

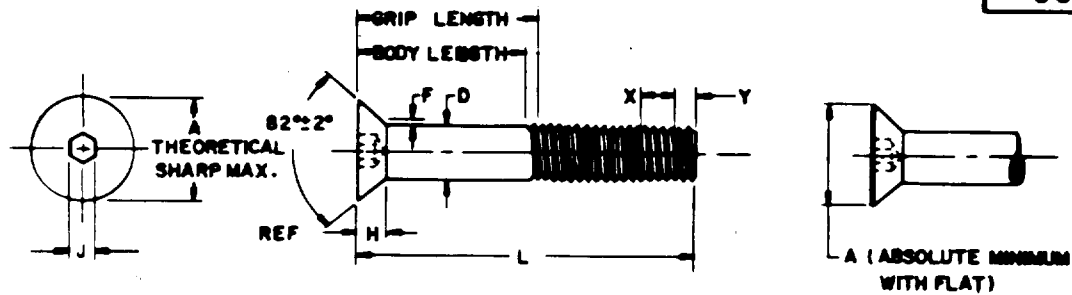
FED. SUP CLASS  
5305

TABLE I

NOMINAL SIZE	.112 (#4)	.138 (#6)	.164 (#8)	.190 (#10)	.250 (1/4)	.3125 (5/16)
THREADS PER INCH, UNC-3A	40	32	32	24	20	18
D BODY						
DIAMETER MAX	.1120	.1380	.1640	.1900	.2500	.3125
MIN	.1075	.1329	.1585	.1840	.2435	.3053
A HEAD THEO. SHARP MAX	.235	.307	.339	.411	.531	.656
DIAMETER ABS. MIN	.218	.263	.311	.359	.480	.600
H HEAD HEIGHT REF	.083	.097	.112	.127	.161	.198
J SOCKET SIZE NOM	.062	.078	.094	.125	.156	.188
F SEE NOTE 13	.012	.015	.015	.015	.015	.015
TENSILE STRENGTH, LBS-MIN	900	1,350	2,085	2,610	4,750	7,800
L LENGTH						
SIZE .112 THRU .3125						
DASH NO. CAD	1	7	13	19	27	37
GRIP LENGTH MAX	2	8	14	20	28	38
BODY LENGTH MIN	3	9	15	21	29	39
DASH NO. CAD	4	10	16	22	30	40
GRIP LENGTH MAX	5	11	17	23	31	41
BODY LENGTH MIN				24	32	42
DASH NO. CAD				25	33	43
GRIP LENGTH MAX				.62	.42	.44
BODY LENGTH MIN					.75	.50
DASH NO. CAD					34	45
GRIP LENGTH MAX					.75	.50
BODY LENGTH MIN						.46
DASH NO. CAD						47
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						48
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						49
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						50
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						51
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						52
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						53
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						54
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						55
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						56
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						57
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						58
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60
DASH NO. CAD						59
GRIP LENGTH MAX						.88
BODY LENGTH MIN						.60

TABLE I (Continued)

NOMINAL SIZE	.375 (3/8)	.4375 (7/16)	.500 (1/2)	.625 (5/8)	.750 (3/4)
THREADS PER INCH, UNC-3A	16	14	13	11	10
D BODY					
DIAMETER MAX	.3750	.4375	.5000	.6250	.7500
MIN	.3678	.4294	.4919	.6163	.7406
A HEAD THEO. SHARP MAX	.781	.844	.938	1.188	1.438
DIAMETER ABS. MIN	.720	.791	.872	1.112	1.355
H HEAD HEIGHT REF	.234	.234	.251	.324	.396
J SOCKET SIZE NOM	.219	.250	.251	.324	.396
F SEE NOTE 13	.015	.015	.015	.015	.015
TENSILE STRENGTH, LBS-MIN	11,600	15,900	21,200	33,800	50,000
L LENGTH					
SIZE .375 THRU .750					
DASH NO. CAD	49				
GRIP LENGTH MAX	50				
BODY LENGTH MIN	51				
DASH NO. CAD	52				
GRIP LENGTH MAX	53				
BODY LENGTH MIN	54				
DASH NO. CAD	55				
GRIP LENGTH MAX	56				
BODY LENGTH MIN	57				
DASH NO. CAD	58				
GRIP LENGTH MAX	59				
BODY LENGTH MIN	1.00				
DASH NO. CAD	60				
GRIP LENGTH MAX	61				
BODY LENGTH MIN	62				
DASH NO. CAD	63				
GRIP LENGTH MAX	64				
BODY LENGTH MIN	65				
DASH NO. CAD	66				
GRIP LENGTH MAX	67				
BODY LENGTH MIN	68				
DASH NO. CAD	69				
GRIP LENGTH MAX	70				
BODY LENGTH MIN	71				
DASH NO. CAD	72				
GRIP LENGTH MAX	73				
BODY LENGTH MIN	74				
DASH NO. CAD	75				
GRIP LENGTH MAX	76				
BODY LENGTH MIN	77				
DASH NO. CAD	78				
GRIP LENGTH MAX	79				
BODY LENGTH MIN	80				
DASH NO. CAD	81				
GRIP LENGTH MAX	82				
BODY LENGTH MIN	83				
DASH NO. CAD	84				
GRIP LENGTH MAX	85				
BODY LENGTH MIN	86				
DASH NO. CAD	87				
GRIP LENGTH MAX	88				
BODY LENGTH MIN	89				
DASH NO. CAD	90				
GRIP LENGTH MAX	91				
BODY LENGTH MIN	92				
DASH NO. CAD	93				
GRIP LENGTH MAX	94				
BODY LENGTH MIN	95				
DASH NO. CAD	96				
GRIP LENGTH MAX	97				
BODY LENGTH MIN	98				
DASH NO. CAD	99				
GRIP LENGTH MAX	100				
BODY LENGTH MIN					

\* INACTIVE FOR NEW DESIGN AFTER 29 JUL 1975

C ENTIRE STANDARD REVISED

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 when applicable.

P.A. WC	TITLE	MILITARY STANDARD
Other Cont SH 99	SCREW, CAP-SOCKET HEAD, FLAT COUNTERSUNK, 82° ALLOY STEEL, UNC-3A	MS24667
PROCUREMENT SPECIFICATION FF-S-86	SUPERSEDES: MS24669	SHEET 1 OF 2

DD FORM 672-1 (Continued)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5305-1335

APPROVED 6 APR 1960 REVISED A 20 DEC 1963 B 29 JUL 1975 C 28 OCT 1976

FED. SUP CLASS

5305

## NOTES:

1. **MATERIAL:** Alloy Steel, in accordance with Federal Standard, No. 66 (Minimum ultimate tensile strength 160,000 PSI).
2. **HARDNESS:** Rockwell C36-45.
3. **PROTECTIVE COATING:** Cadmium plated in accordance with QQ-P-416, Type II, Class 3.  
Zinc coating in accordance with QQ-Z-325, Type II, Class 3.
4. **THREADS:** The threads shall be in accordance with MIL-S-7742.
5. **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.
6. **DIMENSIONS:** All dimensions are in inches unless otherwise specified.
7. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number. For screws with optional zinc coating add letter "Z" after the dash number. For screws with self-locking element add the letter "L" after the dash number.  
  
Example: MS24667 - 1 Cadmium Plated  
MS24667 - 1L Cadmium Plated, Self-Locking  
MS24667 - 1Z Zinc Coated  
MS24667 - 1ZL Zinc Coated, Self-Locking
8. Referenced documents shall be of the issue in effect on date of invitations for bid.
9. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
10. Fillet Extension above D, max.
11. **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.

REVIEWER: AT, AV, MI, WV, OS  
 USER: ME, MA, PA, WV, OS

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 when applicable.

APPROVED 6 APR 1960 REVISED © FOR CHANGES SEE SHEET 1 AND 2

P.A. WC Other Cost SH 99	TITLE <b>SCREW, CAP-SOCKET HEAD, FLAT COUNTERSUNK, 82° ALLOYSTEEL, UNC-3A</b>	<b>MILITARY STANDARD</b> <b>MS24667</b>
PROCUREMENT SPECIFICATION FF-S-86	SUPERSEDES MS24669	SHEET 2 OF 2

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5305-1335