PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.

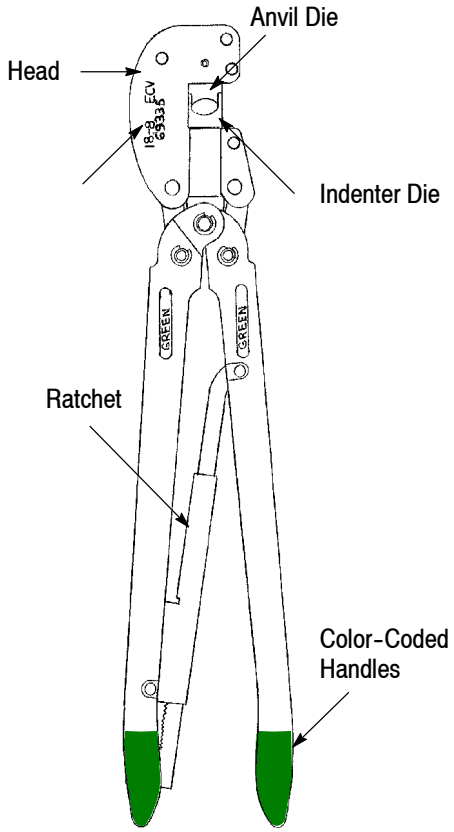

Figure 1

1. INTRODUCTION

Heavy Head Hand Tool 69335 is designed to crimp Closed End Splice 320788. Refer to Instruction Sheet 408-1008 (a wire combination chart packaged with the splice) for wire sizes, wire combinations, and strip length for the splice.

NOTE

Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures are not drawn to scale.

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

2. DESCRIPTION (Figure 1)

The tool consists of a head which contains an anvil die and indenter die, a locator, and handles with a ratchet. When bottomed, the dies form one crimping chamber. The part number of the tool is marked on the front of the tool.

This tool is a member of the CERTI-CRIMP* hand crimping tool family. The ratchet on this tool ensures full crimping of the product. Once engaged, the ratchet will not release until the handles have been FULLY closed.

CAUTION

The dies bottom before the ratchet releases. This feature ensures maximum electrical and tensile performance of the crimp. DO NOT re-adjust the ratchet.

3. CRIMPING PROCEDURE

1. Close the handles until the ratchet releases. Allow the handles to open FULLY.

2. Insert the stripped wire(s) into the wire barrel of the splice until bottomed.

3. Position the splice (with the wire) in the indenter die of the tool so that the end of the insulation grip butts against the locator. See Figure 2.

4. Squeeze the tool handles together until the ratchet releases. Allow the handles to open FULLY, and remove the crimped splice.

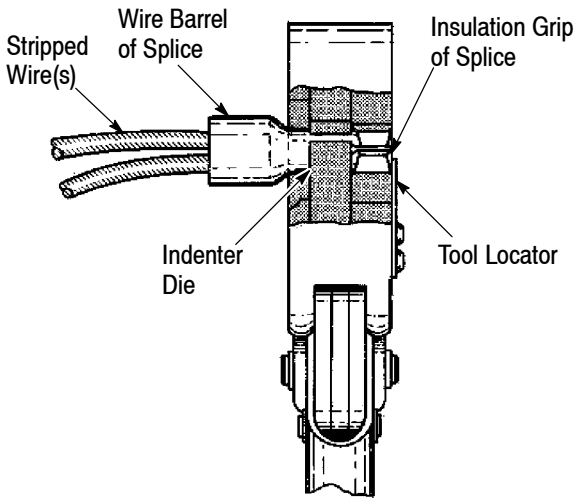

Figure 2

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*Trademark. Other product names, logos, or company names might be trademarks of their respective owners.

4. MAINTENANCE AND INSPECTION

It is recommended that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Though recommendations call for at least one inspection a month, frequency of inspection depends on:

1. The care, amount of use, and handling of the tool.
2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The tool is inspected before being shipped; however, it is recommended that the tool be inspected immediately upon arrival to ensure that the tool has not been damaged during shipment.

4.1. Daily Maintenance

1. Immerse the tool (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease, and foreign matter. When degreasing compound is not available, the tool may be wiped clean with a soft, lint-free cloth. DO NOT use hard or abrasive objects that could damage the tool.

2. Make certain that the retaining pins are in place and that they are secured with retaining rings.

3. All pins, pivot points, and bearing surfaces should be protected with a THIN coat of any good SAE 20 motor oil. DO NOT oil excessively.

4. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the dies. Store the tool in a clean, dry area.

4.2. Periodic Inspection

A. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with any good SAE 20 motor oil as follows:

Tool used in daily production — daily
Tool used daily (occasional) — weekly
Tool used weekly — monthly

Wipe excess oil from the tool, particularly from the crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.

B. Visual Inspection

1. Close the tool handles until the ratchet releases and then allow them to open freely. If they do not open quickly and fully, return the tool for evaluation and repair. See Section 5, REPLACEMENT AND REPAIR.

2. Inspect the head for worn, cracked, or broken areas. If damage is evident, return the tool for evaluation and repair. See Section 5, REPLACEMENT AND REPAIR.

C. Gaging the Crimping Chamber

This inspection requires the use of a plug gage conforming to the dimensions provided in Figure 3. To gage the crimping chamber, proceed as follows:

1. Remove traces of oil or dirt from the crimping chamber and plug gage.

2. Mate the dies until the crimping surfaces have bottomed; then hold in this position. DO NOT force beyond initial contact.

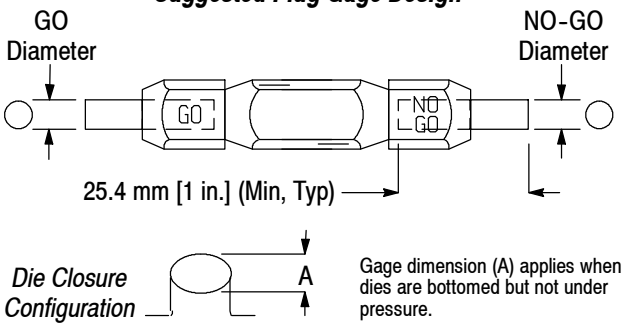
3. Insert the GO element into the crimping chamber; but do not force it. The GO element must pass through the length of the crimping chamber. See Figure 4.

4. In the same manner, try to insert the NO-GO element into the crimping chamber. The NO-GO element may enter partially, but must not pass completely through the length of the crimping chamber.

If the crimping chamber conforms to the gage inspection, the dies may be considered dimensionally correct and should be lubricated with a THIN coat of any good SAE 20 motor oil. If the crimping chamber DOES NOT conform to the gage inspection, the tool must be returned for further evaluation and repair.

For additional information regarding the use of a plug gage, refer to 408-7424.

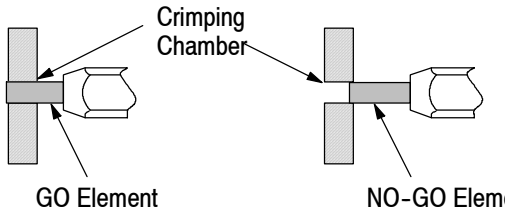
Suggested Plug Gage Design



GAGE ELEMENT DIAMETER AND GAGE DIMENSION (A)	
GO	**NO-GO**
5.31 mm [.209 in.]	5.46 mm [.215 in.]

Figure 3

Inspection of Crimping Chamber



GO element must pass completely through the crimping chamber.

NO-GO element may enter partially, but must not pass completely through the crimping chamber.

Figure 4

4.3. Ratchet Inspection

Check the ratchet to ensure that the ratchet does not release prematurely, allowing the dies to open before they have fully bottomed. Proceed as follows:

1. Remove traces of oil or dirt from the bottoming surfaces of the dies.

2. Obtain a 0.025 mm [.001 in.] shim that is suitable for checking the clearance between the bottoming surfaces of the dies.

3. Select a splice and *maximum* amount and size wire for the splice.

4. Position the splice in the crimping chamber according to Section 3. Holding the wire in place, squeeze the tool handles together until the ratchet releases. Hold the tool handles in this position, maintaining just enough pressure to keep the dies closed.

5. Check the clearance between the bottoming surfaces of the dies. If the clearance is 0.025 mm [.001 in.] or less, the ratchet is satisfactory. If clearance exceeds 0.025 mm [.001 in.], the ratchet is out of adjustment and must be repaired. See Section 5, REPLACEMENT AND REPAIR.

5. REPLACEMENT AND REPAIR

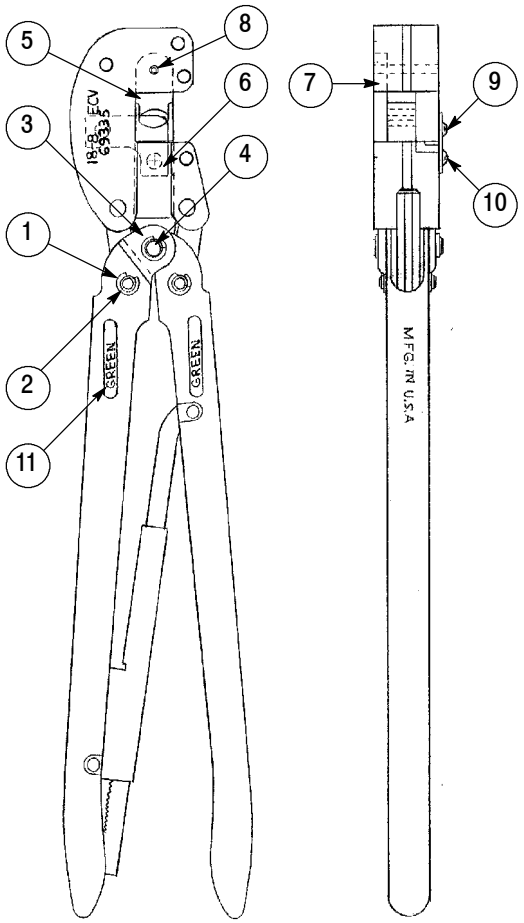
Customer-replaceable parts are listed in Figure 5. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. Parts other than those listed should be replaced by Tyco Electronics to ensure quality and reliability. Order replacement parts through your representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 717-986-7605, or write to:

CUSTOMER SERVICE (038-035)
TYCO ELECTRONICS CORPORATION
PO BOX 3608
HARRISBURG PA 17105-3608

For customer repair service, call 1-800-526-5136.

6. REVISION SUMMARY

Since the previous reease of this sheet, the TE logo was applied



REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL
1	210453	RING, Retaining	4
2	300388	PIN, Retaining	2
3	21045-6	RING, Retaining	2
4	300389	PIN, Retaining	1
5	1-305730-5	DIE, Indenter	1
6	1-305731-5	DIE, Anvil	1
7	3-305832-7	SPACER	1
8	5-21028-7	PIN	1
9	2-21002-5	SCREW	2
10	2-304052-7	LOCATOR	1
11	313036-4	LABEL, Green	4

Figure 5