

1994 MOUNTAIN BIKES



"Happiness is not an ideal of reason but of imagination."



The bicycle industry, like any other business is dominated by numbers. Numbers of departments, warehouses, distributors, dealers, and above all - units - of bicycles sold each year. By that measuring device, Kona rates rather low in the rank of bicycle

manufacturers. The big companies in cycling count on sales in the hundreds of thousands or millions of bicycles to justify their existence to the number crunchers.

At Kona Mountain Bikes, we look at bicycles the right way - from the rider's point of view. That is because we are bicycle riders first, and the reason we make bicycles is so that the people who buy them will get the best possible performance and enjoyment from riding them. Using that criteria. critical notices for Kona in 1993 judge our bicycles among the best. The very best, in fact, according to the editors of Mountain Biking (USA) magazine who named the Kona Kilauea as "Bike

of the Year". Add to that the readers of "Bike" (Spain) who called the Kona Hei Hei Titanium their "Dream Bike". Or Mountain Biking UK (England) who said that the Kona Explosif was "The best handling non-suspension bike we've ever tested".

If we listened to the number crunchers, we would be quick to take advantage of those positive notices. As we are all too well aware, quality and quantity do not mix particularly well, and Kona is the type of company that has always preferred the former to the

## THE FIRE INSIDE

The fire and force of the Volcano and the power in nature that it represents is the inspiration for the Kona name and many of our models.

The Hawaiian Islands are a volcanic chain and the Big Island is home of the Kilauea volcano, which has been spewing a steady stream of lava into the ocean since before man inhabited the islands.

Over the years, we've frequently visited the Kona coast and have been inspired to use some of the Island's friendly names on our bicycles.

latter. Will we be making more bicycles in 1994? Well, yes about 25% more bicycles for world-wide sales - which would he several hundred thousand more if we were one of those gigantic bicycle corporations. But, it's still not a lot of Kona bicycles, quite and frankly, we're not in any hurry to grow guickly.

Our growth is just the result of doing things well - and we certainly plan to keep on that right track - by meticulously analyzing and refining and improving every single little and big thing

that makes up our bicycles. Two new models and nine new Kona Race Light components have been added to our line-up, making the ten Kona Mountain Bikes for 1994 (and one road bike) included in this catalog the best selection of bicycles in our history.



"Thanks to Joe, who got us started in the right direction."

# KONA DESIGN GROUP

There is a hardcore group of bicycle riders within our company called the Design Group. The West Coast Cascade mountain range is the home of the backroads and single track where we ride every day. Here in the Pacific Northwest rainforest, we experience extreme weather conditions throughout the year, so we are able to take full advantage of the wide variations in riding conditions.

A constant stream of new frames, forks and components arrive on our doorstep and these must be thoroughly machine and road tested to the breaking point. Copious notes and charts are compiled and compared every day and every other week in the regular Design Group meetings.

During these intense and sometimes stormy meetings we review and debate the relative merits of every detail, however minute, that makes up a Kona Mountain Bike.

If we are not completely satisfied with the equipment tested, we take it upon ourselves to design and create the ideal part to do the job. As we write this catalog, there are 28 Kona Race Light components, and many more frame designs and details proprietary to Kona.

# IMPROVING ON A GOOD SHIRE

There isn't anything more important than the frame in determining the ride of a good bicycle. The particular material used is critical, and we'll get to that in the next section. But even more important are the geometry and overall dimensions of the frame design. Of particular concern is whether the design is appropriate for the intended use and components to be mounted on the bicycle.

Over the years, Kona has earned a reputation for making well-balanced bicycles that provide a stable. efficient and comfortable ride, and components that work together in an intelligent way. We work to maintain that balance by making our top tubes on the long side, which is very well suited to aggressive off-road riding and keeping the rear triangle tight and light. With the arrival of well-designed front suspension forks, we have refined our trademark sloping top tube design to integrate this important element into a unified package. First of all, we tailored the basic frame design to accommodate the longer total length of a shock fork. This is what is generically referred to as "suspension specific". Then we lengthened all of the top tubes by 1/4" - 1/2" to compensate for wheelbase shortening when the suspension fork is under load.

But revamping the dimensions and geometry is not enough: three Kona Race Light components were redesigned to make the entire package work in perfect balance. To maintain correct rider balance with a longer top tube, we made our Velocity stem in four new sizes, each one 5mm - 10mm shorter than those used on our previous bicycles. Realizing that the front tire's shock absorbing qualities are not quite

so important, and wishing to improve the clearance between the larger diameter shock fork blades we redesigned our front A:\Drive tire down to a 26 x 2.0 width. Finally, we slightly lengthened the Race Light Project Two fork so that you can maintain exactly the same geometry by changing to the A:\Drive 26 x 2.3 front tire.

We can't think of a clever marketing phrase that competes with that overused "suspension specific" cliche, but you could certainly say that every single Kona bicycle remains true to the integrity and philosophy of a well-balanced whole bicycle.

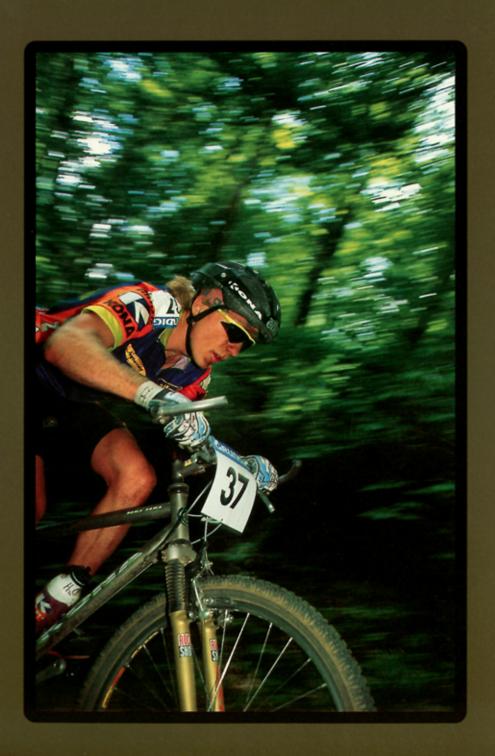
### **SLOPING TOP TUBE FIT**

Every single Kona Mountain Bike utilizes a sloping top tube design. There are some excellent reasons: Top tube clearance and stand over height is maximized. The frame is smaller and lighter. A short seat tube means less bottom bracket flex, the rear triangle is lighter and smaller and acceleration is significantly improved.

The continuous refinement of the sloping top tube design has enabled us to fit men, women and children.

There is an eight year old out there riding a 14" Fire Mountain! Most important to determining size on a Kona is the length of the top tube. Six sizes are produced with top tube length increments of 1/2" from 21" to 24". Additionally our Velocity stem is produced in six sizes from 100mm to 150mm to help further fine tune the correct rider/bike position.

As a result, our bikes can fit most people from around 4'8" (24" standover) up to 6'4" (30" standover).



# KONA RACING

Racing may not directly sell bikes, but that hasn't kept Kona from being committed to racing activities. Since our inception, some of the world's best professional mountain bike riders have race-proven our bicycles and provided a solid foundation of reliable test data. There have been many regional, national and international victories over the years. Even more important is the feedback we receive from riders who provide the most intensive testing conceivable.

Kona also recognizes that grass-roots racing deserves recognition. Since 1989, our pro development program has sponsored nearly 1000 up and coming racers with equipment and encouragement.

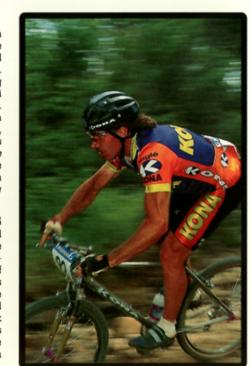
With the arrival of Max Jones on the Kona team, we took the opportunity to take advantage of his ten years of professional racing experience to sponsor Max Jones' Racing Clinics. We've presented about 50 clinics with the participation of over 2,000 racers of all categories during the last two years at regional, national and international events.

#### KRIS OETTER

Kris has been racing on a Kona Mountain Bike since 1988. He is one of the original Kona Pro Development Riders. All of his World Cup racing has been on the same 18" Hei Hei for the last three years. A member of the Canadian National Team since 1990, Kris has this to say about his Hei Hei: T don't want to ride on anything else." Kris, we have news for you: the team will be racing on the new Kona Kula next year.

#### **MAX JONES**

Ten years of top level professional racing have given Max a unique perspective on the sport of mountain biking. He uses that experience to lead the Kona Race Clinics all around North America. Back to back U.S. Veteran Championships have served as a notable exclamation mark to a notable career.



# FRAME TUEING THE BILLIE BILLIER

If money were no object, everyone would be riding a titanium mountain bike made from U.S. made - Sandvik 3-2.5 titanium alloy tubing. Titanium is stronger and lighter than the best cromoly steel, more durable than aluminum and completely corrosion resistant. You can build an efficient 3.3 pound mountain bike frame that will probably last to the end of the next millennium. It is important, however to recognize the difference between 3-2.5 Titanium, which is 94.5% titanium, 3% aluminum

and 2.5% vanadium and C.P. (commercially pure) titanium. 3-2.5 has 250% more ultimate tensile strength and 75% higher strength / weight ratio. Most bicycle manufacturers stopped using CP 25 years ago because the frames were too flexible. Seamless 2.5 Titanium alloy suitable for bicycle frames became readily available six years ago and that's when we started making titanium mountain bikes.

Along the way we discovered the world's leading manufacturer of

titanium tubing. Sandvik Special Metals has been making titanium alloy hydraulic tubing for the aerospace industry since 1981. Sandvik's plant in Kennewick, Washington is the type of pristine facility you might expect out of some future space age. There are 25 steps in producing Sandvik titanium tubing for aerospace use, with six quality control stations. Sandvik bicycle tubing is subjected to the same rigorous process. It is the most thoroughly tested and perfect material for bicycles. Period. Sandvik's facility for welding bicycle frames is equally impressive. They have been making our Hei Hei and Haole titanium frames since

1990. There are other factories that are willing to cut corners to offer a cheaper titanium bicycle. But no one makes a straighter, stronger, or more perfectly finished titanium bicycle frame than Sandvik.

Now that front suspension is at a stage of development where it is a real benefit to performance, aluminum has finally found a place in our bicycle line-up. Recent developments in aluminum tubing fabrication have made it possible to make a sub-4 pound bicycle frame that is reliable and efficient. Easton is clearly the leader

in aluminum tubing technology, with outstanding achievements in their heat-treated, taper wall Varilite tubing. We use it to make our new top-of-the-line Kula production bike. Double-butted, heat-treated 7000 series Alcoa tubing is used to make the new AA model. These suspension-only bicycles. With a rigid fork, the ride feels efficient in the parking lot, but extremely uncomfortable and inefficient off-road. Combined with a good shock fork, the rigid main frame and rear triangle provide an

excellent balance for the most extreme off-road conditions.



Kona 3-2.5 Titanium Alloy tubing. Made by Sandvik. The most thoroughly tested and perfect bicycle tubing in the world.

Finally, steel remains the most cost-effective and reliable material with which to build bicycles. It is easy to TIG weld and align, extremely strong and durable. The heat-treated Tange Prestige tubing we use in our Hot, Explosif and Kilauea bicycles enable us to build frames that weigh as little as 3.9 lbs. Even the "standard" double-butted cromoly tube set made by Tange used in our Lava Dome and Cinder Cone models builds a frame under 5 lbs.

# KONA CATEGORIES CHOOSING SHIRRIGH RIDE



#### RACE LIGHT

### Strong enough to race, light enough to win.

Every Kona bicycle is made with this simple statement in mind. It's an idea that lies at the heart of our design philosophy and is the blueprint for Kona Race Light components. The Fire Mountain, Lava Dome, Cinder Cone, Kilauea and Explosif - lightweight cromoly steel frames and our 779 gram Project Two fork in combination with lightweight components - make up the Race Light category.



### MOUNTAIN SHOCK

## An emphasis on all-round performance.

Front suspension has been refined so much over the past few years that anyone interested in off road riding really needs to consider using a good quality shock fork. There are, of course, a multitude of suspension forks on the market and quite frankly a lot of them are crap. Our Mountain Shock bicycles make up the core of our bicycle line and use what we consider to be the finest shock forks made. Bikes in this category feature many of the elements introduced by Kona for 1994: new materials, refined geometry, redesigned Race Light components that make a total off-road package. Kona Mountain Shock bikes are Lava Dome, Cinder Cone, Kilauea and Explosif bicycles from our Race Light category with Marzocchi or Rock Shox suspension forks. The new AA and Kula models represent a new direction for Kona with the use of Easton and Alcoa heat-treated aluminum. They are only available with suspension forks.



# MOUNTAIN CROSS You didn't think we made a hybrid.

Hybrid is a name and a sales category thought up by the marketing geniuses of the bicycle industry, although when we read Mr. Webster's dictionary, he just called it a thing that is "cross-bred from different species of varieties". Our hybrid is a combination of mountain bike and city bike therefore "Mountain Cross". It uses strong and reliable 26" wheels with tires that go well on pavement and moderate trails. On the other hand, a typical "Hybrid" has 700C wheels - a size borrowed from road bikes. We would call those bikes "Road Cross", because they are just road bikes with straight handlebars and cantilever brakes - really iust a made-over 10 speed of the 60's. Furthermore our Mountain Cross will accept up to a 26 x 2.2" tire (something a Road Cross can't do) if you like the additional comfort and stability of a fat knobby. Is it the ideal all-round bike?



#### **KONA CUSTOM**

# American hand-built quality and dialed-in component selection.

Every year we add more options in frame sizes, colors, braze-on options, forks, component groups and component options. This is our favorite category and our way of satisfying the most discriminating rider's needs. We started our business 8 years ago by providing only customs. 6,000 bikes later, we think we've pretty much perfected the process.

## NOT JUST ANOTHER HIGH-END BRAND

Most riders are familiar with our top of the line racing models. That's what the magazines like to write about, and quite honestly, they are the most fun to ride. We are realistic enough to realize that the ultimate bike is not necessary or desirable for everyone, and that's why we produce some excellent mid-priced bikes. The mistake most companies make in this range is to focus on a target price point and that is why those companies accept compromises that are unacceptable to Kona.

The bottom line?

Every frame and fork must have at least 100% cromoly tubing - no hi-tensile steel allowed.

The rims must be aluminum, the spokes stainless steel and the components made of cast aluminum. It has to be a bike with enough integrity to be a complement to the entire Kona line.

Fine, you say, but what about the price? Don't those gigantic bicycle companies who produce millions have an advantage over little old Kona that produces thousands? Well, no…because our international volume enables us to produce many of our own components at prices lower than many of the generic offerings used by our competitors. There is an economy of scale

There is an economy of scale
at Kona that doesn't rely
on mainstream volume.
We run a tight little company
and our prices reflect that.



# Hawaiian "Hot".

Our Mountain Cross bike call it a hybrid if you want to. This excellent city and recreational bike shares many design features with our more expensive models.



- · All cromoly frame, fork, stem no high tensile tubes hidden anywhere
- Strong 26 x 1.50 Bontrager rims weigh only 475 grams
- Aluminum 165 gram NON-bulge handlebar
- 21 speed Grip Shift system for easy "hands-on bar"shifting
- · Narrow Rush Hour knobby tires perform great on pavement and groomed trails

FRAME WEIGHT 4 lbs, 10 oz.

2 lbs, 4 oz.

27 lbs, 1 oz.

"All weights quoted in this brochure are for 18" bicycles



# Welcome to a New World.

Our entry-level mountain bike will not let you down off-road. A great introduction to the world of mud and gears.



- · Full Tange cromoly Mountain Bike frame
- Triple-butted, heat-treated Project Two fork weighs only 779 grams
- 15 gauge spokes front, 14 gauge spokes rear
- Race Light A:\Drive front, B:\Drive rear tire combination
- Slotted Velocity stem for easy brake cable maintenance

FRAME WEIGHT 5 lbs, 2 oz.

2 lbs, 4 oz.

BIKE WEIGHT 28 lbs, 12 oz.



# Race Ready.

Every important Kona design feature is represented on the Lava Dome. You could race this bike with confidence.



- Sub-5 pound Tange double-butted cromoly frame
- Impact headset can be adjusted on the trail with a 4mm allen key
- Air/Oil Marzocchi XC 51 shock fork for the price of elastomer
- Kona 999 front suspension hub
- · Beautiful Race Light seatpost

FRAME WEIGHT 4 lbs, 10 oz.

3 lbs, 3 oz.
(Marzocchi XC 51)

BIKE WEIGHT 27 lbs, 15 oz. (26.5 lbs. with P2)



A thoroughbred Mountain Shock bike.

Lightweight Tange cromoly frame and an unusual component mix provide for exceptional performance and great value.



- Sugino Impel "Compact Drive" 500 cranks weigh only 660 grams
- 245 gram Race Light saddle with hollow cromoly rails
- A:\Drive(550 grams), B:\Drive (575 grams) tire combination in Kevlar
- Bontrager's excellent BCX-1 (395 grams), BCX-3 (475 grams) rim combination
- · Velocity stem in double-butted, heat-treated version weighs only 275 grams

FRAME WEIGHT 4 lbs, 10 oz.

3 lbs, 3 oz.
(Marzocchi XC 51)

27 lbs, 7 oz. (26.1 lbs. with P2)



Ah! Ah! That Lava Rock is doggone Hot!

Kona goes aluminum. An excellent (and lightweight) material for a Mountain Shock bike.



- · Lightweight Alcoa Heat-treated, Double-butted aluminum frame
- Your choice of Marzocchi XC 51 or Rock Shox Quadra 10 shock forks
- 165 gram Heat-treated T-6 6061 NON-Bulge aluminum handlebar
- 275 gram Race Light seatpost
- · High Command brake lever pre-drilled for Extension 25 brake lever extension

FRAME WEIGHT
4 lbs, 1 oz.

FORK WEIGHT 3 lbs, 3 oz.
[Marzocchi XC 51]

BIKE WEIGHT 25.9 lbs



That's Kill-Ah-Way-Ah: No rest for the Bike of the Year.

The 1993 Bike of the Year gets even better for '94 with several significant improvements.



- · Heat-treated Tange Prestige Concept frame
- Double-butted chainstays
- Powerful 879 cantilevers with Kool Stop brake shoes
- Shimano Suspension hub
- 8 speed Deore XT shifting with Top Mount

FRAME WEIGHT
4 lbs, 8 oz.

3 lbs, 3 oz.
(Marzocchi XC 51)

27.9 lbs (24.2 lbs. with P2)



Everything on it.

Our top-of-the-line production steel bike has features normally reserved for custom bikes.



- A Tange Ultimate, Concept and Prestige tubing = lightweight frame performance
- Deore XT Suspension hub
- 250 gram O-Beam seatpost with twin fixing bolts
- 600 gram Sugino Impel 700 Compact Drive crank
- Race Light Titanium rail saddle

FRAME WEIGHT
4 lbs, 4 oz.

3 lbs, 3 oz.
[Marzocchi XC 51]

BIKE WEIGHT 24 lbs, 12 oz. [23.9 lbs. with P2]



Everything on it.

Nothing has been held back for our Number One Aluminum bike.



- Easton Varilite Heat-treated, taper-wall tubing is light, strong and rigid
- 4-valve Marzocchi XC 500 air/oil suspension fork
- Mavic 230 (375 grams), 231 (425 grams) rim combination
- 130 gram Control Center headset
- 3-2.5 Titanium alloy NON bulge handlebar

FRAME WEIGHT

3 lbs, 9 oz.

PORK WEIGHT 2 lbs, 15 oz.
(Marzocchi XC 500)

BIKE WEIGHT 23 lbs, 15 oz.



American hand-built quality.

Limited production frame built one at a time. The way they used to be made. Perfectly. Great selection of custom options, too.



- · US made Ultralight cromoly frame
- · Custom sizing and colors and fast delivery
- · Look clipless pedals
- O-Beam titanium seatpost
- · Wheelsmith double-butted spokes with alloy nipples

FRAME WEIGHT 3 lbs, 14 oz.

FORK WEIGHT 2 lbs, 15 oz.
[Marzocchi XC 500]

24 lbs, 8 oz.



Hawaiian "Race".

Probably the most race-tested and proven mountain bike on the planet.



- · Sandvik US made titanium alloy frame and tubing
- · Hand polished, non-corroding finish
- · Choice of Project Two titanium, Marzocchi or Rock Shox suspension forks
- · Shimano XTR component kit with many options
- · Ringle Superbubba Suspension hub with EFS skewer

FRAME WEIGHT

3 lbs, 6 oz.

FORK WEIGHT 2 lbs, 15 oz.
[Marzocchi XC 500]

BIKE WEIGHT 22 lbs, 14 oz.



Does not mean extremely strong and muscular.

The Haole provides evidence that the best road bike in the world is made by a mountain bike company.



- · Sandvik US made titanium alloy frame and tubing
- · Heat-treated cromoly Shark fork weighs same as aluminum
- Electronic Mavic ZAP shifting
- Race Light Titanium rail saddle
- Ergonomic TTT bar/stem combo

FRAME WEIGHT 2 lbs,14 oz.

FORK WEIGHT 1 lbs, 4 oz.

18 lbs, 8 oz.

# FAST CHANGE FORKS

Every mountain bike course is different. Suspension today, rigid tomorrow. You can change forks within 10 minutes on your Kona.



#### Velocity stem

Integrated and slotted cable stop and guide make it easy to maintain and change front brake cables. Velocity is a 275 gram TIG welded stem, TIG welded with heat-treated, double-butted cromoly. Made in four different reaches and rises to match the frame size.



#### Control Center headset

One of the coolest features on our bikes.

1/4" ball bearings in the lower race (compared to the usual 5/32") will stand up to unrelenting pounding. We know many hardcore riders who have been using our headset for four years without changing one bearing. The aluminum machined top cup has a full inch of thread inside to assure the most reliable headset/fork column connection. In addition, Control Center can be adjusted by hand and secured with a 4mm allen key. NO special tools required!

Weighs only 135 grams. Impact is the steel cup version weighing 170 grams supplied on the Lava Dome, Cinder Cone and AA.

# SIX WAYS TO REFINE PERFORMANCE

### **KONA RACE LIGHT FORKS**

Focus on lightweight torsional rigidity.



Project Two fork. 779 grams.

#### Project Two.

Kona promoted the critical element of torsional fork rigidity for many years before shock forks made it a hot topic. Torsional rigidity is just another term for expressing the amount of side to side flex in a fork. Torsional rigidity is good. The more the better. The large diameter (1-1/8") blades in the P2 have made one of the most important contributing factors to the positive handling characteristics of a Kona Mountain Bike, Continuous refinement

has whittled the weight down to 779 grams, which is about half the weight of a typical suspension fork and one of the best arguments for using a rigid fork. We're not going to say that the triple-butted blade with walls that taper from 1.3-0.8-0.5mm absorb as much shock as a suspension fork, but it is remarkably comfortable and probably the best choice if you do not ride a lot of fast and bumpy downhill.



Project Two Titanium. 625 grams of magic.

### Project Two Titanium.

This handsome piece of metal is really an amazing bit of work. A solid piece of 6-4 titanium alloy is machined down into the strongest steer tube and dropouts in the industry. These are joined to oversized 3-2.5 titanium alloy blades, yielding a fork with excellent torsional rigidity and strength while rivalling the comfort of a shock fork. Total weight of only 625 grams is 1.5 pounds less than a typical suspension fork. The only drawback is the price - about twice that of a good suspension fork.

#### MARZOCCHI

# Not an American name. Certainly world-class quality and performance.

We've been machine and field-testing Marzocchi's forks for nearly one year now, and we've only managed to find one thing wrong with their products: the name is hard to pronounce. So let's get it over with now: MAR-ZO-KEY. In an effort to sound American, they've come up with a Southern California nickname -"Zokes" - but this 27 year-old company based in Bergamo, Italy does have an incredible advantage over the competition: they have been meeting the exacting standards for motorcycle suspension systems and automobile pressure gear pump systems for companies like Ferrari. Lamborghini, BMW, Honda and Ducati since 1966. Marzocchi's patented bellows style oil seal is already industry renowned for a perfect performance record - NO FAILURES! Add easy maintenance, competitive weights and excellent torsional resistance to that incredible reliability and you have what we feel to be the finest suspension forks on the market.



Marzocchi XC 500. 2 lbs, 15 oz.

#### XC 500. World champion performance.

Marzocchi's top of the line suspension fork. Like the entire line, XC 500 is an air/oil fork based on a progressive four - valve system, with each chamber responding to increased load so that even the hardest hits are absorbed. There is up to 2" of travel and torsional rigidity is excellent with T6 6061 aluminum crown, brake arch and sliders. There are four adjustable positions built into the fork blade.

which adjusts for plushness in the fourth valve. Air pressure can be adjusted with the optional Marzocchi pump, allowing you to fine tune fork return for rider weight and terrain. It's predecessor - the XC 400 was

used to win the 1992 Men's World Downhill Championship. Our leading Downhill racer switched to this fork midway through the 1993 racing season and immediately won her first World Cup Downhill of the year - very impressive results Marzocchi! Weighs 2 lbs, 15 oz. Supplied as basic equipment on the Kula, Hot and Hei Hei models, and available as an option on all Mountain Shock models.



Marzocchi XC 51. 3 lbs. 3 oz.

#### XC 51. Incredible value for an air/oil fork.

This is the fork at the heart of our Mountain Shock category. At 3 pounds, 3 ounces, it weighs the same as a good quality elastomer fork. The advantages are longer travel - 2" compared to a maximum of 1.8" for elastomer - and more progressive dampening. The XC 51 is simply much harder to bottom out. XC 51 has the same oil seal system and air dampening system as the XC 500 in a two valve system - one for

compression and one for rebound. Combine this with it's simple serviceability and outstanding reliability, you will be surprised to discover that the even though the XC 51 clearly outperforms a good elastomer fork, it costs the same. Once you've gone hydraulic, you won't go back.

### **ROCK SHOX**

### The American leader in bicycle suspension.

While Rock Shox was not the first company to make suspension for bicycles (that happened about 100 years ago), they have been the driving force in the refinement and acceptance of shock forks. They are unique in that they produce both excellent air/oil

and elastomer suspension forks and we have selected two of them as options on our Mountain Shock models.

Mag 21

Undeniably the best of the

single-valve air/oil shock

forks. At 2 lbs. 15 oz. it

features lightweight magnesium blades and sliders,

giving up to 1.8" of travel.

Mag 21 can be adjusted with an optional needle pump

system and also with a

dampening dial conveniently

located at the top of the

slider. Also made in a

superlight SE Titanium

version - only 2 lbs, 8 oz.



Mag 21. 2 lbs. 15 oz.

### Ouadra 10

A new name for re-designed Ouadra. featured this elastomer fork on the 1993 Bike of the Year - Kona Kilauea. It's easy to maintain, reliable and reasonably lightweight at 3 lbs. 3 oz. Ouadra 10 will give you up to 1.7" of travel, which will be adequate for all but the most advanced riders.





Quadra 10. 3 lbs. 3 az.

# THREADLESS HEADSET **SYSTEMS** What's the story?

Threadless aka "Aheadset" fork/stem/systems have gained a lot of attention lately. Why don't we jump on the bandwagon? First of all our threaded headset has 1 inch of secure. threaded contact with the front fork. It also has the additional security of a top clamp section. Threadless systems do not have those benefits. Although a threadless system saves weight by using a stem without a guill, the entire weight savings are lost with a longer and heavier (30 gram) fork column and upper wedge (another 30 grams). After all that, the main benefit is a simpler fork inventory for manufacturers and distributors.

### RACE LIGHT TIRES

Kona was the first company to make the simple observation that front and rear tires have different functions. That's why we designed the first pair of complementary mountain bike tires in 1988. New for 1994 are two new tires and Soft Grip tread with 58 durometer rating in a cool Dark Grey color.

#### A:\Brive 26 x 2.3

Front tire with a large volume 26 x 2.3 casing. Center knobs are low and well spaced for mud clearance. Side knobs are taller and more closely spaced. Mounted on Race Light models and ideal for rigid forks. The Kevlar version weighs only 560 grams.

#### A:\Drive 26 x 2.0

Front suspension does not require the extra shock absorption of a large volume tire, so we reduced the overall width to provide extra clearance for large diameter suspension fork blades. Extremely light at 550 grams in the Keylar version.

#### B:\Drive 26 x 2.0

Our rear directional tire with two complementary rows of traction-digging V-shape treads. The Medium height center knobs provide straight ahead acceleration, while the tall side knobs provide excellent sideways control. Wide knob spacing and mid-sized 26 x 2.0 width provide excellent mud clearance for the tight rear triangle of a Kona. Weighs 595 grams in Kevlar.

#### Rush Hour 26 x 1.6

A new 26 x 1.6 multi-purpose tire that is primarily designed for city riding. The connected center ridge provides low rolling resistance on paved surfaces. Two rows of mid-sized knobs allow the occasional journey on groomed trails. Standard equipment on the Hahanna Mountain Cross.







# ETTOKE ZEETIV



Shimano quick release hub. Please ask your dealer to show you how it works.



Ringle Superbubba suspension hub and EFS skewer. The ideal set-up for hardcore mountain bikers.

### HUBS Center of Strength

When it comes to the heart of the drivetrain and the wheels. there is only one leader in rear hub technology - Shimano. They invented and perfected the cassette freewheel system that simplified freewheel cog removal, replacement and compatibility. Shimano's freehub design also moves the freewheel cogs closer to the center of the hub, enabling up to 7 or 8 sprockets to be mounted on the rear while maintaining reasonably even spoke tension and reliability. Every single Kona Mountain Bike uses a Shimano rear hub.

Front hubs, on the other hand are not as driven by design and technology - unless you use suspension. You will notice that this years crop of Kona Mountain Shock bikes have rather large diameter front hub shells. Spokes are somewhat shorter and therefore the wheel is more rigid improving the overall torsional rigidity of the front fork and wheel. The benefit is a tighter feel on single track and fast turns. Axle diameter is 9mm instead of the usual 8mm, to the incredible withstand loading of a shock fork.

Most of our bicycles are equipped with quick release skewers on the front and rear hubs. They are safe and reliable if you get a little instruction in their operation from your dealer. In the case of our top of the line Kona Custom component group, you will get a beautifully strong American - made Ringle Superbubba front hub with a non-quick release Race Light EFS skewer. Not only is there no chance of catching debris on the skewer, but you will save 50 grams in weight (39 grams vs 89 grams) compared to a quick release. We recommend that all hardcore riders switch to an EFS front system.



Bontrager BCX-1 rim. 395 grams.

# RIMS. The perimeter of weight.

As you get further to the outside of the wheel, weight becomes more and more significant, because it is rotating weight. That is why Kona Race Light tires are among the lightest. (See opposite sidebar for more information). We also use 150 gram inner tubes and 15 gram rim tapes, saving about 60 grams per wheel compared to

conventional offerings. Good quality rims are made of aluminum to provide a reasonably grippy surface for brakes, so they are going to be rather flexible. Good spoke tension and the shock absorbing capabilities of mountain bike tires and shock forks will help to protect a lightweight rim. The specific requirements of the rear wheel dictate that the rim used be stiffer – and therefore, somewhat heavier. Above all, rim selections are made with reliability in mind – and not just gram cutting.

We used about 40,000 American-made Bontrager rims last year and in addition to the intelligent hollow sidewall (saves weight) and high rim side design (improves brake pad/rim contact), one of the most impressive things about these rims are their excellent reliability. Easily the most consistently perfect rims we've ever used. Therefore it's not surprising that we will be using liberal amounts of the Bontrager BCX-3 (475 grams), BCX-2 (415 grams) and BCX-1 (395 grams). In the case of the BCX-1, it is very lightweight and therefore only suitable as a front rim.



Mavic 230 rim. 375 grams.

The same is true of the French-made Mavic 230. This new rim is an amazing 375 grams. Credit Mavic's clever "triple-double section" wall design for this lightweight yet strong rim. The 230 and "old reliable" Mavic 231 (425 gram) are grommet-style ("eyeletted") rims which, in combination with butted spokes and alloy nipples, allow us to build a wheel that is lightweight and still very stiff. You will get the Mavic/Butted Spoke/Alloy nipple combination when you buy a Kilauea, Explosif, Kula, Hot or Hei Hei..



Wheelsmith spokes are featured on Kona Custom bikes.

# **SPOKES**

## Keeping it all together.

When you look over the specification pages in the back of this catalog, you will notice that all Kona Mountain Bikes have 32 spokes in both the front and rear wheels. We've done a lot of field testing with the number of spokes and found that 36 spokes are not necessary - unless you ride a road bike and weigh more than 200

pounds, and that 28 spokes are too light - unless you are under 130 pounds and use it just on the front wheel. Yet this still allows us many options in determining the overall weight and torsional rigidity of the wheels. 14G straight gauge spokes are the heaviest, with a weight of 205 grams for a set of 32. 14/15 G butted spokes are next with a weight of 160 grams for the same set. 15G straight spokes are the same at 160 grams, but they are less costly. Then we can choose between brass (50 grams/set) and aluminum nipples (30 grams/set). In order to provide a balance between wheel tension and wheel reliability when using Bontrager rims, we have found that 15G spokes combined with brass nipples can be normally tensioned to around 100 Kgf (kilograms of force). That is definitely adequate for front wheels. The set-up for rear wheels is 14G spokes with brass nipples and that gives us wheel tension of 120 Kgf.

Although alloy nipples reduce the amount of tension possible by 30%, we are able to increase the wheel tension on the Kilauea, Explosif and Kula by using Mavic eyeletted rims. An equal amount of tension is gained and that allows us to save 20 grams of rotating weight with the alloy nipples.

In the case of Kona Custom bikes, you will get the added bonus of the excellent Wheelsmith spokes and hand-built instead of machine-built production. It's the same 15G/alloy nipple front set-up, but with 14G/alloy freewheel side and 14/15 butted/alloy non-freewheel side set-up on the rear.

# RACE LIGHT

that we have not mentioned before.



Joe's Clips
99 grams/pair. The most comfortable
and efficient toe clip system made.



Kona Race Light grips
Race Light grips. Comfortable and sure grip.
Only 65 grams/pair.



Kona Race Light saddle

Race Light saddle. Surprisingly comfortable.

Weighs as little as 195 grams.

# ERAKTES CHRONE ENGRAND

One of our most surprising discoveries of the year was the 879 brake. It doesn't have a fancy brand name and there are no slick marketing concepts or acronyms attached to it either. It is however the most powerful production brakes we have ever used, it is blessed with a simple spring adjustment system, an extremely wide range of pad adjustment, and the long shaped pad is extremely long wearing. In the case of the Kilauea, Explosif, Kula, Hot and Hei Hei, you get the added bonus of Kool Stop brake shoes.



Kool Stop brake shoes mounted on 879 brakes. The most powerful production brakes you've ever used.

Our new lightweight brake lever is designed to work perfectly with bar ends. Ergonomically shaped for maximum leverage and minimum hand fatigue. A beautifully molded and machined pivot system provides extremely smooth brake function. Drilled to accept our new Extension 25 brake lever extension.



High Command brake lever. 195 grams/pair.

It is a very simple thing to make something lighter. Just select a lighter or thinner material. Aluminum, being plentiful, cheap and light is a good material for lightweight handlebars. Unfortunately, handlebar manufacturers, responding to bicycle designers appeals for lighter components have complied with extremely thin wall aluminum handlebars that are as light as 110 grams. Some bicycle manufacturers use those handlebars, which will break in less than six months. If you add the additional load of bar ends, they will break even faster.

Machine testing of lightweight aluminum handlebars shows that the most common area for failure is at the bulge. The Kona Slim 165 aluminum handlebar has NO bulge - just a couple of long aluminum shims that spread the stress over a wider area. We also make the bar from a heat-treated T6-6061 aluminum material and further strengthen it with a spiral reinforcement. It is not the lightest handlebar available, but we don't like making Kona riders field testers for handlebars - since there is no acceptable way of using a handlebar to the point of failure. If you ride off-road regularly, we recommend that you replace the Kona Slim 165 bar (or any other aluminum handlebar) at least once per year.



Kona Slim T6-6061 handlebar. 165 grams. If you ride off-road on a regular basis, we recommend that you replace this (or any other aluminum handlebar) once per year.



Kona Slim 3-2.5 Titanium alloy handlebar. 150 grams. These handlebars do not break, unless you crash heavily. We recommend them for all hardcore riders.

If you would like to use an extremely comfortable handlebar that will not break and will not need replacement under normal conditions, use our Kona Slim 150 handlebar. Made of 3-2.5 titanium alloy, it is lightweight (150 grams) and shock absorbing. It is supplied with the Explosif, Kula, Hot and Hei Hei models. If you are a hardcore rider, consider upgrading your handlebar - peace of mind will not cost as much as you think.

### BICYCLE COMPONENTS FOR INTELLIGENT LIFE FORMS



#### **Top Mount Shifters**

There are still many of us who prefer the superior simplicity and serviceability of top mount shifters. Shimano Deore DX 7 speed shifter is used on the Lava Dome, Cinder Cone and AA. Suntour's extremely smooth and positive XC Pro 8 speed shifter is a perfect match for the Deore XT 8 speed freewheel mounted on the Kilauea, Explosif, Kula, Hot and Hei Hei.



#### **Dewey Too Bar Ends**

Handlebar extensions are a necessity for off-road performance. You get three additional hand positions and optimum leverage for accelerating and climbing. Dewey Toos are lightweight (170 grams pair) clamp-on bar ends with a 20 degree bend particularly suitable for single track.



#### Extension 25

The almost universal adoption of bar ends as standard equipment on mountain bikes has introduced a small problem - getting from bar ends to brake levers and back again while maintaining optimum control. The Extension 25 brake lever extension, in tandem with the High Command brake lever solves this problem, allowing the rider to brake effectively from the bar ends. A pair weighs only 50 grams.

# TOP MOUNT SHIFTERS

Why is Kona the last holdout? Here are five good reasons:

#### One

If you bend the rear derailleur or rear dropout, you can put the shifter into friction mode and still have functional gear operation. No other shifting system has that option.

#### Two

If you bend or break a shifter or brake lever, you don't have to replace the entire "Integrated System" just that one part.

### Three

Moving from the bar ends to the shifters is a more natural movement. The bar ends are NOT mounted underneath!

#### Four

You can actually take the shifter apart, clean and service it.

### Five

Shifters and brake levers are separately mounted, allowing more personal preference for positioning.

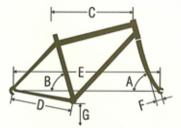
# GEOMETRY

#### Hahanna, Fire Mountain

	Head Angle (A)	Seat Angle (B)	Top Tube (C)	Chain Stay (D)	Wheelbase (E)	Offset (F)	B/B Height (G)	Standover Height	Crank Length	Stem Length
14"	70.5	74	21.0	16.75	40.0	1.6	11.5	24.0	170	100
16"	70.5	74	21.5	16.75	40.5	1.6	11.5	26.0	170	100
18"	71	74	22.5	16.75	41.5	1.6	11.75	28.0	175	110
19"	71	73	23.0	16.75	41.7	1.6	11.75	29.0	175	125
20"	71	73	23.5	16.75	42.2	1.6	11.75	30.0	175	140

#### Lava Dome, Cinder Cone, AA, Kilauea, Explosif, Kula, Hot, Hei Hei

	Head Angle (A)	Seat Angle (B)	Top Tube (C)	Chain Stay (D)	Wheelbase (E)	Offset (F)	B/B Height (G)	Standover Height	Crank Length	Stem Length
14"	70.5	74	21.5	16.75	40.4	1.6	11.5	24.0	170	100
16"	70.5	74	22.0	16.75	40.9	1.6	11.5	26.0	170	100
17"	71	74	22.5	16.75	41.5	1.6	11.75	27.0	170	110
18"	71	74	23.0	16.75	41.9	1.6	11.75	28.0	175	110
19"	71	73	23.5	16.75	42.2	1.6	11.75	29.0	175	125
20"	71	73	24.0	16.75	42.7	1.6	11.75	30.0	175	140



### Haole

	Top Tube	Head Angle	Seat Angle	Chain Stay
52cm	54.6	73	74	40.6
55cm	55.75	73.5	73.5	40.6
56cm	57.5	73.5	73	40.6
58cm	59.0	73	73	40.6



# SPECIFIC/ATHONS

LAVA DOME

	HAHANNA	FIRE MOUNTAIN
Frame	Tange Cromo	Tange Cromo
Fork	Project Two Sport	Project Two TB
Keadset	Sealed Tech	Sealed Tech
Cranks	Shimano Alivio	Shimano Alivio
B/B	Shimano LP-20	Shimano LP-20
Pedals	LXT	LXT
Chain	HP70	HP70
Freewheel	Shimano HG 11-28 7 speed	Shimano HG 11-28 7 speed
Front Derailleur	Shimano Altus	Shimano STX
Rear Derailleur	Shimano Alivio	Shimano STX
Shifters	Grip Shift SRT-300i	Shimano Deore DX Top Mount
Bar	Kona Slim Aluminum	Kona Slim Aluminum
Stem	Velocity	Velocity
Brakes	877A	Shimano Tourney
<b>Brake Levers</b>	High Command	High Command
Front Hub	Kona 211	Kona Suspension 999
Rear Hub	Shimano HG	Shimano HG
Rear Rim	Bontrager BCX-3	Bontrager BCX-3
Front Rim	Bontrager BCX-3	Bontrager BCX-3
Spokes	15G front (32) 14G rear (32)	15G front (32) 14G rear (32)
Front Tire	Rush Hour 26 x 1.6	A:\Drive 26 x 2.3
Rear Tire	Rush Hour 26 x 1.6	B:\Drive 26 x 2.0
Saddle	Kona Race Light	Kona Race Light
Seatpost	Kalloy (27.2)	Kalloy SP-242 (26.6)
Color	3D Blue	Porsche Red

14, 16, 18, 19, 20

27.4 lbs.

Sizes

Weight

Extras

\*Options

ΣC num 999 6.6 14, 16, 18, 19, 20 28.7 lbs.

Tange Cromo DB Project Two TB or Marzocchi XC 51° Impact Sugino Impel 400 Shimano LP-20 LXT Aluminum HP70 Shimano HG 11-28 7 speed Shimano STX Shimano Deore LX Shimano Deore DX Top Mount Kona Slim Aluminum Velocity HT 879 High Command Kona Suspension 999 Shimano HG Bontrager BCX-3 Bontrager BCX-3 15G front (32) 14G rear (32) A:\Drive 26 x 2.3 or A:\Drive 26 x 2.0 B:\Drive 26 x 2.0 Kona Race Light

Tange Cromo DB Project Two TB or Marzocchi XC 51\* Impact Sugino Impel 500 Shimano UN-51 LXT Aluminum HP70 Silver Shimano HG-70 11-28 7 speed Shimano Deore LX Shimano Deore LX Shimano Deore DX Top Mount Kona Slim Aluminum Velocity HT 879 High Command Kona Suspension 999 Shimano Deore LX Bontrager BCX-3 Bontrager BCX-1 15G front (32) 146 rear (32) A:\Drive 26 x 2.3 or A:\Drive 26 x 2.0 Keylar B:\Drive 26 x 2.0 Kevlar Kona Race Light Hollow Cro-Mo Kona Race Light (26.6) Bronze Metallic

14, 16, 17, 18, 19, 20

Rock Shox Quadra 10

26.1 lbs. (P2)

Joe's Clips

CINDER CONE

Heat-treated Marzocchi XC 51\* Impact Sugino Impel 500 Shimano UN-51 LXT Aluminum HP70 Silver Shimano HG-70 11-28 7 speed Shimano Deore LX Shimano Deore LX Shimano Deore DX Top Mount Kona Slim Aluminum Velocity HT 879 High Command Kona Suspension 999 Shimano Deore LX Bontrager BCX-3 Bontrager BCX-1 156 front (32) 14G rear (32)

Alcoa Aluminum DB 7005

AA

A:\Drive 26 x 2.0 Kevlar

B:\Drive 26 x 2.0 Kevlar Kona Race Light Hollow Cro-Mo Kona Race Light (27.2) 3D Purple 14, 16, 17, 18, 19, 20 25.9 lbs. (XC 51) Joe's Clips Rock Shox Quadra 10



Rock Shox Quadra 10

Kona Race Light (27.2)

14, 16, 17, 18, 19, 20

3D Green

26.5 lbs. (P2)

Joe's Clips

# SPECIFICATIONS

HOT

KULA

KILAUEA

EXPLOSIF

Kona 3-2.5 Titanium Alloy by Sandvik Kona Shark Mavic 305 Mavic 631
Mavic 305
Mayie 631
riavic ooi
Mavic 610
Sedisport SL
Mavic 12-21
8 speed
Mavic 862
Mavic ZAP
Mavic ZAP
3TT Forma SL
3TT Record 84
Mavic 451
Mavic 451
Mavic 571
Mavic 571
Mavic 195
Wheelsmith
14G/15G butted
Alloy nipples
Michelin Super Comp
Michelin Super Comp
Kona Race Light Titanium
Race Light O-Beam (27.2)
Kona Kona
53, 55, 57, 59
18.5 lbs.



HAOLE

HEI HEI

Argentina • Megacycles • Gascon 5675 • Mar del Plata 7600 • tel: 23-074-2169

Austria • Rosner & Temper GmbH • Grillg. 30A • 1110 Wien • tel: 222-74-33-05

England • Second Level Sport • Clockhouse Lane • Bedfont, Feltham, Middlesex • TW148QA • tel: 0784-251000

Finland • Mountain Bike Keskus • Lauttasaarentie 45 • SF-00200 Helsinki • tel: 358-0672-798

France • Chapak-Cham S.A. • 176 rue J. Cugnot • Z. I Grezan • 30000 Nimes • tel: 66 26 21 72

Germany • Ultra Sport • Assar-Gabrielsson-Strasse 19 • D-6057 Dietzenbach-Steiberg • tel: 6074-2046

New Zealand • Kona New Zealand • Box 37685 • Parnell, Aukland • tel: 9-302-3272

Portugal • Motor Dealer • Fernandez de la Hoz, 56 • 28010 Madrid • tel: 0442-0631-0394

Scandinavia • Ettol • Grenaavej 670 • DK-8541 Skoedstrup/Aarhus • Denmark • tel: 458-699-2000

Spain • Motor Dealer • Fernandez de la Hoz, 56 • 28010 Madrid • tel: 0442-0631-0394

Singapore • Mountain Bike Pro Centre • 101 Frankel Avenue • Singapore • tel: 242-3818

Switzerland • Via Handels • Worbstrasse 233 • 3073 Gumligen • tel: 031-526333



Kona USA • 1122 Fir Avenue • Blaine, WA • 98230 • Tel 206-332-5384 • Fax 800-654-0519

TBG Canada • 343 Railway Street • Vancouver, BC • V6A 1A4 • Tel 604-684-4933 • Fax 604-684-6332

Printed in Canada, on Resolve Coated, an alkaline process paper which contains 50% recycled fiber, 15% post-consumer and 35% post-commercial waste paper.



Tim Harvey Hiroyuki Kaijo
Raeff Miles Tom Moran
and Douglas Peebles
took the pictures
Si made the Thumb
Lew wrote the words
Bru Dew and Fly read
everything and wondered
what it all meant
No one was willing to take
the responsibility for editing
Kev managed to whip it
into shape again
Thanks Buddy

WARNING: BUYING A KONA MOUNTAIN BIKE WILL NOT HELP SAVE THE PLANET. RIDING IT WILL.

# KONA MOUNTAIN BIKES SPECIFICATIONS 1993 1/2

	FIRE MOUNTAIN	LAVA DOME	KILAUEA
FRAME	Tange Cromo PG Throughout	Tange Cromo DB Throughout	Tange Prestige/Concept Main Tange Cromo Stays
FORK	Project Two PG	Project Two DB*	Marzocchi XC 51
HEADSET	Sealed Tech	Impact	Impact
CRANKS	Suntour XC Ltd	Sugino Fuse 450	Sugino Fuse 500
В/В	Suntour XC Ltd	Shimano CS-21	Shimano UN-51
PEDALS	LXT	LXT Aluminum	LXT Aluminum
CHAIN	Suntour XC Ltd	Shimano Hyperglide	Shimano Deore LX
FREEWHEEL	Shimano XC Ltd 13-30	Shimano Hyperglide 13-30	Shimano XTR 12-32
DERAILLEURS	Suntour XC Ltd front Suntour XC Ltd rear	Shimano Deore LX front Shimano Deore LX rear	Shimano Deore XT front Shimano Deore XT rear
SHIFTERS	Shimano XC Ltd Top Mount	Shimano DX Top Mount	Shimano XT Top Mount
BAR	Kona 240 Aluminum	Kona 165 Aluminum	Kona 165 Aluminum
STEM	Velocity Sport	Velocity DB	Velocity DB
BRAKES	Suntour XC Ltd	Shimano Exage ES	Dia Compe 987
BRAKE LEVERS	Suntour XC Ltd	Ritchey Logic	Ritchey Logic
HUBS	Suntour XC Ltd	Shimano HG 13-30	Shimano LX front Shimano XTR rear
RIMS	Bontrager BCX-3	Bontrager BCX-3	Mavic 231
SPOKES	15G front, 14G rear	15G front, 14G rear	15G front, 14G rear
TIRES	Equilibrium front Propulsion rear	A:\DRIVE front B:\DRIVE rear	A:\DRIVE front B:\DRIVE rear
SADDLE	Kona Race Light	Kona Race Light	Kona Race Light
SEATPOST	Kalloy SP-242	Kalloy SP-242	Kona Race Light
COLORS	Titanium	Hot Rod Purple Metallic	Hot Rod Green Metallic
SIZES	16,17,18,19,20	14,16,18,19,20	
PRICE	\$284	\$401	16,17,18,19,20 \$736