KONA

Mountain Bikes 1993

KONA

## WHAT IS KONA?

A darn nice place to hang out in Hawaii. Iron man country and the riding is superb.

## WHO ARE KONA?

We are a small group of riders living in the Pacific North West. (That's why we like Hawaii!). We've been messing with bikes for most of our lives and were around when mountain biking first began. We all ride to work each day because we would rather tackle a single track by a mountain stream than the freeway. This is Vancouver and the mountain biking is good within the city - get out and it's awesome.

At Kona we produce practical and durable high performance mountain bikes. We are not into mass market, big sales and fashion bikes - no purple anodising here! We don't have marketeers, we have riders. Maybe that's why our bikes have continually been credited with exceptional handling characteristics on both sides of the Atlantic.

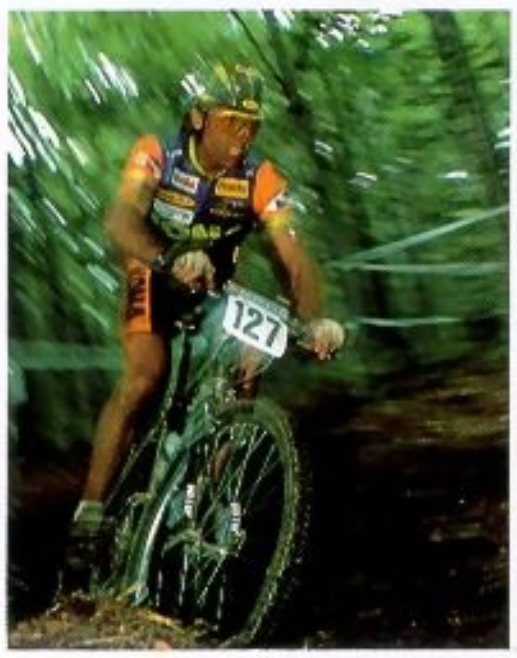
Product testing is important (fun) and a daily occurrence that we are all involved in. Living here with such rugged terrain on our doorstep and at times continuous rain, we know what to expect from a mountain bike. Testing products often to destruction until we've got it right. It is definitely not sunny California!

## KONA RACING

This is our marketing department. Kona is totally committed to racing, after all our designer, Joe Murray was hailed by *Mountain Bike Action* as the first of the 10 greatest mountain bike racers ever! We have an internationally successful race team with 4 top ten placings in the '92 Worlds - racing is the driving force behind all mountain bike design and development. No one pushes a bike harder than a racer!

The current International team consists of: Cindy Devine, Canada, the most consistent downhiller in the world (3rd '92 Worlds, 1st US NORBA finals, 3rd '91 Worlds, 1st '90 Worlds); Max Jones US (6th '92 Worlds Vets Cross Country, 1st US National Championships Vets '92, 5th Worlds '90); Natalie Fiat, France (8th Cross Country Worlds '92, 1st French Downhill Championships '92, 2nd Worlds Downhill '91, 4th Cross Country Worlds '91); Kris Oetter, Canadian National Team.

There are National teams in most countries supported by Pro Development riders, dealer and Club teams. The successful racing design goes through the range from the Hei Hei to the Hahanna.





**IN THE BEGINNING... JOE MURRAY**

"Who would ever have thought that the third place Novice finisher in the 1980 Zero Notch mountain bike race would go onto become a two-time NORBA National Champion and a highly respected bike designer? Joe Murray didn't think so, but that's exactly what happened to him after that seminal event. By '84 Joe Murray was a factory Fisher rider and had become the strongest rider on the off-road circuit. For four consecutive years he owned the Rockhopper Classic. He was the winner of the Whiskeytown Downhill in '84 and '85, the same years that he won his two NORBA National titles.

In '88 Murray signed on with Kona Mountain Bikes to design their complete line of mountain bikes and accessories. Joe was clearly concentrating on the business end of mountain biking, but no one could deny his talent and strength. Joe shocked the new breed of mountain men with three top ten finishes and an incredible overall victory at the Crystal Mountain NORBA National; Joe ended the season in sixth overall.

Ten years after he first raced mountain bikes, Joe was still at it using the NORBA Nationals as his R&D laboratory. Even though his name isn't as well known among the recent converts, there wasn't a person we talked to who omitted Joe from a list of the greatest racers ever. The early stages of his career were marked by domination and his own growth as a product designer. It's due to Joe that a legion of new riders joined the ranks and new products hit the shelves."

*Mountain Bike Action June '92*

MOUNTAIN BIKE Joe Murray COMPONENTS

**ABOVE:** Joe Murray, twice U.S. National Champion, Kona Designer.
**RIGHT:** Kilauea, Hawaii
**LEFT:** Max Jones, U.S. National Champion '92 (Vets)

**KONA OWNERSHIP**

We need you to help us... to help you. Register your ownership by completing and sending the swing tag to us, you should have got one with the bike. You will then be members of 'The Bicycle Group' a B.M.B.F. registered club so there will be no problems entering a race with the Kona race kit. Twice a year you will receive a news-letter with information about the Team, new products and tips on tuning your bike. Occasionally some of you will be asked for your views on the bikes or the service we offer. You may even win a prize, we run a draw for Kona owners and last summer two of you won a holiday mountain biking in the Pyrenees.

## KONA MOUNTAIN BIKES: THE '93 DESIGN BRIEF

"Get the weight down! Improve performance and give every Kona the feel of a $1500 custom bike...AND keep the prices competitive"!

That was a serious task. We changed virtually everything. We weighed every part of every bike from the top tube to the rim tape, cranks to spoke nipples. Then Joe Murray and team tested everything, as only they can, to ensure that it worked and lasted.

There was no compromising.

Every frame got a carefully selected tube set to dramatically reduce the weight of each bike, and improve the responsiveness of its' ride.

Componentry was carefully selected, everyone does that, but at Kona we went further. This is what makes Kona different. We selected the ultimate custom package from the best on offer, Shimano, Sugino, Dia Compe, Mavic, Bontrager, Rock Shox even Kool Stop, when they didn't have it we made it ourselves. The mass market boys choose a complete group set with the good, the bad, and the ugly. Kona riders demand more and insist that it is even lighter. We even mixed hubs on the Explosif to save another half an ounce...

Suspension. The '93 range was specifically designed for todays' riding styles. Most riders these days will want the efficiency, comfort and performance of front suspension.

Who wants to be last down the hill?

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# HEI HEI

*('Hay Hay')*

**FRAMES**

**Design:** Joe Murray didn't invent the sloping top tube frame design, he just perfected it. The key elements are;
1. The small rear triangle, creates a stiffer frame, improving acceleration and of course improving standover clearance.
2. Long top tube, increase your ability to apply the power on climbs and dramatically improve your downhill stability and control.

**Construction:** At Kona we would like to make every mountain bike of aircraft grade 3-2.5 Titanium, like the Hei Hei. This material is perfect because of its' lightweight, resilience, strength and corrosion resistance. However it has one big problem, the grade we need is very expensive. So what do we use on the rest of the range? Steel. Steel frames can be made very light, like the Explosif or light and well priced like the Fire Mountain and Hahanna. Steel is strong, easily worked and resiliant; springs are made of steel, and that's what makes a lively frame. However the big thing with steel is its' durability, you never see old aluminium or composite bikes and who offers a lifetime guarantee on them?

**BRAKES**

Dia-Compe, SS-7s and 987s are the hot brakes for their light weight, powerful stopping and excellent modulation. Both the Explosif and Kilauea come with this set up. The Explosif is further tuned with Kool Stop brake pads as original equipment. The Cinder Cone and Lava Dome use the stopping power of Shimano's new Multi Condition cantilevers with the light weight of the Dia-Compe SS-5 levers. The Fire Mountain and Hahanna both use Shimano new Multi Condition Braking to give better stopping than ever at this end of the market.

**IMPACT HEADSET**

The link between fork and frame, even more important now that suspension is so popular. Remember that Kona Mountain Bikes are designed by and for riders. It was only natural that Joe would come up with a simple headset that lasts forever, is totally sealed and easy to adjust.

**CRANKSET**

In order to reduce weight without compromising function our research led us to choose Sugino cranks. All these chainsets from the 650g XP on the Explosif to the XD 450 on the Lava Dome are lighter than XTR. Furthermore they all use Super Shifter chainrings for smooth fast changing even under load.
The Sugino chainsets also improve pedalling performance because of their very low 'Q' factor.

Engineering or Art?



**TOP MOUNTS**
Why? Here's two, of many reasons:
1. We all use bar ends, most people do. Put your hands on the bar end and think about shifting gear. Is the Rapid Fire gizmo almost by your finger or is it under the bar nicely tucked away. Top mounts make sense if you use bar ends most of the time. Look at the top three finishers in the '92 Worlds.
2. Most of you will hammer your bikes all winter in the mud and the wet. Top mounts take all the abuse that the winter can throw at them. Think about it!

## HEI HEI

The ultimate off-road bike in the ultimate material, Aircraft grade Titanium alloy. As more and more Titanium bikes become available, the differences between the Hei Hei and the rest become more obvious. Not all Titanium is created equal, we only use aircraft grade 3-2.5Ti alloy for the tubes, and water-jet cut 6-4Ti (which is too hard to draw into a tube) for the dropouts. These alloys are super light, don't corrode, and are much stronger than CP Titanium. Joe wanted the weight and feel of Ti but needed a stiffer chassis (even more important with suspension), so with Sandvik we developed an oversize down-tube. Then we re-designed the head-tube and created the bullet dropout from plate and billet 6-4 Ti to shave off a few more grammes. For those who want the complete Ti package we also produce Ti Project Two forks(630g), Ti Velocity stem (225g), Ti 150g handlebar, Ti Dewey bars (150g), and Ti'O'beam seatpost(225g). Ride the bike of World Champions.

**STOP PRESS.'92 WORLDS. BROMONT CANADA. HEI HEI 4 TOP 10 FINISHES.**

**WHEELS**
Rotating weight is extremely important, every time you brake or accelerate you feel its effect. However light wheels are no good if they potato chip after a few rides.We've selected Mavic 231, Kona 399 (from the Ritchey factory), and US made Bontrager rims. After making sure that the rims were light and strong, we saved more weight by using 15 g front spokes on all the bikes. On the top end bikes we saved another 40g with double butted rear spokes and a further 30g per wheel with alloy nipples.

**FORKS**
The fork is an integral part of the ride. A great frame will be ruined by a sloppy fork. Joe Murray has always stressed the importance of a forks torsional rigidity, hence the successful Project Two. As part of the custom package Kona now offer a choice of forks;
Project Two Triple Butted (795g), probably the best and one of the lightest rigid forks available. Torsionally stiff, strong, light and very comfortable because of its' ultra thin walled blades.
Rock Shox Quadra (2 lbs 15oz, 1.75" travel).
An adjustable elastomer version of the Mag 21.
Z-Link, designed by Joe Murray (3 lbs 2oz, 1.5" travel). This leading link design is torsionally stiffer than telescopic and so is ideal for single track and cross country. Make your choice and go for it!

1993

Design



Sugino XP crank: Four Spider design

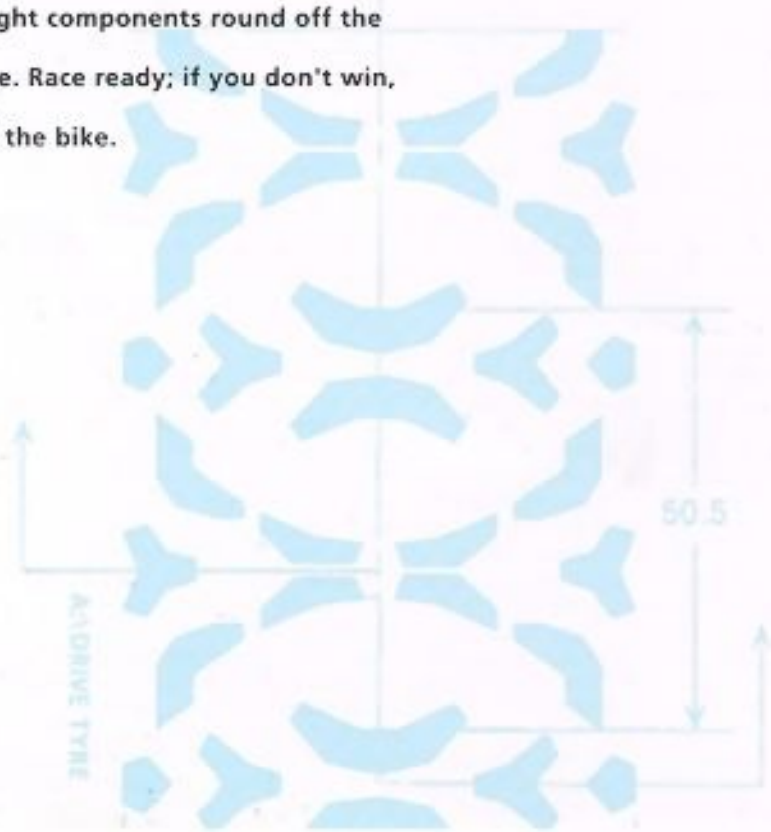
# EXPLOSIF

**COMPLETE HIGH PERFORMANCE RACE PACKAGE.**



The new Explosif, custom spec'd the hard way to give you the ultimate steel race bike. Joe Murray and the team at Kona have tried and tested every part they could get, and selected only the best to give you the quality and attention to detail of a one-off, at the price and availability of a production bike. For the frame we custom selected tubes from three different Tange heat treated tube-sets, for lightness (3.9lbs 19" frame), without sacrificing the stiffness and the responsiveness that has always set the Explosif above it's peers. For the components we went beyond standard specs to give you custom performance, 8 speed XTR with thumbshifters, Dia-Compe's fabulous brakes with the added power and detailing of Kool Stop brake pads, Mavic rims and of course all the Joe Murray and Kona Race Light components round off the package. Race ready; if you don't win, it's not the bike.

| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Excellent handling with rigid or suspension forks. Plenty of crotch clearance.* |
| Custom Tange MTB frame-set with oversize "splined" downtube | *Light and stiff frame with the ride, feel and strength of a custom bike.* |
| Choice of new lighter Project Two, Rock shox Quadra, or Z-Link Suspension forks | *Pick what you want: Lightness or better control and greater comfort at speed.* |
| XTR 8 speed with XT thumbshifter | *The best of both worlds: awesome 24 speed shifting, with reliable and easy to use topmounts.* |
| Cold forged Sugino XP Mighty chainset with Super Shifter chainrings | *Saves nearly 60g over XTR, and gives Hyperdrive like front changing. Every gear on demand whatever the situation.* |
| Dia-Compe SS-7, 987 brakes | *Super light, powerful stoppers.* |
| Kool Stop brake pads | *The best just got better. We did it for you.* |
| Mavic 231, 15G front, 14/15G rear spokes, alloy nipples, XTR XT front hubs | *Super light, yet tough, race ready wheels for quicker acceleration and braking. XT front hub saves 12g, and 30 pounds, to be put where it'll make you faster.* |
| Impact Headset | *Best there is, durable, keeps dirt out and easy to adjust in the workshop or on the trail.* |
| Full line up of Kona Race Light components | *Saves weight and they all work great.* |



KONA

# KILAUEA

*('Kill-a-way-ah')*

Introduced last year the Kilauea was the lightest and best spec'd bike in it's class. Kona have not rested on our laurels and have completely upgraded every part of this great bike. The new Kilauea combines classic off-road components like the Shimano Deore XT shifters and derailleurs, with a frame of Tange's flagship multishape Concept tubing. We then custom spec'd it with Dia-Compe brakes, light weight Sugino chainset, Kona 399 rims and the full set of Race Light and Joe Murray components. A damn fine bike.




RACE LIGHT

| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Excellent handling with rigid or suspension forks. Plenty of crotch clearance.* |
| Tange Prestige Concept Multi-shape main frame, Super Light rear triangle | *Heat treated Multishape tubing for a stiffer, faster, and more responsive ride. Light rear triangle helps the back-end clear trail obstacles.* |
| Choice of new lighter Project Two, Rock shox Quadra, or Z-Link Suspension forks | *Pick what you want: Lightness or better control and greater comfort at speed.* |
| XT front and rear derailleurs and topmount shifters | *Instant gear changes and reliability from this classic top-end performance set-up.* |
| Gravity cast Sugino XD500 chainset with Super Shifter chainrings | *Saves nearly 30g over XTR, and gives Hyperdrive like front changing. Low 'Q' factor improves pedalling efficiency.* |
| Dia-Compe SS-7, 987 brakes | *Super light, powerful stoppers.* |
| Kona 399 rims, 15G front, 14/15G rear spokes, alloy nipples, Deore LX hubs | *Super light, yet tough, race ready wheels for quicker acceleration and braking.* |
| Impact Headset | *Best there is, durable, keeps dirt out and easy to adjust in the workshop or on the trail.* |
| Full line up of Kona Race Light components | *Saves weight and they all work great.* |

Cindy Devine, Downhill World Champion '90, U.S. National Champion '92





Impact Headset

# CINDER CONE

The model that started it for us back in '88. This year we bring you the hottest Cinder Cone ever. We've taken the best from Shimano's brilliant new Deore LX groupset and then tweaked it to lift the performance and reduce weight. We've combined this with the super light frame that we used before on the Kilauea, and then finished off the package with trick parts normally found on one-off bikes like Bontrager rims, Dia-Compe's light and cool SS-5 brake levers, and the super light Sugino chainset. With or without suspension a smooth bike.



| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Excellent handling with rigid or suspension forks. Plenty of crotch clearance.* |
| Lightest Tange MTB double-butted main frame, Super Light rear triangle | *Built light and strong, to ride well and last. Light rear triangle helps the back-end clear trail obstacles.* |
| Choice of new lighter Project Two, Rock shox Quadra, or Z-Link Suspension forks | *Pick what you want: Lightness or better control and greater comfort at speed.* |
| Deore DX topmount shifters and front derailleur, Deore LX rear derailleur | *Reliable and easy to use topmounts. Instant gear changes whatever the terrain throws at you.* |
| Gravity cast Sugino XD500 chainset with Super Shifter chainrings | *Saves nearly 30g over XTR, and gives Hyperdrive like front changing. Low 'Q' factor improves pedalling efficiency.* |
| Dia-Compe SS-5 brake levers | *Race proven super light levers, perfect for use with M-system brakes.* |
| Bontrager BCX-3 (475g), and BCX-1 (390g) rims, 15G front, 14/15G rear spokes, alloy nipples, Deore LX hubs | *Stronger rear rim matched with light front rim, for hard-core and suspension riders.* |
| Impact Headset | *Best there is, durable, keeps dirt out and easy to adjust in the workshop or on the trail.* |
| Kona Race Light components | *Saves weight and they all work great.* |

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# LAVA DOME

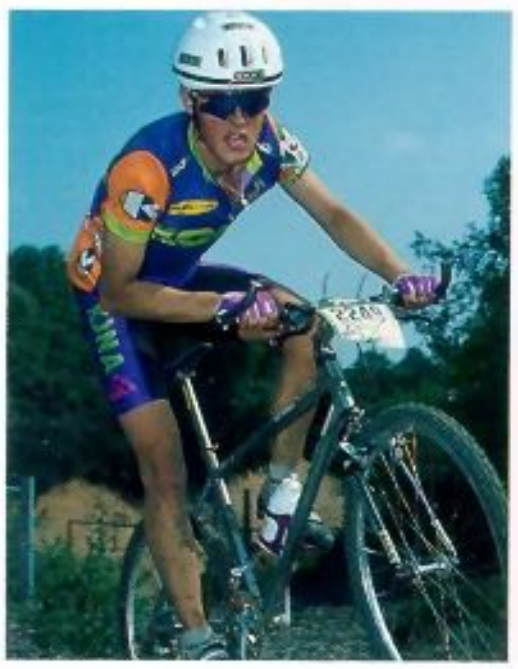
Unbelievable performance and value. The same super light frame as the Cinder Cone guarantees awesome performance and the ability to grow with you. Shimano's flawless rear shifting is matched by the assisted super-shift of the Sugino chainset (even lighter than XTR). Custom spec extends not only to the brakes, where we match the stopping power of Shimano's new M-system cantilevers to Dia-Compes trick SS-5 levers, but also includes all the crucial Joe Murray and Race Light components. Choose it with suspension for downhill hammering or the new Project Two's for lightweight cross country performance.



RACE LIGHT

| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Excellent handling with rigid or suspension forks. Plenty of crotch clearance.* |
| Lightest Tange MTB double-butted main frame, Super Light rear triangle | *Built light and strong, to ride well and last. Light rear triangle helps the back-end clear trail obstacles.* |
| Choice of new lighter Project Two, Rock shox Quadra, or Z-Link Suspension forks | *Pick what you want: Lightness or better control and greater comfort at speed.* |
| Deore DX topmount shifters with Shimano ES front and rear derailleurs | *Reliable and easy to use topmounts. Instant gear changes whatever the terrain throws at you.* |
| Sugino XD450 chainset with Super Shifter chainrings | *Lighter than the XTR chainset, and gives Hyperdrive like front changing.Every gear on demand whatever the situation* |
| Dia-Compe SS-5 brake levers | *Race proven super light levers, perfect for use with M-system brakes.* |
| Bontrager BCX-3 (475g), and BCX-1 (390g) rims, 15G front, 14G rear spokes, alloy nipples, ES hubs | *Stronger rear rim matched with light front rim, for hard-core and suspension riders.* |
| Impact Headset | *Best there is, durable, keeps dirt out and easy to adjust in the workshop or on the trail.* |
| Kona Race Light components | *Saves weight and they all work great.* |

Dave Hemming U.K. Team





Rear Brake Cable Guide

# FIRE MOUNTAIN

For most brands a 5lb frame would be good on their £550-£650 bikes, but with Kona that's what you get on the Fire Mountain. Combine this with the new Project Two Sport fork and you get a performance package at a price never before achieved. For the parts we have still managed to create a custom feel by mixing between Shimano groups, including Deore DX shifters, using U.S. made Bontrager rims, a light drop-bolt stem, 220g alloy handlebar and Race Light components. Performance no matter where or how you ride!

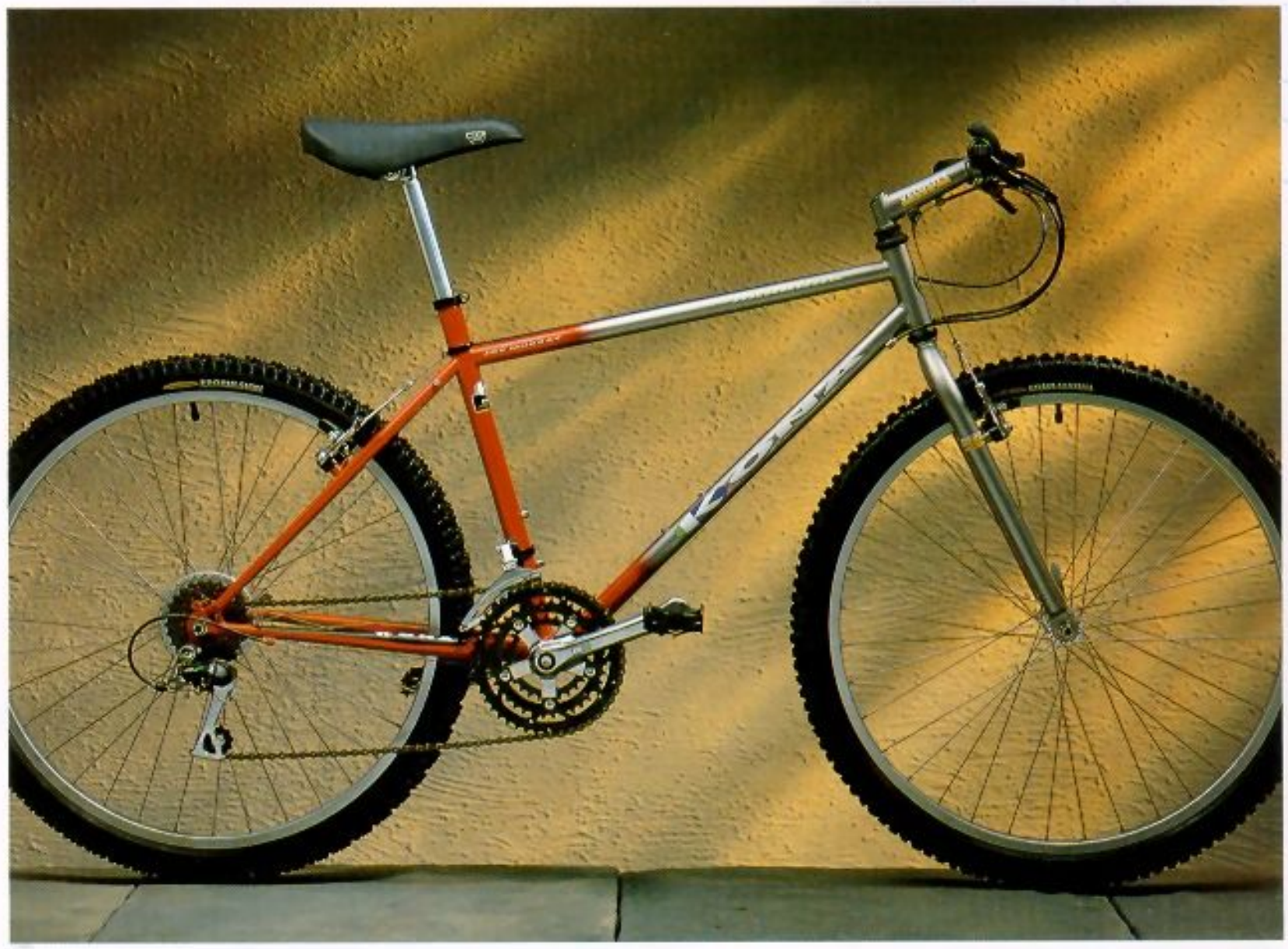


| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Plenty of crotch clearance.* |
| Full cromo frame, with Tange tubing | *5 lb frame gives light weight and unbelievable performance* |
| New lighter full cromo, Project Two Sport | *Highest performance fork in it's class, for perfect steering and a beautifully balanced ride.* |
| Deore DX topmount shifters with Shimano LT front and rear derailleurs | *Instant gear shifts from reliable and easy to use DX Top mounts.* |
| Shimano Multi Condition brakeset | *Powerful all weather stopping at a good weight.* |
| Bontrager BCX-3 rims (475g), 15G front, 14G rear spokes, ES hubs | *Super strong U.S. made rims with light front spokes for lasting performance.* |

KONA

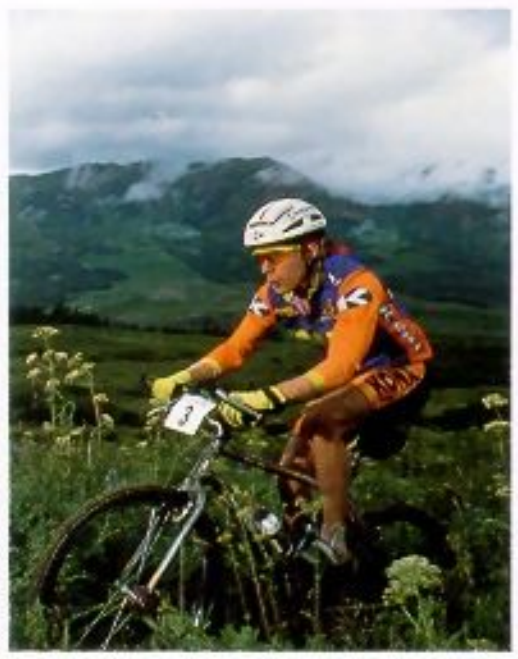
# HAHANNA

The Hahanna bears all the hallmarks of a genuine mountain bike. It is not a de-tuned entry level machine - it is a Kona. The same 5lb frame and Project Two fork as the Fire Mountain, makes this bike ready to ride anywhere without the sluggish performance and lack lustre ride of other mountain bikes and 'hybrids' in this class.
An intelligent parts mix gives you front and rear assisted shifting, M-system braking, replaceable chain rings for long life, Bontrager rims for light yet durable wheels and many Joe Murray and Kona Race Light components. A perfect introduction to Kona performance.



| WHAT | WHY |
|---|---|
| Sloping top tube frame geometry, designed by twice U.S. National Champion Joe Murray | *Rides great. Always balanced yet instantly responsive. Plenty of crotch clearance.* |
| Full cromo frame, with Tange tubing | *5 lb frame gives light weight and unbelievable performance* |
| New lighter full cromo, Project Two Sport | *Highest performance fork in it's class, for perfect steering and a beautifully balanced ride.* |
| Shimano A20 front and rear derailleurs with topmount shifters | *On demand instant gear changes extend throughout the range.* |
| Shimano A10 chainset with SG-X chainrings | *Hyperdrive like front shifting, every gear on demand whatever the terrain. Replaceable chainrings, this is a mountain bike.* |
| Bontrager BCX-3 rims (475g), 15G front, 14G rear spokes, ES hubs | *Super strong U.S. made rims with light front spokes for lasting performance.* |

Kris Oetter, Canadian Team










**KONA RACE LIGHT 165g HANDLEBARS (NEW): above left**
Kona were the first to introduce the superlight handlebar as a standard feature of its production bikes. Kona have now increased the durability of this bar by using T-6 6061 tubing. Available in satin finish. Weight 165g.

**KONA 150g TITANIUM BARS: not shown**
Made from aircraft grade titanium, these pipes could have found their way inside a jet. This grade of titanium is so high that it can-not be blown into a bulge so they come with shims to fit your stem.
Natural finish Weight 150g.

**VELOCITY RACE LIGHT STEM (NEW): also above left**
The new Race Light Velocity stem is made from the finest butted, heat treated chromoly. To reduce even more weight it has a short dropped bolt, and the light weight alloy wedge and quill are drilled out. The Velocity is available for suspension bikes without the cable hanger. Race Light, 250g (130mm), satin finish. 'Original' Heat treated, 313g, black. Titanium, 255g. Sizes: 1"+1 1/8", 110mm 10° rise, 130mm 5° rise, 150mm 0° rise. Designed by Joe Murray.

**JOE'S CLIPS: left**
Very popular multi-fit toe clip. Redesigned to be lighter and more compact. Spacers are available to allow the toe clip to fit almost any shoe size. Supplied with a double strap for extra security. (31g each),designed by Joe Murray.

**KONA RACE LIGHT SADDLE**
Cutaway sides reduce unnecessary weight and a leather cover gives comfort and long life. The rails are hollow chromoly for light weight and durability. They weigh the same as CP Titanium but are stronger, and less likely to bend, break or sag. Weight: 190g.

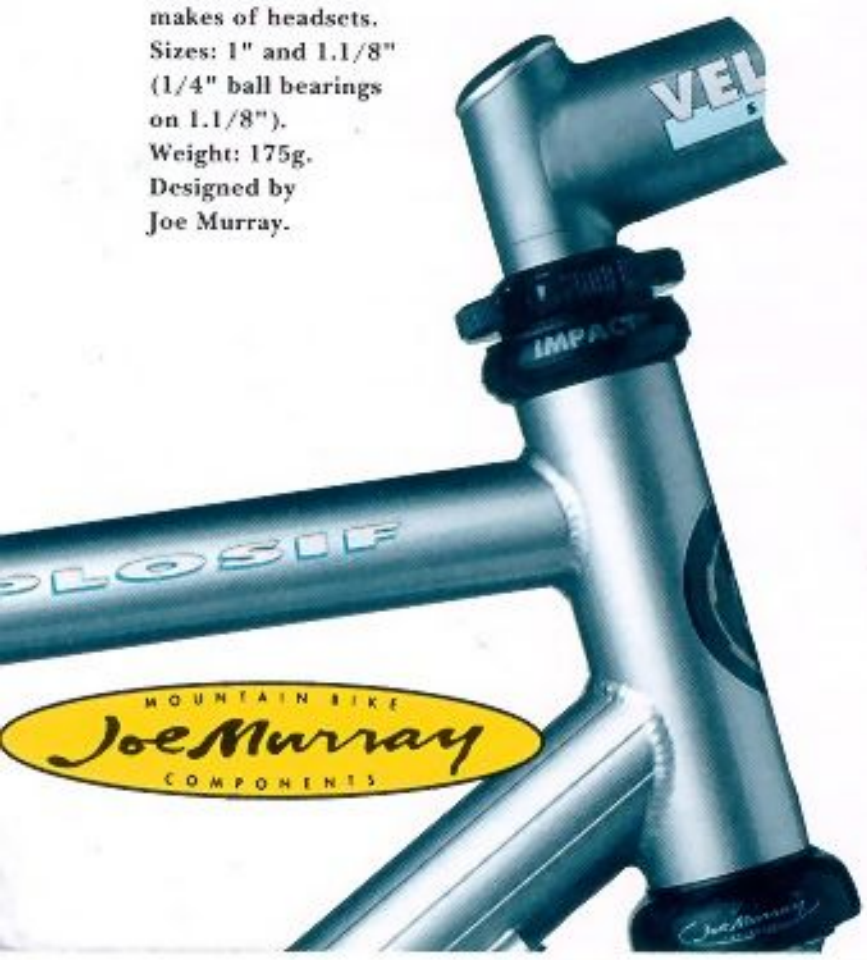
**KONA RACE LIGHT SEAT PIN**
The Kona Race Light Seatpin has a simple, elegant design, which is made of butted alloy for strength and lightness, 275g.

**KONA TITANIUM 'O' BEAM**
Aircraft grade super light post with alloy double bolt clamp. Natural finish. Weight 225g. Length 400mm. 27.2mm only.




**Z-LINK (NEW)**
A leading link suspension fork. The aluminium link with it's pressed in bearings has much less stiction (the static friction that prevents telescopic forks moving under small bump forces) than other designs, enabling the Z-Link to smooth out the small bumps without compromising performance at speed. Another little known advantage of the leading link is that it isolates the braking forces from the shock mechanism, providing good control during hard braking.
The Z-Link's greater torsional rigidity over telescopic forks makes for super accurate steering on all terrain. "Test riders liked the Z-Link because it had a lively feel in small bumps, eliminated trail irregularities and worked very well at speed." *MBA Nov '92.* Weight: 1400g, offset 1.5", travel 1.25".
Fork length increase 10mm. Designed by Joe Murray.

**IMPACT HEADSET**
The most practical and rider friendly headset available, totally sealed and strong. It is hand adjustable, the lock ring is then secured with a 4mm allen key.
Its' low stack height means it can be retrofitted to forks cut down for other makes of headsets.
Sizes: 1" and 1.1/8" (1/4" ball bearings on 1.1/8").
Weight: 175g.
Designed by Joe Murray.




**PROJECT TWO TRIPLE BUTTED CHROMOLY, NEW DROPOUT**
Originally developed in '92 from the Double Butted Project Two it retains it's torsional stiffness, but the triple butted blades are lighter and better tuned for shock absorption to give a smoother ride at speed. Further refined for '93, the new light weight investment cast dropout reduces the weight to only 795 g, giving the performance of the Project Two at the weight of other lightweight forks.

**PROJECT TWO**
Probably the most successful non suspended fork available. This fork continues to be a popular upgrade and replacement item for it's legendary durability and excellent handling.
Sizes 1" and1.1/8" headset: lengths 130mm, 150mm, 175mm, 200mm and 230mm. Designed by Joe Murray.




**HORSESHOE BRAKE BOOSTER**
Improve rear brake performance by bracing the cantilever bosses. This light weight accessory can also be used to beef up telescopic suspension forks.
Weight: 95g. Designed by Joe Murray.

# Accessories



**DR. DEW**
Brake lever extensions. Essential for all riders using bar ends. Dr. Dews simply bolt onto most brake levers, allowing the rider to brake whilst on the bar ends. Downhill, single track, or city riding are now possible on the bar ends. Braking power is dramatically improved because of the increased leverage. Weight 80g pair. Designed by Joe Murray.

**DEWEY TOO BAR ENDS (NEW)**
Heat treated chromoly bar ends with a flatter ski bend style. They now weigh in at only 175g a pair and come complete with cork ribbon and four end plugs. Available in satin finnish. Designed by Joe Murray.



Kona have developed a unique collection of rider orientated components. Joe Murray continues to develop new products and to refine existing ones. Many of these parts have now become standard replacement items, in particular the Project Two fork and the Impact Headset. These two items typify the Joe Murray design style, of high performance, durability and good value. In 1993 the Joe Murray mountain bike components will be complimented by Kona Race Light products. Most are standard specification on the bikes, look out for new titanium and aircraft grade aluminium bolts, axles and Race Light kits.



**A:DRIVE/B:DRIVE TYRES (NEW)**
Kona were first to develop specific front and rear drive tyres. The A/B:Drive are the latest set. A new open tread pattern and light weight construction make them ideal for the race circuit. The wider 2.3" A:Drive front tyre has the volume to give shock absorption and a tread pattern that carves great lines, combined with plenty of across the tyre knob area for powerful braking. The narrower 2.0" rear B:Drive tyre provides pure traction and good clearance. These tyres are made of a new, lighter compound and give great stability and confidence through corners and awesome climbing power. Kevlar bead, 120Tpi. A:Drive 640g, B:Drive 595g Designed by Joe Murray.

**PROPULSION / EQUILIBRIUM**
This second generation matching pair of tyres, now in a ligher compound, have a good all-round cross country tread with tremendous cornering grip. One of the best downhill and hard pack set ups in '92, even hotter in'93. 2.1 front, 2.0 rear. Designed by Joe Murray.

**MAXIMUM / REACTION**
The original matching pair. The 2.1" Maximum provides good shock absorption and cornering while the 2.0" Reaction has an open paddle type tread that is excellent in the wet. With their light weight and self clearing action they are an excellent U.K. cross country set up. Kevlar bead only. Maximum: 690g, Reaction: 650g. Designed by Joe Murray.

# Essentials



### PERTEX WINDTOP

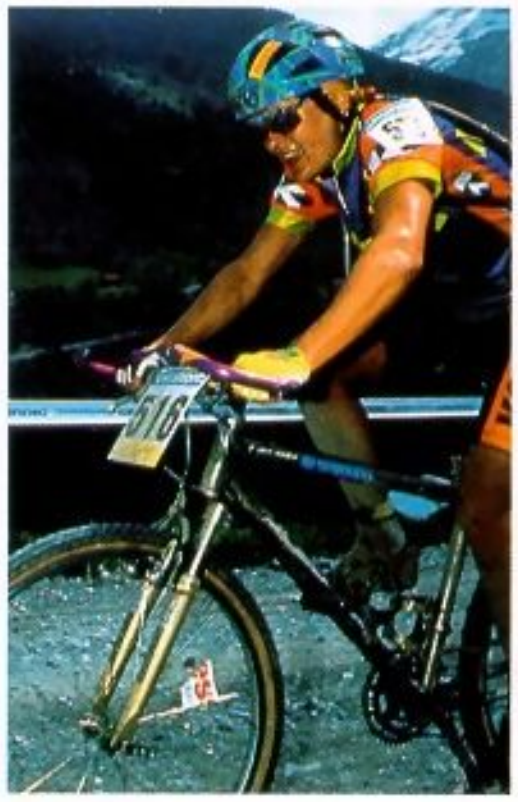
This is an all season outer garment. Pertex is certified as more breathable than Goretex , making it ideal for high energy activities like cycling. The combination of the Pertex outer, with its' outstanding breathability, high wind and water proofing; and the Coolmax lining which rapidly wicks perspiration away from the skin, make this jacket ideal for mountain biking, cycle touring and many other outdoor pursuits. A long zip allows precise temperature control whatever the weather throws at you. Use it as part of a layer system in the winter or as a lightweight shell for crisp summer mornings, bad weather or as a warm-up jacket. It folds into its' own chest pocket (10cm x 12cm x 8cm), compact enough to fit into a small bum bag or the back pocket of a racing jersey. Take it wherever you go.

### FLEECE

The Kona fleece is a multi-sport top with a design and construction that emphasises the needs of mountain bikers, yet is perfect for many other outdoor pursuits and apres-sports use. Wear it as an outer layer on warmer days, or as part of a layer system with the Kona Pertex windtop in the winter. Kona's ultra-light fleece is more wind resistant, less bulky, and quicker drying than other polar type fabrics. The combination of the ultralight fleece's good insulation, high wicking ability and breathability ensure that the jacket has a wide temperature range, making it warm in winter yet light enough for summer use. It absorbs very little moisture and dries very fast. It will still keep you warm even when damp. In addition the fleece is very abrasion resistant and so does not snag or pile up. It is tailored to fit with a long back and arms, and is finished with windseal lycra cuffs and waist. It is the fleece to use if you take your leisure seriously.

### LAYER SYSTEMS

Layering allows you to easily adjust for any temperature changes. This enables you to keep comfortable, to prevent overheating, and to prevent your body temperature from dropping too low. Each layer serves a specific function. The innermost layer must wick(or transport) perspiration away from the skin then spread it out so it dries quickly. The Coolmax lining does this on the Wind top. The high wicking ability of the fleece top allows it to be worn next to the skin on warmer days, and prevents rain from going through to the skin in bad weather. The next layer provides the insulation.
For maximum performance this layer should also have good wicking properties and breathability. The Kona Fleece is perfect for this layer. The outer layer blocks the wind and the rain.
It should be water resistant, breathable, and abrasion resistant. Good ventilation with zips and closures is essential.
The Pertex Windtop is ideal for this layer.



### RACE CLOTHING

**Racing shorts:** An 8 panel anatomical design cut for maximum comfort. The antibacterial insert is washable, quick drying and has a terry front panel.
**Tights:** Like the shorts they use the highest quality Du Pont Lycra and feature a unique thermal front lining for waist to knee warmth and protection.
**Racing Jersey:** A replica of the National and International Kona team jersey in the '93 colourway. Now with a long zip for more comfort in hot weather and when climbing.
**Long Sleeved Jersey:** Styled like the race jersey, but made with heavier weight material and a full length zip. Ideal for racing or training in cool weather, or as a warm up jacket. It has been designed specifically for the British climate, rather than a chilly Californian morning.
**Training jacket:** This is a three layer winter jacket. The printed outer layer conceals a waterproof liner. The bulk of the jacket is a thermal acrylic jersey. There are two large back pockets, two side hand warmer pockets, and an internal breast pocket.



### JOE'S TOOL

A ten function multi tool with 6, 5, 4, 3 and the all important 2mm allen keys, standard and cross head screw driver and a set of 3 sockets; 10, 9, and 8mm. Essential on the trail or in the workshop.



### COMBO CAGE

Essential equipment for any rider. Bottlecage, bottle, tyre levers and patch kit, all in one tidy unit. The patch kit and it's holder can be removed for seat tube mounting.



### PRO TEAM JACKET

Standard issue for all pro team riders.



### KONA TEES

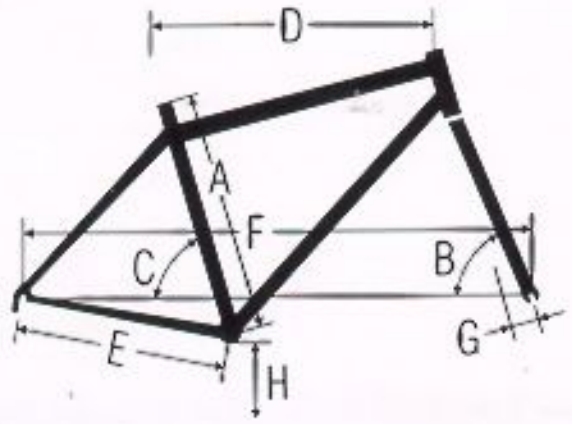
High quality T-shirts featuring the titanium spiral K logo, and other Kona designs that you won't find down at the charity shop.

# Specifications

| | EXPLOSIF | KILAUEA | CINDER CONE | LAVA DOME | FIRE MOUNTAIN | HAHANNA |
|---|---|---|---|---|---|---|
| **FRAME:** | Custom Prestige tube-set: Top tube: Ultimate Ultralight Down tube: Ultimate Ultrastrong Seat tube: Concept Rear triangle: Concept | Tange Prestige Concept Double Butted main frame, Super Light rear triangle | Tange Cromo Double-Butted main frame, Super Light rear triangle. | Tange Cromo Double-Butted main frame, Super Light rear triangle | Full Tange Cromo throughout | Full Tange Cromo throughout |
| **FORK:** | Project Two Triple Butted, with new drop out (795g) | Project Two Triple Butted with new drop out (795g) | Project Two Triple Butted with new drop out (795g) | Project Two Triple Butted with new drop out (795g) | New Project Two Sport Cromo with new drop out | New Project Two Sport Cromo with new drop out |
| **SUSPENSION:** | Rock Shox Quadra or Z-Link | Rock Shox Quadra or Z-Link | Rock Shox Quadra or Z-Link | Rock Shox Quadra or Z-Link | | |
| **HEADSET:** | Joe Murray Impact, Black (1.1/8") | Joe Murray Impact, Black (1.1/8") | Joe Murray Impact, Black (1.1/8") | Joe Murray Impact, Black (1.1/8") | YST 1" | YST 1" |
| **CRANKSET:** | Sugino XP Mighty cold forged with Super Shifter rings 46/26/24 (650g) | Sugino Fuse XD 500 Gravity cast with Super Shifter rings 46/36/24 (680g) | Sugino Fuse XD 500 Gravity cast with Super Shifter rings 46/36/24 (680g) | Sugino XD 450 Super Shifter rings 46/36/24 (700g) | Shimano LT, Round SG-X rings 46/36/26 | Shimano A10, Round SG-X rings 46/36/26 |
| **PEDALS:** | Kona (270g) with new Joe's Clips (34g each) | Kona (340g) with new Joe's Clips | Kona with new Joe's Clips | Kona with new Joe's Clips | Kona | Kona |
| **BOTTOM BRACKET:** | Shimano Cartridge | Shimano Cartridge | Shimano Cartridge | Shimano Cartridge | Shimano Cartridge | Shimano Cartridge |
| **FREEWHEEL:** | Shimano 8 speed XTR 12-28 | Shimano 12-28 Hyperglide 7 speed | Shimano 12-28 Hyperglide 7 speed | Shimano 12-28 Hyperglide 7 speed | Shimano 13-30 Hyperglide 7 speed | Shimano 13-30 Hyperglide 7 speed |
| **SHIFTERS:** | Shimano Deore XT Top Mount | Shimano Deore XT Top Mount | Shimano Deore DX Top Mount | Shimano Deore DX Top Mount | Shimano Deore DX Top Mount | Shimano 200 GS Top Mount |
| **FRONT DERAILLEUR:** | Shimano Deore XT | Shimano Deore XT | Shimano Deore DX | Shimano ES | Shimano LT | Shimano Altus A20 |
| **REAR DERAILLEUR:** | Shimano XTR | Shimano Deore XT Shortcage | Shimano Deore LX | Shimano ES | Shimano LT | Shimano Altus A20 |
| **HANDLEBAR:** | Kona Race Light 165 Aluminium (T-6 6061) | Kona Race Light 165 Aluminium (T-6 6061) | Kona Race Light 165 Aluminium (T-6 6061) | Kona Race Light 165 Aluminium (T-6 6061) | Aluminium 220g (6061) | Aluminium 220g (6061) |
| **STEM:** | Joe Murray Velocity (Cromo DB Heat-Treated) 250g | Joe Murray Velocity (Cromo DB Heat-Treated) 250g | Joe Murray Velocity (Cromo DB Heat-Treated) 250g | Joe Murray Velocity (Cromo DB Heat-Treated) 250g | Joe Murray Velocity Cromo, drop bolt (300g) | Joe Murray Velocity Cromo, drop bolt (300g) |
| **GRIPS** | New Kona Race Light (30g each) | New Kona Race Light (30g each) | New Kona Race Light (30g each) | New Kona Race Light (30g each) | New Kona Race Light (30g each) | New Kona Race Light (30g each) |
| **BRAKES:** | Dia Compe 987 cantilevers with Kool Stop brake pads | Dia Compe 987 cantilevers | Shimano Deore LX Multi Condition Cantilevers | Shimano ES Multi Condition Cantilevers | Shimano LT Multi Condition Cantilevers | Shimano C10 Multi Condition Cantilevers |
| **BRAKE LEVERS:** | Dia Compe SS-7 | Dia Compe SS-7 | Dia Compe SS-5 | Dia Compe SS-5 | Shimano C10 | Shimano C10 |
| **HUBS:** | Rear: Shimano XTR Front:Shimano Deore XT | Shimano Deore LX | Shimano Deore LX | Shimano ES | Shimano ES | Shimano ES |
| **RIMS:** | Mavic 231 silver anodised, 32 hole | Kona 399 32 hole (399g) | Bontrager BCX-1 front, BCX-3 rear, 32 hole | Bontrager BCX-1 front, BCX-3 rear | Bontrager BCX-3 | Bontrager BCX-3 |
| **SPOKES:** | Front: 15G stainless Rear: 14/15G stainless, alloy nipples | Front: 15G stainless Rear: 14/15G stainless, alloy nipples | Front: 15G stainless Rear: 14/15G stainless, alloy nipples | Front: 15G stainless Rear: 14G stainless, alloy nipples | Front: 15G stainless Rear: 14G stainless, | Front: 15G, Rear: 14G |
| **TYRES:** | A:\Drive, B:\Drive Kevlar Bead new light compound | A:\Drive, B:\Drive Kevlar Bead new light compound | A:\Drive, B:\Drive New light compound | A:\Drive, B:\Drive New light compound | Equilibrium/Propulsion New lighter compound | Equilibrium/Propulsion New lighter compound |
| **SADDLE:** | Kona Race Light leather hollow cromo rails (190g) | Kona Race Light leather hollow cromo rails (190g) | Kona Race Light Cromo (230g) | Kona Race | Kona | Kona |
| **SEAT POST:** | Kona Race Light (275g), 350mm | Kona Race Light (275g), 350mm | Kona Race Light (275g), 350mm | Kalloy 350mm | Kalloy 350mm | Seat Post: 350mm alloy |
| **SEAT CLAMP/QR:** | Kona aluminium (21g), with 5mm allen key | Kona aluminium (21g), with 5mm allen key | Kona aluminium (21g), with 5mm allen key | Kona aluminium (21g), with 5mm allen key | Kona aluminium (21g), with 5mm allen key | Kona aluminium (21g), with 5mm allen key |
| **WEIGHT:** | 23.5lbs | 24.5lbs | 25.5lbs | 26.5lbs | 27lbs | 27.5lbs |

| **SIZE: A** | 14"* | 16" | 18" | 19" | 20" | 21" |
|---|---|---|---|---|---|---|
| **HEAD ANGLE: B** | 70.5° | 70.5° | 71.0° | 71.0° | 71.0° | 71.0° |
| **SEAT ANGLE: C** | 74° | 74° | 74° | 73° | 73° | 73° |
| **TOP TUBE: D** | 21.0" | 21.5" | 22.5" | 23.0" | 23.5" | 24.0" |
| **CHAIN STAY: E** | 16.75" | 16.75" | 16.75" | 16.75" | 16.75" | 16.75" |
| **WHEELBASE: F** | 40.0" | 40.5" | 41.5" | 41.7" | 42.2" | 43.7" |
| **OFFSET: G** | 1.6" | 1.6" | 1.6" | 1.6" | 1.6" | 1.6" |
| **B/B HEIGHT: H** | 11.5" | 11.5" | 11.75" | 11.75" | 11.75" | 11.75" |
| **STANDOVER HEIGHT** | 24.0" | 26.0" | 28.0" | 29.0" | 30.0" | 31.0" |
| **STEM LENGTH** | 110mm | 110mm | 130mm | 130mm | 150mm | 150mm |

* 14" available only on Hahanna **NB:** A policy of continuous development means that we reserve the right to change specifications without notice.




## FRAME WARRANTY

All frames are warrantied for the life of the original owner, including racing. Full details and conditions are listed in the owners manual. Read them!

## SIZING

The sloping top tube design offers the rider the advantages of increased top tube clearance and a tighter, lighter frame. Over the years, the Joe Murray designed Kona frames have earned a reputation for their extremely stable, efficient and comfortable ride. This has been largely due to the fine balance between our long top tubes (for performance off-road riding) and the tight and light rear triangle. When choosing a bike it is this length that is important. Vertical adjustment is easy with the seat pin, but reach cannot easily be adjusted. Make sure that the bike you buy has enough reach to put you in a powerful position over the pedals when riding, and with weight over the front wheel for climbing and control at speed.

KONA

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**CANADA:** The Bicycle Group, 343 Railway Street, Vancouver, BC, V6A 1A4, **Telephone:** 604-684-4933, **fax:** 604-684-6332

**USA:** Kona, 1122 Fir Avenue, Blaine, WA, 98230, **Telephone:** 206-332-5384, **fax:** 206-332-7073

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