

472 mm

140 mm 25 clicks

15 clicks

1.5 turns

30±5 mm

30±5 mm

80±5 mm

std.

std.

100±5 mm

#### Setup data

### NOTE!

Make notes when the correct spring is mounted and sag and ride height is adjusted.

Spring pre-load\_\_\_\_mm

Notes

#### Rear suspension R1. Bike on a stand

Free sag

**Ride height** 

Front suspension

F1. Bike on a stand with the

suspension fully extended

F3. Bike on the ground with rider

R1. Bike on a stand with the suspension fully extended	ed	=
R2. Bike on the ground with	<u>out</u> rider	=
R3. Bike on the ground with	rider	=
Free sag	R1 - R2	=
Ride height	R1 - R3	=

Checking sag and ride height

F2. Bike on the ground without rider = .....

= .....

=

F1 - F2 = .....

F1 - F3 = .....

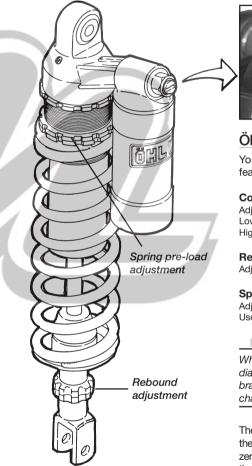
## NOTE!

If ride height is higher than recommended, softer spring/springs must be used. If ride height is lower than recommended, harder spring/springs must be used. Contact your Öhlins dealer for advice.



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 **Mounting Instructions** 

Öhlins shock absorber kit KA 593 for Kawasaki KX 250F and Suzuki RM-Z 250 2005



High speed compression adjustment

> Low speed compression adjustment

# Öhlins shock absorber 46 PRXW

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

#### Compression damping adjuster

Adjustments are made on top of the reservoir. Low speed adjustments: Slotted centre screw. High speed adjustments: Hexagon screw.

#### Rebound damping adjuster

Adjuster whell on the piston shaft above the end bracket.

#### Spring pre-load adjuster

Adjustment made by rings on cylinder house. Use C-spanner.

### 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.

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593, issued 05 04 05

€69 ¥ ©Öhl

# Safety signals

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

# A

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

# A 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.

# A 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, listed on the front page of this instruction. If anything is missing, contact your Öhlins dealer.

Description	Pcs.	Part No.
Shock absorber	1	KA 593
Spring clip	1	00629-01
C-spanner	1	00710-02
Sticker Öhlins	2	00197-01
Sticker memo notes	1	<b>01</b> 180-0 <b>1</b>
Owners manual	1	

#### Notes

#### Notes

# Assembly of Öhlins Shock Absorber

# with spring separately supplied

Make sure that all components are included; spring, spring clip and washer. Measure the free length of the spring.

4

5

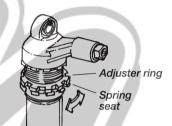
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for procedures)

## 2

1

Place the washer between the upper spring platform and the spring. The text on the spring should be facing upward.

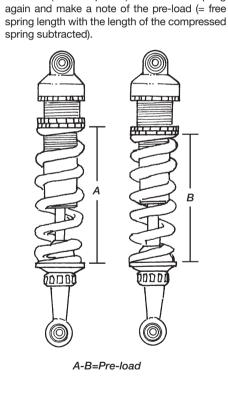


Spring support 0543-01 0543-02

Spring

Spring chip 519-01

629-01



Turn the upper spring platform approximately 8 laps

(10 mm) clockwise to pre-load the spring before

Fit the shock absorber and measure the free sag

with the motorcycle off the ground. (See page 4

Let the motorcycle stand on the ground without rider. Fine adjust the pre-load by turning the spring platform until recommended sag is achieved (see Setup data). Measure the spring

fitting the shock absorber to the motorcycle.

# 3

Fit the spring clip, turn the shock absorber so the spring rests against the spring seat and turn the rings (upper spring platform and locking nut) so they touch the upper surface of the spring.

# Mounting instructions

# 1

Put the motorcycle on a stand so the rear wheel has ground clearance. Make sure it's steadily positioned and will not fall over.

# A 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.

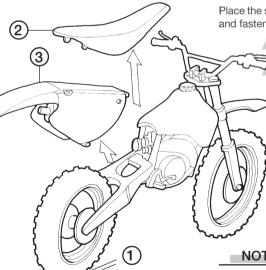
3. When working on a lifted vehicle it must be securely supported to prevent it from falling.

# 2

Remove the seat by loosening the rear attachment screws.

# 3

Loosen the rear frame and the hose clamp from the air filter. Disconnect electrical wires. Remove the whole unit with air filter and muffler.



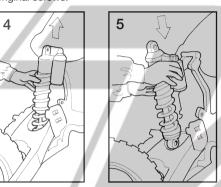
Loosen the lower and the upper attachment of the original shock absorber and remove it.

# 5

6

4

Fit the Öhlins shock absorber in the same way as the original unit. Fasten it by using the two original screws.



Place the seat support and seat back in position and fasten them.

Spring guideline Moto-X 2005

		Shock Absorber		Rear Rear		Front	Front
Brand	Riders weight	Spring	Spring rate	Recom.	Recom.	Recom.	Recom.
	Kg/pounds	Part.No.	N/mm	Static sag	Ride height	Static sag	Ride height
Kawasaki	60/132	596-06	44	30±5 mm	100±5 mm	30±5 mm	80±5 mm
KX 125	65/143	596-07	46				
	70/154	596-08	48				
	75/165	596-09	50				
	80/176	596-10	52				
	85/187	596-11	54				
Kawasaki	65/143	596-07	46	30±5 mm	100±5 mm	30±5 mm	20±5 mm
KXF 250	70/154	596-07	48	30±5 mm	100±5 mm	30±5 mm	80±5 mm
NAI 230	75/165	596-09	50				
	80/176	596-10	52				
	85/187	596-11	54				
	90/198	596-12	56				
	95/209	596-12 596-13	58				
	30/203	000 10	00				
Kawasaki	65/143	596-07	46	30±5 mm	100±5 mm	30±5 mm	80±5 mm
KX 250	70/154	596-08	48	00_0	100_0	00_0	00_01111
	75/165	596-09	50				
	80/176	596-10	52				
	85/187	596-11	54				
	90/198	596-12	56				
	95/209	596-13	58				
Suzuki	65/143	596-07	46	30±5 mm	100±5 mm	30±5 mm	80±5 mm
RM 125	70/154	596-08	48				
	75/165	596-09	50				
	80/176	596-10	52				
	85/187	596-11	54				
Suzuki	65/143	596-07	46	30±5 mm	100±5 mm	30±5 mm	80±5 mm
RM-Z 250	70/154	596-08	48				
	75/165	596-09	50				
	80/176	596-10	52				
	85/187	596-11	54				
	90/198	596-12	56				
Suzuki	65/143	596-06	44	30±5 mm	100±5 mm	30±5 mm	80±5 mm
RM 250	70/154	596-07	46	50±0 mm	100±0 mm	00±0 mm	<u>50±0 mm</u>
11111200	75/165	596-08	48				
	80/176	596-09	50				
	85/187	596-10	52				
	90/198	596-11	54				
	00/100	000 11	01				

#### 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.

# 7

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