



MERLIN TITANIUM

MOUNTAIN

Purposefully designed, admirably built, and brilliantly executed, the Merlin Mountain has been created to do everything exceptionally well. The Mountain's racing heritage is evident in the countless NORBA victories it has accumulated over the years. Yet its reputation for bulletproof reliability has made it the choice of numerous wilderness touring organizations and round-the-world expeditions.

XLM

The Merlin XLM (Extralight Mountain) boasts raw performance that redefines state-of-the-art. It has all the resiliency and strength of Merlin's legendary Mountain frames, yet undercuts the competition by a pound or more in most sizes. And its rigidity, ride and handling are second-to-none, inspiring Mountain Biker magazine's tester to proclaim: "The Merlin XLM is the best bike I have ever ridden. Period."



ECHO

God made titanium for the YBB. Our friends at Moots made YBB for titanium. We're indebted to both of them. Titanium's modulus and fatigue endurance allows for the Moots' YBB 1 1/8" pivotless suspension design. Moots' reverence for simplicity with its pivotless suspension system combined with Merlin's flagship ride performance results in a perfect balance for suspension and all-around cross-country riding.





Loyal to the Sport

MOUNTAIN VS. XLM

The XLM uses double-buttet tubing, making the frame up to a half-pound lighter than the Mountain depending upon size. Both frames employ MTS3/2.5™ size-specific tubing to minimize weight without compromising strength, rigidity or durability. In addition, they feature Merlin's S-Bend chainstays for maximum efficiency and better tire and crank clearance. The S-Bends fully accommodate 2.5-inch knobbies, with extra space to avoid mud build-up. Despite the additional rigidity of the large-diameter chainstays, the rear triangle boasts superior compliance due to the specially-made thinwall S-Bend seatstays. The result: better traction, precise wheel control, and improved performance in climbs and descents, regardless of terrain.

MOUNTAIN AND XLM

- Eight sizes (12.0-21.5)
- Merlin 6/4 titanium vertical dropouts
- 1 3/8" diameter seat tube, down tube and top tube
- Large diameter 7/8" S-bend chainstays for drivetrain stiffness
- Merlin MTS3/2.5™ size-specific tubing
- Merlin break boss angled inside on seat stay for better braking power and less twisting and flex
- Top tube cable routing
- Lifetime warranty*

MOUNTAIN

- World's first titanium mountain bike
- Merlin MTS3/2.5™ size-specific tubing
- 3/4" seatstays

XLM

- Merlin MTS3/2.5™ double-buttet size-specific tubing
- Large diameter 7/8" S-Bend center buttet seat for vertical compliance
- Up to a half-pound lighter than Mountain

ECHO

- Six sizes (13.5-20)
- Merlin MTS3/2.5™ size-specific tubing
- 1 1/8" of rear travel, ideal for cross-country riding and racing
- Rear suspension lockout position
- Improved rear wheel traction for better climbing and descending
- Pivotless rear end for low maintenance
- Unique triple clamp shock assembly
- Proven design in full suspension
- Lifetime warranty*

*See warranty policy for details

Merlin Metalworks
40 Smith Place, Cambridge, MA 02138
617-661-6688 • fax: 617-661-6673
www.merlinbike.com
e-mail: merlin@merlinbike.com

MERLIN MOUNTAIN AND XLM								
Seat tube (in, ctr-top)	12.0	13.5	15.0	16.25	17.5	18.75	20.0	21.5
Head angle (degrees)	70.5	70.5	71.0	71.0	71.0	71.0	71.5	72.0
Seat angle (degrees)	74.0	73.5	73.5	73.5	73.0	72.5	72.5	72.0
Nominal top tube (in)*	20.5	21.0	21.8	22.4	23.0	23.6	24.3	25.0
Chainstay (in)	16.75	16.75	16.75	16.75	16.75	16.75	16.75	16.88
Wheelbase (in)	39.8	40.1	40.7	41.3	41.8	42.3	42.7	43.3
Standover height (in)	26.9	27.6	28.6	29.6	30.3	31.2	32.3	33.9
Bottom bracket height (in)	11.6	11.6	11.6	11.7	11.8	11.8	11.8	11.9
Head tube length (in)	3.4	3.4	3.8	4.0	4.3	5.0	6.0	7.5
Steerer length (in)	5.0	5.0	5.5	5.8	6.0	6.8	7.8	9.3
Mountain frame weight (lbs)	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.9
XLM frame weight	2.6	2.7	2.8	2.9	2.9	3.1	3.2	3.4

*Nominal top tube lengths are measured as if the top tube were horizontal

MERLIN ECHO						
Seat tube (in, ctr-ctr)	13.5	15.0	16.25	17.5	18.75	20.0
Bottom bracket to seat top*	19.5	19.5	19.5	19.7	21.0	22.1
Head angle (degrees)	70.5	71.0	71.0	71.0	71.0	71.5
Seat angle (degrees)	73.5	73.5	73.5	73.0	72.5	72.5
Nominal top tube (in)**	21.0	21.8	22.4	23.0	23.6	24.3
Chainstay (in)	16.75	16.75	16.75	16.75	16.75	16.75
Wheelbase (in)	40.1	40.7	41.3	41.8	42.3	42.7
Standover height (in)	27.6	28.6	29.6	30.3	31.2	32.3
Bottom bracket height (in)	11.6	11.6	11.7	11.8	11.8	11.8
Head tube length (in)	3.4	3.8	4.0	4.3	5.0	6.0
Steerer length (in)	5.0	5.5	5.8	6.0	6.8	7.8
Frame weight (lbs)	4.1	4.0	4.1	4.2	4.3	4.3

*Limitation of lowest seat height

**Nominal top tube lengths are measured as if the top tube were horizontal
Specifications subject to change without notice



MERLIN
TITANIUM

FAT TI

One fact is undeniable, that the Headshok® has earned a following among hard core cross-country enthusiasts. Fattyphiles now have the state-of-the-art Ti frame to accommodate a specially made-for-Merlin Fatty SL. This Merlin-exclusive fork is the lightest Fatty SL produced.



FAT BEAT

With this frame, Merlin combines two suspension technologies that would have otherwise never crossed paths. The Fat Beat has all of the handling and dampening characteristics that are staples on the Fatty SL Headshok, and the surefooted traction control you get with Moots proven 1 1/8" pivotless suspension system. Merlin's MTS3/2.5™ size-specific tubeset, performance, design and commitment to quality takes this frame over the top.





Loyal to the Sport



MERLIN FAT TI						
Frame size	13.5	15.0	16.25	17.5	18.75	20.0
Seat tube (in, ctr-ctr)	9.9	11.7	13.2	14.9	16.8	19.0
Head angle (degrees)	70.5	71.0	71.0	71.0	71.5	72.0
Seat angle (degrees)	73.5	73.5	73.5	73.0	72.5	72.0
Nominal top tube (in)	21.0	21.8	22.4	23.0	23.6	24.3
Chainstay (in)	16.75	16.75	16.75	16.75	16.75	16.88
Wheelbase (in)	40.1	40.7	41.4	41.9	42.4	43.4
Bottom bracket height (in)	11.6	11.6	11.7	11.8	11.8	11.9
Standover height (in)	28.0	28.8	29.6	30.4	31.2	33.5
Head tube length (in)	4.5	4.5	4.5	4.5	4.5	4.5
Fork rake (in)	1.77	1.77	1.77	1.77	1.77	1.77
Frame weight (lbs)	3.5	3.5	3.5	3.5	3.7	3.8
Note: geometry assumes .125" sag on headshok fork						
MERLIN FAT BEAT						
Frame size	13.5	15.0	16.25	17.5	18.75	20.0
Seat tube	9.8	11.4	13.5	14.9	16.5	19.0
Bottom bracket to seat top*	19.5	19.5	19.5	19.7	20.9	22.2
Head angle	70.5	71.0	71.0	71.0	71.0	71.5
Seat angle	73.5	73.5	73.5	73.0	72.5	72.5
Nominal top tube*	21.8	22.4	23.0	23.6	24.3	25.0
Chainstay	16.75	16.75	16.75	16.75	16.75	16.75
Wheelbase	40.2	40.8	41.5	41.9	42.4	43.0
Bottom bracket height	11.6	11.6	11.7	11.8	11.8	11.8
Standover height	28.0	28.8	29.6	30.4	31.2	32.4
Head tube length	4.5	4.5	4.5	4.5	4.5	4.5
Fork rake	1.77	1.77	1.77	1.77	1.77	1.77
Frame weight	4.3	4.3	4.3	4.3	4.3	4.3
*Limitation of lowest seat height						
**Nominal top tube lengths are measured as if the top tube were horizontal						
Specifications subject to change without notice						

FAT TI

- Seven sizes (13.5-21.5)
- Merlin MTS3/2.5™ size-specific tubing
- Exclusive Ti builder for Headshok® forks
- Over 2" Ti head tube for increased torsional stiffness
- Fatty SL fork 3.0 pounds, 70mm travel, increased torsional stiffness over telescoping shock forks for more positive steering and braking control
- On the fly suspension adjustment
- 5 dampening positions
- Lifetime warranty*

FAT BEAT

- Six sizes (13.5-20)
- Merlin MTS3/2.5™ size-specific tubing
- Exclusive Ti builder of both innovations
- Light, agile, and strong
- Over 2" Ti head tube for increased torsional stiffness
- Fatty SL fork, 3.0 lbs., 70mm travel, increased torsional stiffness over telescoping shock forks for more positive steering control and braking control
- 1 1/8" of rear travel ideal for cross-country riding and racing
- Rear suspension lock-out position
- Improved rear wheel traction for better climbing and descending
- Pivotless rear-end for low maintenance
- Unique triple clamp shock assembly
- On the fly suspension adjustment
- 5 dampening positions
- Lifetime warranty*

*See warranty policy for details

Merlin Metalworks
 40 Smith Place, Cambridge, MA 02138
 617-661-6688 • fax: 617-661-6673
www.merlinbike.com
 e-mail: merlin@merlinbike.com



MERLIN
TITANIUM

ROAD

Introduced in 1989, the Merlin Road has quickly become the standard by which bicycles are judged. At home on any road, anywhere in the world, each Road frame is built with Merlin's MTS3/2.5™ size-specific tubing. This guarantees optimal ride and handling characteristics, low weight and unbeatable durability.



EXTRALIGHT

By any measure, the Merlin Extralight has no peer, it is a true performance bicycle, as real and tough and razor-sharp as the legendary races that spawned it. Built with Merlin's MTS3/2.5™ size-specific double-buffed tubeset, the Extralight rides and handles with an exhilarating blend of comfort, speed and surefooted security.





Loyal to the Sport

ROAD VS. EXTRALIGHT

The XL uses double-buffed tubing, making the frame up to four-fifths of a pound lighter than the Road depending upon size. The Extralight front triangle is made of larger diameter, thinner wall, buffed tubing, which keeps the XL both stronger and laterally stiffer than the Road, a desired characteristic for high-speed descents and criterium-style racing. Merlin's extreme detail to alignment during the manufacturing process, combined with the straightness of Merlin's MTS3/2.5™ tubes (the straightest among any tubesets used in titanium bike manufacturing), makes both the Road and XL extremely stable.

ROAD AND EXTRALIGHT

- Thirteen sizes (45-63 centimeters)
- Merlin 6-4 titanium machined vertical dropouts
- Chain hanger (all sizes) and pump peg (53-63 cm)
- Head tube shifter bosses
- Short and long tube option
- Optional head tube to accommodate 1 1/8" steerer
- Geometry by Tom Kellogg
- Optional custom geometry through Merlin's "Made-to-Measure" program
- Lifetime warranty*

ROAD

- Merlin MTS3/2.5™ size-specific tubing
- Large diameter 7/8" V-Bend chainstays for drivetrain stiffness
- 1 1/4" seat tube, down tube and top tube
- Frame weight: 2.6 - 4.1 pounds (1.18-1.90 kg)

EXTRALIGHT

- Merlin MTS3/2.5™ size-specific double-buffed tubing
- Large diameter 7/8" double buffed V-Bend chainstays for drivetrain stiffness
- 1 3/8" seat tube, down tube and top tube
- Frame weight: 2.3 - 3.3 pounds (1.04-1.51 kg)
- Up to four-fifths of a pound lighter than the Road

*See warranty policy for details

Merlin Metalworks

40 Smith Place, Cambridge, MA 02138

617-661-6688 • fax: 617-661-6673

www.merlinbike.com

e-mail: merlin@merlinbike.com

MERLIN ROAD STANDARD TOP TUBE													
Frame size (cm, ctr-top)	45"	47"	49"	51"	53"	54"	55"	56"	57"	58"	59"	61"	63"
Frame size (cm, ctr-ctr)	43.5	45.5	47.5	49.5	51.5	52.5	53.5	54.5	55.5	56.5	57.5	59.5	61.5
Head angle (degrees)	71.5	71.5	72.5	73.0	73.0	73.0	73.5	73.5	73.5	73.5	74.0	74.0	74.0
Seat angle (degrees)	74.0	74.0	74.0	74.0	74.0	73.5	73.5	73.0	73.0	73.0	73.0	72.5	72.5
Top tube (degrees)	51.0	51.5	52.1	53.3	54.5	55.0	55.5	56.1	56.5	57.1	57.5	58.5	59.5
Chainstay (cm)	41.3	41.3	41.6	41.3	40.6	41.0	41.0	41.0	41.0	41.0	41.0	41.6	41.6
Wheelbase (cm)**	96.4	97.0	97.1	97.4	98.0	98.0	98.0	98.1	98.5	99.0	99.0	100.2	101.2
Standover height (cm)	69.5	71.5	73.8	76.0	77.9	78.6	79.7	80.3	81.4	82.3	83.4	85.5	87.5
Bottom bracket drop (cm)	4.8	4.8	7.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.7	6.7
Head tube length (cm)	7.5	9.6	6.6	8.6	10.5	11.4	12.0	12.8	13.8	14.8	15.6	17.8	19.8
Steerer length (cm)	12.1	14.2	11.2	13.2	15.1	16.0	16.6	17.4	18.4	19.4	20.2	22.4	24.4
Fork rake (cm)	3.8	3.8	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Road frame weight (pounds)	2.6	2.7	2.7	2.9	3.0	3.0	3.1	3.2	3.4	3.5	3.6	3.9	4.1
MERLIN EXTRALIGHT STANDARD TOP TUBE													
Frame size (cm, ctr-top)	45"	47"	49"	51"	53"	54"	55"	56"	57"	58"	59"	61"	63"
Chainstay	40.9	40.9	41.7	41.4	40.8	41.0	41.0	41.0	41.0	41.0	41.0	41.6	41.6
Wheelbase**	96.0	96.6	97.2	97.6	98.1	98.0	98.0	98.1	98.5	99.0	99.0	100.2	101.2
Standover height	69.5	71.5	73.8	76.0	77.9	78.6	79.5	80.3	81.4	82.3	83.4	85.5	87.5
Head tube length	7.6	9.7	6.5	8.7	10.7	11.6	12.0	12.9	13.9	14.9	15.7	17.9	19.8
Steerer length	12.2	14.3	11.1	13.3	15.3	16.2	16.6	17.5	18.5	19.5	20.3	22.5	24.4
Extralight frame weight	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.9	3.1	3.3
SHORT TOP TUBE													
Frame size (cm, ctr-top)	45"	47"	49"	51"	53"	54"	55"	56"	57"	58"	59"	61"	63"
Head angle	71.5	71.5	72.5	72.5	73.0	73.0	73.0	73.5	73.5	73.5	73.5	74.0	74.0
Top tube	50.5	51.0	51.5	52.1	53.3	54.5	55.0	55.5	56.1	56.5	57.0	57.5	58.5
Chainstay	41.2	41.2	41.7	41.4	40.8	41.0	41.0	41.0	41.0	41.0	41.0	41.6	41.6
Wheelbase**	95.9	96.5	96.3	96.7	97.0	97.9	98.4	97.5	98.1	98.5	99.1	99.2	100.1
Standover height	69.5	71.5	73.8	76.0	77.9	78.6	79.5	80.3	81.4	82.3	83.4	85.5	87.5
Head tube length	7.6	9.7	6.5	8.6	10.5	11.4	12.5	12.8	13.8	14.8	15.6	17.8	19.8
Steerer length	12.2	14.3	11.1	13.3	15.1	16.0	17.1	17.4	18.4	19.4	20.3	22.4	24.4
Fork rake	3.8	3.8	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
Road frame weight	2.6	2.7	2.7	2.8	3.0	3.0	3.0	3.2	3.4	3.5	3.6	3.9	4.1
Extralight frame weight	2.3	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.9	3.0	3.2
LONG TOP TUBE													
Frame size (cm, ctr-top)	45"	47"	49"	51"	53"	54"	55"	56"	57"	58"	59"	61"	63"
Head angle	72.0	72.0	73.0	73.0	73.0	73.5	73.5	73.5	73.5	74.0	74.0	74.0	74.0
Top tube	52.5	53.2	54.5	55.0	55.5	56.1	56.5	57.1	57.5	58.5	59.5	60.2	61.0
Chainstay	40.9	40.9	41.7	41.4	40.8	41.0	41.0	41.0	41.0	41.0	41.0	41.6	41.6
Wheelbase**	97.2	98.0	98.9	99.3	99.2	98.6	99.0	99.1	99.5	100.0	101.0	102.0	102.7
Standover height	69.6	71.5	73.8	76.0	77.9	78.6	79.5	80.3	81.4	82.3	83.4	85.5	87.5
Head tube length	7.6	9.6	6.3	8.7	10.7	11.0	12.1	13.0	13.9	14.7	15.7	17.9	19.8
Steerer length	12.2	14.2	10.9	13.3	15.3	15.6	16.7	17.6	18.5	19.3	20.3	22.5	24.4
Fork rake	3.8	3.8	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Road frame weight	2.6	2.7	2.8	2.9	3.0	3.1	3.1	3.3	3.4	3.5	3.7	4.0	4.2
Extralight frame weight	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.8	3.0	3.1	3.3

*650c wheels

**with recommended fork rake

Specifications subject to change without notice



MERLIN
TITANIUM

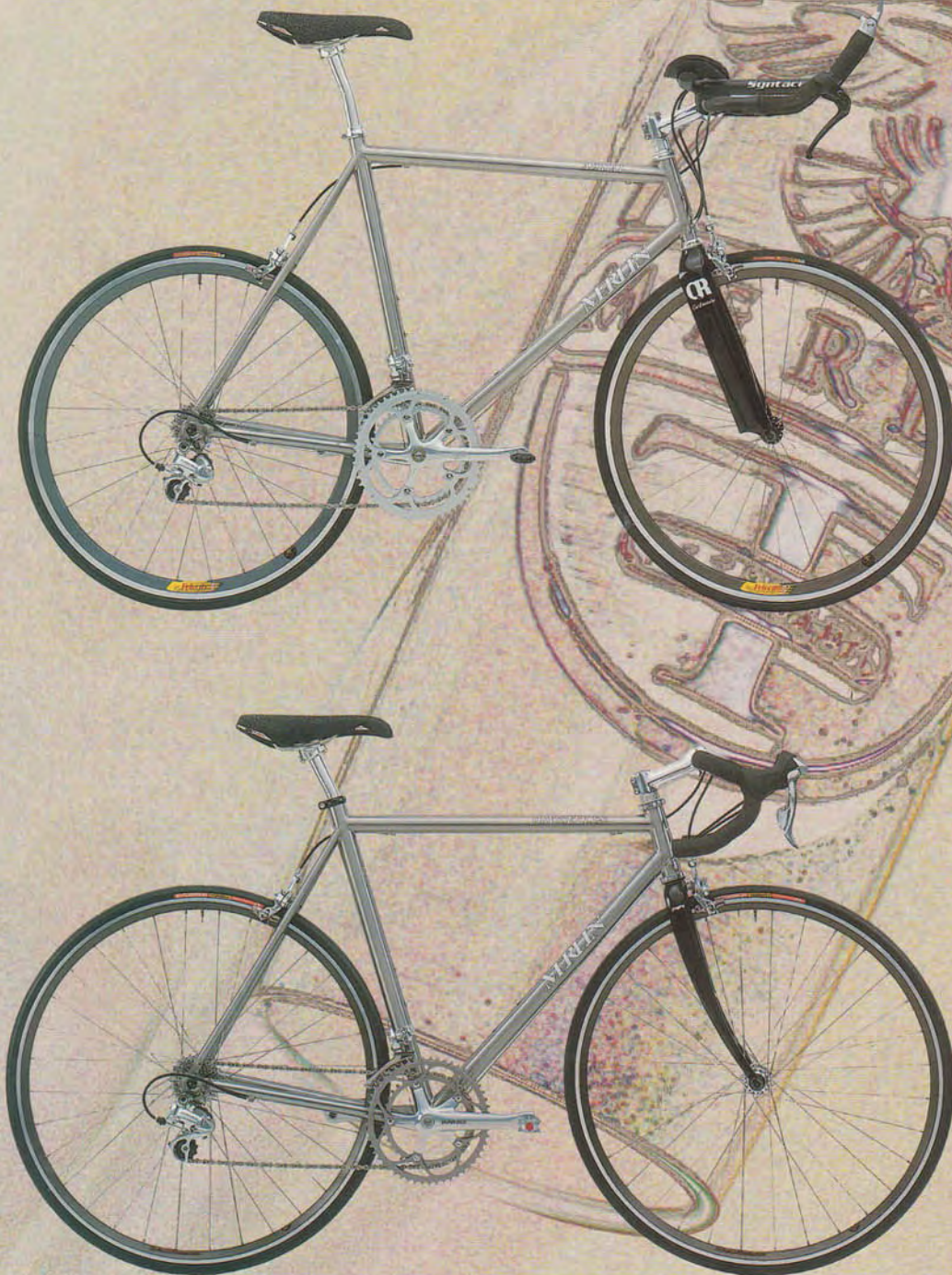
AERIAL

Merlin's stable of thoroughbreds now includes a true tri-specific bike, made with Merlin's own distinctive attention to detail. Merlin's Tom Kellogg and Quintana Roo's engineering staff hashed out a design that takes advantage of Merlin's MTS3/2.5™ tubeset and QR's tried and true geometry. With the swim behind you and only the hard pavement ahead, this bike will ensure that you cover the miles quickly and comfortably.



ODYSSEY

Legendary welds, strict attention to detail, and the most refined handling. In short, what makes it 'a Merlin.' That's what goes into the Odyssey. Its appetite for performance is unmatched by any other Ti frame in its class or price point. Whether meeting with friends at the club ride or heading out on a double-century, the Merlin Odyssey is the perfect companion for your journey, wherever you decide to go.





Loyal to the Sport



MERLIN AERIAL TRI BIKE								
	47	49	51	53	55	57	59	61
Seat tube (cm, cfr-top)	44.1	46.2	48.2	50.3	52.3	54.3	56.3	58.3
Seat tube (cm, cfr-cfr)	42.5	44.5	46.6	48.6	50.6	52.6	54.6	56.6
Head angle (cm)	72.0	72.0	72.0	72.5	72.5	72.5	72.5	72.5
Seat angle (cm)	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
Nominal top tube (cm)	48.0	50.0	51.0	52.0	53.0	54.0	55.5	57.0
Chainstay (cm)	38.4	38.4	38.0	38.0	38.0	38.0	38.0	38.0
Wheelbase (cm)	92.2	95.3	95.9	96.6	97.8	99.0	100.8	102.5
Standover height (cm)	70.8	72.2	73.3	74.6	76.6	78.5	80.6	82.6
Bottom bracket drop (cm)	4.4	4.4	4.4	4.1	4.1	4.1	4.1	4.1
Head tube length (cm)	8.6	10	10.1	10.3	12.4	14.3	16.8	18.9
Fork rake (cm)	2.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Frame weight (lbs)	2.7	2.8	2.8	2.8	2.9	3.0	3.3	3.7

MERLIN ODYSSEY										
	49	51	53	54	55	56	57	58	59	61
Frame size	47.5	49.5	51.5	52.5	53.5	54.5	55.5	56.5	57.5	59.5
Head angle	72.5	73.0	73.0	73.0	73.5	73.5	73.5	73.5	74.0	74.0
Seat angle	74.0	74.0	74.0	73.5	73.5	73.0	73.0	73.0	73.0	72.5
Top tube	52.1	53.3	54.5	55.0	55.5	56.1	56.5	57.1	57.5	58.5
Chainstay	41.6	41.3	40.6	41.0	41.0	41.0	41.0	41.0	41.0	41.6
Wheelbase*	97.1	97.4	98.0	98.0	98.0	98.1	98.5	99.0	99.0	100.2
Standover height	73.8	76.0	77.9	78.6	79.7	80.3	81.4	82.3	83.4	85.5
Bottom bracket drop	7.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.7
Head tube length	6.6	8.6	10.5	11.4	12.0	12.8	13.8	14.8	15.6	17.8
Steerer Length	11.2	13.2	15.1	16.0	16.6	17.4	18.4	19.2	20.2	22.4
Fork rake	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	4.0
Frame weight	3.1	3.2	3	3.4	3.4	3.5	3.6	3.6	3.6	3.7

*With recommended fork rake	Specifications subject to change without notice									
-----------------------------	---	--	--	--	--	--	--	--	--	--

*With recommended fork rake Specifications subject to change without notice

AERIAL

- Eight sizes (47-61 cm) in odd size increments
- Merlin MTS3/2.5™ size-specific tubing
- 78° seat tube angle
- Real Design's 5° setback clamp
- QR Carbonaero fork
- Complete bike or frameset
- 650c wheels front and rear
- Geometry/design collaboration between Tom Kellogg and Quintana Roo
- Lifetime warranty*

ODYSSEY

- Ten sizes (49-61 cm)
- Merlin 3/2.5™ G4 Merlin tubeset
- 7/8" chain stay design for all sizes
- 5/8" seat stay design for 49-57 cm
- 3/4" seat stay design for 58-61 cm
- Head tube shifter bosses
- 700c wheel size
- Geometry by Tom Kellogg
- Lifetime warranty*

*See warranty policy for details

Merlin Metalworks
 40 Smith Place, Cambridge, MA 02138
 617-661-6688 • fax: 617-661-6673
www.merlinbike.com
 e-mail: merlin@merlinbike.com