

# NO. 3617

## CRIMPING AND BEADING MACHINE

### OPERATING INSTRUCTIONS AND PARTS IDENTIFICATION



**ROPER WHITNEY OF ROCKFORD, INC.**

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## 3617 BEADING AND CRIMPING STANDARD MACHINE SPECIFICATIONS

Capacity .....	18 Ga. Mild Steel
Throat to Frame Depth .....	13"
Throat to Gauge Depth .....	12 1/4"
Distance Between Shaft Centers .....	3"
Speed of Rolls .....	40 RPM
Geared Head Motor .....	3/4 H. P.
Shipping Weight .....	Approx. 320 lbs.
Length .....	39"
Height .....	52"
Width .....	14 1/2"

Designed for deep throat beading.

Includes spacing collars and gauges for all operations except flanging. Rolls ordered separately.

Beading or crimping or special roll operations.

One piece frame -- back geared.

Steel horn -- bronze bushed bearings.

Cabinet type floor stand.

Vee belt drive from geared head motor.

Enclosed drive for safety.

### STANDARD ELECTRICS

3/4 H. P. 520 RPM parallel shaft gear motor.

Guarded foot switch.

Control Panel to Stop/Start and Forward/Reverse.

Wired for 230 or 460 volts, 3 PH, 60 CY.

### OPTIONAL ELECTRICS

Electrics at other voltage, phase or frequency.

**ROPER WHITNEY COMPANY  
SAFETY RULES  
NO. 3617**

1. **WARNING:**

Electrical Danger -- Misuse or improper installation of machinery connected to a source of electricity may result in accidental shock that could cause injury or death. Installation must conform to National Electric Code (Article 250-Grounding, etc.)

Electrical connections must be made by a trained and qualified electrician. Electrical characteristics shown on motor plate and control panel must match the power source; and all electrically powered equipment must be grounded.

2. **WARNING:**

Mechanical Danger -- The power driven forming rolls will rotate in either a clockwise or counter clockwise direction. Never place any part of the body including loose clothing near or onto the rotating rolls. (KEEP HANDS AWAY). Failure to comply will lead to personal body injury.

3. Never clean forming rolls while rolls are rotating -- turn power off to clean rolls.
4. Machine to be operated by authorized personnel who have been trained by their supervisor with the working and safety features of the machine, and by reading and understanding the Operator's Manual.
5. Do not operate power crimping and beading machine without reading Operator's Manual and without proper supervisory instructions.
6. Perform all installation and set-up operations before applying power for electrical start-up.
7. Never operate machine with any guard removed; i.e., all required guarding to be installed and effective. Do not override the safety features of the equipment. Do not remove, paint over, alter, or deface any machine-mounted warning and instruction plates and signs.
8. Never leave machine running unattended. When not in use, turn off electrical power.
9. Never adjust machine with power on.
10. Avoid accidental start-up.
11. Do not use machine if servicing is required.

12. Use safety glasses and required protective tools.
13. Keep work areas clean and in proper order.
14. Be alert to all potential hazards. Notify your supervisor whenever you feel there is a hazard involving the equipment or the performance of your job.

BEFORE INSTALLING THIS CRIMPING AND BEADING MACHINE, READ AND UNDERSTAND THIS MANUAL AND SAFETY REQUIREMENTS FOR THE CONSTRUCTION, AND CARE OF USE OF THE CRIMPING AND BEADING MACHINE.

## **INSTALLATION**

### **Receiving:**

Immediately upon receiving the crimping and beading machine, check it very carefully for damage or loss of parts in transit. Since all equipment is sold F.O.B., the Roper Whitney Company plant, our responsibility for transit damage ceases when the transportation company signs the bill of lading indicating that it has received all of the items listed on the bill of lading in good condition. Report any loss or damage to the delivering carrier promptly to insure proper handling of your claim.

Question - Distributor or Roper Whitney - Shortages not appearing on the bill of lading or discrepancies between equipment received and the order should be reported to Roper Whitney Company immediately.

### **Leveling:**

Be sure machine is solid and reasonably level on all four points so there is no camber or twist to the machine.

If machine is shipped on a pallet, be sure to remove from pallet and place directly on flooring.

Machine must be securely bolted to floor. Bolt holes are provided in base of machine, and see page 5 for bolt mounting pattern.

### **Cleaning:**

In spite of precautions taken in preparing the shear for shipment, dirt and foreign material may accumulate on machine and other parts during transit, and can cause considerable damage unless thoroughly cleaned. It is extremely important to inspect and thoroughly clean off any dirt and foreign material that may have accumulated. DO NOT attempt to blow dirt out with an air hose as this may force some foreign material into undesirable areas. Remove any rust-proofing compound with an acceptable solvent.

# 3617 FLOOR MOUNT BOLT PATTERN

(NO SCALE)

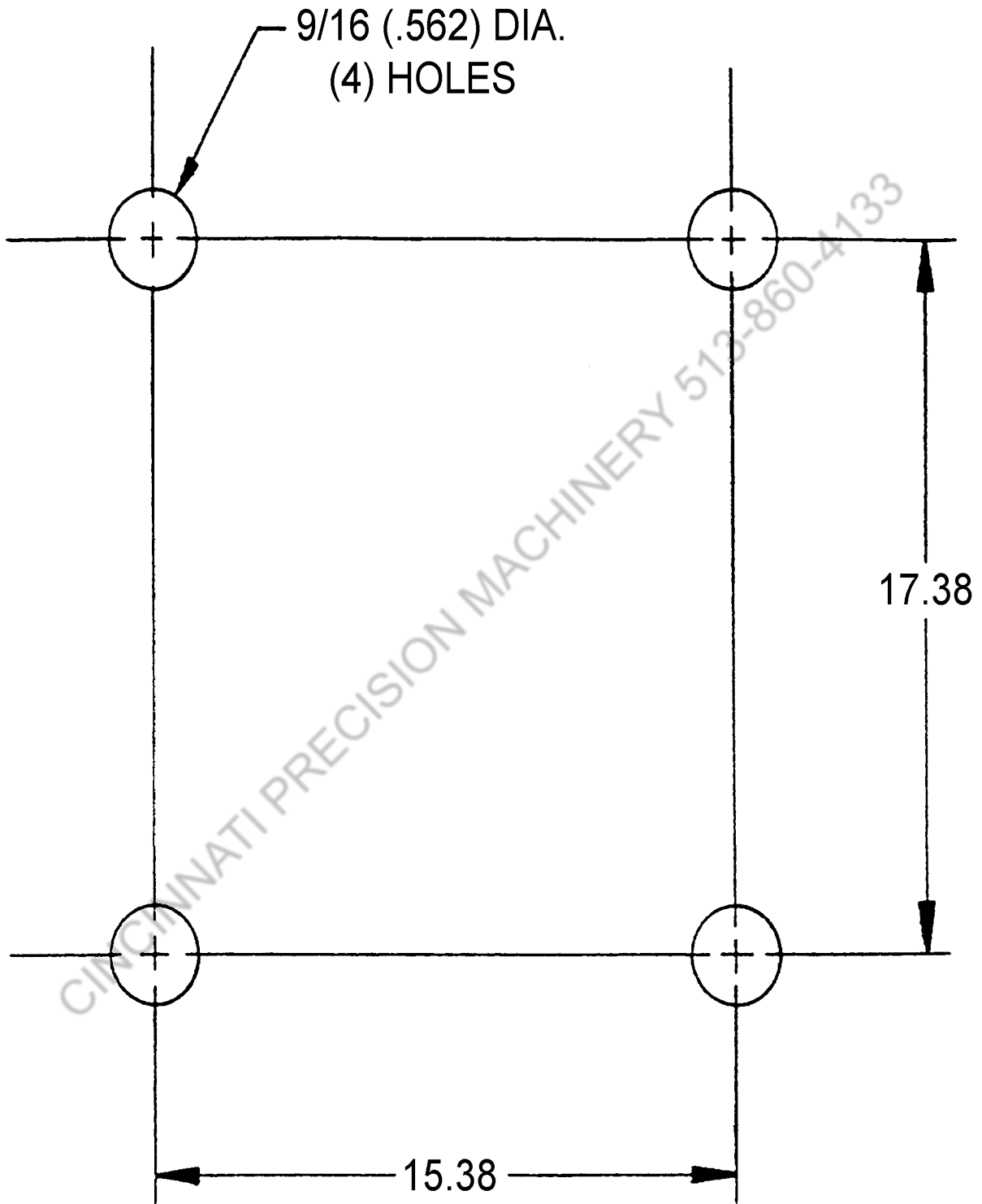


FIGURE 1

Lubrication and visual inspection at regular intervals are required for good maintenance. Use machine for its intended purpose only and always within rated capacity. Do not operate with guards removed nor when inspection indicates possibility of malfunction. Correct operation is a necessary safety precaution and is required to avoid operator injury. Gears, belt drive and motor are fully guarded for operator safety. Never leave machine running unattended. Keep work area clear and in proper order. Parts list, drawings, and wiring diagrams are included with these instructions. For repair parts, when needed, give complete Model No. and Serial No. as listed on the machine nameplate. Identify parts wanted by description and reference to parts list and drawings.

### **LUBRICATION**

The specially compounded lubricants or their equivalent as specified on the data plate furnished with your machine and the lubrication chart must be used. See Page 7 for lubrication points.

#### LUBRICATION CHART

COMPONENT	LUBRICANT		INTERVAL
	MOBILE	TEXACO	
BEARING BLOCKS	*MOBILE GREASE SPECIAL	*TEXCLAD 2	40 HOURS
PULLEY IDLER SHAFT			40 HOURS

\* FOR REFERENCE - ANY EQUIVALENT IS ACCEPTABLE

# LUBRICATION POINTS NO. 3617 CRIMPING AND BEADING MACHINE

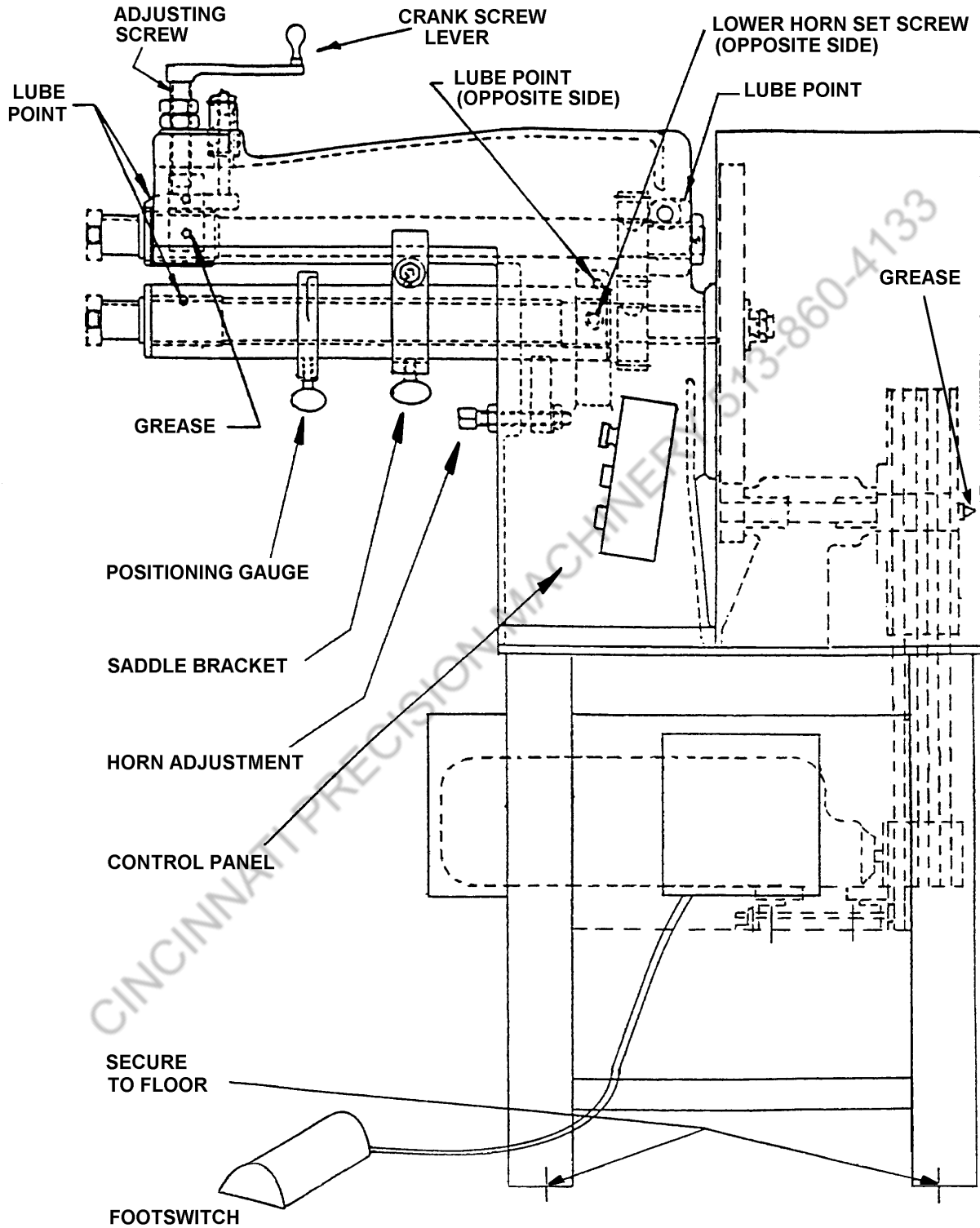


FIGURE 2

## CONNECTING ELECTRICAL SERVICES

1. **WARNING:** Electrical Danger, misuse or improper installation of machinery connected to a source of electricity may result in accidental shock that could cause injury or death. Installation must conform to National Electric Code (Article 250 - Grounding, etc.)
2. **WARNING:** Electrical connections must be made by a qualified electrician. Electrical characteristics shown on the motor plate and control panel must match the power source; and all electrically powered equipment must be grounded.
3. **CAUTION:** Electricians checking direction of rotation should be cautioned not to operate the machine until it has been thoroughly checked, cleaned, leveled, and lubricated. For wiring diagram see Figures 5, 6 and 7.

CINCINNATI PRECISION MACHINERY 513-260-4133



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EXTERNAL POWER CONNECTIONS

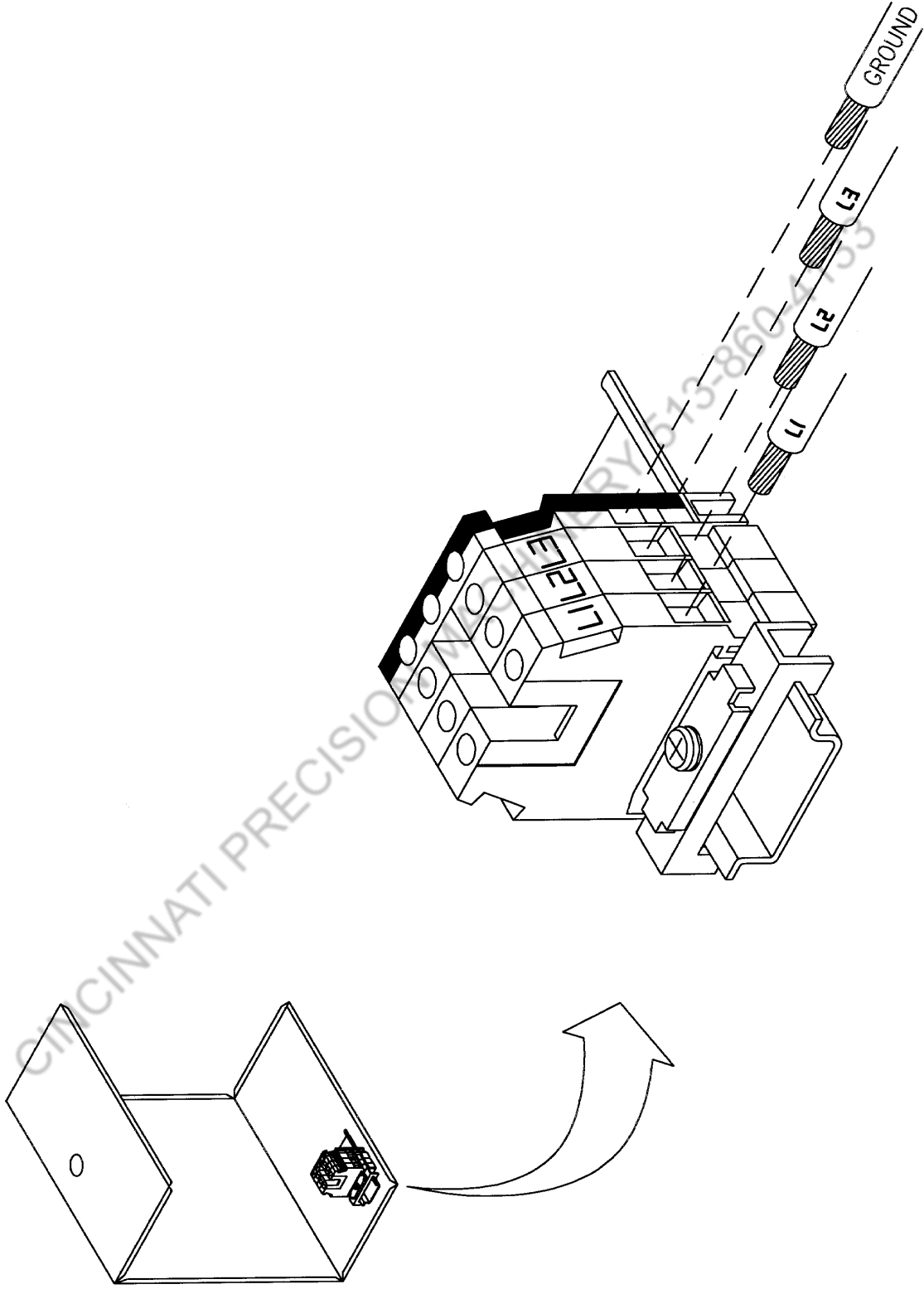


FIGURE 3

# 3617 CONTROL BOX

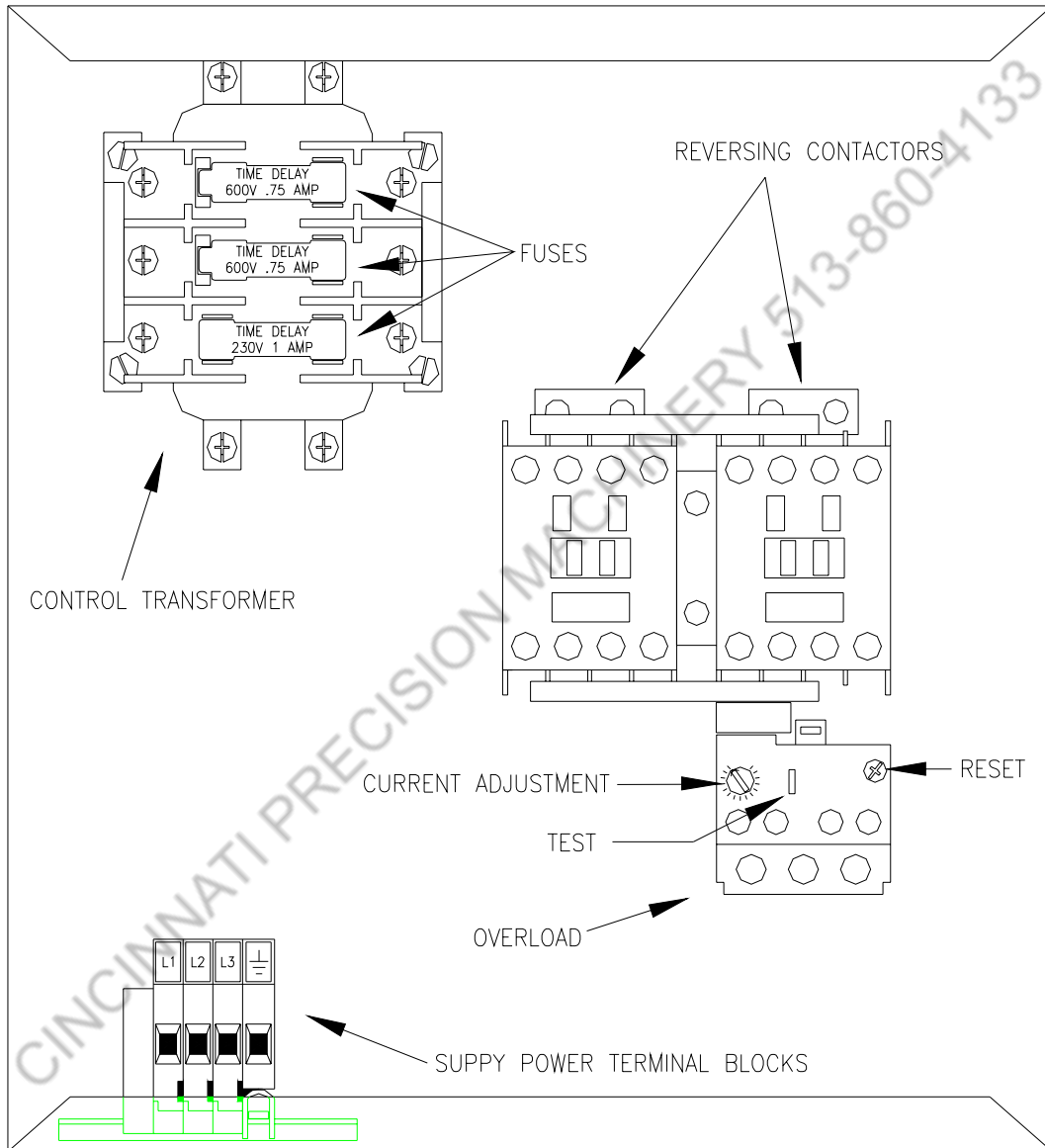


FIGURE 4

# MODEL 3617 POWER CONTROL CIRCUIT

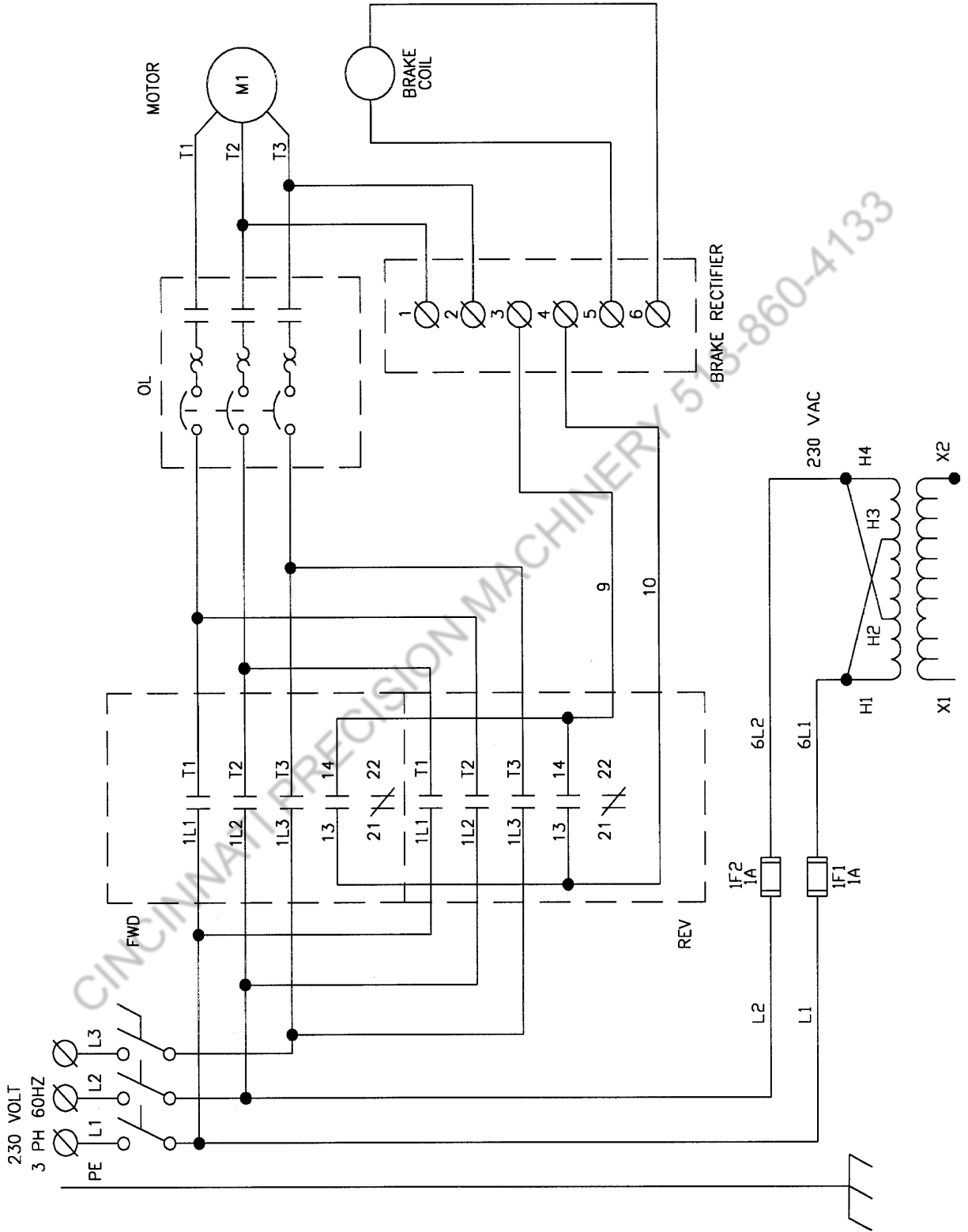


FIGURE 5

# MODEL 3617 CONTROL CIRCUIT

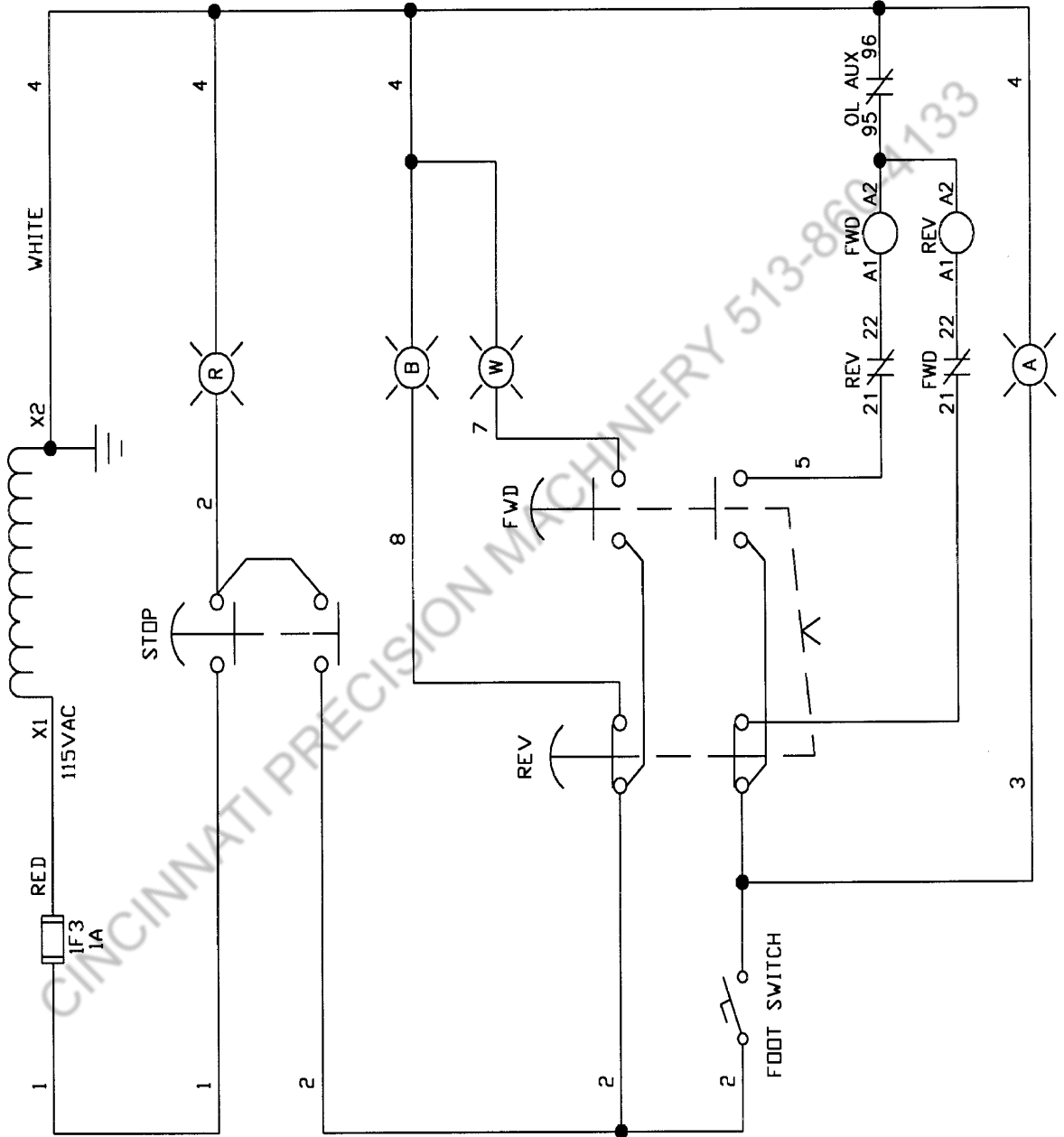


FIGURE 6

MODEL 3617 MOTOR & BRAKE WIRING DIAGRAM

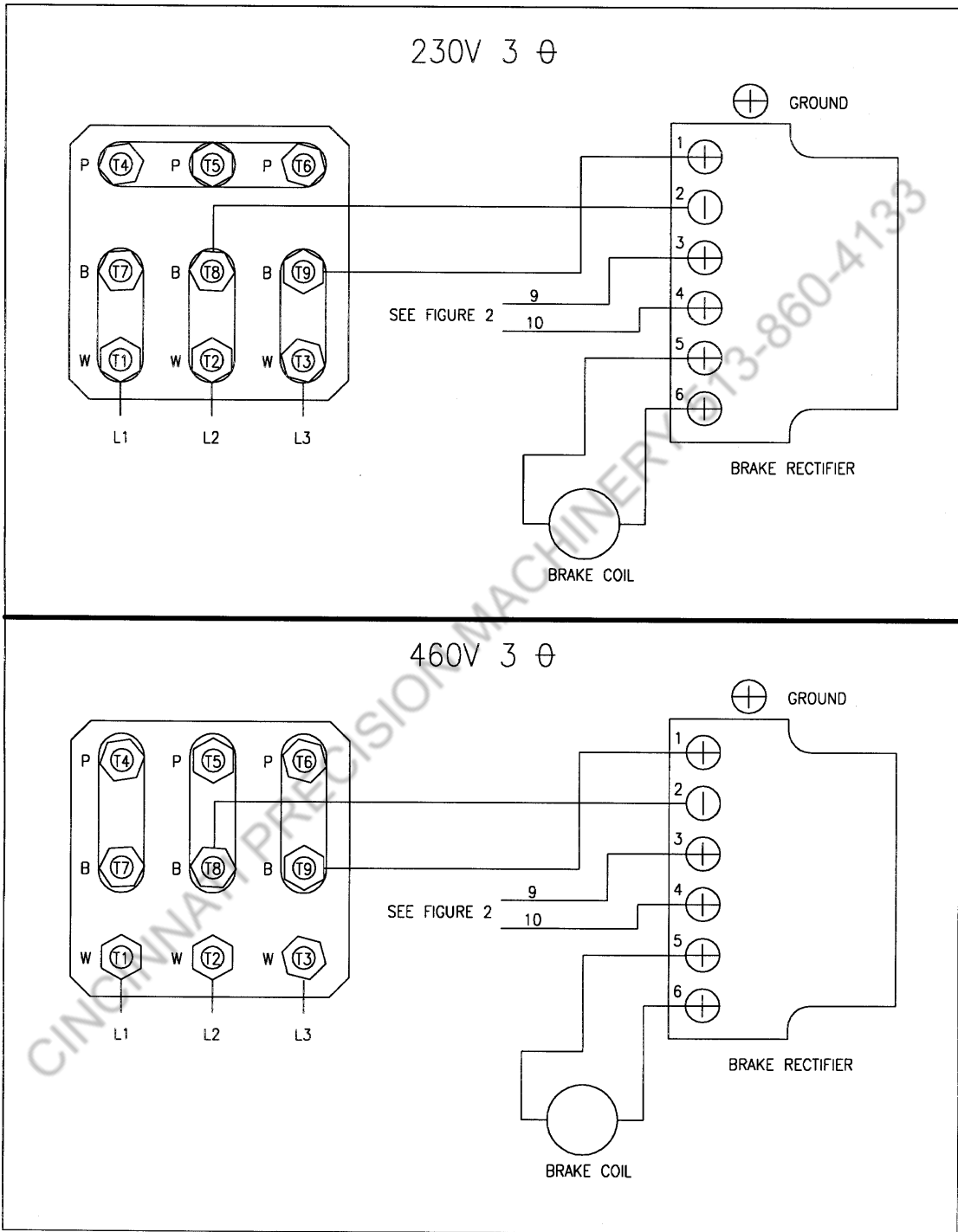


FIGURE 7

**CAUTION: DO NOT OPERATE MACHINE WITHOUT PROPER INSTRUCTIONS.**

Observe all safety rules and regulations. Become familiar with controls and intended operation before using. **MACHINE MUST BE SECURELY BOLTED TO FLOOR** and connected to correct source of voltage, phase and cycles.

**WARNING:** Electrical danger -- Misuse or improper installation of machinery connected to a source of electricity may result in accidental shock that could cause injury or death. Installation must conform to National Electric Code (Article 250 - Grounding, etc.) Ground all electrically powered equipment. Machine to be operated by qualified personnel only.

**WARNING: KEEP HANDS AND FINGERS CLEAR OF ROLLS AT ALL TIMES.**

Provide point of operation guarding as required to avoid injury. The exact guard needed will be governed by many factors and may require change when going from one cylinder to another. All required guarding to be installed and effective before using. Some of the factors involved are: Diameter of cylinder, length of cylinder, type and gauge of material, direction of feed, number of passes thru rolls, etc. Do not allow clothing or any part of the body (fingers, hands, arms, hair, etc.) to come in contact with the rolls while the machine is operating. Do not use machine if servicing is required. Never adjust machine with power on. Be alert to all potential hazards.

## CONTROLS

### ON-OFF BUTTON:

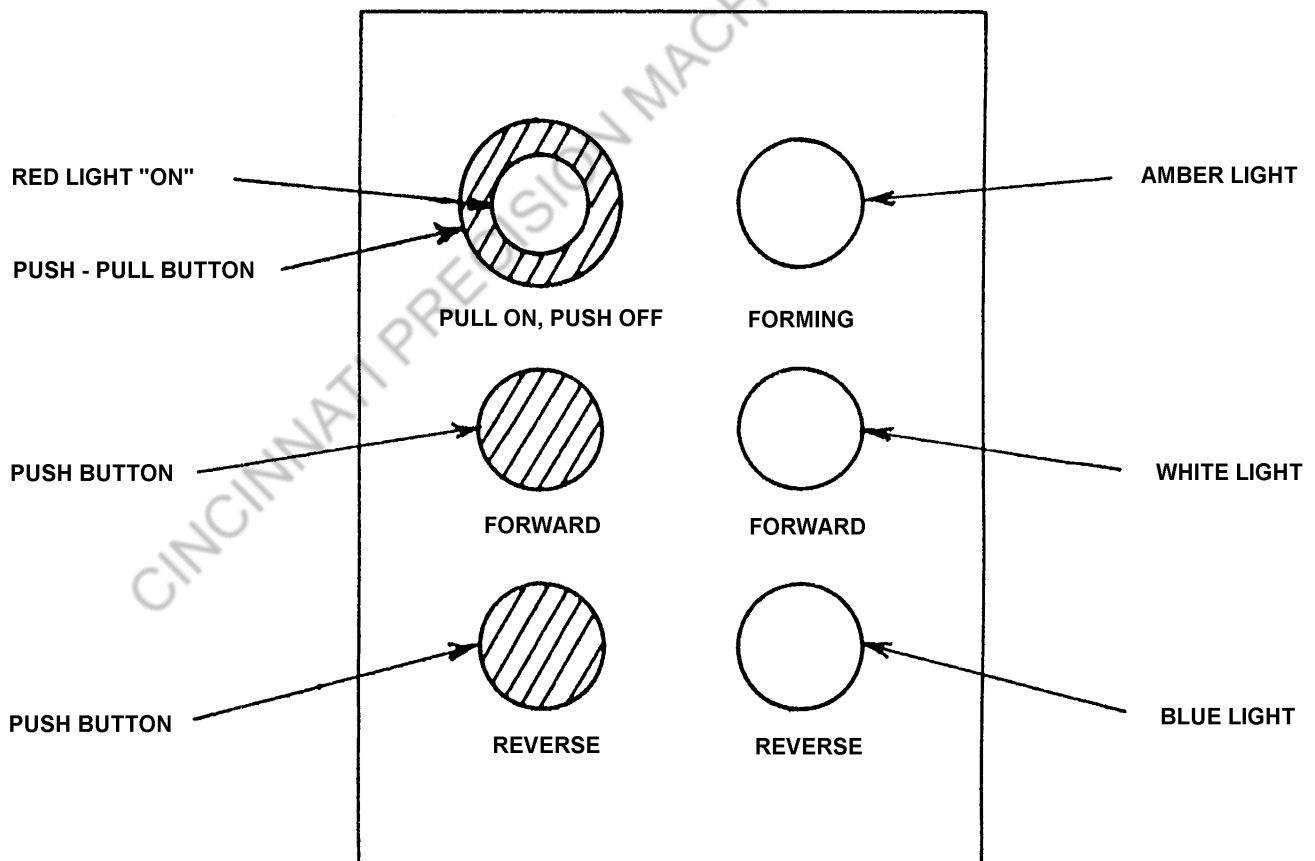
Connects 115 VAC to the control when the light goes on. The 115 VAC is disconnected when this button is pushed, and the red light goes off. The electric circuit will permit the off button to override the footswitch.

### FORWARD & REVERSE BUTTONS:

Selects the proper relay to control motor rotation. These two buttons are mechanically and electrically interconnected so that EITHER forward OR reverse is switched. Both directions have respective white and blue lights that indicate the forming roll rotation i.e., white denotes forward and blue is reverse.

### FORMING LIGHT:

The forming light has an amber color, and is on when the forming rolls rotate from the footswitch actuation. Conversely, upon switching off the footswitch, the forming light is turned off.



**FIGURE 8**

The forward and reversing relays are located in the reversing magnetic starter box, and will not require service nor attention by the machine operator.

The brake is part of the electric motor, and will quickly stop the forming rolls when the motor power is switched off. The motor power can be switched off by either the footswitch or the panel push button switch. Upon switching the motor power to “on” the brake will automatically release and allow forming roll rotation.

The footswitch has two anti-trip features: 1) the foot pedal is covered to prevent someone from stepping on the switch. 2) The operator’s foot must extend entirely to engage a “toe” clamp to release the foot pedal, allowing actuation of the electric switch. Downward foot movement, therefore, switches electrical power to the motor; and upward foot movement switches the motor power off. The “toe” clamp will reset to prevent anti-trip when the operator’s foot is removed from the switch.

The gearmotor is mounted on a pivoting bracket. The belt adjustment is properly set and should not be changed. Do not remove belt guard cover; must be in position when operating roll forming machine.

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## **3617 MACHINE OPERATING PROCEDURES**

1. Select forward rotation by depressing “Forward” button on control panel (see Page 15). White light will be illuminated. NOTE: This only determines the direction of rotation the rolls will turn when rotation is actuated by the footswitch. Always select direction of rotation when rolls are not rotating.
2. To initiate rotation of the rolls, depress the footswitch. Amber light will be illuminated. This will cause the material to be fed through the rolls. Before activating rotation be sure the sheet material is aligned properly.
3. To stop roll rotation, release the footswitch with an upward movement of the operators foot. A very quick stop will occur, because the engaging brake (nearly simultaneously with the motor power being switched off) will stop all rotating components. NOTE: For any Emergency Stop (roll forming problem, parts of the body or clothing become entangled in the rolls), the rotating rolls will immediately stop, either from an upward movement at the footswitch or depressing the “OFF” mushroom button having a red light.

## **OPERATION AND ADJUSTMENT**

**CAUTION:** Do not operate machine without proper instructions. Become familiar with controls and intended operation before using. Machine to be operated by qualified personnel only.

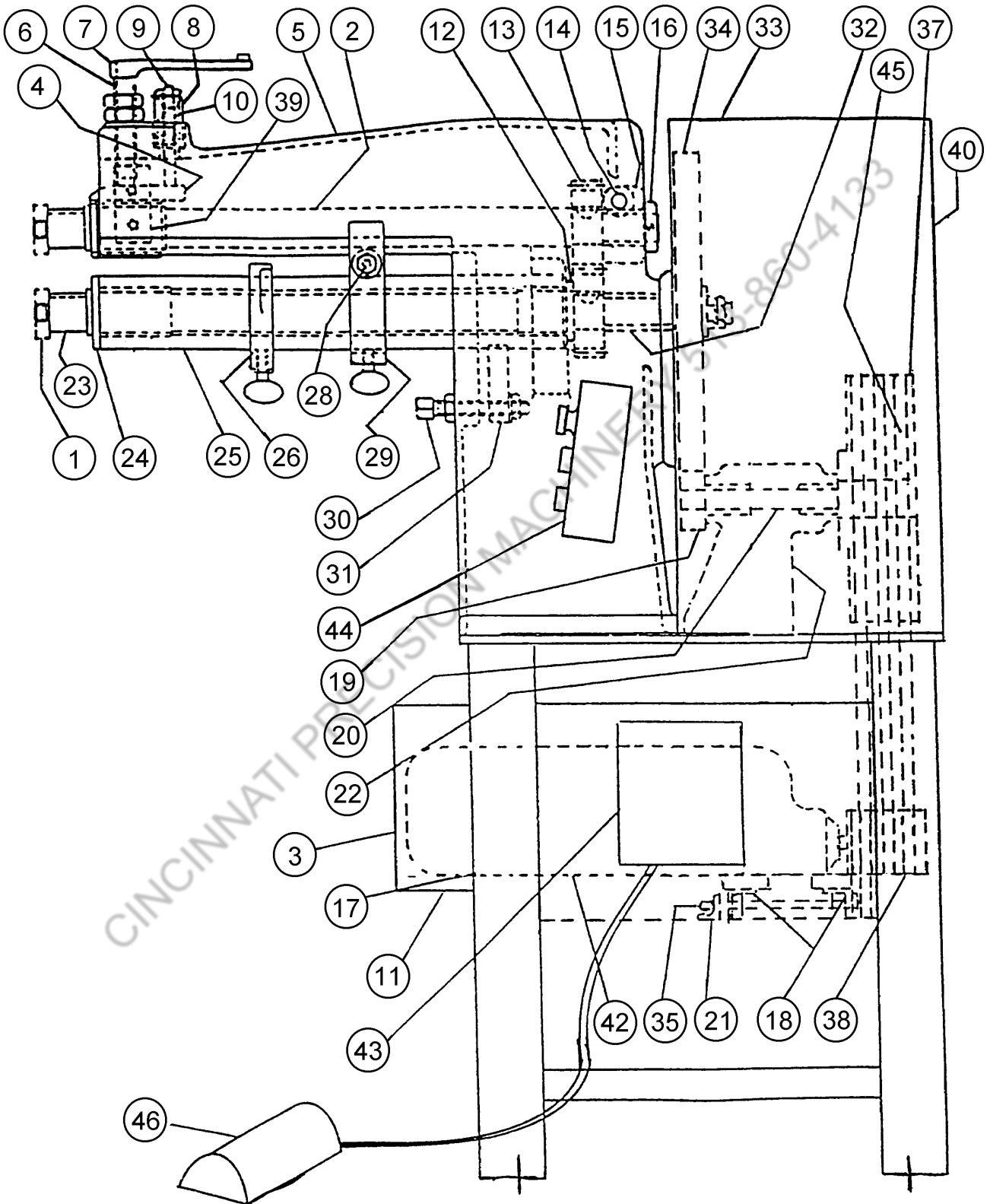
This PEXTO beading machine is intended for deep throat beading, crimping and other roll operations on 18 gauge maximum mild steel sheet material. The positioning gauge is adjustable within it's 12" range.

Rolls are secured to the shafts by roll nuts and keys. The lower shaft horn adjustment will provide lateral adjustment for alignment of the rolls. An adjustable “saddle” bracket will provide additional support for the lower shaft horn when required. The pivoting upper shaft is spring loaded in the open position. Amount of the opening is controlled by the adjusting screw and crank screw lever. Depth of bead can be limited by the check nuts on the adjusting screw. The positioning gauge is adjustable to locate the bead in relation to the end of the material being worked.

### **LOWER HORN ADJUSTMENT:**

To adjust lower horn the lower horn set screw, which is located directly below oil hole on back side of machine, must be loosened FIRST. Then loosen lock nut on horn adjustment screw. Adjust horn to desired position, tighten locknut and retighten set screw.

# 3617 PARTS IDENTIFICATION CHART



## 3617 CRIMPING & BEADING MACHINE PARTS LIST


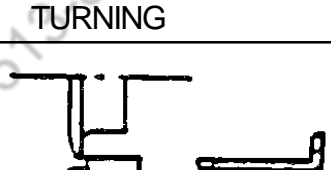
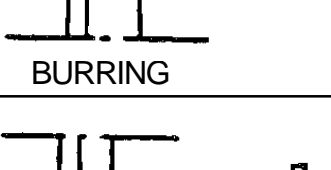

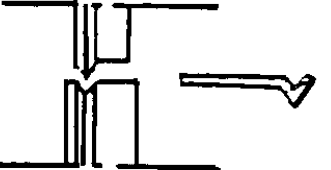
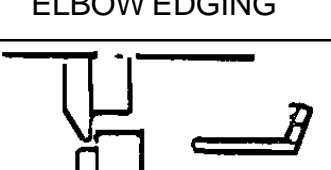
### REFER TO PARTS IDENTIFICATION CHART

INDEX	PART #	DESCRIPTION	INDEX	PART #	DESCRIPTION
1	764560158	Roll Nut (2 req'd)	23	764680165	Lower Shaft
2	764680164	Upper Shaft	24	764830168	Thrust Washer (front)
3	764220205	Motor Cover	25	243700019	Horn Assy
4	243700017	Front Box Assy	26	259700094	Gauge Assy
5	764140220	Frame	28	764160151	Tie Bolt
6	764650157	Adjusting Screw	29	764180149	Saddle
7	230700011	Crank Screw Lever	30	764650166	Adjusting Screw
8	764260162	Spring Cup	31	764680167	Adjusting Stud
9	764160163	Stud	32	764630155	Pipe Spacer
10	664184544	Spring	33	764220203	Rear Cover
11	764220222	Motor Cover	34	764380145	Gear
12	764830169	Thrust Washer (rear)	35	764160197	Hinge Pin
13	764380154	Connecting Gear (2)	37	684275423	Large Sheave
14	690012366	Full Dog Screw 5/8-11 x 1 3/4	38	684275410	Small Sheave
15	243700018	Rocking Box Assy	39	764400148	Gib (2 req'd)
16	764560170	Lock Nut	40	764440204	Belt Guard
17	739060004	Stand	42	660011147	Motor
18	764060200	Motor Bracket	43	660021326	Starter
19	764380146	Pinion Gear	44	660102151	Control Panel
20	764680178	Drive Shaft	45	684265319	Vee-Belts (2 per set)
21	764500202	Motor Hinge	46	660092104	Footswitch
22	240700039	Bearing Bracket Assy	47	764480161	Spanner Wrench (not shown)

When ordering Replacement Parts always give Model Number and Serial Number.

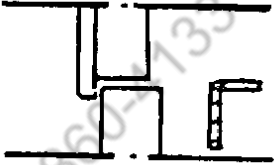
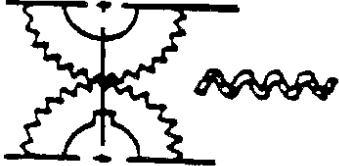
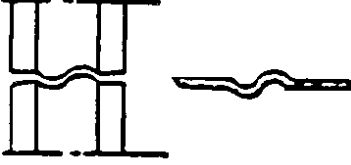
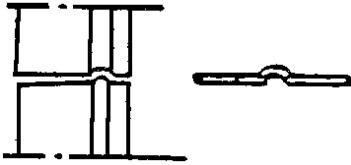
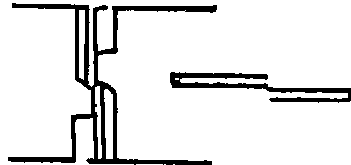
## NO. 3617 ROLL CHART

### 3" CENTERS

ROLL STYLE	ROLL CATALOG NO.		GAUGE REQ'D	SPACING COLLAR	ROLL DIAGRAM
<b>A</b>	3/16"	350000086 350000087	259700035	381700092	
	1/4"	350000088 350000089	259700035	381700092	
<b>B</b>	5/16"	350000090 350000091	259700035	381700092	 <p style="text-align: center;">TURNING</p>
<b>C</b>		350000092 350000093	259700035	381700092	 <p style="text-align: center;">BURRING</p>
<b>D</b>		350000094 350000095	259700035	381700092	 <p style="text-align: center;">WIRING</p>
<b>NO.1</b>		350000122 350000123	259700035	381700092	 <p style="text-align: center;">ELBOW EDGING</p>
<b>L</b>		350000137 350000138	259700037	381700092	 <p style="text-align: center;">FLANGE</p>

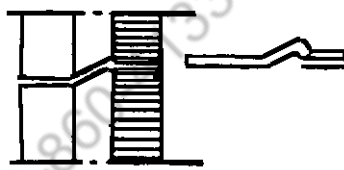
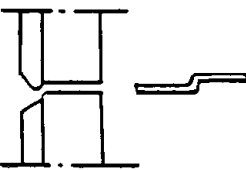
## NO. 3617 ROLL CHART

### 3" CENTERS

ROLL STYLE	ROLL CATALOG NO.		GAUGE REQ'D	SPACING COLLAR	ROLL DIAGRAM
<b>M</b>	3/16"	350000086 350000087	259700035	381700092	 <p>FLATTENING</p>
<b>E</b>	1/4" 5/16"	350000098 350000099 350000096 350000097	259700034	381700092	 <p>CRIMPING</p>
<b>F</b>	9/16" 1"	350000100 350000101 350000011 350000012	259700035	NOT REQ'D 381700092	 <p>OGREE BEAD</p>
<b>G</b>	5/8" 3/8"	350000124 350000125 350000013 350000014	259700035	NOT REQ'D	 <p>SINGLE BEAD</p>
<b>H</b>		350700070 CARBON (2 REQ'D)  350700067 HIGH SPEED (2 REQ'D)	259700035	381700085	 <p>SLITTING CUTTERS</p>

## NO. 3617 ROLL CHART

### 3" CENTERS

ROLL STYLE	ROLL CATALOG NO.	GAUGE REQ'D	SPACING COLLAR	ROLL DIAGRAM
<b>N</b>	350000070 350000071 350000072 350000073	259700034	381700092	 <p style="text-align: center;">FURNACE COLLAR EDGING</p>
<b>P</b>	350000074 350000075	259700034	381700092	 <p style="text-align: center;">OFFSET</p>

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