

TORQUE MATRIX

2015 FRAME / COMPONENTS / FSR



| DESCRIPTION | DETAILS | TOOL | in-lbf | Nm | COMMENTS |
|-------------------------------|--------------------------|---------------|--------|------|---------------------------------|
| SEATPOST | | | | | |
| CG-R | Single bolt | 5mm Allen | 120 | 13.6 | Wedge style clamp |
| Pavé | Single bolt | 5mm Allen | 120 | 13.6 | Wedge style clamp |
| S-Works/Pro, SBC 2-bolt | Two bolt | 5mm | 80 | 9.0 | |
| Command Post | Single bolt | 5mm Allen | 120 | 13.6 | Blacklite |
| Command Post | Alien Head | 5mm Allen | 110 | 12.4 | Blacklite, IR (120 in-lbf ok) |
| CRANK | | | | | |
| S-Works carbon crank | Spindle center bolt | T45 | 300 | 33.9 | 2-piece spindle |
| S-Works carbon crank | Spider lockring | Lockring tool | 250 | 28.2 | |
| S-Works MTN crank | Non-drive-side bolt | 8mm Allen | 400 | 45.2 | 1-piece spindle |
| Chainring bolt | Alloy | | 87 | 9.8 | |
| Bottom bracket | Threaded BSA | | 442 | 49.9 | |
| STEM | | | | | |
| Road/MTN stem | At handlebar (4-bolt) | 4mm Allen | 45 | 5.1 | 40-45 range is ok |
| | At steerer tube | 4mm Allen | 45 | 5.1 | 40-45 range is ok |
| DH direct mount stem | At handlebar (4-bolt) | 4mm Allen | 45 | 5.1 | 40-45 range is ok |
| | At steerer tube | 4mm Allen | 80 | 9.0 | |
| Quill stem | At handlebar | 4mm Allen | 160 | 18.1 | |
| | At steerer tube (4-bolt) | 4mm Allen | 80 | 9.0 | |
| Shiv TT stem | At handlebar (4-bolt) | 4mm Allen | 35 | 4.0 | |
| | At steerer tube | 4mm Allen | 45 | 5.1 | 40-45 range is ok |
| Shiv stem | At handlebar (4-bolt) | 4mm Allen | 80 | 9.0 | |
| | At steerer tube | 4mm Allen | 45 | 5.1 | 40-45 range is ok |
| HANDLEBAR | | | | | |
| Road handlebar | Brake/shift lever max | | 70 | 7.9 | Max torque applied by component |
| | Stem max (4-bolt) | | 45 | 5.1 | Max torque applied by component |
| | Stem max (2-bolt) | | 80 | 9.0 | Max torque applied by component |
| MTN handlebar | Shift lever max | | 40 | 4.5 | Max torque applied by component |
| | Brake lever max | | 40 | 4.5 | Max torque applied by component |
| | Stem max (4-bolt) | | 45 | 5.1 | Max torque applied by component |
| | Stem max (2-bolt) | | 80 | 9.0 | Max torque applied by component |
| Shiv TT handlebar riser bolts | Top and bottom bolts | 4mm Allen | 80 | 9.0 | |
| Shiv TT armrests | | T20 | 18 | 2.0 | |
| Shiv handlebar riser bolts | | 4mm Allen | 100 | 11.3 | |
| Shiv extension clamps | At risers | 5mm Allen | 110 | 12.4 | |
| Shiv arm pad mounts | | 4mm Allen | 40 | 4.5 | |
| Shiv extension clamps | At extensions | 4mm Allen | 40 | 4.5 | |

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| 45 | Correspond to the 45, 55, and 120 in-lbf. SBC Torque Wrenches |
| 55 | |
| 120 | |

SPECIALIZED BICYCLE COMPONENTS

15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229
0000044211_TM R1, 6/14

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Please visit www.specialized.com for periodic tech updates.
Feedback: techdocs@specialized.com

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|----------------------------------|------------------------------|-----------|--------|------|---------------------------------|
| Shiv arm pads | | 4mm Allen | 40 | 4.5 | |
| Shiv bottom bracket panel | | 4mm Allen | 25 | 2.8 | |
| Shiv Control Tower | | 4mm Allen | 25 | 2.8 | |
| BRAKE | | | | | |
| Shiv / Shiv TT dual pivot brakes | At fork, frame | 5mm Allen | 70 | 7.9 | |
| | Brake pad | 4mm Allen | 43 | 4.9 | |
| | Cable anchor | 4mm Allen | 55 | 6.2 | |
| SEAT COLLAR | | | | | |
| Tarmac | Horizontal Wedge, round post | 4mm Allen | 55 | 6.2 | Long extension hex key required |
| Venge | Two bolt, aero post | 4mm Allen | 55 | 6.2 | |
| Ruby | Vertical Wedge, round post | 4mm Allen | 55 | 6.2 | |
| Shiv TT | Two bolt rear clamp, aero | | 45 | 5.1 | |
| Shiv | Two bolt rear clamp, aero | | 45 | 5.1 | |
| Round collar | 27.2mm seatpost | | 55 | 6.2 | |
| Round collar | 30.9mm seatpost | | 45 | 5.1 | |
| Transition | Wedge, aero post | | 70 | 7.9 | |
| FRAME | | | | | |
| Post mount rear disc brake | | 5mm Allen | 80 | 9.0 | |
| Front derailleur | | 5mm Allen | 44 | 5.0 | |
| Rear derailleur | | 5mm Allen | 70 | 7.9 | |
| Rear derailleur hanger | Alloy bolt, MTN hanger | | 35 | 4.0 | |
| | Demo | | 115 | 13.0 | |
| Linear pull brakes (MTN) | | 5mm Allen | 43 | 4.9 | |
| Caliper brakes (Road) | | 5mm Allen | 70 | 7.9 | |
| Dual pivot brakes (Road) | | 5mm Allen | 70 | 7.9 | Shiv TT |
| Cable housing stop | Transition rear brake @ DT | | 35 | 4.0 | |
| Stumpjumper SS dropouts | | 5mm Allen | 90 | 10.2 | |
| Water bottle bolts | | 4mm Allen | 25 | 2.8 | |
| SWAT box bolt | | 4mm Allen | 35 | 4.0 | |
| Bolt-on cable guides | Roubaix SL3/Venge | 3mm Allen | 10 | 1.1 | |
| Bottom bracket cable guide | Carbon road frames | | 25 | 2.8 | |
| Hood scoop @ HT cable guide | Camber/SJ HT | | 6 | 0.7 | |
| Hood scoop @ BB cable guide | Camber/SJ HT | | 9.5 | 1.1 | |
| Down tube MTN cable bat | | | 30 | 3.4 | |
| Fender mounting bolts | | | 25 | 2.8 | |
| P.Slope BB pivot bolt | | | 60 | 6.8 | |
| DMD Front derailleur bolts | | | 40 | 4.5 | |
| ECCBB | | | 80 | 9.0 | |
| Fox/SBC Brain tank mount | | | 45 | 5.1 | |

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|-----|---|
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| 55 | |
| 120 | |

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|-----------------------------|-----------|-----------|--------|------|----------|
| FORK | | | | | |
| Post mount front disc brake | | | 80 | 9.0 | |
| Caliper brakes (Road) | | | 70 | 7.9 | |
| Dual pivot brakes (Road) | | | 70 | 7.9 | |
| Steerer tube plug | | 6mm Allen | 80 | 9.0 | |
| Tricross/CruX brake hanger | | | 70 | 7.9 | |
| Fender mounting bolts | | | 25 | 2.8 | |
| WHEEL | | | | | |
| 142x12mm rear axle | | | 133 | 15.0 | |
| Turbo S front axle | | | 105 | 11.9 | |
| Cassette body | | | 261 | 29.5 | |
| Freewheel | | | 261 | 29.5 | |
| Solid nutted axle | | | 200 | 22.6 | |
| MISCELLANEOUS | | | | | |
| Bar ends | P2 | | 80 | 9.0 | |
| | C2 carbon | | 50 | 5.6 | |
| | Targa | | 80 | 9.0 | |
| CNC Bar end plugs | | | 30 | 3.4 | |
| Turbo S headlight | | | 26 | 2.9 | |
| Turbo S Kickstand | | | 89 | 10.1 | |

FSR PIVOT TORQUES

| PIVOT | EPIC/ERA FSR | | CAMBER FSR | | RUMOR FSR | | SAFIRE FSR | |
|-------------------|--------------|------|------------|------|-----------|------|------------|------|
| | in-lbf | Nm | in-lbf | Nm | in-lbf | Nm | in-lbf | Nm |
| Main (BB) | 180 | 20 | 150 | 17 | 150 | 17 | 215 | 24.2 |
| Dropout | 115 | 13 | 110 | 12.4 | 110 | 12.4 | 95 | 10.7 |
| S-Link @ Frame | 80 | 9 | 95 | 10.7 | 95 | 10.7 | 110 | 12.4 |
| S-Link @ Seatstay | 160 | 18 | 95 | 10.7 | 95 | 10.7 | 110 | 12.4 |
| S-Link @ Clevis | 80 | 9 | -- | -- | -- | -- | 95 | 10.7 |
| Lower Shock Eye | 95 | 10.7 | 95 | 10.7 | 95 | 10.7 | 95 | 10.7 |
| Upper Shock Eye | 130 | 14.7 | 130 | 14.7 | 130 | 14.7 | 130 | 14.7 |

| PIVOT | STUMPJUMPER FSR | | ENDURO/SX FSR | | STATUS FSR | | DEMO FSR | |
|-------------------|-----------------|------|---------------|------|------------|------|----------|------|
| | in-lbf | Nm | in-lbf | Nm | in-lbf | Nm | in-lbf | Nm |
| Main (BB) | 150 | 17 | 215 | 24.2 | 215 | 24.2 | 190 | 21.5 |
| Dropout | 110 | 12.4 | 150 | 17 | 110 | 12.4 | 190 | 21.5 |
| S-Link @ Frame | 110 | 12.4 | 190 | 21.5 | 215 | 24.2 | 190 | 21.5 |
| S-Link @ Seatstay | 110 | 12.4 | 190 | 21.5 | 110 | 12.4 | 190 | 21.5 |
| S-Link @ Clevis | 170 | 19.2 | 190 | 21.5 | -- | -- | 190 | 10.7 |
| Lower Shock Eye | 95 | 10.7 | 95 | 10.7 | 190 | 21.5 | 170 | 19.2 |
| Upper Shock Eye | 95 | 10.7 | 170 | 19.2 | 190 | 21.5 | 110 | 12.4 |