

AMPAMP INCORPORATED
Harrisburg, Pa. 17105**APPLICATION AND MAINTENANCE
FOR AMP* HAND CRIMPING TOOL**

59962-1

Instruction Sheet

IS 6750

RELEASED

7 • 20 • 83

Section I of this instruction sheet provides application procedures for AMP hand crimping tools.

Section II provides maintenance and inspection procedures for AMP hand crimping tools.

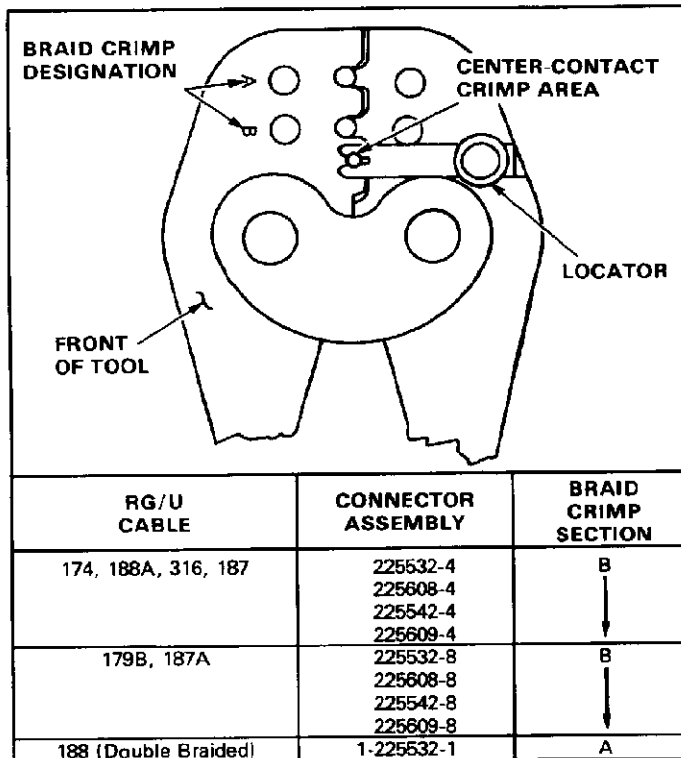


Fig. I-1

SECTION I APPLICATION**I-1. INTRODUCTION**

This Instruction Sheet (IS) covers application and maintenance procedures for AMP Hand Crimping Tool 59962-1 which crimps the AMP Series SMA 50-ohm R.F. Connectors for flexible cable listed in Figure I-1.

NOTE

All dimensions presented in this instruction sheet are in inches.

I-2. DESCRIPTION

The tool features two braid crimp sections with permanently attached braid gap crimpers on each of the crimp sections, a center-contact crimp section, a center-contact locator, and a CERTI-CRIMP* ratchet.

The larger crimp sections are identified by appropriate markings on the FRONT of tool, and the tool part number is engraved on the handle. The BACK of tool has the legend — CABLE SIDE — engraved on the riveted braid gap crimper.

I-3. CRIMPING PROCEDURE

Select an applicable connector for the cable you are using from the chart in Figure I-1. The crimping procedure is as follows:

A. Center Contact

1. Slip ferrule onto cable, and strip cable to dimensions shown in Figure I-2.
2. Place contact on locator of tool with groove in contact seating on locator, and close tool handles just enough to hold contact without deforming wire barrel. See Figure I-3.

CAUTION

The CERTI-CRIMP ratchet is designed to provide optimum electrical and tensile performance from the crimp. Once engaged, the ratchet will NOT release until handles have been FULLY closed. Do NOT attempt to re-adjust the ratchet.

3. Insert conductor into contact wire barrel until insulation butts against contact. Avoid

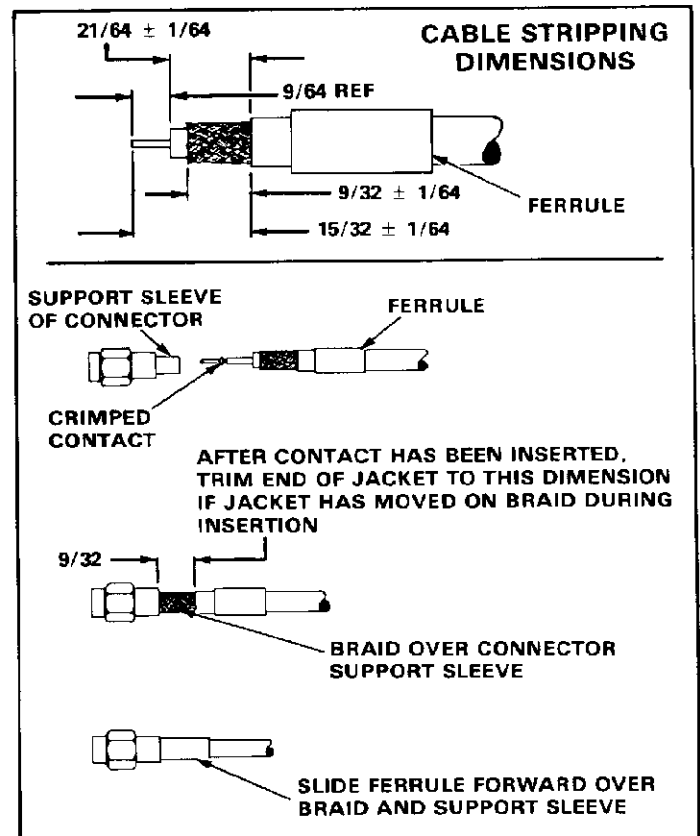


Fig. I-2

Copyright 1983 by AMP Incorporated, Harrisburg, PA. All International Rights Reserved. AMP Incorporated products covered by U.S. and Foreign patents and/or patents pending.

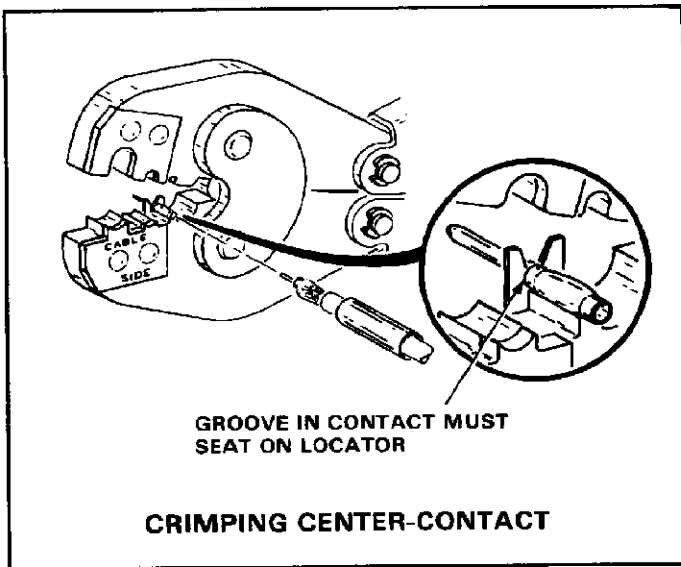


Fig. I-3

excessive pressure which could move locator and mislocate crimp.

4. Close handles until CERTI-CRIMP ratchet releases, and then open handles and remove crimped center-contact.

B. Ferrule

1. Insert crimped center-contact into connector body with cable braid over support sleeve. Pull back lightly on cable to ensure that center-contact is being held captive by internal locking feature.

2. Slide ferrule over braid, and place connector and ferrule on lower crimping die in appropriate

- crimp section of tool (Figure I-1). See Figure I-4.
3. With shoulder of connector resting against die, close tool handles until CERTI-CRIMP ratchet releases.
4. Open tool handles and remove crimped connector.

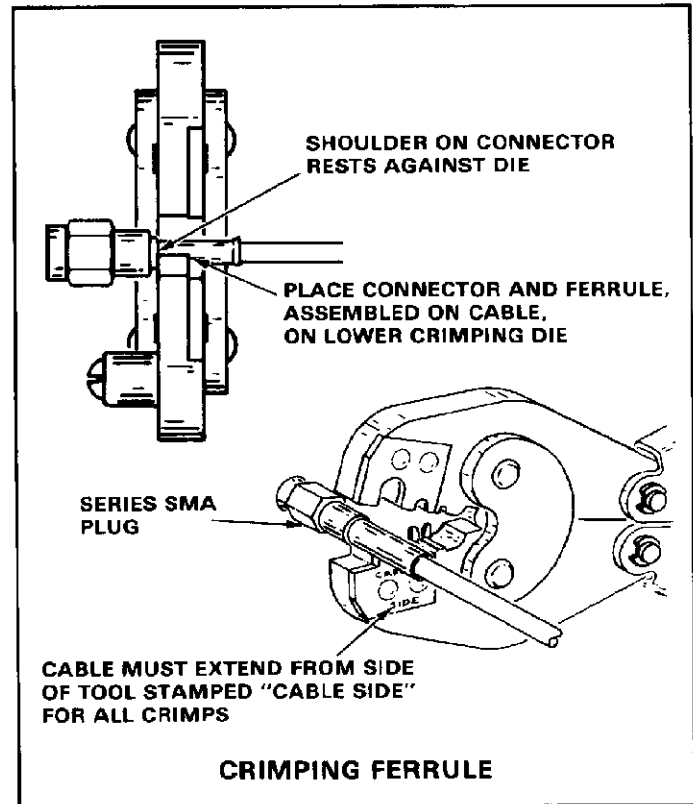


Fig. I-4

Section I of this instruction sheet provides application procedures for AMP hand crimping tools.

Section II provides maintenance and inspection procedures for AMP hand crimping tools.

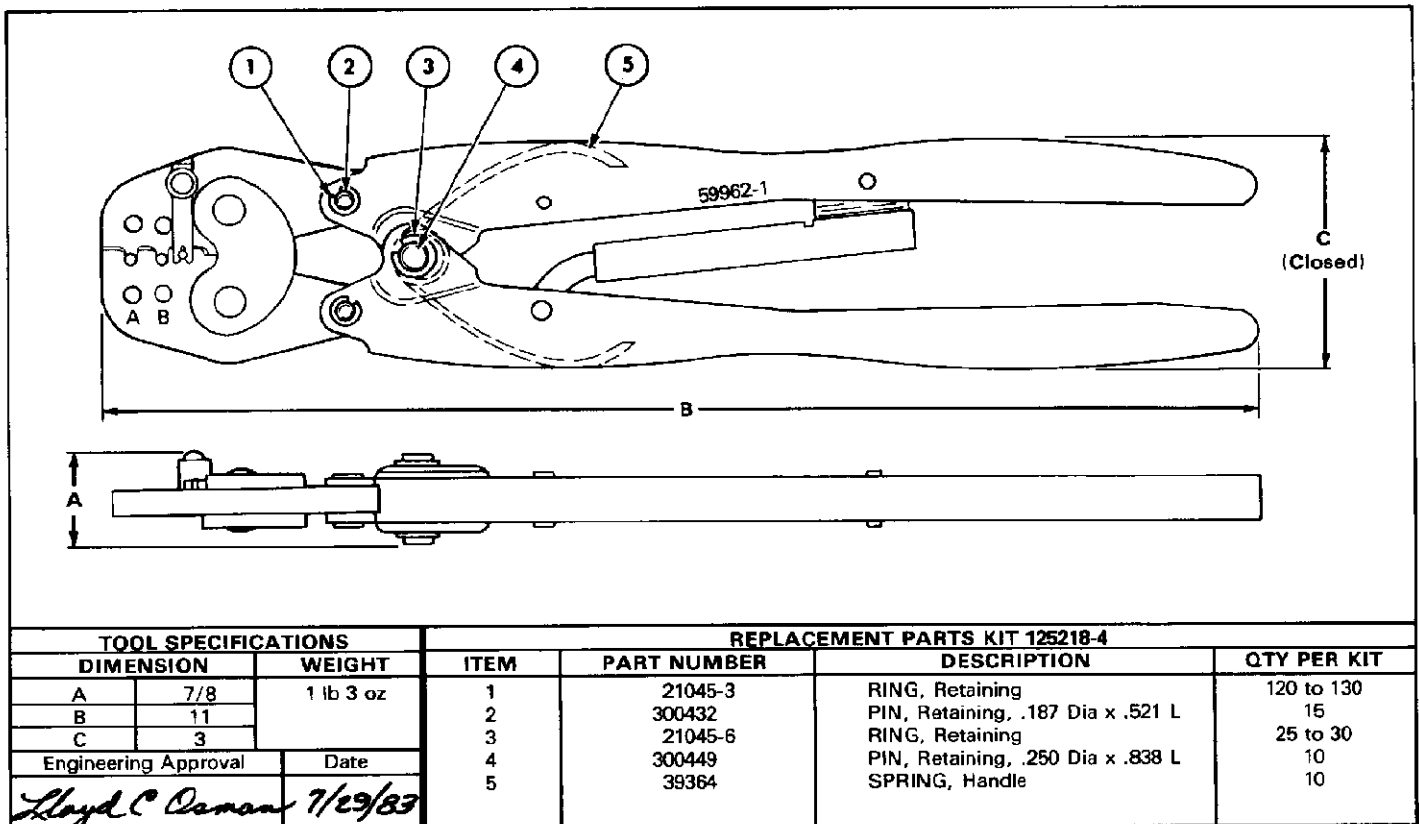


Fig. II-1

SECTION II MAINTENANCE/INSPECTION

II-1. TOOL CERTIFICATION

These instructions have been approved by AMP Design, Production, and Quality Control Engineers to provide documented maintenance and inspection procedures in accordance with AMP Corporate Policy No. 3-3. Through AMP test laboratories and the inspection of production assembly, the procedures described herein have been established to ensure quality and reliability of AMP hand crimping tools.

Customer replaceable parts are listed in Figure II-1. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. When kit items are needed, order replacement kit part number.

II-2. INSPECTION PROCEDURES

A. Daily Maintenance

It is recommended that each operator of the tool be made aware of — and responsible for — the following four steps of daily maintenance:

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft, lint-free

cloth. Do NOT use objects that could damage the tool.

2. Make sure the proper retaining pins are in place and secured with the proper retaining rings.
3. Make certain all pins, pivot points, and bearing surfaces are protected with a THIN coat of any good SAE No. 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 crimping jaws and store the tool in a clean, dry area.

B. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the tool and/or be supplied to supervisory personnel responsible for the tool. Though recommendations call for at least one inspection a month, the inspection frequency should be based on the amount of use, ambient working conditions, operator training and skill, and established company standards. These inspections should be performed in the following sequence:

B-1. Visual Inspection

1. Remove all lubrication and accumulated film by immersing the tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain all retaining pins are in place and secured with retaining rings. If replacements are necessary, refer to parts listed in Figure II-1.
3. Close the tool handles until the ratchet releases, then allow handles to open freely. If they do not open quickly and fully, the spring is defective and must be replaced (see Paragraph II-3, REPAIR).
4. Inspect the head assembly, with special emphasis on checking for worn, cracked, or broken jaws. If damage to any part of the head assembly is evident, return the tool to AMP for evaluation and repair (see Paragraph II-3, REPAIR).

B-2. Gaging the Crimping Chamber

This inspection requires the use of a GO NO-GO gage conforming to the diameters in Figure II-2. AMP does not manufacture or market these gages.

Proceed as follows:

1. Close the tool handles until it is evident that the jaws have bottomed, then HOLD in this position. Do NOT force the jaws beyond initial contact.
2. Align the GO element with the wire barrel crimping chamber. Push element straight into the crimping chamber without using force. The GO element must pass completely through the crimping chamber as shown in Figure II-2.
3. Now align the NO-GO element and try to insert it straight into the same crimping chamber. The NO-GO element may start entry but must not pass completely through as shown in Figure II-2.
4. Repeat Steps 2 and 3 for each crimp section listed in the chart.

If the crimping chamber conforms to the gage inspection, the tool is considered dimensionally correct and should be lubricated with a THIN coat of any good SAE No. 20 motor oil. If not, the tool must be repaired before returning it to service (see Paragraph II-3, REPAIR).

B-3. CERTI-CRIMP Ratchet Inspection

Obtain a .001-in. shim that is suitable for checking the clearance between the bottoming surfaces of the crimping jaws.

Proceed as follows:

1. Select a connector and wire (maximum size) for the tool (see Figure II-2).

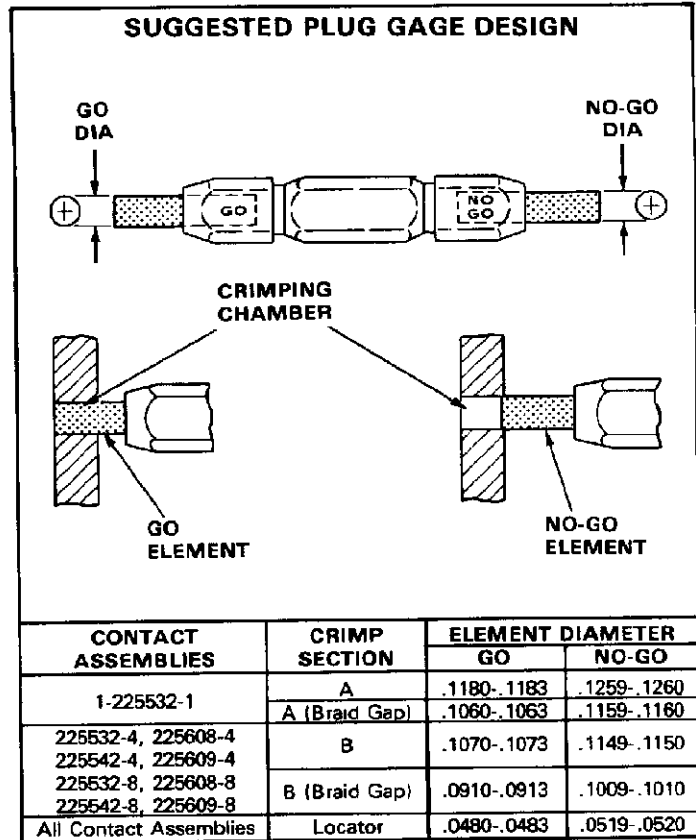


Fig. II-2

2. Position the connector and wire between the crimping jaws, according to Paragraph I-3, CRIMPING PROCEDURE (A, Steps 1 through 3). Holding the wire in place, squeeze the tool handles together until the CERTI-CRIMP ratchet releases. Hold the tool handles in this position, maintaining just enough pressure to keep the jaws closed.
3. Check the clearance between the bottoming surfaces of the crimping jaws. If the clearance is .001 in. or less, the ratchet is satisfactory. If clearance exceeds .001 in., the ratchet is out of adjustment and must be repaired (see Paragraph II-3, REPAIR).

If the tool conforms to these inspection procedures, lubricate it with a THIN coat of any good SAE No. 20 motor oil and return it to service.

II-3. REPAIR

Parts other than those specified in Figure II-1 must be replaced by AMP to ensure certification of the tool. When repair is necessary, return the tool with a written description of the problem to:

AMP Incorporated
Customer Repair
1523 North 4th Street
Harrisburg, Pennsylvania 17102

or a wholly owned subsidiary of AMP Incorporated.