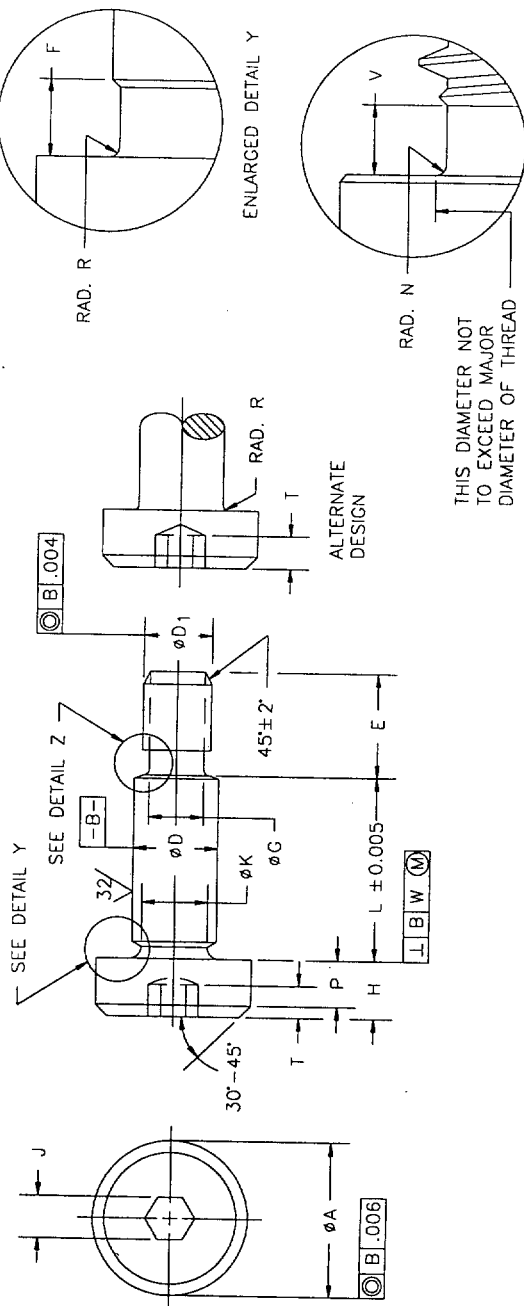


THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE
DEPARTMENT OF DEFENSE.THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION
SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN
THE SOLICITATION: ASME/ANSI B18.3

ENLARGED DETAIL Z

TABLE 1. DASH NUMBERS AND DIMENSIONS

NOMINAL SIZE OR BASIC SHOULDER DIAMETER	øD		øA		H		P	J	T	R	øX		F	øD1		øC		V	N		E		W
	SHOULDER DIAMETER		HEAD DIAMETER		HEAD HEIGHT		HEAD SIZE HEIGHT	HEXAGON SOCKET SIZE	KEY ENGAGE- MENT	HEAD FILLET RADIUS	SHOULDER NECK DIAMETER	SHOULDER NECK DIAMETER	SHOULDER WIDTH	UNC-3A THREADS/ INCH	NOMINAL THREAD SIZE OR BASIC DIAMETER	THREAD NECK DIAMETER		THREAD NECK WIDTH	THREAD NECK FILLET	MAX	MIN	THREAD LENGTH	TOLERANCE
	MAX	MIN	MAX	MIN	MAX	MIN	NOM	MIN	MIN	MIN	MIN	MAX	MAX			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
.375	.373	.371	.562	.543	.250	.240	.209	.188	.141	.015	.352	.093	.3125	18	.249	.237	.111	.031	.025	.500	.480	.003	
.500	.498	.496	.750	.729	.312	.302	.262	.250	.188	.020	.477	.093	.3750	16	.304	.291	.125	.035	.029	.625	.595	.004	
.625	.623	.621	.875	.853	.375	.365	.315	.312	.234	.024	.602	.093	.5000	13	.414	.397	.154	.042	.036	.750	.720	.004	

INCH-POUND

PREPARING ACTIVITY: DLA-IS

CUSTODIANS: ARMY- ER NAVY- YD

AIR FORCE- 99 DLA-

REVIEW: AR, GL, NS, MC, FSS, 82

USER: --

PROJECT NUMBER: 5305-2082

DISTRIBUTION STATEMENT

A. Approved for public release; distribution is unlimited.

MILITARY SPECIFICATION SHEET

TITLE

SCREW, SHOULDERED, HEX-SOCKET HEAD
.375, .500, .625 UNC-3A, UNPLATED

SPECIFICATION SHEET NUMBER

MS21301

27 JUN 95
REV B

SUPERSEDING

MS21301A 21 DEC 87

AMSC- N/A

FSC 5305

Page 1 of 2

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Form Approved
OMB No. 0704-0188

TABLE II. DASH NUMBERS AND DIMENSIONS

NOMINAL SIZE SHOULDERED DIAMETER		.375	.500	.625
THREAD SIZE		.3125-18 UNC-3A	.375-16 UNC-3A	.500-13 UNC-3A
L SHOULDER LENGTH	TOLERANCE	DASH NO.	DASH NO.	DASH NO.
1.00	± .005	-1		
1.25		-2	-27	
1.50		-3	-29	-59
1.75		-5	-31	-61
2.00		-7	-33	-63
2.25		-9	-35	-65
2.50		-11	-37	-67
2.75		-13	-39	-69
3.00		-15	-41	-71
3.25		-17	-43	-73
3.50		-19	-45	-75
3.75		-21	-47	-77
4.00		-23	-49	-79
4.25		-25	-51	-81
4.50			-53	-83
4.75			-55	-85
5.00			-57	-87
5.50				-89
6.00				-91

REQUIREMENTS:

- MATERIAL:** MATERIAL SHALL BE ALLOY STEEL GRADE 4340 (UNS G43400) IN ACCORDANCE WITH AMS 6415 OR MIL-S-5000.
- PROTECTIVE COATING:** UNCOATED (NONE).
- 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.
- TENSILE STRENGTH:** ULTIMATE TENSILE STRENGTH SHALL BE 140 KSI, BASED ON THE MINIMUM THREAD NECK AREA.
- HARDNESS:** HARDNESS SHALL BE IN THE RANGE OF 32 TO 43 HRC.
- PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE II.

EXAMPLE: MS21301 -5
 DASH NUMBER
 BASIC MS NUMBER

MS21301-5 INDICATES - SCREW, SHOULDER, HEX-SOCKET HEAD, .375 SHOULDER DIAMETER;
.3125-18 UNC-3A THREAD SIZE; 1.50 SHOULDER LENGTH.

NOTES:

- ALL DIMENSIONS ARE IN INCHES. INTERPRET DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ANSI Y14.5M.
- 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.
- UNLESS OTHERWISE SPECIFIED, ISSUES OF REFERENCED DOCUMENTS ARE THOSE IN EFFECT AT THE TIME OF SOLICITATION.
- SEE MS51975 FOR CADMIUM PLATED ALLOY STEEL SCREWS AND MS51576 FOR CRES SCREWS.

PREPARING ACTIVITY: DLA-IS

CUSTODIANS: ARMY- ER

NAVY- YD

AIR FORCE- 99

DLA-

REVIEW: AR, GL, NS, MC, FSS, 82

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