

Maxton Engineering, Laurel Bank, Kingswood, Frodsham, Cheshire, WA6 6HX.

TEL: 01928 740531 FAX: 01928 740635

EMAIL: richard@maxtonsuspension.co.uk WEBSITE: www.maxtonsuspension.co.uk

## HOW TO ADJUST YOUR MAXTON GP20 CARTRIDGE CONVERSION

#### ADJUSTING THE REBOUND DAMPING ON THE CARTRIDGE CONVERSION

The rebound damping adjuster is located under the stainless steel M6 dome head socket screw. To adjust the rebound damping you simply remove the socket screw, under the socket screw is the rebound damping adjuster. To adjust the rebound damping you use a 3mm Allen key.

- To increase the rebound damping you turn the adjuster clockwise
- To reduce the rebound damping you turn the adjuster anti-clockwise

There are two and a half turns of adjustment in the rebound damping adjuster. When adjusting the rebound damping to begin with, turn the adjuster a revolution at a time. The closer you get to maximum the less you need to turn the adjuster.

N.B Do not unscrew the rebound damping adjuster more than 3 turns or the adjuster screw could come out of the end of the damper rod.

#### **REMOVING THE SPRING**

To remove the spring is simple and can be done with the forks in the bike.

- Undo the fork top and fully compress the fork.
- Then holding the fork top undo the 17mm lock nut.
- Then unscrew the fork top off the end of the damper rod.

- Next unscrew the 17mm lock nut and remove the spring spacer, top spring platform and spring.
- N.B. When reassembling the fork you must wind the 17mm lock nut down to the bottom of the thread, then wind the fork top up to the lock nut and tighten.

The rebound damping adjuster is built in to the end of the damper rod. This means there is no need to set the rebound damping when assembling the forks.

## SOME CARTRIDGE CONVERSION HAVE COMPRESSION DAMPING ADJUSTMENT. IF YOUR FORKS HAVE ADJUSTABLE COMPRESSION DAMPING ADJUST AS FOLLOWS

To adjust the compression damping you simply insert a 3mm Allen key in to the hole in the centre of the bottom bolt. The bottom bolt is found in the bottom of the fork near the wheel spindle. You will feel the Allen key locate in a slot. When you turn the Allen Key you will feel the compression damping adjuster click.



- If you turn the adjuster clockwise you will increase the compression damping and make the fork harder
- If you turn the adjuster anti-clockwise you will reduce the compression damping and make the fork softer
- There are approximately 30 clicks of adjustment in the range.



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There are two and a half turns of adjustment in the rebound damping adjuster. When adjusting the rebound damping to begin with, turn the adjuster a revolution at a time. The closer you get to maximum the less you need to turn the adjuster.

N.B Do not unscrew the rebound damping adjuster more than 3 turns or the adjuster screw could come out of the end of the damper rod.

#### **REMOVING THE SPRING**

To remove the spring is simple and can be done with the forks in the bike.

- Undo the fork top and fully compress the fork.
- Then holding the fork top undo the 17mm lock nut.
- Then unscrew the fork top off the end of the damper rod.
- Next unscrew the 17mm lock nut and remove the spring spacer, top spring platform and spring.

N.B. When reassembling the fork you must wind the 17mm lock nut down to the bottom of the thread, then wind the fork top up to the lock nut and tighten.

The rebound damping adjuster is built in to the end of the damper rod. This means there is no need to set the rebound damping when assembling the forks.



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## HOW TO ADJUST YOUR MAXTON GP20 CARTRIDGE CONVERSION

#### ADJUSTING THE REBOUND DAMPING ON THE CARTRIDGE CONVERSION

The rebound damping adjuster is located in the centre of the fork top. It's a small hexagonal drive that you turn to control the speed of return of the fork, i.e how quickly the fork comes back. To adjust the rebound damping you use a 3mm Allen key.

- -To increase the rebound damping you turn the adjuster clockwise. This slows the return down.
- -To reduce the rebound damping you turn the adjuster anti-clockwise. This speeds the return up.

There are two and a half turns of adjustment in the rebound damping adjuster. When adjusting the rebound damping to begin with, turn the adjuster a revolution at a time. The closer you get to maximum the less you need to turn the adjuster.

N.B Do not unscrew the rebound damping adjuster more than 3 turns or the adjuster screw could come out of the end of the damper rod.

#### **REMOVING THE SPRING**

To remove the spring is simple and can be done with the forks in the bike.

- Undo the fork top and fully compress the fork.
- Then holding the fork top undo the 17mm lock nut.
- Then unscrew the fork top off the end of the damper rod.
- Next unscrew the 17mm lock nut and remove the spring spacer, top spring platform and spring.

N.B. When reassembling the fork you must wind the 17mm lock nut down to the bottom of the thread, then wind the fork top up to the lock nut and tighten.





# GP20 FRONT FORK CARTRIDGES OWNERS MANUAL

#### REBOUND OR TENSION DAMPING (PURPLE ADJUSTER)

The rebound damping adjuster is located on top of the fork, in the centre of the fork top. It is adjusted using a 3mm Allen key. When you adjust the rebound damping you open and close a needle valve. A needle valve is like a pilot jet in a carburettor, as you turn the rebound damping adjuster clockwise, the needle jet screws further in to the hole or jet. This reduces the area where the oil passes, therefore restricting the flow and increases the damping. As you turn the rebound adjuster anti-clockwise the opposite happens.

#### To recap:

If you turn the adjuster clockwise it increases the damping, this slows down the return of the fork.

If you turn the adjuster anti-clockwise it reduces the rebound damping, this speeds up the return of the fork.

The rebound damping is what controls the extension of the fork. It can be increased to help the bike turn in to a corner; this will also help the bike hold a tighter line on the exit. If you reduce the rebound damping this speeds up the return of the fork, helping it to recover quicker. This prevents the front of the bike from 'packing' or 'jacking' down.



FIG 1 (PURPLE)

#### COMPRESSION OR BUMP DAMPING (IF APPLICABLE)

### THE COMPRESSION DAMPING ADJUSTER IS PART OF THE ORIGINAL FORK SLIDERS AND POSISTIONED AT THE BOTTOM OF YOUR FORKS NEAR THE WHEEL SPINDLE.

IF YOUR SLIDERS DO NOT HAVE A COMPRESSION DAMPING ADJUSTER AS STANDARD, THEN THEY WILL NOT HAVE A COMPRESSION DAMPING ADJUSTER AFTER WE HAVE FITTED THE GP20 CARTRIDGES. YOUR GP20 CARTRIDGES DO HAVE COMPRESSION DAMPING BUT IT IS FIXED. WE CHOSE THE TYPE AND AMOUNT OF COMPRESSION DAMPING FOR YOU WHEN WE BUILD THE CARTRIDGES.

If your forks have a compression damping adjuster it is located at the bottom of the fork next to the wheel spindle. When you adjust the compression damping you open and close a needle valve. The needle valve is like a pilot jet in a carburettor, as you turn the adjuster clockwise, the needle valve screws further in to the hole or jet. This reduces the area where the oil passes, therefore restricting the flow and increases the damping. As you turn the adjuster anticlockwise the opposite happens.

#### To recap:

If you turn the adjuster clockwise it increases the damping, this slows down the compression of the fork.

If you turn the adjuster anti-clockwise it reduces the compression damping, this speeds up the compression of the fork,

The compression damping is what supports the bike with the spring. The compression damping is very important. It is what gives you the "feel" from the front forks; this in turn gives you the confidence to either brake later of carry more speed through a corner.

THE COMPRESSION OR BUMP DAMPING HAS BEEN BASE SET TO MAXIMUM MINUS

**CLICKS** 

#### **SPRINGS**

The springs fitted to your GP20 fork internals are linear strength springs. The springs are made from Silicon Chrome. They have been chosen to suit your rider weight and what you use the bike for. Should you need harder or softer springs contact Maxton Suspension.

THE SPRINGS FITTED TO YOUR GP20 CARTRIDGES ARE

KG/MM

#### ADJUSTING THE PRELOAD

The preload adjuster is located at the top of the fork. It is adjusted using the appropriate tool in Maxton tool kit supplied with the forks. You can also use a 24mm socket, but you may damage the outside of the preload adjuster.

To increase the preload turn the adjuster clockwise.

To reduce the preload turn the adjuster anti-clockwise.

When setting the preload count the number of turns or revolutions from minimum (fully anticlockwise). There is a stop on minimum.

The preload controls the static sag in the front of the bike. This is the amount the weight of the bike crushes the forks before the rider sits on the bike. The static sag should be set between 25mm and 30mm.

Many people think that adjusting the preload makes the fork springs harder or softer, this is incorrect. The fork springs are a linear rate, so no matter how much the springs are crushed they are the same strength. The preload adjuster acts like a ride height adjuster:

If you increase the preload it reduces the static sag.

If you reduce the preload it increases the static sag.



FIG 2

#### CHANGING FORK SPRINGS

TO CHANGE THE SPRINGS ON THE GP20 FORK CARTRIDGES YOU WILL NEED A SET OF STANDARD FRONT FORK TOOLS AS PICTURED IN THE PHOTO BELOW. IF YOU ARE WORKING ON FORKS A LOT YOU SHOULD ALREADY HAVE A FRONT FORK TOOL KIT. THEY CAN BE PURCHASED ONLINE.

#### YOU WILL NEED 2 PEOPLE TO CHANGE THE FORKS SPRINGS.



- 1. Undo both top yoke bolts.
- 2. Undo both fork caps with the correct size socket or spanner

IMPORTANT: MAKE SURE YOU GET SOMEBODY OR SOMETHING TO SUPPORT THE BIKE, AS WHEN YOU UNDO BOTH FORK CAPS THE WHOLE WEIGHT OF THE BIKE WILL FALL TO THE BOTTOM OF THE FORKS STROKE.

- 3. Now you can remove the fork top off the end of the damper rod. Using a front fork spring compressing tool (similar to the one in of the top of the photo above) push the spring spacer down and trap the slotted tool (bottom of the photo above) in between the underside of the rod end and the top of the spring spacer.
- 4. Next undo the fork top by holding the 17mm rod end and the fork preload adjuster. Once undone the fork top will screw off by hand.
- 5. Next screw the damper rod extension tool (middle of the photo above) on to the end of the damper rod. Once in place push down the spring again using the spring compressor and remove the slotted tool.
- 6. Then remove the spring spacer, top spring washer and spring. The damper rod will then move up and down.
- 7. put the new spring in the fork and carry out the above instructions in reverse.



## FOR ANY HELP OR INFORMATION ON SET UP OR ADJUSTING YOUR MAXTON DAMPER UNIT PLEASE CONTACT US:

MAXTON SUSPENSION CHAPEL WORKS KINGSWOOD FRODSHAM CHESHIRE WA6 6HX

TEL - 01928 740531

FAX - 01928 740635

 ${\sf EMAIL-info@maxtonsuspension.co.uk}$ 

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