

1. INTRODUCTION

This instruction sheet is intended to provide you with "Instructions" on product application and a "Maintenance Procedure" for the following tools:

HAND TOOL, STAKER AND LOCATOR KIT AND ACCESSORIES FOR SERIES SMA CONNECTORS ON SEMI-RIGID CABLE

HAND TOOL	STAKER AND LOCATOR KIT
No. 220130-1	No. 220131-1
ACCESSORIES	
Cable Cut-off Fixture	No. 307055-2
Cable Dressing Fixture	No. 220134-1
Trimmer Tool	No. 220047-1
Knurling Tool	No. 220126-1

Basic instructions on the use of these tools are provided in Section 2, "INSTRUCTIONS".

2. INSTRUCTIONS

2.1 CABLE PREPARATION

2.1.1 Cable Cut-Off Fixture

This fixture, see Figure 1, is used to cut and square the end of the cable in preparation of the cable for termination. A jewelers saw with a blade thickness of .011" to .013" is used in the slot after the fixture is clamped onto the cable. Cable may not be bent within .265 min. dimension from end of cable outer conductor.

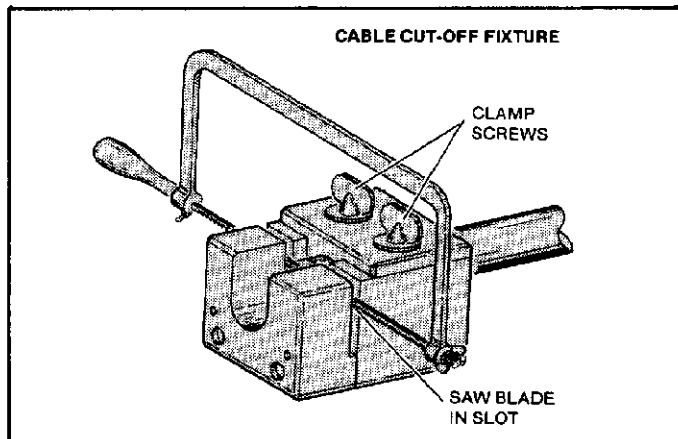


Figure 1

2.1.2 Cable Dressing Fixture and Trimmer Tool

- Place cable dressing fixture in vise. See Figure 2. Insert cable into hole and saw thru jacket while slowly rotating cable, keeping pressure against fixture. Use a No. 0 jewelers saw (.011" to .013" thickness).
- Remove cable from fixture and use razor blade to cut thru and remove dielectric to expose center conductor. Caution: Do not score conductor with blade.
- Trimmer tool can now be used to smooth copper sheath and dielectric, as follows:
 - Slip tool over end of cable. See Figure 3.
 - Push lightly against cable while revolving tool clockwise 2 or 3 complete revolutions.
 3. Remove tool and clean any chips from end of cable.

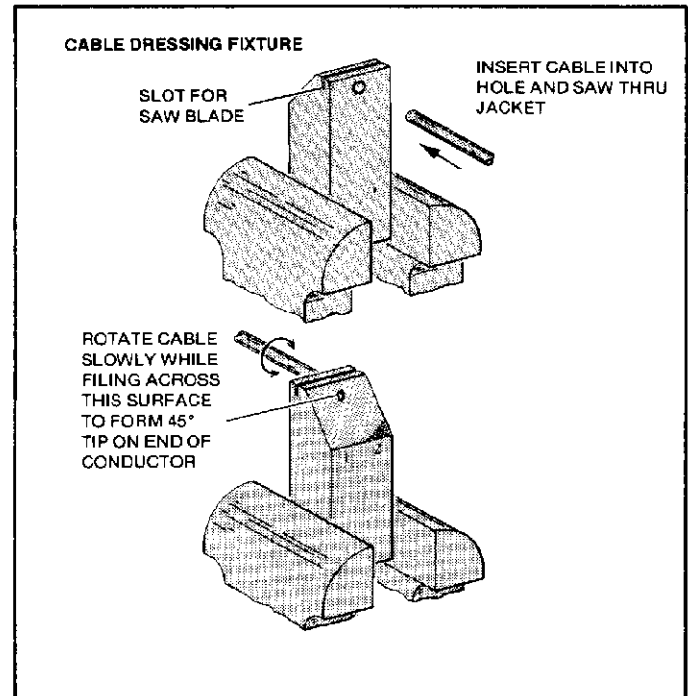


Figure 2

- Cable is now inserted into cable dressing fixture to file end of center conductor. See Figure 2. Keep pressure against fixture and revolve cable slowly while filing on 45° surface, see Figure 2. Use a small pillar or mill file. Continue filing until center conductor offers no resistance to file.
- Brush off end of cable to remove all chips after removing cable from tool.

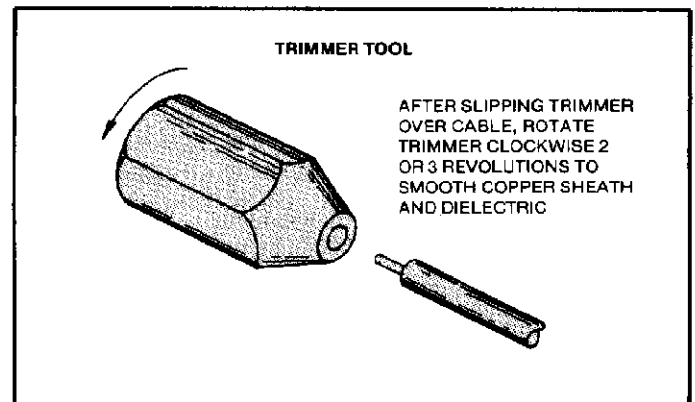


Figure 3

2.1.3 Knurling Cable

- Back off thumb screw on knurling tool approximately 1 turn. See Figure 4.
- Insert cable between knurling wheels until bottomed, then tighten thumb screw.
- While keeping pressure against cable, make 2 or 3 full revolutions after resistance is felt on knurling wheels.
- Back off thumb screw and remove cable. Knurl should be located as shown in Figure 5.

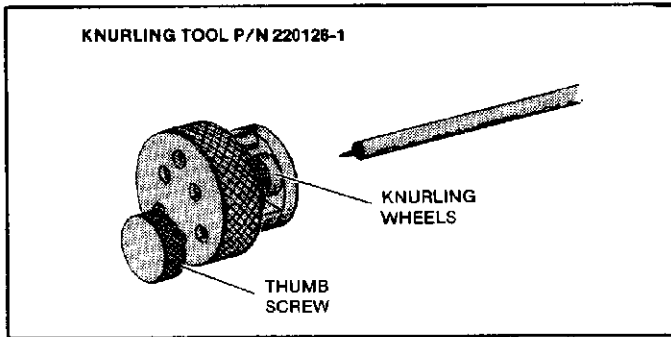


Figure 4

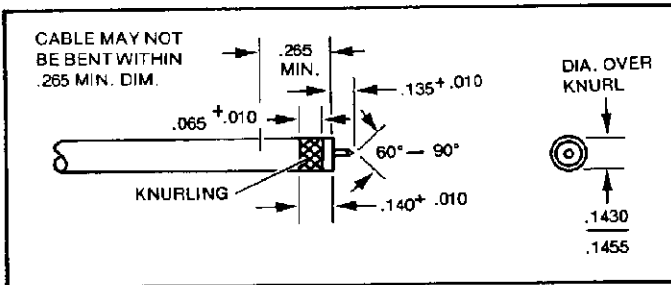


Figure 5

2.2 TOOL SET-UP PROCEDURE

Before connectors can be applied to cable, tool must be set up as follows:

2.2.1 Half-staker Installation

- Partially close tool handles and turn tool with jaws "down".
- Position half-stakers on jaws so that alignment pins in half-stakers fit into holes in tool jaws. See Figure 6.
- Screw in staker holding screws but do not tighten. Gage will be used to align half-stakers.
CAUTION: GAGE MUST NOT BE USED IF LOCATOR HAS ALREADY BEEN INSTALLED, SINCE DAMAGE TO TOOL WILL RESULT IF HANDLES ARE CLOSED. ALWAYS MAKE SURE THAT LOCATOR HAS BEEN REMOVED BEFORE INSTALLING HALF-STAKERS.
- Close tool handles but do not bottom jaws.

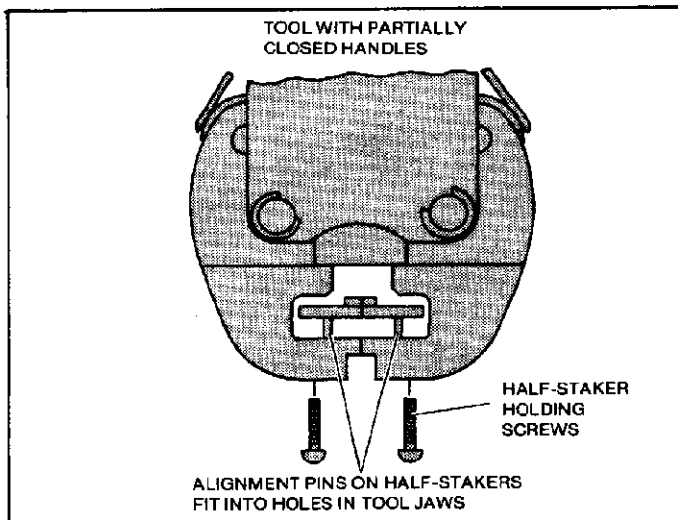


Figure 6

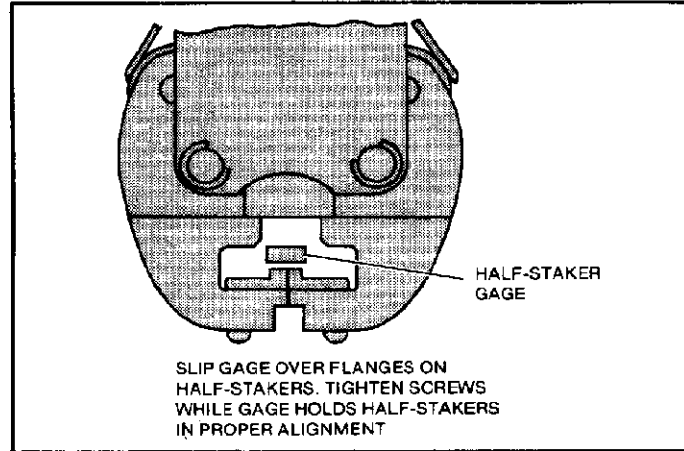


Figure 7

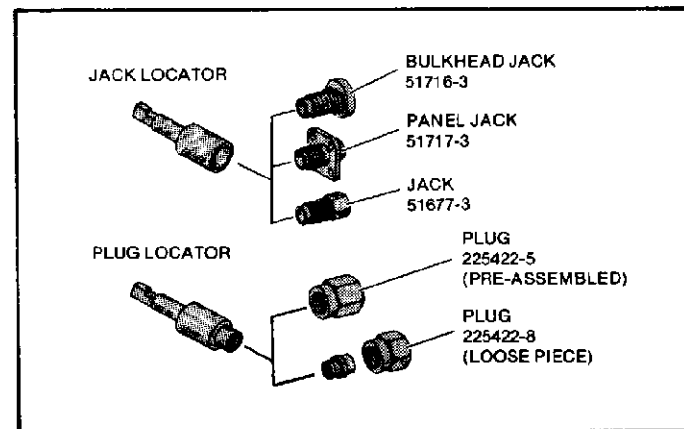


Figure 8

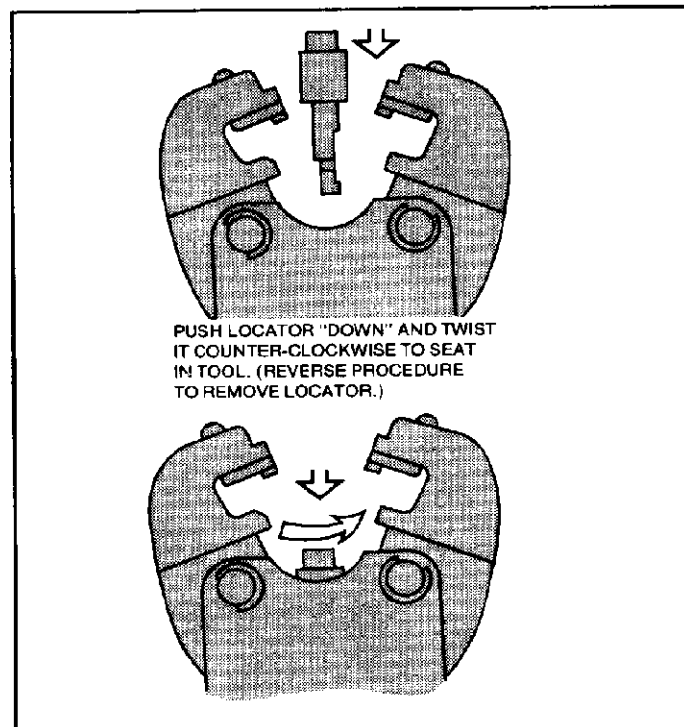


Figure 9

- (e) Slip gage over flanges on half-stakers. See Figure 7.
- (f) Tighten staker holding screws while holding gage in position.
- (g) Remove gage from tool.

2.2.2 Locator Installation

- (a) Determine if plugs or jacks are to be terminated and select proper locator. See Figure 8.
- (b) Open tool handles as far as possible.
- (c) Insert shank of locator into ram in tool. See Figure 9.
- (d) While holding locator inserted to maximum depth, twist locator counter-clockwise approximately 1/2 turn. As locking mechanism seats in "notch" on shank, spring in ram will cause partial ejection of locator into the operating position. If locator can be pushed approximately 1/4" into tool and returns under spring pressure, it is properly installed.
- (e) To remove locator, reverse the above procedure.

2.3 APPLYING CONNECTOR TO CABLE

- (a) For two piece plug, first slip nut over cable.
- (b) Insert prepared cable into connector. Exert sufficient pressure to cause cable to bottom inside connector.
- (c) Open tool handles.
- (d) Position connector on locator. If plug is being applied, make sure that center conductor enters hole in locator. See Figure 10. For all jacks, end of locator must enter end of jack. See Figure 8.
- (e) Close tool handles while applying pressure on cable against locator.
NOTE: This pressure must be applied to allow stakers to close against cable rather than on connector which would damage stakers.
- (f) After making sure that stakers will enter end of connector, close handles until CERTI-CRIMP® ratchet releases.
- (g) Open handles, push cable downward against locator to disengage stakers, and remove terminated part.

3. MAINTENANCE PROCEDURE

All AMP® tools are inspected and calibrated before being shipped from the factory, however, since there is a possibility of tool damage in shipment, AMP recommends that new tools be inspected in accordance with Section 3 when received in your plant. Due to the precision design, *it is important that no parts of these tools be interchanged except those replacement parts listed in Figure 11.*

3.1 CLEANING

The hand tool and component parts of applicator kits should be immersed (handles partially closed) in a reliable commercial degreasing compound to remove accumulated dirt, grease and foreign matter. Make certain the degreasing compound does not attack paint or plastic materials. Remove remaining degreasing compound with a lint free cloth. When degreasing compounds are not available, tool and applicator kit components may be wiped clean with a lint free cloth. Relubricate tool, as instructed in paragraph 3.2, before placing it back in service.

3.2 LUBRICATION (Hand Tool Only)

Lubricate all pins, pivot points and bearing surfaces with a good grade S.A.E. No. 20 motor oil as follows:

- Tools used in daily production — Lubricate daily
- Tools used daily (occasional) — Lubricate weekly
- Tools used weekly — Lubricate monthly

Wipe excess oil from tool, particularly from connector end of locator and flanges on half-stakers. Oil transferred from this area onto terminations may affect the electrical characteristics of an application.

3.3 VISUAL INSPECTION

- (a) Visually inspect the hand tool for missing pins or retaining rings, then operate the tool and note the return action of the spring loaded handles. If parts are missing or spring in handles is defective, refer to Figure 11 for customer replaceable parts.
- (b) Visually inspect the inside edges of the locators and half-stakers for flattened, broken or chipped conditions which could prevent proper seating of the half-stakers.

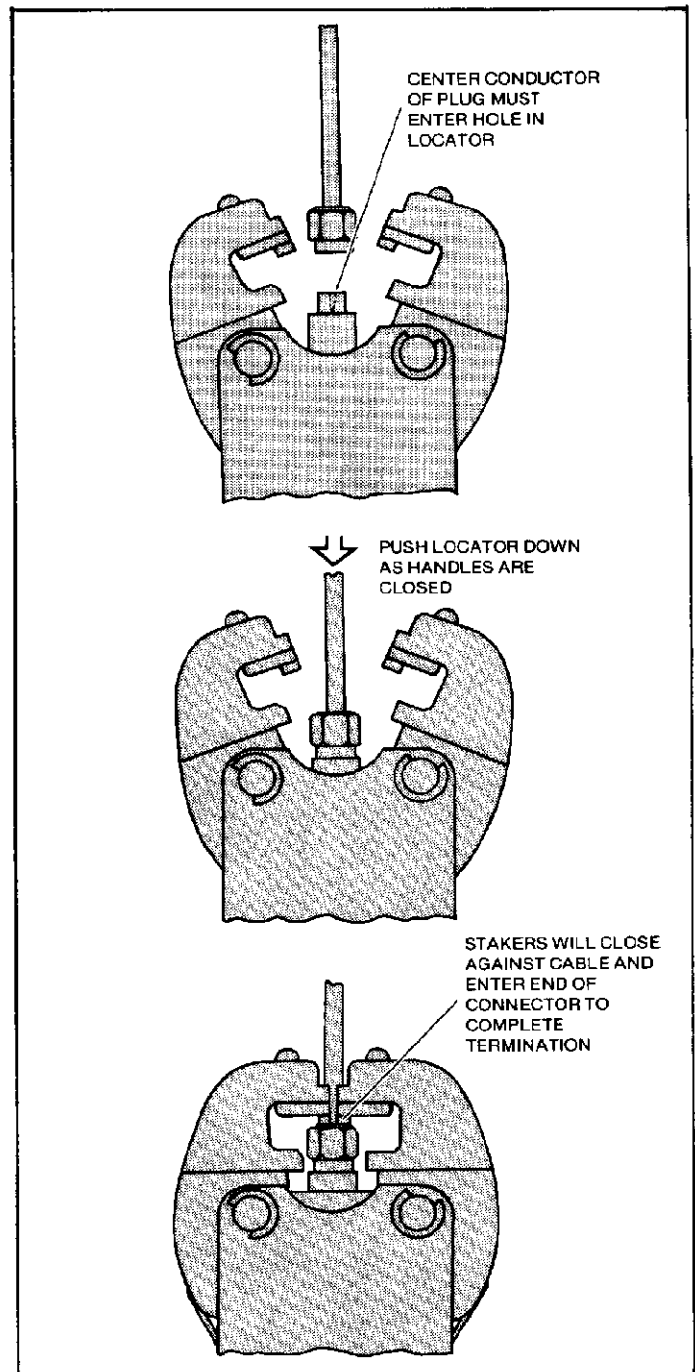


Figure 10

3.4 REPLACEMENT PARTS

It may be advantageous to stock certain replaceable parts to prevent loss of production time. Figure 11 lists the customer replaceable parts that can be purchased from AMP Incorporated, Harrisburg, Pa. 17105, or a wholly owned subsidiary of AMP Incorporated. Parts other than those listed in Figure 11

should be replaced by AMP Incorporated to insure proper CERTI-CRIMP ratchet adjustments. For tool repair service or CERTI-CRIMP ratchet adjustment, the tools should be returned to AMP Incorporated, Harrisburg, Pa., or a wholly owned subsidiary of AMP Incorporated.

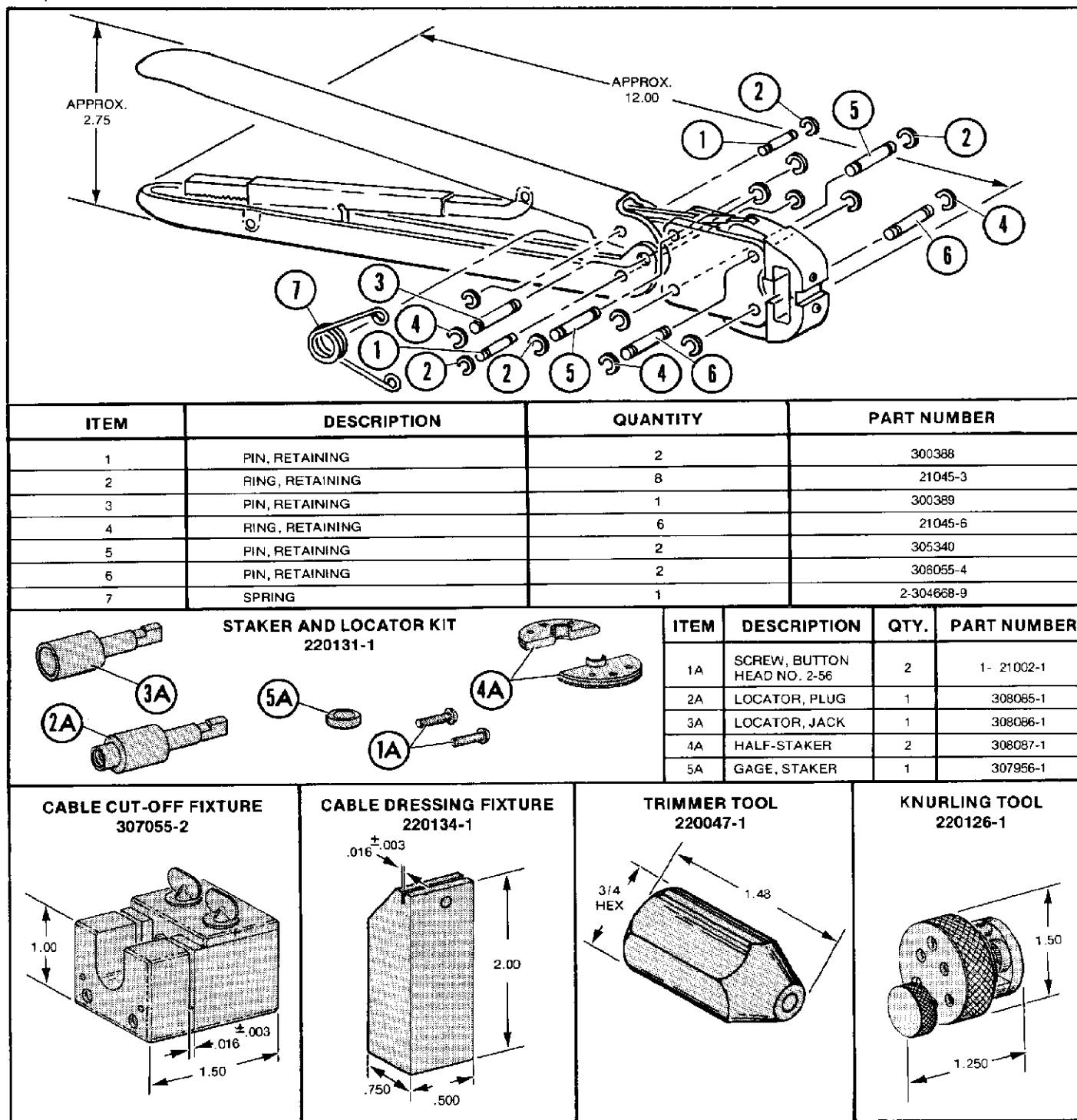


Figure 11

REL. DATE	REV. DATE	APPROVALS	
7-8-74	10-18-74	ENG. <i>Tom L. Lambaugh</i>	PUB. <i>Paul Felty</i>