

MANTIS BICYCLE COMPANY

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MANTIS

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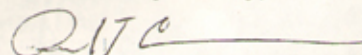
September 1, 1982

Dear Sirs:

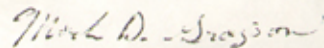
Please find enclosed the information you have requested concerning our product. Presently, a complete brochure is being produced and we will forward it to you as soon as possible. During the interim, however, the enclosed specifications, prices, and ordering instructions will help you gain a general understanding of our Sherpa and Overland off-road bicycle models that are now available. If you should require any additional information, please contact us and we will be happy to assist you.

Thank you for your interest in The Mantis Bicycle Company.

Respectively,



Richard J. Cunningham



Mark Grayson

Enclosures



MANTIS BICYCLE COMPANY

Mantis Bicycle Company is committed to building the ultimate off-road cycling machinery. Our bicycles are recognized by the industry as the state of the art due to their outstanding workmanship, performance, and many innovations. Every Mantis product was developed to fulfill a specific need generated by off-road cycling. These features, along with Mantis' close attention to detail during every step of the building process result in a line of "total concept" off-road cycling equipment. Bicycles and accessories that are themselves definitions of reliability, performance and functional beauty.

Listed below, are some brief descriptions relating to the important features and concepts of the Mantis Sherpa, Overland, and the accessories developed by Mantis.

THE MANTIS SHERPA:

The Mantis Sherpa, like its namesake, the famous Sherpa mountain guides of the Himalayas, is one of the most dependable means to get you and your equipment into the more inaccessible areas of the world.

The Sherpa represents a complete concept in off-road cycling. Its rugged, top quality components include sealed hubs, pedals, and bottom bracket which minimizes maintenance. The Sherpa's frame geometry provides for agility at low speed necessary for difficult trail sections and stability at high speed to master eye-watering descents on rutted mountain fire roads. The seat tube angle positions the rider in a powerful cycling posture. A short rear triangle makes the Sherpa an excellent climber. The Sherpa's forks have 2.5" of rake to absorb road shock and add stability. Mantis' special stem and aluminum handlebar act to further absorb road irregularities. The Sherpa's frame uses .035" wall large diameter 4130 chrome moly tubing. The tubes are joined using a lugless brazing technique. The joints are then hand finished, producing large, graceful fillets without undercutting the tube. This method of construction is time consuming and therefore costly. But its advantages are worthwhile. The brazing process increases the ductility of the joint area. The large brass fillets act as elastic gussets, evenly distributing the frame loads over the joint area. While most people admire a quality lugless frame.... few people can resist the desire to touch a well executed lugless frame! The Sherpa offers a complete ensemble of braze-ons that include some developed by Mantis. The optional braze-ons offered can be tailored to suit virtually any requirements. The finishing touch for the Sherpa is Dupont Imron, oven baked for durability. Together, all these features result in a bicycle that is reliable, confidence inspiring, beautiful, and enjoyable in virtually any environment.

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THE MANTIS OVERLAND:

The Overland accomplishes Mantis Bicycle Company's commitment to make the ultimate off-road cycling equipment available to a much broader audience. Many people who desire the Sherpa's performance, innovation, and excellent craftsmanship simply cannot afford the price. The Mantis Overland offers all these features, filling the void between the exotics and the various off-road production bicycles currently on the market.

To achieve this compromise, Mantis designed much of the Overland frame to be TIG welded. This eliminates many hours of hand finishing required by the lugless brazing technique used on the Sherpa.

The TIG welding process results in a joint with a far higher yield strength than the lugless brazed joint, but the greater welding temperature and smaller fillet cause the TIG weld to be less resistant to fatigue. To solve this problem the Overland uses larger diameter and thicker wall tubing in the areas of greatest stress. Mantis treats each joint with a special normalizing process, giving the metal more ductility. There are small triangular gussets below the downtube/head-tube attachment. The gussets dissipate the extreme shock loads common to this area.

The Overland features all the braze-ons that are standard on the Sherpa. However, no additional braze-ons are offered for production purposes.

The Overland and Sherpa forks are identical, although the brazed fillets on the Overland are filed only where visible.

The Overland's lower cost results from proven design concepts. It does not compromise on the important features developed for Mantis' top of the line Sherpa. Thus the Overland emerges as a serious off-road bicycle that is alone in its class.

HANDLEBARS:

The Mantis aluminum handlebars are .120" wall 6061T6 aircraft spec. tubing. Aluminum has a softer spring rate than steel and acts like a shock absorber, insulating the cyclist from road irregularities.



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THE MANTIS STEM:

The obvious advantage of a separate handlebar and stem is that they may be adjusted to the individual rider. The Mantis stem extension's unique triangular clamp securely positions the aluminum handlebar, allowing it to flex while preventing fatigue at the junction of the bar and stem.

The polished aluminum clamp on the front of the stem is drilled to accept the front brake housing; while the main body contains a curved stainless steel tube that stops the cable housing and provides a tunnel for the brake cable with its delerin liner. The result is an attractive and positive method of routing the center pull front brake cable.

The stem is fabricated from 4130 chrome moly tubing and TIG welded. The extension tube between the handlebar clamp assembly and steerer is oval to provide an extra margin of strength. All the allen bolts, including the expander, are fully recessed. Its lustrous metallic silver grey finish is a special two-layer powder coat process.



THE INTEGRAL QUICK RELEASE SEAT POST CLAMP:

For maximum control over varied terrain, it is often necessary to change the seat height. The Mantis quick release seat post clamp is the only integral assembly available. A Campagnolo Q.R. lever and skewer are assembled directly into the specially machined clamp brazeon. The result; Reach below the seat and the quick release mechanism is where you need it when you need it, either locked or unlocked.

MANTIS SHOULDER STRAP:

Often it is necessary to dismount and portage the bicycle past an unrideable section. To solve this problem Mantis developed a shoulder strap made from Cordura nylon and padded with Ensolite foam. Two reinforced H2O bottle mounts position the strap, allowing the bicycle to balance comfortably on the shoulder. One or both hands are then free to assist on the more difficult sections.

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THE MANTIS SHERPA

Frame. Large diameter 4130 chrome moly tubing, lugless brazed construction, 3" wide BB shell machined for pressed-in sealed bearings, Campy 1010B short racing dropouts.

Standard Braze-Ons. Derailleur cable stops on down tube and chainstay, cable guides on BB, Cinelli top tube cable guides, rear centerpull cable bridge, mounts for two H₂O bottles on down tube, Mantis extended brake bosses, Mantis integral QR seatpost clamp, braze-ons for Mantis shoulder strap, carrier mounts on rear dropouts and on the inside of the seat stays.

Components. Seatpost clamp with Campy QR mechanism which is assembled into the Mantis braze-on clamp unit, black Cordura nylon shoulder strap with Insolite foam padding, 6061T6 aluminum handlebar (25" wide, .875" diameter, 15° pullback), 4130 chrome moly stem TIG welded with an internal cable tunnel, Magura short-reach brake levers, Mafac tandem cantilever brakes, modified Zefal Tornado pump conveniently located inside the seat tube, Excalibur sealed bearing pedals, Galli tapered roller bearing headset, Sella Italia Royale Anatomic seat, French Laprade seatpost, Mariplast H₂O bottle, Blackburn alloy cages.

Standard Colors. IMRON Metallics: medium blue, light continental blue, forest green, bright green, slate grey, golden brown.

Specifications.

Wheelbase: 41" - 44" (relative to frame size)

Top tube: 22" - 24" (relative to frame size)

Chainstays: 18"

Head and seat tube angles: 72°

Bottom bracket height: 11½"

Mantis bottom bracket: special Phil Wood grooveless 125mm spindle with oversized 37mm sealed bearings

Fork rake: 2½"

Rims: Araya 7X aluminum

Hubs: Phil Wood QR 125mm(R)/100mm(F) or 130mm(R)/100mm(F) bolt-on type

Spokes: 36 hole, 14 gauge stainless steel, four cross lacing

Tires: COMP III off-road type

Drivetrain: Derailleurs - Suntour Cyclone II or Huret

Challenger(F)/Cyclone II GT or Huret Duopar "Eco"(R);

Suntour thumb shifters; Sedisport chain; Suntour New

Winner 13-30 standard six speed freewheel

Crankset: TA Cylotouriste 170mm - 185mm lengths (relative to frame size)



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THE MANTIS OVERLAND

The Mantis Overland is not available in complete form. It may be purchased either as a frame set or frame kit.

Frame. Measured from top of seat tube: 19", 21", 23", large diameter 4130 chrome moly tubing, Campy 1010B dropouts, TIG welded main triangle, 3" wide BB shell machined for pressed-in 35mm sealed bearings.

Braze-Ons. Derailleur cable stops on down tube and chainstay, BB derailleur cable guides, Cinelli top tube cable guides, rear centerpull cable bridge, mounts for two H₂O bottles on down tube, Mantis integral QR seat post clamp, braze-ons for the Mantis shoulder strap, rear carrier mounts on dropouts and inside of seat stays.

Components. Frame set includes: frame, fork, BB, seat clamp, shoulder strap. Frame kit includes: the components developed by Mantis for use on the Sherpa model, plus additional items not usually stocked by the dealer. The kit arrangement allows customer flexibility in selection of the Overland configuration that will best meet individual price range requirements. The specific kit components include:

- Seat post clamp: Campy QR mechanism assembled into the Mantis braze-on clamp unit
- Mantis bottom bracket: special Phil Wood grooveless 125mm spindle with oversized 35mm sealed bearings
- Mantis shoulder strap: black Cordura nylon padded with Insolite foam
- Handlebar: 6061T6 aluminum, 25" wide, .875" diameter, 15° pullback
- Mantis stem: 4130 chrome moly TIG welded with an internal cable tunnel
- Brake levers: Magura short-reach type
- Brakes: Mafac tandem cantilevers
- Pump: modified Zefal Tornade conveniently located inside of the seat tube

Available Colors. IMRON Metallics: light continental blue, bright green, slate grey.

Specifications.

- Wheelbase: 41", 42", 43" (relative to frame size)
- Top tube: 22", 23", 23½" (relative to frame size)
- Chainstays: 18"
- Head and seat tube angles: 71°
- Bottom bracket height: 11½"
- Fork rake: 2½"

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RETAIL PRICE LIST - EFFECTIVE SEPTEMBER 1982

Sherpa Complete (as listed).....	\$1550.
Sherpa Frame Set: frame, fork, BB, seat clamp, shoulder strap.....	\$ 850.
Sherpa Frame Kit: frame, fork, BB, seat clamp, shoulder strap, Mantis handlebar and stem, Magura brake levers, Mafac brakes, Suntour thumb shifters, Zefal Tornade pump.....	\$1035.

Overland Frame Set.....	\$ 565.
Overland Frame Kit.....	\$ 750.

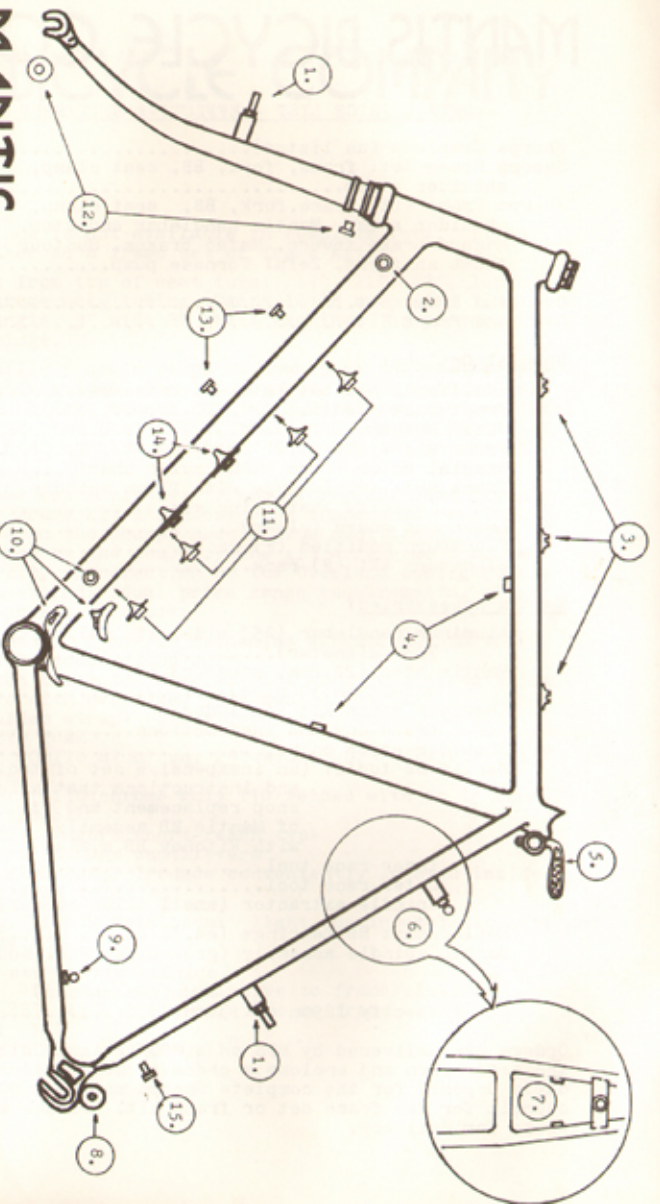
Special Options:

Additional H ₂ O bottle mount braze-ons.....	\$ 15.
Front rack mounts.....	\$ 30.
Chain hanger.....	\$ 15.
Frame size: under 19" or over 24".....	\$ 75.
Special color (from IMRON color chart).....	\$ 50.
Crank set: triple type with 130mm spindle (specify chain ring sizes).....	\$ 35.
Lexan mud guard (clear).....	\$ 15.
Blackburn modified (F) rack.....	\$ 35.
Blackburn SX1 (R) rack.....	\$ 35.

Mantis Accessories:

Aluminum handlebar (25" wide, 15° pullback, 7/8" diameter).....	\$21.50
Mantis stem (22.2mm, steerer 3.5", extension 3" rise).....	\$69.95
Shoulder strap kit (includes: braze-ons and instructions).....	\$ 18.
Shoulder strap only.....	\$16.50
Mantis BB tools: (an inexpensive set of tools and instructions that allow in-shop replacement and adjustment of Mantis BB assembly. Will work with Ritchey BB.s also)	
Inner race tool.....	\$ 9.95
Outer race tool.....	\$ 8.50
Spindle extractor (small slide hammer).....	\$ 33.
Replacement BB bearings (ea.).....	\$ 7.50
Mantis spindle assembly (grooveless Phil Wood spindle with press-fit aluminum spacer)	
Specify 125mm or 130mm.....	\$ 33.

Orders are delivered by UPS on a COD/Freight Collect basis. Complete the order form and enclose a check or money order: \$300 non-refundable deposit for the complete Sherpa model; \$100 non-refundable deposit for the frame set or frame kit. Please allow four to five weeks for delivery.



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Standard Brake-Ons

1. Extended Cantilever Brake Bosses
2. Der. Cable Stops
3. Top Tube Cable Guides (Set)
4. Mantis Shoulder Strap Mounts
5. Mantis Integral Quick Release
6. Seat Post Clamp
7. Rear Center Pull Brake Cable

8. Rear Carrier Mounts on Inside of Seat Stay
9. Ejector on Dropouts (Pair)
10. Chain Stay Der. Cable Stop
11. Bottom Bracket Cable Guides (Specify Standard Campy or Der. Cable Stop on Down Tube)
12. Two H2O Bottle Mounts on Down Tube

Optional Brake-Ons

12. Front Rack Mounts
13. Mud Guard Mounts
14. Additional H2O Bottle Mounts
15. Chain Hanger

Special options apply only to the Sherpa. Prices for additional configurations not listed... are available upon request.