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APPLICATION AND MAINTENANCE FOR AMP* CRIMPING DIE ASSEMBLY 90333-1

IS 7802

RELEASED
2-18-92

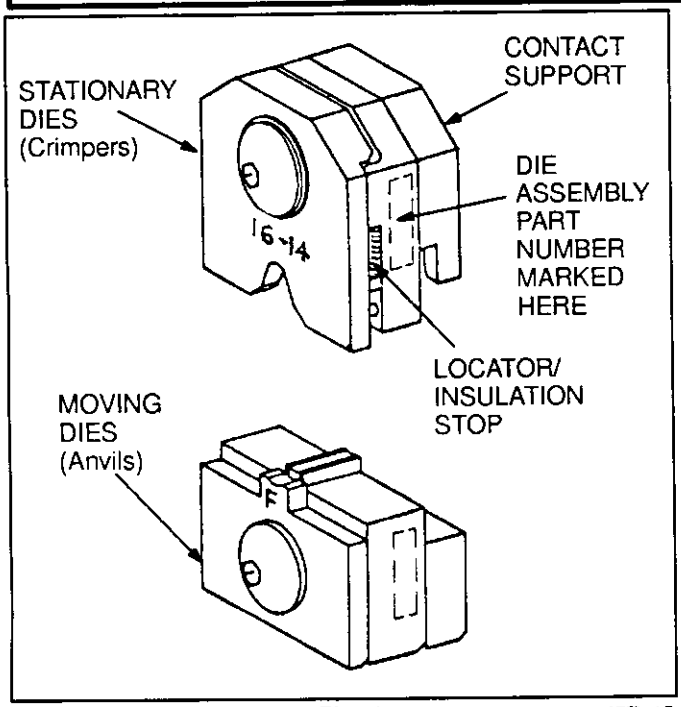
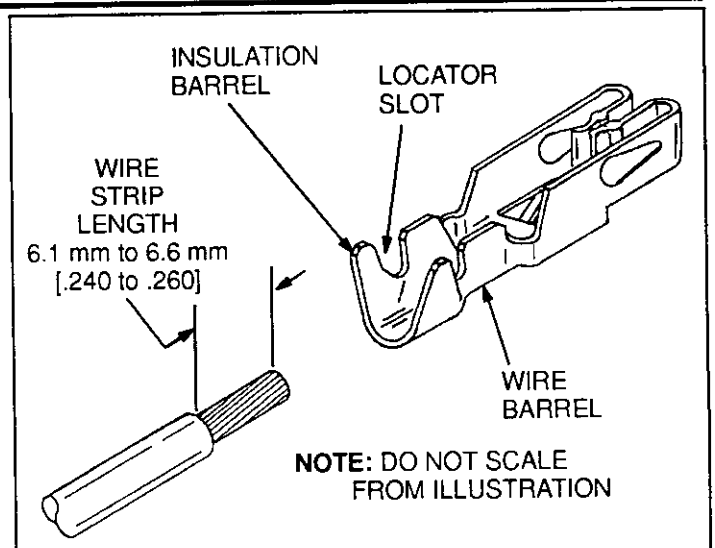


Fig. 1 45T-15



WIRE SIZE (mm^2 [AWG])	INSULATION DIAMETER	CONTACT NUMBER		CRIMPING DIE ASSY P/N
		LP	STRIP	
1.2 - 2 [16 - 14]	2.29mm to 3.68 mm [.090 to .145]	530518	530517	90333-1

Fig. 2 45T-16

1. INTRODUCTION

AMP Crimping Die Assembly 90333-1 is designed for use in either the AMPORTAPOWER* Pneumatic Tool 69365 or AMP Hand Crimping Tool 69710. The die assembly is used to crimp the loose-piece AMP Hi-Current contacts listed in Figure 2.

These instructions provide specific information concerning the die assembly and applicable contacts. Refer to AMP Customer Manual CM 1983, packaged with the pneumatic tool, or to AMP Instruction Sheet IS 2095, packaged with the hand tool, for information regarding die installation, contact crimping, and general performance of the tools.

NOTE *Dimensions on this sheet are metric [with U.S. customary equivalents in brackets].*

2. DESCRIPTION (Figures 1 and 3)

The die assembly features two stationary dies (crimpers), two movable dies (anvils), a locator/insulation stop, and a contact support.

The stationary dies have chamfered corners and feature the wire size (in AWG) marked above the crimp section. The moving dies have square corners.

The locator/insulation stop has two functions; it positions the contact in the crimp area and aids in locating the wire in the contact. In use, it rests in the locator slot of the contact (see Figures 2 and 3).

The contact support prevents the contact from bending during crimping.

3. CRIMPING PROCEDURE

Install the die assembly according to the instructions packaged with the tool.

Refer to the table in Figure 2 and select wire (stranded only) of the specified size and insulation diameter. Strip the wire to the length indicated. Take care not to cut or nick the wire strands.

Refer to Figure 3 and proceed as follows:

1. Looking straight into the front of the crimp area, insert the contact (insulation barrel first) into the BACK of the crimp area. Position the contact in the

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crimpers so that the locator enters the locator slot in the contact.

2. Maintain the contact in this position and close the dies sufficiently to hold the contact in place without deforming it.

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

4. Holding the wire in place, actuate the tool through a complete cycle. Refer to the instructions packaged with the tool for a description of a complete cycle.

5. Allow moving die to open fully and remove the crimped contact.

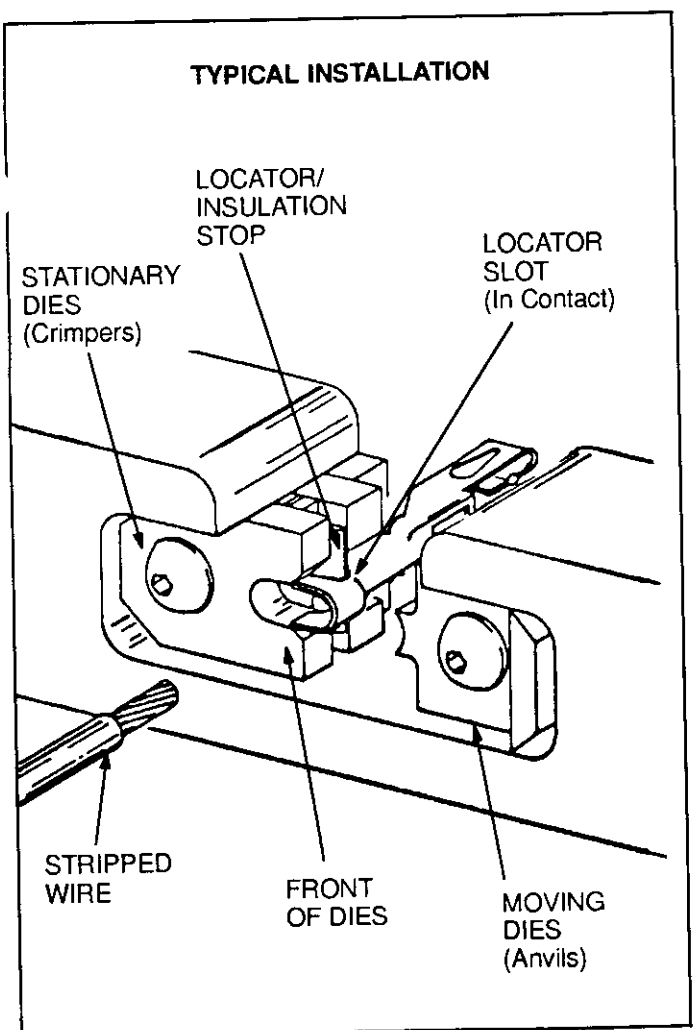


Fig. 3 45T-17

4. MAINTENANCE AND INSPECTION

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 Procedure No. 3-3. Through AMP test laboratories and the inspection of production assembly, the following procedures have been established to ensure the quality and reliability of AMP crimping die assemblies.

Customer-replaceable parts are listed in Figure 4. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary.

A. Maintenance

1. Remove dust, moisture and other contaminants on a daily basis with a clean brush or a soft, lint-free cloth. Do not use objects that could damage the die assembly.

2. Make sure the proper die holding screws are in place and secured with the proper retaining rings on a daily basis.

3. Make certain that all surfaces (with the exception of the crimp area) are protected with a thin coat of any good SAE No. 20 motor oil. Do not oil excessively. If oil gets on the crimping surfaces, wipe off before crimping any contacts.

4. When the die assembly is not in use, store it in a clean, dry area.

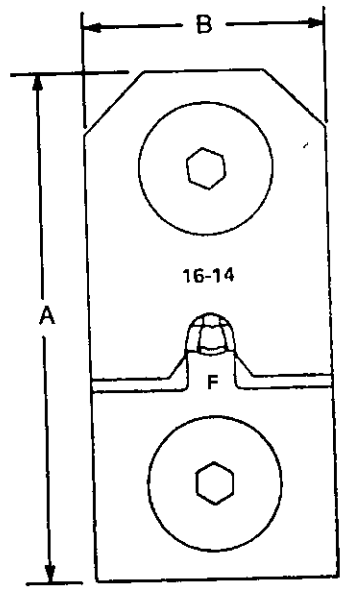
B. Periodic Inspection

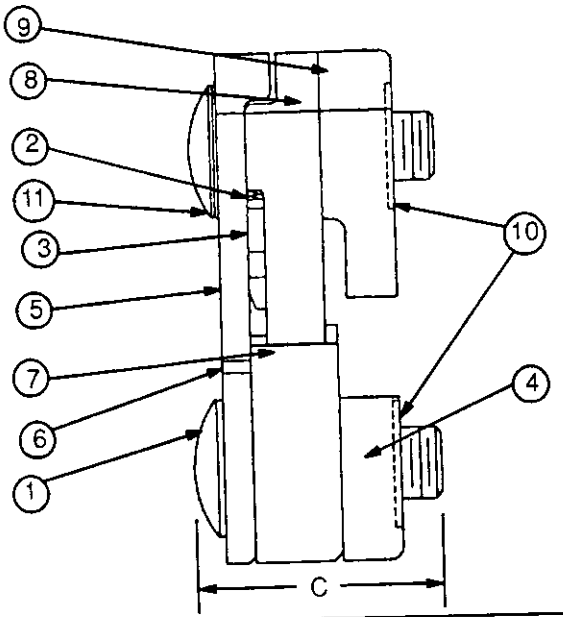
Regular inspections should be performed by quality control personnel with a record of scheduled inspections remaining with the dies and/or supplied to supervisory personnel responsible for them. AMP recommends a monthly inspection as a minimum. The inspection frequency should be based on amount of use, working conditions, operator training and skill, and established company standards. The following paragraphs describe proper inspection sequence.

C. 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 that all die holding screws, retaining rings, and die components are in place. Refer to the parts listed in Figure 4 if replacements are necessary.





DIE SPECIFICATIONS		
DIMENSION		WEIGHT
A	26.19 mm [1.312]	85.05g [3 oz.] Approx
B	15.85 mm [.625]	
C	17.55 mm [.691]	

CUSTOMER-REPLACEABLE PARTS			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	4-306131-3	SCREW, Die Holding	2
2	305182	SPRING	2
3	125455-9	LOCATOR	1
4	1-125181-4	SPACER	1
5	125467-4	CRIMPER, Insulation	1
6	125468-8	ANVIL, Insulation	1
7	125466-8	ANVIL, Wire	1
8	1-125456-2	CRIMPER, Wire	1
9	313597-1	SUPPORT, Contact	1
10	1-21046-3	RING, Retaining	2
11	24088-7	WASHER, Curved	1

39T-15

Fig. 4

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 or replaced before returning them to service. See Paragraph 5, REPAIR.

D. Crimp Height Inspection

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

York Machinery & Supply Co.
20 North Penn Street
York, PA 17401-1014

or

VALCO
1410 Stonewood Dr.
Bethlehem, PA 18017-3527

Proceed as follows:

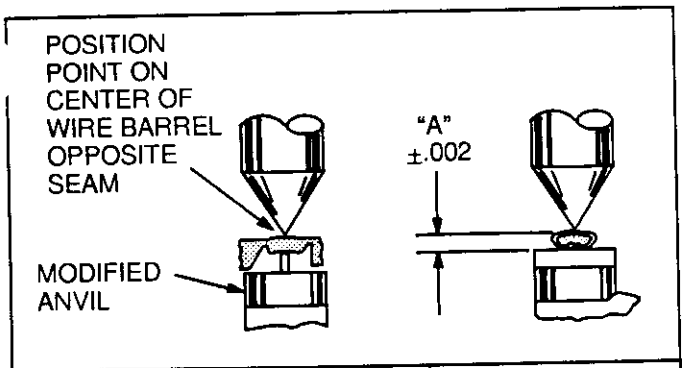
1. Refer to Figure 5 and select a contact and wire (maximum size) for the dies.

2. Refer to Paragraph 3, CRIMPING PROCEDURE, and crimp the contact accordingly.

3. Using a crimp height comparator, measure wire barrel crimp height as shown in Figure 5.

If the crimp height conforms to that shown in Figure 5, the dies are considered dimensionally correct and should be lubricated with a thin coat of any good SAE No. 20 motor oil (taking care to avoid getting oil on the crimp area surfaces). If crimp height does not conform to that in Figure 5, the dies must be repaired or replaced (see Paragraph 5, REPAIR).

For additional information concerning the use of the crimp height comparator, request AMP instruction sheet IS 7424.



CONTACT NUMBER (LP)	WIRE SIZE (Max)	CRIMP HEIGHT DIMENSION "A"
530518	2 mm^2 [14 AWG]	2 mm [.079]

Fig. 5 200-002E

5. REPAIR

The parts listed in Figure 4 are customer-replaceable. A complete inventory may be stocked and controlled to prevent lost time when replacement of parts is necessary. The dies can also be returned to AMP for evaluation and repair. Send the dies, with a written description of the problem, to:

CUSTOMER REPAIR (01-02)
AMP INCORPORATED
1523 NORTH 4TH STREET
HARRISBURG, PA 17102-1604

Additional die assemblies may be purchased from:

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