

#### Kit Contents

Description	Part No	Pcs
Shock absorber	HD 357	2
Sleeve 12.7/14/19.5	00123-17	4
Washer 8.4/16/1.5	00153-01	4
Rubber mount reservoir	00230-01	4
Mount reservoir	00230-04	4
Tie-rod 200x4.8	00231-01	4
Nut M6	00430-02	4
Screw 6x16	00431-02	4
Hose clamp	00643-02	4
Sticker set ÖHLINS	10207-01	1
Washer stainless	03118-08	4
Screw	03128-03	4
Tool preload adjuster	03199-03	1
Owner's manual	07241-02	1
Bracket HD RH	21156-01	1
Bracket HD LH	21157-01	1

#### Note!

These mounting instructions are for the below versions of HD 357

Product Number	Fitted Spring
HD 357	66422-026 (B)
HD 357S2	66422-028 (B)
HD 357S3	66422-030 (B)

#### Note!

Please note that this image is a general representation of the product and may differ slightly from your product.

#### Note!

Please note that during storage and transportation, especially at high ambient temperature, some of the oil and grease used for assembling may leak and stain the packaging. This is in no way detrimental to the product, wipe off the excessive oil/grease with a cloth.

#### Note!

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

#### Warning!

Before installing this product, read the Öhlins Owner's Manual. The shock absorber/front fork/steering damper is an important part of your vehicle and will affect the stability.

## Shock absorber for Harley Davidson FLH / FLT 1986-2013

# HD 357 /S2 /S3

## Mounting Instructions

# MOUNTING INSTRUCTIONS

## **⚠ Warning!**

*It is advisable to have an Öhlins dealer install the shock absorber/front fork/steering damper.*

## **⚠ Warning!**

*If working on a raised vehicle, ensure it is securely supported so that it will not tip.*

## **👁 Note!**

*Before mounting this product clean the vehicle thoroughly.*

## **👁 Note!**

*When working on this product, always see the Vehicle Service Manual for vehicle specific procedures and important data.*

**1**

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

**2**

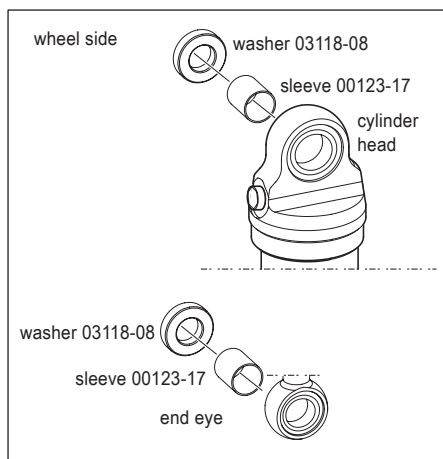
Remove the original shock absorber.

**3**

Use the sleeves (00123-17) and washers (03118-08) in the end eye according to the figure.

## **👁 Note!**

*If the swingarm/frame and/or aftermarket accessories cause misalignment, use washer(s) (03118-08).*



## **MY 1986-2008**

**1**

Use the two metal brackets with flange edge on the lead side. Install the brackets on the support brackets. Use the original threaded holes and the original bolts.

**2**

Fasten the plastic mounting brackets with the screws and nuts provided in the kit. Use the stainless steel clamps to fasten the bracket to the reservoir according to the figure.

## **MY 2009 and forward**

**1**

Use the two rubber brackets. Place the rubber mounts on the rear saddlebag support to fit the reservoir.

**2**

Place the stainless steel clamps over the rubber reservoir mounting brackets and the rear fender bracket support according to the figure.

## **👁 Note!**

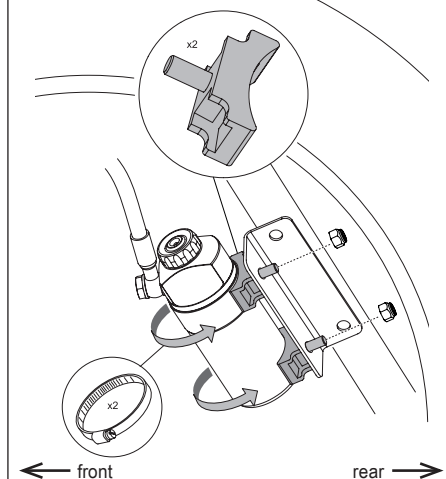
*Lower the vehicle so that the suspension is slightly compressed before tightening the screws.*

## **👤 Caution!**

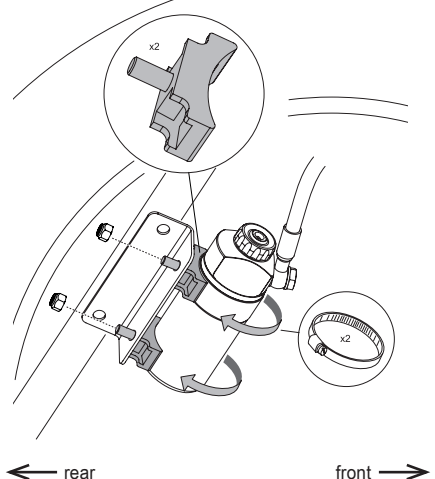
*Ensure that all screws are tightened to the correct torque and that nothing fouls or restricts movement of the shock absorber/front fork/steering damper when the suspension is fully compressed or extended.*

# MOUNTING INSTRUCTIONS

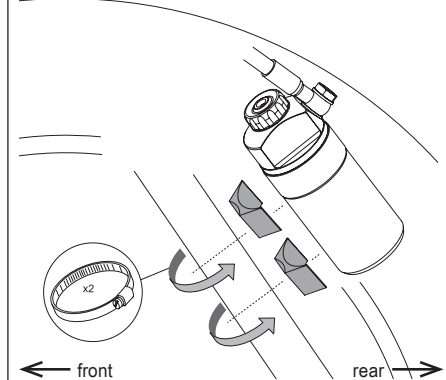
**1986-2008 models; left side**



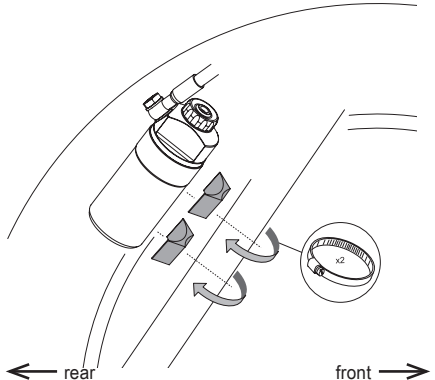
**1986-2008 models; right side**



**2009 ff models; left side**



**2009 ff models; right side**



# MOUNTING INSTRUCTIONS

## ADJUSTMENTS

### **⚠ Warning!**

*Before riding, always make sure that the basic settings made by Öhlins are according to recommended Set-up 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

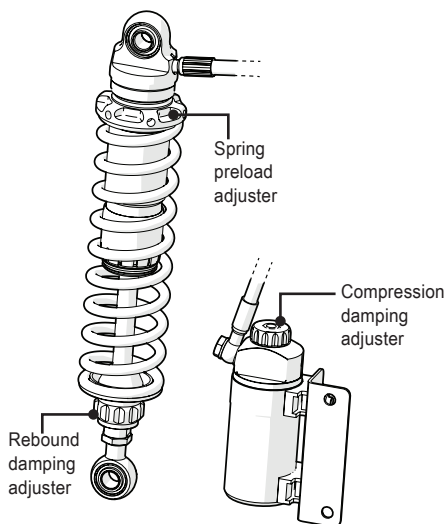
### **Recommended set-up**

Visit [www.ohlinsusa.com](http://www.ohlinsusa.com) / search HD 357 for Spring Preload Calculator

### **Shock absorber data**

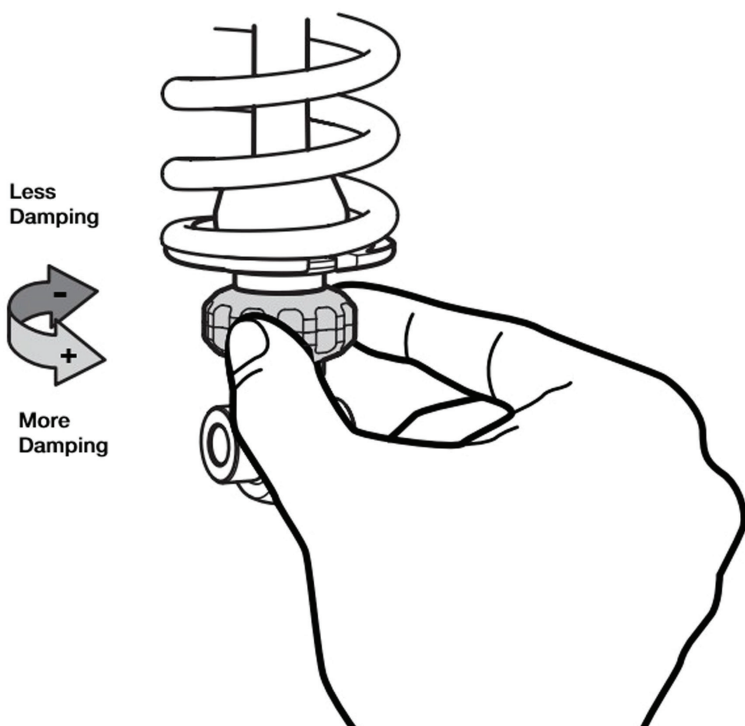
Length ..... 338 mm +0/-10mm

Stroke ..... 91 mm.



# REBOUND ADJUSTMENT

**Starting rebound clicker position is 14 clicks out from closed**



To check it's set correctly, turn in clockwise in the direction of + arrow until it stops, then open 14 clicks. This should be your starting position for rebound. If you want more damping / slower movement, close the rebound in the + direction. If you want less damping / more movement, open the rebound in the - direction.

## **Note!**

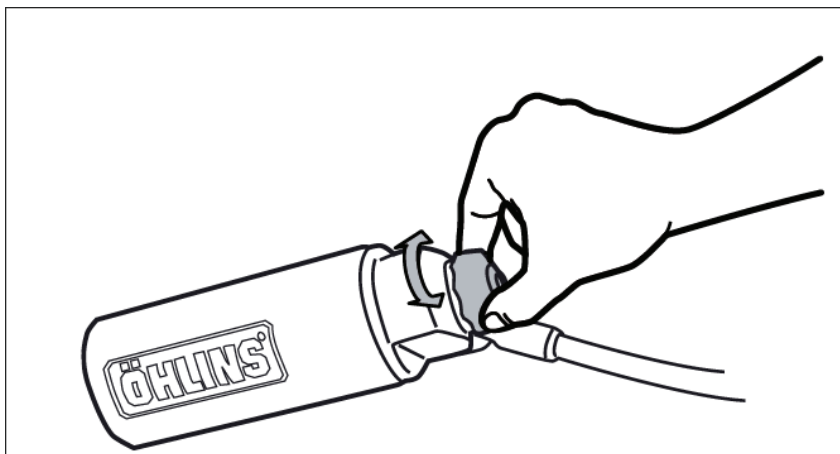
*Best operating range is 14 – 26 clicks out.*

# COMPRESSION ADJUSTMENT

## Starting compression clicker position is 14 clicks out from closed

Compression damping controls the energy absorption when the shock absorber is being compressed, thus controls how easy the shock absorber compresses when the rear wheel is being loaded or hits a bump.

Adjust by turning the knob on top of the reservoir. Turn clockwise to increase damping, turn counter clockwise to decrease.



To check it's set correctly, turn in clockwise in the direction of + arrow until it stops, then open 14 clicks. This should be your starting position for Compression. If you want more damping / slower movement, close the compression adjuster clockwise. If you want less damping / more movement, open the compression adjuster counter-clockwise.

### **Note!**

*Best operating range is 10 – 18 clicks out.*

# LENGTH ADJUSTMENT

## *Length adjustment:*

*By adjusting the length of the shock absorber the steering geometry as well as the chain force can be changed.*

*A shorter shock absorber will result in a lower motorcycle. The fork angle as well as the trail will increase and normally the chain force will be reduced with less anti-squat as a result.*

*A slight change of center of gravity is another result of changing the length.*

*A longer shock absorber will result in a higher motorcycle. The fork angle and trail will decrease and normally the chain force will increase with more anti-squat as a result.*

*To Adjust Length: We recommend to remove the shock absorber from the vehicle before adjusting the length. Use two 19 or 24 mm wrenches. Hold the upper nut with one hand and at the same time loosen the lock nut (lower nut). Turn the end eye / bracket to the desired length. Please make sure to measure the ride height before and after adjusting the length.*

**Tightening torque: 19mm wrench 30Nm**

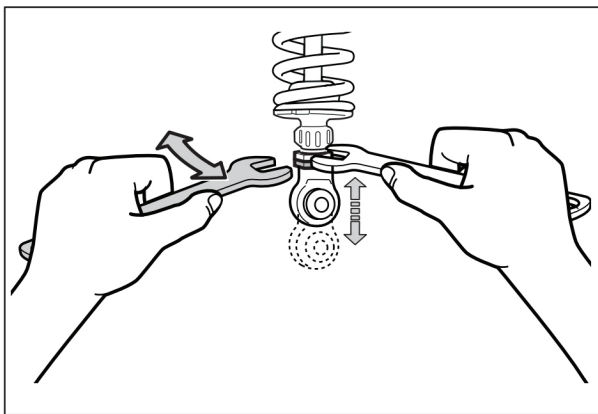
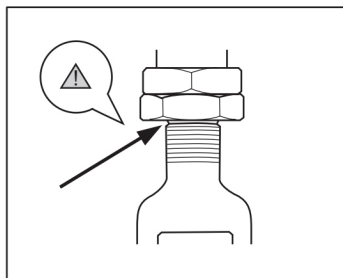
**Tightening torque: 24mm wrench 40Nm**

## **⚠ Warning!**

*Remember to lock the lock nut after adjusting the length.*

## **👁 Note!**

*After adjusting the length, check the head light angle of your vehicle.*



## **⚠ Warning!**

*The adjustable end eye/bracket must not be threaded out more than that the groove is fully visible beneath the lock nut. This is maximum length. After adjusting, make sure that the lock nut is tightened.*

# SETUP SPRING CALCULATOR

Go to "www.ohlinsusa.com", under "Product Search", type HD 357. Once on landing page, select "Setup Calculator"

## HD 357 Harley S36 Twin Shocks

OVERVIEW	IMAGES	TECH	SETUP CALCULATOR	SERVICE
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*\*Once you get to the spring calculator, enter all the details about your bike and your weights.*

### Note!

- You have the option to change from lbs to kgs.

### SETUP CALCULATOR

#### About Your Bike

Model / Year

1990 - 2020 Harley-Davidson Ultra Class ▾

Tour Pack

YES

NO

Primary Use

Solo no luggage ▾

#### About The Rider

lbs | [kgs](#)

Rider Weight  
(including gear)

lbs

Passenger Weight  
(including gear)

0

lbs

Weight in Saddlebags

0

lbs

[New Setup](#) | [Returning Setup](#)

- Once you have entered the correct weights, choose "Returning Setup" so it gives you an option to select the springs installed on your shocks.



# SETUP SPRING CALCULATOR

**Note!**

*\*Make sure to double check the springs installed on your shocks as the distributor may have changed to accommodate your weight scenarios*

Best Fit

Best Fit

66420-026 (26 N/mm)

66420-028 (28 N/mm)

66420-030 (30 N/mm)

00280-21 (25 N/mm) Legacy

00180-97 (27 N/mm) Legacy

00180-22 (29 N/mm) Legacy

21180-01 (32 N/mm) Legacy

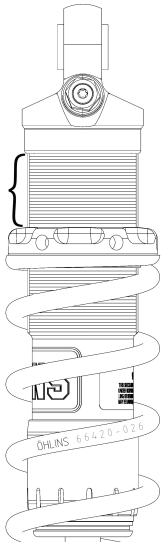
6. Once you click "Calculate", the setup data will be displayed. Example below:

CALCULATE

Rider Scenario	Spring Position	Comfort		
		Soft	Firm	
Solo	26 (mm)			SETUP DETAILS
Solo With Luggage	26 (mm)			SETUP DETAILS
Two Up	26 (mm)			SETUP DETAILS
Two Up With Luggage	26 (mm)			SETUP DETAILS

7. The "Spring Position" will tell you in millimeter the distance the preload collar should be from the bottom of the cylinder head for each scenario with your primary use highlighted in Gold.

You can click "Setup Details" for an image describing further. There's "Setup Details" beside all (4) rider scenarios (Solo, Solo with Luggage, Two Up and Two Up with Luggage Make sure to click the one you plan to set the bike up for.



## SPRING POSITION

## NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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👁️ 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.

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