

Tips for When the Shock Kicks

A common complaint regarding the shock has to do with kicking, especially under braking. Whether you ride motocross or off-road, having a controlled rear end when entering corners will do wonders for your comfort and confidence. So, if you feel the shock lifts, or kicks under braking, there are a few things you can try on the fly before needing to address the issue with an internal revalve.

Sag First

First and foremost, you should start with your rider sag. To explain, if the sag is too tall, it not only starts a little higher in the stroke (and closer to your backside), but it will also put extra weight on the front end. This can cause the forks to dive further into their stroke. The result is a compounded issue as the rear of the bike rides a little high, while the front-end dives lower under braking. No Bueno when it comes to confidence while on the binders.

So, if it feels like a ride-height (sag) issue, take some preload off the shock spring. This will lower the rear of the bike and take a little weight off of the front end. The ideal outcome is a bike that feels balanced, not stink-bugged or chopper'd.

Another factor could be the spring rate of your shock spring. If the shock spring is too stiff, especially through the first few inches of travel, it won't absorb under braking. This can consequently lead to a shock that lifts, especially when unweighted. However, if your bike feels well balanced on the track and your shock spring is in the ballpark for your weight, but you're still experiencing some kicking, it could be time to play with the forks.

The Forks May Be Too Soft

If you've determined that your rider sag feels comfortable, the next place to go is the forks. No matter how dialed your shock is, if your forks are diving too much, the rear end is likely to lift under braking. This issue is exponentially increased the harder you brake and the bigger the bumps get. For example, a motocross pro will need a much firmer front end than a novice enduro rider. The size of the bumps and/or the harder braking adds greater pressure to the forks, causing them to dive further into the stroke. And any time the forks dive, the rear end will consequentially lift.

There are a few ways to firm up the forks. First, and the simplest place to start, is to stiffen (tighten) the compression clicker. The result makes the forks slightly firmer, which will keep them up a little more under braking. Try a click or two at a time to see if this helps the forks stay up, and the rear end settled as a result.

Another adjustment to try is to go out on (softening) the rebound on the forks. This can help the front end recover better under braking, although it may not have quite as big an impact in keeping the forks up.

Lastly, you can add some oil to the forks. This is a little more intricate as far as a process to firm up the forks. For example, it requires a special tool and should be left up to a suspension professional. However, in our experience, adding oil to the forks can help firm them up while maintaining a smooth progression through the stroke.

It *May* Be Shock Rebound

Oftentimes we hear riders say the shock was kicking so they immediately cranked in on the shock rebound. While slowing (stiffening) the rebound may help, it can also backfire. For instance, if the shock rebound gets to be too slow, at a certain point it will begin to pack. What packing means, in suspension terminology, is that the suspension moves lower and lower through the stroke over subsequent bumps, as the rebound is too slow to let it recover. As a result, the shock may feel ok over the first bit of chop, but then it all of the sudden starts to buck sideways and/or jackhammer because it can't move and recover enough. Even worse, if you then hit a taller bump in the sequence, it can violently unload all of that built up pressure, causing a wicked kick.

In short, playing with the shock rebound is a tricky one. It *can* help the shock settle more under braking. However, if you go too far, it can actually further upset the rear end. You won't really know until you make some adjustments and try it, but be sure to keep a record of how the changes affected the handling.

Also, of importance is to try to determine when the kick is happening. In more detail, is the shock absorbing the bump, then kicking off of the bump? This would be more of a rebound issue. But if the shock just feels like it spikes off the bumps and doesn't really absorb them, the rebound won't really help. In that case you want to get the shock to move a little more.

The High-Speed Can Help

Another adjustment to try is the high-speed on the shock. The high-speed most affects the movement of the shock over smaller, or quicker bumps. So, if the shock is kicking under braking and doesn't feel like it's absorbing the bumps, softening (going out on) the high-speed adjuster may help it move and absorb a little more. We recommend trying 1/8 and 1/4 turns at a time to test the difference.

Alternatively, if the kicking (or lifting) is occurring over rolling, slower-travel movements, going out on (softening) the low-speed clicker may help. To be specific, this might help if the shock feels too firm in a set of rolling whoops, or a g-out type of hit. If the shock feels like it doesn't absorb the rolling hit enough—it firms up too quickly—and lifts as a result, then softening the low-speed can help it move a little further into the stroke. We suggest a click or two at a time.

The Cause You May Not Want to Hear

Lastly, there is one more adjustment that can make a difference if the rear end is lifting under braking: your riding style. No matter how stiff the forks, or how soft/flat the shock rides, if you're aggressively braking without getting your weight (read: butt) over the rear of the bike, the forks are going to dive, and the shock is bound to lift or kick. Adjusting the suspension settings to match your style can definitely help. However, there is a limit. Ultimately, the input you give as a rider makes the most difference. So, while this is by no means meant as a critique, be honest with your expectations based on the input you're giving your bike.

In conclusion, a shock that kicks under braking can have numerous causes. Use the adjustments listed here as a reference for things to try to address the issue. Check each adjustment off the list, being sure

to keep a record of any changes you make. Also, make sure to correct an adjustment that didn't work; i.e. going back out on the shock rebound if going in made it worse. More than likely, one of the tips listed will help. However, if the kicking or lifting persists, it may need to be addressed internally. Keep this list as a reference and go enjoy the ride!