



  
**Orange**



Don't do as we *say* do as we *do!*



## What's the best way to get the mountain bike you want?

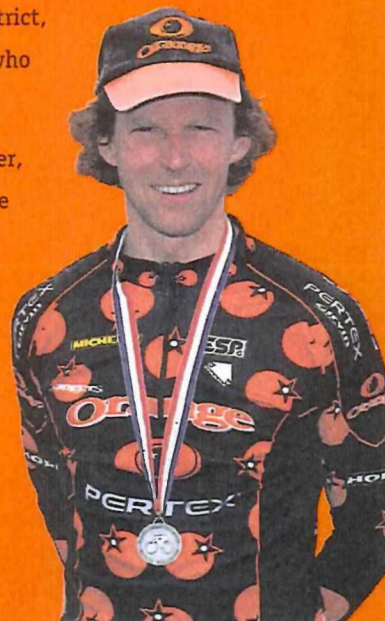
Build one yourself, of course. Lester Noble and Steve Wade took this a stage further, they created Orange Mountain Bikes and made some for a few friends as well. The Orange reputation spread and grew into a strong following of converts riding their exclusive bikes, all because they wanted a better bike for themselves. This remains the same today, the bikes they produce are ridden over the length and breadth of the country, by everyone from touring adventurers on their steadfast C16Rs, through to Pro-Elite race winning downhillers ripping it up on their X1s.

It's nothing new for bike manufacturers to claim that they ride every day, (hey, if you ran a bike company you'd say so too), the thing is the Orange folks really do.

Lester Noble lives on the doorstep of the UK's mountain biking paradise - the Lake District, consequently there aren't many people who whup him on the hills.

Steve Wade is also quite a keen daily rider, so keen that he won a silver medal at the 1996 British National Championships.

Now that's what you call leading by example.



*The Orange philosophy is a simple one - we build what we ride, we ride what we build.*



**Animal Aided Design**

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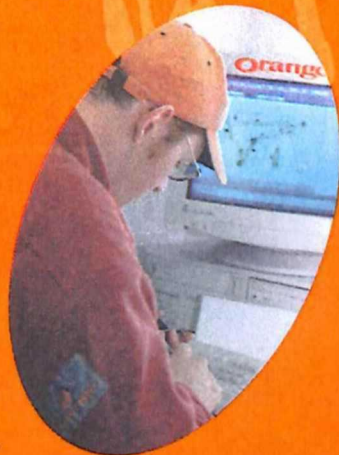
All right, we admit it we've got a CAD system.

We do use the latest Computer Aided Design systems during development of our competition winning mountain bikes such as the full-suspension X1. As new manufacturing techniques come of age we are right there at the forefront, making the most of them, using CAD to test the theory before putting our ideas into practice.

CAD systems can be invaluable. When crafting the X1 frame, for example, the ability to rock the swing arm on screen and test shock reaction curves, meant that before a welding torch was even lit, we knew we had the right geometry.

But when it boils down to the nitty gritty there's no substitute for AAD™. Animal Aided Design is the system we rely on most. We take the fittest, fastest, raddest riders in the country and make them ride till they drop.

We don't bring anything onto the market unless we are 110% happy with it, right down to the last detail.



*Building bikes - lets face it, it's a dirty job, but someone has to do it!*

# Attitude!

**When all is said and done, we ride bikes to have fun.**

Although Team Orange have the biggest presence on the British race circuit, racing is not the only thing that Orange is about. It doesn't matter whether you ride a bike to compete at the highest level, want to cycle across the Sahara or just like to scare yourself silly, Orange make bikes for you.

Rider feedback is most important. Take the P7 for example, our ready-for-anything hammer head frame came about because riders, fed up with the 'lightweight at all costs' mentality, told us they needed a bike that could be trusted to do anything. Hence, the legendary frame that gives the superb Orange kick-in-the-pants ride, while taking the punishment too.

The advantage at Orange is that there are no fat-cat investors governing us. We are totally rider driven which puts us in the perfect position to build the products you really want.

Above all, we treat building bikes as seriously as we do, so that you can have fun.



*Everyone feels like giving up on the first big climb. Don't!*



Planet Earth is 4,600 million years old. We can liken earth to a person of 46 years of age. Nothing is known about the first years of this person's life... only at the age of 42 did the earth begin to flower. Dinosaurs and the great reptiles did not appear until one year ago when the planet was 45. Mammals arrived 8 months ago and in the middle of last week man-like apes evolved into ape-like men and at the weekend, the last ice age enveloped the Earth.

Modern man has been around for four hours. During the last hour man took to agriculture. The Industrial Revolution began a minute ago. During those sixty seconds biological time, modern man has made a rubbish tip of paradise.

Please respect your planet and don't buzz other trail users.

Naturally, this brochure is printed on paper made from sustainable forests.



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# Clockwork

Reliable workhorse whatever the task

New Series 7.5 lightweight butted tubeset

Suspension fork as standard

The 'classic' Cro Mo chassis - better than ever

1998 SPECS



Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire HX4 9BH, England



# Clockwork



**R**esurrection! The Clockwork returns. So many people asked why we changed the Clockwork name to the C-16R. Well constant development means constant improvement and the C-16R was sixteen generations on from the original Clockwork. 'But we liked the Clockwork!' we heard time after time, so here it is reinstated, but better than ever – a C-17R if you will (or to tell the truth, more like a C-21R).

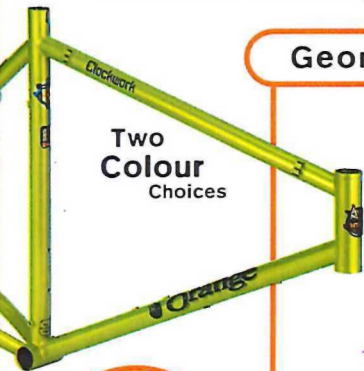
The 1998 version is over three pounds lighter

than the 1989 vintage, achieved by careful specification of our custom double butted series 7.2 tube set. The lively, robust chassis rides like many bikes that cost twice the price.

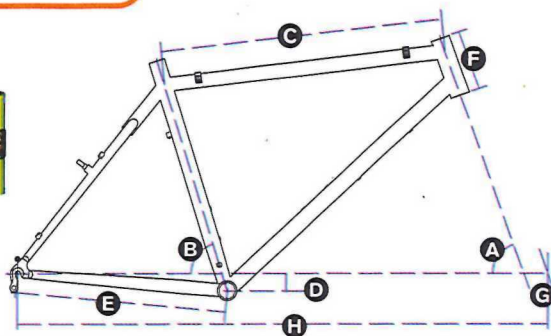
Ever important is rider comfort, for which the Clockwork has always been praised. A hard day's riding doesn't need to be made harder by your bike, many Polaris competitors swear by the C-series/Clockwork Orange workhorses. Yet it is still sharp enough to beat 'better' bikes out on the

cross-country race circuit. Sharing the same geometry as the P7, a suspension fork is standard, but a rigid option can be specified if required.

An ideal platform whether you want to campaign it on the race circuit or go fully equipped to explore the farthest reaches of the globe. The Clockwork was, still is and always will be the ultimate all round performer.



## Geometry



## Features

- Custom double-butted Series 7.5 cromoly tube set.
- Orange Mono Powerstay rear end.
- Seat tube externally butted at clamp and ovalised at bottom bracket.
- Clearflow bridgeless ovalised chainstays.
- Top routed cabling with brazed on bosses to avoid heat induced stress caused by welding.
- Front facing slot in seat tube/separate stainless steel seat post clamp.
- Tough epoxy powder coating in Blue Moon or Slime.
- Chain hanging pip for hassle free rear wheel removal.
- Bottle bosses on down tube and seat tube and Crud Catcher™ bosses.
- Pannier eyelets.
- Shimano plate front derailleurs and V-brake compatible.

## Frame size (ins)

	15	17	19	21
<b>A. Head angle (°)</b>	70.5	70.5	70.5	70.5
<b>B. Seat angle (°)</b>	73	73	73	73
<b>C. Top tube length (mm)</b>	524	544	563	583
<b>D. Bottom bracket height (mm)</b>	35	35	35	35
<b>E. Chainstay length (mm)</b>	420	420	420	420
<b>F. Head tube length (mm)</b>	85	85	120	140
<b>G. Fork offset (mm)</b>	45	45	45	45
<b>H. Wheelbase (mm)</b>	1024	1039	1057	1070
<b>Rider height range</b>	5'3"-5'7"	5'6"-5'9"	5'8"-6'1"	6'0"-6'4"
<b>10° rise stem length (mm)</b>	115	130	130	145
<b>Steerer length (mm)</b>	168	168	203	223
<b>Seat post diameter</b>	all seat posts 26.4 mm, shimmed to 29.6 mm			
<b>Frame weight (grams)</b>	1850	1940	2040	2100



Orange

**P7**

**1998 SPECS**

The Ultimate Hammerhead Steel Chassis  
Series 8 double butted heat-treated Cro Mo tubeset  
Tested on Animals and proud of it  
Twice voted MBUK 'Best bike under £1000'



Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire MX4 9BH, England

# P7

It was after witnessing the wilder members of the Orange test team putting the P7 through its paces that the quote 'Tested on Animals' was born. After three years of constant thrashing the P7 and the phrase have become inextricably linked.

Regardless of how far your pocket stretches in

terms of componentry, the base ingredient is the P7 cromoly frame, featuring our own Series 8 micro-buttet tubes – the ultimate steel chassis. Choose the specification to suit and you have a finely tuned bike which hates to go slow and demands to be hammered by all hard-core riders.

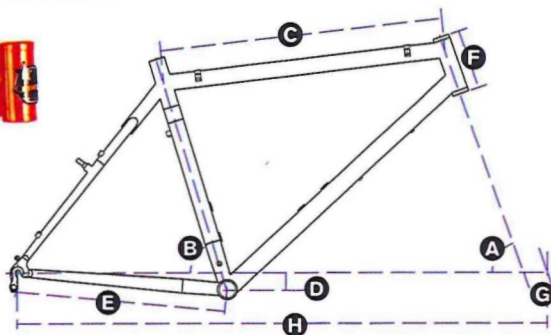
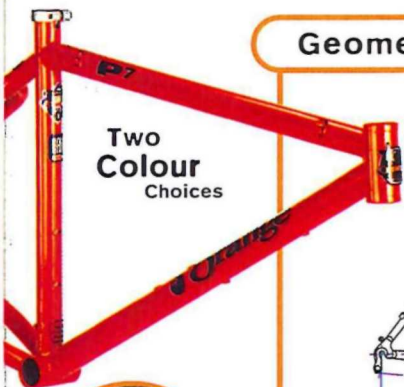
Voted best bike under £1,000 for two years running, 1996 and 1997 by MBUK readers, this is what they said: 'The bike handles well



whether you are racing, bumming around the woods or packed up to the hilt for a world tour. The P7 is always ready to take you there.'

We said it was 'Ready to hammer' and judging from the fact that it was voted into first place, we think you must agree.

## Geometry



## Frame size (ins) 15 17 19 21

A. Head angle (°) 70.5 70.5 70.5 70.5

B. Seat angle (°) 73 73 73 73

C. Top tube length (mm) 524 544 563 583

D. Bottom bracket height (mm) 35 35 35 35

E. Chainstay length (mm) 420 420 420 420

F. Head tube length (mm) 85 85 120 140

G. Fork offset (mm) 45 45 45 45

H. Wheelbase (mm) 1024 1039 1057 1070

Rider height range 5'3"-5'7" 5'6"-5'9" 5'8"-6'1" 6'0"-6'4"

10° rise stem length (mm) 115 130 130 145

Steerer length (mm) 168 168 203 223

Seat post diameter all seat posts 26.4 mm, shimmed to 29.6 mm

Frame weight (grams) 1880 1950 2090 2140

## Features

- Heat-treated custom double-buttet series 8 cromoly tube set.
- Orange Mono Powerstay rear end.
- Seat tube externally buttet at clamp and ovalised at bottom bracket.
- Clearflow bridgeless ovalised chainstays.
- Top routed cabling with brazed on bosses to avoid heat induced stress caused by welding.
- Machined externally buttet head tube.
- Front facing slot in seat tube/separate stainless steel seat post clamp.
- Tough epoxy powder coating finish.
- Chain hanging pip for hassle free rear wheel removal.
- Stress dispersing diamond bottle bosses on down tube and seat tube.
- Crud Catcher™ bosses.
- Pannier eyelets.
- Shimano plate front derailleurs and V-brake compatible.



Orange

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Series 14 double butted oversize 7005 aluminium

Mountainbiking's playground Bully

Lightweight Aluminium chassis that packs a hefty punch

Built for strength - gussets on top tube and down tube

1998 SPECS



Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire HX4 9BH, England



## Features

- Series 14 heat-treated 7005 custom double-butted aluminium tube set.
- Orange Mono Powerstay rear end.
- Machined externally butted head tube with gussets at top tube/down tube and head tube/down tube junction for improved impact absorption.
- Swaged down tube for maximum rigidity.
- Externally machined bottom bracket shell.
- Ovalised chainstays, with anti-chainsuck plate.
- Offset custom drop-outs for superior clearance and strength with pannier eyelets and replaceable rear derailleur hanger.
- Top routed hydraulic hose compatible cable routing via stress reducing side welded bosses.
- Tough epoxy powder coating in either Cream or Matt Black.
- Bottle bosses on down tube and seat tube and Crud Catcher™ bosses.
- Front facing slot on seat tube/separate aluminium seat clamp.
- V-brake compatible.
- Suspension fork as standard.

Orange

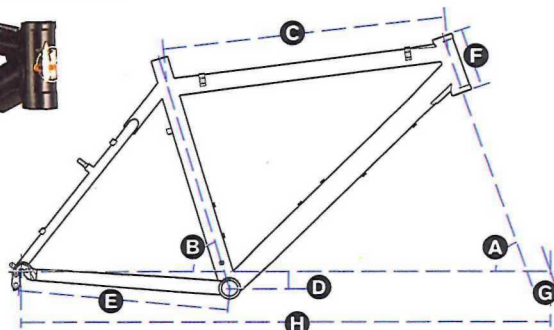
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The O2 is a tough, light, no compromise, hardcore mountain bike that's built to rampage. In short, a typical product of our Animal Aided Design programme. The geometry and build is designed to benefit from new features like longer-travel suspension forks and V-brakes.

The oversize Series 14 tube set is custom butted for maximum strength and rigidity, with top tube and swaged downtube both gusseted for optimum stress dispersion.

The ultimate Orange thrashmobile, ready to rock and roll. Are you up to it?

## Geometry



Frame size (ins)	15	17	19	21
A. Head angle (°)	70.5	70.5	70.5	70.5
B. Seat angle (°)	73	73	73	73
C. Top tube length (mm)	525	546	565	585
D. Bottom bracket height(mm)	35	35	35	35
E. Chainstay length (mm)	420	420	420	420
F. Head tube length (mm)	100	100	120	140
G. Fork offset (mm)	45	45	45	45
H. Wheelbase (mm)	1025	1043	1059	1074
Rider height range	5'3"-5'7"	5'6"-5'9"	5'8"-6'1"	6'0"-6'4"
10° rise stem length (mm)	100	115	130	145
Steerer length (mm)	183	183	203	223
Seat post diameter	31.6	31.6	31.6	31.6
Frame weight (grams)	1500	1560	1610	1680



**€4**

Easton Elite 7005 T6 double butted aluminium

Lightest Orange ever - 17" frame weighs in at 3.2lbs

Limited availability - Only 100 bikes for the UK

As used by Team Orange Pro-Elite XC riders

**1998 SPECS**



Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire HX4 9BH, England

# E4

pride that we present the Orange E4 – our latest no compromise race rocket, built purely for the athlete, designed to 'whup ass' and put the rider at the front of the pack.

Using Easton Elite tubing the quality of the frame is unquestionable. Orange design S-bend powerstay rear end gives a crank-to-dirt power transfer you won't believe, combine that with the legendary rider comfort the E-series bikes have always given – after all battered rider is a tired rider – and you have a race winning formula.

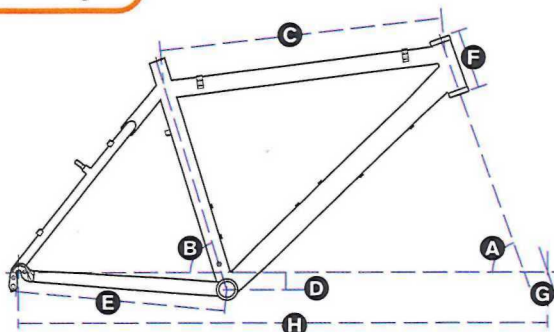
A serious racers tool, the E4 will only be available in limited numbers after the Team Orange allocation. Get in early to avoid disappointment.



## Features

- Easton Elite 7005 T6 double-buttet aluminium. Lightest Orange frame set to date!
- Orange Custom Mono S-bend Powerstay rear end.
- Machined externally butted head tube.
- Swaged downtube for maximum rigidity.
- Externally machined bottom bracket shell.
- Ovalised chainstays, with anti-chainsuck plate.
- Offset custom drop-outs for superior clearance and strength with replaceable rear derailleur hanger.
- Top routed hydraulic hose compatible cable routing via stress reducing side welded bosses.
- Tough epoxy powder coating in Team-Orange colour.
- Bottle bosses on down tube and seat tube and Crud Catcher™ bosses.
- Front facing slot on seat tube/separate aluminium seat clamp.
- V-brake compatible.
- Lightweight cross-country specific Suspension fork as standard.

## Geometry



Frame size (ins)	15	17	19	21
A. Head angle (°)	70.5	70.5	70.5	70.5
B. Seat angle (°)	73	73	73	73
C. Top tube length (mm)	525	546	565	585
D. Bottom bracket height(mm)	35	35	35	35
E. Chainstay length (mm)	420	420	420	420
F. Head tube length (mm)	100	100	120	140
G. Fork offset (mm)	45	45	45	45
H. Wheelbase (mm)	1025	1043	1059	1074
Rider height range	5'3"-5'7"	5'6"-5'9"	5'8"-6'1"	6'0"-6'4"
10° rise stem length (mm)	100	115	130	145
Steerer length (mm)	183	183	203	223
Seat post diameter (mm)	26.8	26.8	26.8	26.8
Frame weight (grams)	1420	1480	1530	1600

Orange



# X2

Real world full-suspension performance

Designed to perform up and downhill

Used by Team Orange Downhill and XC racers to win

Addictive ride quality - you won't want to stop

1998 SPECS



Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire HX4 9BH, England



# X2

**B**ucking the trend for full suspension bikes to go for bigger travel and more weight, the X2 is designed to be the ultimate all round full suspension bike. That the X2 is lighter than the current crop means the bike is a very able climbing machine as well as being a race winning downhill bike. Team Orange's 1997 NEMBA DH series runner-up, Chris Whitfield often takes an X2 for its sharp handling and power transfer rather

than his big-travel monster. Then consider that Gregor Grant used an X2 to bag a 1997 NPS XC title and it's clear that this bike means business.

URT, DRT, which way? The debate goes on. Both systems have their place, but in simple terms, the Orange single pivot URT design rear triangle just works! There are no complex, maintenance hungry linkages – no fuss, just function. With the pivot point so close to the bottom bracket, whether you're standing or sitting, the suspension always does its job.

So why take two bikes out on the trail when you can have the best of both worlds with the Orange X2? Simply Thrash & Go!



## Features

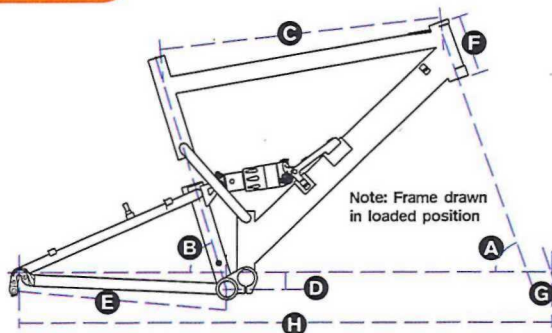
### Front end:

- Custom butted 7005 T6 aluminium tube set gusseted at top tube/head tube junction for improved impact absorption.
- Eccentrically machined externally butted head tube.
- Crud Catcher™ bosses.
- X2 unique double butted, double strength, aero downtube.
- Separate aluminium quick release seat clamp.
- X-Design shocker mounting with gussets welded to downtube at sides to maintain tube strength.

### Rear triangle:

- X-Bend shock stays for maximum chain clearance.
- Clearflow bridgeless ovalised chainstays.
- X-Design one piece machined pivot clamp and custom drop-out with replaceable rear derailleur hanger.
- Bottom bracket mounted anti-chainsuck plate.
- X-Design fully adjustable sealed oversize pivot for outstanding lateral rigidity. Light weight self-lubricating thermo-plastic bearings. 6082 T6 hard anodised aluminium pivot brushes. Internal shim stack allows fine adjustment of pivots. Easy to maintain and adjust with no special tools.

## Geometry



### Frame size

	S	M	L
<b>A. Nominal head angle (°)</b>	70	70	70
<b>B. Nominal seat angle (°)</b>	73	73	73
<b>C. Top tube length (mm)</b>	545	565	585
<b>D. Nominal B/B height (mm)</b>	25	25	25
<b>E. Chainstay length (mm)</b>	415	415	415
<b>F. Head tube length (mm)</b>	120	120	140
<b>G. Fork offset (mm)</b>	45	45	45
<b>H. Wheelbase (mm)</b>	1050	1065	1080
<b>Rider height range</b>	5'0"-5'9"	5'8"-6'1"	6'0"-6'4"
10° rise stem length (mm)	120	130	145
<b>Steerer length (mm)</b>	202	202	222
Seat post diameter	all seatposts 27.2 shimmed to 30.1mm		
<b>Frame weight inc. shock (grams)</b>	2840	2900	2960

Orange



# UFO

Fully active URT suspension bike

Limited edition exclusivity

Handbuilt by the Orange R&D department in Halifax

Lightweight Aluminium Monocoque construction

1998 SPECS



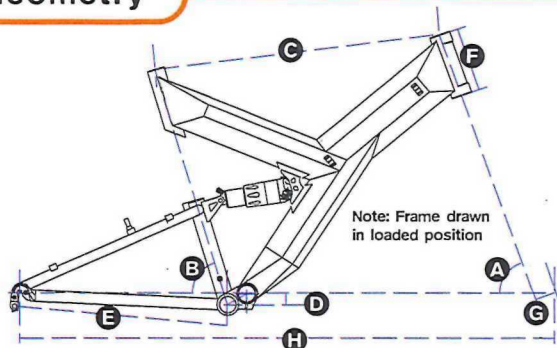
Orange Mountain Bikes Limited, Unit 3, Brookwoods Industrial Estate, Burrwood Way  
Holywell Green, Halifax, West Yorkshire HX4 9BH, England

# UFO

**H**aving been a top secret development project, the Orange monocoques are now in production. The first one to become available is the UFO. It combines the rugged construction of the monocoque aluminium beam frame with the supreme rideability that you have come to expect from all Orange mountain bikes. Using the URT technology developed for the X2, it gives the same fully active ride, but with a more rigid front triangle.

The smooth ride quality just has to be tried to be believed. Weight for weight the UFO chassis has a torsional stiffness no traditional tubular structure can hope to match. As a suspension bike frame we believe monocoques offer a progression from tube frame standards. These highly desirable machines are handbuilt at the Orange R&D department in Halifax in limited numbers, as such there will be limited availability with a price to match. Sooner, rather than later, is the time to speak to your Orange dealer.

## Geometry



Frame size	S	M	L
<b>A. Nominal head angle (°)</b>	70	70	70
<b>B. Nominal seat angle (°)</b>	73	73	73
<b>C. Top tube length (mm)</b>	545	570	595
<b>D. Nominal B/B height (mm)</b>	25	25	25
<b>E. Chainstay length (mm)</b>	415	415	415
<b>F. Head tube length (mm)</b>	130	130	140
<b>G. Fork offset (mm)</b>	45	45	45
<b>H. Wheelbase (mm)</b>	1050	1075	1085
<b>Rider height range</b>	5'0"-5'9"	5'8"-6'1"	6'0"-6'4"
10° rise stem length (mm)	110	130	140
Steerer length (mm)	212	212	222
Seat post diameter	31.6	31.6	31.6
Frame weight inc. shock (grams)	2825	2885	2945

## Features

### Front end:

- CNC cut and folded, TIG welded 6061 T6 aluminium monocoque construction.
- Eccentrically machined externally butted head tube and pivot tube.
- Side folds in spars to increase strength and stiffness of monocoque.
- Long head tube to cope with increased leverage caused by triple clamp design forks.
- Two easy access bottle cage positions
- X-design Shocker mounting with gussets welded to sides of spars to maintain monocoque strength.
- Hydraulic hose bosses for disc or V-brake compatibility.
- Extra boss for lock out shock control cable.
- All bosses welded on sides to maintain monocoque strength.
- Exclusive frame number plate rivetted to frame.
- Tough epoxy powder coating.

### Rear triangle:

- X-Bend shock stays for maximum chain clearance.
- Clearflow bridgeless ovalised chainstays.
- X-Design one piece machined pivot clamp and custom drop-out with replaceable rear derailleur hanger.
- Bottom bracket mounted anti-chainsuck plate.
- X-Design fully adjustable sealed oversize pivot for outstanding lateral rigidity. Light weight self-lubricating thermo-plastic bearings. 6082 T6 hard anodised aluminium pivot brushes. Internal shim stack allows fine adjustment of pivots. Easy to maintain and adjust with no special tools.

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