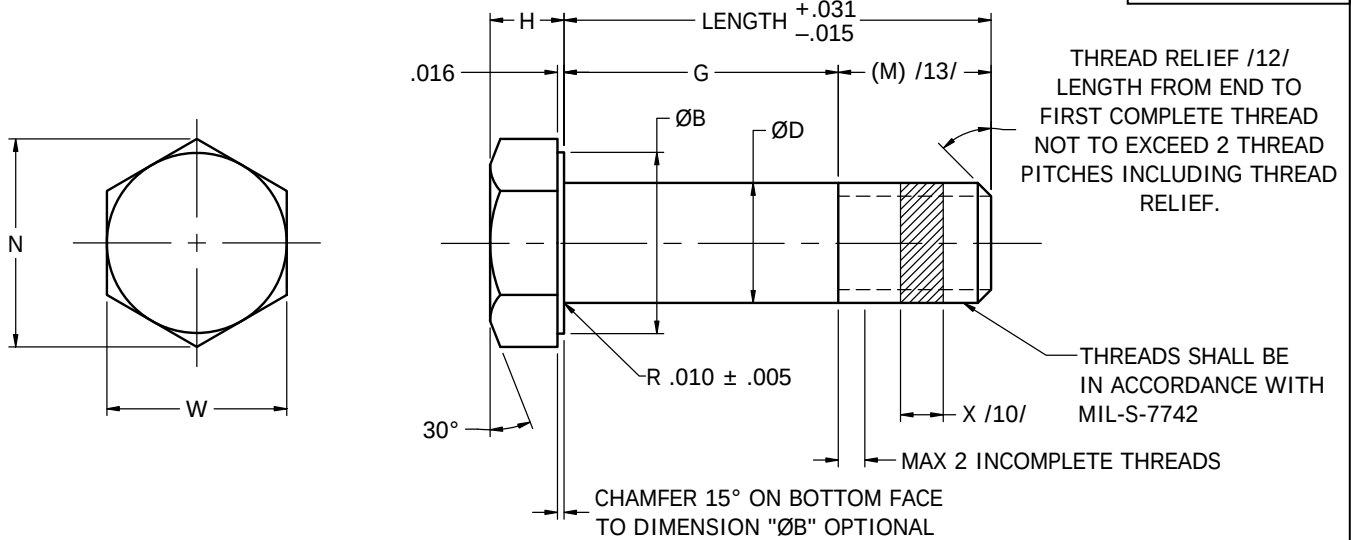


FED. SUPPLY CLASS

5306



② TABLE I – DIMENSIONS

DIA DASH NO.	THREAD UNF-3A /11/	ØD		ØB /15/	H		(M)	N	W		DBL. SHEAR STRENGTH LBF	ULTIMATE TENSILE STRENGTH LBF /14/
		MAX	MIN	MIN	MAX	MIN			MIN	MAX	MIN	MIN
3	.1900-32	.189	.186	.335	.141	.109	.469	.416	.377	.365	4,250	2,420
4	.2500-28	.249	.246	.398	.172	.140	.506	.488	.440	.428	7,360	4,420
5	.3125-24	.312	.309	.460	.204	.172	.531	.558	.502	.490	11,500	7,100
6	.3750-24	.374	.371	.523	.235	.203	.641	.630	.565	.553	16,560	10,790
7	.4375-20	.437	.433	.585	.266	.234	.656	.701	.627	.615	22,500	14,600
8	.5000-20	.499	.495	.710	.297	.265	.781	.843	.752	.740	29,400	19,810
9	.5625-18	.562	.558	.835	.328	.296	.906	.986	.877	.865	37,400	25,060
10	.6250-18	.624	.620	.898	.360	.328	.953	1.058	.940	.928	46,000	31,600
12	.7500-16	.749	.744	1.023	.422	.390	.969	1.200	1.066	1.053	66,300	46,100
14	.8750-14	.874	.869	1.210	.485	.453	1.250	1.413	1.253	1.240	90,100	62,800
16	1.0000-12	.999	.993	1.398	.547	.525	1.375	1.628	1.441	1.428	117,800	82,100
18	1.1250-12	1.124	1.118	1.585	.610	.578	1.500	1.841	1.628	1.615	147,500	105,750
20	1.2500-12	1.249	1.243	1.772	.672	.640	1.687	2.054	1.815	1.802	182,100	133,000

MATERIAL:

ALLOY STEEL – SEE PROCUREMENT SPECIFICATION.

HEAT TREATMENT:

HARDNESS: 26-32 HRC.

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS21094, AMENDMENT 1. PART NUMBERS REMAIN MS21094.

THIRD ANGLE PROJECTION		CUSTODIAN		REVISION	
		NATIONAL AEROSPACE STANDARDS COMMITTEE		2	
PROCUREMENT SPECIFICATION NASM6812 & MIL-DTL-18240		TITLE		CLASSIFICATION PART STANDARD	
		BOLT, SELF-LOCKING, 250 °F, STEEL, 75 KSI Fsu, 125 KSI FtU, HEX HEAD		NASM21094 SHEET 1 OF 4	

FINISH:

CADMIUM PLATED IN ACCORDANCE WITH AMS-QQ-P-416, TYPE II, CLASS 3.

EXAMPLE OF PART NUMBER:

② MS21094-4008 = .2500-28 BOLT, .500 GRIP LENGTH.

NOTES:

- (1) DIMENSIONS IN INCHES AND APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED.
- (2) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
- (3) SURFACE ROUGHNESS: THE SURFACE OF THE SHANK, FILLET AND BEARING AREA: 125 MICROINCHES Ra PER ASME B46.1.
- (4) LOCKING ELEMENT IN ACCORDANCE WITH MIL-DTL-18240. LOCKING ELEMENT AREA MUST PASS THRU A RING GAGE EQUAL TO MAXIMUM MAJOR THREAD DIAMETER +.003 FREELY OR WITH FINGER PRESSURE.
- (5) DESIGN AND USAGE LIMITATIONS: SEE NASM15981.
- /6/ 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 LENGTHS 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.
- (7) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- (8) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- ② (9) 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.
- /10/ LOCATION OF EFFECTIVE LOCKING AREA "X" SHALL BE IN ACCORDANCE WITH NASM15981.
- /11/ THREADS SHALL BE FORMED BY A SINGLE ROLLING PROCESS AND IN ACCORDANCE WITH MIL-S-7742.
- /12/ CHAMFER $45^\circ \pm 5^\circ$ (SEE ASME Y14.5M FOR CLARIFICATION OF ANGULAR TOLERANCE). CHAMFER TO EXTEND TO ROOT OF THREAD.
- /13/ REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT TO BE USED FOR INSPECTION.
- /14/ TENSILE VALUES BASED ON 125 KSI ULTIMATE TENSILE STRENGTH.
STRESS AREA = $3.1416 (E/2 - 3H/16)^2$. SEE FED-STD-H28.
- /15/ THE DIAMETER OF THE WASHER FACE SHALL NOT EXCEED THE ACTUAL WIDTH ACROSS FLATS.

REVISION

2

NASM21094

SHEET 2



Document Sharing Hub

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