AMP INCORPORATED
HARRISBURG, PA., U.S.A.

APPLICATION AND MAINTENANCE FOR AMP★ HAND CRIMPING TOOL 90226-1

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NOTE

Section I of this Instruction Sheet covers the contacts and application procedures recommended for the AMP Hand Crimping Tool 90226-1.

Section II covers the Maintenance and Inspection procedures recommended by AMP to assure reliability of AMP hand tools and each application.

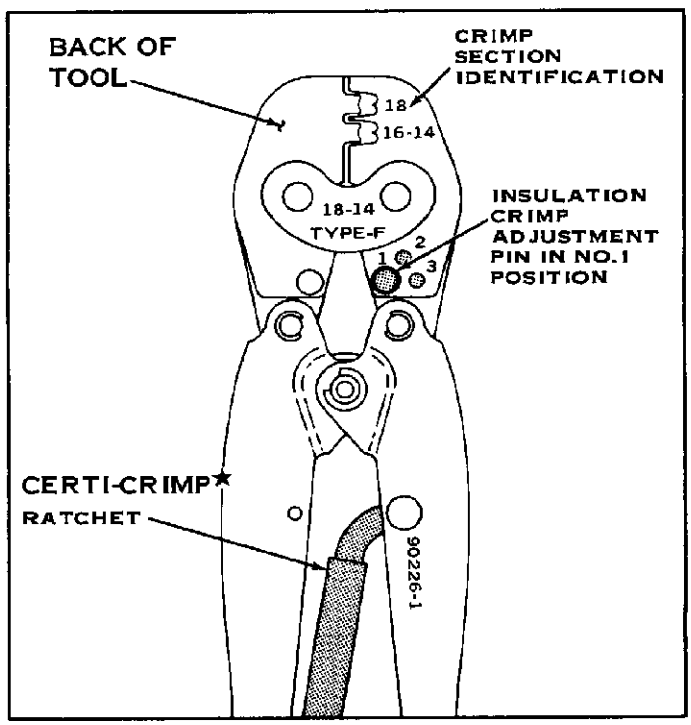


FIGURE I-1

SECTION I APPLICATION

I-1. INTRODUCTION

The AMP Hand Crimping Tool 90226-1 is designed to crimp the AMP FASTON★ Contacts listed in Figure I-2. Read these instructions thoroughly before crimping any contacts.

NOTE

All dimensions presented on this instruction sheet are in inches, unless otherwise stated.

I-2. DESCRIPTION

This tool features an Insulation Crimp Adjustment Pin, a Locator/Insulation Stop and a CERTI-CRIMP Ratchet.

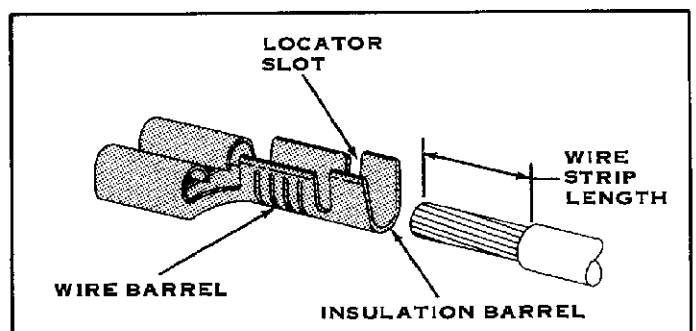
The Insulation Crimp Adjustment Pin is used to regulate the crimp height of the contact Insulation Barrel. See Paragraph I-4.

The Locator/Insulation Stop has two functions as the name implies. First it is used to position the contact between the crimping jaws and second it aids in locating the wire in the contact. In use, it is positioned in the Locator Slot. See Figure I-2.

The CERTI-CRIMP Ratchet assures that a full crimp is applied to the contact. Once engaged, the ratchet will not release until the tool handles have been fully closed.

CAUTION

The crimping jaws bottom before the CERTI-CRIMP Ratchet releases. This is a design feature that assures maximum electrical and tensile performance of the crimp. Do not re-adjust the ratchet, otherwise, an improperly crimped contact will result. See Section II of this Instruction Sheet.



WIRE SIZE	CRIMP SECTION MARKING	INSULATION DIAMETER	CONTACT NO.		WIRE STRIP LENGTH
			LP	STRIP	
18	18	.060 to .110	61873	61375	5/16 (.313)
16 to 14	16-14				

FIGURE I-2

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I-3. CRIMPING PROCEDURE

Using the chart in Figure I-2, select wire within the specified Wire Size and Insulation Size. Strip the wire to the length shown — do NOT cut or nick the wire strands.

Next select the applicable Loose Piece contact. Do not cut strip form contacts into loose piece form.

Use the Tool Crimp Section marked for the wire size you are using and proceed as follows:

1. Hold the tool so that the BACK of it is facing you. See Figure I-3.

2. Squeeze the tool handles and allow them to spring open fully.

3. Insert the contact (Insulation Barrel first) into the FRONT of the tool. Place the contact on the Anvil of the proper crimp section and position the Locator/Insulation Stop in the Locator Slot of the contact. See Figure I-3.

4. Hold the contact in position and squeeze the tool handles just enough to hold the contact in place. *Do not deform the Insulation Barrel or Wire Barrel.*

5. Insert a properly Stripped Wire into the contact until the insulation of the wire butts against the Locator/Insulation Stop.

6. While holding the wire in place, squeeze the tool handles until the ratchet releases.

7. Allow the tool handles to open fully and remove the crimped contact.

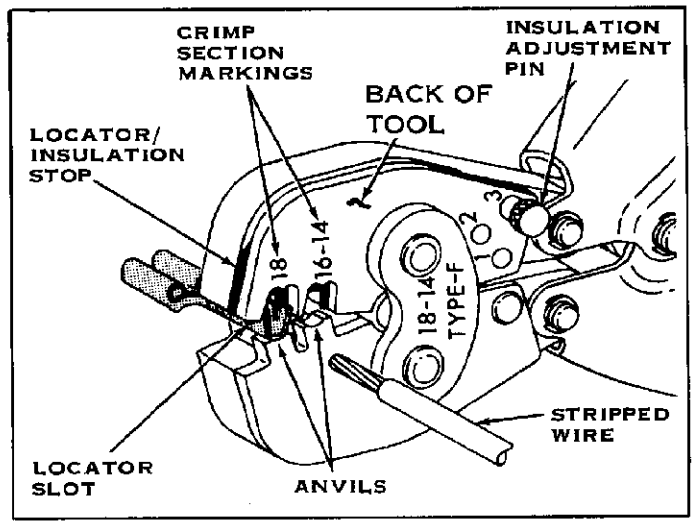


FIGURE I-3

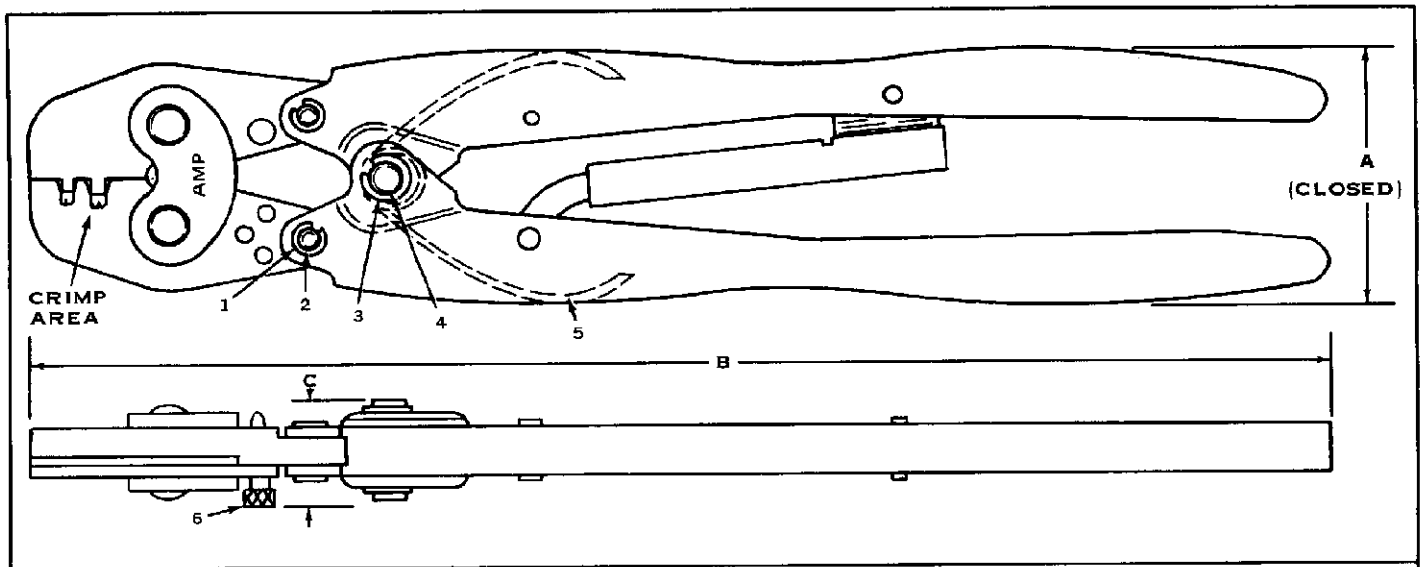
I-4. INSULATION CRIMP ADJUSTMENT

The Insulation Barrel Crimp Height is controlled by the Insulation Adjustment Pin. To determine the right setting, crimp a few contacts using each of the three settings (1-small, 2-medium and 3-large). Check the insulation crimp after each crimp is made. The crimp should be tight enough to hold the insulation firmly without cutting into it.

I-5. DAILY MAINTENANCE

Remove all foreign particles with a clean, soft brush or clean, soft, lint-free cloth. Make sure the proper retaining pins are in place and secured with the proper retaining rings. If foreign matter cannot be removed easily, or if the proper replacement parts are not available, return the tool to your supervisor.

Make certain all pivot points and bearing surfaces are protected with a THIN coat of any good S.A.E. No. 20 Motor Oil. Do not oil excessively. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged between the crimping jaws and store the tool in a clean, dry area.



TOOL SPECIFICATIONS			REPLACEMENT PARTS KIT 125218-4			
DIMENSION (MAX)		WEIGHT	ITEM	DESCRIPTION	PART NUMBER	QTY PER KIT
A	3	1 lb 3 oz	1	RING-RETAINING	21045-3	120 to 130
B	11		2	PIN-RETAINING (.187 D X .521 L)	300432	15
C	1		3	RING-RETAINING	21045-6	25 to 30
ENGINEER APPROVAL		DATE	4	PIN-RETAINING (.250 D X .838 L)	300449	10
			5	SPRING-HANDLE	39364	10
D. Dunn		12/5/72	6	INSULATION ADJ PIN*	39207	—

*MUST BE ORDERED SEPARATELY

FIGURE II-1

SECTION II MAINTENANCE PROCEDURES

NOTE

Section I of this Instruction Sheet covers the contacts and application procedures recommended for the AMP Hand Crimping Tool 90226-1.

II-1. TOOL CERTIFICATION

These instructions have been approved by AMP Design, Production and Quality Control Engineers to provide you with documented maintenance and inspection procedures in accordance with AMP Corporate Policy Number 3-3. We have, through our test laboratories and inspection of production assembly, established the procedures described herein to assure quality and reliability of AMP Hand Crimping Tools.

The parts listed in Figure II-1 are customer replaceable parts. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is deemed necessary. When ordering, order the replacement parts kit listed in Figure II-1.

II-2. INSPECTION PROCEDURES

A. Daily Maintenance

The importance of daily maintenance cannot be over emphasized, as this can easily and efficiently be performed after each shift, ensuring satisfactory performance and continuous production. We recommend the following:

1. Remove dust, moisture and other contaminants with a clean brush or 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 oil. If necessary, oil with any good S.A.E. 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 and recorded by your Quality Control Department with a record of scheduled inspections remaining with the tool or supplied to supervisory personnel responsible for the tool. We recommend at least one inspection a month, however, frequency of inspection will depend on the amount of use, ambient working conditions, operator training and skill and your own established 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 de-greaser that will not effect paint or plastic material.

2. Make certain all retaining pins are in place and secured with retaining rings. Refer to parts listed in Figure II-1 if replacements are necessary.

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).

4. Inspect the head assembly: giving special attention to the Crimp Area for flattened, chipped, cracked, worn or broken areas. If damage to any part of the head assembly is evident, return the tool to AMP for evaluation and repair. (See Paragraph II-3)

B-2. Crimp Height Inspection

This inspection incorporates the use of a micrometer with a modified anvil as shown in Figure II-2. AMP does not manufacture or market these gages. We recommend the Crimp Height Comparator RS-10195-L which can be purchased from:

VALCO
634 Stefco Boulevard
Bethlehem, Pennsylvania 18017

Proceed as follows:

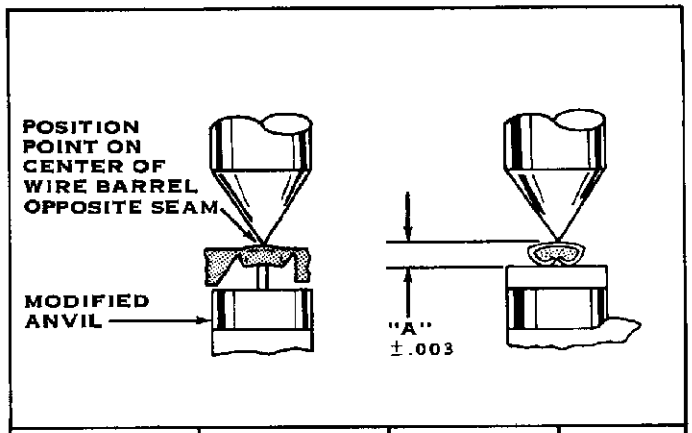
1. Select one of each of the contacts and the maximum wire size for each from the chart in Figure II-2.

2. Refer to the Application Procedures in Section I and crimp the contacts accordingly.

3. Using a Crimp Height Comparator, measure each wire barrel crimp height as shown in Figure II-2. If the crimp height conforms to that shown in the chart the tool is considered dimensionally correct. If not, return the tool to AMP for evaluation and repair. (See Paragraph II-3.)

B-3. CERTI-CRIMP Ratchet Inspection

First, obtain a 0.001-in. Shim that is suitable for checking the clearance between the bottoming surfaces of the crimping jaws.



CONTACT NUMBER	WIRE SIZE (MAX)	CRIMP SECTION	DIM "A"
61873	18	18	.064
	14	16-14	.070

FIGURE II-2

Proceed as follows:

1. Determine the maximum wire size and the applicable contact for the tool. See Figure II-2.

2. Position the contact and wire between the crimping jaws according to the Crimping Procedures described in Section I (steps 1 thru 5) . . . then holding the wire in place, squeeze the tool handles until you are certain the CERTI-CRIMP Ratchet has released. *Now STOP and HOLD the tool handles in this position.* Maintain just enough tension on the tool handles to keep the jaws closed.

3. Now check the clearance between the bottoming surfaces of the crimping jaws. If the clearance is 0.001 in. or less the ratchet is satisfactory. If clearance exceeds 0.001 in. the ratchet is out of adjustment and must be repaired. (See Paragraph II-3).

If the tool conforms to these inspection procedures, lubricate it with a THIN coat of any good S.A.E. 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 insure certification of the tool. When repair is necessary, return the tool and a written description of the problem to:

AMP Incorporated
Customer Repair
1523 North 4th Street
Harrisburg, Pennsylvania 17105

or a wholly owned subsidiary of AMP Incorporated.