

Adjusting Motorcycle Suspension

Here is what "The Racing Motorcycle - a technical guide for constructors", by John Bradley, has to say on the subject of adjusting motorcycle suspension. A very good book by the way, full of great info. For more on this great book check out <http://www.eurospares.com>

Front Fork Problems

Race sag too small.

Race sag too great

Forks compress too far on smooth turns.

Forks dive too far (bottom out).

Always losing front end on corner entry.

Front end chatters coming out of corners.

Bike difficult to turn in.

Front wheel skips on bumps.

Forks judder when braking on a straight.

Forks dive too fast.

Forks pump down on fast bumpy corners.

Excessive pogo action through chicanes.

Front end shakes (not chatters) in corners.

Front end shoots up too fast after braking.

Possible Cure

Reduce preload.

Increase preload

Stiffer springs, increase preload.

Stiffer springs, reduce air gap, possibly increase preload.

Softer springs, adjust weight distribution.

Softer rebound springs or main springs, reduce damping.

Softer springs, reduce preload or compression damping, alter steering geometry.

Softer springs, reduce compression damping, increase air gap.

Reduce compression damping.

Increase compression damping.

Reduce rebound damping.

Slightly increase rebound damping.

Increase rebound damping.

Increase rebound damping.

Rear Shock Problems

Race sag too great.

Race sag too small.

Rear squats on acceleration.

Very Harsh ride over ripples.

Bike wallows.

Rear jacks up too fast on braking.

Rear end chatters exiting slow corners.

Bike kicks off ripples or bounces on bumps.

Rear end pumps down on bumpy corners.

Possible Cure

Increase preload.

Reduce preload.

Stiffer spring, increase anti-squat angle, slightly increase compression damping.

Reduce compression damping.

Increase rebound damping.

Increase rebound damping.

Increase rebound damping.

Increase rebound damping.

Reduce rebound damping.

Note: If something needs more adjusting & there's no more adjustment left then it's time for modifications. Also, the damping adjustments mainly adjust for "low suspension speed" - if "high suspension speed" response needs adjusting you'll need some modifications.