



MODEL 3600-Q AND 3600-Q-50

HYDRAULIC HOSE CRIMPER

SERIAL NUMBER \_\_\_\_\_

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# MODEL 3600-Q AND 3600-Q-50 HYDRAULIC HOSE CRIMPER

## **DISCLAIMER**

**WARNING!** Keep hands clear of the crimp jaws. This machine develops 10,000 pounds of force and can inflict serious personal injury if not used properly.

**WARNING!** Always wear eye protection when operating this crimper.

ATCO Products, Inc. shall not be held liable for any injuries incurred when using this equipment. ATCO Products, Inc. shall not be held responsible for any loss of materials or property due to misapplication or misuse of this equipment.

## **WARRANTY**

ATCO Products, Inc. shall warrant this crimper to the original user against defects in materials or workmanship under normal use for a period of one (1) year after date of delivery. Any part, which is determined to be defective in material or workmanship, will be repaired or replaced at ATCO's option, as the sole remedy.

**EXCEPT AS PROVIDED ABOVE, NO WARRANTY, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE OR AUTHORIZED BY ATCO Products, Inc.**

## **POWER REQUIREMENTS**

Model 3600-Q and 3600-Q-50 crimpers are 1 horsepower, 115/220 volt, 50/60 Hertz units. The **3600-Q** is wired for 115 volt, 60 Hertz operation and comes with a three-prong plug for a standard electrical outlet. The **3600-Q-50** is wired for 220 volts, 50 Hertz and has a blank power cord to be wired by the end user.

**NOTE: If wiring is changed in the field, both the motor and control box must be changed. Refer to ATCO EG-1032 for details.**

## **GENERAL**

The Model 3600-Q Hydraulic Crimper is specifically designed for use with ATCO **Beadlock** fittings. It is intended for use with two-braid dimension and reduced diameter nylon barrier hose using the standard crimp dies provided with the unit. Other sizes of hose can be crimped using special size dies that are available upon request. Consult the factory for the specific application.

The dies are housed in replaceable, flexible, color-coded polyurethane carriers (see crimper parts list for part numbers) for easy identification of crimp sizes.

**CRIMP DIAMETER MEASUREMENT:** The crimp diameter can be measured by using a set of point micrometers or special ATCO calipers (75246, digital or 75247, dial). Standard measuring instruments will not reach to the crimp impression because of the pinch of the crimp. When measuring the crimp

diameter, take three measurements around the center crimp ring, add the measurements and divide by three to get the average. The average should be the target crimp diameter (+.012"). Example: The #6 size is .660" target crimp diameter. The crimp should measure between .672" and .648".

## OPERATION

**WARNING:** Always wear eye protection when operating this crimper.

1. Mount the crimper on a solid bench using the threaded holes in the bottom of the crimper body (3/8"-16 bolts not included).
2. Add oil to the pump reservoir.
3. Plug or hard-wire the hydraulic unit into the proper power source.
4. Turn the unit on and cycle the crimp head several times to make sure all the air is out of the hydraulic system. Follow the instructions included titled Clearing Air from Hydraulic Hose if problems occur.
5. Select the proper size dies. Check all segments to make sure that all of the segments have the same numbers on the back. Each segment will be marked identifying the hose size and crimp diameter. Example: 5/16 ID hose with a .660 diameter crimp will be marked "6-660".
6. Lubricate the slides of the crimper slide blocks with the Teflon grease or equivalent.
7. These dies are quick change and do not require tools to assemble. Squeeze the dies and place the center segment over the center pin. Push the end segments over the two outboard pins. Repeat for the other side.
8. Insert the hose into the fitting making sure that the hose appears in the small inspection hole on the side or end of the ferrule.

**CAUTION:** If the hose does not appear in the inspection hole, a poor crimp may result.

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9. Place the assembly into the crimper and hold it against the locator. When the crimp dies are bottomed out, there will be an audible change in the tone of the pump. This insures that the dies are fully closed before the slide blocks bottom out.
11. Inspect the first crimp to make sure that the correct dies were used, the crimp location is correct, the crimp is uniform and there is no internal deformation of the fitting.

**NOTE:** Some hose materials trap air in the hose layers during manufacture. When leak testing a newly pressurized hose using soap bubbles or water submersion, the air in the hose will bleed out at the fitting and hose interface indicating a false leaking condition. Leave the hose pressurized for one hour and retest. The residual air should completely bleed out and no leak will be visible.

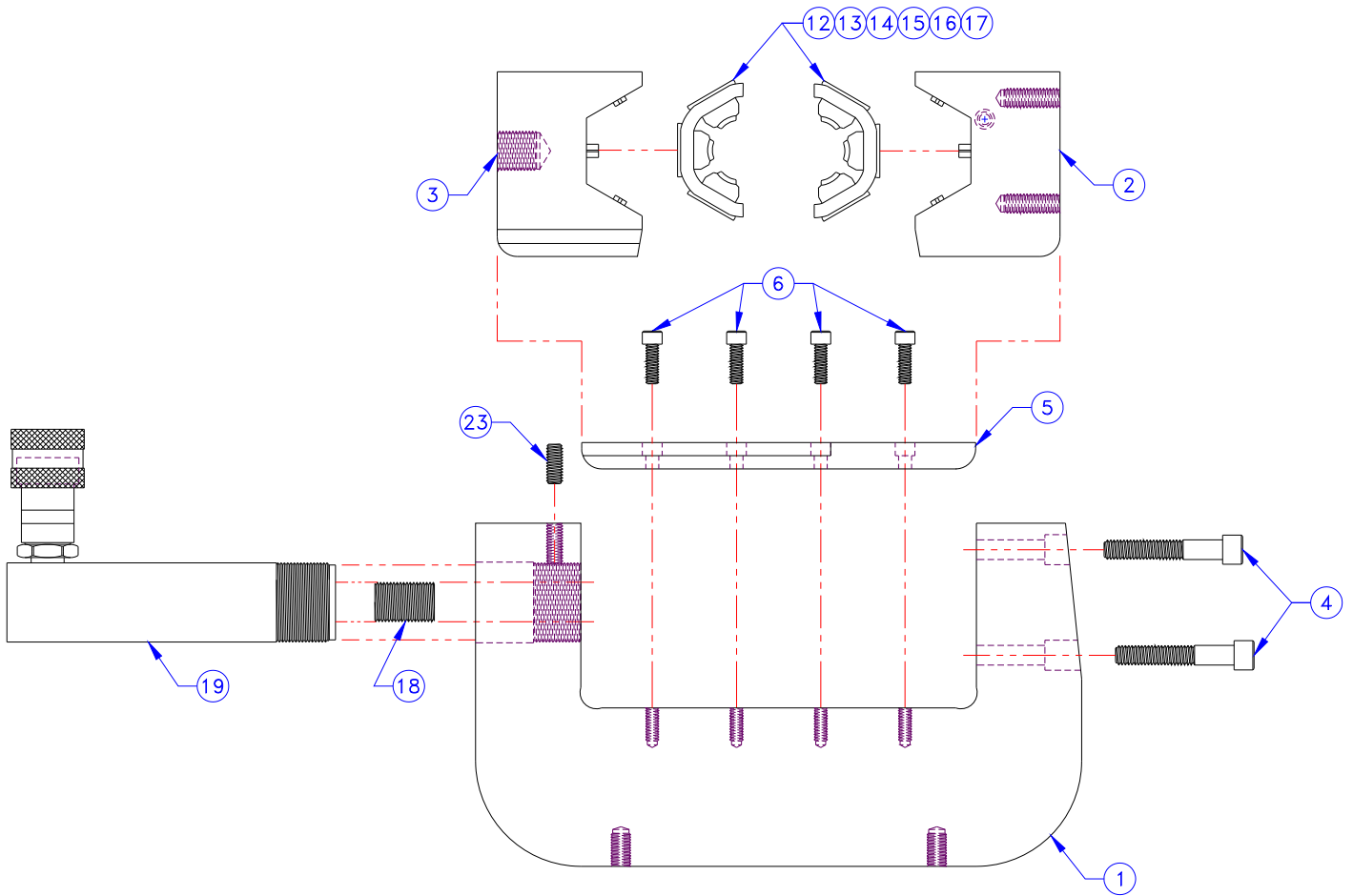
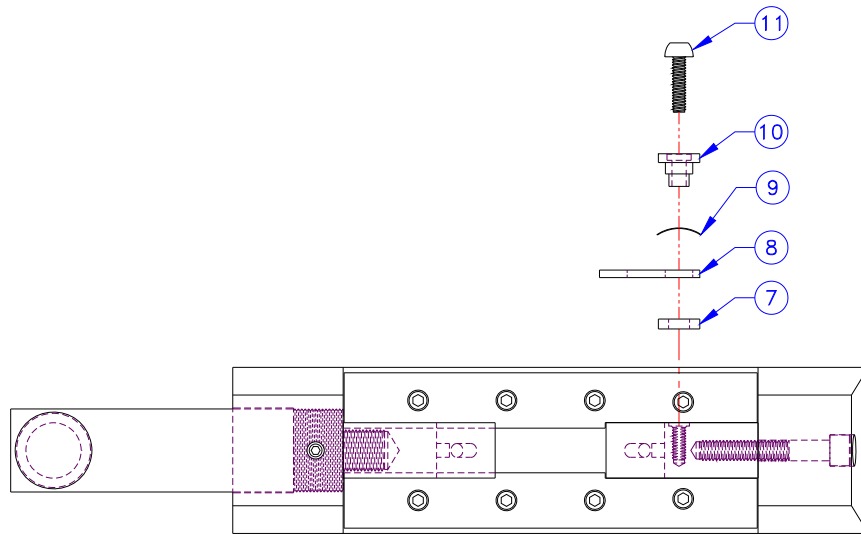
## CRIMPER MAINTENANCE

1. Clean and lubricate all moving parts. Use Teflon grease or equivalent as needed when lubricating.
2. Check hydraulic oil level in reservoir. Fill to within 1-2" of the top using 215 SSU @100 F. hydraulic oil.
3. Check for worn or torn die carriers. Replace when crimp appears to go out of round.

## TROUBLE SHOOTING

PROBLEM	CAUSE	ACTION
1. Oblong or irregular crimp	<ul style="list-style-type: none"> <li>* Worn carriers</li> <li>* One die segment in the set is the wrong size</li> </ul>	<ul style="list-style-type: none"> <li>* Replace carriers</li> <li>* Check all segments for correct size on back of die</li> </ul>
2. Crimp diameter too large	<ul style="list-style-type: none"> <li>* Crimper not fully closed-refer to instructions</li> <li>* Incorrect size dies</li> </ul>	<ul style="list-style-type: none"> <li>* Re-crimp until dies fully close</li> <li>* Replace with correct size</li> </ul>
3. Crimp diameter too small	<ul style="list-style-type: none"> <li>* Incorrect size dies</li> </ul>	<ul style="list-style-type: none"> <li>* Replace with correct size</li> </ul>
4. Crimp location too close to closed end of ferrule	<ul style="list-style-type: none"> <li>* Ferrule not inserted far enough into crimper</li> </ul>	<ul style="list-style-type: none"> <li>* Use locator to properly locate ferrule position</li> </ul>
5. Crimp location too close to hose	<ul style="list-style-type: none"> <li>* Ferrule inserted too far into crimper (past locator)</li> </ul>	<ul style="list-style-type: none"> <li>* Use locator to properly locate ferrule position</li> </ul>
6. Crimped fitting leaks when tested with soap bubbles	<ul style="list-style-type: none"> <li>* Air trapped in the hose during manufacture</li> <li>* Insufficient crimp</li> <li>* Fitting is defective</li> </ul>	<ul style="list-style-type: none"> <li>Recheck after system has been charged for one hour - air will bleed out of the hose</li> <li>* Check crimp diameter</li> <li>* Replace fitting/recrimp</li> </ul>
7. Crimped fitting leaks when tested with electronic leak detector	<ul style="list-style-type: none"> <li>* Insufficient crimp</li> <li>* Fitting or hose defective</li> </ul>	<ul style="list-style-type: none"> <li>* Check crimp diameter</li> <li>* Replace fitting or hose /recrimp</li> </ul>

# Crimper Head Assembly



## MODEL 3600-Q & 3600-Q-50 CRIMPER PARTS LIST

Item	Part#	Description	Qty	Units
1	<b>75025</b>	3600 Crimper Body	1	Ea.
2	<b>75229</b>	Crimp Slide Block	1	Ea.
3	<b>75230</b>	Crimp Slide Block	1	Ea.
4	<b>71682</b>	3/8"-16 x 2 1/4" Cap Screw	2	Ea.
5	<b>71668</b>	Ram Guide Plate	2	Ea.
6	<b>70710</b>	1/4"-20 x 3/4" Cap Screw	8	Ea.
7	<b>75176</b>	Spacer Bushing-Quick Change	1	Ea.
8	<b>75086-Y</b>	Locator Flag	1	Ea.
9	<b>75088</b>	Curved Disc Spring	1	Ea.
10	<b>75087-Y</b>	Locator Bushing	1	Ea.
11	<b>75113</b>	1/4-20 x 1" BHS	1	Ea.
12	<b>3711</b>	#6 Reduced Crimp Die Set-Red	1	Set
	<b>75140</b>	#6 Reduced Crimp Die Carrier-Red	2	Ea.
13	<b>3712</b>	#6 2B - #8 Reduced Crimp Die Set-Black	1	Set
	<b>71688</b>	#6 2B - #8 Reduced Crimp Die Carrier-Black	2	Ea.
14	<b>3713</b>	#8 2B Crimp Die Set-Blue	1	Set
	<b>71689</b>	#8 2B Crimp Die Carrier-Blue	2	Ea.
15	<b>3714</b>	#10 Reduced Crimp Die Set-Almond	1	Set
	<b>75136</b>	#10 Reduced Crimp Die Carrier-Almond	2	Ea.
16	<b>3715</b>	#10 2B - #12 Reduced Crimp Die Set-Green	1	Set
	<b>71690</b>	#10 2B - #12 Reduced Crimp Die Carrier-Green	2	Ea.
17	<b>3716</b>	#12 2B Crimp Die Set-Clear	1	Set
	<b>71691</b>	#12 2B Crimp Die Carrier-Clear	2	Ea.
18	<b>75034</b>	3/4" Threaded Adapter	1	Ea.
19	<b>75023</b>	C53C Hydraulic Ram	1	Ea.
20*	<b>75024-60</b>	1HP Hydraulic Power Unit (Standard)	1	Ea.
21*	<b>75024-50</b>	1HP Hydraulic Power Unit (Optional-50 Hz)	1	Ea.
21	<b>3614-Q</b>	3600-Q Crimper w/o Power Unit	1	Ea.
22*	<b>75015</b>	Teflon Grease (.75oz. Tube)	1	Ea.

\* = NOT SHOWN