Information about page 1 of the Bike Design Guide

These pages provide explanations of the terms Seven uses throughout the Bike Design Guide.

Section: How will you use your Seven?

(1) **Tire sizes:** Because every Seven is custom-built, we can work with any tire and wheel size you want. If you prefer something different from the popular and common options we show in the Design Guide, let us know; we can make it happen.

(3) **Randoneé:** If you're looking for a rando bike with higher gearing and narrower tires, use our Road Bike Design Guide.

(4) **Bikepacking:** If you're looking for a touring bike for paved road riding with higher gearing and narrower tires, use our Road Bike Design Guide.

(5) **"Strategic bikepacking"** is our term for bikepacking three to six times a year. If you want a full-time bikepacking setup that is loaded most or all of the time, use our Bikepacking & Touring Bike Design Guide.

Section: Performance Profile

(6) **Defining "carbon frame":** Seven's reference carbon bike percentages are from real-world tests we've performed on.

The rider provides performance preferences; Seven determines the ideal mix of material enhancements and geometry tailoring.

Comparing the ride feel of titanium to carbon: Most riders use carbon bikes as their baseline. Seven offers titanium and carbon-titanium frames which ride noticeably different than modern carbon frames.

Full carbon, compared to Seven titanium, tends to feel stiffer, chatters over rough terrain much more, and feels more isolated from the terrain; it is more difficult to determine the limits of traction and control on a full carbon bike. Titanium absorbs shock and vibration better. The rougher the road, the better titanium feels. The rider can use body English much more effectively.

Seven's carbon-titanium compared to our titanium: Our carbon tubes with titanium lugs can provide the best of all worlds. Our lightest frame design, carbon-ti frames are also better at damping high-frequency vibration than full titanium frames, whereas our full ti frames are better at taking the edge off big hits, and can be our most comfortable frame.

Performance Aspect	Description	How Seven tailors	Popular Carbon*
(7) Bike Handling	How quick or stable do you want your Seven?	This is a combination of frame geometry, fork choice, tubeset stiffness, and components.	N/A

*On Seven's relatives scales.

Information about page 3 of the Bike Design Guide

Section: Select Your Build Kit

(11) **Parts Kits:** Pricing changes all the time so make sure you've just printed the Design Guide

Section: Select Your Frame Model

Titanium

Model level	Tubeset description	Average frame weight*	Rider weight limit**
S	Titanium straight gauge rider-specific tubeset. Best value from a full custom design.	3.5 lbs, 1,590g	280 lbs,*** 127 kg
SL	Titanium double-butted rider-tuned tubeset. Full custom design. Best balance of all features and capabilities.	3.2 lbs, 1,450g	260 lbs, 118 kg
XX	Titanium Multibutted rider-optimized tubeset. Full custom design. The lightest titanium performance frame available. No compromise in capabilities.	2.9 lbs, 1,315g	240 lbs, 109 kg

Carbon/Titanium

Model level	Tubeset description	Average frame weight*	Rider weight limit**
S	Double-butted titanium frame with carbon seat tube and seat stays. The lively feel of titanium with some weight reduction provided by the carbon tubes.	3.1 lbs, 1,405g	260 lbs,*** 118 kg
SL	The top half of the SL is carbon -- top tube, seat tube, and seat stays. The bottom half is double-butted titanium -- down tube, chainstays, head tube, and bottom bracket. The titanium provides a lively ride. The carbon removes weight and helps dampen road vibration.	2.9 lbs, 1,315g	260 lbs, 118 kg
XX	Seven's lightest frame, the XX has a carbon tubeset with titanium lugs, head tube, and chainstays. The XX has the closest feel to a full carbon bike and with some liveliness from the titanium lugs. Some consider it the perfect ride.	2.8 lbs, 1,270g	240 lbs, 109 kg

*Frame weight: This average can vary by up to 220 grams (0.5 lbs.) due to our customization of frame geometry tubeset engineering, feature and option set chosen, and rider preferences.

**Rider weight limit: This is a recommendation based on optimized performance. We can build frames for riders heavier, but optimal performance requires a more robust tubeset choice increasing the overall weight of the frameset. Our weight limit does not have anything to do with component weight limits. Review those by supplier.

***Rider weight includes rider, clothing, gear, hydration, nutrition, tools, and anything else carried on the bike.

Section: Frame Features & Options

(15) **Cable and housing routing:** The component kit determines most of the cable routing decisions.

(16) **Internal routing:** No upcharge on XX models. $495 upcharge on S and SL models. Seven's internal routing enters the frame through a port in the head tube.

(17) **Third bottle mount location:** Under the down tube.

(18) **Chainstays**

Chainstay Type	Benefits	Considerations
7/8" diameter (Default design choice)	• Seven's lightest design. • Allows for shorter stays than 1" stays.	None
1" diameter	• Increases drivetrain stiffness by about 40% on average. • Available for all chainstay configurations.	• Adds about 50 grams • Diminished tire clearance. Longer stays by about 1 cm.
Inline (Default design choice)	• Classic, simple, lightest, understated. • In-plane S-bend design.	None
Dropped	• Shorter chainstays; typically about 1 cm shorter than average. • Improved tire clearance.	Upcharge of $295
Chopped	• Shortest possible chainstays; typically about 2.5 cm shorter chainstays than our average. • Maximized tire clearance.	• Upcharge of $495 • Maximum drivetrain stiffness increase to about 160%.

For more about our seat stay designs visit sevencycles.com/options/chainstays.php

(19) **Seat stays**

Seat Stay Type	Benefits	Considerations
Inline (Default design choice)	• Classic, simple, understated. • Rack use benefits from this stay design. • In-plane S-bend design.	None
Moto	Increases smoothness and flow by about 200%	None
Carbon	• Excellent vibration damping. • Lightest of our seat stay design	• Available on carbon-titanium models only. • Not as damage tolerant as titanium. • Generally slightly stiffer/harsher ride feel. • Not compatible with a rear rack. • Note compatible with a stationary trainer

For more about our seat stay designs visit sevencycles.com/options/seat-stays.php

(20) Asymmetric [Awesommetric] Rear Triangle is defined by:

- Dropouts are asymmetric and cut about 50 grams from the frame.
- Chainstays: asymmetric and cut about 15 grams from the frame.
- Seat stays are asymmetric, moto style, and cut about 10 grams from the frame.

Benefits:

- Lightest possible frame. Typically saves about 70 grams.
- Asymmetric dropouts that are stiffer and lighter.
- Improves smoothness and flow by about 10%.
- Progressive design and aesthetic.

Considerations:

- Upcharge of $495

(21) **Travel bike optimizations:**

- Couplers add about 600 grams to the frame.
- Travel case is co-motion co-pilot soft case $625 + accessories of $165. However, no airline fee for an oversized bag means the case pays for itself in about three trips.
- BTC couplers: The toughest, most durable travel frame design. In 25 years and thousands of coupled frames, we've never had one get damaged or fail.
- Frame is designed to fit in travel case.

(22) **Graphics Options:** We've added some new graphics colorway options.

Note: As of January 2023 we no longer include model name graphics on the frame. You may see website photographs with model names but those are old images, pre 2023.

(23) **Paint:** If you'd like a painted Seven, refer to our paint template and our recommended paint schemes.