

NOTICE.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

			FED. SUP CLASS 5305							
NOMINAL SIZE			1/4	5/16	3/8	7/16	1/2	9/16	5/8	
THREADS PER INCH			28UNF	24UNF	24UNF	20UNF	20UNF	18UNF	18UNF	
BODY DIAMETER	D	Max Min	.2500 .2450	.3125 .3065	.3750 .3690	.4375 .4305	.5000 .4930	.5625 .5545	.6250 .6170	
WIDTH ACROSS FLATS	A	Max Min	.4375 .4280	.5000 .4890	.5625 .5510	.6250 .6120	.7500 .7380	.8125 .7990	.9375 .9220	
WIDTH ACROSS CORNERS	W	Max Min	.5050 .4880	.5770 .5570	.6500 .6280	.7220 .6980	.8660 .8400	.9380 .9100	1.0830 1.0510	
HEAD HEIGHT	H	Max Min	.1630 .1500	.2110 .1950	.2430 .2260	.2910 .2720	.3230 .3020	.3710 .3480	.4030 .3780	
RADIUS	R	Max Min	.023 .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	Dash Number	
3/8			1	27	53					
7/16			2	28	54	79				
1/2			3	29	55	80	104			
9/16		+0	4	30	56	81	105	130		
5/8		-1/32	5	31	57	82	106	131	155	
3/4			6	32	58	83	107	132	156	
7/8			7	33	59	84	108	133	157	
1			8	34	60	85	109	134	158	
1-1/8			9	35	61	86	110	135	159	
1-1/4			10	36	62	87	111	136	160	
1-3/8		+0	11	37	63	88	112	137	161	
1-1/2		-1/16	12	38	64	89	113	138	162	
1-3/4			13	39	65	90	114	139	163	
2			14	40	66	91	115	140	164	
2-1/4			15	41	67	92	116	141	165	
2-1/2			16	42	68	93	117	142	166	
2-3/4			17	43	69	94	118	143	167	
3			18	44	70	95	119	144	168	
3-1/4			19	45	71	96	120	145	169	
3-1/2		+0	20	46	72	97	121	146	170	
3-3/4		-3/32	21	47	73	98	122	147	171	
4			22	48	74	99	123	148	172	
4-1/4			23	49	75	100	124	149	173	
4-1/2			24	50	76	101	125	150	174	
4-3/4			25	51	77	102	126	151	175	
5			26	52	78	103	127	152	176	
5-1/2							128	153	177	
6							129	154	178	
<p>MATERIAL: Low Carbon Steel, Grade 2 of procurement specification. Minimum tensile strength: 68,000 psi for diameters through 1/2"; 64,000 psi for diameters 9/16" through 3/4"; 45,000 psi for diameters over 3/4".</p> <p>FINISH: Cadmium or Zinc Plated, Specification QQ-P-416, Type II, Class C, or Specification QQ-P-416, Type II, Class 3.</p> <p>THREADS: The threads shall be in accordance with Screw-Thread Standards for Federal Services Handbook H-23.</p> <p>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".</p> <p>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: MS 35292-1. (4) All dimensions in inches.</p>			<p>REVISIONS:</p> <p>(A) For Changes see Sheets 1 and 2.</p>							
P.A.	WG	TITLE	<p>SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), LOW CARBON STEEL, CADMIUM OR ZINC FINISH, UNF-2A</p>							
Other Cust	SHIPS ASB									
PROCUREMENT SPECIFICATION FF-S-85			SUPERSEDES:							
SHEET			OF							
1			2							

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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
5305

NOMINAL SIZE			3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
THREADS PER INCH			16UNF	14UNF	12UNF	12UNF	12UNF	12UNF	12UNF
BODY DIAMETER	D	{Max Min	.7500 .7410	.8750 .8660	1.0000 0.9900	1.1250 1.1140	1.2500 1.2390	1.3750 1.3630	1.5000 1.4880
WIDTH ACROSS FLATS	A	{Max Min	1.1250 1.1000	1.3125 1.2850	1.5000 1.4690	1.6875 1.6310	1.8750 1.8120	2.0625 1.9940	2.2500 2.1750
WIDTH ACROSS CORNERS	W	{Max Min	1.2990 1.2540	1.5160 1.4650	1.7320 1.6750	1.9490 1.8590	2.1650 2.0660	2.3820 2.2730	2.5980 2.4800
HEAD HEIGHT	H	{Max Min	.4830 .4550	.5630 .5310	.6270 .5910	.7180 .6580	.8130 .7490	.8780 .8100	.9740 .9020
RADIUS	R	{Max Min	.041 .021	.062 .041	.093 .062	.093 .062	.093 .062	.093 .062	.093 .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	1	+0 -1/32	+0 -1/16	179 180 181					
1-1/8	2			182 183 184	202 203 204	224 225 226	245 246 247		
1-1/4	3	+0 -1/16	+0 -1/8					265 266	
1-3/8	4								284
1-1/2	5			185 186 187	207 208 209	228 229 230	248 249 250	267 268 269	285 286 287
1-3/4	6			188 189 190	210 211 212	231 232 233	251 252 253	270 271 272	288 289 290
2-1/4	7								302 303 304
2-1/2	8								305 306 307
2-3/4	9								
3	10			191 192 193	213 214 215	234 235 236	254 255 256	273 274 275	291 292 293
3-1/4	11	+0 -3/32	+0 -3/16	194 195 196	216 217 218	237 238 239	257 258 259	276 277 278	294 295 296
3-1/2	12								308 309 310
3-3/4	13								311 312 313
4-1/4	14								
4-1/2	15			197 198 199	219 220 221	240 241 242	260 261 262	279 280 281	297 298 299
4-3/4	16								300 301
5-1/2	17			200 201	222 223	243 244	263 264	282 283	302 303

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

Ⓐ CANCELLED AFTER 30 April 1963. USE MS90726.
INTERCHANGEABILITY RELATIONSHIP - MS90726
can replace the cancelled screws of the
same size. The cancelled MS35292 cannot
always replace MS90726 and should be
used until existing stock is depleted.
Then use only the superseding MS screws
of the same size for design and replace-
ment.

Ⓐ CANCELLED
SEE NOTE

P.A.	WC	TITLE	MILITARY STANDARD
Other Cust	SHIPS ASD	SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), LOW CARBON STEEL, CADMIUM OR ZINC FINISH, UNF-2A	35292
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES:		SHEET 2 OF