



Standard Part

Hexagon Nuts – Inch, Fine and Coarse Threads, Grades 2, 5 and 8, Non-Preferred

STPE110

87366946

Rev AD

Page 1 of 5

1. SCOPE

The fasteners defined by this specification are non-preferred Grades 2, 5 and 8 Inch Hex Nuts with coarse (UNC) and fine (UNF) threads.

When a standard is referenced in a drawing or specification, it is understood that the reference is to the latest revision of the standard, unless stated otherwise.

2. PART DESCRIPTION

Typical part description for BOM's and CAD drawings entered by Standards.

NUT, 1/2-13 GR5 DOR
NUT, 1-1/4-20 GR8 ZND

For cross-reference listing of company part numbers, go to [CNH Catalogue](#).

3. RELATED DOCUMENTS

3.1 REFERENCE STANDARDS

CNH STPA020—Fastener Finishes and Material Specifications
CNH MAT0310—Zinc Plating
ANSI/ASME B1.1—Unified Inch Screw Threads
ASME B18.2.2—Square and Hex Nuts (Inch Series)
SAE J122—Surface Discontinuities on Nuts
SAE J995—Mechanical and Material Requirements for Steel Nuts

3.2 REPLACED STANDARDS

Case E-001—Hex Nuts General Specification
Case E-002—Hex Nuts G5 Coarse Threads ZND, Preferred
Case E-003—Hex Nuts G8 Coarse Threads PHC, Preferred
Case E-006—Hex Nuts G5 Coarse Threads Non-Preferred
Case E-007—Hex Nuts G8 Coarse Threads Non-Preferred
Case E-011—Hex Nuts G5 Fine Threads
Case E-012—Hex Nuts G8 Fine Threads
Case E-015—Hex Nuts Special Non-Preferred
NH FNHA-1-B-310.00—Hex Nuts G5 Coarse Threads ZND
NH FNHA-1-B-320.00—Hex Nuts G5 Coarse Threads PLN
NH FNHA-1-B-330.00—Hex Nuts G5 Fine Threads ZND

AUTHOR	APPROVED BY	ECO	PART NUMBER
A KHAN	11NOV24	A KHAN	11NOV24
		35502473	87366946

THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF CNH INDUSTRIAL N.V. AND/OR ITS SUBSIDIARIES OR DIVISIONS. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.



Standard Part

Hexagon Nuts – Inch, Fine and Coarse Threads, Grades 2, 5 and 8, Non-Preferred

STPE110

87366946

Rev AD

Page 2 of 5

4. REQUIREMENTS

4.1 MATERIAL

Material per CNH STPA020. Steel hex nuts, grades 2, 5 or 8 shall be marked according to SAE J995.

4.2 PREFERRED PARTS POLICY

Steel hex nuts, grade 2 are NOT recommended for new designs.

4.3 MECHANICAL DIMENSIONS

Hex Nut thread geometry shall conform to Unified Series 2B per ANSI/ASME B1.1. The dimensions shall meet the requirements of ASME B18.2.2 (see Tables 1 and 2).

4.4 SURFACE DISCONTINUITIES

All products under this specification shall be free from burrs, seams, laps, loose scale, irregular surfaces and any defects affecting their serviceability per SAE J122 (Surface Discontinuities on Nuts).



Standard Part

Hexagon Nuts – Inch, Fine and Coarse Threads, Grades 2, 5 and 8, Non-Preferred

STPE110

87366946

Rev AD

Page 3 of 5

Table 1

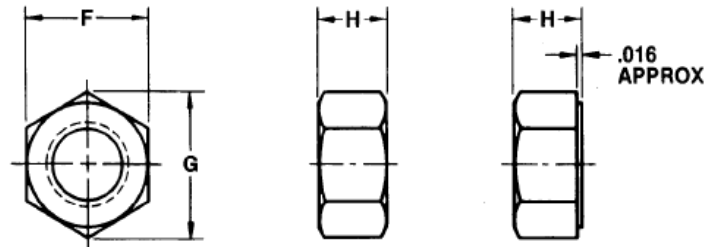


Table 1. General Dimensions

Nominal or Basic Major Diameter of Thread	F		G		H		
	Width Across Flats		Width Across Corners		Thickness of Hex Nuts		
	Max	Min	Max	Min	Max	Min	
1/4	0.25	0.438	0.428	0.505	0.488	0.226	0.212
5/16	0.3125	0.5	0.489	0.577	0.557	0.273	0.258
3/8	0.375	0.562	0.551	0.65	0.628	0.337	0.32
7/16	0.4375	0.688	0.675	0.794	0.768	0.385	0.365
1/2	0.5	0.75	0.736	0.866	0.84	0.448	0.427
9/16	0.5625	0.875	0.861	1.01	0.982	0.496	0.473
5/8	0.625	0.938	0.922	1.083	1.051	0.559	0.535
3/4	0.75	1.125	1.088	1.299	1.24	0.665	0.617
7/8	0.875	1.312	1.269	1.516	1.447	0.776	0.724
1	1	1.5	1.45	1.732	1.653	0.887	0.831
1 1/8	1.125	1.688	1.631	1.949	1.859	0.999	0.939
1 1/4	1.25	1.875	1.812	2.165	2.066	1.094	1.03
1 3/8	1.375	2.062	1.994	2.382	2.273	1.206	1.138
1 1/2	1.5	2.25	2.175	2.598	2.48	1.317	1.245
2	2	3.0	2.90	3.464	3.306	1.763	1.675



Standard Part

Hexagon Nuts – Inch, Fine and Coarse Threads, Grades 2, 5 and 8, Non-Preferred

STPE110

87366946

Rev AD

Page 4 of 5

Table 2. Inch Fine and Coarse Thread, Grades 2, 5 and 8, Non-Preferred

Nominal Diameter	Threads per Inch	Grade	Nut Finish				
			DAC	DOR	PHC	PLN	ZND
1/4	20	2					1369
1/4	20	5		87343663		86517505	7770
1/4	28	2				84935	84949
1/4	28	5		87343674			86509309
1/4	28	8					#70911040
5/16	18	2				87506446	
5/16	18	5	90479204	87343664	9417954	86518709	9635082
5/16	24	2					87306
5/16	24	5					86629539
3/8	16	2				84331293	
3/8	16	5	90338750	87343665		88954	9628503
3/8	16	8			87690485		280136
3/8	24	2					84950
3/8	24	5		87343675			86509310
3/8 (LH)	24	5					87030547
7/16	14	2					84951
7/16	14	5					280717
7/16	14	8					9418646
7/16	20	5					50456
7/16	20	8					86527180
1/2	13	2				1544	1539
1/2	13	5		87343666		9849622	280431
1/2	13	SST				92645493	
1/2	13	8	90338751	87343672	87632742	87315738	9803187
1/2	20	2				84938	80084952
1/2 (LH)	20	2				88058	
1/2	20	5					280963
1/2	20	8					86539262
9/16	12	5					84479759
9/16	18	8					86539263
5/8	11	5		87343669	9419145	9849623	280374
5/8	11	8			87672195	86625067	86625068
5/8	18	2					87262
5/8	18	5	90338752			86528832	408
5/8	18	8		87343677			86643107
3/4	10	5		87343671		9849624	280954

(LH) – Left Hand Thread

- Thread Geometry shall conform to Unified Series 3B



Standard Part

Hexagon Nuts – Inch, Fine and Coarse Threads, Grades 2, 5 and 8, Non-Preferred

STPE110

87366946

Rev AD

Page 5 of 5

Table 2. Inch Fine and Coarse Thread, Grades 2, 5 and 8, Non-Preferred (Continued)

Nominal Diameter	Threads per Inch	Grade	Nut Finish				
			DAC	DOR	PHC	PLN	ZND
3/4	10	8	90415543	87310317	87672194		86518194
3/4	16	2				84940	80087312
3/4	16	5				87315739	80001689
3/4	16	8				87779079	9823966
7/8	9	5				9849631	9849647
7/8	9	8					280881
7/8	14	5				87319822	9602205
1	8	5	90338753			9849629	9849633
1	8	8	51557996	87343673			86511609
1	8	SST (18-8)				90392731	
1	12	5			87682411		86509311
1	14	5					84953
1	14	8					84139328
1-1/8	7	5				87037408	86624025
1-1/8 (LH)	7	5				87037409	
1-1/8	12	5					9626577
1-1/4	7	5				3675	9849649
1-1/4	7	8					51522260
1-1/4	12	5				2737	280490
1-3/8	6	5					87357008
1-1/2	6	5				84146891	3541
1-1/2 (LH)	6	5					87597952
1-1/2	6	8			86637798		
1-1/2	12	5				84150869	
2	4-1/2	5					73386496

(LH) – Left Hand Thread