



FULL HEAD

UNDERCUT HEAD

NOMINAL SIZE	D		#1	#2	#4	#6	#8	#10	1/4	5/16
			(.0730)	(.0910)	(.1120)	(.1330)	(.1640)	(.1900)	(.2500)	(.3125)
THREADS PER INCH			4NC	5NC	4UNC	32NC	32NC	24NC	20UNC	13UNC
BODY DIAMETER	D <sub>e</sub>	Max Min	.0730 .0603	.0910 .0717	.1120 .0925	.1330 .1141	.1640 .1399	.1900 .1591	.2500 .2127	.3125 .2712
HEAD DIAMETER	A	Max Sharp	.140	.172	.225	.279	.332	.335	.507	.635
		Min Sharp	.130	.154	.207	.257	.308	.359	.477	.600
		Abs Min	.124	.150	.200	.249	.300	.348	.462	.581
SLOT WIDTH	J	Max	.021	.031	.039	.049	.054	.060	.075	.084
		Min	.019	.023	.031	.039	.045	.050	.064	.072
FLAT	F	Max	.003	.003	.004	.005	.006	.007	.009	.011
RADIUS	R	Max	.031	.036	.050	.063	.063	.093	.100	.111
FULL HEAD	HEAD HEIGHT	Max	.043	.051	.067	.083	.100	.116	.153	.191
		Min	.033	.040	.055	.069	.084	.098	.131	.165
FULL HEAD	SLOT DEPTH	Max	.019	.023	.030	.038	.045	.053	.070	.088
		Min	.012	.015	.020	.024	.029	.034	.046	.058
UNDERCUT HEAD	HEAD HEIGHT	Max	.032	.037	.048	.060	.071	.083	.108	.135
		Min	.022	.024	.036	.046	.055	.065	.086	.109
UNDERCUT HEAD	SLOT DEPTH	Max	.016	.019	.025	.032	.037	.044	.058	.073
		Min	.012	.015	.020	.024	.029	.034	.046	.058
THREADS SHALL EXTEND TO WITHIN 2 THREADS OF THE BEARING SURFACE OF THE HEAD, OR CLOSER IF PRACTICABLE	LENGTH	L	Tolerance	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.
	1/8			1	8	18	31	46	65	
	3/16			2	9	19	32	47	66	
	1/4			3	10	20	33	48	67	
	5/16			4	11	21	34	49	67	93
	3/8	+0		5	12	22	35	50	68	94
	7/16	-1/32		6	13	23	36	51	69	95
	1/2			7	14	24	37	52	70	96
	5/8				15	25	38	53	71	87
	3/4				16	26	39	54	72	88
	1 1/4				17	27	40	55	73	89
	1 1/2	+0				28	41	56	74	90
	1-3/4	-1/16				29	42	57	75	91
	2					30	43	58	76	92
	Minimum complete thread length of 1-3/4		+0				44	59	77	93
		-3/32				45	60	78	94	
						61	61	79	95	
							62	90	96	
							63	91	97	
							64	92	98	

**(A) 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-29.

**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 M: 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	MILITARY STANDARD
Other Cust	Ships MOAMA	SCREW, MACHINE, FLAT COUNTERSUNK HEAD, SLOTTED, CORROSION RESISTING STEEL, PASSIVATED, NC-2A AND UNC-2A	MS 35249
PROCUREMENT SPECIFICATION FF-S-22	SUPERSEDES:	SHEET	1 OF 2

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	.3750	.4375	.5000	.5625	.6250	.7500		
	Min	.3287	.3850	.4435	.5016	.5589	.6773		
HEAD DIAMETER A	Max Sharp	.762	.812	.875	1.000	1.125	1.375		
	Min Sharp	.722	.771	.831	.950	1.069	1.306		
	Abs Min	.700	.743	.802	.919	1.035	1.267		
SLOT WIDTH J	Max	.094	.094	.106	.118	.133	.149		
	Min	.091	.081	.091	.102	.116	.131		
FLAT S	Max	.013	.016	.018	.020	.023	.027		
RADIUS R	Max	.125	.143	.154	.167	.182	.200		
	Min	.120	.139	.150	.163	.178	.196		
FULL HEAD HEAD HEIGHT H	Max	.230	.223	.223	.260	.298	.372		
	Min	.200	.190	.186	.220	.253	.319		
SLOT DEPTH T	Max	.106	.103	.103	.120	.137	.171		
	Min	.070	.066	.065	.077	.088	.111		
UNDERCUT HEAD HEAD HEIGHT H <sub>1</sub>	Max	.162	.156	.160	.185	.212	.264		
	Min	.132	.126	.123	.145	.167	.211		
SLOT DEPTH T <sub>1</sub>	Max	.088	.085	.085	.100	.114	.142		
	Min	.070	.066	.065	.077	.088	.111		

THREADS SHALL EXTEND TO WITHIN 2 THREADS OF THE BEARING SURFACE OF THE HEAD, OR CLOSER IF PRACTICABLE	LENGTH L	Tolerance	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.
Minimum complete thread length of 1-3/4.	1/8 3/16 1/4 5/16	+0 -1/32						
	3/8 7/16 1/2 5/8	+0 -1/32	114					
			115	127				
	3/4 7/8 1 1-1/4	+0 -1/16	116	128	139	150	160	170
			117	129	140	151	161	171
			118	130	141	151	161	171
	1-1/2 1-3/4 2	+0 -1/16	119	131	142	152	162	171
			120	132	143	153	163	172
			121	133	144	154	164	173
2-1/4 2-1/2 2-3/4 3	+0 -3/32	122	134	145	155	165	174	
		123	135	146	156	166	175	
		124	136	147	157	167	176	
			125	137	148	158	168	177
			126	138	149	159	169	178

**Ⓐ 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.

APPROVED FEB 9, 1984 REVISED Ⓐ FOR CHANGES SEE SHEETS 1 AND 2

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