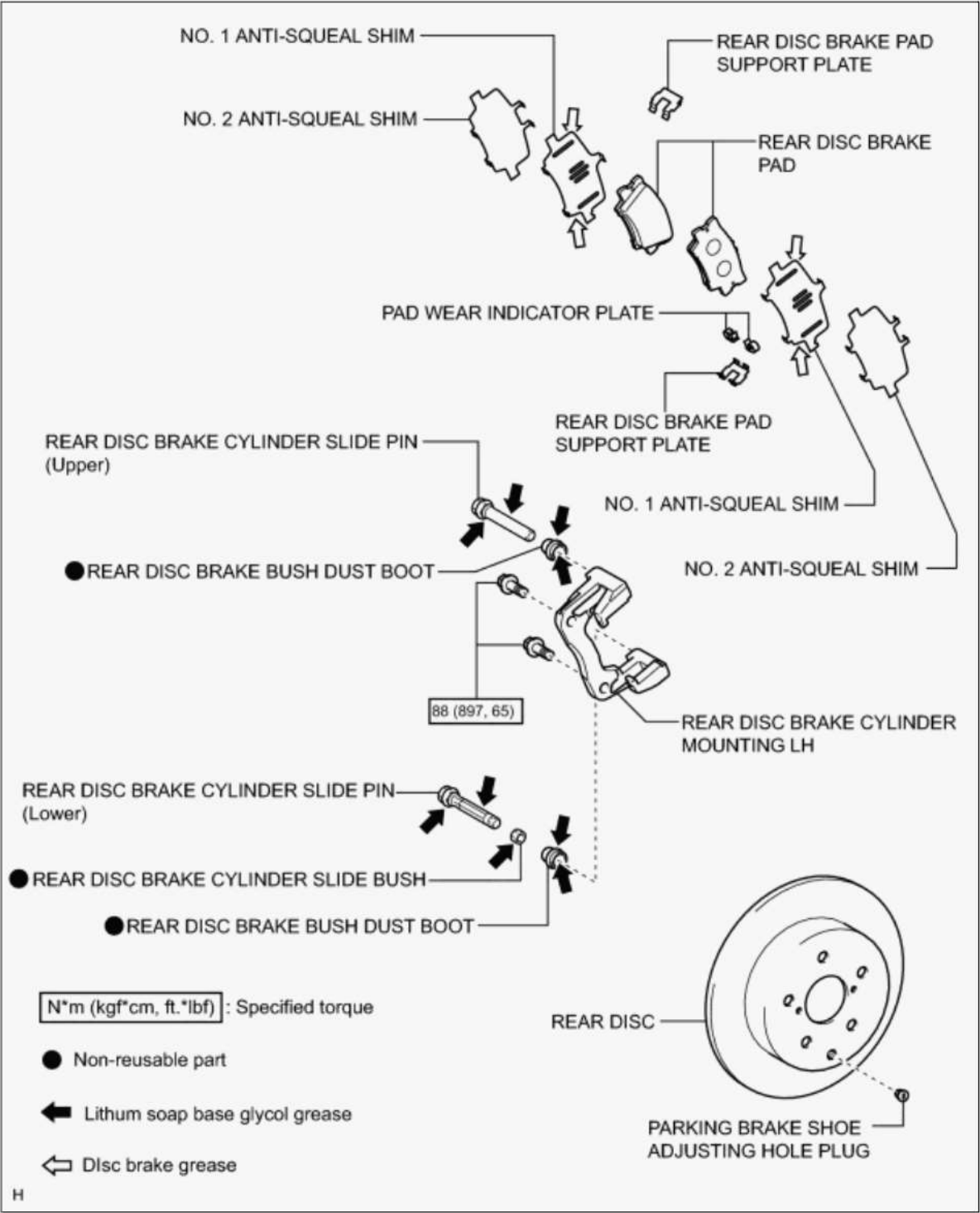


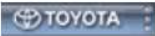
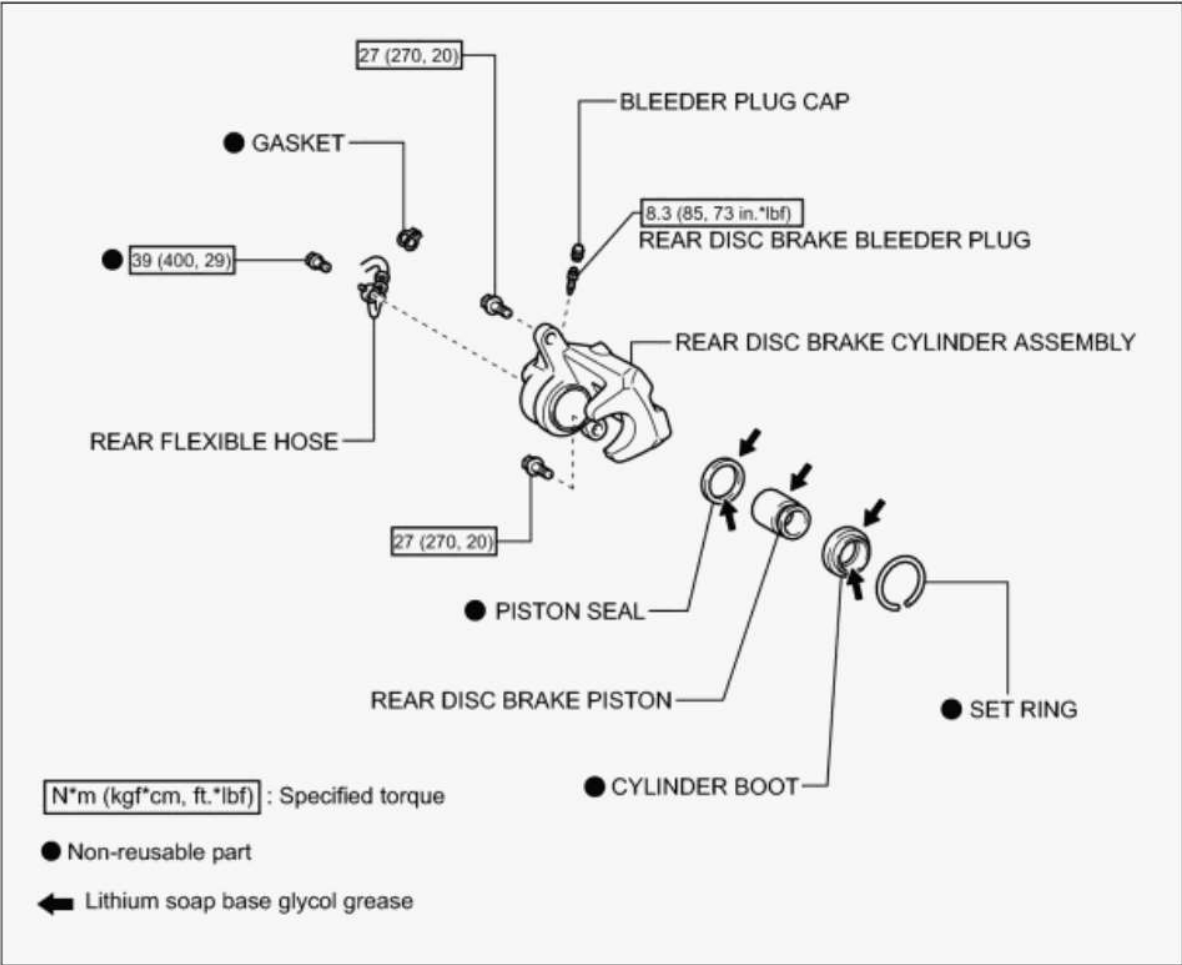
Last Modified: 9-7-2011	6.4 K	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001XUM00AX
Title: BRAKE: REAR BRAKE: COMPONENTS (2011 RAV4)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



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Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001ED400DX
Title: BRAKE: REAR BRAKE: DISASSEMBLY (2011 RAV4)		

DISASSEMBLY

HINT:

- Use the same procedure for the RH and LH sides.
- The procedures listed below are for the LH side.

1. REMOVE REAR DISC BRAKE PAD

- (a) Remove the 2 disc brake pads.

2. REMOVE ANTI-SQUEAL SHIM

- (a) Remove the shims from each pad.

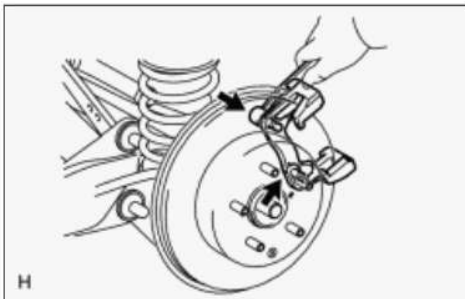
3. REMOVE PAD WEAR INDICATOR PLATE

- (a) Remove the indicator plates from the pads.

4. REMOVE REAR DISC BRAKE PAD SUPPORT PLATE

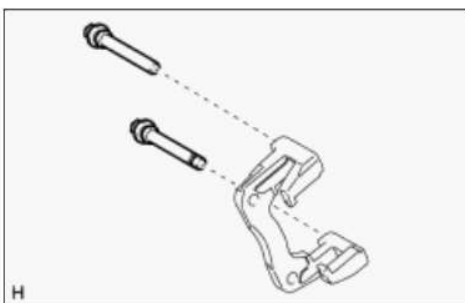
- (a) Remove the 2 plates from the brake cylinder mounting.

5. REMOVE REAR DISC BRAKE CYLINDER MOUNTING LH



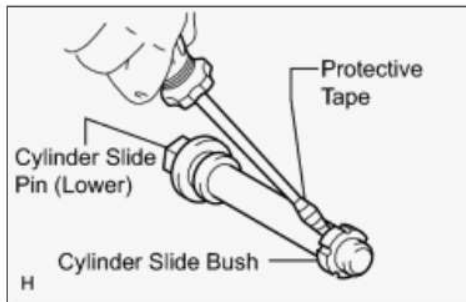
- (a) Remove the 2 bolts and cylinder mounting.

6. REMOVE REAR DISC BRAKE CYLINDER SLIDE PIN



- (a) Remove the 2 slide pins (upper and lower) from the mounting.

7. REMOVE REAR DISC BRAKE CYLINDER SLIDE BUSH



- (a) Using a screw driver, remove the slide bush from the slide pin (lower).

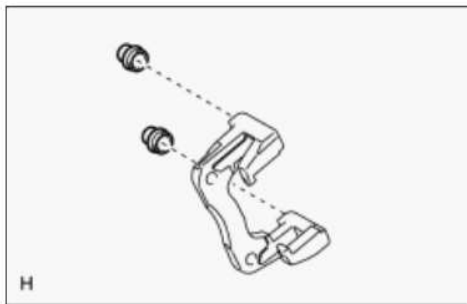
HINT:

Tape the screw driver tip before use.

NOTICE:

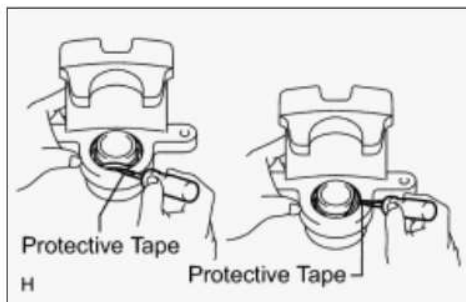
Be careful not to damage the pin.

8. REMOVE REAR DISC BRAKE BUSH DUST BOOT



- (a) Remove the 2 boots from the mounting.

9. REMOVE CYLINDER BOOT



- (a) Using a screwdriver, pry out the set ring and boot.

HINT:

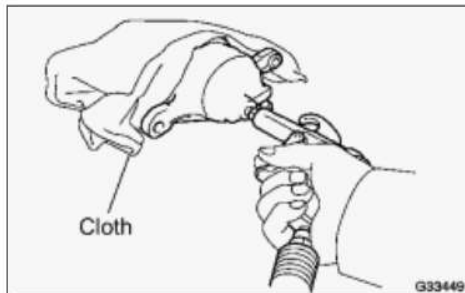
Tape the screwdriver tip before use.

NOTICE:

Be careful not to damage the brake piston and cylinder.

10. REMOVE REAR DISC BRAKE PISTON

- (a) Place a piece of cloth between the piston and disc brake cylinder.



(b) Apply compressed air to remove the piston from the disc brake cylinder.

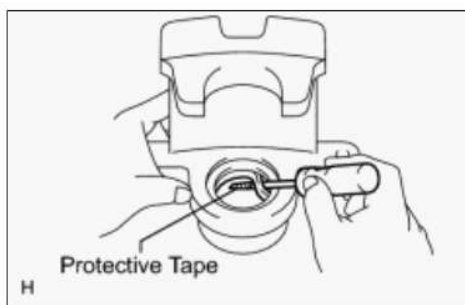
CAUTION:

Do not place your fingers in front of the piston when applying compressed air.

NOTICE:

Be careful not to spatter the brake fluid.

11. REMOVE PISTON SEAL



(a) Using a screwdriver, pry out the seal from the cylinder.

HINT:

Tape the screwdriver tip before use.

NOTICE:

Be careful not to damage the inner cylinder and piston seal groove.

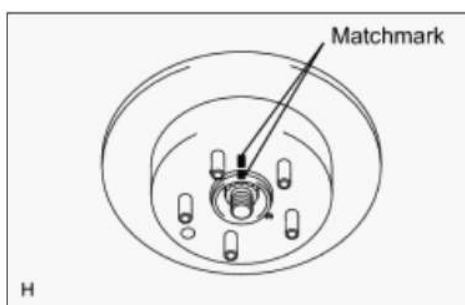
12. REMOVE REAR DISC BRAKE BLEEDER PLUG

(a) Remove the bleeder plug cap and bleeder plug from the cylinder.

13. REMOVE PARKING BRAKE SHOE ADJUSTING HOLE PLUG

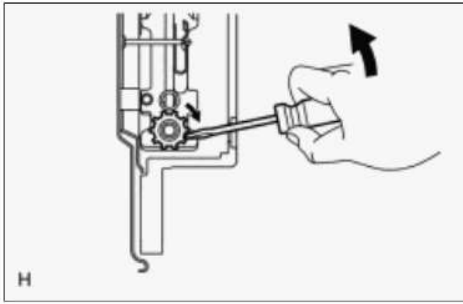
(a) Remove the shoe adjusting hole plug from the rear disc.

14. REMOVE REAR DISC



(a) Put matchmarks on the disc and axle hub.

(b) Release the parking brake.



(c) Turn the shoe adjuster until the disc turns freely, and then remove the disc.

(d) Install the shoe adjusting hole plug to the rear disc.



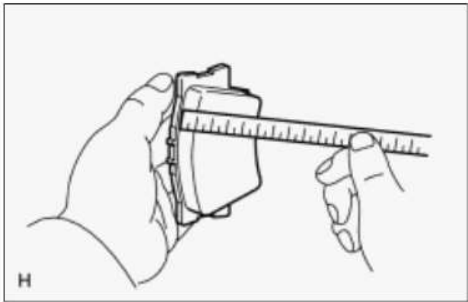
Last Modified: 9-7-2011	6.4 G	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001ED100FX
Title: BRAKE: REAR BRAKE: INSPECTION (2011 RAV4)		

INSPECTION

1. CHECK BRAKE CYLINDER AND PISTON

- (a) Check the cylinder bore and piston for rust or scoring.
- If necessary, replace the cylinder and piston.

2. CHECK PAD LINING THICKNESS

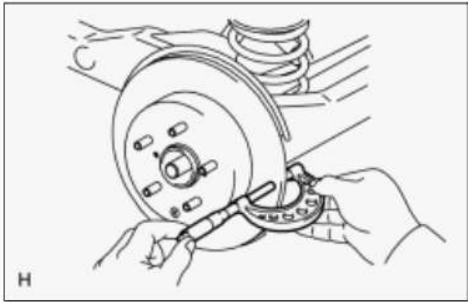


- (a) Using a ruler, measure the pad lining thickness.
- Standard thickness:
10.5 mm (0.413 in.)
- Minimum thickness:
1.0 mm (0.0394 in.)
- If the pad lining thickness is less than the minimum, replace the pad.

3. CHECK REAR DISC BRAKE PAD SUPPORT PLATE

- (a) Check the 2 plates as follows. If necessary, replace the plates.
- (1) Use brake cleaner to clean the pad of the pad support plate and cylinder mounting contact surface. Inspect for deformation, cracks, rust and foreign matter that is difficult to remove.
- (2) Use brake cleaner to clean the pad support plate contact surface of the cylinder mounting. After installing the pad support plate to the cylinder mounting, inspect for looseness and deformation.
- (3) After installing the pad, inspect if the pad falls off easily (due to the spring force of the pad support plate).

4. CHECK DISC THICKNESS



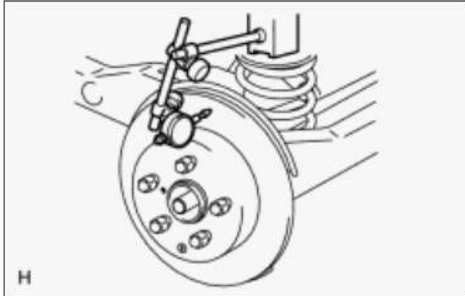
- (a) Using a micrometer, measure the disc thickness.
- Standard thickness:
12.0 mm (0.472 in.)
- Minimum thickness:
10.5 mm (0.413 in.)
- If the disc thickness is less than the minimum, replace the disc.

5. CHECK DISC RUNOUT

- (a) Check the bearing backlash and axle hub deviation INFO .

(b) Temporarily install the disc with the 5 hub nuts.

Torque: 103 N·m (1050 kgf·cm, 76ft·lbf)



(c) Using a dial indicator, measure the disc runout 10 mm (0.394 in.) from the outer edge of the disc.

Maximum disc runout:

0.15 mm (0.00591 in.)

If the runout is more than the maximum, change the installation positions of the disc and axle so that the runout is the smallest possible.

If the runout is more than the maximum even when the installation positions are changed, grind the disc.

If the disc thickness is less than the minimum, replace the disc.

(d) Remove the 5 hub nuts and disc.



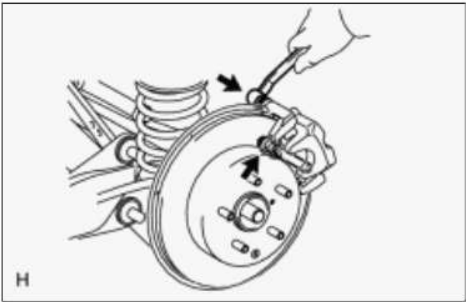
Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001ED000KX
Title: BRAKE: REAR BRAKE: INSTALLATION (2011 RAV4)		

INSTALLATION

HINT:

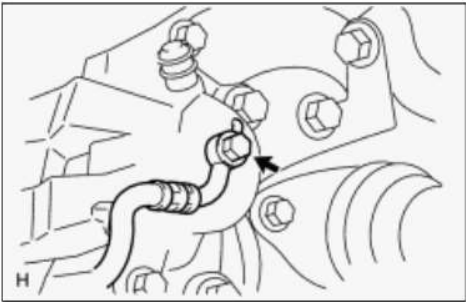
- Use the same procedure for the RH and LH sides.
- The procedures listed below are for the LH side.

1. INSTALL REAR DISC BRAKE CYLINDER ASSEMBLY LH



- (a) Install the cylinder with the 2 bolts.
- Torque: 27 N·m (270 kgf·cm, 20ft·lbf)**

2. CONNECT REAR FLEXIBLE HOSE LH

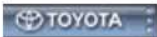


- (a) Install a new gasket and connect the flexible hose with a new union bolt.
- Torque: 39 N·m (400 kgf·cm, 29ft·lbf)**

HINT:

Install the flexible hose lock securely in the lock hole in the cylinder.

3. REMOVE COWL TOP VENTILATOR LOUVER BRACKET LH INFO
4. BLEED BRAKE SYSTEM INFO
5. INSTALL COWL TOP VENTILATOR LOUVER BRACKET LH INFO
6. INSTALL REAR WHEEL INFO



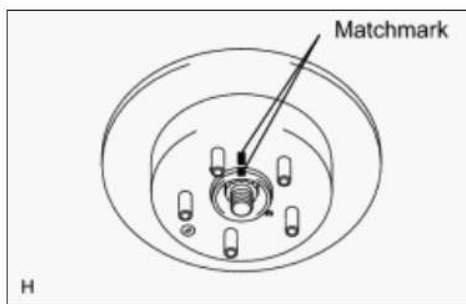
Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001ED500IX
Title: BRAKE: REAR BRAKE: REASSEMBLY (2011 RAV4)		

REASSEMBLY

HINT:

- Use the same procedures for the LH side and RH side.
- The procedures listed below are for the LH side.

1. INSTALL REAR DISC



(a) Align the matchmarks and install the disc.

HINT:

When replacing the disc with a new one, select the installation position where the disc has the smallest runout.

2. INSTALL PARKING BRAKE SHOE ADJUSTING HOLE PLUG

(a) Install the adjusting hole plug to the rear disc.

3. CHECK DISC RUNOUT INFO

4. ADJUST PARKING BRAKE SHOE CLEARANCE INFO

5. TEMPORARILY INSTALL REAR DISC BRAKE BLEEDER PLUG

(a) Temporarily install the bleeder plug to the brake cylinder.

HINT:

The bleeder plug will be tightened to a torque specification in the "BLEED AIR FROM BRAKE LINE" procedures.

(b) Install the bleeder plug cap to the bleeder plug.

6. INSTALL PISTON SEAL

(a) Apply a light coat of lithium soap base glycol grease to the entire inner and outer circumference of a new piston seal.

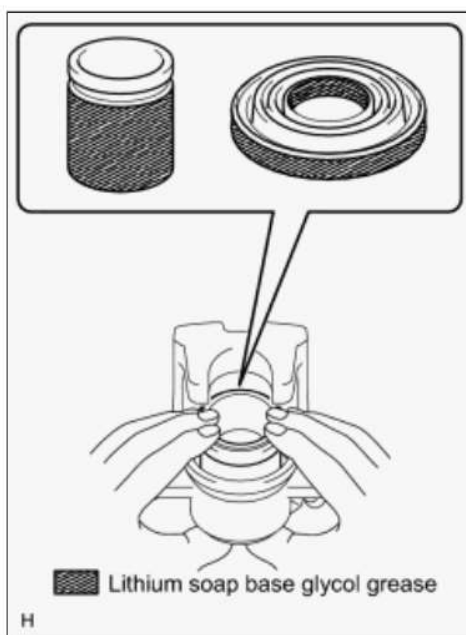


(b) Install the piston seal to the brake cylinder.

NOTICE:

Securely install the piston seal into the groove of the disc brake cylinder.

7. INSTALL REAR DISC BRAKE PISTON



(a) Apply a light coat of lithium soap base glycol grease to the entire inner and outer circumference of a new cylinder boot.

(b) Apply a light coat of lithium soap base glycol grease to the entire outer circumference of the rear disc brake piston where it contacts the rear disc brake cylinder.

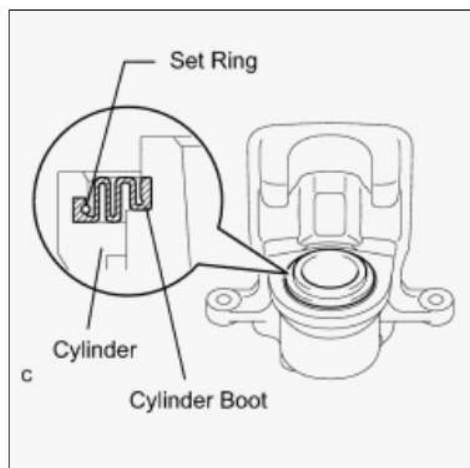
(c) Install the cylinder boot to the rear disc brake piston.

NOTICE:

Do not forcibly install the brake piston to the brake cylinder.

(d) Install the rear disc brake piston to the rear disc brake cylinder assembly.

8. INSTALL CYLINDER BOOT



(a) Install the cylinder boot to the cylinder.

NOTICE:

- Install the boot securely into the grooves of the brake cylinder and brake piston.
- Be careful not to damage the boot.

(b) Using a screwdriver, install a new set ring.

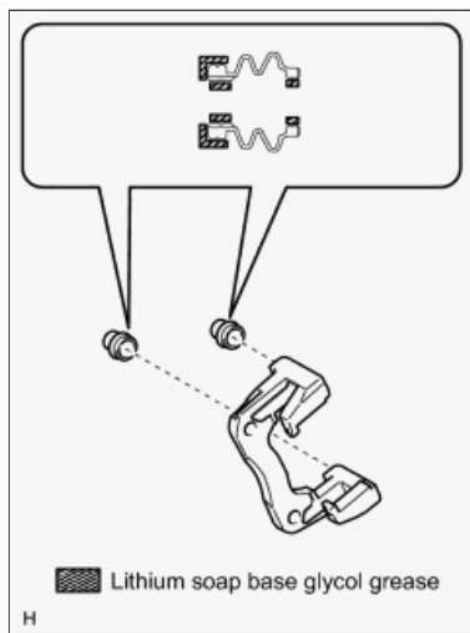
HINT:

Tape the screwdriver tip before use.

NOTICE:

Be careful not to damage the boot.

9. INSTALL REAR DISC BRAKE BUSH DUST BOOT



(a) Apply a light coat of lithium soap base glycol grease to the entire circumference of a new rear disc brake bush dust boot where it contacts the rear disc brake cylinder mounting, and the entire inner circumference of its both ends.

HINT:

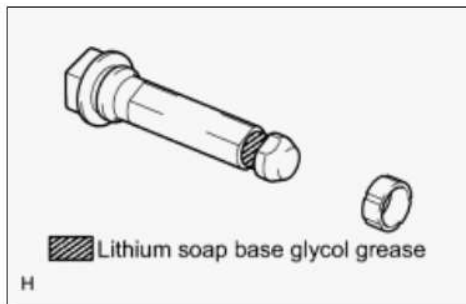
Apply at least 0.3 g (0.01 oz.) of lithium soap base glycol grease to the rear disc brake bush dust boot.

NOTICE:

Apply a sufficient amount of lithium soap base glycol grease to the entire circumference of the rear disc brake bush dust boot and rear disc brake cylinder mounting contact surfaces.

(b) Install the 2 boots to the mounting.

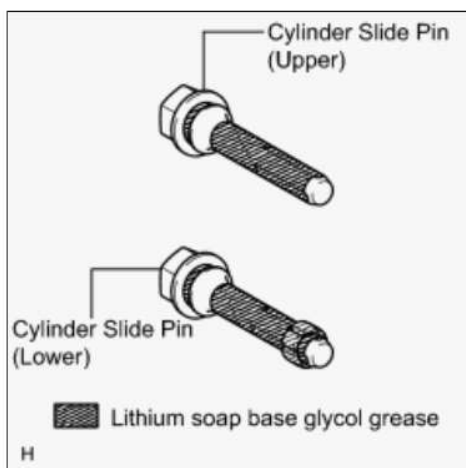
10. INSTALL REAR DISC BRAKE CYLINDER SLIDE BUSH



- (a) Apply a light coat of lithium soap base glycol grease to a new rear brake cylinder slide pin (lower) where it contacts rear disc brake cylinder slide bush.

- (b) Install the slide bush to the slide pin (lower).

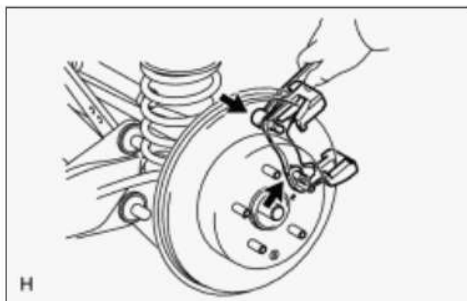
11. INSTALL REAR DISC BRAKE CYLINDER SLIDE PIN



- (a) Apply a light coat of lithium soap base glycol grease to the sliding part and the seal surface of the 2 rear disc brake cylinder slide pins.

- (b) Install the 2 slide pins (upper and lower) to the mounting.

12. INSTALL REAR DISC BRAKE CYLINDER MOUNTING LH



- (a) Install the cylinder mounting with the 2 bolts.

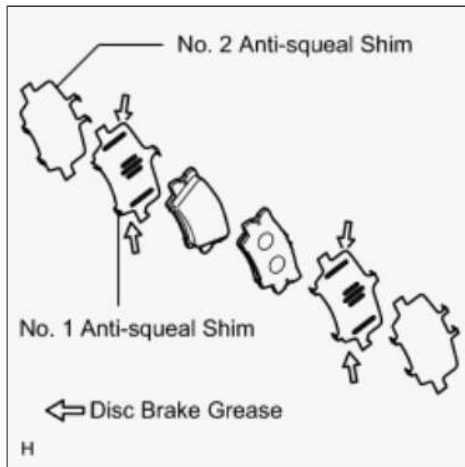
Torque: 88 N·m (897 kgf·cm, 65ft·lbf)

13. INSTALL REAR DISC BRAKE PAD SUPPORT PLATE

- (a) Install the 2 plates to the mounting.

14. INSTALL PAD WEAR INDICATOR PLATE

- (a) Install the 2 indicator plates to the lower side of each pad.



15. INSTALL ANTI-SQUEAL SHIM

- (a) Apply a light coat of disc brake grease to both sides of each No. 1 shim.
- (b) Install the No. 1 and No. 2 shims to the pads.

NOTICE:

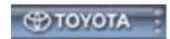
- When replacing a worn pad, the shims must be replaced together with the pads.
- Install the shims in the correct positions and direction as shown in the illustration.

16. INSTALL REAR DISC BRAKE PAD

- (a) Install the 2 disc brake pads to the mounting.

NOTICE:

Make sure there is no oil or grease on the friction surface of the pads and disc.



Last Modified: 9-7-2011	6.4 A	From: 201008
Model Year: 2011	Model: RAV4	Doc ID: RM000001ED300EX
Title: BRAKE: REAR BRAKE: REMOVAL (2011 RAV4)		

REMOVAL

HINT:

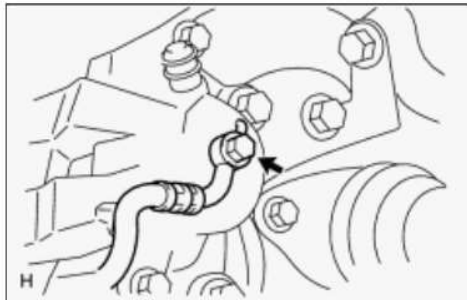
- Use the same procedure for the RH and LH sides.
- The procedures listed below are for the LH side.

1. REMOVE REAR WHEEL

2. DRAIN BRAKE FLUID

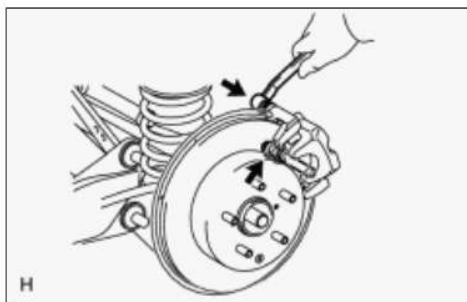
NOTICE:

Wash off brake fluid immediately if it comes in contact with any painted surface.



3. DISCONNECT REAR FLEXIBLE HOSE LH

- (a) Remove the union bolt and gasket.
- (b) Disconnect the flexible hose from the brake cylinder.



4. REMOVE REAR DISC BRAKE CYLINDER ASSEMBLY LH

- (a) Remove the 2 bolts and cylinder.

