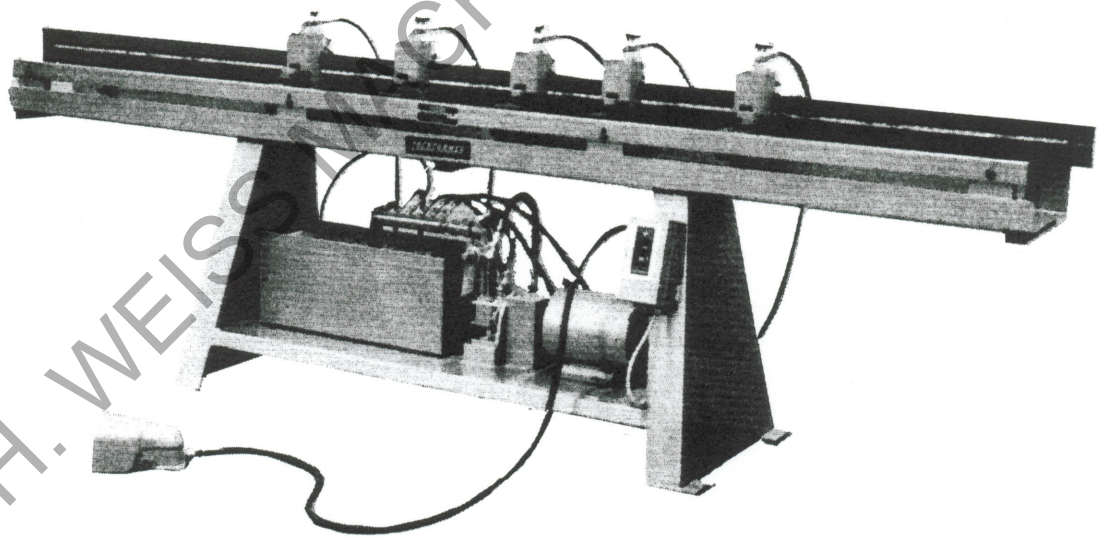
LOCKFORMER

Where the Machines of Tomorrow are Made Today℠

Speednotch

Instructions and Parts Diagram



THE LOCKFORMER COMPANY

Lockformer Speednotch Installation and Operating Instructions...

INSTALLATION

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

ELECTRICALS: Remove manual starter box cover and wire unit as per diagram illustrated on inside of cover. Normal electrics 220 volt, 60 cycle, 3 phase with overload protection in starter box. Motor furnished - 3 H.P. x 1800 RPM. IMPORTANT: When starting unit check to see whether motor and pump rotation conforms to direction of arrows on motor and pump body. CAUTION: Jog unit until proper rotation is achieved. Severe damage to pump will result if run backward to rotation shown.

OPERATING INSTRUCTIONS

CAPACITY: 16 gauge or lighter galvanized or cold rolled steel.

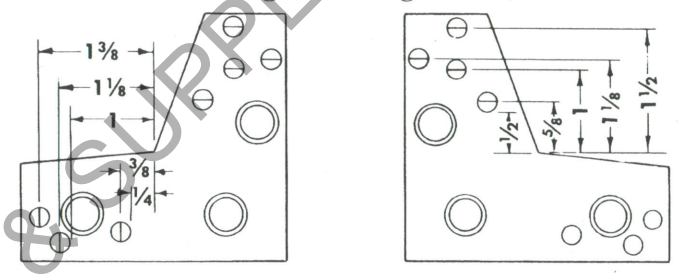
OPERATION: Loosen left hand notching head and slide to zero mark on Back Scale, clamp into position. Move Vee notching heads to required spacing by locating left side of heads to required measurement from zero on scale.

EXAMPLE: 4" x 12" DUCT in 22 gauge material - one piece construction.

PROCEDURE: (1) Left forming head set at zero. NOTE width of notch required for 5/16" Pittsburgh Lock is 1", therefore, a full 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 half pin is required in hole indicated as 1" on depth of notch sketch. (See Sketch No. 1)

NOTCH SET UP

○ FULL PIN ⊖ HALF PIN



LEFT — RIGHT

GAUGE SETTINGS WIDTH OF NOTCH — **GAUGE SETTINGS DEPTH OF NOTCH**

SKETCH NO. 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 depth of 1/4" for right angle flange. NOTE: Place gauge pin into hole for gauging setup piece. Pin may be removed for easier gauging on similar size sheets. Place back gauge pin into proper hole 1" for depth of notch.

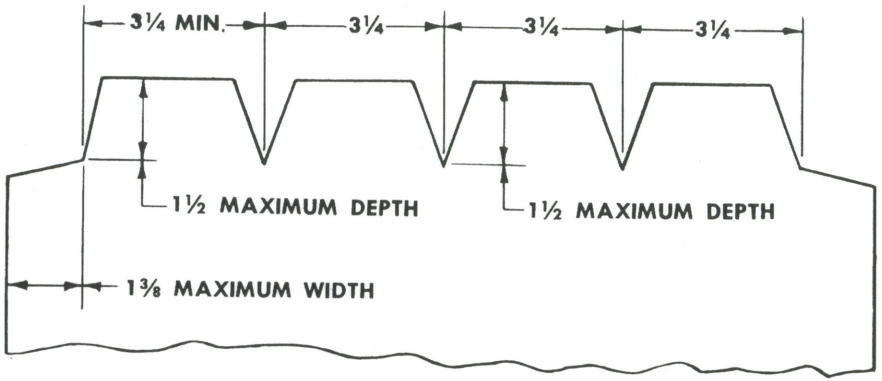
Place proper width of material 33-1/4"(for 22 gauge 4" x 12" one piece duct using 5/16" Pittsburgh Lock and 1/4" 90° Flange) onto gauge support table and square duct to gauge pins. Activate notching heads by depressing foot switch until notching is completed. Release foot switch and remove completely 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.

Notching heads will notch the equivelant of 16 ga. material (.062), therefore, more than one thickness of lighter gauge materials can be notched in one operation, provided combined thickness does not exceed .062".

NOTE: When two piece duct construction is manufactured, the notching heads that are not required can be quickly deactivated by removing the notching head hose by drawing back on the quick disconnect coupling at the manifold. This makes heads not required inoperative.

NOTCHING DIAGRAM FOR TYPICAL SQUARE DUCT



NOTCHING HEADS

1—LEFT HAND 115° CORNER NOTCH
3—40° VEE NOTCH
1—RIGHT HAND 115° CORNER NOTCH

OIL: The oil used in the reservoir is a commercial hydraulic oil having a viscosity of 150 SSU at 100° F. On initial fill 7 U.S. gallons Socony Vacuum D.T.E. Light is delivered in the reservoir. An acceptable substitute for above hydraulic oil is Type A automatic transmission fluid, available at auto service stations. For proper maintenance of the hydraulic system, the oil should be kept clean and free of dirt or other foreign matter. The system should be changed after approximately one year's operation. This is accomplished by removing drain plug at bottom of reservoir. Replace and fill with clean filtered oil. A ruler inserted to bottom of reservoir will indicate 7" when proper oil level is reached.

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 it will be necessary to resharpen.

Lower dies are held in position by socket-head cap screws and may be easily removed. To remove punch, disconnect hose from manifold and remove head from back gauge bar by removing assembly parts #109 & #110, place unit in vise and remove lower bottom cap (#107) and spring #105. Place pin into assembly hole in piston (Part #102). Using a 15/16" socket and extension wrench remove 5/8 hexagon nut #127. Slide parts #126 lock washer, #104 guide washer and punch #116 from piston rod. NOTE: It may become necessary to push piston farther into cylinder body #100 in order to clear punch from the piston rod.

NOTE: When punch and dies are to be sharpened in the field, grind flat top surface of die and lower cutting surface of punch. You will note punch has rake angle. This rake angle must be maintained.

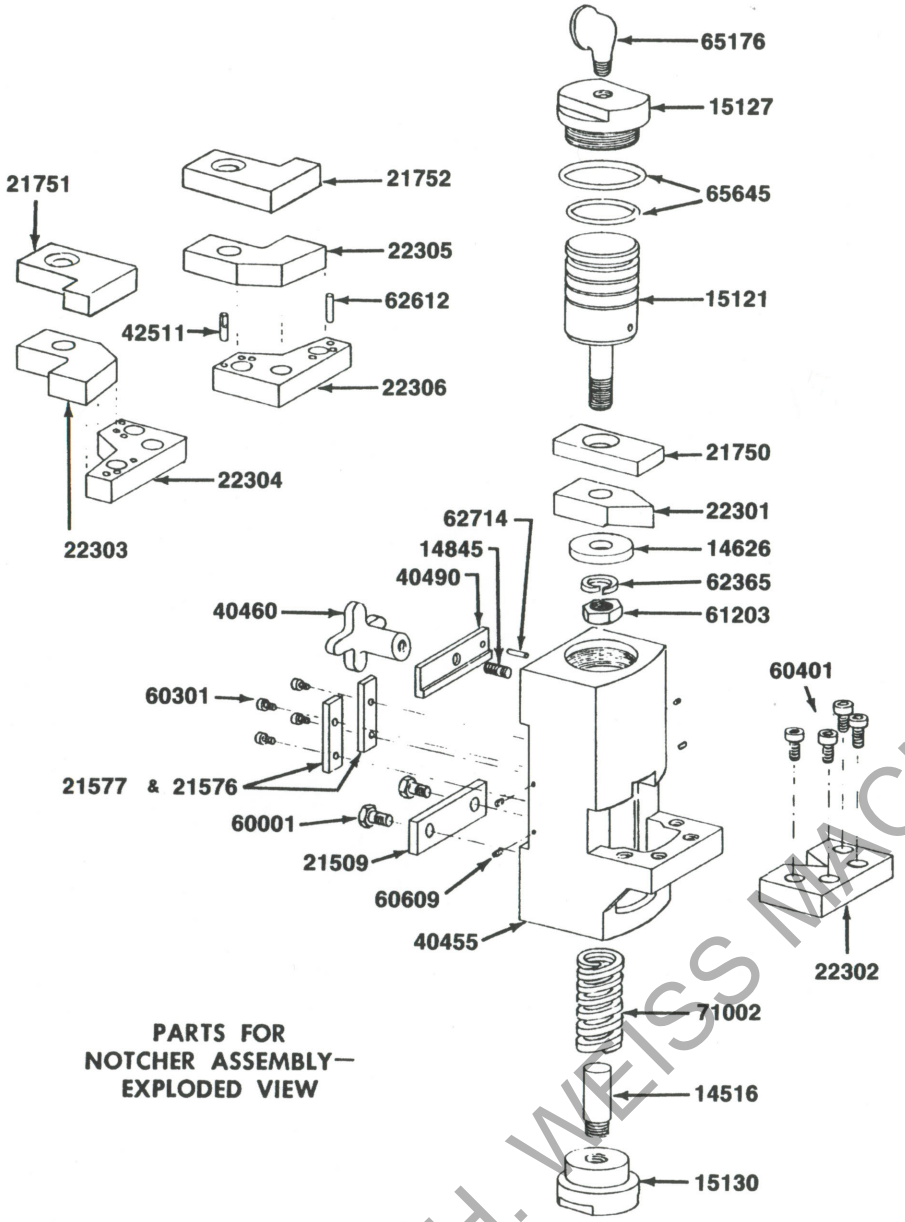
A LIGHT OIL SHOULD BE APPLIED OCCASIONALLY TO CUTTING SURFACE OF PUNCH AND DIE TO PROLONG DIE LIFE.

REASSEMBLE AS FOLLOWS: Place punch, backing washer, lock washer and nut into assembly and tighten securely with pin in piston assembly hole to keep piston from turning when tightening. Pull piston to lowest position and assemble die to cylinder body, nesting die to punch for proper alignment and clearance.

NOTE: A slight clearance, not to exceed 0.003", should be set between punch and die on VEE-NOTCH by placing a 0.003" to 0.0025" spacer shim on both sides of cutting edge of dies. Tighten the socket-head cap screw #129. For CORNER NOTCH punch and dies, the clearance should be 0.005".

(FOLLOW SAME PROCEDURE AS ABOVE FOR REASSEMBLY.)

After the above has been completed, replace spring and lower bottom cap, tighten and reassemble to machine.



PARTS FOR NOTCHER ASSEMBLY— EXPLODED VIEW

PARTS LIST AND DESCRIPTION OF HEAD AND DIE ASSEMBLY

PLEASE USE **NEW** NUMBER WHEN ORDERING PARTS.

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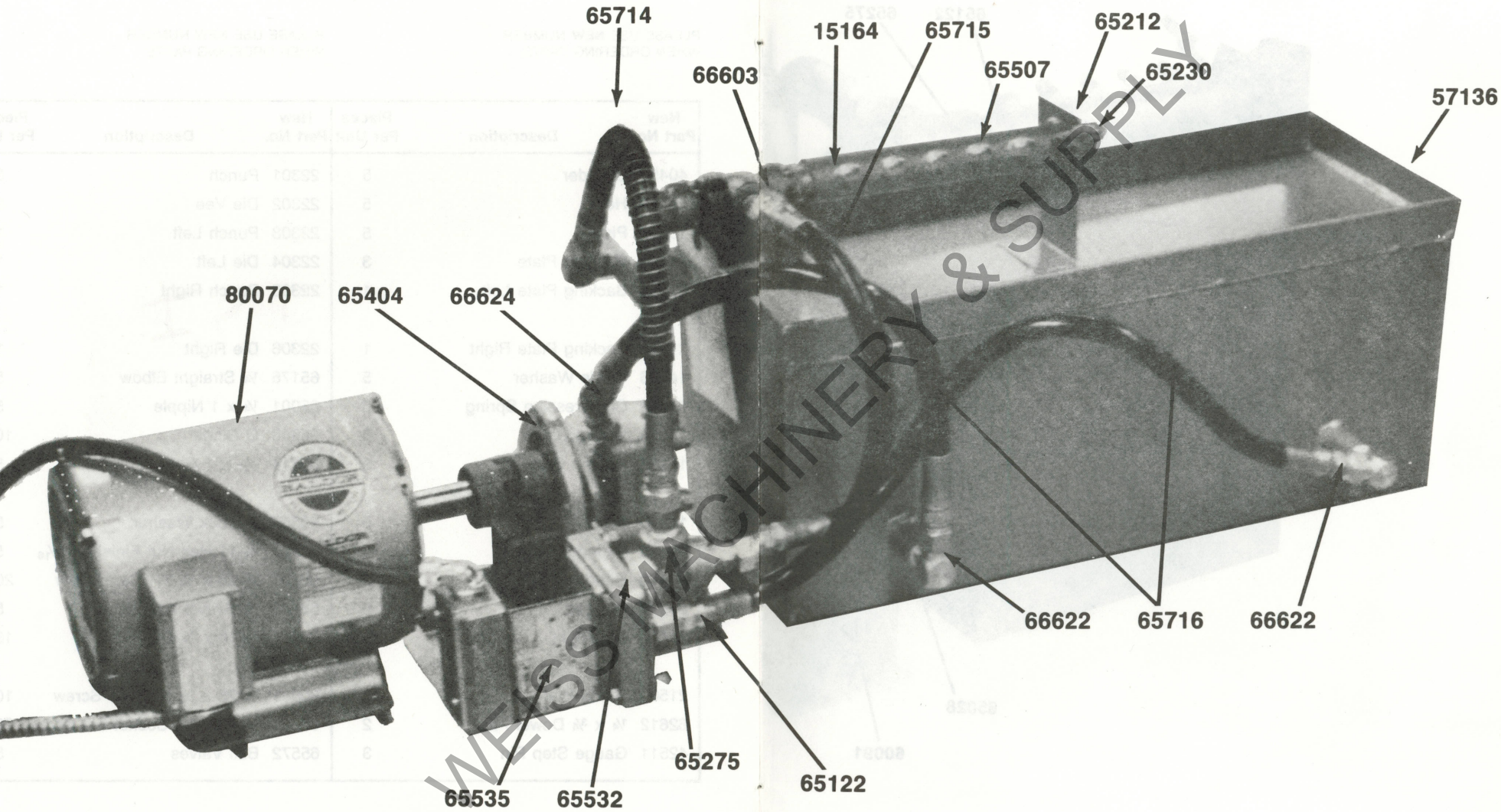
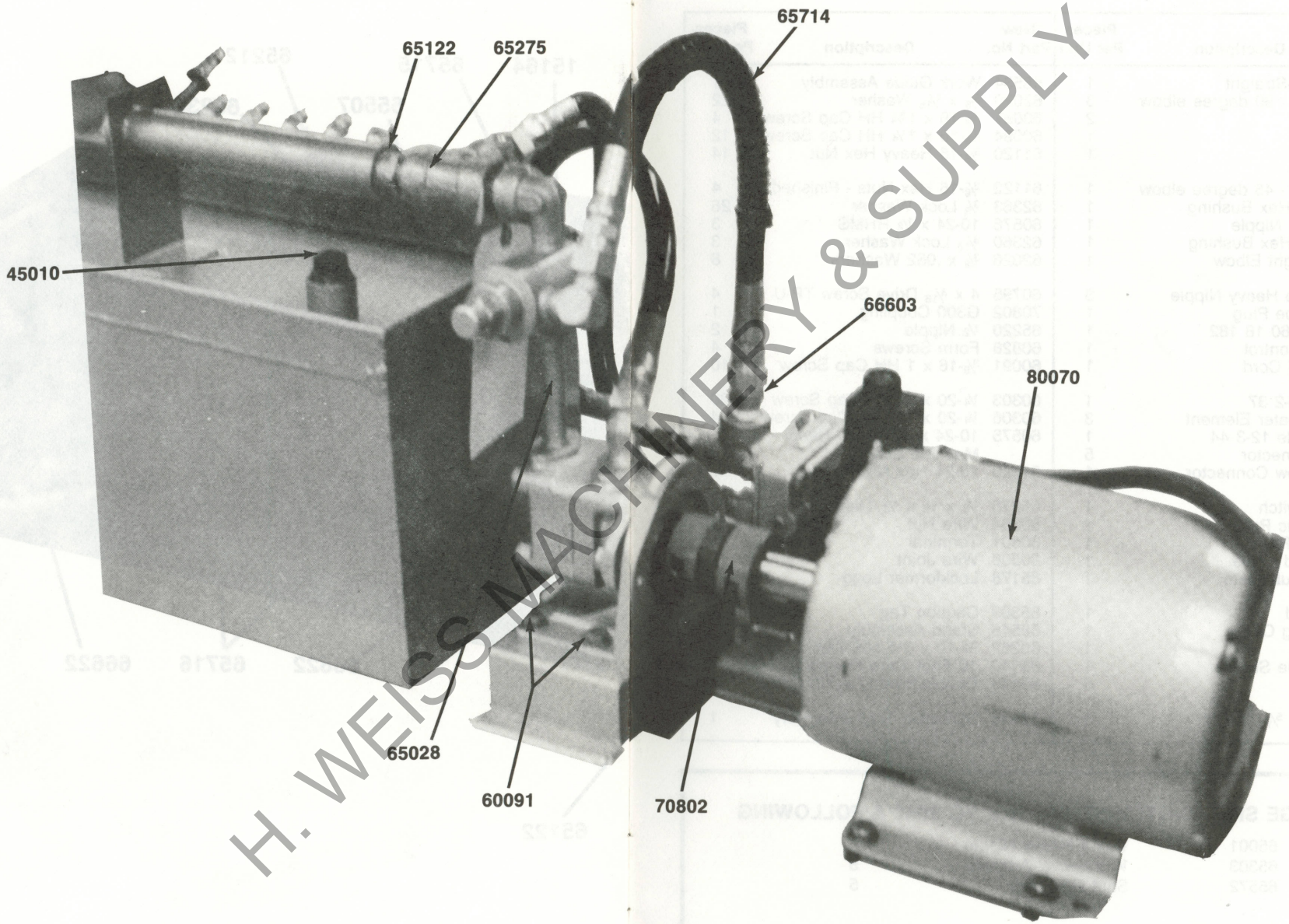
New Part No.	Description	Pieces Per Unit	New Part No.	Description	Pieces Per Unit
40455	Cylinder	5	22301	Punch	3
15127	Head	5	22302	Die Vee	3
15121	Piston	5	22303	Punch Left	1
21750	Backing Plate	3	22304	Die Left	1
21751	Backing Plate Left	1	22305	Punch Right	1
21752	Backing Plate Right	1	22306	Die Right	1
14626	Guide Washer	5	65176	¼ Straight Elbow	5
71002	Compression Spring	5	65001	¼ x 1 Nipple	5
14516	Spring Guide	5	65645	O Rings	10
15130	Bottom Cap	5	62714	3/16 x 1 Roll Pin	5
14845	Stud	5	62365	⅝ Lock Washer	5
40490	Cylinder Clamp	5	61203	⅝-11 Hex Nut Finished 15/16	5
40460	Handle	5	60301	¼-28 x ⅜ SH Cap Screw	20
21577	Gib Left	5	65303	¼ Swivel Adaptor	5
21576	Gib Right	5	60401	⅜-16 x ¾ SHCS	18
21509	Guide Plate	5	60001	¼-28 x ½ HH Cap Screw	10
62612	¼ x ¾ Dowel Pin	2	60609	¼-28 x 5/16 Socket Set Screw	20
42511	Gauge Step Pin	3	65572	Ball Valves	5





PARTS LIST AND DESCRIPTION
LOCKFORMER SPEEDNOTCH

PLEASE USE **NEW** NUMBER
WHEN ORDERING PARTS.

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New Part No.	Description	Pieces Per Unit
66603	Adaptor-Straight	1
66622	Adaptor - 90 degree elbow	3
65716	Hose	2
65715	Hose	1
65714	Hose	1
66624	Adaptor - 45 degree elbow	1
65122	¾ x ½ Hex Bushing	1
65028	⅜ x 3¾ Nipple	1
65112	½ x ⅜ Hex Bushing	1
65181	½ Straight Elbow	1
65041	½ Close Heavy Nipple	3
45010	Vent Pipe Plug	1
80070	3 HP 3 60 18 182	1
80102	Motor Control	1
80503	12-2 x 8 Cord	1
80502	Cord 12-2 37	1
82249	W49 Heater Element	3
80421	BX Cable 12-3 44	1
80483	BX Connector	5
80485	BX Elbow Connector	1
80208	Foot Switch	1
65404	Hydraulic Pump	1
65500	Valve - Relief	1
65535	Solenoid Valve	1
65532	Valve Sub Plate	1
15164	Manifold	1
35445	Coupling Cover	1
65230	¾ Plug	1
65212	¼ Nipple SHPP	1
65717	Hose	5
60650	5/16-18 x 5/16 SSS	1

New Part No.	Description	Pieces Per Unit
56534	Work Guide Assembly	1
62029	⅜ x 1/16 Washer	22
60097	⅜-16 x 1¾ HH Cap Screw	4
60094	⅜-16 x 1¼ HH Cap Screw	12
61120	⅜-16 Heavy Hex Nut	14
61122	⅜-16 Hex Nuts - Finished	4
62363	⅜ Lock Washer	26
60576	10-24 x ½ RHMS	3
62360	3/16 Lock Washer	3
62026	⅜ x .052 Washers	8
60795	4 x 3/16 Drive Screw TP-U	4
70802	G300 Coupling	1
65220	½ Nipple	2
60828	Form Screws	4
60091	⅜-16 x 1 HH Cap Screw	10
60303	¼-20 x ¾ SH Cap Screw	60
60306	¼-20 x 1½ SH Cap Screw	4
60575	10-24 x ⅜ Round Head Machine Screw	4
61040	10-24 Hex Nut	7
65275	½ x ½ x ½ Tee	2
80554	Wire Nut	1
80601	Terminal	5
80608	Wire Joint	2
85178	Lockformer Logo	1
85309	Caution Tag	1
58546	Stand Assembly	1
60262	¾-10 x 3½ HH Cap Screw	1
85140	10 Foot Tape Measure	1
85143	Double Faced Packing Tape	120″
57136	Hydraulic Tank Assembly	1

16 GAUGE SPEEDNOTCH SERIAL NO. VG 2042 & FOLLOWING

65001	¼ x 1 Heavy Nipple	5
65303	¼ x Swivel Adaptor	5
65572	Shut Off Valve	5

16 GAUGE SPEEDNOTCH SERIAL NO. VG 2041 & BELOW

65003	¼ x 2 Heavy Nipple	5
70820	Quick Disconnect	5
70790	Sash Chain	5
65751	Hose Clamp	10
56533	Punch Gauge Bar Assembly	1