

APPLICATION AND MAINTENANCE FOR AMP® HAND CRIMPING TOOL 169341-1

Section I of this instruction sheet provides application procedures for AMP hand crimping tools.

Section II provides maintenance and inspection procedures for AMP hand crimping tools.

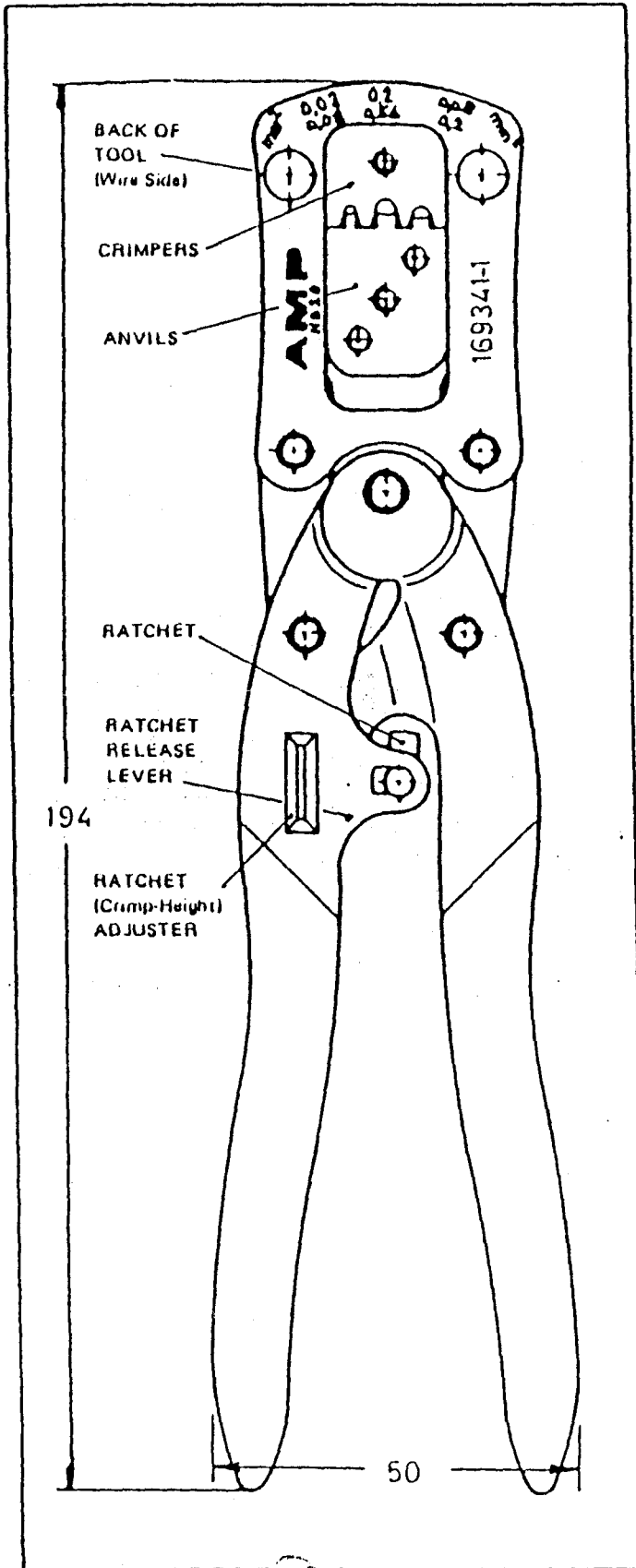


Figure 1-1.

SECTION I APPLICATION.

1-1. INTRODUCTION.

This instruction sheet covers the use of the AMP Hand Crimping Tool 169341-1 which crimps the AMP Type HD 20 loose-piece pin and socket contacts listed in Figure 1-2. Read these instructions thoroughly before crimping any contacts.

1-2. DESCRIPTION (Figures 1-1 and 1-3).

The FRONT OF TOOL (contact side), into which the contact is inserted.

The BACK OF TOOL (wire side), into which the wire is inserted, has the wire size marked above each crimp section.

Each tool features two fixed dies (crimpers), two movable dies (anvils), 3 crimp sections with applicable wire size markings, a contact support, a locator/insulation stop, a ratchet release lever.

The ratchet assures full crimping of the contact. Once engaged, the ratchet will not release until the handles have been FULLY closed.

CAUTION The crimping dies bottom before the CERTICRIMP ratchet releases. This is a design feature that assures maximum electrical and tensile performance of the crimp. Do NOT re-adjust the ratchet.

The locator/insulation stop has two functions. First, it positions the contact between the crimping dies, and second, it aids in locating the wire in the contact. In use, it rests in the locator slot. See Figures 1-2 and 1-3

The contact support prevents the contact from bending during the crimping procedure.

The ratchet release lever enables the user to open the partially closed tool handles when necessary.

The ratchet adjuster is used to control the crimp height of the terminal's wire/insulation barrel when a certain amount of wear has taken place on the ratchet mechanism or other internal parts of the tool. See Paragraph II-3, RATCHET ADJUSTMENT.

1-3. CRIMPING PROCEDURE.

Refer to the chart in Figure 1-2 and Check the selected wire, contact, and crimping tool for compatibility

Wire size and insulation diameter must be within the specified range for the contact. Strip the wire to the length indicated - do NOT cut or nick the wire stands

The hand crimping tool must be the one designed for crimping the wire and contact. Identify the appropriate crimp section (according to the wire size markings on the BACK of the tool).

The color dot, or wire size markings on the contact, must match the wire size marking above the appropriate crimp section.

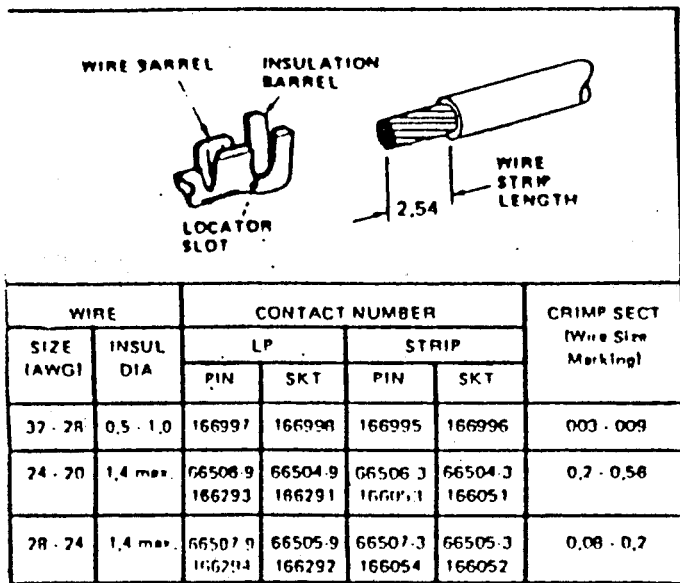


Figure 1-2

Refer to Figure 1-3 and proceed as follows :

1. - Hold tool so BACK (wire side) is facing you.
2. Make sure ratchet is released by squeezing the tool handles and allowing them to open FULLY.
3. Looking straight into BACK of appropriate crimp section, insert contact (insulation barrel first) into FRONT of crimp section. Position contact in crimpers so locator enters locator slot in contact. Pull ins. barrel against locator.
4. Hold contact in this position and squeeze tool handles together until insulation anvil starts entry into insulation crimper. Do NOT deform insulation barrel or wire barrel.

5. Insert a properly stripped wire (or wires) through wire slot in locator and into wire barrel of contact until insulation butts against locator/insulation stop.
6. Holding wire in place, squeeze tool handles together until ratchet releases.
7. Allow tool handles to open FULLY Remove crimped contact from tool.

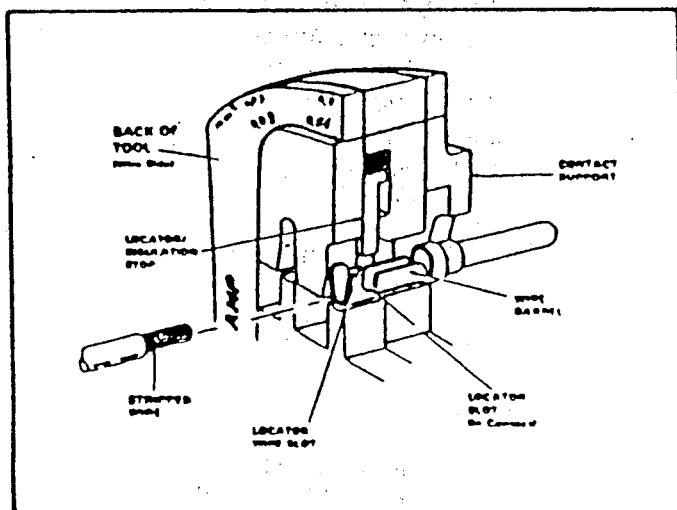


Figure 1-3

I-4. 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 if the proper replacement parts are not available, return the tool to your supervisor.

Make certain all pivot points and bearing surfaces are protected with a THIN coat of any good SAE No. 20 motor oil. Do NOT oil excessively. When the 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.

Section I of this instruction sheet provides application procedures for AMP hand crimping tools.

Section II provides maintenance and inspection procedures for AMP hand crimping tools.

SECTION II MAINTENANCE/INSPECTION.

II-1. TOOL 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 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 hand crimping tools.;

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II-2. INSPECTION PROCEDURES.

A. Daily Maintenance.

It is recommended that each operator of the tool 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 tool.
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 any good SAE No. 20 motor oil. Do NOT oil excessively.
4. When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies and store the tool 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 tool and/or be supplied to supervisory personnel responsible for the tool. Through 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 tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plating material.

3. Close the tool handles until the ratchet releases, then allow handles to open freely. If they do not open quickly and fully, the spring is defective and must be replaced.
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, return the tool to AMP for evaluation and repair.

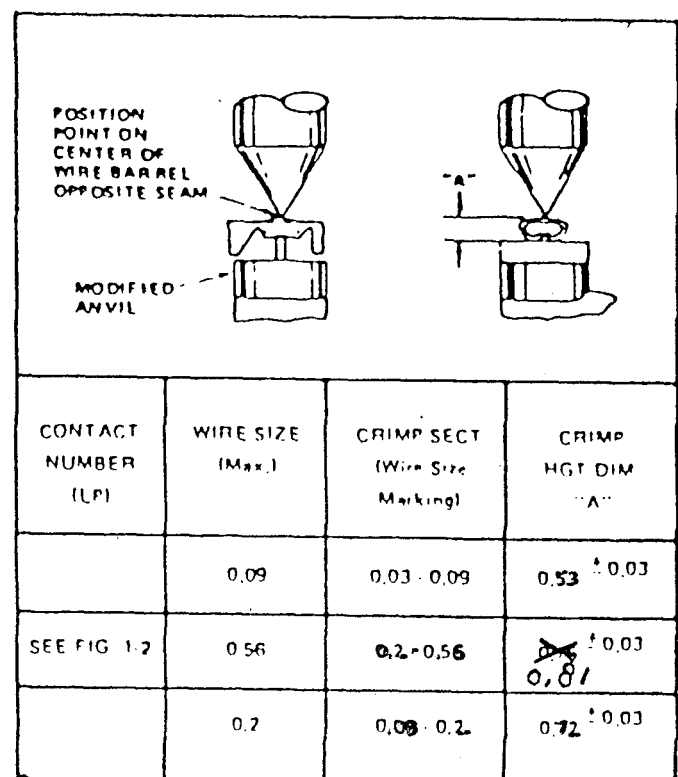
B-2. Crimp Height Inspection.

This inspection requires the use of a micrometer with a modified anvil as shown in Figure II-2.

Proceed as follows :

1. Refer to the chart in Figure II-2, and select a contact and a wire (maximum size) for each crimp section listed in the chart.
2. Refer to Paragraph I-3, CRIMPING PROCEDURE, and crimp the contact(s) accordingly.
3. Using a crimp height comparator, measure wire barrel crimp height as shown in Figure II-2. If the crimp height conforms to that shown in the chart, the tool is considered dimensionally correct. If not, return the tool to AMP for evaluation and repair.

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



11-3. RATCHET ADJUSTMENT (Figure 11-3).

To adjust rate (and tighten crimp) proceed as follows :

1. Remove cap on adjuster wheel from each side of tool head.
2. Open the tool.
3. Turn adjusting nut three notches in direction of the arrow.
4. Re-install cap and perform a test crimp. Repeat above procedure if necessary.

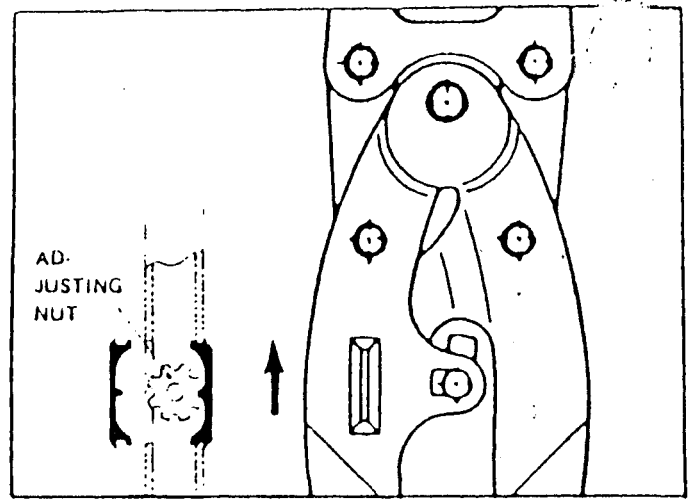


Figure 11-3