

# **INSTRUCTIONS**

J03797

2006-09-19



# SOFTAIL PROFILE LOW REAR SHOCK ABSORBER KITS

# **GENERAL**

#### Kit Number

54651-05 (chrome) and 54652-05 (black)

#### Models

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

# **Additional Parts and Tools Required**

Snap-on<sup>®</sup> part number SRES-24 is necessary to gain access to the shock absorber bolts. When adding an adapter or extension to a torque wrench, bolt torque must be computed. A Torque Computer, part number SS-306G, is available from Snap-on. The computer is easy to use with dial- or click-type torque wrenches.

Loctite<sup>®</sup> 243 (blue) (99642-97)

Permatex<sup>®</sup> Anti-seize (98960-97)

#### **Kit Contents**

See Figure 1 and Table 1.

#### **A 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)

#### NOTE

Rear shock absorbers on Softail models cannot be repaired. If a shock absorber becomes damaged, it must be replaced.

#### **REMOVAL**

- 1. Place motorcycle on a lift and secure front wheel.
- Use an overhead crane or hoist to lift the rear of the motorcycle. Attach to the frame or rear fender area to allow the rear fork to travel.
- Place a screw jack under the rear wheel to support and adjust the rear fork during shock absorber removal and installation.

#### **A WARNING**

When supporting motorcycle, do not place supports under rear brake pedal. Damage to the brake system can occur, which could result in death or serious injury. (00100a)

#### **A WARNING**

Be sure rear wheel is supported when removing rear shocks. If wheel is not supported rear fork can drop down, which could result in death or serious injury. (00481b)

- 4. See Figure 1. Remove stock bolt (A) and washer (B) that fasten each shock absorber (1) to rear fork (C). Save for later use.
- Remove flanged locknut (2) and washer/grommet assembly (3) fastening each shock absorber (1) to frame crossmember (D). Discard shock absorber and attaching hardware from threaded end of shock.

#### INSTALLATION

- See Figure 1. Remove flange nut (2) and outer washer/grommet (3) from the Profile Low rear shock absorber (1). Leave bushing (4) and inner washer/grommet (5) on shock absorber shaft.
- Insert shock absorber shaft through frame crossmember (D).
- Slip outer washer/grommet (3) onto the shock absorber shaft (grommet side first), and loosely fasten with flange nut (2). Check that washer/grommet properly fit hole in frame crossmember. Do not tighten at this time.
- 4. Repeat Steps 1-3 for other shock absorber.
- Align shock absorber eye with rear fork mount (E) by adjusting rear wheel height with screw jack.
- 6. Fasten shock absorber (1) to rear fork (C) with stock washer (A) and bolt (B) previously removed.
  - a. Apply Loctite 243 (blue) 99642-97 to bolt threads.
  - b. Apply anti-seize compound to bolt shoulder.
  - Thread bolt through shock absorber eye and into rear fork mount, but do not tighten.
- 7. Repeat Steps 5 and 6 for other shock absorber.
- 8. See Additional Parts Required. Tighten each rear shock mounting bolt (A) to 121-136 ft-lbs (164.1-184.4 Nm).
- 9. Tighten each flanged nut (2) to 32-39 ft-lbs (43.4-52.9 Nm).

# SHOCK ABSORBER ADJUSTMENT

#### NOTE

The initial shock-absorber spring-compression setting is set to the minimum preload position. Both shock absorbers are set equally from the manufacturer.

Adjust shock-absorber spring compression to accommodate the weight the motorcycle will usually carry.

- 1. See Figure 1. Place a mark in the same position on the adjuster plate (6) of each shock absorber.
- 2. Loosen jam nut (7) on each shock absorber.

#### **A WARNING**

Adjust both shock absorbers equally. Improper adjustment can adversely affect stability and handling, which could result in death or serious injury. (00036b)

- Use shock absorber adjustment spanner wrench (8) from kit to rotate each adjuster plate to loosen or tighten the shock-absorber springs.
  - a. Turn adjuster plates OUT (counterclockwise, toward jam nut), to increase spring preload for heavier loads.

- Turn adjuster plates IN (clockwise, away from jam nut), to decrease spring preload for lighter loads.
- Adjust both shock absorbers equally, the same number of turns, and to the same position relative to the marks made in Step 1.
- Tighten jam nut (7) against each of the shock-absorber adjuster plates (6).

#### NOTE

Make sure motorcycle is supported as lifting and securing devices are removed. Failure to properly support motorcycle may cause it to fall over.

- 6. Remove the screw jack from under the rear wheel.
- Lower rear of motorcycle back down with crane or hoist, then free bike from lifting and securing devices.

# **SERVICE PARTS**

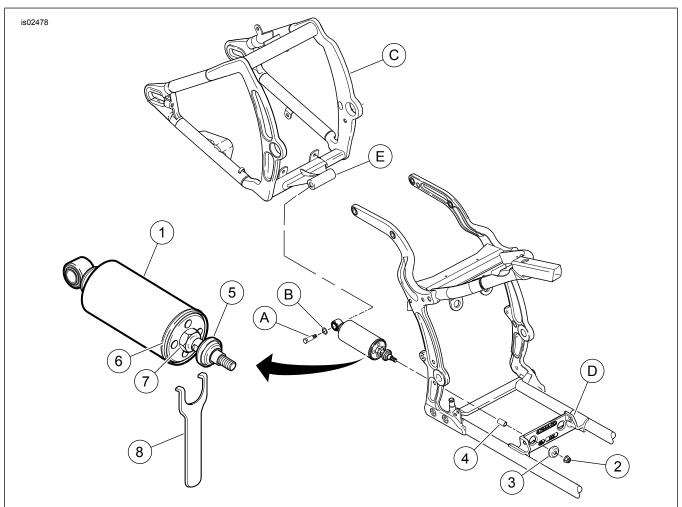


Figure 1. Service Parts: Softail Profile Low Rear Shock Aborber Kits

Table 1. Service Parts: Softail Profile Low Rear Shock Absorber Kits

Kit	Item	Description (Quantity)	Part Number		
54651-05 (Chrome)	1	Shock absorber	54653-05		
54652-05 (Black)	1	Shock absorber	54549-04		
Items 2 through 8 are same for both kits.					
	2	Nut, flange with nylon insert	45764-00		

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Table 1. Service Parts: Softail Profile Low Rear Shock Absorber Kits

Kit	Item	Description (Quantity)	Part Number	
	3	Outer washer and grommet	56183-00	
	4	Bushing	56182-00A	
	5	Inner washer and grommet	56183-00	
	6	Adjuster plate	Not Sold Separately	
	7	Nut, jam	Not Sold Separately	
	8	Spanner wrench	94455-89	
Items mentioned in text, but not included in kit:				
	Α	Stock bolt		
	В	Stock washer		
	С	Rear fork		
	D	Frame crossmember		
	E	Rear fork mount		

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