

FED. SUPPLY CLASS

5306

MARK PART NUMBER (SIZES "3" THRU "8") AND MANUFACTURER'S IDENTIFICATION RAISED OR DEPRESSED .010 MAX.

.03 (MEASURED FROM FILLET RADIUS TANGENCY POINT) AN INCREASE OF .001 OVER ØD PERMISSIBLE.

LOCATION OF EFFECTIVE LOCKING AREA "X" SHALL BE IN ACCORDANCE WITH NASM15981.

THREAD
[Symbol] d A

RECESS
[Symbol] c A

ØA
[Symbol] y A

ØD
[Symbol] Øb/1.0
-A-

2 INCOMPLETE THREADS (MAX)

LENGTH TO FIRST COMPLETE THREAD NOT TO EXCEED TWO THREAD PITCHES INCLUDING CHAMFER.

TABLE I – DIMENSIONS AND MECHANICAL PROPERTIES

DIA DASH NO.	THREAD	ØD MAX MIN	ØA MAX MIN	H MAX MIN	(M) MIN	R RAD MAX MIN	y	d	c	b	ULTIMATE TENSILE (LBF) MIN	DOUBLE SHEAR (LBF) MIN		
04	.1120-40 UNC-3A	.1120 .1095	.219 .205	.080 .070	.250	.015 .010	.005	.0045	.016	.0040	480	930		
06	.1380-32 UNC-3A	.1380 .1355	.270 .256	.097 .087	.312	.020 .010					.006	.0030	720	1,420
08	.1640-32 UNC-3A	.1635 .1610	.322 .306	.115 .105	.437								1,120	2,030
3	.1900-32 UNF-3A	.1895 .1870	.373 .357	.133 .122	.469								1,600	2,720
4	.2500-28 UNF-3A	.2495 .2470	.492 .473	.175 .162	.506		2,910	4,700						
5	.3125-24 UNF-3A	.3120 .3095	.615 .594	.218 .203	.531	.025 .015	.008	.0060	.024	.0025	4,640	7,370		
6	.3750-24 UNF-3A	.3745 .3720	.740 .716	.261 .244	.641		.009				7,020	10,600		
7	.4375-20 UNF-3A	.4370 .4345	.863 .838	.304 .286	.656		.010				9,490	14,400		
8	.5000-20 UNF-3A	.4995 .4970	.987 .958	.348 .327	.781						.030 .020	12,790	18,800	

① COMPLETELY REVISED

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS21097, REV E. PART NUMBERS REMAIN MS21097.

THIRD
ANGLE
PROJECTION
[Symbol]

CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

REVISION
1

PROCUREMENT
SPECIFICATION
NASM7839
MIL-DTL-18240

TITLE
**BOLT, SELF-LOCKING, 250 °F,
CRES, 48 KSI Fsu, 80 KSI FtU,
PAN HEAD, CRUCIFORM RECESS**

①

CLASSIFICATION
PART STANDARD

NASM21097

SHEET 1 OF 3

MATERIAL:

CRES PER ~~QQ-S-763~~ AMS-QQ-S-763 THAT WILL PROVIDE IN THE FINISHED BOLT THE STRENGTH AND PERMEABILITY SPECIFIED.

FINISH:

PASSIVATED PER AMS2700, METHOD 1, CLASS 4.

EXAMPLE OF PART NUMBER:

MS21097-4008 = .2500-28 BOLT, .500 GRIP.

NOTES:

- (1) DIMENSIONS IN INCHES AND APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED.
- (2) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
- (3) DESIGN AND USAGE LIMITATIONS: SEE NASM15981.
- (4) GRIP LENGTH "G" IS MEASURED FROM THE UNDERSIDE OF HEAD TO THE END OF FULL CYLINDRICAL PORTION OF SHANK "ØD".
- (5) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION OR MANUFACTURING REQUIREMENT.
- (6) ULTIMATE TENSILE STRENGTH: BASED ON 80 KSI ULTIMATE TENSILE STRENGTH AND CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2.
- (7) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- (8) UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT ON DATE OF MANUFACTURE. HOWEVER, EXISTING MATERIAL INVENTORY CERTIFIED TO A PREVIOUS REVISION OF THE APPLICABLE MATERIAL SPECIFICATION(S) IS ACCEPTABLE FOR USE UNTIL DEPLETION.
- (9) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- /10/ UNASSIGNED DASH NUMBERS SHALL NOT BE USED EXCEPT THOSE DASH NUMBERS INCLUDED BY THE FOLLOWING CODING NOTES: DASH NUMBERS INDICATE PREFERRED GRIP LENGTHS IN .125 INCREMENTS FOR LENGTHS LONGER THAN .250 INCHES, INTERMEDIATE GRIP BETWEEN THOSE 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.
- (11) SURFACE TEXTURE SHALL NOT EXCEED 125 MICROINCHES Ra PER ASME B46.1.
- (12) MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (AIR = 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER ASTM A342/A342M, TEST METHOD 3.

① COMPLETELY REVISED

REVISION
1
NASM21097
SHEET 2

