



# Illustrated Parts Manual

**Model  
40HA**

**P/N  
3120805**

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An Oshkosh Corporation Company



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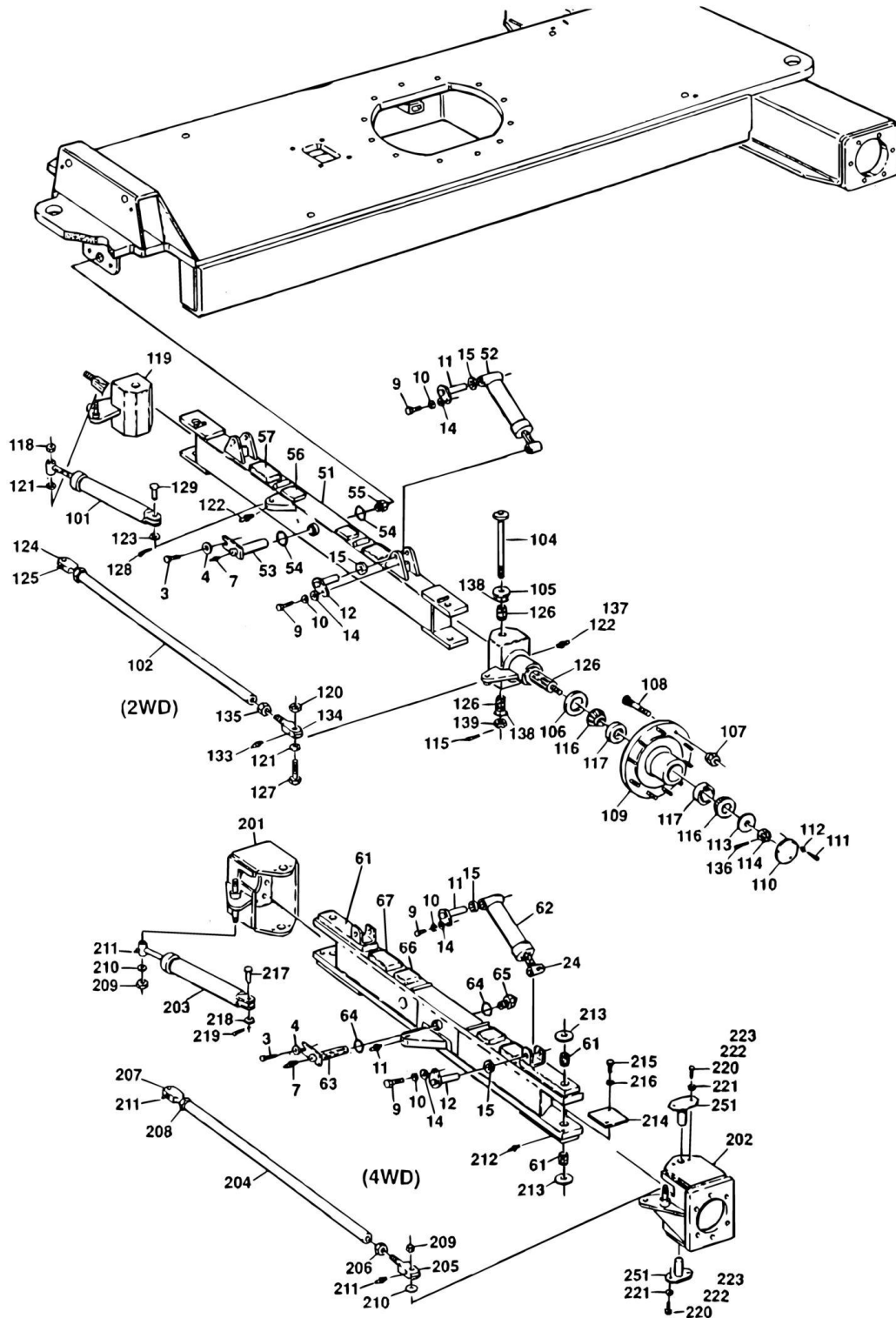
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**SECTION 1 - FRAME**

# SECTION 1 - FRAME

## FIGURE 1-1. FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 2 WHEEL STEER)





## SECTION 1 - FRAME

**FIGURE 1-1. FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 2 WHEEL STEER)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 2 WHEEL STEER)</b>	
	2360299	1	<b>Frame (2WD Fixed Axle)</b>	
	2360300	1	<b>Frame (4WD Fixed Axle)</b>	
	2360305	1	<b>Frame (All With Oscillating Axle - Prior to October 1994)</b>	
	2360386	1	<b>Frame (All With Oscillating Axle - October 1994 to Present)</b>	
		Ref	<b>AXLE INSTALLATION - MACHINES WITH OPTION ALOSCILLATING AXLE (STANDARD PARTS)</b>	
3	0641610	AR	Bolt 3/8in-16NC x 1 1/4in	
4	4740185	AR	Washer, Hardened	
5	0100019	AR	Loctite #271 (Not Shown)	
7	2160002	1	Fitting, Grease	
9	0641406	4	Bolt 1/4in-20NC x 3/4in	
10	4761400	4	Lockwasher 1/4in	
11	4843286	2	Pin	
12	4842794	2	Pin	
14	4751400	4	Flatwasher 1/4in	
15	4712600	AR	Flatwasher 1in	
		Ref	<b>AXLE INSTALLATION - 2WD MACHINES WITH OPTIONAL OSCILLATING AXLE (VARIABLE PARTS)</b>	
	0251330	Ref	<b>BUILT (PRIOR TO OCTOBER 1994)</b>	C
	0255069	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	C
51		Ref	Front Axle Weldment Options:	
51	4843477	1	Front Axle Weldment (Prior to October 1994)	
51	4844848	1	Front Axle Weldment (October 1994 to Present)	
52		Ref	Lockout Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
52	1682406	2	Lockout Cylinder Assembly (Prior to June 1992)	
52	1682757	2	Lockout Cylinder Assembly (June 1992 to October 1994)	
53		Ref	Pin Options:	
53	4842621	1	Pin (Prior to October 1994)	
53	3422401	1	Pin (October 1994 to Present)	
54		Ref	O-Ring Options:	
54	Not Required	0	O-Ring (Prior to October 1994)	
54	3780183	2	O-Ring (October 1994 to Present)	
55		Ref	Valve, Relief Options:	
55	Not Required	0	Valve, Relief (Prior to October 1994)	
55	4640812	1	Valve, Relief (October 1994 to Present)	
		Ref	<b>AXLE INSTALLATION - 4WD MACHINES WITH OPTIONAL OSCILLATING AXLE (VARIABLE PARTS)</b>	
	0251329	Ref	<b>BUILT (PRIOR TO OCTOBER 1994)</b>	D
	0255070	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	-
61		Ref	Front Axle Weldment Options:	
61	4843447	1	Front Axle Weldment (Prior to October 1994)	
61	4844849	1	Front Axle Weldment (October 1994 to Present)	
61	0961029	4	Bushing, Bronze	
62		Ref	Lockout Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
62	1682406	2	Cylinder - (Prior to June 1992)	
62	1682757	2	Cylinder - (June 1992 to Present)	

## SECTION 1 - FRAME

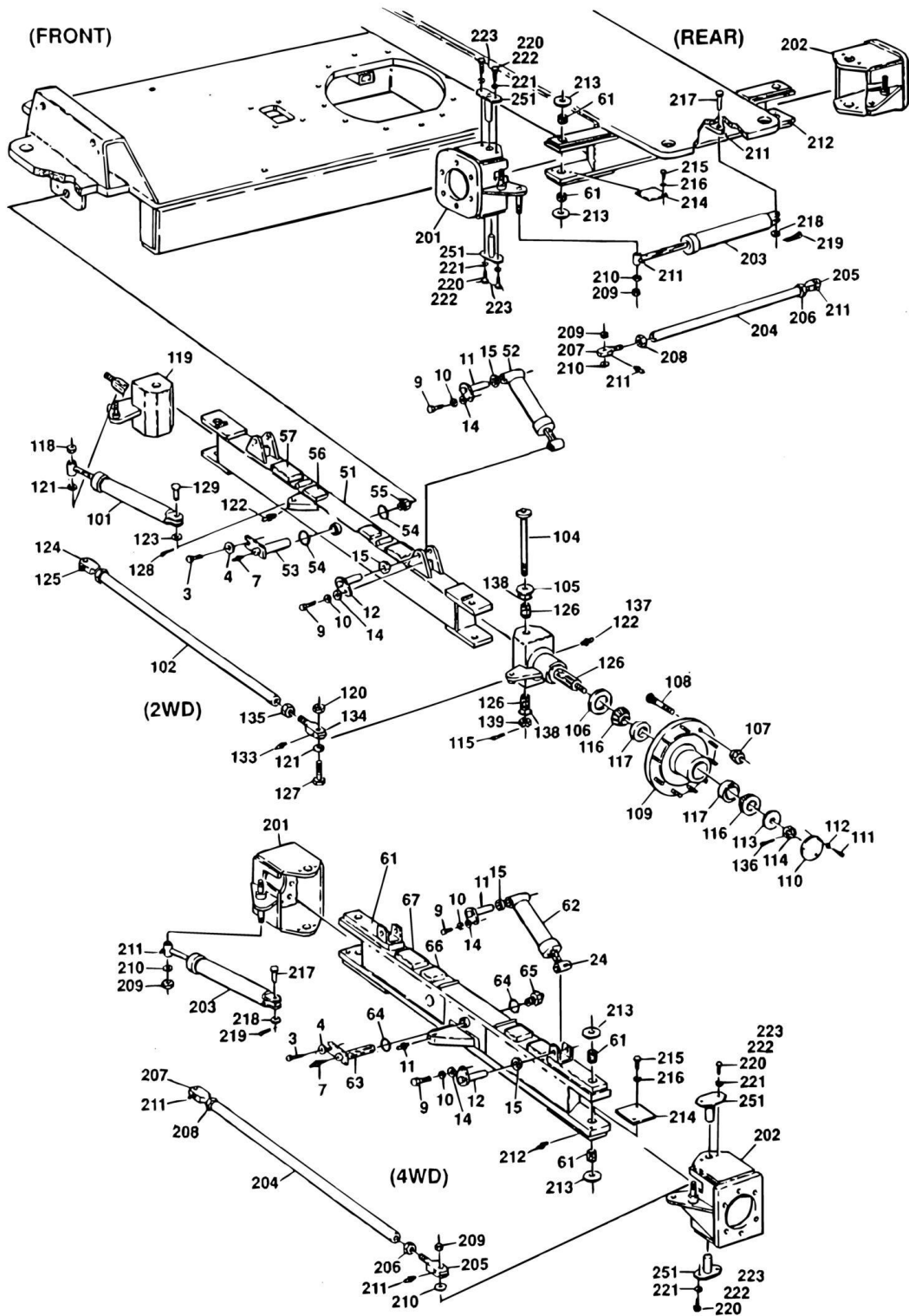
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
63		Ref	Pin Options:	
63	4842621	1	Pin (Prior to October 1994)	
63	3422401	1	Pin (October 1994 to Present)	
64		Ref	O-Ring Options:	
64	Not Required	0	O-Ring (Prior to October 1994)	
64	3780183	2	O-Ring (October 1994 to Present)	
65		Ref	Valve, Relief Options:	
65	Not Required	0	Valve, Relief (Prior to October 1994)	
65	4640812	1	Valve, Relief (October 1994 to Present)	
	0236449	Ref	<b>STEERING AND SPINDLES INSTALLATION - 2WD MACHINES</b>	O
101	1681562	1	Steer Cylinder Assembly (See CYLINDER SECTION for Breakdown)	
102	3840863	1	Tie-Rod	
104		Ref	Kingpin Options:	
104	3421243	2	Kingpin (Prior to February 1994)	
104	3422261	2	Kingpin (February 1994 to Present)	
105	0440183	2	Bearing, Thrust	
106	3960098	2	Seal, Hub	
107	3300012	18	Nut, Wheel	
108	0630137	18	Stud, Wheel	
109	2780091	2	Hub Assembly	
110	1120032	2	Cap, Hub	
111	0721003	6	Bolt #10-24NC x 3/8in	
112	4761000	6	Lockwasher #10	
113	4740016	2	Washer, Hardened	
114	3323403	2	Nut 1 1/2in- 6NF	
115	3451012	2	Pin, Cotter 5/16in x 3in	
116	0440019	4	Cone, Bearing	
117	0440018	4	Cup, Bearing	
118	3300175	1	Locknut	
119	4130160	1	Spindle (Right Side)	
119	0961778	2	Bushing, Excel	
120	3312602	2	Nut, Jam 1in-8NC	
121	0440091	3	Bearing, Thrust	
122	2160002	3	Fitting, Grease	
123	4712600	1	Flatwasher 1in Narrow	
124	0560605	1	Block, Tie-Rod (Right Side)	
125	3323002	1	Nut, Jam 1 1/4in-12NF (Right Side)	
126	4130161	1	Spindle (Left Side)	
126	0961778	2	Bushing, Excel	
127	0630425	2	Bolt 1in-8NC x 3 3/4in	
128	3450606	1	Pin, Cotter 3/16in x 1 1/2in	
129	3431622	1	Pin, Clevis 1in x 2 3/4in	
132	0100011	AR	Loctite #242 (Not Shown)	
133	2160003	2	Fitting, Grease - 45	
134	0560714	1	Block, Tie-Rod (Left Side)	
135	3300229	1	Nut, Jam 1 1/4in-12NF LH (Left Side)	
136	3450810	2	Pin, Cotter 1/4in x 2 1/2in	
137	4640812	2	Valve, Relief (February 1994 to Present)	
138	3780183	4	O-Ring (February 1994 to Present)	
139	3323403	2	Nut, Slotted 1 1/2in - 6NF (Prior to May 1994)	
139	3313403	2	Nut, Slotted 1 1/2in - 6NC (May 1994 to Present)	

## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>STEERING AND SPINDLES INSTALLATION - 4WD MACHINES (STANDARD PARTS)</b>	
201	4130221	1	Spindle (Right Side)	
202	4130222	1	Spindle (Left Side)	
203	1681555	1	Steer Cylinder Assembly (See CYLINDER SECTION for Breakdown)	
204	3841018	1	Tie-Rod	
205	0560714	1	Block, Tie-Rod (Left Side)	
206	3300229	1	Nut, Jam 1 1/4in-12NF (Left Side)	
207	0560605	1	Block, Tie-Rod (Right Side)	
208	3323002	1	Nut, Jam 1 1/4in-12NF	
209	3300175	3	Locknut	
210	0440091	3	Bearing, Thrust	
211	2160002	4	Fitting, Grease	
212	2160003	4	Fitting, Grease - 45	
213	0440161	4	Bearing, Thrust	
214		Ref	Cover Options:	
214	3530244	4	Cover (Prior to August 1992)	
214	3536411	4	Cover (August 1992 to Present)	
215		Ref	Fastener Options:	
215	0641404	AR	Bolt 1/4in-20NC x 1/2in (Prior to August 1992)	
215	2080026	AR	Stud, Drive (August 1992 to May 1994)	
215	4300106	AR	Stud, Drive (May 1994 to Present)	
216	4761400	8	Lockwasher 1/4in (Prior to August 1992 Only)	
217	3431622	1	Pin, Clevis	
218	4712600	1	Flatwasher, 1in	
219	3450606	1	Pin, Cotter 3/16in x 1 1/2in	
220	0641608	8	Bolt 3/8in-16NC x 1in	
221	4751600	8	Flatwasher 3/8in	
222	1380124	8	Clip, Retainer	
223	4920096	4 ft/1.22m	Wire, Safety	
	0250085	Ref	<b>STEERING AND SPINDLES INSTALLATION - 4WD MACHINES (VARIABLE PARTS)</b>	E
251	3421190	4	Kingpin	

# SECTION 1 - FRAME

## FIGURE 1-2. FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 4 WHEEL STEER)



## SECTION 1 - FRAME

**FIGURE 1-2. FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 4 WHEEL STEER)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>FRAME, STEERING AND AXLE INSTALLATIONS - 2WD AND 4WD (WITH 4 WHEEL STEER)</b>	
	2360380	1	Frame (2WD Fixed Axle)	
	2360381	1	Frame (4WD Fixed Axle)	
	2360334	1	Frame (All With Oscillating Axle - Prior to October 1994)	
	2360385	1	Frame (All With Oscillating Axle - October 1994 to Present)	
	0961029	4	Bushing, Bronze (Rear Axle)	
		Ref	<b>FRONT AXLE INSTALLATION (STANDARD PARTS)</b>	
3	0641610	AR	Bolt 3/8in-16NC x 1 1/4in	
4	4740185	AR	Washer, Hardened	
5	0100019	AR	Loctite #271 (Not Shown)	
7	2160002	1	Fitting, Grease	
9	0641406	4	Bolt 1/4in-20NC x 3/4in	
10	4761400	4	Lockwasher 1/4in	
11	4843286	2	Pin (Oscillating Axle Only)	
12	4842794	2	Pin (Oscillating Axle Only)	
14	4751400	4	Flatwasher 1/4in	
15	4712600	AR	Flatwasher 1in	
		Ref	<b>FRONT AXLE INSTALLATION - 2WD MACHINES WITH FIXED AXLE (VARIABLE PARTS)</b>	
	0253173	Ref	<b>BUILT (PRIOR TO OCTOBER 1994)</b>	-
	0255075	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	-
		Ref	<b>FRONT AXLE INSTALLATION - 2WD MACHINES WITH OSCILLATING AXLE (VARIABLE PARTS)</b>	
	0250382	Ref	<b>BUILT (PRIOR TO SEPTEMBER 1990)</b>	D
	0251330	Ref	<b>BUILT (SEPTEMBER 1990 TO OCTOBER 1994)</b>	C
	0255069	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	-
51		Ref	Front Axle Weldment Options:	
51	4843477	1	Front Axle Weldment (Prior to October 1994)	
51	4844848	1	Front Axle Weldment (October 1994 to Present)	
52		Ref	Lockout Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
52	Not Required	0	Fixed Axle	
52		Ref	Oscillating Axle	
52	1681785	2	Oscillating Axle (Prior to September 1990)	
52	1682406	2	Oscillating Axle (September 1990 to June 1992)	
52	1682757	2	Oscillating Axle (June 1992 to October 1994)	
53		Ref	Pin Options:	
53	4842621	1	Pin (Prior to October 1994)	
53	3422401	1	Pin (October 1994 to Present)	
54		Ref	O-Ring Options:	
54	Not Required	0	Fixed Axle	
54		Ref	Oscillating Axle	
54	Not Required	0	Oscillating Axle (Prior to October 1994)	
54	3780183	2	Oscillating Axle (October 1994 to Present)	
55		Ref	Valve, Relief Options:	
55	Not Required	0	Valve, Relief (Prior to October 1994)	
55	4640812	1	Valve, Relief (October 1994 to Present)	
56		Ref	Bar, Axle Block Options:	
56	0361953	2	Fixed Axle	

# SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
56	Not Required	0	Oscillating Axle	
57		Ref	Bar, Axle Block Options:	
57	0361954	2	Fixed Axle	
57	Not Required	0	Oscillating Axle	
		Ref	<b>FRONT AXLE INSTALLATION - 4WD MACHINES WITH FIXED AXLE (VARIABLE PARTS)</b>	
	0253174	Ref	<b>BUILT (PRIOR TO OCTOBER 1994)</b>	-
	0255076	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	B
		Ref	<b>FRONT AXLE INSTALLATION - 4WD MACHINES WITH OSCILLATING AXLE (VARIABLE PARTS)</b>	
	0250334	Ref	<b>BUILT (PRIOR TO SEPTEMBER 1990)</b>	E
	0251329	Ref	<b>BUILT (SEPTEMBER 1990 TO OCTOBER 1994)</b>	D
	0255070	Ref	<b>BUILT (OCTOBER 1994 TO PRESENT)</b>	-
61		Ref	Front Axle Weldment Options:	
61	4843447	1	Front Axle Weldment (Prior to October 1994)	
61	4844849	1	Front Axle Weldment (October 1994 to Present)	
61	0961029	4	Bushing, Bronze	
62		Ref	Lockout Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
62	Not Required	0	Fixed Axle	
62		Ref	Oscillating Axle	
62	1681785	2	Oscillating Axle (Prior to September 1990)	
62	1682406	2	Oscillating Axle (September 1990 to June 1992)	
62	1682757	2	Oscillating Axle (June 1992 to October 1994)	
63		Ref	Pin Options:	
63	4842621	1	Pin (Prior to October 1994)	
63	3422401	1	Pin (October 1994 to Present)	
64		Ref	O-Ring Options:	
64	Not Required	0	Fixed Axle	
64		Ref	Oscillating Axle	
64	Not Required	0	Oscillating Axle (Prior to October 1994)	
64	3780183	2	Oscillating Axle (October 1994 to Present)	
65		Ref	Valve, Relief Options:	
65	Not Required	0	Valve, Relief (Prior to October 1994)	
65	4640812	1	Valve, Relief (October 1994 to Present)	
66		Ref	Bar, Axle Blocking Options:	
66	0361951	2	Fixed Axle (Prior to October 1994)	
66	0361953	2	Fixed Axle (October 1994 to March 1995)	
66	0362531	2	Fixed Axle (March 1995 to Present)	
66	Not Required	0	Oscillating Axle	
67		Ref	Bar, Axle Blocking Options:	
67	0361952	2	Fixed Axle (Prior to October 1994)	
67	0361954	2	Fixed Axle (October 1994 to August 1995)	
67	0361952	2	Fixed Axle (August 1995 to Present)	
67	Not Required	0	Oscillating Axle	
	0236449	Ref	<b>STEERING AND SPINDLES INSTALLATION - 2WD FRONT (STANDARD)</b>	O
	0251521	Ref	<b>STEERING AND SPINDLES INSTALLATION - 2WD FRONT (STANDARD)</b>	F
101	1681562	1	Steer Cylinder Assembly (See CYLINDER SECTION for Breakdown)	
102	3840863	1	Tie-Rod	
104		Ref	Kingpin Options:	

## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
104	3421243	2	Domestic (Prior to February 1994)	
104	3422261	2	All (February 1994 to Present)	
105	0440183	2	Bearing, Thrust	
106	3960098	2	Seal, Hub	
107	3300012	18	Nut, Wheel	
108	0630137	18	Stud, Wheel	
109	2780091	2	Hub Assembly	
110	1120032	2	Cap, Hub	
111	0721003	6	Bolt #10-24NC x 3/8in	
112	4761000	6	Lockwasher #10	
113	4740016	2	Washer, Hardened	
114	3323403	2	Nut 1 1/2in-6NF	
115	3451012	2	Pin, Cotter 5/16in x 3in	
116	0440019	4	Cone, Bearing	
117	0440018	4	Cup, Bearing	
118	3300175	1	Locknut	
119	4130160	1	Spindle (Right Side)	
119	0961778	2	Bushing, Excel	
120	3312602	2	Nut, Jam 1in- 8NC	
121	0440091	3	Bearing, Thrust	
122	2160002	3	Fitting, Grease	
123	4712600	1	Flatwasher 1in Narrow	
124	0560605	1	Block, Tie-Rod (Right Side)	
125	3323002	1	Nut, Jam 1 1/4in-12NF (Right Side)	
126	4130161	1	Spindle (Left Side)	
126	0961778	2	Bushing, Excel	
127	0630425	2	Bolt 1in-8NC x 3 3/4in	
128	3450606	1	Pin, Cotter 3/16in x 1 1/2in	
129	3431622	1	Pin, Clevis 1in x 2 3/4in	
132	0100011	AR	Loctite #242 (Not Shown)	
133	2160003	2	Fitting, Grease - 45	
134	0560714	1	Block, Tie-Rod (Left Side)	
135	3300229	1	Nut, Jam 1 1/4in-12NF LH (Left Side)	
136	3450810	2	Pin, Cotter 1/4in x 2 1/2in	
137	4640812	2	Valve, Relief (February 1994 to Present)	
138	3780183	4	O-Ring (February 1994 to Present)	
139	3323403	2	Nut, Slotted 1 1/2in-6NF (Prior to May 1994)	
139	3313403	2	Nut, Slotted 1 1/2in-6NC (May 1994 to Present)	
	1281710	Ref	<b>STEERING AND SPINDLES INSTALLATION - 4WD FRONT AND ALL REAR STEER (STANDARD PARTS)</b>	E
201	4130221	1	Spindle (Front Right Side and Rear Left Side)	
202	4130222	1	Spindle (Front Left Side and Front Right Side)	
203	1681555	1	Steer Cylinder Assembly (See CYLINDER SECTION for Breakdown)	
204	3841018	1	Tie-Rod	
205	0560714	1	Block, Tie-Rod (Left Side)	
206	3300229	1	Nut, Jam 1 1/4in-12NF (Left Side)	
207	0560605	1	Block, Tie-Rod (Right Side)	
208	3323002	1	Nut, Jam 1 1/4in-12NF	
209	3300175	3	Locknut	
210	0440091	3	Bearing, Thrust	
211	2160002	4	Fitting, Grease	

## SECTION 1 - FRAME

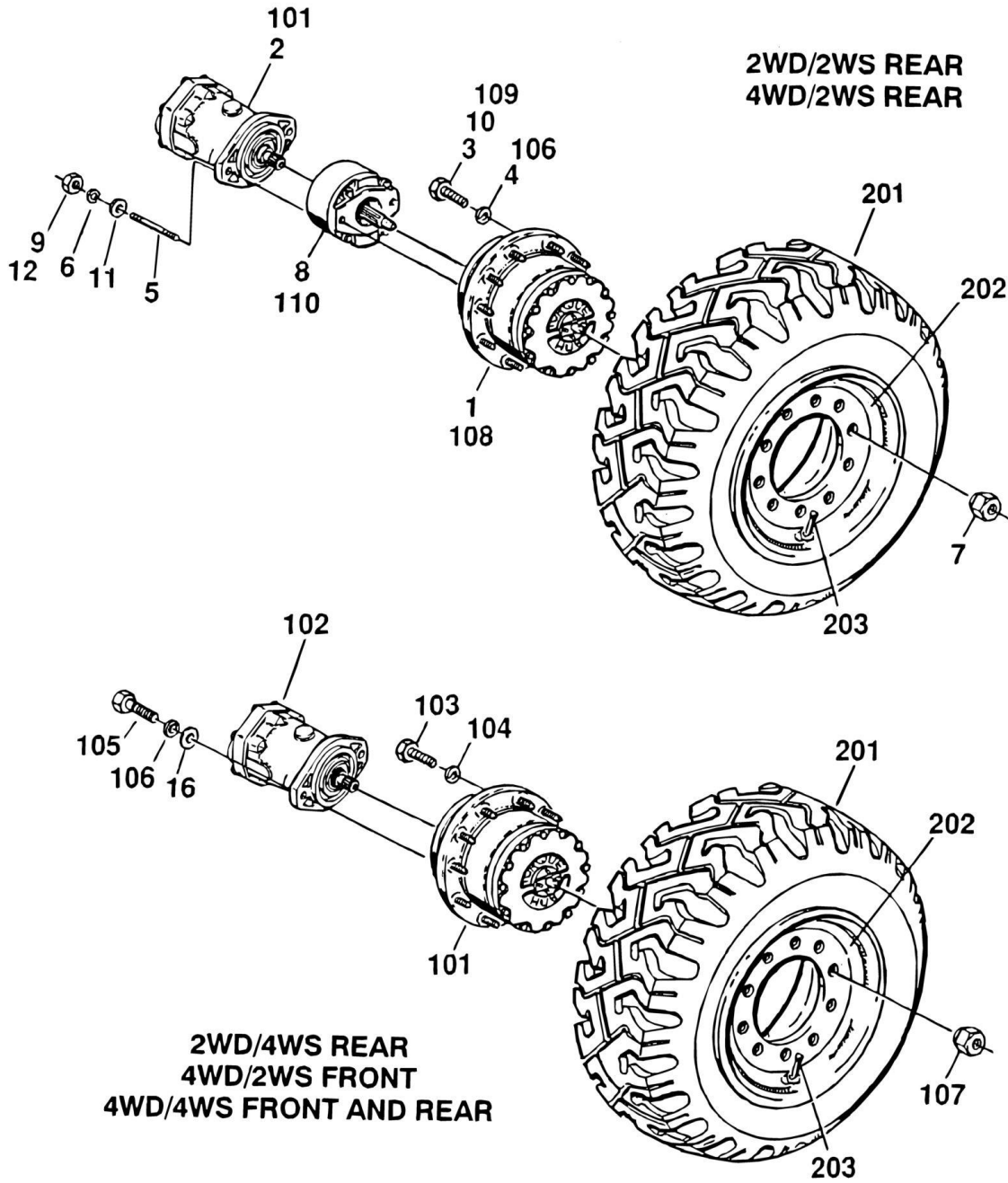
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
212	2160003	4	Fitting, Grease - 45	
213	0440161	4	Bearing, Thrust	
214		Ref	Cover Options:	
214	3530244	4	Cover (Prior to August 1992)	
214	3536411	4	Cover (August 1992 to Present)	
215		Ref	Fastener Options:	
215	0641404	AR	Bolt 1/4in-20NC x 1/2in (Prior to August 1992)	
215	2080026	AR	Stud, Drive (August 1992 to May 1994)	
215	4300106	AR	Stud, Drive (May 1994 to Present)	
216	4761400	8	Lockwasher 1/4in (Prior to August 1992 Only)	
217	3431622	1	Pin, Clevis	
218	4712600	1	Flatwasher 1in	
219	3450606	1	Pin, Cotter 3/16in x 1 1/2in	
220	0641608	8	Bolt 3/8in-16NC x 1in	
221	4751600	8	Flatwasher 3/8in	
222	1380124	8	Clip, Retainer	
223	4920096	4 ft/1.22m	Wire, Safety	
	0250085	Ref	<b>STEERING AND SPINDLES INSTALLATION - 4WD FRONT AND REAR (VARIABLE PARTS)</b>	E
251	3421190	4	Kingpin	
	0251662	Ref	<b>STEERING AND SPINDLES INSTALLATION - 2WD Uses: 0256449 (Front) &amp; 0250085 (Rear) Installations</b>	-
	0251663	Ref	<b>STEERING AND SPINDLES INSTALLATION - 4WD Uses: (2) 0250085 (Front and Rear) Installations</b>	-





# SECTION 1 - FRAME

## FIGURE 1-3. TIRE AND WHEEL DRIVE INSTALLATIONS



# SECTION 1 - FRAME

## FIGURE 1-3. TIRE AND WHEEL DRIVE INSTALLATIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0250148	Ref	<b>WHEEL DRIVE INSTALLATION - 2WD/2WS</b>	6
	0270215	Ref	<b>WHEEL DRIVE INSTALLATION - 2WD/2WS (SERVICE REPLACEMENT ALTERNATIVE)</b>	1
1	2780169	2	Drive Hub Assembly (See DRIVE HUB ASSEMBLY for Breakdown)	
2	3160158	2	Drive Motor Assembly (See DRIVE MOTOR ASSEMBLY for Breakdown)	
3	0642016	12	Bolt 5/8in-11NC x 2in	
4	4762000	12	Lockwasher 5/8in	
5	4300092	4	Stud 1/2in-13NC x 5 1/2in	
6	4761800	4	Lockwasher 1/2in	
7	3300012	18	Lugnut 1/2in-20NF	
8		Ref	Drive Brake Options:	
8	0920072	2	Brake (Prior to March 1992) (See DRIVE BRAKE ASSEMBLY - AUSCO for Breakdown)	
8		Ref	Brake (March 1992 to Present) (See DRIVE BRAKE ASSEMBLY - MICO for Breakdown)	
8	0920084	2	Drive Brake (March 1992 to SN 33895)	
8	0920110	2	Drive Brake <b>(SN 33896 to Present)</b>	
8	0920117	2	Service Replacement Alternative	
9	3311801	4	Nut 1/2in-13NC	
10	0100011	AR	Loctite #242 (Not Shown)	
11	4751800	4	Flatwasher 1/2in	
12	0100019	AR	Loctite #271	
		Ref	<b>WHEEL DRIVE INSTALLATIONS</b>	
	0251661	Ref	<b>2WD/4WS</b>	B
	0250093	Ref	<b>4WD/2WS</b>	F
	0270122	Ref	<b>4WD/2WS (SERVICE REPLACEMENT ALTERNATIVE)</b>	1
	0251660	Ref	<b>4WD/4WS</b>	B
101		Ref	Drive Hub/Brake Assembly Options:	
101		Ref	Hub/Brake (See DRIVE HUB/BRAKE ASSEMBLIES for Breakdown)	
101	2780157	2	2WD/4WS (Prior to September 1992)	
101	2780172	2	4WD/2WS and 4WD/4WS (Prior to February 1992)	
101		Ref	Hub/Brake (See DRIVE HUB/BRAKE ASSEMBLIES for Breakdown)	
101	2780195	2	2WD/4WS (September 1992 to Present)	
101	2780191	2	4WD/2WS and 4WD/4WS (February 1992 to Present)	
102	3160158	Ref	Drive Motor Assembly (See DRIVE MOTOR ASSEMBLY for Breakdown)	
102	3160158	2	2WD/4WS and 4WD/2WS	
102	3160158	4	4WD/4WS	
103		Ref	Bolt Options:	
103	0642014	AR	2WD/4WS and 4WD/4WS - Bolt 5/8in-11NC x 1 3/4in	
103	0642016	AR	4WD/2WS - Bolt 5/8in-11NC x 2in	
104	4762000	AR	Lockwasher 5/8in	
105	0641810	4	Bolt 1/2in-13NC	
106	4761800	4	Lockwasher 1/2in	
107	3300012	AR	Lugnut 1/2in-20NF	
		Ref	<b>Note: Items 108-110 Not Required on 2WD/4WS Machines.</b>	
108	2780167	2	Drive Hub Assembly (Rear) (See DRIVE HUB ASSEMBLY for Breakdown)	

## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
109	0641844	4	Bolt 1/2in-20NC x 5 1/2in	
110		Ref	Drive Brake (Rear) Options:	
110	0920072	2	Brake (Prior to March 1992) (See DRIVE BRAKE ASSEMBLY – AUSCO for Breakdown)	
110		Ref	Brake (See DRIVE BRAKE ASSEMBLY - MICO for Breakdown)	
110	0920084	2	Drive Brake (Rear) (March 1992 to SN 33895)	
110	0920110	2	Drive Brake (Rear) <b>(SN 33896 to Present)</b>	
110	0920117	2	Service Replacement Alternative	
	0253133	Ref	<b>TIRE AND WHEEL INSTALLATION - 8.75 x 16.5 FOAM-FILLED (2WD AND 4WD)</b>	-
	0250930	Ref	<b>TIRE AND WHEEL INSTALLATION - 14 x 17.5 FOAM-FILLED (2WD)</b>	-
	0250172	Ref	<b>TIRE AND WHEEL INSTALLATION - 14 x 17.5 FOAM-FILLED (4WD) (PRIOR TO JULY 1995)</b>	-
	0255808	Ref	<b>TIRE AND WHEEL INSTALLATION - 14 x 17.5 FOAM-FILLED (4WD) (JULY 1995 TO PRESENT)</b>	-
	0254860	Ref	<b>TIRE AND WHEEL INSTALLATION - 14 x 17.5 FOAM-FILLED (4WD)</b>	-
		Ref	2WD Options:	
	0253131	4	Tire and Wheel Assembly - 8.75 x 16.5 LT Foam-Filled Goodyear Unisteel	
	0250929	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Goodyear Hi-Miler	
	0250171	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Goodyear X-Tra Grip	
		Ref	4WD Options:	
	0253131	4	Tire and Wheel Assembly - 8.75 x 16.5 LT Foam-Filled Goodyear Unisteel	
	0250171	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Traction Tread (Right Side)	
	0250170	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Traction Tread (Left Side)	
	0254859	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Non-Highway Style (NHS) (Left Side)	
	0254858	2	Tire and Wheel Assembly - 14 x 17.5 Foam-Filled Non-Highway Style (NHS) (Right Side)	
		Ref	<b>Note: Assemblies may require ballast/foam filling to manufacturer's specifications prior to installing on a machine. Refer to Operators and Safety or Service and Maintenance Manuals. Purchase individual tire and/or rim only if able to foam fill tire and wheel assembly, otherwise, purchase complete assembly.</b>	
		Ref	Tire Options:	
	4520024		Tire - 14 x 17.5 Goodyear Hi-Miller	
	4520199		Tire - 8.75 x 16.5 LT Goodyear Unisteel	
	4520171		Tire - 14 x 17.5 Galaxy Super AGRI Loader	
	4520124		Tire - 14 x 17.5 Goodyear Sure Grip Loader	
		Ref	Rim Options:	
	4842561		Rim, Wheel (8.75 x 16.5 Tires)	
	4860115		Rim, Wheel (14 x 17.5 Tires)	



# SECTION 1 - FRAME

## FIGURE 1-4. DRIVE MOTOR ASSEMBLY

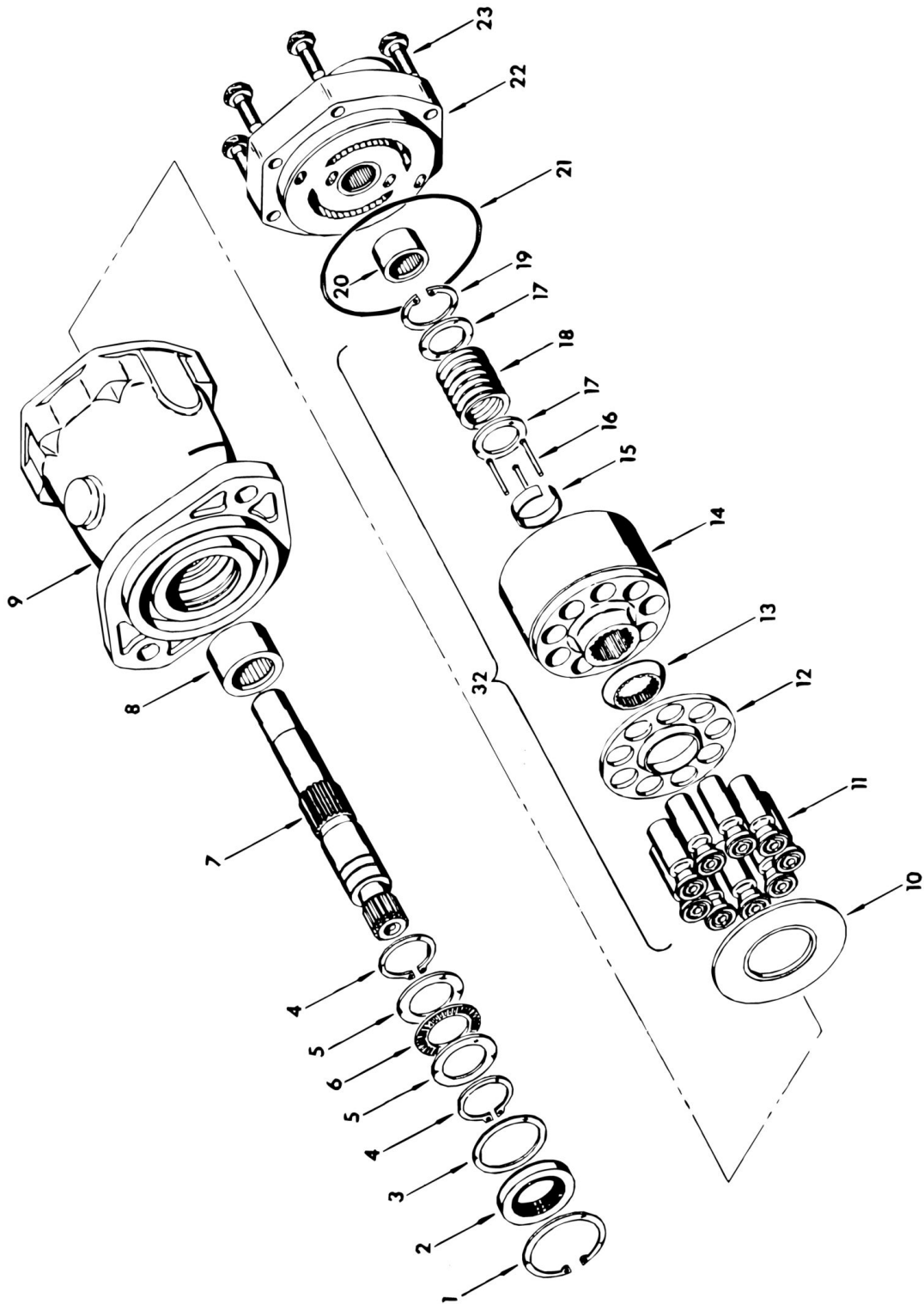
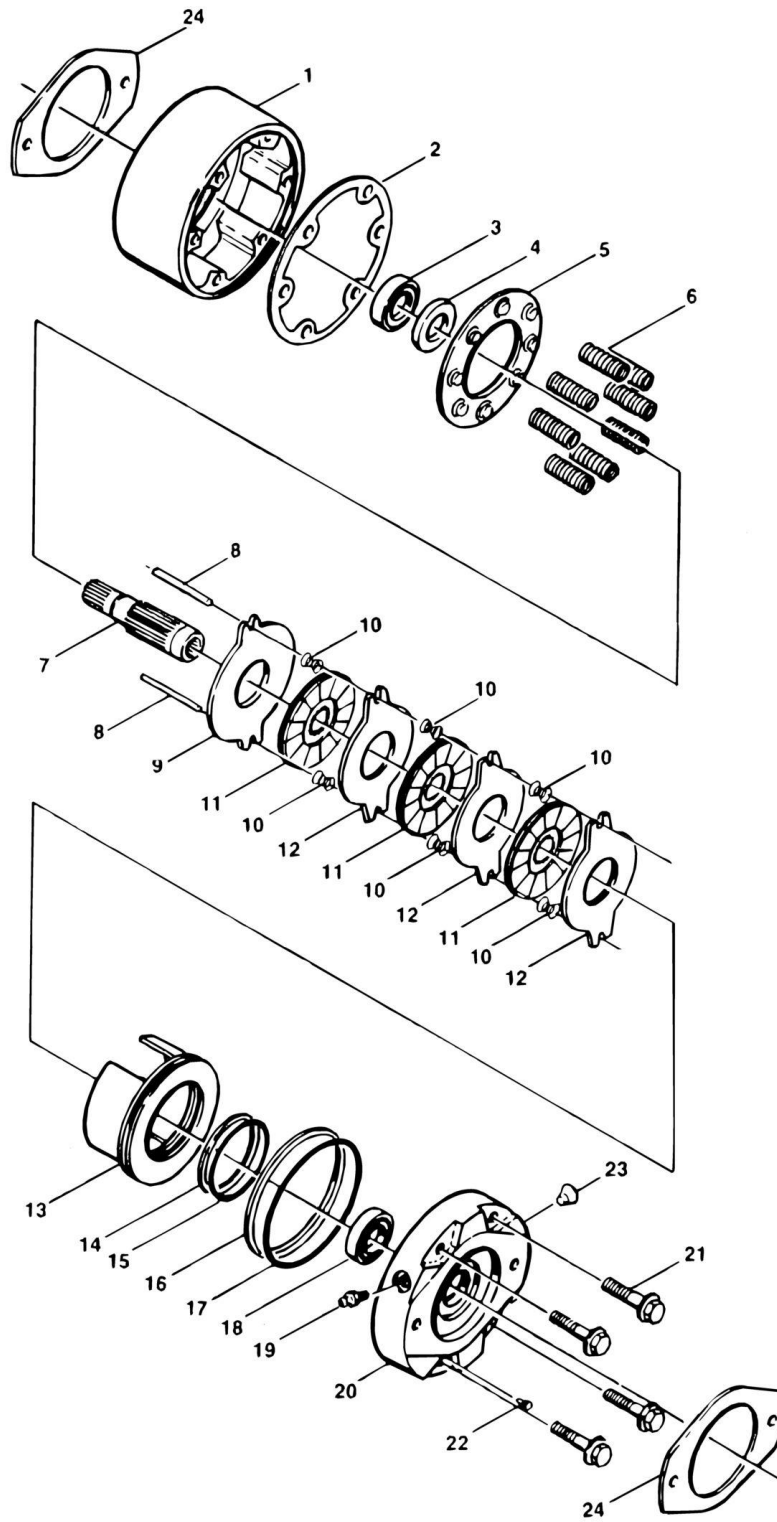


FIGURE 1-4. DRIVE MOTOR ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160158	Ref	<b>DRIVE MOTOR ASSEMBLY</b>	-
1	Kit	1	Ring, Retaining	
2	Kit	1	Seal, Shaft	
3	7004906	1	Washer	
4	Kit	2	Ring, Retaining	
5	7004907	2	Race, Thrust	
6	7004908	1	Bearing	
7	7007874	1	Shaft, Drive	
8	7004910	1	Bearing	
9	7007875	1	Housing Assembly (Includes Item 8)	
10	7007876	1	Camplate	
11	7007880	1	Rotating Kit Assembly	
12	7004917	1	Bearing	
13	Kit	1	O-Ring	
14	7007878	1	Backplate Assembly (Includes Item 12)	
15	7007879	6	Bolt	
	2900714	1	Repair Kit Includes Items 1, 2, 4 & 13	

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FIGURE 1-5. DRIVE BRAKE ASSEMBLY - AUSCO (PRIOR TO MARCH 1992)





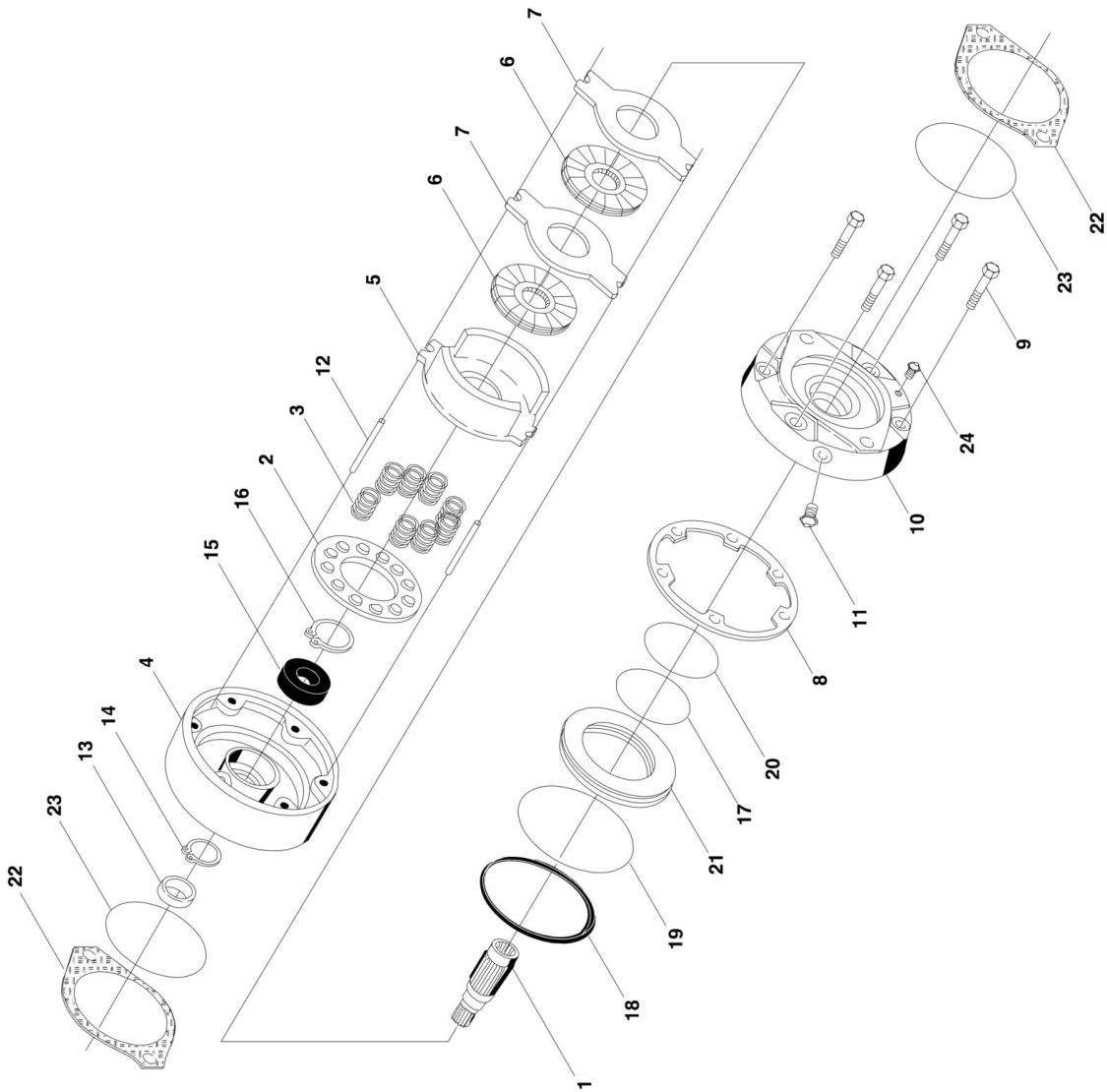
## SECTION 1 - FRAME

**FIGURE 1-5. DRIVE BRAKE ASSEMBLY - AUSCO (PRIOR TO MARCH 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0920072	Ref	<b>DRIVE BRAKE ASSEMBLY - AUSCO (PRIOR TO MARCH 1992)</b>	D
1	7003047	1	Housing	
2	Kit	1	Gasket	
3	7003049	1	Bearing	
4	Kit	1	Seal, Oil	
5	7003051	1	Retainer, Spring	
6	7003052	8	Spring, Compression	
7	7003070	1	Shaft, Splined	
8	7000717	2	Pin, Torque	
9	7003054	1	Disc, Primary	
10	7003006	6	Spring, Separator	
11	7003055	3	Disc, Rotating	
12	7003056	3	Disc, Stationary	
13	7003057	1	Piston	
14	Kit	1	Ring, Backup	
15	Kit	1	O-Ring	
16	Kit	1	Ring, Backup	
17	Kit	1	O-Ring	
18	7000760	1	Bearing	
19	7000796	1	Screw, Bleeder	
20	7003071	1	Plate, Power	
21	7003007	4	Screw	
22	7003059	1	Valve, Pressure	
23	7000728	1	Plug	
24	Kit	2	Gasket	
	2900662	1	Seal Kit (Includes Items 2, 4, 14, 15, 16, 17 & 24)	

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FIGURE 1-6. DRIVE BRAKE ASSEMBLY - MICO (MARCH 1992 TO PRESENT)



# SECTION 1 - FRAME

## FIGURE 1-6. DRIVE BRAKE ASSEMBLY - MICO (MARCH 1992 TO PRESENT)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>DRIVE BRAKE ASSEMBLY OPTIONS:</b>	
	0920084	Ref	<b>Drive Brake Assembly (March 1992 to SN 33895)</b>	A
	0920110	Ref	<b>Drive Brake Assembly (SN 33896 to Present)</b>	C
1	7011712	1	Shaft	
2		Ref	Guide, Spring Options:	
2	7011717	1	0920084 Brake (March 1992 to SN 33895)	
2	7018606	1	0920110 Brake ( <b>SN 33896 to Present</b> )	
3		Ref	Spring Options:	
3	7007979	6	0920084 Brake (Inner) (March 1992 to SN 33896)	
3	7007980	6	0920084 Brake (Outer) (March 1992 to SN 33896)	
3	7007970	6	0920110 Brake (Red) ( <b>SN 33896 to Present</b> )	
3	7018602	3	0920110 Brake (Blue) ( <b>SN 33896 to Present</b> )	
4		Ref	Housing Options:	
4	7011713	1	0920084 Brake (March 1992 to SN 33895)	
4	7018605	1	0920110 Brake ( <b>SN 33896 to Present</b> )	
5		Ref	Return Plate and Separator Assembly Options:	
5	Kit	1	Return, Plate - 0920084 Brake (March 1992 to SN 33895)	
5	7011715	2	Separator Assy - 0920084 Brake (March 1992 to SN 33895)	
5	7011714	4	Pin	
5	7007983	2	Separator	
5	Kit	1	Return Plate and Separator - 0920110 Brake ( <b>SN 33896 to Present</b> )	
6	Kit	2	Rotor	
7	Kit	2	Stator	
8	Kit	1	Seal, Case	
9		Ref	Bolt, Washer Head Options:	
9	7007985	4	0920084 Brake (March 1992 to SN 33895)	
9	7018607	4	0920110 Brake ( <b>SN 33896 to Present</b> )	
10	7007986	1	Cover	
11		Ref	Hardware Options:	
11	7000796	1	Screw, Bleeder ( <b>Prior to SN 33906</b> )	
11	7018609	1	Plug, Pipe ( <b>SN 33906 through 56536</b> )	
12	7007987	2	Pin, Dowel	
13	Kit	1	Seal, Oil	
14	7011716	1	Ring, Retaining	
15	Kit	1	Bearing	
16	7007977	1	Ring, Retaining	
17	Kit	1	Ring, Back-up	
18	Kit	1	Ring, Back-up	
19	Kit	1	O-Ring	
20	Kit	1	O-Ring	
21		Ref	Piston Options:	
21	7007923	1	0920084 Brake (March 1992 to SN 33895)	
21	7018603	1	0920110 Brake ( <b>SN 33896 to Present</b> )	
22	7007933	2	Gasket	
23	Kit	2	O-Ring	
24	7007924	1	Plug, Pipe	
	2900766	1	Seal Kit (Includes Items 8, 13, 17, 18, 19, 20, 22 & 23)	
	2900768	1	Seal Kit (Includes Items 8, 13, 15, 22 & 23)	
		Ref	Lining Kit Options: (Includes Items 5, 6, 7, 8, 22 & 23)	

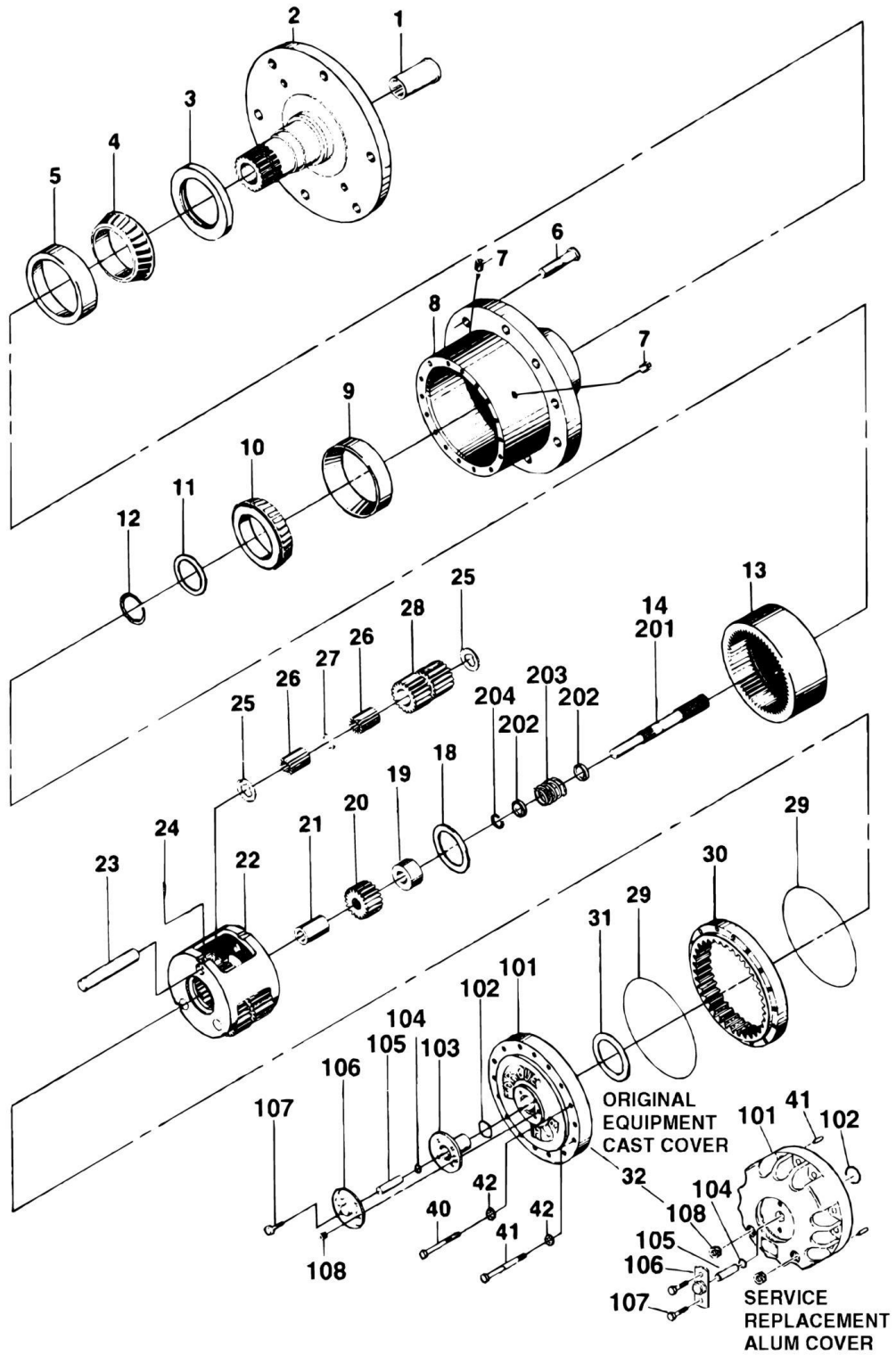
## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2900767	1	0920084 Brake (March 1992 to SN 33895)	B
	7018608	1	0920110 Brake <b>(SN 33896 to Present)</b>	
	0920117	Ref	<b>DRIVE BRAKE ASSEMBLY (NOT SHOWN) (Service Replacement Alternative)</b>	
	7018612	1	Kit, Repair	
		Ref	<b>Note: Repair Kit is the only thing available</b>	



# SECTION 1 - FRAME

## FIGURE 1-7. DRIVE HUB ASSEMBLY



# SECTION 1 - FRAME

## FIGURE 1-7. DRIVE HUB ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2780169	Ref	<b>DRIVE HUB ASSEMBLY (2WD/2WS)</b>	-
	2780167	Ref	<b>DRIVE HUB ASSEMBLY (4WD/2WS REAR)</b>	-
1	7000206	1	Coupling	
		Ref	Hub-Spindle Sub-Assembly	
2	7001997	1	Spindle	
3	7001998	1	Seal	
4	Kit	1	Cone, Bearing	
5	Kit	1	Cup, Bearing	
6	7007697	9	Bolt, Wheel	
7	7000242	2	Plug, Pipe	
8	7007601	1	Hub	
9	7000257	1	Cup, Bearing	
10	7000258	1	Cone, Bearing	
11	7000232	1	Spacer	
12	7000229	1	Ring, Retaining	
13	7000246	1	Gear, Internal	
14		Ref	Input Shaft Assembly Options: (See Items 201-204 for Breakdown)	
18	7000253	1	Washer, Thrust	
19	7000252	1	Spacer (2780169)	
19	7007653	1	Spacer	
20	7000251	1	Gear, Input (2780169)	
20	7007652	1	Gear, Input (2780167)	
21	7007654	1	Spacer (1780167 Only)	
21	7000247	1	Carrier Assembly	
22	7001931	1	Carrier	
23	7001911	3	Shaft	
24	7001913	3	Pin, Roll	
25	7001985	6	Washer, Thrust	
26	7001909	96	Roller, Needle	
27	7000263	3	Spacer	
28	7001912	3	Gear, Cluster	
29	7000230	2	O-Ring	
30	7000248	1	Gear, Ring	
31	7000253	1	Washer, Thrust	
32		Ref	Cover Assembly (Includes Items 101-108)	
40		Ref	Bolt Options:	
40	7000217	12	Original Equipment Cast Cover	
40	7017067	12	Service Replacement Aluminum Cover	
41		Ref	Hardware Options:	
41	7000214	4	Bolt, Shoulder (Original Equipment Cast Cover)	
41	7017080	4	Dowel Pin (Service Replacement Aluminum Cover)	
42	7007603	16	Flatwasher	
	7010429	1	Bearing Kit (Includes Items 4 & 5)	
		Ref	<b>COVER ASSEMBLY</b>	
	70001111	Ref	<b>Original Equipment Cast Cover</b>	
	70001349	Ref	<b>Service Replacement Aluminum Cover</b>	
101		Ref	Cover Options:	
101	70001111	1	Original Equipment Cast Cover (was p/n 7000226)	
101	70001349	1	Service Replacement Aluminum Cover (was p/n 7017091)	
102		Ref	O-Ring Options:	

## SECTION 1 - FRAME

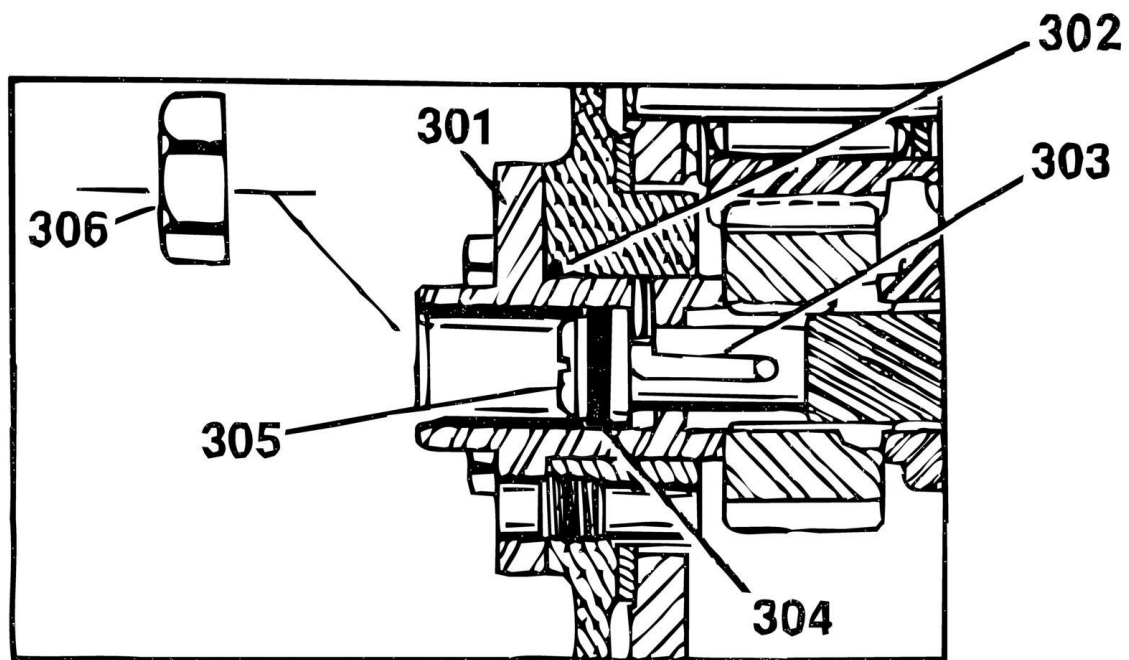
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Kit	1	Original Equipment Cast Cover	
	7017070	1	Service Replacement Aluminum Cover	
103		Ref	Cap, Cover	
	70001111	1	Original Equipment Cast Cover	
	Not Required	1	Service Replacement Aluminum Cover	
104		Ref	O-Ring Options:	
	Kit	1	Original Equipment Cast Cover	
	7017095	1	Service Replacement Aluminum Cover	
105		Ref	Rod, Disconnect Options:	
105	70001111	1	Original Equipment Cast Cover	
105	70001349	1	Service Replacement Aluminum Cover (was p/n 7017092)	
106		Ref	Cap, Disconnect	
106	70001111	1	Original Equipment Cast Cover	
106	70001349	1	Service Replacement Aluminum Cover (was p/n 7017093)	
107		Ref	Bolt Options:	
107	7000216	4	Original Equipment Cast Cover	
107	7000216	2	Service Replacement Aluminum Cover	
108		Ref	Plug, Pipe Options:	
108	7000243	1	Original Equipment Cast Cover	
108	7017094	2	Service Replacement Aluminum Cover	
		Ref	<b>INPUT SHAFT ASSEMBLY</b>	
	7000250	Ref	<b>2WD</b>	
	7007650	Ref	<b>4WD</b>	
201		Ref	Shaft Options:	
201	7000260	1	2WD	
201	7007651	1	4WD	
202	7000263	2	Spacer	
203	7000262	1	Spring	
204	7000261	1	Ring, Retaining	
		Ref	<b>KIT OPTIONS:</b>	
	7010429	1	Bearing Kit (Includes Items 4 & 5)	
	2900034	1	Seal Kit (Includes Items 3, 11, 12 & 29)	
		Ref	Cover Kit Options:	
	70001111	1	Original Equipment Cast Cover (was p/n 7001989)	
	70001111	1	Aluminum Replacement for Original Equipment Cast Cover (Includes 29, 31 (Spacer), 40, 41 (Dowel Pins), 101, 102 & 104-108) (was p/n 7017099)	
	70001349	1	Service Replacement Aluminum Cover (Includes 29, 101 & 104-107) (was p/n 7017090)	





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**FIGURE 1-8. DRIVE HUB ASSEMBLY**



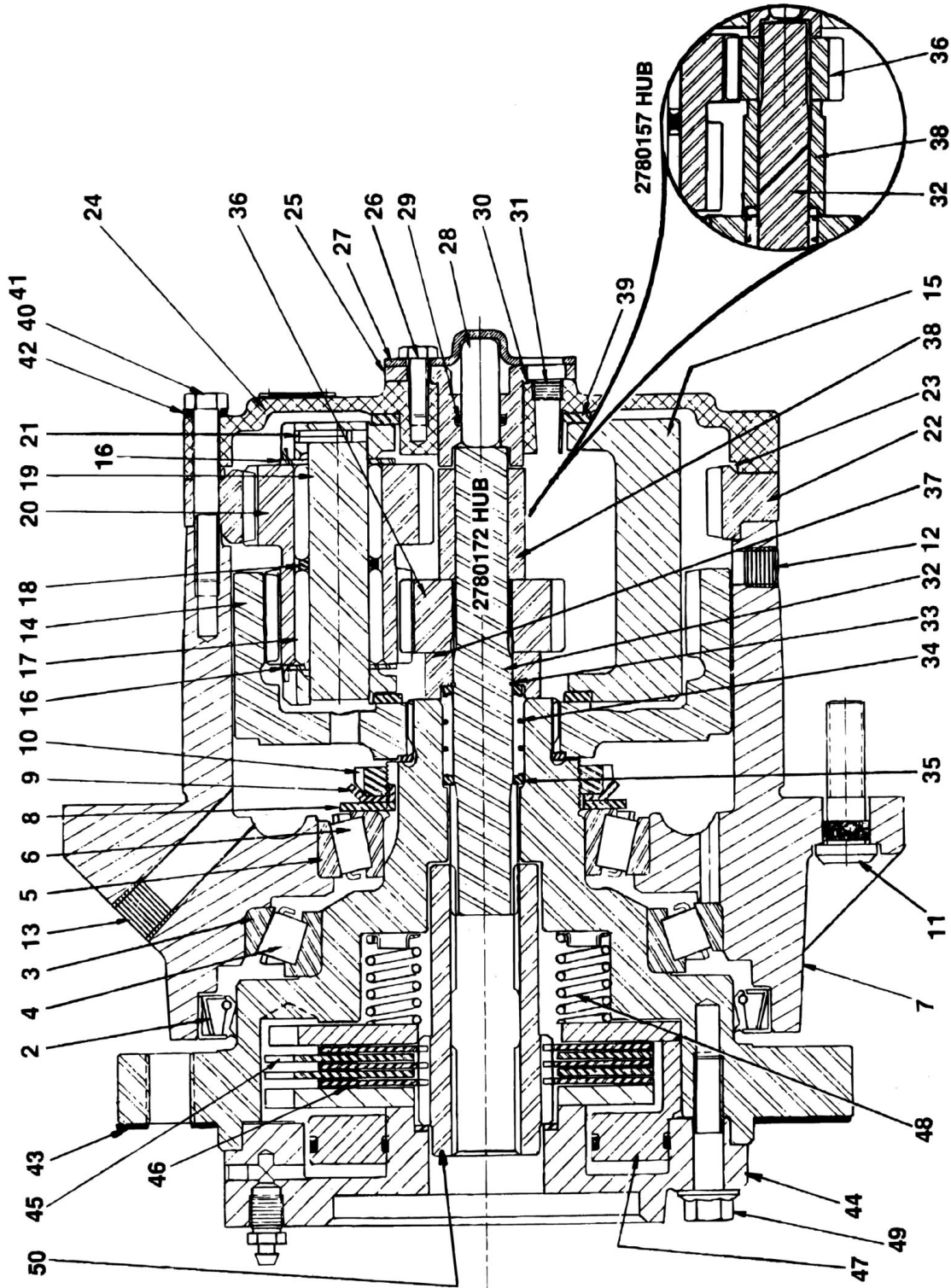
**LOCATED ON FRONT OF TORQUE HUB**

**FIGURE 1-8. DRIVE HUB ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>REV</b>
	2901157	Ref	<b>DISCONNECT HUB ASSEMBLY (OPTIONAL)</b>	
301	7002025	1	Cover	
302	7000215	1	O-Ring	
303	7007669	1	Pin, Spring	
304	7010446	1	Seal	
305	7010444	1	Rod, Disconnect	
306	7010447	1	Cap, Dust	
306	7010448	1	O-Ring	

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## FIGURE 1-9. DRIVE HUB/BRAKE ASSEMBLIES (THROUGH 1992)



# SECTION 1 - FRAME

**FIGURE 1-9. DRIVE HUB/BRAKE ASSEMBLIES (THROUGH 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>DRIVE HUB/BRAKE ASSEMBLIES (THROUGH 1992)</b>	
	2780172	Ref	<b>DRIVE HUB/BRAKE ASSEMBLIES - 4WD (PRIOR TO FEBRUARY 1992)</b>	-
	2780157	Ref	<b>DRIVE HUB/BRAKE ASSEMBLIES - 2WD/4WS (PRIOR TO SEPTEMBER 1992)</b>	A
		Ref	Hub Assembly	
2	Kit	1	Seal	
3	7007683	1	Cup, Bearing	
4	7007684	1	Cone, Bearing	
5	7007685	1	Cup, Bearing	
6	7007686	1	Cone, Bearing	
7	7007687	1	Hub	
8	7007688	1	Washer, Tongued	
9	7007689	1	Lockwasher	
10	7007690	1	Locknut	
11	7000241	9	Stud	
12	7000242	2	Plug, Pipe	
13	7007617	2	Plug, Magnetic	
14	7007691	1	Gear, Internal	
		Ref	Carrier Assembly	
15	7001931	1	Carrier	
16	7001985	6	Washer, Thrust	
17	7001909	96	Roller, Needle	
18	7000263	3	Spacer	
19	7001911	3	Shaft, Planet	
20	7001912	3	Gear, Cluster	
21	7001913	3	Pin, Roll	
22	7000248	1	Gear, Ring	
23	Kit	2	O-Ring	
	70001111	1	Cover Assembly (was p/n 7001989)	
24	70001111	1	Cover (was p/n 7000226)	
25	70001111	1	Cap, Cover (was p/n 7000227)	
26	7000220	4	Bolt	
27	70001111	1	Cap, Disconnect (was p/n 7000211)	
28	70001111	1	Rod, Disconnect (was p/n 7000212)	
29	Kit	1	O-Ring	
30	Kit	1	O-Ring	
31	7000243	2	Plug, Pipe	
	7007650	1	Input Shaft Assembly (2780172)	
	7000250	1	Input Shaft Assembly (2780157)	
32	7007651	1	Shaft, Input (2780172)	
32	7000260	1	Shaft, Input (2780157)	
33	7000261	1	Ring, Retaining	
34	7000262	1	Spring	
35	7000263	2	Spacer	
36	7007652	1	Gear, Input (2780172)	
36	7000251	1	Gear, Input (2780157)	
37	7007653	1	Spacer, Input (2780172)	
37	Not Required	0	Spacer, Input (2780157)	
38	7000252	1	Spacer, Input (2780157)	

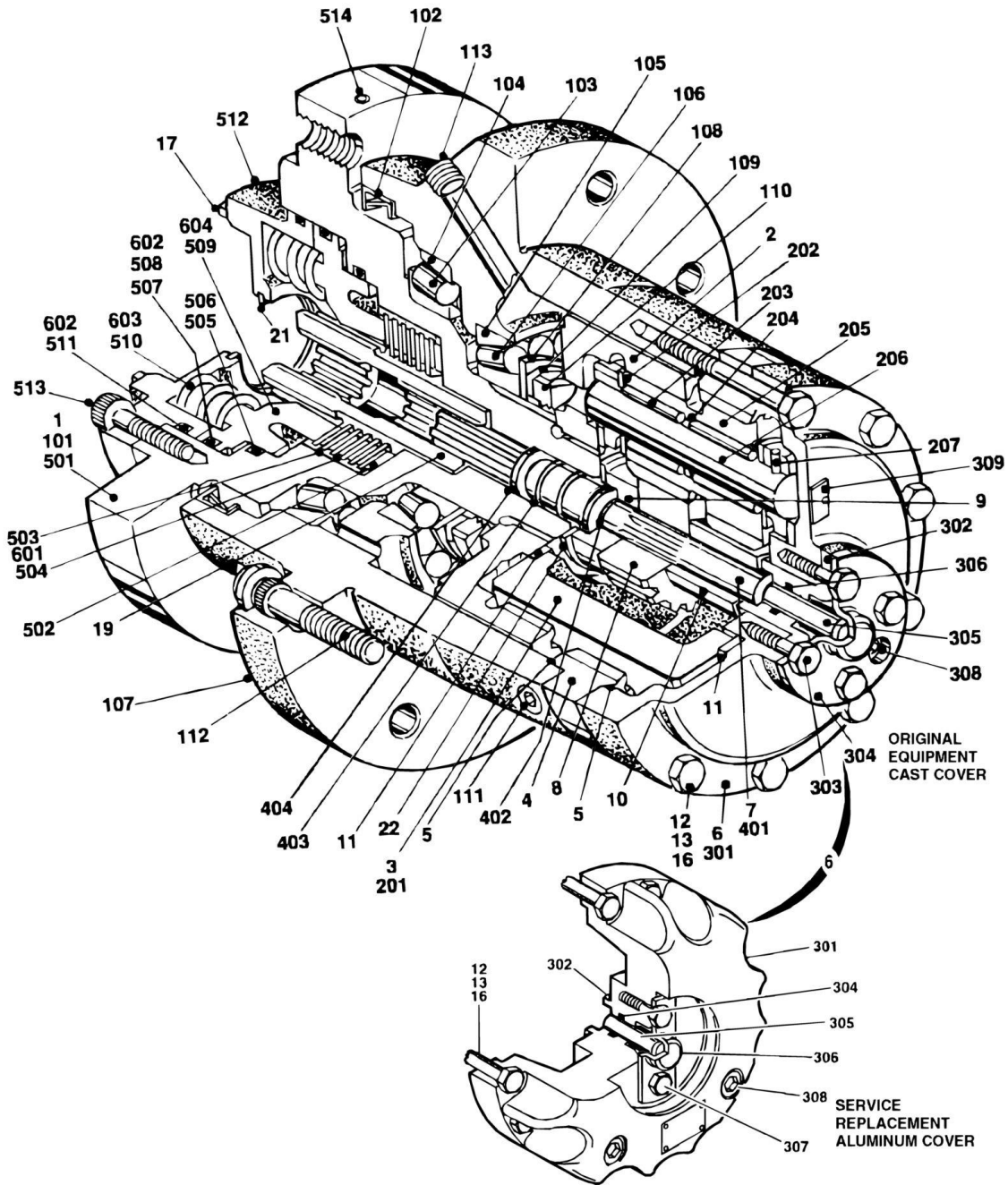
## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
39	7000253	2	Washer, Thrust	
40	7000217	12	Bolt	
41	7000215	4	Bolt, Shoulder	
42	7007603	16	Flatwasher	
43	Kit	1	Gasket	
44	7010454	NLA	Spindle (No longer available - purchase 7010473 as replacement)	
		Ref	Brake Assembly Options (No Longer available - purchase 7010473 as replacement):	
	7010453	1	Brake Assembly (Hub Model W1BJ4Y)	
	7010452	1	Brake Assembly (Hub Model W1BJ4U)	
45	7003087	2	Disc, Stationary	
46	7003089	3	Disc, Rotating	
47	7003088	1	Piston	
48	7003432	10	Spring	
49	7003433	8	Screw	
50	7010455	1	Coupling	
	2900754	1	Seal Kit - Hub (Includes Items 2, 23, 29, 30 & 43)	
	2900755	1	Seal Kit - Brake (Includes Piston Rings and Gaskets)	



# SECTION 1 - FRAME

## FIGURE 1-10. DRIVE HUB/BRAKE ASSEMBLIES (1992 TO PRESENT)





## SECTION 1 - FRAME

**FIGURE 1-10. DRIVE HUB/BRAKE ASSEMBLIES (1992 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>DRIVE HUB/BRAKE ASSEMBLIES (STANDARD PARTS)</b>	
1		Ref	Hub/spindle/Brake Assembly (See Items 101-113 for Breakdown)	
2	7007691	1	Gear, Internal	
3		Ref	Carrier Assembly (See Variable Parts)	
4	7000248	1	Gear, Internal	
5	Kit	2	O-Ring	
6		Ref	Cover Assembly (See Items 301-309 for Breakdown)	
7		Ref	Input Shaft Assembly (See Variable Parts)	
8		Ref	Gear, Input (See Variable Parts)	
9		Ref	Spacer, Input (See Variable Parts)	
10		Ref	Spacer, Input (See Variable Parts)	
11	7000253	2	Washer, Thrust	
12	7000217	12	Bolt	
13	7000214	4	Bolt, Shoulder	
16	7007603	16	Flatwasher	
17	7007692	1	Gasket	
19	7010470	1	Coupling	
21	7010459	1	Ring, Retainer	
22	7001922	1	Washer, Thrust	
	2780191	Ref	<b>DRIVE HUB/BRAKE ASSEMBLY - 4WD FEBRUARY 1992 TO PRESENT (VARIABLE PARTS)</b>	-
	2780195	Ref	<b>DRIVE HUB/BRAKE ASSEMBLY - 2WD/4WS SEPTEMBER TO PRESENT (VARIABLE PARTS)</b>	-
53	7000247	1	Carrier Assembly (2780191) (See Items 201-207 for Breakdown)	
53	NPN	1	Carrier Assembly (2780195) (See Items 201-207 for Breakdown)	
57	7007650	1	Input Shaft Assembly (2780191) (See Items 401-404 for Breakdown)	
57	7000250	1	Input Shaft Assembly (2780195) (See items 401-404 for Breakdown)	
58	7007652	1	Gear, Input (2780191)	
58	7000251	1	Gear, Input (2780195)	
59	7007653	1	Spacer, Input (2780191)	
59	7000252	1	Spacer, Input (2780195)	
60	7007654	1	Spacer, Input (2780191)	
60	Not Required	0	Spacer, Input (2780195)	
		Ref	<b>SPINDLE/BRAKE SUB-ASSEMBLY</b>	
101	7010469	1	Brake Assembly With I.D. Plate (Item 309) Stamped June 1992 or Earlier (See Items 501-514 for Breakdown)	
101	7010473	1	Brake Assembly With I.D. Plate (Item 309) Stamped July 1992 or Later (See Items 601-604 for Breakdown)	
102	Kit	1	Seal, Lip	
103	7007683	1	Cup, Bearing	
104	7007684	1	Cone, Bearing	
105	7007685	1	Cup, Bearing	
106	7007686	1	Cone, Bearing	
107	7007687	1	Housing	
108	7007688	1	Flatwasher, Tanged	
109	7007689	1	Flatwasher, Tanged	
110	7007690	1	Nut, Bearing	
111	7000242	2	Plug, Pipe 1/4in NPT	
112	7000241	9	Stud, Wheel	

# SECTION 1 - FRAME

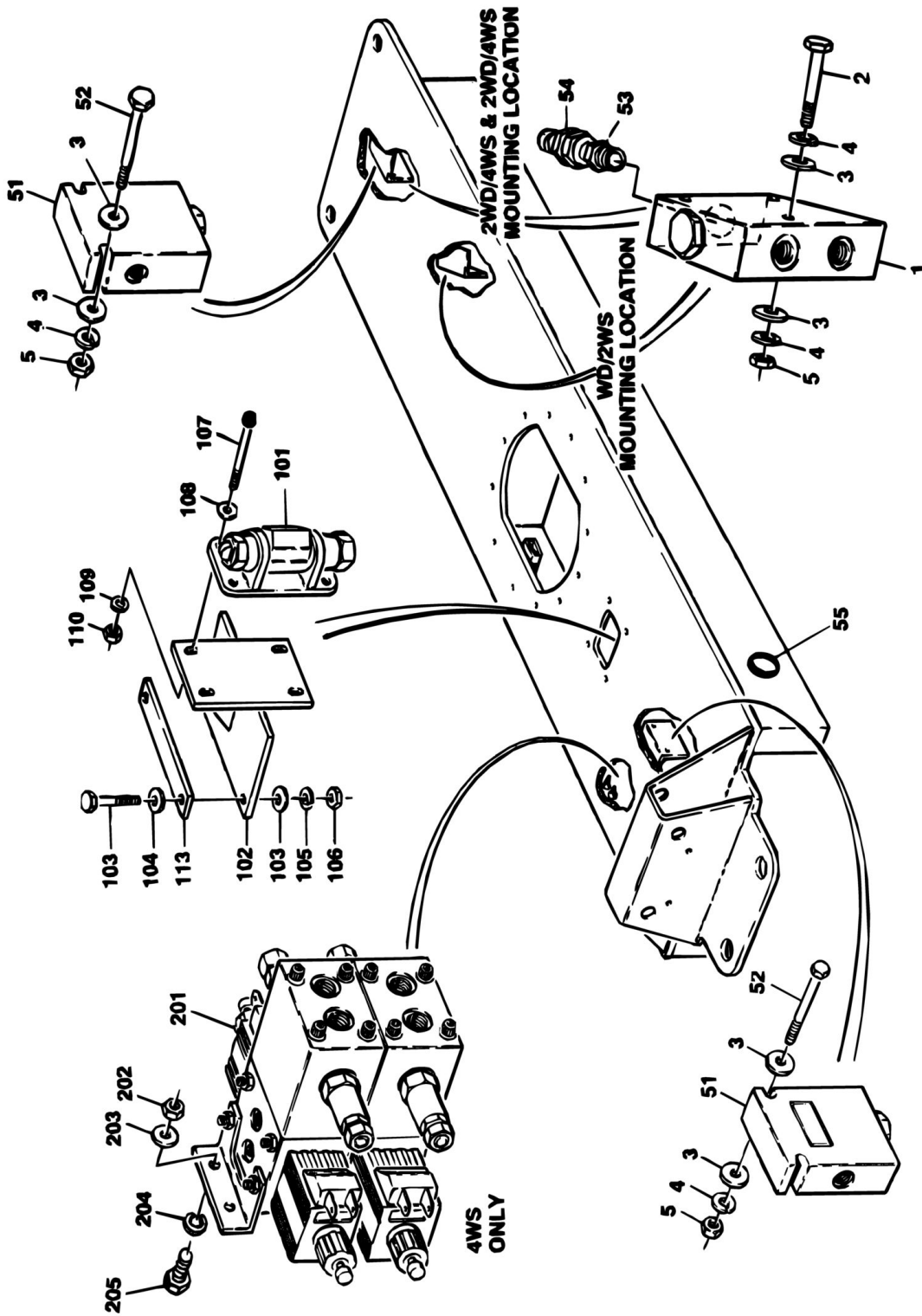
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
113	7007617	2	Plug, Pipe 3/8in NPT (Magnetic)	
	7000247	Ref	<b>CARRIER ASSEMBLY (2780191)</b>	
	NPN	Ref	<b>CARRIER ASSEMBLY (2780195)</b>	
201	7001931	1	Carrier	
202	7001985	6	Washer, Thrust - Tanged	
203	7001909	96	Bearing, Needle	
204	7000263	3	Spacer, Thrust	
205	7001911	3	Shaft, Planet	
206	7001912	3	Gear, Cluster	
207	7001913	3	Rollpin (2780191)	
207	7010474	3	Rollpin (1780195)	
		Ref	<b>COVER ASSEMBLY</b>	
	70001111	Ref	<b>Original Equipment Cast Cover</b>	
	70001349	Ref	<b>Service Replacement Aluminum Cover</b>	
301		Ref	Cover Options:	
301	70001111	1	Original Equipment Cast Cover (was p/n 7000226)	
301	70001349	1	Service Replacement Aluminum Cover (was p/n 7017091)	
302		Ref	O-Ring Options:	
302	Kit	1	Original Equipment Cast Cover	
302	7017070	1	Service Replacement Aluminum Cover	
303		Ref	Cap, Cover	
303	70001111	1	Original Equipment Cast Cover	
303	Not Required	0	Service Replacement Aluminum Cover	
304		Ref	O-Ring Options:	
304	Kit	1	Original Equipment Cast Cover	
304	7017095	1	Service Replacement Aluminum Cover	
305		Ref	Rod, Disconnect Options:	
305	70001111	1	Original Equipment Cast Cover (was p/n 7000212)	
305	70001349	1	Service Replacement Aluminum Cover (was p/n 7017092)	
306		Ref	Cap, Disconnect Options:	
306	70001111	1	Original Equipment Cast Cover (was p/n 7000211)	
306	70001349	1	Service Replacement Aluminum Cover (was p/n 7017093)	
307		Ref	Bolt Options:	
307	7000220	4	Original Equipment Cast Cover	
307	7000216	2	Service Replacement Aluminum Cover	
308		Ref	Plug, Pipe Options:	
308	7000243	1	Original Equipment Cast Cover	
308	7017094	2	Service Replacement Aluminum Cover	
		Ref	Cover Kit Options:	
	70001111	1	Original Equipment Cast Cover (was p/n 7001989)	
	70001111	1	Aluminum Replacement for Original Equipment Cast Cover (Includes 5, 11 (Spacer), 12, 13 (Dowell Pins), 301, 302 & 304-308) (was p/n 7017099)	
	70001349	1	Service Replacement Aluminum Cover (Includes 5, 301 & 304-307) (was p/n 7017090)	
	7007650	Ref	<b>INPUT SHAFT ASSEMBLY (2780191)</b>	
	7000250	Ref	<b>INPUT SHAFT ASSEMBLY (2780195)</b>	
401	7007651	1	Shaft (2780191)	
401	7000260	1	Shaft (2780195)	
402	7000261	1	Ring, Retaining	
403	7000262	1	Spring	
404	7000263	2	Spacer, Thrust	

## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	7010469	Ref	<b>BRAKE/SPINDLE ASSEMBLY WITH I.D. PLATE (ITEM 309) STAMPED JUNE 1992 OR EARLIER</b>	
501	7014100	1	Spindle	
502	7014101	1	Spacer	
503	7014102	7	Disc, Stationary	
504	7014103	6	Disc, Rotating	
505	Kit	1	Ring, Back-up	
506	Kit	1	O-Ring	
507	Kit	1	Ring, Back-up Ring	
508	Kit	1	O-Ring	
509	7014108	1	Piston	
510	7014109	6	Spring	
510	7014110	2	Spring	
511	Kit	1	O-Ring	
512	7014112	1	Cover	
513	Not Available	8	Bolt, Socket Head 3/8in-16NC x 1 1/4in	
514	7014113	1	Expander	
	2900816	1	Brake O-Ring Kit (Includes Items 505-508 & 511)	
	7010473	Ref	<b>BRAKE/SPINDLE ASSEMBLY WITH I.D. PLATE (ITEM 309) STAMPED JULY 1992 OR LATER</b>	
601	7010475	1	Brake Lining Kit	
602	7010476	1	Brake O-Ring Kit	
603	7010477	1	Brake Spring Repair Kit	
604	7010478	1	Brake Piston Repair Kit	
	2900754	1	Seal Kit - Hub (Includes items 5, 17, 102, 306 & 307)	

# SECTION 1 - FRAME

## FIGURE 1-11. VALVES INSTALLATION - FRAME-MOUNTED



# SECTION 1 - FRAME

## FIGURE 1-11. VALVES INSTALLATION - FRAME-MOUNTED

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>DRIVE VALVES INSTALLATION (STANDARD PARTS)</b>	
1	4640629	1	Positive Traction Valve Assembly	
1	2900745	1	Seal Kit - 4640629 Valve	
2	0641528	2	Bolt 5/16in-18NC x 3 1/2in	
3	4751500	AR	Flatwasher 5/16in	
4	4761500	AR	Lockwasher 5/16in	
5	3311501	AR	Nut 5/16in-18NC	
	0250144	Ref	<b>DRIVE VALVES INSTALLATION - 2WD/2WS (VARIABLE PARTS)</b>	B
51 to 56	Not Required	0	Not Required	
	0250109	Ref	<b>DRIVE VALVES INSTALLATION - 4WD/2WS (VARIABLE PARTS)</b>	C
51	4640260	2	Flow Divider Valve Assembly	
51	Not Available	1	Cartridge (Vickers/Modular Controls)	
51	7009739	1	Seal Kit (Vickers/Modular Controls)	
51	7007321	1	Cartridge (Fluid Controls)	
51	7003723	1	Seal Kit (Fluid Controls)	
52	0641522	4	Bolt 5/16in-18NC x 2 3/4in	
53 to 56	Not Required	0	Not Required	
	0251668	Ref	<b>DRIVE VALVES INSTALLATION - 2WD/4WS (VARIABLE PARTS)</b>	B
51 to 54	Not Required	0	Not Required	
55	4060806	6 ft/1.8m	Flex-Guard	
56	Not Required	0	Not Required	
	0251669	Ref	<b>DRIVE VALVES INSTALLATION - 4WD/4WS (VARIABLE PARTS)</b>	B
51	4640260	2	Flow Divider Valve Assembly	
51	Not Available	1	Cartridge (Vickers/Modular Controls)	
51	7009739	1	Seal Kit (Vickers/Modular Controls)	
51	7007321	1	Cartridge (Fluid Controls)	
51	7007323	1	Seal Kit (Fluid Controls)	
52	0641522	2	Bolt 5/16in-18NC x 2 3/4in	
53	2220844	1	Fitting	
54	2220376	1	Fitting	
55	4060806	3 ft/.9m	Flex-Guard	
56	4060808	6 ft/1.8m	Flex-Guard (Not Shown)	
	0251310	Ref	<b>OSCILLATION LOCKOUT VALVE INSTALLATION - (USED ON OPTIONAL OSCILLATING AXLE) (JUNE 1992 TO PRESENT)</b>	D
101	4640668	1	Valve Assembly	
101	7012516	1	Repair Kit - 4640668 Valve	
102	4643742	1	Mounting Weldment	
103	0641620	2	Bolt 3/8in-16NC x 2 1/2in	
104	4751600	4	Flatwasher 3/8in	
105	4761600	2	Lockwasher 3/8in	
106	3311601	2	Nut 3/8in-16NC	
107	3931016	4	Bolt, Socket Head #10-24NC x 1in	
108	4751000	8	Flatwasher #10	
109	4761000	4	Lockwasher #10	
110	3311001	4	Nut #10-24NC	
113	3534778	1	Plate, Spacer	
	1281347	Ref	<b>CONTROL VALVES INSTALLATION - 4WD</b>	C

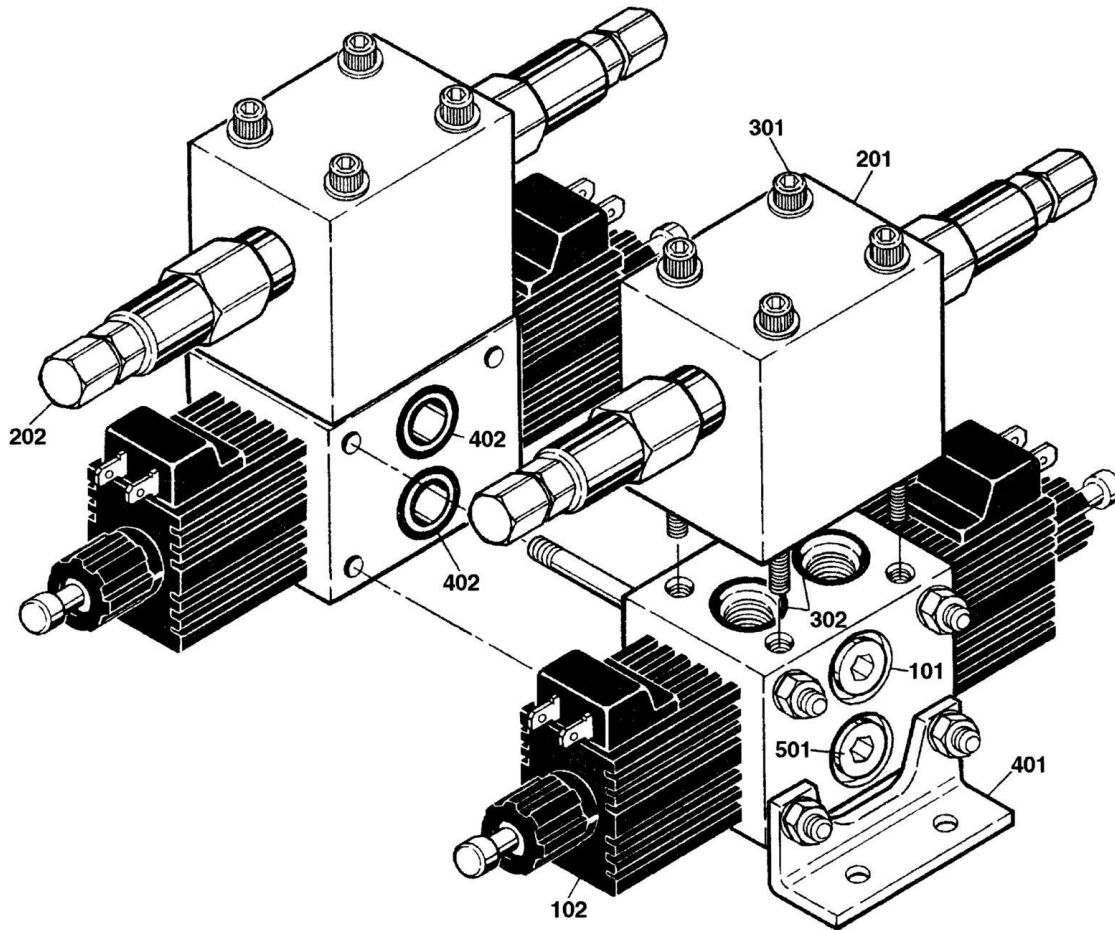
## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0251716	Ref	<b>MACHINES WITH BANG-BANG VALVES WITHOUT ROTATE</b>	B
	0253774	Ref	<b>MACHINES WITH BANG-BANG VALVES WITHOUT ROTATE</b>	D
	0251717	Ref	<b>MACHINES WITH BANG-BANG VALVES WITH ROTATE</b>	B
	0253773	Ref	<b>MACHINES WITH BANG-BANG VALVES WITH ROTATE</b>	D
	0252099	Ref	<b>MACHINES WITH PARKER PROPORTIONAL VALVES WITHOUT ROTATE</b>	C
	0252098	Ref	<b>MACHINES WITH PARKER PROPORTIONAL VALVES WITH ROTATE</b>	C
201	4640693	1	Valve Assembly - 4WS Valve (See VALVE ASSEMBLY (USED WITH OPTIONAL 4WS) for Breakdown)	
202	3311401	4	Nut 1/4in-20NC	
203	4761400	4	Lockwasher 1/4in	
204	4751400	4	Flatwasher 1/4in	
205	0641407	4	Bolt 1/4in-20NC x 7/8in	



# SECTION 1 - FRAME

FIGURE 1-12. VALVE ASSEMBLY (USED WITH OPTIONAL 4WS)





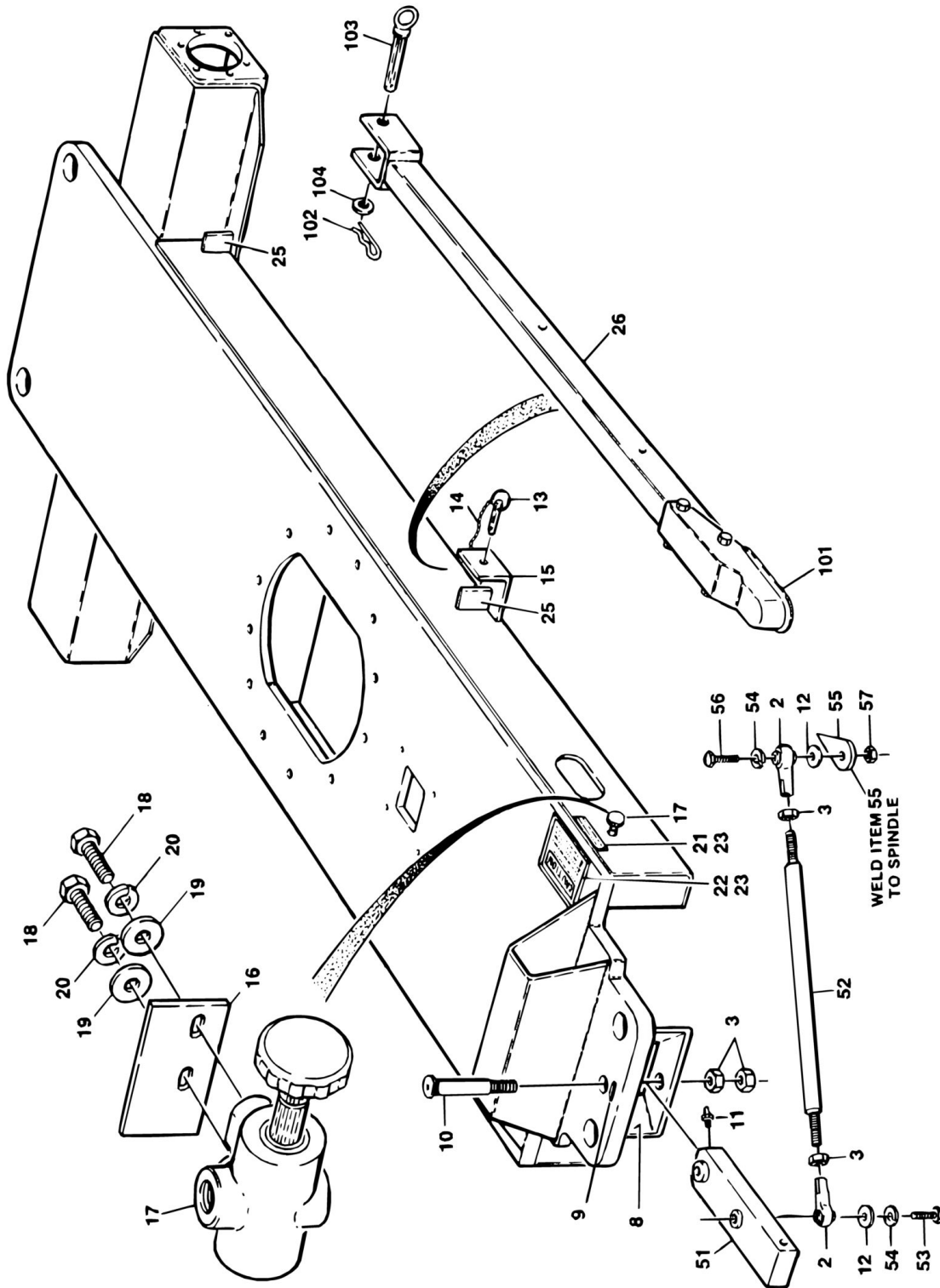
## SECTION 1 - FRAME

**FIGURE 1-12. VALVE ASSEMBLY (USED WITH OPTIONAL 4WS)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4640693	Ref	<b>VALVE ASSEMBLY (USED WITH OPTIONAL 4WS)</b>	-
101	7010766	2	Valve Section Without Relief Valve	
102	7010772	4	Coil (2 Per Section)	
201	7010767	2	Valve, Relief Block	
202	7010768	4	Cartridge, Valve (2 Per Block)	
203	7010769	4	Seal Kit - 7010768 (1 Per Cartridge)	
301	7010763	2	Stacking Kit	
302	7010773	4	O-Ring (Between Valve Section and Relief Block) (2 Per Kit)	
401	7010770	1	Mounting Kit	
402	7010774	2	O-Ring	
501	7010771	2	Plug	
	2900794	1	Seal Kit - 4640693 Valve (Includes Quantity 4 of Items 203, 302 & 402)	

# SECTION 1 - FRAME

## FIGURE 1-13. TOW PACKAGE INSTALLATIONS



# SECTION 1 - FRAME

## FIGURE 1-13. TOW PACKAGE INSTALLATIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>TOW PACKAGE INSTALLATION (STANDARD PARTS)</b>	
2	1660114	2	Coupling, Tie-Rod	
3	3323002	4	Nut, Jam 1 1/4in-12NF	
8	4340575	1	Plate, Support	
9	2880410	1	Keystock	
10	3421151	1	Pin	
11	2160001	1	Fitting, Grease	
12	4712600	2	Flatwasher 1in	
13	3420292	1	Pin, Quick Release	
14	1260017	8 in/20cm	Chain	
15	3532649	1	Plate	
16	0900479	1	Bracket, Valve Mounting	
17	4640261	1	Valve, Select	
18	0641507	2	Bolt 5/16in-18NC x 7/8in	
19	4751500	2	Flatwasher 5/16in	
20	4761500	2	Lockwasher 5/16in	
21	3250872	1	Nameplate - Tow Select	
22		Ref	Nameplate - Instructions	
22	3250840	1	Nameplate - Instructions (Prior to May 1994)	
22	1702305	1	Nameplate - Instructions (May 1994 to Present)	
23	3820001	8	Rivet	
25	0361651	2	Bar	
26	0360016	1	Tow Bar Assembly (See Items 101-104 for Breakdown)	
27	0100003	AR	Loctite (#277) (Not Shown)	
	0250384	Ref	<b>TOW PACKAGE INSTALLATION (2WD) (VARIABLE PARTS)</b>	C
51	2620034	1	Hitch, Tow	
52	3840643	1	Tie-Rod	
53	0642628	1	Bolt 1in-8NC x 3 1/2in	
54	4762600	2	Lockwasher 1in	
55	3040464	1	Lug, Spindle	
56	0642622	1	Bolt 1in-8NC x 2 3/4in	
57	3312602	1	Nut, Jam 1in-8NC (Prior to October 1990 Only)	
	0251753	Ref	<b>TOW PACKAGE INSTALLATION (4WD - PRIOR TO MARCH 1993) (VARIABLE PARTS)</b>	A
51	2620034	1	Hitch, Tow	
52	3840822	1	Tie-Rod	
53	0642628	1	Bolt 1in-8NC x 3 1/2in	
54	4562346	3	Spacer	
55	Not Required	0	Not Required	
56	0642636	1	Bolt 1in-8NC x 4 1/2in	
57	3312605	1	Locknut, 1in-8NC	
	0254095	Ref	<b>TOW PACKAGE INSTALLATION (4WD - MARCH 1993 TO PRESENT) (VARIABLE PARTS)</b>	A
51	2620038	1	Hitch, Tow	
52	3841048	1	Tie-Rod	
53	0642636	1	Bolt 1in-8NC x 4 1/2in	
54	4562346	2	Spacer	
55	Not Required	0	Not Required	
56	0642636	1	Bolt 1in-8NC x 4 1/2in	
57	3312605	2	Locknut 1in-8NC	

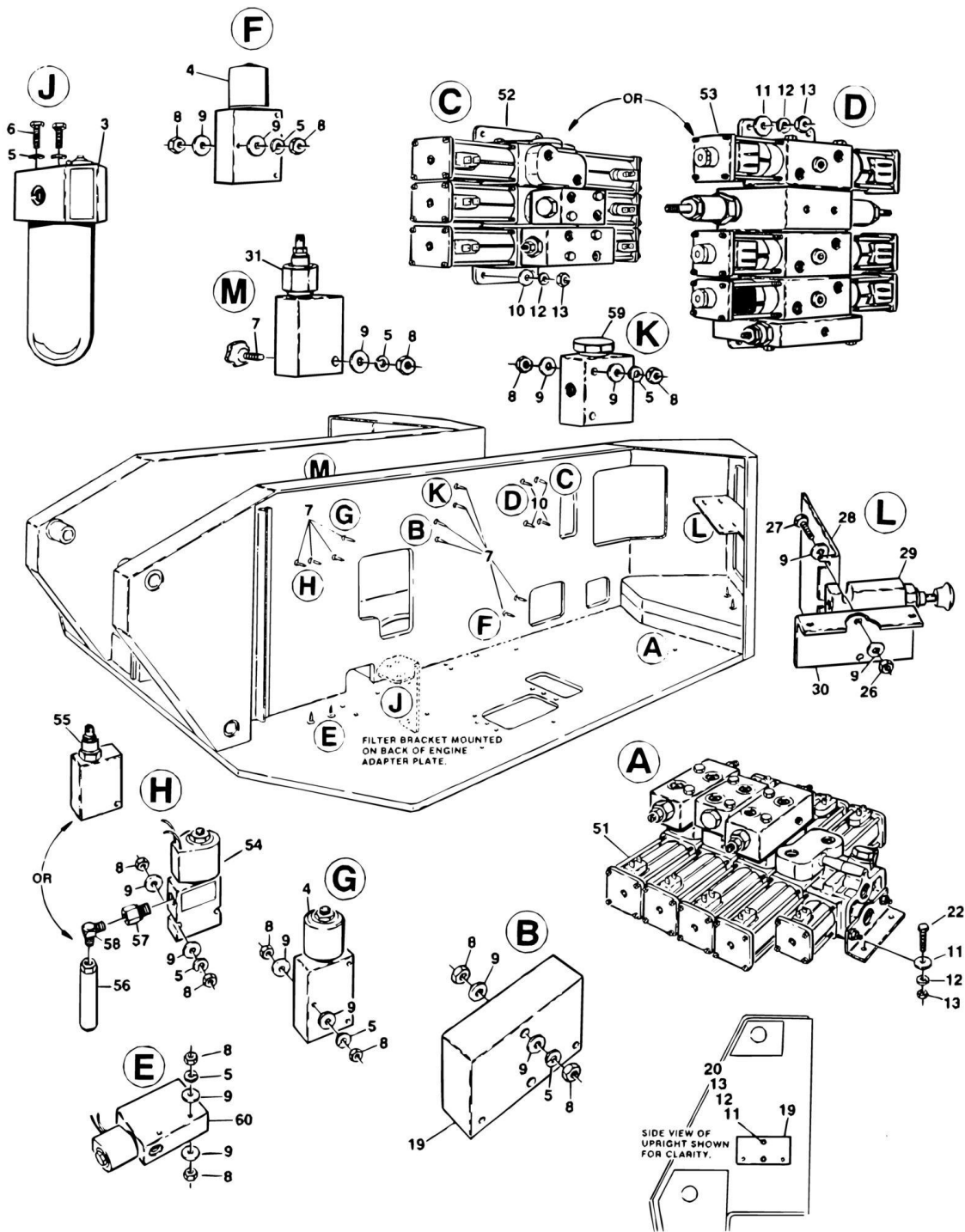
## SECTION 1 - FRAME

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0360016	Ref	<b>TOW BAR ASSEMBLY</b>	H
101	1660009	1	Coupling	
102	3420158	1	Hairpin	
103	3420352	1	Pin, Tow	
104	4751900	1	Flatwasher	

**SECTION 2 - TURNTABLE**

# SECTION 2 - TURNTABLE

FIGURE 2-1. CONTROL VALVES INSTALLATION (DEUTZ ENGINES WITH STANDARD BANG-BANG OR PROPORTIONAL VALVES)



## SECTION 2 - TURNTABLE

**FIGURE 2-1. CONTROL VALVES INSTALLATION (DEUTZ ENGINES WITH STANDARD BANG-BANG OR PROPORTIONAL VALVES)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1281170	Ref	<b>CONTROL VALVES INSTALLATION - STANDARD BANG-BANG (STANDARD PARTS)</b>	I
	1281347	Ref	<b>CONTROL VALVES INSTALLATION - PROPORTIONAL (STANDARD PARTS)</b>	C
3	2120122	1	Filter, Pressure	
3	2120125	1	Element	
4	4640123	2	Solenoid Valve Assembly	
4	7004368		Coil (Hydraforce Version)	
4	7000558		Coil (FPS Version)	
4	7012518		Seal Kit (Hydraforce Version)	
4	7006075		Seal Kit (FPS Version)	
5	4761400	AR	Lockwasher 1/4in	
6	0641406	2	Bolt 1/4in-20NC x 3/4in	
7	4300042	8	Stud (Welded on Part)	
8	3311401	AR	Nut 1/4in-20NC	
9	4751400	AR	Flatwasher 1/4in	
10	4300038	4	Stud (Welded on Part)	
11	4751500	AR	Flatwasher 5/16in	
12	4761500	AR	Lockwasher 5/16in	
13	3311501	AR	Nut 5/16in-18NC	
19	4640150	AR	Valve, Check (Standard Bang-Bang Qty 1/Proportional Qty 2)	
20	4300033	2	Stud (Welded on Part)	
22	0641514	4	Bolt 5/16in-18NC x 1 3/4in	
24	4060804	6 ft/1.8m	Flex-Guard - 3/16in (Not Shown)	
25	4060808	6 ft/1.8m	Flex-Guard - 1/2in (Not Shown)	
26	3311405	2	Locknut 1/4in-20NC	
27	0641416	2	Bolt 1/4in-20NC x 2 1/4in	
28	0902051	1	Bracket - Decal (November 1994 to Present Only)	
29	4640866	1	Valve, Manual Descent (November 1994 to Present Only)	
29	2900708	1	Seal Kit	
29	7012959	1	Knob	
30	0902090	1	Bracket - Valve (November 1994 to Present Only)	
31	4640818	1	Valve (November 1994 to Present Only)	
31	7011321	1	Cartridge	
31	7024574	1	Seal Kit - 7011321 Cartridge	
		Ref	<b>CONTROL VALVES INSTALLATION - STANDARD BANG-BANG (2WS) (PRIOR TO MAY 1993) (VARIABLE PARTS)</b>	
	0250132	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	C
	0250133	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	C
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown):	
51	4640246	1	3 Stack (Non-Rotate) (Prior to August 1992)	
51	4640646	1	3 Stack (Non-Rotate) (August 1992 to Present)	
51	4640247	1	4 Stack (With Rotate) (Prior to August 1992)	
51	4640645	1	4 Stack (With Rotate) (August 1992 to Present)	
52	4640601	1	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS) for Breakdown)	
53	Not Required	0	Not Required	
54	4640543	1	Valve, Dump	

## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
54	7004368	1	Coil (Hydraforce Version)	
54	7009745	1	Coil (Vickers/Modular Controls Versions)	
55	Not Required	0	Not Required	
56	4640627	1	Valve, Flow Control	
56	7001508	1	Seal Kit	
57	2180029	1	Fitting	
58	2220820	1	Fitting, 90	
59	Not Required	0	Not Required	
60	Not Required	0	Not Required	
		Ref	<b>CONTROL VALVES INSTALLATION - STANDARD BANG-BANG (2WS) (MAY 1993 TO PRESENT) (VARIABLE PARTS)</b>	
	0253772	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	D
	0253771	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	E
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown):	
51	4640646	1	3 Stack (Non-Rotate)	
51	4640645	1	4 Stack (With Rotate) (Prior to January 1995)	
51	4640909	1	4 Stack (With Rotate) (January 1995 to Present)	
52		Ref	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS) for Breakdown)	
52	4640601	1	Control Valve Assembly (Prior to October 1993)	
52	4640850	1	Control Valve Assembly (October 1993 to Present)	
53	Not Required	0	Not Required	
54	4640543	1	Valve, Dump	
54	7004368	1	Coil (Hydraforce Version)	
54	7009745	1	Coil (Vickers/Modular Controls Version)	
55	4640623	1	Valve, Flow Control	
56	Not Required	0	Not Required	
57	2220651	1	Fitting	
58	2220373	1	Fitting	
59	4640673	1	Valve, Check	
59	7011325	1	Cartridge	
60	Not Required	0	Not Required	
		Ref	<b>CONTROL VALVES INSTALLATION - STANDARD BANG-BANG (4WS) (PRIOR TO MAY 1993) (VARIABLE PARTS)</b>	
	0251716	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	B
	0251717	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	B
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown):	
51	4640462	1	2 Stack (Non-Rotate) (Prior to August 1992)	
51	4640710	1	2 Stack (Non-Rotate) (August 1992 to Present)	
51	4640692	1	3 Stack (With Rotate) (Prior to August 1992)	
51	4640720	1	3 Stack (With Rotate) (August 1992 to Present)	
52	4640601	1	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS) for Breakdown)	
53	Not Required	0	Not Required	
54	4640543	1	Valve, Dump	
54	7004368	1	Coil (Hydraforce Version)	
54	7009745	1	Coil (Vickers/Modular Controls Version)	
55	Not Required	0	Not Required	
56	4640627	1	Valve, Flow Control	



**SECTION 2 - TURNTABLE**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
56	7001508	1	Seal Kit	
57	2180029	1	Fitting	
58	2220820	1	Fitting, 90	
59	Not Required	0	Not Required	
60	Not Required	0	Not Required	
		Ref	<b>CONTROL VALVES INSTALLATION - STANDARD BANG-BANG (4WS) (MAY 1993 TO PRESENT) (VARIABLE PARTS)</b>	
	0253774	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	D
	0253773	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	E
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown):	
51	4640710	1	2 Stack (Non-Rotate)	
51	4640720	1	3 Stack (With Rotate) (Prior to August 1995)	
51	4640950	1	3 Stack (With Rotate) (August 1995 to Present)	
52		Ref	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS) for Breakdown)	
52	4640601		Control Valve Assembly (Prior to October 1993)	
52	4640850		Control Valve Assembly (October 1993 to Present)	
53	Not Required	0	Not Required	
54	4640543	1	Valve, Dump	
54	7004368	1	Coil (Hydraforce Version)	
54	7009745	1	Coil (Vickers/Modular Controls Version)	
55	4640623	1	Valve, Flow Control	
56	Not Required	0	Not Required	
57	2220651	1	Fitting	
58	2220373	1	Fitting	
59	4640673	1	Valve, Check	
59	7011325	1	Cartridge	
60	Not Required	0	Not Required	
		Ref	<b>CONTROL VALVES INSTALLATION - PROPORTIONAL (2WS) (VARIABLE PARTS)</b>	
	0250985	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	C
	0250984	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	D
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown)	
51	4640246	1	3 Stack (Non-Rotate) (Prior to June 1991)	
51	4640646	1	3 Stack (Non-Rotate) (June 1991 to Present)	
51	4640247	1	4 Stack (With Rotate) (Prior to June 1991)	
51	4640645	1	4 Stack (With Rotate) (June 1991 to January 1995)	
51	4640909	1	4 Stack (With Rotate) (January 1995 to Present)	
52	Not Required	0	Not Required	
53	4640643	1	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - PROPORTIONAL for Breakdown)	
54 to 59	Not Required	0	Not Required	
60	4640360	1	Dump Valve Assembly	
60	7009745	1	Coil (Vickers/Modular Controls Version)	
60	7004368	1	Coil (Hydraforce Version)	
60	7004289	1	Cartridge Without Coil (Vickers/Modular Controls Version)	
60	Not Available		Seal Kit - 7004289 Cartridge (Vickers Modular Controls Version)	
60	7012910	1	Cartridge Without Coil (Hydraforce Version)	

## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
60	2900708	1	Seal Kit - 7012910 Cartridge (Hydraforce Version)	
60	7003635	1	Cartridge, Check (Vickers/Modular Controls Version)	
60	7012930	1	Cartridge, Check (Hydraforce Version)	
		Ref	<b>CONTROL VALVES INSTALLATION - PROPORTIONAL (4WS) (VARIABLE PARTS)</b>	
	0252099	Ref	<b>CONTROL VALVES - NON-ROTATE</b>	C
	0252098	Ref	<b>CONTROL VALVES - WITH ROTATE</b>	D
51		Ref	Control Valve Assembly Options (See CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION for Breakdown)	
51	4640462	1	3 Stack (Non-Rotate) (Prior to August 1992)	
51	4640710	1	3 Stack (Non-Rotate) (August 1992 to Present)	
51	4640692	1	4 Stack (With Rotate) (Prior to August 1992)	
51	4640720	1	4 Stack (With Rotate) (August 1992 to August 1995)	
51	4640950	1	4 Stack (With Rotate) (August 1995 to Present)	
52	Not Required	0	Not Required	
53	4640643	1	Control Valve Assembly (See CONTROL VALVE ASSEMBLY - PROPORTIONAL for Breakdown)	
54 to 59	Not Required	0	Not Required	
60	4640360	1	Dump Valve Assembly	
60	7009745	1	Coil (Vickers/Modular Controls Version)	
60	7004368	1	Coil (Hydraforce Version)	
60	7004289		Cartridge Without Coil (Vickers/Modular Controls Version)	
60	Not Available		Seal Kit - 7004289 Cartridge (Vickers/Modular Controls Version)	
60	7012910		Cartridge Without Coil (Hydraforce Version)	
60	2900708		Seal Kit - 7012910 Cartridge (Hydraforce Version)	
60	7003635		Cartridge, Check (Vickers/Modular Controls Version)	
60	7012930		Cartridge, Check (Hydraforce Version)	





## SECTION 2 - TURNTABLE

### FIGURE 2-2. CONTROL VALVE ASSEMBLY - BANG-BANG WITH DUMP SECTION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>Usage Chart:</b>	
		Ref	2WS Without Rotate	
	4640246		3 Stack (Prior to August 1992)	
	4640646		3 Stack (August 1992 to Present)	
		Ref	2WS With Rotate	
	4640247		4 Stack (Prior to August 1992)	
	4640645		4 Stack (August 1992 to January 1995)	
	4640909		4 Stack (January 1995 to Present)	
		Ref	4WS Without Rotate	
	4640462		2 Stack (Prior to August 1992)	
	4640710		2 Stack (August 1992 to Present)	
		Ref	4WS With Rotate	
	4640692		3 Stack (Prior to August 1992)	
	4640720		3 Stack (August 1992 to August 1995)	
	4640950		3 Stack (August 1995 to Present)	
1	7002304	Ref	<b>DUMP SECTION - COMPLETE (ALL EXCEPT 4640909 &amp; 4640950)</b>	
		Ref	Solenoid Assembly	
2	7004823	1	Seat	
2	Kit	1	O-Ring	
3	7002229	1	Ball	
3		Ref	Guide Tube Assembly	
4	7004822	1	Cone, Female	
4	Kit	1	O-Ring	
5	7002346	1	Pin, Push	
6	7004839	1	Plunger	
7	7004838	1	Tube, Guide	
8	7004841	1	Pin, Push	
8	Kit	1	O-Ring	
9	7002340	1	Guide, External Push Pln	
9	Kit	1	O-Ring	
10	7004834	1	Sleeve, Inner Flux	
11	7002334	1	Spring	
12	7004835	1	Sleeve, Outer, Flux	
13	7000417	1	Coil	
14	7004836	1	Case, Solenoid	
15	7002338	1	Plate, End	
15	7002327	1	Nameplate	
16	7004837	4	Screw	
17	7002322	1	Seat	
17	Kit	1	O-Ring	
17		Ref	Main Relief (Poppet) Valve	
18	7002321	1	Case, Poppet	
19	7002328	1	Spring	
20	7002294	1	Poppet	
21	7002320	1	Seat, Adjustable	
21	Kit	1	O-Ring	
22	7002329	1	Spring	
23	7002323	1	Plug	
23	Kit	1	O-Ring	

## SECTION 2 - TURNTABLE

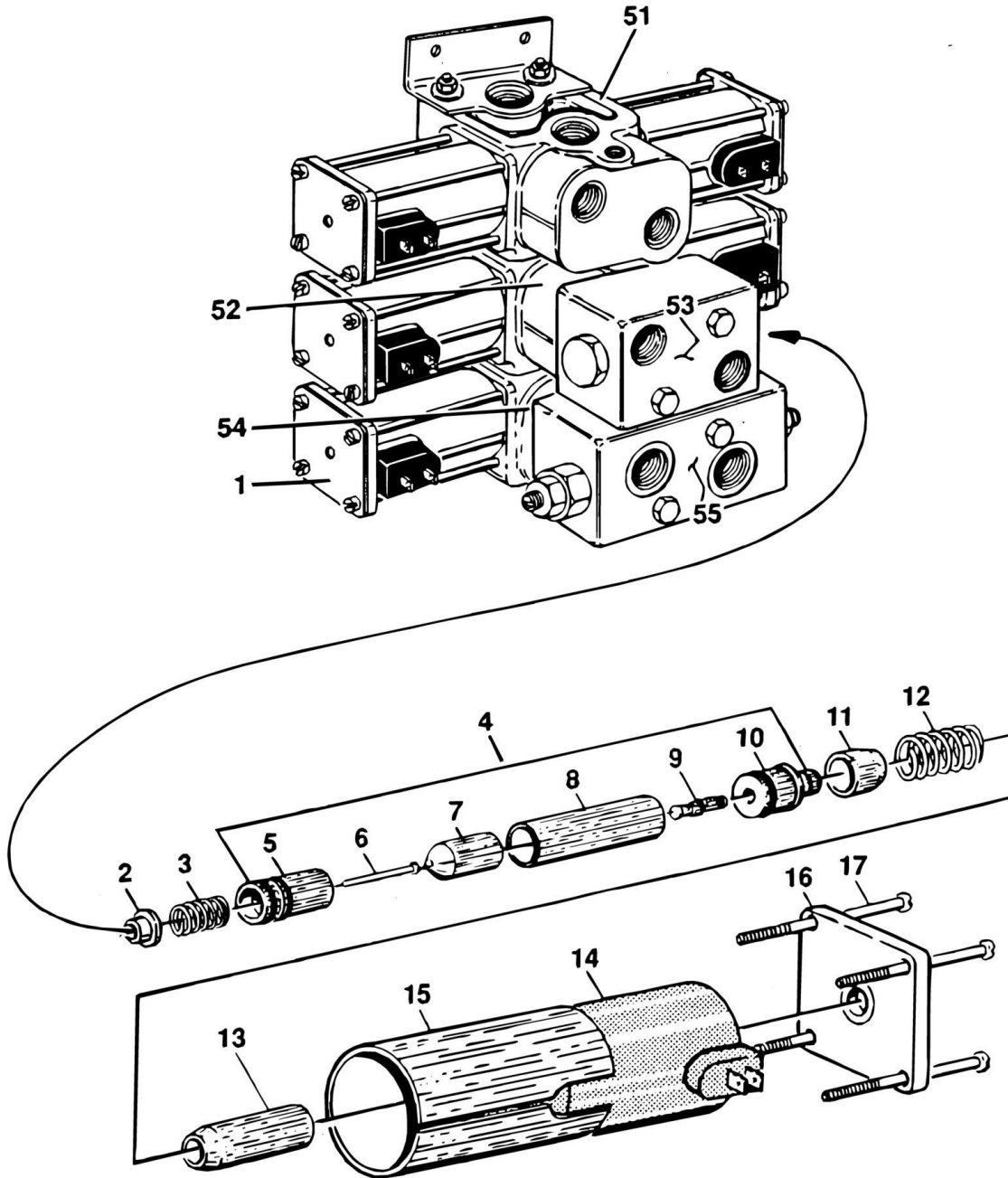
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
24	7002326	1	Orifice	
25	7002324	1	Plug	
	7000413	1	Seal Kit - 7002304 Dump Section	
51	7002447	Ref	<b>DUMP SECTION - COMPLETE (4640909 &amp; 4640950)</b>	
52	7002448	1	Cartridge	
52	7002449	1	Seal Kit - 7002448 Cartridge	
53	7002450	1	Coil	
54	7002451	1	Cartridge without Coil	
54	7011118	1	Seal Kit - 7002451 Cartridge	
	7000448	2	O-Ring (Between Sections)	
		Ref	<b>Working Sections (Standard Parts)</b>	
101	7004859	2	Solenoid Assembly	
102	7002274	1	Washer (4640246, 4640247)	
102	7003825	1	Washer (4640646, 4640645, 4640909, 4640462, 4640710, 4640692, 4640720, 4640950)	
103	7002348	1	Spring	
104	7002305	1	Guide Tube Assembly	
105	7002345	1	Cone, Female	
105	Kit	1	O-Ring	
105	Kit	1	O-Ring	
106	7002346	1	Pin, Push	
107	7002344	1	Plunger	
108	7000470	1	Tube, Guide	
109	7002341	1	Pin, Actuator	
109	Kit	1	Ring, Quad	
110	7002340	1	Guide, External Push Pln	
110	Kit	1	O-Ring	
111	7002333	1	Sleeve, Inner Flux	
112	7002334	1	Spring	
113	7002336	1	Sleeve, Outer Flux	
114	7000418	1	Coil	
115	7002335	1	Case, Solenoid	
116	7002338	1	Plate, End	
116	7002327	1	Nameplate	
117	7002339	4	Screw	
	7000414	AR	Seal Kit - Working Section (1 Per Section)	
		Ref	<b>WORKING SECTIONS - COMPLETE (INCLUDES ITEMS 101-117)</b>	
151	7002315	1	Steer Section (4640246, 4640247, 4640462, 4640692)	
151	7003855	1	Telescope Section (4640646, 4640645, 4640909, 4640710, 4640720, 4640950)	
152	7000468	1	Crossover Relief Valve Assembly (Due to various suppliers, internal components are longer field serviceable)	
153	7011182	1	Level Section (All Models) (was p/n 7002316)	
154	7011183	1	Dual Pilot Check Valve (Due to various suppliers, internal components are longer field serviceable) (was p/n 7002262)	
155	7002315	1	Telescope Section (4640246, 4640247)	
155	7002315	1	Steer Section (4640645, 4640646, 4640909)	
155	Not Required	0	Not Used (4640462, 4640692, 4640710, 4640720)	
156	7000468	1	Crossover Relief Valve Assembly (Due to various suppliers, internal components are longer field serviceable) (4640246, 4640247, 4640645, 4640646, 4640909 Only)	

**SECTION 2 - TURNTABLE**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
157	7002317		Rotate Section (4640247, 4640645, 4640909, 4640692, 4640720, 4640950)	
157	Not Required	0	Not Used (4640246, 4640646, 4640462, 4640710)	

## SECTION 2 - TURNTABLE

FIGURE 2-3. CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS)





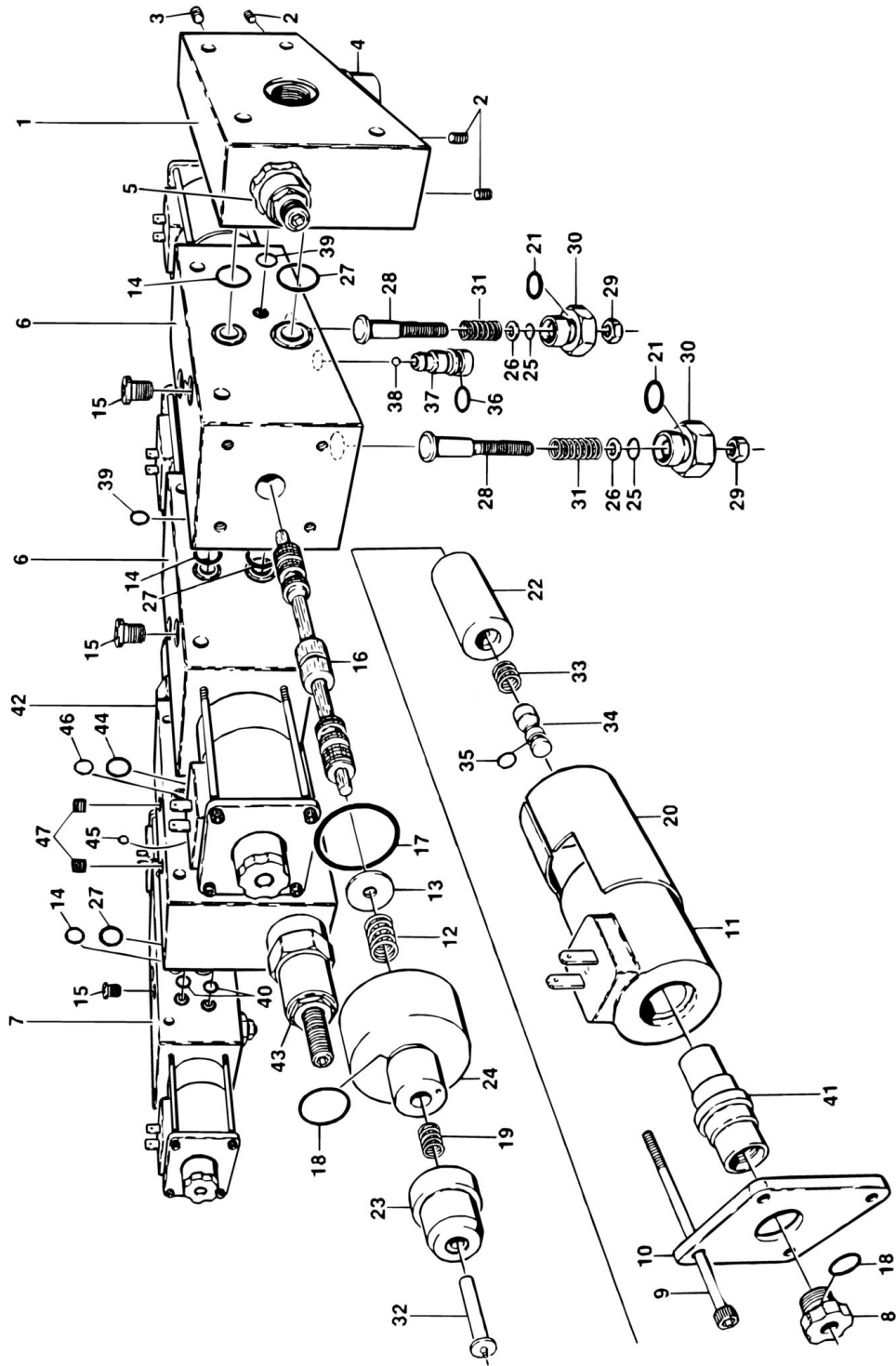
# SECTION 2 - TURNTABLE

**FIGURE 2-3. CONTROL VALVE ASSEMBLY - BANG-BANG (STANDARD CONTROLS)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>USAGE CHART:</b>	
	4640601	Ref	3 Stack (Prior to October 1993)	
	4640850	Ref	3 Stack (October 1993 to Present)	
		Ref	<b>WORKING SECTIONS (STANDARD PARTS)</b>	
1	7004859	2	Solenoid Assembly	
2	7003825	1	Washer	
3	7002348	1	Spring	
4	7002305	1	Guide Tube Assembly	
5	7002345	1	Cone, Female	
5	Kit	1	O-Ring	
5	Kit	1	O-Ring	
6	7002346	1	Pin, Push	
7	7002344	1	Plunger	
8	7000470	1	Tube, Guide	
9	7002341	1	Pin, Actuator	
9	Kit	1	Ring, Quad	
10	7002340	1	Guide, External Push Pln	
10	Kit	1	O-Ring	
11	7002333	1	Sleeve, Inner Flux	
12	7002334	1	Spring	
13	7002336	1	Sleeve, Outer Flux	
14	7000418	1	Coil	
15	7002335	1	Case, Solenoid	
16	7002338	1	Plate, End	
17	7002339	4	Screw	
	7000414	3	Seal Kit - Working Section	
		Ref	<b>WORKING SECTIONS - COMPLETE (INCLUDES ITEMS 1-17)</b>	
51	7002317	1	Main Lift Section	
52	7003841	1	Tower Lift Section (4640601)	
52	7003855	1	Tower Lift Section (4640850)	
53	7011183	1	Dual Pilot Check Valve (Due to various suppliers, internal components are longer field serviceable) (4640601) (was p/n 7002262)	
53	7000468	1	Crossover Relief Valve Assembly (Due to various suppliers, internal components are longer field serviceable) (4640850)	
54	7003855	1	Swing Section	
55	7000468	1	Crossover Relief Valve Assembly (Due to various suppliers, internal components are longer field serviceable)	

# SECTION 2 - TURNTABLE

## FIGURE 2-4. CONTROL VALVE ASSEMBLY - PROPORTIONAL



**SECTION 2 - TURNTABLE**

**FIGURE 2-4. CONTROL VALVE ASSEMBLY - PROPORTIONAL**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4640643	Ref	<b>CONTROL VALVE ASSEMBLY - PROPORTIONAL</b>	B
1	7010701	1	Inlet Section Assembly	
2	7010703	3	Plug	
3	7010704	1	Plug	
4	7010705	1	Cartridge, Unloader Spool	
5	7010706	1	Cartridge, System Relief	
6	7010707	1	Working Section Assembly (Tower Lift)	
6	7010785	1	Working Section Assembly (Main Lift)	
7	7010743	1	Working Section Assembly (Swing)	
8	7010708	2	Plug	
9	7010709	8	Bolt, Socket Head	
10	7010710	2	Plate, End	
11	7010711	2	Coil	
12	7010712	2	Spring	
13	7010713	2	Washer	
14	Kit	2	O-Ring	
15	7010716	1	Plug	
16	7010717	1	Spool (Swing and Tower Lift)	
16	7010784	1	Spool (Main Lift)	
17	Kit	2	O-Ring	
18	Kit	4	O-Ring	
19	7010720	2	Spring (Main Lift and Tower Lift)	
19	7010745	2	Spring (Swing)	
20	7010721	2	Case, Solenoid	
21	Kit	2	O-Ring	
22	7010723	2	Armature	
23	7010724	2	Tube, Flux	
24	7010725	2	Armature	
25	Kit	2	O-Ring	
26	7010727	2	Washer	
27	Kit	1	O-Ring	
28	7010729	2	Needle	
29	7010730	2	Nut	
30	7010731	2	Body, Cartridge	
31	7010732	2	Spring	
32	7010733	2	Pin, Push	
33	7010734	2	Spring	
34	7010735	2	Pin, Push	
35	Kit	2	Ring, Quad	
36	Kit	1	O-Ring	
37	7010738	1	Body, Shuttle Cartridge	
38	7010739	1	Ball	
39	Kit	2	O-Ring	
40	Kit	4	O-Ring (Swing Only)	
41	7010724	2	Guide	
42	7010741	1	Crossover Relief Section Assembly	
43	7010742	2	Cartridge, System Relief	
44	Kit	2	O-Ring	
45	Kit	2	O-Ring	
46	Kit	2	O-Ring	

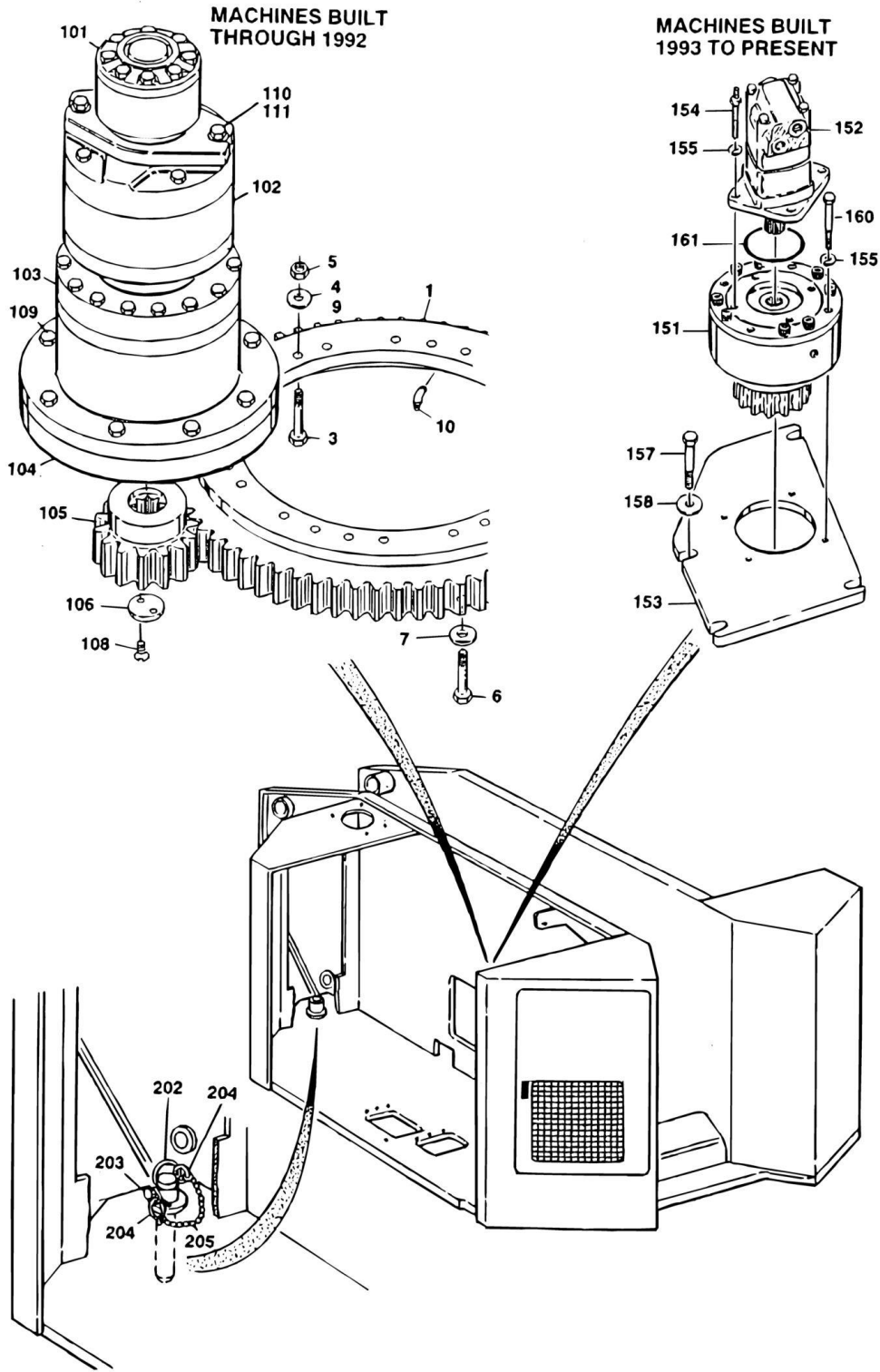
## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
47	7010704	2	Plug	
	2900761	1	Seal Kit - Inlet Section	
	2900759	3	Seal Kit - Working Section	
	2900760	1	Seal Kit - Crossover Relief Section	



# SECTION 2 - TURNTABLE

## FIGURE 2-5. TURNTABLE, BEARING AND SWING DRIVE INSTALLATION



## SECTION 2 - TURNTABLE

**FIGURE 2-5. TURNTABLE, BEARING AND SWING DRIVE INSTALLATION**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>TURNTABLE OPTIONS (DEUTZ POWERED MACHINES)</b>	
	4620073	1	Turntable - Machines Built Prior to May 1993	
	4620094	1	Turntable - Machines Built May 1993 to Present	
	0250136	Ref	<b>TURNTABLE BEARING INSTALLATION</b>	F
1	2915080	1	Bearing Kit (was p/n 0440067) (Kit Includes Bearing and Mounting Hardware)	
3	0682020	15	Bolt 5/8in-11NC x 2 1/2in (Grade 8)	
4	4740004	9	Washer, Hardened	
5	3300183	15	Nut 5/8in-11NC (Grade 8)	
6	0681818	12	Bolt 1/2in-13NC x 2 1/4in (Grade 8)	
7	4740003	12	Washer, Hardened	
9	4740048	3	Washer, Special	
10	2160001	3	Fitting, Grease - 90	
	0100019	AR	Loctite #271	
	0100004	AR	Devcon (Not Required on Machines with Milled Frame and Turntable)	
	0250139	Ref	<b>SWING DRIVE INSTALLATION - MACHINES BUILT THROUGH 1992</b>	C
101		Ref	Swing Motor Options:	
101	3160156	1	Motor - Prior to August 1991 (See SWING MOTOR ASSEMBLY for Breakdown)	
101	3160181	1	Motor - August 1991 Through 1992 (See SWING MOTOR ASSEMBLY for Breakdown)	
102		Ref	Swing Brake Options:	
102	0920068	1	Brake - Prior to August 1991 (See SWING BRAKE ASSEMBLY for Breakdown)	
102	0920086	1	Brake - August 1991 Through 1992 (See BRAKE ASSEMBLY - AUSCO 37845 for Breakdown)	
103	2780055	1	Swing Hub Assembly (See SWING HUB ASSEMBLY for Breakdown)	
104	3200249	1	Plate, Swing Drive Mounting	
105	2440059	1	Gear, Pinion	
106	4740367	1	Washer, Special	
107	0100019	AR	Loctite #271 (Not Shown)	
108	0741606	2	Screw, Countersunk 3/8in-16NC x 3/4in	
109	0641912	9	Bolt 9/16in-12NC x 1 1/2in	
110	0681836	2	Bolt 1/2in-13NC x 4 1/2in (Grade 8)	
111	4740171	2	Washer, Hardened	
112	0100009	AR	Sealant - RTV #738 (Not Shown)	
		Ref	<b>SWING DRIVE INSTALLATIONS:</b>	
	0252578	Ref	<b>MACHINES BUILT 1993 TO MAY 1994</b>	D
	0255010	Ref	<b>MACHINES BUILT MAY 1994 TO PRESENT</b>	-
151		Ref	SWING BRAKE ASSEMBLY OPTIONS:	
151	0920089	1	Machines Built 1993 to May 1994	
151	7012570	1	Seal Kit - 0920089 Brake (Includes Seals, O-Rings, 1 Back-up Rings and Retaining Ring)	
151	7012571	1	Rebuild Kit - 0920089 Brake (Includes 7012570 Seal Kit, Inner and Outer Discs and Pressure Plate)	
151	0920095	1	Machines Built May 1994 to Present	
151	7012651	1	Seal Kit - 0920095 Brake (Includes Seals, O-Rings, Back-up Rings and Retaining Ring)	

## SECTION 2 - TURNTABLE

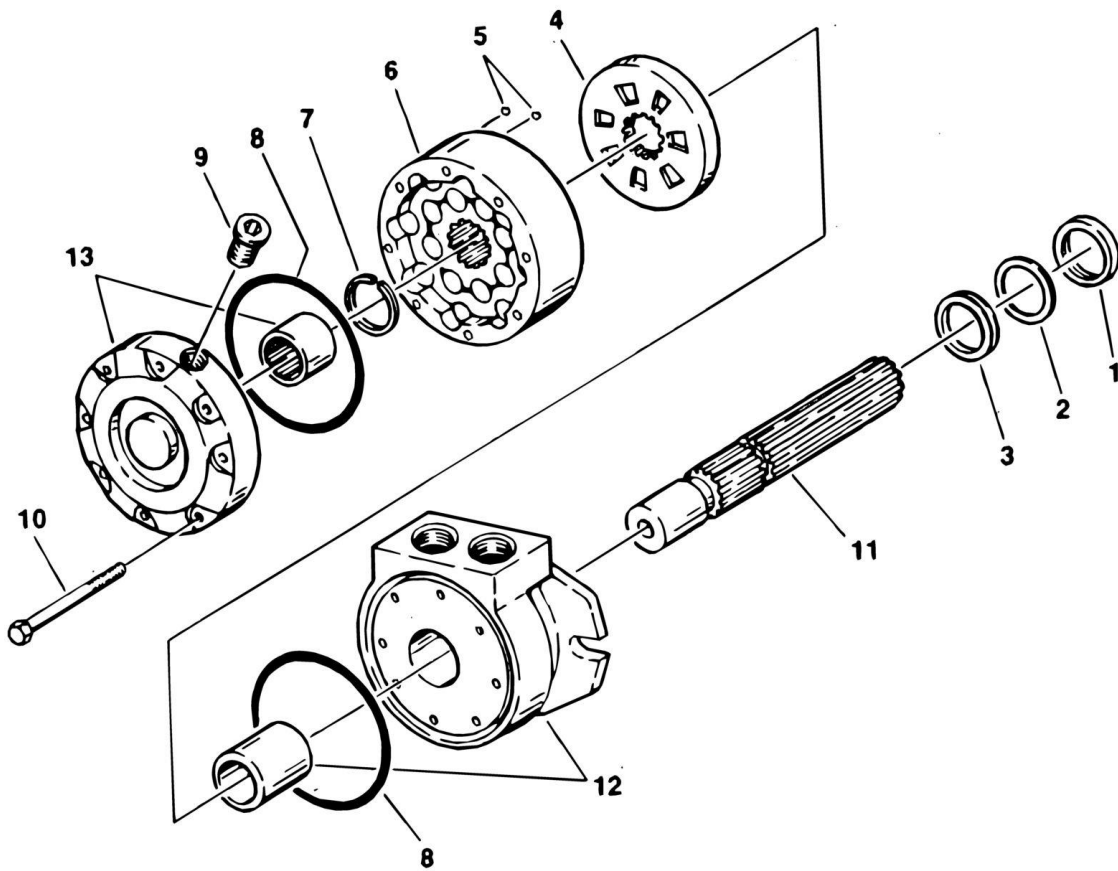
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
151	7012650	1	Rebuild Kit - 0920095 Brake (Includes 7012651 Seal Kit, Inner and Outer Discs and Pressure Plate)	
152	3160183	1	Swing Motor Assembly (See SWING BRAKE ASSEMBLY for Breakdown)	
153	3535607	1	Plate, Mounting	
154	4300107	4	Stud 1/2in-13NC x 2in	
154	3311801	4	Nut 1/2in-13NC	
155		Ref	Hardware Options:	
155	4761800	8	Lockwasher 1/2in (Machines Built 1993 to May 1994)	
155	4740252	8	Washer, Hardened (Machines Built May 1994 to Present)	
157	0642014	4	Bolt 5/8in-11NC x 1 3/4in	
158	4740004	4	Washer, Hardened	
160		Ref	Bolt Options:	
160	0641830	4	Bolt 1/2in-13NC x 3 3/4in (Machines Built 1993 to May 1994)	
160	0641834	4	Bolt 1/2in-13NC x 4 1/4in (Machines Built May 1994 to Present)	
161	3790155	1	O-Ring	
	0100019	AR	Loctite #271	
	0100021	AR	Primer	
	0239585	Ref	<b>TURNTABLE LOCK INSTALLATION</b>	B
202	3421627	1	Pin, Lock	
203	3421565	1	Snap - Pin	
204	3760170	2	Ring, Quick Release	
205	1260017	9 in/23cm	Chain	





# SECTION 2 - TURNTABLE

FIGURE 2-6. SWING MOTOR ASSEMBLY (PRIOR TO AUGUST 1991)



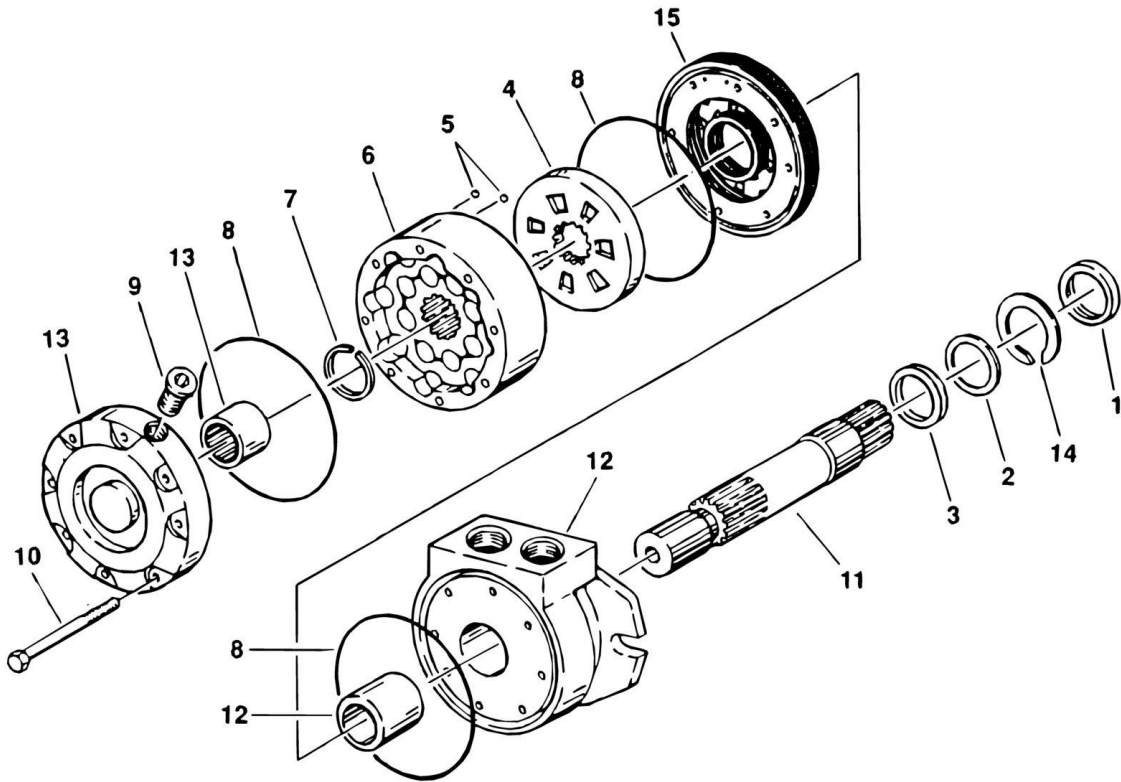
**SECTION 2 - TURNTABLE**

**FIGURE 2-6. SWING MOTOR ASSEMBLY (PRIOR TO AUGUST 1991)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160156	Ref	<b>SWING MOTOR ASSEMBLY (PRIOR TO AUGUST 1991)</b>	-
1	Kit	1	Seal, Dust	
2	Kit	1	Ring, Back-up	
3	Kit	1	Seal, Quad Ring	
4	7004166	1	Valve, Rotary	
5	7004167	2	Ball, Check Valve	
6	7004193	1	IGR Assembly	
7	7004191	1	Ring, Snap (Standard)	
8	Kit	2	Seal, Ring	
9	7004171	1	Plug, Vent (Includes O-Ring)	
10	7004173	8	Bolt	
11	7004194	1	Shaft, Spline	
12	7004195	1	Body/Bearing Assembly	
13	7004192	1	Cover/Bearing Assembly	
	7004177	1	Seal Kit (Includes Items 1, 2, 3, 8 and Vent Plug O-Ring)	

# SECTION 2 - TURNTABLE

FIGURE 2-7. SWING MOTOR ASSEMBLY (AUGUST 1991 THROUGH 1992)



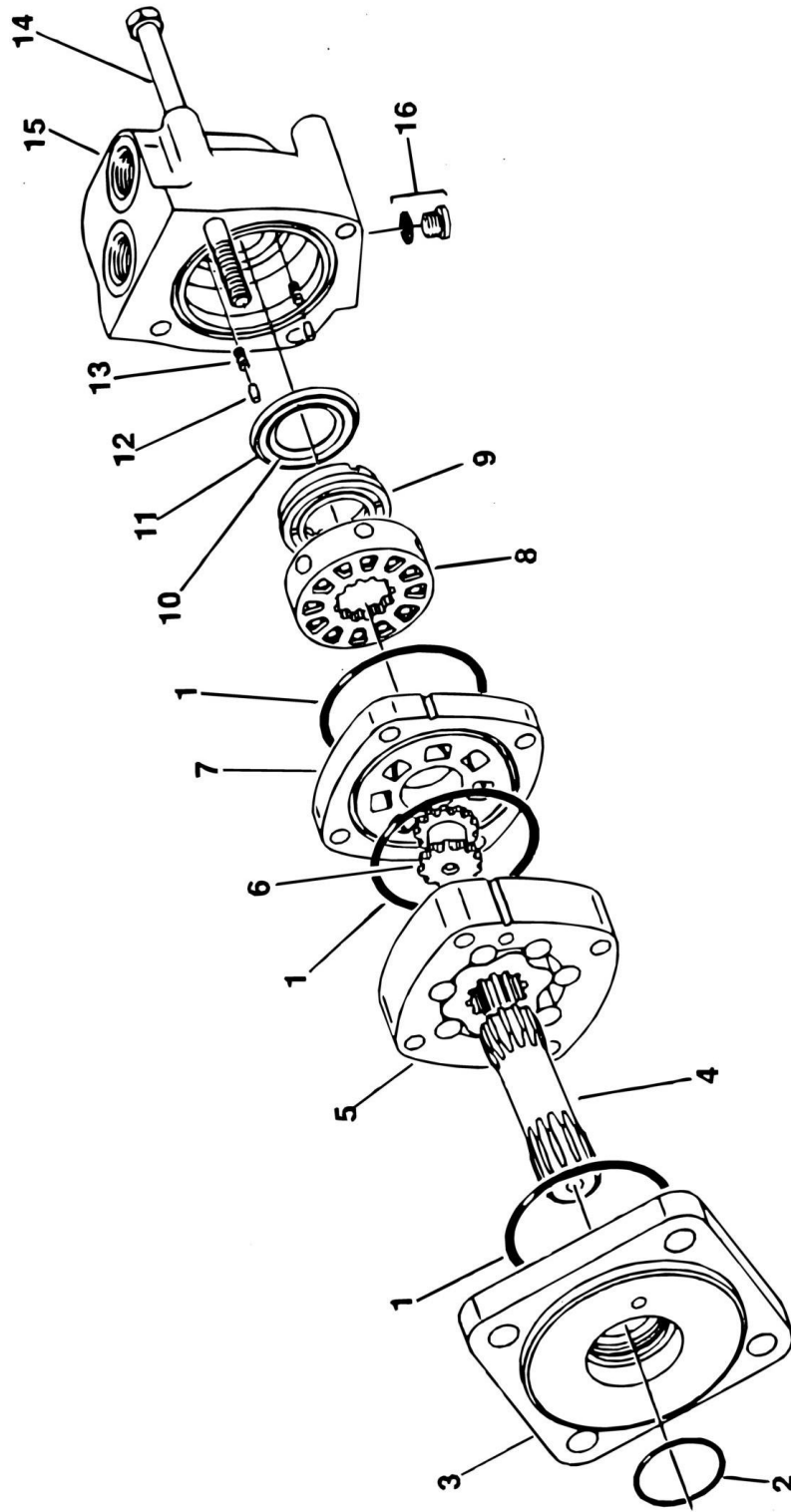
**SECTION 2 - TURNTABLE**

**FIGURE 2-7. SWING MOTOR ASSEMBLY (AUGUST 1991 THROUGH 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160181	Ref	<b>SWING MOTOR ASSEMBLY (AUGUST 1991 THROUGH 1992)</b>	-
1	Kit	1	Seal, Dust	
2	7010775	1	Ring, Back-Up	
3	Kit	1	Seal, Quad Ring	
4	7004196	1	Valve, Rotary	
5	7004167	2	Ball, Check Valve	
6	7004193	1	IGR Assembly	
7	Kit	1	Ring, Snap	
8	Kit	3	Seal, Ring	
9	7004171	1	Plug, Vent (Includes O-Ring)	
10	7010777	8	Bolt	
11	7010779	1	Shaft, Spline	
12	7010778	1	Body/Bearing Assembly	
13	7004192	1	Cover/Bearing Assembly	
14	Kit	1	Ring, Snap	
15	7010776	1	Plate, Commutator	
	2900798	1	Seal Kit (Includes Items 1, 3, 7 & 8)	

## SECTION 2 - TURNTABLE

FIGURE 2-8. SWING MOTOR ASSEMBLY (1993 TO PRESENT)



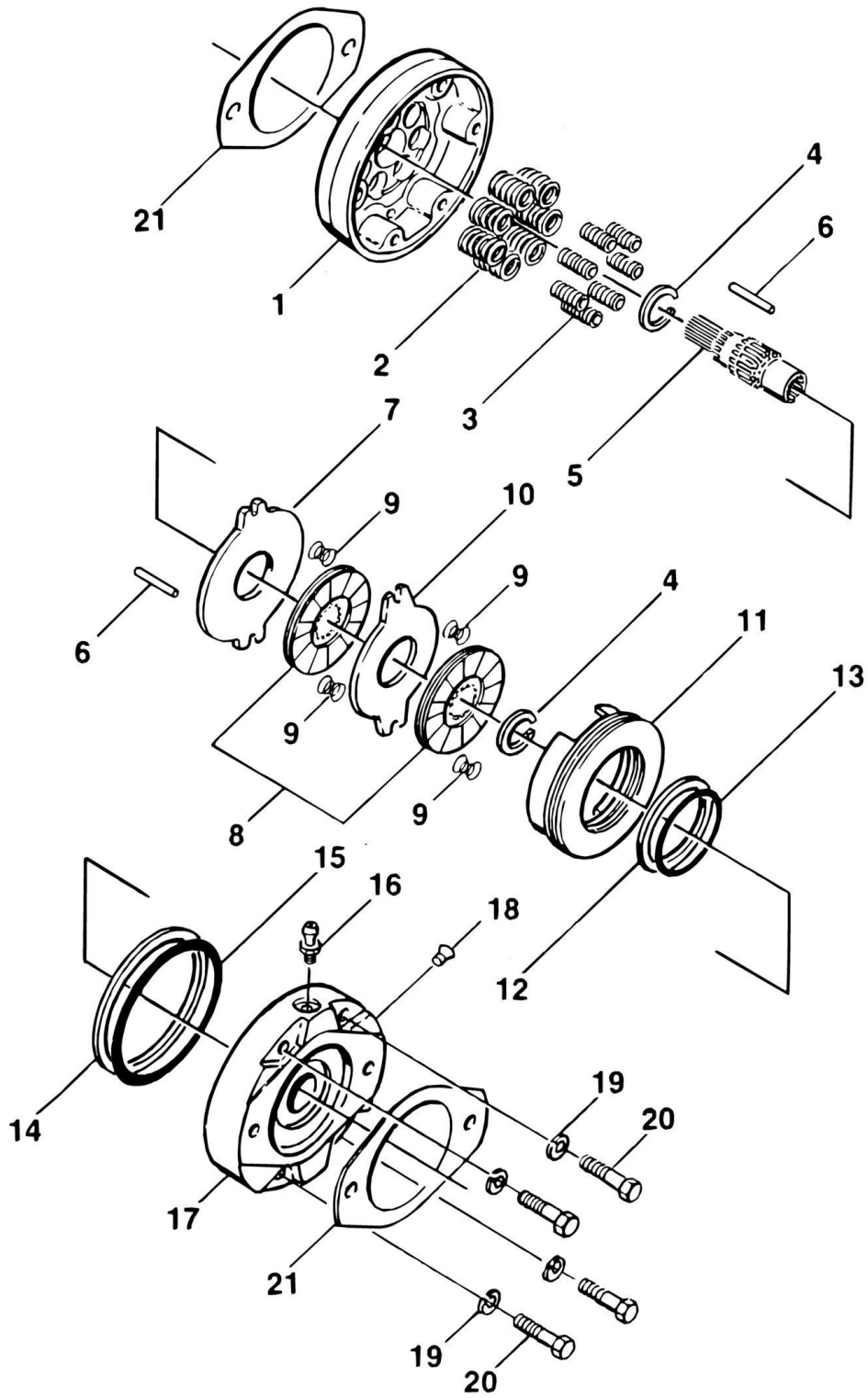
**SECTION 2 - TURNTABLE**

**FIGURE 2-8. SWING MOTOR ASSEMBLY (1993 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160183	Ref	<b>SWING MOTOR ASSEMBLY (1993 TO PRESENT)</b>	-
1	Kit	3	Seal	
2	Kit	1	O-Ring	
3	7009984	1	Flange, Mounting	
4	7009988	1	Drive	
5	7009989	1	Geroler	
6	7009905	1	Drive, Valve	
7	7009983	1	Plate, Valve	
8	7009927	1	Valve	
9	7009909	1	Ring, Balance	
10	Kit	1	Seal, Face - Inner	
11	Kit	1	Seal, Face - Outer	
12	7009912	2	Pin	
13	7009913	2	Spring	
14	7009990	4	Bolt	
15	7009930	1	Housing, Valve	
16	7002157	1	Plug Assembly	
16	Kit	1	O-Ring	
	7009987	1	Seal Kit (Includes Items 1, 2, 10, 11 & 19 O-Ring)	

# SECTION 2 - TURNTABLE

FIGURE 2-9. SWING BRAKE ASSEMBLY (PRIOR TO AUGUST 1991)





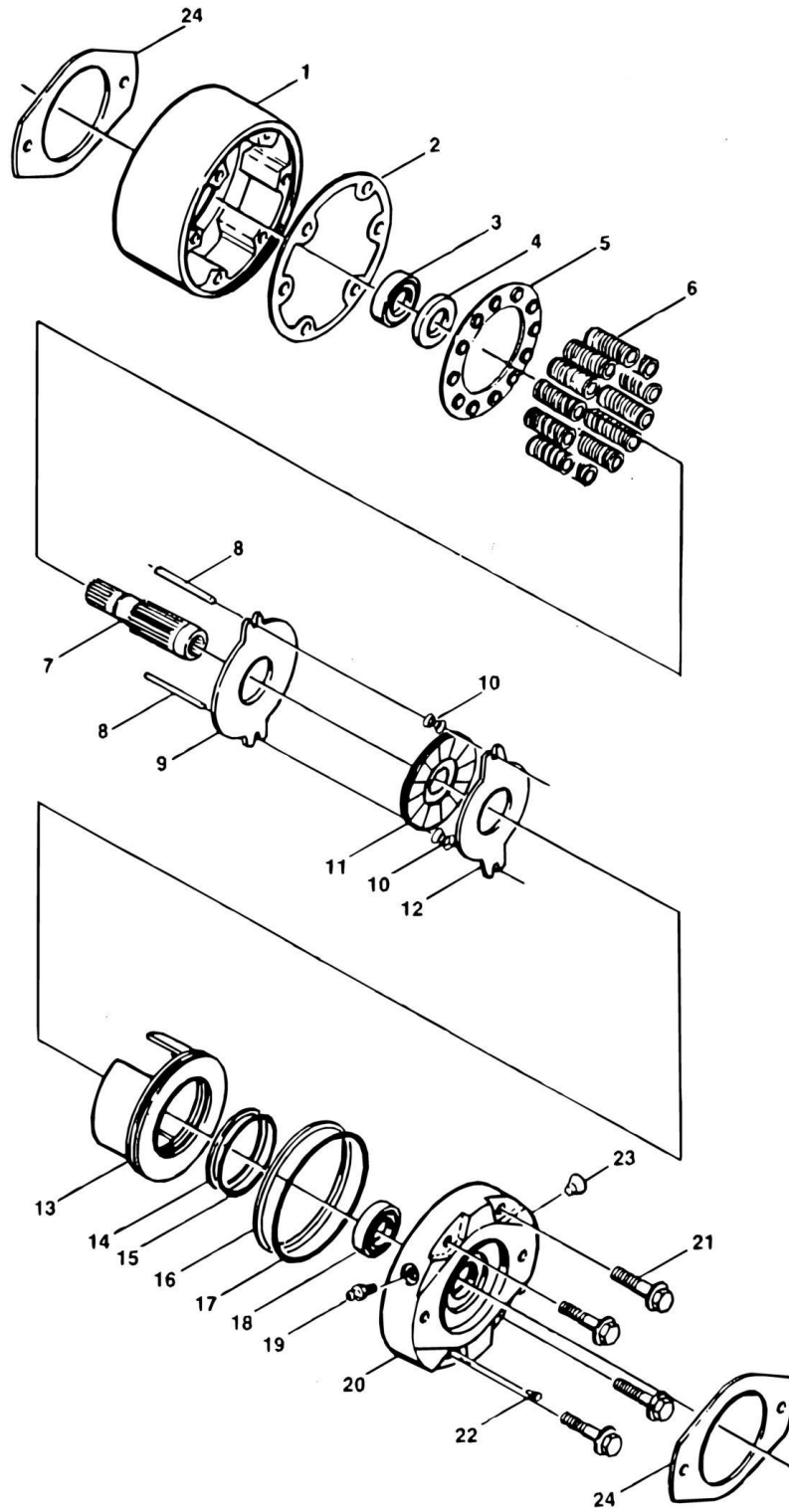
## SECTION 2 - TURNTABLE

**FIGURE 2-9. SWING BRAKE ASSEMBLY (PRIOR TO AUGUST 1991)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0920068	Ref	<b>SWING BRAKE ASSEMBLY (PRIOR TO AUGUST 1991)</b>	-
1	7003067	1	Housing	
2	7000782	7	Spring, Compression	
3	7000798	7	Spring, Compression	
4	Kit	2	Ring, Retaining	
5	7003061	1	Shaft, Splined	
6	7003062	2	Pin, Torque	
7	7000718	1	Disc, Primary	
8	7000732	2	Disc, Rotating	
9	7003006	4	Spring, Compression	
10	7003063	1	Disc, Stationary	
11	7003064	1	Piston	
12	Kit	1	Ring, Back-up	
13	Kit	1	O-Ring	
14	Kit	1	Ring, Back-up	
15	Kit	1	O-Ring	
16	7000796	1	Bleeder	
17	7003065	1	Plate, Power	
18	7000728	1	Plug	
19	7000729	4	Lockwasher	
20	7003066	4	Bolt	
21	Kit	2	Gasket	
	2900649	1	Seal Kit (Includes Items 4, 12, 13, 14, 15 & 21)	

# SECTION 2 - TURNTABLE

FIGURE 2-10. BRAKE ASSEMBLY - AUSCO 37845 (AUGUST 1991 THROUGH 1992)



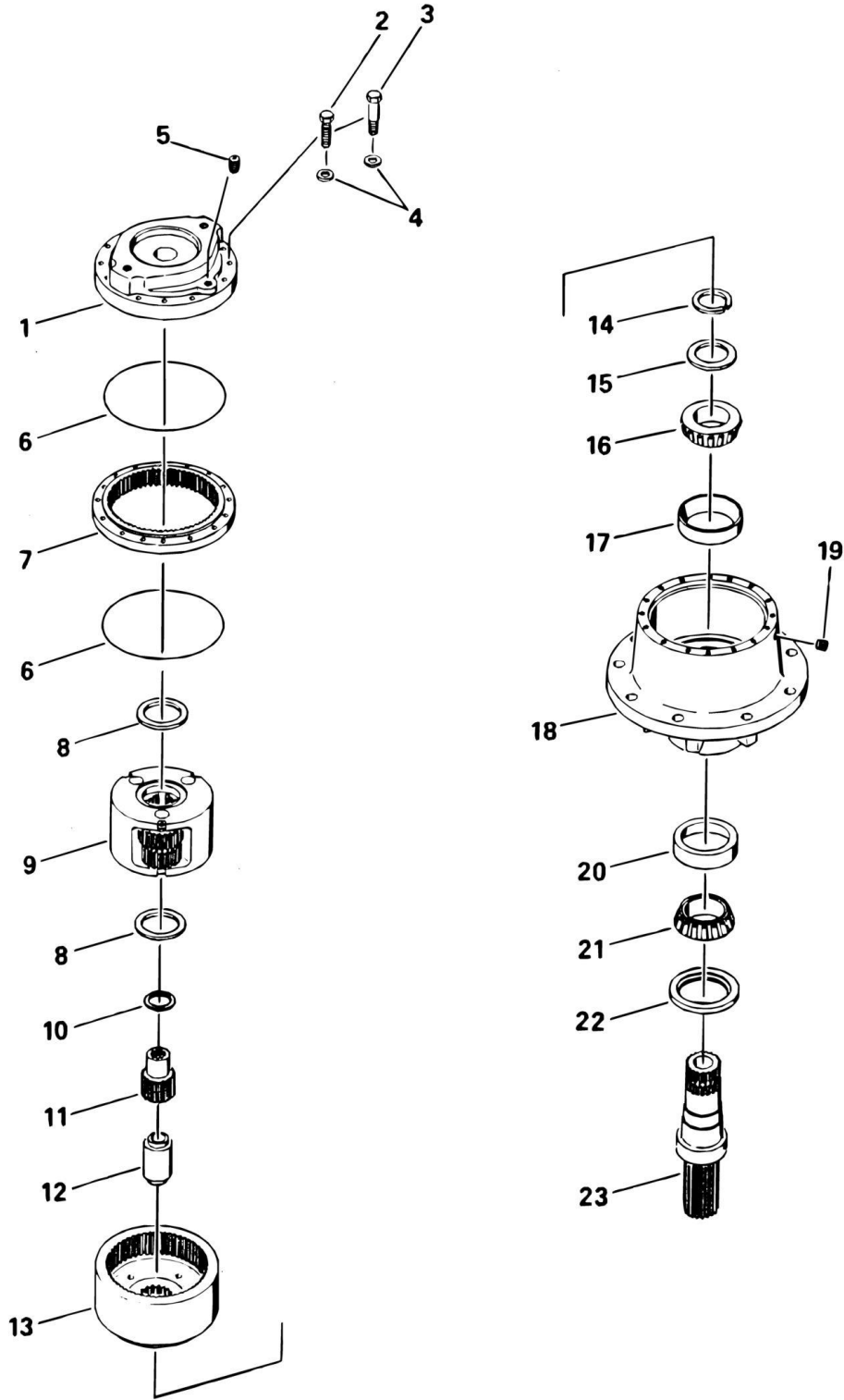
## SECTION 2 - TURNTABLE

**FIGURE 2-10. BRAKE ASSEMBLY - AUSCO 37845 (AUGUST 1991 THROUGH 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0920086	Ref	<b>BRAKE ASSEMBLY - AUSCO 37845 (AUGUST 1991 THROUGH 1992)</b>	A
1	7003092	1	Housing	
2	Kit	1	Gasket	
3	7003049	1	Ball Bearing	
4	7003050	1	Oil Seal	
5	7003051	1	Spring Retainer	
6	7003052	12	Compression Spring	
7	7003093	1	Shaft	
8	7003094	2	Torque Pin	
9	7003054	1	Primary Disc	
10	7003006	2	Compression Spring	
11	7003055	1	Rotating Disc	
12	7003056	1	Stationary Disc	
13	7003095	1	Piston	
14	Kit	1	Back-Up Ring	
15	Kit	1	O-Ring	
16	Kit	1	Back-Up Ring	
17	Kit	1	O-Ring	
18	7000760	1	Ball Bearing	
19	7000796	1	Bleeder Screw	
20	7003096	1	Power Plate	
21	7003007	4	Hex Screw	
22	7003059	1	Pressure Relief Valve	
23	N.S.	1	Plug, Shipping	
24	Kit	2	Gasket	
	2900662	1	O-Ring Kit (Includes Items 2, 14-17 & 24)	
	7003069	1	Gasket Kit (Includes Item 24)	

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FIGURE 2-11. SWING HUB ASSEMBLY (MACHINES BUILT THROUGH 1992 ONLY)



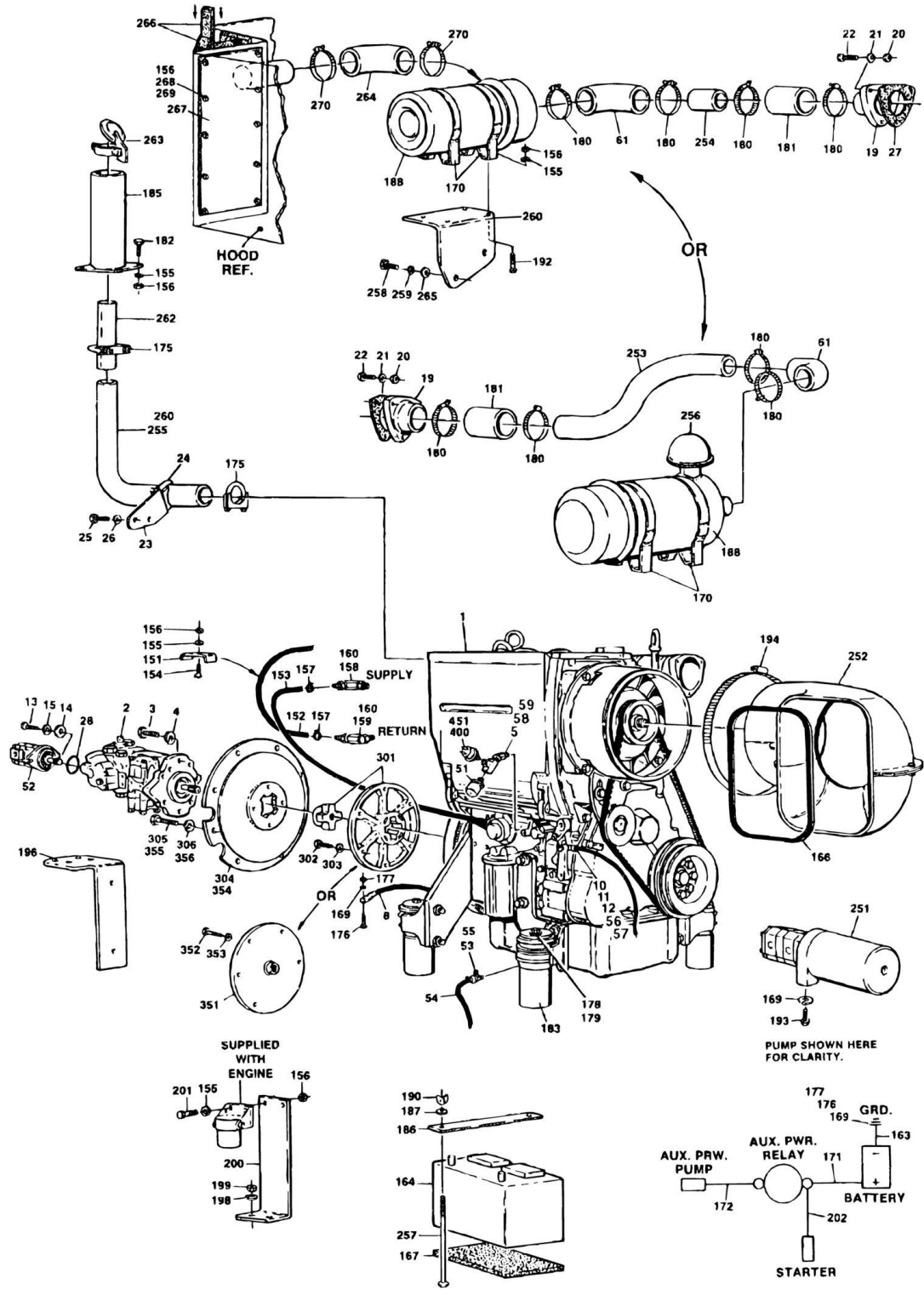
## SECTION 2 - TURNTABLE

**FIGURE 2-11. SWING HUB ASSEMBLY (MACHINES BUILT THROUGH 1992 ONLY)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2780055	Ref	<b>SWING HUB ASSEMBLY (MACHINES BUILT THROUGH 1992 ONLY)</b>	-
1	7000209	1	Cover	
2	7000217	8	Bolt, Hex Head	
3	7000214	4	Bolt, Hex Head, Shoulder	
4	4751500	12	Flatwasher	
5	7000242	1	Plug, Pipe	
6	Kit	2	O-Ring	
7	7000208	1	Gear, Ring	
8	7000253	2	Washer, Thrust	
9	7000207	1	Planet Carrier Assembly (No Service Breakdown Parts Purchase Entire Assembly)	
10	7000270	1	Washer, Thrust	
11	7000268	1	Gear, Sun-Input	
12	7000269	1	Spacer, Sun Gear	
13	7000246	1	Gear, Internal	
	7000271	Ref	<b>HUB ASSEMBLY</b>	
14	Kit	1	Ring, Retaining	
15	Kit	1	Spacer	
16	7000258	1	Bearing, Tapered Roller	
17	7000257	1	Cup, Bearing	
18	7000210	1	Hub	
19	7000242	1	Plug, Pipe	
20	7000255	1	Cup, Bearing	
21	7000256	1	Bearing, Tapered Roller	
22	Kit	1	Seal	
23	7000233	1	Shaft, Output	
	2900034	1	Kit, Repair (Includes Items 6, 14, 15 & 22)	

# SECTION 2 - TURNTABLE

## FIGURE 2-12. DEUTZ ENGINE INSTALLATION



## SECTION 2 - TURNTABLE

### FIGURE 2-12. DEUTZ ENGINE INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>Note: See SPECIAL OPTIONS for Machines with Hydraulic Tool Circuit and Deutz Engine Combination or Special UCON Hydraulic Fluid.</b>	
		Ref	<b>DEUTZ ENGINE ASSEMBLY (STANDARD PARTS)</b>	
1		Ref	Engine - Deutz F2L-1011 Diesel Options:	
1	2000106	1	Engine - Deutz F2L-1011 (Prior to August 1995)	
1	2000137	1	Engine - Deutz F2L-1011 (August 1995 to Present)	
2	3600164	1	Pump Assembly - Sunstrand (See PUMP ASSEMBLY - SUNSTRAND for Breakdown)	
3	0641812	2	Bolt 1/2in-13NC x 1 1/2in	
4	4761800	2	Lockwasher 1/2in	
5	2180730	1	Fitting, Special	
8	1060221	1	Cable, Battery (Engine to Ground)	
10	0080172	1	Adapter, Throttle	
11	3450202	1	Pin, Cotter 1/16in x 1/2in	
12	3951003	1	Setscrew #10-24NC x 3/8in	
13	0641610	2	Bolt 3/8in-16NC x 1 1/4in	
14	4751600	2	Flatwasher 3/8in	
15	4761600	2	Lockwasher 3/8in	
19	0080177	1	Adapter Weldment	
20	3311501	3	Nut 5/16in-18NC	
21	4761500	3	Lockwasher 5/16in	
22	0641512	3	Bolt 5/16in-18NC x 1 1/2in	
23	0901705	1	Bracket, Exhaust	
24	1320176	1	Clamp, Muffler	
25	0701010	2	Bolt, Metric 10mm x 20mm	
26	4832000	2	Lockwasher, Metric 10mm	
27	3960407	1	Gasket, Intake Adapter	
28	3790152	1	O-Ring	
	0250377	Ref	<b>STANDARD BANG-BANG OR PROPORTIONAL CONTROLS AND WITHOUT NOISE REDUCTION PACKAGE PRIOR TO OCTOBER 1991</b>	E
51	2420131	1	Sender, Oil Pressure	
52		Ref	Pump Assembly Options:	
52	3600165	1	Pump - Vickers (Not Field Serviceable) (Prior to April 1990)	
52	2900660	1	Shaft Seal Kit - 3600165 Pump	
52	3600172	1	Pump - Barnes (April 1990 to October 1991) (See PUMP ASSEMBLY - BARNES. (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS for Breakdown)	
	0252106	Ref	<b>DEUTZ ENGINE ASSEMBLY - STANDARD BANG-BANG OR PROPORTIONAL CONTROLS AND WITH NOISE REDUCTION PACKAGE OCTOBER 1991 TO PRESENT (VARIABLE PARTS)</b>	G
51	2420110	1	Sender, Oil Pressure	
52		Ref	Pump Assembly Options:	
52	3600172	1	Pump-Barnes (October 1991 to January 1993) (See PUMP ASSEMBLY - BARNES. (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS for Breakdown)	
52	3600199	1	Pump-Barnes (January 1993 to Present) (See PUMP ASSEMBLY - BARNES (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS for Breakdown)	
53	4640751	1	Valve, Oil Drain	
54	2750532	1 ft/.3m	Hose	

## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
55	1320022	1	Clamp	
56	4711400	1	Flatwasher 1/4in (August 1995 to Present)	
57	0700605	2	Bolt Metric 6mm x 10mm (August 1995 to Present)	
58	2180104	1	Fitting, Nipple (August 1995 to Present)	
59	2200261	1	Fitting, Coupling (August 1995 to Present)	
		Ref	<b>DEUTZ ENGINE INSTALLATION (STANDARD PARTS)</b>	
151	1320041	1	Clamp	
152	2720271	10 ft/3m	Line, Fuel Return	
153	2720058	10 ft/3m	Line, Fuel Supply	
154	4300032	AR	Stud (Welded on Part)	
155	4761400	AR	Lockwasher 1/4in	
156	3311401	AR	Nut 1/4in 20NC	
157	1320022	4	Clamp	
158	2220805	1	Fitting, 90	
159	2220063	1	Fitting, 90 Swivel	
160	4420001	AR	Tape, Sealant	
161	0080039	1	Adaptor, Elbow	
163	1060172	1	Cable, Battery	
164	0400075	1	Battery	
166	3960389	51 in/1.3m	Seal, Rubber Grip	
167	3980007	1	Seat, Battery	
169	4761600	4	Lockwasher 3/8in	
170	0340002	2	Band, Air Cleaner	
171	1060273	1	Cable, Battery (Battery to Auxiliary Relay)	
172	1060099	1	Cable, Battery (Starter to Auxiliary Power Relay)	
175	1320019	AR	Clamp, Exhaust	
176	4300034	2	Stud (Welded on Parts)	
177	3311601	2	Nut 3/8in-16NC	
178	0641856	4	Bolt 1/2in-13NC x 7in	
179	4761800	4	Lockwasher 1/2in	
180	1320031	4	Clamp	
181	2720351	3 in/7.6cm	Hose	
182	0641406	4	Bolt 1/4in-20NC x 3/4in	
183	0080178	4	Adapter, Engine Mounting	
185	4843372	1	Snorkel, Exhaust	
186	0361810	1	Holddown, Battery	
187	4751600	4	Flatwasher 3/8in	
188	1340020	1	Air Cleaner Assembly	
188	7004214	1	Element	
190	3300029	2	Wingnut 3/8in-16NC	
192	0641406	4	Bolt 1/4in-20NC x 3/4in	
193	0641614	2	Bolt 3/8in-16NC x 1 3/4in	
194	1320059	1	Clamp	
196	0961664	1	Bracket - Hydraulic Filter	
197	4300038	2	Stud (Welded on Parts)	
198	4761500	2	Lockwasher 5/16in	
199	3311501	2	Nut 5/16in-18NC	
200	0901673	1	Bracket, Fuel Filter	
201	0641408	2	Bolt 1/4in-20NC x 1in	
202	1060149	1	Cable, Battery (Auxiliary Relay to Starter)	
203	2220273	2	Reducer, Bushing	



## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
204	2180536	1	Fitting	
	0250378	Ref	<b>DEUTZ ENGINE INSTALLATION - STANDARD BANG-BANG OR PROPORTIONAL CONTROLS AND WITHOUT NOISE REDUCTION PACKAGE PRIOR TO OCTOBER 1991 (VARIABLE PARTS)</b>	E
251	3600050	1	Auxiliary Pump Assembly	
251		Ref	Barnes Version Components:	
251	7004249	1	Coupling	
251	7004248	1	Motor	
251	7010923	1	Pump	
251		Ref	Stone/Fenner Version Components:	
251	7004412	1	Coupling	
251	7000482	1	Motor	
251	Not Available		Pump (Purchase Complete Assembly)	
252	1840005	1	Scoop, Air Intake	
253	4564558	1	Tube, Air Intake	
254	Not Required	0	Not Required	
255	4564557	1	Tube, Exhaust	
256	1120161	1	Cap, Air Inlet	
257	0630370	2	Rod, Holddown	
257	1380032	2	Clip, Battery (Not Shown)	
258 to 270	Not Required	0	Not Required	
	0252107	Ref	<b>DEUTZ ENGINE INSTALLATION - STANDARD BANG-BANG OR PROPORTIONAL CONTROLS AND WITH NOISE REDUCTION PACKAGE OCTOBER 1991 TO PRESENT (VARIABLE PARTS)</b>	F
251		Ref	Auxiliary Pump Options:	
251	3600050	1	Auxiliary Pump (October 1991 to April 1993)	
251		Ref	Barnes Version Components:	
251	7004249	1	Coupling	
251	7004248	1	Motor	
251	7010923	1	Pump	
251		Ref	Stone/Fenner Version Components:	
251	7004412	1	Coupling	
251	7000482	1	Motor	
251	Not Available		Pump (Purchase Complete Assembly)	
251	3600208	1	Auxiliary Pump (April 1993 to Present)	
251	7013711	1	Coupling	
251	7013710	1	Motor	
251	7013712	1	Pump	
251	7013753	1	Seal Kit - 7013712 Pump	
252		Ref	Scoop (Air Intake) Options:	
252	1840005	1	Scoop (Air Intake) (Prior to March 1995)	
252	1840011	1	Scoop (Air Intake) (March 1995 to Present)	
253	Not Required	0	Not Required	
254	4565301	1	Tube	
255	4565271	1	Tube, Exhaust	
256	Not Required	0	Not Required	
257	0630370	2	Rod, Holddown	
257	1380032	2	Clip, Battery (Not Shown)	
258	0701010	2	Bolt, Metric 10mm x 20mm	
259	4832000	2	Lockwasher, Metric 10mm	
260	0901781	1	Bracket, Air Cleaner	

## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
261	4100025	2 ft/.6m	Sleeve, Exhaust	
262	4565278	1	Extension, Exhaust	
263	1120405	1	Raincap	
264	0080046	1	Elbow	
265	4711600	2	Flatwasher 3/8in	
266	2820042	4	Foam, Acoustical	
267	1670608	1	Cover, Intake Box	
268	3941406	10	Screw, Self-Tapping 1/4in x 3/4in	
269	4761400	16	Lockwasher 1/4in	
270	1320016	2	Clamp	
	0250125	Ref	<b>COUPLING INSTALLATION - LOVEJOY OPTION</b>	-
301		Ref	Coupling Options:	
301	1660169	1	Coupling - 13 Teeth	
301	1660234	1	Coupling - 15 Teeth	
301		Ref	Coupling, Lovejoy	
302	0700814	6	Bolt, Metric 8mm x 30mm	
303	4831900	6	Lockwasher, Metric 8mm	
304	0080163	1	Plate, Adapter	
305	0701013	8	Bolt, Metric 10mm x 28mm	
306	4832000	8	Lockwasher, Metric 10mm	
		Ref	<b>COUPLING INSTALLATION - HAYES OPTION</b>	
	0250597	Ref	<b>HAYES 13 TEETH</b>	-
	0256848	Ref	<b>HAYES 15 TEETH</b>	2
351		Ref	<b>Coupling Options:</b>	
351	1660184	1	Coupling - 13 Teeth	
351	1660234	1	Coupling - 15 Teeth	
		Ref	<b>Note: Coupling internal spines must be lubed with Lithium based grease prior to installation.</b>	
352	0700810	6	Bolt, Metric 8mm x 20mm	
353	4831900	6	Lockwasher, Metric 8mm	
354	0080163	1	Plate, Adapter	
355	0701013	8	Bolt, Metric 10mm x 28mm	
356	4832000	8	Lockwasher, Metric 10mm	
		Ref	<b>ENGINE COMPONENTS - DEUTZ F2L1011</b>	
	2000106	Ref	<b>Engine Components (Prior to August 1995)</b>	
	7000693	1	Muffler - Deutz F2L1011	
	3600213	1	Pump, Drive (was p/n 7012572)	
	3520078	1	Plug (was p/n 7012573)	
	1670680	1	Cover, Timing Chain (was p/n 7012574)	
	7012575	1	Pulley, Crankshaft	
	7020023	1	Filter, Fuel (was p/n 7012598)	
	7012599	1	Pump, Fuel Injector	
	7012698	1	Pump, Fuel	
	1670680	1	Cover, Timing Belt	
	7012626	1	Starter	
	7014502	1	Filter, Oil (Case of 12) (Kit Includes 1 Filter)	
	7014683	1	Oil Change and Gasket Kit (Includes Fuel Line Washer or Plug Washer, Oil Filter, Fuel Filter Injector Tip Gasket and Valve Cover Gasket)	
	7020417	1	Alternator	
	7016308	1	Ring, Plastic Air Intake	
	7019607	2	Shutdown Device (was p/n 7016359)	

## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	7020414	1	V-Belt	
	7020437	1	Flywheel	
	7020496	1	Gear, Ring (Flywheel)	
	7020456	1	Dipstick	
	2000137	Ref	<b>Engine Components (August 1995 to Present)</b>	
	7020417	1	Alternator	
	7000693	1	Muffler - Deutz F2L1011	
	8320270	1	Filter, Fuel (was p/n7016328)	
	7012599	1	Pump, Fuel Injector	
	7016309	1	Washer, Copper (Engine p/n 2000137)	
		Ref	Gasket, Cylinder Head Options:	
	70003160	1	1 Notch	
	70003161	1	2 Notches	
	70003162	1	3 Notches	
	7000699	1	Gasket, Exhaust (Doughnut) (Fits Between Pipe Flange and Manifold)	
	7016332	1	Starter (was p/n 7020416)	
	7016331	1	Filter, Oil	
	7019607	2	Shutdown Device (was p/n 7016359)	
	7020414	1	V-Belt	
	7020027	1	Assy, Flywheel/Ring Gear	
	7020477	1	Ring Gear Only	
	7020404	1	Ring, Sealing - Oil Drain	
	7020406	1	Ring, Sealing	
	7020411	1	Gasket, Fuel Supply Lift Pump	
	7020415	1	Fitting, Tee	
	7020419	1	Hose, Fuel Return	
	7020424	2	Gasket, Injector Tip	
	7020425	2	Nozzle, Injector	
	7020426	2	Injector	
	7024413	1	Pump, Fuel Lift (was p/n 7020428)	
	7020429	1	Gasket, Valve Cover	
	7020434	1	Dipstick	
	7020465	1	Cap, Oil Fill	
	0251682	Ref	<b>OPTIONAL ENGINE SHUTDOWN INSTALLATION</b>	-
400	2180360	1	Fitting, Tee	
400	2180643	1	Fitting, Nipple	
400	2220318	1	Fitting, 90	
400	4360065	1	Switch, Pressure	
	0251537	Ref	<b>OPTIONAL ENGINE DISTRESS INSTALLATION</b>	D
	0250229	Ref	<b>OPTIONAL 110V GENERATOR INSTALLATION (PRIOR TO AUGUST 1994)</b>	L
	0255102	Ref	<b>OPTIONAL 110V GENERATOR INSTALLATION (AUGUST 1994 TO PRESENT)</b>	B
451	4360037	1	Switch, Pressure	
451	2180360	1	Fitting, Tee <b>(Prior to SN 23615)</b>	
451	2180749	1	Fitting, 45	
451		Ref	Fitting Options:	
451	2180537	1	Fitting, Nipple <b>(Prior to SN 23615)</b>	
451	2180730	1	Fitting, Adapter <b>(SN 23615 to Present)</b>	
451	2200261	1	Fitting, Adapter <b>(Prior to SN 23615)</b>	

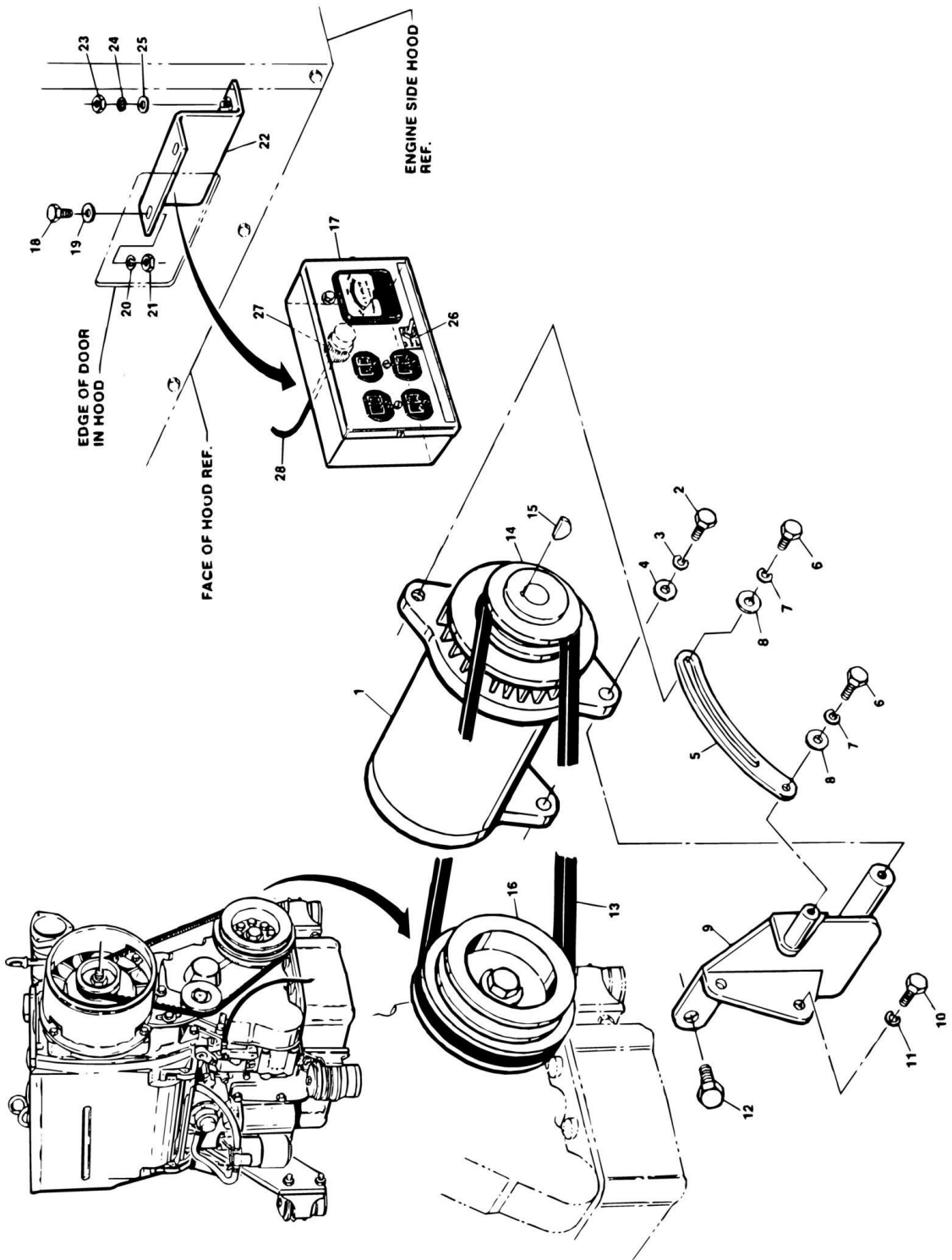
## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0252301	Ref	<b>OPTIONAL COLD WEATHER START INSTALLATION (NOT SHOWN)</b>	B
	0254240	Ref	<b>OPTIONAL ETHER ASSIST SYSTEM INSTALLATION (NOT SHOWN)</b>	-
	2901111	Ref	Cold Weather Start Kit	
	0256127	Ref	<b>OPTIONAL SPARK ARRESTOR INSTALLATION (NOT SHOWN)</b>	-



# SECTION 2 - TURNTABLE

## FIGURE 2-13. 110 VOLT GENERATOR INSTALLATION (DEUTZ)



## SECTION 2 - TURNTABLE

**FIGURE 2-13. 110 VOLT GENERATOR INSTALLATION (DEUTZ)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0250229	Ref	<b>110 VOLT GENERATOR INSTALLATION (DEUTZ) (PRIOR TO AUGUST 1994)</b>	J
	0255102	Ref	<b>110 VOLT GENERATOR INSTALLATION (DEUTZ) (AUGUST 1994 TO PRESENT)</b>	B
1	2460011	1	Generator Assembly with Control Box	
1	7012558	1	Generator Assembly	
1	7026199	1	Armature with Slip Rings	
1	7012513	4	Holder, Brush	
1	7012514	1	Fan	
1	7020108	4	Brush	
1	7020109	4	Holder, Brush	
1	7020110	1	Bell, Front	
1	7020111	1	Bell, Rear	
1	7020190	2	Bearing	
1	7020193	1	Cord, Power	
1	7003657	1	Control Box Assembly	
		Ref	<b>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.</b>	
1	2420203	1	Voltmeter	
1	3520028	1	Plug, Hole	
1	4360542	1	Breaker, Circuit	
1	2920162	1	Lamp Assembly	
1	7020191	1	Switch, Toggle	
2	0681610	2	Bolt 3/8in-16NC x 1 1/4in (Grade 8)	
3	4761600	2	Lockwasher 3/8in	
4	4751600	2	Flatwasher 3/8in	
5	0361815	1	Arm, Adjustable	
6	0681510	2	Bolt 5/16in-18NC x 1 1/4in (Grade 8)	
7	4761500	2	Lockwasher 5/16in	
8	4751500	2	Flatwasher 5/16in	
9	4843410	1	Bracket, Mounting - Generator	
10	0701012	2	Bolt, Metric 10mm x 25M	
11	4812000	2	Flatwasher, Metric 10mm	
11	0100011	AR	Loctite	
12	0701414	1	Bolt, Metric 14mm x 30mm	
13	0480059	1	V-Belt	
14	3580134	1	Pulley	
15	2860012	1	Key	
16	3580158	1	Pulley	
17	See Item 1	1	Box, Control	
18	0641406	2	Bolt 1/4in-20NC x 3/4in (Prior to August 1994 Only)	
19	4751400	2	Flatwasher 1/4in (Prior to August 1994 Only)	
20	4761400	2	Lockwasher 1/4in (Prior to August 1994 Only)	
21	3311401	2	Nut 1/4in-20NC (Prior to August 1994 Only)	
22	0901633	1	Bracket, mounting - Box (Prior to August 1994 Only)	
23	3311401	2	Nut 1/4in-20NC (Prior to August 1994 Only)	
24	4761400	2	Lockwasher 1/4in (Prior to August 1994 Only)	
25	4751400	2	Flatwasher 1/4in (Prior to August 1994 Only)	
25	4300068	2	Stud (Welded on Part) (Prior to August 1994 Only)	

## SECTION 2 - TURNTABLE

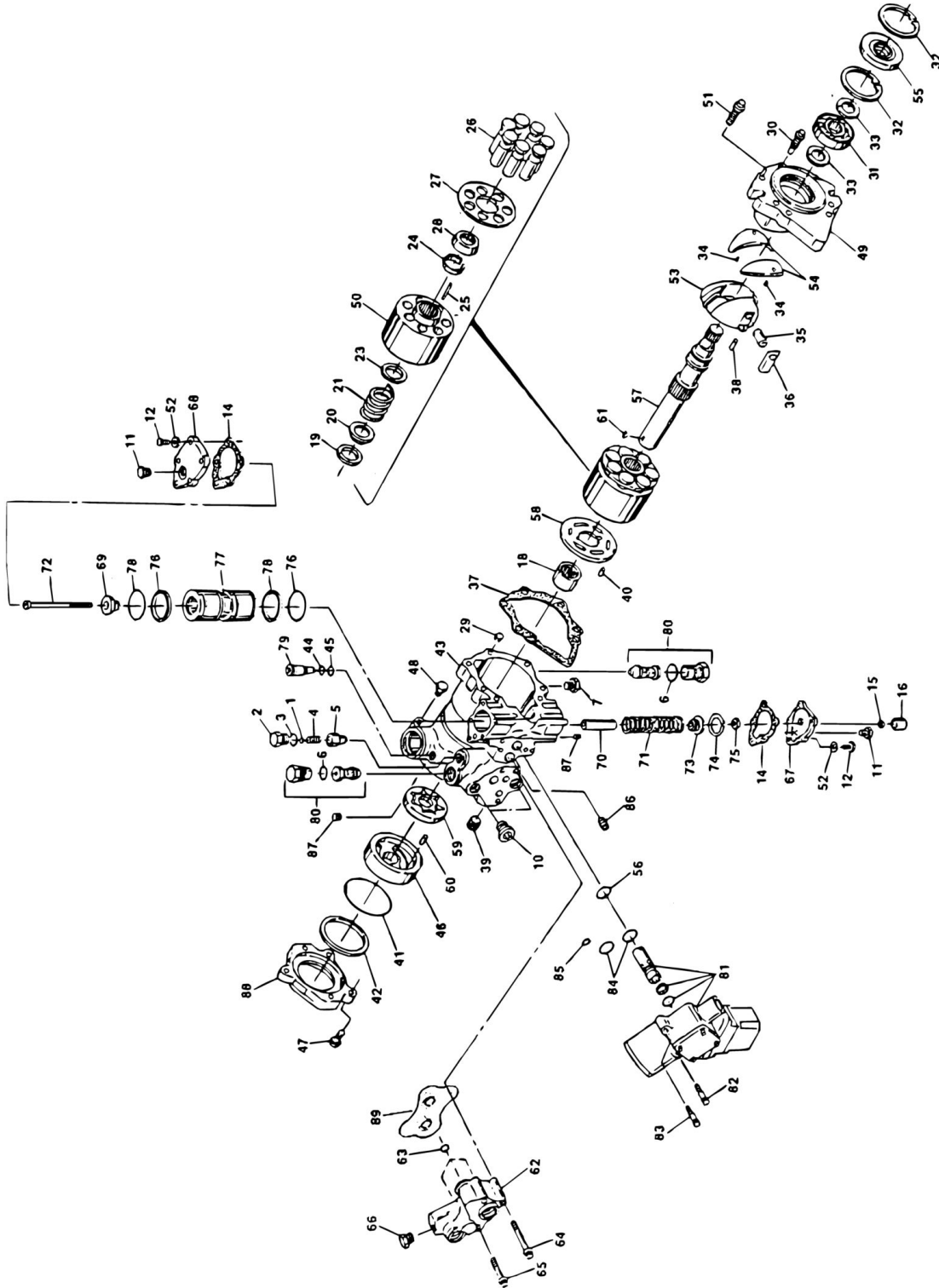
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
26	3251476	1	Decal - Generator	
27	4460023	1	Terminal	
28	1060012	AR	Cable - 12/4	





# SECTION 2 - TURNTABLE

## FIGURE 2-14. PUMP ASSEMBLY - SUNSTRAND



## SECTION 2 - TURNTABLE

**FIGURE 2-14. PUMP ASSEMBLY - SUNSTRAND**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3600164	Ref	<b>PUMP ASSEMBLY - SUNSTRAND</b>	A
1	7007413	1	Shim Kit - Relief Valve	
2	7007414	1	Plug	
3	Kit	1	O-Ring	
4	7007416	1	Spring, Relief Valve	
5	7007417	1	Valve, Relief	
6	Kit	2	O-Ring	
7	7007419	2	Plug	
10	7007420	2	Plug	
11	7007208	2	Plug	
12	7007421	10	Screw	
14	7007422	2	Gasket, Servo Cover	
15	7007423	1	Nut, Special	
16	7007424	1	Cover, Adjustment	
18	7007425	1	Bearing, Needle	
19	Kit	1	Ring, Retaining	
20	Kit	1	Washer	
21	Kit	1	Spring	
23	Kit	1	Washer	
24	Kit	1	Retainer	
25	Kit	3	Pin, Slipper Holddown	
26	Kit	7	Piston Assembly	
27	Kit	1	Guide, Slipper	
28	Kit	1	Guide, Retainer	
29	7007435	1	Pin, Spring	
30	7007436	1	Screw - 12 Point Head	
31	7007437	1	Bearing, Ball	
32	7007438	2	Ring	
33	7007439	2	Ring	
34	7007440	2	Pin, Spring	
35	7007441	1	Handle, Pin	
36	7007442	1	Sleeve, Bearing	
37	Kit	1	Gasket, Front Cover	
38	7007444	1	Pin	
39	7007445	1	Plug, Expansion	
40	Kit	1	Pin	
41	Kit	1	O-Ring	
42	Kit	1	Ring, Load Temper	
43	7007449	1	Housing, Pump	
44	Kit	1	Ring, Back-up	
45	Kit	1	O-Ring	
46	Kit	1	Cover, Gerotor	
47	7007453	3	Bolt, Hex	
48	7007208	1	Plug	
49	7007454	1	Cover, Front	
50	Kit	1	Block, Cylinder	
51	7007456	6	Screw - 12 Point Head	
52	7001438	10	Washer	
53	Kit	1	Swashplate	
54	7007458	1	Journal, Bearing	

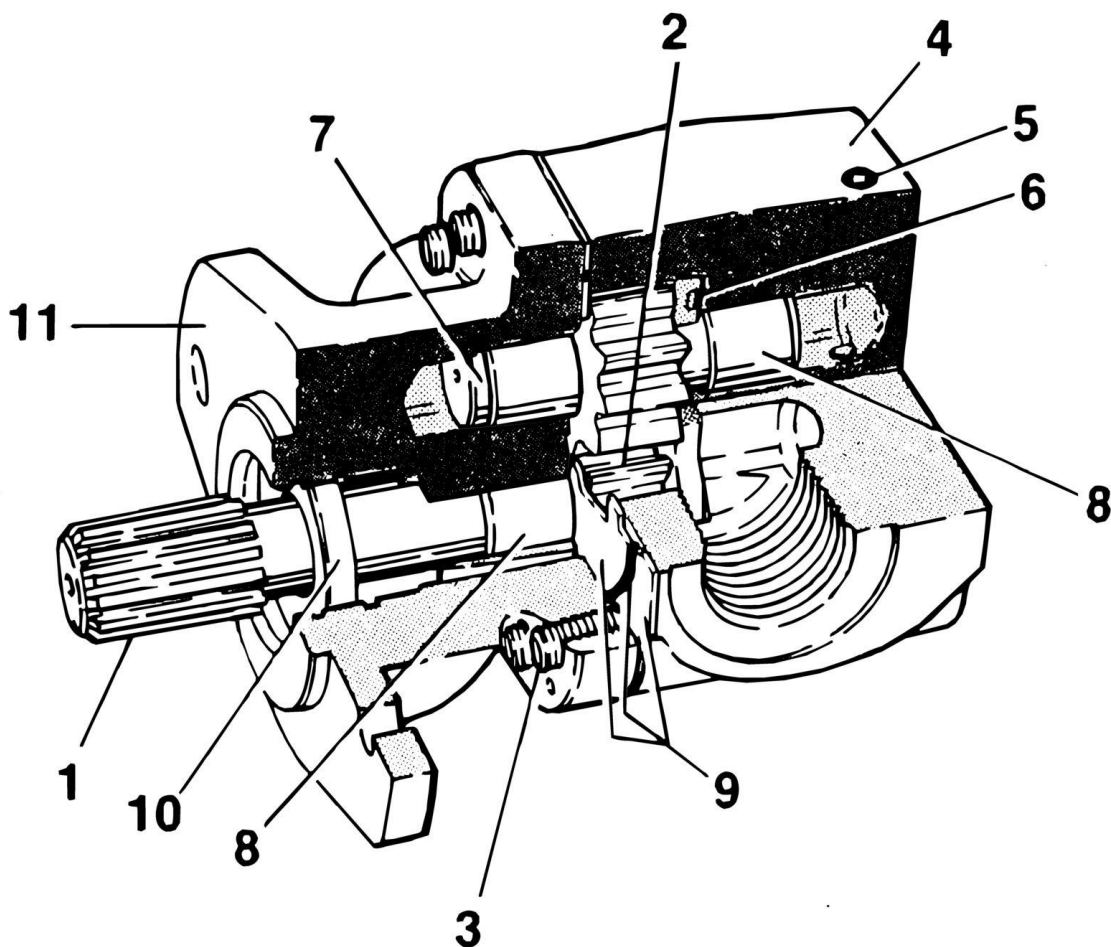
## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
55	Kit	1	Seal, Lip	
56	Kit	1	O-Ring	
57	7007461	1	Shaft, Main Pump	
58	Kit	1	Plate, Valve	
59	Kit	1	Gerotor Assembly	
60	Kit	1	Pin	
61	Kit	1	Key, Woodruff	
62	7007466	1	Adaptor, Remote Filtration (Without Bypass)	
63	Kit	3	O-Ring	
64	7007468	2	Screw	
65	7007469	2	Screw	
66	7007470	1	Plug	
67	7007471	1	Cover, Servo (With Adjuster)	
67	7007490	2	Stop, Servo (Not Shown)	
67	7007491	2	Nut, Special (Not Shown)	
67	7007492	2	Ring, External (Not Shown)	
68	7007482	1	Cover, Servo (Without Adjuster)	
69	7007483	1	Guide, Spring	
70	7007484	1	Stop, Servo	
71	7007485	1	Spring	
72	7007486	1	Screw	
73	7007487	1	Guide, Spring	
74	7007488	1	Ring, Retaining	
75	7007499	1	Locknut	
76	Kit	2	Ring, Piston	
77	7007494	1	Piston, Servo	
78	Kit	2	O-Ring	
79	7007472	1	Valve, By-Pass	
80	7010122	2	Valve, Pressure Release (Includes Item 6) (p/n was 7007473)	
81	7007474	1	Control, Dual Oil-Filled	
81	7007496	1	Coil Assembly (Pilot)	
81	7007497	1	Plug (Pump)	
81	7007498	1	Plug (Valve Harness)	
82	7007478	2	Screw	
83	7001498	2	Screw	
84	Kit	2	O-Ring	
85	Kit	1	O-Ring	
86	7007475	1	Plug, Orifice/Screen -.156	
87	7007477	2	Plug, Orifice -.37	
88	7007476	1	Adapter, Auxiliary Pump	
89	7010120	1	Spacer/Gasket	
	2900752		Seal Kit - Complete (Includes Items 3, 6, 14, 37, 41, 42, 44, 45, 1, 55, 56, 63, 76, 78, 84 & 85)	
	7007412	1	Seal Kit - Servo Piston (Includes Items 76 & 78)	
	2900826	1	Charge Pump Kit (Includes Items 41, 42, 46, 59, 60, 61)	
	2900827	1	Cylinder Block Kit (Includes Items 19-28, 40-50, 53, 55, 58)	



## SECTION 2 - TURNTABLE

FIGURE 2-15. PUMP ASSEMBLY - BARNES. (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS MACHINES BUILT APRIL /MAY 1990 TO JANUARY 1993)



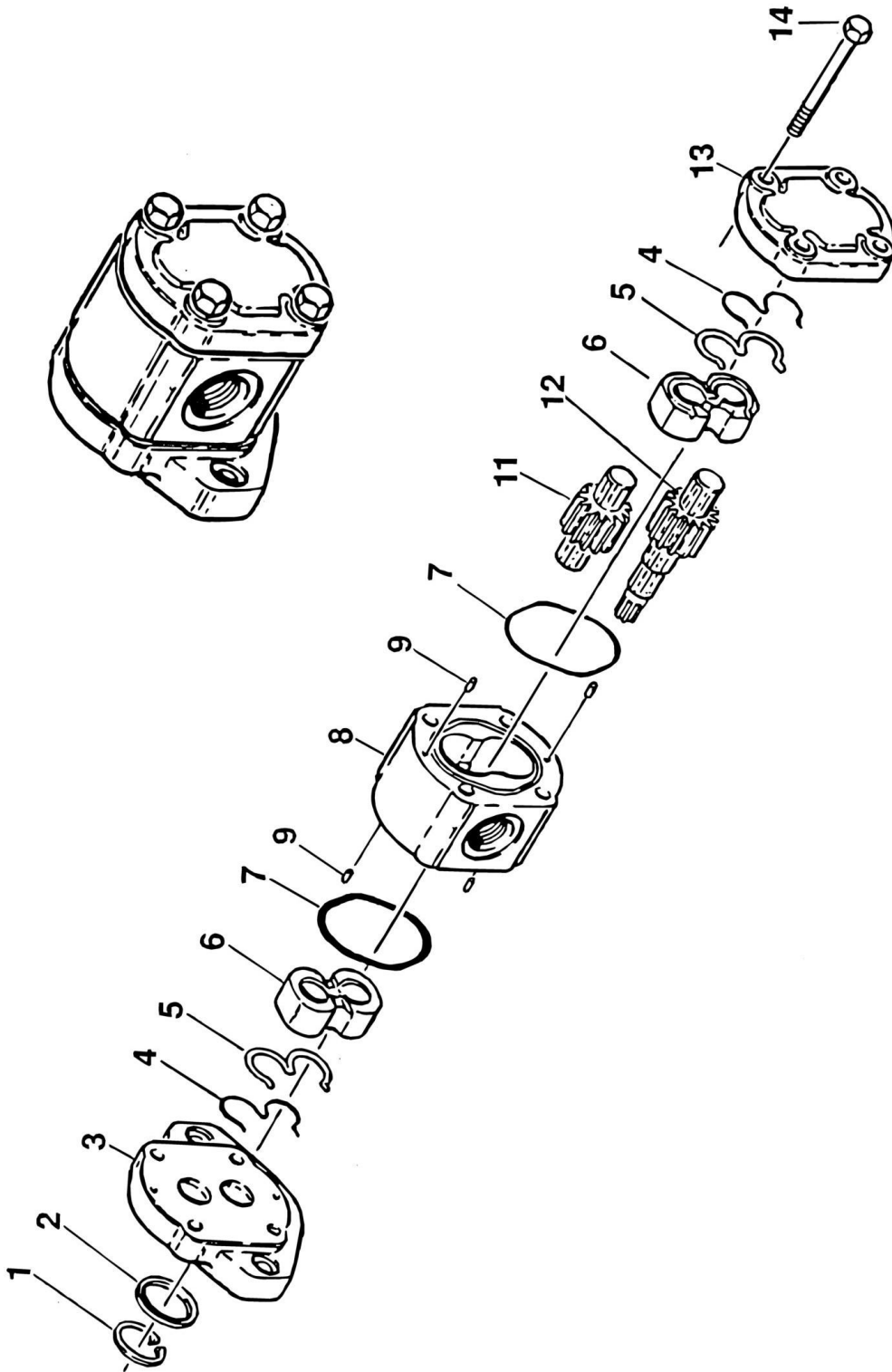
## SECTION 2 - TURNTABLE

**FIGURE 2-15. PUMP ASSEMBLY - BARNES. (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS MACHINES BUILT APRIL /MAY 1990 TO JANUARY 1993)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3600172	Ref	<b>PUMP ASSEMBLY - BARNES</b>	
1	7010925	1	Shaft, Drive	
2	7010926	1	Gear (.750)	
2	7010927	1	Pin, Shear .093 x .750 Lg	
3	7010928	8	Screw	
4	7010929	1	Housing, Gear	
5	7010905	1	Plug	
6	7010914	1	Plate, Pressure	
6	Kit	1	Seal	
6	Kit	1	Back-Up	
7	7010930	1	Idler Shaft	
7	7010926	1	Gear (.750)	
7	7010918	1	Ball, Steel (.094)	
8	7010907	4	Bearing	
9	7010919	1	Plate, Wear	
9	Kit	1	Plate, Seal	
9	7010902	4	Ring, Crescent	
9	Kit	1	Seal	
10	Kit	1	Seal, Shaft	
11	7010909	1	Stator	
11	7010911	2	Pin, Shear .210 x .50 lg	
	2900740	1	Seal Kit	

## SECTION 2 - TURNTABLE

FIGURE 2-16. PUMP ASSEMBLY - BARNES (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS MACHINES BUILT JANUARY 1993 TO PRESENT)





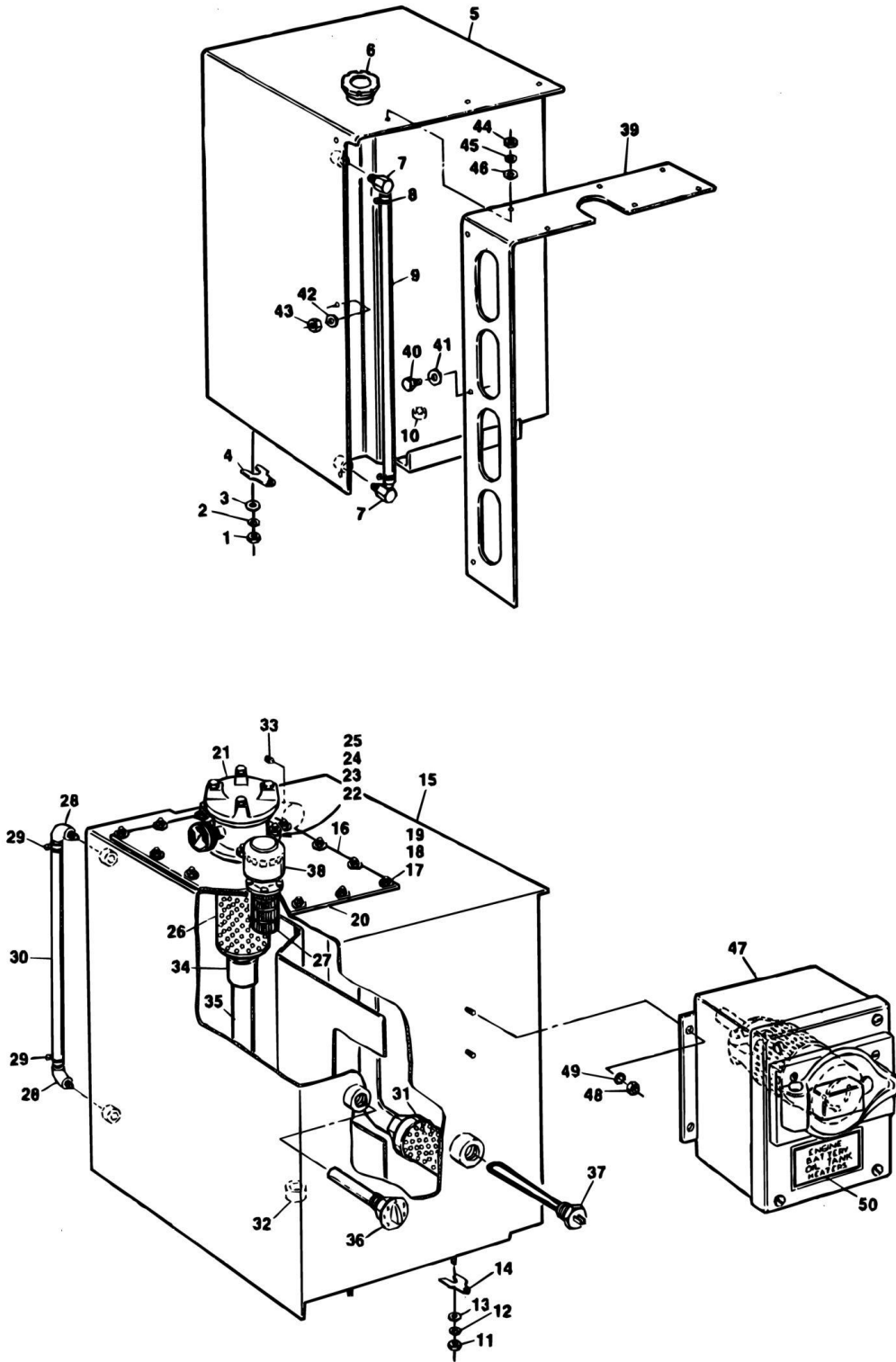
**SECTION 2 - TURNTABLE**

**FIGURE 2-16. PUMP ASSEMBLY - BARNES (USED ON STANDARD BANG-BANG AND PROPORTIONAL CONTROLS MACHINES BUILT JANUARY 1993 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3600199	Ref	<b>PUMP ASSEMBLY - BARNES</b>	-
1	7010955	1	Ring, Retaining	
2	Kit	1	Seal, Shaft	
3	7010956	1	Flange, Mounting	
4	Kit	2	Ring, Backup	
5	Kit	2	E-Seal	
6	7010957	2	Bearing	
7	Kit	2	O-Ring	
8	7010958	1	Housing	
9	7010959	4	Pin, Dowel	
11	7010954	1	Gear, Idler	
12	7010978	1	Gear, Drive	
13	7010960	1	Cover, End	
14	7010961	4	Bolt	
	7010953	1	Seal Kit (Includes Items 2, 4, 5 & 7)	

# SECTION 2 - TURNTABLE

## FIGURE 2-17. TANKS INSTALLATION



## SECTION 2 - TURNTABLE

### FIGURE 2-17. TANKS INSTALLATION

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>TANKS INSTALLATION</b>	
	0239417	Ref	<b>FUEL AND HYDRAULIC TANKS INSTALLATION (STANDARD)</b>	C
	0250231	Ref	<b>FUEL AND HYDRAULIC TANKS INSTALLATION (WITH HEATERS)</b>	B
1	3311501	4	Nut 5/16in-18NC	
2	4761500	4	Lockwasher 5/16in	
3	4751500	4	Flatwasher 5/16in	
3	4300073	4	Stud (Welded on Part)	
4	4070410	AR	Shim (1/16in)	
4	4070411	AR	Shim (1/8in)	
4	4070412	AR	Shim (3/16in)	
	4400264	1	Fuel Tank Assembly	2
5	4400263	1	Fuel Tank Weldment	
6	1120314	1	Cap	
7	2180467	2	Fitting, 90	
7	0100020	AR	Sealant	
8	1320022	2	Clamp	
9	4562516	26 in	Tube, Sight	
10	2200222	1	Plug, Pipe - 1/4in	
11	3311501	4	Nut 5/16in-18NC	
12	4761500	4	Lockwasher 5/16in	
13	4751500	4	Flatwasher 5/16in	
13	0641516	4	Bolt 5/16in-18NC x 2in	
14	4070410	AR	Shim (1/16in)	
14	4070411	AR	Shim (1/8in)	
14	4070412	AR	Shim (3/16in)	
	4400266	1	Hydraulic Tank Assembly (Standard)	C
	4400291	1	Hydraulic Tank Assembly (With Heater)	B
15	4400265	1	Hydraulic Tank Weldment (Standard)	
15	4400290	1	Hydraulic Tank Weldment (With Heater)	
16	1670468	1	Lid	
17	3311401	14	Nut 1/4in-20NC	
18	4761400	14	Lockwasher 1/4in	A
19	4751400	14	Flatwasher 1/4in	
20	3960371	1	Gasket	-
21	2120103	1	Filter, Return (Includes Item 26)	
21	7004244	1	Gauge, Sight	
21	7012559	1	Gasket (Located Between Filter and Tank)	
21	7016333	1	O-Ring (Located Under Cap)	
22	0641612	4	Bolt 3/8in-16NC x 1 1/2in	
23	4761600	4	Lockwasher 3/8in	
24	4740322	4	Washer, Sealing	
25	3311601	4	Nut 3/8in-16NC	
26	2120107	1	Element (Part of Item 26)	
27	1340045	1	Filler, Strainer	
27	4740338	6	Washer, Sealing	
28	2180467	2	Fitting, 90	
28	0100020	AR	Sealant	
29	1320022	2	Clamp	
30	4562516	26 in	Tube, Sight	

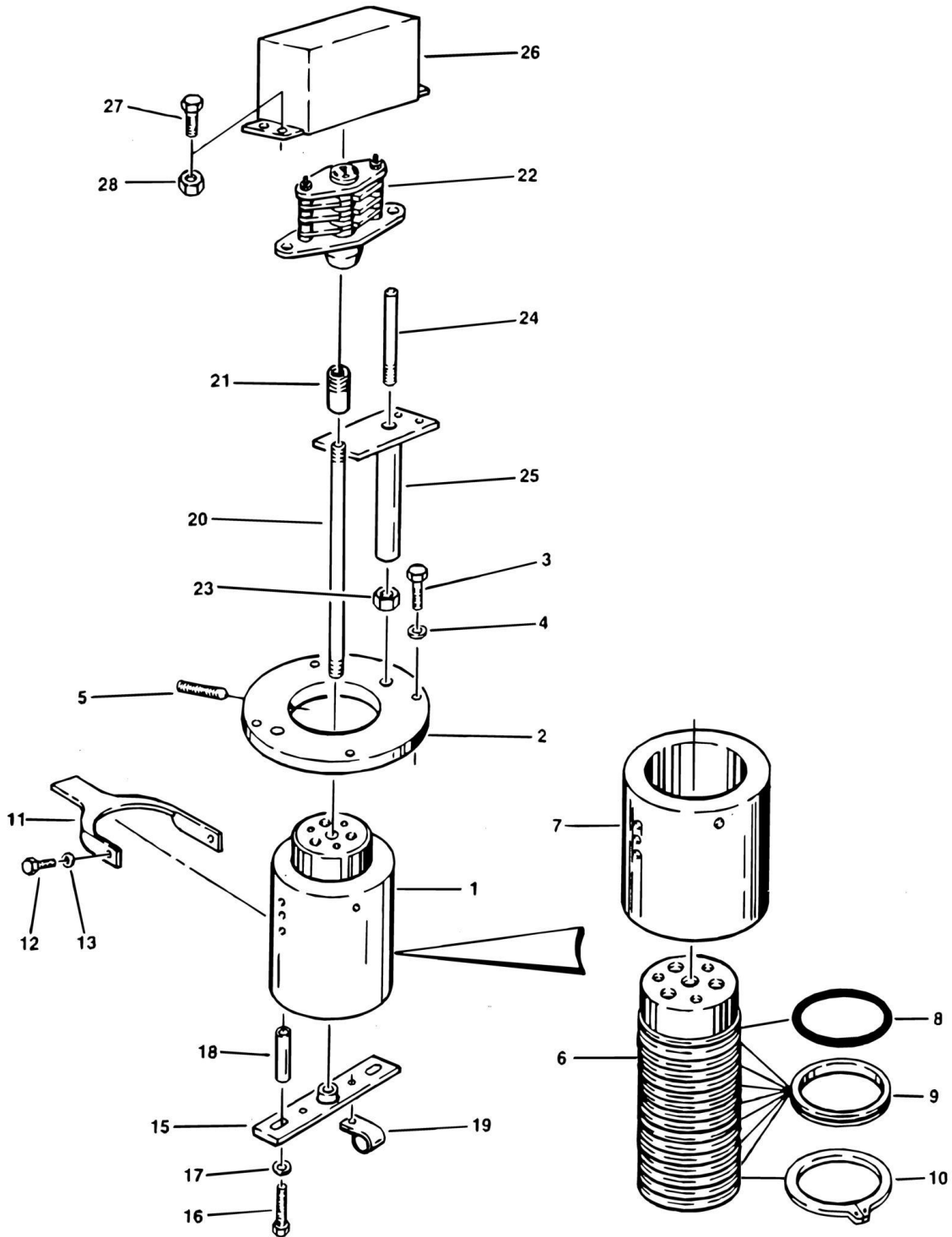
## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
31	2120104	1	Filter, Suction	
31	0100020	AR	Sealant	
32	3520022	1	Plug - 3/4in	
32	0100020	AR	Sealant	
33	2180527	1	Plug - 1/16in	
33	0100020	AR	Sealant	
34	2200268	1	Fitting, Coupling	
34	0100020	AR	Sealant	
35	2180711	1	Pipe, Return	
36	1600043	1	Controller, Thermostat (With Heater Only)	
37	2580018	1	Heater, Immersion (With Heater Only)	
38	1340046	1	Breather	
39	4060695	1	Filler/Shield (Standard)	
39	4060849	1	Filler/Shield (LPG Only)	
40	0721005	6	Screw, Machine #10-24NC x 5/8in	
41	4751000	12	Flatwasher #10	
42	4761000	6	Lockwasher #10	
43	3311001	6	Nut #10-24NC	
44	3311401	6	Nut 1/4in-20NC	
45	4761400	6	Lockwasher 1/4in	
46	4751400	6	Flatwasher 1/4in	
	0252301	Ref	<b>COLD WEATHER PACKAGE INSTALLATION - DEUTZ</b>	B
47	0231756	1	Junction Box Assembly	C
47	1670199	1	Cover	
47	4460049	3	Connector, Strain Relief	
48	3311401	4	Nut 1/4in-20NC	
49	4761400	4	Lockwasher 1/4in	
50	3251837	1	Decal - Battery and Oil Tank Heaters	
50	3251243	1	Decal - 120V/60HZ	



## SECTION 2 - TURNTABLE

FIGURE 2-18. ROTARY COUPLING AND COLLECTOR ASSEMBLY AND INSTALLATION



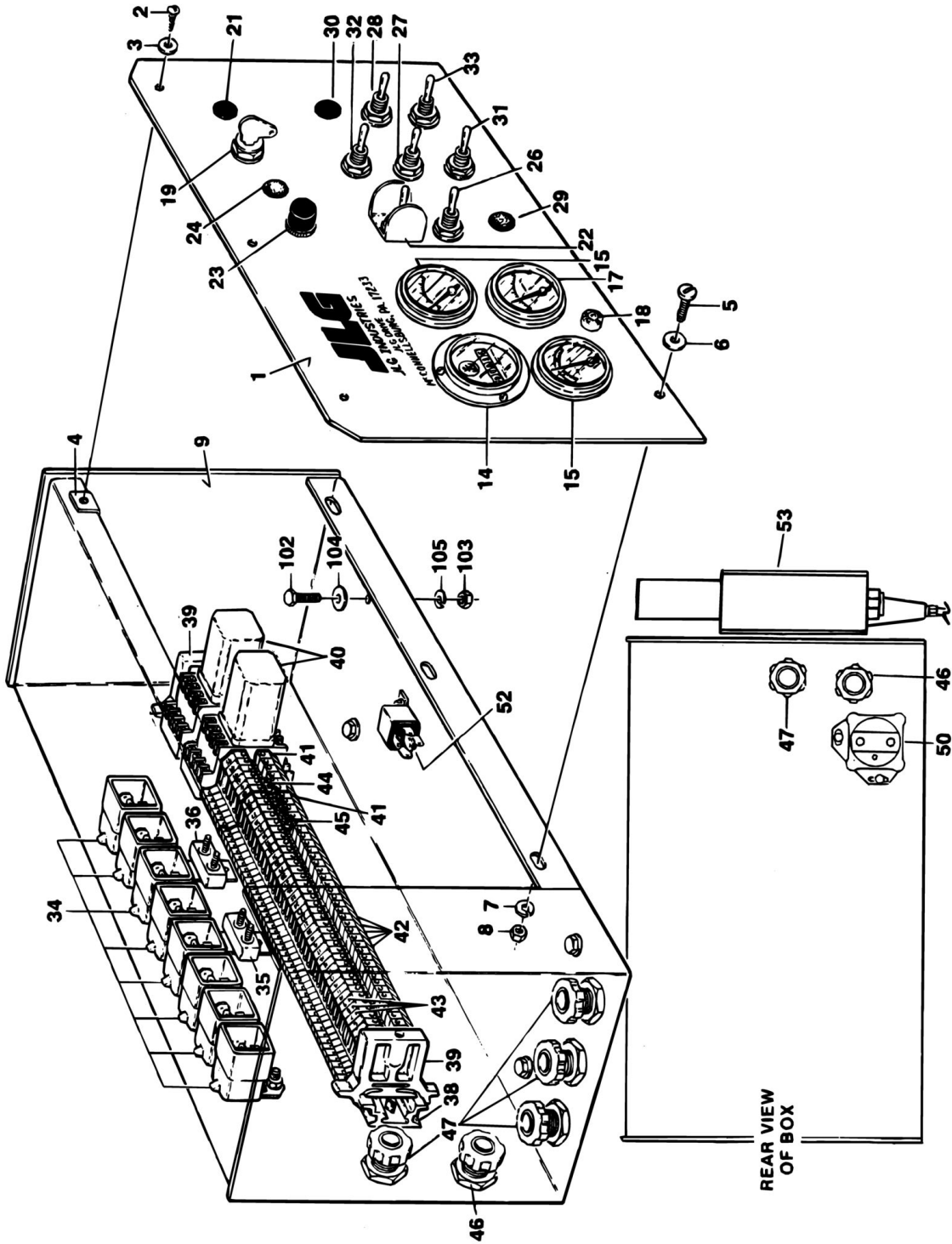
## SECTION 2 - TURNTABLE

**FIGURE 2-18. ROTARY COUPLING AND COLLECTOR ASSEMBLY AND INSTALLATION**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0238615	Ref	<b>ROTARY OIL COUPLING INSTALLATION (2WS)</b>	A
	0250611	Ref	<b>ROTARY OIL COUPLING INSTALLATION (4WS)</b>	C
1	1660160	1	Oil Coupling Assembly (2WS) (Includes Items 6-10)	B
1	1660185	1	Oil Coupling Assembly (4WS) (Includes Items 6-10)	B
2	1440154	1	Collar	
3	0641512	4	Bolt 5/16in-18NC x 1 1/2in	
4	4761500	4	Lockwasher 5/16in	
5	3951820	2	Setscrew, Socket 1/2in-13NC x 2 1/2in	
5	0100011	AR	Loctite #242	
6	0620058	1	Body, Swivel (2WS)	
6	0620106	1	Body, Swivel (4WS)	
7	2760091	1	Housing, Swivel	
8	Kit	1	O-Ring	
9	Kit	7	Seal	
10	3760004	1	Ring, Retaining	
10		Ref	Seal Kit Options:	
10	2901146	1	1660160 & 1660185 Couplings (Includes items 8 & 9)	
10	1660213EX	1	1660213 Couplings (was p/n 7013175)	
		Ref	<b>Note: Due to complexity of repair, seal kit no longer available. Use rebuilt unit as replacement.</b>	
11	3530403	1	Fork, Retaining	
12	0641807	2	Bolt 1/2in-13NC x 7/8in	
13	4761800	2	Lockwasher 1/2in	
13	0100019	AR	Loctite #271	
	0251561	Ref	<b>COLLECTOR RING ASSEMBLY (4WS ONLY) (PRIOR TO JULY 1991)</b>	B
	0252059	Ref	<b>COLLECTOR RING ASSEMBLY (4WS ONLY) (JULY 1991 TO PRESENT)</b>	A
15	4843822	1	Bracket Weldment	
16	0641418	2	Bolt 1/4in-20NC x 2 1/4in	
17	4761400	2	Lockwasher 1/4in	
17	4751400	2	Flatwasher 1/4in	
18	0960224	2	Bushing	
19	1320040	1	Clamp	
19	3911012	1	Screw, Machine #10-24NC x 3/4in	
19	4751000	1	Flatwasher #10	
19	4761000	1	Lockwasher #10	
19	3311001	1	Nut #10-24NC	
20	2180763	1	Pipe	
21	0961531	1	Bushing, Collector Ring	
22	3760053	1	Collector Ring Assembly	
23	3311801	2	Nut 1/2in-13NC	
24	3420290	2	Pin, Drive	
25	0231047	2	Guide, Drive (Prior to July 1991)	
25	4844033	2	Guide, Drive (July 1991 to Present)	
26	1670594	1	Cover	
27	0721004	4	Screw, Round Head #10-24NC x 1/2in	
28	3311001	4	Nut #10-24NC	

# SECTION 2 - TURNTABLE

## FIGURE 2-19. GROUND CONTROL BOX INSTALLATIONS





**SECTION 2 - TURNTABLE**

**FIGURE 2-19. GROUND CONTROL BOX INSTALLATIONS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>GROUND CONTROL BOX ASSEMBLIES</b>	
	0860688	Ref	<b>DEUTZ WITH STANDARD BANG-BANG CONTROLS</b>	8
	0860721	Ref	<b>DEUTZ WITH PROPORTIONAL CONTROLS</b>	6
1	3252044	1	Lid (Prior to May 1994)	
1	3252383	1	Lid (May 1994 to Present)	
1	4420037	38 in	Strip, Rubber (Not Shown)	
2	0750806	2	Screw, Self-Tapping #8 x 3/4in	
3	4740120	2	Washer, Fiber	
4	3300177	2	Nut, Tinnerman	
5	3911412	3	Screw, Round Head 1/4in-20NC x 3/4in	
6	4751400	3	Flatwasher 1/4in	
7	4761400	3	Lockwasher 1/4in	
8	3311401	3	Nut 1/4in-20NC	
9	0860576	1	Box	
14	2420009	1	Hourmeter	
15	2420091	1	Voltmeter	
16	2420111	1	Gage, Oil Pressure	
17	2420125	1	Gage, Water Temperature	
18	4360212	1	Breaker, Circuit	
19	4360284	1	Switch, Key	
19	7010698	1	Key	
19	4360267	1	Block, Contact - N.O.	
19	4360281	3	Block, Contact	
21	3520028	1	Plug, Hole	
22	4360199	1	Switch, Toggle (Ignition)	
22	4360141	1	Guard, Switch (Not Shown)	
22	3790012	1	O-Ring	
23	4360274	1	Switch, Push Button (Start)	
23	3790015	1	O-Ring	
24	3520028	AR	Plug, Hole	
26	4360202	1	Switch, Toggle (Tower Lift)	
26	3790012	1	O-Ring	
27	4360202	1	Switch, Toggle (Main Lift)	
27	3790012	1	O-Ring	
28	4360202	1	Switch, Toggle (Swing)	
28	3790012	1	O-Ring	
29	3520058	1	Plug, Hole	
30	3520028	1	Plug, Hole	
31	4360202	1	Switch, Toggle (Main Tele.)	
31	3790012	1	O-Ring	
32	4360202	1	Switch, Toggle (Platform Rotate) (Standard and Proportional Controls)	
32	3790012	1	O-Ring	
33	4360200	1	Switch, Toggle (Auxiliary Power)	
33	3790012	1	O-Ring	
34	3740049	AR	Relay - SPDT	
34	3311001	AR	Nut #10-24NC	
34	4761000	AR	Lockwasher #10	
34	4751000	AR	Flatwasher #10	
35	4360216	1	Switch, Circuit Breaker - 30 Amp	

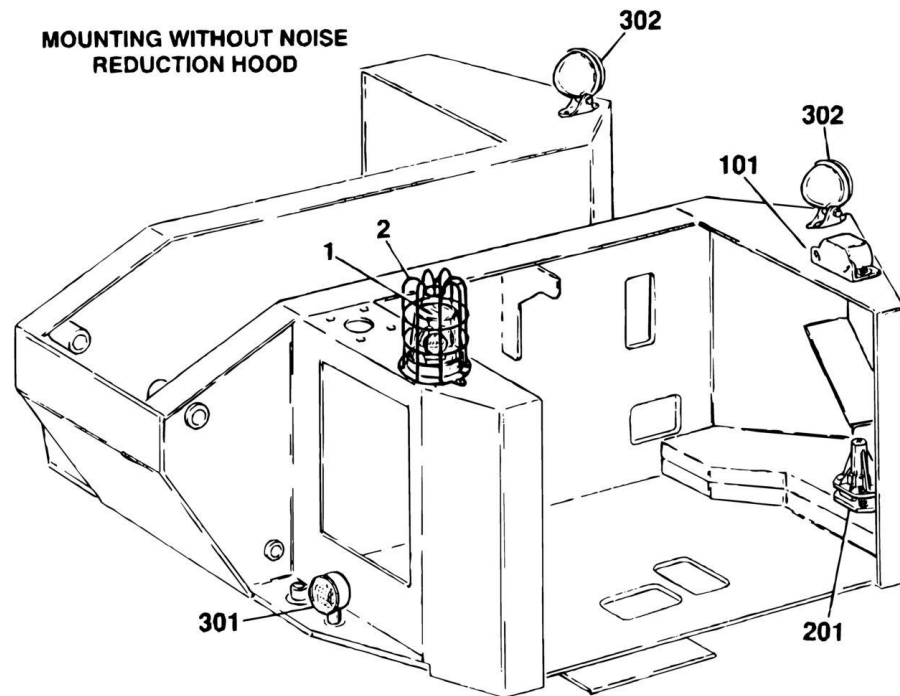
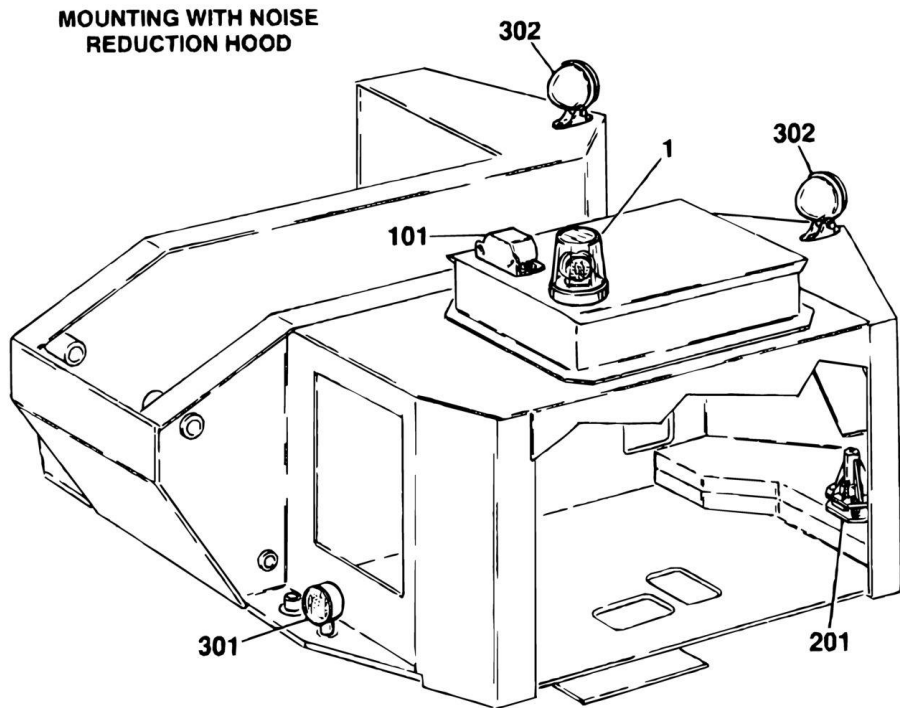
## SECTION 2 - TURNTABLE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
36	4360232	1	Switch, Circuit Breaker - 15 Amp	
38	3640711	1 16 5/8in	Rail	
38	3910606	2	Screw #6-32NC x 3/8in	
38	4750600	2	Flatwasher #6	
38	4760600	2	Lockwasher #6	
38	3310601	2	Nut #6-32NC	
39	4460299	2	Stop, Terminal	
40	3740058	AR	Relay - 4PDT	
40	4120013	AR	Base, Relay	
40	3740063	AR	Spring	
41	4460300	2	Barrier, Terminal	
42	4460298	45	Block, Terminal	
43	4460301	1	Marker, Terminal	
44	4460308	AR	Bar, Buss - 2 Position	
44	4460305	AR	Screw	
44	4460306	AR	Washer	
44	4460307	AR	Sleeve	
45	4460311	1	Bar, Buss - 5 Position	
45	4460305	5	Screw	
45	4460306	5	Washer	
45	4460307	5	Sleeve	
46	4460244	1	Connector, Strain Relief	
46	0960238	1	Bushing	
46	3300048	1	Nut, Conduit	
47	4460051	3	Connector, Strain Relief	
47	0960238	3	Bushing	
47	3300048	3	Nut, Conduit	
50	3740067	1	Relay (Auxiliary Power)	
50	3311001	3	Nut #10-24NC	
50	4761000	3	Lockwasher #10	
50	4751000	3	Flatwasher #10	
52	3740077	1	Relay, Bosch	
52	3311001	2	Nut #10-24NC	
52	4761000	2	Lockwasher #10	
52	4751000	2	Flatwasher #10	
53	0060023	1	Actuator, Adeco Throttle	
53	7008804	1	Bellows	
53	7008829	1	PC Board	
53	7008821	1	Motor	
53	7008828	1	Cable	
54	3520168	3	Plug, Hole 3/16in (Not Shown - Located on side of Ground Control Box) (SN 33920 to Present)	
		Ref	<b>GROUND CONTROL BOX ASSEMBLIES</b>	
	0251289	Ref	<b>DEUTZ WITH STANDARD BANG-BANG CONTROLS</b>	B
	0251803	Ref	<b>DEUTZ WITH PROPORTIONAL CONTROLS</b>	B
102	0641408	4	Bolt 1/4in-20NC x 1in	
103	3311401	4	Nut 1/4in-20NC	
104	4751400	8	Flatwasher 1/4in	
105	4761400	4	Lockwasher 1/4in	



## SECTION 2 - TURNTABLE

FIGURE 2-20. ELECTRICAL COMPONENTS INSTALLATION (TURNTABLE MOUNTED)



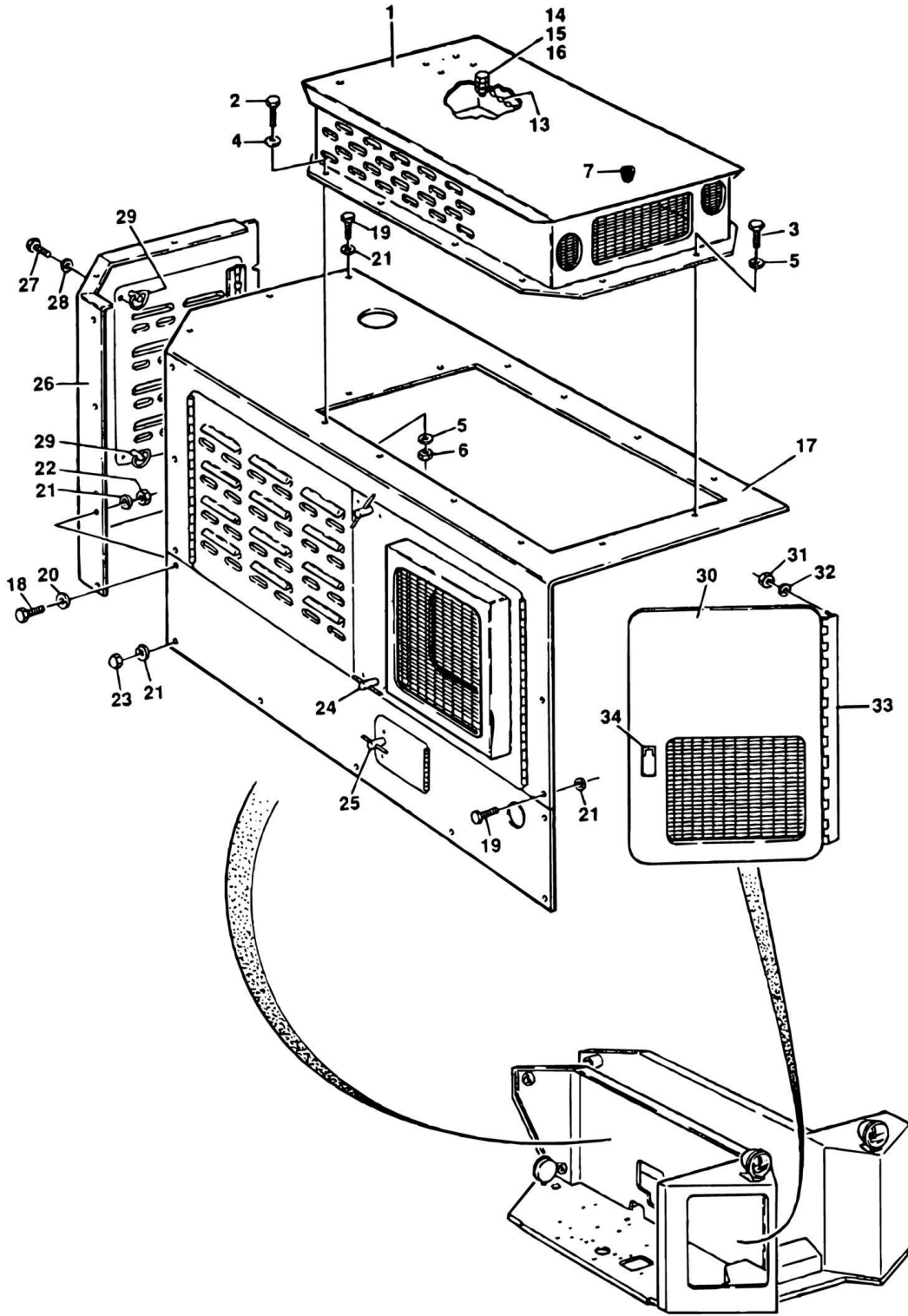
## SECTION 2 - TURNTABLE

**FIGURE 2-20. ELECTRICAL COMPONENTS INSTALLATION (TURNTABLE MOUNTED)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>ELECTRICAL COMPONENTS INSTALLATION</b>	
	0251639	Ref	<b>BEACON LIGHT INSTALLATION (AMBER)</b>	C
	0251640	Ref	<b>BEACON LIGHT INSTALLATION (RED)</b>	C
1		Ref	Beacon/Strobe Light Options:	
1	2920018	1	Beacon - Amber (Prior to January 1993)	
1	2920105	1	Strobe - Amber (January 1993 to Present)	
1	2920009	1	Beacon - Red (Prior to January 1993)	
1	2920109	1	Strobe - Red (January 1993 to Present)	
1	2540016	1	Grommet	
1	3941404	2	Screw, Self-Tapping 1/4in x 1/2in	
2	4060829	1	Guard, Beacon (January 1993 to Present Only)	
2	0641406	2	Bolt 1/4in-20NC x 3/4in	
2	3311405	2	Locknut 1/4in-20NC	
2	4751400	4	Flatwasher 1/4in <b>(SN 27521 to Present)</b>	
	0250878	Ref	<b>ALARM INSTALLATION</b>	E
101		Ref	Alarm Options:	
101	0140024	1	Alarm (Prior to February 1993)	
101	0140032	1	Alarm (February 1993 to Present)	
101	0641406	4	Bolt 1/4in-20NC x 3/4in	
101	3311405	4	Locknut 1/4in-20NC	
101	4751400	4	Flatwasher 1/4in	
101	2540016	1	Grommet	
	0251232	Ref	<b>TILT INDICATOR INSTALLATION</b>	B
201	4360280	1	Sensor, Level - 3	
201	2820022	6 in/21cm	Tubing, Vinyl	
201	4300106	2	Stud, Grooved	
	0251697	Ref	<b>HEADLIGHTS AND TAILLIGHTS INSTALLATION</b>	3
		Ref	<b>Note: See SPECIAL OPTIONS for Boeing Machines.</b>	
301	2920019	2	Taillight	
301	0181739	2	Angle, Mounting	
301	4300106	6	Stud, Drive	
302	2920152	2	Headlight (was p/n 2920001)	
302	4300031	4	Stud (Welded on Part)	
302	4751400	4	Flatwasher 1/4in	
302	4761400	4	Lockwasher 1/4in	
302	3311401	4	Nut 1/4in-20NC	

# SECTION 2 - TURNTABLE

FIGURE 2-21. HOODS INSTALLATIONS (PRIOR TO OCTOBER 1991)



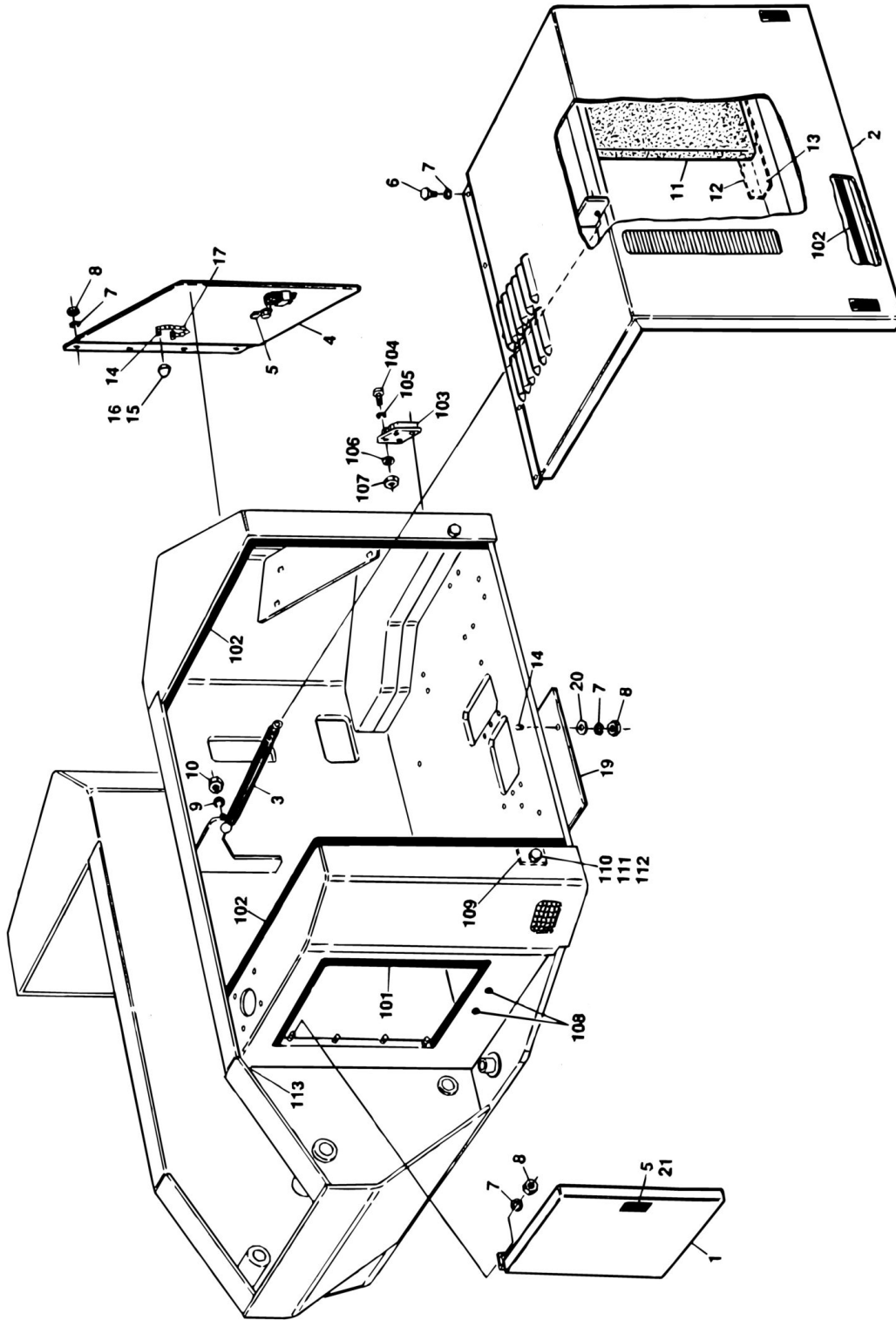
## SECTION 2 - TURNTABLE

**FIGURE 2-21. HOODS INSTALLATIONS (PRIOR TO OCTOBER 1991)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>HOODS INSTALLATIONS</b>	
	0250857	Ref	<b>HOODS INSTALLATION - DEUTZ (STANDARD BANG-BANG AND PROPORTIONAL CONTROLS)</b>	D
1	4843567	1	Ventilator	
2	0641406	6	Bolt 1/4in-20NC x 3/4in	
3	3941406	6	Screw, Self-Tapping 1/4in x 3/4in	
4	4751400	12	Flatwasher 1/4in	
5	4761400	12	Lockwasher 1/4in	
6	3311405	6	Locknut 1/4in-20NC	
7	2940051	1	Latch	
13	1260017	15	Chain	
		in/38cm		
14	0641406	2	Bolt 1/4in-20NC x 3/4in	
15	3311401	2	Nut 1/4in-20NC	
16	3311405	2	Locknut 1/4in-20NC	
17	4843517	1	Hood	
		Ref	<b>Note: Replacement Decals Must be Ordered Separately - See DECALS SECTION for Breakdown.</b>	
18	0641406	11	Bolt 1/4in-20NC x 3/4in	
19	3941406	5	Screw, Self-Tapping 1/4in x 3/4in	
20	4751400	19	Flatwasher 1/4in	
21	4761400	16	Lockwasher 1/4in	
22	3311405	11	Locknut 1/4in-20NC	
23	3300151	5	Nut, Acorn	
23	4300031	5	Stud (Welded on Part)	
24	2940048	2	Latch (Main Doors)	
24	3820019	4	Rivet	
25	2940050	1	Latch (Access Door)	
25	3820012	2	Rivet	
26	4843396	1	Cover, Front	
27	3941406	3	Screw, Self-Tapping 1/4in x 3/4in	
28	4761400	3	Lockwasher 1/4in	
29	2940048	2	Latch	
29	3820019	4	Rivet	
30	4843621	1	Door, Ground Control	
31	3311405	8	Locknut 1/4in-20NC	
32	4751400	8	Flatwasher 1/4in	
32	4300031	4	Stud (Welded on Part)	
33	2600170	1	Hinge	
33	1260017	6 in/15cm	Chain (Not Shown)	
33	4300031	2	Stud (Welded on Part)	
33	3300151	2	Nut, Acorn 1/4in-20NC	
34	2940042	1	Latch (Includes Mounting Hardware)	

# SECTION 2 - TURNTABLE

FIGURE 2-22. HOODS INSTALLATIONS (OCTOBER 1991 TO PRESENT)





## SECTION 2 - TURNTABLE

**FIGURE 2-22. HOODS INSTALLATIONS (OCTOBER 1991 TO PRESENT)**

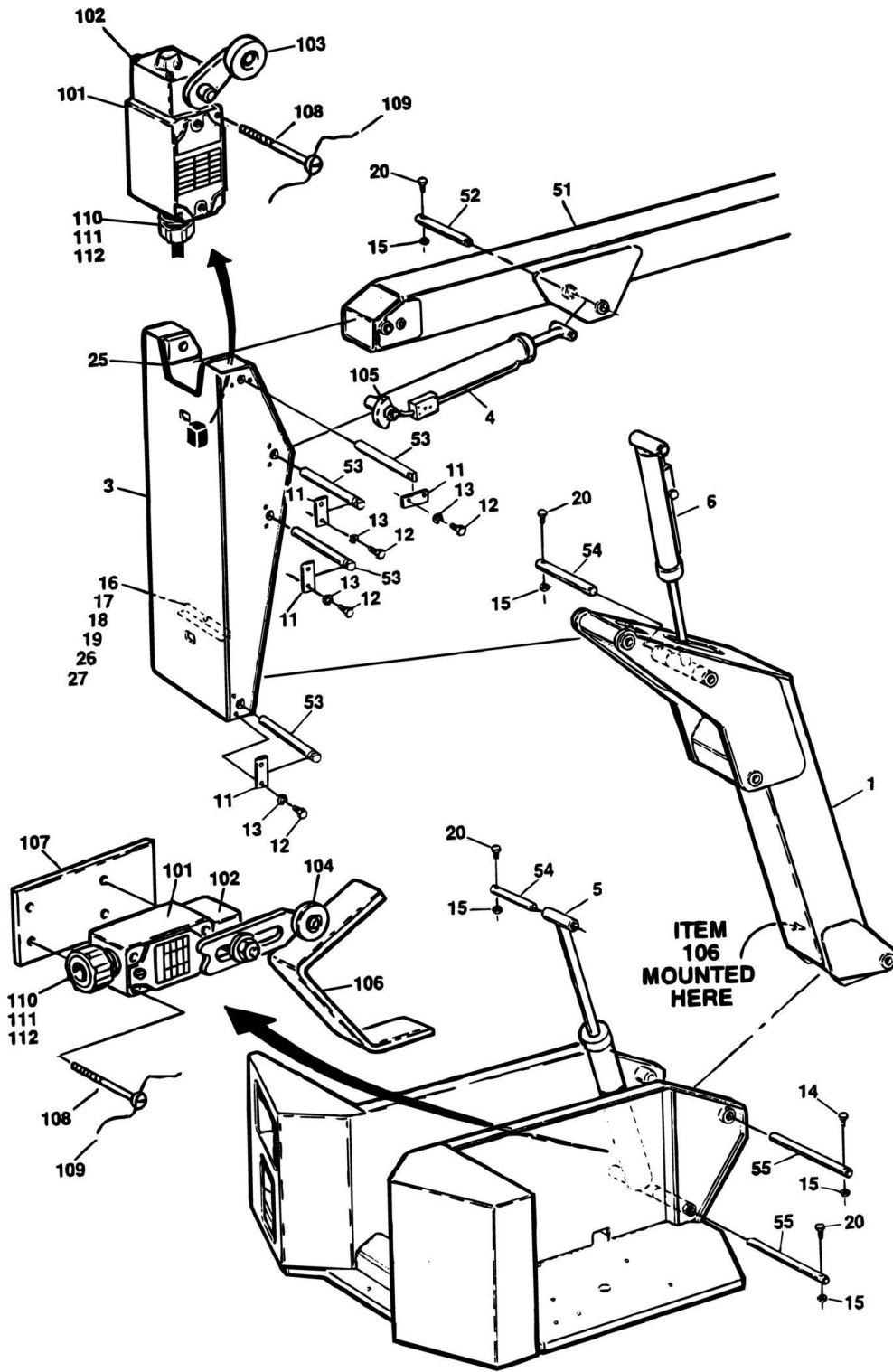
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0252223	Ref	<b>HOODS INSTALLATION - DEUTZ OCTOBER 1991 TO PRESENT</b>	2
1	4843945	1	Door	
2	4843944	1	Hood	
		Ref	<b>Note: Replacement Decals Must be Ordered Separately - See DECALS SECTION for Breakdown.</b>	
3	4160105	1	Spring, Gas	
4	4843948	1	Door, Ground Control	
5		Ref	Latch Options:	
5	2940042	4	Latch <b>(Prior to SN 33711)</b>	
5	2940113	4	Latch <b>(SN 33711 to Present)</b>	
6	3941406	5	Screw, Self-Tapping 1/4in x 3/4in	
7	4761400	17	Lockwasher 1/4in	
8	3311401	12	Nut 1/4in-20NC	
9	4761500	2	Lockwasher 5/16in	
10	3311501	2	Nut 5/16in-18NC	
11	2820043	1	Foam, Acoustical	
12	3535519	1	Plate, Cover	
13	2820012	8	Rivet	
14	4300031	6	Stud (Welded on Part)	
15	0100011	AR	Loctite #242 (Not Shown)	
16	3300151	2	Nut, Acorn 1/4in-20NC	
17	1260017	6 in/21cm	Chain	
19	1670609	1	Cover	
20	4751400	4	Flatwasher 1/4in	
21	2940070	1	Pawl, Latch <b>(Prior to SN 33711)</b>	
	0252231	Ref	<b>HARDWARE INSTALLATION</b>	C
101	3960417	10 ft/3m	Seal, Door	
102	3960418	14 ft/4.3m	Seal	
103	1670612	1	Cover, Access	
104	0721008	4	Screw, Machine #10-24NC x 1in	
105	4761000	4	Lockwasher #10	
106	4751000	4	Flatwasher #10	
107	3311001	4	Nut #10-24NC	
108	3520030	2	Plug, Hole	
109	4060832	2	Shield, Seal	
110	0641404	2	Bolt 1/4in-20NC x 1/2in	
111	4751400	2	Flatwasher 1/4in	
112	3311405	2	Locknut 1/4in-20NC	
113	0100040	AR	Sealant	



**SECTION 3 - BOOM**

# SECTION 3 - BOOM

## FIGURE 3-1. BOOMS AND LIMIT SWITCHES INSTALLATIONS



## SECTION 3 - BOOM

**FIGURE 3-1. BOOMS AND LIMIT SWITCHES INSTALLATIONS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>BOOM INSTALLATION (STANDARD PARTS)</b>	
1	0800618	1	Boom, Tower	D
1	0960827	4	Bushing, Bronze	
3		Ref	Upright Weldment Options:	
3	4843330	1	Upright (Prior to October 1992)	
3	4844453	1	Upright (October 1992 to Present)	
4		Ref	Main Lift Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
4	1682124	1	Cylinder (Prior to October 1992)	
4	1682799	1	Cylinder - 4ft, 5ft & 6ft (1.2m, 1.5m, 1.8m) Wide Platform (October 1992 to Present)	
4	9983596	1	Cylinder - 8ft (2.4m) Wide Platform (October 1992 to Present)	
5		Ref	Tower Lift Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
5	1682085	1	Cylinder (Prior to October 1992)	
5	1682785	1	Cylinder (October 1992 to Present)	
6		Ref	Upright Level Cylinder Assembly Options (See CYLINDER SECTION for Breakdown):	
6	1682255	1	Cylinder (Prior to October 1992)	
6	1683524	1	Cylinder (October 1992 to Present) (was p/n 1682796)	
11	3532054	4	Plate, Retainer	
12	0641508	8	Bolt 5/16in-18NC x 1in	
13	4761500	8	Lockwasher 5/16in	
14	0641528	1	Bolt 5/16in-18NC x 3 1/2in	
15	3311505	5	Locknut 5/16in-19NC	
16	0181565	1	Angle, Hose Retainer	
17	4300076	2	Stud (Welded on Part)	
18	3311601	2	Nut 3/8in-16NC	
19	4761600	2	Lockwasher 3/8in	
20	0641522	4	Bolt 5/16in-18NC x 2 3/4in	
25	4060808	6 ft/1.8m	Flex-Guard	
26	2720058	6 in/15cm	Hose	
27	4420038	1	Rubber, Self-Stick	
	0239965	Ref	<b>BOOM INSTALLATION - DOMESTIC STANDARD BANG-BANG AND PROPORTIONAL CONTROLS WITH 4 FT, 5 FT &amp; 6 FT (1.2m, 1.5m &amp; 1.8m) WIDE PLATFORMS</b>	J
	0254222	Ref	<b>BOOM INSTALLATION - DOMESTIC STANDARD BANG-BANG AND PROPORTIONAL CONTROLS WITH 8 FT, (2.4m) WIDE PLATFORM (VARIABLE PARTS)</b>	B
51	0800623	1	Main Boom Assembly (See MAIN BOOM ASSEMBLY for Breakdown)	
52	3421780	1	Pin	
53	3421686	4	Pin	
54	3421687	2	Pin	
55	3421688	2	Pin	
	0251251	Ref	<b>BOOM LIMIT SWITCHES INSTALLATION</b>	3
101	4360277	2	Switch, Limit	
102	4360236	2	Head, Switch	
103	0200278	1	Arm, Lever	
104	0200237	1	Arm, Roller	
105	1100055	1	Cam	

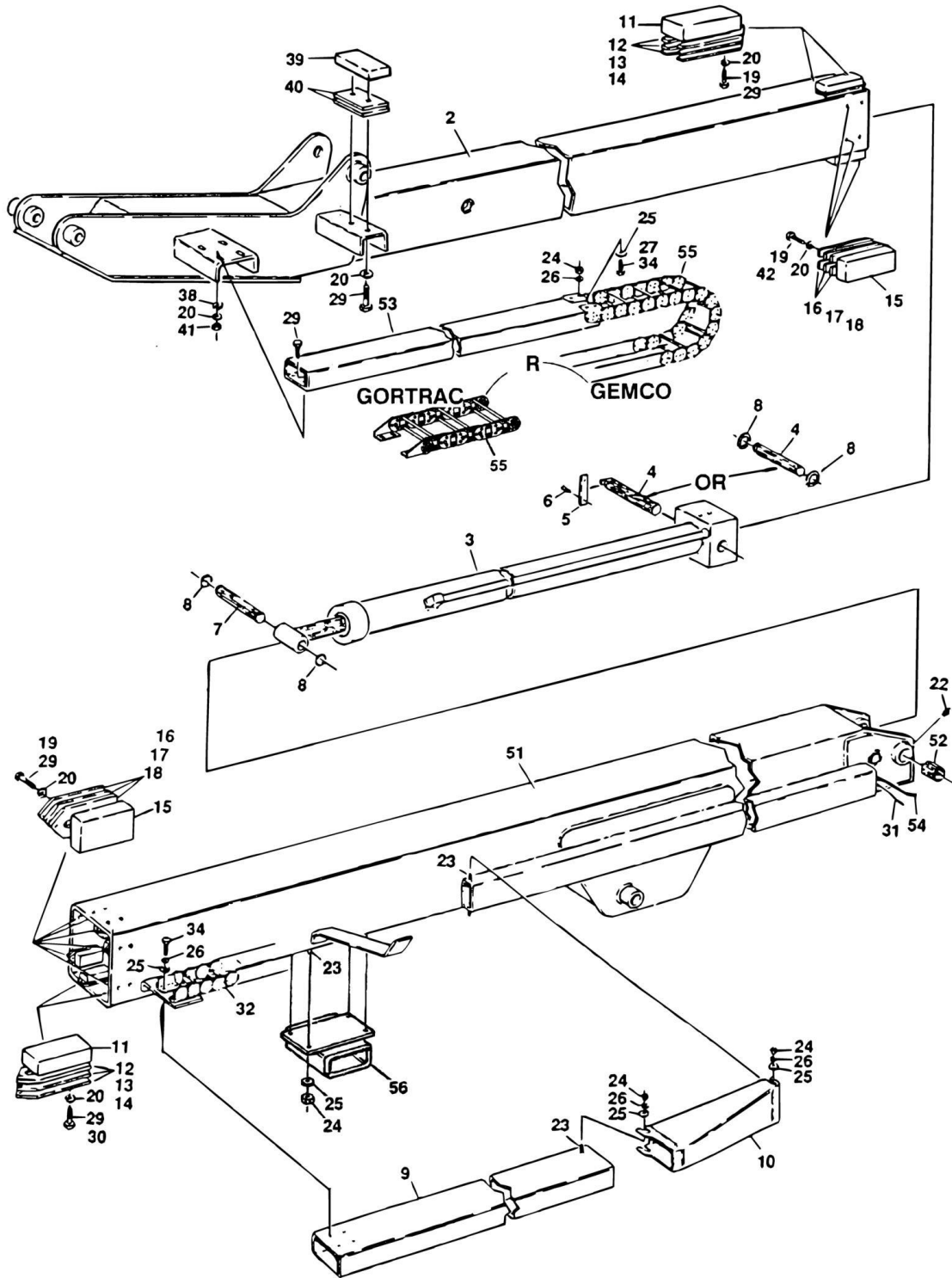
## SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
106	0361919	1	Bar <b>(Prior to SN 25988)</b>	
107	3534395	1	Plate <b>(Prior to SN 25988)</b>	
108	3900168	4	Screw	
109	4920140	AR	Wire, Locking	
110	4460049	2	Connector, Strain Relief	
111	3300047	2	Locknut, Conduit	
112	0960239	2	Bushing	



# SECTION 3 - BOOM

## FIGURE 3-2. MAIN BOOM ASSEMBLY





# SECTION 3 - BOOM

## FIGURE 3-2. MAIN BOOM ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>BOOM ASSEMBLY (STANDARD PARTS)</b>	
2	0800714	1	Fly Weldment	
3	1681880	1	Telescope Cylinder Assembly (Machines Built Prior to June 1991) (See CYLINDER SECTION for Breakdown)	
3	1682492	1	Telescope Cylinder Assembly (Machines Built June 1991 to Present) (See CYLINDER SECTION for Breakdown)	
4	3421493	1	Pin, Attach (Machines Built Prior to February 1992)	
4	3421771	1	Pin, Attach (Machines Built February 1992 to Present)	
5	3532054	1	Plate, Retainer (Machines Built Prior to February 1992 Only)	
6	0641506	2	Bolt 5/16in-18NC x 3/4in (Machines Built Prior to February 1992 Only)	
7	3421492	1	Pin, Attach	
8	3760133	AR	Ring, Retaining	
9	4843076	1	Tube, Hose	
10	1670450	1	Cover, Hose (Machines Built Prior to March 1990)	
10	1670576	1	Cover, Hose (Machines Built March 1990 to Present)	
11	3340473	4	Pad, Wear	
12	4070676	AR	Shim - 1/8in	
13	4070677	AR	Shim - 1/16in	
14	4070678	AR	Shim - 1/32in	
15	3340552	12	Pad, Wear	
16	4070670	AR	Shim - 1/32in	
17	4070671	AR	Shim - 1/16in	
18	4070672	AR	Shim - 1/8in	
19	0641607	16	Bolt 3/8in-16NC x 7/8in	
20	4761600	46	Lockwasher 3/8in	
22	2160007	2	Fitting, Grease	
23	4300031	AR	Stud (Welded on Part)	
24	3311405	AR	Locknut 1/4in-20NC	
25	4751400	AR	Flatwasher 1/4in	
26	4761400	16	Lockwasher 1/4in	
29	0641608	22	Bolt 3/8in-16NC x 1in	
31		Ref	Cable/Harness Options:	
31	4920865	1	Harness (Prior to August 1990)	
31	1060268	89.3 ft/2.27m	Cable - 12/3 (August 1990 to July 1993)	
31	1060514	89.3 ft/2.27m	Cable - 12/3 (July 1993 to Present)	
33	0641609	6	Bolt 3/8in-16NC x 1 1/8in	
34	0641405	8	Bolt 1/4in-20NC x 5/8in	
36		Ref	Cable, Electrical - 12/4	
36	1060012	65 ft/31.8m	Cable (Prior to July 1993)	
36	1060515	65 ft/31.8m	Cable (July 1993 to SN 33218)	
38	4751600	12	Flatwasher 3/8in	
39	0560923	1	Block	
40	4070559	AR	Shim	
41	3311605	8	Locknut 3/8in-16NC	
42	0641606	4	Bolt 3/8in-16NC x 3/4in	
43	4460052	1	Connector	

## SECTION 3 - BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
44	3300047	1	Nut, Conduit	12
45	0960239	1	Bushing	
	0100011	AR	Loctite #242	
	0800623	Ref	<b>BOOM ASSEMBLY - STANDARD BANG-BANG AND PROPORTIONAL CONTROLS (VARIABLE PARTS)</b>	
51	0800573	1	Base Weldment	
52	0961597	2	Bushing, Pivot	
53	4843068	1	Cover, Hose	
54		Ref	Cable Options - 16/30:	
54	1060229	65 ft/31.8m	Cable (Prior to July 1993)	
54	1060516	65 ft/31.8m	Cable (July 1993 to Present)	
		Ref	Powertrack Options:	
		Ref	<b>Note: Original Equipment Power Track may have been replaced with a Service Replacement. Visually identify the power track before ordering parts.</b>	
		Ref	Original Equipment (Gemco)	
55	1180179	1	Carrier	
55	7006139	AR	One Foot Section of Powertrack	
55	7006151	2 pr	Mounting Feet - Powertrack	
55	7006152	AR	Pin Kit (Includes 1 pin, set of 4 washers (different sizes and 1 retaining ring)	
		Ref	Service Replacement (Gortrac)	
55	1001119695	1	Carrier	
55	70003153	1	Repair Kit (Included 8 Links, 8 Screws, 4 Spacers, 18 Pins, 18 Washers and 18 Snap Rings)	
55	70003154	1	Mounting Feet - Powertrack	
56	Not Required	0	Not Required	



# SECTION 3 - BOOM

## FIGURE 3-3. BOOM WIPERS INSTALLATION

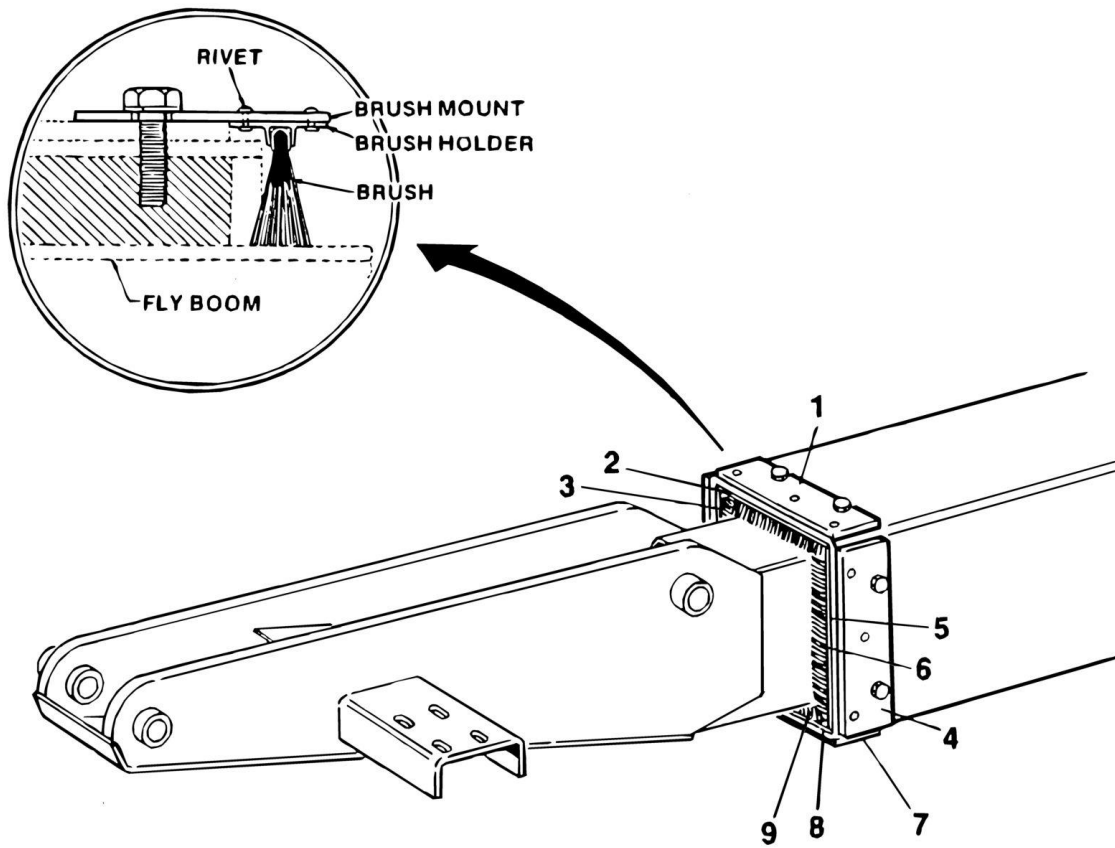


FIGURE 3-3. BOOM WIPERS INSTALLATION

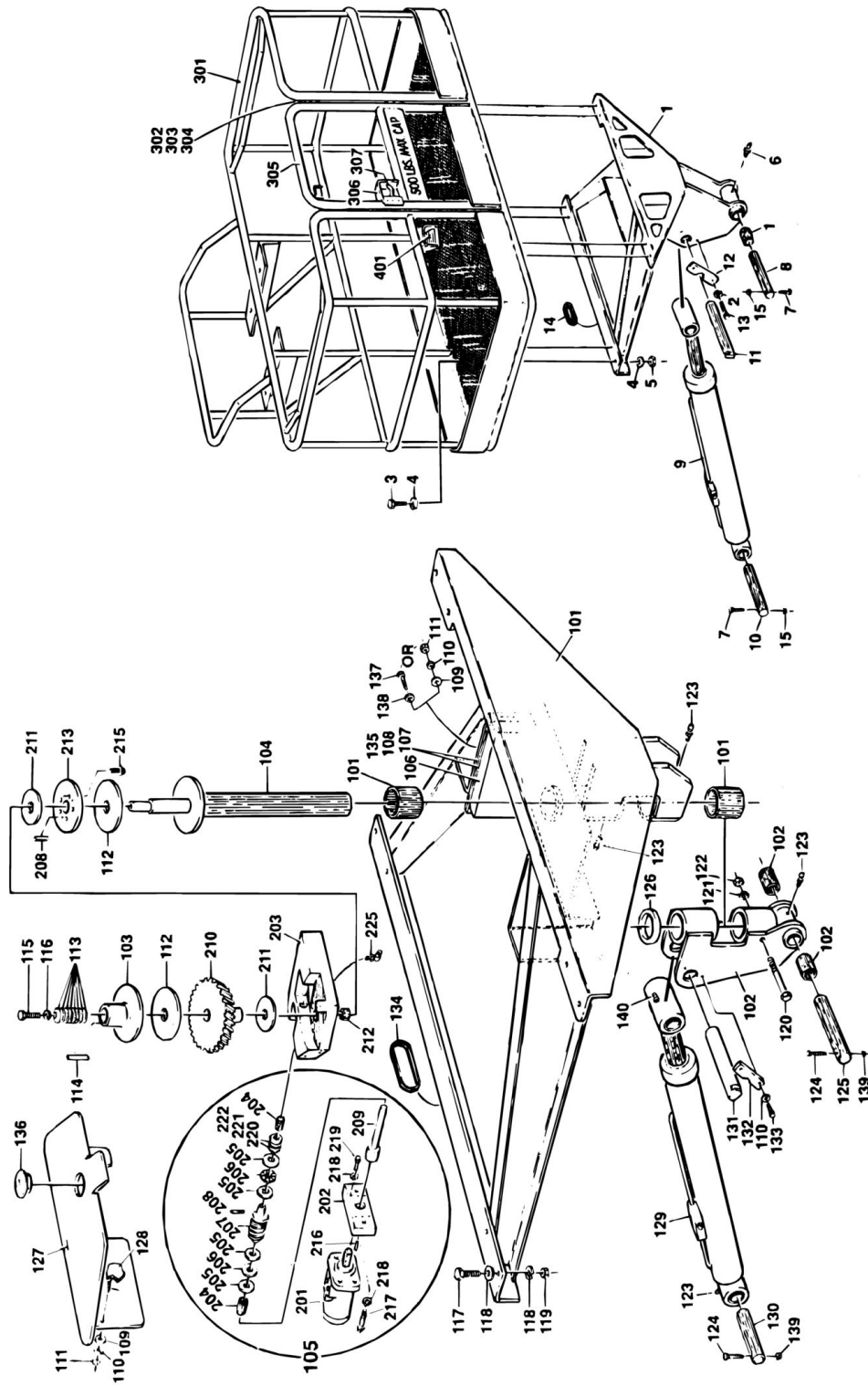
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0250861	Ref	<b>BOOM WIPERS INSTALLATION</b>	-
1	3200316	1	Mount, Wiper (Top)	
2	2660080	1	Holder, Blade (Top)	
3	0540084	1	Blade, Wiper (Top)	
3	3820001	3	Rivet	
4	3200317	2	Mount, Wiper (Sides)	
5	2660081	2	Holder, Blade (Sides)	
6	0540085	2	Blade, Wiper (Sides)	
6	3820001	6	Rivet	
7	3200316	1	Mount, Wiper (Bottom)	
8	2660082	1	Holder, Blade (Bottom)	
9	0540086	1	Blade, Wiper (Bottom)	
9	3820001	3	Rivet	



**SECTION 4 - PLATFORM**

# SECTION 4 - PLATFORM

## FIGURE 4-1. STANDARD PLATFORM AND FOOTSWITCH INSTALLATION





## SECTION 4 - PLATFORM

**FIGURE 4-1. STANDARD PLATFORM AND FOOTSWITCH INSTALLATION**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0238727	Ref	<b>FIXED SUPPORT INSTALLATION (STANDARD BANG-BANG AND PROPORTIONAL CONTROLS)</b>	E
1	4842978	1	Support Weldment	
1	0961257	2	Bushing, Bronze	
2	4761500	2	Lockwasher 5/16in	
3	0681610	8	Bolt 3/8in-16NC x 1 1/4in (Grade 8)	
4	4751600	16	Flatwasher 3/8in	
5	3300143	8	Locknut 3/8in-16NC	
6	2160002	1	Fitting, Grease	
7	0641522	2	Bolt 5/16in-18NC x 2 3/4in	
8	3421490	1	Pin, Nose	
9	1682178	1	Platform Level Cylinder Assembly (Machines Built Prior to October 1992) (See CYLINDER SECTION for Breakdown)	
9	1682793	1	Platform Level Cylinder Assembly - TUV (Machines Built October 1992 to Present) (See CYLINDER SECTION for Breakdown.	
10	3421491	1	Pin, Attach (Lower)	
11	3421494	1	Pin, Attach (Upper)	
12	3532054	1	Plate, Retainer	
13	0641506	2	Bolt 5/16in-18NC x 3/4in	
14	4060804	10	Shield, Hose (1/2in Flex-Guard)	
15	3311505	2	Locknut 5/16in-18NC	
	0238568	Ref	<b>ROTATING SUPPORT INSTALLATION DOMESTIC (STANDARD BANG-BANG AND PROPORTIONAL CONTROLS)</b>	M
101	4843636	1	Support Weldment	
101	0961259	2	Bushing, Bronze	
102	0238540	1	Pivot Attach Weldment (Machines Built Prior to October 1992)	
102	0253730	1	Pivot Attach Weldment (TUV Cylinders) (Machines Built October 1992 to Present)	
102	0961257	2	Bushing, Bronze	
103	1120299	1	Cap	
104	4842915	1	Shaft Weldment	
105	0235238	1	Rotator Assembly (See Items 201-225 for Breakdown)	
106	0361675	1	Block, Stop	
107	4070705	AR	Shim 1/8in	
108	4070706	AR	Shim 1/16in	
109	4751500	2	Flatwasher 5/16in	
110	4761500	4	Lockwasher 5/16in	
111	3311501	2	Nut 5/16in-18NC	
112	3340454	2	Pad, Brake	
113	4160026	8	Washer, Bellville	
114	2880404	1	Key, Square	
115	0652014	1	Bolt 5/8in-18NF x 1 3/4in	
116	4752000	1	Flatwasher 5/8in	
117	0681610	8	Bolt 3/8in-16NC x 1 1/4in	
118	4751600	16	Flatwasher 3/8in	
119	3300143	8	Locknut 3/8in-16NC	
120	0641836	1	Bolt 1/2in-13NC x 4 1/2in	
121	4751800	1	Flatwasher 1/2in	
122	3311805	1	Locknut 1/2in-13NC	
123	2160002	4	Fitting, Grease	

## SECTION 4 - PLATFORM

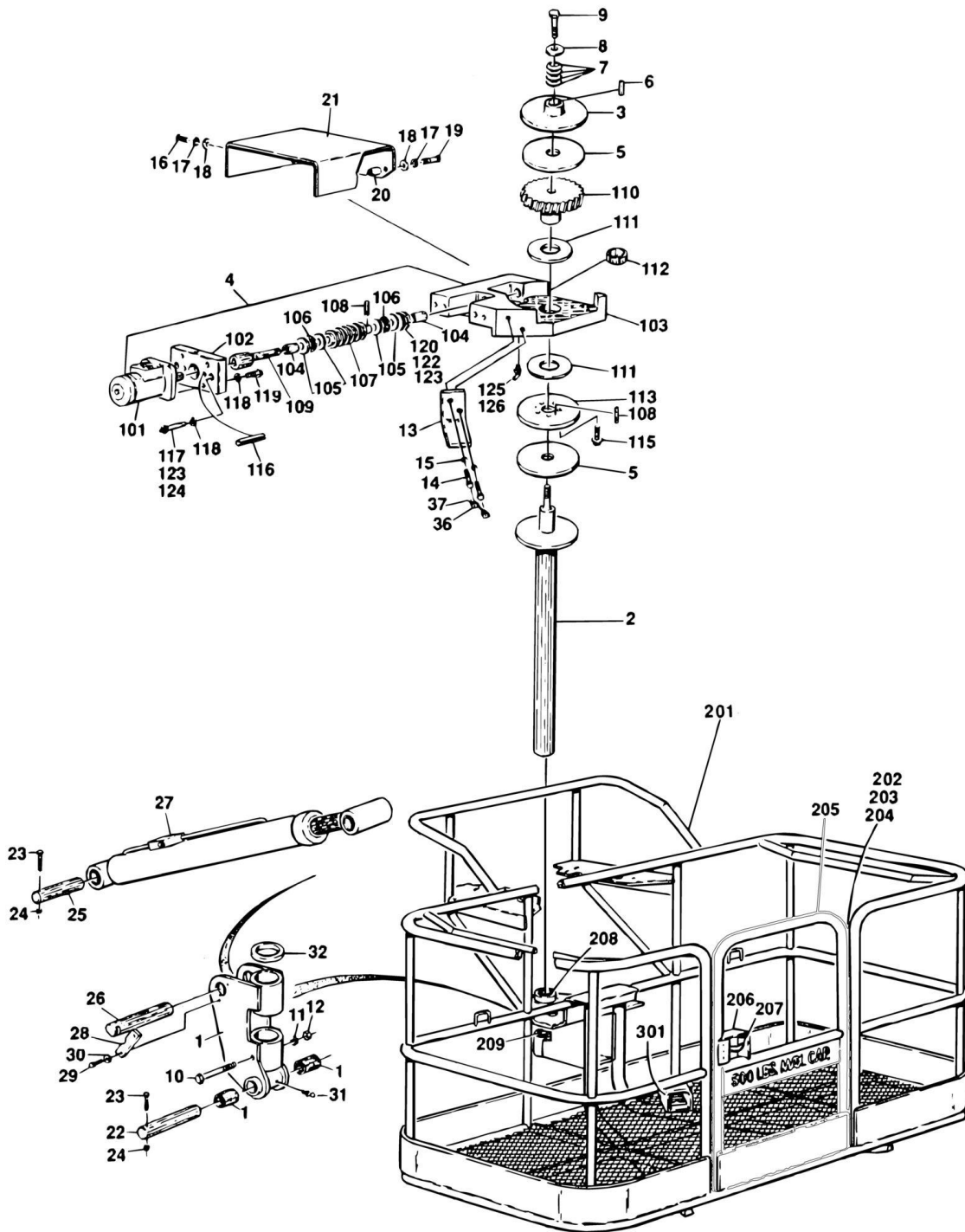
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
124	0641522	2	Bolt 5/16in-18NC x 2 3/4in	
125	3421490	1	Pin, Attach	
126	4740158	1	Washer, Thrust	
127	1670451	1	Cover, Rotator	
128	4300038	2	Stud (Welded on Part)	
129	1682178	1	Slave Cylinder Assembly (Machines Built Prior to October 1992) (See CYLINDER SECTION for Breakdown)	
129	1682793	1	Slave Cylinder Assembly - TUV (Machines Built October 1992 to Present) (See CYLINDER SECTION for Breakdown)	
130	3421491	1	Pin, Attach (Lower)	
131	3421494	1	Pin, Attach (Upper)	
132	3532054	1	Plate, Retainer	
133	0641506	2	Bolt 5/16in-18NC x 3/4in	
134	4060804	10	Shield, Hose (Flexguard)	
		in/2.6cm		
135	4070707	AR	Shim 1/32in	
136	3520035	1	Plug	
137	0641816	2	Bolt 1/2in-13NC x 2in	
138	4761800	2	Lockwasher 1/2in	
139	3311505	2	Locknut 5/16in-18NC	
140	2160001	1	Fitting, Grease	
	0235238	Ref	<b>ROTATOR ASSEMBLY</b>	E
		Ref	<b>Note: For Machines Built Prior to September 1991 refer to Service Information Bulletin #91-5 for required upgrade.</b>	
201	3160083	1	Rotator Motor Assembly (See CONSOLE BOX ASSEMBLY (STANDARD BANG-BANG CONTROLS) for Breakdown)	
202	0080099	1	Adapter, Motor	
203	2760064	1	Housing, Gear	
204	0440134	2	Bearing, Sleeve	
205	4740199	4	Washer, Thrust	
206	0440120	2	Bearing, Thrust	
207	2440043	1	Gear, Worm	
208	3440816	4	Rollpin 1/4in x 1in	
209	0080098	1	Adapter, Motor to Worm Gear	
210	2440044	1	Gear, Worm	
211	4740256	2	Washer, Thrust	
212	0440135	1	Bearing, Sleeve	
213	1760068	1	Disc, Brake	
215	3931010	5	Bolt, Socket Head #10-24NC x 5/8in	
216	3441228	2	Rollpin 3/8in x 1 3/4in	
217	3931620	2	Bolt, Socket Head 3/8in-16NC x 1 1/4in	
218	4761600	6	Lockwasher 3/8in	
219	3931612	4	Bolt, Socket Head 3/8in-16NC x 3/4in	
220	4070585	AR	Shim .010	
221	4070586	AR	Shim .005	
222	4070587	AR	Shim .002	
223	0100019	AR	Loctite #271 (Not Shown)	
224	0100021	AR	Primer (Not Shown)	
225	2160001	1	Fitting, Grease - 90	
226	3020025	AR	Grease (Not Shown)	
		Ref	<b>PLATFORM WELDMENTS</b>	
		Ref	<b>Note: Replacement Decals Must be Ordered Separately - See DECALS SECTION for Breakdown.</b>	

## SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
301		Ref	Standard Platform Options:	
301	3510308	1	30in x 48in Platforms:	
301	3510309	1	30in x 60in Platforms:	
301	3510310	1	30in x 72in Platforms:	
302	2600143	2	Pin, Hinge	
303	3311805	2	Locknut 1/2in-13NC	
304	2160006	2	Fitting, Grease	
305	1780254		Door Weldment	
306	2940006	1	Latch, Door	
307	2560010	1	Handle	
	0237963	Ref	<b>FOOTSWITCH INSTALLATION</b>	7
401	0641408	3	Bolt 1/4in-20NC x 1in	
401	3311405	3	Locknut 1/4in-20NC	
401	4740362	3	Washer, Fender	
401	4360031	1	Footswitch	
401	7000625	2	Block, Contact	
401	4460071	1	Connector, Strain Relief	

# SECTION 4 - PLATFORM

## FIGURE 4-2. LOW MOUNT PLATFORMS AND FOOTSWITCH INSTALLATIONS



## SECTION 4 - PLATFORM

**FIGURE 4-2. LOW MOUNT PLATFORMS AND FOOTSWITCH INSTALLATIONS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>SUPPORT INSTALLATIONS</b>	
	0250593	Ref	<b>ROTATING SUPPORT INSTALLATION</b>	H
	0251252	Ref	<b>FIXED SUPPORT INSTALLATION (NOT SHOWN)</b>	B
1	0238540	1	Pivot Attach Weldment	
1	0961257	2	Bushing, Bronze	
2		Ref	Shaft Weldment Options:	
2	4040215	1	Rotating Support	
2	4564579	1	Fixed Support	
		Ref	<b>Note: Items 3-9 Rotating Support Installation Only.</b>	
3	1120299	1	Cap	
4	0235238	1	Rotator Assembly (See Items 101-126 for Breakdown)	
5	3340454	2	Pad, Brake	
6	2880404	1	Key	
7	4160026	8	Washer, Belleville	
8	4752000	1	Flatwasher 5/8in	
9	0652014	1	Bolt 5/8in-18NF x 1 3/4in	
10	0641836	1	Bolt 1/2in-13NC x 4 1/2in	
11	4751800	3	Flatwasher 1/2in	
12	3311805	1	Locknut 1/2in-13NC	
		Ref	<b>Note: Items 13-21 Rotating Support Installation Only.</b>	
13	0901756	1	Bracket	
14	0641811	2	Bolt 1/2in-13NC x 1 3/8in	
15	4761800	2	Lockwasher 1/2in	
16	0641404	1	Bolt 1/4in-20NC x 1/2in	
17	4761400	2	Lockwasher 1/4in	
18	4751400	2	Flatwasher 1/4in	
19	0641408	1	Bolt 1/4in-20NC x 1in	
20	4562083	1	Tube, Spacer	
21	1670630	1	Cover	
22	3421490	1	Pin, Nose	
23	0641522	2	Bolt 5/16in-18NC x 2 3/4in	
24	3311505	2	Locknut 5/16in-18NC	
25	3421491	1	Pin, Attach (Lower)	
26	3421494	1	Pin, Attach (Upper)	
27	1682178	1	Slave Cylinder Assembly (Machines Built Prior to October 1992) (See CYLINDER SECTION for Breakdown)	
27	1682793		Slave Cylinder Assembly - TUV (Machines Built October 1992 to Present)	
28	3532054	1	Plate, Retainer	
29	0741506	2	Bolt 5/16in-18NC x 3/4in	
30	4761500	2	Lockwasher 5/16in	
31	2160002	3	Fitting, Grease	
32	4740158	1	Washer, Thrust	
		Ref	<b>Note: Items 33-35 Fixed Support Installation Only.</b>	
33	4220137	2	Bar, Stop	
34	1320160	1	Clamp (Not Shown)	
35	3520035	1	Plug	
		Ref	<b>Note: Items 36-37 Rotating Support Installation Only.</b>	
36	1380137	1	Clip Retainer	
37	4920986	1 ft/.3m	Wire, Mechanics	

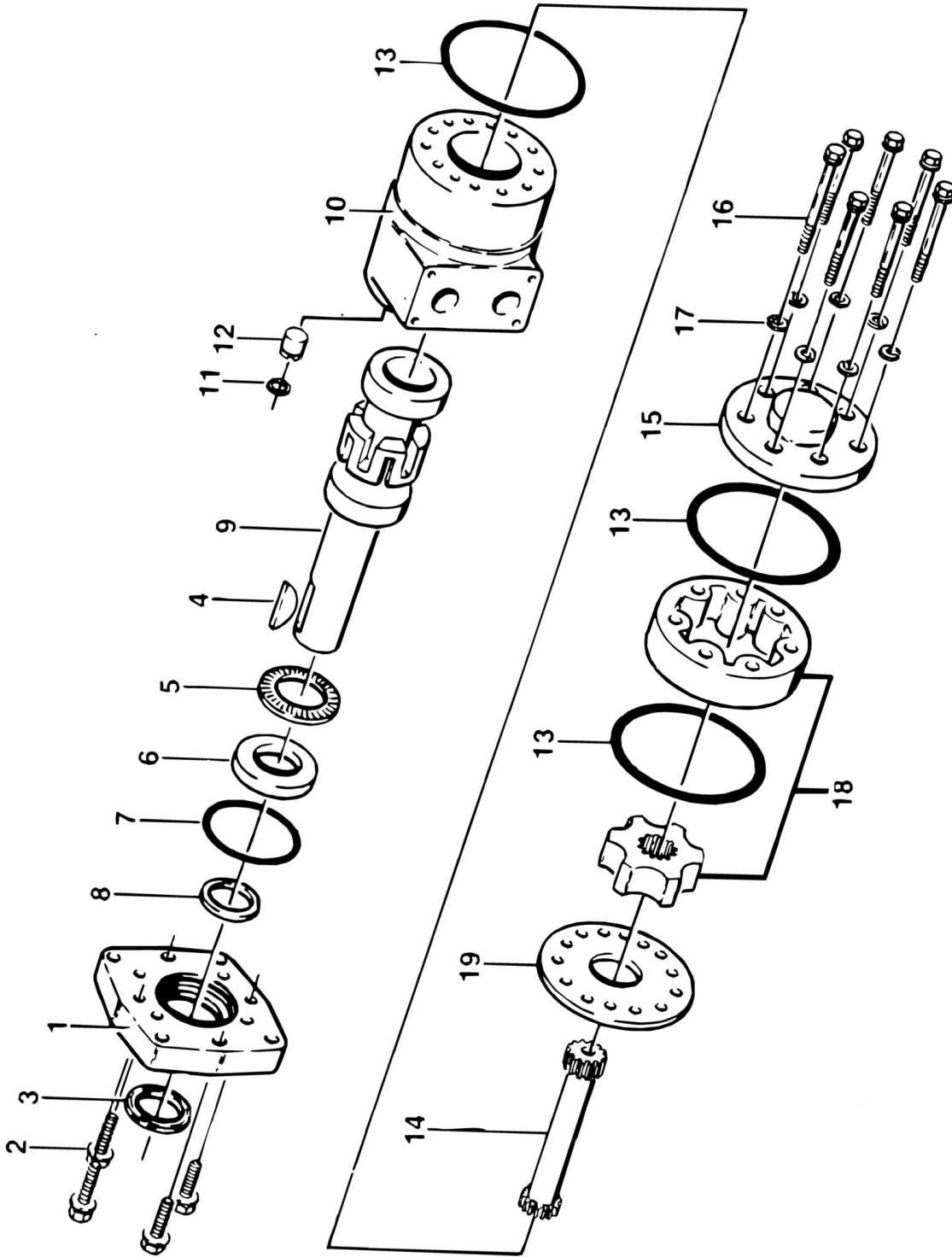
## SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0235238	Ref	<b>ROTATOR ASSEMBLY:</b>	E
		Ref	<b>Note: For Machines Built Prior to September 1991 refer to Service Information Bulletin #91-5 for required upgrade.</b>	
101	3160083	1	Rotator Motor Assembly (See CONSOLE BOX ASSEMBLY (STANDARD BANG-BANG CONTROLS) for Breakdown)	
102	0080099	1	Adapter, Motor	
103	2760064	1	Housing, Gear	
104	0440134	2	Bearing, Sleeve	
105	4740199	4	Washer, Thrust	
106	0440120	2	Bearing, Thrust	
107	2440043	1	Gear, Worm	
108	3440816	4	Rollpin 1/4in x 1in	
109	0080098	1	Adapter, Motor to Worm Gear	
110	2440044	1	Gear, Worm	
111	4740256	2	Washer, Thrust	
112	0440135	1	Bearing, Sleeve	
113	1760068	1	Disc, Brake	
115	3931010	5	Bolt, Socket Head #10-24NC x 5/8in	
116	3441228	2	Rollpin 3/8in x 1 3/4in	
117	3931620	2	Bolt, Socket Head 3/8in-16NC x 1 1/4in	
118	4761600	6	Lockwasher 3/8in	
119	3931612	4	Bolt, Socket Head 3/8in-16NC x 3/4in	
120	4070585	AR	Shim .010	
121	4070586	AR	Shim .005	
122	4070587	AR	Shim .002	
123	0100019	AR	Loctite #271	
124	0100021	AR	Primer	
125	2160001	1	Fitting, Grease - 90	
126	3020025	AR	Grease	
		Ref	<b>PLATFORM WELDMENTS</b>	
		Ref	<b>NOTE: REPLACEMENT DECALS MUST BE ORDERED SEPARATELY - SEE DECALS SECTION.</b>	
201		Ref	Low Mount Platform Options:	
201	3510376	1	30in x 48in Platforms:	
201	3510377	1	30in x 60in Platforms:	
201	3510378	1	30in x 72in Platforms:	
201		Ref	Standard Platform Components	
202	2600143	2	Pin, Hinge	
203	3311805	2	Locknut 1/2in-13NC	
204	2160006	2	Fitting, Grease	
205	1780254	1	Door Weldment	
206	2940006	1	Latch, Door	
207	2560010	1	Handle	
208	0961450	1	Bushing, Bronze (Top)	
209	0961259	1	Bushing, Bronze (Bottom)	
	0237963	Ref	<b>FOOTSWITCH INSTALLATION</b>	F
301	0641408	3	Bolt 1/4in-20NC x 1in	
301	3311401	3	Nut 1/4in-20NC	
301	4740362	3	Washer, Fender	
301	4360031	1	Footswitch	
301	7000625	2	Block, Contact	
301	4460071	1	Connector, Strain Relief	



# SECTION 4 - PLATFORM

## FIGURE 4-3. ROTATOR MOTOR ASSEMBLY





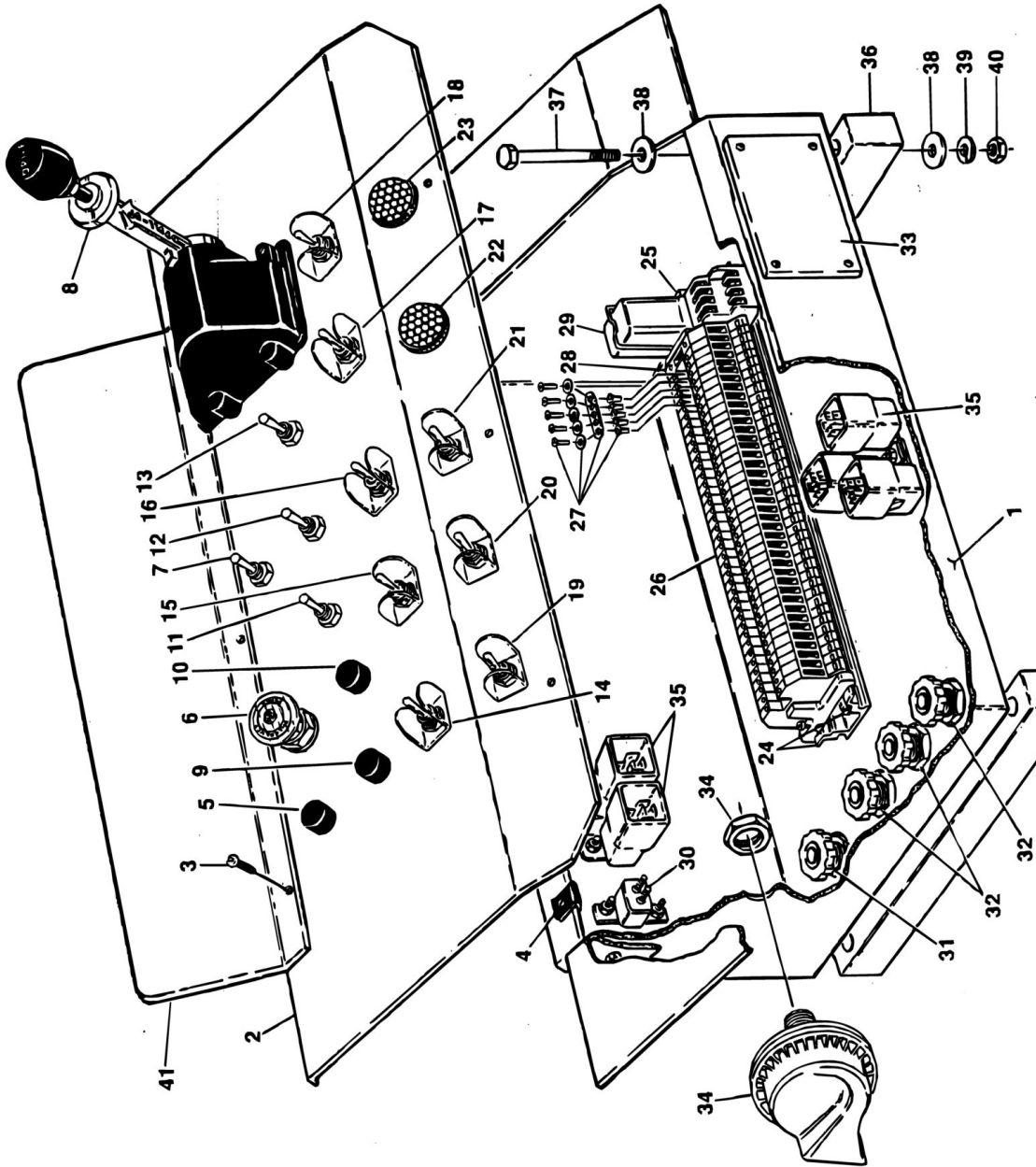
## SECTION 4 - PLATFORM

### FIGURE 4-3. ROTATOR MOTOR ASSEMBLY

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3160083	Ref	<b>ROTATOR MOTOR ASSEMBLY</b>	B
1	7002105	1	Flange, Mounting	
2	7002123	4	Screw, Cap	
3	Kit	1	Seal, Dust	
4	7002104	1	Key, Woodruff	
5	7002111	1	Bearing, Thrust Needle	
6	7002117	1	Thrust, Bearing Race	
7	Kit	1	Seal, O-Ring	
8	Kit	1	Seal, Pressure	
9	7002116	1	Shaft, Output	
10	7002103	1	Housing	
11	Kit	1	Seal	
12	7009992	1	Plug, Housing	
13	Kit	3	Seal, O-Ring	
14	7002112	1	Drive	
15	7002107	1	Cap, End	
16	7002100	7	Screw, Cap	
17	7000166	7	Lockwasher	
18	7002125	1	Gerotor Sub-Assembly	
19	7002110	1	Plate, Spacer	
	2900455	1	Seal Kit (Includes Items 3, 7, 8, 11 & 13) (P/N 101-1009-007)	
	2900733	1	Seal Kit (Includes Items 3, 7, 8, 11 & 13) (P/N 101-1009-008 & 101-1009-009)	
		Ref	<b>Note: Identify by P/N stamped on nameplate located on Item 10.</b>	

# SECTION 4 - PLATFORM

## FIGURE 4-4. CONSOLE BOX ASSEMBLY (STANDARD BANG-BANG CONTROLS)



## SECTION 4 - PLATFORM

**FIGURE 4-4. CONSOLE BOX ASSEMBLY (STANDARD BANG-BANG CONTROLS)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>CONSOLE BOX ASSEMBLIES</b>	
	0860689	Ref	<b>CONSOLE BOX ASSEMBLY - 2WS</b>	H
	0860716	Ref	<b>CONSOLE BOX ASSEMBLY - 4WS</b>	5
1	4842892	1	Box, Console	
2		Ref	Lid Options:	
2	3252053	1	Lid (Prior to May 1994)	
2	3252379	1	Lid (May 1994 to Present)	
2	4420008	52 in/1.3m	Tape, Insulation	
3	0751006	6	Screw, Pan Head #10-24NC x 3/4in	
4	3300177	6	Nut, Tinnerman	
5	4360274	1	Switch, Push Button (Horn)	
6	4360132	1	Switch, Push-Pull (Emergency Stop)	
6	4360131	1	Lens, Red	
6	4360108	1	Block, Contact	
7	4360199	1	Switch, Toggle - SPST (Lights) (Optional)	
7	3790012	1	O-Ring	
8		Ref	Controller Options:	
8	1600116	1	Controller (2WS)	
8	7003783	1	Electrical Assembly	
8	2900858	1	Slide Lock Repair Kit	
8	2560041	1	Knob (2WS)	
8	1600135	1	Controller (4WS)	
8	7003797	1	Electrical Assembly	
8	7003789	2	Switch, Rocker	
8	7003790	1	Cap, Rubber	
8	7003722	1	Slide Lock Kit	
9	4360274	1	Switch, Push Button (Start)	
9	3790015	1	O-Ring	
10	4360274	1	Switch, Push Button (Choke/Preheat) (Optional)	
10	3790015	1	O-Ring	
11	4360199	1	Switch, Toggle (Engine Speed)	
11	3790012	1	O-Ring	
12	4360199	1	Switch, Toggle (Wheel Speed)	
12	3790012	1	O-Ring	
13	4360199	1	Switch, Toggle (Pump Volume)	
13	3790012	1	O-Ring	
14	4360202	1	Switch, Toggle (Steer)	
14	4060229	1	Guard, Switch	
14	3790012	1	O-Ring	
15	4360202	1	Switch, Toggle (Main Telescope)	
15	4060229	1	Guard, Switch	
15	3790012	1	O-Ring	
16	4360202	1	Switch, Toggle (Swing)	
16	4060229	1	Guard, Switch	
16	3790012	1	O-Ring	
17	4360202	1	Switch, Toggle (Platform Rotate) (Optional)	
17	4060229	1	Guard, Switch	
17	3790012	1	O-Ring	
18	4360202	1	Switch, Toggle (Platform Level)	
18	4060229	1	Guard, Switch	

## SECTION 4 - PLATFORM

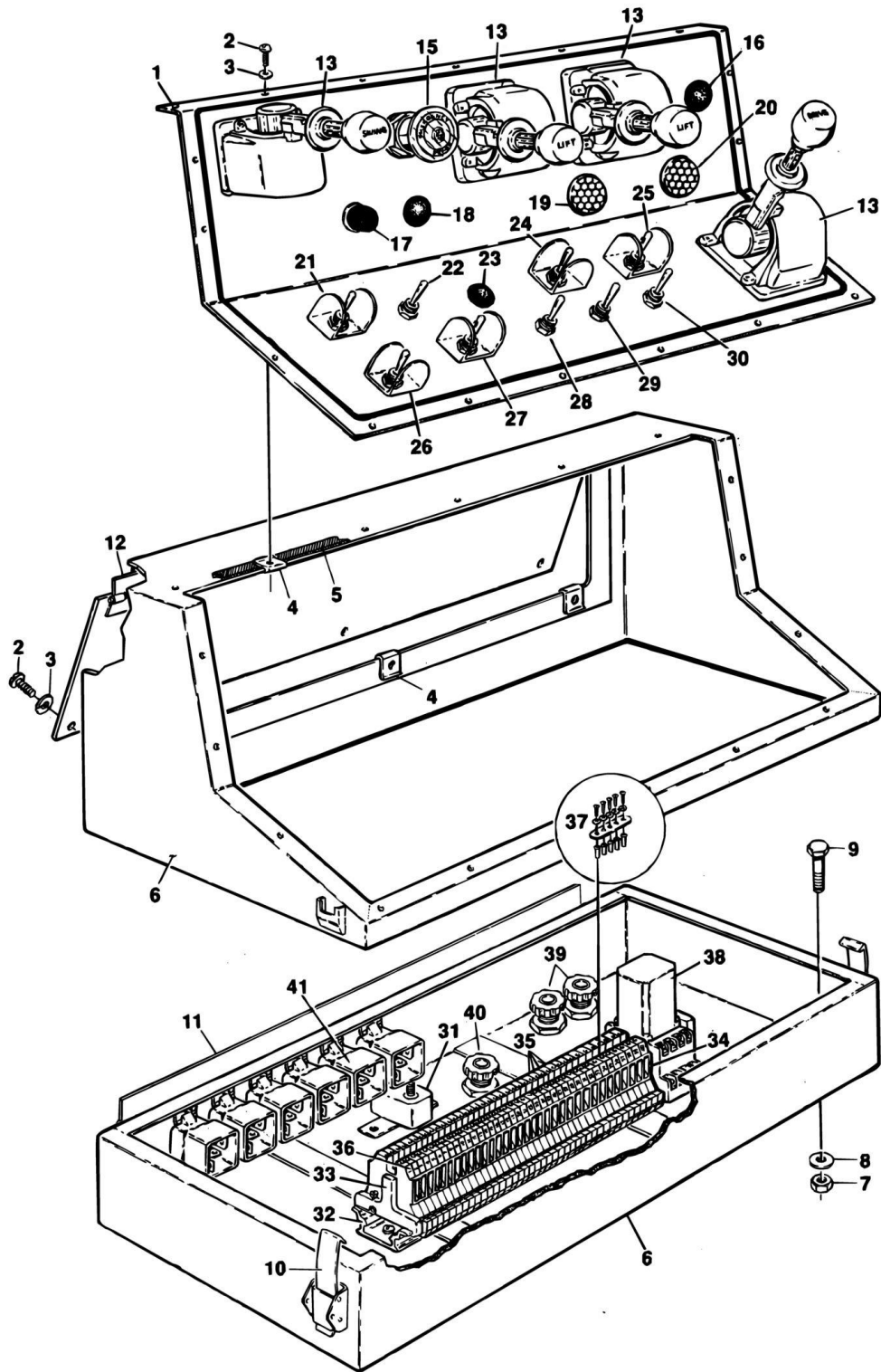
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
18	3790012	1	O-Ring	
19	4360202	1	Switch, Toggle (Main Lift)	
19	4060229	1	Guard, Switch	
19	3790012	1	O-Ring	
20	4360200	1	Switch, Toggle (Tower Power)	
20	4060229	1	Guard, Switch	
20	3790012	1	O-Ring	
21	4360200	1	Switch, Toggle (Auxiliary Power)	
21	4060229	1	Guard, Switch	
21	3790012	1	O-Ring	
22	2920015	1	Light (Engine Distress) (Optional)	
23	2920015	1	Light (Chassis Out of Level)	
24		Ref	Rail Options:	
24	3640500	1	Rail (2WS)	
24	3640970	1	Rail (4WS)	
24	4760600	2	Lockwasher #6	
24	3310601	2	Nut #6-32NC	
25	4460299	2	Stop, Terminal	
26	4460298	AR	Block, Terminal	
26		Ref	2WS - Qty 40	
26		Ref	4WS - Qty 45	
26	4460301	1	Strip, Marking	
27	4460311	1	Bar, Buss - 5 Position	
27	4460305	5	Screw	
27	4460306	5	Washer	
27	4460307	5	Sleeve	
28	4460300	1	Barrier, Terminal	
29	3740058	1	Relay	
29	4120013	1	Socket, Relay	
29	3740063	1	Spring, Relay	
30	4360209	1	Breaker, Circuit - 20 Amp	
30	3311001	1	Nut #10-24NC	
30	4761000	1	Lockwasher #10	
31	4460051	1	Connector	
31	0960238	1	Bushing	
31	3300048	1	Nut, Conduit	
32	4460052	3	Connector	
32	0960239	3	Bushing	
32	3300047	3	Nut, Conduit	
33	1670591	1	Cover	
33	3910608	4	Screw, Machine #6-32NC x 1/2in	
33	4760600	4	Lockwasher #6	
33	3310601	4	Nut #6-32NC	
34	0140001	1	Horn	
35	3740049	AR	Relay	
35	4761000	1	Lockwasher #10	
35	3311001	1	Nut #10-24NC	
36	0361966	2	Bar	
37	0641416	2	Bolt 1/4in-20NC x 2in	
38	4751400	2	Flatwasher 1/4in	
39	4761400	2	Lockwasher 1/4in	

## SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
40	3311401	2	Nut 1/4in-20NC	
41	3200363	1	Mount, Decal (February 1995 to Present)	

# SECTION 4 - PLATFORM

FIGURE 4-5. CONSOLE BOX ASSEMBLY (PROPORTIONAL CONTROLS - PRIOR TO JANUARY 1993)



## SECTION 4 - PLATFORM

**FIGURE 4-5. CONSOLE BOX ASSEMBLY (PROPORTIONAL CONTROLS - PRIOR TO JANUARY 1993)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>CONSOLE BOX ASSEMBLIES</b>	
	0860720	Ref	<b>CONSOLE BOX ASSEMBLY - 2WS</b>	-
	0860719	Ref	<b>CONSOLE BOX ASSEMBLY - 4WS</b>	-
1	3252043	1	Lid	
2	0751006	18	Screw, Pan Head #10-24NC x 3/4in	
3	4740120	18	Washer, Nylon	
4	3300177	18	Nut, Tinnerman	
5	4420038	37 in/1m	Tape, Insulation	
5	0100001	AR	Adhesive	
6	0860538	1	Box, Control (Includes Items 10-12)	
7	3311505	4	Nut 5/16in-18NC	
8	4751500	4	Flatwasher 5/16in	
9	0641508	4	Bolt 5/16in-18NC x 1in	
10	2940052	2	Latch	
11	2600132	1	Hinge (Top to Bottom)	
12	2600105	1	Hinge (Access Door)	
13	1600126	3	Controller, PQ (Swing and Lifts)	
13	7003782	1	Electrical Assembly	
13	1600116	1	Controller, PQ (Drive) (2WS)	
13	7003783	1	Electrical Assembly	
13	1600135	1	Controller, PQ (Drive) (4WS)	
13	7003797	1	Electrical Assembly	
13	7003789	2	Switch, Rocker	
13	7003790	1	Cap, Rubber	
13	2560038	2	Knob (Lift)	
13	2560040	1	Knob (Swing)	
13	2560041	1	Knob (Drive) (2WS Only)	
14	4360274	1	Switch, Push Button (Horn)	
14	3790015	1	O-Ring	
15	4360132	1	Switch, Push-Pull (Emergency Stop)	
15	4360131	1	Lens, Red	
15	4360108	1	Block, Contact - N.C.	
16	3520028	1	Plug, Hole	
17	4360274	1	Switch, Push Button (Start)	
17	3790015	1	O-Ring	
18	3520026	1	Plug, Hole	
19	2920015	1	Light (Engine Distress) (Optional)	
20	2920015	1	Light (Chassis Out of Level)	
21	4360200	1	Switch, Toggle (Auxiliary Power)	
21	3790012	1	O-Ring	
21	4060229	1	Guard, Switch	
22	4360199	1	Switch, Toggle (Lights) (Optional)	
22	3790012	1	O-Ring	
23	3520028	1	Plug, Hole	
24	4360202	1	Switch, Toggle (Rotate)	
24	4060229	1	Shield	
24	3790012	1	O-Ring	
25	4360202	1	Switch, Toggle (Level)	
25	4060229	1	Shield	
25	3790012	1	O-Ring	

## SECTION 4 - PLATFORM

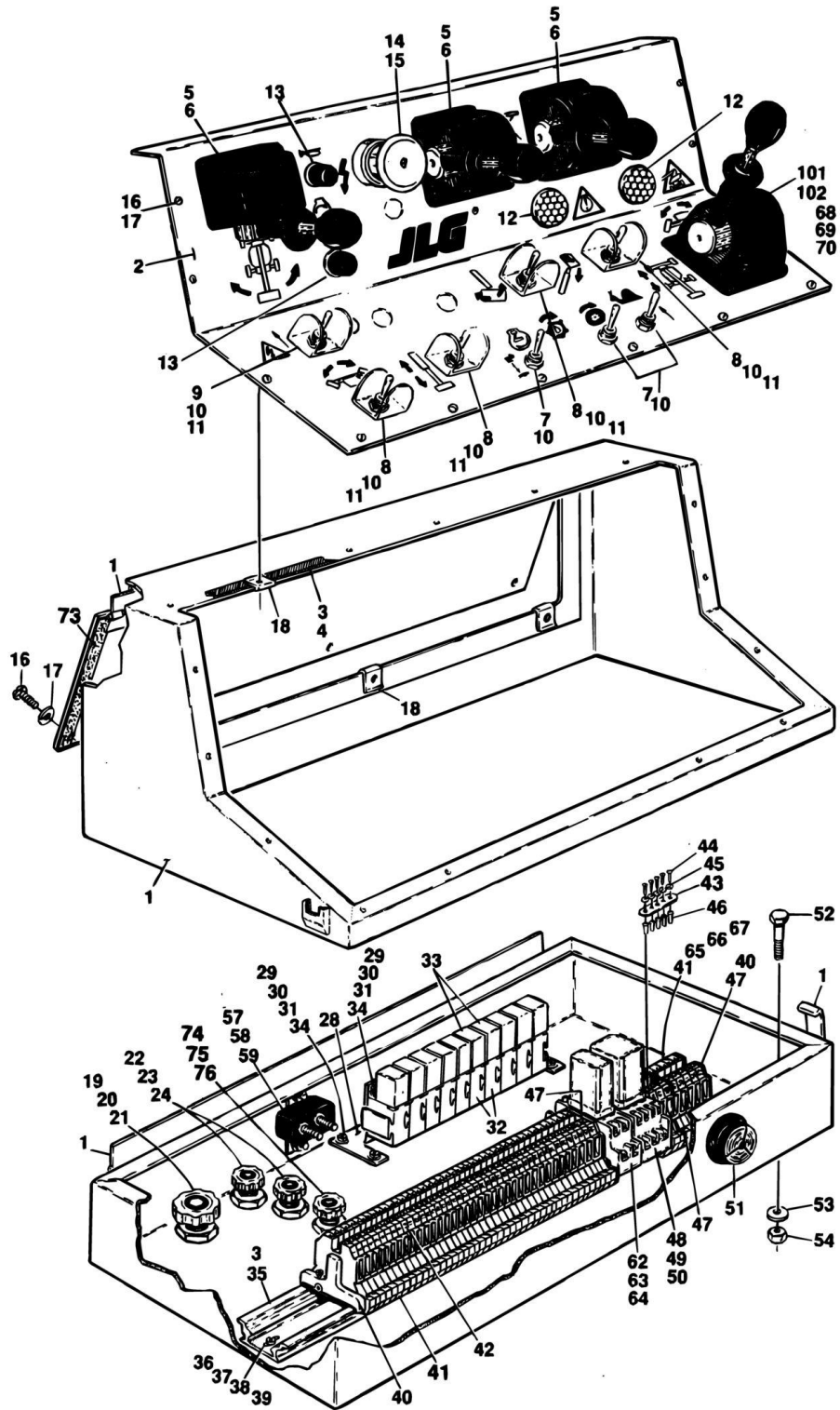
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
26	4360202	1	Switch, Toggle (Steer)	
26	4060229	1	Shield	
26	3790012	1	O-Ring	
27	4360202	1	Switch, Toggle (Main Tele)	
27	4060229	1	Shield	
27	3790012	1	O-Ring	
28	4360199	1	Switch, Toggle (High Engine)	
28	3790012	1	O-Ring	
29	4360199	1	Switch, Toggle (Pump Volume)	
29	3790012	1	O-Ring	
30	4360199	1	Switch, Toggle (Wheel Motor Speed)	
30	3790012	1	O-Ring	
31	4360209	1	Breaker, Circuit - 20 Amp	
31	3910608	1	Screw #6-32NC x 1/2in	
31	4750600	1	Flatwasher #6	
31	4760600	1	Lockwasher #6	
31	3310601	1	Nut #6-32NC	
32	3640500	1	Rail, Mounting	
32	3910608	2	Screw, Round Head #6-32NC x 1/2in	
32	4750600	2	Flatwasher #6	
32	4760600	2	Lockwasher #6	
32	3310601	2	Nut #6-32NC	
33	4460299	2	Stop, Terminal Strip	
34	4460300	1	Barrier, Terminal End	
35	4460298	45	Block, Terminal	
36	4460301	1	Strip, Marking	
37	4460311	1	Bar, Buss	
37	4460305	3	Screw, Terminal Block	
37	4460306	3	Washer, Terminal Block	
37	4460307	3	Sleeve, Terminal Block	
38	3740058	1	Relay - SPDT	
38	4120013	1	Socket, Relay	
38	3740063	1	Spring, Retaining	
39	4460244	2	Connector	
39	0960238	2	Bushing	
39	3300048	2	Nut, Conduit	
40	4460071	1	Connector	
40	0960238	1	Bushing	
40	3300048	1	Nut, Conduit	
41	3740049	AR	Relay	
41	4761000	1	Lockwasher #10	
41	3311001	1	Nut #10-24NC	
41	1060309	8 ft/2.4m	Cable, Control - 12/4 (To Footswitch) (Not Shown)	





# SECTION 4 - PLATFORM

## FIGURE 4-6. CONSOLE BOX ASSEMBLY (PROPORTIONAL CONTROLS - JANUARY 1993 TO PRESENT)



## SECTION 4 - PLATFORM

**FIGURE 4-6. CONSOLE BOX ASSEMBLY (PROPORTIONAL CONTROLS - JANUARY 1993 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>CONSOLE BOX ASSEMBLY (STANDARD PARTS)</b>	
1	0860739	1	Box Weldment	
1	2940052	2	Latch	
1	2600105	1	Hinge (Top)	
1	2600132	1	Hinge (Bottom)	
1	3531023	1	REAR INNER REINFORCEMENT	
2		Ref	Lid Nameplate Options:	
2	3252224	1	Nameplate, Lid (January 1993 to May 1994)	
2	3252382	1	Nameplate, Lid (May 1994 to December 1994)	
2	1702402	1	Decal (December 1994 to Present)	
2	3538392	1	Plate, Lid (December 1994 to Present)	
3	4420008	6 ft/2.5m	Tape, Insulation	
4	0100001	AR	Adhesive	
5	1600126	3	Controller, PQ	
5	7003782	3	Electrical Assembly	
6	2560112	3	Knob	
7	4360199	3	Switch, Toggle	
8	4360202	4	Switch, Toggle	
9	4360200	1	Switch, Toggle	
10	3790012	8	O-Ring	
11	4060229	5	Shield	
12	2720015	2	Lamp	
13	4360274	2	Switch, Push Button	
14	4360289	1	Switch, Emergency Stop	
14	7012611	1	Head, Mushroom	
14	7012612	1	Boot	
15	4360282	1	Block, Contact - N.C.	
16	0751006	21	Screw #10-24NC x 3/4in	
17	4740120	21	Washer, Nylon	
18	3300177	21	Nut, Tinnerman	
19	4460386	1	Connector, Strain Relief	
20	3300147	1	Nut, Conduit	
21	0960905	1	Bushing	
22	4460052	2	Connector, Strain Relief	
23	3300047	2	Nut, Conduit	
24	0960239	2	Bushing	
28	0901796	1	Bracket	
29	4751000	8	Flatwasher #10	
30	4761000	8	Lockwasher #10	
31	3311001	8	Nut #10-24NC	
32	3740085	AR	Socket, Micro Switch	
33	3740086	AR	Relay, Micro Switch	
34	3911012	8	Screw #10-24NC x 3/4in	
35	3640752	1	Track	
36	3910608	2	Screw #6-32NC x 1/2in	
37	4750600	2	Flatwasher #6	
38	4760600	2	Lockwasher #6	
39	3310601	2	Nut #6-32NC	
40	4460299	2	Stop, Terminal	

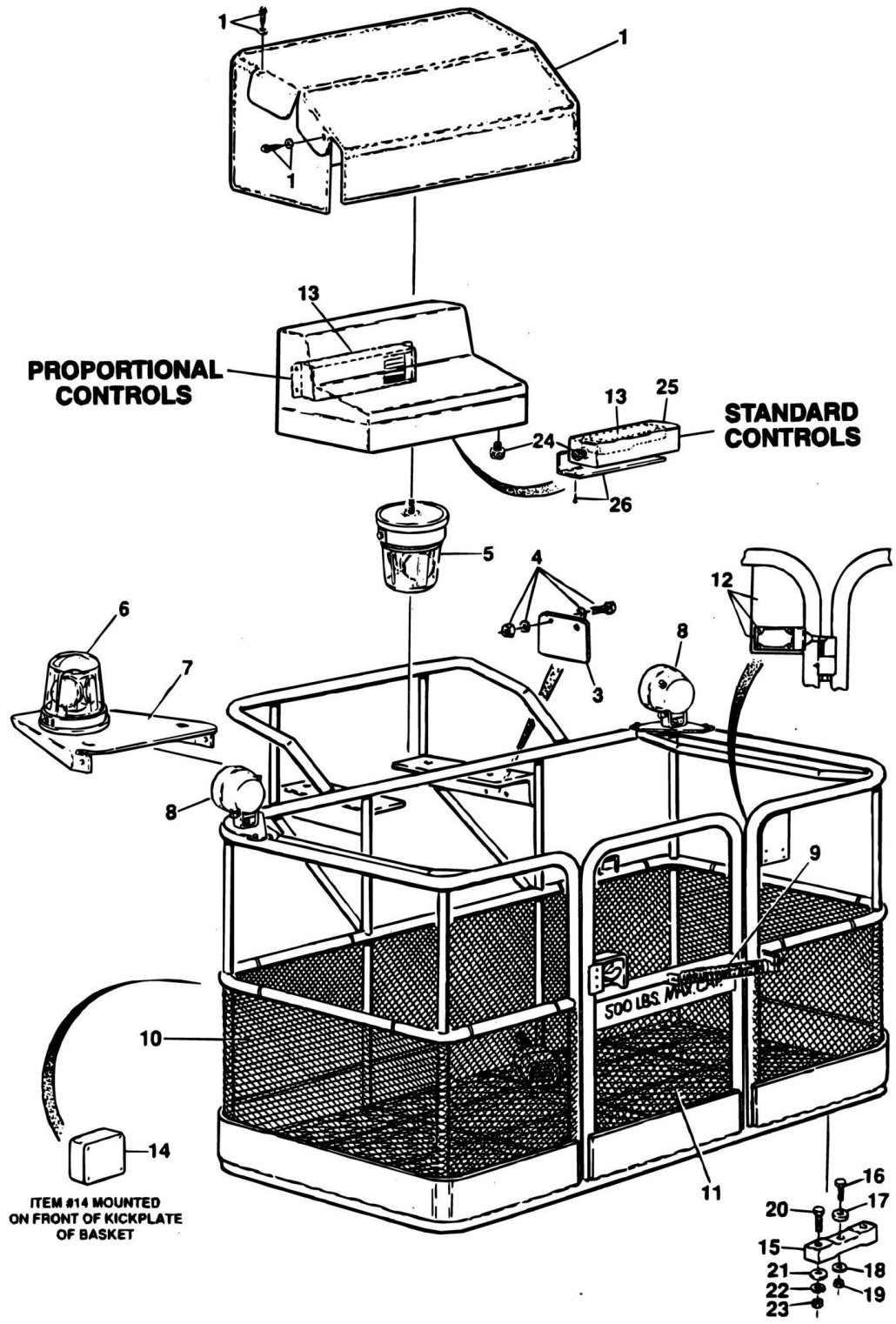
## SECTION 4 - PLATFORM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
41	4460298	54	Block, Terminal	
42	4460301	1	Strip, Marking	
43	4460311	2	Bar, Buss	
44	4460305	10	Screw, Terminal	
45	4460306	10	Washer, Terminal	
46	4460307	10	Sleeve, Terminal	
47	4460300	3	Barrier, Terminal	
48	4120013	1	Socket, Relay	
49	3740058	1	Relay	
50	3740063	1	Spring, Relay	
51	0140019	1	Alarm	
52	0641508	4	Bolt 5/16in-18NC x 1in	
53	4751500	8	Flatwasher 5/16in	
54	3311505	4	Locknut 5/16in-18NC	
56	3560034	8	Plug, Hole (Not Shown)	
57	4761000	1	Lockwasher #10	
58	3311001	1	Nut #10-24NC	
59	4360232	1	Breaker, Circuit - 15 Amp	
62	4120012	1	Socket, Relay	
63	3740057	1	Relay	
64	3740066	1	Spring, Relay	
65	4460404	10	Strip, Terminal - #8	
66	4460405	32	Strip, Terminal - #9	
67	4460423	2	Strip, Terminal - #7	
68	0720803	16	Screw, Machine #8-32NC x 3/8in	
69	4750800	16	Flatwasher #8	
70	4760800	16	Lockwasher #8	
73	4420037	14 ft/4m	Tape, Insulation	
74	4460071	1	Connector, Strain Relief	
75	3300048	1	Locknut, Conduit	
76	0960238	1	Bushing	
	0860827	Ref	<b>CONSOLE BOX ASSEMBLY - 2WS (VARIABLE PARTS)</b>	C
	0860828	Ref	<b>CONSOLE BOX ASSEMBLY - 4WS (VARIABLE PARTS)</b>	C
101		Ref	Controller, PQ Options:	
101		Ref	2WS:	
101	1600116	1	Controller, PQ	
101	7003783	1	Electrical Assembly	
101		Ref	4WS:	
101	1600135	1	Controller, PQ	
101	7003797	1	Electrical Assembly	
101	7003789	1	Switch, Rocker	
101	7003790	1	Cap, Rubber	
102	2560112	1	Knob (2WS Only)	
		Ref	<b>OPTIONAL COMPONENTS (NOT SHOWN)</b>	
	4360200	1	Switch, Toggle (Glow Plug - Diesel Option)	
	4360199	1	Switch, Toggle (Work Lights - Option)	



# SECTION 4 - PLATFORM

## FIGURE 4-7. OPTIONAL COMMON PLATFORM MOUNTED COMPONENTS



## SECTION 4 - PLATFORM

**FIGURE 4-7. OPTIONAL COMMON PLATFORM MOUNTED COMPONENTS**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0252054	Ref	<b>CONSOLE BOX COVER INSTALLATION (BLACK)</b>	2
	0251203	Ref	<b>CONSOLE BOX COVER INSTALLATION (YELLOW)</b>	2
	0252848	Ref	<b>CONSOLE BOX COVER INSTALLATIONS (CLEAR PLEXI-GLASS)</b>	-
1	1670607	1	Cover (Black)	
1	1670526	1	Cover (Yellow)	
1	1670641	1	Cover, Plexi-Glass (Not Shown)	
1	3941406	4	Screw, Self-Tapping 1/4in-20NC	
1	4751400	4	Flatwasher 1/4in	
1	0901842	1	Bracket (Right Side) (Use with Plexi-Glass Cover Only)	
1	0901843	1	Bracket (Left Side) (Use with Plexi-Glass Cover Only)	
	0253558	Ref	<b>RECEPTACLE PLATE INSTALLATION (AUSTRALIAN SPEC)</b>	-
3	3536566	1	Plate, Mounting	
4	0641406	2	Bolt 1/4in-20NC x 3/4in	
4	4751400	4	Flatwasher 1/4in	
4	3311405	2	Locknut 1/4in-20NC	
4		Ref	<b>BEACON LIGHT OPTIONS</b>	
5	0252210	AR	Beacon Mounted Under Console	3
5	0252211	AR	Beacon Mounted Under Console	3
5	2920009	AR	Beacon (Red)	
5	2920018	AR	Beacon (Amber)	
6	0238864	AR	Beacon Mounted in Front of Console	-
6	0238865	AR	Beacon Mounted in Front of Console	-
6	2920009	AR	Beacon (Red)	
6	2920018	AR	Beacon (Amber)	
7	0901449		Bracket, Mounting	
		Ref	<b>WORKLIGHT OPTIONS:</b>	
	2900068	Ref	<b>PRIOR TO NOVEMBER 1992</b>	F
	0253987	Ref	<b>NOVEMBER 1992 TO PRESENT</b>	C
8	2920013	2	Floodlight	
8	2920111	2	Halogen Light (Uses PN 3536089 Mounting Plate)	
8	0250143	Ref	<b>SELF-CLOSING GATE INSTALLATION</b>	A
9	4160028	1	Spring	
9	0900232	1	Bracket (Door Mounted)	
9	0901056	1	Bracket (Platform Mounted)	
9	4220007	1	Stop, Door	
		Ref	<b>MESH TO MIDRAIL INSTALLATIONS</b>	
	0253846	Ref	<b>LOW MOUNT PLATFORM</b>	-
	0254130	Ref	<b>STANDARD PLATFORM</b>	-
10	0480083	2	Mesh (Sides) (Low-Mount Platform)	
10	0480086	2	Mesh (Sides) (Standard Platform)	
11	0480084	1	Mesh (Door)	
	0251180	Ref	<b>PLATFORM INTERLOCK SWITCH INSTALLATION (FRENCH SPEC)</b>	-
12	4360263	1	Switch, Limit	
12	0721016	2	Screw, Machine #10-24NC x 2in	
12	4751000	2	Flatwasher #10	
12	4761000	2	Lockwasher #10	
12	3311001	2	Nut #10-24NC	
12	3534494	1	Plate, Mounting	

## SECTION 4 - PLATFORM

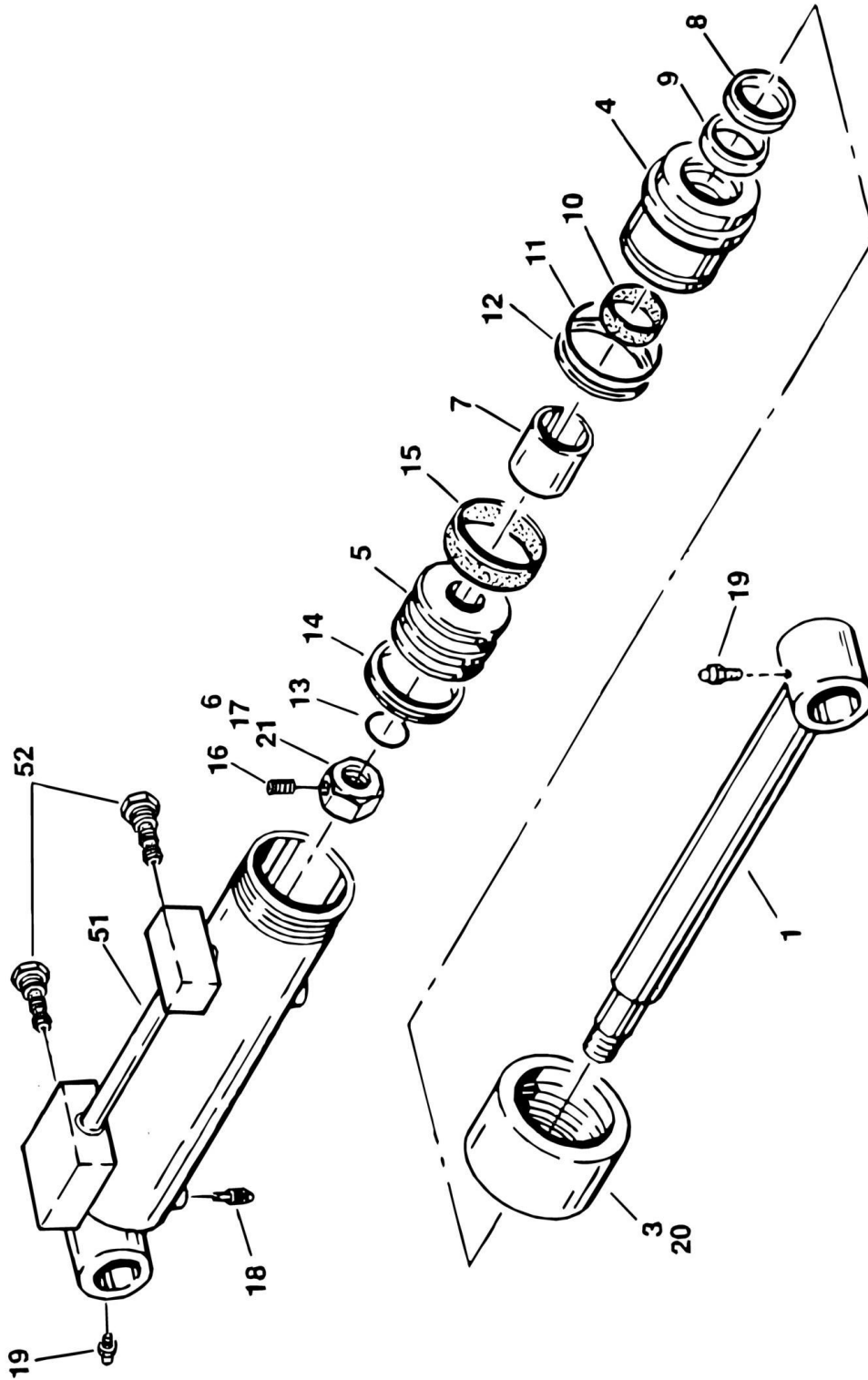
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
12	1100054	1	Cam, Activator	
	0251921	Ref	<b>SAFE LOAD INDICATOR SYSTEM INSTALLATION (STANDARD CONTROLS) (FRENCH SPEC) (ORIGINAL EQUIPMENT)</b>	A
	0258040	Ref	<b>SAFE LOAD INDICATOR SYSTEM INSTALLATION (STANDARD CONTROLS) (FRENCH SPEC) (SERVICE REPLACEMENT ALTERNATIVE)</b>	4
	1692979	Ref	<b>SAFE LOAD INDICATOR SYSTEM INSTALLATION (PROPORTIONAL CONTROLS) (FRENCH SPEC)</b>	B
		Ref	Safe Load Indicator System Options:	
	1692405	1	Original Equipment	
	2901557	1	Service Replacement Alternative	
13		Ref	Amplifier	
14		Ref	Box, Junction	
15		Ref	Cell, Load (Front of Basket)	
15	1692959	2	Spacer (Rear of Basket)	
16	0641820	1	Bolt 1/2in-13NC x 2 1/2in	
17	1692980	1	Spacer	
18	4751800	1	Flatwasher 1/2in	
19	3311805	1	Locknut 1/2in-13NC	
20	0641616	2	Bolt 3/8in-16NC x 2in	
21	4751600	2	Flatwasher 3/8in	
22	4761600	2	Lockwasher 3/8in	
23	3311601	2	Nut 3/8in-16NC	
24	4460071	AR	Connector, Strain Relief	
24	0960238	AR	Bushing	
24	3300048	AR	Nut, Conduit	
25	0860619	1	Box (Standard Controls Only) (Original Equipment Only)	
25	3911012	4	Screw, Round Head #10-24NC	
25	4751000	8	Flatwasher #10	
25	4761000	4	Lockwasher #10	
25	3311001	4	Nut #10-24NC	
26	3533904	1	Lid (Standard Controls Only) (Original Equipment Only)	
26	0750806	4	Screw, Self-Tapping, #8 x 3/4in	
26	4740120	4	Washer, Nylon	
26	3300177	4	Nut, Tinnerman	
26	4420008	75.8 cm	Tape, Insulating	



**SECTION 5 - CYLINDER**

# SECTION 5 - CYLINDER

FIGURE 5-1. AXLE LOCKOUT CYLINDER ASSEMBLIES - (USE WITH OPTIONAL OSCILLATING AXLE)



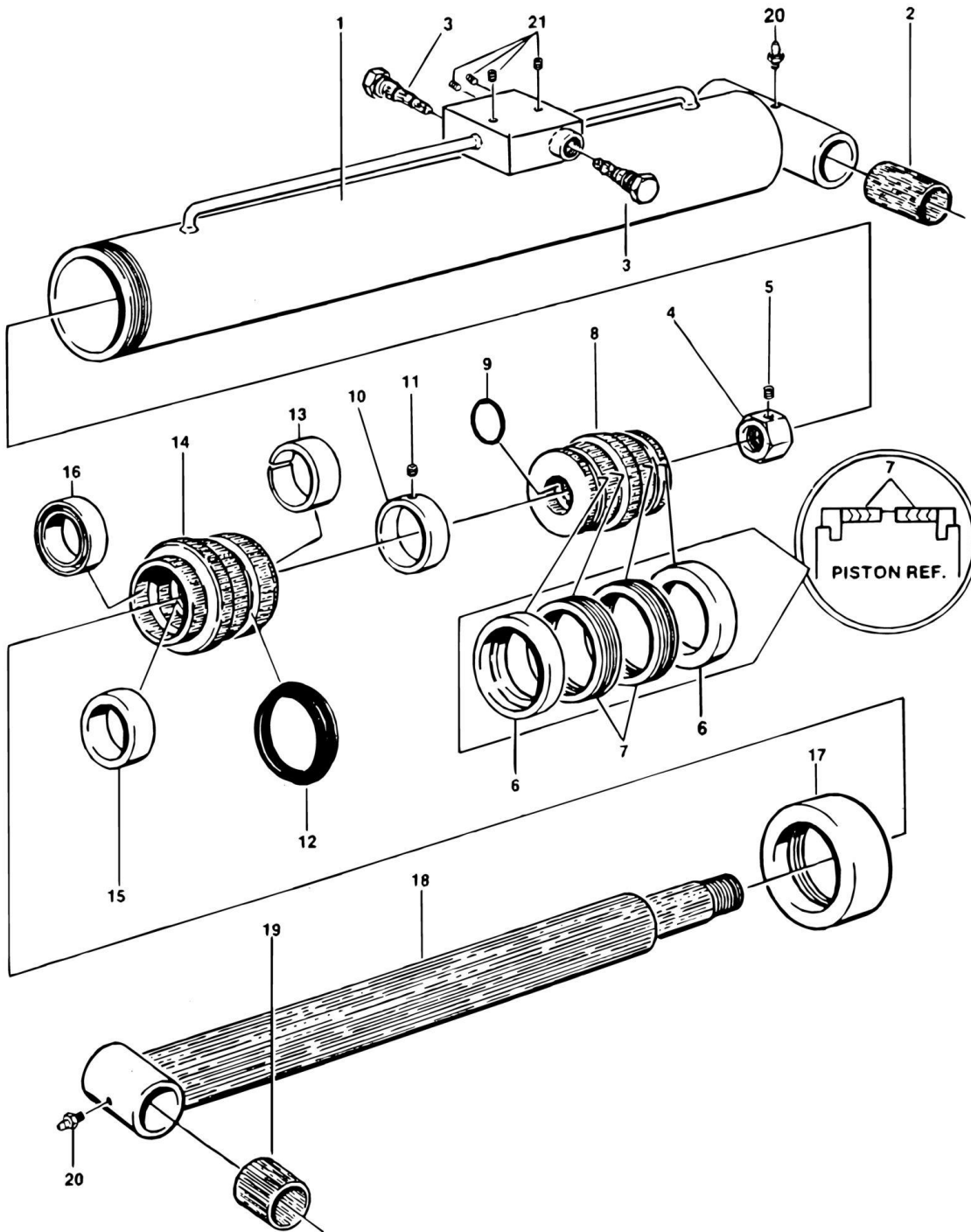
## SECTION 5 - CYLINDER

**FIGURE 5-1. AXLE LOCKOUT CYLINDER ASSEMBLIES - (USE WITH OPTIONAL OSCILLATING AXLE)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>AXLE LOCKOUT CYLINDER ASSEMBLIES (STANDARD PARTS)</b>	
1	1681787	1	Rod	
3	1120179	1	Retainer	
4	1680892	1	Head	
5	3480120	1	Piston	
6	3300187	1	Nut (Prior to April 1992)	
6	3300273	1	Nut, Hex (April 1992 to Present)	
7	4563647	1	Tube, Spacer	
8	Kit	1	Seal, Wiper	
9	Kit	1	Seal, Rod	
10	Kit	1	Ring, Wear	
11	Kit	1	O-Ring	
12	Kit	2	Ring, Back-up	
13	Kit	1	O-Ring	
14	Kit	1	Seal, Piston	
15	Kit	1	Ring, Wear	
16	3900141	2	Setscrew 1/4in-20NC x 3/8in (Prior to August 1992)	
16	3900170	1	Setscrew 3/8in-16NC x 3/8in (August 1992 to Present)	
17	0100011	AR	Loctite #242	
18	3900175	2	Setscrew 1/4in-28NF x 3/4in	
18	3960416	2	Seal, Thread	
18	3321401	2	Nut 1/4in-28NF	
		Ref	<b>Note: Replace existing bleeders with these components when ordering parts.</b>	
19	2160002	2	Fitting, Grease	
20	0100035	AR	Compound, Locking	
21	0100038	AR	Primer, Locking	
	2900381	1	Seal Kit (Includes Items 8-15)	
		Ref	<b>AXLE LOCKOUT CYLINDER ASSEMBLY (VARIABLE PARTS)</b>	
	1682406	Ref	<b>AXLE LOCKOUT CYLINDER ASSEMBLY (VARIABLE PARTS) (PRIOR TO JUNE 1992)</b>	C
	1682757	Ref	<b>AXLE LOCKOUT CYLINDER ASSEMBLY (VARIABLE PARTS) (JUNE 1992 TO PRESENT)</b>	A
51		Ref	Barrel Options:	
51	1682407	1	Barrel (Prior to June 1992)	
51	1682758	1	Barrel (June 1992 to Present)	
52		Ref	Valve, Holding Options:	
52	4640438	2	Valve, Holding (Prior to June 1992)	
52	2900770	2	Seal Kit - 4640438 (1 Per Valve)	
52	4640509	2	Valve, Holding (June 1992 to Present)	
52	2900792	2	Seal Kit - 4640509 (1 Per Valve)	

# SECTION 5 - CYLINDER

FIGURE 5-2. PLATFORM LEVEL CYLINDER ASSEMBLY (MACHINES BUILT PRIOR TO OCTOBER 1992)



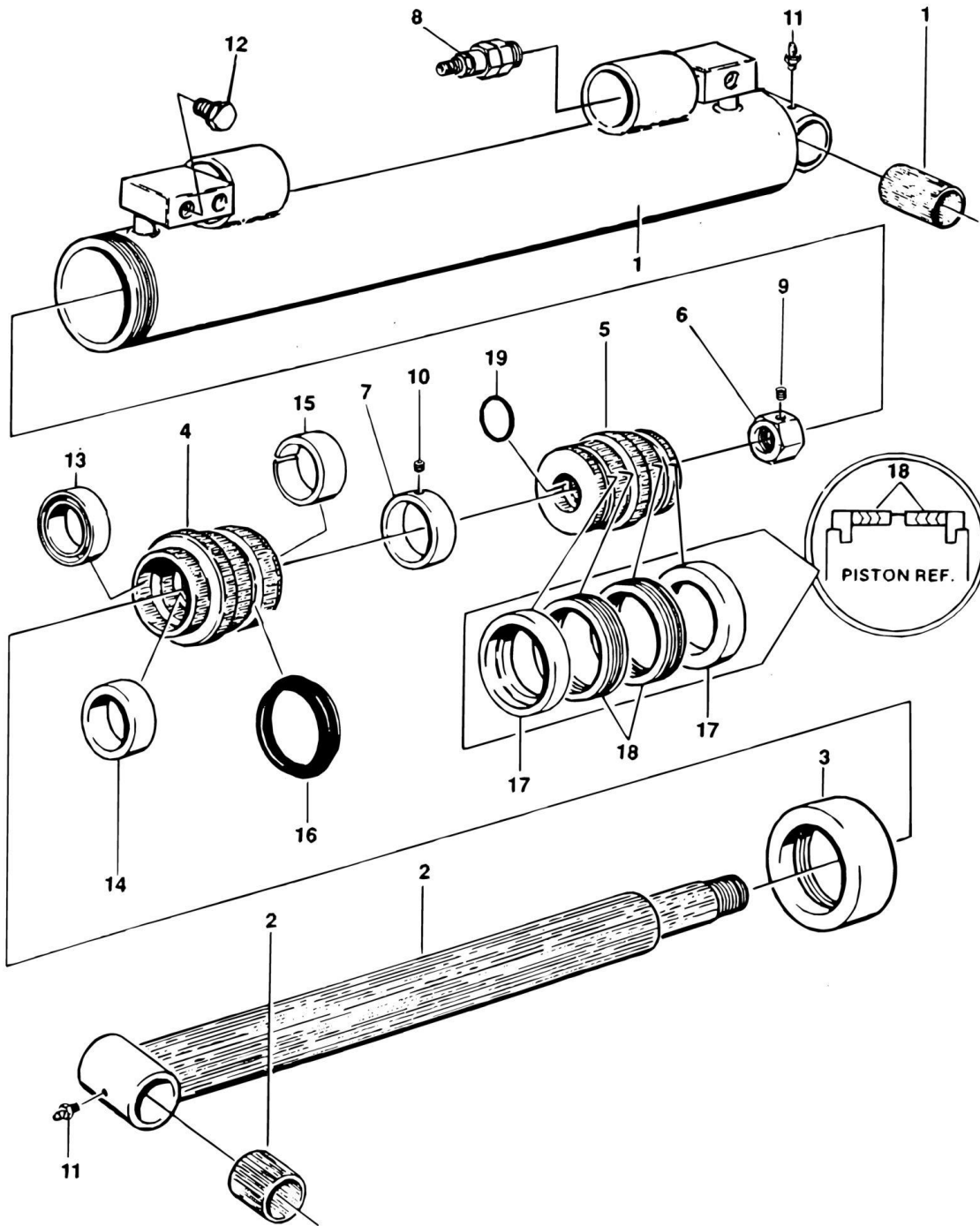
## SECTION 5 - CYLINDER

**FIGURE 5-2. PLATFORM LEVEL CYLINDER ASSEMBLY (MACHINES BUILT PRIOR TO OCTOBER 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1682178	Ref	<b>PLATFORM LEVEL CYLINDER ASSEMBLY (MACHINES BUILT PRIOR TO OCTOBER 1992)</b>	C
1	1681869	1	Barrel Assembly	
2	0960613	2	Bushing, Bronze	
3	4640509	2	Valve	
3	2900792	1	Seal Kit - 4640509 Valve	
4	3300284	1	Nut, Hex	
4	0100011	AR	Loctite #242	
4	0100038	AR	Primer, Locking	
5	3900170	1	Setscrew 3/8in-16NC x 3/8in	
5	0100011	AR	Loctite #242	
6	Kit	2	Lock-Ring	
7	Kit	2	Seal, Piston	
8	3480141	1	Piston	
9	Kit	1	O-Ring	
10	4563771	1	Spacer, Tube	
11	3900141	1	Setscrew 1/4in-20NC x 3/8in	
11	0100011	AR	Loctite	
12	Kit	1	T-Seal	
13	Kit	1	Ring, Wear	
14	1681847	1	Head	
15	Kit	1	Seal, Rod	
16	Kit	1	Wiper, Rod	
17	1120336	1	Cap	
17	0100035	AR	Loctite	
18	1682177	1	Rod Assembly	
19	0961254	2	Bushing, Bronze	
20	2160002	2	Fitting, Grease	
21	2200202	2	Plug 1/4in	
21	2200201	2	Plug 1/8in	
21	0100020	AR	Sealant, Pipe	
	2901103	1	Seal Kit (Includes Items 6, 7, 9, 12, 13, 15 & 16)	
		Ref	<b>Note: Refer to number stamped on barrel for identification.</b>	

# SECTION 5 - CYLINDER

FIGURE 5-3. PLATFORM LEVEL CYLINDER ASSEMBLY (MACHINES BUILT OCTOBER 1992 TO PRESENT)



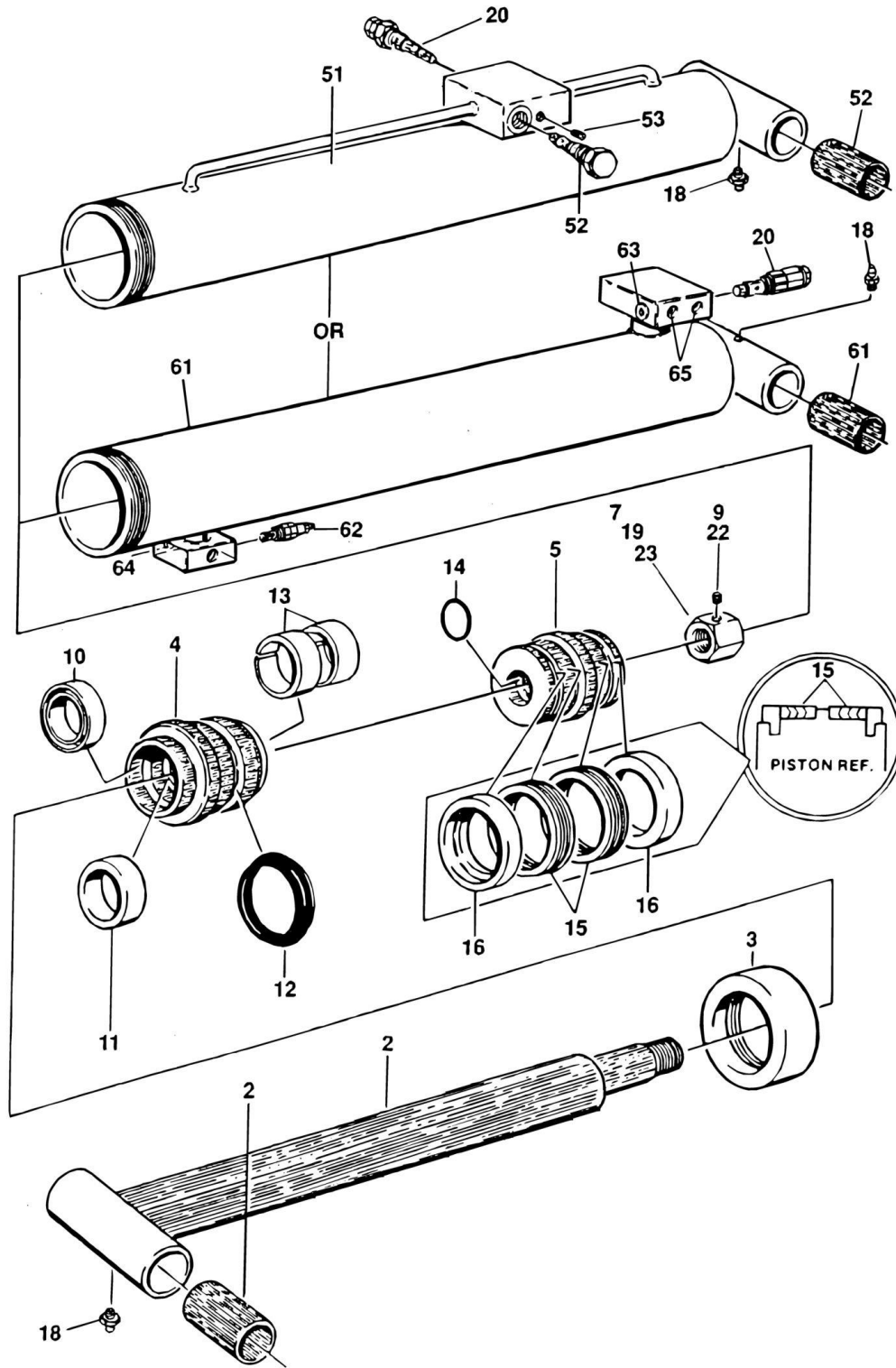
## SECTION 5 - CYLINDER

**FIGURE 5-3. PLATFORM LEVEL CYLINDER ASSEMBLY (MACHINES BUILT OCTOBER 1992 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1682793	Ref	<b>PLATFORM LEVEL CYLINDER ASSEMBLY</b>	A
1	1682794	1	Barrel Weldment	
1	0960613	2	Bushing, Bronze	
2	1682177	1	Rod Weldment	
2	0961254	2	Bushing, Bronze	
3	1120336	1	Cap	
3	0100035	AR	Loctite #222	
4	1681847	1	Head	
5	3480141	1	Piston	
6	3300284	1	Nut, Hex	
6	0100011	AR	Loctite #242	
6	0100038	AR	Primer, Loctite	
7	4563771	1	Spacer	
8	4640634	2	Cartridge, Vented Valve	
8	2900770	1	Seal Kit - 4640634 Valve	
9	3900170	1	Setscrew 3/8in-16NC x 3/8	
10	3900141	1	Setscrew 1/4in-20NC x 3/8in	
10	0100011	AR	Loctite #242	
11	2160002	2	Fitting, Grease	
12	2220885	2	Plug, O-Ring	
13	Kit	1	Wiper, Rod	
14	Kit	1	Seal, Rod	
15	Kit	1	Ring, Wear	
16	Kit	1	T-Seal	
17	Kit	2	Ring, Lock	
18	Kit	2	Seal	
19	Kit	1	O-Ring	
	2901103	1	Seal Kit - Cylinder (Includes Items 13-19)	

# SECTION 5 - CYLINDER

FIGURE 5-4. LEVEL (UPRIGHT) CYLINDER ASSEMBLY (STANDARD PARTS)





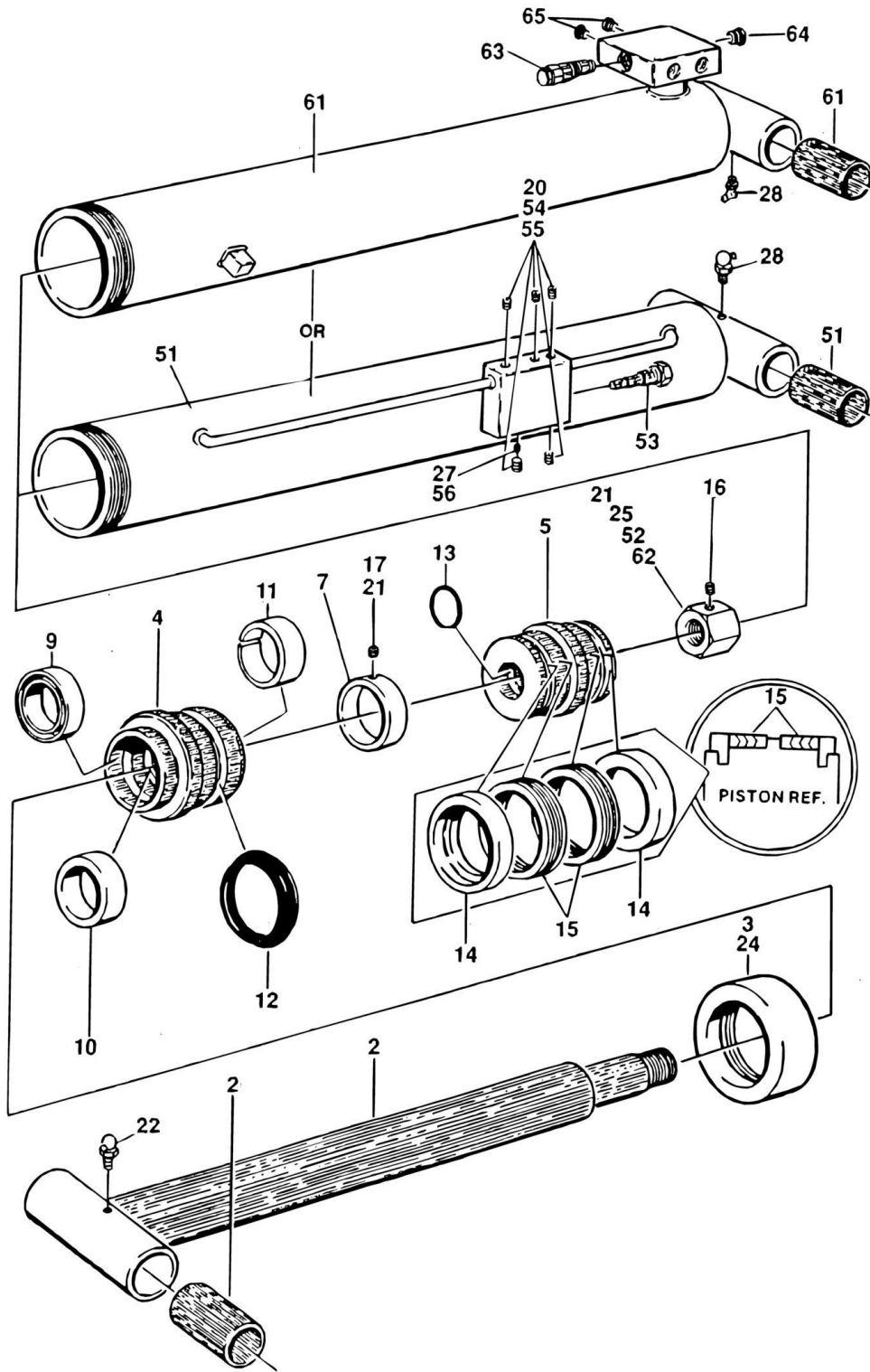
## SECTION 5 - CYLINDER

**FIGURE 5-4. LEVEL (UPRIGHT) CYLINDER ASSEMBLY (STANDARD PARTS)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>LEVEL (UPRIGHT) CYLINDER ASSEMBLY (STANDARD PARTS)</b>	
2	1682091	1	Rod	
2	0960946	2	Bushing, Bronze	
3	1120343	1	Retainer	
4	1681294	1	Head	
5	3480102	1	Piston	
7	3300283	1	Nut, Hex	
9	3900170	1	Setscrew 3/8in-16NC x 3/8in	
10	Kit	1	Wiper, Rod	
11	Kit	1	Seal, Rod	
12	Kit	1	O-Ring	
13	Kit	2	Ring, Wear	
14	Kit	1	O-Ring	
15	Kit	2	Seal, Piston	
16	Kit	2	Ring, Lock	
18	2160002	2	Fitting, Grease	
19	0100011	AR	Loctite #242	
20	4640605	1	Valve, Holding	
20	2900792	1	Seal Kit - 4640605 Valve	
22	0100035	AR	Loctite	
23	0100038	AR	Primer, Locking	
	2900340	1	Seal Kit (Includes Items 10-16)	
	1682255	Ref	<b>LEVEL (UPRIGHT) CYLINDER ASSEMBLY (PRIOR TO OCTOBER 1992) (VARIABLE PARTS)</b>	A
51	1682256	1	Barrel	
51	0961422	2	Bushing, Bronze	
52	4640509	1	Valve, Cartridge	
52	2900792	1	Seal Kit - 4640509 Valve	
53	2200201	1	Plug, Pipe	
		Ref	<b>LEVEL (UPRIGHT) CYLINDER ASSEMBLY OPTIONS (VARIABLE PARTS):</b>	
	1682796	Ref	<b>LEVEL (UPRIGHT) CYLINDER ASSEMBLY (OCTOBER 1992 TO PRESENT) (VARIABLE PARTS)</b>	-
	1683524	Ref	<b>(SERVICE REPLACEMENT)</b>	B
61		Ref	Barrel Options:	
61	1682797	1	Original Equipment	
61	1683523	1	Service Replacement	
61	0961422	2	Bushing, Bronze	
62	4640634	1	Valve, Cartridge	
62	2900770	1	Seal Kit - 4640634 Valve	
63	2220887	1	Plug 5/8in	
64	2220885	1	Plug 3/8in	
65	2220883	2	Plug 1/4in	

# SECTION 5 - CYLINDER

## FIGURE 5-5. LIFT CYLINDER ASSEMBLY - MAIN BOOM



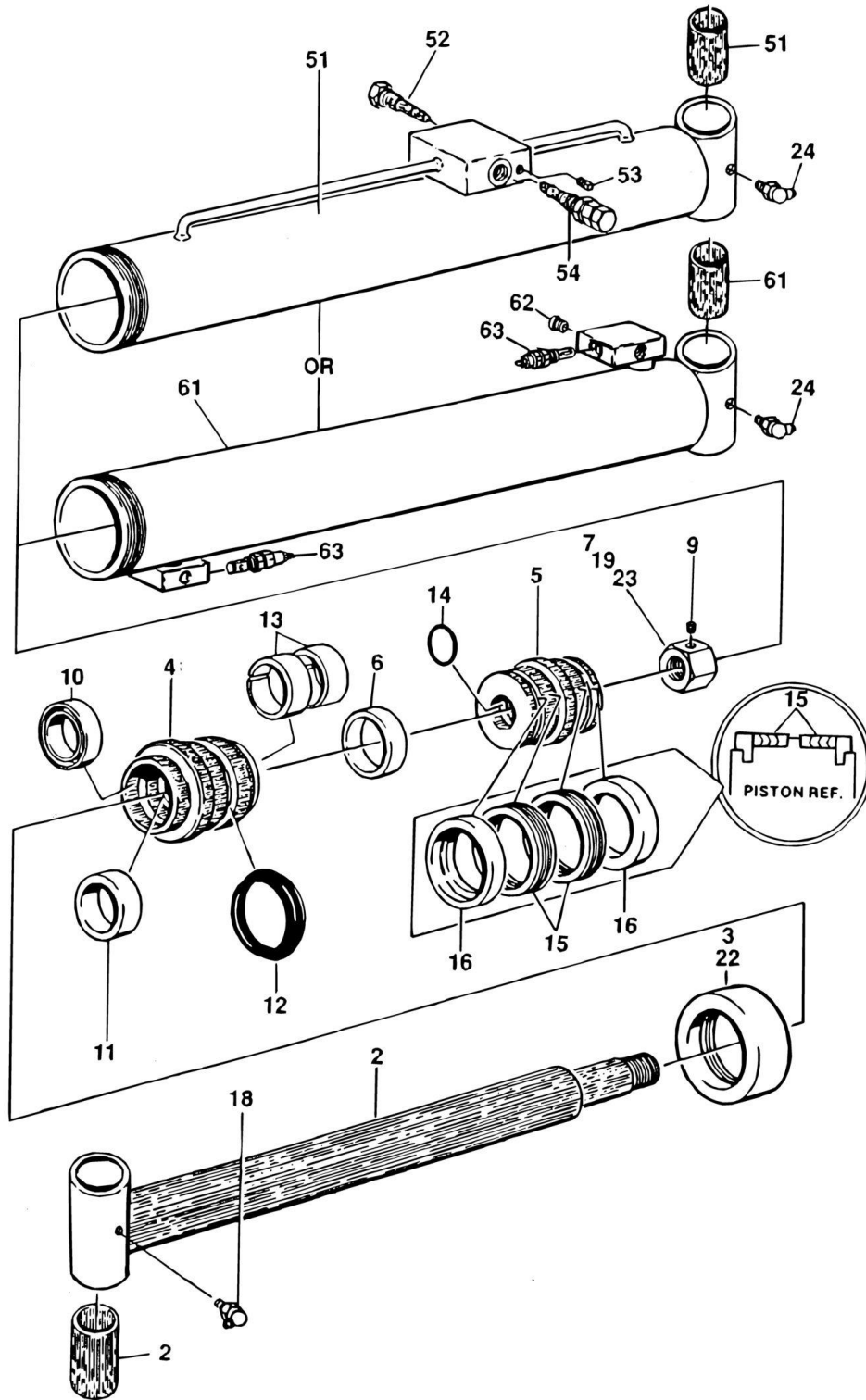
## SECTION 5 - CYLINDER

### FIGURE 5-5. LIFT CYLINDER ASSEMBLY - MAIN BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>LIFT CYLINDER ASSEMBLY - MAIN BOOM</b>	
2	1681841		Rod	
2	0960946	2	Bushing, Bronze	
3	1120340	1	Cap	
4	1681843	1	Head	
5	3480102	1	Piston	
7	4563769	1	Spacer	
9	Kit	1	Wiper, Rod	
10	Kit	1	Seal, Rod	
11	Kit	1	Ring, Wear	
12	Kit	1	T-Seal	
13	Kit	1	O-Ring	
14	Kit	2	Ring, Lock	
15	Kit	2	Seal	
16	3900170	1	Setscrew 3/8in-16NC x 3/8in	
17	3951402	1	Setscrew 1/4in-20NC x 1/4in	
20	0100020	AR	Sealant, Pipe	
21	0100011	AR	Loctite #242	
22	2160001	1	Fitting, Grease - 90	
24	0100035	AR	Loctite	
25	0100038	AR	Primer, Locking	
27	0100034	AR	Loctite	
28	2160003	1	Fitting, Grease - 45	
	2901102	1	Seal Kit (Includes Items 9-15)	
	1682124	Ref	<b>LIFT CYLINDER ASSEMBLY (PRIOR TO OCTOBER 1992) (VARIABLE PARTS)</b>	E
51	1682125	1	Barrel	
51	0961422	2	Bushing, Bronze	
52	3300190	1	Nut (Prior to February 1991)	
52	3300281	1	Nut (February 1991 to Present)	
53	4640634	1	Valve, Cartridge	
53	2900770	1	Seal Kit - 4640634 Valve	
54	2200233	4	Plug, Pipe 3/8in	
55	2200221	1	Plug, Pipe 1/4in	
56	2180448	1	Orifice .062	
	1682799	Ref	<b>LIFT CYLINDER ASSEMBLY - 4FT, 5FT &amp; 6FT PLATFORMS (OCTOBER 1992 TO PRESENT) (VARIABLE PARTS)</b>	A
61	1682800	1	Barrel	
61	0961422	2	Bushing, Bronze	
62	3300281	1	Nut	
63	4640605	1	Valve, Cartridge	
63	2900792	1	Seal Kit - 4640605 Valve	
64	2220887	1	Plug 5/8in	
65	2220883	2	Plug 1/4in	

# SECTION 5 - CYLINDER

## FIGURE 5-6. LIFT CYLINDER ASSEMBLY - TOWER BOOM



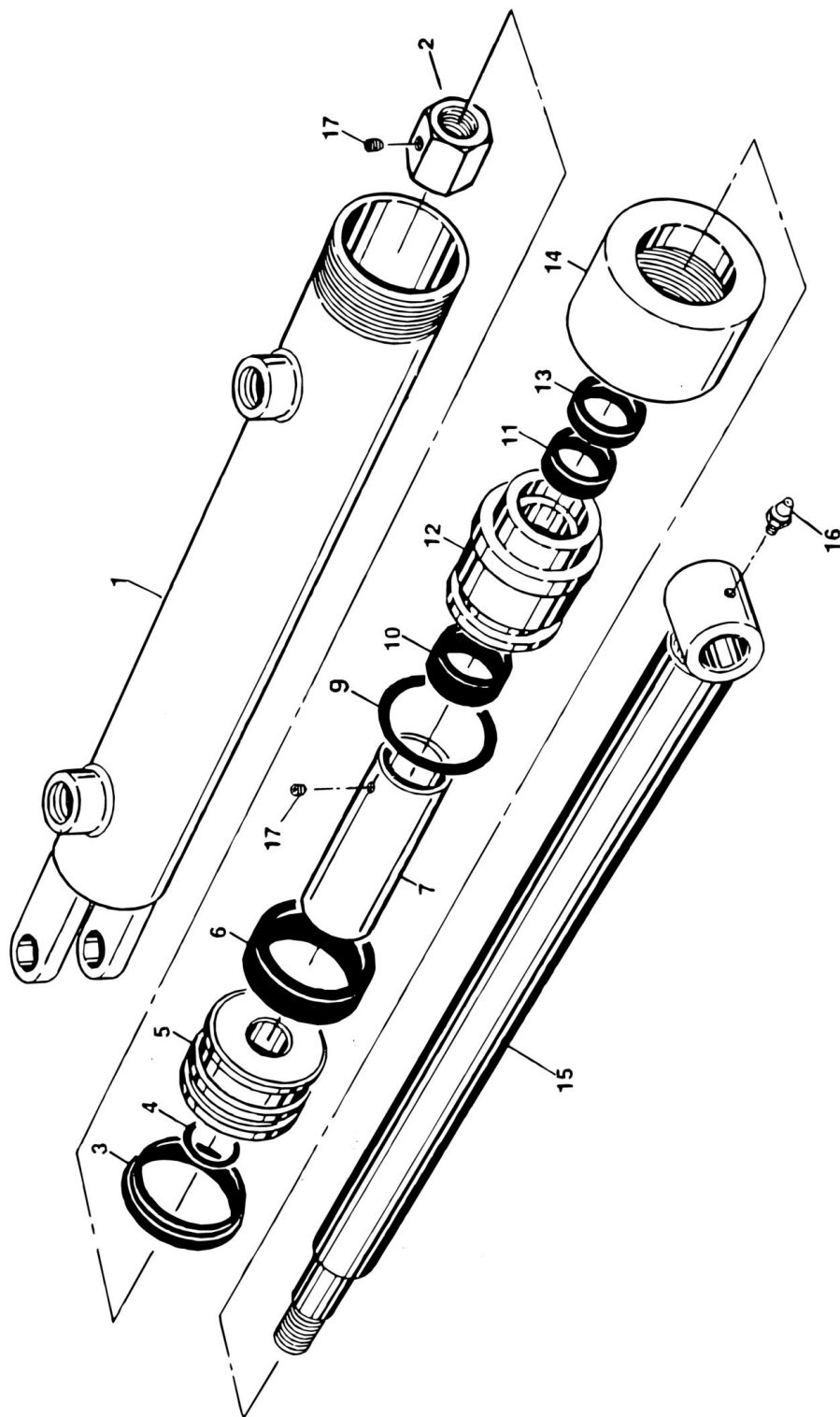
## SECTION 5 - CYLINDER

### FIGURE 5-6. LIFT CYLINDER ASSEMBLY - TOWER BOOM

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>LIFT CYLINDER ASSEMBLY - TOWER BOOM</b>	
2	1682086	1	Rod	
2	0960946	2	Bushing, Bronze	
3	1120427	1	Retainer	
4	1681294	1	Head	
5	3480102	1	Piston	
6	4563930	1	Spacer	
7	3300190	1	Nut (Prior to August 1991)	
7	3300281	1	Nut, Hex (August 1991 to Present)	
9	3951404	1	Setscrew 1/4in-20NC x 1/4in (Prior to August 1991)	
9	3900170	1	Setscrew 3/8in-16NC x 3/8in (August 1991 to Present)	
10	Kit	1	Wiper, Rod	
11	Kit	1	Seal, Rod	
12	Kit	1	O-Ring	
13	Kit	2	Ring, Wear	
14	Kit	1	O-Ring	
15	Kit	2	Seal, Piston	
16	Kit	2	Ring, Lock	
18	2160001	1	Fitting, Grease - 90	
19	0100011	AR	Loctite #242	
22	0100035	AR	Loctite	
23	0100038	AR	Primer, Locking	
24	2160003	1	Fitting, Grease - 45	
	2900340	1	Seal Kit (Includes Items 10-16)	
	1682085	Ref	<b>LIFT CYLINDER ASSEMBLY - TOWER BOOM USED PRIOR TO OCTOBER 1992 (VARIABLE PARTS)</b>	D
51	1682271	1	Barrel	
51	0960946	2	Bushing, Bronze	
52	4640509	1	Valve, Cartridge	
52	2900792	1	Seal Kit - 4640509 Valve	
53	2200201	2	Plug, Pipe 1/8in NPT	
54	4640605	1	Valve, Cartridge	
54	2900792	1	Seal Kit - 4640605 Valve	
	1682785	Ref	<b>LIFT CYLINDER ASSEMBLY - TOWER BOOM USED OCTOBER 1992 TO PRESENT (VARIABLE PARTS)</b>	
61	1682786	1	Barrel	
61	0960946	2	Bushing, Bronze	
62	2220885	1	Plug	
63	4640634	1	Valve, Cartridge	
63	2900770	1	Seal Kit - 4640634 Valve	

# SECTION 5 - CYLINDER

## FIGURE 5-7. STEER CYLINDER ASSEMBLIES



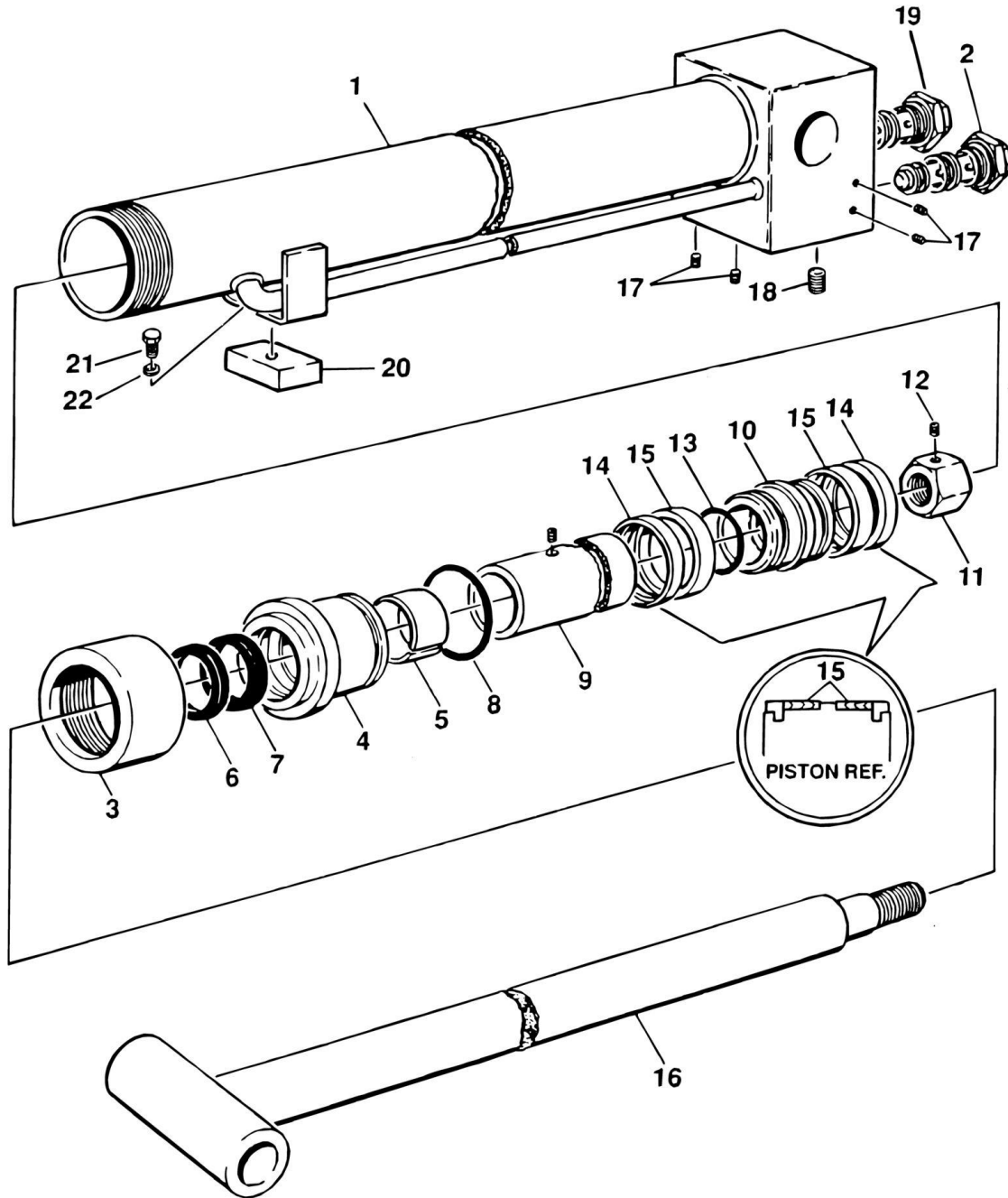
## SECTION 5 - CYLINDER

### FIGURE 5-7. STEER CYLINDER ASSEMBLIES

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1681562	Ref	<b>STEER CYLINDER ASSEMBLY (2WD FRONT AXLE)</b>	H
	1681555	Ref	<b>STEER CYLINDER ASSEMBLY (4WD FRONT AND ALL REAR AXLES)</b>	D
1	1681433	1	Barrel (1681562 Cylinder)	
1	1681413	1	Barrel (1681555 Cylinder)	
2	3300273	1	Nut, Hex (February 1991 to Present)	
2	3300187	1	Nut, Special (Prior to February 1991)	
2	0100011	AR	Loctite #242	
2	0100038	AR	Primer, Locking	
3	Kit	1	Seal	
4	Kit	1	O-Ring	
5	3480134	1	Piston	
6	Kit	1	Ring, Wear	
7	4562687	1	Spacer (1681562 Cylinder)	
7	4562851	1	Spacer (1681555 Cylinder)	
9	Kit	1	O-Ring	
10	Kit	1	Ring, Wear	
11	Kit	1	Seal, Rod	
12	1681322	1	Head, Cylinder (1681562 Cylinder)	
12	1681344	1	Head, Cylinder (1681555 Cylinder)	
13	Kit	1	Wiper, Rod	
14	1120108	1	Cap	
15	1681435	1	Rod (1681562 Cylinder)	
15	1681411	1	Rod (1681555 Cylinder)	
16	2160002	1	Fitting, Grease - Straight	
16	2160001	1	Fitting, Grease - 90	
16	2160006	1	Fitting, Grease (4WD/4WS Only)	
17	3900141	3	Setscrew 1/4in-20NC x 3/8in (Prior to February 1991)	
17	3900170	1	Setscrew 3/8in-16NC x 3/8in (February 1991 to Present)	
17	0100011	AR	Loctite #242	
	2901148	1	Kit, Seal (Includes Items 3, 4, 6, 9, 10, 11 & 13) (1681562 Cylinder)	
	2901123	1	Kit, Seal (Includes Items 3, 4, 6, 9, 10, 11 & 13) (1681555 Cylinder)	

# SECTION 5 - CYLINDER

## FIGURE 5-8. TELESCOPE CYLINDER ASSEMBLY - MAIN BOOM





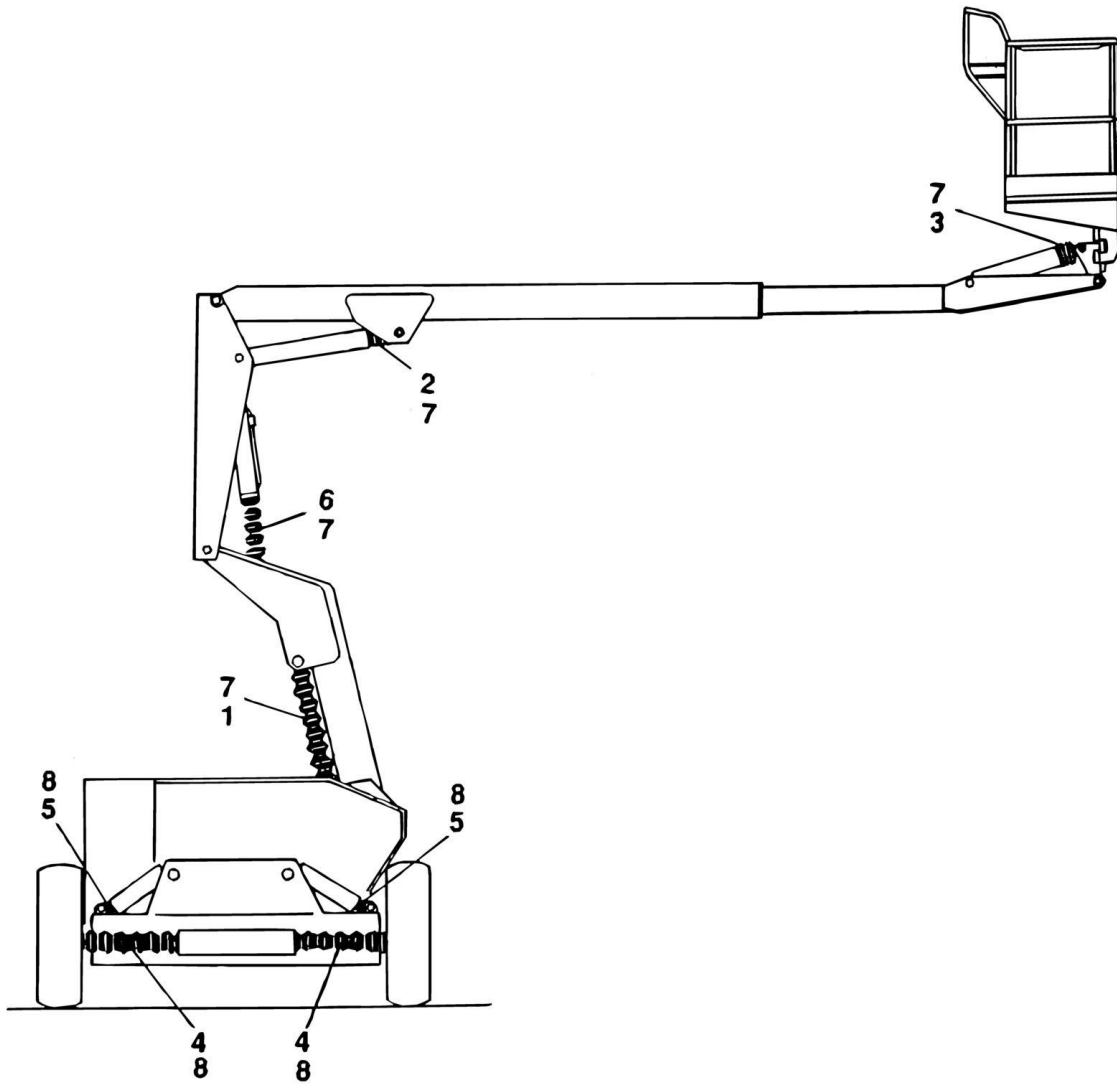
## SECTION 5 - CYLINDER

**FIGURE 5-8. TELESCOPE CYLINDER ASSEMBLY - MAIN BOOM**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	1682492	Ref	<b>TELESCOPE CYLINDER ASSEMBLY - MAIN BOOM</b>	A
1	1682493	1	Barrel Assembly	
2	4640634	1	Valve, Vented Counterbalance	
2	2900770	1	Seal Kit - Cartridge Valve	
3	1120108	1	End Cap	
3	0100035	AR	Loctite #222	
4	1681283	1	Head	
5	Kit	1	Ring, Wear	
6	Kit	1	Seal, Wiper	
7	Kit	1	Seal, Rod	
8	Kit	1	O-Ring	
9	4563330	1	Spacer, Tube	
9	3951603	2	Setscrew 3/8in-16NC x 3/8in	
9	0100011	AR	Loctite #242	
10	3480092	1	Piston	
11	3300286	1	Nut, Hex	
11	0100011	AR	Loctite #242	
11	0100038		Primer	
12	3900170	2	Setscrew 1/4in-20NC x 3/8in	
13	Kit	1	O-Ring	
14	Kit	2	Ring, Guidelock	
15	Kit	2	Seal, Piston	
16	1681883	1	Rod Assembly	
17	2180527	4	Plug 1/16in	
18	2200222	2	Plug 1/4in	
18	0100020	AR	Sealant, Pipe	
19	4640495	1	Valve, Counterbalance	
19	2900770	1	Seal Kit - Cartridge Valve	
20	3340545	1	Pad, Wear (May 1994 to Present Only)	
21	0641604	1	Bolt 3/8in-16NC x 1/2in	
22	4761600	1	Lockwasher 3/8in	
	2900396	1	Seal Kit (Includes Items 5, 6, 7, 8, 13, 14 & 15)	

# SECTION 5 - CYLINDER

FIGURE 5-9. CLYINDER BELLOWS INSTALLATION (OPTIONAL)



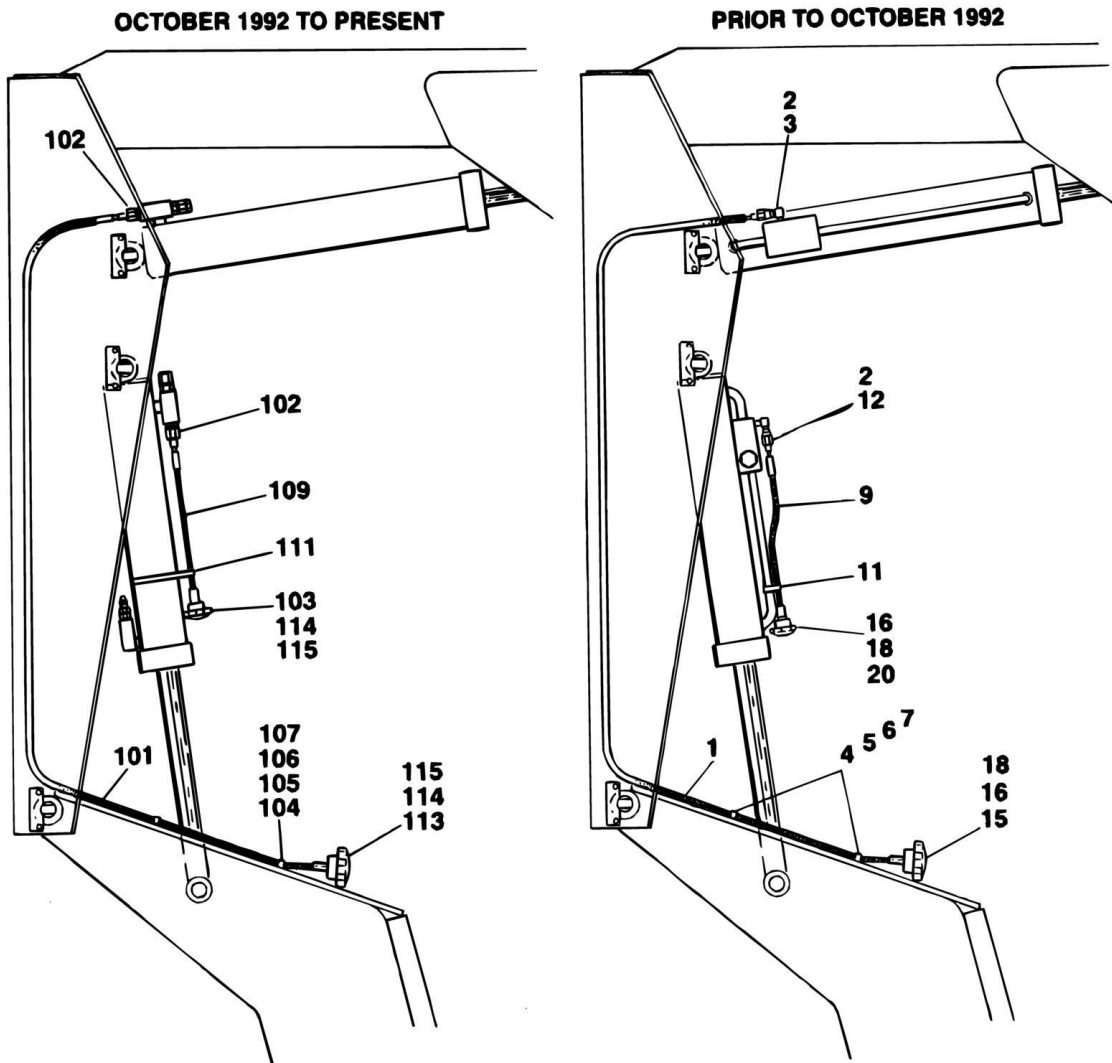
## SECTION 5 - CYLINDER

**FIGURE 5-9. CLYINDER BELLOWS INSTALLATION (OPTIONAL)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>BELLOWS INSTALLATIONS</b>	
	0250862	Ref	<b>2WD MACHINES WITH FIXED AXLE</b>	F
	0256324	Ref	<b>2WD/4WS MACHINES WITH FIXED AXLE (SN 23615 to Present)</b>	
	0250863	Ref	<b>2WD MACHINES WITH OSCILLATING AXLE</b>	F
	0256326	Ref	<b>2WD/4WS MACHINES WITH OSCILLATING AXLE (SN 23615 to Present)</b>	
	0250864	Ref	<b>4WD MACHINES WITH FIXED AXLE</b>	F
	0256325	Ref	<b>4WD/4WS MACHINES WITH FIXED AXLE (SN 23615 to Present)</b>	
	0250865	Ref	<b>4WD MACHINES WITH OSCILLATING AXLE</b>	F
	0256327	Ref	<b>4WD/4WS MACHINES WITH OSCILLATING AXLE (SN 23615 to Present)</b>	
1	0460092	1	Bellows (With Zipper) (Tower Lift Cylinder)	
2	0460093	1	Bellows (With Zipper) (Main Lift Cylinder)	
3	0460084	1	Bellows (With Zipper) (Platform Level Cylinder)	
4		Ref	Bellows (With Zipper) (Steer Cylinder) Options:	
4	0460073	1	2WD	
4	0460075	1	4WD	
4	0460075	1	4WS	
5		Ref	Bellows (With Zipper) (Lockout Cylinder) Options:	
5	Not Required	0	2WD Machines With Fixed Axle	
5	0460083	2	2WD Machines With Oscillating Axle	
6	0460099	1	Bellows (With Zipper) (Upright Level Cylinder)	
7	1320122	4	Clamp, Worm Gear (5 1/8in-6in Dia)	
8	1320037	AR	Clamp, Worm Gear (3in-5 1/8in Dia)	
8		Ref	2WD/4WD Machines With Fixed Axle	
8		Ref	2WD/4WD Machines With Oscillating Axle	

# SECTION 5 - CYLINDER

FIGURE 5-10. MANUAL DESCENT INSTALLATIONS (AUSTRALIAN, FRENCH AND ITALIAN SPECS)



## SECTION 5 - CYLINDER

**FIGURE 5-10. MANUAL DESCENT INSTALLATIONS (AUSTRALIAN, FRENCH AND ITALIAN SPECS)**

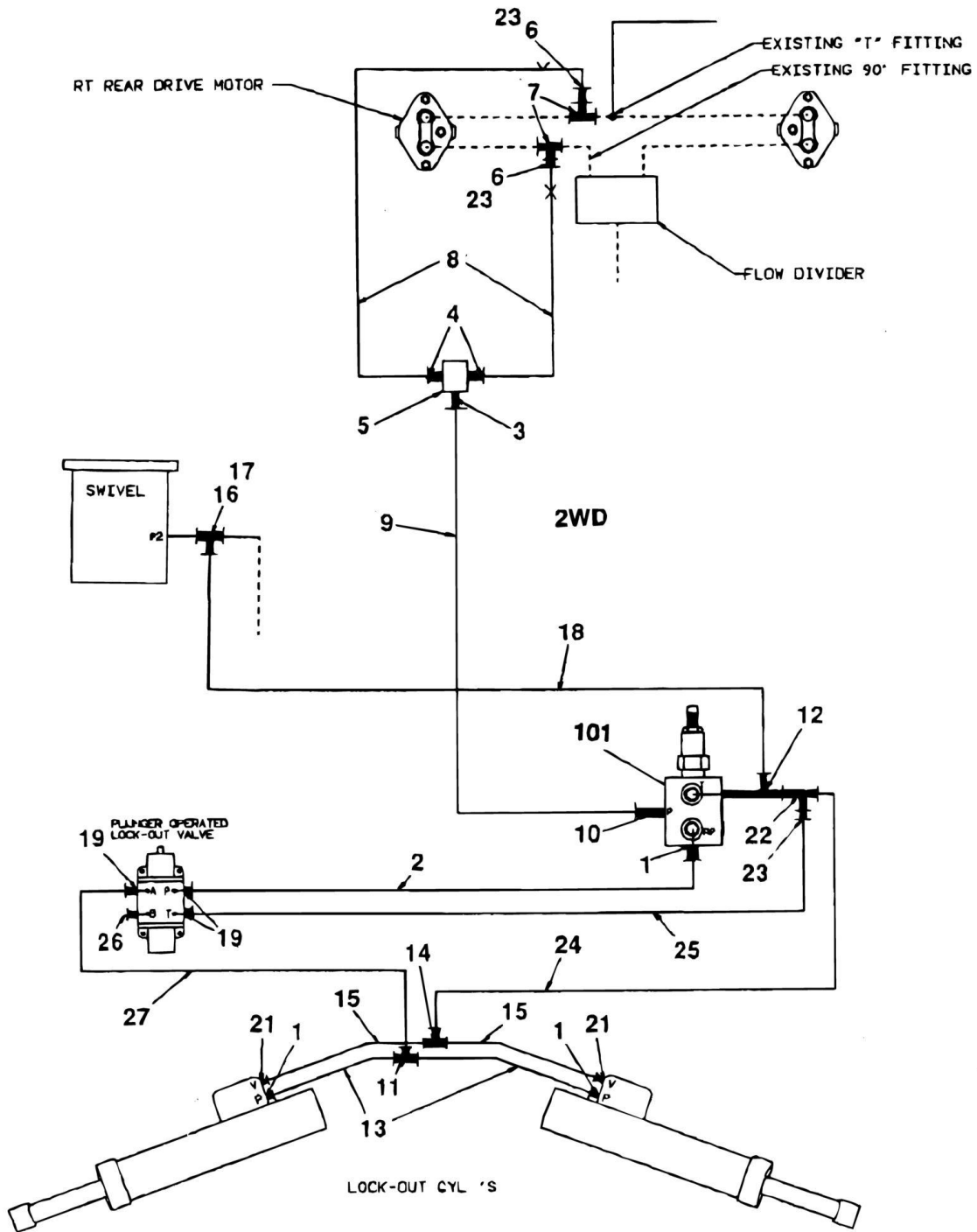
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0251299	Ref	<b>MANUAL DESCENT INSTALLATION (PRIOR TO OCTOBER 1992)</b>	F
1	1060374	1	Cable, Flex	
2	4640677	2	Valve	
3	2220820	1	Fitting	
4	1320061	2	Clamp, Hose	
5	4300031	2	Stud (Welded on Part)	
6	4761400	2	Flatwasher 1/4in	
7	3311401	2	Nut 1/4in-20NC	
8	2900062	2	Panel Kit (At Ground Control - Not Shown)	
9	1060375	1	Cable, Flex	
11	4240033	1	Tie-Strap	
12	2220877	1	Fitting, Restrictor	
14	4712200	4	Washer 3/4in Narrow (Not Shown)	
15	2560109	1	Knob	
16	0080189	2	Adapter	
18	3951403	2	Setscrew 1/4in-20NC x 3/8in	
19	4640005	2	Valve, Needle (At Ground Control - Not Shown)	
20	2560110	1	Knob	
	0253239	Ref	<b>MANUAL DESCENT INSTALLATION (OCTOBER 1992 TO PRESENT)</b>	D
101	1060450	1	Cable, Flex	
102	4640779	2	Valve, Needle Valve	
103		Ref	Knob Options:	
103	2560110	1	Knob <b>(Prior to SN 37524)</b>	
103	2560144	1	Knob <b>(SN 37524 to Present)</b>	
104	1320061	2	Clamp	
105	4300031	2	Stud (Welded on Part)	
106	4761400	2	Lockwasher 1/4in	
107	3311401	2	Nut 1/4in-20NC	
108	2900062	2	Valve Mounting Kit (Not Shown - Located at Ground Control)	
109	1060451	1	Cable, Flex	
111	4240033	1	Tie-Strap	
112	4712200	4	Flatwasher 3/4in (Not Shown - Located at Ground Control)	
113	2560109	1	Knob	
114		Ref	Adapter Options:	
114	0080189	2	Adapter <b>(Prior to SN 37524)</b>	
114	0080226	2	Adapter <b>(SN 37524 to Present)</b>	
115		Ref	Setscrew Options:	
115	3951403	2	Setscrew 1/4in-20NC x 3/8in <b>(Prior to SN 37524)</b>	
115	3900230	2	Setscrew 1/4in-20NC x 3/8in <b>(SN 37524 to Present)</b>	
116	4640005	2	Valve, Needle (Not Shown - Located at Ground Control)	



**SECTION 6 - HYDRAULIC**

# SECTION 6 - HYDRAULIC

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



2791866 - Rev A



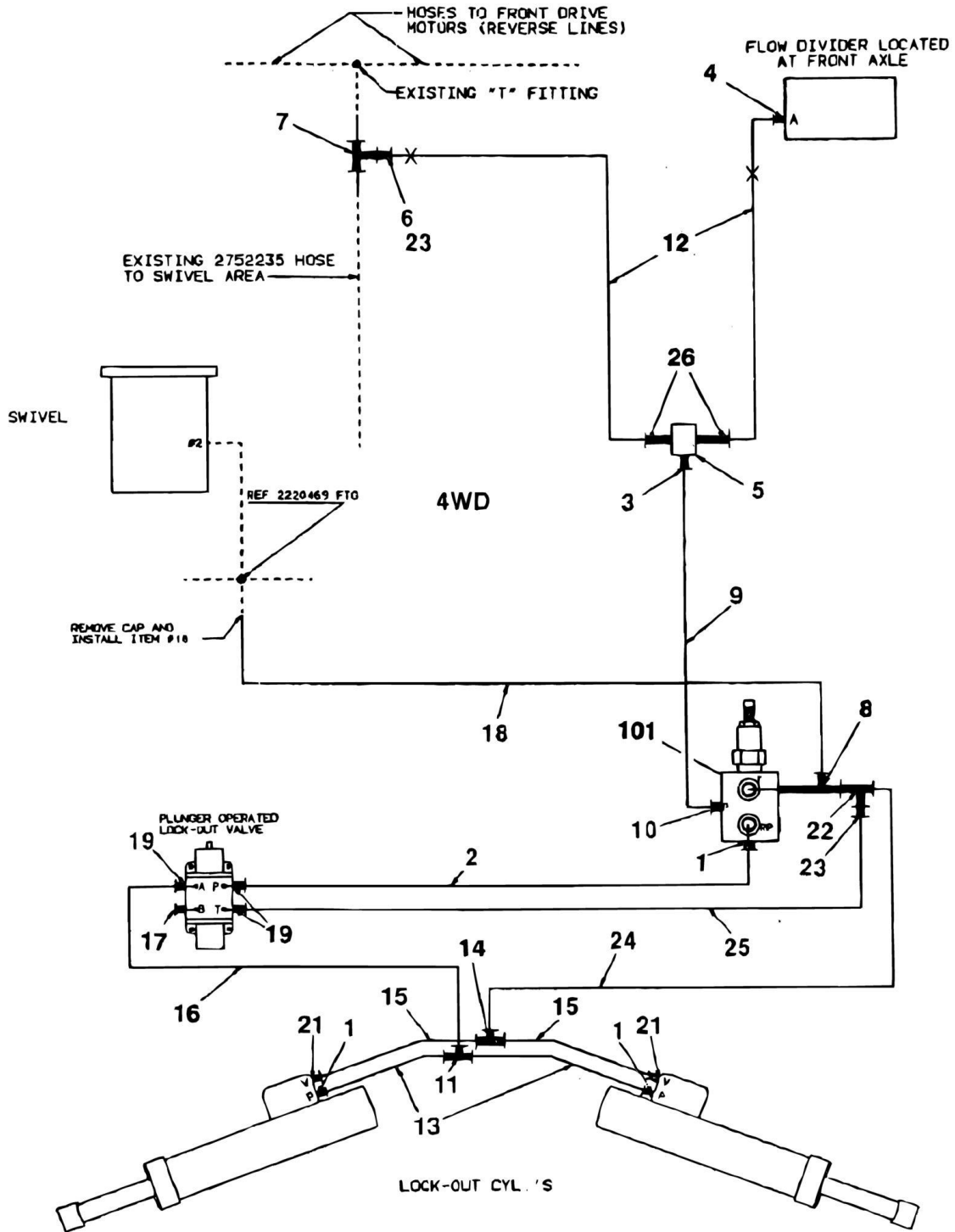
## SECTION 6 - HYDRAULIC

**FIGURE 6-1. HYDRAULIC DIAGRAM - AXLE LOCKOUT (2WD)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791866	Ref	<b>HYDRAULIC DIAGRAM - AXLE LOCKOUT (2WD)</b>	A
1	2220582	3	Fitting, Straight	
2	2751397	1	Hose	
3	2220414	1	Fitting, Straight	
4	2220416	2	Fitting, 90	
5	4640013	1	Valve, Shuttle	
6	2220621	2	Fitting, Reducer	
7	2220700	2	Fitting, Tee	
8	2750902	2	Hose	
9	2751906	1	Hose	
10	2220472	1	Fitting, 90	
11	2220504	1	Fitting, Tee	
12	2220606	1	Fitting, Tee	
13	2752433	2	Hose	
14	2220490	1	Fitting, Tee	
15	2750910	2	Hose	
16	2220679	1	Fitting, Tee	
17	2220619	1	Fitting, Reducer	
18	2750779	1	Hose	
19	2220466	3	Fitting, 90	
21	2220371	2	Fitting, Straight	
22	2220635	1	Fitting, Tee	
23	2220609	3	Fitting, Reducer	
24	2750786	1	Hose	
25	2751020	1	Hose	
26	2220235	1	Fitting, Plug	
27	2751013	1	Hose	
	0251599	Ref	<b>PRESSURE REDUCING VALVE INSTALLATION</b>	-
101	4640689	1	Valve, Pressure Reducing	
101	7010530	1	Cartridge	
101	2900698	1	Seal Kit	
101	7010531	1	Plug, Sense Check	
101	3780149	1	O-Ring	
101	4300087	2	Stud (Welded on Part)	
101	4751400	2	Flatwasher 1/4in	
101	4761400	2	Lockwasher 1/4in	
101	3311401	2	Nut 1/4in-20NC	

# SECTION 6 - HYDRAULIC

## FIGURE 6-2. HYDRAULIC DIAGRAM - AXLE LOCKOUT (4WD)



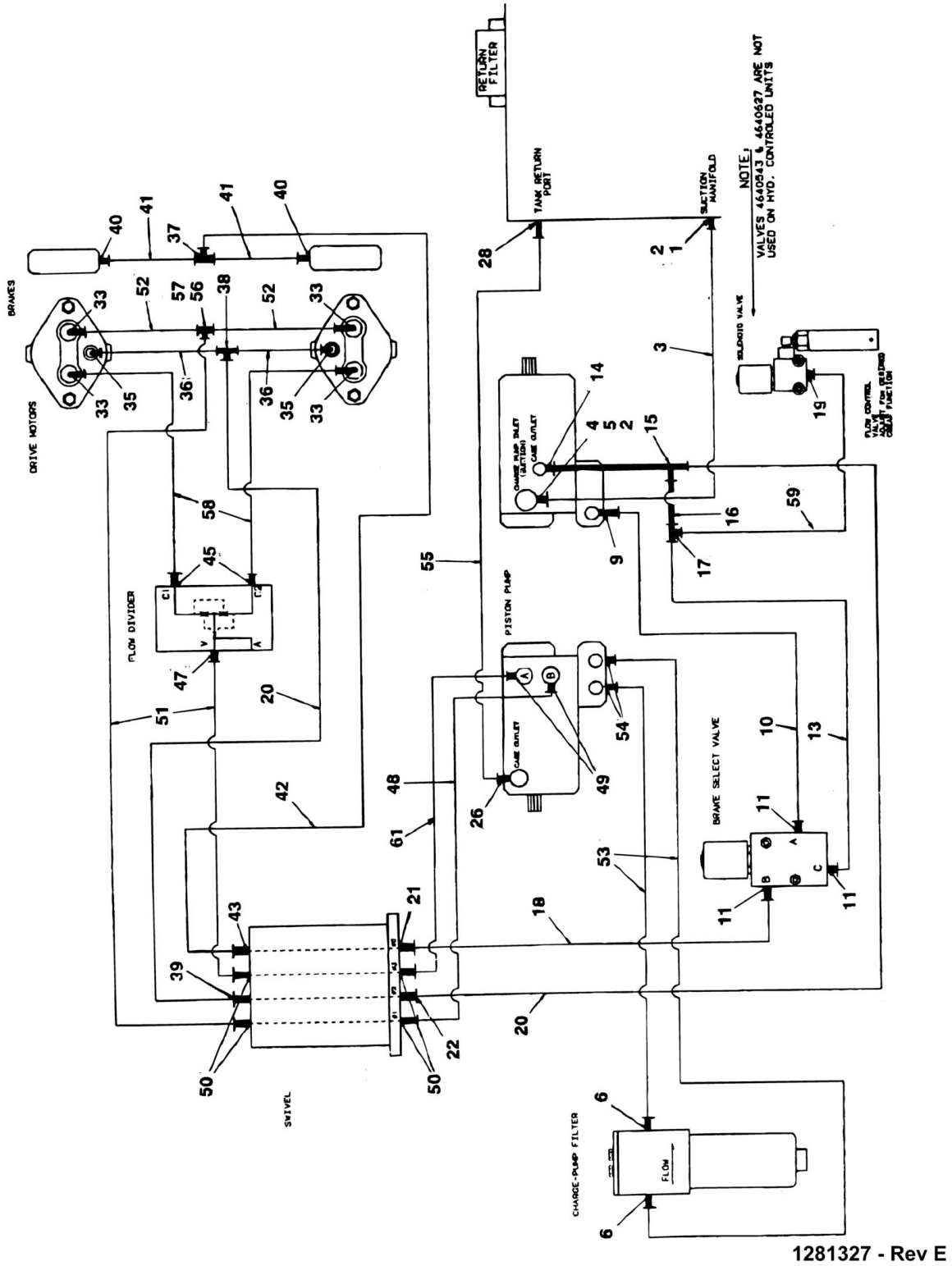
## SECTION 6 - HYDRAULIC

**FIGURE 6-2. HYDRAULIC DIAGRAM - AXLE LOCKOUT (4WD)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791865	Ref	<b>HYDRAULIC DIAGRAM - AXLE LOCKOUT (4WD)</b>	A
1	2220582	3	Fitting, Straight	
2	2751397	1	Hose	
3	2220414	1	Fitting, Straight	
4	2220415	1	Fitting, Straight	
5	4640013	1	Valve, Shuttle	
6	2220621	1	Fitting, Reducer	
7	2220700	1	Fitting, Tee	
8	2220606	1	Fitting, Tee	
9	2751015	1	Hose	
10	2220472	1	Fitting, 90	
11	2220504	1	Fitting, Tee	
12	2751018	2	Hose	
13	2752433	2	Hose	
14	2220490	1	Fitting, Tee	
15	2750910	2	Hose	
16	2751013	1	Hose	
17	2220235	1	Hose, Plug	
18	2750779	1	Hose	
19	2220466	3	Fitting, 90	
21	2220371	2	Fitting, Straight	
22	2220635	1	Fitting, Tee	
23	2220609	2	Fitting, Reducer	
24	2750786	1	Hose	
25	2751020	1	Hose	
26	2220416	2	Fitting, 90	
	0251599	Ref	<b>PRESSURE REDUCING VALVE INSTALLATION</b>	-
101	4640689	1	Valve, Pressure Reducing	
101	7010530	1	Cartridge	
101	2900698	1	Seal Kit	
101	7010531	1	Plug, Sense Check	
101	3780149	1	O-Ring	
101	4300087	2	Stud (Welded on Part)	
101	4751400	2	Flatwasher 1/4in	
101	4761400	2	Lockwasher 1/4in	
101	3311401	2	Nut 1/4in-20NC	

# SECTION 6 - HYDRAULIC

## FIGURE 6-3. HYDRAULIC DIAGRAM - DRIVE (2WD)



1281327 - Rev E

## SECTION 6 - HYDRAULIC

### FIGURE 6-3. HYDRAULIC DIAGRAM - DRIVE (2WD)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791627	Ref	<b>DEUTZ WITH STANDARD BANG-BANG CONTROLS</b>	E
	2791678	Ref	<b>DEUTZ WITH PROPORTIONAL AND HYDRAULIC CONTROLS</b>	B
1	2210007	1	Fitting, Barbed	
2	1320033	4	Clamp	
3	2720335	53	Hose	
		in/1.35m		
4	2220646	1	Fitting, 90	
5	2210014	1	Fitting	
6	2220578	2	Fitting	
9	2220472	1	Fitting, 90	
10	2750899	1	Hose	
11	2220417	3	Fitting	
13	2751013	1	Hose	
14	2220375	1	Fitting, Straight	
15	2220385	1	Fitting, Tee	
16	2220618	1	Fitting, Reducer	
17		Ref	Fitting Options:	
17	2220605	1	Fitting, Tee (Standard Bang-Bang Controls)	
17	Not Required	0	Fitting (Proportional Controls)	
18	2751010	1	Hose	
19		Ref	Fitting Options:	
19	2220372	1	Fitting (Standard Bang-Bang Controls)	
19	2220582	1	Fitting (Proportional Controls)	
20	2750977	2	Hose	
21	2220496	1	Fitting, 45	
22	2220355	1	Fitting, 45	
26	2220498	1	Fitting, 45	
28	2220494	1	Fitting, 90	
33	2220451	4	Fitting, Straight	
35	2220600	2	Fitting, Straight	
36	2751517	2	Hose	
37	2220504	1	Fitting, Tee	
38	2220362	1	Fitting, Tee	
39	2220345	1	Fitting, Straight	
40	2220466	2	Fitting, 90	
41	2751014	2	Hose	
42	2751443	1	Hose	
43	2220414	1	Fitting, Straight	
44	0100020	AR	Sealant, Thread (Not Shown)	
45	2220465	2	Fitting, 90	
47	2220377	1	Fitting, Straight	
48	2752319	1	Hose	
49	2220365	2	Fitting, 45	
50	2220348	4	Fitting, Straight	
51	2752349	2	Hose	
52	2752238	2	Hose	
53	2751614	2	Hose	
54	2220408	2	Fitting, Straight	
55	2751635	1	Hose	
56	2220363	1	Fitting, Tee	

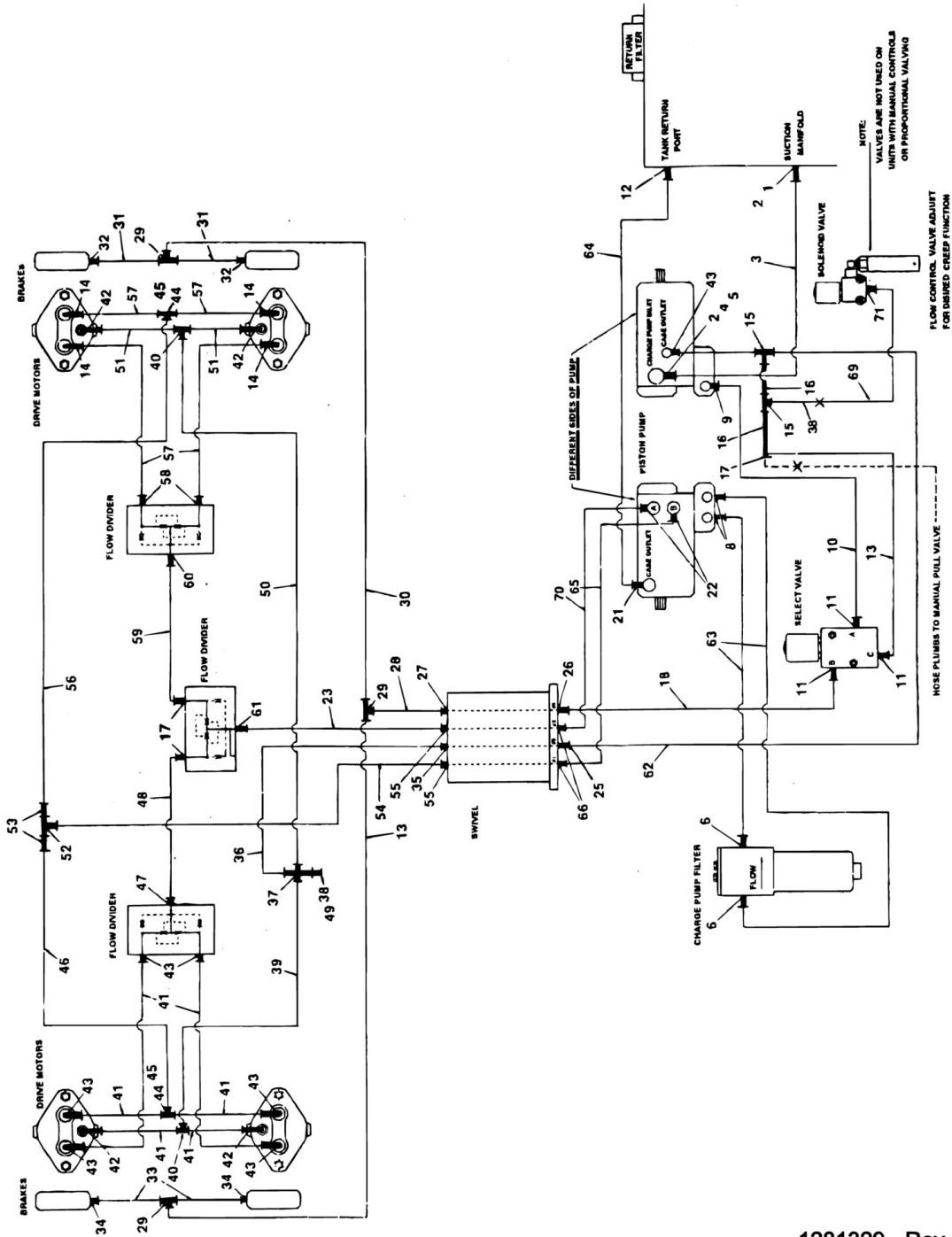
## SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
57	2220710	2	Fitting, Reducer	
58	2752242	2	Hose	
59		Ref	Hose Options:	
59	2752461	1	Standard Controls	
59	Not Required	0	Proportional Controls	
61	2752319	1	Hose	
62		Ref	Fitting Options:	
62	2220619	1	Standard Controls	
62	Not Required	0	Proportional Controls	



# SECTION 6 - HYDRAULIC

## FIGURE 6-4. HYDRAULIC DIAGRAM - DRIVE (4WD)





## SECTION 6 - HYDRAULIC

### FIGURE 6-4. HYDRAULIC DIAGRAM - DRIVE (4WD)

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791632	Ref	<b>DEUTZ WITH STANDARD BANG-BANG CONTROLS</b>	D
	2791680	Ref	<b>DEUTZ WITH PROPORTIONAL CONTROLS</b>	A
1	2210007	1	Fitting, Barbed	
2	1320033	4	Clamp	
3	2720335	53	Hose	
		in/1.35m		
4	2220646	1	Fitting, 90	
5	2210014	1	Fitting	
6	2220578	2	Fitting	
8	2220408	2	Fitting, Straight	
9	2220472	1	Fitting, 90	
10	2750899	1	Hose	
11	2220417	3	Fitting	
12	2220494	1	Fitting, Tee	
13	2751013	2	Hose	
14	2220451	6	Fitting, Straight	
15	2220385	2	Fitting, Tee	
16	2220618	1	Fitting, Reducer	
17		Ref	Fitting Options:	
17	2220605	1	Fitting, Tee (Standard Bang-Bang Controls)	
17	Not Required	0	Fitting, (Proportional Controls)	
18	2751010	1	Hose	
21	2220498	1	Fitting, 45	
22	2220365	2	Fitting, 45	
23	2752317	1	Hose	
25	2220355	1	Fitting, 45	
26	2220496	1	Fitting, 45	
27	2220414	1	Fitting, Straight	
28	2750902	1	Hose	
29	2220504	3	Fitting, 3-Way	
30	2751026	1	Hose	
31	2751014	2	Hose	
32	2220466	2	Fitting, 90	
33	2751398	2	Hose	
34	2220415	2	Fitting	
35	2220345	1	Fitting, Straight	
36	2750972	1	Hose	
37	2220469	1	Fitting, 4-Way	
38	2220619	2	Fitting, Reducer	
39	2750774	1	Hose	
40	2220362	2	Fitting, Tee	
41	2750979	6	Hose	
42	2220600	4	Fitting, Straight	
43	2220375	7	Fitting, Straight	
44	2220481	2	Fitting, Tee	
45	2220622	2	Fitting, Reducer	
46	2752235	1	Hose	
47	2220568	1	Fitting, 45	
48	2752236	1	Hose	
49	2220516	1	Fitting, Cap	

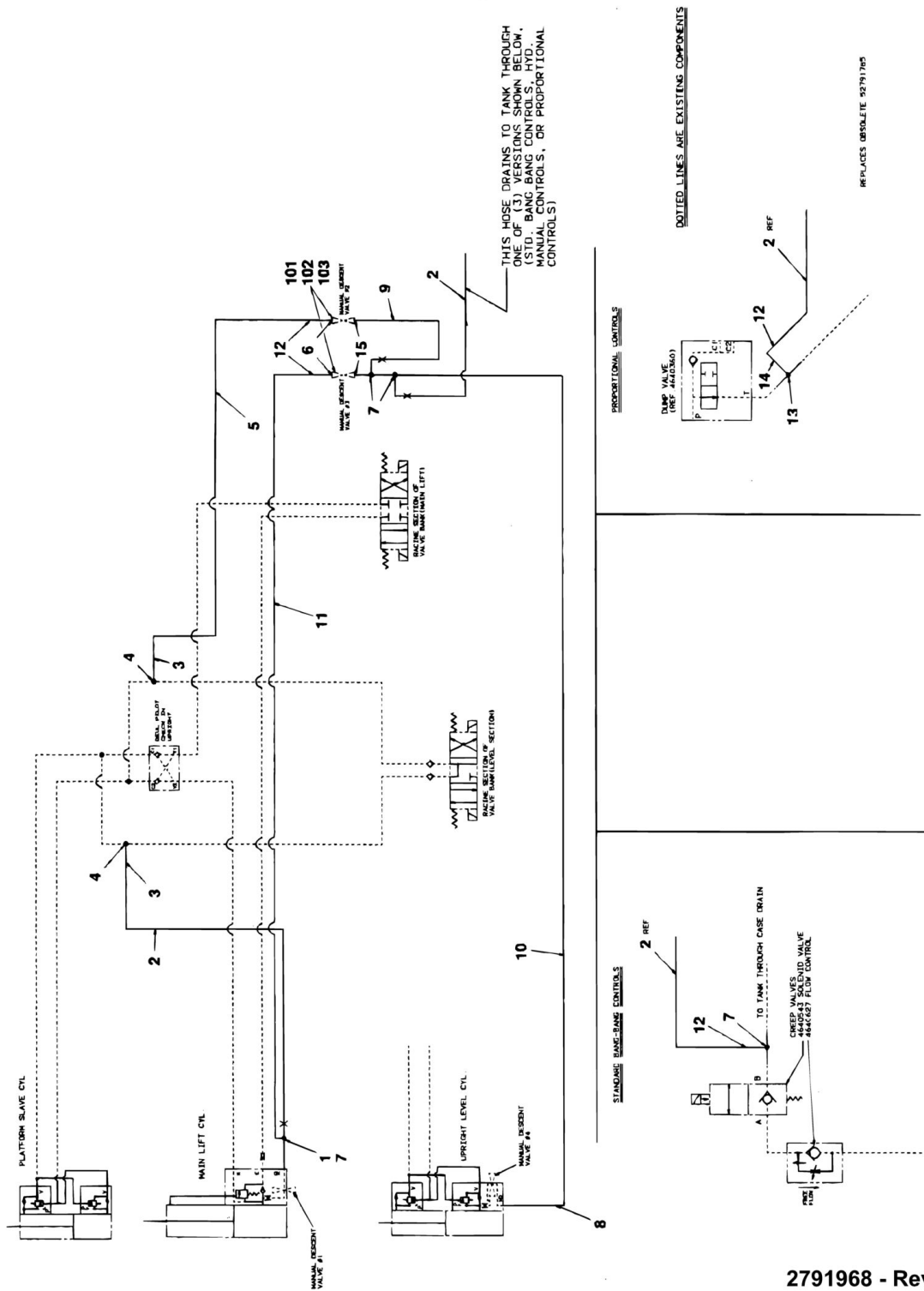
## SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
50	2751483	1	Hose	
51	2751517	2	Hose	
52	2220363	1	Fitting, Tee	
53	2220710	2	Fitting, Reducer	
54	2752318	1	Hose	
55	2220627	2	Fitting, 45	
56	2752237	1	Hose	
57	2752242	4	Hose	
58	2220578	2	Fitting, 90	
59	2752239	1	Hose	
60	2220435	1	Fitting, Straight	
61	2220377	1	Fitting, Straight	
62	2750977	1	Hose	
63	2751614	2	Hose	
64	2751635	1	Hose	
65	2752319	1	Hose	
66	2220348	2	Fitting, Straight	
68	0100020	AR	Sealant, Thread (Not Shown)	
69		Ref	Hose Options:	
69	2752461	1	Standard Controls	
69	Not Required	0	Proportional Controls	
71	2752319	1	Hose	
72		Ref	Fitting Options:	
72	2220619	1	Standard Controls	
72	Not Required	0	Proportional Controls	



# SECTION 6 - HYDRAULIC

## FIGURE 6-5. HYDRAULIC DIAGRAM - MANUAL DESCENT (AUSTRALIAN, FRENCH AND ITALIAN SPEC)



2791968 - Rev B

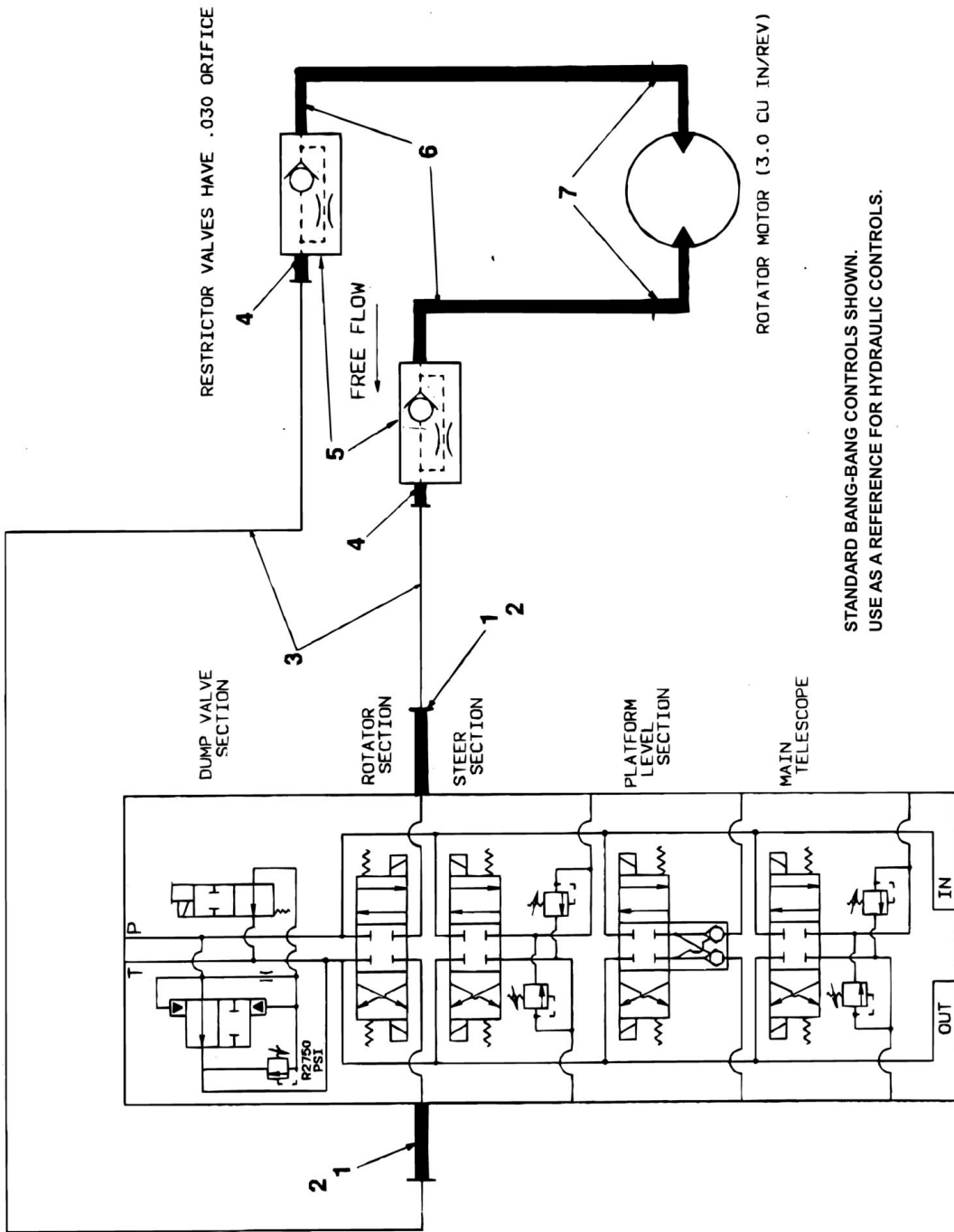
## SECTION 6 - HYDRAULIC

**FIGURE 6-5. HYDRAULIC DIAGRAM - MANUAL DESCENT (AUSTRALIAN, FRENCH AND ITALIAN SPEC)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791968	Ref	<b>HYDRAULIC DIAGRAM - MANUAL DESCENT (AUSTRALIAN, FRENCH AND ITALIAN SPEC)</b>	B
1	2220415	1	Fitting, Straight	
2	2750889	2	Hose	
3	2220609	2	Fitting, Reducer	
4	2220635	2	Fitting, Tee	
5	2751418	1	Hose	
6	2220416	2	Fitting, 90	
7	2220605	4	Fitting, Tee	
8	2220466	1	Fitting, 90	
9	2751018	1	Hose	
10	2751431	1	Hose	
11	2751453	1	Hose	
12	2220654	3	Fitting, 90	
13	2220385	2	Fitting, Tee	
14	2220618	2	Fitting, Reducer	
15	2220414	2	Fitting, Straight	
	0253239	Ref	<b>VALVES INSTALLATION</b>	A
101	2900062	2	Valve Kit	
102	4640005	2	Valve, Needle	
103	4712200	4	Flatwasher 3/4in	

# SECTION 6 - HYDRAULIC

## FIGURE 6-6. HYDRAULIC DIAGRAM - ROTATE



2791578 - Rev B

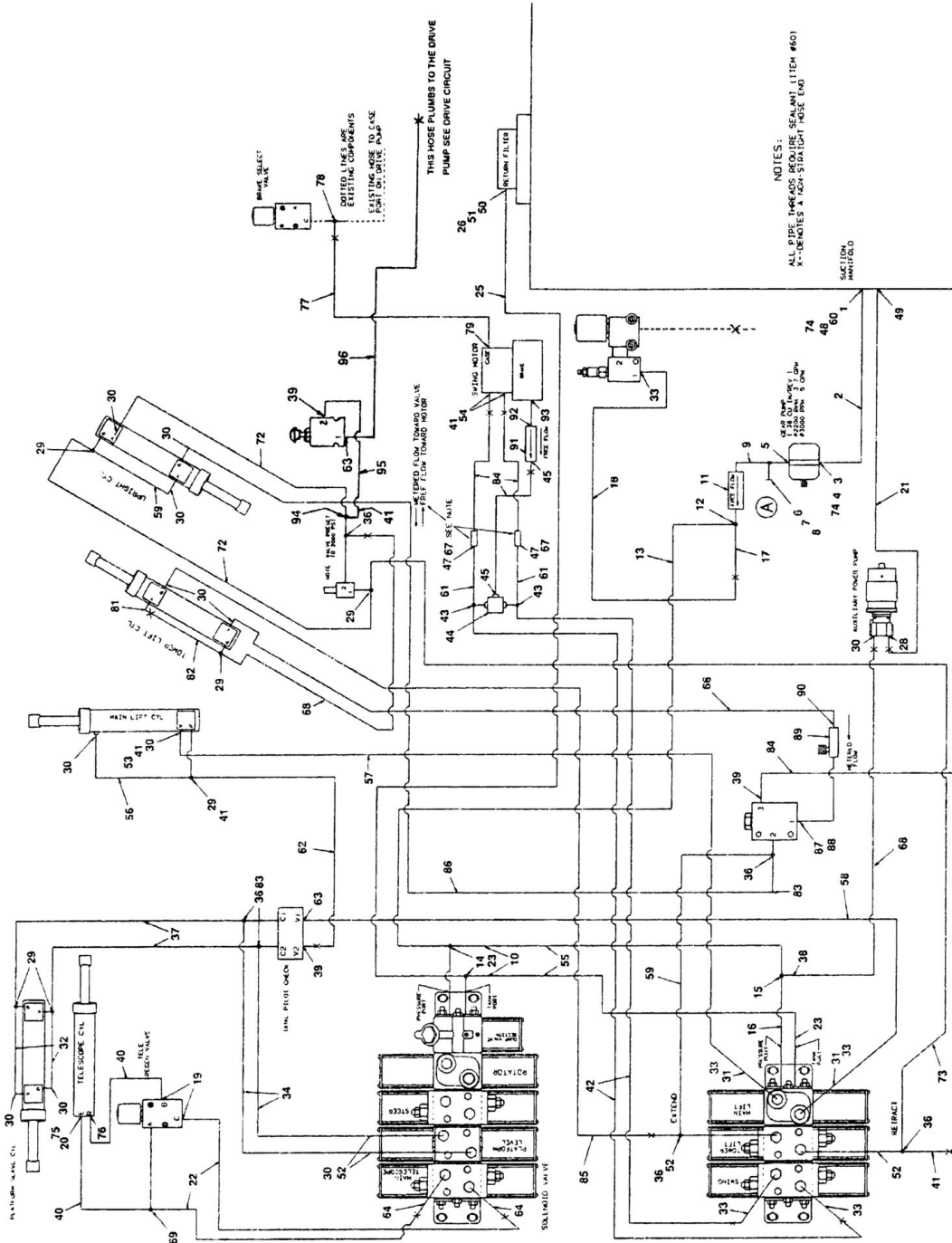
## SECTION 6 - HYDRAULIC

### FIGURE 6-6. HYDRAULIC DIAGRAM - ROTATE

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791578	Ref	<b>HYDRAULIC DIAGRAM - ROTATE</b>	B
1	2220582	2	Fitting, Straight	
2	2220654	2	Fitting, 90	
3	2751454	2	Hose	
4	2220416	2	Fitting, 90	
5	4640383	2	Valve, Restrictor	
6	2220261	2	Fitting, Nipple	
7	2220816	2	Fitting	

# SECTION 6 - HYDRAULIC

## FIGURE 6-7. HYDRAULIC DIAGRAM - STANDARD (STANDARD BANG-BANG CONTROLS /DEUTZ MACHINES)



2792002 - Rev I



## SECTION 6 - HYDRAULIC

**FIGURE 6-7. HYDRAULIC DIAGRAM - STANDARD (STANDARD BANG-BANG CONTROLS /DEUTZ MACHINES)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2792002	Ref	<b>HYDRAULIC DIAGRAM - STANDARD (STANDARD BANG-BANG CONTROLS/DEUTZ MACHINES)</b>	1
1	2210006	1	Fitting, Barbed	
2	2720344	56 in/17m	Hose	
3	2210027	1	Fitting, 45	
4	2220408	1	Fitting	
5	2180491	1	Fitting, 90	
6	2220820	1	Fitting, 90	
7	2220429	1	Cap, Dust	
8	2220428	1	Fitting, Quick Disconnect	
9	2220651	1	Fitting	
10	2220683	2	Fitting	
11	4640776	1	Valve, Check	
12	2220602	1	Fitting	
13	2751483	1	Hose	
14	2220383	2	Fitting, Tee	
15	2220385	1	Fitting, Tee	
16	2220600	1	Fitting	
17	2220618	1	Fitting, Reducer	
18	2751017	1	Hose	
19	2220495	2	Fitting, 90	
20	2220064	1	Fitting, 90	
21	2750766	1	Hose	
22	2750913	2	Hose	
23	2220373	3	Fitting	
25	2750973	1	Hose	
26	2220471	1	Fitting, 90	
28	2220726	1	Fitting, 90	
29	2220899	6	Fitting, Tee	
30	2220473	12	Fitting, 90	
31	2220654	2	Fitting, 90	
32	2750918	2	Hose	
33	2220468	5	Fitting	
34	2751123	2	Hose	
36	2220606	6	Fitting, Tee	
37	2751161	2	Hose	
38	2220619	1	Fitting, Reducer	
39	2220472	3	Fitting	
40	2751163	2	Hose	
41	2220609	7	Fitting, Reducer	
42	2750901	2	Hose	
43	2220584	2	Fitting, Tee	
44	4640013	1	Valve, Shuttle	
45	2220414	2	Fitting	
47	2220415	4	Fitting	
48	2220263	1	Fitting, Reducer	
49	2220346	1	Fitting	
50	2220329	1	Fitting, Reducer	
51	2220800	1	Fitting, Straight	

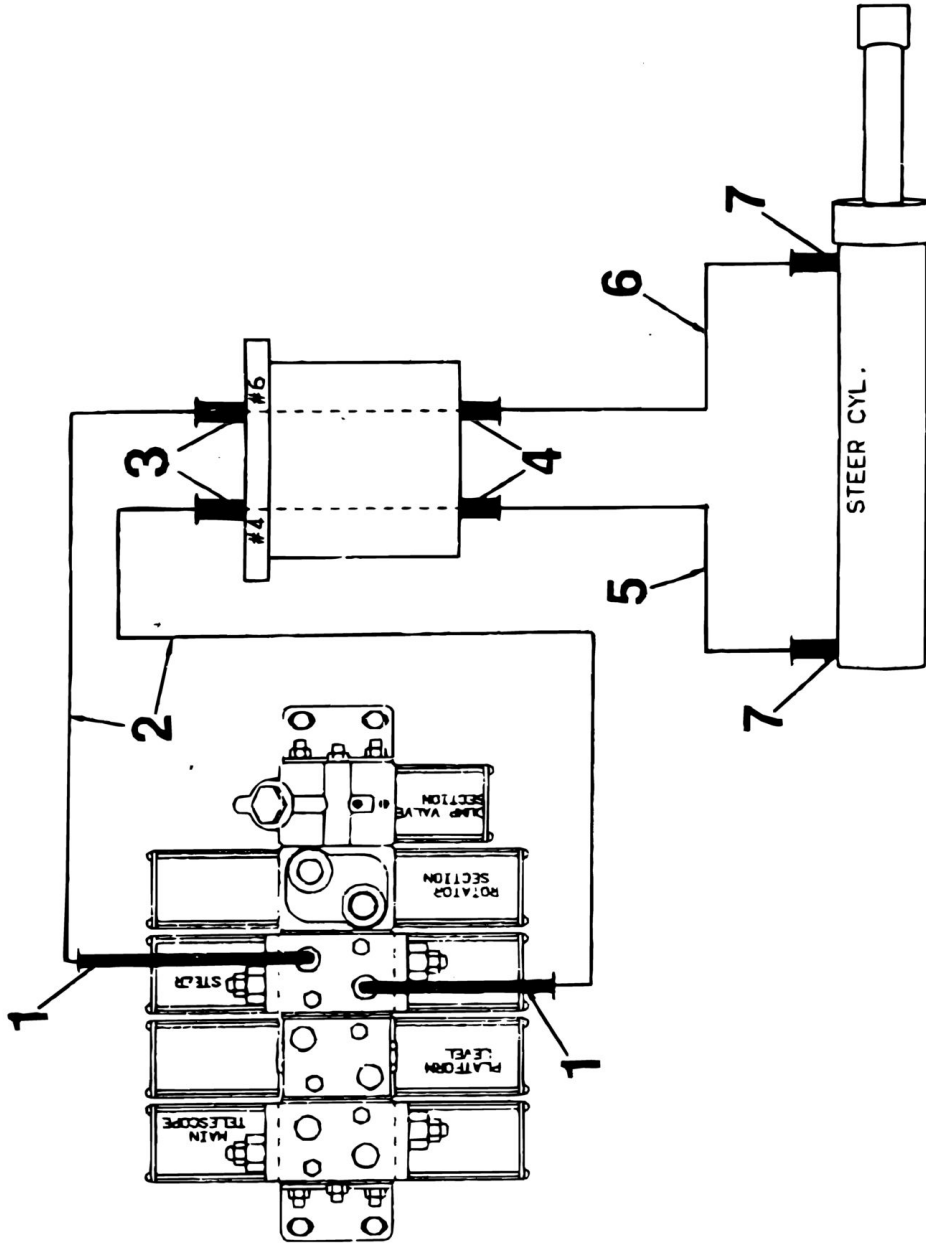
## SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
52	2220591	4	Fitting, Reducer	
53	2220908	1	Fitting, Orifice	
54	2220497	2	Fitting	
55	2750762	2	Hose	
56	2750998	1	Hose	
57	2751418	1	Hose	
58	2751421	1	Hose	
59	2751101	2	Hose	
61	2751394	2	Hose	
62	2751020	1	Hose	
63	2220582	2	Fitting	
64	2220372	2	Fitting	
66	2751852	1	Hose	
67	4640817	2	Valve, Restrictor (.040)	
68	2750991	2	Hose	
69	2220604	1	Fitting, Tee	
72	2751150	2	Hose	
73	2750999	1	Hose	
74	1320030	4	Clamp	
75	2180652	1	Fitting, Modified	
76	2220773	1	Fitting, 90	
77	2751391	1	Hose	
78	2220605	1	Fitting, Tee	
79	2220466	1	Fitting, 90	
80	4640818	1	Valve	
81	2220371	1	Fitting	
82	2750921	1	Hose	
83	2220507	3	Fitting, 90	
84	2751010	4	Hose	
85	2752163	1	Hose	
86	2751007	1	Hose	
87	2220727	1	Fitting	
88	2220261	1	Fitting, Nipple	
89	4640128	1	Valve, Flow Control	
90	2220399	1	Fitting	
91	4640213	1	Valve, Restrictor (.015)	
92	2220261	1	Fitting, Straight	
93	2220110	1	Fitting, 90	
94	2220635	1	Fitting, Tee	
95	2751026	1	Hose	
96	2750892	1	Hose	
	0100020	AR	Sealant, Thread	



# SECTION 6 - HYDRAULIC

## FIGURE 6-8. HYDRAULIC DIAGRAM - STEER



STANDARD BANG-BANG CONTROLS SHOWN  
USE AS A REFERENCE FOR HYDRAULIC CONTROLS

1282380 - REV. X

## SECTION 6 - HYDRAULIC

### FIGURE 6-8. HYDRAULIC DIAGRAM - STEER

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>HYDRAULIC DIAGRAM - STEER</b>	
	2791625	Ref	<b>2WD FIXED AXLE/BANG-BANG OR PROPORTIONAL CONTROLS</b>	A
	2791626	Ref	<b>2WD OSCILLATING AXLE/BANG-BANG OR PROPORTIONAL CONTROLS</b>	A
	2791633	Ref	<b>4WD/BANG-BANG OR PROPORTIONAL CONTROLS</b>	A
1	2220468	2	Fitting, Straight	
2	2751391	2	Hose	
3	2220496	2	Fitting, 45	
4	2220414	2	Fitting, Straight	
5		Ref	Hose Options:	
5	2750894	1	2WD Fixed Axle/Bang-Bang	
5	2750897	1	2WD Oscillating Axle/Bang-Bang	
5	2750892	1	4WD Bang-Bang or Proportional Controls	
6		Ref	Hose Options:	
6	2750895	1	2WD Fixed Axle/Bang-Bang	
6	2750897	1	2WD Oscillating Axle/Bang-Bang	
6	2750892	1	4WD Bang-Bang or Proportional Controls	
7	2220416	2	Fitting, 90	

# SECTION 6 - HYDRAULIC

## FIGURE 6-9. HYDRAULIC DIAGRAM LIST

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>Note: Information on diagrams not shown is available from JLG Service/Parts Departments.</b>	
		Ref	<b>Axle Lockout Hydraulic Diagrams:</b>	
	2791624	Ref	All Machines Built Prior to June 1992	
	2791866	Ref	2WD Machines Built June 1992 to Present	
	2791865	Ref	4WD Machines Built June 1992 to Present	
	1281328	Ref	<b>Drive Hydraulic Diagram - 2WD/2WS Without Swivel:</b>	
	2791645	Ref	Deutz With Standard Bang-Bang Controls	
	2791677	Ref	Deutz With Proportional Controls	
	1281327	Ref	<b>Drive Hydraulic Diagram - 2WD/2WS With Swivel:</b>	
	2791627	Ref	Deutz With Standard Bang-Bang Controls	
	2791678	Ref	Deutz With Proportional Controls	
	1281547	Ref	<b>Drive Hydraulic Diagram - 2WS/4WS With Swivel:</b>	
	2791803	Ref	Deutz With Standard Bang-Bang Controls	
	2791804	Ref	Deutz With Proportional Controls	
	1281330	Ref	<b>Drive Hydraulic Diagram - 4WD/2WS Without Swivel:</b>	
	2791660	Ref	Deutz With Standard Bang-Bang Controls	
	2791682	Ref	Deutz With Proportional Controls	
	1281329	Ref	<b>Drive Hydraulic Diagram - 4WD/2WS With Swivel:</b>	
	2791632	Ref	Deutz With Standard Bang-Bang Controls	
	2791680	Ref	Deutz With Proportional Controls	
	1281548	Ref	<b>Drive Hydraulic Diagram - 4WD/4WS With Swivel:</b>	
	2791805	Ref	Deutz With Standard Bang-Bang Controls	
	2791807	Ref	Deutz With Proportional Controls	
		Ref	<b>Manual Descent Hydraulic Diagrams:</b>	
	0251299	Ref	Valves and Hosing (Prior to June 1992)	
	0253239	Ref	Valves and Hosing (June 1992 to Present)	
	2791785	Ref	Hydraulic Diagram (Prior to June 1992)	
	2791968	Ref	Hydraulic Diagram (June 1992 to Present)	
	0253393	Ref	<b>Oil Cooler Hydraulic Diagram</b>	
		Ref	<b>Rotate Hydraulic Diagrams:</b>	
	2791578	Ref	Standard Bang-Bang and Proportional Controls	
		Ref	<b>Standard Hydraulic Diagrams:</b>	
	2791592	Ref	Deutz With Standard Bang-Bang Controls (Prior to June 1992)	
	2791957	Ref	Deutz With Standard Bang-Bang Controls (June 1992 to May 1993)	
	2792002	Ref	Deutz With Standard Bang-Bang Controls (May 1993 to Present)	
	2791857	Ref	Deutz With Proportional Controls (Prior to June 1992)	
	2791960	Ref	Deutz With Proportional Controls (June 1992 to May 1993)	
	2792003	Ref	Deutz With Proportional Controls (May 1993 to Present)	
	1281326	Ref	<b>Steer Hydraulic Diagram Without Swivel (2WS)</b>	
	2791655	Ref	2WD Fixed Axle With Standard Bang-Bang or Proportional Controls	
	2791656	Ref	2WD Oscillating Axle With Standard Bang-Bang or Proportional Controls	
	2791657	Ref	4WD With Standard Bang-Bang or Proportional Controls	
	1281284	Ref	<b>Steer Hydraulic Diagram With Swivel (2WS)</b>	
	2791625	Ref	2WD Fixed Axle With Standard Bang-Bang or Proportional Control	

## SECTION 6 - HYDRAULIC

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	2791626	Ref	2WD Oscillating Axle With Standard Bang-Bang or Proportional Control	
	2791633	Ref	4WD With Standard Bang-Bang or Proportional Control	
	1281553	Ref	<b>Steer Hydraulic Diagram (4WS)</b>	
	2791812	Ref	2WD Fixed Axle	
	2791813	Ref	2WD Oscillating Axle	
	2791814	Ref	4WD	
		Ref	<b>Tow Hydraulic Diagrams</b>	
	2791295	Ref	Tow Hydraulic (Prior to March 1993)	
	2791764	Ref	Tow Hydraulic (March 1993 to Present)	





**SECTION 7 - ELECTRICAL**

# SECTION 7 - ELECTRICAL

## FIGURE 7-1. ELECTRICAL DIAGRAM LIST

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
		Ref	<b>ELECTRICAL DIAGRAM LIST</b>	
		Ref	<b>Note: Diagrams not shown re available from the JLG Service Department.</b>	
		Ref	<b>Alarm Electrical Diagrams Options</b>	
		Ref	<b>Machines Built Prior to January 1993:</b>	
	4931947	Ref	<b>Travel/Back-up/Swing Descent Electrical Diagram</b>	G
	1281985	Ref	<b>Travel/Back-up/Swing Descent Electrical Diagram</b>	G
	0610091	1	Card, Circuit	
	3740049	1	Relay	
	4931946	Ref	<b>Motion Electrical Diagram</b>	-
	3990010	2	Diode - 6 Amp	
	3740049	1	Relay, Bosch - SPDT	
	0140016	1	Alarm, Horn	
	4931954	Ref	<b>Tilt Electrical Diagram (5)</b>	5
	0140016	1	Alarm, Horn	
	3740049	1	Relay, Bosch - SPDT	
	4360089	1	Flasher - 12V	
		Ref	<b>Machines Built January 1993 to Present:</b>	
	4932638	Ref	<b>Travel Electrical Diagram</b>	2
	1282091	Ref	<b>Travel Electrical Diagram</b>	D
	0610104	1	Card, Circuit	
	4932639	Ref	<b>Motion Electrical Diagram</b>	2
	1282091	Ref	<b>Motion Electrical Diagram</b>	D
	3740049	1	Relay	
	3990010	2	Diode - 6 Amp	
	1060341	8 ft/2.5m	Cable, Electrical - 16/2	
	0253077	Ref	<b>Tilt Electrical Diagram</b>	5
	0140026	1	Alarm	
	1540002	1	Capacitor	
	4932490	Ref	<b>Australian Spec Modification Wiring Diagram</b>	B
	0254240	Ref	<b>Cold Weather Electrical Diagram (Deutz)</b>	B
	1281701	Ref	<b>Cold Weather Electrical Diagram (Deutz)</b>	D
	4932362	Ref	<b>Collector Ring Electrical Diagram (4WS)</b>	A
	1281526	Ref	<b>Collector Ring Electrical Diagram (4WS)</b>	C
	1060042	15 ft	Cable, Electrical - 16/5	
	4460049	1	Connector, Strain Relief (At Ground Control Box)	
	0960239	1	Bushing	
	3300047	1	Nut, Conduit	
		Ref	<b>Drive Cutout Wiring Diagrams</b>	
	4932321	Ref	Eight Meter Drive Cutout (Austrian, Dutch and German Spec)	A
	3740057	1	Relay	
	4120012	1	Socket	
	4932320	Ref	<b>Horizontal Drive Cutout (Italian Spec)</b>	A
	0251537	Ref	<b>Engine Distress Electrical Diagram - Deutz Machines</b>	D
	1281525	Ref	<b>Engine Distress Electrical Diagram - Deutz Machines</b>	E
	4921361	1	Harness	
	4360065	1	Switch, Pressure	
	2920026	1	Lamp, Indicator (At Platform Console)	
	0251682	Ref	<b>Engine Shutdown Electrical Diagram (Deutz) (1991 to Present)</b>	-

## SECTION 7 - ELECTRICAL

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3990010	1	Diode - 6 Amp	
	3740049	1	Relay, Bosch - SPDT	
	4360065	1	Switch, Pressure - N.C.	
	4932492	Ref	<b>French Spec Modification Wiring Diagram</b>	C
	1693405	1	Relay, Time Delay	
	1692927	1	Base, Relay	
	4931945	Ref	<b>Generator Electrical Diagram (110V)</b>	A
	4460027	1	Outlet, Electrical - Female Twist Lock	
	3990001	1	Diode - 3.5 Amp (Deutz and Kubota)	
	3990010	2	Diode - 6.5 Amp (Ford)	
	3740049	2	Relay, Bosch - SPDT	
	4360294	1	Breaker, Circuit - 30 Amp Marine Type	
	4931998	Ref	<b>Heaters Electrical Diagram</b>	A
	1060016	20 ft	Cable, Electrical - 16/3 (Heaters to Junction Box)	
	1060012	3 ft	Cable, Electrical - 12/4 (Thermostat to Junction Box)	
		Ref	<b>Lights Electrical Diagram Options</b>	
	4931942	Ref	<b>Beacon Light On Hood Electrical Diagram</b>	5
	1281671	Ref	<b>Beacon Light On Platform Electrical Diagram (September 1991 to Present)</b>	D
	4931740	Ref	<b>Beacon Light On Platform Electrical Diagram (Prior to September 1991)</b>	A
	2920018	1	Light, Beacon - Amber	
	2920009	1	Light, Beacon - Red	
	3252269		Nameplate - LP Light	
	4931941	Ref	<b>Headlights and Taillights Electrical Diagram</b>	E
	3740049	1	Relay, Bosch - SPDT (At Ground Control Box)	
	4360199	1	Switch, Toggle (At Platform Console Box)	
	3251019	1	Nametag - Light On	
	1060016	AR	Cable, Electrical - 16/3	
	2920019	2	Taillight/Clearance Light	
	3740002	1	Relay, Power	
	0251619	Ref	<b>Panel Lights Electrical Diagram (Standard Bang-Bang and Proportional Controls)</b>	A
	1281525	Ref	<b>Panel Lights Electrical Diagram (Standard Bang-Bang and Proportional Controls)</b>	D
	2920024	3	Light, Panel	
	4931943	Ref	<b>Worklights Electrical Diagram (Prior to November 1992)</b>	
	4360232	1	Breaker, Circuit - 15 Amp	
	2920013	2	Worklight	
	0253987	Ref	<b>Worklights Electrical Diagram (November 1992 to Present)</b>	C
	2920111	2	Worklight, Halogen	
	0253393	Ref	<b>Oil Cooler Electrical Diagram</b>	-
	4921529	1	Harness	
	4360181	1	Switch, Temperature	
		Ref	<b>Platform Electrical Diagrams Options</b>	
		Ref	<b>Bang-Bang (Standard) Controls:</b>	
	4932377	Ref	<b>Platform Electrical Diagram - Deutz 2WS</b>	A
	1281565	Ref	<b>Platform Electrical Diagram - Deutz 2WS</b>	C
	4932824	Ref	<b>Platform Electrical Diagram - Kubota 2WS</b>	-
	1281438	Ref	<b>Platform Electrical Diagram - Kubota 2WS</b>	G
	4932318	Ref	<b>Platform Electrical Diagram - Deutz 4WS</b>	B
	1540002	1	Capacitor 1000MFD/25VDC	

## SECTION 7 - ELECTRICAL

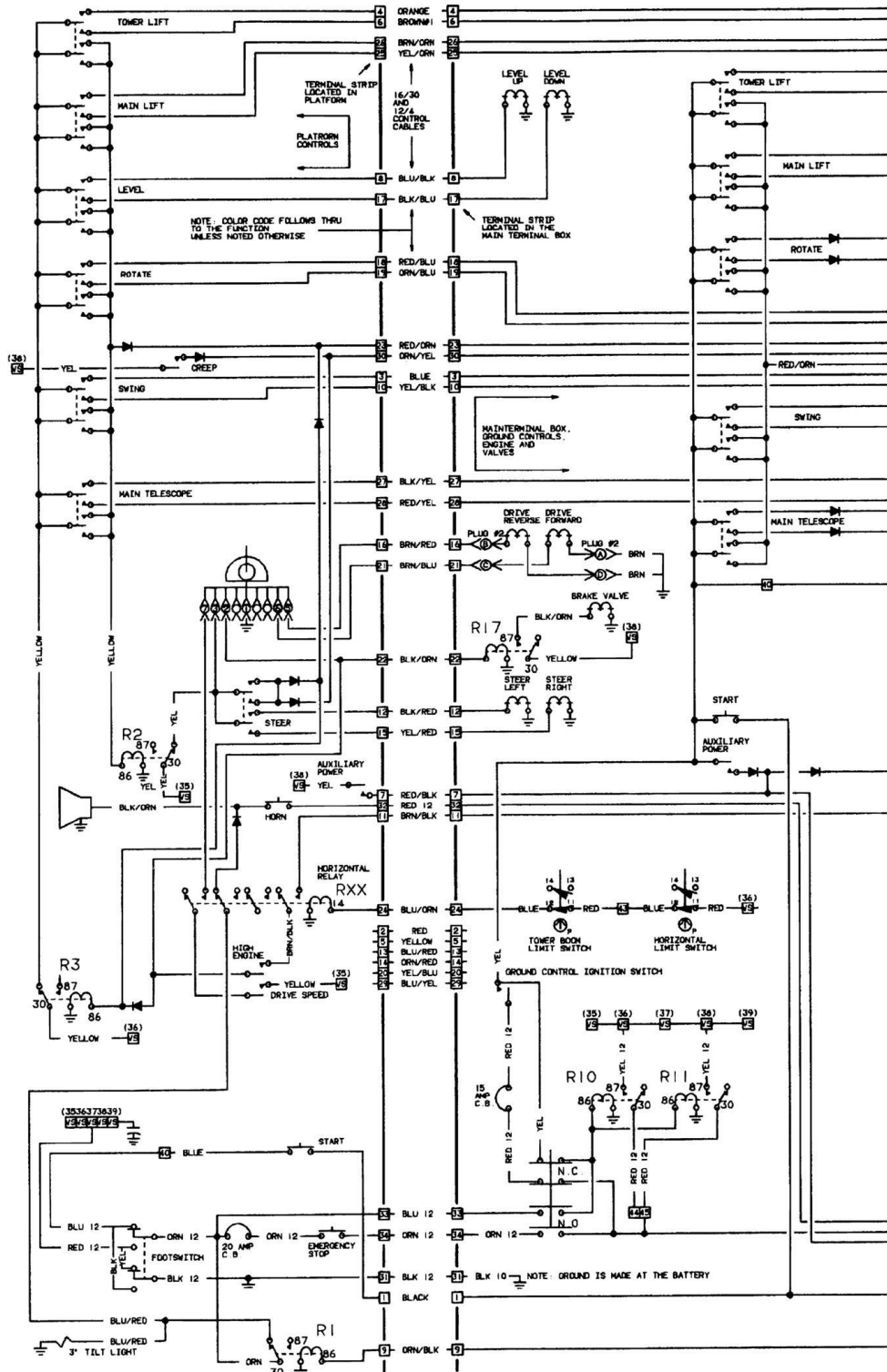
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3990010	AR	Diode - 6 Amp	
	1060515	8 ft/2.4m	Cable, Electrical - 12/4 (To Footswitch) (was p/n 1060309)	
	4932825	Ref	<b>Platform Electrical Diagram - Kubota 4WS</b>	-
	1282481	Ref	<b>Platform Electrical Diagram - Kubota 4WS</b>	-
	1540002	1	Capacitor 1000MFD/25VDC	
	3990010	10	Diode - 6 Amp	
	1060309	8 ft/2.4m	Cable, Electrical - 12/4 (To Footswitch)	
		Ref	<b>Proportional Controls:</b>	
	4932384	Ref	<b>Platform Electrical Diagram - Deutz 2WS (Prior to January 1993)</b>	F
	1281578	Ref	<b>Platform Electrical Diagram - Deutz 2WS (Prior to January 1993)</b>	A
	4932382	Ref	<b>Platform Electrical Diagram - Deutz 4WS (Prior to January 1993)</b>	-
	1281578	Ref	<b>Platform Electrical Diagram - Deutz 4WS (Prior to January 1993)</b>	A
	4932586	Ref	<b>Platform Electrical Diagram - Deutz 2WS (January 1993 to Present)</b>	A
	1281972	Ref	<b>Platform Electrical Diagram - Deutz 2WS (January 1993 to Present)</b>	-
	4932587	Ref	<b>Platform Electrical Diagram - Deutz 4WS Without Steer In (January 1993 to Present)</b>	-
	1281972	Ref	<b>Platform Electrical Diagram - Deutz 4WS Without Steer In (January 1993 to Present)</b>	-
	3990010	9	Diode - 6 Amp	
	1540002	1	Capacitor 1000mfd/25V	
	1060309	8 ft/2.4m	Cable, Electrical - 12/4 (To Footswitch) (Prior to January 1993)	
	1060515	8 ft/2.4m	Cable, Electrical - 12/4 (To Footswitch) (January 1993 to Present) (was p/n 1060012)	
	4932089	Ref	<b>Platform Interlock Wiring Diagram (French Spec)</b>	-
	3740049	1	Relay	
	1060300	15 ft/4.6m	Cable, Electrical - 16/3	
	4932340	Ref	<b>Platform Safe-Load System Wiring Diagram (French Spec) (Original Equipment)</b>	C
	3740049	2	Relay, Bosch	
	3990010	1	Diode	
	1693405	1	Relay, Timer	
	1692927	1	Base, Relay	
	4933007	Ref	<b>Platform Safe-Load System Wiring Diagram (French Spec) (Service Replacement Alternative)</b>	A
	1870005	Ref	<b>Schematic, Electrical - EN280 Deutz</b>	-
		Ref	<b>Standard Electrical Diagram Options:</b>	
		Ref	<b>Deutz Machines:</b>	
	4932317	Ref	<b>Standard Bang-Bang Controls</b>	9
	1060300	16 ft/4.8m	Cable, Electrical - 16/3 (To Limit Switches)	
		Ref	Harness - Engine and Valves Options:	
	4921250	1	Harness - Engine and Valves Prior to August 1995	
	4921788	1	Harness - Engine and Valves August 1995 to Present	
	3990010	6	Diode - 6 Amp	
		Ref	<b>Kubota Machines:</b>	
	4932822	Ref	<b>Standard Bang-Bang Controls</b>	A
	1060300	10 ft/3.0m	Cable, Electrical - 16/3 (To Limit Switches)	
	4921286	1	Harness - Engine and Valves	

## SECTION 7 - ELECTRICAL

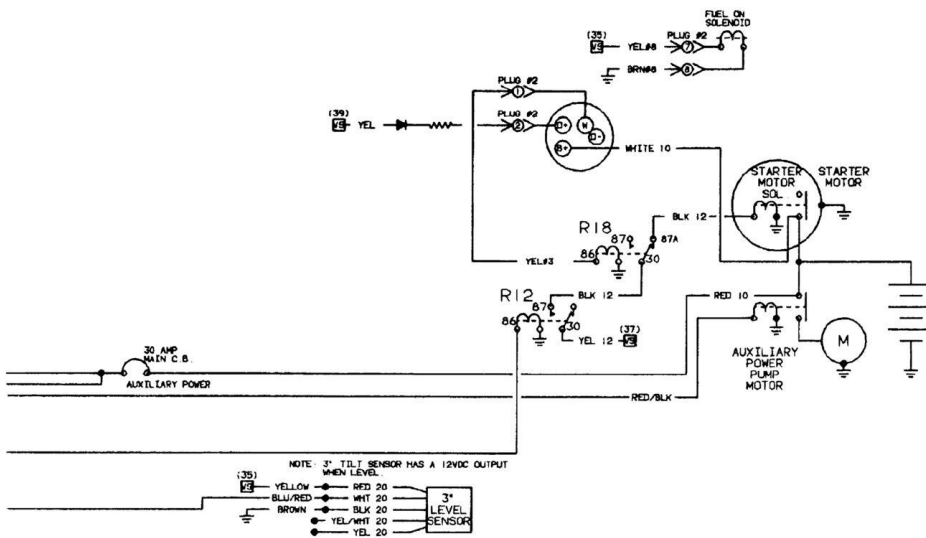
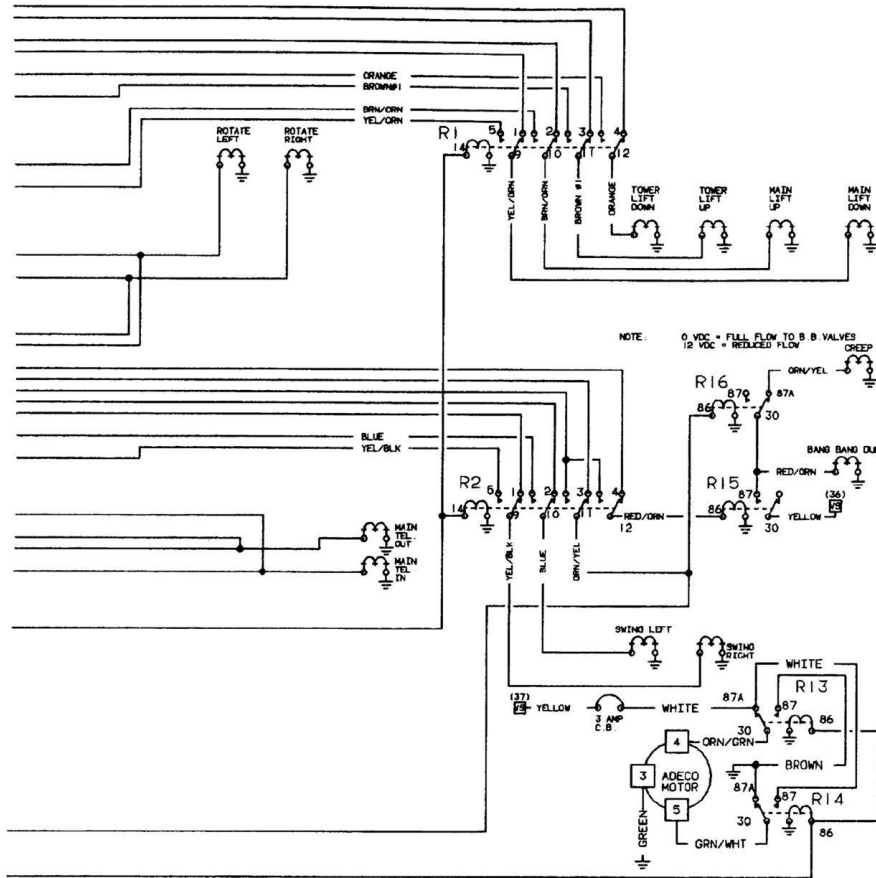
ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	3990010	6	Diode - 6 Amp	
	4932362	Ref	<b>Steer Electrical Diagram (4WS)</b>	-
	1281526	Ref	<b>Steer Electrical Diagram (4WS)</b>	A
	1060042	4.3 m	Cable, Electrical - 16/5	
	4460260	1	Connector, Strain Relief (At Ground Control Box)	
	0960239	1	Bushing	
	3300047	1	Nut, Conduit	

# SECTION 7 - ELECTRICAL

## FIGURE 7-2. STANDARD ELECTRICAL DIAGRAM - DEUTZ WITH STANDARD BANG-BANG CONTROLS



# SECTION 7 - ELECTRICAL



1870005 - Rev -

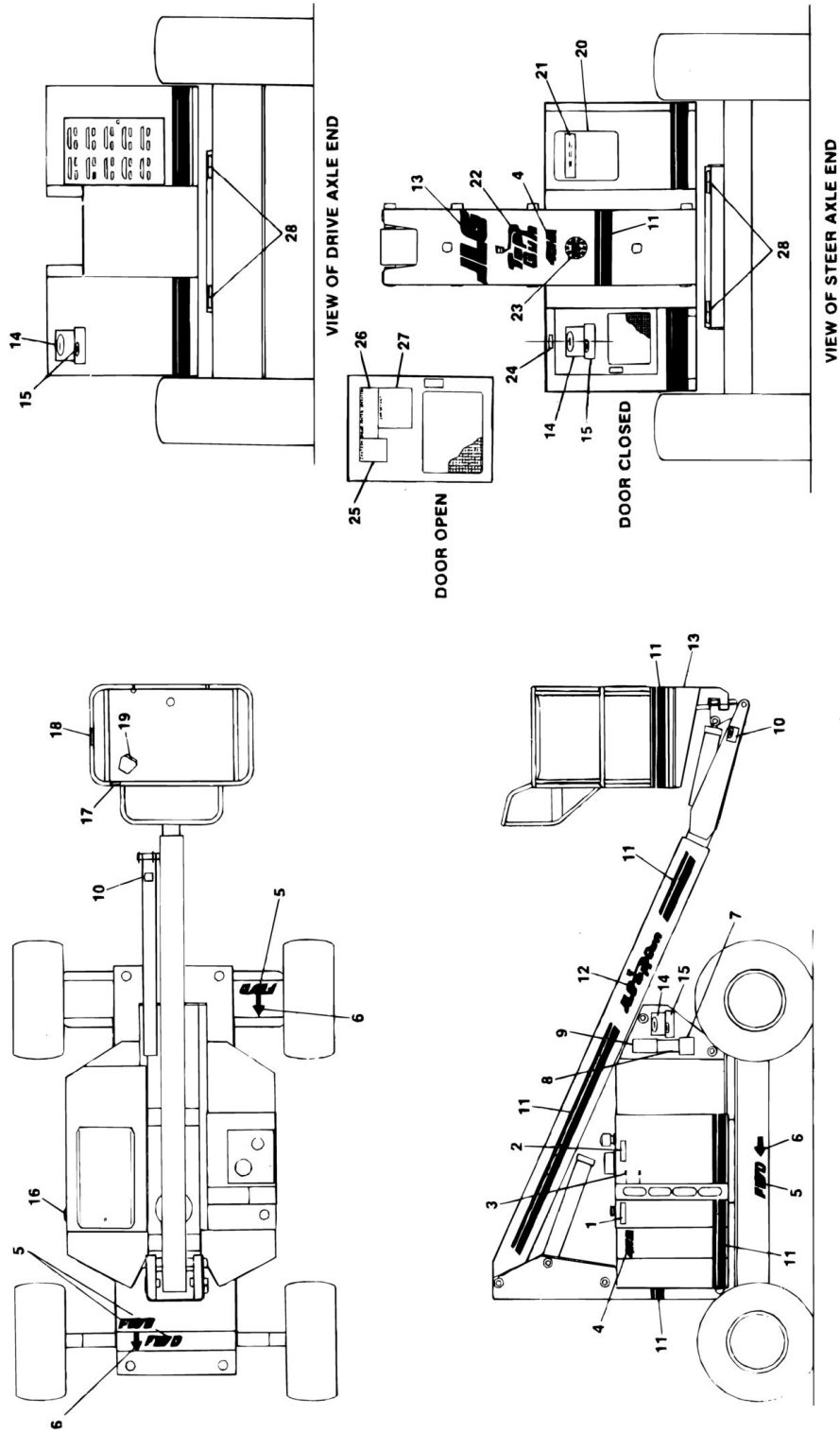




**SECTION 8 - DECALS**

# SECTION 8 - DECALS

## FIGURE 8-1. DECALS INSTALLATION (PRIOR TO FEBRUARY 1992)



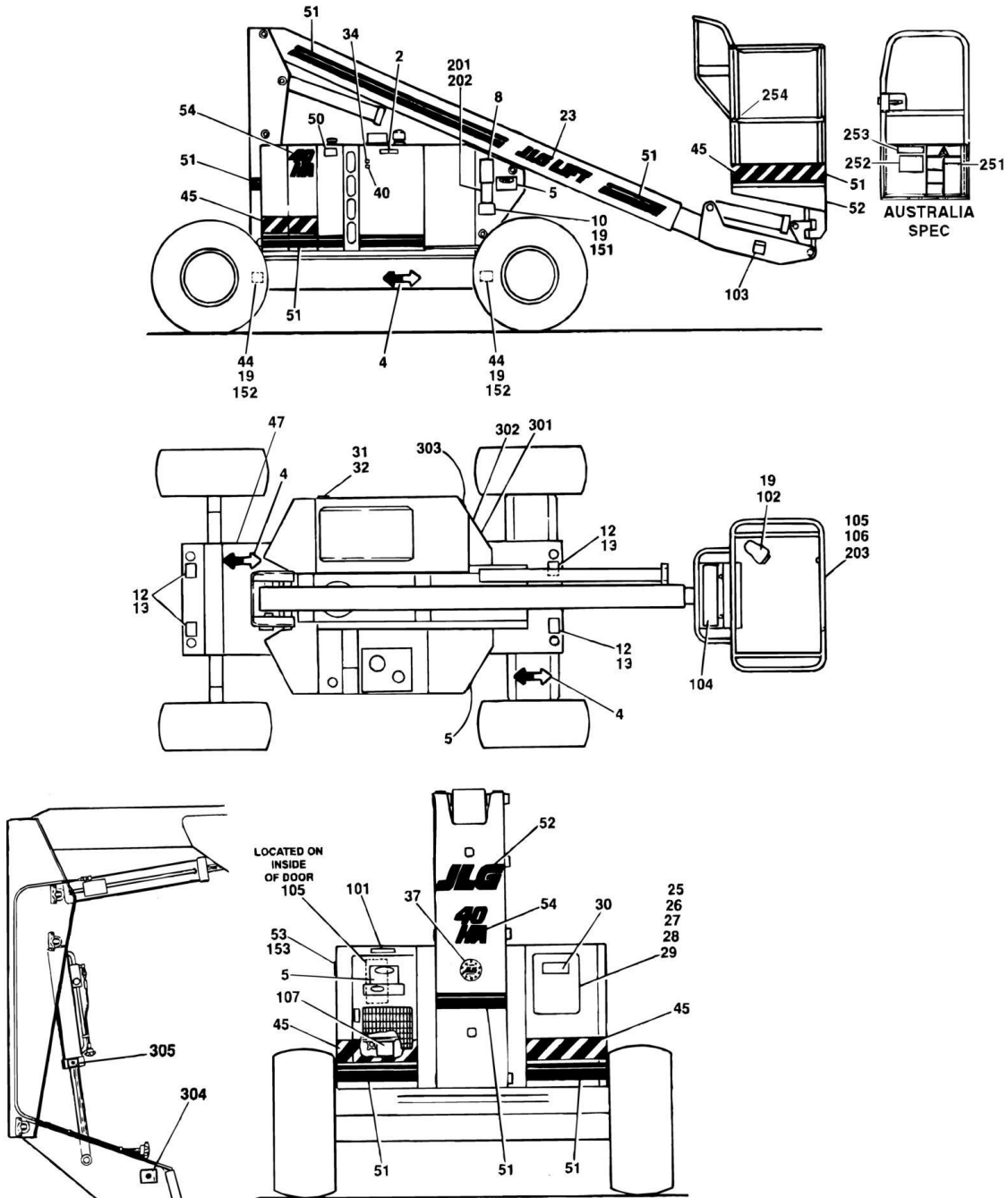
## SECTION 8 - DECALS

**FIGURE 8-1. DECALS INSTALLATION (PRIOR TO FEBRUARY 1992)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0250026	Ref	<b>DECAL INSTALLATION</b>	C
1	1700428	1	Decal - Fuel (Diesel)	
2	1700419	1	Decal - Hydraulic Fluid	
3	1700756	1	Decal - Add/Full	
4	1701239	3	Decal - 40HA	
5	1700977	4	Decal - FWD	
6	1700978	4	Decal - Arrow	
7	Consult Factory	1	Nameplate - Serial Number	
8	1700593	1	Decal - Inspection	
9	1700584	1	Decal - Patent	
10	1700640	3	Decal - Crushing	
11	1700431	14.6 m	Decal - Stripe	
12	1700979	2	Decal - Top gun (Boom)	
13	1700981	2	Decal - JLG	
14	1700585	4	Decal - Crushing	
15	1700580	4	Decal - Electrocution	
16	3251243	1	Nameplate - 120V	
16	0961127	1	Bushing, Snap	
16	0100010	AR	Loctite	
17	1700477	1	Decal - Attach Belt	
18	1700476	2	Decal - No Hands	
19	3252347	1	Nameplate - Footswitch (was p/n 3251766)	
19	3820001	2	Rivet	
20	0860520	1	Box, Manual Storage	
20	3311405	4	Locknut 1/4in-20NC	
20	4751400	4	Flatwasher 1/4in	
20	1060279	1	Cable, Lanyard	
20	0641408	1	Bolt 1/4in-20NC x 1in	
20	4751400	2	Flatwasher 1/4in	
20	3311405	1	Locknut 1/4in-20NC	
21	1700157	1	Decal - Manual	
22	1700980	1	Decal - Top Gun (Upright)	
23	3251813	1	Nameplate - Made in U.S.A.	
24	1700037	1	Decal - Ground Control	
25	3251028	1	Decal - LP Caution	
26	1700582	1	Decal - Ground Control Operation Options:	
27	1700643	1	Decal - Important Options:	
28	1700975	4	Decal - Lift Here Options:	
	1700976	4	Decal - Tie Down Options:	
	2900763	1	Decal Kit - 40HA	
	0251301	Ref	<b>CORNER WARNING STRIPES INSTALLATION</b>	A
	4420051	AR	Tape, Safety - Black/Yellow	

# SECTION 8 - DECALS

## FIGURE 8-2. DECALS INSTALLATION (FEBRUARY 1992 TO PRESENT)



## SECTION 8 - DECALS

**FIGURE 8-2. DECALS INSTALLATION (FEBRUARY 1992 TO PRESENT)**

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0252822	Ref	<b>DECALS INSTALLATION (STANDARD PARTS)</b>	
2	1701504	1	Decal - Hydraulic	
4	1701529	4	Decal - Arrow	
5	1701518	4	Decal - Crushing	
8	1700584	1	Decal - Patent	
10	Consult Factory	1	Nameplate - Serial Number <b>(Prior to SN 29221)</b>	
12	1701500	AR	Decal - Tie Down/Lift	
13	1702300	4	Decal - Tie Down <b>(SN 27521 to Present)</b>	
19	3820001	AR	Rivet	
23	1701550	2	Decal - JLG Lift	
25	0860520	1	Box, Manual Storage	
26	4751400	6	Flatwasher 1/4in	
27	3311405	5	Locknut 1/4in-20NC	
28	1060279	1	Lanyard	
29	0641408	1	Bolt 1/4in-20NC x 1in	
30	1701509	1	Decal - Manual	
31	0961127	1	Bushing, Snap	
32	0100010	AR	Adhesive	
34	1701502	1	Decal - Add/Full	
37	3251813	1	Nameplate - Made in U.S.A. (Prior to September 1995)	
40	1701503	1	Decal - Hydraulic Oil Level (Low)	
44	1701555	4	Decal - Tire Pressure (Prior to September 1995)	
45	4420052	17 ft/5m	Tape, Safety	
47	Not Available	1	Decal - Bar Code	
	2900999	1	Decal - Kit (Black) (Includes Items 2, 4, 5, 8, 12, 13, 23, 30, 34, 40, 45, 52, 53, 54 & 301-305)	
		Ref	<b>DECAL INSTALLATIONS (VARIABLE PARTS)</b>	
	0252822	Ref	<b>DECAL INSTALLATION - BROWN</b>	E
	0252823	Ref	<b>DECAL INSTALLATION - BLACK</b>	E
50		Ref	Decal - Diesel Fuel Options:	
50	1700428	1	Brown	
50	1700196	1	Black	
51		Ref	Decal - Stripe Options:	
51	1700431	35.5 ft/11m	Brown (Prior to September 1995)	
51	1701703	35.5 ft/11m	Brown (September 1995 to Present)	
51	1701334	35.5 ft/11m	Black	
52		Ref	Decal - JLG Options:	
52	1700981	2	Brown	
52	1701321	2	Black	
53		Ref	Decal - 40HA Options:	
53	1701239	1	Decal Brown - 40HA	
53	1701725	1	Decal Black - 40HA (Located on Engine Door Only)	
54		Ref	Decal - 40HA Options:	
54	1701470	2	Brown	
54	1701594	2	Black	
		Ref	<b>DECALS INSTALLATIONS:</b>	
	0252824	Ref	<b>EURO ENGLISH AND AUSTRALIA</b>	C

## SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0252825	Ref	<b>FRENCH</b>	2
	0252826	Ref	<b>GERMAN AND AUSTRIAN</b>	A
	0252828	Ref	<b>DUTCH</b>	2
	0252827	Ref	<b>ITALIAN</b>	A
	0253261	Ref	<b>SPANISH</b>	B
101		Ref	Decal - Ground Control Options:	
101	1700037	1	Euro English and Australia - Ground Control	
101	1701515	1	French - Commandes Sol	
101	1693285	1	German and Austrian - Bodenkontrolle	
101	1701616	1	Dutch - Noodbeniening	
101	1701599	1	Italian - Comando A Terra	
101	1701789	1	Spanish - Control De Tierra	
102		Ref	Nameplate - Footswitch Options:	
102	3252347	1	Euro English and Australia - (Machines built prior to July 1992) (was p/n 3251766)	
102	1693292	1	French - Attention	
102	1693294	1	German and Austrian - Achtung	
102	1703518	1	Dutch	
102	1701600	1	Italian - Attenzione	
102	1701791	1	Spanish - Precaucion	
103		Ref	Decal - Caution Options:	
103	1701460	2	Euro English and Australia - Caution (Prior to May 1994)	
103	1702280	2	Euro English and Australia - Cauton (May 1994 to Present)	
103	1701572	2	French - Attention	
103	1701573	2	German and Austrian - Vorsicht	
103	1701574	2	Dutch - Waarschuwing	
103	1701571	2	Italian - Attenzione	
103	1701796	2	Spanish - Precaucion	
104		Ref	Decal - Caution Options:	
104	1690696	1	Euro English and Australia - Caution	
104	1693286	1	French - Attention	
104	1693288	1	German and Austrian - Achtung	
104	Not Required	0	Dutch	
104	1701601	1	Italian - Attenzione	
104	1701794	2	Spanish - Precaucion	
105		Ref	Decal - Caution Options:	
105	1691483	1	Euro English and Australia - Caution	
105	1693289	1	French - Attention	
105	1693291	1	German and Austrian - Achtung	
105	1701596	2	Dutch - Belangrijk	
105	1701602	1	Italian - Attenzione	
105	1701798	1	Spanish - Precaucion	
106		Ref	Decal - Caution Options:	
106	1690697	1	Euro English and Australia - Caution	
106	1701577	1	French - Capacity ( <b>Prior to SN 29221</b> )	
106	1701649	1	French - Capacity ( <b>SN 29221 to Present</b> )	
106	1690697	1	German and Austrian - Capacity	
106	1701567	1	Dutch - Capacity	
106	1690697	1	Italian - Capacity	
106	1690697	1	Spanish - Capacity	
107		Ref	Decal - Important Options:	
107	1702265	1	Euro English and Australia - Important	

## SECTION 8 - DECALS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
107	1702270	1	French - Important	
107	1702267	1	German and Austrian - Important	
107	1702268	1	Dutch - Important	
107	1702269	1	Italian - Important	
107	1702266	1	Spanish - Important	
	0257168	Ref	<b>DECALS INSTALLATION - CE</b>	2
151	Not Available	1	Nameplate - Serial Number	
152	1703248	4	Decal - Max Wheel Load	
153	1702928	1	Decal - CE (Located on Engine Door Only)	
	0253554	Ref	<b>DECALS INSTALLATION - AUSTRALIAN ONLY (Prior to SN 34839)</b>	C
201		Ref	Nameplate - Important Options:	
201	3252197	1	Nameplate - Important <b>(Prior to SN 26473)</b>	
201	1702958	1	Nameplate - Important <b>(SN 26473 to Present)</b>	
202	3820001	4	Rivet	
203	1701818	2	Decal - Access Forbidden	
	0257269	Ref	<b>DECALS INSTALLATION - AUSTRALIAN ONLY (SN 34839 to Present)</b>	3
251	1703677	1	Decal - Safe Working Load	
252	1703665	2	Decal - Danger (Electric Hazard)	
253	1703663	1	Decal - Maintenance	
254	1703664	1	Decal - Caution	
	0251830	Ref	<b>MANUAL DESCENT DECALS INSTALLATION (AUSTRALIAN, FRENCH AND ITALIAN SPEC)</b>	A
301	1701428	1	Decal - #1	
302	1701427	1	Decal - #2	
303	1701495	1	Decal - Instructions	
304	1701493	1	Decal - #1	
305	1701494	1	Decal - #2	





## **SECTION 9 - RECOMMENDED SERVICE PARTS STOCK**

## **SECTION 9 - RECOMMENDED SERVICE PARTS STOCK**

## SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

FIGURE 9-1. MODEL 40HA WITH STANDARD BANG-BANG CONTROLS STANDARD PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	<b>Note: 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.</b>	
		Ref	<b>STANDARD PARTS</b>	
	2120125	4	Element, Pump Charge Filter , (for fleets of 1 to 10)	
	2120125	8	Element, Pump Charge Filter, (for fleets of 10 to 20)	
	2120125	12	Element, Pump Charge Filter, (for fleets of 20 or more)	
	7004368	1	Coil, (for fleets of 1 to 10)	
	7004368	1	Coil, (for fleets of 10 to 20)	
	7004368	1	Coil, (for fleets of 20 or more)	
	7009745	1	Coil, (for fleets of 1 to 10)	
	7009745	1	Coil, (for fleets of 10 to 20)	
	7009745	1	Coil, (for fleets of 20 or more)	
	7000417	1	Coil, (for fleets of 1 to 10)	
	7000417	1	Coil, (for fleets of 10 to 20)	
	7000417	1	Coil, (for fleets of 20 or more)	
	7002450	1	Coil, (for fleets of 1 to 10)	
	7002450	1	Coil, (for fleets of 10 to 20)	
	7002450	1	Coil, (for fleets of 20 or more)	
	7000418	1	Coil, (for fleets of 1 to 10)	
	7000418	1	Coil, (for fleets of 10 to 20)	
	7000418	1	Coil, (for fleets of 20 or more)	
	7004214	1 Dozen	Element, Air Filter, (for fleets of 1 to 10)	
	7004214	1 Dozen	Element, Air Filter, (for fleets of 10 to 20)	
	7004214	1 Dozen	Element, Air Filter, (for fleets of 20 or more)	
	1660184	1	Coupling - 13 Teeth, Pump/Engine, (for fleets of 1 to 10)	
	1660184	1	Coupling - 13 Teeth, Pump/Engine, (for fleets of 10 to 20)	
	1660184	1	Coupling - 13 Teeth, Pump/Engine, (for fleets of 20 or more)	
	1660234	1	Coupling - 15 Teeth, Pump/Engine, (for fleets of 1 to 10)	
	1660234	1	Coupling - 15 Teeth, Pump/Engine, (for fleets of 10 to 20)	
	1660234	1	Coupling - 15 Teeth, Pump/Engine, (for fleets of 20 or more)	
	7012598	4	Element, Fuel Filter, (for fleets of 1 to 10)	
	7012598	8	Element, Fuel Filter, (for fleets of 10 to 20)	
	7012598	12	Element, Fuel Filter, (for fleets of 20 or more)	
	7014502	1 Box	Element, Engine Oil Filter, (for fleets of 1 to 10)	
	7014502	1 Box	Element, Engine Oil Filter, (for fleets of 10 to 20)	
	7014502	1 Box	Element, Engine Oil Filter, (for fleets of 20 or more)	
	7007496	1	Coil, (for fleets of 1 to 10)	
	7007496	1	Coil, (for fleets of 10 to 20)	
	7007496	1	Coil, (for fleets of 20 or more)	
	2120107	4	Element, Hydraulic Oil Filter, (for fleets of 1 to 10)	
	2120107	8	Element, Hydraulic Oil Filter, (for fleets of 10 to 20)	
	2120107	12	Element, Hydraulic Oil Filter, (for fleets of 20 or more)	
	1340046	1	Breather, Hydraulic Oil, (for fleets of 1 to 10)	
	1340046	2	Breather, Hydraulic Oil, (for fleets of 10 to 20)	
	1340046	3	Breather, Hydraulic Oil, (for fleets of 20 or more)	

## SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4360284	1	Switch, Key, (for fleets of 1 to 10)	
	4360284	1	Switch, Key, (for fleets of 10 to 20)	
	4360284	1	Switch, Key, (for fleets of 20 or more)	
	7010698	1	Key, Replacement, (for fleets of 1 to 10)	
	7010698	1	Key, Replacement, (for fleets of 10 to 20)	
	7010698	1	Key, Replacement, (for fleets of 20 or more)	
	4360267	1	Block, Contact , (for fleets of 1 to 10)	
	4360267	1	Block, Contact, (for fleets of 10 to 20)	
	4360267	1	Block, Contact, (for fleets of 20 or more)	
	4360281	1	Block, Contact, (for fleets of 1 to 10)	
	4360281	1	Block, Contact, (for fleets of 10 to 20)	
	4360281	1	Block, Contact, (for fleets of 20 or more)	
	4360199	1	Switch, Toggle, (for fleets of 1 to 10)	
	4360199	1	Switch, Toggle, (for fleets of 10 to 20)	
	4360199	1	Switch, Toggle, (for fleets of 20 or more)	
	4360202	1	Switch, Toggle, (for fleets of 1 to 10)	
	4360202	1	Switch, Toggle, (for fleets of 10 to 20)	
	4360202	1	Switch, Toggle, (for fleets of 20 or more)	
	4360200	1	Switch, Toggle, (for fleets of 1 to 10)	
	4360200	1	Switch, Toggle, (for fleets of 10 to 20)	
	4360200	1	Switch, Toggle, (for fleets of 20 or more)	
	4360274	1	Switch, Push Button, (for fleets of 1 to 10)	
	4360274	1	Switch, Push Button, (for fleets of 10 to 20)	
	4360274	1	Switch, Push Button, (for fleets of 20 or more)	
	3740049	1	Relay, (for fleets of 1 to 10)	
	3740049	1	Relay, (for fleets of 10 to 20)	
	3740049	1	Relay, (for fleets of 20 or more)	
	4360216	1	Breaker, Circuit, (for fleets of 1 to 10)	
	4360216	1	Breaker, Circuit, (for fleets of 10 to 20)	
	4360216	1	Breaker, Circuit, (for fleets of 20 or more)	
	4360232	1	Breaker, Circuit, (for fleets of 1 to 10)	
	4360232	1	Breaker, Circuit, (for fleets of 10 to 20)	
	4360232	1	Breaker, Circuit, (for fleets of 20 or more)	
	3740058	1	Relay - 4PDT, (for fleets of 1 to 10)	
	3740058	1	Relay - 4PDT, (for fleets of 10 to 20)	
	3740058	1	Relay - 4PDT, (for fleets of 20 or more)	
	3740067	1	Relay, (for fleets of 1 to 10)	
	3740067	1	Relay, (for fleets of 10 to 20)	
	3740067	1	Relay, (for fleets of 20 or more)	
	3740077	1	Relay, (for fleets of 1 to 10)	
	3740077	1	Relay, (for fleets of 10 to 20)	
	3740077	1	Relay, (for fleets of 20 or more)	
	7008829	1	PC Board - Adeco, (for fleets of 1 to 10)	
	7008829	1	PC Board - Adeco, (for fleets of 10 to 20)	
	7008829	1	PC Board - Adeco, (for fleets of 20 or more)	
	7008828	1	Cable - Adeco, (for fleets of 1 to 10)	
	7008828	1	Cable - Adeco, (for fleets of 10 to 20)	
	7008828	1	Cable - Adeco, (for fleets of 20 or more)	
	4360212	1	Breaker, Circuit, (for fleets of 1 to 10)	
	4360212	1	Breaker, Circuit, (for fleets of 10 to 20)	
	4360212	1	Breaker, Circuit, (for fleets of 20 or more)	

## SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	4360280	1	Switch, Level Sensor, (for fleets of 1 to 10)	
	4360280	1	Switch, Level Sensor, (for fleets of 10 to 20)	
	4360280	1	Switch, Level Sensor, (for fleets of 20 or more)	
	4360277	1	Switch, Limit, (for fleets of 1 to 10)	
	4360277	1	Switch, Limit, (for fleets of 10 to 20)	
	4360277	1	Switch, Limit, (for fleets of 20 or more)	
	7006139	2	Powertrack - 1 Ft Section, (for fleets of 1 to 10)	
	7006139	2	Powertrack - 1 Ft Section, (for fleets of 10 to 20)	
	7006139	2	Powertrack - 1 Ft Section, (for fleets of 20 or more)	
	7006152	24	Pin Kit, (for fleets of 1 to 10)	
	7006152	24	Pin Kit, (for fleets of 10 to 20)	
	7006152	24	Pin Kit, (for fleets of 20 or more)	
	2940006	1	Latch, Platform Door, (for fleets of 1 to 10)	
	2940006	1	Latch, Platform Door, (for fleets of 10 to 20)	
	2940006	1	Latch, Platform Door, (for fleets of 20 or more)	
	4360031	1	Foot Switch, (for fleets of 1 to 10)	
	4360031	1	Foot Switch, (for fleets of 10 to 20)	
	4360031	1	Foot Switch, (for fleets of 20 or more)	
	3990010	2	Diode, (for fleets of 1 to 10)	
	3990010	2	Diode, (for fleets of 10 to 20)	
	3990010	2	Diode, (for fleets of 20 or more)	



## SECTION 9 - RECOMMENDED SERVICE PARTS STOCK

FIGURE 9-2. MODEL 40HA WITH STANDARD BANG-BANG CONTROLS VARIABLE PARTS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	<b>Note: The following lists 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.</b>	
		Ref	<b>VARIABLE PARTS</b>	
	7010772	1	Coil (4WS), (for fleets of 1 to 10)	
	7010772	1	Coil (4WS), (for fleets of 10 to 20)	
	7010772	1	Coil (4WS), (for fleets of 20 or more)	
	1600116	1	PQ Controller (2WS), (for fleets of 1 to 10)	
	1600116	1	PQ Controller (2WS), (for fleets of 10 to 20)	
	1600116	1	PQ Controller (2WS), (for fleets of 20 or more)	
	1600135	1	PQ Controller (4WS), (for fleets of 1 to 10)	
	1600135	1	PQ Controller (4WS), (for fleets of 10 to 20)	
	1600135	1	PQ Controller (4WS), (for fleets of 20 or more)	
	7003783	1	Electrical Assembly - Controller (2WS), (for fleets of 1 to 10)	
	7003783	1	Electrical Assembly - Controller (2WS), (for fleets of 10 to 20)	
	7003783	1	Electrical Assembly - Controller (2WS), (for fleets of 20 or more)	
	7003797	1	Electrical Assembly - Controller (4WS), (for fleets of 1 to 10)	
	7003797	1	Electrical Assembly - Controller (4WS), (for fleets of 10 to 20)	
	7003797	1	Electrical Assembly - Controller (4WS), (for fleets of 20 or more)	
	7003789	1	Switch, Steer, (for fleets of 1 to 10)	
	7003789	1	Switch, Steer, (for fleets of 10 to 20)	
	7003789	1	Switch, Steer, (for fleets of 20 or more)	

**SECTION 10 - SPECIAL OPTIONS**

# SECTION 10 - SPECIAL OPTIONS

## FIGURE 10-1. SPECIAL OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	Note	Ref	<b>Note: This list is to accommodate machines ordered with special equipment. Options may not be applicable to all models. For more specific parts information contact JLG Parts Department.</b>	
		Ref	<b>MISCELLANEOUS SPECIAL OPTIONS</b>	
		Ref	<b>Airline Installations</b>	
	0252046	Ref	<b>Airline - 1/2in Single Line</b>	D
	0255617	Ref	<b>Airline - 1/2in Dual Line</b>	-
	0254446	Ref	<b>Airline - 3/4in Single Line</b>	A
		Ref	<b>Axle Conversions</b>	
	0251444	Ref	<b>2WD Oscillating to Fixed</b>	-
	0251445	Ref	<b>4WD Oscillating to Fixed</b>	-
	0270723	Ref	<b>Beacon Light Installation - Platform</b>	A
	0251042	Ref	<b>Bubble Level Installation</b>	-
	2420038	1	Gauge, Level	
	0256789	Ref	<b>Camera Mount Assembly</b>	
		Ref	<b>Decals Installations:</b>	
	0255991	Ref	<b>Decals Installation - Capacity Nameplates</b>	-
	1701577	1	Decal - 265Kg	
		Ref	<b>ELECTRICAL CONNECTOR KITS</b>	
	1001148902	Ref	<b>Amp Connector Kit</b>	
	1001148903	Ref	<b>Deutsch DT Connector Kit</b>	
	1001148904	Ref	<b>Deutsch HD Connector Kit</b>	
	1001148905	Ref	<b>Packard Connector Kit</b>	
	1001148906	Ref	<b>Various Connector Kit</b>	
		Ref	<b>Engine Manuals:</b>	
	3120044	1	Deutz FL1011	
		Ref	<b>Filter Kits (Deutz Engine Only):</b>	
	1001110983	1	<b>Combined Filter Kit (Hydraulic/Air and Fuel/Engine Oil)</b>	
	1001109671	1	<b>Hydraulic/Air Filter</b>	
	1001110136	1	<b>Fuel/Engine Oil Filter</b>	
		Ref	<b>Fuel Caps:</b>	
	0257365	Ref	<b>Standard</b>	1
	1120314	1	Cap	
	0257366	Ref	<b>Red - Lockable Cap</b>	2
	1120367	1	Cap	
	0258626	Ref	<b>Blue - Lockable Cap</b>	1
	1120512	1	Cap	
	0255921	Ref	<b>Ground Control Box (Kubota Engine)</b>	A
	0861019	Ref	Ground Control Box Assembly	A
		Ref	<b>Lights Installation - Panel</b>	
	0251619	Ref	<b>Standard Bang-Bang and Proportional Controls</b>	A
	2920024	AR	Light, Panel	
	0253393	Ref	<b>Oil Cooler Installation</b>	
	3620003	1	Oil Cooler Assembly	
	2060012	1	Fan	
	4360181	1	Switch, Temperature	
	4640760	1	Valve, Check	
	4060843	1	Shield	



## SECTION 10 - SPECIAL OPTIONS

ITEM	PART NUMBER	QTY	DESCRIPTION	REV
	0256426	Ref	<b>Pipe Rack Installation</b>	
	0257250	Ref	<b>Platform Access Step Installation</b>	1
	0861020	Ref	<b>Platform Console Box (Kubota Engine - 2WS)</b>	-
	0861021	Ref	<b>Platform Console Box (Kubota Engine - 4WS)</b>	2
	0252406	Ref	<b>Receptacle at Platform Installation (Prior to September 1993)</b>	-
	1060300	32 ft/9.75m	Cable - 12/3	
	0254439	Ref	<b>Receptacle at Platform Installation (September 1993 to Present)</b>	A
	1060461	70 ft/21.3m	Cable - 12/3	
		Ref	<b>Note: Supply all other components locally.</b>	
		Ref	<b>Technical Supplements:</b>	
	3120322	1	Spec Data Handbook	
	3120351	1	PQ Controller Supplement	
	3124003	1	Sunstrand Sauer Service Manual	
		Ref	<b>Tools for Service</b>	
	7002828	1	Wire Stripper	
	7002821	1	Wire Crimper (To install wire ends to wires)	
	7002823	1	Pin/Socket Extractor - Universal (To Remove Pins/Sockets from Connectors)	
	7002822	1	Screwdriver, Potentiometer (To Adjust Drive Controllers)	
	7016654	1	Screwdriver, Magnetic	
	7004275	1	Seal Installation Tool - 1in	
	7004276	1	Seal Installation Tool - 1 1/2in	
	7002826	1	Seal Installation Tool - 2in	
	0257728	Ref	<b>Tube Rack Installation</b>	
	0253879	Ref	<b>Weld Leads Installation</b>	A
	1060097	140 ft/42.7m	Cable, Weld Leads	
	3251963	2	Nameplate - Weld Leads	



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