FT1330
CRIMP MACHINE

OWNER'S MANUAL

FT1330-500

FT1330 MODEL A

CAPABILITIES

- MATCHMATE PLUS BRAIDED THRU -16, SPIRAL THRU -12
- BARREL FIELD CRIMP THRU -20
- FLAT FIELD CRIMP THRU -16
- FLAT CRIMP 2 WIRE BRAID THRU -20
- FLAT CRIMP 4 WIRE SPIRAL THRU -16 (EXCEPT FC254 & FC273)

DIE SIZE

- DIES FOR NEW FT1330-275-NOS CAGES ARE 3/4" WIDE WITH A CRIMP LENGTH OF 1.600"
- DIES FOR OBSOLETE FT1330-200-NOS CAGES ARE 9/16" WIDE WITH A CRIMP LENGTH OF 1.500".

POWER UNIT

- 1 H.P./ 4,500 PSI/ 1 GPM PUMP

CYLINDER SIZE

- 4" BORE/ 3" STROKE/ 2 1/2" ROD

MAJOR USE

- FIELD CRIMP

COMMENTS

- SOME UNITS WILL HAVE 5" CYLINDERS, BUT EXISTING CRIMP RINGS, WHICH WILL STILL MAKE THEM MODEL A. A LIST OF SERIAL NUMBERS WILL BE MADE AVAILABLE TO INDICATE A MODEL WITH A 5" CYLINDER.

FT1330 MODEL B

CAPABILITIES

- MATCHMATE PLUS BRAIDED AND SPIRAL THRU -20
- BARREL FIELD CRIMP THRU -20
- FLAT FIELD CRIMP THRU -16
- FLAT CRIMP BRAIDED THRU -20
- FLAT CRIMP 4 WIRE SPIRAL THRU -16
- FLAT CRIMP FC254 AND FC273 WITH PRECRIMP FITTINGS

DIE SIZE

- DIES FOR NEW FT1330-275-NOS CAGES ARE 3/4" WIDE WITH A CRIMP LENGTH OF 1.600"
- DIES FOR OBSOLETE FT1330-200-NOS CAGES ARE 9/16" WIDE WITH A CRIMP LENGTH OF 1.500".

POWER UNIT

- 1 H.P./ 4,500 PSI/ 2 GPM TO 1 GPM 2 STAGE PUMP

CYLINDER SIZE

- 5" BORE/ 3" STROKE/ 3" ROD

MAJOR USE

- MATCHMATE PLUS
- FIELD CRIMP
- SMALL DISTRIBUTORS
- SMALL OEMS

TABLE OF CONTENTS

LIMITED SAFETY INSTRUCTIONS

1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

2. AVOID DANGEROUS ENVIRONMENT. Keep the work area well lit. Do not operate equipment when floors are slippery. Always ensure you have sound footing with both feet on the floor. Do not operate controls if hands or controls are wet.

3. PREVENT UNAUTHORIZED OPERATION. Do not permit anyone to operate this machine unless they have read and thoroughly understand this manual. Unplug the machine when not in use.

4. USE THE RIGHT DIE CAGE. Do not force the dies to do a job they were not designed for. Never mix dies of different sets. Dies are assembled in a cage.

5. WEAR PROPER APPAREL. Do not wear loose clothing or jewelry that could get caught in moving parts. Rubber-soled footwear is recommend for best footing.

6. DO NOT OVERREACH. Keep proper footing and balance at all times.

7. MAINTAIN DIES WITH CARE. Most dies used on the FT1330 crimp machine are hardened tool steel affording the best combination of strength and wear resistance for long life. Hardened dies are generally brittle and care should be taken to avoid any sharp impact. Never strike a die with a hardened instrument.

8. INSERT CRIMP DIE CAGE. CAUTION: MAKE SURE DIES ARE COMPLETELY IN PLACE, FLAT AGAINST PRESSURE PLATE OR DAMAGE TO THE DIES OR MACHINE MAY RESULT.

9. CHECK PARTS. Check for alignment of all moving parts, broken parts, and any other conditions that may affect the machine's operations.

10. STORE DIES PROPERLY. Never place die cages, tools, fittings, or any other material on the machine where it may interfere or fall into the crimping operation.

11. USE PROPER PROCEDURES. Never rush a hose assembly. Always take the time required to ensure all specified procedures are followed.

12. DO NOT OVER PRESSURE. Do not exceed 4,500 psi hydraulic pressure supplied to machine. This setting is preset at the factory and should not require adjustment.

13. DIE CAGE TOOLING CHANGE. Do not insert or remove die cage while power unit is turned on.

14. AVOID PINCH POINT. Do not rest hand on crimp ring. Keep hands well away from all moving parts. Do not operate with any personnel close to moving parts.

SPECIFICATIONS

Electrical		FT1330-1-1 FT1330-1-2 Motor 1 HP, 115 Volt, 50/60 hz, 1 ph FT1330-1-8 FT1330-1-1-6 Motor 1 HP, 220 Volt, 50/60 hz, 1 ph FT1330-1-2-6
Dimensions		20" Wide, 29" Deep, 16" High
Weight		255 lbs.
Crimp Die		One Cage Per Setup, (Eight dies included in one cage assembly). Refer to current Aeroquip crimp bulletin for proper suffix/die number.
Maximum Operating Pressure		4,500 psi
Pump		
	Model A	1 gpm
	Model B	2 Stage, 2 gpm to 500 psi, 1 gpm to 4,500 psi
Reservoir		
	Model A	3 Quart
	Model B	3 1/2 Quart

NOTE: BEFORE ATTEMPTING TO OPERATE THE FT1330 CRIMP MACHINE, THIS MANUAL SHOULD BE READ AND THOROUGHLY UNDERSTOOD.

INSTALLATION

The FT1330 crimp machine is delivered completely plumbed and wired. The reservoir has been filled with 10 weight hydraulic oil.

Install the machine on a solid bench capable of holding 245 pounds. Recommended bench height is 36".

1. Uncrate the machine and position it in its work location on a bench capable of supporting a machine weighing 245 pounds. Allow sufficient room behind the machine to provide access to the pump and reservoir for periodic maintenance or oil level inspection.

2. Anchor the machine securely to the bench using four 5/16 inch bolts. Holes are provided in the machine base for this purpose.

3. Position the toggle switch on the front of the cabinet in the "OFF" position.

4. Plug the power cord into a standard 115 or 230 volt single phase receptacle depending upon machine model. (The 115 volt electrical circuit must be a 15 AMP dedicated circuit with 12 gauge wiring to the outlet. Do not use extension cords of any kind).

TOOLING

CRIMP DIE CAGES

Crimp dies for the FT1330 crimp machine are contained in a die cage which can be inserted as a package into the machine, thus eliminating time consuming and inaccurate insertion of individual dies. Each set of eight crimp dies for each size or style of crimp is contained in a separate die cage, thus eliminating concern from inter-mixing dies of different sets.

Crimp die cage part numbers are similar to crimp die part numbers. In either case the die suffix number is the same. The current crimp specification bulletin included with this manual, lists the die suffix number for each style and size of Aeroquip hose. The crimp die cage part number will be FT1330-200-"die suffix number", or FT1330-275- "die suffix number".

BASIC MACHINE OPERATION & OPERATING INSTRUCTIONS

With the machine installed as outlined in this manual and with the power cord plugged into a suitable receptacle, switch the toggle switch on the front of the cabinet to the "ON" position. The pump will start running.

The crimp die cage is pushed into the crimp ring by a hydraulic cylinder. Depressing the footswitch will extend the cylinder moving the crimp die cage forward. Pressing the jog reverse button (next to the on/off switch) will move the crimp die cage back to its retracted position.

The forward crimp limit is preset and requires no adjustment. If the footswitch is depressed and held until the forward crimp limit is reached, the crimp die cage will stop its forward movement and return automatically to the retracted position when the footswitch is released. If the footswitch is released before the forward crimp limit is tripped, the crimp die cage will stop and remain in that position. Depressing the footswitch again will move the crimp die cage further forward or pressing the jog reverse button will move the crimp die cage back toward the retracted position.

You will find that being able to jog the crimp die cage in either direction will be very helpful when positioning the fitting within the crimp dies during the crimping cycle or when setting up the fitting locator.

The Aeroquip FT1330 crimp machine is especially designed to provide a low cost, quick, easy to use machine to hydraulically crimp Aeroquip standard field crimp fittings in hose sizes -4 through -20 and most four spiral hose through -20. Check crimp specification bulletin for exceptions. This machine features color coded quick change dies (field crimp fittings) for greater operating simplicity.

It is designed to crimp straight and elbow assemblies with standard fittings.

1. Check oil level. Fill to within one inch of opening with the cylinder fully retracted. Replace reservoir plug with breather cap supplied.

2. Plug into electrical outlet (dedicated circuit).

3. Select proper hose and fitting and preassemble (See Hose Preparation).

4. Insert proper die cage in place. CAUTION: MAKE SURE DIES ARE COMPLETELY IN PLACE, FLAT AGAINST PRESSURE PLATE OR DAMAGE TO THE DIES OR MACHINE MAY RESULT.

5. Position assembly against locator and adjust locator.

6. Set digital diameter control selector to the proper setting. Reference crimp diameter chart for field crimp and pages 44 - 48 for skive type fittings.

7. Turn switch to "ON" position.

8. Depress foot switch, cylinder will stop automatically when crimp diameter is reached.

9. Release foot switch, cylinder will automatically retract.

10. Remove crimped assembly.

11. Check the crimp diameter of first crimped assembly of each run (it is best to adjust machine for nominal diameters).

12. When machine is not in use turn switch to "OFF" position.

Note: The crimp diameter can be changed by adding or subtracting numbers on the digital indicator. The ratio is 2 to 1. If the setting is .500 and it is changed to .502 the crimp diameter will be reduced by .001. If the setting is changed to .498 the crimp diameter will be increased by .001.

USING THE AEROQUIP CRIMP SPECIFICATION BULLETIN (BULLETIN JA55A)

The Aeroquip Crimp Specification Bulletin (included with this manual) lists the dimensions and specifications required when crimping Aeroquip fittings onto Aeroquip hose. The illustrations in this bulletin indicate the various styles of crimp configurations. The flat crimp style is the most commonly used crimp style.

The numbers listed in bold type represent the Aeroquip hose styles as described in Aeroquip's Industrial Catalogs. The crimp specifications are listed across from the hose dash sizes in the chart below the appropriate hose style.

For example:

If you wish to crimp 2781-8 hose you must first locate 2781 in the bulletin. In the "hose dash size' column locate dash 8. Across from dash 8 you will read first, the socket style, "1401", which is provided for reference. Next, the skive length, "1.04 inches", is listed. This is the length of outer hose cover that must be removed before a fitting can be installed on the hose. Right after skive length there is a column to show which external skive tool is recommended. The next column is "crimp diameter". When properly crimped, the socket diameter on a 2781-8 hose should be between .948 and .958 inches. The "crimp position", shown in the next column, refers to the length of socket that will be crimped, measured from the shoulder on the nipple; in this case, 1.301 - 1.340 inches. This dimension can be considered built into the crimp dies if the fitting is properly positioned (as outlined in this manual) during the crimping operation. It is provided here for your reference. The "die suffix number" identifies the proper crimp dies or crimp die cage required to crimp your chosen hose and fitting combination. To crimp 2781-8 hose, you must use an FT1307-200-4 crimp die cage. The machine setting is a number you must determine for each style and size of hose you plan to crimp. Once determined, this number can be recorded and used for all future setups using that particular style and size of hose.

SHORTENING THE RETURN STROKE

When crimping several identical assemblies, it may be desirable to shorten the machine cycle time by limiting the return stroke of the cylinder. This can be accomplished by depressing and releasing the jog reverse button. During the return stroke, note that the cylinder movement will not stop until the jog reverse button is released. Once the cylinder is stopped in mid-stroke it can be cycled again using the foot switch or retracted fully using the jog reverse button.

HOSE PREPARATION

1. Hose Preparation and Pre-Assembly

Select the proper hose, nipple and socket combination. Cut the hose to length, assemble and crimp. Skiving is required for flat factory crimp. Refer to the current crimp specifications bulletin for skive length.

2. Crimp Machine Setup

From crimp decals FT1330-3-30 and FT1330-3-73 or crimp diameter chart, determine the correct crimp die cage to be used to crimp the assembly you have selected. With the cylinder retracted fully, install the crimp die cage by sliding it downward against the pressure plate until the shoulder bolts on the pressure plate are seated in the slots on the back of the crimp die cage and the bolt on the back of the crimp die cage is seated in the slot at the top of the pressure plate.

3. Positioning The Fitting Locator

Straight Fittings

If only one hose assembly is being crimped on this setup, you will probably choose to locate the fittings visually rather than set the locator. Whether the fitting is positioned within the dies visually or with the aid of the locator, the proper position will be the same. The scribe line at the skirt end of the socket must be lined up with the face of the jaw inset as shown in Illustration on page 12. The locator, can be moved forward by loosening the locking knob. When the locator touches the end of the fitting tighten the knob. The locator is spring loaded to accommodate for hose growth during crimping.

SETTING THE ENCODER

By adjusting the encoder from "000" to "999", the forward movement of the crimp die cage into the crimp ring can be varied by one inch. This is how the crimp diameter is adjusted. By allowing the crimp die cage to advance further into the crimp ring (by choosing a larger encoder setting) the crimp diameter will be reduced. That is: an increase in the encoder setting will reduce the crimp diameter. Choosing a smaller encoder setting will produce a larger crimp diameter.

The ratio of the encoder setting to the crimp diameter is 2 to 1. An encoder setting change of 2 will change the diameter ".001".

Set the encoder to 300. Crimp an assembly and record the average diameter of the 4 flats. Subtract the desired crimp diameter from the recorded average actual diameter. Multiply this figure by 2 and add the result to 300. This new encoder setting should be very close to the correct setting. A final measurement must be made and the above procedure must be repeated if necessary.

Example:

The machine is setup with the FT1330-200-8 crimp die cage and we wish to crimp a fitting onto FC211-16 hose. Following the steps just described, the cylinder stopped when the encoder was set to 300. After crimping the first fitting, the socket diameter measured 1.663 inches. The correct crimp diameter, according to the current crimp bulletin is 1.481 - 1.491. By subtracting 1.486 (the mean crimp diameter) from 1.663 we find that our fitting is under-crimped (oversize) .177 inches (1.663 - 1.486 = .177). Since each .001 change in crimp diameter requires a change of 2 on the encoder setting, we can determine how much the encoder must be adjusted by multiplying .177 by 2 (.177 x 2 = .354). Since our example fitting was not crimped enough (under-crimped) we must add 354 to the previous encoder setting (300) to determine the corrected encoder setting (354 + 300 = 654). With the encoder now set at 654, recrimping the same fitting should provide a crimp diameter within the required limits of 1.481 - 1.491. If another small adjustment is required, it must be made using the same procedure as just outlined in the example.

When the correct encoder setting has been determined, record it in the "Micro Setting" column in your crimp specification bulletin. The next time you crimp that particular style and size of hose, you will be able to immediately set the encoder to the previously determined setting and your first crimp should be to the correct diameter. As always, make sure to check the first assembly for proper crimp diameter.

MACHINE CALIBRATION PROCEDURE

1. Using a straight edge, make sure the front of the transducer is flush with the front of the crimp cylinder and tighten the transducer brackets.

2. Remove the control box cover and turn the RET LIM screw ten turns clockwise. (Note: RET LIM is an abbreviation for Return Limit.)

3. Turn the machine on and retract the crimp cylinder using the JOG REV button until the power unit labors, then turn counterclockwise until red light comes on and add 1/4 turn.

4. Turn the machine off, insert the blue FT1330-200-52 (FT1330-275-M240) die cage, and turn the RET LIM screw 10 turns counterclockwise.

5. Set the digital encoder to 953 (900) and crimp an FJ9121-0404S fitting (1SA8 socket).

6. If the crimp diameter measures over .485 (.916), loosen the lock nut and turn the adjusting nut on the transducer rod counterclockwise.

   (Note: 1 turn = .015 in. in crimp diameter)

7. If the crimp diameter measures under .485 (.916), loosen the lock nut and turn the adjusting nut on the transducer rod clockwise.

8. Repeat steps 5 thru 7 until the crimp diameter measures .485 (.916).

9. Tighten the lock nut while holding the adjusting nut stationary.

10. Set the digital encoder to 078 (050) and crimp an FJ9121-0808S fitting (1SA12 socket).

11. If the crimp diameter measures over .865 (1.286), turn the SPAN screw inside the control box clockwise.

12. If the crimp diameter measures under .865 (1.286), turn the SPAN screw inside the control box counterclockwise.

13. Repeat steps 10 thru 12 until the crimp diameter measures .865 (1.286).

14. Turn the RET LIM screw 12 turns clockwise and retract the crimp cylinder using the JOG REV button until the power unit labors.

15. Turn the RET LIM screw counterclockwise until the red LED glows brightly and add 1/4 turn.

16. Turn the machine off, replace the control box cover, and remove the die cage.

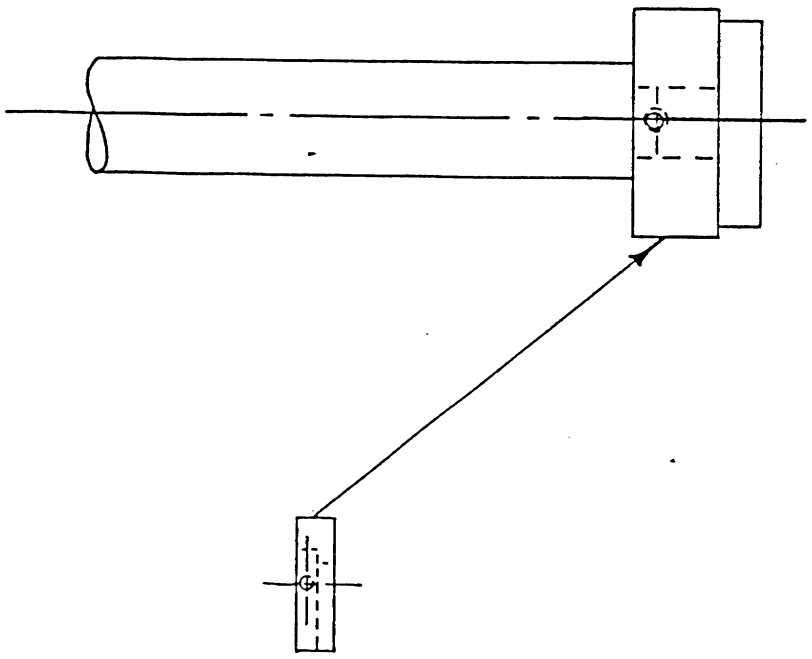
NOTE: Items in parenthesis are for recalibration with metric components.

CRIMPING HOSE STYLES THAT REQUIRE A POSITIVE BACKSTOP

To maintain proper fitting position on the hose end during the crimping cycle requires a positive backstop for the hose styles listed below:

2807 and FC186	Teflon
FC120, FC121 and FC172	Thermoplastic
2583	Factory Crimp Style Only

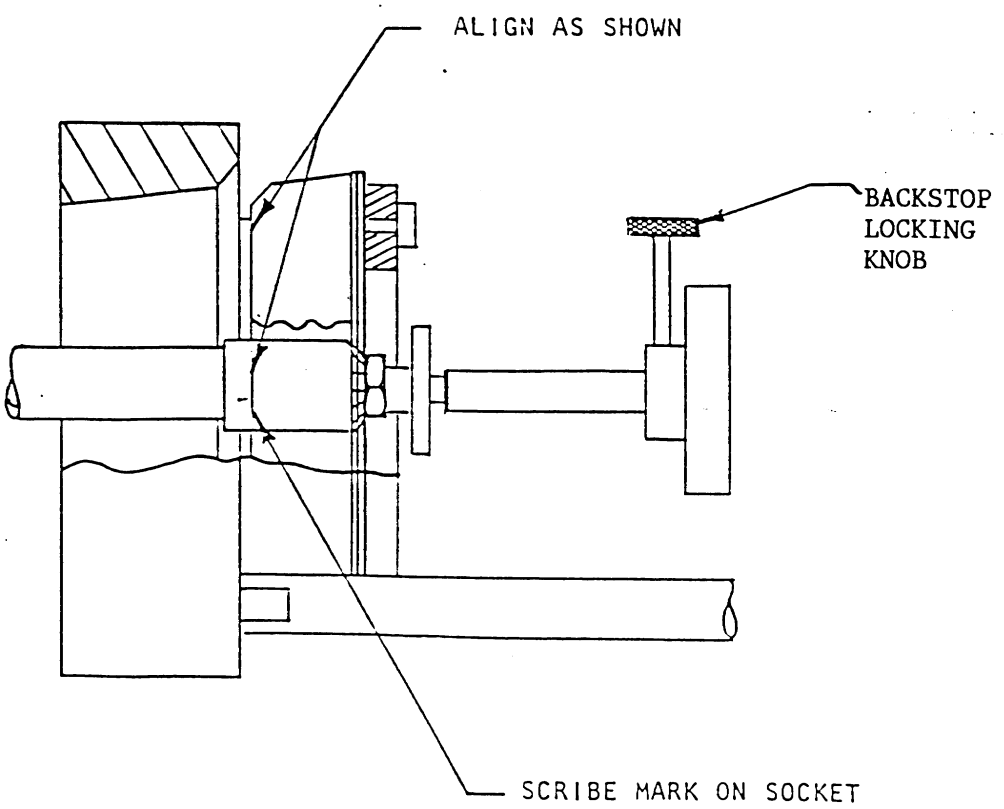
The locator has a built-in spring which allows it to retract as a fitting "grows" or is elongated during the crimping operation. A positive backstop does not allow this movement. The locator can be converted into a positive backstop by placing the locator collar (DET. 60) in the recess directly behind the head of the locator. This will prevent the spring from being compressed thus providing the required positive backstop. The locator collar must be removed during crimping of other styles to prevent machine damage or loss of location adjustment during end fitting growth.



CRIMPING BARREL FIELD CRIMP STYLE HOSE ASSEMBLIES

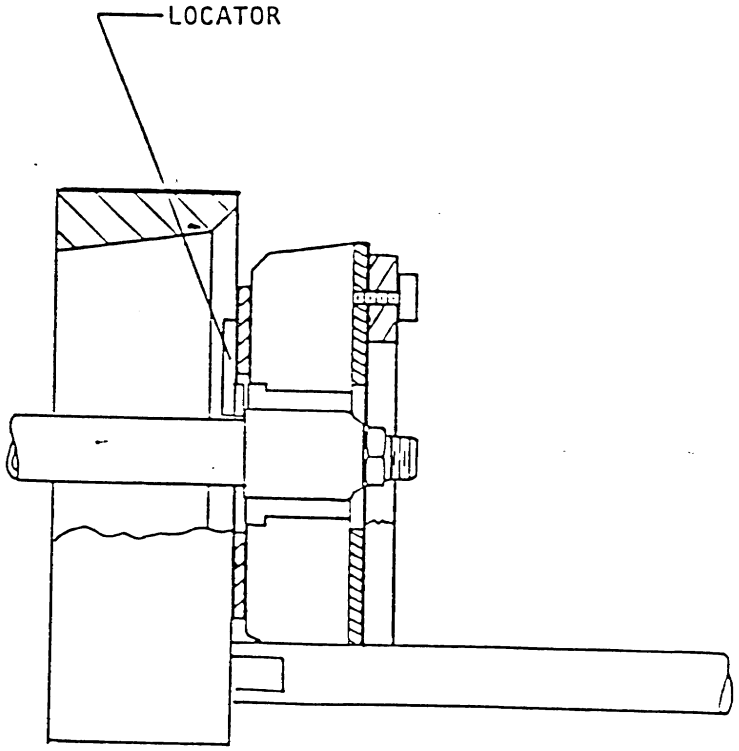
Skiving is not required with field crimp fittings. The socket is pre-crimped to the nipple so the fitting can simply be pushed onto the hose and crimped.

When crimping field crimp style hose assemblies, simple procedures must be followed when locating these assemblies in the crimp die cage. Reference hose preparation page 8, paragraphs 2 and 3.



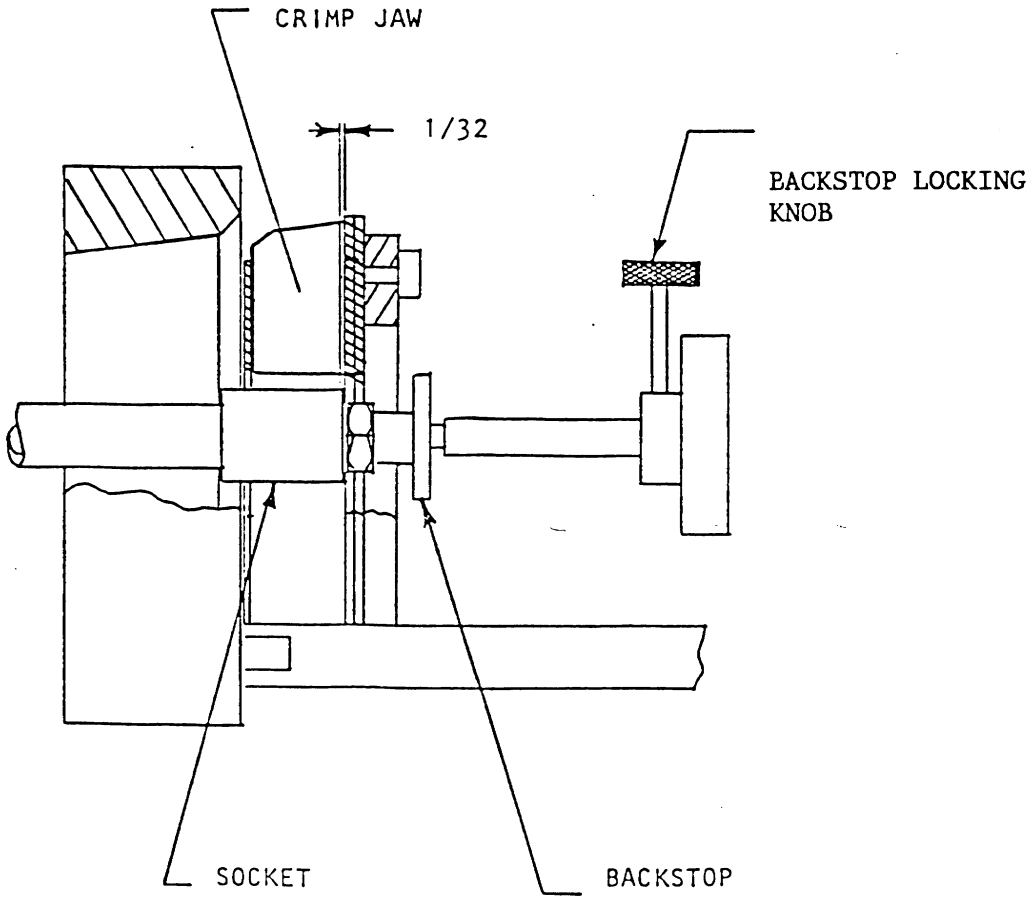
CRIMPING FLAT FIELD CRIMP

This illustration shows the special locator used for flat field crimp location. Determine hose size, rotate the corresponding locating tab to its fully extended position. Place fitting inside cage and pull back until the edge of the socket skirt contacts the rubber grommet on the inside of the locator tab. Maintain the fitting in this position while crimping.



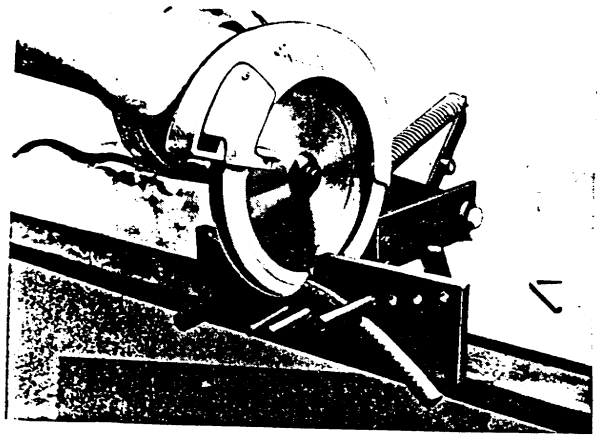
CRIMPING FACTORY FLAT CRIMP

This illustration shows the locator being used for flat crimp location. To position the fitting, loosen the hand knob and slide the locator assembly forward or back until the fitting is 1/32 back from the face of the jaw when held firmly against the locator. Lock the locator in this position by tightening the hand knob.



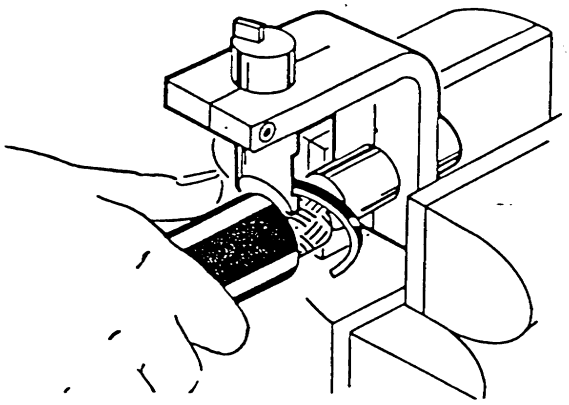
OPERATING/ASSEMBLY INSTRUCTIONS
FACTORY CRIMP STYLE (2 PIECE FITTING)

STEP 1 CUT THE HOSE TO LENGTH REQUIRED



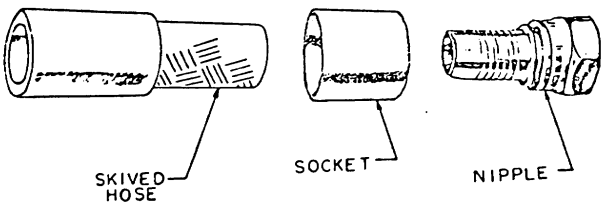
CUT THE HOSE USING A CUT-OFF SAW OR FINE TOOTH HACKSAW. CLEAN THE HOSE BORE

STEP 2 SKIVE THE HOSE TO PROPER LENGTH



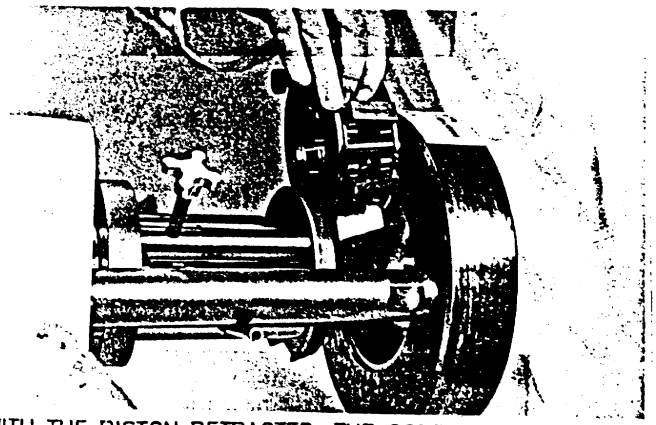
USE THE CORRECT SIZE AEROQUIP FT1230 HOSE COVER SKIVING TOOL. MOUNT THE TOOL IN A VISE. PUSH THE HOSE OVER THE MANDREL. ROTATE THE HOSE CLOCKWISE TO REMOVE COVER UNTIL THE HOSE BOTTOMS OUT ON THE MANDREL. ROTATE 1 MORE TURN FOR CLEAN BREAK.

STEP 3 PREASSEMBLE



PLACE SOCKET OVER THE HOSE. INSERT THE NIPPLE INTO THE BORE OF THE HOSE UNTIL THE HOSE BOTTOMS OUT AGAINST THE NIPPLE.

STEP 4 INSERT PROPER CRIMP DIE CAGE



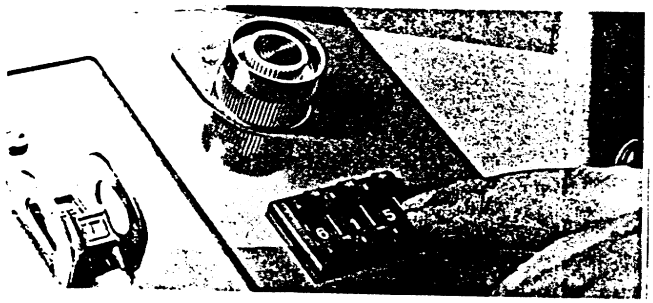
WITH THE PISTON RETRACTED, THE CORRECT CRIMP DIE CAGE IS INSTALLED WITHIN THE THREE ALIGNMENT SLOTS. FOR PROPER CRIMP DIE NUMBER SEE CHART BELOW.

REFERENCE SPECIFICATION CHART

HOSE TYPE SAE100R12	HOSE DASH LENGTH	MAXIMUM OPERATING PRESSURE	SOCKET PART NUMBER	SKIVE		CRIMP DIAMETER	COLOR CODE	CRIMP DIE PART NUMBER	DIE SUFFIX NUMBER	MACHINE SETTING
				SKIVE TOOL	SKIVE LENGTH (INCHES ± .02)					
FC336	-08	5000 PSI	FC3471	FT1230-8	1.04	1.310-1.340		FT1330-200	-4	
FC336 OR FC250A	-12	4000 PSI	FC1410	FT1230-12	1.21	1.280-1.290			-6	
	-16	4000 PSI	FC1410	FT1230-16	1.30	1.533-1.547			-8	

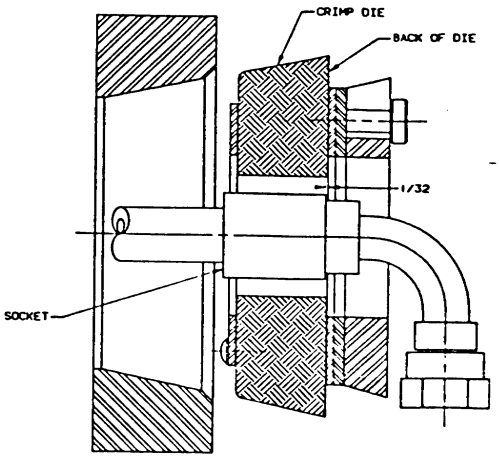
OPERATING/ASSEMBLY INSTRUCTIONS
FACTORY CRIMP STYLE (2 PIECE FITTING)

STEP 5 SET THE DIGITAL ENCODER



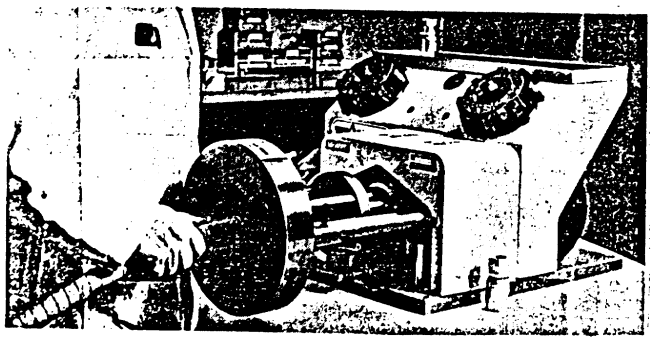
REFER TO THE SPECIFICATION CHART ON BOTTOM OF PREVIOUS PAGE FOR PROPER CONTROL SETTING BASED ON HOSE SIZE AND STYLE. SET DIGITAL ENCODER ACCORDINGLY.

STEP 6 POSITION THE FITTING



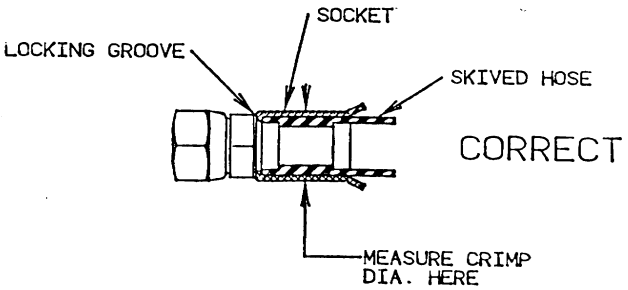
IF USING THE LOCATOR SYSTEM, LOOSEN THE HAND KNOB AND SLIDE THE LOCATOR ASSEMBLY FORWARD OR BACK UNTIL SOCKET IS 1/32" INSIDE OF THE DIE CAGE (AS SHOWN) WHEN HELD AGAINST THE LOCATOR. LOCK THE LOCATOR IN POSITION BY TIGHTENING THE HAND KNOB.

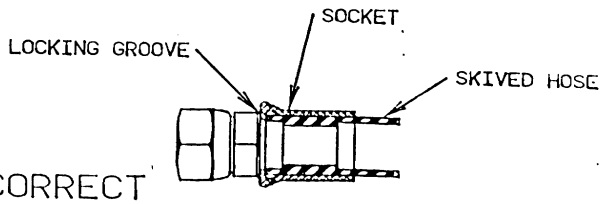
STEP 7 CRIMP THE ASSEMBLY



WITH ASSEMBLY HELD IN PLACE AS IN STEP 6, TURN THE MACHINE ON AND DEPRESS THE FOOTSWITCH. THE DIES WILL AUTOMATICALLY CRIMP THE FITTING TO THE PRESET DIMENSION. ONCE THE FOOTSWITCH IS RELEASED, AFTER THE FULL CRIMPING STROKE, THE DIES WILL RETURN. IF THE FOOTSWITCH IS RELEASED BEFORE THE FULL CRIMP STROKE IS COMPLETED, THE DIES WILL STOP AND CAN ONLY BE RETURNED BY PUSHING THE JOG RETURN SWITCH.

STEP 8 CHECK YOUR WORK!

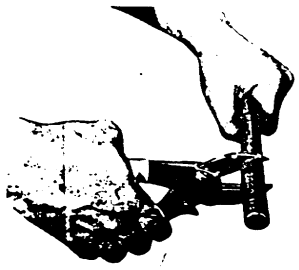


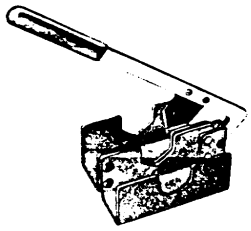


THE SOCKET MUST BE CRIMPED INTO THE LOCKING GROOVE. HOSE FAILURE WILL OCCUR IF CRIMPED INCORRECTLY. VERIFY CRIMP DIAMETER BY MEASURING ALL FOUR SIDES WITH A MOCROMETER.

OPERATING/ASSEMBLY INSTRUCTIONS
THERMOPLASTIC STYLE (1 PIECE FITTING)

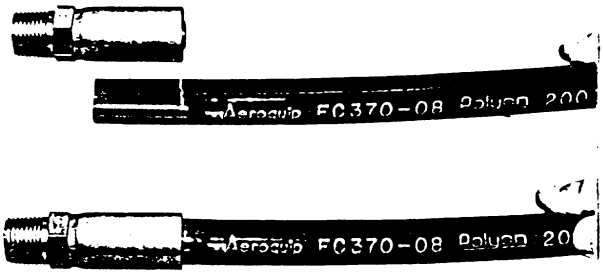
STEP 1 CUT THE HOSE TO LENGTH REQUIRED





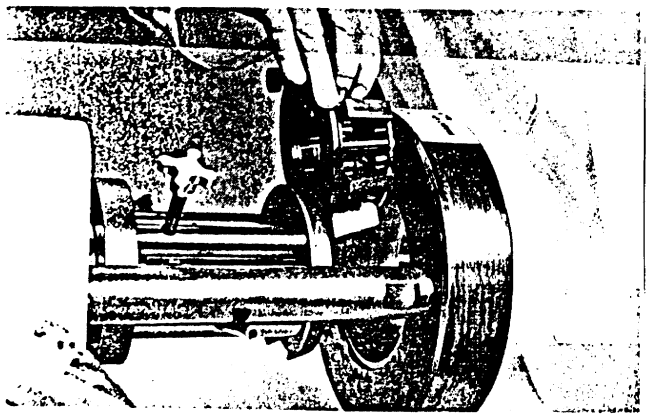
CUT THE HOSE USING A HAND-HELD CUT-OFF TOOL, AEROQUIP PART NUMBER FT1259 OR A BENCH MOUNTED CUT-OFF TOOL, AEROQUIP PART NUMBER FT1258.

STEP 2 PREASSEMBLE



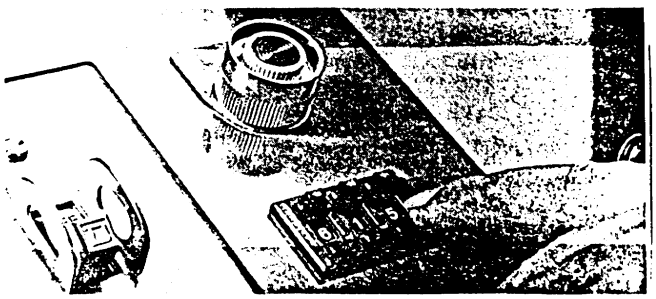
SELECT THE HOSE AND FITTINGS TO BE USED. USING THE BOTTOM EDGE OF THE FITTING PART NUMBER AS A REFERENCE FOR THE LENGTH OF HOSE TO BE INSERTED INTO THE SOCKET, MARK THE HOSE FOR INSERTION LENGTH WITH A GREASE PENCIL. PUSH THE FITTING ONTO THE HOSE LEAVING THE SOCKET EDGE FLUSH WITH THE MARK ON THE HOSE. LIGHTLY LUBRICATING THE FITTING NIPPLE WILL EASE FITTING INSERTION.

STEP 3 INSERT PROPER CRIMP DIE CAGE



WITH THE PISTON RETRACTED, THE CORRECT CRIMP DIE CAGE IS INSTALLED WITHIN THE THREE ALIGNMENT SLOTS. FOR PROPER CRIMP INFORMATION SEE CHART ON FOLLOWING PAGE

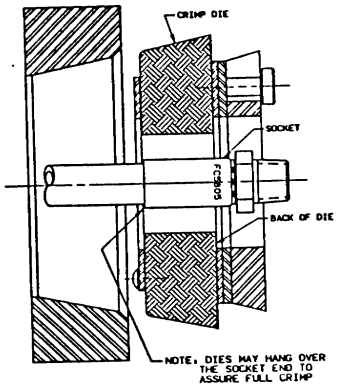
STEP 4 SET THE DIGITAL ENCODER



REFER TO THE SPECIFICATION CHART ON THE BOTTOM OF THE NEXT PAGE FOR PROPER CONTROL SETTING BASED ON HOSE SIZE AND STYLE. SET DIGITAL ENCODER ACCORDINGLY.

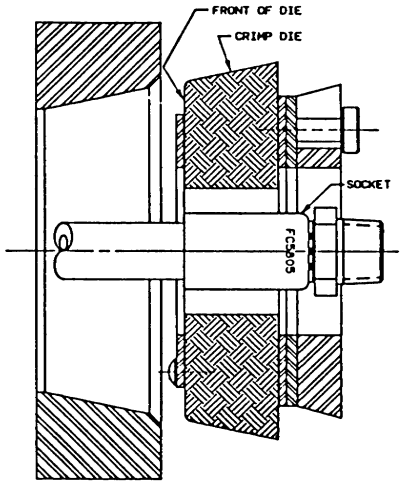
OPERATING/ASSEMBLY INSTRUCTIONS
THERMOPLASTIC STYLE (1 PIECE FITTING)

STEP 5 POSITION THE FITTING -03 THRU -08 SIZE



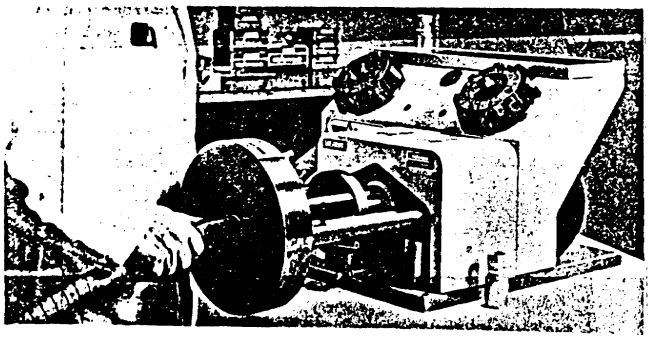
LOCATE THE HOSE AND FITTING IN THE CRIMPER SO THAT THE BOTTOM OF THE PART NUMBER ON THE SOCKET IS ALIGNED WITH THE BACK OF THE DIE AS SHOWN. IF USING THE LOCATOR SYSTEM, SEE PAGE 13 IN THE OWNERS MANUAL.

STEP 5a POSITION THE FITTING -10 AND -12 SIZE



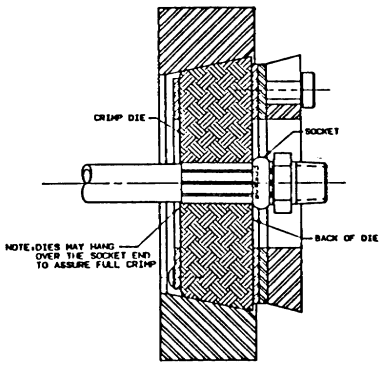
LOCATE THE HOSE AND FITTING IN THE CRIMPER SO THAT THE END OF THE SOCKET IS ALIGNED WITH THE FRONT OF THE DIE AS SHOWN. IF USING THE LOCATOR SYSTEM, SEE PAGE 13 IN THE OWNERS MANUAL.

STEP 6 CRIMP THE ASSEMBLY



TURN THE MACHINE ON AND DEPRESS THE FOOTSWITCH. THE DIES WILL AUTOMATICALLY CRIMP THE FITTING TO THE PRESET DIMENSION. ONCE THE FOOTSWITCH IS RELEASED, AFTER THE FULL CRIMPING STROKE, THE DIES WILL RETURN. IF THE FOOTSWITCH IS RELEASED BEFORE THE FULL CRIMP STROKE IS COMPLETED, THE DIES WILL STOP AND CAN ONLY BE RETURNED BY PUSHING THE JOG RETURN SWITCH.

STEP 7 CHECK YOUR WORK!



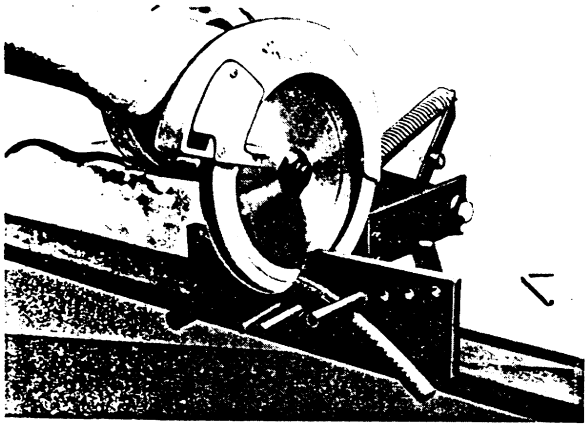
NOTE: IF USING THE LOCATOR SYSTEM, LOOSEN THE HAND KNOB AND SLIDE THE LOCATOR ASSEMBLY FORWARD OR BACK UNTIL THE POSITION OF THE SOCKET IS CORRECT WHEN HELD AGAINST THE LOCATOR. LOCK THE LOCATOR IN POSITION BY TIGHTENING THE HAND KNOB.

REFERENCE SPECIFICATION CHART

HOSE TYPE NON-CONDUCTIVE SAE100R7	HOSE DASH SIZE	MAXIMUM OPERATING PRESSURE	CRIMP DIAMETER	CRIMP DIE PART NUMBER	DIE SUFFIX NUMBER	COLOR CODE	MACHINE SETTING
FC371 OR FC373	-03	3000 PSI	.485-.495	FT1330-200	-90		
	-04	2700 PSI	.565-.575		-91		
	-05	2500 PSI	.625-.635		-92		
	-06	2250 PSI	.700-.710		-93		
	-08	2000 PSI	.850-.860		-94		
	-10	1500 PSI	.963-.973		-94		
	-12	1250 PSI	1.105-1.115		-95		

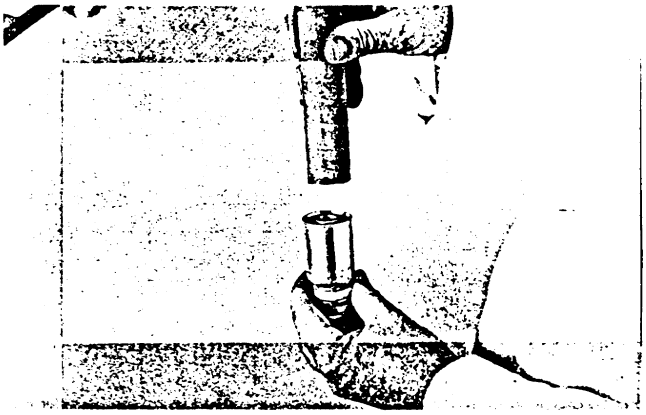
OPERATING/ASSEMBLY INSTRUCTIONS
FLAT FIELD CRIMP STYLE (1 PIECE FITTING)

STEP 1 CUT THE HOSE TO LENGTH REQUIRED



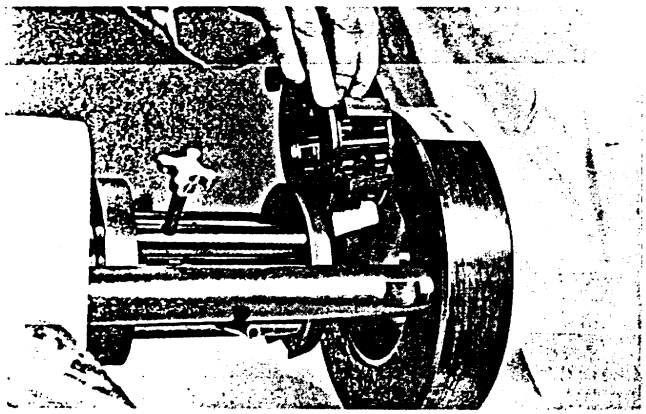
CUT THE HOSE USING A CUT-OFF SAW OR FINE TOOTH HACKSAW. CLEAN THE HOSE BORE.

STEP 2 PREASSEMBLE



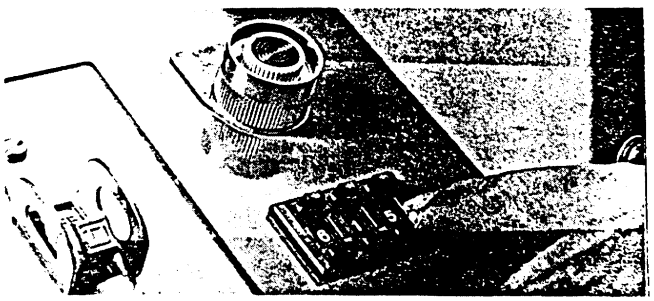
SELECT THE PROPER HOSE AND FITTING. INSTALL THE FITTING ON THE HOSE UNTIL THE NIPPLE SHOULDER BOTTOMS AGAINST THE HOSE.

STEP 3 INSERT PROPER CRIMP DIE CAGE



WITH THE PISTON RETRACTED, THE CORRECT CRIMP DIE CAGE IS INSTALLED WITHIN THE THREE ALIGNMENT SLOTS. FOR PROPER CRIMP INFORMATION SEE CHART BELOW.

STEP 4 SET THE DIGITAL ENCODER



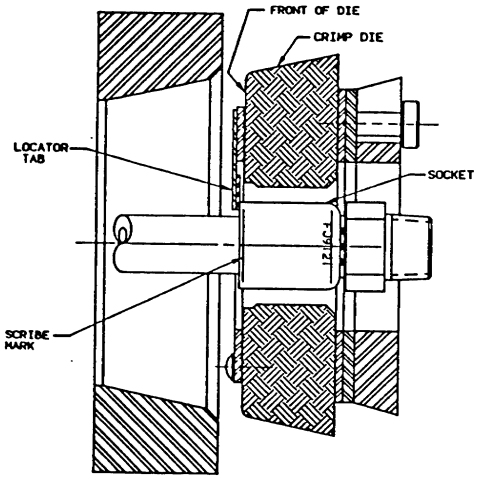
REFER TO THE SPECIFICATION CHARTS ON THE BOTTOM THESE TWO PAGES FOR PROPER CONTROL SETTING BASED ON HOSE SIZE AND STYLE. SET DIGITAL ENCODER ACCORDINGLY.

REFERENCE SPECIFICATION CHART

HOSE TYPE HIGH PRESSURE HI-PAC	HOSE DASH LENGTH	MAXIMUM OPERATING PRESSURE	CRIMP DIAMETER	COLOR CODE	CRIMP DIE PART NUMBER	DIE SUFFIX NUMBER	MACHINE SETTING
FC410	-04	5000 PSI	.595-.609	GRAY	FT1330-200	-0004	850
	-06	4000 PSI	.723-.737	BROWN		-0608	830
	-08	3500 PSI	.866-.880	BROWN		-0608	514
	-10	2750 PSI	.997-1.011	ORANGE		-1012	898
	-12	2250 PSI	1.123-1.137	ORANGE		-1012	624
	-16	2000 PSI	1.423-1.437	PURPLE		-1620	892

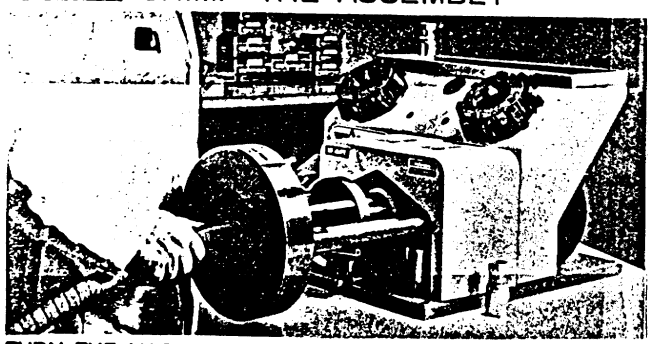
OPERATING/ASSEMBLY INSTRUCTIONS
FLAT FIELD CRIMP STYLE (1 PIECE FITTING)

STEP 5 POSITION THE FITTING



LOCATE THE HOSE AND FITTING IN THE CRIMPER SO THAT THE SCRIBE MARK IS ALIGNED WITH THE FRONT OF THE DIES AS SHOWN AND/OR LOCATE THE SOCKET AGAINST THE LOCATOR TABS, IF TABS ARE USED.

STEP 6 CRIMP THE ASSEMBLY

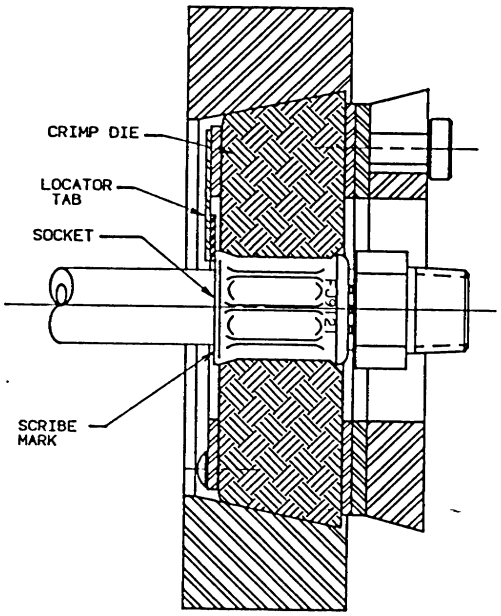


TURN THE MACHINE ON AND DEPRESS THE FOOTSWITCH. THE DIES WILL AUTOMATICALLY CRIMP THE FITTING TO THE PRESET DIMENSION. ONCE THE FOOTSWITCH IS RELEASED, AFTER THE FULL CRIMPING STROKE, THE DIES WILL RETURN. IF THE FOOTSWITCH IS RELEASED BEFORE THE FULL CRIMP STROKE IS COMPLETED, THE DIES WILL STOP AND CAN ONLY BE RETURNED BY PUSHING THE JOG RETURN SWITCH.

STEP 7 CHECK YOUR WORK!

FLAT FIELD CRIMP STYLE

LOCATION OF SOCKET AFTER CRIMP:
SCRIBE MARK ALIGNED WITH FRONT OF DIE AS SHOWN OR
SOCKET IS AGAINST LOCATOR TAB (IF TABS ARE AVAILABLE)



REFERENCE SPECIFICATION CHART

HOSE TYPE SAE100R2AT	HOSE DASH LENGTH	MAXIMUM OPERATING PRESSURE	CRIMP DIAMETER	COLOR CODE	CRIMP DIE PART NUMBER	DIE SUFFIX NUMBER	MACHINE SETTING
FC212	-04	5000 PSI	.623–.637	GRAY	FT1330–200	-0004	790
	-06	4000 PSI	.783–.797	BROWN		-0608	694
	-08	3500 PSI	.916–.930	BROWN		-0608	398
	-12	2250 PSI	1.190–1.204	ORANGE		-1012	470
	-16	2000 PSI	1.508–1.522	PURPLE		-1620	704

MAINTENANCE

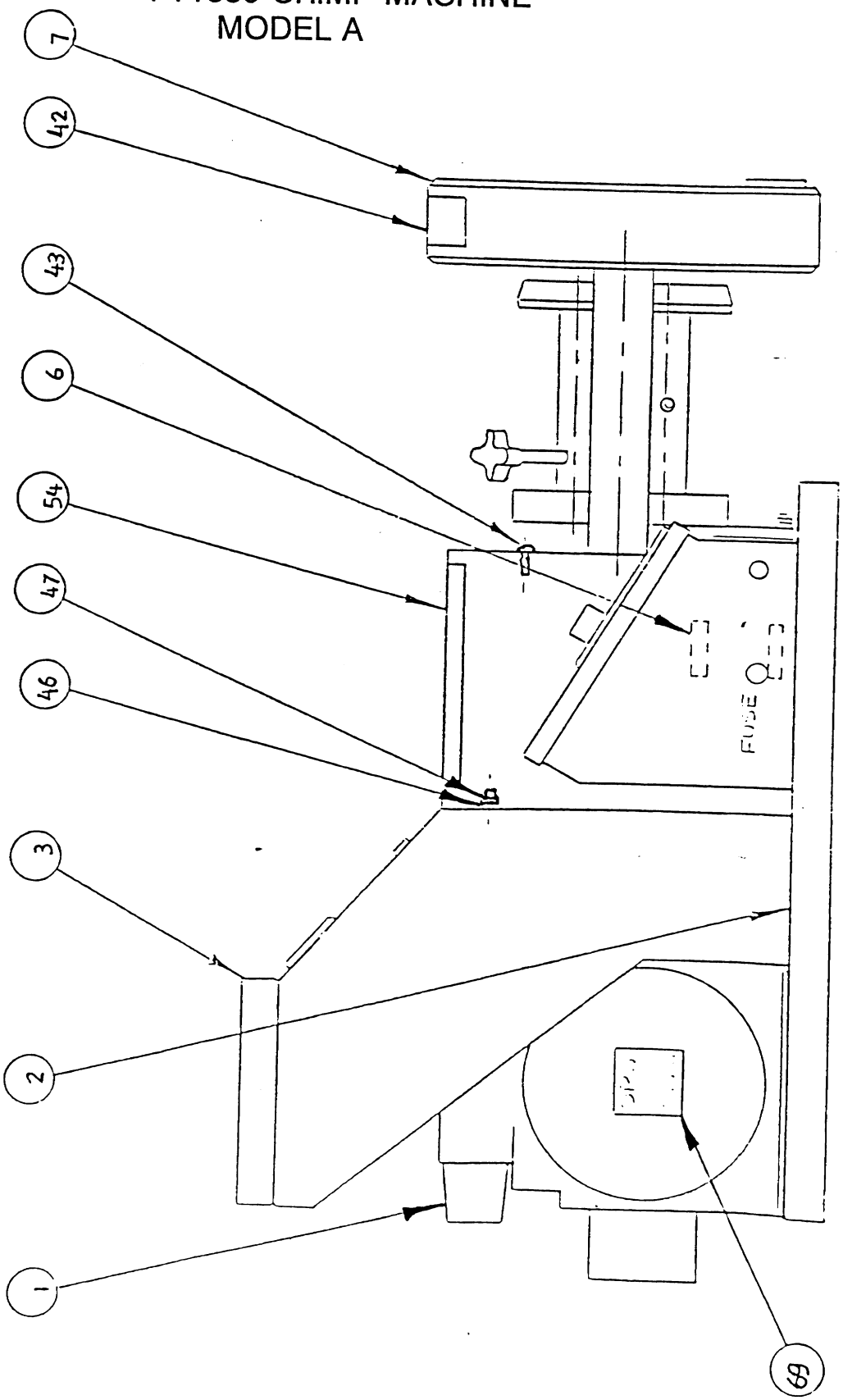
1. Sliding surfaces must be kept free of dirt and other abrasive materials.

2. Surfaces of crimp dies and the crimp ring where metal to metal contact is made should be lubricated with "Never Seeze" (Aeroquip part number FT1092) at the beginning of each production run or as required during production (minimum of once per 25 crimps, and more often with larger hose).

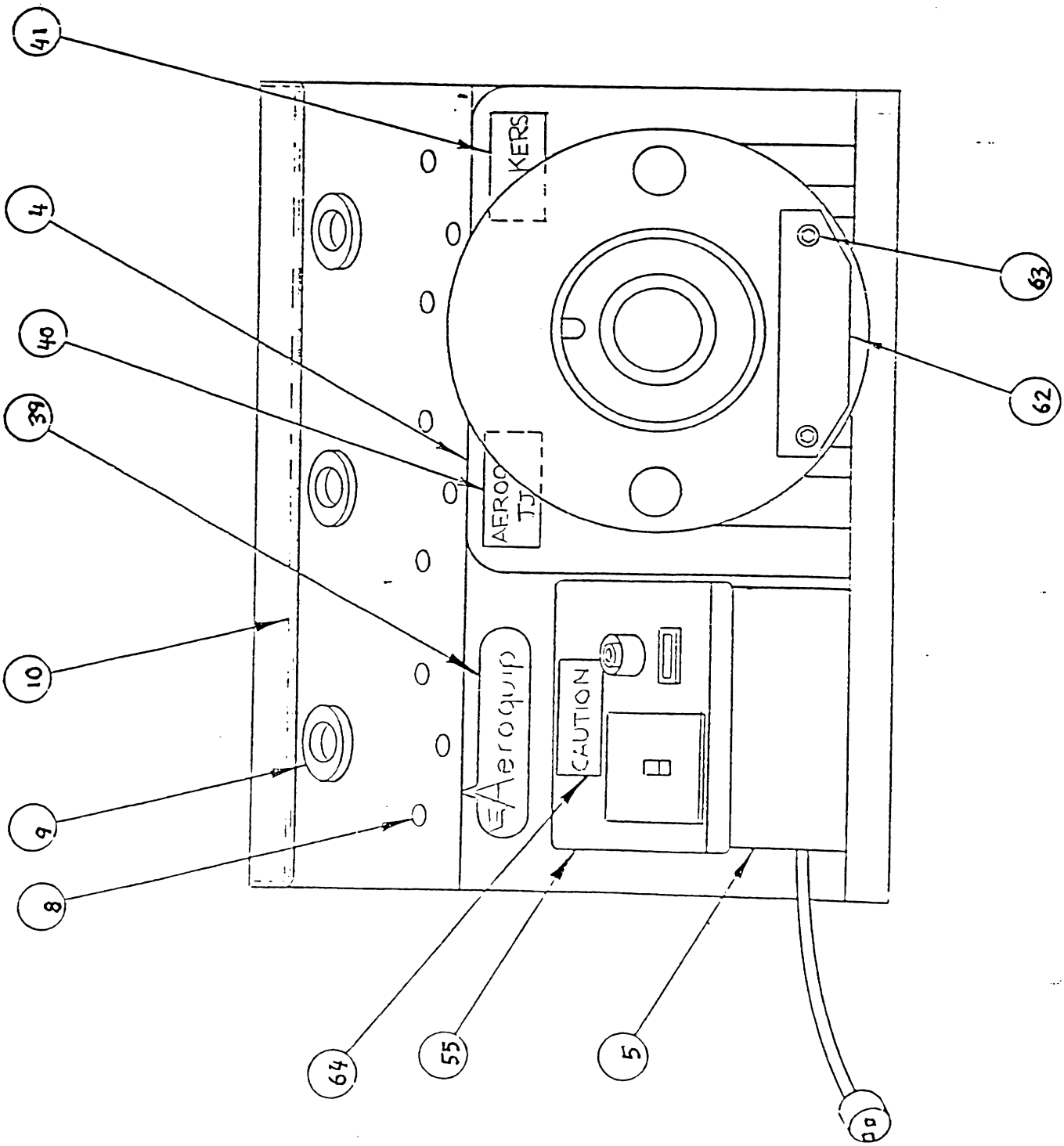
3. All exposed black metal surfaces should be coated occasionally with a light film of oil to prevent corrosion.

4. The oil level in the fluid reservoir of the hydraulic power until should be checked periodically and maintained at a level one inch below the top of the reservoir. Note: The crimp die cage should be retracted fully when the oil level is checked. Add SAE 10 weight hydraulic oil as necessary.

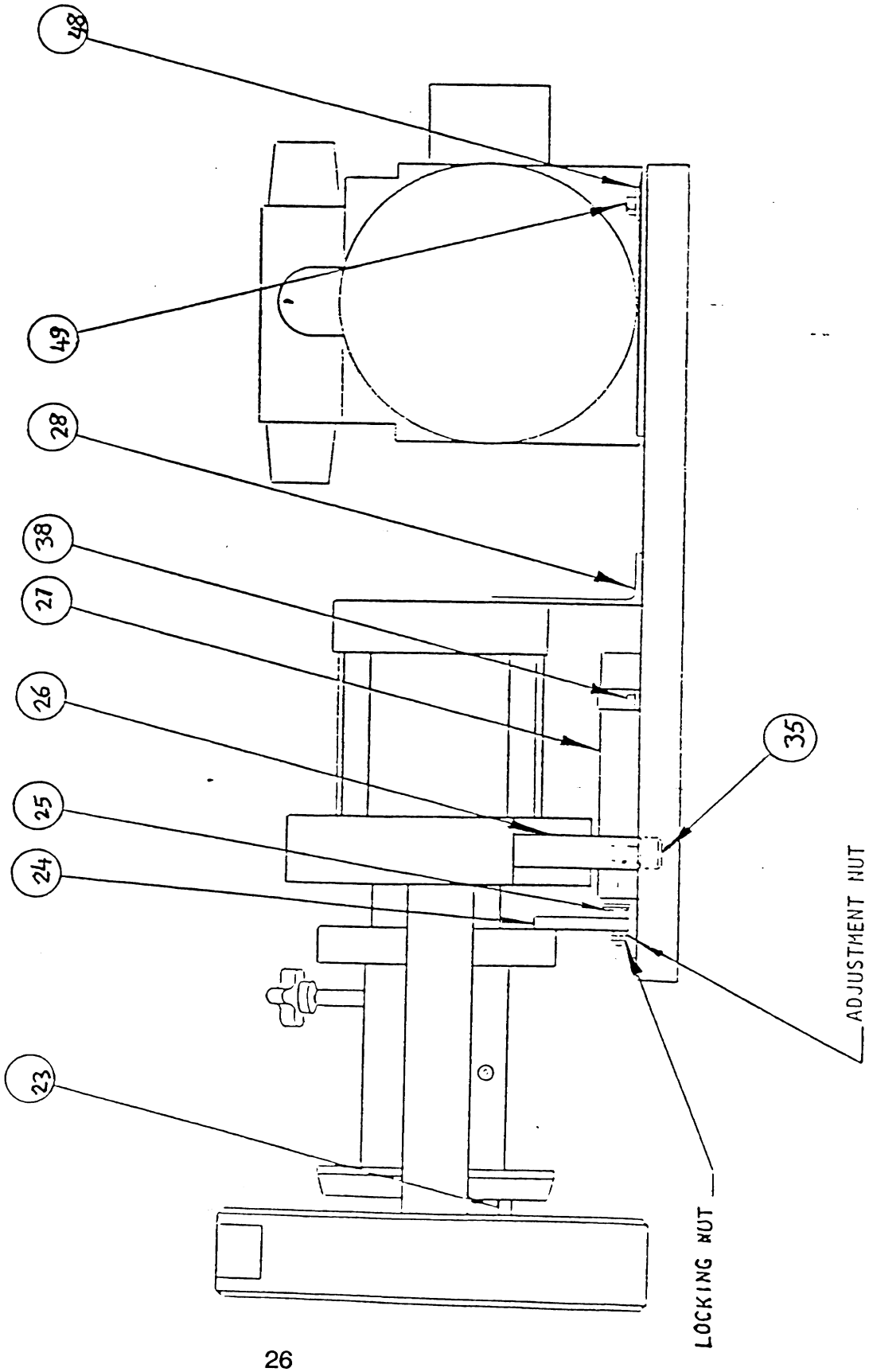
FT1330 CRIMP MACHINE
MODEL A



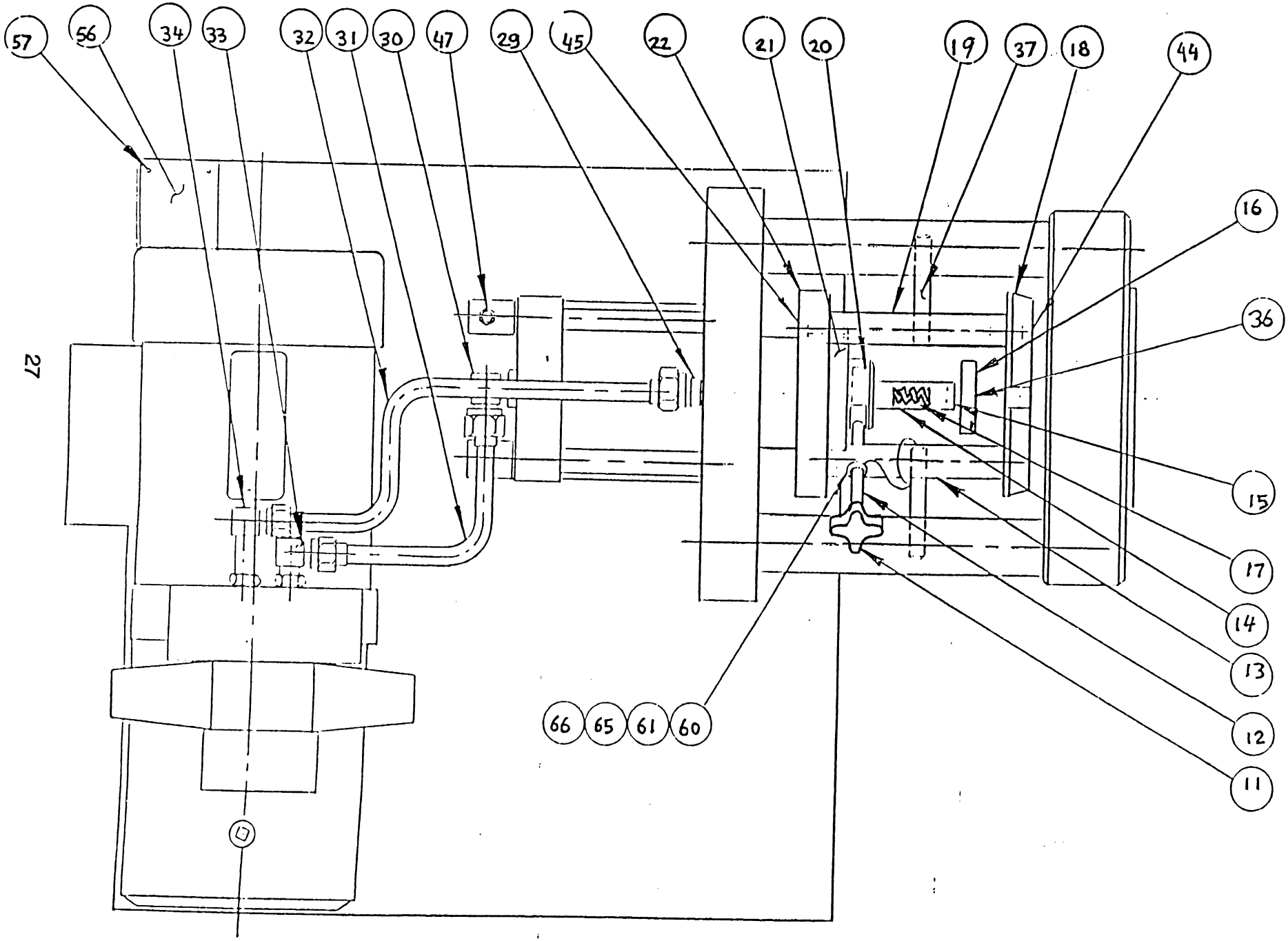
FT1330 CRIMP MACHINE
MODEL A



FT1330 CRIMP MACHINE
MODEL A



FT1330 CRIMP MACHINE
MODEL A



FT1330 MODEL A PARTS LIST

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-2	Power Unit	1
2	FT1330-3-1	Base	1
3	FT1330-3-2	Tool Tray	1
4	FT1330-3-3	Cylinder Cover	1
5	FT1330-3-4	Electrical Box	1
6	FT1330-3-5	Transformer Mounting Block	2
7	FT1330-2-3	Cylinder Assembly	1
8	FT1330-3-6	Bumper	9
9	FT1330-3-7	Grommet	3
10	FT1330-3-8	Top Mat	1
11	FT1330-2-4	Knob	1
12	FT1330-3-10	Spacer Tube	1
13	FT1330-3-11	Push Bar	1
14	FT1330-3-12	Back Stop Adj. Bar	1
15	FT1330-3-13	Spring Plunger	1
16	FT1330-3-14	Backstop	1
17	FT1330-3-15	Spring	1
18	FT1330-3-16	Pressure Plate	1
19	FT1330-3-17	Push Bar	3
20	FT1330-3-18	Shaft Collar	1
21	FT1330-3-19	Spanner Nut	1
22	FT1330-3-20	Push Plate	1
23	**FT1330-2-10	1/4 x .375 Shoulder Bolt	2
24	FT1330-3-21	Transducer Bracket	1
25	FT1330-3-22	Spring	1
26	FT1330-3-23	Cylinder Support	2
27	FT1330-2-5-6	Transducer	1
28	FT1330-3-24	Cylinder Bracket	1
29	FF1852T0606S	Adapter Straight	1
30	FF1868T0606S	Adapter 90°	2
31	FT1330-3-69	Supply Tube	1
32	FT1330-3-70	Supply Tube	1
34	FF2227T0606S	Adapter Long 90°	1
35	**FT1330-2-10	1/2-13 x 3.50 Soc Hd Cap Screw	2
36	**FT1330-2-10	1/4-20 x .50 Soc. Set Screw	1
37	FT1330-3-31	Roll Pin (.38 Dia. x 3.00)	2
38	**FT1330-2-10	#6-32 x .25 Soc Hd Cap Screw	4
39	FT1330-3-44	Aeroquip Decal	1
40	FT1208-3-108	A-TJ Decal	1
41	FT1330-3-42	Vickers Decal	1
42	FT1289-3-60	Caution Decal	1
43	FT1330-3-33	1/4-20 x .50 Button Hd Cap Screw	2
44	**FT1330-2-10	1/4-20 x .75 Soc Hd Cap Screw	4

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
45	**FT1330-2-10	1/4-20 X 1.00 Soc Hd Cap Screw	4
46	FT1330-3-36	Star Washer .25 I.D.	8
47	FT1330-3-37	Hex Nut (1/4-20)	6
48	FT1330-3-38	Lock Washer (.32 I.D.)	4
49	FT1330-3-39	Hex Nut (5/16-18)	4
50	FT1330-3-72	ORS Decal	1
53	FT1330-3-43	Shipping Crate	1
54	FT1330-3-30	Decal - Barrel Field Crimp	1
54A	FT1330-3-73	Decal - Flat Field Crimp	1
55	FT1330-3-9	Cover	1
56	SC2307	Name Plate	1
57	FT1330-3-41	#4 Drive Screw	4
58	FT1092	Never Seeze Lube	1
59	FT1330-2-5	Electronic Subassembly	1
60	FT1330-3-60	Locator Collar	1
61	FT1330-3-61	Spring Plunger RCID XNK1A-N	2
62	FT1330-3-62	Aluminum Plate	1
63	FT1330-3-63	#8-32 x .62 Flat Hd Cap Screw	2
64	FT1330-3-64	Caution Decal	1
65	FT1242-3-27	Cable	1
66	FT1242-3-28	Ferrule	1
67	FT1330-3-67	Dust Cover (Optional)	1
68	FT1330-3-68	Light (Optional)	1

**Supplied as a complete fastener kit only.

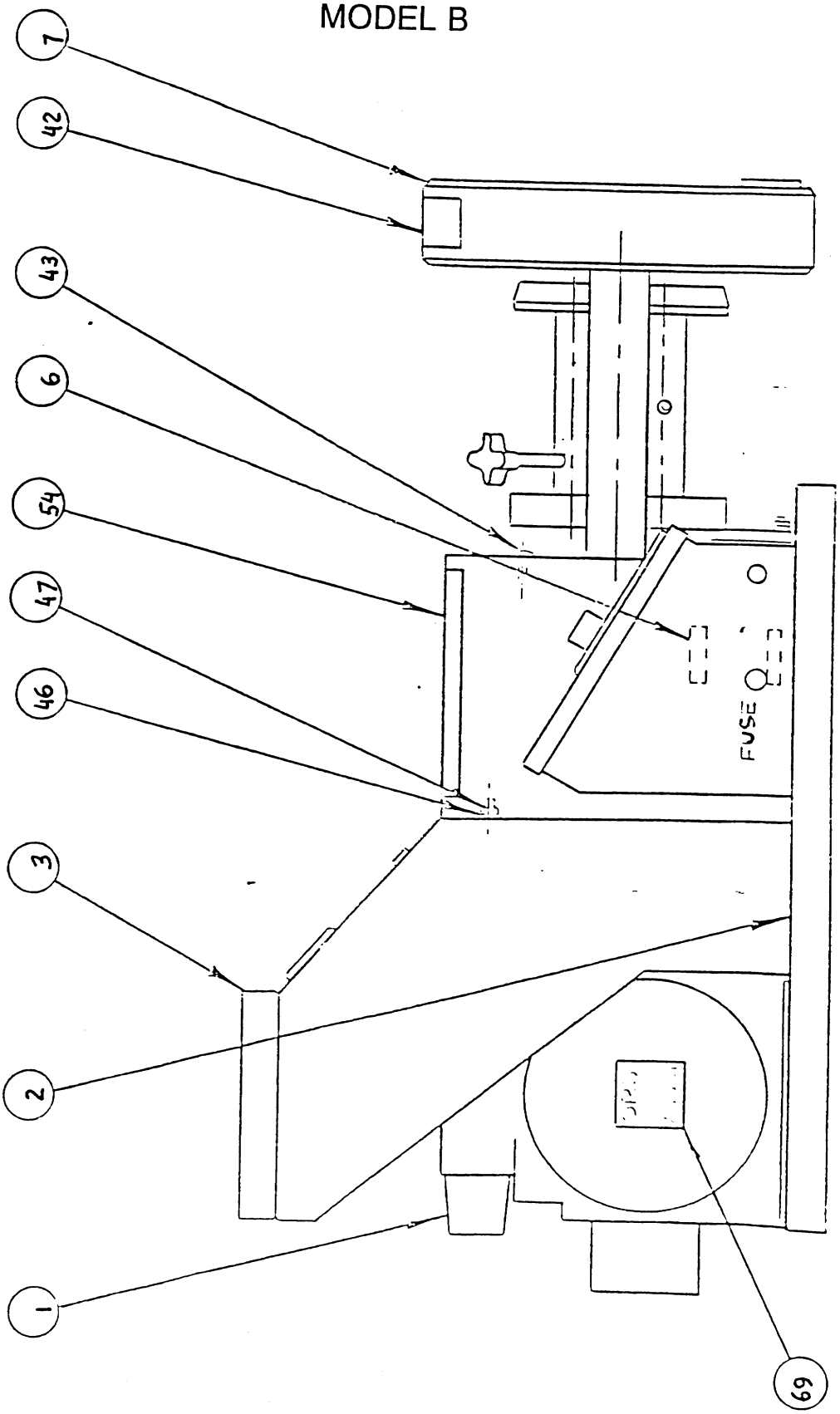
Spray cans of Sierra Blue paint are now available under Part Number FF90077-01 through Customer Service.

FT1330-2-2 POWER UNIT

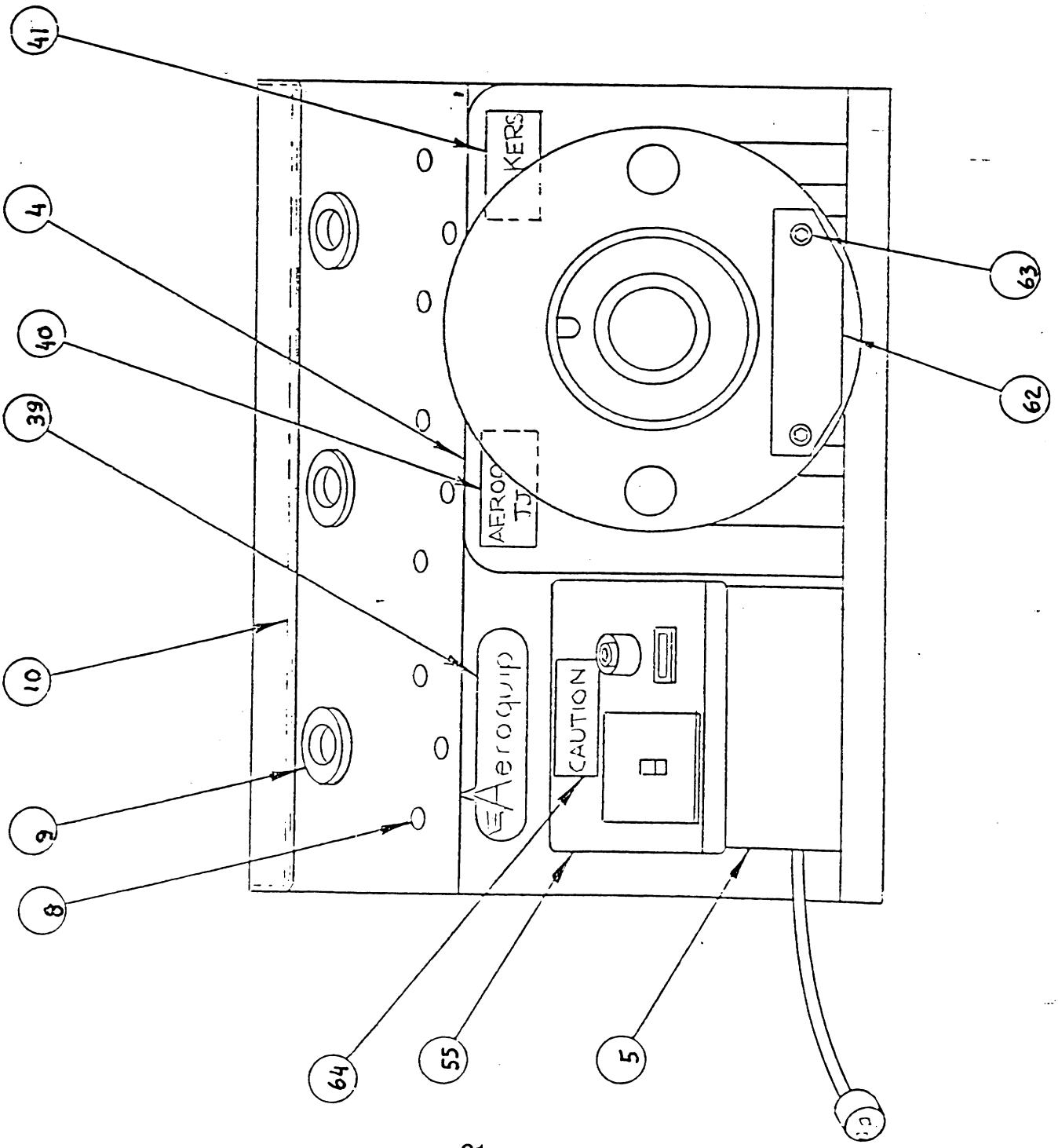
PART NUMBER	DESCRIPTION	NUMBER REQUIRED
FT1330-2-2-1	Motor	1
FT1330-2-2-2	Manifold	1
FT1330-2-2-3	Valve	1
FT1330-2-2-4	Reservoir	1
FT1330-2-2-5	Pump	1
FT1330-2-2-6	Bolt Kit	1
FT1245-3-1	Breather Cap	1

A Hydraulic Pump O'Ring Seal Kit is available under Part Number FT1330-2-2-9.

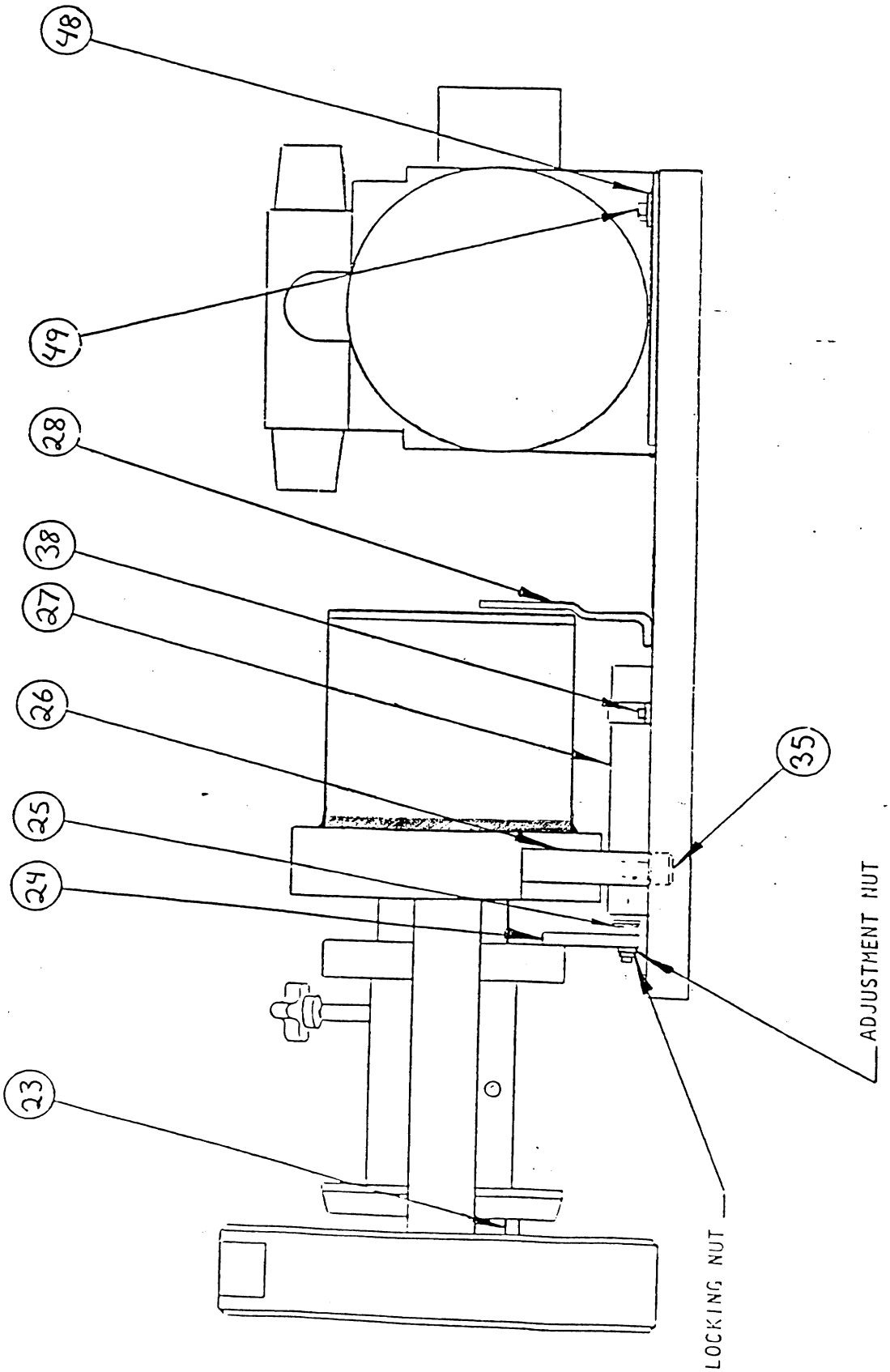
FT1330 CRIMP MACHINE
MODEL B



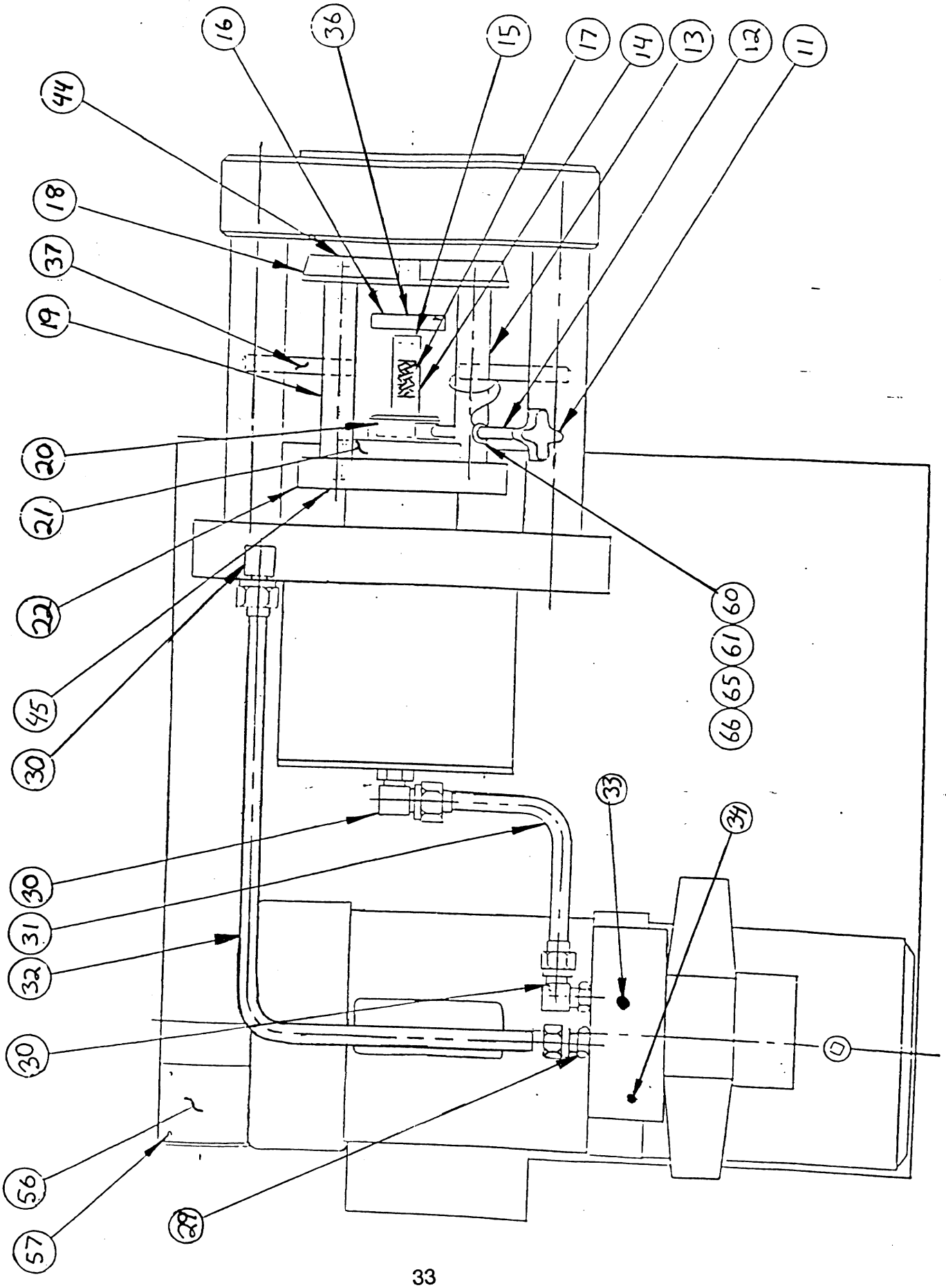
FT1330 CRIMP MACHINE
MODEL B



FT1330 CRIMP MACHINE
MODEL B



FT1330 CRIMP MACHINE
MODEL B



FT1330 MODEL B PARTS LIST

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-2	Power Unit	1
2	FT1330-3-1	Base	1
3	FT1330-3-2	Tool Tray	1
4	FT1330-3-3	Cylinder Cover	1
5	FT1330-3-4	Electrical Box	1
6	FT1330-3-5	Transformer Mounting Block	2
7	FT1330-2-8	Cylinder Assembly	1
8	FT1330-3-6	Bumper	9
9	FT1330-3-7	Grommet	3
10	FT1330-3-8	Top Mat	1
11	FT1330-2-4	Knob	1
12	FT1330-3-10	Spacer Tube	1
13	FT1330-3-11	Push Bar	1
14	FT1330-3-12	Back Stop Adj. Bar	1
15	FT1330-3-13	Spring Plunger	1
16	FT1330-3-14	Backstop	1
17	FT1330-3-15	Spring	1
18	FT1330-3-16	Pressure Plate	1
19	FT1330-3-17	Push Bar	3
20	FT1330-3-18	Shaft Collar	1
21	FT1330-3-19	Spanner Nut	1
22	FT1330-3-20	Push Plate	1
23	**FT1330-2-10	1/4 x .375 Shoulder Bolt	2
24	FT1330-3-21	Transducer Bracket	1
25	FT1330-3-22	Spring	1
26	FT1330-3-23	Cylinder Support	2
27	FT1330-2-5-6	Transducer	1
28	FT1330-3-74	Cylinder Bracket	1
29	FF1852T0606S	Adapter Straight	1
30	FF1868T0606S	Adapter 90°	3
31	FT1330-3-75	Supply Tube	1
32	FT1330-3-76	Supply Tube	1
33		1/4" NPT, Return Pressure Checkpoint	1
34		1/8" NPT, Extend Pressure Checkpoint	1
35	**FT1330-2-10	1/2-13 x 3.50 Soc Hd Cap Screw	2
36	**FT1330-2-10	1/4-20 x .50 Soc. Set Screw	1
37	FT1330-3-31	Roll Pin (.38 Dia. x 3.00)	2
38	**FT1330-2-10	#6-32 x .25 Soc Hd Cap Screw	4
39	FT1330-3-44	Aeroquip Decal	1
40	FT1208-3-108	A-TJ Decal	1
41	FT1330-3-42	Vickers Decal	1
42	FT1289-3-60	Caution Decal	1
43	FT1330-3-33	1/4-20 x .50 Button Hd Cap Screw	2
44	**FT1330-2-10	1/4-20 x .75 Soc Hd Cap Screw	4

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
45	**FT1330-2-10	1/4-20 x 1.00 Soc Hd Cap Screw	4
46	FT1330-3-36	Star Washer .25 I.D.	8
47	FT1330-3-37	Hex Nut (1/4-20)	2
48	FT1330-3-38	Lock Washer (.32 I.D.)	4
49	FT1330-3-39	Hex Nut (5/16-18)	4
53	FT1330-3-43	Shipping Crate	1
54	FT1330-3-30	Crimp Diameter Decal - Barrel Field Crimp	1
54A	FT1330-3-73	Crimp Diameter Decal - Flat Field Crimp	1
55	FT1330-3-9	Cover	1
56	SC2307	Name Plate	1
57	FT1330-3-41	#4 Drive Screw	4
58	FT1092	Never Seeze Lube	1
59	FT1330-2-5	Electronic Subassembly	1
60	FT1330-3-60	Locator Collar	1
61	FT1330-3-61	Spring Plunger RCID XNK1A-N	2
62	FT1330-3-62	Aluminum Plate	1
63	FT1330-3-63	#8-32 x .62 Lg. Flat Hd Cap Screw	2
64	FT1330-3-64	Caution Decal	1
65	FT1242-3-27	Cable	1
66	FT1242-3-28	Ferrule	1
67	FT1330-3-67	Dust Cover (Optional)	1
68	FT1330-3-68	Light (Optional)	1
69	FT1330-3-72	ORS Decal	1

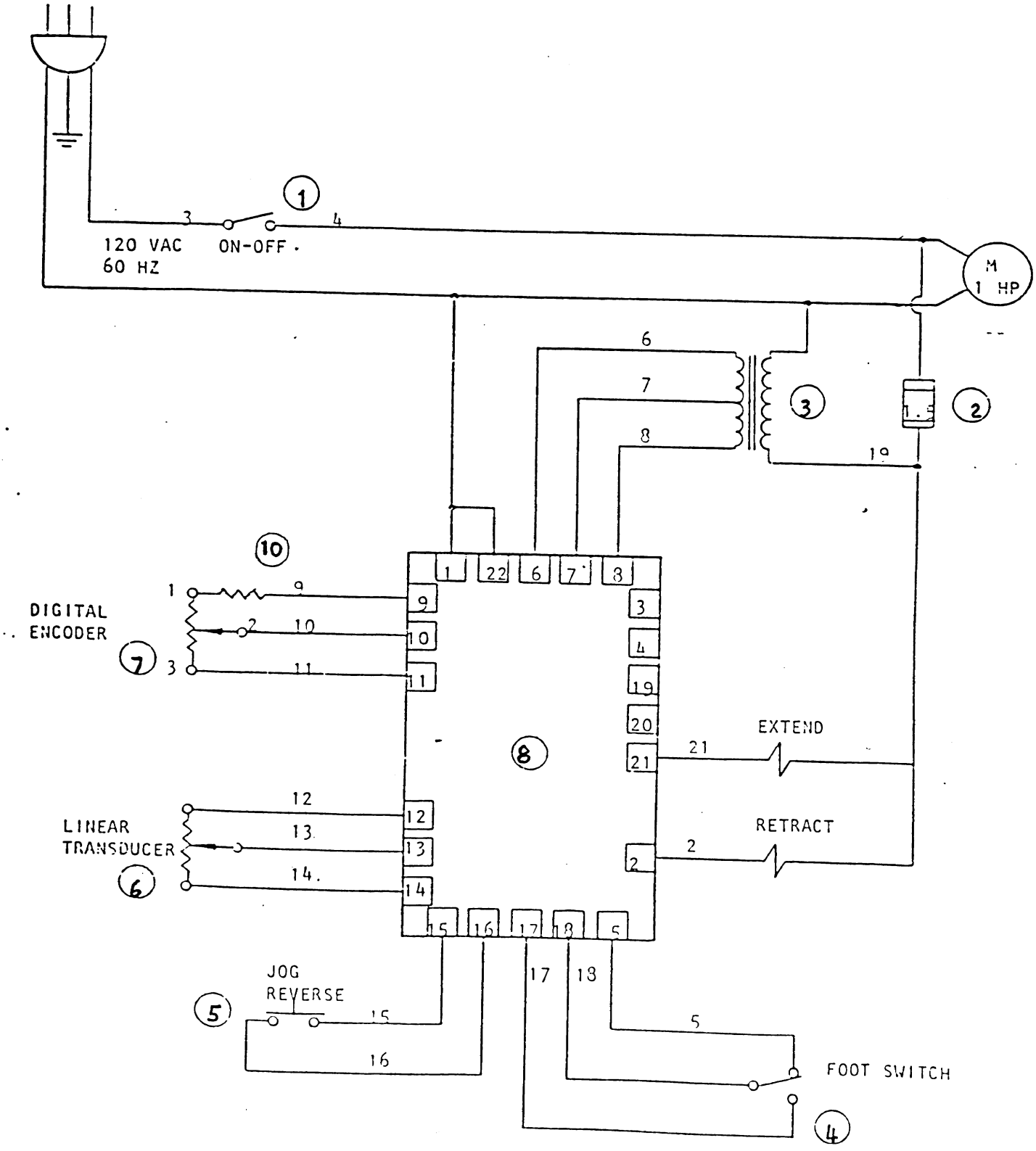
**Supplied as a complete fastener kit only.

Spray Cans of Sierra Blue paint are now available under Part Number FF90077-01 through Customer Service.

FT1330-2-2 POWER UNIT

PART NUMBER	DESCRIPTION	NUMBER REQUIRED
FT1330-2-2-1	Motor	1
FT1330-2-2-2	Manifold	1
FT1330-2-2-3	Valve	1
FT1330-2-2-4	Reservoir	1
FT1330-2-2-5	Pump	1
FT1330-2-2-6	Bolt Kit	1
FT1245-3-1	Breather Cap	1
FT1330-2-2-9	Seal Kit	1

115 VOLT ELECTRICAL SCHEMATIC

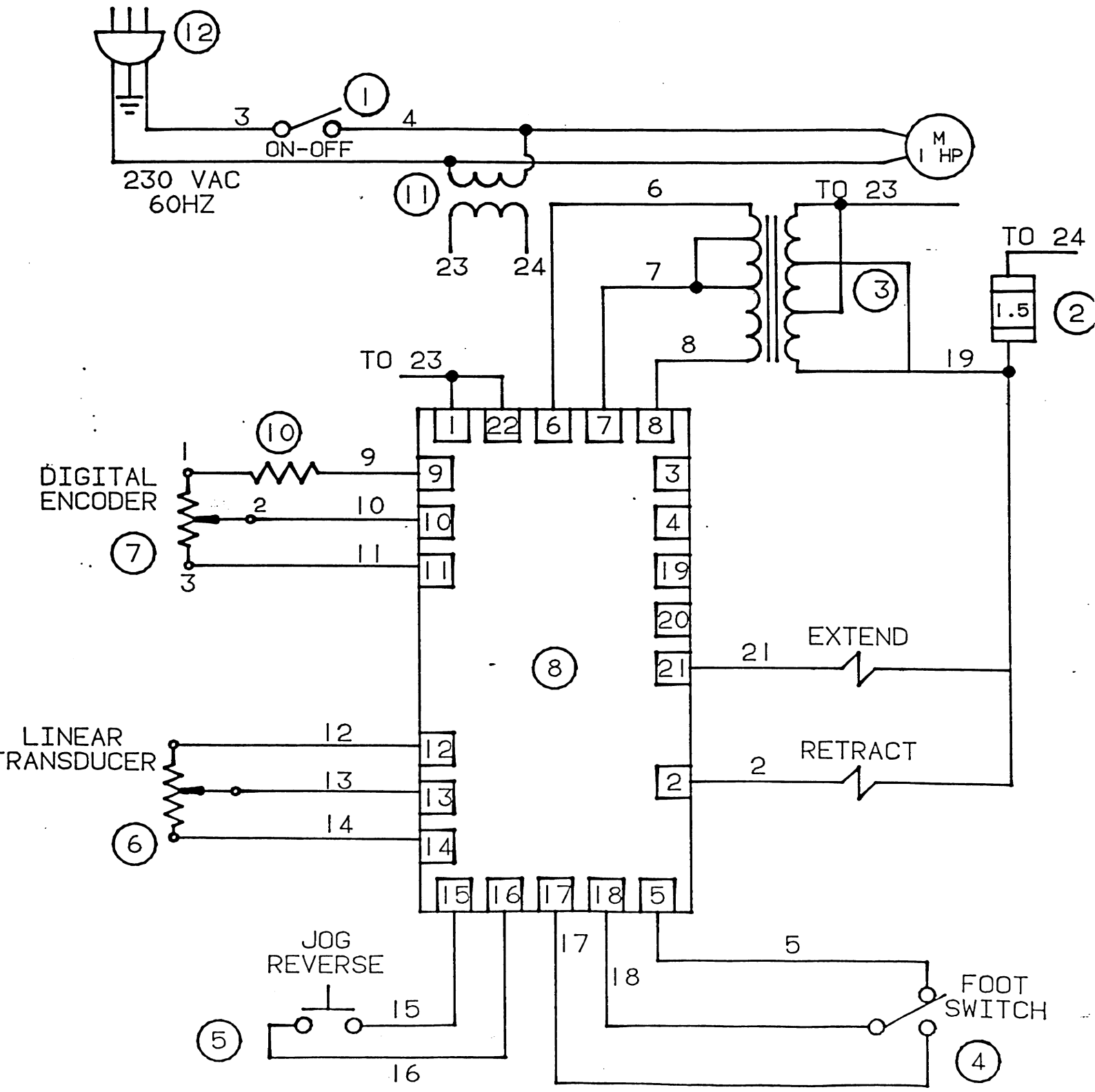


115 VOLT ELECTRICAL SCHEMATIC

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-5-1	Manual Motor Starter	1
2	FT1330-2-5-2	Fuse	1
3	FT1330-2-5-3	Transformer	1
4	FT1330-2-5-4	Foot Switch	1
5	FT1330-2-5-5	Push Button, Contact Block, Legend Plate	1 *
6	FT1330-2-5-6	Linear Transducer With Connector	1
7	FT1330-2-5-7	3 Digit Knobpot	1
8	FT1330-2-5-8	Control Card	1
9	FT1330-2-5-9	Card Connector	1
10	FT1330-2-5-10	Resistor	1

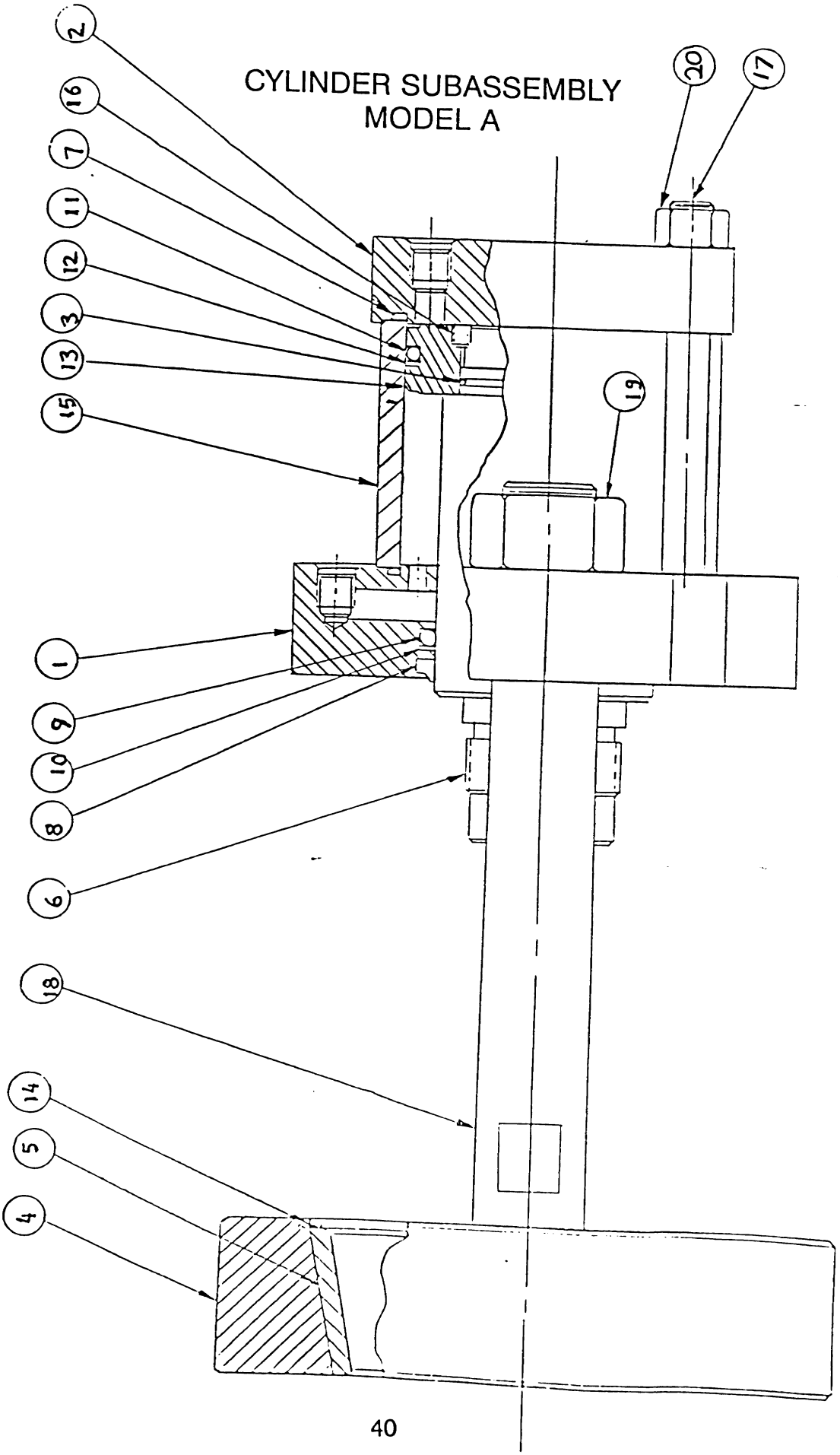
Note: Fuse holder is allied part number 845-4219 or equivalent.

230V ELECTRICAL SCHEMATIC



230 VOLT ELECTRICAL SCHEMATIC

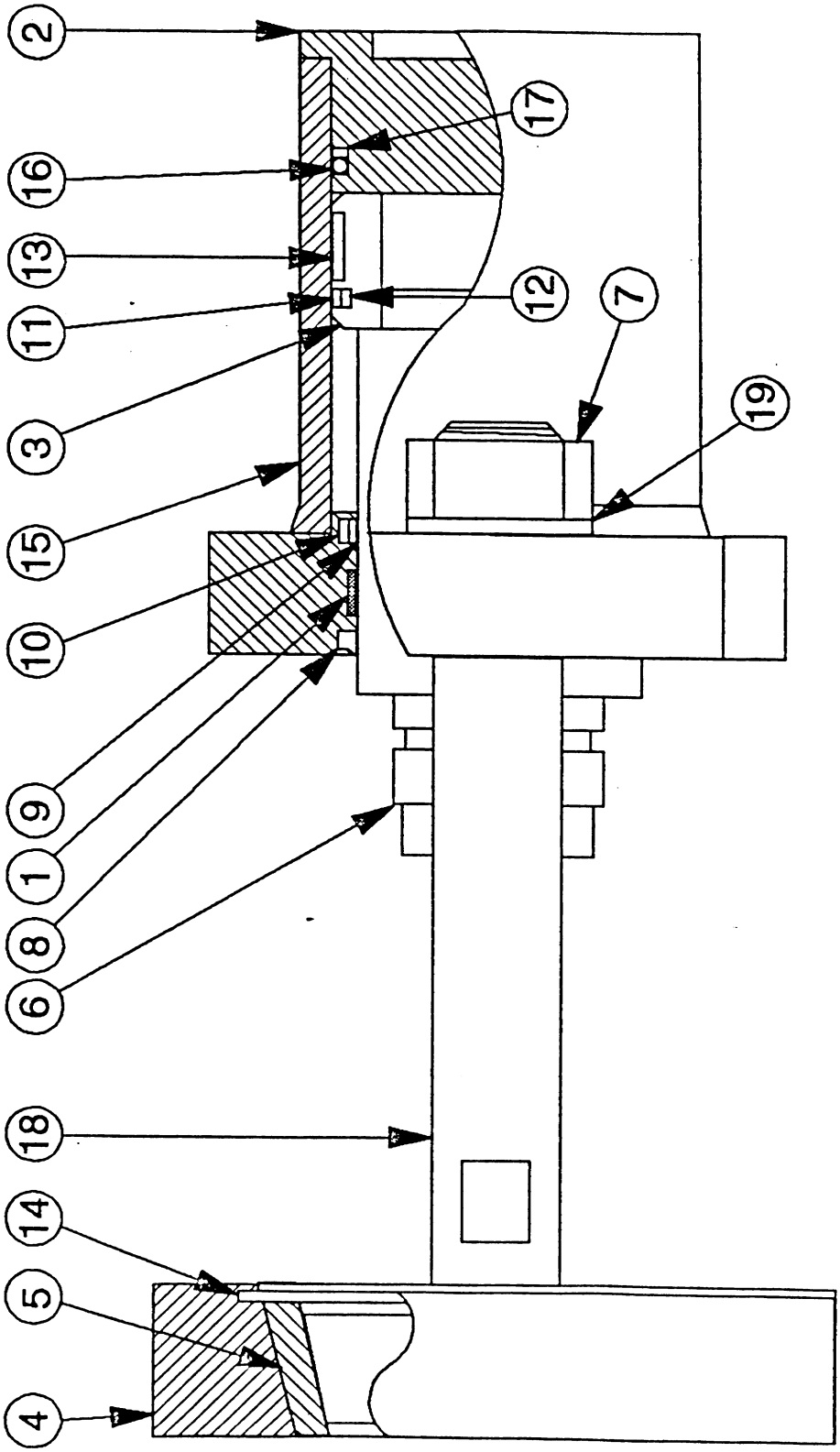
DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-5-1	Manual Motor Starter	1
2	FT1330-2-5-2	Fuse	1
3	FT1330-2-5-3	Transformer	1
4	FT1330-2-5-4	Foot Switch	1
5	FT1330-2-5-5	Push Button, Contact Block, Legend Plate	1
6	FT1330-2-5-6	Linear Transducer With Connector	1
7	FT1330-2-5-7	3 Digit Knobpot	1
8	FT1330-2-5-8	Control Card	1
9	FT1330-2-5-9	Card Connector	1
10	FT1330-2-5-10	Resistor	1
11	FT1289-2-5-21	Transformer	1
12	FT1289-2-5-24	Plug, 230V 1PH	1


CYLINDER SUBASSEMBLY
MODEL A
2
16
7
11
12
3
13
15
20
17
19
1
9
10
8
6
18
14
5
4

MODEL A CYLINDER SUBASSEMBLY

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-3-1	Head Rod End	1
2	FT1330-2-3-2	Head Blind End	1
3	FT1330-2-3-3	Piston	1
4	FT1330-2-3-4	Crimp Ring	1
5	FT1330-2-3-5	Crimp Insert	1
6	FT1330-2-3-6	Piston Rod	1
7	FT1330-2-3-7	O'Ring	2
8	FT1330-2-3-8	Rod Wiper	1
9	FT1330-2-3-9	O'Ring	1
10	FT1330-2-3-10	Backup Ring	1
11	FT1330-2-3-11	O'Ring	1
12	FT1330-2-3-12	Backup Ring	1
13	FT1330-2-3-13	O'Ring	1
14	FT1330-2-3-14	Retaining Ring	1
15	FT1330-2-3-15	Body	1
16	FT1330-2-3-16	Set Screw	1
17	FT1330-2-3-17	Tie Rod	4
18	FT1330-2-3-18	Tie Rod	2
19	FT1330-2-3-19	Hex Nut	2
20	FT1330-2-3-20	Hex Nut	4
21	FT1330-2-3-21	Plug	1

CYLINDER SUBASSEMBLY
MODEL B



CYLINDER SUBASSEMBLY MODEL B

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-8-1	Slyde Ring TJ#7881-4	1
2	FT1330-2-8-2	Head Blind End TJ #TG52KAB072	1
3	FT1330-2-8-3	Piston TJ #TG53KAB073	1
4	FT1330-2-3-4	Crimp Ring TJ #TX86HG3384	1
5	FT1330-2-3-5	Crimp Insert TJ #TX86HG3384A	1
6	FT1330-2-8-6	Piston Rod TJ #TG82UAB072	1
7	FT1330-2-8-7	Hex Nut TJ #5063-18	2
8	FT1330-2-3-8	Rod Wiper TJ #5026-3	1
9	FT1330-2-8-9	Rod Seal TJ #7623-011	1
10	FT1330-2-8-10	O-Ring Seal TJ #5145-339	1
11	FT1330-2-8-11	GFT Seal TJ #5160-0500	1
12	FT1330-2-8-12	Square Steel TJ #5222-246S	1
13	FT1330-2-8-13	Slyde Ride TJ #7880-1	1
14	FT1330-2-3-14	Retaining Ring TJ #5194-625	1
15	FT1330-2-8-15	Body TJ #TG57KAB072	1
16	FT1330-2-8-16	O-Ring Seal TJ #5145-248	1
17	FT1330-2-8-17	Back Up Ring TJ #5138-AA263	1
18	FT1330-2-8-18	Tie Rod TJ #TX56LAB072	2
19	FT1330-2-8-19	Flat Washer TJ #5060-AB072	4

DIE CAGE ASSEMBLY INSTRUCTIONS

1. Assure all components are free from dirt and other contaminants prior to assembly.

2. Position back plate on a table with the slots toward the assembler.

3. Lightly lubricate the spring plate with "Never Seeze." See illustration for location of lubricant.

4. Position spring plate on top of the back plate with the lubricated side up. Orientation must be the same as the back plate.

5. Install all eight springs into the slots of the spring plate. Allow the excess of the spring to overhang the outside diameter of the spring plate.

6. Install all eight roll pins into the backside of the dies. Allow .20" of roll pin to protrude.

7. Install all eight crimp dies within the slots of the spring plate. See illustration for insertion.

8. Lightly lubricate the front plate with "Never Seeze." See illustration for location of lubricant.

9. Position the front plate on top of the crimp dies. The part number must be to the topside of the cage.

10. Install all four spacers in line with the tapped and clearance holes.

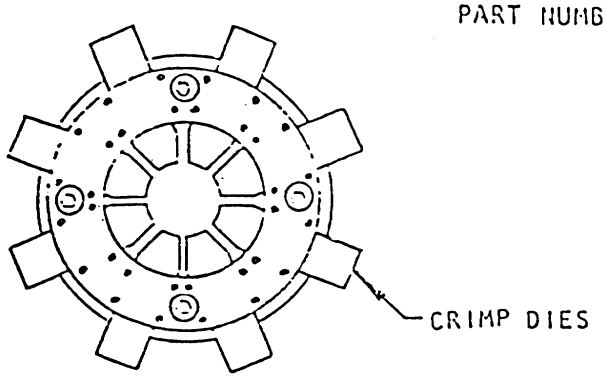
11. Install one 3" long button head screw. Tighten into position with "T" nut.

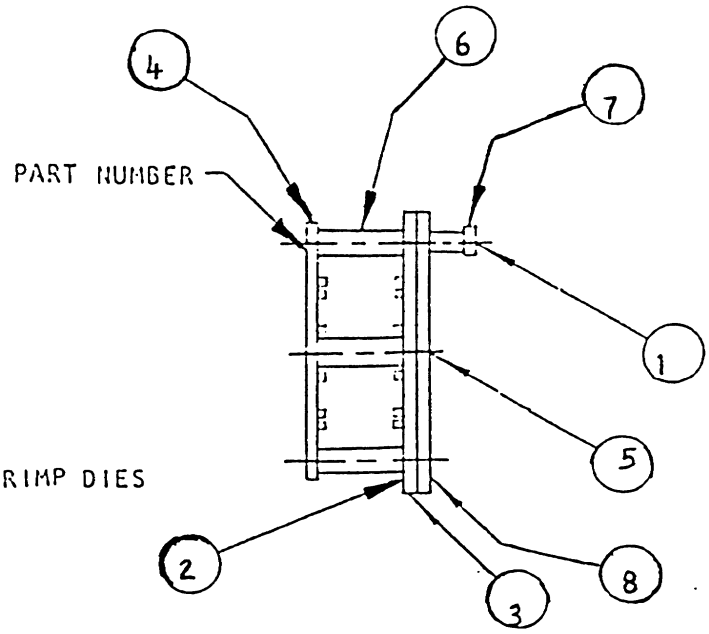
12. Install three 2 5/8" long button head screws. Tighten securely.

13. Stamp the same number, following the FT1204-100- located in the cavity of the crimp die, on the front plate after the FT1307-200-.

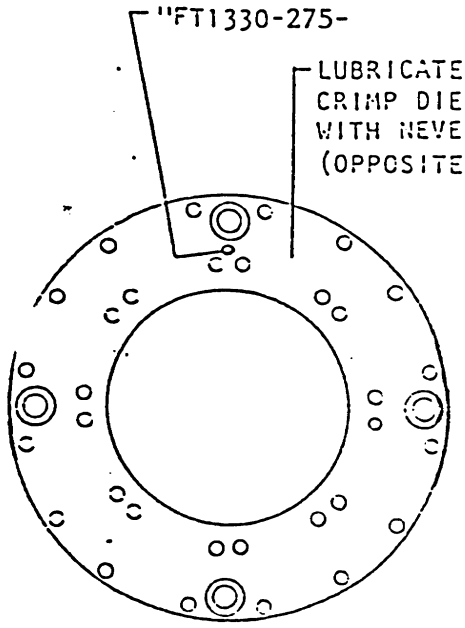
14. Rub white paint into the stamped numbers.

ASSEMBLY INSTRUCTIONS FOR GLOBAL CRIMP DIE CAGE

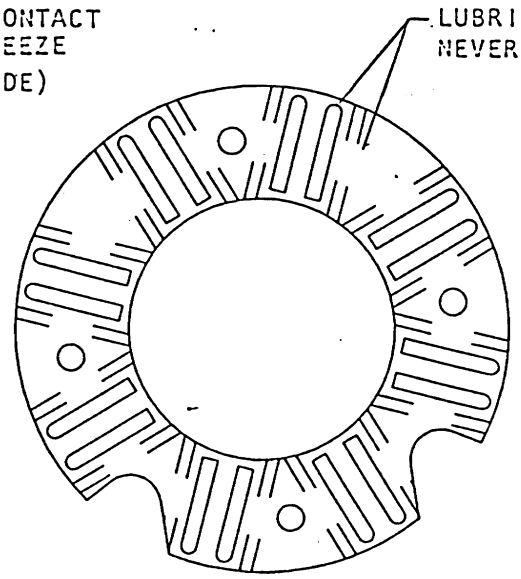




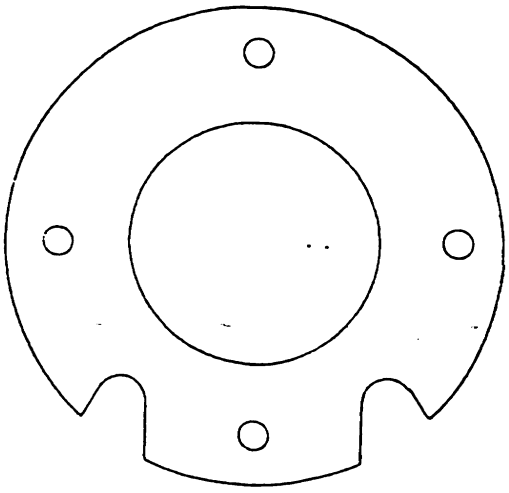
VIEW SHOWN LESS CRIMP DIES



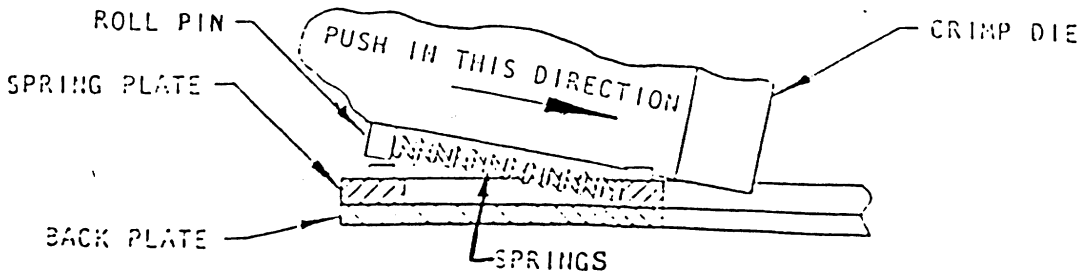
FRONT PLATE



SPRING PLATE



BACK PLATE

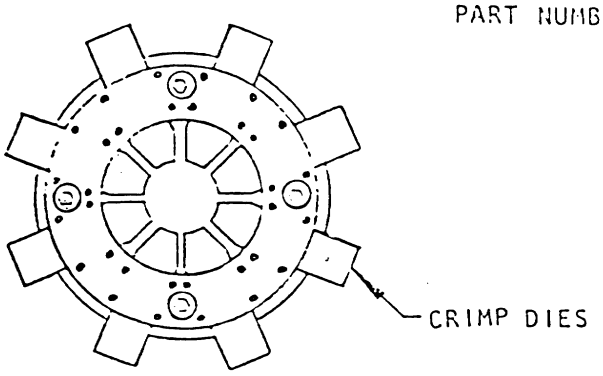


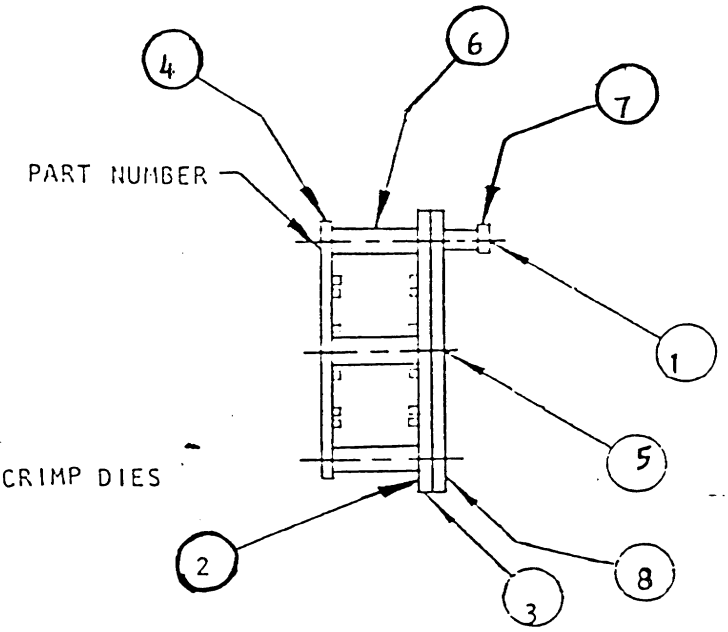
INSTALLING THE CRIMP DIE

GLOBAL CRIMP DIE CAGE

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-9	1/4-20 X 2.5 Screw	1
2	FT1330-2-9-21	Spring	16
3	FT1330-2-9-13	Spring Plate	1
4	FT1330-2-9-14	Front Plate	1
5	FT1330-2-9-55	Button Head Cap Screw	3
6	FT1330-2-9-66	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-18	Back Plate	1

ASSEMBLY INSTRUCTIONS FOR FACTORY CRIMP DIE CAGE



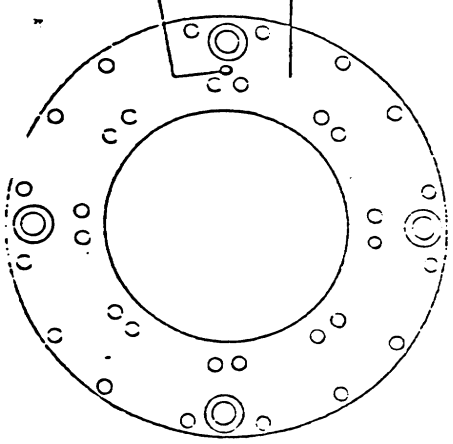


"FT1330-200- "

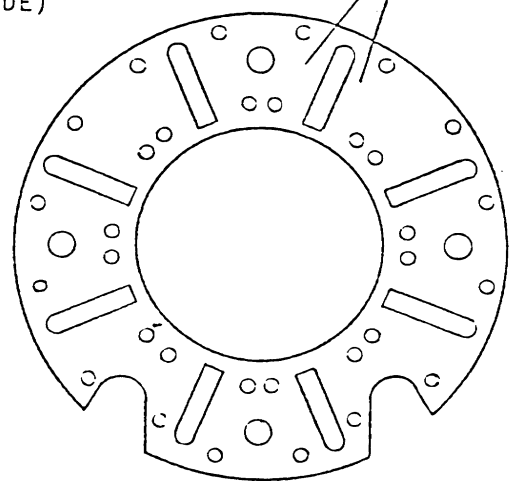
LUBRICATE AREAS WHERE CRIMP DIES CONTACT WITH NEVER SEEZE (OPPOSITE SIDE)

VIEW SHOWN LESS CRIMP DIES

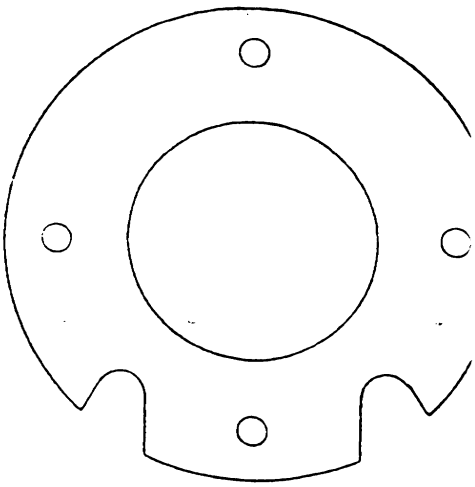
LUBRICATE WITH NEVER SEEZE



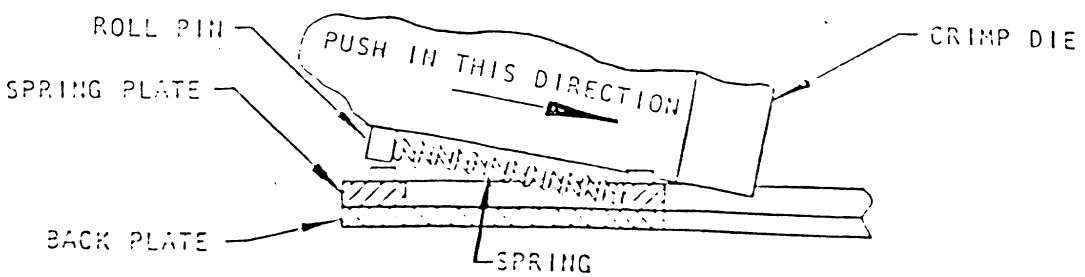
FRONT PLATE



SPRING PLATE



BACK PLATE

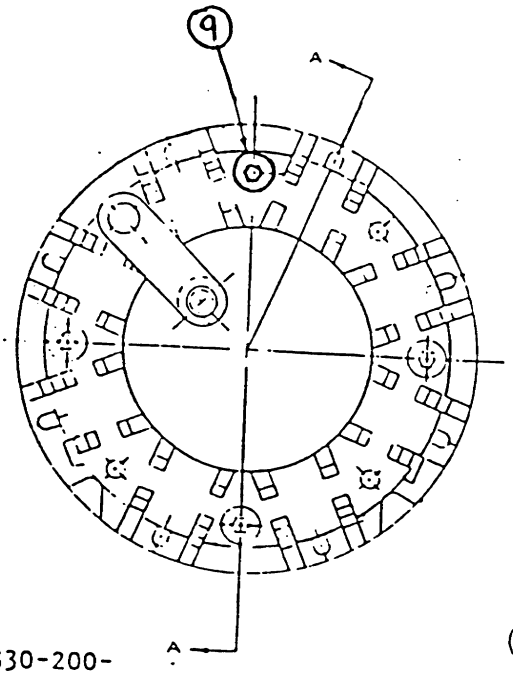


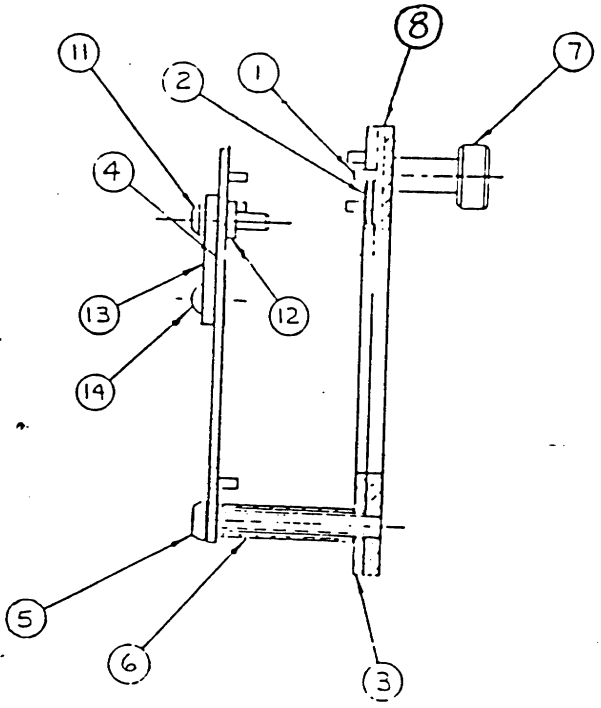
INSTALLING THE CRIMP DIE

CRIMP DIE CAGE

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-9	1/4-20 X 2.50 Screw	1
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-1-1	Front Plate	1
5	FT1330-2-9-5	1/4-20 x 2.00 Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1

ASSEMBLY INSTRUCTIONS FOR FLAT FIELD CRIMP DIE CAGE

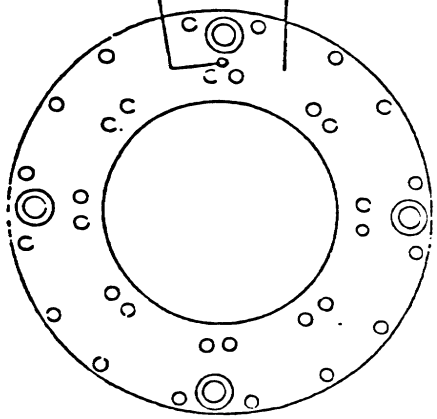


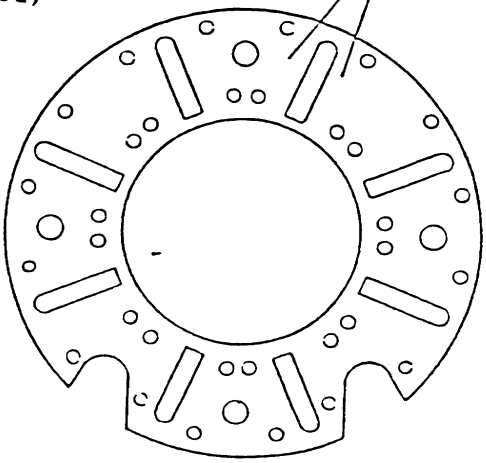


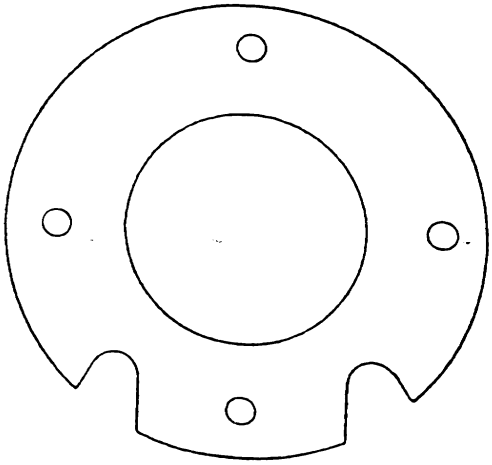
"FT1330-200-

LUBRICATE AREAS WHERE CRIMP DIES CONTACT WITH NEVER SEEZE (OPPOSITE SIDE)

LUBRICATE WITH NEVER SEEZE



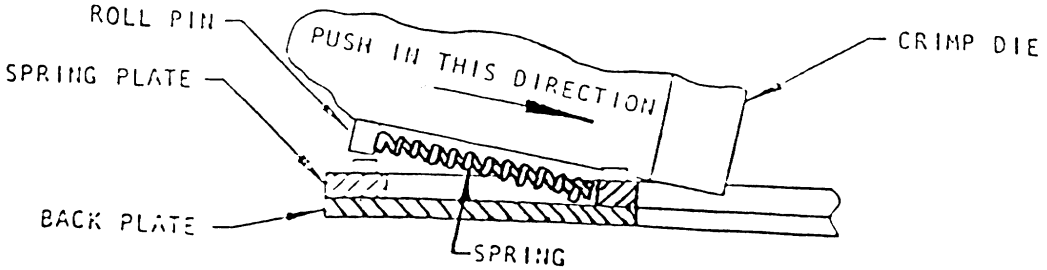




FRONT PLATE

SPRING PLATE

BACK PLATE



INSTALLING THE CRIMP DIE

FLAT FIELD CRIMP DIE CAGE

FT1330-2-9-0004

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-5	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	1
12	FT1330-2-9-11	Lock Nut	1
13	FT1330-250-0004	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	1

FT1330-2-9-0608

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-6	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	1
12	FT1330-2-9-11	Lock Nut	1
13	FT1330-250-0608	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	1

FLAT FIELD CRIMP DIE CAGE

FT1330-2-9-1012

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-7	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	1
12	FT1330-2-9-11	Lock Nut	1
13	FT1330-250-0010	Locator Tab	1
13	FT1330-250-0012	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	1

FT1330-2-9-1620

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-8	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	1
12	FT1330-2-9-11	Lock Nut	1
13	FT1330-250-0016	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	1

BARREL CRIMP DIE CAGE

FT1330-2-9-51

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-2	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	2
12	FT1330-2-9-11	Lock Nut	2
13	FT1330-250-0016	Locator Tab	1
13	FT1330-250-0012	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	2
17	FT1330-275-12	Locator Tab Adapter	1
18	FT1330-285-16	Locator Tab Adapter	1

FT1330-2-9-52

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-1	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	3
12	FT1330-2-9-11	Lock Nut	3
13	FT1330-250-0010	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	3
13	FT1330-250-0608	Locator Tab	1
13	FT1330-250-0004	Locator Tab	1
15	FT1330-275-12	Locator Tab Adapter	3

DETAIL NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	FT1330-2-9-1	Roll Pin	8
2	FT1330-2-9-2	Spring	8
3	FT1330-2-9-3	Spring Plate	1
4	FT1330-2-9-4-4	Front Plate	1
5	FT1330-2-9-5	Button Head Cap Screw	3
6	FT1330-2-9-6	Spacer	4
7	FT1330-2-9-7	Nut	1
8	FT1330-2-9-8	Back Plate	1
9	FT1330-2-9-9	Button Head Cap Screw	1
11	FT1330-2-9-10	Button Head Cap Screw	1
12	FT1330-2-9-11	Lock Nut	1
13	FT1330-250-0020	Locator Tab	1
14	FT1330-2-9-12	Bumper Grommet	1
15	FT1330-275-20	Locator Tab Adapter	1

100R1 TYPE HOSE
2663, 2681, FC194, FC198, FC211

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-3	1401*	-1	609	.525 - .535
-4	1401*	-2	620	.586 - .596
-5	1401*	-2	479	.645 - .655
-6	1401*	-3	625	.786 - .796
-8	1401*	-4	610	.911 - .921
-10	1401*	-5	645	1.052 - 1.062
-12	1401*	-6	647	1.188 - 1.198
-16	1401*	-8	654	1.481 - 1.491
-20	1401*	-9	653	1.894 - 1.904

100R2 TYPE HOSE
1509, 2781, 2793, FC195, FC199

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-4	1401*	-2	513	.635 - .645
-6	1401*	-3	534	.825 - .835
-8	1401*	-4	516	.948 - .958
-10	1401*	-5	570	1.082 - 1.092
-12	1401*	-6	520	1.239 - 1.249
-16	1401*	-8	537	1.529 - 1.539
-20	1401*	-9	435	1.987 - 1.997

NOTE: All control settings are starting points only. Check crimp diameter[+] and make proper adjustments a instructed on page 10.

* Skiving Required

[+] Refer to Bulletin JA55A

HI PAC HOSE
FC310, FC410

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-4	1401*	588	-2	.603 - .613
-6	1401*	607 585	-3	.775 - .785 .786 - .796**
-8	1401*	609	-4	.910 - .920
-10	1401*	623	-5	1.060 - .1070
-12	1401*	647	-6	1.186 - 1.196
-16	1401*	630	-55	1.440 - 1.450
-20	1401*	642	-99	1.850 - 1.860

FC510

-4	1401*	588	-2	.603 - .613
-6	1401*	607	-3	.794 - .804
-8	1401*	633	-4	.900 - .910
-10	1401*	623	-5	1.060 - 1.070
-12	1401*	647	-6	1.186 - 1.196
-16	1401*	630	-55	1.440 - 1.450

NOTE: All control settings are starting points only. Check crimp diameter+ and make proper adjustments a instructed on page 10.

* Skiving Required

+ Refer to Bulletin JA55A

SPIRAL HOSE
FC262-16, FC336, FC436

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-6	FC3471	-3	568*	.812 - .822
-8	FC3471	-4	496*	.958 - .968
-12	FC3471	-6	533*	1.235 - 1.245
-16	FC3471	-8	550*	1.525 - 1.535

SPIRAL HOSE
1508/FC250A/FC136

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-6	FC3471*	-3		.812 - .822 (3) .807 - .817 (1)
-8	FC3471	-4	496	.958 - .968
-10	FC3471*	-5	504	1.117 - 1.127 (3)
-12	FC3471*	-6	431	1.235 - 1.245
-16	FC3471*	-8	514	1.525 - 1.535

NOTE: All control settings are starting points only. Check crimp diameter[+] and make proper adjustments a instructed on page 10.

* Skiving Required

[+] Refer to Bulletin JA55A

(3) FC136 Only
(1) 1508 Only

POLYON HOSE
FC370, FC371, FC372, FC373, FC390

SIZE	DIE	CONTROL SETTING	CRIMP DIAMETER
3	-90	893	.485 - .495
4	-91	902	.565 - .575
5	-92	927	.625 - .635
6	-93	819	.700 - .710
8	-94	907	.850 - .860
10	-94	681	.963 - .973
12	-95	904	1.105 - 1.115
		FC374, FC375	
3	-90	943	.470 - .480
4	-91	932	.555 - .565
6	-93	842	.690 - .700
8	-94	824	.840 - .850
10	-94	578	.963 - .973
12	-95	964	1.085 - 1.095

NOTE: All control settings are starting points only. Check crimp diameter[+] and make proper adjustments a instructed on page 10.

* Skiving Required

[+] Refer to Bulletin JA55A

SPIRAL HOSE
SINGLE SKIVE FITTING (K-11 STYLE)

FC250A/FC136

SIZE	SOCKET TYPE	DIE	CONTROL SETTING	CRIMP DIAMETER
-12	FC1410	-6	431	1.278 - 1.292
-16	FC1410	-8	514	1.533 - 1.547

NOTE: All control settings are starting points only. Check crimp diameter[+] and make proper adjustments a instructed on page 10.

FT1330 TROUBLESHOOTING CHECKLIST

PROBLEM		SOLUTION
Machine will not cycle	1.	Make sure motor is running in proper direction by manually shifting directional control valve to extend and retract cylinder.
	2.	If no movement is obtained in #1, pump is defective or motor is runnin in reverse.
	3.	If movement is obtained in #1, remove power from machine and check continuity of foot switch at terminals 17, 18 and 5 inside control box with a continuity tester. With switch up, 5 and 18 should show a short and 18 and 17 open. With switch depressed, 5 and 18 should show an open and 18 and 17 a short.
	4.	If #3 is okay, with power removed, jumper wire 21 to wire 1 (23 to 1 if 230V machine). Plug machine in and turn machine on for one second only. If cylinder extends, replace control board. If not, replace valve.
Machine crimps and returns, but will not crimp again	1.	Turn machine off. Wait three seconds for the machine to reset and turn back on. Depress foot switch. If machine now crimps, Ret. Lim. potentiometer is out of adjustment. Remove power, open control box, plug machine back in and turn on. Cycle machine, when fully retracted, power unit will sound different. Adjust Ret. Lim. C.C.W. until red LED comes on then 1/4 turn more. If the red light does not work, replace control board.

NOTE: Electrical checks should be done by a qualified electrician.

PROBLEM	SOLUTION
Motor stalls and will not finish the crimp cycle with hose and fitting in it but cycles with nothing in it	1. Check for 115 volts at motor under load and make sure machine is wired to a 30 amp circuit breaker with 10 gauge wire. 2. If #1 is okay, plumb in a pressure gauge to the -4 pipe port on the top side of the manifold. Crimp the problem assembly. Upon stall, record pressure. If not 4500 psi, remove hex cap on back of crimper at the center of the power unit. Adjust pressure. (C.W. increases pressure, C.C.W. decreases) 3. If no sucess with step 2, replace the O'ring in the pump. P/N FT1330-2-2-9
Crimp diameters are inconsistent	1. Check linear transducer to make sure it is not loose in the brackets. 2. If #1 is okay, remove power and take cover off of control box. With a file and sandpaper, remove all paint from corners in box where cover makes contact from screws, and from cover both sides. 3. Check DC voltages from the digital encoder and linear transducer. They must be stable at the crimp position.