

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE
 DEPARTMENT OF DEFENSE
 - REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION
 SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN
 THE SOLICITATION FF-S-86

Form Approved
OMB No 0704-0188

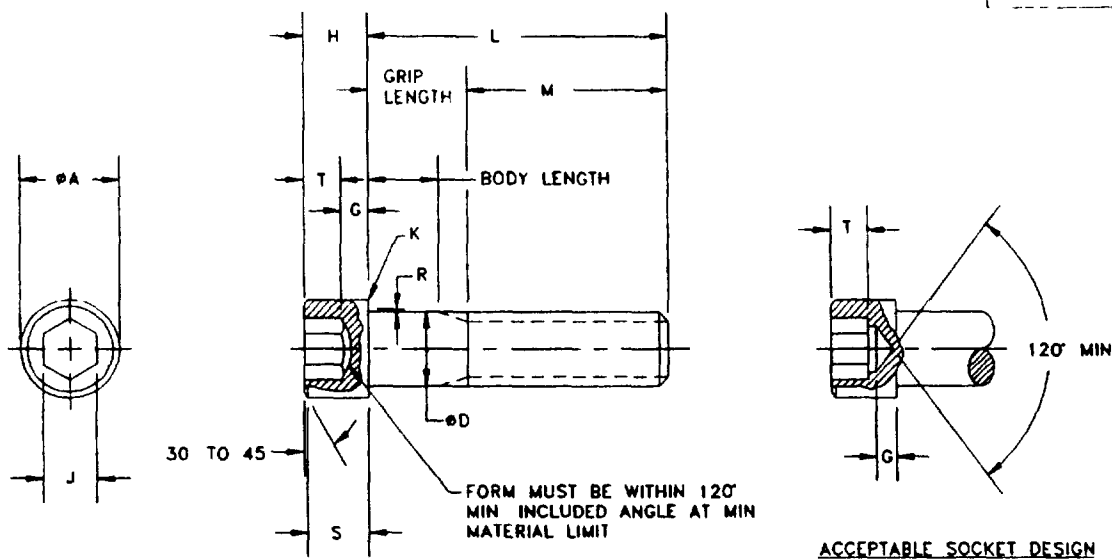


TABLE 1 DASH NUMBERS AND DIMENSIONS

NOMINAL SIZE		#2 (0860)			#4 (1120)			#6 (1380)		
THREADS PER INCH		56 UNC-3A			40 UNC-3A			32 UNC-3A		
ØD BODY	MAX	0860			1120			1380		
	MIN	0822			1075			1329		
ØA HEAD	MAX	1400			1830			2260		
	MIN	1340			1760			2180		
H HEAD HEIGHT	MAX	0860			1120			1380		
	MIN	0830			1080			1340		
S HEAD SIDE HEIGHT	MIN	0770			1010			1240		
J SOCKET WIDTH ACROSS FLATS	MAX	0791			0952			1111		
	MIN	0781			0937			1094		
T KEY ENGAGEMENT	MIN	0380			0510			0640		
G WALL THICKNESS	MIN	0280			0380			0440		
K CHAMFER OR RADIUS	MAX	0030			0050			0050		
R FILLET RADIUS	MAX	0080			0090			0100		
	MIN	0040			0050			0060		
M BASIC THREAD LENGTH 1/	REF	6250			7500			7500		
MIN TENSILE STRENGTH LOAD LBS 2/		300			480			730		
L LENGTH	TOLERANCE	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN
188	+ 000 - 030	1			9			16		
250		2			10			17		
375		3			11			18		
500		4						19		
625								20		
750										

1/ SEE NOTE 2
2/ BASED ON 80,000 PSI MINIMUM TENSILE STRENGTH LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2

INCH-POUND

PREPARING ACTMITY DLA-IS CUSTODIANS ARMY- NAVY-OS AIR FORCE-82 DLA- REVIEW ARMY-MI NAVY-MC SH AIR FORCE-11 MSA-NS PROJECT NUMBER 5305-2081	MILITARY SPECIFICATION SHEET TITLE SCREW, CAP SOCKET HEAD-HEXAGON, CORROSION RESISTANT STEEL, UNC-3A	SPECIFICATION SHEET NUMBER MS16995 27 JUNE 95 REV C SUPERSEDING MS16995F 22 FEB 91 AMSC-N/A FSC-5310
DISTRIBUTION STATEMENT A. Approved for public release distribution is unlimited		Page 1 of 6

DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE

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TABLE I DASH NUMBERS AND DIMENSIONS - CONTINUED

NOMINAL SIZE		#8 (1640)			#10 (1800)			#1/4 (250)		
THREADS PER INCH		32 UNC-3A			24 UNC-3A			20 UNC-3A		
#D BODY	MAX	1640			1900			2500		
	MIN	1585			1840			2435		
#A HEAD	MAX	2700			3130			3750		
	MIN	2620			3030			3650		
H HEAD HEIGHT	MAX	1640			1900			2500		
	MIN	1590			1850			2440		
S HEAD SIDE HEIGHT	MIN	1480			1710			2250		
	MAX	1426			1587			1900		
J SOCKET WIDTH ACROSS FLATS	MAX	1426			1587			1900		
	MIN	1406			1562			1875		
T KEY ENGAGEMENT	MIN	0770			0900			1200		
	MAX	0520			0610			0800		
G WALL THICKNESS	MIN	0520			0610			0800		
	MAX	0050			0050			0080		
K CHAMFER OR RADIUS	MAX	0050			0050			0080		
	MIN	0120			0140			0140		
R FILLET RADIUS	MAX	0120			0140			0140		
	MIN	0070			0090			0090		
W BASIC THREAD LENGTH 1/	REF	8750			8750			1 0000		
MIN TENSILE STRENGTH LOAD LBS 2/		1 120			1,400			2 540		
L LENGTH	TOLERANCE	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN
375	+ 000 - 030	25			35			47		
500		26			36			48		
625		27			37			49		
750		28			38			50		
875		29			39			51		
1,000		30			40			52		
1 250	+ 000 - 040				41	375	167	53		
1 500					42	375	167	54	500	250
1 750								55	500	250
2 000								56	1 000	750

1/
2/

SEE NOTE 2
BASED ON 80 000 PSI MINIMUM TENSILE STRENGTH LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2

PREPARING ACTIVITY DLA-IS CUSTODIANS ARMY- NAVY-OS AIR FORCE 82 DLA REVIEW ARMY-MI NAVY-MC SH AIR FORCE-11 NSA-NS		MILITARY SPECIFICATION SHEET TITLE SCREW, CAP SOCKET HEAD-HEXAGON, CORROSION RESISTANT STEEL, UNC-3A		SPECIFICATION SHEET NUMBER MS16995 27 JUNE 95 REV G SUPERSEDING MS16995F 22 FEB 91 AMSC N/A FSC -5310	
PROJECT NUMBER 5305-2081 DISTRIBUTION STATEMENT A Approved for public release distribution is unlimited				Page 2 of 6	

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TABLE 1 DASH NUMBERS AND DIMENSIONS - CONTINUED

NOMINAL SIZE			5/16 (3125)		3/8 (375)			1/2 (500)			
THREADS PER INCH			18 UNC-3A		16 UNC-3A			13 UNC-3A			
#D BODY	MAX		3125		3750			5000			
	MIN		3053		3678			4919			
#A HEAD	MAX		4690		5630			7500			
	MIN		4570		5500			7350			
H HEAD HEIGHT	MAX		3130		3750			5000			
	MIN		3060		3680			4920			
S HEAD SIDE HEIGHT	MIN		2810		3370			4500			
J SOCKET WIDTH ACROSS FLATS	MAX		2530		3160			3790			
	MIN		2500		3125			3750			
T KEY ENGAGEMENT	MIN		1510		1820			2450			
G WALL THICKNESS	MIN		1000		1200			1600			
K CHAMFER OR RADIUS	MAX		0080		0080			0100			
R FILLET RADIUS	MAX		0170		0020			0260			
	MIN		0120		0150			0200			
M BASIC THREAD LENGTH 1/	REF		1 1250		1 2500			1 5000			
MIN TENSILE STRENGTH LOAD LBS 2/			4 190		6 200			11 300			
L LENGTH	TOLERANCE		DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN
	SIZE 5/16 (3125) AND 3/8 (375)	SIZE 1/2 (500)									
375	+ 000 - .030	+ 000 - .030	61								
500			62			77					
625			63			78					
750			64			79			92		
875			65			80			93		
1 000	+ 000 - .040	+ 000 - .060	66			81			94		
1 250			67			82			95		
1 500			68			83			96		
1 750			69	625	347	84	500	187	97		
2 000			70			85	500	187	98		
2 250	+ 000 - .060	+ 000 - .080	71	1 125	847	86	1 000	687	99	750	365
2 500			72	1 125	847	87	1 000	687	100	750	365
2 750									101	750	365
3 000									102	1 500	1 115

1/ SEE NOTE 2

2/ BASED ON 80,000 PSI MINIMUM TENSILE STRENGTH LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STO-H28/2

PREPARING ACTIVITY DLA-15

CUSTODIANS ARMY-

NAVY- 05

AIR FORCE- 82

DLA-

REVIEW ARMY-MI NAVY-MC SH AIR FORCE-11
NSA-NS

PROJECT NUMBER 5305-2081

MILITARY SPECIFICATION SHEET

TITLE

SCREW, CAP SOCKET HEAD-HEXAGON
CORROSION RESISTANT STEEL UNC-3A

SPECIFICATION SHEET NUMBER

MS16995

27 JUNE 95
REV G

SUPERSEDING

MS16995F

22 FEB 91

AMSC- N/A

FSC -5310

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TABLE 1 DASH NUMBERS AND DIMENSIONS - CONTINUED

NOMINAL SIZE		5/8 (625)		
THREADS PER INCH		11 UNC-3A		
#D BODY	MAX	6250		
	MIN	6163		
#A HEAD	MAX	9360		
	MIN	9210		
H HEAD HEIGHT	MAX	6250		
	MIN	6160		
S HEAD SIDE HEIGHT	MIN	5620		
J SOCKET WIDTH ACROSS FLATS	MAX	5050		
	MIN	5000		
T KEY ENGAGEMENT	MIN	3070		
G WALL THICKNESS	MIN	2000		
K CHAMFER OR RADIUS	MAX	0100		
R FILLET RADIUS	MAX	0320		
	MIN	0240		
M BASIC THREAD LENGTH 1/	REF	1 7500		
MIN TENSILE STRENGTH LOAD LBS 2/		18 100		
L LENGTH	TOLERANCE	DASH NO	GRIP LENGTH MAX	BODY LENGTH MIN
1 000	+ 000 - 030	107		
1 250		108		
1 500		109		
1 750		110		
2 000		111		
2 250	+ 000 - 060	112		
2 500		113	750	295
2 750		114	750	295
3 000		115	750	295

1/ SEE NOTE 2

2/ BASED ON 80 000 PSI MINIMUM TENSILE STRENGTH LOAD POUNDS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2

REQUIREMENTS

1. MATERIAL. CORROSION RESISTANT STEEL IN ACCORDANCE WITH PROCUREMENT SPECIFICATION OR TYPE 303 (UNS S30300) EQUAL TO OR INTERCHANGEABLE WITH 16 18 CHROMIUM NICKEL ALLOY STEEL DEVELOPED FOR COLD HEADING
2. CLEANED, DESCALED AND PASSIVATED. SCREWS SHALL BE CLEANED, DESCALED AND PASSIVATED IN ACCORDANCE WITH QQ-P-35
3. PROTECTIVE COATING AND SURFACE TREATMENT. SCREWS SHALL BE BLACK OXIDE COATED IN ACCORDANCE WITH MIL-C-13924, CLASS 4 (WHEN BLACK OXIDE COATING IS REQUIRED, THE DASH NUMBER SHALL BE FOLLOWED BY A CODE LETTER "B")
4. MAGNETIC PERMEABILITY. SCREWS SHALL HAVE A MAGNETIC PERMEABILITY OF 210 MAXIMUM (AIR = 1.0) FOR A FIELD STRENGTH OF H = 200 OERSTEDS USING A MAGNETIC INDICATOR IN ACCORDANCE WITH MIL-I-17214
5. THREADS. ACCEPTABILITY OF SCREW THREADS FOR SIZES #2 (0860) THRU #10 (190) NOMINAL DIAMETERS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21 ACCEPTABILITY OF SCREW THREADS 250 AND LARGER SHALL BE IN ACCORDANCE WITH FED-STD-H28/20 SYSTEM 22 SCREWS ABOVE THE HEAVY LINE SHALL HAVE COMPLETE (FULL FORM) THREADS EXTENDED TO WITHIN TWO (2) THREADS OF THE HEAD AS MEASURED WITH A THREAD RING GAGE
6. SOURCE IDENTIFICATION MARK. SOURCE IDENTIFICATION MARK SHALL BE IN ACCORDANCE WITH PROCUREMENT SPECIFICATION
7. HEAD STYLE. HEAD OF SCREW MAY BE KNURLED OR NOT KNURLED AT THE OPTION OF THE MANUFACTURER TYPE OF KNURLING OPTIONAL

PREPARING ACTMITY DLA-IS CUSTODIANS ARMY- NAVY-OS AIR FORCE- B2 DLA REVIEW ARMY-MI NAVY-MC,SH AIR FORCE-11 NSA-NS PROJECT NUMBER 5305-2081		MILITARY SPECIFICATION SHEET TITLE SCREW CAP SOCKET HEAD-HEXAGON CORROSION RESISTANT STEEL, UNC-3A		SPECIFICATION SHEET NUMBER MS16995 27 JUNE 95 REV G SUPERSEDING MS16995F 22 FEB 91 AMSC-N/A FSC -5310	
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8 PART NUMBER. THE PART NUMBER SHALL CONSIST OF THE BASIC MS SHEET NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I AND A CODE LETTER "B" FOR BLACK OXIDE IF APPLICABLE

EXAMPLE MS16995-1

└── DASH NUMBER
└── BASIC MS SHEET NUMBER

MS16995-1 INDICATES - SCREW CAP SOCKET HEAD, HEXAGON CORROSION RESISTANT STEEL,
0860 56 UNC-3A NOMINAL THREAD SIZE 188 LENGTH PASSIVATED

MS16995-1B INDICATES - SCREW CAP SOCKET HEAD HEXAGON CORROSION RESISTANT STEEL
0860-56 UNC-3A, NOMINAL THREAD SIZE 188 LENGTH BLACK OXIDE COATING

NOTES

- 1 ALL DIMENSIONS ARE IN INCHES
- 2 THE BASIC THREAD LENGTH "L" (TABLE I) IS A REFERENCED VALUE CONTROLLED BY THE GRIP LENGTH AND "L" LENGTH AS SPECIFIED
- 3 MS16995 SUPERSEDES MS35461 IN PART
- 4 IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS DOCUMENT AND THE REFERENCES CITED HEREIN THE TEXT OF THIS DOCUMENT SHALL TAKE PRECEDENCE
- 5 UNLESS OTHERWISE SPECIFIED ISSUES OF REFERENCED DOCUMENTS ARE IN EFFECT AT THE TIME OF SOLICITATION

PREPARING ACTIVITY DLA-15 CUSTODIANS ARMY- NAVY-05 AIR FORCE-82 DLA REVIEW ARMY-MI NAVY-MC SH AIR FORCE-11 NSA-NS PROJECT NUMBER 5305-2081	<u>MILITARY SPECIFICATION SHEET</u> TITLE SCREW CAP SOCKET HEAD-HEXAGON, CORROSION RESISTANT STEEL UNC-3A	SPECIFICATION SHEET NUMBER MS16995 27 JUNE 95 REV G SUPERSEDING MS16995F 22 FEB 91 AMSC- N/A FSC-5310
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THE SCREWS COVERED BY DASH NUMBERS GIVEN IN MS35461 THAT ARE REPLACED BY APPLICABLE DASH NUMBERS IN THIS DOCUMENT ARE CANCELLED AFTER 5 APRIL 62. 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. INTERCHANGEABILITY INFORMATION REGARDING PART NUMBERS ON SUPERSEDED DRAWINGS ARE ALSO CONTAINED IN THIS TABLE.

INTERCHANGEABILITY TABLE

PART NUMBERS		PART NUMBERS		PART NUMBERS	
CANCELLED	SUPERSEDING	CANCELLED	SUPERSEDING	CANCELLED	SUPERSEDING
MS35461	MS16995	MS35461	MS16995	MS35461	MS16995
DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER	DASH NUMBER
1	25	23	49	54	83
2	26	24	50	55	84
3	27	25	51	56	85
4	28	26	52	57	86
5	29	27	53	58	87
6	30	28	54	62	92
11	35	29	55	63	93
12	36	30	56	64	94
13	37	48	77	65	95
14	38	49	78	66	96
15	39	50	79	67	97
16	40	51	80	68	98
21	47	52	81	69	99
22	48	53	82	70	100

SCREWS COVERED BY THE FOLLOWING PART NUMBERS ARE INACTIVE FOR NEW DESIGN AND ENGINEERING. THEY SHALL BE USED FOR MAINTENANCE OF EXISTING EQUIPMENT TO REPLACE THE 5/16 INCH SIZE SCREWS USED IN COUNTERBORED HOLES OR OTHER CLOSE APPLICATIONS.

PART NUMBERS
INACTIVE
MS35461
DASH NUMBER
33
34
35
36
37
38
39
40
41
42
43
44

PREPARING ACTIVITY DLA-IS

CUSTODIANS ARMY-

NAVY-OS

AIR FORCE-82

DLA-

REVIEW ARMY-MI NAVY-MC SH AIR FORCE-11
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