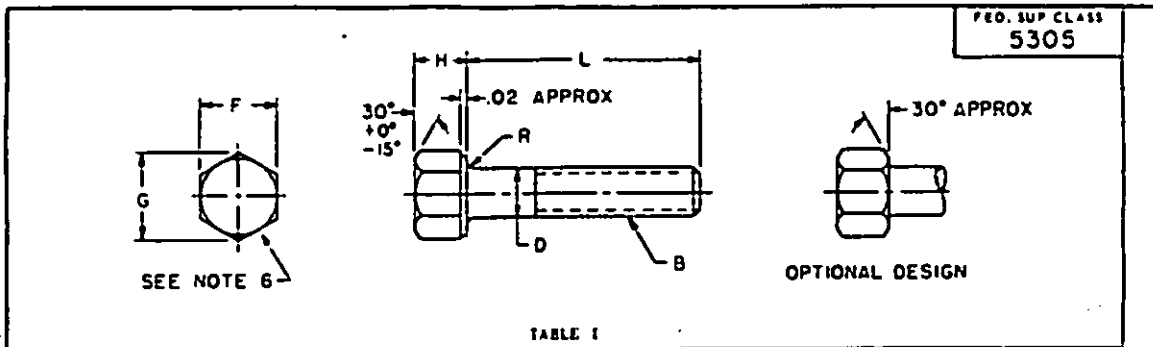


MILITARY STANDARD 12, 47, 11, MU, NSA, OS, PS
 (NHR)AS, ME, GL, MC, 1D

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



FED. SUP CLASS
5305

TABLE I

NOMINAL SIZE		1/4	5/16	3/8	7/16	1/2	9/16
B THREAD	UNC-2A	20	18	16	14	13	12
D BODY DIAMETER	MAX MIN	.2400 .2350	.3125 .3065	.3750 .3690	.4375 .4315	.5000 .4930	.5625 .5545
F WIDTH ACROSS FLATS	MAX MIN	.4175 .4250	.5000 .4900	.5625 .5510	.6250 .6120	.7000 .7060	.8125 .7980
G WIDTH ACROSS CORNERS	MAX MIN	.505 .466	.577 .557	.650 .625	.722 .695	.800 .760	.918 .910
H HEAD HEIGHT	MAX MIN	.163 .150	.211 .195	.243 .226	.291 .272	.323 .302	.371 .345
R RADIUS	MAX MIN	.025 .015	.025 .015	.025 .015	.025 .015	.025 .015	.045 .020
• MIN TENSILE STRENGTH - LBS		2,440	4,190	6,200	8,500	11,300	14,500

L LENGTH	TOLERANCE	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
.175	±.011	301	327	353			
.215		302	328	354	370		
.255		303	329	355	370	404	
.295		304	330	356	371	405	430
.335		305	331	357	372	406	431
.375		306	332	358	373	407	432
.415		307	333	359	374	408	433
.455		308	334	360	375	409	434
1.125	±.002	309	335	361	376	410	435
1.250		310	336	362	377	411	436
1.375		311	337	363	378	412	437
1.500		312	338	364	379	413	438
1.750		313	339	365	380	414	439
2.000	314	340	366	381	415	440	
2.250	±.004	315	341	367	382	416	441
2.500		316	342	368	383	417	442
2.750		317	343	369	384	418	443
3.000		318	344	370	385	419	444
3.250		319	345	371	386	420	445
3.500		320	346	372	387	421	446
3.750		321	347	373	388	422	447
4.000		322	348	374	389	423	448
4.250		323	349	375	390	424	449
4.500		324	350	376	391	425	450
4.750		325	351	377	392	426	451
5.000		326	352	378	393	427	452
5.500					428	453	
6.000					429	454	

NOTE: For notes and additional sizes see sheet 2.
For interchangeability table see sheet 1.

Ⓣ For changes see sheet 2.

P.A. 4C Other Cont SH 82	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, CORROSION RESISTING, PASSIVATED, UNC-2A	MILITARY STANDARD MS 35307
PROCUREMENT SPECIFICATION FF-S-65	SUPERSEDES (BCA11.1, 1.2, 2, 3.3) in part, BUB137 and BUR117.1	SHEET 1 OF 3

APPROVED 4 MAR 54 REVISED 7 MAY 63 5 AUG 65 14 OCT 68 1 MAY 1969

TABLE II							FED. SUP CLASS 5305	
NOMINAL SIZE		5/8	3/4	7/8	1	1-1/8	1-1/4	
B	THREAD UNC-2A	11	10	9	8	7	7	
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	.9175 .9220	1.1250 1.1000	1.3125 1.2950	1.5000 1.4690	1.6875 1.6310	1.8750 1.8120
G	WIDTH ACROSS CORNERS	MAX MIN	1.083 1.051	1.299 1.254	1.516 1.465	1.732 1.675	1.949 1.859	2.165 2.066
H	HEAD HEIGHT	MAX MIN	.403 .375	.453 .455	.563 .531	.627 .591	.718 .658	.813 .749
R	RADIUS	MAX MIN	.045 .020	.045 .020	.065 .040	.095 .060	.095 .060	.095 .060
• MIN TENSILE STRENGTH - LBS (D)			18,050	23,350	32,300	42,400	53,400	67,800
L 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					
.750			456	479				
.875			457	480	502			
1.000			458	481	503	524		
1.125	+0 -.062	-0 -.125	459	482	504	525	545	
1.250			460	483	505	526	546	565
1.375			461	484	506	527	547	566
1.500			462	485	507	528	548	567
1.750			463	486	508	529	549	568
2.000			464	487	509	530	550	569
2.250	+0 -.094	-0 -.150	465	488	510	531	551	570
2.500			466	489	511	532	552	571
2.750			467	490	512	533	553	572
3.000			468	491	513	534	554	573
3.250			469	492	514	535	555	574
3.500			470	493	515	536	556	575
3.750			471	494	516	537	557	576
4.000			472	495	517	538	558	577
4.250			473	496	518	539	559	578
4.500			474	497	519	540	560	579
4.750			475	498	520	541	561	580
5.000			476	499	521	542	562	581
5.500	477	500	522	543	563	582		
6.000	478	501	523	544	564	583		

HEATHMAN, AV, IS, AT, MI, MU, KSA, OS, BS
SHERMAN, ME, CL, HC, YD

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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-1-17214.
- THREADS:** The threads shall be in accordance with Screw-Thread Standards for Federal Services, Handbook H25.
- 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-HDBA-141. 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: MS35307-301.
- Based on minimum ultimate tensile strength of 50,000 p.s.i. for diameters thru 5/8 inch, and 70,000 p.s.i. for diameters over 5/8 inch. Breaking strengths are calculated by the stress areas indicated in Screw-Thread Standards for Federal Services, Handbook H25.
- 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.A. WC Other Cost SH B2	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, CORROSION RESISTING, PASSIVATED, UNC-2A	MILITARY STANDARD MS35307
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES (BCA11.1, 1.2, 2, 3.3) in part, BUBX17 and BUBX17.1	SHEET 2 OF

APPROVED 4 MAR 54 REVISED (A) 7 MAY 63 (B) 5 AUG 65 (C) 14 OCT 68 (D) FOR CHANGES SEE SHEET 2.

FED. SUP CLASS
5305

INTERCHANGEABILITY TABLE

The screws covered by dash numbers given in original issue of this standard are cancelled after 7 May 63. 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
MS35307	MS35307	MS35307	MS35307	MS35307	MS35307	MS35307	MS35307	MS35307	MS35307
1	301	55	355	113	415	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
10	310	67	367	124	424	181	481	238	538
11	311	68	368	125	425	182	482	239	539
12	312	69	369	126	426	183	483	240	540
13	313	70	370	127	427	184	484	241	541
14	314	71	371	128	428	185	485	242	542
15	315	72	372	129	429	186	486	243	543
16	316	73	373	130	430	187	487	244	544
17	317	74	374	131	431	188	488	245	545
18	318	75	375	132	432	189	489	246	546
19	319	76	376	133	433	190	490	247	547
20	320	77	377	134	434	191	491	248	548
21	321	78	378	135	435	192	492	249	549
22	322	79	379	136	436	193	493	250	550
23	323	80	380	137	437	194	494	251	551
24	324	81	381	138	438	195	495	252	552
25	325	82	382	139	439	196	496	253	553
26	326	83	383	140	440	197	497	254	554
27	327	84	384	141	441	198	498	255	555
28	328	85	385	142	442	199	499	256	556
29	329	86	386	143	443	200	500	257	557
30	330	87	387	144	444	201	501	258	558
31	331	88	388	145	445	202	502	259	559
32	332	89	389	146	446	203	503	260	560
33	333	90	390	147	447	204	504	261	561
34	334	91	391	148	448	205	505	262	562
35	335	92	392	149	449	206	506	263	563
36	336	93	393	150	450	207	507	264	564
37	337	94	394	151	451	208	508	265	565
38	338	95	395	152	452	209	509	266	566
39	339	96	396	153	453	210	510	267	567
40	340	97	397	154	454	211	511	268	568
41	341	98	398	155	455	212	512	269	569
42	342	99	399	156	456	213	513	270	570
43	343	100	400	157	457	214	514	271	571
44	344	101	401	158	458	215	515	272	572
45	345	102	402	159	459	216	516	273	573
46	346	103	403	160	460	217	517	274	574
47	347	104	404	161	461	218	518	275	575
48	348	105	405	162	462	219	519	276	576
49	349	106	406	163	463	220	520	277	577
50	350	107	407	164	464	221	521	278	578
51	351	108	408	165	465	222	522	279	579
52	352	109	409	166	466	223	523	280	580
53	353	110	410	167	467	224	524	281	581
54	354	111	411	168	468	225	525	282	582
55	355	112	412	169	469	226	526	283	583
56	356	113	413	170	470	227	527	284	584
57	357	114	414	171	471	228	528	285	585

MAINTENANCE, IS, AT, MI, MU, USA, OS, DS
 INDIANAPOLIS, IN, AT, MI, MU, USA, OS, DS
 INDIANAPOLIS, IN, AT, MI, MU, USA, OS, DS

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APPROVED 4 MAR 54 REVISED 7 MAY 63 5 AUG 63 14 OCT 68 FOR CHANGES SEE SHEET 2.

P.A. 60	TITLE	MILITARY STANDARD
Other Cost 2H	SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, CORROSION RESISTING, PASSIVATED, UNC - 2A	MS35307
PROCUREMENT SPECIFICATION FF-S-55	SUPERSEDES (DCA) 1. 1.2, 3, 3.11 in part, BUBB 7 and MILB 17.1	SHEET 3 OF