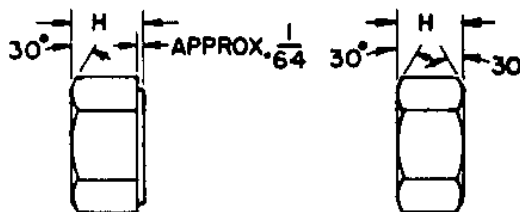
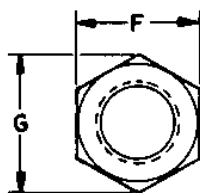


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ACCEPTABLE DESIGNS

TABLE 1

NOMINAL SIZE OR BASIC MAJOR DIAMETER OF THREAD	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
THREADS PER INCH	20	18	16	14	13	12	11	10	9	8
F WIDTH ACROSS FLATS	NOM. 7/16 MAX. .4375 MIN. .428	NOM. 1/2 MAX. .5000 MIN. .489	NOM. 9/16 MAX. .5625 MIN. .551	NOM. 11/16 MAX. .6875 MIN. .675	NOM. 3/4 MAX. .7500 MIN. .736	NOM. 7/8 MAX. .8750 MIN. .861	NOM. 15/16 MAX. .9375 MIN. .922	NOM. 1-1/8 MAX. 1.1250 MIN. 1.066	NOM. 1-5/16 MAX. 1.3125 MIN. 1.269	NOM. 1-1/2 MAX. 1.5000 MIN. 1.450
G WIDTH ACROSS CORNERS	NOM. .505 MAX. .488	NOM. .577 MAX. .557	NOM. .650 MAX. .628	NOM. .794 MAX. .768	NOM. .866 MAX. .840	NOM. 1.010 MAX. .982	NOM. 1.083 MAX. 1.051	NOM. 1.299 MAX. 1.240	NOM. 1.516 MAX. 1.447	NOM. 1.732 MAX. 1.653
H THICKNESS	NOM. 7/32 MAX. .226 MIN. .212	NOM. 17/64 MAX. .273 MIN. .258	NOM. 21/64 MAX. .337 MIN. .320	NOM. 3/8 MAX. .385 MIN. .365	NOM. 7/16 MAX. .448 MIN. .427	NOM. 31/64 MAX. .496 MIN. .473	NOM. 35/64 MAX. .559 MIN. .535	NOM. 41/64 MAX. .665 MIN. .617	NOM. 3/4 MAX. .776 MIN. .724	NOM. 55/64 MAX. .867 MIN. .831
MATERIAL	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
STEEL, CARBON GRADE	A 1 B 2 C 3	A 4 B 5 C 6	A 7 B 8 C 9	A 10 B 11 C 12	A 13 B 14 C 15	A 16 B 17 C 18	A 19 B 20 C 21	A 22 B 23 C 24	A 25 B 26 C 27	A 28 B 29 C 30

NOMINAL SIZE OR BASIC MAJOR DIAMETER OF THREAD	1-1/8	1-1/4	1-3/8	1-1/2	1-3/4	2	2-1/4	2-1/2	2-3/4	3
THREADS PER INCH	7	7	6	6	5	4-1/2	4-1/2	4	4	4
F WIDTH ACROSS FLATS	NOM. 1-11/16 MAX. 1.6875 MIN. 1.631	NOM. 1-7/8 MAX. 1.8750 MIN. 1.812	NOM. 2-1/16 MAX. 2.0625 MIN. 1.994	NOM. 2-1/4 MAX. 2.2500 MIN. 2.175	NOM. 2-5/8 MAX. 2.6250 MIN. 2.538	NOM. 3 MAX. 3.0000 MIN. 2.900	NOM. 3-3/8 MAX. 3.3750 MIN. 3.262	NOM. 3-3/4 MAX. 3.7500 MIN. 3.625	NOM. 4-1/8 MAX. 4.1250 MIN. 3.988	NOM. 4-1/2 MAX. 4.5000 MIN. 4.350
G WIDTH ACROSS CORNERS	NOM. 1.949 MAX. 1.859	NOM. 2.165 MAX. 2.066	NOM. 2.382 MAX. 2.273	NOM. 2.598 MAX. 2.480	NOM. 3.031 MAX. 2.893	NOM. 3.464 MAX. 3.306	NOM. 3.897 MAX. 3.719	NOM. 4.330 MAX. 4.133	NOM. 4.763 MAX. 4.546	NOM. 5.196 MAX. 4.959
H THICKNESS	NOM. 31/32 MAX. .999 MIN. .939	NOM. 1-1/16 MAX. 1.094 MIN. 1.030	NOM. 1-11/64 MAX. 1.206 MIN. 1.138	NOM. 1-9/32 MAX. 1.317 MIN. 1.245	NOM. 1-1/2 MAX. 1.540 MIN. 1.460	NOM. 1-23/32 MAX. 1.763 MIN. 1.675	NOM. 1-59/64 MAX. 1.970 MIN. 1.874	NOM. 2-9/64 MAX. 2.193 MIN. 2.089	NOM. 2-23/64 MAX. 2.415 MIN. 2.303	NOM. 2-37/64 MAX. 2.638 MIN. 2.518
MATERIAL	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
STEEL, CARBON GRADE	A 31 B 32 C 33	A 34 B 35 C 36	A 37 B 38 C 39	A 40 B 41 C 42	A 43 B 44 C 45	A 46 B 47 C 48	A 49 B 50 C 51	A 52 B 53 C 54	A 55 B 56 C 57	A 58 B 59 C 60

MATERIAL: Steel, Carbon, Grade ~~A~~ B, or C, in accordance with procurement specification.

Finished nuts shall meet the required proof loads as specified in the procurement specification.

PROTECTIVE COATING: Cadmium plate in accordance with procurement specification.**THREADS:** Threads shall be in accordance with Screw-Thread Standards for Federal Services, Handbook H-28.**DIMENSIONS:** All dimensions are in inches, unless otherwise specified.**PART NUMBER:** The MS part number consists of the MS number, plus the dash number.
Example: MS51967-2.**NOTES:** (1) Referenced documents shall be of the issue in effect on date of invitations for bid.
(2) For design feature purpose, this standard takes precedence over procurement documents referenced herein.

*CANCELLED, see Table II.

(D) For changes see sheet 3.

P.A. WC Other Cust 82	TITLE NUT, PLAIN, HEXAGON-CARBON STEEL, CADMIUM PLATED, UNC-2B (IN./MM)	MILITARY STANDARD MS 51967
PROCUREMENT SPECIFICATION FF-N-836	SUPERSEDES: MS35690 in part and BUNX1 in part	SHEET 1 OF 3

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: AT, AV, GL, IS, MI, MU, NSA
USER: EL, MC, ME, YD, OS, SH

APPROVED 20 JAN 1964 REVISED (A) 10 APR 64 (B) 8 SEPT 1966 (C) 17 NOV 1966 (D) 30 MAR 1970

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INTERCHANGEABILITY TABLE

The nuts covered by the following dash numbers given in MS35690 are cancelled after 30 September 1965, as given on that document. The nuts covered by the following cancelled dash numbers given in MS51967 are cancelled after 8 SEPT 1966. The cancelled nuts cannot always replace the new nuts and should be used until existing stocks are depleted. Use only the new nuts for design and replacement. Replacement shall be in accordance with Table II.

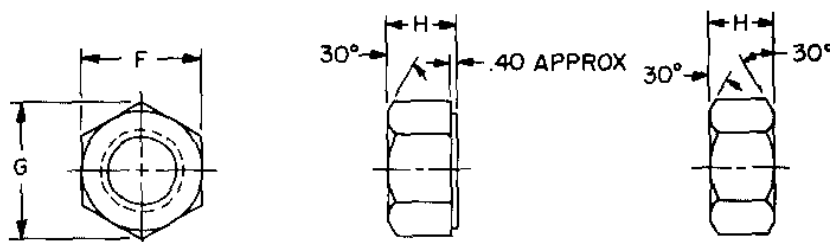
TABLE II

PART NUMBER			PART NUMBER			PART NUMBER		
CANCELLED MS35690	CANCELLED MS51967	NEW MS51967	CANCELLED MS35690	CANCELLED MS51967	NEW MS51967	CANCELLED MS35690	CANCELLED MS51967	NEW MS51967
DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
402	1	2	1202	22	23	2802	43	44
403		2	1203		23	2803		44
405		2	1205		23	2805		44
406		2	1206		23	2806		44
408		3	1208		24	2808		45
409		3	1209		24	2809		45
502	4	5	1402	25	26	3202	46	47
503		5	1403		26	3203		47
505		5	1405		26	3205		47
506		5	1406		26	3206		47
508		6	1408		27	3208		48
509		6	1409		27	3209		48
602	7	8	1602	28	29	3602	49	50
603		8	1603		29	3603		50
605		8	1605		29	3605		50
606		8	1606		29	3606		50
608		9	1608		30	3608		51
609		9	1609		30	3609		51
702	10	11	1802	31	32	4002	52	53
703		11	1803		32	4003		53
705		11	1805		32	4005		53
706		11	1806		32	4006		53
708		12	1808		33	4008		54
709		12	1809		33	4009		54
802	13	14	2002	34	35	4402	55	56
803		14	2003		35	4403		56
805		14	2005		35	4405		56
806		14	2006		35	4406		56
808		15	2008		36	4408		57
809		15	2009		36	4409		57
902	16	17	2202	37	38	4802	58	59
903		17	2203		38	4803		59
905		17	2205		38	4805		59
906		17	2206		38	4806		59
908		18	2208		39	4808		60
909		18	2209		39	4809		60
1002	19	20	2402	40	41			
1003		20	2403		41			
1005		20	2405		41			
1006		20	2406		41			
1008		21	2408		42			
1009		21	2409		42			

NOTE: For material, protective coating, and other pertinent data, see sheet 1.

P.A.	WC	TITLE	MILITARY STANDARD
Other Cust	82	NUT, PLAIN, HEXAGON — CARBON STEEL, CADMIUM PLATED, UNC-2B (IN./MM.)	MS51967
PROCUREMENT SPECIFICATION FF-N-836	SUPERSEDES:	MS35690 in part and BUNX1 in part	SHEET 2 OF

FED. SUP CLASS
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ACCEPTABLE DESIGNS

TABLE III
METRIC TRANSLATION OF TABLE I

NOMINAL SIZE	INCH MM	1/4 6.350	5/16 7.938	3/8 9.525	7/16 11.112	1/2 12.700	9/16 14.288	5/8 15.875	3/4 19.050	7/8 22.225	1 25.400
THREADS PER 25.4 MM		20	18	16	14	13	12	11	10	9	8
F WIDTH ACROSS FLATS	NOM	11.112	12.700	14.288	17.462	19.050	22.225	23.812	28.575	33.338	38.100
	MAX	11.112	12.700	14.288	17.462	19.050	22.225	23.812	28.575	33.338	38.100
	MIN	10.871	12.421	13.995	17.145	18.694	21.869	23.419	27.635	32.233	36.830
G WIDTH ACROSS CORNERS	MAX	12.827	14.656	16.510	20.168	21.996	25.654	27.508	32.995	38.506	43.993
	MIN	12.395	14.148	15.951	19.507	21.336	24.943	26.695	31.496	36.754	41.986
H THICKNESS	NOM	5.556	6.747	8.334	9.525	11.112	12.303	13.891	16.272	19.050	21.828
	MAX	5.740	6.934	8.560	9.779	11.379	12.598	14.199	16.891	19.710	22.530
	MIN	5.385	6.553	8.128	9.271	10.846	12.014	13.589	15.672	18.390	21.107

MATERIAL

DASH NUMBER

GRADE B
GRADE C

2
3

5
6

8
9

11
12

14
15

17
18

20
21

23
24

26
27

29
30

NOMINAL SIZE

INCH
MM

1-1/8
28.575

1-1/4
31.750

1-3/8
34.925

1-1/2
38.100

1-3/4
44.450

2
50.800

2-1/4
57.150

2-1/2
63.500

2-3/4
69.850

3
76.200

THREADS PER 25.4 MM

7

7

6

6

5

4-1/2

4-1/2

4

4

4

F WIDTH ACROSS FLATS

NOM
MAX
MIN

42.862
42.862
41.427

47.625
47.625
46.025

52.388
52.388
50.648

57.150
57.150
55.245

66.675
66.675
64.465

76.200
76.200
73.660

85.725
85.725
82.855

95.250
95.250
92.075

104.775
104.775
101.295

114.300
114.300
110.490

G WIDTH ACROSS CORNERS

MAX
MIN

49.505
47.219

54.991
52.476

60.503
57.734

65.989
62.992

76.987
73.482

87.986
83.972

98.984
94.463

109.982
104.978

120.980
115.468

131.978
125.959

H THICKNESS

NOM
MAX
MIN

24.606
25.375
23.851

26.988
27.788
26.162

29.767
30.632
28.905

32.538
33.452
31.623

38.100
39.116
37.084

43.662
44.780
42.545

48.819
50.038
47.600

54.370
55.702
53.061

59.919
61.341
58.496

65.482
67.005
63.957

MATERIAL

DASH NUMBER

GRADE B
GRADE C

32
33

35
36

38
39

41
42

44
45

47
48

50
51

53
54

56
57

59
60

NOTE:

All dimensions are in millimeters (MM), unless otherwise specified.

(D) SHEET 3 ADDED

This military standard 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 20 JAN 1964 REVISED (D) FOR CHANGES SEE SHEET 3.

P.A. WC Other Cont 82	TITLE NUT, PLAIN, HEXAGON - CARBON STEEL, CADMIUM PLATED, UNC-2B (IN./MM)	MILITARY STANDARD MS 51967
PROCUREMENT SPECIFICATION FF-N-836	SUPERSEDES: MS35690 in part and BUNX1 in part.	SHEET 3 OF