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INSTALLATION TIPS FOR ADJUSTABLE SHOCKS FOR 2000-ON SOFTTAILS

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WARNING!

THESE SHOCKS MUST ONLY BE USED WITH STOCK SWINGARMS AND ON STOCK FRAMES WITH THE STOCK BOTTOMING BUMPERS ON THE CHASSIS TO LIMIT THE TRAVEL OF THE SHOCKS. AFTERMARKET SWINGARMS, OR MODIFIED SWINGARMS THAT DO NOT HAVE THE UPPER BRACE THAT ACTS AGAINST THE BOTTOMING BUMPERS CANNOT BE USED WITH THESE SHOCKS. INCREASING THE TRAVEL BY ELIMINATING THE BUMP STOPS OR A NON-STANDARD SWINGARM DESIGN WILL ALLOW THE TIRE TO MAKE CONTACT WITH THE FENDER OR OTHER CHASSIS COMPONENTS, AND CAN DAMAGE THE SHOCKS.

INSTALLATION

1. Remove the outer nut cup and grommet on each of the Works shocks. If you intend to leave the ride height at stock height, position the inner nut cup against the ring nut. The shocks are now ready to install.

2. Place the motorcycle on a suitable frame stand allowing unrestricted access to the shocks.

3. Place a small screw jack under the swingarm to support the weight as well as allow you to position the swingarm correctly to line up the shock mounting bolts. Remove stock shocks.

4. Discard the stock washer under stock mounting bolt heads. Put a small amount of grease on the shoulder portion of the bolt. Make sure that the threaded portion remains clean and free of oil and grease. Make sure that the holes in the swingarm are similarly clean and free of oil and grease.

5. Put the supplied spacers on each side of the eye. The shoulder of the bolt must protrude a small amount through the

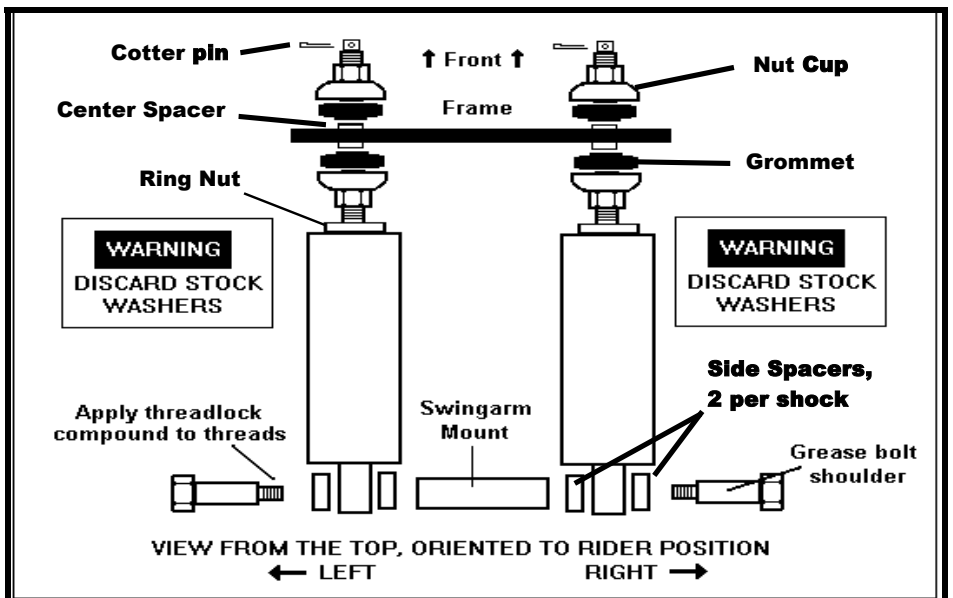


Fig. 1. Shock mounting locations as viewed from the top of the motorcycle. Use only the factory mounting bolts. **Do not use any washers with the supplied spacers.**

WARNING!

ONLY THE FACTORY REPLACEMENT BOLTS SHOULD BE USED TO MOUNT THE SHOCKS. THE SHOCK EYE WIDTH AND SPACERS ARE BASED ON THE SHOULDER DIMENSIONS OF THE FACTORY BOLT. THE USE OF ANOTHER TYPE OR LENGTH OF BOLT CAN CAUSE THE EYE/SPACERS TO BE BOLTED SOLID TO THE SWINGARM. THIS CAN LOOSEN OR BREAK THE SHOCK BOLT, OR CAUSE THE RIDE TO BE HARSH, OR CAUSE PREMATURE SEAL LEAKAGE.

Continued on next page.

WARNING!

DO NOT INSTALL THE STOCK WASHERS OR ANY OTHER WASHERS ON EITHER SIDE OF THE EYES OR SPACERS EXCEPT FOR THE SPACERS SUPPLIED WITH THE SHOCKS. THE USE OF THE STOCK WASHER OR ANOTHER WASHER WILL BIND THE SHOCKS AND LOOSEN OR BREAK THE SHOCK BOLT, OR CAUSE THE RIDE TO BE HARSH, OR CAUSE PREMATURE SEAL LEAKAGE.

shock eyes in order to allow the shock to pivot freely. This is extremely important. With the shocks fully tightened, the spacers should be free to rotate with finger pressure. If the washer is used or a non-stock bolt is used, the bolts will work loose or break because the shocks are in a bind.

6. Apply red Loctite (Permanent thread locker 262 or an equivalent) on the threads of the bolts that go into the swingarm.

7. Slip the post end of the shock through the frame bracket, and then screw the shock bolt into the swingarm. Make sure that you have removed the stock washer, and are using the supplied spacers on each side of the eye. Tighten securely--you don't want any shocks falling out. Make sure the bolts are fully torqued to the manufacturer's specifications (105 lbs./ft). Then make sure that the spacers are still free to rotate. **THIS IS CRITICAL TO RIDE QUALITY!**

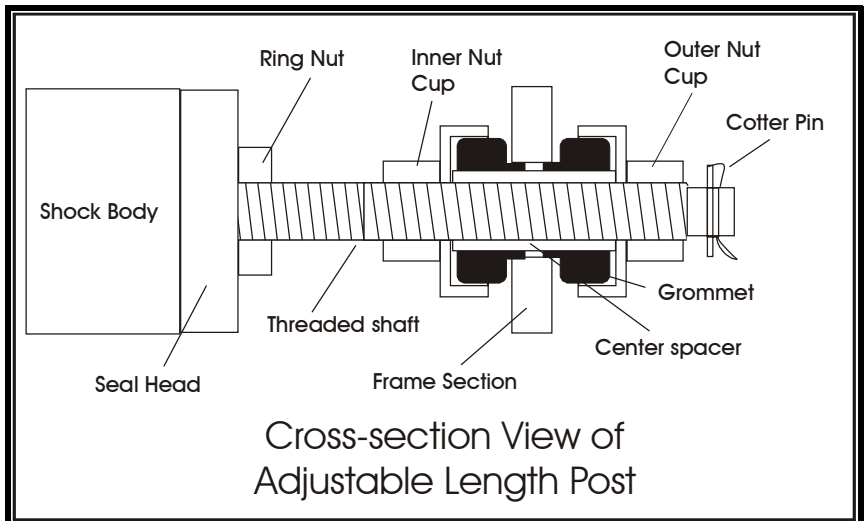
8. Install the grommet and outer nut cup on the threaded shaft. Draw the post up through the mounting hole and tighten the nut cup securely. The outer cup will tighten against the center spacer and then against the inner nut cup. You may need two wrenches to effectively tighten the nut cups. Keep in mind that when they are tight, the shaft assembly and nut cups will rotate against the grommets, when enough force is applied. Install the cotter pin as a safety precaution.

9. Now that the installation is completed, you are ready to experience the very best in suspension.

LENGTH ADJUSTMENTS

To increase the length of the shocks after installation, loosen the outer nut cup and back off the desired amount. Turn one side and then the other to reduce the effort required. The shocks should be adjusted the same on both sides. It is important that the ring nut stops against the seal head of the shock to distribute the topping forces equally between each shock.

Because of the design of the suspension, the space at the shock shaft between the inner nut cup and the ring nut will yield about three times as much at the seat. For example, one quarter of an inch will be about three quarters of an inch at the seat/fender. Turn the inner nut cup against the center spacer and tighten securely. The nut cups can be positioned at any point on the threaded shaft. **However, under no circumstances ever remove the cotter pin to gain additional length.**

**WARNING!**

DO NOT REMOVE THE COTTER PIN TO INCREASE THE LENGTH OF THE SHOCKS. IF THE NUT IS UNSCREWED FAR ENOUGH TO COVER THE COTTER PIN CROSS HOLE, THERE WILL NOT BE ENOUGH THREAD ENGAGEMENT FOR PROPER SAFETY AND FUNCTION.

WARNING!

WHEN YOU ADJUST THE LENGTH OF THE SHOCKS TO LOWER THE BIKE, PLEASE KEEP IN MIND THAT BOTH THE AVAILABLE TRAVEL AND CORNERING CLEARANCES ARE SUBSTANTIALLY REDUCED. FAILURE TO ADAPT YOUR RIDING STYLE, SPEED AND LEAN ANGLE CAN RESULT IN DAMAGE TO THE MOTORCYCLE AND POSSIBLE INJURY TO THE RIDER AND/OR PASSENGER.

Gil Vaillancourt
 President
 Works Performance Products, Inc.

OTHER WORKS PERFORMANCE PRODUCTS

DUAL-RATE FORK SPRINGS

Works Performance adjustable dual-rate fork springs provide a soft initial rate for small bumps and pavement seams, but then “cross over” to a higher rate for potholes and other bad pavement. Unlike progressively wound springs which have the progression preset into the springs, these dual-rate sets allow the rider to choose the point at which the springs go from the soft initial rate to the stiffer final rate. This accommodates various rider weights, riding styles, road or track conditions and personal preference. One set of springs for one fork tube consists of a long spring, a short spring, preload spacer material (in most cases), separating washers and three different pairs of metal spacers that determine the "cross-over" point of the spring set. The shortest length causes the spring set to cross over later, so the forks remain softer longer. The longest length causes the spring set to

cross over sooner resulting in the stiffer overall rate. The medium-length spacer provides the best average for most suspensions.

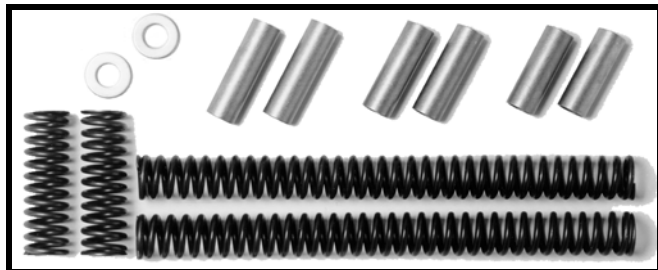


Fig. 3. Works Performance dual-rate fork spring sets are available for most Harley Davidson models.

FORK SPRING APPLICATIONS

MODEL	YEAR	KIT #
XLH	73-87	2308
XLH883,1200	88-90	3100
XLH883,1200	91-ON	3106
XLX-61	79-87	230X
XLS	79-87	230X
SPORTSTER	53-72	230X
XR1000	83-84	230X
XLCR	77-78	230X
XLCH	73-78	230X
FXLR	87-	3108
FXRS-Sp	87-	310X
FXRD	85-86	230XH
FXR	88-	3100
FXRS	88-	3100
FXRT	83-87	230XH
FXRS	82-87	230XH
FXR	82-87	230XH
FXRT	88-	310X
FXST/C	84-99	3107H
FLST/C	84-99	3107H
FX/4 SPEED	73-86	2308H
FXSB/4 SPEED	73-86	2308H
FXE/4 SPEED	73-86	2308H
FXS/4 SPEED	73-86	2308H
FX	71-72	2308H
FXDB,DC	91-92	310X

GAS CHARGED SHOCK FOR SPRINGERS

The Works Performance Chrome Tracker re-buildable chrome and billet shock for the Harley-Davidson Springer front end delivers plush damping, with unexcelled handling, tracking, and stability at freeway speeds. They are available in grooved (shown) or smooth body.

Part# 1C3725-0000-1, grooved body shock for Springer front ends
 Part# 1C3725-0000-2, smooth body shock for Springer front ends

