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REV.
B

AS22520™/7

RATIONALE

REVISION REQUIRED TO CORRECT DATAPLATE -03 FOR BIN CODES 533 AND 534.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22520.

FEDERAL SUPPLY CLASS
5120

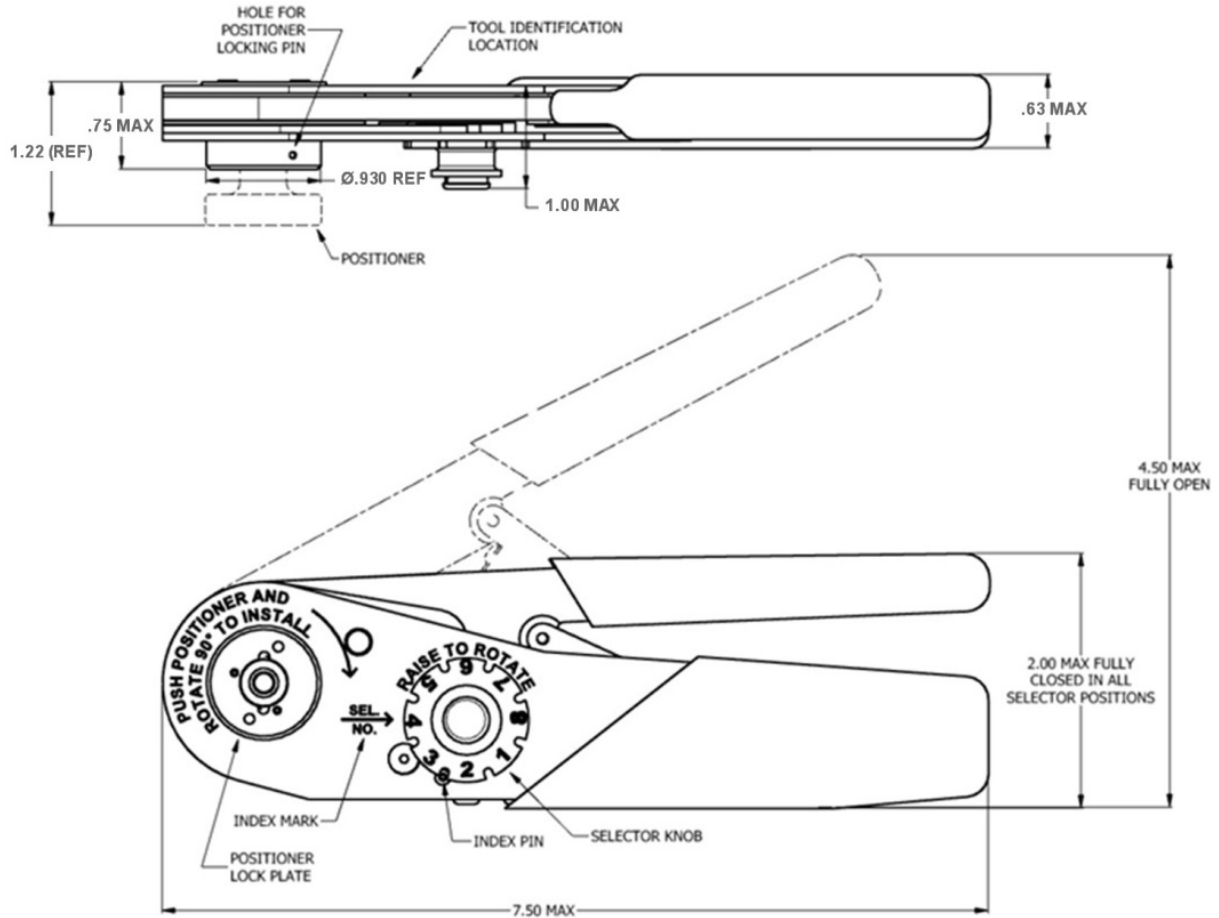
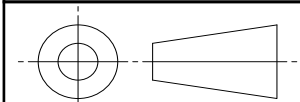


FIGURE 1 - M22520/7-01 CRIMPING TOOL

For more information on this standard, visit
<https://www.sae.org/standards/content/AS22520/7B/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8C2

PROCUREMENT SPECIFICATION: AS22520



AEROSPACE STANDARD

CRIMPING TOOLS, TYPE 1, TERMINAL, HAND,
WIRE TERMINATION FOR WIRE BARREL SIZES 16,
AND SMALLER

AS22520™/7
SHEET 1 OF 12

REV.
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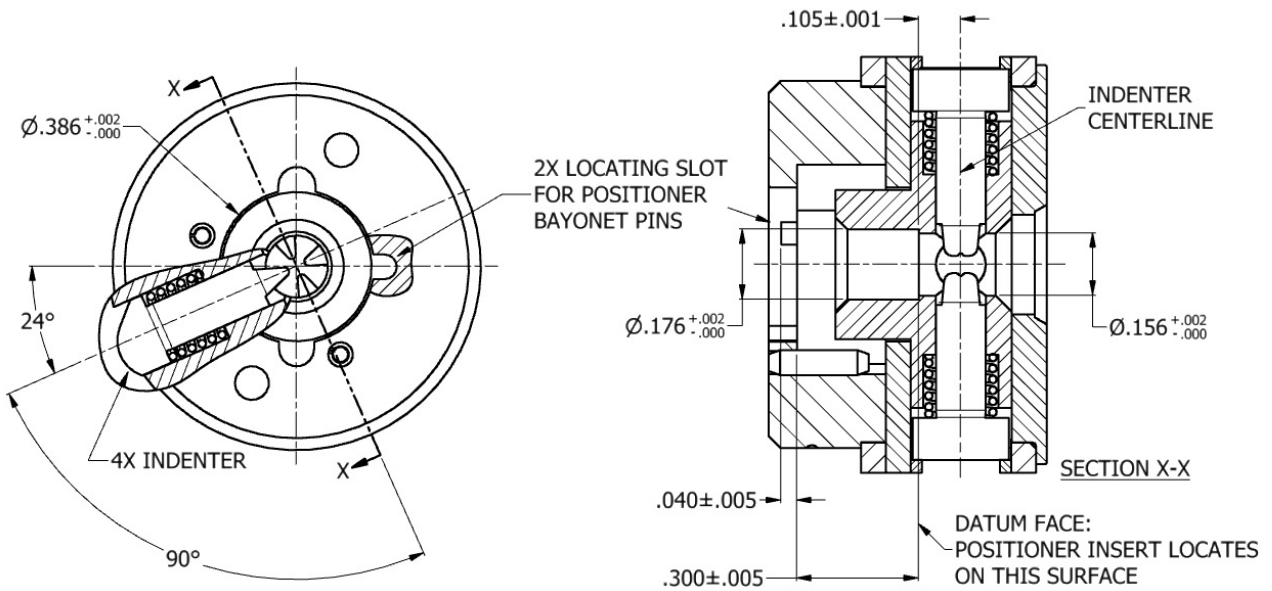
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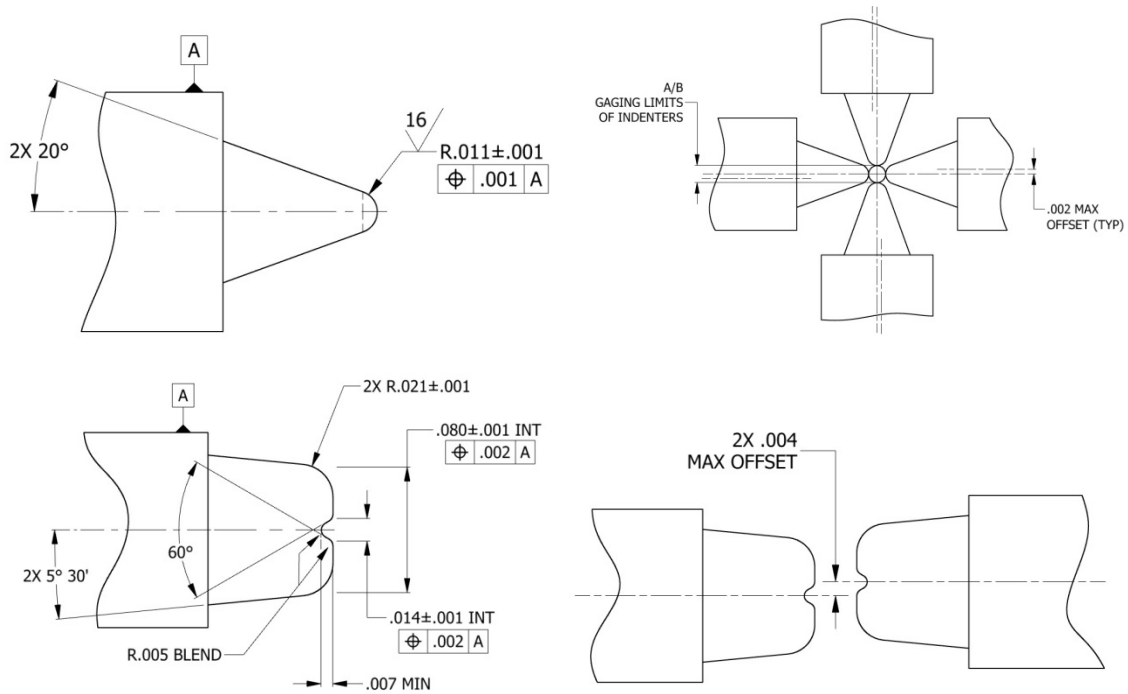
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TOOL POSITIONER LOCATOR RETAINER RING (LOCK PLATE) DETAILS



INDENTER DETAILS

FIGURE 1 - M22520/7-01 CRIMPING TOOL (CONTINUED)

	AEROSPACE STANDARD		AS22520™/7 SHEET 2 OF 12	REV. B
	CRIMPING TOOLS, TYPE 1, TERMINAL, HAND, WIRE TERMINATION FOR WIRE BARREL SIZES 16, AND SMALLER			

 **Documents**



Documents

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TABLE 1 - BASIC TOOL MARKINGS AND INSPECTION GAGE

PART NO.	BODY COLOR	HANDLE GRIP COLOR	FOR INSPECTION GAGING USE
M22520/7-01	GREEN	BLACK	M22520/3-3 1/

1/ INSPECTION GAGE ONLY APPLICABLE FOR THE TOOL SET AT SELECTOR POSITION NUMBER 8.

TABLE 2 - INDENTER GAGING LIMITS

SELECTOR NUMBER	INSPECTION GAGE DIAMETERS (INCHES)	
	Ø GO A ± .0001	Ø NO-GO B ± .0001
1	.0160	.0210
2	.0190	.0240
3	.0220	.0270
4	.0250	.0300
5	.0290	.0340
6	.0330	.0380
7	.0370	.0420
8	.0410	.0460

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22520.

1. DIMENSIONS:

DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.010, ANGLES ±1/2°. OUTLINE CONFIGURATION OPTIONAL WITHIN MAXIMUM DIMENSIONS SHOWN IN FIGURE 1. BREAK ALL SHARP EDGES .005 R MAX.

2. MATERIALS:

UNLESS OTHERWISE SPECIFIED, MATERIAL SHALL BE IN ACCORDANCE WITH AS22520. SURFACE TEXTURE SHALL BE 63 RMS OR BETTER IN ACCORDANCE WITH ASME B46.1.

INDENTER MATERIAL SHALL BE OIL HARDEN TOOL STEEL. THE INDENTER MATERIAL SHALL BE HARDENED TO ROCKWELL "C" 56-58. RETAINER RING (LOCK PLATE) SHALL BE T3 ALUMINUM (OR EQUIVALENT) IN ACCORDANCE WITH AMS-QQ-A-225/6.

POSITIONER BODY MATERIAL SHALL BE ALUMINUM AMS-QQ-A-225/6. LOCATOR SHALL BE STAINLESS STEEL PER AMS-QQ-S-763, CLASS 304.

GRIP SHALL BE PLASTIC AND WITHSTAND ALL REQUIREMENTS OF AS22520.

3. IDENTIFICATION MARKING AND COLOR:

TOOL IDENTIFICATION SHALL BE MARKED IN ACCORDANCE WITH MIL-STD-130, STAMP (LETTERING HEIGHT IS .093 MIN AND WHITE FILL) OR LASER MARKED. TOOL IDENTIFICATION SHALL INCLUDE MANUFACTURER'S NAME AND PART NUMBER, THE TOOL PART NUMBER M22520/07-01, AND THE INSPECTION GAGE PART NUMBER M22520/3-3. ADDITIONAL TOOL MARKING AND COLOR SHALL BE AS SHOWN IN FIGURE 1 AND TABLE 1.

POSITIONERS SHALL BE MARKED AS SHOWN IN FIGURES 2, 3, AND 4. MARKING SHALL BE IN ACCORDANCE WITH MIL-STD-130, STAMP (LETTERING HEIGHT IS .093 MIN AND WHITE FILL) OR LASER MARKED. POSITIONER COLOR SHALL BE GREEN.

DATAPLATES AND LABELS BE SHALL BE CLEARLY MARKED AS SHOWN IN FIGURES 1 AND 5. ALL LABELS SHALL HAVE BLACK LETTERS PRINTED ON A CONTRASTING BACKGROUND. OTHER UNSPECIFIED LABELS ARE PERMISSIBLE ON TOOL FRAME AND POSITIONER. IF LABELS ARE NOT USED, LASER MARKING OR STAMPING AND WHITE FILL DIRECTLY ONTO METAL SURFACES IS PERMITTED. ALL LABELS AND MARKINGS SHALL REMAIN ATTACHED AND LEGIBLE AFTER WITHSTANDING THE TESTING REQUIREMENTS OF AS22520.

4. WEIGHT:

WEIGHT OF TOOL FRAME WITHOUT POSITIONER SHALL NOT EXCEED 1.0 POUND AND THE POSITIONER SHALL NOT EXCEED .75 OUNCE.

5. COMPRESSION FORCE:

THE COMPRESSION FORCE REQUIRED TO MAKE SATISFACTORY CRIMPS SHALL NOT EXCEED 65 POUNDS, WHICH IS APPLICABLE FOR THE M39029/4-111 CONTACT CRIMPED ON A SIZE 16 WIRE (OR EQUIVALENT).

	AEROSPACE STANDARD	AS22520™/7 SHEET 3 OF 12	REV. B
	CRIMPING TOOLS, TYPE 1, TERMINAL, HAND, WIRE TERMINATION FOR WIRE BARREL SIZES 16, AND SMALLER		



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6. TOOL FRAME INDENTER GAGE LIMITS:

INDENTER GO AND NO-GO INSPECTION GAGE LIMITS ARE DEFINED IN TABLE 2.

7. POSITIONER LOCK PLATE AND LOCATOR:

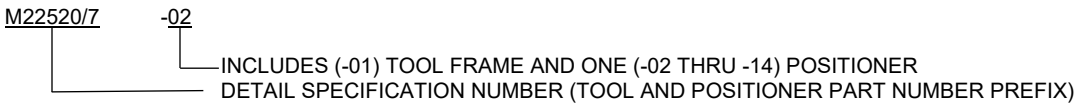
THE POSITIONER LOCK PLATE SHALL PROVIDE POSITIVE DETENT FOR BAYONET LOCK PINS AND A MEANS OF SECURING THE POSITIONER WITH A LOCKING PIN OR WIRE. THE POSITIONER SHALL BE REMOVABLE ONLY WHEN THE LOCKING PIN OR WIRE IS REMOVED.

POSITIONER LOCATOR SHALL BE SPRING LOADED. SPRING SHALL DEPRESS .031 INCH MINIMUM WITH A FORCE OF 2 POUNDS ± 1 POUND.

8. CYCLE CONTROL RATCHET:

THE TOOL SHALL BE MADE WITH A TAMPER-PROOF RATCHET WHICH LIMITS THE MOVEMENT OF THE TOOL HANDLE IN BOTH DIRECTIONS AND ASSURES A COMPLETE CLOSURE OF THE TOOL HANDLE PRIOR TO RELEASE.

9. PART IDENTIFICATION NUMBER (PIN):



APPLICATION NOTES:

- 1. M22520/7-01 IS USED WITH CONTACTS CONFORMING TO AS39029 (AND SIMILAR) WITH WIRE BARREL SIZES 16 AND PHYSICALLY SMALLER. THE WIRE RANGE IS TYPICALLY SIZE 16 THRU SIZE 28; HOWEVER, THERE MAY BE EXCEPTIONS IN SOME CONTACTS. SEE THE POSITIONER DATAPLATES AND/OR THE CONTACT SPECIFICATIONS FOR FURTHER INFORMATION ON WIRE SIZE AND CRIMP DEPTH (SELECTOR) SETTINGS.
- 2. FOR APPLICABLE CONTACTS FOR EACH POSITIONER, SEE TABLE 3 AND POSITIONER DATAPLATES IN FIGURE 5.
- 3. UNLESS OTHERWISE SPECIFIED, FOR TOOL APPLICATIONS, INSPECTION GAGING IS RECOMMENDED TO BE PERFORMED WITH THE GAGE SPECIFIED IN TABLE 1 ON TOOL SELECTOR NUMBER 8. OTHER GAGES IN ACCORDANCE WITH TABLE 2 DIMENSIONS WOULD BE REQUIRED, IF OTHER SELECTOR SETTINGS ARE REQUIRED TO BE VERIFIED.
- 4. AS22520/7 CONFIGURATION IS FOR HAND CRIMPING ONLY.

NOTICE

USE OF HAND CRIMPING TOOLS COVERED BY THIS SPECIFICATION AS A COMPONENT IN ANY POWERED "PRESS" MAY VIOLATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS CFR 1910.211.

SUPERSESSION INFORMATION:

- 1. AS22520/7 SUPERSEDES MIL-C-22520/7. PART NUMBERS FOR TOOL AND POSITIONERS REMAIN UNCHANGED.

SPECIFICATION NOTES:

- 1. REVISION INDICATOR: A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

	AEROSPACE STANDARD	AS22520™/7 SHEET 4 OF 12	REV. B
	CRIMPING TOOLS, TYPE 1, TERMINAL, HAND, WIRE TERMINATION FOR WIRE BARREL SIZES 16, AND SMALLER		