Maverick

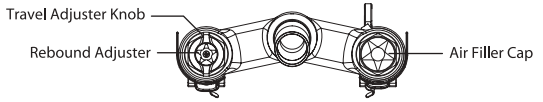
DUC 32 · SC 32

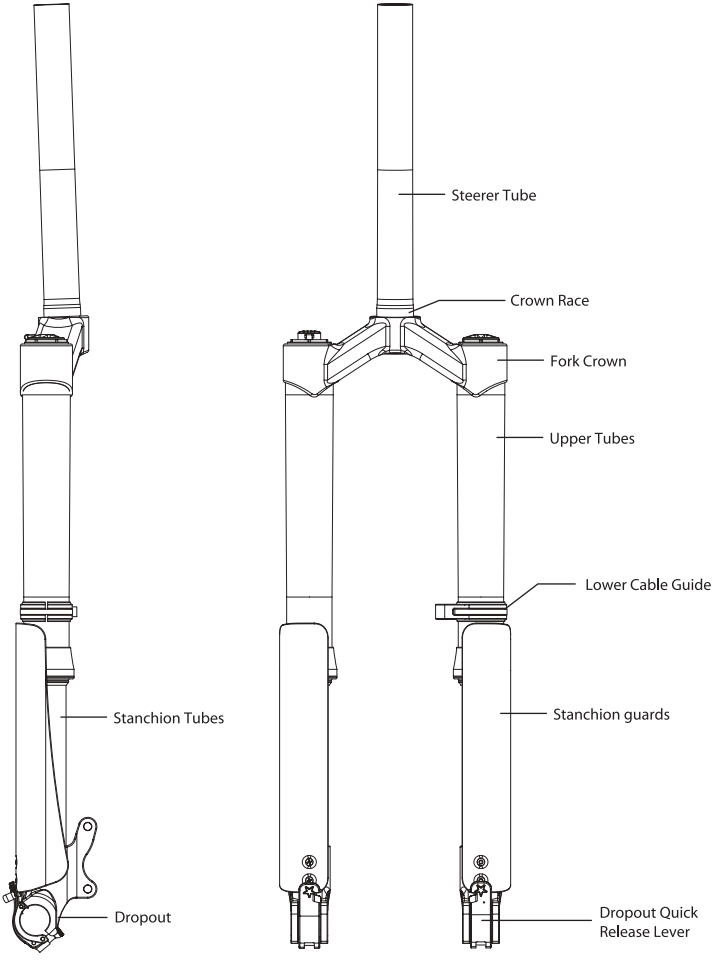
Owner's Manual

CAUTION: Do not use a 29-inch wheel with a SC32 or DUC32 fork unless the fork is equipped with a Maverick 29er kit.

Revision C 10/05

MAVERICK SC32





US Patent 6,669,219 & 6,669,154
Other US and foreign patents pending

SC32 INSTALLATION

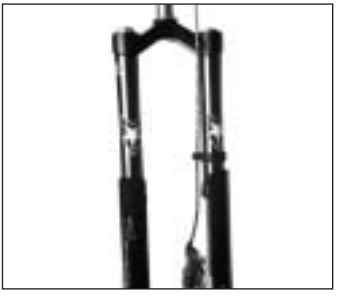
It is extremely important that your Maverick fork is installed correctly by a competent bicycle mechanic. Improperly installed forks are extremely dangerous and can result in severe and/or fatal injuries.

Step 1: Remove existing fork from the bicycle and remove the crown race. Measure the length of the steerer tube and cut the Maverick SC32 steerer tube to length if required. Be sure to allow sufficient length to fully clamp the handlebar stem to the steerer tube. See the stem manufacturers instructions if necessary.

Step 2: Install the headset crown race firmly against the top of the fork crown.

Install the fork assembly onto the bike.

Adjust the headset until you feel no play or drag.

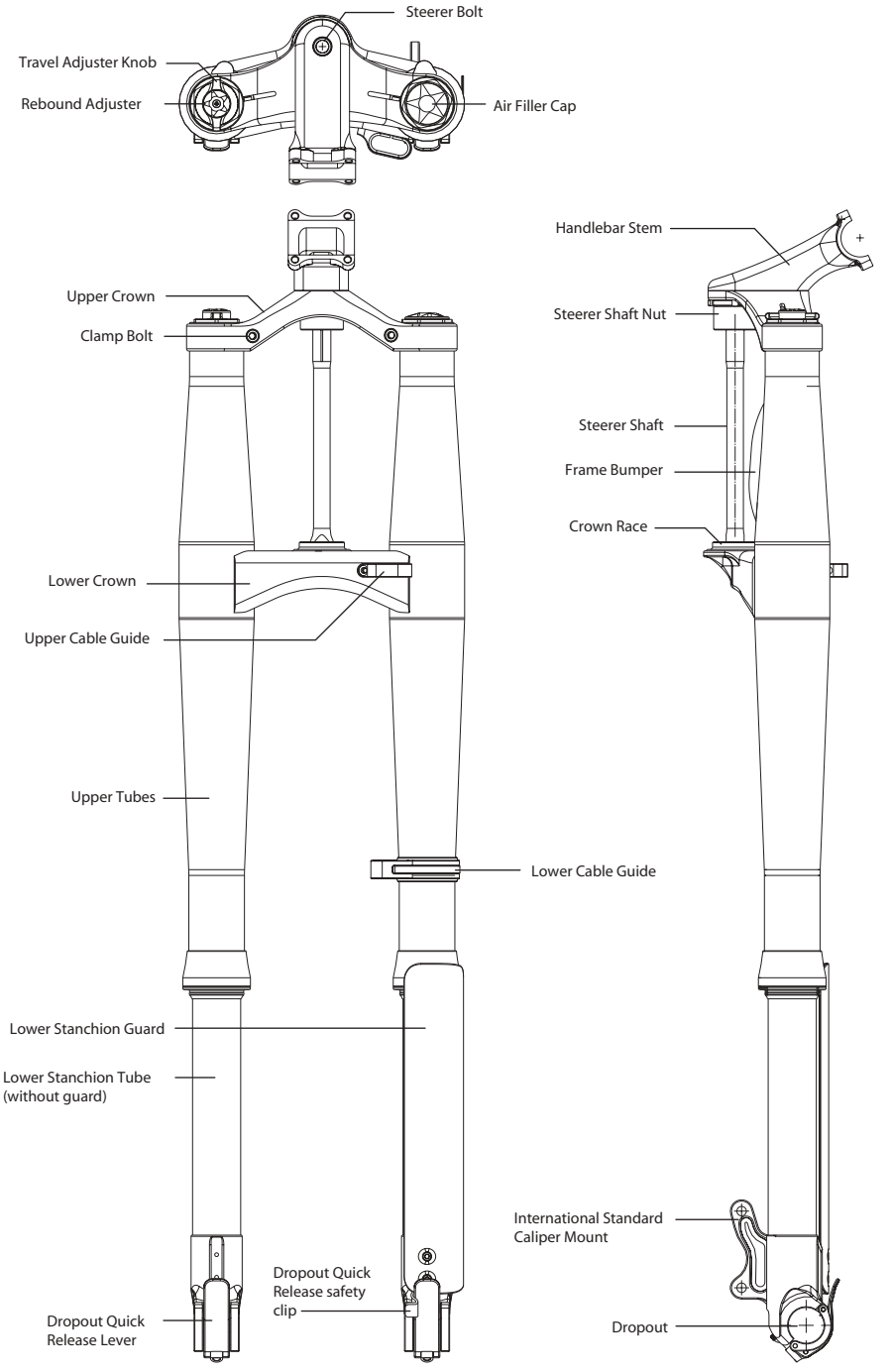


Step 3: Install the disc brake caliper and brake line as per manufacturer's instructions. Before riding make sure the brakes work properly and the brake line does not contact the front tire when the fork is compressed.

See chapter 3 & 4 of this manual concerning proper brake line installation and drop out function.

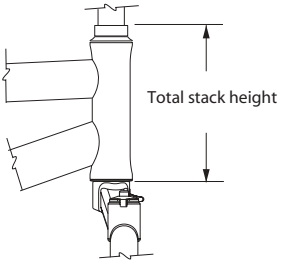
CAUTION: Improperly installed brakes are extremly dangerous and can cause severe and/or fatal injuries.

MAVERICK DUC32



US Patent 6,669,219 & 6,669,154
Other US and foreign patents pending

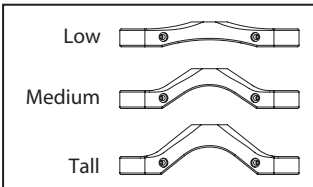
DUC32 INSTALLATION



Step 1: Before you remove the existing fork and install the DUC32, measure the total head tube / headset stack height to make sure you have the proper size upper crown (low, medium, tall). Include the head tube, bearings, caps and spacers. Adding standard headset spacers and adjusting the crown position on the upper tubes provides a stack height range each crown will accommodate.

The chart below shows the stack height range each crown size will accommodate.

Crown/Stack, Height Ranges

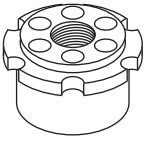


Crown Size	Stack Height
Low	130-148mm
Medium	144-162mm
Tall	154-172mm

Step 2: Remove the existing fork from the bike and the crown race from the old fork. Install the headset crown race firmly against the top of the lower fork crown, install lower headset bearings.

If necessary, see the headset manufacturer's instructions for additional information.

Step 3: Install all of the upper headset bearing components onto the steerer shaft nut. Insert the steerer shaft up through the head tube and thread the steerer shaft nut on. Adjust the steerer shaft nut so the bearings have no play or binding.

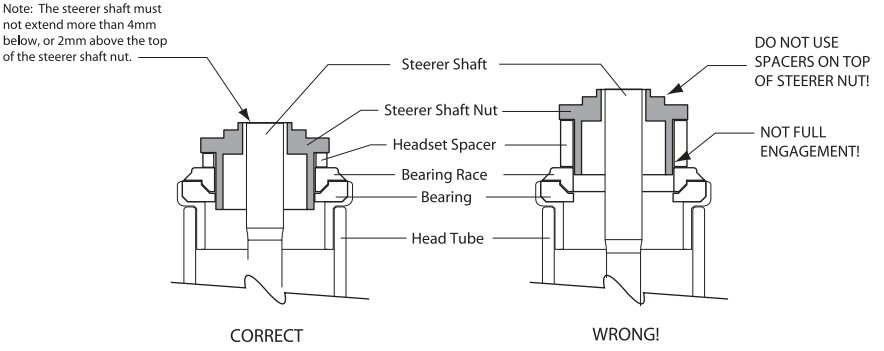


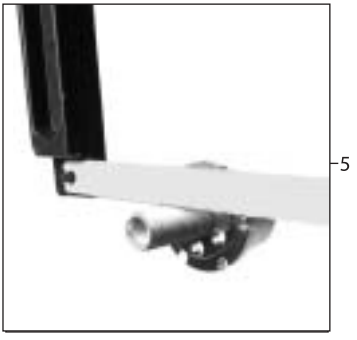
Steerer Shaft Nut

DUC32 INSTALLATION

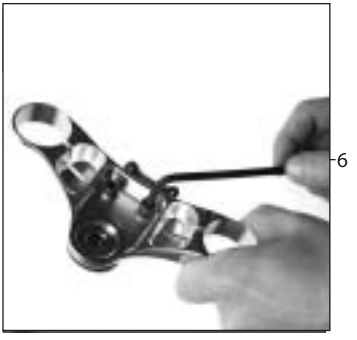
CAUTION: if using headset spacers between the bearing race and flange of the steerer shaft nut, be sure the bearing race is in FULL CONTACT with the steerer shaft nut! If not, the race may break away from the nut under a hard landing or front impact.

Step 4:





Step 5: If necessary, the steerer shaft may be removed from the fork for cutting using a 12mm wrench and reinstalled using medium strength Locktite and torque to 5 N.m (40 in/lbs).



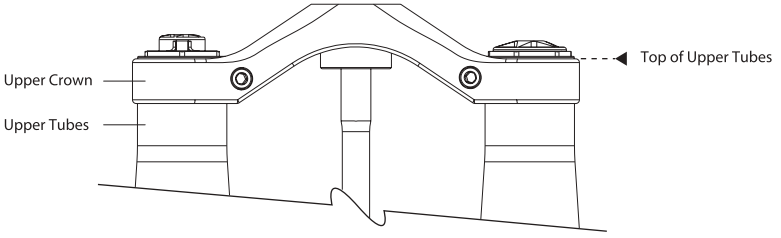
Step 6: Install the handlebar stem to the upper crown with the two M6 X 20 grade 12.9 bolts and washers. Use medium strength Threadlock and tighten to 20 N.m (175 in/lbs)
This is very tight!

Step 7: Install the stem/crown assembly onto the upper tubes. Be careful that the crown is not sliding over the tubes crooked.

Install steerer shaft bolt through back hole in the stem and into the top of the steerer shaft. Tighten to 6 N.m (50 in/lbs). Check for smooth headset operation with no play.

Be sure the crown is evenly positioned on the two upper tubes. Tighten the two upper crown bolts to 5 N.m (40 in/lbs).

CAUTION: the Upper Crown should never be raised above the top of the Upper Tubes.



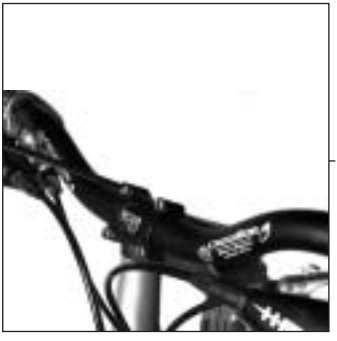
Step 8: For minor headset adjustments, loosen the steerer shaft bolt and turn the steerer nut by pushing the notches with a 4 mm wrench - clockwise to tighten, counter clockwise to loosen.

Re-tighten the steerer shaft bolt.

For adjustments more than a 1/4 turn you must also loosen the two upper crown bolts as well.

Step 9: To install the handlebars, install and tighten the four M5x18 bolts evenly to 4 N.m (30in/lbs).

Make sure the gap between the stem cap and stem is even at all four points.



Install the disc brake caliper and brake line as per manufactures instructions. Before riding make sure the brake works properly and the brake line does not contact the front tire when the fork is compressed.

See chapter 3 & 4 of this manual concerning proper brake line installation and drop out function.

CAUTION: Improperly installed brakes are extremly dangerous and can cause severe and/or fatal injuries.

BRAKE LINE INSTALLATION

CAUTION: the brake line must be installed properly so it does not contact the front tire when the fork compresses! Do not allow movement of the brake cable through the cable guides to be restricted.

Inverted forks* require much more care when setting up the brake line than standard forks. If the brake line contacts the tire while riding it can be damaged, causing brake failure or suddenly stop the wheel sending the rider over the bars. Both situations are very dangerous and can cause severe and/or fatal injuries.

*Standard forks have the outer telescoping tube at the bottom holding the axle. Inverted forks have the inner telescoping tube at the bottom holding the axle. The Maverick forks are considered inverted.

The following must be done to achieve safe brake line installation:

1. The brake line is the proper length and extends in a broad arc from the lever into the top cable guide.
2. A straight connector is used at the lever so the brake line exits parallel to the handlebar.
3. The brake line slides smoothly through the cable guides as the fork is compressed and is not hindered by other cables, kinks or poor routing.

* Straight connectors for Shimano, Grimeca, Sram or Magura brakes are available from Jagwire (Part # HYA-005)

DO NOT USE 90 DEGREE BANJO BOLT TYPE CONNECTORS

Straight Connecter - GOOD!

90º Banjo Connector - EVIL!

Additional brake line set-up tips

•Arrange the brake line with the other cables so it is on the outside and will not become tangled, or bump against the stem.
• Adjust the brake line attachment at the rotor so as to provide the best direction heading into the lower cable guide.
• Heat the brake line with a hair dryer to remove unnecessary bends, or to make it arc through the cable guides properly. Replace the brake line with a new one if necessary.

BRAKE CALIPER MOUNTING NOTES:
1 - Maverick Forks have "International Standard" disc brake mounts. They cannot be used with rim type brakes.
2- The Maverick Hub is designed with a wide flange spacing to optimize the stiffness and strength of the wheel. Check that there is clearance between the brake caliper and spokes. If the caliper contacts the spokes, the rotor can be shimmed outward to allow repositioning of the caliper for spoke clearance. 0.5 mm and 1.0 mm shims are provided to be placed between the hub flange and the rotor. Use maximum of 1mm of shims.

DROP OUT FUNCTION

Operating the Quick Flip™ drop-outs


1

Step 1: Open the Quick Flip™ levers on the front of the drop outs so the axle covers are in an open position. Arrange the two dropouts so they are facing forward and parallel.

It is OK to rotate the inner sliding tubes within the upper tubes.


2

Step 2: Guide the axle journals into the drop outs.

Position the hub's black collar on the disc side against the inside of the drop out first. The other side should be allowed to clamp wherever it freely rests.


3

Step 3: Adjust the axle clamping force by turning the knurled bolt heads.

Proper adjustment is when 5-10 kgs (10-22 lbs.) of force is needed to close the levers - about 1/2 the force to close a standard quick release lever.

Re-check tension during the first ride and every 25 hours of riding.

Do not over tighten!


4

Step 4: Secure the knurled bolt heads into the pockets on the back of the drop outs and close the Quick Flip™ levers. Re-adjust clamp force if necessary.

The MAXIMUM closing force is 10kgs /22pounds. DO NOT OVER TIGHTEN!

SET-UP AND TUNING

AIR PRESSURE

The Maverick forks use air pressure for their spring. This is what extends the fork back up after it has been compressed and must be adjusted for different rider weight, terrain or riding preference.

The air pressure is adjusted through a valve at the top of the left fork leg. The pressure should be set so the fork sags approximately 20-25mm on the SC and 30-40mm on the DUC when the rider sits on the bike.

(Sag is the term used to describe how much the fork compresses when the rider sits on the bike. The distance will be different depending on rider weight and air pressure in the fork.)

Do not exceed 160 psi (11 bar) air spring pressure.

It is easiest to check the sag using two people. Measure the distance between the wiper and drop out, both with, and without the rider's full weight on the bike in a normal riding position. Be sure the fork is fully extended before taking the first measurement. Take a couple of measurements after the rider has repositioned on the bike to find an average.

To check the sag by yourself, install a zip tie on the lower stanchion tube and push it up until it contacts the wiper. Sit on the bike and assume a normal riding position. Dismount the bike, being careful not to further compress the fork. Now measure the distance between the wiper and the zip tie. This distance is the sag.

Approximate Pressure Settings for Rider Weight

Rider Weight	SC32	DUC32
< 55 kg (120 lbs)	55-65 psi / 3.5-4.5 BAR	60-70 psi / 4-5 BAR
55-75 kg (120-165 lbs)	65-85 psi / 4.5-5.5 BAR	70-90 psi / 6-6 BAR
75-95 kg (165-210 lbs)	85-105 psi / 5.5-6.5 BAR	90-110 psi / 6-7 BAR
> 95 kg (210 lbs)	105+ psi / 6.5+ BAR	110-150 psi / 7-10 BAR

Maximum pressure is 160 psi on SC and DUC

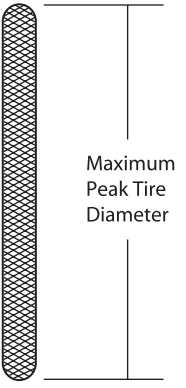
Maximum Tire Size

Maverick forks will accept most tires up to 26 X 2.40. Any tire larger than 26 X 2.30 must be measured to see if they will hit the fork crown at full bottom out.

With the tire installed and inflated on the rim, measure the maximum tire diameter.

MAXIMUM SIZE AS SHOWN: 343mm = (27.0 inches)

Do not use a tire if it's measurement exceeds the maximum dimensions shown above. Larger tires will hit the fork crown at bottom out, causing the front wheel to stop and throw the rider over the handlebars, causing serious and/or fatal injuries.



SET-UP AND TUNING

KNOBS

Climbing Mode Knob:
The green knob at the top of the right fork leg is to reduce the fork's travel for climbing. Rotating the knob clockwise 1/4 of a turn will activate this feature. While activated, the fork is restricted from extending the top 50mm of travel. The front end of the bike will be lower and the initial spring force will be increased. The suspension will otherwise be active and functional. Turning the knob counterclockwise 1/4 turn will return the fork to it's full travel.

Rebound Knob:
This adjustment is controlled by the gray inner knob located on top of the right fork leg. This adjustment controls the speed at which the fork extends after compression. There are two full turns of adjustment and six index clicks per turn. Never force the knob to turn as it may be at it's limit.

For slower rebound, turn the rebound knob clockwise. For faster rebound turn counter clockwise. The proper rebound setting is a personal preference and varies depending upon air pressure and riding style. It may take a few rides to determining a desired rebound setting.

The rebound adjustment range is very small to prevent rebound speeds that are too fast or slow.

Advanced Tuning

Oil Level:
The amount of lubrication oil inside the air chamber can be changed to increase the spring force at the end of the suspension travel. The factory set oil volume is 5ml. This may be increased if you bottom-out the fork too often. Add oil at 5 ml increments until the desired spring characteristics are achieved. The maximum total oil volume is 15 ml.

To change the oil level, release the air pressure from the fork and remove the core from the schrader valve. Compress the fork completely. Fill a syringe with 3 ml of 5 wt. oil and put the tip into the schrader valve hole. Now extend the fork while gently compressing the syringe. This should suck the oil into the air chamber. Install the schrader core and pressurize the fork. To remove oil, take out the valve core, turn the bike upside down and compress the fork, oil should exit the valve.

Damper Valving:
The damper of the DUC32 and SC32 can be disassembled and tuned by altering the compression shim stack or oil viscocity. While not difficult to work on compared to other damping systems, this is for advanced mechanics only, outfitted with proper tools. Visit the “owner tech” section of our web site for details.

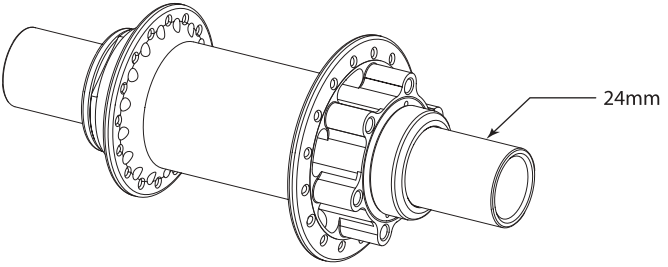
Service

For detailed instructions on servicing or rebuilding the DUC32 or SC32, visit the “owner tech” section on our web site - www.maverickbike.com

All internal components of the fork are user serviceable and the warranty is valid as long as you don't screw them up. . .

WHEEL BUILDING

Maverick forks require a front hub with a fixed 24mm through axle. Hubs are currently available from Maverick, Bontrager, and Chris King. Standard quick release or modified 20mm through axle hubs are not compatible. The 24mm axle design is twice as stiff as a 20mm axle, and the Maverick forks are optimized to work with this increased axle stiffness.



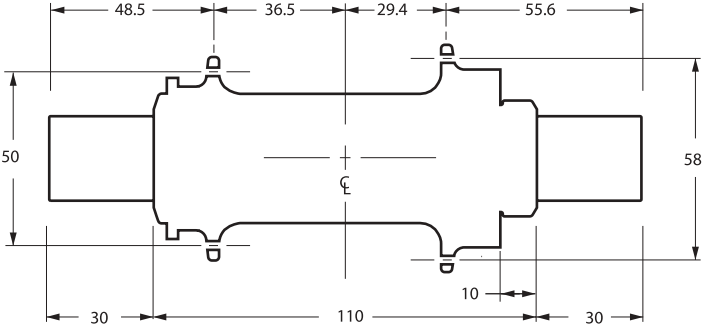
The Maverick Hub

We recommend building the front wheel with a 3-cross spoke pattern, using high quality spokes and nipples. It is very important to use the proper spoke pattern when building a disc brake wheel to prevent wheel windup under hard braking. Radial lacing, 1X and 2X patterns should not be used.

Spoke Recommendations
- DT/Swiss Champion 14 Gauge 2.0 Stainless Spokes
- DT/Swiss Competition 14-15 Gauge 2.0-1.8 Stainless Spokes

Spoke Nipple Recommendations
- DT/Swiss 2.0 Alloy Nipples
- DT/Swiss 2.0 Standard Brass Nickel-Coated Nipples

Please visit our Web site for wheel building guidelines - www.maverickbike.com Use Bike A Log through your local dealer for additional wheel building information.



Drawing not to scale
Measurements in millimeters

Maverick Fork Basic Custom Tuning Guide

These are basic guidelines for DUC32 & SC32 fork tuning -
Fork set-up and tuning will vary depending on rider ability and preferences

Rider Profile	PSI Range	Negative Spring	Damper Oil Viscosity
90 lbs - 110 lbs or less aggressive	50 to 60	X-Lite 3 nm	Stock 5 wt.
110 lbs - 140 lbs moderately aggressive	60 to 80	Lite 4 nm	Stock 5 wt.
140 lbs - 175 lbs aggressive, all-around rider	80 to 100	Stock 5 nm	5 wt. or 10 wt.
175 lbs - 210 lbs more aggressive, bigger hits	100 to 130	Heavy 6 nm	10 wt. or 12 wt.
210 lbs - 240 lbs heavy, aggressive rider; big drops	110 to 160	X-Heavy 7 nm	12 wt. to 15 wt.

These custom options can be performed by your local bike shop or done for a minimal fee by Maverick. Go to maverickbike.com for more advanced tuning tips and instructions.

WARRANTY

Your new Maverick fork is warranted to the original consumer against defects of workmanship and materials for a period of one year from the original purchase date. Should there be a defect or malfunction, Maverick will repair or replace the product, at Maverick's option, free of charge. This warranty does not cover the labor cost of component removal or re-assembly associated with a warranty claim, nor does it cover costs of shipping to Maverick. Maverick will cover return shipping and handling costs. All warranty coverage is based on the product being properly maintained and adjusted (as detailed in the owner's manual), and ridden in the manner described below. There are no expressed warranties other than those stated herein.

Maverick forks are designed and tested for riding in rough and demanding off-road terrain. While some jumping is expected to clear natural obstacles, Maverick forks are not built to withstand jumping from man-made ramps or other daredevil feats. This warranty is void if the product has been subject to damage, unreasonable use, impro per service, or other causes not arising from defects in original material or workmanship.

This warranty does not include adjustments, parts or repairs required by circumstances beyond the control of Maverick, including but not limited to leakage damage. Normal wear and tear is not covered by this limited warranty.

It is our desire to make life with your Maverick product trouble free, so we want to eliminate any hassles you might have with a warranty issue. To achieve a fair and liberal warranty program, you, the customer, must be fair too. Even if you have a failure from crashing or lack of proper maintenance, we will work with you to minimize the cost of repairs if you are honest about what happened. In cases of crashes or accidents, you will be offered repairs or replacement under Maverick's Crash Replacement Program.

Any expressed or implied warranties, including but not limited to merchantability and fitness for a particular purpose are limited to the above one-year warranty period. Maverick shall not be liable for any incidental or consequential cost, expenses or damages resulting from the any failure defect or malfunction of this product. Some states do not allow the exclusion or limitations of implied warranties or consequential damages, therefore, the above limitations may not apply to you.
This warranty grants you specific legal rights, and you may also have other rights that vary from state to state.

RETURN INSTRUCTIONS

Return of a product, for any reason, must be associated with a Return Authorization Number (RA#). An RA# can be obtained by contacting Maverick directly at 303-415-0370 or warranty@maverickbike.com. Maverick will not accept responsibility for any product returned to Maverick without an RA#. You should insure your shipment for full value. For warranty returns, please follow theses instructions:

1. Remove everything form the product you are returning not associated with the claim.
2. Take extra care to package the product in a sturdy cardboard box. Maverick will not be responsible for damage to products caused by improper packaging.
3. Mark the Return Authorization Number clearly on the outside of the box and address as follows:
   RA# (Fill in Number)
   Maverick
   3085 Bluff Street
   Boulder, CO 80301
4. Include a copy of your original purchase receipt.
5. Be sure to include a copy of your contact information inside the box

Maverick Service Centers

USA

Maverick
Products Serviced:
All Maverick frames, forks, and components

3085 Bluff St.
Boulder, CO 80301
tech@maverickbike.com
(P) 303-415-0370
(F) 303-415-0379

Suspension Experts, Inc.
Products Serviced:
All Maverick frames, forks, and components

89 Thompson St., Unit K
Asheville, NC 28803
kevin@suspensionexperts.com
(P) 828-255-0205

The Fix
Products Serviced:
All Maverick frames, forks, and components

3085 Bluff St.
Boulder, CO 80301
(P) 303-939-8349

Germany

Toxaholics
Products Serviced:
All Maverick frames, forks, and components

Haupstr. 200
D-66876 Rodalben
toxaholics@t-online.de
(P) 06331258160

Italy

Area B di Modolo Valter
Products Serviced:
All Maverick frames, forks, and components

Via Galvaligi 6/D
31058 Susegana (TV)
info@areab.it
(P) 039 (0) 438 435 550

United Kingdom

Extra Ltd.
Products Serviced:
All Maverick frames, forks, and components

Datamex House, Morris Close
Park Farm Ind. Estate, Wellingborough
Northants NN8 6XF
service@extrauk.co.uk
(P) 0193 672170
(F) 0193 672171

TF Tuned Shocks
Products Serviced:
DUC32 and SC32 forks;
SpeedBall seatposts

www.tftuned.com
(P) 01373 834455

South Africa

Pedal-on Marketing CC
Products Serviced:
All Maverick frames, forks, and components

Shop 6A
8 Old Main Road
Hillcrest, KwaZulu Natal 3610
johann@awm.co.za
(P) 0860 100 296
(F) 0866 747 190

FORKS : DUC32 and SC32

Maverick

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