

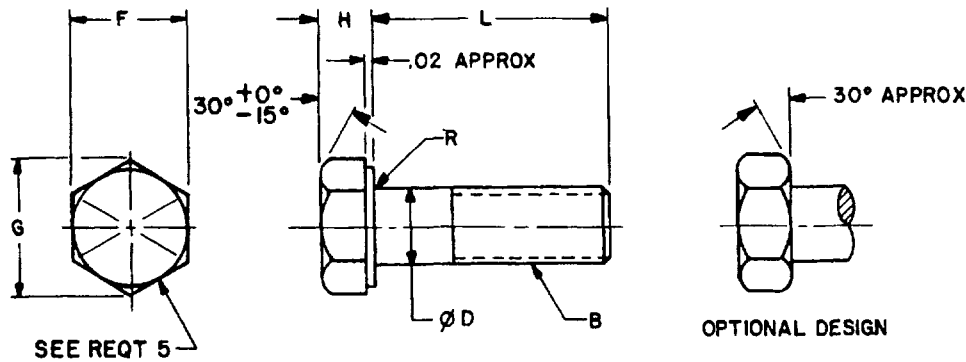
FED SUP CLASS
5305

TABLE I. DIMENSIONS AND PART NUMBERS.

NOMINAL SIZE			.250	.312	.375	.438	.500	.562	.625	.750	.875	1 000	1.125	1.250
B - THREADS PER INCH UNC-2A - - - - -			20	18	16	14	13	12	11	10	9	8	7	7
Ø D - BODY DIAMETER - - - -	MAX		.2500	.3125	.3750	.4375	.5000	.5625	.6250	.7500	.8750	1.0000	1.1250	1.2500
	MIN		.2450	.3065	.3690	.4305	.4930	.5545	.6170	.7410	.8660	.9900	1.1140	1.2390
F - WIDTH ACROSS FLATS - - -	MAX		.4375	.5000	.5625	.6250	.7500	.8125	.9375	1.1250	1.3125	1.5000	1.6875	1.8750
	MIN		.4280	.4890	.5510	.6120	.7360	.7980	.9220	1.1000	1.2850	1.4690	1.6310	1.8120
G - WIDTH ACROSS CORNERS - -	MAX		.5050	.5770	.6500	.7220	.8660	.9380	1.0830	1.2990	1.5160	1.7320	1.9490	2.1650
	MIN		.4880	.5570	.6280	.6980	.8400	.9100	1.0510	1.2540	1.4650	1.6750	1.8590	2.0660
H - HEAD HEIGHT - - - - -	MAX		.1630	.2110	.2430	.2910	.3230	.3710	.4030	.4830	.5630	.6270	.7180	.8130
	MIN		.1500	.1950	.2260	.2720	.3020	.3480	.3780	.4550	.5310	.5910	.6580	.7490
R - RADIUS - - - - -	MAX		.0250	.0250	.0250	.0250	.0250	.0450	.0450	.0450	.0650	.0950	.0950	.0950
	MIN		.0150	.0150	.0150	.0150	.0150	.0200	.0200	.0200	.0400	.0600	.0600	.0600
1/2 MIN TENSILE LOAD - LBS - - - -			3,800	6,300	9,300	12,800	17,000	21,800	27,100	40,100	55,400	72,700	80,100	101,700
L LENGTH	TOLERANCE		DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO
	SIZE .750 AND UNDER	SIZE .875												
.500 .562 .625 .750 .875 1.000	+.000 -.031	+.000 -.062	001 002	011 012	018 019 020 021	039 040 041 042	058	072	089	101	103	104	108	109 110 111 112
1.125 1.250 1.375 1.500 1.750 2.000														
2.250 2.500 2.750 3.000 3.250 3.500 3.750 4.000 4.500 5.000 5.500 6.000	+.000 -.094	+.000 -.188	007 008 009 010	015 016	026 027 028 029 030 031	037 038	051	062 063 064 065 066	077 078 079 080 081 082 083	091 092 093 094 095	109 110 111 112	113 114		

1/2 SEE REQUIREMENT 6

P.A.	AR	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust	SH 99		SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, GRADE 5 UNC-2A	MS5149I
PROCUREMENT SPECIFICATION	SUPERSEDES		PAGE	OF
FF-S-85			1	2

USER ACTIVITIES
ARMY-MI, ME
NAVY-MC, OSREVIEWER ACTIVITIES
ARMY-EA
AIR FORCE-82
DLA-IS
NSA-NSThis 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.REVISED
1 AUG 84
APPROVED

FED SUP CLASS
5305USER ACTIVITIES
ARMY - MI, ME
NAVY - MC, OSREVIEWER ACTIVITIES
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REQUIREMENTS

1. MATERIAL MEDIUM CARBON STEEL, GRADE 5, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION
2. FINISH ZINC COATING, IN ACCORDANCE WITH ASTM B633-78, Fe/Zn 5 (5 μ m), TYPE II
3. THREADS THE 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.
4. THREAD LENGTH MINIMUM THREAD LENGTH SHALL BE TWICE THE DIAMETER PLUS .250 INCH THE TOLERANCE SHALL BE PLUS .188 INCH OR 2-1/2 THREADS, WHICHEVER IS GREATER. ON SCREWS THAT ARE TOO SHORT FOR MINIMUM THREAD LENGTHS, THE DISTANCE FROM THE BEARING SURFACE OF THE HEAD TO THE FIRST COMPLETE THREAD SHALL NOT EXCEED THE LENGTH OF 2-1/2 THREADS FOR SIZES UP TO AND INCLUDING 1.000 INCH AND 3-1/2 THREADS FOR SIZES LARGER THAN 1.000 INCH.
5. HEAD MARKING HEADS SHALL BE MARKED IN ACCORDANCE WITH MIL-HDK-131. RAISED MARKINGS ARE PREFERRED, STAMPINGS ARE ACCEPTABLE.
6. BASED ON MINIMUM ULTIMATE TENSILE STRENGTH OF 120,000 PSI FOR DIAMETERS THRU 1.000 INCH, 105,000 PSI FOR 1.125 INCH THRU 1.500 INCH DIAMETERS TENSILE LOADS ARE CALCULATED BY THE STRESS AREAS INDICATED IN FED-STD-H28/2
7. PART NUMBERS THE BASIC MS PART NUMBER IS FOLLOWED BY A DASH NUMBER FROM TABLE I.

EXAMPLE: MS51491-001 - SCREW, CAP, HEXAGON HEAD, STEEL, GRADE 5, .250-20UNC-2A,
LENGTH 875, ZINC COATED

NOTES

1. ALL DIMENSIONS ARE IN INCHES.
2. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BIDS OR REQUEST FOR PROPOSAL, EXCEPT THAT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL GIVE THE DATE OF THE ISSUE ADOPTED
3. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN

APPROVED 1 AUG 84 REVISED

PA Other Cust	AR SH 99	INTERNATIONAL INTEREST	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), STEEL, GRADE 5 UNC-2A	MILITARY STANDARD MS51491
PROCUREMENT SPECIFICATION FF-S-85			SUPERSEDES	PAGE 2 OF 2

DD FORM 1 MAY 73 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5305-1481