



Suggested Torque Values

SAE J429 Grade 2

Bolt Size	TPI	Proof Load (lbs)	Clamp Load (lbs)	Tightening Torque (ft lbs)		
				Lubricated	Zinc	Plain
1/4	20	1,150	862.5	2.7	3.1	3.6
5/16	18	1,880	1,410	5.5	6.2	7.3
3/8	16	2,790	2,093	9.8	11.1	13.1
7/16	14	3,825	2,869	15.7	17.8	20.9
1/2	13	5,100	3,825	23.9	27.1	31.9
9/16	12	6,550	4,913	34.5	39.1	46.1
5/8	11	8,130	6,098	47.6	54	63.5
3/4	10	12,025	9,019	84.6	95.8	112.7
7/8	9	15,200	11,400	124.7	141.3	166.3
1	8	20,000	15,000	187.5	212.5	250.0
1 1/8	7	25,200	18,900	265.8	301.2	354.4
1 1/4	7	32,000	24,000	375	425	500
1 3/8	6	38,000	28,500	489.8	555.2	653.1
1 1/2	6	46,400	34,800	652.5	740	870
1 3/4	5	68,400	51,300	1122.2	1,272	1,496
2	4 1/2	90,000	67,500	1,688	1,913	2,250
2 1/4	4 1/2	117,000	87,750	2,468	2,797	3,291
2 1/2	4	144,000	108,000	3,375	3,825	4,500
2 3/4	4	177,500	133,125	4,576	5,186	6,102
3	4	215,000	161,250	6,047	6,853	8,063
3 1/4	4	256,000	192,000	7,800	8,840	10,400
3 1/2	4	299,900	224,925	9,840	11,153	13,121
3 3/4	4	347,500	260,625	12,217	13,846	16,289
4	4	398,000	298,500	14,925	16,915	19,900