

Bike on a stand.

Bike on the ground.

Bike with rider on.

### Setup data

Shock absorber length	316 mm
Shock absorber stroke	50 mm
Spring pre-load	14 mm
Rebound damping adjuster	14 clicks
Compression damping adj.	12 clicks

### Checking sag and ride height

#### Front suspension

F1. Bike on a stand with the suspension fully extended = .....

F2. Bike on the ground without rider = .....

F3. Bike on the ground with rider = .....

**Free sag** F1 - F2 = .....

**Ride height** F1 - F3 = .....

#### Rear suspension

R1. Bike on a stand with the suspension fully extended = .....

R2. Bike on the ground without rider = .....

R3. Bike on the ground with rider = .....

**Free sag** R1 - R2 = .....

**Ride height** R1 - R3 = .....

# Mounting Instructions

Öhlins shock absorber kit  
BM 344 for BMW F 650 GS

### Öhlins shock absorber 46 ERS

Your Öhlins shock absorber type 46 ERS features the following adjusters:

#### Rebound damping adjuster

Adjuster wheel on the piston shaft above the end bracket.

#### Spring pre-load adjuster

Adjustments are made by turning the knob on the hydraulic adjuster. Clockwise for harder adjustment, counter clockwise too release the pre-load.

### NOTE!

When delivered the Öhlins shock absorber is dialed to recommended settings for the specific brand and make of the motorcycle. If you have changed the settings, check like this:



The adjusters have a normal right hand thread. Turn the damping adjusters clockwise to fully closed (pos. zero [0]). Turn counter clockwise to open and count the clicks until you reach the recommended number of clicks. See Setup data at last page.

### CAUTION!

Do not use too much force, delicate sealing surfaces can be damaged.



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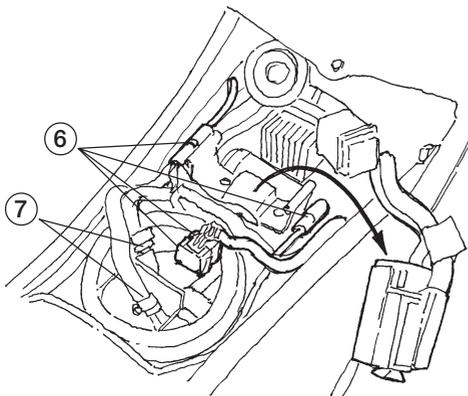


6

Remove the control box and all electric connections (4 pcs) and let the loose wiring hang out to the right side of the motorcycle.

**CAUTION!**

*When removing the fuel tank it must be emptied or contain very small amounts of fuel. Otherwise it will flow over when the fuel lines are loosened.*

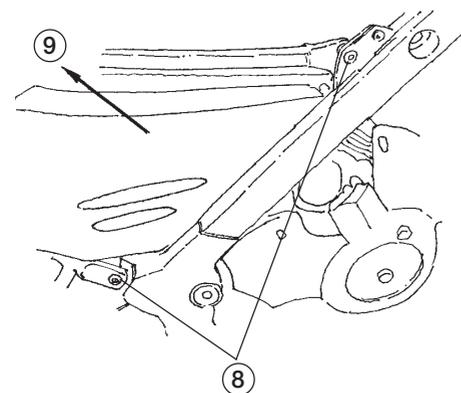


7

Loosen the two fuel lines.

8

Loosen the four bolts holding the rear subframe unit.



9

Lift the rear unit backwards, upwards and remove it from the motorcycle.

10

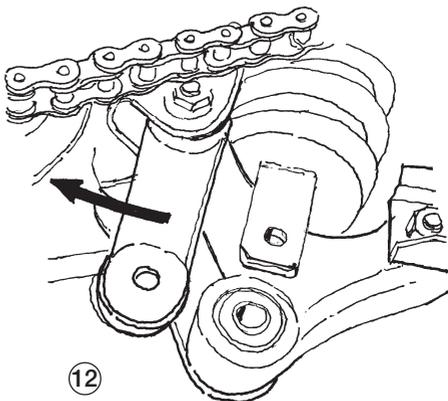
Remove the original reservoir by loosening the two o-rings of the bracket.

11

Loosen and remove the original hydraulic pre-load adjuster and the bracket.

12

Loosen the lower bracket of the right droplink and pull it backwards, so the lower shock absorber mount is reachable.



13

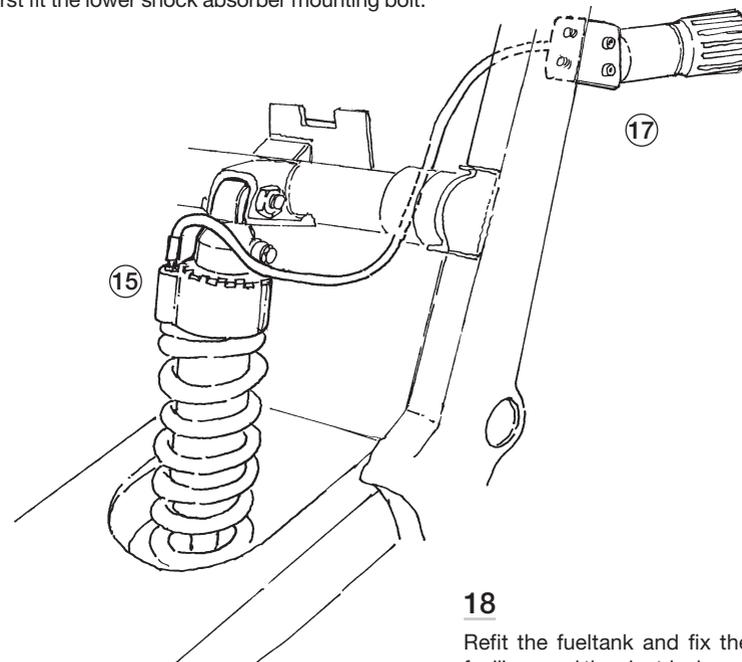
Loosen the lower shock absorber mounting bolt to release the shock absorber from the triangle link.

14

Loosen the upper shock absorber mounting bolt and remove the shock absorber by lifting it upwards.

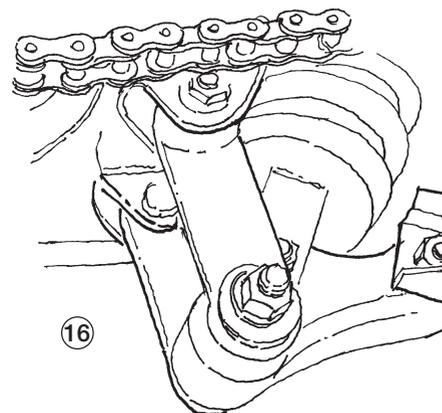
15

Fit the Öhlins shock absorber in reverse order. First fit the lower shock absorber mounting bolt.



16

Then fit the upper shock absorber mounting bolt and tighten. Bring the droplink back in position again and fit the pivot bolt and nut.



17

Attach the new pre-load adjuster bracket to frame and attach the hose with the tie-rop provided.

18

Refit the fuel tank and fix the bolts. Refit the fuel lines and the electrical connections. Refit the control box.

19

Put the brake fluid reservoir back in position.

20

Refit first the left and then the right silencer.

21

Put the seat back in position and lock it. Close the toolbox lid.

**NOTE!**

*Make sure that all bolts are tightened to the correct torque and that nothing fouls or restricts movement of the shock absorber when the suspension is being fully compressed or extended.*

22

Continue your work according to the Owners Manual, section adjustments.