

REVIEWER: MI, EL, ME, WC, SH  
USER: OS, MC, GL, AT, MU

NOTE: RAISED HEAD MARKINGS PREFERRED. STAMPING ACCEPTABLE.

FED. SUP CLASS 5305

NOMINAL SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8
THREADS PER INCH		20UNC	18UNC	16UNC	14UNC	13UNC	12UNC	11UNC
BODY DIAMETER	D	Max .2500 Min .2450	.3125 .3065	.3750 .3690	.4375 .4305	.5000 .4930	.5625 .5545	.6250 .6170
WIDTH ACROSS FLATS	A	Max .4375 Min .4260	.5000 .4890	.5625 .5510	.6250 .6120	.7500 .7360	.8125 .7990	.9375 .9220
WIDTH ACROSS CORNERS	W	Max .5000 Min .4860	.5770 .5670	.6500 .6290	.7220 .6990	.8260 .8400	.9380 .9100	1.0830 1.0510
HEAD HEIGHT	H	Max .1630 Min .1560	.2110 .1950	.2430 .2260	.2910 .2720	.3230 .3020	.3710 .3480	.4010 .3750
RADIUS	R	Max .023 Min .009	.023 .009	.023 .009	.023 .009	.023 .009	.041 .021	.041 .021
LENGTH	L	Tolerance	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number
3/8	+0 -1/32		4	47	53	70		
7/16			5	48	54	71		
1/2			6	49	55	72	+04	
9/16			7	50	56	73	+05	+30
5/8			8	51	57	74	+06	+31
3/4	+0 -1/16		9	52	58	75	+07	+32
7/8			10	53	59	76	+08	+33
1-1/8			11	54	60	77	+09	+34
1-1/4			12	55	61	78	+10	+35
1-3/8			13	56	62	79	+11	+36
1-1/2	+0 -1/32		14	57	63	80	+12	+37
1-3/4			15	58	64	81	+13	+38
2-1/8			16	59	65	82	+14	+39
2-1/4			17	60	66	83	+15	+40
2-3/8			18	61	67	84	+16	+41
3	+0 -1/16		19	62	68	85	+17	+42
3-1/8			20	63	69	86	+18	+43
3-1/4			21	64	70	87	+19	+44
3-3/8			22	65	71	88	+20	+45
3-1/2			23	66	72	89	+21	+46
4	+0 -1/32		24	67	73	90	+22	+47
4-1/8			25	68	74	91	+23	+48
4-1/4			26	69	75	92	+24	+49
4-3/8			27	70	76	93	+25	+50
4-1/2			28	71	77	94	+26	+51
5	+0 -1/16		29	72	78	95	+27	+52
5-1/2			30	73	79	96	+28	+53
6			31	74	80	97	+29	+54

**MATERIAL:** Medium Carbon Steel, Grade 5 of procurement specification. Minimum tensile strengths: 120,000 psi for diameters through 3/4"; 110,000 psi for 7/8" and 1" diameters; 105,000 psi for diameters 1-1/8" through 1-1/2"; 90,000 psi for diameters over 1-1/2".

**FINISH:** Plain (untreated).

**THREADS:** The threads shall be in accordance with Screw-Thread Standards for Federal Services Handbook H-29.

**MINIMUM THREAD LENGTH:** Shall be twice the diameter plus 1/4" for lengths up to and including 6". The tolerance shall be plus 3/16" or 2-1/2 threads, whichever is greater. On products 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" and 3-1/2 threads for sizes larger than 1".

**NOTES:** (1) Referenced documents of issue in effect on date of invitation for bids shall apply.  
(2) In case of conflict with any referenced document, this standard will govern.  
(3) The MS part number consists of the MS sheet number, plus the dash number. Example: MS35295-1.  
(4) All dimensions in inches.

**③ CANCELLED IN PART**  
SEE SHEET 2

**③ For Changes see Sheets 1, 2 and 3.**

P.A. WC Other Case SH	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), MEDIUM CARBON STEEL, PLAIN FINISH, UNC-2A	MILITARY STANDARD MS 35295
PROCUREMENT SPECIFICATION FF-9-85	SUPERSEDED	SHEET 1 OF 3

DD FORM 672-1 (Continued)

This military standard is approved by the Department of Defense and is mandatory on all activities. Information for all new engineering and design applications and for replacement use shall be made from this standard.

APPROVED JAN 4 1954 REVISED ③ 9 JUNE 1967

REVIEWER: MI, EL, ME, VC, SH  
USER: OS, MC, GL, AT, MU

FED. SUP CLASS  
5305

		(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)
NOMINAL SIZE		3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2	
THREADS PER INCH		10UNC	9UNC	8UNC	7UNC	7UNC	6UNC	6UNC	
BODY DIAMETER	D	Max	.7500	.8750	1.0000	1.1250	1.2500	1.3750	1.5000
		Min	.7410	.8660	0.9900	1.1140	1.2390	1.3630	1.4980
WIDTH ACROSS FLATS	A	Max	1.1250	1.3125	1.5000	1.6875	1.8750	2.0625	2.2500
		Min	1.1000	1.2950	1.4690	1.6310	1.8120	1.9940	2.1750
WIDTH ACROSS CORNERS	W	Max	1.2990	1.5160	1.7320	1.9490	2.1650	2.3820	2.5980
		Min	1.2540	1.4650	1.6750	1.8590	2.0660	2.2730	2.4800
HEAD HEIGHT	H	Max	.4830	.5630	.6270	.7180	.8130	.8790	.9740
		Min	.4550	.5310	.5910	.6580	.7490	.8100	.9020
RADIUS	R	Max	.041	.062	.093	.093	.093	.093	.093
		Min	.021	.041	.062	.062	.062	.062	.062
LENGTH	L	TOLERANCE		Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number
		Size 3/4 and under	Size 7/8 and over						
3/4	7/8	+0	+0	179	202	224			
1-1/8	1-1/4	-1/32	-1/16	180	203	225	245		
1-1/4	1-3/8			181	204	226	246		
1-1/2	2	+0	+0	182	205	227	247	265	
1-3/4	2-1/4	-1/16	-1/8	183	206	228	248	266	284
2	2-1/2			184	207	229	249	267	285
2-1/4	2-3/4			185	208	230	250	268	286
2-1/2	3			186	209	231	251	269	287
2-3/4	3-1/4			187	210	232	252	270	288
3	3-1/2			188	211	233	253	271	289
3-1/4	3-3/4			189	212	234	254	272	290
3-1/2	4	+0	+0	190	213	235	255	273	291
3-3/4	4-1/4	-3/32	-3/16	191	214	236	256	274	292
4	4-1/2			192	215	237	257	275	293
4-1/4	4-3/4			193	216	238	258	276	294
4-1/2	5			194	217	239	259	277	295
4-3/4	5-1/2			195	218	240	260	278	296
5	6			196	219	241	261	279	297
5-1/2				197	220	242	262	280	298
6				198	221	243	263	281	299
				199	222	244	264	282	300
				200	223			283	301

NOTE: For illustration, material, finish and other pertinent data, see sheet 1.

(B) CANCELLED IN PART AFTER 9 June 1967. USE MS90725. INTERCHANGEABILITY RELATIONSHIP - MS90725 can replace the cancelled screws of the same size. The cancelled MS35295 cannot always replace MS90725 and should be used until existing stock is depleted. Then use only the superseding MS screws of the same size for design and replacement.

(B) CANCELLED IN PART  
SEE NOTE

P.A. Other Cast SH	WC SH	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), MEDIUM CARBON STEEL, PLAIN FINISH, UNC-2A	MILITARY STANDARD MS 35295
PROCUREMENT SPECIFICATION PP-S-85	SUPERSEDES:	SHEET 2	OF

APPROVED MARCH 4, 1954 REVISED (B) 26 APRIL 63 (B) FOR CHANGES SEE SHEETS 1, 2 AND 3

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

FED. SUP CLASS  
5305REVIEWER: MI, EL, ME, MC, SH  
USER: OS, MC, GL, AT, MO

			(B)	(B)	(B)	(B)			
NOMINAL SIZE			1-3/4	2	2-1/4	2-1/2			
THREADS PER INCH			5UNC	4-1/2UNC	4-1/2UNC	4UNC			
BODY DIAMETER	D	(Max Min)	1.7500 1.7380	2.0000 1.9880	2.2500 2.2380	2.5000 2.4880			
WIDTH ACROSS FLATS	A	(Max Min)	2.6250 2.5380	3.0000 2.9000	3.3750 3.2620	3.7500 3.6250			
WIDTH ACROSS CORNERS	V	(Max Min)	3.0310 2.8930	3.4640 3.3060	3.8970 3.7190	4.3300 4.1330			
HEAD HEIGHT	H	(Max Min)	1.1340 1.0540	1.2630 1.1750	1.4230 1.3270	1.5830 1.4790			
RADIUS	R	(Max Min)	.093 .062	.093 .062	.093 .062	.093 .062			
LENGTH	L	Tolerance	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number
1-3/4	2	+0 -1/8	335 306						
2-1/4	3		337 308	337					
2-1/2	4		339 310	339					
2-3/4	5		341 312	341	340	361			
3-1/4	6		343 314	343	342	363			
3-1/2	7	+0 -3/16	345 316	345	344	365			
3-3/4	8		347 318	347	346	367			
4-1/4	9		349 320	349	348	369			
4-1/2	10		351 322	351	350	371			
4-3/4	11		353 324	353	352	373			
5-1/4	12		355 326	355	354	375			
5-1/2	13		357 328	357	356	377			
5-3/4	14		359 330	359	358	379			

**NOTE:** For illustration, material, finish and other pertinent data, see sheet 1.**(B) CANCELLED IN PART**  
SEE SHEET 2

P.A. NC Other Case SH	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), MEDIUM CARBON STEEL, PLAIN FINISH, UNC-2A	MILITARY STANDARD MS 35295
PROCUREMENT SPECIFICATION PP-3-85	SUPERSEDES:	SHEET 3 OF

This military standard is approved by the Department of Defense and is mandatory on all activities. Substitution for all non-engineering and design applications and for applications not made for this standard.

DD FORM 672-1 (Continued)

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APPROVED MARCH 4, 1954 REVISED (B) 26 APRIL 63 (B) FOR CHANGES SEE SHEETS 1, 2 AND 3