

**👁 Note!**

Please note that there can be small differences between your product and the images in these instructions.

**👁 Note!**

Please note that during storage and transport, especially at high ambient temperature, some of the oil and grease used for assembly may leak and stain the packaging. This will not cause damage to the product, wipe off the excessive oil or grease with a cloth.

**Kit contents**

Description	Part No	Pcs
Shock absorber	BM146	1
Washer BRB 8.4/16/1.5	00153-01	2
Tie-rod L=200 W=4.8	00231-01	2
Screw MC6S 6x16	01046-01	2
Screw MC6S 8x16	01046-22	1
Sticker "Memo notes"	01180-01	1
Sticker set ÖHLINS		1
Bracket 22.5	02267-07	1
Bracket 22.5	02267-08	1
Owner's manual	07242-01	1

**👁 Note!**

Before you install this product, check the kit contents. If anything is missing, please contact an Öhlins dealer.

**⚠ Warning!**

Before you install this product, read the Öhlins Owner's manual. This product is an important part of the vehicle and the vehicle stability.

## Shock absorber for BMW R 1200 GS

# BM 146

## Mounting Instructions

# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

*We strongly recommend to let an Öhlins dealer install this product.*

## **⚠ Warning!**

*If you work with a lifted vehicle, make sure that it is safely supported to prevent it from tipping over.*

## **👁 Note!**

*When you work with this product, see the vehicle service manual for vehicle specific procedures and important data.*

## **👁 Note!**

*Before you install this product clean the vehicle.*

**1**

Put the motorcycle on a work stand so that the rear wheel barely touches the ground.

**2**

Remove the seat.

**3**

Remove the silencer.

**4**

***If your vehicle is equipped with***

***ESA-suspension:***

Disconnect the 2 connectors below the seat. Protect the connectors from moisture and dirt.

**5**

Remove the lower shock mounting screw. Loosen, do not remove, the upper shock mounting bolt.

**6**

Remove the boot protectors at the frame to be able to rise the rear sub frame.

**7**

Remove the mud guard (shaft protector) from the shock absorber.

**8**

Slightly loosen the upper rear frame mounting screws.

**9**

Remove the lower rear frame mounting bolts.

**10**

Carefully raise the rear frame to get access to the shock absorber.

## **👁 Note!**

*Be careful so that nothing gets bent, squeezed, over stretched or brakes when you raise the rear sub frame.*

**11**

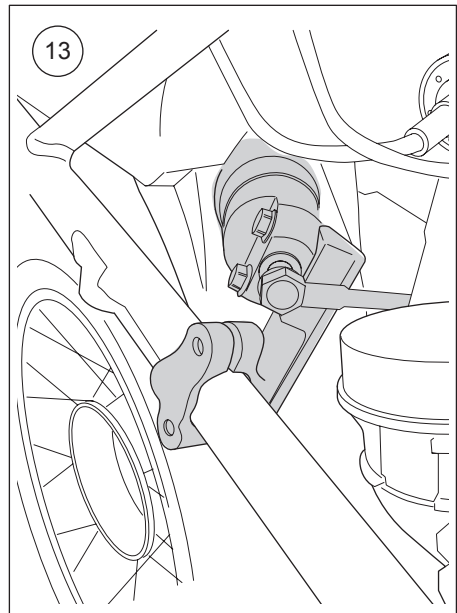
Remove the upper mounting bolt. Remove the shock absorber.

**12**

Install the Öhlins shock with the reservoir on the right side of the vehicle.

**13**

Install the preload adjuster with the enclosed brackets, refer to the figure.



# MOUNTING INSTRUCTIONS

## 14

Install the rear sub frame.

## 15

Install the boot protectors, the silencer and the seat.

## 16

Make sure that all bolts are tightened to the correct torque, refer to the motorcycle specifications.

### **Note!**

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*Lower the vehicle so that the suspension is slightly compressed before you tighten the screws.*

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### **Caution!**

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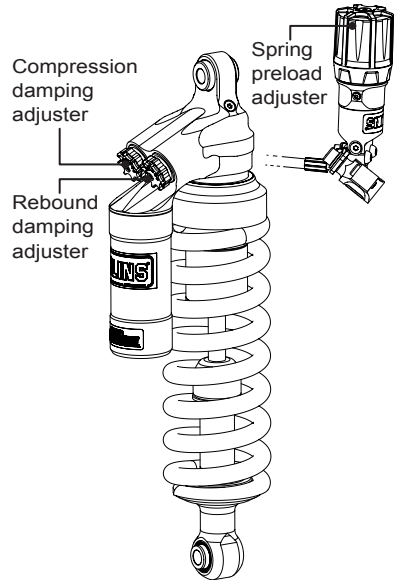
*Make sure that you tighten all screws to the correct torque and that nothing fouls or restricts movement of the shock absorber/front fork/steering damper when the suspension is fully compressed or extended.*

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# ADJUSTMENTS

## **⚠ Warning!**

Before you ride/drive, always make sure that the setup is according to the recommended setup data. Read about adjustments and setting up in the Öhlins Owner's Manual before you make any adjustments. Contact an Öhlins dealer if you have any questions about setting up.



# SETUP DATA

Length	402.5	mm
Stroke	75	mm
Spring part no.	01103-54	
Spring rate	140	N/mm
Spring free length	240	mm
Spring preload	14	mm
Compression	12	clicks
Rebound	14	clicks

Recommended Free sag and Ride height		
R1-R2	25	mm
R1-R3	48	mm
F1-F2	43	mm
F1-F3	53	mm

Öhlins products are subject to continuous improvement and development, therefore, although these instructions include the most up-to-date information available at the time of printing, minor updates may occur.

To find the latest information contact an Öhlins distributor. Please contact Öhlins if you have any questions regarding the contents in this document.

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