



Data for Use with Alloy Steel Stud Bolts

Load in Pounds on Stud Bolts when Torque Loads are Applied

Nominal Diameter of Bolt (Inches)	Number of Threads (Per Inch)	Diameter at Root of Thread (Inches)	Area at Root of Thread (Square Inch)	Stress					
				30,000 PSI		45,000 PSI		60,000 PSI	
				Torque Ft. Lbs.	Compression, Lbs.	Torque Ft. Lbs.	Compression, Lbs.	Torque Ft. Lbs.	Compression, Lbs.
1/4	20	185	27	4	810	6	1215	8	1620
5/16	18	240	45	8	1350	12	2025	16	2700
3/8	16	294	68	12	2040	18	3060	24	4080
7/16	14	345	93	20	2790	30	4185	40	5580
1/2	13	400	126	30	3780	45	5670	60	75600
9/16	12	454	162	45	4860	68	7290	90	9720
5/8	11	507	202	60	6060	90	9090	120	12120
3/4	10	620	302	100	9060	150	13590	200	18120
7/8	9	731	419	160	12570	240	18855	320	25140
1	8	838	551	245	16530	368	24795	490	33060
1-1/8	8	963	728	355	21840	533	32760	710	43680
1-1/4	8	1088	929	500	27870	750	41805	1000	55740
1-3/8	8	1213	1155	680	34650	1020	51975	1360	69300
1-1/2	8	1338	1405	800	42150	1200	63225	1600	84300
1-5/8	8	1463	1680	1100	50400	1650	75600	2200	100800
1-3/4	8	1588	1980	1500	59400	2250	89100	3000	118800
1-7/8	8	1713	2304	2000	69120	3000	103680	4000	138240
2	8	1838	2652	2200	79560	3300	119340	4400	159120
2-1/4	8	2088	3423	3180	102690	4770	154035	6360	205380
2-1/2	8	2338	4292	4400	128760	6600	193140	8800	257520
2-3/4	8	2588	5259	5920	157770	8880	236655	11840	325540
3	8	2838	5259	7720	189720	11580	284580	15440	379440