










IDENTIFICATION MARKINGS ON BOLT HEADS

**ASTM and SAE Standards
Specifications, Proof Loads, Tensile Strengths**

Grade Marking	Specification	Material	Bolt and Screw Size In	Proof Load psi	Tensile Strength min psi
	SAE-J429 Grade 1	Low or Medium Carbon Steel	1/4 thru 1 1/2	33,000	60,000
	ASTM-A307		1/4 thru 4		60,000
	SAE-J429 Grade 2	Low or Medium Carbon Steel	1/4 thru 1/4 Over 3/4 thru 1 1/2	55,000 33,000	74,000 60,000
	SAE-J429 Grade 5	Medium Carbon Steel Quenched and Tempered	1/4 thru 1 Over 1 thru 1 1/4	85,000 74,000	120,000 105,000
	ASTM-A449		1/4 thru 1 Over 1 thru 1 1/2	85,000 74,000	120,000 105,000
			Over 1 1/2 thru 3	55,000	90,000
	*ASTM-A325 Type 1	Medium Carbon Steel Quenched and Tempered	1/2 thru 1 1/2 Over 1 thru 1 1/2	85,000 74,000	120,000 105,000
	*ASTM-A32b Type 2	Low Carbon Martensite Steel Quenched and Tempered	1/2 thru 1	85,000	120,000
	ASTM-A325 Type 3	Weather Resistant Steel Quenched and Tempered	1 1/8 thru 1 1/2	74,000	105,000
			1/2 thru 1	85,000	120,000
	ASTM-A354 Grade BB	Low Alloy Steel Quenched and Tempered	1/4 thru 2 1/2	80,000	105,000
			Over 2 1/4 thru 4	75,000	100,000
	ASTM-A354 Grade BC	Low Alloy Steel Quenched and Tempered	1/4 thru 4	105,000	125,000
			Over 2 1/2 thru 4	95,000	115,000
	SAE-J429 GRADE B	Medium Carbon Alloy Steel Quenched and Tempered	1/4 thru 1 1/4	120,000	150,000
	ASTM-A354 Grade BD	Low Alloy Steel Quenched and Tempered			
	ASTM-A490	Alloy Steel Quenched and Tempered	1/2 thru 1 1/2	120,000	150,000

* Radial Lines on Type 1 bolts are optional to manufacturer. On Type 2 bolts radial lines 60 degrees apart are required.
Bolt head markings include manufacturers identity symbols.