

# Mounting Instructions

Öhlins shock absorber kit BM 503  
for BMW R 1200 RT, front

## 10

Mount the Öhlins shock absorber in reverse order, first the lower attachment then lower the bike and fit the upper attachment. Use the original rubber mounts and sleeve to the upper bracket.

## 11

Fix the brake tubing.

## 12

Refit the fairings, covers and fuel tank 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.*

## 13

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

### Setup data

Shock absorber length	330 mm
Shock absorber stroke	78 mm
Spring pre-load	10 mm
Rebound damping adjuster	16 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 = .....



### 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 pre-load adjuster

Adjustments are made by turning the threaded ring on the shock absorber body. Use the tool provided. Clockwise for harder adjustment, counter clockwise to release the pre-load.

### NOTE!

*When delivered the Öhlins shock absorber is dialed to recommended settings for the specific brand and make of the vehicle. 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.*



Öhlins Racing AB, Box 722, S-194 27 Upplands Väsby, Sweden.  
Phone +46 8 590 025 00. Fax +46 8 590 025 80.  
[www.ohlins.com](http://www.ohlins.com)

Part No. BM 503. Issued 05 04 08

© Öhlins Racing AB. All rights reserved. Any reprinting or unauthorized use without the written permission of Öhlins Racing AB is prohibited. Printed in Sweden.



## 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.*

## 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*

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 503
C-spanner	1	00710-02
Sticker Öhlins	2	00192-01
Sticker memo notes	1	01180-01
Owners manual	1	

## Mounting instructions

1

Put the motorcycle on the centre stand. Make sure it's steadily fixed so it will not fall over.

### WARNING!

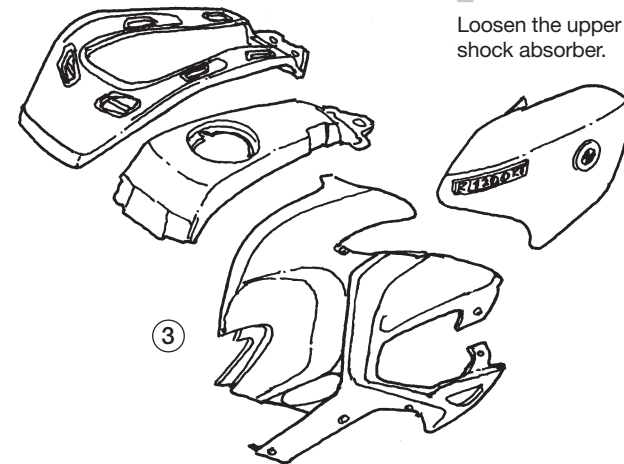
- 1. It's advisable to have an Öhlins dealer or other qualified person to fit your shock absorber.*
- 2. Instructions in the vehicle service manual are to be followed when changing the shock absorber.*
- 3. When working on a lifted vehicle it must be securely supported to prevent it from falling.*

2

Place a lift jack under the engine to raise and lower the motorcycle.

3

Remove the fuel tank lid. Remove the front side fairings under the height of the mirrors. Remove the fuel tank covers and the combined tank and engine fairing.

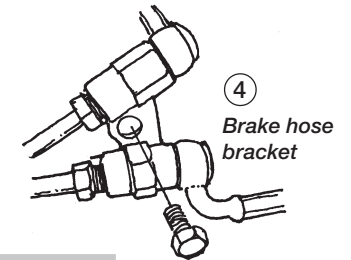


### NOTE!

*The screws holding the fairings are of different lengths. Make sure to return them to the correct position.*

4

Loosen the attachment of the front brake tubing. The screw is located between the pipes.



### CAUTION!

*It is necessary to pull the front fork downward to release the shock absorber. The brake hoses will restrict this movement. To avoid damages to the hoses be very careful not to pull too hard.*

5

If the shock absorber is equipped with ESA, the cables must be disconnected.

6

Loosen the upper attachment nut of the original shock absorber.

7

Raise the bike by assistance of the jack.

8

Loosen the lower attachment bolt.

9

Remove the original shock absorber forwards and slightly to the side.