

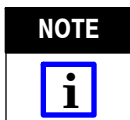
Figure 1

## 1. INTRODUCTION

12-Ton Hydraulic Crimping Head 1490745-1 shown in Figure 1 is designed to use dies that crimp the terminals and splices in Figure 2. Figure 2 also lists the wire sizes accepted as well as the instruction sheet for the crimping dies.

TERMINALS AND SPLICES	WIRE SIZE (AWG)	CRIMPING DIES INSTRUCTION SHEET
AMPOWER*	6-3/0	408-8703
SOLISTRAND*	8-4/0	408-8691
TERMINYL*	8-4	408-8704

Figure 2



*Dimensions on this document are in metric units [with U. S. customary units in brackets], unless otherwise specified.*

Reasons for reissue of this instruction sheet are provided in Section 7, REVISION SUMMARY.

## 2. DESCRIPTION (Figure 1)

The crimping head consists of a “C”-head, which houses the stationary die, the upper and lower die release buttons which release the dies, a cylinder which contains the head hydraulic chamber, a piston (ram), which holds and controls the moving die, and a quick-disconnect coupling (cylinder half) which mates with the coupling on the hose to release or supply pressure.

A dust cap covers the quick-disconnect coupling.

## 3. INSTALLATION

### 3.1. Head Installation

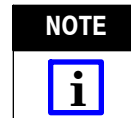


*Prior to installing the head, ensure that the pump and hose being used are working properly, and are adjusted to and rated at 10,000 psi. An incorrectly adjusted or rated pump/hose could result in severe tooling damage, as well as personal injury.*

1. Release the hydraulic pressure to the hose. Disconnect the electric power unit from the power supply.
2. Remove the dust cap.
3. Thoroughly clean the coupling on the pump/hose and the coupling on the crimping head.
4. Mate both quick-disconnect couplings, and tighten the collar of the coupler assembly on the hose.



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



*If a crimping head must be removed after the power unit was in operation, be sure to release the pressure in the hydraulic system. When using Hydraulic Power Unit 1583660-[ ], DISCONNECT THE POWER UNIT FROM THE POWER SUPPLY. When using Hydraulic Foot Pump 1583659-1 or Hydraulic Hand Tool 1583661-1, depress the pressure release pedal to release pressure.*

### 3.2. Crimping Die Installation



*To avoid personal injury, DO NOT accidentally depress the footswitch or handle control when installing or removing the crimping dies.*



*Operating the head WITHOUT the crimping dies installed will damage the "C"-Head or ram.*

Install the crimping dies as described in the instruction sheet referenced in Figure 2.

#### 4. CRIMPING PROCEDURE

The following procedure provides only general information concerning crimping. Refer to the instructions packaged with the dies and power unit for detailed information, including wire stripping dimensions and the procedure for positioning the terminal and splice in the crimping dies.

1. Insert the terminal or splice in the stationary die according to the instructions packaged with the crimping dies.
2. Activate the power unit to advance the crimping dies, and hold the terminal or splice in place.
3. Insert the stripped wire into the terminal or splice.
4. Activate the power unit to complete the crimp.

#### 5. MAINTENANCE AND INSPECTION



*Make sure the hydraulic pressure is released and the power supply is disconnected before performing any maintenance or inspection procedure, unless otherwise specified in the procedure.*

##### 5.1. Initial Inspection

The crimping head is assembled and inspected before shipment. It is recommended that the crimping head be inspected immediately upon its arrival at your facility, and at regularly scheduled intervals, to ensure that the crimping head has not been damaged during handling. Frequency of inspection depends upon the following:

- care, amount of use, and handling of the head
- type and size of products crimped
- degree of operator skill
- environmental conditions

##### 5.2. Visual Inspection

Inspect the head for nicks, scratches, and cracks. Inspect for cracks especially at the corners of the "C"-head and around the top of the cylinder. Refer to Figure 3.

Inspect the metal surfaces for nicks, cracks, scratches, and excessive wear, especially where sliding contact occurs.

#### Check These Areas for Cracks

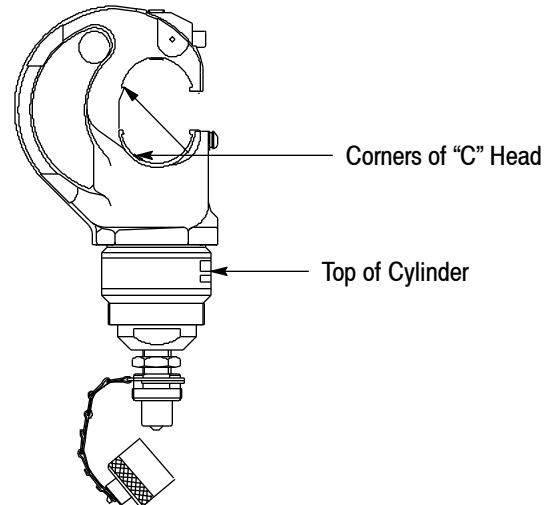


Figure 3

##### 5.3. Periodic Inspection

Inspect and service the crimping head as described in Figure 4 every month or 1,000 cycles, whichever comes first. Additionally, once a year, or every 7,500 cycles (whichever comes first), the crimping head should be returned to Tyco Electronics for magnetic particle inspection.

##### 5.4. Cleaning

Remove accumulations of dirt and grease on the crimping head, especially in areas where dies are installed and product is crimped. Clean the entire head frequently with a clean, lint-free cloth.

##### 5.5. 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 Section 6.

#### 6. REPLACEMENT AND REPAIR

Order replacement 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

Crimping heads may also be returned for evaluation and repair. For customer repair service, call 1-800-526-5136.

PART	INSPECTION AND PROBLEM	POSSIBLE SOLUTION
"C"-Head	Inspect for cracks, gouges, nicks, or galling on the "C"-Head or where the "C"-Head contacts dies.	Return tool for repair (see Section 6).
	Check to see if the upper die retaining pin does not hold the stationary die in place.	Return tool for repair (see Section 6).
	Check to see if the upper die release button sticks (it should normally move in and out easily when moderate pressure is applied).	Return tool for repair (see Section 6).
Cylinder	Inspect for evidence of cracks, gouges, nicks, or galling.	If there are cracks, return the tool for repair (see Section 6). For traces of gouges, nicks, or galling: Remove any sharp edges using a fine emery cloth.
	Inspect for oil leaks between the cylinder and coupling.	For oil leaks and a sticky coupling, tighten or replace the coupling.
	Check to see if the coupling sticks to the cylinder (it should normally turn on and off freely when moderate pressure is applied with applied with a wrench).	
Quick-Disconnect Coupling	The coupling mates hard or will not mate or release, or it leaks oil, or it sticks at the hose connection.	Replace coupling.
Ram	Inspect the ram in the Power "ON" (ram advanced) position for evidence of galling, cracks, or oil leaks between the ram and the cylinder.	If there are cracks or leaks, return the tool for repair (see Section 6). If there is galling, remove any sharp edges using a fine emery cloth.
	Check to see if the lower die retaining pin does not hold the moving die in place.	Return tool for repair (see Section 6).
	Check to see if the lower die release button sticks (it should normally move in and out easily when moderate pressure is applied).	Return tool for repair (see Section 6).
	Inspect the ram in the Power "OFF" (ram retracted) position to ensure that the ram returns freely to its original position.	Return tool for repair (see Section 6).

Figure 4

## 7. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated instruction sheet to corporate requirements
- Added "Original Instructions" to page 1