



THE NUT PLACE

6605 N. Gessner Houston, TX 77040-4015

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Common Bolt Head ID Markings



Grade 2 ASTM-A307 SAE-J429
(Call us for specifications. 713-462-3147)



Grade 5 ASTM-A449 SAE-J429

Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
1/4"-1"	R C 25-34	85,000	92,000	120,000



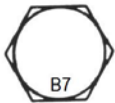
Grade 8 ASTM-A354 SAE-J429

Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
1/4"-1 1/2"	R C 33-39	120,000	130,000	150,000



ASTM-A325

Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
1/2"-1"	R C 25-34	85,000	92,000	120,000



B7 ASTM-A193

Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
1/4"-2 1/2"	R C 35	-	105,000	125,000



304 Stainless (18-8) (Chromium-Nickel)

Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
1/4"-5/8"	-	-	40,000 min 80,000-90,000 typ.	100,000-125,000



316 Stainless

(Call us for specifications. 713-462-3147)

Proof Load: An axial tensile load which the product must withstand without evidence of any permanent set.

Yield Strength: The maximum load at which a material exhibits a specific permanent deformation

Tensile Strength: The maximum load in tension (pulling apart) which a material can withstand before breaking or fracturing.

Note: Specifications are minimum values.



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Common Bolt Head ID Markings for Metric

Class 8.8 ASTM-A307 SAE-J429



Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
16mm and under	-	85,000	92,000	120,000

Class 10.9 ASTM-A449 SAE-J429



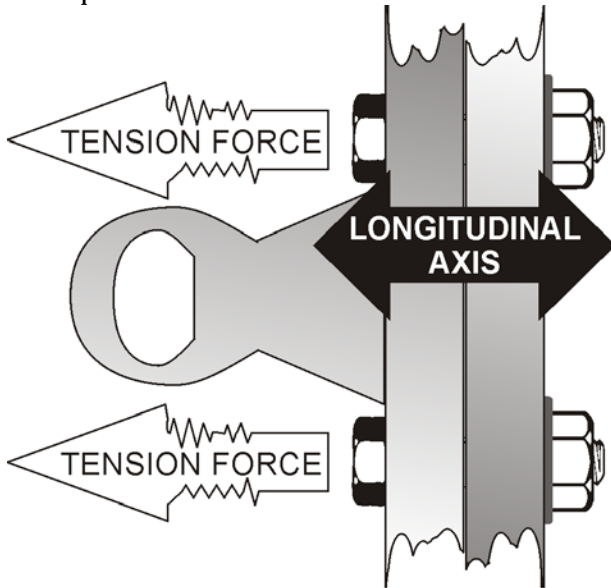
Size	Hardness Rockwell	Proof Load	Yield Strength	Tensile Strength min. (psi)
5mm to 100	-	120,000	130,000	150,000

Proof Load: An axial tensile load which the product must withstand without evidence of any permanent set.

Yield Strength: The maximum load at which a material exhibits a specific permanent deformation

Tensile Strength: The maximum load in tension (pulling apart) which a material can withstand before breaking or fracturing.

Note: Specifications are minimum values.



Tensile strength is the measurement of a bolts ability to withstand the tension force that is exerted on the longitudinal axis of the bolt.



Shear strength is the force acting perpendicular to the longitudinal axis of the bolt. It is not a published value. The general rule of thumb is that shear strength is 60% of the minimum tensile strength.