



Owners manual

4618 Competition Shock absorber



INTRODUCTION:

Congratulations on your purchase of this WP Suspension shock absorber, The shock absorber that won the 2001/2002/2003/2004/2005/2006 and 2007 Supersport world championship and the 2007 Worlds Superbike series!

A shock absorber that will provide you with a better handling of your bike, so you will have more riding pleasure.

The WP importer in your country is able to give you the assistance you need, so if you have questions: don't hesitate to give them a call.

See: www.wpsuspension.com for your nearest importer.

We wish you a lot of fun and success with your 4618 competition shock absorber.

General notice:

Pay attention to the following notes, when you are working with WP suspension products as described in this Owners manual:

- Always inspect your WP product before use.
- Always use aluminium protector-plates, when clamping our products or parts in the vice.
- Always replace damaged or worn parts.
- Clean all parts before (dis-)assembling.
- Always use clean and professional tools.
- Always have your suspension product serviced by a certified WP Suspension dealer.

Warning: Improper use can lead to serious injuries!



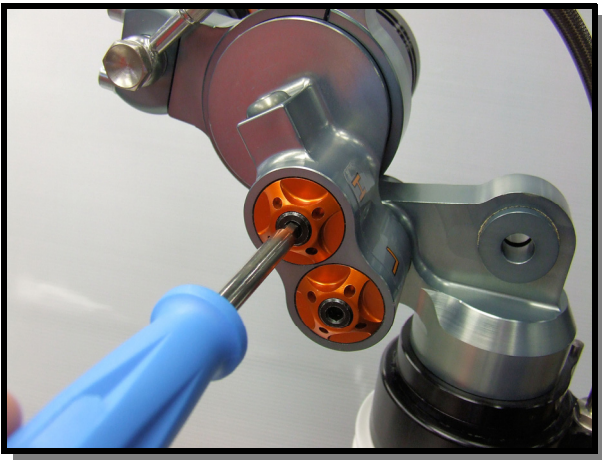
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Adjustment of the shockabsorber:



Use the standard WP tool or an allen wrench to adjust the compression.
The adjuster that's normally on the left or closest to the shock body, is the one for low speed compression damping.
Turning it clockwise will add damping
Turning it counter clockwise will give you less damping.
For standard settings, see the set-up list.
Settings are counted from fully closed position (turned clockwise)



The one on the right is for high speed compression damping.
Note the position of the compression high-speed.
Fully closed is turning the allen bolt clockwise.
Turning it clockwise will add damping
Turning it counter clockwise will give you less damping. For standard settings, see the set-up list. Settings are counted from fully closed position (turned clockwise)

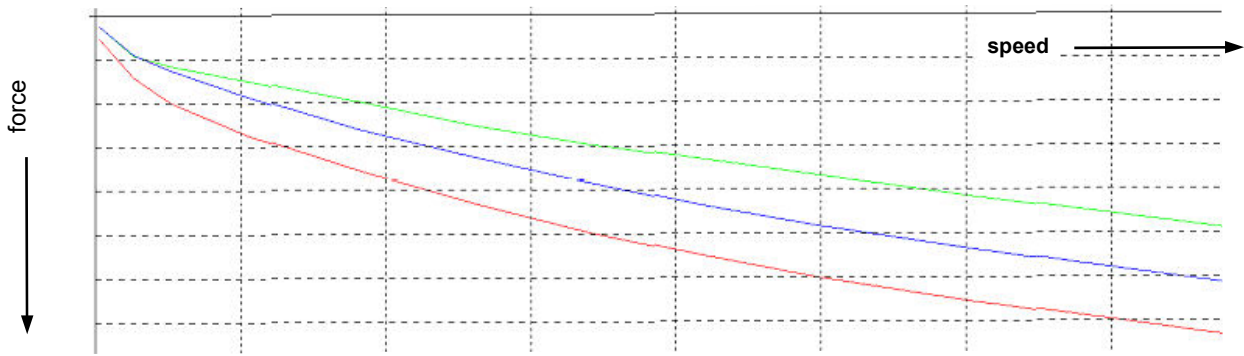


The adjuster on the lower part of the shockabsorber is the rebound adjuster
Turning it clockwise will add damping
Turning it counter clockwise will give you less damping.
Settings are counted from fully closed position (turned clockwise)

See the next page for a graph of the adjustment range

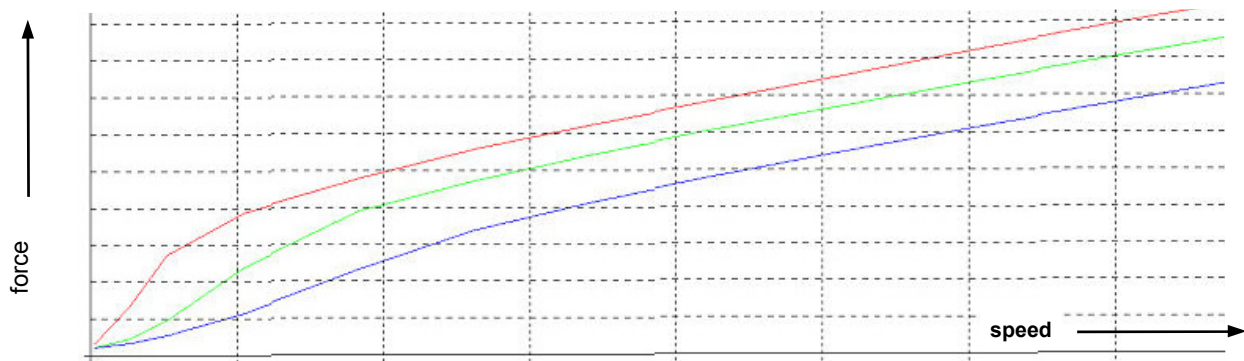
Compression adjustment range

— = adjuster open. — = adjuster std. — = adjuster closed

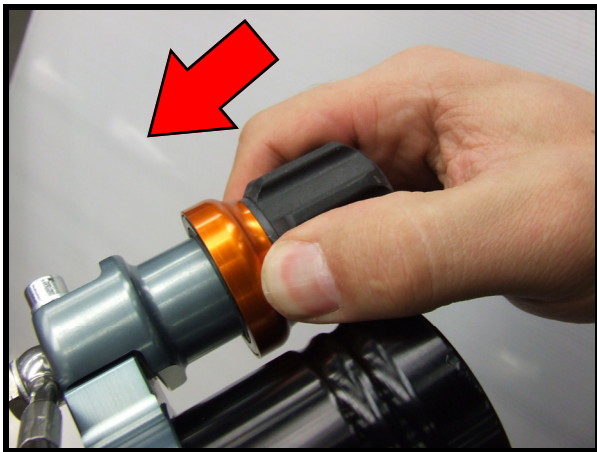


rebound adjustment range

— = adjuster open. — = adjuster std. — = adjuster closed



Pre-load & adjustment:



There are two versions of the Pre-load adjuster:

- 1: version with hose. Each revolution of the knob is 0.5 mm pre-load adjustment.
- 2: version with Allen bolt. Each revolution of the bolt is 1 mm of adjustment.

The versions with a knob can be adjusted, by pushing the orange ring outwards and then turn the knob in the desired direction.

Turning the knob counter clockwise, gives you less pre-load.

Turning the knob clockwise, gives you more pre-load.

Standard setting is 5 mm distance from the retainer.

This can be set by counting the revolutions of the knob (see above), or measuring the distance as shown. (more accurate)



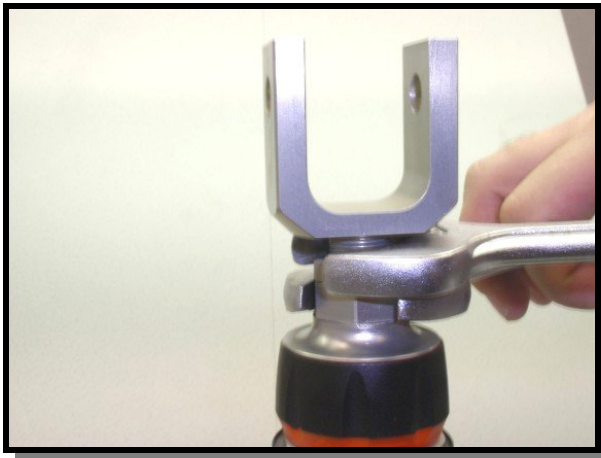
Length adjustment:



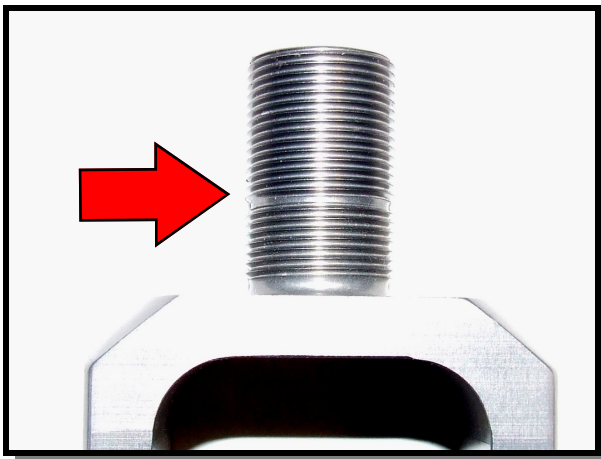
The 4618 competition shock absorber also has adjustable length.

If there's enough room in the bike, the adjustment can be done while the shock is mounted, but for easy access it is recommended to adjust the length outside the bike

It is advised to use a small amount of T159 grease on the thread to make adjustments in the bike easier and prevent the thread of locking with the counterpart.



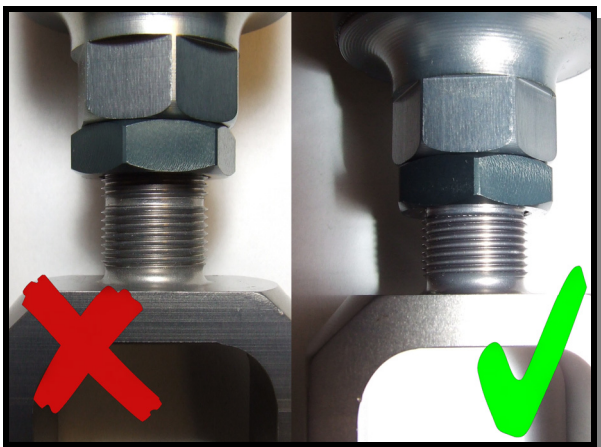
Use two wrenches to loosen the length adjuster.



The thread of the mounting fork or mounting eye, has a groove in it.

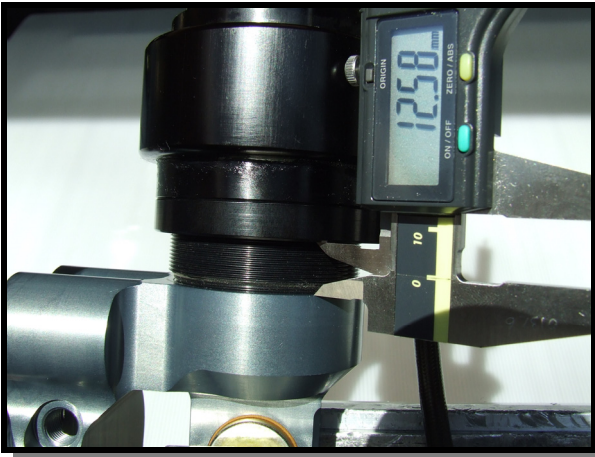
When extending the length of the shock absorber, make sure this groove is just visible outside the contra nut

Extending it more than described might cause failure of the shock absorber with serious injuries as a result of this.



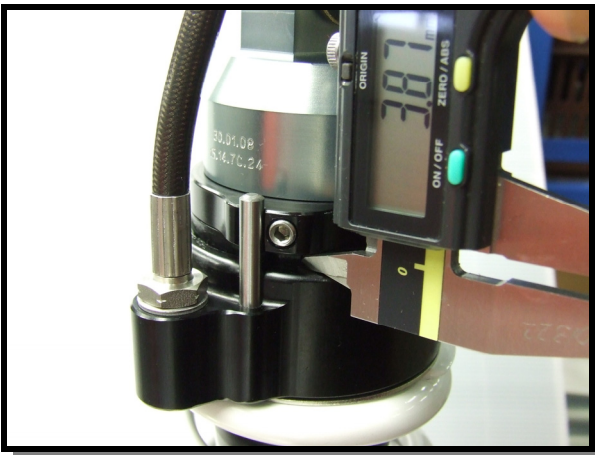
The picture in the left shows the correct and incorrect position of the thread groove.

Changing of the spring:



Measure the spring preload between the spring retainer and top piece.

If the damper has a Pre-load adjuster: Mark the position of the adjuster!



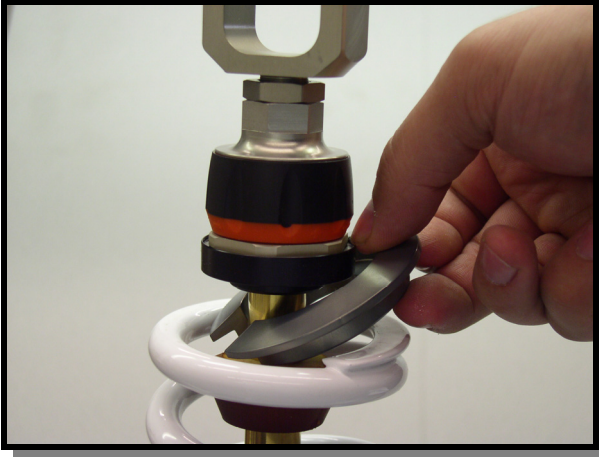
If the damper has a Pre-load adjuster: Mark the position of the adjuster, to be able to set the same amount of Pre-load.



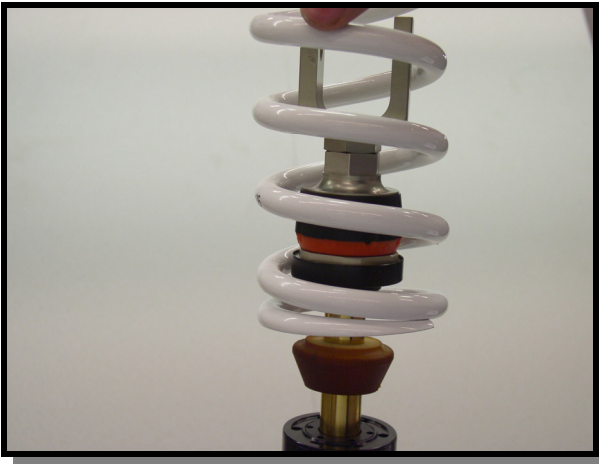
Put the Pre-load adjuster into it's minimum position.

Use a spring release tool or hydraulic press to release the spring

Changing of the spring:

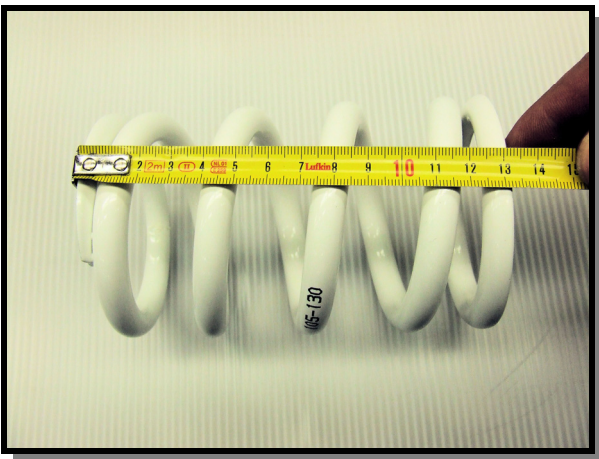


Remove the spring retainer

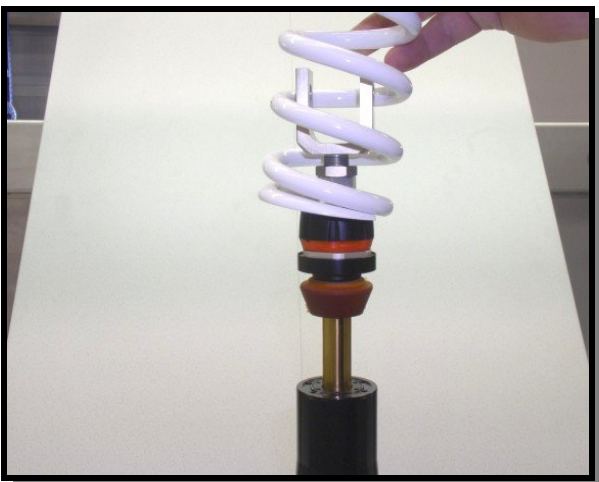


Remove the spring.

If required, the pre-load adapter can be removed as well.



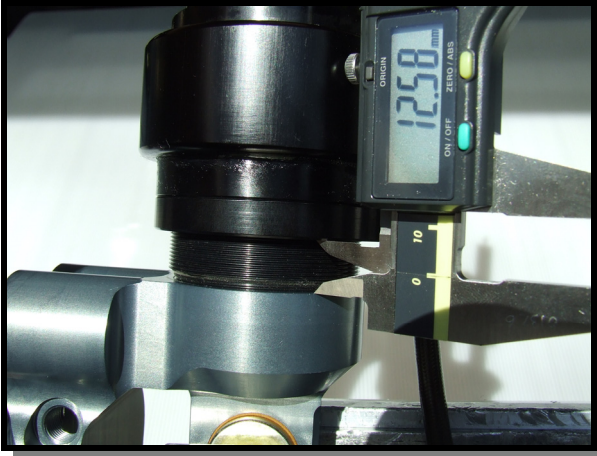
**Measure free length of the spring.
Note this as value A.
This value is needed to set the spring
pre-load as described on page 10.**



If the Pre-load adjuster was removed, place it on the shock absorber first.

Place the spring on the shock absorber.

Changing the spring:

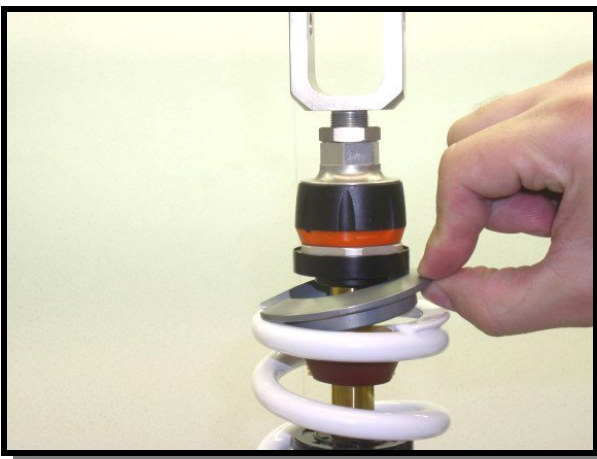


Mount the PA adjuster to the previous noted height and set the correct angle if the Pa was removed

Grease the thread with some T159, to prevent it from seizing.

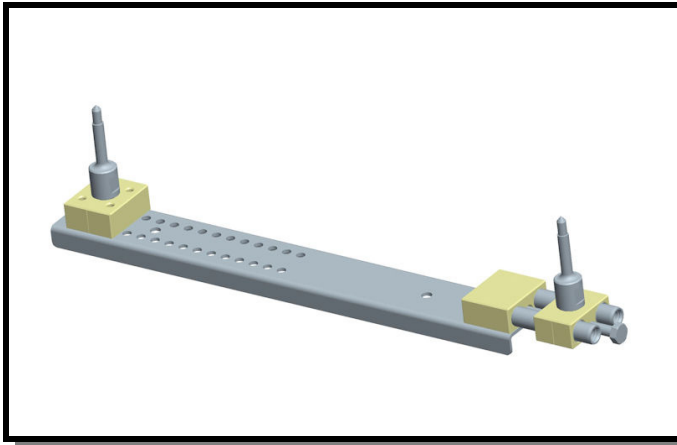


Put the shock absorber in the hydraulic press, or use a spring release tool.



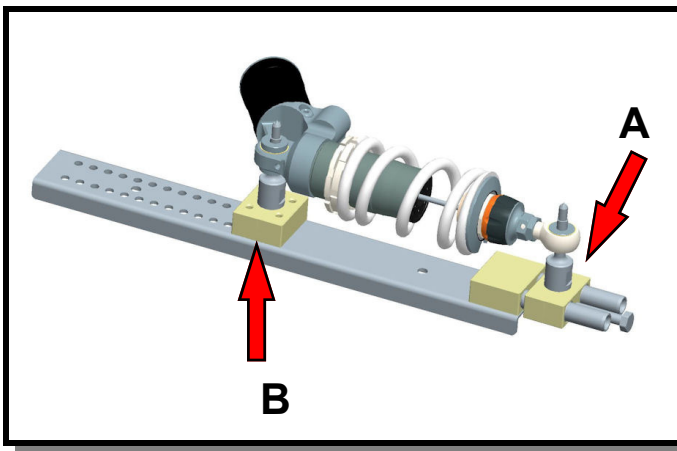
Place the spring retainer

Shock absorber length and Pre-load measurement

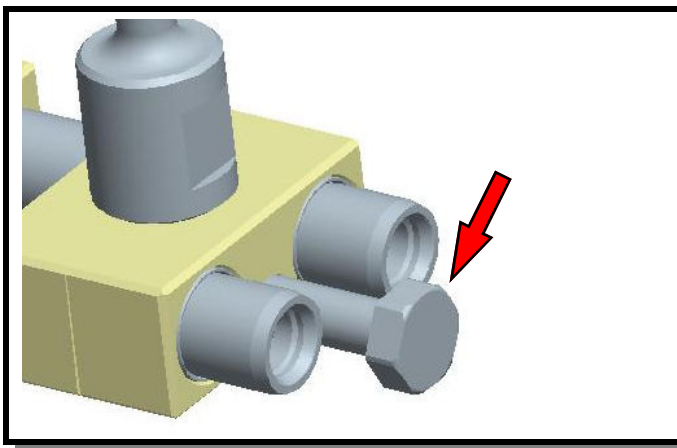


Measure free length of the spring before mounting the spring. Note this as value A. See page 8 for more information.

For setting the spring pre-load and measuring the length according to the set-up list, you need to use tool T1517S

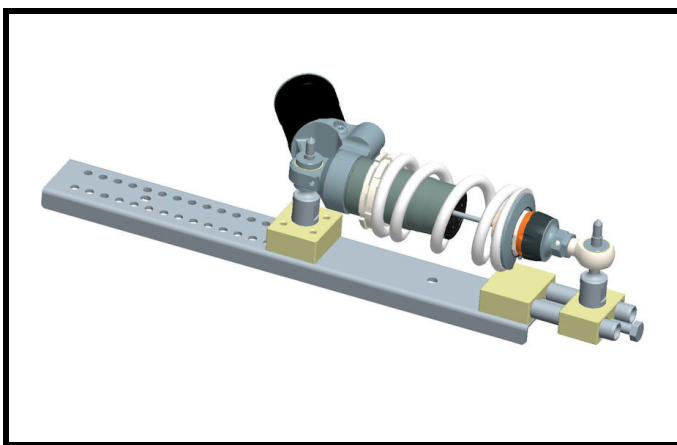


Put the shock absorber on the tool. Make sure block A is almost turned in like shown in the picture. It might be necessary to adjust part B to suit the shock absorber.



Turn the thread/bolt combination with a torque wrench to extend the shock absorber.

Do not put too much force on this, since it can damage the shock and tool and also can give you a false reading !



Once the shock is extended, you can set the given Pre-load and set or measure the length of the shock.

The mentioned length of the shock is the centre of both the mounting holes.

Pre-load is value A, minus the distance between the spring retainer and the pre-load adjuster .