

# ROPER WHITNEY.



## MODEL NO. 134 HYDRAULIC PRESS OPERATION, PARTS & MAINTENANCE MANUAL

<b>Model:</b>	<b>Purchased From:</b>
<b>Serial #:</b>	<b>Date Received:</b>

USA  MADE

*An American Tradition Since 1910*

Roper Whitney / 2833 Huffman Blvd. / Rockford, IL 61103 / 815-962-3011 / Fax 815-962-2227  
[www.roperwhitney.com](http://www.roperwhitney.com)

## FOREWORD

This manual has been prepared for the owner and operators of Roper Whitney No. 134 Hydraulic Press. Its purpose, aside from operations instructions, is to promote safety through the use of accepted operating procedures. Read all instructions thoroughly before operating the press.

Also contained in this manual is the parts list for your press. It is recommended that only Roper Whitney or factory authorized parts be used as replacements.



Warranty Statement:

### **3 YEAR LIMITED WARRANTY**

Roper Whitney ("Manufacturer") warrants, commencing with the date of shipment to first end-user ("Customer") and for a period of thirty-six (36) months thereafter, all machinery and parts manufactured by Manufacturer to be free of defects in workmanship and material. **This warranty remains in force for the above time period only if all of Manufacturer's operational procedures are followed and recommended maintenance is performed.** If, within such warranty period, any machinery or parts manufactured by Manufacturer shall be proved to Manufacturer's satisfaction to be defective, such machinery or parts shall be repaired or replaced, at Manufacturer's option. All warranty claims are made F.O.B Manufacturer's plant, providing such machinery or parts are returned freight prepaid to Manufacturer's plant or designated service center for Manufacturer's inspection. All failed parts or components must be returned to Manufacturer prepaid for inspection before credit will be issued for new parts or components. Manufacturer's obligation hereunder shall be confined to such repair or replacement and does not include any charges, direct or indirect, for removing or replacing defective machinery or parts. No warranty shall apply to machinery, or parts or accessories, which have been furnished, repaired, or altered by others so as, in Manufacturer's judgment, to affect the same adversely or which shall have been subject to negligence, accident or improper care, installation, maintenance, storage, or other than normal use or service, during or after shipment. No warranty shall apply to the cost of repairs made or attempted outside of Manufacturer's plant or designated service center without Manufacturer's authorization. No warranty shall apply with respect to machinery or part not manufactured by Manufacturer, including but not limited to motors, accessories, electrical and hydraulic components, if such machinery or part is subject to warranty by the manufacturer of such machinery or part. No warranty claims by Customer will be honored with respect to any machinery or part from which the name and date plate has been removed or is otherwise no longer located or exhibited on such machinery or part. **THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY AND IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES WHATSOEVER WITH RESPECT TO MACHINERY, PARTS, ACCESSORIES, OR SERVICES MANUFACTURED OR FURNISHED BY IT OR ANY UNDERTAKINGS, ACTS, OR OMISSIONS RELATING THERETO. UNDER NO CIRCUMSTANCES SHALL MANUFACTURER BE LIABLE FOR ANY CONSEQUENTIAL OR OTHER DAMAGES, EXPENSES, LOSSES, OR DELAYS HOW SO EVER CAUSED. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.**

**Note: Consumable tooling is not covered under the 3 year manufacturer's warranty.**


RETURN OF THE PRODUCT REGISTRATION CARD FURNISHED WITH THE PRODUCT IS NECESSARY TO OBTAIN WARRANTY COVERAGE THEREON. CARD MUST BE FULLY COMPLETED, SIGNED BY THE PURCHASER, AND IF APPLICABLE, SIGNED BY THE DISTRIBUTOR. RETURN REGISTRATION CARD TO:

Roper Whitney 2833 Huffman Blvd. Rockford, IL 61103  
815-962-3011 / Fax 815-962-2227  
[www.roperswhitney.com](http://www.roperswhitney.com)

## SAFETY LABELS

**Do not operate the hydraulic press without the proper safety labels in place.** If your machine is missing the following labels please contact Roper Whitney Co. or your authorized Roper Whitney distributor to order.



		
<p><b>⚠️ WARNING</b></p> <p>Do not use foot switches on machines without effective point-of-operation safeguards.</p> <p>This foot switch should only be used where point-of-operation safeguards have been installed so that it is impossible for the operator's hands or fingers to remain within the point of operation during the actual machine cycle.</p> <p>Failure to observe this warning can result in serious injury.</p>	<p><b>⚠️ ADVERTENCIA</b></p> <p>Este interruptor, funcionado, por el pie, debe estar en uso solamente donde a punto del funcionamiento los dispositivos de protección han sido instalados correctamente, a fin de que es quedan al alcance de la máquina durante el período del funcionamiento.</p>	<p><b>⚠️ ATTENTION</b></p> <p>Ce mécanisme interrupteur a pied doit être employé seulement où les dispositifs de sûreté au point d'opération sont installés correctement pour rendre impossible que les mains ou les doigts de l'ouvrier restent à l'intérieur du point d'opération pendant le cycle actuel l'appareil.</p>

(This label is located on the footswitch)

**SAFETY INSTRUCTIONS**

1. Read and understand instruction manual Before operating, servicing, or maintenance of machine.
2. Keep hands and fingers clear of punching area. Never place any part of body between upper and lower dies.
3. Provide all proper protective devices and Guards that maybe necessary or advisable for any particular use, operation, set-up, or service.
4. Report any equipment malfunction to your supervisor.
5. **DO NOT REMOVE THIS INSTRUCTION SIGN**

## SAFETY INSTRUCTIONS

### CAUTION:

Before operating the 134 Hydraulic Press, read and understand this operator's manual. Become familiar with the controls of the machine.

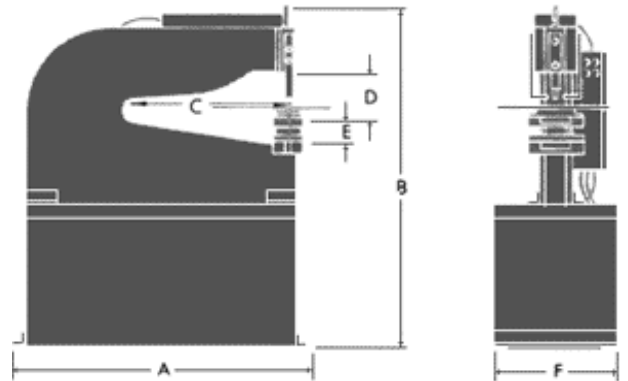
### FOR MAXIMUM SAFETY:

- \* Always wear eye protection when operating this machine.
- \* Install and use all necessary point-of-operation guards.
- \* Maintain adequate ground at all times. A ground indicator has been provided.
- \* Keep the machine and the area around the machine free of clutter.
- \* Always double check punch to die alignment to prevent tool breakage and possible injury.
- \* Be sure to punch within the eight ton capacity of this press. Type and thickness of material vs. final hole size will determine the tonnage.
- \* Do not nibble. Always punch a full hole.
- \* Use only punches and dies designed for this tool. They are marked either **W** or **R-W**.
- \* Keep all tooling sharp.

## SPECIFICATIONS

Characteristic	IN.	MM
Throat height at ram	10	254.0
Throat depth	24	609.6
Length of stroke	1	25.4
Ram adjustment	3/4	19.05
Bed plate holes (C to C)	6 3/4	171.45
Dia. of punch shank hole in ram	1	25.4
Depth of punch shank hole in ram	1 1/4	31.75
Slug clearance	3 x 5	76.2 x 127.0

DIMENSIONS		
Reference	IN.	MM.
A	44	1117.6
B	51	1295.4
C	24	609.6
D	6	152.4
E	4	101.6
F	18	457.2



## PANEL CONTROLS:

**ON/OFF** ----- These two buttons, located on the main control panel on the right side of the machine, turn the hydraulic power unit on and off.

**JOG/RUN** --- This switch selects either of two running modes. The **RUN** position is for automatic, single stroke operation. In this position, the foot switch must be released to repeat the cycle. The **JOG** position permits the operator to inch the ram down for alignment and center spotting. In the **JOG** position, the ram will continue downward until the foot switch is released. At the bottom-of-stroke of the machine (set at the factory), the ram automatically returns to the top-of-stroke position.

**JOG UP** ----- This button, located on the right side of the machine in the top shroud, will raise the ram from any intermediate position. The ram will continue to rise until the button is released or the machine reaches its absolute top-of-stroke position. The **JOG UP** button overrides both the **JOG/RUN** switch and the adjustable top-of-stroke mechanism.

## PUNCH TO DIE ALIGNMENT:

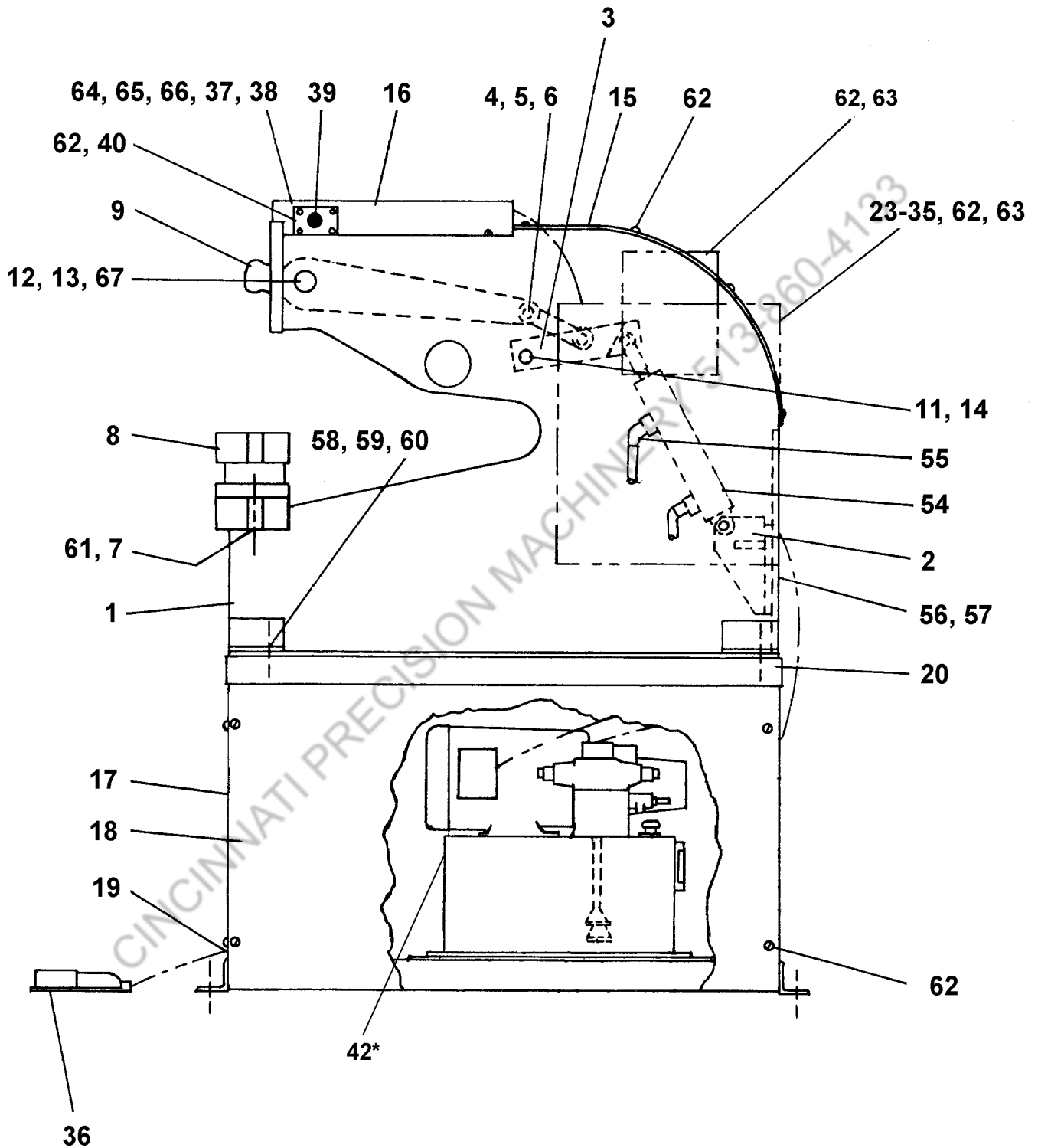
Select the desired punch and die. Insert die into die adaptor (if needed) and tighten screw. Place die adaptor (or die) in die shoe and tighten square head set screw. Leave die shoe bolts loose. Insert punch into punch holder and tighten set screw (it may be necessary to move the die shoe for adequate clearance). Set the selector switch on the main control panel to **JOG**, turn the machine on, and inch the punch toward the die. Adjust the loose die shoe so the punch can enter without striking the die. There should be equal clearance around the punch for proper punching action. If the ram reaches the bottom-of-stroke position before the punch can enter the die, remove wear plates from the top of the ram lever and replace them below. This will lower the ram so the punch can enter the die. When the punch and die are properly aligned, tighten the die shoe bolts. Recheck alignment after tightening. Adjust wearplates so at the bottom-of-stroke the punch enters the die between 1/16 and 1/32 of an inch.

## TOP-OF-STROKE ADJUSTMENT:

After punch to die alignment is verified, the ram top-of-stroke position must be set. The stroke of the 134 press is infinitely variable between zero and one inch. To set desired stroke length, lower the punch (using the **JOG** setting) to the desired top-of-stroke height. Loosen the two knurled nuts of the trip mechanism on top of the ram. Run the upper nut up the threaded spindle until it contacts the limit switch roller. Continue to run the nut up until a distinct click is heard. Turn the nut another quarter turn in the same direction and lock it in place by turning the lower knurled nut against it. The ram will continue to stop at this position until the knurled nuts are moved or the wear plates are adjusted.

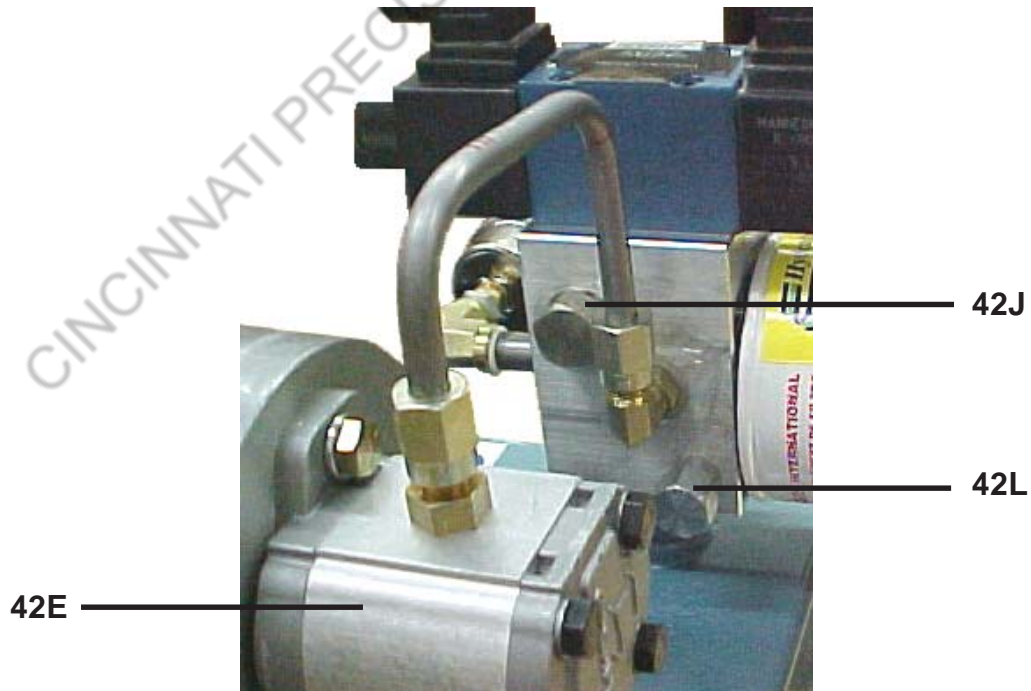
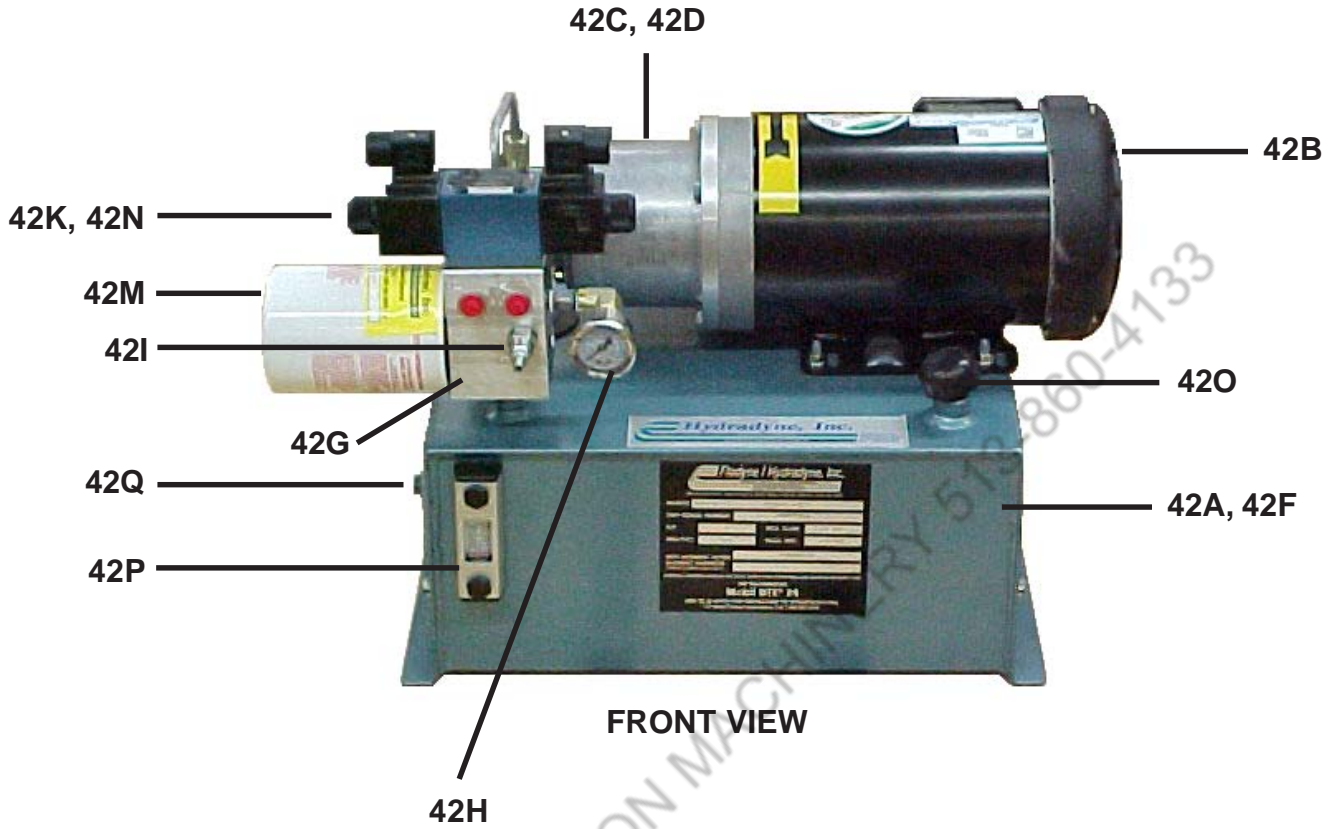
The ram can be run up to the full one inch stroke position by pressing the **JOG UP** button. This will facilitate tool change and part removal. To return to limited stroke operation, depress the foot switch until the punch enters the die. On returning, the ram will once again stop at the preset height.

**134 HYDRAULIC PRESS  
PARTS IDENTIFICATION CHART  
MECHANICAL - HYDRAULIC - ELECTRICAL**



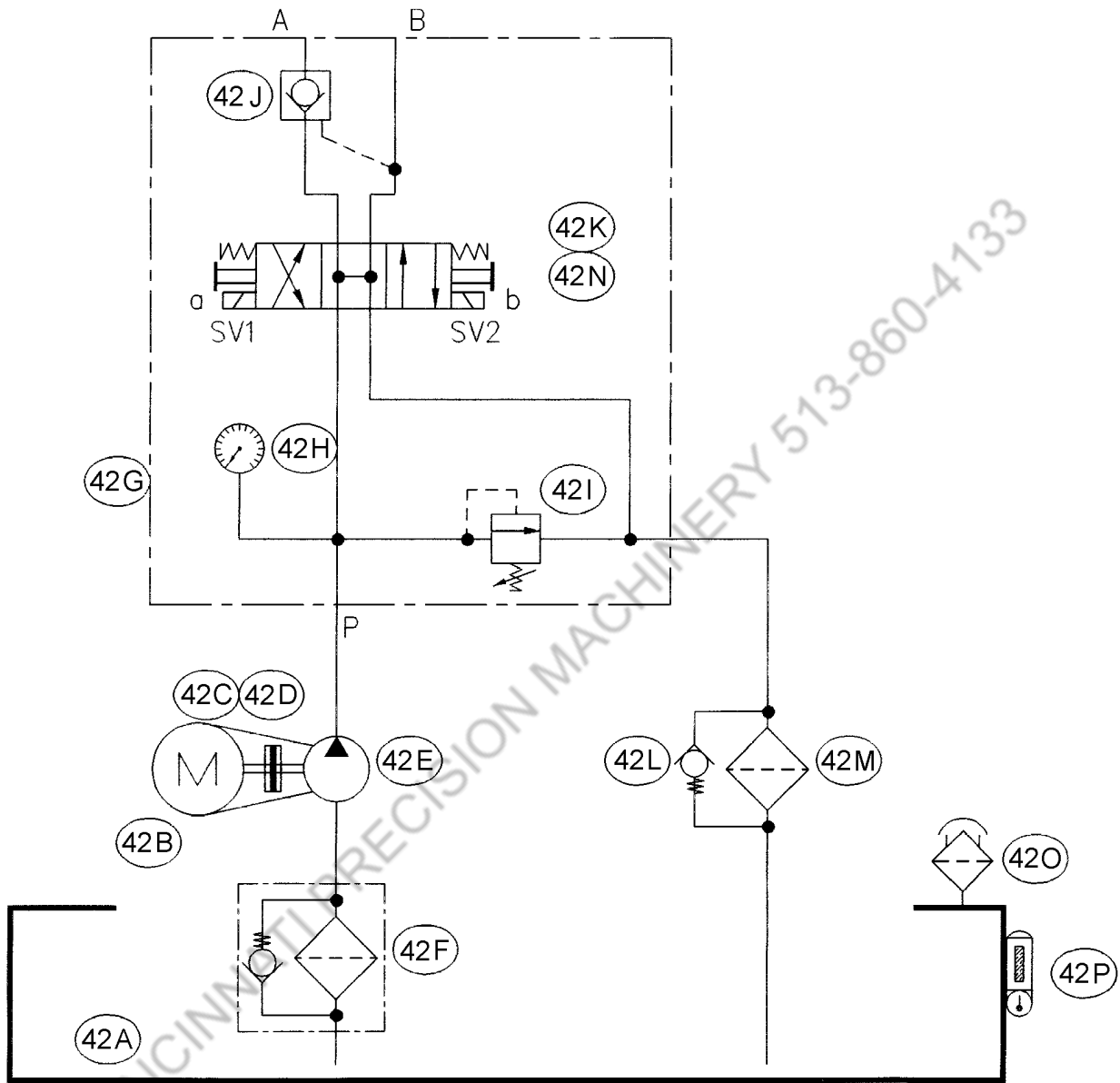
\*See page 10 for item 42,  
Power Unit component  
identification

**134 HYDRAULIC PRESS  
POWER UNIT COMPONENTS IDENTIFICATION  
ITEM #42**



See pg 10, for item 42,  
power unit component  
identification

**134 HYDRAULIC PRESS  
HYDRAULIC DIAGRAM  
ITEM #42**



**CUSTOMER CONNECTIONS:**

Manifold Ports P, A & B - #4 SAE

**SETTINGS:**

Pump Flow - 2.85 GPM

Relief Valve - 1500 PSI

See pg 10 for item 42, power unit component identification



**134 HYDRAULIC PRESS  
PARTS IDENTIFICATION LIST  
MECHANICAL - HYDRAULIC - ELECTRICAL**

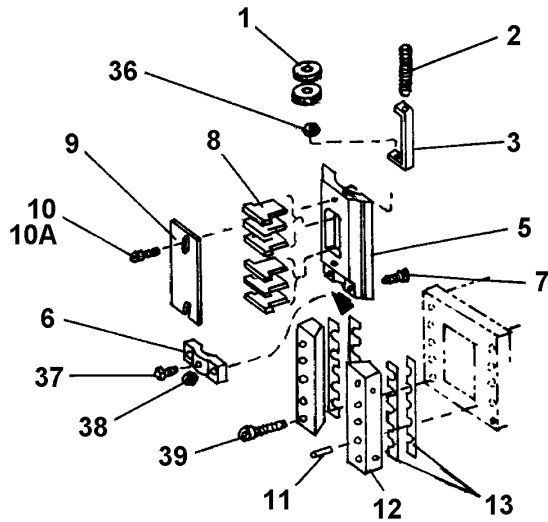
ITEM	PART NO.	PART NAME	QTY.
1	731140279	Frame	1
2	731200254	Cylinder Bracket	1
3	731240255	Cylinder Link	1
4	730560055	Connect. Link Nut	4
5	731240070	Connect. Link	2
6	731160075	Connect. Link Stud	2
7	678033119	Washer, Die Shoe Sup.	2
8	731320145	Die Shoe Support	1
9	731030146	Ram Lever	1
11	600164304	Retaining Ring	2
12	600164307	Retaining Ring	2
13	731160143	Ram Lever Pin	1
14	731160144	Conn. Link Stud	1
15	731220257	Frame Cover	1
16	731440269	Top Shroud	1
17	731440259	Front Shroud	1
18	731440258	Side Shroud	2
19	600000167	Snap Bushing	3
20	731060266	Stand	1
23		Enclosure w/Panel	
	660193223	(208 Volts)	1
	660193222	(230 Volts)	1
	660193224	(460 Volts)	1
24	660082016	Stop Push Button (Red)	1
25	660082015	Start Push Button (Green)	1
26	660082017	Selector Switch	1
27	660082023	Ground Indicator	1
28	660021210	Magnetic Starter	1
30		Transformer	
	660132411	(208 Volts)	1
	660132412	(230 & 460 Volts)	1
31	660051720	Fuse (F-1)	1
32	660051722	Fuse Block	1
33	660142502	Relay CR-1, CR-2	1 ea.
34	660142503	Relay CR-3	2
35	660000005	Terminal Block	18
36	660092104	Footswitch	1
37	660152613	Limit Switch	2
38	660152614	Operating Lever w/Roller	2
39	660082028	"Jog Up" Button	1
40	731060270	Switch Mtg. Plate	1

**134 HYDRAULIC PRESS  
PARTS IDENTIFICATION LIST  
MECHANICAL - HYDRAULIC - ELECTRICAL**

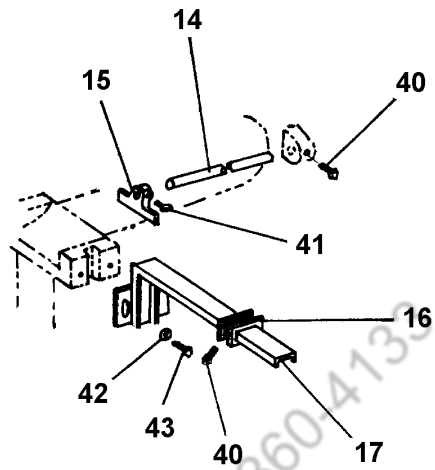
ITEM	PART NO.	PART NAME	QTY.
41*		Hydraulic Oil - Mobil DTE 25 or Compatible Hyd Fluid	5 gal.
42	669092558	Power Unit, 2 H.P.	1
42A	669133107	Reservoir	1
42B	669082399	Electric Motor	1
42C	669021280	Pump/Motor Adapter	1
42D	691386630	Pump/Motor Coupling	1
42E	669082400	Pump	1
42F	669031637	Suction Screen	1
42G	669051917	Custom Manifold	1
42H	669102730	Gauge	1
42I	669123008	Relief Valve	1
42J	669123009	PO Check Valve	1
42K	669123007	Directional Valve	1
42L	669123010	Check Valve	1
42M	669031635	Filter Element	1
42N	611012064	Mounting Bolts 10-24 x 2" SHC	4
42O	669031638	Filler/Breather	1
42P	669102726	Sight/Temp Gauge	1
42Q	669000070	Door Assembly	1
54	669011001	Cylinder	1
55		Fittings:	
	669021119	Cyl. End-Straight Fitting	1
	669021120	45 degree Fitting	1
	669021136	Power Unit End-90 degree Fitting	2
56	601012173	Screw, HHC 3/8-16 x 3/4	4
57	679033105	Washer, Lock 3/8 Split Ring	4
58	601012273	Screw, HHC 1/2-13 x 1 1/4	4
59	643023007	Nut, Full Hex 1/2-13	4
60	679033107	Washer, Lock 1/2 Split Ring	4
61	601012374	Screw, HHC 5/8-11 x 2 3/4	2
62	600174431	Screw, Self Tapping Type F Panhead #10-32 x 3/8	34
63	683033102	Washer, Lock #10 Shakeproof External	7
64	610012062	Screw, RHM #10-32 x 1 3/4	4
65	679033102	Washer, Lock #10 Split Ring	1
66	645023002	Nut, Full Hex #10-32	1
67	600194617	King Pin Bushing	2

\*Not Shown

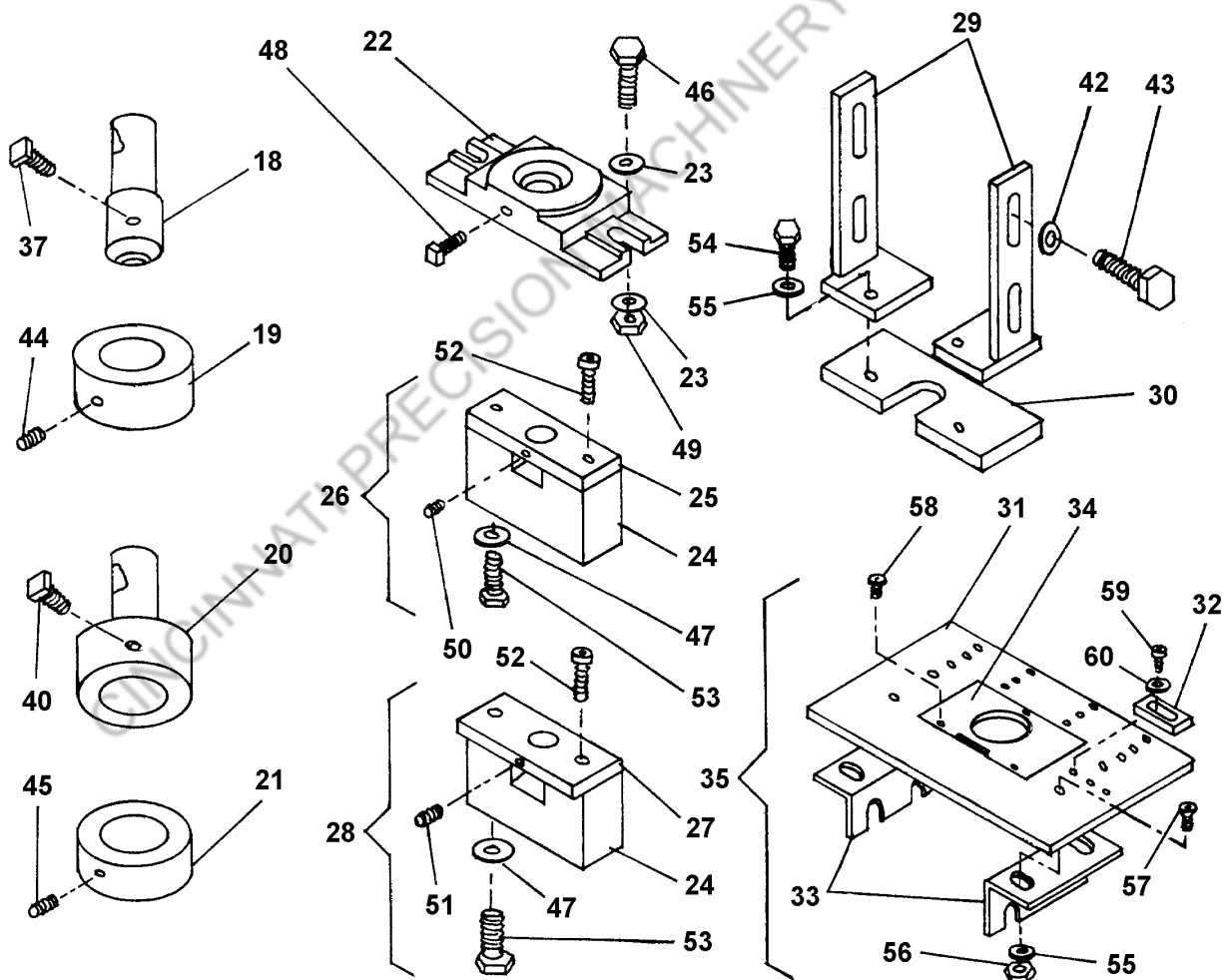
# NO. 134 HYDRAULIC PRESS PARTS IDENTIFICATION CHART



**RAM AND WEARPLATES**



**GAGES**



**ACCESSORIES**

**134 HYDRAULIC PRESS  
PARTS IDENTIFICATION LIST  
RAM - GAGES - ACCESSORIES**

ITEM	PART NO.	PART NAME	QTY.
1	600356318	Knurled Nut	2
2	731030267	Threaded Rod	1
3	731180268	Rod Brace	1
5	731610133	Ram	1
6	431600019	Punch Retainer	1
7	731650275	Punch Retainer Screw	2
8		Wear Plate:	
	731060074	1/6	1
	731060081	3/32	2
	731060073	1/8	2
	731060151	1/4	1
9	731060072	Cover Plate	1
10	611012090	Cover Plate Screw	2
10A	678033103	Flat Washer	2
11	600043266	Taper Pin	4
12	731400085	Gib	2
13	731720086	Gib Shim	4
14	731030108	Depth Gage Bar	1
15	731420078	Depth Gage	1
16	731730080	Side Gage	1
17	731420079	Gage Arm	1
18	774010096	F-8 Punch Holder	1
19	774010091	#20 Die Adaptor	1
20	774010097	F-28 Punch Holder	1
21	774010092	#40 Die Adaptor	1
22		Die Shoe:	
	139404030	2 3/4	1
	139415050	3 3/4	Optional
	139426060	4 3/4	Optional
23	678033119	Die Shoe Washer	4
24	731130155	Die Shoe Block	Optional
25	731570156	#10 Die Shoe	Optional
26	139541010	#10 Die Shoe Complete	Optional
27	731570157	#20 Die Shoe	Optional
28	139552020	#20 Die Shoe Complete	Optional
29	731030265	Stripper Arm	2

**134 HYDRAULIC PRESS  
PARTS IDENTIFICATION LIST  
RAM - GAGES - ACCESSORIES**

ITEM	PART NO.	PART NAME	QTY.
30		Stripper Plate:	
	332200500	A-7 (1/2")	1
	332201000	B-7 (1")	Optional
	332202000	C-7 (2")	Optional
	332203000	D-7 (3")	Optional
	332204000	E-7 (4")	Optional
31	731090260	Worktable	1
32	774420101	Gage	3
33	731200124	Bracket	2
34	731520261	Insert	1
35	233940002	Complete Worktable	1
36	649023003	Nut, Hex Jam 1/4-20	1
37	633012031	Screw, SHS 5/16-18 x 3/4	2
38	643023004	Nut, Full Hex 5/16-18	2
39	611012181	Screw, SHC 3/8-16 x 1 3/4	6
40	633012172	Screw, SHS 3/8-16 x 5/8	3
41	641012088	Screw, Thumb 1/4-20 x 5/8	1
42	678033105	Washer, Flat 3/8	6
43	601012173	Screw, HHC 3/8-16 x 3/4	6
44	621012125	Screw, SS 5/16-18 x 5/16	1
45	621012124	Screw, SS 5/16-18 x 1/4	1
46	601012377	Screw, HHC 5/8-11 x 3 1/2	2
47	678033108	Washer, Flat 1/2	2
48		Die Shoe Set Screw:	
		<b>Die Shoe</b>	<b>Screw</b>
	633012181	F-2 3/4	3/8-16 x 1 3/4 Sq. Hd.
	633012177	F-3 3/4	3/8-16 x 1 1/4 Sq. Hd.
	633012173	F-4 3/4	3/8-16 x 3/4 Sq. Hd.
49	643023009	Nut, Full Hex 5/8-11	2
50	621012083	Screw, SS 1/4-20 x 5/16	1
51	621012082	Screw, SS 1/4-20 x 1/4	1
52	611012179	Screw, SHC 3/8-16 x 1 1/2	2
53	601012281	Screw, HHC 1/2-13 x 2 1/2	2
54	601012131	Screw, HHC 5/16-18 x 3/4	2
55	678033104	Washer, Flat 5/16	6
56	649023004	Nut, Hex Jam 5/16-18	4
57	605012131	Screw, FHM 5/16-18	4
58	615012049	Screw, SHB #10-24 x 3/8	3
59	611012084	Screw, 1/4-20 x 3/8 SHC	3
60	678033103	Washer, Flat 1/4	3

## AVAILABLE TOOLING

# LARGE PRESS TOOLING

Punches and Dies for 127, 129, 130, 150, 230, 231 and 331.  
& 134 Power Presses  
Kick & Lever Presses No. 15, 811, 118, 218, 32, 34, 29, 58, 68

## TYPE O ROUND PUNCHES AND DIES

### Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
1/16	.063	300270063	310210063	200270063	T-7
5/64	.078	300270078	310210078	200270078	T-7
3/32-42 DS	.094	300270094	310210094	200270094	T-7
40 DS-2.5MM	.098	300270098	310210098	200270098	T-7
7/64	.109	300270109	310210109	200270109	T-7
1/8	.125	300270125	310210125	200270125	T-7
30 DS	.129	300170129	310210129	200270129	T-7
29 DS	.136	300270136	310210136	200270136	T-7
9/64-28 DS	.141	300270141	310210141	200270141	T-7
5/32	.156	300270156	310210156	200270156	T-7
11/64	.172	300270172	310210172	200270172	T-7
3/16	.188	300270188	310210188	200270188	T-7
10 DS	.194	300270194	310210194	200270194	T-7
13/64	.203	300270203	310210203	200270203	T-7
7/32	.219	300270219	310210219	200270219	T-7
15/64-A DS	.234	300270234	310210234	200270234	T-7
1/4-E DS	.250	300270250	310210250	200270250	T-7
17/64-H DS	.266	300270266	310210266	200270266	T-7
9/32-K DS	.281	300270281	310210281	200270281	T-7
19/64	.297	300270297	310210297	200270297	T-7
5/16	.313	300270313	310210313	200270313	T-7
21/64	.328	300270328	310210328	200270328	T-7
11/32	.344	300270344	310210344	200270344	T-7
23/64	.359	300270359	310210359	200270359	T-7
3/8	.375	300270375	310210375	200270375	T-7
25/64	.391	300270391	310210391	200270391	T-7
13/32	.406	300270406	310210406	200270406	T-7
27/64	.422	300270422	310210422	200270422	T-7
7/16	.438	300270438	310210438	200270438	T-7
29/64-11.5MM	.453	300270453	310210453	200270453	T-7
15/32	.469	300270469	310210469	200270469	T-7
31/64	.484	300270484	310210484	200270484	T-7
1/2	.500	300270500	310210500	200270500	T-7
33/64	.516	300280516	310210516	200280516	T-7
17/32-13.5MM	.531	300280531	310210531	200280531	T-7

## AVAILABLE TOOLING

# LARGE PRESS TOOLING

Punches and Dies for 127, 129, 130, 150, 230, 231 and 331.

& 134 Power Presses

Kick & Lever Presses No. 15, 811, 118, 218, 32, 34, 29, 58, 68

### TYPE O ROUND PUNCHES AND DIES

#### Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
35/64	.547	300280547	310210547	200280547	T-7
9/16	.563	300280563	310210563	200280563	T-7
37/64	.578	300280578	310210578	200280578	T-7
19/32	.594	300280594	310210594	200280594	T-7
39/64	.609	300280609	310210609	200280609	T-7
5/8	.625	300280625	310210625	200280625	T-7
41/64	.641	300280641	310210641	200280641	T-7
21/32	.656	300280656	310210656	200280656	T-7
43/64	.672	300280672	310210672	200280672	T-7
11/16	.688	300200688	310210688	200280688	T-7
45/64	.703	300280703	310210703	200280703	T-7
23/32	.719	300280719	310210719	200280719	T-7
47/64	.734	300280734	310210734	200280734	T-7
3/4	.750	300280750	310210750	200280750	T-7
49/64	.766	300280766	310210766	200280766	T-7
25/32	.781	300280781	310210781	200280781	T-7
51/64	.797	300280797	310210797	200280797	T-7
13/16	.813	300280813	310210813	200280813	T-7
53/64	.828	300280828	310410828	200280828	T-7
27/32	.844	300280844	310410844	200280844	T-7
55/64	.859	300280859	310410859	200280859	T-7
7/8	.875	300280875	310410875	200280875	T-7
57/64	.891	300280891	310410891	200280891	T-7
29/32-23MM	.906	300280906	310410906	200280906	T-7
59/64	.922	300280922	310410922	200280922	T-7
15/16	.938	300280938	310410938	200280938	T-7
61/64	.953	300280953	310410953	200280953	T-7
31/32	.969	300280969	310410969	200280969	T-7
63/64-25MM	.984	300280984	310410984	200280984	T-7
1-25.5MM	1.000	300281000	310411000	200281000	T-7
1-1/32	1.031	300281031	310411031	200281031	T-7
1-1/16	1.063	300281063	310411063	200281063	T-7
1-3/32	1.094	300281094	310411094	200281094	T-7
1-1/8	1.125	300281125	310411125	200281125	T-7
1-5/32	1.156	300281156	310411156	200281156	T-7

## AVAILABLE TOOLING

# LARGE PRESS TOOLING

Punches and Dies for 127, 129, 130, 150, 230, 231 and 331.  
& 134 Power Presses

Kick & Lever Presses No. 15, 811, 118, 218, 32, 34, 29, 58, 68

### TYPE O ROUND PUNCHES AND DIES

#### Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
1-3/16	1.188	300281188	310411188	200281188	T-7
1-7/32	1.219	300281219	310411219	200281219	T-7
1-1/4	1.250	300281250	310411250	200281250	T-7
1-9/32	1.281	300281281	310411281	200281281	T-7
1-5/16	1.313	300281313	310411313	200281313	T-7
1-11/32	1.344	300281344	310411344	200281344	T-7
1-3/8	1.375	300281375	310411375	200281375	T-7
1-13/32	1.406	300281406	310411406	200281406	T-7
1-7/16	1.438	300281438	310411438	200281438	T-7
1-15/32	1.469	300281469	310311469	200281469	T-7
1-1/2	1.500	300281500	310311500	200281500	T-7
1-17/32	1.531	300281531	310311531	200281531	T-7
1-9/16	1.563	300281563	310311563	200281563	T-7
1-19/32	1.594	300281594	310311594	200281594	T-7
1-5/8	1.625	300281625	310311625	200281625	T-7
1-21/32	1.656	300281656	310311656	200281656	T-7
1-11/16	1.688	300281688	310311688	200281688	T-7
1-23/32	1.719	300281719	310311719	200281719	T-7
1-3/4	1.750	300281750	310311750	200281750	T-7
1-25/32	1.781	300281781	310311781	200281781	T-7
1-13/16	1.813	300281813	310311813	200281813	T-7
1-27/32	1.844	300281844	310311844	200281844	T-7
1-7/8	1.875	300281875	310311875	200281875	T-7
1-29/32	1.906	300281906	310311906	200281906	T-7
1-15/16	1.938	300281938	310311938	200281938	T-7
1-31/32	1.969	300281969	310311969	200281969	T-7
2	2.000	300282000	310312000	200282000	T-7
2-1/16	2.063	300282063	310512063	200282063	T-7
2-1/8	2.125	300282125	310512125	200282125	T-7
2-3/16	2.188	300282188	310512188	200282188	T-7
2-1/4	2.250	300282250	310512250	200282250	T-7
2-5/16	2.313	300282313	310512313	200282313	T-7
2-3/8	2.375	300282375	310512375	200282375	T-7
2-7/16	2.438	300282438	310512438	200282438	T-7
2-1/2	2.500	300282500	310512500	200282500	T-7



## AVAILABLE TOOLING

# LARGE PRESS TOOLING

Punches and Dies for 127, 129, 130, 150, 230, 231 and 331.

& 134 Power Presses

Kick & Lever Presses No. 15, 811, 118, 218, 32, 34, 29, 58, 68

### TYPE O ROUND PUNCHES AND DIES Standard Sizes

Fractional, Drill or Millimeter	Decimal Equiv.	Punch Part Number	Die Part Number	Set Part Number	Dealer Code
2-9/16	2.563	300282563	310512563	200282563	T-7
2-5/8	2.625	300282625	310512625	200282625	T-7
2-11/16	2.688	300282688	310512688	200282688	T-7
2-3/4	2.750	300282750	310512750	200282750	T-7
2-13/16	2.813	300282813	310512813	200282813	T-7
2-7/8	2.875	300282875	310512875	200282875	T-7
2-15/16	2.938	300282938	310512938	200282938	T-7
3	3.000	300283000	310513000	200283000	T-7
3-1/16	3.063	300283063	310613063	200283063	T-7
3-1/8	3.125	300283125	310613125	200283125	T-7
3-3/16	3.188	300283188	310613188	200283188	T-7
3-1/4	3.250	300283250	310613250	200283250	T-7
3-5/16	3.313	300283313	310613313	200283313	T-7
3-3/8	3.375	300283375	310613375	200283375	T-7
3-7/16	3.438	300283438	310613438	200283438	T-7
3-1/2	3.500	300283500	310613500	200283500	T-7
3-9/16	3.563	300283563	310613563	200283563	T-7
3-5/8	3.625	300283625	310613625	200283625	T-7
3-11/16	3.688	300283688	310613688	200283688	T-7
3-3/4	3.750	300283750	310613750	200283750	T-7
3-13/16	3.813	300283813	310613813	200283813	T-7
3-7/8	3.875	300283875	310613875	200283875	T-7
3-15/16	3.938	300283938	310613938	200283938	T-7
4	4.000	300284000	310614000	200284000	T-7
4-1/4	4.250	300284250	310714250	200284250	T-7
4-1/2	4.500	300284500	310714500	200284500	T-7
4-3/4	4.750	300284750	310714750	200284750	T-7

Standard Clearances are .006 for sizes listed above.

For additional shapes and sizes, consult factory.

# 134 HYDRAULIC PRESS ELECTRICAL DIAGRAM

