

# FUNK

## B I C Y C L E S

Thank you for selecting the Funk Racing Suspension Fork. We have worked hard to create the most up-to-date, state of the art fork.

Some thoughts on suspension design:

Polyurethane elastopolymer microlites are extremely tunable. Not only is current technology able to change hardness or compression stiffness but also dampening.

Dampening is a function of the chemical makeup of the material. It is like a ball that will bounce practically as high as you drop it or to not bounce at all at the purest sense. As cellular foams, microlites and various other polymers are developed be assured Funk will be on the cutting edge.

The reason elastopolymers are not used in more applications is ultimately they cannot absorb all the energy. For example, a GP motorcycle accelerating or decelerating through the corners would require a tremendous input of energy. Elastopolymers would not be able to handle the energy and would be quick to melt.

Utilizing air for compression is great! If you think about it, that's exactly what elastomers are... tiny air bubbles contained in a medium.

Take care not to be overly concerned with weight. Weight is critical, but not the only factor in the "suspension equation". However, the Funk fork is light.

Fork rigidity is essential for steering precision and control. This is why the Funk suspension fork is built stronger in key areas than in others.

Achieving the desired offset can be done with the dropouts, triple clamp, angle of the steer tube, or with any combination thereof. The Funk suspension fork accomplishes this through a combination of the steer tube angle and the spacing of the fork legs in relation to the steer tube. We are anxious for you to discover the ride!

# FUNK

## B I C Y C L E S

Thank you for selecting the Funk Racing Suspension Fork. We have worked hard to create the most up-to-date, state of the art fork.

Some thoughts on suspension design:

Polyurethane elastopolymer microlites are extremely tunable. Not only is current technology able to change hardness or compression stiffness but also dampening.

Dampening is a function of the chemical makeup of the material. It is possible to create a rubber ball that will bounce practically as high as you drop it or to not bounce at all and simply be "dead". This is dampening in the purest sense. As cellular foams, microlites and various other polymers are developed be assured Funk will be on the cutting edge.

The reason elastopolymers are not used in more applications is ultimately they cannot absorb all the energy. For example, A GP motorcycle accelerating or decelerating through the corners of Laguna Seca generates tremendous heat. In this application elastopolymers would not be able to handle the energy and would be quick to melt.

Utilizing air for compression is great! If you think about it, that's exactly what elastomers are...tiny air bubbles contained in a medium.

Take care not to be overly concerned with weight. Weight is critical, but not the only factor in the "suspension equation". However, the Funk fork is light.

Fork rigidity is essential for steering precision and control. This is why the Funk suspension fork is built stronger in key areas than in others.

Achieving the desired offset can be done with the dropouts, triple clamp, angle of the steer tube, or with any combination thereof. The Funk suspension fork accomplishes this through a combination of the steer tube angle and the spacing of the fork legs in relation to the steer tube. We are anxious for you to discover the ride!

# FUNK

## B I C Y C L E S

-Triangulation of the fork brace and seal assembly assure stiffness and rigidity (Have you ever seen a door hinge with two screws...?)

-Fork brace is not cast. Castings are roughly 60% as strong as material that is computer machined from solid bluet. Utilize 3/8" plate, not 1/4" - machined for rigidity, adding stiffness for precision steering.

-The triple clamp achieves a total of 1.61" offset. .375" comes from the machined offset between the steer tube and the inner legs, The remainder from the angle of the steer tube

-The triple clamp gives complete flexibility. It is readily adaptable to any bike. 1", 1 1/8", 1 1/4" steerers are all utilized in one clamp.

-For service ease each inner leg and the steer tube can be removed separately with very little effort.

-No seals or valves to leak or blow-out. (No air, no hydraulics.) Absolute minimum number of internal parts.

-Maximum clearance

-The large diameter inner fork legs and wide spacing achieve torsional rigidity for stable steering control.

-Easily rebuildable (approximately 30 minutes) once familiar with the procedure.

-Slotted cable stop on brace for ease of service.

-Titanium and 7075 fork leg upgrade available if you have not already purchased your high end model.

# FUNK

## B I C Y C L E S

To rebuild or change rubber springs to following procedure works well:

### DISASSEMBLY

1. Loosen 5mm Allen screws in triple clamp on both sides.
2. Release brake cable tension via slotted cable stop and secure cable out of way.
3. Pull lower fork assembly from bike (the two outer lower legs, fork brace, and inner legs)
4. Pry off inner fork caps
5. Use special 3/16" (approx. 5mm) allen wrench to loosen 6mm x 130mm bolt.
6. Remove outer leg assembly by pulling off inner leg. A slight tug or pull might be necessary.

**Please note:** 3/16" allen wrench provided also fits front brace allen bolts.

Polyurethane elastopolymer:

- white - 55 Duro...soft
- grey - 60 Duro...medium
- black - 65 Duro...hard

Do not hesitate to try various combinations to suit your personal style.

# FUNK

B I C Y C L E S

## REASSEMBLY

1. Clean all parts (dirt and grit between polyethelene bushings and aluminum does not allow for smooth operation).
2. Select appropriate rubbers for compression stiffness.
3. Grease both inner and outer legs with a high quality lube (i.e. moly or white lithium grease).
4. Slide outer leg assembly over inner leg assembly taking care not to force anything.
5. When inner legs bottom out against fork and rubber springs, continue to exert pressure and use long allen wrench to secure 6mm inner bolt. Tighten to 10-12 ft./lbs.
6. Reinstall assembled fork. Check for smooth operation.

## **Notes:**

Dropouts are designed for quick wheel changes in racing situations. As such there are no secondary safety devices. Please check the tightness of the wheel every time you ride.

Funk Racing Suspension Forks is designed for offroad competition and does not come with reflectors

1" - standard

To change the length of the steer tube for different stack heights, new bike, etc. First remove the steer tube from triple clamp by loosening the two 5mm bolts. Cut the steer tube to length by removing material from the non-threaded end. To secure the steer tube from sliding up a simple roll pin needs to be installed, simply drill two 1/8" (.125") holes opposite each other and tap the roll pin into place. Reinstall steer tube and tighten both 5mm bolts. Torque triple clamp bolts to 24 ft./lbs.

Use green Loctite on brake studs and torque to 12 ft./lbs.

When installing new tires be sure to keep at least 1.750" between the top of the tire and the front of the triple clamp.

It is not recommended to spray direct high pressure water at the seals.