WTB Off-Road Handlebar

WILDERNESS TRAIL OFF-ROAD DROP BARS

Wilderness Trail Bikes has designed a drop style bar with the off-road rider in mind. Made in Japan for them by Nitto and historically imported through their relationship with Specialized. Made of aluminum alloy tubing, at its ends it has a 23.74mm outer diameter and a 2.18mm wall thickness. As with other bent handlebars, the wall thickness may vary in the bend areas. The WTB bar uses a 100mm long sleeve, with a 32mm long knurled center, to build out the bar's diameter to 26.0mm for use by standard road stems. The straight section of the handlebar top is 260mm long before the forward curve begins. Unlike more traditional Drop bars, the forward curve moves down at an outward 55 degree angle rather than just straight ahead. As the forward curve turns rearward, the flat lower grip section moves not straight back but at an outward 25 degree angle. Using the 4 1/2" long lower grip section, with the tubing flaring outward, while riding an off-road bike, is said to increase control. The overall width between both flared tubing ends is 605mm (23 13/16"). It has a 125mm (4 7/8") center to center drop, and is available only in Silver. The WTB Off-Road drop bar is said to be post manufacture heat-treated though its temper designation isn't revealed in sales literature. The Off-Road bar weighs 365 1/2 grams.

WTB Bar Ends

WILDERNESS TRAIL BIKES HAMMER HANDLES

This reivew is included for historical purposes, these bar ends have been discontinued by WTB but it gives you an impression of how WTB approaches bar end design. The Hammer Handles have a rotational grip tube, by using a compound cinch assembly, that cinches separately the handlebar and the grip tubing section. The cinch assembly is machined from billet block aluminum. It is about 1.1 inches high and 2 1/2 inches long, with smoothed, quarter-round radiused edges. The cinch assembly has holes bored into each end, one has 7/8 inch inner diameter to fit on the handlebar, the other to fit the .93 inch outer diameter of the grip tubing. On the cinch assembly, centered between the entry holes for the bar and grip tube there is two holes drilled and tapped for the cinch bolts. Tightening the one nearest the handlebar clamps the cinch assembly to the handlebar, while tightening the other cinches the grip tubing. The two bolts are 5mm x .8mm thread pitch with a 20mm length, each weighing 3 1/2 grams. The cinch assembly slides over the final inch of the handlebar, and holds the grip tube cantilevered 1.1 inches off the end of the handlebar. This is one of the few bar ends that doesn't, in essence, "shorten" your handlebar. The grip tube, which has a 4 3/4 inch useful, exposed length, when clamped in, is held at a 15 degree from handlebar perpendicular, inward angle toward the front tire. The grip tube itself has nearly a 90 degree bend, but because the grip tube can be rotated, it may either face upward or inwardly at the user's discretion. Chrome plated press in end plugs for the grip tube are included, handlebar plugs are not needed. Available only in Silver, a pair of Short Hammer Handles weigh 205 grams. Remember to use these, you must have the industry standard, 7/8 inch outer diameter handlebar. Made in Northern California these sold in the $60 price range.

WTB Brake Bridge

WTB BRAKE BRIDGE

The brake bridge is a hoop-shaped device which connects the tops of the brake mounting posts. It braces the mounting posts against the tendency to flex outward and away from the braking momentum. The bridge is used to improve the performance of any type of U-brake, cantilever, or roller cam brake that has two mounting posts. This bridge must be custom drilled, but provides a stable brake modulation. It has an open truss design to avoid mud build up, is made of aluminum and weighs only 35 grams. Silver

Wilderness Trail Brake Pads

WILDERNESS TRAIL GRIPMASTER BRAKE PADS

The Gripmaster Brake Pad has a nicely built pad holder made of aluminum. The pad holder is made in two parts, a pan which the pad material is bonded to, and a non-threaded mounting post. The pan is stamped from aluminum plate and then anodized. The pan section of the holder is available in Blue, Black, Lavender, Red or Silver with the mounting post always in Silver. The pad holder is 62mm long and 14mm high with a rim contact area that's 57mm by 9mm in an arched shape which mimics the curve of the rim. The pad material is made for Wilderness Trail by Kool-Stop/Everett Manufacturing and comes in three versions. The first is "conventional" or standard (by us) which is Black in color and tests to an A/91 hardness. The second is called "abrasive" which is Orange (in fact about the same color as the Scott/Mathauser pad material which is made in the factory). This pad has a extra abrasive element derived from a volcanic rock which assists the pad in preventing squeals and wears away rim imperfections. The "abrasive pad tested to an A/92 hardness. The final variation of the Gripmaster, known as "Dual-Compound" has 41mm of the Black standard brake pad and 16mm of the Orange abrasive pad material bonded together. Because of the workmanship in the holder and the general cost of this pad set, Wilderness Trail is available to rebuild the pads if you send them to WTB when worn out. Gripmaster pads are sold in pairs. The pair of Standard compound pads weighs 39.5 grams, the Abrasive pair weighs 44 grams, and the Dual-Compound pair weighs 41.5 grams. Specify pad material type and color of holder pan. Made in USA

WTB Cantilever Brake

WILDERNESS TRAILS BIKES SPEEDMASTER ROLLER CAM BRAKE

STANDARD AND COMPACT

This WTB design was the first true MTB specific brake and fits U-Brake studs only and uses a triangular cam plate that pulls between 2 sealed bearing pulleys (1 in the top of each arm). This design is much more powerful than most cantilevers. At the bottom of the arm is a highly adjustable brake pad. mount for precision tuning of the brake pad. At the top of the arm is a pulley fastened by a post which protrudes to accept the arm return spring, while the pulley runs against a cambered plate. The brake cable pulls up on the cambered plate. As the plate is drawn up it pushes against the pulley at the top forcing the pulleys apart.

The arm pivots on the U-Brake stud forcing the brake pad into contact with the rim, to brake the bike. This works so well because every moving part has a lube port and is designed to reduce friction. All the parts are replacable. WTB makes one pulley isze with three cam sizes. Wider cams are available for spacing which is extra wide at the mounting stud.

There are two versions of this brake, a standard and a compact model. Which version you require is determined by measuring the distance from the center of the rear axle to the center of the brake pivot post (U-Brake mounting stud). If it is between 12 7/16" and 12 5/8" the standard model is correct. If it's between 12 1/4"and 12 7/16" you need the compact model. Again measure along the center of the chainstay to obtain an accurate distance. It uses non-threaded brake pads and comes in Black or Silver. The Roller Cam weighs 156.5 grams, the included mounting bolts weigh 12.5 grams, and the included Eagle Claws weigh 47 grams, bringing the total weight to 216 grams.

Color-BK-S $ **Price in Catalog**

WTB SPEEDMASTER CANTILEVER BRAKE

The WTB Speedmaster uses a tubular arm design with a linear spring rather than a coiled spring. They are available in Silver. **$** **Price in Catalog**

WTB TOGGLE CAM BRAKE

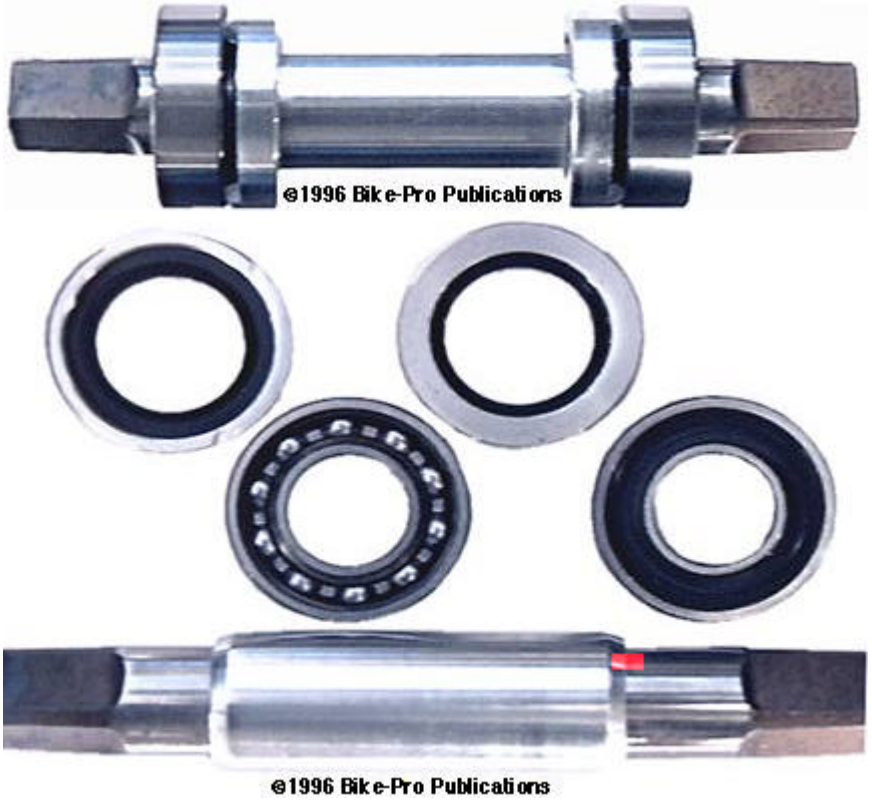
WTB makes a mecahnically linked Toggle Cam brake. Intended for suspension use, it will fit U-Brake studs only. Made in Silver only.

Wilderness Trail Grips

WTB TRAIL GRIPS

Trail Grips, are made for WTB, using their design by ODI in Southern California. Tough and comfortable, they are made from some of the densest rubber compound we've seen, so damaging the grips will take extra effort. They have a cut down inner flange for easier access to the shifters. Trail Grips have octagonal sides, with a bulge in the center of the palm area of the grip to fit your hand, increasing comfort. At the outer end there is small flange to help position your hand while still looking at the roadway. These grips are uncommonly durable. Black only, they weigh 93 grams per pair, have a durometer hardness of A/54, and are 4 7/8 inches long. Slightly pricey.

Wilderness Trail Bottom Brackets



WTB CLASSIC CRO-MO & TITANIUM SPINDLE BOTTOM BRACKET

Wilderness Trail Bikes produces an unusual B/B that implements their famous Grease Guard principle. Designed by Mark Slate, it uses SKF 6003-RS1 sealed bearing cartridges with the inner seal removed. Behind each bearing cartridge is aluminum ring, cut on the edge, with a specially created rubber ring that forces grease injected into the cut area into the open ended sealed cartridge.

The outer seal on the cartridge is made so the inner lip of the seal moves away temporarily under pressure, permitting old grease to be purged from each bearing cartridge. To prohibit grease from migrating back into the center of the B/B, there is an aluminum tube that slides over the spindle, making a tight seal with both the rubber ring and the inner bearing race, leaving the spindle to revolve freely. The aluminum ring is cut on edge to create a 2mm wide gap, that is nearly an inch long that permits a wide target to inject the grease into. This B/B doesn't come with standard threaded bearing cups. Instead, the user reams their B/B shell with a 1 3/8" (1.375") reamer, to give the interior a smooth surface. The aluminum ring is pushed in with the cut edge facing the direction you intend to inject the grease from. The bearing cartridge is then pressed in, with the seal out. On the other side, the aluminum sleeve is inserted, the spindle is carefully pressed through, then the other aluminum ring, and the remaining bearing.

The outer diameter of the bearing and the alloy ring is 35.0mm, and they fit tightly within a round properly reamed B/B shell. If the shell is slightly oval Loc-Tite adhesive may be required. The cut edge of the alloy rings should face the same direction, to meet a 1mm hole that will have to have been previously drilled 11mm from each end of the B/B to pump the grease into the assembly, (there wasn't a way to explain their need earlier). The holes on a aluminum frame can be Zerk

fittings, for steel, it is suggested that electrical tape be used to close them off between grease applications.

The WTB bottom bracket is available with either a Cro-Moly spindle, (made for them by Chris King), or Titanium spindle, (made for them by Doug White at White). Both spindles have the required two degree taper to fit all aluminum crank arms, and both are drilled through to reduce weight. The Cro-moly spindle is made in either 116mm or 122mm lengths. The Titanium spindle comes with matching Titanium crank arm bolts, and is available in 108mm, (for XTR), 115mm, or 122mm. The weight of a WTB Cro-Moly B/B with a 122mm spindle is 267 grams. A Titanium version wasn't at hand for weight at the time of writing.

Cro-Moly Spindle Length-16-22 $Price in Catalog
Titanium Spindle Length-08-15-22 $Price in Catalog

WTB PARADIGM GREASE GUARD B/B

Although Wilderness Trail Bikes has had Suntour be the maker and seller of mass produced Grease Guard B/B's, Suntour has left the bike industry for good and WTB has come up with version based closely on the Suntour implementation. WTB has this bottom bracket made in Japan by the Tange company in Osaka. (Our understanding is that Marui Ltd. is the sole export agent for Tange. WTB's relationship with Marui probably came from when they were designing parts for Specialized. It si well known that Rio Marui offered unusla assistance and support to Specialized in their formative years, ages 1 to 12)

The Paradigm employs what we call "Standard" design, having Fixed drive cups with an adjustable non-drive cup and fixed bearing width. Grease Guard is a name that WTB uses to describe their grease injection system. Grease is squirted into a hole in the crank arm cap and pushes its way through the spindle to emerge on the inner side of a sealed bearing cartridge that has its inner seal

removed, allowing the grease to pass through the bearing near the spindle. When the older grease emerges outside around the spindle it can be wiped away.

The spindle is made of forged steel that is machined after forging to perfect its surface. The ends are bored to a 37mm depth and tapped with 8mm x 1mm crank bolt threads. Ateach end, a small hole is drilled into the spindle that ends in the crank bolt hole. When the bearing cup is in place these holes will fill the bearing cavity with grease. The drive cup is made of machined aluminum and has the 1 way purge bearing machine pressed in place. A rubber seal held in place by a steel cap forces injected grease toward the outward direction. This fixed cup has two sides cut parallel at a 36mm distance for a B/B spanner (Park HCW4, or Sugino B/B tools) to tighten. The non-drive cup, also machined of aluminum threads into the left side of the B/B shell. It has six equi-distant square notches in its face so a Park SPA4 pin spanner can be used to tighten it. A steel lockring with six square notches on its perimeter is used to cinch the cup in place. Any hook spanner will work on the lockring.

The included set of crank arm bolts and washers are made of nickel finished steel. The Paradigm B/B is available in a 113mm or 122mm spindle to fit a 68mm wide shell. The 113 x 68mm B/B weighs 241 grams, the steel bolts add another 29 1/2 grams for a total weight of 270 1/2 grams. The 122mm version has a total weight of 282 grams.

Spindle Length - 13 - 22 $Price in Catalog

WTB Ti PARADIGM GREASE GUARD B/B

WTB also has the Paradigm available in a Titanium spindle model. It uses the same Japanese bearing cups and crank bolts. The spindle spindle is machined from 6 AL 4V Titanium rod to be

mechanically the same as the Japanese steel one, but is probably made in the United States. The Japanese have an absolutely unblemished record of failing to make a Titanium bicycle that succeeds in the world market, so we believe that this spindle to made by Paragon Machine Works for WTB.

The steel version in the 113mm length weighs 159 grams, while the Ti replacement is just 90 1/2 grams. The Ti Paradigm B/B is available in a 113mm toor 122mm spindle to fit a 68mm wide shell. The 113 x 68mm B/B weighs 172 grams, the steel bolts add another 29 1/2 grams for a total weight of 201 1/2 grams.

Spindle Length - 13 - 22 / T

WTB Hubsets

WILDERNESS TRIAL BIKES HUBSET

These are well designed and crafted freewheel hubset. The hub shell is a one piece aluminum construction that is turned and polished. The hub shell has special precision sealed bearing cartridges pressed into it. These cartridges have been re-worked by WTB to permit fresh grease to be injected into the bearing with a special rear seal that allows old grease to be purged from the bearing at the same moment, where it can be wiped away at the axle ends. To access this feature of the hub there are two grease "ports" pressed into the hub shell, one for each bearing side. With the "Goose Greaser" grease pump, the miniature "zerk" fitting is opened and allows grease from the outside world into the inner bearing. These are the two openings at the right and left of the Grease Guard logo on the shell. Through the bearings and the hub shell is a thinwall, hollow, stainless steel axle. To assure a perfect fit to your fork ends and dropouts the hubs come with several thin precision stainless steel and aluminum spacers. At the both ends of each axle are forged, then machined aluminum caps that reduce the axle dimension to the skewer dimension. These caps provide the final spacing for each hub and require a drop of oil to actually be able to slide on the axle because they are machined to such close tolerances, in fact they fit the way a piston does in a cylinder head. The hubset is available in a Black or Silver anodized finish. The front hub has a 57mm hub flange diameter, with flanges spaced 77mm apart. The front spoke holes have a 46.5mm perimeter circle diameter. The rear hub has a 69.5mm hub flange diameter, with the flanges spaced 55mm apart. The rear spoke holes have a 59mm center circle diameter. The front hub weighs 156.5 grams, the rear hub (136mm axle), without cogs, weighs 235.5 grams. These, large (high) flange hubs do not come with skewers and are for use with a freewheel only that must be provided separately. Lastly, the hubset does not come with the grease gun or grease, these are available separately in our lubricants section. Be sure to include the rear axle width desired, either 126mm,

131mm or 136mm, hole patterns 28 hole, 32 hole or 36 hole, (they can be split patterns front and rear), and color, either Black, Grey or Silver.

Front only (BK-S) $ Price in Catalog
Rear only (BK-S) $ Price in Catalog
Hubset (pair) (BK-S) $ Price in Catalog
WTB GG cassette rear hub only $ Price in Catalog

WTB Paradigm 8-Speed Rear Hub

WTB PARADIGM HUBSET

Wilderness Trail / King Headset

WILDERNESS TRAILS / KING CYCLE GREASE GUARD HEADSET

Wilderness Trails has created the Grease Guard variety for the headset. The basis for the Grease Guard head set is the Chris King headset. The WTB model includes a special groove on the cups, with a hole in it to inject Goose Grease. Here are the details. This headset is made of the finest materials, and done to the highest standards of workmanship any human can expect. The headset is comprised of five parts. The fork race is made of stainless steel. Because it's subjected to water and mud Stainless is the only material to consider. The race is machined to fit closely into the lower cup with it's bearing cartridge. Both bearing cups are machined aluminum to achieve perfectly round pieces, with flat facings, and exact seatings for the precision sealed bearing cartridges. Both of the bearing cups also have a half-round groove that runs around the outer circumference with a small flat spot. The cups at that point are anodized Black or Silver. Through the groove there is one small hole drilled. This hole is for the Goose Greaser (WTB's grease injector) to inject replacement grease into the headset system. The groove is to seat a large rubber O- ring that rolls into the depression and keeps the drilled hole clean. The rubber ring is orange in color, which is what gives this headset it's orange stripe. To hold the fork to the head set there are two aluminum pieces, the adjusting nut and the head lock nut. Each is machined to their final shape and thread pattern, and finally anodized Black or Silver. The adjusting nut closes off the bearing to the elements and secures the parts, while the head lock nut holds the adjusting nut so it can't back off. This headset requires about 5/16" more stack height than some original equipment headsets. The use of stainless steel precision bearings in this headset will give it a long life. Made only in the 1" size, with English threads, in Black or Silver. Weighing 107.5 grams, it has a 42.9mm stack height.

(Color-BK-S)