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*All figures in the table below are inch-pound. Note that some companies do not specify torque for certain components or parts. Contact the manufacturer for the most up to date specifications.*

<b>Headset, handlebar, seat and seat post area</b>		
<b>Component</b>	<b>Shimano®</b>	<b>Other by brand</b>
Threaded headset locknut		Chris King® Gripnut type 130-150 Tange-Seiki® 217
Stem binder bolt- quill type for threaded headsets	174-260	Control Tech® 144-168
Stem steering column binder bolts Threadless headset types		Control Tech® 120-144 Deda 71 FSA® carbon 78 Syncros® cotter bolt type 90 Thomson® 48 Time® Monolink 45
Stem handlebar binder 1 or 2 binder bolts	174-260	Control Tech® 120-144
Stem handlebar binder 4 binder bolts		Control Tech® 120-144 Deda magnesium 71 Thomson® 48 FSA® OS-115 carbon 78 Time® Monolink 53
MTB handle bar end extensions		Cane Creek® 70 Control Tech® 144
Seat rail binder	174-347	Control Tech®, 2 bolt type 144 Control Tech®, single bolt 300 Syncros® each 45 Time® Monolink-44 Travativ® (M8 bolt) 195-212 / 53-63 ( M6 bolt)
Seat post binder	Note: Seat posts require only minimal tightening to not slip downward. Avoid over tightening	Campagnolo® 36-60



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## Crankset, bottom bracket and pedal area

<i>Component</i>	<i>Shimano®</i>	<i>Other by brand</i>
Pedal into crank	307 minimum	Campagnolo® 354 Ritchey® 307 Truvativ® 276-300
Shimano® Octalink XTR crankarm bolts (M15 thread) (not Hollowtech II)	357-435	
Shimano® Hollowtech II bottom bracket bearing cup (2004 XTR, XT, Dura-Ace)	305-435	
Shimano® Hollowtech II crank bolt screws (2004 XTR, Dura-Ace, XT)	88-132	
Shimano® Hollowtech II Left-hand fixing cap	4-6	
Crank bolt (including spline-type cranks and square-spindle cranks)	305-391	Campagnolo® 312-324 FRA® (M8 bolt) 304-347 FRA® (M14 steel) 434-521 Race Face® 480 Syncros® 240 Truvativ® 384-420 ISIS Drive Truvativ® 336-372 square type White Ind® 240-300
Crank bolt one-key release cap	44-60	Truvativ® 107-124
Chainring cassette to crankarm (lockring)	443-620	
Chainring bolt- steel	70-95	Campagnolo® 84-120 Race Face®; 100 Truvativ® 107-124
Chainring bolt- aluminum	44-88	Truvativ® 72-80
Bottom bracket cups- Adjustable type-fixed cup	609-695	
Bottom bracket Cartridge types	435-608	Campagnolo® 612 FSA® 347-434 Race Face® 420 Truvativ® 300-360 White Ind.® 240



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### Derailleur and shift lever area

<i>Component</i>	<i>Shimano®</i>	<i>Other by brand</i>
STI type shift lever binder	53-69	
Shift lever- MTB "thumb type"	22-26	
Shift lever- "twist grip" type	"Revo" shifter 53-70	SRAM® 17
Front Derailleur clamp mount	44-60	Campagnolo® 61 Mavic® 26-35 SRAM® 44-60
Front derailleur cable pinch	44-60	Campagnolo® 44 Mavic® 44-62 SRAM® 40
Rear derailleur mounting bolt	70-86	SRAM® 70-85 Campagnolo® 133
Rear derailleur cable inch bolt	35	Campagnolo® 53 SRAM® 35-45
Rear derailleur pulley wheel (idler wheel) bolt	27-34	Sachs® 44-53

### Wheel, hub, rear cog area

<i>Component</i>	<i>Shimano®</i>	<i>Other by brand</i>
Spoke Tension	Torque is typically not used in wheels. Spokes tension is measured by deflection. Contact rim manufacturer for specific tension recommendations.	
Quick release at wheel	Measured torque not typically used. Common industry practice is resistance at lever half way through swing from open to fully closed.	
Wheel axle nuts to frame	260-390	Control Tech® 65 (steel) Control Tech® 85 (ti) SRAM® 266-350
Cassette sprocket lockring	260-434	Campagnolo® 442 SRAM® 310-350
Hub cone locking nut	87-217	Bontrager® 150 Chris Kingreg; 100
Freehub body	305-434	Bontrager® 400



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<b>Disc Brake Systems</b>		
<b><i>Component</i></b>	<b><i>Shimano®</i></b>	<b><i>Other by brand</i></b>
Disc rotor to hub	18-35 (M5 bolts) 350 (model 965 rotor locking)	Hayes® 50 Avid®-55 Magura®-34
Caliper mount	53-69	Avid® 80-90 Magura® 51
Hydraulic hose fittings	44-60	Hayes® 55

<b>Brake caliper and lever area</b>		
<b><i>Component</i></b>	<b><i>Shimano®</i></b>	<b><i>Other by brand</i></b>
Brake caliper mount to frame, side/dual/center pull	70-85	Campagnolo® 90 Cane Creek® 68-72
Brake caliper mount to braze-on linear pull/cantilever	44-60	Avid® 43-61 Control Tech® 100-120 SRAM®; 45-60
Brake pad- threaded stud, dual pivot/cantilever/sidepull	44-60	Avid® 52-69 Cane Creek® 56-60 Campagnolo® 72 Mavic® 62-80 SRAM® 50-70
Brake pad- smooth stud, cantilever	70-78	
Brake cable pinch bolt- linear pull/cantilever	53-69	Control Tech® 40-60 SRAM® 50-70
Brake cable pinch bolt- sidepull/dual pivot/centerpull	53-69	Campagnolo® 45 Cane Creek® 68-72 Mavic® 62-80
Brake caliper arm pivot- dual pivot	70-86	Cane Creek® 72-84
Sidepull/dual pivot brake pad bolt	44-60	Cane Creek® 56-60
Cantilever straddle wire pinch 5 x 0.8 thread	35-43	Control Tech® 40-60
Brake caliper wire pinch linear pull/cantilever M6 x 1 thread	50-75	Avid® 52-69
Brake lever-MTB type	53-69	Avid® 40-60 (clamping built into body) Avid® strap type 28-36 Cane Creek® 53-80 SRAM® 30
Brake lever-drop bar type (including STI and Ero types)	53-69	Campagnolo® 88 Mavic® 62-80



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## Formulas for converting other torque designations into inch pounds (in-lb.).

$$\begin{aligned} \text{in-lb} &= \text{ft-lb} \times 12 \\ \text{in-lb} &= \text{Nm} \times 8.851 \\ \text{in-lb} &= \text{kgf-cm} \times 0.87 \end{aligned}$$

Inch pound in-lb	Approximate Foot pound ft-lb	Approximate Newton-meter Nm
10	0.8	1.1
20	1.7	2.3
30	2.5	3.4
40	3.3	4.5
50	4.2	5.6
60	5.0	6.8
70	5.8	7.9
80	6.7	9.0
90	7.5	10.2
100	8.3	11.3
110	9.2	12.4
120	10	13.6
130	10.8	14.7
140	11.7	15.8
150	12.5	16.9
160	13.3	18.1
170	14.2	19.2
180	15.0	20.3
190	15.8	21.5
200	16.7	22.6
210	17.5	23.7
220	18.3	24.9
230	19.2	26.0
240	20.0	27.1
250	20.8	28.2

Inch pound in-lb	Approximate Foot pound ft-lb	Approximate Newton-meter Nm
260	21.7	29.4
270	22.5	30.5
280	23.3	31.6
290	24.2	32.8
300	25.0	33.9
310	25.8	35.0
320	26.7	36.2
330	27.2	37.3
340	28.3	38.4
350	29.2	39.5
360	30.0	40.7
370	30.8	41.8
380	31.7	42.9
390	32.5	44.0
400	33.3	45.2
410	34.2	46.3
420	35.0	47.5
430	35.8	48.6
440	36.7	49.7
450	37.5	50.8
460	38.3	52.0
470	39.2	53.1
480	40	54.2
490	40.8	55.4
500	41.7	56.5