



TABLE I. DASH NUMBERS AND DIMENSIONS

NOMINAL SIZE		.12	.14	.16	.18	.190	1/4	5/16	3/8
THREADS PER INCH UNC-2A		56	40	32	32	24	20	18	16
ØD	BODY DIAMETER	MAX	.1120	.1380	.1640	.1900	.2500	.3125	.3750
		MIN	.0925	.1141	.1399	.1586	.2127	.2712	.3287
ØA	HEAD DIAMETER	MAX SHARP	.172	.225	.279	.332	.385	.507	.635
		MIN SHARP	.154	.207	.257	.308	.359	.477	.600
		ABS MIN	.147	.195	.244	.292	.340	.452	.568
H	HEAD HEIGHT	REF	.051	.067	.083	.100	.116	.153	.191
H1	HEAD HEIGHT UNDERCUT	MAX	.036	.047	.059	.070	.081	.107	.134
		MIN	.028	.038	.048	.058	.068	.092	.116
R	RADIUS	MAX	.034	.045	.055	.066	.076	.100	.125
R1	RADIUS-UNDERCUT	MAX	.013	.017	.021	.025	.029	.038	.047
DRIVER SIZE			1	1	2	2	2	3	4
TENSILE STRENGTH (LBS)		MIN	210	340	520	800	1000	1810	2990
L	LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO
.125 .168 .250 .312 .375 .438 .500 .625 .750 .875 1.000		+0 -.031	1	10	21	36			
			2	11	22	37			
			3	12	23	38	51		
			4	13	24	39	52	64	
			5	14	25	40	53	67	80
			6	15	26	41	54	68	81
			7	16	27	42	55	69	82
			8	17	28	43	56	70	83
			9	18	29	44	57	71	84
			10	19	30	45	58	72	85
1.250 1.500 1.750 2.000		+0 -.062		32	47	60	74	87	98
				33	48	61	75	88	99
				34	49	62	76	89	100
				35	50	63	77	90	101
2.250 2.500 2.750 3.000		+0 -.094				64	78	91	102
						65	79	92	103
									104

ENTIRE STANDARD REVISED

INCH - POUND

P.A. ARMY - AR Other Cost AIR FORCE - 82	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
		SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82° CROSS-RECESSED, BRASS, UNC - 2A	
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES: MS35196, MS35243, MS35247, MS35308 IN PART, MS35363 IN PART, AND AN505 IN PART, BCRK3, 4, 4.1, BOAXIS, 16, 33, AND 34.	PAGE	OF
		1	4

USER ACTIVITIES:  
NAVY - AS, MC, SM, YD  
NASA - 86

REVIEWER ACTIVITIES:  
ARMY - AT, AV, ME, MI  
DLA - IS  
GSA - FSS

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USER ACTIVITIES:  
NAVY-AS, MC, SH, YO  
NASA -86

REVIEWER ACTIVITIES:  
ARMY-AT, AV, ME, MI  
DLA -IS  
GSA -FSS

**REQUIREMENTS:**

- MATERIAL:** BRASS IN ACCORDANCE WITH QQ-B-613, QQ-B-626 OR QQ-M-121 HAVING MINIMUM ULTIMATE TENSILE STRENGTH OF 57,000 PSI.
- PROTECTIVE COATING:** BLACK CHEMICAL FINISH IN ACCORDANCE WITH MIL-P-495. CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2. (WHEN CADMIUM PLATING IS REQUIRED, A "C" SHALL FOLLOW THE DASH NUMBER).
- THREADS:** THE THREADS SHALL BE IN ACCORDANCE WITH SCREW-THREAD STANDARDS FOR FEDERAL SERVICES FED-STD-82A. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-82B/20, SYSTEM 21.
- THREAD LENGTH:** FULL FORM THREADS SHALL EXTEND TO WITHIN 2 THREADS OR LESS OF HEAD BEARING SURFACE FOR LENGTHS UP TO 2.00 INCHES. LONGER LENGTHS SHALL HAVE A MINIMUM FULL FORM THREAD LENGTH OF 1.50 INCHES.
- RECESS:** THE RECESS SHALL BE IN ACCORDANCE WITH MS9006.
- PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC NS SHEET NUMBER, FOLLOWED BY A DASH NUMBER FROM TABLE I AND A CODE LETTER "C" FOR CADMIUM PLATE, TYPE II CLASS 2, IF APPLICABLE.

EXAMPLE: MS35198-1  
                   └─── DASH NUMBER  
                   └─── BASIC NS SHEET NUMBER

MS35198-1 INDICATES - SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82°, CROSS-RECESSED, BRASS, .086-56 UNC-2A, .125 LENGTH, BLACK CHEMICAL FINISH.  
 MS35198-1C INDICATES - SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82°, CROSS-RECESSED, BRASS, .086-56 UNC-2A, .125 LENGTH, CADMIUM PLATE

**NOTES:**

- ALL DIMENSIONS ARE IN INCHES.
- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION, FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
- SIZES ABOVE DASHED LINES IN TABLE I HAVE UNDERCUT HEADS.

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P.A. ARMY-AR Other Cost	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82° CROSS-RECESSED, BRASS, UNC-2A	<b>MILITARY STANDARD</b>	
			MS35198	
AIR FORCE-02			PAGE 2	OF 4
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDED: MS36196, MS35245, MS35247, MS36338 IN PART, MS36363 IN PART, AND AN505 IN PART, BOXX3, 4, 4.1, BOXX15, 16, 33, AND 34.			

APPROVED 25 JUNE 53 REVISED (D) FOR CHANGES SEE PAGES 1 THROUGH 4

THE SCREWS COVERED BY DASH NUMBERS GIVEN IN MS35196, MS35245, MS35247 ARE CANCELLED AFTER 15 NOVEMBER 1962. USE THE DASH NUMBERS GIVEN IN THE PRECEDING SHEETS. THE CANCELLED SCREWS CANNOT ALWAYS REPLACE THE SUPERSEDING SCREWS AND SHOULD BE USED UNTIL EXISTING STOCKS ARE DEPLETED. USE ONLY THE SUPERSEDING SCREWS FOR DESIGN AND REPLACEMENT. REPLACEMENT SHALL BE IN ACCORDANCE WITH THIS TABLE.

TABLE 11a. INTERCHANGEABILITY

CROSS REFERENCE OF PART NUMBERS

CANCELLED		SUPERSEDED BY	CANCELLED		SUPERSEDED BY	CANCELLED		SUPERSEDED BY
MS35196	MS35245 MS35247	MS35196	MS35196	MS35245 MS35247	MS35196	MS35196	MS35245 MS35247	MS35196
DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER		DASH NUMBER	DASH NUMBER		DASH NUMBER
	1	NO REPLACEMENT		61	NO REPLACEMENT	99	120	99
	2	NO REPLACEMENT		62	NO REPLACEMENT	100	121	100
	3	NO REPLACEMENT		63	NO REPLACEMENT	101	122	101
	4	NO REPLACEMENT		64	NO REPLACEMENT	102	123	102
	5	NO REPLACEMENT		65	NO REPLACEMENT	103	124	103
	6	NO REPLACEMENT	51	66	51	104	125	104
	7	NO REPLACEMENT	52	67	52		126	105
1	8	1	53	68			127	NO REPLACEMENT
2	9	2	54	69			128	NO REPLACEMENT
3	10	3	55	70			129	NO REPLACEMENT
4	11	4	56	71			130	NO REPLACEMENT
5	12	5	57	72			131	NO REPLACEMENT
6	13	6	58	73			132	NO REPLACEMENT
7	14	7	59	74			133	NO REPLACEMENT
8	15	8	60	75			134	NO REPLACEMENT
9	16	9	61	76			135	NO REPLACEMENT
	17	NO REPLACEMENT	62	77			136	NO REPLACEMENT
10	18	10	63	78			137	NO REPLACEMENT
11	19	11	64	79			138	NO REPLACEMENT
12	20	12	65	80			139	NO REPLACEMENT
13	21	13		81	NO REPLACEMENT		140	NO REPLACEMENT
14	22	14		82	NO REPLACEMENT		141	NO REPLACEMENT
15	23	15	66	83		66	142	NO REPLACEMENT
16	24	16	67	84		67	143	NO REPLACEMENT
17	25	17	68	85		68	144	NO REPLACEMENT
18	26	18	69	86		69	145	NO REPLACEMENT
19	27	19	70	87		70	146	NO REPLACEMENT
20	28	20	71	88		71	147	NO REPLACEMENT
	29	NO REPLACEMENT	72	89		72	148	NO REPLACEMENT
	30	NO REPLACEMENT	73	90		73	149	NO REPLACEMENT
21	31	21	74	91		74	150	NO REPLACEMENT
22	32	22	75	92		75	151	NO REPLACEMENT
23	33	23	76	93		76	152	NO REPLACEMENT
24	34	24	77	94		77	153	NO REPLACEMENT
25	35	25	78	95		78	154	NO REPLACEMENT
26	36	26	79	96		79	155	NO REPLACEMENT
27	37	27		97	NO REPLACEMENT		156	NO REPLACEMENT
28	38	28		98	NO REPLACEMENT		157	NO REPLACEMENT
29	39	29	80	99		80	158	NO REPLACEMENT
30	40	30	81	100		81	159	NO REPLACEMENT
31	41	31	82	101		82	160	NO REPLACEMENT
32	42	32	83	102		83	161	NO REPLACEMENT
33	43	33	84	103		84	162	NO REPLACEMENT
34	44	34	85	104		85	163	NO REPLACEMENT
35	45	35	86	105		86	164	NO REPLACEMENT
36	46	36	87	106		87	165	NO REPLACEMENT
37	47	37	88	107		88	166	NO REPLACEMENT
38	48	38	89	108		89	167	NO REPLACEMENT
39	49	39	90	109		90	168	NO REPLACEMENT
40	50	40	91	110		91	169	NO REPLACEMENT
41	51	41	92	111		92	170	NO REPLACEMENT
42	52	42		112	NO REPLACEMENT		171	NO REPLACEMENT
43	53	43		113	NO REPLACEMENT		172	NO REPLACEMENT
44	54	44	93	114		93	173	NO REPLACEMENT
45	55	45	94	115		94	174	NO REPLACEMENT
46	56	46	95	116		95	175	NO REPLACEMENT
47	57	47	96	117		96	176	NO REPLACEMENT
48	58	48	97	118		97	177	NO REPLACEMENT
49	59	49	98	119		98	178	NO REPLACEMENT

USER ACTIVITIES:  
NAVY - AS, MC, SH, YD  
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P.A. ARMY - AR Other Cont	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82° CROSS-RECESSED, BRASS, UNC - 2A	MILITARY STANDARD MS35198
AIR FORCE-82	PROCUREMENT SPECIFICATION FF - S - 92	SUPERSEDES: MS30396, MS30243, MS30247, MS30336 IN PART, MS30363 IN PART, AND AN505 IN PART, BCKX3, 4, 4.1, BOKX5, 6, 33, AND 34.	PAGE 3 OF 4

TABLE I.D. - INTERCHANGEABILITY

FED SUP CLASS  
5305

SCREWS COVERED BY THE FOLLOWING DASH NUMBERS GIVEN ON AN505 ARE INACTIVATED AFTER 4 MAY 1965. USE THE SUPERSEDING DASH NUMBERS AS GIVEN. THE INACTIVATED SCREWS CAN NOT ALWAYS REPLACE THE SUPERSEDING SCREWS AND SHOULD BE USED UNTIL EXISTING STOCKS ARE DEPLETED. USE ONLY THE SUPERSEDING SCREWS FOR DESIGN AND REPLACEMENT. REPLACEMENT SHALL BE IN ACCORDANCE WITH THIS TABLE (1/ SEE NOTE BELOW.)

CROSS REFERENCE OF PART NUMBERS

INACTIVATED AN505		SUPERSEDED BY MS35198	INACTIVATED AN505		SUPERSEDED BY MS35198	INACTIVATED AN505		SUPERSEDED BY MS35198
DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER
B220	OB220	2	B887	OB887	41	B416R18	OB416R18	NO REPLACEMENT
B224	OB224	3	B888	OB888	42	B416R20	OB416R20	74
B225	OB225	4	B889	OB889	NO REPLACEMENT	B416R22	OB416R22	NO REPLACEMENT
B226	OB226	5	B890	OB890	43	B416R24	OB416R24	75
B227	OB227	6	B891	OB891	NO REPLACEMENT	B416R26	OB416R26	NO REPLACEMENT
B228	OB228	7	B892	OB892	44	B416R28	OB416R28	76
B229	OB229	NO REPLACEMENT	B893	OB893	NO REPLACEMENT	B416R30	OB416R30	NO REPLACEMENT
B230	OB230	8	B894	OB894	45	B416R32	OB416R32	77
B231	OB231	NO REPLACEMENT	B895	OB895	NO REPLACEMENT	B416R34	OB416R34	NO REPLACEMENT
B232	OB232	9	B896	OB896	46	B416R36	OB416R36	78
B233	OB233	NO REPLACEMENT	B897	OB897	NO REPLACEMENT	B416R38	OB416R38	NO REPLACEMENT
B234	OB234	NO REPLACEMENT	B898	OB898	47	B416R40	OB416R40	79
B235	OB235	10	B899	OB899	NO REPLACEMENT	B416R42	OB416R42	NO REPLACEMENT
B236	OB236	11	B900	OB900	48	B416R44	OB416R44	NO REPLACEMENT
B237	OB237	12	B901	OB901	NO REPLACEMENT	B416R46	OB416R46	NO REPLACEMENT
B238	OB238	13	B902	OB902	49	B416R48	OB416R48	NO REPLACEMENT
B239	OB239	14	B903	OB903	NO REPLACEMENT	B516R8	OB516R8	82
B240	OB240	15	B904	OB904	50	B516R9	OB516R9	NO REPLACEMENT
B241	OB241	16	B905	OB905	NO REPLACEMENT	B516R10	OB516R10	83
B242	OB242	NO REPLACEMENT	B906	OB906	NO REPLACEMENT	B516R11	OB516R11	NO REPLACEMENT
B243	OB243	17	B907	OB907	NO REPLACEMENT	B516R12	OB516R12	84
B244	OB244	NO REPLACEMENT	B908	OB908	NO REPLACEMENT	B516R13	OB516R13	NO REPLACEMENT
B245	OB245	18	B909	OB909	NO REPLACEMENT	B516R14	OB516R14	85
B246	OB246	NO REPLACEMENT	B910	OB910	NO REPLACEMENT	B516R15	OB516R15	NO REPLACEMENT
B247	OB247	19	B911	OB911	NO REPLACEMENT	B516R16	OB516R16	86
B248	OB248	NO REPLACEMENT	B912	OB912	NO REPLACEMENT	B516R18	OB516R18	NO REPLACEMENT
B249	OB249	20	B913	OB913	NO REPLACEMENT	B516R20	OB516R20	87
B250	OB250	21	B914	OB914	NO REPLACEMENT	B516R22	OB516R22	NO REPLACEMENT
B251	OB251	NO REPLACEMENT	B915	OB915	52	B516R24	OB516R24	88
B252	OB252	NO REPLACEMENT	B916	OB916	53	B516R26	OB516R26	NO REPLACEMENT
B253	OB253	NO REPLACEMENT	B917	OB917	54	B516R28	OB516R28	89
B254	OB254	NO REPLACEMENT	B918	OB918	55	B516R30	OB516R30	NO REPLACEMENT
B255	OB255	NO REPLACEMENT	B919	OB919	NO REPLACEMENT	B516R32	OB516R32	90
B256	OB256	NO REPLACEMENT	B920	OB920	56	B516R34	OB516R34	NO REPLACEMENT
B257	OB257	NO REPLACEMENT	B921	OB921	57	B516R36	OB516R36	91
B258	OB258	22	B922	OB922	NO REPLACEMENT	B516R38	OB516R38	NO REPLACEMENT
B259	OB259	23	B923	OB923	58	B516R40	OB516R40	92
B260	OB260	24	B924	OB924	NO REPLACEMENT	B516R42	OB516R42	NO REPLACEMENT
B261	OB261	25	B925	OB925	59	B516R44	OB516R44	NO REPLACEMENT
B262	OB262	26	B926	OB926	NO REPLACEMENT	B516R46	OB516R46	NO REPLACEMENT
B263	OB263	27	B927	OB927	60	B516R48	OB516R48	NO REPLACEMENT
B264	OB264	NO REPLACEMENT	B928	OB928	NO REPLACEMENT	B516R8	OB516R8	93
B265	OB265	28	B929	OB929	61	B616R8	OB616R8	NO REPLACEMENT
B266	OB266	NO REPLACEMENT	B930	OB930	NO REPLACEMENT	B616R10	OB616R10	94
B267	OB267	29	B931	OB931	62	B616R11	OB616R11	NO REPLACEMENT
B268	OB268	NO REPLACEMENT	B932	OB932	NO REPLACEMENT	B616R12	OB616R12	95
B269	OB269	30	B933	OB933	63	B616R13	OB616R13	NO REPLACEMENT
B270	OB270	NO REPLACEMENT	B934	OB934	NO REPLACEMENT	B616R14	OB616R14	96
B271	OB271	31	B935	OB935	64	B616R15	OB616R15	NO REPLACEMENT
B272	OB272	NO REPLACEMENT	B936	OB936	NO REPLACEMENT	B616R16	OB616R16	97
B273	OB273	32	B937	OB937	65	B616R18	OB616R18	NO REPLACEMENT
B274	OB274	NO REPLACEMENT	B938	OB938	NO REPLACEMENT	B616R20	OB616R20	98
B275	OB275	33	B939	OB939	NO REPLACEMENT	B616R22	OB616R22	NO REPLACEMENT
B276	OB276	NO REPLACEMENT	B940	OB940	NO REPLACEMENT	B616R24	OB616R24	99
B277	OB277	34	B941	OB941	NO REPLACEMENT	B616R26	OB616R26	NO REPLACEMENT
B278	OB278	NO REPLACEMENT	B942	OB942	66	B616R28	OB616R28	100
B279	OB279	35	B943	OB943	67	B616R30	OB616R30	NO REPLACEMENT
B280	OB280	NO REPLACEMENT	B944	OB944	68	B616R32	OB616R32	101
B281	OB281	NO REPLACEMENT	B945	OB945	69	B616R34	OB616R34	NO REPLACEMENT
B282	OB282	NO REPLACEMENT	B946	OB946	NO REPLACEMENT	B616R36	OB616R36	102
B283	OB283	NO REPLACEMENT	B947	OB947	70	B616R38	OB616R38	NO REPLACEMENT
B284	OB284	NO REPLACEMENT	B948	OB948	NO REPLACEMENT	B616R40	OB616R40	103
B285	OB285	NO REPLACEMENT	B949	OB949	71	B616R42	OB616R42	NO REPLACEMENT
B286	OB286	NO REPLACEMENT	B950	OB950	NO REPLACEMENT	B616R44	OB616R44	104
B287	OB287	38	B951	OB951	72	B616R46	OB616R46	NO REPLACEMENT
B288	OB288	39	B952	OB952	NO REPLACEMENT	B616R48	OB616R48	105
B289	OB289	40	B953	OB953	73			

1/ ALL CADMIUM PLATED, BRASS MACHINE SCREWS GIVEN ON AN505, DASH NUMBERS PREFIXED THERE WITH P616R48 ARE INACTIVATED FOR NEW DESIGN AFTER 4 MAY 1965. THEIR EXISTING STOCKS SHOULD BE USED UNTIL DEPLETED. HAVING NO REPLACEMENTS THESE SCREWS MAY BE USED FOR MAINTENANCE PURPOSES ONLY. FOR NEW DESIGN, CONSIDERATION SHOULD BE GIVEN TO THE USE OF SCREWS GIVEN ON THIS STANDARD MS35198 OR MS35190.

P.A. ARMY - AR Other Cont	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-FLAT COUNTERSUNK HEAD, 82° CROSS-RECESSED, BRASS, UNC - 2A	MILITARY STANDARD MS35198
AIR FORCE-82			
PROCUREMENT SPECIFICATION FF - S - 92	SUPERSEDES MS35198, MS35243, MS35247, MS35338 IN PART, MS35363 IN PART, AND AN505 IN PART, BCKX3, 4, 4.1, BCKX15, 16, 33, AND 34.	PAGE 4	OF 4

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