

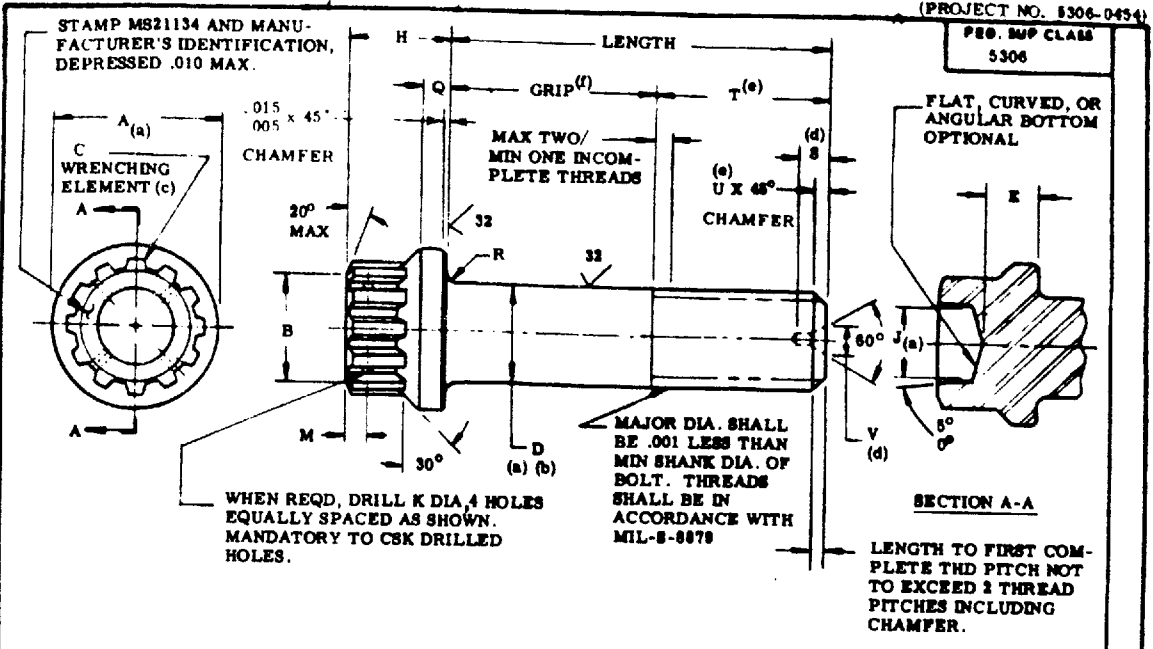
(PROJECT NO. 8306-0454)

USER SYMBOLS:
 ARMY - MI

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

*Various/new information is shown as of the date of this document.
 For future coordination of changes to this document, draft identification
 should be added on the information in the current DDISS.

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.



NOTES:

1. MATERIAL: ALLOY STEEL, MIL-S-5828 (AISI 4140), MIL-S-5000 (AISI 4340), MIL-S-8049 (AISI 8740), MIL-S-8503 (AISI 6150)
2. HARDNESS: ROCKWELL C39-43
3. SURFACE TEXTURE IN ACCORDANCE WITH ANSI (ASA) B46.1-1962.
4. PLATING: CADMIUM PER QQ-P-416, TYPE II, CLASS 2.
5. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS + .010, ANGLES + 2°.
6. DIMENSIONS TO BE MET AFTER PLATING.
7. DESIGN AND USAGE INFORMATION: THESE BOLTS ARE DESIGNED TO BE USED WITH MS21133 NUTS AND MS21206 WASHERS.

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	TITLE	MILITARY STANDARD
Other Cust USAF - 11 ARMY - AV	BOLT, TENSION, STEEL, 180 KSI Ftu, 450°F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED	MS21134
PROCUREMENT SPECIFICATION MIL-B-8831	SUPERSEDES	SHEET 1 OF 6

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 1529

APPROVED 28 JAN 1972 REVISED

Obtained From
 GLOBAL ENGINEERING DOCUMENTS
 2805 McGaw Ave., Irvine, CA 92714
 (714) 261-1455 (800) 854-7179

FED. SUP CLASS
 5306

USE SYMBOLS:
 ARMY-MT
 REVIEWER SYMBOLS:
 DSA-S
 ARMY-AT

*Engine/user information is current as of the date of this document.
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 should be based on the information in the current 88813.

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DIA. DASH NO.	NOMINAL SIZE	THREAD UNJF-3A	A - DIA. (a)		B - DIA.		C (c) WRENCHING ELEMENT	D - DIA. (a) (b)		DIA. 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	36	.9990	.9980	16
18	1 1/8	1.1250-12	2.067	2.077	1.250	1.235	42	1.1240	1.1235	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

DIA. DASH NO.	E MIN	H ±.010	J (k) ±.010 ±.030	K ±.005	M	Q		R - RAD		S MAX (d)	T MIN REF (e)	DIA DASH NO.
						MAX	MIN	MAX	MIN			
03	.113	.205	.100	.037	.062	.037	.017	.022	.016		.378	03
04	.149	.250	.125	.037	.062	.046	.026	.028	.022		.455	04
05	.187	.312	.151	.037	.062	.055	.035	.035	.029		.541	05
06	.224	.397	.260	.037	.062	.064	.044	.043	.033		.604	06
07	.262	.493	.320	.037	.062	.073	.063	.049	.039		.701	07
08	.299	.450	.380	.037	.062	.082	.062	.055	.045		.763	08
09	.336	.505	.440	.037	.062	.091	.071	.061	.051		.847	09
10	.374	.562	.500	.037	.062	.100	.080	.068	.058		.910	10
12	.449	.600	.570	.037	.062	.118	.098	.080	.070	.300	1.063	12
14	.523	.700	.650	.037	.062	.136	.116	.093	.083	.300	1.223	14
16	.599	.800	.740	.037	.062	.154	.134	.105	.095	.300	1.396	16
18	.674	.900	.840	.037	.062	.172	.152	.118	.108	.300	1.521	18
20	.749	1.000	1.070	.037	.062	.190	.170	.130	.120	.320	1.646	20
22	.824	1.100	1.140	.037	.062	.208	.188	.143	.133	.320	1.771	22
24	.899	1.200	1.200	.037	.062	.226	.206	.155	.145	.320	1.896	24

APPROVED 26 JUN 1972

P A NAVY - AS Other Cust USAF-11 ARMY-AV	TITLE BOLT, TENSION, STEEL, 180 KSI Ftg. 450°F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED	MILITARY STANDARD MS21134
PROCUREMENT SPECIFICATION MIL-B-8831	SUPERSEDES	SHEET 2

USED BY THE
 AIRMAIL - MI

DEFENSE SYMBOLS
 DIA - MI
 ARMY - AT

*Supplemental information is carried at the end of the date of this document.
 Per future determination of changes in this document, draft identification
 should be based on the information in this report 000000.

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 & Agencies of the Department of Defense. Deviations for all use
 engineering and design applications and for regulations and shall
 be made from this document

DIA 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		DIA DASH NO.
							X (a)	Z (b)	
03	.039			.0517	3,910	6,199	.004	.0045	03
04	.045			.0914	6,990	10,600	.005		04
05	.058			.1442	11,100	16,600	.006		05
06				.2106	17,100	23,900	.008		06
07	.063			.2896	23,200	32,500	.009	.0080	07
08				.3786	30,900	42,400	.010		08
09	.069			.4908	39,200	53,700	.011		09
10				.5945	49,100	66,300	.012		10
12	.078	.187	2	.7512	71,000	95,400	.015	.0180	12
14	.089			1.1673	97,000	129,900	.018		14
16		.280	3	1.3462	129,000	169,600	.020		16
18				1.9432	168,000	214,700	.022		18
20	.104			2.4020	202,000	265,100	.025	.0180	20
22		.312	4	2.8060	244,000	320,700	.028		22
24				3.4632	286,000	381,700	.030		24

NOTES:

- (a) DIMENSIONS A, D AND J SHALL BE CONCENTRIC TO EACH OTHER WITHIN VALUES SPECIFIED FOR X T. I. R.
- (b) DIMENSIONS D AND THREAD PITCH DIAMETER SHALL BE CONCENTRIC TO EACH OTHER WITHIN VALUES SPECIFIED PER Z T. I. R.
- (c) WRENCHING ELEMENT PER MS33787. DRIVERS PER MIL-W-8882.
- (d) ON BOLTS 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 28 JAN 1972 REVISED

PA NAVY - AS Other Code USAF - 11 ARMY - AV	TITLE BOLT, TENSION, STEEL, 180KSI Fu, 4500F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED	MILITARY STANDARD
		MS21134
PROCUREMENT SPECIFICATION MIL-B-8831	SUPERSEDES	SHEET 3

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

*Review/revise information is correct as of the date of this document.
 For future coordination of changes to this document, draft circulations
 should be based on the information in the current 900158.

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 repetitive use shall
 be made from this document.

GRIP DASH NO.	GRIP + .010	DIAMETER DASH NUMBERS												20	22	24		
		03	04	05	06	07	08	09	10	12	14	16	18					
003	.188	.580	.658	.744	.806	.904	.966											
004	.250	.643	.720	.806	.869	.966	1.028											
005	.312	.706	.782	.868	.932	1.028	1.090	1.174	1.238	1.390								
006	.375	.768	.845	.931	.994	1.091	1.153	1.237	1.300	1.453								
007	.438	.830	.908	.994	1.056	1.154	1.216	1.300	1.362	1.516	1.676	1.848	1.974					
008	.500	.893	.970	1.056	1.119	1.216	1.278	1.362	1.425	1.578	1.738	1.911	2.036					
009	.562	.956	1.032	1.118	1.182	1.278	1.340	1.424	1.488	1.640	1.800	1.974	2.098	2.224				
010	.625	1.018	1.095	1.181	1.244	1.341	1.403	1.487	1.550	1.703	1.863	2.036	2.161	2.286	2.411			
011	.688	1.080	1.158	1.244	1.296	1.404	1.466	1.550	1.612	1.766	1.926	2.098	2.224	2.348	2.474	2.598		
012	.750	1.143	1.220	1.306	1.369	1.466	1.528	1.612	1.675	1.828	1.988	2.161	2.286	2.411	2.536	2.661		
013	.812	1.206	1.282	1.368	1.432	1.528	1.590	1.674	1.738	1.890	2.050	2.224	2.348	2.474	2.598	2.724		
014	.875	1.268	1.345	1.431	1.494	1.591	1.653	1.737	1.800	1.953	2.113	2.286	2.411	2.536	2.661	2.786		
015	.938	1.330	1.408	1.494	1.546	1.654	1.716	1.800	1.862	2.016	2.176	2.348	2.474	2.598	2.724	2.848		
016	1.000	1.393	1.470	1.556	1.610	1.716	1.778	1.862	1.925	2.078	2.238	2.411	2.536	2.661	2.786	2.911		
017	1.062	1.456	1.532	1.618	1.682	1.778	1.840	1.924	1.988	2.140	2.300	2.474	2.598	2.724	2.848	2.974		
018	1.125	1.518	1.595	1.681	1.744	1.841	1.903	1.987	2.050	2.203	2.363	2.536	2.661	2.786	2.911	3.036		
019	1.188	1.580	1.658	1.744	1.796	1.904	1.966	2.050	2.112	2.266	2.426	2.598	2.724	2.848	2.974	3.098		
020	1.250	1.643	1.720	1.806	1.869	1.966	2.028	2.112	2.175	2.328	2.488	2.661	2.786	2.911	3.036	3.161		
021	1.312	1.706	1.782	1.868	1.932	2.028	2.090	2.174	2.238	2.390	2.550	2.724	2.848	2.974	3.098	3.224		
022	1.375	1.768	1.845	1.931	1.994	2.091	2.153	2.237	2.300	2.453	2.613	2.786	2.911	3.036	3.161	3.286		
023	1.438	1.830	1.908	1.994	2.046	2.154	2.216	2.300	2.362	2.516	2.676	2.848	2.974	3.098	3.224	3.348		
024	1.500	1.893	1.970	2.056	2.119	2.216	2.278	2.362	2.425	2.578	2.738	2.911	3.036	3.161	3.286	3.411		
025	1.562	1.956	2.032	2.118	2.182	2.278	2.340	2.424	2.488	2.640	2.800	2.974	3.098	3.224	3.348	3.474		
026	1.625	2.018	2.095	2.181	2.244	2.341	2.403	2.487	2.550	2.703	2.863	3.036	3.161	3.286	3.411	3.536		
027	1.688	2.080	2.158	2.244	2.296	2.404	2.466	2.550	2.612	2.766	2.926	3.098	3.224	3.348	3.474	3.598		
028	1.750	2.143	2.220	2.306	2.369	2.466	2.528	2.612	2.675	2.828	2.988	3.161	3.286	3.411	3.536	3.661		
029	1.812	2.206	2.282	2.368	2.432	2.528	2.590	2.674	2.738	2.890	3.050	3.224	3.348	3.474	3.598	3.724		
030	1.875	2.268	2.345	2.431	2.494	2.591	2.653	2.737	2.800	2.953	3.113	3.286	3.411	3.536	3.661	3.786		
031	1.938	2.330	2.408	2.494	2.546	2.654	2.716	2.800	2.862	3.016	3.176	3.348	3.474	3.598	3.724	3.848		
032	2.000	2.393	2.470	2.556	2.619	2.716	2.778	2.862	2.925	3.078	3.238	3.411	3.536	3.661	3.786	3.911		
033	2.062	2.456	2.532	2.618	2.682	2.778	2.840	2.924	2.988	3.140	3.300	3.474	3.598	3.724	3.848	3.974		
034	2.125	2.518	2.595	2.681	2.744	2.841	2.903	2.987	3.050	3.203	3.363	3.536	3.661	3.786	3.911	4.036		
035	2.188	2.580	2.658	2.744	2.796	2.904	2.966	3.050	3.112	3.266	3.426	3.598	3.724	3.848	3.974	4.098		
036	2.250	2.643	2.720	2.806	2.869	2.966	3.028	3.112	3.175	3.328	3.488	3.661	3.786	3.911	4.036	4.161		

FED. SUP CLASS
 5306

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PLATE NO. 15320

APPROVED 26 JAN 1972 REVISED

P A NAVY - AS Other Cust USAF - 11 ARMY - AV	TITLE	MILITARY STANDARD MS21134
	BOLT, TENSION, STEEL, 180 KSI Fu, 450°F., EXTERNAL WRENCHING, SPLINE DRIVE, FLANGED	
PROCUREMENT SPECIFICATION MIL-B-8831	SUPERSEDES	SHEET 4

REVIEWER SYMBOLS:
 DSA - IS
 ARMY - AT

USER SYMBOLS:
 ARMY - MI

*Review/new information is current as of the date of this document.
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GRIP DASH NO.	GRIP .010	DIAMETER DASH NUMBERS																		
		03	04	05	06	07	08	09	10	12	14	16	18	20	22	24				
LENGTH x .015																				
037	2.312	2.706	2.782	2.868	2.932	3.028	3.090	3.174	3.238	3.300	3.350	3.424	3.488	3.574	3.648	3.724	3.848	3.974	4.098	4.224
038	2.375	2.768	2.845	2.931	2.994	3.091	3.153	3.237	3.300	3.453	3.613	3.786	3.911	4.036	4.161	4.286	4.411	4.536	4.661	4.786
039	2.438	2.830	2.908	2.994	3.046	3.154	3.216	3.300	3.362	3.516	3.676	3.848	3.974	4.098	4.224	4.348	4.474	4.598	4.724	4.848
040	2.500	2.893	2.970	3.056	3.119	3.216	3.278	3.362	3.425	3.578	3.738	3.911	4.036	4.161	4.286	4.411	4.536	4.661	4.786	4.911
041	2.562	2.956	3.032	3.118	3.182	3.278	3.340	3.424	3.488	3.640	3.800	3.974	4.098	4.224	4.348	4.474	4.598	4.724	4.848	4.974
042	2.625	3.018	3.095	3.181	3.244	3.341	3.403	3.487	3.550	3.703	3.863	4.036	4.161	4.286	4.411	4.536	4.661	4.786	4.911	5.036
043	2.688	3.080	3.158	3.244	3.296	3.404	3.466	3.550	3.612	3.766	3.926	4.098	4.224	4.348	4.474	4.598	4.724	4.848	4.974	5.098
044	2.750	3.143	3.220	3.306	3.369	3.466	3.528	3.612	3.675	3.828	3.988	4.161	4.286	4.411	4.536	4.661	4.786	4.911	5.036	5.161
045	2.812	3.206	3.282	3.368	3.432	3.528	3.590	3.674	3.738	3.890	4.050	4.224	4.348	4.474	4.598	4.724	4.848	4.974	5.098	5.224
046	2.875	3.268	3.345	3.431	3.494	3.591	3.653	3.737	3.800	3.953	4.113	4.286	4.411	4.536	4.661	4.786	4.911	5.036	5.161	5.286
047	2.938	3.330	3.408	3.494	3.546	3.643	3.705	3.789	3.852	4.005	4.165	4.348	4.474	4.598	4.724	4.848	4.974	5.098	5.224	5.348
048	3.000	3.393	3.470	3.556	3.619	3.716	3.778	3.862	3.925	4.078	4.238	4.411	4.536	4.661	4.786	4.911	5.036	5.161	5.286	5.411
049	3.062	3.456	3.532	3.618	3.682	3.778	3.840	3.924	3.988	4.140	4.300	4.474	4.598	4.724	4.848	4.974	5.098	5.224	5.348	5.474
050	3.125	3.518	3.595	3.681	3.744	3.841	3.903	3.987	4.050	4.203	4.363	4.536	4.661	4.786	4.911	5.036	5.161	5.286	5.411	5.536
051	3.188	3.580	3.658	3.744	3.796	3.904	3.966	4.050	4.112	4.266	4.426	4.598	4.724	4.848	4.974	5.098	5.224	5.348	5.474	5.598
052	3.250	3.643	3.720	3.806	3.869	3.966	4.028	4.112	4.175	4.328	4.488	4.661	4.786	4.911	5.036	5.161	5.286	5.411	5.536	5.661
053	3.312	3.706	3.782	3.868	3.932	4.028	4.090	4.174	4.238	4.390	4.550	4.724	4.848	4.974	5.098	5.224	5.348	5.474	5.598	5.724
054	3.375	3.768	3.845	3.931	3.994	4.091	4.153	4.237	4.300	4.453	4.613	4.786	4.911	5.036	5.161	5.286	5.411	5.536	5.661	5.786
055	3.438	3.830	3.908	3.994	4.046	4.143	4.205	4.289	4.352	4.505	4.665	4.848	4.974	5.098	5.224	5.348	5.474	5.598	5.724	5.848
056	3.500	3.893	3.970	4.056	4.119	4.216	4.278	4.362	4.425	4.578	4.738	4.911	5.036	5.161	5.286	5.411	5.536	5.661	5.786	5.911
057	3.562	3.956	4.032	4.118	4.182	4.278	4.340	4.424	4.488	4.640	4.800	4.974	5.098	5.224	5.348	5.474	5.598	5.724	5.848	5.974
058	3.625	4.018	4.095	4.181	4.244	4.341	4.403	4.487	4.550	4.703	4.863	5.036	5.161	5.286	5.411	5.536	5.661	5.786	5.911	6.036
059	3.688	4.080	4.158	4.244	4.296	4.404	4.466	4.550	4.612	4.766	4.926	5.098	5.224	5.348	5.474	5.598	5.724	5.848	5.974	6.098
060	3.750	4.143	4.220	4.306	4.369	4.466	4.528	4.612	4.675	4.828	4.988	5.161	5.286	5.411	5.536	5.661	5.786	5.911	6.036	6.161
061	3.812	4.206	4.282	4.368	4.432	4.528	4.590	4.674	4.738	4.890	5.050	5.224	5.348	5.474	5.598	5.724	5.848	5.974	6.098	6.224
062	3.875	4.268	4.345	4.431	4.494	4.591	4.653	4.737	4.800	4.953	5.113	5.286	5.411	5.536	5.661	5.786	5.911	6.036	6.161	6.286
063	3.938	4.330	4.408	4.494	4.546	4.643	4.705	4.789	4.852	5.005	5.165	5.348	5.474	5.598	5.724	5.848	5.974	6.098	6.224	6.348
064	4.000	4.393	4.470	4.556	4.619	4.716	4.778	4.862	4.925	5.078	5.238	5.411	5.536	5.661	5.786	5.911	6.036	6.161	6.286	6.411
065	4.062	4.456	4.532	4.618	4.682	4.778	4.840	4.924	4.988	5.140	5.300	5.474	5.598	5.724	5.848	5.974	6.098	6.224	6.348	6.474
066	4.125	4.518	4.595	4.681	4.744	4.841	4.903	4.987	5.050	5.203	5.363	5.536	5.661	5.786	5.911	6.036	6.161	6.286	6.411	6.536
067	4.188	4.580	4.658	4.744	4.796	4.894	4.956	5.040	5.103	5.256	5.416	5.598	5.724	5.848	5.974	6.098	6.224	6.348	6.474	6.598
068	4.250	4.643	4.720	4.806	4.869	4.966	5.028	5.112	5.175	5.328	5.488	5.661	5.786	5.911	6.036	6.161	6.286	6.411	6.536	6.661
069	4.312	4.706	4.782	4.868	4.932	5.028	5.090	5.174	5.238	5.390	5.550	5.724	5.848	5.974	6.098	6.224	6.348	6.474	6.598	6.724
070	4.375	4.768	4.845	4.931	4.994	5.091	5.153	5.237	5.300	5.453	5.613	5.786	5.911	6.036	6.161	6.286	6.411	6.536	6.661	6.786
071	4.438	4.830	4.908	4.994	5.046	5.143	5.205	5.289	5.352	5.505	5.665	5.848	5.974	6.098	6.224	6.348	6.474	6.598	6.724	6.848
072	4.500	4.893	4.970	5.056	5.119	5.216	5.278	5.362	5.425	5.578	5.738	5.911	6.036	6.161	6.286	6.411	6.536	6.661	6.786	6.911
073	4.562	4.956	5.032	5.118	5.182	5.278	5.340	5.424	5.488	5.640	5.800	5.974	6.098	6.224	6.348	6.474	6.598	6.724	6.848	6.974
074	4.625	5.018	5.095	5.181	5.244	5.341	5.403	5.487	5.550	5.703	5.863	6.036	6.161	6.286	6.411	6.536	6.661	6.786	6.911	7.036

FED. SUP CLASS
 5306

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

PLATE NO. 15329

APPROVED 28 JAN 1972 REVISED

MILITARY STANDARD
MS21134
 SHEET 8

REVISION SYMBOLS:
 DSA - IS
 ARMY - AT

*Items/line information is correct as of the date of this document.
 For future coordination of changes in this document, draft submission
 should be based on the information in the current 80B33.

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.

GRIP DASH NO.	GRIP .010	DIAMETER DASH NUMBERS																
		03	04	05	06	07	08	09	10	12	14	16	18	20	22	24		
076	4.750	5.143	5.220	5.306	5.369	5.466	5.528	5.612	5.675	5.828	5.948	6.161	6.286	6.411	6.536	6.661		
078	4.875	5.268	5.345	5.431	5.494	5.591	5.653	5.737	5.800	5.953	6.113	6.286	6.411	6.536	6.661	6.786		
080	5.000	5.393	5.470	5.556	5.619	5.716	5.778	5.862	5.925	6.078	6.238	6.411	6.536	6.661	6.786	6.911		
082	5.125	5.518	5.595	5.681	5.744	5.841	5.903	5.987	6.050	6.203	6.363	6.536	6.661	6.786	6.911	7.036		
084	5.250	5.643	5.720	5.806	5.869	5.966	6.028	6.112	6.175	6.328	6.488	6.661	6.786	6.911	7.036	7.161		
086	5.375	5.768	5.845	5.931	5.994	6.091	6.153	6.237	6.300	6.453	6.613	6.786	6.911	7.036	7.161	7.286		
088	5.500	5.893	5.970	6.056	6.119	6.216	6.278	6.362	6.425	6.578	6.738	6.911	7.036	7.161	7.286	7.411		
090	5.625	6.018	6.095	6.181	6.244	6.341	6.403	6.487	6.550	6.703	6.863	7.036	7.161	7.286	7.411	7.536		
092	5.750	6.143	6.220	6.306	6.369	6.466	6.528	6.612	6.675	6.828	6.988	7.161	7.286	7.411	7.536	7.661		
094	5.875	6.268	6.345	6.431	6.494	6.591	6.653	6.737	6.800	6.953	7.113	7.286	7.411	7.536	7.661	7.786		
096	6.000	6.393	6.470	6.556	6.619	6.716	6.778	6.862	6.925	7.078	7.238	7.411	7.536	7.661	7.786	7.911		
098	6.125							6.987	7.050	7.203	7.363	7.536	7.661	7.786	7.911	8.036		
100	6.250							7.112	7.175	7.328	7.488	7.661	7.786	7.911	8.036	8.161		
102	6.375							7.237	7.300	7.453	7.613	7.786	7.911	8.036	8.161	8.286		
104	6.500							7.362	7.425	7.578	7.738	7.911	8.036	8.161	8.286	8.411		
106	6.625							7.487	7.550	7.703	7.863	8.036	8.161	8.286	8.411	8.536		
108	6.750							7.612	7.675	7.828	7.988	8.161	8.286	8.411	8.536	8.661		
110	6.875							7.737	7.800	7.953	8.113	8.286	8.411	8.536	8.661	8.786		
112	7.000							7.862	7.925	8.078	8.238	8.411	8.536	8.661	8.786	8.911		
114	7.125											8.661	8.786	8.911	9.036	9.161		
116	7.250												8.786	8.911	9.036	9.161		
118	7.375													8.911	9.036	9.161		
120	7.500													9.036	9.161	9.286		
122	7.625													9.161	9.286	9.411		
124	7.750													9.286	9.411	9.536		
126	7.875													9.411	9.536	9.661		
128	8.000													9.536	9.661	9.786		

FED. SPEC. CLASS
 3308

DIAMETER DASH NO. AT TOP OF TABLE, PLUS GRIP DASH NO. FIRST COLUMN ON LEFT OF TABLE CONSTITUTES A COMPLETE DASH NO.
 IDENTIFYING SPECIFIED LENGTHS OF A GIVEN SIZE BOLT.
 ADD LETTER 'W' 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 NUMBERS SHALL NOT BE USED.
 EXAMPLES OF PART NUMBER: MS21134-04008 - 1 4 - 28 BOLT, .500 LONG, .500 GRIP, UNDRILLED HEAD.
 MS21134H04008 - 1 4 - 28 BOLT, .970 LONG, .500 GRIP, DRILLED HEAD.
 MS21134-05012 - 5 16 - 24 BOLT, 1.306 LONG, .750 GRIP, UNDRILLED HEAD.
 MS21134H05012 - 5 16 - 24 BOLT, 1.306 LONG, .750 GRIP, DRILLED HEAD.

DD FORM 672-1 (Coordinated)

U.S. GOVERNMENT PRINTING OFFICE: 1973-714-542/3637

MILITARY STANDARD
MS21134
 SHEET 6

TITLE
 BOLT, TENSION, STEEL, 140 KSI MIN, 450°F.,
 EXTERNAL WRENCHING,
 SPLINE DRIVE, FLANGED

PROCUREMENT SPECIFICATION
 MIL-B-8831

SUPersedes