



## DAKE SINGLE PHASE DURA-PRESS

# Force 50DA

INSTRUCTIONAL MANUAL



### WARNING!

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

Dake Corporation  
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Phone: 800.937.3253

[www.dakecorp.com](http://www.dakecorp.com)

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## DAKE STANDARD LIMITED WARRANTY

### *Finished Machines*

Dake warrants to the original purchaser the finished machine manufactured or distributed by it to be free from defects in material and workmanship under normal use and service within 1 year (12 months) from the delivery date to the end user.

### *Parts*

Dake warrants to the original purchaser the component part manufactured or distributed by it to be free from defects in material and workmanship under normal use and service within 30 days from the delivery date to the end user.

The standard limited warranty includes the replacement of the defective component part at no cost to the end user.

### *Sale of Service (Repairs)*

Dake warrants to the original purchaser the component part repaired by Dake Corporation at the manufacturing facility to be free from defects in material and workmanship under normal use and service within 90 days from the return date to the end user, as it pertains to the repair work completed. The standard limited warranty includes repair of the defective component part, at no cost to the end user.

## Warranty Process

Subject to the conditions hereinafter set forth, the manufacturer will repair or replace any portion of the product that proves defective in materials or workmanship. The manufacturer retains the sole right and option, after inspection, to determine whether to repair or replace defective equipment, parts or components. The manufacturer will assume ownership of any defective parts replaced under this warranty.

All requested warranty claims must be communicated to the distributor or representative responsible for the sale. Once communication has been initiated, Dake Customer Service must be contacted for approval:

Phone: (800) 937-3253

Email: [customerservice@dakecorp.com](mailto:customerservice@dakecorp.com)

When contacting Dake, please have the following information readily available:

- Model #
- Serial #
- Sales Order #

Purchasers who notify Dake within the warranty period will be issued a Case number and/or a Return Material Authorization (RMA) number. If the item is to be returned per Dake's request, the RMA number must be clearly written on the exterior packaging. Any item shipped to Dake without an RMA will not be processed.

### **Warranty Exceptions:**

The following conditions are not applicable to the standard limited warranty:

- (a) Part installation or machine service was not completed by a certified professional, and is not in accordance with applicable local codes, ordinances and good trade practices.
- (b) Defects or malfunctions resulting from improper installation or failure to operate or maintain the unit in accordance with the printed instructions provided.
- (c) Defects or malfunctions resulting from abuse, accident, neglect or damage outside of prepaid freight terms.
- (d) Normal maintenance service or preventative maintenance, and the parts used in connection with such service.
- (e) Units and parts which have been altered or repaired, other than by the manufacturer or as specifically authorized by the manufacturer.
- (f) Alterations made to the machine that were not previously approved by the manufacturer, or that are used for purposes other than the original design of the machine.

## RETURN & REFUND POLICY

Thank you for purchasing from Dake! If you are not entirely satisfied with your purchase, we are here to help.

### Returns

All Dake manufactured / distributed machines, parts and couplings include a 30-day return option. These policies are valid from the date of final shipment to the end user.

To be eligible for a return, the item must be unused and in the same condition as received.

All requested warranty claims must be communicated to the distributor or representative responsible for the sale. Once communication has been initiated, Dake Customer Service must be contacted for approval:

Phone: (800) 937-3253

Email: [customerservice@dakecorp.com](mailto:customerservice@dakecorp.com)

Once the return request has been approved by Customer Service, a representative will supply a Return Material Authorization (RMA) number. The returned item must have the provided RMA number clearly marked on the outside packaging. Any item received without an RMA number clearly visible on the packaging will not be processed.

An RMA number can only be provided by the Dake Customer Service team and must be obtained prior to the return shipment.

### Refunds

Once the item has been received and inspected for damages, a representative will notify the requestor referencing the provided RMA number.

If the return is approved, a refund will be issued to the original method of payment, less a 20% restocking fee. The restocking fee may be waived if an order is placed at the time of return with like-value merchandise.

Transportation costs are the responsibility of the end user and will not be credited upon return approval.

Any item that is returned after the initial 30 days or has excessive/obvious use will not be considered for a full refund.

## **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


Model	Force 50DA
Number	909250
Capacity	50 tons
Horse Power	2 HP
Voltage	110V/220V
Ram Travel	16"
Pressing Speed	11 ipm
Width between uprights	44"
Max. ram to table	41-3/4"
Height	94"
Base	55" x 36"
Weight	1,550 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.



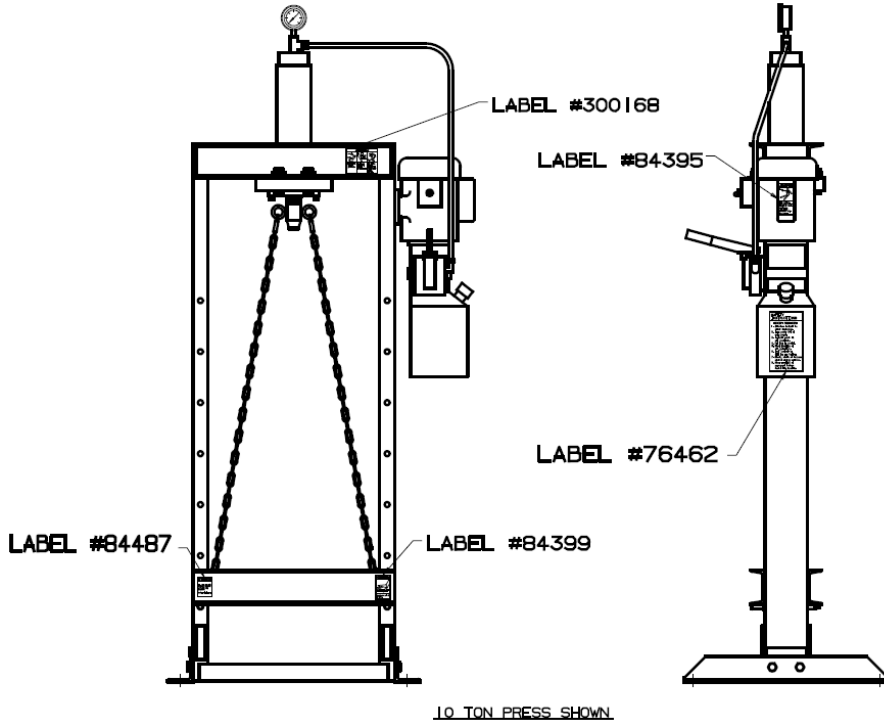
Serial No.	
Model No.	
Install Date:	

# SAFETY

 **This is the safety alert symbol.** When you see this symbol on your press be alert to the potential for personal injury.

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

## Label Placement View



Label Part No. 300168

**SAFETY INSTRUCTIONS**

**LOCKOUT PROCEDURE**

1. Announce lockout to other employees.
2. Turn power off at main panel.
3. Lockout power in off position.
4. Put key in pocket.
5. Clear machine of all personnel.
6. Test lockout by hitting run button.
7. Block, chain or release stored energy sources.
8. Clear machine of personnel before restarting machine.

Label Part No. 76462

**WARNING**

Keep fingers out of pin holes.



**PELIGRO ATENCION**

No ponga los dedos en los agujeritos.

Label Part No. 84399

**WARNING**

Press frame work is not designed to withstand pulling force.

Label Part No. 302070

**DANGER**

High voltage. Can cause severe injury or death.

Service by authorized personnel only. Use lockout.



**PELIGRO**

Alta tensión. Puede provocar lesiones severas o la muerte.

Para reparaciones, emplee personal autorizado solamente. Use cierre eléctrico.

Label Part No. 84395

**CAUTION**

ALL pins must be inserted before applying any pressure. Read instructions.

**CUIDADO**

Todos los escalamos tienen que ser insertados ante de aplicar la presión. Lea las instrucciones.

Label Part No. 84487



**Follow recommended precautions and safe operating practices. It is important that the operator understand all safety instruction listed below in order to prevent damage to themselves, others, or the machine:**

- Carefully read all the safety messages in this manual and on your press safety labels. 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 ram movement not only for themselves but also for persons in the immediate area of the machine.
- This press is not intended for pulling operations. Personal injury or machine damage can result.

## **SET UP**

### **PRESS PLACEMENT**

- The press needs to be placed so that it has a safety perimeter of 2-1/2 feet on all sides from any other objects or machines.
- Press should be placed on level floor with base angles touching the floor at all points. Use shims where necessary.

### **FILLING THE PRESS WITH OIL**

Fill the reservoir with DTE 24 Mobil hydraulic oil or equivalent.

- a. 50DA holds 3 gallons of oil. Make sure the oil is new and be cautious no contaminants get in while filling the reservoir.
- b. Oil should be changed about once a year.

## WIRING INSTRUCTIONS

**⚠ WARNING: A licensed qualified electrician that follows all state and local laws must wire and install electrics on this press.**

### 110 Volt

**⚠ WARNING: Machine must have a designated 30 amp drop for 110 volts. This press will not operate correctly without 30 amps.**

For 110 volts this machine is ready to plug in. The machine can be wired 220-volt single phase. Always follow the wiring diagram provided in the moor cover when converting to 220-volt single phase. A cord and plug that is rated for a specific voltage and amperage must be used. This rating can be found on the motor.

### 220 Volt Single Phase

The press new is shipped out as a 110-volt machine. If wiring must be changed to suit 220-volt single phase.

1. The leads on the motor must be changed to fit 220-volt, 17.2 amps, follow the diagram on the motor.
2. Install plug and wire that fits the rating on the motor, the plug and wire must be rated for the voltage and amperage listed on the motor.

## OPERATION

### BEFORE FIRST TIME OPERATION

1. Make sure the reservoir is filled with 3 gallons of Mobil DTE 24 hydraulic fluid or equivalent.
2. Turn the on/off power (toggle) switch to the “on” position (up).
3. Facing the press, push the control lever forward (right). (New Configuration 2022)
  - a. Move the control lever down, this will advance the ram in the downward position. (Classic Configuration)
4. Release the control lever and the ram will stop all movement.
5. Pull the control lever towards you (left) to retract the ram. (New Configuration 2022)
  - a. Move the control lever to the up position and the ram will move up. (Classic Configuration)
6. When the press is new be sure to move the ram up and down to work out any air that may be in the system.

**⚠ WARNING: When using the control lever in pressing operations or to return the ram stop applying pressure once the handle reaches its positive stop. Applying additional force on the lever does not increase ram speed and will lead to premature damage of the valve.**

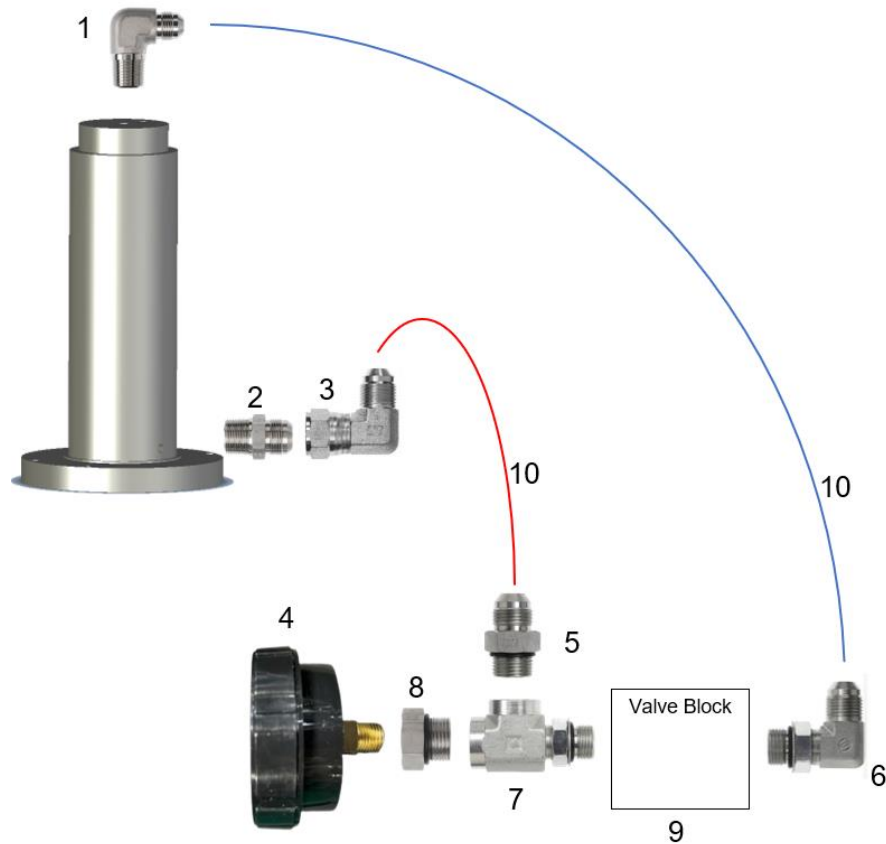
## MAINTENANCE

### LUBRICATION

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

## HYDRAULIC LINES AND FITTINGS – 2022 and later

If press was manufactured year **2022 or later (Serial No. > WOD-7942)**, power unit, valve, hose, and fittings will be of new configuration. Valve control handle left to right configuration. See below for updated components breakdown.

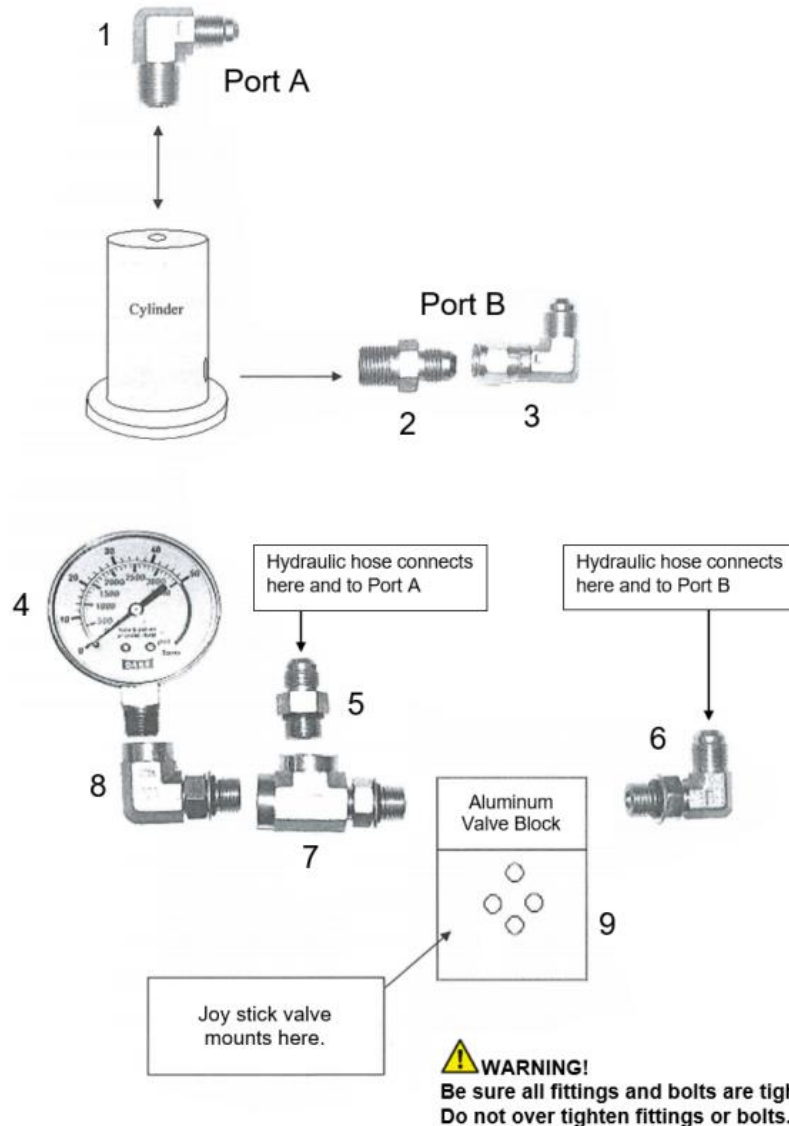


Item	Description	Part No.	Qty
1	Tube Fitting, Elbow (3/8 x 3/8 NPTF)	72050	1
2	Tube Fitting, Straight (3/8 x 3/8 NPTF)	73425	1
3	Swivel Nut Elbow (3/8)	72047	1
4	Gauge	302939	1
5	Tube Fitting, Straight (SAE 6)	69671	1
6	Tube Fitting, Elbow (SAE 3 Male x 1/4 NPT Female)	302061	1
7	Branch Tee	302183	1
8	Adapter (3/8" SAE Male x 1/4 NPT Female)	303124	1
9	Manifold	303946	1
10	Hose (1/4 x 54" long)	303948	2
KIT	Hose & Fittings Kit Items 1-3,5-8,10 (x2) Gauge sold separately. Valve & Manifold on power unit assembly 303898PU.	303898KIT	-

## HYDRAULIC LINES AND FITTINGS – 2022 and prior

For presses made year **2022 and prior (Serial No. < WOD-7942).**

Valve control handle up & down configuration. Refer to component breakdown below



Item	Description	Part No.	Qty
1	Tube Fitting, Elbow (3/8 x 3/8 NPTF)	72050	1
2	Tube Fitting, Straight (3/8 x 3/8 NPTF)	73425	1
3	Swivel Nut Elbow (3/8)	72047	1
4	Gauge	302939	1
5	Tube Fitting, Straight (SAE 6)	69671	1
6	Tube Fitting, Elbow (SAE 6-6)	72402	1
7	Branch Tee	302183	1
8	Tube Fitting, Elbow (SAE 3 Male x 1/4 NPT Female)	302061	1
9	Manifold	302224	1
-	Hose (3/8 x 54" long)	302201	2
KIT	Hose/Fitting & Valve Kit (Items 1-9 & hoses x2)	301856KIT	-

# ELECTRIC SCHEMATIC

MACH'G. TOLERANCE UNLESS SPECIFIED	DATE	SYM.	CHANGES	BY
FRACTIONAL: ±.010 DECIMAL: ±.002 ANGLE: ±1/2° BREAK EDGES REMOVE BURRS	10/01/08	A	SW. LAYOUT REV. & NOTES ADDED	HDD
			SWAPPED T5 & T8 AND CCW & CW - PER B. PAGE	SK
UNDERScoreD DIMENSIONS NOT TO SCALE				

87175

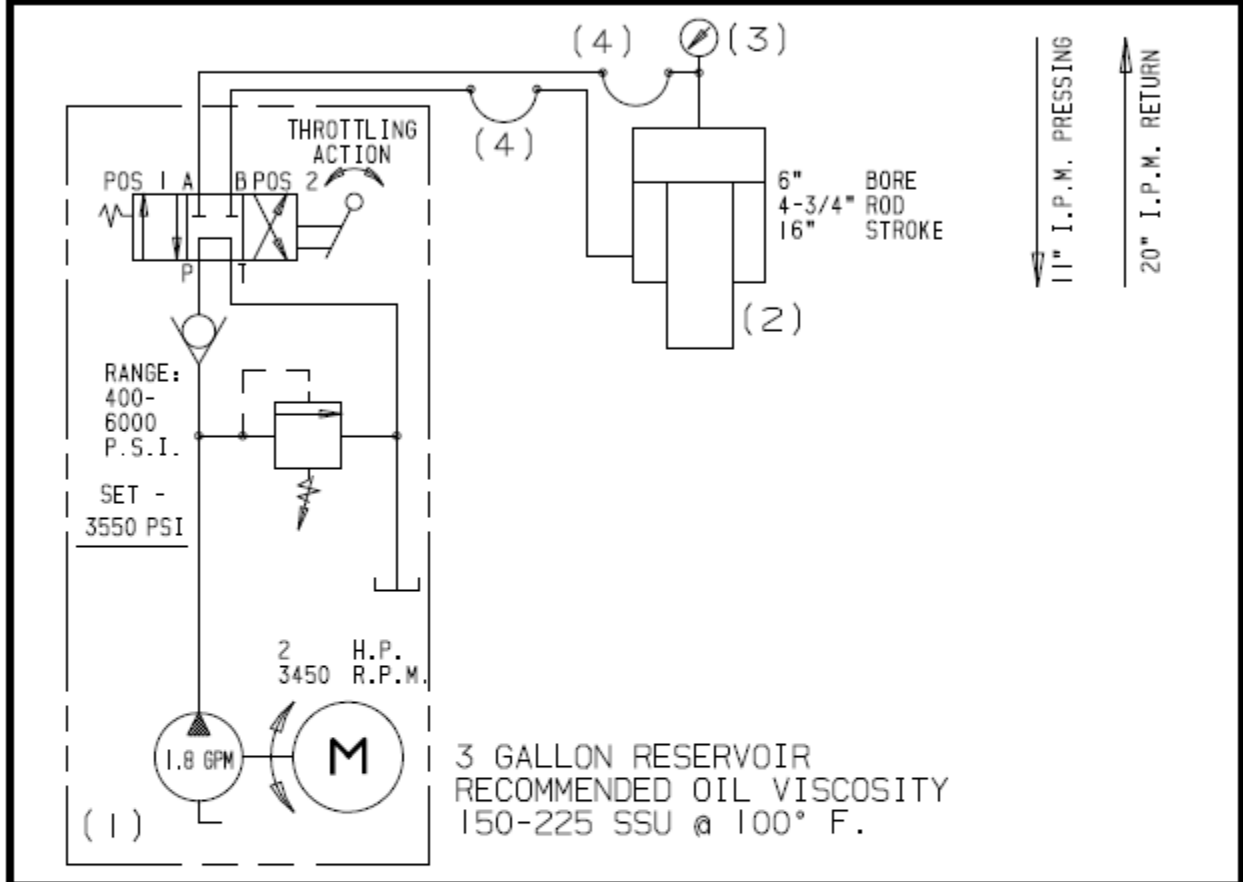
CW ROTATION FACING LEAD END AS SHOWN,  
INTERCHANGE LEADS T5 & T8 FOR CCW.

<b>DAKE</b> GRAND HAVEN, MICH.	ELECTRICAL CONTROL / WIRING		
SCALE: <u>NA</u>	MAT'L.	STOCK NO.	USED ON
DR. <u>HDD</u> TR. _____			909250
CH. _____ AP. _____	DESIGNED BY _____	PATT. NO.	FILE NO.
DATE: <u>1/23/08</u> <u>11:02A</u>	APPROVED BY _____		87175

# HYDRAULIC SCHEMATIC

**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.



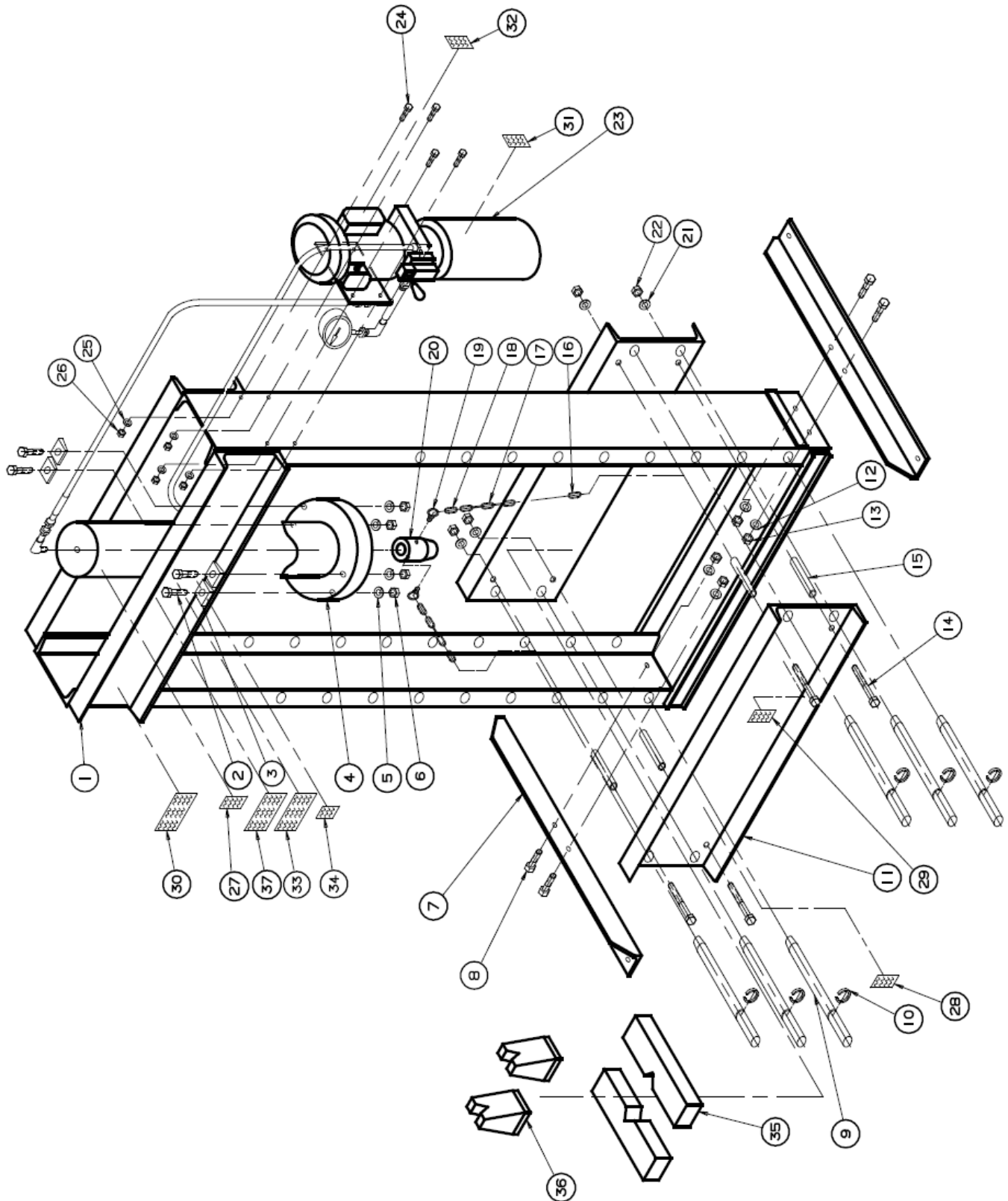
ITEM	QUAN.	DESCRIPTION	MODEL NO.	MAKE
4	2	HOSE		DAKE
3	1	GAUGE - 50 TON	302939	DAKE
2	1	WORKHEAD - 50 TON	716547	DAKE
1	1	POWER UNIT		DAKE

## COMPONENT LIST

<b>DAKE</b>		HYDRAULIC DIAGRAM		
GRAND HAVEN, MICHIGAN		MAT'L.		SIZE
DRAWN: S K				USED ON
SCALE: NONE		STOCK NO.		9-250
DATE: 11/14/08		PATT. NO.		DRW. NO.
		FILE NO.		87211
		SIZE		A

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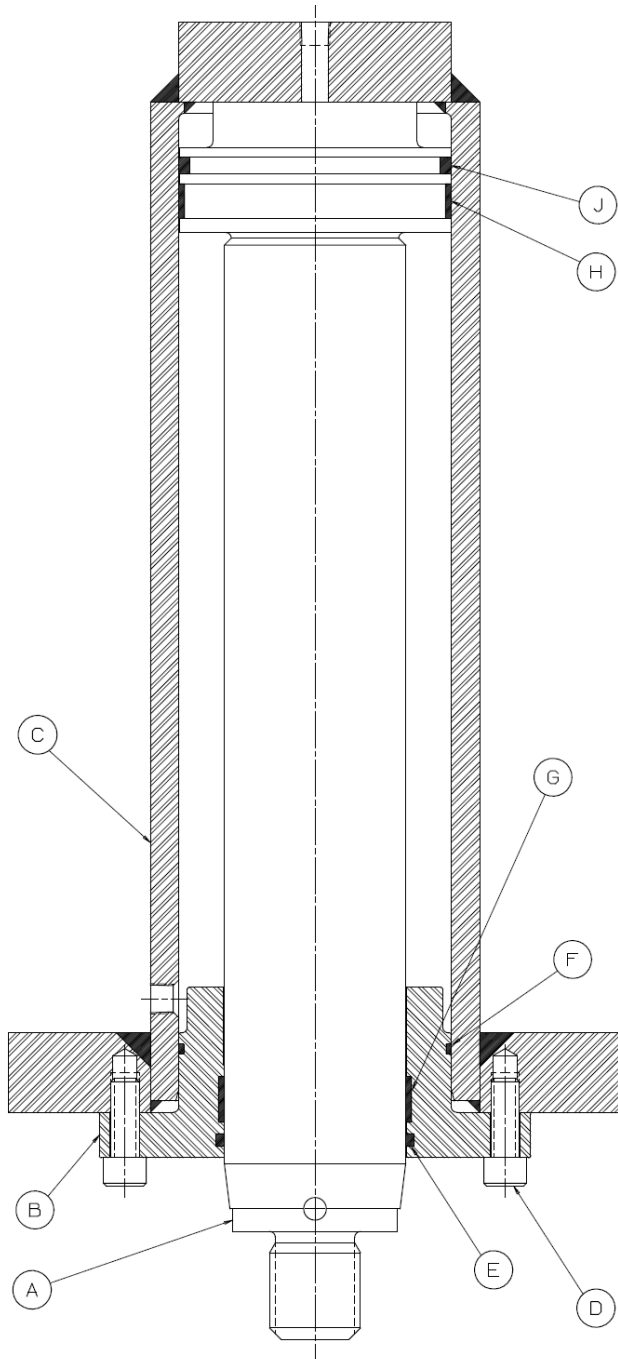
# EXPLODED VIEWS & PARTS LISTS



Item	Description	Part No.	Qty
1	Frame	706943	1
2	Hex Cap Screw (1/2"-13 x 1/4")	43356	4
3	Channel Washer	43657	4
4	Workhead Assembly	716547	1
5	Lock Washer 1/2"	43647	4
6	Hex Nut 1/2"-13	43916	4
7	Base Angle	566	2
8	Hex Cap Screw 1/2"-13 x 1"	43349	4
9	Table Pin	569	6
10	Retaining Ring	43980	6
11	Table Channel	706945	2
12	Lock Washer 1/2"	43647	4
13	Hex Nut 1/2"-13	43916	4
14	Bolt 5/8"-11 x 10-1/2	79983	4
15	Table Spacer	86488	4
16	Shackle	301884	2
17	Chain	301881	2
18	Spring Snap	301882	4
19	Eye Bolt	301880	2
20	Nose Piece	87138	1
21	Lock Washer 5/8"	43648	4
22	Hex Nut 5/8"-11	43917	4
23	Hydraulic Power Unit (Serial No. < WOD-7942, prior to 2022)	301856PU	-
23	Hydraulic Power Unit (2022) Includes valve & manifold. (Serial No. > WOD-7942, 2022 and after)	303898PU	1
24	Hex Cap Screw 5/16"-18 x 1"	43315	4
25	Lock Washer 5/16"	43644	4
26	Hex Nut 5/16"-18	43911	4
28	Pin Warning Label	84487	1
29	Pin Holes Warning Label	84399	1
30	Ganged Warning Label	300168	1
31	Lockout Procedure Label	76462	1
32	Voltage Warning Label	84395	1
34	Label – Made in USA	76936	1
35	Table Plate	702	2
36	V-Block (Not Included/Optional)	336	2
37	Dake Name Plate	81003	1
-	Hose Kit/Valve Kit (Serial No. < WOD-7942, prior to 2022)	301856KIT	-
-	Hose Kit/Fittings Kit (Serial No. > WOD-7942, 2022 & after)	303898KIT	1



## 50 DA WORKHEAD DIAGRAM



ITEM	DESCRIPTION	PART NO.	QTY
A	Piston	87135P	1
B	Piston Guide	87136P	1
C	Cylinder	87134P	1
D	Socket Head Screw	43485	8
E	Seal	37044	1
F	T-Ring	37048	1
G	Wear Ring	37045	1
H	Wear Ring	37046	1
J	T-Ring Deal	17942	1
-	Workhead Assembly	716547	-

Workhead repair kit

716578

Includes Items:

E,F,G,H and J

## POWER UNIT REPLACEMENT PARTS

If press was manufactured year **2022 or later (Serial No. > WOD-7942)**, power unit, valve, hose, and fittings will be of new configuration. See components below.

Description	Part No.
Motor	303927
Run Capacitor	303928
Starter Capacitor	303929
Fan Cover	303947
Relief Valve	303930
4-Way Valve	303931
Manifold	303946
Solenoid Valve	303945
Teflon Backing Ring	303944
O-Ring	303943
O-Ring	303942
Transition Plate	303941
Pump	303940
Strainer	303939
Plug (3/4 BSP)	303938
Bonded Seal	303937
Plug (3/4-12 BSP)	303936
O-Ring for Reservoir/Tank	303935
Reservoir – 3 Gallon	303934
Full Hydraulic Unit (Except Motor)	303933
Hose & Fittings Kit	303898KIT
Power Unit (Motor, Pump, Valves, Manifold)	303898PU

For presses made year **2022 and prior (Serial No. < WOD-7942)**. See components below.

Description	Part No.
Motor	302235
Pump	302994
Fan Cover	302606
Capacitor Case	302605
Capacitor	302887
4-Way Valve	301864A
Fittings/Hose & Valve Kit	301856KIT
Power Unit	301856PU

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

## ORDERING INFORMATION

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.