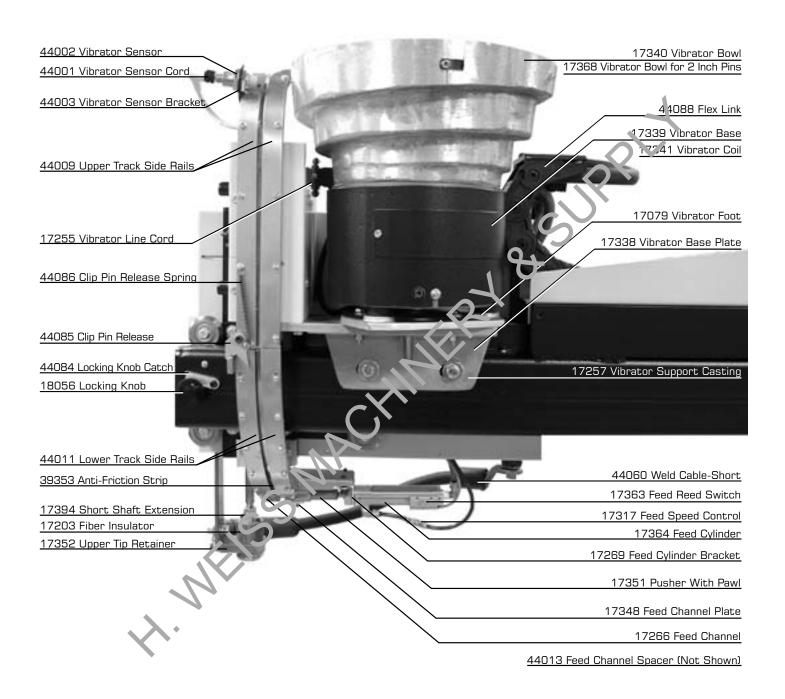




innumumumumimi 10 2 11 18 10 19 Parts List Parts Locator 3-8 <u>Servicing</u> 12 Troubleshooting 12-18 <u>Warranty</u> 2 Wiring Diagrams

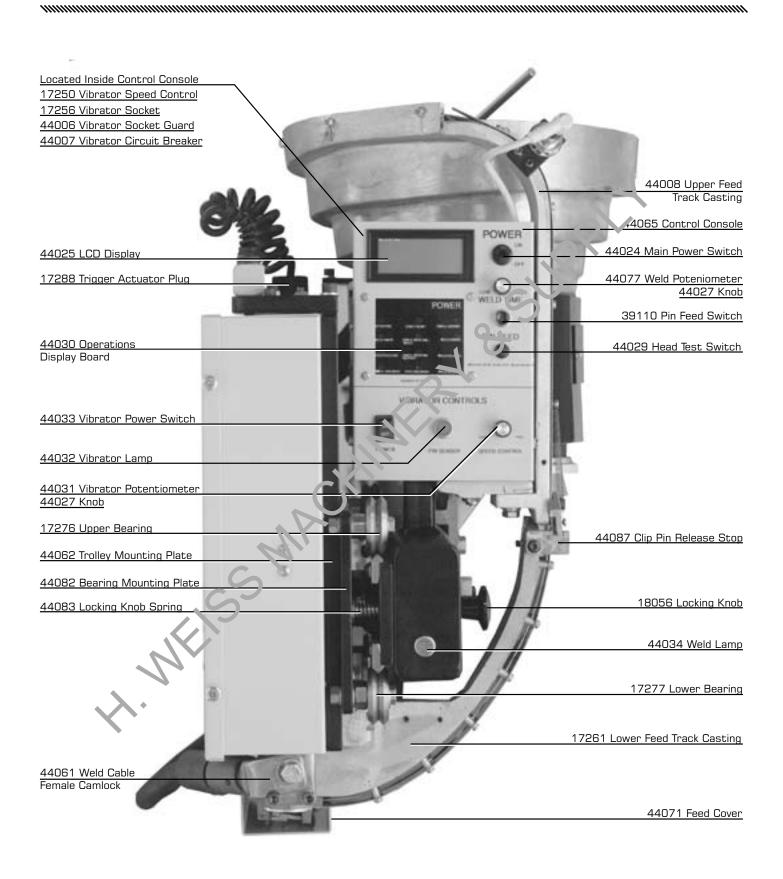
17391 Actuator Swival Bolt 44065 Control Console 17283 Trigger Actuator Assembly 44075 Trolley 44076 Trolley Cover 17284 Trigger Actuator Switch 17291 Rear Bumper Stop 17278 Steel Track 17191 Upper Weld Tip 17189 Upper Replacement Plates 17395 Lower Ground Bar 17192 Lower Weld Tip <u>Transformer Enclosure</u> 44066 Power Pack 17190 Lower 44037 Power Pack Cover Replacement Plates 17376 Lower Mandrel Triangle Enclosure 44072 Component Module

FRAME ASSEMBL

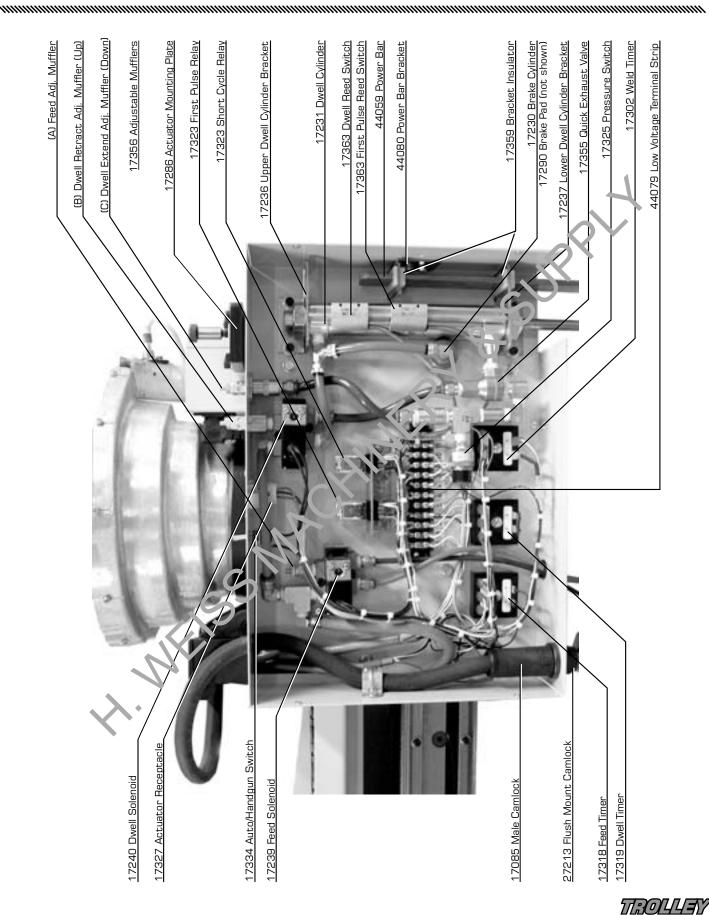


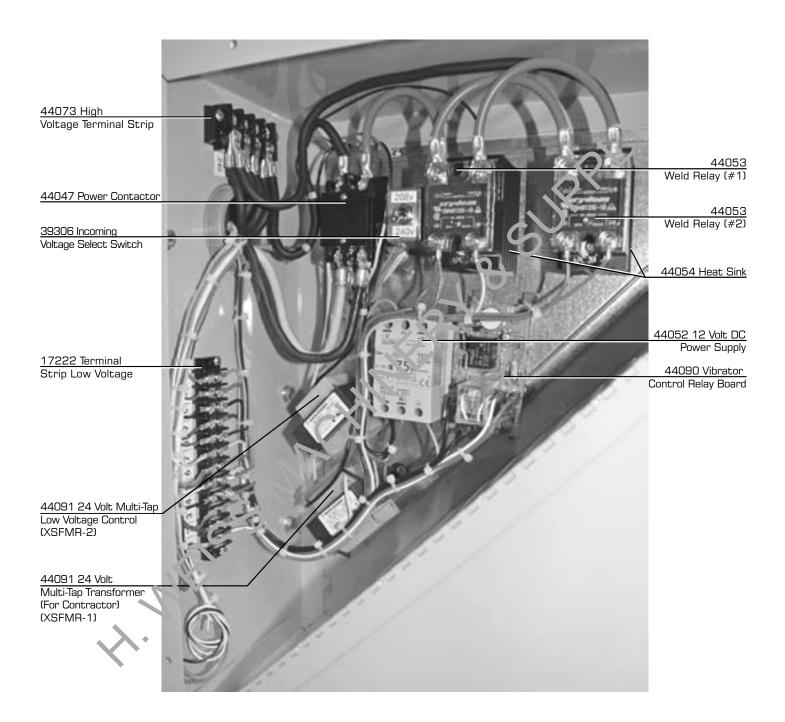
DWELL & FEED ASSEMBLY

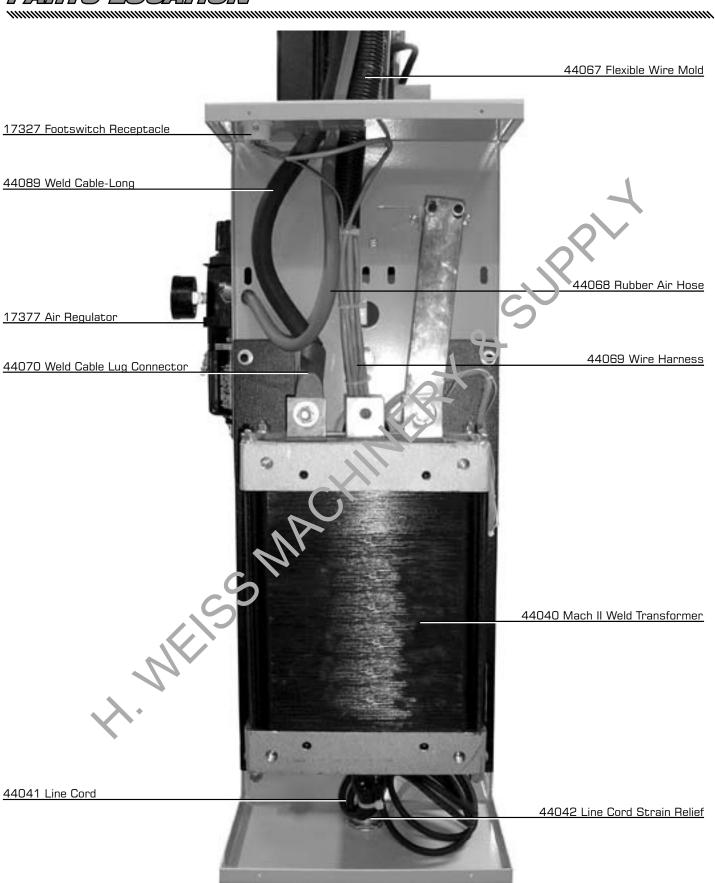
PARTS LOGATION



CONTROL CONSOLE AND FRONT END ASSEMBLY

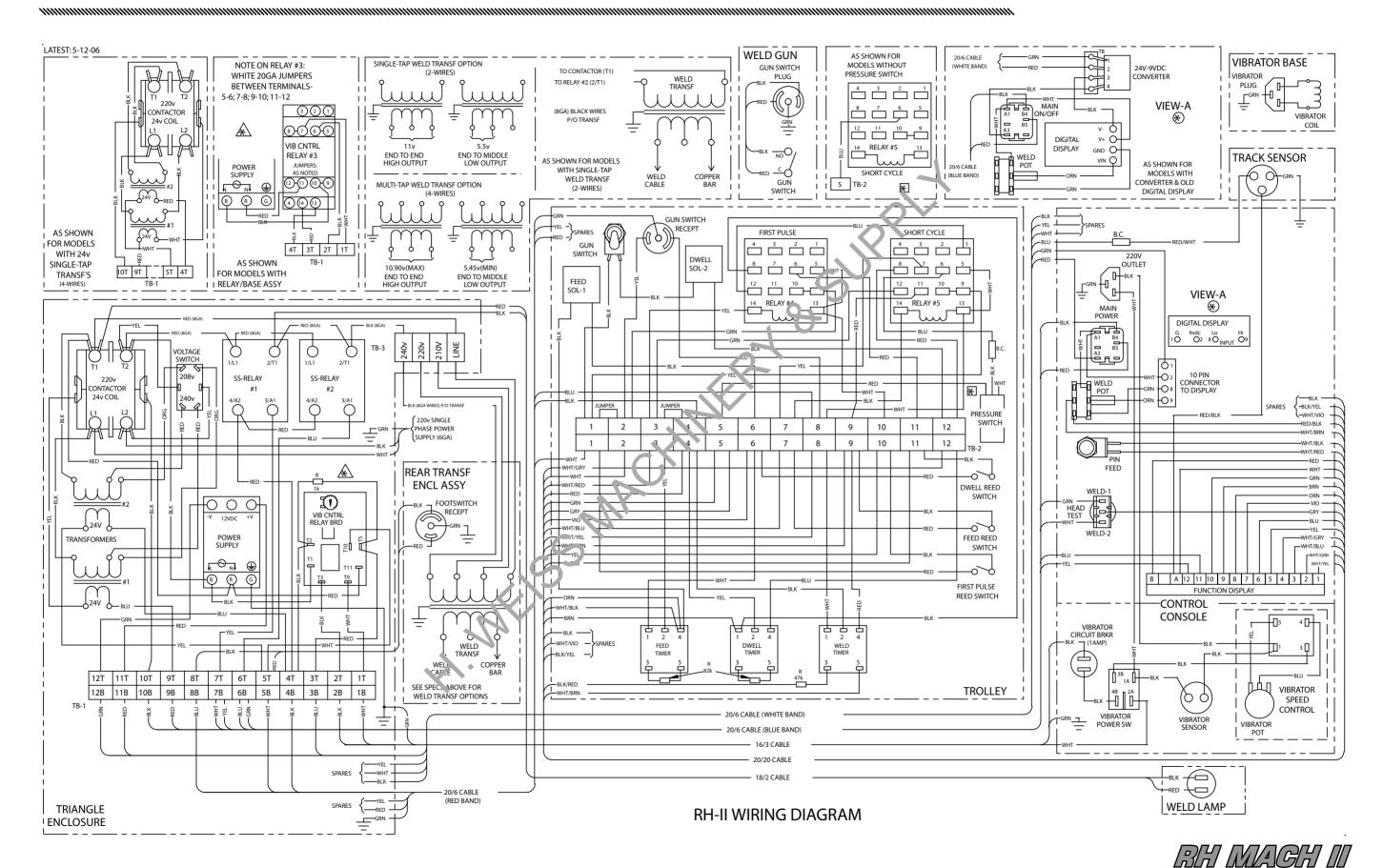






TRANSFORMER ENGLOSURE

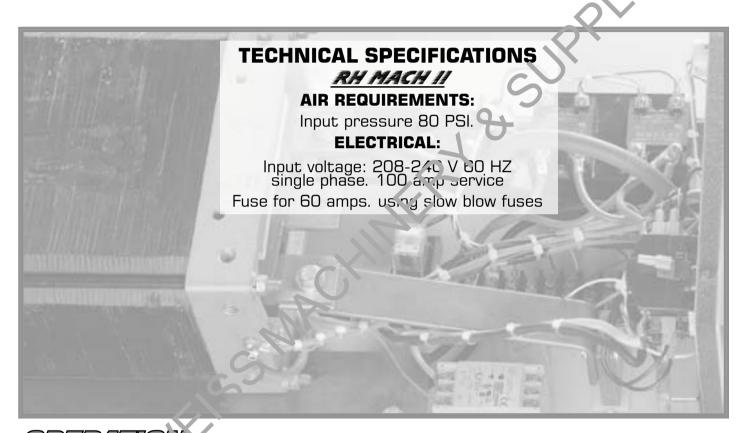




INSTALLATION INSTRUCTIONS

1) Connect the Power Pack to a source of 208-240V 100 Amp. power. This service should be connected to a 60 amp disconnect box fitted with 60 amp slow blow fuses. The Power supply line to the power pack pigtail should be #6 (or heavier) wire to minimize voltage losses. The black and white wires are the power, the green is ground. Select 208V or 240V at the voltage switch in the triangle enclosure to the closest match to the power supply voltage.

- 2) Attach the Actuator Arm to the socket on the top of the Trolley.
- 3) Connect the air line to the Regulator. Adjust the regulator pressure to 80-85 PSI.
- 4) Plug the Vibrator Power Plug into the socket on the rear of the Control Panel.



Mach II INITIAL ADJUSTMENTS

- 1) Turn the priver switch to "ON".
- 2) Turn the vibrator switch to "ON".
- **3)** Add the weld pins to the hopper (Vibrator Bowl).
- **4)** Adjust the vibrator speed so that the weld pins climb the spiral track inside the vibrator bowl without vibrating off.
- 5) When the weld pins fill the track up to the Vibrator Sensor, the vibrator automatically shuts off.
- **6)** Flip the HEAD TEST Switch to either the "WELD #1" or "WELD #2" position.

NOTE: Your Mach II Rolling Head Pinspotter has two redundant weld circuits. In the event that the solid state relay controlling the weld fails you may simply flip the switch to the other circuit and continue production. A replacement Weld Relay should then be ordered through your local Duro Dyne wholesaler.

H. WEISS MACHINERY & SUPPLY

PHONE: (718) 605-0395 - www.hweiss.com

STARTING OPERATION

1) Never actuate the unit without metal over the mandrel or lower copper ground bar. For maximum weld quality, the metal should be in flat contact with the ground bar and mandrel. An adjacent table or roller on which the sheet metal rests must be either exactly flush with, or slightly below, the top of the ground bar and mandrel.

2) The WELD TIME knob controls the weld quality of the pinspotter. The display goes from 0 to 300. These numbers are for reference only and have no relationship with actual time. It is recommended that an initial setting of 150 be used and then adjust up or down accordingly in reference to the quality of welds.

Weld time is the length of time the welding transformers are on. A fraction of a second is generally all the time needed for a quality weld. Unnecessary weld time not only wastes energy but can also burn up the pins. (If the pins glow red up to the washer, the weld time is set too high.) Always set the weld timer to the minimum time required for a good weld.

3) Before beginning production, always "pre-test" with smaller pieces of the same gauge theet metal thickness and the liner density you intend to use in the final production. The different densities and inchanges of the liner may require adjustments of the weld timer setting. For example: heavier going steel, thicker liner, higher density liner and/or longer weld pins may require longer weld time. To make sure, always pre-test any adjustment before you begin "final production." However, only change the weld timer settings when a change in the materials results in inefficient welding or a poor quality weld.

OPERATIONS DISPLAY

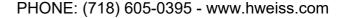
Your RH Mach II Pinspotter is provided with an OPERATIONS DISPLAY to help identify the source of the problem should your pinspotter fail to perform properly. Watching these indicator lights will give you a clear understanding of the electrical flow of the various circuits and components during use. Should a problem arise, simply press the footswitch and watch to see which indicator fails to minimate. A call to our Technical Services Dept at 1-800-899-3876 will quickly identify the component to crook, repair, or adjust.



MANNTANANCIA

1) To prolong the weld oplife and improve the weld quality, it is imperative that the weld tips and lower ground bar always be kapt clean. For best results, use a solvent to remove any built-up adhesive; a wire brush to remove any galvenizing deposits; and a fine emory cloth to smooth the tip and ground bar surfaces.

- 2) When lower weld tip becomes worn in one area, loosen the locking cap screw and rotate the point of wear away from the point of contact. Additional lower weld plates can be ordered from your local distributor.
- 3) Depending on usage and maintenance, the upper welding tip plate will have to be periodically replaced. Replacement weld tip plates can be ordered from your local distributor. To replace the upper weld tip, loosen the locking cap screw and remove the weld tip. Remove the plate by loosening three (3) brass screws. Throw away the screws and attach the new plate to the tip using the three brass screws supplied. Be sure to align the angled section of the plate so it faces the feed mechanism. Then lock the tip in place. Cycle the machine to check the feeding.
- 4) If feeding is erratic, re-adjust the upper weld tip height by loosening the lock nut on bottom of the dwell cylinder shaft and then turning the dweld cylinder shaft clockwise to raise the tip; counter-clockwise to lower the tip. Lock the tip in place with the locking nut.





A SIMPLIFIED STEP-BY-STEP PROCEDURE

Duro Dyne has called upon its many years of pinspotting experience in designing the Mach II Rolling Head. Your unit has been rigorously factory tested and inspected to provide many years of dependable service.

WHAT TO DO BEFORE YOU BEGIN TROUBLESHOOTING:

CONSULT THE MANUAL.

Most of the functional problems that occur are due to an oversight in the set-up, operational or normal maintenance procedures. Therefore, you should re-check all "Set Up", "Initial Adjustment", "Operation" and "Maintenance" procedures.

INSPECT THE UNIT

If the problem still persists, the next step is careful visual inspection. Turn off the electricity - that is, disconnect your Pinspotter from its power supply and carefully check the control box for 100-2, broken or disconnected wires. Also check the air circuit for leaky air connections or cut hoses

HOW TO IDENTIFY WELD QUALITY PROBLEMS

By weld we mean that the Weld Transformer is energized, sending a pulse of clearisity through the weld pin, causing it to begin to fuse to the sheet metal.

To properly troubleshoot the weld quality problems, you must first pinpoint the symptom by test welding the pins to bare sheet metal. The symptom will then show up in one of four categories:

- 1) The pins weld to bare metal but not on lined work.
- 2) The pins weld to bare metal but can easily be removed.
- 3) Pins weld to bare metal but remain on the weld tip as it retracts.
- 4) The pins do not weld at all.

Before troubleshooting, always check:

- 1) Air pressure for a minimum of 80 PSI during usage of unit
- 2) The input Voltage for a minimum of 208V.
 3) The Weld Timer is set properly.
- 4) The Upper and the Lower Weld tips for extreme vear.

It may become necessary to use a voltmeter and/or ohmmeter to perform some servicing procedures. An analog type is best. Our Technical Services Dept will help you if necessary.

Your Rolling Head Mach II Fins power is equipped with an Operations Display that will assist you in quickly locating the probable causes inouid your machine fail to operate. While the display can point you to a defective component, it is recommended that an analog type volt meter be used to verify the indication. In some cases a loose or broken wire could cause a false indication.

This troubleshooting section has been divided into seperate sections depending on the type of malfunction.

MACHINE DOES NOT OPERATE

PIN FEED PROBLEMS

DWELL CYLINDER PROBLEMS

PINS DO NOT WELD

POOR WELD QUALITY

VIBRATOR PROBLEMS

After determining the type of problem, go to that section, cycle the machine watching the Operations Display indicator lights and then follow the instructions in that part of the chart. If further assistance is needed you may call Duro Dyne Technical Services Dept at 1-800-899-3876 between the hours of 7am - 6pm EST.

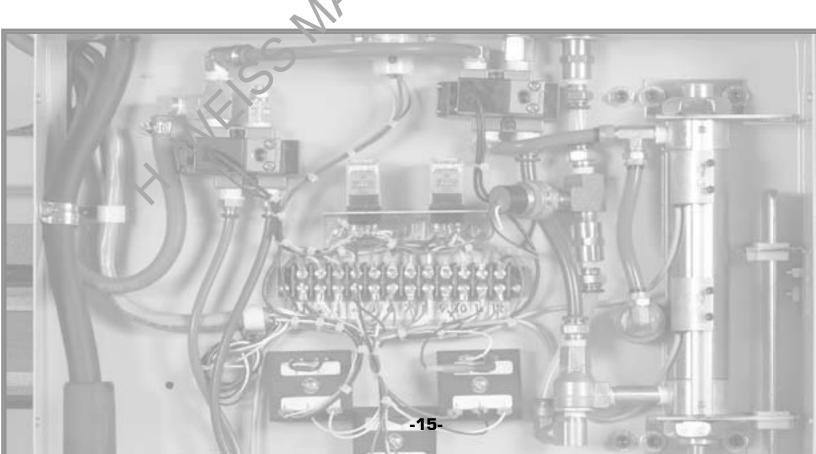
MACHINE DOES NOT OPERATE

SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION		
No Power Indicator. No display.	Power Indicator goes on and off with main power switch.	(A) Incoming power supply.	(A) Check the incoming power (208-230VAC) L1 and L2 on the Power Contactor in the Triangle Enclosure.		
		(B) Power Contactor	(B) In the Triangle Enclosure, check the voltage (24VAC approx.) at the coil of the contactor. If the voltage is present, check the voltage (208-230VAC) at terminals T1 and T2 on the contactor. If the voltage is present, the contactor is good. Proceed to step (E). If the voltage at the coil is present and T1 and T2 have no voltage, replace the contactor. If the voltage at the coil is not present, proceed to the next two steps (C and D).		
		(C) Main Power Switch.	(C) Check the Main Power Switch terminals B4 and B5 in the Control Console. Terminals B4 and B5 should have 24VAC approx. when the switch is in the off position and 0 volts when the switch is in the on position. If the voltage stays at 24VAC approx. replace the switch. If the voltage stays at 0 volts proceed to step (D).		
		(D) 24VAC Transformer (for Contac- tor only) (XSFMR-1).	(D) In the Triangle Enclosure, check the transformer primary input voltage (208-230VAC) at terminal L1 and of the contactor. Check the transformer secondary voltage (24 /AC approx.) at the coil of contactor. If the voltage at the coil is not present and step (C) is correct replace the transformer. (This transforme, is for the contactor only).		
		(E) 24VAC Transformer low voltage control (XSFMR-2).	(E)) In the Triangle Enclosur, check the transformer primary input voltage (208-230VAC) at terminal T1 and T2 on the contactor. Check the transformer secondary voltage (24VAC approx.) at terminals #4T and #5T. If the voltage of terminals #4T and #5T is not present replace the transformer. (This transformer is or all the low voltage control circuits except for the coil of the contactor).		
Power Indicator on. Initiate Indicator is not function- ing.	Initiate Indicator goes on with Actuator and off after the machine cycles.	Trigger Actuator	Check the variage (24VAC approx.) at terminals #4 and #8 in the Trolley while de ressing the trigger. This voltage reading should go from 0 to 24 VAL of this voltage reading is not correct replace or repair the Trig (er Actuator.		
Power Indicator on. Initiate Indicator is functioning. Weld Timer Indica- tor is not func- tioning.	Weld Timer Indicator goes on and off with every cycle.	Weld Timer	Turn the veld time to the highest setting and check the voltage (24VAC oprox.) at terminals #8 and #9 in the Trolley. This voltage should come on then go off every time the Trigger Actuator is depressed. If this voltage reading is not correct replace the Weld Timer. (0 – 24VAC – 0)		
Power, Initiate, and Weld Timer Indica- tors are function- ing. Feed Reed Switch indicator is not functioning.	Feed Reed Switch Indicator goes on and off with every cycle.	Fee ! Ree ! Sviit zn.	The Feed Reed Switch is a safety that will not allow the machine to operate if the Feed Cylinder has not fully retracted. To test the Feed Reed Switch jump terminals #7 and #9 in the Trolley. Now try to cycle the machine with this jumper in place. If the machine operates this means that the Feed Reed Switch is not functioning. This reed switch is located on the Feed Cylinder and may be out of position. To check the position, turn the power off (remove the jumper from the previous test) and loosen the set screws on the reed switch. Now put an ohmmeter on terminals #7 and #9. Slide the reed switch back and forth near the rear of the cylinder until the meter reads continuity. Now lock the set screws. If this procedure can not be accomplished replace the Feed Reed Switch.		
Power, Initiate, Weld Timer and Feed Reed Switch Indi- cators are func- tioning. Dwell Soleno 1 Indi- cator is not inc- tioning.	and off with every	Short Cycle Relay	Turn the weld time to the highest setting and check the voltage (24VAC approx.) at terminals #7 and #8 in the Trolley. This voltage reading should go from 0 to 24VAC and then back to 0 every time the Trigger Actuator Switch is depressed. If this voltage reading is not correct recheck the symptom. Now do the same procedure at terminals #8 and #12 in the Trolley. If this voltage reading is incorrect replace the Short Cycle Relay.		
Power, Initiate, Weld Timer, Feed Reed Switch and Dwell Solenoid Indica- tors are all func- tioning.	All lights flash in sequence.	(A) Air pressure, Adjustable Exhaust Mufflers and Dwell Cylinder.	(A) Check the Air Regulator for proper setting (80psi). Now press the test button located on the Dwell Solenoid body. If the Dwell Cylinder does not operate check the Adjustable Exhaust Mufflers connected to the Dwell Solenoid for proper adjustment. If either or both mufflers are closed or restricted it will not allow the Dwell Cylinder to operate. Also check the cylinder by turning the air off and then move the shaft up and down. The shaft should move freely. If the mufflers (these mufflers control the speed of the up and down motion on the cylinder) are properly adjusted and have no restrictions and the Dwell Cylinder operates when the solenoid test button is pressed proceed to step (B).		
		(B) Dwell Solenoid.	(B) Turn the weld time to the highest setting and check the voltage (24VAC approx.) at terminals #8 and #12 in the Trolley. The voltage reading should go from 0 to 24VAC and back to 0 every time the Trigger Actuator Switch is depressed. If this voltage reading is correct replace the Dwell Solenoid.		

PIN FEED PROBLEMS

. mmmmmmmmmm			
SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION
First Pulse Indica- tor is not func- tioning.	First Pulse Indica- tor turns on with the first machine cycle. It stays on until main power is turned off	First Pulse Reed Switch.	The First Pulse Reed Switch sends power to the coil of the First Pulse Relay. To check the reed switch, remove the wire that goes to terminal #4 on the Dwell Timer (located in the Trolley) and then jump terminals #1 and #10 in the Trolley. With this jumper in place cycle the machine. If the machine feeds check the reed switch position (The First Pulse Reed switch should be mounted to the middle off the Dwell Cylinder). If the reed switch position is correct replace the First Pulse Reed Switch.
First Pulse Indicator is functioning. Dwell Reed Switch Input Indicator is not functioning.	Dwell Reed Switch Input Indicator turns on with the first machine cycle. Stays on until main power is turned off	(A) First Pulse Relay (Coil).	(A) The First Pulse Relay should engage the first time the machine cycles and should stay engaged until the power is turned off. To check the First Pulse Relay, remove the wire that goes to terminal #4 on the Dwell Timer and then jump terminals #1 and #10 in the Trc'ley. With this jumper in place and the power on check the voltage (24V \C approx.) at terminals #3 and #10. If voltage is present and the relay is on) proceed to step (B). If the voltage is present and the relay is not engaged (the indicato, on the relay is off) replace the First Pulse Relay.
First Pulse Indicator is functioning. Dwell Reed Switch Input Indicator is not function- ing.	Dwell Reed Switch Input Indicator turns on with the first machine cycle. Stays on until mainpower is turned off.	(B) First Pulse Relay. (Contacts)	(B) If the relay is engaged (the indicator in the relay is on) check the voltage (24VAC approx.) at the term rals \(\frac{1}{3} \) and \(\frac{1}{1} \) in Trolley. If the voltage is not present replace the First Pulse Relay. If the voltage is present proceed to next step.
First Pulse and Dwell Reed Switch Input Indicators are functioning. Dwell Reed Switch Output Indicator is not functioning.	Dwell Reed Switch Output Indicator turns on with the first machine cy- cle. Goes off and then back on with every cycle.	Dwell Reed Switch.	The Dwell Reed Switch is the upper of the two reed switches located on the side of the Pwell Cylinder. The Dwell Reed Switch activates the Feed Timer. To check the Civell Reed Switch, first cycle the machine once and then check the vultage (24VAC approx.) at terminals #3 and #11 in the Trolley. If the voltage is not present recheck the symptom. If this voltage is present in whether voltage (24VAC approx.) at the terminals #3 and #6 in the prolley. Terminals #3 and #6 should go from 24VAC to 0 and hack to 24VAC with every cycle. If this is correct the Dwell Reed Switch is functioning properly. If the voltage reading is incorrect check the Dwell Reed Switch position. To check the Dwell Reed Switch position is thosen the reed switch set screws. Slide the reed switch down and chick the voltage at terminal #3 and #6. The voltage should read 0. Now is lide the reed switch up until terminals #3 and #6 have 24VAC and then lock the set screws. If this procedure cannot be accomplished, replace the Dwell Reed Switch. (Please refer to note #4 on page 18.)
First Pulse, Dwell Reed Switch Input and Output Indica- tors are function- ing. Feed Solenoid Indi- cator is not func- tioning.	Feed Solenoid Indica- tor goes on and then back off with every cycle.	Feer' Timer.	The Feed Timer activates the Feed Solenoid. In the Trolley, check the voltage (24VAC approx.) at terminal #1 and #4 on the Feed Timer. The voltage at terminals #1 and #4 should go from 0 to 24VAC and back to 0 on every cycle. If this voltage reading is incorrect replace the Feed Timer. If the voltage reading is correct proceed to the next section. (This voltage is only present for 150ms. Some voltmeters may not react fast enough to record this voltage).
All Indicators are functioning.	All lights rast in section to	Feed Solenoid, Feed Cylin- der, and Pusher With Pawl.	The Feed Solenoid controls the Feed Cylinder. To test the Feed Solenoid check the voltage (24VAC approx.) at terminals #1 and #4 on the Feed Timer in the Trolley, Terminals #1 and #4 should go to 24VAC and back to 0 on every cycle. If correct turn the power and the air off. Now try to move the Pusher With Pawl in and out. The Pusher With Pawl should move easily. If so, replace the Feed Solenoid. If not, check for jammed weld pins in the Feed Channel or for a damaged Feed Cylinder. Also check the Feed Speed Control (located on the air line going to the Feed Cylinder) for proper adjustment.
Feed Cylinder does not retract. Feed Solenoid Indicator on constantly.	Feed Solenoid Indica- tor goes on and then back off with every cycle.	Feed Timer	Remove the push-on connector from terminal #4 of the Feed Timer. If the Feed Cylinder retracts replace the Feed Timer.
Feed Cylinder does not retract. All Indicators are functioning cor- rectly.	All lights flash in sequence.	(A) Feed Cylin- der or Pusher With Pawl.	(A) Turn the power off and inspect the Feed Cylinder for air leaks. If there are no air leaks, turn the air off and slide the Pusher With Pawl in and out. The Pusher With Pawl should go in and out with just a slight restriction.
		(B) Feed Solenoid.	(B) To check the Feed Solenoid turn the power off. If the Feed Cylinder does not retract and step (A) above is correct replace the Feed Solenoid.

SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION
Feed collides with dwell. All Indicators are functioning correctly except: Dwell Reed Switch Output and Feed Solenoid Indicators are not coming on in the correct sequence.	Dwell Reed Switch Output Indicator turns on with the first machine cy- cle. Goes off and then back on with every cycle. Feed Solenoid Indica- tor goes on and then back off with every cycle.	Dwell Reed Switch.	The Dwell Reed Switch activates the Feed Timer. If this switch is malfunctioning or out of position it will activate the feed at the wrong time. For instructions on how to check and adjust, refer to the action section on page 14 for "Possible Problem" Dwell Reed Switch. (Also refer to note #4 on page 18.)
Sluggish movement of the Feed. All Indicators are functioning cor- rectly.	All lights flash in sequence.	(A) Feed Speed Control.	(A) Readjust the Feed Speed Control located on the air line going to the Feed Cylinder.
		(B) Air Lines.	(B) Check the Air Lines for leaks and wat : If there is water in the Air Lines, disconnect and blow out all Air Lines. Remove and clean the Exhaust Muffler. Reconnect the Air Lines and the muffler.
		(C) Feed Cylinder.	(C) Turn the power and air off. Check the Feed Cylinder and the Pusher With Pawl for binding. Move the Pusher With Pawl should move in and cut with a slight resistance.
		(D) Feed Solenoid.	(D) If the above procedures the court and the Feed still has sluggish movement the problem may be the Feed Solenoid. Remove the Air Line from air inlet of the solenoid and spray a light oil into the solenoid. Reconnect the Air Line and cycle the machine. If the Feed still has sluggish movement, replace the Feed Solenoid.
Feed does not place weld pins on Up- per Weld Tip. All Indicators are functioning cor- rectly.	All lights flash in sequence.	(A) Feed Speed Control.	(A) If the Feer Speed Control is open too much it may throw pins past the Upper Weid Tip. Adjust Feed Speed Control so that it places the pin in the Upper Weld Tip.
		(B) Upper Weld Tip.	L ¹ Check the Upper Weld Tip for magnetism. Place a weld pin under the Upper Weld Tip. If the tip does not retain the pin or the magnets feel weak replace the Upper Weld Tip.
		(C) Pusher With Fawl	(C) The pawl (hinged part) on the pusher may be damaged or missing. If so replace the Pusher With Pawl.



DWELL GYLINDER PROBLEMS

annumunumunumunumunumunumunumunumunumunu			
SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION
Dwell Cylinder does not retract and weld stays on. Initiate, Weld Tim- er, Feed Reed Switch, Dwell Solenoid and Weld Signal Indi- cators are all on constantly.	All lights flash in sequence.	Weld Timer:	Remove the push-on connector from terminal #4 of the Weld Timer. If the Dwell Cylinder retracts and the weld turns off replace the Weld Timer.
Dwell Cylinder does not retract and weld stays on. Initiate, Dwell Solenoid and Weld Signal Indicators are all on con- stantly.	All lights flash in sequence.	Short Cycle Relay	In the Trolley, test for voltage (24VAC approx.) at terminals #7 and #8. If the voltage is present return to the step above. If the voltage is not present, now check the voltage (24VAC approx.) at terminals #4 to #8 and #1 to #12. If the voltage is present all the tina on these terminals replace the Short Cycle Relay.
Dwell Cylinder does not retract. Dwell Solenoid and Dwell Delay In- dicators are on constantly.	Dwell Solenoid Indicator goes on and off with every cycle. Stays on 150ms Ionger than Feed Reed Indicator	Dwell Timer	Remove the push-on connector from termina #4 of the Dwell Timer. If the Dwell Cylinder retracts replace the Dwell Timer.
Dwell Cylinder does not retract. All Indicators are functioning cor- rectly.	All lights flash in sequence.	(A) Dwell Solenoid.	(A) Turn the power of it. (If the Dwell Cylinder shaft retracts, recheck the symptom). Now try and lift the Dwell Cylinder shaft up. If the cylinder shaft cannot be inted replace the Dwell Solenoid.
		(B) Dwell Cylinder	(B) If the Twen Cylinder shaft can be lifted easily check the Dwell Cylinder and the air lines for air leaks. Turn the air off and then move the cylinder shart up and down. If the cylinder shaft moves up and down without any irresistance the seals in the cylinder are most likely worn. Replace the Dvell Cylinder. If a slight air resistance is present on the up and down rotion check the Quick Exhaust Valve.
		(C) Quick Exhaus : Va. e.	(C) The Quick Exhaust Valve is a pneumatic check valve. To check the Quick Exhaust Valve, dissasemble the valve and inspect the conical shaped diphragm for any tears. If any damage is noted, replace the Quick Exhaust Valve or repair it with a repair kit (part# 17078).
Sluggish movement of the Welding Tip. All Indicators are functioning cor- rectly.	All lights flash in sequence.	LA1 Air H :gulator	A) Adjust the Air Regulator (80psi).
	U	(B) Air Lines and Adjust- able Exhaust Mufflers.	(B) Check Air Lines for leaks or water. If there is water in the Air Lines, disconnect and blow out the Air Lines. Remove and clean out the Adjustable Exhaust Mufflers. Reconnect the Air Lines and the Adjustable Exhaust Mufflers.
- V		(C) Dwell Cylinder	(C) Turn the power and air off. Check the Dwell Cylinder shaft for binding by moving the shaft in and out of the cylinder. A slight air resistance should be present when the shaft is being moved in and out of the cylinder.
		(D) Dwell Solenoid.	(D) If the above procedures check out and the Dwell Cylinder still has sluggish movement, the problem maybe the Dwell Solenoid. Remove the Air Line from air inlet of the solenoid and spray a light oil into the solenoid. Reconnect the air line and cycle the machine. If the Dwell Cylinder still has sluggish movement replace the Dwell Solenoid.

PINS DO NOT WELD			
SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION
All Indicators are functioning except: Weld Signal, Weld #1 and Weld #2 do not function.	Weld Signal Indica- tor goes on and off with every cycle.	(A) Short Cycle Relay	(A) The Short Cycle Relay controls the voltage that turns on the solid-state Weld Relays that turn on the Weld Transformer. To test the Short Cycle Relay circuit check the voltage (24VAC approx.) at terminals #5 and #7 in the Trolley. Terminals #5 and #7 should go from 0 to 24VAC and back to 0 on every cycle. If this voltage reading is incorrect Proceed to step B.
		(B) Pressure Switch.	(B) To test the Pressure Switch place a jumper between terminals #5 and #8 in the Trolley. If the machine welds with jumper in place replace Pressure Switch. If the machine does not weld replace the Short Cycle Relay.
All Indicators are functioning except: Weld #1 and Weld #2 do not function.	Weld Relay #1 or Weld Relay #2 In- dicator should cor- respond with Weld Signal Indicator Goes on and off with every cycle.	Head Test Switch.	The Head Test Switch is single-pole, double-throw and center off switch. This switch selects which of the 2 solid state Weld Relays will control the Weld Transformer. To test this switch check for continuity at the switch in the Control Console.
All Indicators are functioning. Welding Indicator on the frame is not functioning. This Indicator shows when there is voltage (230VAC approx.) present at the primary of the Weld Transformer.	All lights flash in sequence.	Weld Relay.	The Weld Relay controls the voltage the primary of the Weld Transformer. To check the Weld Relay that for voltage (24VAC approx.) at terminals A1 and A2 on the silected relay in the Triangle Enclosure. Terminals A1 and A2 should go from 0 to 24VAC and back to 0 on every cycle. If this voltage reading does not correspond, check the Head Test Switch is in Weld 1 or World 2 policion and that the weld relay you are checking is the active one. In the voltage reading was correct, test the voltage (208-230 VAC approx.) at the terminals L1 and T1. Terminals L1 and T1 should go from (208-230 VAC approx.) to 0 and back to (208-230 VAC approx.) where very cycle. If this voltage is incorrect replace the Weld Relay.
All Indicators are functioning including the Weld Indicator on the frame.	All lights flash in sequence.	Weld Transformer	To test the primary of the Weld Transformer check the voltage at the terminal. It and T1 on either of the Weld Relays. They should go from (208-230 'AC approx.) to 0 and back to (208-230 VAC approx.) every time the machine cycles. Now test the secondary output voltage. Place the metric leads on the copper bars coming out of the Weld Transformer and hast the voltage every time the machine is cycled. The Mach 2 Weld Transformer should read approximately 10VAC. (or 5VAC if on the center tap.) If the secondary voltage reading is incorrect replace the transformer. Lurn the weld time to the highest setting when performing this test.)

POOR VIELD QUALITY The communication of the communi			
SYMPTOM	CORRECT FUNCTION INDICATOR	FKO3FEM CO72IBFE	ACTION
Dwell Delay Indica- tor is not func- tioning.		tA) Short Cycle Relay or First Pulse Relay.	(A) The Dwell Timer keeps the dwell circuit on 150ms longer than the Weld Timer circuit. To check the Dwell Timer, test for voltage (24VAC approx.) at terminals #1 and #2 on Dwell Timer located in the trolley. The voltage on terminals #1 and #2 should go from 24VAC to 0 and back to 24VAC with every machine cycle. If this voltage reading is correct proceed to step (B). If this voltage reading is incorrect replace the Short Cycle Relay. If the voltage reading at terminals #1 and #2 is still incorrect replace the First Pulse Relay.
		(B) Dwell Delay Timer.	(B) If procedures in (A) test correctly, check the voltage (24VAC approx.) at the terminals #1 and #4 on the Dwell Delay Timer. The voltage at terminals #1 and #4 should go from 0 to 24VAC and back to 0 on every machine cycle. If this voltage reading is incorrect replace the Dwell Timer.
All Indicators are functioning.	All lights flash in sequence.	(A) Weld Cable.	Any connection from the secondary of the Weld Transformer to the weld tips can contribute to a poor quality weld. All the connections should be clean, bright and tight . The Weld Cable can break down from use. Always inspect the Weld Cable, Weld Transformer secondary connections and weld tips for they are the most common causes for a poor weld quality.
		(B) Upper and Lower Weld- ing Tips.	Clean and Retighten
		(C) Upper Tip Retainer.	Clean and Retighten
		(D) Female Cam- lock.	Clean and Retighten
		(E) Flush Mount Camlock.	Clean and Retighten
		(F) Power Supply Bar.	Clean and Retighten

VIBRATOR PROBLEMS

SYMPTOM	CORRECT FUNCTION INDICATOR	POSSIBLE PROBLEM	ACTION
Vibrator does not vibrate at all.	N/A	(A) Vibrator Cir- cuit Breaker	(A) Check the Vibrator Circuit Breaker (Located on the rear of the Control Console.) (208-230VAC approx.)
		(B) Vibrator Power Switch.	(B) Check the Vibrator Power Switch in the Control Console. (208-230VAC approx.)
		(C) Vibrator Sensor.	(C) The Vibrator Sensor controls the Vibrator Control Relay that supplies power to the Vibrator Base when there is a demand for weld pins. Check that the indicator light on the Vibrator Sensor goes on and off when the weld pins go past the Vibrator Sensor. (The Vibrator Sensor is located on top of the Upper Feed Track Casting) If the indicator light does not go on and off try to adjust the sensor closer to weld pins. If the indicator light still does not function, replace the Vibrator Sensor
		(D) Vibrator Control Relay. (Relay-3)	To check the Vibrator Control Relay, test the voltage (24VAC) approx.) at terminals #T2 and #T5 on the Vibrator Control Relay Board located in the Triangle Enclosure. There should be 24VAC at terminals #T2 and #T5 when there is no weld pin at the Vibrator Sensor. If this voltage reading is correct, now check the voltage 72t3-230VAC approx.) at terminals #T1 and #T11 on the relay board. When the main power is on, terminals #T1 and #T11 should always ave voltage. Now check the voltage (208-230VAC approx.) at terminals #T3 and #T9. If there is no voltage at terminals #T3 and #T9 and the above is correct, replace the Vibrator Control Relay.
		(E) Vibrator Speed Control.	(E) In the Control Console, check for Joltage (208-230VAC approx.) at terminals #1 and #3 on the Vibrator Speed Control. If there is 208-230VAC at terminals #1 and #1 and #2 replace the Vibrator Speed Control.
		(F) Vibrator Coil.	(F) Measure the resistar ce at the plug (two outside pins) of the Vibrator Base. The resistance reading should be approximately 60 ohms. If this reading is not connect replace the Vibrator Coil.
Vibrator vibrates but not enough to move weld pins.	N/A	(A) Vibrator Speed Control.	(A) To test the Vibrator Speed Control place your hand on the Vibrator Bowl and vater the Vibrator Sensor Indicator. Now adjust the Vibrator Speed Lintrol from slow to fast and back. If you feel no change in the intensity on the bowl or see any change in the intensity on the Vibrator Sensor Indicator, replace the Vibrator Speed Control located in the Control Console. If a change in the intensity is present proceed to the extraction.
		(B) Vibrator Speed Control.	(B) ^T urn the power off and remove the Vibrator Bowl. Now remove the 'ibrator Shroud and inspect the springs (leaf springs) and the weld- nents for any damage. If there is no apparent damage proceed to the next step.
	C	(C) Vibritor acinstinent.	(C) To adjust the Vibrator Base loosen the set screws on the side of the Vibrator Base. Now locate the two adjustment bolts under the Vibrator Base. Turn both adjustment bolts in the same direction at very small increments. If the problem does not improve repeat the procedure in the opposite direction. (The top of the Vibrator Coil should be approximately 1/64 of an inch or less from Vibrator Base Top Plate) If this procedure does not improve the problem replace the Vibrator Springs.

- 1. The Feed Reed Switch is a safety that will not allow the machine to operate if the feed cylinder is not fully retracted. The Feed Meed Switch is located on the Feed Cylinder. To check that the Feed Reed Switch is positioned properly, loosen the set screws and put an Ohm meter on terminals 7 and 9 in the trolley. Slide the Feed Reed a vitch back and forth until continuity is indicated, then tighten the set screws.
- 2. Check that the Air Regulator is set for 80 psi. Mounted on the top of the Trolley are two Adjustable Exhaust Mufflers. The front one adjust the speed of the Dwell Cylinder moving down and the rear one adjust the speed up. These mufflers can become restricted or loose. If machine is sluggish or starts slamming down, adjust these mufflers accordingly.
- 3. The First Pulse Reed Switch is located in the middle of the Dwell cylinder.
- **4.** To check that the Dwell Reed Switch is positioned properly, loosen the set screws and put an Ohm meter on terminals 6 and 11. Slide the Dwell Reed Switch up and down until continuity is indicated, then tighten the set screws.
- 5. Mounted on the Feed Cylinder is a Feed Speed Control. The Feed Speed Control adjusts how fast the Pusher with Pawl moves in and out. If adjusted too fast the pins may be tossed past the tip, if adjusted too slow the pins will not be placed on the tip.

PARTS LIST

17079 Withrator front 17085 Air hose 30" natural 17085 Mela esemicak 17180 Lower weld tip plates 17190 Lower weld tip plates 17191 Lower weld tip plates 17191 Lower weld tip plates 17192 Lower weld tip plates 17192 Lower weld tip plates 17193 Frack casting spacers and screws 17201 Vibrator bowl spring set 17201 Vibrator sensor cod 17201 Vibrator sensor cod 17201 Vibrator sensor cod 17201 Vibrator sensor cod 17201 User common set common sensor cod 17201 User common set common set common sensor cod 17201 User common set com		
17084 Air hose 3/8" natural 17085 Male camilock 17188 Upper weld tip plates 17191 Upper weld tip plates 17191 Upper weld tip plates 17192 Upper weld tip 17192 Lower weld tip 17192 Lower weld tip 17193 Frack casting spacers and screws 17203 Fiber insulator 17223 Fiber insulator 17224 Divartor bowl spring set 17225 Fiber insulator 17226 Prake (winder 17227 Lower weld cylinder bracket 17237 Lower well cylinder bracket 17238 Fred Salenoid 17240 Divartor speed control 17251 Lower well cylinder bracket 17253 Vibrator speed control 17255 Vibrator line cord 17255 Vibrator line cord 17256 Lower track casting 17261 Lower track casting 17261 Lower track casting 17276 Lower bearing 17277 Lower bearing 17278 Steel track 17288 Trigger actuator switch 17288 Trigger actuator plug 17288 Trigger actuator switch 17288 Trigger actuator switch 17288 Trigger actuator switch 17288 Trigger actuator switch 17289 Trigger actuator switch 17280 Trigger actuator switch 17280 Trigger actuator plug 17280 Trigger actuator plug 17281 Trend speed control 17292 Protect unimper stop 1730 Dwell timer 17317 Fend speed control 17318 Dwell timer 17319 Dwell timer 17319 Dwell timer 17310 Dwell timer 17311 Fend speed control 17322 Frost unimper stop 17333 Autofvand plu switch 17334 Autofvand plu switch 17335 Pressure switch 17340 Vibrator potentiometer 17341 Vibrator potentiometer 17341 Vibrator potentiometer 17342 Protessure switch 17352 Upper bearing 1736 Dwell read witch 1736 Dwell read switch 1737 Actuator persentale 1738 Fred speed control 1739 Autofvand plu switch 1736 Dwell read switch 1736 Dwell read switch 1736 Dwell read switch 1736 Dwell read switch 1737 Air regulator		
17185 Male camlock 17180 Lower weld tip plates 17190 Lower weld tip plates 17191 Upper weld tip 17192 Lower weld tip 17192 Lower weld tip 17192 Lower weld tip 17196 Track casting spacers and sorews 17201 Vibrator bowl spring set 17201 Vibrator bowl spring set 17202 Low Voltage Terminal Strip 17222 Low Voltage Terminal Strip 17231 Dwell cylinder 17231 Dwell cylinder bracket 17231 Dwell cylinder bracket 17237 Lower dwell cylinder bracket 17237 Lower dwell cylinder bracket 17238 Vibrator speed control 17240 Dwell solenoid 17240 Dwell solenoid 17240 Dwell solenoid 17240 Wibrator speed control 17250 Vibrator speed control 17250 Vibrator speed control 17251 Upper bearing 17261 Lower bearing 17276 Upper bearing 17277 Upper bearing 17278 Steel track 17278 Steel track 17288 Fact switch plug 17299 Brake pad 17291 Front bumper stop 17292 Freed spinder benefit 17312 Well timer 17313 Dwell timer 17314 Vibrator represense 17323 Short cycle relay 17324 Actuator records 17335 Dwell relay 1734 Actuator records 17340 Vibrator coll cambel place 17341 Vibrator coll cambel place 17342 Freed spinder benefit 17343 Autopland gun switch 17344 Vibrator coll cambel place 17345 Dwell timer 17346 Feed chamnel place 17347 Vibrator coll cambel place 17348 Fact insulator 17349 Feed speed control 17349 Feed speed control 17341 Vibrator propers spinds 17342 Feed speed control 17343 Autopland gun switch 17344 Vibrator coll cambel place 17345 Dwell timer 17346 Feed cylinder 17347 Alucophanie place 17348 Feed cylinder 17349 Dwell cambel place 17349 Power pack cover 17355 Dwell read switch 17364 Feed cylinder 17375 Lower Mandrel 17376 Lower Mandrel 17377 Alucophanie place 17378 Proteswitch 17378 Lower dwe		17395 Lower ground bar
17185 Male camlock 17180 Lower weld tip plates 17190 Lower weld tip plates 17191 Upper weld tip 17192 Lower weld tip 17192 Lower weld tip 17192 Lower weld tip 17196 Track casting spacers and sorews 17201 Vibrator bowl spring set 17201 Vibrator bowl spring set 17202 Low Voltage Terminal Strip 17222 Low Voltage Terminal Strip 17231 Dwell cylinder 17231 Dwell cylinder bracket 17231 Dwell cylinder bracket 17237 Lower dwell cylinder bracket 17237 Lower dwell cylinder bracket 17238 Vibrator speed control 17240 Dwell solenoid 17240 Dwell solenoid 17240 Dwell solenoid 17240 Wibrator speed control 17250 Vibrator speed control 17250 Vibrator speed control 17251 Upper bearing 17261 Lower bearing 17276 Upper bearing 17277 Upper bearing 17278 Steel track 17278 Steel track 17288 Fact switch plug 17299 Brake pad 17291 Front bumper stop 17292 Freed spinder benefit 17312 Well timer 17313 Dwell timer 17314 Vibrator represense 17323 Short cycle relay 17324 Actuator records 17335 Dwell relay 1734 Actuator records 17340 Vibrator coll cambel place 17341 Vibrator coll cambel place 17342 Freed spinder benefit 17343 Autopland gun switch 17344 Vibrator coll cambel place 17345 Dwell timer 17346 Feed chamnel place 17347 Vibrator coll cambel place 17348 Fact insulator 17349 Feed speed control 17349 Feed speed control 17341 Vibrator propers spinds 17342 Feed speed control 17343 Autopland gun switch 17344 Vibrator coll cambel place 17345 Dwell timer 17346 Feed cylinder 17347 Alucophanie place 17348 Feed cylinder 17349 Dwell cambel place 17349 Power pack cover 17355 Dwell read switch 17364 Feed cylinder 17375 Lower Mandrel 17376 Lower Mandrel 17377 Alucophanie place 17378 Proteswitch 17378 Lower dwe	17084 Air hose 3/8" natural	18056 Locking knoh
1719B Upper weld tip plates 17191 Upper weld tip plates 17191 Upper weld tip 1719E Track casting spacers and screws 17201 Vibrator bowl spring set 17203 Fiber insulator 17203 Fiber insulator 17203 Fiber insulator 17203 Brake cylinder 17203 Brake cylinder 17203 Brake cylinder 17204 Upper well cylinder bracket 17205 Upper dwell cylinder bracket 17207 Upper well cylinder bracket 17208 Upper dwell cylinder bracket 17209 Feed Solenoid 17200 Wibrator speed control 17200 Vibrator support casting 17200 Vibrator speed control 17200 Vibrator support casting 17200 Vibrator potentiometer knob 17200 Vibrator potentiometer knob 17200 Vibrator bowl casting 17200 Vibrator support casting 17200 Vibrator		27212 Eluch mount comlock
17190 Lower weld tip plates 39306 Incoming Voltage Select Switch 17191 Upper weld tip 39353 Anti-Friction strip 39359 Feed Channel Spacer 39591 C Clip 40102 Air hose 3/8" blue 40105 Air hose 1/4" blue 40106 Air hose 1/4" blue 40107 Air hose 1/4" blue 40107 Air hose 1/4" blue 40107 Vibrator sensor cold 40107 Vibrator sensor cold 40107 Vibrator sensor cold 40107 Vibrator sensor hose to the total cold of the tot		
17191 Upper weld tip 39353 Anti-friction strip 17192 Lower weld tip 39355 Feed Channel Spacer 17201 Vibrator bowl spring set 40105 Air hose 1/4* yellow 40105 Air hose 1/4* blue 40107 Vibrator sensor oold 40105 Air hose 1/4* blue 40107 Vibrator sensor oold 40107 Vibrator sensor oold 40107 Vibrator sensor oold 40107 Vibrator sensor oold 40107 Vibrator sensor bracket 4000 Vibrator sensor bracket 4000 Vibrator sensor bracket 4000 Vibrator sensor bracket 4000 Vibrator system 40106 Vibrator system 40107 Vibrator fise and bracket 4000 Vibrator system 40107 Vibrator fise and bracket 4000 Vibrator system 40107 Vibrator fise and bracket 4000 Vibrator fise and bracket 4000 Vibrator system 4000 Vibrator fise and bracket 4000 Vibrator system 4000 Vibrator fise and bracket 4000 Vibrator system 4000 Vibrator fise and bracket 4000 Vibrator fise and bracket 4000 Vibrator system 4000 Vi	1/189 Upper weld tip plates	
17191 Upper weld tip 39353 Anti-friction strip 17198 Track casting spacers and screws 17201 Ubrator bowl spring set 17201 Ubrator bowl spring set 40105 Air hose 3/8" blue 40105 Air hose 1/4" blue 40107 Air hose 3/8" blue 40105 Air hose 3/8" blue 40105 Air hose 1/4" blue 40107 Ubrator sensor co d 40105 Air hose 1/4" blue 40107 Ubrator sensor co d 40105 Ubrator sensor bracket 40115 Ubrator sensor bracket 40107 Ubrator potentiometer knob 40117 Ubrator sensor bracket 40107 Ubrator potentiometer knob 40117 Ubrator potentiometer knob 40117 Ubrator potentiometer knob 40117 Ubrator potentiometer 40107 Ubrator power switch 40107 Ubrator power switch 40107 Ubrator power switch 40107 Ubrator	17190 Lower weld tip plates	39306 Incoming Voltage Select Switch
17192 Lower weld tip 39355 Feed Channel Spacer 17198 Track casting spacers and screws 39891 C Clip 17201 Vibrator bowl spring set 40102 Air hose 3/8" blue 41010 Air hose 1/4" blue 17222 Low Voltage Terminal Strip 40106 Air hose 1/4" blue 41016 Air hose 1/4" blue	17191 Unner weld tin	39353 Anti-friction etrin
1798 Track casting spacers and screws 17201 Clip	17101 Opper Weld dip	00000 F 101 10
17201 Vibrator bowl spring set 40102 Air hose 3/8* blue 17202 Low Voltage Terminal Strip 40106 Air hose 1/4* blue 17231 Dwell cylinder 44001 Vibrator sensor ond 17235 Lower dwell cylinder bracket 44002 Vibrator sensor 17237 Lower dwell cylinder bracket 44003 Vibrator sensor 17237 Lower dwell cylinder bracket 44005 Vibrator sensor 17240 Dwell solenoid 44006 Vibrator sensor beacket 17250 Vibrator speed control 44000 Vibrator sensor bracket 17255 Vibrator line cord 44009 Upper rot d track casting 17261 Lower track casting 44011 Lower track casting 17265 Feed cylinder bracket 44024 Main power switch 17269 Feed cylinder bracket 44024 Main power switch 17277 Lower bearing 44024 Main power switch 17278 Steel track 44031 Vibrator potentiometer knob 17278 Steel track 44031 Vibrator potentiometer knob 17278 Tower bearing 44032 Vibrator switch 17281 Fingger actuator switch 44031 Vibrator potentiometer 17286 Footswitch plug 44031 Vibrator power switch 17281 Footswitch plug 44031 Vibrator sensor 17291 Front bumper		
17201 Vibrator bowl spring set 40102 Air hose 3/8" blue 17202 Low Voltage Terminal Strip 40106 Air hose 1/4" blue 17231 Dwell cylinder 44001 Vibrator sensor oold 17231 Dwell cylinder bracket 44002 Vibrator sensor 17237 Lower dwell cylinder bracket 44003 Vibrator sensor bracket 17237 Lower dwell cylinder bracket 44005 Vibrator sensor 17240 Dwell solenoid 44006 Vibrator sensor bracket 17250 Vibrator speed control 44008 Upper dot drack casting 17255 Vibrator line cord 44009 Upper beraid that cast die rails 17266 Feed cylinder bracket 44024 Man power switch 17265 Feed cylinder bracket 44024 Man power switch 17266 Feed cylinder bracket 44027 Weld potentiometer knob 17277 Lower bearing 44028 Relay selector switch 17278 Steel track 44031 Vibrator potentiometer knob 17278 Steel track 44031 Vibrator potentiometer knob 17278 Tower bearing 44032 Vibrator switch 17281 Fingger actuator switch 44031 Vibrator potentiometer 17286 Footswitch plug 44031 Vibrator power switch 17281 Feet sumper stop 44041 Line cord 17291	17198 Track casting spacers and screws	39691 C Clip
17203 Fiber insulator 40 105 Air hose 1/4" yellow 17230 Brake cylinder 44001 Air hose 1/4" blue 17231 Dwell cylinder 44002 Vibrator sensor co.id 44001 Vibrator sensor co.id 44002 Vibrator sensor co.id 44002 Vibrator sensor 17236 Lower dwell cylinder bracket 44003 Vibrator sensor bracket 44005 Vibrator sensor bracket 17239 Feed solenoid 44006 Vibrator sensor bracket 17239 Feed solenoid 44006 Vibrator sensor bracket 17250 Vibrator seped control 44008 Upper read side rails 17257 Vibrator support casting 44004 Upper read side rails 17257 Vibrator support casting 44011 Lower track casting 44011 Lower track casting 44025 Lower track side rails 17276 Upper bearing 44025 Lower track side rails 17277 Lower bearing 44025 Lower track side rails 17278 Steel track 44025 Lower track side rails 17278 Steel track 44025 Lower track side rails 14027 Vibrator potentiometer knob 17288 Trigger actuator assembly 44031 Vibrator potentiometer 44031 Vibrator potentiometer 44032 Vibrator potentiometer 44032 Vibrator potentiometer 44033 Vibrator potentiometer 44033 Vibrator potentiometer 44033 Vibrator potentiometer 44033 Vibrator potentiometer 44034 Vib	17201 Vibrator howl spring set	40102 Δir hose 3/8" blue
17222	17202 Fiber inculator	10105 Air hose 1/4" vollow
17230 Brake cylinder 44001 Vibrator sensor of d 17236 Upper dwell cylinder bracket 44002 Vibrator sensor bracket 17237 Lower dwell cylinder bracket 44005 Vibrator sensor bracket 17239 Feed solenoid 44005 Vibrator sensor bracket 17240 Dwell solenoid 44007 Vibrator sensor bracket 17250 Vibrator support casting 44007 Vibrator flee-and bracket 17257 Vibrator support casting 44009 Upper bead track casting 17268 Feed channel 44024 Vibrator support casting 17269 Feed channel 44025 LSS display 17276 Lower track casting 44024 Vibrator support casting 17277 Lower bracket 44024 Vibrator support casting 17278 Feed cylinder bracket 44027 Vibrator support casting 17279 Lower bearing 44027 Vibrator support casting 17271 Lower bearing 44027 Vibrator support casting 17272 Lower support castende		40103 All Hose 1/4 yellow
17231 Dwell cylinder		
17231 Dwell cylinder	17230 Brake cylinder	44001 Vibrator sensor cold
17236 Upper dwell cylinder bracket 17237 Lower dwell cylinder bracket 17239 Feed solenoid 17240 Well solenoid 17250 Well solenoid 17250 Well solenoid 17250 Welpator speed control 17250 Welpator speed control 17251 Welpator speed control 17251 Welpator support casting 17251 Welpator support suppor		
17237 Löwer dwell cylinder bracket 44005 Vibrator screet guard 17240 Dwell solenoid 44007 Vibrator fise and bracket 17250 Vibrator ine cord 44008 Upper to ack sating 17257 Vibrator support casting 44009 Upper crack side rails 17266 Feed channel 44024 Mail Dwer crack casting 17266 Feed channel 44024 Mail Dwel potentiometer knob 17260 Feed channel 44025 LeG display 17271 Lower bearing 44027 Vibrator potentiometer knob 17276 Upper bearing 44028 Leg selector switch 17277 Lower bearing 44028 Leg selector switch 17278 Steel track 44031 Vibrator potentiometer knob 17281 Tigger actuator ssembly 44031 Vibrator potentiometer 17284 Trigger actuator switch 44033 Vibrator power switch 17285 Fostswitch plug 44033 Vibrator power switch 17280 Rate pad 44033 Vibrator power switch 17291 Rare bumper stop 44041 Line cord 17291 Front bumper stop 44042 Line cord strain relief 17302 Weld timer 44052 Pubrator switch 17317 Feed speed control 44052 Pubrator switch 17323 Short cycle relay 44062 Pubrator switch<	17006 Upper dwell cylinder breeket	44000 Vibratar sancar base at
17239 Feed solenoid 44006 Vibrator speed control 17250 Vibrator speed control 44008 Uppen feed vibrator speed control 17257 Vibrator speed control 44008 Uppen feed vibrator side rails 17257 Vibrator support casting 44019 Uppen feed vibrator side rails 17261 Cover track casting 44012 Leve or ack side rails 17265 Feed channel 44025 LeV display 17265 Feed channel 44027 Use of vibrator switch 17276 Upper bearing 44027 Vibrator switch 17277 Lower bearing 44027 Vibrator switch 17278 Steel track 44037 Vibrator switch 17283 Trigger actuator switch 44032 Vibrator lamp 17286 Feed channel 44033 Vibrator lamp 17288 Footswitch plug 44032 Vibrator lamp 17280 Steek pad 44034 Weld lamp 17281 Front bumper stop 44041 Mach II weld transformer 17281 Front bumper stop 44042 Line cord 17281 Front bumper stop 44042 Line cord 17281 Feed speed co		44003 Vibrator Sensor bracket
17239 Feed solenoid 44006 Vibrator speed control 17250 Vibrator speed control 44008 Uppen feed vibrator speed control 17257 Vibrator speed control 44008 Uppen feed vibrator side rails 17257 Vibrator support casting 44019 Uppen feed vibrator side rails 17261 Cover track casting 44012 Leve or ack side rails 17265 Feed channel 44025 LeV display 17265 Feed channel 44027 Use of vibrator switch 17276 Upper bearing 44027 Vibrator switch 17277 Lower bearing 44027 Vibrator switch 17278 Steel track 44037 Vibrator switch 17283 Trigger actuator switch 44032 Vibrator lamp 17286 Feed channel 44033 Vibrator lamp 17288 Footswitch plug 44032 Vibrator lamp 17280 Steek pad 44034 Weld lamp 17281 Front bumper stop 44041 Mach II weld transformer 17281 Front bumper stop 44042 Line cord 17281 Front bumper stop 44042 Line cord 17281 Feed speed co		44005 Vibrator socket
17240 Dwell solenoid 44007 Vibrator fuse, and bracket 17255 Vibrator line cord 44008 Upper, and track casting 17257 Vibrator support casting 44001 Upper, and track casting 17261 Lower track casting 44011 Isswer track cast die rails 17261 Lower track casting 44024 Visit power switch 17265 Feed channel 44024 Visit power switch 17266 Ged channel 44024 Visit power switch 17276 Upper bearing 44024 Visit power switch 17277 Lower bearing 44027 Vivel potentiometer knob 17277 Lower bearing 44027 Vivel potentiometer knob 17278 Steel track 44031 Vibrator power switch 17285 Trigger actuator sasembly 44031 Vibrator power switch 17286 Fostswitch plug 44033 Vibrator power switch 17286 Fostswitch plug 44034 Vibrator power switch 17291 Front bumper stop 44041 L	17239 Feed solenoid	44006 Vibrator sucket quard
17250 Vibrator speed control 17257 Vibrator support casting 17251 Vibrator support casting 17261 Lower track casting 17262 Feed channel 17263 Feed cylinder bracket 17264 Upper brack to the track casting 17275 Lower bearing 17275 Lower bearing 17276 Lower bearing 17277 Lower bearing 17277 Lower bearing 17278 Steel track 17283 Trigger actuator assembly 17284 Trigger actuator assembly 17285 Footswitch plug 17286 Footswitch plug 17287 Footswitch plug 17288 Trigger actuator plug 17289 Trigger actuator plug 17289 Trigger actuator plug 17280 Brake pad 17281 Front bumper stop 17291 Front bumper stop 17317 Feed speed control 17317 Feed speed control 17318 Feed timer 17319 Dwell timer 17319 Dwell timer 17325 Fressure switch 17325 Fressure switch 17326 Footswitch re-petacle 17327 Actuator recordiale 17338 Vibrator base springs 17339 Virgin base plate 17330 Virgin base plate 17330 Virgin base plate 17331 Pusher and pawl 17332 Freed channel plate 17333 Freed channel plate 17334 Vibrator base springs 17335 Feed channel plate 17336 Adjustable muffler 17337 Feed switch 17338 Virgin base plate 17339 Virgin base plate 17330 Virgin base plate 17330 Virgin base plate 17331 Pusher and pawl 17332 Freed channel plate 17333 Freed channel plate 17336 Feed channel plate 17337 Feed switch 17336 Feed channel plate 17337 Virgin base plate 17338 Virgin base plate 17339 Virgin base plate 17330 Virgin base plate 17331 Pusher and pawl 17332 Freed channel plate 17333 Freed channel plate 17336 Feed channel plate 17337 Feed switch 17336 Feed channel plate 17337 Feed switch 17337 Feed switch 17338 Virgin base plate 17339 Virgin base plate 17339 Virgin base plate 17330 Virgin base plate 17331 Virgin base plate 17332 Virgin base plate 17333 Virgin base plate 17334 Virgin base plate 17335 Pressure switch 17336 Feed channel plate 17337 Virgin base plate 17338 Virgin base plate 17339 Virgin base plate 17339 Virgin base plate 17330 Virgin base plate 17331 Virgin base plate 17332 Virgin base plate 17333 Virgin base plate 17340 Virgin base plate 17351 Vir		
17255 Vibrator line cord 17261 Lower track casting 17261 Lower track casting 17266 Feed channel 17269 Feed cylinder bracket 17269 Feed cylinder bracket 17276 Upper bearing 17276 Upper bearing 17277 Lower bearing 17278 Steel track 17283 Trigger actuator assembly 17284 Trigger actuator switch 17285 Footswitch plug 17286 Footswitch plug 17287 Footswitch plug 17288 Trigger actuator plug 17289 Fresure switch 17280 Frake pad 17291 Rear bumper stop 17291 Rear bumper stop 17302 Weld timer 17317 Feed speed control 17317 Feed speed control 17318 Feed timer 17319 Dwell timer 17319 Short cycle relay 17323 Short cycle relay 17324 Actuator recordable 17325 Vibrator base springs 17326 Vibrator base springs 17327 Vibrator base springs 17338 Vibrator power switch 17339 Vibrator power switch 17339 Vibrator power switch 17330 Vibrator power supply 17319 Short cycle relay 17310 Weld cable - short 17321 Frest Pulse relay 17322 Short cycle relay 17333 Vibrator power switch 17334 Actuator recordable 17335 Vibrator base springs 17340 Vibrator base springs 17340 Vibrator coil 17351 Feed channel plate 17352 Quick exhaust valve 17353 First pulse read switch 17353 First pulse read switch 17354 Adjustable muffler 17355 Quick exhaust valve 17356 Adjustable muffler 17367 Feed cohennel plate 17368 First pulse read switch 17368 First pulse read switch 17369 Feed channel plate 17360 Dwell read switch 17361 Feed channel plate 17362 First pulse read switch 17363 Feed channel plate 17364 Adjustable muffler 17365 Peed cread switch 17366 Lower Mandrel 17376 Lower Mandrel 17377 Air regulator 17371 Air regulator 17377 Air regulator 17377 Actuator swind bolt 17377 Air regulator 17377 Air regulator		44007 VIDI act. It se allu bi acket
17257 Vibrator support casting 17261 Lower track casting 17268 Feed channel 17269 Feed channel 17270 Lupper bearing 17271 Lower bearing 17271 Lower bearing 17272 Steel track 17273 Steel track 17274 Lupper bearing 17275 Steel track 17275 Steel track 17276 Trigger actuator assembly 17281 Trigger actuator assembly 17281 Trigger actuator witch 17286 Actuator mounting plate 17286 Feotswitch plug 17287 Trigger actuator plug 17288 Trigger actuator plug 17288 Trigger actuator plug 17289 Trigger actuator plug 17290 Brake pad 17291 Font bumper stop 17291 Fear bumper stop 17392 Weld timer 17393 Weld timer 17393 Short cycle relay 17393 Short cycle relay 17394 Feet spreadel 17395 Pressure switch 17397 Actuator recordacle 17398 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 Upper bearing 17393 Feed timer 17394 Vibrator base springs 17395 Vibrator base springs 17395 Vibrator base springs 17396 Vibrator base springs 17397 Feed camend plate 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 Feed channel plate 17393 First pulse relatior 17394 Vibrator coil 17395 Vibrator base springs 17396 Adjustable muffler 17397 Feed cower 17398 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17393 First pulse read switch 17393 First pulse read switch 17395 Vibrator base springs 17396 Vibrator base springs 17397 Feed cower 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17393 First pulse read switch 17394 Vibrator base springs 17395 Vibrator base springs 17396 Vibrator base springs 17397 Pusher and pawl 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17396 Vibrator base springs 17397 Pusher	1/250 Vibrator speed control	44008 Upper total track casting
17257 Vibrator support casting 17261 Lower track casting 17268 Feed channel 17269 Feed channel 17270 Lupper bearing 17271 Lower bearing 17271 Lower bearing 17272 Steel track 17273 Steel track 17274 Lupper bearing 17275 Steel track 17275 Steel track 17276 Trigger actuator assembly 17281 Trigger actuator assembly 17281 Trigger actuator witch 17286 Actuator mounting plate 17286 Feotswitch plug 17287 Trigger actuator plug 17288 Trigger actuator plug 17288 Trigger actuator plug 17289 Trigger actuator plug 17290 Brake pad 17291 Font bumper stop 17291 Fear bumper stop 17392 Weld timer 17393 Weld timer 17393 Short cycle relay 17393 Short cycle relay 17394 Feet spreadel 17395 Pressure switch 17397 Actuator recordacle 17398 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 Upper bearing 17393 Feed timer 17394 Vibrator base springs 17395 Vibrator base springs 17395 Vibrator base springs 17396 Vibrator base springs 17397 Feed camend plate 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 Feed channel plate 17393 First pulse relatior 17394 Vibrator coil 17395 Vibrator base springs 17396 Adjustable muffler 17397 Feed cower 17398 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17393 First pulse read switch 17393 First pulse read switch 17395 Vibrator base springs 17396 Vibrator base springs 17397 Feed cower 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17393 First pulse read switch 17394 Vibrator base springs 17395 Vibrator base springs 17396 Vibrator base springs 17397 Pusher and pawl 17398 Vibrator base springs 17399 Vibrator base springs 17399 Vibrator base springs 17390 Vibrator base springs 17391 Pusher and pawl 17392 First pulse read switch 17396 Vibrator base springs 17397 Pusher	17255 Vibrator line cord	44009 Upper track side rails
17261 Lower track casting 44024 Main power switch 17265 Feed channel 44025 LCS display 17276 Upper bearing 44027 Weld potentiometer knob 17278 Lower bearing 44027 Weld potentiometer knob 17278 Steel track 44027 Weld potentiometer knob 17278 Steel track 44027 Weld potentiometer knob 17278 Steel track 44027 Weld potentiometer knob 17285 Trigger actuator assembly 44037 Vibrator potentiometer knob 17286 Fostswitch regent actuator switch 44037 Wibrator potentiometer knob 17286 Actuator mounting plate 44032 Vibrator potentiometer knob 17287 Fostswitch plug 44032 Vibrator potentiometer 17288 Fostswitch plug 44033 Wibrator potentiometer 17289 Fase actuator switch 44034 Weld lamp 17281 Fase pad 44047 Weld lamp 17291 Fost pad 44040 Machil levid transform	17257 Vibrator support casting	44011 Lower track side rails
17266 Feed channel 44025 LCE display 17276 Upper bearing 44027 Vibrator potentiometer knob 17277 Uwer bearing 44027 Vibrator potentiometer knob 17278 Steel track 4030 Troubleshooting LED display 17283 Trigger actuator assembly 44031 Vibrator potentiometer 17286 Actuator mounting plate 44032 Vibrator lamp 17288 Frostwitch plug 44034 Weld lamp 17289 Brake pad 44037 Power pack cover 17291 Froat bumper stop 44041 Line cord 17291 Front bumper stop 44042 Line cord strain relief 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17323 Short cycle relay 44063 Weld cable - short 17325 Fressure switch 44063 Weld cable - short 17327 Footswitch released 44064 Weld cable retainer block 17		
17268 Feed cylinder bracket 440.7 Weld potentiometer knob 17277 Loper bearing 440.7 Vibrator potentiometer knob 17278 Lower bearing 14029 Relay selector switch 17283 Trigger actuator assembly 44031 Vibrator potentiometer 17284 Trigger actuator switch 44032 Vibrator lamp 17285 Actuator mounting plate 44033 Vibrator power switch 17286 Footswitch plug 44034 Weld lamp 17288 Frost bumper stop 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord strain relief 17291 Feed speed control 44052 Line cord strain relief 17302 Weld timer 44053 Weld relay 17317 Feed speed control 44053 Weld relay 17318 Feed speed control 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17325 Fresure switch 44060 Weld cable - short 17326		44024 Wall power Switch
17276 Upper bearing 44027 Vibrator patentiometer knob 17277 Lower bearing 14028 Relay selector switch 17283 Trigger actuator assembly 44031 Vibrator potentiometer 17284 Trigger actuator switch 44032 Vibrator power switch 17286 Actuator mounting plate 44032 Vibrator power switch 17288 Frigger actuator plug 44034 Weld lamp 17289 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord strain relief 17302 Weld timer 44042 Line cord strain relief 17317 Feed speed control 44052 12 VDC power supply 17318 Feed speed control 44053 Weld cable - short 17319 Dwell timer 44053 Weld cable - short 17323 Bnort cycle relay 44060 Weld cable - short 17323 Bnort cycle relay 44061 Weld cable - short 17325 Pressure switch 44062 Weld cable ret		44025 LCS display
17276 Upper bearing 44027 Vibrator patentiometer knob 17277 Lower bearing 14028 Relay selector switch 17283 Trigger actuator assembly 44031 Vibrator potentiometer 17284 Trigger actuator switch 44032 Vibrator power switch 17286 Actuator mounting plate 44032 Vibrator power switch 17288 Frigger actuator plug 44034 Weld lamp 17289 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord strain relief 17302 Weld timer 44042 Line cord strain relief 17317 Feed speed control 44052 12 VDC power supply 17318 Feed speed control 44053 Weld cable - short 17319 Dwell timer 44053 Weld cable - short 17323 Bnort cycle relay 44060 Weld cable - short 17323 Bnort cycle relay 44061 Weld cable - short 17325 Pressure switch 44062 Weld cable ret	17269 Feed cylinder bracket	44027 Weld potentiometer knob
17277 Lower bearing 17278 Steel track 17283 Trigger actuator assembly 17284 Trigger actuator switch 17285 Trigger actuator switch 17286 Trigger actuator switch 17287 Trigger actuator switch 17288 Footswitch plug 17288 Trigger actuator plug 17288 Trigger actuator plug 17289 Brake pad 17290 Brake pad 17291 Front bumper stop 17291 Front bumper stop 17291 Front bumper stop 17302 Weld timer 17312 Weld timer 17313 Dwell timer 17315 Peed speed control 17323 Short cycle relay 17323 Short cycle relay 17325 Fressure switch 17327 Actuator receptacle 17334 Auto/and_un switch 17338 Vibrator base springs 17340 Vibrator base springs 17341 Vibrator base springs 17352 Upper tip retainer 17353 Upper tip retainer 17354 Vibrator base springs 17355 Vibrator base springs 17356 Adjustable muffler 17368 Vibrator bowl for 2 inch pins 17368 Vibrator bowl for 2 inch pins 17377 Air regulator 17377 Actuator switch 17361 Cover Mandrel 17377 Actuator switch 17362 Vibrator bowl for 2 inch pins 17377 Air regulator 17377 Air regulator 17377 Actuator switch 17378 Vibrator bowl for 2 inch pins 17377 Actuator switch box Vibrator Control Relay Board 17377 Actuator switch box Vibrator Control Relay Board 17377 Actuator switch box Vibrator Control Relay Board 17377 Actuator switch box Vibrator Switch box Vibrator Switch box Vibrator Switch 17377 Actuator switch box Vibrator Switch bo	17276 Unner hearing	44097 Wihrator notentiometer knob
17278 Steel track 44030 Troubleshooting LED display 17284 Trigger actuator assembly 44031 Vibrator potentiometer 17286 Actuator mounting plate 44033 Vibrator power switch 17288 Footswitch plug 44034 Weld lamp 17280 Trake pad 44037 Power pack cover 17291 Rear bumper stop 44041 Line cord transformer 17391 Front bumper stop 44042 Line cord transformer 17302 Weld timer 44053 Vibrator bower contactor 44041 Line cord transformer 17301 Feed speed control 44053 Veld relay 44053 Veld relay 44053 Veld cable - short 44053 Veld cable - short Veld cable - short 44053 Veld cable - stain relief 44053 Veld cable - st	17077 Lower bearing	14000 Delevised services
17283 Trigger actuator assembly 44031 Vibrator potentiometer 17286 Actuator mounting plate 44032 Vibrator power switch 17288 Trigger actuator plug 44034 Weld lamp 17288 Trigger actuator plug 44037 Power pack cover 17290 Brake pad 44040 Mach II weld transformer 17291 Front bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17323 Short cycle relay 44053 Power bar 17324 Actuator secretal 44061 Weld cable - short 17327 Actuator secretal 44062 Trolley mounting plate 17334 Autor/sand sun switch <td>1/2// Lower bearing</td> <td>14029 Relay selector switch</td>	1/2// Lower bearing	14029 Relay selector switch
17283 Trigger actuator assembly 44031 Vibrator lamp 17286 Actuator mounting plate 44032 Vibrator power switch 17288 Footswitch plug 44033 Vibrator power switch 17288 Trigger actuator plug 44037 Power pack cover 17290 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17319 Dwell timer 44053 Weld cable - short 17323 Short cycle relay 44053 Weld cable - short 17323 Fresure switch 44061 Weld cable - short 17327 Actuator econtacle 44062 Trolley mounting plate 17327 Actuator econtacle 44061 Weld cable retainer block 17334		44030 Troubleshooting LED display
17284 Trigger actuator switch 44032 Vibrator lamp 17288 Actuator mounting plate 44033 Vibrator power switch 17288 Footswitch plug 44034 Weld lamp 17280 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord 17291 Front bumper stop 44042 Line cord strain relief 17302 Weld timer 44052 Liv Poor power supply 17318 Feed speed control 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17320 Short cycle relay 44050 Weld cable - short 17319 Dwell timer 44053 Weld relay 17323 Finst Pulse relay 44061 Power bar 17323 Finst Pulse relay 44061 Female cam loc 17327 Actuator recretable 44064 Weld cable retainer block 17327 Fressure switch 44064 Weld cable retainer block 17334 Auto/r	17283 Trigger actuator assembly	44031 Vibrator notentiometer
17286 Actuator mounting plate 44033 Vibrator power switch 17288 Footswitch plug 44034 Weld lamp 17290 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord 17291 Front bumper stop 44042 Line cord strain relief 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44059 Power bar 17323 Short cycle relay 44050 Weld cable - short 17323 First Pulse relay 44061 Female cam loc 17323 First Pulse relay 44061 Female cam loc 17324 Actuator receptacle 44062 Vload cable - short 17325 Fressure switch 44062 Control console 17327 Actuator receptacle 44065 Control console 17324 Autof/sand curs <td></td> <td>14032 Vibrator Jamp</td>		14032 Vibrator Jamp
17288 Footswitch plug 44034 Weld lamp 17280 Trigger actuator plug 44037 Power pack cover 17291 Brake pad 44040 Mach II weld transformer 17291 Fear bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17323 Short cycle relay 44060 Weld cable - short 17323 First Pulse relay 44061 Female cam loc 17325 Pressure switch 44062 Trolley mounting plate 17327 Actuator recrotacle 44062 Weld cable retainer block 17327 Actuator recrotacle 44064 Weld cable retainer block 17338 Vibrator base plate 44065 Mach II power pack 17339 Vibrator bowl 44066 Mach II power pack 17340 Vibr	17204 Higger accuación switch	44002 VIDI acui lallip
17288 Trigger actuator plug 44037 Power pack cover 17291 Rear bumper stop 44040 Mach II weld transformer 17291 Front bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17323 Short cycle relay 44060 Weld cable - short 17325 Pressure switch 44061 Female cam loc 17327 Actuator receptacle 44064 Weld cable retainer block 17334 Autofrand un switch 44065 Control console 17338 Vibrator base plate 44066 Mach II power pack 17334 Vibrator bowl 44067 Flexible wire mold 17340 Vibrator coil 44071 Feed cover 17341 Vibrator base springs 44072 Component module 17352 Pusher an	1/286 Actuator mounting plate	44033 Vibrator power switch
17288 Trigger actuator plug 44037 Power pack cover 17291 Rear bumper stop 44040 Mach II weld transformer 17291 Front bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44053 Weld relay 17323 Short cycle relay 44060 Weld cable - short 17325 Pressure switch 44061 Female cam loc 17327 Actuator receptacle 44064 Weld cable retainer block 17334 Autofrand un switch 44065 Control console 17338 Vibrator base plate 44066 Mach II power pack 17334 Vibrator bowl 44067 Flexible wire mold 17340 Vibrator coil 44071 Feed cover 17341 Vibrator base springs 44072 Component module 17352 Pusher an	17288 Footswitch plug	44034 Weld lamp
17280 Brake pad 44040 Mach II weld transformer 17291 Rear bumper stop 44041 Line cord 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44059 Power bar 17323 Short cycle relay 44060 Weld cable - short 17323 First Pulse relay 44061 Female cam loc 17325 Pressure switch 44061 Female cam loc 17327 Actuator recordsele 44062 Trolley mounting plate 17327 Actuator recordsele 44064 Weld cable retainer block 17334 Auto/rand gun switch 44066 Mach II power pack 17334 Auto/rand gun switch 44067 Flexible wire mold 17339 Vibrator bowl 44067 Flexible wire mold 17340 Vibrator base springs 44070 Weld cable camloc 17341	17288 Trigger actuator plug	44037 Power pack cover
17291 Rear bumper stop 17291 Front bumper stop 17302 Weld timer 17317 Feed speed control 17318 Feed timer 17319 Dwell timer 17323 Short cycle relay 17324 Frostswitch 17327 Actuator recentacle 17327 Actuator switch 17338 Vibrator bose pare 17339 Vibrator bose prings 17340 Vibrator base springs 17341 Vib ster coil 17342 Guick exhaust valve 17345 Feed cover 17356 Adjustable muffler 17363 First pulse reed switch 17363 First pulse reed switch 17363 First pulse reed switch 17364 Feed cover 17365 Vibrator base springs 17366 Feed cover 17367 Feed cover 17368 Vibrator base spring 17368 Vibrator base reed switch 17369 Feed cover 17367 Feed cover 17368 Vibrator base spring 17369 Feed cover 17369 Feed reed switch 17369 Feed cover 17369 Feed cover 17369 Feed cover 17369 Feed reed switch 17369 Feed cover 17369 Feed cover 17369 Feed reed switch 17369 Feed cover 17369 Feed reed switch 17369 Feed cover 17369 Feed reed switch 17369 Feed cover 17369 Feed cover 17369 Feed reed switch 17369 Feed reed switch 17369 Vibrator base spring 17360 Vibrator base spring 17361 Feed cover 17362 Feed cover 17363 First pulse reed switch 17364 Feed cover 17365 Clip pin release spring 17366 Vibrator base spring 17367 Lower Mandrel 17368 Vibrator sowiel bolt 17369 Vibrator Control Relay Board 17370 Ar regulator 17371 Actuator swival bolt	17290 Brake nad	
17281 Front bumper stop 44042 Line cord strain relief 17302 Weld timer 44047 Power contactor 17317 Feed speed control 44052 12 VDC power supply 17318 Feed timer 44053 Weld relay 17323 Short cycle relay 44059 Weld cable - short 17323 First Pulse relay 44060 Weld cable - short 17325 Fressure switch 44061 Female cam loc 17327 Actuator recrutable 44062 Trolley mounting plate 17327 Footswitch receptacle 44065 Control console 17334 Auto/hard un switch 44066 Mach Il power pack 17338 Vibrator base plate 44068 Mach Il power pack 17339 Vibrator base springs 44070 Weld cable camloc 17340 Vibrator base springs 44071 Weld cable camloc 17341 Vibrator base springs 44072 Component module 17342 Vibrator base springs 44073 High voltage terminal strip 17351 Pusher and pawl 44073 High voltage terminal strip 17352 Upper tip retainer 44073 High voltage terminal strip 17355 Quick exhaust valve 44076 Trolley cover 17363 Feed reed switch 44082 Bearing mounting plate 17363 Feed reed switch 44084 Locking knob s		
1730Z Weld timer 44047 Power contactor 17318 Feed speed control 44053 Weld relay 17318 Feed timer 44053 Weld relay 17319 Dwell timer 44059 Power bar 17323 Short cycle relay 44060 Weld cable - short 17325 Pressure switch 44061 Female cam loc 17327 Actuator recrutacle 44062 Trolley mounting plate 17327 Footswitch recreptacle 44063 Weld cable retainer block 17327 Footswitch recreptacle 44064 Weld cable retainer block 17327 Footswitch recreptacle 44065 Mach II power pack 17334 Autor, and un switch 44065 Mach II power pack 17334 Autor, and un switch 44066 Mach II power pack 17338 Vibrator base plate 44066 Mach II power pack 17339 Vibrator base springs 44067 Flexible wire mold 17339 Vibrator base springs 44070 Weld cable camloc <tr< td=""><td>1729 i Rear bumper scop</td><td></td></tr<>	1729 i Rear bumper scop	
17317 Feed speed control 44052 12 VDC power supply 17318 Dwell timer 44053 Weld relay 17323 Short cycle relay 44060 Weld cable - short 17323 First Pulse relay 44061 Female cam loc 17325 Pressure switch 44062 Trolley mounting plate 17327 Pootswitch receptacle 44064 Weld cable retainer block 17327 Footswitch receptacle 44064 Weld cable retainer block 17334 Auto/fand un switch 44066 Mach II power pack 17334 Vibrator base plate 44066 Mach II power pack 17339 Vibrator base plate 44066 Rubber air hose 17340 Vibrator bowl 44070 Weld cable camloc 17341 Vibrator base springs 44071 Feed cover 17342 Vibrator base springs 44072 High voltage terminal strip 17342 Vibrator base springs 44073 High voltage terminal strip 17351 Pusher and pawl 44075 Trolley		44042 Line cord strain relief
17317 Feed speed control 44052 12 VDC power supply 17318 Dwell timer 44053 Weld relay 17323 Short cycle relay 44060 Weld cable - short 17323 First Pulse relay 44061 Female cam loc 17325 Pressure switch 44062 Trolley mounting plate 17327 Pootswitch receptacle 44064 Weld cable retainer block 17327 Footswitch receptacle 44064 Weld cable retainer block 17334 Auto/fand un switch 44066 Mach II power pack 17334 Vibrator base plate 44066 Mach II power pack 17339 Vibrator base plate 44066 Rubber air hose 17340 Vibrator bowl 44070 Weld cable camloc 17341 Vibrator base springs 44071 Feed cover 17342 Vibrator base springs 44072 High voltage terminal strip 17342 Vibrator base springs 44073 High voltage terminal strip 17351 Pusher and pawl 44075 Trolley	17302 Weld timer	44047 Power contactor
17318 Feed timer 44053 Weld relay 17323 Dowlt timer 44059 Power bar 17323 First Pulse relay 44060 Weld cable - short 17325 Pressure switch 44061 Female cam loc 17327 Actuator receptacle 44064 Weld cable retainer block 17327 Footswitch receptacle 44065 Control console 17334 Auto// and gun switch 44066 Mach II power pack 17338 Vicrator base plate 44068 Mach II power pack 17339 Vicrator base plate 44068 Rubber air hose 17340 Vibrator bowl 44070 Weld cable camloc 17341 Vibrator base springs 44071 Feed cover 17342 Vibrator base springs 44072 Component module 17345 Feed channel plate 44073 High voltage terminal strip 17351 Pusher and pawl 44075 Trolley 17352 Upper tip retainer 44076 Trolley cover 17355 Quick exhaust valve 44077 Weld potentiometer 17356 Adjustable muffler 44080 Power bar bracket 17363 Feed reed switch		
17319 Dwell timer 17323 Short cycle relay 17325 First Pulse relay 17326 Pressure switch 17327 Actuator recrutacle 17327 Footswitch receptacle 17338 Vibrator base plate 17339 Vibrator base springs 17341 Vibrator base springs 17342 Vibrator base springs 17343 Vibrator base springs 17344 Vibrator base springs 17345 Upper tip retainer 17356 Adjustable muffler 17356 Adjustable muffler 17363 Peed reed switch 17363 Pirst pulse reed switch 17363 Pirst pulse reed switch 17364 Feed cylinder 17365 Footswitch 17365 Pootswitch 17366 First pulse reed switch 17367 Footswitch 17368 Vibrator bowl 17369 Power bar 144061 Female cam loc 144064 Weld cable retainer block 144065 Control console 144066 Mach II power pack 144066 Mach II power pack 144067 Flexible wire mold 144067 Flexible wire mold 144071 Weld cable camloc 144071 Feed cover 144071 Feed cover 144072 Component module 144073 High voltage terminal strip 17407 Trolley 17407 Trolley 17407 Trolley cover 17408 Trolley cover 17408 Bearing mounting plate 144083 Locking knob spring 17408 Vibrator bowl for 2 inch pins 17408 Vibrator bowl for 2 inch pins 17408 Fiex link 17376 Lower Mandrel 17409 Vibrator Control Relay Board		44050 Wald aslaw
17323 Short cycle relay 17324 First Pulse relay 17325 Pressure switch 17327 Actuator receptable 17327 Footswitch related to the separate short 17328 Vibrator base plate 17339 Vibrator base plate 17340 Vibrator bowl 17341 Vibrator coil 17342 Feed channel plate 173432 Upper tip retainer 17345 Quick exhaust valve 17355 Adjustable muffler 17363 Feed reed switch 17363 Vibrator bowl for 2 inch pins 17364 Flexible related to the short of the separate stop 17365 Qirk exhaust channel plate 17366 Vibrator bowl for 2 inch pins 17367 Air regulator 17377 Air regulator 17391 Actuator swival bolt 44061 Mach II power pack 44065 Control console 44066 Mach II power pack 44067 Flexible wire mold 44067 Flexible wire mold 44068 Rubber air hose 44068 Rubber air hose 44070 Weld cable camloc 44067 Flexible wire mold 44071 Feed cover 44071 Feed cover 44071 Feed cover 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44076 Trolley cover 44076 Trolley cover 44077 Weld potentiometer 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob spring 44085 Clip pin release spring 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44081 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44090 Vibrator Control Relay Board		44053 Weld relay
17323 First Pulse relay 17325 Pressure switch 17327 Actuator receptable 17327 Footswitch receptable 17338 Vibrator base plate 17339 Vibrator bowl 17341 Vibrator base springs 17342 Vibrator base springs 17343 Vibrator base springs 17344 Vibrator base springs 17345 Pusher and pawl 17356 Adjustable muffler 17356 Adjustable muffler 17363 Feed reed switch 17363 First pulse reed switch 17364 First pulse reed switch 17365 Vibrator bowl for 2 inch pins 17366 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17377 Air regulator 17377 Air regulator 17377 Air regulator 17377 Air regulator 17391 Actuator swival bolt 44061 Med cable cam loc 14062 Mach II power pack 44065 Control console 44065 Mach II power pack 44066 Mach II power pack 44067 Flexible wire mold 44067 Weld cable cam loc 44068 Rubber air hose 44070 Weld cable cam loc 44071 Feex cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44076 Trolley cover 44077 Weld potentiometer 44087 Weld potentiometer 44088 Bearing mounting plate 44084 Locking knob spring 44084 Locking knob spring 44085 Clip pin release spring 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44081 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board		
17323 First Pulse relay 17325 Pressure switch 17327 Actuator receptable 17327 Footswitch receptable 17338 Vibrator base plate 17339 Vibrator bowl 17341 Vibrator base springs 17342 Vibrator base springs 17343 Vibrator base springs 17344 Vibrator base springs 17345 Pusher and pawl 17356 Adjustable muffler 17356 Adjustable muffler 17363 Feed reed switch 17363 First pulse reed switch 17364 First pulse reed switch 17365 Vibrator bowl for 2 inch pins 17366 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17377 Air regulator 17377 Air regulator 17377 Air regulator 17377 Air regulator 17391 Actuator swival bolt 44061 Med cable cam loc 14062 Mach II power pack 44065 Control console 44065 Mach II power pack 44066 Mach II power pack 44067 Flexible wire mold 44067 Weld cable cam loc 44068 Rubber air hose 44070 Weld cable cam loc 44071 Feex cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44076 Trolley cover 44077 Weld potentiometer 44087 Weld potentiometer 44088 Bearing mounting plate 44084 Locking knob spring 44084 Locking knob spring 44085 Clip pin release spring 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44081 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board	17323 Short cycle relay	44060 Weld cable - short
17325 Pressure switch 17327 Actuator recontable 17328 Actuator recontable 17339 Auto/rard run switch 17339 Viraror base plate 17340 Vibrator bowl 17341 Vibrator base springs 17342 Peed channel plate 17353 Quick exhaust valve 17353 Quick exhaust valve 17355 Adjustable muffler 17356 Adjustable muffler 17363 Feed reed switch 17363 First pulse reed switch 17365 Vibrator bowl for 2 inch pins 17374 Footswitch 17375 Actuator swival bolt 17375 Control console 44066 Mach II power pack 44067 Flexible wire mold 44068 Rubber air hose 44070 Weld cable camloc 44071 Feed cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley cover 44075 Trolley cover 44076 Vibrator base spring 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Bearing mounting plate 44083 Locking knob spring 44086 Clip pin release spring 44075 Trolley 44076 Trolley cover 44077 Trolley cover 44078 Trolley cover 44078 Trolley cover 44078 Trolley cover 44079 Veld cable camloc 44079 Trolley cover 44075 Trolley cover 44076 Trolley cover 44077 Trolley cover 44077 Trolley cover 44078 Trolley cover 44078 Trolley cover 44079 Trolley cover 44079 Trolley cover 44079 Trolley cover 44075 Trolley 44076 Trolley cover 44076 Trolley cover 44077 Trolley cover 44077 Trolley cover 44078 Clip pin release spring 44080 Clip pin release stop	17323 First Pulse relay	
17327 Actuator recentable 17327 Footswitch receptable 17328 Auto/hand jun switch 17338 Vibrator base plate 17339 Vibrator bowl 17340 Vibrator bowl 17341 Vibrator bowl 17342 Vibrator base springs 17343 Feed channel plate 17345 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17363 Feed reed switch 17363 First pulse reed switch 17363 First pulse reed switch 17364 Feed cylinder 17376 Vibrator bowl for 2 inch pins 17377 Air regulator 17371 Actuator swival bolt 17372 Vibrator swival bolt 17373 Actuator swival bolt 17373 Actuator swival bolt 44066 Mach II power pack 44067 Flexible wire mold 44070 Weld cable camloc 44071 Feed cover 44071 Feed cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob spring 44085 Clip pin release 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44070 Weld cable retainer 44066 Mach II power pack 44068 Nach II power pack 44068 Plexible wire mold 44070 Weld cable camloc 44071 Feed cover 44071 Feed cover 44072 Component module 44075 Trolley 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44081 Locking knob spring 44084 Locking knob spring 44084 Locking knob spring 44084 Locking knob spring 44086 Clip pin release stop 44086 Plex link 44087 Vibrator Control Relay Board 44086 Clip pin release stop	17005 Programs audit :	
17327 Footswitch receptacle 17334 Auto/hand yun switch 17338 Vibrator base plate 17339 Vibrator base plate 17340 Vibrator bowl 17341 Vibrator bowl 17342 Vibrator bowl 17343 Vibrator bowl 17344 Vibrator base springs 17345 Feed channel plate 17346 Feed channel plate 17355 Quick exhaust valve 17356 Adjustable muffler 17367 Feed reed switch 17368 Feed reed switch 17368 First pulse reed switch 17368 Feed cylinder 17368 Feed cylinder 17369 Feed cylinder 17369 Feed cylinder 17360 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44067 Flexible wire mold 44067 Flexible wire mold 44067 Weld cable camloc 44071 Feed cover 44072 Component module 44073 Trolley 44075 Trolley 44075 Trolley 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release stop 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Weld cable - long 44089 Weld cable - long 44090 Vibrator Control Relay Board 44090 Vibrator Control Relay Board	17323 Pressure switch	44062 Trolley flouriting place
17327 Footswitch receptacle 17334 Auto/hand yun switch 17338 Vibrator base plate 17339 Vibrator base plate 17340 Vibrator bowl 17341 Vibrator bowl 17342 Vibrator bowl 17343 Vibrator bowl 17344 Vibrator base springs 17345 Feed channel plate 17346 Feed channel plate 17355 Quick exhaust valve 17356 Adjustable muffler 17367 Feed reed switch 17368 Feed reed switch 17368 First pulse reed switch 17368 Feed cylinder 17368 Feed cylinder 17369 Feed cylinder 17369 Feed cylinder 17360 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44067 Flexible wire mold 44067 Flexible wire mold 44067 Weld cable camloc 44071 Feed cover 44072 Component module 44073 Trolley 44075 Trolley 44075 Trolley 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release stop 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Weld cable - long 44089 Weld cable - long 44090 Vibrator Control Relay Board 44090 Vibrator Control Relay Board	1/32/ Actuator receptable	
17334 Auto/hand run switch 17338 Vibratin base plate 17339 Vibratin base plate 17330 Vibratin base plate 17330 Vibratin base 17340 Vibratin bowl 17341 Vibratin base springs 17342 Vibratin base springs 17345 Feed channel plate 17346 Feed channel plate 17351 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17357 Bracket insulator 17363 Feed reed switch 17363 First pulse reed switch 17363 First pulse reed switch 17364 Feed cylinder 17365 Vibratin bowl for 2 inch pins 17376 Lower Mandrel 17377 Air regulator 17381 Actuator swival bolt 44066 Mach Il power pack 44067 Flexible wire mold 44068 Rubber air hose 44068 Rubber air hose 44070 Weld cable camblo 44071 Feed cover 44073 High voltage terminal strip 44075 Trolley 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44082 Bearing mounting plate 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release 44087 Flex link 44087 Flex link 44088 Flex link 44089 Weld cable - long 44089 Vibrator Control Relay Board 44090 Vibrator Control Relay Board 44090 Vibrator Control Relay Board	17327 Footswitch receptacle	44065 Control console
17338 Vibrator hase plate 17339 Vibrator hase plate 17340 Vibrator bowl 17341 Vibrator bowl 17342 Vibrator base springs 17343 Feed channel plate 17345 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17357 Bracket insulator 17363 Feed reed switch 17363 First pulse reed switch 17363 First pulse reed switch 17364 Feed cylinder 17365 Lower Mandrel 17376 Lower Mandrel 17377 Air regulator 17371 Vibrator bowl 44070 Weld cable camloc 44071 Feed cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release 44086 Clip pin release stop 44087 Flexible wire mold 44070 Weld cable camloc 44071 Feed cover 44071 Feed cover 44073 High voltage terminal strip 44075 Trolley 44075 Trolley 44076 Trolley cover 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44081 Locking knob catch 44085 Clip pin release spring 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Weld cable - long 44089 Vibrator Control Relay Board 44090 Vibrator Control Relay Board		
17339 Vicator pase 17340 Vibrator bowl 17341 Vibrator coil 173.12 Vibrator base springs 173.13 Pusher and pawl 173.51 Pusher and pawl 173.52 Upper tip retainer 173.55 Quick exhaust valve 173.56 Adjustable muffler 173.59 Bracket insulator 173.63 Feed reed switch 173.63 Feed cylinder 173.64 Feed cylinder 173.65 Vibrator bowl for 2 inch pins 173.66 Vibrator swival bolt 173.67 Vibrator bowl for 2 inch pins 173.70 Actuator swival bolt 440.70 Weld cable camloc 440.71 Feed cover 440.71 Feed cover 440.72 Component module 440.73 High voltage terminal strip 440.75 Trolley cover 440.76 Trolley cover 440.76 Trolley cover 440.77 Weld potentiometer 440.80 Power bar bracket 440.82 Bearing mounting plate 440.83 Locking knob spring 440.84 Locking knob catch 440.85 Clip pin release 440.86 Clip pin release stop 440.87 Clip pin release stop 440.88 Flex link 440.89 Weld cable - long 440.89 Weld cable - long 440.89 Vibrator Control Relay Board 440.90 Vibrator Control Relay Board 440.91 24 volt multi-tap transformer		
17340 Vibrator bowl 17341 Vibrator coil 17342 Vibrator base springs 17345 Feed channel plate 17351 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 First pulse reed switch 17364 Feed cylinder 17364 Feed cylinder 17375 Footswitch 17376 Lower Mandrel 17377 Air regulator 17371 Actuator swival bolt 44070 Veld cable camloc 44071 Feed cover 44072 Component module 44073 High voltage terminal strip 44075 Trolley cover 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44081 Locking knob spring 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44087 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44090 Vibrator Control Relay Board	17330 Albi Ar J. haze higre	44007 Flexible Wire mold
17341 Vibrator coil 17342 Vibrator base springs 17344 Feed channel plate 17345 Feed channel plate 17351 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17358 Bracket insulator 17363 Feed reed switch 17363 Tirelley cover 17363 Feed reed switch 17364 Feed cylinder 17365 Vibrator bowl for 2 inch pins 17366 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17371 Actuator swival bolt 44071 Feed cover 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44082 Bearing mounting plate 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Swival bolt		
17341 Vibrator coil 17342 Vibrator base springs 17344 Feed channel plate 17345 Feed channel plate 17351 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17358 Bracket insulator 17363 Feed reed switch 17363 Tirelley cover 17363 Feed reed switch 17364 Feed cylinder 17365 Vibrator bowl for 2 inch pins 17366 Vibrator bowl for 2 inch pins 17376 Lower Mandrel 17371 Actuator swival bolt 44071 Feed cover 44073 High voltage terminal strip 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44082 Bearing mounting plate 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Vibrator Control Relay Board 44080 Vibrator Control Relay Board 44080 Vibrator Swival bolt		44070 Weld cable camloc
173.12 Vibrator base springs 173.14 Feed channel plate 173.51 Pusher and pawl 173.52 Upper tip retainer 173.55 Quick exhaust valve 173.56 Adjustable muffler 173.57 Bracket insulator 173.63 Feed reed switch 173.63 Feed reed switch 173.64 Feed cylinder 173.65 Vibrator bowl for 2 inch pins 173.66 Vibrator Swival bolt 173.67 Lower Mandrel 173.68 Vibrator swival bolt 173.69 Vibrator Swival bolt 173.60 Vibrator Swival bolt 173.60 Vibrator Swival bolt 173.61 Component module 440.73 High voltage terminal strip 440.75 Trolley 440.76 Trolley cover 440.77 Weld potentiometer 440.80 Power bar bracket 440.82 Bearing mounting plate 440.83 Locking knob spring 440.84 Locking knob catch 440.85 Clip pin release 440.86 Clip pin release spring 440.87 Clip pin release stop 440.88 Flex link 440.89 Weld cable - long 440.89 Vibrator Control Relay Board 440.90 Vibrator Control Relay Board	17341 Vib ator coil	
173 4b. Feed channel plate 173 51 Pusher and pawl 173 52 Upper tip retainer 173 55 Quick exhaust valve 173 56 Adjustable muffler 173 58 Bracket insulator 173 63 Feed reed switch 173 63 Dwell reed switch 173 63 First pulse reed switch 173 64 Feed cylinder 173 65 Vibrator bowl for 2 inch pins 173 73 Footswitch 173 73 7 Air regulator 173 91 Actuator swival bolt 440 75 Trolley 440 77 Weld potentiometer 440 80 Power bar bracket 440 82 Bearing mounting plate 440 83 Locking knob spring 440 84 Locking knob catch 440 85 Clip pin release 440 86 Clip pin release stop 440 87 Clip pin release stop 440 88 Flex link 440 89 Weld cable - long 440 90 Vibrator Control Relay Board 440 91 24 volt multi-tap transformer		
17351 Pusher and pawl 17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44075 Trolley 44076 Trolley cover 44077 Weld potentiometer 44080 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 64085 Clip pin release 64086 Clip pin release spring 64087 Clip pin release stop 64088 Flex link 64089 Weld cable - long 64090 Vibrator Control Relay Board 64090 Vibrator Control Relay Board 64091 24 volt multi-tap transformer	170-2 Vibi atoli base spiriligs	44072 Component module
17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17391 Actuator swival bolt 44077 Weld potentiometer 44080 Power bar bracket 44081 Bearing mounting plate 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 64085 Clip pin release 64086 Clip pin release spring 64087 Clip pin release stop 64088 Flex link 64089 Weld cable - long 64090 Vibrator Control Relay Board 64091 24 volt multi-tap transformer		440/3 High voltage terminal strip
17352 Upper tip retainer 17355 Quick exhaust valve 17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17391 Actuator swival bolt 44077 Weld potentiometer 44080 Power bar bracket 44081 Bearing mounting plate 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 64085 Clip pin release 64086 Clip pin release spring 64087 Clip pin release stop 64088 Flex link 64089 Weld cable - long 64090 Vibrator Control Relay Board 64091 24 volt multi-tap transformer	17351 Pusher and pawl	44075 Trolley
17355 Quick exhaust valve 17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17363 First pulse reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44080 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Vibrator Control Relay Board 44080 Power bar bracket 44081 Bearing mounting plate 44081 Clip pin release 44080 Power bar bracket 44082 Bearing mounting plate 44081 Power bar bracket 44080 Power bar bracket 44081 Power bar bracket 44081 Power bar bracket 44081 Power bar bracket 44082 Bearing mounting plate 44081 Power bar bracket 44081 Power bar bracket 44081 Power bar bracket	17352 Unner tip retainer	
17356 Adjustable muffler 17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17364 Feed cylinder 17372 Footswitch 17374 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44080 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44085 Clip pin release 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Power bar bracket 44082 Bearing mounting plate 44081 Power bar bracket 44082 Bearing mounting plate 44083 Locking knob spring 44085 Clip pin release 44086 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Vibrator Control Relay Board 44080 Power bar bracket	1705E Oppor dip reddition	
17359 Bracket insulator 17363 Feed reed switch 17363 Dwell reed switch 17364 Feed cylinder 17372 Footswitch 17374 Lower Mandrel 17375 Air regulator 17391 Actuator swival bolt 44082 Bearing mounting plate 44083 Locking knob spring 44084 Locking knob catch 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44080 Vibrator Control Relay Board 44080 24 volt multi-tap transformer		44077 Weld potentionleter
17363 Feed reed switch 17363 Dwell reed switch 17363 First pulse reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44083 Locking knob spring 44084 Locking knob spring 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Vibrator Control Relay Board 44090 24 volt multi-tap transformer		
17363 Feed reed switch 17363 Dwell reed switch 17363 First pulse reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44083 Locking knob spring 44084 Locking knob spring 44085 Clip pin release 44086 Clip pin release spring 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44089 Vibrator Control Relay Board 44090 24 volt multi-tap transformer	17359 Bracket insulator	44082 Bearing mounting plate
17363 Dwell reed switch 17363 First pulse reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44084 Locking knob catch 44085 Clip pin release spring 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44090 Vibrator Control Relay Board 44091 24 volt multi-tap transformer		44083 Locking knob spring
17363 First pulse reed switch 17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44085 Clip pin release 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44090 Vibrator Control Relay Board 44091 24 volt multi-tap transformer		44004 Looking knob setab
17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44086 Clip pin release spring 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44090 Vibrator Control Relay Board 44091 24 volt multi-tap transformer		44004 LUCKING KNUD CACCN
17364 Feed cylinder 17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44086 Clip pin release spring 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44090 Vibrator Control Relay Board 44091 24 volt multi-tap transformer	1/363 First pulse reed switch	44085 Clip pin release
17368 Vibrator bowl for 2 inch pins 17372 Footswitch 17376 Lower Mandrel 17377 Air regulator 17391 Actuator swival bolt 44087 Clip pin release stop 44088 Flex link 44089 Weld cable - long 44090 Vibrator Control Relay Board 44091 24 volt multi-tap transformer	17364 Feed cylinder	44086 Clip pin release spring
17372 Footswitch44088 Flex link17376 Lower Mandrel44089 Weld cable - long17377 Air regulator44090 Vibrator Control Relay Board17391 Actuator swival bolt44091 24 volt multi-tap transformer		44087 Clip pin release stop
17376 Lower Mandrel44089 Weld cable - long17377 Air regulator44090 Vibrator Control Relay Board17391 Actuator swival bolt44091 24 volt multi-tap transformer		44000 Elov Est
17377 Air regulator 44090 Vibrator Control Relay Board 17391 Actuator swival bolt 44091 24 volt multi-tap transformer		
17377 Air regulator 44090 Vibrator Control Relay Board 17391 Actuator swival bolt 44091 24 volt multi-tap transformer		44U89 Weld cable - long
17391 Actuator swival bolt 44091 24 volt multi-tap transformer	17377 Air regulator	44090 Vibrator Control Relay Board
		44091 24 volt multi-tan transformer
1/304 OHUI'L SHALL EXCENCION =		1 100 1 L 1 voic maior dap dransformer
	1/224 DIIUIC SIIdIC EXCEIICIUII	_



MACHINER Y DIVISION

© 2006 Duro Dyne Corporation Printed in USA 5/2006 BI018010

Duro Dyne East Division, Bay Shore, NY

Duro Dyne Midwest Division, Fairfield, QH

Duro Dyne West Division, Santa Fe Springs, CA

Duro Dyne Canada, Lachine, Quebec, Canada

631-249-9000 Fax: 631-249-8346 513-870-6000 Fax: 513-870-6005

562-926-1774 Fax: 562-926-5778

514-422-9760 Fax: 514-636-0328

www.durodyne.com E-mail: durodyne@durodyne.com