



INSTRUCTIONS

J06536

2017-08-22



SOFTAIL FRONT FORK LOWERING KIT

GENERAL

Kit Number

45500427

Models

For model fitment information, see the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only).

Installation Requirements

Proper installation of this kit also requires the following:

Certain combinations of lowered suspensions require jiffystand replacement. See Model Fitment Information for specifics.

Separate purchase and installation of additional parts or accessories may be required for proper installation of this kit on your model motorcycle. See the P&A Retail Catalog or the Parts and Accessories section of www.harley-davidson.com (English only) for a list of required parts or accessories for your model.

Loctite[®] 565 Thread Sealant (99818-97)

Harley-Davidson[®] Seal Grease (11300005)

Fork Tube Holder (HD-41177)

Fork Seal/Bushing Tool (HD-45305)

Front Fork Oil Level Gauge (HD-59000B)

Type E Fork Oil (62600026)

▲ WARNING

Installation of any accessory suspension components can affect cornering clearance. This could distract the rider, causing loss of control and death or serious injury. (00431b)

▲ WARNING

This Front End Lowering Kit cannot be used independently. It must be used with an appropriate Low Rear Suspension Kit or handling and cornering can be affected, which could distract the rider, causing loss of control and death or serious injury. (00429b)

▲ WARNING

Rider and passenger safety depend upon the correct installation of this kit. Use the appropriate service manual procedures. If the procedure is not within your capabilities or you do not have the correct tools, have a Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00333b)

NOTE

This instruction sheet references service manual information. A service manual for your model motorcycle is required for this installation and is available from a Harley-Davidson Dealer.

Kit Contents

See Figure 4 and Table 1.

REMOVAL

1. See the service manual. Remove the front fender, wheel and brakes.
2. See the service manual. Remove the front forks.

RIGHT SIDE

Fork Disassembly

1. See Figure 1. Install fork in Fork Tube Holder (HD-41177) as follows:
 - a. Clamp end of tool (1) in vise in a horizontal position.
 - b. See Figure 4. With the fork bolt (A) upward, clamp fork tube (B), between rubber pads on inboard side of tool. Tighten knobs until fork tube is securely held.

NOTE

Be aware that fork bolt (A) is under spring-pressure, so have a firm grasp on bolt as the last thread is turned.

▲ WARNING

Wear safety glasses or goggles when servicing fork assembly. Do not remove slider tube caps without relieving spring preload or caps and springs can fly out, which could result in death or serious injury. (00297a)

2. Slowly remove fork bolt and O-ring (1) from fork tube. Discard O-ring.
3. Remove the spring collar (K), flat washer (J) and spring (7) from the fork tube. Save spring collar and flat washer for later use.
4. Remove fork assembly from fork tube holder. Turn fork upside down over drain pan to drain oil. For best results, slowly pump fork tube and fork slider (H) at least 10 times.
5. Install fork spring and spring collar back into fork tube.



6. Put a shop rag on the floor. Turn the fork assembly upside down. Press the end of the spring collar against the rag. Compress the spring. Remove the screw (5) with copper washer (4) from the bottom end of fork slider. Use air impact wrench for best results. Discard screw and copper washer.
7. Remove and discard fork spring.
8. Push the damper tube (6) and rebound spring (I) free of fork tube by inserting a small diameter rod through the opening in the bottom of tube. Discard damper tube.
9. Using pick tool, remove retaining clip (D) between fork slider and fork tube. Do not expand or stretch retaining clip to remove from fork tube or clip may be damaged.
10. Remove fork tube from fork slider.

NOTE

To overcome any resistance, use the fork tube as a slide hammer: Push fork tube into fork slider and then pull it outward with a moderate amount of force. Repeat this sequence until fork tube separates from fork slider.

11. Slide fork oil seal (3), slider washer (E) and slider bushing (F) off end of fork tube. Discard fork oil seal.
12. Remove oil lock (G) from the end of fork tube (B) or the inside of the fork slider. Save oil lock for later use.

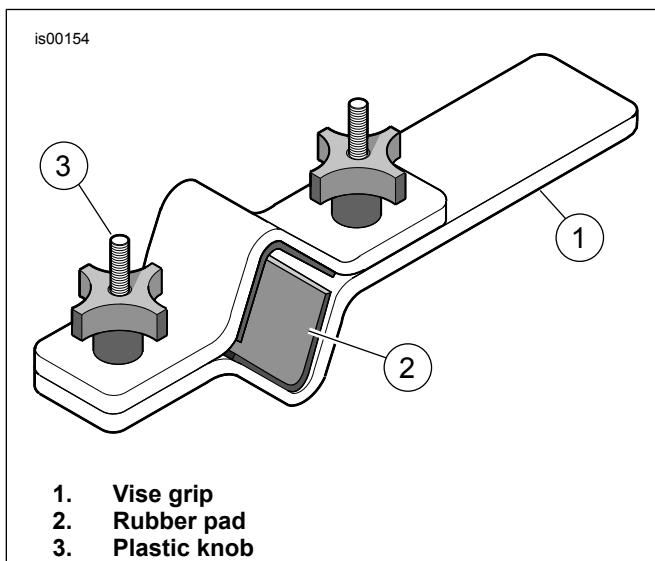


Figure 1. Fork Tube Holder (HD-41177)

Fork Assembly

NOTICE

Exercise caution to avoid scratching or nicking fork tube. Damaging tube can result in fork oil leaks after assembly. (00421b)

NOTE

Inspect parts for wear or damage. Replace or repair as necessary.

1. See Figure 4. Make sure that piston ring is installed on the damper tube with the cut-outs down. Place rebound spring (I) on **new** damper tube from kit (6). Insert damper tube into fork tube (B).
2. Insert spring (7) and spring collar (K) into fork tube, with dense section of coils toward damper tube. Push bottom of damper tube through the opening at the bottom end of the fork tube. Place oil lock (G) over end of damper tube.
3. Apply Loctite 565 Thread Sealant to screw (5). Position fork tube and damper tube in fork slider (H). Hold the assembly in place by exerting pressure on the spring and spring collar. Install screw (5) with copper washer (4) from kit.
4. Tighten screw.
Torque: 40–50 N·m (30–37 ft-lbs)
5. Clamp front slider (H) between rubber pads on inboard side of fork holder tool.
6. Coat inner diameter (ID) and outer diameter (OD) of slider bushing (F) with clean fork oil. Slide slider bushing down fork tube (either direction).
7. Slide slider washer (E) down fork tube until it contacts slider bushing (either direction).
8. Coat the ID of the **new** fork oil seal (3) with clean fork oil. Coat the OD of the fork oil seal with Harley-Davidson Seal Grease. With the lettering side facing up, slide fork oil seal down the fork tube until it contacts the slider washer.
9. See Figure 2. Obtain the Fork Seal/Bushing Tool (HD-45305) and proceed as follows:
 - a. Slide the fork seal installer down the fork tube until it contacts the fork oil seal.
 - b. See Figure 2. Using the tool like a slide hammer, drive fork oil seal (with slider washer and slider bushing) down the fork tube until retaining clip groove is visible in fork slider ID.
 - c. See Figure 4. Slide the retaining clip (D) down the fork tube until it contacts the fork oil seal. Install retaining clip in the fork slider groove. Do not expand or stretch retaining clip to install on fork tube or clip may be damaged.

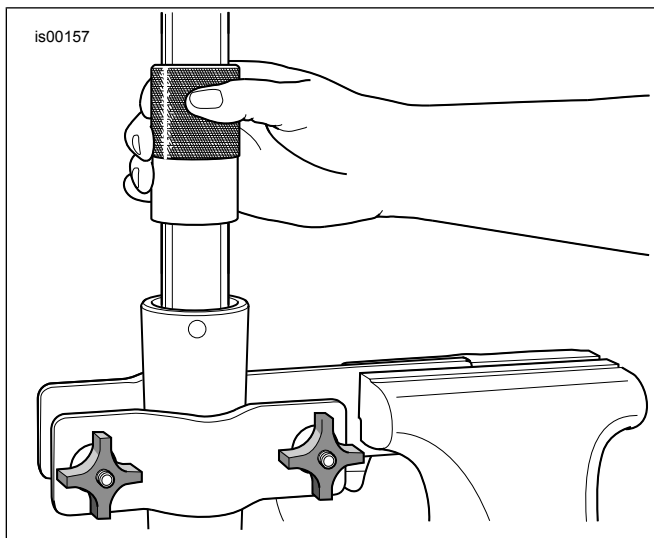


Figure 2. Install Fork Oil Seal

10. Remove spring collar and fork spring.

⚠ WARNING

Incorrect amount of fork oil can adversely affect handling and lead to loss of vehicle control, which could result in death or serious injury. (00298a)

11. Fill fork tube as follows:
 - a. With fork tube compressed, pour Harley-Davidson Type E Fork Oil into the fork tube almost to the top.
 - b. Pump fork tube ten times to remove air from system.
12. Adjust the fork oil level so that it is within specification with the fork tube compressed and the fork spring, flat washer and spring collar removed. Proceed as follows:
 - a. See Figure 3. Obtain the Front Fork Oil Level Gauge (HD-59000B).
 - b. Loosen thumbscrew on metal ring and move it up or down the rod until the bottom of the ring is 110 mm (4.33 in) from the bottom of the rod. Tighten thumbscrew.
 - c. Push the plunger on the cylinder all the way in.
 - d. See Figure 3. Insert rod into top of fork tube until metal ring rests flat on top of fork tube.
 - e. Pull plunger to remove fork oil from fork tube. Observe fork oil through transparent tube to verify that oil is being drawn from fork.
 - f. Remove rod from fork tube. Push plunger into cylinder to eject excess fork oil into suitable container.
 - g. If necessary, repeat Steps 12(c) through 12(f). Level is correct when no fork oil is observed being drawn through transparent tube.

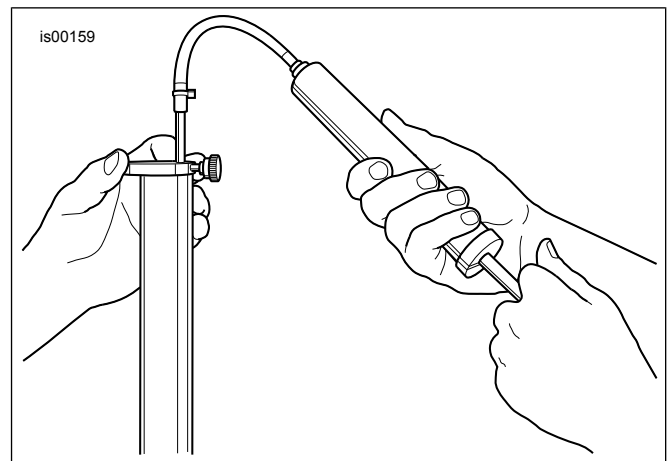


Figure 3. Remove Excess Fork Oil

13. Install fork spring into the fork tube with the dense end down.

NOTE

Verify the fork spring is installed with dense section of coils to the bottom.

14. Install flat washer (J) on top of spring.
15. Install spring collar (K) on top of washer.
16. Install **new** O-ring (1) onto fork bolt (A).
17. Install fork bolt. Tighten.
Torque: 30–80 N·m (22–59 ft-lbs)
18. Install dust seal (2) if present on your model.

LEFT SIDE

Repeat for the left side.

Fork Installation

1. See the appropriate service manual. Install the front forks.

⚠ WARNING

After repairing the brake system, test brakes at low speed. If brakes are not operating properly, testing at high speeds can cause loss of control, which could result in death or serious injury. (00289a)

⚠ WARNING

Whenever a wheel is installed and before moving the motorcycle, pump brakes to build brake system pressure. Insufficient pressure can adversely affect brake performance, which could result in death or serious injury. (00284a)

2. See the appropriate service manual. Install front fender, wheel, brakes and any other removed parts.
3. Pump brakes to build system pressure.

Test Ride

1. Test ride motorcycle to verify fork travel and rebound.

SERVICE PARTS

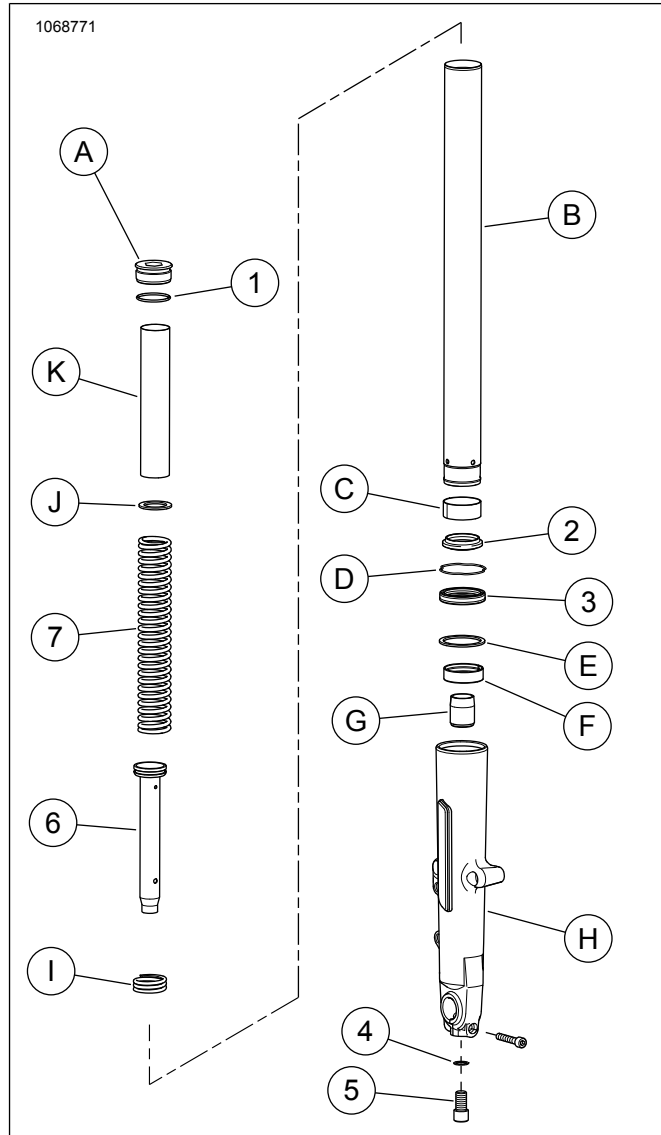


Figure 4. Service Parts: Cartridge Front Fork Kit

Table 1. Service Parts Table

Item	Description (Quantity)	Part Number
	Stock Fork Assembly, Fork Assembly from Kit (both)	
Items included in kit:		
1	O-ring (2)	46508-01
2	Dust seal (2)	46512-01A
3	Fork oil seal (2)	46514-01A
4	CU washer (2)	46615-06
5	Screw, M14 (2)	45500118
6	Damper tube with piston ring (2)	Not Sold Separately
7	Fork spring (2)	Not Sold Separately
Items mentioned in text, but not included in kit:		
A	Fork bolt	
B	Fork tube	
C	Bushing, fork tube (2)	
D	Retaining clip (2)	
E	Slider washer (2)	
F	Slider bushing (2)	
G	Oil lock	
H	Fork slider	
I	Rebound spring	

Table 1. Service Parts Table

Item	Description (Quantity)	Part Number
J	Flat Washer	
K	Spring collar	