

An American Tradition



1988



HANDCRAFTED

RITCHIEY
U-S-A

Mountain Bikes

The Ritchey Mountain Bike...



1/TOM RITCHEY

TOM RITCHEY has been dedicated to the sport of cycling for nearly sixteen years. His interest in bicycle racing and frame construction began almost simultaneously. As a junior road racer, he was a peer of Jacques Boyer, and represented the United States in the 1974 Junior World Championships. Bicycle racing has continued to be one of Tom Ritchey's main interests. He is still a contender on the mountain bike racing circuit.

However, the design and construction of bicycle frames became Tom Ritchey's passion, and soon, his profession. As a specialist in unusually sized road racing framesets, Ritchey became an expert in the field of lugless construction. Using unique solutions like ovalized seat tubes and oversized tubes to address special problems, he became renowned for the beauty, strength, and performance of his framesets. He continued to ride regularly on the paved and dirt roads of the hilly countryside around his Palo Alto, California home, so the development of Mountain Bikes was a natural progression. Since 1978, the RITCHEY name has become synonymous with Mountain Bikes. In fact, every off-road bicycle uses elements introduced by Tom Ritchey.

Today, Tom Ritchey and his family live in the hills above Palo Alto. He still designs and builds bicycles acclaimed for their distinctive quality, but most important, he continues to dream and design new bicycles and components for tomorrow. RITCHEY MOUNTAIN BIKES: The Evolution Continues....

2/THE BUILDER

TOM RITCHEY is acknowledged as one of the world's finest builders. He is responsible for pioneering, developing, and popularizing the technique of lugless brazing. In more than 16 years of framebuilding, Ritchey has built frames, handlebars, and stems for thousands of racing, touring, tandem and mountain bikes. Today, Tom Ritchey builds more mountain bikes than any other domestic builder.

Years of development in technique and tooling by Tom Ritchey has enabled him to be the most prolific builder, while simultaneously hand building frames, that are considered the highest quality and workmanship and design obtainable.

When you buy a fillet brazed RITCHEY, you ride the creation of Tom Ritchey. Every perfectly mitered tube, every braze-on fitting and every drop-out has been hand-brazed by Tom himself. One assistant works closely with Tom preparing and finishing framesets and handlebars.

Quality and reputation are areas jealously guarded by Tom Ritchey, and they will always remain his top priority. A new dimension for Ritchey Mountain Bikes began in 1986 with the introduction of the Ascent and Ultra, hand crafted tig welded mountain bikes manufactured by skilled welders personally taught by Tom Ritchey. In addition, before the Ritchey decal goes on any of the tig welded bikes, every frame gets bridges, braze-ons, and careful alignment by Tom Ritchey himself.

The big news for 1988 is the improved and upgraded ASCENT COMP and ULTRA along with the newest expedition bike—THE OUTBACK. The OUTBACK, ASCENT COMP, and ULTRA are consistent with the RITCHEY tradition, giving you the highest quality at the greatest value. You deserve the best: A Handcrafted RITCHEY Mountain Bike.

3/THE DESIGNER

Since 1978, TOM RITCHEY's original designs have been incorporated into the mountain bike industry. The original BULLMOOSE and Single Strut FORCE stems and handlebars, along with Unicrown forks, oversize tubing, slotted cable guides, are only a few examples. Key frame design features introduced by Tom Ritchey are reinforced seat collars, ovalized seat tube at the bottom bracket, single bend chainstays and 130mm spacing. These innovations and Tom Ritchey's individual control over every frameset means a line of bicycles that continue to set an unequalled standard in the industry. Tom Ritchey also leads the way in the field of frame geometry. Years of racing, touring, building, and engineering experience have brought the original RITCHEY MOUNTAIN BIKE designs from 68 degree head x 70 degree seat angles to RITCHEY's new standards

of 69 to 70 head x 73 to 74 degree seat tube angles. As a result, the bikes retain their stable handling characteristics while positioning the rider further forward for more efficient pedaling. The rear triangle has been tightened up to make for a rigid design that gives positive acceleration and climbing. Head angles have been increased and now range from 69.5 to 71.5 degrees, (depending on the model) keeping the RITCHEY trademark of sure-footed control on all types of terrain. This head angle in conjunction with fork rake of 1.8" or 2" ensures stable tracking without compromising handling performance.

While some builders have experimented with steeper angles and ultra short chainstays and wheelbases, which taxes the riders ability to stay in control, Tom Ritchey's geometry is still the perfect balance for performance, stability, and speed. Geometry has been a controversial subject in mountain bikes regarding its theory and function. Since the introduction of the TEAM COMP in 1983, the "RITCHEY" geometry has been largely accepted and copied by importers and high-end domestic builders alike. If imitation is the highest form of flattery, Tom Ritchey acknowledges it, while at the same time he develops new designs and products that distance him from the competition.

Tom Ritchey has consulted with major manufacturers over the years in the design and development of new components. Most recently, he has been closely involved in the design, development, and testing of the New Shimano Deore XT components. Naturally, they are featured in the 1988 models. Every bike has the Shimano Index Shifting System. You'll discover that every part is an improvement over previous designs.

RITCHEY designs are based on a sound knowledge of industry experience, along with a respect for the history of bicycles. The RITCHEY designs of the eighties fulfill the needs of modern cyclists without ignoring the lessons of one hundred years of bicycle construction history.

4/RITCHEY FRAME TUBING.

How can steel tubing be used to manufacture a frame as light as most aluminum versions? The answer for Tom Ritchey lies in many years of collaboration with the world's leading frame tubing manufacturers. The result is Tom Ritchey's unique selection of tubing sets.

Years of testing and development have gone into the creation of a perfect blend of tubing for each of the seven different RITCHEY bicycle models.

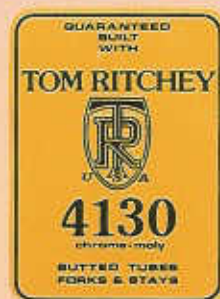
Many bicycle manufacturers are merely satisfied with the standard tubing sets offered by tubing makers. Often, tubes are too heavy or too light for each application, creating poorly balanced or inappropriate framesets. A painstaking analysis of gauge tapers, butting, and diameters was needed to arrive at the final product. Tange works with Tom Ritchey personally to custom build tube sets for each of the different frame sizes. RITCHEY's 4130 double-buttressed tubing is used in the OUTBACK, the ASCENT COMP and the SKYLINER. The TIMBERCOMP and ANNAPURNA use a hybrid RITCHEY TANGE PRESTIGE/4130 butted tubing, and RITCHEY/TANGE PRESTIGE COMPETITION butted tubing is used in the SUPER COMP and ULTRA. Every custom frameset has a variation in fork blades, down tubes, steering columns, and seat stays based on the intended use and size of each frameset. Thereby, every RITCHEY is not only a custom frameset, but also a custom tube set.

TANGE PRESTIGE tubing was brutally tested by the RITCHEY MOUNTAIN BIKES Racing team during 1986 in the prototype SUPER COMP team bicycle. PRESTIGE is particularly suitable for the severe demands of off-road racing. A Prestige frame is lighter than one using standard chrome moly, and about 30% greater in tensile strength, while retaining a similar elasticity. PRESTIGE is truly "Super Tubing".

The heart of the bicycle is in the frameset, and quality of its construction is critical. Tom Ritchey goes the extra step to guarantee the best choice of material for each and every RITCHEY bicycle.

5/PAINTING

When it came time to select the finish for RITCHEY built bicycles and framesets, the choice was easy. The standard by which all paint finishes are compared to is DUPONT IMRON. It is a polyurethane coating that is one of the most difficult to apply, yet one of the most durable finishes made. It has earned the reputation as "the wet look that lasts". The high lustre look, available in a wide selection of metallic and primary colors gives the final touch to your new pride and joy.



The Full Story...

6/RITCHEY TIRES.

The RITCHEY QUAD 1.9 is the most popular replacement tire in the country for all the right reasons. It is the ideal multi-purpose fat tire due to its unique GripStrip™ center ridge. It's quiet on the street and the unique Quad side knobs make it sure-footed in the dirt.

The FORCE RACING K, was the 1st Mountain Bike tire on the market with a Kevlar bead. NED OVEREND (Men's Pro), CINDY WHITEHEAD (Women's Pro) both chose the RACING K for their Championship ride in the 1986 NORBA Nationals in Durango, Colorado. The RACING K has been improved in 1987 with a new 127 threads per inch casing, making it the finest quality tire made. Mountain Bike Action rated the FORCE RACING K #1 for cornering performance and mud clearance in their comprehensive March 1987 tire test. At 540 grams, the FORCE RACING K is still the lightest off-road competition tire available.

New for 1987 was the FORCED DURO K. Based on the successful FORCE RACING tread pattern. Tom Ritchey has increased the tread rubber by 1mm making it a much longer wearing tire while still maintaining an amazing 585 gram weight. It also uses a 127 tpi casing. It's durability makes it an excellent choice as a rear tire, ideally matched with the FORCE RACING K on the front. With Ritchey Force Tires you can have a pair of custom performing and wearing tires that deliver the optimum in off-road performance.

7/FORCE DIRECTIONAL HANDLEBAR & STEM

Unknown to many, the popular chrome moly single tube stem design originated with Tom Ritchey in the early 1970's. It was used in road and track bikes for time trial and record attempts.

The new RITCHEY stem, called "FORCE DIRECTIONAL", is a modified version of his original design with a single ovalization and the best strength/weight ratio by selecting appropriate wall thicknesses and tapers. It is available in a TIG welded (MOD I) or Fillet Brazed (MOD II) version, each with 3 variations:

	FD Stems	REACH	RISE
LO	MOD I	6.1"	1.0"
	MOD II	6.8"	1.4"
MED	MOD I	5.0"	1.75"
	MOD II	5.9"	2.0"
HI	MOD I	4.3"	2.4"
	MOD II	5.5"	3.5"

The new FORCE DIRECTIONAL handlebars are available in TANGE PRESTIGE (MOD II) or CHROMOLY (MOD I) tubing. The Prestige (MOD II) is double butted and both bars utilize a reinforced center section. Specifications are as follows:

FD Bars	WEIGHT	BEND	WIDTH
MODEL I	340 grams	12 deg	22.5"
MODEL II	260 grams	12 deg	22.5"

8/RITCHEY VANTAGE RIMS

The newest edition to the RITCHEY component line is our new RITCHEY VANTAGE rim. TOM RITCHEY has long studied mountain bike rim construction and after years of thought and personal testing, the VANTAGE RIM project began. The VANTAGE represents the latest technology using computer-aided design to make the most of the least amount of material. The VANTAGE RIM has a slight "V" section and has increased the tubular cross-section. The result is a rim that is stronger than standard cross-section rims, yet weighs less. This rim is constructed with 6061 T-6 double heat treated aluminum for superior strength and durability. At 445 grams, the new Ritchey VANTAGE RIM will multiply the racers "unfair advantage".

9/WHO RIDES THEM

When you choose a RITCHEY, you join the ranks of many celebrities, film stars, and top athletes who recognize the finest quality when they see it. More important, bicycle industry leaders like Andreas Cinelli and Antonio Columbo have selected RITCHEY for their personal mountain bike. It's not commonly known, but Joe Murray began his successful racing career on a TEAM COMP. Even Eric Heiden and Jacques Boyer choose RITCHEY for their off-season training bikes.

10/RACING TEAM

The RITCHEY racing team was one of our most valuable assets in 1986. The team gave the SUPER COMP bicycle with prototype Shimano Deore XT components their stamp of approval with their most successful season ever.

This successful team will continue to win and contend with the leaders in major off-road events. The feedback received from the team is used in the analysis of what works and what should be discarded. New frame and component designs either make it or break at this level.

Watch for the red, white, and blue RITCHEY jersey at the front in 1988!

11/THE RITCHEY COMPANY

We have a saying at RITCHEY MOUNTAIN BIKES: "Quality is not just the quality of the product, but the quality of the whole company". The RITCHEY staff is proud to work for one of the most recognized names in the industry. Of course, we are cyclists also, with a collective experience of over sixty years in the industry. Whether it's a bike to ship, a dealer asking for technical information, or a customer asking for our dealer locations, we make sure it's done correctly, quickly, and efficiently.

12/THE STATE OF THE ART

A fine bicycle is more than a collection of components. It is the ride that is the sum of its elements. When you are ready to experience the state of the art, ride a RITCHEY. There is nothing like it.

13/WARRANTY

Every RITCHEY frameset is guaranteed for the life of the original owner to be free of defects in workmanship. Due to the nature of off-road riding, any material can and will bend under extreme loading. Riders choosing the SUPER COMP and ULTRA bicycles do so with care, taking into consideration their own expertise and knowledge of bicycles.



Ritchey A La Carte...

14/THE MENU

Your RITCHEY is the ultimate performance mountain bike. It will probably be the last mountain bike you ever own, unless it's another RITCHEY. You can choose from a long list of options to make your RITCHEY a mountain bike tailored to suit your needs and taste. Not only are there 11 sizes to choose from, but also a wide variety of braze-ons, components, and color options. Take a little time to consider the possibilities. While other companys have a "take it or leave it" attitude towards your new bike, we at RITCHEY MOUNTAIN BIKES want to build all our customers their ultimate bike. Read our menu for RITCHEY A La Carte!

15/HANDLEBARS AND STEMS

The reach and rise of your handlebars is an important factor in positioning you correctly on your RITCHEY MOUNTAIN BIKE. Your choice depends on the length of your upper body and arms, and your own personal comfort. Generally, a longer, lower position is chosen for training and racing, and a higher, shorter position is chosen for touring and commuting. With your RITCHEY, you have six different possibilities for hand positioning in the new FORCE DIRECTIONAL stem and bar. THE OUTBACK, ASCENT COMP, ULTRA, TIMBERCOMP, and SKYLINER are supplied with the medium position model I (Tig welded) FORCE DIRECTIONAL stem and bar. You have the option to choose a high, medium, or low position, with the force directional mod. I stem. The SUPER COMP and ANNAPURNA come with the beautifully fillet brazed Model II FORCE DIRECTIONAL stem in a high, medium or low position, IMRON painted to match.

16/CHAINWHEELS

Your RITCHEY comes with a crankset sized from 170 to 180mm, according to the bicycle size. In some cases, it may be appropriate to change from our standard. We have chosen to use round chainrings as a standard equipment on most of our RITCHEY bicycles due to the pedaling style and cycling background of most RITCHEY riders. A cyclist with many years of road riding ex-

perience tends to prefer the round chainrings that match a fast pedaling cadence. Newer cyclists and those who rely more on their pedaling power can also choose SHIMANO Biopace chainrings. According to Shimano, the computer aided design improves pedaling efficiency by effectively utilizing a smaller radius during the downward pedal stroke. The radius is greater before and after the power stroke, allowing more efficient use of the momentum gained.

17/BLACK ANNOIDIZED PARTS

The RITCHEY ULTRA bicycle paint scheme lends itself perfectly to a black component group. However, you can also choose the same color contrast for other RITCHEY models with black handlebars, headset, seatpost, cranks, rims, brakes, and brake levers.

18/BRAZE-ONS

All RITCHEY bicycles have two water bottle bosses, special slotted cable stops and guides, front cantilever bosses, rear "U-Brake" bosses, and dropout eyelets front and rear. With any RITCHEY model you have the option to have cantilevers front and rear, choosing your optimal brake combination. Extra water bottles, rear rack, low rider, fender, or carry strap braze-ons are also available.

19/RIMS AND WHEELSETS

The RITCHEY A la Carte Menu is designed to customize your bicycle and our RITCHEY VANTAGE WHEELSETS and RIMS are no exception. Silver, grey, and black VANTAGE RIMS are available on all bikes. We at RITCHEY MOUNTAIN BIKES want all of our customers to build their ultimate RITCHEY. So go ahead.....exercise your options!

20/PAINTING

Each and every RITCHEY bicycle can be finished to satisfy your personal taste. From subtle to outlandish, feel free to express yourself. Simply choose from a wide variety of Dupont Imron colors. The only exception is the team SUPER COMP which, as the signature of the RITCHEY line, is only available in the distinctive Team Red/White.



Clothing and Water bottles ...

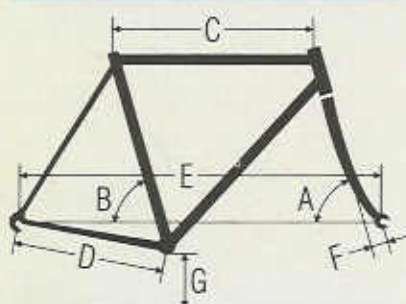


We at RITCHEY Mountain Bikes have a wide variety of long and short sleeve t-shirts, sweat shirts, polo shirts, and workshop aprons. The t-shirts and sweat shirts and workshop aprons feature the "hand made by TOM RITCHEY" design, while our polo shirts feature the "TR" logo. Available in sizes from small to extra-large and in a variety of colors, we are sure you will find one to suit your style.

Quality RITCHEY water bottles are available too.....in a variety of colors and styles. Available in two sizes: small and "1/3 more".

**Sport/Expedition
Series
TIG Welded**

OutBack



Frame Size	A	B	C	D	E	F	G
16	71.5	73	21	17.1	40	1.8	11.5
17	71.5	73	21.5	17.1	40.5	1.8	11.5
18.5	71.5	73	22	17.1	41	1.8	11.5
20	71.5	73	22.5	17.1	41.5	1.8	11.5
21.5	71.5	73	23	17.1	42	1.8	11.5
23	71.5	73	23.5	17.1	42.5	1.8	11.5

TOM RITCHEY has seen the need for an expedition bike that is equally at home on or off the road. Our newest model for 1988, the OUTBACK, is custom tailored for all your exploration needs. There is no need to worry about braze-ons because the OUTBACK comes equipped with the works: fenders, fork lo-riders and rear-rack braze-ons along with all the rest of RITCHEY's standard braze-ons. Take a close look at the clean lines and the quality of workmanship on this Dupont Imron painted bike (with optional colors available) and you can create your dream bike at a very reasonable price. The traditional RITCHEY MOUNTAIN BIKE is made for performance off-road riding while the OUTBACK has a geometry suited for both on and off the road. The frame is Tig welded and constructed with the same careful attention to detail as the ASCENT COMP and the ULTRA. The Shimano Deore and Deore XT components give the OUTBACK a distinguished quality look never before available at this price.

Whether you're riding through the urban jungle or plan for an adventure in the Australian bush, once you decide to go OUTBACK with RITCHEY MOUNTAIN BIKES no challenge will be too great.



RITCHEY OUTBACK™/SPECIFICATIONS:

FRAME:	Designed and built by TOM RITCHEY and TRAINED RITCHEY MOUNTAIN BIKE WELDERS using RITCHEY designed Tange 4130 butted Chrome moly.
FORK:	Designed by TOM RITCHEY, built using RITCHEY designed Tange 4130 Chrome Moly Unicrown Fork Blades
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides. Cantilever bosses front. Rear "U-Brake", fenders, lo-riders, and rear rack braze-ons. (Additional braze-on options available.)
HANDLEBAR:	RITCHEY DESIGNED FORCE DIRECTIONAL MOD. 1 chrome moly.
STEM:	RITCHEY design FORCED DIRECTIONAL MOD. 1 chrome moly.
SADDLE:	Avocet Turbo
SEATPOST:	Kalloy 300mm
SEATPOST BOLT:	Suntour QR-170
HEADSET:	Tange CD Black
BOTTOM BRACKET:	Shimano Deore
CRANKSET:	Shimano Deore Biopace 28/38/48, Crank length matched to frame size.
PEDALS:	Shimano Deore
REAR DERAILLEUR:	Shimano Deore XT
FRONT DERAILLEUR:	Shimano Deore
SHIFT LEVERS:	Shimano Deore XT
BRAKES:	Shimano Deore front. Cantilever, Deore "U-Brake" rear.
BRAKE LEVERS:	Shimano Deore
HUBS:	Shimano Deore Quick Release Cassette 6 speed.
RIMS:	RITCHEY VANTAGE
SPOKES:	Asahi 14G Stainless
TIRES:	RITCHEY Quad 1.9
FREEWHEEL:	SHIMANO Deore Cassette 13-30 six speed
CHAIN:	DID LANNER
SIZES:	16", 17", 18.5", 20", 21.5", 23" (center to top)
COLOR:	TURQUOISE METALLIC (Additional color options available)

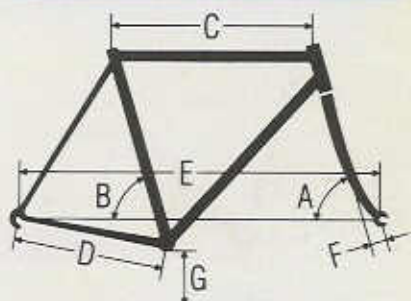
Ascent Comp

**Competition/Sport
Series
TIG Welded**

The bright purple paint topped with a Unicrown Fork and FORCE DIRECTIONAL bar and stem gives the ASCENT COMP away. This is a racing machine with top notch components and a proven design. The ASCENT COMP is a handcrafted TIG welded frame made by TOM RITCHEY and trained Ritchey MOUNTAIN BIKE craftsmen using RITCHEY 4130 chrome moly double butted tubing. The competition geometry gives you a seat angle of 73 degrees and a head angle of 70 degrees to provide the best in performance and stability. CYCLIST magazine called the ASCENT "light, quick, and responsive....an exceptionally efficient climber." The no-nonsense component group features SHIMANO DEORE XT SIS derailleurs, brakes and crankset complemented by FORCE DIRECTIONAL handlebar and stem. The new RITCHEY FORCE RACING & DURO tires are also included. The RITCHEY Evolution Continues with the ASCENT COMP, a sleek combination of smoothness and power at a value-packed price!



Frame Size	A	B	C	D	E	F	G
16	70	73	21	17.1	40.5	1.8	11.5
17	70	73	21.5	17.1	41	1.8	11.5
18.5	70	73	22	17.1	41.5	1.8	11.5
20	70	73	22.5	17.1	42	1.8	11.5
21.5	70	73	23	17.1	42.5	1.8	11.5
23	70	73	23.5	17.1	43	1.8	11.5



RITCHEY ASCENT COMP™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHEY and TRAINED RITCHEY MOUNTAIN BIKE WELDERS using RITCHEY designed Tange 4130 butted Chrome moly.
FORK:	Designed by TOM RITCHEY, built using RITCHEY designed Tange 4130 butted chrome moly Unicrown Fork Blades
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides. Cantilever bosses front. Rear "U-Brake" bosses. Dropout eyelets front and rear. (Additional braze-on options available.)
HANDLEBAR:	RITCHEY Designed FORCE DIRECTIONAL MOD. I.
STEM:	RITCHEY Design FORCE DIRECTIONAL MOD. I.
SADDLE:	Avocet Turbo
SEATPOST:	Strong 260mm.
SEATPOST BOLT:	Suntour QR-170
HEADSET:	Tange CD Black.
BOTTOM BRACKET:	Shimano Deore
CRANKSET:	Shimano Deore XT 28/38/48 Crank length matched to frame size.
PEDALS:	Shimano Deore
REAR DERAILLEUR:	Shimano Deore XT.
FRONT DERAILLEUR:	Shimano Deore XT.
SHIFT LEVERS:	Shimano Deore XT SIS.
BRAKES:	Shimano New Deore XT front, New Deore XT "U-Brake" rear.
BRAKE LEVERS:	Shimano Deore
HUBS:	Shimano Deore Quick Release Cassette six speed.
RIMS:	RITCHEY VANTAGE
SPOKES:	Asahi 14G Stainless.
TIRES:	RITCHEY FORCE RACING front, FORCE DURO rear.
FREEWHEEL:	Shimano Deore 13-30 6 speed
CHAIN:	DID Lanner.
SIZES:	16", 17", 18.5", 20", 21.5", 23". (Center to top).
COLORS:	Purple with yellow forks. (Additional color options available.)

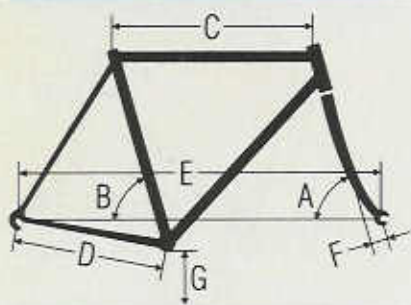


**Competition
Series
TIG Welded**

ULTRA



The newest in a series of competition bicycles from TOM RITCHEY, the ULTRA is a startling blend of new technology and exciting aesthetic appeal. The TIG welded frameset is hand-crafted with the new ultra-light TANGE PRESTIGE tubing, giving you the weight of an aluminum bike with the characteristic positive response of chrome-moly steel. The ULTRA uses the RITCHEY racing geometry of the SUPER COMP with a 74° seat angle and a 70° head angle. This is a hybrid machine designed for experienced riders who demand a first class bicycle. The ULTRA delivers excitement on all types of surfaces with the same component group as the SUPER COMP, black anodized wherever possible. Combined with a white frame and fork, the look is light-weight, clean, and mean. Sizing is from 16" through 21.5" Take a test ride today on the RITCHEY ULTRA and discover what "the UNFAIR advantage" is all about.



Frame Size	A	B	C	D	E	F	G
16	70	74	21	16.9	40.7	1.8	11.5
17	70	74	21.5	16.9	41.2	1.8	11.5
18.5	70	74	22	16.9	41.7	1.8	11.5
20	70	74	22.5	16.9	42.2	1.8	11.5
21.5	70	74	23	16.9	42.7	1.8	11.5



RITCHEY ULTRA™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHEY and trained RITCHEY MOUNTAIN BIKE WELDERS using RITCHEY designed Tange Prestige Butted Tubing.
FORK:	Designed by TOM RITCHEY, built using RITCHEY 4130 Chrome Moly Unicrown fork blades.
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides, cantilever front, u-brake rear. Drop-out eyelets front and rear. (Additional braze-on options available)
HANDLEBAR:	Alloy Bulge Bar
STEM:	RITCHEY designed Force Directional MOD 1 chrome moly
SADDLE:	Avocet Turbo
SEATPOST:	Strong 260mm Black.
SEATPOST BOLT:	Shimano Deore XT
HEADSET:	Tange CD Black.
CRANKSET:	Shimano Deore XT 28/38/48. Crank length matched to frame size. (Optional biopace chainrings available.)
BOTTOM BRACKET:	Shimano Deore XT.
PEDALS:	Shimano Deore XT.
REAR DERAILLEUR:	Shimano Deore XT COMP.
FRONT DERAILLEUR:	Shimano Deore XT.
SHIFT LEVERS:	Shimano Deore XT.
BRAKES:	Shimano Deore XT front, Deore XT "U-Brake" rear.
BRAKE LEVERS:	Shimano Deore XT.
HUBS:	Shimano Deore XT Quick Release cassette, six speed.
SPOKES:	WheelSmith 14G Stainless.
TIRES:	RITCHEY FORCE RACING front, RITCHEY FORCE DURO rear.
FREEWHEEL:	Shimano Deore XT 12-28, six speed
CHAIN:	DID Lanner.
SIZES:	16", 17", 18.5", 20", 21.5". (Center to top).
COLOR:	White. (Additional color options available)



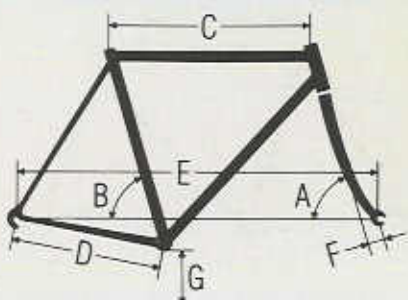
timbercomp

**Competition/Sport
Series
Fillet Brazed**

The TIMBERCOMP has been up-graded for 1988 with a new 69.5 degree head angle and shorter 17.25 inch chainstays. The components are Shimano Deore XT all the way along with our new RITCHEY VANTAGE Rims. Mountain Bike Action rated the TIMBERCOMP "excellent" in every area of performance: climbing, descending, cornering, and absorption, calling it "an ultimate go-anywhere, do-anything machine." TOM RITCHEY personally fillet brazes this bike in a wide variety of sizes and he also offers an optional "Commando" braze-on package for the get-away adventurer. Come see how the TIMBERCOMP takes to the wilds and delivers full performance!



Frame Size	A	B	C	D	E	F	G
16	69.5	73	21	17.25	41.8	1.8	11.5
17	69.5	73	21.5	17.25	41.6	1.8	11.5
18	69.5	73	21.5	17.25	41.8	1.8	11.5
19	69.5	73	22	17.25	42.1	1.8	11.5
20	69.5	73	22.5	17.25	42.6	1.8	11.5
21.5	69.5	73	23	17.25	43.1	1.8	11.5
23	69.5	73	23.5	17.25	43.6	1.8	11.5
24	69.5	73	24	17.25	44.1	1.8	11.5
25	69.5	73	24.5	17.25	44.6	1.8	11.5
26	69.5	73	24.5	17.25	44.6	1.8	11.5



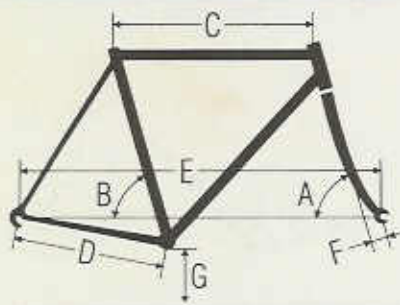
RITCHEY TIMBERCOMP™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHEY, using a custom hybrid of RITCHEY designed Tange Prestige and RITCHEY Tange 4130 butted Chrome Moly Tubing.
FORK:	Designed and built by TOM RITCHEY, using RITCHEY designed Tange 4130 butted Chrome Moly unicrown fork blades.
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides. Cantilever bosses front, u-brake rear. Dropout eyelets front and rear. (Additional braze-on options available.)
HANDLEBAR:	RITCHEY Designed Force Directional MOD. 1 Chrome Moly
STEM:	RITCHEY Design Force Directional MOD. 1 Chrome Moly
SADDLE:	Avocet Turbo
SEATPOST:	Strong 260mm.
SEATPOST BOLT:	Shimano Deore XT
HEADSET:	Tange CD Black.
CRANKSET:	Shimano Deore XT 28/38/48. Crank length matched to frame size. (Optional Biopace chainrings available.)
BOTTOM BRACKET:	Shimano Deore XT
PEDALS:	Shimano Deore XT
REAR DERAILLEUR:	Shimano Deore XT Comp.
FRONT DERAILLEUR:	Shimano Deore XT.
SHIFT LEVERS:	Shimano Deore XT.
BRAKES:	Shimano Deore XT front, "U-Brake" rear.
HUBS:	SHIMANO Deore XT quick release cassette 6 Speed.
RIMS:	RITCHEY VANTAGE
SPOKES:	Wheelsmith 14G Stainless.
TIRES:	RITCHEY Force Racing front. RITCHEY Force Duro rear.
FREEWHEEL:	Shimano Deore XT cassette 12-28 speed
CHAIN:	DID Lanner.
SIZES:	16", 17", 18", 19", 20", 21.5", 23", 24" (Center to top), 25" and 26" TIMBER COMPs are available at an additional cost.
COLORS:	Magenta or Royal blue. (Additional color options available.)



**Competition
Pro Series
Fillet Brazed**

Super Comp



Frame Size	A	B	C	D	E	F	G
18	69°/70°	74°	22	16.9	42.1	1.8	11.5
19	69°/70°	74°	22.3	16.9	42.4	1.8	11.5
20	69°/70°	74°	22.7	16.9	42.8	1.8	11.5
21	69°/70°	74°	23	16.9	43.1	1.8	11.5
22	69°/70°	74°	23.3	16.9	43.4	1.8	11.5
23	69°/70°	74°	23.7	16.9	43.8	1.8	11.5

The Evolution continues...and the excitement mounts with the most advanced Mountain Bike of 1988. The SUPER COMP has been thoroughly tested by the RITCHEY MOUNTAIN BIKES/SHIMANO racing team during the 1987 season. Keeping the TEAM COMP heritage of performance, the SUPER COMP uses the ultra light Tange Prestige tube set, giving you the responsive feel of chrome-moly on a 25 pound Mountain Bike. Today's performance rider is ready for a new tighter geometry. The SUPER COMP has just that with a 74 degree seat angle, and a 70 degree head angle (with an option of 69 degree). The chainstays are a tight 16.9" and with a 1.8" fork rake rounding out this SUPER geometry. It's a machine you can trust on narrow single tracks, demanding ascents, and difficult descents. We gave the SUPER COMP a new look to let it stand out from the crowd. From the beautiful fillet brazed FDII stem with RITCHEY PRESTIGE bars to the hand picked Deore XT Comp component group, the 1988 SUPER COMP is a winning combination. Ride it and experience the future of mountain biking.



RITCHEY SUPER COMP™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHEY, using RITCHEY designed butted Tange Prestige Tubing.
FORK:	Designed and built by TOM RITCHEY, using RITCHEY designed butted Tange Prestige unicrown fork blades.
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides. Cantilever bosses front and u-brake rear. Dropout eyelets front and rear. Additional braze-on options available
HANDLEBAR:	RITCHEY designed Force Directional MOD II Prestige.
STEM:	Force Directional MOD II fillet brazed stem. Designed and built by TOM RITCHEY. Available in HI, Medium, and Low sizes.
SADDLE:	Avocat Turbo
SEATPOST:	Suntour XC 300mm.
SEATPOST BOLT:	Shimano Deore XT.
HEADSET:	Shimano Deore XT
BOTTOM BRACKET:	Shimano Deore XT.
CRANKSET:	Shimano Deore XT 28/38/48. Crank length matched to frame size. (Optional Biopace chainrings available)
PEDALS:	Shimano Deore XT comp.
REAR DERAILLEUR:	Shimano Deore XT comp
FRONT DERAILLEUR:	Shimano Deore XT.
SHIFT LEVERS:	Shimano Deore XT.
BRAKES:	Shimano Deore XT cantilever front, "U-Brake" rear.
BRAKE LEVERS:	Shimano Deore XT.
HUBS:	Shimano Deore XT low flange quick release cassette six speed.
RIMS:	RITCHEY VANTAGE
SPOKES:	Wheelsmith 14G Stainless
TIRES:	RITCHEY FORCE RACING front/FORCE DURO rear.
CHAIN:	DID Lanner
FREEWHEEL:	Shimano Deore XT Cassette 12-28 six speed.
SIZES:	16", 17", 18", 19", 20", 21", 22", 23" (Center to Top)
COLOR:	Team red/white.



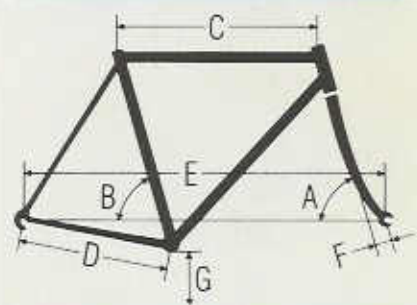
Annapurna

**Luxury
Sport/Expedition
Series
Fillet Brazed**

There is hand built and then there is the ANNAPURNA. A limited edition, exquisitely finished frameset built with a custom hybrid of RITCHEY Tange Prestige and Tange 4130 butted chrome moly. The ANNAPURNA is the ultimate creation from TOM RITCHEY, a true one in a thousand dream bike. In 1982 when referring to all types of bikes, Bicycling Magazine called it "one of the 2 or 3 prettiest at any price...there is no disputing the superiority of the ANNAPURNA's frame-work or finish". Artfully sculpted head and down tube reinforcing sleeves highlight the beauty and elegance of the ANNAPURNA. Most Dupont Imron colors are available to satisfy your personal taste. The component group is the highly rated Shimano Deore XT, matched with Ritchey Vantage Rims and our fillet brazed Force Directional II stem. If Rolls Royce were to build a mountain bike, this would be it!



Frame Size	A	B	C	D	E	F	G
19	69.5	73	22	17.25	42.1	1.8	11.5
20	69.5	73	22.5	17.25	42.6	1.8	11.5
21	69.5	73	23	17.25	43.1	1.8	11.5
22	69.5	73	23	17.25	43.1	1.8	11.5
23	69.5	73	23.5	17.25	43.6	1.8	11.5
24	69.5	73	24	17.25	44.1	1.8	11.5
25	69.5	73	24.5	17.25	44.6	1.8	11.5



RITCHEY ANNAPURNA™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHEY, using a custom hybrid of RITCHEY designed Tange Prestige and Ritchey Tange 4130 butted chrome moly tubing.
FORK:	Designed and built by Tom Ritchey, using RITCHEY designed Tange 4130 Butted chrome Moly Unicrown fork blades.
BRAZE-ONS:	Double water bottle bosses, special slotted cable stops and guides. Cantilever bosses front. Rear "U-brake" bosses, dropout eyelets front and rear. (Additional braze-on options available.)
HANDLEBAR:	RITCHEY DESIGNED FORCE DIRECTIONAL MOD II Prestige Handlebar.
SADDLE:	Avocet turbo
STEM:	Force Directional MOD II fillet brazed stem.
SEATPOST:	SUNTOUR XC 300mm.
SEATPOST BOLT:	SHIMANO New Deore XT
HEADSET:	Shimano Deore XT
CRANKSET:	Shimano new Deore XT 28/38/48. Crank length matched to frame size. (Optional Biopace chainrings available)
BOTTOM BRACKET:	Shimano Deore XT
PEDALS:	Shimano Deore XT
REAR DERAILLEUR:	Shimano Deore XT
FRONT DERAILLEUR:	Shimano Deore XT
SHIFT LEVERS:	Shimano Deore XT
BRAKES:	Shimano Deore XT front. Deore XT "U-brake" rear.
HUBS:	Shimano Deore XT Quick Release Cassette 6 Speed.
RIMS:	RITCHEY VANTAGE
SPOKES:	WHEELSMITH 14G Stainless
TIRES:	RITCHEY Force Duro rear, RITCHEY Force Racing front.
FREEWHEEL:	Shimano Cassette 12-28-6 Speed.
CHAIN:	DID Lanner
SIZES:	18", 19", 20", 21", 22", 23", 24", 25". (Center to top).
COLORS:	Any Dupont Imron Color.

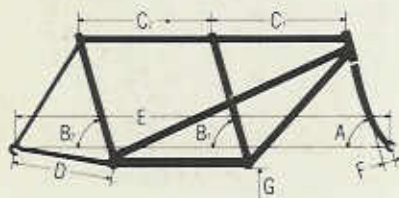


**Tandem
Fillet Brazed**

Skyliner



The SKYLINER tandem is named after Skyline Boulevard in the hills above Redwood City where the Ritchey staff and family enjoy many hours riding away from the pace of urban life. The SKYLINER is hand fillet brazed by TOM RITCHIEY using carefully chosen imported and domestic tubing to deliver a tandem that is strong, safe, and dependable. By using over-size tubing and wider tires, the SKYLINER tandem addresses the problems of traditional "lightweight" tandems. To define it as an "off-road" bicycle is a misnomer since the SKYLINER, in addition to being a lot of fun off-road, is a logical choice for a long distance touring tandem. Bicycling Magazine called it "a bombproof sport tandem that's stiffer and just as light as its more fragile skinny tire tandem." The crossover drive crankset is specially made for RITCHIEY by SPECIALIZED and SHIMANO DEORE XT brakes provide ample stopping power. The solid wheels of SHIMANO DEORE XT cassette hubs built with WHEELSMITH spokes will give you many years of reliable service.



A	B ₁	B ₂	C ₁	C ₂	D	E	F	G
71°	73°	73°	22.6	26.0	17.0	68.0	2.0	11.5



RITCHIEY SKYLINER™/SPECIFICATIONS

FRAME:	Designed and built by TOM RITCHIEY, using RITCHIEY butted and 4130 butted custom special Chrome Moly Tandem frame tubing
FORK:	Designed and built by TOM RITCHIEY, using custom RITCHIEY designed butted Tange Prestige special tandem unicrown fork blades
BRAZE-ONS:	Three water bottle bosses, special slotted cable stops. Cantilever bosses front and U-Brake bosses rear. Dropout eyelets front and rear. Rear rack, front lo-rider braze-ons
HANDLEBAR:	RITCHIEY FORCE DIRECTIONAL MOD. I
STEM:	FORCE DIRECTIONAL MOD. I and MOD. I Stoker
SADDLES:	Avocet turbo
SEATPOSTS:	SR 250mm and 330mm
SEATPOST BOLT:	Suntour Q/R170
HEADSET:	Shimano Deore XT
BOTTOM BRACKETS:	Specialized ST-2
CRANKSET:	Specialized tandem crankset. 28-38-48 round Crank length matched to frame size.
PEDALS:	Shimano Deore XT
REAR DERAILLEUR:	Shimano Deore XT SIS
FRONT DERAILLEUR:	Shimano Deore XT
SHIFT LEVERS:	Shimano Deore XT SIS
BRAKES:	Shimano Deore XT cantilever front, Deore XT U-Brake rear
BRAKE LEVERS:	Shimano Deore XT
WHEELSET:	Shimano Deore XT B/O rear cassette hubs, with Q/R front RITCHIEY VANTAGE RIMS, WheelSmith 14G 3-cross, 12-28 6-speed.
TIRES:	RITCHIEY Quad 1.9
CHAIN:	DID Lanner
SIZES:	20 x 19, 21 x 19, 22 x 19, 23 x 19 (center to top)
COLORS:	Any Dupont Imron color



Ritchey Tires...

the unfair advantage

FORCE RACING K

WEIGHT	SIZE	PSI
540 grams	26x1.9"	45-80

The new lighter FORCE is here. The first off-road tire to use a Kevlar bead, it is the ultimate tire for performance riders. Tom Ritchey designed the FORCE RACING K to be the lightest, best performing race tire available. Using the optimum 1.9 tire size introduced by Ritchey, the tire has three rows of Force Directional knobs on either side of the tread to provide unbelievable control under all types of cornering and braking stresses. With a new and exclusive 127 tpi casing, the FORCE RACING K now weighs an amazing 540 grams. Both 1st and 2nd place riders—men and women—in Mens Pro and Veterans chose the FORCE RACING K in the 1986 NORBA national Championships. The FORCE RACING K is a winner, and another example of how Tom Ritchey continues to set the definition of Mountain Bike tires.

FORCE DURO K

WEIGHT	SIZE	PSI
575 grams	26x2.0"	45-80

Our research at RITCHEY MOUNTAIN BIKES shows that a rear tire wears 200 - 300% more quickly than a front tire. With this in mind, Tom Ritchey designed the FORCE DURO K to give you more of a good thing. Based on the successful FORCE tread, but with 20% more of a carefully selected tread rubber, the FORCE DURO K is tough and hard-wearing. Like the FORCE RACING K, it uses the strong, yet supple and lively 127 tpi casing. A lightweight performance tire, especially suited for the rear wheel, it's a great match with the original FORCE RACING K on the front. You'll have a pair of complimentary wearing tires that deliver the optimum in off-road performance.

FORCE RACING

WEIGHT	SIZE	PSI
600 grams	26x1.9"	45-80

The incredible handling capability of the FORCE RACING K is also available in the wire-bead RITCHEY FORCE RACING tire. The size and tread pattern are identical. The FORCE RACING incorporates the smooth rolling characteristics of the RITCHEY QUAD, but has more separation between the knobs to provide maximum traction. This increased separation also results in higher contact pressure on the knobs, giving excellent stability, and allowing quick dissipation of dirt. The rider gains the extra bite necessary in extreme conditions. At 600 grams, the FORCE RACING is a great racing or training tire at an economical price.

FORCE DURO

WEIGHT	SIZE	PSI
640 grams	26x2.0"	45-80

RITCHEY tires offer you the choices to pick your ideal pair of tires. With the introduction of the FORCE DURO, there is a RITCHEY tire for every challenge. The great handling characteristics of the original FORCE RACING and a low tread wear rate is also combined in the FORCE DURO wire-bead tire. Another thoroughbred, it's an ideal rear tire, and makes a great match with the lighter FORCE RACING.

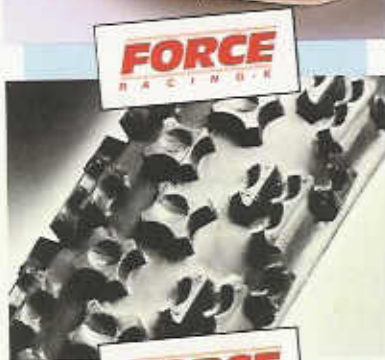
QUAD 1.9

WEIGHT	SIZE	PSI
650 grams	26x1.9"	45-80

The RITCHEY QUAD 1.9 tire, introduced in 1985, pioneered the industry standard 1.9" tire width. It provides an optimum ratio of strength and weight to air volume that is characteristic of all RITCHEY tires. It was designed as a multi-purpose off-road tire to meet all the needs of the mountain bike rider. The center ridge "Gripstrip"™ is smooth and quiet on pavement. Combined with the side Quad knobs, this tire provides excellent traction.

HANDCRAFTED

RITCHEY
U.S.A.
Mountain Bikes



An American Tradition



HANDCRAFTED

RITCHEY
U-S-A

Mountain Bikes

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