

SAFETY REQUIREMENTS & RECOMMENDATIONS

CAUTION

DO NOT ATTEMPT TO INSTALL, ADJUST, OR OPERATE THIS MACHINE WITHOUT FIRST READING THE CONTENTS OF THIS MANUAL. ALTHOUGH THE DESIGN OF THIS EQUIPMENT INCORPORATES SAFEGUARDS TO PROTECT OPERATING AND MAINTENANCE PERSONNEL, CARE SHOULD BE USED IN OPERATING, ADJUSTING, AND SERVICING.

WHEN MACHINE IS UNPACKED, INSPECT CAREFULLY FOR POSSIBLE SHIPPING DAMAGE. IF ANY IS FOUND, CONTACT CARRIER IMMEDIATELY AND DO NOTHING FURTHER WITH MACHINE UNTIL CARRIER'S AGENT HAS MADE INSPECTION, REPORT, ETC.

The design of this machine includes safety features required to eliminate potential hazards during operation or maintenance.

Applicable OSHA, ANSI, NEMA, and NEC standards have been followed as guidelines in the design and construction of this machine. References are made in this text to special areas of CAUTION. It is strongly recommended that you familiarize yourself with these CAUTION statements.

Tampering with or removing safety devices and/or improper operation or maintenance can result in exposing personnel to possible injury.

Please become familiar with this machine and follow the recommendations for safe operation, maintenance, and sanitation in the following page.

WELDOTRON CORPORATION SAFETY RECOMMENDATIONS

SAFETY IS ENGINEERED INTO ALL WELDOTRON EQUIPMENT; CERTAIN PRACTICES AND MINOR ALTERATIONS BY THE USER COULD INCREASE THE POTENTIAL TO ACCIDENTS AND/OR INJURY. IN THE INTEREST OF SAFE INSTALLATION, OPERATION AND MAINTENANCE, THE FOLLOWING RECOMMENDATIONS SHOULD BE STRICTLY ADHERED TO:

1. WARNING

Do not attempt to start or operate the machine until all safety items, installation instructions, operator/s guide & maintenance procedures have been followed & understood.

2. CAUTION

Adjustments, repairs or lubrication should be performed only by qualified maintenance personnel and by following the instructions in this manual and the LOCKOUT/TAGOUT PROCEDURE.

3. WARNING

Operator must keep fingers, hands, clothing or long hair away from the machine while it is in operation.

4. CAUTION

Do not place or leave tools, parts or other objects in or on the machine.

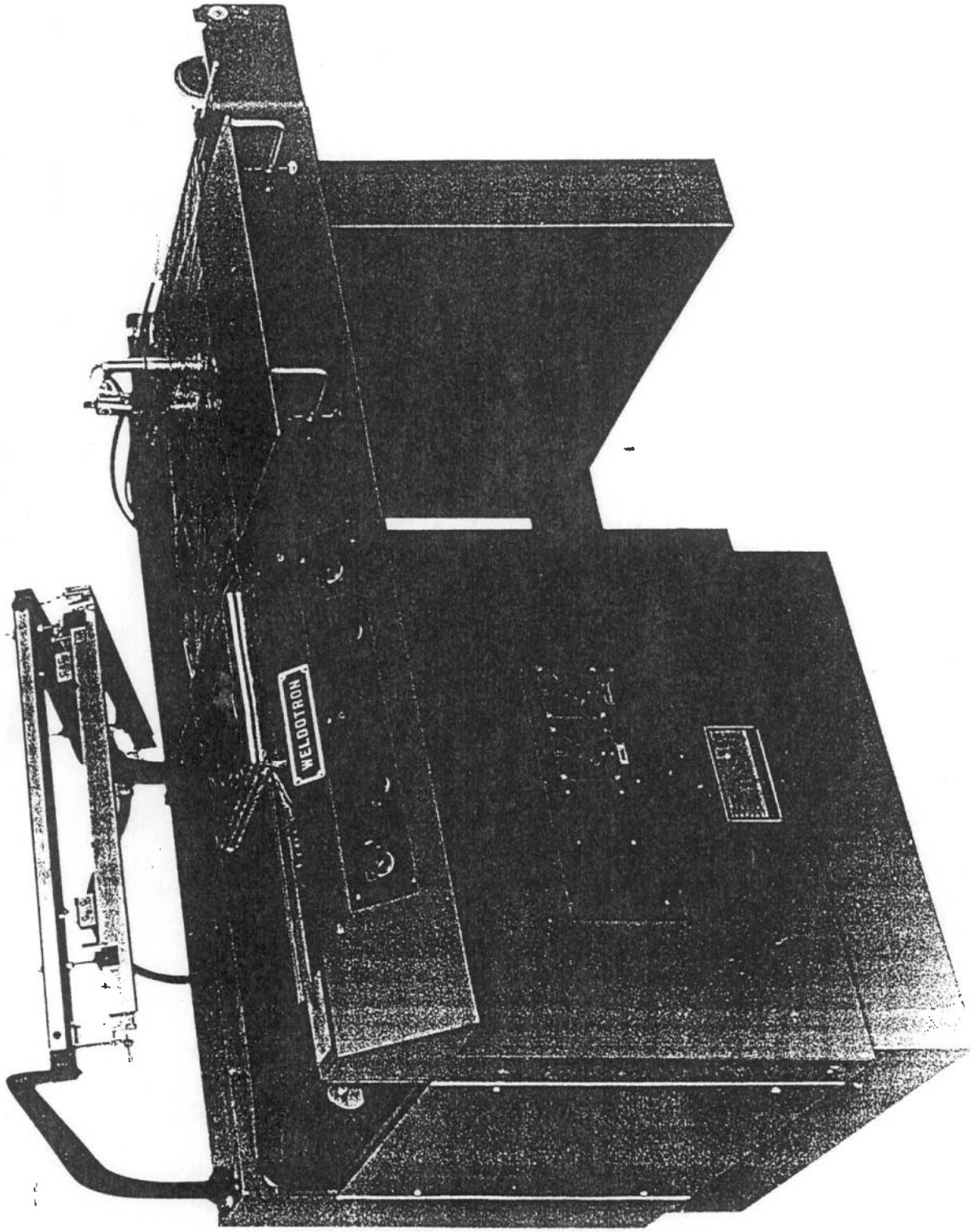
5. ALWAYS

Disconnect the main electrical power supply before performing any electrical work or removing any electrical component.

6. ALWAYS

Keep the machine clean & lubricated and in good operating condition.

5200 SERIES CONSOLE TYPE SEALER



weldotron®
corporation

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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE NO.</u>
1 UNPACKING	1-1
2 INSTALLATION	2-1
3 SPECIFICATIONS	3-1
4 INITIAL OPERATION	4-1
4.1 Preliminary Set-Up	4-1
4.2 Initial Operation in Impulse Sealing Mode	4-2
5 OPERATION OF SAFETY CIRCUIT	5-1
6 FILM LOADING	6-1
6.1 Mounting the Film	6-1
6.2 Package Conveyor Height Adjustment	6-1
6.3 Threading the Film	6-1
7 SEALER OPERATION	7-1
7.1 Operation	7-1
7.2 Positioning of Hole Punch	7-2
7.3 Conveyor Adjustment for Optimum Running Time	7-2
7.4 Operation of Vacuum Scrap Removal Unit	7-3
7.5 Element Compensator Function	7-3
7.6 Sealing of Polyethylene Film on Sealers Equipped with Polyethylene Switch	7-3

TABLE OF CONTENTS

SECTION	PAGE NO.
8 SERVICE ADJUSTMENTS	8-1
8.1 Safety Circuit Adjustment	8-1
8.2 Element Compensator Adjustment	8-2
8.3 Sealing Head Travel Adjustment	8-3
8.4 Heater Element Cleaning	8-4
8.5 Conveyor-Delay Adjustment	8-4
9 MAINTENANCE	9-1
9.0 LOCKOUT/TAGOUT PROCEDURES	
9.1 Sealing Element Replacement	9-1
9.2 Tape Replacement	9-3
9.3 Silicone Rubber Sealing Pad Replacement	9-3
9.4 Sealing Pad Pressure Adjustment	9-4
9.5 Element Pulse Switch Adjustment	9-5
9.6 Sealing Head Adjustments	9-5
9.7 Contact Cleaning & Replacement	9-8
9.8 Conveyor Assembly Maintenance, Standard Conv.	9-9
9.9 Conveyor Assembly Maintenance "P" Type Conv.	9-11
9.10 Preventive Maintenance Program for Console Sealers	9-11
10 TROUBLESHOOTING CHARTS	10-1
11 REPLACEMENT PARTS LIST, CONSOLE SEALERS*	11-1
* See Attached Replacement Parts List	

APPENDIX

- Limited Warranty and Disclaimer

LIST OF ILLUSTRATIONS

<u>FIGURE NO.</u>	<u>PAGE NO.</u>
4.1 Location of Controls and Adjustments	4-5
9.1 Left Detail, Sealing Element Replacement	9-14
9.2 Right Detail, Sealing Element Replacement	9-15
9.3 Side Detail, Sealing Element Replacement	9-16
9.4 Sealing Pad Pressure Adjustment	9-17
9.5 Sealing Head "UP" Speed Adjustment and "CUSHION" Adjustment, Air Operated Units	9-19
9.6 Sealing Head "DOWN" Speed Adjustment and Piston Lubrication, Air Operated Units	9-19
9.7 Contact Cleaning	9-20
9.8 Conveyor Assembly Maintenance	9-21
9.9 Adjustment & Location of Valves-Hydraulic System	9-22
10.1 Parts Layout, Console Electrical Chassis	10-8

LIST OF DRAWINGS

Electrical Schematic

ID-1044 Console Electrode Bars from Sept. 1964 to present day

1 UNPACKING

Remove the Console Sealer from shipping crate and inspect for possible damage. **IF ANY DAMAGE IS NOTED, CONTACT CARRIER IMMEDIATELY. DO NOTHING FURTHER UNTIL CARRIER'S AGENT HAS MADE AN INSPECTION OF THE DAMAGE TO THE UNIT.**

If no damage is present, check for the presence of the following items:

1. Four extra sets of elements.
2. Two extra lengths of Fibreglas Teflon tape.
3. Vacuum scrap removal unit with connecting hose (if ordered).
4. Auxiliary double film supply holder (if ordered).
5. Fuses (2 furnished), part number FZ-1658.
6. Air-Powered Hose Punch MP-2734.

If any of the above items are missing, contact shipper immediately.

2 INSTALLATION

Place the Sealer in the desired location, with required electric power and air supply sources available. Do not connect the Sealer to power and air supply sources until instructed to do so in the "Initial Operation" section of this manual.

3 SPECIFICATIONS

AIR OPERATED MODELS

MODEL NUMBER	SEALING AREA		OVERALL DIMENSIONS +		LINE CURRENT *	VOLTS **	APPROX. LBS. SHIPPING WEIGHT
	W	L	L	W			
5201A	20	16	56	39	25 AMPS	220 V	500
5202A	20	28	74	39	30 AMPS	220 V	600
5203A	20	40	86	39	35 AMPS	220 V	700
5213A	20	40	86	49	40 AMPS	220 V	750

Includes Air-Powered Hole Punch MP-2734
+ Height of all units to conveyor: 36"

All units operate from standard air lines, pressure 80# nominal, 1.5 CF/M Line frequency 50-60 cycle; other voltages available. Other larger models available on special order.

CONTROLS:

Synchronous timers for dwell, and package take-away conveyor; simultaneously pushed start button; safety stop bar; sealing head stop adjustment; flow control; pressure gauge; oil feed adjustment; conveyor height adjustment.

4 INITIAL OPERATION

NOTE

Although the information presented in this section is designed to assist in setting up the controls and adjustments for initial operation of the Sealer, it is important to refer to this section during normal production use of the Sealer should any question arise regarding proper adjustment of the unit, particularly when changing to a different type brand, or gauge of film, or after changing the settings of the controls or adjustments.

4.1 PRELIMINARY SET-UP

- 4.1.1 Refer to Figure 4.1. Check that Main Circuit Breaker is in OFF position.
- 4.1.2 Check that external air supply control valve is turned off.
- 4.1.3 Connect Vacuum Scrap Removal hose. Plug vacuum unit into power socket on Sealer.
- 4.1.4 Plug in main power cord to power source socket. Connect air supply.*
- 4.1.5 Turn on external air supply.* Sealing head of air operated models will rise. Adjust air pressure to indicate approximately 80 pounds on air pressure gauge.

CAUTION

Be sure to turn on air supply SLOWLY as personal injury could result if sealing head were to strike operator, should the sealing head rapidly and unexpectedly rise due to sudden application of full-pressure air supply.

- 4.1.6 Turn on the Main Circuit Breaker. Pilot light will glow. AVOID PERSONAL CONTACT, AS MENTIONED IN CAUTION NOTICE ABOVE.
- 4.1.7 Turn on power switch on Vacuum Scrap Removal unit.

4.2 INITIAL OPERATION IN IMPULSE SEALING MODE

- 4.2.1 Throw "POLYETHYLENE - NORMAL" switch to normal position.

4.2.2 Set timers and Heat Control Tap Switch as follows:

FILM MATERIAL	DWELL TIMER	CONVEYOR TIMER ++	HEAT CONTROL TAP NUMBER
PVC	0.12 SEC.	1 SEC.	3
POLYPROPYLENE	0.25 SEC.	1 SEC.	4
D-925	0.25 SEC.	1 SEC.	6
POLYETHYLENE #	0.10 SEC.	1 SEC.	5 OR 6

+ These are approximate settings. Exact settings will be determined by film thickness, and production rate requirements.

++ Depends on product size. See paragraph 8.2 for further instructions.

See instructions in paragraph 4.2.7 for the Polyethylene Switch.

4.2.3 Place sample of film material to be sealed under sealing heads.

4.2.4 Refer to Figure 9.1. On Element Compensator loosen wing-nut and turn knurled-head screw until a 1/32-inch gap is obtained between the screw-end and the body of the termination unit. With a piece of folded film (i.e., two layers of film) in sealing position in the Sealer, operate the Sealer as described in step f. below. Examine the seal. Ordinarily, it will not be possible to obtain a satisfactory seal with the 1/32-inch gap setting. Experimentally, in small increments, increase the Element Compensator gap setting until a setting is obtained which yields a satisfactory seal and film cutoff. It is important to remember that the smallest Element Compensator air-gap at which a satisfactory seal and film cutoff is obtained is the correct setting for all films.

4.2.5 When satisfactory operation is obtained, tighten the wing-nut on the knurled-head screw to retain the desired air-gap setting of the Compensator.

NOTE

After about 15 minutes of Sealer operation, check seal quality and, if necessary, reset the Compensator air-gap. This may be required as a result of heat build-up in the sealing head and sealing element wire.

- 4.2.6 Depress both START buttons momentarily. Sealing head will come down. Shortly after head settles in down position, the element will be pulsed (as indicated by buzzer sound). At the end of the head cycle, the DWELL timer is energized in order to maintain pressure on the seal to allow time for the seal to cool under pressure. When dwell time is complete, the sealing head will rise, and the conveyor will be energized through the action of the CONVEYOR timer. At the end of a complete sealing cycle, all times will reset automatically and the conveyor will stop.

IMPORTANT NOTICE

In order to obtain good sealing and film cutoff, it is very important to understand that the ELEMENT COMPENSATOR is the most important control on the Sealer. All others are secondary (i.e., dwell timer, heat tap switch) and the effect of their settings is controlled by the action and air-gap setting of the Element Compensator which overrides all other adjustments affecting seal quality and film cutoff. For this reason, be sure to follow the instructions of paragraphs 4.2.4 and 4.2.5 and above very carefully.

- 4.2.7 To make a seal, place the film and package in the sealing area and operate the START buttons in the normal manner.
- 4.2.8 Inspect the seal. A clean seal should result, without any particles of film adhering to the sealing elements. If necessary, slightly readjust the various settings, experimentally, until a satisfactory seal is obtained.
- 4.2.9 Polyethylene Switch Instructions.

4.2.9.1 Explanation of Function of Polyethylene Switch

The function of the Polyethylene Switch is to eliminate the dwell period and allow the sealing head and sealing element to immediately raise off the sealed film while the film is still molten. If the film were to cool while in contact with the sealing element, it would harden and adhere to the element.

4.2.9.2 Throw the Sealer's "POLYETHYLENE - NORMAL" switch to the "POLYETHYLENE" position.

On the Element Compensator, loosen the wing-nut and turn the knurled-head screw until a 1/16" air gap exists. Tighten the wing-nut. With folded film (i.e. two layers of film) in the sealing position, bring down the sealing head. Sealers head will rise automatically. Examine the seal. Ordinarily, it will not be possible to obtain a satisfactory seal with the 1/16" gap setting. Experimentally, in small increments, increase the Element Compensator air gap setting until a setting is obtained, which yields a satisfactory seal and film cutoff. It is important to remember that the smallest air gap at which a satisfactory seal and film cutoff is obtained is the correct setting.

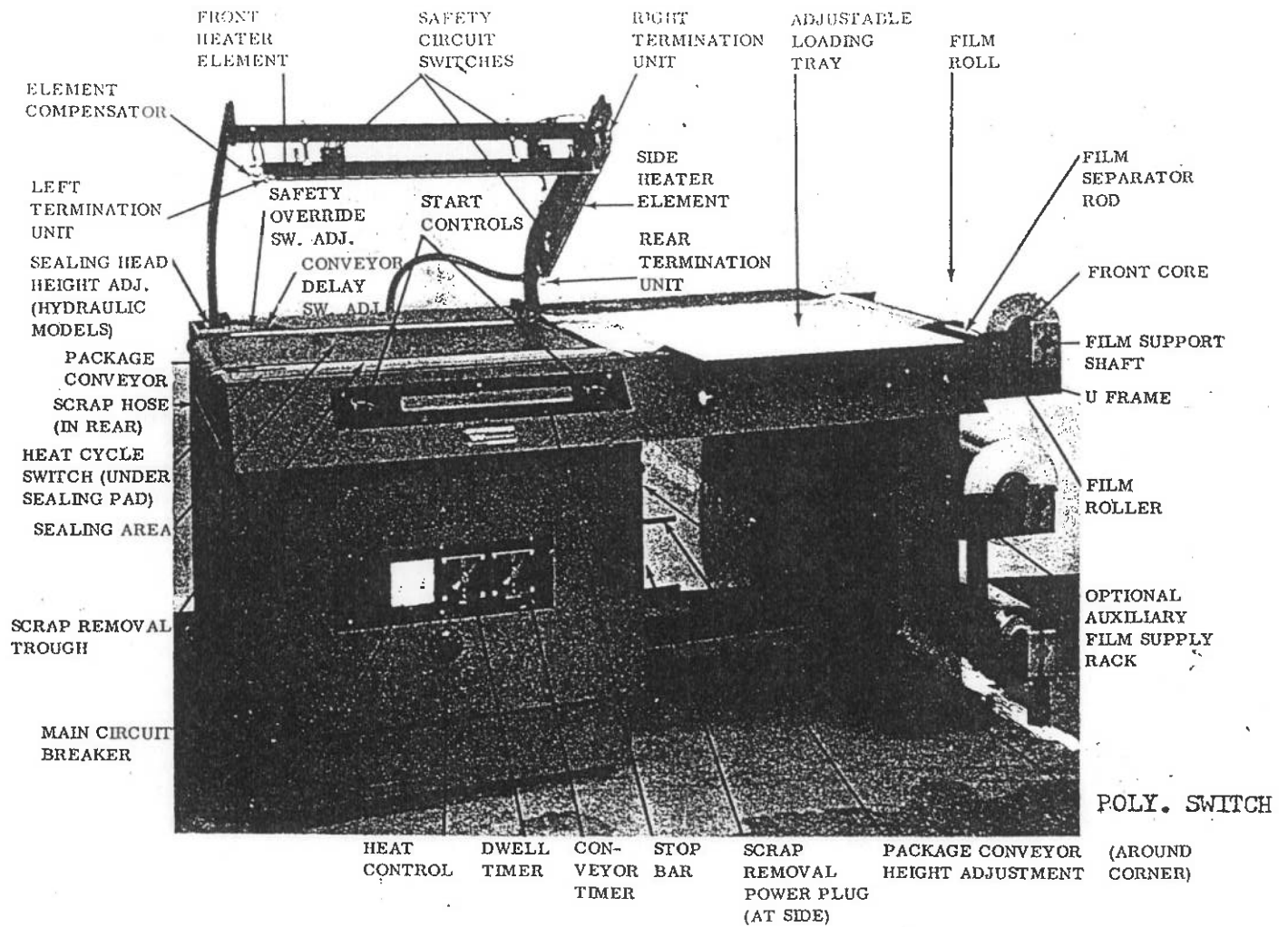


Figure 4.1 Location of Control and Adjustments

5 OPERATION OF SAFETY CIRCUIT

- 5.1 To prevent operator injury, or damage to products being packaged, a safety circuit is incorporated into the design of these sealers. To check the operation of the safety circuit, proceed as follows:
 - 5.1.1 With the sealer's main circuit breaker turned on, place a 5/8 inch thickness of corrugated cardboard across the sealing pad.
 - 5.1.2 Depress both START buttons and release 9 or depress foot switch and release, if in use). The sealing head will come down until contact is made with the cardboard. The sealing head should immediately return to its top position without damage to the cardboard. If adjustment is required, see paragraph 8.1 "Safety Circuit Adjustment".

6 FILM LOADING

Refer to Figure 4.1 throughout this section.

6.1 MOUNTING THE FILM

- 6.1.1** Select proper width of center-folded film for item being packaged, allowing for width and height of package. With the package properly positioned within the film in the sealing area, allow sufficient film to overlap sealing bars so that a seal can readily be made without any possibility of open areas due to insufficient film.
- 6.1.2** Lift film support shaft out of film supply rack.
- 6.1.3** Remove rear cone from film support shaft by loosening set screw and sliding cone off shaft.
- 6.1.4** Place film supply reel on film support shaft so that open edge of folded film is toward front of sealer.
- 6.1.5** Replace rear cone on film support shaft. Press cone firmly into film core and tighten set screw.

6.2 PACKAGE CONVEYOR HEIGHT ADJUSTMENT

- 6.2.1** Place package on package conveyor.
- 6.2.2** Turn the package conveyor height adjustment crank until center line of package is even with the Teflon covered sealing pads. This will insure that the seal occurs along center line of package.

6.3 THREADING THE FILM

- 6.3.1** Thread film under film roller and pull out several feet of film. (Sufficient to reach far end of package conveyor).
- 6.3.2** Place sample package to be sealed between top and bottom layers of film. Position package against folded edge (rear) of film. Place package on package conveyor. Pull film containing package forward and to the right so that package is almost touching the front and side pads.
- 6.3.3** Hold package within film in position on package conveyor with left hand. With right hand turn film supply reel to take up slack in film.
- 6.3.4** Adjust axis of film supply U-frame forward or backward until rear edge of film on reel is in line with rear edge of package on the package conveyor. Remove package. Tighten U-frame's mounting bolts.

- 6.3.5 Loosen wing nut on film separator rod and position rod so that rear end of rod is about 1 inch forward of folded (rear) edge of film.
- 6.3.6 Position adjustable loading tray so that its rear edge is in line with rear end of film separator rod.
- 6.3.7 Open the film and slip the film separator rod and the adjustable loading tray between the upper and lower layers of film.

7 SEALER OPERATION

7.1 OPERATION

Having previously set the Sealer's controls and adjustments in accordance with the instructions of paragraph 4, checked Safety Circuit operation as described in paragraph 5, and performed film loading operations as mentioned in paragraph 6, proceed as described below.

- 7.1.1 Without a package in the sealing area of the machine, pull film from the film supply roll so that it is positioned across the side sealing bar. Operate the START buttons and release. The sealing head will come down and one complete operating cycle will occur. At the conclusion of this cycle, an initial film seal will have been made at the left edge of the film. The sealer and the film are now ready for continuous product-packaging operations.
- 7.1.2 Hold film open with the left hand. With the right hand, slide the package onto the loading tray and under the top layer of film. Push the package into the upper left corner of the film (i.e., corner formed by the folded rear edge of the film and the previously sealed left edge of the film).

NOTE

This is important because seals made under tension may be weak.

- 7.1.3 Using both hands, move package and film into right front corner of sealing area and then slightly back, away from the corner formed by both sealing bars. This allows some slack film between the package and the sealing bars.
- 7.1.4 Operate the START buttons and release, allowing Sealer to cycle.
- 7.1.5 This completes one normal cycle of operation. The package advances on the conveyor, out of the Sealer, and the conveyor stops, ready for the next sealing operation. The Hole Punch must now be prepared for use in continuous sealing of packages. This is described in paragraph 7.2.

7.2 POSITIONING OF HOLE PUNCH

- 7.2.1 To properly position the Pneumatic Hole Punch proceed as follows:
- 7.2.2 Place package in the normal loading position on the loading tray.
- 7.2.3 Measure the depth and width of the package.
- 7.2.4 Add the two measurements together.

7.2 POSITIONING OF HOLE PUNCH (cont'd)

- 7.2.5 Insert the centerfolded (rear) edge of film into the jaws of the hole punch and slide the punch toward the front of the Sealer until the rear edge of the film is about 1/2 inch from the end of the slot in the punch.
- 7.2.6 Move the punch to the right (away from the package) the exact number of inches computed in step d. above from the right hand edge of the package to the center line of the punch.
- 7.2.7 Move the package to the sealing area and make a seal.
- 7.2.8 Seal another package. Note that the vent hole is in proper position.
- 7.2.9 Seal several more packages and check for proper vent hole position. Continue with packaging operations. Note the instructions and information contained in the paragraphs which follow.

7.3 CONVEYOR ADJUSTMENT FOR OPTIMUM RUNNING TIME

In order to achieve maximum sealing speed and efficiency in production use of the Sealer, the conveyor timer should be set to move the package the minimum distance necessary to permit loading and sealing of the next package. It is not necessary to have each sealed package move entirely off the conveyor after sealing is completed. The package need move away from the sealing area only a distance sufficient to provide space for the next package to be properly sealed. To do this, experiment with different settings of the conveyor timer until the desired package spacing is obtained.

7.4 OPERATION OF VACUUM SCRAP REMOVAL UNIT

When a normal sealing cycle has been completed, the excess of cut-off film will be laying in the scrap-removal trough at the front edge of the Sealer. During sealing of the first few packages, the operator should manually move the excess film strip to the left in the scrap-removal trough until sufficient excess film exists to reach the entrance of the vacuum scrap removal duct. After several packages have been sealed in plastic, the film is continuously and automatically sucked into the scrap-removal duct.

7.5 ELEMENT COMPENSATOR FUNCTION

- 7.5.1 When the Sealer is being operated at a rapid, continuous pace, the heater elements will begin to store some residual heat. Under these conditions, the Element Compensator will automatically reduce the sealing time, although the sealing-time buzzer will continue to sound for the remaining portion of the sealing cycle, thus providing additional cooling time to insure good seals. **NOTE:** See paragraphs 4.2.4 and 8.2 for adjustment instructions.

7.6 SEALING OF POLYETHYLENE FILM

- 7.6.1 Instructions for the use of polyethylene film on Sealers are given in paragraph 4.2.9. Aside from these adjustment instructions, operation of the Sealer when using polyethylene film is the same as for any other film.

8 SERVICE ADJUSTMENTS

8.1 SAFETY CIRCUIT ADJUSTMENT

If the Sealer does not operate as described in paragraph 5., "Operation of Safety Circuit", perform the following tests for each listed trouble.

8.1.1 Sealing Head Does Not Cycle

If the sealing head does not cycle down when the two START buttons are simultaneously pressed, one of the switches located on the sealing head cover bars may not be making good contact.

To check this out, with the head in the raised position, cycle each switch manually, approximately ten times by pushing the clamping bar on the electrode head and releasing. When manually cycling these switches, their snap action can be heard.

After manually cycling each of these switches (two on the 5201A and 5101A; three on all others) repeat the safety circuit checkout. Be sure to push the safety circuit RESET button for each test on hydraulic units.

8.1.2 Sealing Head Cycles Down, But Returns Immediately Upon Contacting Lower Sealing Pad

If the sealing head cycles down but immediately returns to the raised position upon contact with lower sealing pad, proceed with the following corrective action:

Make sure nothing is laying on the lower pads which would cause the safety bars to be prematurely actuated. If everything seems normal, but the head continues to return to the raised position, the Safety Override Switch requires readjustment. (Refer to Figure 4.1). With the sealing head in the raised position, loosen the locking jam nut and turn the slotted head adjusting screw clockwise a half turn at a time and relock the jam nut. Each time the adjusting screw is turned the sealing head should be recycled* to check if it will stay in the down position for the sealing cycle. After the head is cycling properly, check out the safety circuit by placing a 3/8-inch stack of corrugated cardboard on the lower pad and cycle the head, as described in the checkout procedure.

8.1.3 Sealing Head Does Not Return Immediately When Safety Circuit Is Being Checked

If the sealing head does not return immediately when a 3/8-stack of corrugated cardboard is placed on the lower bar to check out the safety circuit, the Safety Override Switch will require adjustment (refer to Figure 4.1).

To check the Safety Override Switch, return the the sealing head to the raised position by pushing the Stop Bar. Loosen the locking jam nut and turn the slotted-head adjusting screw counterclockwise a quarter turn at a time, each time relocking the jam nut. After each 1/4-turn adjustment, the safety circuit should be rechecked by placing the stack of cardboard on the lower bar and cycling the head to see if it will immediately return automatically.

8.2 Element Compensator Adjustment

Adjustment of the Element Compensator may be required under the following conditions:

- 8.2.1 During continuous use. After about 15 minutes of operation, check seal quality and, if required, reset Compensator air-gap. This may be needed as a result of heat build-up in the sealing head and the sealing element wire.
- 8.2.2 After installing a new sealing element.
- 8.2.3 If charring of film is noted (too much heat).
- 8.2.4 If sealing is incomplete (too little heat).
- 8.2.5 To adjust the Element Compensator** refer to Figure 9.1. On Element Compensator (6), turn knurled-head screw until a 1/32-inch gap is obtained between the screw-end and the body of the termination unit (5). With a piece of folded film (i.e., two layers of film) in sealing position in the Sealer, operate the Sealer. Examine the seal. Ordinarily, it will not be possible to obtain a satisfactory seal with the 1/32-inch gap setting. Experimentally, in small increments, increase the gap until a setting is obtained which yields a satisfactory seal and film cutoff. It is important to remember that the smallest air-gap at which a satisfactory seal and film cutoff is obtained is the correct setting for all films with the exception that the adjustment of air-gap for PVC films may have to be increased slightly in order to produce a light brown residue at the seal point on the film.

When satisfactory operation has been obtained, tighten the wing-nut on the knurled-head screw to retain the desired air-gap setting.

** To seal polyethylene on a sealer equipped with Polyethylene Switch, adjust the Element Compensator and other controls in the manner described in paragraph 4.2.9.

8.3 SEALING HEAD TRAVEL ADJUSTMENT

The amount of sealing head upward travel (or height of swing) is adjustable to facilitate or speed up package sealing. On a small package, it is not necessary for the sealing head to rise as high as for a larger (or higher) package. To adjust the height of sealing head travel, proceed as follows:

- 8.3.1 Shut off Sealer's air supply so that head will settle in down position. Refer to Figure 11.5 (at the rear of the Maintenance Section). At the left-rear of the Sealer, centered between the sealing head castings, loosen the sealing head travel Lock Nut several turns.
- 8.3.2 Turn the travel Adjustment Nut upward for higher sealing head travel; downward for lower (less) sealing head upward travel.
- 8.3.3 Turn on Sealer's air supply. Watch for sudden rising of head, to avoid personal injury. Operate the Sealer. Note the amount of head travel. If not as desired, repeat the adjustments of paragraph 8.3.2 until head travel is as desired.
- 8.3.4 When sealing head travel is satisfactory, tighten the Lock Nut.

8.4 HEATER ELEMENT CLEANING

Seal quality is greatly affected by dirt or deposit build-up. Some plastic films have a tendency to produce deposits on the heater elements. This build-up can be inhibited by the application of a release agent, such as silicone grease, to the heater elements. If build-up is severe,* the elements may be cleaned by applying several passes of a fine-bristled brass brush. Never use steel wool for heater element cleaning. Cleaning is easier when the elements are hot. Pulse the machine to head up the elements, then clean.

* Severe film residue build-up may indicate improper Element Compensator adjustment. Consult paragraphs 4. and 8.2 of this manual for proper setting method.

8.5 CONVEYOR-DELAY ADJUSTMENT

If the package conveyor begins to move while the package is still under sealing pressure, or if conveyor movement is delayed too long after sealing is completed, an adjustment of conveyor-delay is required. Refer to the Conveyor Delay Switch Adjustment call-out of Figure 4.1. If the conveyor starts too soon, loosen the retaining nut with a 7.16" open end wrench and turn the adjusting screw clockwise 1/4 turn and test the action. Repeat, 1/4 turn at a time, until operation is satisfactory. Retighten retaining nut. If conveyor action is delayed too long, turn adjusting screw counterclockwise, 1/4 turn at a time.

CAUTION

Do not confuse this conveyor-delay adjustment with any adjustment of conveyor running time which may be required. Conveyor running time is determined by adjustment of the Conveyor Timer setting on the front of the Sealer (See Figure 4.1).

LOCKOUT/TAGOUT PROCEDURE (OSHA Standard 1910.147)
(THE CONTROL OF HAZARDOUS ENERGY)

WARNING

This standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees. This standard establishes minimum performance requirements for the control of such hazardous energy.

APPLICATION

This standard applies to the control of all energy during servicing and/or maintenance of Weldotron machines and equipment.

PURPOSE

This procedure establishes the minimum requirement for the lockout or tagout of energy isolating devices. It shall be used to ensure that the machine or equipment is isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities.

RESPONSIBILITY

Appropriate employees (Maintenance employees and Machine set-up employees) must be instructed in the safety significance of the lockout (tagout) procedure. Each person transferred or newly hired into such positions shall be trained at time of hire or transfer.

PREPARATION FOR LOCKOUT/TAGOUT

Identify all isolating devices to be certain which switches, valves, or other energy isolating devices apply to the equipment to be locked or tagged out.

1. Electrical boxes - Power off, remove fuses.
2. Air - disconnect air.
3. Placing a tag on machine, indicates the machine is disconnected from power and out of service.

SEQUENCE OF LOCKOUT OR TAGOUT SYSTEM PROCEDURE

1. Notify all affected employees that a lockout or tagout system is going to be utilized and the reason therefore, i.e.: Foreman and operator.
2. Shut down equipment by normal stopping procedure.
3. Open switch, disconnect air, and unplug equipment isolating it from its energy source. Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.
4. Lockout and/or tagout the energy isolating devices with assigned individual locks or tags. In the case of a disconnect switch tagout and/or lockout. In the case of a plug, unplug, and tagout.
5. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the pushbutton or other normal operating controls to make certain the equipment will not operate.

CAUTION

Return operating controls to "NEUTRAL" or "OFF" position after test.

6. The equipment is now in a lockout and /or tagout condition.

RESTORING MACHINE OR EQUIPMENT TO NORMAL PRODUCTION OPERATIONS

1. After servicing and/or maintenance is complete and equipment is ready for normal use, check the area around the machine or equipment to ensure that no one is exposed.
2. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout or tagout devices. Reinstall fuses and undo any other energy isolating devices to restore energy to the machine or equipment.

PROCEDURE INVOLVING MORE THAN ONE PERSON

In the preceding steps, if more than one person is required to lockout or tagout equipment, each shall place his or her own personal lockout device or tagout device on the energy isolating device. Maintenance personnel will use multiple locks. When mechanic and electrician work together, each will tagout the plug and no one but the person installing the tag can remove it and equipment is not to be plugged in with any tagout on it.

BASIC RULES FOR USING LOCKOUT OR TAGOUT SYSTEM PROCEDURE

All equipment must be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device where it is locked or tagged out.

9 MAINTENANCE

NOTE

In performing the various Maintenance operations listed in this section, be sure to refer to paragraph 9.10 "Preventive Maintenance Program for Console Sealers."

9.1 SEALING ELEMENT REPLACEMENT

The sealing elements are subject to constant wear, and will eventually require replacement. To replace sealing elements, proceed as follows:

9.1.1 Front Sealing Element

9.1.1.1 Refer to Figure 9.1. Remove heat sink (1) by removing heat sink retaining screw (2). Remove old element by loosening element retaining screw (3) and pulling out old element to the left.

9.1.1.2 Refer to Figure 9.2. Loosen the knurled-head element retaining screw (1) and pull out the old front sealing element end in a downward direction.

9.1.1.3 Refer to Figure 9.1. Compress the left termination unit (4) fully inward to the right, and depress the element compression-retaining pin (5). Release hand pressure on the termination unit. The unit is now held compressed toward the right.

9.1.1.4 Refer to Figure 9.2. Insert the unplated end of the new element into the hole in the crossover bead and push it upward until the end extends about 3/8-inch above the top of the seal bar. Hold the thumb on the element at the point at which it enters the crossover bead at (2) and withdraw the element downward. Using a pair of long-nose pliers whose jaws have been covered with a layer of masking tape to prevent nicking of the element, make a 90° vertical bend in the element. Reinsert the element into the hole at (2) keeping to the left of the side sealing element. Using a screw driver, tighten the knurled-head element retaining screw (1) moderately to avoid damage to the element-retaining screw (1) moderately to avoid damage to the element. Be sure element has been pushed up into the crossover bead as far as possible so that element is firmly seated into the ceramic bead track.

9.1.1.5 Refer to Figure 9.1. With the element laid in the ceramic bead track, insert the plated end of the element into the slot in the element termination unit and secure in place by tightening element-retaining screw (3). Using a pair of cutting pliers, cut off any surplus element wire, leaving approximately a 1/4-inch length extending. Bend the remaining wire-end toward the rear of the sealer so that it is flush against the end of the termination unit, as shown.

9.1.1.6 Referring to Figure 9.1, replace the heat sink (1) and fasten in place by means of the retaining screw (2). Make sure that the heat sink is flat and is in tight and firm contact with the sealing element.

9.1.1.7 Still referring to Figure 9.1, pull up on the compression-retaining pin (5). The element is now securely in place, under tension, in the ceramic bead track.

9.1.2 SIDE SEALING ELEMENT

9.1.2.1 Refer to Figure 9.3. Remove heat sink (1) by removing heat sink retaining screw (2). Remove old element end by loosening element-retaining screw (3) and pulling out old element toward the rear of the sealer.

9.1.2.2 Refer to Figure 9.2. Pull the opposite end of the old element out of the front termination unit (3).

9.1.2.3 Refer to Figure 9.3. Compress the rear termination unit (4) fully inward, toward the front of the sealer. Depress the element compression-retaining pin (5) and release hand pressure on the rear termination unit. The unit is now held compressed toward the front of the sealer.

9.1.2.4 Using a pair of long-nose pliers, form a small loop in the unplated end of the new sealing element and insert the element into the hole in the termination unit (3) of Figure 9.2.

9.1.2.5 Refer to Figure 9.3. With the new element laid in the ceramic bead track, insert the plated end of the element into the slot in the element termination unit and secure in place by tightening the element-retaining screw (3). Using a pair of cutting pliers, cut off any surplus element wire, leaving approximately a 1/4-inch length extending. Bend the remaining wire-end toward the right side of the sealer so that it is flush against the end of the termination unit.

9.1.2.6 Referring to Figure 9.3, replace the heat sink (1) and fasten in place by means of the retaining screw (2). Make sure that the heat sink is flat and is in tight and firm contact with the sealing element.

9.1.2.7 Still referring to Figure 9.3, pull up on the compression-retaining pin (5). The element is now securely in place, under tension, in the ceramic bead track.

IMPORTANT NOTICE

After replacing sealing elements, be sure to adjust the setting of the Element Compensator, as described in paragraph 4.2.4 through 4.2.9 of the regular operating and service manual.

9.2 TAPE REPLACEMENT

The item most subject to wear on the Sealer is the Teflon fibreglas tape used to cover the silicone sponge rubber sealing bar. This tape should never be permitted to cut through so much that the thinner tape underneath can cut through. To replace the tape proceed as follows:

9.2.1 Strip off old tape.

9.2.2 Cut off proper length of new teflon fibreglas tape, peel off white backing, and press new tape into position.

9.3 SILICONE RUBBER SEALING PAD REPLACEMENT

Occasionally it will be necessary to replace the silicone rubber sealing pads. This should be done if the following effects are notes:

- a. Gaps in the seal.
- b. Weak seals.
- c. Improper film cut-off.

9.3.1 To Replace the rubber, proceed as follows:

9.3.1.1 Turn the package conveyor height adjustment to the lowest possible position. Remove the sealing pads using an Allen wrench.

9.3.1.2 Strip off the two-inch wide and the 3/8 inch wide tapes.

9.3.1.3 Lay the proper length of rubber in place. If one continuous piece of the proper length is not available, it is perfectly satisfactory to use several sections of rubber to make up the required length.

9.3.1.4 Replace the old tapes with new lengths of both types (see Paragraph 9.2).

9.3.1.5 Replace the sealing bars, using an Allen wrench. Perform the sealing bar pressure adjustment of Paragraph 9.4. Restore the package conveyor height to desired setting.

9.4 SEALING PAD PRESSURE ADJUSTMENT

Uniform pressure between the heater elements and the sealing pads must always be maintained for proper sealing uniformity and to prevent element hot spots and premature burn-out. This adjustment should be checked periodically, and should always be checked when sealing gaps occur. Proceed as follows:

9.4.1 Cut six strips of film, each about 3 inches wide by 6 inches long.

9.4.2 Refer to Figure 9.4. Lay the film strips across the sealing pads, with the six inch length extending. Space the pieces equally, as shown.

9.4.3 Shut off Sealer's main circuit breaker. Adjust air pressure regulator for zero pressure. Sealing head will fall. Wedge suitable objects (small pieces of corrugated cardboard) between top of electrode bars and safety bars (at both ends) so that safety bars are retracted.

9.4.4 Pull each piece of film back and forth successively and judge whether tension is equal on each piece of film.

9.4.5 If film pressure is unequal, loosen nuts "A" and "B" and turn them up or down to increase or decrease film pressure. Again adjust film pressure. Again test film tension. Readjust as required until pressure is equal on all film pieces. The pressure is correct if each film can be pulled back and forth with a similar medium pulling effort.

9.4.6 Remove objects from between bars.

9.5 ELEMENT PULSE SWITCH ADJUSTMENT

The heating cycle should not begin until the sealing head has made proper contact with the film to be sealed, and with the sealing pad. If the buzzing sound, indicating the beginning of the heating cycle, is heard before the head is fully down onto the film, turn the screw (visible at the left end of front seal bar) counterclockwise a quarter turn and operate Sealer. Repeat as necessary, a quarter turn at a time, until operation is correct.

If no heating occurs and no buzzing sound is heard, turn the adjusting screw clockwise a quarter turn at a time and operate Sealer. Repeat until proper operation is obtained.

9.6 SEALING HEAD ADJUSTMENTS

9.6.1 "UP" Speed Adjustment

9.6.1.1 Remove the Sealer's left-side access cover by turning the four fastener screws counterclockwise. The sealing head's operating piston is now visible.

9.6.1.2 Refer to Figure 9.5. Turn the "UP" speed adjustment inward (i.e., clockwise) a quarter-turn for slower "UP" speed; turn outward (i.e., counterclockwise) for faster "UP" speed.

9.6.1.3 Operate the Sealer. If "UP" speed is incorrect, repeat the procedure of step b. above until the desired operating speed is obtained. Replace the access cover.

9.6.2 "DOWN" Speed Adjustment

9.6.2.1 Refer to Figure 9.6. Turn the "DOWN" speed adjustment inward a quarter-turn for slower "DOWN" speed; outward for faster "DOWN" speed.

9.6.2.2 Operate the Sealer. If "DOWN" speed is incorrect, repeat the procedure of step 9.6.2.1 above until the desired operating speed is obtained.

9.6.3 "CUSHION" Adjustment

An adjustment of cushioning action is required if the sealing bar cycles down and strikes the sealing pad with a sharp impact instead of the correct firm but cushioned impact necessary for proper sealing action and long sealer life. If adjustment is required, proceed as follows:

9.6.3.1 Remove the top access cover from the Sealer (located behind the package outfeed conveyor).

9.6.3.2 With the proper 80 psi nominal air pressure supplied to the Sealer, shut off the main power switch. Refer to Figure 9.5. Loosen the cushion-adjustment jam nut and turn the cushion adjustment clockwise (inward) as far as possible.

9.6.3.3 Adjust the sealing head travel to maximum sealing head rise position (see paragraph 8.3). Turn on the Sealer's main power switch. Operate the Sealer. The sealing head should come down to a position 1-inch above the sealing pad and remain there. If the sealing head were set to open to one-half of its maximum opening height, the head should come down to a position 1/2 inch from the sealing pad.

9.6.3.4 If the condition of step 9.6.3.3 above does not occur, shut off the main power switch and adjust the operating piston's upper threaded-end positioning by loosening the jam nut (see Figure 9.5) and turning the piston rod by means of a wrench applied to the two flats on a rod. When this has been done, turn on the main power switch and repeat the procedure of step c. above. Note if the sealing head will not stop at either 1-inch or 1/2 inch above the sealing pad when cycled. If not, again shut off the main power switch and repeat the adjustment of the piston rod, in small increments, until the proper action occurs.

9.6.3.5 With the main power switch shut off turn the cushion adjustment counterclockwise (outward) 1/2 turn. Turn on the main power switch and again cycle the Sealer. The sealing head should now seat firmly and smoothly on the sealing pad. If this is not obtained, again shut off the main power switch and turn the cushion adjustment outward 1/2 turn. Turn on the main power switch and again cycle the Sealer. Repeat, as required, until the proper cushion action is obtained. Tighten the jam nut. **NOTE:** Be sure to shut off the Sealer's main power switch each time, before performing adjustments, to avoid any chance of injury.

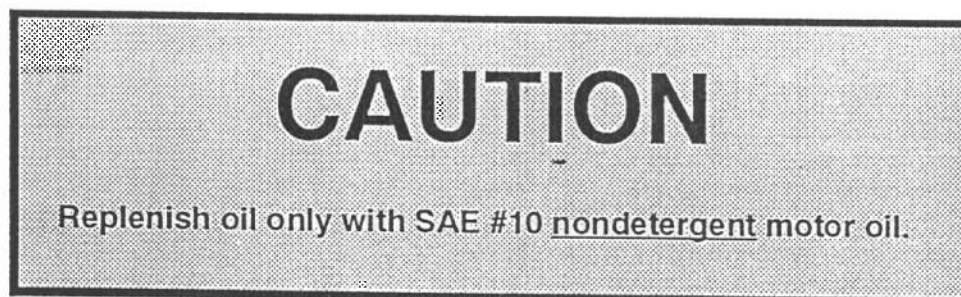
9.6.3.6 Refer to paragraphs 9.6.1 & 9.6.2 and adjust sealing head up and down speed for the desired operation speed.

9.6.3.7 Operate the Sealer three or four times, noting the action of the sealing head. It may be necessary to repeat the cushioning adjustments and the head-speed adjustments several times, as there is a certain amount of interaction between head cushion and speed adjustments. Again, as a safety reminder be sure to shut off the main power switch before making any adjustments on or to the operating piston.

9.6.3.8 It is important to remember that cushion action, head speed, and the general satisfactory action of the sealing head during a sealing cycle is greatly affected by air pressure, piston travel adjustment, and piston lubrication. It is very strongly recommended that the maintenance instructions described in this manual be very carefully followed. See piston lubrication instructions of paragraph 9.6.4 which follow.

9.6.4 Piston Lubrication

Refer to Figure 9.6. Inspect oil level. It should be approximately 1/4-inch from the top of the glass jar. If not, add oil by unscrewing the cap.



To assure prescribed lubrication of the piston, the following procedure should be followed:

9.6.4.1 With the sealer performing normally on a production run, observe the sight-glass at the top of the glass jar. Approximately one drop of oil should drip down for every 25 sealing cycles.

9.6.4.2 If it is necessary to adjust the rate of flow, loosen the lock nut at the top of the sight-glass and turn the needle valve screw counterclockwise to increase, or clockwise to reduce the flow.

9.6.4.3 When adjustment is complete, tighten the lock nut.

9.7 CONTACT CLEANING AND REPLACEMENT

If the contacts of contactor K3 (used for element pulsing) should require cleaning due to pitting or burning, proceed as follows:

9.7.1 Refer to Figure 9.7. Remove clip and lift off contactor cover plate.

9.7.2 Remove the two screws "A" holding contacts.

9.7.3 Using a soft brush, saturate contacts (including the stationary ones on the contactor itself) with carbon tetrachloride. Allow to dry. A soft cloth may be used but make sure no threads are left on the contacts. Do not touch or scrape surface of contacts.

CAUTION

Never use emery cloth or anything that may abrade contact surfaces.

NOTE

30 amp contactor do not have replaceable contacts. A new contactor must be installed. 60 amp contactor has replaceable contacts.

9.8 CONVEYOR ASSEMBLY MAINTENANCE, STANDARD CONVEYORS

NOTE

In performing the various maintenance operations described below, it will generally be found to be more convenient, and afford greater accessibility if the conveyor assembly is removed from the Sealer.

9.8.1 Removal of Conveyor Assembly

9.8.1.1 Using a screwdriver, remove access plate from left side of the Sealer. Disconnect wire numbers 32, 33 and 34 from motor leads. At the threaded end of the conveyor height adjustment crank rod remove the two hexagonal shaped jam nuts. (Located at upper right as viewed from left side of console with access cover removed).

9.8.1.2 Refer to Figure 4.1. Immediate to the rear of the package conveyor height adjustment crank, there is a three-inch diameter hole. Using an Allen wrench, reach through the hole and loosen the collar on the shaft of the crank. Turn handle counterclockwise and continue turning until handle is free of the mechanism. Remove handle.

NOTE

In performing the next step, the use of two men is recommended due to the size and weight of the assembly and to prevent personal injury.

9.8.2 Removal of Conveyor Belt

9.8.2.1 Refer to Figure 9.8. Remove bolts "A". Turn screws "B" counterclockwise enough for shaft "C" to clear notch in block "D". Slide roller "E" out of belt toward front of Sealer (to the right in Figure 9.10).

9.8.2.2 Loosen bolts "F" and "G". Lift and pull out plate "H".

9.8.2.3 Push roller "I" out of mounting slots.

9.8.2.4 Slide conveyor belt off roller "I".

9.8.3 Drive Motor Gear Replacement

9.8.3.1 Remove motor.

9.8.3.2 Unscrew the six end plate screws at the shaft end of the motor. Remove end plate.

9.8.3.3 Lift fiber gear assembly out and discard.

9.8.3.4 Cover new fiber gear assembly with a moderate coating of Standard Oil Company "Amolith MP" grease (or equivalent). Place new gear assembly on shaft.

9.8.3.5 Replace the six end plate screws and reinstall motor.

9.8.4 Conveyor Belt Replacement

9.8.4.1 Remove old belt as described in paragraph 9.8.2 above.

9.8.4.2 Slide new belt over roller "E" of Figure 9.10, making sure to orient belt to run in the proper direction (see directional arrow and instructions on belt).

9.8.4.3 Mount roller "E" on conveyor assembly by installing bolts "A" and pressing roller up against blocks "D" tightly.

9.8.4.4 Insert plate "H" into conveyor belt. Slide roller "I" into conveyor belt. Slide roller over drive belt "K" and insert roller shaft ends into mounting slots fully.

9.8.4.5 Turn screws "B" equally, until belt is moderately tight. Tighten bolts "A".

9.8.4.6 Tighten conveyor drive belt "K" moderately by pressing down on idler roller by hand. Tighten bolts "F" and "G".

9.8.5 Conveyor Belt Tracking Adjustment

If the conveyor belt has a tendency to run to one side and does not track properly, or the belt has been replaced, proceed as follows:

9.8.5.1 If the conveyor assembly has not been removed from the Sealer, turn the conveyor timer up fully. If the assembly has been removed from the Sealer, connect the motor leads to a source of 230 v.s. AC. Run the conveyor. If belt tends to run off toward rear of Sealer (to the left in Figure 9.10) turn rear screw "B" clockwise or turn front screw "B" counterclockwise. In as much as the adjustment of these screws also affects conveyor belt tension it will be necessary to achieve the proper adjustment of both screws "B" to obtain correct belt tension as well as proper belt tracking.

9.8.5.2 When tracking and tension are both satisfactory, tighten bolts "A".

9.8.6 Lubrication of Conveyor Assembly

9.8.6.1 The drive motor bearings are permanently lubricated and require no further attention.

9.8.6.2 Conveyor belt shaft bearings required no lubrication as ball or Oilite bearings are used.

9.8.6.3 Lubricate the drive motor's fiber gear when replacement is required, as described in paragraph 9.8.3.

9.8.6.4 Lubricate threaded end of elevation adjustment crank rod with a light machine grease twice a year.

9.8.6.5 Lubricate bearings of height adjustment linkage mechanism twice a year with light machine oil.

9.8.6.6 The idler pulley bearings are permanently lubricated and need no further attention.

9.9 CONVEYOR ASSEMBLY MAINTENANCE, "P" TYPE CONVEYORS

Maintenance of the "P" type conveyors is the same as for the standard conveyors and is described in paragraph 9.8.

9.10 PREVENTIVE MAINTENANCE PROGRAM FOR CONSOLE SEALERS

NOTE

This Preventive Maintenance Program is designed to assist users of Weldotron Console Sealers in obtaining the best possible service and trouble-free operation of their equipment. The information presented herein was compiled with the cooperation of the Weldotron Service Department and is referenced to the appropriate paragraphs and illustrations of this manual.

The maintenance schedule which follows is based on approximately 6500 operating cycles per eight-hour day; adjust accordingly for more or less sealer use.

9.10.1 Every Day

Air Pressure: See paragraph 4.1.5. Adequate but not excessive air pressure is necessary for proper operation. The air pressure should be approximately 80 pounds on the air gauge of the air-operated units.

Tape Condition: See paragraph 9.2. Teflon fiberglass tape should be inspected daily to make sure it has not worn excessively. If the tape requires replacement, perform the replacement as in the referenced paragraph.

9.10.2 Every Week

Ceramic Bead Film-Residue Build-Up: With heavy, continuous use, there is a tendency with some films for a small amount of film residue to build up on the ceramic bead track which holds the heater elements in place. This residue should be carefully scraped off with a knife. In some cases, the residue may be present in the bead groove, as well as along the face of the beads. In this case, carefully scrape the groove with a knife after loosening the sealing element by compressing the element termination unit for access to the bead groove.

After removing film residue from the bead track, clean the sealing elements, using the procedure of paragraph 8.4.

Teflon Beads and Elements: For best sealing results, on Sealers using Teflon Beads and elements it is important to keep the elements clean. However, cleaning should be accomplished by using a clean, soft cloth. Never use a brass bristle brush such as is used for ordinary elements.

Element Pulse Switch Adjustment: The adjustment of the element pulse switch should be checked and adjusted, if required, every week, using the technique of paragraph 9.5.

Sealing Pad Pressure Adjustment: Correct and uniform sealing pad pressure is essential for good sealing action. Check and, if necessary, adjust this using the method described in paragraph 9.4 et al of this manual.

Piston Lubrication: Proper lubrication of the sealing head's operating piston is important for smooth operation and long life of the unit. Check the level of the lubricant in the reservoir and add oil, if necessary, using the method described in paragraph 9.6.4.4 of this manual.

Air Line Water Trap: It is essential that no water be present in the air supply to the Sealer. In some installations, it has been found that an excessive amount of water is present in the air supply lines. Refer to Figure 9.6, and, if water is present in the water trap, press up on the bottom valve of the glass to drain any water from the jar.

Condition of Sealing Element Heat Sinks: The heat sinks are located at the left sealing element termination of the front sealing bar, and at the rear of the side sealing bar. It is important that they be kept bright and clean where they make contact with the sealing elements, for best electrical contact and heat-sink (i.e., heat removal) action. To remove the heat sink for cleaning and inspection, refer to paragraph 9.1.1 for the front heat sink, and paragraph 9.1.2 for the side heat sink. Remove as directed and clean the area which contacts the heater element, using a wire brush or fine sandpaper or emery cloth, until bright and shiny. Straighten the heat sink if it is not flat for good contact with the sealing elements.

9.10.3 Every Two Months

Silicone Rubber Sealing Pad Replacement: This pad should be replaced every two months, or more frequently, if it has worn or low areas, or if it has been burned from sealing action. Replace and adjust, using the technique described in paragraph 9.3 after which the sealing pad pressure should be checked, as in paragraph 9.4.

Operating Piston Bottoming Check: The sealing head's operating piston should never "bottom" (i.e., strike the lower limit of its travel), as this condition prevents proper pressure from being developed on the sealing pads for proper sealing action. If a check of sealing pad pressure and uniformity (as in paragraphs 9.3 and 9.4) indicates a bottoming condition, refer to Figure 9.5. At the top of the operating piston, loosen the large nut (not visible in picture) and rotate the piston rod upward several turns, then tighten nut. If necessary, repeat until the bottoming condition is removed. When finished, recheck the pressure on the sealing pads, as in paragraphs 9.3 and 9.4.

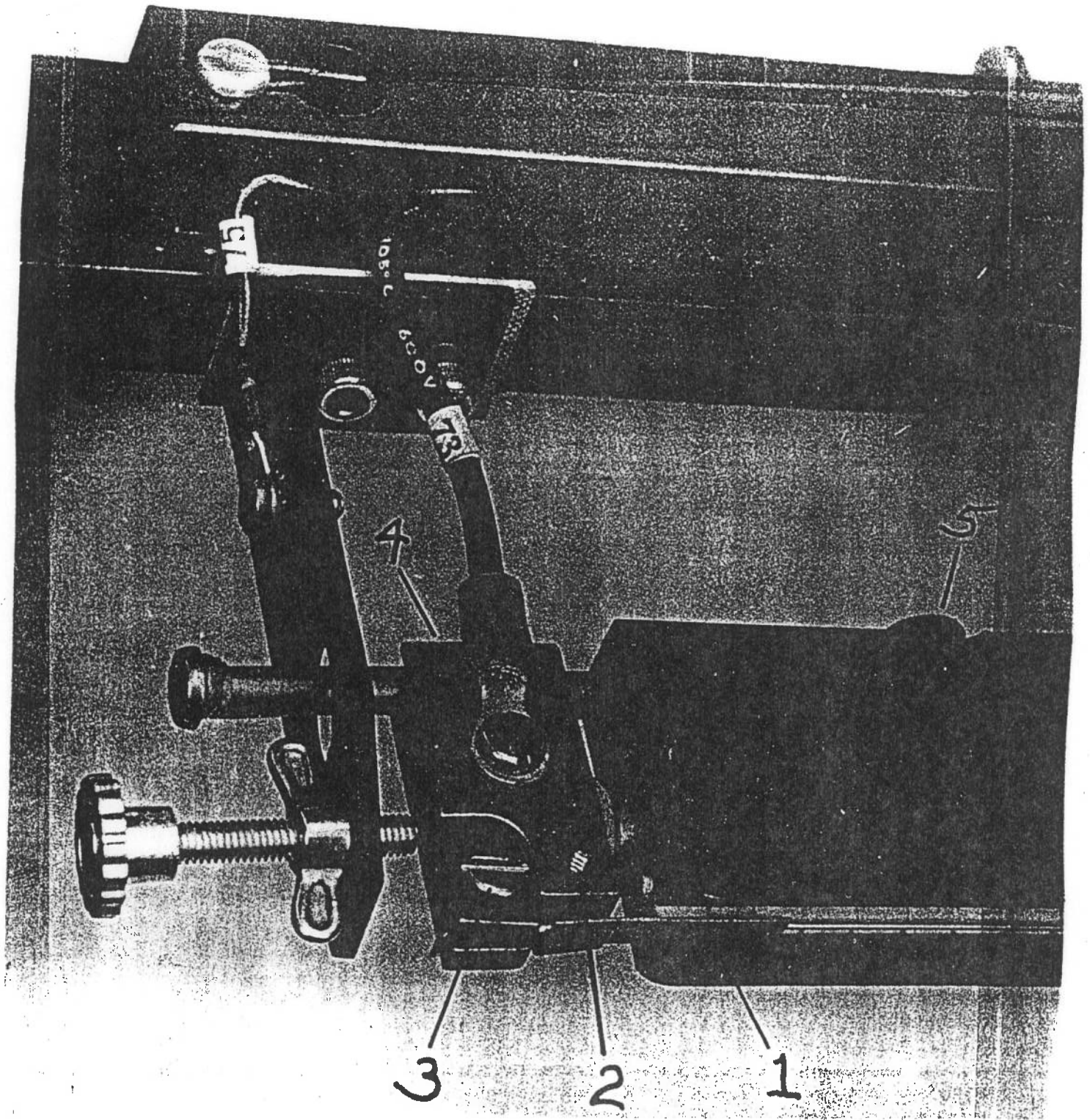


Figure 9.1 Left Detail, Sealing Element Replacement

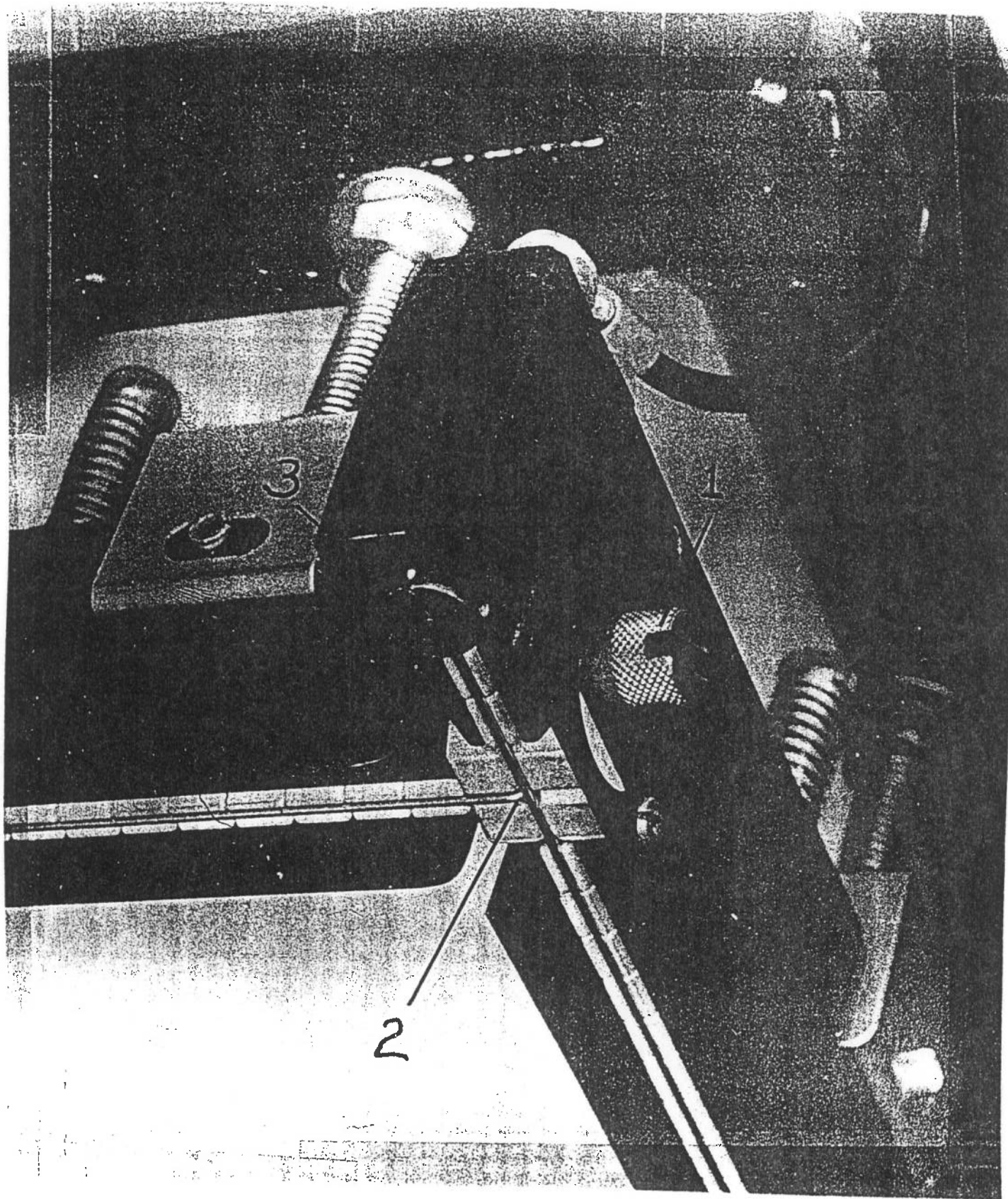


Figure 9.2 Right Detail, Sealing Element Replacement

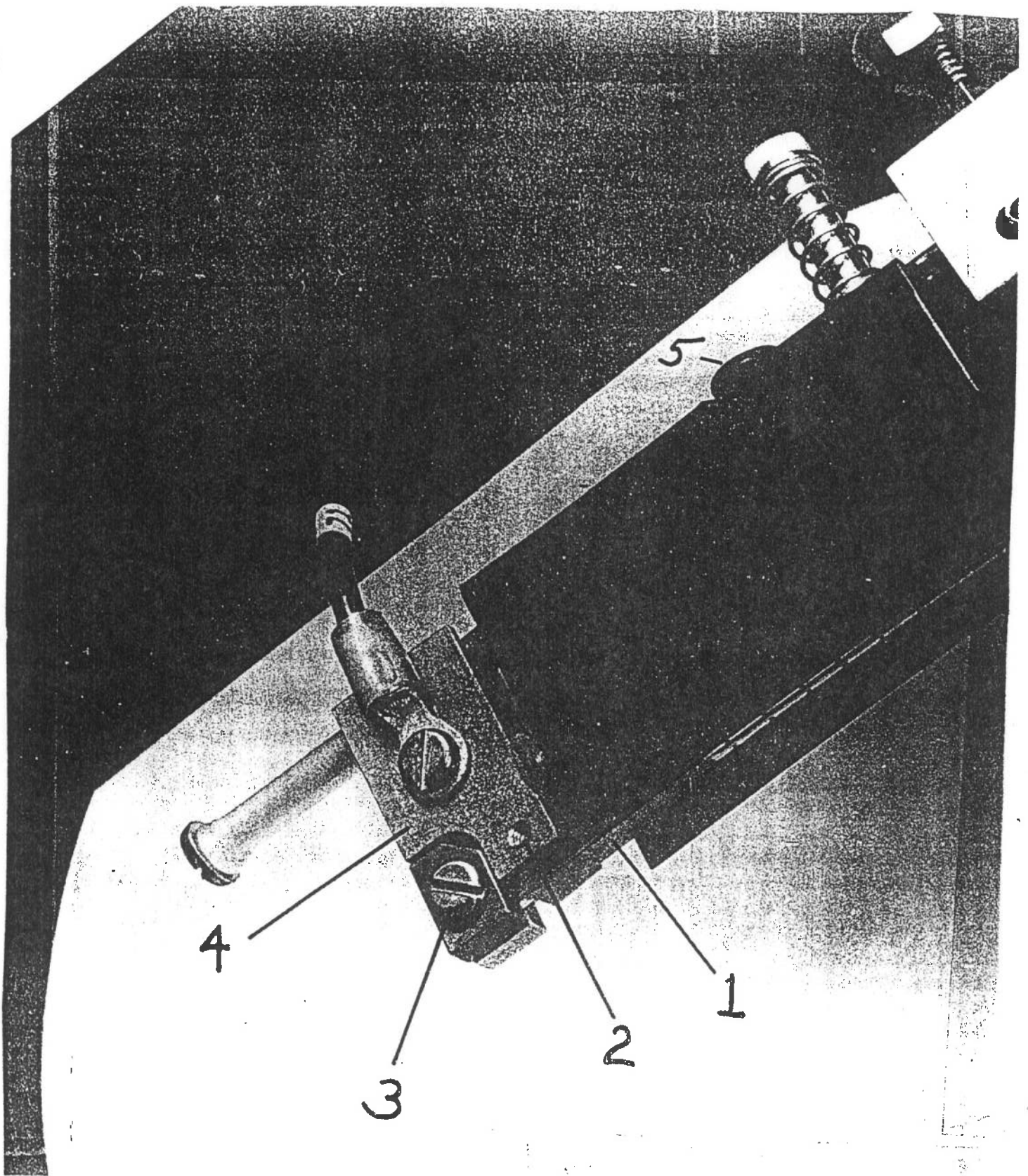
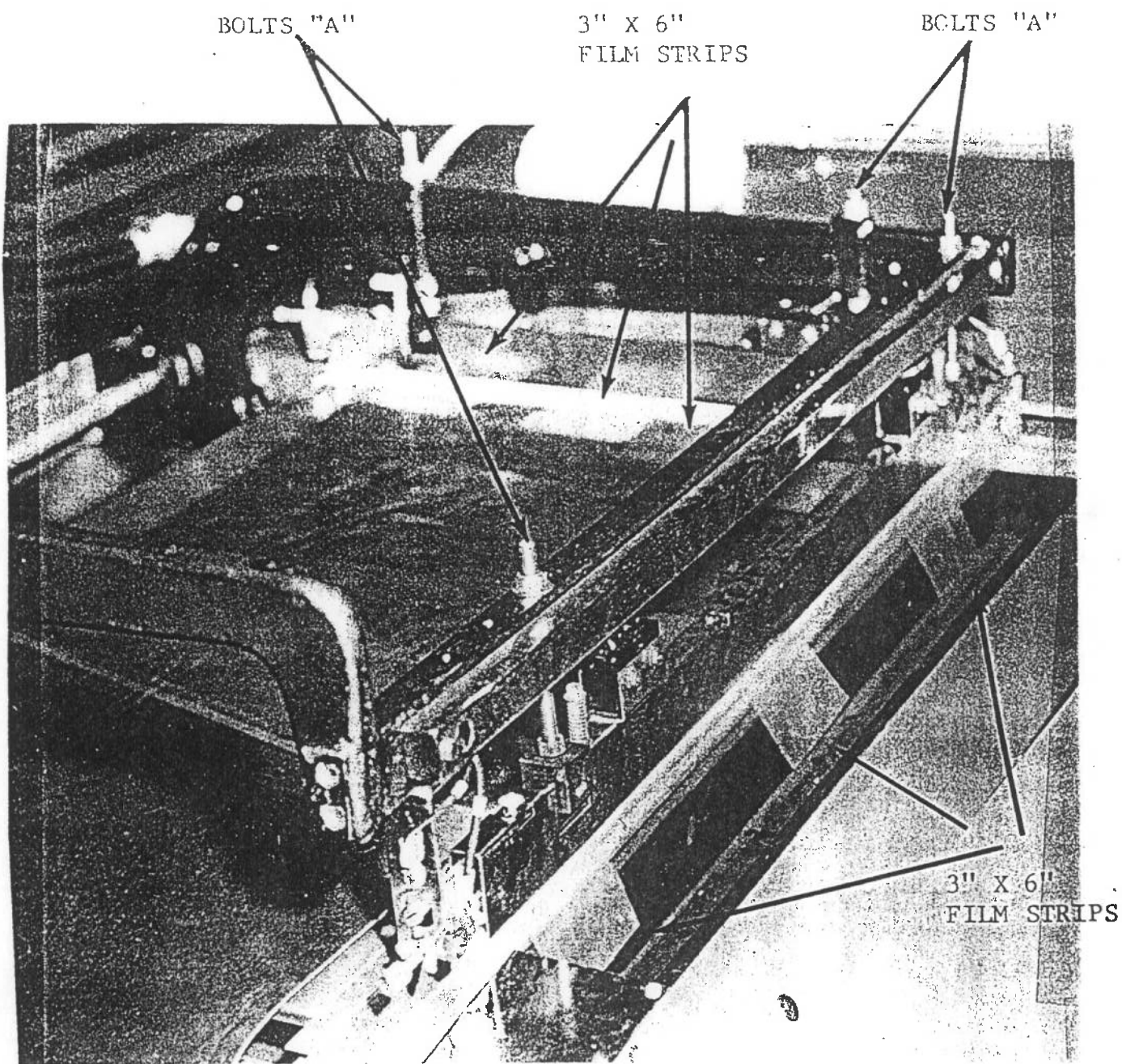
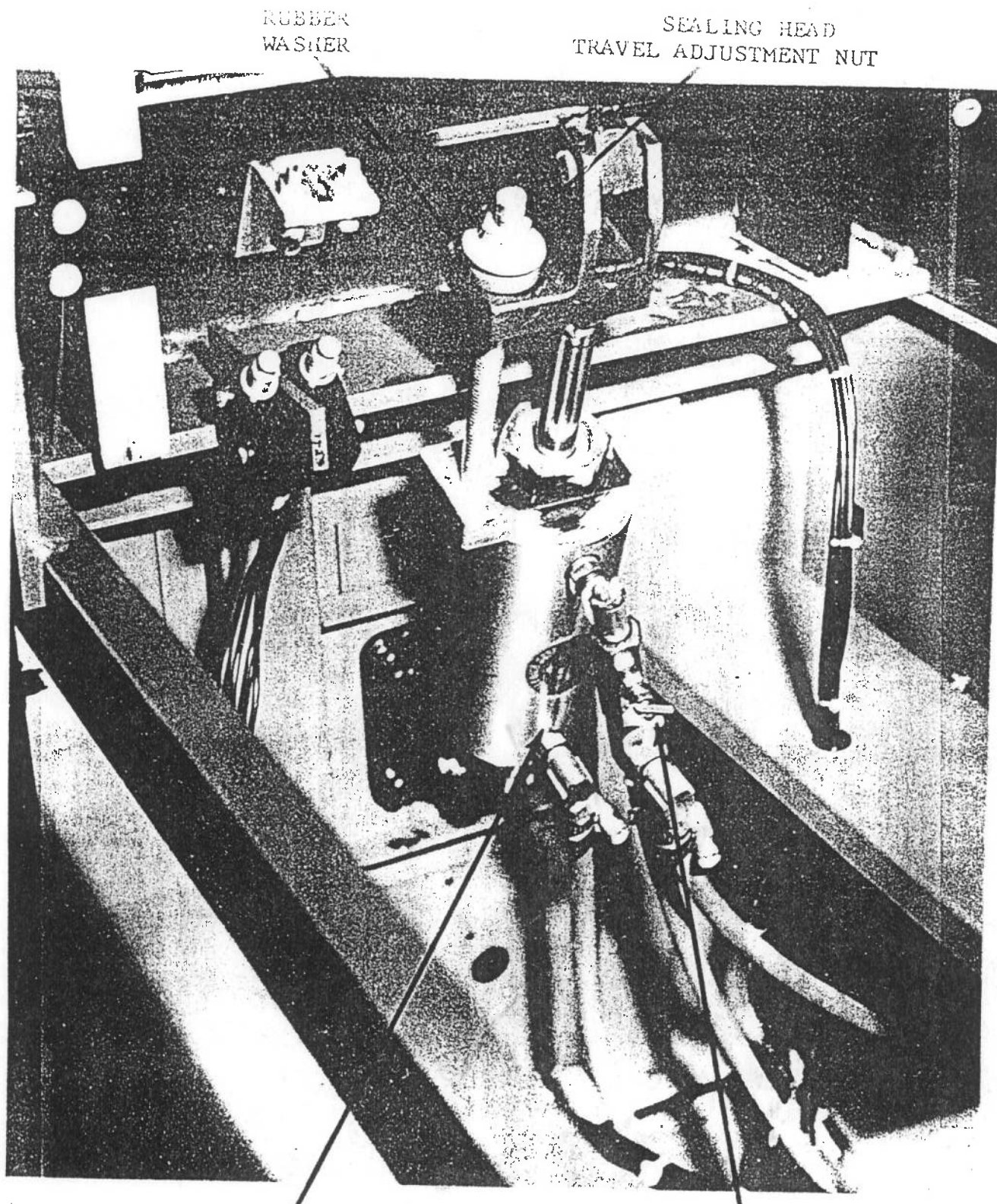


Figure 9.3 Side Detail, Sealing Element Replacement



ALL BOLTS "A" ARE WITH NUTS "A" (TOP)
AND NUTS "B" (BOTTOM)

Figure 9.4 Sealing Pad Pressure Adjustment



"CUSHION" ADJUSTMENT
(SCREW "B") (ON FAR SIDE)

"UP" SPEED ADJUSTMENT
(SCREW "A")

Figure 9.5 Sealing Head "UP" Adjustment and "CUSHION" Adjustment

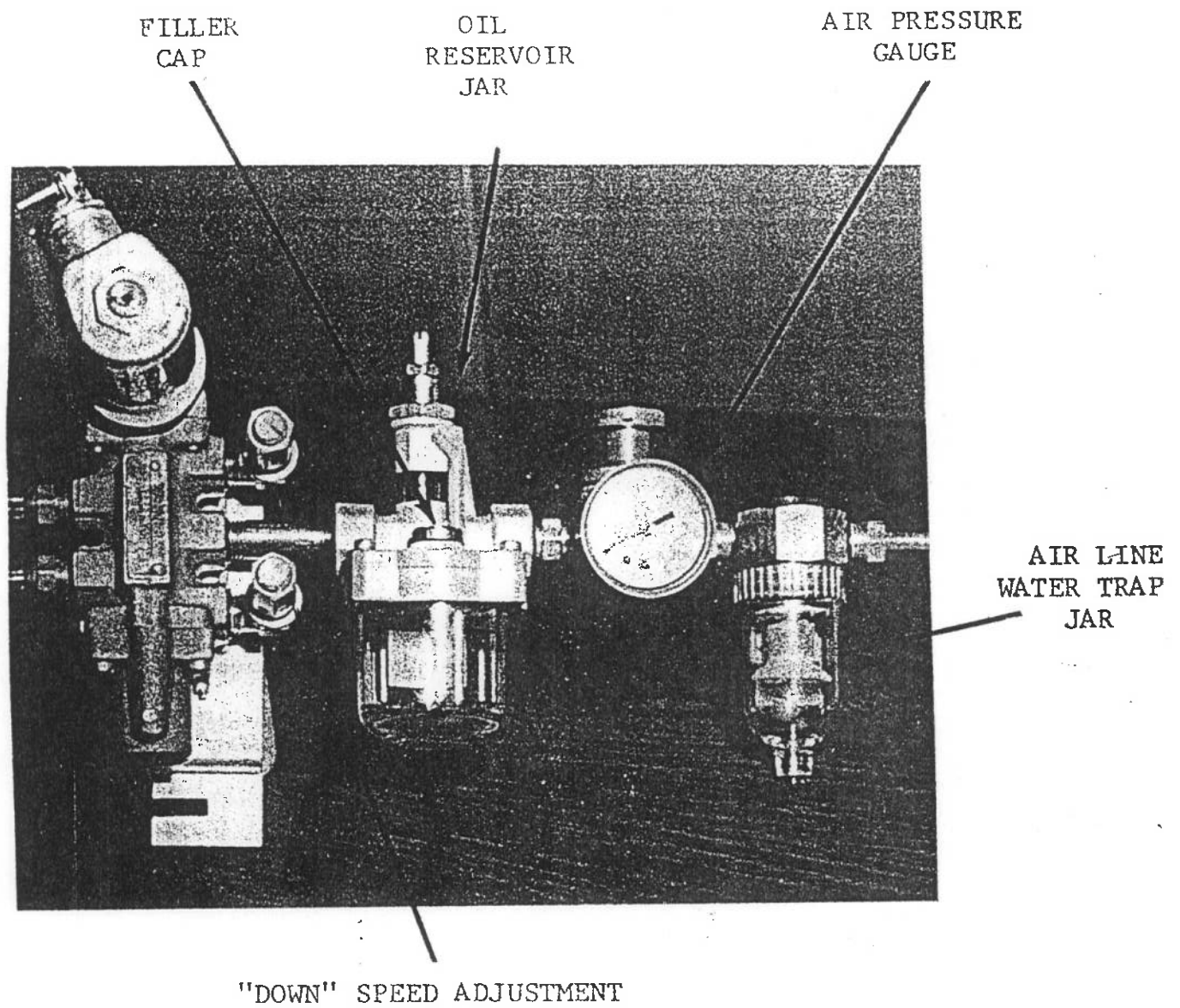
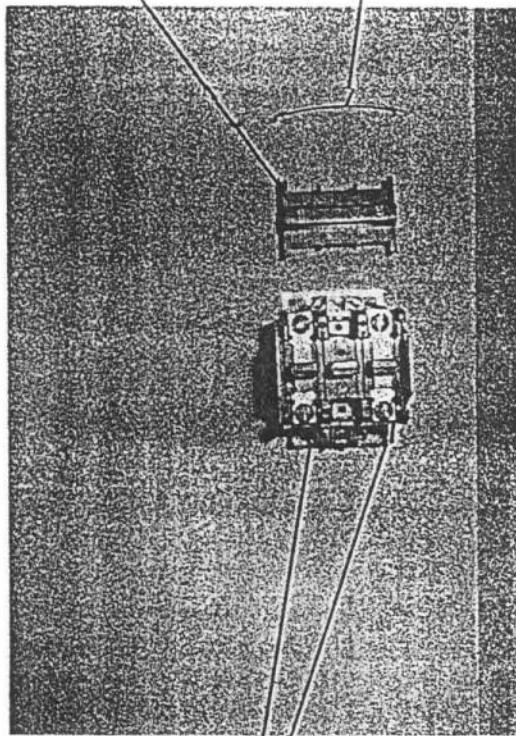


Figure 9.6 Sealing Head "DOWN" Speed Adjustment and Piston Lubrication

COVER PLATE

CLIP



SCREWS "A"

Figure 9.7 Contact Cleaning

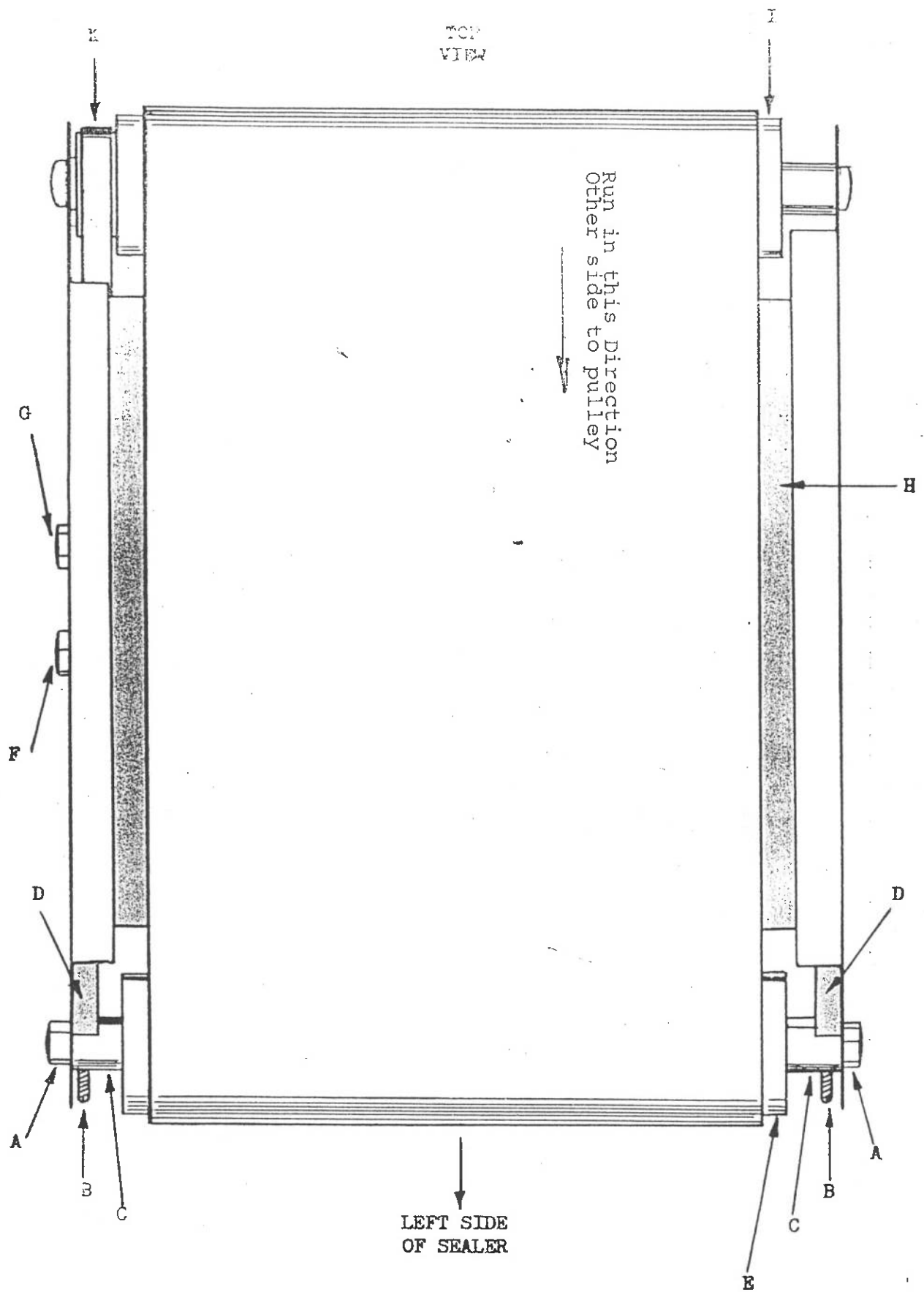


Figure 9.8 Conveyor Assembly Maintenance

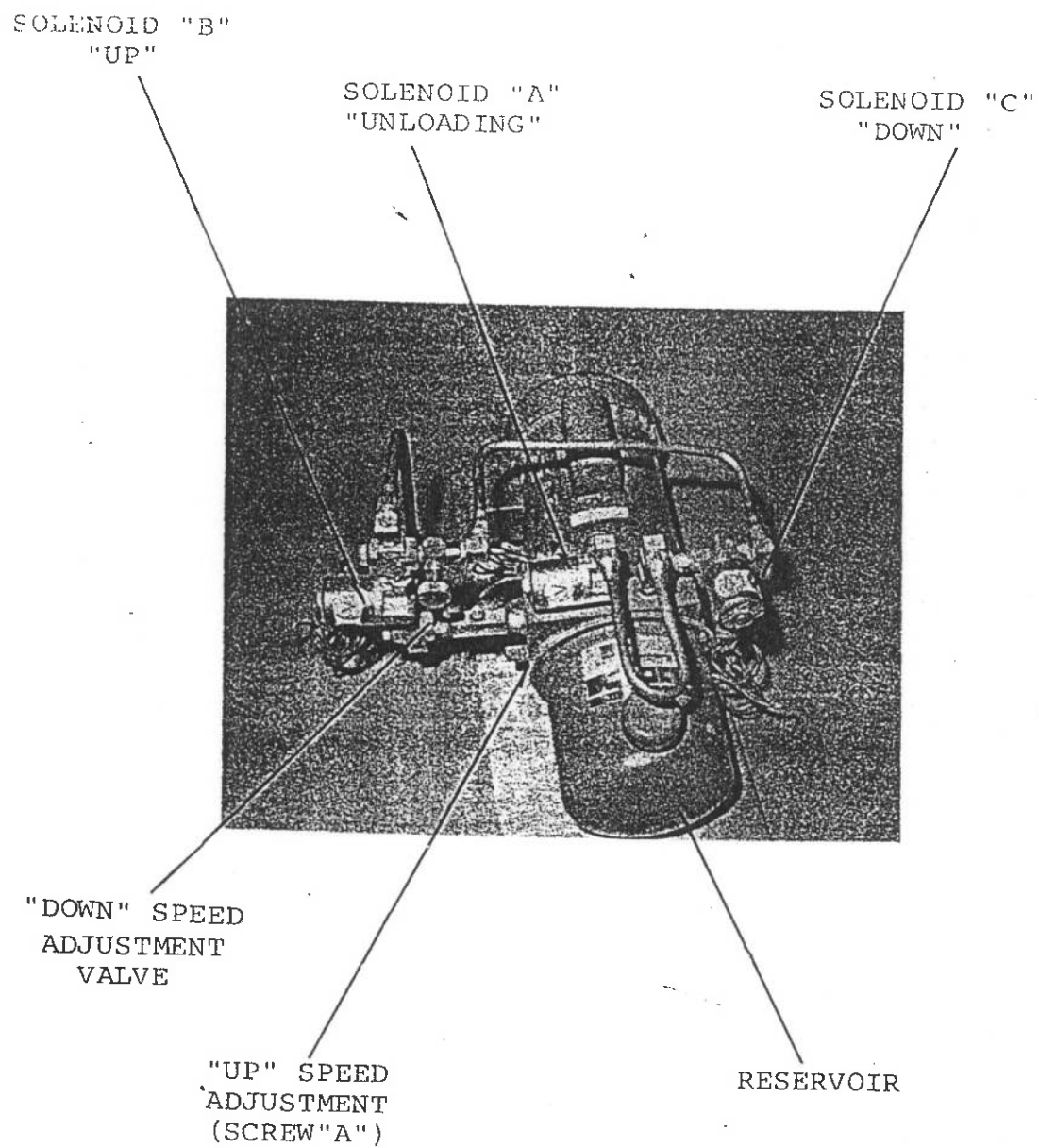


Figure 9.9 Adjustments and Location of Valves - Hydraulic System -

10 TROUBLESHOOTING CHARTS

NOTE

In performing the tests and checks which follow, carefully inspect wires for breakage and poor connections while testing each relay, timer, switch, transformer, etc. Refer to Figure 4.1 for locations of controls, Figure 10.1 for location of electrical chassis components.

TROUBLE	PROCEDURE
a. Pilot light does not light.	<ol style="list-style-type: none"> 1. Check if power source is supplying power. 2. Check if sealer is plugged in properly. 3. Test fuses F1 and E2. 4. Check operation of console main circuit breaker. 5. Check console's power wiring.
b. Sealing head will not come down and relays do not click when start buttons depressed.	<ol style="list-style-type: none"> 1. Check that DWELL timer is not set on zero time. 2. Check that STOP buttons are not stuck are down. 3. Check for defective K1 relay. 4. Check for defective DWELL timer. 5. Check for open circuit on both START buttons.
c. Sealing head will not come down although relays click when start buttons are depressed.	<ol style="list-style-type: none"> 1. Check for free movement of safety bars. 2. Check and inspect wiring and connections to safety bar switches. 3. Check for defective relay K2. 4. Check for defective transformer T1. 5. Manually operate each safety switch. A click should be heard. (See paragraph 8.1.1). 6. Check for defective solenoid valve SO-1 (at air intake hose). A hum should be heard when start buttons are depressed. 7. Check for "frozen" piston due to lack of lubrication (see paragraph 9.6.4). 8. Adjust airflow valve as per paragraph 9.6.2.
d. Sealing head comes down but immediately returns to up position.	<ol style="list-style-type: none"> 1. Check safety circuit adjustment as shown in paragraph 8.1 of this manual. 2. Check if safety override switch is defective. 3. If relays K1 and/or K2 will not remain operated, check for low line voltage.

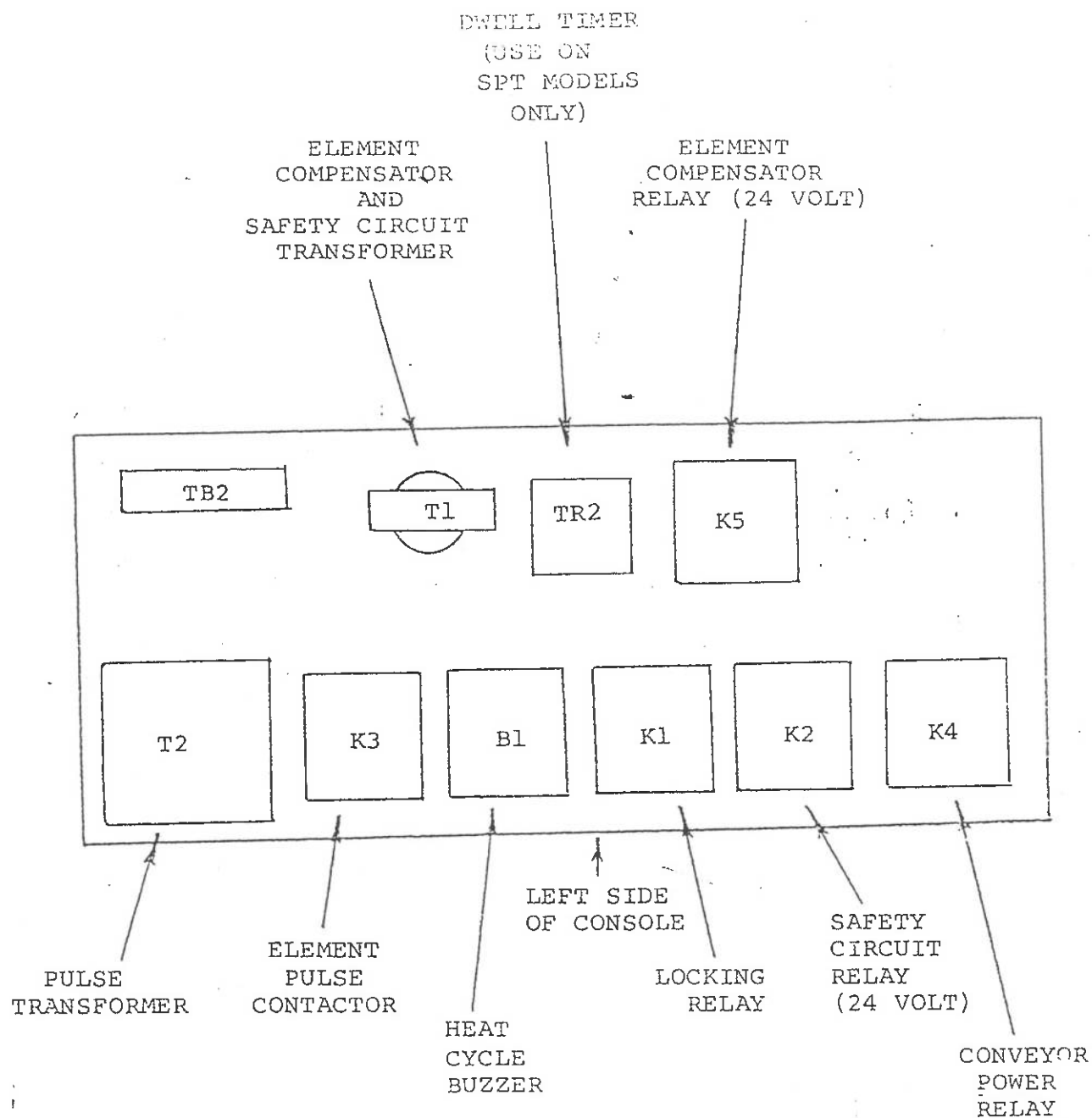


Figure 10.1 Parts Layout, Console Electrical Chassis

10. TROUBLESHOOTING CHARTS

TROUBLE	PROCEDURE
e. Sealing head operates normally and normal cycle completed but no sealing occurs (no heat).	<ol style="list-style-type: none"> 1. Adjust Element Compensator as shown in paragraph 8.2 of this manual. 2. Check coil and contacts of contactor K3. 3. Check coil and contacts of relay K5. 4. Check continuity of HEAT CONTROL tap switch and associated wiring. 5. Check for power input and output of transformer T2.
f. Sealing head comes down but will not rise.	<ol style="list-style-type: none"> 1. Check for nominal 80 lbs. air pressure. 2. Perform element pulse switch adjustment as shown in paragraph 9.5 of this manual.
g. Conveyor does not operate.	<ol style="list-style-type: none"> 1. Check that CONVEYOR timer is set above zero timer. Check for defective timer. 2. Check conveyor belt drive for sufficient tension. Adjust as per paragraph 9.8.4. 3. If motor runs but output shaft does not turn, replace motor's fibre gear. Replace as per paragraph 9.8.3. 4. Check relay K4 contacts and coil continuity. 5. Check conveyor delay adjustment as in paragraph 8.5. 6. Check for defective DWELL timer.
h. Weak seals.	<ol style="list-style-type: none"> 1. Check if sealing pads need replacement. See paragraph 9.3 of this manual. 2. Check if sealing bar pressure adjustment per paragraph 9.4 of this manual is required. 3. Check if controls are set per paragraph 6.4. 4. Improper operating technique. Check paragraph 9 instructions. 5. Conveyor starts too soon, pulling seal. Check conveyor delay adjustment per paragraph 8.5. 6. Check that air pressure is nominal 80 lbs.
i. Premature element failure.	<ol style="list-style-type: none"> 1. Inadequate tension on heater element. Check installation as in Heater Element Replacement of paragraph 9.1. 2. Adjust the Element Compensator for good seal with minimum air gap (see paragraph 8.2). 3. Deformed or missing heat sink, or heat sink improperly installed in relation to element. Replace deformed sink and/or make sure that heat sink has tight contact with element. 4. Heater element hot-spot caused by improper sealing bar pressure adjustment. Check leveling as shown in paragraph 9.4. 5. Relay K3 sticks on and will not release. Check that normally closed contacts of relay K5 are opening properly when K5 operates. 6. Check for pitted and sticky contacts of relay K3.

11. REPLACEMENT PARTS LISTS, CONSOLE SEALERS

Console type Sealers, Standard 230 Volt Models, unless otherwise indicated.

This list has been prepared to assist in the ordering and stocking of parts needed for normal replacement purposes.

When ordering parts state the part number, part description, and machine model number on which the part is to be used. Specify the quantity desired, when needed, and desired shipping method: Parcel Post, Truck, Express, Air Express, etc.

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
PH-1063	Actuator Pin, for Pulse Switch	ALL
E58-24	Actuator Assy., for Safety Override and Conveyor Delay Switches	ALL
5800-629P1	Bar, Electrode, Front, without Beads, Element or Termination	5201A
5800-629P2	Bar, Electrode, Front, without Beads, Element or Termination	5202A
5800-0629P3	Bar, Electrode, Front, without Beads, Element or Termination	5203A,5213A
5800-9002	Bar, Electrode, Front, Complete with Beads, Element and Termination	5201A
5103-9000	Bar, Electrode, Front, Complete with Beads, Element and Termination	5203A,5213A
5800-0630P1	Bar, Electrode, Side without Beads, Element or Termination	5201A,5202A 5203A
5800-0630P2	Bar, Electrode, Side without Beads, Element or Termination	5213A
5113-9000	Bar, Electrode, Side, Complete with Beads, Element and Termination	5213A

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
5800-9001	Bar, Electrode, Front, Complete with Beads, Element and Termination	5201A,5202A 5203A
5800-9003	Bar, Electrode, Front, Complete with Beads, Element and Terminations	5202A
5800-0664P1	Bar, Pressure, Front	5201A
5800-0664P2	Bar, Pressure, Front	5202A
5800-0664P3	Bar, Pressure, Front	5203A
5800-0190AP3	Bar, Pressure, Side	5213A
5800-0663	Bar, Pressure, Side	5201A,5202A 5203A
5800-6603	Bar, Tie	5201A
5800-6602	Bar, Tie	5202A
E58-0111P3	Bar, Tie	5203A
FG-0585	Barb, Hose, 1/4"	Air Units
BG-0720	Bearing, Head Pivot	5201A,5202A 5203A
7121-0035	Bearing, Bronze	All
BG-0721	Bearing, Ball, 1/2" Bore	All
SV-1030	Bearing, Nyliner (Plastic)	All
BG-1185	Bearing, Pillow Block	5213A
BL-0903	Belt, Conveyor	5201A
BL-0902	Belt, Conveyor	5202A

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
BL-0947	Belt, Conveyor	5203A
BL-1160	Belt, Conveyor	5213A
BL-0523	Belt, Conveyor Drive	5202A,5203A 5213A
BL-0549	Belt, Conveyor Drive	5201A
E58-0146	Block, Conveyor Take-Up	All
E58-0200	Block, Shaft Support	All
CO-0577D	Bowl, Air Line Lubricator	Air Units
CO-0577E	Bowl, Water Trap	Air Units
BT-0579	Bracket, Air Cylinder Swivel Mount	5201A,5202A 5203A
E58-0012	Brake Assembly, Film Shaft	All
BU-0367	Bushing, 5/8" Bore, Steel	All
SV-1130	Bushing, Insulating	All
BZ-0306A	Buzzer	All
E58-0229	Cam, Switch Actuating	5213A
CC-3512	Capacitor, used with Conveyor Motor MR-1793	All
CU-1770	Circuit Breaker, Supersedes CU-0236	All
E58-0231	Clevis	5201A,5202A 5203A
VA-0574C	Coil, Solenoid Valve	Air Units
CL-0325	Collar, 5/8"	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
CL-0724	Collar, 1/2"	All
5800-0687	Compensator	5201A
CX-0718E	Contact Block, Start, Reset	All
CQ-0751	Connector, Conveyor Motor Leads	All
CX-0718F	Contact Block, Stop	All
SS-3576	Compensator Screw	All
5800-0662	Compensator	5202A
E58-0238	Compensator	5203A,5213A
E58-0107P1	Conveyor Shaft, Idler Roller	5201A,5202A 5203A
E58-0107P2	Conveyor Shaft, Idler Roller	5213A
CX-4161	Contacts, P/O Contactor CX-4160	
CX-4158	Contactor, 30 Amp.	5201,5202
CX-4159	Contactor, 60 Amp.	5203
E60-0156	Core, Film 3" Dia. Thumb Screw	All
E60-0073	Core, Film 3" Dia. Thumb Camlock	All
CN-1196	Coupling 90° Scrap Duct, Plastic	All
CN-0976	Coupling, Vac. Scrap Duct	All
Q251-0102	Cover, Scrap Removal Motor	All
E58-0178	Cover, Plate Switch	All
SW-0725A	Cover, Safety Switch	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
E58-0157	Cover, Scrap Removal Unit	All
AC-0117	Cylinder, Air	5213A
AC-0566	Cylinder, Air	5201A,5202A 5203A
BN-1593	Die, P/O Hole Punch	All
EN-0581	Drum, 30 Gal.	All
E58-0201	Duct, Scrap Removal, Short, Rigid Plastic	All
E58-0202P1	Duct, Scrap Removal, Long, Rigid Plastic	All
WE-0926A	Element, Front	5201A
WE-0926B	Element, Front	5202A
WE-0926D	Element, Front	5203A,5213A
WE-0926A	Element, Side	5201A,5202A 5203A
WE-0926B	Element, Side	5213A
E58-0193P1	Film Shaft	5201A,5202A 5203A
E58-0193P2	Film Shaft	5213A
E58-0013P1	Film Storage Rack, without Roll Shafts	5201A,5202A 5203A
E58-0013P2	Film Storage Rack, without Roll Shafts	5213A
E58-0010-1	Film Unwind Assembly	5201A,5202A
E58-0010-2	Film Unwind Assembly	5203A,5213A
FZ-1033	Fuse, Control Circuit	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
FZ-1658	Vacuum System	All
FZ-0983	Fuse Holder, Main	All
FZ-1647	Fuse, Main	440V Units
MP-2162D	Flexible Hose, Scrap Unit	All
CP-2730	Flexible Coupling P/O Hole Punch MP-2734	All
5800-0633-1	Guard, Front	5201A
5800-0633-2	Guard, Front	5202A
5800-0634	Guard, Side	5201A, 5202A 5203A
CO-0577A	Gauge, Pressure	Air Units
E60-0144	Heat Sink	All
MP-2734	Hole Punch Kit, Pneumatic Fittings and	Air Units
Model 252A	Electric Hole Punch	Hydraulic Units
HS-0586	Hose, Air, 1/4" I.D., 1/8" Wall	Air Units
CO-0766	Hose Clamp	Air Units
BD-2257	Insert, Ceramic, V Groove .250" Lg.	All
BD-0630	Insert, Ceramic, V Groove .230" Lg.	All
BD-0746A	Insert, Ceramic, V Groove 15° Level One End	All
BD-1720	Insert, Ceramic, Intersection	All
HA-0019	Key	All

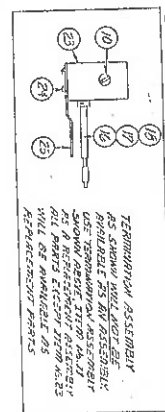
<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
KB-1101	Knob, Heat Control Switch	All
E58-0206A	Lever Casting	5213A
LT-0606	Light, Pilot	All
CO-0577C	Lubricator, Air	Air Units
MR-13829	Motor	All
FG-0762	Nipple, Close, 1/4"	Air Units
E58-0170	Pin, Clevis	5201A,5202A 5203A
E58-0142	Pin, Clevis, Conveyor	All
PN-0327	Pin, Groove	All
PN-2015	Pin	All
PN-1771	Pin, Roll	5213A
KB-1100	Plate, Dial Heat Control Switch	All
LB-0718C	Plate, Legend, "START"	All
LB-0718D	Plate, Legend, "STOP"	All
LB-0472	Plate, Legend, "RESET"	Hydraulic Units
E58-0176	Plate, Piston Rod Stop	5201A,5202A 5203A
PG-6608	Plug, Vacuum System, Power	All
E58-0108	Pulley, Modified, Conveyor Drive	All
E58-0109	Pulley, Modified, Conveyor Drive	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
BA-1594	Punch P/O Hole Punch MP-2734	All
PG-1361	Receptacle, Foot Switch	All
PG-1035	Receptacle, Vacuum System	All
CO-0577	Regulator Combination, Includes Lubricator, Air Regulator, Water Trap, Pressure Gauge, Mounting Bracket	Air Units
CO-0577G	Regulator, Air Pressure	Air Units
SW-1123	Relay, Control Circuit, 24V	All
SW-1195	Relay, Control Circuit, 220V	All
VA-0574D	Restrictor, Exhaust	All
RG-1737	Ring, Retaining	All
RG-0534	Ring	All
E58-0195P1	Rod, Film Spreader	5201A,5202A 5203A
E58-0197-1	Roller, Conveyor Drive	5201A,5202A 5203A
E58-0197-2	Roller, Conveyor Drive	5213A
E58-0198P1	Roller, Conveyor Idler	5201A,5202A 5203A
E58-0198P2	Roller, Conveyor Idler	5213A
5800-0628P1	Safety Bar, Side	5201A,5202A 5203A
5800-0628P2	Safety Bar, Side	5213A

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
5800-0627P1	Safety Bar, Front	5201A
5800-0627P2	Safety Bar, Front	5202A
5800-0627P3	Safety Bar, Front	5203A,5213A
E58-0019	Scrap Removal Assembly, 220V,	All
BO-1418	Screw, Shoulder	All
SS-0796	Screw, Shoulder	All
SS-1139	Screw, Thumb	All
E58-0148	Screw, Conveyor Belt Take-Up	All
GK-1273	Seal, Sponge Rubber	Vac Scrap
5800-0631	Sealing Head Casting Infeed	5201A,5202A 5203A
E58-0192A	Sealing Head Casting Infeed	5213A
E58-0191	Sealing Head Casting Outfeed	5201A,5202A 5203A
E58-0191A	Sealing Head Casting Outfeed	5213A
E58-0006	Sealing Head Stop Assembly	5201A,5202A 5203A
E58-0183P1	Shaft, Head Pivot	5201A
E58-0183P2	Shaft, Head Pivot	5202A
E58-0183P3	Shaft, Head Pivot	5203A
E58-0183AP2	Shaft, Oscillating	5213A
E58-0145	Shaft, Conveyor Support	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
E58-0137-1	Shaft	5201A
E58-0137P2	Shaft, Conveyor Elevation	All
SV-1132	Sleeve, Nylon Headed Plastic	All
SV-1134	Sleeve, Nylon Headed Plastic	All
VA-0574	Solenoid Valve	Air Units
SG-1615	Spring, Compression, Safety Bar	All
SG-1616	Spring, Compression, Safety Bar	All
SG-1740	Spring, Compression, Element	All
SB-2179	Stud, Electrode Bar Mount, Large	All
SB-2180	Stud, Electrode Bar Mount, Short	All
SW-0718D	Switch, Push-Button, "STOP"	All
SW-0202	Switch, Limit, Used for Pulse, Conveyor Delay and Safety Override Functions	All
SW-0758	Switch, Safety Circuit	All
SW-1852	Switch, Main Power Disconnect	440V Units
RH-1102	Switch, Heat Control	All
TA-0435	Tape, Fiberglas, Teflon,.010" x 3/8",10 yd roll	All
TA-0467	Tape, Fiberglas, Teflon,.003" x 2", 10 yd roll	All
TL-0752	Terminal Block, Center Section	All
TL-0753	Terminal Block, End Section	All
5800-0614	Termination Block	All

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>USED ON</u>
TL-1341	Termination Post, Electrode Wire, Brass	All
CA-1592	Throat Casting, Hole Punch	All
TM-3915	Timer, Used for Dwell, Conveyor Timer	All
CO-0577B	Trap, Water, P/O, CO-0577	Air Units
E58-0112-1	Tray, Loading	5201A
E58-0112-2	Tray, Loading	5202A
E58-0112-3	Tray, Loading	5213A
TR-13558	Transformer, Element Pulse	5201A
TR-1113	Transformer, Element Pulse	5203A
TR-2915	Transformer, Control Circuit Stepdown, 440-220V	
TR-1301	Transformer, Element Pulse	5213A
TR-0949	Transformer, Safety Circuit	All
VA-2149	Valve, Flow Control	Air Units
VA-0732	Valve, Flow Control, Up Speed	Air Units
VA-0617	Valve, Solenoid P/O Hole Punch MP-2734	
WA-1252	Washer, Rubber	Air Units

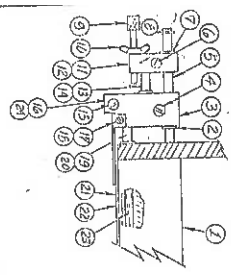


TERMINATION POSSIBLE
AS SHOWN WILL NOT BE
PAID RELE AS AN ASSIGNED
USE TERMINATION AS SHOWN
SHOWN REVEY ITEM 46.11
AS A REPERATION AS SHOWN
RE PARAS 4-2-21 ITEM 46.
WILL BE AVAILABLE AS
A REPERATION

MODEL No.	BAR NO.	SHOWN RESIZE
6500, 6500, 6500	6500 - 500P	
6500, 6500, 6500	6500 - 500B	
6500, 6500, 6500	6500 - 500C	
6500, 6500, 6500	6500 - 500D	
6500, 6500, 6500	6500 - 500E	
6500, 6500, 6500	6500 - 500F	
6500, 6500, 6500	6500 - 500G	
6500, 6500, 6500	6500 - 500H	
6500, 6500, 6500	6500 - 500I	
6500, 6500, 6500	6500 - 500J	
6500, 6500, 6500	6500 - 500K	
6500, 6500, 6500	6500 - 500L	
6500, 6500, 6500	6500 - 500M	
6500, 6500, 6500	6500 - 500N	
6500, 6500, 6500	6500 - 500O	
6500, 6500, 6500	6500 - 500P	
6500, 6500, 6500	6500 - 500Q	
6500, 6500, 6500	6500 - 500R	
6500, 6500, 6500	6500 - 500S	
6500, 6500, 6500	6500 - 500T	
6500, 6500, 6500	6500 - 500U	
6500, 6500, 6500	6500 - 500V	
6500, 6500, 6500	6500 - 500W	
6500, 6500, 6500	6500 - 500X	
6500, 6500, 6500	6500 - 500Y	
6500, 6500, 6500	6500 - 500Z	

FRONT ELECTRODE BAR

6100, 6300, 6400
6101, 6102, 6103, 6113
6081, 6082
6301, 6302, 6303
6401, 6402



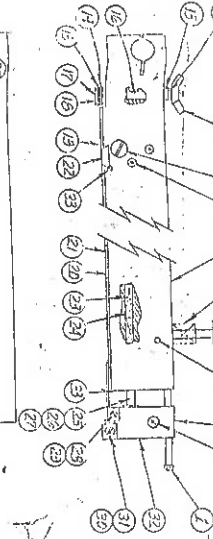
COMPLETED BY RS SKUNK RESCUE	
MODEL No.	PART No.
1-122C	M5-301
1-205C, 13016C	M5-440
1-287C, 1-3035F2	M5-441
1-40FC, 1-3040FC	M5-442

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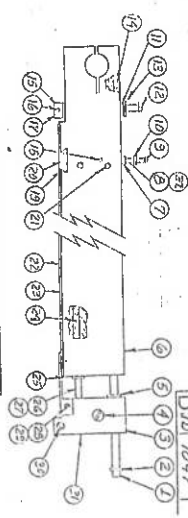
ITEM	QUANTITY	DESCRIPTION	UNIT	PRICE	TOTAL
1	1	SCREW 5/8" X 3"	EA	1.15	1.15
2	1	WASHER 5/8" X 3"	EA	1.15	1.15
3	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
4	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
5	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
6	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
7	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
8	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
9	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
10	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
11	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
12	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
13	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
14	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
15	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
16	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
17	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
18	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
19	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
20	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
21	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
22	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
23	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
24	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
25	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
26	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
27	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
28	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
29	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
30	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
31	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
32	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
33	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
34	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
35	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15
36	1	1/2" X 1/2" X 1/2"	EA	1.15	1.15



MODEL No.	PART No.
6350 AIR TITE AIR	6360-90206
6302 3000, 6303	63100-90005
6301, 6302, 6303	63300-90005
638 1177E 5H25	
6311, 6302, 6303, 6304	63600-90006
6301, 6302, 6303, 6304	
6301, 6302	
6311, 6312, 6313	63300-90006
6311, 6312, 6313	63600-90007

SIDE ELECTRODE BAR
MODEL'S: 6100, 6300, 6400

6101, 6102, 6103, 6301, 6302
6303, 6401, 6402, 6081, 6082
6111, 6112, 6113, 6311, 6312, 6313



COMPLETED PER AS SHOWN ABOVE	
MODEL No.	PART No.
L-12 FC	M5-300
EZOF, E65FC, L-40FC	M35-445-
CO-40EAD287, P9366C	M35-446

SIDE ELECTRODE BAR
MODELS: 1-12 1-20 1-28 1-

ITEM	DESCRIPTION
	MODELS: L-12, L-20, L-28, L-40 (FC L-3016, L-3028, L-3040) (FC

[illegible]

1. Information
2. 1-800-333-3333
3. Any questions
4. Official website
5. Subject to

PARTS LISTS AND DRAWINGS

ASSEMBLY DRAWINGS DESCRIPTION AND PARTS LIST

DESCRIPTION	PARTS LIST NO.
MAIN ASSEMBLY MODEL 5212	52120001
SEALING HEAD ASSY	E580007P2
SIDE SEAL BAR, ASSY 21.43L	52000134P1
CONDUCTOR ASSY	52000137
FRONT SEAL BAR ASSY	52000133P2
PNEUMATIC ASSEMBLY	E580009
HEAD STOP ASSY	E580006
HOLE PUNCH ASSY	MP2734
UNWIND ASSEMBLY	64110030
ROLLER ASSEMBLY/FILM SUPPT	64110302
DANCER ASSEMBLY	64110301
LEVER ASSEMBLY	64110312
OUTFEED CONVEYOR ASSY	E580014P2
DRVE ROLLER ASSY	E580027P1
BEARING BLOCK ASSY	52000135
ROLLER ASSY	52000136P1
MOTOR ASSY	52000170
LOADING TRAY ASSEMBLY	52120020
SCRAP REMOVAL ASSEMBLY	E580019-2P2
CONTROL PANEL ASSEMBLY	E580021-2
TIMER & LINE BREAKER ASY	E580022
CHASSIS ASSY	E580023P2
SWITCH ACTUATOR ASSEMBLY	E580024
START-UP KIT FOR MODEL 5201	52000160
START-UP KIT FOR MODEL 5202	52000161

PART NO: 52120001
 DESCRIPTION: MAIN ASSEMBLY MODEL 5212

REV:03 06/18/93
 ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580007P2	SEALING HEAD ASSY	1.0	EA	06		AS
4	E580009	PNEUMATIC ASSEMBLY	1.0	EA			AS
5	64110030	UNWIND ASSEMBLY	1.0	EA	01		AS
8	E580014P2	OUTFEED CONVEYOR ASSY	1.0	EA	12		AS
9	52120020	LOADING TRAY ASSEMBLY	1.0	EA	02		AS
11	E580019-2P2	SCRAP REMOVAL ASSEMBLY	1.0	EA			AS
13	E580021-2	CONTROL PANEL ASSEMBLY	1.0	EA			AS
16	E580022	TIMER & LINE BREAKER ASY	1.0	EA			AS
17	E580023P2	CHASSIS ASSY	1.0	EA			AS
19	E580024	SWITCH ACTUATOR ASSEMBLY	1.0	EA			AS
20	E580028P1	ACCESS COVER (THIS DWG.)	1.0	EA			
21	E580117	ANGLE RH	1.0	EA			
22	E580118	ANGLE LH	1.0	EA			
23	E580196	SWITCH MOUNT	1.0	EA			
24	52000127P2	CONSOLE WELD	1.0	EA	01		
26	52000130	SEALING HD FRAME WELD	1.0	EA			
28	E580121P2	COVER CYLINDER 8.75 X 32.25	1.0	EA			
30	PG17881	RCPT,277V,20A CSA LISTED	1.0	EA			
32	CQ0609	CONN BX 2 SCREW 3/4	1.0	EA			
34	SW1240	SWITCH TOGGLE DPDT	1.0	EA			
35	SW2145	SWITCH TOGGLE,3PDT,3A,250V	1.0	EA			
36	SW0202	SWITCH	2.0	EA			
38	LB6733	LABEL POLYETHYLENE NORMA	1.0	EA			
39	KB1100	KNOB,1 DIA	1.0	EA			
40	KB1101	KNOB	1.0	EA			
41	RH1102	TAP SWITCH,6POS,10-32-3/8 BND HD	1.0	EA			
42	SW0725A	ENCL SWITCH FOR SW0725	2.0	EA			

PART NO: 52120001
 DESCRIPTION: MAIN ASSEMBLY MODEL 5212

REV:03 06/18/93
 ACT: ROUTE: 1

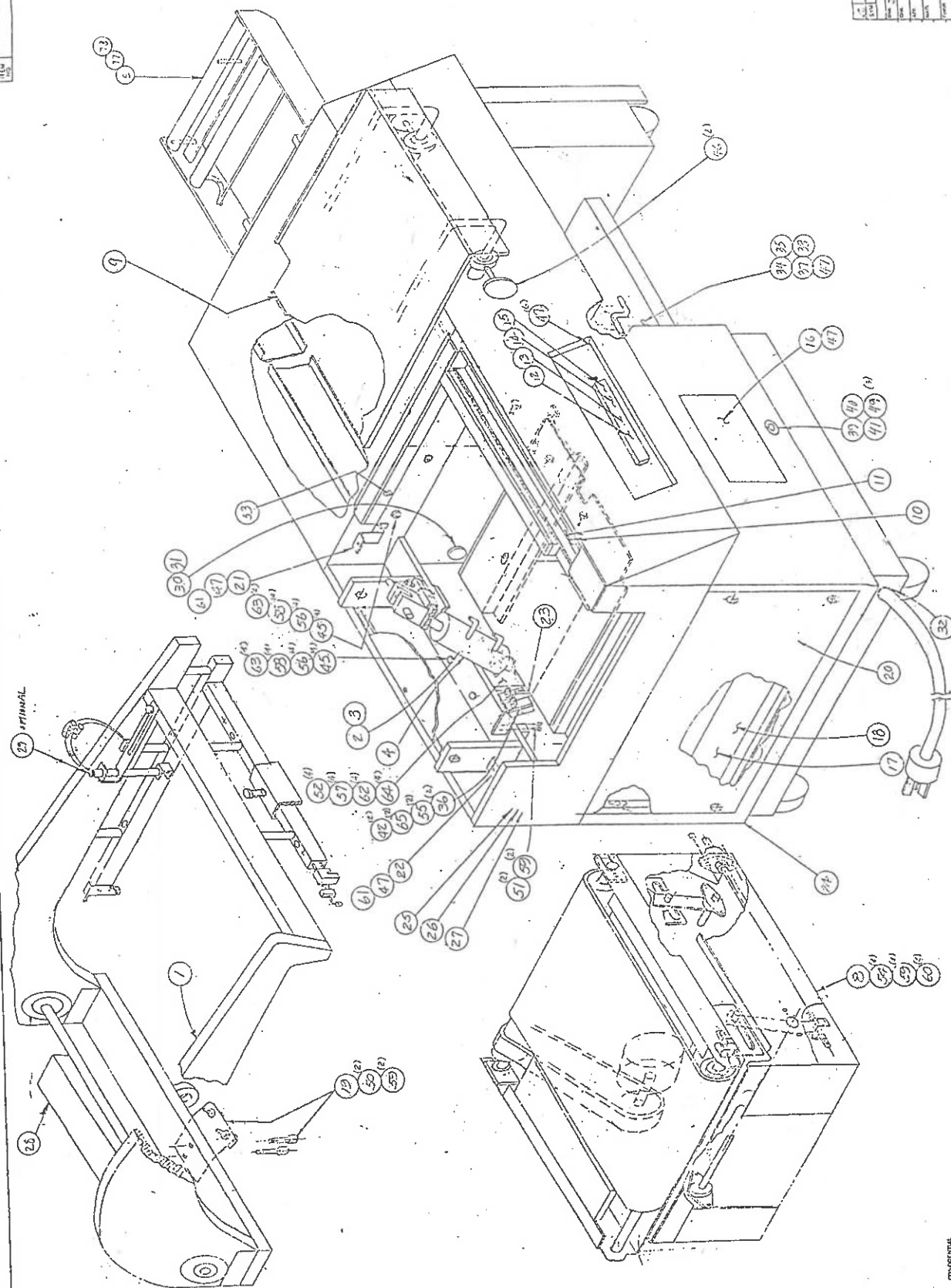
ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
45	SS0190	AAA,0.250-20X1.000LG SCREW HEX HD CAP CP	8.0	EA			
46	SS0934	AAN,0 312-18X0.750 LG SCREW THUMB CAD PL	2.0	EA			
47	SS0335	AAG,8-32X0.500 LG SCR BIND HD MS PL	18.0	EA			
49	SS0272	AAG,10-32X0.375 LG SCR BIND HD MA CAD PL	3.0	EA			
50	SS0186	AAC,10-32X0.500 LG SCR SOC HD CAP CAD PL	2.0	EA			
51	SS0340	AAG,10-32X0.750 LG CAD PL	2.0	EA			
52	SS0051	AAA,0.375-16X1.250LG SCREW HEX HD CAP CP	4.0	EA			
53	SS0017	AAC,0.250-20X0.875LG SCR HD SOC CAP CP	8.0	EA			
54	SS4285	ABF,10-32X0.375 LG SCR BTN HD SOC	4.0	EA			
55	SS0266	AAG,6-32X2.500 LG SCR BIND HD MACH CAD	2.0	EA			
56	WA0361	AAA,0.250 WASHER FLAT SAE PLAIN CP	8.0	EA			
57	WA0260	AAA,0.375 WASHER FLAT CP	4.0	EA			
58	WA0619	ABB,0.250 WASHER	8.0	EA			
59	WA1003	AAB,10 WASHER LOCK SPRING	8.0	EA			
60	WA0351	ABA,10 WASHER	4.0	EA			
61	WA1334	AAB,8 WASHER LOCK SPRING CP	2.0	EA			
62	WA2374	ACB,0.375 WASHER LOCK SST	4.0	EA			
63	NT0627	AAA,0.250-20 NUT HEX CAD	10.0	EA			
64	NT2378	ACA,0.375-16 NUT HEX ST STL	4.0	EA			
65	NT0198	AAA,6-32 NUT HEX CAD PL	2.0	EA			
67	58000682	CHASSIS COVER PLATE	1.0	EA			
68	LB20405	LABEL,CAUTION SAFETY FIRST	1.0	EA	01		
71	LB11439	NAMEPLATE 5-1/2 LOGO	1.0	EA			
74	52000160	START-UP KIT FOR MODEL 5201	1.0	EA			AS
75	52000161	START-UP KIT FOR MODEL 5202	1.0	EA			AS
77	SS0194	AAA,0.312-18X1.000LG SCREW HEX HD CAP CP	4.0	EA			
78	WA2232	AAB,0.312 WASHER LOCK CP	4.0	EA			

PART NO: 52120001
DESCRIPTION: MAIN ASSEMBLY MODEL 5212

REV:03 06/18/93
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
79	LB2481	LABEL DO NOT PULL	1.0	EA		3	
80	LB20760	LABEL, LOCKOUT/TAGOUT	1.0	EA			
81	LB20795	LABEL, SHIPPING BRACKETS	2.0	EA			
9000	DWG52120001	DWG, MAIN ASSEMBLY MODEL 321	1.0	EA			D
9001	52008210	SCHEMATIC, MAIN ASSEMBLY	1.0	EA			C

REV	DESCRIPTION	DATE	BY
1	UNCLASSIFIED	10/11/00	10/11/00
2	ASSEMBLY	10/11/00	10/11/00
3	MODEL 5212	10/11/00	10/11/00
4	MODEL 5212 - COPI	10/11/00	10/11/00

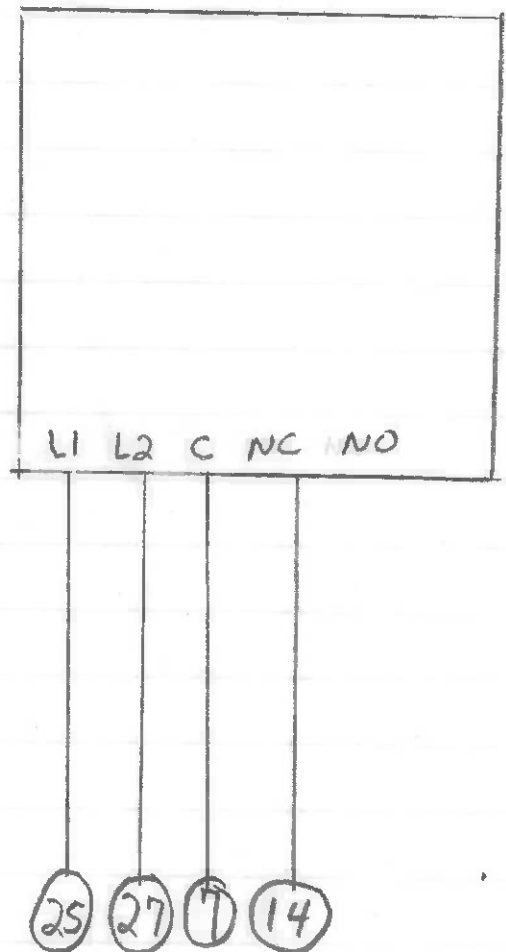


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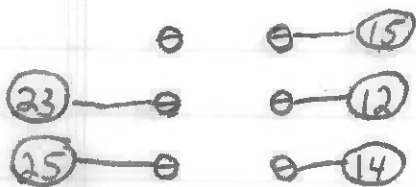
Conveyor



Dwell



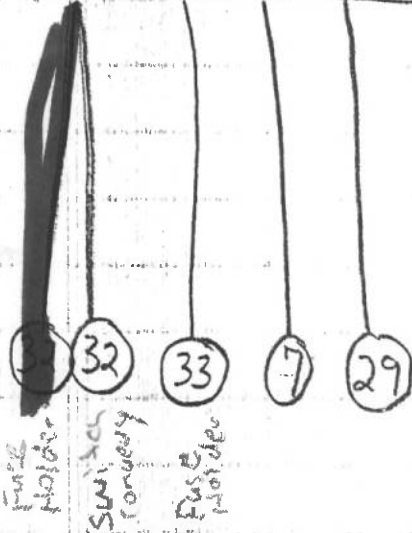
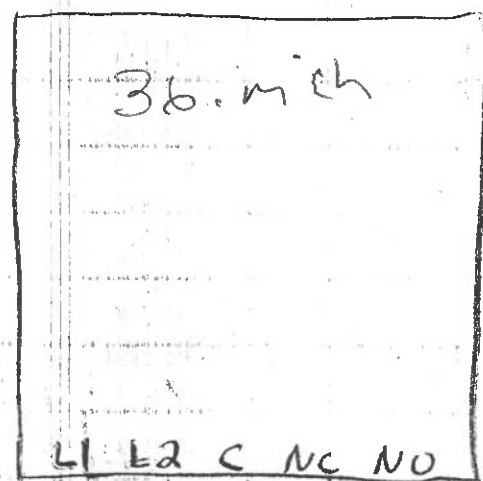
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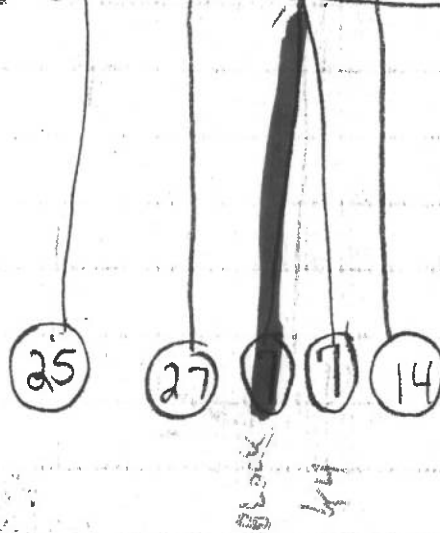
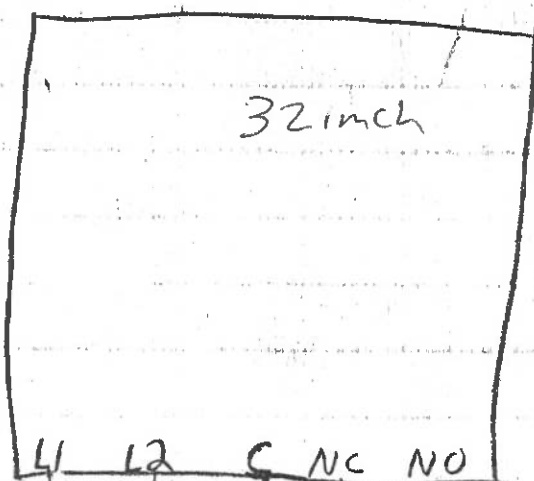
Poly Normal Switch
All 14 Ga wire

6	7	8	10	11	13	17	20	23	14	25	31	32	3	19	46	47	
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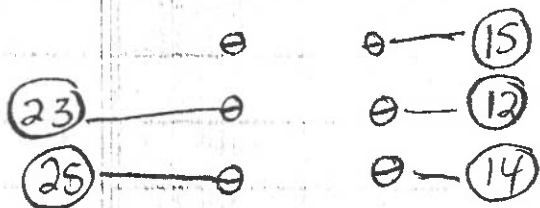
Conveyor



Dwell

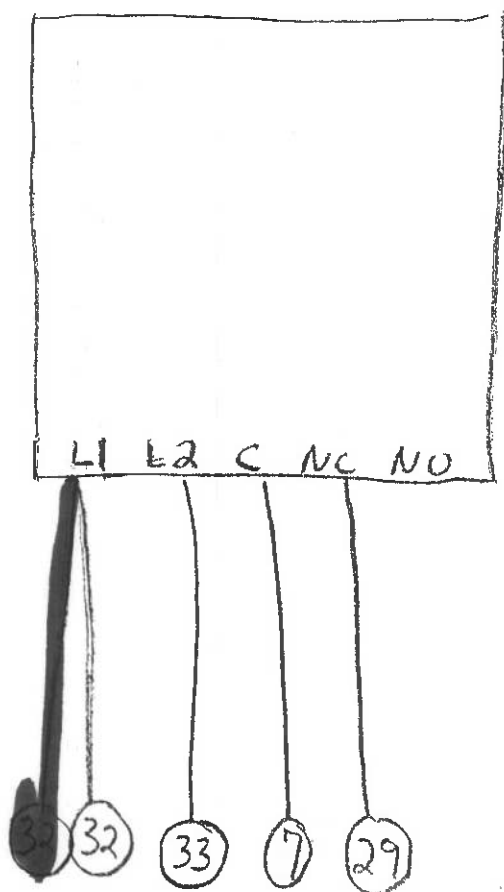


Poly Normal Switch

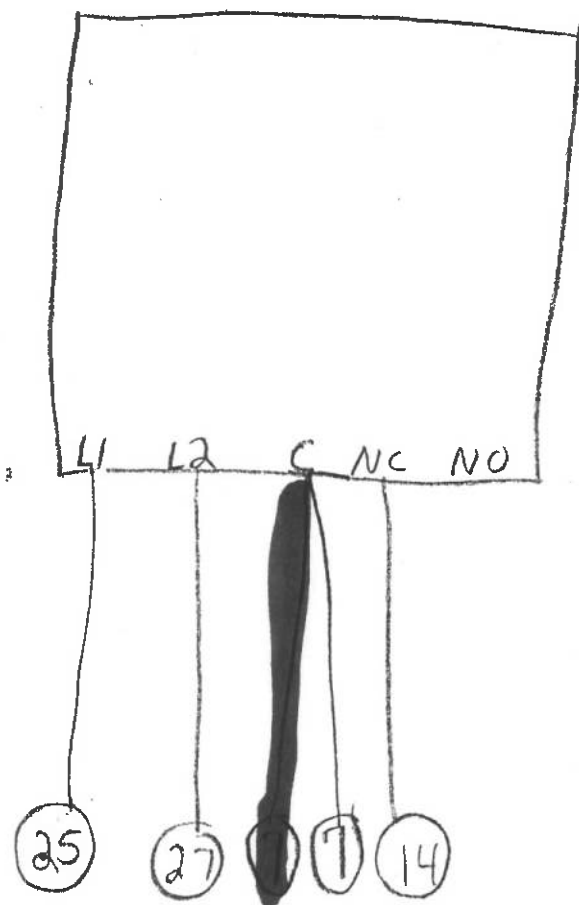


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3 19 46 47 28

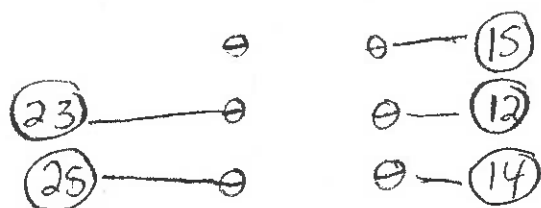
Conveyor



Dwell



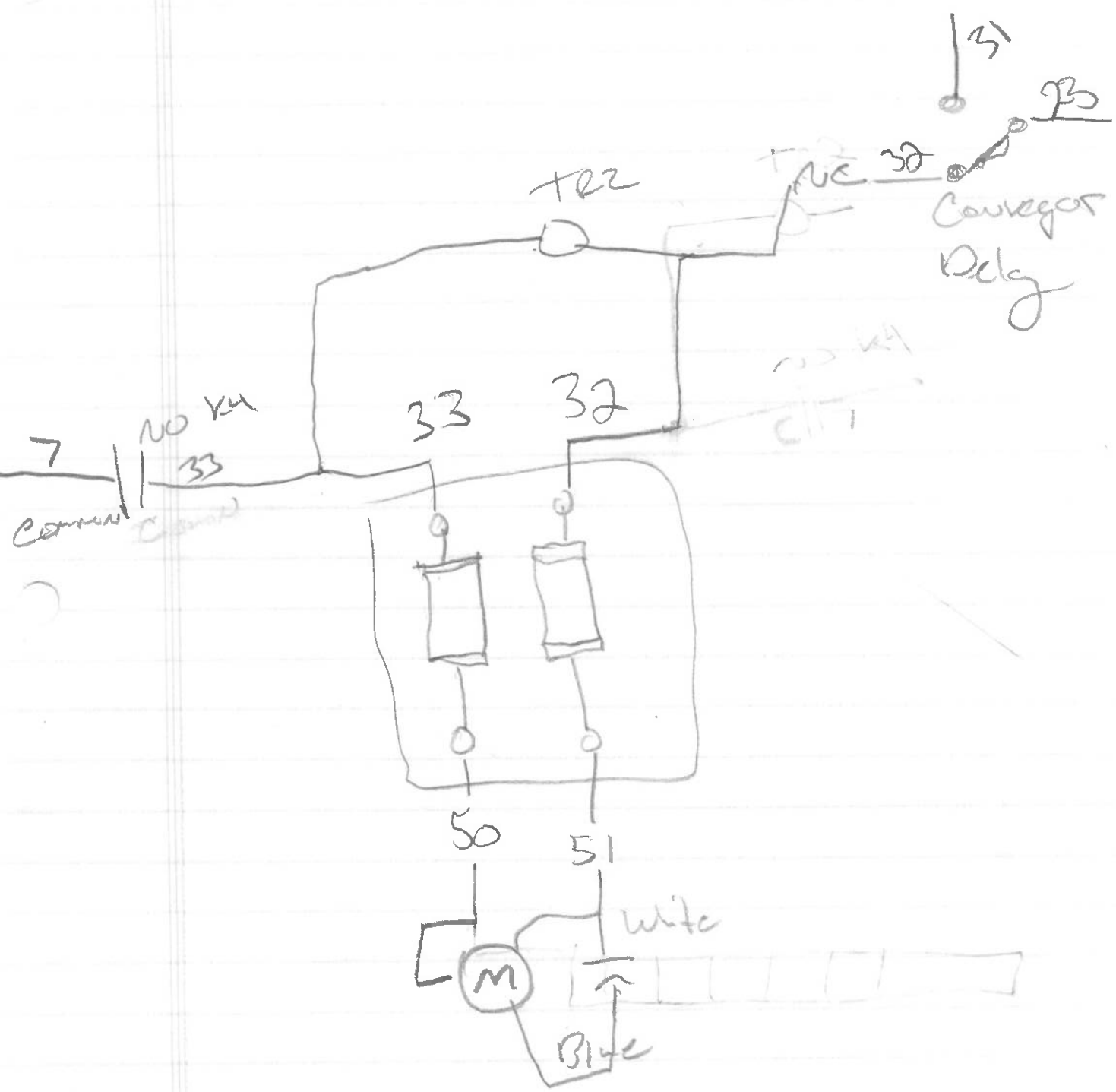
Poly Normal
Switch



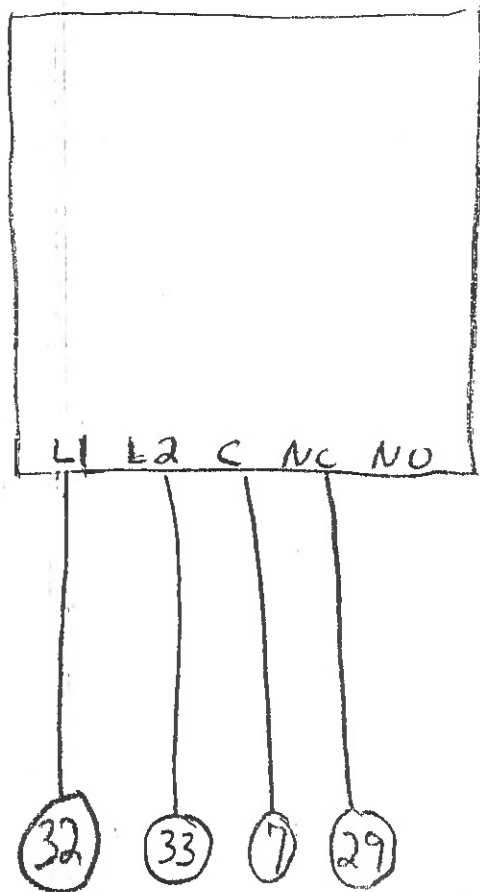
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3 19 46 47 28



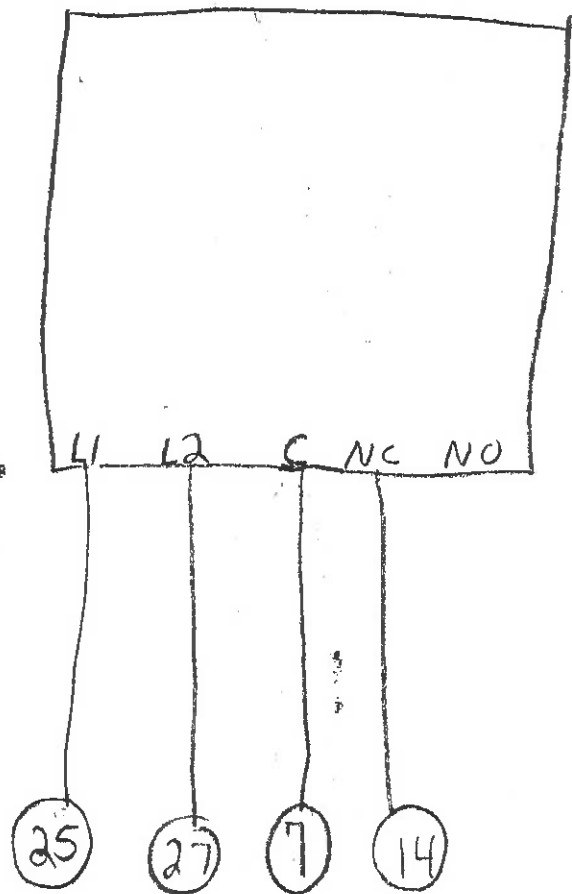
8-1529-267 1 to End it
2 Fuse Holders



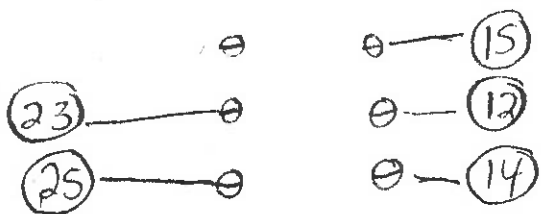
Conveyor



Dwell

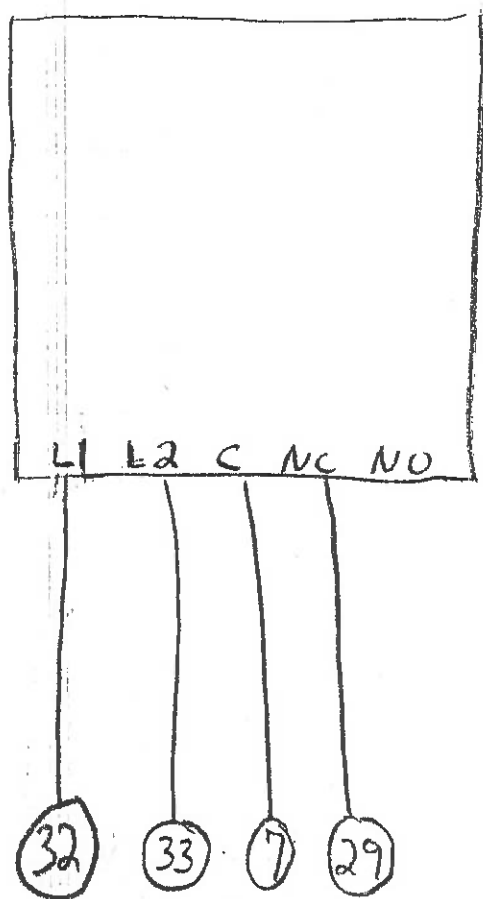


Poly Normal
Switch

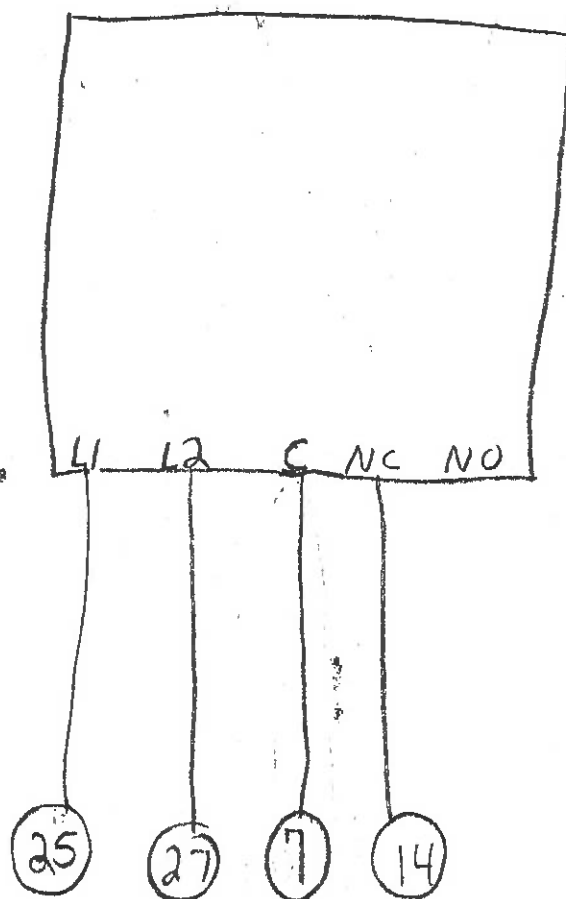


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3 19 46 47 28

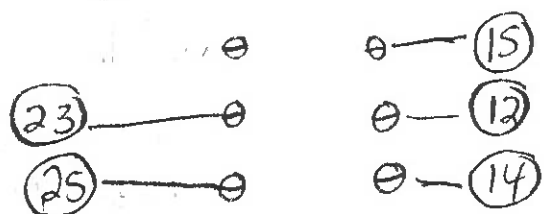
Conveyor



Dwell



Poly Normal
Switch



6 7 8 10 11 13 17 20 23 31 32 50 33 35 36
3 19 46 47 28

PART NO: E580007P2
 DESCRIPTION: SEALING HEAD ASSY

REV:06 09/22/93
 ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	58000633P2	FRONT WIRE GUARD	1.0	EA			
2	58000634	SIDE WIRE GUARD	1.0	EA			
3	58000662	BRACKET COMPENSATOR	1.0	EA			
4	58000632P2	CAST SUPP BAR	1.0	EA			
5	58000663	PRESSURE BAR SIDE	1.0	EA			
6	58000664P2	PRESSURE BAR FRONT	1.0	EA			
7	58000631	INFEED HEAD CSTG (CA2687A)	1.0	EA			
8	58006602	TIE BAR SEAL HD. (CA2828)	1.0	EA			
11	58001134	INSULATION COMP.-	1.0	EA			
12	52000134P1	SIDE SEAL BAR, ASSY 21.43L	1.0	EA	07		AS
13	52000133P2	FRONT SEAL BAR ASSY	1.0	EA	02		AS
14	E580230	INSULATION MICRO SWITCH	3.0	EA			
15	PH1063	PHENOLIC NEMA XX PIN SWITCH	1.0	EA			
16	E580178	COVER PULSE SWITCH	1.0	EA			
17	E580179	SUPPORT SWITCH	1.0	EA			
18	E580180P2	SHIM	8.0	EA	01		
19	E580181	SHAFT BLOCK	2.0	EA			
20	E580183P2	SHAFT OSCILLATING	1.0	EA			
21	E580184	SUPPORT BRACKET	1.0	EA			
22	E580188	SPACER PRESS BAR SIDE	1.0	EA			
23	E580191	OUTFEED HEAD CASTG (CA2680A)	1.0	EA			
25	E580139	SPACER	1.0	EA			
29	SW0758	SWITCH	3.0	EA			
32	SW0725A	ENCL SWITCH FOR SW0725	5.0	EA			
33	WE0926A	WIRE RD, 0.036DIA, 1/2 HD 24" LG STR NICR	1.0	EA	02		
34	WE0926B	WIRE RD, 0.036DIA, 1/2 HD 34" LG STR NICR	1.0	EA	02		
35	RU1683	SPONGE, SILIC MED 1/4 X 3/4 EXTRUDED	4.0	FT			

PART NO: E580007P2
DESCRIPTION: SEALING HEAD ASSY

REV:06 09/22/93
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
36	TA0366	TAPE, TFE FIBRGLS .5"W, .010T	0.1	EA			
37	TA0467A	TAPE, TFE 2"W, .003T, 10YDS	0.1	EA			
39	SG1741	COMPRESSION SPRING	1.0	EA			
40	BG0720	ABF, BEARING	2.0	EA			
43	SV1030	NYLINER, 1/2 F-TYPE 5	2.0	EA			
44	SV1132	SLEEVES, HEADED 10 X 5/16 LG	1.0	EA			
45	CL0971	AAA, 0.750 ID SHAFT LOCK	1.0	EA			
46	IS2295	INSULATED SLEEVE 1/2"	2.0	EA			
48	NT1426	ACA, 6-32 NUT, 316/304 SST	6.0	EA			
49	NT3523	ACG, 10-32 NUT WING ST STL	1.0	EA			
52	SS0194	AAA, 0.312-18X1.000 LG SCREW HEX HD CAP CP	6.0	EA			
53	SS0628	AGC, 0.375-16X1.000 LG SCREW NYLOC SOC CP	4.0	EA			
54	SS1415	ACG, 10-32X1.000 LG SCR BIND HD ST STL	3.0	EA			
55	SS0315	AGI, 0.250-20X0.250 LG SCR PT SOC NYL CUP	1.0	EA			
56	SS1411	ACG, 8-32X0.375 LG SCR BD HD MS 316/304 SST	2.0	EA			
57	SS1414	ACE, 10-32X0.750 LG SCR FLSTR HD 316 SST	2.0	EA			
58	SS1722	ACE, 10-32X1.750 LG SCREW FIL HD SST	1.0	EA			
59	SS1419	ACC, 0.250-20X0.875 LG SCREW SOC HD CAP *	4.0	EA			
60	SS1420	ACC, 0.250-20X1.250 LG SCR HD SOC CAP SST	4.0	EA			
61	SS1982	AAC, 0.250-20X2.000 LG SCR SOC HD CAP CP	2.0	EA			
62	SS0186	AAC, 10-32X0.500 LG SCR SOC HD CAP CAD PL	2.0	EA			
63	SS2097	ACF, 8-32X0.750 LG SCR BTN HD SOC SST	2.0	EA			
64	SS0272	AAG, 10-32X0.375 LG SCR BIND HD MA CAD PL	1.0	EA			
66	SS1409	ACD, 6-32X1.250 LG	6.0	EA			
67	SS1232	ACR, 0.312-18X0.500 LG SCREW NYLOC SOC HD	2.0	EA			
68	SS1206	AAR, 0.250-20X0.500 LG SCREW SOC HD NYLOC	2.0	EA			
69	KB6770	SHEAR LOC INSTANT THUMB SCR 83 98 902 RD	1.0	EA			

PART NO: E580007P2
DESCRIPTION: SEALING HEAD ASSY

REV:06 09/22/93
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
70	SS2362	ACC,10-32X2.000 LG SCR SOC HD CAP ST STL	1.0	EA			
71	WA1423	ACB,10 WASHER LOCK SPLIT ST STL	2.0	EA			
72	WA1421	ACB,6 WASHER LOCK INTERNAL ST	6.0	EA			
73	WA1073	AGF,WASHER,FIBER FL	12.0	EA			
74	WA1425	ACA,0.312 WASHER FLAT SST	14.0	EA			
75	WA0195	ABB,0.312 WASHER LOCK	6.0	EA			
77	WA0351	ABA,10 WASHER	2.0	EA			
78	CD11454	FLEXIBLE CONDUIT STEEL	2.0	FT			
79	FG1117	BAA,0.500-13 ELBOW 90DEG	2.0	EA			
80	CC21274	VINYL CAP RED .281IDX3/8INS IDE LENGTH *	4.0	EA			
9000	DWGE580007	DWG,SEALING HEAD ASSY	1.0	EA	15		D

PART NO: 52000134P1

DESCRIPTION: SIDE SEAL BAR, ASSY 21.43L

REV:07 01/08/91

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	52000630P1	ELECTRODE BAR SIDE	1.0	EA	03		
2	58000628P1	WELD, FILM SIDE CLAMP, 21.43L	1.0	EA	26		
3	58000611	WIRE CLAMP	1.0	EA	08		
4	58000612	ELEMENT HOLD DOWN BEVEL NUT	1.0	EA	05		
5	58000613	BLOCKS ELEC BAR SUPP	2.0	EA			
6	58000614	TERMINAL BLOCK (CA6754)	1.0	EA			
7	58000615	LOCK PIN	1.0	EA			
8	58000616	LOCK SHAFT	2.0	EA			
9	58006600	SPACER TUBE	2.0	EA			
10	E600144	BRUSH - HEAT SINK	1.0	EA	05		
11	E580143	ELECTRICAL WIRE	1.0	EA	09		
12	E580171	STANDOFF ROD SHORT	1.0	EA			
13	E580172	STAND OFF ROD 5.50" LONG	1.0	EA	04		
14	E580235	GUIDE, TEFLON	1.0	EA			
15	BD2257	INSERT, CERAMIC SIDE GROOVED TFE COATED	90.0	EA			
16	BD1720	BEAD, CERAMIC CROSSOVER, TFE COATED	1.0	EA			
17	BD0746A	BEADS CERAM	2.0	EA			
20	SV2016	SLEEVE, 12X1/2 LG (HEADED)	1.0	EA			
21	SV2017	SLEEVE, 10X1 7/8 LG.	1.0	EA			
22	SV1134	SLEEVES, HEADED 1/4 X 1/2"	2.0	EA			
23	SG1615	SPRING, SST	1.0	EA	03		
24	SG1987	SPRING	1.0	EA			
25	SG1988	SPRING	2.0	EA	02		
26	SG1600	SPRING, COMPRESSION	1.0	EA			
27	PN2014	ABA, 0.062 DIA X0.500 LG PIN ROLL	1.0	EA			
28	PN2015	ABA, 0.187 DIA X0.708 LG PIN ROLL	2.0	EA			
29	NT1671	AAD, 0.187 NUT PUSH ON	1.0	EA			

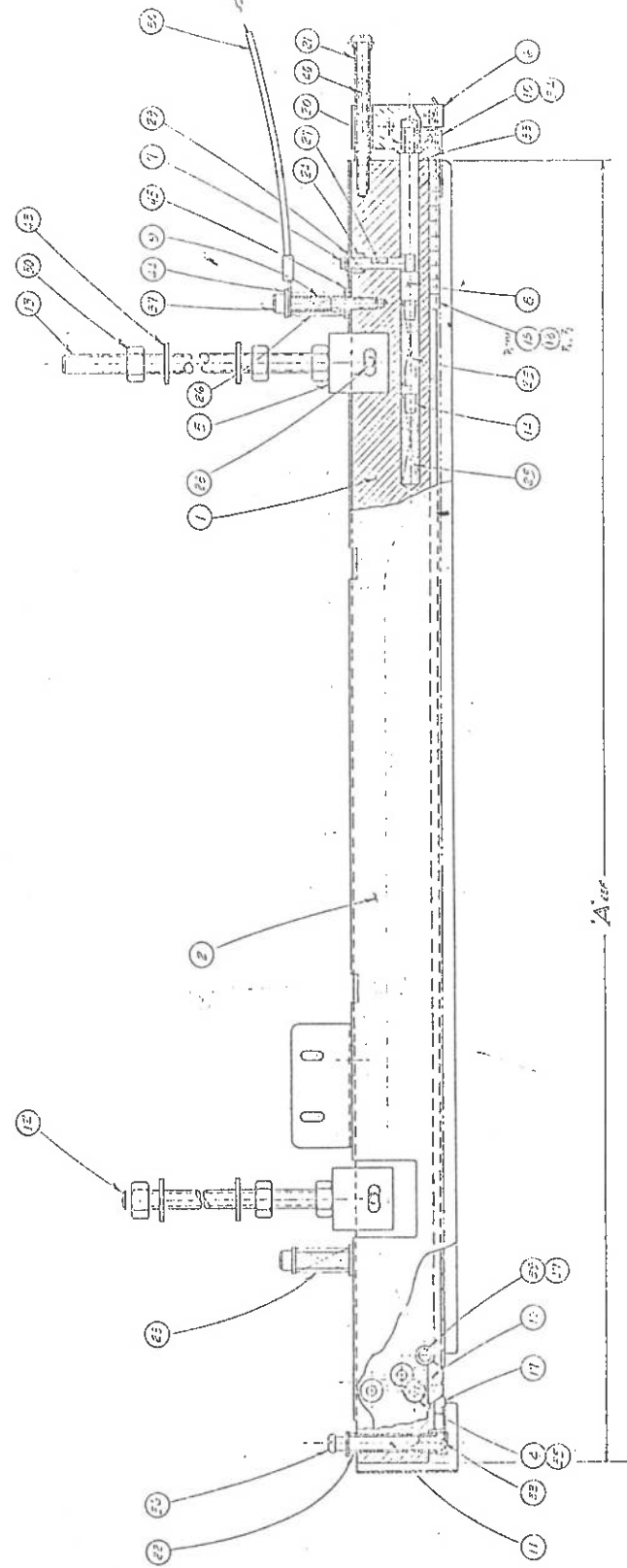
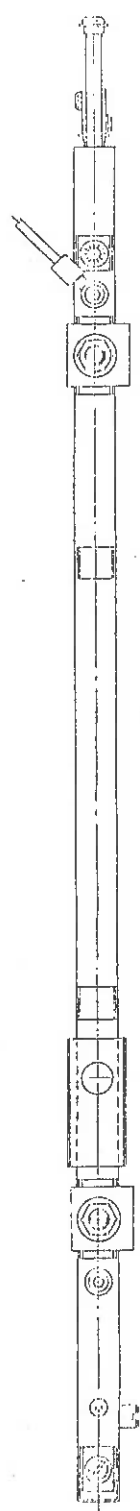
PART NO: 52000134P1

DESCRIPTION: SIDE SEAL BAR, ASSY 21.43L

REV: 07 01/08/91
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
30	NT1617	ACA, 0.312-18 NUT HEX ST STL	6.0	EA			
33	SS1596	AAR, 2X0.250 LG SCREW DRIVE TYPE U CAD PL	1.0	EA			
34	SS1732	ABG, 6-32X0.250 LG SCR BIND HD MACH	1.0	EA			
35	SS2098	ACF, 8-32X0.500 LG SCREW BTN HD SOC SST	1.0	EA			
36	SS2013	ACG, 10-32X2.500 LG SCR BIND HD SST	1.0	EA			
37	SS2768	ACC, 10-24X1.500 LG SCR SOC HD CAP SST	2.0	EA			
38	SS2120	ACI, 6-32X0.125 LG SCREW SOC FLAT PT SST	1.0	EA			
39	SS0300	AAQ, 4X0.250 LG SCR SHT MTL PAN HD CAD	1.0	EA			
40	SS1410	ACG, 8-32X0.250 LG SCR BIND HD MS SST	1.0	EA			
43	WA1425	ACA, 0.312 WASHER FLAT SST	4.0	EA			
44	WA2372	ACA, 10 WASHER PLAIN ST STL	2.0	EA			
45	WA1424	ACA, 0.250 WASHER FLAT SST	2.0	EA			
47	WA0792	AAA, 4 WASHER FLAT SAE CP	1.0	EA			
50	52000137	CONDUCTOR ASSY	1.0	EA			AS
9000	DWG52000134	DWG, SIDE SEALING BAR	1.0	EA			D

PARTS LIST	
ITEM	DESCRIPTION
1	...



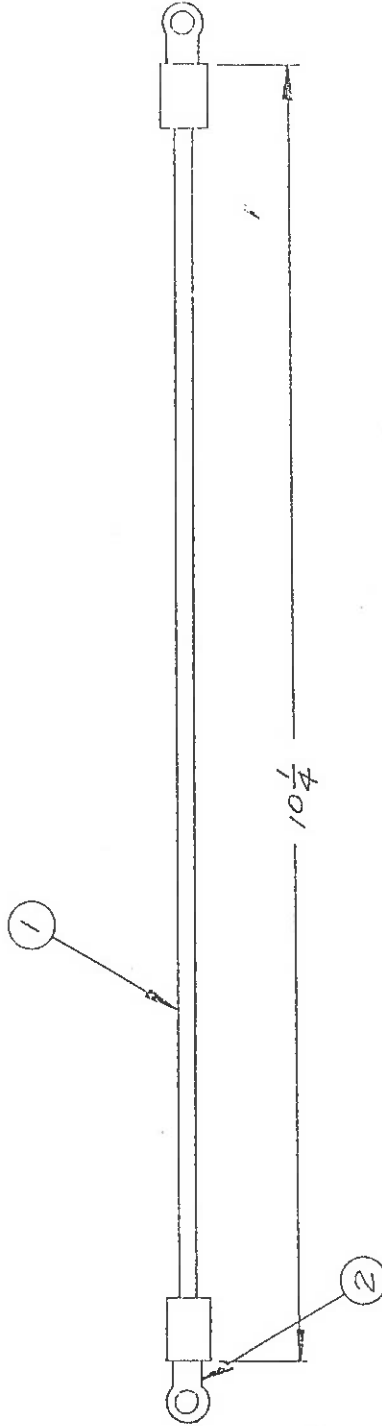
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PART NO: 52000137
DESCRIPTION: CONDUCTOR ASSY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	WE1038	WIRE #12 AWG BLACK WIRE STR	1.0	FT			
2	LG5424	TERMINAL RING TYPE	2.0	EA			
9000	DWG52000137	DWG, CONDUCTOR ASSEMBLY	1.0	EA			B



SYM	DESCRIPTION	ECO NO	DATE BY
<div> <div> <div>DATE</div> <div>28-02</div> </div> <div> <div>DATE</div> <div></div> </div> <div> <div>DATE</div> <div></div> </div> </div> <div> <div>CHK.</div> <div></div> </div> <div> <div>APP.</div> <div></div> </div> <div> <div>MAT'L</div> <div></div> </div> <div> <div>FINISH</div> <div></div> </div>			
<div> <div> <div>WELDOTRON</div> <div>CONDUCTOR</div> </div> <div> <div>CONDUCTOR</div> <div>ASSEMBLY</div> </div> </div>			
<div> <div>TOL. UNLESS SPECIFIED</div> <div>FRA. DEC. ANGLE</div> <div>1/164 1.005 1.127</div> </div>		SCALE	SIZE
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PART NO.	5200, 5700	0-5200-0134	1
MODEL NO.		NEXT ASSEMBLY	NO REQ'D PER MACH

PART NO: 52000133P2

REV:02 03/07/90

DESCRIPTION: FRONT SEAL BAR ASSY

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	52000629P2	BAR ELECTRODE FRONT	1.0	EA			
2	58000627P2	FILM CLAMP FRONT	1.0	EA			
3	58000611	WIRE CLAMP	1.0	EA	08		
5	58000613	BLOCKS ELEC BAR SUPP	2.0	EA			
6	58000614	TERMINAL BLOCK (CA6754)	1.0	EA			
7	58000615	LOCK PIN	1.0	EA			
8	58000616	LOCK SHAFT	1.0	EA			
9	58006600	SPACER TUBE	2.0	EA			
10	E600144	BRUSH - HEAT SINK	1.0	EA	05		
12	E580171	STANDOFF ROD SHORT	2.0	EA			
14	E580235	GUIDE,TEFLON	1.0	EA			
15	BD2257	INSERT,CERAMIC SIDE GROOVED TFE COATED	112.0	EA			
20	SV2016	SLEEVE,12X1/2 LG (HEADED)	1.0	EA			
21	SV2017	SLEEVE,10X1 7/8LG.	1.0	EA			
23	SG1615	SPRING,SST	2.0	EA	03		
24	SG1987	SPRING	1.0	EA			
25	SG1988	SPRING	2.0	EA	02		
27	PN2014	ABA,0.062 DIA X0.500 LG PIN ROLL	1.0	EA			
28	PN2015	ABA,0.187 DIA X0.708 LG PIN ROLL	2.0	EA			
29	NT1671	AAD,0.187 NUT PUSH ON	1.0	EA			
30	NT1617	ACA,0.312-18 NUT HEX ST STL	6.0	EA			
33	SS1596	AAR,2X0.250 LG SCREW DRIVE TYPE U CAD PL	1.0	EA			
34	SS1732	ABG,6-32X0.250 LG SCR BIND HD MACH	1.0	EA			
35	SS2098	ACF,8-32X0.500 LG SCREW BTN HD SOC SST	1.0	EA			
36	SS2013	ACG,10-32X2.500 LG SCR BIND HD SST	1.0	EA			
37	SS2768	ACC,10-24X1.500 LG SCR SOC HD CAP SST	2.0	EA			
43	WA1425	ACA,0.312 WASHER FLAT SST	4.0	EA			

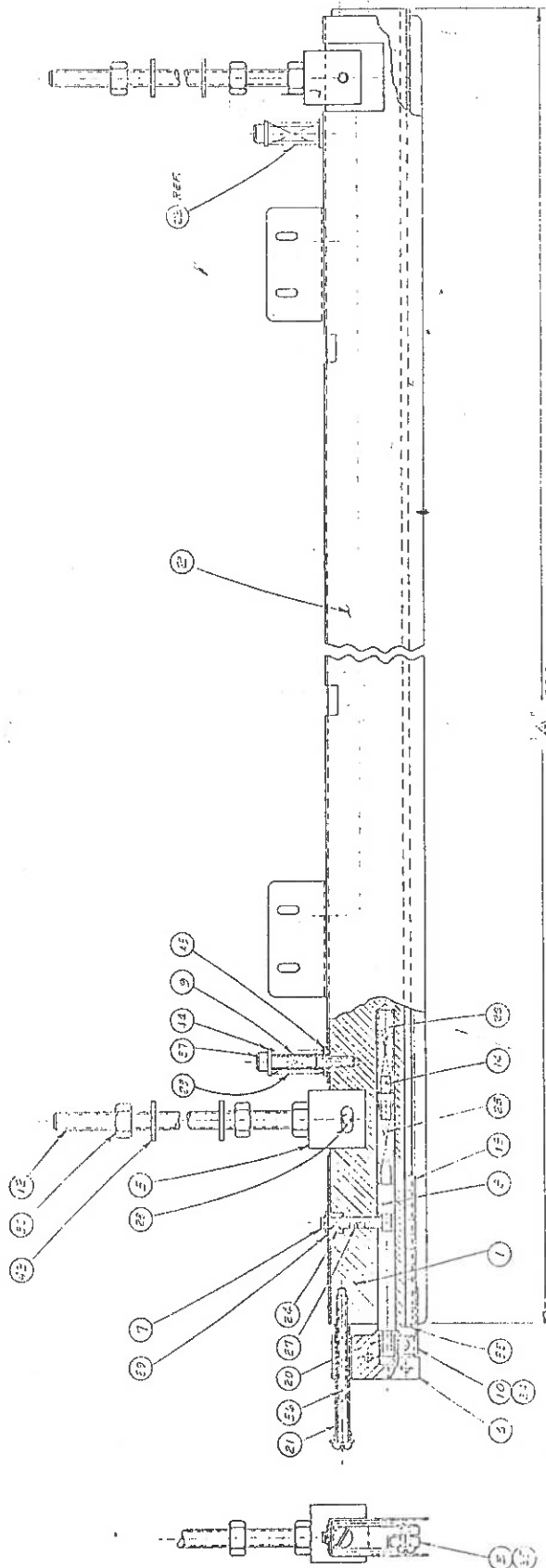
PART NO: 52000133P2

REV:02 03/07/90

DESCRIPTION: FRONT SEAL BAR ASSY

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
44	WA2372	ACA,10 WASHER PLAIN ST STL	2.0	EA			
45	WA1424	ACA,0.250 WASHER FLAT SST	2.0	EA			
9000	DWG52000133	DWG,SEALING BAR-FRONT	1.0	EA			D

[illegible][illegible]

CONFIDENTIAL

PART NO: E580009
DESCRIPTION: PNEUMATIC ASSEMBLY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580006	HEAD STOP ASSY	1.0	EA	01		AS
2	E580158	SUPPORT BRACKET	1.0	EA			
3	52001076	BRACKET-FIL-REG & LUB	1.0	EA			
6	FG0583	ADA,0.250NPT ST EL BRASS	5.0	EA	01		
7	FG0585	CDJ,0.250 X 0.250 FTG HOSE	7.0	EA			
8	FG0760	ABB,TEE,0.250 PIPE BRASS	1.0	EA			
9	FG0761	ADF,0.375X0.250 BUSHG PIPE BRASS	2.0	EA			
10	FG0762	ADE,N.C.,0.250 BRASS	1.0	EA			
11	FG1237	ADE,0.250NPT NIPPLE BRASS	1.0	EA			
12	SS0340	AAG,10-32X0.750 LG CAD PL	3.0	EA			
13	WA0351	ABA,10 WASHER	2.0	EA			
14	NT0287	AAA,10-32 NUT HEX CAD PL	2.0	EA			
16	VA0574	VALVE,4 WAY,220VOLT	1.0	EA			
17	VA0732	VALVES 1/4	1.0	EA			
18	CO0577	REGULATOR 1/4" W/MNTG BKT	1.0	EA			
19	HS0586	HOSE,0.25ID,0.50OD NEOPRENE SINGLE BRAID	10.0	FT			
20	CP0587	MINI CLAMPS SEAL	6.0	EA			
21	MP2734	HOLE PUNCH ASSY	1.0	EA	04		AS
22	BT0579	BRACKET,3 X 3 RC CYLINDER	1.0	EA			
23	VA2149	EXHAUST RESTRICTOR	2.0	EA			
9000	DWGE580009	DWG,PNEUMATIC ASSY	1.0	EA			D

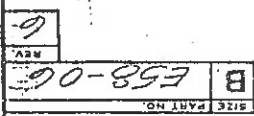
PART NO: E580006

DESCRIPTION: HEAD STOP ASSY

REV:01 05/15/91

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580177	PLATE CYLIND HOUSING	1.0	EA			
2	E580231	CLEVIS CASTING (CA1917)	1.0	EA			
3	E580170	CLEVIS PIN	1.0	EA			
5	E580236	NUT WASHER WELDING	1.0	EA	01		
6	NT0716	AAB,Q.500-13 NUT HEX JAM CP	1.0	EA			
7	NT1336	AAA,0.750-10 NUT HEX CP	1.0	EA			
8	WA2198	AGA,0.625ID X1.250OD X 0.25 WASHER URETH	1.0	EA			
9	AC0566	AIR CYLINDER	1.0	EA			
9000	DWGE580006	DWG,HEAD STOP ASSY	1.0	EA	08		B



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B. UPDATED PICTURE		SCALE		SIZE		PART NO	
7. UPDATED		1/1		B		E50-06	
6. REDRAWN & REDESIGNED		PER		775		DATE/ BY	
SYM.		DESCRIPTION		ECO NO.		DATE/ BY	
REVISONS							
DRAWN BY		DATE		TITLE		REVISIONS	
CHECKED		DATE		HEAD STOP		ASSEMBLY	
APP.		DATE		MATERIAL		NEW	
FINISH		DATE		E50-06		NEW	
TOL		UNLESS SPECIFIED		DEC		ANGLE	
1/1000		1/1000		1/1000		1/1000	

		524,502,203	0-558-01	1
PART NO.	MODEL NO.	NEXT ASSEMBLY	NEXT ASSEMBLY	NO. REQ'D PER MACH

PART NO: MP2734

DESCRIPTION: HOLE PUNCH ASSY

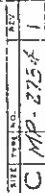
REV:04

08/24/89

ACT:

ROUTE: 1

ITEM	F/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	2521001	CASTING THROAT (CA5825)	1.0	EA	06		
2	2532731	BRACKET SUPPORT	1.0	EA			
3	2521002	CPLG,0.250ID X 0.375OD POLY URETHANE	1.0	EA			
4	BA1594	BALL PLUNGER	1.0	EA			
5	BN1593	BUTTON,0.187 D DIE	1.0	EA	02		
6	AC2733	AIR CYL.,1.063BX1"	1.0	EA			
7	VA0617	VALVE,220V	1.0	EA			
8	FG0585	CDJ,0.250 X 0.250 FTG HOSE	1.0	EA			
9	SS0340	AAG,10-32X0.750 LG CAD PL	2.0	EA			
10	WA0351	ABA,10 WASHER	2.0	EA			
11	WA1003	AAB,10 WASHER LOCK SPRING	2.0	EA			
12	NT0287	AAA,10-32 NUT HEX CAD PL	2.0	EA			
13	FG2732	BGA,0.250 X 0.125 MALE EL REDUCER	1.0	EA			
14	FG2209	BBA,0.250 X 0.250 MALE EL	1.0	EA			
15	HO1997	HOSE,0.250 DIA,NATURAL POLY FLO	6.0	FT			
16	WA2735	AGA,0.656ID X1.125OD X0.0	2.0	EA			
17	MT4683	BUMPERS MOLD POLYURETHANE SELF-STICK	4.0	EA			
18	CP0587	MINI CLAMPS SEAL	1.0	EA			
19	FG2210	ADB,0.250 X 0.250 TEE BRASS	1.0	EA			
9000	DWGMP2734	DWG,HOLE PUNCH ASSY	1.0	EA			C

[illegible]

1000-55-7	C-253-0001	1	NO. 1133
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PART NO: 64110030
 DESCRIPTION: UNWIND ASSEMBLY

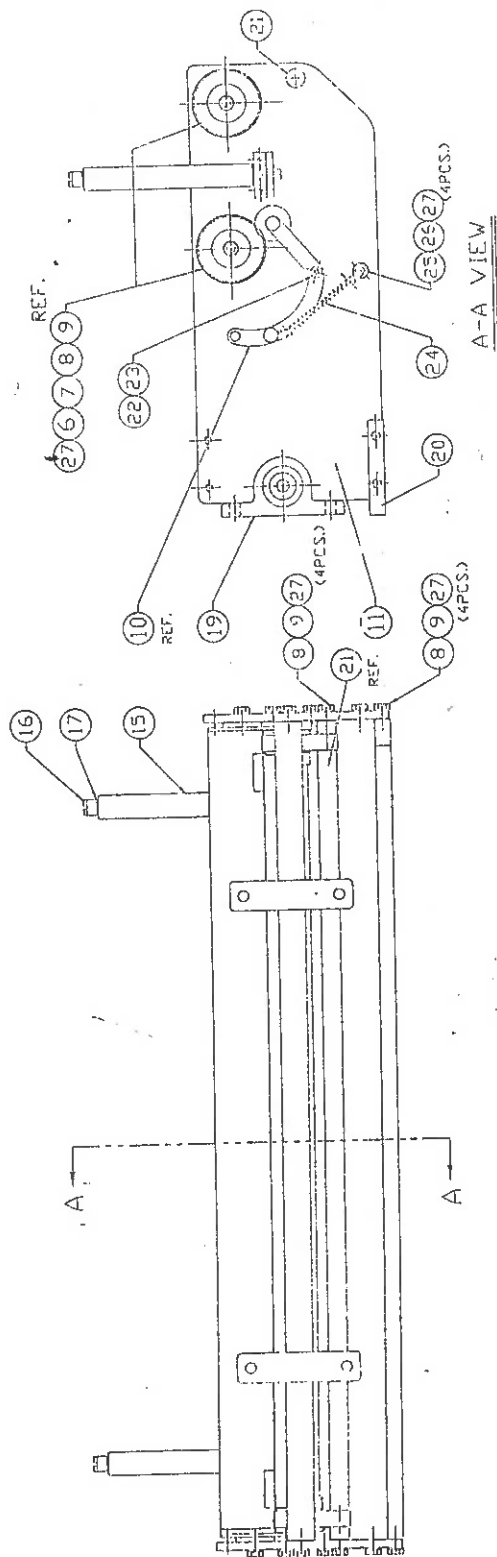
REV:01 06/08/93
 ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	59223046	NUT, SPECIAL	1.0	EA			
2	59223031	CROSS BAR	1.0	EA			
3	WA2230	AAB,10 WASHER LOCK CP	4.0	EA			
4	SS1981	AAA,10-32X0.625 LG SCR HEX HD MACH CP	4.0	EA			
5	NT0979	AAA,0.375-16 NUT HEX CAD PL	1.0	EA			
6	64110302	ROLLER ASSEMBLY/FILM SUPPT	2.0	EA			AS
7	64113020	HEX SHAFT,FILM ROLLER	2.0	EA			
8	SS0190	AAA,0.250-20X1.000LG SCREW HEX HD CAP CP	12.0	EA			
9	WA2231	AAB,0.250 WASHER-LOCK CP	12.0	EA			
10	64110301	DANCER ASSEMBLY	1.0	EA	01		AS
11	64113000	SIDE PLATE,UNW FRAME(PT2123 8)	2.0	EA	02		
12	64113001	SHAFT,SUPPORT	1.0	EA			
13	SS1299	AAA,0.375-16X1.000 LG SCREW HEX HD CP	2.0	EA			
14	WA2233	AAB,0.375 WASHER LOCK CP	3.0	EA			
15	59223033	ROLLER, DELRIN	2.0	EA			
16	59223032	PIN	2.0	EA	01		
17	RG9395	ABA,0.500 SH.	2.0	EA			
19	BG0685	AEE,BEARING LUBE ALIGN	2.0	EA			
20	64113002	BAR,LOWER SUPPORT	1.0	EA			
21	64113005	SHAFT	1.0	EA			
22	SS0796	SCREW	2.0	EA			
23	NT0243	AAA,10-24 NUT HEX CAD PL	2.0	EA			
24	SG5411	SPRING EXT LEE LE-037CD-9 S TAINLESS STE*	2.0	EA			
25	SS0010	AAA,0.250-20X2.000LG SCREW HEX HD CAP CP	2.0	EA			
26	NT0627	AAA,0.250-20 NUT HEX CAD	4.0	EA			
27	WA0361	AAA,0.250 WASHER FLAT SAE PLAIN CP	16.0	EA			
28	WA5416	AAA,10 WASHER FLAT STL	4.0	EA			

PART NO: 64110030
DESCRIPTION: UNWIND ASSEMBLY

REV:01 06/08/93
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
29	WA0260	AAA,0.375 WASHER FLAT CP	5.0	EA			
30	LB21184	LABEL FILM THREADING	1.0	EA			
9000	DWG64110030	DWG,UNWIND ASSEMBLY	1.0	EA	01		D



A-A VIEW

FILENAME: 0030

THE JOURNAL

[illegible]

PART NO: 64110302

REV: 01/19/93

DESCRIPTION: ROLLER ASSEMBLY/FILM SUPPT

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	BG3652	BEARING INTEROLL 7/16" HEX.	2.0	EA			
2	64113021	ROLLER,FILM SUPPORT	1.0	EA			
9000	DWG64110302	DWG,ROLLER ASSY/FILM SUPPT	1.0	EA			C

PART NO: 64110301

DESCRIPTION: DANCER ASSEMBLY

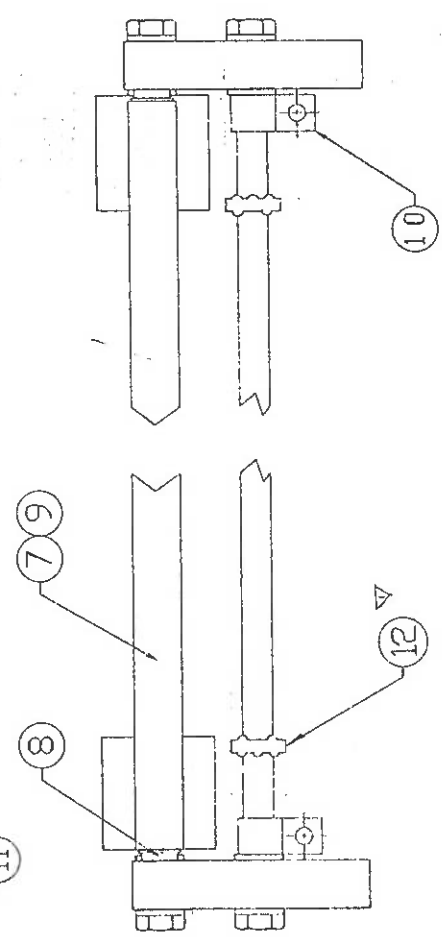
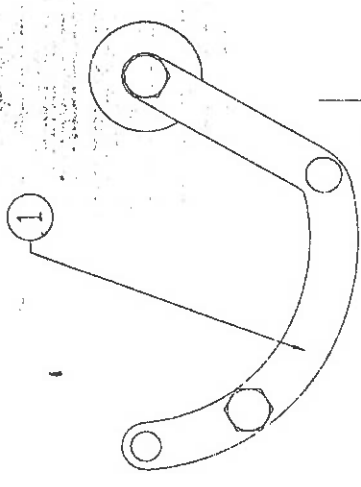
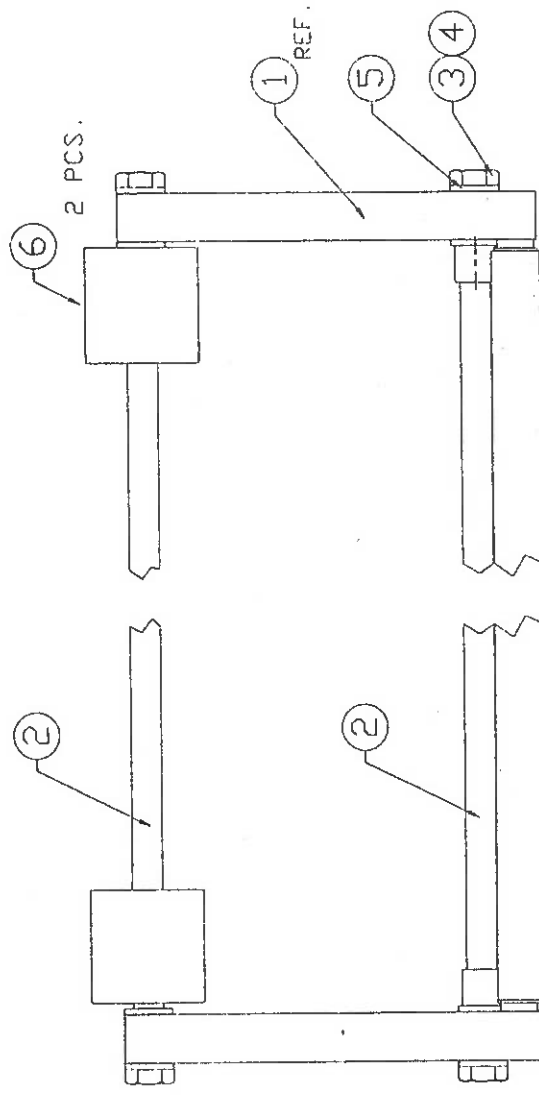
REV:01

06/08/93

ACT:

ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	64110312	LEVER ASSEMBLY	2.0	EA			AS
2	64113011	DANCER ROLLER SMALL LEVER	2.0	EA			
3	SS0190	AAA,0.250-20X1.000LG SCREW HEX HD CAP CP	4.0	EA			
4	WA2346	ABA,0.250 WASHER FLAT ALLME TAL NAS	4.0	EA			
5	WA2231	AAB,0.250 WASHER LOCK CP	4.0	EA			
6	95UP0019P1	TOP PRESSURE BELT RING ASS Y.	2.0	EA			
7	64113004	DANCER ROLLER	1.0	EA			
8	64113003	DANCER SHAFT	1.0	EA	02		
9	BU1280	AAA,0.314 ID X 0.439 OD X 0 .500 LG BOST*	2.0	EA			
10	WE17082	WIRE CLAMP	2.0	EA			
11	RG5390	BCA,0.312 SH.	2.0	EA			
12	MP6711	VIBRATION RING WRI-050	2.0	EA			
9000	DWG64110301	DWG,DANCER ASSEMBLY	1.0	EA	01		C



1 ITEM # 12 ADDED		DATE 11-15-92		REV. NO. 1	
SYM. DESCRIPTION		REV. NO.		DATE BY	
DANCER ASS'Y		UNWIN		REV. NO. 1	
TITLE		SCALE		SIZE	
DANCER ASS'Y		1:1		C	
UNWIN		6411-0301		REV. NO. 1	
MATERIAL		FINISH		TOL. UNLESS SPECIFIED	
SEE PI		SEE PI		FRA. DEC. ANGLE	
SEE PI		SEE PI		2.1/64 ± .005 ± 1/2°	

FILENAME: 0301

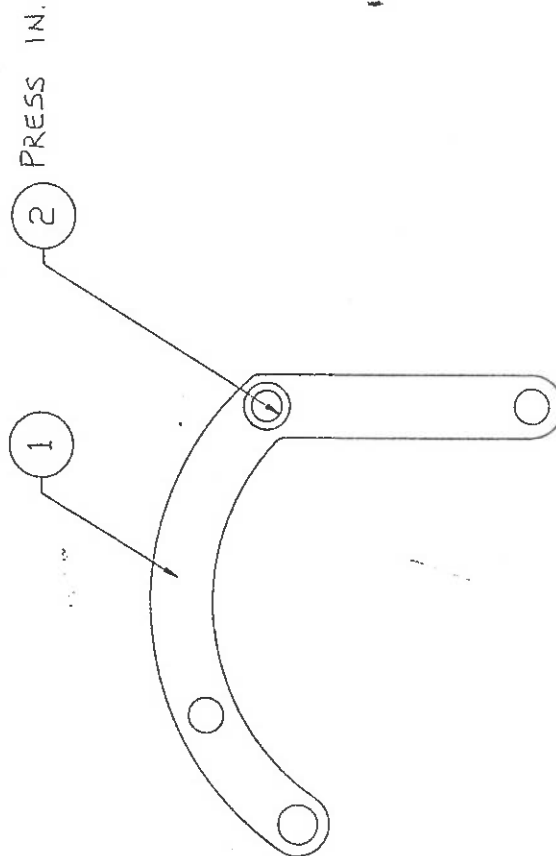
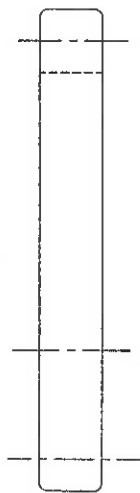
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PART NO: 64110312
DESCRIPTION: LEVER ASSEMBLY

REV: 01/19/93
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	64113010	LEVER,DANCER ROLLER(CA21154	1.0	EA			
2	BG8263	AAA,5/16IDX1/2ODX3/8LG BRNZ	1.0	EA			
9000	DWG64110312	DWG,LEVER ASSEMBLY	1.0	EA			B



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FILENAME: 0312 0312 6411 0031 2
 PART NO. MODEL NO. NEXT ASSEMBLY NO RECD
 PER ASSEM.

SYM		e New Release		ECO NO		DATE /BY	
GRN		N.I.		DATE 03-03		DATE	
CHK.				DATE		DATE	
APP.				DATE		DATE	
MATL		SEE P.L		TITLE		LEVER ASSY	
FINISH		NONE		SCALE		1=1	
TOL UNLESS SPECIFIED		FRA DEC ANGLE		SCALE		SIZE	
= 1/64		= .006 = 1/2"		1=1		B	
NO RECD		2		PART NO		6411-0312	
PER ASSEM.				REV			

PART NO: E580014P2
 DESCRIPTION: OUTFEED CONVEYOR ASSY

REV:12 07/23/90
 ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580015-1P1	SUPT.CONV & MOTOR WELD	1.0	EA			
4	E580027P1	DRVE ROLLER ASSY	1.0	EA			AS
5	E580107P1	SHAFT CONVEYOR	1.0	EA	04		
7	E580137P2	SHAFT,LIFTING,31" L	1.0	EA	02		
8	E580138P1	DEAR PAN CONVEYOR 27.56 X 15.31	1.0	EA	05		
9	E580140	OSCILATING SHAFT.W/L ASSY	2.0	EA			
10	E580141P1	TIE BAR CONVEYOR	1.0	EA			
11	E580142	PIN CLEVIS CONVEYOR	1.0	EA			
12	E580144	PIN CONV LINK CONV	2.0	EA			
13	E580145	SHAFT CONV SUPP	2.0	EA			
14	E580146	TAKE UP BLOCK	2.0	EA			
15	E580147	STUD PIVOT BLOCK	2.0	EA	04		
16	SS8498	ABB,0.250-20X3.000LG SCR RD HD FULL THD	2.0	EA			
18	E580149-2	CRADLE WELDMENT	1.0	EA			
21	52000135	BEARING BLOCK ASSY	2.0	EA			AS
22	52000136P1	ROLLER ASSY	1.0	EA			AS
24	SS0987	AAI,10-32X0.250 LG SCR SOC HD CONE PT CP	2.0	EA			
25	71210035	BEARING WELDMENT	5.0	EA			
27	SS0333	AAG,8-32X0.375 LG SCR BIND HD MACH CAD	8.0	EA			
28	SS0188	AAA,0.250-20X0.500LG SCREW HEX HD CAP CP	14.0	EA			
30	SS2113	AAG,10-32X0.500 LG SCR BIND HD MA CAD PL	2.0	EA			
31	WA0260	AAA,0.375 WASHER FLAT CP	1.0	EA			
32	WA0361	AAA,0.250 WASHER FLAT SAE PLAIN CP	10.0	EA			
33	WA0619	ABB,0.250 WASHER	14.0	EA			
34	WA1003	AAB,10 WASHER LOCK SPRING	2.0	EA			
35	WA1334	AAB,8 WASHER LOCK SPRING CP	8.0	EA			
36	NT0287	AAA,10-32 NUT HEX CAD PL	2.0	EA			

PART NO: E580014P2

REV:12 07/23/90

DESCRIPTION: OUTFEED CONVEYOR ASSY

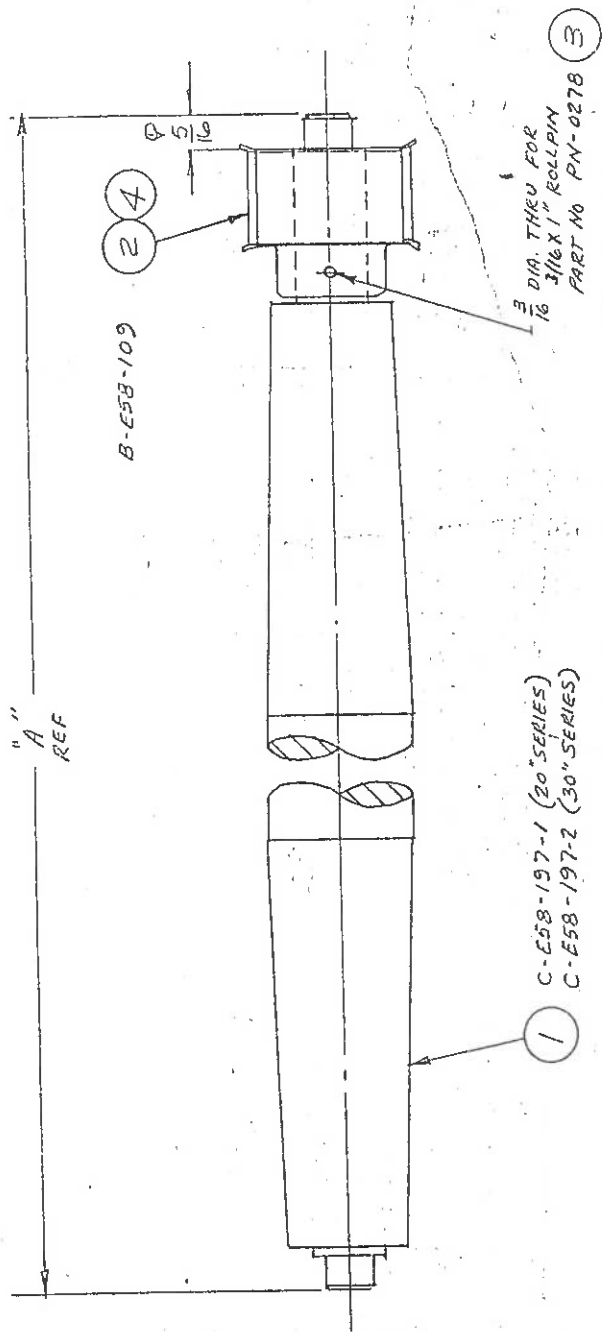
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
38	PN0996	ABE,0.062 DIA X 0.750LG PIN COTTER	4.0	EA			
39	WA0351	ABA,10 WASHER	4.0	EA			
40	CL6072	ABA,0.500ID,WITH SET SCREW	6.0	EA			
41	RG0534	ABA,0.500 SH DIA EXT RET RG	2.0	EA			
42	BL0523	BELT,TIMING	1.0	EA			
45	BT1930	BRACKET (OVAL)	1.0	EA	01		
46	LG2769	LUG FEMALE SNAP-ON FLAG #16	3.0	EA			
47	TU0158	TUBING SHRINK BLACK	1.6	FT			
48	BU0153	AGG,0.500 OD SNAP LOCK	1.0	EA			
50	BL19997	BELT,CONVEYOR	1.0	EA	03		
53	CP5122	TY-CLAMP SELF ADHESIVE	4.0	EA			
54	WE3290	TY-RAP WIRE	4.0	EA			
56	52000170	MOTOR ASSY	1.0	EA			AS
9000	DWGE580014	DWG,CONVEYOR ASSY	1.0	EA	08		D

PART NO: E580027P1
DESCRIPTION: DRVE ROLLER ASSY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580197P1	DRIVE ROLLER	1.0	EA	08		
2	E580109	PULLEY MOD.DR ROL (PY0524)	1.0	EA	05		
3	PN0278	ABA,0.187 DIA X1.000 LG PIN ROLL	1.0	EA			
9000	DWGE580027	DWG,DRIVE ROLLER ASSY	1.0	EA			C

[illegible]

19 5/16	-1	5875A 5874A	5872- 012	1
28 9/16	-2	30" SERIES	D E 58-14	1
19 5/16	-1	20" SERIES	D E 58-14	1
"A" REF.	PART NO.	MODEL NO.	NEXT ASSY.	NO. REQ. PER MACH.

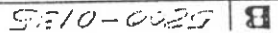
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PART NO: 52000135
DESCRIPTION: BEARING BLOCK ASSY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580200	SHAFT SUPPORT	1.0	EA			
2	BG0721	ABH,0.500IDX1.125OD DB SEAL DB SHIELD	1.0	EA			
9000	DWG52000135	DWG,BEARING BLOCK ASSY	1.0	EA			B



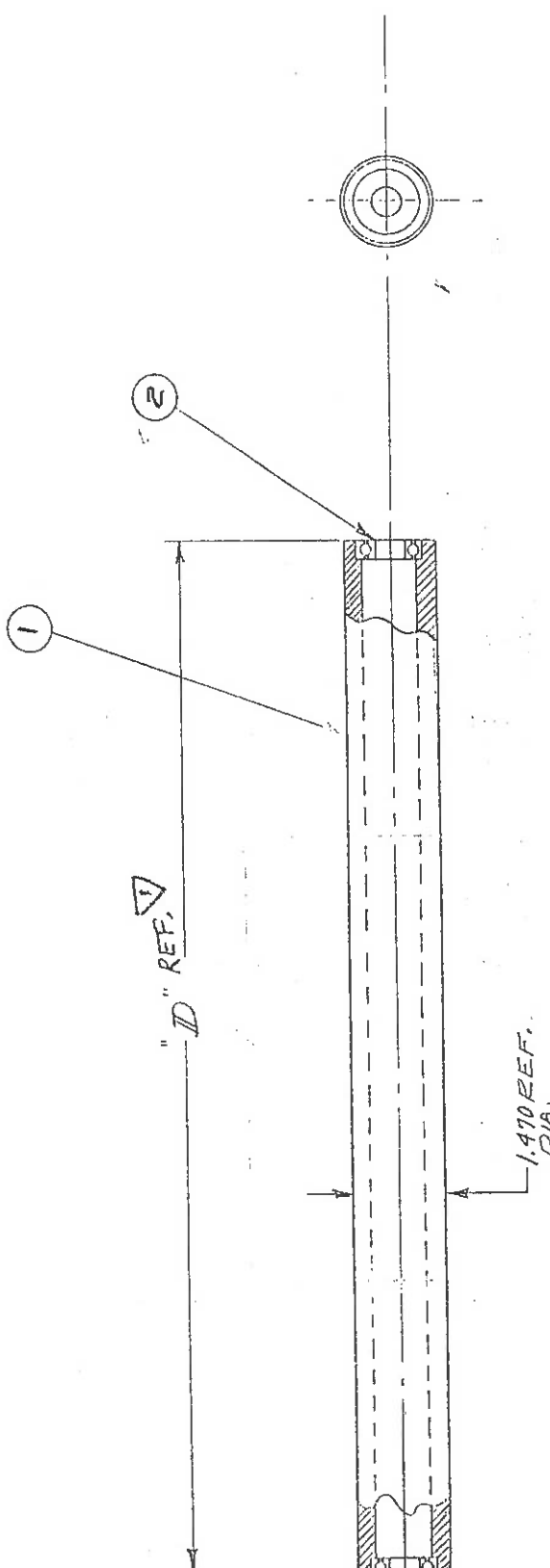
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PART NO: 52000136P1
DESCRIPTION: ROLLER ASSY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580198P1	ROLLER CONVEYOR	1.0	EA			
2	BG0721	ABH,0.500IDX1.125OD DB SEAL DB SHIELD	2.0	EA			
9000	DWG52000136	DWG,ROLLER ASSY	1.0	EA	01		B

B 5200-0136



SYMBOL		DESCRIPTION		ECO NO.	DATE/BY
1		UPDATED PICTURE, DELETED DIM. A. ADDED: REF. SEE RECORD COPY REVISED		5135	1/15/75

DATE		DATE		DATE	
P.P.		P.P.		P.P.	
CHK.		CHK.		CHK.	
APP.		APP.		APP.	
MATERIAL		MATERIAL		MATERIAL	
FINISH		FINISH		FINISH	

TOL. UNLESS SPECIFIED		SCALE		PART NO.	
FRA DEC ANGLE		1/2		B 5200-0136	
1/64 1.003 1.171		1/2		1	

PI USER OR MODERS 5874A					
6 1/2	26 1/4	- P2	30" CONSOLE	D-559-14	1
4 1/8	17"	- P1	20" CONSOLE	D-559-14	1
A DIA	D DIA.	PART NO.	MODEL NO.	NEXT ASSEMBLY	NO RECORD PER MACH

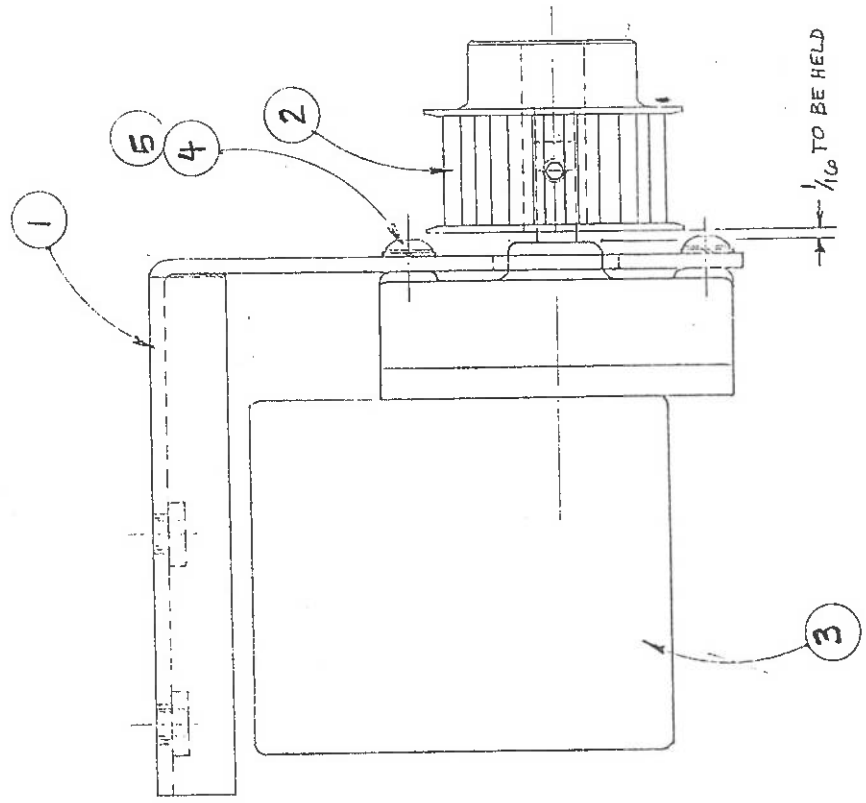
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PART NO: 52000170
DESCRIPTION: MOTOR ASSY

REV: 07/20/90
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	52000171	BRACKET WELDMENT, MOTOR MOUN TING	1.0	EA			
2	52000172	PULLEY ASSY (BU20342/PY20345)	1.0	EA			
3	MR20059	MOTOR, GEARED, 230VAC, 60HZ, 16 7RPM, FULL *	1.0	EA			
4	WA4416	AAB, 10 WASHER LOCK NICKEL PLATED	4.0	EA			
5	SS4285	ABF, 10-32X0.375 LG SCR BTN HD SOC	4.0	EA			
9000	DWG52000170	DWG, MOTOR ASSY	1.0	EA			B

PARTS LIST	
ITEM NO.	NOMENCLATURE



SYM	REV	DESCRIPTION	ECO NO.	DATE /BY
			5664	12/75

DATE	DATE	DATE	TITLE

DIR	CHK	APP	MATL	FINISH

TOL. UNLESS SPECIFIED	SCALE	SIZE	PART NO.	REV
FRA DEC ANGLE	1:1	B	5200-0170	
±1/64 ±.005 ±1/2°				

Weldotron
CORPORATION

MOTOR ASSY

5203	1			
5202	1			
5201	1			
PART NO.	MODEL NO.	NEXT ASSEMBLY	NO REQ'D PER ASSEM	

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PART NO: 52120020

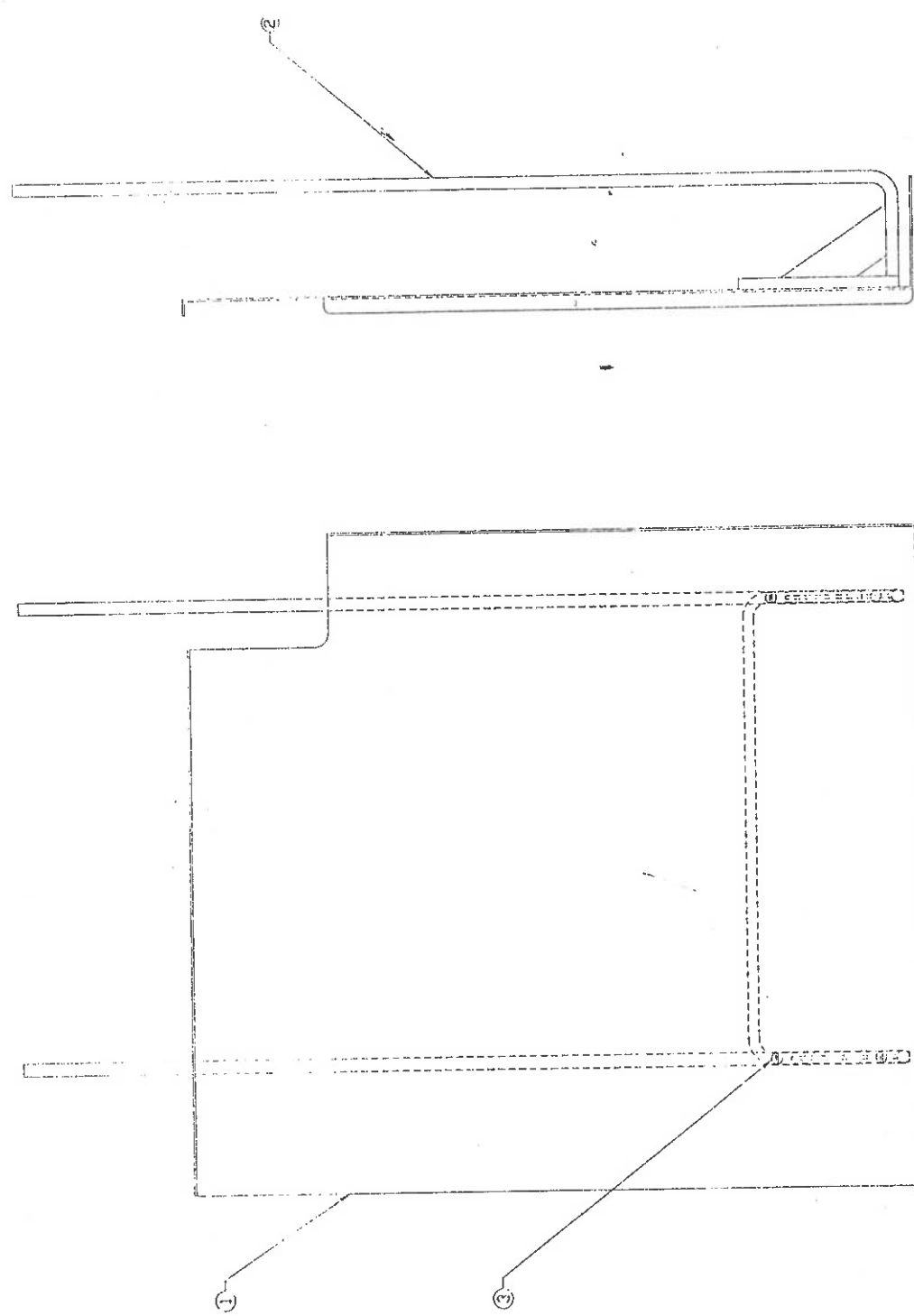
REV:02 06/08/93

DESCRIPTION: LOADING TRAY ASSEMBLY

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	52120202	LOADING TRAY WELDMENT	1.0	EA			
2	52120201	FRAME,LOADING TRAY WELDMENT	1.0	EA			
3	SS2363	ACH,10-32X0.375LG SCR FL HD 82DEG SLOT	4.0	EA			
9000	DWG52110020	DWG,LOADING TRAY ASSEMBLY	1.0	EA			D

PART 11 ST
HORIZONTAL



D

DESIGN	REV	DATE	BY
DESCRIPTION	REV	DATE	BY
<p>WASCO-AMCO</p>			
<p>LOADING TRAY ASSY</p>			
<p>FILENAME: 0020</p>			

REVISIONS
1. REVISED PER COMMENTS FROM CUSTOMER
2. REVISED PER COMMENTS FROM CUSTOMER
3. REVISED PER COMMENTS FROM CUSTOMER

PART NO: E580019-2P2
DESCRIPTION: SCRAP REMOVAL ASSEMBLY

REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580124P2	SCRAP REMOVAL TROUGH	1.0	EA			
2	E580157	COVER SCRAP REMOVAL	1.0	EA			
5	MP2162C	FLANGE, PLASTIC	2.0	EA			
6	MP2162D	AIR HOSE, 2-1/2" DIA	1.0	EA			
7	CN1196	COUPLING PLASTIC ANGLE W/O RIDGE	1.0	EA			
8	SS0072	AAQ, 6X0.500 LG SCR SHT MTL PAN HD A	3.0	EA			
9	CN0976	HOSE COUPLING, 2.25ID PLAS	1.0	EA			
9000	DWGE580019-2	DWG, SCRAP REMOVAL ASSY	1.0	EA			C

PART NO: E580021-2
DESCRIPTION: CONTROL PANEL ASSEMBLY

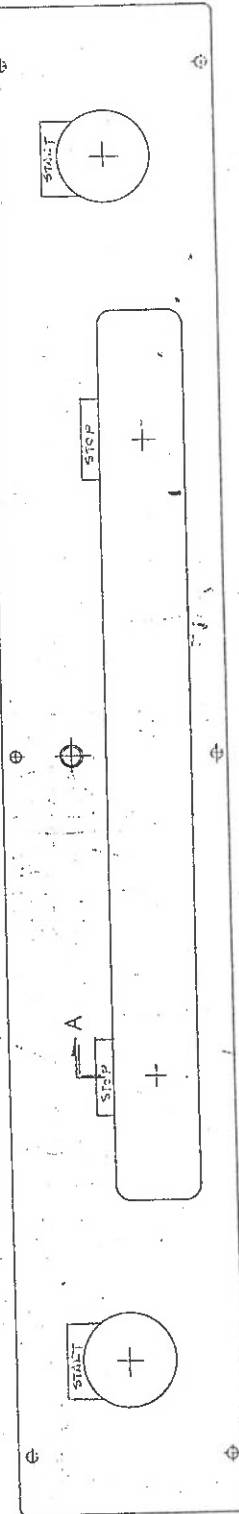
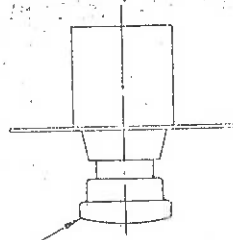
REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580165-2	CONTROL PANEL	1.0	EA			
2	E580199	STOP BAR (CA2685A)	1.0	EA			
4	SW0718A	SWITCH,PUSHBUTTON "STOP"	2.0	EA			
5	SW0718B	PUSHBUTTON "START"	2.0	EA			
6	LB0718C	LABEL START PLATE	2.0	EA			
7	LB0718D	LABEL STOP PLATE	2.0	EA			
8	CX0718E	CONTACTS N.O.	2.0	EA			
9	CX0718F	CONTACTS N.C.	2.0	EA			
10	LT0606	LIGHT,RED LAMP 250V,2110B1	1.0	EA			
9000	DWGE580021-2	DWG,CONTROL PANEL ASSY	1.0	EA	03		D

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1	ADD TIGHTENING SPECIFICATIONS	WJ	11/24/54
2	REWORKED FOR AIR FORCE	WJ	1/1/55
3	UPDATED FOR ECU 10-5063	WJ	1/1/55

(1)
(2)
(2)
(2)

(4)
(12)
(7)
(12)
(9)
(12)
(2)



SECTION A-A

NOTES:

1. SPRING CLIP & SCREW ON MUSHROOM HEAD STOP BUTTON ARE ASSEMBLED TO STOP 2x2 ITEM # 82. MUSHROOM HEAD IS NOT USED.
2. FOR WIRING OF COMPONENTS & WIRE SIZE, SEE WIRING DIAGRAM DWG. #D-ESB-55.

RELEASED FOR PRODUCTION

CONTROL PANEL ASSEMBLY

ITEM	DESCRIPTION	QTY
1	DECOR	1
2	STOP	1
3	START	1

STD 10-5063

D-ESB-212

FORMERLY: D-ESB-308

PART NO: E580022
DESCRIPTION: TIMER & LINE BREAKER ASY

REV: 08/23/80
ACT: ROUTE: 1

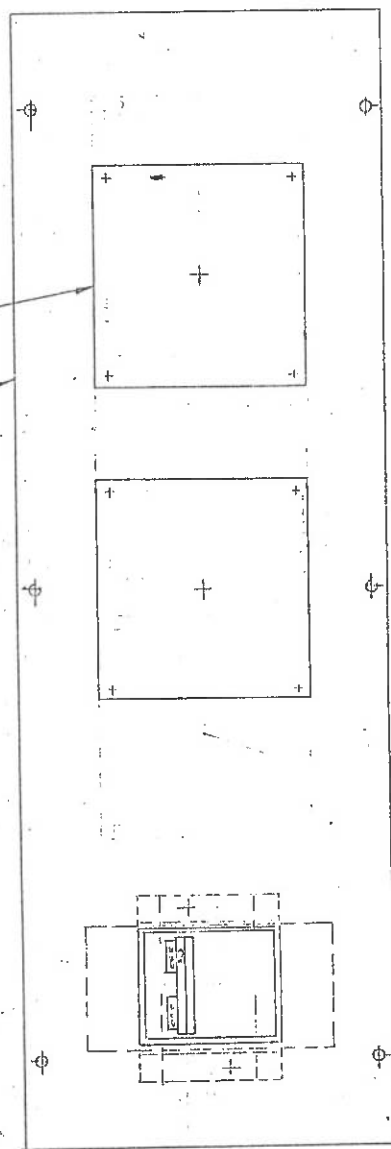
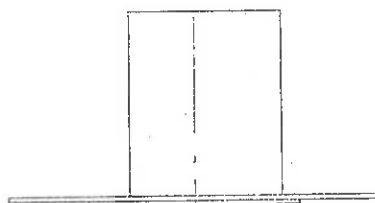
ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580155	FRONT PLATE CIRC BREAK	1.0	EA	10		
2	E580162	TIMER PANEL	1.0	EA			
5	SS0089	ADG, 8-32X0.625 LG SCR BIND HD MA BRASS	6.0	EA			
6	SS0738	AAG, 6-32X0.375 LG SCR BIND HD MCH CAD PL	8.0	EA			
7	WA0692	AAA, #8 FLAT WASHER STEEL	2.0	EA			
8	WA1292	AAA, 6 WASHER PLAIN CP	8.0	EA			
13	PG6608	PLUG	1.0	EA			
14	CB0256	TYPE SO-600V 12/3 CSA APPRO VED	10.0	FT			
15	CU1770	CIRCUIT BREAKER	1.0	EA			
16	TM3915	TIMER, 220V, .25 TO 5.0 SEC	2.0	EA			
9000	DWGE580022	DWG, TIMER & LINE BRKR ASSY	1.0	EA			D

REV	DESCRIPTION	BY
1	REVISION 1	1
2	REVISION 2	2
3	REVISION 3	3
4	REVISION 4	4
5	REVISION 5	5
6	REVISION 6	6
7	REVISION 7	7
8	REVISION 8	8
9	REVISION 9	9
10	REVISION 10	10

(1)
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16

2

(2)
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7
1
15



NOTE:
1. FOR AIRWAYS OF COMPONENTS FOR THE SEC.
SEE AIRWAY DIAGRAM ONLY, # D-658-33

TABLE 1. AIRWAY DIAGRAM

REV 10-30-63

REV	DESCRIPTION	BY
1	REVISION 1	1
2	REVISION 2	2
3	REVISION 3	3
4	REVISION 4	4
5	REVISION 5	5
6	REVISION 6	6
7	REVISION 7	7
8	REVISION 8	8
9	REVISION 9	9
10	REVISION 10	10

D-658-33

PART NO: E580024
DESCRIPTION: SWITCH ACTUATOR ASSEMBLY

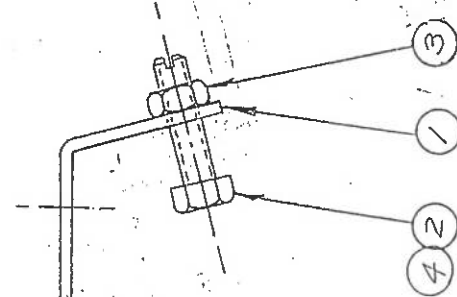
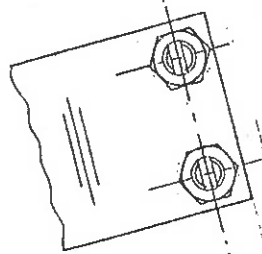
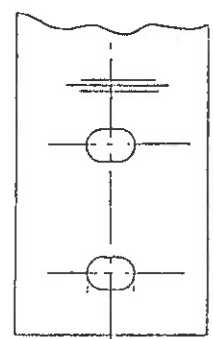
REV: 08/23/80
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	E580104	SWITCH BRACKET	1.0	EA	06		
2	E580105	ADJ. SCREW SWITCH (SS0190)	2.0	EA			
3	NT0627	AAA,0.250-20 NUT HEX CAD	2.0	EA			
9000	DWGE580024	DWG,SWITCH ACTUATOR ASSY	1.0	EA			B

REV. E58-24
B
SIZE TYPE NO.

PARTS LIST
NOMENCLATURE

NO. REQ.



4	UPDATED PER ESO-1250	8-20-75	T.O.
3	REDRAWN PER ESO-150	8-19-64	JRL
1	ORIGINAL		

RELEASED FOR PRODUCTION

STN.	DESCRIPTION	DATE	APP.
1	SWITCH ACTUATOR ASSEMBLY	8-19-64	JRL

REVISIONS

DATE	TITLE
8-19-64	SWITCH ACTUATOR ASSEMBLY

WELDOTRON Corporation
NEWARK, N.J.

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TOL. UNLESS SPECIFIED
FRA. ± 1/64 DEC. ± .005 ANGLE ± 30°

SCALE 1:1

SIZE TYPE B

NO. E58-24

REV. 3

FORMERLY B-E58A-915

PART NO: 52000160
DESCRIPTION: START-UP KIT FOR MODEL 5201

REV: 10/04/90
ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	FZ1033	FUSE, 5A	2.0	EA			
2	FZ1658	FUSE, SLOW BLOW, 250V, 10A	2.0	EA			
3	RU1683	SPONGE, SILIC MED 1/4 X 3/4 EXTRUDED	3.0	FT			
4	TA0366	TAPE, TFE FIBRGLS .5"W, .010T	0.1	EA			
5	TA0467A	TAPE, TFE 2"W, .003T, 10YDS	0.1	EA			
6	WE0926A	WIRE RD, 0.036DIA, 1/2 HD 24" LG STR NICR	4.0	EA	02		

PART NO: 52000160

DESCRIPTION: START-UP KIT FOR MODEL 5201

REV: 10/04/90

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	FZ1033	FUSE, 5A	2.0	EA			
2	FZ1658	FUSE, SLOW BLOW, 250V, 10A	2.0	EA			
3	RU1683	SPONGE, SILIC MED 1/4 X 3/4 EXTRUDED	3.0	FT			
4	TA0366	TAPE, TFE FIBRGLS .5"W, .010T	0.1	EA			
5	TA0467A	TAPE, TFE 2"W, .003T, 10YDS	0.1	EA			
6	WE0926A	WIRE RD, 0.036DIA, 1/2 HD 24" LG STR NICR	4.0	EA	02		

PART NO: 52000161

DESCRIPTION: START-UP KIT FOR MODEL 5202

REV: 10/04/90

ACT: ROUTE: 1

ITEM	P/N	DESCRIPTION	QTY	U/M	RV	ACT	MD
1	FZ1033	FUSE, 5A	2.0	EA			
2	FZ1658	FUSE, SLOW BLOW, 250V, 10A	2.0	EA			
3	RU1683	SPONGE, SILIC MED 1/4 X 3/4 EXTRUDED	4.0	FT			
4	TA0366	TAPE, TFE FIBRGLS .5"W, .010T	0.1	EA			
5	TA0467A	TAPE, TFE 2"W, .003T, 10YDS	0.1	EA			
6	WE0926A	WIRE RD, 0.036DIA, 1/2 HD 24" LG STR NICR	2.0	EA	02		
7	WE0926B	WIRE RD, 0.036DIA, 1/2 HD 34" LG STR NICR	2.0	EA	02		

LIMITED WARRANTY AND DISCLAIMER

WELDOTRON CORPORATION warrants to the original Buyer that, except as to expendable items such as elements, tapes, fuses, etc., all equipment and parts manufactured by WELDOTRON shall be free from defects in material of workmanship for a period of one year (1) from the date of shipment (the "warranty period"). The extent of WELDOTRON'S liability under this warranty is limited solely to the repair or replacement of any such defective part at no charge to Buyer, except for the costs of freight and installation which shall be borne by Buyer and provided that Buyer shall, if Weldotron so requests, return any such defective part to WELDOTRON, freight prepaid, for inspection and determination by WELDOTRON as to the nature of the defect.

Notwithstanding the foregoing, WELDOTRON shall be relieved of all liability and obligations under the warranty set forth herein if:

- a. The equipment is used, operated or maintained in any manner other than in accordance with Weldotron's instructions and recommended maintenance procedures as set forth in the operating manual which shall be shipped with the equipment;
- b. The equipment is misused, abused or neglected in any way;
- c. The equipment is altered, modified or changed, or any additional part is installed, unless WELDOTRON shall have previously consented in writing to such alteration, modification, change or installation;
- d. The equipment is operated with any additional accessory or part, whether or not WELDOTRON is the manufacturer thereof unless WELDOTRON shall have previously consented in writing to the operation of the equipment with such accessory or part;
- e. Any materials, packages, containers, pallets or loads which are to be conveyed and/or wrapped are not in a condition to permit their being properly handled by the equipment.
- f. The equipment is serviced or repaired by any person not previously approved by WELDOTRON in writing or,
- g. The Buyer fails to notify WELDOTRON in writing of any defect, breakdown, accident or malfunction of the equipment within seven (7) days of the discovery of such defect or the occurrence of such breakdown, accident or malfunction.

THE FOREGOING WARRANTY IS APPLICABLE SOLELY TO PARTS AND/OR EQUIPMENT MANUFACTURED BY WELDOTRON. WITH RESPECT TO COMPONENT PARTS NOT MANUFACTURED BY WELDOTRON AND AS TO WHICH WELDOTRON IS THE BENEFICIARY OF ANY WARRANTY, BUYER SHALL HAVE, FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SHIPMENT OF THE EQUIPMENT TO BUYER, WHATEVER RIGHTS AND REMEDIES, IF ANY, THAT ARE AVAILABLE TO WELDOTRON WITH RESPECT TO SUCH WARRANTY, PROVIDED THAT BUYER SHALL FULLY REIMBURSE WELDOTRON FOR ALL COSTS OF ENFORCING SUCH WARRANTY.

Except for the express warranty set forth above that the equipment shall be free of any defects in material or workmanship during the warranty period:

- a. No affirmation of fact or promise by WELDOTRON with respect to the capacity, suitability or performance of the equipment, whether or not such affirmation or promise is set forth herein, shall constitute any type of warranty as to the equipment, and
- b. THERE ARE NO ADDITIONAL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANT ABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.

Except as specified by WELDOTRON in writing, WELDOTRON does not warrant that the equipment, as manufactured, conforms to any particular insurance regulations or electrical codes or that the equipment contains any particular safety features. Buyer assumes full responsibility for compliance with all applicable statutes, codes and regulations, whether federal, state or local.

Under no circumstances shall WELDOTRON have any liability for any type of incidental or consequential damages arising from the use, loss of use or defective performance of the equipment. WELDOTRON'S liability is expressly limited to the repair or replacement of defective parts.

The Limited Warranty extends only to the original buyer and is not transferable to subsequent owners, purchasers or possessors of the equipment.

weldotron
corporation

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