



FULL HEAD UNDERCUT HEAD

NOMINAL SIZE	D	#1 (.0730)	#2 (.0860)	#4 (.1120)	#6 (.1380)	#8 (.1640)	#10 (.1900)	1/4 (.2500)	5/16 (.3125)		
THREADS PER INCH		64NC	56NC	40NC	32NC	32NC	24NC	20UNC	18UNC		
BODY DIAMETER	D <sub>E</sub>	Max	.0730	.0860	.1120	.1380	.1640	.1900	.2500	.3125	
		Min	.0603	.0717	.0925	.1141	.1399	.1586	.2127	.2712	
HEAD DIAMETER	A	Max Sharp	.146	.172	.225	.279	.332	.385	.507	.635	
		Min Sharp	.130	.156	.207	.257	.308	.359	.477	.600	
		Abs Min	.126	.150	.200	.249	.300	.348	.462	.581	
SLOT WIDTH	J	Max	.026	.031	.039	.048	.054	.060	.075	.084	
		Min	.019	.023	.031	.039	.045	.050	.064	.072	
FLAT	S	Max	.003	.003	.004	.005	.006	.007	.009	.011	
RADIUS	R	Max	.031	.036	.050	.063	.063	.083	.100	.111	
		Min	.043	.051	.067	.083	.100	.116	.153	.191	
FULL HEAD	HEAD HEIGHT	H	Max	.043	.051	.067	.083	.100	.116	.153	.191
		Min	.033	.040	.055	.069	.084	.098	.131	.165	
FULL HEAD	SLOT DEPTH	T	Max	.019	.023	.030	.038	.045	.053	.070	.088
		Min	.012	.015	.020	.024	.029	.034	.046	.058	
UNDERCUT HEAD	HEAD HEIGHT	H <sub>1</sub>	Max	.032	.037	.048	.060	.071	.083	.103	.135
		Min	.022	.026	.036	.046	.055	.065	.086	.109	
UNDERCUT HEAD	SLOT DEPTH	T <sub>1</sub>	Max	.016	.019	.025	.032	.037	.044	.058	.073
		Min	.012	.015	.020	.024	.029	.034	.046	.058	

LENGTH	L	Tolerance	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.
1/8			1	8	18	31	46			
3/16			2	9	19	32	47	65		
1/4			3	10	20	33	48	66		
5/16			4	11	21	34	49	67	83	
3/8		+0	5	12	22	35	50	68	84	99
7/16		-1/32	6	13	23	36	51	69	85	100
1/2			7	14	24	37	52	70	86	101
5/8				15	25	38	53	71	87	102
3/4				16	26	39	54	72	88	103
7/8				17	27	40	55	73	89	104
1-1/4				28	41	56	74	90	91	105
1-1/2		+0		29	42	57	75	91		106
1-3/4		-1/16		30	43	58	76	92		107
2				44	44	59	77	93		108
2-1/4				45	45	60	78	94		109
Minimum complete thread length of 1-3/4.						61	79	95		110
2-1/2		+0				62	80	96		111
2-3/4		-3/32				63	81	97		112
3						64	82	98		113

**CANCELLED**  
SEE SHEET 2

**MATERIAL:** Corrosion Resisting Steel, Specification QQ-S-763, 70,000 PSI minimum tensile strength, minimum elongation 16% in 2 inches.

**FINISH:** Passivated by immersion for a period of 20 minutes in a solution containing 15% (by weight) of nitric acid at a temperature of 70°F ±5°, followed by a thorough rinse in hot water.

**THREADS:** The threads shall be in accordance with Screw-Thread Standards for Federal Services Handbook H-28.

**HEAD MARKING:** For corrosion resisting steel screws. Only one visible dash necessary after slotting operation. Position optional. Screws size #4 and smaller require no head markings.

**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 35249-1.  
(4) Sizes above dotted line have undercut head.  
(5) All dimensions in inches.

(A) For changes see sheets 1 and 2.

P.A.	WC	TITLE	<b>MILITARY STANDARD</b> <b>MS 35249</b>
Other Cust	Ships MOAMA	SCREW, MACHINE, FLAT COUNTERSUNK HEAD, SLOTTED, CORROSION RESISTING STEEL, PASSIVATED, NC-2A AND UNC-2A	
PROCUREMENT SPECIFICATION FP-S-92	SUPERSEDES:	SHEET	1 OF 2

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 formulated, 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.

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.

APPROVED FEB 9, 1954 REVISED (A) 19 DEC 63

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NOMINAL SIZE D		3/8 (.3750)	7/16 (.4375)	1/2 (.5000)	9/16 (.5625)	5/8 (.6250)	3/4 (.7500)		
THREADS PER INCH		16UNC	14UNC	13UNC	12UNC	11UNC	10UNC		
BODY DIAMETER D <sub>E</sub>		Max Min	.3750 .3287	.4375 .3850	.5000 .4435	.5625 .5016	.6250 .5589	.7500 .6773	
HEAD DIAMETER A		Max Sharp Min Sharp Abs Min	.762 .722 .700	.812 .771 .743	.875 .831 .802	1.000 .950 .919	1.125 1.069 1.035	1.375 1.306 1.267	
SLOT WIDTH J		Max Min	.094 .081	.094 .081	.106 .091	.118 .102	.133 .116	.149 .131	
FLAT S		Max	.013	.016	.018	.020	.023	.027	
RADIUS R		Max	.125	.143	.154	.167	.182	.200	
FULL HEAD	HEAD HEIGHT H	Max Min	.230 .200	.223 .190	.223 .186	.260 .220	.298 .253	.372 .319	
	SLOT DEPTH T	Max Min	.106 .070	.103 .066	.103 .065	.120 .077	.137 .088	.171 .111	
UNDERCUT HEAD	HEAD HEIGHT H <sub>1</sub>	Max Min	.162 .132	.156 .126	.160 .123	.185 .145	.212 .167	.264 .211	
	SLOT DEPTH T <sub>1</sub>	Max Min	.088 .070	.085 .066	.085 .065	.100 .077	.114 .088	.142 .111	
LENGTH L		Tolerance	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	
THREADS SHALL EXTEND TO WITHIN 2 THREADS OF THE BEARING SURFACE OF THE HEAD, OR CLOSER IF PRACTICABLE	1/8	+0 -1/32	114 115	127	139 140	150 151	160 161	170 171	
	3/16								
	1/4								
	5/16								
	3/8								
	7/16								
	1/2	+0 -1/16	120 121 122 123	132 133 134 135	143 144 145 146	153 154 155 156	163 164 165 166	172 173 174 175	
	5/8								
	3/4								
	7/8								
	1								
	1-1/4								
1-1/2	+0 -3/32	124 125 126	136 137 138	147 148 149	157 158 159	167 168 169	176 177 178		
1-3/4									
2									
2-1/4									
Minimum complete thread length of 1-3/4.	2-1/2 2-3/4 3								

**Ⓐ CANCELLED**  
SEE NOTE

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

Ⓐ CANCELLED. AFTER 19 Dec 1963 USE MS51959 FOR NOMINAL SIZES THRU 3/8 INCH, AND MS24671 FOR LARGER SIZES. INTERCHANGEABILITY RELATIONSHIP MS51959 AND MS24671 can replace the cancelled screws of the same size. The cancelled MS35249 cannot always replace MS51959 or MS24671 and should be used until existing stock is depleted. Then use only the superseding MS screws of the same size for design and replacement.

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.

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Other Cust	Ships MOAMA	SCREW, MACHINE, FLAT COUNTERSUNK HEAD, SLOTTED, CORROSION RESISTING STEEL, PASSIVATED, NC-2A AND UNC-2A	MS 35249
PROCUREMENT SPECIFICATION FP-S-92	SUPERSEDES:		SHEET 2 OF

APPROVED FEB 9, 1954 REVISED Ⓐ FOR CHANGES SEE SHEETS 1 AND 2