



TABLE II - LOGN. STAGE AND LENGTH[illegible]

REQUIREMENTS:

1. MATERIAL:

CODE LETTER

A - Steel, alloy, Grade 2740 (UNS S68400) conforming to MIL-S-6049 or AMS 6372.  
B - Steel, alloy, Grade 2740 (UNS S68400) conforming to MIL-S-6049 or AMS 6372.  
C - Steel, corrosion and heat resistant, Type A36 (UNS S5636) conforming to AMS 5731 or AMS 5734.  
D - Nickel base alloy, corrosion and heat resistant, Type 718 (UNS N07718) conforming to AMS 5662.  
E - Titanium alloy, Ti-6Al-4V (UNS P56400) conforming to MIL-T-9004, Ti-6Al-4V, condition A or AMS 4662.

2. PROTECTIVE COATING OR TREATMENT:

## MATERIAL CODE LETTER

A - Cadmium plated in accordance with QQ-P-416, Type II, class 3.  
B - Cadmium plated in accordance with AMS 2401.  
C & D - Cleaned, descaled and passivated in accordance with ASTM A380.  
E - None.

- ### 3. SURFACE ROUGHNESS:

Unless otherwise specified, machined surfaces shall be 125 microinches in accordance with ANSI B46.1 except for serrated collar.

4. THREADS:

The stud and thread has a special pitch diameter and minor diameter which installs into a M11-S-9879, Class 3B tapped hole. Threads shall be in accordance with procurement specification.

- ## 5. MECHANICAL PROPERTIES:

Material code letters and corresponding hardness, tensile strength, and pertinent length dash numbers follow:

Material	Hardness	Tensile Strength	Dash Numbers
Code Letters	Min.	KSI	
A	35HRC	181	-642 thru -648 & -802 thru -808
B	39HRC	183	-502 thru -508
C	277HB	140	-502 thru -508, & -642 thru -648 & -802 thru -808
D	39HRC	183	-502 thru -508
F	35HRC	160	-502 thru -508, & -642 thru -648 & -802 thru -808

6. CONCENTRICITY:

Shank of nut end shall be concentric with serrated collar within .006 I.M.

7. PILLS:

Fillet's shall be .030 radius maximum.

8. EDGES:

Edges broken .003-.01; unless otherwise specified.

9. TOLERANCES:

Linear dimensions: 1006, angular dimensions: 2°.

21. PART NUMBER:

The MS part number consists of the MS number, plus the material code letter, plus the dash number, plus the second dash number for length (table IV). Add "0" in lieu of the "dash" for drilled hole in nut end. Add "R" as suffix for recess in stud end. **EXAMPLE:**

\* The same conditions can exist for all of the above materials.

NOTES:

1. **DEFINITIONS:** Dimensions in inches, to be met after plating.
2. 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.
3. Do not use Government (or non-government) documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDSS) specified in the solicitation form a part of this standard to the extent specified herein.

P A	AR	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust	AS		STUD, LOCKED IN-RING LOCKED, SERRATED, HIGH STRENGTH	MS51992
	99			
PROCUREMENT SPECIFICATION		SUPERSEDES:		PAGE 2 OF 3
MIL-S-45000				

FED. SUP CLASS  
5307TABLE IV  
TABULATED LENGTHS (NUT END)

DASH NO.	L ±.015 NUT END	GRIP LENGTH, REF (APPLICABLE TO TABLES I, II AND III)						
		UNJF SERIES 3A THREADS						
		.1900	.2500	.3125	.3750	.4375	.5000	.6250
-8	.500	*						
-9	.562	.093	*					
-10	.625	.156	*					
-11	.688	.219	*					
-12	.750	.281	.156	*	*			
-13	.812	.343	.218	.124	*			
-14	.875	.406	.281	.187	.125			
-15	.938	.469	.344	.250	.188	*		
-16	1.000	.531	.406	.312	.250	.188	*	
-17	1.062	.593	.468	.374	.312	.250	.187	
-18	1.125	.656	.531	.437	.375	.313	.250	*
-19	1.188	.719	.594	.500	.438	.376	.313	.188
-20	1.250	.781	.656	.562	.500	.438	.375	.250
-21	1.312	.843	.718	.624	.562	.500	.437	.312
-22	1.375	.906	.781	.687	.625	.563	.500	.375
-23	1.438	.969	.844	.750	.688	.626	.563	.438
-24	1.500	1.031	.906	.812	.750	.688	.625	.500
-25	1.562	1.093	.968	.874	.812	.750	.687	.562
-26	1.625	1.156	1.031	.937	.875	.813	.750	.625
-27	1.688	1.219	1.094	1.000	.938	.876	.813	.688
-28	1.750	1.281	1.156	1.062	1.000	.938	.875	.750
-29	1.812	1.343	1.218	1.124	1.062	1.000	.937	.812
-30	1.875	1.406	1.281	1.187	1.125	1.063	1.000	.875
-31	1.938	1.469	1.344	1.250	1.188	1.126	1.063	.938
-32	2.000	1.531	1.406	1.312	1.250	1.188	1.125	1.000
-34	2.125	1.656	1.531	1.437	1.375	1.313	1.250	1.125
-36	2.250	1.781	1.656	1.562	1.500	1.438	1.375	1.250
-38	2.375	1.906	1.781	1.687	1.625	1.563	1.500	1.375
-40	2.500	2.031	1.906	1.812	1.750	1.688	1.625	1.500
-42	2.625	2.156	2.031	1.937	1.875	1.813	1.750	1.625
-44	2.750	2.281	2.156	2.062	2.000	1.938	1.875	1.750
-46	2.875	2.406	2.281	2.187	2.125	2.063	2.000	1.875
-48	3.000	2.531	2.406	2.312	2.250	2.188	2.125	2.000
-50	3.125	2.656	2.531	2.437	2.375	2.313	2.250	2.125
-52	3.250	2.781	2.656	2.562	2.500	2.438	2.375	2.250
-54	3.375	2.906	2.781	2.687	2.625	2.563	2.500	2.375
-56	3.500	3.031	2.906	2.812	2.750	2.688	2.625	2.500
-58	3.625	3.156	3.031	2.937	2.875	2.813	2.750	2.625
-60	3.750	3.281	3.156	3.062	3.000	2.938	2.875	2.750
-62	3.875	3.406	3.281	3.187	3.125	3.063	3.000	2.875
-64	4.000	3.531	3.406	3.312	3.250	3.188	3.125	3.000

\*HAS NO "D" SHANK AND "T" DIMENSION IS REDUCED. "T" DIMENSION WILL TERMINATE WITHIN 3 PITCHES OF SERRATED COLLAR.

NOTES: CONTINUED

4. DASH NUMBER PARTS BELOW HEAVY LINE HAVE LENGTH OF SHANK D EQUAL TO  $\frac{D(\text{MAX})}{2}$   
 DASH NUMBER PARTS ABOVE HEAVY LINE HAVE LENGTH OF SHANK D SHORTER THAN  $\frac{D(\text{MAX})}{2}$

REVISED (B) FOR CHANGES, SEE PAGES 1, 2 AND 3  
APPROVED 12 DEC 67

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Other Cust	AS		STUD, LOCKED IN-RING LOCKED, SERRATED, HIGH STRENGTH	MS51992
99				
PROCUREMENT SPECIFICATION MIL-S-45909		SUPERSEDES:		PAGE 3 OF 3

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

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