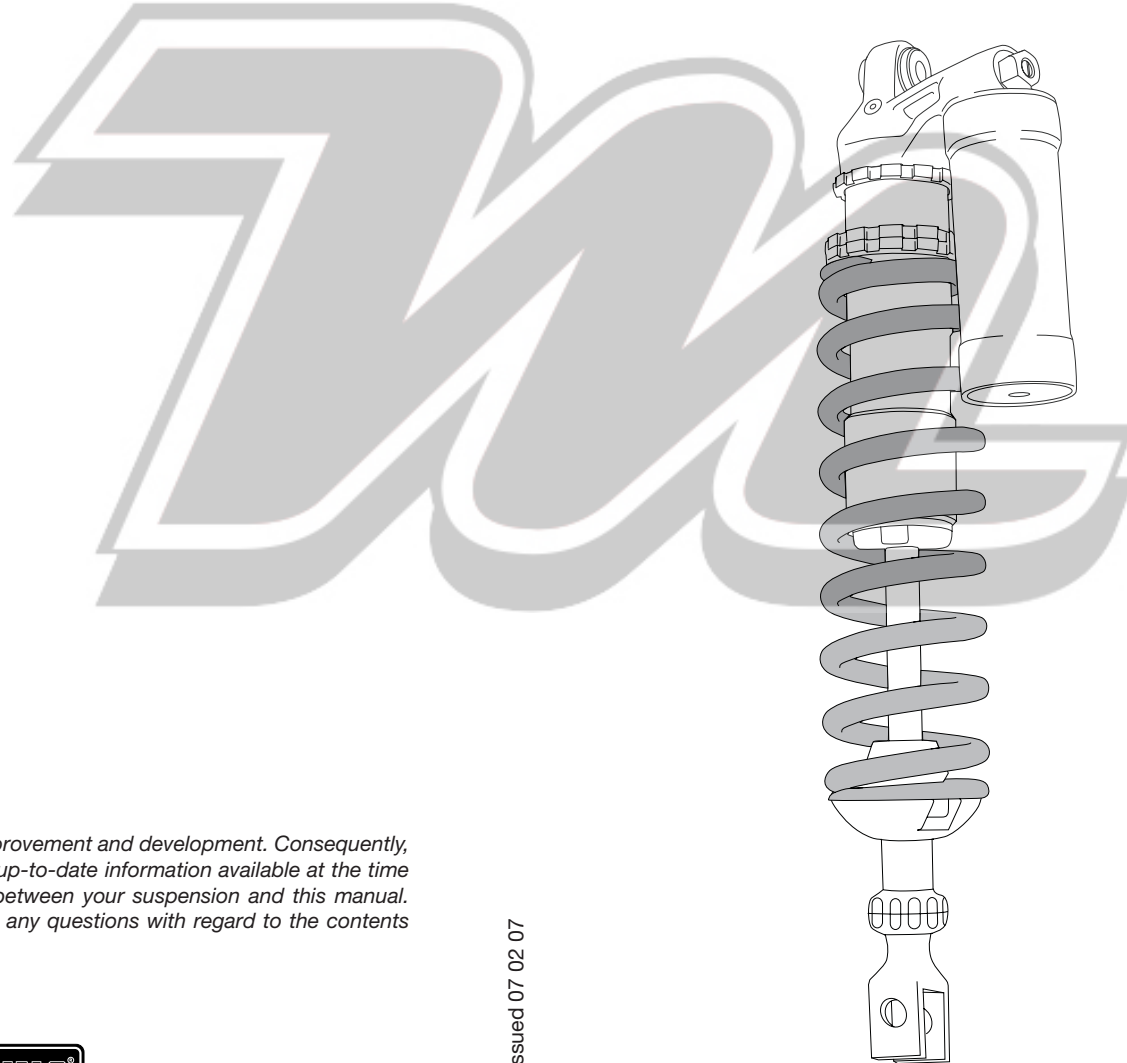


Mounting Instructions

Öhlins shock absorber kit SU 590
for Suzuki RM 85 2005



Kit Contents

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

Shock absorber	SU 590 (1)
Spring clip	00629-01 (1)
Washer 10.5/22/2	00153-06 (2)
C-spanner	00710-02 (1)
Sticker Öhlins	00197-01 (2)
Sticker memo notes	01180-01 (1)
Owner's manual	(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 suspension and this manual. Please consult your Öhlins dealer if you have any questions with regard to the contents of the manual.



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SU 590_1, issued 07 02 07

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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 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.

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.

WARNING!

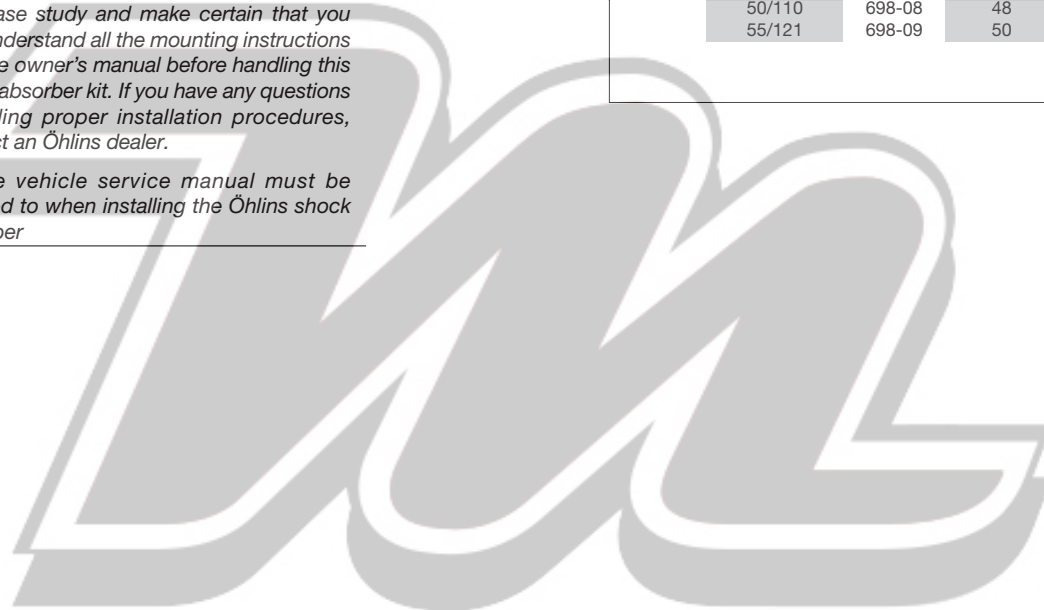
1. Installing a shock absorber, that is not approved by the vehicle manufacturer, may affect the stability of your vehicle. Öhlins Racing AB cannot be held responsible for any personal injury or damage that may occur after fitting the shock absorber. Contact an Öhlins dealer for advice.

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.

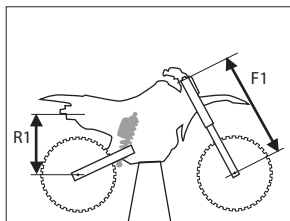
3. The vehicle service manual must be referred to when installing the Öhlins shock absorber

Spring guideline

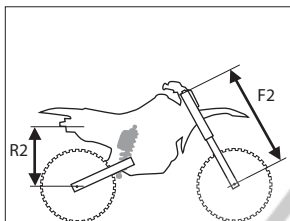
Brand	Riders weight Kg/pounds	Spring Part.no.	Spring rate N/mm	Recom. Static sag	Rear		Front	
					Recom. Ride height	Recom. Static sag	Recom. Ride height	Recom. Static sag
Suzuki RM 85	35/77	698-05	42	25±5mm	70±5mm	25±5mm	60±5mm	
	40/88	698-06	44					
	45/99	698-07	46					
	50/110	698-08	48					
	55/121	698-09	50					



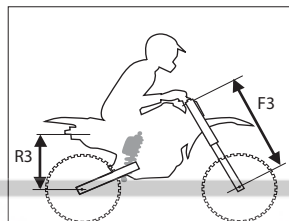
Checking sag and ride height



Bike on a stand.



Bike on the ground.



Bike with rider on.

Front suspension

F1. Bike on a stand with the suspension fully extended	=	R1. Bike on a stand with the suspension fully extended	=
F2. Bike on the ground without rider	=	R2. Bike on the ground without rider	=
F3. Bike on the ground with rider	=	R3. Bike on the ground with rider	=
Free sag	F1 - F2 =	Free sag	R1 - R2 =
Ride height	F1 - F3 =	Ride height	R1 - R3 =

Rear suspension

F1. Bike on a stand with the suspension fully extended	=	R1. Bike on a stand with the suspension fully extended	=
F2. Bike on the ground without rider	=	R2. Bike on the ground without rider	=
F3. Bike on the ground with rider	=	R3. Bike on the ground with rider	=
Free sag	F1 - F2 =	Free sag	R1 - R2 =
Ride height	F1 - F3 =	Ride height	R1 - R3 =

Setup data

Length	397 mm
Stroke	107 mm
Rebound adjustment	18 clicks
Low speed comp. adj.	15 clicks
High speed comp.adj.	1½ turns
Free sag, rear	25±5 mm
Free sag, front	25±5 mm
Ride height, rear	70±5 mm
Ride height, front	60±5 mm
Front fork adjustment	std.

NOTE!

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

Spring pre-load ___mm

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.

Mounting Instructions - Step 1

Assembly of Öhlins Shock Absorber with spring separately supplied

⚠ WARNING!

It is advisable to have an Öhlins dealer to install your shock absorber.

Instructions in the vehicle service manual are to be followed when changing the shock absorber.

When working on a lifted vehicle make sure it is securely supported to prevent it from tipping.

1

Make sure that all components listed on the front page of this manual under "Kit contents" are included.

2

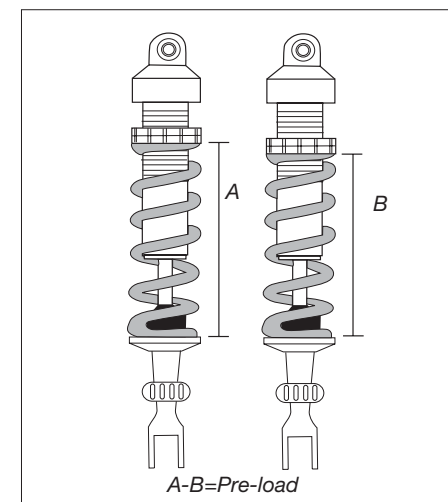
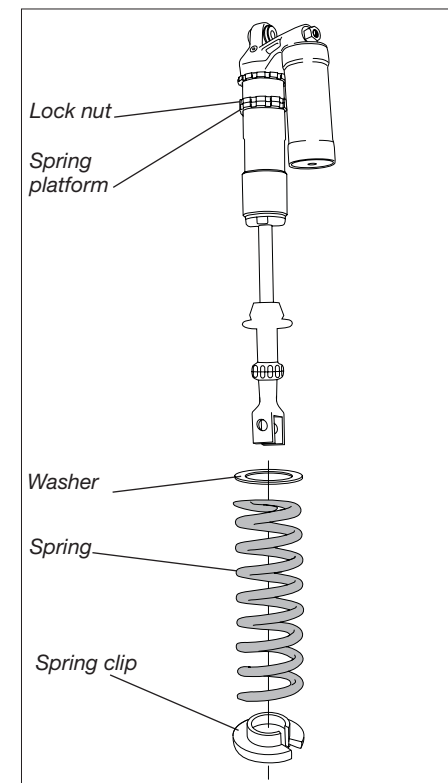
Measure the free length of the spring.

3

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

4

With a C-spanner, turn the upper spring platform approximately 8 laps (10 mm) clockwise to pre-load the spring before fitting the shock absorber to the motorcycle.



Mounting Instructions - Step 2

Mounting the Shock Absorber

- 1** Put the motorcycle on a stand so the rear wheel has ground clearance. Make sure it is steadily positioned and will not fall over.
- 2** Remove the seat by loosening the two rear attachment screws.
- 3** Remove the left side panel and the removable part of the left sub-frame. Loosen the three screws on the air box and remove it.
- 4** Loosen the lower and the upper attachment of the original shock absorber and remove it.
- 5** Fit the Öhlins shock absorber in the same way as the original unit. Fasten it by using the two original screws and the two washers included in the kit.
A tip! Use grease on the washers to make them stay in place while attaching the bolt.
- 6** Put the air box, sub-frame, side panel and the seat back in position and fasten them.

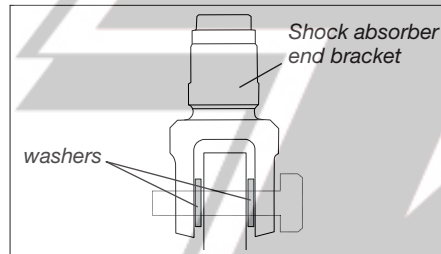
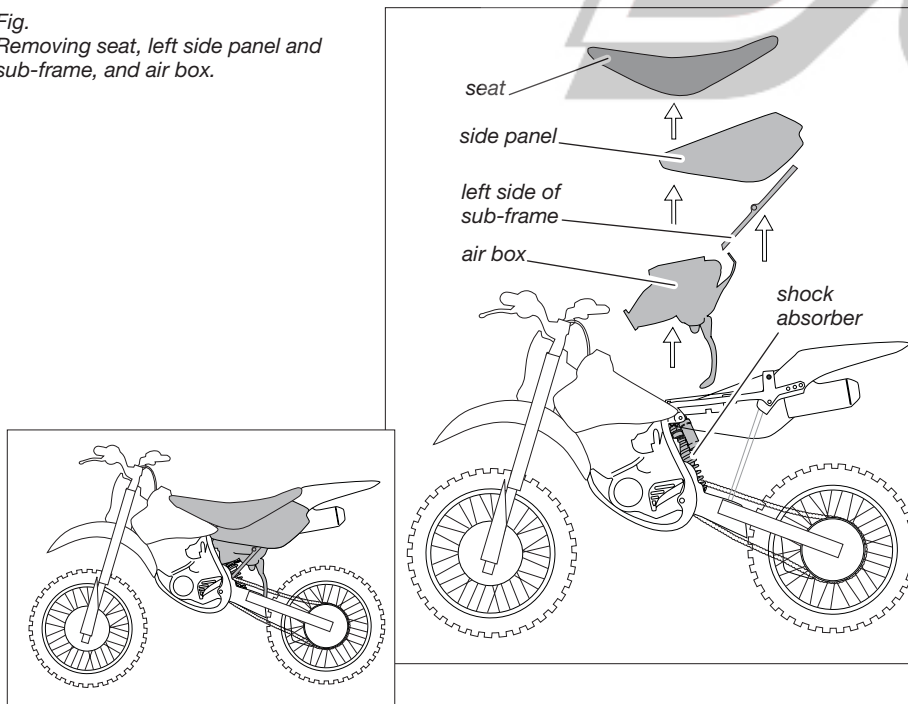


Fig. Removing seat, left side panel and sub-frame, and air box.



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.

Adjustments

Spring pre-load

Adjust the spring pre-load by turning the rings on the cylinder house. Use C-spanner.

Compression damping:

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

Rebound damping

Adjuster wheel on the piston shaft above the end bracket.

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 check like this:

The adjusters have a normal right hand tread. Turn clockwise to fully closed. Turn counter clockwise to open and count the clicks until you reach the recommended number of clicks.

CAUTION!

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

7

Fit the shock absorber and measure the free sag with the motorcycle off the ground. (See section "Checking sag and ride height" in this manual).

8

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 again and make a note of the pre-load (= free spring length with the length of the compressed spring subtracted).

