

USER ACTIVITIES:
ME, GL, MC, MI, YO, AS

REVIEWER ACTIVITIES:
AV, IS, AT, MU, NSA, OS, II

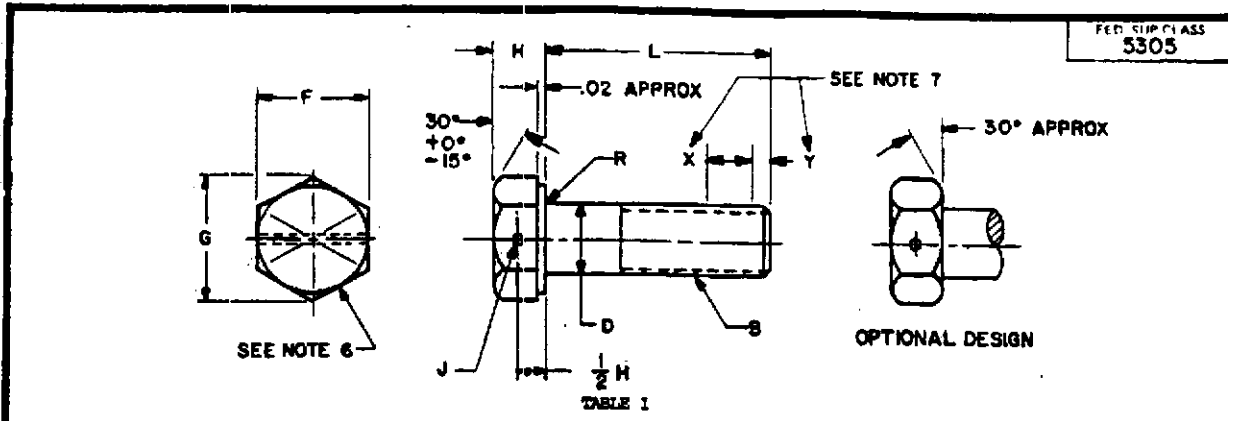


TABLE I

NOMINAL SIZE			1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
B	THREAD	UNF-2A	28	24	24	20	20	18	16	14	12
D	BODY DIAMETER	MAX MIN	.2500 .2450	.3125 .3065	.3750 .3690	.4375 .4305	.5000 .4930	.6250 .6170	.7500 .7410	.8750 .8660	1.0000 .9900
F	WIDTH ACROSS FLATS	MAX MIN	.4375 .4280	.5000 .4890	.5625 .5510	.6250 .6120	.7500 .7360	.9375 .9220	1.1250 1.1000	1.3125 1.2850	1.5000 1.4690
G	WIDTH ACROSS CORNERS	MAX MIN	.505 .488	.577 .557	.650 .628	.722 .698	.866 .840	1.063 1.051	1.299 1.254	1.516 1.465	1.732 1.675
H	HEAD HEIGHT	MAX MIN	.163 .150	.211 .195	.243 .226	.291 .272	.323 .302	.403 .378	.483 .455	.563 .531	.627 .591
1/2 H		MAX MIN	.088 .075	.114 .098	.130 .113	.155 .136	.172 .151	.214 .189	.256 .228	.298 .266	.332 .296
J	HOLE DIAMETER	+0.006 -.002	.0625	.0625	.0625	.0625	.094	.094	.094	.125	.125
R	RADIUS	MAX MIN	.025 .015	.025 .015	.025 .015	.025 .015	.025 .015	.045 .020	.045 .020	.045 .040	.095 .060
MIN TENSILE STRENGTH - LBS			5,450	8,700	13,200	17,800	24,000	38,400	56,000	76,400	99,400

L LENGTH	TOLERANCE		DASH NO.	DASH NO. (Plain only)	DASH NO.	DASH NO. (Plain only)	DASH NO.	DASH NO.	DASH NO.	DASH NO. (Plain only)	DASH NO.
	SIZE 3/4 AND OVER	SIZE 7/8 AND OVER									
.375			1	27							
.438			2	28							
.500			3	29	55						
.562	+0 -.031		4	30	56						
.625			5	31	57						
.750			6	32	58	84	110	133			
.875			7	33	59	85	111	134			
1.000			8	34	60	86	112	135	157		
1.250			9	35	61	87	113	136	158	182	206
1.500	+0 -.062	+0 -.125	10	36	62	88	114	137	159	183	207
1.750			11	37	63	89	115	138	160	184	208
2.000			12	38	64	90	116	139	161	185	209
2.250			13	39	65	91	117	140	162	186	210
2.500			14	40	66	92	118	141	163	187	211
2.750			15	41	67	93	119	142	164	188	212
3.000			16	42	68	94	120	143	165	189	213
3.250			17	43	69	95	121	144	166	190	214
3.500			18	44	70	96	122	145	167	191	215
3.750	+0 -.094	+0 -.168	19	45	71	97	123	146	168	192	216
4.000			20	46	72	98	124	147	169	193	217
4.250			21	47	73	99	125	148	170	194	218
4.500			22	48	74	100	126	149	171	195	219
4.750			23	49	75	101	127	150	172	196	220
5.000			24	50	76	102	128	151	173	197	221
5.500							129	152	174	198	222
6.000							130	153	175	199	223

NOTE: FOR NOTES SEE SHEET 2.

Ⓢ DENOTES CHANGE

P.A. AR	INTERNATIONAL INTEREST	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), HEAD DRILLED FOR LOCKING WIRE, ALLOY STEEL, GRADE 8, ZINC COATED, UNF-2A, PLAIN AND SELF-LOCKING Ⓢ	MILITARY STANDARD MS18153
Other Cust SH 99			
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES:	MS51098, BUBX33, BUBX34, BUBX39 IN PART AND BUBX40 IN PART	SHEET 1 OF 2

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

NOTES:

1. **MATERIAL:** ALLOY STEEL, GRADE 8, IN ACCORDANCE WITH PRECEDENT SPECIFICATION. MINIMUM ULTIMATE TENSILE STRENGTH: 150,000 PSI.
- (D) 2. **PROTECTIVE COATING:** ZINC COATING IN ACCORDANCE WITH PRECEDENT SPECIFICATION.
3. **THREADS:** THE THREADS SHALL BE IN ACCORDANCE WITH INCH-THREAD STANDARDS FOR FEDERAL SERVICES, HANDBOOK E28.
4. **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.
5. **DIMENSIONS:** ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
6. **HEAD MARKING:** HEADS SHALL BE MARKED IN ACCORDANCE WITH MIL-HEX-131. SCREWS WITH SELF-LOCKING ELEMENTS SHALL ALSO HAVE SIX DOTS IN A CIRCULAR PATTERN ON THE HEAD. RAISED MARKINGS ARE PREFERRED, STAMPINGS ARE ACCEPTABLE.
7. **SELF-LOCKING ELEMENTS:**
 - (a) THE SELF-LOCKING ELEMENT SHALL BE A PATCH TYPE OR LONGITUDINAL STRIP IN ACCORDANCE WITH MIL-P-18240.
 - (b) FOR "X" AND "Y" DIMENSIONS AND DESIGN AND USAGE LIMITATIONS, SEE MS15981.
 - (c) MAXIMUM RING GAGE DIAMETER THAT LOCKING REGION OF SCREW MUST PASS THRU FREELY OR WITH FINGER PRESSURE SHALL BE THE NOMINAL SIZE PLUS 0.010.
 - (d) SIZES 5/16, 7/16 AND 7/8 SHALL NOT BE AVAILABLE WITH SELF-LOCKING ELEMENT.
8. **PART NUMBER:** THE MS PART NUMBER CONSISTS OF THE MS NUMBER, PLUS THE DASH NUMBER. FOR SCREWS WITH SELF-LOCKING ELEMENT ADD THE LETTER "L" AFTER THE DASH NUMBER.

EXAMPLE: MS18153-1 PLAIN SCREW.
MS18153-1L SELF-LOCKING SCREW.
9. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.
10. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PRECEDENT DOCUMENTS REFERENCED HEREIN.
11. **INTERCHANGEABILITY:**
SCREWS COVERED BY THE DASH NUMBERS GIVEN IN MS1098 ARE CANCELLED AND SUPERSEDED BY THE SCREWS COVERED ON MS18153 HAVING THE SAME DASH NUMBERS. CANCELLED SCREWS MAY BE USED UNTIL EXISTING STOCKS ARE DEPLETED. USE ONLY MS18153 SCREWS FOR NEW DESIGN.
- (D) 12. THIS MILITARY STANDARD IS NOT INTENDED FOR USE IN AIRBORNE APPLICATIONS.

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APPROVED 16 FEB 65 REVISION 14 OCT 1968 1 MAY 1969 FOR CHANGES SEE SHEETS 1 AND 2

P.A. Other Cont	AR	INTERNATIONAL INTEREST	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), HEAD DRILLED FOR LOCKING WIRE, ALLOY STEEL, GRADE 8, ZINC COATED, UNF-2A, PLAIN AND SELF-LOCKING (D)	MILITARY STANDARD	
	SH 99			MS18153	
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES: MSS1098, BUBX35, BUBX36, BUBX39 IN PART AND BUBX40 IN PART			SHEET	OF
				2	2