ORIGINAL INSTRUCTIONS

1. INTRODUCTION

This instruction sheet provides instructions on product application, and maintenance and inspection procedures for DYNA-CRIMP Crimping Head 69099 shown in Figure 1.

NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

This crimping head is used to crimp:

— AMPOWER* terminals and splices with a wire size range of 10.5 through 190 mm^2 [6 through 350 MCM]. Refer to instruction sheet (408-series) 408-1606.

— AMPOWER quick-disconnect terminals with a wire size range of 42.4 through 139 mm^2 [1/0 through 250 MCM]. Refer to 408-2292-3.

— COPALUM* sealed terminals and splices with a wire size range of 2.62 through 96.3 mm^2 [12-10 through 3/0 AWG]. Refer to 408-2240.

— COPALUM terminals and splices with a wire size range of 6.64 through 96.3 mm^2 [8 through 3/0 AWG] (bar crimp). Refer to 408-2353.

— COPALUM insulation piercing terminals and splices with a wire size range of 6.64 through 96.3 mm^2 [8 through 3/0 AWG] (except stranded aluminum wire). Refer to 408-2397.

— TERMI-FOIL* end and center tap terminals with a wire having foil thickness range of 0.508 through 1.524 mm [.020 through .060] (sample crimping only). Refer to 408-2014.

— TERMI-FOIL Single and Double Face Terminals 51911, 51911-1, 51911-2, 51911-3, and 51943.

— SOLISTRAND* terminals and splices with a wire size range of 6.64 through 117 mm^2 [8 through 4/0 AWG]. Refer to 408-1697.

— SOLISTRAND flag terminals with a wire size range of 6.64 through 117 mm^2 [8 through 4/0 AWG]. Refer to 408-2198.

— STRATO-THERM* post insulated terminals and splices with a wire size range of 6.64 through 76.3 mm^2 [8 through 2/0 AWG]. Refer to 408-1826.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

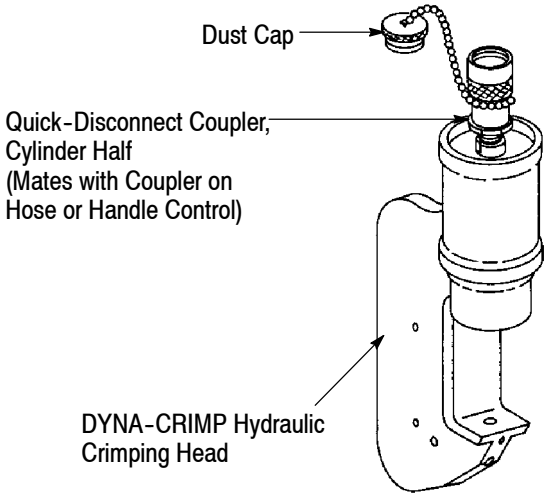


Figure 1

Basic instructions on the use of this crimping head are provided in Section 2, INSTALLATION AND REMOVAL, and Section 3, CRIMPING PROCEDURE. Section 4, MAINTENANCE AND INSPECTION contains requirements to establish and maintain a program.

2. INSTALLATION AND REMOVAL

2.1. Attaching the Crimping Head

NOTE

If a coupling component for the hose assembly is packaged inside the quick-disconnect coupler on the head, it is to be used to replace the coupling on a hose assembly not equipped with a quick-disconnect coupler.

DANGER

To avoid personal injury, release hydraulic pressure to hose or handle control. Disconnect electric power unit form power supply.

1. Thoroughly clean the coupling area of the handle control or hose assembly and crimping head.

2. Remove the protective (dust) caps.

3. Mate both of the quick-disconnect couplers and tighten the collar of the coupler assembly of the crimping head. See Figure 1.

CAUTION

Oil flow must be unobstructed between power unit and crimping head. Ensure that all couplers are fully mated and tightened.

NOTE

If a crimping head must be removed after power unit was in operation, pressure must be released in the hydraulic system. When using Hydraulic Power Unit 69120-[ ], disconnect power unit from power supply. When using Hydraulic Hand Pump 314979-1, turn the "hold/return" lever to the "return" position.

2.2. Die Insertion and Removal (Figure 2)

DANGER

Avoid personal injury. When using power unit, exercise caution to avoid accidentally depressing foot switch or handle control when changing dies.

A. Insertion

1. Back off the set screws in the crimping head and ram (the ram must be raised slightly to gain access to the set screw).

2. Insert the dies into the crimping head and the ram, ensuring the flats of the die shanks are facing the set screws.

3. Tighten the set screws.

4. Activate the power unit to complete the cycle and allow the ram to return to the "DOWN" position.

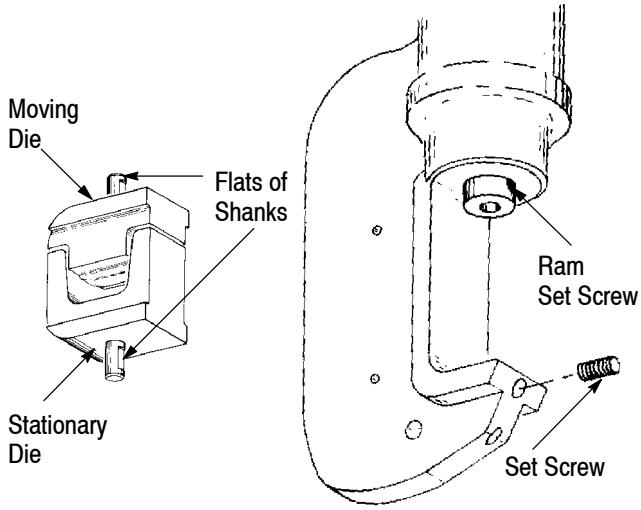


Figure 2

B. Removal

1. Back off the set screw in the crimping head and remove the stationary die.

2. Raise the ram enough to expose the set screw and remove the moving die.

3. CRIMPING PROCEDURE

The following procedure provides only general information concerning crimping. Refer to instructional material packaged with the dies and power unit for more detailed information including wire stripping dimensions and how to position terminals or splices in the dies.

CAUTION

Never operate the power unit without having a crimping head attached to the handle control or crimping head coupling.

1. Insert a terminal or splice in the stationary die according to instructions packaged with the dies.

2. Activate the power unit to advance the dies and hold terminal or splice in place.

3. Insert the stripped wire into the terminal or splice.

4. Activate the power unit to complete the crimp.

4. MAINTENANCE AND INSPECTION

The following procedure includes information required to disassemble, inspect, and repair the crimping head. A maintenance and inspection program should be performed periodically. Frequency of inspection is dependent upon:

the care, amount of use, and handling of the head,

the type and size of the products crimped,

the degree of operator skill, and

the presence of abnormal amounts of dust and dirt.

The crimping head is inspected before packaging. Since there is a possibility of damage in shipment, the new head should be inspected in accordance with this section when received.

4.1. Cleaning

Remove accumulations of dirt and grease on the crimping head, especially in the area where dies are inserted. Clean the entire crimping head frequently with a clean cloth.

4.2. Visual Inspection

Inspect the assembled crimping head for nicks, scratches, and cracks. Inspect for cracks especially at the corners of the C-frame and around the top of the cylinder. See Figure 3. When the crimping head is disassembled, inspect the metal surfaces for nicks, cracks, scratches, and excessive wear, especially where sliding contact occurs. Perform this inspection as noted during the disassembly procedure described in Paragraph 4.4.

Check These Areas for Cracks

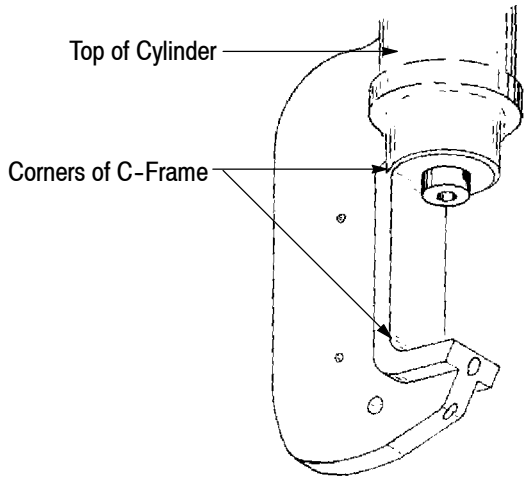


Figure 3

4.3. Crimping Head Check-Out Procedure

If the ram fails to retract after completion of a crimping cycle, the cause may be in the crimping head. To determine whether or not the trouble is in the crimping head, release pressure in the power unit. If the ram retracts, the trouble is not in the crimping head. If ram does not retract, refer to Paragraph 4.4.

4.4. Crimping Head Disassembly Procedure

NOTE

When using Hydraulic Power Unit 69120-[ ], disconnect power unit from power supply. When using Hydraulic Hand Pump 314979-1, turn the "hold/return" lever to the "return" position.

NOTE

The following components (items) may be found in Figure 4.

1. Remove the crimping head and place it in a vise. Use a suitable material to protect the finish on the head.

2. Insert a hex wrench in the ram set screw (Item 14).

3. Insert a drift pin up through the port of the base plate (Item 13), raise the ram until a 6.3-mm [.250-in.] square block of wood or steel can be placed between the hex wrench and the top of the cylinder.

4. Lower the ram slowly until it is supported by the hex wrench.

5. Remove the retaining ring (Item 4) from the bottom of the cylinder and remove the base plate (Item 13).

6. Insert a drift pin up through the cylinder and raise the ram.

7. Remove the hex wrench, remove the ram (Item 6), and spring (Item 8) from the cylinder.

8. Inspect for a broken or weak ram return spring.

9. Inspect the ram and base plate O-rings (Item 5) and back-up rings (Item 11) for worn or deteriorated condition.

10. Apply a thin film of hydraulic fluid (same type used in power unit reservoir) on surface of the O-rings and back-up rings.

11. Install the ram and ram return spring of the crimping head, aligning the slot in the piston with the guide set screw (Item 2).

12. Insert a drift pin up through bottom of the cylinder and raise the ram.

13. Place a hex wrench in the ram in the set screw.

14. Position a 6.3-mm [.250-in.] square block of wood or steel between the wrench and the top of the cylinder.

15. Lower the ram until the wrench rests against the block.

16. Install the base plate (Item 13) and retaining ring (Item 4).

17. Insert the drift pin up through the port of the base plate and raise the ram.

18. Remove the hex wrench and lower the ram.

19. Attach the crimping head to the power unit. Refer to Paragraph 2.1.

5. REPLACEMENT PARTS

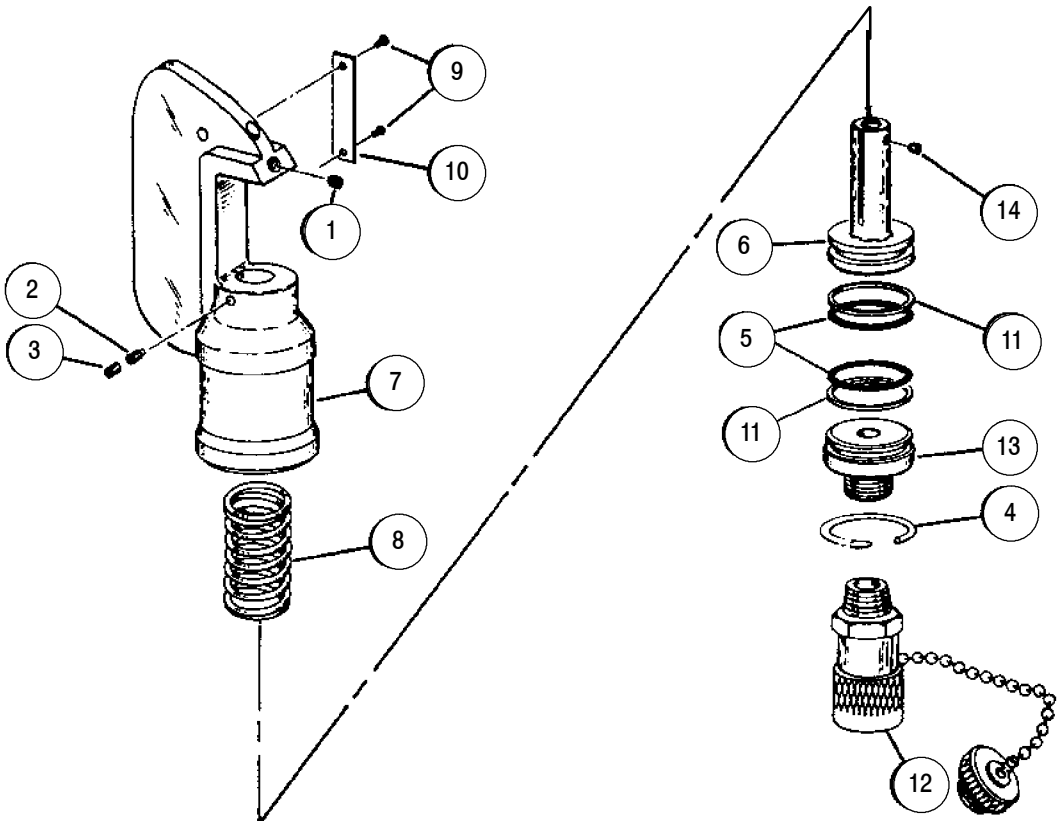
It may be advantageous to stock certain replaceable parts to prevent loss of production time. Customer-replaceable parts are shown in Figure 4. Order replaceable parts through your Representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Removed reference to obsolete instruction sheet from Section 1



ITEM	PART NUMBER	DESCRIPTION	QTY PER CRIMPING HEAD
1	21013-4	SCREW, Socket Set, Self Locking, $^1/_4$-20 UNC × 9.52 mm [.375 in.] Long	1
2	21059-3	SCREW, Socket Set (Half Dog Point), 8-32 UNC × 7.95 mm [.313 in.] Long	1
3	4-21010-1	SCREW, Socket Set (Flat Point), 8-32 UNC × 7.95 mm [.313 in.] Long	1
4	305296	RING, Retaining	1
5	3-21053-2	O-RING, 60.32 mm [2.375 in.] × 50.8 mm [2.00 in.] I.D. × 4.78 mm [.188 in.] Wide	2
6	46721	PISTON, Ram	1
7	59465	HEAD	1
8	304560	SPRING, Ram Return	1
9	21017-6	SCREW, RH Drive (Type U) No. 4 × 6.35 mm [.250 in.] long	2
10	39447	NAME PLATE	1
11	2-21107-6	RING, Back-Up	2
12	311471-1	COUPLER, Quick-Disconnect, Cylinder Half	1
13	46722	PLATE, Base	1
14	21013-2	SCREW, Socket Set, Self Locking, $^1/_4$-20 UNC × 7.95 mm [.313 in.] Long	1

Figure 4