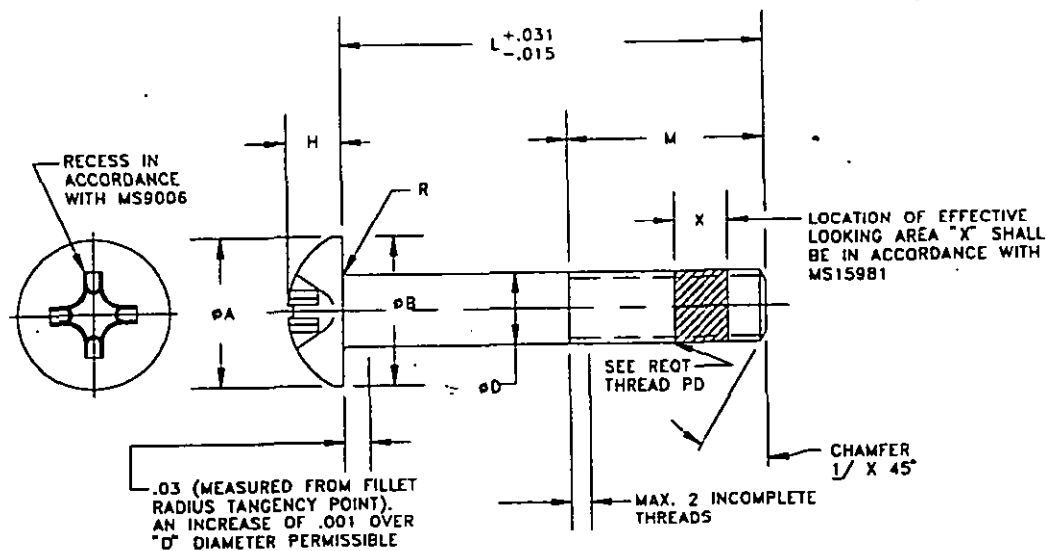


THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODDS SPECIFIED IN THE SOURCING: MIL-B-87114, MIL-F-18240 (b)

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.



DASH NO DIA	THREAD	ØD MAX MIN	ØA MAX MIN	ØB MIN	H MAX MIN	M MAX REF	R RAD MAX MIN	T MAX	2/ Y	3/ d	4/ c	5/ b	6/ ULTIMATE TENSILE LBS/MIN	DOUBLE SHEAR LBS/MIN	DRIVER SIZE										
04	.1120-40UNC-3A	.1120 .1095	.219 .205	.195	.080 .070	.250	.010 .015	.090	.005	.0045	.016	.0040	760	1,480	1										
06	.1380-32UNC-3A	.1380 .1355	.270 .256	.242	.097 .087	.312	.020 .010	.111					.006	.0045	.016	.0040	1,120	2,240	2						
08	.1640-32UNC-3A	.1635 .1610	.322 .306	.289	.115 .105	.437		.020 .010									.127	.008	.0045	.016	.0040	1,740	3,170	2	
3	.1900-32UNF-3A	.1895 .1870	.373 .357	.331	.133 .122	.406											.020 .010					.145	.009	.0045	.016
4	.2500-28UNF-3A	.2495 .2470	.492 .475	.424	.175 .162	.469			.025	.192	.010	.0060										.024			
5	.3125-24UNF-3A	.3120 .3095	.615 .594	.518	.218 .203	.531	.025			.287			.010	.0060	.024	.0030									
6	.3750-24UNF-3A	.3745 .3720	.740 .716	.611	.261 .244	.641		.025		.266								.010	.0060	.024	.0030				
7	.4375-20UNF-3A	.4370 .4345	.863 .838	.706	.304 .286	.656				.025													.010	.0060	.024
8	.5000-20UNF-3A	.4995 .4970	.987 .958	.801	.348 .327	.781			.030 .020			.010					.0060					.024			

- 1/ CHAMFER LENGTH FROM END TO FIRST COMPLETE THREAD NOT TO EXCEED 2 THREAD PITCHES INCLUDING CHAMFER.
- 2/ ECCENTRICITY "B" AND "D" DIAMETERS WITHIN "Y" VALUES T.I.R.
- 3/ ECCENTRICITY "D" AND THREAD PITCH DIAMETERS WITHIN "d" VALUES T.I.R.
- 4/ ECCENTRICITY RECESS TO "D" WITHIN "C" VALUES T.I.R.
- 5/ SHANK STRAIGHTNESS WITHIN "b" VALUES T.I.R. PER INCH OF LENGTH.
- 6/ BASED ON 125 KSI ULTIMATE TENSILE STRENGTH AND STRESS AREA = $3.1416 (E/2 - 3H/16)^2$ SEE FED-STD-H2B/1.

Ⓐ DENOTES CHANGES

INCH-POUND

PREPARING ACTIVITY: DLA-15 CUSTODIANS: ARMY-AV NAVY-AS AIR FORCE-99 DLA-	<u>MILITARY SPECIFICATION SHEET</u> TITLE BOLT, SELF-LOCKING 75 KSI Fsu, 125 KSI Flu PAN HEAD, CROSS RECESSED	SPECIFICATION SHEET NUMBER MS21096 14 OCT 94 REV B
REVIEW: USER: PROJECT NUMBER: 5306-1806		SUPERSEDING MS21096 2 NOV 65 AMSC-N/A FSC -5306
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.		Page <u>1</u> of <u>3</u>

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: MIL-B-87114, MIL-F-18240

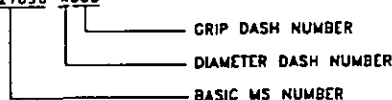
THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

Form Approved
OMB No. 0704-0188

REQUIREMENTS:

1. MATERIAL: ALLOY STEEL, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
2. THREADS: THREADS SHALL BE CLASS 3A IN ACCORDANCE WITH FED-STD-H28/2. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 22.
3. DIMENSIONING AND TOLERANCING: DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M.
4. PROTECTIVE COATING: CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3.
5. LOCKING ELEMENT: IN ACCORDANCE WITH SPECIFICATION MIL-F-18240. THE LOCKING ELEMENT AREA, WITH LOCKING ELEMENT AREA, WITH LOCKING ELEMENT INCORPORATED MUST PASS THRU A RING GAGE EQUAL TO MAXIMUM MAJOR THREAD DIAMETER $+0.003$ FREE OR WITH FINGER PRESSURE.
6. SURFACE TEXTURE: SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED, SHALL BE 125 MICROINCHES EXCEPT UPSET HEAD IN ACCORDANCE WITH ANSI/ASME B46.1.
7. TOLERANCE: UNLESS OTHERWISE SPECIFIED, TOLERANCES SHALL BE FOR LINEAR DIMENSIONS $\pm .010$, ANGULAR DIMENSIONS ± 5 .
8. HARDNESS: PARTS SHALL BE WITHIN ROCKWELL HARDNESS RANGE OF C-26 TO C-32.
9. PART NUMBER: THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FROM TABLE.

EXAMPLE: MS21096-4008



MS21096-4008 INDICATES - BOLT, SELF-LOCKING, .250-28 UNF-3A, GRIP .500.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. DESIGN AND USAGE LIMITATIONS: SEE MS15981.
3. REVISION LETTERS ARE NOT USED TO DENOTE CHANGES DUE TO THE EXTENSIVENESS OF THE CHANGES.
4. IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
5. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF THE SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
6. AS AND AMS ARE SAE PUBLICATIONS.
7. GRIP LENGTH IS MEASURED FROM THE UNDERSIDE OF HEAD TO END OF FULL CYLINDRICAL PORTION OF SHANK.
8. UNASSIGNED DASH NUMBERS SHALL NOT BE USED EXCEPT THOSE DASH NUMBERS INCLUDED BY THE FOLLOWING CODING NOTE: DASH NUMBERS INDICATE PREFERRED GRIP LENGTHS IN .125 INCREMENTS FOR LENGTHS LONGER THAN .250 INCHES. INTERMEDIATE GRIP LENGTHS BETWEEN THESE LENGTHS LISTED, MAY BE SPECIFIED IN .062 INCREMENTS BY INTERMEDIATE DASH NUMBERS. LENGTH AND GRIP OF A BOLT WITH AN ODD NUMBER FOR THE DASH NUMBER WILL BE .062 GREATER THAN SHOWN FOR THE BOLT WITH THE PRECEDING EVEN DASH NUMBER.
9. PROCUREMENT SPECIFICATION: MIL-B-87114 EXCEPT AS NOTED TENSILE LOADS AS TABULATED HEREIN. FATIGUE STRENGTH AND COLD WORKING OF HEAD TO SHANK FILLET ARE NOT APPLICABLE. RECESS TORQUE VALUES ARE APPLICABLE FOR SCREWS WITH MS9006 RECESSES.

PREPARING ACTIVITY: OLA-IS

CUSTODIANS: ARMY-AV

NAVY-AS

AIR FORCE-89

DLA-

REVIEW:

USER:

PROJECT NUMBER: 3110-1808

DISTRIBUTION STATEMENT

A. Approved for public release; distribution is unlimited.

MILITARY SPECIFICATION SHEET

TITLE

BOLT, SELF-LOCKING
75 KSI Ftu, 125 KSI Flu
PAN HEAD, CROSS RECESSED

SPECIFICATION SHEET NUMBER

MS21096

14 OCT 94
REV B

SUPERSEDING

MS21096

2 NOV 85

AMSC-N/A

FSC-3110

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DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE