

THE 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 DODDSS SPECIFIED IN THE SOLICITATION: FF-S-86

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

Form Approved
OMB No. 0704-0188

SEE REQUIREMENT 3

HEAD DIA.
SEE TABLE II.

82° ± 2°

GRIP LENGTH

BODY LENGTH

X

Y

ØD

(H)

L

J

F

TABLE I

THREAD SIZE		.1120-40UNC-3A	.1380-32UNC-3A	.1640-32UNC-3A	.1900-24UNC-3A	.2500-20UNC-3A	.3125-18UNC-3A	
#D BODY	MAX MIN	.1120 .1075	.1380 .1329	.1640 .1585	.1900 .1840	.2500 .2435	.3125 .3053	
H HEAD HEIGHT	REF	.083	.087	.112	.127	.161	.198	
J SOCKET SIZE	NOM	.062	.078	.094	.125	.156	.188	
F FILLET EXTENSION ABOVE D, MAX		.012	.015	.015	.015	.015	.015	
TENSILE STRENGTH, LBS-MIN		900	1,350	2,085	2,510	4,750	7,800	
L LENGTH	TOLERANCE SIZE .112 THRU .3125	DASH NO.	DASH NO.	DASH NO.	DASH NO.	GRIP LENGTH MAX BODY LENGTH MIN	DASH NO.	GRIP LENGTH MAX BODY LENGTH MIN
.250 .375 .500 .625 .750 1.000	+ .000 - .030	1 2 3 4 5	7 8 9 10 11	13 14 15 16 17	19 20 21 22 23 24	27 28 29 30 31 32 33	37 38 39 40 41 42 43 44	
1.250 1.500 1.750 2.000 2.250 2.500	+ .000 - .040			/	25	.62 .42	34 35	.75 .50 .50 .60 .60 1.38 1.10

TABLE I (CONTINUED)

THREAD SIZE		.3750-18UNC-3A	.4375-14UNC-3A	.5000-13UNC-3A	.6250-11UNC-3A	.7500-10UNC-3A
#D BODY	MAX MIN	.3750 .3678	.4375 .4294	.5000 .4919	.6250 .6163	.7500 .7406
H HEAD HEIGHT	REF	.234	.234	.251	.324	.396
J SOCKET SIZE	NOM	.219	.250	.312	.375	.500
F FILLET EXTENSION ABOVE D, MAX		.015	.015	.015	.015	.015
TENSILE STRENGTH, LBS-MIN		11,600	15,900	21,200	33,800	50,000
L LENGTH	TOLERANCE SIZE .375 THRU .750	DASH NO.	GRIP LENGTH MAX BODY LENGTH MIN	DASH NO.	GRIP LENGTH MAX BODY LENGTH MIN	DASH NO.
.500 .625 .750 1.000	+ .000 - .030	49 50 51 52	62 63 64 65 66 67 68 69	73 74 75 76 77 78 79	84 85 86 87 88 89 90 91	93 94 95 96 97 98 99 100
1.250 1.500 1.750 2.000 2.250 2.500	+ .000 - .040	53 54 55 56 57 58 59 60	70 71 72 73 74 75 76 77 78 79 80 81 82	1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1.12	.62 .62 .62 .62 .62 .62 .62 .62 .62 .62 .62 .62 .62	
2.750 3.000	+ .000 - .080					

1/ SEE NOTE 5.

ENTIRE STANDARD REVISED

INCH-POUND

PREPARING ACTIVITY: DLA-IS
CUSTODIANS: ARMY-AR NAVY-SH
AIR FORCE-99

MILITARY SPECIFICATION SHEET

TITLE
SCREW, CAP, SOCKET HEAD, FLAT
COUNTERSUNK, 82°, ALLOY STEEL, UNC-3A

SPECIFICATION SHEET NUMBER
MS24667 30 APR 94
REV D

SUPERSEDING
MS24667 C 28 OCT 76 (SEE NOTE 6)

AMSC- N/A FSC 5305

DISTRIBUTION STATEMENT
A. Approved for public release; distribution is unlimited.

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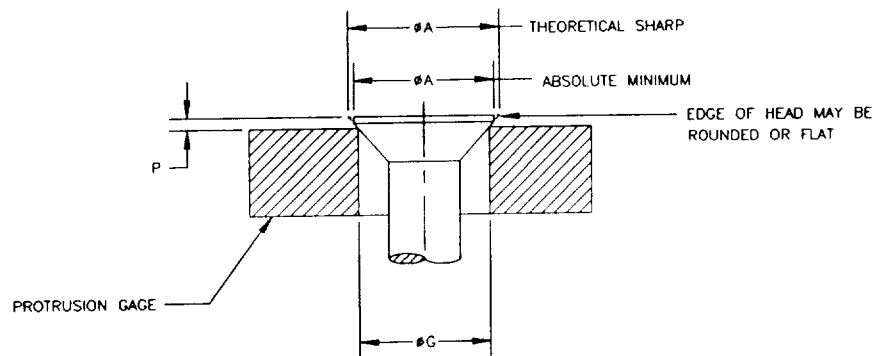


TABLE II 2/

NOMINAL SIZE	⌀A		⌀G	P	
	HEAD DIAMETER		PROTRUSION GAGE DIAMETER +.000 -.001	HEAD PROTRUSION	
	THEORETICAL SHARP	MAX. ABSOLUTE MIN.		MAX.	MIN.
.1120	.255	.218	.172	.049	.025
.1380	.307	.263	.220	.052	.023
.1640	.359	.311	.267	.055	.024
.1900	.411	.359	.313	.058	.025
.2500	.531	.480	.424	.064	.031
.3125	.656	.600	.539	.070	.033
.3750	.781	.720	.653	.076	.037
.4375	.844	.781	.690	.092	.050
.5000	.938	.872	.739	.119	.073
.6250	1.188	1.112	.962	.135	.083
.7500	1.438	1.355	1.186	.150	.093

2/ SEE REQUIREMENT 7.

PREPARING ACTIVITY: DLA-IS
CUSTODIANS: ARMY-AR NAVY-SH
AIR FORCE-99

REVIEW:
USER:
PROJECT NUMBER: 5305-1952

DISTRIBUTION STATEMENT

MILITARY SPECIFICATION SHEET
TITLE
SCREW, CAP, SOCKET HEAD, FLAT
COUNTERSUNK, 8Z, ALLOY STEEL, UNC-3A

SPECIFICATION SHEET NUMBER
MS24667 30 APR 94
REV D

SUPERSEDING
MS24667 C 28 OCT 76 (SEE NOTE 6)

AMSC- N/A FSC 5305

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DD Form 672, MAY 88

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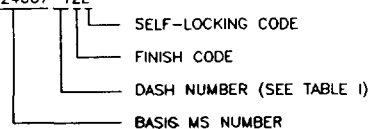
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REQUIREMENTS:

- MATERIAL:** ALLOY STEEL, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
- PROTECTIVE COATING:** ZINC COATING IN ACCORDANCE WITH ASTM B 633, TYPE II, CLASS FE/ZN 5. CADMIUM PLATING IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 3 (SEE REQUIREMENT 8 AND NOTE 5).
- SELF-LOCKING ELEMENT:** THE SELF-LOCKING ELEMENT SHALL BE A PATCH TYPE OR LONGITUDINAL STRIP IN ACCORDANCE WITH MIL-F-18240. FOR "X" AND "Y" DIMENSIONS AND DESIGN AND USAGE LIMITATIONS, SEE MS15981 (SEE REQUIREMENT 8).
- HARDNESS:** IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
- 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 22.
- MINIMUM THREAD LENGTH:** SCREWS ABOVE HEAVY LINE SHALL HAVE COMPLETE (FULL FORM) THREADS EXTENDING WITHIN TWO THREADS OF THE INTERSECTION OF THE CONICAL PORTION OF THE HEAD WITH THE BASIC SCREW DIAMETER AS MEASURED WITH A THREAD RING GAGE.
- HEAD FLUSHNESS:** SCREWS SHALL MEET THE HEAD PROTRUSION LIMITS CITED IN TABLE II, DIMENSION P. FLUSHNESS IS DETERMINED BY PLACING A FLAT HEAD SCREW INTO A GAGING RING OF THE SIZE DETERMINED IN TABLE II AND MEASURING THE HEIGHT THAT THE HEAD EXTENDS ABOVE THE FACE OF THE GAGING RING.
- CODE:**
 - Z - ZINC COATED
 - NO CODE - CADMIUM PLATE (SEE NOTE 5)
 - L - SELF-LOCKING
- PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER TAKEN FROM TABLE I, FOLLOWED BY A FINISH CODE, FOLLOWED BY A SELF-LOCKING CODE LETTER, IF APPLICABLE.

EXAMPLE: MS24667-1ZL



MS24667-1ZL INDICATES - SCREW, CAP, SOCKET HEAD, FLAT COUNTERSUNK, 82, ALLOY STEEL, .1120-40 UNC-3A, .250 LENGTH, ZINC COATED, SELF-LOCKING.

MS24667-1Z INDICATES - SCREW, CAP, SOCKET HEAD, FLAT COUNTERSUNK, 82, ALLOY STEEL, .1120-40 UNC-3A, .250 LENGTH, ZINC COATED.

MS24667-1L INDICATES - SCREW, CAP, SOCKET HEAD, FLAT COUNTERSUNK, 82, ALLOY STEEL, .1120-40 UNC-3A, .250 LENGTH, CADMIUM PLATED, SELF-LOCKING.

MS24667-1 INDICATES - SCREW, CAP, SOCKET HEAD, FLAT COUNTERSUNK, 82, ALLOY STEEL, .1120-40 UNC 3A, .250 LENGTH, CADMIUM PLATED.

- IDENTIFICATION:** SCREWS WITH NOMINAL SIZES .1900 AND LARGER SHALL BE PERMANENTLY MARKED WITH A SYMBOL IDENTIFYING ITS MANUFACTURER OR PRIVATE LABEL DISTRIBUTOR. MARKINGS SHALL BE PLACED ON THE TOP OF HEAD, INDENTED. METHOD AND SIZE OF MARKINGS SHALL CONFORM TO THE REQUIREMENTS FOR PERMANENT MARKINGS SPECIFIED IN SAE AS478.

NOTES:

- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
- INTERPERT DIMENSIONS IN ACCORDANCE WITH ANSI Y14.5M.
- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS DOCUMENT AND THE REFERENCED CITED HEREIN, THE TEXT OF THIS DOCUMENT SHALL TAKE PRECEDENCE.
- UNLESS OTHERWISE SPECIFIED, ISSUES OF REFERENCED DOCUMENTS ARE THOSE IN EFFECT AT THE TIME OF SOLICITATION.
- CADMIUM PLATED PARTS COVERED BY THIS STANDARD ARE INACTIVE FOR NEW DESIGN AFTER 31 DEC 94. DASH NUMBERS 62 THRU 71 ARE INACTIVE FOR NEW DESIGN AFTER 28 JULY 75.
- MS24667 SUPERSEDES MS24669.

PREPARING ACTMITY: DLA-IS CUSTODIANS: ARMY-AR NAVY- SH AIR FORCE-99	MILITARY SPECIFICATION SHEET TITLE SCREW, CAP, SOCKET HEAD, FLAT COUNTERSUNK, 82, ALLOY STEEL, UNC-3A	SPECIFICATION SHEET NUMBER MS24667 30 APR 94 REV D
REVIEW: USER: PROJECT NUMBER: 5305-1952		SUPERSEDING MS24667 C 28 OCT 76 (SEE NOTE 6)
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