

INCH-POUND

MIL-DTL-83507/11A

25 July 2025

SUPERSEDING

MIL-T-83507/11(AS)

16 March 1978

DETAIL SPECIFICATION

Tool Kit, Electrical Connectors, Contacts, and Connector and Cable Accessories, Tool Kit
for SAE-AS22520/1 Crimping Tool and Turrets

Inactive for new design.

This specification is approved for use by all Departments and Agencies of the
Department of Defense.

The complete requirements for procuring the tool kit described herein shall consist of this
document and the latest issue of Specification MIL-DTL-83507.

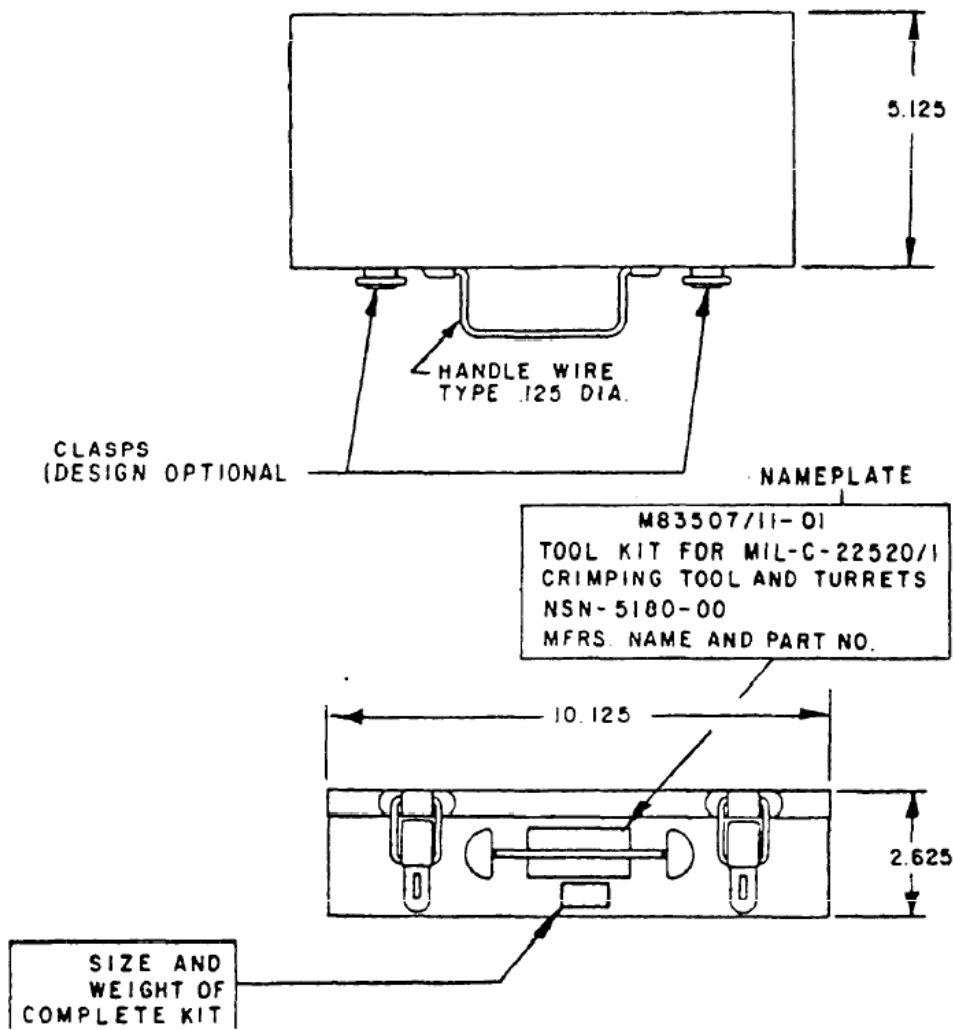


FIGURE 1 Metal case. Tool kit for SAE-AS22520/1 crimping tool and turrets.

NOTES:

1. Part number M83507/11-01 includes case and tools.
2. Part number M83507/11-02 for case only (tools not included).

Parts List:

- (1) M83507/11-02 - Tool case assembly.
- (1) M22520/1-01 - Crimp tool frame.
- (1) M22520/1-02 - Turret head assembly.
- (1) M22520/1-03 - Turret head assembly.
- (1) M22520/3-1 - In-service inspection gage.
- (1) 9/64 hex wrench.
- (1 set) - Contents chart, instruction sheets and tool selection chart.

FIGURE 1 Metal case. Tool kit for SAE-AS22520/1 crimping tool and turrets. – Continued

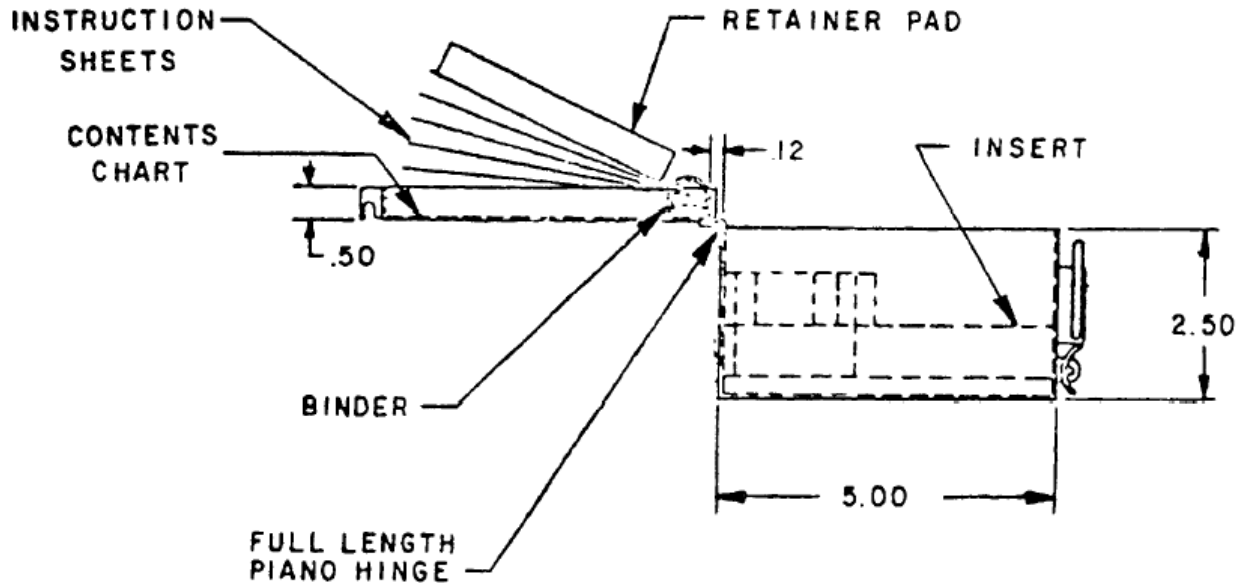


FIGURE 2 Metal case. Tool case assembly.

Instruction sheets are as follows:

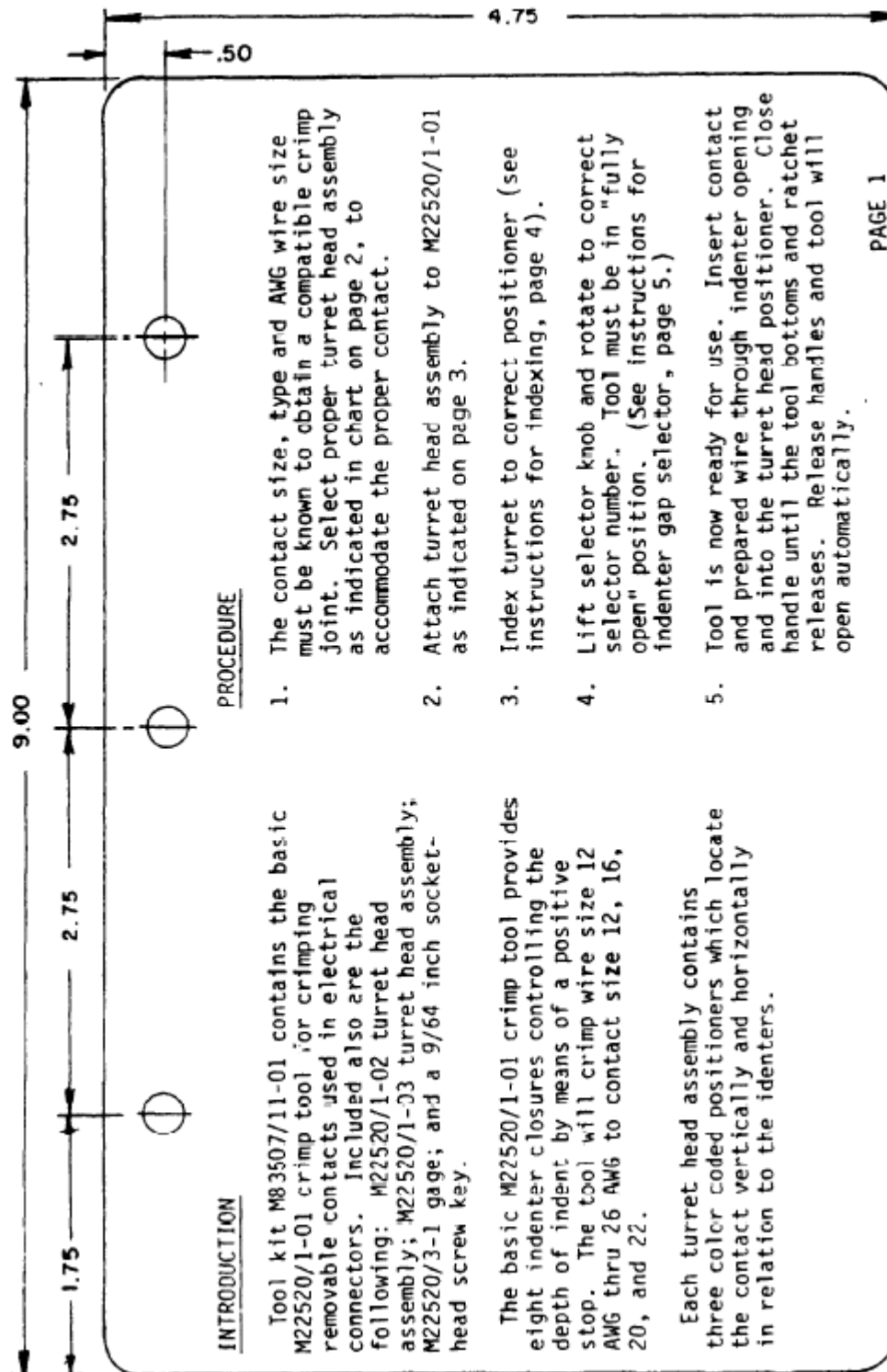


FIGURE 6

FIGURE 3 Metal case. Insert.

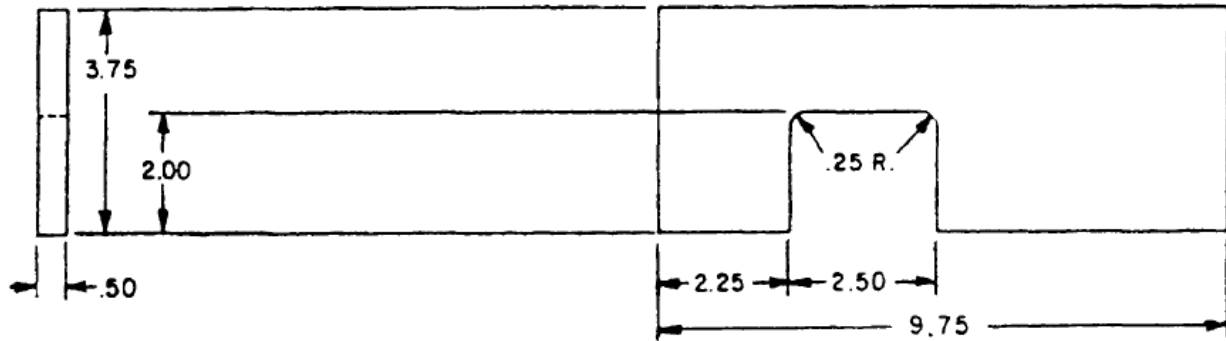


FIGURE 4 Metal case. Retainer.

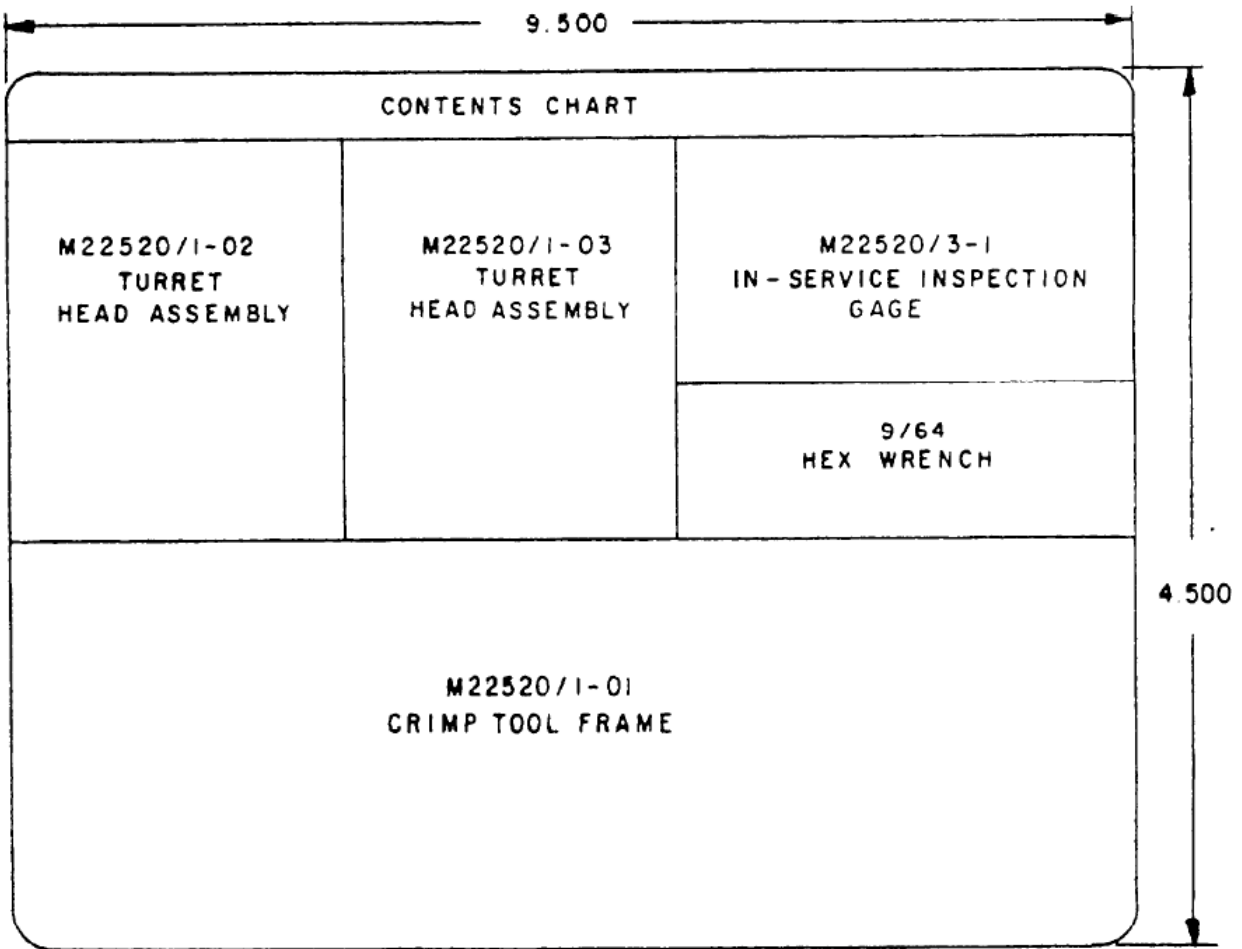


FIGURE 5 Metal case. Contents chart.

Instruction sheets are as follows:

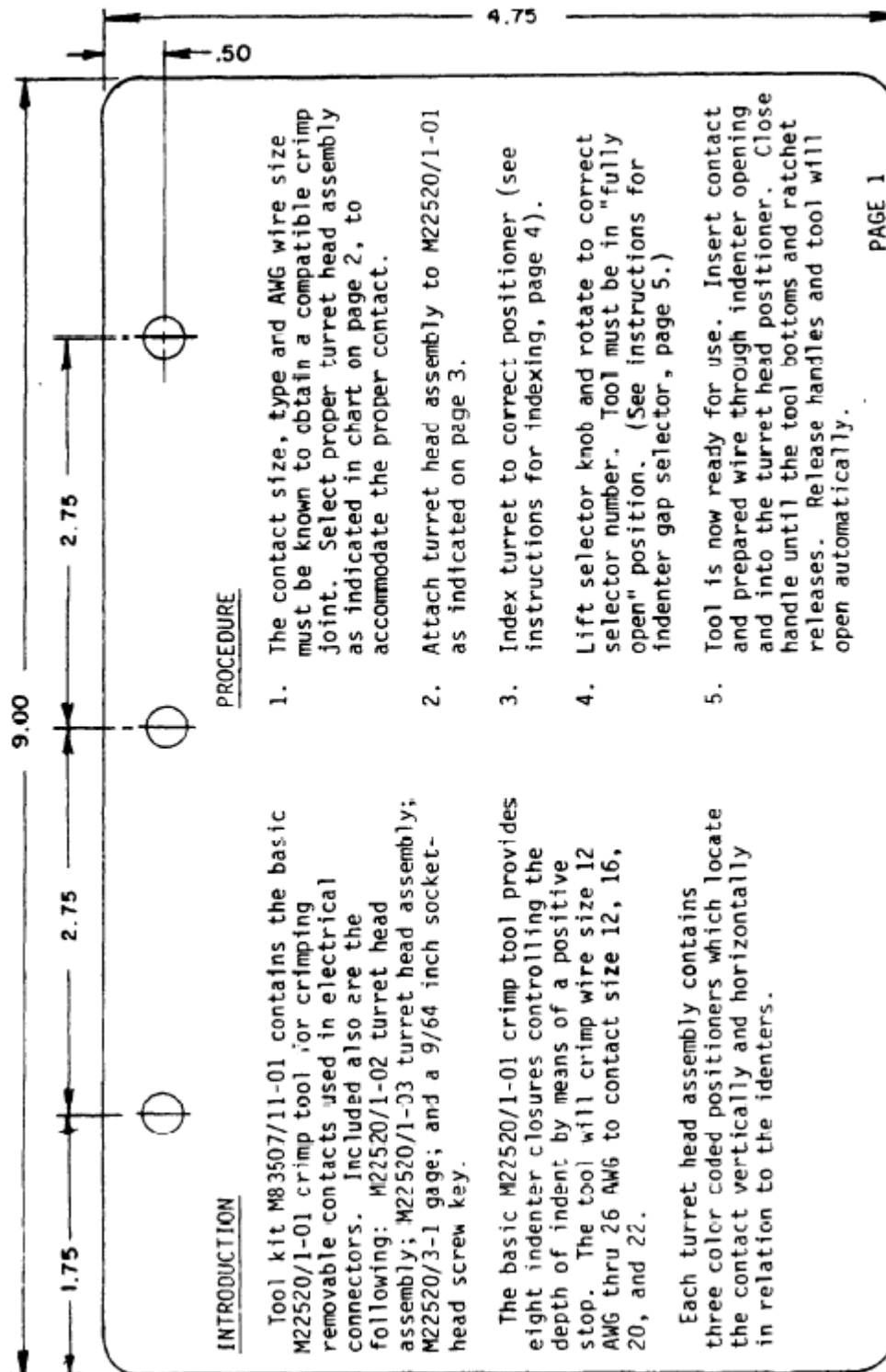


FIGURE 6 Metal case. Instruction sheet.

TURRET HEAD PART NO.	CONTACTS ACCOMMODATED	POSITIONER COLOR	CONTACT SIZE	26	24	22	20	18	16	14	12	WIRE SIZE
M22520/1-02	MS3162, MS3163 MS3192, MS3193 MS18134, MS18136 MS90453, MS90454 MS39029/1, /2, /3, /4, /5, /9, /10, /11, /12 MS3723/29, /30, /33, /34 MS24254, MS24255	RED	20-20	1	2	3	4					
		BLUE	16-22	4	5	6						
			16-20	1	2	3	4	5	6			SEL. NO.
		YELLOW	16-16				4	5	6	7	8	
M22520/1-03	MS17803, MS17804	RED	20-20		4	5	6					
			16-20		4	5	6					
	MS17807, MS17808	BLUE	16-16				6	7	7			
		BLACK	22	2	3	4						
	OS12814 BASIC TYPE P & M		16				4	5	6			SEL. NO.
	M21097/9-01	GREEN	20	1	2	3	4					

FIGURE 7 Metal case. Instruction sheet.

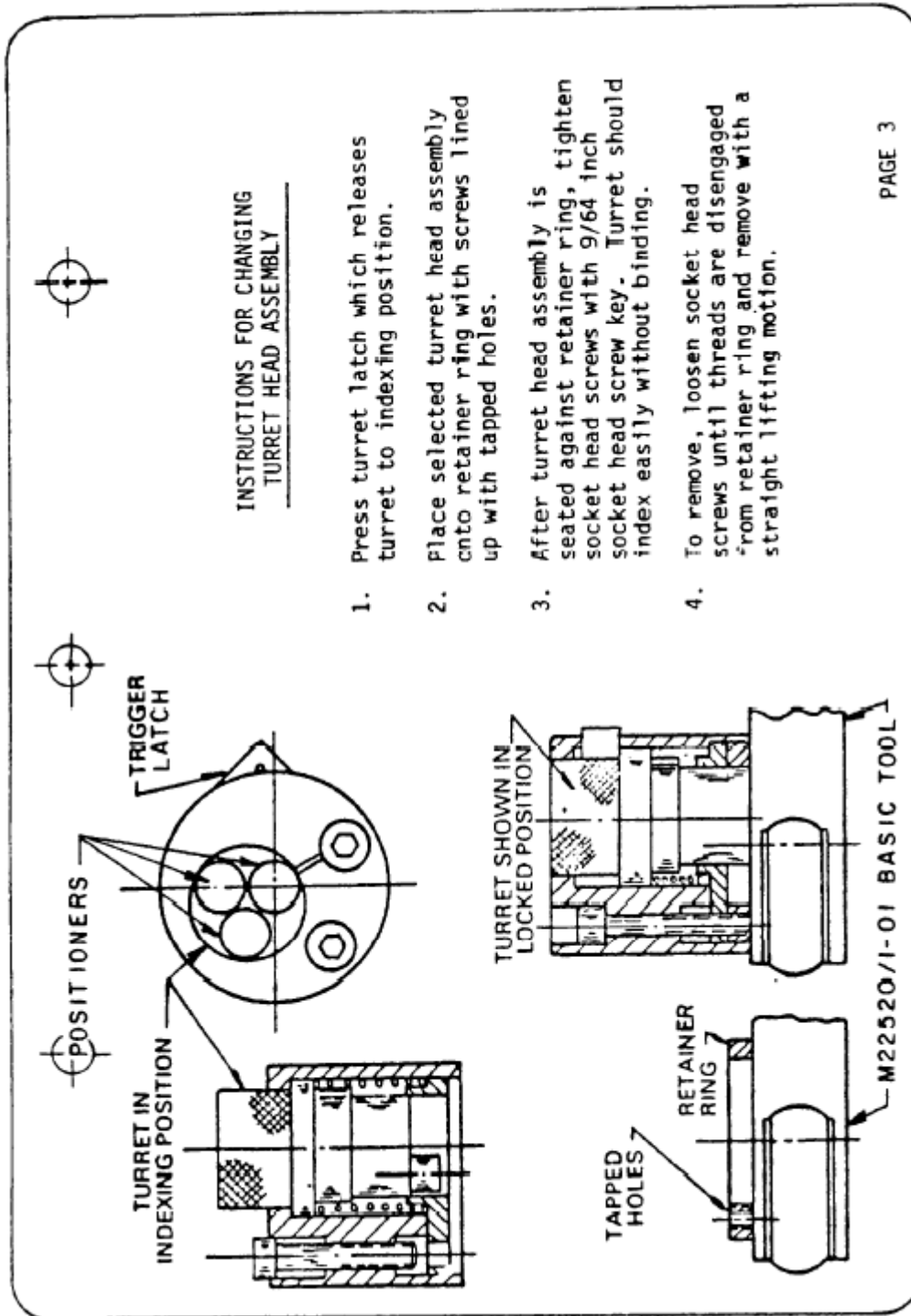


FIGURE 8 Metal case. Instruction sheet.

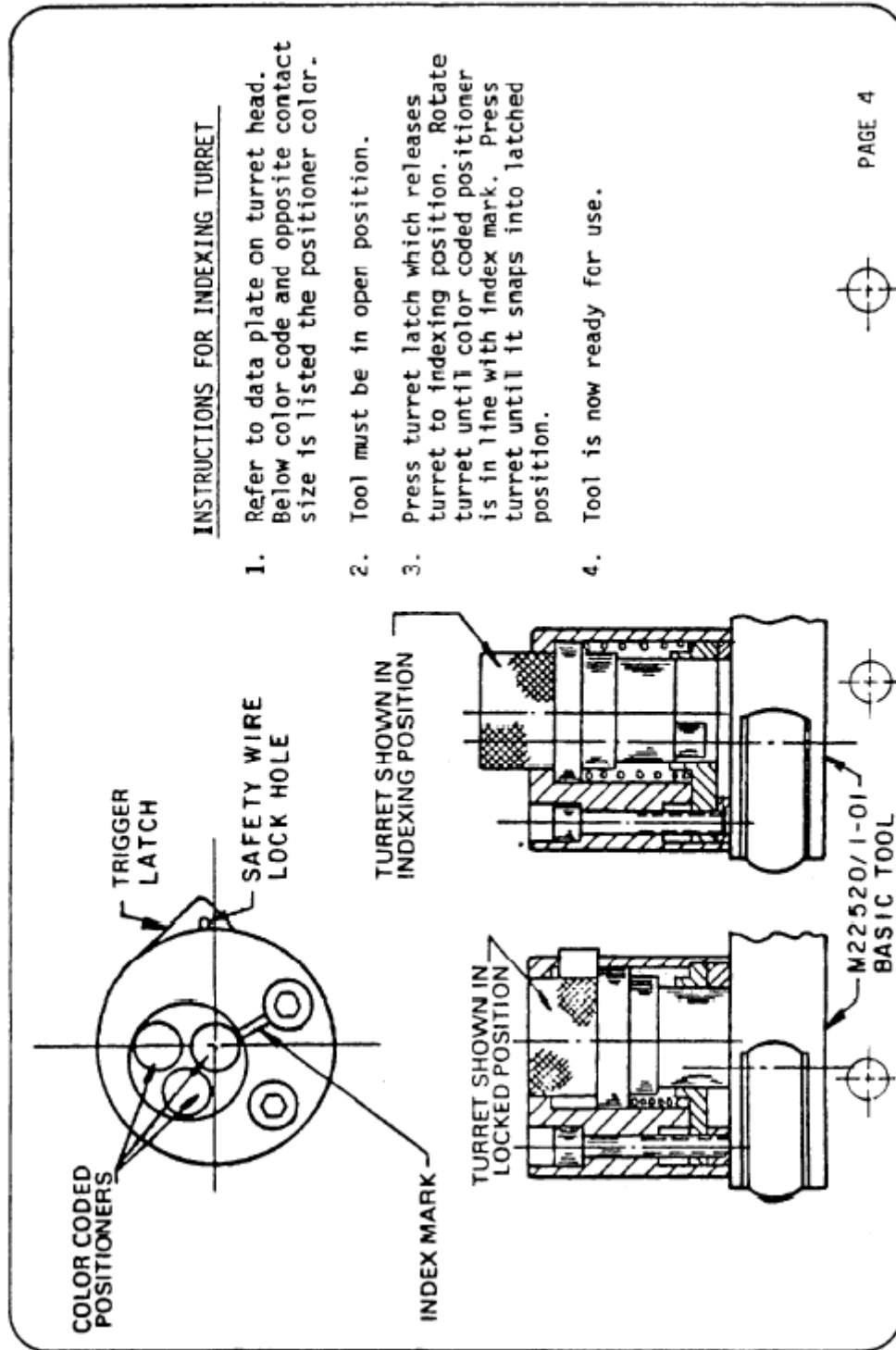


FIGURE 9 Metal case. Instruction sheet.

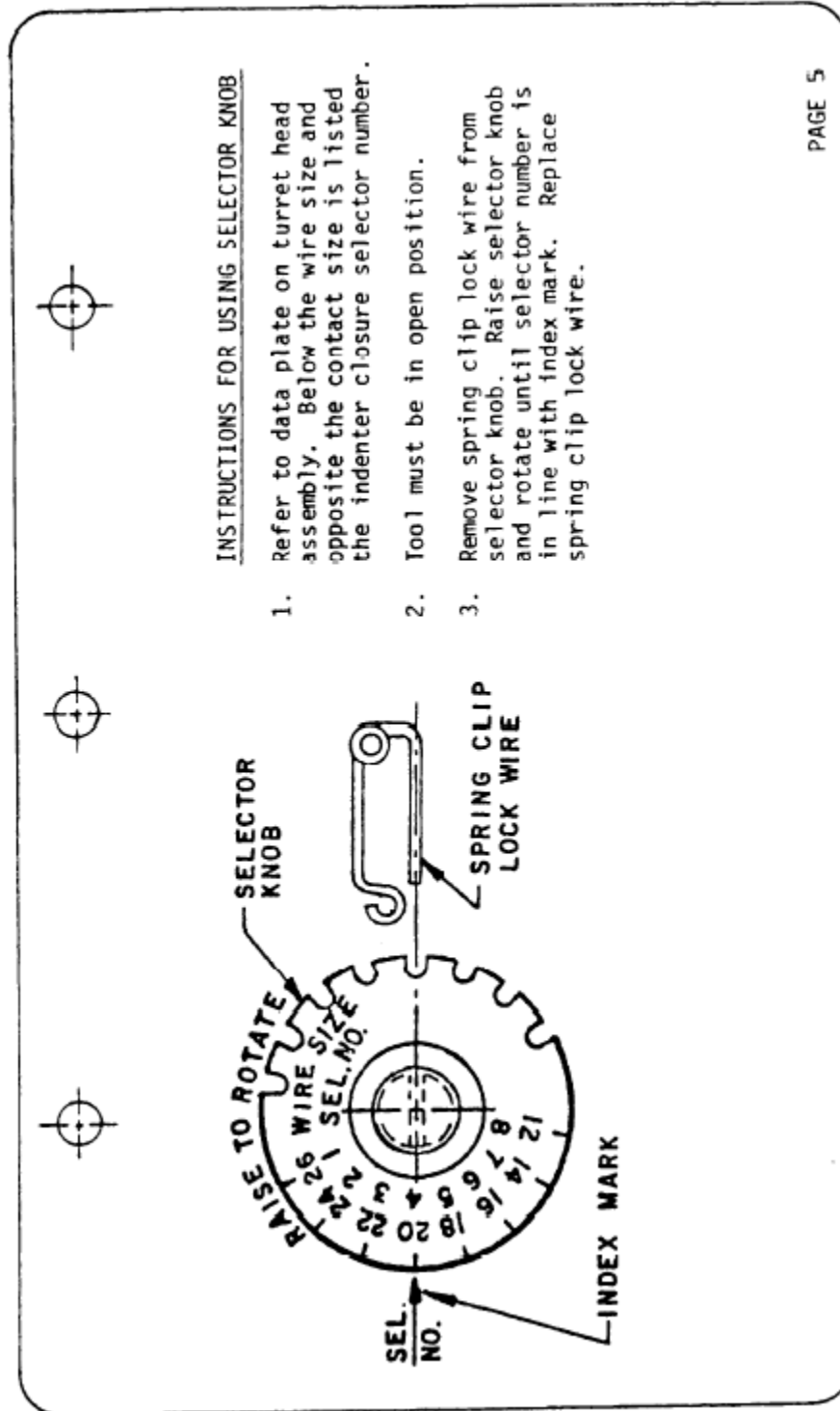


FIGURE 10 Metal case. Instruction sheet.

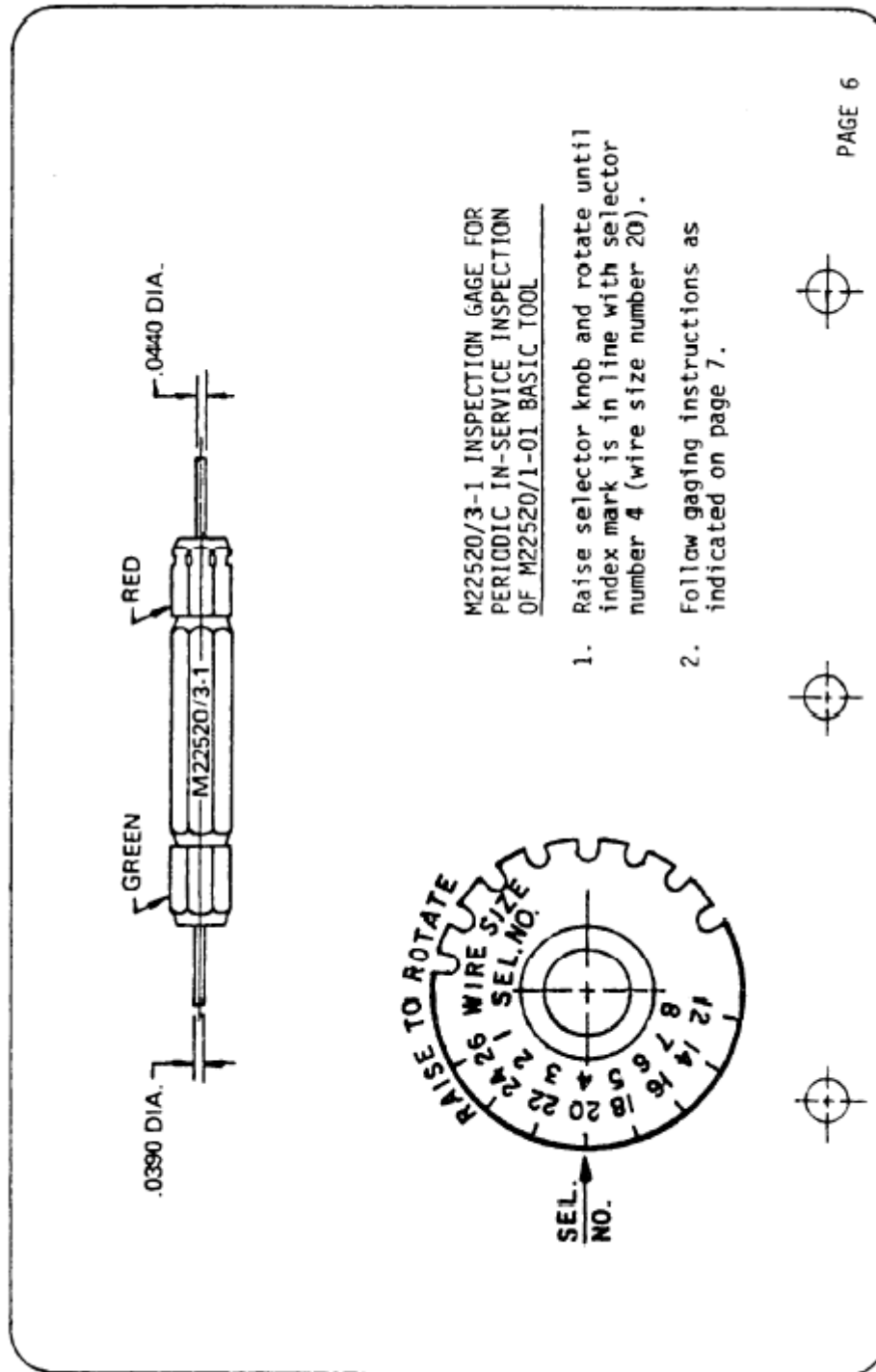


FIGURE 11 Metal case. Instruction sheet.

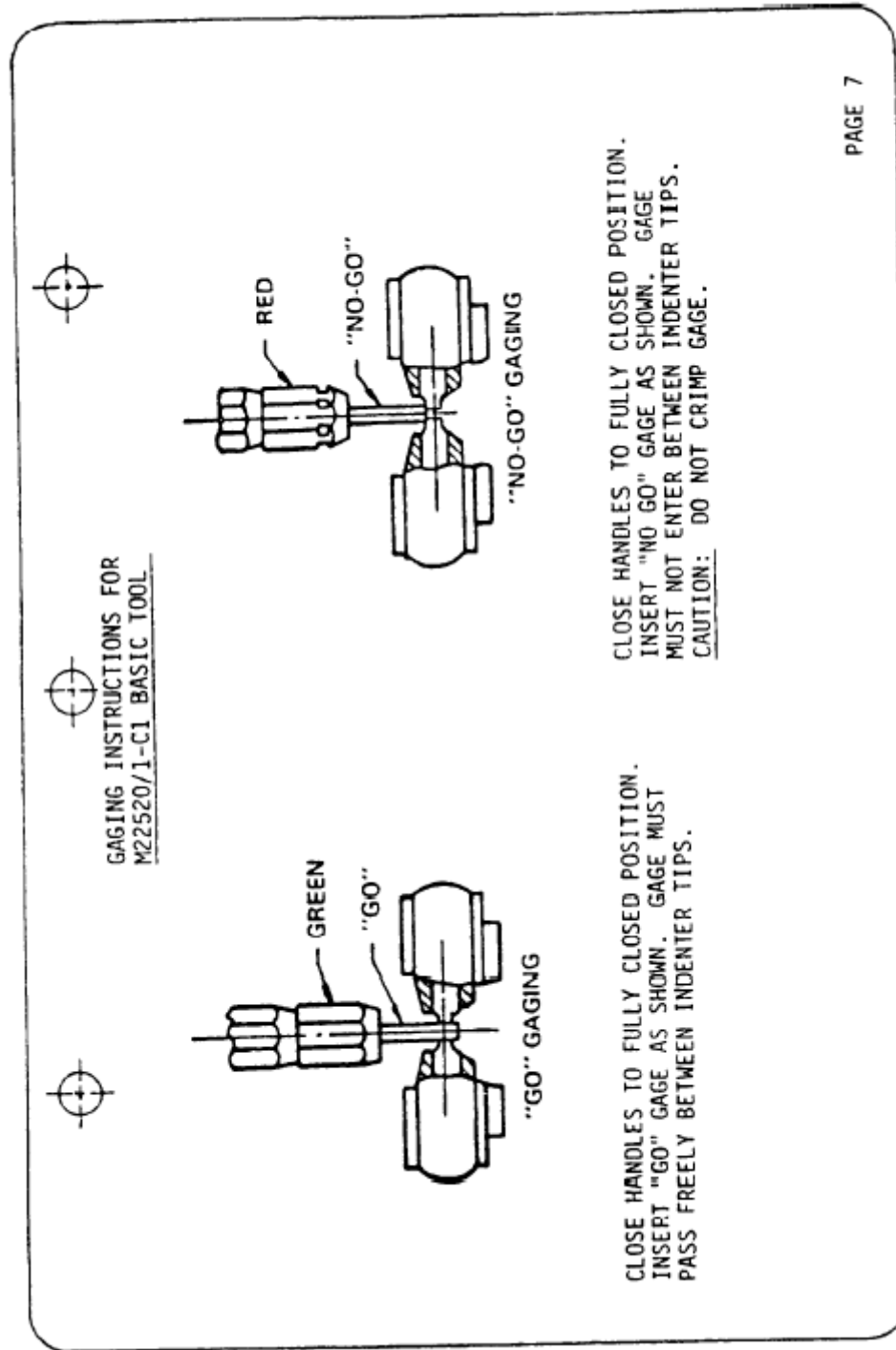


FIGURE 12 Metal case. Instruction sheet.

M22520/1-01 "EYEBALL CRIMPING" INSTRUCTIONS

INTRODUCTION (GENERAL)

The M22520/1-01 basic tool may be used to satisfactorily crimp removable pin and socket contacts to AWG wire size 12 thru 26 AWG without a turret head assembly installed. In this procedure the tool operator judges by visual examination (eyeballs) and holds the contact in the proper position relative to the tool indenters. This is accomplished by selecting the correct indenter closure as shown on the tool selector plate for the desired wire size.

While a satisfactory crimp may be obtained in this manner, it should be noted that where numerous crimps are to be accomplished, a turret head assembly is recommended.

PROCEDURE

1. Remove the spring clip lock wire from the selector knob - figure I, page 9. Select wire size to be crimped and replace the safety clip lock wire to its original position.
2. Hold tool with selector plate downward, insert contact from underside of tool with wire barrel of contact facing operator. (Figure II.)
3. Align contact crimp area with tool indenters and close tool carefully until indenters lightly grip contact. Again, visually check indenter alignment for accuracy and proceed to insert wire into contact. (Figure III.)
4. Hold wire firmly to ensure that it is bottoming in contact. Close handles until tool bottoms and ratchet "kicks off". Release handle and remove crimped contact. (Figure IV.)



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FIGURE 13 Metal case. Instruction sheet.

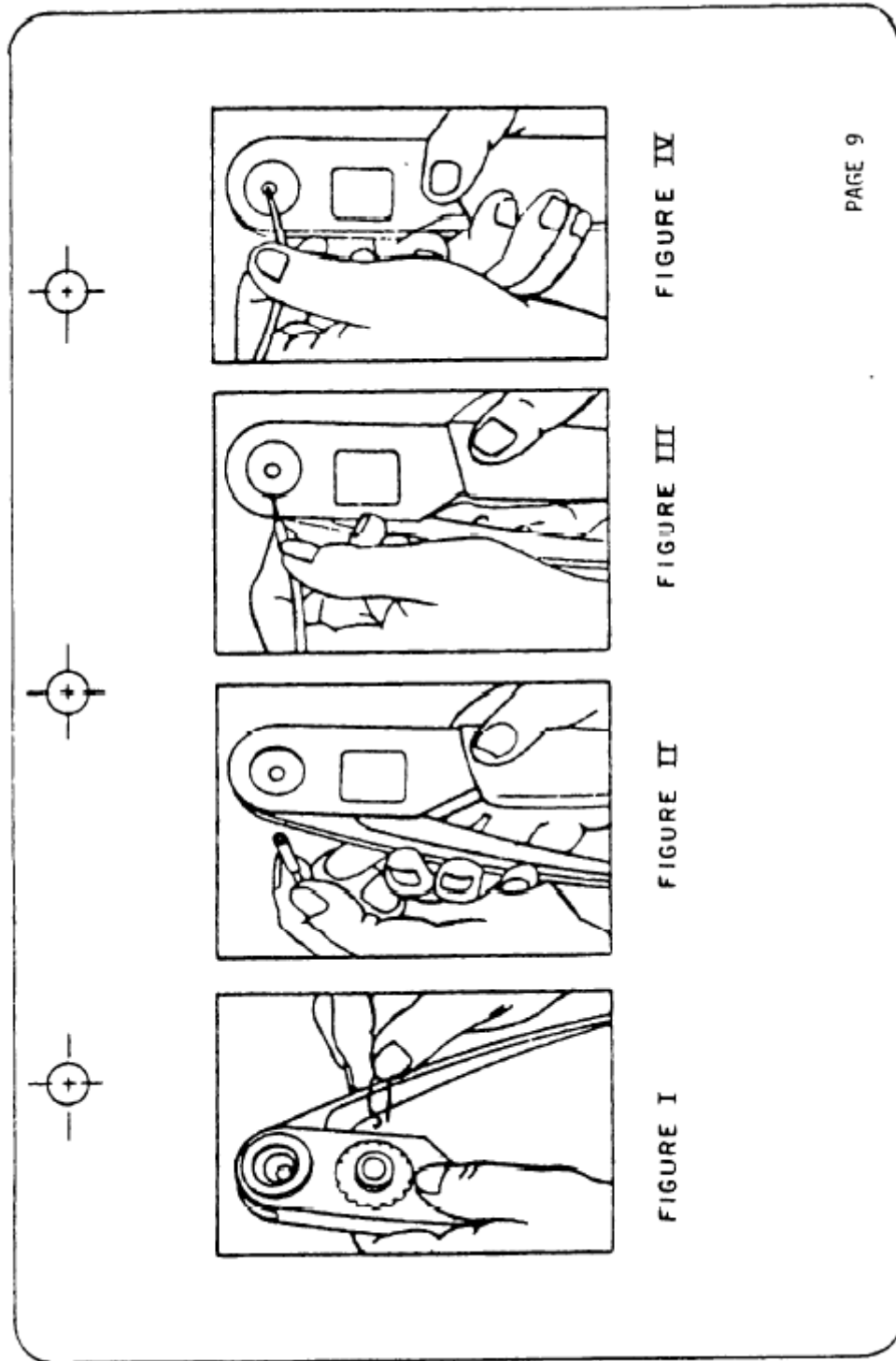


FIGURE 14 Metal case. Instruction sheet.

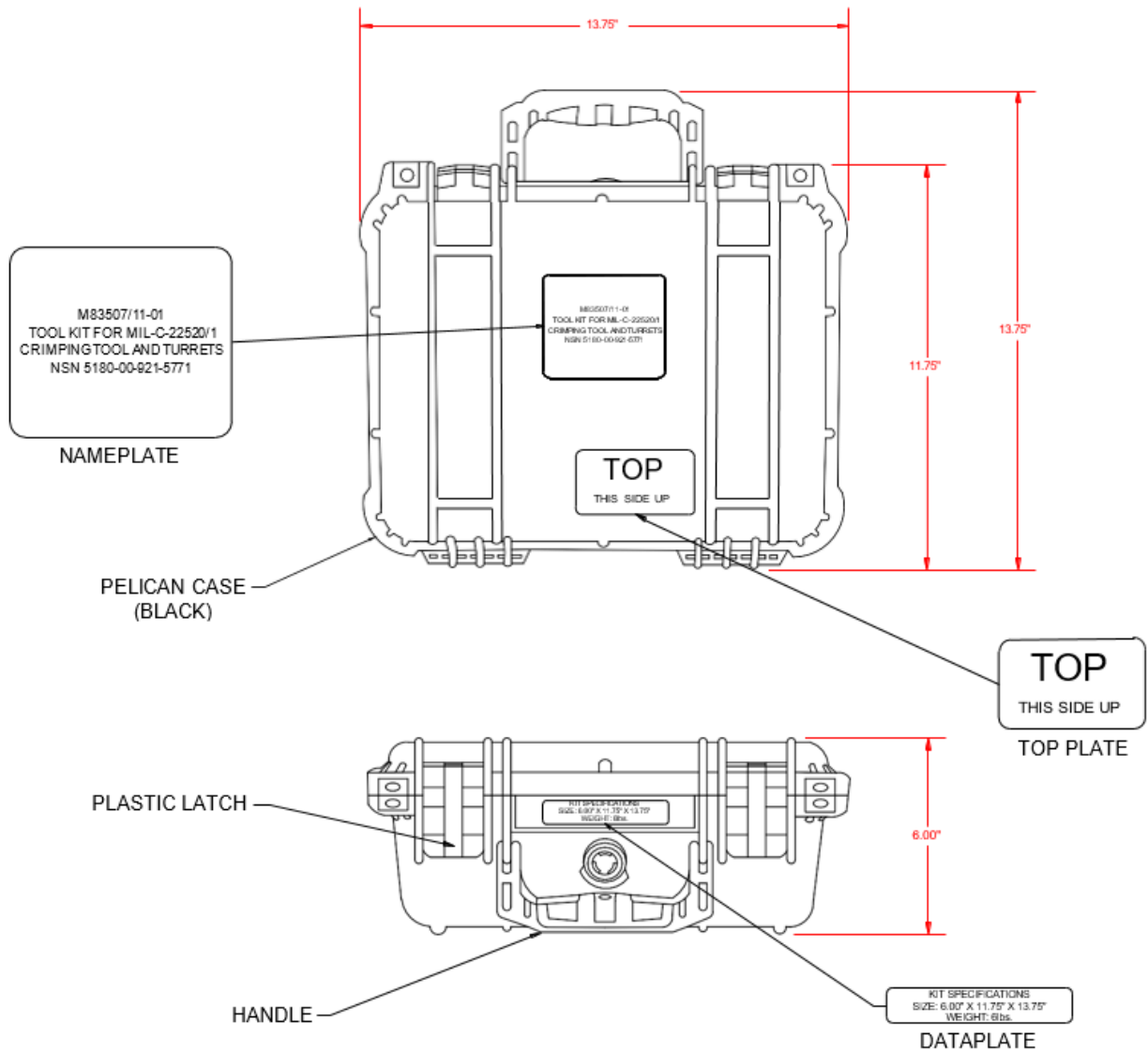


FIGURE 15 Plastic case. TOOL KIT FOR SAE-AS22520/1 CRIMPING TOOL AND TURRETS.

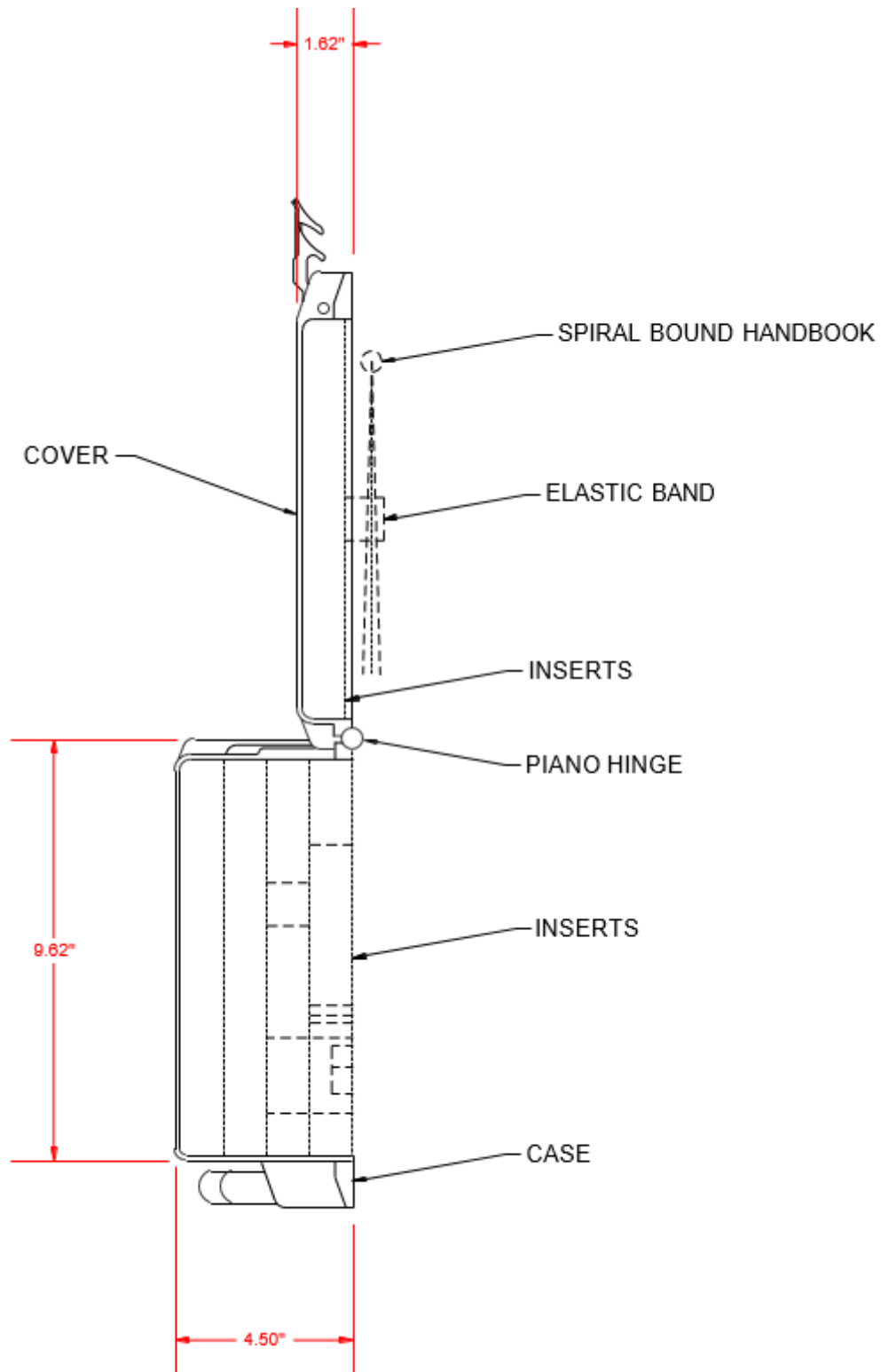


FIGURE 16 Plastic case. TOOL CASE ASSEMBLY.

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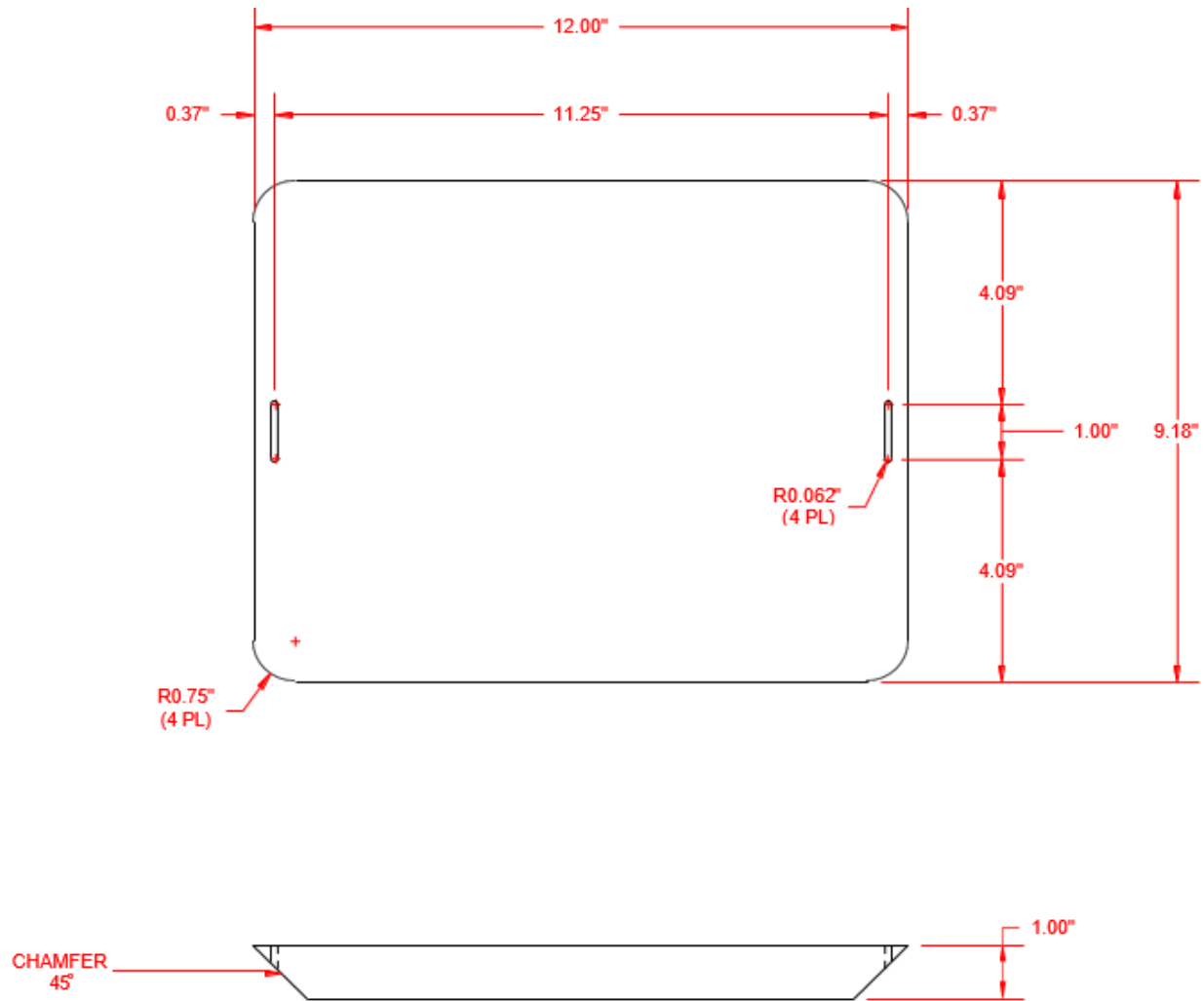


FIGURE 18 Plastic case. INSERT, TOP OF CASE

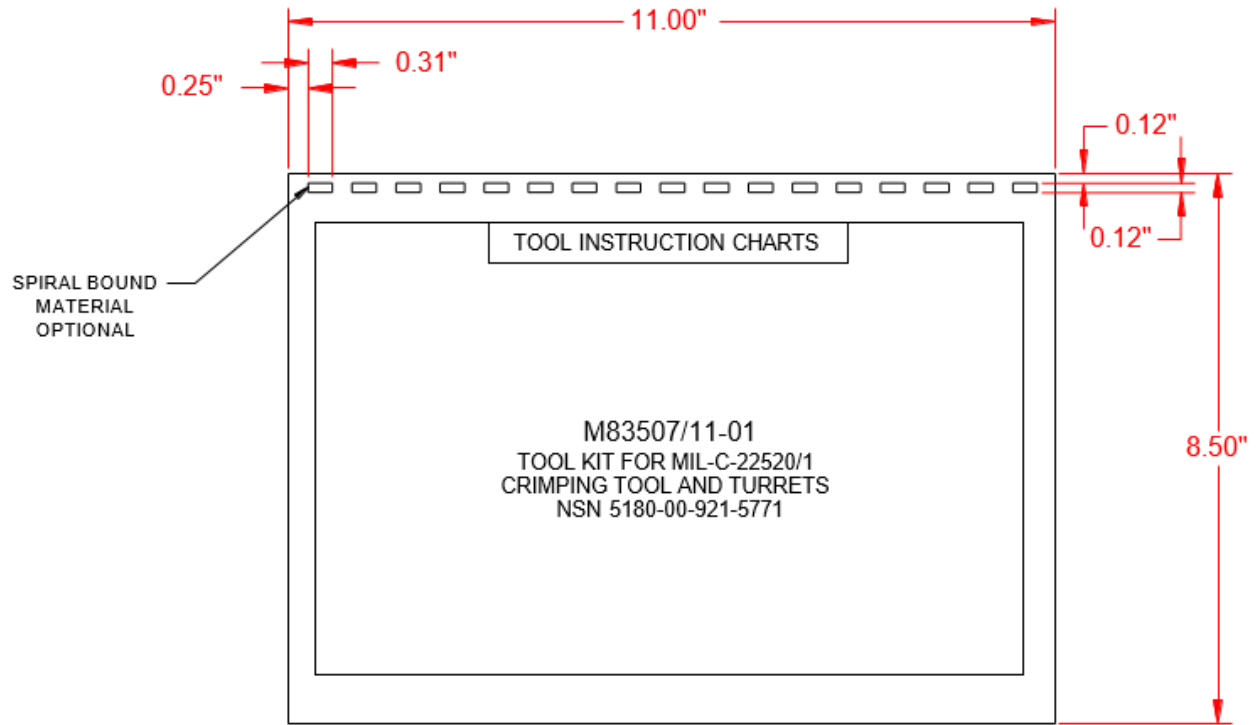
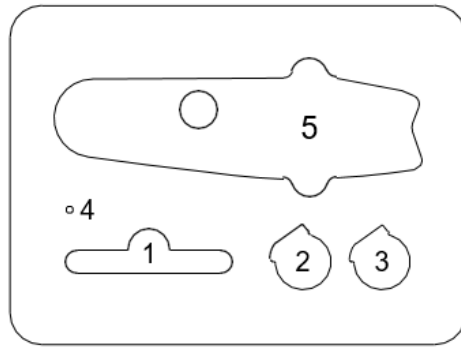


FIGURE 19 Plastic case. Instruction sheet.

CONTENTS CHART



ITEM	DESCRIPTION
1.	M22520/3-1 IN-SERVICE INSPECTION GAGE
2.	M22520/1-02 TURRET HEAD
3.	M22520/1-03 TURRET HEAD
4.	9/64" HEX WRENCH
5.	M22520/1-01 CRIMP TOOL

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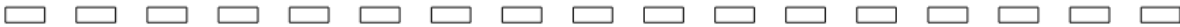


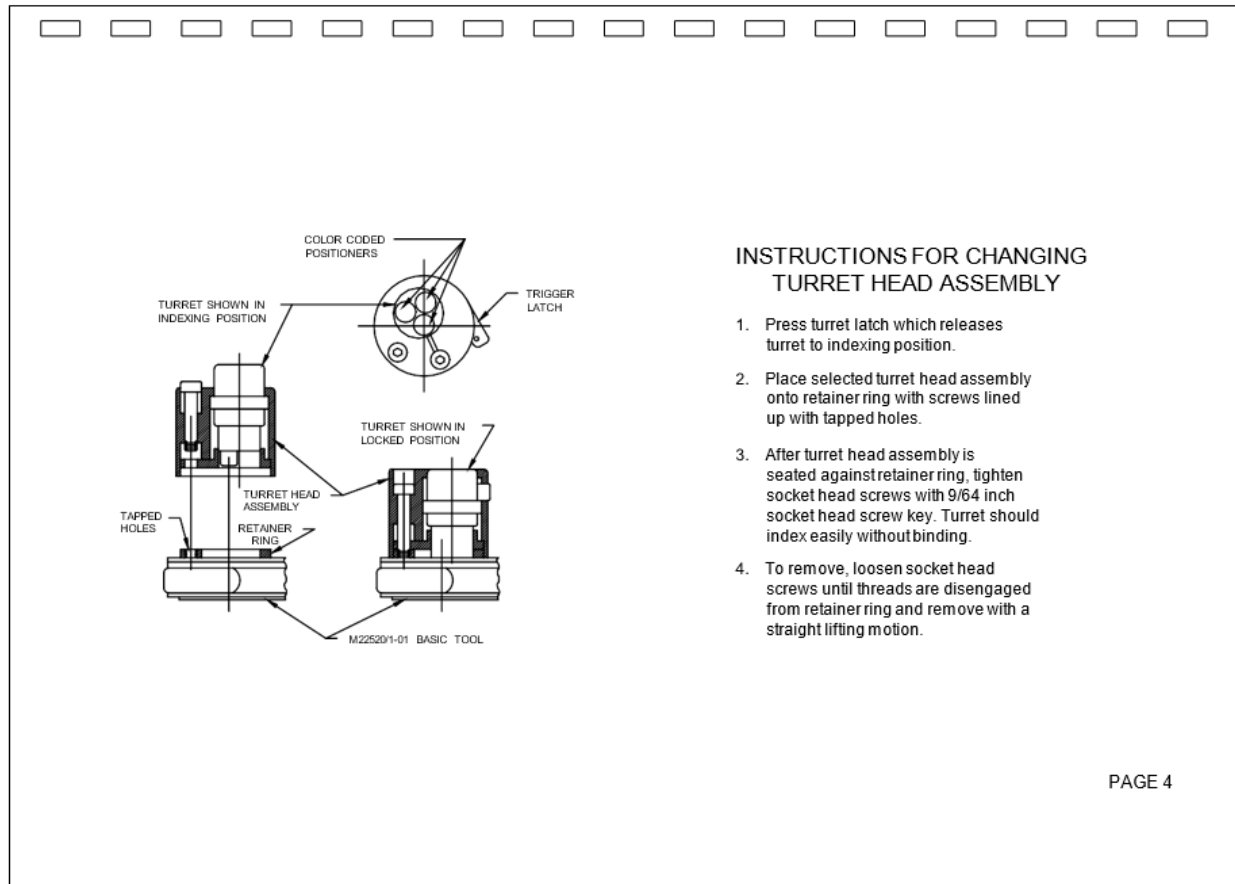
FIGURE 20 Plastic case. Instruction sheet.



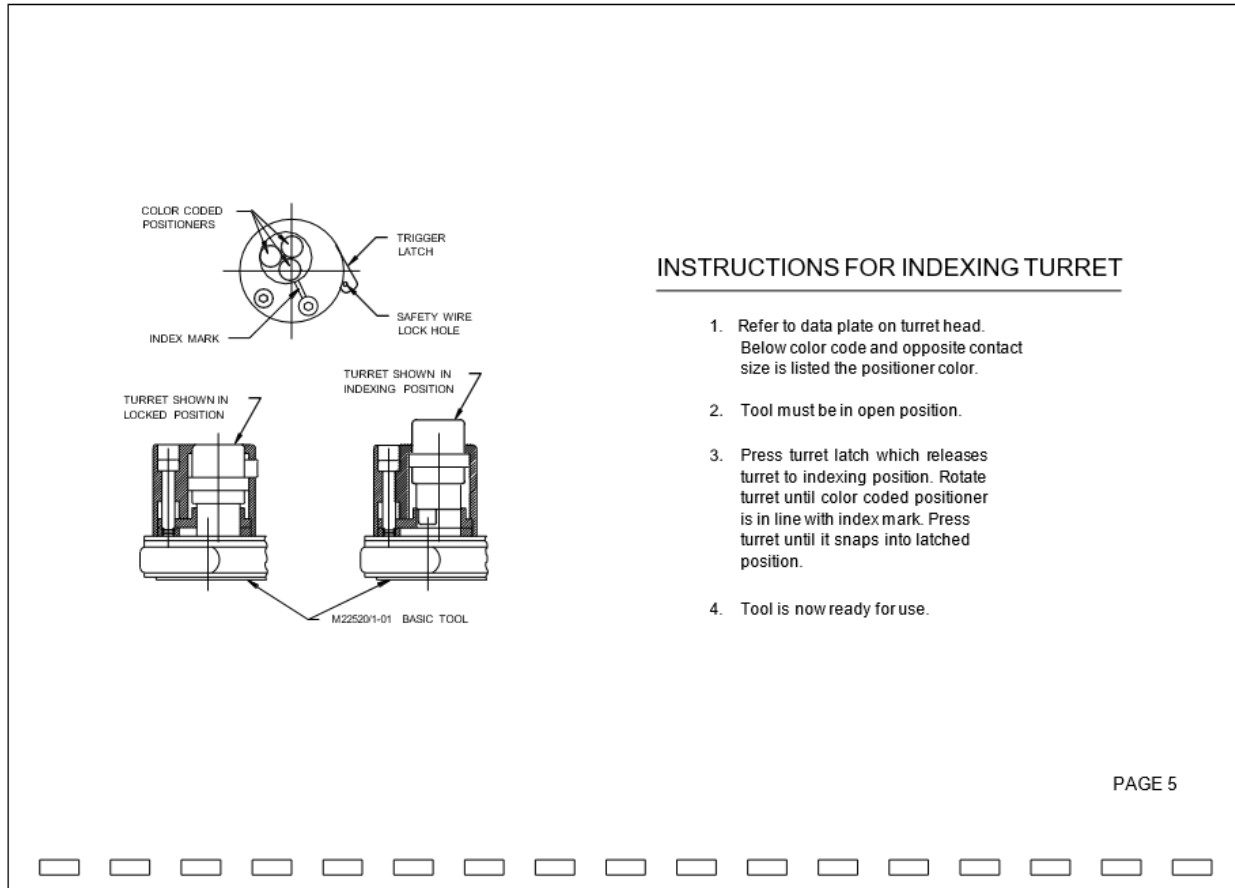
TURRET HEAD PART NO.	CONTACTS ACCOMMODATED	POSITIONER COLOR	CONTACT SIZE	26	24	22	20	18	16	14	12	WIRE SIZE
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		BLUE	16-22 16-20 16-16	1 1	2 2	3 3	4 4	5	6			
		YELLOW	12-16 12-12				4	5	6	7	8	
M22520/1-03	MS17803, MS17804 MS17807, MS17808	RED	20-20 16-20		4 4	5 5	6 6					SEL. NO.
		BLUE	16-16				6	7	7			
	OS12814 BASIC TYPE P & M	BLACK	22	2	3	4						
			16				4	5	6			
	M21097/9-01	GREEN	20	1	2	3	4					

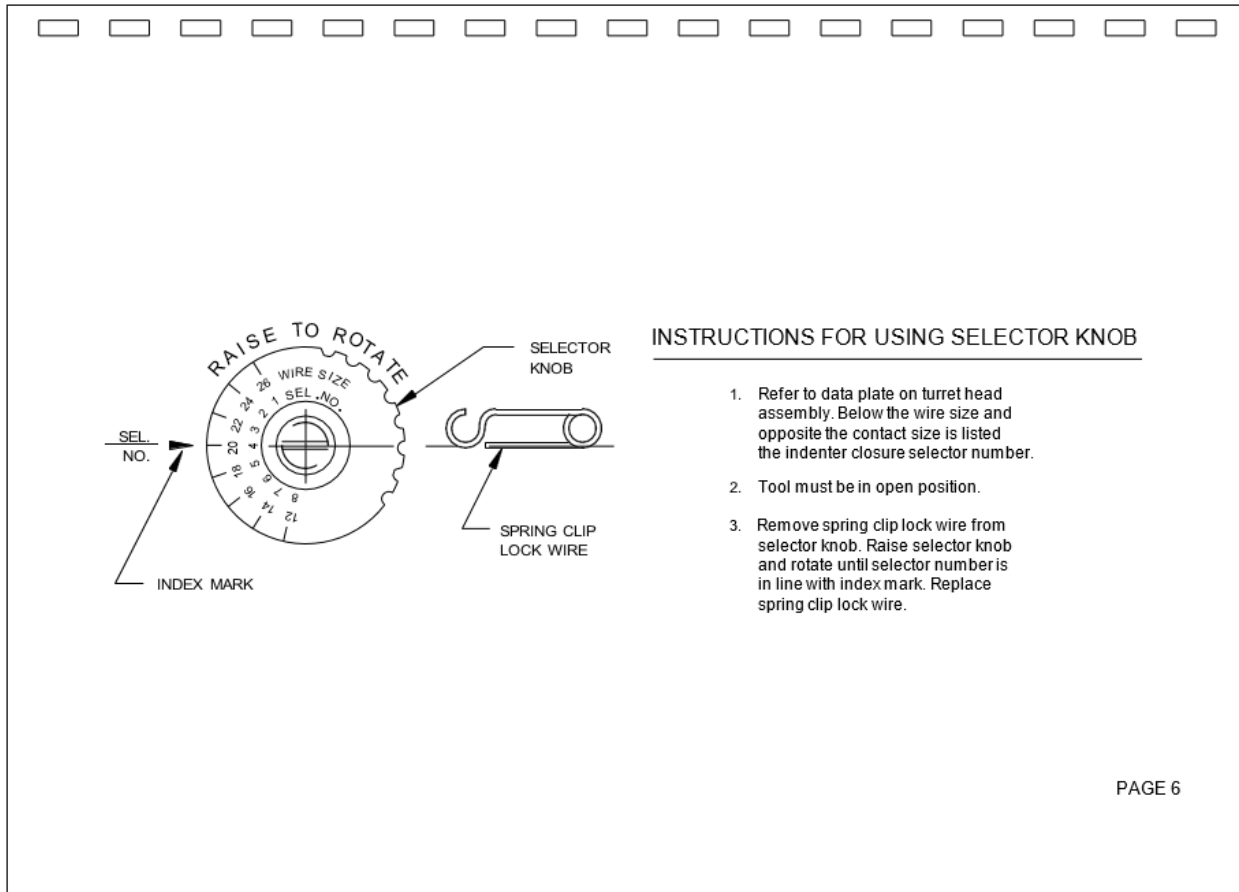
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FIGURE 22 Plastic case. Instruction sheet.



PAGE 4

FIGURE 24 Plastic case. Instruction sheet.



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FIGURE 25 Plastic case. Instruction sheet.

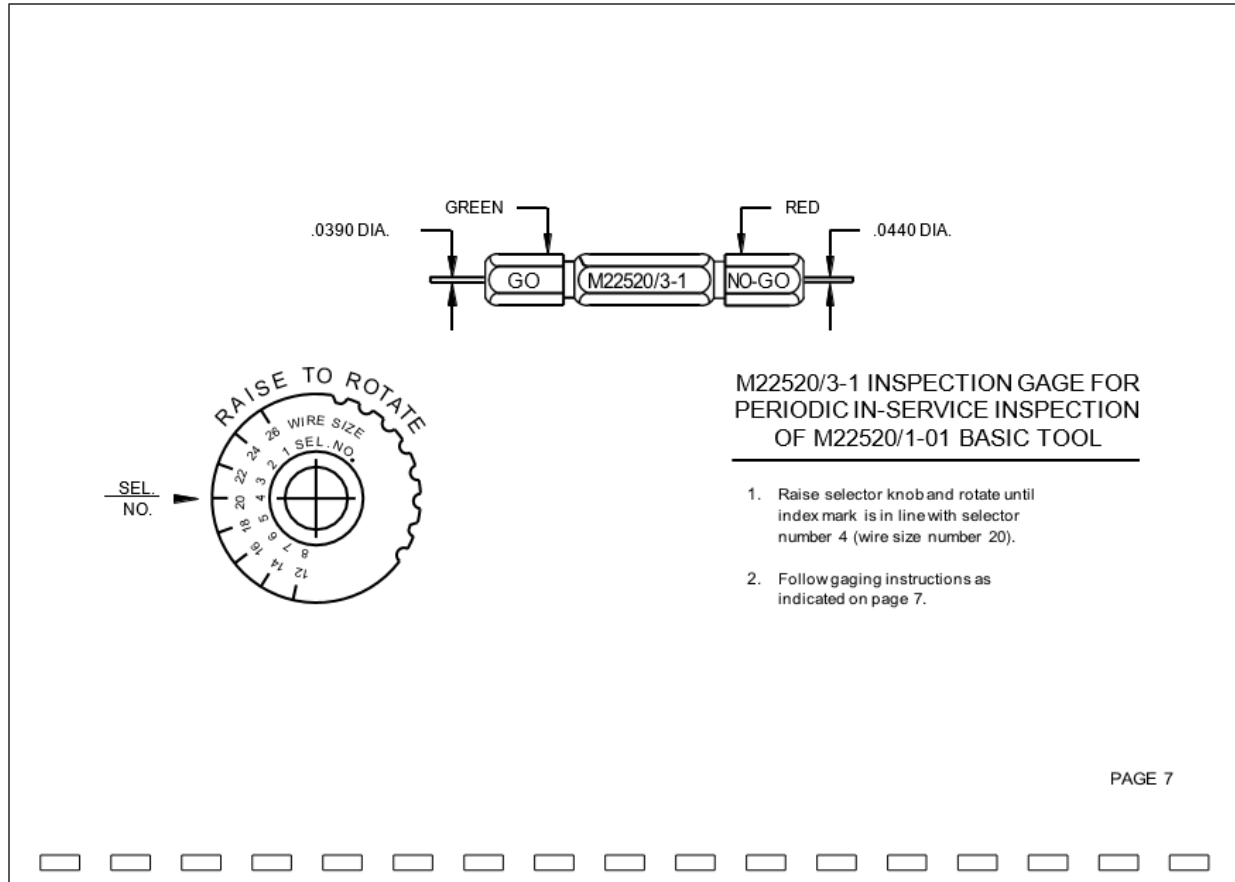


FIGURE 26 Plastic case. Instruction sheet.

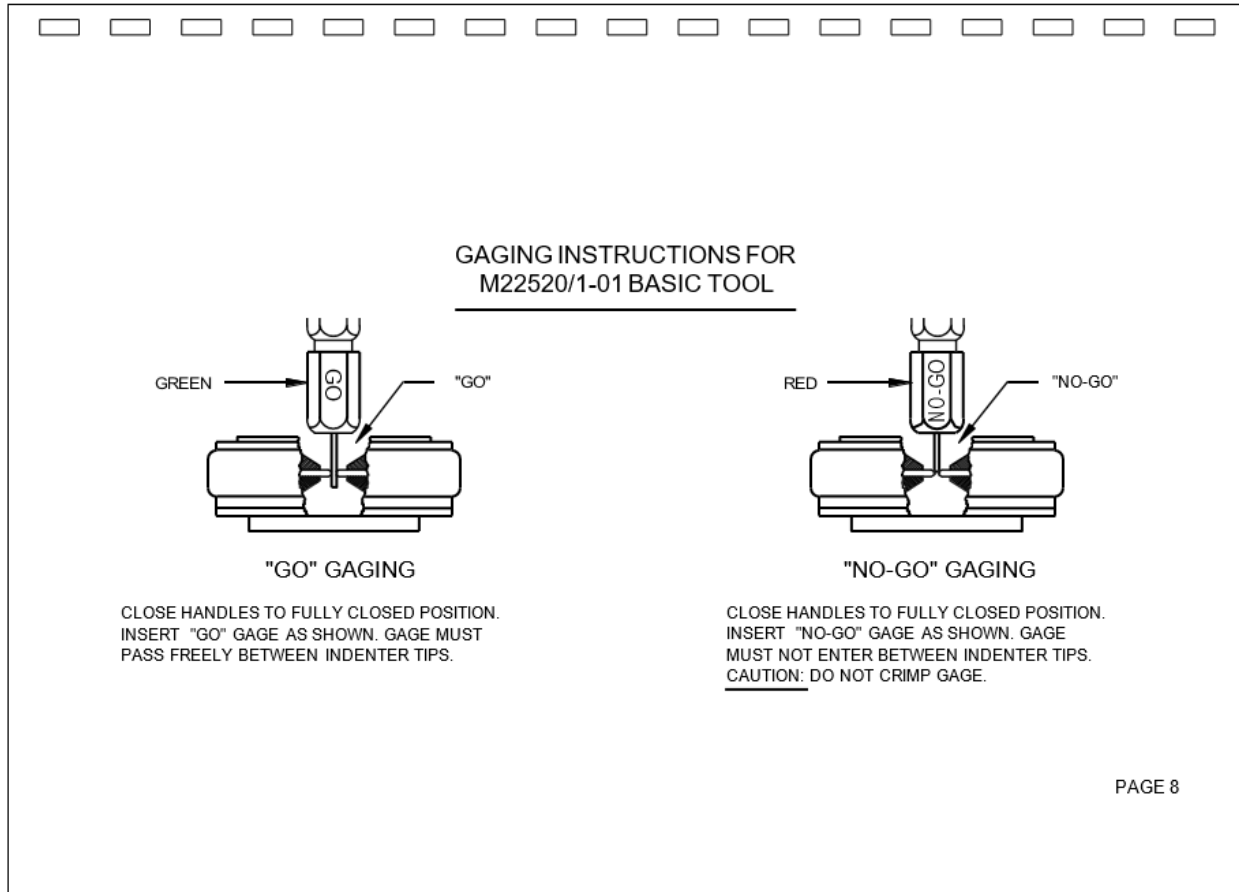


FIGURE 27 Plastic case. Instruction sheet.

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FIGURE 28 Plastic case. Instruction sheet.

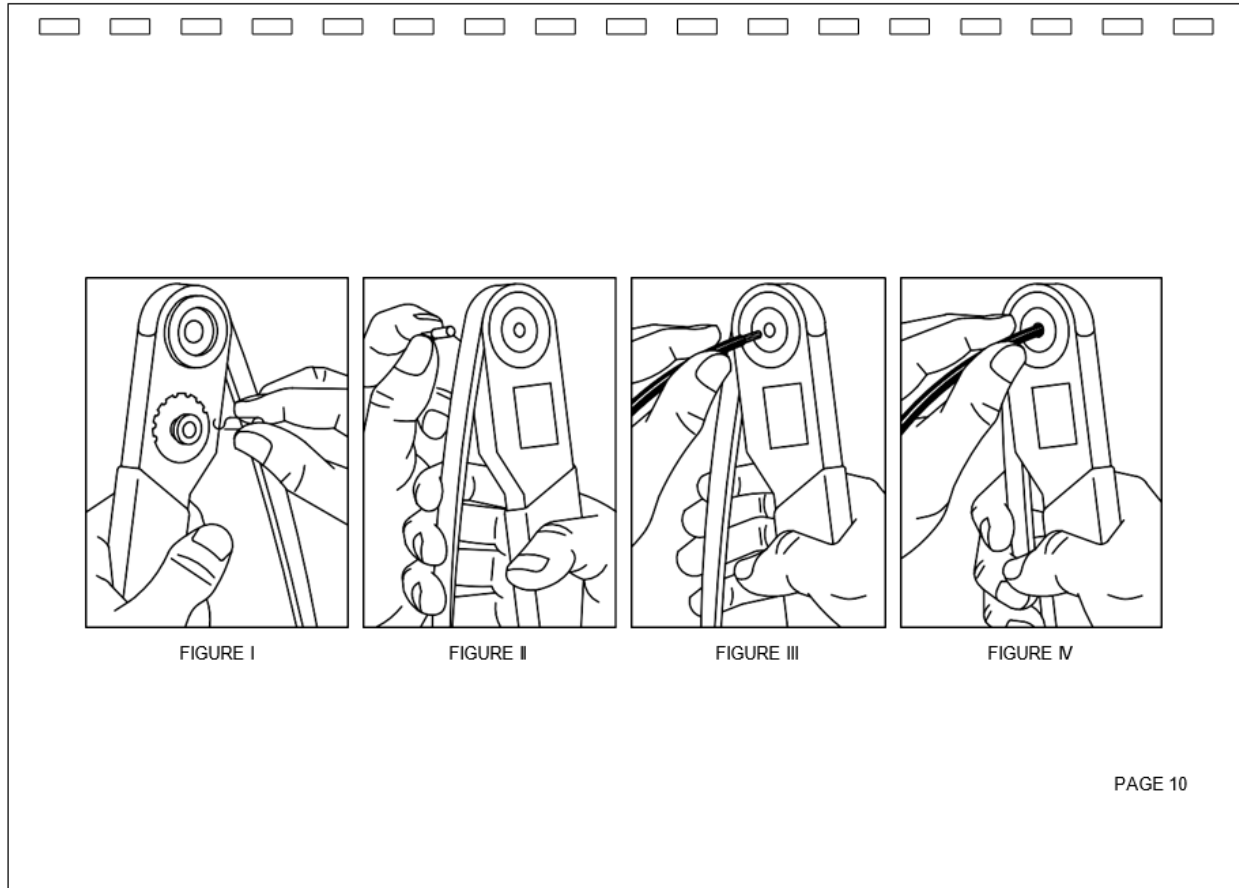


FIGURE 29 Plastic case. Instruction sheet.

REQUIREMENTS:

Materials:

Metal case and cover (category 3):

Sheet metal, 21 gage in accordance with QQ-S-698; gray baked enamel on all metal parts.

Pelican plastic case

Instruction sheet and contents chart: White vinyl 0.020 inch (0.51 mm,) thick. Insert and retainer pad: fire retardant foamed polyethylene in accordance with A-A-59135 or A-A-59136; color is optional.

Clasps, draw pull type with provision for locking device, handles, and hinges: Suitably plated to resist corrosion.

Nameplate: In accordance with MIL-DTL-19834.

Binder (metal case): Looseleaf, three ring, 0.437 inch (11.10 mm) :t0.062 inch (1.57 mm,) I.D., 2.75 inches

(69.9 mm) center distance between rings, securely riveted to inside of cover.

Instruction sheets and contents chart: Lettering shall be legible and protected with a transparent coating. Contents chart (centered on inside of case cover) shall have pressure sensitive adhesive backing and show the insert cavity configurations and the respective tool part numbers; a list of NSN's will also be supplied.

Part number:

M83507/11-01 Tool kit for SAE-AS22520/1 crimping tool and turrets.

M83507/11-02 Tool case assembly.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced documents. In addition to MIL-DTL-83507, this document references the following:

A-A-59135

A-A-59136

MIL-DTL-19834

QQ-S-698

SAE-AS22520/1

CONCLUDING MATERIAL

Custodians:

Navy – AS

Preparing activity:

DLA - CC

Review activities:

Navy – EC, MC

DLA - GS

(Project 5180-2025-003)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.