

## Adjustments

- 1 Compression damping adjuster**  
Adjust by turning the knob on top of the reservoir. Turn clockwise to increase damping, turn counter clockwise to decrease it.
- 2 Spring pre-load adjuster**  
Adjust by turning the knob on the hydraulic adjuster. Turn clockwise to increase spring preload, turn counter clockwise to release.
- 3 Rebound damping adjuster**  
Adjust by turning the adjuster wheel at the bottom of the piston rod. Turn clockwise to increase damping, turn counter clockwise to decrease it.

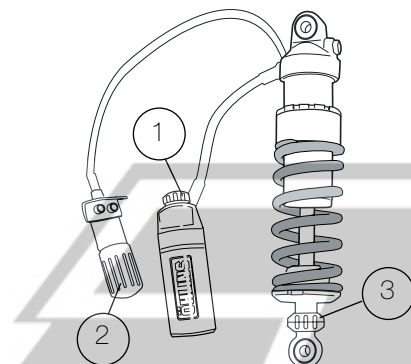
### NOTE!

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 setting, reset according to the following:

The adjuster has a normal right hand thread. Turn the damping adjuster clockwise to fully closed (pos. zero [0]). Turn counter clockwise to open and count the clicks until you reach the recommended number. **See Set-up data above.**

## Set-up Data

Shock absorber length	383 mm	Rec. Free Sag and Ride Height	
Shock absorber stroke	63.5 mm	F1-F2:	40 - 50 mm
Spring pre-load	16 mm	F1 - F3:	55 - 65 mm
Compression damping	12 clicks	R1 - R2:	5 - 15 mm
Rebound damping	12 clicks	R1 - R3:	25 - 35 mm

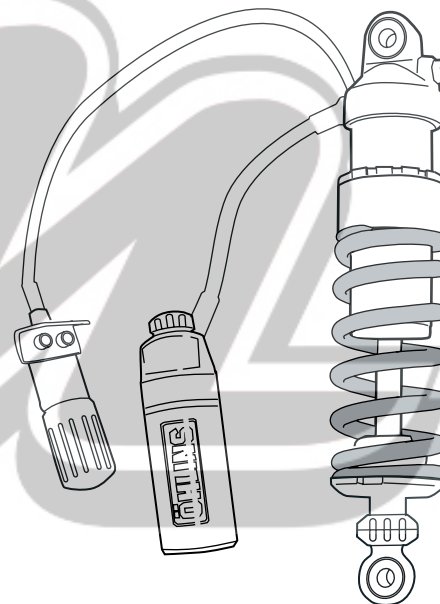


### CAUTION!

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

# Mounting Instructions

Öhlins shock absorber kit BM 542  
for BMW R 1150 GS



### Kit Contents

Before installing the shock absorber, please check the contents of the kit. If anything is missing, please contact your Öhlins dealer.

Description	Part no.
Shock absorber 46HRCS	BM542 (1)
Rubber mount	00230-01 (2)
Tie wrap	00231-01 (2)
Hose clamp	00643-02 (2)
Öhlins Sticker	00192-01 (2)
Memo Notes Sticker	01180-01 (1)
Öhlins Owners Manual	07241-02 (1)

### Before Installing

Öhlins Racing AB cannot be held responsible for any damage to shock absorber or vehicle, or injury to persons, if the instructions for fitting and maintenance are not followed exactly.

Similarly, the warranty will become null and void if the instructions are not adhered to.

Öhlins products are subject to continuous improvement and development. Consequently, although these instructions include the most up-to-date information available at the time of printing, there may be minor differences between your shock absorber and this manual. Please consult your Öhlins dealer if you have any questions regarding the contents of this manual.

BM 542\_1, issued 2009 07 06



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## Safety Signals

Important information concerning safety is distinguished in this manual by the following notations:



The Safety alert symbol means:  
**Attention! Your safety is involved.**

### WARNING!

Failure to follow these warning instructions could result in **severe or fatal injury** to anyone working with, inspecting or using the shock absorber, or to bystanders.

### CAUTION!

Caution indicates that special precautions must be taken to avoid damage to the shock absorber.

### NOTE!

Indicates information that is of importance regarding mounting procedures.

### WARNING!

1. Installing a shock absorber, that is not approved by the vehicle manufacturer, may affect the stability of your vehicle. Öhlins Racing AB cannot be held responsible for any personal injury or damage that may occur after fitting the shock absorber. Contact an Öhlins dealer for advice.

2. Please study and make certain that you fully understand all the mounting instructions and the owner's manual before handling this shock absorber kit. If you have any questions regarding proper installation procedures, contact an Öhlins dealer.

3. The vehicle service manual must be referred to when installing the Öhlins shock absorber

### NOTE!

During storage and transportation, especially at high ambient temperature, the oil and grease used for assembling may run out inside the packing and damage the expanded polystyrene packing material. This is not unusual and is in no way detrimental to the shock absorber.

## Mounting Instructions

### WARNING!

1. It is advisable to have an Öhlins dealer install the shock absorber.
2. Follow the instructions in the vehicle service manual when changing the shock absorber.
3. **When working on a raised vehicle, make sure that it is securely supported to prevent it from tipping.**

**1**

Put the motorcycle on the center stand so that the rear wheel is off the ground.

**2**

Remove the driver's and passenger's seat.

**3**

Loosen the brake caliper.

### NOTE!

It is important to loosen the brake caliper. The hose can be damaged if it is stretched.

**4**

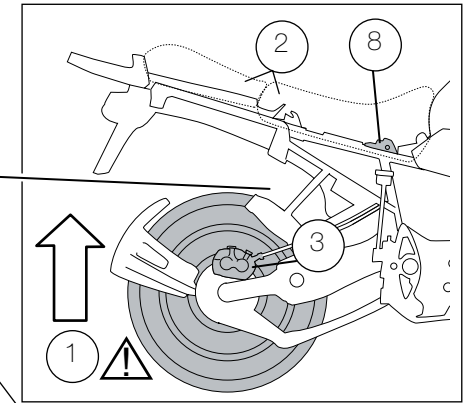
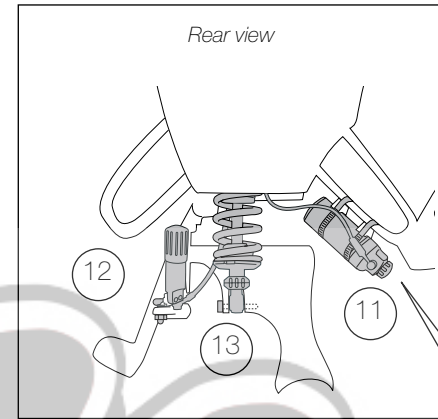
Remove the rear wheel.

### CAUTION!

Support the swing arm once the wheel is removed.

**6**

Remove the hydraulic pre-load adjuster.



**7**

Remove the lower bolt of the original shock absorber.

**8**

Remove the right seat bracket.

**9**

Remove the upper attachment of the original shock absorber. Then remove it together with the hydraulic spring pre-load adjuster.

**10**

Install the Öhlins shock absorber. Start with the upper attachment. Use the original bolt. Make sure the external reservoir is on the right side and the hydraulic pre-load adjuster on the left.

**11**

Fasten the external reservoir to the frame. Use the tie wraps and rubber mounts provided in this kit.

**12**

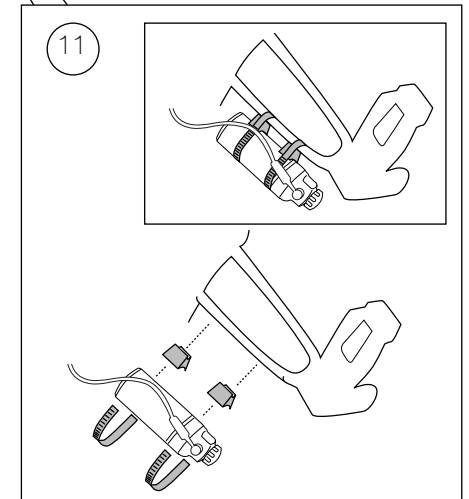
Install the hydraulic pre-load adjuster to the original bracket. Lead the hose between the air box and the battery box.

**13**

Install the lower attachment. Use the original bolt.

**14**

Reattach the rear wheel, brake caliper, seat bracket and the seats.



### 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.

**15**

Read more about the shock absorber and its settings in your Öhlins Owners Manual.