

MAKESHIFT TANDEM



Custom Classic MakeShift w/Rohloff 14-sp, ovalized tubing and disc drag brake

Toucan ST MakeShift w/Alfine-8sp and fully independent pedaling for both riders

SHIMANO



	MakeShift ST 8-speed Alfine \$4,599	MakeShift Double Roller 14-speed Rohloff \$6,699
Base Prices		
Frame	Custom Rodriguez Cro-mo	Custom Rodriguez Cro-mo
Fork	Steel Tandem	Steel Tandem
Shift levers	Rapid Fire	Rohloff Twist Grip
Brake Levers	Tektro ATB	Tektro
Brakes	Tektro Cantilever	Trillium Big Squeeze™
Bottom Brackets	Shimano Sealed	Shimano Sealed
Cranks	Alloy Tandem	Alloy Tandem
Wheels	Hand-built 3-year warranty	Hand-built 3-year warranty
Rims	ZAC19 26" 36°	ZAC19 26" 36°
Spokes	Stainless 14G	Stainless 14G
Rear Hub	Alfine 8-sp	Rohloff Speedhub 14-sp 36°
Front hub	Shimano 36°	Shimano 36°
Tires	Serfas Seca 26x1.25"	Serfas Seca 26x1.25"
Handlebar(s)	Alloy Flat	Alloy Flat or Alloy Drop bars
Head Set	FSA 1 1/8" Sealed	FSA 1 1/8" Sealed
Captain Stem	Alloy 1 1/8" threadless	Alloy 1 1/8" threadless
Stoker Stem	Rodriguez Custom adjustable	Rodriguez Custom adjustable
Bar tape/grips	Black ATB Grips	Black ATB Grips/Black Cork
Seat posts	Alloy 27.2	Alloy 27.2
Seats	WTB Speed V	WTB Speed V
Upgrades	11-speed \$500 Disc drag brake \$225 ST travel package \$1,699	Custom shifter doohicky \$100 Disc drag brake \$300 Ovalized tubing \$200 Classic travel package \$1,999

Included on MakeShift Tandems

- Basic tandem round tube set
- Clearance for wide tires
- Braze-ons for cantilever brakes
- All brake and shifting cable routing
- Braze-ons for rear disc (drag) brake
- Braze-ons for 4 water bottles
- Pump mount (water bottle style)
- Rear rack braze-ons for standard rack
- Front rack braze-ons for standard rack
- Hidden fender mounts
- Custom kickstand mount
- Stainless steel bottle opener

Note: We can add to, or subtract from the standard braze-ons for a fee starting at \$25. For orders involving multiple changes, the price will be quoted before we start work.

MakeShift Tandem Options

- Custom Sizing - FREE
- Stoker control braze-ons for drag brake \$100
- Custom Paint - \$100 ~ \$600
- Carbon Handle Bar \$250 (each)
- Da Vinci Cranks \$695
- Phil Wood Front Hub \$130
- Disc Brakes as primary brakes - \$350
- Shimano Dynamo Front Hub \$130
- Schmidt Generator Front Hub \$285 (\$335 for disc hub)
- Independent pedaling - \$200 per rider

For more information and color photos visit us on the web!

www.rodcycle.com

MAKESHIFT

What is a Rohloff?

Rohloff is a German company that has designed and built the Rohloff Speedhub for several years now. The design is like a really high tech version of your old 3-speed hub. 14 gears are housed inside the rear hub. The reason for the design is to eliminate the use of derailleurs on your bike.

"Do I want Rohloff?"

Over the last several years, we've built a number of bikes using this hub, and the customers like them. Most of these customers have come in asking for a Rohloff equipped bike, and had already studied and made that decision before talking with us.

The reasons that these people chose the Rohloff hub include ease of shifting, lower maintenance, and perceived 'ease of use'. The reason I use the word perceived is because a Rohloff bicycle frame can be designed in such a way as to make changing the rear tire much more difficult.

The Rohloff hub presents some specific design challenges when building the frame to keep things 'user friendly'. A lot of Rohloff equipped bikes have a 'make shift' style engineering to address these challenges. The crew here at R+E Cycles has developed some techniques that distinguish our Rodriguez Rohloff bikes from the other brands, and make our bikes not only look better, but work much better as well.

R+E Cycles 'ease of use' engineering for Rohloff equipped bikes:

Chain adjustment - We use a Bushnell Eccentric bottom bracket (ebb) for chain adjustment on our Rohloff bicycles. This makes it much, much easier to remove and install the rear wheel, as well as adjust the chain tension when needed. Using the Bushnell ebb also ensures that the bike is equipped with the lightest and most accepted ebb available. This is the same mechanism we use to adjust the timing chain on our tandems, as well as a recommended product by Rohloff themselves. (Read more about the Bushnell ebb at www.bushnelltandems.com)

Dropouts and braze-ons - The Rohloff hub requires special rear dropouts (where the rear wheel bolts on) and cable braze-ons specifically designed for the hub. At R+E Cycles, we machine our own design of Rohloff dropouts and cable braze-ons that allow for much easier removal and reinstallation of the rear wheel.

We even have people with other brands of Rohloff equipped bicycles bring their bike in to have our braze-ons installed. We've seen a lot of Rohloff equipped bicycles that don't take these concerns into their designs. If not properly thought out, a Rohloff rear hub can make removing the rear wheel a big chore, and may even require you to adjust your shifting every time after reinstalling the wheel. At R+E Cycles, we are always designing for comfort as well as reliability and ease of use. This adds to the short term cost of the bicycle, but the first time you have a flat tire, it pays for itself.

Pros and Cons of a Rohloff Speedhub

Pros:

- No fuss: The sealed gearbox ensures reliability and durability even under the toughest conditions. The even increments of 13.6% from gear to gear make it possible to always ride at the peak performance. There is no overlap in the gear range, so all 14 gears are usable. In a traditional 27 speed set-up, you've only got about 14 usable gears anyway.

Cons:

- Cost: Many people assume that the price will be lower than traditional set-up because there are fewer components to buy. Actually, the price of the hub added to the additional amount of customization required on the frame makes the total price higher than a derailleur set-up. Look at it like a Swiss watch.

- Versatility: Since the gear ratio is pre-set, you cannot change the range of gearing between high and low. You can change the front chain ring or rear cog but it will affect the whole range. In short, if you want a 'lower' low gear, then all your gears have to be lower and visa versa.

- Noise: Some of the gears can be a little bit 'rumbly' or 'noisy'. Not really bad, but if you are kind of 'obsessive' about such things, and you've already resigned yourself to the noise of a derailleur set-up, you should try one out before investing in it.

