

Design Portfolio

Blake Jenssen

2006-2020

ENVE Mountain Bars and 35mm Clamp Stem

New handlebars for 4 levels of product and new stem for larger clamp diameter bars. 7 new bars in total with updated comfort and testing requirements



Vanilla/ENVE Seat Post Topper

Updated seat post topper for custom frame builder.



ENVE Aero Road Stem

New, more aerodynamic stem for road riding with adjustable angle shim. Worked extensively with factory on manufacturing. Also includes aluminum computer mount.



ENVE Aero Road Bar


Update of existing design to provide easier internal routing of housing and more ergonomic lower shape. Worked extensively with factory on testing and manufacturing including inspection criteria and production tools.





ENVE G Series Gravel Bar

- New design concept taking the best of both worlds with flared drops and traditional feeling uppers. Ability to route Di2 wires internally with longer drop for comfort and control on long off road rides.



Logan's review: I love this handlebar. I can't say that everyone will, because it's insanely expensive. Like \$350-expensive. But it's hands down (no pun intended) been my favorite drop-handlebar for 2019. And that's considering the fact that I had about a dozen on hand while working through this Gear Index. What makes it special? First off, the width. This is one of the only gravel bars out there that comes in a properly wide 48cm width—60cm at the drops. It's also super comfortable. The second standout benefit of the G Series bar is comfort. It features flattened curves at the top-bend transition. This makes a palm-friendly, ergonomic hand perch just behind the hoods, which is my preferred position on drop-bars when riding long and relatively flat stretches. This, in tandem with a well-designed ergonomic shape, the perfect amount of flare (unspecified angle, but 12cm wider at the end of the drops than the hoods), and the chatter absorption and compliance of carbon makes it the most comfortable drop bar I've ridden to date... and perhaps one of my most prized components.

ENVE TT Stem

Worked with CFD parameters set by Aerodynamacist and internal storage, assembly and fit needs set by professional cycling team



Bontrager Bowie Carbon 29+ Fork

Performed competitor ride testing to determine optimal flex parameters
Created clearance model for Industrial design and production engineers



Bontrager Line and Line Pro 35mm Diameter Stem and Handlebars

Provided initial layout and flex parameters to production engineers.
Developed interlocking headset stop to prevent downtube strikes.



Bontrager Dropper Post

Designed pieces to turn existing product into one that fit visually and Functionally within the product line for Bontrager. Worked directly with Chassis and Cartridge manufacturer to verify and test the design.



Bontrager MTB Barstem Combo

Designed Geometry, worked with carbon manufacturing in Waterloo to make ID shape meet all test and performance standards. 4 lengths and sizes were created, 110mm x -7deg was released for sale. Multiple FEA Simulations, test plans and steer tube clamps throughout the process

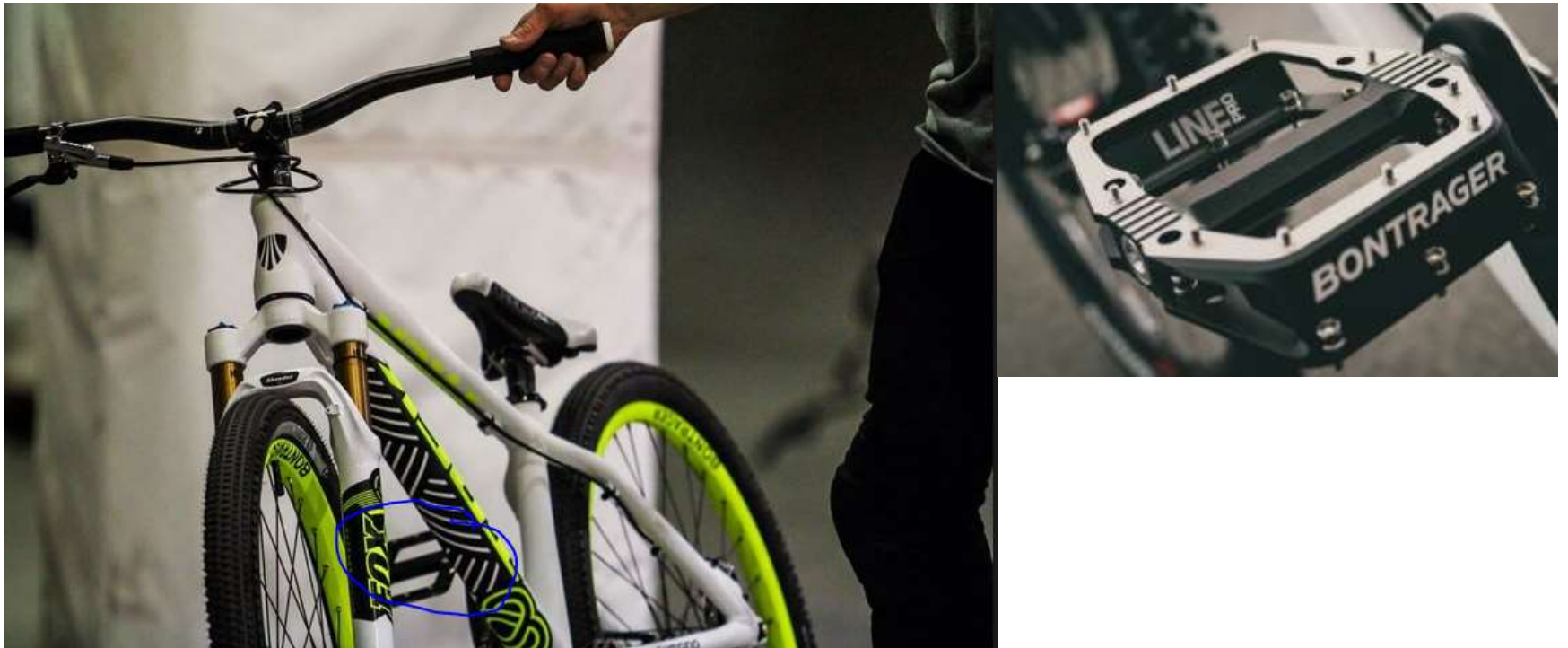


Bontrager MTB Pedal

Initial prototype rough and dirty for shape, pin placement and concavity
Further refinements towards production shape were made.

Pedal was handed off to ID and Asian vendor interface for production.

I continued as a design consultant and Chief Engineer through production



Prototype pedal was ridden to Gold Medal position in slopestyle X-games by Brett Rheeder

Bontrager Rxl Lowriser

720mm stock length

Designed shape and worked with vendor on testing requirements



4.5/5 stars on BikeRadar

Bontrager Rhythm Pro Carbon Handlebars

750mm and 820mm stock lengths

Designed shape and worked with vendor on testing requirements

Internal DH handlebar standard was created by myself and used internally for this testing.

This DH handlebar standard has since been applied to further handlebar projects.



4/5 stars on BikeRadar

Bontrager Jump Stem

Stem for Bontrager C3 riders, both standard and Gyro compatible versions
3 design iterations to create current stem, no plans for production at this time



Prototype stem ridden to 2 crankworks gold medals by Brett Rheeder

Custom Trek Factory Racing Stems

Rider specific stem geometry, focused on lighter weight and meeting rider stiffness specifications. Stems have been made for Dan McConnell, Emily Batty and Rebecca Henderson.



Custom Trek Factory Racing Stems – Production Note

A note on the custom stems, this is one of the biggest lessons I have learned and one of my product failures. The stem design similar to below left was intended to be a production product. The concept was prototyped and tested in the US from heat treated US material. Once the concept was proven, the design was transferred to a Taiwanese facility for production. The stems looked good, but the rear clamp did not tighten up as the prototypes did and there was compatibility issues with carbon steer tubes.

After investigation, heat treatment in a production setting was found to be the problem. We were able to take production stems that did not work, anneal them, re heat treat them and the performance matched the prototypes.

Two valuable lessons were learned. Always prototype at the vendor before tooling when possible. And make sure that the design fits within the vendors production capabilities.

Design and process lessons learned were passed on to another engineer who developed the successor to this product. While the disappointment of a failed project/product is still felt, I am proud that working with another engineer gave this idea production life.



Carbon Seat Collar

Carbon Seat collar, produced for Superfly 29er. Prototyped in Waterloo, WI and Transferred design to Chinese vendor for production manufacturing.



Bontrager Rhythm Comp Stem

Cost reduction exercise to create a stem for lower level bikes that retained the feel of Bontragers' Rhythm Pro stem. Initial design update was completed in 4 days and project was handed off to vendor in under 1 mo from initial concept.



Rhythm Pro Stem
(I did not work on the original design)



Rhythm Comp Stem, less than 1/2 the cost

Bontrager Carbon XXX Handlebar

Originally a team spec only the 5deg handlebar, flat riser for 4.8mm rise or drop.



Salsa Big Mama

100mm 29er with trail oriented geometry

Designed geometry, linkage, tube set, all forged, CNC pieces and seat stay flex

“I felt that Salsa Cycles has done their homework and applied solutions with elegance and effectiveness to the problem of making a great 29”er trail bike”

-Twenty Nine Inches



Salsa El Kaboing

120mm 26" wheel bike with trail oriented geometry

Designed geometry, linkage, all forged and CNC'd components, tubing and seat stay flex

The rear end is particularly impressive on climbs and, tracking well at 25% sag, tenaciously claws upwards with traction to spare up steep, loose, smooth, rocky and rooty pitches. Although the bikes both come with Fox RP2 shocks with ProPedal, we only felt the need to engage the pedalling platform for gravel road duty

-Bike Radar



Salsa Selma

Race Oriented Single Speed

Scandium Frame with Carbon Stays

Designed Geometry and Tubing

“It handles with quickness, but retains downhill stability, is very efficient in power transfer, but has that nice ride quality that the unique frame design has to offer”

-twentynineinches



Salsa Podio

Long Distance Road

Full Scandium Tubing

Designed Geometry and Tubing

“100% race bike. Very quick geometry but still stable at speed. Rides well in a pack but it's real specialty is in the corners where it feels balanced and planted. Don't listen to that hogwash about aluminum's harsh ride, I've done a few centuries w/ out problem and other podio riders have said the same”

-Scott Wilson Road Bike Review



Salsa La Cruz

Cross and Light Touring with Disc Brakes

Steel OX Platinum Tubing

Designed Geometry and tube selection



“a versatile, high-quality, feature-rich bike that promises to be a lot of fun”

-Urban Velo

Sheldon Fender Nuts

Alternative brake nut with mount for fender

Designed off concept licensed to QBP from Sheldon Brown



Handsome Osell

Distance Road Frame Designed With Terry Osell

Designed Fit and Selected Tubing to Match Terry's Handling Geometry



Handsome Devil

Cross/City/Touring

Re-Designed Geometry (based on customer desire) and Tubing



Handsome Fredward

Single Speed version of the Devil with Similar Geometry

Designed Geometry (based on customer desire) and Tubing



Handsome SheDevil

Drop Top Tube City/Touring bike

Designed Geometry (based on customer desire) and Tubing



Handsome Shop Bike

Coaster Brake Mountain Bike with Disc Fork

Designed Geometry and Tubing Spec



THE SHOP BIKE

This is the second year for the Shop Bike and it is back with a vengeance. The public has spoken, and we listened. The new and improved Shop Bike frameset comes with disc tabs on the fork and a gusseted headtube for added strength. The rear end is the same with a 120mm dropout spacing and a coaster brake tab. This bike rips on the street, dirt and playground with killer stability and a skidastic good time. It is just like the setup you had as a kid with simple instructions; mash the pedals as hard as you can and slam on the brakes as hard as you can, no in between. Now with the disc brake front though, you can run a single speed freewheel in the rear or an internal 3 freewheel. Of course single speed coaster brakes are encouraged and we have found internal 3 coaster brake hubs to be quite shreddtacular as well. As is the case with most of our frames, the Shop Bike comes decal free with a monster decal sheet that the little kid version of yourself would kick you in the shin to take.

FEATURES:

- Coaster Brake Tab
- 120mm Rear Spacing
- Rear Entry Track Style Dropouts
- 4130 Double Butted Cromo Frame and Fork
- 5 Piece Fork with Disc Brake Tabs
- Gusseted Headtube
- 26" x 2.25 tire clearance
- 650B compatible
- Hidden Rack Mounts
- Hidden Fender Mounts
- Colorway: Green Beret

SIZES: 16", 18", 20"
FRAMESET MSRP:
US \$449.95 CAN \$479.95

Handsome XOXO

Tribute to the legendary Bridgestone XO Series of Bikes

Modeled Geometry and Tubing Spec



Long Haul Trucker

Designed Geometry for 26" LHT sizes 56cm-62cm

Completed Manufacturing Drawings



Dimension Track Handlebars

Designed shape and provided advice on butting profile



Salsa Carbon Short and Shallow and Poco Handlebars

Designed Shape and worked with vendor or layup alterations and testing.



Problem Solvers Travel Agent Fixturing

Developed fixturing and process steps for modification of out of spec order.

-This was developed so that an employee with an arm injury could modify the parts on a combination mill/lathe with high runout



Additional Designs

- Downhill stem prototypes used to make production bontrager DH Stem
- Prototype DH stems for Trek World Racing Team
- All mountain stem in 2 product levels from same tooling (to be released)
- All mountain handlebars, Carbon and Alloy in multiple rises (tbr)
- Dropper post modifications for production (to be released)
- Prototype handlebar ridden by Willow Koerber to bronze medal at World Championships
- Fix-it-Stix bar end holder
- Seat post Di2 battery mount
- Fork Steerer tube battery mount
- Multiple seat collar variations for carbon seat post compatibility
- Salsa MTB Carbon and Aluminum MTB handlebars
- Carbon seat post layup recommendations for CI project
- Custom topcap (2 versions) with integrated 5mm spacer
- Custom 0 offset 2 bolt seatcap
- Disc brake version of Handsome Devil with updated geometry
- 2 products in testing at ENVE
- Multiple products in preliminary production with Harley Davidson
- Work on specialty chain ring for inventor



Personal project designs

- Custom Guitar Dry Bag for use during bicycle touring
- Lorica Watchband
- Metalflake Vinyl Wallet
- Updated French Press (concept phase)
- Wood radiator covers
- Custom suction cup mounted fireplace barrier with kids activity center