



TABLE I

NOMINAL SIZE		1/4	5/16	3/8	7/16	1/2	9/16
B THREAD	UNF-2A	20	24	24	20	20	18
D BODY DIAMETER	MAX MIN	.2500 .2450	.3125 .3063	.3750 .3690	.4375 .4303	.5000 .4930	.5625 .5543
F WIDTH ACROSS FLATS	MAX MIN	.4375 .4280	.5000 .4890	.5625 .5510	.6250 .6120	.7500 .7360	.8125 .7980
G WIDTH ACROSS CORNERS	MAX MIN	.505 .488	.577 .557	.650 .628	.722 .698	.866 .840	.938 .910
H HEAD HEIGHT	MAX MIN	.163 .150	.211 .193	.243 .226	.291 .272	.323 .302	.371 .348
R RADIUS	MAX MIN	.025 .015	.025 .015	.025 .015	.025 .015	.025 .015	.043 .020
MIN TENSILE STRENGTH - LBS		2,910	4,640	7,020	9,500	12,800	16,200

L LENGTH	TOLERANCE	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.			
.375	+0 -.031	301	327	353	379	404	430			
.438		302	328	354						
.500		303	329	355						
.562		304	330	356						
.625		305	331	357						
.750		306	332	358						
.875		307	333	359						
1.000		308	334	360						
.125	+0 -.062	309	335	361	386	410	435			
.250		310	336	362						
.375		311	337	363						
.500		312	338	364						
.750		313	339	365						
.875		314	340	366						
1.000		315	341	367						
1.250		316	342	368						
.250	+0 -.094	317	343	369	394	418	443			
.375		318	344	370						
.500		319	345	371						
.750		320	346	372						
.875		321	347	373						
1.000		322	348	374						
1.250		323	349	375						
1.500		324	350	376						
1.750		325	351	377						
2.000		326	352	378						
2.250								395	419	444
2.500								396	420	445
2.750								397	421	446
3.000								398	422	447
3.250								399	423	448
3.500								400	424	449
3.750				401	425	450				
4.000				402	426	451				
4.250				403	427	452				
4.500					428	453				
4.750					429	454				

NOTE: For notes and additions, please see sheet 2.
For interchangeability table see sheet 3.

(E) For changes see sheet 2.

This military standard is necessary for use by all Departments and Agencies of the Department of Defense. Solicitations for all new engineering and design applications and for repetitive use shall be made from this document.

APPROVED 4 MAR 54 REVISED (E) 14 OCT 68 (E) 1 MAY 1969

DD FORM 1	TITLE	MILITARY STANDARD
DD FORM 1	SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, CORROSION RESISTING, PASSIVATED, UNF-2A	MS35308
DD FORM 1	PROCUREMENT SPECIFICATION	SHEET 1 OF 1
DD FORM 1	APPENDIX (BCRX), 1.2.2) in part, BUM30 and BUM30.1	

NOMINAL SIZE		1/8	1/4	7/8	1	1-1/8	1-1/4	
R	THREAD UNF-2A	1A	1B	14	12	12	12	
D	BODY DIAMETER	MAX MIN	.6250 .6170	.7500 .7410	.8750 .8660	1.0000 .9900	1.1250 1.1140	1.2500 1.2390
F	WIDTH ACROSS FLATS	MAX MIN	.9375 .9220	1.1250 1.1000	1.3125 1.2850	1.5000 1.4650	1.6875 1.6410	1.8750 1.8120
G	WIDTH ACROSS CORNERS	MAX MIN	1.083 1.051	1.299 1.254	1.516 1.463	1.732 1.675	1.949 1.859	2.165 2.066
H	HEAD HEIGHT	MAX MIN	.403 .378	.483 .455	.563 .531	.627 .591	.718 .658	.813 .749
R	RADIUS	MAX MIN	.045 .020	.045 .020	.065 .040	.093 .060	.093 .060	.093 .060
MIN TENSILE STRENGTH - LBS (E)			20,450	26,100	33,600	46,400	59,900	71,100

LENGTH	TOLERANCE		DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.		
	SIZE 3/4 AND UNDER	SIZE 7/8 AND OVER								
.625	+0 -.031	+0 -.062	455	479	502	524				
.750			456	480						
.875			457	481						
1.000			458	482						
1.125	+0 -.062	+0 -.125	459	483	504	525	545			
1.250			460	484	505	526	546			
1.375			461	485	506	527	547			
1.500			462	486	507	528	548			
1.750			463	487	508	529	549			
2.000			464	488	509	530	550			
2.250			+0 -.094	+0 -.188	465	489	510		531	551
2.500					466	490	511		532	552
2.750	467	491			512	533	553			
3.000	468	492			513	534	554			
3.250	469	493			514	535	555			
3.500	470	494			515	536	556			
3.750	471	495			516	537	557			
4.000	472	496			517	538	558			
4.250	473	497			518	539	559			
4.500	474	498			519	540	560			
4.750	475	499			520	541	561			
5.000	476	500			521	542	562			
5.250	477	501	522	543	563					
5.500	478	502	523	544	564					

NOTES:

- MATERIAL:** Corrosion-resisting steel, 300 series, in accordance with procurement specification.
- PROTECTIVE COATING:** Passivated in accordance with procurement specification.
- MAGNETIC PERMEABILITY:** These fasteners have a magnetic permeability of 2.0 maximum (air = 1.0) for a field strength of H = 200 oersteds using a magnetic indicator in accordance with MIL-I-17214.
- THREADS:** The threads shall be in accordance with Screw-Thread Standards for Federal Services, Handbook H28.
- THREAD LENGTH:** Minimum thread length shall be twice the diameter plus 1/4 inch. The tolerance shall be plus 3/16 inch or 2-1/2 threads, whichever is greater. On screws that are too short for minimum thread lengths, the distance from the bearing surface of the head to the first complete thread shall not exceed the length of 2-1/2 threads for sizes up to and including 1 inch and 3-1/2 threads for sizes larger than 1 inch.
- HEAD MARKING:** Heads shall be marked in accordance with MIL-HDBK-131. Raised markings are preferred, stampings are acceptable.
- DIMENSIONS:** All dimensions are in inches, unless otherwise specified.
- PART NUMBER:** The MS part number consists of the MS number, plus the dash number.
Example: MS35308-30.
- STRENGTH:** Based on minimum ultimate tensile strength of 80,000 p.s.i. for diameters thru 3/8 inch, and 70,000 p.s.i. for diameters over 3/8 inch. Breaking strengths are calculated by the stress areas indicated in Screw-Thread Standards for Federal Services, Handbook H28.
- Referenced documents shall be of the issue in effect on date of invitations for bid.
- For design feature purposes, this standard takes precedence over procurement documents referenced herein.

P.O. NO. Other Code: NH 02	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT) STEEL, CORROSION RESISTING, PASSIVATED, UNF-2A	MILITARY STANDARD MS35308
PROCUREMENT SPECIFICATION MS35308-30	APPLICABLE (MUN) 1, 1.2, 2, 3 in part, MUR3A and MUR3B.1	SHEET 2 OF

DD FORM 672-1 (Continued)

This military standard is mandatory for use by all purchasers and issuers of the Department of Defense. Selection for all new engineering and design specifications and for existing use shall be made from this document.

APPROVED 4 MAR 54 REVISED 6 OCT 60 FOR CHANGES SEE SHEET 2.

INTERCHANGEABILITY TABLE

The screws covered by dash numbers given in original issue of this standard are cancelled after 10 May 61. Use the dash numbers given in the preceding sheets of this standard. The cancelled screws cannot always replace the new screws and should be used until existing stocks are depleted. Use only the new screws for design and replacement. Replacement should be in accordance with this table.

TABLE III

DASH NUMBERS		DASH NUMBERS		DASH NUMBERS		DASH NUMBERS		DASH NUMBERS	
CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW	CANCELLED	NEW
MS35308	MS35308	MS35308	MS35308	MS35308	MS35308	MS35308	MS35308	MS35308	MS35308
1	301	58	358	113	413	172	472	229	529
2	302	59	359	116	416	173	473	230	530
3	303	60	360	117	417	174	474	231	531
4	304	61	361	118	418	175	475	232	532
5	305	62	362	119	419	176	476	233	533
6	306	63	363	120	420	177	477	234	534
7	307	64	364	121	421	178	478	235	535
8	308	65	365	122	422	179	479	236	536
9	309	66	366	123	423	180	480	237	537
0	310	67	367	124	424	181	481	238	538
1	311	68	368	125	425	182	482	239	539
2	312	69	369	126	426	183	483	240	540
3	313	70	370	127	427	184	484	241	541
4	314	71	371	128	428	185	485	242	542
5	315	72	372	129	429	186	486	243	543
6	316	73	373	130	430	187	487	244	544
7	317	74	374	131	431	188	488	245	545
8	318	75	375	132	432	189	489	246	546
9	319	76	376	133	433	190	490	247	547
0	320	77	377	134	434	191	491	248	548
1	321	78	378	135	435	192	492	249	549
2	322	79	379	136	436	193	493	250	550
3	323	80	380	137	437	194	494	251	551
4	324	81	381	138	438	195	495	252	552
5	325	82	382	139	439	196	496	253	553
6	326	83	383	140	440	197	497	254	554
7	327	84	384	141	441	198	498	255	555
8	328	85	385	142	442	199	499	256	556
9	329	86	386	143	443	200	500	257	557
0	330	87	387	144	444	201	501	258	558
1	331	88	388	145	445	202	502	259	559
2	332	89	389	146	446	203	503	260	560
3	333	90	390	147	447	204	504	261	561
4	334	91	391	148	448	205	505	262	562
5	335	92	392	149	449	206	506	263	563
6	336	93	393	150	450	207	507	264	564
7	337	94	394	151	451	208	508	265	565
8	338	95	395	152	452	209	509	266	566
9	339	96	396	153	453	210	510	267	567
0	340	97	397	154	454	211	511	268	568
1	341	98	398	155	455	212	512	269	569
2	342	99	399	156	456	213	513	270	570
3	343	100	400	157	457	214	514	271	571
4	344	101	401	158	458	215	515	272	572
5	345	102	402	159	459	216	516	273	573
6	346	103	403	160	460	217	517	274	574
7	347	104	404	161	461	218	518	275	575
8	348	105	405	162	462	219	519	276	576
9	349	106	406	163	463	220	520	277	577
0	350	107	407	164	464	221	521	278	578
1	351	108	408	165	465	222	522	279	579
2	352	109	409	166	466	223	523	280	580
3	353	110	410	167	467	224	524	281	581
4	354	111	411	168	468	225	525	282	582
5	355	112	412	169	469	226	526	283	583
6	356	113	413	170	470	227	527		
7	357	114	414	171	471	228	528		

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APPROVED 4 MAR 54 REVISED 14 OCT 60 (E) FOR CHANGES SEE SHEET 2.

P.A. NO. One Copy - 2H 22	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, CORROSION RESISTING, PASSIVATED, UNF-2A	MILITARY STANDARD MS35308
PROCUREMENT SPECIFICATION MIL-STD-883C	APPROXIMATE (BOXES) 1, 1.2, 2) in part, SUBX30 and SUBX30.1	PART 3 OF