

Figure 1

1. INTRODUCTION

This instruction sheet covers the use of AMP* Crimping Die Assemblies 58215-1 through -6 which are designed for use in AMP Hand Crimping Tool 69710-1 to crimp AMP Circular DIN Connector Ferrules. The base part numbers of the connectors are listed in Figure 1.

This instruction sheet covers cable and ferrule specifications, maintenance and inspection procedures, and general performance of the crimping die assemblies. Refer to AMP Instruction Sheet 408-2095 for instructions for installing the die assemblies into the hand tool.

NOTE *Measurements are in millimeters [followed by inch equivalents in brackets]. Figures and illustrations are for identification only and are not drawn to scale.*

Reasons for reissue are in Section 7, REVISION SUMMARY.

2. DESCRIPTION

Each die assembly features a braid and insulation crimper and anvil, and a positioner which is used for securing the connector during termination of the ferrule. The dash number of each die assembly relates to a specific insulation range. See Figure 1.

The connector features a pin housing, a shield, and a ferrule. Pin contacts and a cord guard are included when specified.

3. DIE INSTALLATION

The anvils, crimpers, and positioner can be installed and removed from the hand crimping tool by tightening or loosening the two screws on the die assembly.

NOTE *A spacer and a retaining ring on each screw hold the die assembly together during removal and installation.*

4. CRIMPING PROCEDURE (Figure 2)

Refer to the table in Figure 1 and check the selected cable and die number. Prepare the cable and ferrules according to the instructions given in AMP Instruction Sheets which are supplied with the Circular DIN Connectors. Proceed as follows:

1. Insert the connector through the back of the die until it butts against the positioner, and make sure the ferrule is properly aligned within the die assembly.
2. Squeeze the hand tool handles until the ratchet releases.
3. Allow the crimping dies to open FULLY, and remove the crimped connector from the hand tool.

5. MAINTENANCE AND INSPECTION PROCEDURE

AMP recommends 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 die assemblies.

2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The die assemblies are inspected before being shipped; however, AMP recommends that the dies be inspected immediately upon arrival to ensure that the dies have not been damaged during shipment.

5.1. 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 dies.
2. Make certain that the proper die holding screws are in place and that they are secured with the proper retaining rings.
3. Make certain all surfaces are protected with a THIN coat of any good SAE 20 motor oil. Do NOT oil excessively.
4. When the dies are not in use, mate and store them in a clean, dry area.

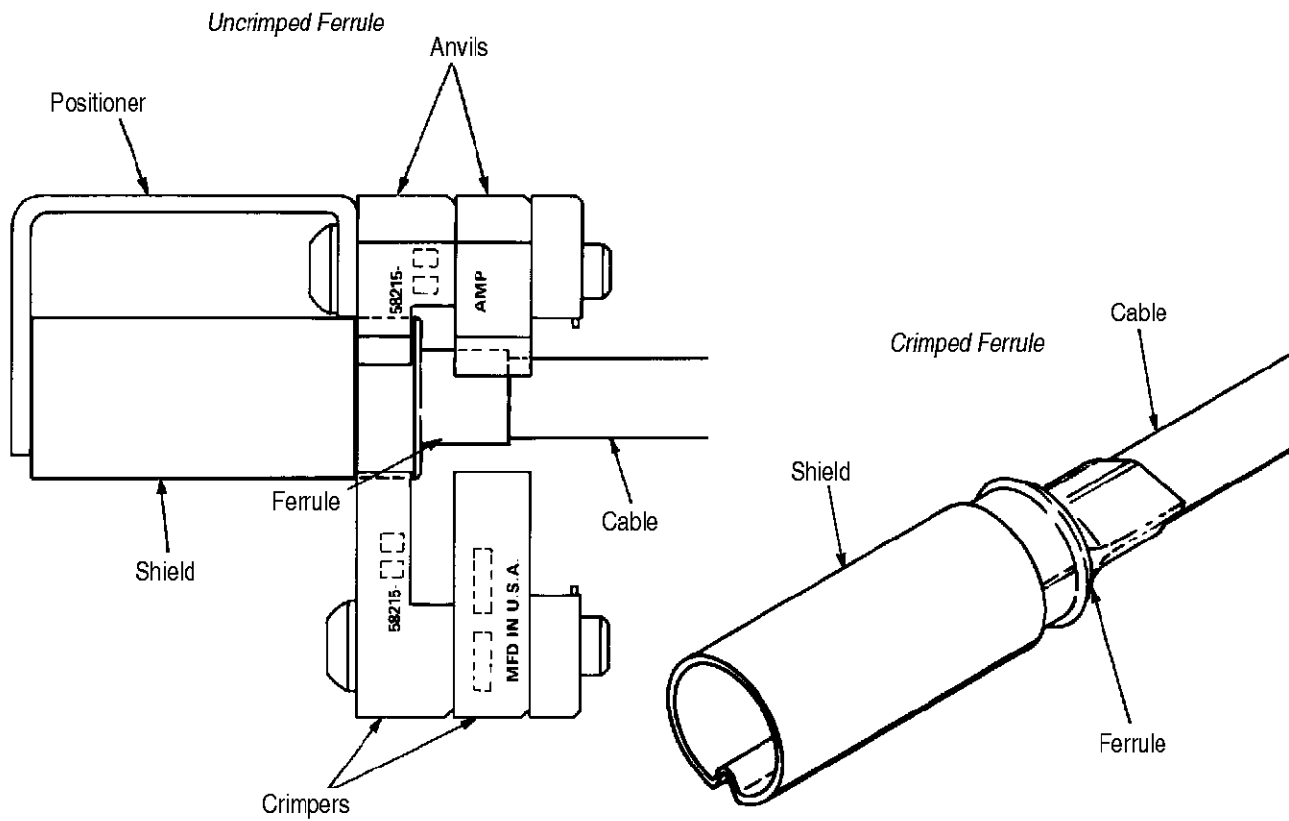


Figure 2

5.2. Periodic Inspection

A. Lubrication

Lubricate the dies with SAE 20 motor oil as follows:

- Tool used in daily production – lubricate daily
- Tool used daily (occasional) – lubricate weekly
- Tool used weekly – lubricate monthly

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

B. Visual Inspection

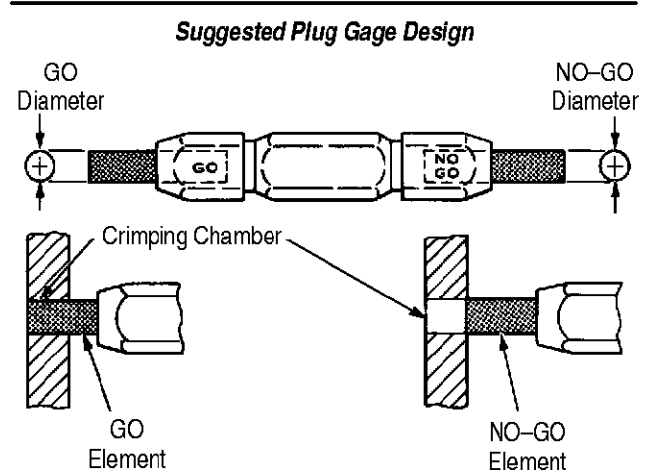
1. Remove all lubrication and accumulated film by immersing the dies in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make sure all die holding screws, retaining rings, and die components are in place. Refer to the parts listed in Figure 4 if placements are necessary.
3. Check all bearing surfaces for wear. Remove and replace worn components.
4. Inspect the crimp area for flattened, chipped, cracked, worn, or broken areas. If damage is evident, the dies must be repaired before returning them to service. See Section 6, REPLACEMENT AND REPAIR.

C. Gaging the Crimping Chambers

This inspection requires the use of a GO NO-GO gage conforming to the dimensions provided in Figure 3. AMP does not manufacture or market these gages. To gage the crimping chamber, proceed as follows:

1. Mate the dies until it is evident that they have bottomed. Hold the dies in this position with a pressure of approximately 68.95 kPa [10 psi].
2. Align the GO element with the appropriate crimping area. Push element straight into the crimping area without using force. The GO element must pass completely through the crimping area, as shown in Figure 3.
3. Now align the NO-GO element and try to insert it straight into the same crimping chamber. The NO-GO element may begin entry, but may not pass completely through the crimping chamber. See Figure 3.
4. Repeat steps 2 and 3 using the proper GO NO-GO gage for the other crimping area.

If crimping chambers conform to gage inspection, the tool is considered dimensionally correct, and should be lubricated with a THIN coat of any good SAE 20 motor oil. If not, refer to Section 6, REPLACEMENT AND REPAIR for customer repair service. Also, refer to instruction sheet 408-7424 for the use of the GO NO-GO gage.



DIE ASSEMBLY	CRIMP SECTION	GAGE ELEMENT DIAMETER	
		GO	NO-GO
58215-1	Insulation	3.68 [.145]	3.94 [.155]
58215-2		4.32 [.170]	4.57 [.180]
58215-3		4.95 [.195]	5.21 [.205]
58215-4		5.59 [.220]	5.84 [.230]
58215-5		6.22 [.245]	6.48 [.255]
58215-6		6.86 [.270]	7.11 [.280]
58215-1 through -6	Braid	12.17 [.479]	12.32 [.485]

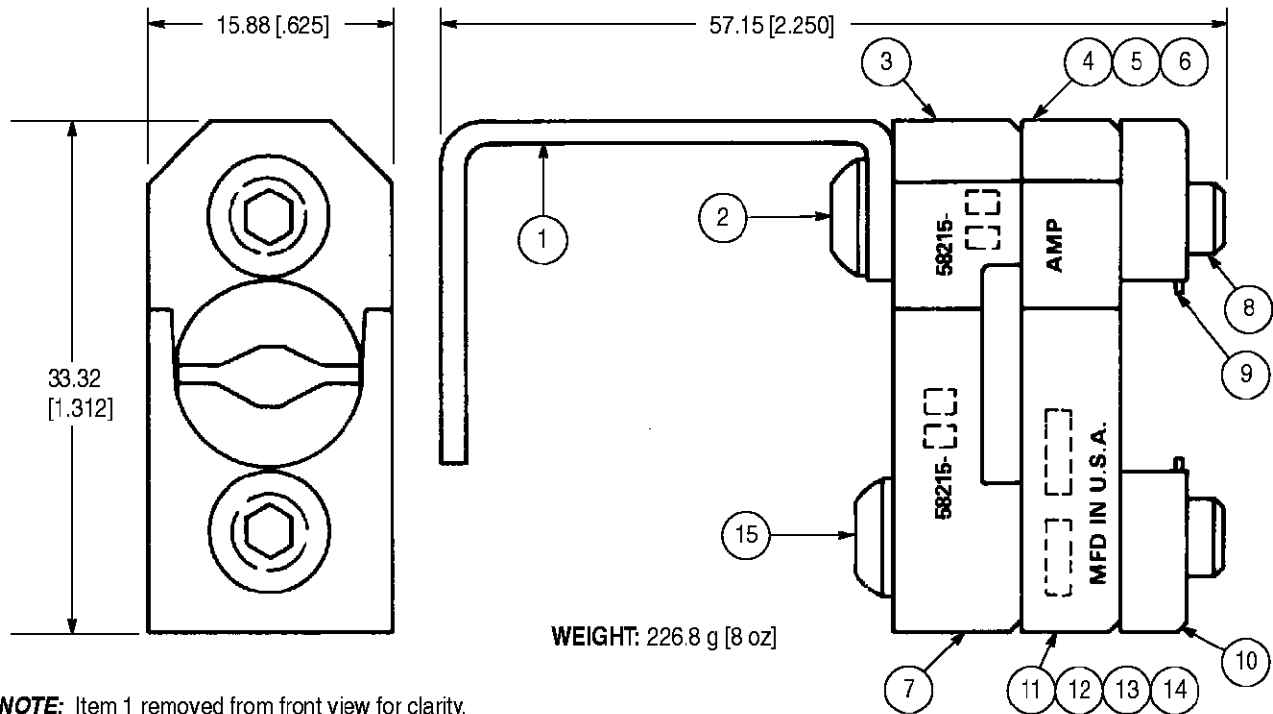
Figure 3

6. REPLACEMENT AND REPAIR

Replacement parts are listed in Figure 4. Parts other than those listed in Figure 4 should be replaced by AMP to ensure quality and reliability of the dies. Order replacement parts through your AMP representative, or call 1-800-526-5142, or send a facsimile of your purchase order to 1-717-986-7605, or write to:

CUSTOMER SERVICE (38-35)
 AMP INCORPORATED
 P.O. BOX 3608
 HARRISBURG, PA 17105-3608

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



NOTE: Item 1 removed from front view for clarity.

REPLACEMENT PARTS

ITEM	DIE ASSEMBLY 58215						DESCRIPTION	QTY PER ASSY
	-1	-2	-3	-4	-5	-6		
1	313058-1	313058-1	313058-1	313058-1	313058-1	313058-1	POSITIONER	1
2	5-59576-0	5-59576-0	5-59576-0	5-59576-0	5-59576-0	5-59576-0	SCREW	1
3	313059-1	313059-1	313059-1	313059-1	313059-1	313059-1	ANVIL, Braid	1
4	313060-1	313060-1	—	—	—	—	ANVIL, Insulation	1
5	—	—	313060-2	313060-2	—	—	ANVIL, Insulation	1
6	—	—	—	—	313060-3	313060-3	ANVIL, Insulation	1
7	313063-1	313063-1	313063-1	313063-1	313063-1	313063-1	CRIMPER, Braid	1
8	305832-3	305832-3	305832-3	305832-3	305832-3	305832-3	SPACER, Upper	1
9	1-21046-3	1-21046-3	1-21046-3	1-21046-3	1-21046-3	1-21046-3	RING, Retaining	2
10	2-59675-2	2-59675-2	2-59675-2	2-59675-2	2-59675-2	2-59675-2	SPACER, Lower	1
11	313062-1	—	—	—	—	—	CRIMPER, Insulation	1
12	—	313062-2	313062-2	—	—	—	CRIMPER, Insulation	1
13	—	—	—	313062-3	313062-3	—	CRIMPER, Insulation	1
14	—	—	—	—	—	313062-4	CRIMPER, Insulation	1
15	4-59576-9	4-59576-9	4-59576-9	4-59576-9	4-59576-9	4-59576-9	SCREW	1

Figure 4

7. REVISION SUMMARY

Since the previous release of this sheet, the following changes were made:

Per EC 0990-1171-99

- Updated document to corporate requirements
- Changed title
- Changed die assembly repair service information in Section 6, REPLACEMENT AND REPAIR