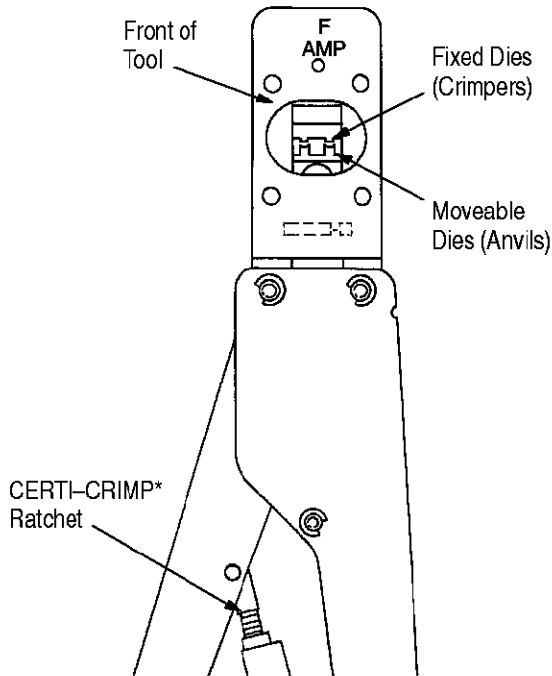


PROPER USE GUIDELINES

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



1. INTRODUCTION

AMP* Hand Crimping Tools 59524-1, 59525-1, 90005-1, and 90083-1 are used to crimp AMP-BLADE* receptacles listed in Figure 1 onto stranded wire sizes 26 through 18 AWG with an insulation diameter range of 1.02 through 2.29 mm [1.52 through .090 in.]. Read these instructions thoroughly before using the tool.

NOTE

Dimensions in this instruction sheet are in millimeters [with inches in brackets]. Figures are not drawn to scale.

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

2. DESCRIPTION

Each tool features two fixed dies (crimpers), two moveable dies (anvils), locator/wire stop, contact support, and CERTI-CRIMP ratchet.

The FRONT of the tool (receptacle side), into which the receptacle is inserted, has the tool number marked on it. The BACK of tool (wire side), into which the wire is inserted, has the wire size marked above each crimping chamber.

The locator/wire stop positions the receptacle between the crimping dies and aids in locating the wire in the receptacle. In use, it rests in the locator slot of the receptacle. The CERTI-CRIMP ratchet assures full crimping of the receptacle. Once engaged, the ratchet will not release until the handles have been FULLY closed.

CAUTION

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

3. CRIMPING PROCEDURE

Refer to Figure 1, and select wire of the specified size and insulation diameter and applicable receptacle. Strip the wire to the length indicated in Figure 2. Do NOT cut or nick the wire strands.

Proceed as follows:

1. Hold tool so BACK side (wire side) faces you.
2. Squeeze the tool handles, and allow handles to open FULLY.

WIRE		RECEPTACLE		TOOL
SIZE RANGE* (AWG) (Quantity)	INSUL DIA (mm [in.])	STRIP FORM	LOOSE PIECE	
26-24	1.02-1.52 [.040-.060]	—	66011-2	59524-1
22-20	1.27-2.03 [.050-.080]	66005	66010-2	
(2) 22	1.27-1.83 [.050-.072] Each	66021-2	66026-2	59525-1
(2) 20				
20-18	1.73-2.29 [.068-.090]	66021	66026-2	90005-1
(2) 20	1.27-1.83 [.050-.072] Each			
(2) 24 or (2) 22	2.79 [.110] Max Total	66005-2	66010-2	90083-1
24-20	1.02-1.78 [.040-.070]			

▪ Also marked on corresponding crimping chamber of tool.

Figure 1

Typical AMP-BLADE Receptacle

Note: Not to Scale

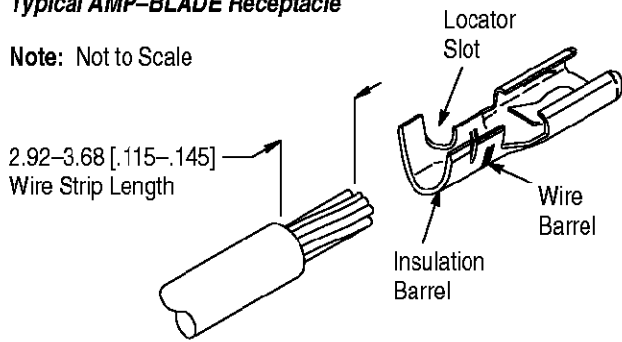


Figure 2

3. Insert the receptacle, insulation barrel first, into the appropriate crimping chamber from the **FRONT** of the tool. Position receptacle in crimpers so that the locator enters the receptacle locator slot and the wire barrel butts against the locator/wire stop.

4. Hold receptacle in position, and squeeze tool handles together until the anvil starts entry into the crimper. Do **NOT** deform insulation barrel or wire barrel.

5. Insert a properly stripped wire through wire slot in the locator and into the wire barrel of the receptacle until the wire insulation butts against the locator/wire stop.

6. Hold the wire in place, and squeeze the tool handles together until the ratchet releases.

7. Allow the tool handles to open **FULLY** so that the ejector pushes the receptacle out of the crimpers. Remove crimped the receptacle from the tool.

4. MAINTENANCE AND INSPECTION

The tool is inspected before shipment. AMP recommends that the tool be inspected immediately upon arrival at your facility to ensure that the tool was not damaged during shipment.

4.1. Daily Maintenance

Remove all foreign particles with a clean, soft brush, or a 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 proper replacement parts are needed, refer to Section 6, **REPLACEMENT AND REPAIR** for information on obtaining further evaluation and repair.

Make certain all pivot points and bearing surfaces are protected with a **THIN** coat of any good SAE 20 motor oil. Do **NOT** oil excessively. When tool is not in use, keep the handles closed to prevent objects from becoming lodged between the crimping dies, and store the tool in a clean, dry area.

Crimping Receptacle

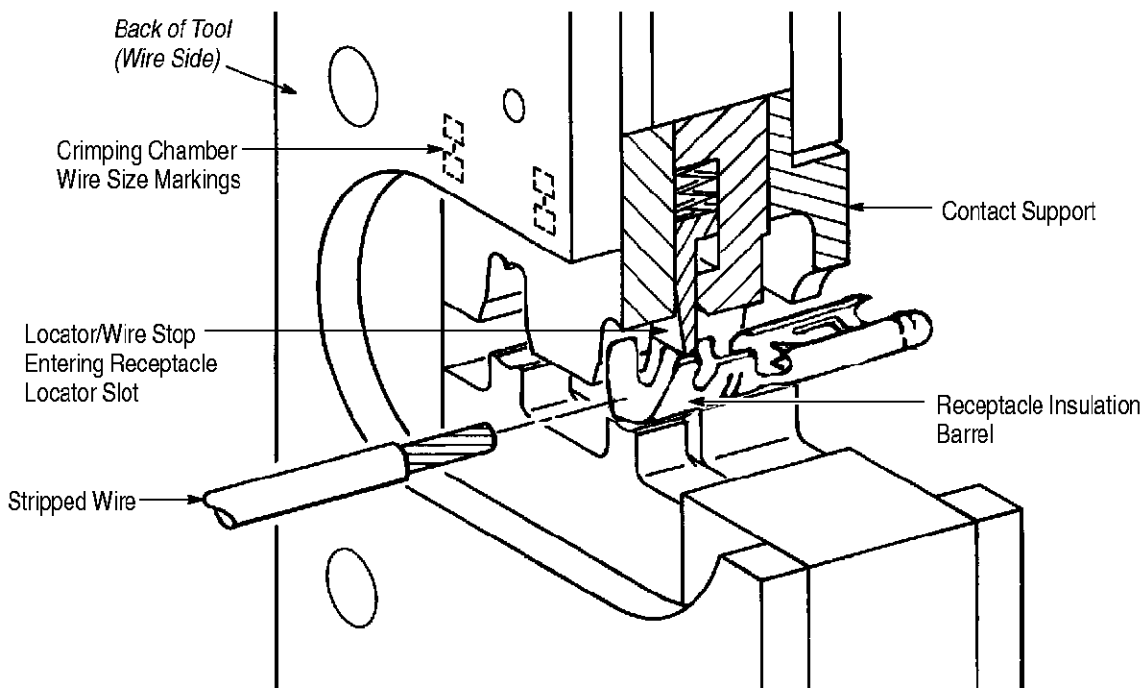


Figure 3

4.2. 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:

A. 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 Section 5, REPLACEMENT AND REPAIR.

CAUTION Do NOT remove the retaining pins as permanent damage to the tool may result.

3. Close the tool handles until the ratchet releases, then allow the handles to open freely. If handles do not open quickly and fully, the spring is defective and must be replaced (refer to Section 5).

4. Inspect the head assembly, with special emphasis on checking for worn, cracked, or broken dies. If damage to any part of the head assembly is evident, refer to Section 5 for information on obtaining customer repair service.

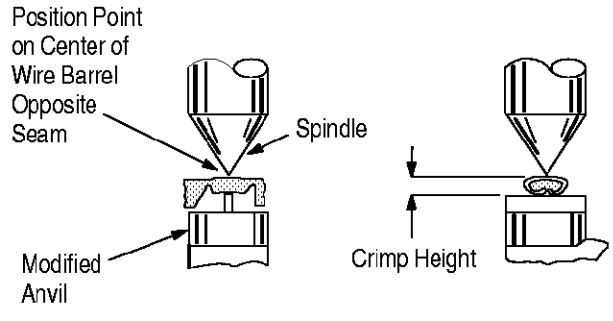
B. Crimp Height Inspection

This inspection requires the use of a micrometer with a modified anvil as shown in Figure 4. AMP recommends the modified micrometer (Crimp Height Comparator RS-1019-5L) which can be purchased from:

Shearer Industrial Supply Co. VALCO
 20 North Penn Street or 1410 Stonewood Drive
 York, PA 17401-1014 Bethlehem, PA 18017-3527

Proceed as follows:

1. Select a receptacle and *maximum* wire size for the crimping chamber.
2. Refer to Section 3, CRIMPING PROCEDURE, and crimp the receptacle accordingly.
3. Using a crimp height comparator, measure wire barrel crimp height as shown in Figure 4. If the crimp height conforms to that shown, the tool is considered dimensionally correct. If not, refer to



TOOL	CRIMPING CHAMBER MARKING	WIRE SIZE (AWG) (Quantity)	CRIMP HEIGHT DIMENSION
59524-1	26-24	24	0.813±0.038 [.032±.0015]
	22-20	20	10.67±0.038 [.042±.0015]
59525-1	(2) 22	(2) 22	0.991±0.051 [.039±.0020]
	(2) 20	(2) 20	1.118±0.051 [.044±.0020]
90005-1	(2) 20	(2) 20	1.118±0.051 [.044±.0020]
	20-18	18	0.991±0.051 [.039±.0020]
90083-1	(2) 24 or (2) 22	(2) 24	1.067±0.038 [.042±.0015]
	24-20	20	0.991±0.038 [.039±.0015]

Figure 4

Section 5 for information on obtaining further evaluation and repair.

For additional information concerning the use of the crimp height comparator, refer to Instruction Sheet 408-7424.

C. CERTI-CRIMP Ratchet Inspection

Obtain a 0.0254 [.001] shim that is suitable for checking the clearance between the bottoming surfaces of the crimping dies. Proceed as follows:

1. Select a receptacle and maximum wire size.
2. Position the receptacle and wire between the crimping dies, according to Section 3, CRIMPING PROCEDURE. 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.
3. Check the clearance between the bottoming surfaces of the crimping dies. If the clearance is 0.0254 [.001] or less, the ratchet is satisfactory. If clearance exceeds 0.0254 [.001] the ratchet is out of adjustment and must be repaired (see Section 6, REPLACEMENT AND REPAIR).

If the tool conforms to these inspection procedures, lubricate it with a THIN coat of any good SAE 20 motor oil and return it to service.

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 AMP to ensure quality and reliability. Order replacement parts through your AMP 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)
 AMP INCORPORATED
 P.O. BOX 3608
 HARRISBURG PA 17105-3608

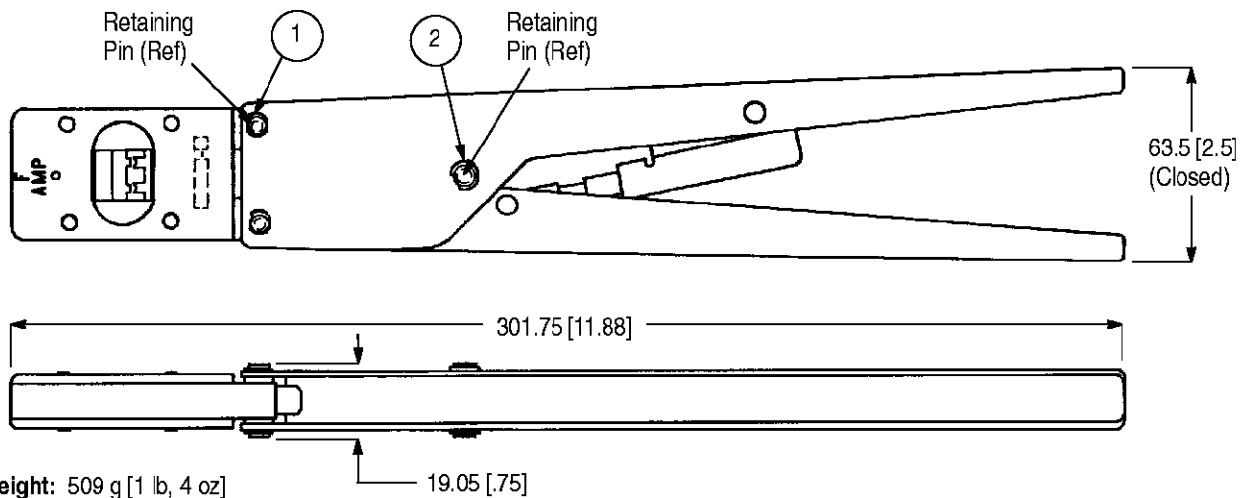
For customer repair service, please contact an AMP representative at 1-800-526-5136.

6. REVISION SUMMARY

Revisions to this instruction sheet per EC 0990-0911-99 include:

- Updated to corporate requirements
- Removed obsolete Receptacle 69009
- Changed 'contact' to 'receptacle'
- Changed York Machinery to Shearer Industrial in Paragraph 4.2, B
- Replaced customer repair address with phone number

CAUTION: Do NOT remove retaining pins as permanent damage to the tool may result.



REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY PER TOOL
1	21045-3	RING, Retaining	4
2	21045-9	RING, Retaining	2

Figure 5