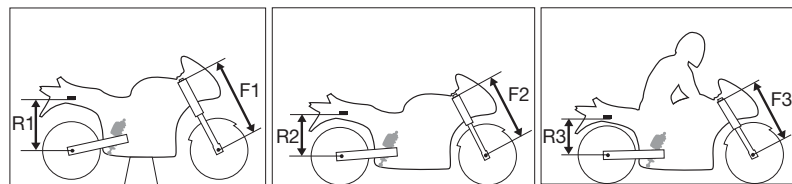


## Check sag and ride height



Bike on a stand

Bike on the ground

Bike with rider on

### 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  $F1 - F2 = \dots\dots\dots$

Ride height  $F1 - F3 = \dots\dots\dots$

### 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  $R1 - R2 = \dots\dots\dots$

Ride height  $R1 - R3 = \dots\dots\dots$

### Adjustments

**1 Compression damping adjuster**  
Adjust on top of the reservoir. Turn clockwise to increase compression damping. Turn counter clockwise to decrease.

**2 Spring preload 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 rebound damping. Turn counter clockwise to decrease damping.

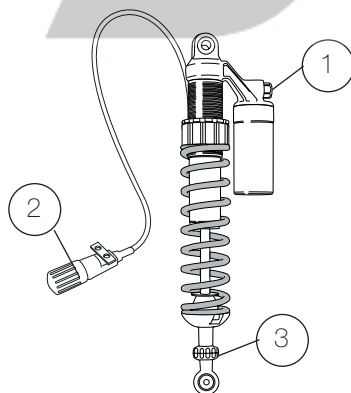
### NOTE!

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	498.5 mm
Shock absorber stroke	78.5 mm
Spring preload	15 mm
Compression damping	14 clicks
Rebound damping	14 clicks



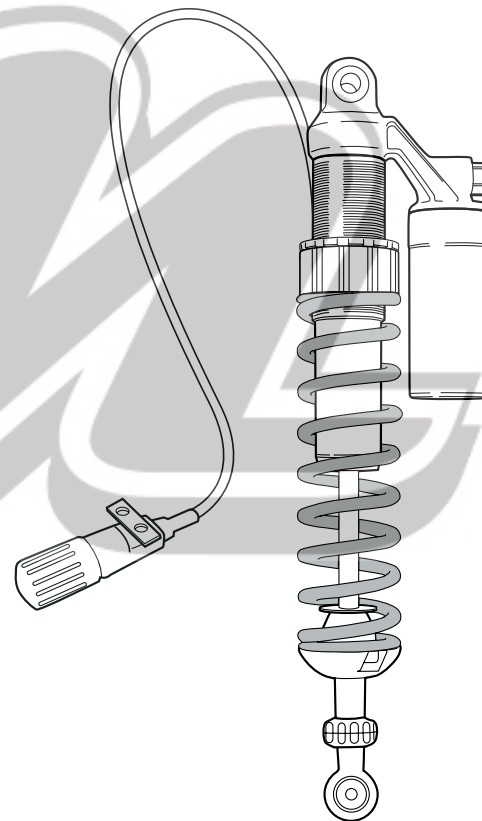
### CAUTION!

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

BM 541\_1, Issued 20070631

# Mounting Instructions

Öhlins shock absorber kit BM 541  
for BMW R 80 GS, R 100 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	Article no.
Shock absorber 46PRCS	BM541 (1)
O-ring	00438-57 (2)
Spacer 15/30	00838-10 (2)
Tie-rop	00231-01 (2)
Öhlins Sticker	00192-01 (2)
Memo notes Sticker	01180-01 (1)
Öhlins Owners Manual	07251-02 (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.



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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.

## Mounting Instructions

### WARNING!

1. It is advisable to have an Öhlins dealer to 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 falling.**

**1**

Put the motorcycle on the centerstand so that the rear wheel is off the ground. The swing arm must be free and the suspension unloaded.

**2**

Remove the right side cover and the seat.

**3**

Remove the lower attachment of the original shock absorber.

### CAUTION!

When the shock absorber is removed the rear wheel must be supported.

### WARNING!

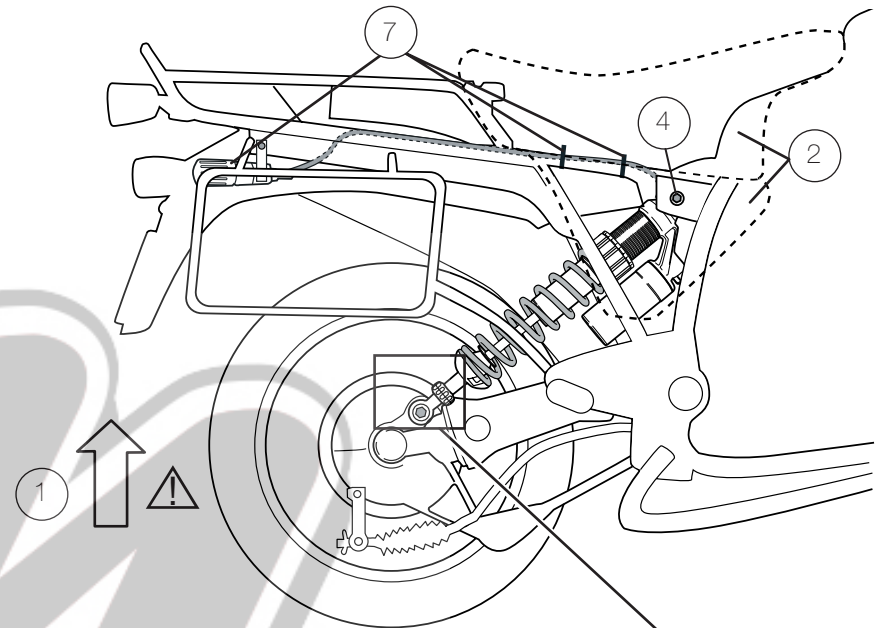
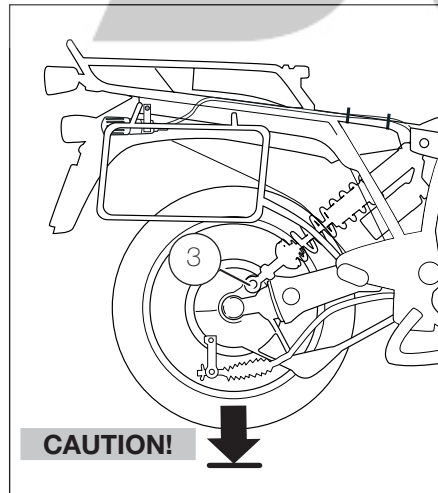
1. Installing a shock absorber, that is not approved by the vehicle manufacturer, may affect the stability of your vehicle. Öhlins Racing AB cannot be held responsible for any personal injury or damage that may occur after fitting the shock absorber. Contact an Öhlins dealer or other qualified person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

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.



**4**

Remove the upper attachment and remove the original shock absorber.

**5**

Install the Öhlins shock absorber. The piggy back reservoir should be at the top and facing forwards. Install the o-rings and spacers to the lower attachment, use the original bolt.

### NOTE!

Lift the rear wheel slightly to fasten the lower attachment.

**6**

Install the upper attachment. Use the original bolt.

**7**

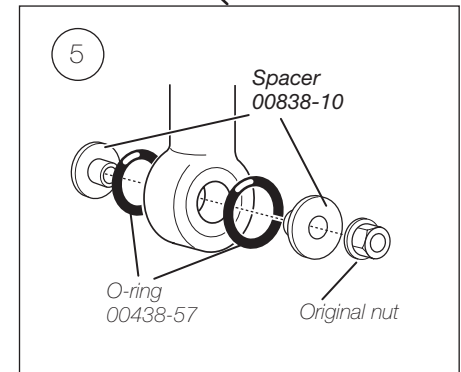
Attach the preload adjuster to the rear luggage carrier bracket. Fasten it with the tie-raps provided in this kit.

### CAUTION!

Make sure the hose to the preload adjuster runs in soft turns.

**8**

Reattach the side cover and the seat.



### 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.

**9**

Read more about the shock absorber, sag, ride height and the different settings in your Öhlins Owners Manual.