

date and reissue the Guide every few months. Eventually it will list the markings of about 1000 fastener supplying companies from around the world. Copies of the Guide are available for purchase from ASME, United Engineering Center, 345 E. 47th Street, New York, N.Y. 10017.

The Industrial Fasteners Institute will continue to maintain a listing of all North American fastener manufacturers and suppliers who have voluntarily submitted their respective markings.

Identification Marking Requirements.

It would be impractical to include in this book either the FASTENER TECHNOLOGY grade marking list or the ASME Guide on manufacturer markings. However, Table 1 provides reference guidance to the marking requirements specified in the ASTM and SAE standards included in this book. Additionally, Tables 2 and 3 detail the grade markings of the more popular carbon steel strength grades for externally and internally threaded fasteners, respectively.

Table 3 Grade Identification Markings for Popular Grades of Carbon Steel Nuts














Grade Identification Marking	Specification	Material	Nominal Size In.	Proof Load Stress ksi	Hardness Rockwell		See Note
					Min	Max	
 NO MARK	ASTM A563 -- Grade 0	Carbon Steel	¼ thru 1½	69	B55	C32	3, 4
	ASTM A563 -- Grade A	Carbon Steel	¼ thru 1½	90	B68	C32	3, 4
	ASTM A563 -- Grade B	Carbon Steel	¼ thru 1	120	B69	C32	3, 4
			over 1 thru 1½	105			
	ASTM A563 -- Grade C	Carbon Steel May be Quenched and Tempered	¼ thru 4	144	B78	C38	5
	ASTM A563 -- Grade C3	Atmospheric Corrosion Resistant Steel May be Quenched and Tempered	¼ thru 4	144	B78	C38	5, 9
	ASTM A563 -- Grade D	Carbon Steel, May be Quenched and Tempered	¼ thru 4	150	B84	C38	6
	ASTM A563 -- Grade DH	Carbon Steel, Quenched and Tempered	¼ thru 4	175	C24	C38	6
	ASTM A563 -- Grade DH3	Atmospheric Corrosion Resistant Steel, Quenched and Tempered	¼ thru 4	175	C24	C38	5, 9
	ASTM A194 -- Grade 1	Carbon Steel	¼ thru 4	130	B70	—	7

Table 3 continued on page M-76.

FASTENER IDENTIFICATION MARKING

Table 3 (continued)

Grade Identification Marking	Specification	Material	Nominal Size In.	Proof Load Stress ksi	Hardness Rockwell		See Note
					Min	Max	
	ASTM A194 — Grade 2	Medium Carbon Steel	¼ thru 4	150	159	352	7, 8
	ASTM A194 — Grade 2H	Medium Carbon Steel, Quenched and Tempered	¼ thru 4	175	C24	C38	7
	ASTM A194 — Grade 2HM	Medium Carbon Steel, Quenched and Tempered	¼ thru 4	150	159	237	7, 8
	ASTM A194 — Grade 4	Medium Carbon Alloy Steel, Quenched and Tempered	¼ thru 4	175	C24	C38	7
	ASTM A194 — Grade 7	Medium Carbon Alloy Steel, Quenched and Tempered	¼ thru 4	175	C24	C38	7
	ASTM A194 — Grade 7M	Medium Carbon Alloy Steel, Quenched and Tempered	¼ thru 4	150	159	237	7
See Note 1, 2	10						

NOTES:

- In addition to the indicated grade marking, all grades, except A563 grades O, A and B, must be marked for manufacturer identification.
- The markings shown for all grades of A194 nuts are for cold formed and hot forged nuts. When nuts are machined from bar stock the nut must be additionally marked with the letter 'B'.
- Nuts are not required to be marked unless specified by the purchaser. When marked, the identification marking shall be the grade letter O, A or B.
- Properties shown are those of nonplated or noncoated coarse thread hex nuts. For properties of other nut styles, nuts with fine threads, and plated or coated nuts, refer to Table 3, page B-112.
- Properties shown are those of coarse thread heavy hex nuts.
- Properties shown are those of coarse thread heavy hex nuts. For properties of other nut styles and nuts with fine threads, refer to Table 3, page B-112.
- Properties shown are those of coarse and 8-pitch thread heavy hex nuts. For properties of coarse and 8-pitch hex nuts, refer to Table 3, page B-120.
- Hardnesses are Brinell Hardness Numbers.
- The nut manufacturer, at his option, may add other markings to indicate the use of atmospheric corrosion resistant steel.
- Specifications —
 ASTM A563 — Carbon and Alloy Steel Nuts, page B-108
 ASTM A194/A194M — Carbon and Alloy Steel Nuts for Bolts for High Pressure and High Temperature Service, page B-115