

**TORQUE VALUES FOR SPECIFIED LUBRICANTS ( Ft Lbs )**

Bolt Stud Diameter		Minimum Yield Strength	Bolt Tension	Molybdenum disulfide Based	Molybdenum Lead Oxide & Graphite	Copper Graphite	Nickel & Graphite Base	API SA2	Light Machine Oil	No Lub Dry Steel
Metric	Imp	P.S.I.	Lbs Load	u = 0.06	u = 0.085	u = 0.1	u = 0.110	u = 0.117	u = 0.150	u = 0.400
19.1	3/4"	106000	17754	104	137	157	171	180	224	559
22.2	7/8"	106000	24495	165	218	250	272	287	358	893
25.4	1"	106000	32129	245	325	373	406	427	533	1332
28.6	1-1/8"	106000	41873	351	468	538	585	618	772	1991
31.8	1-1/4"	106000	52906	483	647	746	811	858	1075	2720
34.9	1-3/8"	106000	65226	644	867	1000	1090	1152	1447	3678
38.1	1-1/2"	106000	78835	837	1131	1307	1425	1507	1896	4837
41.3	1-5/8"	106000	93733	1071	1453	1682	1834	1941	2445	6260
44.5	1-3/4"	106000	109920	1338	1820	2109	2301	2436	3072	7888
47.6	1-7/8"	106000	127395	1646	2244	2602	2841	3009	3798	9775
50.8	2"	106000	146158	1997	2729	3167	3460	3665	4630	11924
54.0	2-1/8"	106000	166210	2395	3279	3809	4162	4409	5575	14408
57.2	2-1/4"	106000	187551	2843	3898	4531	4953	5248	6641	17191
60.3	2-3/8"	106000	210180	3343	4590	5339	5838	6187	7834	20310
63.5	2-1/2"	106000	234098	3898	5360	6238	6823	7232	9162	23786
69.9	2-3/4"	95000	258580	4691	6467	7533	8244	8741	11085	28846
76.2	3"	95000	310020	6087	8410	9803	10732	11382	14447	37670
82.6	3-1/4"	95000	366124	7735	10705	12488	13676	14507	18428	45129
88.9	3-1/2"	95000	426891	9656	13385	15622	17113	18157	23079	60365
95.3	3-3/4"	95000	492321	11871	16477	19241	21064	22373	28453	74516
101.6	4"	95000	562415	14401	20012	23379	25624	27195	34603	90720
108.0	4-1/4"	75000	503030	13621	18963	22162	24296	25788	32826	86146
114.3	4-1/2"	75000	665731	16174	22523	26332	28871	30649	39029	102513
120.7	4-3/4"	75000	632112	90015	26502	30994	33988	36084	45967	120831
127.0	5"	75000	702176	22171	30924	36176	39677	42128	53681	141210
133.4	5-1/4"	75000	775920	25657	35812	41906	45967	48810	62214	163761
139.7	5-1/2"	75000	853347	29491	41190	48209	52889	56164	71606	188592
146.1	5-3/4"	75000	934455	33689	47081	55116	60472	64222	81899	215815
152.4	6"	75000	1019244	38267	53508	62652	68748	73015	93133	245538

Chart of torque values in English units for ASTM A193 / B7 with stud stress equal to 50 % of minimum yield strength.

Source: Bickford, " An introduction to the design and behavior of bolted Joints. Marcel Dekker, 1981:

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