

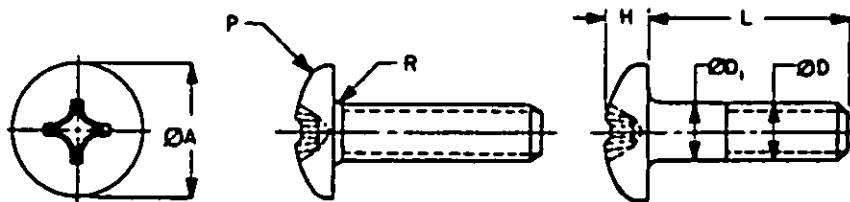
FED. SPEC. CLASS
5305USER ACTIVITIES:
ARMY - ME
NAVY - MC, SH

TABLE 1. DASH NUMBERS AND DIMENSIONS

Ø D NOMINAL SIZE		#2 .0860	#4 .1120	#6 .1380	#8 .1640
THREADS PER INCH		56UNC-2A	48UNC-2A	32UNC-2A	32UNC-2A
Ø D ₁ BORE	MAX	.0860	.1120	.1380	.1640
	MIN	.0717	.0925	.1141	.1399
Ø A HEAD	MAX	.1470	.2190	.2700	.3220
	MIN	.1530	.2050	.2560	.3060
H HEAD HEIGHT	MAX	.0620	.0800	.0970	.1130
	MIN	.0530	.0700	.0870	.1030
P HEAD RADIUS		MIN	.0100	.0100	.0150
P FILLET RADIUS		MAX	.0130	.0170	.0250
DRIVER SIZE		1	1	2	2
MINIMUM TENSILE STRENGTH LOAD LBS		300	480	730	1,120
L LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO
.125		1	11	24	39
.168		2	12	25	40
.250		3	13	26	41
.312		4	14	27	42
.375		5	15	28	43
.438		6	16	29	44
.500		7	17	30	45
.562		141 1/2	120 1/2	123 1/2	126 1/2
.625	+0	8	18	31	46
.750	-.031	9	19	32	47
.875		10	20	33	48
1.000		142	21	34	49
1.125			121 1/2	124 1/2	127 1/2
1.250	+0		22	35	50
1.375	-.062		122 1/2	125 1/2	128 1/2
1.500			23	36	51
1.750				37	52
2.000				38	53
2.250	+0				54
2.500	-.094				55
2.750					56
3.000					57

1/ INDICATES MANUFACTURER'S RUN-STOP PRODUCTION ITEM.

2/ INACTIVE FOR NEW DESIGN AFTER 18 JUL 86

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Selection for all new engineering and design specifications and for replacement shall be made from this

document when appropriate.

MCC H/A

P. A. ARMY - AR Other Code NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL UNC-2 A	MILITARY STANDARD MS51957
PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDES	PAGE 1	OF 6

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5305-1358

APPROVED 12 DEC 63 REVISED 18 JUL 86

FED. SUP CLASS
 5305

 USER ACTIVITIES:
 ARMY - ME
 NAVY - MC, SH

 REVIEWER ACTIVITIES:
 ARMY - AT, AV, GL, MI
 AIR FORCE - 85
 DLA - IS
 NSA - NS

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TABLE 1. DASH NUMBERS AND DIMENSIONS - CONTINUED

ØD NOMINAL SIZE		Ø10 .1900	1/4 .2500	5/16 .3125	3/8 .3750
THREADS PER INCH		24UNC-2A	20UNC-2A	18UNC-2A	16UNC-2A
ØD ₁ BODY	MAX	.1900	.2500	.3125	.3750
	MIN	.1586	.2127	.2712	.3287
ØA HEAD	MAX	.3730	.4920	.6150	.7400
	MIN	.3570	.4730	.5940	.7160
H HEAD HEIGHT	MAX	.1330	.1750	.2180	.2610
	MIN	.1220	.1620	.2030	.2440
P HEAD RADIUS	MIN	.0200	.0350	.0400	.0400
R FILLET RADIUS	MAX	.0290	.0380	.0470	.0560
DRIVER SIZE		2	3	4	4
MINIMUM TENSILE STRENGTH LOAD LBS		1,400	2,540	4,190	6,700
L LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO
.188		52 ^{1/}			
.250		59	76		
.312		60	77	92	
.375		61	78	93	
.438		62			
.500	+0	63	79	94	107
.562	-.031	129 ^{2/}	132 ^{2/}	135 ^{2/}	138 ^{2/}
.625		64	80	95	108
.750		65	81	96	109
.875		66	82	97	110
1.000		67	83	98	111
1.125		130 ^{2/}	133 ^{2/}	136 ^{2/}	139 ^{2/}
1.250		68	84	99	112
1.375	+0	131 ^{2/}	134 ^{2/}	137 ^{2/}	140 ^{2/}
1.500	-.062	69	85	100	113
1.750		70	86	101	114
2.000		71	87	102	115
2.250		72	88	103	116
2.500	+0	73	89	104	117
2.750	-.094	74 ^{1/}	90 ^{1/}	105 ^{1/}	118
3.000		75 ^{1/}	91 ^{1/}	106 ^{1/}	119

1/ INDICATES MANUFACTURER'S NON-STOCK PRODUCTION ITEM.

2/ INACTIVE FOR NEW DESIGN AFTER

APPROVED 12 DEC 63 REVISED C FOR CHANGES SEE PAGES 1, 2, 3, 4, 5 AND 6

P. A. ARMY - AR NAVY - YD AIR FORCE - 95	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC-2A	MILITARY STANDARD
			MS 51957
PROCUREMENT SPECIFICATION FF-S-92		SUPERSEDED	PAGE 2 OF 6

DD FORM 672-1 (COORDINATED)

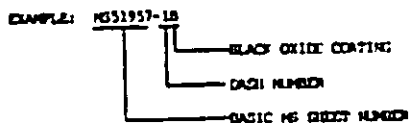
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5305-1558

FED SUP CLASS
5305

REQUIREMENTS:

1. **MATERIAL:** CORROSION RESISTANT STEEL, 100 SERIES, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
2. **CLEANED, DESCALED AND PASSIVATED:** SCREWS SHALL BE CLEANED, DESCALED AND PASSIVATED IN ACCORDANCE WITH ASTM A380.
3. **PROTECTIVE COATING AND SURFACE TREATMENT:** WITH SPECIFIED SCREWS SHALL BE BLACK OXIDE COATED IN ACCORDANCE WITH MIL-C-13937, CLASS 4. WHEN BLACK OXIDE COATING IS REQUIRED, THE DASH NUMBER SHALL BE FOLLOWED BY A "B".
4. **MAGNETIC PERMEABILITY:** SCREWS SHALL MEET THE MAGNETIC PERMEABILITY REQUIREMENTS OF THE PROCUREMENT SPECIFICATION.
5. **THREADS:** THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/2. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21. THREADS SHALL EXTEND TO WITHIN 2 THREADS OR LESS OF THE BEARING SURFACE, EXCEPT THAT ALL LENGTHS OVER 2 INCHES SHALL HAVE A MINIMUM COMPLETE THREAD LENGTH OF 1 3/4 INCHES.
6. **FINISH:** THE FINISH SHALL BE IN ACCORDANCE WITH MS9006.
7. **TENSILE STRENGTH:** THE MINIMUM TENSILE STRENGTH IN LOAD POUNDS, INDICATED FOR EACH SIZE IN TABLE 1, IS BASED ON 80,000 PSI MINIMUM TENSILE STRENGTH. LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2.
8. **PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS SHEET NUMBER, FOLLOWED BY A DASH NUMBER FROM TABLE 1 AND A CODE LETTER "B" FOR BLACK OXIDE, IF APPLICABLE.



MS51957-1B INDICATES - SCREW, MACHINE - PAN HEAD, CROSS-RECESSED, CORROSION RESISTANT STEEL; BLACK OXIDE COATING; .0840-24UNC-2A NOMINAL THREAD SIZE; .125 THREAD LENGTH.

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. 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.
3. REFERENCED GOVERNMENT (OR NONGOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DOIS) (SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.

USED ACTIVITIES:
ARMY - MC
NAVY - MC, SH

REVIEWED ACTIVITIES:
ARMY - AT, AV, GL, M
AIR FORCE - (D)
DLA - IS
NSA - NS

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P. A. ARMY - AR Other Code NAVY - YD AIR FORCE - 99	INTERNATIONAL INTEREST	TITLE SCREW, MACHINE - PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC - 2 A	MILITARY STANDARD
			MS51957
PROCUREMENT SPECIFICATION FF-5-92	SUPERSEDES		PAGE 3 OF 6

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5305-1558

APPROVED 12 DEC 63 REVISED © FOR CHANGES SEE PAGES 1, 2, 3, 4, 5 AND 6

FED. SUP. CLASS
5305

THE SCREWS COVERED BY THE DASH NUMBERS GIVEN IN MS16200, MS35216, MS35233, AN515 IN PART AND AN526 IN PART ARE CANCELLED/INACTIVATED AFTER THE DATES INDICATED ON THE DOCUMENTS. USE THE DASH NUMBERS GIVEN IN THE PRECEDING SHEETS. THE CANCELLED SCREWS CANNOT ALWAYS REPLACE THE NEW SCREWS AND SHOULD BE USED UNTIL EXISTING STOCKS ARE DEPLETED. USE ONLY THE NEW SCREWS FOR DESIGN AND REPLACEMENT. REPLACEMENT SHALL BE IN ACCORDANCE WITH THIS TABLE.

TABLE II. INTERCHANGEABILITY

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						NEW
MS16200 MS35233	MS35216	AN515		AN526		MS51957
DASH NUMBER						DASH NUMBER
1	1	C2R2	C2-2			1
2	2	C2R3	C2-3			2
3	3	C2R4	C2-4			3
4	4	C2R5	C2-5			4
5	5	C2R6	C2-6			5
6	6	C2R7	C2-7			6
7	7	C2R8	C2-8			7
8	8	C2R10	C2-10			8
9	9	C2R12	C2-12			9
10						10
11	10	C3R2 thru C3R16	C3-2 thru C3-16			3/
12	11	C4R3	C4-3			11
13	12	C4R4	C4-4			12
14	13	C4R5	C4-5			13
15	14	C4R6	C4-6			14
16	15	C4R7	C4-7			15
17	16	C4R8	C4-8			16
18	17	C4R10	C4-10			17
19	18	C4R12	C4-12			18
20	19	C4R14	C4-14			20
21	20	C4R16	C4-16			21
22		C4R18	C4-18			121/
23		C4R20	C4-20			22
		C4R22	C4-22			122/
		C4R24	C4-24			23
		C4R26	C4-26			2/
		C4R28	C4-28			2/
24	21	C5R3 thru C5R28	C5-3 thru C5R28			24
25	22	C6R3	C6-3	C632R4	C632-4	25
26	23	C6R4	C6-4	C632R5	C632-5	26
27	24	C6R5	C6-5	C632R6	C632-6	27
28	25	C6R6	C6-6	C632R7	C632-7	28
29	26	C6R7	C6-7	C632R8	C632-8	29
30	27	C6R8	C6-8	C632R9	C632-9	30
31	28	C6R10	C6-10	C632R10	C632-10	123/
32	29	C6R12	C6-12	C632R12	C632-12	31
33	30	C6R14	C6-14	C632R14	C632-14	32
34	31	C6R16	C6-16	C632R16	C632-16	33
35	32	C6R18	C6-18	C632R18	C632-18	34
36	33	C6R20	C6-20	C632R20	C632-20	124/
37	34	C6R22	C6-22	C632R22	C632-22	35
38	35	C6R24	C6-24	C632R24	C632-24	125/
		C6R26	C6-26	C632R26	C632-26	36
		C6R28	C6-28	C632R28	C632-28	2/
		C6R30	C6-30	C632R30	C632-30	37
		C6R32	C6-32	C632R32	C632-32	2/
		C6R36	C6-36	C632R36	C632-36	38
		C6R40	C6-40	C632R40	C632-40	2/
				C632R44	C632-44	2/
				C632R48	C632-48	2/

1/ NEW DASH NUMBERS ADDED 26 AUG 1968

2/ NO REPLACEMENT

USER ACTIVITIES:
ARMY-ME
NAVY-MC,SH

REVIEWER ACTIVITIES:
ARMY-AT,AV,GL,M1
AIR FORCE-85
DLA-TS
NSA-NS

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P. A. ARMY-AR Other Govt NAVY-YD AIR FORCE-99		INTERNATIONAL INTEREST	TITLE SCREW, MACHINE-PAN HEAD, CROSS-RECESSED, CORROSION-RESISTANT STEEL, UNC-2A	MILITARY STANDARD MS51957
PROCUREMENT SPECIFICATION FF-S-92		SUPERSEDED	PAGE 4 OF 6	

PER MAP CLASS
 5305

TABLE 11. INTERCHANGEABILITY - CONTINUED

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						MS
MS16200 MS35233	MS35216	MS15		MS26		MS31957
DASH NUMBER						DASH NUMBER
39	36					39
40	37					40
41	38	CER4	CR-4	CR1204	CR12-4	41
42	39	CER5	CR-5	CR1205	CR12-5	42
43	40	CER6	CR-6	CR1206	CR12-6	43
44	41	CER7	CR-7	CR1207	CR12-7	44
45	42	CER8	CR-8	CR1208	CR12-8	45
46	43	CER10	CR-10	CR1209	CR12-9	126✓
47	44	CER12	CR-12	CR12010	CR12-10	46
48	45	CER14	CR-14	CR12012	CR12-12	47
49	46	CER16	CR-16	CR12014	CR12-14	48
		CER18	CR-18	CR12016	CR12-16	49
50	47	CER20	CR-20	CR12018	CR12-18	127✓
		CER22	CR-22	CR12020	CR12-20	50
51	48	CER24	CR-24	CR12022	CR12-22	128✓
		CER26	CR-26	CR12024	CR12-24	51
				CR12026	CR12-26	✓
52	49	CER28	CR-28	CR12028	CR12-28	52
		CER30	CR-30	CR12030	CR12-30	✓
53	50	CER32	CR-32	CR12032	CR12-32	53
54		CER34	CR-34	CR12034	CR12-34	54
55		CER40	CR-40	CR12040	CR12-40	55
56		CER44	CR-44	CR12044	CR12-44	56
57		CER48	CR-48	CR12048	CR12-48	57
58						58
59	51	C1004	C10-4	C102404	C1024-4	59
60	52	C1005	C10-5	C102405	C1024-5	60
61	53	C1006	C10-6	C102406	C1024-6	61
62	54	C1007	C10-7	C102407	C1024-7	62
63	55	C1008	C10-8	C102408	C1024-8	63
				C102409	C1024-9	129✓
64	56	C10010	C10-10	C102410	C1024-10	64
65	57	C10012	C10-12	C102412	C1024-12	65
66	58	C10014	C10-14	C102414	C1024-14	66
67	59	C10016	C10-16	C102416	C1024-16	67
		C10018	C10-18	C102418	C1024-18	130✓
68	60	C10020	C10-20	C102420	C1024-20	68
69	61	C10022	C10-22	C102422	C1024-22	131✓
		C10024	C10-24	C102424	C1024-24	69
70	62	C10026	C10-26	C102426	C1024-26	✓
		C10028	C10-28	C102428	C1024-28	70
71	63	C10030	C10-30	C102430	C1024-30	✓
72	64	C10032	C10-32	C102432	C1024-32	71
73	65	C10034	C10-34	C102434	C1024-34	72
74		C10040	C10-40	C102440	C1024-40	73
75		C10044	C10-44	C102444	C1024-44	74
		C10048	C10-48	C102448	C1024-48	75
76	66	C41605	C416-5	C42005	C420-5	76
77	67	C41606	C416-6	C42006	C420-6	77
78	68	C41607	C416-7	C42007	C420-7	78
79	69	C41608	C416-8	C42008	C420-8	79
				C42009	C420-9	132✓
80	70	C416010	C416-10	C420010	C420-10	80
81	71	C416012	C416-12	C420012	C420-12	81
82	72	C416014	C416-14	C420014	C420-14	82
83	73	C416016	C416-16	C420016	C420-16	83
		C416018	C416-18	C420018	C420-18	133✓

✓ NON DASH NUMBERS ADDED 26 AUG 1968.

✓ NO REPLACEMENT

 USER ACTIVITIES
 ARMY - ME
 NAVY - MC, SH

 REVIEWER ACTIVITIES
 ARMY - AT, AV, CL, M1
 AIR FORCE - 85
 OLA - IS
 NSA - NS

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PROCUREMENT SPECIFICATION FF-5-92	SUPERSEDED	PAGE 5 OF 6	

FED. SUP CLASS
5305

TABLE 11. INTERCHANGEABILITY - CONTINUED

CROSS REFERENCE OF PART NUMBERS						
CANCELLED						NEW
MS16200 MS35233	MS35216	AN515		AN526		MS51957
DASH NUMBER						DASH NUMBER
84	74	C416R20	C416-20	C420R20	C420-20	84
		C416R22	C416-22	C420R22	C420-22	134 1/2
85	75	C416R24	C416-24	C420R24	C420-24	85
		C416R26	C416-26	C420R26	C420-26	2 1/2
86	76	C416R28	C416-28	C420R28	C420-28	86
		C416R30	C416-30	C420R30	C420-30	2 1/2
87	77	C416R32	C416-32	C420R32	C420-32	87
88	78	C416R36	C416-36	C420R36	C420-36	88
89	79	C416R40	C416-40	C420R40	C420-40	89
90		C416R44	C416-44	C420R44	C420-44	90
91		C416R48	C416-48	C420R48	C420-48	91
92	80					92
93	81					93
94	82	C516R8	C516-8			94
95	83	C516R10	C516-10			95
96	84	C516R12	C516-12			96
97	85	C516R14	C516-14			97
98	86	C516R16	C516-16			98
		C516R18	C516-18			136 1/2
99	87	C516R20	C516-20			99
		C516R22	C516-22			137 1/2
100	88	C516R24	C516-24			100 2 1/2
		C516R26	C516-26			
101	89	C516R28	C516-28			101 2 1/2
		C516R30	C516-30			
102	90	C516R32	C516-32			102
103	91	C516R36	C516-36			103
104	92	C516R40	C516-40			104
105		C516R44	C516-44			105
106		C516R48	C516-48			106
107	93	C616R8	C616-8			107
108	94	C616R10	C616-10			108
109	95	C616R12	C616-12			109
110	96	C616R14	C616-14			110
111	97	C616R16	C616-16			111
		C616R18	C616-18			139 1/2
112	98	C616R20	C616-20			112
		C616R22	C616-22			140 1/2
113	99	C616R24	C616-24			113 2 1/2
		C616R26	C616-26			
114	100	C616R28	C616-28			114
115	101	C616R30	C616-30			2 1/2
		C616R32	C616-32			115
116	102	C616R36	C616-36			116
117	103	C616R40	C616-40			117
118	104	C616R44	C616-44			118
119	105	C616R48	C616-48			119

1/ NEW DASH NUMBERS ADDED 26 AUG 1968

2/ NO REPLACEMENT

USER ACTIVITIES:
ARMY - ME
NAVY - MC, SHREVIEWER ACTIVITIES:
ARMY - AT, AV, GL, MI
AIR FORCE - 85
DLA - IS
NSA - NSThis military standard is approved for use by all Departments and Agencies of the Department of Defense.
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PROCUREMENT SPECIFICATION FF-S-92	SUPERSEDED	PAGE 6 OF 6	