



INSTRUCTIONS AND PARTS LIST FOR 42 Series Press for Models

500, 501, 502, 503

25 ton 50 ton 75 ton 150 ton

Elec-Draulic II Press



8-075 shown Elec-Draulic II



INSTRUCTIONS AND PARTS LIST FOR Model 42 Elec-Draulic II Presses

WARNING LABELS



To the left is the safety Alert symbol. When you see these safety alert symbols on your press, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

SETTING UP THE PRESS FOR OPERATION

For shipping convenience some of the parts may not be assembled.

NOTE: The press should set on a level floor with the base angles touching the floor at all points. Use shims where necessary.

1. Motor starter box is mounted on right side of the machine. Have a qualified electrician connect power to motor starter. Pump can rotate in either direction.
2. **Oil Requirements:** Fill reservoir thru street elbow at back of press with Mobil DTE oil No. 24 or equivalent.

Model 25 ton uses 12 quarts	3 gallon
Model 50 ton uses 12 quarts	3 gallon
Model 75 ton uses 12 quarts	3 gallon
Model 150 ton uses 40 quarts	10 gallon

3. Attach nose piece to ram by inserting shank into ram and tightening the set screw.



CAUTION! Place the hoist crank on the lift drum shaft. Turn the hoist crank to relieve the pressure on the table pins. Keeping tension on the hoist crank, remove the table pins one at a time. After removing the tables pins, turn the crank running the table channels from top to bottom. Check to make sure the cable is tracking correctly. The cable should be on each of the two upper pulleys and should track back and forth on the cable drum. Always place table pins under the table channels before releasing the hoist crank when positioning the table channels for cable tracking, servicing, or set-up for desired work opening. If a tracking problem exists, contact the Dake factory for instructions. Be sure all table pins are fully inserted in place before applying pressure. Always remove or release pressure on the cable before pressure is applied.

SAFEGUARDING THE POINT OF OPERATION

ANSI B11.2 – Hydraulic Power Presses Safety Requirements for Construction, Care and Use

It is important that Dake press users have a clear understanding of their responsibility involving the care and use of their Dake hydraulic press, including point-of-operation safe guards. Dake strongly recommends that Dake press users obtain a copy of the current American National Standard Institute (ANSI) B11.2 standard, for a more complete understanding of their responsibilities.

ANSI B11.2 states the following, relative to point of operation safeguarding:

“Normally, only the employer (press user) can determine the requirements of the press productions system components, including the dies and methods for feeding. There fore, the employer is ultimately responsible to designate and provide the point-of-operation safeguarding system”.

The standard also discusses additional responsibilities of the employer. Some of the key responsibilities are:

- The employer is responsible for the safety, use and care of the hydraulic power press production system.
- The employer is responsible to consider the sources of hazards for all tacks to be implemented on the hydraulic power press production system.
- The employer is required to eliminate or control identified hazards in the scope of their work activity.
- The employer is responsible for the training of personnel, caring for, inspecting, maintaining and operating hydraulic press production systems to ensure their competence.
- The employer is responsible to provide and ensure that point-of-operation safeguarding is used, checked, maintained and where applicable, adjusted on ever production operation performed on a press production system.

A complete and current copy of the ANSI B11.2 standard can be obtained by contacting the following:

American National Standards Institute
1430 Broadway
New York, NY 10018

AMT – The Association for Manufacturing Technology
7901 Westpark Drive
Mclean, VA 22102

OPERATIONS



WARNING: DO NOT OVERSTROKE THE RAM. Overstroking will cause premature seal failure. Models 25 ton, 50 ton, 75 ton have a 10-inch stroke and the 150 ton has a 16-inch stroke.

The press has been completely tested at the factory and after setting up according to instructions above, the press is ready for operation. However, it is necessary for the operator to acquaint themselves with the controls.

1. The hand crank or ratchet on the hoist assembly is provided to raise or lower the table channels to the proper work height. When desired height is obtained insert the table pins. The 25 ton and 50 ton models use 2 pins on each side (4 total). The 75 ton and 150 use 3 pins on each side (6 total). After pins have been inserted, release pressure on cable by backing off with hand crank.



CAUTION: *Be sure ALL table pins are in place an in as far as they can go before pressure is applied. Be sure to slack off on the cable before pressure is applied.*

2. The two table plates and two V-blocks are used for supporting the work in process.
3. Directional control valve is located on the right side of the press. This controls the direction of the ram travel. There are three positions: Neutral (handle straight out), Ram down (handle pulled down), Ram up (handle raised). The handle will return as soon as released by operator.

CAUTION: *When first starting press after setting it up, run the ram up an down a few times to work air out of the tube lines before putting pressure on ram. Avoid building pressure at the top and bottom of the stroke.*

4. The relief valve is located in the directional control valve block. It has been set at factory to open at maximum tonnage of press. This setting should not be changed.



WARNING: *Never exceed rated tonnage of press.*

MAINTENANCE



CAUTION: *When disconnecting any parts of this machine be extremely careful that all parts are clean to prevent entrance of dirt in the hydraulic system.*

1. If press loses pressure:
 - a. Check all tubing joints for leaks and tighten the tube nuts.
 - b. Trouble shoot Throttling 4 way valve.
 - c. Worn T-ring piston seal. If none of the previous conditions seem to havn been the cause of pressure loss, the T-ring piston seal may be worn or damaged. To inspect this, it is necessary to remove the work head assembly from the frame. Insert rod into the hole on piston guid and unscrew from cylinder. Remove piston from cylinder. The T-ring seal can now be inspected and replaced if necessary. Also at this time, inspection of rod seal and O-ring seal is recommended. Replace if necessary. The work head can now be reassembled in reverse order bing careful not to damage the T-ring seals and O-ring seal.



WARNING:

2. If press will not develop rated tonnage.
 - a. Relief valve set wrong. This valve is located in the lower left hand front corner of the manual valve. The valve has been set at the factory to by pass oil from the pump back to the reservoir when the pressure reaches rated capacity. To expose the relief valve for adjusting remove the control handle ball, the control panel and the hex cap nut. The load on the spring which governs the pressure at which the valve will by pass is adjusted by turning the adjusting screw clockwise to raise the setting. Replace the hex cap nut, control panel and control handle ball after adjusting. The relief valve should not be tampered with after it is once set at the capacity of the press. **NOTE:** *We advise that the relief valve not be tampered with after it is set at the capacity of the press.*
 - b. Trouble shoot 4 way vavle.
 - c. Worn ring – refer to section 1 (C) above.

3. If nothing happens when press is operated.
 - a. If motor does not run, the electrical circuit should be investigated.
 - b. If the ram will come down only a fraction of its rated stroke, check the oil level in the reservoir with the ram at the top of its stroke.
4. If press is operating slow.
 - a. Improper oil. It is essential that the recommended oil (Mobil DTE 24 or equivalent) be used. Heavier oils cause a marked reduction in the ram speed. **NOTE: DO NOT USE HYDRAULIC JACK OIL!**
5. In case of damage to the pump or if pump will not perform properly refer to pump service instructions.



CAUTION: Adjustments to pump are not necessary and the pump should not be tampered with because expensive repairs may result.



WARNING! High pressure fluid is present in operational hydraulic systems. Fluids under high pressure are dangerous and can cause serious injury or death. Do not make modifications, repairs or adjustments to any hydraulic system unless you are competent or working under competent supervision. If in doubt, consult a qualified technician or engineer.

WARNING LABELS



To the left is the safety Alert symbol. When you see these safety alert symbols on your press, be alert to the potential for personal injury.

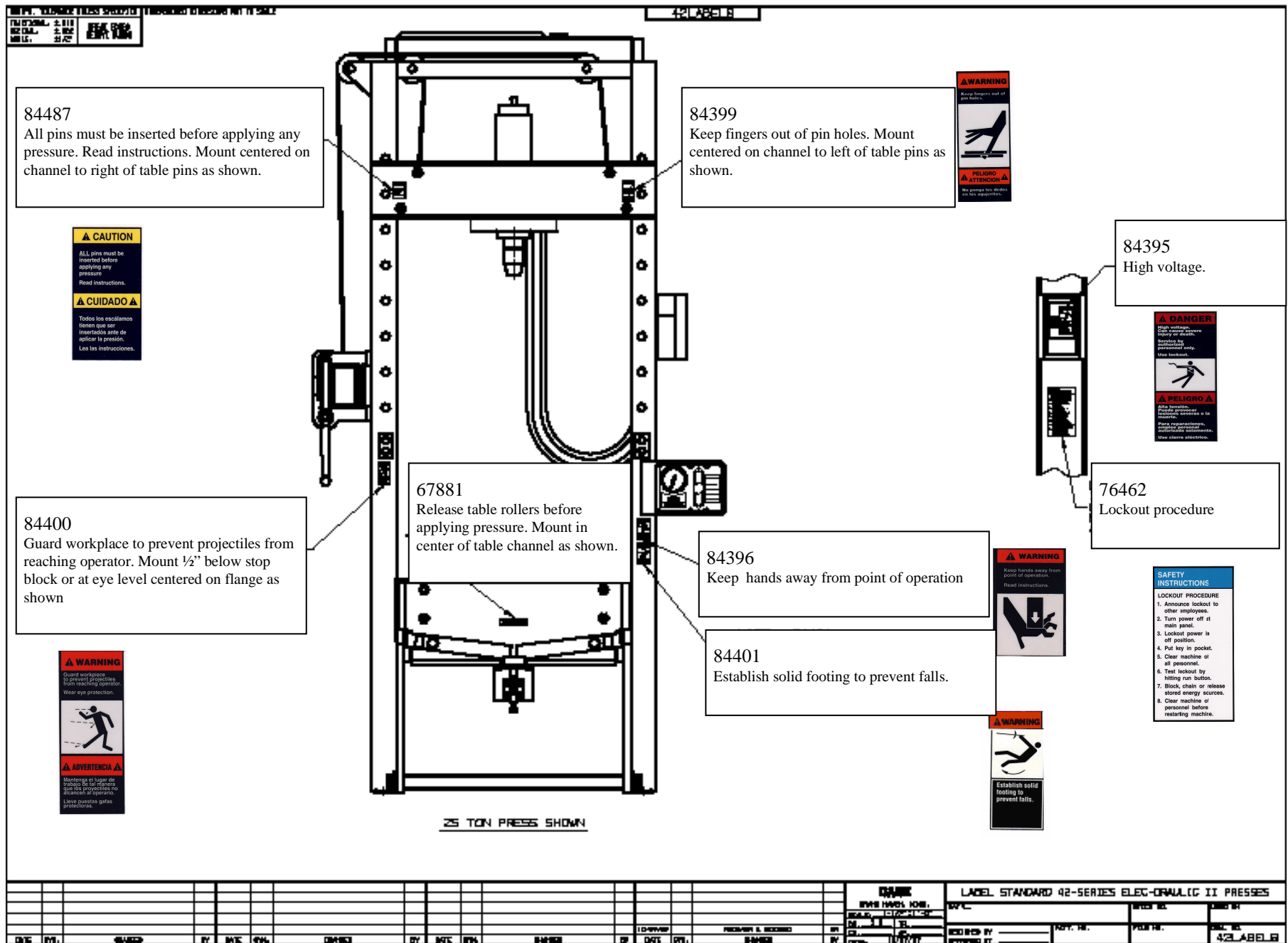
Follow recommended precautions and safe operating practices.

Carefully read all safety messages in these instructions and on your press safety signs.

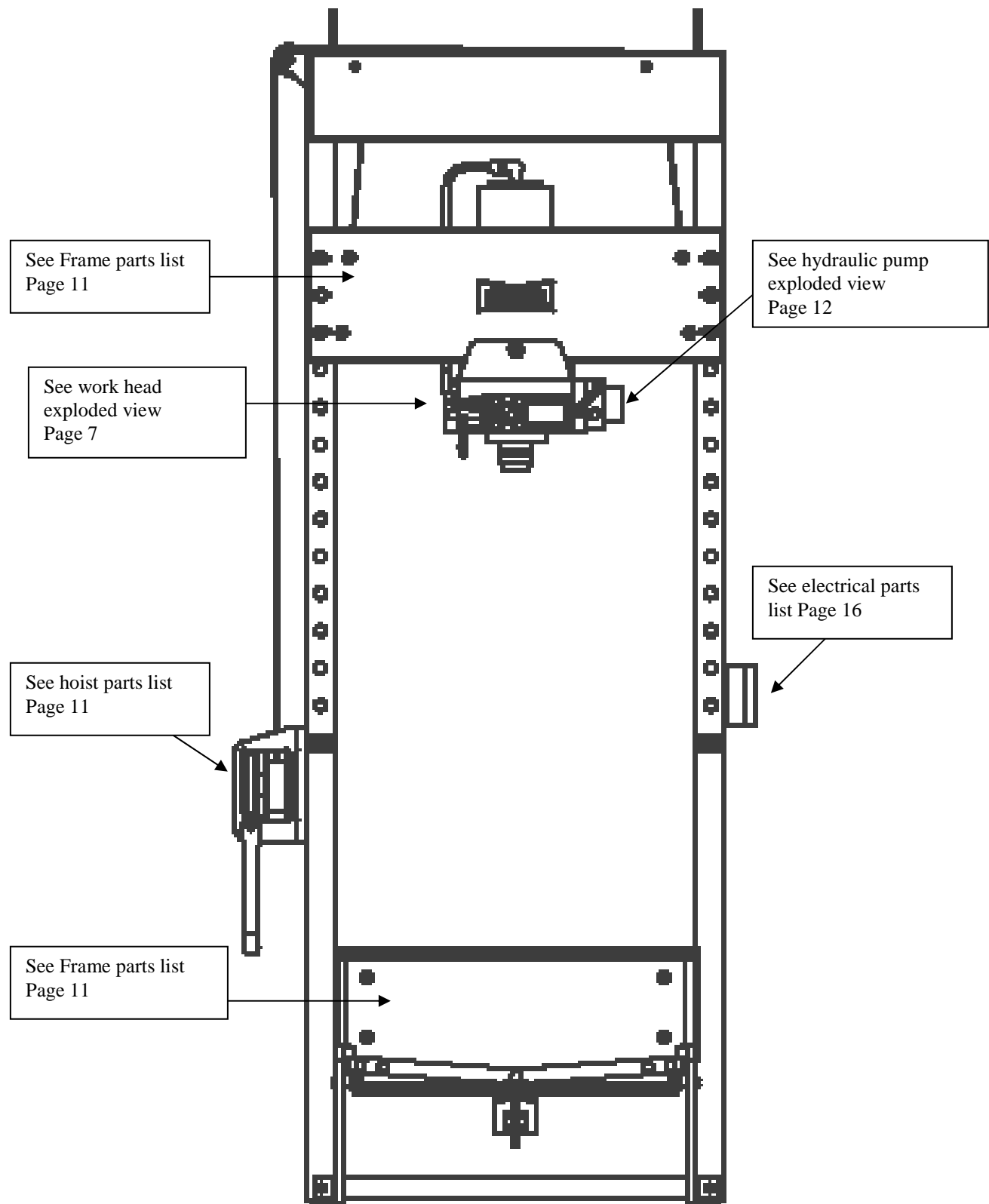
Keep safety labels in good condition. Replace missing or damaged safety labels. **This machine is intended to be operated by one person.** This person should be conscious of the press ram movement not only for himself but also for persons in the immediate area of the machine. Look over the safety labels. Be sure all operators understand and follow all safety warnings.

CAUTION !!!!

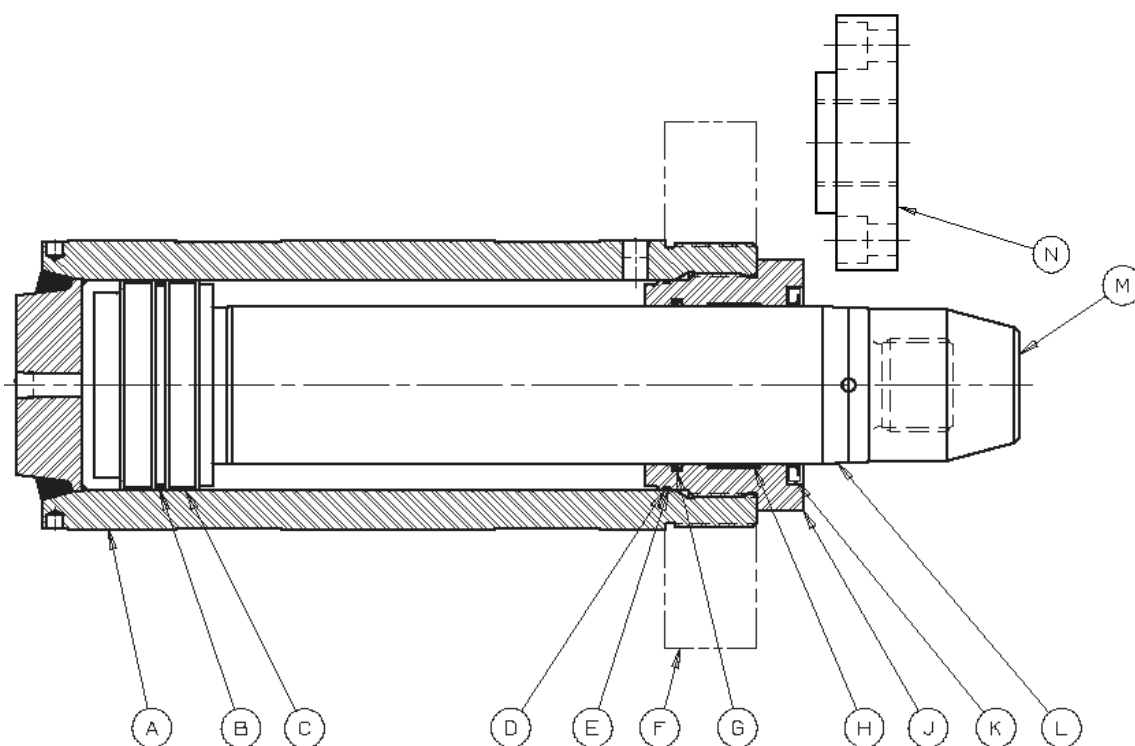
Prolonged building of pressure at each end of the piston stroke may damage the work head.



Parts list

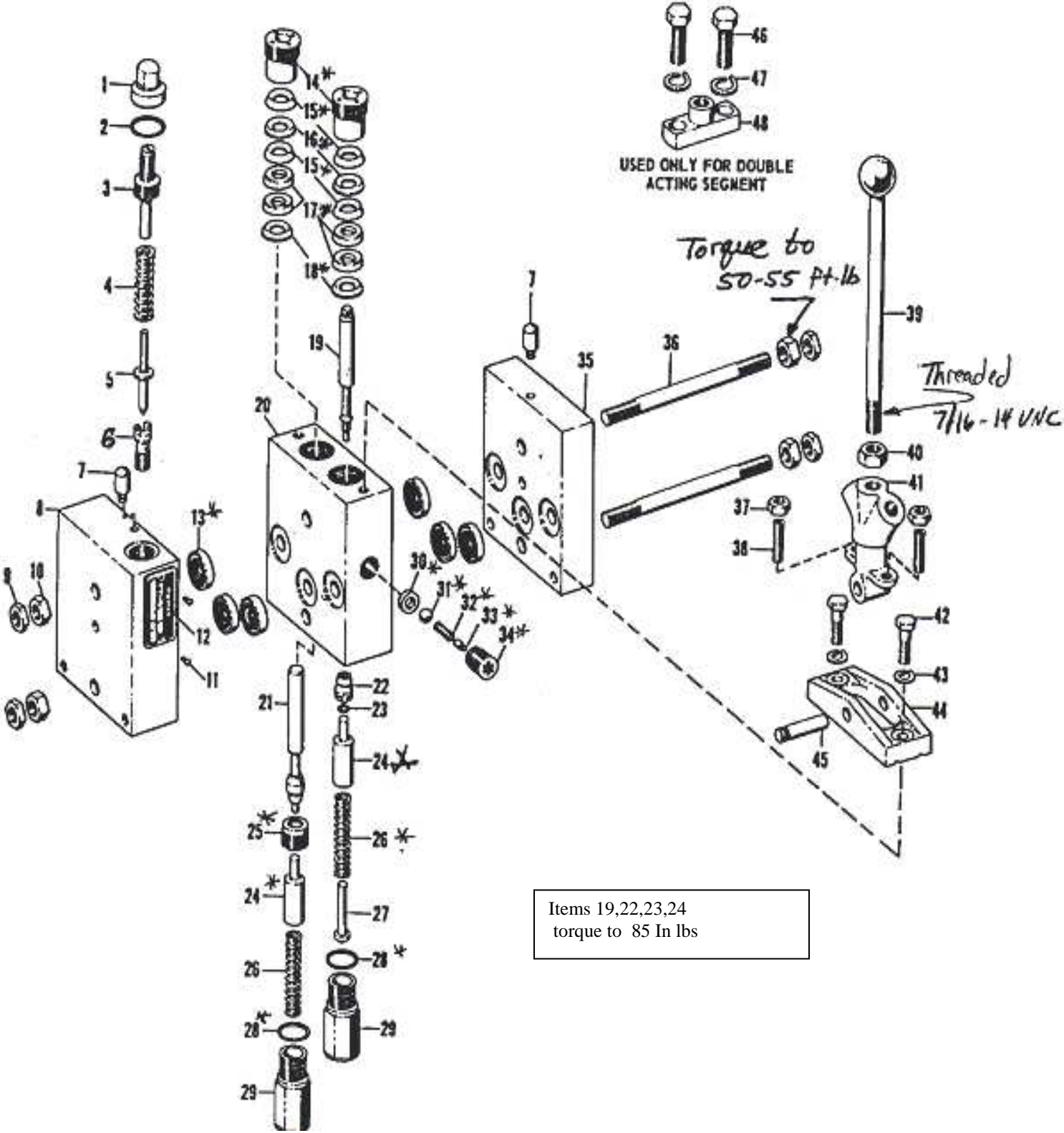


Work head exploded view



Item	Part Name	Model 25 ton	Model 50 ton	Model 75 ton	Model 150 ton	Qty
N	Adaptor Flange	1067	1181	1400	2029	1
M	Nose Piece	942	1150	3276	1987	1
L	Piston	35811	35563	35575	35585	1
K	Oil Seal	944	1477	1357	1524	1
J	Piston Guide	34322	35562	35573	35592	1
H	Teflon wear ring	37038	37045	37050	37055	2
G	Palmetto ring				37054	1
F	Cylinder flange	86610	35565	35593	83880	1
E	Back-up washer	37040	37043	37049	37053	1
D	O-ring	29637		37048	25823	1
C	Teflon wear ring	37036	37041	37046	37051	2
B	Palmetto Ring				37052	1
A	Cylinder	34321	35561	35589	35584	1
N/A	Complete assembly	707725	708077	708055	708078	1

Dynex Valve assembly Breakdown



Item	Part Name	Part number	Qty
2-6	Pressure head repair kit one each of 2-6	54165	1
13	Grommet	47298	1
39	Handle	301328	1
41	Saddle	301329	1
48	Dual valve operating lever	301330	1
* Kit	Valve segment unit repair kit, includes one each of items 25 and 30 thru 34, two each of items 14, 16, 18, 24, 26 and 28, four each of 15 thru 17, 6 each of 13	67741	1 or 2
**Kit	Segment replacement, includes one each of 19 thru 23, 25, 27, 30 thru 34, 41, 44 and 45, two each of 14, 16, 18, 24, 26, 28, 29, 37, 38, 42 and 43.	301735	

*Note: 1 pc. For a 3 way valve (new 3way valve part number is 29661) **These Dynex valves have all ½” NPT port sizes**
2 pc. For 4 way valve (new 4 way valve part number is 29662)

** Note: This kit is completely assembled and pre tested and ready for service.

29662 Dynex valve replaces the Dake valve 26-300 and 26-302. Repair kit for the 26-300 is part number 710146. No repair kit available for the 26-302.

29661 Dynex valve replaces the Dake valve 26-301. Repair kit for the 26-301 is part number 710146.

Note: If replacing a Dake valve with a Dynex valve, the port location may be different than the Dake valve.

Hoist breakdown

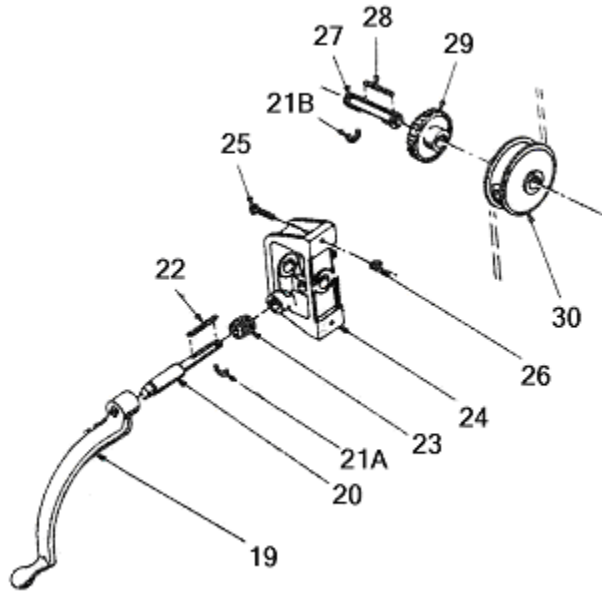


Figure 1

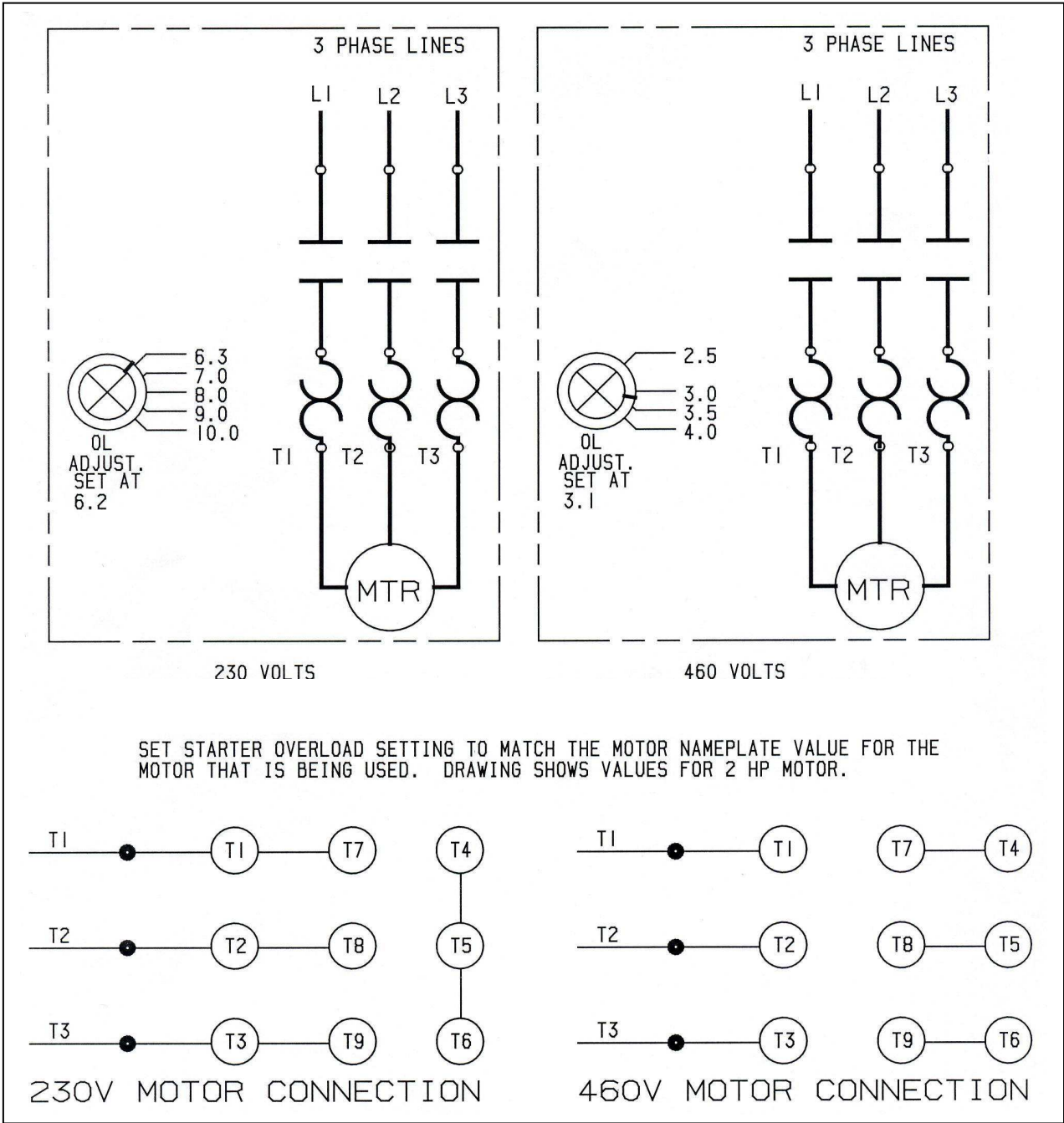
Item	Part Name	Model 25 ton	Model 50 ton	Model 75 ton	Model 150 ton	Qty
N/A	Cable	45954	45954	726	726	17
N/A	Cable clamp	583	583	991	991	4
19	Hand crank assembly	701653	701653	701653	701653	1
20	Worm shaft	742	742	1598	1598	1
21A	Retaining ring	43982	43982	43992	43992	2
21B	Retaining ring	43983	43983	43983	43983	2
22	Worm key	746	746	1602	1602	1
23	Worm	744	744	1600	1600	1
24	Hoist frame	739	739	1595	1595	1
25	Hex cap screw	43335	43335	43335	43335	3
26	Hex nut	43912	43912	43912	43912	4
27	Drum shaft	741	741	1597	1597	1
28	Drum key	745	745	1601	1601	1
29	Worm gear	743	743	1599	1599	1
30	Cable drum	740	740	1596	1596	1
N/A	Ratchet handle assembly	-	-	75582	75582	1
Complete Table Hoist Assembly (Items 20, 21A, 21B, 22, 23, 24, 27, 28, 29,30)		700111-S	700111-S	700104-S	700104-S	1

Table and frame part numbers
No picture available

	Part Name	25 ton	50 ton	75 ton	150 ton	Qty
1	Pulley, Cable	1639	-	-	-	1
1	Pulley, Cable	-	1639	-	-	4
1	Pulley, Cable	-	-	1639	1639	4
2	Shaft, Cable Pulley	1641	1641	1641	1641	1
3	Block Stop 3/4x2x3-1/2"	1819	1819	1819	1819	8
4	Pin, Table	2256	2256	-	-	4
4	Pin, Table	-	-	2256	-	6
4	Pin, Table	-	-	-	1555	6
5	Shaft, Cable Pulley	2698	2698	1640	29510	2
6	Screw, Hex Cap ½ - 13 x 1-1/4"	43348	43348	43348	43348	8
7	Screw, Hex Cap ½-13x 3-1/4	43356	-	43356	-	8
7	Screw, Hex Cap ½-13x1-3/4 H300	43350	43350	-	43365	2
8	Screw, 3/4x10-1 ½ SHCS	43371	43371		43919	12
9	Screw, Soc Cap 5/16 – 18 x 3/4"	43433	43433	43433	43433	8
10	Screw, Soc Cap 3/8 – 16 x 1"	43449	43449	43469	43469	8
11	Screw, Soc Cap 3/8 – 16 1-3/4"	43452	43452	43452		2
12	Screw, Soc Set ½ -13 x ¾ cup pt.	43600	43600	43600		12
33	Lock Washer 3/8"	43645	-	-	-	10
33	Lock Washer ½"	-	43647	-	-	16
33	Lock Washer ½"	-	-	43650	-	12
33	Lock Washer 1"	-	-	-	-	24
13	Lock Washer ½"	43647	43647	43647	43647	16
14	Screw, Soc cap ½-13x3/4"	43648	43648	43648		20
15	Lock Washer, ¾ H300	43649	43649	43649	-	24
15	Lock Washer ¾" H300	-	-	-	43649	16
16	Nut, Hex ½-13 (Heavy)	43916	43916	43916	43916	8
17	Nut, Hex 5/8-11 (Heavy)	43917	43917	43917		20
17	Nut, Hex ¾-10 H300	-	-	-	43919	16
18	Nut, Hex Jam, 7/8-14	43947	43947	43947	43947	4
19	Ring, Retaining	43982	43982	43982	43982	6
20	Cable	45954	45954			24
20	Cable	-	-	45933	-	26
20	Cable	-	-	-	45933	42
21	Clamp, Cable	583	583	1607	1607	4
22	Bearing, Camrol	60900	60900	60900	60900	4
22		-	-	-	-	4
22		-	-	-		4
23	Clamp, Toggle	60901	60901	60901	60901	2
24	Block, Lifting	60903	60903	60903		2
25	Bracket, Clamp	63381	63381	60809	60809	2
26	Lever, Rolling Table	63382	63382	9928	64210	4
27	Channel, Rolling Table	63383	63383	-	-	2
27	Channel, Rolling Table	-	-	60811	-	2
27	Channel, Rolling Table	-	-	-	64214	2
28	Support, Rolling Table RH	63384	63384	60813	64458	1
28		-	-		-	1

28		-	-	-		1
29	Support, L.H. Rolling	63385	63385	60980	64459	1
30	Frame	65542	63386	60902	64457	1
31	Decal	67881	67881	67881	67881	1
32	Grease Fitting	44657	44357	44357	44357	4
33	Stop Bar, 1/4x2x6	64696	64696	-	-	1
34	Screw, Drive	70277	-	70277	70277	6
34	Screw, Drive	-	70277	-		2
35	Table Spacer	86486	86486	-	-	4
35	Table Spacer	-	-	86488	1553	8
35		-	-	-		
36	Table Plate				1534	2

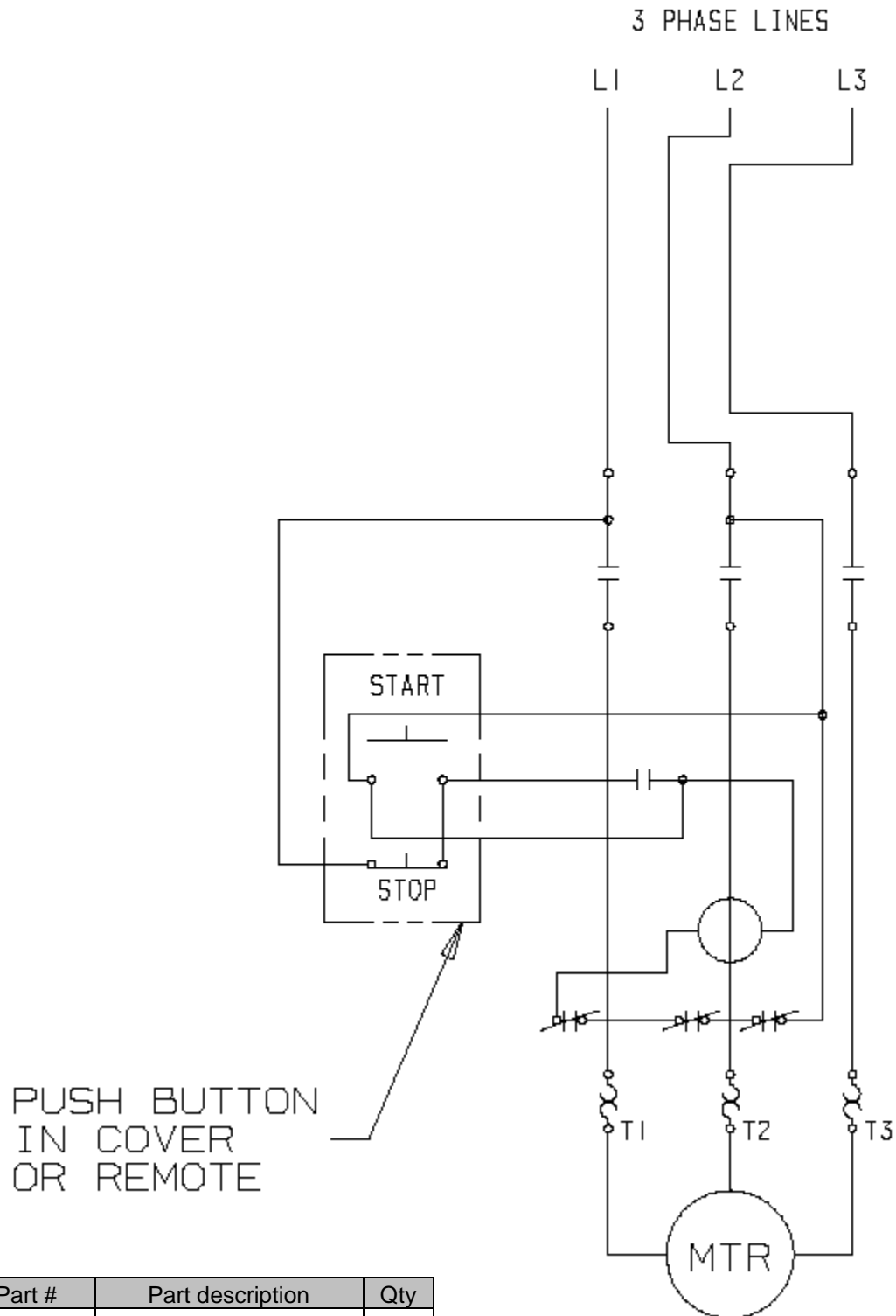
THIS DIAGRAM IS FOR THE 25, 50 AND 75 TON MODELS ONLY



Electrical parts list

Part #	Part description	Qty
302062	Starter enclosure	1
302187	Motor starter 220 volt	1
302189	Motor starter 440 volt	1
301382	Motor 2hp	1

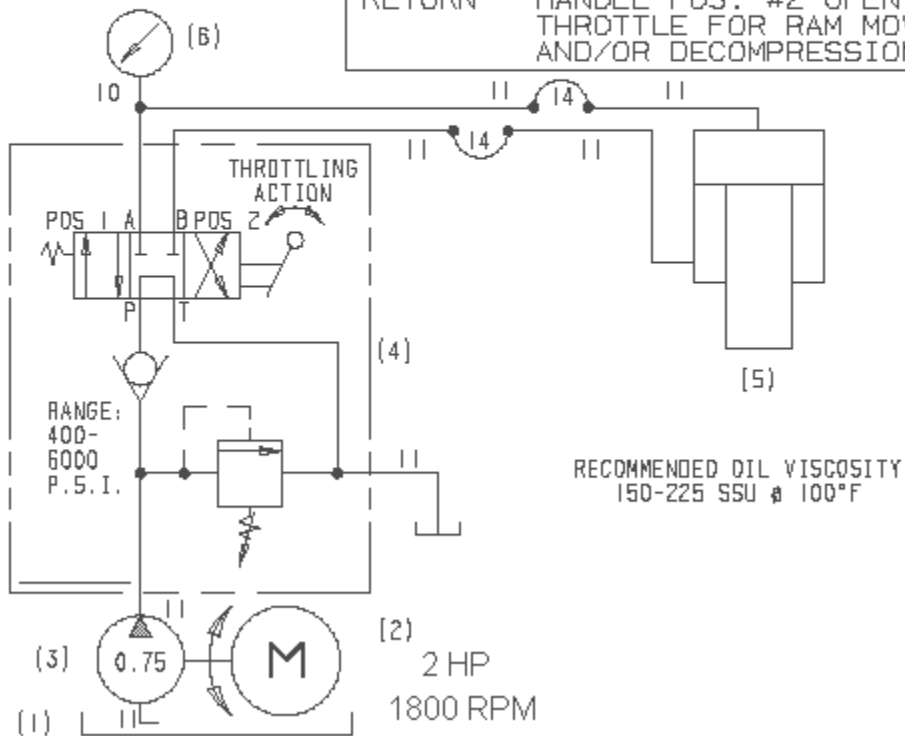
150 ton model only



Part #	Part description	Qty
66490	Starter enclosure	1
70901	Motor	1
65649	Heater overload (150 ton only) 430 volt	3
66243	Heater overload (150 ton only) 230 volt	3

SEQUENCE OF OPERATION

IDLE - HANDLE NEUTRAL PRESSURE IN CYLINDER LOCKS.
 PRESSING - HANDLE POS. #1 CLOSE AND/OR THROTTLE FOR RAM MOVEMENT AND/OR PRESSURE.
 RETURN - HANDLE POS. #2 OPEN AND/OR THROTTLE FOR RAM MOVEMENT AND/OR DECOMPRESSION.



	Part Name	25 ton	50 ton	75 ton	150 ton	Qty
1	Reservoir	36510	36510	36510	36527	1
1	Reservoir filter breather	29571	29571	29571	29571	
2	Motor – electric	301382	301382	301382	70901	1
3	Pump	301756	301756	301756	29608	1
4	4 way valve w/relief valve	29662	29662	29662	29662	1
5	Work Head	707725	713717	708055	708078	1
6	Gauge	71270	71271	71272	71273	1
N/A	Cylinder bore	3 5/8"	5"	6"	8"	N/A
N/A	Rod diameter	2 3/4"	4"	4 3/4"	6"	N/A
N/A	Stroke	10"	10"	10"	16"	N/A
N/A	PSI	4845	5100	5305	5970	N/A
N/A	Piston Thread diameter ACME	1 1/2 - 6	2 - 6	2 1/2 - 4	3 1/2 - 4	N/A