

CARBON SEATPOST ADVISORY

An exotic item for competitive cyclists, carbon seatposts have three advantages:

1. They look cool
2. They are a teensy bit lighter
3. They damp out a certain range of vibration frequencies

And one very serious disadvantage:

Carbon posts are easily “pinch-fractured”!

Q: What is a “pinch fracture”?

A: Pinch fractures occur when a frame’s seat post binder bolt is over-tightened. On a tandem a pinch fracture can also occur when a rear handlebar stem is over-tightened onto a captain’s seatpost, or when a luggage rack is over-tightened onto a stoker’s seatpost. In all such cases the carbon layers will crack, splinter and delaminate, much like overstressed plywood. The resulting uneven surface can be seen and felt, but cannot be repaired. Because the failure can propagate quickly (like a run in a stocking) a pinch-fractured carbon seatpost is unsafe to use—and must be removed and discarded. ***Pinch failures are not covered by the manufacturer’s warranty.***

Q: Is there a maximum torque rating for the carbon seatposts supplied by Santana?

A: Yes. The recommended torque is extremely low: 30 INCH pounds (or 2.5 ft-lb or 3.4 Nm).

The MAXIMUM torque is 50% higher (45 in-lb, 4 ft-lb or 5 Nm). Unfortunately, torque wrenches are not only too bulky to carry on rides, most aren’t calibrated this low. If you are an insatiable tool collector, the *Park Tool TW-1* accurately measures 0-60 inch pounds.

Q: Short of carrying a torque wrench, can carbon seatpost pinch failures be prevented?

A: Certainly.

First: Although it may look wrong, make sure that the open end of the C-shaped seat clamp band is rotated so that its opening is OPPOSITE the slot in the frame. The opening in a Santana tandem’s front seat clamp band should be rotated to face the rear of the bike. The opening in the rear seat clamp band should be rotated to face the front of the bike. Although this opposite orientation looks backwards to enthusiasts and mechanics accustomed to frames with aluminum seatposts, this simple precaution is necessary for bicycles with carbon seatposts.

Second: BE GENTLE when retightening the seatpost after adjusting the saddle height. Use a short allen wrench and grasp it with your thumb and forefinger only. And, even then, only apply as much hand force as you’d use to tighten a light bulb (and not as much as you’d use to tighten a dripping faucet). Experienced bike mechanics tighten a seatpost binder bolt just enough so that they can’t rotate the saddle with one hand. On a tandem, this means that an enthusiastic or scared stoker will be able to rotate their riding partner’s saddle.

Third, if you have a history of stripping screws or breaking bolts—or hate the idea of your stoker twisting your saddle—contact Santana to ask about exchanging your *undamaged* carbon seatpost for a nearly-as-light seatpost made from aluminum.

For more info on bicycle torque values: <http://www.parktool.com/repair/readhowto.asp?id=88>

Santana Cycles, Inc • PO Box 206, La Verne, CA 91750 USA • (909) 596-7570
www.santana-tandem.com