



TN 15.223 Load Cell Fixing Bolts

Technical Support

Load cells must be fixed firmly in place to ensure correct operation. The bolts fixing the load cell in place can become highly stressed and as well as being of a suitably strong grade they must be correctly tightened.

The following table lists various PT load cells and the minimum requirement for suitable bolts for a load to 150% of load cell capacity..

NOTE: In many cases the bolts below will fail in overload conditions before the load cell fractures.

Load Cell Model	Metric			Imperial		
	Bolt	Grade	Torque(Nm)	Bolt	Grade	Torque(ft-lb)
PT 5000 250kg - 1000kg	M12	10.9	70	1/2" UNF	5	45
PT 5000-2000kg	M12	12.9	130	1/2" UNF	9	95
PT 5000-2500kg	M20	8.8	250	3/4" UNF	5	165
PT 5000-5000kg	M20	12.9	525	3/4" UNF	9	330
PT 5000 500lb - 2500lb	M12	10.9	70	1/2" UNF	5	45
PT 5000-4000lb	M12	12.9	130	1/2" UNF	9	95
PT 5000-5000lb	M20	8.8	250	3/4" UNF	5	165
PT 5000-10000lb	M20	12.9	525	3/4" UNF	9	330
PSB 250 - 1000	M10	10.9	50	3/8" UNF	8	45
PSB 2500 - 5000	M20	8.8	250	3/4" UNF	5	220
PSB 10000	M24	12.9	800	1" UNF	9	750
LS 50 - 1000	M10	12.9	50	3/8" UNF	9	45
LS2500	M12	12.9	130	1/2" UNF	9	90
LS5000	M16	12.9	360	5/8" UNF	8	225
LS10000	M24	12.9	800	1" UNF	9	575
PT8000 5kg - 250kg	M8	A4-80	12	5/16" UNF	A4-80	8.5
PT8000 500kg	M8	A4-100	25	5/16" UNF	A4-100	18
LPC 1t-5t	M6	10.9	10	1/4" UNF	9	7.5
LPC 10t-25t	M10	10.9	50	3/8" UNF	9	37.5
LPC 50t	M12	10.9	100	1/2" UNF	9	75
LPC 100t	M16	10.9	230	5/8" UNF	9	190

The following are head markings for common Grade 9 bolts.

F911



FX180



L9

