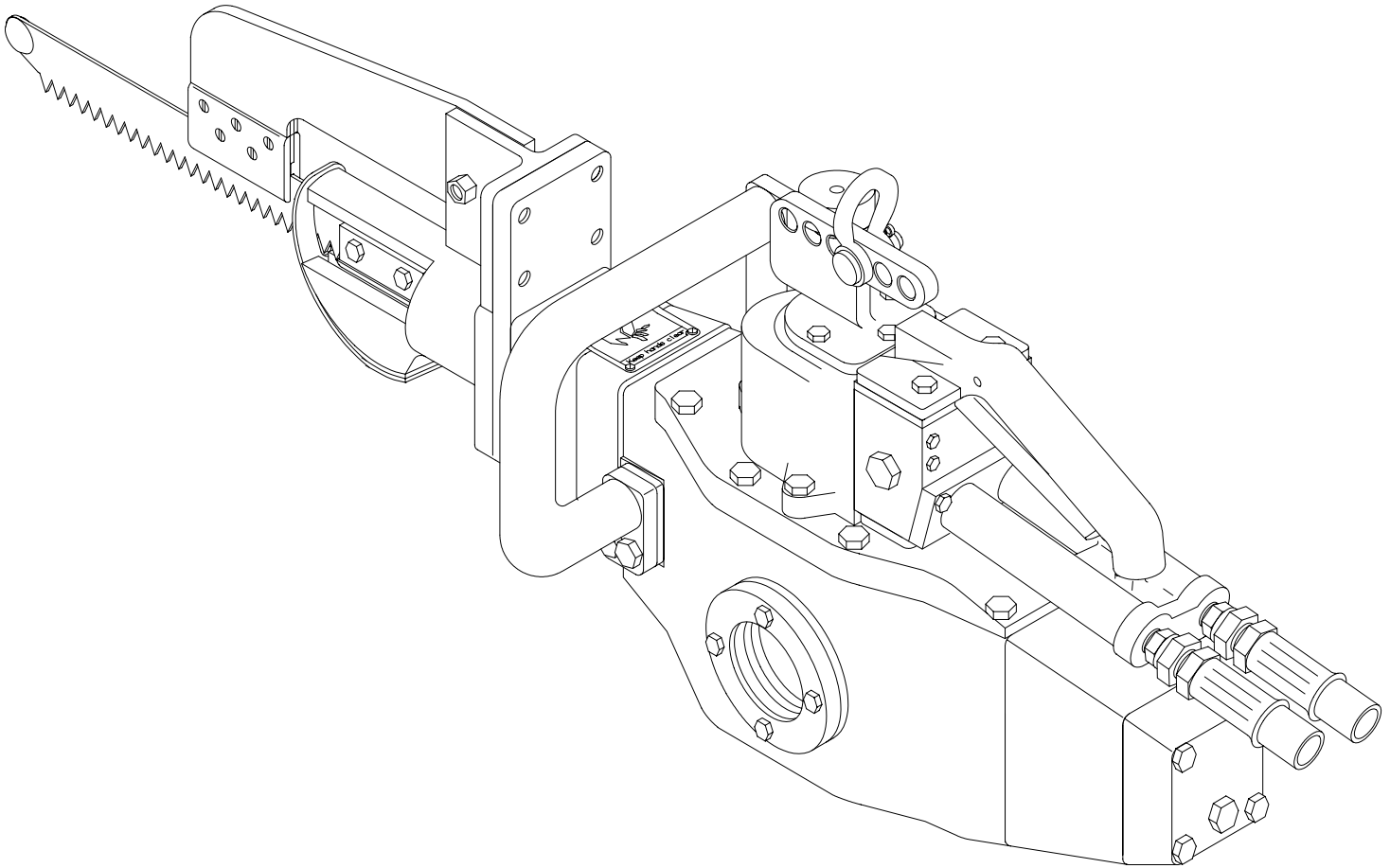


# JARVIS Model MG-1, 1HS, 1B, 1BHS & 1BFQ - Hydraulic Brisket Saw



## EQUIPMENT SELECTION

	Ordering Number	Hydraulic Power Unit
MG-1	4005013	4027279
MG-1-HS	4005012	
MG-1B	4005037	4027265
MG-1B-HS	4005039	
MG-1B-HS Shower Head	4005081	
MG-1B-FQ	4005079 pg 5 4005085 pg10 4005100 pg10 4005131 pg10	
Balancer for MG1 and 1B .....		4042035
Balancer for MG1HS, 1BHS & 1BFQ ..		4042047

## TABLE OF CONTENTS

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- Operation Instructions ..... 16
- Maintenance Instructions ..... 17

# JARVIS®

6205008;

## PRODUCTS CORPORATION

33 ANDERSON ROAD, MIDDLETOWN, CONNECTICUT 06457-4926  
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## **SAFETY MESSAGES TO EMPLOYER AND SAFETY DIRECTOR**

### ***AVOID INJURY***

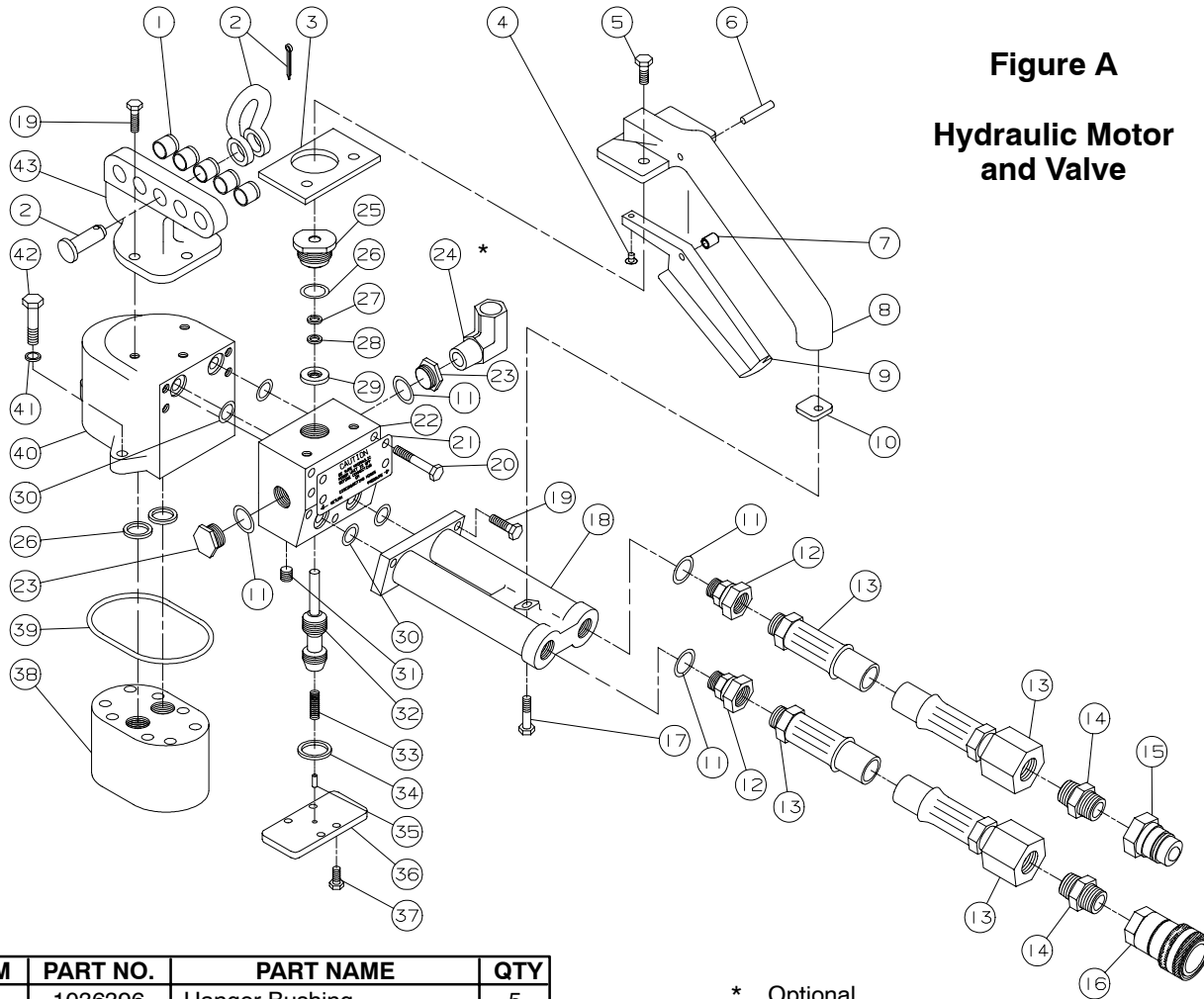
1. **Ensure** that all employees who use this tool are trained in the proper use of this tool and are aware of the dangers that may arise if they do not follow procedures outlined in this brochure.
2. The tool is designed and intended to be powerful. This fact should be obvious to your employees, but you must emphasize it to them.
3. **Never** make modifications or alterations to the tool. *Replace any missing or illegible labels.*
4. **Ensure** that proper procedures are established in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) to prevent accidental startup or release of stored energy.
5. **Enclosed** are four (4) copies of "NOTICE TO OPERATORS, MAINTENANCE AND CLEANUP PERSONNEL." Post one copy on the employees' bulletin board; give one copy to the operator(s); give one copy to the maintenance foreman; and give one copy to the sub-contract cleanup / internal cleanup foreman. *Additional copies will be provided upon request.*
6. **Hand/Wrist/Arm** injury and other Cumulative Trauma Disorders may result from repetitive work, motion or vibration. You must make your employees aware of hazards, symptoms of injury and appropriate prevention. See OSHA's "Ergonomic Program Management Guidelines for Meatpacking Plants."
7. **Follow** our installation and maintenance instructions for proper installation and care of the tool.
8. **Avoid** injury. Do not permit the tool to be misused.
9. **Remove and repair** any tool that malfunctions. **All** personnel must be instructed to remove any malfunctioning equipment.
10. **If you resell or distribute** a Jarvis product, you must provide the purchaser with the appropriate safety sheets and tool brochure. *Additional copies of safety sheets and tool brochures will be provided upon request.*



**SAFETY MESSAGES TO OPERATORS, MAINTENANCE AND CLEANUP  
PERSONNEL**

***REMOVE ANY MALFUNCTIONING TOOL FROM SERVICE  
REPORT ANY PROBLEMS TO YOUR SUPERVISOR***

1. **Shut** the power off and disconnect all hydraulic hoses in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before making any blade changes.
2. **Shut** the power off and disconnect all hydraulic hoses in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any repair or maintenance.
3. **Shut** the power off and disconnect all hydraulic hoses - or have the power shut off and all hydraulic hoses disconnected - in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any cleanup.
4. **Shut** the power off and disconnect all hydraulic hoses when the tool is not being used.
5. **Test** the tool prior to use or daily. **Depress** the trigger and the tool should start. **Release** the trigger and the tool should stop. *If the tool malfunctions, remove it from service and report or repair it immediately.*
6. **Always** use both hands when starting and operating the tool to avoid the risk of possible "kick back" or "recoil." **Continue** holding the tool firmly with both hands until the saw blade comes to a complete stop.
7. **Never** put fingers, hands or other parts of the body on the blade or within the cutting path of the tool.
8. **Always** wear cut protective gloves when handling blades.
9. **Never** depress the trigger unless you want to use or test the tool.
10. **Clean up** any spilled or leaked hydraulic fluid.
11. **Never** make modifications or alterations to the tool. *Report or replace any missing or illegible labels.*



**Figure A**

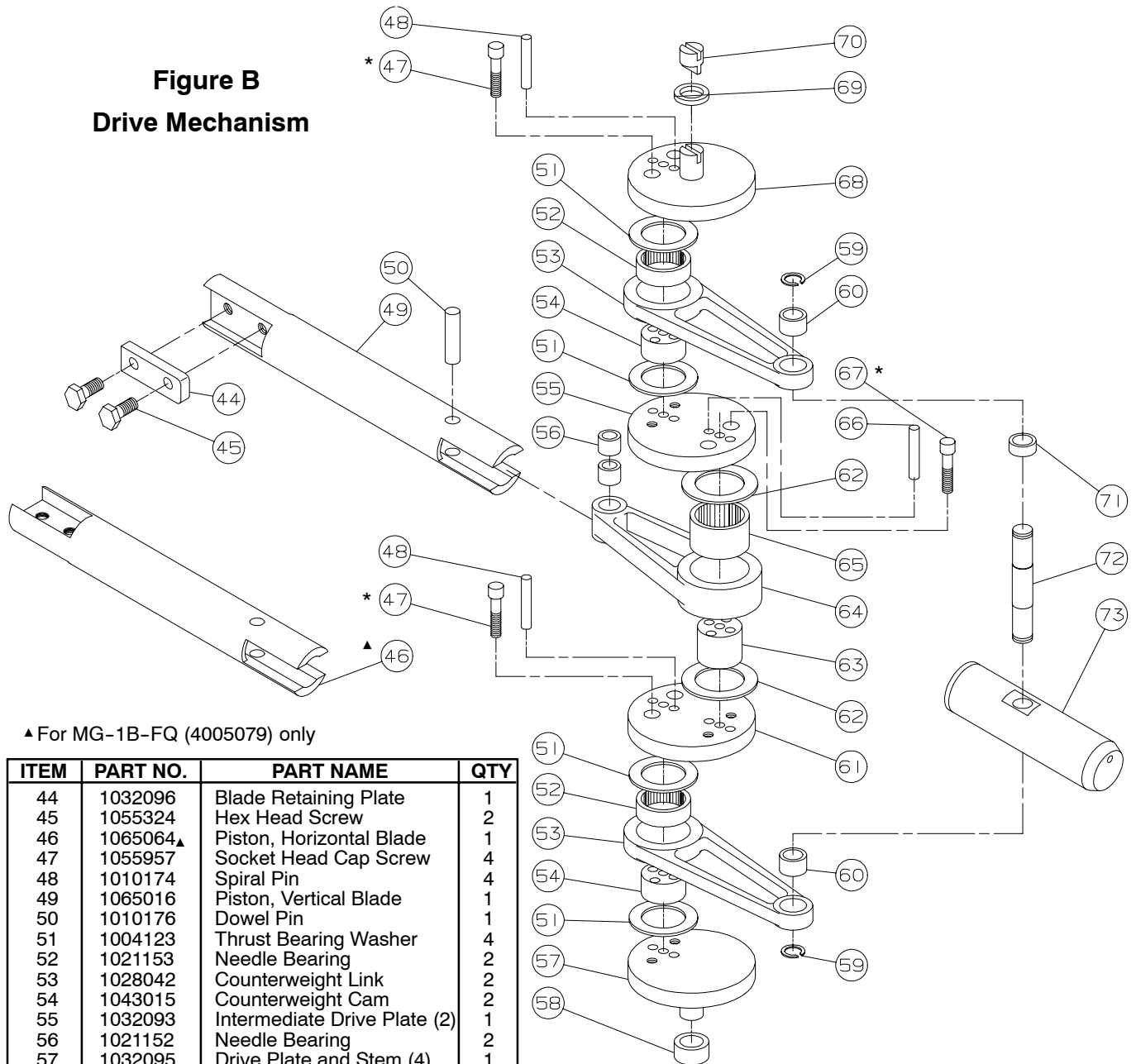
**Hydraulic Motor and Valve**

\* Optional

ITEM	PART NO.	PART NAME	QTY
1	1036396	Hanger Bushing	5
2	1028062	Pin and Shackle Link Assy	1
3	1032098	Insulation Plate	1
4	1010180	Trigger Plunger Pin	1
5	1055327	Hex Head Screw	4
6	1010145	Dowel Pin	1
7	1036399	Trigger Bushing	1
8	1019059	Trigger Handle	1
9	1018062	Trigger Lever with item 7	1
10	1032099	Insulation Plate	1
11	1035135	O-ring	5
12	1050099	Swivel Adapter with item 11	2
13	1059024	Hydraulic Hose Assembly	2
14	1050084	Hex Pipe Nipple	2
15	1011086	Quick Disconnect Plug	1
16	1011087	Quick Disconnect Socket	1
17	1055335	Hex Head Screw	1
18	1011140	Valve and Hose Coupling	1
19	1055334	Hex Head Screw	6
20	1055333	Hex Head Screw	4
21	1017022	Caution Label	1
22	1016139	Valve Housing	1
23	1050193	Hex Head Plug with item 11	3
24	1050938*	Swivel Elbow, Vertical Hose	2
25	1002138	Valve Seal Retaining Cover	1

ITEM	PART NO.	PART NAME	QTY
26	1035131	O-ring	3
27	1029143	Spacer	1
28	1035128	O-ring	1
29	1004125	Spool Seal Washer	1
30	1035132	O-ring	4
31	1055337	Hex Socket Pipe Plug	2
32	1061081	Valve Spool	1
33	1014055	Compression Spring	1
34	1035133	O-ring	1
35	1010178	Dowel Pin	1
36	1002139	Valve Spool Retaining Cover	1
37	1055336	Hex Head Screw	4
38	3008168	Hydraulic Motor for MG-1	1
	3008152	Hydraulic Motor for MG-1B	
		For motor details see Figure F, page 9	
39	1035410	O-ring	1
40	1016137	Motor Housing, MG-1	1
	1016311	Motor Housing, MG-1B	1
41	1004049	Split Lock Washer	3
42	1055328	Hex Head Screw	11
43	1028044	Hanger Bracket	1

**Figure B**  
**Drive Mechanism**



▲ For MG-1B-FQ (4005079) only

ITEM	PART NO.	PART NAME	QTY
44	1032096	Blade Retaining Plate	1
45	1055324	Hex Head Screw	2
46	1065064▲	Piston, Horizontal Blade	1
47	1055957	Socket Head Cap Screw	4
48	1010174	Spiral Pin	4
49	1065016	Piston, Vertical Blade	1
50	1010176	Dowel Pin	1
51	1004123	Thrust Bearing Washer	4
52	1021153	Needle Bearing	2
53	1028042	Counterweight Link	2
54	1043015	Counterweight Cam	2
55	1032093	Intermediate Drive Plate (2)	1
56	1021152	Needle Bearing	2
57	1032095	Drive Plate and Stem (4)	1
58	1029134	Spacer	1
59	1013010	External Retaining Ring	2
60	1021156	Needle Bearing	2
61	1032094	Intermediate Drive Plate (3)	1
62	1004124	Thrust Bearing Washer	2
63	1043016	Saw Blade Drive Cam	1
64	1028041	Saw Blade Drive Link	1
65	1021154	Needle Bearing	1
66	1010175	Roll Pin	2
67	1055958	Socket Head Cap Screw	2
68	1032092	Tang Drive Plate (1)	1
69	1029135	Spacer	1
70	1011141	Tang Drive Coupling	1
71	1029142	Bearing Spacer	1
72	1027033	Counterweight Drive Stud	1
73	1065014	Counterweight Piston	1

\* Torque to 16 lbf-ft (21.7 N-m)

ITEM	PART NO.	PART NAME	QTY
	3028015	Counterweight Link Assy (incl. items 52, 53 and 60)	
	3028016	Drive Link Assembly (includes items 56, 64 and 65)	
	3065005	Counterweight Piston Assy (includes items 72 and 73)	
	3061024	Drive Mechanism Assy (includes items 44, 45, 47-57, 59-68 and 70-73)	
	3061242▲	Drive Mechanism Assy (includes items 44-48, 50-57, 59-68 and 70-73)	

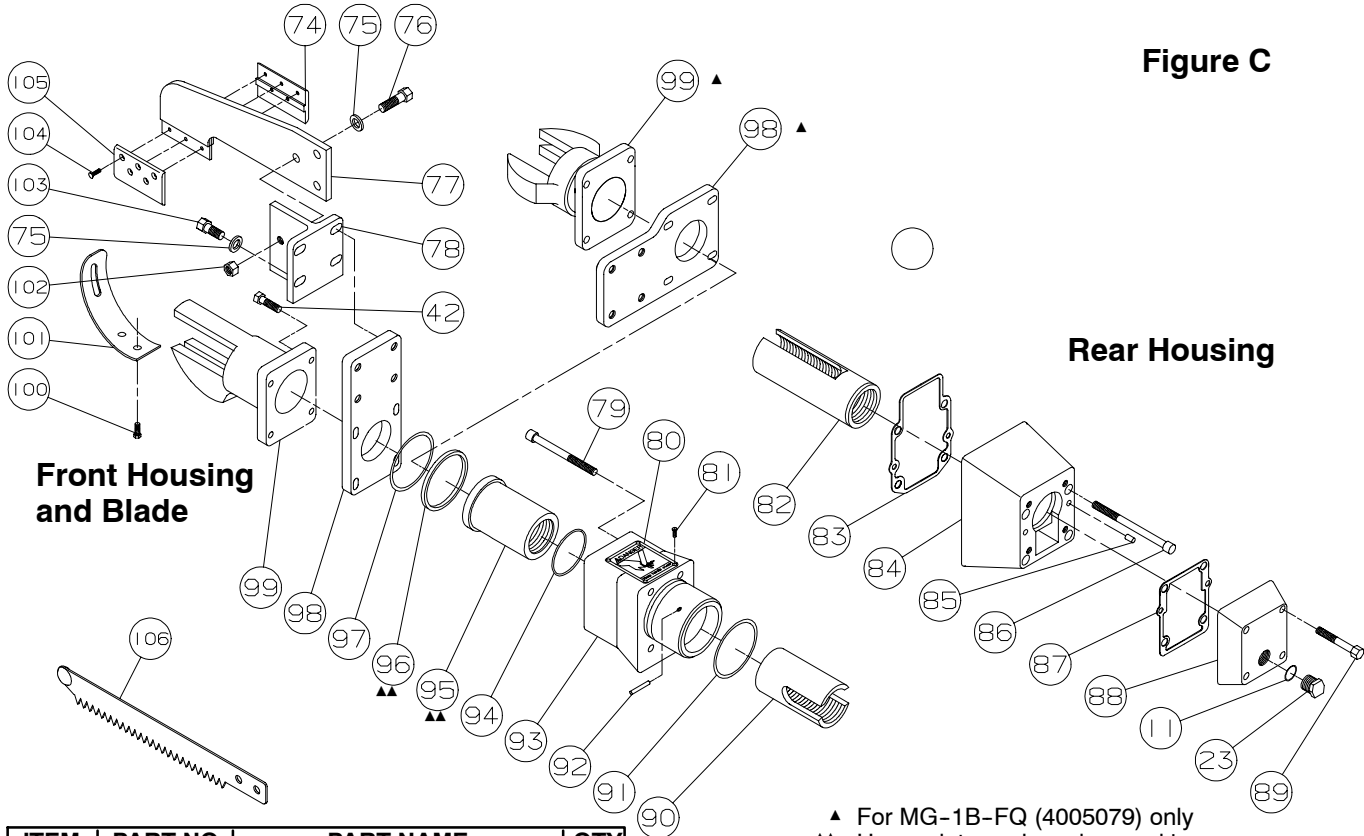


Figure C

Rear Housing

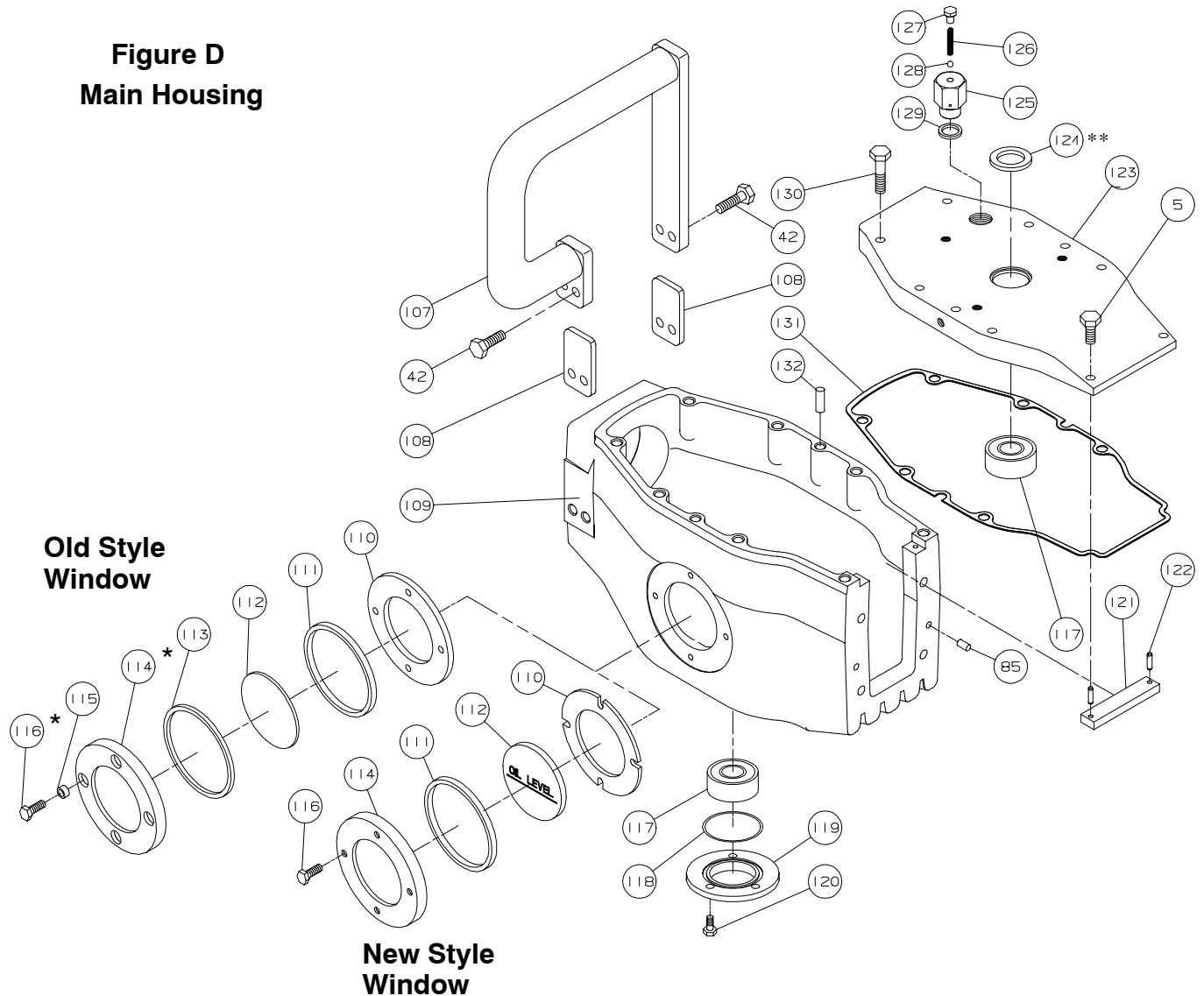
Front Housing and Blade

ITEM	PART NO.	PART NAME	QTY
74	1058147	Blade Guide (Heavy Duty)	1
	1058105*	Blade Guide (Thin)	1
75	1004032	Flat Washer	7
76	1055046	Hex Head Screw	3
77	1058148	Guide Subassy (Heavy Duty)	1
	1058107*	Guide Subassembly (Thin)	1
78	1041020	Blade Guide Base	1
79	1055352	Socket Head Cap Screw	4
80	1017081	Danger Label	1
81	1055975	Pan Head Screw	4
82	1036092	Rear Piston Bushing	1
83	1035408	Rear Housing Gasket	1
84	1016136	Rear Bearing Housing	1
85	1010179	Dowel Pin	4
86	1055329	Socket Head Cap Screw	4
87	1035409	Rear Cover Gasket	1
88	1002135	Rear Cover	1
89	1055330	Hex Head Screw	4
90	1036096	Cylindrical Slotted Bushing	1
91	1035134	O-ring	1
92	1010535	Dowel Pin	1
93	1016149	Front Bearing Housing	1
	3016061	Hsg and Bushing Assy (incl. items 80, 81, 90, 92 and 93)	1
94	1035048	O-ring	1
95	1036303▲▲	Seal Bushing, Heavy Duty	1
	1036097*	Flanged Seal Bushing	1
96	1035634▲▲	Rod Seal, Heavy Duty	1
	1035130*	Rod Seal	1
97	1035143	Wiper Ring Seal	1
	3036009	Bushing Assy, Heavy Duty (includes items 95-97)	1

- ▲ For MG-1B-FQ (4005079) only
- ▲▲ Heavy duty seal can be used in heavy duty seal bushing only
- \* Not used in current tools

ITEM	PART NO.	PART NAME	QTY
98	1042137	Blade Support Mtg. Bracket	1
	1042365▲	Blade Support Mtg. Bracket	1
99	1016320	Front Housing	1
	1016515▲	Front Housing	1
100	1055296	Hex Head Screw	2
101	1024040	Blade Guard	1
102	1007183	Hex Lock Nut	3
103	1055284	Hex Head Screw	4
104	1055001	Flat Hd Screw (Heavy Duty)	5
	1055548*	Flat Head Screw (Thin)	5
105	1058146	Blade Guide (Heavy Duty)	1
	1058104*	Blade Guide (Thin)	1
106	1023083	Saw Blade, 9 1/2 inch	1
	1023084	Saw Blade, 10 1/2 inch	1
	1023215	Saw Blade, 11 1/2 inch	1
	1023230	Saw Blade, 13 inch	1
	1023088	Saw Blade, 18 inch	1
	3058091	Blade Guide Support Assy MG-1 & MG-1B (incl. items 42, 74-78, 98 and 102-105)	1
	3058072▲	Blade Guide Support Assy MG-1B-FQ (includes items 42, 74-78, 98▲ and 102-105)	1
	3061191	Blade Guide Support Assy Heavy Duty (includes items 74, 104 and 105)	1
	3061132*	Blade Guide Support Assy Thin (includes items 74, 104 and 105)	1

**Figure D**  
**Main Housing**



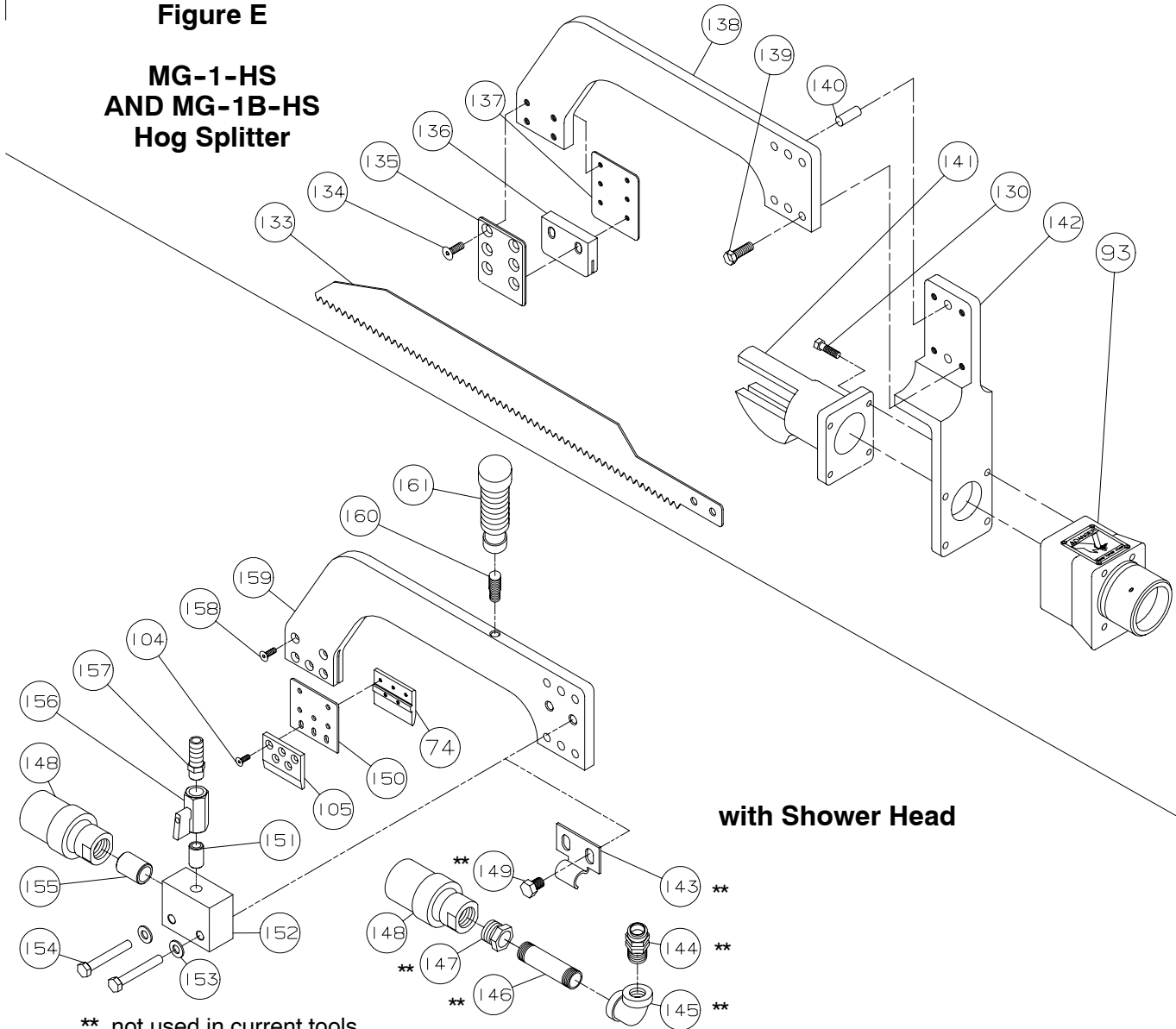
\* Not used in current tools  
\*\* Used with 3008061 (MG-1) and 1008097 (MG-1B) aluminum hydraulic motors only

ITEM	PART NO.	PART NAME	QTY
107	1019060	Auxiliary Handle	1
108	1032097	Insulating Plate	2
109	1016138	Main Housing	1
110	1035137	Gasket Seal	1
111	1035138	Gasket Seal	1
112	1061087	Observation Window	1
113	1035139*	Gasket Seal	2
114	1061086	Window Frame	1
115	1009066*	Window Sleeve	4
116	1055285	Hex Head Screw	4
117	1021155	Ball Bearing	2
118	1035283	O-ring	1
119	1002271	Bearing Seal Cover	1

ITEM	PART NO.	PART NAME	QTY
120	1055325	Hex Head Screw	3
121	1032888	Bridge Plate	1
122	1010243	Dowel Pin	2
123	1002136	Main Housing Cover	1
124	1013114**	Locating Ring - Alum motor	1
125	1022386	Valve Housing	1
126	1014220	Spring	1
127	1055635	Hex Head Screw	1
128	1071369	Ball	1
129	1035506	O-ring	1
130	1055326	Hex Head Screw	6
131	1035407	Main Cover Gasket	1
132	1010177	Dowel Pin	2
	3061027	Observation Window Assy (incl. items 110-112 and 114)	
	3061480	Air Vent Assembly (includes items 125-129)	

**Figure E**

**MG-1-HS  
AND MG-1B-HS  
Hog Splitter**



**with Shower Head**

\*\* not used in current tools

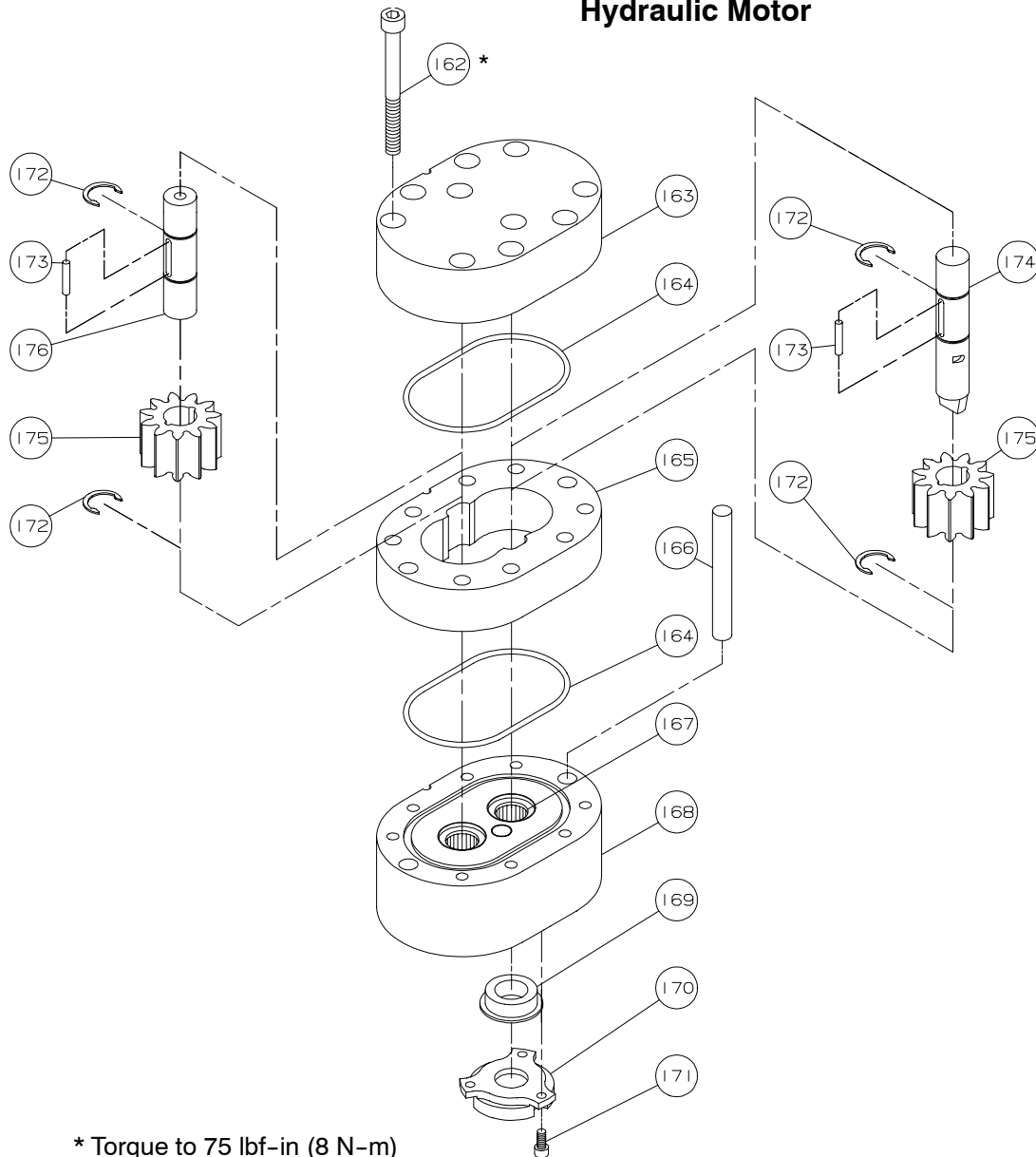
ITEM	PART NO.	PART NAME	QTY
133	1023090	Hog Splitting Blade, 21.88 inch	1
134	1055361	Flat Head Socket Screw	6
135	1032109	LH Blade Guide Plate	1
136	1058054	Blade Guide	1
137	1032110	RH Blade Guide Plate	1
138	1046015	Saw Blade Support Frame	1
139	1055357	Hex Head Screw	4
140	1010384	Dowel Pin	2
141	1016162	Front Housing, Hog Splitter	1
142	1042090	Bracket Frame	1
	3046015	Hog Splitter Frame Pkg. MG-1-HS and MG-1B-HS (incls items 130 and 134-142)	
143	1012115**	Clamp	1
144	1050255**	Tubing Connector, 3/8 inch	1
145	1050579**	Elbow	1
146	1050731**	Pipe Nipple	1
147	1050259**	Reducer Bushing	1
148	1061239	Shower Head	1

ITEM	PART NO.	PART NAME	QTY
149	1055387**	Hex Head Screw	2
150	1032532	Adapter Plate	1
151	1050489	Pipe Nipple	1
152	1071021	Water Manifold	1
153	1004113	Washer	2
154	1055292	Hex Head Screw	2
155	1050810	Pipe Nipple	1
156	1022212	Ball Valve	1
157	1050484	Hose Connector	1
158	1055052	Flat Head Socket Screw	5
159	1046062	Blade Support Frame	1
160	1027069	Threaded Stud	1
161	1019056	Straight Handle	1
	3019225	Handle Assy (item 160 & 161)	
	3046063	Hog Splitter Frame Pkg (incl. items 74, 104, 105, 130, 139-142, 150, 158 and 159)	
	3061280	Shower Head Kit (includes items 148 and 151-157)	



Figure F

Hydraulic Motor



\* Torque to 75 lbf-in (8 N-m)

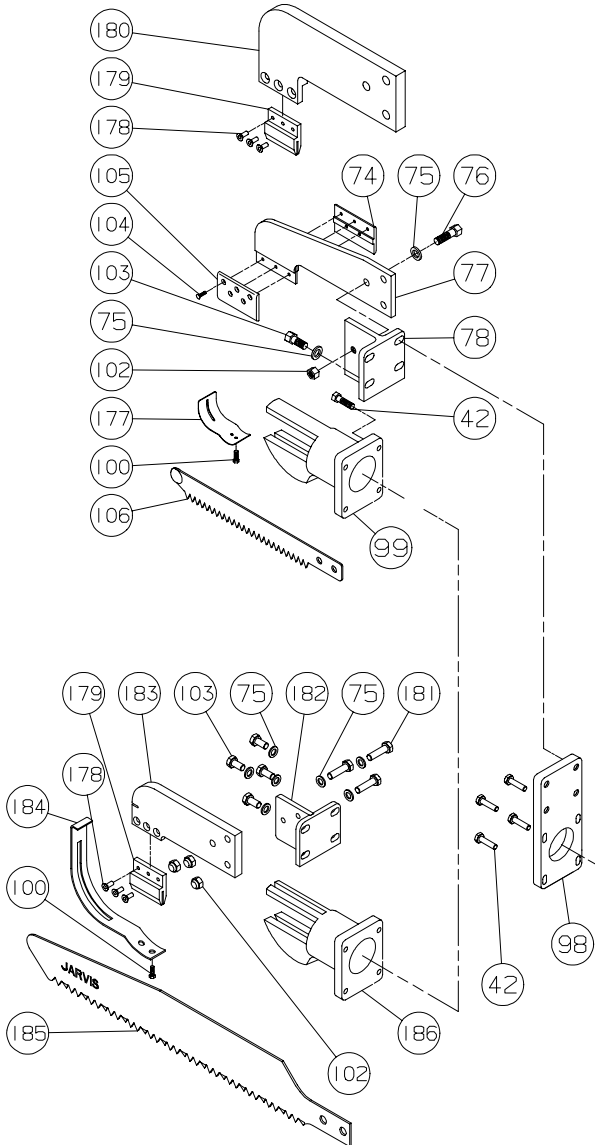
ITEM	PART NO.	PART NAME	QTY
162	1055861*	Socket Head Screw MG-1	8
	1055851*	Socket Head Screw MG-1B	
163	3002035	Cover Assembly MG-1	1
	3002033	Cover Assembly MG-1B (includes 2 item 167)	
164	1035458	O-ring	2
165	1032404	Gear Plate MG-1	1
	1032400	Gear Plate MG-1B	
166	1010030	Dowel Pin MG-1	2
	1010369	Dowel Pin MG-1B	
167	1021358	Needle Bearing	4
168	3041009	Base Assembly (includes 2 item 167)	1
169	1035459	Shaft Seal	1

ITEM	PART NO.	PART NAME	QTY
170	1032340	Seal Retaining Plate	1
171	1055860	Socket Head Cap Screw	3
172	1013227	External Retaining Ring	4
173	1010368	Dowel Pin MG-1	2
	1010364	Dowel Pin MG-1B	
174	1020248	Drive Shaft MG-1	1
	1020246	Drive Shaft MG-1B	
175	1026165	Gear MG-1	2
	1026163	Gear MG-1B	
176	1020249	Idler Shaft MG-1	1
	1020247	Idler Shaft MG-1B	
	8039112	Bearing Puller for item 167	
	3008168	Hydraulic Motor Assy MG-1	
	3008152	Hydraulic Motor Assy MG-1B	

**Figure G**

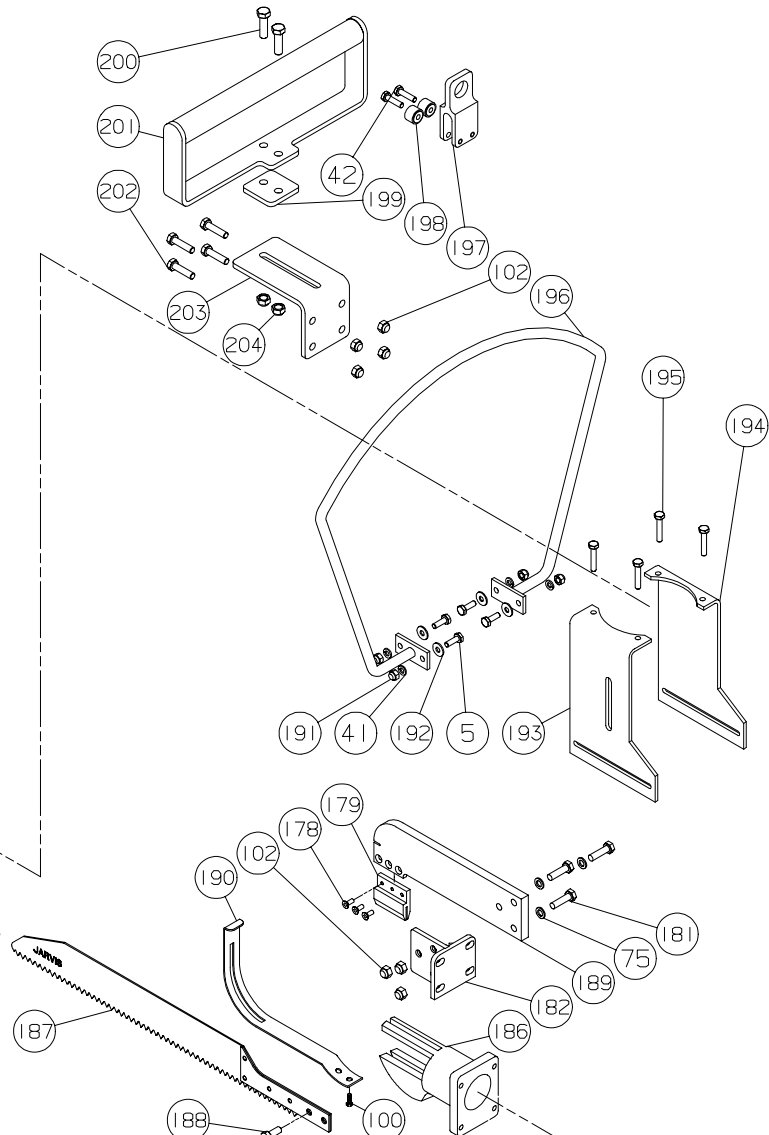
**Forequarter Saws**

**3058091 and 3058093  
Guide Assemblies**



**3058090  
Guide Assembly**

**3042029  
Hanger Assembly**



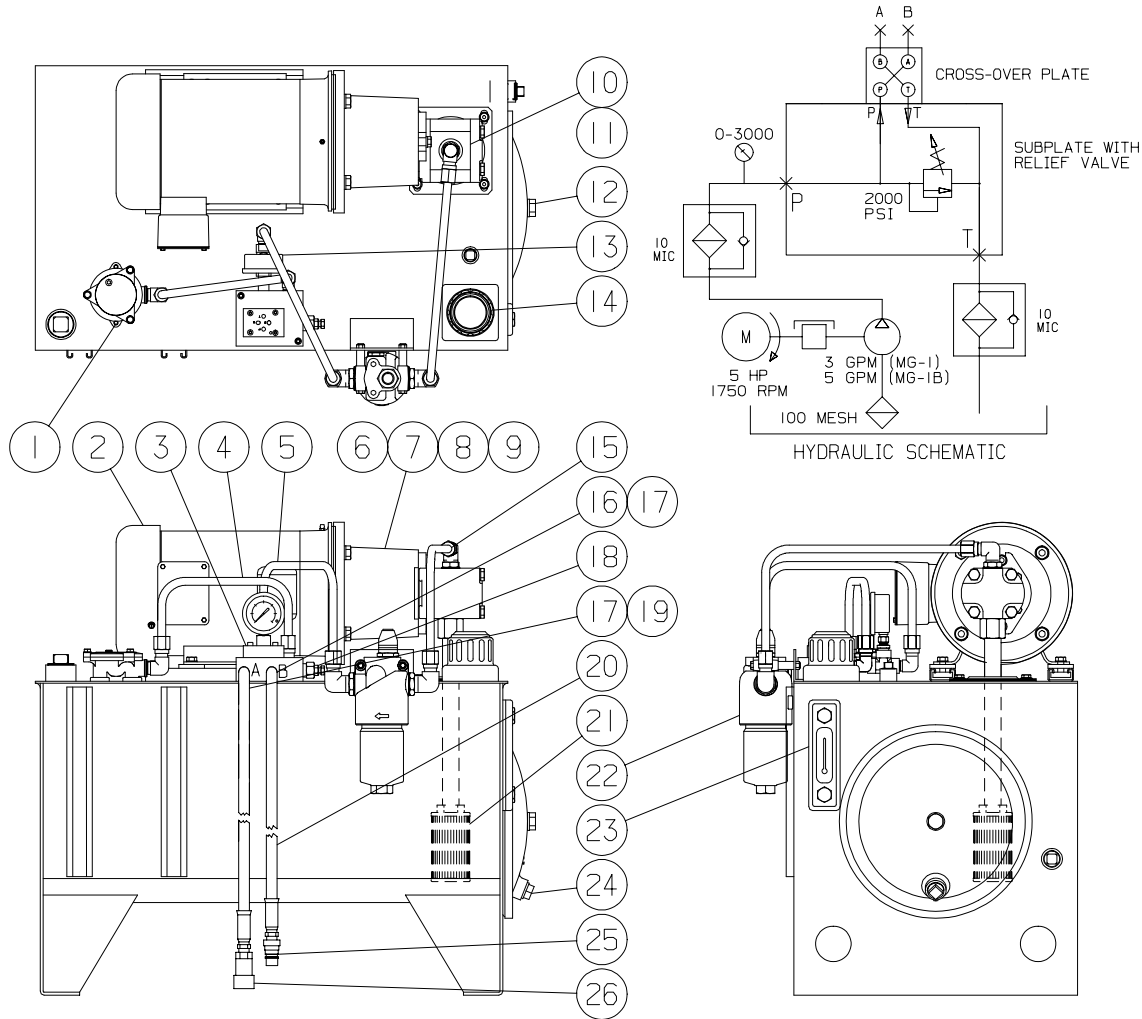
**3058097  
Guide Assembly**

**3058090 used in 4005100**  
**3058091 used in 4005085**  
**3058097 used in 4005131**  
**3042029 used in 4005085**  
**4005100**  
**4005131**

ITEM	PART NO.	PART NAME	QTY
5	1055327	Hex Head Screw	4
41	1004049	Washer	4
42	1055328	Hex Head Screw	4/2
74	1058147	Blade Guide	1
75	1004032	Washer	7
76	1055046	Hex Head Screw	3
77	1058148	Guide Subassembly	1
78	1041020	Blade Guide Base	1
98	1042137	Mounting Bracket	1
99	1016320	Front Housing	1
100	1055296	Hex Head Screw	2
102	1007183	Hex Lock Nut	3/4
103	1055284	Hex Head Screw	4
104	1055001	Flat Head Screw	5
105	1058146	Blade Guide	1
106	1023088	Blade, 18 inch	1
	1023562	Blade, 16 inch, alternating teeth	
	1023631	Blade, 18 inch, alternating teeth	
177	1024262	Blade Guard	1
178	1055277	Flat Head Socket Screw	3
179	1058196	Blade Guide	1
180	1058201	Blade Guide Support, HD	1
181	1055153	Hex Head Screw	3
182	1041089	Base Weldment	1
183	1058194	Blade Guide Support	1
184	1024283	Blade Guard	1
185	1023577	Blade, 3 teeth per inch	1
	1023590	Blade, 4 teeth per inch	
	1023591	Blade, 5 teeth per inch	
186	1016669	Front Housing	1
187	1023552	Blade, 21.88 inch, HD	1
188	1073131	Hex Head Screw	2

ITEM	PART NO.	PART NAME	QTY
189	1058209	Blade Guide Support	1
190	1024309	Blade Guard	1
191	1007297	Hex Lock Nut	4
192	1004142	Washer	4
193	1042523	Left Side Bracket	1
194	1042522	Right Side Bracket	1
195	1055287	Hex Head Screw	4
196	1042424	Bracket	1
197	1042309	Bracket	1
198	1021449	Bearing	2
199	1032610	Insulation Plate	1
200	1055389	Hex Head Screw	2
201	1019231	Handle	1
202	1055294	Hex Head Screw	4
203	1042524	Handle Bracket	1
204	1007252	Hex Lock Nut	2
	3058090	Blade Guide Support Assy (includes items 42, 75, 98, 102, 103, 178, 179 and 181-184)	
	3058091	Blade Guide Support Assy (includes items 42, 74-78, 98 and 102-105)	
	3058093	Blade Guide Support Assy HD (includes items 75, 102 and 178-182)	
	3058097	Blade Guide Support Assy HD (includes items 75, 102, 178, 179, 181, 182 and 188-190)	
	3042029	Hanger Kit (includes items 5, 41, 42, 102, and 191-204)	

**Figure H Horizontal Power Unit with "A Flanged Gear Pump"  
MG-1, MG-1-HS 402729  
MG-1B, MG-1B-HS, MG-1B-FQ 4027265**



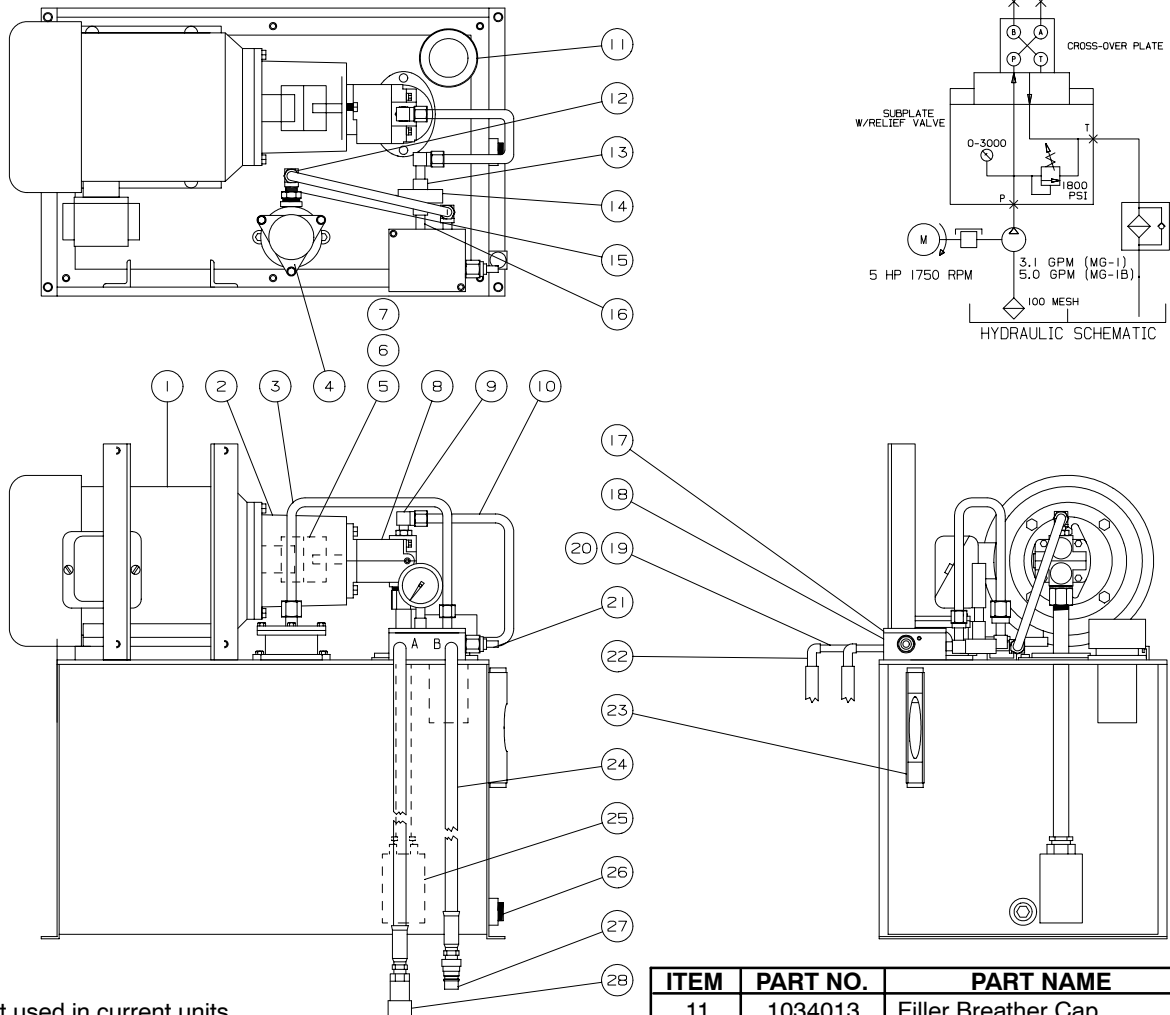
\* Not used in current units

ITEM	PART NO.	PART NAME	QTY
1	1034064	Triangular Filter Assy	1
	1034062	Filter Element only	
2	1008193	Electric Motor, 460/230v, 60Hz	1
	1008197	Electric Motor, 440/400/230v,50Hz	
3	1032113	Crossover Plate	1
	1035308	O-ring for item 3	2
	1073047	Cap Screw for item 3	4
4	1071429	Tubing Assy, Return	1
5	1071430	Tubing Assy, Filter to Subplate	1
6	1042361	Mounting Bracket	1
7	1011324	Motor Half Coupling	1
8	1011326	Spider Center Coupling	1
9	1011325	Pump Half Coupling	1
10	3008576	Hyd. Pump Mg1 (60 HZ)	1
	3008575	Hyd. Pump Mg1 (50 HZ)	
	1008238	Hyd. Pump Mg1B (60 HZ)	
	3008268	Hyd. Pump Mg1B (50 HZ)	
11	1050515	Adapter Elbow	1

ITEM	PART NO.	PART NAME	QTY
12	1004499	Crush Washer, 14 inch Lid	1
13	1025022	Hydraulic Pressure Gage	1
14	1034013	Oil Breather Filler Cap	1
15	1071431	Tubing Assy, Pump to Filter	1
16	1050090	Hex Nipple, 2 inch	1
17	1050126	Pipe Elbow	2
18	1022120	Sub Plate w/ Cart Relief Valve	1
	1022119	Relief Valve Cartridge only	
19	1050462	Hex Nipple, 4 inch	1
20	1059003	Hyd. Hose Assembly, 16 ft	2
21	1034007	Suction Strainer Filter	1
22	3034031	High Pressure Filter Assembly	1
	1034105	High Pressure Filter Element	
23	1025045	Oil Level Gage	1
24	1054166	Drain Plug with Magnet	1
25	1011086	Quick Connect Plug	1
26	1011087	Quick Connect Socket	1
	1017085	Electrical Danger Label	1

**Figure I Horizontal Power Unit with "AA Flanged Gear Pump"**

**MG-1, MG-1-HS 4027121**  
**MG-1B, MG-1B-HS, MG-1B-FQ 4027130**



\* not used in current units

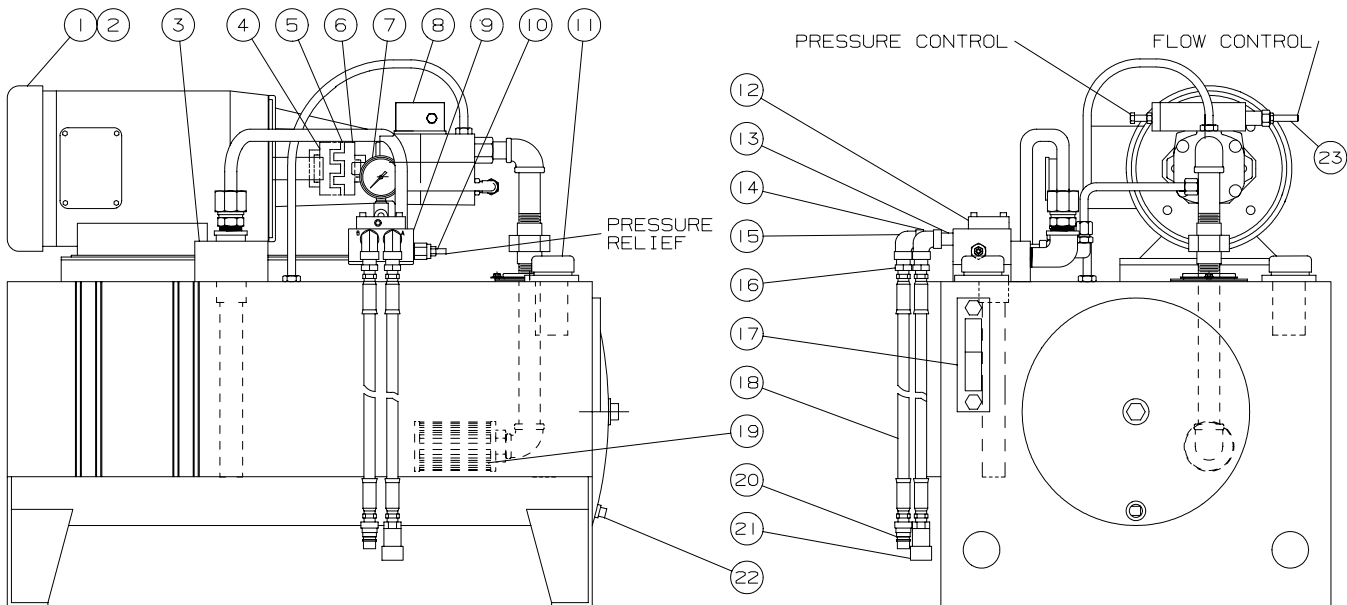
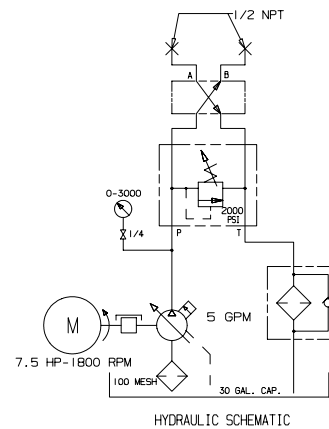
ITEM	PART NO.	PART NAME	QTY
1	1008193	Elec Motor, 460/230V-60Hz	1
	1008336	Elec Mtr, 440/380/220V-50Hz	
2	1042361	Mounting Bracket	1
3	1061734	Tubing Assembly (Return)	1
4	1034064	Triangular Filter Assy	1
	1034062	Filter Element Only	
	1034052*	Square Filter Assy	
	1034048*	Filter Element Only	
5	1011324	Coupling, Motor Half	1
6	1011326	Coupling, Spider Center	1
7	1011325	Coupling, Pump Half	1
8	3008065	Hyd. Pump (60 Hz), MG-1	1
	3008113	Hyd. Pump (50 Hz), MG-1	
	3008079	Hyd. Pump (60 Hz), MG-1B	
9	1050515	Elbow Adapter	1
	1050670	Reducing Adapter	1
10	1061733	Tubing Assembly (Supply)	1

ITEM	PART NO.	PART NAME	QTY
11	1034013	Filler Breather Cap	1
12	1050668	Male Elbow	3
13	1050127	Pipe Tee	1
14	1025008	Pressure Gage	1
15	1050753	Reducer Bushing	1
16	1050508	Hex Nipple (1.5 inch)	1
17	1032113	Cross Over Plate	1
	1035308	O-ring for item 17	2
	1073047	Cap Screw for item 17	4
18	1022120	Sub Plate (with item 21)	1
19	1050090	Hex Pipe Nipple (2 inch)	1
20	1050462	Hex Pipe Nipple (4 inch)	1
21	1022119	Relief Valve Cartridge	1
22	1050126	Pipe Elbow	2
23	1025045	Oil Column Gage	1
24	1059003	Hydraulic Hose Assy 16 ft	2
25	1034007	Suction Strainer Filter	1
26	1054166	Drain Plug with Magnet	1
27	1011086	Quick Connect Plug	1
28	1011087	Quick Connect Socket	1

**Figure J**  
**Variable Volume Power Unit**  
**MG-1B, MG-1B-HS and MG-1B-FQ**  
**4027054**

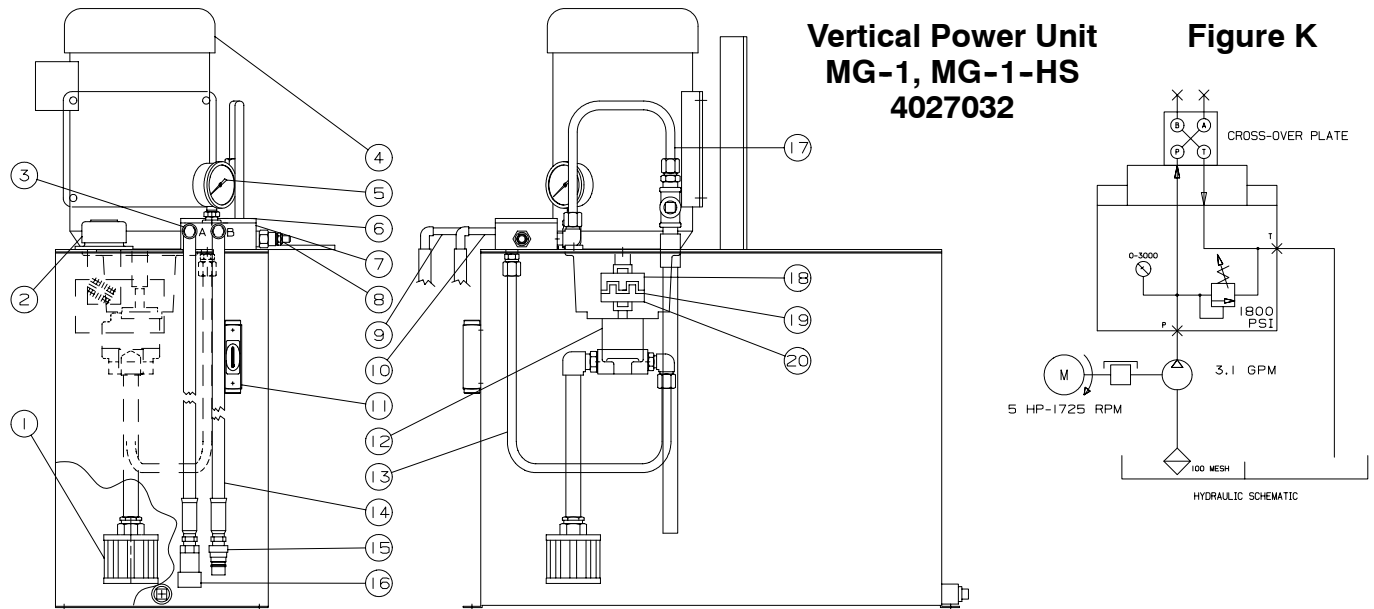
Pressure and flow adjustment procedure:

1. Turn the pressure relief valve screw out completely (counter-clockwise).
2. Turn the pressure control screw in completely (clockwise).
3. Turn the relief valve screw in (clockwise) until gage (item 7) reads 2000 psi.
4. Turn the pressure control screw out (counter-clockwise) until gage (item 7) reads 1750 psi.
5. Adjust flow control screw to achieve 5 gpm.



ITEM	PART NO.	PART NAME	QTY
1	1008205	Elec Motor, 460/230V-60Hz	1
	1008221	Elec Mtr, 440/380/220V-50Hz	
2	1017085	Electrical Danger Label	1
3	1034057	Triangular Oil Filter Assy	1
	1034059	Filter Element Only	
	1034052	Square Oil Filter Assy	
	1034048	Filter Element Only	
4	1011348	Motor Coupling Half	1
5	1011344	Spider Coupling Center	1
6	1011356	Pump Coupling Half	1
7	1025008	Hydraulic Pressure Gage	1
8	1008134	Hydraulic Piston Pump	1
9	1022121	Sub Plate with item 10	1
10	1022119	Relief Valve Cartridge	1
11	1034013	Breather Filler Cap	1

ITEM	PART NO.	PART NAME	QTY
12	1032178	Cross Over Plate	1
	1035210	O-ring for item 12	1
	1035287	O-ring for item 12	2
13	1050747	Pipe Nipple (6 inch)	1
14	1050746	Pipe Nipple (4 inch)	1
15	1050126	Pipe Elbow	2
16	1050089	Pipe Reducer Bushing	2
17	1025045	Oil Level Gage	1
18	1059003	Hydraulic Hose Assembly	2
19	1034008	Filter Suction Strainer	1
20	1011086	Quick Connect Plug	1
21	1011087	Quick Connect Socket	1
22	1054166	Drain Plug with Magnet	1
23	1061627	Max Flow Stop (w/item 8)	1



**Vertical Power Unit  
MG-1, MG-1-HS  
4027032**

**Figure K**

\* Indicated items are available as spare parts for power units with sandwich-type relief valves.

**Note:** Vertical power unit is not used in current models. See Figure H on page 12 for horizontal power unit.

ITEM	PART NO.	PART NAME	QTY
1	1034007	Suction Filter Strainer	1
2	1034013	Breather Filler Cap	1
3	1050126	Pipe Elbow	2
	1050127*	Pipe Tee	1
4	1008083	Electric Motor	1
5	1025022	Hydraulic Pressure Gage	1
	1050602*	Pipe Reducer Bushing	1
6	1032113	Cross Over Plate	1
7	1022120	Cartridge Sub Plate	1
	1032179*	Sandwich Sub Plate	1
8	1022119	Relief Valve Cartridge	1
	1022082*	Sandwich Relief Valve	1
9	1050462	Hex Pipe Nipple (4 inch)	1

ITEM	PART NO.	PART NAME	QTY
10	1050090	Hex Pipe Nipple (2 inch)	1
11	1025012	Oil Level Gage	1
12	3008065	Hyd. Gear Pump (60 Hz)	1
	3008113	Hyd. Gear Pump (50 Hz)	1
13	1061278	U-Shape Pipe	1
14	1059003	Hydraulic Hose Assy 16 ft	2
15	1011086	Quick Connect Plug	1
16	1011087	Quick Connect Socket	1
17	1061278	"U" Shaped Tubing	1
18	1011227	Motor Coupling Half	1
19	1011229	Spider Coupling Center	1
20	1011228	Pump Coupling Half	1
	1017085	Electrical Danger Label	1

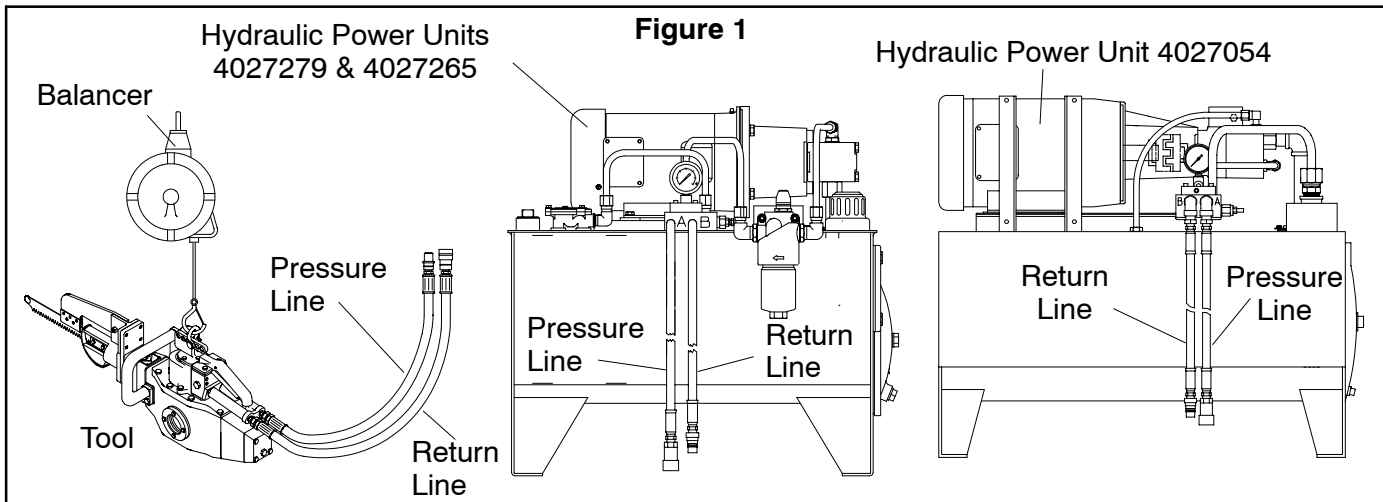
### SPECIFICATIONS

#### MODELS: MG-1, -1-HS, -1B, -1BHS and -1B-FQ

Blade Lengths	9.5 in	241 mm
	10.5 in	267 mm
	11.5 in	292 mm
	13.0 in	330 mm
	(Hog Splitting) 18.0 in	457 mm
	(Hog Splitting) 22.0 in	559 mm
(Forequartering)	16 in	406 mm
	18 in	457 mm
Control Handle	single / hydraulic	
Overall Length (9.5 in blade)	31 in	787 mm
Weight	MG-1, 1B	41 lbs 18.6 kg
	MG-HS, FQ	63 lbs 28.6 kg
Vibration	less than (<) 132 dB	< 4 m/sec <sup>2</sup>
Noise	88 dB	

#### HYDRAULIC POWER UNITS: 4027279 and 4027265

Operating Voltage	460/230 V, 3 ph, 60 Hz	
	Other voltages and Hz. available	
Motor Power	5 hp	3728 W
Pump Output		
Models 4027279	3 gpm	11.4 Lpm
Model 4027265	5 gpm	18.9 Lpm
Hose Length	16 ft	5 m
Oil Capacity	20 gal	76 L
Oil Viscosity at 100°F/40°C	200 SUS	46 ISO
Overall Dimensions (l x w x h)	31.5 x 21.5 x 30 in	
	800 x 546 x 762 mm	
Weight (without oil)	250 lbs	113 kg



## INSTALLATION INSTRUCTIONS

**IMPORTANT: ALWAYS SHUT THE POWER OFF AND DISCONNECT ALL HYDRAULIC HOSES IN ACCORDANCE WITH OSHA'S LOCKOUT/TAGOUT PROCEDURES (29 CFR 1910.147) BEFORE INSTALLING OR REMOVING A BLADE. ALWAYS SHUT THE POWER OFF AND DISCONNECT ALL HYDRAULIC HOSES IN ACCORDANCE WITH OSHA'S LOCKOUT/TAGOUT PROCEDURES (29 CFR 1910.147) BEFORE PERFORMING ANY MAINTENANCE OR REPAIRS.**

- 1 Install the MG-1 above the work station from a balancer. **Jarvis** part number 4042035 or 4042047 is available. *Refer to Figure 1 above.*
  - 1.1 The MG-1 should have sufficient travel to allow the operator to reach the entire work area.
- 2 Fill the main housing up to the level line in observation window (item 112) with a USDA approved premium grade hydraulic fluid (viscosity: 200 S.U.S. at 100° F, 46 ISO at 40° C).
- 3 Install the power unit overhead or on the floor behind the work station.
  - 3.1 Avoid excessive height and long pipe runs.
- 4 Wire the power unit. The power unit requires a three-phase power source. Check the motor nameplate for the correct amperage, frequency and voltage. **All wiring must be done in accordance with national, state and local codes.**
- 5 Equip the power unit with a master pilot light switch at the operators station. *This will facilitate shut down in case of an equipment failure.*

- 6 Fill the power unit oil reservoir with a USDA approved premium grade hydraulic fluid (viscosity: 200 S.U.S. at 100° F, 46 ISO at 40° C).
- 7 Make all necessary hose connections. *Refer to Figure 1 above as a guide.*

## OPERATION INSTRUCTIONS

- 1 Prior to use or daily.
  - 1.1 Make sure that the MG-1 moves freely on the balancer.
  - 1.2 **Test** the tool. **Depress** the trigger and the tool should start. **Release** the trigger and the tool should stop. *If the tool malfunctions, remove it from service and report the problem to your supervisor immediately. Always use two hands when starting the tool and while making the cut. Continue holding the tool with two hands until the blade comes to a complete stop.*
- 2 Connect all the hydraulic hoses. *Refer to Figure 1 above. Refer to Figure A, page 4 for referenced items.*
  - 2.1 Connect the quick connect plug (item 15) from the pressure line of the tool to the pressure line of the power unit.
  - 2.2 Connect the quick connect socket (item 16) from the return line of the tool to the return line of the power unit.
- 3 Turn on the power to the hydraulic power unit.



- 4 Making the cut.
  - 4.1 Insert the MG-1 blade into the cut (made in a previous operation).
    - 4.1.1 The front end of the saw should be tipped up at approximately a 30 degree angle.
  - 4.2 Depress the trigger to start the MG-1. **Always use two hands when starting the tool and while making the cut.**
  - 4.3 Guide the MG-1 down through the brisket applying a steady even pressure to both handles.
    - 4.3.1 The blade end of the MG-1 should be pointing upwards during the first part of the cut.
    - 4.3.2 As the brisket starts to open, rotate the MG-1 to a horizontal position to finish the cut.
  - 4.4 Release the trigger to stop the MG-1. **Continue holding the tool with two hands until the blade comes to a complete stop.**
  - 4.5 Remove the MG-1 from the carcass.
  - 4.6 Sanitize the MG-1 blade.

## MAINTENANCE INSTRUCTIONS

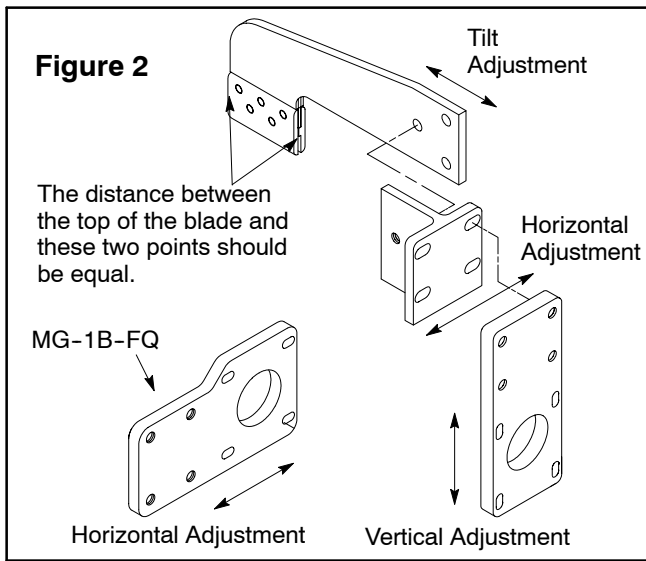
**IMPORTANT: ALWAYS SHUT THE POWER OFF AND DISCONNECT ALL HYDRAULIC HOSES IN ACCORDANCE WITH OSHA'S LOCKOUT/TAGOUT PROCEDURES (29 CFR 1910.147) BEFORE INSTALLING OR REMOVING A BLADE. ALWAYS SHUT THE POWER OFF AND DISCONNECT ALL HYDRAULIC HOSES IN ACCORDANCE WITH OSHA'S LOCKOUT/TAGOUT PROCEDURES (29 CFR 1910.147) BEFORE PERFORMING ANY MAINTENANCE OR REPAIRS.**

*Refer to Figures A - G on pages 4-12 for referenced items unless otherwise noted.*

- 1 PRIOR TO USE OR DAILY:
  - 1.1 Check level of oil through observation window (item 112) and fill if necessary with USDA approved premium grade hydraulic fluid (viscosity: 200 S.U.S. at 100° F, 46 ISO at 40° C).
  - 1.2 **Test** the tool. **Depress** the trigger and the tool should start. **Release** the trigger and the tool should stop. *If the tool malfunctions, repair or*

*remove it from service immediately. Note: the power must be on to perform the above test only. Always use two hands when starting the tool and while making the cut. Continue holding the tool with two hands until the blade comes to a complete stop.*

- 1.3 Check oil level of power unit and fill if necessary.
  - 1.3.1 Change hydraulic fluid and filter as necessary. Fill the oil reservoir with a USDA approved premium hydraulic fluid (viscosity: 200 S.U.S at 100° F, 46 ISO at 40° C). *Burnt smelling or foamy fluid should be replaced immediately.*
- 1.4 Inspect all hoses for abrasion and replace if necessary.
- 1.5 Check all fittings for leaks and tighten or replace as necessary.
- 2 BLADE REMOVAL :
  - 2.1 Remove hex head screws (item 45).
  - 2.2 Remove blade retaining plate (item 44).
  - 2.3 Remove blade (item 106, 133, 185 or 187 *as applicable*).
  - 2.4 Inspect blade for wear and sharpen or replace if necessary.
- 3 BLADE INSTALLATION:
  - 3.1 Install blade (item 106, 133, 185 or 187 *as applicable*).
  - 3.2 Install blade retaining plate (item 44).
  - 3.3 Install hex head screws (item 45).
  - 3.4 Check to see that blade moves freely through the support bracket. Make adjustments as necessary. **Note: These adjustments are factory preset. The MG-1 support bracket will only require adjustment if parts are worn or if parts are being replaced. See notes below.**
    - 3.4.1 For the MG-1-HS and MG-1B-HS, reposition the blade guide (item 136) for the vertical adjustment.
    - 3.4.2 For the MG-1 , MG-1B and MG-1B-FQ, refer to Figure 2 on page 18.



#### 4 HOUSING DISASSEMBLY:

- 4.1 Remove the blade. *Refer to steps and procedures outlined in section 2.*
- 4.2 Turn MG-1 upright and remove hex head screws (item 42) and split lock washers (item 41).
- 4.3 Remove motor housing (item 40) and the handle assembly.
- 4.4 Remove and disassemble hydraulic motor (item 38). *Refer to steps and procedures outlined in section 8.*
- 4.5 Remove o-rings (items 26 and 39).
- 4.6 Remove locating ring (item 124), if applicable (for aluminum motors only).
- 4.7 Remove hex head plug (item 23) from rear cover (item 88) and drain all hydraulic fluid from main housing (item 109).
- 4.8 Remove hex head screws (item 89).
- 4.9 Remove rear cover (item 88) and gasket (item 87).
- 4.10 Remove socket head screws (item 86).
- 4.11 Remove rear bearing housing (item 84) and rear housing gasket (item 83).
- 4.12 Remove hex head screws (items 5 and 130) from main housing cover (item 123).
- 4.13 Remove main housing cover (item 123) and main cover gasket (item 131).
  - 4.13.1 Place two (2)  $\frac{1}{4}$ -20 screws (one on each side of where the motor housing, item 40

was installed) and remove cover evenly. *Note: Do not pry between the top cover and main housing (item 109) with a screwdriver.*

- 4.14 Remove hex head screws (items 42) from front housing (item 99).
  - 4.15 Remove front housing (item 99) and the blade support assembly (items 74-78, 82 and 100-103).
  - 4.16 Remove socket head screws (item 79).
  - 4.17 Remove front bearing housing (item 93).
  - 4.18 Remove flanged seal bushing (item 95) and o-ring (item 94) from front bearing housing.
  - 4.19 Remove rod seal (item 96) and wiper ring seal (item 97) from flanged seal bushing.
  - 4.20 Grasp tang drive plate (item 68) and lift the drive mechanism assembly out of the main housing.
    - 4.20.1 Tap on the main housing with a rubber mallet to aid removal of the drive mechanism.
  - 4.21 Disassemble drive mechanism. *Refer to steps and procedures outlined in section 6.*
  - 4.22 Inspect all parts for wear and replace them if necessary.
- #### 5 HOUSING ASSEMBLY: *Refer to sections 3, 7, 9 and 11 as a guide for assembly.*
- 5.1 Make sure to install spacers (items 58 and 69) on drive mechanism.
  - 5.2 Reverse steps and procedures outlined in section 4. *See notes below.*
    - 5.2.1 Make sure that the drive mechanism turns freely.
    - 5.2.2 Before completing step 4.3, make sure to place o-rings (items 26 and 39) back into the motor housing.
- #### 6 DRIVE MECHANISM DISASSEMBLY:
- 6.1 Remove housing assembly. *Refer to steps and procedures outlined in section 4.*
  - 6.2 Remove spacer (item 69) and tang drive coupling (item 70).
  - 6.3 Remove two (2) socket head screws (item 47) from tang drive plate (item 68).
  - 6.4 Using a  $\frac{3}{16}$  inch pin, tap the two (2) spiral pins (item 48) down about  $\frac{3}{8}$  inch.

- 6.5 Remove tang drive plate (item 68).
  - 6.6 Remove top external retaining ring (item 59) from counterweight drive stud (item 72).
  - 6.7 Remove top two (2) thrust bearing washers (item 51), needle bearings (items 52 and 60), bearing spacer (item 71) and counterweight link (item 53).
  - 6.8 Remove two (2) socket head screws (item 67) from intermediate drive plate (item 55).
  - 6.9 Using a  $\frac{3}{16}$  inch pin, tap two (2) roll pins (item 66) down about  $\frac{3}{8}$  inch.
  - 6.10 Remove intermediate drive plate (item 55).
  - 6.11 Remove thrust bearing washers (item 62), needle bearings (items 56 and 65) and saw blade drive link (item 64).
  - 6.12 Remove bottom external retaining ring (item 59) from counterweight drive stud (item 72).
  - 6.13 Remove counterweight drive stud (item 72) and counterweight piston (item 73).
  - 6.14 Remove two (2) socket head screws (item 47) from intermediate drive plate (item 61).
  - 6.15 Using a  $\frac{3}{16}$  inch pin, tap two (2) spiral pins (item 48) down about  $\frac{3}{8}$  inch.
  - 6.16 Remove intermediate drive plate (item 61).
  - 6.17 Remove the lower thrust bearing washers (item 51), needle bearings (items 52 and 60), lower counterweight link (item 53) and intermediate drive plate (item 61).
  - 6.18 Press all pins (items 48 and 66) in drive plates (items 55, 68 and 61) back to their original position.
    - 6.18.1 Pins should stick up  $\frac{3}{8}$  inch above the cams (items 54 and 63).
  - 6.19 Press dowel pin (item 50) from piston (item 46 or 49).
  - 6.20 Remove saw blade drive link (item 64).
  - 6.21 Inspect all parts for wear and replace them if necessary.
- 7 DRIVE MECHANISM ASSEMBLY:**
- 7.1 Reverse steps and procedures outlined in section 6. *See notes below.*
    - 7.1.1 After completing step 6.19 check to see that piston (item 46 or 49) slides easily back and forth through front and rear bushings (items 82 and 90). *If it does not slide easily, tap the piston on all sides in the area of dowel pin (item 50) with a rubber mallet until it slides easily.*
    - 7.1.2 Assemble counterweight piston (item 73) in place before the top counterweight link (item 53) is assembled.
    - 7.1.3 Make sure that all thrust bearing washers (items 51 and 62) are installed back in place.
    - 7.1.4 Apply *Loctite 271* to threads on socket head screws (items 47 and 67) before installation. Torque to 16 lbf-ft (21.7 N-m).
    - 7.1.5 After completing step 6.7, tap roll pins (item 66) flush with the top surface of intermediate drive plate (item 55).
- 8 HYDRAULIC MOTOR DISASSEMBLY:**
- 8.1 Remove socket head screws (item 162).
  - 8.2 Remove cover assembly (item 163) and o-ring (item 164).
  - 8.3 Remove gear assemblies (items 172-176).
  - 8.4 Remove gear plate (item 165) and o-ring (item 164).
  - 8.5 Inspect all parts for wear and replace them if necessary.
- 9 HYDRAULIC MOTOR ASSEMBLY:**
- 9.1 Reverse steps and procedures outlined in section 8. *See note below.*
    - 9.1.1 Make sure o-rings (item 164) are properly set into groove of base assembly (item 168) and cover assembly (item 163).
    - 9.1.2 Torque screws (item 162) to 75 lbf-in (8 N-m). Use *Loctite 271* to secure.
- 10 HYDRAULIC VALVE DISASSEMBLY:**
- 10.1 Remove hex head screws (items 5 and 17).
  - 10.2 Remove trigger handle (item 8).
  - 10.3 Remove insulation plates (items 3 and 10).
  - 10.4 Remove valve seal retaining cover (item 25).
  - 10.5 Remove spacer (item 27) and o-ring (item 26).
  - 10.6 Grasp valve spool (item 32) and pull it out of valve housing (item 22).
  - 10.7 Remove spool seal washer (item 29) and o-ring (item 28).
  - 10.8 Inspect all parts for wear and replace them if necessary.

**11 HYDRAULIC VALVE ASSEMBLY:**

11.1 Place compression spring (item 33) into the hole in the bottom of valve spool (item 32).

11.1.1 A little grease will help hold the valve spring in place.

11.2 Place valve spool (item 32) back into valve housing (item 22).

11.3 Place spool seal washer (item 29) over the valve spool.

11.3.1 The groove in the spool seal washer should be facing up. It is for the o-ring (item 28).

11.4 Place o-ring (item 28) over the valve spool.

11.5 Place spacer (item 27) and o-ring (item 26) into the groove of valve seal retaining cover (item 25).

11.5.1 The narrow diameter of the spacer should be placed in the groove of the valve seal retaining cover.

11.6 Place the valve seal retaining cover (item 25) into the valve housing (item 22).

11.6.1 Make sure that the valve spool (item 32) slides up and down freely.

11.7 Reverse steps and procedures outlined in section 10.