AMP INCORPORATED
HARRISBURG, PA. 17105

APPLICATION AND MAINTENANCE FOR AMP★ CRIMPING HEAD ASSEMBLY 90234-1

Instruction Sheet
IS 7393
RELEASED 2-21-78

Section I of this instruction sheet provides application procedures for AMP crimping head assemblies.

Section II provides maintenance and inspection procedures for AMP crimping head assemblies.

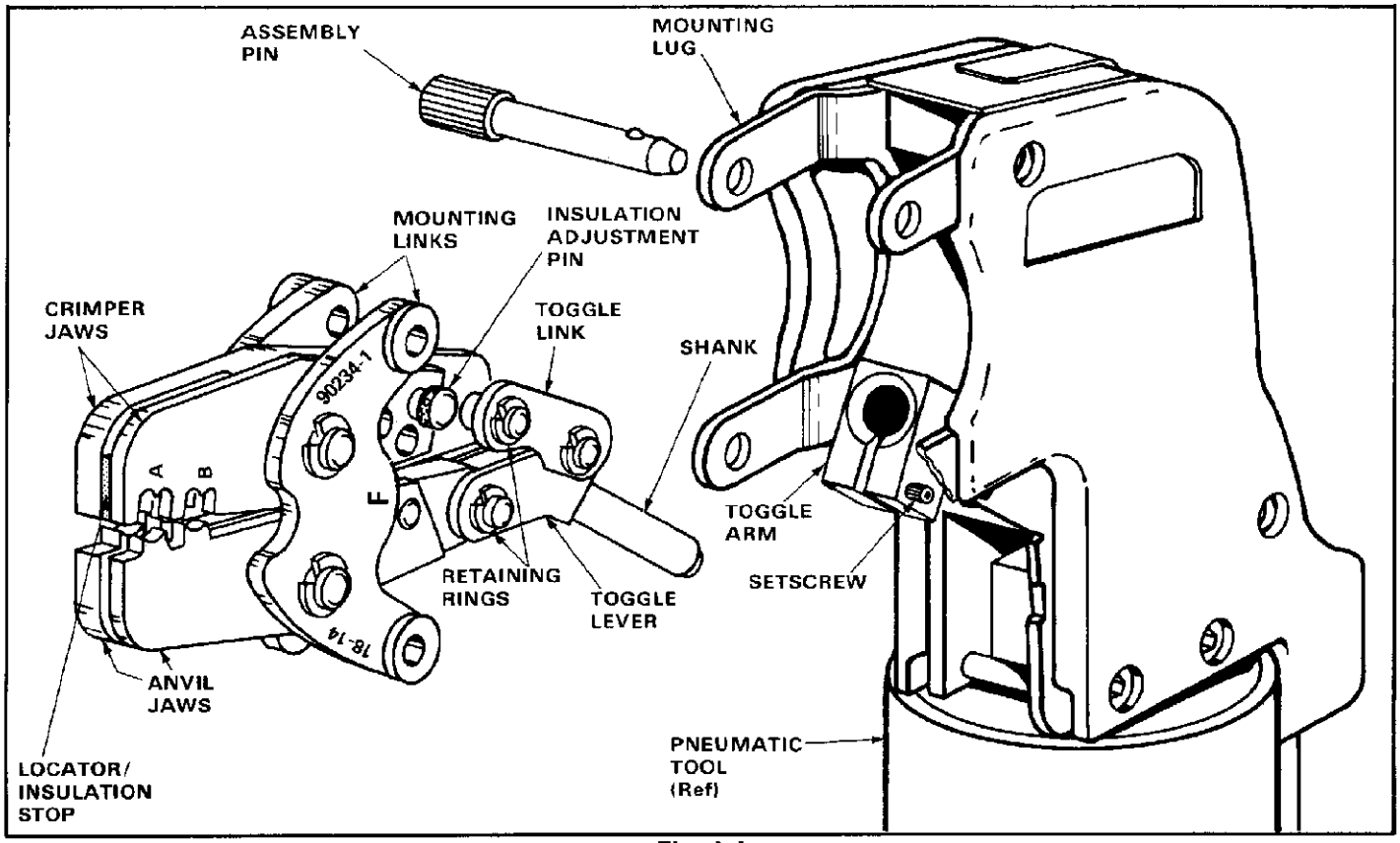

Fig. I-1

REDUCED FOR PACKAGING

SECTION I APPLICATION

I-1. INTRODUCTION

AMP Crimping Head Assembly 90234-1 is designed for use in the bench mounted AMP Pneumatic Tool 69005 or the AMPLI-PRESS★ Tool 69011. The head assembly crimps the AMP FASTON★ loose piece terminals listed in Figure I-3.

Read this instruction sheet (IS) for specific information concerning the head assembly, terminals, wire specifications, and crimping procedures. Refer to IS 1410 packaged with tool 69005, or IS 1300 packaged with tool 69011, for information concerning the bench mounted setup.

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

I-2. DESCRIPTION (see Figure I-1)

The head assembly features two crimper jaws, two anvil jaws, a terminal locator/insulation stop, an insulation adjustment pin, two mounting links, a toggle link, and a toggle lever with shank.

The locator/insulation stop has two functions. First, it positions the terminal between the crimping jaws, and second, it aids in locating the wire in the terminal. In use, it rests in the terminal locator slot (see Figures I-3 and I-4).

The insulation adjustment pin is used to regulate the crimp height of the terminal insulation barrel. Refer to Paragraph I-5, INSULATION CRIMP ADJUSTMENT.

I-3. INSTALLATION OF HEAD ASSEMBLY (see Figure I-1)

WARNING *If using pneumatic tool, do NOT attach air supply to the tool until crimping head is completely installed.*

Proceed as follows:

1. Remove the two assembly pins from the mounting lugs.

2. Pull toggle arm forward and hold. Loosen, but do NOT remove, setscrew in toggle arm.

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NOTE

When using pneumatic tool, make sure the toggle link is ABOVE the toggle lever, as shown in Figure I-1. When using AMPLI-PRESS tool, make sure the toggle link is BELOW the toggle lever. If link is NOT in the correct position, remove the two retaining rings shown in Figure I-1 and reverse the positions of the link and lever.

3. With crimping jaws open, insert head assembly shank into toggle arm until it bottoms. Mounting links must fit between tool mounting lugs.

4. Tighten setscrew in toggle arm.

5. Align mounting holes of head assembly and tool. Insert assembly pins through mounting holes until locking beads pass outer edge of mounting lugs. See Figure I-2.

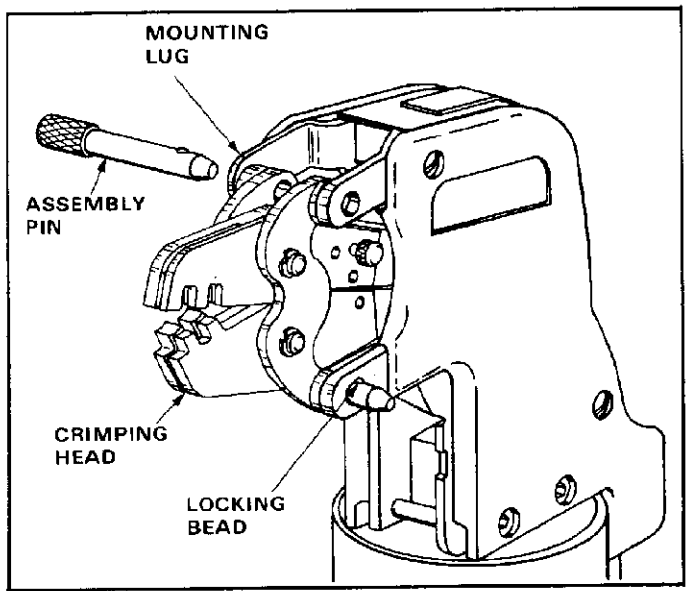


Fig. I-2

I-4. CRIMPING PROCEDURE

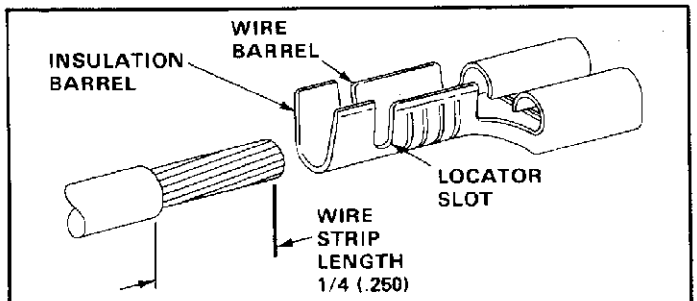
Refer to the chart in Figure I-3 and select stranded wire within the specified size and insulation diameter. Strip the wire to the length indicated — do NOT cut or nick the wire strands.

Select an applicable loose piece terminal and identify the appropriate crimp section (according to the letter markings on the BACK of the head assembly).

Refer to Figure I-4 and proceed as follows:

1. If using pneumatic tool, attach air supply.

2. Insert terminal (insulation barrel first) into FRONT of appropriate crimp section. Position terminal in crimpers so locator enters terminal locator slot.



WIRE		CRIMP SECT LETTER MARKING	TERMINAL NO.	
SIZE (AWG)	INSUL DIA		LOOSE PIECE	STRIP
18	.120 to .170	A	42003	41202
16 to 14	.120 to .170	B	42003	41274
			60464	41774
			42019	41679
			60685	41678
18	.120 to .145	A	41445	41202
16	.120 to .145	B	60129	41202
			41729	41274
			42562	42285
			42025	41773
				41774
				41775
				41831
				41832
18 to 16	.120 to .170	A	42553	42552
14	.120 to .170	B	42553	42552

Fig. I-3

3. Holding terminal in place, insert a properly stripped wire through wire slot in locator and into wire barrel of terminal until insulation butts against locator/insulation stop.

4. Holding wire in place, depress operating pedal until crimping cycle is completed.

5. Release operating pedal and remove crimped terminal from crimping jaws.

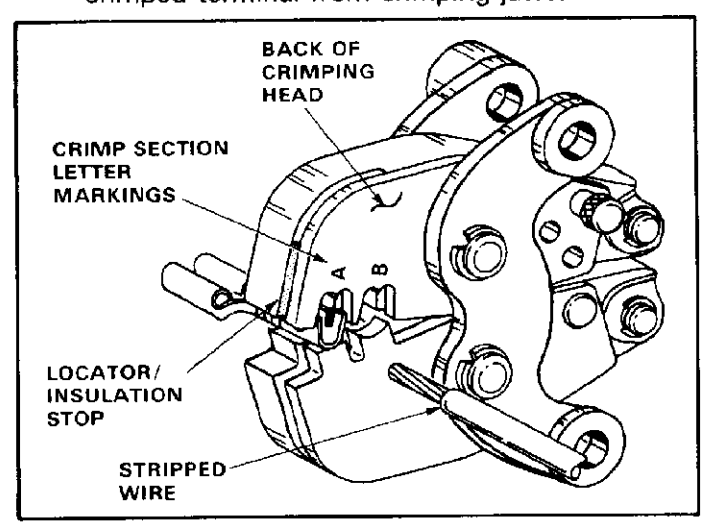


Fig. I-4

Section I of this instruction sheet provides application procedures for AMP crimping head assemblies.

Section II provides maintenance and inspection procedures for AMP crimping head assemblies.

I-5. INSULATION CRIMP ADJUSTMENT

The insulation barrel crimp height is regulated by the insulation adjustment pins. To determine the proper setting, place adjustment pins in number 3 position and test crimp a terminal using an UNSTRIPPED wire. Check the insulation crimp by bending the wire back and forth once. If the wire pulls out, set the adjustment pins in the next smaller position. The crimp should hold the insulation firmly without cutting into it.

I-6. REMOVAL OF HEAD ASSEMBLY (see Figure I-1)

WARNING *If using pneumatic tool, disconnect air supply.*

1. Remove the two assembly pins from the tool.
2. Pull head assembly forward to expose setscrew in toggle arm. Loosen setscrew and remove head assembly.

SECTION II MAINTENANCE/INSPECTION

II-1. CRIMPING HEAD ASSEMBLY 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 Number 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 crimping head assemblies.

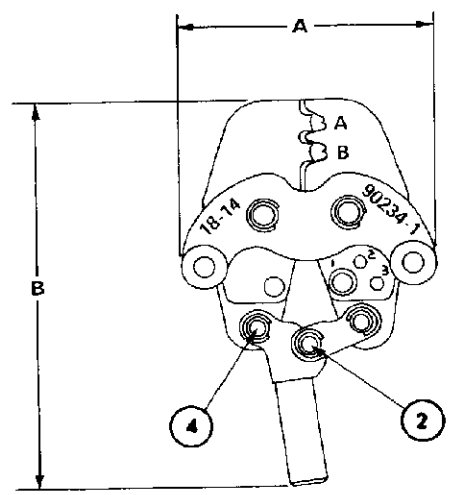
Customer replaceable parts are listed in Figure II-1. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary.

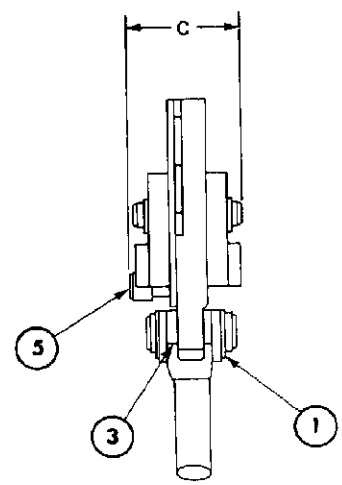
II-2. INSPECTION PROCEDURES

A. Daily Maintenance

It is recommended that each operator 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 head assembly.
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 good SAE No. 20 motor oil. Do NOT oil excessively.





HEAD SPECIFICATIONS		
DIMENSION		WEIGHT
A	2 3/8	8 oz
B	3 9/16	
C	13/16	
Engineer Approval		Date
D L Dumas		2/21/78

*MUST BE ORDERED SEPARATELY

REPLACEMENT PARTS KIT 1125218-7			
ITEM	PART NUMBER	DESCRIPTION	QTY PER KIT
1	21045-3	RING, Retaining	120 to 130
2	38781	PIN, Retaining, .187 Dia x .730 L	30
3	38779	SPACER	30
4	38783	PIN, Retaining, .187 Dia x .544 L	15
5	39207	PIN, Insulation Adj*	— —

Fig. II-1

4. When the head assembly is not is use, keep the jaws closed to prevent objects from becoming lodged between them, and store 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 head assembly and/or be supplied to responsible supervisory personnel. 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 head assembly 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. 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 it to AMP for evaluation and repair (see Paragraph II-3, REPAIR).

B-2. Crimp Height Inspection

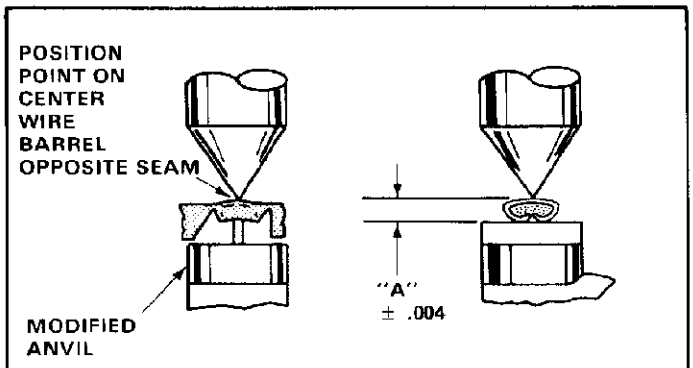
This inspection incorporates the use of a micrometer with a modified anvil as shown in Figure II-2. We recommend the modified micrometer (Crimp Height Comparator RS-1019-5L) which can be purchased from:

York Machinery & Supply Co. 20 North Penn St. York, PA 17401	or	VALCO 1410 Stonewood Dr. Bethlehem, PA 18017

Proceed as follows:

1. Refer to the chart in Figure II-2, and select a terminal and a wire (maximum size) for each crimp section.

2. Refer to Paragraph I-3, CRIMPING PROCEDURE, and crimp the terminals accordingly.



TERMINAL NUMBER (LP)	WIRE SIZE AWG (Max)	CRIMP SECT LETTER MARKING	CRIMP HGT DIM. "A"
42003	18	A	.069
60464 42019 60685	14	B	.071
41445	18	A	.069
60129 41729 42562 42025	16	B	.071
42553	16	A	.069
42553	14	B	.071

Fig. II-2

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 head assembly is considered dimensionally correct. If not, return the head assembly to AMP for evaluation and repair (see Paragraph II-3). For additional information concerning the use of the crimp height comparator, refer to AMP Instruction Sheet IS 7424.

II-3. REPAIR

Parts other than those specified in Figure II-1 must be replaced by AMP to ensure certification of the head assembly. When repair is necessary, return the head assembly with 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.