

INCH BOLT TORQUE TABLE

SAE J429 and ASME 574

Steel Grade	SAE 5		SAE 8		Socket Head Cap Screws	
Nom Dia-Pitch	Torque in Pound Foot or (Pound Inch)					
	Dry	Lubed	Dry	Lubed	Dry	Lubed
1/4-20	(101)	(76)	(143)	(107)	(168)	(120)
1/4-28	(116)	(87)	(147)	(123)	(192)	(144)
5/16-18	(209)	(157)	(295)	(221)	(348)	(264)
5/16-24	(231)	(174)	(327)	(245)	(384)	(288)
3/8-16	(372)	(276)	44	33	51	38
3/8-24	(420)	(312)	49	37	58	43
7/16-14	49	37	70	52	81	61
7/16-20	55	41	78	58	91	68
1/2-13	75	57	106	80	124	93
1/2-20	85	64	120	90	140	105
5/8-11	150	113	212	159	238	179
5/8-18	170	127	240	180	27	202
3/4-10	267	200	376	282	423	317
3/4-16	297	223	420	315	472	354
7/8-9	429	322	606	455	682	511
7/8-14	474	355	69	502	752	564
1-8	644	483	909	681	1022	767
1-12	722	542	1020	765	1147	860

Lubed means cleaned, dry bolts, lubricated with standard medium viscosity machine oil.
Lubricate all contact areas of the bolts and washers. Lubricating the bolts is the suggested method.

METRIC BOLT TORQUE TABLE

ISO 898

Property Class	8.8		10.9		12.9 Socket Head Cap Screw	
Nom Size x Pitch	Torque in Newton Meter - Nm					
	Dry	Lubed	Dry	Lubed	Dry	Lubed
M5 x 0.80	6.1	4.6	8.8	6.7	10.3	7.7
M6 x 1.00	10.4	7.8	15	11.2	17.6	13.1
M7 x 1.00	17.6	13.1	25.1	18.9	29.4	22
M8 x 1.25	25.4	19.1	37.6	27.3	42.6	32.1
M10 x 1.50	50	38	72	54	84	64
M12 x 1.75	88	66	126	94	146	110
M14 x 2.00	141	106	201	150	235	176
M16 x 2.00	218	164	312	233	365	274
M18 x 2.50	301	226	431	323	504	378
M20 x 2.50	426	319	609	457	712	534
M22 x 2.50	580	435	831	624	971	728
M24 x 3.00	736	552	1052	789	1231	923
M27 x 3.00	1079	809	1544	1158	1805	1353
M30 x 3.50	1463	1097	2092	1570	2446	1834
M33 x 3.50	1990	1493	2849	2137	3328	2497
M36 x 4.00	2557	1918	3659	2744	4276	3208

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Lubricate all contact areas of the bolts and washers. Lubricating the bolts is the suggested method.



TORQUE CONVERSION FACTORS

TO CONVERT	INTO	MULTIPLY BY
Inch Pounds	Foot Pounds	0.0835
Inch Pounds	Newton Meters	0.1130
Inch Pounds	Kg Meters	0.0115
Inch Pounds	Kg Centimeters	1.1519
Foot Pounds	Inch Pounds	12.000
Foot Pounds	Newton Meters	1.3560
Foot Pounds	Kg Meters	0.1382
Foot Pounds	Kg Centimeters	13.8240
Newton Meters	Inch Pounds	8.8440
Newton Meters	Foot Pounds	0.7370
Newton Meters	Kg Meters	0.1020
Newton Meters	Kg Centimeters	10.2000
Kg Meters	Inch Pounds	86.8100
Kg Meters	Foot Pounds	7.2340
Kg Meters	Newton Meters	9.8040
Kg Centimeters	Inch Pounds	0.8681
Kg Centimeters	Foot Pounds	0.0723
Kg Centimeters	Newton Meters	0.0980

TORQUE CONVERSION - In. Lbs (Nm)

In. Lbs.	Nm	In. Lbs.	Nm	In. Lbs.	Nm	In. Lbs.	Nm	In. Lbs.	Nm
5	0.6	30	3.4	60	6.8	110	12.4	160	18.1
10	1.1	35	4.0	70	7.9	120	13.6	170	19.2
15	1.7	40	4.5	80	9.0	130	14.7	180	20.3
20	2.3	45	5.1	90	10.2	140	15.8	190	21.5
25	2.8	50	5.7	100	11.3	150	17.0	200	22.6

TORQUE CONVERSION - Ft. Lbs (Nm)

Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm
1	1.36	24	32.5	47	63.7	70	94.9	93	126.1	185	251.0
2	2.7	25	33.9	48	65.1	71	96.3	94	127.5	190	258.0
3	4.1	26	35.3	49	66.4	72	97.6	95	129.0	195	264.4
4	5.4	27	36.6	50	67.8	73	99.0	96	130.2	200	271.2
5	6.8	28	38.0	51	69.2	74	100.3	97	131.5	225	305.1
6	8.1	29	39.3	52	70.5	75	102.0	98	133.0	250	339.0
7	9.5	30	40.7	53	71.9	76	103.1	99	134.2	275	373.0
8	10.9	31	42.0	54	73.2	77	104.4	100	135.6	300	407.0
9	12.2	32	43.4	55	74.6	78	105.8	110	149.2	350	475.0
10	13.6	33	44.8	56	75.9	79	107.1	115	156.0	400	542.4
11	14.9	34	46.1	57	77.3	80	108.5	120	163.0		
12	16.3	35	47.5	58	78.7	81	110.0	125	170.0		
13	17.6	36	48.8	59	80.0	82	111.2	130	176.3		
14	19.0	37	50/2	60	81.4	83	112.6	135	183.1		
15	20.3	38	52.0	61	82.7	84	114.0	140	190.0		
16	21.7	39	52.9	62	84.1	85	115.3	145	197.0		
17	23.1	40	54.2	63	85.4	86	117.0	150	203.4		
18	24.4	41	55.6	64	86.8	87	118.0	155	210.2		
19	25.8	42	57.0	65	88.1	88	119.3	160	217.0		
20	27.1	43	58.3	66	90.0	89	121.0	165	224.0		
21	28.5	44	60.0	67	90.9	90	122.0	170	231.0		
22	29.8	45	61.0	68	92.2	91	123.4	175	237.3		
23	31.2	46	62.4	69	93.6	92	125.0	180	244.1		

