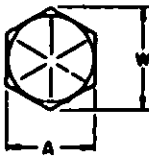
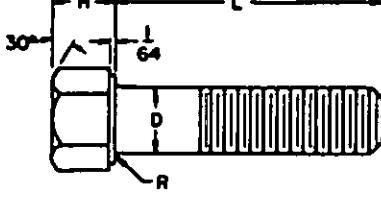
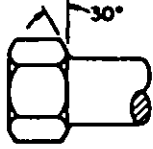


REVIEWER: NI, EL, ME, VC, SH
USER: OS, MC, CL, AT, MU

NOTE: RAISED HEAD MARKINGS PREFERRED STAMPING ACCEPTABLE		  		FED. SUP. CLASS 5305				
NOMINAL SIZE		1/4	5/16	3/8	7/16	1/2	9/16	5/8
THREADS PER INCH		20UNF	24UNF	24UNF	20UNF	20UNF	18UNF	18UNF
BODY DIAMETER D		Max Min	.2500 .2450	.3125 .305	.3750 .360	.4375 .4305	.5000 .4930	.5625 .5545
WIDTH ACROSS FLATS A		Max Min	.4375 .4250	.5000 .490	.5625 .5510	.6250 .6120	.6875 .6760	.7500 .7360
WIDTH ACROSS CORNERS W		Max Min	.4050 .3950	.4710 .460	.5300 .5190	.5900 .5780	.6500 .6380	.7100 .6980
HEAD HEIGHT H		Max Min	.1130 .1100	.1210 .1170	.1290 .1250	.1370 .1330	.1450 .1410	.1530 .1490
RADIUS R		Max Min	.023 .009	.023 .009	.023 .009	.023 .009	.023 .009	.023 .009
LENGTH L		Tolerance	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number
3/8		+0 -1/32	1	2	3	4	5	6
7/16			7	8	9	10	11	12
1/2			13	14	15	16	17	18
9/16			19	20	21	22	23	24
5/8			25	26	27	28	29	30
3/4		+0 -1/16	31	32	33	34	35	36
7/8			37	38	39	40	41	42
1-1/8			43	44	45	46	47	48
1-1/4			49	50	51	52	53	54
1-3/8			55	56	57	58	59	60
1-1/2		+0 -3/32	61	62	63	64	65	66
1-3/4			67	68	69	70	71	72
2-1/4			73	74	75	76	77	78
2-1/2			79	80	81	82	83	84
2-3/4			85	86	87	88	89	90
3		+0 -3/32	91	92	93	94	95	96
3-1/4			97	98	99	100	101	102
3-1/2			103	104	105	106	107	108
3-3/4			109	110	111	112	113	114
4-1/4			115	116	117	118	119	120
4-1/2		+0 -3/32	121	122	123	124	125	126
4-3/4			127	128	129	130	131	132
5			133	134	135	136	137	138
5-1/4			139	140	141	142	143	144
5-1/2			145	146	147	148	149	150
6								

MATERIAL: Alloy Steel, Grade 5 of procurement specification. Minimum tensile strengths: 130,000 psi for diameters through 1-1/2"; 125,000 psi for diameters over 1-1/2".

FINISH: Plain (untreated).

THREADS: The threads shall be in accordance with Screw-Thread Standards for Federal Services Handbook H-29.

MINIMUM THREAD LENGTH: Shall be twice the diameter plus 1/4" for lengths up to and including 6". The tolerance shall be plus 1/16" or 2-1/2 threads, whichever is greater. On products 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" and 3-1/2 threads for sizes larger than 1".

NOTES:

- Referenced documents of issue in effect on date of invitation for bids shall apply.
- In case of conflict with any referenced document, this standard will govern.
- The MS part number consists of the MS sheet number, plus the dash number. Example: MS35302-1.
- All dimensions in inches.

CANCELLED IN PART
SEE SHEET 2

© For change see sheet 1.

P.A. VC Other Case SH	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), ALLOY STEEL, PLAIN FINISH, UNF-2A	MILITARY STANDARD MS 35302
PROCUREMENT SPECIFICATION 77-3-85	SUPERSEDES	SHEET 1 OF 2

This military standard has been approved by the Department of Defense and is mandatory 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.

REVIEWER: MI, EL, ME, VC, SH
 USER: OS, NC, GL, AT, MU

FED. SUP CLASS
 5305

NOMINAL SIZE			3/4	7/8	1	1-1/8	1-1/4	1-3/8	1-1/2
THREADS PER INCH			16UNF	14UNF	12UNF	12UNF	12UNF	12UNF	12UNF
BODY DIAMETER	D	Max	.7500	.8750	1.0000	1.1250	1.2500	1.3750	1.5000
		Min	.7410	.8660	0.9900	1.1140	1.2390	1.3630	1.4880
WIDTH ACROSS FLATS	A	Max	1.1250	1.3125	1.5000	1.6875	1.8750	2.0625	2.2500
		Min	1.1000	1.2850	1.4690	1.6310	1.8120	1.9940	2.1750
WIDTH ACROSS CORNERS	W	Max	1.2990	1.5160	1.7320	1.9490	2.1650	2.3820	2.5980
		Min	1.2540	1.4650	1.6750	1.8590	2.0660	2.2730	2.4800
HEAD HEIGHT	H	Max	.4830	.5630	.6270	.7180	.8130	.8790	.9740
		Min	.4550	.5310	.5910	.6580	.7490	.8100	.9020
RADIUS	R	Max	.041	.062	.093	.093	.093	.093	.093
		Min	.021	.041	.062	.062	.062	.062	.062
LENGTH	L	TOLERANCE		Dash Number	Dash Number	Dash Number	Dash Number	Dash Number	Dash Number
		Size 3/4 and under	Size 7/8 and over						
3/4		+0	+0	+79					
7/8		-1/32	-1/16	+80	+80				
1-1/8				+81	+81	+84			
1-1/4				+82	+82	+85	+84		
1-3/8		+0	+0	+83	+83	+86	+85	+84	
1-1/2		-1/16	-1/8	+84	+84	+87	+86	+85	+84
1-3/4				+85	+85	+88	+87	+86	+85
2				+86	+86	+89	+88	+87	+86
2-1/4				+87	+87	+90	+89	+88	+87
2-1/2				+88	+88	+91	+90	+89	+88
2-3/4				+89	+89	+92	+91	+90	+89
3				+90	+90	+93	+92	+91	+90
3-1/4				+91	+91	+94	+93	+92	+91
3-1/2				+92	+92	+95	+94	+93	+92
3-3/4				+93	+93	+96	+95	+94	+93
4		+0	+0	+94	+94	+97	+96	+95	+94
4-1/4		-3/32	-3/16	+95	+95	+98	+97	+96	+95
4-1/2				+96	+96	+99	+98	+97	+96
4-3/4				+97	+97	+100	+99	+98	+97
5				+98	+98	+101	+100	+99	+98
5-1/2				+99	+99	+102	+101	+100	+99
6				+100	+100	+103	+102	+101	+100

NOTE: For illustration, material, finish and other pertinent data, see sheet 1.

CANCELLED IN PART AFTER 9 June 1967. USE MS90727.
 INTERCHANGEABILITY RELATIONSHIP - MS90727 can replace
 the cancelled screws of the same size. The cancelled
 MS35302 cannot always replace MS90727 and should be
 used until existing stock is depleted. Then use only
 the superseding MS screws of the same size for design
 and replacement.

CANCELLED IN PART
 SEE NOTE

P.A. VC Other Case SH	TITLE SCREW, CAP, HEXAGON HEAD (FINISHED HEXAGON BOLT), ALLOY STEEL, PLAIN FINISH, UNF-2A	MILITARY STANDARD MS 35302
PROCUREMENT SPECIFICATION FF-5-85	SUPERSEDES:	SHEET 2 OF

DD FORM 672-1 (Continued)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

This military standard has been approved by the Department of Defense
 and is mandatory 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.

APPROVED MARCH 4, 1954 REVISED 6 MAY 63 (B) 9 JUN 1967 (C) FOR CHANGES SEE SHEET 1.