



1990

DIAMOND BACK

MOUNTAIN

DESIGN BREAKTHROUGHS

UNITRAC™ STEERING SYSTEM

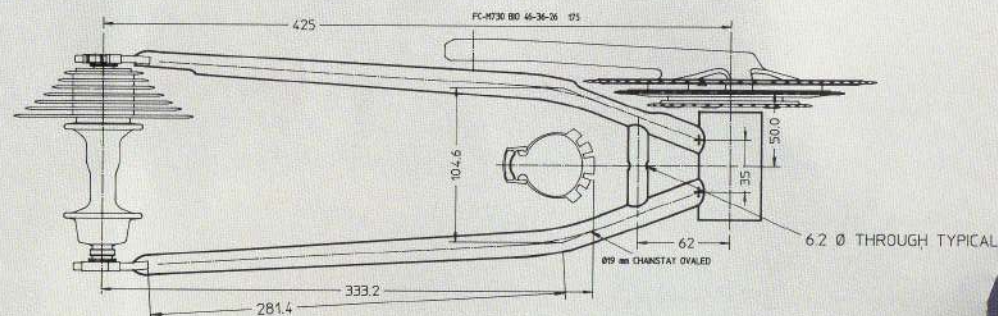
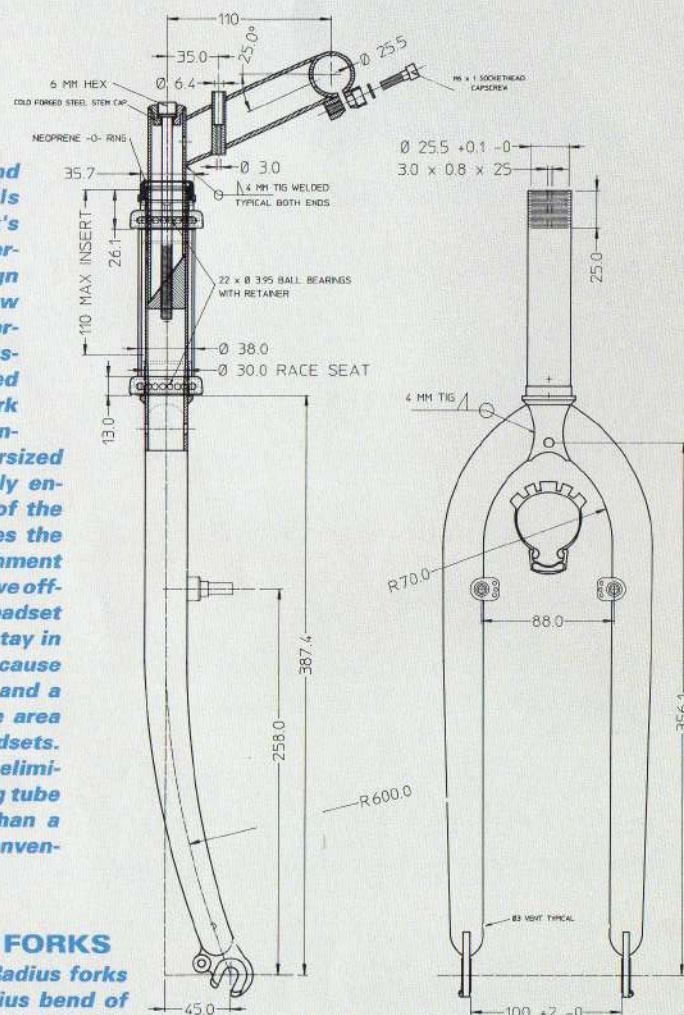
Our Competition and Performance models utilize Diamond Back's exclusive Unitrac steering system. This design incorporates the new Tioga "Avenger" Oversized headset, and custom-matched oversized frame head tube, fork steering tube, and handlebar stem. The oversized Unitrac system greatly enhances the strength of the front end, which takes the majority of the punishment dished out by aggressive off-road riding. The O/S headset will wear longer and stay in adjustment longer, because it has more bearings and a larger bearing surface area than conventional headsets. Steering tube failure is eliminated, as both steering tube and stem are more than a third stronger than conventional designs.

SUPERRADIUS™ FORKS

Diamond Back SuperRadius forks have an extended radius bend of 500mm. This gradual bend distributes stress evenly along the length of the fork, rather than concentrating it in one area. SuperRadius forks respond directly to rider input.

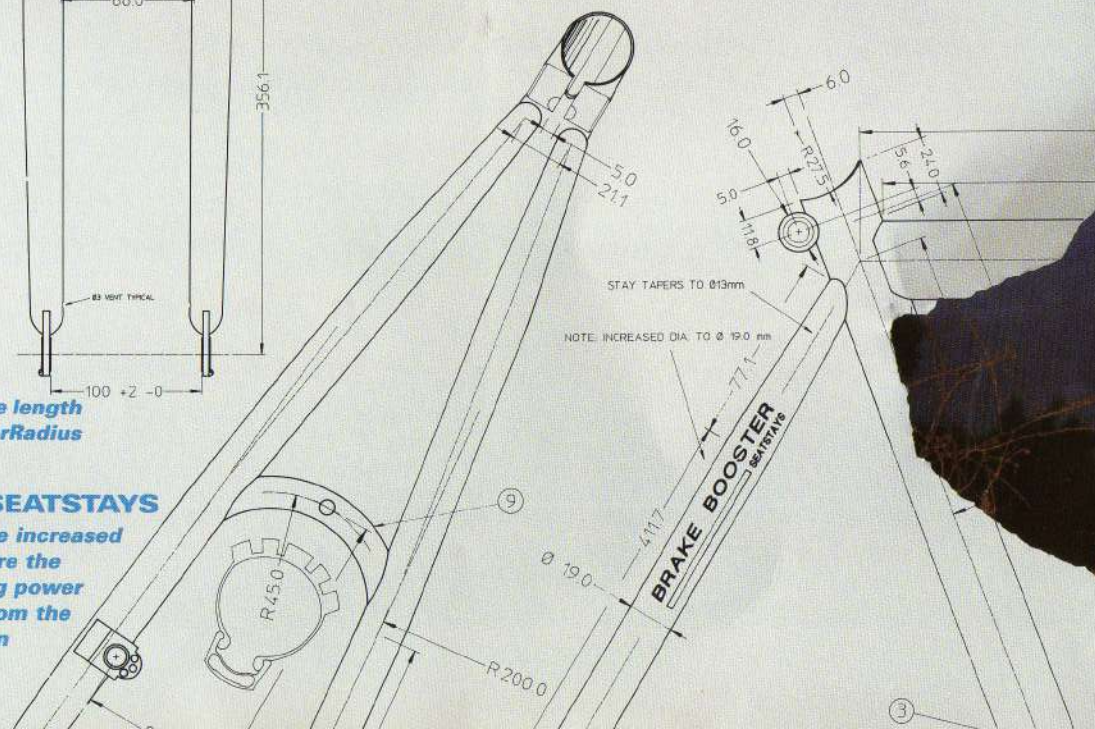
BRAKE BOOSTER™ SEATSTAYS

Diamond Back's exclusive Brake Booster seatstays are increased to 19mm diameter in the central area of the stay where the brakes are affixed. This delivers more positive braking power and better brake modulation. The stays taper away from the brake area toward both ends. This double taper design sharply reduces power-robbing flex, while retaining springiness for rider comfort and control.



OVERSIZE BOTTOM BRACKET

The bottom bracket has been engineered 5mm wider (73mm) than the conventional width (68mm) to allow greater mud clearance around the BB. This wider BB profile also spaces the bearings further outboard for greater spindle stiffness, and more efficient energy transmission. Beefy 19mm chain stays will deliver more of your energy to the rear wheel than conventional designs.



DRAWING ON EXPERIENCE

1990

 Diamond Back has been a major force in mountain bike design and development since the early 80's. Over 1/2 million Diamond Back mountain bikes are currently in use.

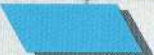
We have drawn on this experience to continually improve the technology, quality, and performance of the Diamond Back model available at your dealer today.

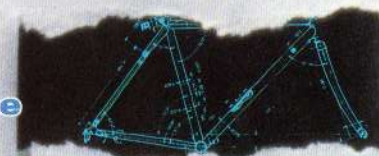


 **ADVANCED MOUNTAIN BIKE TECHNOLOGY** Mountain bike technology has advanced to a level unheard of a few short years ago. You can now climb easier and descend faster with much better control. Advanced drive trains and shifting systems reward your pedaling effort with greater response. Custom frame materials and dimensions bring you the lightest, most durable mountain bike possible.

 **QUALITY BUILT FOR VALUE** Your Diamond Back is designed and carefully built using the finest materials. This level of quality ensures years of cycling enjoyment.

A world-wide network of Authorized Diamond Back Dealers assures that your new mountain bike will perform flawlessly wherever you ride.

 **PERFORMANCE DESIGNED** Performance is more than a word at Diamond Back. We are enthusiastic cyclists, living and working in one of the finest areas in the world for year-round mountain biking, the Santa Monica Mountains of Southern California. Day after day, year after year, we work at improving Diamond Back performance.



To us that means more than just going fast. Performance is efficiency in converting your pedaling effort into forward motion. It is the ability of the bicycle to hold a line in difficult conditions. It is responsiveness to braking effort.



For 1990, Diamond Back brings a new level of performance to mountain biking

EXCELLENCE BY DESIGN Each 1990 Diamond Back model is designed and built without compromise for a specific cycling environment. These are: **COMPETITION, PERFORMANCE, ADVENTURE SERIES, and FITNESS.**

COMPETITION: *Axis XT, Arrival, and Apex* are full-blown racing machines. Reduction of weight, instantly responsive handling, racing-oriented drive trains, and advanced wheel systems are the guiding design principles. *Axis XT* and *Apex* utilize specially selected Tange Chromoly tubing to complement the Diamond Back race geometry. These models are ideal for high-speed cornering, daring descents, and the steepest climbs. *Arrival* is built of heat-treated SERIES 7000 aluminum tubing.

Lightweight and responsive, the *Arrival's* shock-damping qualities make it ideal for long, rugged rides, breaking away on climbs, and high speed descents. **PERFORMANCE:** *Ascent EX* and *Ascent* are dedicated high-performance machines. The sports cars of the mountain bike arena, when these bikes get up and run, you'll be amazed. Incorporating the newest Diamond Back

frame designs, hot component groups, and superior wheel systems, these bikes deliver all the performance you could want.

ADVENTURE SERIES: *Topanga* and *Sorrento* are for the off-roader who knows that getting there is most of the fun.

You'll get high-quality frame sets and highly functional component groups like Shimano's new STI Shifting System. Durability, comfort, and off-road fun are guiding factors in the design of these models.

FITNESS: The responsive 1990 *Curaca* is specially designed for both on and off-road fun and fitness. Cycling is one of the most effective ways to enhance your fitness level, and have fun doing it. With a wide range of gearing options, you can pace yourself for any terrain.

SELECTION The finest mountain bike selection is available at your Diamond Back dealer today.

TANGE
CHROMOLY
DOUBLE BUTTED
TUBES

TANGE
CHROMOLY
DOUBLE BUTTED
TUBES

100%
CHROMOLY
AND THE
DIAMOND BACK

156.1



AXIS XT

When mountain racing is in your blood, nothing less than everything is enough. Rock-solid handling is required. Power has to go to the rear wheel, not to frame flex. Radical descents demand enough braking power to stop a train. Just for you, Diamond Back designers built their best mountain racing design from select Tange Prestige MTB tubing and called it "Axis XT." They added Shimano's best group, Deore XT II. Featuring a fully integrated drive system, it's the most advanced shifting technology available today. The goodies don't stop there. Powerful Shimano SLR brakes with two-finger levers deliver downhill control. Sleek Araya RM-17 narrow alloy rims, shod with Panaracer Timbuk II tires, is the hardest working wheel system on the mountain circuit. If you want serious mountain racing performance, you want Axis XT.

*Shown above in
Dualtone Black Marble/
White Finish.*

ARRIVAL

Aluminum has a distinct manner, response and handling characteristics all its own. Oversized tubes of 7000 series heat treated aluminum are tough enough to handle all the rough stuff. Yet aluminum's shock damping characteristics make the Arrival a surprisingly comfortable bike. We have engineered this frame for competitive performance. Unitrac steering system includes Tioga "Avenger" O/S headset and SuperRadius fork for greater front end strength. Unique, 73mm bottom bracket/chainstay design delivers superior mud clearance, while improving chainstay stiffness. New Shimano Deore DX group features 21-speed Hyperglide/



Superglide system, including the new STI push button shifter.

Shown above in
Black w/White
Spangle.



APEX

Unsurpassed in performance by machines costing twice as much, Apex is a serious racer. Double Butted Tange MTB Chromoly tubing is built into the Diamond Back racing geometry.



Unitrac steering system with our new SuperRadius fork utilizes Tange "Avenger"

O/S headset system. This new system delivers precise handling, while standing up to all the demands of off-road riding.

Brake Booster seatstays and



73mm bottom bracket are standard equipment. With the

Deore DX group, Shimano's 21-speed STI system is the latest word in all-terrain performance componentry.

RX-7 rims with Panaracer Timbuk II tires rounds out the component package.

Shown above in Blue Fade Smoke.



ASCENT EX

Designed and built for performance, Ascent EX is ideal for the Mountain Bike enthusiast. This bike is an all-out mountain performer. The Ascent EX sports a 100% Tange Double Butted MTB Chromoly frame complete with all the upgrades Diamond Back has engineered for 1990. The new Deore LX component group



represents the latest in all-out all-terrain componentry. Hyperglide rear for uphill shifting precision, Superglide front for no-miss shifts, STI dual shifters to tie it all together. Powerful Shimano SLR brakes keep you in control. The component package doesn't stop there. High-performance wheel system with Araya RX-7 narrow rims, and select Tioga tires can roll you through anything. Italian Avenir Turbogel saddle is the best seat in the house. Put it together, and put yourself on the new Ascent EX for 1990.

Shown above in Smoke w/Lilac Clear Coat.



ASCENT

Performance is the Ascent's calling, and it delivers in spades. 100% Chromoly frame and fork incorporate all the unique features designed by Diamond Back for 1990. Shimano

Exage 400LX

group with

21-speed Hyperglide

gearing and new STI push-button shifter

will get you through any terrain. You can

manage all this performance with powerful

SLR cantilever brakes. New oversize

bottom bracket provides

superior tire clearance

at the rear wheel.

Sleek Araya RX-7 rims

shod with Tioga Farmer John Nephew

tires can handle the rough stuff. Italian

Avenir lycra-cover Racingel saddle is surprisingly comfortable. Mountain excitement

is all around you and Ascent takes you there.

Shown above in Black.

ASCENT

Only available in
Blue Fade Smoke
in the U.K.



TOPANGA

Mountain ready, the Topanga sports a Chromoly fork and Chromoly main tube

mountain frame. Shimano

300LX group

includes all the newest features



in mountain bike componentry.

21-speed drivetrain is indexed,

and has Hyperglide, with new

Superglide STI shifting system.

STI delivers much improved

shifting performance in all

conditions. Wheels include

Shimano alloy hubs, alloy

rims with Tioga Farmer

John Nephew tires. Avenir

racing saddle and flat

Chromoly racing-style



handlebar put you in

good form for the great outdoors.

Shown above in Soft Gray.

In the U.K., only available in



Iridescent White
w/Lilac Clear Coat
Gents

Reflex Blue
Ladies



SORRENTO

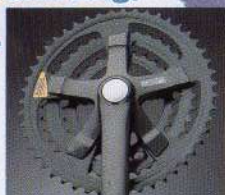
Rugged and ready, the Sorrento can take you off-road with ease. Custom selected Chromoly/high carbon mountain



frameset is ready for the rough stuff.

Shimano 200GS

group features 21-speed Hyperglide performance, and STI push button shifting system to get you the right gear every time. Bio-pace crankset, with Superglide front shifting,



adds leverage to your power during those low-speed climbs.

Powerful SLR brakeset keeps you in control, even during fast descents.

You'll be comfortable while riding with Avenir anatomic saddle and mountain rise handlebar. Add some adventure to your life with the

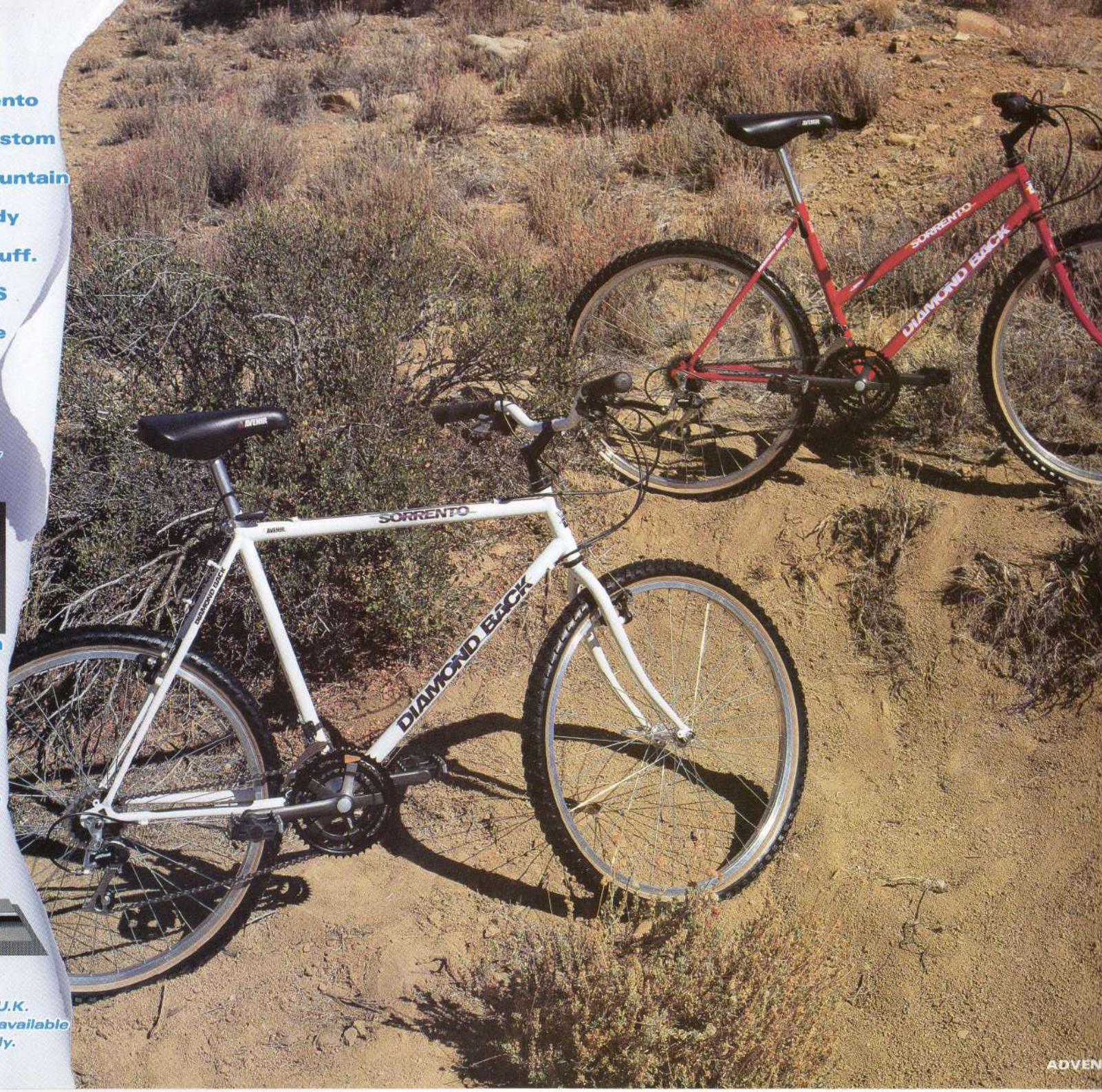
Diamond Back

Sorrento 18.8



Gents version only available in Black in the U.K. Ladies version available in Race Red only.

Shown above in Iridescent White w/Lilac Clear Coat and Race Red.



SPECIFICATIONS

	40	25	20			20	25	20			
	FRAME	FORK	RIMS	HUBS	SPOKES	TIRES	DERAILLEUR	SHIFTERS	CHAIN	CRANKSET	FREEWHEEL *
AXIS XT	Tange Prestige CR-MO, Quad-Butted MTN tubing. Brake Booster™ seat stays, TIG welded. Shimano vertical dropouts w/eyelets, 73mm BB shell. Braze-ons: two water bottle mounts, rear carrier and fender mounts.	Tange Big Fork, 100% CR-MO, Super Radius™ w/600 radius curved offset & butted large diameter blades.	Araya RM-17 narrow alloy, polished. 32 spoke front, 36 spoke rear.	Shimano Deore XT-II. Alloy small flange, Freehub rear, sealed, quick release front and rear.	14ga Stainless.	Panaracer Timbuk II, 26 x 2.00.	Rear - Shimano Deore XT-II Hyperglide SIS. Front - Shimano Deore XT-II Superglide.	New Deore XT-STI (Shimano Total Integration) mounted under H-Bar.	Shimano Deore XT-II Hyperglide.	Shimano Deore XT-II, w/round Superglide 24/36/46T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 13-30T.
ARRIVAL	Series 7000 Aluminum Alloy MTN tubing. Brake Booster™ seat stays, TIG welded. Vertical dropouts w/eyelets, 73mm BB shell. Braze-ons: two water bottle mounts and fender mounts.	100% CR-MO, Super Radius™ w/600 radius curved offset, large diameter variable gauge blades.	Araya RM-17 narrow alloy, polished. 32 spoke front, 36 spoke rear.	Shimano Deore DX. Alloy small flange, Freehub rear, sealed, quick release front and rear.	14ga Stainless.	Panaracer Timbuk II, 26 x 2.00.	Rear - Shimano Deore DX Hyperglide SIS. Front - Shimano Deore DX Superglide.	New Deore DX STI (Shimano Total Integration) mounted under H-bar.	Shimano Hyperglide.	Shimano Deore DX, w/round Superglide 24/36/46T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 13-30T.
DEX	100% Tange MTB Double Butted CR-MO MTN tubing. Brake Booster™ seat stays, TIG welded. Fastback dropouts w/eyelets. 73mm BB shell. Braze-ons: two water bottle mounts, rear carrier and fender mounts.	100% CR-MO, Super Radius™ w/600 radius curved offset, large diameter variable gauge blades.	Araya RX-7 narrow alloy, black anodized. 32 spoke front, 36 spoke rear.	Shimano Deore DX. Alloy small flange, Freehub rear, sealed, quick release front and rear.	14ga Stainless.	Panaracer Timbuk II, 26 x 2.00.	Rear - Shimano Deore DX Hyperglide SIS. Front - Shimano Deore DX Superglide.	New Deore DX STI (Shimano Total Integration) mounted under H-bar.	Shimano Hyperglide.	Shimano Deore DX, w/round Superglide 24/36/46T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 13-30T.
SCENT EX	100% Tange MTB Double Butted CR-MO MTN tubing. Brake Booster™ seat stays, TIG welded. Fastback dropouts w/eyelets. 73mm BB shell. Braze-ons: two water bottle mounts and rear carrier mounts.	100% CR-MO, Super Radius™ w/600 radius curved offset, large diameter variable gauge blades.	Araya RX-7 narrow alloy, polished. 32 spoke front, 36 spoke rear.	Shimano Deore LX. Alloy small flange, Freehub rear, sealed, quick release front and rear.	14ga Stainless.	Tioga 26 x 1.95.	Rear - Shimano Deore LX Hyperglide SIS. Front - Shimano Deore LX Superglide.	New Deore LX STI (Shimano Total Integration) mounted under H-bar.	Shimano Hyperglide.	Shimano Deore LX, w/round Superglide 24/36/46T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 13-30T.
SCENT	100% CR-MO MTN tubing. Brake Booster™ seat stays, TIG welded. Fastback dropouts w/eyelets. 73mm BB shell. Braze-ons: two water bottle mounts and rear carrier mounts.	100% CR-MO, Super Radius™ w/600 radius curved offset, large diameter variable gauge blades.	Araya RX-7 narrow alloy, polished. 32 spoke front, 36 spoke rear.	Shimano 400LX. Alloy small flange, Freehub rear, sealed, quick release front and rear.	14ga	Tioga Farmer John Nephew, 26 x 1.95.	Rear - Shimano 400LX Hyperglide SIS. Front - Shimano 300LX Superglide.	New 400LX STI (Shimano Total Integration) mounted under H-bar.	Shimano Hyperglide.	Shimano 400LX w/Biopace Superglide 28/38/48T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 13-28T.
OPANGA	CR-MO three main tubes, TIG welded. Fastback dropouts w/eyelets. Braze-ons: two water bottle mounts	100% CR-MO Unicrown w/ eyelets.	Alesa ATB-421 alloy, polished.	Shimano 300LX. Alloy small flange, Freehub rear, quick release front.	14ga	Tioga Farmer John Nephew, 26 x 1.95.	Rear - Shimano 300LX Hyperglide SIS. Front - Shimano 300LX Superglide.	New 300LX STI (Shimano Total Integration) mounted under H-bar.	Shimano Hyperglide.	Shimano 300LX w/Biopace Superglide 28/38/48T. Anatomically sized. Sealed bottom bracket.	Shimano Hyperglide Cassette, 7 speed 12-28T.
ORRENTO	CR-MO/High carbon MTN tube set. Braze-ons: water bottle mount	Unicrown w/ eyelets.	Alesa ATB-421 alloy, polished.	Shimano 200GS. Alloy small flange, Freehub rear, quick release front.	14ga	CST MTN tread, high density skinwall, 26 x 1.95.	Rear - Shimano 200GS Hyperglide SIS. Front - Shimano 200GS Superglide.	New 200GS STI (Shimano Total Integration) mounted under H-bar.	KMC Hyperglide.	Shimano 200GS w/Biopace Superglide 28/38/48T. Anatomically sized.	Shimano Hyperglide Cassette, 7 speed 12-28T.
ECOIL	Hi-tension ATB frameset with water bottle braze-ons.	Unicrown Straight Blade w/eyelets.	Double reinforced steel, Chrome.	Steel hub w/safety wheel retainers.	14ga	20 x 1.75 mountain tread, high density gum wall.	Rear - Shimano Tourney Hyperglide SIS. Front - N/A.	Shimano MY-20, SIS thumb shifters.	KMC Hyperglide.	DB forged CP 6-1/2" one-piece, 44T x 1/2" x 3/32".	Shimano Hyperglide Cassette, 6 speed, 14-28T.
URACA 26" wheel 24" wheel	Hi-Carbon MTN frame set. Braze-ons: bottle mount. **	Unicrown w/ eyelets.	Alesa 421 alloy, polished.	26": Small flange, quick release front. 24": Small flange steel.	14ga	26": CST MTN tread, high density gumwall, 26 x 2.00. 24": 24 x 2.00.	Rear - Shimano Tourney Hyperglide SIS. Front - Shimano Tourney.	Shimano MY-20, SIS thumb shifters.	KMC Hyperglide.	26": SR alloy cotterless, chainwheel 42/52T. 24": Chrome steel one-piece w/40/48T chainrings.	Shimano Hyperglide Cassette, 6 speed, 14-28T.

1990

GEOMETRY

Frames are designed to effectively balance body position over the bicycle enhance climbing traction and downhills steering stability. This is done by positioning the saddle effectively over the crankset, then positioning the rear wheel for maximum traction, and balancing the steering for best control. Rider and designer experience have been brought to bear on this design challenge. Prototypes are built and tested, then designs are fine-tuned to bring the best of the bicycle designer's art to you.

AXIS XT

SEAT TUBE LENGTH	TOP TUBE LENGTH	CHAIN STAY LENGTH	WHEEL BASE	BOTTOM BRACKET HEIGHT	FORK OFFSET	HEAD TUBE ANGLE	SEAT TUBE ANGLE
15"	539	426	1035	300	50mm	70°	73°
17"	543	426	1041	300	45mm	70°	73°
19"	573	426	1051	300	38mm	71°	73°
20.5"	590	426	1064	300	38mm	71°	73°
22.5"	610	426	1081	300	38mm	71°	73°

ARRIVAL, APEX, ASCENT EX, ASCENT

SEAT TUBE LENGTH	TOP TUBE LENGTH	CHAIN STAY LENGTH	WHEEL BASE	BOTTOM BRACKET HEIGHT	FORK OFFSET	HEAD TUBE ANGLE	SEAT TUBE ANGLE
15"	530	430	1035	300	45mm	71°	73°
17"	548	425	1041	300	45mm	71°	73°
19"	573	425	1051	300	45mm	71°	73°
20.5"	585	425	1064	300	45mm	71°	73°
22.5"	600	425	1081	300	45mm	71°	73°

TOPANGA, SORRENTO

SEAT TUBE LENGTH	TOP TUBE LENGTH	CHAIN STAY LENGTH	WHEEL BASE	BOTTOM BRACKET HEIGHT	FORK OFFSET	HEAD TUBE ANGLE	SEAT TUBE ANGLE
15"	529	430	1042	300	45mm	70°	73°
17"	548	430	1054	300	45mm	70°	73°
17"L	565	430	1054	300	45mm	70°	73°
19"	561	430	1054	300	45mm	70°	73°
20.5"	573	430	1067	300	45mm	70°	73°
22.5"	592	430	1088	300	45mm	70°	73°

ES	PEDALS	HEADSET	SEATPOST	SADDLE	BAR	STEM	SIZE	COLOR
Shimano Deore XT-SLR. Finger brake lever. Over front and rear.*	Shimano Deore XT-II Comp.	New oversize alloy Tioga Avenger, triple sealed, black anodized.	SR MTE-300MM. Micro-adjust.	Avenir Turbo Gel Lycra. Made in Italy.	Tioga tapered aluminum, black anodized. Flat w/10° bend. Anatomically sized.	Tioga Prestige T-Bone, black chrome. Anatomically sized.	15", 17", 19", 20.5", 22.5".	Dual tone Black Marble/White.
Shimano Deore DX-SLR. Finger brake lever. Over front and rear.*	HTI XT-Comp style, alloy.	New oversize Tioga Avenger, triple sealed, black CP. Made in Japan.	Kalloy SP 300MM. Micro-adjust.	Avenir Turbo Gel Lycra. Made in Italy.	DB tapered aluminum, black anodized. Flat w/10° bend. Anatomically sized.	Tioga T-Bone, black finish. Anatomically sized.	15", 17", 19", 20.5", 22.5".	Black w/White Spangle.
Shimano Deore DX-SLR. Finger brake lever. Over front and rear.*	HTI XT-Comp style, alloy.	New oversize Tioga Avenger, triple sealed, black CP. Made in Japan.	Kalloy SP 300MM. Micro-adjust.	Avenir Turbo Gel Lycra. Made in Italy.	DB tapered aluminum. Flat w/10° bend. Anatomically sized.	Tioga T-Bone, black finish. Anatomically sized.	15", 17", 19", 20.5", 22.5".	Blue Fade Smoke.
Shimano Deore LX-SLR. Finger brake lever. Over front and rear.*	HTI Low Fat style.	New oversize Tioga Avenger, triple sealed, black CP. Made in Japan.	Kalloy SP 300MM. Micro-adjust.	Avenir Turbo Gel Lycra. Made in Italy.	DB tapered aluminum, black anodized. Flat w/10° bend. Anatomically sized.	Tioga T-Bone, black finish. Anatomically sized.	15", 17", 19", 20.5", 22.5".	100% Smoke w/Lilac, Reflex Blue.
Shimano 400LX-SLR. Finger brake lever. Over front and rear.*	HTI Zytel resin, XT style.	New oversize Tioga Avenger, triple sealed, black CP. Made in Japan.	Kalloy SP 300MM. Micro-adjust.	Avenir Racing Gel Lycra. Made in Italy.	DB tapered CR-MO. Flat w/10° bend. Anatomically sized.	DB CR-MO TIG Welded. Anatomically sized.	15", 17", 19", 20.5", 22.5".	Blue Fade Smoke.
Shimano 300LX-SLR. Finger brake lever. Over front and rear.*	HTI Zytel resin, XT style.	DB Black finish.	Hi-carbon steel, satellite finish.	Avenir Racing Anatomic.	DB tapered CR-MO. Flat w/10° bend. Anatomically sized.	DB CR-MO TIG Welded. Anatomically sized.	15", 17", 19", 20.5", 22.5", Ladies 17".	Iridescent White w/Lilac, Reflex Blue.
Shimano 200GS-SLR. Finger brake lever. Over front and rear.*	HTI Zytel resin, XT style.	DB Black finish.	Hi-carbon steel, 250MM.	Avenir Racing Anatomic.	3" rise MTN bend, Hi-carbon. Anatomically sized.	DB TIG Welded Hi-carbon steel.	15", 17", 19", 20.5", 22.5", Ladies 17".	Race Red, Black.
Shimano profile cantilever front main stay mounted U-brake, MTN alloy levers.	DB Zytel resin, XT style.	DB Black, Double lock nut.	DB Chrome Plated 9".	Padded Anatomic.	MTB 110, Straight MTN style, 22.2" width.	DB TIG Welded hi-ten, 80mm reach.	11".	Race Red.
Shimano Compe 981, BRS alloy finger brake lever front and rear. i-Compe XCT brake levers.	HTI Zytel resin, XT style.	DB Chrome Plated.	Hi-carbon steel.	Padded Anatomic.	3" rise MTN bend, Hi-carbon. Anatomically sized.	DB TIG Welded Hi-carbon steel.	26": 17", 20.5", 22", Ladies 17". 24": 15" Boys and Girls.	26": Gents: Race Red. Ladies: Aqua Blue. 24": Boys: Race Red. Girls: Aqua Blue.

*Note: 15" frame has U-brake on chainstays. **Kickstand also included. Specifications subject to change without notice.

3

BRAKE BOOSTER
SEATSTAYS

4333.4

T BE PARALLEL

Moore Large & Co. Ltd.

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