

### 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.

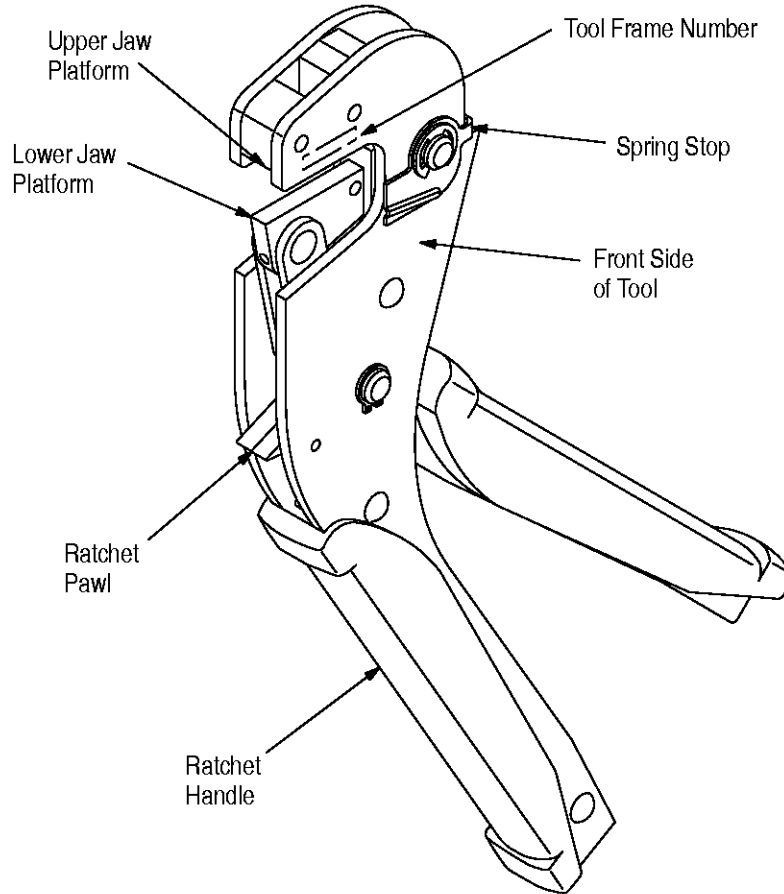


Figure 1

## 1. INTRODUCTION

This instruction sheet covers the application and maintenance of AMP\* Hand Crimping Tool Frame 58078-5 (see Figure 1). The tool frame is designed to accept interchangeable crimping die assemblies for crimping various types of AMP products. Contact your local AMP representative or the Technical Assistance Center for information concerning the availability of die assemblies for specific applications. Read these instructions thoroughly before using the tool frame.

**NOTE**

*Measurements are in metric units [with U.S. customary units in brackets]. Figures are for identification only and are not drawn to scale.*

## 2. DESCRIPTION

Each tool frame features a lower jaw platform, an upper jaw platform, a spring stop, and a ratchet

handle with a ratchet pawl. The tool frame number is marked on the FRONT side of the tool frame. See Figure 1.

For securing the die assembly, the upper jaw platform has a mounting hole for the retaining screw and the lower jaw platform has a socket head setscrew. The ratchet handle assures full crimping. Once engaged, the ratchet will not release until the tool handles have been FULLY closed, unless the ratchet pawl is depressed to manually release the ratchet. Use manual release only when terminal is improperly positioned.

**CAUTION**

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

Reasons for reissue are provided in Section 6, REVISION SUMMARY.

### 3. DIE ASSEMBLY INSTALLATION

The crimping die assembly consists of a lower die and an upper die. When closed, the die assembly forms the crimping chamber(s) required for the appropriate AMP product.

1. Close tool frame handles until ratchet releases, then allow handles to open FULLY.

#### NOTE

*If hinge pin comes with die assembly, replace the setscrew (part of tool frame) with the die assembly hinge pin.*

2. Slide lower die onto lower jaw platform of tool frame. Make sure that the hole on the side of the lower die aligns with the hinge pin on the platform. See Figure 2.

#### NOTE

*Die assembly may include a compression spring. Be careful not to lose the spring during installation.*

#### NOTE

*If lower die will not position properly, use hex wrench provided with die assembly to turn hinge pin either in or out until lower die positions properly.*

3. Using hex wrench, turn hinge pin until snug. Do NOT overtighten.

4. Position upper die on the upper platform of the tool, and thread die retaining screw through

mounting hole in top of tool and upper die until it is snug but not tight. See Figure 2.

5. While guiding upper die into alignment with lower die, slowly close tool handles until dies bottom. Tighten die retaining screw until it is secure.

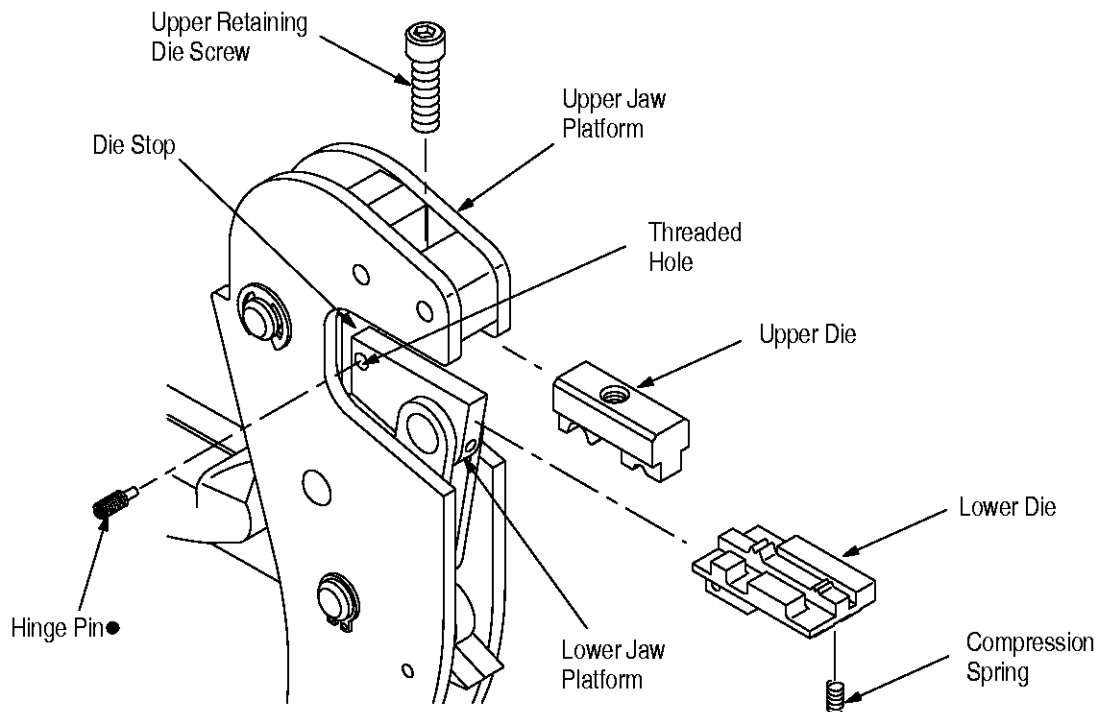
6. Squeeze handles together until ratchet releases. Allow handles to open fully. Tool is now ready for use.

### 4. MAINTENANCE AND INSPECTION PROCEDURE

AMP recommends that a maintenance and inspection program be performed periodically to ensure dependable and uniform terminations. Frequency of inspection depends on:

1. The care, amount of use, and handling of the hand tool.
2. The presence of abnormal amounts of dust and dirt.
3. The degree of operator skill.
4. Your own established standards.

The tool frame is inspected before being shipped; however, AMP recommends that the tool frame be inspected immediately upon arrival to ensure that it has not been damaged during shipment.



● Hinge Pin Part of Die Assembly

Figure 2

#### 4.1. Daily Maintenance

1. Tool frame should be immersed (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease, and foreign matter. When degreasing compound is not available, tool frame may be wiped clean with a soft, lint-free cloth. Do NOT use hard or abrasive objects that could damage the tool frame.
2. Make certain that the retaining pins are in place and that they are secured with retaining rings.
3. All pins, pivot points, and bearing surfaces should be protected with a thin coat of any good SAE 20 motor oil. Do not oil excessively.
4. When the tool frame is not in use, keep handles closed and store in a clean, dry area.

#### 4.2. Periodic Inspection

##### A. Lubrication

Lubricate all pins, pivot points, and bearing surfaces with SAE No. 20 motor oil as follows:

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

Wipe excess oil from tool frame. Oil transferred onto certain terminations may affect the electrical characteristics of an application.

##### B. Visual Inspection

1. Close tool frame handles until ratchet releases and then allow them to open freely. If they do not open quickly and fully, the spring is defective and must be replaced. See Section 5, REPLACEMENT AND REPAIR.
2. Inspect jaw platforms for worn, cracked, or broken areas. If damage is evident, return the tool frame to AMP for evaluation and repair. See Section 5, REPLACEMENT AND REPAIR.

#### 4.3. Ratchet Inspection

The ratchet feature on AMP hand tool frames should be checked to ensure that the ratchet does not release prematurely, allowing the dies to open before they have fully bottomed. Proceed as follows:

1. Squeeze tool frame handles together and count the number of ratchet stops. Five stops, including the release position, should be indicated by the

movement of the ratchet pawl and the associated clicking sound.

2. If fewer positions are indicated, the ratchet handle and ratchet pawl must be replaced. Refer to Section 5, REPLACEMENT AND REPAIR.
3. Recheck the ratchet. If second inspection reveals a continuing defect, return the tool frame to the AMP for evaluation and repair. Refer to Section 5, REPLACEMENT AND REPAIR.

If tool frame passes ratchet inspection, lubricate it with a THIN coat of any good SAE 20 motor oil.

#### 5. REPLACEMENT AND REPAIR

The parts listed in Figure 3 are customer-replaceable. A complete inventory can 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 of the tool frame.

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

Tool frames may also be returned to AMP for evaluation and repair. For repairs or adjustments, send the tool frame with a written description of the problem to:

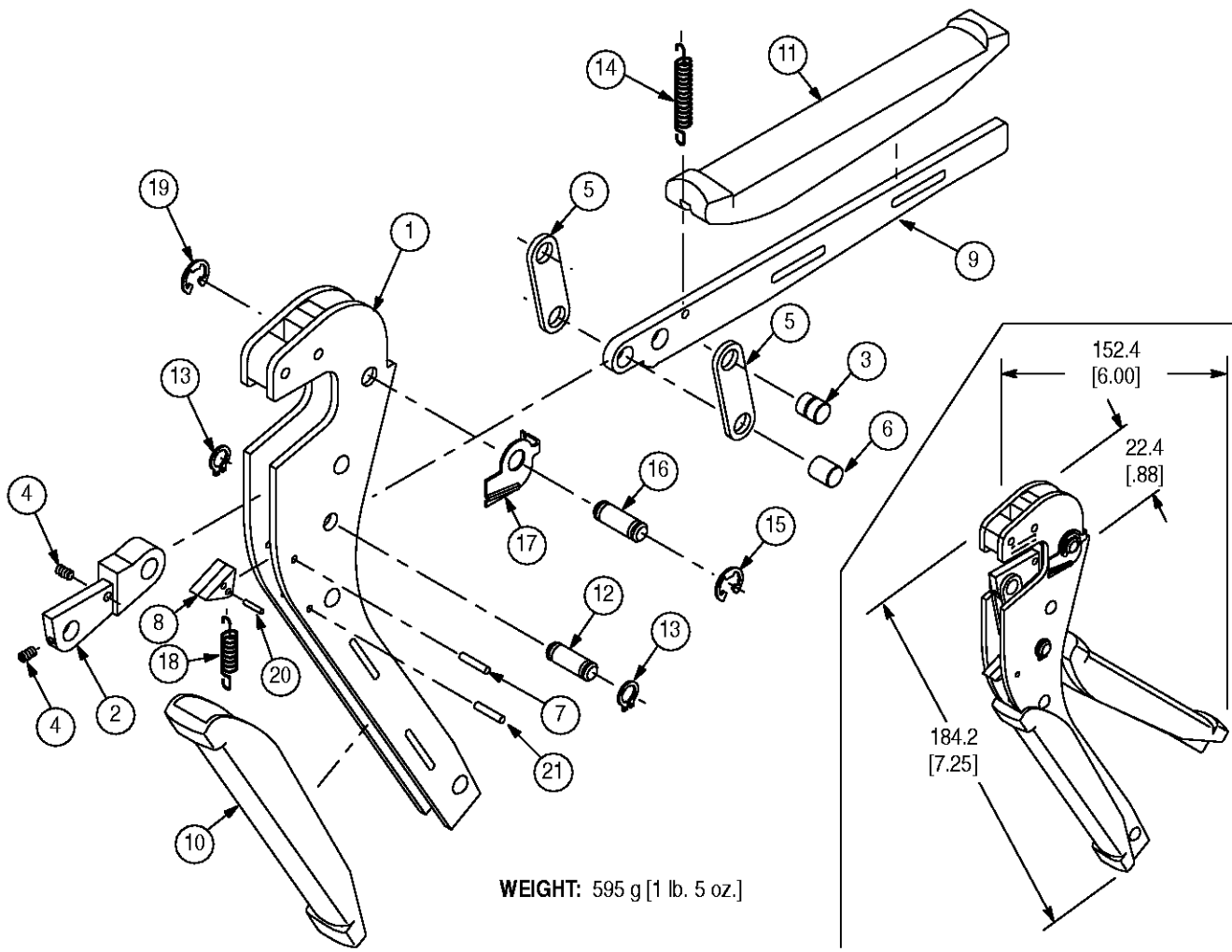
CUSTOMER REPAIR (01-12)  
AMP INCORPORATED  
1523 NORTH 4TH STREET  
HARRISBURG, PA 17102-1604

#### 6. REVISION SUMMARY

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

Per EC 0990-0079-98

- Updated ratchet pawl in Figures 1, 2, and 3.
- Changed Item 6 in Figure 3 from 313033-1 to 313033-2.
- Changed Item 20 in Figure 3 from 354141-1 to 1213160-1.
- Changed quantities of Items 4, 5, 8, and 13 in Figure 3 from 1 to 2.



**REPLACEMENT PARTS**

ITEM	PART NUMBER	DESCRIPTION	QTY PER ASSY
1	354098-1	FRAME, Handle	1
2	310952-2	JAW, Platform	1
3	310577-1	PIN, Toggle Link	1
4	21061-1	SETSCREW, Socket Head	2
5	310578-1	TOGGLE, Link	2
6	313033-2	PIN	1
7	17934-1	PIN, Shear-Proof, Grooved	1
8	310579-1	PAWL, Ratchet	2
9	310582-1	HANDLE, Ratchet	1
10	354256-1	HANDLE, Plastic	1
11	310575-1	HANDLE, Plastic	1
12	7-59558-8	PIN, Handle, Pivot	1
13	1-21116-0	RING, Retaining	2
14	354266-1	SPRING, Extension	1
15	18202-1	E-RING, Bowed	1
16	7-59558-9	PIN, Jaw, Pivot	1
17	122382-1	STOP, Spring	1
18	310690-1	SPRING, Extension	1
19	1-21113-6	E-RING, External	1
20	1213160-1	PIN	1
21	3-21028-8	PIN, Slotted, .094 D x .063 L	1

Figure 3