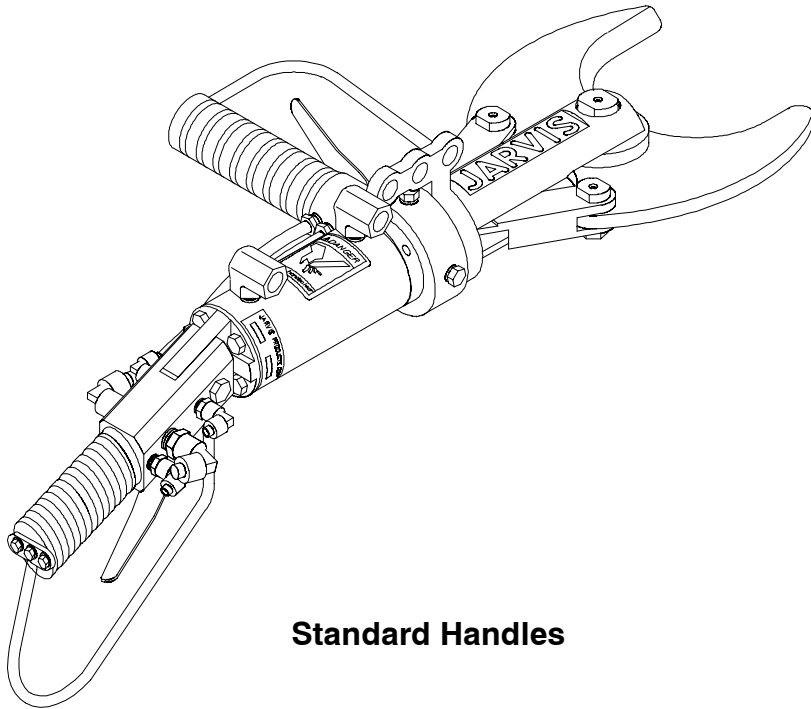
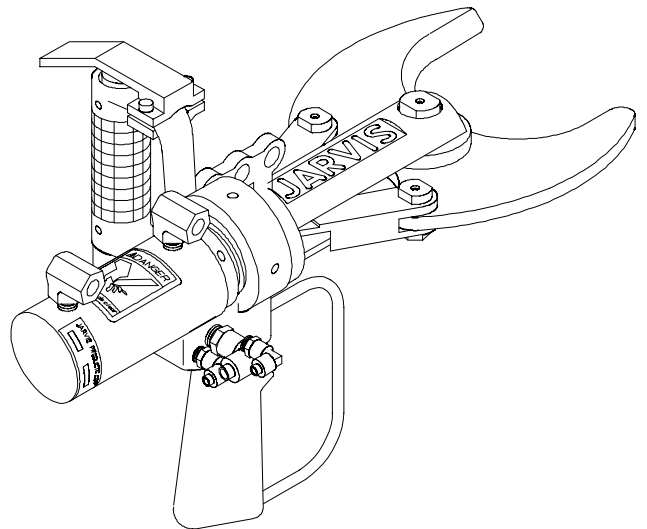




# Model 425-16 Hydraulic Cutter



**Standard Handles**



**Pistol Grip and "D" Handle**

EQUIPMENT SELECTION . . . . . Ordering No.	TABLE OF CONTENTS . . . . . Page
Model 425-16 Cutter Standard Handles . . . . . 4025072 Pistol Grip and "D" Handles 4025075 Hydraulic Power Unit without heat exchanger . . . . 4027266 with heat exchanger . . . . . 4027307 Balancer . . . . . 4042045	<ul style="list-style-type: none"> <li>• Safety Messages to Employer and Safety Director . . . . . 2</li> <li>• Safety Messages to Operators, Maintenance and Cleanup Personnel . . . . . 3</li> <li>• Parts Diagram and List . . . . . 4</li> <li>• Installation Diagram . . . . . 11</li> <li>• Specifications . . . . . 12</li> <li>• Installation Instructions . . . . . 12</li> <li>• Operation Instructions . . . . . 14</li> <li>• Maintenance Instructions . . . . . 14</li> </ul>



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**PRODUCTS CORPORATION**

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**SAFETY MESSAGES TO EMPLOYER AND SAFETY DIRECTOR**  
*AVOID INJURY*

1. **Remove** and **repair** any tool that malfunctions. **All** personnel must be instructed to remove any malfunctioning equipment.
2. **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.
3. **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.*
4. The tool is designed and intended to be powerful. This fact should be obvious to your employees, but you must emphasize it to them.
5. **Never** make modifications or alterations to the tool. *Replace any missing or illegible labels.*
6. **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.
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. **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.*

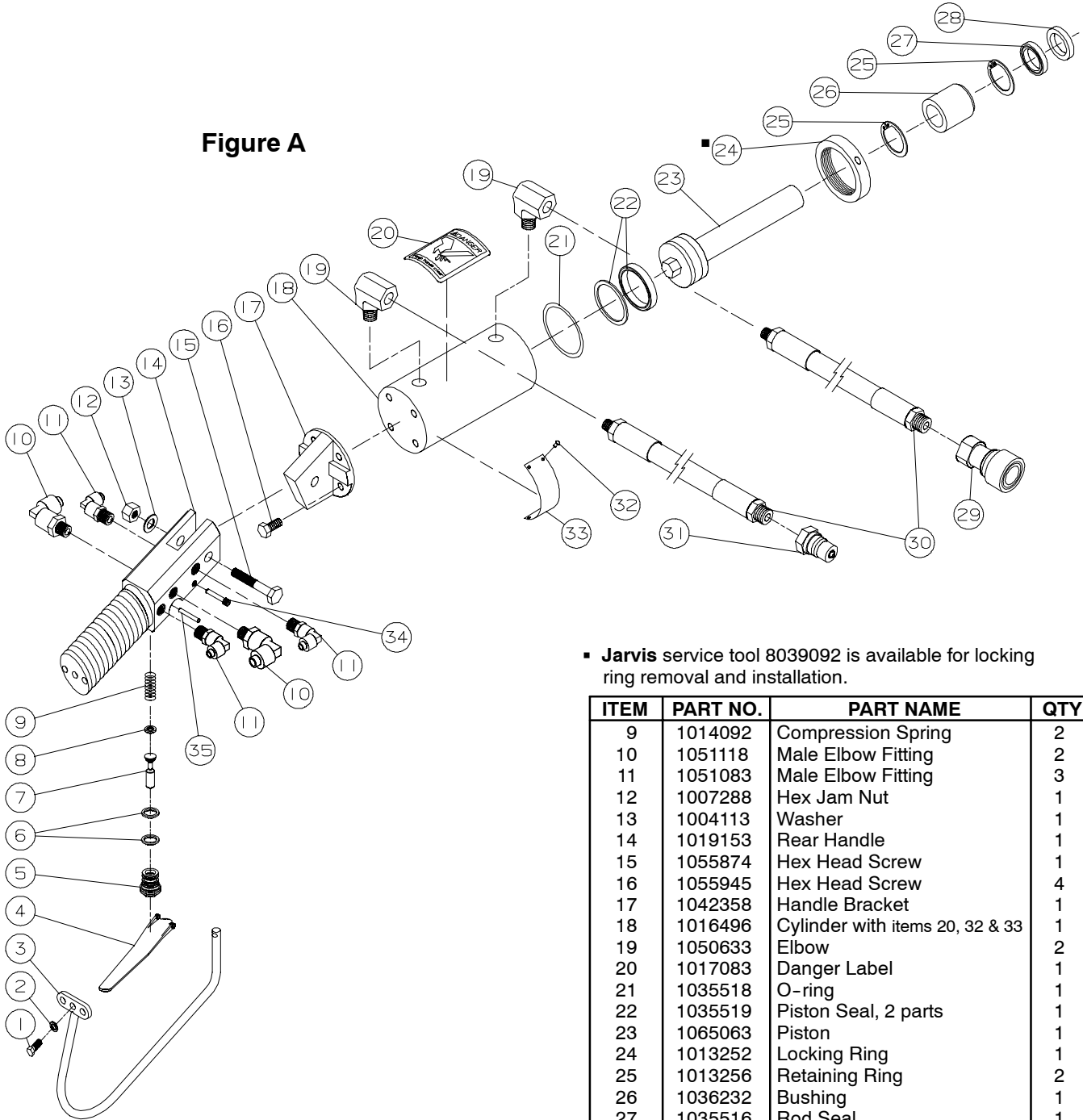


**SAFETY MESSAGES TO OPERATORS, MAINTENANCE AND CLEANUP  
PERSONNEL**

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

1. **Disconnect** all hydraulic and air hoses and shut the power off in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before sharpening blades.
2. **Disconnect** all hydraulic and air hoses and shut the power off in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any repair or maintenance.
3. **Disconnect** all hydraulic and air hoses and shut the power off - or have all hydraulic and air hoses disconnected and the power shut off - in accordance with OSHA's lockout/tagout procedures (29 CFR 1910.147) before performing any cleanup.
4. **Disconnect** all hydraulic and air hoses and shut the power off when the tool is not being used.
5. **Clean up** any spilled or leaked hydraulic fluid.
6. **Never** put fingers, hands or other parts of the body on the cutting edge, in the cutting path or in the path of the moving links.
7. **Test** the tool prior to use or daily. **Depress one** trigger, then pause one second and depress the other trigger and the blades **should not** close. **Repeat** this procedure reversing the triggers. **Depress both** triggers simultaneously and the blades **should** close. With the blades closed, release **one** trigger and the blades **should** open. **Continue** holding the depressed trigger and then depress the other trigger. The blades **should not** close. **Repeat** this procedure holding the other trigger. *If the tool malfunctions, remove it from service and report or repair it immediately.*
8. **Never** depress the triggers unless you want to use or test the tool.
9. **Never** make modifications or alterations to the tool. *Report or replace any missing or illegible labels.*

Figure A

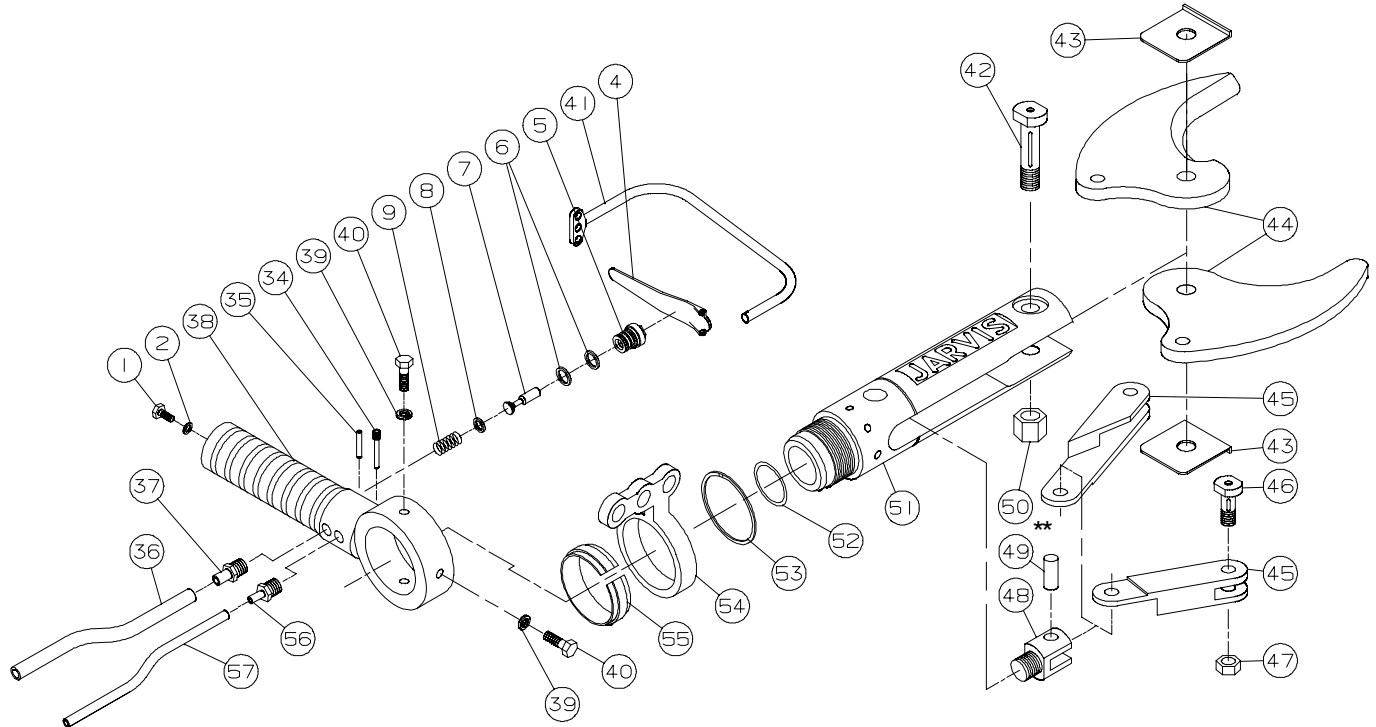


▪ Jarvis service tool 8039092 is available for locking ring removal and installation.

ITEM	PART NO.	PART NAME	QTY
1	1055755	Hex Head Screw	6
2	1004230	Lock Washer	6
3	1024106	Trigger Guard	1
4	1018130	Trigger Lever	2
5	1016350	Cartridge Housing with item 6	2
6	1035309	O-ring	4
7	1039050	Trigger Plunger with item 8	2
8	1035279	O-ring	2

ITEM	PART NO.	PART NAME	QTY
9	1014092	Compression Spring	2
10	1051118	Male Elbow Fitting	2
11	1051083	Male Elbow Fitting	3
12	1007288	Hex Jam Nut	1
13	1004113	Washer	1
14	1019153	Rear Handle	1
15	1055874	Hex Head Screw	1
16	1055945	Hex Head Screw	4
17	1042358	Handle Bracket	1
18	1016496	Cylinder with items 20, 32 & 33	1
19	1050633	Elbow	2
20	1017083	Danger Label	1
21	1035518	O-ring	1
22	1035519	Piston Seal, 2 parts	1
23	1065063	Piston	1
24	1013252	Locking Ring	1
25	1013256	Retaining Ring	2
26	1036232	Bushing	1
27	1035516	Rod Seal	1
28	1035517	Wiper Seal	1
29	1011087	Quick Connect Socket	1
30	1059087	Hose Assembly, 2 ft	2
31	1011086	Quick Connect Plug	1
32	1055274	Drive Screw	4
33	1017400	Name and Info Label	1
34	1010274	Threaded Pin	2
35	1010376	Dowel Pin	2
	3035056	Seal Kit (items 21, 22, 27 & 28)	

**Figure B**

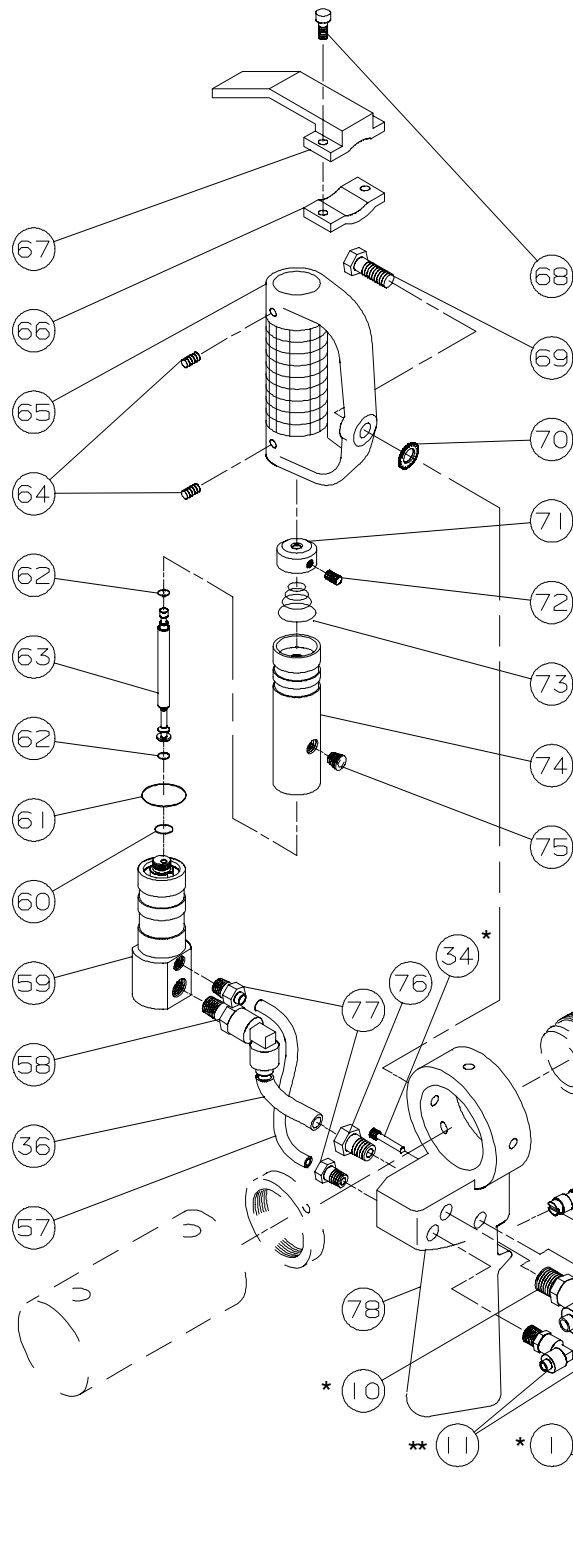


\* Left side tool (standard) shown above

ITEM	PART NO.	PART NAME	QTY
36	1061700	Tubing, 8 inch	1
37	1011320	Male Connector	1
38	1019173	Stick Handle	1
39	1004231	Lock Washer	3
40	1055613	Hex Head Screw	3
41	1024191	Trigger Guard	1
42	1010415	Blade Pin	1
43	1032517	Wear Plate with item 51	2
44	1023366*	Blade, Standard	2
	1023460	Blade, Right Side Tool	
45	1028104*	Link, Standard	2
	1028127	Link, Right Side Tool	
46	1010416	Link Pin	2
47	1007023	Hex Lock Nut	2
48	1011319	Yoke	1

\*\* Tighten to 100-120 lbf-in (11.3-13.6 N-m)

ITEM	PART NO.	PART NAME	QTY
49	1010384	Dowel Pin	1
50	1007181**	Hex Lock Nut	1
51	1016495	Clevis Housing	1
52	1035320	O-ring	1
53	1013253	Retaining Ring	1
54	1042360	Hanger	1
55	1036233	Hanger Bushing	1
56	1011175	Male Connector	1
57	1061699	Tubing, 7 inch	1
	3019210	Front Handle Assembly (includes items 1, 2, 4-9, 34, 35, 37, 38, 41 and 56)	
	3019209	Rear Handle Assembly (includes items 1-11, 14, 34 and 35)	



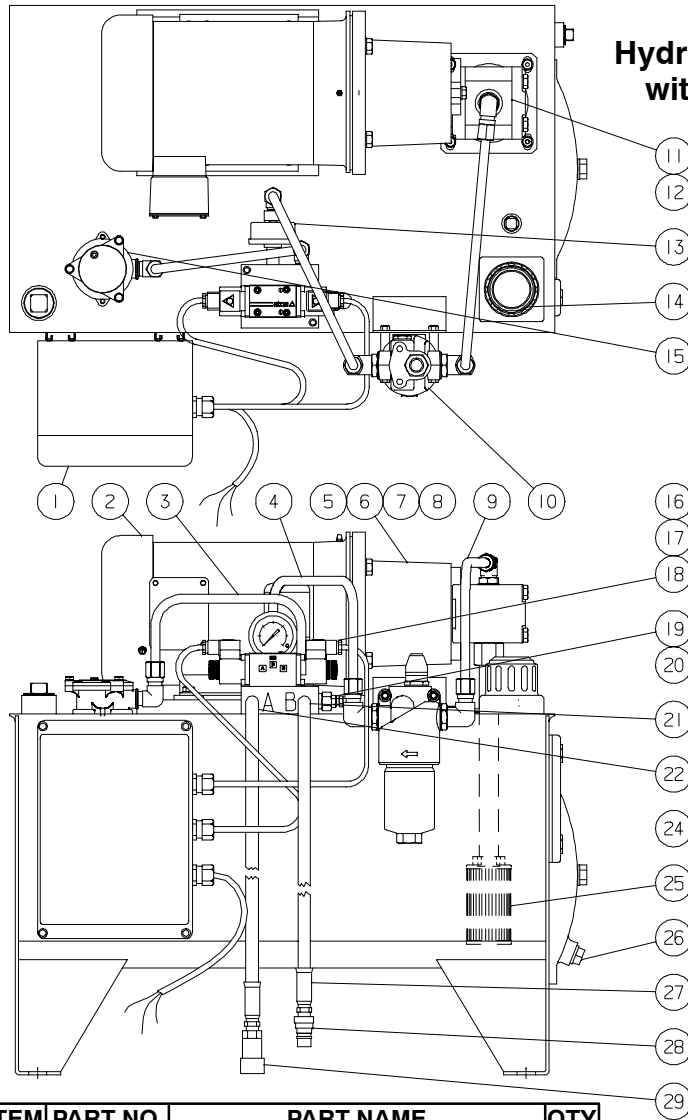
ITEM	PART NO.	PART NAME	QTY
58	1051158	Tube Connector	1
59	1022099	Valve Manifold with item 60	1
60	1035173	O-ring	1
61	1035029	O-ring	1
62	1035280	O-ring	2
63	1039043	Plunger Valve with item 62	1
64	1055043	Socket Set Screw	2
65	1019104	Air Control Handle	1
66	1012033	Trigger Guard Clamp	1
67	1024035	Trigger Guard	1
68	1055134	Locking Cap Screw	2
69	1055610	Hex Head Screw	1
70	1004314	External Lock Washer	1
71	1006037	Trigger Button	1
72	1055492	Socket Set Screw	1
73	1014100	Valve Spring	1
74	1022097	Valve Body (w/items 61 & 75)	1
75	1050509	Hex Plug	1
76	1051159	Tube Connector	1
77	1051124	Tube Connector	2
78	1019177	Pistol Grip Handle	1
79	1024194	Trigger Guard	1
80	1022211	Valve	1
81	1054153	Threaded Plug	1
82	1018143	Trigger	1
83	1010356	Dowel Pin	1
	3019182	Front Handle Assembly (incl. items 58-75 and 77)	
	3019181	Pistol Grip Handle Assy (incl. items 1, 2, 10, 11, 34 and 76-83)	

**Figure C**

**Pistol Grip and Front  
Handle Assembly for  
Model 4025075**

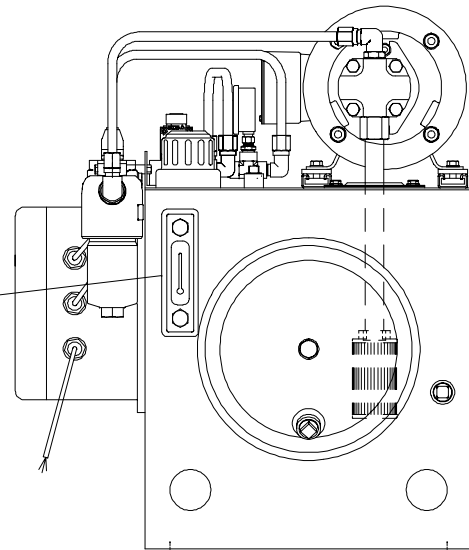
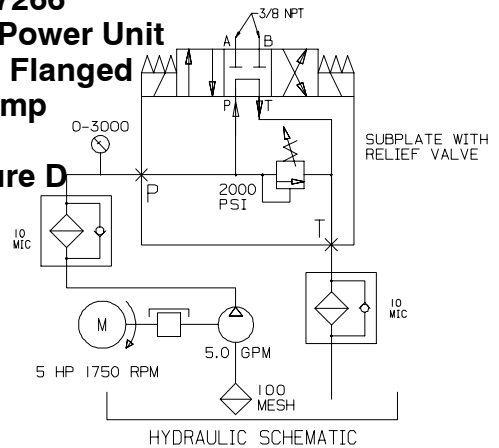
\* Quantity for 425-16 model 4025072 is two (2).  
Quantity for 425-16 model 4025075 is one (1).

\*\* Quantity for 425-16 model 4025072 is three (3).  
Quantity for 425-16 model 4025075 is two (2).



**4027266**  
**Hydraulic Power Unit**  
**with "A" Flanged Pump**

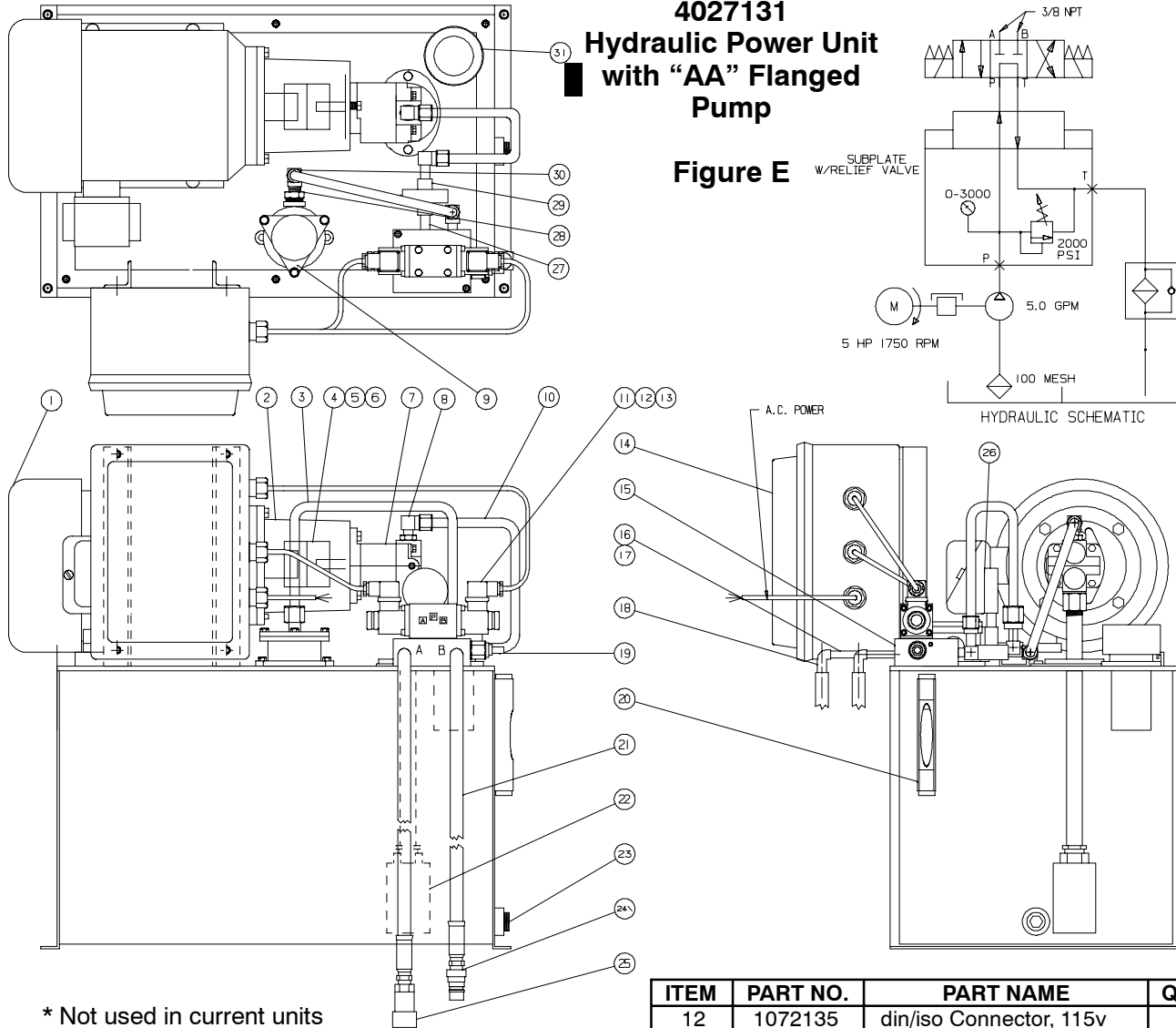
**Figure D**



ITEM	PART NO.	PART NAME	QTY
1	3016193	Elec/Pneu Control Box, 115v	1
	3016212	Elec/Pneu Control Box, 220v	
2	1008193	Electric Motor, 460/230v, 60Hz	1
	1008197	Electric Motor, 440/400/230v,50Hz	
3	1071429	Tubing Assy, Return	1
4	1071430	Tubing Assy, Filter to Subplate	1
5	1042361	Mounting Bracket	1
6	1011324	Motor Half Coupling	1
7	1011326	Spider Center Coupling	1
8	1011325	Pump Half Coupling	1
9	1071431	Tubing Assy, Pump to Filter	1
10	3034031	High Pressure Filter Assembly	1
	1034105	High Pressure Filter Element	
	1008238	Hydraulic Gear Pump	1
	1050515	Adapter Elbow	1
	1025022	Hydraulic Pressure Gage	1
	1034013	Oil Breather Filler Cap	1
	1034064	Triangular Filter Assy w/Element	1
	1034062	Filter Element only	
	1034052*	Square Filter Assy w/Element	
	1034048*	Filter Element only for Sq. Filter	

\* Not used in current units

ITEM	PART NO.	PART NAME	QTY
16	1022042	Dir. Control Valve, 115v	1
	1022175	Dir. Control Valve, 220v	
	1063843	din/iso Coil for 115v Valve	
	1063844	din/iso Coil for 220v Valve	
17	1072135	din/iso Connector, 115v	
	1072136	din/iso Connector, 220v	
18	1055376	Socket Head Cap Screw	4
19	1022120	Sub Plate w/Cart Relief Valve	1
20	1022119	Relief Valve Cartridge only	
21	1050462	Hex Nipple (4 inch)	1
22	1050126	Pipe Elbow	2
23	1050090	Hex Nipple (2 inch)	1
24	1025045	Oil Level Gage	1
25	1034007	Suction Strainer Filter	1
26	1054166	Drain Plug with Magnet	1
27	1059003	Hyd. Hose Assembly, 16 ft	2
28	1011086	Quick Connect Plug	1
29	1011087	Quick Connect Socket	1
	1017085	Electrical Danger Label	1



**4027131  
Hydraulic Power Unit  
with "AA" Flanged  
Pump**

**Figure E**

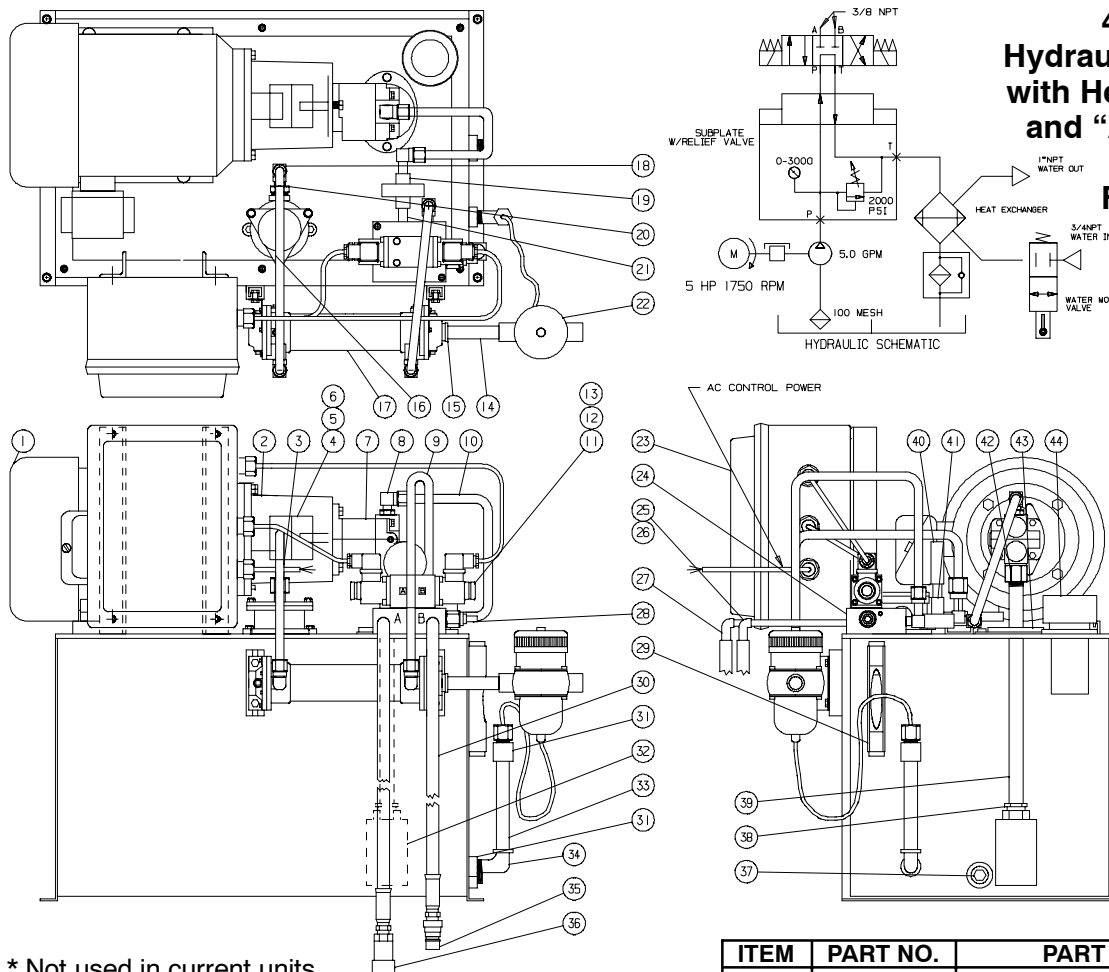
\* Not used in current units

ITEM	PART NO.	PART NAME	QTY
1	1008193	Electric Motor	1
2	1042361	Mounting Bracket	1
3	1061734	Tubing Assembly, Return	1
4	1011324	Motor Half Coupling	1
5	1011326	Spider Center Coupling	1
6	1011325	Pump Half Coupling	1
7	3008079	Hydraulic Gear Pump	1
8	1050515	Adapter Elbow	1
9	1034064	Triangular Filter Assy	1
	1034062	Filter Element only	
	1034052*	Square Filter Assy	
	1034048*	Filter Element only	
10	1061733	Tubing Assembly, Supply	1
11	1022042	Dir. Control Valve, 115v	1
	1022175	Dir. Control Valve, 220v	
	1063072	Coil, 115v Valve	
	1063373	Coil, 220v Valve	
	1063843	din/iso Coil for 115v Valve	
	1063844	din/iso Coil for 220v Valve	

ITEM	PART NO.	PART NAME	QTY
12	1072135	din/iso Connector, 115v	
	1072136	din/iso Connector, 230v	
13	1055376	Socket Head Cap Screw	4
14	3016193	Elec/Pneu Control Box	1
15	1022120	Cartridge Sub Plate	1
16	1050090	Hex Nipple (2 inch)	1
17	1050462	Hex Nipple (4 inch)	1
18	1050126	Pipe Elbow	2
19	1022119	Relief Valve Cartridge	1
20	1025045	Oil Level Gage	1
21	1059003	Hyd. Hose Assembly, 16 ft	2
22	1034007	Suction Strainer Filter	1
23	1054166	Drain Plug with Magnet	1
24	1011086	Quick Connect Plug	1
25	1011087	Quick Connect Socket	1
26	1025022	Hydraulic Pressure Gage	1
27	1050508	Hex Nipple (1.5 inch)	1
28	1050669	Reducer Bushing	1
29	1050127	Pipe Tee	1
30	1050668	Male Elbow	3
31	1034013	Oil Breather Filler Cap	1
	1017085	Electrical Danger Label	1



**4027105**  
**Hydraulic Power Unit**  
**with Heat Exchanger**  
**and "AA" Flanged**  
**Pump**  
**Figure F**

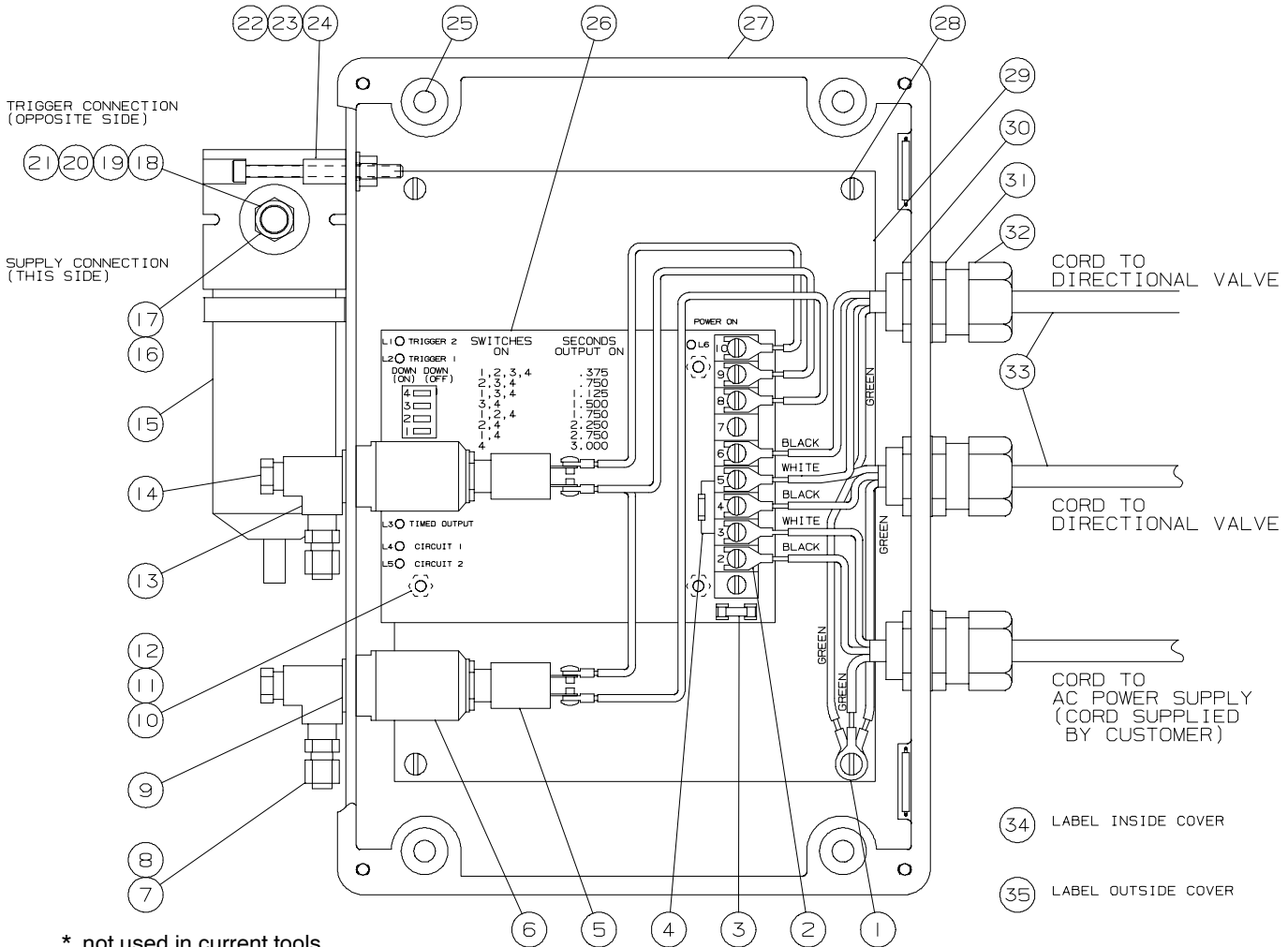


\* Not used in current units

ITEM	PART NO.	PART NAME	QTY
1	1008193	Electric Motor	1
2	1042361	Mounting Bracket	1
3	1061740	Return Tubing Out	1
4	1011324	Motor Half Coupling	1
5	1011326	Spider Center Coupling	1
6	1011325	Pump Half Coupling	1
7	3008079	Hydraulic Gear Pump	1
8	1050515	Adapter Elbow	1
9	1061738	Return Tubing In	1
10	1061733	Tubing Assembly, Supply	1
11	1022042	Dir. Control Valve, 115v	1
	1022175	Dir. Control Valve, 220v	
	1063072	Coil only for 115v Valve	
	1063373	Coil only for 220v Valve	
	1063843	din/iso Coil for 115v Valve	
	1063844	din/iso Coil for 220v Valve	
12	1072135	din/iso Connector, 115v	
	1072136	din/iso Connector, 230v	
13	1055376	Socket Head Cap Screws	4
14	1050677	Nipple	1
15	1050678	Hex Bushing	1
16	1034064	Triangular Filter Assy	1
	1034062	Filter Element only	
	1034052*	Square Filter Assy	
	1034048*	Filter Element only	
17	1061739	Heat Exchanger	1

ITEM	PART NO.	PART NAME	QTY
18	1050668	Male Elbow	3
19	1050127	Pipe Tee	1
20	1050669	Reducer Bushing	1
21	1050508	Hex Nipple (1.5 inch)	1
22	1022224	Water Valve	1
23	3016193	Elec/Pneu Control Box	1
24	1022120	Cartridge Sub Plate	1
25	1050676	Hex Nipple (8 inch)	1
26	1050675	Hex Nipple (6 inch)	1
27	1050126	Pipe Elbow	2
28	1022119	Relief Valve Cartridge	1
29	1025045	Oil Level Gage	1
30	1059003	Hyd. Hose Assembly, 16 ft	2
31	1050680	Coupling	2
32	1034007	Suction Strainer Filter	1
33	1050681	Nipple	1
34	1050679	Elbow	1
35	1011086	Quick Connect Plug	1
36	1011087	Quick Connect Socket	1
37	1054166	Drain Plug	1
38	1050239	Reducer Bushing	1
39	1050671	Pipe Nipple	1
40	1025022	Hydraulic Pressure Gage	1
41	1050602	Reducer Bushing	1
42	1050670	Reducing Adapter	1
43	1044065	Flange, Suction Line	1
44	1034013	Oil Breather Filler Cap	1
	1017085	Electrical Danger Label	1

## Electric/Pneumatic Control Box Figure G

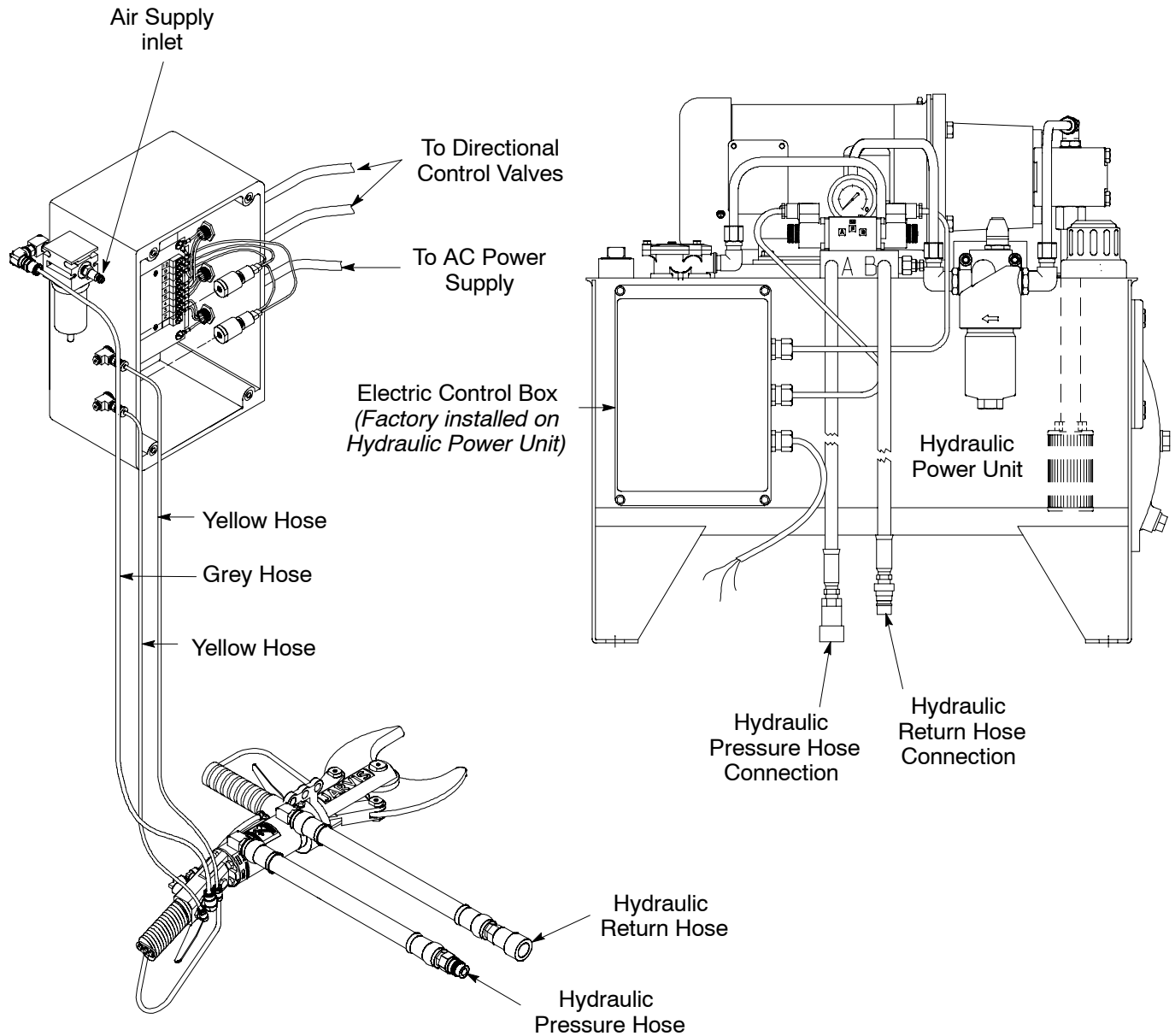


\* not used in current tools

ITEM	PART NO.	PART NAME	QTY
1	1063079	Ring Tongue Terminal	2
2	1063502	Fork Tongue Terminal	13
3	1072091	Glass Fuse, 115v	1
	1063862	Glass Fuse, 220v	
4	1063311*	Pigtail Fuse, 115v	
	1063312*	Pigtail Fuse, 220v	
5	1005059	Electric Switch	2
6	1051065	Actuator	2
7	1051124	Tube to Pipe Connector	2
8	1061255	Yellow Tubing, 20 ft	2
9	1004154	Washer	2
10	1029445	Hex Spacer	4
11	1004244	Washer	4
12	1073072	Plastic Pan Head Screw	4
13	1051063	Street Tee	2
14	1051069	Air Bleed Fitting	2
15	1034014	Air Filter	1
16	1051001	Quick Connect Plug	1
17	1061354	Grey Tubing, 20 ft	1
18	1050027	Street Elbow	1
19	1050016	Hex Nipple	1

ITEM	PART NO.	PART NAME	QTY
20	1050057	Female Elbow	1
21	1051159	Tube to Pipe Connector	1
22	1055197	Socket Head Cap Screw	2
23	1004206	Washer	2
24	1007355	Hex Lock Nut	2
25	1055946	Socket Head Cap Screw	4
26	1072071	ATD Circuit Board, 115v	1
	1072072	ATD Circuit Board, 220v	
27	1016347	Electrical Enclosure	1
28	1055010	Pan Head Screw	4
29	1032266	Panel	1
30	1007278	Locking nut	3
31	1004211	Sealing Washer	3
32	1011240	Strain Relief Connector	3
33	1001295	Electric Cord, 4 Ft	2
34	1017114	Wiring Diagram, 115v	1
	1017153	Wiring Diagram, 230v	
35	1017012	Electrical Warning Label, 115v	1
	1017150	Electrical Warning Label, 220v	
	3016193	Control Box Complete, 115v	
	3016212	Control Box Complete, 230v	

**Figure H**  
**Electric/Pneumatic Control Box**  
**Hose Assembly**



## SPECIFICATIONS

### Model 425-16

Blade Opening	3.7 in	94 mm
Control Handles		
Air / Dual Anti-tie Down	50 psi	3.4 bar
Cutting Force	1300 lbf	5.78 kN
Cutting Cycle		1 sec
Overall Length (4025072)	25 in	635 mm
(4025075)	18 in	460 mm
Weight	20 lb	9 kg

### Hydraulic Power Unit

Voltage	460/230 V - 60 Hz - 3 ph other voltages and frequencies available	
Power	5 hp 3700 Watts	
Hose Length	16 ft	5 m
Oil Capacity	20 gal	76 L
Oil Viscosity at 100° F/40° C	200 SUS	46 ISO
Dimensions with heat exchanger (l x w x h)	34 x 24 x 28 in 864 x 610 x 711 mm	
Dimensions without heat exchanger (l x w x h)	31.5 x 25.4 x 30 in 800 x 645 x 711 mm	
Weight (without oil)	250 lb	113 kg

## INSTALLATION INSTRUCTIONS

Refer to Figure G on page 10 for referenced items unless otherwise noted. Use Figure H on page 11 and Figure I on page 13 as a guide for hose connections and wiring of the electric/pneumatic control box.

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

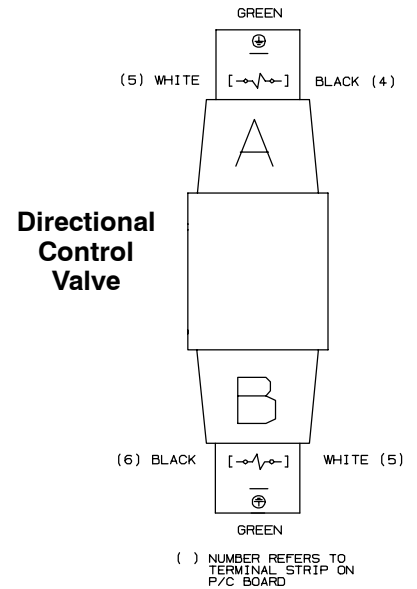
- 1 Install the 425-16 above the work station from a balancer. **Jarvis** part number 4042045 is available.
  - 1.1 The 425-16 should have sufficient travel to allow the operator to reach the entire work area.
- 2 Install the hydraulic power unit above the operator's station.
- 3 Fill the power unit oil reservoir with a USDA H1 approved premium grade hydraulic fluid (viscosity:

200 S.U.S. at 100° F/ 46 ISO at 40° C). *Never run the power unit without oil.*

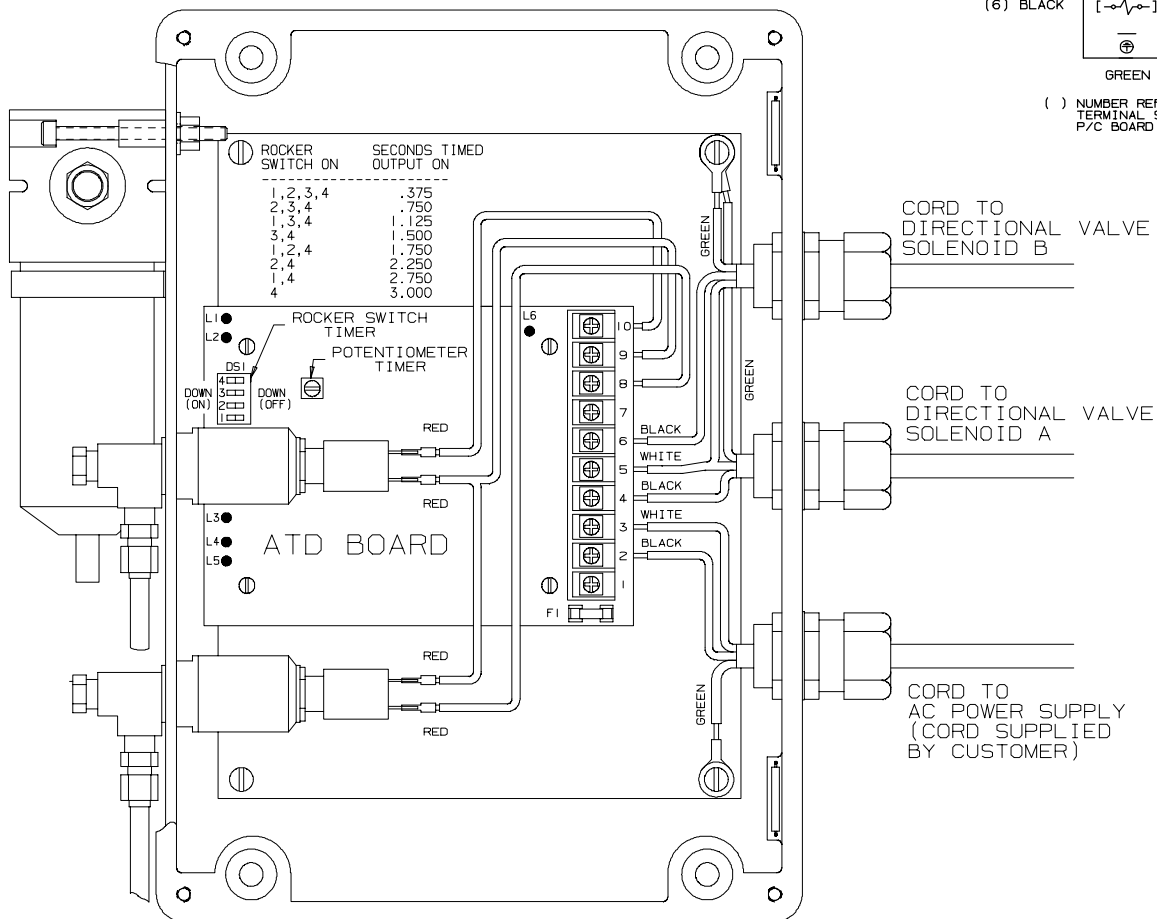
- 4 Make all the necessary air connections.
  - 4.1 The air inlet pipe should be  $\frac{3}{8}$  inch diameter minimum.
  - 4.2 The required compressed air supply is 40 psi minimum to 50 psi maximum.
  - 4.3 An air regulator must be installed in the line to the quick connect plug (item 16) before the inlet to the filter (item 15).
- 5 Make all necessary hose connections.
  - 5.1 Attach one end of both yellow hose, Figure H, page 11) to the tube fittings (item 11, Figures A or C, *as applicable*, on pages 4 and 6) on the 425-16 cutter.
  - 5.2 Attach the free ends of the yellow hoses to the fittings (item 11) on the electric/pneumatic control box.
  - 5.3 Attach one end of the grey hose (Figure H, page 11) to the fitting (item 10, Figures A or C, *as applicable*, on pages 4 and 6) on the 425-16 cutter.
  - 5.4 Attach the free end of the grey hose to the connector assembly (item 21) on the electric/pneumatic control box filter.
- 6 Make all the necessary wiring connections. **All wiring must be done in accordance with national, state and local electrical codes.**
  - 6.1 Adjust cutter opening cycle. Refer to Figure 1, page 13.
    - 6.1.1 Close the cutter blades. **Refer to operating instruction 4.1.**
    - 6.1.2 Release the trigger(s).
    - 6.1.3 Set the timer on the ATD board so that the valve on the hydraulic power unit is de-energized when the blades have fully opened. Older boards use a square potentiometer with a screw driver slot. Newer boards use a group of four rocker switches.
  - 6.2 Make sure the compressed air supply is at the proper pressure (40-50 psi).
  - 6.3 Make sure the 425-16 cutter moves freely on the balancer.

**Figure 1  
Control Box Wiring Diagram**

**ATD Board LED Code**  
 L1 = Switch Input on (terminal 10)  
 L2 = Switch Input on (terminal 8)  
 L3 = Timed Output on (terminal 6)  
 L4 = ATD circuit 2 on  
 L5 = ATD circuit 1 on  
 L6 = Power on terminals 2 and 3



**Electric/Pneumatic Control Box**



## OPERATION INSTRUCTIONS

- 1 Connect all hydraulic hoses.
- 2 Connect all air hoses.
- 3 Turn on the power.
- 4 *Each day*, before you begin operation, perform the following:
  - 4.1 Make sure that the dual anti-tie down control handles (the front and the rear handles) are working correctly. **Depress** one trigger, then pause one second and depress the other trigger and the blades should not close. **Repeat** this procedure reversing the triggers. **Depress both** triggers simultaneously (within one half second of each other) and the blades should close. With the blades closed, **release** one trigger and the blades should open. **Continue** holding the depressed trigger and then depress the other trigger. The blades should not close. **Repeat** this procedure holding the other trigger. *If the tool malfunctions, remove it from service and report the problem to your supervisor immediately.*
  - 4.2 Make sure that the compressed air supply is at the proper pressure (40-50 psi).
  - 4.3 Make sure that 425-16 moves freely on the balancer.
- 5 Making the cut.
  - 5.1 Place 425-16 cutter around the hock of the carcass.
  - 5.2 Depress both triggers simultaneously to close the blades.
  - 5.3 Release either or both triggers to open the blades.

## MAINTENANCE INSTRUCTIONS

Refer to Figures A-C on pages 4-6 for referenced items.

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

## BEFORE PERFORMING ANY MAINTENANCE OR REPAIRS.

**IMPORTANT: IF YOU ARE PERFORMING MAINTENANCE ON THE HYDRAULIC SYSTEM, DISSIPATE OR RESTRAIN THE STORED ENERGY.**

### 1 DAILY MAINTENANCE:

*Each day*, before you begin operation, perform the following:

- 1.1 Check oil level of hydraulic power unit and fill if necessary.
  - 1.1.1 Change hydraulic fluid and filter as necessary. Fill the oil reservoir with a USDA approved premium grade hydraulic fluid (viscosity: 200 S.U.S at 100° F / 46 ISO at 40° C). *Burnt smelling or foamy fluid should be replaced immediately.*
- 1.2 The 425-16 is equipped with dual anti-tie down control handles (the front and the rear handles). Check for the correct operation of the dual anti-tie down control handles before each shift every day. **Depress** one trigger, then pause one second and depress the other trigger and the blades should not close. **Repeat** this procedure reversing the triggers. **Depress both** triggers simultaneously (within one half second of each other) and the blades should close. With the blades closed, **release** one trigger and the blades should open. **Continue** holding the depressed trigger and then depress the other trigger. The blades should not close. **Repeat** this procedure holding the other trigger. *If the tool malfunctions, repair or remove it from service immediately*

**Note: Connect the air hoses and hydraulic hoses and turn on the power to perform the above maintenance check only.**

- 1.3 Inspect all hoses for abrasion and replace if necessary.
- 1.4 Check all fittings for leaks and tighten or replace as necessary.
- 1.5 Apply **Jarvis 1315 White Grease** to the top holes in blade and link pins (items 42 and 46).

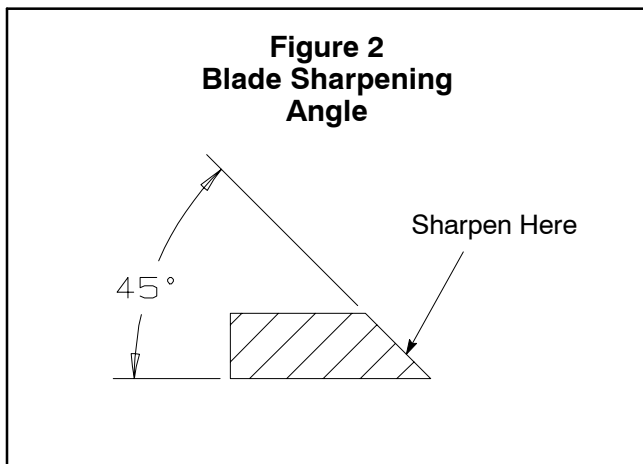
- 1.6 Inspect blades (item 44) for wear and sharpen or replace as necessary. *Refer to Sections 3 and 4 as a procedural guide.*
- 1.7 Check that the blades are opening and closing smoothly and that they are meshing properly. If the blades do not have a smooth sliding contact during cutting, the main pivot blade pin (item 42) and hex lock nut (item 50) must be adjusted. Tighten until smooth operation is lost, then back off slightly. *Do not over-tighten.*

2 WHEN NECESSARY:

- 2.1 Disassemble, clean and inspect link assembly. *Refer to section 5 as a procedural guide.*
- 2.2 Disassemble, clean and inspect cylinder assembly. *Refer to section 7 as a procedural guide.*

3 BLADE DISASSEMBLY:

- 3.1 Remove hex lock nut (item 50) and blade pin (item 42).
- 3.2 Remove hex lock nuts (item 47) and link pins (item 46).
- 3.3 Remove wear plates (item 43).
- 3.4 Remove blades (item 44).
- 3.5 Inspect all parts for wear and replace if necessary.
  - 3.5.1 Inspect blades for wear and sharpen or replace as necessary. *Refer to Figure 2 below, for proper sharpening angle of blade.*



4 BLADE ASSEMBLY:

- 4.1 Reverse steps and procedures outlined in section 3.
- 4.2 Apply light coat of **Jarvis 1315 White Grease** to sliding surface of each blade (item 44) prior to insertion into clevis housing (item 51).
- 4.3 Make sure curved end of wear plates (item 43) are facing away from blades.
- 4.4 Tighten hex lock nut (item 50) from 100-120 lbf-in (11.3-13.6 N-m). *Refer to section 1, step 1.7 if further blade adjustment is necessary.*

- 4.5 Apply **Jarvis 1315 White Grease** to the top holes in blade and link pins (items 42 and 46).

5 LINK DISASSEMBLY:

- 5.1 Remove blades (item 44). *Refer to section 3 as a procedural guide.*
- 5.2 Disconnect tubing (items 36 and 57) from fittings (items 10 and 11). **Note:** This step applies to 425-16 model 4025072 only. Tubing does not need to be disconnected for 425-16 model 4025075 with pistol grip handle.
- 5.3 Unscrew and separate cylinder (item 18) from clevis housing (item 51) by loosening locking ring (item 24). **Jarvis** wrench, part number 8039092 is available.
- 5.4 Remove screws (item 40) and slide off handle assembly from clevis housing.
  - 5.4.1 For 425-16 model 4025075, slide pistol grip handle and front handle assembly from clevis housing as one unit. Loosen hex head screw (item 69) if necessary.
- 5.5 Remove hanger (item 54) and hanger bushing (item 55).
- 5.6 Extend the piston (item 23) so that the dowel pin (item 49) in the yoke (item 48) lines up with the holes in the clevis housing (item 51).
- 5.7 Remove the dowel pin (item 49) using a pin punch.

5.7.1 The dowel pin must be pushed out from the smaller hole in the clevis housing through the larger hole in the clevis housing.

5.8 Remove both links (item 45).

5.9 Clean and inspect all parts for wear and replace as necessary.

## 6 LINK ASSEMBLY:

6.1 Reverse steps and procedures outlined in section 5. *See notes below.*

6.1.1 Apply **Jarvis 1315 White Grease** to dowel pin (item 49) and sliding surfaces of links (item 45) before inserting into clevis housing (item 51).

6.1.2 Use a pin punch through the small hole in the clevis housing (item 51) to align the yoke (item 48) and links (item 45) as you press dowel pin (item 49) in place. *The dowel pin should end up approximately flush with top of yoke.*

6.1.3 Lock clevis housing (item 51) and cylinder (item 18) in place with locking ring (item 24). Tighten with **Jarvis** wrench, part number 8039092.

6.1.4 Follow steps and procedures outlined in section 4 for blade assembly.

## 7 CYLINDER DISASSEMBLY:

7.1 Remove blades (item 44). *Refer to section 3 as a procedural guide.*

7.2 Remove links (item 45). *Refer to section 5 as a procedural guide.*

7.3 For 425-16 model 4025072, remove rear handle assembly.

7.3.1 Remove hex head screw (item 15) to separate from rear handle bracket (item 17).

7.3.2 Remove hex head screws (item 16) to

detach handle bracket (item 17) from cylinder body (item 18).

7.4 Remove piston rod (item 23) from yoke (item 48).

7.5 Remove piston seals (item 22) off piston rod (item 23). Use a screw driver to pry off seals if necessary.

7.6 Remove retaining rings (item 25) inside clevis housing (item 51) and push out bushing (item 26) from front end of clevis housing (item 51).

7.7 Remove seals (items 27 and 28) from bushing (item 26).

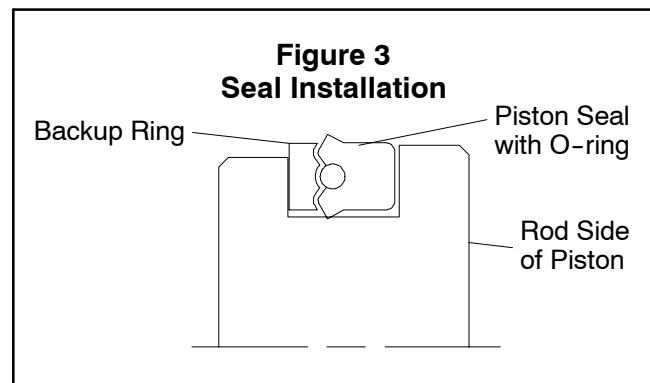
7.8 Remove o-ring (item 21) from cylinder (item 18).

7.9 Clean and inspect all parts for wear and replace as necessary.

## 8 CYLINDER ASSEMBLY:

8.1 Reverse steps and procedures outlined in section 7. *See notes below.*

8.1.1 Install seal and backup ring (item 22) as shown in *Figure 3, below.*



8.1.2 Screw cylinder assembly onto clevis housing (item 51) as far as possible, then back off slightly to obtain desired alignment of hydraulic fittings (items 19) relative to cutting plane of blades (item 44).

8.1.3 Lock cylinder assembly in place with locking ring (item 24). Tighten with **Jarvis** wrench, part number 8039092.

8.1.4 Use *Loctite 262* or *271* on threads of piston (item 23) prior to installing yoke (item 48).

8.1.5 Follow steps and procedures outlined in sections 4 and 5 for blade and link assembly.