

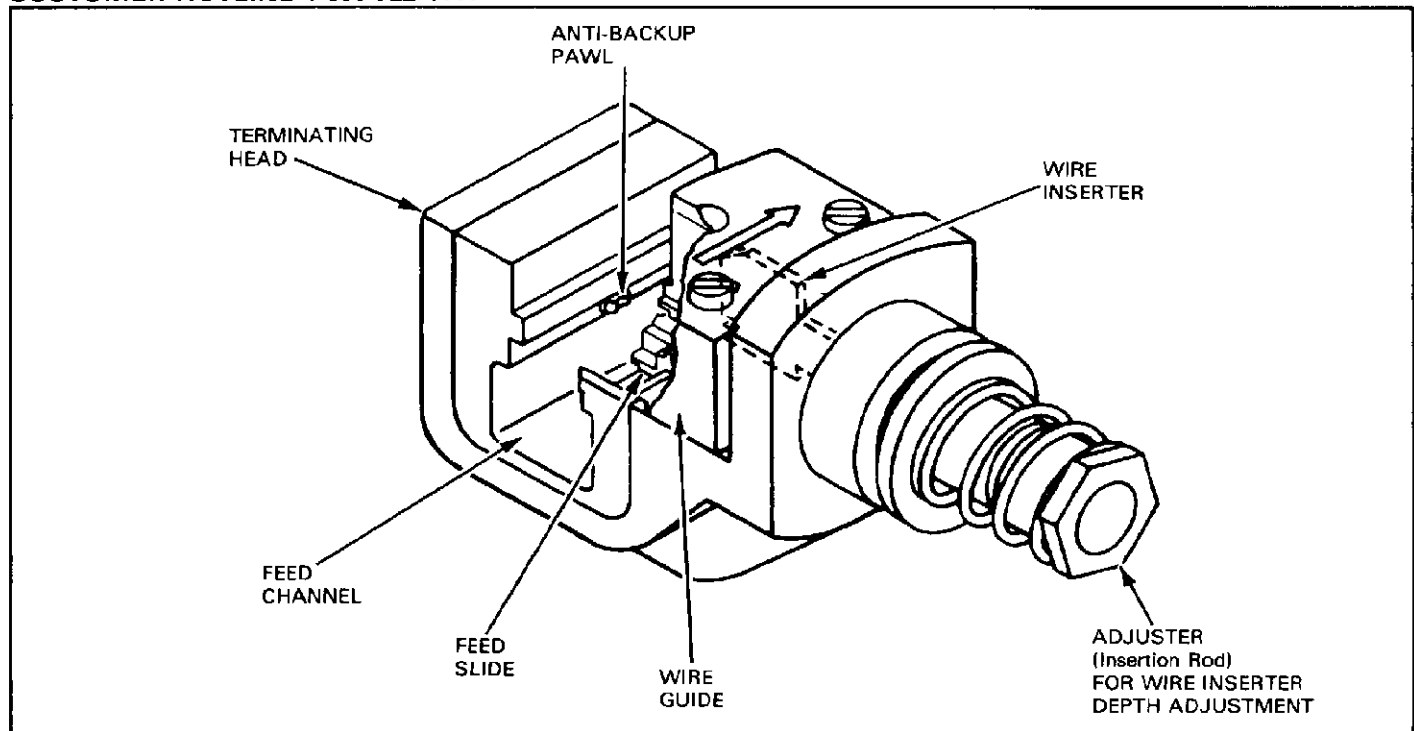
AMPAMP INCORPORATED
Harrisburg, Pa. 17105**AMP★ TERMINATING HEAD 58063-2
FOR AMPLIMITE★ HDE-20 CONNECTORS**

Instruction Sheet

IS 9414

RELEASED

4-26-88

CUSTOMER HOTLINE 1 800 722-1111**Fig. 1****1. INTRODUCTION**

This instruction sheet (IS) covers operation and maintenance of AMP Terminating Head 58063-2 which is designed to terminate wires in AMPLIMITE HDE-20 Metal Shell connectors and HDE-20 All Plastic connectors. See Figure 1. Read these instructions thoroughly before using the head.

NOTE

All dimensions on this instruction sheet are in inches.

2. DESCRIPTION

The terminating head is designed for use in AMP Pistol-Grip Manual Handle Assembly 58074-1, the AMP Pistol-Grip Pneumatic Handle Assembly 58075-1, or the AMP Bench-Mount Power Assembly 58338-1, also a pneumatic unit. For head installation and removal instructions, refer to IS 6790 for the manual handle assembly, IS 6789 for the pneumatic handle assembly, or IS 9393 for the bench-mount power assembly.

The wires are terminated in the connector using the Insulation Displacement technique, which is a method of inserting unstripped wire into a slotted contact beam to form a reliable electrical connection between the conductor and contact.

After the head is inserted into any of the tooling mentioned above, it serves as a guide and support for the connector during termination. Features of the head (see Figure 1) and their functions are as follows:

Wire Inserter — forces wire into the two slotted beams of the contact. Note that it provides support for the contact beams when applying insertion force on the wire.

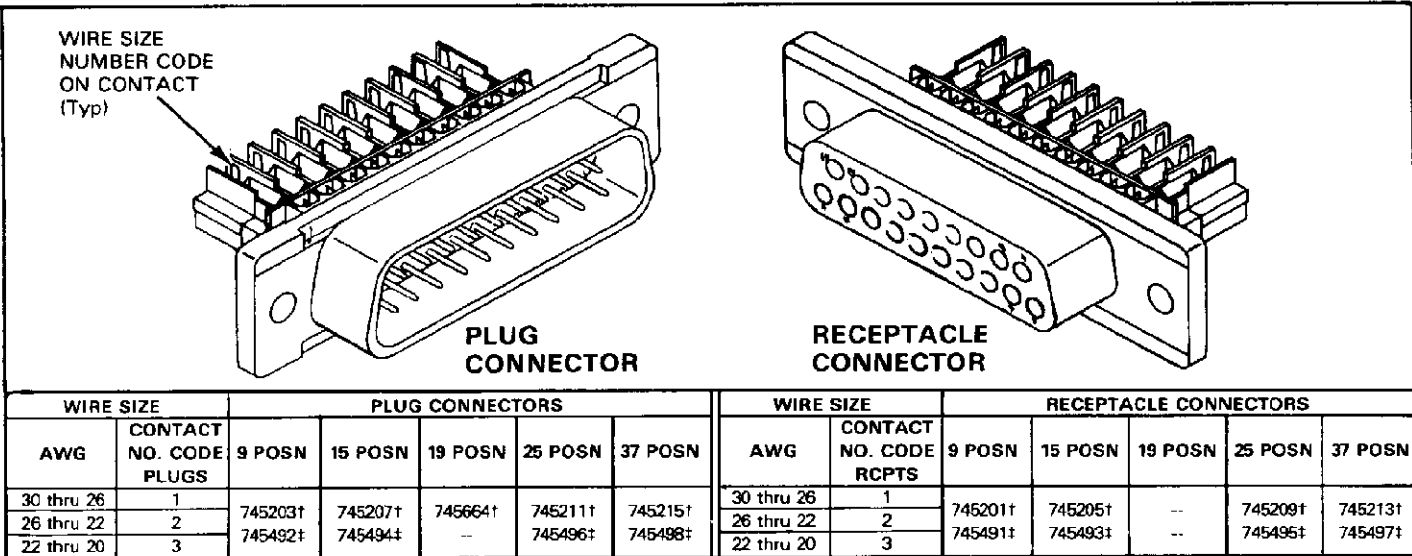
Adjuster (Insertion Rod) — acts as a piston for - and regulates travel of - wire inserter.

Feed Slide — automatically advances the connector after each termination.

Anti-Backup Pawl — prevents connector from moving out of position after it has been advanced by the feed slide.

3. SETUP ADJUSTMENTS AND TEST

If the wire is being inserted too deep or not deep enough inside the contact when using the manual handle assembly, it may be necessary to adjust the depth of the wire inserter. If using the pneumatic handle assembly or the bench-mount power assembly, it may be necessary to adjust either the air pressure or the depth of the wire inserter.



† ALL PLASTIC CONNECTORS (SEE IS 6621)
‡ METAL SHELL CONNECTORS (SEE IS 6645)

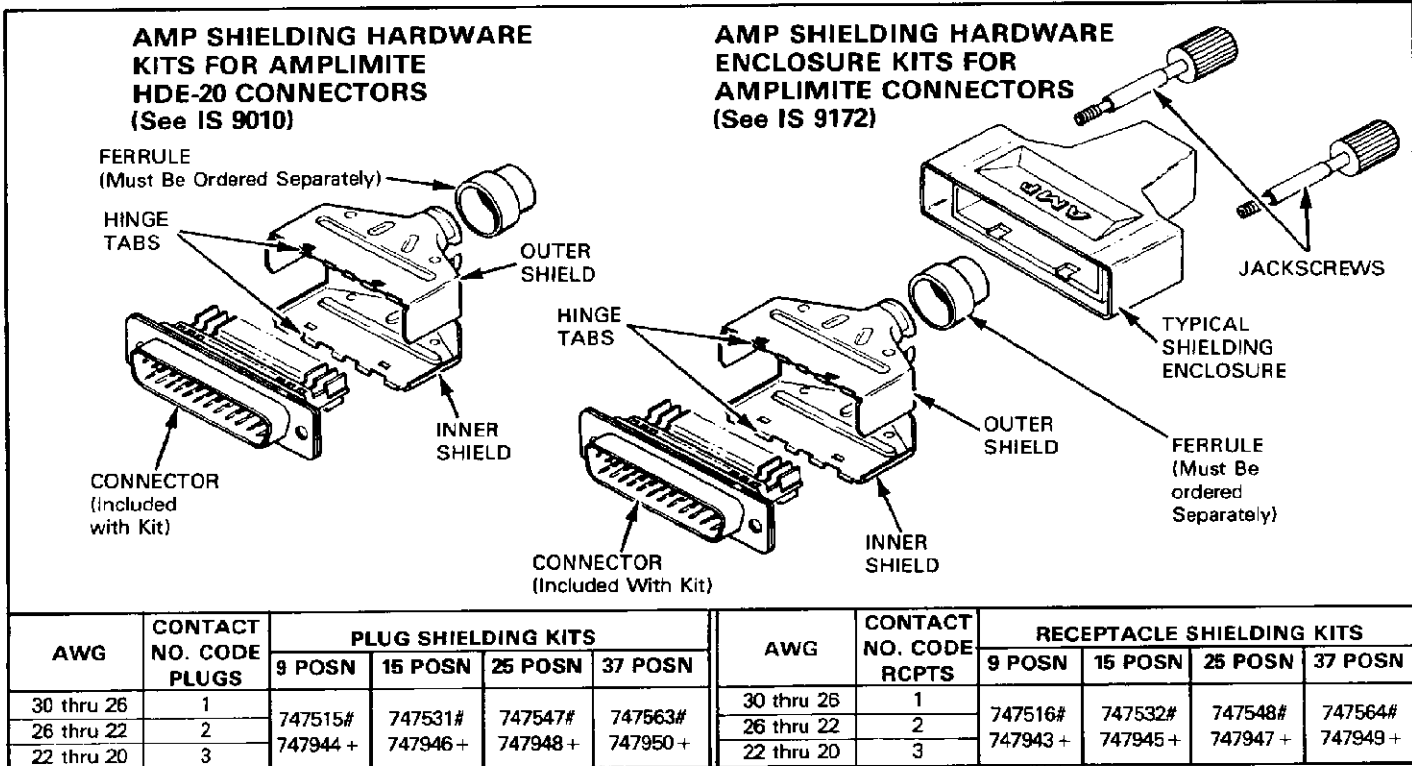
Fig. 2

A. Pistol-Grip Manual Handle Assembly

1. Refer to Figure 2, if terminating connectors not in a kit, or to Figure 3, if terminating connectors contained in a bulk kit, and select the applicable product for the wire size to be terminated.
2. Place connector in head and make a test termination using procedure described in Paragraph 4, TERMINATING PROCEDURE, Steps 1 through 6. If the connector cannot be

- inserted into the head, or if it is too loose in the head, loosen the two screws on the wire guide (see Figure 1) and adjust the wire guide until the connector fits properly in the head.
3. Push connector out of right side of head.
 4. Inspect termination in accordance with Paragraph 5, INSPECTION, Steps 1 through 5.

If you determine that the wire insertion depth is incorrect, proceed to Paragraph C, Wire Insertion Depth Adjustment.



NOTES: KITS WITH # ARE AMPLIMITE SHIELDING HARDWARE; KITS WITH + ARE AMPLIMITE SHIELDING ENCLOSURE

Fig. 3

B. Pneumatic Handle Assembly and Bench-Mount Power Assembly

1. Perform the procedure outlined in Paragraph A, Pistol-Grip Manual Handle Assembly, Steps 1 through 3.
2. Inspect termination in accordance with Paragraph 5, INSPECTION, Steps 1 through 5. If, upon inspection, it is determined that the wire is not inserted deep enough, increase the air pressure by 10 psi and repeat the termination and inspection procedure. Continue in this manner until either the proper insertion depth is obtained, or the air pressure is set to 70 psi. If proper insertion depth is not achieved at 70 psi, return the air pressure to 40 psi and follow the procedure in Paragraph C, Wire Insertion Depth Adjustment.

If the wire is inserted too deep, refer to the procedure in Paragraph C, Wire Insertion Depth Adjustment.

C. Wire Insertion Depth Adjustment

Wire Too Deep in Contact Slot — If the wire is inserted too deep, remove the head and turn the adjuster 1/6 revolution **CLOCKWISE** (see Figure 4). This will reduce the wire insertion depth by approximately .008 in. Repeat Steps 2, 3, and 4 of Paragraph A, Pistol-Grip Manual Handle Assembly.

Wire Not Deep Enough in Contact Slot — If the wire is not inserted deep enough in contact slot, remove the head and turn the adjuster 1/6 revolution **COUNTERCLOCKWISE** (see Figure 4). This will increase the wire depth by approximately .008 in. Repeat Steps 2, 3, and 4 of Paragraph A, Pistol-Grip Manual Handle Assembly.

D. Feed Adjustment

A socket head adjustment screw, located on the right side of the terminating head, controls the location of the feed slide. If the screw is positioned *in* too far, the

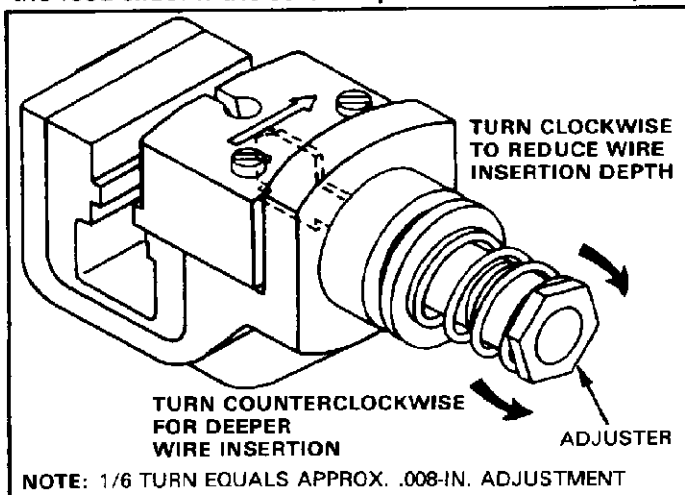


Fig. 4

pawl on the feed side will not engage in the connector housing and the housing will not advance. If the screw is *out* too far, the feed slide will back up until the pawl engages, and thus, will incorrectly position the contact to be terminated. Adjust the feed slide by turning the adjustment screw either in or out until it aligns the contact with the inserter and engages the locator pawl in connector housing. The following three observations are made when the feed slide is adjusted correctly:

1. The inserter is aligned with the contact to be terminated.
2. The locator pawl is engaged in the housing.
3. No movement of the housing occurs as the trigger or cam handle is actuated.

4. TERMINATING PROCEDURE (Figure 5)

The steps which follow are recommended to terminate wires in the connectors. Proceed as follows:

1. Insert connector into left slot of head until the desired connector contact position aligns with the wire slot.
2. Insert an *unstripped* wire into the wire slot until the wire bottoms on the tool base.
3. Center the wire in the wire slot. Squeeze the cam handle of pistol-grip handle assembly or depress trigger of either the pneumatic assembly or the power assembly until the inserter bottoms.
4. Release the cam handle or trigger. The inserter will retract and the connector will advance to the next contact position.

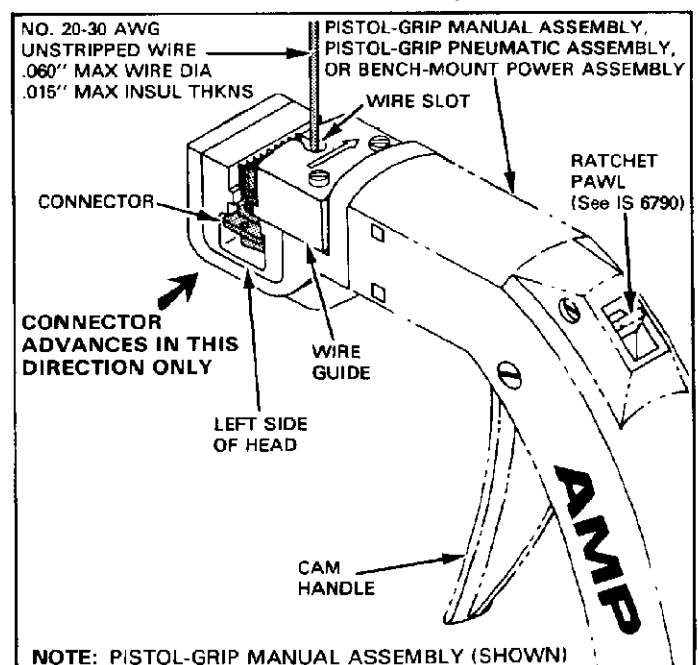


Fig. 5

5. Repeat Steps 2, 3, and 4 until all contacts are terminated.
6. Remove connector from right side of feed channel.
7. Inspect each termination according to the procedure in Paragraph 5, INSPECTION.

NOTE

AMP TERMINATING HEAD 58063-2

The insulation barrel does not have to be wrapped tightly around the insulation. The purpose of the insulation barrel is to prevent the wire from being lifted from the wire channel.

5. Make sure the contact cavity wall has NOT been deformed or scraped.

5. INSPECTION

AMP Application Specification 114-40002 lists the information necessary for termination inspection. Figure 6 represents properly and improperly terminated contacts which should be inspected as follows:

1. Make sure the conductor is below the transition of the lead-in on the contact slot.
2. Make sure the wire extends beyond the front contact slot.
3. Make sure the contact channel is not deformed. If damage is apparent, replace the contacts in accordance with AMP Instruction Sheet IS 6621, which is packaged with the connector.
4. Make sure the insulation barrel is closed to secure the insulation of the wire.

6. TOOL 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 Policy No. 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 terminating heads.

Customer-replaceable parts are listed in Figure 7. A complete inventory should be stocked and controlled to prevent lost time when replacement of parts is necessary. When parts are needed, order by part number and description.

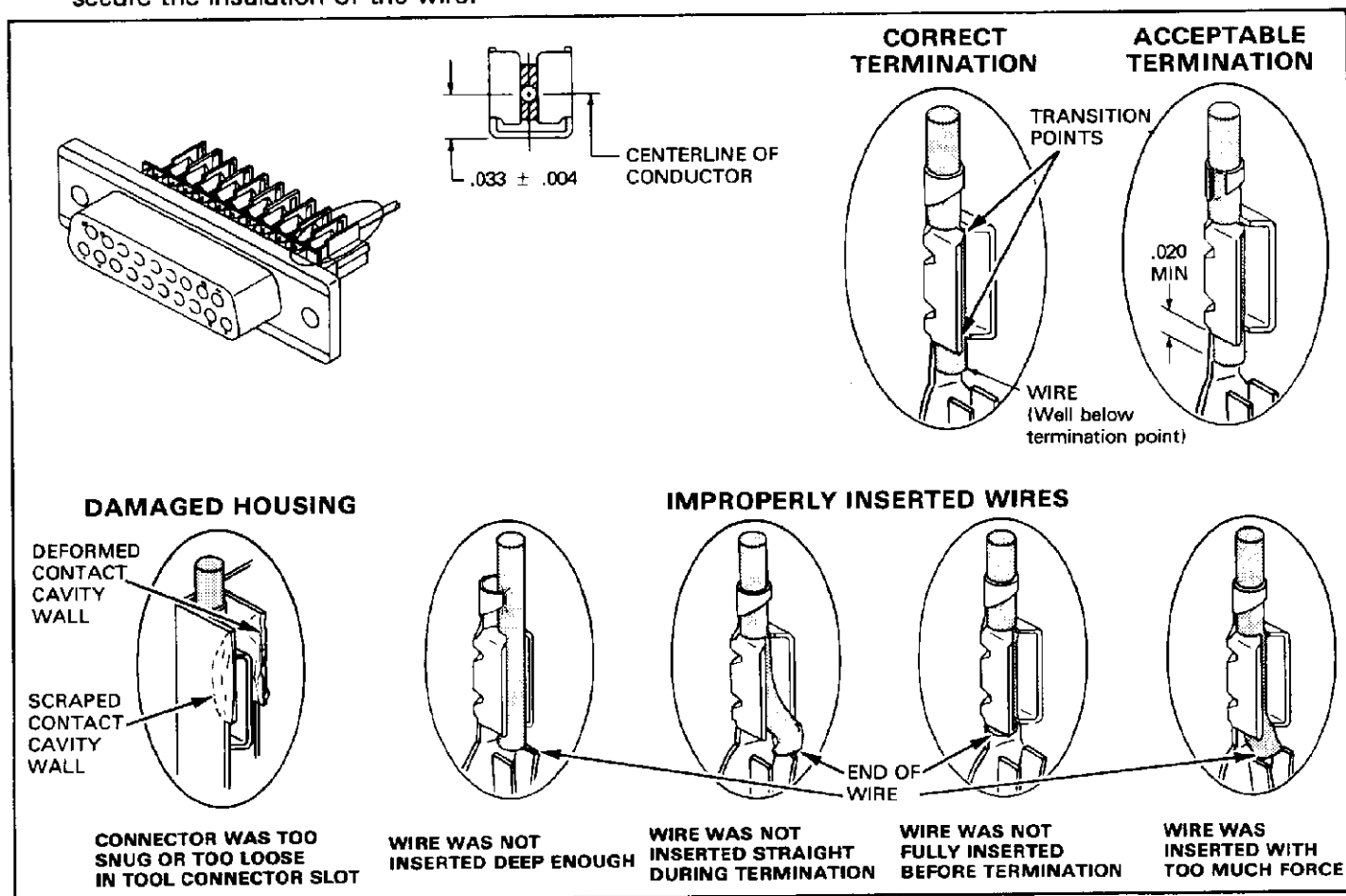


Fig. 6

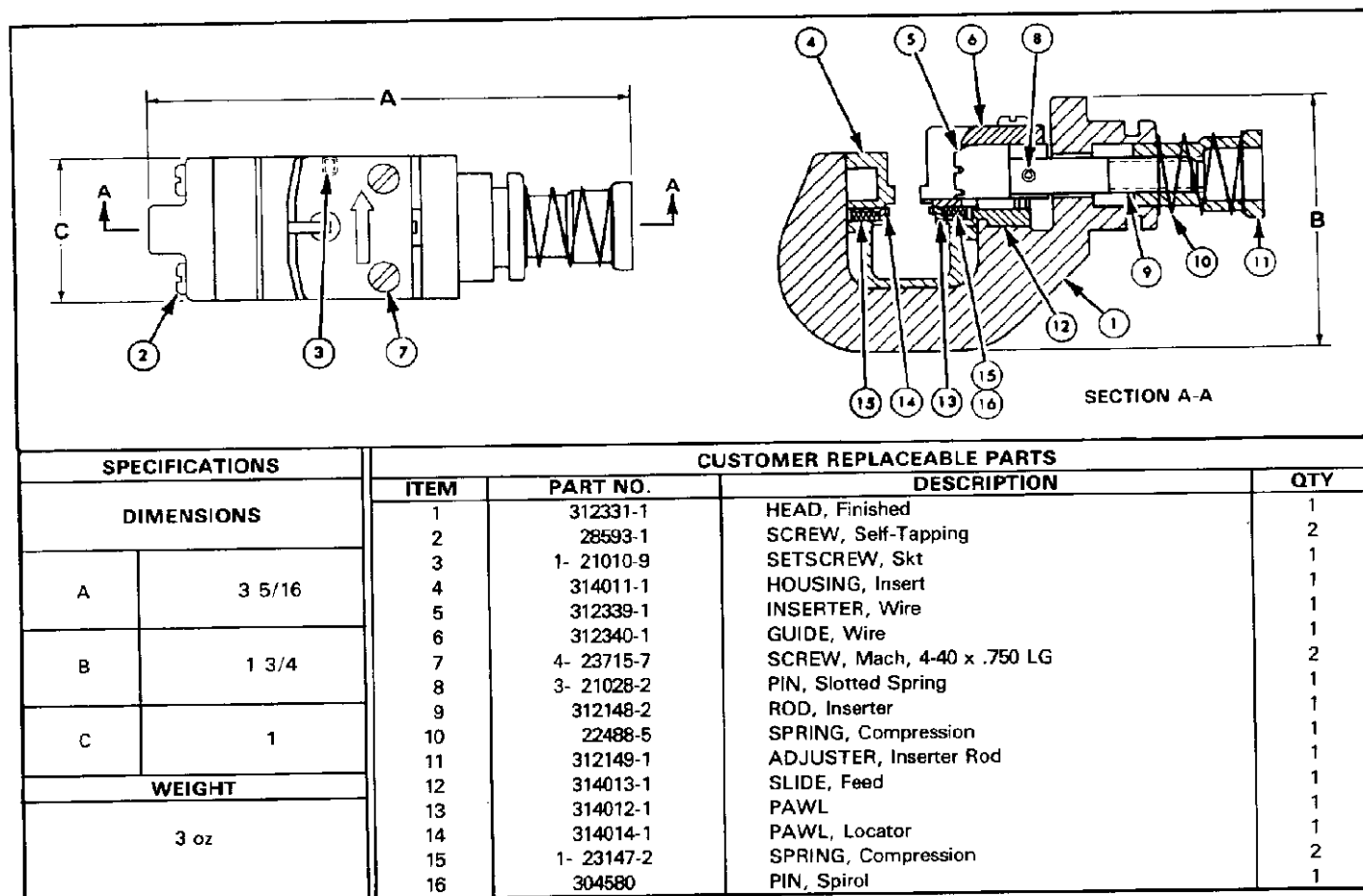


Fig. 7

6.1. Daily Maintenance

It is recommended that each operator of the terminating head be made aware of — and responsible for — the following three 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 terminating head.
2. Make sure all components are in place and are properly secured.
3. Actuate handle assembly to ensure that mechanisms inside the head move smoothly.

6.2. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the head and/or be supplied to supervisory personnel responsible for the head. 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 include a visual inspection and should be performed in the sequence shown in 6.3., VISUAL INSPECTION.

6.3. Visual Inspection

1. Remove any accumulated film with a suitable commercial degreaser that will not affect paint or plastic material.
2. Make sure all components are in place and are properly secured.
3. Make a few test terminations and inspect the terminations in accordance with Application Specification 114-40002.
4. Check for chipped, cracked, worn, or broken areas. If damage is evident, repair is necessary. See Paragraph 7, REPAIR.

7. REPAIR

Parts other than those specified in Figure 6 must be replaced by AMP to ensure the quality and reliability of the terminating head. When repair is necessary, return the head with a written description of the problem to:

AMP Incorporated
Customer Repair
1523 North 4th Street
Harrisburg, PA 17102-1604

or a wholly owned subsidiary of AMP Incorporated.