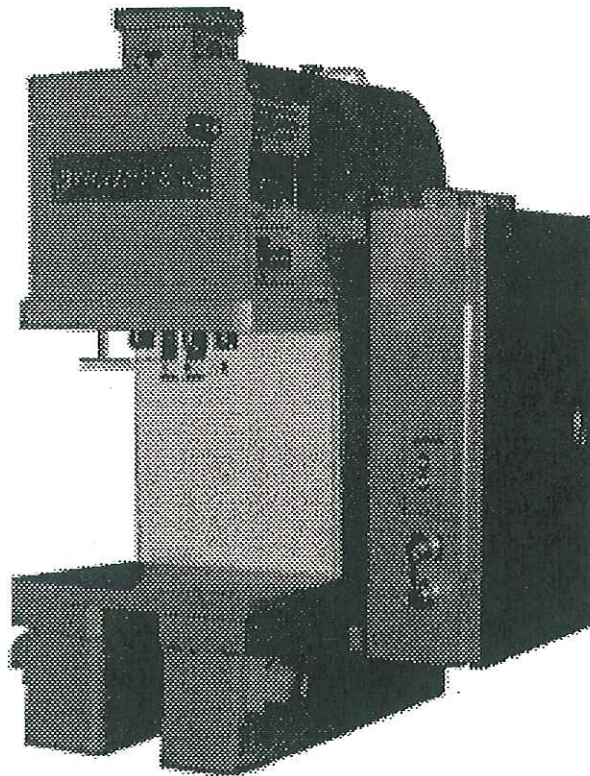


BULLETIN W3A-123-92

MULTIPRESS®
HYDRAULIC EQUIPMENT
Operating Instructions
and
Service Manual



SERIES W3A 1, 2, & 3 - TON

MULTIPRESS®
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TABLE OF CONTENTS

INTRODUCTION	Page 4
SPECIFICATIONS	Page 5
INSTALLATION	Page 6
SEQUENCE OF OPERATION	Page 7
MAINTENANCE	Page 8
RELIEF VALVE	Page 12
UNLOADER CAP ASSEMBLY	Page 13
CYLINDERS	Page 14
POSITIVE STOP ASSEMBLY	Page 16
HYDRAULIC CIRCUIT	Page 18
ELECTRIC CIRCUITS	Page 20
BASIC PRESS ASSEMBLY	Page 26
MANIFOLD ASSEMBLY	Page 28

IF PRESS S/N IS M 4068 OR HIGHER
THE CIRCUITS DO NOT APPLY. CHECK SUPPLIED ELECTRIC AND
HYDRAULIC CIRCUITS.

INTRODUCTION

SERVICE POLICY

The simplicity of *MULTIPRESS*® Equipment, the unitized construction of its major components and observance of the instructions in this manual assure ease of servicing by the user.

All field service requested by the user and rendered by our factory representatives will be charged at the established rate per day plus expenses. *MULTIPRESS*® equipment may be sent to our factory for inspection and service only upon receipt of purchase order for such service.

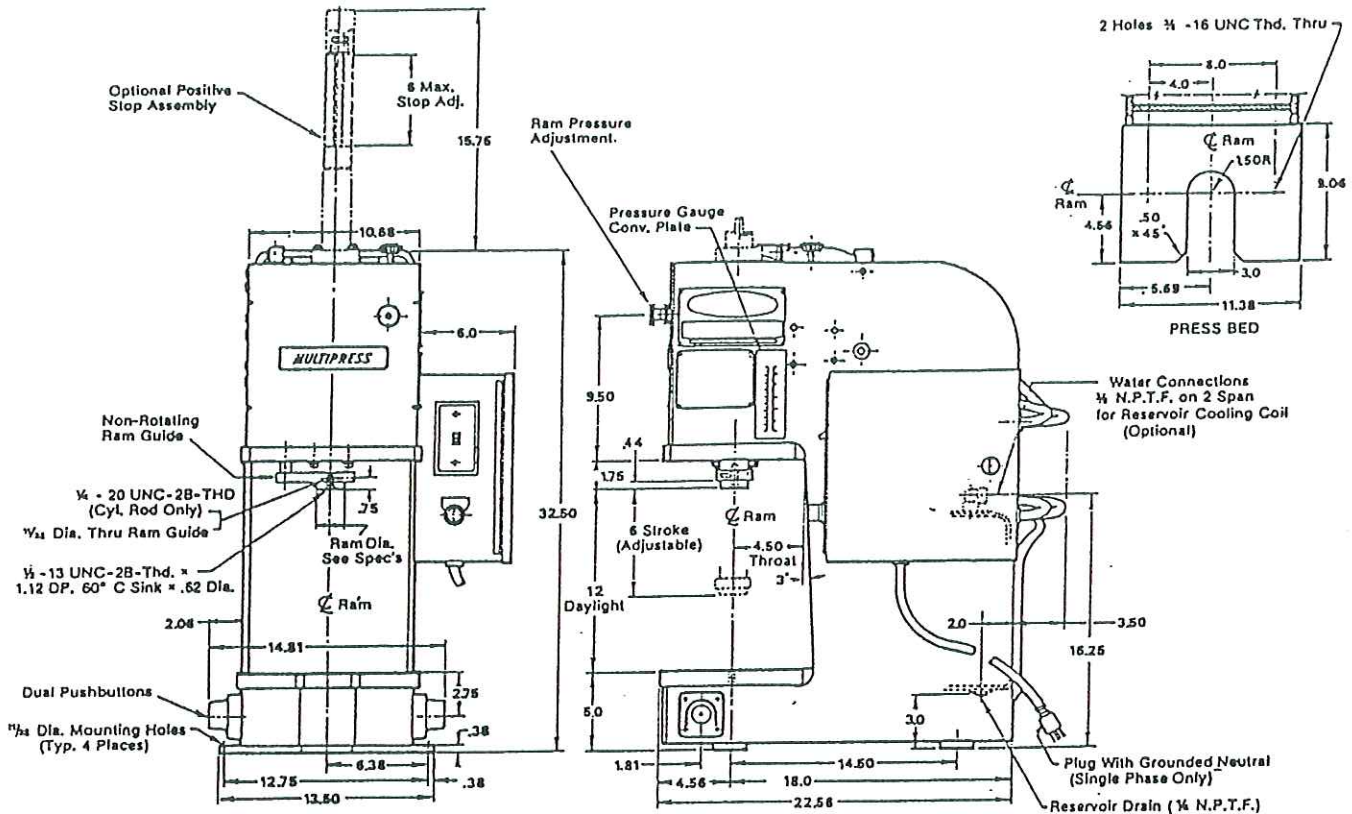
Electric Current characteristics, required by the user, to be specified at time of order.

***MULTIPRESS*® EQUIPMENT WARRANTY**

If any *MULTIPRESS*® equipment part of our manufacture which, after prepaid shipment to our factory and upon inspection at our factory or by a qualified factory representative, is proven defective in workmanship or material, it will be replaced free of charge providing that, within a period of six months from date of shipment from our factory it is still owned by the original purchaser and being used in recommended service and using an oil meeting our recommended specifications.

Parts other than of our manufacture bear only such warranties as their manufacturers allow. When upon inspection by a qualified representative, it is indicated that these parts are defective, we will endeavor to secure from the manufacturer the benefits of such warranties for our customers. Please refer to *MULTIPRESS*® standard terms of sale for additional information.

SPECIFICATIONS



Reservoir Capacity - 22 Quarts
Shipping Weight - 300 Pounds

Press Model Number		W3A-1	W3A-1P	W3A-2	W3A-2P	W3A-3	W3A-3P
Tonnage Max.		1	1	2	2	3	3
Ram Speed (I.P.M.)	Approach	910	1495	480	605	295	340
	Pressing	115	140	65	70	40	45
	Return	725	725	430	430	285	285
Cylinder Diameters	Bore	1-1/2"	1-1/2"	2"	2"	2-1/2"	2-1/2"
	Rod	1"	1"	1-3/8"	1-3/8"	1-3/4"	1-3/4"
Operating Pressure	Max.	1132	1375	1273	1411	1222	1304
	Min.	500	500	500	500	500	500
Ram Efforts (lbs.)	Max.	2000	2000	4000	4000	6000	6000
	Min.	885	730	1570	1415	2455	2300

INSTALLATION

GENERAL

This manual is intended for reference when installing and preparing **MULTIPRESS**® Equipment for operation and is for normal maintenance, repair and upkeep of the equipment.

INSTALLATION INSTRUCTIONS

After removing press from shipping crate, stand the press upright near the area where it will be anchored.

Care should be taken to avoid twisting or dropping of the press during the uncrating and transportation to the area of operation.

BENCH

If your press is to be mounted on a **MULTIPRESS**® bench, uncrate the bench and assemble per instructions in crate. Bolt bench firmly to the floor.

Position press on bench and bolt firmly in place using shims to compensate for any unevenness between top of bench and press.

ELECTRIC

Your standard press is wired to be connected to current characteristics as specified when ordered.

Connection of press to users' power source should be accomplished by qualified personnel.

CAUTION

Do not permit electric motor to operate before press reservoir is filled with oil or to operate in the wrong direction of rotation (See STARTING PUMP & MOTOR instructions and direction of rotation arrow plate on pump-motor assembly.)

RECOMMENDED OIL SPECIFICATIONS

Warranty for **MULTIPRESS**® Equipment applies only when the proper hydraulic fluid has been used and oil contamination level is equal to or better than "NAS. . .1638. . . CLASS N0.8 OR BETTER. NO PARTICLES OVER 200 MICRON."

Certain basic physical and chemical properties are necessary for proper operation of the **MULTIPRESS**®.

The following basic properties should be presented to the fluid supplier* for his recommendation of a product for use in this **MULTIPRESS**®:

Viscosity @100°F	300 SUS/plus or minus 15 SUS
Viscosity Index	90 or higher
Rust and oxidation inhibitors	yes
Anti-foam additive	yes
Specific gravity; 0.882 - 0.887 at 60°F/60°F (API Gravity; 29-31)	

*It is suggested that the fluid supplier provide the user with certification that his product meets the above requirements.

FILLING THE OIL RESERVOIR

CLEANLINESS is the most important requisite in proper maintenance of oil hydraulic equipment. Of the few maintenance difficulties encountered in the operation of oil hydraulic equipment, many of them are directly traceable to dirt or foreign matter in the oil.

EXTREME CARE should be exercised in maintaining a clean supply of oil in the reservoir and hydraulic system of your **MULTIPRESS**® Equipment at all times. Make certain that no lint, dirt, abrasive scale or other foreign material enters the hydraulic system. Trouble free operation over a long period of time may be obtained from the press by taking these precautions with the oil in the press. (See **MULTIPRESS**® Equipment Warranty on page 4.)

The oil reservoir is filled thru the oil filler cap which is located on top of the reservoir. Lift the filler cap and fill the reservoir with any clean oil meeting our recommended oil specifications above. Approximately 22 qts. are required to fill the reservoir to within 1" of the top of the reservoir. New oil is not necessarily clean and a filter or filter cart should be employed to transfer oil into the reservoir.

CAUTION

Never operate press if oil level is low, or if the oil temperature is greater than 150°F. The use of coolers is recommended when fluid temperatures are expected to exceed 130°F.

SEQUENCE OF OPERATION

STARTING THE PUMP & MOTOR

IMPORTANT: Prior to start-up, start and stop the electric motor in order to check for proper rotation. There are arrows clearly marked on the pump indicating the correct rotation. If this is incorrect, check the wiring to the motor leads. Lower the setting of the relief valve (Item 8, Fig. 1) by loosening lock nut and then turning knob counterclockwise until loose but not removed. (See PRESSURE ADJUSTMENT plate on right side of press.)

CAUTION

If the motor is permitted to operate in the wrong direction of rotation, the pump will be damaged after only a few seconds due to lack of oil to lubricate its precision machined internal parts. When the oil in the reservoir is at the proper level and the pump is operating in the correct direction of rotation, the pump will prime itself and provide adequate lubrication.

CAUTION

If the press has been shipped to you with the press ram extended, it is necessary to put the selector switch in the "jog up" position and then actuate the pushbuttons. The ram should go up, if the motor and pump are operating in the correct direction of rotation.

NOTE

Ram may not retract if Relief Valve has been backed off too far.

When it is determined that the pump and motor are operating in the correct direction, with the power on, actuate the "Start" switch. This allows the electric motor to start and energizes the control circuit. Allow the motor to run a few minutes to remove air from the hydraulic system. Check pipe and hose lines for any loosening which may have developed since leaving the factory.

INCHING

Set the selector switch to "JOG DOWN". Simultaneously actuate and maintain actuation of the dual pushbuttons to the desired position of the press ram. Release of either button allows the ram to stop. Set the

selector switch to "JOG UP". Actuation of the dual pushbuttons allows the ram to move up.

NOTE

Limit switch (2) must be actuated at top of stroke before switching to cycle mode; if this switch is not made unit will not cycle.

SET-UP

Jog the press ram to your desired lower stop position allowing ram to exert full pressure against a part or block.

NOTE

Set up tooling before setting pressure on ram.

Adjust pressure by loosening the Gauge Shut-off Valve and turn the Ram Pressure Adjustment Knob on the front of the press. Clockwise increases pressure, counterclockwise decreases pressure. Set the selector switch and jog the ram up just off the work. Set the Quality Control Limit Switch (1) to that point. This adjustment allows you to select where the automatic system takes over to approach the work, achieve tonnage and time reverse. Jog the ram to your required upper stop position. Set the Stroke Adjustment Limit Switch (2) at that position. After setting Ram Pressure, close gauge needle valve to avoid damage to gauge.

NOTE

Ram must contact a set up block, or work piece to deliver force, so pressure gauge can be read.

CYCLING

Simultaneously actuate and maintain actuation of both Cycle Start buttons. Ram extends and the ram guide bar inside the frame rolls off of the Quality Control Limit Switch (at this time you may release the dual pushbuttons). Release of either button allows the ram to retract to its upper stop position, if the Quality Control Limit Switch has not been released by the ram guide bar. The timer also starts after this limit switch is released. Ram continues down, contacts the work, achieves pressure and time reverses. Ram returns to the pre-set upper stop position

NOTE

If Quality Control Limit Switch is set too high and a long work stroke is required; the timer may have to be adjusted.

MAINTENANCE

GENERAL

The establishment and implementation of maintenance schedules is essential for the reliable operation of hydraulic press equipment. The elapsed time for periodic maintenance and inspection is based upon environmental and operating conditions (including hours of operation) which are known only to the user of the equipment. Therefore it is the responsibility of the user to insure that the instructions outlined in this manual are carried out on a time table which will insure reliable and efficient operation of the equipment.

It is the responsibility of the user to maintain the *MULTIPRESS*® Equipment at all times in day-to-day

operation. The manufacturer suggests that the following maintenance and service procedures be implemented and regularly practiced by the user.

WARNING

When any malfunction in any *MULTIPRESS*® Equipment is encountered during the operation or inspection of the equipment, operator(s) should immediately stop the equipment, have qualified personnel interrupt the electric power to the equipment and conspicuously tag it, indicating the malfunction, and then report it to the proper authorities. Do not run the equipment until the malfunction has been eliminated.

MAINTENANCE AND INSPECTION

The following chart is provided to point out specific check points and the schedule that should be applied for each point. Any ITEM or ROUTINE or PERIODIC inspection points not included in this list but considered to be pertinent to the maintenance of the equipment should be included. If in doubt, consult the factory.

ITEM TO BE INSPECTED	SCHED. INSPECT.		MALFUNCTIONS							
	Routine (Daily)	Periodic	Damaged Kinked or Dented	Worn	Broken or Cracked	Loose Conn. of Elec. Short			Mis-alignment	Out of Adj.
						Hyd.	Mech.	Elec.		
Frame		✓			✓					
Electric Motor		✓	✓					✓	✓	
Starter		✓						✓		
Pumps		✓				✓	✓		✓	
Valves		✓				✓	✓			✓
Gauges		✓	✓		✓					
Switches		✓	✓	✓	✓		✓	✓		
Operating Controls	✓	✓	✓	✓	✓		✓			✓
Tooling	✓	✓	✓	✓	✓		✓		✓	
Feed and/or Ejection Mech.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oil Leaks	✓	✓								
Hydraulic Lines { Pipes, Tubes Hose		✓	✓		✓		✓			
Hydraulic Fittings		✓			✓		✓			
Electrical Lines { Wire, Cable Conduit		✓	✓	✓	✓		✓	✓		
Gaskets, Seals & O-Rings		✓		✓		✓	✓			
Ram Packing		✓	✓	✓		✓	✓			
Oil Level Too Low or Too High	✓	✓								
Oil Contamination Too High		✓								

ROUTINE (DAILY) MAINTENANCE AND INSPECTION

Before operating **MULTIPRESS**® equipment each operator should make the inspection checks indicated in chart on page 8. These checks should be made after each shift change.

In addition, the following inspection checks should be made by each operator before operating equipment after any break time.

1. Make sure that each equipment component is the proper condition and position for start up and be aware of any movement which will occur during start up procedure.
2. Check for loose items foreign to the operation

or function of the machine which might cause damage or injury and clear such items from the equipment before start up.

3. Check for oil leaks.
4. Connect electric power to starter box and then actuate MOTOR START push button. With the motor running and driving the hydraulic pump make the following inspection checks:
 - a. Check for oil leaks
 - b. Make sure that each equipment component is in the proper position to start cycling.
 - c. Make sure that press operates in manner prescribed in sequence of operations.

SAMPLE ROUTINE LOG

If any check points are found to be malfunctioning or could lead to a malfunction, a written report should be made, indicating the problem and what was done to correct it and then made a part of the history of this equipment.

MALFUNCTION CHECK POINTS									
Date of Inspect.	Oper Press. (PSI)	Total No. of Cycles	Oil Leaks	Oil Level	Oil Temp.	Hyd. Comp's.	Elec. Comp's.	Mech. Comp's.	Remarks

PERIODIC MAINTENANCE AND INSPECTION

At regularly scheduled intervals the users' maintenance department should check each piece of the **MULTIPRESS**® Equipment for those items listed on page 8 and 9 and record in PERIODIC LOG on page 10.

In addition, each component of the equipment should be checked for proper performance as follows:

1. When equipped with an electrical circuit, make sure that all devices function in accordance with the schematic diagram, and sequence of operations. Repair or replace any faulty device; see electric circuit service manual or circuit drawing for identification of parts.
2. Check all mechanical linkage and adjustments; adjust, repair or replace as necessary to comply with operating and/or adjustment instructions in this manual or manual of the operating control.
3. Check the hydraulic system as follows:
 - a. Check pressure setting of pressure control valve; adjust if necessary.
 - b. Check operational cycle to insure that all valves function in accordance with the schematic diagram and sequence of operations; repair or replace faulty valves.
 - c. Check the entire system for leaks; repair as required to eliminate problem.

SAMPLE PERIODIC LOG

If any check points are found to be malfunctioning or could lead to a malfunction, a written report should be made, indicating the problem and what was done to correct it and then made a part of the history of this equipment.

MALFUNCTION CHECK POINTS										
Date of Inspect.	Oper Press. (PSI)	Total No. of Cycles	Oil Contam. Level	Oil Leaks	Oil Level	Oil Temp.	Hyd. Comp's.	Elec. Comp's.	Mech. Comp's.	Remarks

RELIEF VALVE SERVICE

See Figure 1

At times, the relief valve is prevented from operating satisfactorily due to the presence of lint, pipe scale, or some other foreign matter between the control seat(2) and cone(4). This may cause fluctuating pressure or pressure failure.

Quite often this condition may be corrected by starting the pump, releasing the lock nut(9) and sufficiently backing off (CCW) adjusting screw(13) to remove all spring pressure from cone(4). Oil circulating through the cap and discharging to the reservoir quite frequently will eliminate the foreign matter. The adjusting screw should then be turned clockwise until the desired pressure is reached.

UNLOADER VALVE

See Figure 2

The unloader valve dumps the high volume section of the double pump to tank when the ram contacts the work piece and starts to develop pressure higher than the pre-adjusted setting of the unloader valve.

NOTE

If adjustment is required, proceed as follows:

See Figure 2

- 1 - Loosen Hex Nut #16
- 2 - Back-off adjusting screw #17 (CCW) about three turns, using an Allen wrench. Cycle the press once, and observe the approach speed. It should be significantly slower, since the setting of the unloader valve was lowered; differential (regenerative) fast approach is lost.
- 3 - While cycling the press, slowly turn-in (CW) the adjusting screw #17 until the ram starts extending at fast approach speed.
- 4 - Then turn-in the adjusting screw about one-half turn, and tighten the nut #16 while holding the adjusting screw with the Allen wrench.

CYLINDER SERVICE

See Figure 11

NOTE

Disrupt electrical service to press before servicing

Remove all tooling from Ram. Remove Ram Guide Assembly (Item 26). Disconnect hydraulic lines (Items 18 & 19) from Cylinder (Item 27) and loosen or disconnect lines at the manifold to assure lines are not bent or kinked during servicing. Remove the four nuts (Item 28) from anchor bolts and remove Cylinder (Item 27). To install, reverse these procedures.

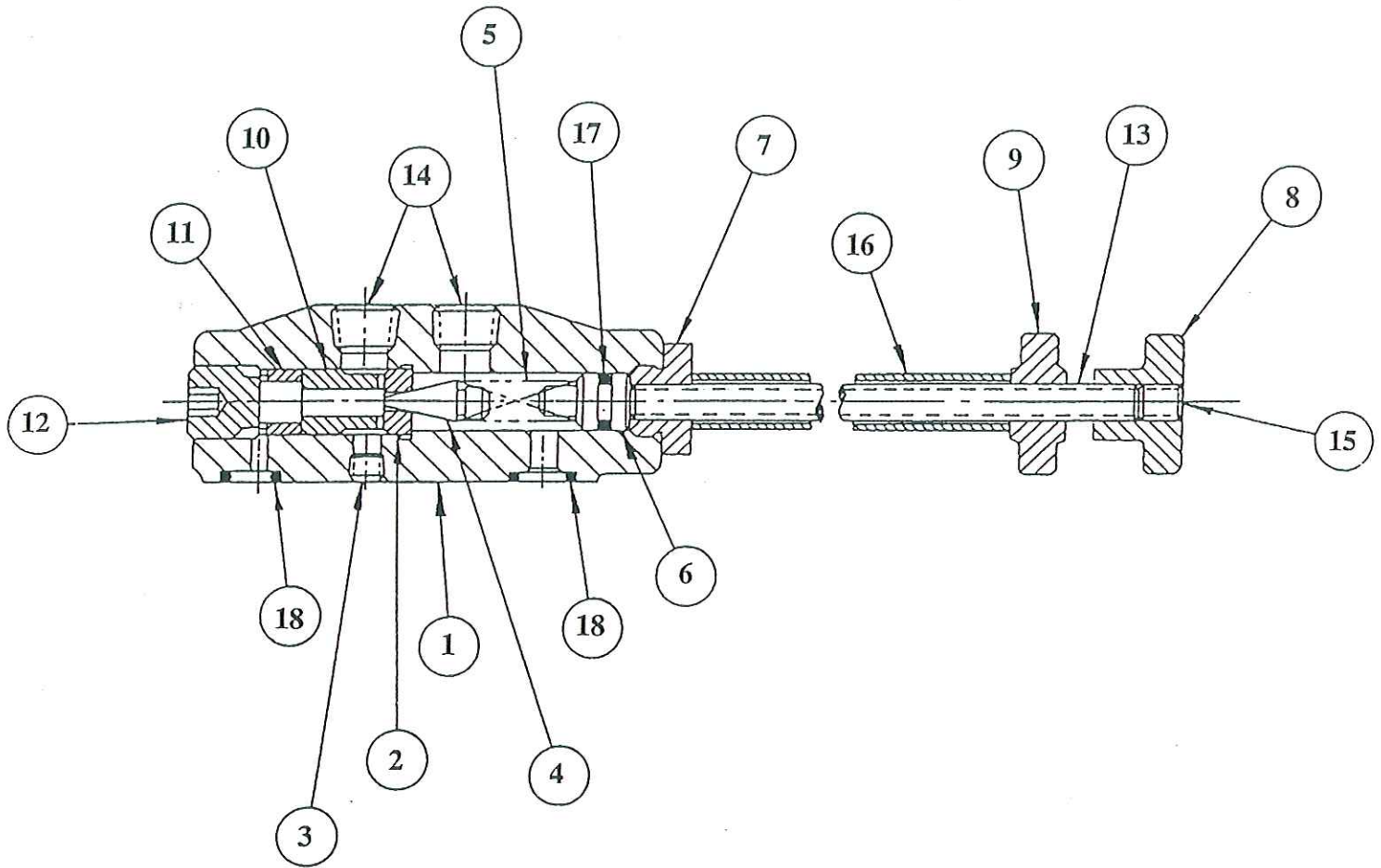
When ordering cylinder packing and/or parts be sure to include the cylinder brand name, model and serial numbers, and press model and serial numbers to insure receiving the correct parts.

NOTE

When hydraulic lines and fittings have been taken loose or replaced, care must be taken to assure all lines have been securely tightened to prevent leaks and ingestion of air into system which could cause permanent damage to unit.

When components have been removed - air may be introduced into the circuit. In this case the press may require some additional cycling to insure the entrapped air is removed and smooth operation occurs.

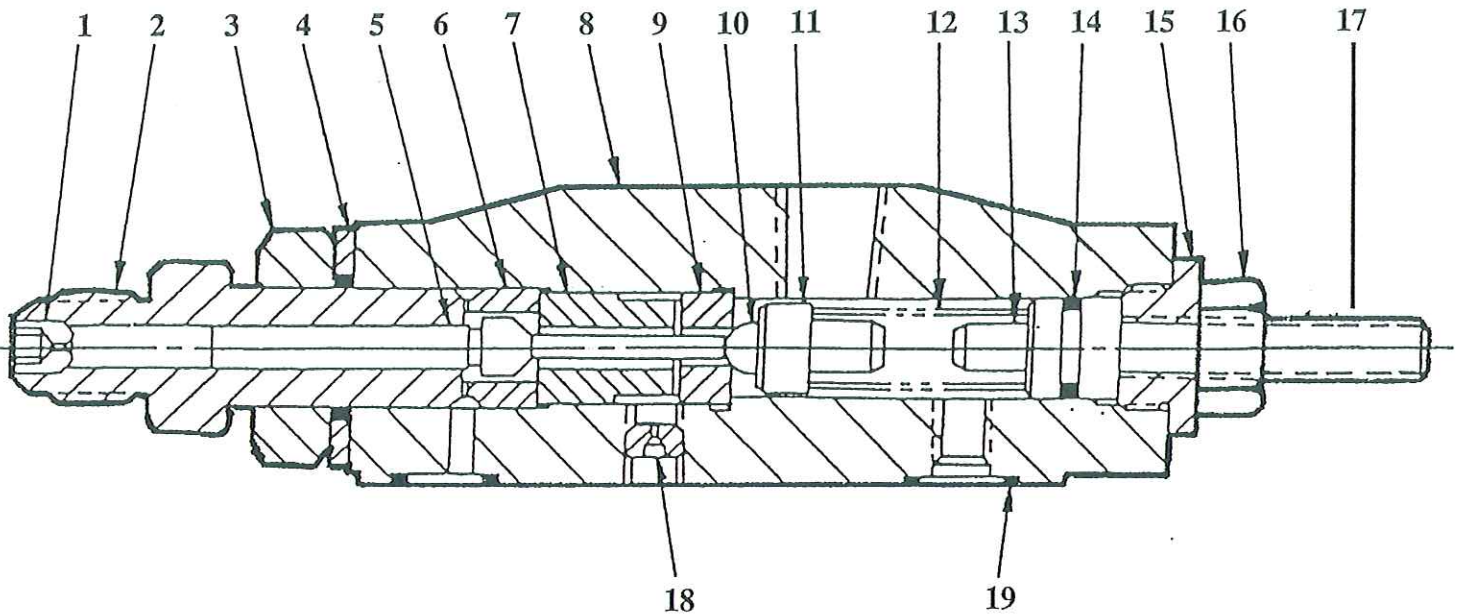
RELIEF VALVE ASSEMBLY 010-49001



ITEM	PART NO.	DESCRIPTION	QTY
1	030-42372	Cap	1
2	030-11692	Seat	1
3	431-90104	Plug-Pipe	1
4	030-12288	Cone	1
5	030-13245	Spring, Compression, 3000 PSI	1
6	030-21767	Piston, Seal	1
7	030-21765	Plug, Adjusting	1
8	030-24504	Knob, Control	1
9	030-42927	Knob-Control Locking	1
10	030-11710	Block, Control	1
11	030-27548	Spacer	1
12	312-35018	Screw, S.H.S.	1
13	030-90728	Screw-Adjusting	1
14	431-90400	Plug-Pipe	2
15	312-13080	Screw-Soc. Set	1
16	030-90729	Sleeve-Adjusting Screw Locking	1
17	671-00012	"O" Ring	1
18	671-00013	"O" Ring	2

FIGURE 1

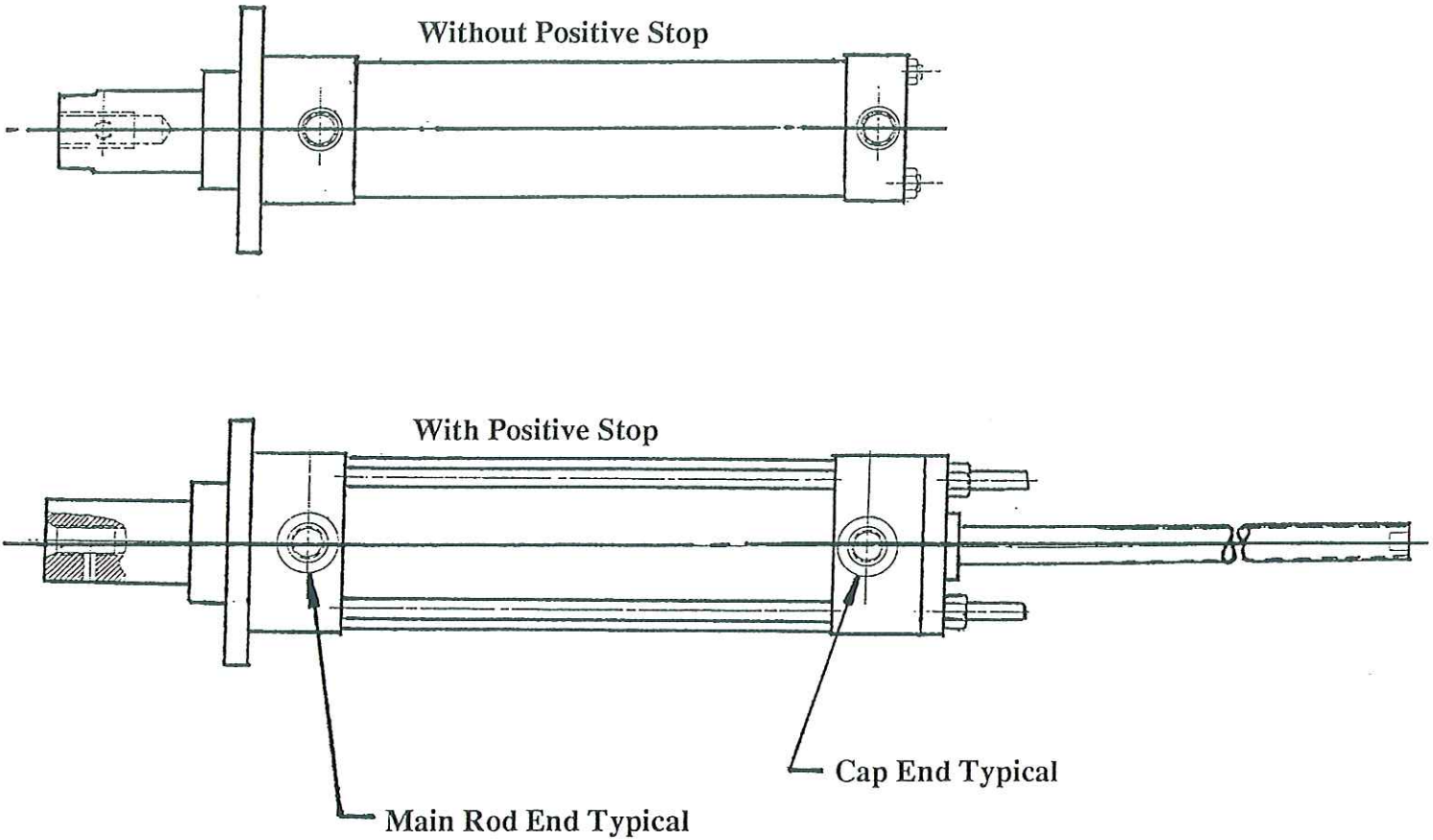
UNLOADER CAP ASSEMBLY 010-27019



ITEM	PART NO.	DESCRIPTION	QTY.
1	030-45029	Plug - orifice	1
2	030-45027	Adapter	1
3	335-23100	Nut - jam 5/8-18 unf	1
4	635-00006	Seal	1
5	030-45028	Piston	1
6	030-27548	Spacer	1
7	030-11710	Block - control	1
8	030-42372	Cap	1
9	030-11692	Seat	1
10	201-08001	Ball	1
11	030-11697	Support - ball	1
12	030-13244	Spring	1
13	030-21767	Piston - Seal	1
14	671-00012	O - ring	1
15	030-21765	Plug - adjusting	1
16	333-13000	Nut - hex	1
17	312-13200	Screw - adjust	1
18	036-25528	Plug - orifice	1
19	671-00013	O - ring	2

FIGURE 2

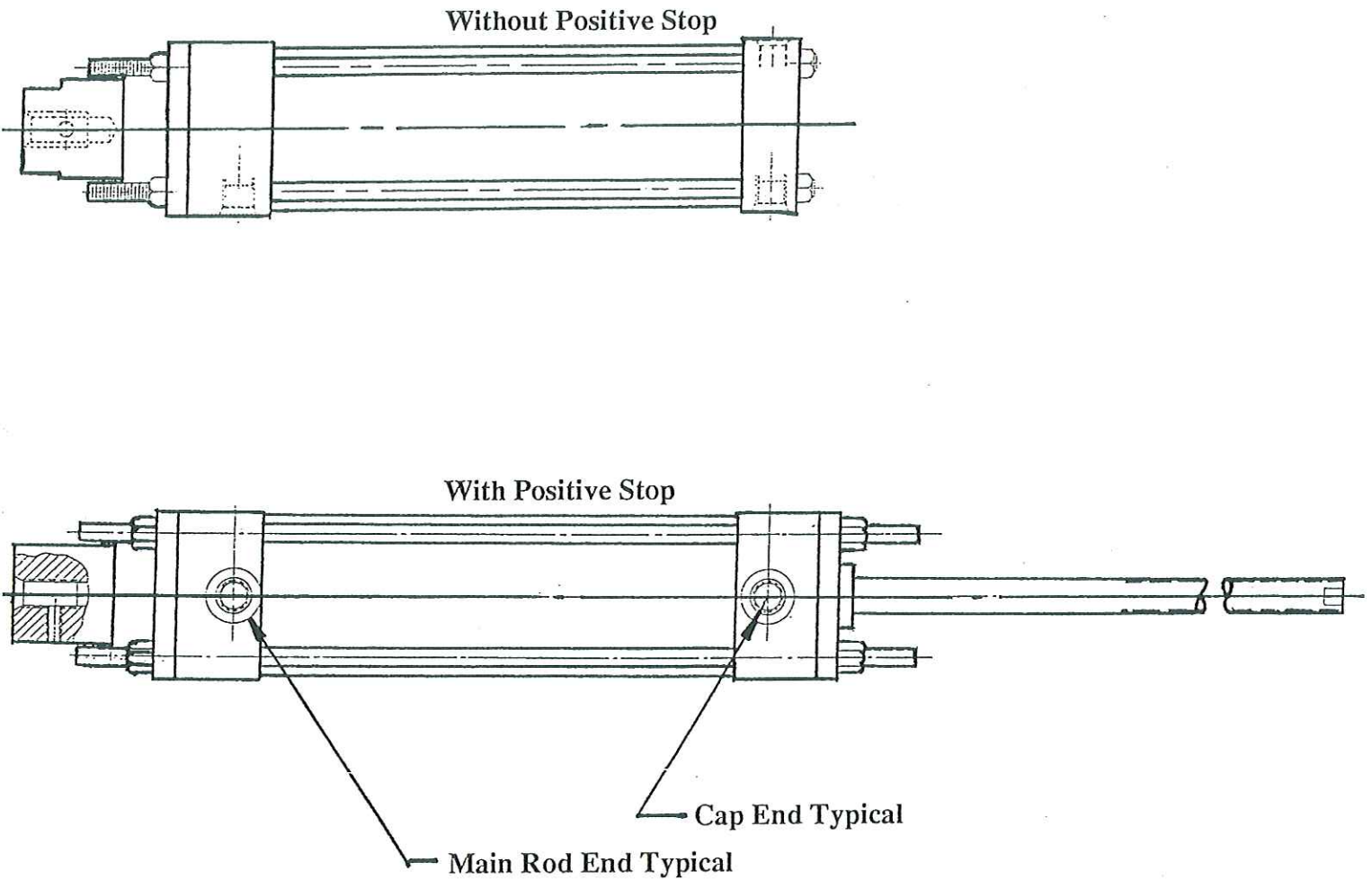
MODEL W3A 1 & 2 TON CYLINDERS



PART NO.	DESCRIPTION
507-00133	Cylinder Assembly - 1 Ton Without Positive Stop
507-00134	Cylinder Assembly - 1 Ton With Positive Stop
507-00128	Packing Kit Rod End - 1 Ton
507-00126	Packing Kit Positive Stop Rod End - 1 ton
507-00135	Cylinder Assembly - 2 Ton Without Positive Stop
507-00136	Cylinder Assembly - 2 Ton With Positive Stop
507-00153	Packing Kit Rod End - 2 Ton
507-00126	Packing Kit Positive Stop Rod End - 2 ton

FIGURE 3

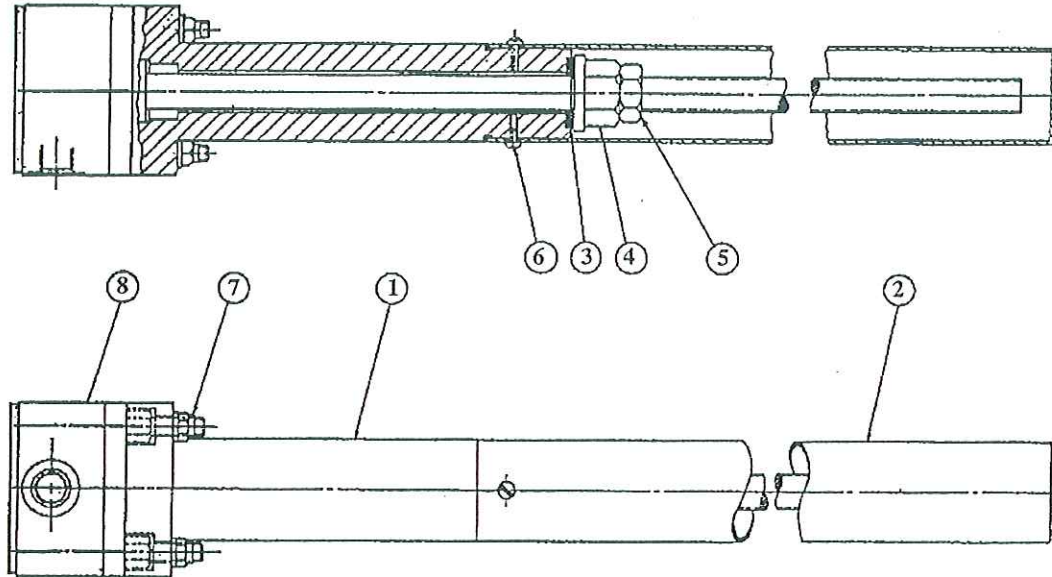
MODEL W3A 3 TON CYLINDERS



PART NO.	DESCRIPTION
507-00030	Cylinder Assembly - 3 Ton Without Positive Stop
507-00032	Cylinder Assembly - 3 Ton With Positive Stop
507-00127	Packing Kit Rod End - 3 Ton
507-00126	Packing Kit Positive Stop Rod End - 3 Ton

FIGURE 4

POSITIVE STOP ASSEMBLY



ITEM	PART NO.	DESCRIPTION	1 TON	2 TON	3 TON
1	030-72829	Insert Retainer	1	-	-
	030-72832		-	1	-
	030-72560		-	-	1
2	030-72830	Cap	1	-	-
	030-72561		-	1	1
3	030-72831	Insert	1	-	-
	030-28502		-	1	1
4	340-00047	Nut	1	-	-
	340-00045		-	1	1
5	335-19100	Jam Nut	1	-	-
	335-23100		-	1	1
6	310-08040	8-32 x 1/4 Lg. Screw	2	2	2
7	340-00048	1/4-28 Lock Nut	4	-	-
	340-00041	5/16-24 Lock Nut	-	4	4
8	507-00134	Cylinder See Figures 3 & 4	1	-	-
	507-00136		-	1	-
	507-00032		-	-	1

FIGURE 5

W3A HYDRAULIC CIRCUIT

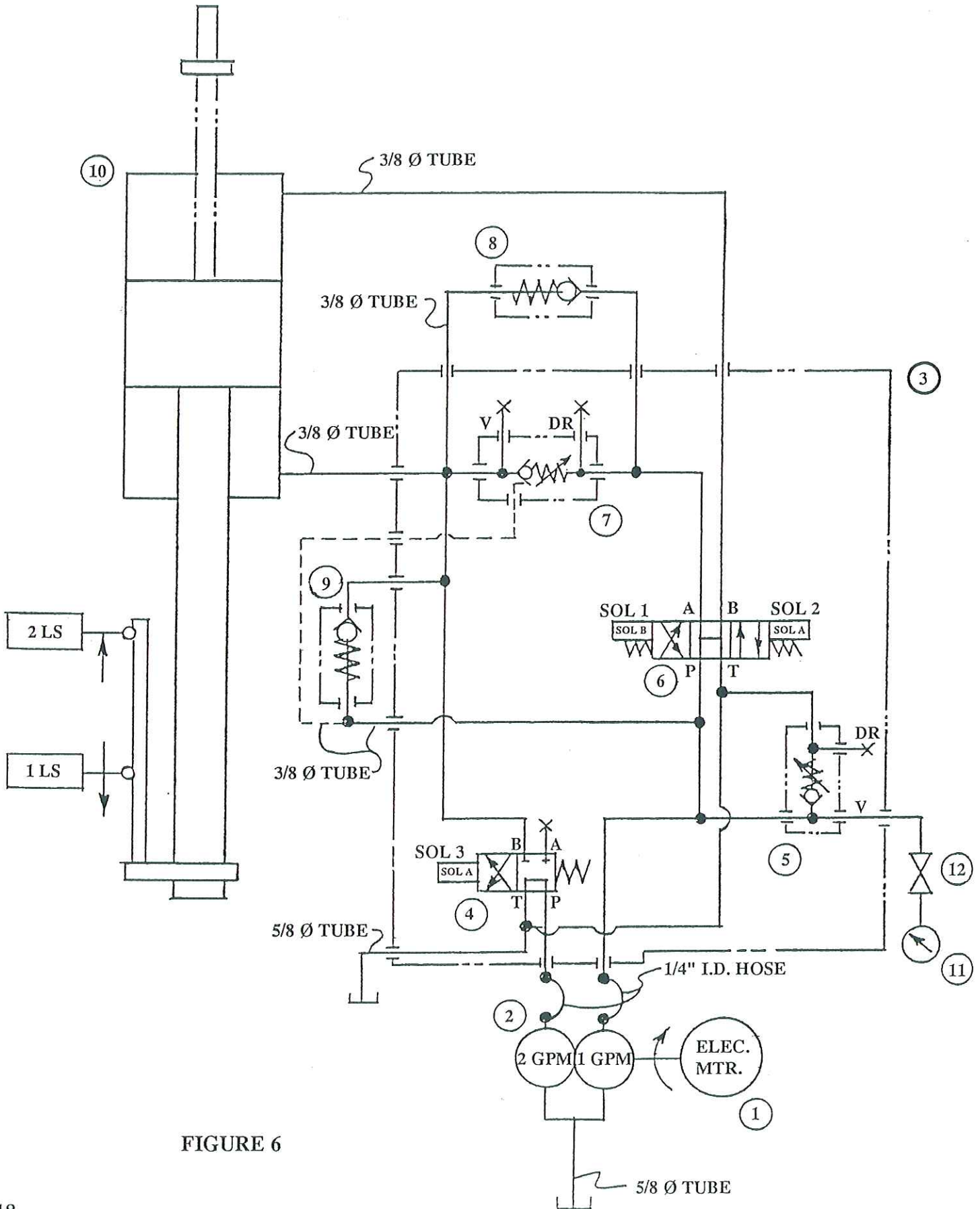


FIGURE 6

W3A HYDRAULIC CIRCUIT

ITEM	PART NO.	DESCRIPTION
1	135-71001 135-71002	3/4 H.P. - 1725 R.P.M. Single Phase 60 HZ or 3/4 H.P. - 1725 R.P.M. Three Phase 60 HZ - Drives
2	512-42096	Double Gear Pump
3	040-01472	Manifold
4	536-00042	4 Way Valve Single Solenoid (Unloads 2 GPM Portion of Pump at Idle)
5	010-49001	Relief Valve Cap Assembly - See Figure 1. Set at 1132 PSI For One Ton Unit, 1273 For Two Ton Unit & 1222 For Three Ton Unit - Controls Maxi mum Pressure Of Machine
6	536-00030	4 Way Valve Double Solenoid (Directs Flow Of Oil For Main Ram)
7	010-27019	Unloader Cap Assembly - See Figure 2. This Unit Is Factory Set At Approx. 450 PSI
8	513-25004	1/4" Check Valve - 6 PSI Cracking Pressure (Di- rects 1 GPM Flow Of Oil To Bottom Cylinder Port)
9	513-50108	1/4" Check Valve - 65 PSI Cracking Pressure (Provides For Differential Flow & Counter Balance For Tooling Up To 100 Pounds)
10	See Figures 3 & 4 For Part Numbers	
11	501-99684	Pressure Gauge
12	514-16002	Shut Off Valve For Gauge

ELECTRIC 3 PHASE 230/460 VOLT

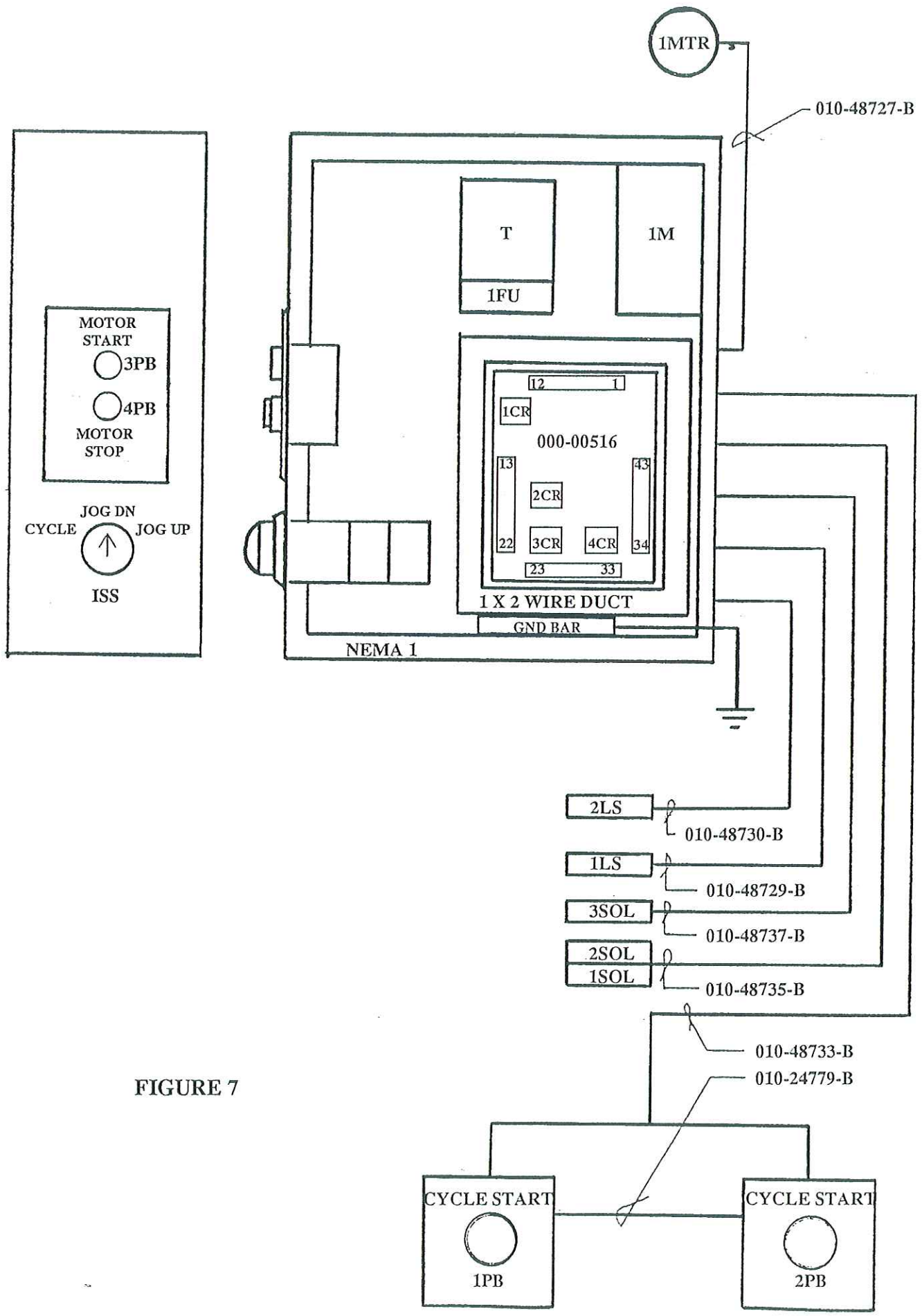


FIGURE 7

3 PHASE CIRCUIT

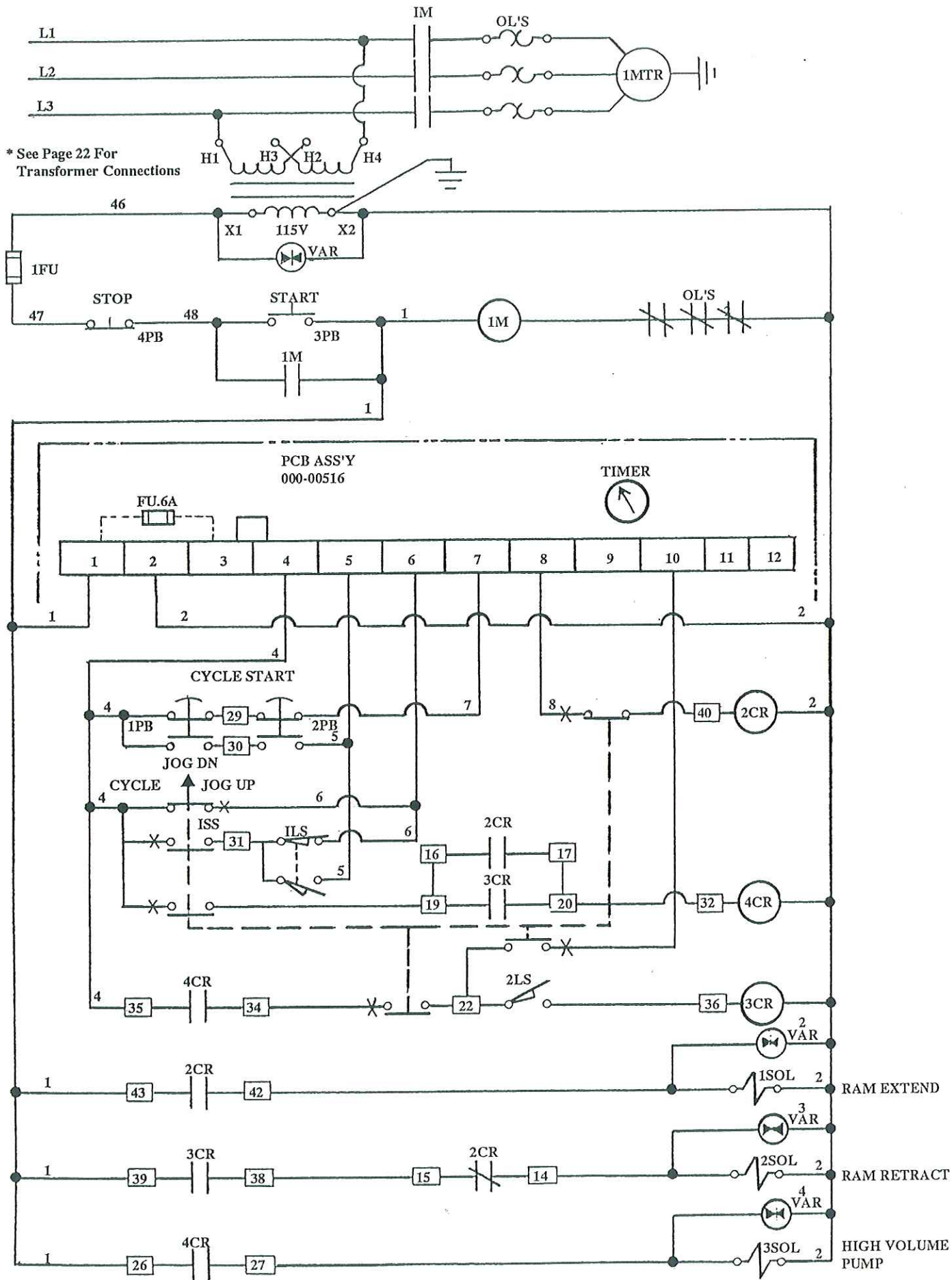


FIGURE 8

ELECTRIC SINGLE PHASE 115 VOLT

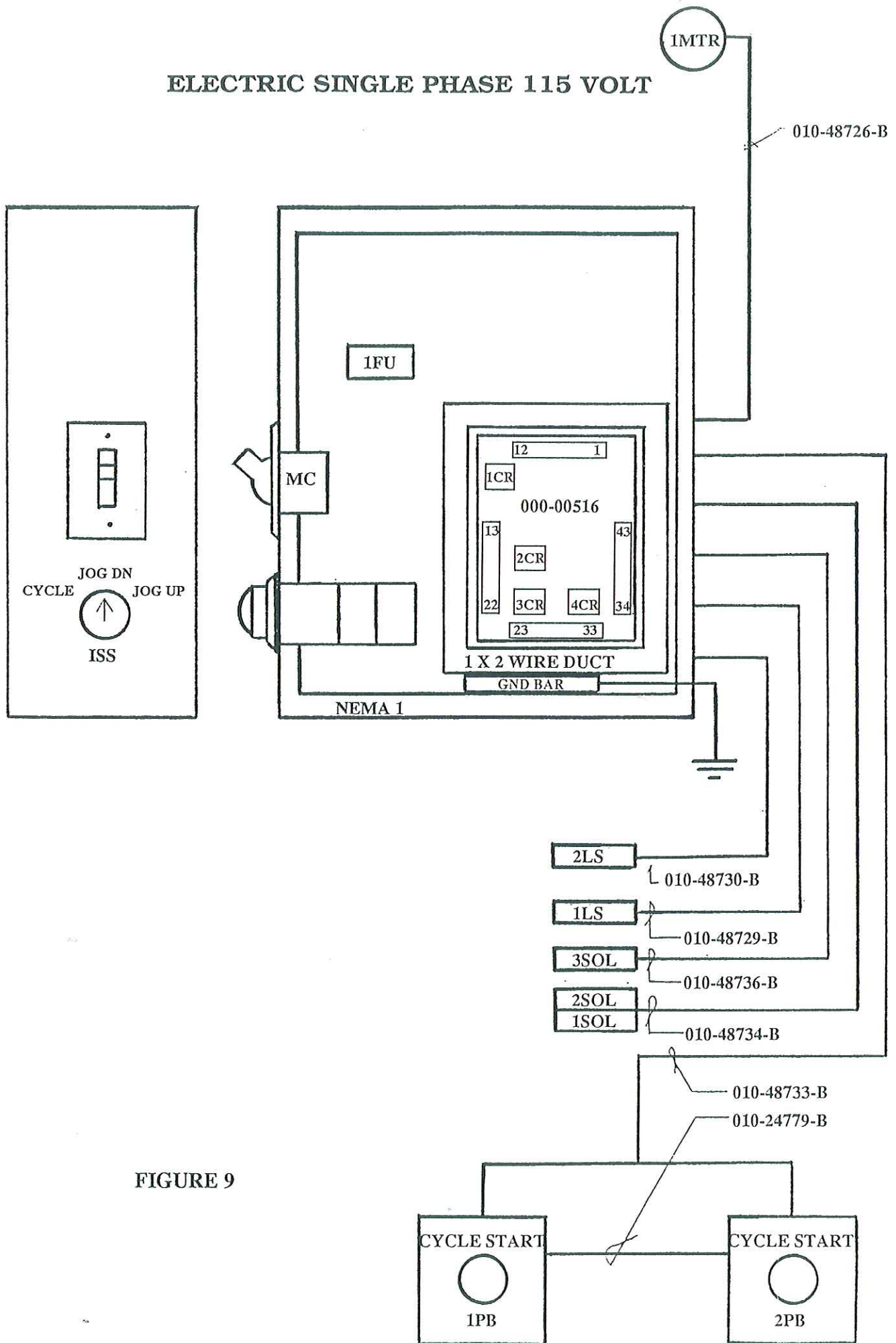


FIGURE 9

SINGLE PHASE ELECTRIC

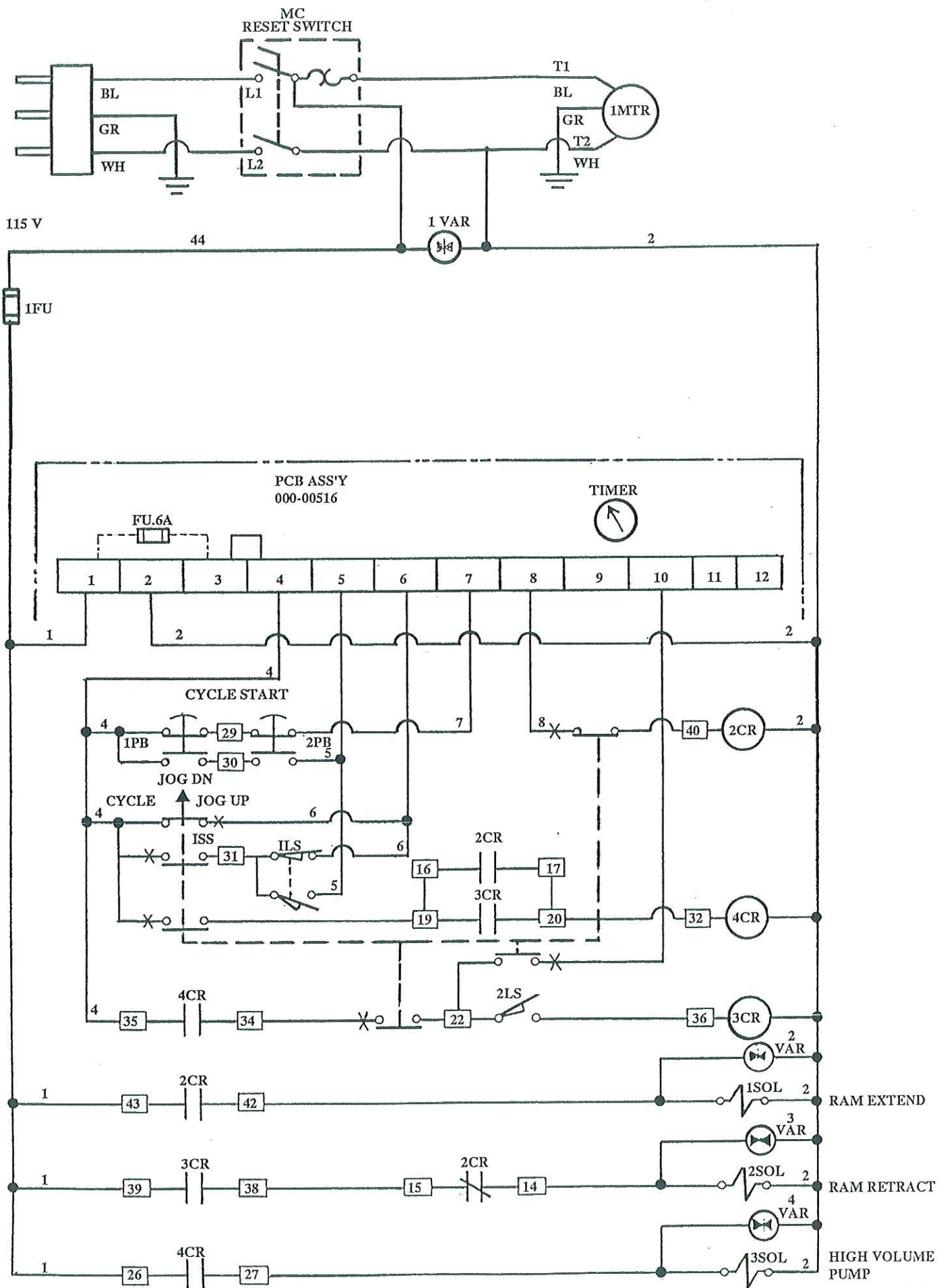
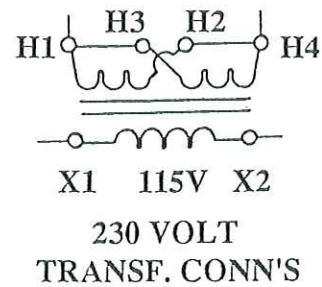
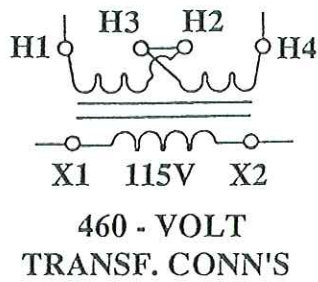


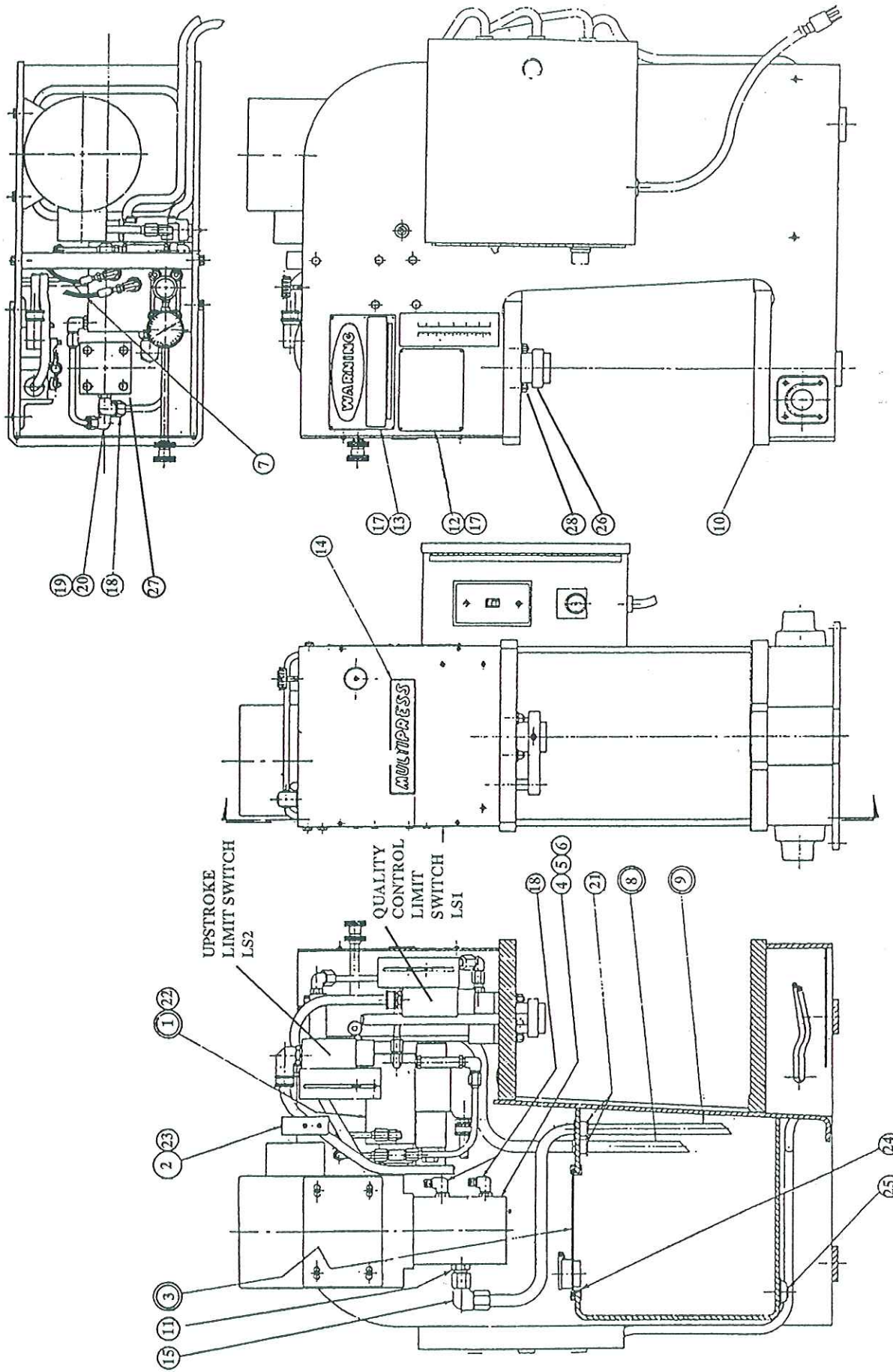
FIGURE 10

TRANSFORMER CONNECTIONS



SYMBOL	DESCRIPTION	PART NO.	1 Ø QUAN.	3 Ø QUAN.
MC	Starter Manual 115V	142-10002	1	
1M	Starter 3 Phase	101-45047	-	1
OL'S	Overload 230V 3PH	101-45050	-	1
OL'S	Overload 460V 3PH	101-45048	-	1
1-2-3-4 VAR	Varistor	764-30005	4	4
1 & 2 LS	Limit Switch	114-20023	2	2
1 FU	Fuse	108-62004	1	1
1-2 PB	Pushbutton Assembly	010-14172	2	2
3-4 PB	Switch - Start-Stop	152-15070	-	1
PCB	Circuit Board Complete	000-00516	1	1
2 CR	Relay	766-70034	1	1
3 & 4 CR	Relay	766-70033	2	2
1 SS	Selector Switch	153-10022	1	1
1 MTR	Motor Electric 3/4 HP, 1725 RPM, 115 V, 1 PH, 60 HZ	135-71001	1	-
	Motor Electric 3/4 HP, 1725 RPM, 230 / 460 / 3 / 60	135-71002	-	1
T	Transformer	105-15006	-	1

BASIC W3A PRESS ASSEMBLY



ITEM 16 NOT SHOWN

FIGURE 11

BASIC W3A PRESS ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	See Figure 12	Manifold	1
2	030-44983	Bar	1
3	010-13574	Reservoir Cover	1
4	512-42096	Pump	1
5	358-14160	5/16 - 18 x 1" Screw	4
6	346-10020	Lockwasher	4
7	040-01498	Hose - 1/4" I.D.	2
8	010-44799	Tank Line	1
9	000-00607	Suction Line	1
10	030-90723	Frame	1
11	493-15000	Fitting	1
12	030-10131	Name Plate	1
13	040-00094	Warning Plate	1
14	031-18823	Plate	1
15	496-15002	Fitting	1
16	031-90725	Caution Tag	1
17	320-10204	Drive Screw	8
18	494-10609	Fitting	3
19	493-15002	Fitting	1
20	496-10609	Fitting	1
21	606-20559	Grommet	2
22	307-15140	3/8-24UNF x 7/8" LG. Screw	4
23	306-14120	5/16-18UNC x 3/4" LG Screw	3
24	606-20391	Tank Cover Gasket	1
25	431-90400	1/4 NPT Pipe Plug	1
26	000-00588	Ram Guide One Ton	1
	000-00589	Ram Guide Two Ton	
	010-44795	Ram Guide Three Ton	
27	See Figures 3 & 4 For	Cylinder Assembly	1
28	358-14160	5/16-18 UNC x 1 LG For 1&2 Ton Only	4
	330-15000	Nut 3/8-24 UNF For 3 Ton Only	

MANIFOLD ASSEMBLY

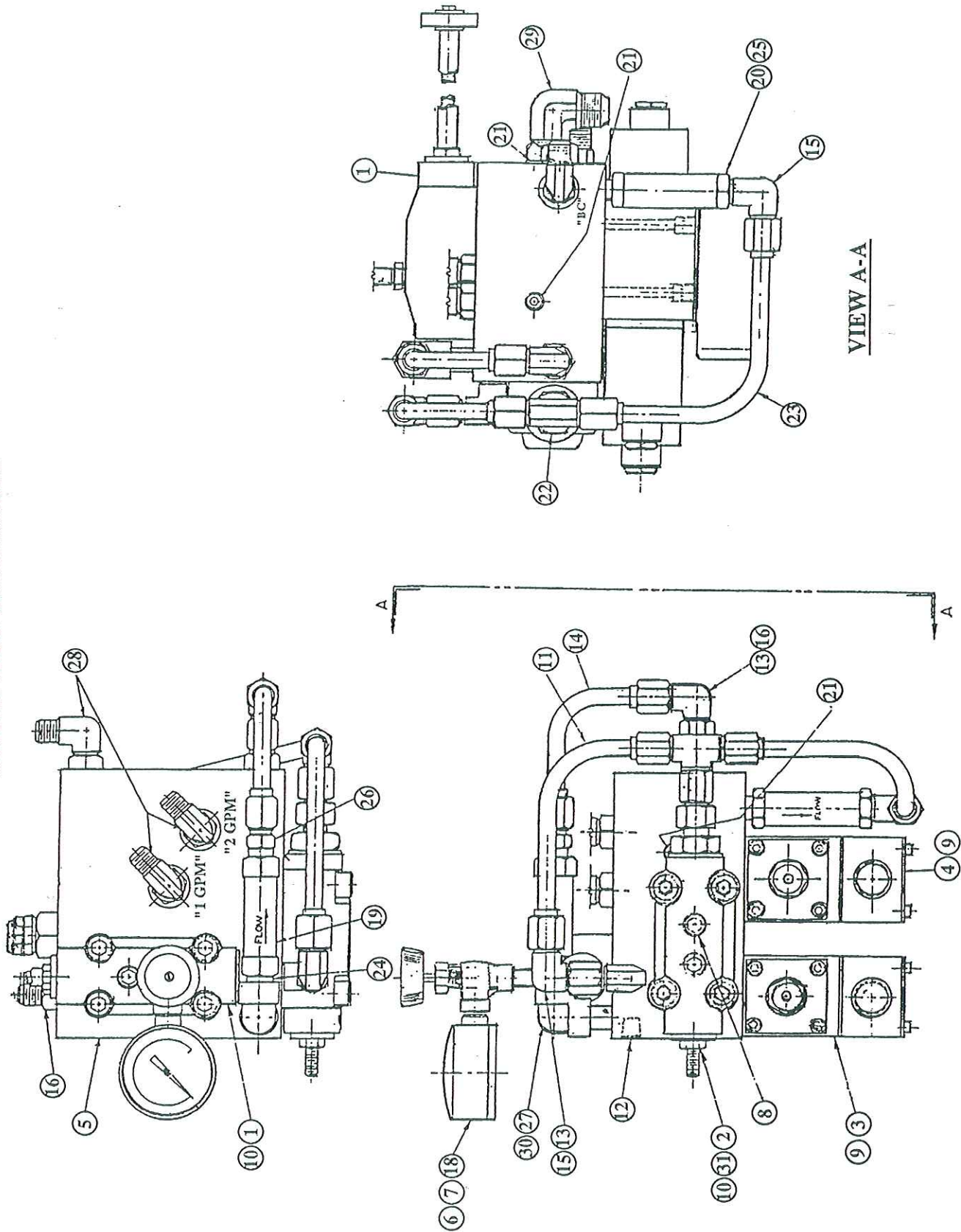


FIGURE 12

MANIFOLD ASSEMBLY

ITEM	PART NO.	DESCRIPTION	QTY
1	010-49001	Relief Valve Cap	1
2	020-10251	Unloader Cap	1
3	536-00030	4-Way Valve	1
4	536-00042	4-Way Valve	1
5	040-01472	Block-Manifold	1
6	501-99684	Gauge	1
7	514-16002	Shut Off Valve	1
8	431-90400	Pipe Plug 1/4"	1
9	359-09240	#10-32 UNF x 2" S.H.C. Screw	8
10	359-15200	3/8-24 UNF x 1 1/2" S.H.C. Screw	8
11	010-49003	Tube Assembly	1
12	431-90204	Pipe Plug 1/8"	3
13	496-10609	Fitting	2
14	010-49004	Tube Assembly	1
15	473-10604	Fitting	2
16	493-15002	Fitting	2
17	433-90402	Bushing	1
18	441-02030	Nipple	1
19	513-25004	Check Valve - 6 PSI Cracking Press.	1
20	513-50108	Check Valve - 65 PSI Cracking Press.	1
21	431-90200	Pipe Plug 1/8"	4
22	476-35006	Fitting	1
23	010-49002	Tube Assembly	1
24	441-04010	Nipple	1
25	442-04050	Nipple	1
26	470-10604	Fitting	1
27	424-20400	1/4" Pipe Elbow	1
28	494-10609	Fitting	3
29	494-11014	Fitting	1
30	442-04060	Nipple	1
31	691-00013	O-Ring	1

MULTIPRESS®

MULTIPRESS®

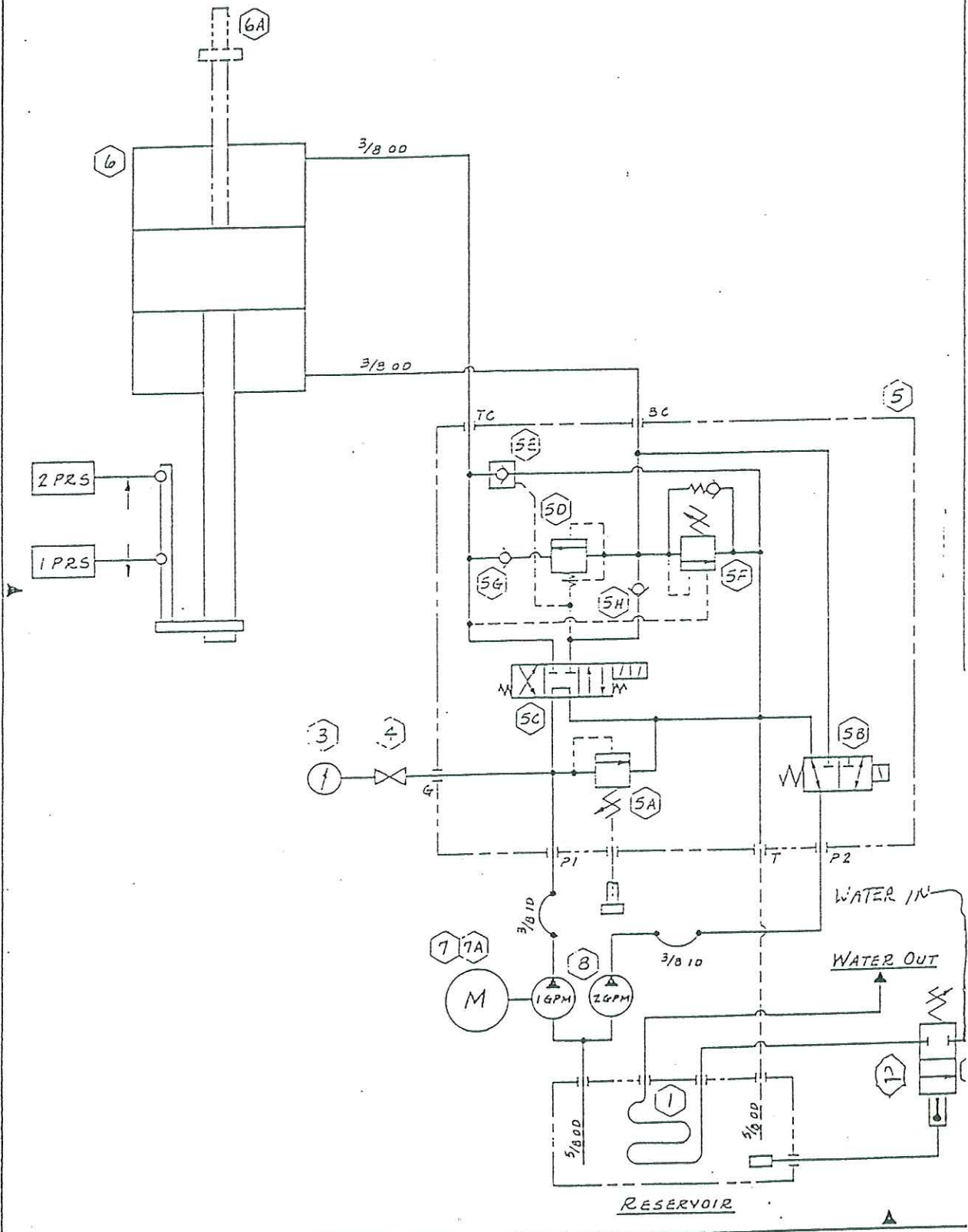
A Division of
QUALITY PRODUCTS, INC.

560 Dublin Avenue,

Telephone (614)228-0185
Fax (614)228-2358

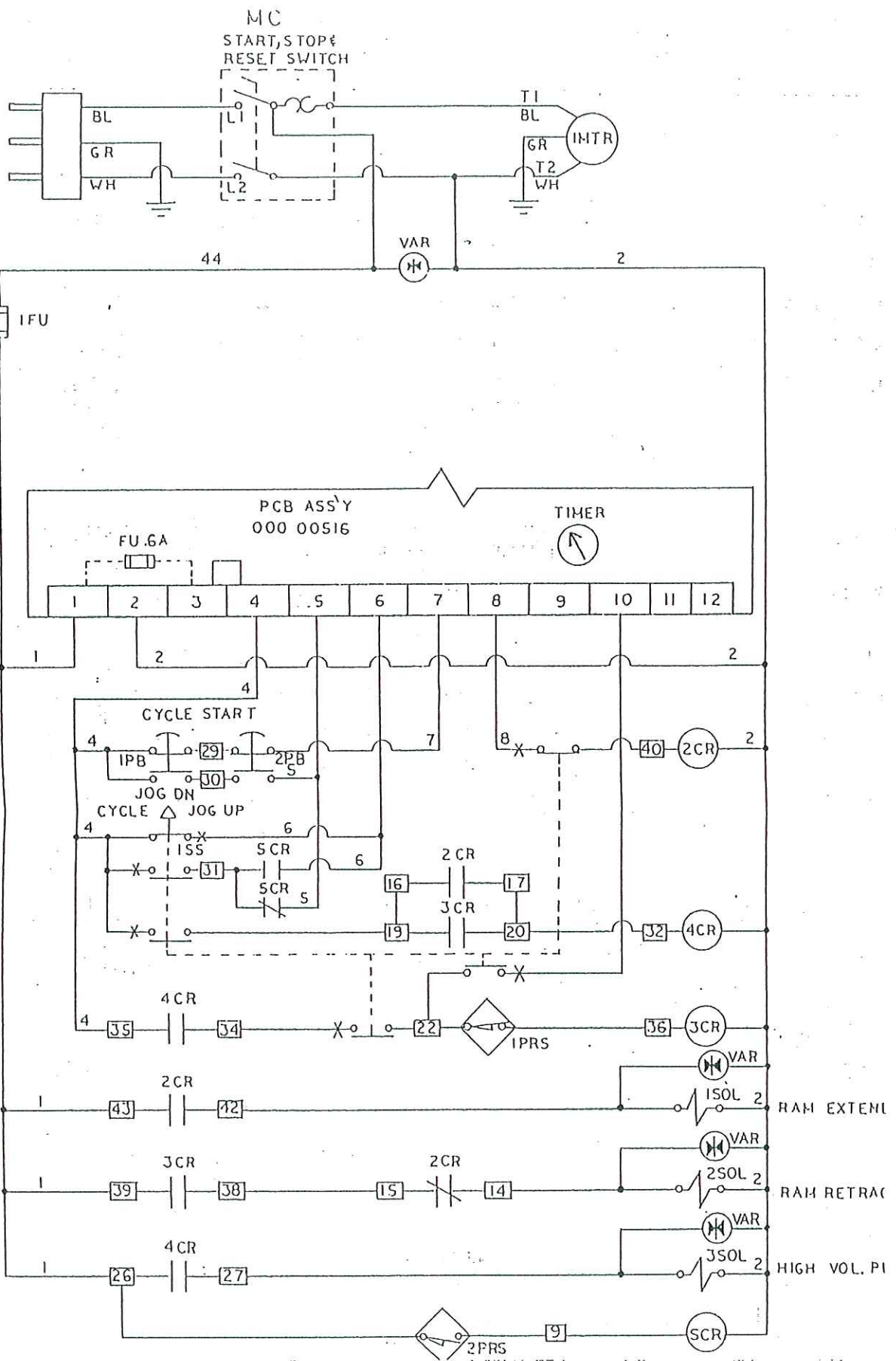
Columbus, Ohio 43215

C-01900-2HW



DRAWING 40 5050 0125 01

ITEM	CODE NUMBER	QTY.	DESCRIPTION	SYM.	REVISIONS
1	010-12507	OPT.	COOLING ASS'Y.		
2	515-24603	OPT.	THERMOSTATIC VALVE #V47AA-12 3/8"		
3	501-99904	1	PRESSURE GAGE, 0-2000 PSI, 2" DIAL		
4	514-16004	1	NEEDLE VALVE 1/4 NPT		
5	000-00949	1	MANIFOLD PACKAGE #FV-D-3796-ADDDEG4X		
5A	513-50241	1	RELIEF VALVE #A5B020		
5B	513-50242	1	DIRECTIONAL VALVE #G504-33		
5C	513-50243	1	DIRECTIONAL VALVE #G502-57		
5D	513-50244	1	DIVERTER VALVE #FV 2713-X		
5E	513-50245	1	PILOT CHECK VALVE #15CC365		
5F	513-50246	1	LOAD CONTROL VALVE #E2B040		
5G	513-50247	1	CHECK VALVE #15CC3		
5H	513-50248	1	CHECK VALVE #12CC5		
6		1	HYD. CYLINDER		
			BORE ROD STROKE MAX. PRESSURE		
¹ TON	507-00133	OPT.	1 1/2 φ 1 φ 6 1132 PSI		MI-00140-D
² TON	507-00135	OPT.	2 φ 1 3/8 φ 6 1273 PSI		MI-00142-D
³ TON	507-00030	OPT.	2 1/2 φ 1 3/4 φ 6 1222 PSI		23-7822-D
6A		1	HYD. CYLINDER ^W /POSITIVE STOP		
			BORE ROD STROKE MAX. PRESSURE		
¹ TON	507-00134	OPT.	1 1/2 φ 1 φ 6 1375 PSI		MI-00141-D
² TON	507-00136	OPT.	2 φ 1 3/8 φ 6 1411 PSI		MI-00143-D
³ TON	507-00032	OPT.	2 1/2 φ 6 1304 PSI		23-9084-D
7	135-71001	1	MOTOR, 3/4 HP, 1800 RPM, ODP, 120-1-60		
7A	135-71002	1	MOTOR, 3/4 HP, 1800 RPM, ODP, 230/460-3-60		
8	512-42096	1	PUMP, 2 VANE #1533E37AWX/30B3X24XX-R		



MEC-08202-D
SINGLE PHASE

SYMBOL
L-MTR

DESCRIPTION

MC

MOTOR ELECTRIC, 3/4 HP, SEE NAMEPLATE FOR SPECS.

1FU

START MOTOR, MANUAL PHASE

1&2PB

FUSE-GLASS TUBE, SLO BLO 1.5 AMPS.

1SS

PUSHBUTTON-SQ. D CLASS 9007, PAP-222

SELECTOR SWITCH-# POSITION MAINTAINED WITH CYLINDER LOCK,
WITH NAMEPLATE MARKED "CYCLE-JOG DN--JOG UP" CONTACTS:

- 1 N.C.L.B.
- 3 N.O.
- 1 N.C.
- 1 N.O.E.M.

1 PRS

PROXIMITY-SWITCH 12MM SENSOR 1 N.C. "NORSTAT" CAT
EGT 12X02 RW 250-BH3LU

2 PRS

PROXIMITY-SWITCH 12MM SENSOR 1 N.O. "NORSTAT" CAT
EGT 12X02 AW 250-3H3LU

VAR

VARISTOR-RATED, 130V-20AMP.

PCB

CIRCUIT BOARD-DUAL PUSHBUTTONS WITH TIMED REVERSAL. 1000-00516

2 CR

RELAY-CONTROL, 3PDT CONTACTS, 120V-60HZ OPERATING COIL
(LOCATED ON PCB)

3&4 CR

RELAY-CONTROL, 2PDT CONTACTS, 120V-60HZ OPERATING COIL
(LOCATED ON PCB)

PROXIMITY SWITCH LOCATION

1 PRS

TO BE ACTUATED AT THE TOP OF THE PRESS RAM RETRACTING STROKE

2 PRS

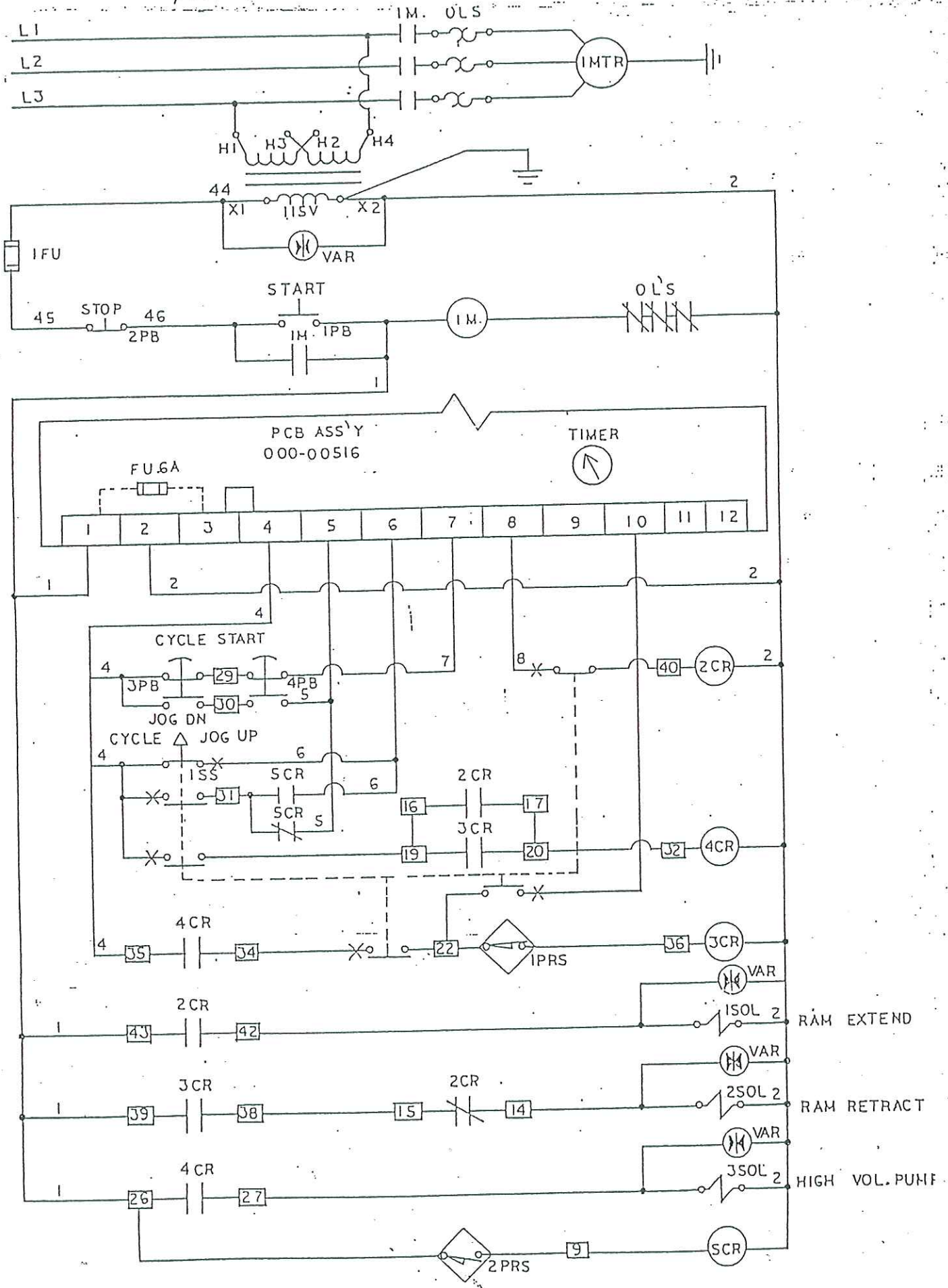
TO BE DE-ACTUATED NEAR THE BOTTOM OF THE PRESS RAM EXTENDING
STROKE

JUMPER WIRES ON PCB

FROM	TO
2	75
1	26
26	39
39	43
4	35
16	19
17	20
15	38
20	32

1-2-3 Ton w/prov switches
MEC 08203-D

2-3



1 MTR MOTOR ELECTRIC, 3/4 HP, SEE NAMEPLATE FOR SPECS.

1M STARTER-MOTOR, AC FULL VOLTAGE MAGNETIC, 3 POLE 120V-60HZ OPERATING COIL, SIZE 00 STARTER.

1FU FUSE-GLASS TUBE, SLO BLO 1.5 AMPS.

T TRANSFORMER-150 VA, 230/460 PRIMARY, 115V 60HZ SECONDARY.

1&2 PB KIT-PUSHBUTTON, START-STOP, AB CAT #800S-2AS.

3&4 PB PUSHBUTTON-SQ. D CLASS 9007, #AP-222.

1SS SELECTOR SWITCH-3 POSITION MAINTAINED WITH CYLINDER LOCK, WITH NAMEPLATE MARKED "CYCLE-JOG-DN--JOG-UP". CONTACTS: 1 N.C.L.B.
3 N.O.
1 N.C.
1 N.O.E.M.

1PRS PROXIMITY-SWITCH .2 MM SENSOR 1 N.C. "NORSTAT" CAT EGT 12X02 RW 250-BH3LU.

2PRS PROXIMITY-SWITCH 12 MM SENSOR 1 N.O. "NORSTAT" CAT EGT 12X02 AW 250-3H3LU.

VAR VARISTOR-RATED 130V-20AMP.

PCB CIRCUIT BOARD-DUAL PUSHBUTTONS WITH TIMED REVERSAL, #000-00.

2CR RELAY-CONTROL, 3PDT CONTACTS, 120V-60HZ OPERATING COIL (LOCATED ON PCB).

5,3&4CR RELAY-CONTROL, 2PDT CONTACTS, 120V-60HZ OPERATING COIL (LOCATED ON PCB)

PROXIMITY SWITCH LOCATION

1PRS TO BE ACTUATED AT THE TOP OF THE PRESS RAM RETRACTING STROKE.

2PRS TO BE ACTUATED NEAR THE BOTTOM OF THE PRESS RAM EXTENDING STROKE.

JUMPER WIRES ON PCB

<u>FROM</u>	<u>TO</u>
2-----	25
1-----	26
26-----	39
39-----	43
4-----	35
16-----	19
17-----	20
15-----	38
20-----	32