



# Instruction and Repair Parts

a Laguna Tools Company

1809 Industrial Dr  
Grand Haven, MI 49417  
800 YES DAKE

## HAND OPERATED LABORATORY PRESSES (Replaceable Heaters)

Model No.	Platen Size	Ton	Model No.	Platen Size	Ton	Model No.	Platen Size	Ton
44-225	9" x 9"	25	44-250	12 ½" x 12 ½"	50	44-275	19" x 19"	75
44-226	9" x 12"	25	44-251	12 ½" x 19"	50	44-375	19" x 19"	75
44-325	9" x 9"	25	44-350	12 ½" x 12 ½"	50	44-475	19" x 19"	75
44-326	9" x 12"	25	44-351	12 ½" x 19"	50			
44-425	9" x 9"	25	44-450	12 ½" x 12 ½"	50			
44-426	9" x 12"	25	44-451	12 ½" x 19"	50			

### I. SETTING UP PRESS FOR OPERATION

The press is shipped completely assembled.

1. Place 25 & 50 ton presses on pedestal 33" high (44-001). 75 ton presses on pedestal 19" high (44-003).
2. 25 & 50 ton presses are furnished with cord that fits into a range outlet. 75 ton press must be wired into customer's power supply.
3. Connect hose from the water line to the water valve on the right hand side of the press.
4. Connect drainage hose or pipe to manifold on the left side of the press.
5. The press is now ready for operation.

### II. OPERATING INSTRUCTIONS

1. Switch on current by means of the toggle switches and platens will start to heat up.
2. Heat is adjusted by turning the thermostats knobs in the back of each platen. Counterclockwise rotation increases the heat. Check temperature by reading thermometer in front of platens.
3. Place material to be processed between platens.
4. Close release valve on left side of base by turning handle clockwise.
5. Bring platens in contact by pushing pump handle away from you until it stops.
6. Push pump handle downwards for high pressure operation.
7. Continue this pumping, reading the platen pressure on the gauge, until the desired pressure is reached.
8. To open press, turn release valve handle in counterclockwise direction.

### III. MOLDING INSTRUCTIONS

1. The mold is heated by the platens.
2. The mold may be bolted to the platens or placed on the platens without any permanent fastening.
3. The mold must be self-guided.

### IV. LAMINATING INSTRUCTIONS

For instructions on laminating with vinyl plastic sheets contact DAKE. When using other types of laminating material contact the manufacturer who has technical data available.

1. Material not specifically made for laminating should be coated with adhesive compound before beginning process.
2. Place material to be laminated highly polished plates and blotters.
3. Apply a pressure of approximately 250 P.S.I. and heat approximately 3 minutes. Pressure, temperature and heating time varies with the type of material being used.
4. For absolutely flat, clear laminations, cooling should take place in the press under pressure. Some work may be cooled outside the press; test the job on outside cooling to see if the finished product meets specifications.
5. In the 4-platen press, material may be heated by the upper platens at the same time that other material is being cooled under pressure by the lower platens.

## V. ADDITIONAL INFORMATION

1. Check oil level in base tank. Oil level should be at ½ inch from bottom edge of rear hand hole. If oil supply is down, replace with Mobil D.T.E. heavy medium (D.T.E. 26) or its equal. Reservoir capacity – 25 ton press – 6 quarts; 50 ton press – 12 quarts; 75 ton – 24 quarts.
2. If operation requires more daylight, remove the ram adapter from top of ram by lifting up platen resting on it.
3. Do not exceed pressure rating of press.
4. Do not allow red warning marks on ram to go above top of cylinder.
5. The electrical heating can be shut of on any platen by means of the individual toggle switches at left of pressure gauge.
6. Pilot light is on when platen heater is operating. If pilot light goes out, the thermostwitch has cut the heating current.

7. Servicing of pump and cylinder is achieved through the opening at the rear of the base.
8. To cool platens, turn off toggle switch and open water valve gradually so as to prevent too rapid a change in temperature.

## VI. MAINTENANCE

1. If press loses pressure
  - a. Check the release valve (item 27) to see if it is closed tight.
  - b. Check all tube lines for leaks and tighten them.
  - c. Check cone check valve (item 11) to see if O-ring (item 12) is in good condition.
  - d. Check packings (item 6, 8 and 38) in pump and ram for wear or damage.



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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. There fore, the employer is ultimately responsible to designate and provide the point-of-operation safeguarding system”.

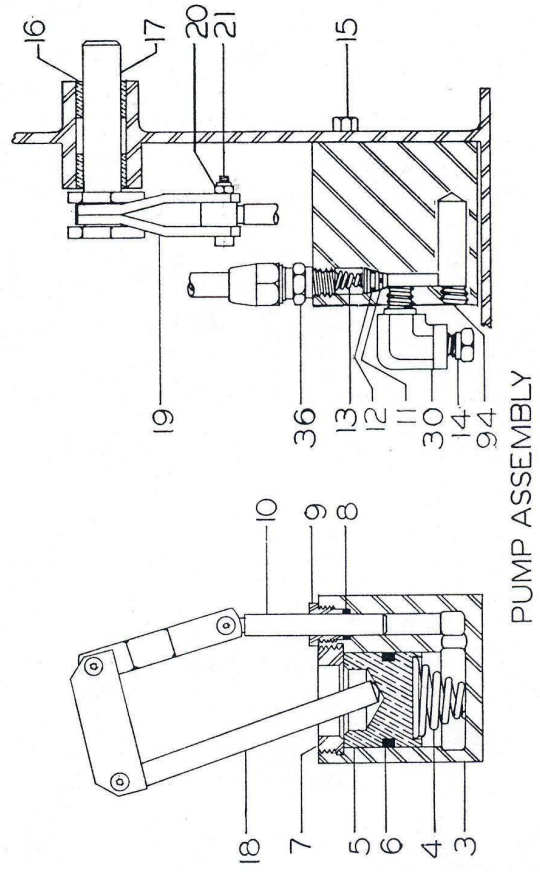
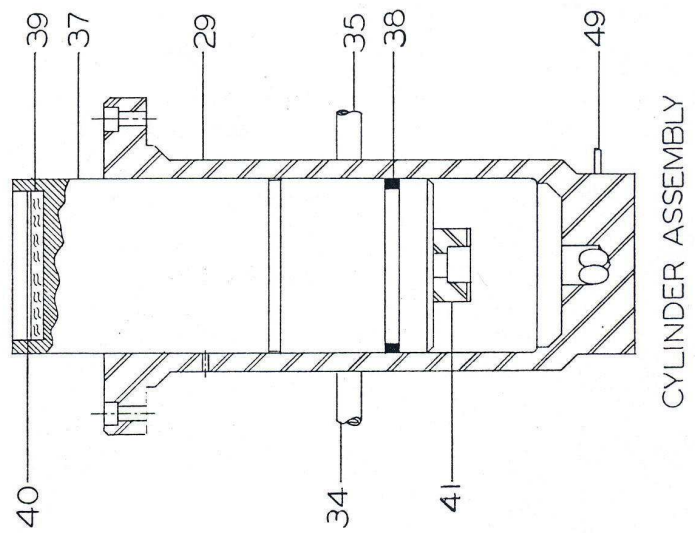
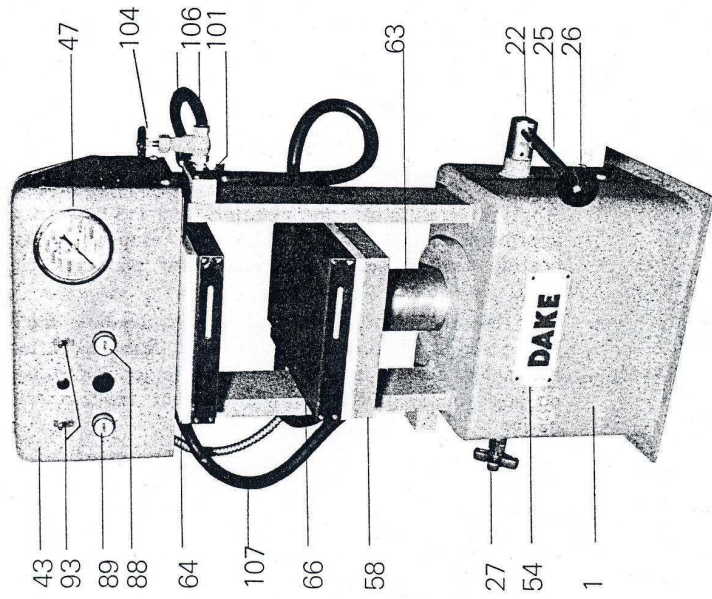
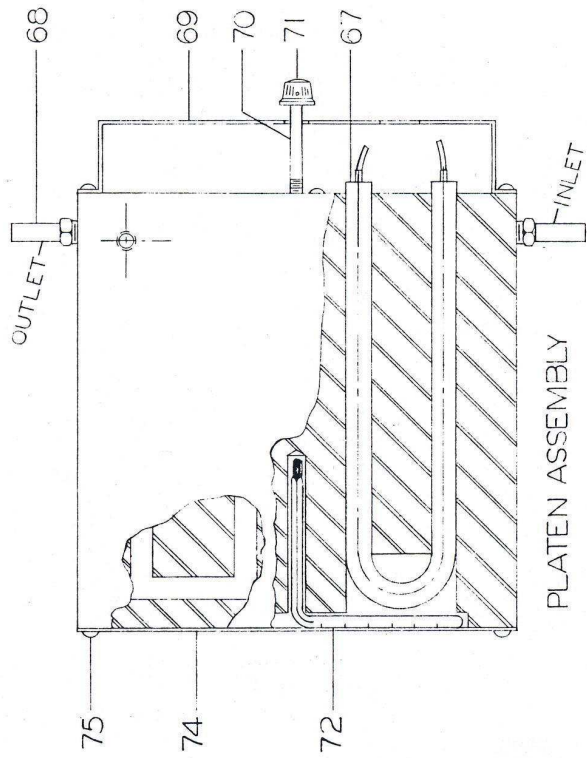
The standard also discusses additional responsibilities of the employer. Some of the key responsibilities are:

- 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





ITEM	PART NAME	25 TON PART NO.	50 TON PART NO.	75 TON PART NO.	QTY
1	Frame	703723	703708	703716	1
** 2	3/8" Pipe Plug	588	588	588	1
	1/2" Pipe Plug	--	--	596	1
	3/4" Pipe Plug	1745	1745	1745	1
3	Pump Body	17807	17807	17807	1
4	Conical Spring	17808	17808	17808	1
5	Low Pressure Piston	17809	17809	17809	1
6	Packing L.P. Piston	17810	17810	17810	1
7	Piston Stop Collar	17811	17811	17811	1
8	Packing H.P. Piston	17812	17812	17812	1
9	Packing Nut	18021	18021	18021	1
10	High Pressure Piston	17813	17813	17813	1
11	Cone Check Valve	17814	17814	17814	1
12	O-Ring	8237	8237	8237	1
13	Exhaust Valve Spring	17815	17815	17815	1
14	Check Valve	703703	703703	703703	1
	<b>HAND PUMP ASSEMBLY</b> <b>(Items 3 thru 14, 30 &amp; 94)</b>	703702	703702	703702	1
* 15	Hex Cap Screw 5/16"-18 x 1/2"	43313	43313	43313	2
16	Bushing	17925	17925	17925	2
17	Pump Shaft and Arm	17821	17821	17821	1
18	Push Rod	17822	17822	17822	1
19	Link-Pump Piston	17823	17823	17823	2
* 20	1/4" x 1 Soc. Hd. Shoulder Screw	43760	43760	43760	3
* 21	No. 10-24 Hex Locknuts	44350	44350	44350	3
22	Handle Hub	17825	17825	17825	1
** 23	Spring Pin – 1/4" x 1 1/2"	44337	44337	44337	1
** 24	Soc. Set Screw – 3/8" – 16 x 3/8"	43586	43586	43586	1
25	Handle	17826	17917	17917	1
26	Handle Ball	17827	17827	17827	1
27	Release Valve and Handle	17915	17915	17915	1
** 28	Straight Fitting	17920	17920	17920	1
29	Cylinder	17973	17873	17940	1
30	Street Elbow – 3/8"	66315	66315	66315	1
** 31	Socket Cap Screw 5/16" – 18 x 1"	43434	--	--	2
	Socket Cap Screw 3/8" – 16 x 1-1/4"	--	43450	--	2
	Socket Cap Screw 1/2" – 13 x 2-1/4"	--	--	43474	2
** 32	Tube Elbow	17974	1252	1252	2
** 33	Straight Fitting	17845	17845	17845	2
34	Tube Assembly(Cylinder to Release Valve)	703724	703712	703717	1
35	Tube Assembly(Head Pump to Cylinder)	703725	703713	703718	1
36	Straight Fitting	1251	1251	1251	1
37	Ram	17975	17877	17941	1
38	Ram Packing	17976	17878	17942	1
39	Rubber Pad	17978	17880	17944	2
40	Compression Disk	17979	17881	17945	2
41	Piston Bumper	17980	17918	17946	1
** 42	Socket Cap Screw 1/2" –13 x 1"	43469	43469	43469	1
43	Control Enclosure	17843	17882	17947	1
** 44	Self-Tapping Screw No. 6-32 x 3/4"	43878	43878	43878	2
** 45	Angle Clips	17981	17952	17952	4
** 46	Rd. Hd. Machine Screw 1/4" x 3/8"	43864	43864	43864	8
47	Gauge –3 1/2" Dia.	17957	17883	17948	1
** 48	Reducer – 1/4" – 1/8"	18002	18002	18002	1
49	Tube (Cylinder to Gauge)	17985	17876	17956	1
** 50	Inner Plate	17846	17884	17884	1
** 51	Inner Plate Gasket	17847	17885	17885	1
** 52	Cover Plate	17848	17886	17886	1
** 53	Hex Cap Screw – 1/4" – 20 x 1"	43305	43305	43305	4
54	Name Plate –"DAKE"	2252	2252	2252	1
** 55	Pop Rivets	44351	44351	44351	4
** 56	Platen Adapter	17982	17887	17949	1
** 57	Socket Cap Screw – 3/8" – 16 x 1/2"	43445	43445	43445	1
58	Platen Mounting Plate				
	9" x 9"	26098	--	--	1
	9" x 12"	17983	--	--	1
	12- 1/2" x 12- 1/2"	--	17888	--	1
	12- 1/2" x 19"	--	33772	--	1
	19" x 19"	--	--	17950	1
** 59	Mounting Plate Guide	17851	17851	--	2
		--	--	17962	1

ITEM	PART NAME	25 TON PART NO.	50 TON PART NO.	75 TON PART NO.	QTY
** 60	Hex Cap Screw – 5/16" – 18 x 1/2"	43313	43312	--	2
	Hex Cap Screw – 1/4"-20 x 1"	--	--	43305	2
** 61	Platen Guide Strip	--	--	17961	2
** 62	Hex Cap Screw – 1/4"-20 x 1/4"	--	--	43306	6
63	Ram Adapter	17977	17879	17943	1
64	Insulating Plate				
	9" x 9"	26099	--	--	2
	9" x 12"	17899	--	--	2
	12-1/2" x 12-1/2"	--	17892	--	2
	12-1/2" x 19"	--	33773	--	2
	19" x 19"	--	--	17966	2
** 65	Hex Cap Screw – 3/8" – 16 x 2-1/4"	43334	--	--	8
	Hex Cap Screw – 3/8" – 16 x 2-1/2"	--	43335	--	4
	Hex Cap Screw – 3/8" – 16 x 3"	--	43337	43337	4-8
66	Platens				
	9" x 9"	707950	--	--	2
	9" x 12"	707951	--	--	2
	12-1/2" x 12-1/2"	--	707952	--	2
	12-1/2" x 19"	--	707953	--	2
	19" x 19"	--	--	707954	2
67	Heaters				
	9" x 9" – 120V	33606	--	--	4
	9" x 12" – 120V	33607	--	--	4
	12-1/2" x 12-1/2" – 240V	--	33608	--	4
	12-1/2" x 19" – 240V	--	33610	--	4
	19" x 19" – 240V	--	--	33610	6
	19" x 19" – 480V	--	--	33611	6
68	Hose Fitting	35087	35087	33774	8
69	Terminal Enclosure				
	9" x 9" and 9" x 12"	29014	--	--	2
	12-1/2" x 12-1/2" and 12-1/2" x 19"	--	33767	--	2
	19" x 19"	--	--	33769	2
70	Thermoswitch	58789	58789	58789	2
71	Thermoswitch Knob	17861	17861	17861	2
72	Thermometer (100°-600° F)	18016	18016	18016	2
** 73	Insulation Tape	44630	44630	44630	1
74	Thermometer Cover Plate				
	9" x 9" and 9" x 12"	29013	--	--	2
	12-1/2" x 12-1/2" and 12-1/2" x 19"	--	33766	--	2
	19" x 19"	--	--	33768	2
75	Brass Rd. Hd. Mach. Screw No. 10-32 x 1/4"	43890	43890	43890	10
** 76	Box Connector - 90°	17986	17986	17986	4
** 77	Flexible Conduit	17914	17916	17987	2
	PLATTEN ASSEMBLY (items 66 thru 77)				
	9" x 9" (120 or 240 Volt)	708096	--	--	2
	9" x 12" (120 or 240 Volt)	707991	--	--	2
	12-1/2" x 12-1/2" (240 or 480 Volt)	--	708080	--	2
	12-1/2" x 19" (240 or 480 Volt)	--	708097	--	2
	19" x 19" (240 or 480 Volt)	--	--	708098	2
** 78	Electric Control Mtg. Plate	20731	20731	20731	1
** 79	Spacers	22506	22506	22506	4
** 80	Hex Cap Screw – 1/4" – 20 x 1"	43305	43305	43305	4
** 81	Relay				
	120 Volt 2 Pole	19938	19938	--	2
	120 Volt 3 Pole	--	--	19965	2
** 82	Rd. Hd. Mach. Screw No. 10-24 x 1"	43850	43850	43850	4
** 83	Terminal Block	19968	19968	19968	1
** 84	Rd. Hd. Mach. Screw No. 10-24 x 1/2"	43847	43847	43847	2
** 85	Rd. Hd. Mach. Screw No. 10-24 x 1/4"	43845	43845	43845	1
** 86	Bulb – 120 Volt	17906	17906	17906	2
** 87	Pilot Light	59542	59542	59542	2
88	Nameplate "Upper"	59544	59544	59544	1
89	Nameplate "Lower"	59545	59545	59545	1
** 90	Capacitor	19952	19952	19952	2
** 91	Terminal Strip	19967	19967	19967	2
** 92	Rd. Hd. Mach. Screw No. 8-32 x 1/2"	43841	43841	43841	4
93	Toggle Switch	17910	17910	17910	2
94	Flush Pipe Plug – 3/8"	44279	44279	44279	1
** 95	Bumper	18020	18020	18020	1-2
** 96	Cord Set	--	--	--	1



ITEM	PART NAME	25 TON	50 TON	75 TON	QTY
		PART NO.	PART NO.	PART NO.	
** 97	Button – 1" Dia.	17923	17923	17923	1
** 98	Button – 1/2" Dia.	17924	17924	17924	1
** 99	Button – 7/8" Dia.	17994	17994	17994	1
** 100	Button – 3/4" Dia. (frame)	--	--	10814	2
101	Connector Block	35088	35088	17951	2
** 102	Hex Cap Screw – 1/4" – 20 x 1-1/2"	43307	43307	--	4
	Hex Cap Screw – 1/4" – 20 x 1-3/4"	--	--	43308	4
** 103	Pipe Plug – Brass 1/4"	33771	33771	33771	2
104	Water Valve	17902	17902	17902	1
105		--	--	--	--
106	Hose	26914	26914	26917	1
107	Hose	26915	26916	26918	3
** 108	Hose Clamps	17933	17933	17933	8
** 109	Name Plate – Serial No.	17866	17866	17866	1
** 110	No. 2 x 3/16" Drive Screw	43573	43573	43573	4
** 111	Transformer	59543	59543	59543	1
☞	<b>PACKING REPAIR KIT</b> ☞ (items 6, 8, 12, and 38)	705364	705365	705366	1

\*\* Not illustrated

NOTE: Parts Listed to Cover Mainly the 2 Platen Presses.

Always order by part number and name.

Please contact the factory for current pricing.

Gauge mounting hard ware – bolt 301914, nut 43902, washer 43640

Gauge PSI 0-6000 – 301869 for all models.

