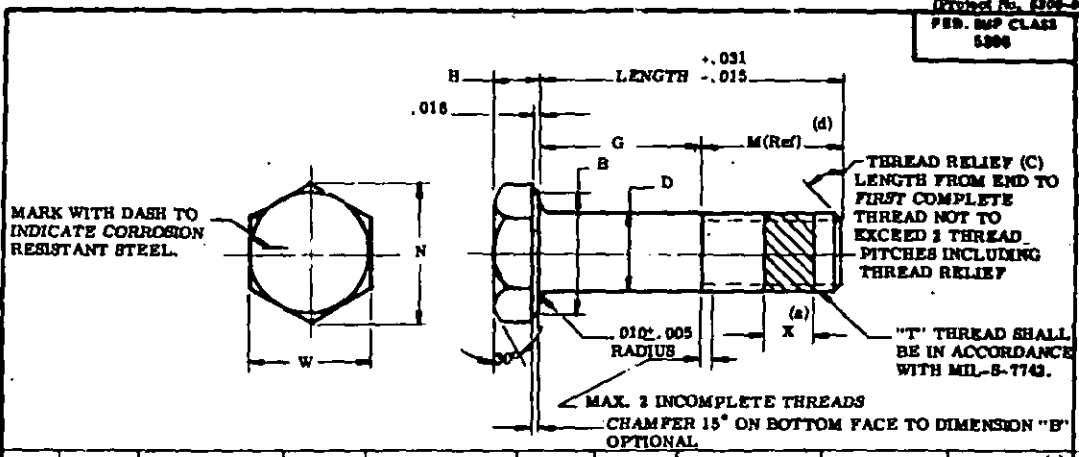


STANDARD No. 672-1
FED. SUP CLASS
5300

REVIEWER SYMBOLS:
NAVY - AS
USAF - 11
ARMY - AV



DASH NO.	"T" (b) THREAD UNF-3A	D DIA.		B DIA. (f)		H	M-Ref	N		W		DBL SHEAR STRENGTH POUNDS	ULT TENSILE STRENGTH POUNDS (g)
		MAX.	MIN.	MIN.	MAX.			MIN.	MIN.	MAX.	MIN.		
-1	#8-32	.138	.135	.213	.108	.094	.312	.277	.251	.243	1,420	720	
-2	#8-32	.164	.161	.275	.118	.106	.437	.348	.313	.305	2,030	1,120	
-3	#10-32	.189	.186	.335	.141	.109	.469	.416	.377	.365	2,720	1,600	
-4	1/4-28	.249	.246	.398	.172	.140	.506	.488	.440	.428	4,700	2,910	
-5	5/16-24	.312	.309	.460	.204	.172	.531	.558	.502	.490	7,370	4,640	
-6	3/8-24	.374	.371	.523	.235	.203	.641	.630	.565	.553	10,600	7,020	
-7	7/16-20	.437	.433	.585	.266	.234	.656	.701	.627	.615	14,400	9,490	
-8	1/2-20	.499	.495	.710	.297	.265	.781	.843	.752	.740	18,800	12,790	
-9	9/16-18	.562	.558	.835	.328	.296	.906	.986	.877	.865	23,900	16,250	
-10	5/8-18	.624	.620	.898	.360	.328	.953	1,058	.940	.928	29,500	19,200	
-11	3/4-16	.749	.744	1,023	.422	.390	.969	1,200	1,066	1,053	42,400	28,000	
-14	7/8-14	.874	.869	1,210	.485	.453	1,250	1,413	1,253	1,240	57,700	38,200	
-16	1-12	.999	.993	1,398	.547	.515	1,375	1,628	1,441	1,428	75,400	49,700	
-28	1-1/8-12	1.124	1.118	1.585	.610	.578	1.500	1.841	1.628	1.615	94,400	64,200	
-20	1-1/4-12	1.249	1.243	1.772	.672	.640	1.687	2,054	1.815	1.802	116,500	80,500	

*Review/assess information is correct as of the date of this document. For future identification of changes to this document, draft circulation should be based on the information in the current 00B155.

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Selection for all new engineering and design applications and for reengineering use shall be made from this document.

(a) LOCATION OF EFFECTIVE LOCKING AREA X SHALL BE IN ACCORDANCE WITH MS15981.
 (b) THREADS SHALL BE FORMED BY ANY SINGLE ROLLING PROCESS AND IN ACCORDANCE WITH SPECIFICATION MIL-B-7742.
 (c) CHAMFER 45° ± 5°. CHAMFER TO EXTEND TO ROOT OF THREAD.
 (d) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION OR MANUFACTURING REQUIREMENT.
 (e) TENSILE VALUES BASED ON 80 KSI ULTIMATE TENSILE STRENGTH UP TO AND INCLUDING 9/16" DIAMETER AND 75 KSI ULTIMATE TENSILE STRENGTH 5/8" DIAMETER AND LARGER. STRESS AREA = 3.1416 (E/2 - 3H/16)². SEE HANDBOOK H-28.
 (f) THE DIAMETER OF THE WASHER FACE SHALL NOT EXCEED THE ACTUAL WIDTH ACROSS FLATS.
 MATERIAL: CORROSION RESISTING STEEL THAT WILL PROVIDE IN THE FINISHED BOLT THE STRENGTH AND PERMEABILITY SPECIFIED.
 TREATMENT: PASSIVATED (SEE PROCUREMENT SPECIFICATION).
 SURFACE TEXTURE: THE SURFACE OF THE SHANK, FILLET AND BEARING AREA SHALL NOT EXCEED 125 MICRO-INCHES. SURFACE TEXTURE SHALL BE IN ACCORDANCE WITH ASA B46.1 (1962) ANEL.
 LOCKING ELEMENT: IN ACCORDANCE WITH SPECIFICATION MIL-F-18240. LOCKING ELEMENT AREA MUST PASS THRU A RING GAGE EQUAL TO THE MAXIMUM MAJOR THREAD DIAMETER ± .003" FREELY OR WITH FINGER PRESSURE.
 MAGNETIC PERMEABILITY: THESE BOLTS HAVE A MAGNETIC PERMEABILITY OF 2.0 MAXIMUM (AIR = 1.0) FOR A FIELD OF H = 300 OERSTEDS USING MAGNETIC INDICATOR PER MIL-I-17214.
 DESIGN AND USAGE LIMITATIONS: SEE MS15981.
 DIMENSIONS IN INCHES.
 EXAMPLE OF PART NUMBER: MS21095-4008 = 1/4-28 BOLT, .500" GRIP LENGTH.

FOR DESIGN FEATURE PURPOSES THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

P.A. NAVY - AS Other Cost USAF - 11 ARMY - AV		TITLE BOLT, SELF-LOCKING, 350° F., CRES, 48 KSI Ftu, 80 KSI Ftu, HEX HEAD	MILITARY STANDARD MS21095
PROCUREMENT SPECIFICATION MIL-B-6812 & MIL-F-18240		SUPERSEDES (A) MS21095(ASG)	SHEET 1 OF 3

APPROVED 3 NOV 65
 REVISED (A) 13 APR 71

FED. SUP CLASS
5308

USED SYMBOLS:

REVIEWER SYMBOLS:
NAVY - AS
USAF - 11
ARMY - AV

*Revision/user information is critical as of the date of this document.
For future identification of changes to this document, direct communication should be based on the information in the current 001095.

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Solicitation for all new engineering and design applications and for reutilization and shall be made from this document.

LENGTH DASH NO. (g)	GRIP C ± .010	LENGTH + .031 - .015						
		6-32	8-32	10-32	1/4-28	5/16-24	3/8-24	7/16-20
001	.062	.375	.468	.468				
002	.125	.497	.531	.531	.594			
003	.187	.500	.643	.593	.656			
004	.250	.582	.656	.656	.719			
006	.375	.687	.781	.781	.844			
008	.500	.812	.906	.906	.969	1.031	1.141	1.156
010	.625	.937	1.031	1.031	1.094	1.156	1.266	1.281
012	.750	1.062	1.156	1.156	1.219	1.281	1.391	1.406
014	.875	1.187	1.281	1.281	1.344	1.406	1.516	1.531
016	1.000	1.312	1.406	1.406	1.469	1.531	1.641	1.656
018	1.125	1.437	1.531	1.531	1.594	1.656	1.766	1.781
020	1.250	1.562	1.656	1.656	1.719	1.781	1.891	1.906
022	1.375	1.687	1.781	1.781	1.844	1.906	2.016	2.031
024	1.500	1.812	1.906	1.906	1.969	2.031	2.141	2.156
026	1.625	1.937	2.031	2.031	2.094	2.156	2.266	2.281
028	1.750	2.062	2.156	2.156	2.219	2.281	2.391	2.406
030	1.875	2.187	2.281	2.281	2.344	2.406	2.516	2.531
032	2.000	2.312	2.406	2.406	2.469	2.531	2.641	2.656
034	2.125	2.437	2.531	2.531	2.594	2.656	2.766	2.781
036	2.250	2.562	2.656	2.656	2.719	2.781	2.891	2.906
038	2.375	2.687	2.781	2.781	2.844	2.906	3.016	3.031
040	2.500	2.812	2.906	2.906	2.969	3.031	3.141	3.156
042	2.625			3.031	3.094	3.156	3.266	3.281
044	2.750			3.156	3.219	3.281	3.391	3.406
046	2.875			3.281	3.344	3.406	3.516	3.531
048	3.000			3.406	3.469	3.531	3.641	3.656
050	3.125			3.531	3.594	3.656	3.766	3.781
052	3.250			3.656	3.719	3.781	3.891	3.906
054	3.375			3.781	3.844	3.906	4.016	4.031
056	3.500			3.906	3.969	4.031	4.141	4.156
058	3.625			4.031	4.094	4.156	4.266	4.281
060	3.750			4.219	4.281	4.391	4.501	4.516
062	3.875			4.344	4.406	4.516	4.626	4.641
064	4.000			4.469	4.531	4.641	4.751	4.766
066	4.125			4.594	4.656	4.766	4.876	4.891
068	4.250			4.719	4.781	4.891	5.001	5.016
070	4.375			4.844	4.906	5.016	5.126	5.141
072	4.500			4.969	5.031	5.141	5.251	5.266
074	4.625				5.156	5.266	5.376	5.391
076	4.750				5.281	5.391	5.501	5.516
078	4.875				5.406	5.516	5.626	5.641
080	5.000				5.531	5.641	5.751	5.766
082	5.125				5.656	5.766	5.876	5.891
084	5.250				5.781	5.891	6.001	6.016
086	5.375				5.906	6.016	6.126	6.141
088	5.500				6.031	6.141	6.251	6.266
090	5.625						6.376	6.391
092	5.750						6.501	6.516
094	5.875						6.626	6.641
096	6.000						6.751	6.766
098	6.125						6.876	6.891
100	6.250						7.001	7.016
102	6.375							

CONT.

APPROVED 2 NOV 65 REVISED (A) FOR CHANGES SEE SHEET 1

P.A. NAVY - AS Other Code USAF - 11 ARMY - AV	TITLE BOLT, SELF-LOCKING, 250° F., CRES, 48 KSI Fuu, 80 KSI Fuu, HEX HEAD	MILITARY STANDARD MS21095 SHEET 2
PROCUREMENT SPECIFICATION MIL-B-6812 & MIL-F-18240	SUPERSEDES (A) MS21095(ASG)	

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 15320

USED SYMBOLS:
 REVIEWER SYMBOLS:
 NAVY - AS
 USAF - 11
 ARMY - AV

*Review/issue information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the aircraft 000158.

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Requests for all new engineering and design applications and for corrections shall be made from this document.

LENGTH DASH NO. (M)	GRIP G ±.010	LENGTH .031 -.015								
		1/2-20	9/16-18	5/8-18	3/4-16	7/8-14	1-12	1-1/8-12	1-1/4-12	
008	1.000	1.231								
010	1.125	1.406	1.531	1.706						
012	1.250	1.531	1.656	1.781	1.956					
014	1.375	1.656	1.781	1.956	2.131	2.306				
016	1.500	1.781	1.956	2.131	2.306	2.481	2.656			
018	1.625	1.906	2.081	2.256	2.431	2.606	2.781	2.956		
020	1.750	2.031	2.206	2.381	2.556	2.731	2.906	3.081	3.256	
022	1.875	2.156	2.331	2.506	2.681	2.856	3.031	3.206	3.381	
024	2.000	2.281	2.456	2.631	2.806	2.981	3.156	3.331	3.506	
026	2.125	2.406	2.581	2.756	2.931	3.106	3.281	3.456	3.631	
028	2.250	2.531	2.706	2.881	3.056	3.231	3.406	3.581	3.756	
030	2.375	2.656	2.831	3.006	3.181	3.356	3.531	3.706	3.881	
032	2.500	2.781	2.956	3.131	3.306	3.481	3.656	3.831	4.006	
034	2.625	2.906	3.081	3.256	3.431	3.606	3.781	3.956	4.131	
036	2.750	3.031	3.206	3.381	3.556	3.731	3.906	4.081	4.256	
038	2.875	3.156	3.331	3.506	3.681	3.856	4.031	4.206	4.381	
040	3.000	3.281	3.456	3.631	3.806	3.981	4.156	4.331	4.506	
042	3.125	3.406	3.581	3.756	3.931	4.106	4.281	4.456	4.631	
044	3.250	3.531	3.706	3.881	4.056	4.231	4.406	4.581	4.756	
046	3.375	3.656	3.831	4.006	4.181	4.356	4.531	4.706	4.881	
048	3.500	3.781	3.956	4.131	4.306	4.481	4.656	4.831	5.006	
050	3.625	3.906	4.081	4.256	4.431	4.606	4.781	4.956	5.131	
052	3.750	4.031	4.206	4.381	4.556	4.731	4.906	5.081	5.256	
054	3.875	4.156	4.331	4.506	4.681	4.856	5.031	5.206	5.381	
056	4.000	4.281	4.456	4.631	4.806	4.981	5.156	5.331	5.506	
058	4.125	4.406	4.581	4.756	4.931	5.106	5.281	5.456	5.631	
060	4.250	4.531	4.706	4.881	5.056	5.231	5.406	5.581	5.756	
062	4.375	4.656	4.831	5.006	5.181	5.356	5.531	5.706	5.881	
064	4.500	4.781	4.956	5.131	5.306	5.481	5.656	5.831	6.006	
066	4.625	4.906	5.081	5.256	5.431	5.606	5.781	5.956	6.131	
068	4.750	5.031	5.206	5.381	5.556	5.731	5.906	6.081	6.256	
070	4.875	5.156	5.331	5.506	5.681	5.856	6.031	6.206	6.381	
072	5.000	5.281	5.456	5.631	5.806	5.981	6.156	6.331	6.506	
074	5.125	5.406	5.581	5.756	5.931	6.106	6.281	6.456	6.631	
076	5.250	5.531	5.706	5.881	6.056	6.231	6.406	6.581	6.756	
078	5.375	5.656	5.831	6.006	6.181	6.356	6.531	6.706	6.881	
080	5.500	5.781	5.956	6.131	6.306	6.481	6.656	6.831	7.006	
082	5.625	5.906	6.081	6.256	6.431	6.606	6.781	6.956	7.131	
084	5.750	6.031	6.206	6.381	6.556	6.731	6.906	7.081	7.256	
086	5.875	6.156	6.331	6.506	6.681	6.856	7.031	7.206	7.381	
088	6.000	6.281	6.456	6.631	6.806	6.981	7.156	7.331	7.506	
090	6.125	6.406	6.581	6.756	6.931	7.106	7.281	7.456	7.631	
092	6.250	6.531	6.706	6.881	7.056	7.231	7.406	7.581	7.756	
094	6.375	6.656	6.831	7.006	7.181	7.356	7.531	7.706	7.881	
096	6.500	6.781	6.956	7.131	7.306	7.481	7.656	7.831	8.006	
098	6.625	6.906	7.081	7.256	7.431	7.606	7.781	7.956	8.131	
100	6.750	7.031	7.206	7.381	7.556	7.731	7.906	8.081	8.256	
102	6.875	7.156	7.331	7.506	7.681	7.856	8.031	8.206	8.381	
104	7.000	7.281	7.456	7.631	7.806	7.981	8.156	8.331	8.506	
106	7.125	7.406	7.581	7.756	7.931	8.106	8.281	8.456	8.631	
108	7.250	7.531	7.706	7.881	8.056	8.231	8.406	8.581	8.756	
110	7.375	7.656	7.831	8.006	8.181	8.356	8.531	8.706	8.881	
112	7.500	7.781	7.956	8.131	8.306	8.481	8.656	8.831	9.006	
114	7.625	7.906	8.081	8.256	8.431	8.606	8.781	8.956	9.131	
116	7.750	8.031	8.206	8.381	8.556	8.731	8.906	9.081	9.256	
118	7.875									
120	8.000									
122	8.125									
124	8.250									
126	8.375									
128	8.500									

(*) 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 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.

P A	NAVY - AS	TITLE	MILITARY STANDARD
Other Cast	USAF - 11	BOLT, SELF-LOCKING, 250°F., CRES, 48 KSI F _{tu} , 80 KSI F _{tu} , HEX HEAD	MS21095
	ARMY - AV		
PROCUREMENT SPECIFICATION MIL-B-8812 & MIL-F-10540	SUPSEDES (A)	MS21095(ASG)	SHEET 3

APPROVED 2 NOV 65 REVISED (A) FOR CHANGES SEE SHEET 1