



## RECOMMENDED ASSEMBLY TORQUES

### SAE Grade 8 Bolts and Screws - UNC Thread

SAE Grade 8 Bolts and Screws - UNC Thread		Bolt Tension Corresponding to 65% of Proof Load	Recommended Assembly Torque
Diameter	Threads Per Inch (TPI)	lbf	lbft
1/4	20	2470	10
5/16	18	4090	21
3/8	16	6040	38
7/16	14	8320	61
1/2	13	11050	92
9/16	12	14170	133
5/8	11	17610	183
3/4	10	26060	326
7/8	9	36000	525
1	8	47200	787
1.1/8	7	59500	1116
1.1/4	7	75500	1573
1.3/8	6	90000	2063
1.1/2	6	109500	2738
1.3/4	5	148200	4323
2	4.5	195000	6500
2.1/4	4.5	253500	9506
2.1/2	4	312000	13000
2.3/4	4	384500	17623
3	4	465600	23280
3.1/4	4	553800	29998
3.1/2	4	649700	37899
3.3/4	4	753400	47088
4	4	864200	57613

To convert kN to lbf; Multiply Kn by 224.809  
 To convert Nm to lbft; Multiply Nm by 0.737562

#### Surface Condition Torque Adjustment Factors

Plain Steel, as supplied	x 1.0
Plain Steel, degreased	x 2.0
Zinc Plated, as supplied	x 1.0
Zinc Plated, lightly oiled	x 0.9
Galvanised, degreased	x 2.1
Galvanised, lightly oiled	x 1.1
Heavily greased	x 0.7

