

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

- › [Ohlins](#) /
- › [Ohlins HD 513 OHL STX 46 Street Shock Absorber User Manual](#)

Ohlins HD 513

Ohlins HD 513 OHL STX 46 Street Shock Absorber User Manual

Model: HD 513

INTRODUCTION

The Ohlins STX 46 shock absorber is a well-proven monotube design, setting the standard for performance, quality, and durability. It serves as a significant suspension upgrade for Adventure, Street, or minimalist Sport Bikes. This shock features a large 46mm main piston and an internal gas reservoir located within the main body. Its adjustable damping allows users to fine-tune the shock's behavior to their preference, and the included preload tool facilitates adjustments for weight changes to maintain proper geometry.



Figure 1: Ohlins STX 46 Street Shock Absorber. This image displays the main shock body with its black spring, and a separate remote reservoir connected by a black hose, indicating its hydraulic preload adjustment capability.

PRODUCT FEATURES

- **46mm Piston:** Features a large main piston for enhanced performance.

- **Adjustable Rebound Damping:** Allows for fine-tuning of the shock's extension speed.
- **Hard Anodized Precision CNC-Machined Components:** Ensures durability and precise operation.
- **High-Pressure Nitrogen Gas Charged:** Provides consistent damping performance.
- **Hose Mounted Hydraulic Preload Adjustment:** Enables easy adjustment of spring preload for varying loads and riding conditions.

SETUP AND INSTALLATION

Proper installation of your Ohlins STX 46 shock absorber is crucial for safety and optimal performance. It is highly recommended that installation be performed by a qualified technician. Always refer to your motorcycle's service manual for specific torque specifications and procedures.

Pre-Installation Checklist:

- Ensure the shock absorber matches your motorcycle's make and model.
- Inspect the shock for any signs of damage from shipping.
- Gather all necessary tools, including a torque wrench.
- Read this entire manual before beginning installation.

Basic Installation Steps (General Guide):

1. Secure the motorcycle on a stable stand, ensuring the rear wheel is off the ground.
2. Carefully remove the original shock absorber, noting the orientation of all components.
3. Install the Ohlins STX 46 shock absorber, ensuring all mounting bolts are correctly aligned.
4. Tighten all mounting bolts to the manufacturer's specified torque values.
5. Mount the hydraulic preload adjuster in an accessible and secure location, ensuring the hose is not kinked or stressed.
6. Perform an initial sag measurement and adjust the spring preload using the provided tool as necessary.
7. Adjust rebound damping to a preliminary setting (refer to the "Operating" section for guidance).
8. Lower the motorcycle and perform a static and rider sag check.

OPERATING AND ADJUSTMENTS

The Ohlins STX 46 shock absorber offers adjustable features to optimize your riding experience. Understanding these adjustments is key to achieving desired handling characteristics.

Spring Preload Adjustment:

Spring preload determines the initial compression of the spring and affects the ride height and sag. Use the hose-mounted hydraulic preload adjuster to increase or decrease preload. Turning the adjuster clockwise typically increases preload, raising the ride height and reducing sag. Turning it counter-clockwise decreases preload. Always adjust preload to achieve the recommended sag for your motorcycle and riding style, especially when carrying a passenger or luggage.

Rebound Damping Adjustment:

Rebound damping controls the speed at which the shock absorber extends after being compressed. This adjustment is crucial for maintaining tire contact with the road and preventing the motorcycle from "pogo-sticking" over bumps. The rebound adjuster is typically located at the bottom of the shock body. Turning the adjuster clockwise generally increases damping (slower rebound), while turning it counter-clockwise decreases damping (faster rebound). Start with the manufacturer's recommended settings and make small, incremental adjustments

based on feel and riding conditions.

MAINTENANCE

Regular maintenance ensures the longevity and consistent performance of your Ohlins STX 46 shock absorber.

- **Cleaning:** Keep the shock absorber clean from dirt, dust, and road grime. Use mild soap and water, then rinse thoroughly. Avoid high-pressure washers directly on seals.
- **Inspection:** Periodically inspect the shock for any signs of oil leaks, damaged seals, bent shafts, or loose mounting bolts. Check the spring for cracks or damage.
- **Bushings and Bearings:** Check the condition of the mounting bushings and bearings. Replace if there is excessive play or wear.
- **Service Intervals:** Ohlins shock absorbers require periodic servicing by an authorized Ohlins service center. Consult your Ohlins dealer or the official Ohlins website for recommended service intervals based on usage.
- **Storage:** If storing the motorcycle for an extended period, ensure the shock is clean and stored in a dry environment.

TROUBLESHOOTING

This section provides guidance for common issues you might encounter with your shock absorber. For complex problems, contact an authorized Ohlins service center.

Problem	Possible Cause	Solution
Excessive Sag / Bottoming Out	Insufficient spring preload; worn spring; low nitrogen pressure.	Increase spring preload using the hydraulic adjuster. If problem persists, inspect spring for wear or seek professional service for nitrogen recharge.
Harsh Ride / Lack of Compliance	Too much spring preload; excessive rebound damping.	Decrease spring preload. Reduce rebound damping (turn counter-clockwise).
Bouncy Ride / Poor Control	Insufficient rebound damping.	Increase rebound damping (turn clockwise).
Oil Leaks	Damaged seals; bent shaft.	Stop riding immediately. Requires professional service and seal replacement. Do not attempt to repair yourself.

SPECIFICATIONS

Attribute	Detail
Model Number	HD 513
Brand	Ohlins
Design Type	Monotube

Attribute	Detail
Piston Diameter	46mm
Damping Adjustment	Adjustable Rebound Damping
Preload Adjustment	Hose Mounted Hydraulic Preload Adjustment
Gas Charged	High-Pressure Nitrogen Gas Charged
Component Material	Hard Anodized Precision CNC-Machined Components
Item Weight	8.5 pounds
ASIN	B0DWLXM4LB
Date First Available	April 7, 2025

WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or authorized service centers for your Ohlins STX 46 shock absorber, please refer to the official Ohlins website or contact your authorized Ohlins dealer. Keep your proof of purchase for warranty claims.

Ohlins Official Website: www.ohlins.com