



INSTRUCTIONS

-J01312

REV. 2007-09-07

SIDECAR PARKING BRAKE KIT

GENERAL

Kit Number

44103-02A, 44103-08

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).

Kit Contents

See Figure 8, Table 1, Figure 9 and Table 2.

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.

⚠ WARNING

The rider's safety depends 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. (00333a)

REMOVAL

NOTE

The parking brake caliper in this kit incorporates an automatic adjustment feature. After the initial parking brake pad-to-rotor clearance and parking brake cable adjustment are performed (during installation), the caliper's automatic adjustment feature will automatically compensate for any normal parking brake pad wear. This should eliminate the need for periodic manual adjustments which are often required with other parking brake systems.

Adjustments to the parking brake will be required whenever the motorcycle rear wheel is removed/installed or whenever any components of the parking brake system are replaced or serviced.

⚠ WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect negative (-) battery cable before proceeding. (00048a)

⚠ WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

1. Disconnect the battery cables, negative (-) cable first.
2. Remove saddlebags according to instructions in the applicable Service Manual.

INSTALLATION

Parking Brake Caliper

1. Follow instructions in applicable Service Manual and remove the left and right mufflers. Place mufflers in an area where they will not be damaged.
2. Using appropriate lift, raise vehicle to allow the rear wheel to be spun by hand. This will allow free wheel spin to be checked after bracket and brake are installed to verify there is no binding after installation.
3. See Figure 1. Remove the E-clip (1), axle nut (2) and belt tensioner cam (3) following the procedures in the applicable Service Manual.
4. See Figure 2. At the right shock remove lower shock mount bolt (1), flat washer (2) and lockwasher (3). Retain lockwasher and flat washer for installation. Discard bolt.

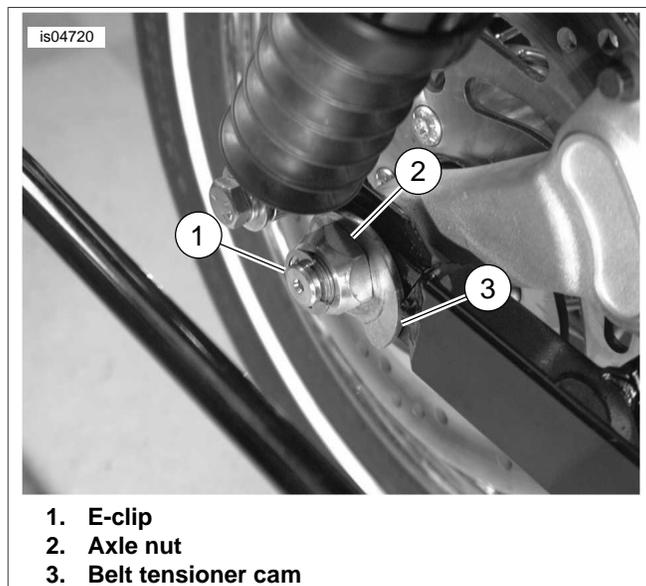
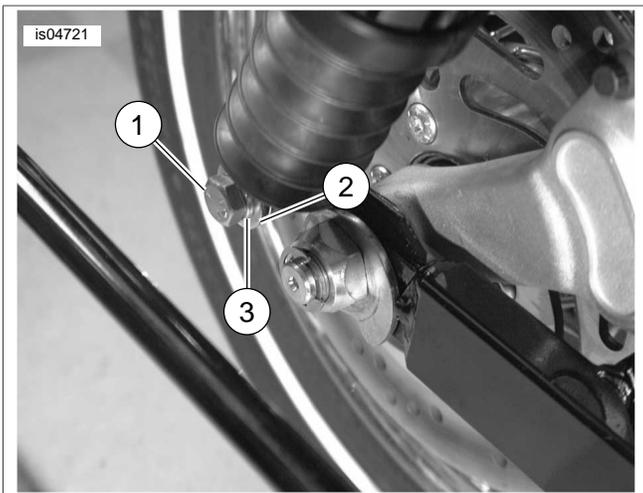


Figure 1. Rear Axle (2007 and Earlier - Right Side Shown)



1. Lower shock mount bolt
2. Flat washer
3. Lockwasher

Figure 2. Remove Right Lower Shock Mount (2007 and Earlier Shown)

5. Swivel the shock up and out of the way being careful not to damage the air line that goes to the rear shocks.

NOTE

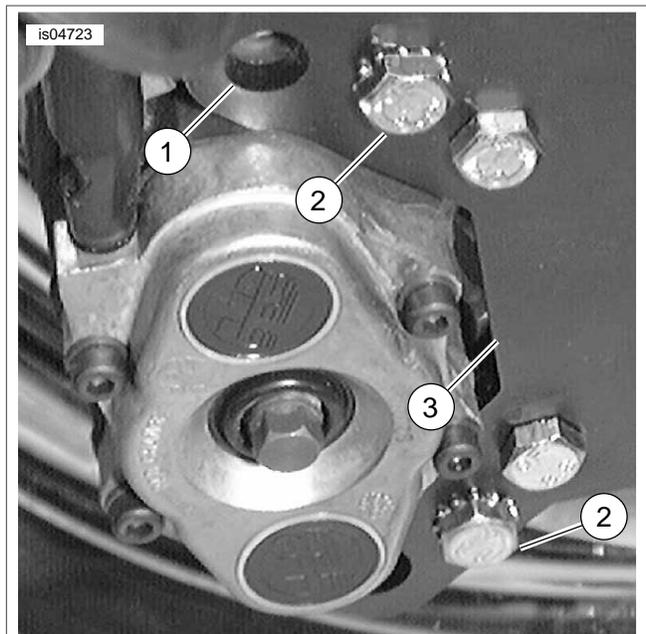
Make note of left and right wheel spacers and their orientation for installation when performing the following step.

6. Insert a shim, such as a board, underneath the rear tire to keep it aligned. While stabilizing the wheel, use a soft hammer and, from right side, gently tap and pull the axle through the swingarm, caliper mount, right spacer, wheel, left spacer and swingarm. Discard the axle.
7. See Figure 8. Obtain the new axle (12) from kit. Install axle from the left side and slide through swingarm, left spacer, wheel, right spacer and rear brake caliper mount but stop short of swing arm.

NOTE

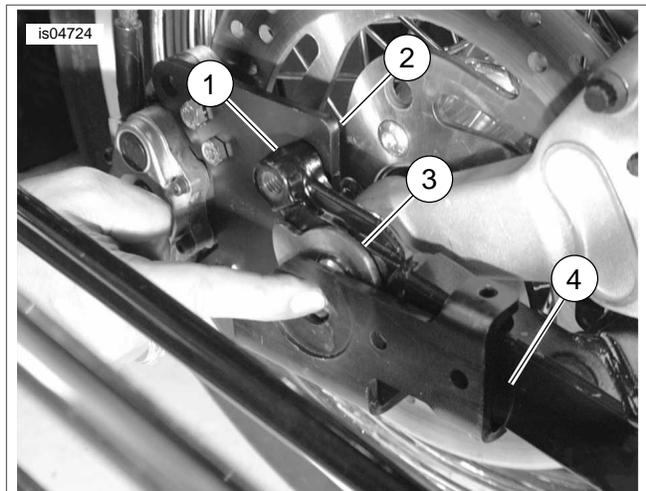
When installing brake caliper to the mounting bracket in the next step, note the two locating holes in the spacer and bracket. These holes will mate with the two studs on the caliper assembly.

8. See Figure 8. Obtain the parking brake caliper (3), spacer (2), mounting bracket (1), four bolts (7) and two external tooth lockwashers (8) from kit.
9. See Figure 3. Sandwich the spacer between the caliper and mounting bracket (3) and secure the assembly using four screws (with lockwashers installed under outer screws [2]). Snug hardware until bracket and mounting plate is flush.



1. Locating hole
2. Screws with lockwashers
3. Mounting bracket

Figure 3. Install Brake Caliper to Mounting Bracket (2007 and Earlier Shown)



1. Shock mount lug
2. Caliper/mounting bracket assembly
3. Belt tension cam
4. Bracket channel

Figure 4. Installing Caliper/Mounting Bracket Assembly (2007 and Earlier Shown)

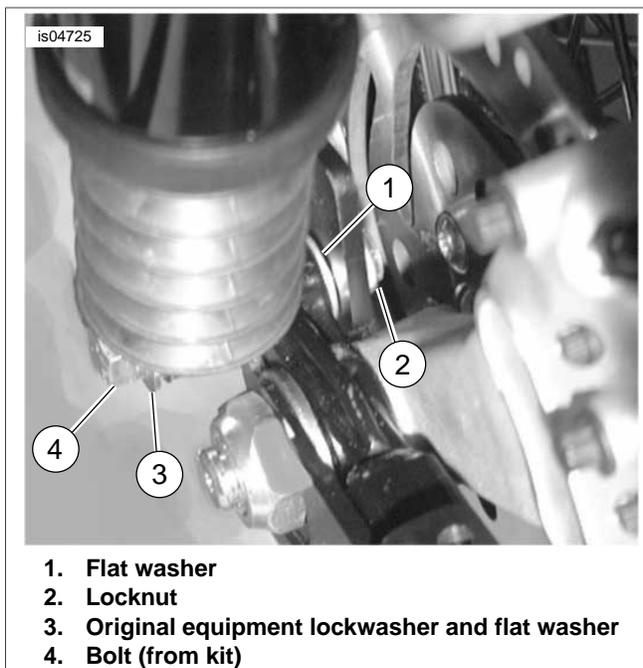


Figure 5. Install Shock and Mounting Hardware (2007 and Earlier Shown)

10. Clean up the threads of the shock mount lug with a 0.500-13 tap to remove any dirt or paint buildup on the back of the mounting lug.
11. If not previously removed, remove the cardboard disc spacer from caliper.
12. See Figure 4. Orient the caliper/mounting bracket assembly (2) with rear of bracket to the inside of the shock mount lug (1) and swingarm centered between and parallel with the channels at the front of the mounting bracket. Slide the entire assembly toward front of bike while guiding the caliper brake pads to each side of the rotor.
13. While holding assembly in alignment, orient the belt tension cam (3) as shown (indexed the same as left side) and slide it down between the swingarm and mounting bracket assembly and hold with index finger. Gently tap the axle completely through the swingarm, tensioner cam and mounting bracket assembly and install the axle nut. Fingertighten only.
14. See Figure 5. Obtain the new shock bolt (4) and flat washer (1) from kit. Install original lockwasher and washer (3) to bolt and slide through shock mount bushing. Thread bolt into lug and when it reappears from back of lug, install the washer.

NOTE

The washer must be installed between shock mounting lug and caliper/mounting bracket assembly as shown. Continue threading bolt through assembly and install locknut from back of caliper/mounting bracket assembly. Fingertighten only.

15. Follow instructions in an appropriate Service Manual and perform the belt tension and wheel alignment procedures.

NOTE

When performing the following procedure, the channel should remain parallel and the swingarm should remain centered within the channel to ensure proper brake orientation.

16. See Figure 8. Obtain the upper and lower forward bracket alignment screws (9) and nuts (10) from kit.
17. See Figure 6. Install nut on the screw and spin up toward screw head. Repeat for the other screw and nut. Install the screws with nuts into the upper and lower holes near the front of the bracket assembly surrounding the swingarm. While maintaining a centered location for the swingarm in the bracket channel, snug the screws in place so there is no up or down movement.
18. Check to make sure the brake caliper bracket is not touching the brake rotor. If the bracket is contacting the rotor, loosen both screws and re-align bracket. Continue to check alignment while tightening both screws equally after proper brake orientation is achieved. Do not torque at this time.
19. Tighten rear axle nut to 95-105 ft-lbs (129-142 Nm). Reinstall the E-clip.
20. Return to the shock mounting hardware and tighten the shock bolt to 35-40 ft-lbs (47.8-54.2 Nm). Tighten the locknut on the inboard side of the shock mount.
21. Tighten the two bracket alignment screws installed in Step 16 **20 in-lbs** (2.26 Nm). Tighten the jam nuts to 15-20 ft-lbs (20.3-27.1 Nm).
22. Tighten the four brake caliper/mounting bracket screws and nuts to **120-140 in-lbs** (13.6-15.8 Nm).
23. After all hardware has been tightened to the correct torque, visually inspect brake alignment to ensure that no brake parts are contacting the brake rotor. Spin rear wheel by hand to ensure that brake is not dragging on the brake rotor.

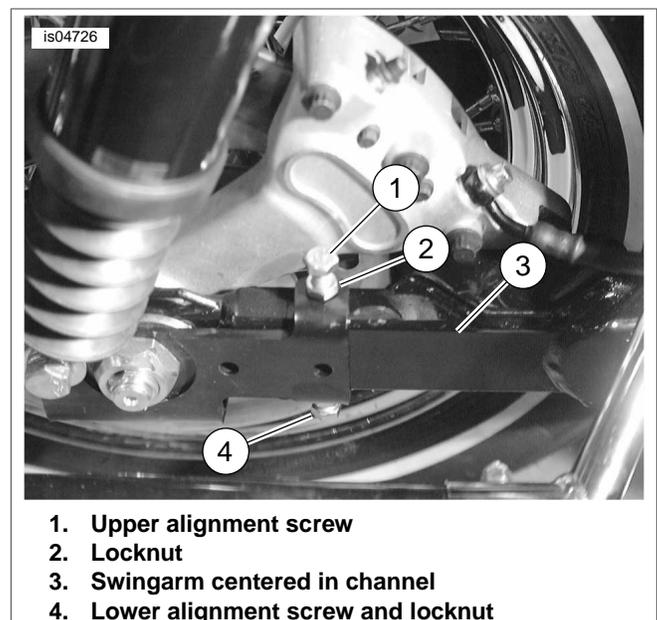


Figure 6. Install Bracket Alignment Screws (2007 and Earlier Shown)

Parking Brake Lever Installation

1. See Figure 9. Attach handle extension (13) to brake lever assembly (24) with bolts (16) and locknuts (15).

- Attach the park brake lever assembly (24) to bracket (14) with two bolts (16), washers (19) and locknuts (15) supplied in kit.

NOTE

The U-bolts should be started from under the sidecar frame tubing and inserted up through the mount plate/lever assembly.

- Using the two U-bolts (20), flat washers (21) and locknuts (22), attach the park brake lever and bracket to sidecar frame as far rearward as possible.
- Ensure that the lever assembly does not contact the brake line for the sidecar and that the lever bracket does not interfere with the sidecar leaf spring. The U-bolts and locknuts should then be tightened.

NOTE

Ensure cable does not contact exhaust system. Keep cable routing away from side cover and other cosmetic assemblies.

- See Figure 7. Route the brake cable up and over the shock tower. Continue routing toward the front of bike directly to lever assembly. Do not route inside of frame tubing or under the exhaust. Ensure that the cable does not interfere with rear shock, rear wheel or side cover.

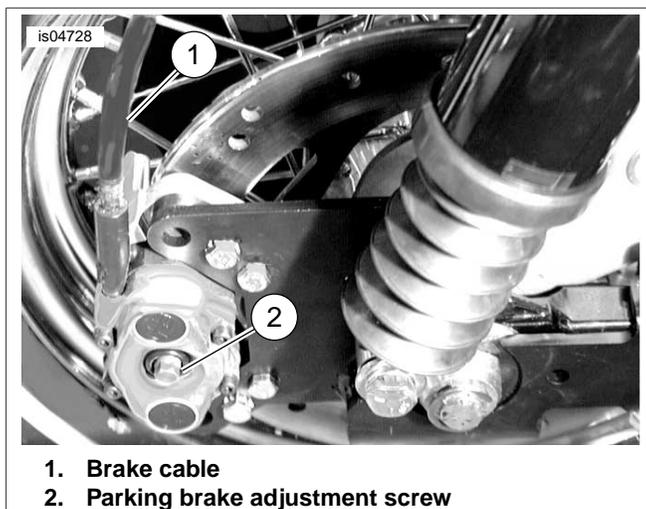


Figure 7. Route Parking Brake Cable (2007 and Earlier Shown)

NOTE

Before attaching the brake cable to the brake lever, ensure lever is in the fully down/brake released position.

- See Figure 9. Attach the brake cable clevis to the brake lever extension (13) with clevis pin (17) and secure with cotter pin (18).
- Attach the brake cable to the lever bracket by sliding the brake cable into the slot. Ensure that there is one cable adjusting nut on either side of the bracket slot.
- Adjust the two brake cable adjusting nuts until there is 1/8-inch of cable free play. Tighten adjusting nuts.

NOTE

The park brake supplied in this kit must be adjusted after installation.

- To adjust the brake, actuate the brake lever through its complete range, from fully applied to fully released posi-

tions approximately 10-20 times. This will adjust the brake pad in relation to the brake rotor.

- When the brake is adjusted correctly, full brake application should be achieved with 50% or less lever travel. If it takes more than 50% lever travel to actuate the brake, perform brake cable adjustment until correct adjustment has been achieved.
- With the brake lever in the fully released position, spin the rear tire by hand to see that it moves freely and the park brake is not dragging. Apply the lever to the fully applied position and try to spin the rear tire. It should be locked. Release the lever and check for free wheel spin again.
- Lower the vehicle and remove all jacks. With normal vehicle weight on the rear wheel, recheck cable routing to ensure that cable does not interfere with rear wheel or shock. Check that brake cable does not interfere with the normal range of motion of the rear shock by loading the vehicle or bouncing the rear suspension up and down. The cable should not touch the rear shock.

Final Installation

- Reinstall mufflers and saddlebags.
- Make sure all parts are tightened to specification. The park brake should now be fully functional and ready to use. After using the park brake for the first few days, it is recommended to check the cable adjuster nuts at the lever to make sure there is not an excessive amount of free play. The cable may stretch after initial break-in.

⚠ WARNING

Connect positive (+) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00068a)

- Connect battery cables, positive cable first.

⚠ WARNING

Be sure that sidecar brake is functioning properly. An improperly functioning sidecar brake can adversely affect vehicle handling, which could result in death or serious injury. (00109a)

- Test ride the motorcycle on dry, clean pavement at slow speeds.

OPERATION AND MAINTENANCE

NOTE

Ensure the parking brake is completely disengaged to prevent brake dragging.

The parking brake is applied by pulling the handle up and all the way back. To release the brake, actuate the release button (at end of handle) and push the handle down until the lever is fully down.

The parking brake is intended to be used in conjunction with an engaged transmission (transmission shifted into first gear). When leaving the vehicle, be certain to shift the motorcycle transmission into first gear (with the engine turned off) and apply the parking brake.

Even though the parking brake caliper's automatic adjustment feature will compensate for any normal parking brake pad wear, check parking brake for proper adjustment and operation on a routine basis.

Parking Brake Adjustment

Adjustments to the parking brake will be required whenever the motorcycle rear wheel is removed/installed or whenever any components of the parking brake system are replaced or serviced. When parking brake adjustments are required:

1. See Figure 9. Remove cotter pin (18) and clevis pin (17) to disconnect the parking brake cable from parking brake assembly.
2. See Figure 7. Disconnect the parking brake cable from parking brake lever. Tighten (turn clockwise) the parking

brake caliper adjusting screw firmly until both parking brake pads fully contact brake rotor.

3. Loosen (turn counterclockwise) adjusting screw 1/4- to 1/2-turn to retract pads from rotor.
4. Check for adequate freedom-of-rotation of rotor within parking brake caliper. Parking brake pads should not contact rotor.
5. See Figure 9. Reconnect parking brake cable to parking brake assembly by installing clevis pin (17) and cotter pin (18). Loosen and adjust the two brake cable adjusting nuts (one on each side of bracket slot) until there is 1/8-inch cable free play. Tighten adjusting nuts.
6. Perform Steps 9 through 11 under Parking Brake Lever Installation procedures to complete adjustment.

SERVICE PARTS

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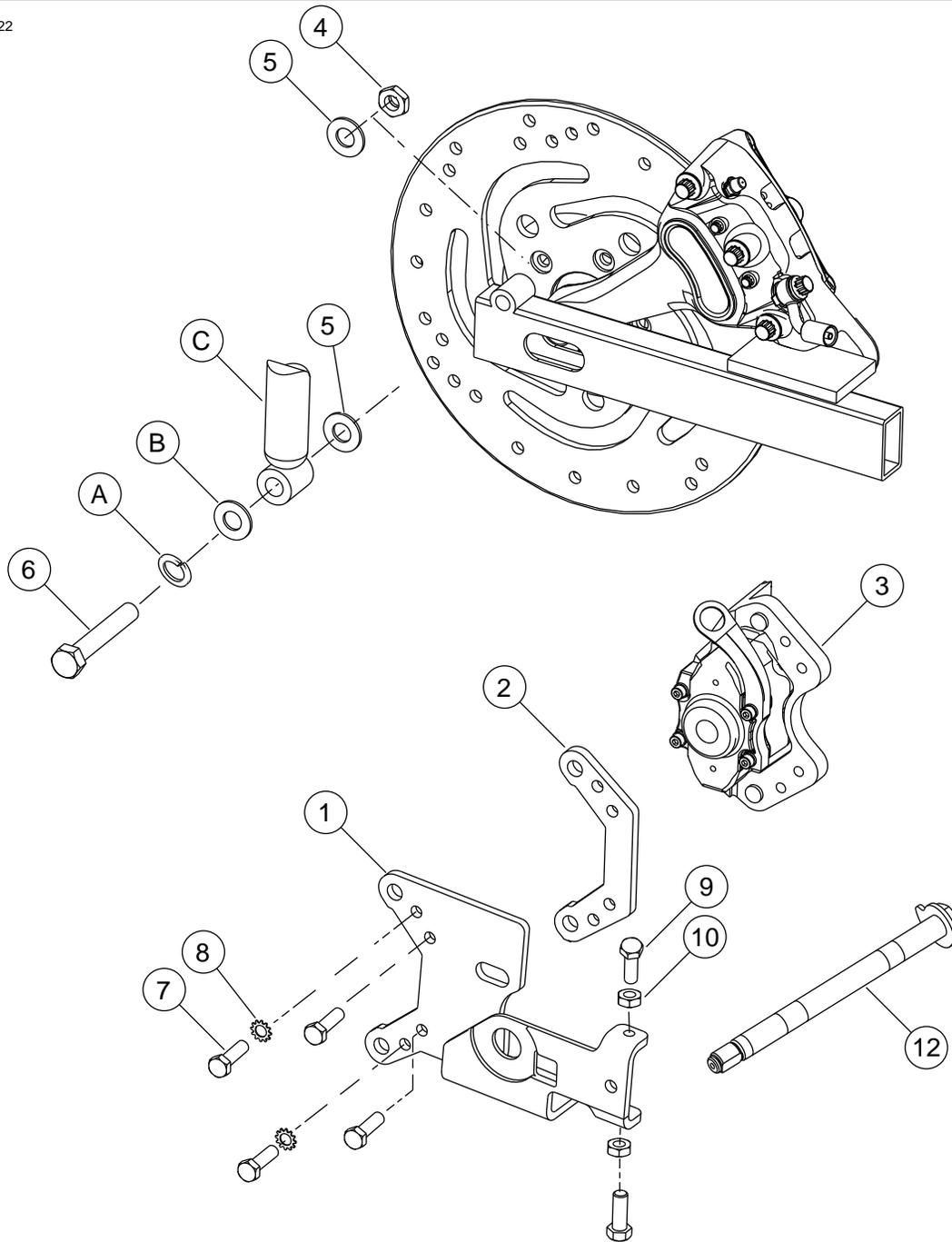


Figure 8. Service Parts: Caliper and Mounting Bracket (2007 and Earlier Shown)

Table 1. Service Parts: Caliper and Mounting Bracket

Item	Description (Quantity)	Part Number
1	Caliper mounting bracket for Kit 44103-02A	44797-02A
	Caliper mounting bracket for Kit 44103-08	44797-08
2	Spacer	44798-02
3	Caliper and cable assembly	44111-90
4	Locknut, 1/2-13	Not Sold Separately
5	Washer, flat, 1/2 inch	Not Sold Separately
6	Bolt, 1/2-13 x 3.25 inch	Not Sold Separately

Table 1. Service Parts: Caliper and Mounting Bracket

Item	Description (Quantity)	Part Number
7	Bolt, M8 x 1.25 x 30 mm (4)	Not Sold Separately
8	Lockwasher, M8 external (4)	Not Sold Separately
9	Screw, 3/8-16 x 0.875 inch (2)	Not Sold Separately
10	Nut, 3/8-16 (2)	Not Sold Separately
11	Brake pads, replacement (not shown)	44113-90
12	Axle for kit 44103-02A	41126-02
	Axle for kit 44103-08	41126-08
Items mentioned in text, but not included in kit:		
A	Lockwasher	
B	Flat washer	
C	Shock assembly	

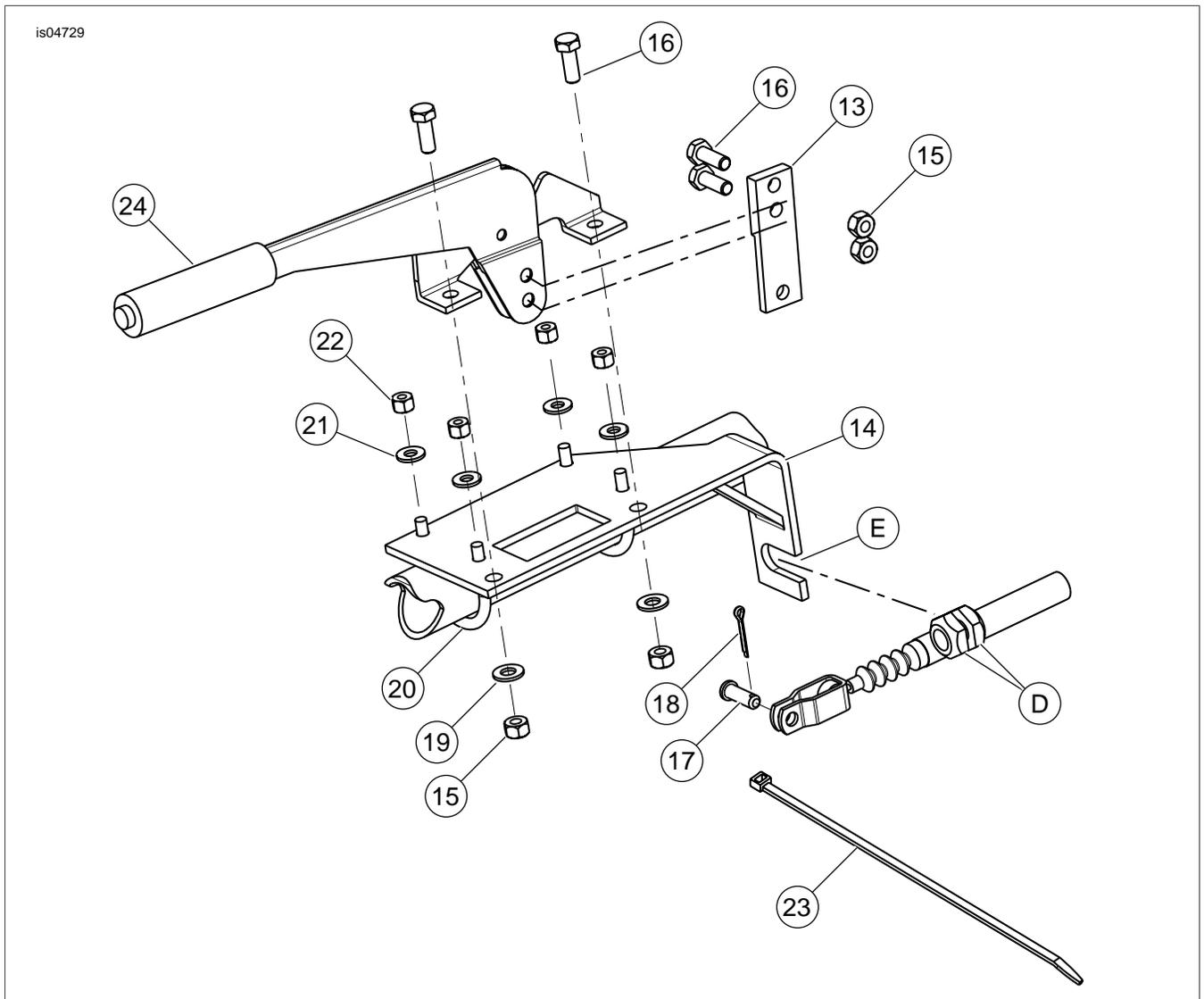


Figure 9. Service Parts: Lever Assembly and Mounting Bracket

Table 2. Service Parts: Lever Assembly and Mounting Bracket

Item	Description (Quantity)	Part Number
13	Lever extension	44811-00
14	Bracket	44810-00
15	Locknut, 5/16-18 (4)	Not Sold Separately
16	Bolt, 5/16-18 x 3/4 inch (4)	Not Sold Separately
17	Clevis pin	Not Sold Separately
18	Cotter pin	Not Sold Separately
19	Flat washer, 5/16 inch (2)	Not Sold Separately
20	U-bolt (2)	Not Sold Separately
21	Flat washer, 1/4-inch (4)	Not Sold Separately
22	Nut, 1/4-20 (4)	Not sold separately
23	Cable strap (6)	10006
24	Lever assembly	44796-00
25	Hardware kit* (not shown)	44817-00
	* Includes items 4-10 and 14-21	
Items mentioned in text, but not included in kit:		
D	Brake cable adjusting nuts	
E	Bracket slot	