

INCH-POUND

MS51971D  
19 SEPTEMBER 2011  
SUPERSEDING  
MS51971C  
11 JULY 2007

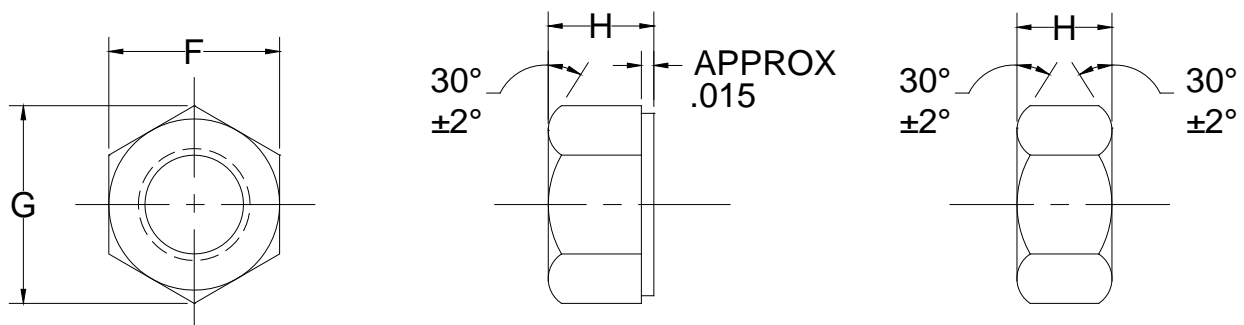
## MILITARY SPECIFICATION SHEET

NUT, PLAIN, HEXAGON-STEEL, CORROSION RESISTING, 300 SERIES,  
PASSIVATED, UNC-2B

Reactivated after 11 JULY 2007 and may be used for new and existing  
designs and acquisitions.

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and FF-N-836.



## ACCEPTABLE DESIGNS

FIGURE 1. NUT, PLAIN, HEXAGON

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TABLE I. Dash numbers and dimensions

NOMINAL SIZE OR BASIC MAJOR DIAMETER OF THREAD			1/4 .2500	5/16 .3125	3/8 .3750	7/16 .4375	1/2 .5000	9/16 .5625	5/8 .6250	3/4 .7500	7/8 .8750	1 1.0000
THREADS PER INCH			20	18	16	14	13	12	11	10	9	8
F	WIDTH	NOM.	7/16	1/2	9/16	11/16	3/4	7/8	15/16	1-1/8	1-5/16	1-1/2
	ACROSS FLATS	MAX. MIN.	.4375 .4280	.5000 .4890	.5625 .5510	.6875 .6750	.7500 .7360	.8750 .8610	.9375 .9220	1.1250 1.0880	1.3125 1.2690	1.5000 1.4500
G	WIDTH	NOM.										
	ACROSS CORNERS	MAX. MIN.	.5050 .4880	.5770 .5570	.6500 .6280	.7940 .7680	.8660 .8400	1.0100 .9820	1.0830 1.0510	1.2990 1.2400	1.5160 1.4470	1.7320 1.6530
H	THICKNESS	NOM.	7/32	17/64	21/64	3/8	7/16	31/64	35/64	41/64	3/4	55/64
		MAX. MIN.	.2260 .2120	.2730 .2580	.3370 .3200	.3850 .3650	.4480 .4270	.4960 .4730	.5590 .5350	.6650 .6170	.7760 .7240	.8870 .8310
MATERIAL			DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
STEEL, CORROSION RESISTING			1	2	3	4	5	6	7	8	9	10
NOMINAL SIZE OR BASIC MAJOR DIAMETER OF THREAD			1-1/8 1.1250	1-1/4 1.2500	1-3/8 1.3750	1-1/2 1.5000	1-3/4 1.7500	2 2.0000	2-1/4 2.2500	2-1/2 2.5000	2-3/4 2.7500	3 3.0000
THREADS PER INCH			7	7	6	6	5	4-1/2	4-1/2	4	4	4
F	WIDTH	NOM.	1-11/16	1-7/8	2-1/16	2-1/4	2-5/8	3	3-3/8	3-3/4	4-1/8	4-1/2
	ACROSS FLATS	MAX. MIN.	1.6875 1.6310	1.8750 1.8120	2.0625 1.9940	2.2500 2.1750	2.6250 2.5380	3.0000 2.9000	3.3750 3.2620	3.7500 3.6250	4.1250 3.9880	4.5000 4.3500
G	WIDTH	NOM.										
	ACROSS CORNERS	MAX. MIN.	1.9490 1.8590	2.1650 2.0660	2.3820 2.2730	2.5980 2.4800	3.0310 2.8930	3.4040 3.3060	3.8970 3.7190	4.3300 4.1330	4.7630 4.5460	5.1960 4.9590
H	THICKNESS	NOM.	31/32	1-1/16	1-11/64	1-9/32	1-1/2	1-23/32	1-59/64	2-9/64	2-23/64	2-37/64
		MAX. MIN.	.9990 .9390	1.0940 1.0300	1.2060 1.1380	1.3170 1.2450	1.5400 1.4600	1.7630 1.6750	1.9700 1.8740	2.1930 2.0890	2.4150 2.3030	2.6380 2.5180
MATERIAL			DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
STEEL, CORROSION RESISTING			11	12	13	14	15	16	17	18	19	20

## Requirements:

1. Material: Steel, corrosion resisting, 300 series in accordance with FF-N-836.
2. Protective coating: Passivate in accordance with SAE-AMS 2700, Method 1, Class 4.
3. Magnetic permeability: These fasteners have a magnetic permeability of 2.0 maximum (air – 1.0) for a field strength of H = 200 Oersteds using a magnetic indicator in accordance with ASTM-A-342/A342M, Test Method 1.
4. Threads: Threads shall be in accordance with FED-STD-H28/2.
5. Part number: The MS part number consists of the MS number, plus the dash number.  
Example: MS51971-1

## Notes:

1. Unless otherwise specified, all dimensions in inches.
2. In the event of a conflict between the text of this standard and the references cited herein, the text of this

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standard shall take precedence.

3. Referenced government (or non-government) documents of the issue listed in that issue of the department of defense index of specifications and standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.
4. Do not use unassigned part numbers.
5. AMS are SAE publications.
7. Changes from previous issue: entire specification revised.

## INTERCHANGEABILITY TABLE

The following nuts covered by dash numbers given in MS35690 are cancelled after the date indicated on the cancellation document. Use the dash numbers given in the preceding sheet. 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. Interchangeability information regarding part numbers on the superseding drawing is also contained in this table.

TABLE II

Cancelled MS35690	Superseding MS51971	Cancelled MS35690	Superseding MS51971	Cancelled MS35690	Superseding MS51971
Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.
410	1	1210	8	2810	15
510	2	1410	9	3210	16
610	3	1610	10	3610	17
710	4	1810	11	4010	18
810	5	2010	12	4410	19
910	6	2210	13	4810	20
1010	7	2410	14		

## INTERCHANGEABILITY TABLE

The following nuts covered by dash numbers given in MS16203 (Ships) are cancelled after the date indicated on the cancellation document. Use the dash numbers given in the preceding sheet. 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 III. Interchangeability information regarding part numbers on the superseding drawing is also contained in this table.

TABLE III

Cancelled MS16203 (Ships)	Superseding MS51971	Cancelled MS16203 (Ships)	Superseding MS51971	Cancelled MS16203 (Ships)	Superseding MS51971
Dash No.	Dash No.	Dash No.	Dash No.	Dash No.	Dash No.
-1	-1	-5	-5	-9	-10
-2	-2	-6	-7	-10	-11
-3	-3	-7	-8	-11	-12
-4	-4	-8	-9	-12	-14

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Custodians:  
Army - AR  
Air Force - 99

Preparing activity:  
DLA - IS

(Project 5310-2011-012)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.