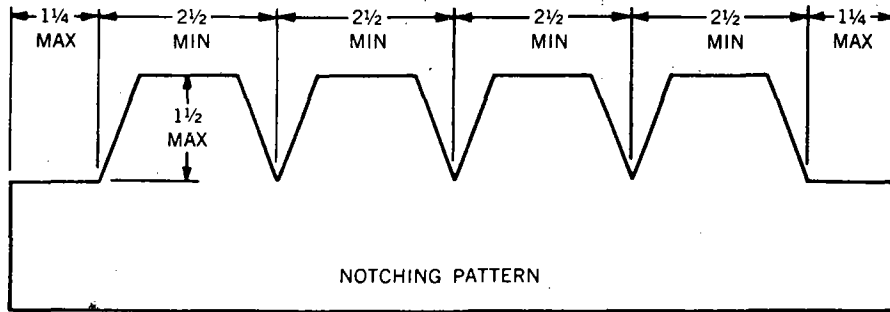


NOTCHING DIAGRAM FOR TYPICAL SQUARE DUCT



NOTCHING HEADS:

- 1 - Left Hand 110° Corner Notch
- 3 - 40° Vee Notch
- 1 - Right Hand 110° Corner Notch

HYDRAULIC UNIT MAINTENANCE: For proper maintenance of the hydraulic system, the oil should be kept clean and free of dirt or other foreign matter. The suction strainer located in the reservoir should be removed and cleaned periodically. The system should be changed after approximately one year's operation and refilled with clean filtered oil (See paragraph 1 for recommended oil)

DIE CARE AND MAINTENANCE: Punch and dies are manufactured of high carbon high chrome tool steel for maximum cutting service. When die cutting surfaces become worn the punches and dies are removed and inverted to present a new cutting edge. NOTE: When installing punches and dies a clearance of .003" must be set between the punch and die by placing a .003" shim on both sides of the cutting edge of the die with the punch engaged in the die and then tightening the capscrews retaining the die.

A light oil should be applied occasionally to cutting surface of punch and die to prolong die life.

LOCKFORMER

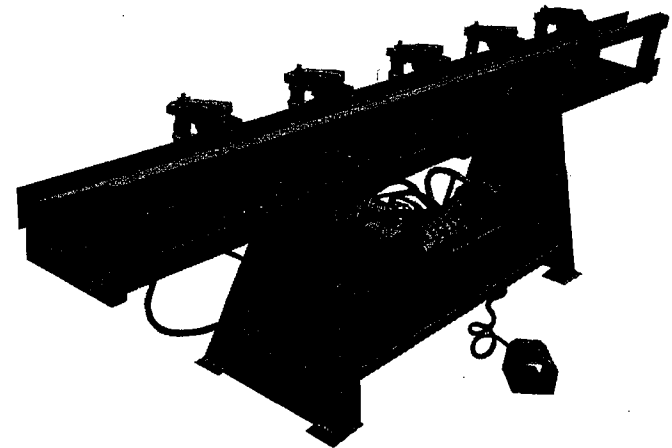
20-GAUGE

Residential and Light Commercial

NOTCHER

5 Foot and 10 Foot Models

PUNCHES
&
DIE



INSTALLATION & OPERATING INSTRUCTIONS

LOCKFORMER

Where the Machines of Tomorrow are Made TodaySM

711 W. OGDEN AVENUE • LISLE, ILLINOIS 60532

INSTALLATION PROCEDURE

IMPORTANT: Because of shipping requirements and possible spillage of hydraulic fluid, the unit is tested at Lockformer's plant and the hydraulic fluid is drained. Therefore, it will be necessary to fill the unit before start up.

Before attempting to run unit, fill reservoir with 3½ gallons of a commercial hydraulic oil having a viscosity of 150 SSU @ 100° F. An acceptable substitute for the above hydraulic oil is type A Automatic Transmission Fluid, available at auto service stations. A ruler inserted to the bottom of the reservoir will indicate 7½" when the proper oil level is reached.

CAUTION: Severe damage to pump will result if run without oil in the reservoir.

PRELIMINARY: After uncrating, locate unit, with or without base skid to area of operation. Unbind foot switch cord, power cord and cylinder hoses and remove gauge pin bag.

ELECTRICALS: Normal electrics 110 Volt, 60 Cycle, Single Phase Motor furnished 1 H.P. X 3600 R.P.M. Full load amps 11.8. Check local code restrictions for electrical service required.

OPERATING INSTRUCTIONS

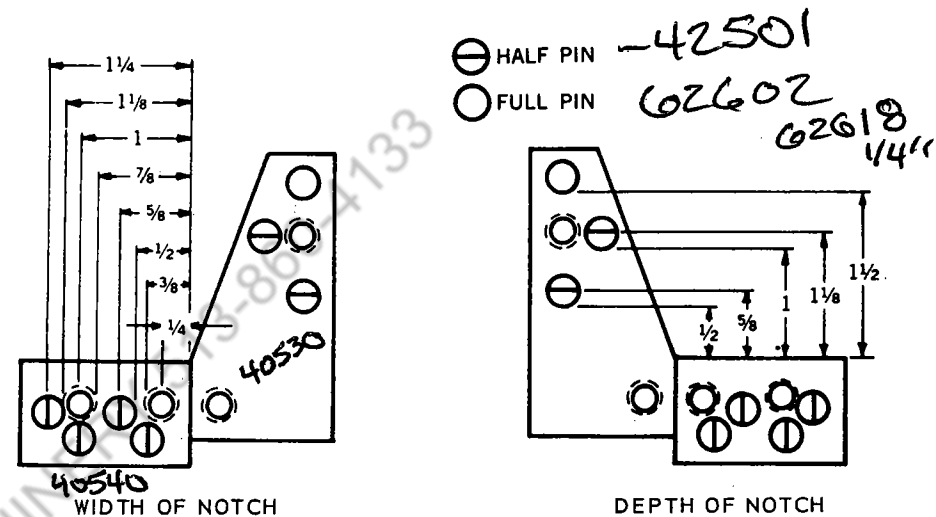
CAPACITY: 20 Gauge of lighter galvanized or cold rolled steel.

OPERATION: Loosen left hand notching head and slide to zero mark on back scale, clamp into position. Move Vee Notching Heads to required spacing by locating left side of heads to required measurement from zero on scale.

PROCEDURE FOR TYPICAL 4" x 12" DUCT IN 22 GAUGE MATERIAL - ONE PIECE CONSTRUCTION

1. Left forming head set at zero. NOTE! Width of notch required for 5/16" Pittsburgh Lock is 1" therefore, a half-pin is required in hole indicated as 1" on width of notch-sketch. Using Standard "S" Cleats and Drive Cleats would require a minimum depth of notch to be 1", therefore, a full pin is required in hole indicated as 1" on depth of notch sketch. (See Sketch No. 1)

Notching heads will notch the equivalent of 20 Gauge. (.040") material, therefore, more than one thickness of lighter gauge materials can be notched in one operation, provided combined thickness does not exceed .040".



SKETCH 1

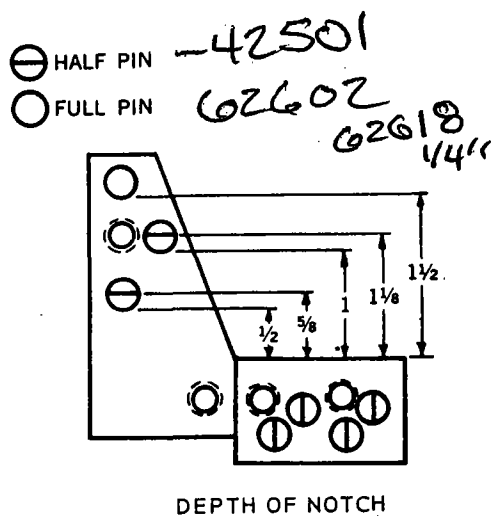
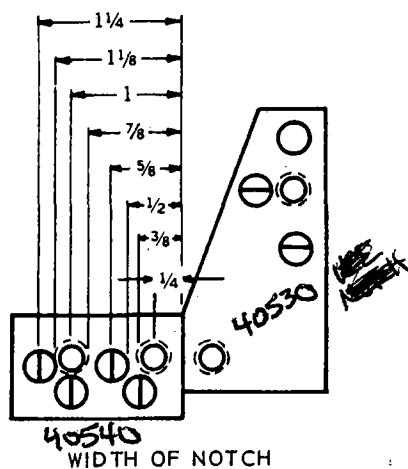
2. Move First Vee notch head to either 4" or 12" on tape and secure.
3. Move second Vee Notch head to 16" and secure. NOTE! 4" + 12" = 16"
4. Move third Vee Notch head to 20" or 28" dependent on setting of first Vee Notching head. (NOTE! 4+12+4=20 or 12+4+12=28)
5. Move right hand notching head to required notch width of ¼" for right angle flange. NOTE: Place gauge pin into hole for gauging set up piece. Pin may be removed for easier gauging on similar size sheets. Place back gauge pin into proper hole 1" for depth of notch.

Place proper width of material 33¼" (for 22 Gauge 4" x 12" one piece duct using 5/16" Pittsburgh Lock and ¼" 90° Flange) onto gauge support table and square duct to gauge pins. Activate notching heads by depressing foot switch until notching is completed. Release foot switch and remove completely notched duct sheet.

CAUTION: Release foot switch immediately after cutting is completed. If foot switch is kept depressed oil pressure will be at maximum setting of relief valve and will cause unnecessary heating of oil and possible damage to pump.

NOTE: When two piece duct construction is manufactured, the notching heads that are not required can be quickly deactivated by closing the valve located on each cylinder. This makes heads not required inoperative.

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SKETCH 1

2. Move First Vee notch head to either 4" or 12" on tape and secure.
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4. Move third Vee Notch head to 20" or 28" dependent on setting of first Vee Notching head. (NOTE! 4+12+4=20 or 12+4+12=28)
5. Move right hand notching head to required notch width of 1/4" for right angle flange. NOTE: Place gauge pin into hole for gauging set up piece. Pin may be removed for easier gauging on similar size sheets. Place back gauge pin into proper hole 1" for depth of notch.

Place proper width of material 22 1/2"

Vee notch = 2 ea 40530

Corner notch = 1 ea 40530

1 ea 40540

MACHINE USES

8 ea 40530

2 ea 40540

390401 = DIES STD RHT HM

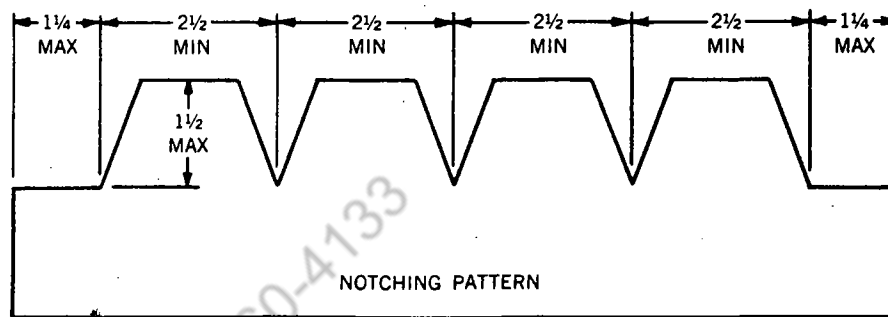
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PARTS LIST AND DESCRIPTION

Part Number	Description	Pieces Per Unit	Part Number	Description	Pieces Per Unit	Part Number	Description	Pieces Per Unit
40470	Main Body 88470	5	65113	1/4 x 1/2 Bush	1	65041	1/2 Close Hvy. Npl.	1
40480	Pnch. Actr. 88480	5	65122	3/4 x 1/2 Hex. Bushing	1	65176	1/4 Street Elbw.	1
14503	Pvt. Pin	5	65000	1/4 Close Npl.	5	60312	1/4-20 x 7/8 SHCS	5
22118	Clamp	5	54405	Tank Cover Assembly	1	60306	1/4-20 x 1-1/2 SHCS	4
40510	Vee Punch 88510	3	15164	Manifold	1	23502	Gasket	2
40520	Corner Punch 88520	2	65212	1/4 Npt. Shpp.	1	23503	Gasket	2
40530	Die 88530	8	65230	3/4 Npt. Blk. Shpp.	2	52602	Locking handle Assembly	5
40540	Corner Die 88540	2	80204	Toggle Switch	1	56534	Wk. Guide Assembly	1
62602	3/16 x 1 Dwl.	5	80651	Handy Box 230	1	60575	10-24 x 3/8 RHMS	5
60612	1/4-20 x 1/2 SSS	5	80430	BX Cable 14-2	2	61040	10-24 Hn.	2
60304	1/4-20 x 1 SHCS	20	80481	BX Connector 1/2	2	62010	5/16 x 1/16 Washer	4
60407	3/8-16 x 1-1/2 SCHS	10	80485	BX Elbw. Connector	2	62029	3/8 x 1/16 Washer	4
62707	Roll Pin 1/4 x 1-1/2	5	80209	Foot Switch	1	62712	Roll Pin 1/4 x 1-1/4	5
65719	Hose	5	80525	Cord Set 14-3	1	62713	Roll Pin 5/32 x 1	5
65100	3/8-16 x 1-1/4 HHSC	5	85157	Residential Notcher Name Plate	1	80483	BX Connector 3/8	2
65575	Gate Valve	5	85178	Lockformer Logo	1	80602	Rg. Tng. Terminal	7
58551	Stand Assembly	1	85307	Caution Tag	1	80607	Insulating Cap	2
60094	3/8-16 x 1-1/4 HHCS	4	62618	1/4 x 5/8 Dwl.	1	80608	Wire Joint	2
61122	3/8-16 Hex. Nut	4	42501	Ga. Step Pin 62618	3	62026	3/8 x .052 Washers	8
62363	3/8 Lock Washer Med.	8	54401	Tank Npl. Assembly	1	85140	Tape	1
80041	1 HP 1 60 36 56 Motor	1	65177	3/ Blk. Elbw.	1	85143	Dble. Sided Tape	120
70801	G100 Coupling	1	30905	Slug Ejector	2	60828	10-24 x 1/2 Screws	4
65402	Pump C-4	1	60590	1/4-20 x 7/8 FLHMS	2	33010	Guard Base	1
65675	Suction Strainer	1	15125	Rod End	5	33011	Ft. Pedal Guard	1
65026	3/8 Close Npl. Hvy	2	15126	Cap End	5	35446	Coupling Cover	1
65600	Gasket 030 Shurpak	1	15105	Piston	5	65841	Relief Valve	1
65800	5/16 ID Washer	4	15106	Cylinder Body	5	57163	Tank Weldment	1
60052	5/16-18 x 1 HHCS	4	71019	Comp. Spring	5	65383	3/8 M x 1/8 FEM CPLG	1
61101	5/16-18 HN Hvy. SF	8	65635	O Rg.	5	53785	Clamp Bar	5
62362	5/16 Lock Washer	4	65628	O Rg.	5	62360	3/16 Lockwashers	3
60053	5/16-18 x 3-1/2 HHCS	4	20900	Sub Plate	1	38999	Pocket	1
65704	Hose	1	65112	1/2 x 3/8 Hex. Bushing	1	62370	1/4 Lockwashers	2
65534	Sind. Valve 110V	1	65275	1/2 x 1/2 x 1/2 Tee	1			

9954406 CYLINDER KIT 1

RN- - PISTON 15105

RN- - ROD END 15125

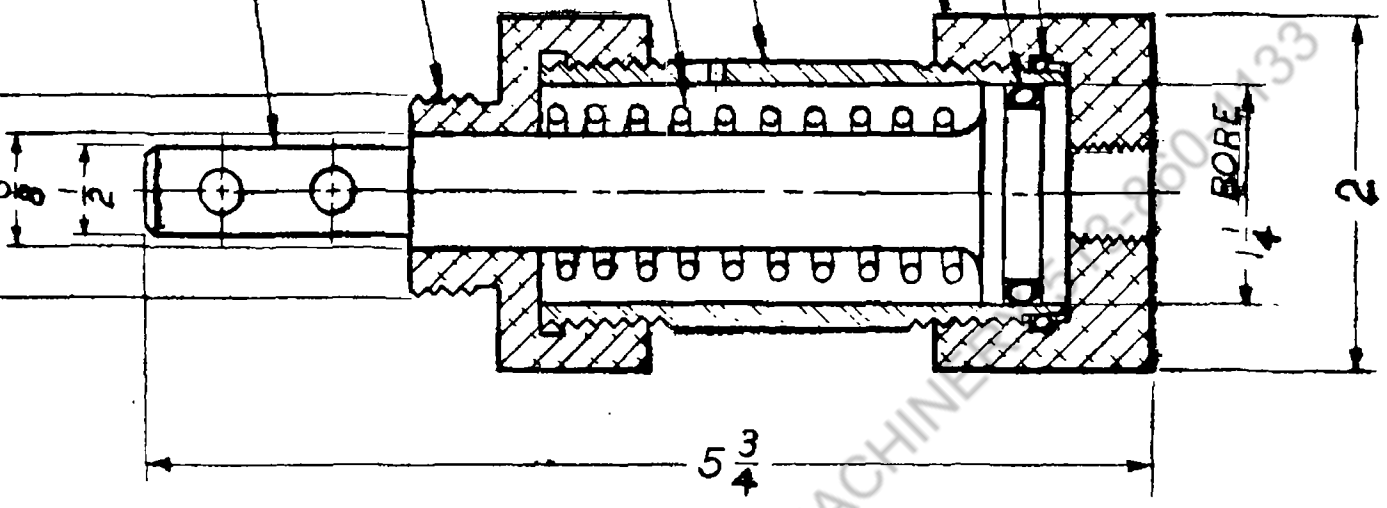
RN- - SPRING 71019

RN- - CYL BODY 15106

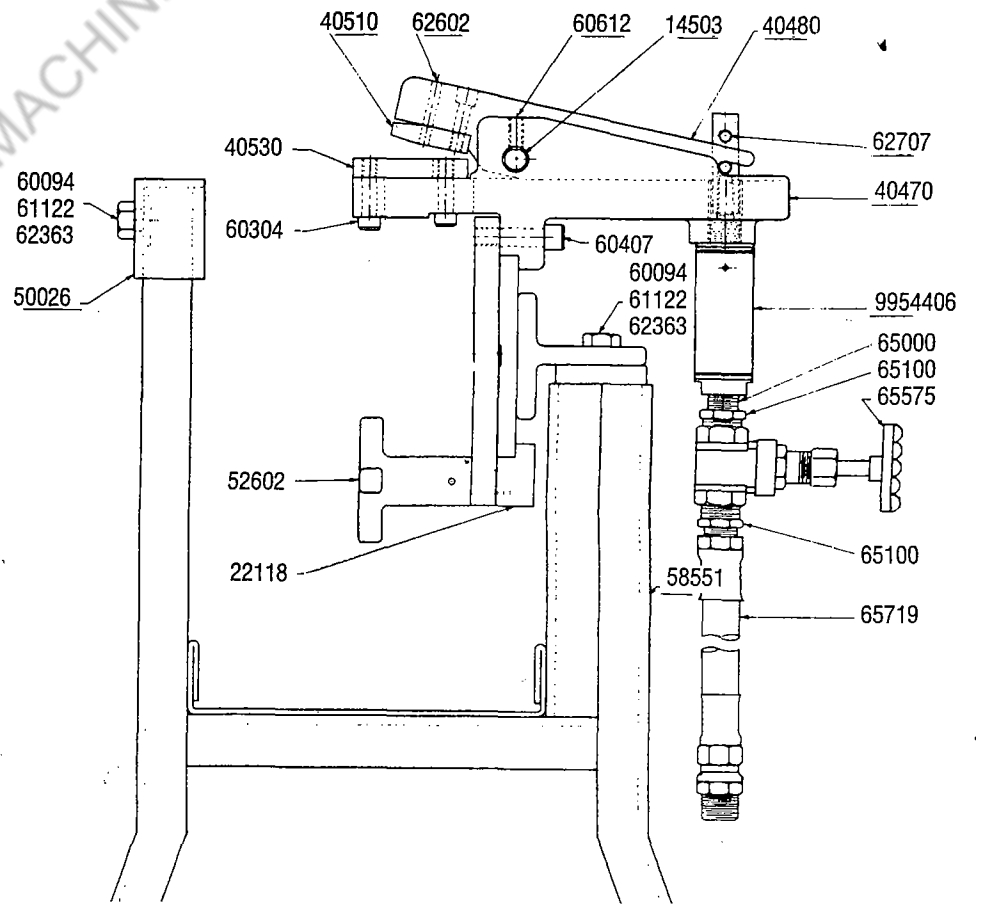
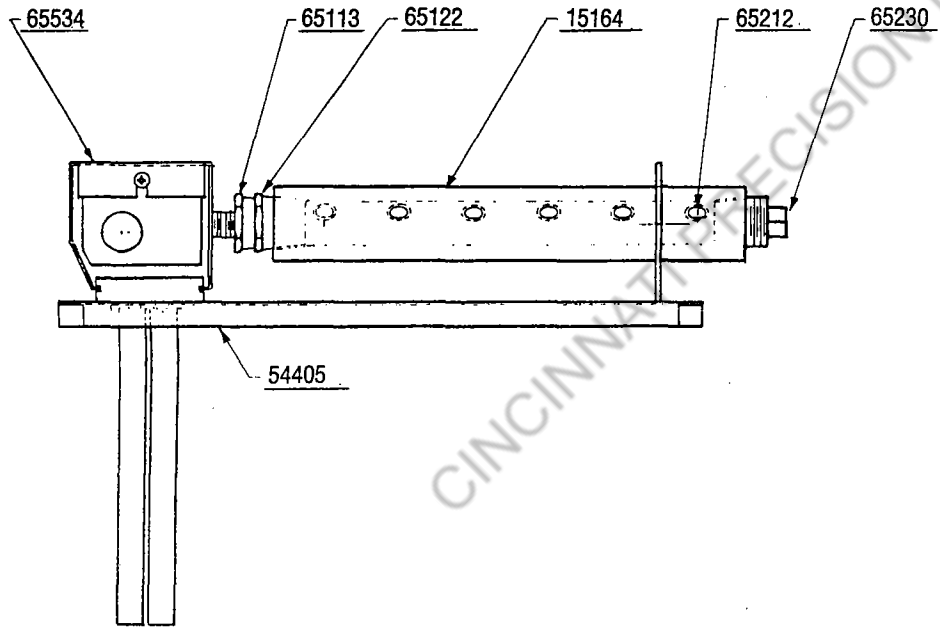
RN- - CAP END 15126

RN- - PISTON SEAL 65635

RN- - CYL BODY SEAL 65628

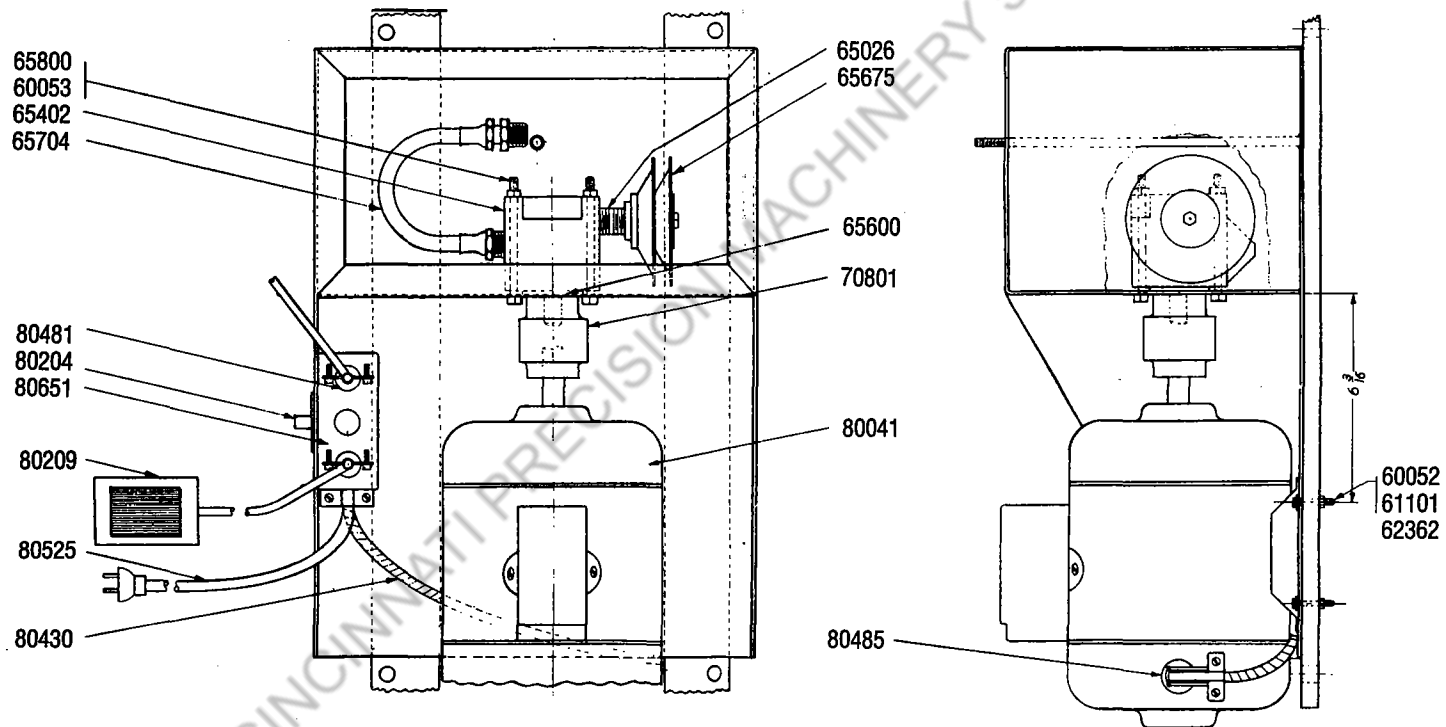


CINCINNATI PRECISION MACHINERY



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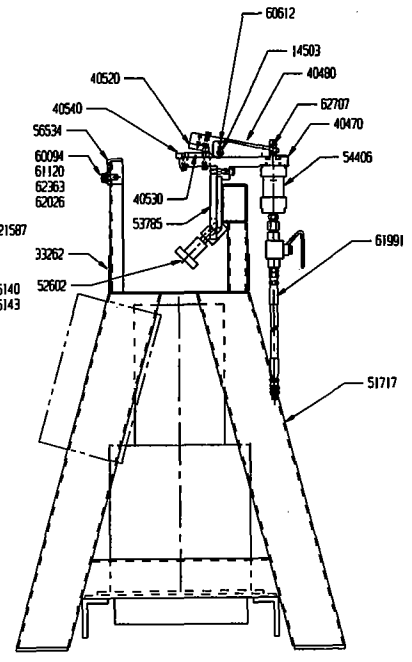
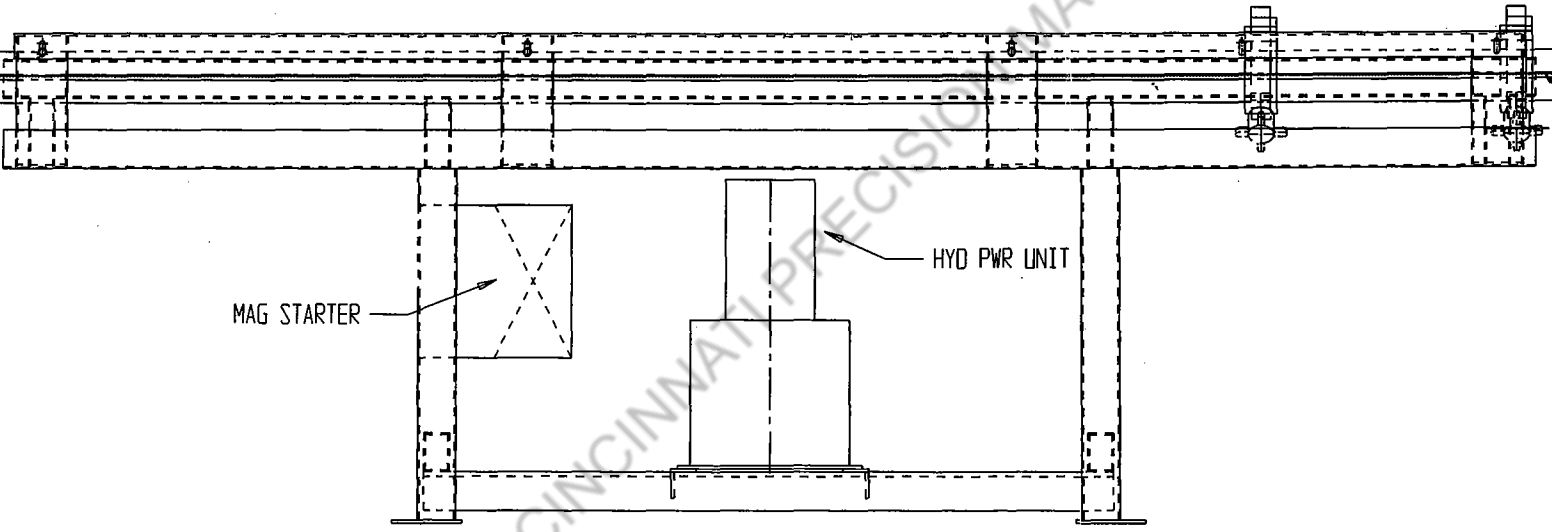
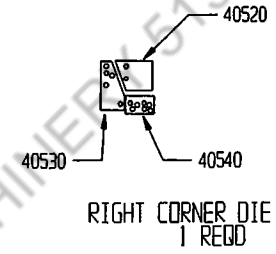
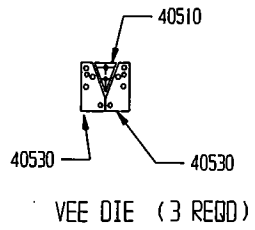
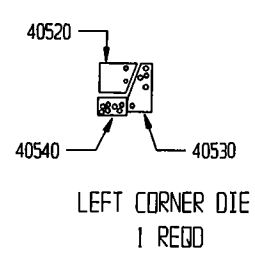
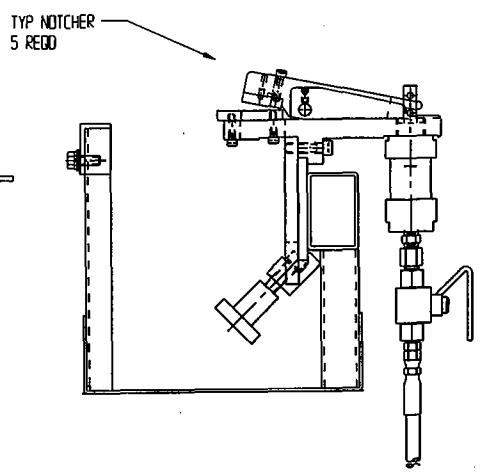
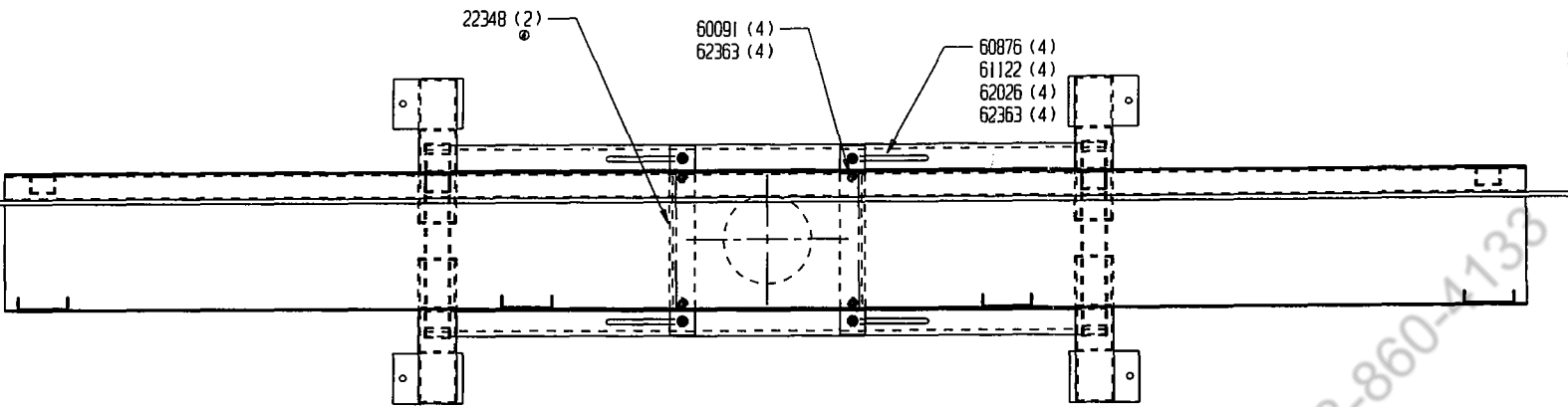
TANK COVER ASSEMBLY



HYDRAULIC POWER UNIT ASSEMBLY

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THE LOCKFORMER CO.		
711 OGDEN AVE. LITTLE, ILLINOIS 62532		
MACHINE RESIDENTIAL NOTCHER	PART NUMBER AA51640	
GENERAL ASSY		
DESIGNER H R	DATE 9-10-98	SCALE NTS
DRAWN BY		REVISED BY
		REVISIONS

CINCINNATI PRECISION MACHINERY 513-860-4733