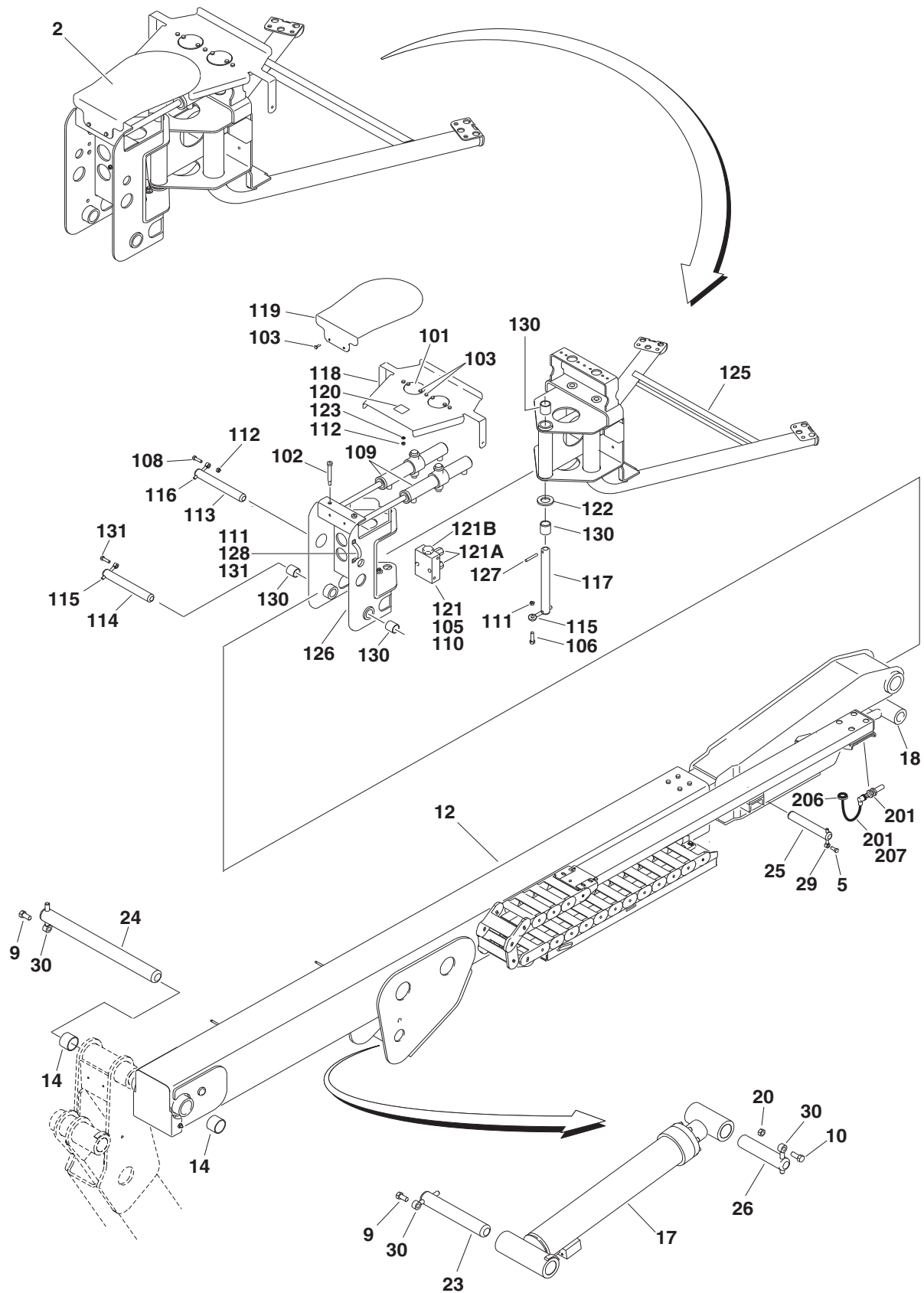
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 3-2. MAIN BOOM AND CYLINDERS INSTALLATION - 450A





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FIGURE 3-2. MAIN BOOM AND CYLINDERS INSTALLATION - 450A

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0257868	BOOM AND CYLINDERS INSTALLATION	Ref.	J
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0257879	Platform Support & Rotator Assembly (See Items 101-126)	1	
3 to 4	Not Used			
5	0641607	Bolt 3/8"-16NC x 7/8"	1	
6 to 8	Not Used			
9	0642010	Bolt 5/8"-11NC x 1 1/4"	2	
10	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
11	Not Used			
12	0801131	Main Boom Assembly (See Figure 3-4 for Breakdown)	1	
13	Not Used			
14	0961950	Bearing, Garmax	2	
15 to 16	Not Used			
17		Main Lift Cylinder Assembly Options (See Section 5 for Breakdown):	1	
	Use 1683728	Prior to S/N 38944 (was p/n 1683588)		
	1683728	S/N 38944 to Present		
18		Platform Level Cylinder Assembly Options (See Section 5 for Breakdown):	1	
	Use 1683730	Prior to S/N 38944 (was p/n 1683598)		
	1683730	S/N 38944 to Present		
19	Not Used			
20	3312005	Locknut 5/8"-11NC	1	
21 to 22	Not Used			
23	3422666	Pin	1	
24	3422668	Pin	1	
25	3422669	Pin	1	
26	3422724	Pin	1	
27 to 28	Not Used			
29	3841143	Keeper, Pin	1	
30	3841258	Keeper, Pin	3	
	0257879	PLATFORM SUPPORT AND ROTATOR ASSEMBLY	Ref.	J
101	0257826	Cap	2	
102	4040266	Pin	2	
103	0641406	Bolt 1/4"-20NC x 3/4"	9	
104	Not Used			
105	0641420	Bolt 1/4"-20NC x 2 1/2"	2	
106	0641609	Bolt 3/8"-16NC x 1 1/8"	2	
107	Not Used			
108	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
109	1683579	Rotator Cylinder Assembly (See Section 5 for Breakdown)	2	
110	3311405	Locknut 1/4"-20NC	11	
111	3311605	Locknut 3/8"-16NC	4	
112	3312005	Locknut 5/8"-11NC	1	
113	3422667	Pin	1	



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FIGURE 3-2. MAIN BOOM AND CYLINDERS INSTALLATION - 450A (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
114	4040263	Pin	1	
115	3841143	Keeper, Pin	2	
116	3841258	Keeper, Pin	1	
117		Shaft, Pivot	1	
	Use 3422827	Prior to S/N 50172 (was p/n 4040260)		
	3422827	S/N 50172 to Present		
118	4060946	Guard	1	
119	4060947	Guard	1	
120	4420055	Tape	6in/18cm	
121		Check Valve Assembly Options:	1	
	Use 4641080	Valve - Prior to S/N39031 (was p/n 4641058)		
	Not Available	Cartridges, Replacement for p/n 4641058 Valve (Not Field Serviceable)		
	4641080	Valve - S/N39031 to Present		
121A	7012981	Cartridge, Relief	2	
	7012998	Seal Kit - 7012981 Cartridge	2	
121B	7012955	Cartridge, Check	2	
	7012967	Seal Kit - 7012955 Cartridge	2	
122	4740247	Thrustwasher	1	
123	4751400	Flatwasher 1/4"	5	
124	Not Used			
125	4845609	Support Weldment	1	
126		Level Weldment Options:	1	
	Use 4845874	Prior to S/N38150 (was p/n 4845610)		
	4845874	S/N38150 to Present		
127	3440636	Roll Pin (Prior to S/N 50172)	1	
128	3841340	Hose Loop	1	
129	Not Used			
130	0962006	Bushing, Garmax	4	
131	0641607	Bolt 3/8"-16NC x 7/8"	3	
	0258770	PROXIMITY SWITCH INSTALLATION	Ref.	1/A
201	4360464	Proximity Switch/Harness Assembly	1	
202	4922197	Relay/Harness Assembly (Not Shown - See Section 7 for Breakdown)	1	
203 to 205	Not Used			
206	2540022	Grommet	1	
207	2820036	Loom	A/R	

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FIGURE 3-2. MAIN BOOM AND CYLINDERS INSTALLATION - 450A (CONTINUED)

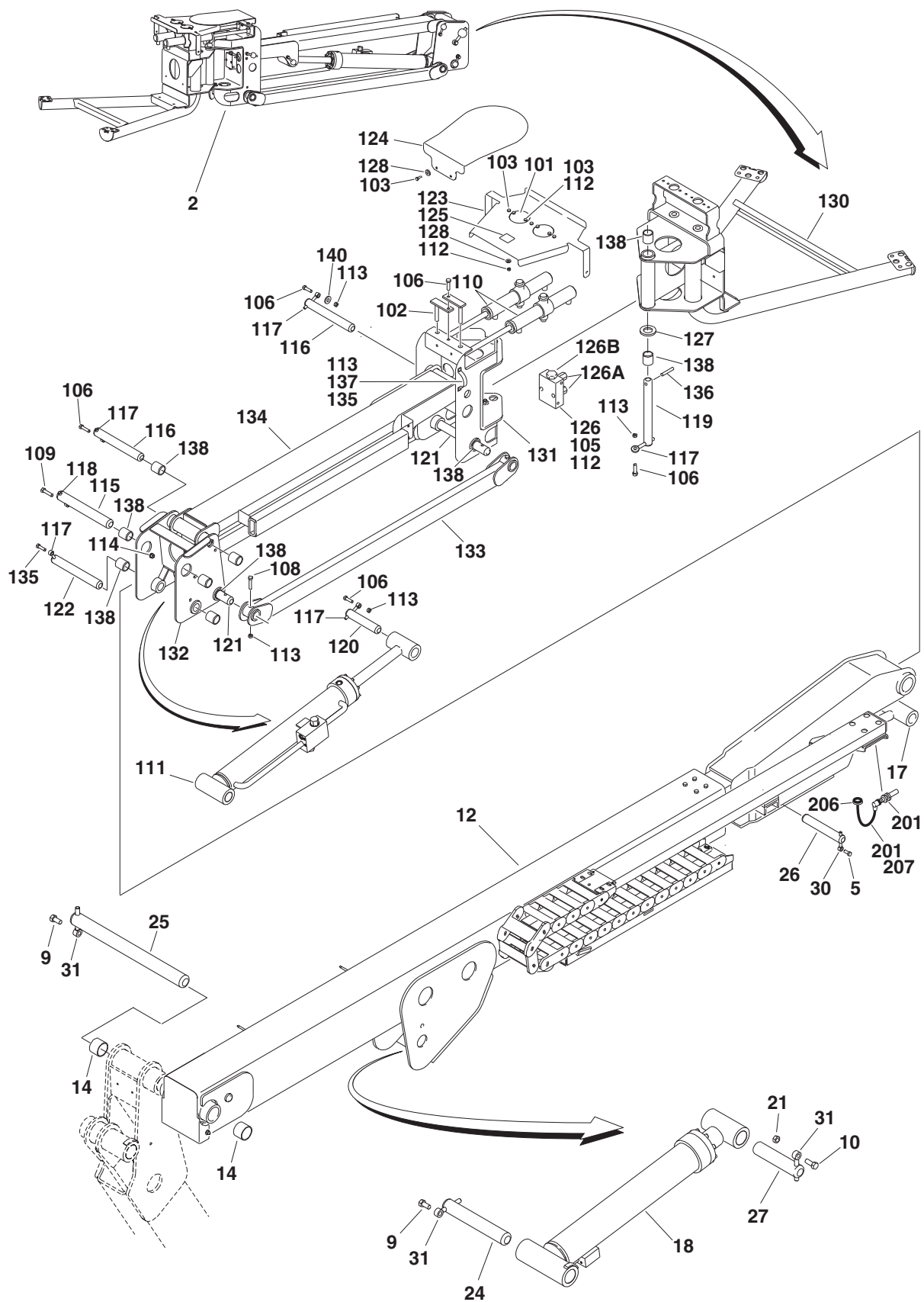
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 3-3. MAIN BOOM AND CYLINDERS INSTALLATION - 450AJ





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FIGURE 3-3. MAIN BOOM AND CYLINDERS INSTALLATION - 450AJ

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0257869	BOOM AND CYLINDERS INSTALLATION	Ref.	E
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0257880	Platform Support & Rotator Assembly (See Items 101-134)	1	
3	Not Used			
4	Not Used			
5	0641607	Bolt 3/8"-16NC x 7/8"	1	
6	Not Used			
7	Not Used			
8	Not Used			
9	0642010	Bolt 5/8"-11NC x 1 1/4"	2	
10	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
11	Not Used			
12	0801148	Main Boom Assembly (See Figure 3-4 for Breakdown)	1	
13	Not Used			
14	0961950	Bearing, Garmax	2	
15	Not Used			
16	Not Used			
17		Platform Level Cylinder Assembly Options (See Section 5 for Breakdown):	1	
	Use 1683731	Prior to S/N38103 (was p/n 1683598)		
	Use 1683731	S/N38103 to S/N 38944 (was p/n 1683726)		
	1683731	S/N38103 to Present		
18		Main Lift Cylinder Assembly Options (See Section 5 for Breakdown):	1	
	Use 1683729	Prior to S/N 38944 (was p/n 1683637)		
	1683729	S/N38944 to Present		
19	Not Used			
20	Not Used			
21	3312005	Locknut 5/8"-11NC	1	
22	Not Used			
23	Not Used			
24	3422666	Pin	1	
25	3422668	Pin	1	
26	3422669	Pin	1	
27	3422724	Pin	1	
28	Not Used			
29	Not Used			
30	3841143	Keeper, Pin	1	
31	3841258	Keeper, Pin	3	
	0257880	PLATFORM SUPPORT AND ROTATOR ASSEMBLY	Ref.	H
101	0257826	Cap	2	
102	4040266	Pin	2	
103	0641406	Bolt 1/4"-20NC x 3/4"	9	
104	Not Used			
105	0641420	Bolt 1/4"-20NC x 2 1/2"	2	



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FIGURE 3-3. MAIN BOOM AND CYLINDERS INSTALLATION - 450AJ (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
106	0641609	Bolt 3/8"-16NC x 1 1/8"	5	
107	Not Used			
108	0641618	Bolt 3/8"-16NC x 2 1/4"	4	
109	0642012	Bolt 5/8"-11NC x 1 1/2"	1	
110	1683579	Rotator Cylinder Assembly (See Section 5 for Breakdown)	2	
111	1683617	Jib Lift Cylinder Assembly (See Section 5 for Breakdown)	2	
112	3311405	Locknut 1/4"-20NC	11	
113	3311605	Locknut 3/8"-16NC	11	
114	3312005	Locknut 5/8"-11NC	1	
115	3422667	Pin	1	
116	3422670	Pin	1	
117	3841143	Keeper, Pin	5	
118	3841258	Keeper, Pin	1	
119		Shaft, Pivot Options:	1	
	Use 3422827	Prior to S/N 50172 (p/n was 4040260)		
	3422827	S/N 50172 to Present		
120	4040261	Shaft	1	
121	4040262	Shaft	2	
122	4040263	Pin	1	
123	4060946	Guard	1	
124	4060947	Guard	1	
125	4420055	Tape	6in/18cm	
126		Check Valve Assembly Options:	1	
	Use 4641080	Valve - Prior to S/N39031 (was p/n 4641058)		
	Not Available	Cartridges, Replacement for p/n 4641058 Valve (Not Field Serviceable)		
	4641080	Valve - S/N39031 to Present		
126A	7017497	Cartridge, Relief	2	
	7012953	Seal Kit - 7017497 Cartridge	2	
126B	7012955	Cartridge, Check	2	
	7012967	Seal Kit - 7012955 Cartridge	2	
127	4740247	Thrustwasher	1	
128	4751400	Flatwasher 1/4"	5	
129	Not Used			
130	4845609	Support Weldment	1	
131	4845610	Level Weldment	1	
132	4845637	Level Weldment	1	
133	4845638	Jib Tube Weldment (Lower)	2	
134	4845656	Jib Tube Weldment (Upper)	1	
134A	0962006	Bushing, Garmax	4	
135	0641608	Bolt 3/8"-16NC x 1"	3	
136	3440636	Roll Pin (Prior to S/N 50172)	1	
137	3841340	Hose Loop	1	
138	0962006	Bushing, Garmax	10	



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FIGURE 3-3. MAIN BOOM AND CYLINDERS INSTALLATION - 450AJ (CONTINUED)

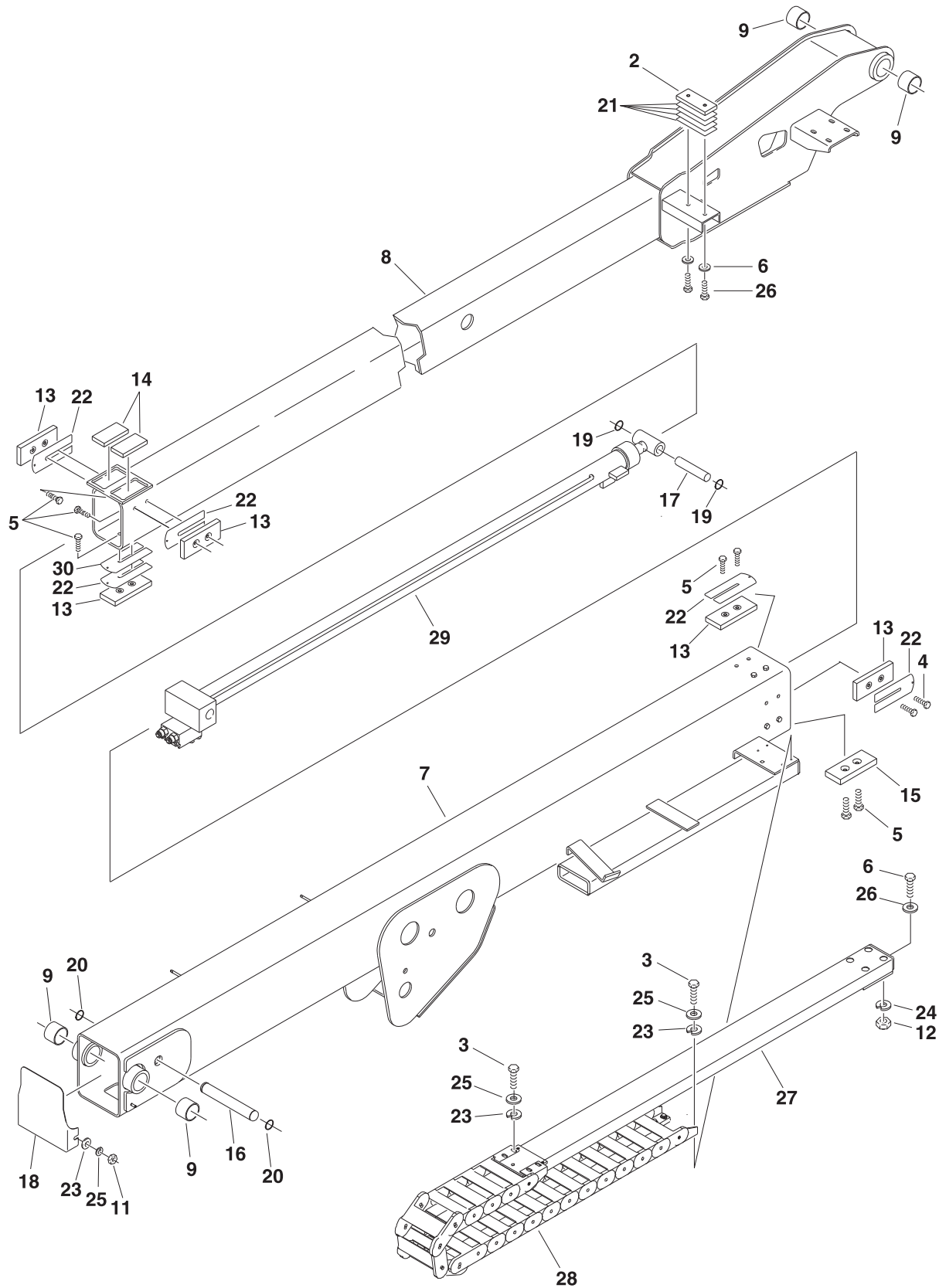
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0258770	PROXIMITY SWITCH INSTALLATION	Ref.	1/A
201	4360464	Proximity Switch/Harness Assembly	1	
202	4922197	Relay/Harness Assembly (Not Shown - See Section 7 for Breakdown)	1	
203 to 205	Not Used			
206	2540022	Grommet	1	
207	2820036	Loom	A/R	

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FIGURE 3-4. MAIN BOOM ASSEMBLIES





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FIGURE 3-4. MAIN BOOM ASSEMBLIES

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		MAIN BOOM ASSEMBLY OPTIONS:		
	0801131	450A	Ref.	D
	0801148	450AJ	Ref.	D
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0560923	Block, Tube Support	1	
3	0641404	Bolt 1/4"-20NC x 1/2"	8	
4	0641606	Bolt 3/8"-16NC x 3/4"	8	
5	0641607	Bolt 3/8"-16NC x 7/8"	14	
6	0641608	Bolt 3/8"-16NC x 1"	6	
7		Base Weldment Options:	1	
	0801129	450A		
	0801146	450AJ		
8		Fly Weldment Options:	1	
	Use 0801170	450A Prior to S/N37903 (was p/n 0801130)		
	0801170	450A S/N37903 to Present		
	0801147	450AJ		
9	0961950	Bushing, Garmax	4	
10	Not Used			
11	3311401	Nut 1/4"-20NC	2	
12	3311605	Locknut 3/8"-16NC	4	
13	3340756	Pad, Wear	9	
14	3340836	Pad, Wear	2	
15	3340837	Pad, Wear	2	
16	3422705	Pin	1	
17		Pin Options:	1	
	3422706	Prior to S/N37743		
	3422745	S/N37743 to Present		
18	3570869	Cover, Boom End	1	
19	3760115	Ring, Retaining	2	
20	3760133	Ring, Retaining	2	
21	4070559	Shim	A/R	
22	4070898	Shim	A/R	
23	4751400	Flatwasher 1/4"	10	
24	4751600	Flatwasher 3/8"	4	
25	4761400	Lockwasher 1/4"	10	
26	4761600	Lockwasher 3/8"	6	
27		Cover, Hose	1	
	4845767	450A		
	4845696	450AJ		
28	1180227	Powertrack	1	
	7006152	Kit, Pin (1 pin, 4 Different Size Washers & 1 Retaining Ring)	1	
	7006151	Feet Mounting	1	
	7006139	1ft. Section	1	
	7006156	Rod, Carrier	1	



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FIGURE 3-4. MAIN BOOM ASSEMBLIES (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
29	Use 1683716	Telescope Cylinder Assembly Options:	1	
	1683716	450A Prior to S/N 38481(was p/n 1683582)		
	Use 1683718	450A S/N 38481 to Present		
	1683718	450AJ Prior to S/N 38481(was p/n 1683653)		
	4070897	450AJ S/N 38481 to Present		
30		Shim (S/N 47619 to Present)	A/R	

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FIGURE 3-4. MAIN BOOM ASSEMBLIES (CONTINUED)

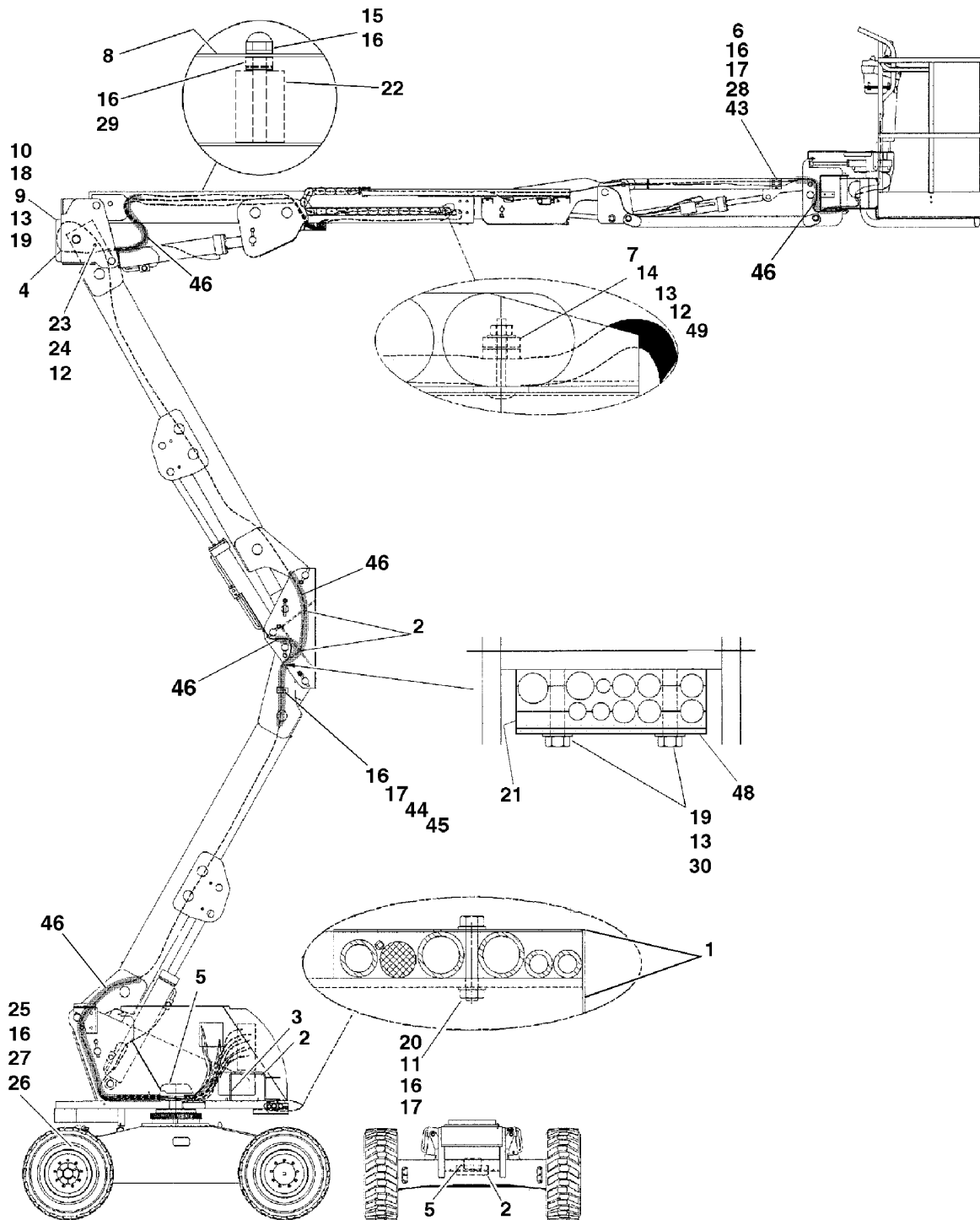
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 3-5. BOOM COVERS, CABLES AND CLAMPS INSTALLATION





SECTION 3 BOOM

FIGURE 3-5. BOOM COVERS, CABLES AND CLAMPS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		CABLES AND CLAMPS INSTALLATIONS		
	0258301	450A	Ref.	8
	0258302	450AJ	Ref.	7
1	4060803	Flex-Trim 1/8"	20in/50cm	
2	4060805	Flex-Trim 1/4"	10.6ft/3.3m	
3	4060807	Flex-Trim 3/8"	8in/20cm	
4	4060808	Flex-Trim 1/2"	6.53ft/2m	
5	4060919	Flex-Trim 3/4"	7.4ft/2.26m	
6		Block, Clamp	A/R	
	Not Required	450A	0	
	0561320	450AJ	1	
7	3570958	Clamp, Plate	3	
8		Cover, Main Boom	1	
	3570535	450A		
	3570810	450AJ		
9	0561322	Block, Clamp	1	
10	1670697	Cover, Hose	1	
11	0641420	Bolt 1/4"-20NC x 2 1/2"	2	
12	3311505	Locknut 5/16"-18NC	3	
13	4751500	Flatwasher 5/16"	5	
14	0630401	Bolt, Carriage 5/16"-18NC	2	
15	3300151	Nut, Acorn 1/4"-20NC	6	
16	4751400	Flatwasher 1/4"	19	
17	3311405	Locknut 1/4"-20NC	3	
18	0630467	Screw, Button Head 5/16"-18NC x 1/2"	4	
19	0641518	Bolt 5/16"-18NC x 2 1/4"	5	
20	3570898	Cover, Hose	1	
21	0561323	Block, Clamp	1	
22	0561321	Block, Clamp	2	
23	4567606	Tube, Roller	1	
24	0641560	Bolt 5/16"-18NC x 7 1/2"	1	
25	1320070	Clamp	1	
26	0641406	Bolt 1/4"-20NC x 3/4"	2	
27	4761400	Lockwasher 1/4"	2	
28	0641418	Bolt 1/4"-20NC x 2 1/4"	A/R	
29	3311401	Nut 1/4"-20NC	6	
30	0100011	Loctite #242 (Not Shown)	A/R	
31 to 42	Not Used			
43		Cover Options:	A/R	
	Not Required	450A	0	
	3571056	450AJ	1	
44	1320070	Clamp	1	
45	0641412	Bolt 1/4"-20NC x 1 1/2"	1	
46	4100026	Sleeve, Nylon	A/R	
		450A	36ft/11m	
		450AJ	41ft/12.5m	
47	Not Used			
48	3571621	Plate, Clamp Block	1	



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FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
49	3340859	Pad, Rubber	2	

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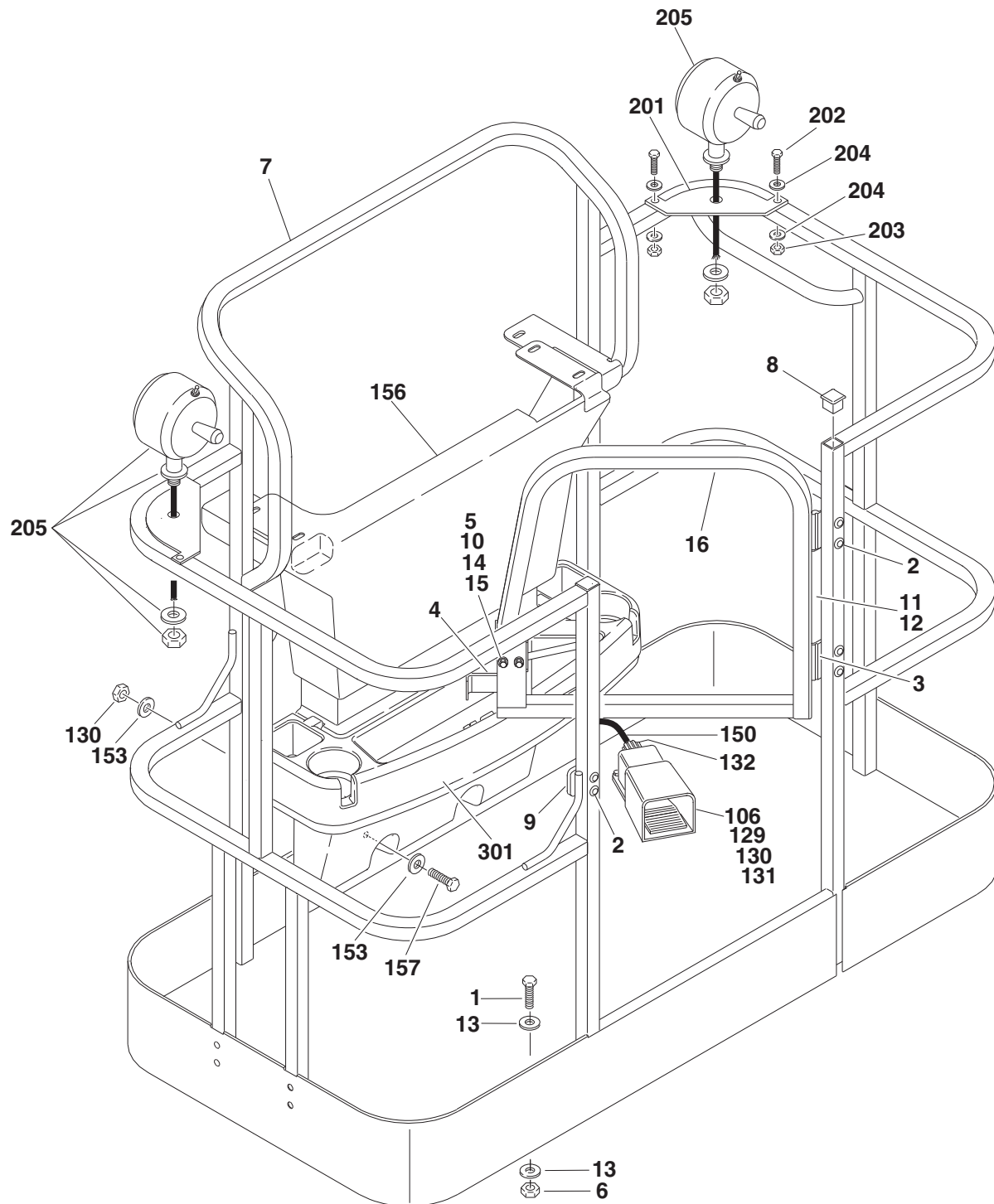
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FIGURE 4-1.PLATFORM INSTALLATION





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FIGURE 4-1. PLATFORM INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		PLATFORM ASSEMBLIES:		
	3510626	48in x 30in (1.22m x .76m) with Standard Gate	Ref.	E
	3510632	48in x 30in (1.22m x .76m) with Self-Closing Gate	Ref.	E
	3510625	60in x 30in (1.52m x .76m) with Standard Gate	Ref.	E
	3510678	60in x 30in (1.52m x .76m) with Standard Gate/Mesh to Top Rail	Ref.	B
	3510631	60in x 30in (1.52m x .76m) with Self-Closing Gate	Ref.	E
	3510680	60in x 30in (1.52m x .76m) with Self-Closing Gate/Mesh to Top Rail	Ref.	C
	3510624	72in x 30in (1.83m x .76m) with Standard Gate	Ref.	E
	3510672	72in x 30in (1.83m x .76m) with Standard Gate/Mesh to Top Rail	Ref.	B
	3510630	72in x 30in (1.83m x .76m) with Self-Closing Gate	Ref.	E
	3510679	72in x 30in (1.83m x .76m) with Self-Closing Gate/Mesh to Top Rail	Ref.	C
		Note: Replacement Decals Must Be Ordered Separately - See Section 8.		
1	0681610	Bolt 3/8"-16NC x 1 1/4" (Grade 8)	6	
2	2080040	Fastener, Huck	13	
	7016652	Huck Fastener Tool	1	
3		Hinge Options:	2	
	2600216	Standard Gate		
	2600219	Self-Closing Gate		
4	2940074	Latch	1	
5	3311001	Nut #10-24NC	4	
6	3311605	Locknut 3/8"-16NC	6	
7	Not Available	Platform Weldment (Purchase Platform Assembly)	1	
8	3520072	Cap-Plug	3	
9	3539685	Plate, Latch	1	
10	3911008	Screw #10-24NC x 1"	4	
11	4060803	Trim	1	
12	4220165	Stop, Gate	1	
13	4711600	Flatwasher 3/8" Narrow	12	
14	4751000	Flatwasher #10	4	
15	4761000	Lockwasher 3/8"	4	
16		Gate Weldment Options:	1	
	4845327	Standard		
	4845824	Mesh to Top Rail (Standard Gate)		
	4845951	Mesh to Top Rail (Self-Closing Gate)		
		FOOTSWITCH AND COVERS INSTALLATION	Ref.	
101 to 105	Not Used			
106	4360031	Footswitch	1	
	7000625	Block, Contact	2	
107 to 128	Not Used			
129	0641408	Bolt 1/4"-20NC x 1"	3	



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FIGURE 4-1. PLATFORM INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
130	3311405	Locknut 1/4"-20NC	7	1
131	4740362	Washer, Fender	5	
132	4460071	Terminal, Strain Relief	1	
133 to 149				
150	1060012	Cable, Electrical - 12/4	7ft/2.2m	
151 to 152				
153	4751400	Flatwasher 1/4"	4	
154 to 155				
156	3380434	Panel, Poly	1	
157	0641406	Bolt 1/4"-20NC x 3/4"	2	
	0258309	WORKLIGHTS INSTALLATION (OPTIONAL)	Ref.	
201	3536089	Plate, Mounting	2	
202	0641414	Bolt 1/4"-20NC x 1 3/4"	4	
203	3311405	Locknut 1/4"-20NC	4	
204	4711400	Flatwasher 1/4" Narrow	8	
205	2920140	Worklight	2	
206	4240099	Tie-Strap (Not Shown)	10	
207	2820035	Loom, Vinyl (Not Shown)	9	
208	Not Used			
209	4460598	Connector, Strain Relief (Not Shown - Located at Console Box)	1	
210	4920018	Wire, Black (Not Shown)	18in/46cm	
		TRAY INSTALLATIONS (OPTIONAL)		
301	1580012	Tray, Storage (Center)	1	
302	1580013	Tray, Storage (Rail Mounted - Not Shown)	1	

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FIGURE 4-1. PLATFORM INSTALLATION (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

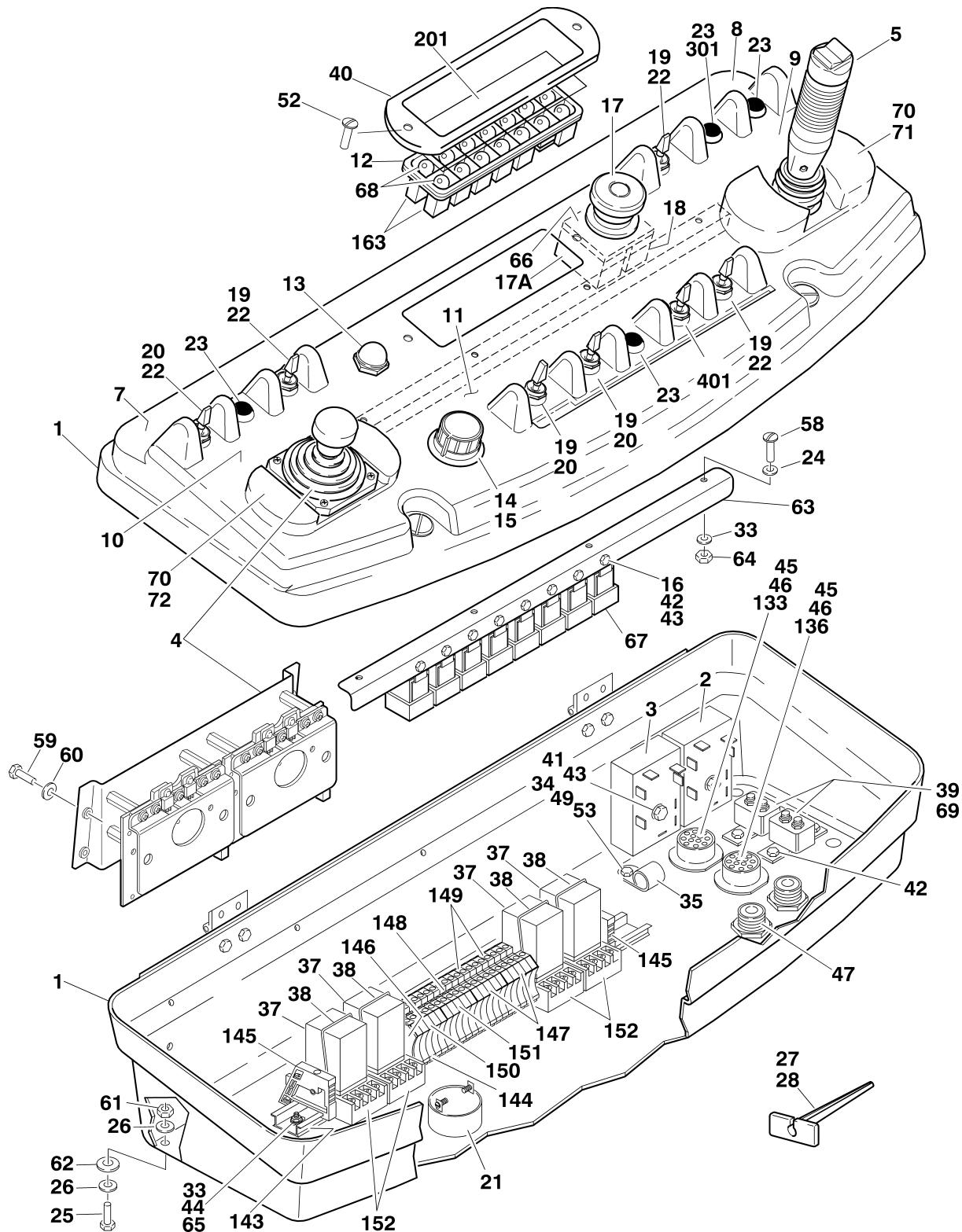
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SECTION 4 PLATFORM

FIGURE 4-2.PLATFORM CONSOLE ASSEMBLY





SECTION 4 PLATFORM

FIGURE 4-2. PLATFORM CONSOLE ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		CONSOLE BOX ASSEMBLY OPTIONS:		
	0861167	2WD Machines with Poly Box	Ref.	8
	0861238	2WD Machines with Aluminum Box	Ref.	7
	0861168	4WD Machines with Poly Box	Ref.	8
	0861239	4WD Machines with Aluminum Box	Ref.	7
1		Box, Console Options:	1	
	0861195	Poly Box		
	7020099	Fastener	1	
	7020100	Mounting Clip	1	
	0860984	Aluminum Box		
	3931664	Bolt 3/8"-16NC 4"	1	
	3790109	O-Ring	1	
2	3740113	Relay, Time Delay	1	
3	3740115	Relay, Time Delay	1	
4		Controller & PC Board Assy Options (Lift & Swing):	1	
	Use 1600288	Prior to S/N 39857 (was p/n 1600278 - See Figure 4-3 for Breakdown)		
	1600288	S/N 39857 to Present (See Figure 4-4 for Breakdown)		
5		Controller Assembly Options (Drive and Steer):	1	
	Use 1600287	Prior to S/N 39857 (was p/n 1600270 - See Figure 4-5 for Breakdown)		
	1600287	S/N 39857 to Present (See Figure 4-6 for Breakdown)		
6	Not Used			
7		Decal (Horn/Drive Speed/Level) Options:	1	
	1703689	2WD Machines		
	1703678	4WD Machines		
8	1702564	Decal (Stop)	1	
9	1702565	Decal (Drive and Steer)	1	
10	1702566	Decal (Lift and Swing)	1	
11	1702567	Decal (Lower Lift/Tele/Rotate/Jib)	1	
12	2760105	Housing, Display Light	1	
13	4360387	Switch, Pushbutton	1	
14	2560136	Knob, Speed Control	1	
15	1600272	Speed Controller Assembly (See Figure 4-7 for Breakdown)	1	
16	3311005	Locknut #10-24NC	5	
17		Switch, Emergency Stop Options:	1	
	4360289	Prior to S/N44666		
	4360475	S/N 44666 to Present		
	7012611	Cap, Mushroom (Prior to S/N44666)	1	
	7020175	Cap, Mushroom (S/N44666 to Present)	1	
	7012612	Boot (Prior to S/N44666 Only)	1	
17A	7020176	Block, Contact (S/N44666 to Present)	1	



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FIGURE 4-2. PLATFORM CONSOLE ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
18		Block, Contact Options:	1	
	4360282	Prior to S/N44666		
	4360476	S/N 44666 to Present		
19	4360314	Switch, Toggle	5	
20		Switch, Toggle Options:	1	
	4360336	2WD Machines		
	4360331	4WD Machines		
21	0140026	Alarm	1	
22	3790012	O-Ring	6	
23	3520028	Plug, Hole (For switch call-outs at these locations, refer to option installation)	5	
24	4740120	Washer, Nylon #10 (Poly Box Only)	4	
25	0641611	Bolt 3/8"-16NC x 1 3/8"	4	
26	4751600	Flatwasher 3/8"	8	
27	4460467	Tool, Pin Extraction (Blue 16-18 Gauge) (Not Shown)	1	
28	4460510	Tool, Pin Extraction (Yellow 12-14 Gauge) (Not Shown)	1	
29 to 32	Not Used			
33	4711000	Flatwasher #10 Narrow	6	
34	3311401	Nut 1/4"-20NC	1	
35	1320060	Clamp	1	
36	4460234	Mount, Tie-Strap (Not Shown)	6	
37	3740058	Relay - DPDT	2	
38	3740063	Spring, Relay	4	
39	4360232	Breaker, Circuit - 15 Amp	2	
40	1670829	Bezel, Light Panel	1	
41	0721010	Screw, Machine #10-24NC x 1 1/4"	2	
42	0721003	Screw, Machine #10-24NC x 3/8"	9	
43	4751000	Flatwasher #10	5	
44	0731004	Screw, Machine #10-32NC x 1/2"	2	
45	4460470	Nut, Conduit	2	
46	4460471	Washer	2	
47	4460428	Connector, Strain Relief	2	
48	0100029	Silicone (Not Shown)	A/R	
49	0641406	Bolt 1/4"-20NC x 3/4"	1	
50	4420038	Foam (Not Shown - Located on top of item 143)	6in/15cm	
51	Not Used			
52	0630464	Screw, Button Head #10-24NC x 1/2"	2	
53	4751400	Flatwasher 1/4"	8	
54	0100011	Loctite #242 (Not Shown)	A/R	
55	0100035	Loctite #222 (Not Shown)	A/R	
56 to 57	Not Used			
58	0630518	Screw, Button Head #10-24NC x 3/4"	4	
59	3910812	Screw, Machine #8-32NC x 1/2"	4	
60	4750800	Flatwasher #8	4	
61	3311605	Nut 3/8"-16NC (Poly Box Only)	4	
62	4751800	Flatwasher 1/2" (Poly Box Only)	4	



SECTION 4 PLATFORM

FIGURE 4-2. PLATFORM CONSOLE ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
63		Plate, Relay Mounting Options:	1	
	3571222	Poly Box (Molded into Cover)		
	3539275	Aluminum Box		
64	3300408	Locknut #10-24NC	4	
65	4761000	Lockwasher #10	2	
66	1704260	Decal - EMS (S/N 44666 to Present Only)	1	
67	3740049	Relay	5	
68	2920129	Bulb	8	
69	3520138	Plug, Cap	4	
70	0641404	Bolt 1/4"-20NC x 1/2" (Aluminum Box Only)	8	
71		Support, Hand (Right Side)	A/R	
	Not Required	Poly Box (Molded into Cover)	0	
	4340684	Aluminum Box	1	
72		Support, Hand (Left Side)	A/R	
	Not Required	Poly Box (Molded into Cover)	0	
	4340678	Aluminum Box	1	

	2910867	Decal Kit - Console Box (Includes Items 7, 8, 9, 10, 11, 66 & 201) (ANSI Spec Only)	1	
	4922053	RELAY AND TERMINAL BLOCK INSTALLATIONS	Ref.	7/G
101 to 132	Not Used			
133	4460613	Connector - 21 Position	1	
134 to 135	Not Used			
136	4460503	Connector - 31 Position	1	
137 to 142	Not Used			
143	3641182	Track	1	
144	4460601	Block, Terminal	10	
145	4460607	Stop, End	2	
146	4460602	Barrier, Terminal	1	
147	4460629	Marker, Terminal (6-15)	2	
148	4460603	Bar, Buss - 10 Position (Cut into [2] 5 Position Bars)	1	
149	4460600	Block, Terminal	10	
150	4460631	Marker, Terminal (Negative)	1	
151	4460632	Marker, Terminal (1-5)	1	
152	4120013	Socket, Relay	4	
153 to 162	Not Used			
163	4120035	Base, Light	8	
	0256632	LIGHT PANEL DECAL INSTALLATION	Ref.	—
201	1703084	Decal - Platform Display	1	
301	0257883/0259254	DUAL FUEL SWITCH INSTALLATIONS (OPTIONAL)	Ref.	
	4360336	Switch, Toggle	1	
	3790012	O-Ring	1	



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FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
401	0258608	JIB SWITCH INSTALLATIONS (OPTIONAL)	Ref.	A
	4360314	Switch, Toggle	1	
	3790012	O-Ring	1	

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FIGURE 4-2. PLATFORM CONSOLE ASSEMBLY (CONTINUED)

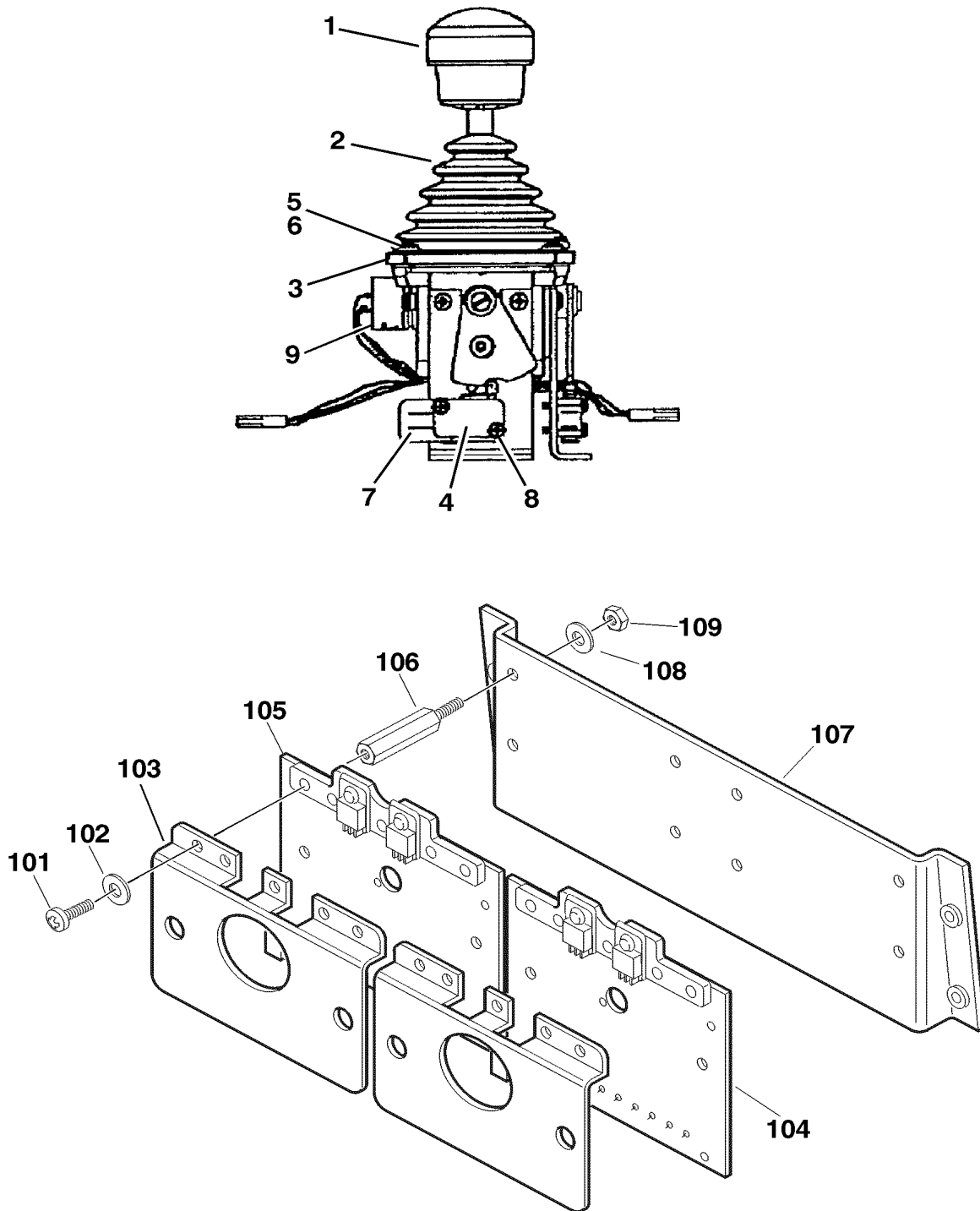
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 4-3.CONTROLLER ASSEMBLY (LIFT AND SWING) (PRIOR TO S/N39857)





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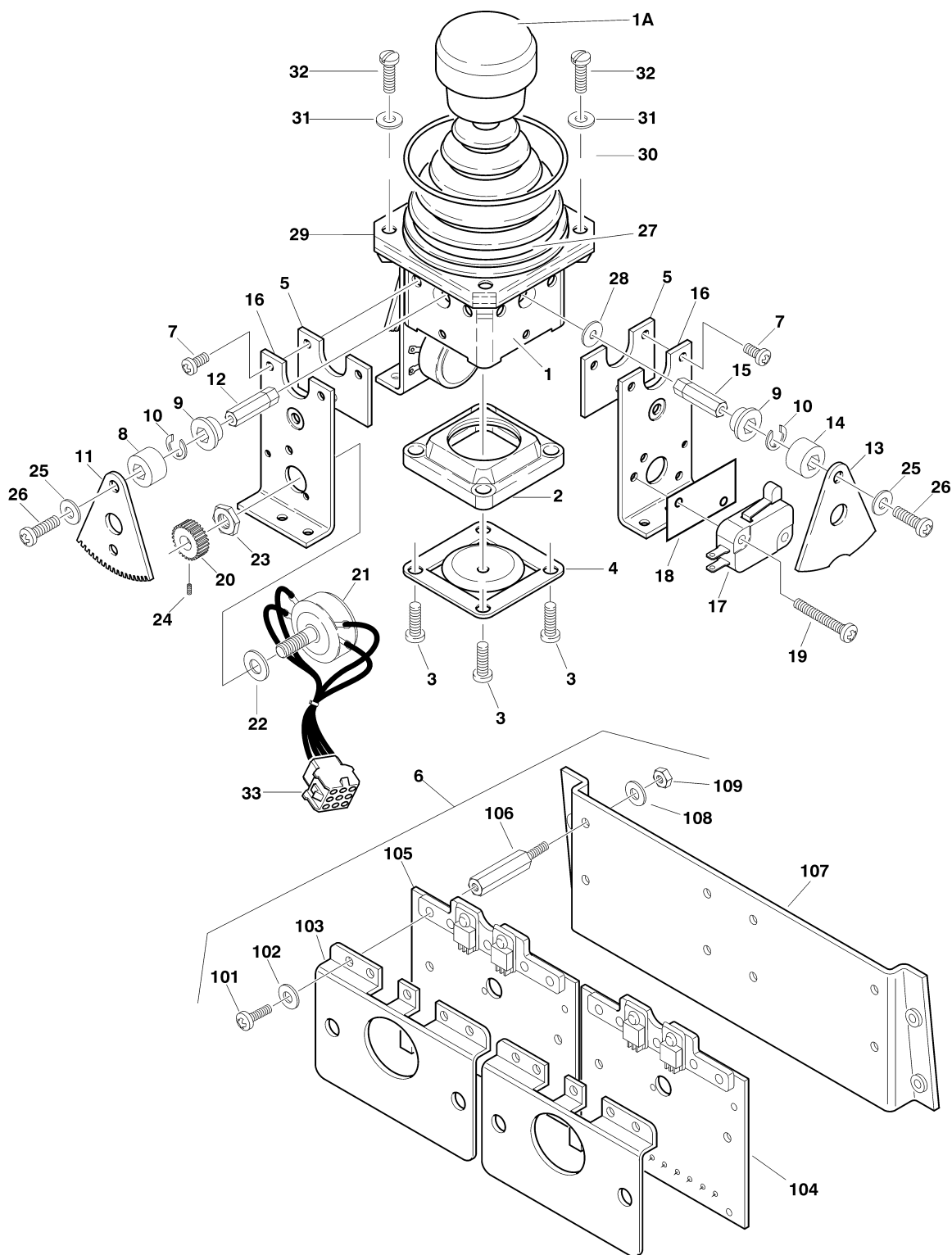
FIGURE 4-3. CONTROLLER ASSEMBLY (LIFT AND SWING) (PRIOR TO S/N39857)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Note: use p/n 1600288 when replacing complete controller		
	1600278	CONTROLLER ASSEMBLY	Ref.	C
		CONTROLLER ASSEMBLY		
1	7003951	Cap	1	
2	Use 7022813	Boot (was p/n 7003955)	1	
3	Use 7022813	Flange (was p/n 7003954)	1	
4	7003961	Microswitch	2	
5	7019137	Screw	4	
6	7003953	Flatwasher	4	
7	7019138	Insulator	2	
8	7019139	Screw	4	
9	7022809	Potentiometer	2	
10	7019122	Gimble (Inner) (Not Shown)	1	
11	7019123	Gimble (Outer) (Not Shown)	1	
		PC BOARD ASSEMBLY	Ref.	
101	7019136	Screw 4mm x 12mm	8	
102	7019135	Washer, Wavy 4mm	8	
103	7019134	Cover, Heatsink	2	
104	7019133	PC Board Assembly (Lift)	1	
105	7019132	PC Board Assembly (Swing)	1	
106	7019131	Stand-Off	8	
107	7019130	Bracket	1	
108	7019129	Starwasher 4mm	8	
109	7019128	Nut 4mm	8	



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FIGURE 4-4.CONTROLLER ASSEMBLY (LIFT & SWING) (S/N39857 TO PRESENT)





SECTION 4 PLATFORM

FIGURE 4-4. CONTROLLER ASSEMBLY (LIFT & SWING) (S/N39857 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1600288	CONTROLLER ASSEMBLY	Ref.	C
1	7019141	Mechanical Assembly (Includes Base, Handle Stem & Items 1A, 1B, 1C & 27)	1	
1A	7019197	Handle Cap and Rod	1	
1B	7003928	Spring	1	
1C	7022808	Cap, Lift	1	
2	7019169	Gate	1	
3	7003952	Screw	4	
4	7019170	Center, Detent	1	
5	7019171	Plate	2	
6	7019172	PC Board Assembly (See Items 101-109 for Breakdown)	1	
7	7019173	Screw	4	
	7022831	Screw Self Tapping	8	
8	7019174	Spacer, Cam	1	
9	7019111	Bearing, Gear	4	
10	7019145	E-Clip	4	
11	7003977	Gear, Drive	2	
12	7019147	Shaft	2	
13	7019175	Cam	2	
14	7019176	Spacer, Cam	2	
15	7019177	Shaft	2	
16	7019142	Plate	4	
17	7003961	Microswitch	2	
18	7019138	Insulator	2	
19	7019139	Screw	4	
20	7003976	Gear, Slave	2	
21	7019178	Potentiometer	2	
	7022830	Potentiometer & Harness Assembly	1	
22	7003992	Washer	2	
23	7003993	Nut	2	
24	7019149	Setscrew	2	
25	7019144	Spacer	2	
26	7019143	Screw	2	
27	7022813	Boot & Flange Assembly (Was p/n 7003955)	1	
28	7019144	Spacer, Cam	2	
29	Purchase Item 27	Plate, Plastic (Was p/n 7003954)	1	
30	7003956	O-Ring	1	
31	7003953	Washer	4	
32	7022811	Screw	4	
33	Not Available	Harness, Controller	1	
	4460266	Connector, Female - 9 Position	1	
	4460267	Pin, Male	9	
	7026614	Connector, Male - 4 Position	2	
	7026615	Pin, Male	8	
	7026612	Connector, Female - 4 Position	2	
	7026613	Socket, Female	8	



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FIGURE 4-4. CONTROLLER ASSEMBLY (LIFT & SWING) (S/N39857 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
33 (cont'd)	7026610	Connector, Female - 3 Position	2	
	7026611	Socket, Female	6	
	4460265	Plug - 9 Pin (Part of Platform Wiring) (Not Shown)	1	
	4460267	Pin, Male (Part of Platform Wiring) (Not Shown)	8	
34	7019122	Gimble (Inner) (Not Shown)	1	
35	7019123	Gimble (Outer) (Not Shown)	1	
	7019172	PC BOARD ASSEMBLY	Ref.	
101	7019136	Screw 4mm x 12mm	8	
102	7019135	Washer, Wavy 4mm	8	
103	Not Available	Cover, Heatsink	2	
104	7019190	PC Board Assembly (Lift)	1	
105	7019189	PC Board Assembly (Swing)	1	
106	7019131	Stand-Off	8	
107	Not Available	Bracket	1	
108	7019129	Starwasher 4mm	8	
109	7019128	Nut 4mm	8	
110	Not Available	Harness, PC Board (Not Shown)	1	

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FIGURE 4-4. CONTROLLER ASSEMBLY (LIFT & SWING) (S/N39857 TO PRESENT) (CONTINUED)

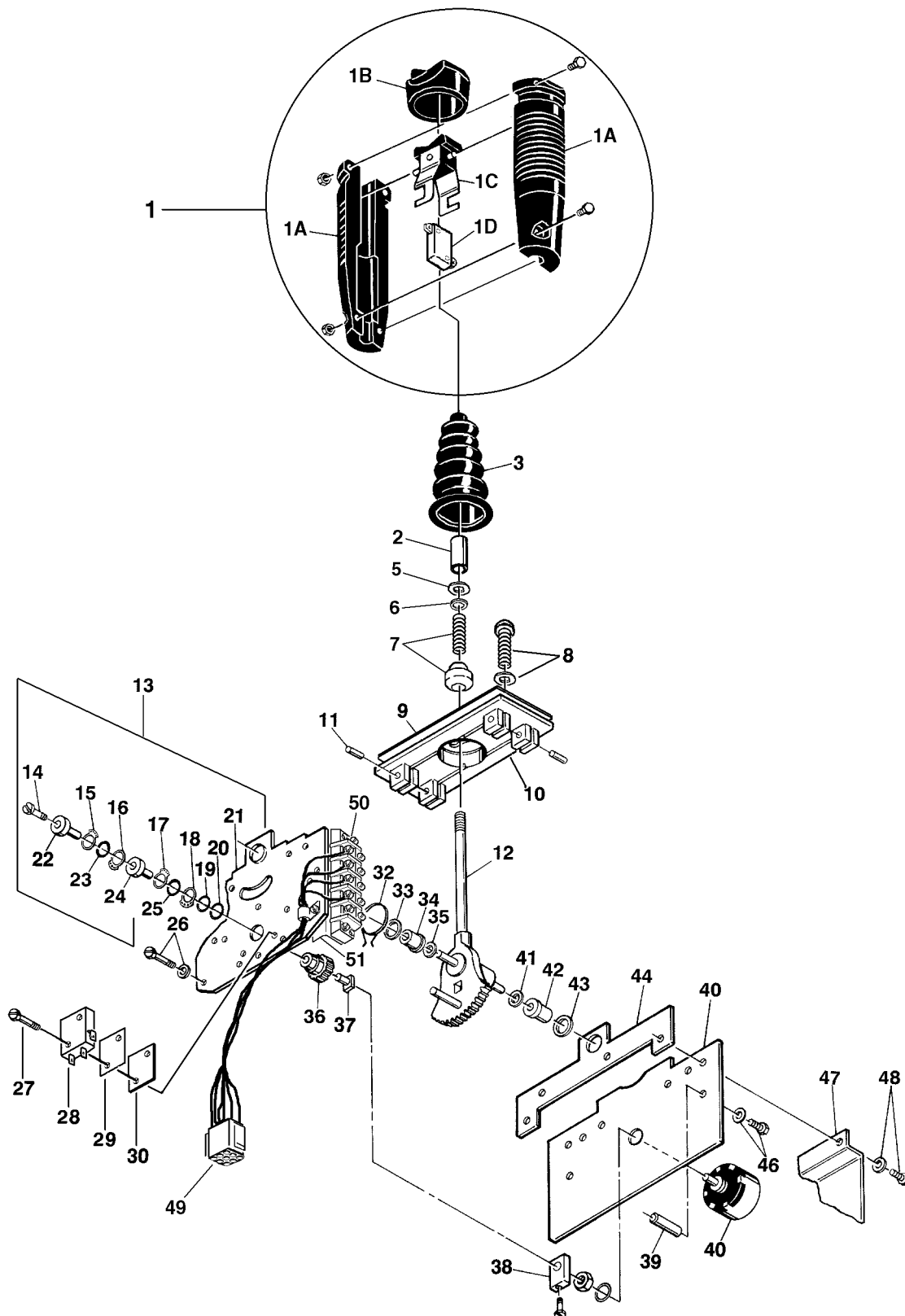
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 4-5.CONTROLLER ASSEMBLY (DRIVE & STEER) (PRIOR TO S/N39857)





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FIGURE 4-5. CONTROLLER ASSEMBLY (DRIVE & STEER) (PRIOR TO S/N39857)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Note: use p/n 1600287 when replacing complete controller		
	1600270	CONTROLLER ASSEMBLY	Ref.	A
1	Not Available	Handle Assembly	1	
1A	7019126	Halves, Handle (Includes Both Halves & Hardware)	1	
1B	7019127	Boot, Switch	1	
1C	7003981	Rocker	1	
1D	7003982	Switch, Micro	1	
2	7003984	Coupling	1	
3	7003966	Boot	1	
4	7003938	Clamp, Boot (Not Shown)	1	
5	7003957	Ring, Retaining	1	
6	7003967	Flatwasher	1	
7	7003968	Detent Assembly	1	
8	7003969	Screw	2	
	7003941	Washer	2	
9	7003933	Gasket	1	
10	7003950	Plate, Base	1	
11	7019103	Pin	1	
12	7019105	Shaft/Gear Assembly	1	
13	7019125	Micro Cam Assembly (Includes Items 14-25)	1	
14	Not Serviced	Screw	1	
15	Not Serviced	Cam, 4 Hole	1	
16	Not Serviced	Cam, 4 Hole	1	
17	Not Serviced	Cam, 4 Hole	1	
18	Not Serviced	Cam, 4 Hole	1	
19	Not Serviced	Spacer, Cam	1	
20	Not Serviced	Spacer, Cam	1	
21	Not Serviced	Plate, Cam - Left Side	1	
22	Not Serviced	Coupling, Cam	1	
23	Not Serviced	Spacer, Cam	1	
24	Not Serviced	Coupling, Cam	1	
25	Not Serviced	Spacer, Cam	1	
26	7003994	Screw	4	
	Not Serviced	Washer	4	
27	7019106	Screw	2	
28	7003961	Microswitch	1	
29	7019107	Insulator	1	
30	7019108	Insulator, Black	1	
31	7019109	Nut, Tinnerman (Not Shown - Use with #27)	2	
32	7003946	Spring, Return	1	
33	7019110	Spacer	1	
34	7019111	Bearing	1	
35	7019112	Washer, Cam Retainer	1	
36	7003935	Gear, Slave	1	



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FIGURE 4-5. CONTROLLER ASSEMBLY (DRIVE & STEER) (PRIOR TO S/N39857) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
37	7019113	Nut/Cam Assembly	1	
38	7019114	Coupling, Potentiometer	1	
39	7019115	Stand-Off	2	
40	7019124	Board, Circuit with Potentiometer	1	
41	7019112	Washer, Cam Retainer	1	
42	7019111	Bearing	1	
43	7019110	Spacer	1	
44	7019116	Plate, Mounting	1	
45	Not Used			
46	7003994	Screw	2	
	Not Serviced	Washer	2	
47	Not Serviced	Heatsink	1	
48	7019117	Screw	2	
	Not Serviced	Washer	2	
49	4460265	Plug - 9 Position (Part of Console Box Harness)	1	
	4460268	Socket, Female (Part of Console Box Harness)	9	
	4460266	Receptacle - 9 Position (Part of p/n 7019124)	1	
	4460267	Pin, Male (Part of p/n 7019124)	9	
50	7019153	Strip, Terminal - 5 Position	1	
51	7003985	Brace	1	

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FIGURE 4-5. CONTROLLER ASSEMBLY (DRIVE & STEER) (PRIOR TO S/N39857) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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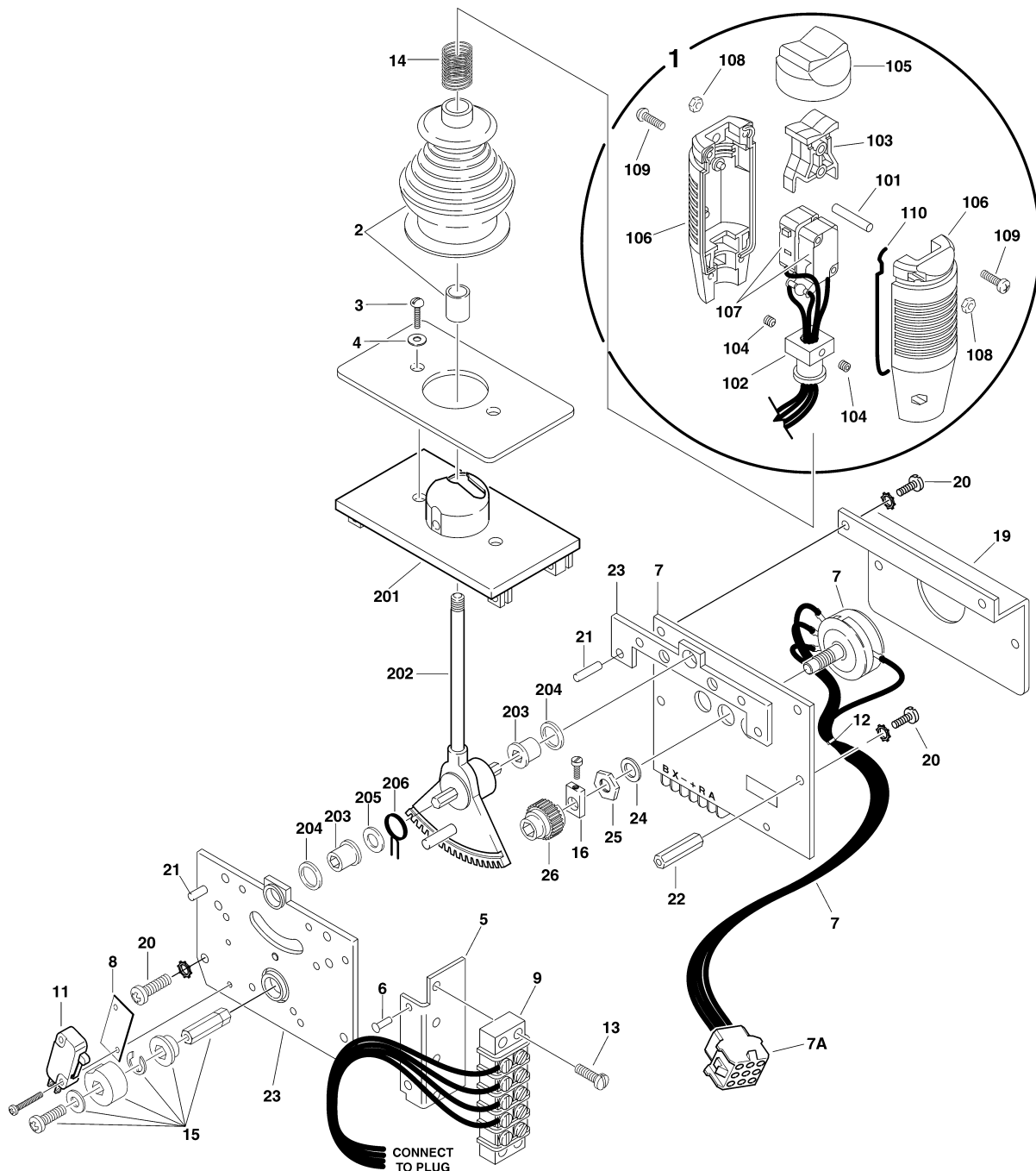
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FIGURE 4-6. CONTROLLER ASSEMBLY (DRIVE & STEER) (S/N39857 TO PRESENT)





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FIGURE 4-6. CONTROLLER ASSEMBLY (DRIVE & STEER) (S/N39857 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1600287	CONTROLLER ASSEMBLY	Ref.	C
1	Not Available	Handle Assembly	1	
2	7019161	Boot and Sleeve	1	
3	7003969	Screw	2	
4	7003941	Washer	2	
5	7019159	Bracket, Mounting	1	
6	Not Serviced	Rivet	1	
7	7019124	Board, Circuit with Potentiometer	1	
7A	4460265	Plug - 9 Position (Part of Console Box Harness)	1	
	4460268	Socket, Female (Part of Console Box Harness)	9	
	4460266	Receptacle - 9 Position (Part of p/n 7019124)	1	
	4460267	Pin, Male (Part of p/n 7019124)	9	
8	7019138	Insulator	1	
9	7019153	Strip, Terminal - 5 Position	1	
10	7003938	Clamp, Boot (Not Shown)	1	
11	7003961	Microswitch	1	
12	7019151	Tie-Strap	3	
13	7003994	Screw	2	
14	7019162	Spring	1	
15	7019179	Micro Cam Assembly	1	
16	7019163	Potentiometer Coupling Assembly	1	
17	Not Used			
18	Not Used			
19	Not Serviced	Heatsink	1	
20	7019117	Screw	8	
21	7019103	Pin	4	
22	7019115	Stand-Off	2	
23	7019168	Plate, Mounting (Right Side)	1	
24	7003992	Washer	1	
25	7003993	Nut	1	
26	7003935	Gear, Slave	1	
		HANDLE ASSEMBLY	Ref.	
101	7019164	Axle	1	
102	7019194	Coupling	1	
103	7019165	Rocker	1	
104	7003983	Setscrew	2	
105	7003972	Boot, Switch	1	
106	7003973	Half, Handle	2	
107	7019166	Switch, Micro	2	
108	7019167	Nut	4	
109	7003980	Screw	4	
110	7003989	Gasket	2	

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FIGURE 4-6. CONTROLLER ASSEMBLY (DRIVE & STEER) (S/N39857 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		HANDLE ASSEMBLY	Ref.	
201	7019160	Cast Housing Assembly	1	
202	7019155	Shaft 8mm	1	
203	7019111	Bearing	2	
204	7019110	Spacer, Head Gear	2	
205	7019112	Washer	1	
206	7003946	Spring, Return	1	



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FIGURE 4-6. CONTROLLER ASSEMBLY (DRIVE & STEER) (S/N39857 TO PRESENT) (CONTINUED)

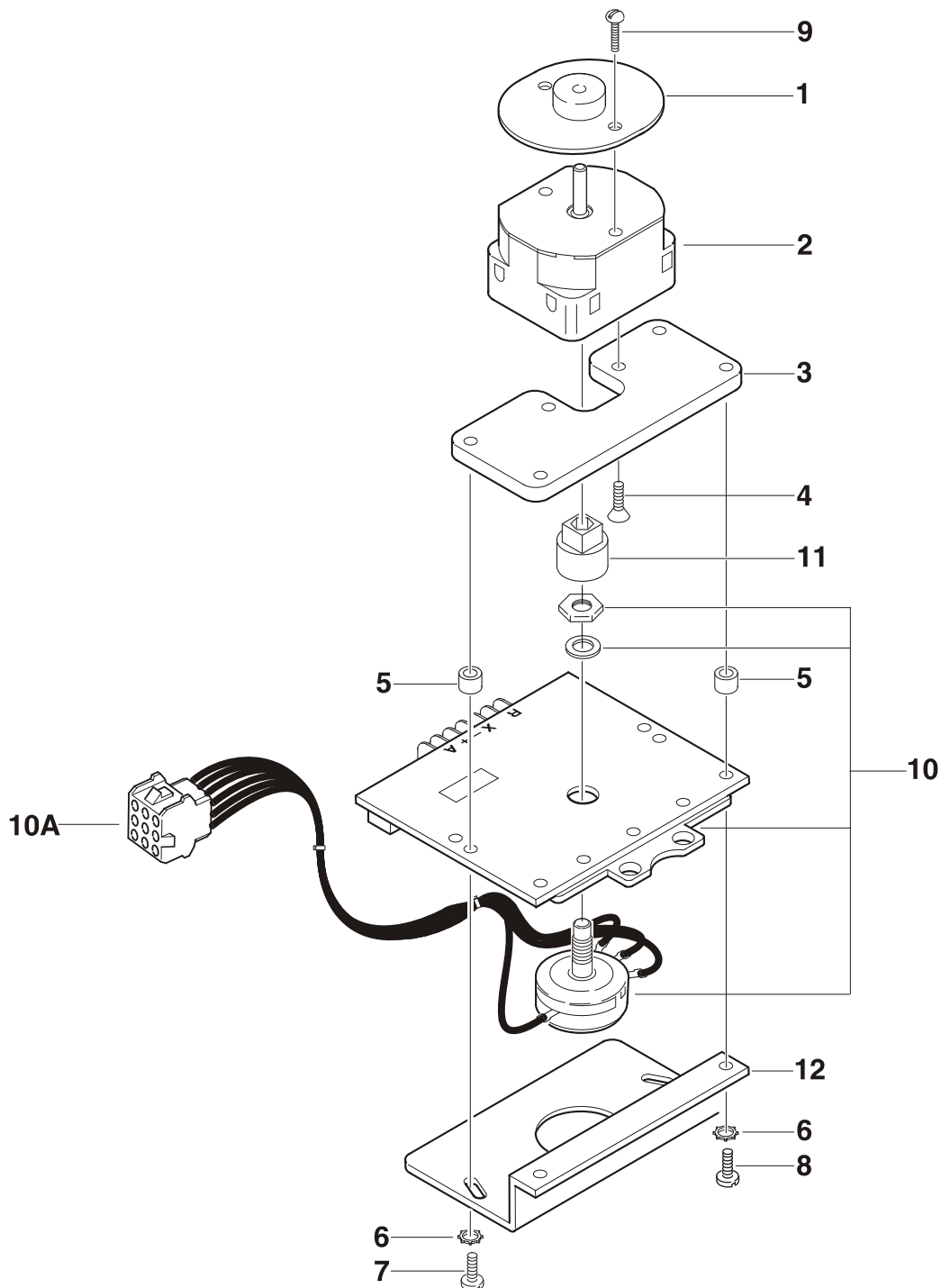
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 4-7.CONTROLLER ASSEMBLY (SPEED)





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FIGURE 4-7. CONTROLLER ASSEMBLY (SPEED)

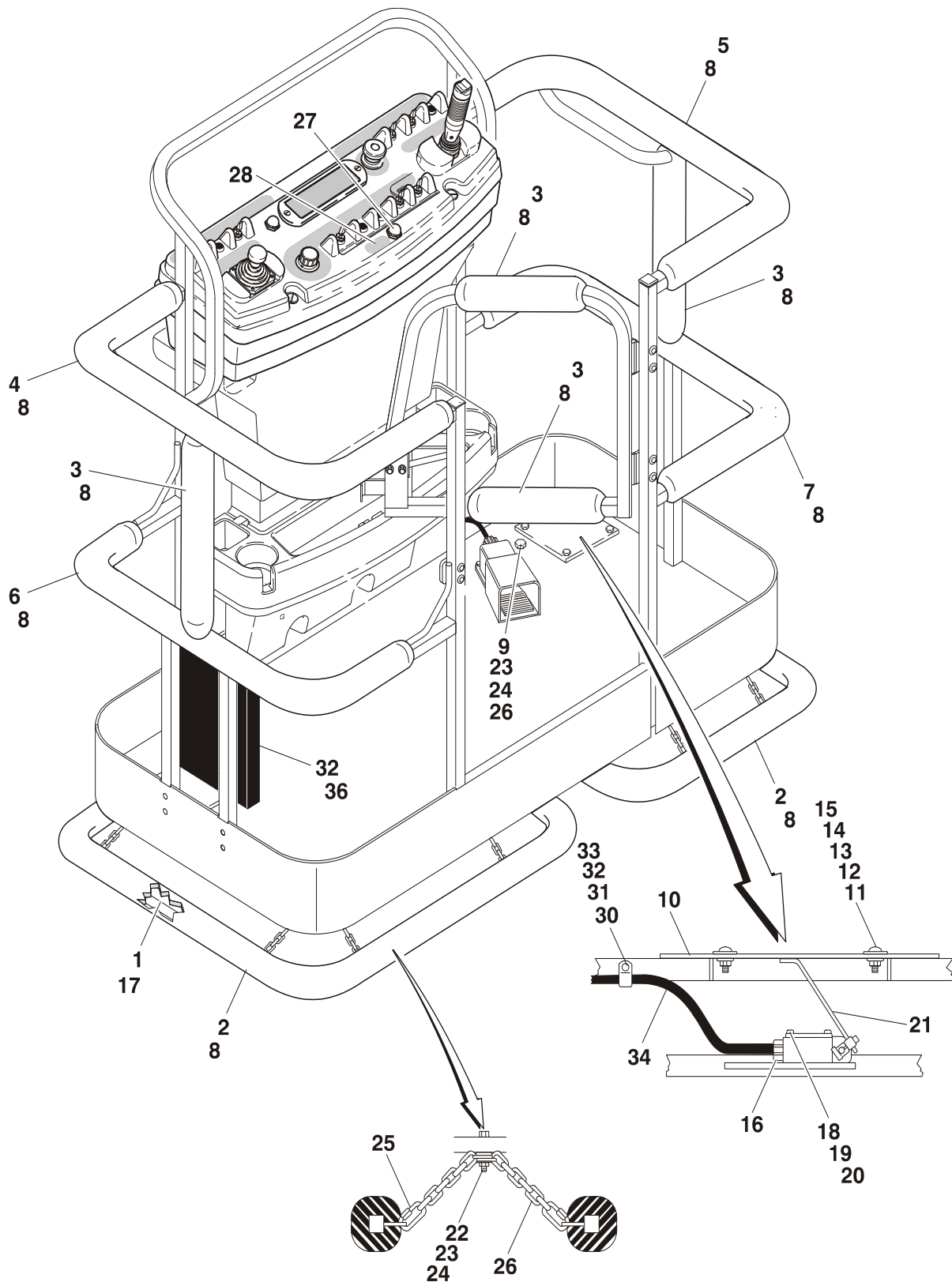
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1600272	CONTROLLER ASSEMBLY	Ref.	E
1	7019181	Seal	1	
2	7019182	Switch, Rotary	1	
3	Not Serviced	Plate	1	
4	7019183	Screw, Flathead	2	
5	7019184	Spacer	4	
6	7019135	Washer	4	
7	7019185	Screw	2	
8	7019186	Screw	2	
9	7019136	Screw	2	
10	7019187	Board, Circuit with Potentiometer	1	
10A	4460265	Plug - 9 Position (Part of Console Box Harness)	1	
	4460268	Socket, Female (Part of Console Box Harness)	9	
	4460266	Receptacle - 9 Position (Part of p/n 7019187)	1	
	4460267	Pin, Male (Part of p/n 7019187)	9	
11	7019188	Coupling, Potentiometer	1	
12	Not Serviced	Heatsink	1	

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FIGURE 4-8.SOFT TOUCH SYSTEM INSTALLATION (S/N 49601 TO PRESENT)





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FIGURE 4-8. SOFT TOUCH SYSTEM INSTALLATION (S/N 49601 TO PRESENT)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	0259950	SOFT TOUCH SYSTEM (6FT/1.8M PLATFORM)	Ref.	2
1	4846198	Rail, Soft Touch	2	
2	1670946	Cover, Touch Bar	2	
3	1670788	Cover, Gate & End Post	4	
4	1670947	Cover, Left End Top Rail	1	
5	1670948	Cover, Right End Top Rail	1	
6	1670949	Cover, Left Mid Rail	1	
7	1670950	Cover, Right Mid Rail	1	
8	0940038	Bumper, Padding	70ft/21.3m	
9	0641613	Bolt 3/8"-18NC x 1 5/8"	2	
10	3539719	Plate	2	
11	0630462	Bolt, Carriage	8	
12	4761500	Lockwasher 5/16"	8	
13	4751800	Flatwasher 1/2"	8	
14	6611501	Nut 5/16"-18NC	8	
15	4751500	Flatwasher 5/16"	8	
16	4460049	Connector	2	
17	3520072	Plug, Cap	4	
18	4360057	Switch, Limit	2	
19	0731005	Bolt #10-32NC x 5/8"	4	
20	4761000	Lockwasher #10	4	
21	0200550	Arm, Switch	2	
22	0641622	Bolt 3/8"-16NC x 2 3/4"	6	
23	4751600	Flatwasher 3/8"	40	
24	3311605	Locknut 3/8"-16NC	8	
25	3010088	Link, Quick	16	
26	1260136	Chain	10ft/3m	
27	4360387	Switch, Pushbutton	1	
28	1702938	Decal - Soft Touch Override	1	
29	Not Used			
30	1320040	Clamp	4	
31	0641406	Bolt 1/4"-20NC x 3/4"	4	
32	4711400	Flatwasher 1/4"	10	
33	3311405	Locknut 1/4"-20NC	4	
34	1060330	Cable, Electrical 16/3	16ft/4.9m	
35	4460425	Strain Relief (Not Shown)	1	
36	3941405	Bolt Self Tapping 1/4" x 5/8"	2	



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FIGURE 4-8. SOFT TOUCH SYSTEM INSTALLATION (S/N 49601 TO PRESENT) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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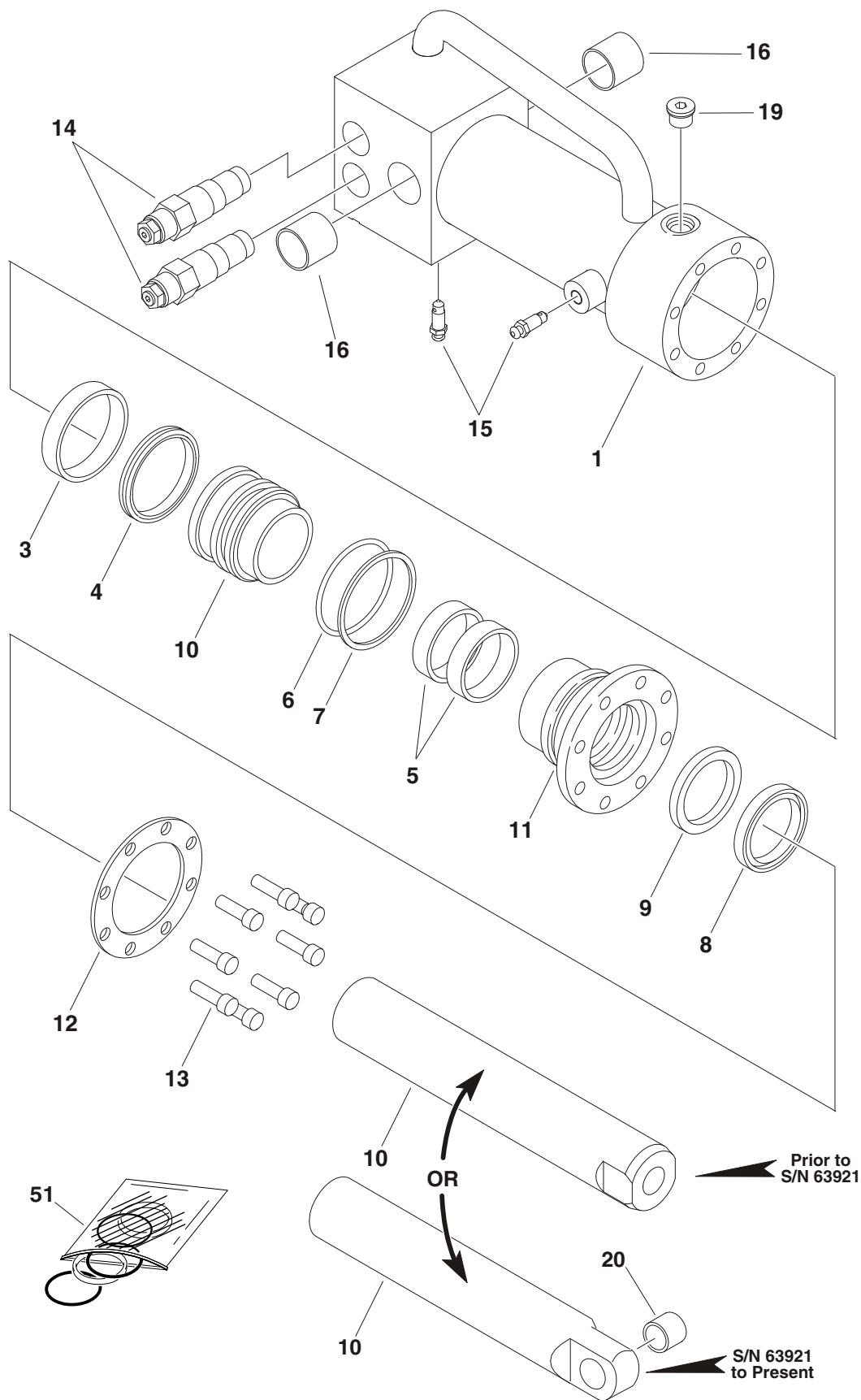
TABLE OF CONTENTS		
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FIGURE 5-1.AXLE LOCKOUT CYLINDER ASSEMBLY





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FIGURE 5-1. AXLE LOCKOUT CYLINDER ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		AXLE LOCKOUT CYLINDER ASSEMBLIES	Ref	
	1683575	PRIOR TO S/N 63921	Ref	D
	1684139	S/N 63921 TO PRESENT	Ref	C
1	1683572	Barrel Weldment	1	
2	Not Used			
3	Use Item 51	Ring, Wear	1	
4	Use Item 51	T-Seal	1	
5	Use Item 51	Ring, Wear	2	
6	Use Item 51	O-Ring	1	
7	Use Item 51	Ring, Back-up	1	
8	Use Item 51	Wiper	1	
9	Use Item 51	Seal	1	
10		Rod Weldment Options:	1	
	1683574	Prior to S/N 63921		
	1684138	S/N 63921 to Present		
11	1683076	Cap	1	
12	3760367	Ring, Washer	1	
13	3931516	Bolt, Socket Head 5/16"-18NC x 2"	8	
14		Cartridge, Valve (Counterbalance) Options:	2	
	Use 4641162	Prior to S/N 56898 (Was p/n 4640525)		
	4641162	S/N 56898 to Present		
	2900770	Seal Kit - 4640525 & 4641162 Valve (1 Per Assy)	2	
15	4640858	Valve, Bleeder	2	
16		Bushing Options:	2	
	Use 0962474	Prior to S/N 63921 (was p/n 0961890)		
	0962474	S/N 63921 to Present		
17	0100011	Loctite #242 (Not Shown)	A/R	
18	0100038	Primer, Locking (Not Shown)	A/R	
19	2220885	Plug, O-Ring	1	
20	0962140	Bushing	1	

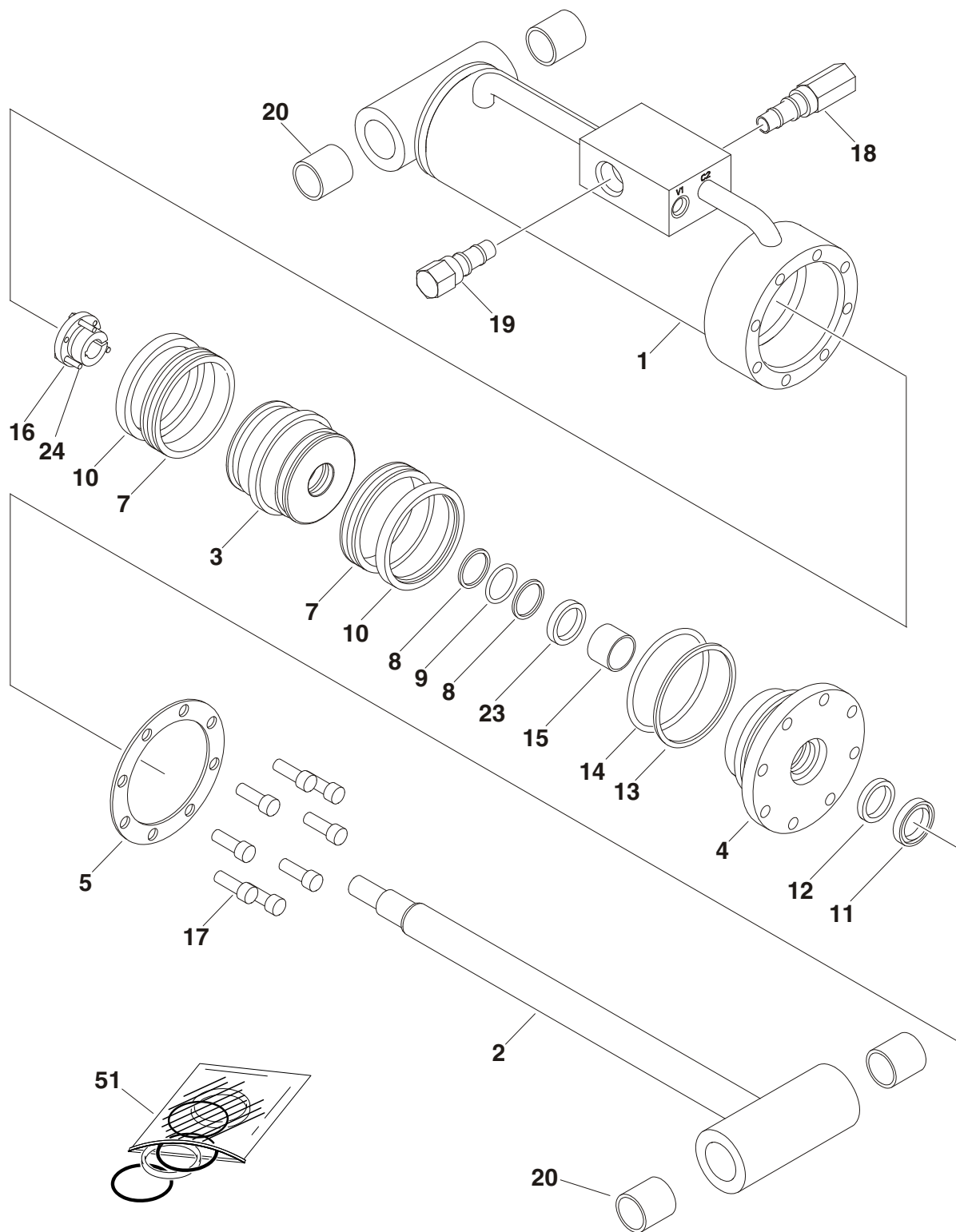
51	2901548	Seal Kit (Includes Items 3-9)	1	

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FIGURE 5-2.PLATFORM LEVEL CYLINDER ASSEMBLY



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FIGURE 5-2. PLATFORM LEVEL CYLINDER ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		PLATFORM LEVEL CYLINDER ASSEMBLY		
	1683598	450A Prior to S/N 38944	Ref	D
	1683730	450A S/N 38944 to Present	Ref	D
	1683598	450AJ Prior to S/N 38103	Ref	D
	1683726	450AJ S/N 38103 to S/N38944	Ref	B
	1683731	450AJ S/N 38944 to Present	Ref	E
1	1683599	Barrel Weldment	1	
2		Rod Weldment Options:	1	
	Use 1683885 & 4567978	450A Prior to S/N 45397 (Was p/n 1683600)		
	Use 1683885 & 4567979	450AJ Prior to S/N 45397 (Was p/n 1683600)		
	1683885	450A & 450AJ S/N 45397 to Present		
3	3480230	Piston	1	
4	1683058	Head	1	
5	3760370	Washer, Ring	1	
6	Not Used			
7	Use Item 51	Seal, Piston	2	
8	Use Item 51	Ring, Back-up	2	
9	Use Item 51	O-Ring	1	
10	Use Item 51	Ring, Lock	2	
11	Use Item 51	Wiper	1	
12	Use Item 51	Seal	1	
13	Use Item 51	Ring, Back-up	1	
14	Use Item 51	O-Ring	1	
15	Use Item 51	Ring, Wear	1	
16		Bushing, Tapered Options:	1	
	Use 0962185	450A Prior to S/N 54193 (Was p/n 0961900)		
	0962185	450A S/N 54193 to Present		
	Use 0962185	450AJ Prior to S/N54193 (Was p/n 0961900)		
	0962185	450AJ S/N 54193 to Present		
17	3931720	Bolt, Socket Head 7/16"-14NC x 1 1/4"	8	
18	4640932	Cartridge, Valve (Counterbalance Vented)	1	
	7011112	Seal Kit - 4640932 Valve	1	
19		Cartridge, Valve Options (Counterbalance Non-Vented):	1	
	Use 4641086	450A Prior to S/N 38944 (was p/n 4640509)		
	4641086	450A S/N 38944 to Present		
	Use 4641086	450AJ Prior to S/N 38103 (was p/n 4640509)		
	Use 4641086	450AJ S/N 38103 to S/N38944 (was p/n 4640999)		
	4641086	450A S/N 38944 to Present		
	2900792	Seal Kit - 4641086 Valve	1	
20	0962006	Bushing	4	
21	0100011	Loctite #242 (Not Shown)	A/R	
22	0100038	Primer, Locking (Not Shown)	A/R	

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FIGURE 5-2. PLATFORM LEVEL CYLINDER ASSEMBLY (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
23	4567761	Tube, Spacer Options (S/N 38944 to Present Only): 450A S/N 38944 to S/N 45397	1	
	4567978	450A S/N 45397 to Present		
	4567760	450AJ S/N 38944 to Present		
	4567979	450AJ S/N 45397 to Present		
24	0630534	Capscrew #10-24NC x 1" -----	3	
51	2901543	Seal Kit (Includes Items 7-15)	1	



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FIGURE 5-2. PLATFORM LEVEL CYLINDER ASSEMBLY (CONTINUED)

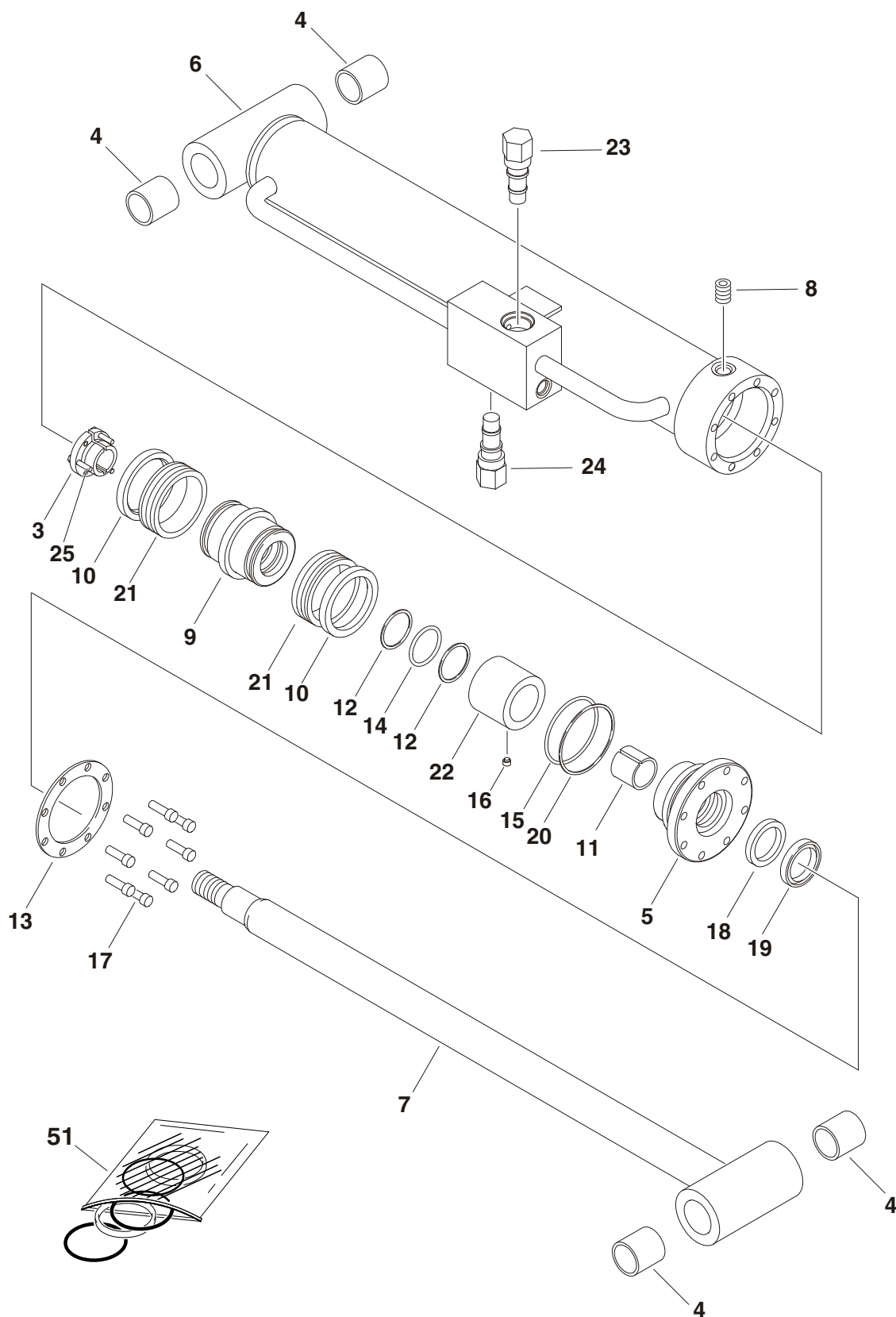
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 5-3. LIFT CYLINDER ASSEMBLY - JIB (450AJ ONLY)





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FIGURE 5-3. LIFT CYLINDER ASSEMBLY - JIB (450AJ ONLY)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1683617	JIB LIFT CYLINDER ASSEMBLY	Ref	D
1	0100011	Loctite #242 (Not Shown)	A/R	
2	0100038	Primer, Locking (Not Shown)	A/R	
3	0961893	Bushing, Tapered	1	
4	0962006	Bushing	4	
5	1683053	Head	1	
6	1683638	Barrel Weldment	1	
7	1683639	Rod Weldment	1	
8	2220885	Plug, O-Ring	1	
9	3480210	Piston	1	
10	Use Item 51	Ring, Lock	2	
11	Use Item 51	Ring, Wear	1	
12	Use Item 51	Ring, Back-up	2	
13	3760368	Washer, Ring	1	
14	Use Item 51	O-Ring	1	
15	Use Item 51	O-Ring	1	
16	3900142	Setscrew 3/8"-16NC x 1/4"	1	
17	3931516	Bolt, Socket Head 5/16"-18NC x 2"	8	
18	Use Item 51	Seal	1	
19	Use Item 51	Wiper	1	
20	Use Item 51	Ring, Back-up	1	
21	Use Item 51	Seal, Piston	2	
22	4567468	Spacer, Tube	1	
23	4640509	Cartridge, Valve (Counterbalance Non-Vented)	1	
	2900792	Seal Kit - 4640509 Valve	1	
24	4640999	Cartridge, Valve (Counterbalance Non-Vented)	1	
	7011185	Seal Kit - 4640999 Valve	1	
25	0630534	Capscrew #10-24NC x 1"	3	

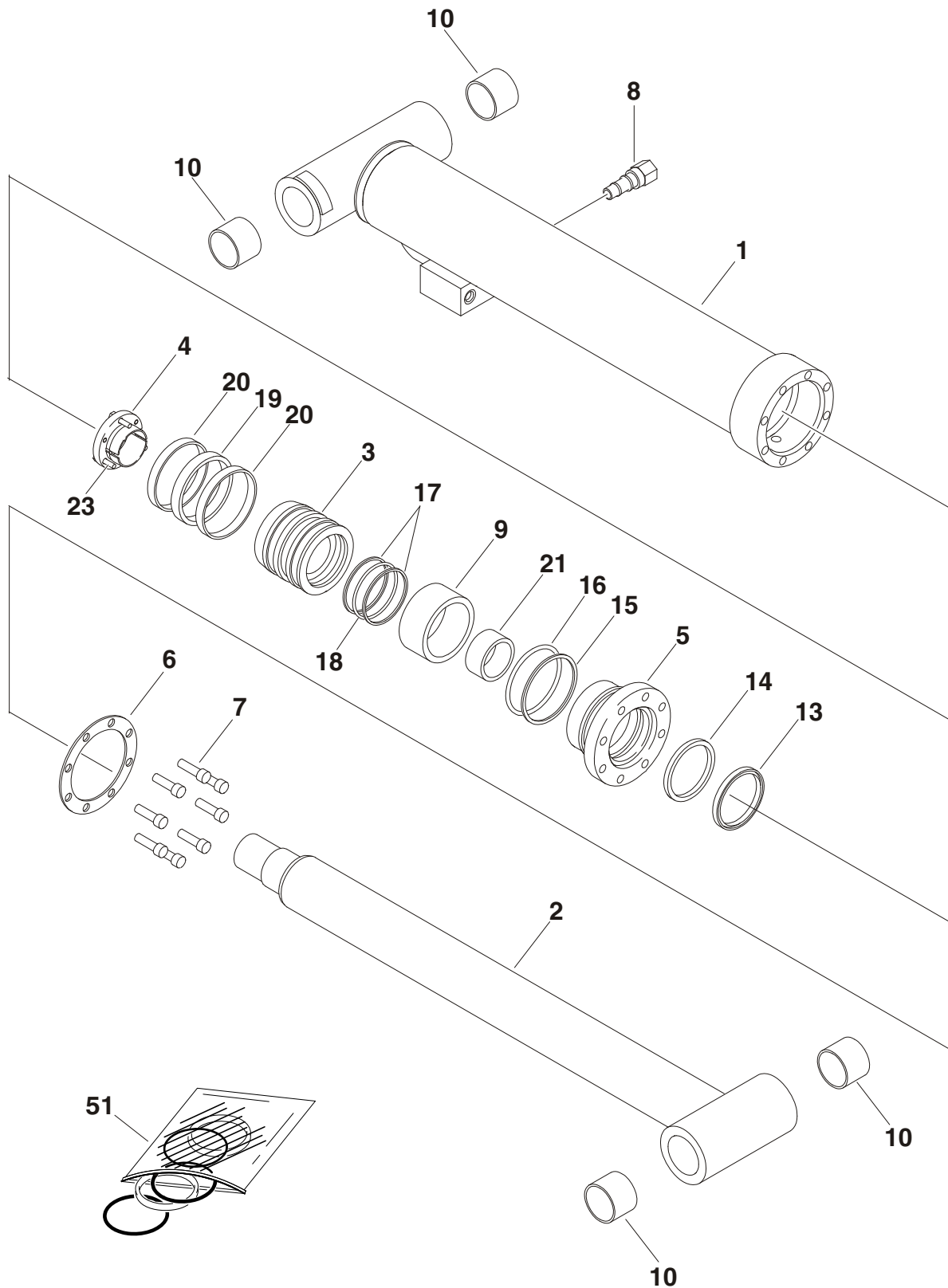
51	2901303	Seal Kit (Includes Items 10-12, 14-15, 18-21)	1	

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FIGURE 5-4. LIFT CYLINDER ASSEMBLY - MAIN



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FIGURE 5-4. LIFT CYLINDER ASSEMBLY - MAIN

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		MAIN LIFT CYLINDER ASSEMBLY:		
	1683588	450A Prior to S/N 38944	Ref	E
	1683728	450A S/N 38944 to Present	Ref	B
	1683637	450AJ Prior to S/N 38944	Ref	D
	1683729	450AJ S/N 38944 to Present	Ref	B
1		Barrel Weldment	1	
	1683590	450A		
	1683659	450AJ		
2		Rod Weldment	1	
	1683589	450A		
	1683660	450AJ		
3		Piston	1	
	3480205	450A		
	3480235	450AJ		
4	0961897	Bushing, Tapered	1	
5		Head	1	
	1683057	450A		
	1683077	450AJ		
6		Washer, Ring	1	
	3760369	450A		
	3760370	450AJ		
7		Bolt, Socket Head	8	
	3931620	450A (3/8"-16NC x 1 1/16")		
	3931724	450AJ (7/16"-14NC x 1 1/2")		
8		Cartridge, Valve Options (Counterbalance Non-Vented):	1	
	Use 4640999	Prior to S/N 38103 (was p/n 4641075)		
	4640999	S/N 38103 to Present		
	7011185	Seal Kit - 4640999 Valve	1	
9		Spacer, Tube	1	
	4567332	450A Prior to S/N 38944		
	4567762	450A S/N 38944 to Present		
	4567469	450AJ Prior to S/N 38944		
	4567763	450AJ S/N 38944 to Present		
10	0961950	Bushing	4	
11	0100011	Loctite #242 (Not Shown)	A/R	
12	0100038	Primer, Locking (Not Shown)	A/R	
13	Use Item 51	Wiper	1	
14	Use Item 51	Seal	1	
15	Use Item 51	Ring, Back-up	1	
16	Use Item 51	O-Ring	1	
17	Use Item 51	Ring, Back-up	2	
18	Use Item 51	O-Ring	1	
19	Use Item 51	Seal	1	
20	Use Item 51	Ring, Wear	2	
21	Use Item 51	Ring, Wear	A/R	
22	Not Used			



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FIGURE 5-4. LIFT CYLINDER ASSEMBLY - MAIN (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
23	0630535	Capscrew 1/4"-20NC x 1 1/8"	3	
51		-----		
		Seal Kit Options (Includes Items 13-21):	1	
	2901554	1683637 & 1683729 Cylinders		
	2901284	1683588 & 1683728 Cylinders		

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FIGURE 5-4. LIFT CYLINDER ASSEMBLY - MAIN (CONTINUED)

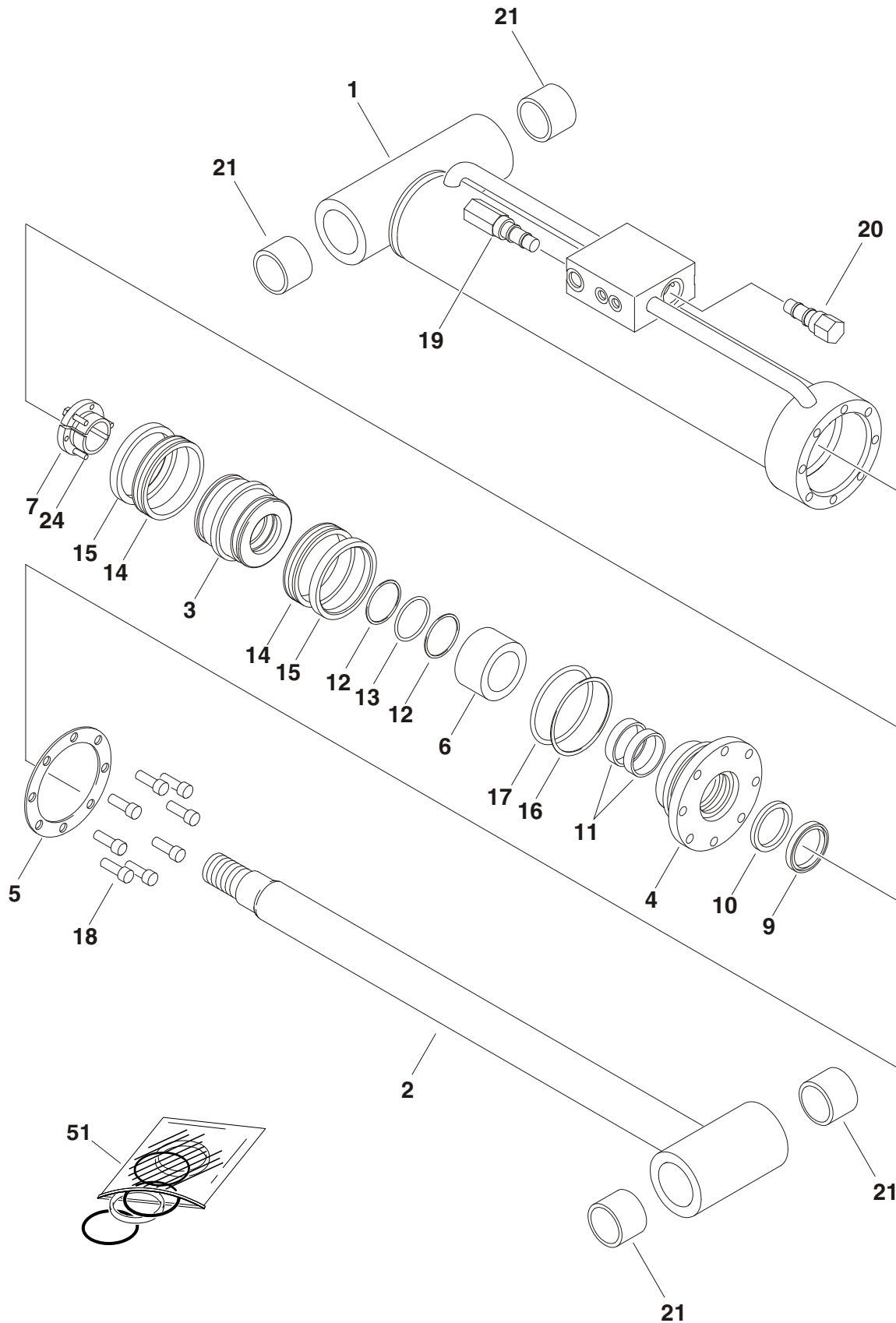
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 5-5. LIFT CYLINDER ASSEMBLY - MID





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FIGURE 5-5. LIFT CYLINDER ASSEMBLY - MID

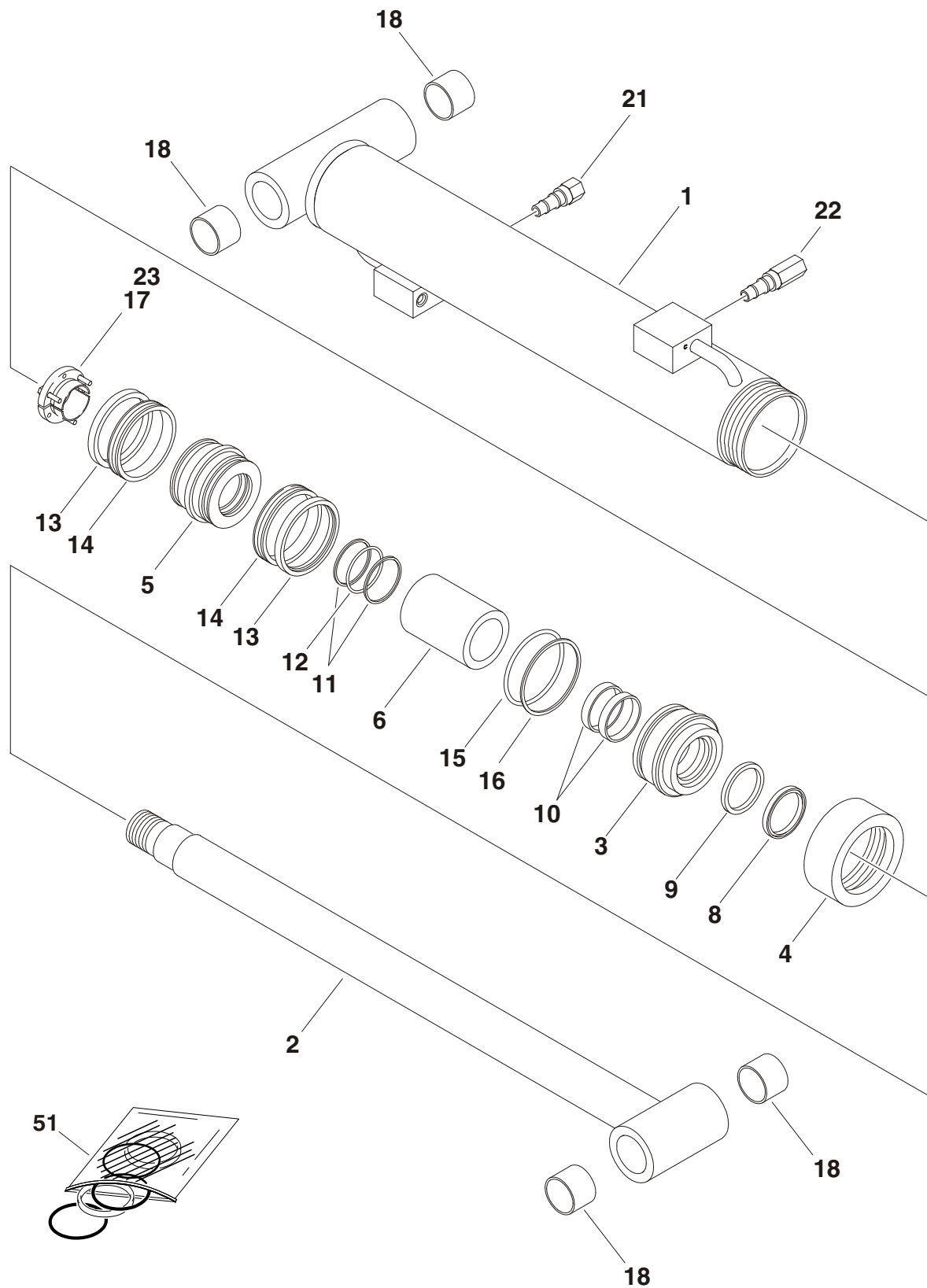
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1683563	MID LIFT CYLINDER ASSEMBLY	Ref	E
1	1683565	Barrel Weldment	1	
2	1683564	Rod Weldment	1	
3	3480224	Piston	1	
4	1683060	Head	1	
5	3760370	Washer, Ring	1	
6	4567311	Spacer, Tube	1	
7	0961890	Bushing, Tapered	1	
8	Not Used			
9	Use Item 51	Wiper	1	
10	Use Item 51	Seal	1	
11	Use Item 51	Ring, Wear	2	
12	Use Item 51	Ring, Back-up	2	
13	Use Item 51	O-Ring	1	
14	Use Item 51	Seal	2	
15	Use Item 51	Ring, Lock	2	
16	Use Item 51	Ring, Back-up	1	
17	Use Item 51	O-Ring	1	
18	3931720	Bolt, Socket Head 7/16"-14NC x 1 1/4"	8	
19	4641077	Cartridge, Valve (Counterbalance Vented)	1	
	2900792	Seal Kit - 4641077 Valve	1	
20	4640509	Cartridge, Valve (Counterbalance Non-Vented)	1	
	2900792	Seal Kit - 4640509 Valve	1	
21	0961950	Bushing	4	
22	0100011	Loctite #242 (Not Shown)	A/R	
23	0100038	Primer, Locking (Not Shown)	A/R	
24	0630535	Capscrew 1/4"-20NC x 1 1/8"	3	

51	2901545	Seal Kit (Includes Items 9-17)	1	



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FIGURE 5-6. LIFT CYLINDER ASSEMBLY - TOWER



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FIGURE 5-6. LIFT CYLINDER ASSEMBLY - TOWER

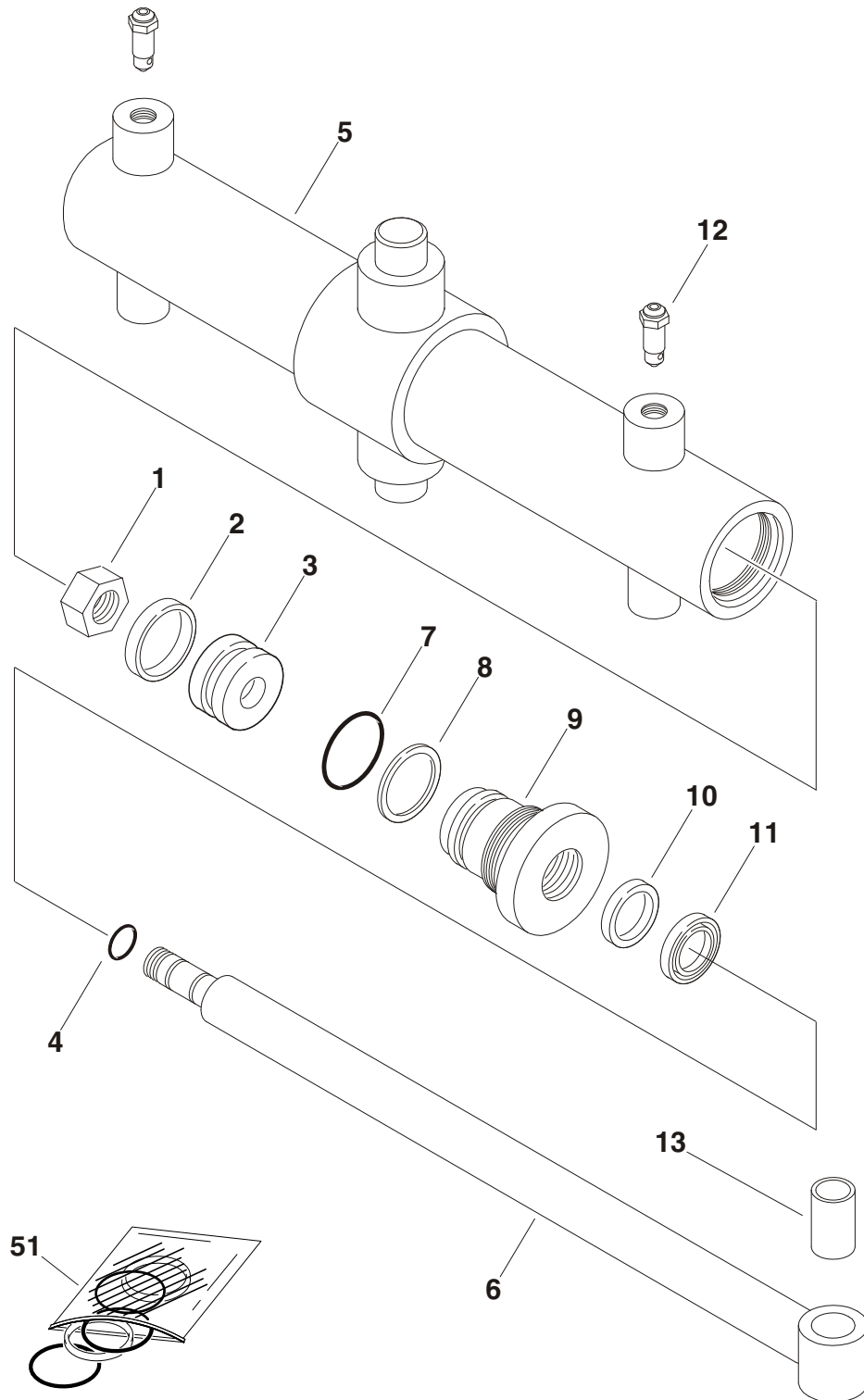
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1683568	TOWER LIFT CYLINDER ASSEMBLY	Ref	C
1	1683569	Barrel Weldment	1	
2	1683570	Rod Weldment	1	
3	1683577	Head	1	
4	1120489	Cap, End	1	
5	3480226	Piston	1	
6	4567324	Spacer, Tube	1	
7	Not Used			
8	Use Item 51	Wiper	1	
9	Use Item 51	Seal	1	
10	Use Item 51	Ring, Wear	2	
11	Use Item 51	Ring, Back-up	2	
12	Use Item 51	O-Ring	1	
13	Use Item 51	Ring, Lock	2	
14	Use Item 51	Seal	2	
15	Use Item 51	O-Ring	1	
16	Use Item 51	Ring, Back-up	1	
17	0961897	Bushing, Tapered	1	
18	0961950	Bushing	4	
19	0100011	Loctite #242 (Not Shown) (Prior to S/N 47073)	A/R	
20	0100038	Primer, Locking (Not Shown) (Prior to S/N 47073)	A/R	
21	4641077	Cartridge, Valve (Counterbalance Vented)	1	
	2900792	Seal Kit - 4641077 Valve	1	
22	4640605	Cartridge, Valve (Counterbalance Vented)	1	
	2900792	Seal Kit - 4640605 Valve	1	
23	0630535	Capscrew 1/4"-20NC x 1 1/8" (S/N 47073 to Present)	3	

51	2901546	Seal Kit (Includes Items 8-16)	1	



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FIGURE 5-7. ROTATOR CYLINDER ASSEMBLY - PLATFORM





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FIGURE 5-7. ROTATOR CYLINDER ASSEMBLY - PLATFORM

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1683579	PLATFORM ROTATOR CYLINDER ASSEMBLY	Ref	A
1	7017226	Locknut	1	
2	Use Item 51	Seal, Piston	1	
3	7016708	Piston	1	
4	Use Item 51	O-Ring	1	
5	7017231	Barrel Weldment	1	
6	7017232	Rod Weldment	1	
7	Use Item 51	O-Ring	1	
8	Use Item 51	Ring, Back-up	1	
9	7017207	Guide	1	
10	Use Item 51	Seal, Lip	1	
11	Use Item 51	Wiper	1	
12	7017233	Valve, Bleeder	2	
13	7017235	Bushing, Bronze	1	

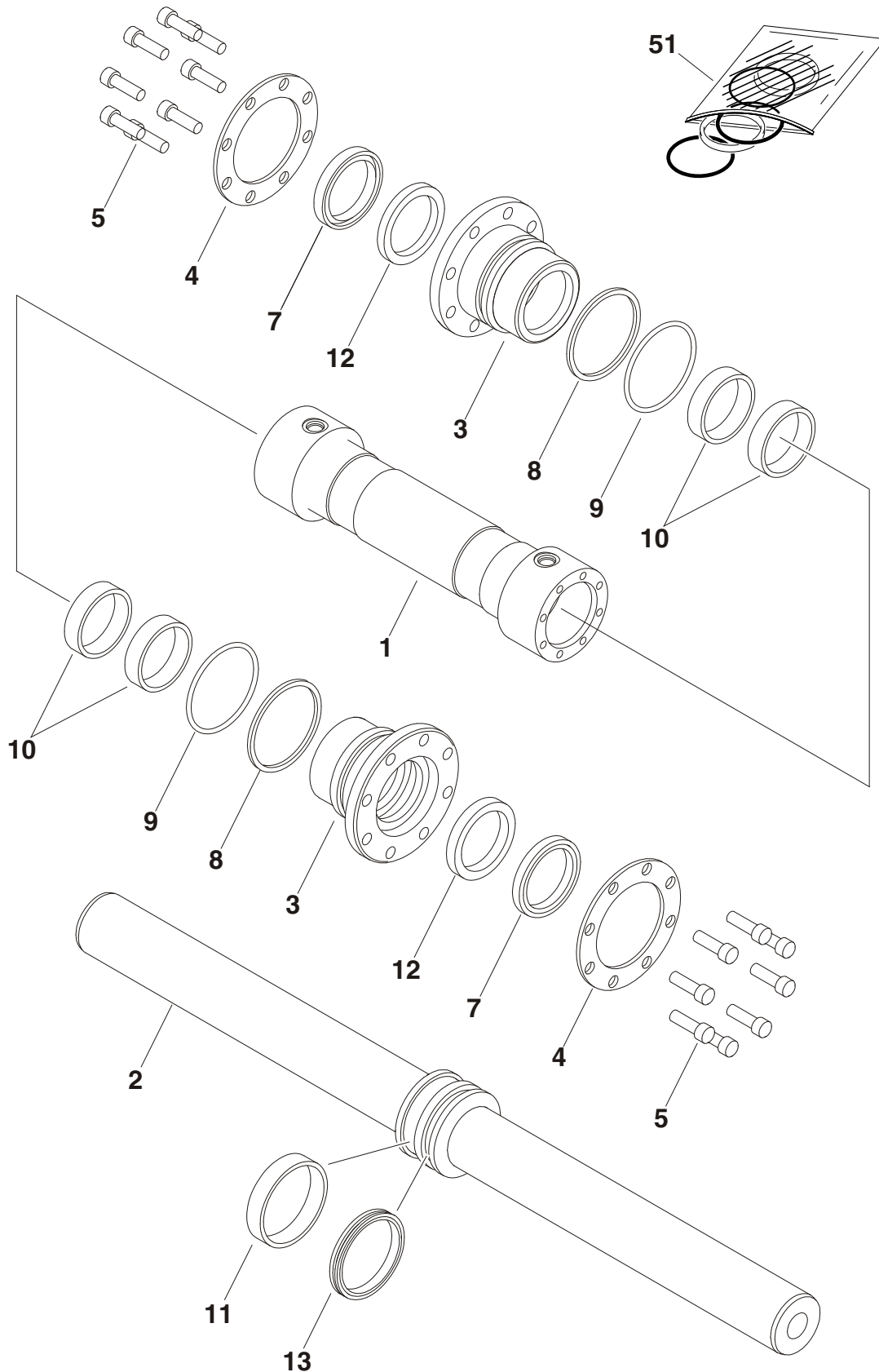
51	7017227	Seal Kit (Includes Items 2,4,7,8,9,10 &11)	1	

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FIGURE 5-8. STEER CYLINDER ASSEMBLY





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FIGURE 5-8. STEER CYLINDER ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	1683614	STEER CYLINDER ASSEMBLY	Ref	B
1	1683615	Barrel Weldment	1	
2	1683658	Rod Weldment	1	
3	1683076	Cap	2	
4	3760367	Washer, Ring	2	
5	3931516	Bolt, Socket Head 5/16"-18NC x 2"	16	
6	Not Used			
7	Use Item 51	Wiper	1	
8	Use Item 51	Ring, Back-up	2	
9	Use Item 51	O-Ring	2	
10	Use Item 51	Ring, Wear	4	
11	Use Item 51	Ring, Wear	1	
12	Use Item 51	Seal	2	
13	Use Item 51	T-Seal	1	
14	0100011	Loctite #242 (Not Shown)	A/R	
15	0100038	Primer, Locking (Not Shown)	A/R	

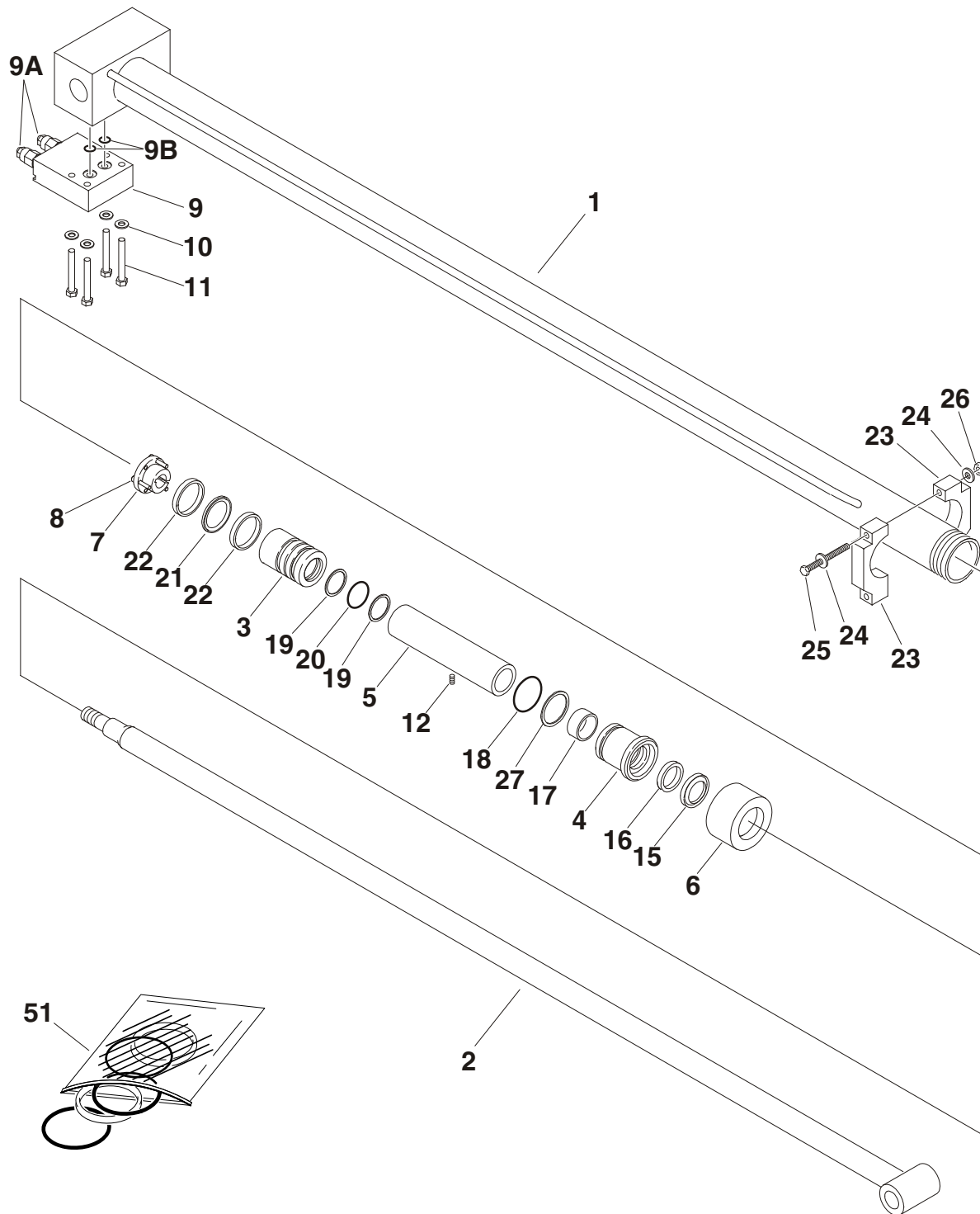
51	2901547	Seal Kit (Includes Items 7-13)	1	

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FIGURE 5-9. TELESCOPE CYLINDER ASSEMBLY



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FIGURE 5-9. TELESCOPE CYLINDER ASSEMBLY

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		TELESCOPE CYLINDER ASSEMBLY		
	1683582	450A Prior to S/N38481	Ref	B
	1683716	450A S/N38481 to Present	Ref	C
	1683653	450AJ Prior to S/N38481	Ref	B
	1683718	450AJ S/N38481 to Present	Ref	C
1		Barrel Weldment	1	
	1683580	450A Prior to S/N 38481		
	1683715	450A S/N 38481 to Present		
	1683655	450AJ Prior to S/N 38481		
	1683717	450AJ S/N 38481 to Present		
2		Rod Weldment	1	
	1683581	450A		
	1683654	450AJ		
3	3480227	Piston	1	
4	1683584	Head	1	
5	4567331	Spacer, Tube	1	
6	1120110	Cap, End	1	
7	0962185	Bushing, Tapered	1	
8	0630534	Bolt, Socket Head #10-24NC x 1"	3	
9	4641055	Valve, Counterbalance	1	
9A	7011335	Valve, Cartridge	2	
	2900770	Seal Kit - 7011335 Valve (1 Per Cartridge)	2	
9B	3790110	O-Ring	2	
10	4711500	Flatwasher 5/16" Narrow	4	
11	0641520	Bolt 5/16"-18NC x 2 1/2"	4	
12	3900142	Setscrew 3/8"-16NC x1/4"	1	
13	0100011	Loctite #242 (Not Shown)	A/R	
14	0100038	Primer, Locking (Not Shown)	A/R	
15	Use Item 51	Wiper	1	
16	Use Item 51	Seal	1	
17	Use Item 51	Ring, Wear	1	
18	Use Item 51	O-Ring	1	
19	Use Item 51	Ring, Back-up	2	
20	Use Item 51	O-Ring	1	
21	Use Item 51	Seal	1	
22	Use Item 51	Ring, Wear	2	
23	3340847	Pad, Support (S/N 38481 to Present Only)	2	
24	4751400	Flatwasher 1/4" (S/N 38481 to Present Only)	4	
25	0641424	Bolt 1/4"-20NC x 3" (S/N 38481 to Present Only)	2	
26	3311405	Locknut 1/4"-20NC (S/N 38481 to Present Only)	2	
27	Use Item 51	Ring, Back-up	1	
51	2901544	Seal Kit (Includes Items 15-22 & 27)	1	



SECTION 5 CYLINDER

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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SECTION 6 HYDRAULIC

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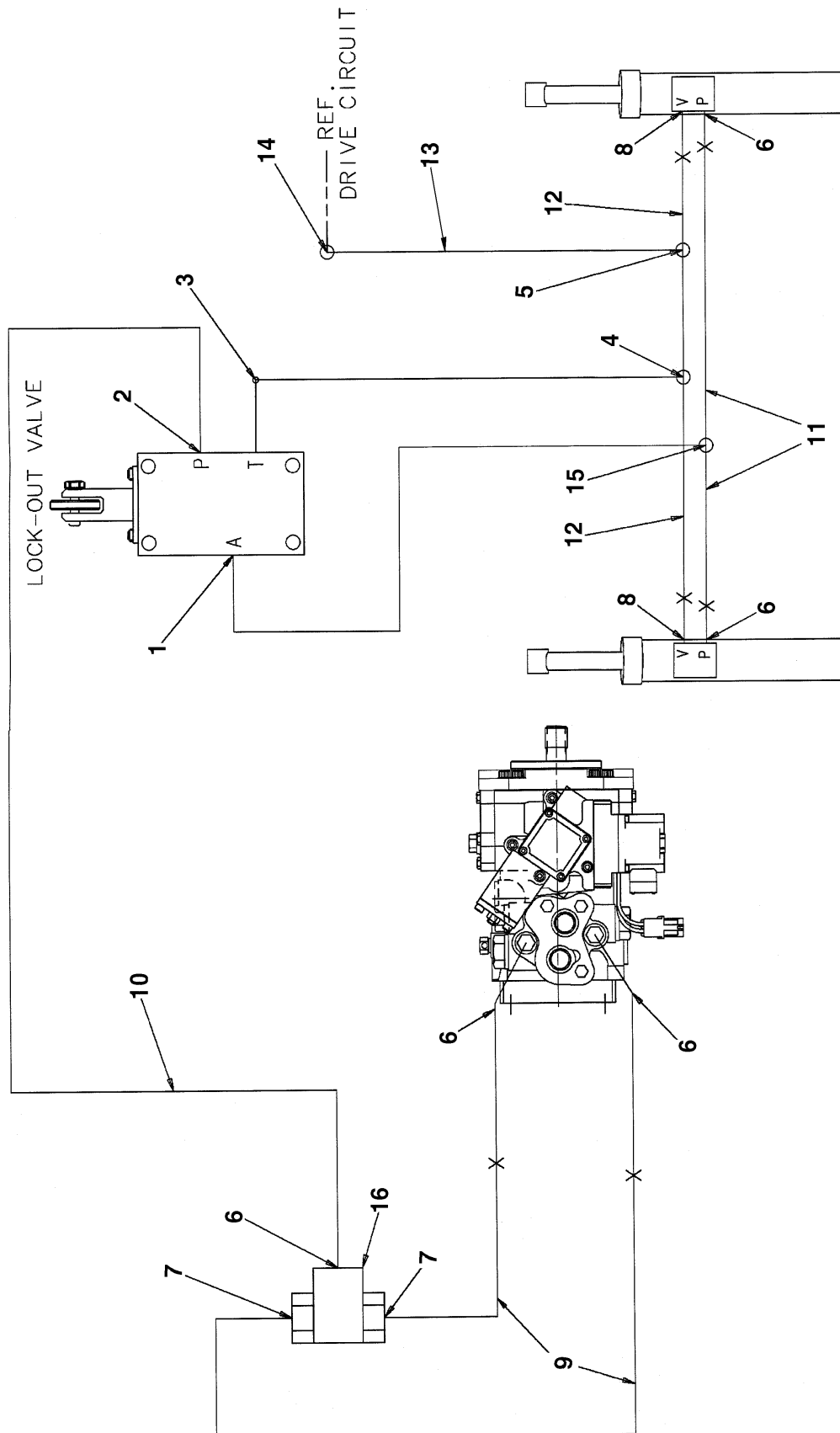
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SECTION 6 HYDRAULIC

FIGURE 6-1.AXLE LOCKOUT HYDRAULIC DIAGRAM - 2WD





SECTION 6 HYDRAULIC

FIGURE 6-1. AXLE LOCKOUT HYDRAULIC DIAGRAM - 2WD

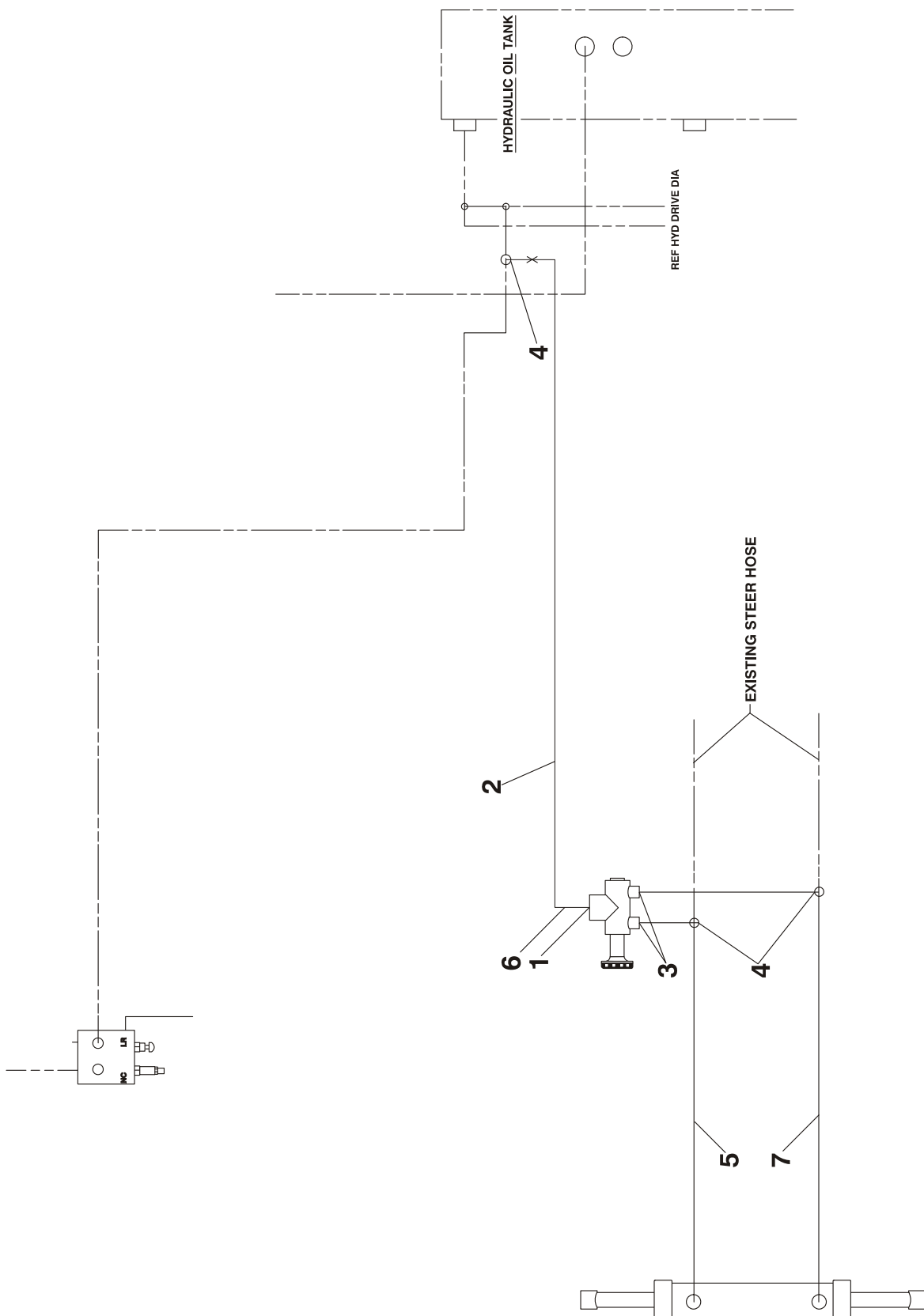
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2792356	AXLE LOCKOUT HYDRAULIC DIAGRAMS - 2WD	Ref.	2/B
1	2220502	Fitting, 45°	1	
2	2220415	Fitting, Straight	3	
3	2220603	Fitting, Straight	1	
4	2220579	Fitting, Tee	1	
5	2220635	Fitting, Tee	1	
6	2220582	Fitting, Straight	3	
7	Not Used			
8	2220371	Fitting, Straight	2	
9	2750895	Hose	1	
10	2751026	Hose	1	
11	2750888	Hose	2	
12	2753070	Hose	2	
13	2752648	Hose	1	
14	2220619	Fitting, Reducer	1	
15	2220861	Fitting, Tee	1	

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SECTION 6 HYDRAULIC

FIGURE 6-2.TOW BAR HYDRAULIC DIAGRAM





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FIGURE 6-2. TOW BAR HYDRAULIC DIAGRAM

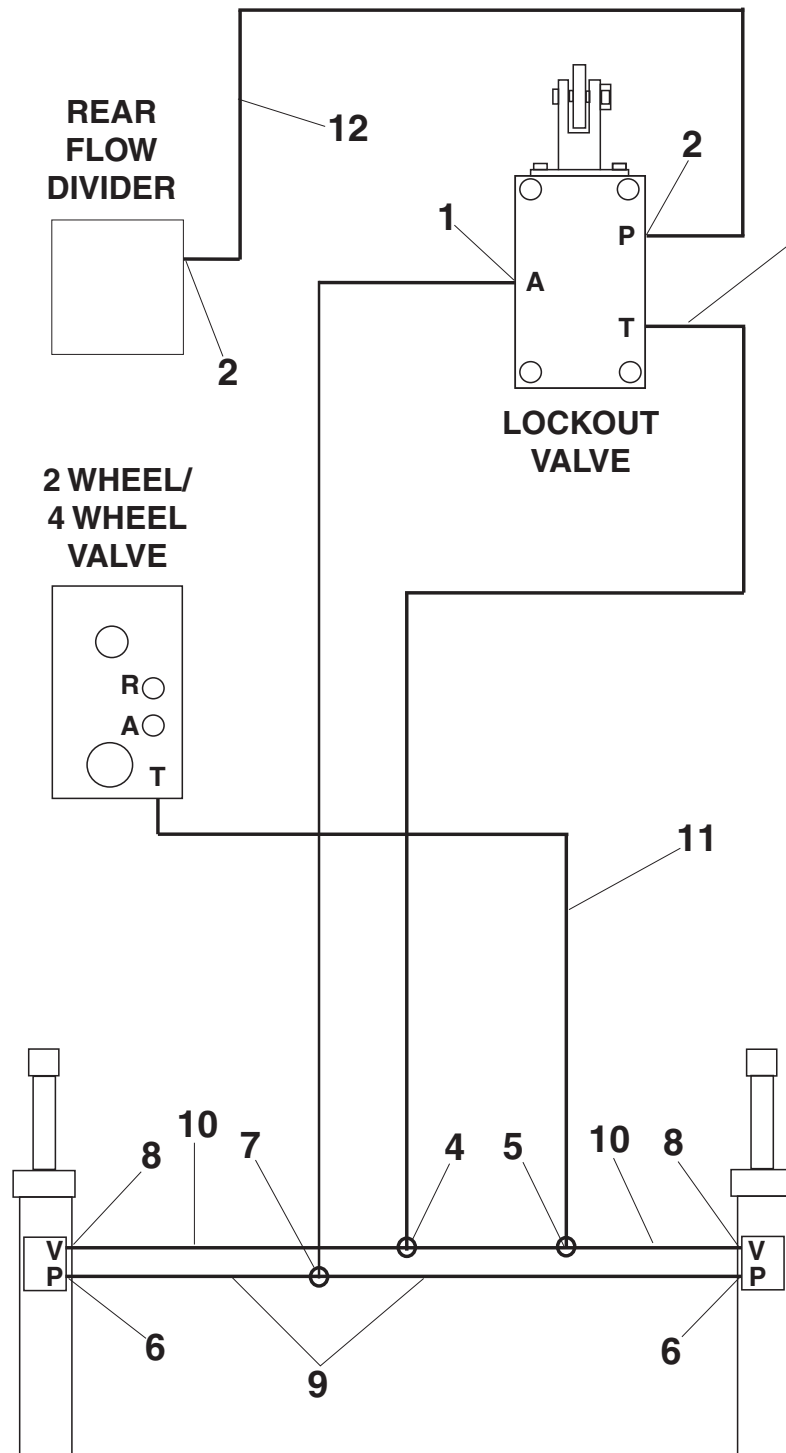
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2792414	TOW BAR HYDRAULIC DIAGRAM	Ref.	1/B
1	2220628	Fitting, 90°	1	
2	2752589	Hose	1	
3	2220468	Fitting, Straight	2	
4	2220605	Fitting, Tee	3	
5	2751426	Hose	1	
6	2220609	Fitting, Reducer	1	
7	2752590	Hose	1	

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FIGURE 6-3.AXLE LOCKOUT HYDRAULIC DIAGRAM - 4WD





SECTION 6 HYDRAULIC

FIGURE 6-3. AXLE LOCKOUT HYDRAULIC DIAGRAM - 4WD

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2792361	AXLE LOCKOUT HYDRAULIC DIAGRAM - 4WD	Ref.	2/B
1	2220502	Fitting	1	
2	2220415	Fitting	2	
3	2220603	Fitting	1	
4	2220579	Fitting	1	
5	2220635	Fitting	1	
6	2220582	Fitting	2	
7	2220861	Fitting, Tee	1	
8	2220371	Fitting	2	
9	2750888	Hose	2	
10	2753070	Hose	2	
11	2752469	Hose	1	
12	2751026	Hose	1	

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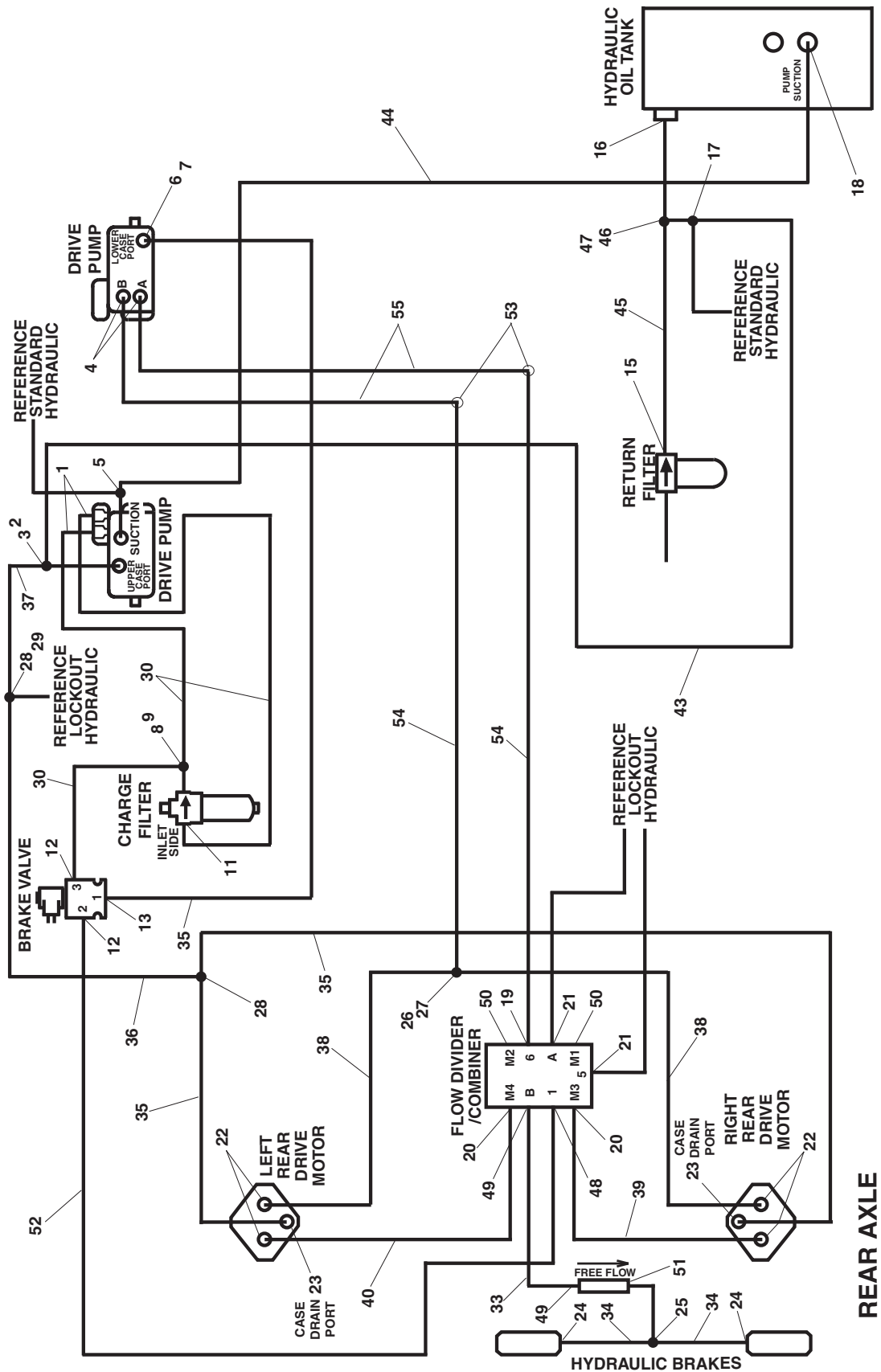
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SECTION 6 HYDRAULIC

FIGURE 6-4.DRIVE HYDRAULIC DIAGRAM - 2WD





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FIGURE 6-4. DRIVE HYDRAULIC DIAGRAM - 2WD

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2792358	DRIVE HYDRAULIC DIAGRAM - 2WD	Ref	6/C
1	2220374	Fitting, Straight	2	
2	2220738	Fitting, Tee	1	
3	2220622	Fitting, Reducer	1	
4	2220365	Fitting, 45°	2	
5	2221026	Fitting, Tee	1	
6	2220375	Fitting, Straight	1	
7	2220618	Fitting, Reducer	1	
8	2220811	Fitting, Reducer	1	
9	2220602	Fitting, Tee	1	
10	Not Used			
11	2220366	Fitting, 90°	1	
12	2220726	Fitting, 90°	2	
13	2220582	Fitting, Straight	1	
14	Not Used			
15	2220664	Fitting, 90°	1	
16	2220646	Fitting, 90°	1	
17	2220700	Fitting, Tee	2	
18	2220379	Fitting, Straight	1	
19	2220646	Fitting, Straight	1	
20	2220451	Fitting, Straight	2	
21	2220235	Fitting, Plug	2	
22	2220451	Fitting, Straight	4	
23	2220600	Fitting, Straight	2	
24	2220466	Fitting, Tee	2	
25	2220711	Fitting, Tee	1	
26	2220363	Fitting, Tee	1	
27	2220710	Fitting, Reducer	2	
28	2220362	Fitting, Tee	2	
29	2220517	Fitting, Cap	1	
30	2752942	Hose	3	
31	Not Used			
32	2752433	Hose	1	
33	2752436	Hose	1	
34	2752581	Hose	2	
35	2752943	Hose	2	
36	2752944	Hose	1	
37	2752945	Hose	1	
38	2752240	Hose	2	
39	2752262	Hose	1	
40	2752262	Hose	1	
41	Not Used			
42	Not Used			
43	2752667	Hose	1	
44	2752726	Hose	1	
45	2752723	Hose	1	



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FIGURE 6-4. DRIVE HYDRAULIC DIAGRAM - 2WD (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
46	2220642	Fitting, Tee	1	
47	2220710	Fitting, Reducer	1	
48	2220273	Fitting, Straight	1	
49	2220415	Fitting, Straight	1	
50	2220240	Fitting, Plug	2	
51	4641076	Valve, Restrictor	1	
52	2752357	Hose	1	
53	2221032	Fitting, Swivel	2	
	7023480	Kit, Repair	1	
54	2752325	Hose	2	
55	2752362	Hose	2	

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FIGURE 6-4. DRIVE HYDRAULIC DIAGRAM - 2WD (CONTINUED)

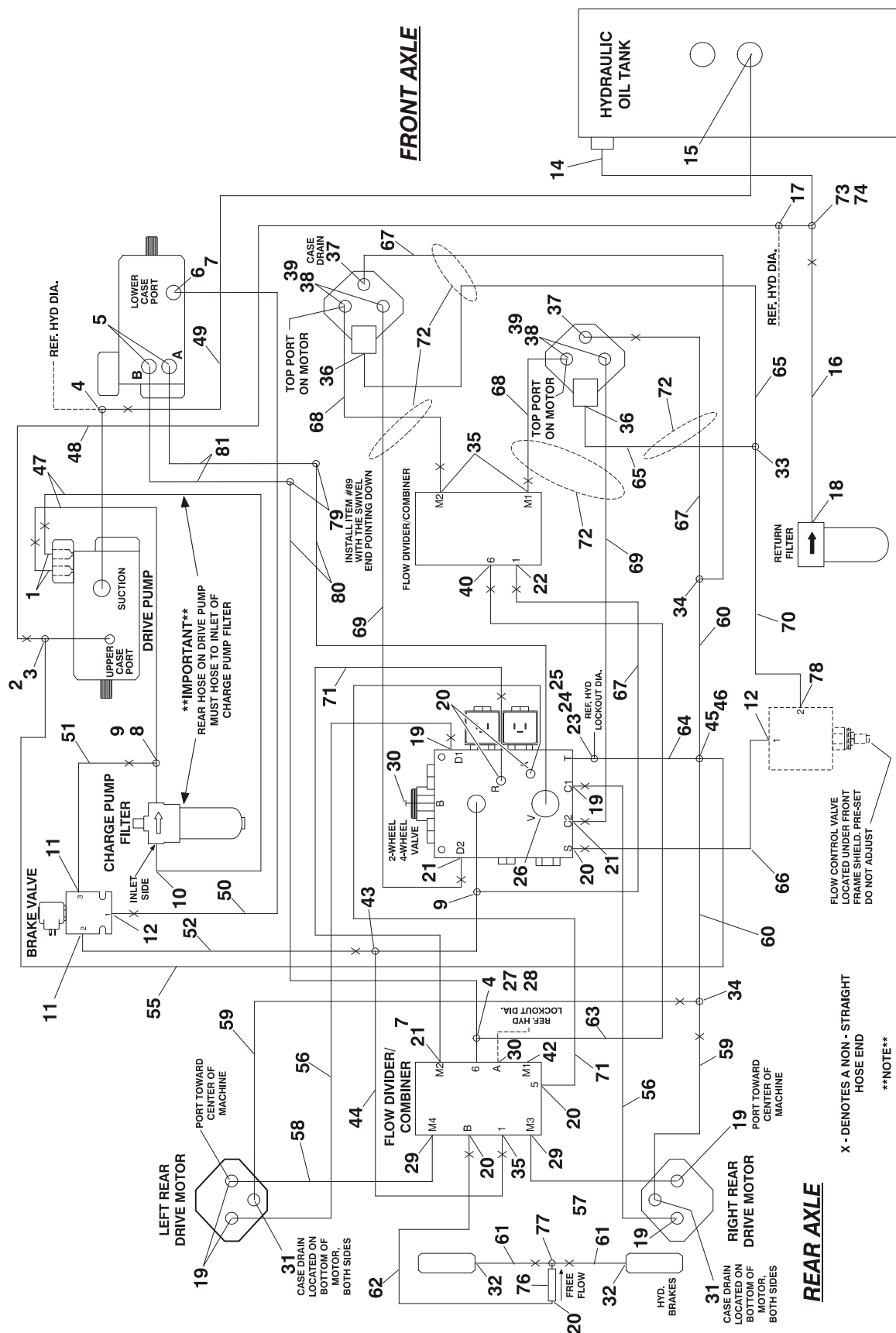
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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FIGURE 6-5.DRIVE HYDRAULIC DIAGRAM - 4WD





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FIGURE 6-5. DRIVE HYDRAULIC DIAGRAM - 4WD

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	2792359	DRIVE HYDRAULIC DIAGRAM - 4WD	Ref	6/E
1	2220374	Fitting, Straight	2	
2	2220738	Fitting, Tee	1	
3	2220622	Fitting, Reducer	1	
4	2221026	Fitting, Tee	2	
5	2220365	Fitting, 45°	2	
6	2220375	Fitting, Straight	1	
7	2220618	Fitting, Reducer	2	
8	2220811	Fitting, Reducer	1	
9	2220602	Fitting, Tee	2	
10	2220366	Fitting, 90°	1	
11	2220726	Fitting, 90°	2	
12	2220582	Fitting, Straight	2	
13	Not Used			
14	2220646	Fitting, 90°	1	
15	2220379	Fitting, Straight	1	
16	2752723	Hose	1	
17	2220700	Fitting, Tee	1	
18	2220664	Fitting, 90°	1	
19	2220451	Fitting, Straight	6	
20	2220415	Fitting, Straight	8	
21	2220375	Fitting, Straight	3	
22	2220373	Fitting, Straight	1	
23	2220603	Fitting, Straight	1	
24	2220579	Fitting, Tee	1	
25	2220516	Fitting, Cap	1	
26	2220377	Fitting, Straight	1	
27	2220710	Fitting, Reducer	1	
28	2220407	Fitting, 90°	1	
29	2220451	Fitting, Straight	2	
30	2220235	Fitting, Plug	2	
31	2220600	Fitting, Straight	2	
32	2220466	Fitting, Tee	2	
33	2220504	Fitting, Tee	1	
34	2220362	Fitting, Tee	2	
35	2220373	Fitting, Straight	3	
36	2220502	Fitting, 45°	2	
37	2220600	Fitting, Straight	2	
38	2221068	Fitting	4	
39	2220500	Fitting, 45°	4	
40	2220451	Fitting, Straight	1	
41	Not Used			
42	2220240	Fitting, Plug	1	
43	2220383	Fitting, Tee	1	
44	2752495	Hose	1	
45	2220469	Fitting, Tee	1	



SECTION 6 HYDRAULIC

FIGURE 6-5. DRIVE HYDRAULIC DIAGRAM - 4WD (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
46	2220619	Fitting, Reducer	1	
47	2752942	Hose	2	
48	2752667	Hose	1	
49	2752726	Hose	1	
50	2752433	Hose	1	
51	2752942	Hose	1	
52	2752928	Hose	1	
53	Not Used			
54	Not Used			
55	2752946	Hose	1	
56	2752263	Hose	2	
57	2752262	Hose	1	
58	2752261	Hose	1	
59	2752943	Hose	2	
60	2752944	Hose	2	
61	2752581	Hose	2	
62	2752436	Hose	1	
63	2752264	Hose	1	
64	2752648	Hose	1	
65	2753034	Hose	2	
66	2750760	Hose	1	
67	2752514	Hose	3	
68	2753088	Hose	2	
69	2753089	Hose	2	
70	2751015	Hose	1	
71	2750899	Hose	2	
72	4100026	Sleeve, Hose	7ft/2.13m	
73	2220710	Fitting, Reducer	1	
74	2220642	Fitting, Tee	1	
75	Not Used			
76	4641076	Valve, Restrictor	1	
77	2220711	Fitting, Tee	1	
78	2220472	Fitting, 90°	1	
79	2221032	Fitting, Swivel	2	
80	2752325	Hose	2	
81	2752362	Hose	2	

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FIGURE 6-5. DRIVE HYDRAULIC DIAGRAM - 4WD (CONTINUED)

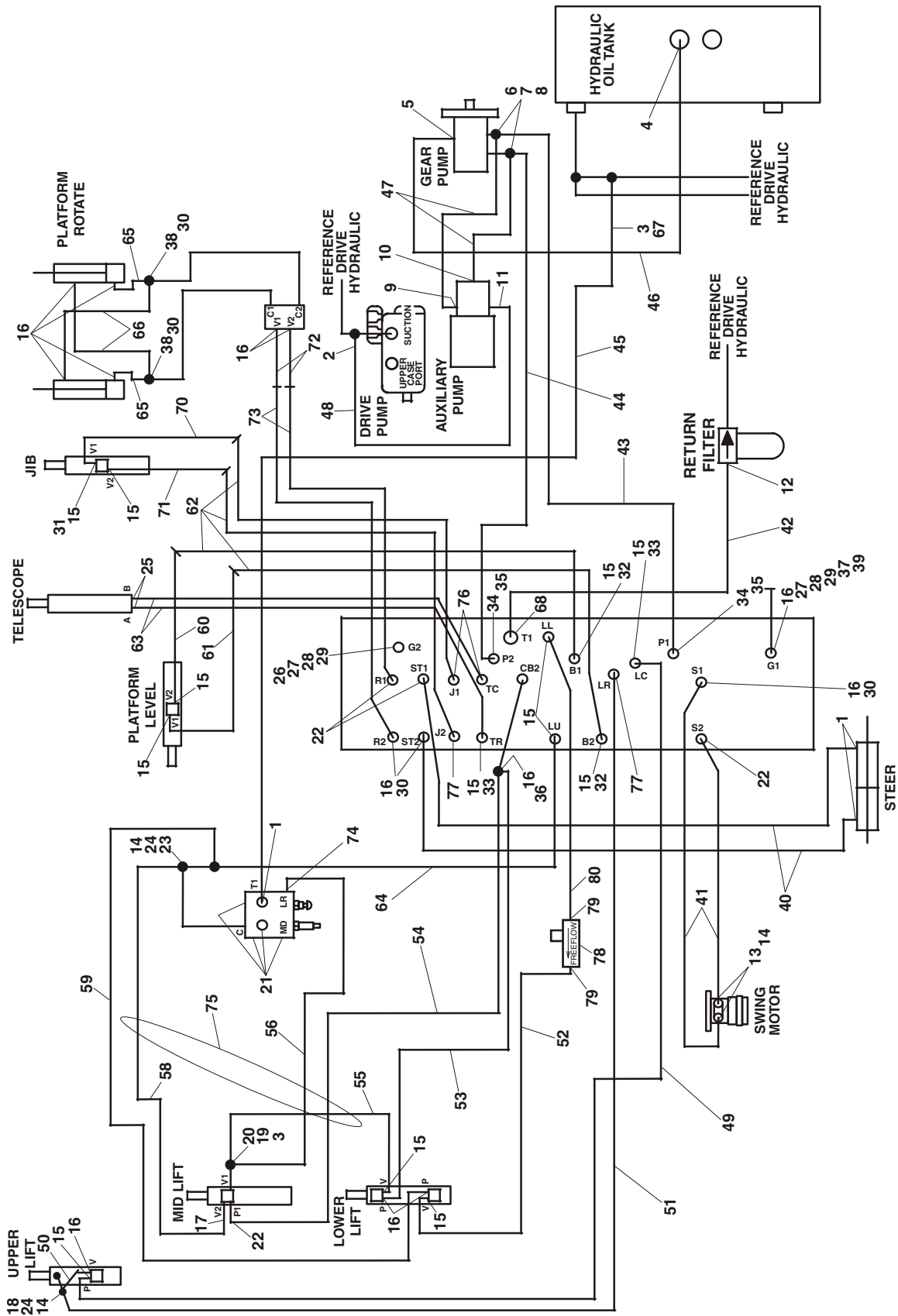
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

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SECTION 6 HYDRAULIC

FIGURE 6-6.STANDARD HYDRAULIC DIAGRAM





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FIGURE 6-6. STANDARD HYDRAULIC DIAGRAM

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		STANDARD HYDRAULIC DIAGRAM		
	2792352	450A	Ref	5/F
	2792353	450AJ	Ref	6/G
1	2220582	Fitting, Straight	3	
2	2220710	Fitting, Reducer	1	
3	2220618	Fitting, Reducer	2	
4	2220379	Fitting, Straight	1	
5	2221025	Fitting, Straight	1	
6	4640744	Valve, Check	2	
7	2220385	Fitting, Tee	2	
8	2220619	Fitting, Reducer	2	
9	2220775	Fitting, 90°	1	
10	2220603	Fitting, Straight	1	
11	2220567	Fitting, 90°	1	
12	2220578	Fitting, 90°	1	
13	2220497	Fitting, Straight	2	
14	2220609	Fitting, Reducer	4	
15	2220371	Fitting, Straight	A/R	
16	2220415	Fitting, Straight	14	
17	2220628	Fitting, 90°	1	
18		Fitting, 90° Options:	1	
	2220628	450A		
	2220473	450AJ		
19	2220619	Fitting, Reducer	1	
20	2220999	Fitting, Tee	1	
21	2220237	Fitting, Plug	4	
22	2220466	Fitting, 90°	4	
23	2220606	Fitting, Tee	1	
24	2220635	Fitting, Tee	2	
25	2220501	Fitting, 45°	2	
26	2220873	Fitting, Straight	1	
27	2220428	Fitting, Pressure Check	2	
28	2220429	Cap, Dust	2	
29	0100020	Sealant, Pipe	A/R	
30	2220654	Fitting, 90°	5	
31		Fitting Options:	A/R	
	Not Required	450A	0	
	2220907	450AJ	1	
32	2220509	Fitting, 90°	2	
33	2220507	Fitting, 90°	2	
34	2220600	Fitting, Straight	2	
35	2220386	Fitting, 90°	2	
36	2220605	Fitting, Tee	1	
37	2220414	Fitting, Straight	1	
38	2221034	Fitting, Tee	2	
39	2752436	Hose	1	



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FIGURE 6-6. STANDARD HYDRAULIC DIAGRAM (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
40	2752996	Hose	2	
41	2752434	Hose	2	
42	2752669	Hose	1	
43	2752947	Hose	1	
44	2752948	Hose	1	
45	2752434	Hose	1	
46	2752726	Hose	1	
47	2752479	Hose	2	
48	2752668	Hose	1	
49	2753072	Hose	1	
50		Hose Options:	1	
	2752433	450A		
	2752453	450AJ		
51	2753073	Hose	1	
52	2752627	Hose	1	
53	2752439	Hose	1	
54	2752998	Hose	1	
55	2753074	Hose	1	
56	2752583	Hose	1	
57	Not Required			
58	2752623	Hose	1	
59	2752999	Hose	1	
60		Hose Options:	1	
	2753081	450A		
	2753077	450AJ		
61		Hose Options:	1	
	2753082	450A		
	2753078	450AJ		
62	2753075	Hose	A/R	
63	2753076	Hose	2	
64	2752463	Hose	1	
65	2753000	Hose	2	
66	2752437	Hose	2	
67	2220622	Fitting, Reducer	1	
68	2220593	Fitting, Straight	1	
69	Not Used			
70		Hose Options	A/R	
	Not Required	450A	0	
	2753079	450AJ	1	
71		Hose Options	A/R	
	Not Required	450A	0	
	2753080	450AJ	1	
72		Hose Options	2	
	2753004	450A		
	2753003	450AJ		
73	2753001	Hose	2	
74	2220472	Fitting 90°	1	
75	Not Used			

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FIGURE 6-6. STANDARD HYDRAULIC DIAGRAM (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
76		Fitting Options	A/R	
	Not Required	450A	0	
	2220473	450AJ	2	
77	2220819	Fitting, 90°	2	
78	4640757	Valve, Colorflow	1	
79	2220372	Fitting, Straight	2	
80	2752463	Hose	1	
81	1704395	Hose Tag Kit (Not Shown)	1	

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SECTION 6 HYDRAULIC

FIGURE 6-7.HYDRAULIC DIAGRAM LIST

		Note: Diagrams with asterick (*) are shown in the preceding pages. Diagrams not shown are available from JLG service department.		
		Axle Lockout Hydraulic Diagrams:	Ref.	
	2792356*	2WD Machines	Ref.	
	2792361*	4WD Machines	Ref.	
	2792414*	Tow Bar Hydraulic Diagrams:	Ref.	
		Drive Hydraulic Diagrams:	Ref.	
	2792358*	2WD Machines	Ref.	
	2792359*	4WD Machines	Ref.	
		Standard Hydraulic Diagrams:	Ref.	
	2792352*	450A	Ref.	
	2792353*	450AJ	Ref.	
		Standard Hydraulic Schematics:	Ref.	
	2792357	Bang-Bang Valves	Ref.	
	2792372	Proportional Valves	Ref.	

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7-5	ELECTRICAL SCHEMATIC - ISUZU ENGINE MACHINES	7-16
7-6	HARNESS COMPONENTS INSTALLATION	7-20

SECTION 7 ELECTRICAL



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FIGURE 7-1.ELECTRICAL DIAGRAM LIST

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Note: Diagrams with asterisks (*) are shown in the following pages. Diagrams not shown are available from the JLG Service Department.		
		ALARM ELECTRICAL DIAGRAMS		
	4933021	Motion Alarm	Ref.	1/A
	4633022	Travel Alarm	Ref.	1/A
	0258921/1283002	ETHER START ELECTRICAL DIAGRAM	Ref.	1/A
		GENERATOR ELECTRICAL DIAGRAMS		
	4932915	110Volt Prior to S/N 56107	Ref.	2/C
	4933150	110Volt S/N 56107 to Present	Ref.	2/B
	4932989	220Volt Prior to S/N 56107	Ref.	1/B
	4933149	220Volt S/N 56107 to Present	Ref.	2/B
	4933070	GLOW PLUG ELECTRICAL DIAGRAM (DEUTZ MACHINES) (Prior to S/N 59303)	Ref.	1/A
	2400041	Fuse 200 Amp	1	
	2400044	Fuseholder	1	
	4922206	Harness, Wiring	1	
	4120035	Base, Light	2	
	2920129	Bulb, Light	2	
	3990010	Diode 6 Amp	1	
	2901691	Timer Relay, Glowplugs and Connector Kit	1	
	2901764	Battery Cable Kit	1	
	4933175	GLOW PLUG ELECTRICAL DIAGRAM (DEUTZ MACHINES) (S/N 59303 to Present)	Ref.	1/B
	4922542	Harness, Wiring	1	
	4120035	Base, Light	2	
	2920129	Bulb, Light	2	
	3990010	Diode 6 Amp	1	
	2901691	Timer Relay, Glowplugs and Connector Kit	1	
	1060904	Battery Cable	1	
		LIGHTS ELECTRICAL DIAGRAMS		
	4932917	Headlight/Taillight	Ref.	3/D
	4933027/1282937	Strobe Light	Ref.	1/A
	4932999	PLATFORM ELECTRICAL DIAGRAM	Ref.	4/E
	4933007	PLATFORM LOAD SENSING ELECTRICAL DIAGRAM	Ref.	A
	0258770	PROXIMITY SWITCH ELECTRICAL DIAGRAM	Ref.	1/A
	4933133	SOFT TOUCH ELECTRICAL DIAGRAM	Ref.	1/A



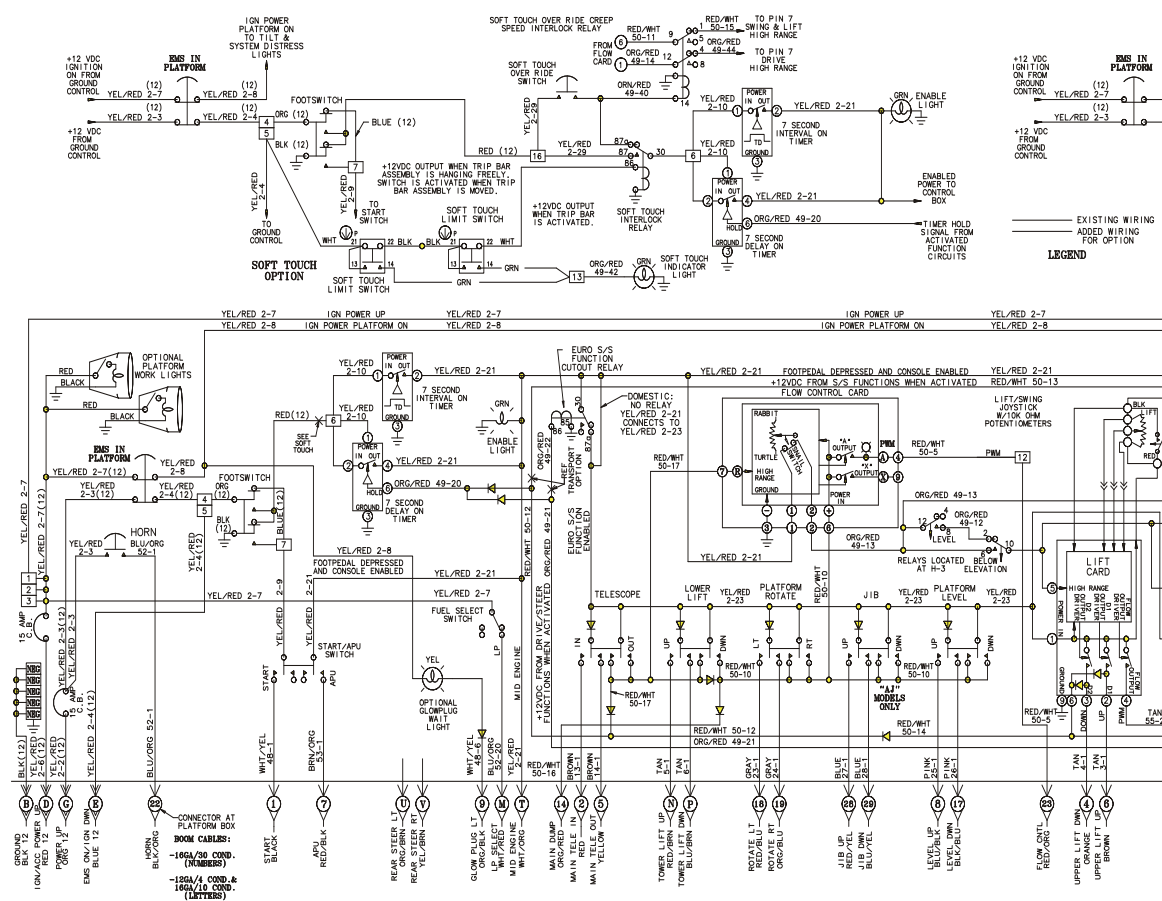
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FIGURE 7-1.ELECTRICAL DIAGRAM LIST

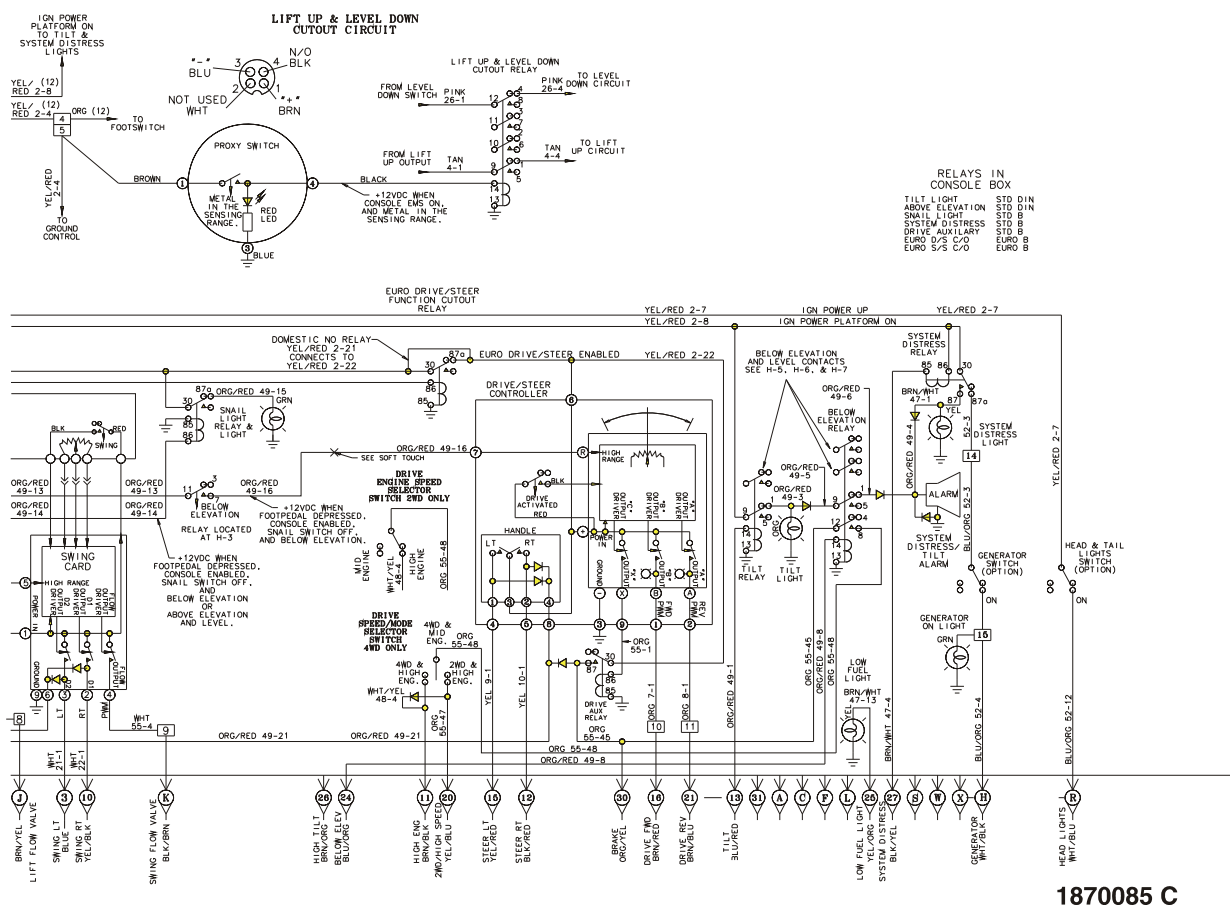
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		STANDARD ELECTRICAL DIAGRAMS		
	4933053	Deutz Machines	Ref.	4/G
	4933052	Ford Machines Prior to S/N 43370 (With Carburetor)	Ref.	2/D
	4933093	Ford Machines S/N 43370 to S/N46089 (With Carburetor)	Ref.	3/C
	4933089	Ford Machines S/N46089 to Present (With EFI)	Ref.	2/B
	4933087	Isuzu Machines	Ref.	3/B
		STANDARD ELECTRICAL SCHEMATIC		
	1870085*	Deutz Machines	Ref.	C
	1870084	Ford Machines Prior to S/N 43370 (With Carburetor)	Ref.	C
	1870101*	Ford Machines S/N 43370 to S/N 46089 (With Carburetor)	Ref.	A
	1870099*	Ford Machines S/N 46089 to Present (With EFI)	Ref.	B
	1870098*	Isuzu Machines	Ref.	A
	0258431	2WD/4WD ELECTRICAL DIAGRAM	Ref.	3/B

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FIGURE 7-2.ELECTRICAL SCHEMATIC - DEUTZ ENGINE MACHINES



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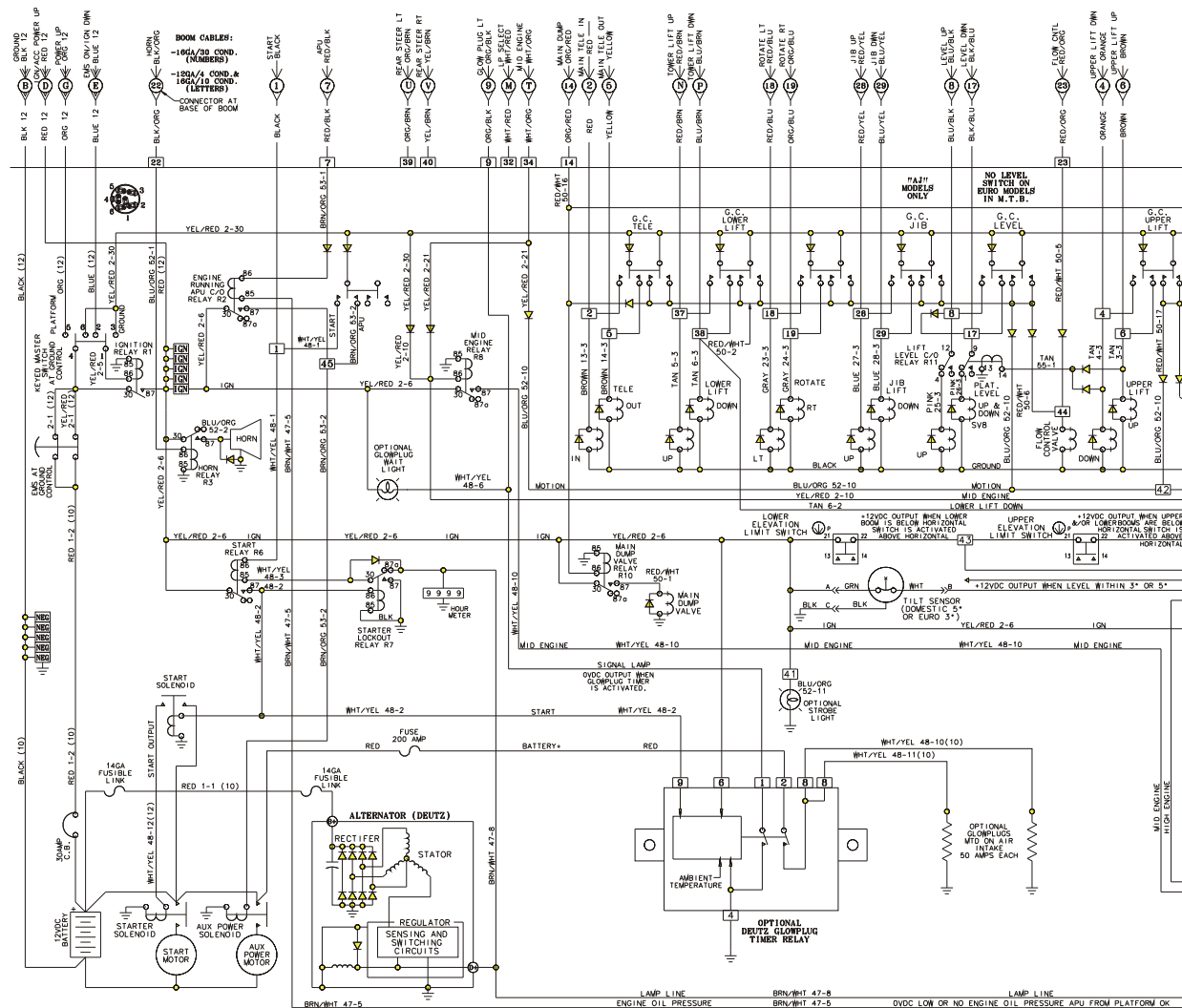


1870085 C

SECTION 7 ELECTRICAL

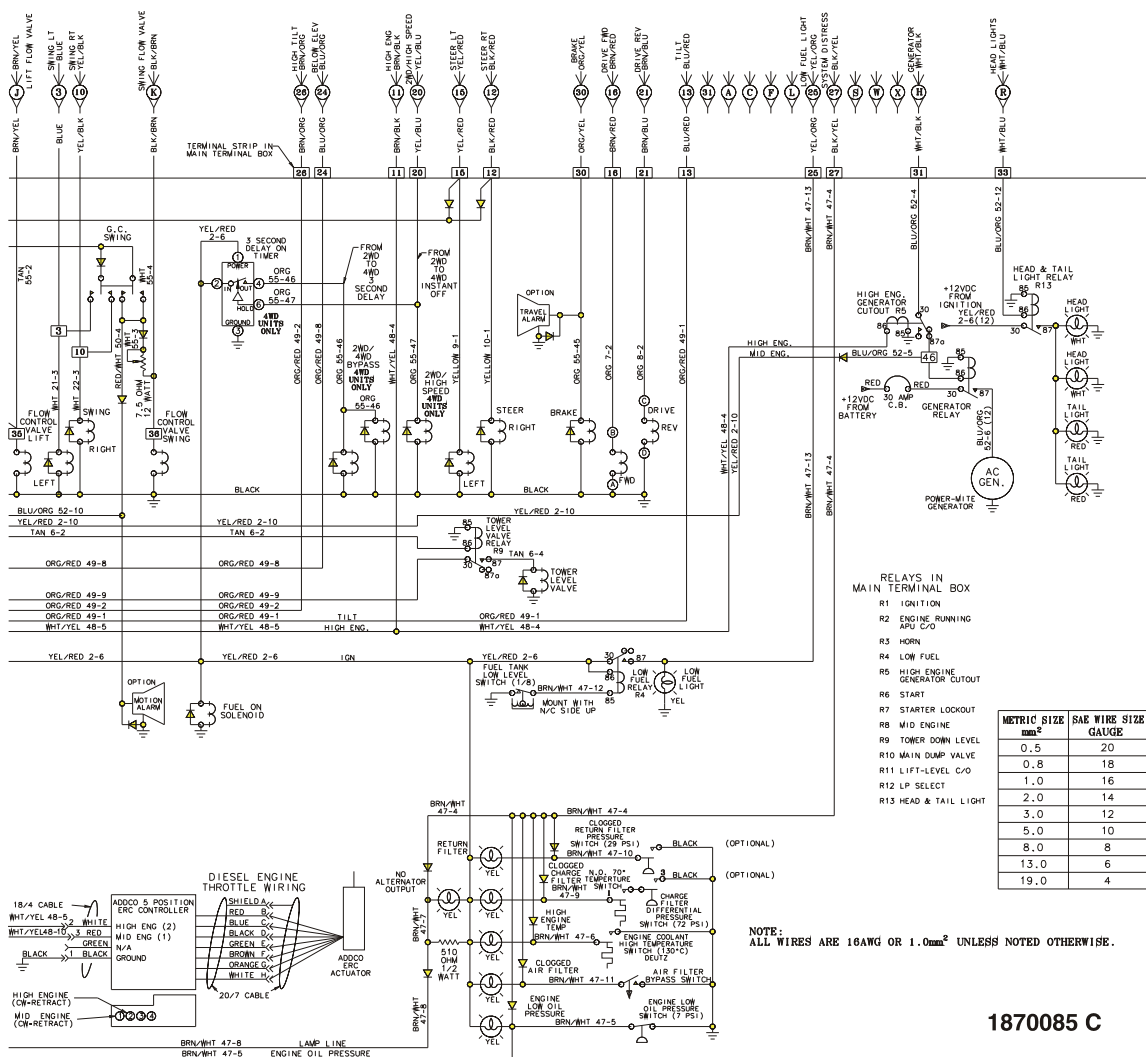
SECTION 7 ELECTRICAL

FIGURE 7-2. ELECTRICAL SCHEMATIC - DEUTZ ENGINE MACHINES





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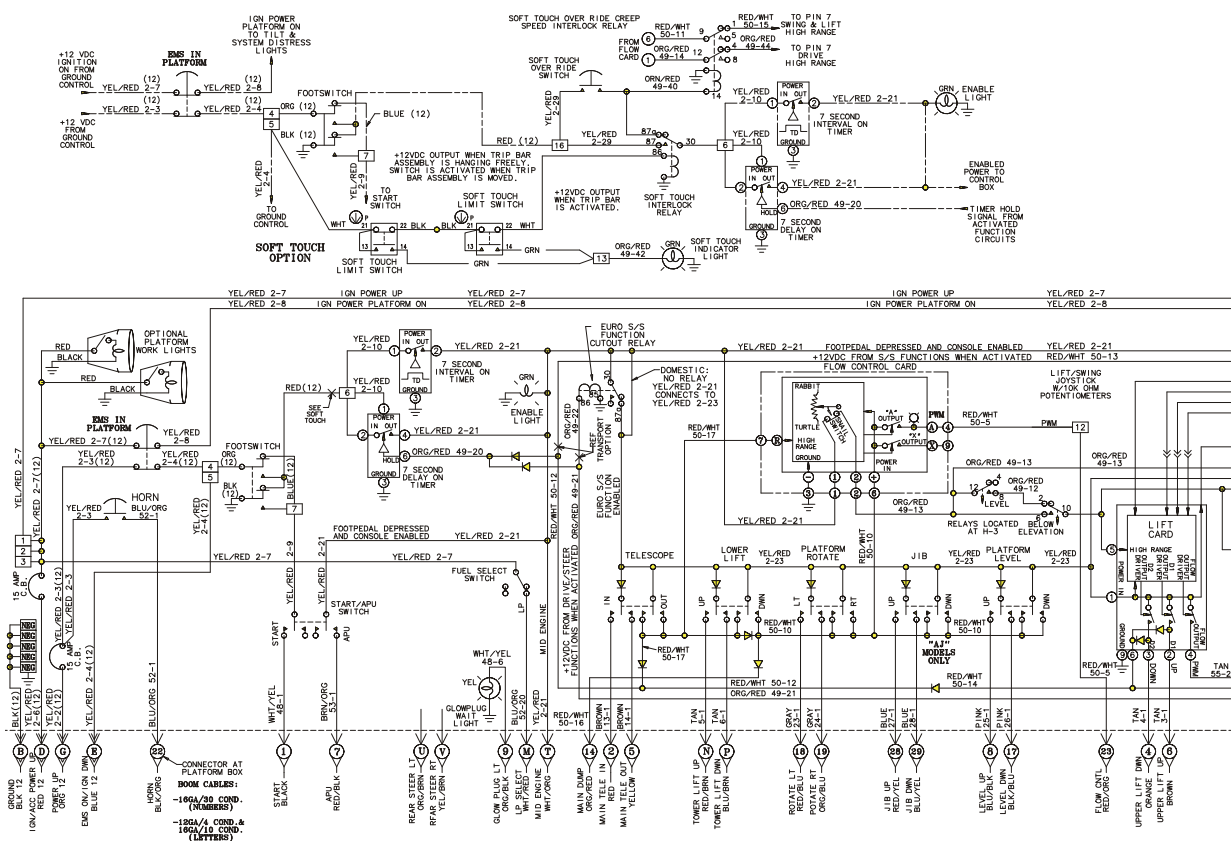


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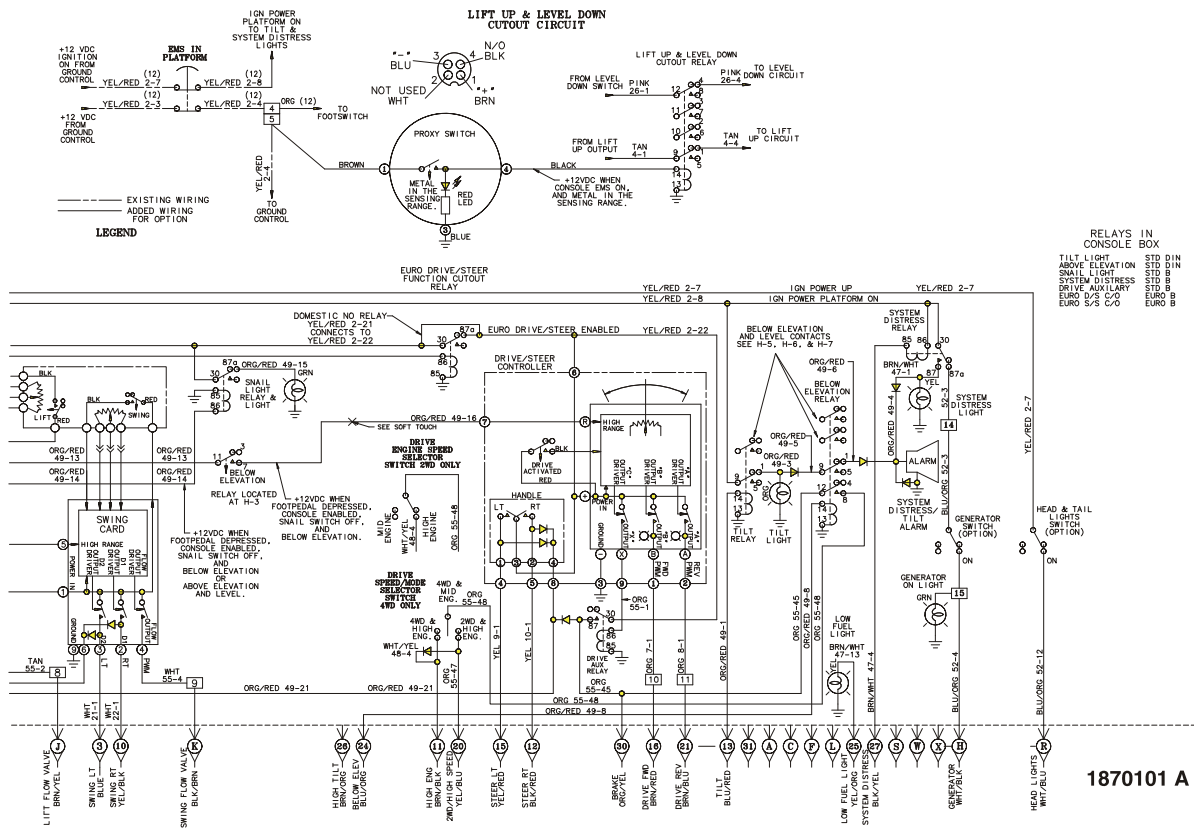
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FIGURE 7-3.ELECTRICAL SCHEMATIC - FORD ENGINE MACHINES WITH CARBURETOR



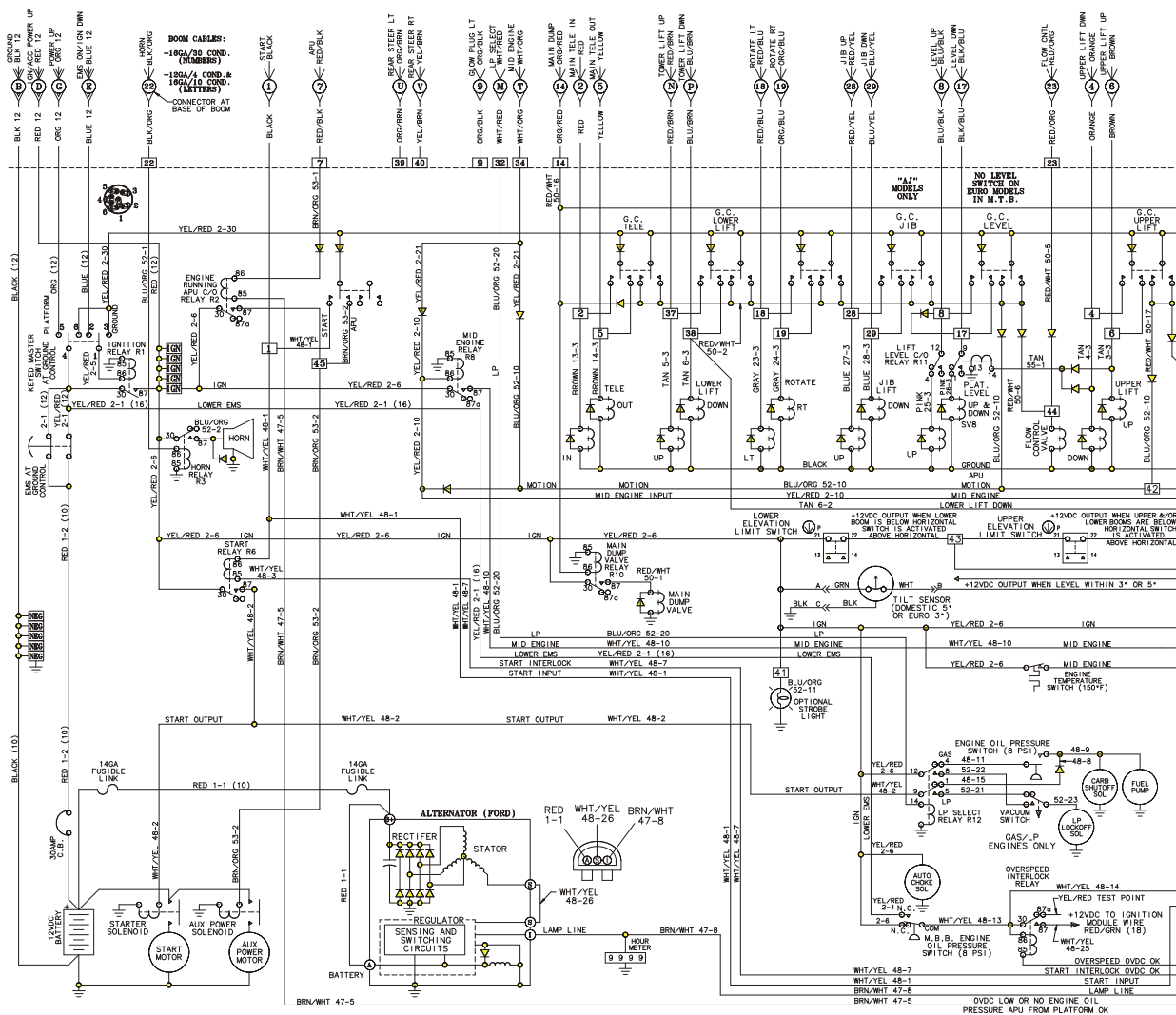


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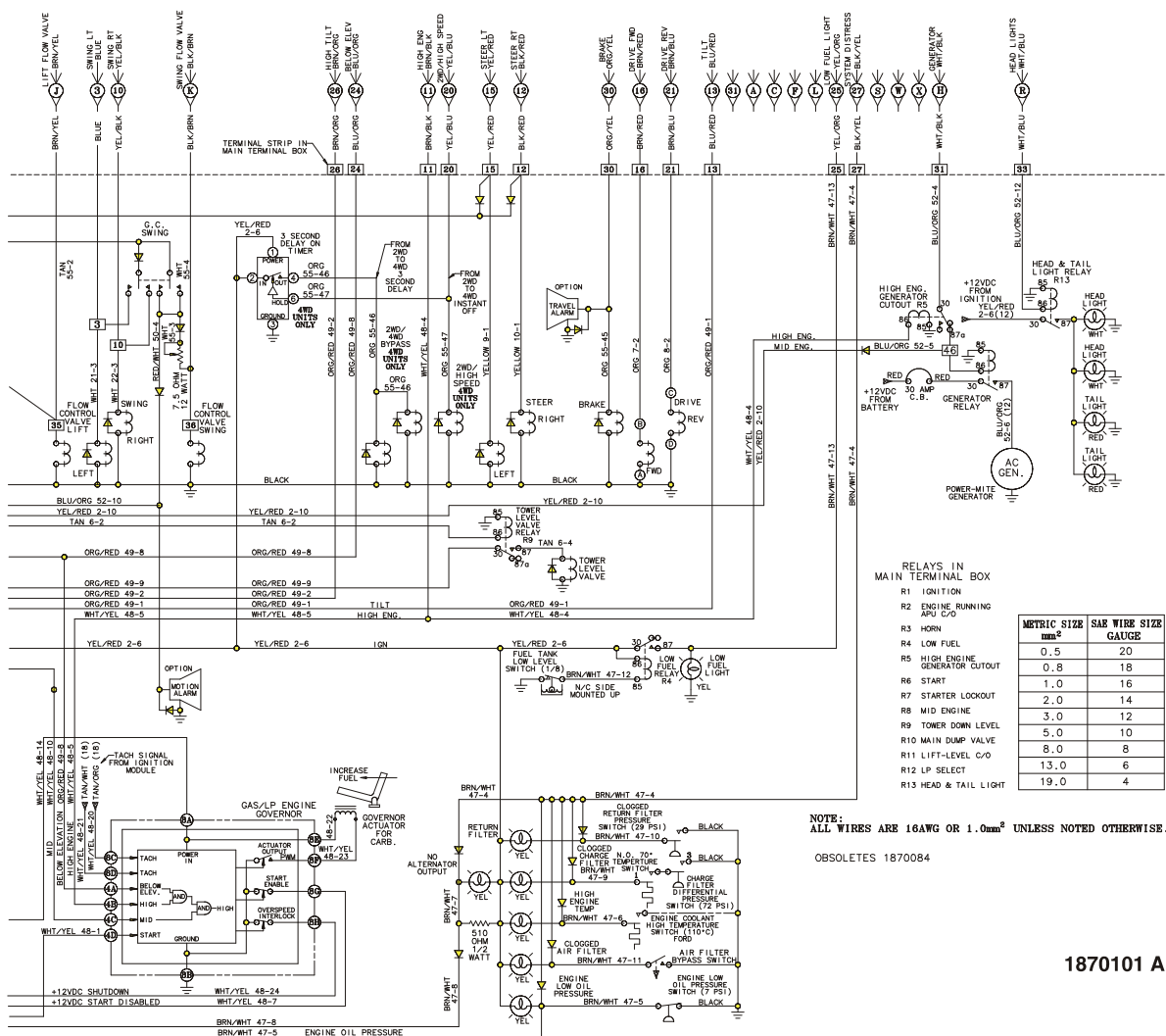
SECTION 7 ELECTRICAL

FIGURE 7-3. ELECTRICAL SCHEMATIC - FORD ENGINE MACHINES WITH CARBURETOR





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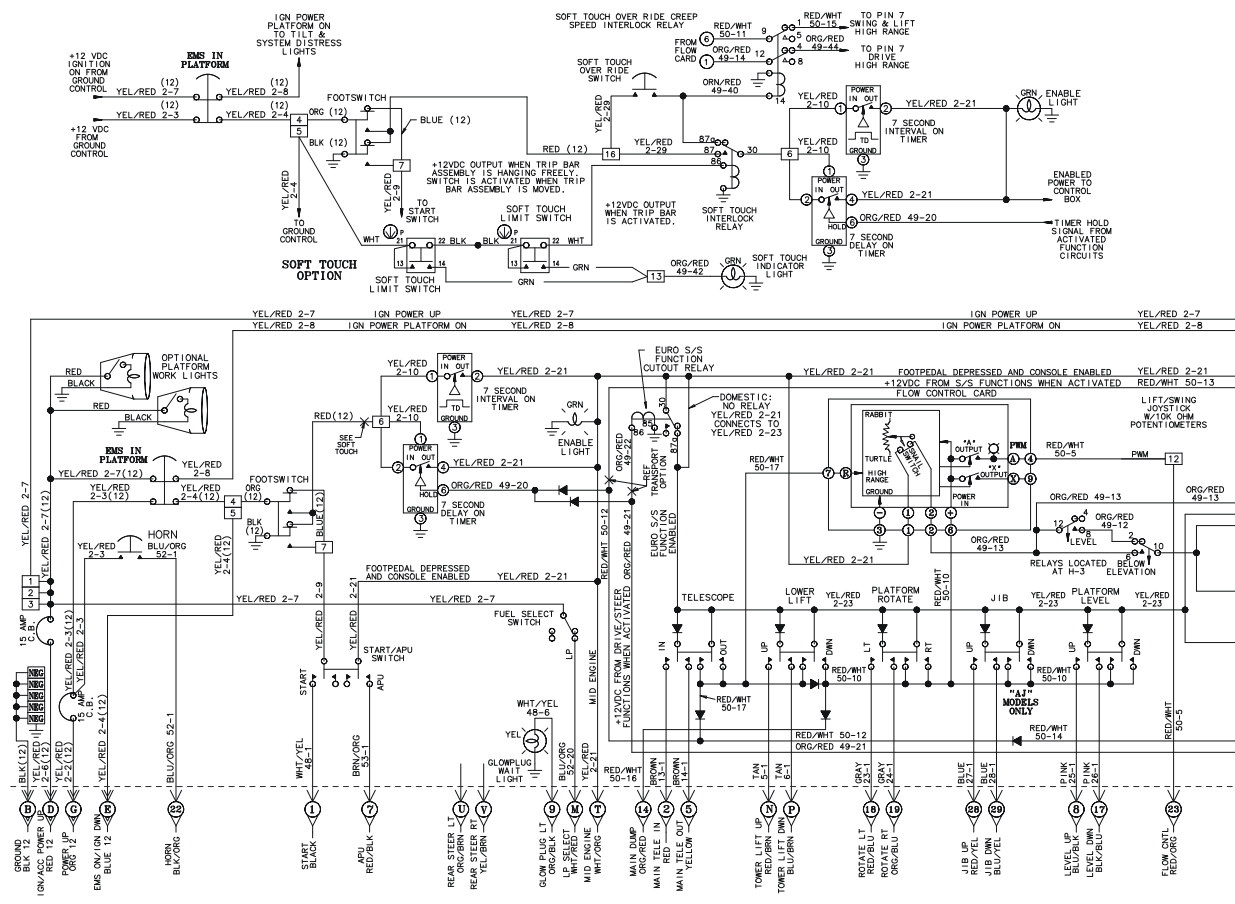
1870101 A

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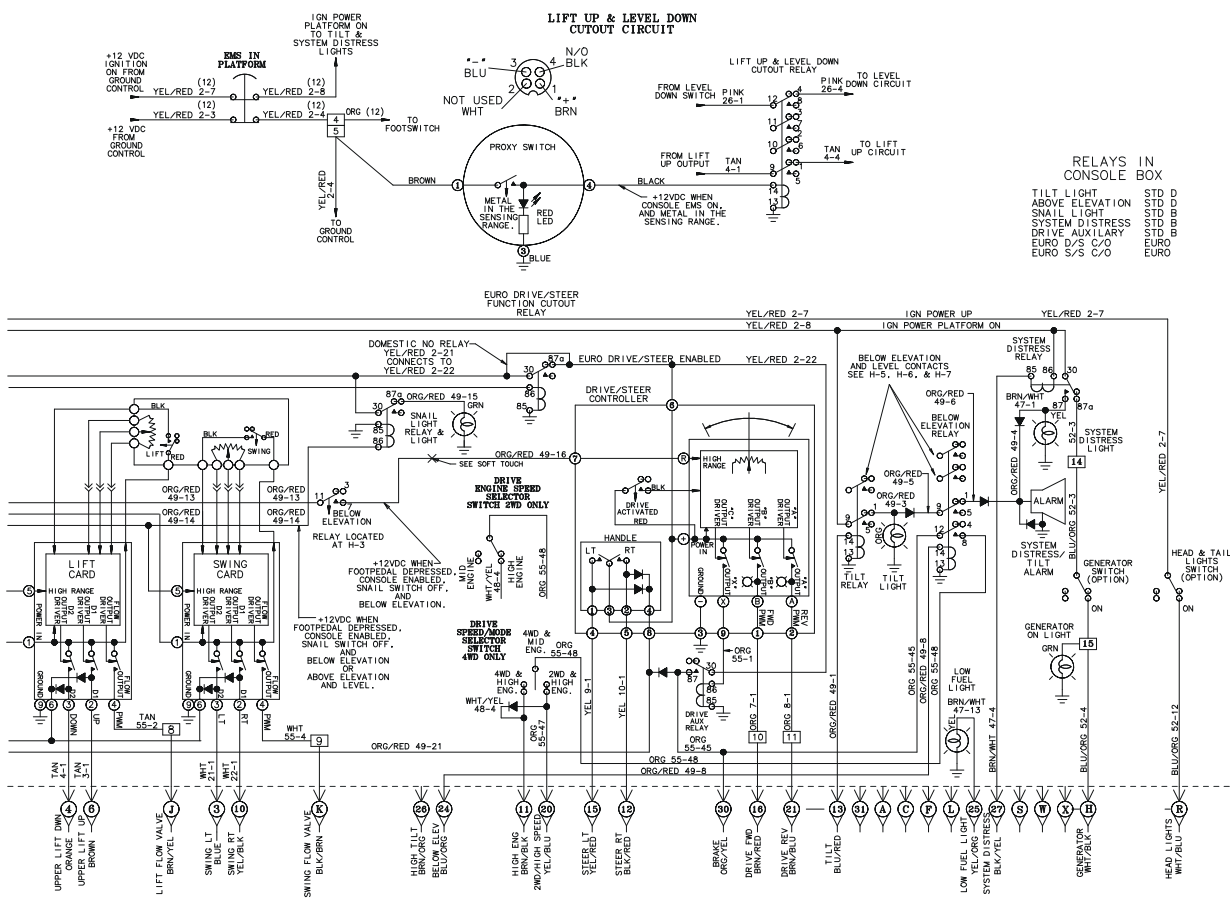
SECTION 7 ELECTRICAL

FIGURE 7-4.ELECTRICAL SCHEMATIC - FORD ENGINE MACHINES WITH EFI





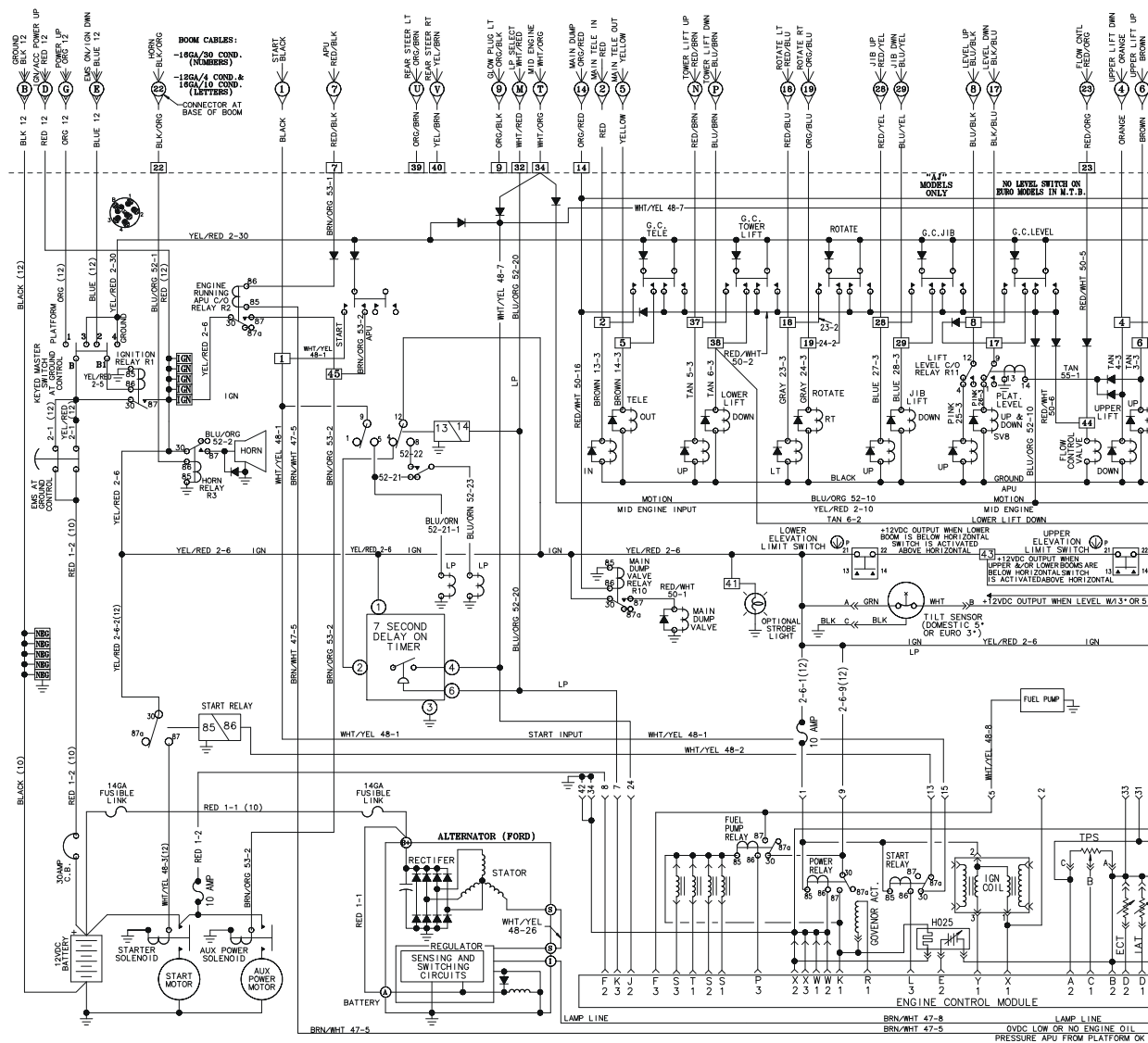
SECTION 7 ELECTRICAL



SECTION 7 ELECTRICAL

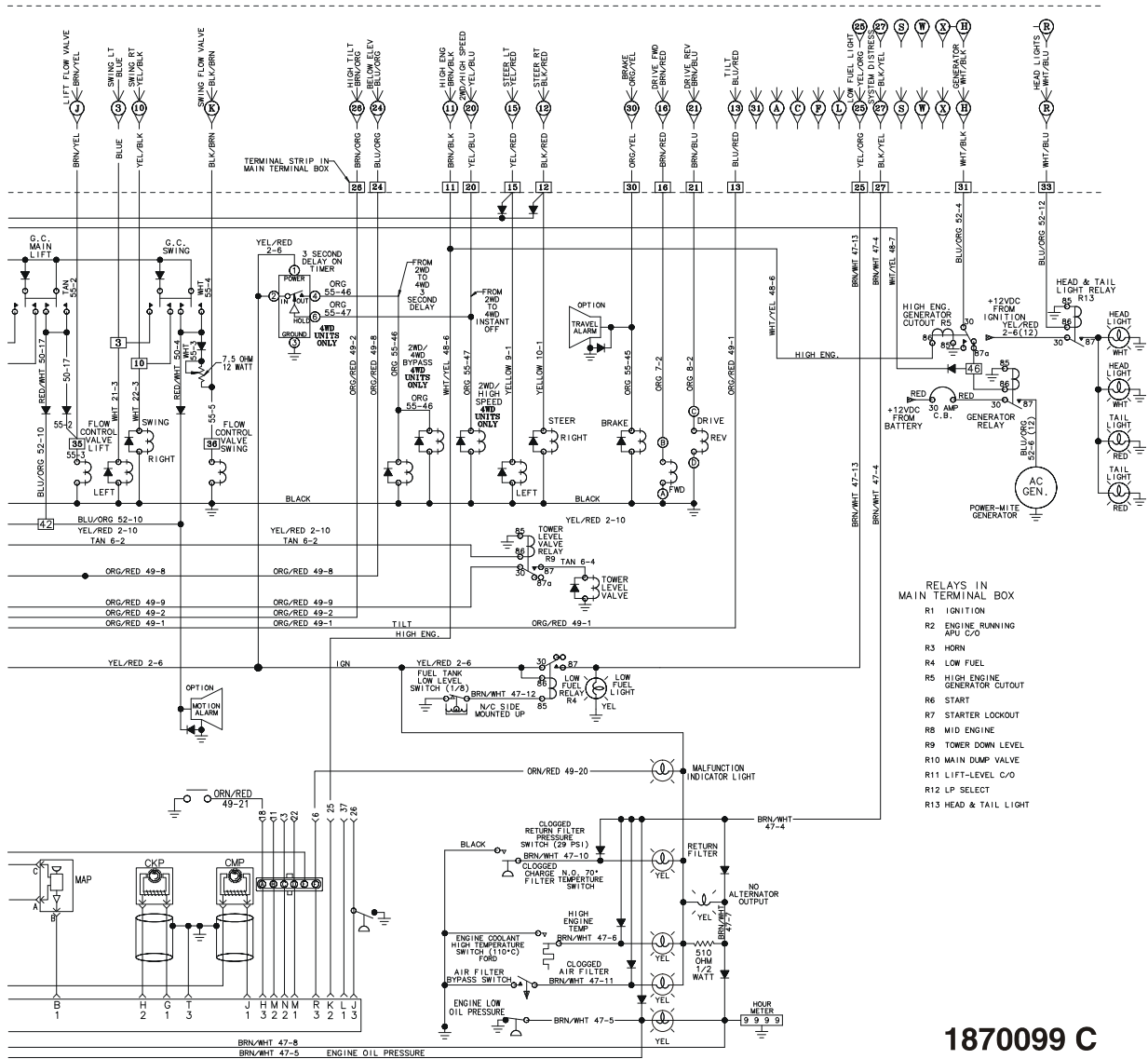
SECTION 7 ELECTRICAL

FIGURE 7-4. ELECTRICAL SCHEMATIC - FORD ENGINE MACHINES WITH EFI





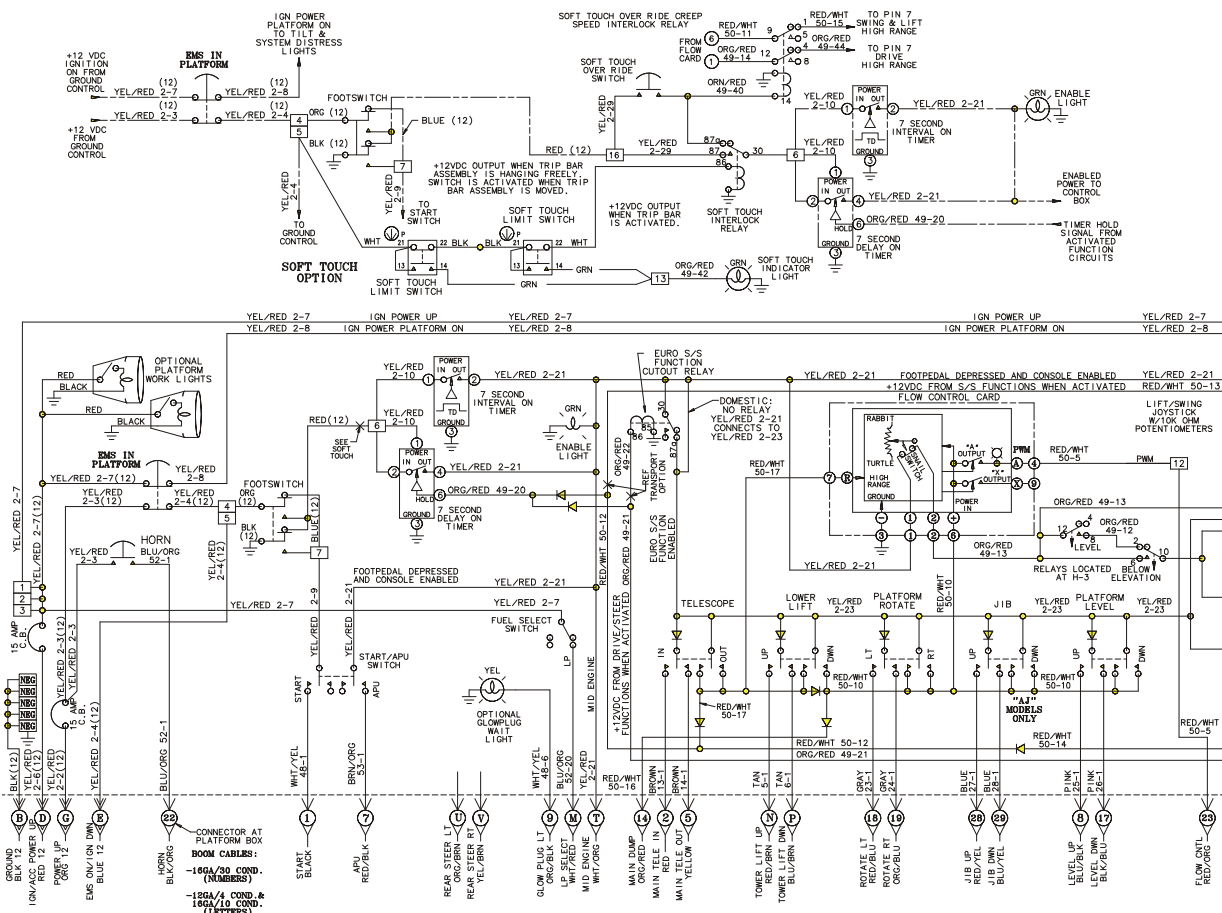
SECTION 7 ELECTRICAL



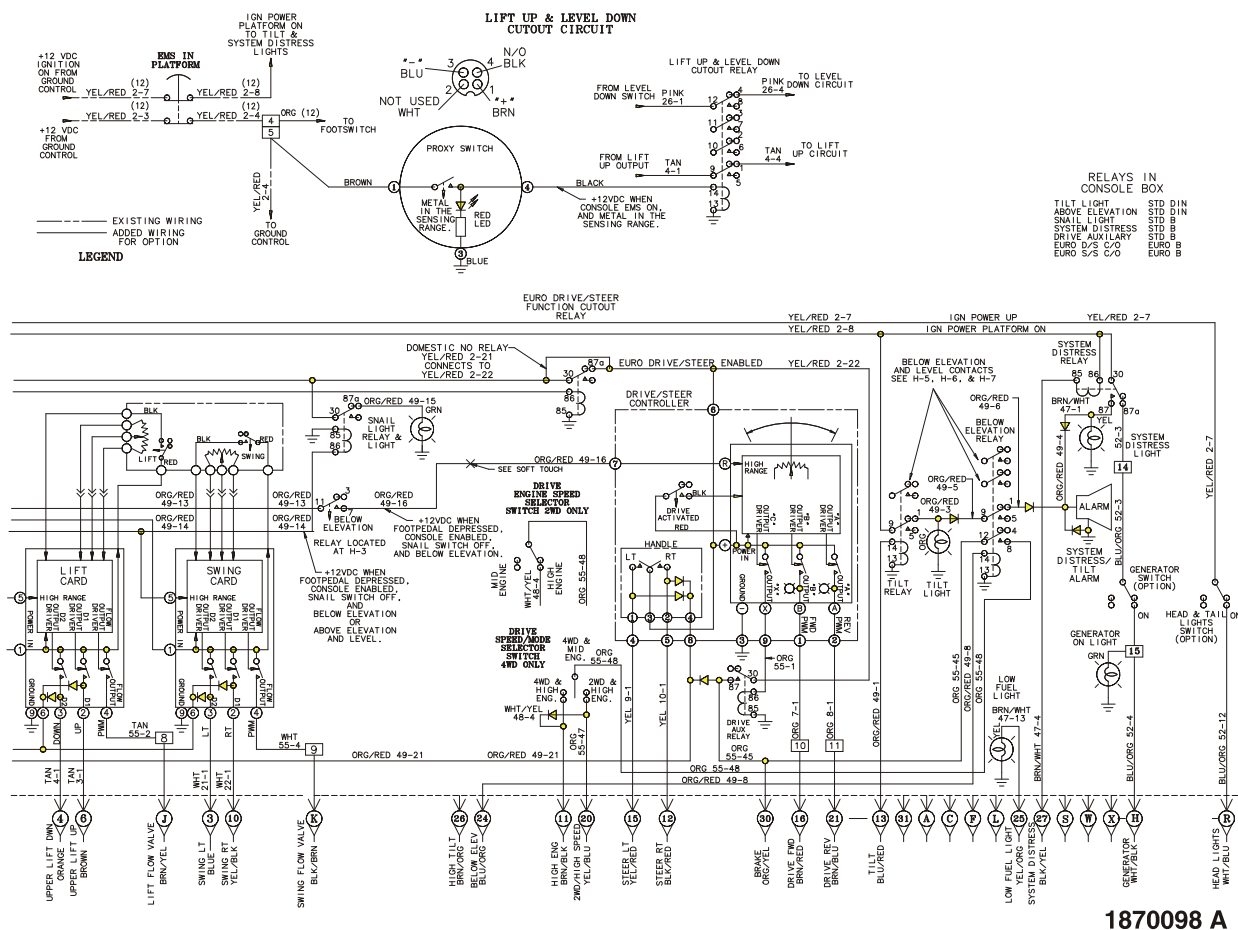


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FIGURE 7-5.ELECTRICAL SCHEMATIC - ISUZU ENGINE MACHINES



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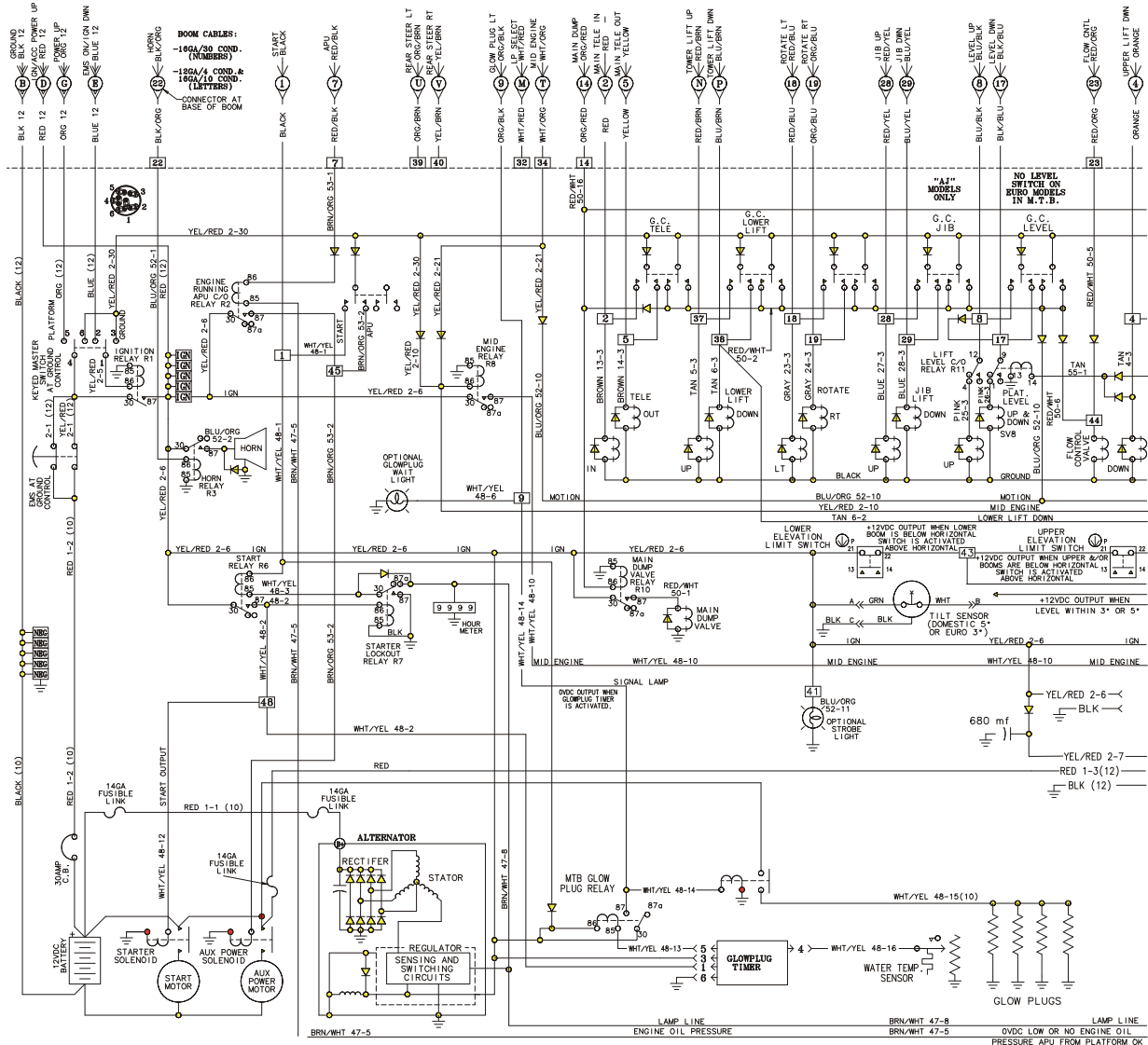


SECTION 7 ELECTRICAL



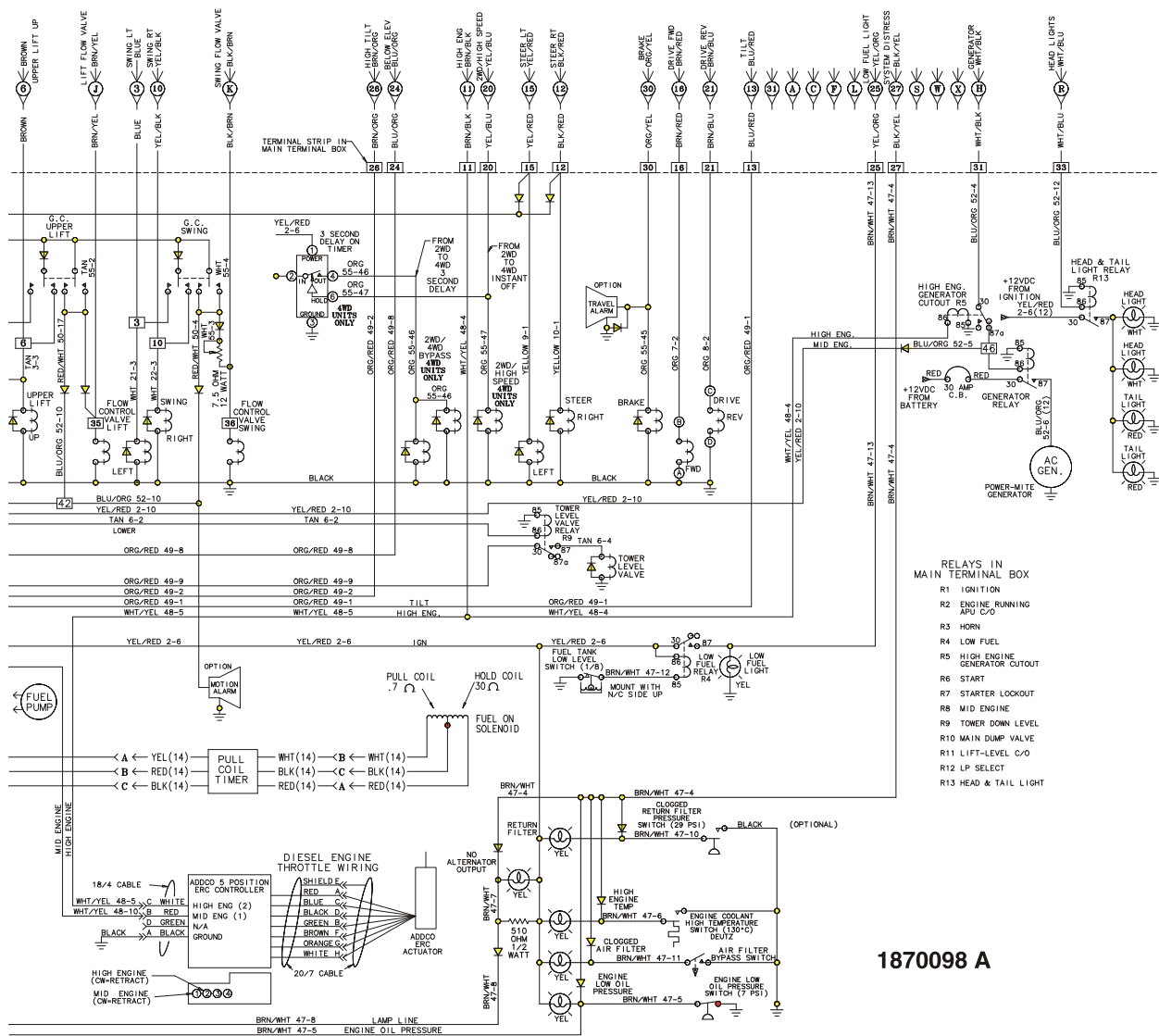
SECTION 7 ELECTRICAL

FIGURE 7-5. ELECTRICAL SCHEMATIC - ISUZU ENGINE MACHINES



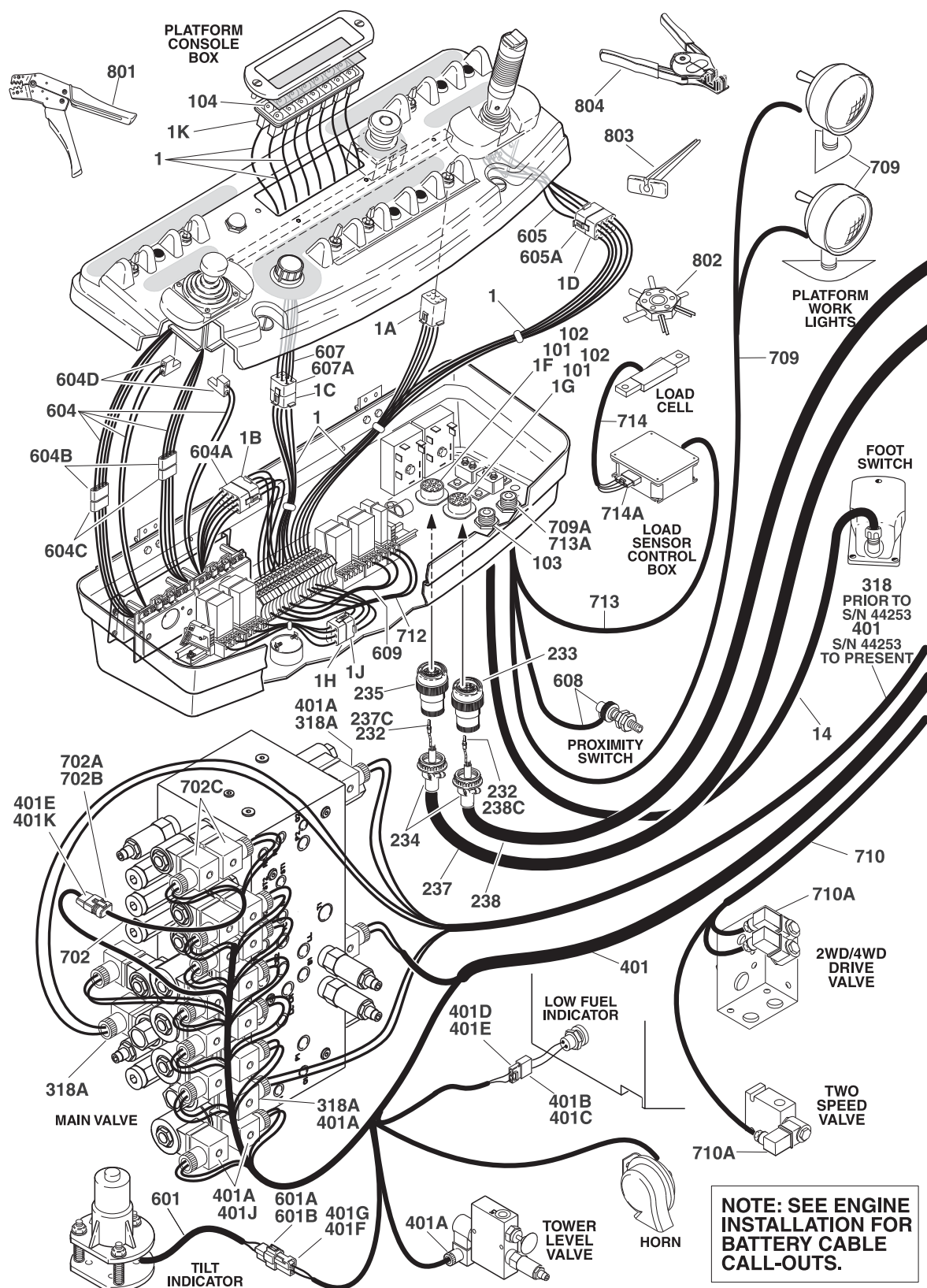


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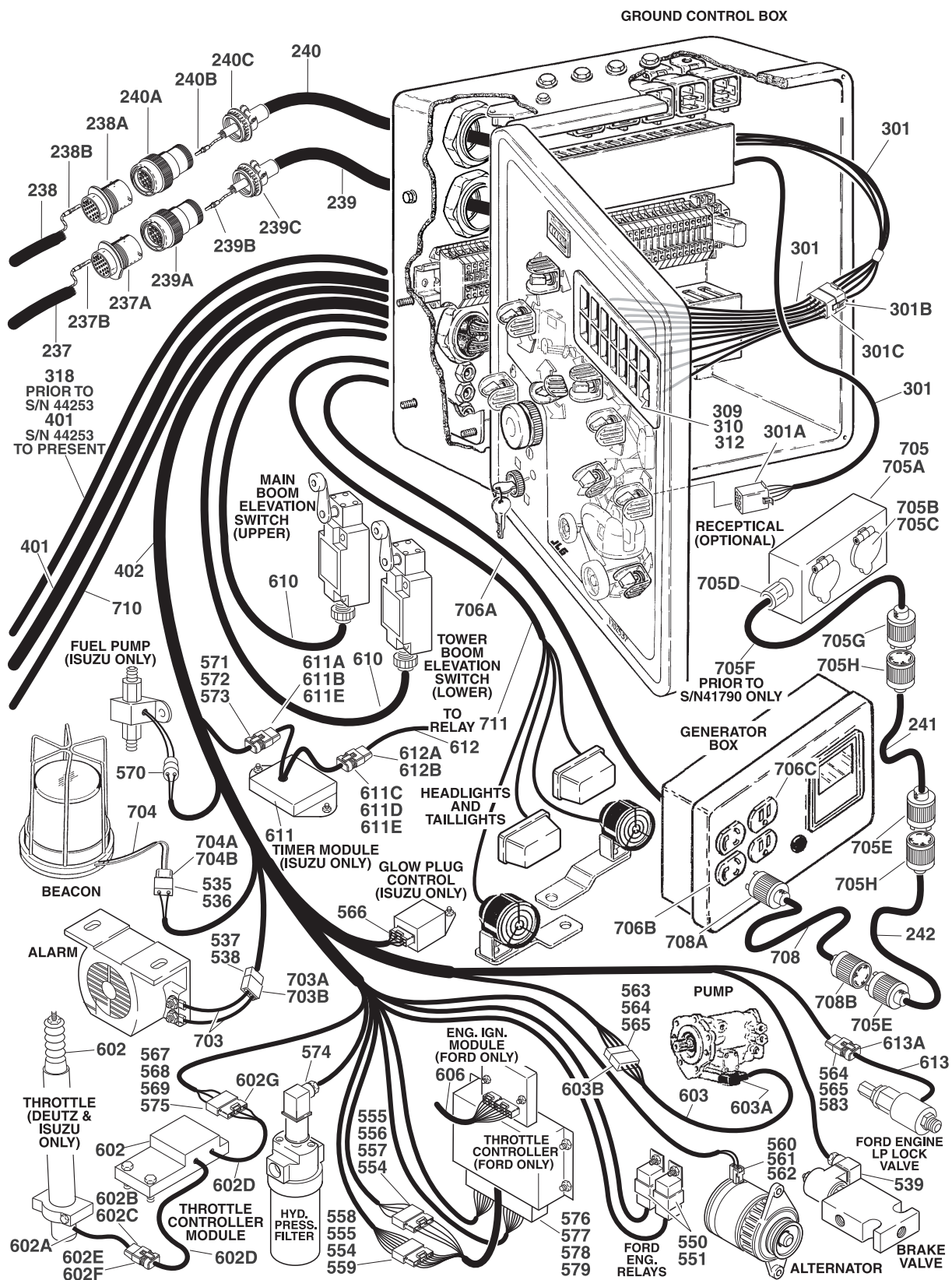


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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		HARNESS COMPONENTS INSTALLATION	Ref.	
	4932999	PLATFORM BOX WIRING DIAGRAM	Ref.	4/E
1	4922053	Platform Box Harness (Also Includes Terminal Block/ Rail Assembly - See Section 4)	1	7/G
1A	4460418	Connector - 6 Position	6	
	4460419	Terminal, Female	34	
1B	4460265	Connector - 9 Position	2	
	4460268	Socket, Female	18	
1C	4460266	Connector, Female - 9 Position	1	
	4460268	Socket, Female	7	
1D	4460266	Connector, Female - 9 Position	1	
	4460268	Socket, Female	9	
1E	3990010	Diode - 6 Amp (Not Shown)	10	
1F	4460613	Connector - 21 Position	1	
	4460508	Pin, Male (12 Gauge)	4	
	4460464	Pin, Male (16 Gauge)	10	
	4460466	Seal, Plug	1	
1G	4460503	Connector - 31 Position	1	
	4460464	Pin, Male (16 Gauge)	30	
	4460466	Seal, Plug	1	
1H	4460224	Connector - 6 Position (S/N 43370 to Present Only)	1	
	4460268	Socket, Female	6	
1J	4460225	Connector - 6 Position (S/N 43370 to Present Only)	1	
	4460267	Pin, Male	6	
1K	4120035	Base, Light	8	
	4460634	Terminal (16 Gauge)	7	
	4460635	Terminal (12 Gauge)	8	
2 to 3	Not Used			
4	3990010	Diode - 6 Amp (Not Shown)	8	
5 to 11	Not Used			
12	4460418	Connector - 6 Position (Not Shown - 2WD/4WD Switch)	1	
13	4460419	Terminal, Female (Not Shown - Used with item 12)	3	
14		Cable, Electrical - 12/4 Options:	7ft/2.13m	
	1060012	Prior to S/N 60663		
	1060515	S/N 60663 to Present		
		PLATFORM BOX ASSEMBLY COMPONENTS	Ref.	
101	4460470	Nut, Conduit	2	
102	4460471	Washer	2	
103	4460428	Connector, Strain Relief	1	
104	2920129	Bulb, Light	8	



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		BOOM CABLES INSTALLATION		
	0258301	450A	Ref.	8
	0258302	450AJ	Ref.	7
201 to 231	Not Used			
232	4460466	Seal, Plug	8	
233	4460502	Terminal - 31 Socket	1	
234	4460473	Clamp. Cable	2	
235	4460614	Terminal - 21 Socket	1	
236	Not Used			
237		Cable, Electrical - 12/4-16/10 (Upper) Options:		
	4922113	450AJ	1	3
	4922113	450A (Prior to S/N 47619)	1	3
	4922316	450A (S/N 47619 to Present)	1	1
	1060603	Cable, Electrical - 12/4-16/10 Options:	A/R	
		450AJ	40ft/12.2m	
		450A (Prior to S/N 47619)	40ft/12.2m	
		450A (S/N 47619 to Present)	27.5ft/8.4m	
237A	4460613	Connector - 21 Position	1	
	4460466	Seal, Plug	7	
237B	4460508	Pin, Male (12 Gauge)	4	
	4460464	Pin, Male (16 Gauge)	10	
237C	4460465	Socket, Female	10	
	4460509	Socket, Female	4	
238		Cable, Electrical - 16/30 (Upper) Options:		
	4922109	450AJ	1	3
	4922109	450A (Prior to S/N 47619)	1	3
	4922317	450A (S/N 47619 to Present)	1	1
	1060516	Cable, Electrical - 16/30 Options:	A/R	
		450AJ	40ft/12.2m	
		450A (Prior to S/N 47619)	40ft/12.2m	
		450A (S/N 47619 to Present)	27.9ft/8.5m	
238A	4460503	Connector - 31 Position	1	
	4460466	Seal, Plug	1	
238B	4460464	Pin, Male (16 Gauge)	30	
238C	4460465	Socket, Female	30	
239	4922115	Cable, Electrical - 12/4-16/10 (Lower)	1	4
	1060603	Cable, Electrical - 12/4-16/10	45ft/13.7m	
239A	4460614	Terminal - 21 Socket	1	
	4460466	Seal, Plug	8	
239B	4460465	Socket, Female	10	
	4460509	Socket, Female	4	
239C	4460473	Clamp. Cable	1	
240	4922112	Cable, Electrical - 16/30 (Lower)	1	4
	1060516	Cable, Electrical - 16/30	45ft/13.7m	
240A	4460502	Terminal - 31 Socket	1	
	4460466	Seal, Plug	1	
240B	4460465	Socket, Female	30	
240C	4460473	Clamp. Cable	1	



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
241	1060494	Cable, Electrical - 12/3 (Upper)	32ft/9.8m	
242	1060494	Cable, Electrical - 12/3 (Lower)	40ft/12.2m	
		GROUND CONTROL BOX WIRING DIAGRAMS		
	4933053	DEUTZ ENGINE MACHINES	Ref.	5/F
	4933052	FORD ENGINE MACHINES WITH CARBURETOR (PRIOR TO S/N 43370)	Ref.	2/E
	4933093	FORD ENGINE MACHINES WITH CARBURETOR (S/N 43370 TO S/N 46089)	Ref.	3/C
	4933089	FORD ENGINE MACHINES WITH EFI (S/N 46089 TO PRESENT)	Ref.	1/A
	4933087	ISUZU ENGINE MACHINES	Ref.	3/B
301		Harness, Ground Control Box Options:	1	
	Use 4922287	Deutz Machines Prior to S/N 48629 (Was p/n 4922162)		3/C
	4922287	Deutz Machines S/N 48629 to Present		3/C
	4922162	Ford Machines (Carbureted) Prior to S/N 43370		2/B
	4922287	Ford Machines (Carbureted) S/N 43370 to S/N 46089		3/C
	4922293	Ford Machines (EFI) S/N 46089 to Present		3/C
	4922287	Isuzu Machines		3/C
	3990010	Diode - 6 Amp (Not Shown)	A/R	
	3990001	Diode - 3 Amp (Not Shown)	A/R	
	3730115	Resistor 0-7.5 Ohms 12 Watts (Not Shown)	1	
301A	4460418	Connector - 6 Position	8	
	4460419	Terminal, Female	38	
	4460714	Terminal	7	
301B	4460224	Connector, Female - 6 Position	1	
	4460268	Socket, Female	6	
301C	4460225	Connector, Male - 6 Position	1	
	4460267	Pin, Male	6	
302 to 307	Not Used			
308	3990010	Diode 6 Amp (Not Shown)	4	
309	4120035	Base, Light	7	
310	2920129	Bulb, Light	7	
311	3730023	Resistor 510 Ohm 1/2 Watt (Not Shown)	1	
312	4460634	Terminal (Single Wire)	3	
313	4460635	Terminal (Double Wire)	11	
314 to 317	Not Used			
318	4922163	Harness, Proportional Control (Prior to S/N 44253 Only. After S/N 44253, this harness combined with p/n 4922048 Valve Harness)	1	3/C
318A	4460449	DIN Connector without Diode	3	
319 to 320	Not Used			
321		Add-on Harness Options (Not Shown):	A/R	
	Not Required	Deutz and Ford Engine Machines	0	
	4922268	Isuzu Engine Machines	1	
321A	3990010	Diode 6 Amp (Not Shown)	1	



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		GROUND CONTROL BOX ASSY COMPONENTS	Ref.	
401	4922048	Valve Harness Assembly	1	4/G
401A	4460499	DIN Connector with Diode	19	
401B	4460320	Connector - 2 Position	1	
401C	4460267	Pin, Male	2	
401D	4460424	Connector - 2 Position	1	
401E	4460268	Socket, Female	5	
401F	4460539	Housing, Terminal - 3 Position	1	
401G	4460465	Socket, Female	3	
401H	4460445	Connector - 3 Position (Not Shown)	1	
401J	4460449	DIN Connector without Diode	1	
402		Engine Harness Assembly Options (See Items 501-575 for Breakdown)	1	
	4922050	Deutz Engine Machines		
	4922049	Ford Engine Machines with Carburetor (Prior to S/N 46089)		
	4922269	Ford Engine Machines with EFI S/N 46089 to Present)		
	4922242	Isuzu Engine Machines		
		ENGINE HARNESS ASSEMBLIES	Ref.	
	4922050	DEUTZ ENGINE MACHINES	Ref.	5/F
		FORD ENGINE MACHINES		
	4922049	Prior to S/N 46089	Ref.	6/E
	4922269	S/N 46089 to Present	Ref.	7/G
	4922242	ISUZU ENGINE MACHINES	Ref.	4/E
501 to 534	Not Used			
535	4460424	Connector - 2 Position	1	
536	4460268	Socket, Female	A/R	
537	4460320	Connector - 2 Position	2	
538	4460267	Pin, Male	A/R	
539	4460499	DIN Connector with Diode	A/R	
540 to 549	Not Used			
550		Plug, Sealed Options:	1	
	Not Required	Deutz/Isuzu Engine Machines		
	4460374	Ford Engine Machines		
551		Terminal Options:	5	
	Not Required	Deutz/Isuzu Engine Machines		
	4460375	Ford Engine Machines		
552 to 553	Not Used			
554		Seal, Terminal (Prior to S/N 46089 Only)	12	
	Not Required	Deutz/Isuzu Engine Machines		
	4460608	Ford Engine Machines		
555		Terminal (Prior to S/N 46089 Only)	12	
	Not Required	Deutz/Isuzu Engine Machines		
	4460589	Ford Engine Machines		



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
556		Housing - 4 Position (Prior to S/N 46089 Only)	1	
	Not Required	Deutz/Isuzu Engine Machines		
	4460590	Ford Engine Machines		
557		Lock, Terminal (Prior to S/N 46089 Only)	1	
	Not Required	Deutz/Isuzu Engine Machines		
	4460591	Ford Engine Machines		
558		Housing - 8 Position (Prior to S/N 46089 Only)	1	
	Not Required	Deutz/Isuzu Engine Machines		
	4460587	Ford Engine Machines		
559		Lock, Terminal (Prior to S/N 46089 Only)	1	
	Not Required	Deutz/Isuzu Engine Machines		
	4460588	Ford Engine Machines		
560		Terminal	3	
	Not Required	Deutz Engine Machines		
	4460797	Isuzu Engine Machines		
	4460582	Ford Engine Machines		
561		Lock, Terminal	1	
	Not Required	Deutz Engine Machines		
	4460580	Isuzu Engine Machines		
	4460580	Ford Engine Machines		
562		Housing - 3 Position	1	
	Not Required	Deutz Engine Machines		
	4460579	Isuzu Engine Machines		
	4460579	Ford Engine Machines		
563	4460460	Connector, Male - 4 Position	1	
564	4460457	Terminal, Female	6	
565	4460458	Seal, Terminal	6	
566		Housing - 6 Position	1	
	Not Required	Deutz Engine Machines		
	4460784	Isuzu Engine Machines		
	4460783	Terminal, Spade	5	
	Not Required	Ford Engine Machines		
567		Lock, Terminal	1	
	4460591	Deutz/Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
568		Socket, Female	3	
	4460589	Deutz/Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
569		Seal, Terminal	3	
	4460608	Deutz/Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
570		Housing - 2 Position	1	
	Not Required	Deutz Engine Machines		
	4460780	Isuzu Engine Machines		
	4460781	Socket, Female	2	
	Not Required	Ford Engine Machines		



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
571		Seal, Terminal (14-16 Ga.)	1	
	Not Required	Deutz Engine Machines		
	4460458	Isuzu Engine Machines		
	4460789	Seal, Terminal (10-12 Ga.)	2	
	Not Required	Ford Engine Machines		
572		Connector - 3 Position	1	
	Not Required	Deutz Engine Machines		
	4460459	Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
573	4460457	Socket, Female (14-16 Ga.)	1	
	Not Required	Deutz Engine Machines		
	4460457	Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
574	4460449	DIN Connector without Diode (Prior to S/N 44253 Only)	1	
575		Housing, Terminal	1	
	4460777	Deutz Engine Machines		
	4460777	Isuzu Engine Machines		
	Not Required	Ford Engine Machines		
		Note: Items 576-583 used on Ford Engine Machines Only.	Ref.	
576	4460713	Connector - 42 Position (S/N 46089 to Present)	1	
577	4460725	Lock, Wedge (Center) (S/N 46089 to Present)	1	
	4460726	Lock, Wedge (Right) (S/N 46089 to Present)	1	
578	4460800	Plug, Hole (S/N 46089 to Present)	27	
579	4460799	Pin, Male 16-18GA (S/N 46089 to Present)	9	
	4460728	Pin, Male 12-14GA (S/N 46089 to Present)	4	
580	2400061	Fuse (Not Shown - S/N 46089 to Present)	2	
581	2400060	Holder, Fuse (Not Shown - S/N 46089 to Present)	2	
582	Not Used			
583	4460742	Connector, Male - 2 Position (S/N 51983 to Present)	1	
		STANDARD HARNESS COMPONENTS	Ref.	
601	Not Available	Tilt Indicator Harness	1	
601A	4460268	Socket, Female	6	
601B	4460224	Connector, Female - 6 Position	1	
602	Not Available	Throttle Actuator/Controller Harness (Deutz & Isuzu)	1	
	Use 2910000	Throttle Actuator & Controller Assembly (Was p/n 0060033)	1	
	7008833	Mounting Clamp Kit (Not Shown)	1	
	7008836	Spring, Retract (Not Shown)	1	
602A	Not Available	Throttle Actuator & Harness (Purchase p/n 2910000)	1	
	7016336	Boot Kit	1	
602B	Not Serviced	Pin, Male	9	
602C	Not Serviced	Connector, Male	1	
602D	2910001	Controller & Harnesses (Purchase p/n 2910000)	1	
602E	Not Serviced	Socket, Female	9	



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FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
602F	Not Serviced	Connector, Female	1	
602G	Not Available	Connector - 4 Position	1	
	4460693	Pin, Male	4	
	4460591	Clip	1	
	4460608	Seal, Terminal	4	
603	Not Available	Sunstrand Pump Harness	1	
603A	7007497	Plug (Pump End)	1	
603B	7007498	Plug (Engine Harness End)	1	
604	Not Available	Controller Harness Assembly (Lift and Swing)	1	
604A	4460266	Connector, Female - 9 Position	1	
	4460267	Pin, Male	9	
604B	Not Available	Connector, Male - 4 Position	2	
	Not Available	Pin, Male	8	
604C	Not Available	Connector, Female - 4 Position	2	
	Not Available	Socket, Female	8	
604D	Not Available	Connector, Female - 3 Position	2	
	Not Available	Socket, Female	6	
605	7019124	Controller Harness/Circuit Board Assembly (Drive and Steer)	1	
605A	4460265	Connector - 9 Position	1	
	4460268	Socket, Female	9	
606		Ford Engine Harness Options (For replacement parts refer to Ford engine dealer (Ford Engine Machines):	1	
	7019980	Prior to S/N 46089		
	7022137	S/N 46089 to Present (Engine Control Processor Harness)		
607	Not Available	Speed Controller Harness Assembly	1	
607A	4460265	Connector - 9 Position	1	
	4460267	Pin, Male	9	
608	4360464	Proximity Switch and Harness Assembly (Harness Not Sold Separately)	1	
609	4922197	Proximity Switch Relay and Harness Assembly (Harness Not Sold Separately/See Section 4 for Relay Components)	1	
610	Not Available	Limit Switch Harness Assembly	1	
	1060341	Cable, Electrical 16/2	66ft/20.1m	
611	0259198	Fuel -On Timer Module & Harness Assembly (Isuzu Engine Machines Only)	1	
611A	4460476	Connector, Female - 3 Position	1	
611B	4460475	Pin, Male	3	
611C	4460459	Connector - 3 Position	1	
611D	4460457	Socket, Female	3	
611E	4460458	Seal, Terminal	6	
612	Not Available	Relay Harness (Isuzu Engine Machines)	1	
612A	4460476	Connector, Female - 3 Position	1	
612B	4460475	Pin, Male	3	
613	Not Available	Dual Fuel Shut-Off Filter Harness	1	
613A	7023679	Electrical Connector Kit (Includes [1] 2 Position Connector, 2 Pins & 2 Seals)	1	



SECTION 7 ELECTRICAL

FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		OPTIONAL HARNESS COMPONENTS	Ref.	
701	Not Used			
702	4921927	Articulating Jib Valve Harness Options (450AJ Only)		
702A	4460326	Connector - 3 Position	1	
702B	4460267	Pin, Male	3	
702C	4460449	DIN Connector without Diode	2	
703	Not Available	Alarm Harness	1	
703A	4460424	Connector - 2 Position	1	
703B	4460268	Socket, Female	2	
704	Not Available	Strobe Light Harness	1	
704A	4460320	Connector, Female - 2 Position	1	
704B	4460267	Pin, Male	2	
705		AC to Platform Receptacle Components Options		
	0258303	110V GFI Receptacle	Ref.	3
	0258305	220V GFI Receptacle	Ref.	3
705A	0860038	Box, Switch	1	
	3960422	Gasket	1	
705B		Receptacle Options:	1	
	4460346	110V GFI		
	4460125	220V GFI		
705C		Shield, Cover Options:	1	
	4060700	110V GFI		
	4060092	220V GFI		
705D	4460071	Connector, Strain Relief	1	
705E		Plug, Male Options:	2	
	4460205	110V GFI		
	4460233	220V GFI		
705F		Harness-Receptacle Box to Boom Options (Prior to S/N 41790 Only):	1	
	4921801	110V		
	Not Available	220V		
	1060494	Cable, Electrical - 12/3	18in/47cm	
705G	4460205	Plug, Male (110V)	1	
	4460233	Plug, Male (220V)	1	
705H	4460134	Receptacle, Female	1	
706		Generator Electrical Components		
	4932915	110Volt Prior to S/N 56107		2/C
	4933150	110Volt S/N 56107 to Present		2/B
	4932989	220Volt Prior to S/N 56107		1/B
	4933149	220Volt S/N 56107 to Present		2/B
	3990010	Diode - 6 Amp (Not Shown)	1	
706A	4921938	Harness - On/Off Switch (Powermite Control Box to Ground Control Box)	1	
706B	4460027	Receptacle, Electrical (Industrial) (110V)	1	
	4460125	Receptacle, Electrical (220V)	1	
706C	4460190	Receptacle, Electrical (Standard) (110V)	1	
	4460125	Receptacle, Electrical (220V)	1	



SECTION 7 ELECTRICAL

FIGURE 7-6. HARNESS COMPONENTS INSTALLATION

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
707	4922432	Harness - Generator Timer to Relay (S/N 56107 to Present) (Not Shown - Located in Ground Control Box)	1	
708	4921827	Generator to Rear of Boom Harness (110V)	1	
	4921954	Generator to Rear of Boom Harness (220V)	1	
		Note: Harness used to connect AC at platform harness to generator receptacle to power platform receptacle.		
	1060494	Cable, Electrical - 12/3	26ft/8m	
708A	4460205	Plug, Male (110V)	1	
	4460233	Plug, Male (220V)	1	
708B	4460134	Receptacle, Female (110V)	1	
	4460701	Receptacle, Female (220V)	1	
709	2920140	Platform Worklights Harness (Includes Light and Wire Only)	2	
	2820035	Loom, Vinyl	9ft/2.8m	
709A	4460598	Connector, Strain Relief	1	
	4460442	Terminal (Not Shown-Located in Platform Console)	2	
710	4922140	2WD/4WD Valve Harness Assembly	1	
710A	4460499	Din Connector with Diode	3	
711	Not Available	Lights Harness	1	
	1060341	Cable, Electrical - 16/2	37ft/11.3m	
712 to 714A	Not Required			
		TOOLS	Ref.	
	4921850	Service Harness (For setting Deutz Throttle Actuator)	1	
801	7002821	Crimper (For Wire to Pin/Socket Connections)	1	
802	7002823	Extractor (For Removal of Pin/Socket from Connectors)	1	
803	4460467	Extractor, Pin (Blue 16-18 Gauge) (For Removal of Pin/Socket from Connectors)	1	
	4460510	Extractor, Pin (Yellow 12-14 Gauge) (For Removal of Pin/Socket from Connectors)	1	
804	7002828	Stripper, Wire	1	

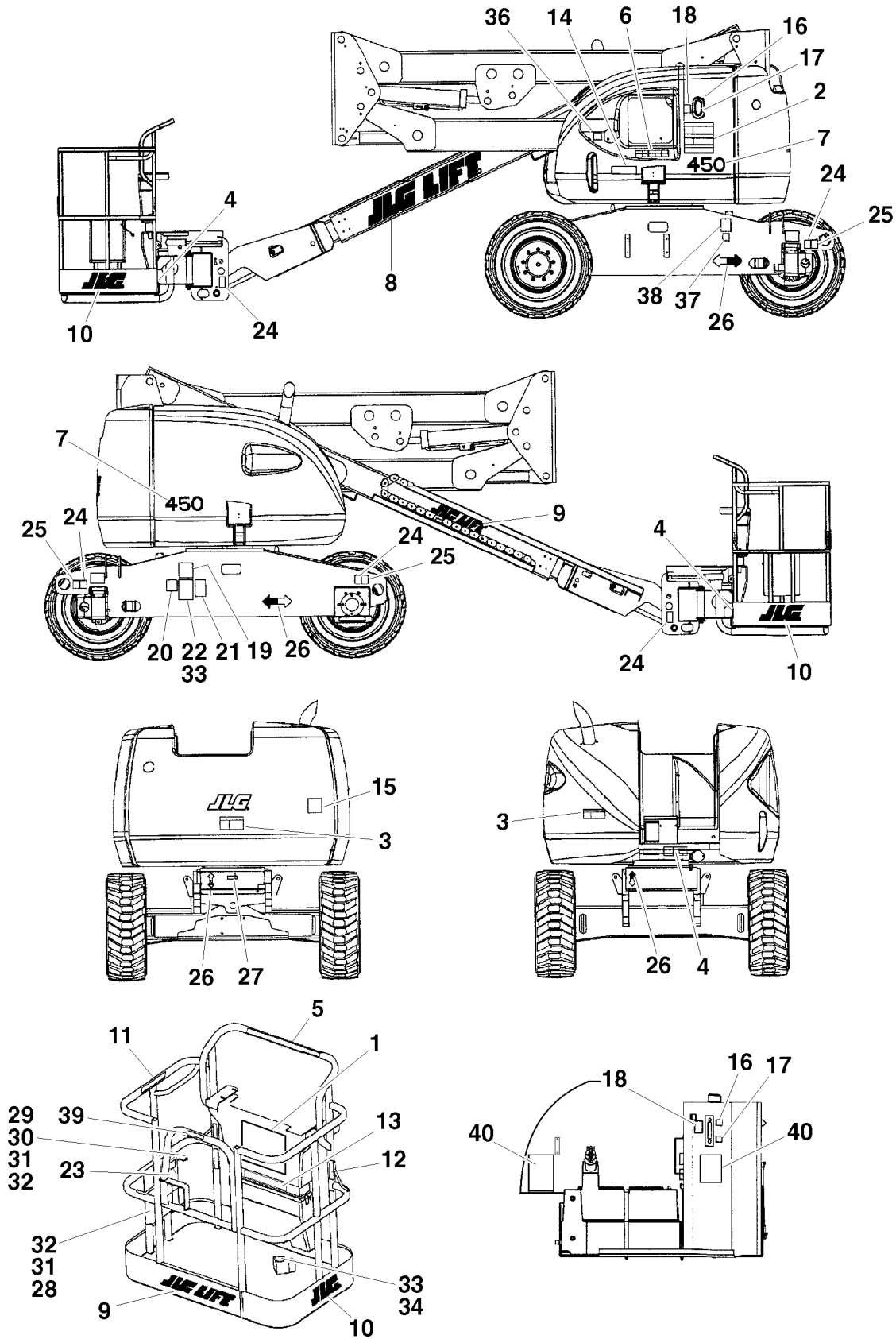
SECTION 8 DECALS

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SECTION 8 DECALS

FIGURE 8-1.DECALS INSTALLATION (STANDARD)





SECTION 8 DECALS

FIGURE 8-1. DECALS INSTALLATION (STANDARD)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		STANDARD DECAL INSTALLATIONS		
	0258347	450A	Ref.	6
	0258348	450AJ	Ref.	6
	0271017	JLG Logo Decals	Ref.	1
1	1703797	*Decal - Danger/Warning	1	
2	1703798	*Decal - Danger/Warning	1	
3	1703805	*Decal - Danger/Electrocution	2	
4	1703804	*Decal - Warning/Crushing	3	
5	1702784	*Decal - Legend	1	
6	1703808	*Decal - Legend	1	
7		Decal - Model Options:	2	
	1703774	*450A		
	1703775	*450AJ		
8	1702860	*Decal - JLG Lift (5in)	1	
9	1702774	*Decal - JLG Lift (3 1/2in)	2	
10	1702773	*Decal - JLG (5in)	2	
11	1702868	*Decal - - No Hands	2	
12		*Decal - Attach Lanyard Here Options:	3	
	1702612	Prior to S/N 61091		
	1704277	S/N 61091 to Present		
13	1701645	*Decal - 500LBS Max Capacity	1	
14	1702688	*Decal - 500LBS Max Capacity	1	
15	3251813	*Decal - USA	1	
16	1701502	*Decal - High Oil Level	2	
17	1701503	*Decal - Low Oil Level	2	
18	1701504	*Decal - Hydraulic Oil	2	
19	1702153	*Decal - Inspection	1	
20	Not Available	Decal - Bar Code	1	
21	1700584	*Decal - Patent	1	
22	Not Available	Nameplate - Serial Number	1	
23	1701509	*Decal - Manual	1	
24	1702300	*Decal - Tie Down /Lift	6	
25	1701500	*Decal - Tie Down /Lift	4	
26	1701529	*Decal- Arrow	4	
27		Nameplate Options:	1	
	3251243	*120V-60Hz		
	3252507	220V-/5060Hz		
28	0860520	Box, Manual Storage	1	
29	1060279	Cable, Lanyard	1	
30	0641408	Bolt 1/4"-20NC x 1"	1	
31	4751400	Flatwasher 1/4"	6	
32	3311405	Locknut 1/4"-20NC	5	
33	3820001	Rivet	A/R	
34	3252347	Decal - Footswitch (Part of 4360031 Footswitch)	1	
35	Not Used			



SECTION 8 DECALS

FIGURE 8-1. DECALS INSTALLATION (STANDARD) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
36		Decal - Fuel	1	
	1701542	Ford Engine Machines		
	1701505	Deutz Engine Machines		
37		Decal - LPG Gas	A/R	
	Not Required	Non-Dual Fuel Machines	0	
	1701543	Dual Fuel Machines	1	
38		Decal - LP Gas Liquid Withdrawal System	A/R	
	Not Required	Non-Dual Fuel Machines	0	
	1700818	Dual Fuel Machines	1	
39	Not Used			
40	1702265	*Decal - Upright Level Override	1	

	2910061	Decal Kit (Includes Items with Asterisk*)		

SECTION 8DECALS

FIGURE 8-1. DECALS INSTALLATION (STANDARD) (CONTINUED)

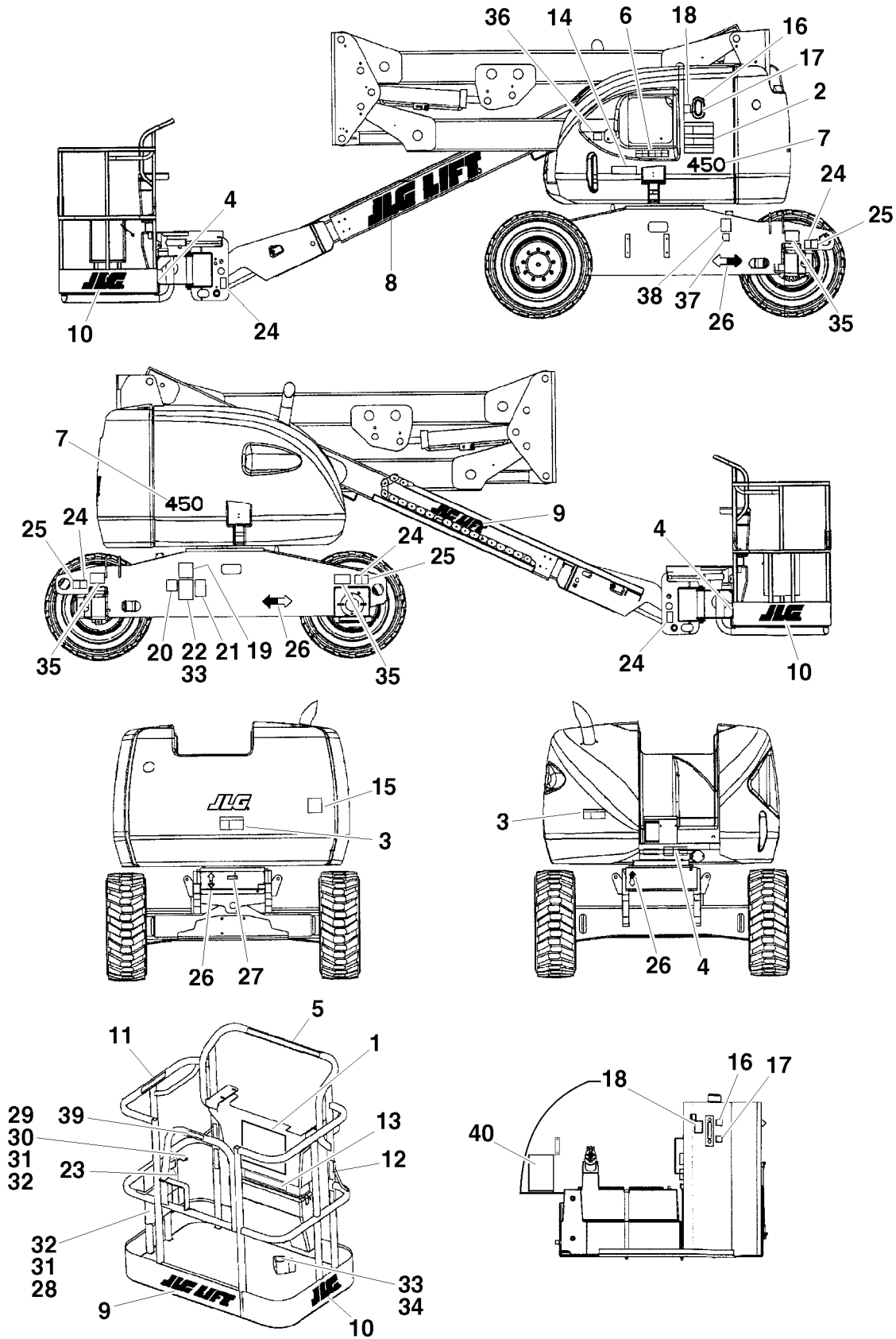
FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

SECTION 8DECALS



SECTION 8 DECALS

FIGURE 8-2.DECALS INSTALLATION (COUNTRY SPECS)





SECTION 8 DECALS

FIGURE 8-2. DECALS INSTALLATION (COUNTRY SPECS)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
1		DECAL INSTALLATIONS		
	0258369	450A Canadian Spec (English/French Languages)	Ref.	5
	0258371	450A Chinese Spec (English/Chinese Languages)	Ref.	2
	0258367	450A Domestic2 Spec (English/Spanish Languages)	Ref.	4
	0258363	450A Japanese Spec	Ref.	2
	0258365	450A Korean Spec	Ref.	2
	0258373	450A Latin American/Brazil Spec (Spanish/Portuguese Languages)	Ref.	6
	0258370	450AJ Canadian Spec (English/French Languages)	Ref.	5
	0258372	450AJ Chinese Spec (English/Chinese Languages)	Ref.	2
	0258368	450AJ Domestic2 Spec (English/Spanish Languages)	Ref.	4
	0258364	450AJ Japanese Spec	Ref.	2
	0258366	450AJ Korean Spec	Ref.	2
	0258374	450AJ Latin American/Brazilian Spec (Spanish / Portuguese Languages)	Ref.	6
	0271017	JLG Logo Decals	Ref.	1
		*Decal - Danger/Warning Options:	1	
	1703924	Canadian Spec		
	1703925	Chinese Spec		
	1703923	Domestic2 Spec		
	1703926	Japanese Spec		
	1703927	Korean Spec		
	1703928	Latin American/Brazilian Spec		
2		*Decal - Danger/Warning Options:	1	
	1703930	Canadian Spec		
	1703931	Chinese Spec		
	1703929	Domestic2 Spec		
	1703932	Japanese Spec		
	1703933	Korean Spec		
3	1703934	Latin American/Brazilian Spec		
		*Decal - Danger Electrocution Options:	1	
	1703936	Canadian Spec		
	1703937	Chinese Spec		
	1703938	Japanese Spec		
4	1703939	Korean Spec		
	1703940	Latin American/Brazilian Spec		
		*Decal - Warning/Crushing	3	
	1703948	Canadian Spec		
	1703949	Chinese Spec		
	1703950	Japanese Spec		
	1703951	Korean Spec		
	1703935	Domestic2 Spec		
	1703952	Latin American/Brazilian Spec		



SECTION 8 DECALS

FIGURE 8-2. DECALS INSTALLATION (COUNTRY SPECS) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
5	1702784 Not Required	*Decal - Legend Options: Canadian/Domestic2 Spec Chinese/Japanese/Korean/Latin American/ Brazilian Spec	1	
6	1703808 Not Required	*Decal - Legend Options: Canadian/Domestic2 Spec Chinese/Japanese/KoreanLatin American/ Brazilian Spec	1	
7	1703774 1703775	Decal - Model Options: *450A *450AJ	2	
8	1702860	*Decal - JLG Lift (5 in)	1	
9	1702774	*Decal - JLG Lift (3 1/2 in)	2	
10	1702773	*Decal - JLG (5 in)	2	
11	1704000 1704001 1704002 Not Required	*Decal - No Hands Options: Canadian Spec Domestic2 Spec Latin American/Brazilian Spec Chinese/Japanese/Korean Spec	2	
12	1704003 1704277 1704004 1704277 1704005 1704277 Not Required	*Decal - Attach Lanyard Options: Canadian Spec (Prior to S/N 61091) Canadian Spec (S/N 61091 to Present) Domestic2 Spec (Prior to S/N 61091) Domestic2 Spec (S/N 61091 to Present) Latin American/Brazilian Spec (Prior to S/N 61091) Latin American/Brazilian Spec (S/N 61091 to Present) Chinese/Japanese/Korean Spec	3	
13	1703996	*Decal - 500LBS Max Capacity	1	
14	1702688 1704112 1702688 1704112 1702688 1704112 Not Required	*Decal - 500LBS Max Capacity Options: Canadian Spec (Prior to S/N 46476) Canadian Spec (S/N 46476 to Present) Latin American Spec (Prior to S/N 51137) Latin American Spec (S/N 51137 to Present) Domestic2/Brazilian Spec (Prior to S/N 61091) Domestic2/Brazilian Spec (S/N 61091 to Present) Chinese/Japanese/Korean Spec	1	
15	3251813 Not Required	*Decal - USA Options: Canadian/Domestic2/Latin American/Brazilian Spec Chinese/Japanese/Korean Spec	1	
16	1701502	*Decal - High Oil Level	2	
17	1701503	*Decal - Low Oil Level	2	
18	1701504	*Decal - Hydraulic Oil	2	



SECTION 8 DECALS

FIGURE 8-2. DECALS INSTALLATION (COUNTRY SPECS) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
19		*Decal - Inspection Options:	1	
	1704006	Canadian Spec		
	1704007	Domestic2 Spec		
	1704008	Latin American/Brazilian Spec		
	Not Required	Chinese/Japanese/Korean Spec		
20	Not Available	Decal - Bar Code	1	
21	1700584	*Decal - Patent	1	
22	Not Available	Nameplate - Serial Number	1	
23	1701509	*Decal - Manual	2	
24	1702300	*Decal - Tie Down /Lift	6	
25	1701500	*Decal - Tie Down /Lift	4	
26	1701529	*Decal - Arrow	4	
27		Decal Options:	A/R	
	3251243	*120V-60Hz - Canadian/Domestic2/Latin American/Brazilian Spec	1	
	3252507	220V-50/60Hz - Canadian/Domestic2/Latin American/Brazilian Spec	1	
	Not Required	Chinese/Japanese/Korean Spec	0	
28	0860520	Box, Manual Storage	1	
29	1060279	Cable, Lanyard	1	
30	0641408	Bolt 1/4"-20NC x 1"	1	
31	4751400	Flatwasher 1/4"	6	
32	3311405	Locknut 1/4"-20NC	5	
33	3820001	Rivet	A/R	
34		*Decal - Footswitch	1	
	1703984	Canadian Spec		
	1703982	Chinese Spec		
	1703983	Domestic2 Spec		
	1703980	Japanese Spec		
	1703981	Korean Spec		
	1703985	Latin American/Brazilian Spec		
35		*Decal - Maximum Tire Load Options:	A/R	
	Not Required	Canadian/Domestic2 Spec/Latin American/Brazilian Spec	0	
	1703809	Chinese/Japanese/Korean Spec	4	
36		Decal - Fuel Options:	1	
	1701542	Ford Engine Machines		
	1701505	Deutz Engine Machines		
37		Decal - LPG Gas	A/R	
	Not Required	Non-Dual Fuel Machines	0	
	1701543	Dual Fuel Machines	1	
38		Decal - LP Gas Liquid Withdrawal System	A/R	
	Not Required	Non-Dual Fuel Machines	0	
	1700818	Dual Fuel Machines (English Language)	1	
	1704271	Dual Fuel Machines (Canadian Spec)	1	
	1702720	Dual Fuel Machines (Spanish Language)	1	



SECTION 8 DECALS

FIGURE 8-2. DECALS INSTALLATION (COUNTRY SPECS) (CONTINUED)

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
39		Decal - CSA Options:	A/R	
	3252221	Canadian Spec	1	
	Not Required	Chinese/Domestic2/Japanese/Korean/Latin American/Brazilian Spec	0	
40		*Decal - Upright Level Override Options:	1	
	1702265	Canadian Spec		
	1703988	Chinese Spec		
	1703989	Domestic2 Spec		
	1703986	Japanese Spec		
	1703987	Korean Spec		
	1703991	Latin American/Brazilian Spec	1	

		Decal Kit Options (Includes items with asterisk* when equipped with that spec):	1	
	2910115	Canadian Spec		
	2910114	Domestic2 Spec		
	2910116	Chinese Spec		
	2910112	Japanese Spec		
	2910113	Korean Spec		
	2910117	Latin American/Brazilian Spec		

SECTION
8
DECALS



SECTION 9 RECOMMENDED SERVICE PARTS STOCK

MODELS 450A/450AJ WITH PROPORTIONAL CONTROLS

The following list will service fleets of machines (built to current production per date on the front cover) with emergency repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your JLG dealer or the JLG Industries Parts Department.

JLG PART NUMBER	DESCRIPTION	QTY PER FLEET		
		1-10	10-20	20 OR MORE
	STANDARD PARTS			
7012944	Coil (Figures 1-10, 2-1 & 2-2)	1	1	1
7012943	Coil (FigureS 1-10 & 2-2)	1	1	1
2120150	Element, Filter (Figure 2-1)	4	8	12
2120158	Element Filter (Figure 2-1)	4	8	12
7017451	Coil (Figure 2-2)	1	1	1
7012664	Element, Air Cleaner (Figures 2-6, 2-9 & 2-13)	1 Dozen	1 Dozen	1 Dozen
3740067	Relay (Figures 2-6, 2-9 & 2-13)	1	1	1
4360501	Breaker, Circuit (Figures 2-6, 2-9, 2-12 & 2-13)	1	1	1
7007496	Coil (Figure 2-15)	1	1	1
7014811	Breather, Hydraulic Tank (Figure 2-16)	1	2	3
4360475	Switch, Mushroom (Figures 2-17 & 4-2)	1	1	1
4360469	Switch, Key (Figure 2-17)	1	1	1
2860030	Key, Replacement (Figure 2-17)	1	1	1
3740112	Relay (Figure 2-17)	1	1	1
4360314	Switch, Toggle (Figures 2-17 & 4-2)	1	1	1
4360476	Contact, Switch Block (Figures 2-17 & 4-2)	1	1	1
3740049	Relay (Figures 2-17 & 4-2)	1	1	1
3740057	Relay (Figure 2-17)	1	1	1
3740113	Relay, Timer (Figures 2-17 & 4-2)	1	1	1
2940074	Latch (Figure 4-1)	1	1	1
3740115	Relay, Timer (Figure 4-2)	1	1	1
4360387	Switch, Push Button (Figures 2-16, 4-2 & 4-8)	1	1	1
3740058	Relay (Figure 4-2)	1	1	1
4360232	Breaker, Circuit (Figure 4-2)	1	1	1
7003961	Microswitch (Figures 4-4 & 4-6)	1	1	1
7019178	Potentiometer (Figure 4-4)	1	1	1
7019190	PC Board Assembly (Lift) (Figure 4-4)	1	1	1
7019189	PC Board Assembly (Swing) (Figure 4-4)	1	1	1
7019124	Board, Circuit with Potentiometer (Figure 4-6)	1	1	1
7019182	Switch, Rotary (Figure 4-7)	1	1	1
7019187	Board, Circuit with Potentiometer (Figure 4-7)	1	1	1
3990010	Diode (Figure 7-6)	2	2	2
3990001	Diode (Figure 7-6)	2	2	2
4360464	Switch, Proximity (Figure 7-6)	1	1	1
	VARIABLE PARTS			
7016331	Filter, Oil (Deutz Engine Machines) (Figure 2-6)	1 Dozen	1 Dozen	1 Dozen
7020023	Filter, Fuel (Deutz Engine Machines) (Figure 2-6)	1 Dozen	1 Dozen	1 Dozen
7014501	Filter, Oil (Ford Engine Machines) (Figure 2-9)	1 Dozen	1 Dozen	1 Dozen
7021868	Filter, Fuel (Ford Engine Machines) (Figure 2-9)	1 Dozen	1 Dozen	1 Dozen

**SECTION 9 RECOMMENDED SERVICE PARTS STOCK****MODELS 450A/450AJ WITH PROPORTIONAL CONTROLS**

The following list will service fleets of machines (built to current production per date on the front cover) with emergency repair parts which can be installed in the field. Parts from the list should be replaced when inventory is depleted to keep service parts stock supplied. For further information, contact your JLG dealer or the JLG Industries Parts Department.

JLG PART NUMBER	DESCRIPTION	QTY PER FLEET		
		1-10	10-20	20 OR MORE
3740080	Relay (Ford Engine Machines) (Figure 2-9)	1	1	1
7022111	Filter, Oil (Isuzu Engine Machines) (Figure 2-13)	1 Dozen	1 Dozen	1 Dozen
7022113	Filter, Fuel (Isuzu Engine Machines) (Figure 2-13)	1 Dozen	1 Dozen	1 Dozen
0259198	Relay, Timer (Isuzu Engine Machines) (Figure 2-13)	1	1	1
3740080	Relay (Machines with Generator Option) (Figures 2-7, 2-12 & 2-14)	1	1	1
4360501	Breaker, Circuit (Deutz & Isuzu Engine Machines with Generator Option) (Figures 2-7 & 2-14)	1	1	1
4360336	Switch, Toggle (Machines with Generator Option) (Figures 2-7, 2-12 & 2-14)	1	1	1
3740118	Timer, Delay (4WD Machines) (Figure 2-17)	1	1	1
4360321	Switch, Limit (Figure 3-1)	1	1	1
4360057	Switch, Limit (Soft Touch System) (Figure 4-8)	1	1	1
2400061	Fuse (Ford Engine Machines) (Figure 7-6)	2	2	2



SECTION 10 SPECIAL OPTIONS

Note: This list is to accomodate machines ordered with special equipment. Options may not be applicable to all models. For more specific parts information contact JLG Parts Department.

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
10-1		MISCELLANEOUS SPECIAL OPTIONS	Ref.	
	1340061	Air Cleaner with Dust Evacuator Valve	Ref.	
	0270723	Beacon Installation Mounted Under Platform	Ref.	
		Bellows Installations	Ref.	
	0258807	450A with Oscillating Axle	Ref.	
	0258808	450A with Fixed Axle	Ref.	
	0258804	450AJ with Oscillating Axle	Ref.	
	0258806	450AJ with Fixed Axle	Ref.	
	0258443	Boom Wiper Installation	Ref.	
	0256789	Camera Mount Assembly	Ref.	
		Cold Weather Start Kits	Ref.	
	0258921	Deutz Engine Machines (Ether)	Ref.	
	0258920	Deutz Engine Machines (Glow Plugs)	Ref.	
	0258923	Ford Engine Machines	Ref.	
	0258999	Isuzu Engine Machines	Ref.	
		Decal Installations	Ref.	
	1702788	Decal - Biodegradable Hydraulic Fluid (All except German Spec)	1	
	1703479	Decal - Biodegradable Hydraulic Fluid (German Spec Only)	1	
	0257195	Decal - Government Warranty Installation	Ref.	
	1704150	Decal - Glow Plug Warning	1	
	0274530	Decal - H&E Small400	1	
	1703175	Decal - Lanyard Attach (GM K-1 Spec)	1	
	0270464	Decal - Nations Rent	1	
	1702962	Decal - Prop 65 Warning (Diesel Machines) (California Spec)	1	
	1702961	Decal - Prop 65 Warning (Gasoline Machines) (California Spec)	1	
	0271111/1283029	Decal Installation - Sunbelt	Ref.	
	0270956/1283029	Decal Installation - United Rentals	Ref.	
	0258922	Engine Block Heater Installation (Ford Engines)	Ref.	
	0258919	Ether Start Installation (Deutz Engine Machines)	Ref.	
		Footswitch Shield Installation	Ref.	
	4060959	Shield, Footswitch	1	
	0258835	Glow Plug Installation (Deutz Engine Machines)	Ref.	



SECTION 10 SPECIAL OPTIONS

Note: This list is to accomodate machines ordered with special equipment. Options may not be applicable to all models. For more specific parts information contact JLG Parts Department.

SECTION 10 SPECIAL OPTIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
		Lift Companion Components		
		Data Recorder Installations:		
	0258584	Lift Companion 5	Ref.	
	0258585	Lift Companion 6	Ref.	
	2901662	Start up Kit	Ref.	
		Collection Box Kits:		
	2901659	All Specs except Latin American	Ref.	
	2901663	Latin American Spec	Ref.	
	0258430	Noise Reduction Components Installation (Deutz Engine Machines)	Ref.	
	2820099	Insulation	3	
	2820100	Insulation	2	
	3580277	Pulley, Fan (Top) (Prior to S/N 41036 Only)	1	
	3580278	Pulley, Fan (Bottom) (Prior to S/N 41036 Only)	1	
	0258703	Platform Cover Installation	Ref.	
	1670870	Cover	1	
	0258427	Platform Overload Installation	Ref.	
	2901557	Load Sensing Component Kit (Includes Amplifier, Display Unit & Load Cells)	1	
	0258918	Platform Utility Rack Assembly (Michigan OSHA Spec)	Ref.	
		Tools for Service	Ref.	
	8896941	Wire Stripper	1	
	7002821	Wire Crimper (To install wire ends to wires)	1	
	7002823	Pin/Socket Extractor - Universal (To Remove Pins/ Sockets from Connectors)	1	
	4460467	Extractor - 16-18 Gauge (For Removal of Pin/Sockets from Deutsch Connectors)	1	
	4460510	Extractor - 12-14 Gauge (For Removal of Pin/Sockets from Deutsch Connectors)	1	
	7002822	Screwdriver, Potentiometer (To Adjust Drive Controllers)	1	
	7016654	Screwdriver, Magnetic	1	
	7004275	Seal Installation Tool - 1"	1	
	7004276	Seal Installation Tool - 1 1/2"	1	
	7002826	Seal Installation Tool - 2"	1	
	7016655	Wire Rope Sheave Gauge	1	
	4921850	Throttle Service Harness	1	
	4922012	Horsepower Card Service Harness	1	



SECTION 10 SPECIAL OPTIONS

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.
	7002840	Anti-Rotation Pin Removal Tool (Use to Disassemble Lockout Valve)	1	
	7016652	Huck Fastener Tool (For Small Huck Fastener Only)	1	
	0257728	Tube Rack Installation	Ref.	

SECTION 10

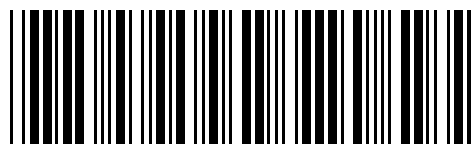
SPECIAL OPTIONS

Note: This list is to accomodate machines ordered with special equipment. Options may not be applicable to all models. For more specific parts information contact JLG Parts Department.

FIG & ITEM #	PART NUMBER	DESCRIPTION	QTY.	REV.

SECTION 10 SPECIAL OPTIONS





3120750



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