
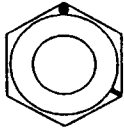
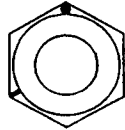

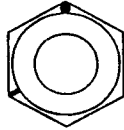

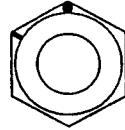





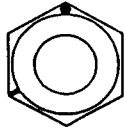
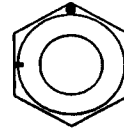
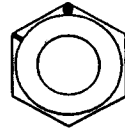


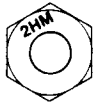
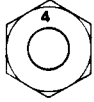
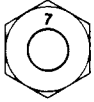


IDENTIFICATION MARKS FOR HEX AND HEAVY HEX NUTS

| STANDARD | MARKINGS | | | DESCRIPTION |
|--|--|--|---|---|
| | GRADE 2 | GRADE 5 | GRADE 8 | |
| IFI Fastener Standards, 6th Ed. | Nuts milled from bar stock:  |  |  Nuts milled from bar stock:  | SAE Grade 2 nuts need not be marked. SAE Grade 5 and 8 nuts are required to be grade identified, using the "clock" marking system. A dot is located at one corner on the top surface to indicate 12 o'clock, and a radial line is placed at the 5 and 8 o'clock position to identify Grades 5 and 8 respectively. Nuts which are milled from the bar on screw machines are normally grade identified with small notches cut into the corners of the hex, one for Grade 2, two for Grade 8. |
| SAE J995 | No Marking Required |  or  |  or  | Grade 2 nuts are not required to be marked for grade identification. Grade 5 nuts shall be marked for grade identification with a dot and a radial or circumferential line at 120° counterclockwise from the dot. Grade 8 nuts shall be marked for grade identification with a dot and a radial or circumferential line at 60° counterclockwise from the dot. Nuts fabricated by cutting from hex bar stock shall be grade marked with notches at the hexagon corners, one notch at each corner for Grade 5, two notches at each corner for Grade 8. |
| ASTM A563 | No Marking Required for Grades O, A, and B | Grades C, C3  | Grades D, DH, DH3  | Grades O, A, and B are not required to be marked unless specified. When specified, the mark shall be the grade letter symbol on one face of the nut. Grade C nuts shall be marked on one face with three circumferential marks 120° apart. Grade C3 nuts shall be marked on one face with three circumferential marks 120° apart and the numeral 3. Grades D, DH, and DH3 shall be marked with the grade letter symbol on one face. |
| MIL-S-1222H | No Marking Required |  |  | Grade 2 nuts are not required to be marked for grade identification. Grade 5 nuts shall be marked with three circumferential dashes equally spaced 120° apart. Grade 8 nuts shall be marked with six circumferential dashes equally spaced 60° apart. |
| ISO 898/2 | Class 8  | Class 9  | Class 10  | Nuts of thread diameters greater than or equal to 5mm and property class equal to or higher than class 8 shall be marked on one surface with the class identification number. Alternately these may be marked with the "clock-face" system which consists of a dot at one corner to indicate 12 o'clock and a radial line placed at the appropriate clock position. Nuts marked with one notch at the hexagon corners as shown below indicates a left-hand thread.  |

| Grade Identification Marking | Specification | Material | Nominal Size in. | Proof Load Stress ksi | Hardness Rockwell | |
|---|-----------------------|--|------------------|-----------------------|-------------------|-----|
| | | | | | Min | Max |
|  | ASTM A194 — Grade 2H | Medium Carbon Steel, Quenched and Tempered | ¼ thru 4 | 175 | C24 | C38 |
|  | ASTM A194 — Grade 2HM | Medium Carbon Steel, Quenched and Tempered | ¼ thru 4 | 150 | 159 | 237 |
|  | ASTM A194 — Grade 4 | Medium Carbon Alloy Steel, Quenched and Tempered | ¼ thru 4 | 175 | C24 | C38 |
|  | ASTM A194 — Grade 7 | Medium Carbon Alloy Steel, Quenched and Tempered | ¼ thru 4 | 175 | C24 | C38 |