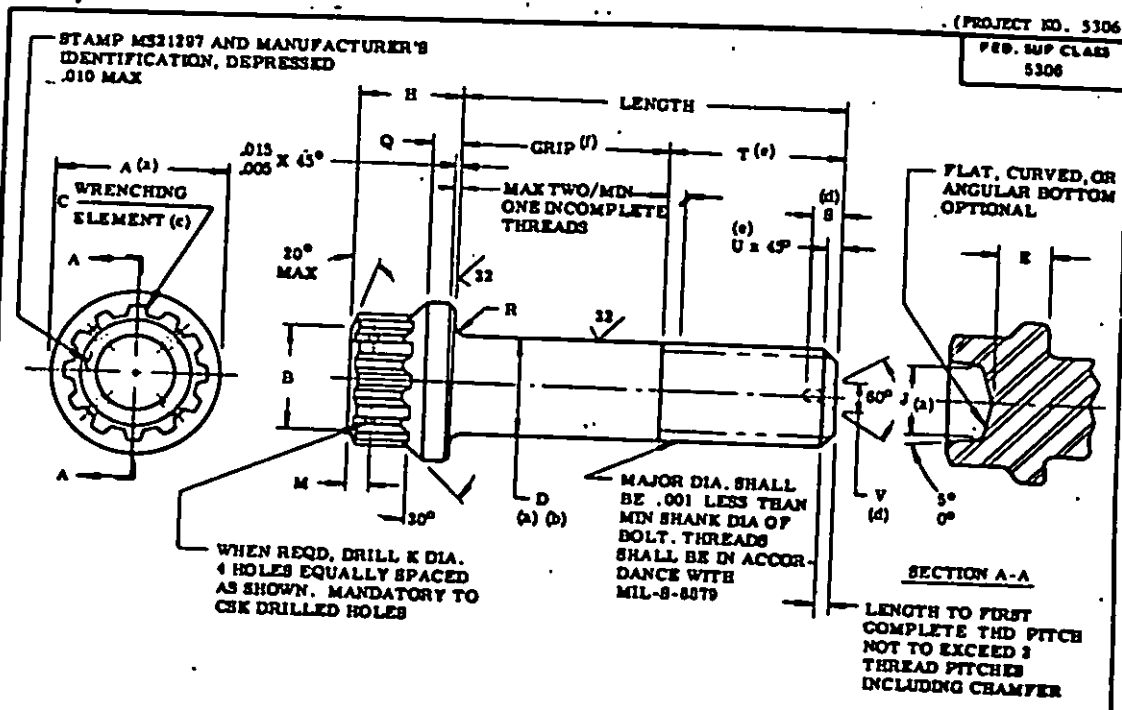


SIZE SYMBOLS: ARMY - MI
REVISED SYMBOLS: DSA - IS ARMY - AT



Section/note information is correct 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 current 000152.

NOTES:

- 1. MATERIAL: ALLOY STEEL PER AMS 6487.
- 2. HARDNESS: ROCKWELL C46-50
- 3. SURFACE TEXTURE IN ACCORDANCE WITH ANSI (ASA) B46.1 - 1962.
- 4. PLATING: CADMIUM COATED (VACUUM DEPOSITED): MIL-C-8837, TYPE II, CLASS 2.
- 5. DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.010, ANGLES 13°
- 6. DIMENSIONS TO BE MET AFTER PLATING.
- 7. DESIGN AND USAGE INFORMATION: THESE BOLTS ARE DESIGNED TO BE USED WITH MS21084 NUTS AND MS21206 WASHERS.

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 replacement use shall be made from this document.

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) REVISED</p>		<p>MILITARY STANDARD</p>	
<p>P. A. NAVY - AS</p> <p>Other Code</p> <p>USAF - 11</p> <p>ARMY - AV</p>	<p>TITLE</p> <p>BOLT, TENSION, STEEL, 220 KSI F_u, 450°F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED HEAD</p>	<p>MS21297</p>	
<p>PROCUREMENT SPECIFICATION</p> <p>MIL-B-8906</p>	<p>SUPERSEDES</p>	<p>SHEET 1 OF 6</p>	

APPROVED 28 JAN 1972 REVISED (A) 6 OCT 1973

USER SYMBOLS:
ARMY - MI
REVISOR SYMBOLS:
DSA - IS
ARMY - AT

DIA DASH NO.	NOMINAL SIZE	THREAD UNJF-3A	A - DIA (a)		B - DIA		C(c) WRENCHING ELEMENT	D - DIA (a) (b)		DASH NO.
			MAX	MIN	MAX	MIN		MAX	MIN	
03	NO. 10	.1900-32	.359	.349	.188	.173	8	.1895	.1885	03
04	1/4	.2500-28	.470	.460	.250	.235	10	.2495	.2485	04
05	5/16	.3125-24	.585	.575	.375	.360	12	.3120	.3110	05
06	3/8	.3750-24	.701	.691	.438	.423	14	.3745	.3735	06
07	7/16	.4375-20	.817	.807	.500	.485	16	.4370	.4360	07
08	1/2	.5000-20	.932	.922	.562	.547	20	.4995	.4985	08
09	9/16	.5625-18	1.047	1.037	.625	.610	22	.5615	.5605	09
10	5/8	.6250-18	1.163	1.153	.688	.673	24	.6240	.6230	10
12	3/4	.7500-16	1.394	1.384	.812	.797	28	.7490	.7480	12
14	7/8	.8750-14	1.625	1.615	.938	.923	32	.8740	.8730	14
16	1	1.0000-12	1.856	1.846	1.062	1.047	38	.9980	.9980	16
18	1 1/8	1.1250-12	2.087	2.077	1.250	1.235	42	1.1240	1.1225	18
20	1 1/4	1.2500-12	2.318	2.308	1.375	1.360	48	1.2490	1.2475	20
22	1 3/8	1.3750-12	2.549	2.539	1.500	1.485	52	1.3740	1.3725	22
24	1 1/2	1.5000-12	2.780	2.770	1.625	1.610	56	1.4990	1.4975	24

*Rework/pen 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 current DDISS.

DASH NO.	E MIN	H .010	J (a) .010 .030	K .005	M	Q		R - RAD.		S MAX (d)	T MIN REF (e)	DASH NO.	
						MAX	MIN	MAX	MIN				
03	.113	.205	.100	.055	.062	.037	.017	.022	.016	200	.408	03	
04	.149	.250	.125			.046	.026	.028	.022			.495	04
05	.187	.312	.215			.055	.035	.035	.029			.589	05
06	.224	.337	.260			.064	.044	.043	.033			.659	06
07	.262	.393	.320			.073	.053	.049	.039			.763	07
08	.299	.450	.380			.082	.062	.055	.045			.838	08
09	.336	.505	.440			.091	.071	.061	.051			.935	09
10	.374	.562	.500			.100	.080	.068	.058			1.005	10
12	.449	.600	.570			.118	.098	.080	.070			1.173	12
14	.523	.700	.650			.136	.119	.093	.083			1.348	14
16	.599	.800	.740			.154	.134	.105	.095			1.546	16
18	.674	.900	.840			.172	.152	.118	.108			1.698	18
20	.749	1.000	1.070			.190	.170	.130	.120			1.836	20
22	.824	1.100	1.140			.208	.188	.143	.133			1.976	22
24	.899	1.200	1.200			.226	.206	.155	.145			2.116	24

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 replacement use shall be made from this document.

P.A. NAVY - AS Other Cust USAF - 11 ARMY - AV	TITLE BOLT, TENSION, STEEL, 220 KSI Ftu, 450° F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED HEAD	MILITARY STANDARD MS21297
PROCUREMENT SPECIFICATION MIL-B-8908	SUPERSEDES:	SHEET 2 OF 6

APPROVED 28 JAN 1972 REVISED A FOR CHGS SEE SHT 1

USER SYMBOLS:
ARMY - M

REVISION SYMBOLS:
DSA - B
ARMY - AT

*Engine/ater information is current as of the date of this document.
For future coordination of changes to this document, draft quantities
should be based on the information in the current 000195.

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

DASH NO.	U REF (e)	V MAX (d)	CENTER DRILL SIZE (d)	BEARING AREA (MEAN DIA) SQ. IN.	ULTIMATE TENSILE STRENGTH LB MIN	DOUBLE SHEAR STRENGTH LB MIN	CONCENTRICITY		DASH NO.
							X (a)	Z (b)	
03	.039			.0517	4,770	7,480	.004		03
04	.045			.0914	8,540	13,000	.005	.0045	04
05	.052			.1442	13,500	20,200	.006		05
06				.2106	20,900	29,100	.008	.0090	06
07	.063			.2896	28,300	39,700	.009		07
08				.3786	37,800	51,800	.010		08
09	.069			.4808	47,900	65,600	.011	.0090	09
10				.5945	59,900	81,000	.012		10
12	.078	.187	2	.7512	86,900	117,000	.015	.0090	12
14	.089			1.1673	119,000	159,000	.018		14
16		.250	3	1.5465	155,000	207,000	.020		16
18				1.9438	198,000	263,000	.022		18
20	.104			2.4020	247,000	324,000	.025	.0190	20
22		.312	4	2.9060	301,000	392,000	.028		22
24				3.4630	361,000	466,000	.030		24

- (a) DIMENSIONS A, D AND J SHALL BE CONCENTRIC TO EACH OTHER WITHIN VALUES SPECIFIED FOR X T J.R.
- (b) DIMENSIONS D AND THREAD PITCH DIAMETER SHALL BE CONCENTRIC TO EACH OTHER WITHIN VALUES SPECIFIED PER Z T J.R.
- (c) WRENCHING ELEMENT PER MS33787. DRIVERS PER MIL-W-8882.
- (d) ON BOLT SIZES .750 INCH AND LARGER, CENTER DRILLING OF SHANK IS OPTIONAL.
- (e) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT INSPECTION OR MANUFACTURING REQUIREMENTS.
- (f) GRIP LENGTH OF BOLT SHALL BE MEASURED FROM UNDERSIDE OF HEAD TO THE END OF FULL CYLINDRICAL PORTION OF SHANK.

APPROVED 26 JAN 1972 REVISED A FOR CHCS SEE SHT 1

P.A. NAVY - AS	TITLE	MILITARY STANDARD
Other Code USAF - 11 ARMY - AV	BOLT, TENSION, STEEL, 220 KSI Fls, 450° F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED HEAD	MS21297
PROCUREMENT SPECIFICATION MIL-B 8906	SUPERSEDES	SHEET 3 OF 6

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

*Revision/year information is current as of the date of this document. For future coordination of changes in this document, draft circulation should be based on the information in the current DD0193.

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

USER SYMBOLS:
 ARMY - MI

GRIP DASH NO.	GRIP #.010	DIAMETER DASH NUMBERS															
		03	04	05	06	07	08	09	10	12	14	16	18	20	22	24	
003	.188	.610	.698	.792	.862	.966	1.040	1.138	1.208	1.376	1.550	1.748	1.898	2.038	2.178	2.318	
004	.250	.760	.854	.924	1.028	1.028	1.103	1.200	1.270	1.438	1.613	1.811	1.961	2.101	2.241	2.381	
005	.312	.736	.832	.916	.986	1.090	1.166	1.262	1.332	1.500	1.676	1.874	2.024	2.164	2.304	2.444	
006	.375	.768	.865	.979	1.049	1.153	1.228	1.325	1.395	1.563	1.738	1.936	2.086	2.226	2.366	2.506	
007	.438	.860	.948	1.042	1.112	1.216	1.290	1.388	1.458	1.626	1.800	1.998	2.148	2.288	2.428	2.568	
008	.500	.923	1.010	1.104	1.174	1.278	1.353	1.450	1.520	1.688	1.863	2.061	2.211	2.351	2.491	2.631	
009	.562	.986	1.072	1.166	1.236	1.340	1.416	1.512	1.582	1.750	1.926	2.124	2.274	2.414	2.554	2.694	
010	.625	1.048	1.135	1.229	1.299	1.403	1.478	1.575	1.645	1.813	1.988	2.186	2.336	2.476	2.616	2.756	
011	.688	1.110	1.198	1.292	1.362	1.466	1.540	1.638	1.708	1.876	2.050	2.248	2.398	2.538	2.678	2.818	
012	.750	1.173	1.260	1.354	1.424	1.528	1.603	1.700	1.770	1.938	2.113	2.311	2.461	2.601	2.741	2.881	
013	.812	1.236	1.323	1.416	1.486	1.590	1.666	1.762	1.832	2.000	2.176	2.374	2.524	2.664	2.804	2.944	
014	.875	1.298	1.385	1.479	1.549	1.653	1.728	1.825	1.895	2.063	2.238	2.436	2.586	2.726	2.866	3.006	
015	.938	1.360	1.448	1.542	1.612	1.716	1.790	1.888	1.958	2.126	2.300	2.498	2.648	2.788	2.928	3.068	
016	1.000	1.423	1.510	1.604	1.674	1.778	1.853	1.950	2.020	2.188	2.363	2.561	2.711	2.851	2.991	3.131	
017	1.062	1.488	1.572	1.666	1.736	1.840	1.916	2.012	2.082	2.250	2.426	2.624	2.774	2.914	3.054	3.194	
018	1.125	1.548	1.635	1.729	1.799	1.903	1.978	2.075	2.145	2.313	2.488	2.686	2.836	2.976	3.116	3.256	
019	1.188	1.610	1.698	1.792	1.862	1.966	2.040	2.138	2.208	2.376	2.550	2.748	2.898	3.038	3.178	3.318	
020	1.250	1.673	1.760	1.854	1.924	2.028	2.103	2.200	2.270	2.438	2.613	2.811	2.961	3.101	3.241	3.381	
021	1.312	1.736	1.822	1.916	1.986	2.090	2.166	2.262	2.332	2.500	2.676	2.874	3.024	3.164	3.304	3.444	
022	1.375	1.798	1.885	1.979	2.049	2.153	2.228	2.325	2.395	2.563	2.738	2.936	3.086	3.226	3.366	3.506	
023	1.438	1.860	1.949	2.042	2.112	2.216	2.290	2.388	2.458	2.626	2.800	2.998	3.148	3.288	3.428	3.568	
024	1.500	1.923	2.010	2.104	2.174	2.278	2.353	2.450	2.520	2.688	2.863	3.061	3.211	3.351	3.491	3.631	
025	1.562	1.986	2.072	2.166	2.236	2.340	2.416	2.512	2.582	2.750	2.926	3.124	3.274	3.414	3.554	3.694	
026	1.625	2.048	2.135	2.229	2.299	2.403	2.478	2.575	2.645	2.813	2.988	3.186	3.336	3.476	3.616	3.756	
027	1.688	2.110	2.198	2.292	2.362	2.466	2.540	2.638	2.708	2.876	3.050	3.248	3.398	3.538	3.678	3.818	
028	1.750	2.173	2.260	2.354	2.424	2.528	2.603	2.700	2.770	2.938	3.113	3.311	3.461	3.601	3.741	3.881	
029	1.812	2.236	2.322	2.416	2.486	2.590	2.666	2.762	2.832	3.000	3.176	3.374	3.524	3.664	3.804	3.944	
030	1.875	2.298	2.385	2.479	2.549	2.653	2.728	2.825	2.895	3.063	3.238	3.436	3.586	3.726	3.866	4.006	
031	1.938	2.360	2.448	2.542	2.612	2.716	2.790	2.888	2.958	3.126	3.300	3.498	3.648	3.788	3.928	4.068	
032	2.000	2.423	2.510	2.604	2.674	2.778	2.853	2.950	3.020	3.188	3.363	3.561	3.711	3.851	3.991	4.131	
033	2.062	2.486	2.572	2.666	2.736	2.840	2.916	3.012	3.082	3.250	3.426	3.624	3.774	3.914	4.054	4.194	
034	2.125	2.548	2.635	2.729	2.799	2.903	2.978	3.075	3.145	3.313	3.488	3.686	3.836	3.976	4.116	4.256	

FED. SUP CLASS
5308

P. A. NAVY - AS
 Other Cust
 USAF - 11
 ARMY - AV
 PROCUREMENT SPECIFICATION
 MIL-B - 8906

TITLE
 BOLT, TENSION, STEEL, 220KSI Ftu, 450' P.,
 EXTERNAL WRENCHING,
 SPLINE DRIVE, FLANGED HEAD
 SUPERSEDES:

MILITARY STANDARD
MS21297
 SHEET 4 OF 6

APPROVED 28 JAN 1972 REVISED (A) FOR CHCS SEE SHT 1

This military standard is mandatory for use by all Departments & Agencies of the Department of Defense. Selection for all new manufacturing and design applications and for supplying into stock is made from this document.

*Review/Asst information is correct as of the date of this document. For future consideration of changes in this document, users permission should be based on the information in the current 000189.

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

USER SYMBOLS:
 ARMY - MI

GRIP DASH NO.	GRIP .010	DIAMETER DASH NUMBERS																	
		03	04	05	06	07	08	09	10	12	14	16	18	20	22	24			
035	2.188	2.610	2.699	2.792	2.882	2.966	3.040	3.138	3.203	3.278	3.350	3.448	3.508	3.589	3.638	3.716	3.788	3.831	
036	2.250	2.673	2.760	2.854	2.974	3.028	3.103	3.200	3.270	3.338	3.411	3.481	3.558	3.611	3.611	3.681	3.751	3.781	
037	2.312	2.736	2.822	2.916	3.036	3.090	3.166	3.263	3.332	3.400	3.474	3.544	3.621	3.674	3.674	3.744	3.814	3.844	
038	2.375	2.799	2.885	2.979	3.049	3.153	3.228	3.325	3.395	3.463	3.538	3.608	3.685	3.741	3.741	3.811	3.881	3.911	
039	2.438	2.862	2.948	3.042	3.112	3.216	3.290	3.387	3.458	3.526	3.601	3.671	3.748	3.804	3.804	3.874	3.944	3.974	
040	2.500	2.923	3.010	3.104	3.174	3.270	3.353	3.450	3.520	3.588	3.663	3.733	3.810	3.866	3.866	3.936	4.006	4.036	
041	2.562	2.986	3.072	3.166	3.236	3.340	3.416	3.512	3.582	3.650	3.726	3.796	3.873	3.929	3.929	4.000	4.070	4.100	
042	2.625	3.049	3.135	3.229	3.299	3.403	3.479	3.575	3.645	3.713	3.789	3.859	3.936	4.000	4.000	4.070	4.140	4.170	
043	2.688	3.110	3.196	3.292	3.362	3.466	3.542	3.638	3.708	3.776	3.852	3.922	4.000	4.056	4.056	4.126	4.196	4.226	
044	2.750	3.173	3.260	3.354	3.424	3.528	3.603	3.700	3.770	3.838	3.914	3.984	4.061	4.117	4.117	4.187	4.257	4.287	
045	2.812	3.236	3.322	3.416	3.486	3.590	3.666	3.762	3.832	3.900	3.976	4.046	4.123	4.179	4.179	4.249	4.319	4.349	
046	2.875	3.299	3.385	3.479	3.549	3.653	3.728	3.825	3.895	3.963	4.039	4.109	4.186	4.242	4.242	4.312	4.382	4.412	
047	2.938	3.360	3.446	3.542	3.612	3.716	3.790	3.888	3.958	4.026	4.102	4.172	4.249	4.305	4.305	4.375	4.445	4.475	
048	3.000	3.423	3.510	3.604	3.674	3.778	3.853	3.950	4.020	4.088	4.163	4.233	4.310	4.366	4.366	4.436	4.506	4.536	
049	3.062	3.486	3.572	3.666	3.736	3.840	3.916	4.012	4.082	4.150	4.226	4.296	4.373	4.429	4.429	4.499	4.569	4.599	
050	3.125	3.548	3.635	3.729	3.799	3.903	3.978	4.075	4.145	4.213	4.289	4.359	4.436	4.492	4.492	4.562	4.632	4.662	
051	3.188	3.610	3.695	3.792	3.862	3.966	4.040	4.138	4.208	4.276	4.352	4.422	4.500	4.556	4.556	4.626	4.696	4.726	
052	3.250	3.673	3.760	3.854	3.924	4.028	4.103	4.200	4.270	4.338	4.414	4.484	4.561	4.617	4.617	4.687	4.757	4.787	
053	3.312	3.736	3.822	3.916	3.986	4.090	4.166	4.262	4.332	4.400	4.476	4.546	4.623	4.679	4.679	4.749	4.819	4.849	
054	3.375	3.799	3.885	3.979	4.049	4.153	4.228	4.325	4.395	4.463	4.538	4.608	4.685	4.741	4.741	4.811	4.881	4.911	
055	3.438	3.862	3.948	4.042	4.112	4.216	4.290	4.387	4.458	4.526	4.601	4.671	4.748	4.804	4.804	4.874	4.944	4.974	
056	3.500	3.923	4.010	4.104	4.174	4.278	4.353	4.450	4.520	4.588	4.663	4.733	4.810	4.866	4.866	4.936	5.006	5.036	
057	3.562	3.986	4.072	4.166	4.236	4.340	4.416	4.512	4.582	4.650	4.726	4.796	4.873	4.929	4.929	5.000	5.070	5.100	
058	3.625	4.048	4.135	4.229	4.299	4.403	4.479	4.575	4.645	4.713	4.789	4.859	4.936	4.992	4.992	5.062	5.132	5.162	
059	3.688	4.110	4.196	4.292	4.362	4.466	4.542	4.638	4.708	4.776	4.852	4.922	5.000	5.056	5.056	5.126	5.196	5.226	
060	3.750	4.173	4.260	4.354	4.424	4.528	4.603	4.700	4.770	4.838	4.914	4.984	5.061	5.117	5.117	5.187	5.257	5.287	
061	3.812	4.236	4.322	4.416	4.486	4.590	4.666	4.762	4.832	4.900	4.976	5.046	5.123	5.179	5.179	5.249	5.319	5.349	
062	3.875	4.299	4.385	4.479	4.549	4.653	4.728	4.825	4.895	4.963	5.039	5.109	5.186	5.242	5.242	5.312	5.382	5.412	
063	3.938	4.360	4.446	4.542	4.612	4.716	4.790	4.888	4.958	5.026	5.102	5.172	5.249	5.305	5.305	5.375	5.445	5.475	
064	4.000	4.423	4.510	4.604	4.674	4.778	4.853	4.950	5.020	5.088	5.163	5.233	5.310	5.366	5.366	5.436	5.506	5.536	
065	4.062	4.486	4.572	4.666	4.736	4.840	4.916	5.012	5.082	5.150	5.226	5.296	5.373	5.429	5.429	5.499	5.569	5.599	
066	4.125	4.548	4.635	4.729	4.799	4.903	4.978	5.075	5.145	5.213	5.289	5.359	5.436	5.492	5.492	5.562	5.632	5.662	
068	4.250	4.673	4.760	4.854	4.924	5.028	5.103	5.200	5.270	5.338	5.414	5.484	5.561	5.617	5.617	5.687	5.757	5.787	

FED. SUP CLASS
5306

DD FORM 672-1 (Continued)	NAVY - AS	TITLE	MILITARY STANDARD
USAF - 11		BOLT, TENSION, STEEL, 220 KSI Fls, 450° F.,	MS21297
ARMY - AV		EXTERNAL WRENCHING,	
		SPLINE DRIVE, FLANGED HEAD	
MIL-D-8906	SUPERMODEL		SHEET 5 OF 6

APPROVED 28 JAN 1972 REVISED A FOR CHS3 SEE DRT 1

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 replacement use shall be made from this document.

*Review/enter information in correct as of the date of this document. For future coordination of changes to this document, direct attention should be based on the information in the correct 000000.

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

USED SYMBOLS:
 ARMY - M

GRIP DASH NO.	GRIP #.010	DIAMETER DASH NUMBERS														
		03	04	05	06	07	08	09	10	12	14	16	18	20	22	24
070	4.375	4.798	4.885	4.979	5.049	5.153	5.228	5.325	5.395	5.503	5.738	5.936	6.086	6.228	6.366	6.500
072	4.500	4.923	5.010	5.104	5.174	5.278	5.353	5.450	5.520	5.688	5.803	6.061	6.211	6.351	6.491	6.631
074	4.625	5.048	5.135	5.229	5.299	5.403	5.478	5.575	5.645	5.913	6.088	6.186	6.336	6.476	6.616	6.756
076	4.750	5.173	5.260	5.354	5.424	5.528	5.603	5.700	5.770	6.113	6.311	6.461	6.601	6.741	6.881	
078	4.875	5.298	5.385	5.479	5.549	5.653	5.728	5.825	5.895	6.003	6.238	6.456	6.586	6.726	6.866	7.006
080	5.000	5.423	5.510	5.604	5.674	5.778	5.853	5.950	6.020	6.188	6.363	6.501	6.711	6.851	6.991	7.131
082	5.125	5.548	5.635	5.729	5.799	5.903	5.978	6.075	6.145	6.313	6.488	6.686	6.836	6.976	7.116	7.256
084	5.250	5.673	5.760	5.854	5.924	6.028	6.103	6.200	6.270	6.438	6.613	6.811	6.961	7.101	7.241	7.381
086	5.375	5.798	5.885	5.979	6.049	6.153	6.228	6.325	6.395	6.563	6.738	6.936	7.086	7.226	7.366	7.506
088	5.500	5.923	6.010	6.104	6.174	6.278	6.353	6.450	6.520	6.688	6.803	7.061	7.211	7.351	7.491	7.631
090	5.625	6.048	6.135	6.229	6.299	6.403	6.478	6.575	6.645	6.813	6.988	7.186	7.336	7.476	7.616	7.756
092	5.750	6.173	6.260	6.354	6.424	6.528	6.603	6.700	6.770	6.938	7.113	7.311	7.461	7.601	7.741	7.881
094	5.875	6.298	6.385	6.479	6.549	6.653	6.728	6.825	6.895	7.063	7.238	7.436	7.586	7.726	7.866	8.006
096	6.000	6.423	6.510	6.604	6.674	6.778	6.853	6.950	7.020	7.188	7.363	7.561	7.711	7.851	7.991	8.131
098	6.125							7.075	7.145	7.313	7.488	7.686	7.836	7.976	8.116	8.256
100	6.250							7.200	7.270	7.438	7.613	7.811	7.961	8.101	8.241	8.381
102	6.375							7.325	7.395	7.563	7.738	7.936	8.086	8.226	8.366	8.506
104	6.500							7.450	7.520	7.688	7.863	8.061	8.211	8.351	8.491	8.631
106	6.625							7.575	7.645	7.813	7.988	8.186	8.336	8.476	8.616	8.756
108	6.750							7.700	7.770	7.938	8.113	8.311	8.461	8.601	8.741	8.881
110	6.875							7.825	7.895	8.063	8.238	8.436	8.586	8.726	8.866	9.006
112	7.000							7.950	8.020	8.188	8.363	8.561	8.711	8.851	8.991	9.131

DIAMETER DASH NO. AT TOP OF TABLE, PLUS GRIP DASH NO. FIRST COLUMN ON LEFT OF TABLE CONSTITUTES A COMPLETE DASH ?
 IDENTIFYING SPECIFIED LENGTHS OF A GIVEN SIZE OF BOLT.
 ADD LETTER 'H' BEFORE DASH NO. TO DESIGNATE DRILLED HEAD. FIRST TWO DASH NUMBERS DESIGNATE DIAMETER IN SIXTEENTHS.
 LAST THREE DASH NUMBERS DESIGNATE GRIP LENGTH IN SIXTEENTHS.
 UNASSIGNED DASH NOS. SHALL NOT BE USED.
 EXAMPLES OF PART NUMBER: MS21297-04016 - 1/4-28 BOLT, 1.510 LONG, 1.000 GRIP, UNDRILLED HEAD.
 MS21297H04016 - 1/4-28 BOLT, 1.510 LONG, 1.000 GRIP, DRILLED HEAD.
 MS21297-05020 - 5/16-24 BOLT, 1.854 LONG, 1.250 GRIP, UNDRILLED HEAD.
 MS21297H05020 - 5/16-24 BOLT, 1.854 LONG, 1.250 GRIP, DRILLED HEAD.

FED. SUP CLASS
 5306

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 16320

P.A. NAVY - AS
 Other Cust:
 USAF - 11
 ARMY - AV

TITLE
 BOLT, TENSION, STEEL, 220KSI Flw, 450°F.,
 EXTERNAL WRENCHING,
 SPLINE DRIVE, FLANGED HEAD

SUPSEDES:

MILITARY STANDARD
MS21297
 SHEET 6 OF 6

APPROVED 28 JAN 1972 REVISED A FOR CHCS SEE SHT 1