

Bike on a stand.

Bike on the ground.

Bike with rider on.

### Setup data

Shock absorber length	344.5 mm
Shock absorber stroke	101.5 mm
Spring preload	10 mm
Rebound damping adjuster	18 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 = .....

#### Recommendations

F1 - F2: 25 - 35 mm

F1 - F3: 25 - 45 mm

R1 - R2: 30 - 40 mm

R1 - R3: 65 - 75 mm

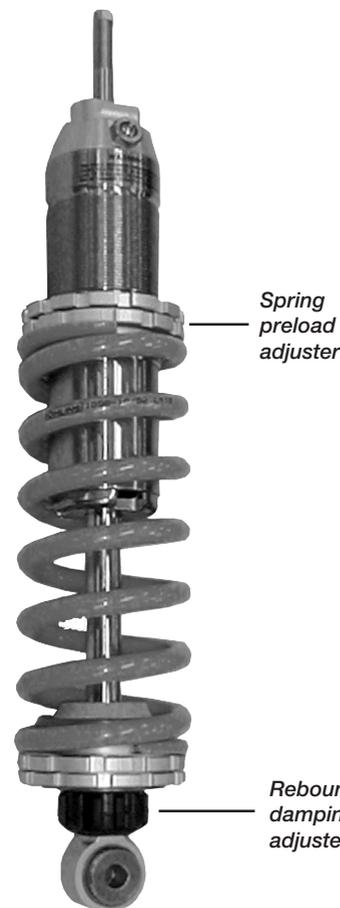


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Part No. BM 216. Issued 09 05 13

# Mounting Instructions

Öhlins shock absorber kit BM 216  
for BMW R 1150 GS Adventure, front



### Öhlins shock absorber 46 ER

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

#### Rebound damping adjuster

Adjuster wheel on the piston shaft above the end bracket.

#### Spring preload adjuster

Adjustments are made by turning the rings on the shock absorber body. Clockwise for harder adjustment, counter clockwise too release the preload.

#### 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.



## Safety signals

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



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

### **WARNING!**

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

### **CAUTION!**

*Caution indicates that special precautions must be taken to avoid damage to the suspension.*

### **NOTE!**

*This indicates information that is of importance with regard to procedures.*

Öhlins products are subject to continual 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 suspension and this manual. Please consult your Öhlins dealer if you have any questions with regard to the contents of the manual.

### **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.*

## Kit contents

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

Description	Pcs.	Part No.
Shock absorber 46 ER	1	BM 216
C-spanner twin	1	00710-02
Sticker Öhlins	2	00192-01
Sticker memo notes	1	01180-01
Owners manual	1	

## Mounting instructions

### 1

Put the motorcycle on a stand so the rear wheel is clear of the ground. Make sure it's steadily fixed so it will not fall over.

### **WARNING!**

- It's advisable to have an Öhlins dealer or other qualified person to fit your shock absorber.*
- Instructions in the vehicle service manual are to be followed when changing the shock absorber.*
- When working on a lifted vehicle it must be securely supported to prevent it from falling.*

### 2

Remove the side covers on the wind shield.

### 3

Loosen the fuel tank and move it rearwards, this to get access to the upper shock absorber mounting.

### 4

Remove the upper nut and the lower shock absorber bolt.

### 5

Remove the shock absorber downwards.

### 6

Mounting of the Öhlins shock absorber: Start by moving rubber-washer from original shock to Öhlins shock. Fit the shock absorber in the upper bracket and mount the nut. Lift the front wheel and mount the lower bolt. Make sure that all bolts are tightened.

### 7

Refit the fuel tank, the side covers and theseat.

### **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.*

## Before installation

Öhlins Racing AB can not be held responsible for any damage whatsoever 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.

### **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 whatsoever 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 owners manuals 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*