



REVIEWER: AT, AV, IS, MU, NS
1 SER: NC, ME, MI, OS, YD

NOMINAL SIZE		.250	.3125	.375	.4375	.500	.5625	.625
THREADS PER INCH (UNC-2A)		20	18	16	14	13	12	11
D BODY DIAMETER	MAX MIN	.250 .245	.3125 .3065	.375 .369	.4375 .4305	.500 .493	.5625 .5545	.625 .617
F WIDTH ACROSS FLATS	MAX MIN	.4375 .4280	.500 .489	.5625 .5510	.625 .612	.750 .736	.8125 .7980	.9375 .9220
G WIDTH ACROSS CORNERS	MAX MIN	.505 .486	.577 .557	.650 .628	.722 .698	.866 .840	.938 .910	1.083 1.051
H HEAD HEIGHT	MAX MIN	.163 .150	.211 .195	.243 .226	.291 .272	.323 .302	.371 .348	.403 .378
R RADIUS	MAX MIN	.025 .015	.025 .015	.025 .015	.025 .015	.025 .015	.045 .020	.045 .020
TENSILE STRENGTH (LBS-MIN)		1,900	3,140	4,650	6,370	8,510	10,920	13,560

L LENGTH	TOLERANCE			DASH NO.	DASH NO. (C)	DASH NO.	DASH NO. *	DASH NO. *	DASH NO. *	DASH NO.
	SIZE .375 AND UNDER	SIZES .4375 AND .500	SIZES .5625 AND .625							
.375				301	327	353				
.438				302*	328*	354*				
.500				303	329	355			404	
.562	+.000	+.000	+.000	304*	330*	356*			405*	430
.625										
.750	-.030	-.030	-.030	305	331	357			406	
.875										
1.000				306	332	358			407	455
				307	333	359			408	456
				308	334	360			409	457
									433	458
									434	
1.125				309*	335*	361*			410*	459*
1.250				310	336	362			411	460
1.375				311*	337*	363*			412*	461*
1.500	+.000	+.000	+.000	312	338	364			413	462
1.750										
2.000	-.040	-.060	-.080	313	339	365			415	464
2.250										
2.500				314	340	366			417	466
				315	341	367			418	467
				316	342	368			419	468
									420	469
2.750				317	343	369			421	470
3.000	+.000	+.000	+.000	318	344	370			422*	471*
3.250										
3.500	-.060	-.080	-.100	319	345	371			424*	473*
3.750										
4.000				320	346	372			426*	475*
				321*	347*	373*			427	476
				322	348	374			428	477
									429	478
4.250				323*	349*	375*			430	479
4.500	+.000	+.000	+.000	324	350	376			431	480
4.750										
5.000	-.100	-.100	-.100	325*	351*	377*			433	482
5.500										
6.000				326	352	378			435	484

* INACTIVE FOR NEW DESIGN - Dash numbers 379 thru 403, 430 thru 454 and those with an (*) are inactive for new design.

(C)

(C) For changes see sheet 1.

This military standard is approved 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.

REVISED (A) 30 SEP 1966 (B) 15 FEB 1973 (C) 12 DEC 1974 APPROVED 4 MAR 1954

P.A. WC Other Cust SH B2	TITLE SCREW, CAP, HEXAGON HEAD - NAVAL BRASS, PLAIN FINISH, UNC-2A	MILITARY STANDARD MS 35309
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES	SHEET 1 OF 2

NOMINAL SIZE		.750	.875	1.000	1.125	1.250		
THREADS PER INCH (UNC-2A)		10	9	8	7	7		
D BODY DIAMETER	MAX	.750	.875	1.000	1.125	1.250		
	MIN	.741	.866	.990	1.114	1.239		
F WIDTH ACROSS FLATS	MAX	1.125	1.3125	1.500	1.6875	1.875		
	MIN	1.100	1.2850	1.469	1.6310	1.812		
G WIDTH ACROSS CORNERS	MAX	1.299	1.516	1.732	1.949	2.165		
	MIN	1.254	1.465	1.675	1.859	2.066		
H HEAD HEIGHT	MAX	.483	.563	.627	.718	.813		
	MIN	.455	.531	.591	.658	.749		
R RADIUS	MAX	.045	.065	.095	.095	.095		
	MIN	.020	.040	.060	.060	.060		
TENSILE STRENGTH (LBS-MIN)		20,040	27,720	36,360	44,250	56,200		
L LENGTH	TOLERANCE			DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
	SIZE .750	SIZES .875 AND 1.000	SIZES 1.125 AND 1.250					
.750	+.000	+.000	-----	479				
.875				480	502			
1.000	-.030	-.040		481	503	524		
1.125				482*	504*	525*	545	
1.250				483	505	526	546	565
1.375				484*	506*	527*	547	566*
1.500	+.000	+.000	+.000	485	507	528	548	567
1.750	-.080	-.100	-.120	486	508	529	549	568
2.000				487	509	530	550	569
2.250				488	510	531	551	570*
2.500				489	511	532	552	571
2.750				490	512	533	553	572*
3.000				491	513	534	554	573
3.250	+.000	+.000	+.000	492	514*	535*	555	574*
3.500	-.100	-.140	-.160	493	515	536	556	575
3.750				494*	516*	537*	557	576*
4.000				495	517	538	558	577
4.250				496*	518*	539*	559	578*
4.500				497	519	540	560	579
4.750	+.000	+.000	+.000	498*	520*	541*	561	580*
5.000	-.100	-.160	-.180	499	521	542	562	581
5.500				500	522	543	563	582
6.000				501	523	544	564	583

* INACTIVE FOR NEW DESIGN - Dash numbers 545 thru 564 and those with an (*) are inactive for new design.

NOTES:

- MATERIAL:** Naval Brass in accordance with QQ-B-637, alloy no. 464, half-hard or alloy no. 462, hard having a minimum ultimate tensile strength of 60,000 PSI for sizes thru 1.000, and 58,000 PSI for sizes over 1.000.
- PROTECTIVE COATING:** None.
- THREADS:** The threads shall be in accordance with Screw Thread Standards for Federal Services, Handbook H28.
- DIMENSIONS:** All dimensions are in inches, unless otherwise specified.
- THREAD LENGTH:** Minimum thread length shall be twice the diameter plus 0.250 inch. The tolerance shall be plus 0.188 inch or 2-1/2 threads, whichever is greater. On screws that are too short for minimum thread lengths, the distance from the head bearing surface to the first complete thread shall not exceed the length of 2-1/2 threads for sizes thru 1.000 and 3-1/2 threads for sizes over 1.000.
- PART NUMBER:** The MS part number consists of the MS number, plus the dash number. Example: MS35309-301
- 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.

INTERCHANGEABILITY

The former dash numbers of MS35309 (1 thru 283) are cancelled and superseded by the present dash numbers of MS35309 (301 thru 583 respectively). Use only the present dash numbers for new design.

This military standard is approved 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.

REVIEWER: AT, AV, IS, MU, MS
1 SER: MC, ME, MI, OS, YD

APPROVED 4 MAR 1954 REVISED 30 SEP 1968 15 FEB 1973 FOR CHANGES SEE SHEET 1.

P.A. WC	TITLE	MILITARY STANDARD
Other Code SH 82	SCREW, CAP, HEXAGON HEAD - NAVAL BRASS, PLAIN FINISH, UNC-2A	MS 35309
PROCUREMENT SPECIFICATION FF-5-85	SUPERSEDES	SHEET 2 OF 2