



1. INTRODUCTION

This instruction sheet provides "Instructions" on product application and a "Maintenance and Inspection Procedure" for:

SOLISTRAND* TERMINAL AND SPLICE CRIMPING JAWS (Used in Pneumatic Tool No. 68068, 68068-1 & 68068-3)

68135 68136 68232-1

These crimping jaws are used to crimp:
•SOLISTRAND terminals and splices on stranded or solid copper wire sizes 16 thru 6.

Basic instructions on the use of these jaws, wire preparation, etc. are provided in Section 2, "Instructions". Section 3 features a terminal or splice "Crimp Inspection" procedure. Section 4 contains a "Maintenance and Inspection Procedure" which will enable you to establish and maintain a tool certification program.

Crimping jaws are coated with preservative to prevent rust and corrosion. Wipe this preservative from jaws, particularly from crimping surfaces.

For further instructions relative to the 68068, 68068-1, and 68068-3 tools, refer to instructions packaged with the tools.

2. INSTRUCTIONS

WARNING: AVOID PERSONAL INJURY. KEEP FINGERS CLEAR OF CRIMPING JAWS WHEN ACTIVATING TOOL.

2.1 INSTALL CRIMPING JAWS

- (a) Select the proper terminal or splice wire range and crimping jaw combination for the wire size being used. See Figure 1.
(b) Inspect the die closure surfaces, bottoming surfaces and cam rollers for deposits of dirt or other foreign particles and wipe with a clean cloth. See Figure 2. Relubricate cam rollers as instructed in paragraph 4.3.

NOTE: Be sure cam rollers are not binding.

- (c) DISCONNECT TOOL FROM AIR SUPPLY.
(d) Pull one cowling pin and remove retaining pin from lower housing cover. Cover will swing open. See Figure 2.
(e) Remove pivot pins as shown in Figure 2.
(f) Orient jaws so that nest is on bottom and indenter is on top as shown in Figure 2.
(g) Position crimping jaws in tool housing ensuring that cam rollers are properly mated with cam, and pivot pin holes of jaws and tool housing are aligned.
(h) Insert pivot pins.
(i) Pivot lower housing cover into closed position and replace retaining pin and cowling pin.
(j) Connect air supply (80 to 100 PSI) and tool is ready for use.

All illustrations and information contained in this instruction sheet are based on the latest product information available at the time of publication.

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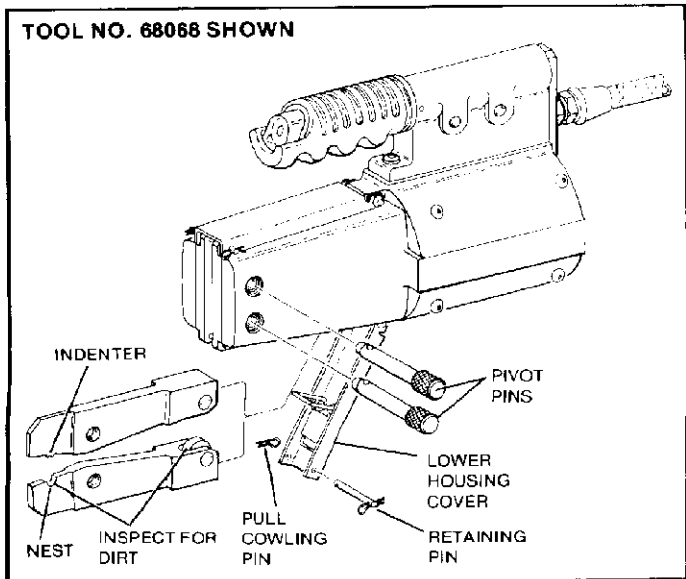


Figure 2

Figure 1: CRIMPING JAWS, TERMINAL, BUTT SPLICE, PARALLEL SPLICES. Includes diagrams of wire crimping and a table of wire strip lengths.

JAW ASS'Y. NUMBER	WIRE RANGE	CMA RANGE	WIRE STRIP LENGTH					
			TERMINALS		BUTT SPLICES		PARALLEL SPLICES	
			Min.	Max.	Min.	Max.	Min.	Max.
68135	8	13,100 TO 20,800	21/64	23/64	13/32	7/16	13/32	7/16
68136	6	20,800 TO 33,100	25/64	27/64	15/32	1/2	7/16	15/32
68232-1	16-14	2,050 TO 5,180	11/64	13/64	1/4	9/32	5/16	11/32
	12-10	5,180 TO 13,100	1/4	9/32	1/4	9/32	5/16	11/32

Figure 1

2.2 REMOVE CRIMPING JAWS

- DISCONNECT TOOL FROM AIR SUPPLY.
- Pull cowling pin and remove retaining pin from lower housing cover. Cover will swing open.
- Remove pivot pins and remove crimping jaws.

2.3 WIRE PREPARATION

- Determine correct terminal or splice loading by referring to CMA range listed in Figure 1. *Conductors must always be within CMA limits of wire barrel.*
- Strip wire to dimension indicated in Figure 1. Do not nick or cut conductor strands.

2.4 CRIMPING PROCEDURE

WARNING: AVOID PERSONAL INJURY. WHEN OPERATING AIR TOOL, EXERCISE CAUTION WHILE HOLDING TERMINALS, SPLICES OR WIRE NEAR CRIMPING AREA.

- Ensure that the wire size or range stamped on the terminal or splice corresponds with the wire size or range stamped on the crimping jaws. See Figure 1.
- Place terminal or splice in crimping jaws as shown in Figure 3 A, B or C. Position the butt splice so that the window of splice faces upper jaw. See Figure 3B. **IF TOOL HAS "HOLD" FEATURE:**
 - Activate tool to move the jaws into "hold" position.
 - Insert stripped wire into wire barrel of terminal or parallel splice until end of wire is flush with or extended slightly beyond end of wire barrel. Insert wire into wire barrel of butt splice until it bottoms against splice wire stop. See Figure 3B.
 - Activate tool to complete the crimp.
 - To crimp other half of butt splice, remove it and reposition uncrimped half in crimping jaws and follow same procedure used to crimp first half of splice.
- IF TOOL DOES NOT HAVE "HOLD" FEATURE:**
 - Insert wire into wire barrel of terminal or parallel splice until end of wire is flush with or extended slightly beyond end of wire barrel. Insert wire into wire barrel of butt splice until it bottoms against splice wire stop. See Figure 3B.
 - Position terminal or splice in crimping jaws as shown in Figure 3 A, B or C. Be sure window of butt splice faces upper jaw as shown in Figure 3B.
 - Activate the tool to complete the crimp.
 - To crimp other half of butt splice, remove it and reposition uncrimped half in crimping jaws and follow same procedure used to crimp first half of splice.
- Refer to Section 3 and Figure 4 for crimp inspection.

3. CRIMP INSPECTION

Inspect crimped terminals and splices by checking the features described in Figure 4. Use only the terminals and splices that meet the conditions shown in the "ACCEPT" column. "REJECT" terminals and splices can be avoided through careful use of instructions in Section 2, and by performing regular crimping jaw maintenance as instructed in Section 4.

4. MAINTENANCE/INSPECTION PROCEDURE

AMP recommends that a maintenance/inspection

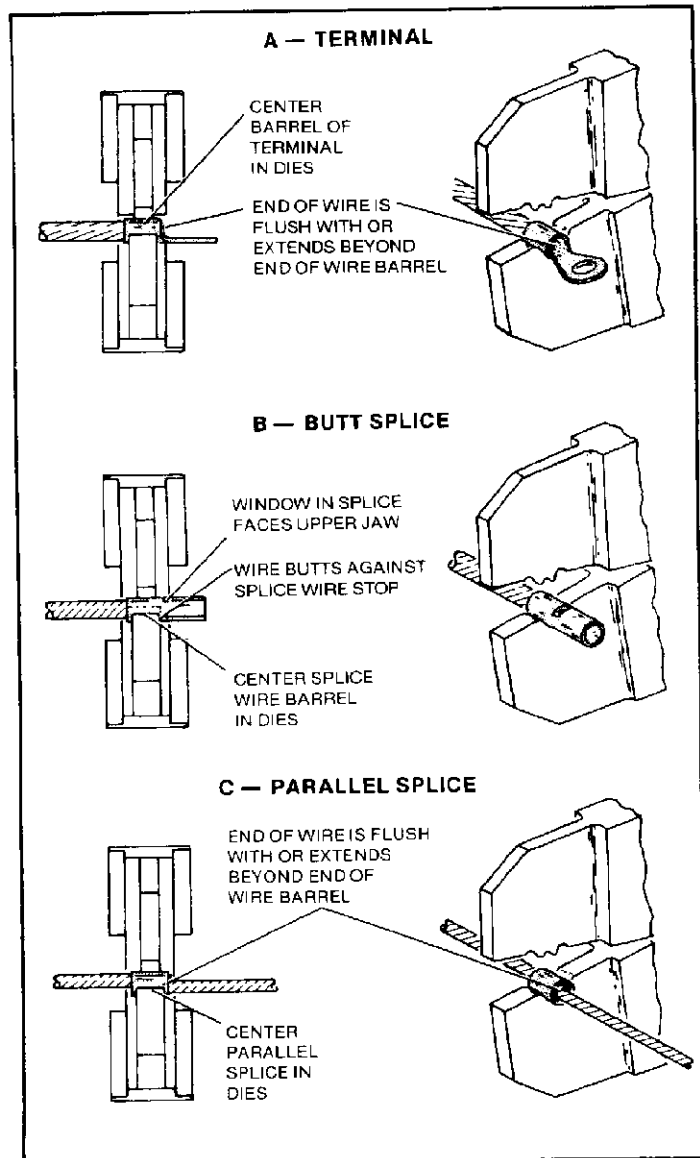


Figure 3

program be performed periodically to ensure dependable and uniform terminations. Crimping jaws should be inspected at least once a month. Frequency of inspection may be adjusted to suit your requirements through experience. Frequency of inspection is dependent upon:

- The care, amount of use, and handling of the jaws.
- The type and size of the products crimped.
- The degree of operator skill.
- The presence of abnormal amounts of dust and dirt.
- Your own established standards.

Since there is a possibility of damage in shipment, new jaws should be inspected in accordance with the following instructions when received in your plant.

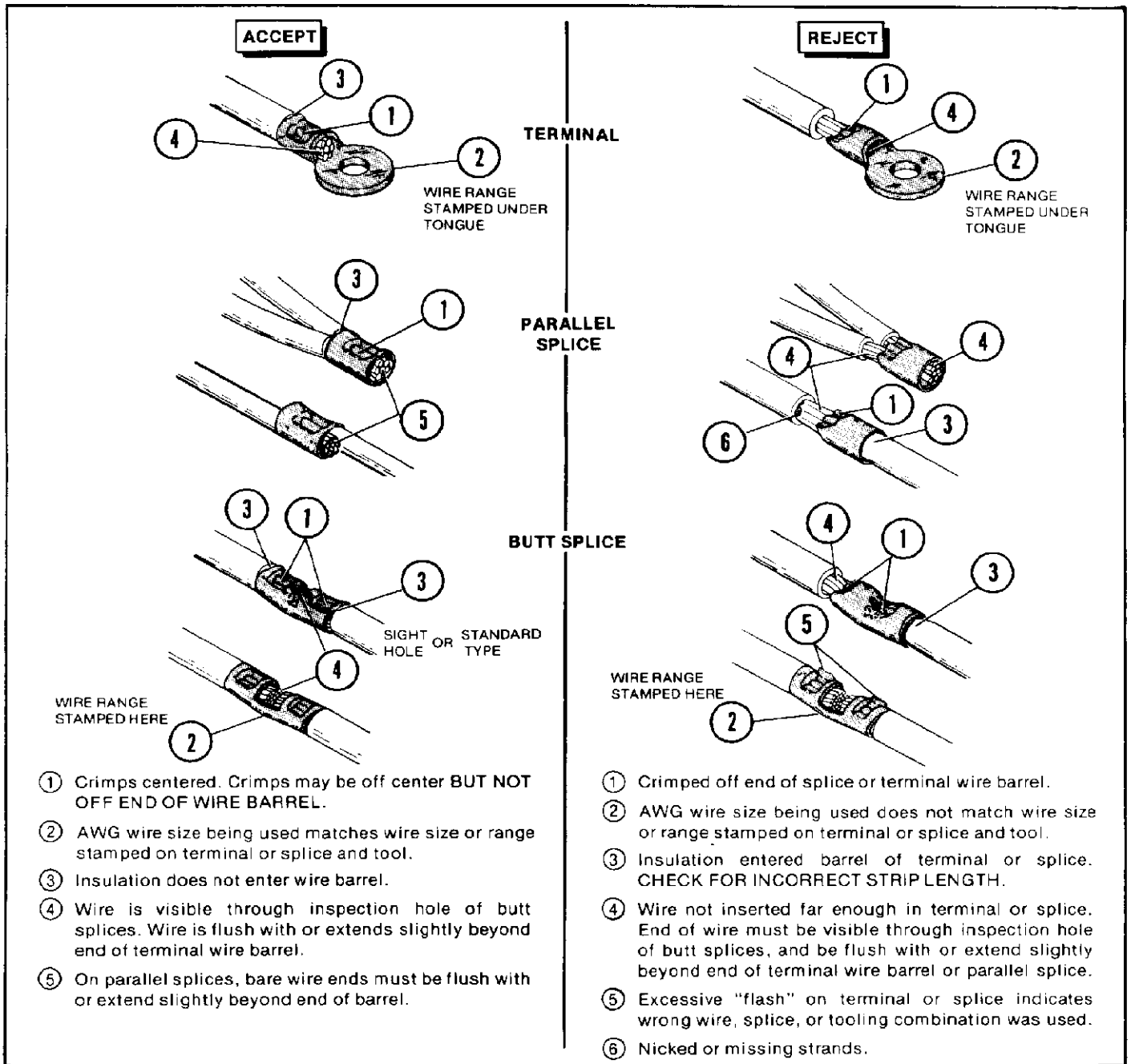


Figure 4

4.1 CLEANING

Do not allow deposits of dirt, grease and foreign matter to accumulate on the jaw bottoming surfaces and die closure surfaces. These deposits may cause excessive wear, thereby affecting the quality of the crimp.

The crimping jaws should be immersed in degreasing compound to remove accumulated dirt, grease and foreign matter. Remove remaining degreasing compound with a lint free cloth. When degreasing compounds are not available, jaws may be wiped clean with a lint free cloth. Relubricate jaws as instructed in paragraph 4.3 before placing them back in service.

4.2 VISUAL INSPECTION

- (a) Inspect the cam rollers for binding and worn or pitted conditions.
- (b) Inspect the pivot pin holes for excessive wear.
- (c) Inspect the die closure surfaces of the jaws for worn, pitted or chipped conditions. Although die closures may gage within permissible limits, worn or damaged die closure surfaces are objectionable and can affect the quality of the crimp.
- (d) Examples of possible worn or damaged jaw or cam roller surfaces are shown in Figure 5. If jaws are defective, refer to Figure 8 for customer replacement part numbers.

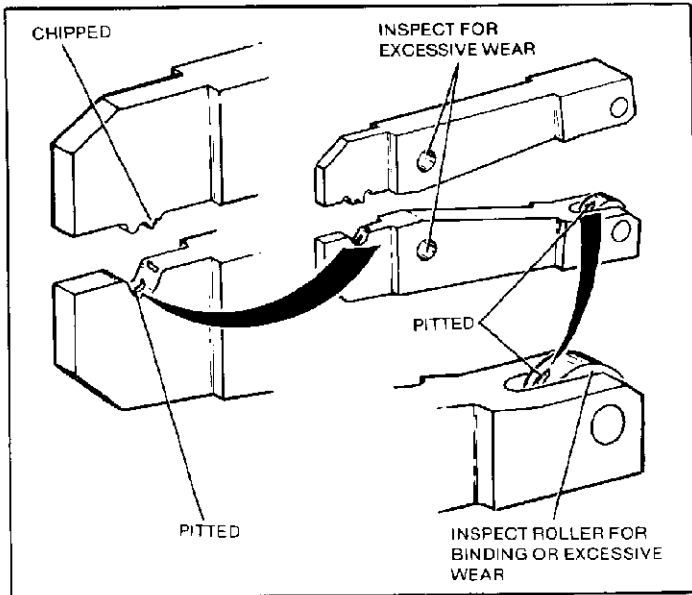


Figure 5

4.3 LUBRICATION

Lubricate cam rollers, pivot pins and pivot pin holes with CMD Anti-Scouring Extreme Pressure Lubricant No. 3¹ or equivalent.

Lubricate cam roller pins with SAE No. 20 non-detergent motor oil.

Lubricate as follows:

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

Wipe excess lubricant from jaws, particularly from crimping surfaces. Lubricant transferred from the crimping surfaces onto certain terminations may

affect the electrical characteristics of an application.

4.4 DIE CLOSURE INSPECTION

All crimping jaws are inspected and tested for proper die closure before packaging. An inspection should be performed periodically to check the die closure for excessive wear. The die closure inspection is accomplished using the GO NO-GO plug gages. AMP neither manufactures nor sells plug gages. A suggested plug gage design and the GO NO-GO dimensions of the plug gage members are listed in Figure 6. The following procedure is recommended for inspecting the die closures.

- (a) Clean oil or dirt from die closure surfaces, bottoming surfaces, and plug gage members.
- (b) Mate the crimping jaws so that they are bottomed but not under pressure.
- (c) With crimping jaws bottomed, inspect the die closure using the proper plug gage. Hold gage in straight alignment with the die closure and carefully try to insert, without forcing, the GO member. See Figure 7. The GO member must pass completely through the die closure.
- (d) Try to insert the NO-GO member. The NO-GO member may enter partially, but must not pass completely through the die closure.

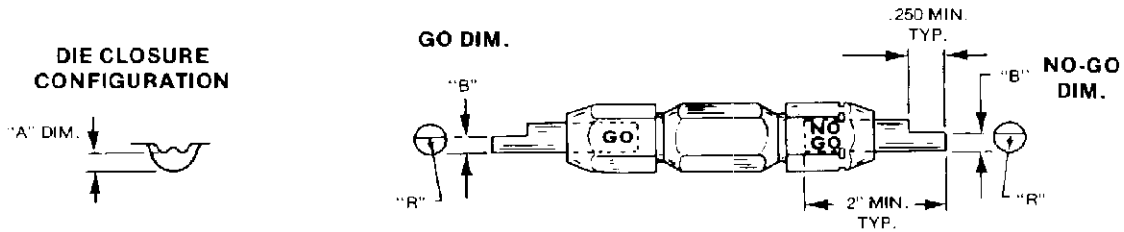
If the die closure meets the GO NO-GO gage conditions, the jaws may be considered dimensionally correct.

If you find that the die closure does not conform with the GO NO-GO gage conditions, contact your local AMP field representative.

4.5 REPLACEMENT PARTS

Refer to Figure 8 for crimping jaw replacement part numbers. Replacement crimping jaw parts can be purchased from AMP Incorporated, Harrisburg, Pa. 17105, or a wholly owned subsidiary of AMP Incorporated.

SUGGESTED PLUG GAGE DESIGN



TOOL NUMBER	WIRE SIZE OR RANGE	DIE CLOSURE DIM'S. "A" †		GAGE MEMBER ‡ DIM'S. "B"		RADIUS "R"
		GO	NO-GO	GO	NO-GO	
68135	8	.1000	.1060	.1000-.1003	.1059-.1060	.140
68136	6	.1240	.1300	.1240-.1243	.1299-.1300	.176
68232-1	16-14	.0540	.0600	.0540-.0543	.0599-.0600	.078
	12-10	.0760	.0820	.0760-.0763	.0819-.0820	.109

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

‡ Material — Tool Steel

*Chicago Mfg. & Distributing, Chicago, Illinois 60609

Figure 6

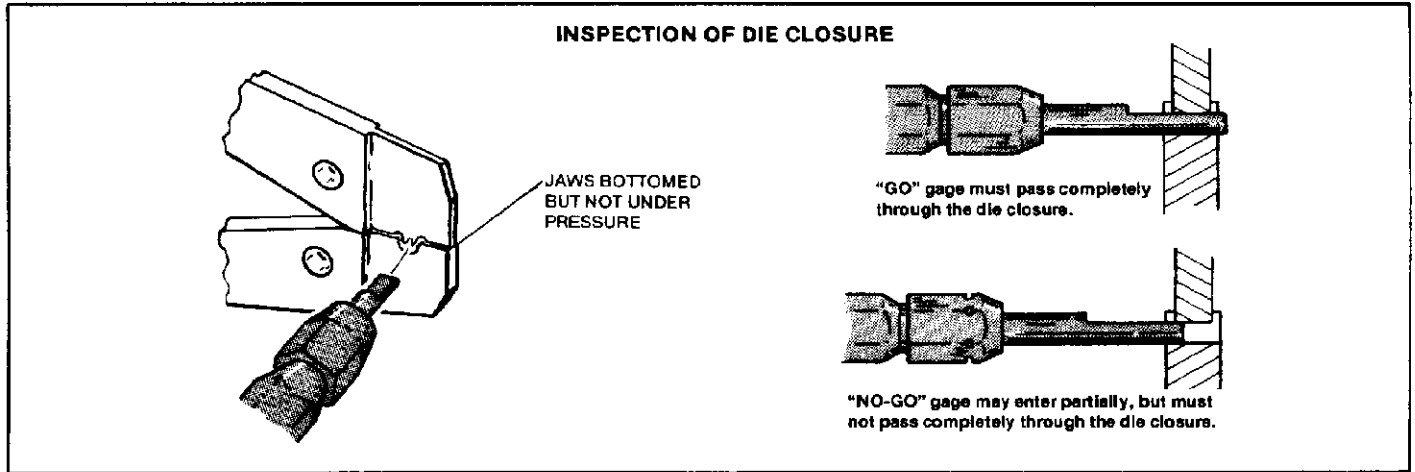
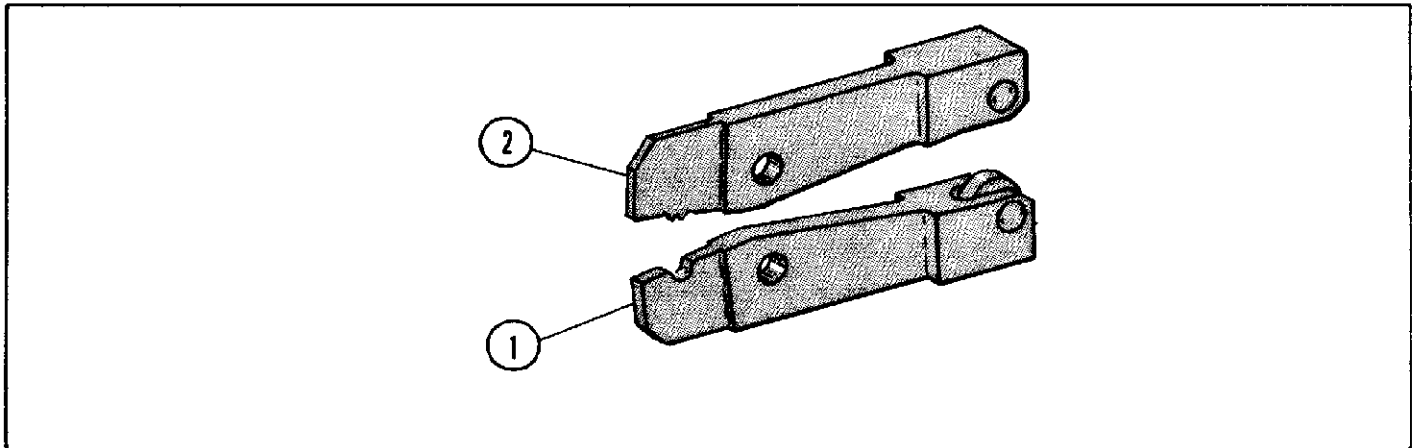


Figure 7



ITEM NO.	DESCRIPTION	QTY.	JAW SET NUMBER AND COMPONENT PART NUMBER		
			68135	68136	68232-1
1	NEST	1	307843-5	307843-6	307843-9
2	INDENTER	1	307844-5	307844-6	307844-9

Figure 8

REL. DATE	REV. DATE	APPROVALS	
12-11-72	2-24-75	ENG. <i>James J. Bell</i>	PUB. <i>Paul Felty</i>