



## 150 TON ELECTRIC TIRE PRESS

# Model 33-672

INSTRUCTIONAL MANUAL



### WARNING!

Read and understand all instructions and responsibilities before operating. Failure to follow safety instructions and labels could result in serious injury.

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## **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. Therefore, 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 tasks 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 every production operation performed on a press production system.

A complete and current copy of the ANSI B.11.2 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

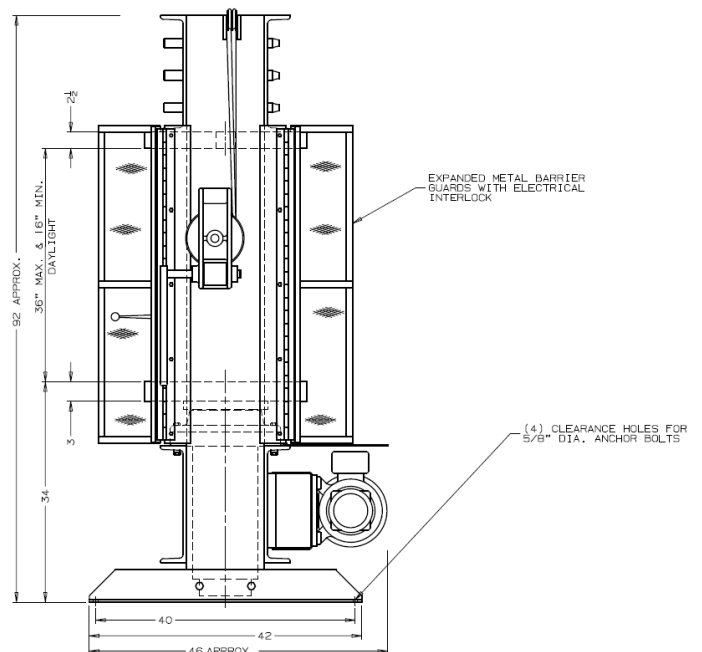
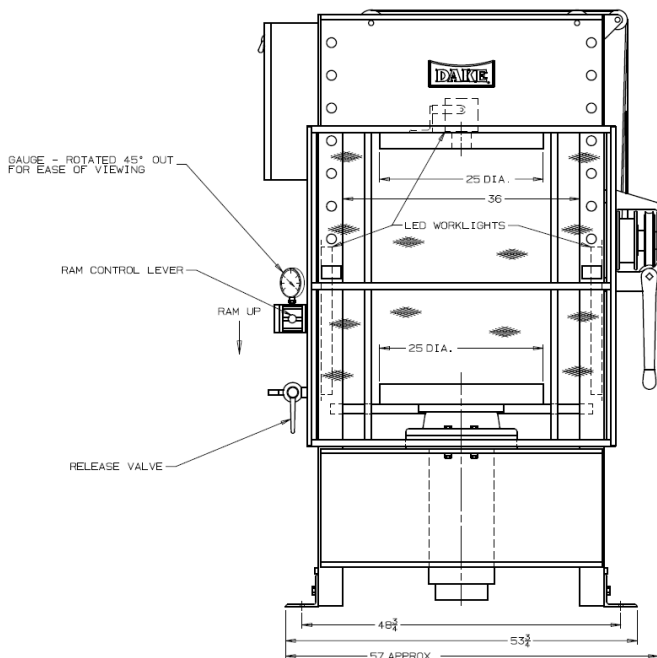
## SPECIFICATIONS

<b>Model Number</b>	933672
<b>Capacity</b>	150 Ton
<b>Horsepower</b>	10 HP
<b>Voltage</b>	220V/440V 3-Phase
<b>Stroke</b>	18"
<b>Ram Travel</b>	18" w/ limit switch
<b>Head Channel Travel</b>	15"
<b>Width between Uprights</b>	36"
<b>Max Daylight</b>	36"
<b>Platen Diameter</b>	25"
<b>Ram Advance Speed</b>	17 IPM
<b>Return Speed</b>	Gravity
<b>Base</b>	57" x 43"
<b>Height</b>	80"
<b>Weight</b>	3,600 lbs.

In the space provided record the serial number and model number of the machine. This information is only found on the black and gold Dake tag shown below. If contacting Dake this information must be provided to assist in identifying the specific machine.



<b>Serial No.</b>	
<b>Model No.</b>	
<b>Install Date:</b>	



## SAFETY





Employer is responsible to perform a hazard/PPE assessment before work activity.

**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.
- Do not alter this press from its original design.
- Do not make repairs or adjustments to any hydraulic system unless you are competent or working under competent supervision.
- Only use Dake original parts.
- This machine is intended to be operated by one person. This person should be conscious of the press ram movement not only for themselves but also for persons in the immediate area of the machine.



## SET UP

1. Anchor press to floor using 5/8" holes on the base angles of the press.
2. Have an electrician connect starter to power source, pump can rotate in either direction.  

3. Remove 3/4" pipe plug and 1/8" pipe plug from side of reservoir, fill with mobile DTE 26 or equivalent hydraulic oil thru 3/4" pipe hole. Fill with oil it reaches the 1/8" pipe tapped hole.  


Oil capacity: 7 Gallons

## OPERATION

### RAM MOVEMENT

To raise the ram, turn the release valve handle clockwise, so that the release valve is closed. Then press the raise button to raise the ram. The ram will raise as long as the operator presses the button. Ram movement can be stopped at any time by releasing the raise button.

After the work has been contacted, the press will continue to build pressure as the ram advances, until the press reaches its maximum tonnage. At this point the relief valve will open, allowing oil to return to the reservoir.

To release pressure and lower the ram, turn release valve handle counterclockwise to open the release valve. This permits the oil to return to the reservoir and the ram to lower.

### HOIST

The hoist hand crank is provided to raise and lower the upper platen to the proper work height. To change the vertical position of the upper platen, sufficient tension must first be applied to the hoisting cable to permit removal of table pins. Then the upper platen may be raised or lowered to the desired position. All table pins must be inserted once desired position is achieved.



## MAINTENANCE

### LUBRICATION

- Keep all working parts of the press well-oiled for easier operation.
- Keep a light film of oil over the entire surface of the ram to prevent rust.

### REPLACING HYDRAULIC OIL

*Recommended to replace hydraulic oil every 6 months of machine use.*

*\*Amount needed may vary dependent on machine use\**

## TROUBLESHOOTING



### A. Oil Leaks around the Piston

1. Oil above the piston leather: If rated stroke of the press is exceeded repeatedly by running the piston past rated stroke, bypass hole in the side of the cylinder run bypass line that connects above the piston leather. Eventually enough oil may accumulate so that when the piston is raised to the top of it's stroke, oil is forced out between the piston and piston guide. This can be remedied by disconnecting the bypass tube line from the cylinder, then raising the piston slowly, about 2-1/2" less than it's rated stroke (rated stroke: 18") allowing the oil above the piston cap to overflow out the bypass hole into a clean bucket. Replace tube line. Oil may be put back into reservoir by removing the fill plug on the top of the reservoir.

### B. Press does not hold pressure

1. Loosen tube connections, check all connections and tighten any loose tube nuts.
2. Dirt under release ball.  
Too correct this condition, remove the release valve rod packing nut, packing, and ball. Clean out the valve seat, reseal the valve ball using brass rod as a drift, tapping lightly.  
Reassemble valve.  
If this occurs frequently, the oil should be drained from the reservoir, then flush the reservoir to remove any dirt or contaminants. Refill reservoir with mobile DTE 26 or equivalent hydraulic oil. Oil must be filtered carefully to removed and contaminants. Refill reservoir with oil. See "SET UP" section of manual for instructions.
3. Worn leather cup  
If neither of the previous conditions seem to be the cause of the pressure not holding the piston leather may be worn or damaged. To inspect leather, remove the lower platen, then remove cap screws that bolt the piston guide to the cylinder flange. Piston and piston guide may be then listed out of the cylinder and inverted, the leather now can be inspected and replaced in necessary. Reassemble the press, take care not to damage the lip of the leather cup as it enters the cylinder.

C. Press will not develop rated tonnage

1. Dirt under release valve ball. See B-2, previously.
2. Worm leather cup. See B-3, previously.
3. Relief valve set low.

The relief valve has been set at the factory to bypass oil back to the reservoir when the press reaches its rated capacity. However, if the press does not develop rated tonnage and the 2 above conditions have been checked, the relief valve may need readjusting. To do this remove the 1/4" pipe plug in the connector block. The valve adjustment screw should now be accessible and should be adjusted with a 7/32" hex wrench. To increase the setting, turn the adjustment screw clockwise, only adjust screw in small increments before testing tonnage. Be careful not to adjust the valve over its rated tonnage or maximum operating pressure (6000PSI).



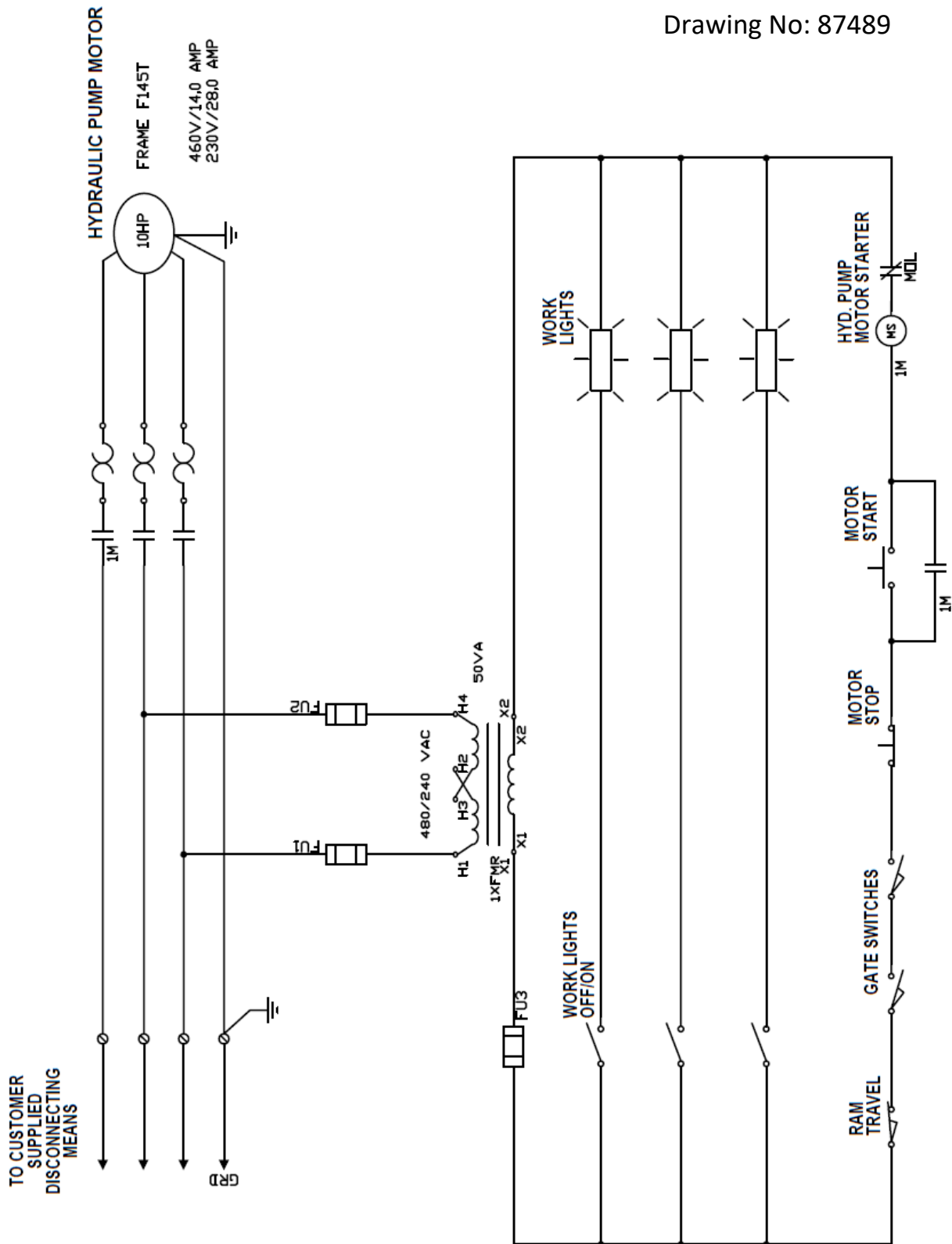
D. No ram movement

1. Release valve open.  
Be sure release valve is firmly closed when operating press.
2. Insufficient oil  
Check oil level in the reservoir when the ram is complete down (rest position). Remove 1/8" pipe plug on side of reservoir. Oil level should reach this hole.
3. Pump loses its prime  
Make sure all intake connections are tight.  
Check to make sure there is enough oil in the reservoir



# ELECTRICAL DIAGRAM

Drawing No: 87489



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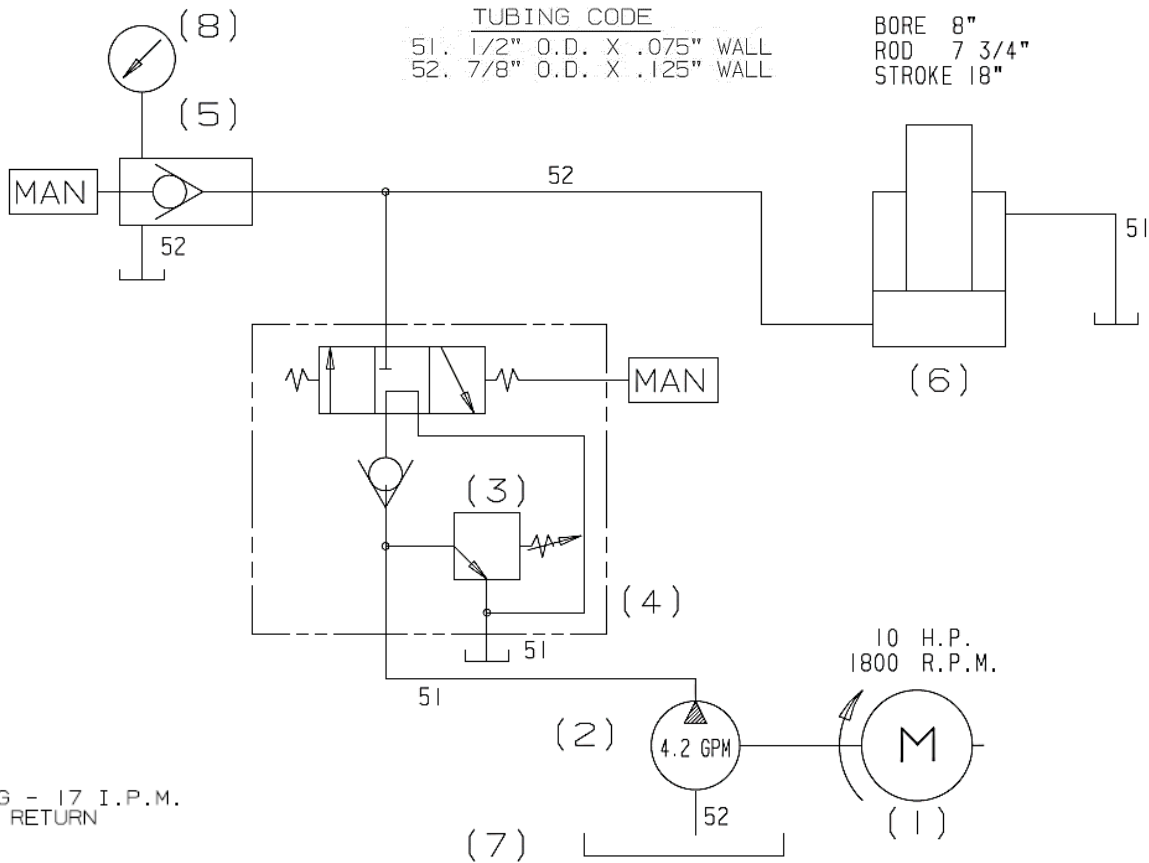
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## HYDRAULIC DIAGRAM



With pump (2) running and valve (4) centered pump (2) delivery is returned to reservoir (7).

For Pressing: valve (4) is shifted, directing pump (2) delivery to bottom of cylinder (6). Ram advances until contacting work, then builds pressure to rated capacity of the press, when press hits capacity then relief valve (3) opens, returning pump delivery to reservoir (7).

For Release: With valve (4) centered, and piston in extended position, release valve (5) is opened, releasing pressure from bottom of cylinder (6). Gravity returns ram to down position.

<u>Item</u>	<u>Part Name</u>	<u>Part No.</u>	<u>Qty</u>
1	Motor	70901	1
2	Pump	29608A	1
3	Relief Valve	within 29661	1
4	Manual 3-Way Valve	29661	1
5	Release Valve	710557	1
6	Workhead	707594A	1
7	Reservoir (7 gallons)	47343	1
8	Gauge	71268	1

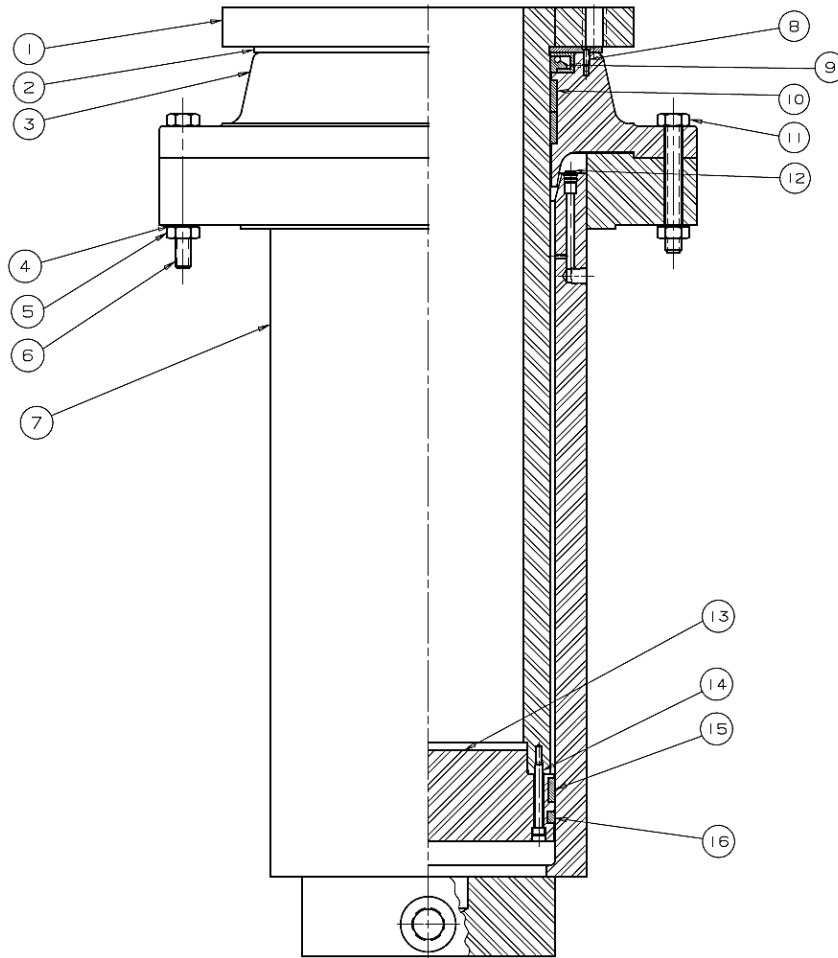
## EXPLODED VIEWS & PARTS LISTS

### 933672-2 - 150 Ton Electric Tire Press, 230V 3-Phase

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>	<u>Remarks</u>
61063R	1	Angle Guide - Right	Also order 61063L
61063L	1	Angle Guide - Left	Also order 61063R
87451P	2	Welding Pad	Used with Limit Switch 302862
87421	2	Mounting Angle	Used on LED light on upper platen
87409	1	Guard Plate	
84399	1	Label, Warning	Keep Fingers Out Of Pin Holes.
81003	1	Name Plate, Dake	
77271	6	Pin, Spring	
76462	1	Label, Lockout Procedure	Disconnecting Means Lockout Procedure Label to be Placed on
7205P	6	Pin, Table	1-7/16 Dia. x 19, Used on 150 Ton Presses *Also order #77271 Pin*
716797P	1	Frame	
707594A	1	Workhead Assy. 150 Ton Tire Press	
700111-S	1	Table Hoist Sub Assembly	
583	4	Clamp, Cable	
45954	20	Cable, 1/4 Dia.	
43919	8	Hex Nut (3/4-10)	
43916	2	Hex Nut (1/2-13)	
43648	4	Lock Washer (5/8")	
43645	4	Lock Washer (3/8")	
43373	4	Hex Cap Screw (3/4-10 x 2)	
43349	2	Hex Cap Screw (1/2-13 x 1-1/2)	
43314	8	Hex Cap Screw (5/16-18 x 3/4)	
43301	3	Screw (1/4-20 x 1/2)	
302846	2	Label, Warning	Never reach into the point of operation. Do not operate without all guards in place. Used on presses with guards
300168	1	Ganged Warning Label	Combines three Warning Labels, 84396/84400/84401
2248	2	Neoprene Washer	
1810P	1	Cable Pulley Shaft	
1553P	4	Table Spacer	
43328	2	Screw (3/8-16 x 1)	
87452P	2	Spacer	Used with Limit Switch 302862
1819P	4	Stop Block	
1813P	1	Upper Platen	
1798P	1	Lower Platen	
1563P	2	Pulley	
1551P	2	Base Angle	
87425P	2	Welding Pad	Used with Clamp #302776
87414	2	Guard	
84487	1	Label, Caution	All Table Pins Must Be Inserted Before Applying Any Pressure.

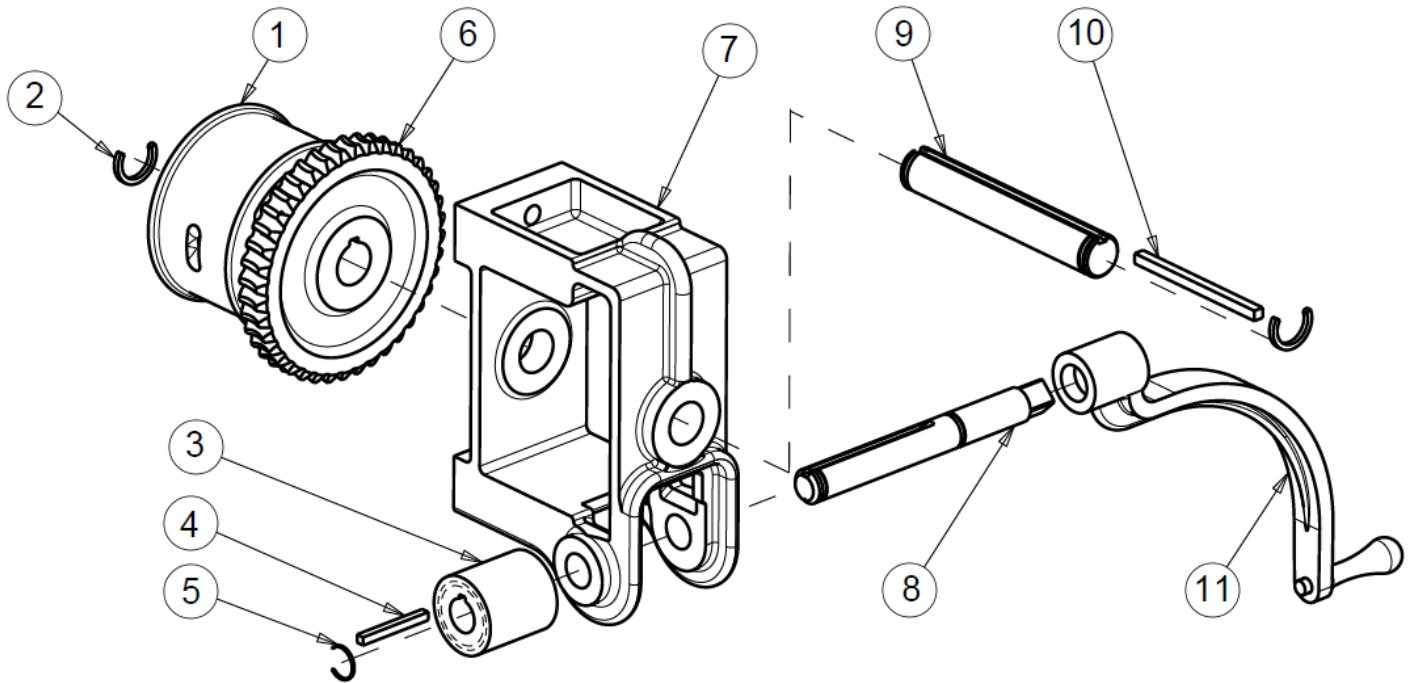
<u>Part No.</u>	<u>Qty</u>	<u>Description</u>	<u>Remarks</u>
84395	1	Label, Danger	High Voltage. Can Cause Severe Injury Or Death. Service By
79956	1	Tag, No Oil in Reservoir	
76936	1	Label, Made In U.S.A.	
75582	1	Ratchet Handle Assembly	
716807	1	Electric Control	
711041	1	Hydraulic Pumping Unit, 10HP Motor, 7 Gal. Reservoir.	
63565	2	Decal, Tire Press	Warning Platens Must Not Be Loaded Off Center
607	1	Label, Model Number	
46743	1	Limit Switch Lever, Micro	
43978	6	Ring, Retaining (3/4 Shaft Size)	
43917	8	Hex Nut (5/8-11)	
43649	12	Lock Washer (3/4)	
43647	10	Lock Washer (1/2)	
43643	3	Lock Washer (1/4)	
43365	4	Screw (5/8-11 x 1-3/4)	
43348	8	Hex Cap Screw (1/2-13 x 1-1/4)	
43335	1	Hex Cap Screw (3/8-16 x 2-3/4)	
43326	4	Hex Cap Screw (3/8-16 x 3/4)	
43304	10	Hex Cap Screw (1/4-20 x 3/4)	
36863	1	Decal, Tire Press,	Warning - End Of Stroke
303353	8	1" Black Plastic Plug	
302816	6	Safety Pin	
24569	4	Socket Cap Screw (3/4-10 x 3-1/4)	
1811P	2	Cable Pulley Shaft	
1809P	2	Cable Pulley	
715687	1	Hydraulic Control Assy.	

## 707594A 150 TON TIRE PRESS WORKHEAD ASSEMBLY



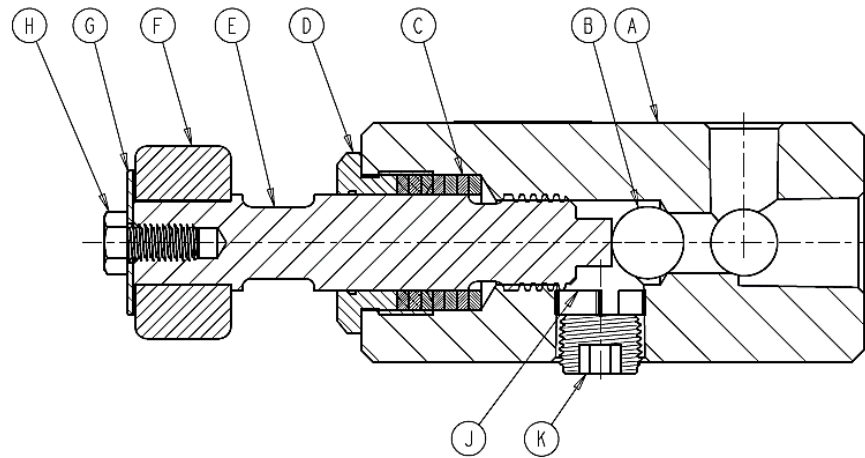
<u>Item</u>	<u>Part No.</u>	<u>Qty</u>	<u>Description</u>
1	8687P	1	Piston, 150 Ton
2	52478A	3	Retainer
3	31871	1	Guide, Piston,
4	43647	10	Lock Washer (1/2)
5	43916	10	Hex Nut (1/2-13)
6	43359	4	Hex Cap Screw (1/2-13 x 4-1/2)
7	8686P	1	Cylinder, 150 Ton Tire Press, 18" Stroke
8	43817	3	Screw, Fl. Hd. Slot Mach. (#10-24 x 1/2)
9	1871	1	Oil Seal,
10	31400	2	Wear Ring,
11	43358	6	Hex Cap Screw (1/2-13 x 4)
12	589	2	Pipe Plug (1/8 NPTF)
13	87611P	1	Piston Cap
14	43419	4	Soc. Cap Screw (1/4-20 x 2)
15	31399	1	Wear Ring,
16	37052	1	1-T-ring, 2-backers

## TABLE HOIST ASSEMBLY



<b>Item</b>	<b>Part No.</b>	<b>Qty</b>	<b>Description</b>
1	740	1	Cable Drum
2	43983	2	Ring, Retaining (1-1/4" Shaft Size)
3	744	1	Worm,
4	746	1	Worm Shaft Key (1/4 x 1/4 x 3-7/16)
5	43982	2	Ring, Retaining (1" Shaft Size)
6	743	1	Gear, Worm
7	739	1	Hoist Frame
8	742	1	Worm Shaft
9	741	1	Drum Shaft
10	745	1	Drum Shaft Key (5/16 x 5/16 x 4)
11	75582	1	Ratchet Handle Assembly *illustration uses different handle
N/A	45954	17ft	Cable, 1/4 Dia.
-	700111-S	-	Hoist Assembly (Parts 1-10)

### 710557 RELEASE VALVE ASSEMBLY



<u>Item</u>	<u>Part No.</u>	<u>Qty</u>	<u>Description</u>
A	1752P	1	Release Valve Block
B	1936	1	Valve, Ball
C	1937	8	Washer, Valve Rod Packing
D	1931P	1	Packing Nut
E	47946P	1	Release Valve Rod
F	2230A	1	Handle, Release Valve
G	348	1	Spindle Washer (1-1/2" OD x .40" ID x 1/16 Thick)
H	43326	1	Hex Cap Screw (3/8-16 x 3/4)
J	1935	1	Ball, Retainer
K	596	1	Pipe Plug (1/2 NPTF)

### 711041 HYDRAULIC PUMPING UNIT

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>	<u>Remarks</u>
65696	1	Fitting, Tube, 37 Deg.	(Straight Thd Elbow SAE O-Ring 14-16)
51150	1	Coupling Half,	7/8" Bore With 1/4" Keyway
43881	4	Self-Tapping Screw (#10-24 x 3/8)	
43645	4	Lock Washer (3/8)	
43348	4	Hex Cap Screw (1/2-13 x 1-1/4)	
36299A	1	Adapter, Pump to Motor	
302551	1	Spider, Coupling	Used with 51150 and 302552
29608A	1	Pump - 4.1 GPM	Inlet port #16 SAE, Outlet port #8 SAE
1567	2	Pipe Plug (1/4 NPTF)	
70901	1	Motor, 10 HP, 1800 RPM	Single Shaft, 230/460 Volt 3PH 60 Cycle,
64603	1	Fitting, Tube, 37 Deg.	(Straight Thd Elbow SAE O-Ring 8)
47343P	1	Reservoir	
43647	8	Lock Washer (1/2")	
43470	4	Soc. Cap Screw (1/2-13 x 1-1/4)	
43328	4	Screw (3/8-16 x 1)	
302552	1	Coupling	Used with 51150
29571	1	Filter Breather	
1745	1	Pipe Plug (3/4 NPTF)	
711041T01	1	Tube Assembly,	

### 716807 – ELECTRICAL CONTROL ASSEMBLY 220V

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>
997P	4	Spacer, (Hoist Frame)
17910	3	Switch, Toggle
35941	1	Limit Switch Assy, Micro
46743	1	Limit Switch Lever, Micro
65860	3	Heater Overload
67040	1	Starter Enclosure
75151	2	Connector, Cord
75257	2	Locknut, Conduit, 1/2 In.
302772	1	LED Dock Light
302862	2	Safety Switch
303076	2	Light Bar 2 feet

### 716813 – ELECTRICAL CONTROL ASSEMBLY 440V

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>
17910	3	Switch, Toggle
35941	1	Lim Switch Assy, Micro
46743	1	Lim Switch Lever, Micro
65649	3	Heater Overload, AB
67040	1	Starter Encl, AB
75151	2	Connector, Cord
75257	2	Locknut, Conduit, 1/2 In.
302772	1	LED Dock Light
302862	2	Safety Switch
303076	2	Light bar 2 feet



## 715687 HYDRAULIC CONTROL ASSEMBLY

<u>Part No.</u>	<u>Qty</u>	<u>Description</u>	<u>Remarks</u>
87424	1	Spacer - 2"	Used with Bracket #3853
73425	1	Fitting, Tube, 37 Deg. (Straight 3/8 x 3/8 NPTF)	
72037	2	Fitting, Tube, 37 Deg. (Swivel Nut Elbow 1/2)	
710557	1	Release Valve Assembly,	Mounted On Upright, Stop on Valve Rod
47948P	1	Spacer Release Valve	
43645	7	Lock Washer (3/8)	
43334	2	Hex Cap Screw (3/8-16 x 2-1/4)	
43328	3	Screw (3/8-16 x 1)	
302738	2	Tube Clamp (1/2)	
301862	1	Snubber, 15,000 PSI	
1247	2	Fitting, Tube, 37 Deg. (Straight 3/8 x 1/4 NPTF)	
72050	2	Fitting, Tube, 37 Deg. (90° Elbow 3/8 x 3/8 NPTF)	
71268	1	Gauge, 150 Ton Hand	6000 psi, 1/4" NPT Male Bottom
53721	1	Pipe, Cross (3/4 #300)	
47947P	1	Release Valve Rod Stop	
43339	2	Screw (3/8-16 x 3-1/2)	
43331	2	Hex Cap Screw (3/8-16 x 1-1/2)	
3853	1	Bracket, Valve Mounting	
302201	2	Hose, 3/8 - 54" Long	
29661	1	Valve, 3-Way	
1253	1	Pipe, Reducer Bushing (1/2 x 1/4)	
715687T05	1	Tube Line,	
715687T03	1	Tube Line,	
715687T01	1	Tube Line,	
715687T06	1	Tube Line,	
715687T04	1	Tube Line,	
715687T02	1	Tube Line,	

## ORDERING INFORMATION

***Please contact factory for current prices.***

Parts are available for direct purchase from Dake or through a distributor. When placing a parts order, you will need to provide the part number, name of part, and model number. All parts shipped F.O.B. Factory in Grand Haven, MI.