



TABLE I

NOMINAL SIZE		2	3*	4	5*	6	7*	8	9*	10	12	14	16
D SCREW DIA	BASIC	.086	.099	.112	.125	.138	.151	.164	.177	.190	.216	.242	.268
	MAX	.090	.103	.116	.129	.142	.155	.168	.181	.194	.220	.246	.272
	MIN	.079	.092	.105	.118	.131	.144	.157	.170	.183	.209	.235	.261
A HEAD DIA	MAX	.162	.187	.211	.236	.260	.285	.309	.334	.359	.408	.457	.506
	MIN	.146	.169	.193	.217	.240	.264	.287	.311	.334	.382	.429	.476
H HEAD HEIGHT	MAX	.069	.078	.086	.095	.103	.111	.120	.128	.137	.153	.170	.187
	MIN	.059	.067	.075	.083	.091	.099	.107	.115	.123	.139	.155	.171
R FILLET RADIUS	MAX	.02	.02	.02	.03	.03	.03	.03	.03	.03	.03	.05	.05
DRIVER SIZE		1	1	1	2	2	2	2	2	2	3	3	3
THREADS PER INCH		26	24	22	20	18	16	15	14	13	11	10	9

- NOTES:
- (E) \* Inactive, see sheet 2.
  - 1. **MATERIAL:** Carbon steel, 1010 thru 1022 or 1108 thru 1118 in accordance with QQ-S-631, QQ-S-634, QQ-S-637 or QQ-W-405.  
(E) Brass, alloy no. 260 or 268, quarter-hard in accordance with QQ-B-613 or QQ-B-626; or alloy no. 260 or 270, quarter-hard in accordance with QQ-W-321.
  - 2. **PROTECTIVE COATING:** Steel - Cadmium plated in accordance with QQ-P-416, Type II, Class 3 or MIL-C-81562, Type II, Class 3; or zinc coated in accordance with QQ-Z-325, Type II, Class 3 or MIL-C-81562, Type II, Class 3.  
(E) Brass - Plain, uncoated.
  - 3. **THREADS:** Maximum permissible variation in number of threads per inch shall be plus or minus 10 percent.
  - 4. **RECESS:** The recess shall be in accordance with MS9006.
  - 5. **DIMENSIONS:** All dimensions are in inches.
  - 6. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number.  
Example: MS35493-1.
  - 7. Referenced documents shall be of the issue in effect on date of invitations for bid.
  - 8. For design feature purposes, this standard takes precedence over procurement documents referenced herein.

(E) FOR CHANGES SEE SHEETS 1 AND 2.

This 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: AV, EA, JS, MI  
USER: AT, MC, ME, MU, PA, SH, VT

P.A. VC	TITLE	MILITARY STANDARD
Other Cost YD 82	SCREW, WOOD, ROUND HEAD, CROSS-RECESSED, STEEL AND BRASS	MS 35493
PROCUREMENT SPECIFICATION FF-S-111	SUPERSEDES ANS45 in part and INDI2.1, 2.2, 6, 6.1, 6.2 and 6.3.	SHEET 1 OF 3

APPROVED 4 DEC 1958 REVISED A 18 OCT 1966 B 15 DEC 1966 C 1 JUN 1967 D 20 MAY 1968 E 15 AUG 1974

TABLE II

STEEL, CADMIUM OR ZINC PLATED

NOMINAL SIZE		2	3	4	5	6	7	8	9	10	12	14	16
L LENGTH	TOL.	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.	DASH NO.	DASH NO.
.25		1		13		32		50					
.38	+ .00	2	8	14	23	32		50					
.50	- .03	3	9	15	24	33	43	51		74			
.62		4	10	16	25	34	44	52		75	88		
.75		5	11	17	26	35	45	53	65	76	89	101	
.88	+ .00			18	27	36	46	54	66	77	90	102	
1.00	- .05			19	28	37	47	55	67	78	91	103	112
1.25				20		38	48	56	68	79	92	104	113
1.50				21		39	49	57	69	80	93	105	114
1.75						40		58	70	81	94	106	115
2.00	+ .00					41		59	71	82	95	107	116
2.25	- .06					42		60		83	96	108	117
2.50						901		61		84	97	109	118
2.75								62		85	98	110	119
3.00								63		86	99	111	120
3.50	+ .00									87	100	903	121
4.00	- .09										902	904	122
4.50												905	123
5.00												906	124

REVIEWER: AV, EA, IS, MI  
USER: AT, HC, ME, MU, PA, SH, VT

TABLE III

BRASS, PLAIN, UNCOATED

NOMINAL SIZE		2	3	4	5	6	7	8	9	10	12	14	
L LENGTH	TOL.	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.*	DASH NO.	DASH NO.	DASH NO.	
.25		201		206		223		232					
.38	+ .00	202	910	207	215	223	232						
.50	- .03	203	911	208	216	224	233	242					
.62		204	912	209	217	225	234	243		261			
.75		205	913	210	218	226	235	244	253	262	273		
.88	+ .00			211	219	227	236	245	254	263	274		
1.00	- .05			212	220	228	237	246	255	264	275	286	
1.25						229	238	247	256	265	276	287	
1.50						230	239	248	257	266	277	288	
1.75								249	258	267	278	289	
2.00	+ .00							250	259	268	279	290	
2.25	- .06									269	280	291	
2.50										270	281	292	
3.00	+ .00										283	294	
3.50	- .09										284		

\* NOTE: Crossed-out dash numbers (sizes 3, 5, 7 and 9) are INACTIVE FOR NEW DESIGN AFTER 15 August 1974.

(E)

INTERCHANGEABILITY

Steel, cadmium plated screws covered by dash numbers 501 thru 620 given in revision B of this standard are canceled after 1 June 1967. Brass, black oxide coated screws covered by dash numbers 701 thru 794 given in revision C of this standard and screws covered on AN545 in part are canceled after 20 May 1968. The canceled screws should be used for maintenance purposes until existing stocks are depleted. Use only the superseding screws for new design and engineering. Replacement shall be in accordance with Table IV (see sheet 3).

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.

P.A. WC Other Cust YD 82	TITLE SCREW, WOOD, ROUND HEAD, CROSS-RECESSED, STEEL AND BRASS	MILITARY STANDARD MS 35493
PROCUREMENT SPECIFICATION FF-S-111	SUPERSEDES: and 6.3. AN545 in part and BQDX2.1, 2.2, 6, 6.1, 6.2	SHEET 2 OF 3

APPROVED 4 DEC 1956 REVISED (D) 20 MAY 1968 (E) FOR CHANGES SEE SHEETS I AND 2.

TABLE IV - INTERCHANGEABILITY

PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER		PART NUMBER	
CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY	CANCELED	SUPSD BY
MS3549J	MS3549J	MS3549J	MS3549J	MS3549J	MS3549J	ANS45	MS3549J	ANS45	MS3549J
501	1	590	90	757	257	BR8	55	16R32	122
502	2	591	91	758	258	ER10	56	16R36	123
503	3	592	92	759	259	ER12	57	16R40	124
504	4	593	93	762	262	ER14	58	B2R2	201
505	5	594	94	763	263	ER16	59	B2R3	202
509	9	595	95	764	264	ER18	60	B2R4	203
510	10	597	97	765	265	BR20	61	B2R5	204
513	13	599	99	766	266	ER22	62	B2R6	205
514	14	603	103	767	267	ER24	63	B3R3	910
515	15	604	104	768	268	10R4	74	B3R4	911
516	16	605	105	770	270	10R5	75	B3R5	912
517	17	606	106	775	275	10R6	76	B3R6	913
518	18	607	107	776	276	10R7	77	B4R2	206
519	19	609	109	777	277	10R8	78	B4R3	207
523	23	611	111	778	278	10R10	79	B4R4	208
524	24	616	116	779	279	10R12	80	B4R5	209
525	25	618	118	781	281	10R14	81	B4R6	210
526	26	620	120	783	283	10R16	82	B4R7	211
527	27	701	201	786	286	10R18	83	B4R8	212
528	28	702	202	787	287	10R20	84	B5R3	215
532	32	703	203	788	288	10R22	85	B5R4	216
533	33	706	206	789	289	10R24	86	B5R5	217
534	34	707	207	790	290	10R28	87	B5R6	218
535	35	708	208	792	292	12R5	88	B5R7	219
536	36	709	209	794	294	12R6	89	B5R8	220
537	37	710	210			12R7	90	B6R3	223
538	38	711	211			12R8	91	B6R4	224
539	39	712	212			12R10	92	B6R5	225
543	43	715	215			12R12	93	B6R6	226
544	44	716	216			12R14	94	B6R7	227
545	45	717	217	ANS45	MS3549J	12R16	95	B6R8	228
546	46	718	218	2R2	1	12R18	96	B6R10	229
547	47	719	219	2R3	2	12R20	97	B6R12	230
548	48	720	220	2R4	3	12R22	98	B6R4	242
549	49	723	223	2R5	4	12R24	99	B6R5	243
551	51	724	224	2R6	5	12R28	100	B6R6	244
552	52	725	225	JR6	11	12R28	100	B6R7	245
553	53	726	226	4R2	13	12R32	902	B6R8	246
554	54	727	227	4R3	14	14R6	101	B6R9	247
555	55	728	228	4R4	15	14R7	102	B6R10	248
556	56	729	229	4R5	16	14R8	103	B6R12	248
557	57	730	230	4R6	17	14R10	104	B6R14	249
558	58	733	233	4R7	18	14R12	105	B6R16	250
559	59	734	234	4R8	19	14R14	106	B10R5	261
561	61	735	235	4R10	20	14R16	107	B10R6	262
565	65	736	236	4R12	21	14R18	108	B10R7	263
566	66	737	237	6R3	32	14R20	109	B10R8	264
567	67	738	238	6R4	33	14R22	110	B10R10	263
568	68	739	239	6R5	34	14R24	111	B10R12	266
569	69	742	242	6R6	35	14R28	903	B10R14	267
570	70	743	243	6R7	36	14R32	904	B10R16	268
571	71	744	244	6R8	37	14R36	905	B10R18	269
576	76	745	245	6R10	38	14R40	906	B10R20	270
577	77	746	246	6R12	39	16R8	112	B12R6	273
578	78	747	247	6R14	40	16R10	113	B12R7	274
579	79	748	248	6R16	41	16R12	114	B12R8	275
580	80	749	249	6R18	42	16R14	115	B12R10	276
581	81	750	250	6R20	901	16R16	116	B12R12	277
582	82	753	253	BRJ	50	16R18	117	B12R14	278
584	84	754	254	BR3	51	16R20	118	B12R16	279
586	86	755	255	BR5	52	16R22	119	B12R18	280
589	89	756	256	BR6	53	16R24	120	B12R20	281
				BR7	54	16R28	121	B12R24	283

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REVIEWER: AV, EA, IS, MI, US, RI, AT, MC, ME, NU, PA, SH, VT

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