1. INTRODUCTION

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

STANDARD COAXICON★ CONTACT CRIMPING TOOLS	
45634-2 MOD. G	45740-4 MOD. H
45639-4 MOD. K	69304-1 MOD. G

Basic instructions on the use of these tools are provided in section 2, "INSTRUCTIONS". Information, pertaining to the contacts such as cable stripping dimensions and assembly of component parts, is included on instructions packaged with the contacts.

Section 3 contains a "Maintenance and Inspection Procedure" which will enable you to establish and maintain a *tool certification program.*

2. INSTRUCTIONS

(a) Prepare cable and assemble contact on cable as described on contact instructions.

(b) Open Crimping Dies by closing Tool Handles until CERTI-CRIMP Ratchet, See Figure 1, releases. Note that once Ratchet is engaged, the Handles cannot be opened until they are fully closed.

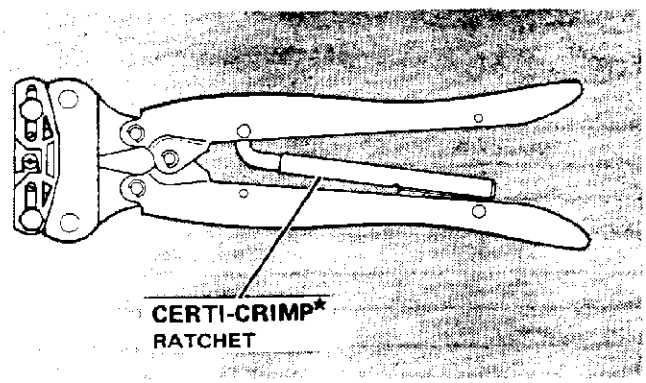


Fig. 1

(c) The Crimping tools have multiple sets of Dies, see Figure 2, to crimp the Braid Ferrule and center contact of Pin or Socket. Ferrule and center contact are crimped at the same time.

(d) Place the Assembly on Crimping Dies as shown.

(e) Make certain that center contact and braid Ferrule are resting firmly on Crimping dies. See Figure 2.

(f) Close Handles until CERTI-CRIMP Ratchet releases to complete crimp.

3. MAINTENANCE/INSPECTION PROCEDURE

AMP recommends that a maintenance- inspection program be performed periodically. This is necessary to assure that continued use of the tools will result in the same dependable and uniform terminations for which the tools were designed.

We recommend an initial frequency of inspection of once a month. This frequency may be adjusted to suit your requirements through experience. The frequency of an inspection is dependent upon:

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

With proper maintenance and inspection, these tools will give years of satisfactory service.

All A-MP 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 8.

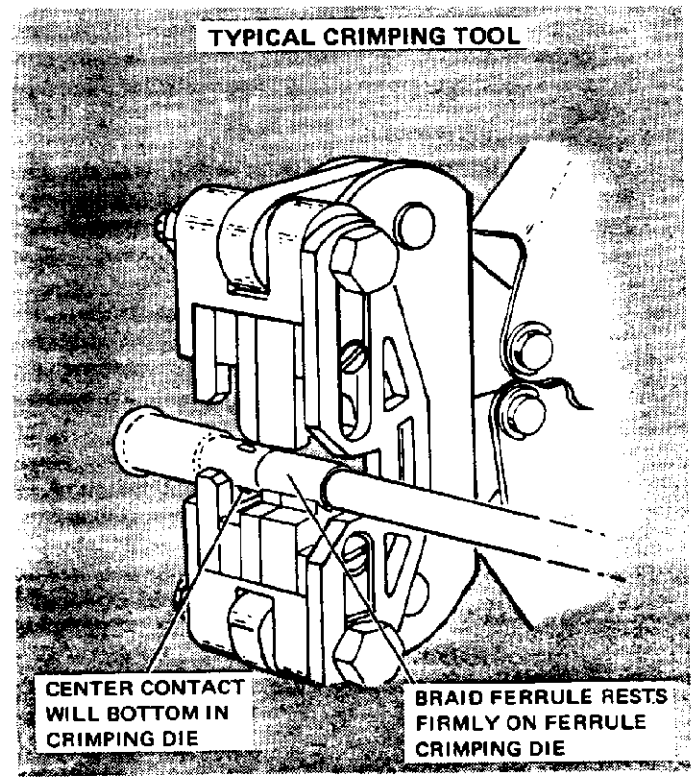


Fig. 2

3.1 CLEANING

The tool should be immersed (Handles partially closed) in a reliable commercial de-greasing compound to remove accumulated dirt, grease and foreign matter. Make certain the de-greasing compound does not attack paint or plastic materials. Remove remaining de-greasing compound with a lint free cloth. When de-greasing compounds are not available, tool 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

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 crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.

3.3 VISUAL INSPECTION

(a) Visually inspect the 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 8 for customer replaceable parts.

(b) Visually inspect the tool die crimping areas for flattened broken or chipped conditions. Although dies may gage within permissible limits, worn or broken crimping areas are objectionable and can affect the quality of the crimp.

3.4 DIE CLOSURE INSPECTION

Every A-MP hand tool is inspected and tested for proper die (jaw) closure before being shipped from the factory. An inspection should, however, be performed periodically to measure the tool die closure.

Tool die closure inspection is accomplished using GO NO-GO plug gages. AMP neither manufactures nor sells plug gages, however, suggested plug gage designs are shown in Figures 3 thru 6. The following procedure is recommended for measuring the tool die closures.

3.4.1 Center Contact Dies

(a) Remove traces of oil or dirt from tool crimping area and plug gage members.

(b) Close handles of tool until crimping jaws are bottomed. Do not apply additional pressure to tool handles.

(c) With crimping jaws bottomed, check the barrel crimp die closure using the proper plug gage. Hold gage in straight alignment with the tool and carefully try to insert, without forcing, the GO element, and then the NO-GO element. See Figure 7. The GO element must pass completely through the barrel crimp die closure.

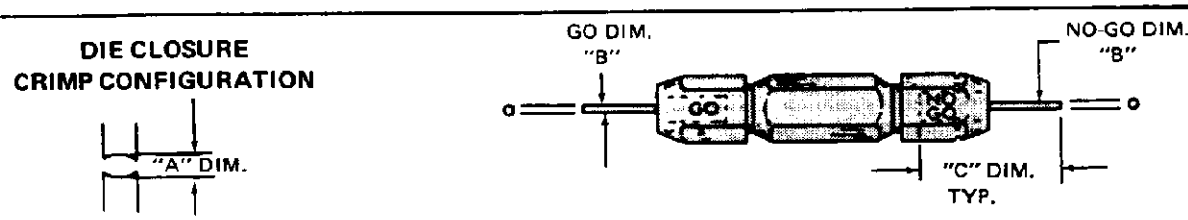
(d) The NO-GO element may enter partially, but must not pass completely through the length of the barrel crimp die closure.

(e) If wire barrel dies meet the GO NO-GO gage conditions, the dies may be considered dimensionally correct.

3.4.2 Braid and Insulation Dies

(a) Remove traces of oil or dirt from tool crimping area and plug gage member.

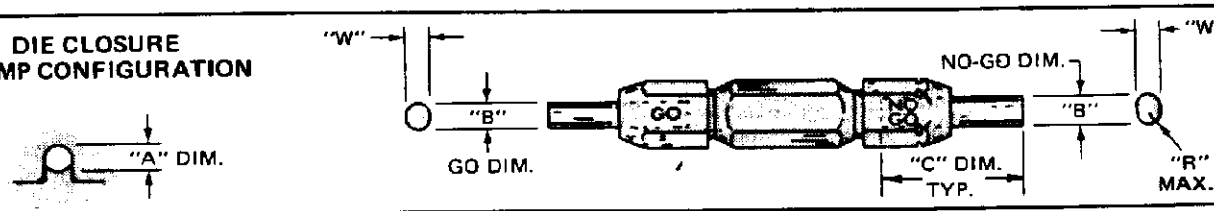
SUGGESTED PLUG GAGE DESIGN-WIRE BARREL DIES



TOOL NUMBER	DIE CLOSURE DIM'S. "A" †		GAGE MEMBER* DIM'S. "B" DIA.		DIM. "C"
	GO	NO-GO	GO	NO-GO	
45639-4 MOD. K	.0370	.0400	.0370-.0373	.0399-.0400	2.000
45740-4 MOD. H	0370	.0400	.0370-.0373	.0399-.0400	2.000
45634-2 MOD. G	.0370	.0400	.0370-.0373	.0399-.0400	2.000
69304-1 MOD. G	.0370	.0400	.0370-.0373	.0399-.0400	2.000

Fig. 3

SUGGESTED PLUG GAGE DESIGN-INSULATION DIES



TOOL NUMBER	DIE CLOSURE DIM'S "A" †		GAGE MEMBER* DIM'S.				
			DIM. B		"W" MAX	DIM. "C"	RADIUS "R" (MAX)
	GO	NO-GO	GO	NO-GO			
45639-4 MOD. K	.1480	.1530	.1480-.1483	.1529-.1530	.144	1.000	.072
45740-4 MOD. H	.2070	.2120	.2070-.2073	.2119-.2120	.192	1.000	.096
45634-2 MOD. G	.2520	.2570	.2520-.2523	.2569-.2570	.244	1.000	.122
69304-1 MOD. G	.2520	.2570	.2520-.2523	.2569-.2570	.250	1.000	.125

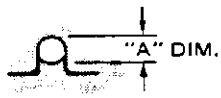
Fig. 4

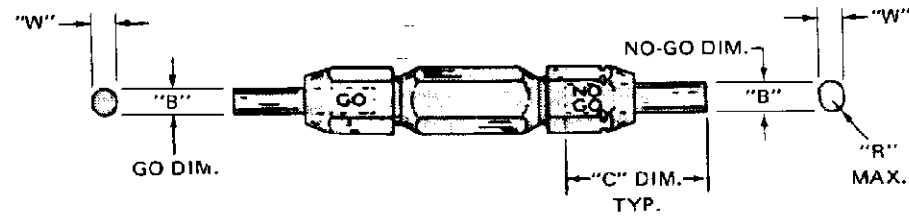
* Material - Tool Steel

† Die closure dimensions apply when jaws are bottomed, but not under pressure.

SUGGESTED PLUG GAGE DESIGN-BRAID DIES

DIE CLOSURE CRIMP CONFIGURATION



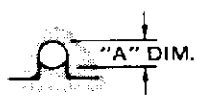


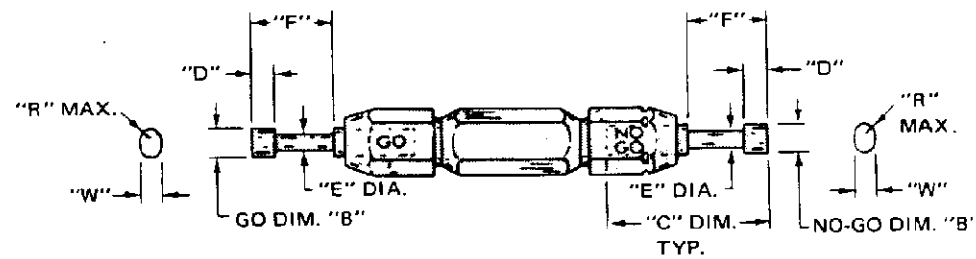
TOOL NUMBER	DIE CLOSURE DIM'S "A" †		GAGE MEMBER* DIM'S.				
			DIM. B		"W" MAX	DIM. "C"	RADIUS "R" (MAX)
	GO	NO-GO	GO	NO-GO			
45740-4 MOD. H	.1970	.2020	.1970-.1973	.2019-.2020	.188	1.000	.094
45634-2 MOD. G	.1970	.2020	.1970-.1973	.2019-.2020	.188	1.000	.094
69304-1 MOD. G	.2110	.2160	.2110-.2113	.2159-.2160	.110	1.000	.105

Fig. 5

SUGGESTED PLUG GAGE DESIGN-BRAID DIES

DIE CLOSURE CRIMP CONFIGURATION

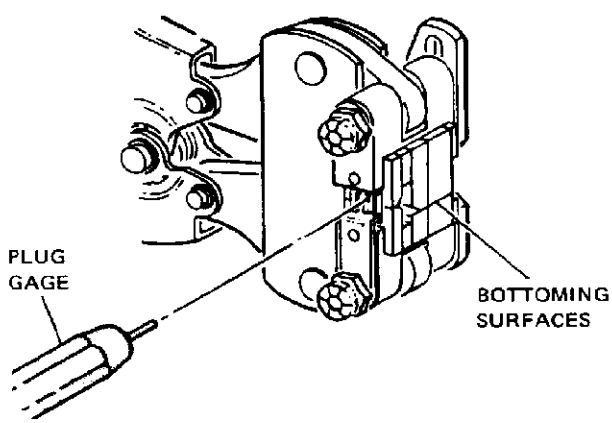


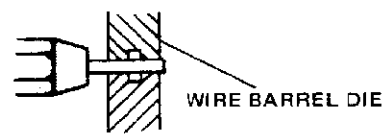


TOOL NUMBER	DIE CLOSURE DIM'S "A"†		GAGE MEMBER* DIM'S.							
			DIM "F"	DIM "D"	DIM. "B"		"E" DIA	"W" MAX	DIM "C"	RADIUS "R" Max.
	GO	NO-GO			GO	NO-GO				
45639-4 Mod K	.1920	.1970	.500	.093	.1920-.1923	.1969-.1970	.125	.176	1.000	.088

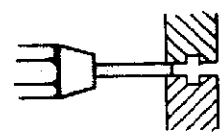
Fig. 6

INSPECTION OF WIRE BARREL CRIMPING DIES (CENTER CONTACT)





"GO" gage must pass completely through the crimping surface.



NO-GO gage may enter partially, but must not pass completely through the length of the crimping surface.

Fig. 7

(b) Close handles of tool until crimping jaws are bottomed. Do not apply additional pressure to tool handles.

(c) With crimping jaws bottomed, check the braid and insulation crimp die closure using the proper plug gage. Hold gage in straight alignment with the tool and caretully try to insert, without forcing, the GO element, and then the NO-GO element. See Figure 8, Detail A. The GO element must pass completely through the crimp die closure.

(d) The NO-GO element may enter partially, but must not pass completely through the crimp die closure.

(e) Tools containing braid crimp dies with a larger O.D. than the insulation crimp dies require a gage of special design. See Figure 8, Detail B.

(f) To use this gage, open crimping dies and locate end of gage member in the area between center contact dies and braid crimp dies. Shank of member will be located in the insulation die closure. See Figure 8, detail B.

(g) Close handles of tool and proceed as described in steps (b) thru (d) by pulling gage into braid crimp die closure. Insulation die closure is inspected in the same manner as shown in Figure 8, Detail A.

(h) If both braid and insulation dies meet the GO NO-GO gage conditions, the tool may be considered dimensionally correct.

(i) If you find that the tool crimping dies do not conform with the GO NO-GO gage conditions, contact your local AMP field representative.

3.5 CERTI-CRIMP RATCHET INSPECTION

The CERTI-CRIMP ratchet feature on A-MP hand tools should be checked to make certain that the ratchet does not release prematurely allowing dies to open before jaws have fully bottomed. To check ratchet feature:

(a) Thoroughly clean bottoming surfaces of jaws.

(b) Make a test crimp. When this crimp is made, squeeze handles until the ratchet is free, however, DO NOT RELAX PRESSURE ON TOOL HANDLES.

(c) If a .001 or smaller shim can be inserted between the bottoming surfaces of the jaws, or if there is no opening whatever, the CERTI-CRIMP ratchet is satisfactory.

(d) If the clearance between the bottoming surfaces of the jaws is greater than .001, the jaws are considered as not bottoming. Contact your local AMP Field representative.

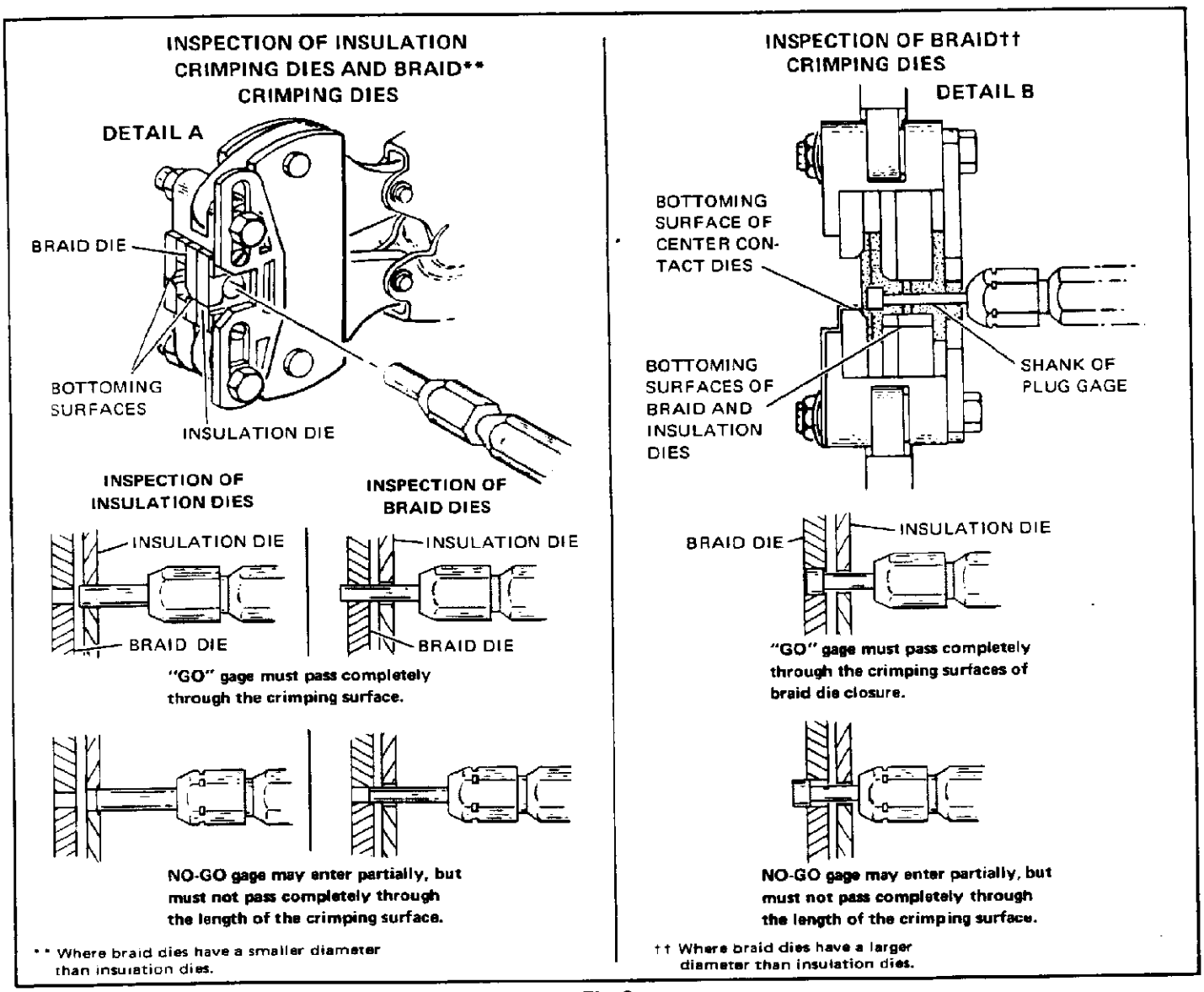
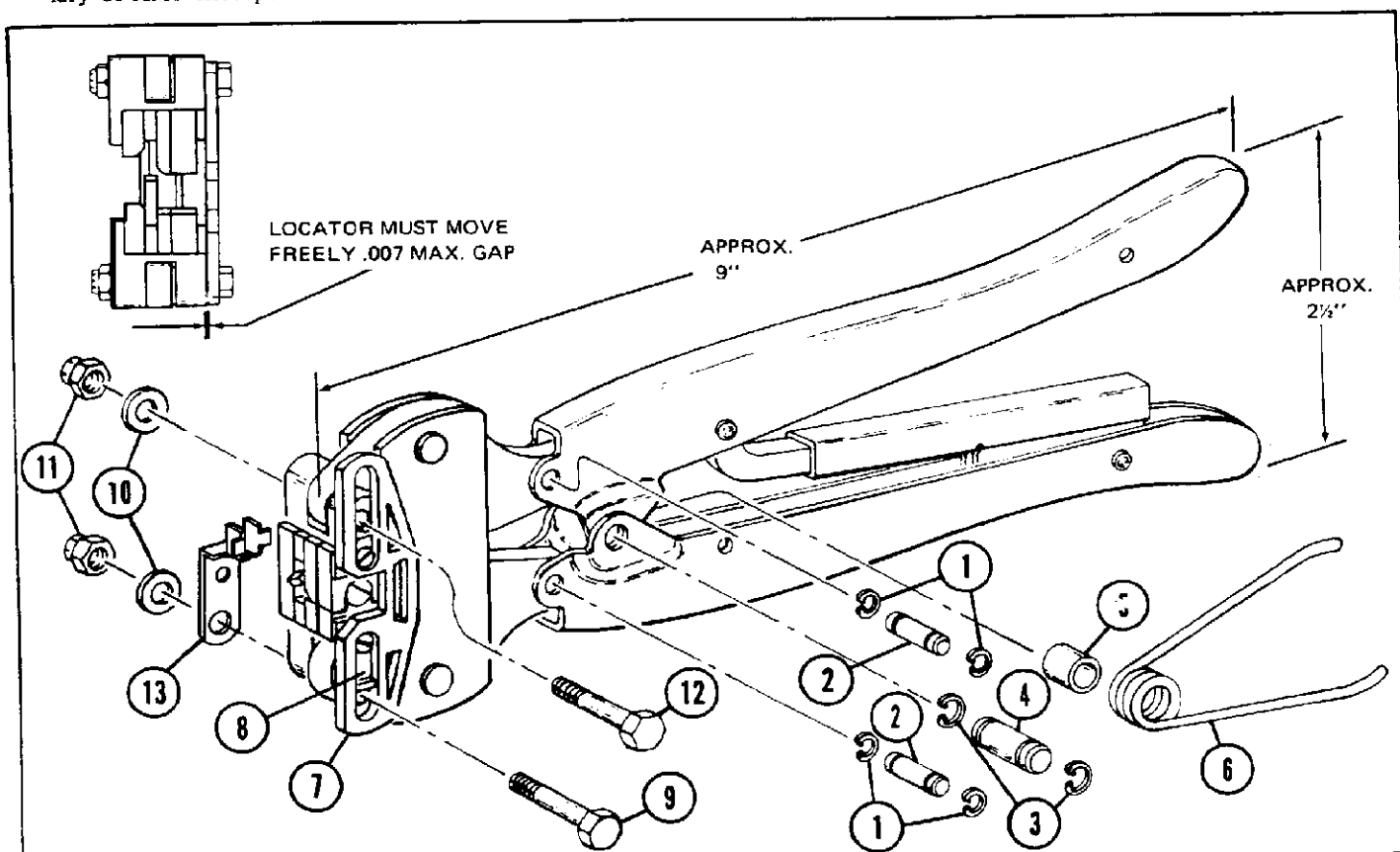


Fig. 8

3.6 REPLACEMENT PARTS

It may be advantageous to stock certain replaceable parts to prevent loss of production time. Figure 9 lists the customer replaceable parts that can be purchased from AMP Incorporated, Harrisburg, Pa., or a wholly owned subsidiary of AMP Incorporated. Parts other than those listed in Figure 9 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.



ITEM	PARTS DESCRIPTION	TOOL NUMBERS		QTY. PARTS
		45639-4 MOD. K 45740-4 MOD. H	45634-2 MOD. G 69304-1 MOD. G	
1	RING, RETAINING	21045-3	21045-3	4
2	PIN, RETAINING	38783	38783	2
3	RING, RETAINING	21045-6	21045-6	2
4	PIN, RETAINING	300449	300449	1
5	COLLAR	39366-1	39366-1	1
6	SPRING	4-304668-1	4-304668-1	1
7	LOCATOR	307089-1	307089-1	1
8	SPACER	307339-1	307339-1	2
9	SCREW, SHOULDER	307087-6	307087-7	1
10	DISC SPRING	306067	306067	2
11	SELF-LOCKING NUT	21022-2	21022-2	2
12	SCREW, SHOULDER	307087-5	307087-4	1
13	GUIDE	307366-2	307366-2	1

Fig. 9

REL. DATE	REV. DATE	APPROVALS	
4-21-71		ENG. W.L. Lekemacher	PUB Paul Felty