

0200

TORQUE SPECIFICATIONS

0201



STANDARD BOLTS

The torque values given in the following table should be applied where a particular torque is not specified.

kg·m(lb.ft/N.m)

Bolt identification Bolt diameter x pitch (mm) Material			
	4 T (Low carbon steel)	7 T (High carbon steel)	9 T (Alloy steel)
M 6 x 1.0	0.60±0.20 (4.33±1.44/5.88±1.96)	0.75±0.25 (5.43±1.80/7.35±2.45)	—
M 8 x 1.25	1.30±0.50 (9.40±3.62/12.74±4.90)	1.75±0.55 (12.66±4.00/17.15±5.39)	2.40±0.70 (17.36±5.06/23.52±6.86)
M10 x 1.25	2.80±0.70 (20.25±5.06/27.44±6.86)	3.75±0.95 (27.12±6.87/36.75±9.31)	5.10±1.30 (36.89±9.40/49.98±12.74)
M12 x 1.25	6.25±1.25 (45.21±9.04/61.25±12.25)	7.75±1.55 (56.06±11.21/75.95±15.19)	9.65±1.95 (69.80±14.10/94.57±19.11)
M14 x 1.5	9.75±1.95 (70.52±14.10/95.55±19.11)	11.85±2.35 (85.71±17.00/116.13±23.03)	14.50±2.90 (104.88±21.00/142.10±28.42)
M16 x 1.5	13.30±2.70 (96.20±19.53/130.34±26.46)	17.30±3.50 (125.13±25.32/169.54±34.30)	20.40±4.10 (147.55±29.66/199.92±40.18)
M18 x 1.5	19.20±3.80 (138.87±27.49/188.16±37.24)	24.90±5.00 (180.10±36.17/244.02±49.00)	29.30±5.90 (211.93±42.67/287.14±57.82)
M20 x 1.5	26.30±5.30 (190.23±38.33/257.74±51.94)	34.40±6.90 (248.82±49.41/337.12±67.62)	40.40±8.10 (292.21±58.59/395.92±79.38)
M22 x 1.5	33.90±8.30 (245.20±60.03/332.22±81.34)	46.25±9.25 (334.53±66.91/453.25±90.65)	54.10±10.80 (391.30±78.12/530.18±105.84)
M24 x 2.0	45.80±9.20 (331.27±66.54/448.84±90.16)	58.20±14.30 (420.96±103.43/570.36±140.14)	70.60±14.10 (510.65±101.99/691.88±138.18)
*M10 x 1.5	2.70±0.70 (19.53±5.06/26.46±6.86)	3.70±0.90 (26.76±6.50/36.26±8.82)	4.90±1.20 (35.44±8.68/48.02±11.76)
*M12 x 1.5	5.80±1.20 (41.95±8.68/56.84±11.76)	7.20±1.40 (52.08±10.13/70.56±13.72)	9.10±1.80 (65.82±13.02/89.18±17.64)
*M14 x 2.0	9.10±1.80 (65.82±13.02/89.18±17.64)	11.20±2.20 (81.01±15.91/109.76±21.56)	13.60±2.70 (98.37±19.53/133.28±26.46)
*M16 x 2.0	12.70±2.50 (91.86±18.08/124.46±24.50)	16.50±3.30 (119.34±23.87/161.70±32.34)	19.50±3.90 (141.04±28.21/191.10±38.22)

Note:

The asterisk * indicates that the bolts are used for female-threaded parts that are made of soft materials such as casting.