





**molex<sup>®</sup>**













**Hydraulic Press Assembly  
Operation Manual  
Order No. 19286-1000**



- Description
- Operation
- Maintenance

## Safety Warnings and Information

	<p><b>Read and understand</b> all of the instructions and safety information in this manual before operating or servicing this tool.</p> <p style="text-align: center;"><u>Keep this manual available when using this tool.</u></p> <p>Replacement manuals are available for download at no charge at <a href="http://www.molex.com">www.molex.com</a>.</p>
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<h3 style="color: red; margin: 0;">SAFETY ALERT SYMBOL</h3> <p>This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.</p>	
 <b style="color: red;">DANGER</b>	<p><b style="color: red;">DANGER:</b> Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.</p>
 <b style="color: red;">WARNING</b>	<p><b style="color: red;">WARNING:</b> Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</p>
 <b style="color: red;">CAUTION</b>	<p><b style="color: red;">CAUTION:</b> Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. <b style="color: red;">CAUTION</b> may also be used to alert against unsafe practices associated with events that could lead to personal injury.</p>

	<p> <b style="color: red;">WARNING</b></p> <p><b>Always</b> wear proper eye protection when Operating or servicing this equipment.</p> <p>Failure to wear eye protection could result in serious eye injury from flying debris.</p>		<p> <b style="color: red;">WARNING</b></p> <p><b>Heavy Object</b> To avoid muscle strain or back injury, use lifting aids and proper lifting techniques when removing or replacing.</p> <p>Failure to observe these precautions may result in injury or property damage.</p>
	<p> <b style="color: red;">WARNING</b></p> <p><b>Never</b> wear clothing or jewelry that is loose or That could potentially hang into the equipment and get caught.</p> <p>Failure to observe this warning could result in Severe Injury or death.</p>		<p> <b style="color: red;">WARNING</b></p> <p><b>Never</b> install or service this machine while connected to any electrical power source. Disconnect power by unplugging this tool from its power source.</p> <p>Failure to observe this warning could result In severe injury or death.</p>
	<p> <b style="color: red;">WARNING</b></p> <p><b>Never</b> operate, service, install, or adjust this machine without proper instruction and without first reading and understanding the instructions in this manual and all applicable tool and/or wire processing machine manuals.</p>		<p> <b style="color: red;">WARNING</b></p> <p><b>Always</b> wear proper ear protection when Operating or servicing this applicator.</p> <p>Failure to observe these precautions may result in Injury or property damage.</p>

	<p><b>WARNING</b></p> <p><b>Never</b> use this tool without guards or safety devices that are intended to prevent hands from remaining in the die space.</p> <p>Failure to observe this warning could result in severe injury or death.</p>		<p><b>WARNING</b></p> <p><b>Do not use</b> compressed air to clean this equipment. The forces created by compressed air can force debris into the tool.</p> <p>Failure to observe these precautions may result in injury or property damage.</p>
<p><b>Air Hydraulic Pump</b></p>	<p><b>WARNING</b></p> <p><b>Hand/Foot Operated</b>  <b>Maximum Capacity: 10,000 PSI</b></p> <p>Before operating the hydraulic pump, all hose connections must be tightened with proper tools.</p> <p><b>Do not</b> over-tighten. Connections need only be tightened securely and leak-free. Over-tightening may cause premature thread failure or may cause high-pressure fittings to split at pressures lower than their rated capacities</p> <p>Should a hydraulic hose ever rupture, burst, or need to be disconnected, immediately shut off the pump and shift the control valve twice to release all pressure.</p> <p><b>Never</b> attempt to grasp a leaking hose under pressure with your hands. The force of escaping hydraulic fluid could cause serious injury.</p> <p><b>Do not</b> subject the hose to potential hazard such as fire, extreme heat or cold, sharp surfaces, or heavy impact.</p> <p><b>Do not</b> allow the hose to kink, twist, curl, or bend so tightly that the oil flow within the hose is blocked or reduced. Periodically inspect the hose for wear because any of these conditions can damage the hose and possibly result in personal injury.</p> <p><b>Do not</b> use the hose to move attached equipment. Stress may damage hose and possibly cause personal injury.</p> <p>Hose material and coupler seals must be compatible with the hydraulic fluid used. Hoses must not encounter corrosive materials such as creosote-impregnated objects and some paints. Consult the manufacturer before painting a hose.</p> <p><b>Never</b> paint the couplers. Hose deterioration due to corrosive materials may result in possible personal injury</p>	<p><b>Pump</b></p>	<p><b>WARNING</b></p> <p><b>Do not</b> exceed the PSI hydraulic rating noted on the pump nameplate or tamper with the internal high-pressure relief valve.</p> <p>Creating pressure beyond rated capacities may result in personal injury.</p> <p>Before replenishing the oil level, retract the system to prevent overfilling the pump reservoir.</p> <p>An overfill may cause personal injury due to excess reservoir pressure created when cylinders are retracted.</p>
		<p><b>Cylinder</b></p>	<p><b>WARNING</b></p> <p><b>Do not</b> exceed rated capacities of the cylinders. Excess pressure may result in personal injury.</p> <p><b>Do not</b> set poorly balanced or off-center loads on a cylinder. The load may tip and cause personal injury.</p>
		<p><b>Air Supply</b></p>	<p><b>WARNING</b></p> <p>Shut off and disconnect the air supply when the pump is not in use or before breaking any connection in the system.</p>



## WARNING

**MOLEX CANNOT BE RESPONSIBLE FOR DAMAGE OR INJURY RESULTING FROM UNSAFE PRODUCT USE, LACK OF MAINTENANCE, OR INCORRECT PRODUCT AND SYSTEM APPLICATION.**



## CAUTION

Failure to observe these precautions may result in injury or property damage.



## CAUTION

**Never** perform any service or maintenance other than as described in this manual.

**Never** modify, alter or misuse the equipment

Molex crimp specifications are valid only when used with Molex terminals, applicators and tooling.

Failure to observe this precaution may result in injury and property damage.

## Tooling Technical Assistance

Molex offers tooling technical assistance for customers who may need some guidance for tooling adjustments. This support can be obtained by calling either of the two numbers listed below and asking for the Molex Tooling Group.  
Call Toll Free 1-800-786-6539 (US) 1-630-969-4550 (Global).

This assistance is limited to the operation and set-up of a customer's Molex Press Assembly. Questions with regard to Molex connector products or how to identify the proper tooling and/ or tooling documentation should be directed to your local Molex personnel or Customer Service Representative.

When calling for service on the tool a copy of the *Tooling Manual* and Specific *Applicator Tooling Specification Sheet* should be present and a person that is familiar with the applicator should be present. Be sure the following information is supplied:

1. Customer name
2. Customer address
3. Person to contact such as (name, title, e-mail, and telephone number)
4. Press order number (Lease number also if applicable)
5. Serial number (Lease number also if applicable)
6. Molex Connector product order number
7. Urgency of request
8. Nature of problem

### Molex Application Tooling Group

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## Section 1

### General Description

- 1 Description
- 2 Setup and Adjustments
- 3 Crimping Dies Go-No go
- 4 Preventive Maintenance
- 5 Parts List, Assembly Drawings and Troubleshooting

## Section 1

### General Description

- 1.1. Description
- 1.2. Features
- 1.3. Technical Specifications
- 1.4. Delivery Check
- 1.5. Tools

### Principal Mechanical Parts of the 19286-1000

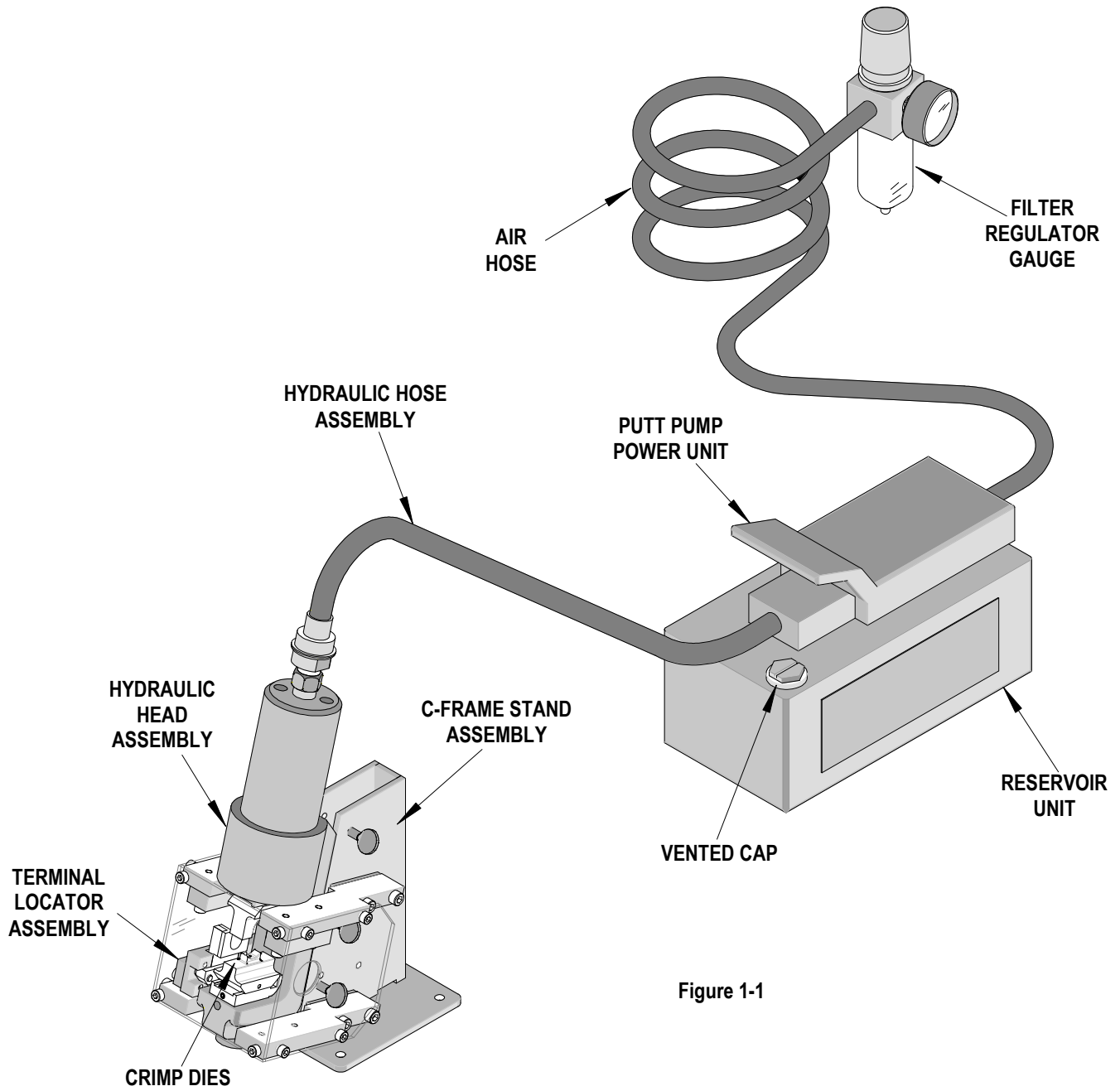


Figure 1-1



## General Description

### 1.1 Description

The Molex Hydraulic Press Assembly includes the basic Molex Hydraulic Head Crimper (Order No. 19286-0117) with added features to Crimp the Imperium Plus product line.

The crimping Dies are not included with the 19286-1000 press assembly. Refer to the Section 2.4 for the application chart for die order numbers and description.

### 1.2 Features

- A fully adjustable terminal locator designed for the Imperium Product Line
- All guards and terminal locator can be reversed for right or left hand operation
- Crimping dies are easily and quickly interchanged to reduce production down time.
- Complete portable system that allows tool to be moved and stored easily.

### 1.3 Technical Specification

Pneumatic:

Supply Pressure: 100 PSI (6.9 Bars)  
125-PSI max. (8.6 Bars max.)

Cycle Time: 15 seconds

### 1.4 Delivery Check

Carefully remove the Molex Hydraulic Press Assembly from its shipping container and determine that the following items are included in the package.

- ✓ Hydraulic Head Crimper 19286-0117
- ✓ C-Frame Stand Assembly 19286-0051
- ✓ Terminal Locator Assembly 19286-0300
- ✓ Pump Assembly with hoses, filter, regulator, and gauge assembly (Includes vented cap for pump)
  
- ✓ Operation Manual ATS-192861000

### 1.5 Tools

The following tools are recommended for setup and adjustments to this tool.

1. Metric standard hex wrench set
2. Inch standard hex wrench set
3. Adjustable wrench
4. Wire stripper / cutter
5. Screw driver

## Section 2

### Hydraulic Head Crimper (19286-0117)

#### Set-Up and Operation

- 2.1. Setup
- 2.2. Connection and Bench Mounting
- 2.3. Installation of Tool Kits
- 2.4. Terminal Specifications and Crimping Operation

### Principal Mechanical Parts of the 19286-0117 (PPHLS)

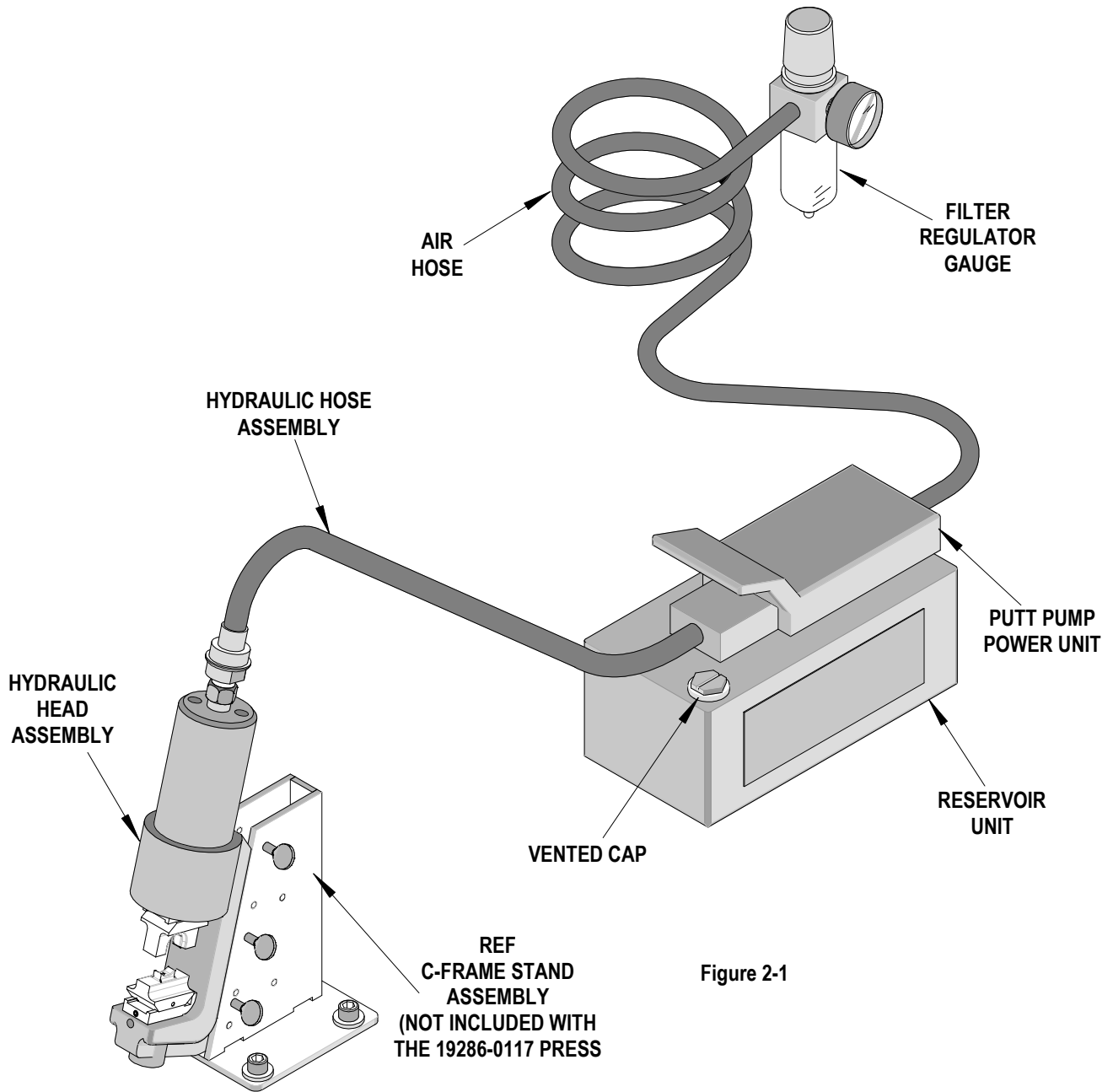


Figure 2-1



**CAUTION:** Always disconnect the air supply until the system is ready to operate.

## 2.1 Set-Up

The principal mechanical parts of the 19286-1000 are illustrated in Figure 2-1 and Section 5 in this document.

### Air Supply Hook-Up



**WARNING:** Seal all external pipe connections with a high quality, non-hardening pipe sealant. Teflon tape may also be used to seal hydraulic connections if only one layer of tape is used.

1. Select the 1/4 NPT threaded fittings that are compatible with your air supply.
2. Remove the red plastic thread protector from the putt pump on the air connection. Pull out and discard then attach the air fitting.
3. Next, install the fittings to the filter, regulator, and gauge unit. The air supply should be 20 CFM (550 L/M) and 100 PSI (6.9 Bars) to obtain the rated hydraulic output. Air pressure should be regulated to a maximum of 125 PSI (8.6 Bars). See Figure 2-2.
4. Before installing the hydraulic hose, unscrew the square nut on the putt pump outlet and discard. Attach the hose assembly to the hydraulic fluid outlet.

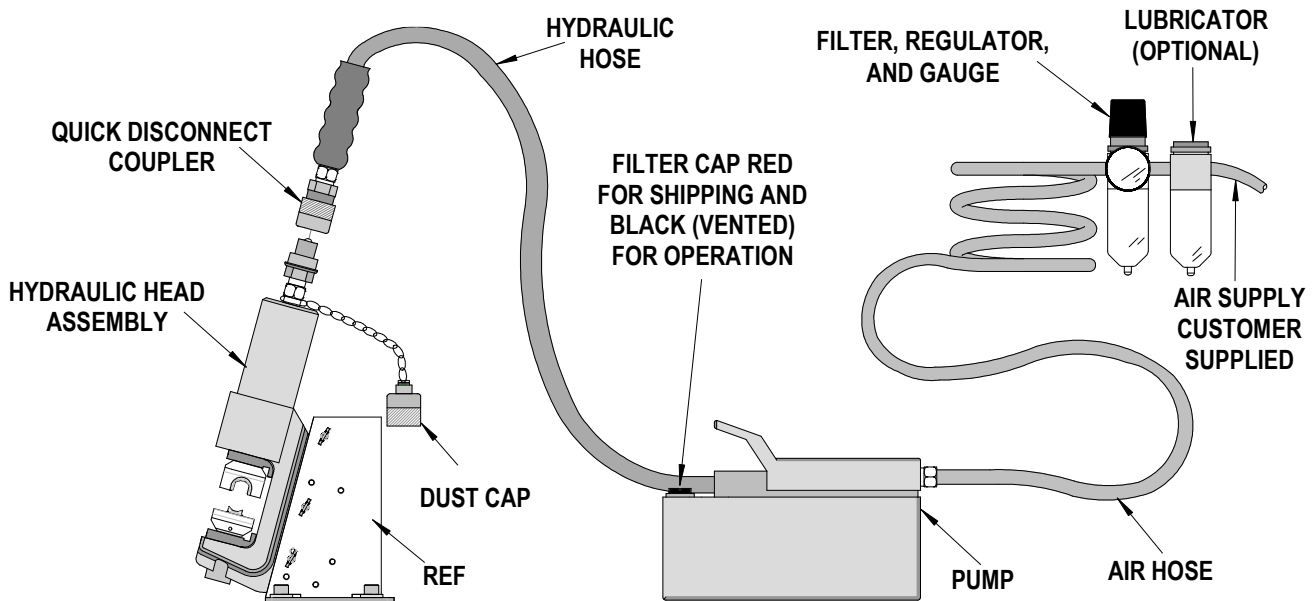


Figure 2-2

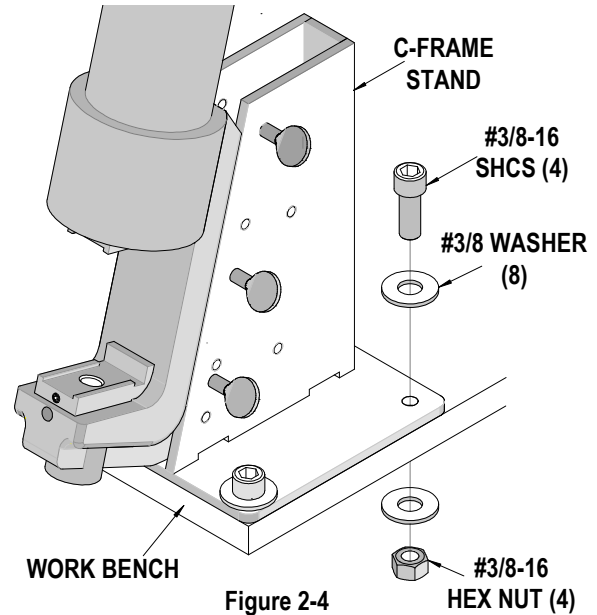
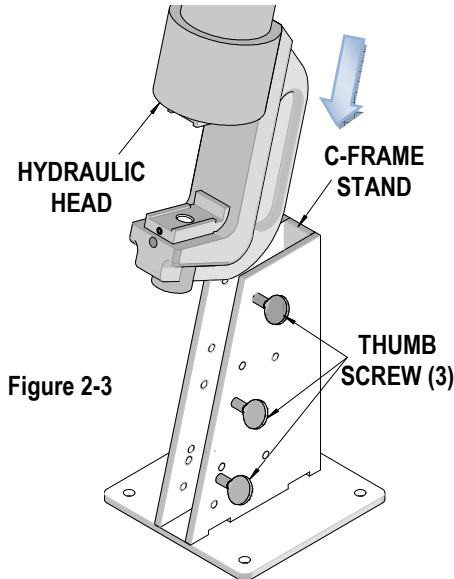
## 2.2 Hydraulic Connections and Optional Bench Mounting

1. Remove the dust cap from the cylinder on the crimp head.
2. Connect the quick disconnect coupler onto the cylinder inlet on the crimp head. See figure 2-2.
3. Replace the red filler cap on the pump reservoir with the black-vented cap that is supplied with the unit.
4. To mount the hydraulic head assembly to the optional C-Frame stand, loosen the three thumbscrews in the stand.
5. Place the hydraulic head in the stand with the cylinder facing up. Tighten the thumbscrews; making sure the hydraulic head is securely positioned.



**Note:** The safety guard panels will need to be removed before attempting to fasten the hydraulic to a work bench. See Section 3.1 *Removing and Installing the Guards and the Terminal Locator Assembly* for more information.

- When using the optional C-Frame stand, be sure the C-Frame stand assembly is securely fastened to a clean, sturdy workbench or table in a well-lighted area. Fasten the stand with four #3/8-16 SHCSs, nuts, and washers of sufficient length for the tabletop. (Not supplied). See Figure 2-4. (Some stands may have two mounting holes instead of four.)

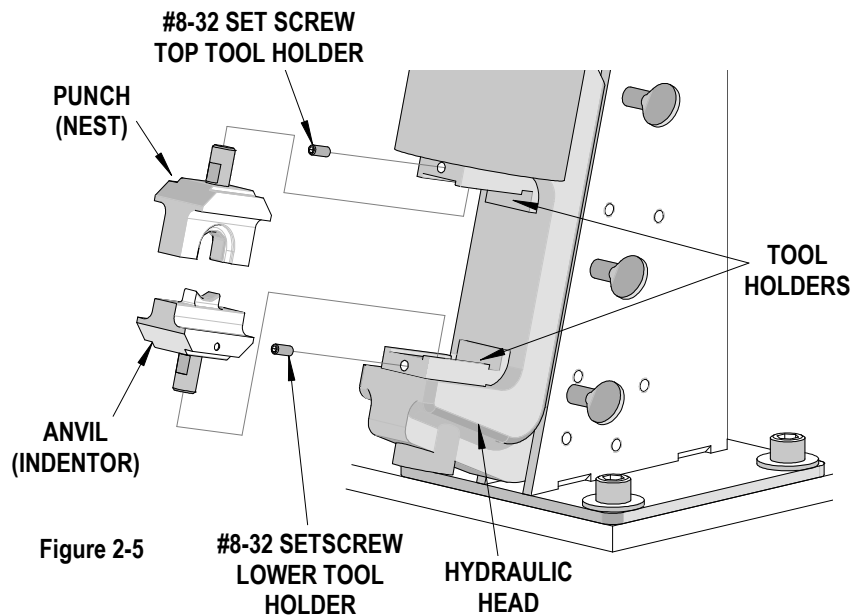


### 2.3. Installation of Tool Kits



**CAUTION:** Always disconnect the air supply until the system is ready to operate

Before crimping, set the recommended air pressure gauge for the hydraulic pump (See Section 2.1) to obtain the proper crimp.



- Connect the female coupler firmly with the male coupler of high-pressure rubber hose, which is attached to the hydraulic pump.

- Select the proper set of dies for the terminal being crimped. The wire size is marked on each die. See Section 2.4.



**CAUTION:** Be sure to use the correct pair of dies for the appropriate wire and terminal.

- Loosen the #8-32 setscrew in the upper tool holder in the hydraulic head assembly. Place the punch (Nest) in the top tool holder and retighten the setscrew. See Figure 2.5.
- Loosen the #8-32 set screw in the lower tool holder in the hydraulic head assembly. Then, place the anvil (Indenter) in the lower tool holder of the hydraulic head assembly and retighten the setscrew.



**CAUTION:** A wrong combination of dies may cause critical damage to the tool.

## 2.4 Terminal Specifications and Crimping Operation

### SCOPE

This tooling is designed to crimp Molex Imperium and Imperium Plus.

### Imperium and Imperium Plus

Crimp Die Application Chart					
Wire Size	Wire Finish	Wire Type Conductor Diameter.range (mm)	Terminal Order No.	▶ Crimp Die Order No.	Press Order No.
1 AWG	Bare Copper	779 (strand)/30 (9.40 Max. Conductor Diameter)	171423-1401	19290-0100	19286-1000
	Pre-Tinned	817 (strand)/30 (9.40 Max. Conductor Diameter)	171423-1401	19290-0100	
	Post-Tinned	779 (strand)/30 (9.40 Max. Conductor Diameter)	171423-1401	19290-0100	
2/0	Bare Copper	1254 (strand)/30 (11.3 Max. Conductor Diameter)	171423-1201	19290-0350	19286-1000
	Pre-Tinned	1330 (strand)/30 (12.50-11.35mm Diameter)	171423-1001	19290-0300	
	Post-Tinned	1254 (strand)/30 (12.50-11.35mm Diameter)	171423-1001	19290-0300	
▶ See the ATS Document for the proper Crimp Die.					

## Section 3

### Terminal Locator (19286-0300)

- 3.1 Installing Guards and Terminal Locator Assemblies
- 3.2 Operation
- 3.3 Adjustments
- 3.4 Tool Change Over

### 3.1 Removing and Installing the Guards and the Terminal Locator Assembly



**CAUTION:** Always disconnect the air supply until the system is ready to operate.

The safety guards and the terminal locator assembly are factory installed on the 19286-1000 Press.

The clear safety guard panels will need to be temporarily removed for crimp die replacement or terminal locator replacement.

1. Remove the (12) twelve M5 SHCS holding the front and side safety guards.
2. Remove the safety guards. See Figure 3-1.
3. When all set up and adjustments are made reinstall the safety guards.
4. Tighten the M5 SHCS.

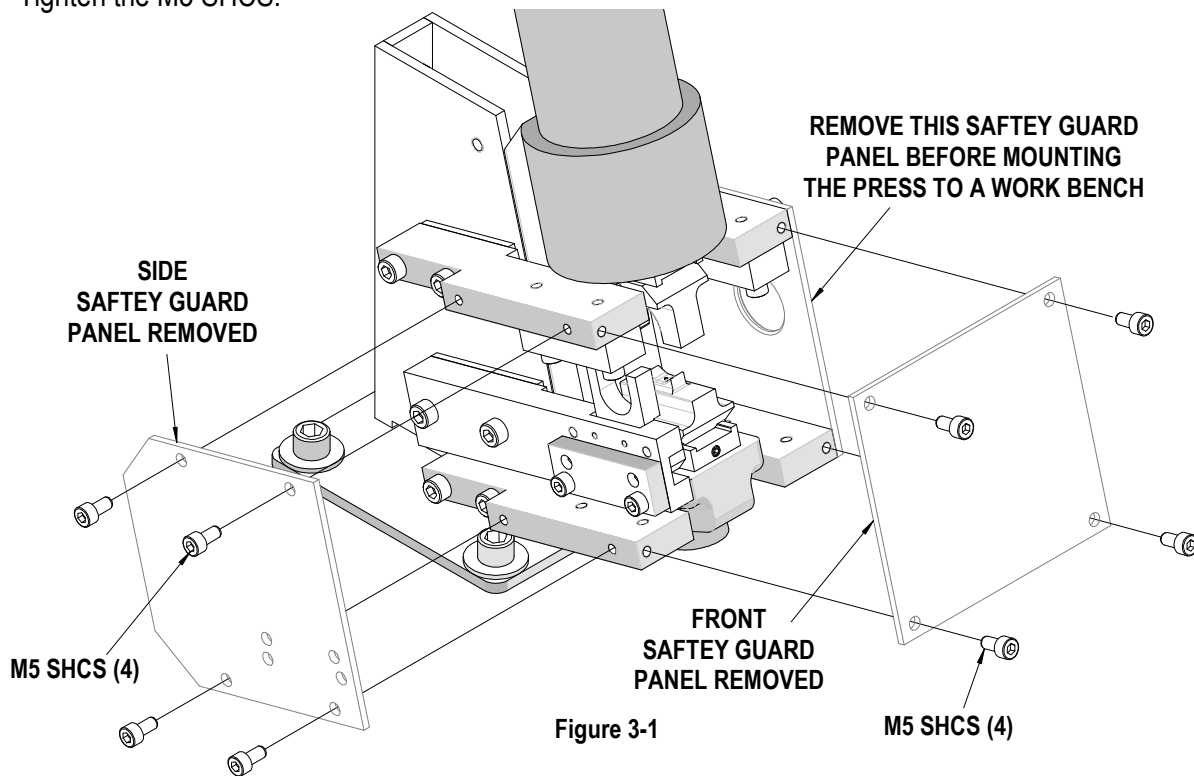


Figure 3-1

The Terminal Locator Assembly 192860300 is for the Imperium and Imperium Plus product line. This assembly ensures the correct location of the terminal during crimping.

### 3.2 Operation

1. Insert the properly stripped cable into the terminal barrel.
2. Position the terminal into the slot of the safety guard shown in figure 3-2 and above the the lower crimp tool (anvil) until it stops.



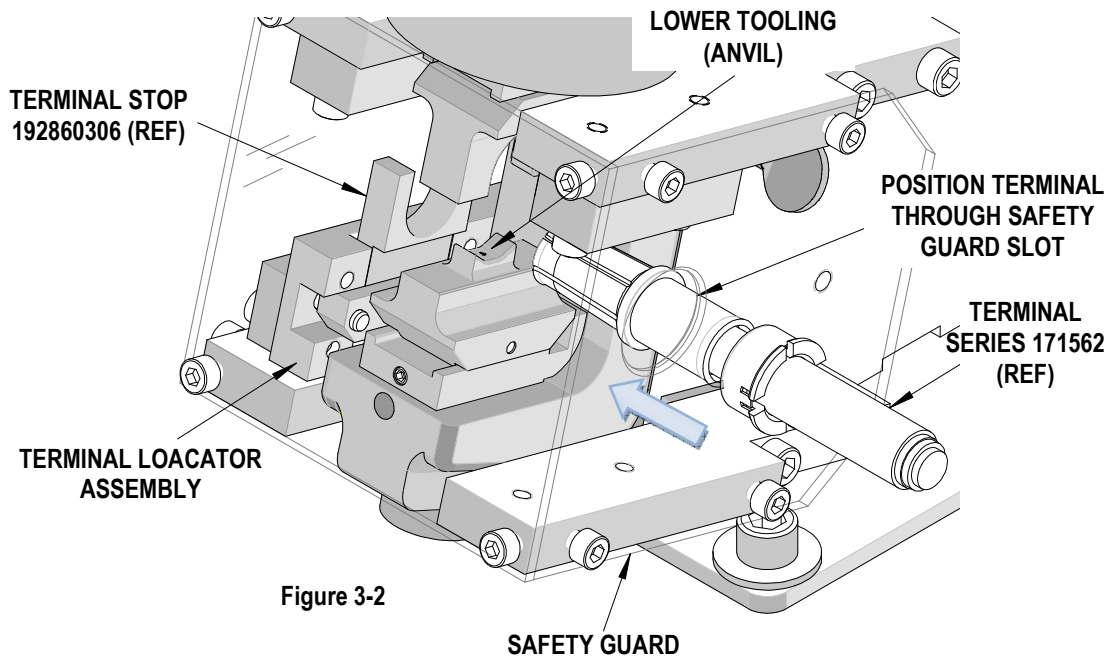


Figure 3-2

3. The rim of the terminal should be against the stop of the terminal locator assembly.
4. For the correct terminal placement and the proper locator see Figure 3-3 and 3-4.

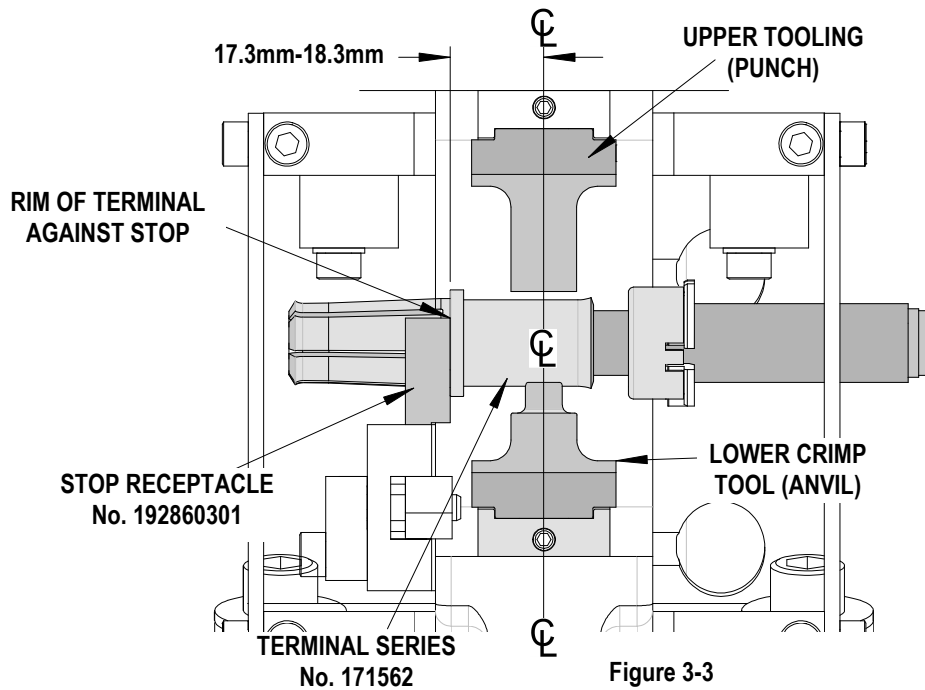
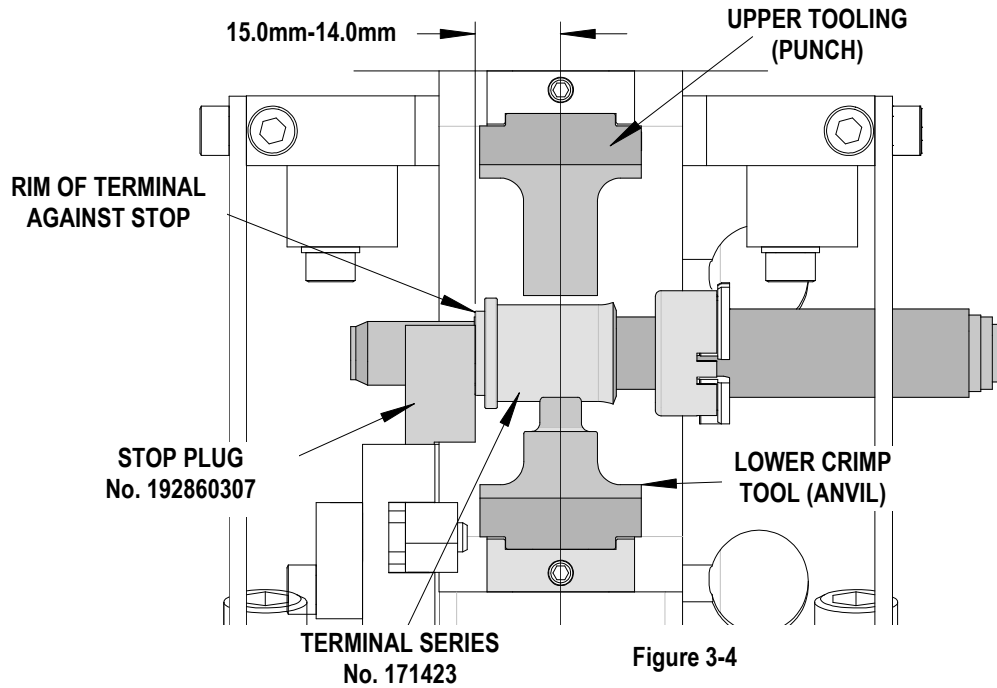


Figure 3-3

**Note:** During termination a slight movement of the locator stop may occur. This is normal the locator stop will return to the correct position once the terminal is removed from the press.



1. Depress the pedal on the putt pump to activate the tool. The crimping process is done in small increments gradually allowing the press to fully crimp the terminal into the wire.
2. After the terminal is fully crimp, depress the elevated portion of the pedal to release the pump. This will allow the tool to release.
3. Remove the crimp and inspect for proper crimp location.

### 3.3 Adjustments

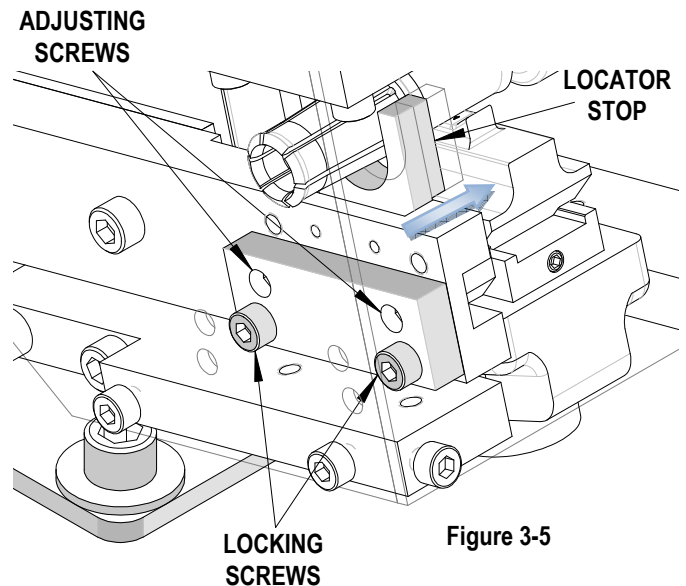


**CAUTION:** Always disconnect the air supply when before any adjustments or changing out tooling.

The Terminal Location Adjustment must be adjusted, so that the crimp is located as shown on Figure 3-3 and 3-4.

**Note:** It is not necessary to remove the safety guarding to make this adjustment.

1. Insert a 4.0mm socket style wrench thru the holes provided in the safety guards, and loosen the two locking screws. Do not remove them. See Figure 3-5.
2. Using the 4.0mm socket wrench, turn the adjusting screws to achieve the correct crimp location.
3. Turning the adjusting screws clockwise will increase the distance from the rim to the crimp.
4. Turning the screws counter-clockwise decreases this distance.
5. After adjustment are made, retighten the two locking screws.



### 3.4 Tool Change Over



**CAUTION:** Always disconnect the air supply when before any adjustments or changing out tooling.

5. Before changing out the tooling the safety guard panels must be removed.
6. Remove the (8) eight M5 SHCS holding the front and side safety guards.
7. Remove the safety guards. See Figure 3-6.

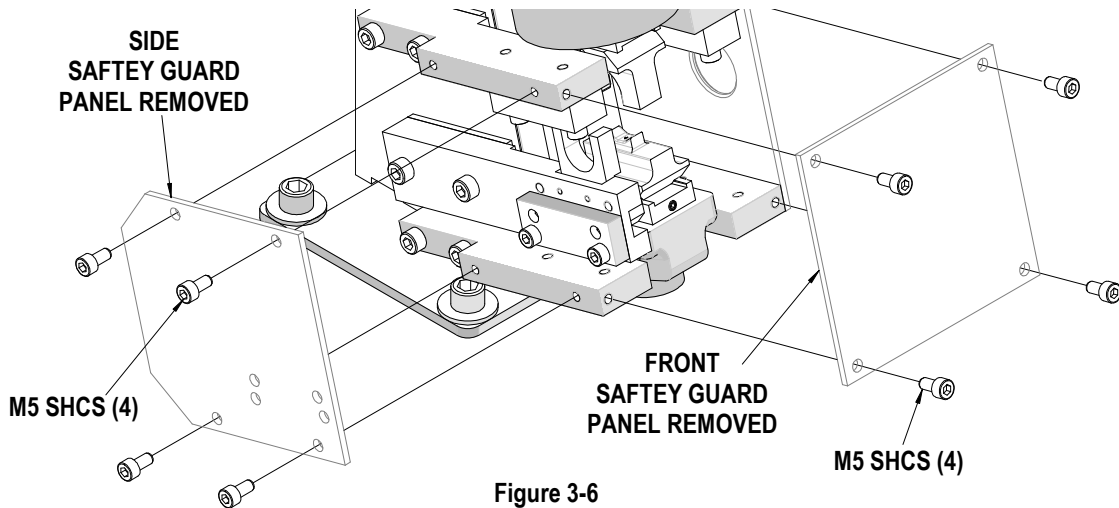


Figure 3-6

8. To change the locator stop remove the (2) two M5 x 18 long SHCS on the locking block.
9. Remove the (2) springs in the frame stop.
10. Lift out the locator stop and set aside.
11. Install the new locator stop.
12. Replace the (2) springs and the locking block.
13. Install the (2) two M5 x 18 long SHCS on the locking block and tighten. See Figure 3-7.

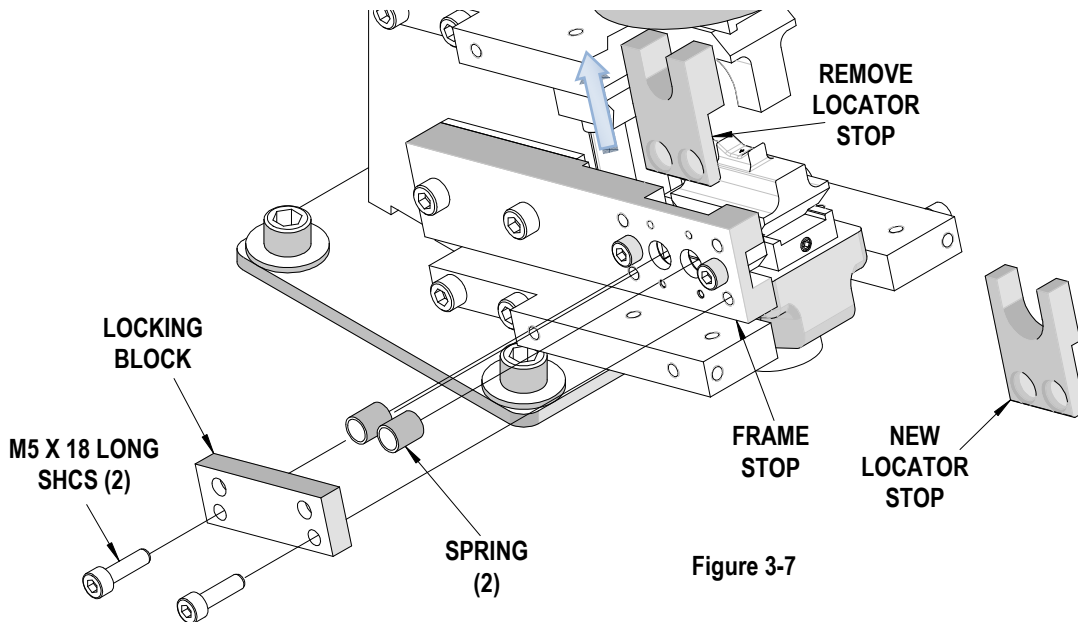


Figure 3-7

## Section 4

### Preventive Maintenance

- 4.1 Lubrication
- 4.2 Bleeding Air From the System
- 4.3 Inspecting the Hydraulic Fluid Level
- 4.4 Draining and Flushing the Reservoir
- 4.5 Refilling the Reservoir
- 4.6 Venting the Reservoir
- 4.7 Priming the Pump Unit
- 4.8 Periodic Cleaning
- 4.9 Spare Parts
- 4.10 Perishable Parts
- 4.11 Storage

## 4.1 Lubrication



**WARNING:** Any repair or servicing, which requires dismantling the pump must be performed in a dirt-free environment by a qualified technician.



**CAUTION:** Always disconnect air supply before all maintenance.

If the pump is operated on a continuous duty cycle for extended periods, the manufacturer recommends an automatic airline oiler be installed in the air inlet as close to the pumping unit as possible.

Set the unit to feed approximately 1 drop of oil per minute into the system. Use SAE No. 10 oil.

## 4.2 Bleeding Air From The System

During the initial moments of activation or after prolonged use, a significant amount of air may accumulate within the hydraulic system. This entrapped air may cause the cylinder to respond slowly or behave in an unstable manner.

To remove the air, run the system through several cycles (extending and retracting the ram) free of any load. The rams must be at a lower level than the pump to allow air to be released through the pump reservoir.

## 4.3 Inspecting The Hydraulic Fluid Level



**CAUTION:** Always disconnect air supply before all maintenance.

1. Check the oil level in the reservoir after every 10 hours of use.
2. The oil level should come to within 1/2" of the filler plug with all hoses attached.
3. Drain and replenish the reservoir with an approved, high-grade hydraulic oil such as OTC 16355 after every 300 hours of use.

**Hoses:** Hydraulic hoses on this unit carry a rating of 10,000 PSI.

Replacement hoses must carry the same rating.

## 4.4 Draining and Flushing the Reservoir



**IMPORTANT:** Wipe the pump exterior completely clean before attempting this procedure!

1. Loosen and remove the six screws that fasten the pump assembly to the reservoir. Remove the pump assembly from the reservoir. Do not damage the gasket, filter, or safety valve.
2. Clean the inside of the reservoir and refill with a suitable, non-flammable flushing oil. Rinse the filter clean.
3. Place the pump assembly back onto the reservoir and secure with two of the six screws. For best results, assemble the screws in opposite corners of the housing.
4. Run the unit for several minutes. Use the same method described in Section 3-7 (Priming the pump unit)
5. Drain and clean the reservoir once more.
6. Refill the reservoir with an approved, clean hydraulic oil and replace the pump assembly (with gasket) on the reservoir. Assemble the six machine screws and torque 25 to 30 in. lbs.



**IMPORTANT:** Drain and clean the other hydraulic system components (hoses, cylinders, etc.) before reconnecting them to the pump. This will prevent contaminated oil from re-entering the pump.

## 4.5 Refilling The Reservoir



**CAUTION:** Always disconnect air supply before all maintenance.

1. If additional oil must be added to the reservoir, use only an approved high-grade hydraulic oil such as OTC 16355 (215 SSU @ 100° F).
2. Clean the entire area around the filler plug before adding oil to the reservoir.
3. Remove the filler plug and insert a clean funnel with filter.
4. The ram must be fully retracted and the air supply disconnected when adding the oil to the reservoir.

## 4.6 Venting the Reservoir

To improve oil delivery and increase useable oil capacity, vent the reservoir by removing the vent screw from the filler plug before using the pump. See Figure 4-1.

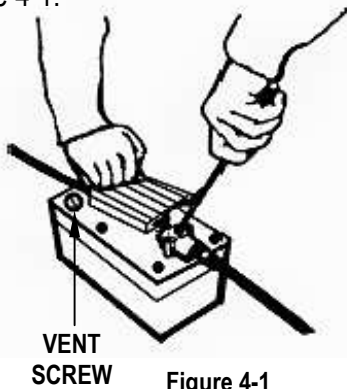


Figure 4-1

## 4.7 Priming the Pump Unit

If the pump unit must be primed, perform the following procedure:

1. Depress the release end of the pedal while holding down the air intake valve with a flathead screwdriver. The air intake valve is located directly under the pedal in the area marked PUMP. This "button" is depressed simultaneously with the RELEASE area of the pedal during priming.
2. Allow the pump to cycle approximately 15 seconds.

3. Remove the screwdriver and depress the pump end of the pedal once more.
4. If the ram extends or pressure builds, the pump has been successfully primed.
5. If the pump does not respond, repeat the procedure, repeatedly jogging the air intake valve while holding the pedal in the RELEASE position.

## 4.8 Periodic Cleaning



**CAUTION:** Always disconnect air supply before all maintenance.

A routine should be established to keep the pump as free from dirt as possible.

1. All unused couplers should be sealed with thread protectors.
2. All hose connections must be free of grit and grime.
3. Any equipment hooked up to the pump should also be kept clean.
4. Use only approved, clean hydraulic oil, such as OTC 16355 in this unit and change as recommended (every 300 hours).

An example of a maintenance chart is shown below. Copy and use this chart to track the maintenance of your 19286-1000 or use this as a template to create your own schedule or use your company's standard chart, if applicable.

## Preventive Maintenance Chart

**Daily:** Clean. See Section 5.5.

**As Required:** Lubricate. See Section 5.1.

**CHECK SHEET** MONTH \_\_\_\_\_ YEAR \_\_\_\_\_

Week	Daily Use	Days of the Week							Solution
		MON	TUE	WED	THU	FRI	SAT	SUN	
1									
2									
3									
4									
Lubrication	1 drop per minute into the system								Use SAE No. 10 Oil
Change Hydraulic oil	300 Hours								Use OTC 16355
Bleeding Air From the System	After prolong use								Run the system thru several cycles.
Refilling Reservoir	10 hours or when needed								Use 215 SSU@100°F (otc 16355)
Cleaning	Hose connections free of grit and dirt. Pump kept clean								Use soft cloth

Schedule should be adjusted up or down depending on usage. Molex recommends that a log of preventive maintenance be kept with the tool.

### 4.9 Spare Parts

Customers are responsible for maintaining the tool. Spare parts are available from Molex. Moving and functioning parts can be damaged or wear out over time and will require replacement. Molex recommends that the customer keep some or all of them in stock to reduce production down time.

### 4.10 Perishable Parts (Tool Kits)

Customers are responsible for maintaining the 19286-1000. Perishable parts are those parts that come in contact with the product and will wear out over time. Molex recommends that all customers keep at least one set of the perishable tooling in stock at all times. This will reduce the amount of production down time.

### 4.11 Storage

When storing the 19286-1000 assembly, disconnect the air supply and store in a dry location. If the pump is disconnected from the hydraulic head, reinstall the dust cap on the cylinder inlet. When transporting, reinstall the red-vented cap on the pump reservoir.

## Section 5

- 5.1. Parts Lists and Assembly Drawing
- 5.2. Troubleshooting



### 5.1 19286-1000 Main Parts List and Assembly Drawings

19286-1000 - Hydraulic Press Assembly Figure 6-1			
Item	Order No.	Description	Qty
1	19286-0051	C-FrameStand Assembly	1 (Figure 5-2)
2	19286-0117	Putt Pump Hydraulic Head Crimper	1 (Figure 5-3)
3	19286-0300	Terminal Locator Assembly	1 (Figure 5-4)

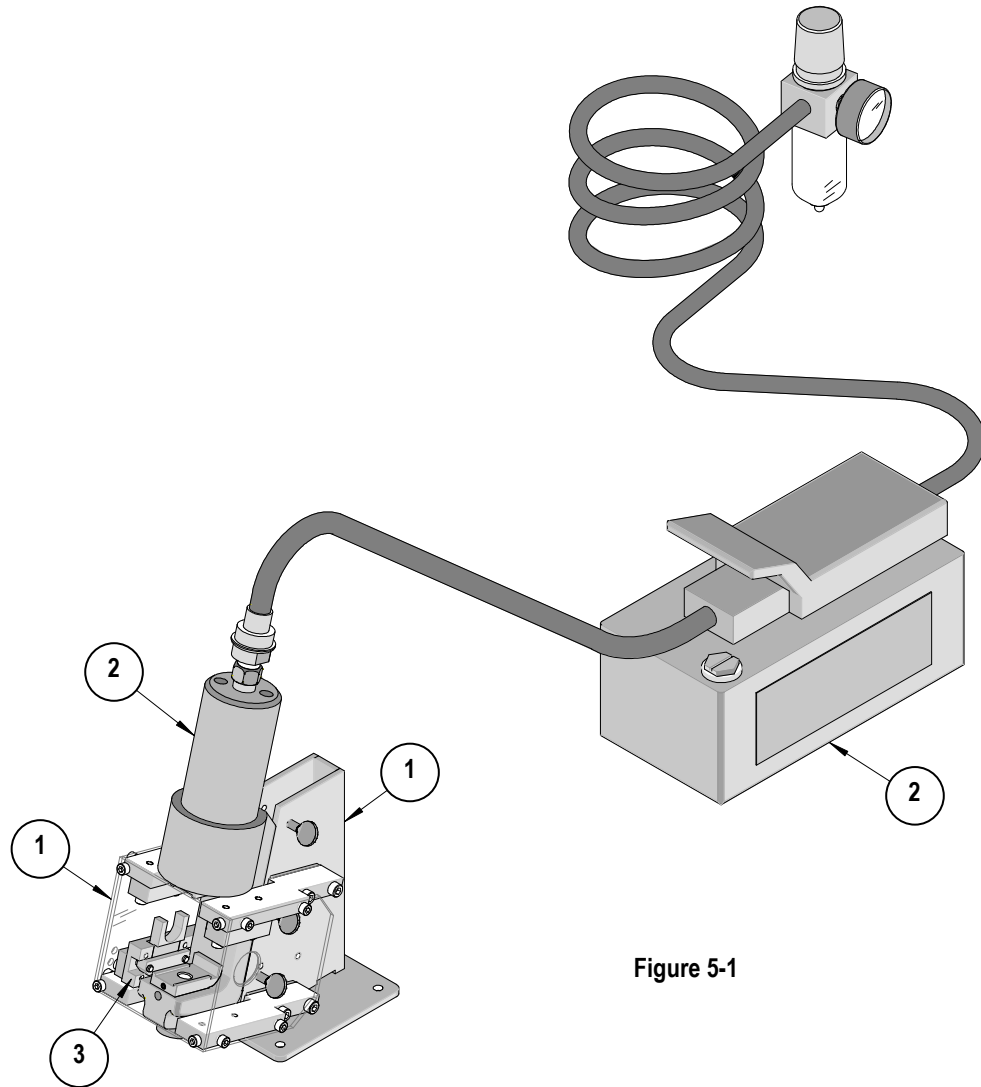


Figure 5-1

### 5.1 19286-0051 Parts List and Assembly Drawing

19286-0051 - C-Frame Stand Assembly Figure 5-2			
Item	Order No.	Description	Quantity
1	19286-0302	Side Guard	1
2	19286-0304	Front Guard	1
3	19286-0310	Left Side Guard	1
4	19286-0311	Mounting Bracket	4
5	19286-0400	Guard Assembly (All parts listed)	0
6	19286-0401	Adapter Plate	4
7	19286-0402	Spacer Plate	1
8	19286-0126	Right Plate	1
9	19286-0127	Left Plate	1
10	19286-0128	Base Plate	1
11	19286-0129	Back Plate	1
12	63600-1863	Thumb Screw	3
13	N/A	M5 by 10 Long SHCS	12**
14	N/A	M6 by 30 Long SHCS	8**

\*\* The following purchased parts are available from an industrial supply company such as MSC (1-800-645-7270).

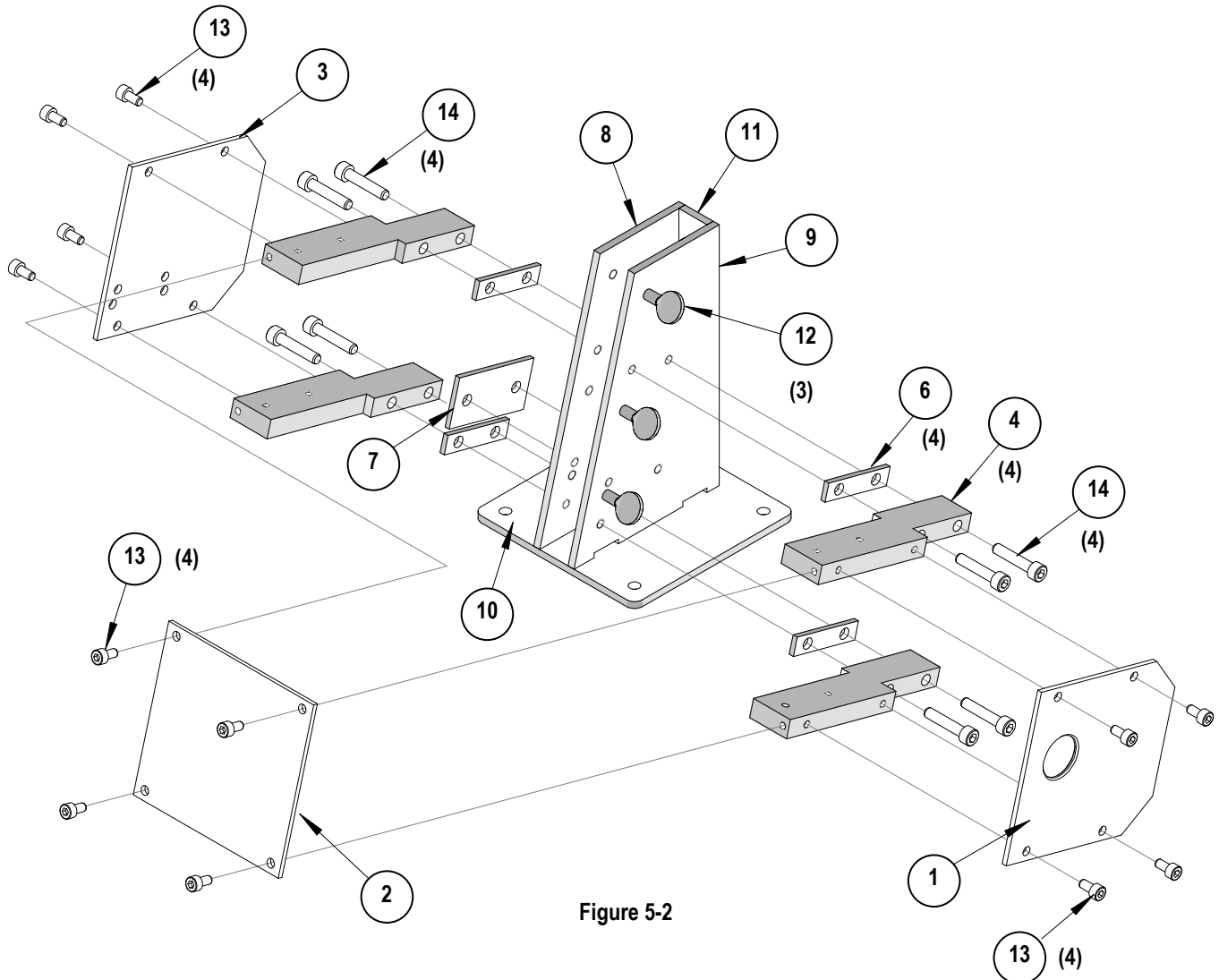


Figure 5-2

## 5.2 19286-0117 Parts List and Assembly Drawing

19286-0117 - Main Assembly Figure 5-3			
Item	Order No.	Description	Qty
4	19286-0041	Hydraulic Hose Assembly-6 Feet	1
5	19286-0049	Filter Regulator with Gauge	1
6	19286-0059	Putt Pump Power Unit	1
7	19286-0103	Air Hose 1/4 NPT Male Fitting-10 Feet	1
8	19286-0051	C-Frame Stand Assembly	★ Optional
9	19286-0005	Hydraulic Head Assembly	1
10	19286-0006	HHLS Tool Holder	2
★ Order separately			

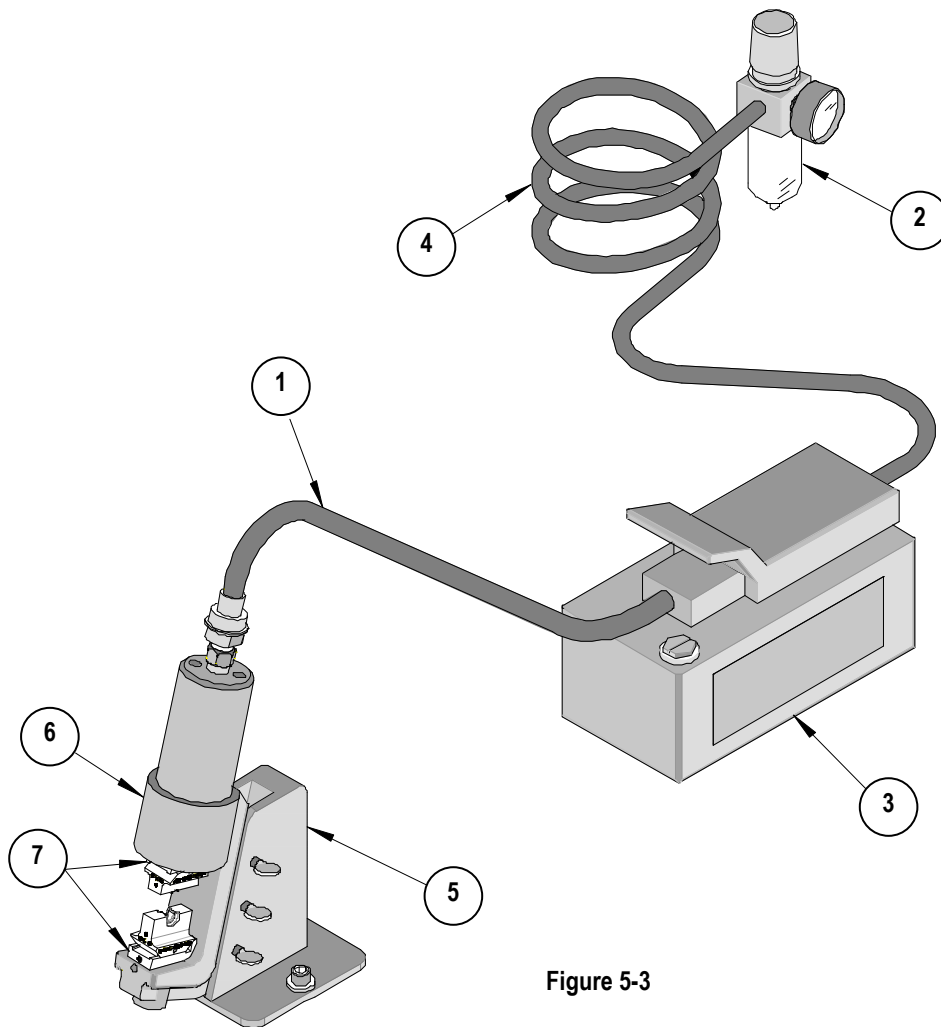


Figure 5-3

### 5.3 19286-0300 Parts List and Assembly Drawing

19286-0300 – Terminal Locator Assembly Figure 5-3			
Item	Order No.	Description	Quantity
1	11-21-5694 (AM8921-221)	Compression Spring	2
2	19286-0301	Stop Receptacle	1
3	19286-0306	Terminal Stop Retainer	1
4	19286-0307	Stop Plug	1
5	19286-0308	Frame Stop	1
6	19286-0309	Locking Block	1
7	19286-0312	Terminal Stripper Bar	2
8	19286-0313	Filler Bar	1
9	N/A	M3 by 8 long SHCS	2**
10	N/A	M5 by 18 long SHCS	4**
11	N/A	M5 by 25 long SHCS	4**
12	N/A	M6 by 20 long SHCS	2**
13	N/A	M5 Flat Washer	4**

\*\* The following purchased parts are available from an Industrial supply company such as MSC (1-800-645-7270).

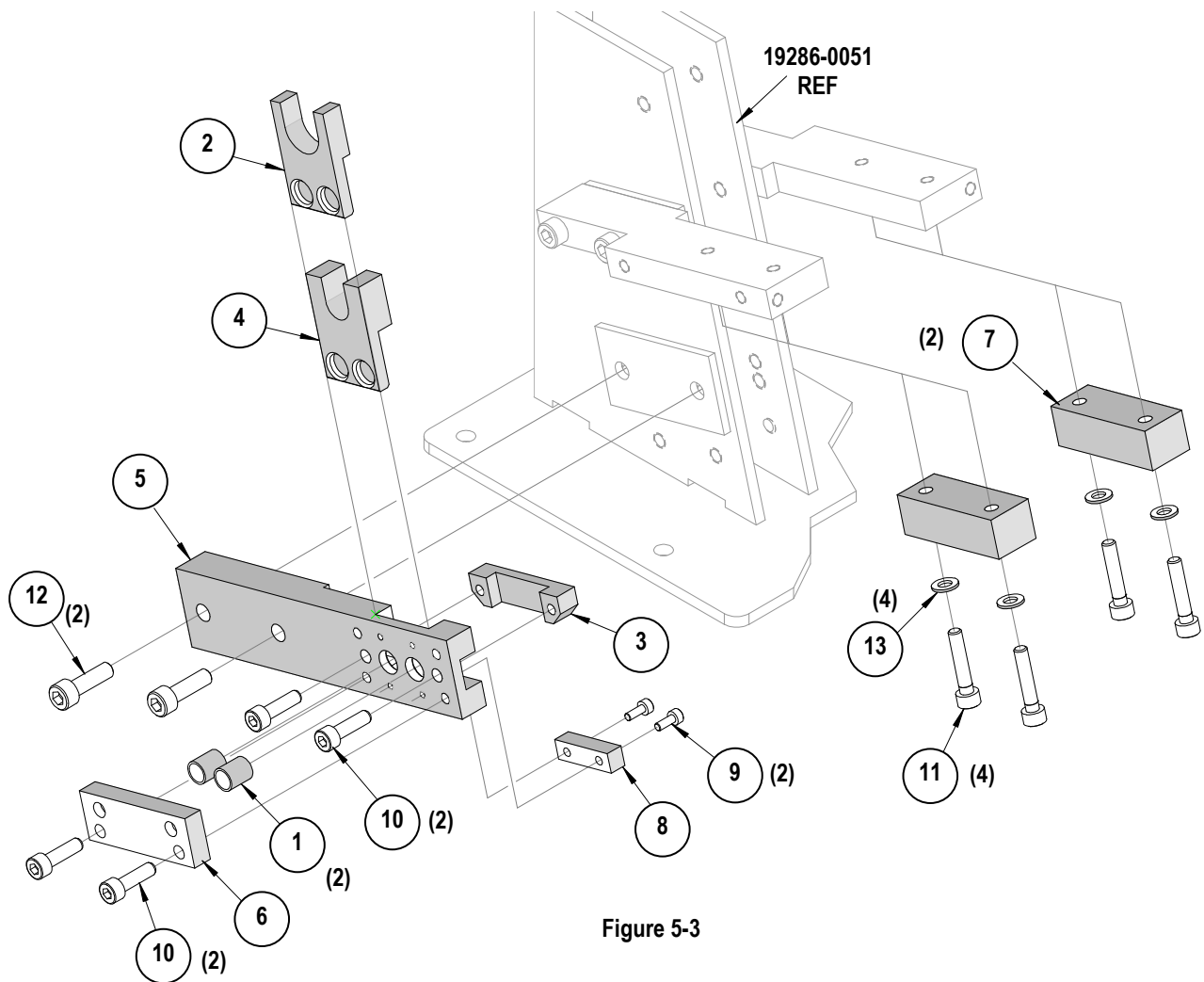


Figure 5-3

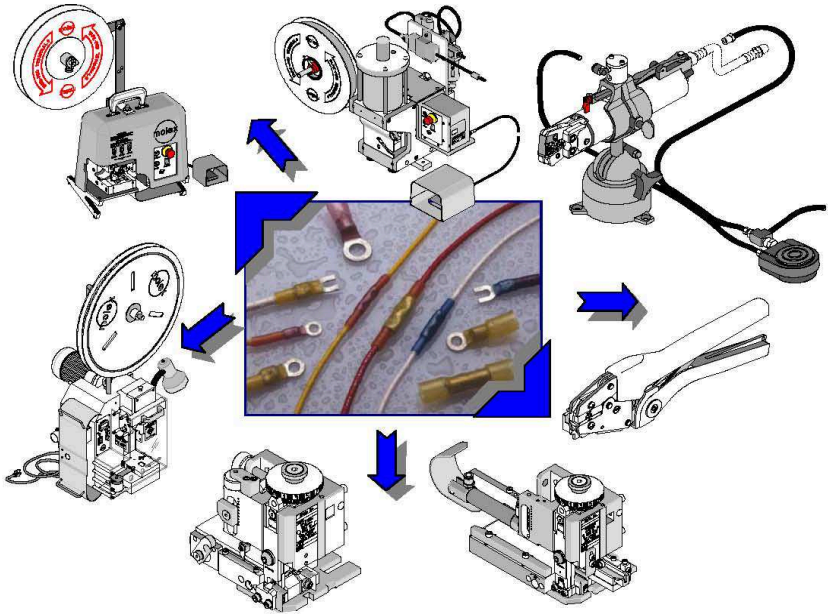
## 5.4 Troubleshooting

Symptom	Cause	Solution
Pump reciprocates but no oil delivery. (Ram will not extend)	▪ Low oil level.	Replenish oil reservoir.
	▪ Pump not primed.	Depress air intake valve and hydraulic release valve simultaneously.
	▪ Check oil filter for contamination.	Invert pump. Fill intake filter with oil. Depress pedal end marked "pump."
Low oil delivery. (Ram extends slowly)	▪ Reservoir not vented	Remove filter and clean.
	▪ Inadequate air supply: 1. Check air input supply. 2. Contamination, check airside of pump. Thoroughly inspect the slot in the air cylinder tub.	1. Should be 20 CFM minimum. 2. Clean and reassemble.
	▪ Hydraulic failure: 1. Check the oil filter for contamination. 2. Air in hydraulic system.	1. Clean and reinstall. 2. Bleed the system as described in "Preventative Maintenance" Section.
Pump will not build to maximum Pressure. (No visible leakage)	▪ Check the air supply.	100 PSI is required to obtain maximum pressure.
Pump builds pressure but will not hold system pressure.	▪ Check hydraulic connections.	Refit as needed.

**For more information use the Crimping Testing and Inspection Handbook for Industrial (Closed Barrel products).**

There is no charge for this book, which can be found on the Molex Website ([www.molex.com](http://www.molex.com)) or contact you local Molex sales engineer.

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