

Figure 1

1. INTRODUCTION

Pneumatic Head Assembly 679304-1 (shown in Figure 1) is designed to accept interchangeable die assemblies used in PRO-CRIMPER* hand tools for crimping various types of connectors. The head assembly is used in the 626 Pneumatic Tooling Assemblies 189721-1 and 189722-1. For questions concerning the setup and operation of the pneumatic tools, call the Tyco Electronics Tooling Assistance Center.

This instruction sheet provides recommended procedures for die installation and removal, crimp head installation and removal, basic crimping procedures, and maintenance and inspection. For specific information concerning cable preparation and crimping procedures, refer to the instruction sheet packaged with the appropriate die set.

Reasons for reissue are provided in Section 7, REVISION SUMMARY.

2. DIE INSTALLATION AND REMOVAL

Remove head assembly from tool holder assembly; then remove the two pan head screws and bushings from the jaws of the head assembly. Select

appropriate die assembly. To install the die assembly, proceed as follows:

2.1. Shouldered Dies (Figure 2)

1. Open crimping jaws by squeezing rollers together. Place anvil die into the jaw of the head assembly. See Figure 2.
2. Slide bushing over pan head screw and insert pan head screw through the head assembly jaw and anvil die. Tighten screw just enough to hold the die in place.



The die assemblies in Figure 2 are designed with center contact crimp sections and are installed with the crimp sections positioned toward the front of the head assembly. If shown otherwise in other instruction sheets, Tyco Electronics recommends following the die installation requirements for the specific application.

3. Place crimper die into head assembly jaw, as shown in Figure 2.
4. Slide bushing over pan head screw and insert pan head screw through the head assembly jaw and crimper die. Tighten screw just enough to hold the die in place.

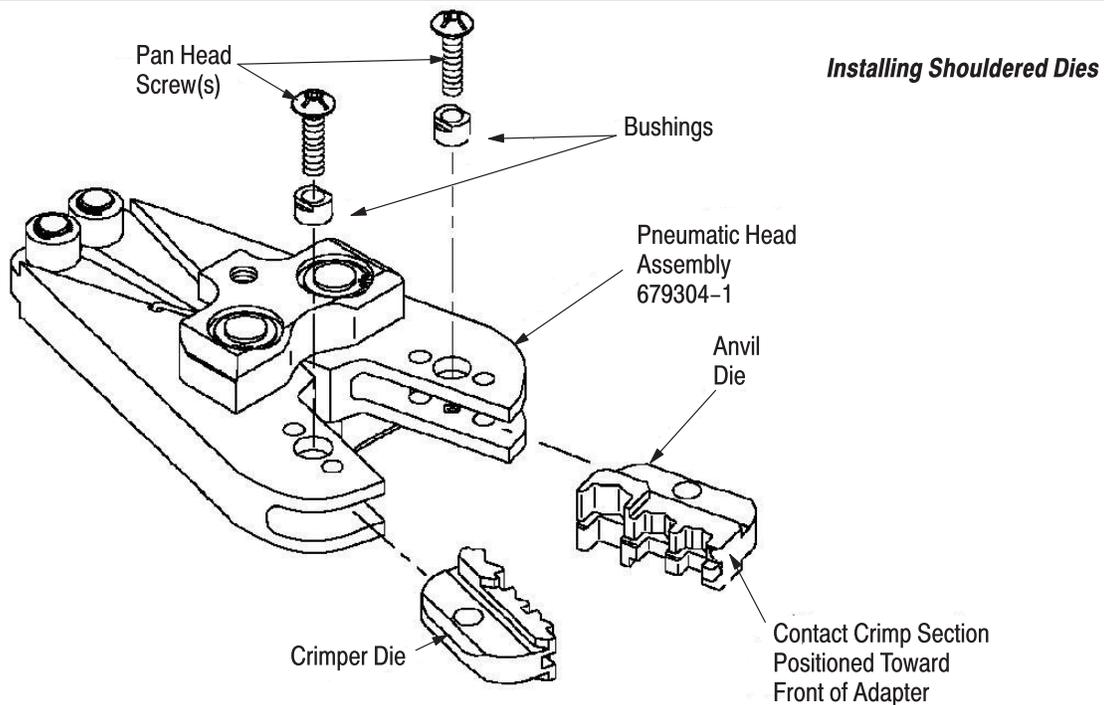


Figure 2

5. Check die alignment by allowing the crimping jaws to spring shut. If dies are properly aligned, tighten the die retaining screws.
6. To remove the dies from the head assembly, loosen the pan head screws and slide dies out of the crimping jaws.

6. Install locator assembly onto the long retaining screw and secure it with the hex nut. See Figure 3.
7. To remove the dies from the crimping jaws, loosen the die retaining screws and slide the dies out of the crimping jaws.

2.2. Pinned Dies (Figure 3)

1. Open crimping jaws by squeezing rollers together. Install anvil die into crimping jaw. The die should be oriented so that the chamfers are positioned toward the front of the head assembly and the die markings are facing outward. See Figure 3.
2. Insert bushing into the crimping jaw. Insert two die retaining pins and the short die retaining screw into the crimping jaw and through the anvil die. Tighten the screw just enough to hold the die in place. See Figure 3.
3. Install crimper die into the crimping jaw, as shown in Figure 3. The die should be oriented so that the chamfers are positioned toward the front of the head assembly and the die markings are facing outward. See Figure 3.
4. Insert bushing into the crimping jaw. Insert two die retaining pins and the *long* die retaining screw into the crimping jaw and through the crimper die. Tighten the retaining screw just enough to hold the die in place. See Figure 3.
5. Check die alignment by allowing the crimping jaws to spring shut. If dies are properly aligned, tighten the die retaining screws.

3. HEAD ASSEMBLY INSTALLATION AND REMOVAL

3.1. Installation



Disconnect pneumatic tooling assembly from air supply before installing the head assembly.



Certain precautions should be taken by the operator to avoid personal injury or damage to the pneumatic tool. Refer to the instruction sheet supplied with the pneumatic tool for operation and safety precautions.

1. Insert head assembly into tool holder assembly of pneumatic tooling assembly, as shown in Figure 1.
2. After the head assembly is properly aligned, insert and tighten the quick pins provided with the pneumatic tooling assembly. Refer to Figure 1.



Tyco Electronics recommends using Loctite No. 242 removable thread-lock or equivalent to prevent the quick pins from loosening.

Installing Pinned Dies

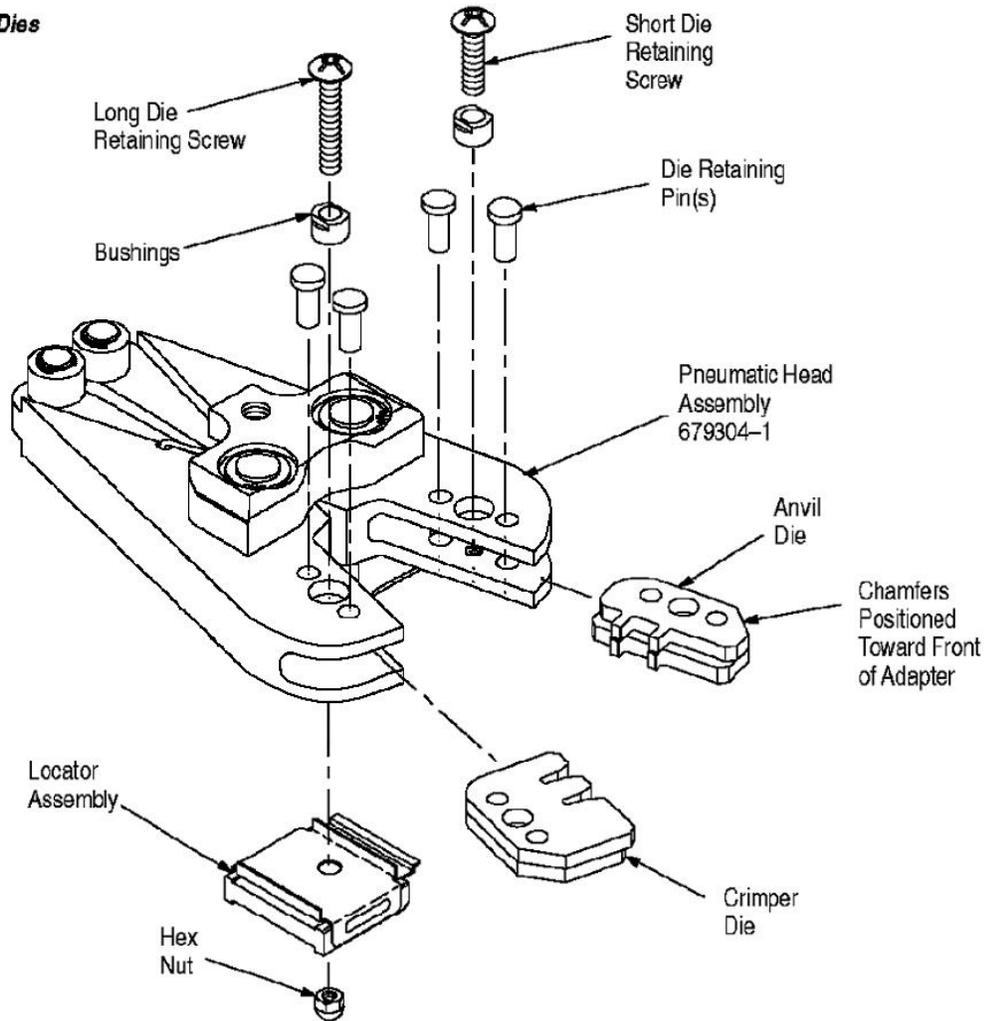


Figure 3

3. Connect tool to an adequate air supply between 620–690 kPa [90–100 psi]. For specific information on air line requirements and air hose installation, refer to the instructions packaged with the pneumatic tooling assembly.

The pneumatic tooling assembly is now ready to be used.

3.2. Removal

DANGER *Disconnect pneumatic tooling assembly from air supply before removing crimping head.*



1. Remove quick pins.
2. Remove head assembly from tool holder.

4. CRIMPING PROCEDURES

The crimping procedures which follow are basic. Refer to the instruction sheet packaged with the die assembly for details.

DANGER *ALWAYS keep fingers clear of head assembly jaws when operating the pneumatic tooling assembly.*



1. Strip wire using the recommended strip-length dimensions. Refer to instruction sheet supplied with the die assembly.
2. Open crimping jaws by squeezing the rollers together; then position the connector into the appropriate crimping chamber.
3. After connector is properly positioned in the dies, release rollers to allow the jaws to spring shut, securing the connector within the dies.
4. Insert stripped wire into connector.

5. Activate the pneumatic tooling assembly to complete the crimp. Open the dies by squeezing the rollers together, then remove the crimped connector.

5. MAINTENANCE AND INSPECTION



Always disconnect pneumatic tooling assembly from air supply before performing any maintenance or inspection.

Tyco Electronics recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. The head assembly should be inspected once a month. Frequency of inspection should be adjusted to suit your requirements through experience. Frequency of inspection depends on:

1. The care, amount of use, and handling of the head.
2. The type and size of the product crimped.
3. The degree of operator skill.
4. The presence of abnormal amounts of dust and dirt.
5. Your own established standards.

Each head assembly is thoroughly inspected before packaging. Since there is the possibility of damage during shipment, new head assemblies should be inspected immediately upon arrival at your facility.



For die closure inspections and plug gage dimensions, refer to the instruction sheet supplied with the appropriate die assembly.

5.1. Cleaning

Remove dust, moisture, and other contaminants with a clean, soft brush, or a soft, lint-free cloth. Do NOT use objects or cleaning materials that could damage the crimping head. Relubricate the head assembly, as instructed in Paragraph 5.3, Lubrication, before placing it back into service.

5.2. Visual Inspection

1. Inspect the head assembly for missing pins and retaining rings. If parts are missing or defective, replace them by referring to Figure 4.

2. Check all bearing surfaces for wear. Make sure the rollers turn freely with minimal resistance. Replace any worn parts.

3. Inspect the crimp areas in the die assembly for flattened, chipped, or broken areas. Although the dies may gage within permissible limits, worn or damaged die closure surfaces may affect the quality of the crimp.

5.3. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with a high quality grease. Tyco Electronics recommends the use of Molykote paste, which is a commercially available lubricant. Lubricate according to the following schedule:

- Head assembly used in daily production
 - lubricate daily
- Head assembly used daily (occasional)
 - lubricate weekly
- Head assembly used weekly
 - lubricate monthly

Wipe excess grease from head assembly, particularly in the die closure areas. Grease transferred from the die closure area onto certain terminations may affect the electrical characteristics of a termination.

6. REPLACEMENT AND REPAIR

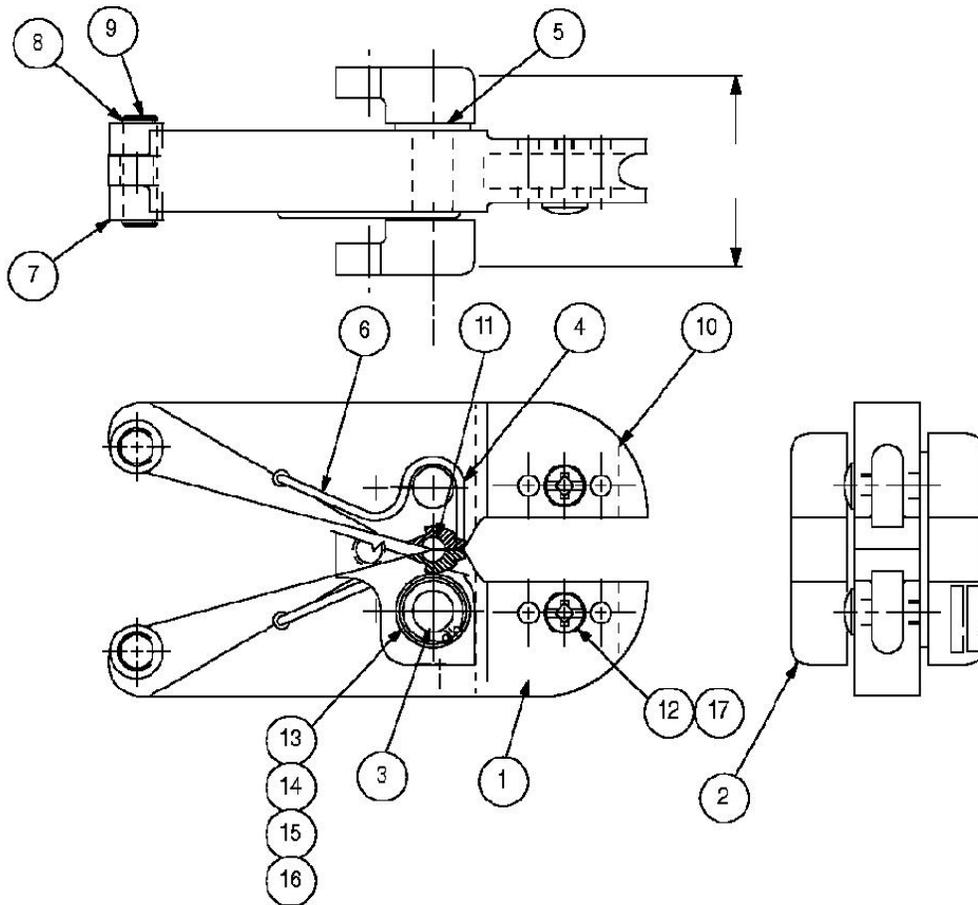
Replacement parts and recommended spares are listed in Figure 4. The recommended spares should be stocked for immediate replacement. Parts should be replaced by Tyco Electronics to ensure quality and reliability of the head assembly. Order replacement parts through your Tyco Electronics Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
 TYCO ELECTRONICS CORPORATION
 P.O. BOX 3608
 HARRISBURG, PA 17105-3608

For head assembly repair service, please contact a Tyco Electronics Representative at 1-800-526-5136.

7. REVISION SUMMARY

Since the previous release of this sheet, the logo and format have been updated.



CUSTOMER REPLACEABLE PARTS FOR 679304-1

ITEM	PART NUMBER	DESCRIPTION	QUANTITY PER ASSY
1	679192-1	ARM, Crimper	1
2	768521-3	LINK	2
3	6-23629-0	PIN, Straight Groove	2
4	1-21048-0	RING, Retaining	4
5	314655-3	SHIM	1
6●	679942-1	SPRING	1
7●	314479-2	ROLLER, Cam	4
8●	21045-6	RING, Retaining	4
9●	3-23620-3	PIN, Straight Groove	2
10	679192-2	ARM, Crimper	1
11	23241-2	BALL, Steel	1
12	986964-4	SCREW, Pan Head	2
13	301185-6	SHIM	as required
14	301185-7	SHIM	as required
15	301185-8	SHIM	as required
16	301185-9	SHIM	as required
17	1213501-1	BUSHING	2

● Recommended Customer Spares

Figure 4