



SERVICE BULLETIN

Classification: BR04-003b	Reference: NTB04-066b	Date: August 31, 2004
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2004 TITAN AND ARMADA; BRAKE JUDDER FROM FRONT BRAKES

This bulletin amends NTB04-066. This version amends the Applied VIN's and Dates.
Please discard all paper copies of the earlier versions.

APPLIED VEHICLES: 2004 Titan (A60)
2004 Armada (TA60)

APPLIED VIN's: Titan built before 1N6AA0(***)4N 567282
Armada built before 5N1AA0(***)4N 736646

APPLIED DATE: Vehicles built before June 30, 2004

IF YOU CONFIRM:

While braking, especially when braking at highway speeds:

- A steering wheel shake,
- Body vibration, or
- Brake pedal pulsation (also known as "brake judder").

ACTIONS:

- Use the ProCut™ PFM Series on-car brake lathe to "turn" (resurface) the front brake rotors.
- Install the new brake caliper Torque Member—use new torque member bolts.
- Install the new Sliding Pin Kit.
- Install the new front brake pad kit, which includes new "coated" pad retainers.
- "Burnish" the brake pads.

IMPORTANT: The purpose of "ACTIONS" (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire Service Procedure (starting on page 2) as it contains information that is essential to successfully completing this repair.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
Brake Pad Kit, Front	41060-7S027	1
Torque Member	41014-7S010	2
Torque Member Anchor Bolts	41005-7S000	4
Sliding Pin Kit	40135-7S025	2

CLAIMS INFORMATION

Submit a Primary Failed Part (PP) line using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Turn both FRONT brake rotors on the vehicle (1)	(2)	PB25AA	EA	32	(3)

1. Includes time allowance to install the new pads and hardware and burnish the pads.
2. Reference the indicated Titan or Armada Parts Catalog and use the front brake rotor P/N as the PFP.
3. Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

SERVICE PROCEDURE

Turn the Front Brake Rotors

1. Remove both front brake caliper assemblies.
 - Refer to the Electronic Service Manual (ESM), section BR, for brake caliper assembly removal.
2. Inspect / measure the rotors to make sure they are serviceable (they can be reused / resurfacing is possible).
 - Refer to the ESM, section BR, for brake rotor inspection.
 - Minimum Thickness:
24.5 mm (0.965 in.)
Any thickness under that: Replace both rotors.

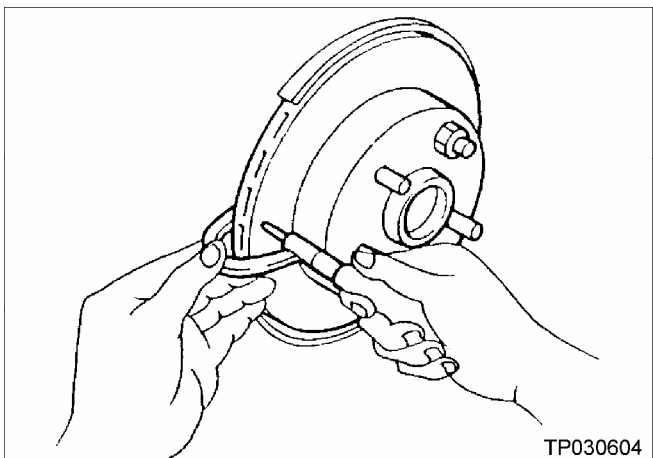


Figure 2

IMPORTANT: If new rotors are required, “index” them to the hub (see “Rotor Indexing” on page 10).

3. Resurface both front rotors using the **ProCut™ PFM Series On-Car Brake Lathe.**

IMPORTANT NOTES:

- The on-car brake lathe is more effective in reducing brake rotor runout than the conventional off-car lathe method.
- You must use the ProCut™ PFM Series brake lathe. It has been chosen as the approved tool for this repair.
- The ProCut™ PFM Series brake lathe can be ordered from Nissan TECH-MATE at 1-800-662-2001.

- On some hoists, the vehicle may wobble a little while using the on-car brake lathe. To prevent this wobble, stabilize the vehicle with a jack or jack stand as shown in Figure 3.

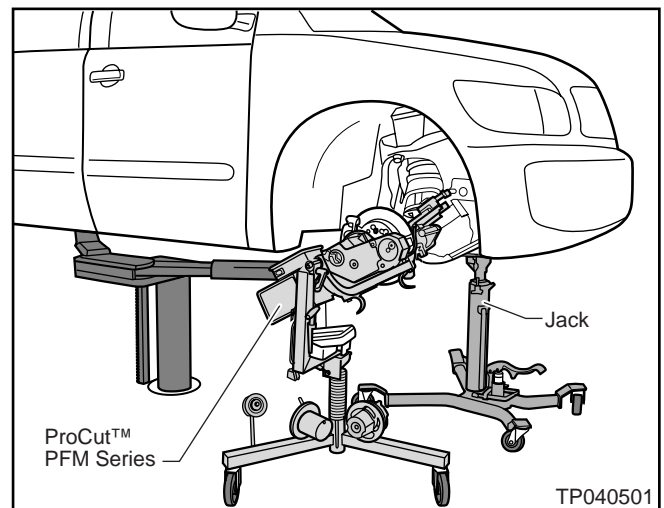


Figure 3

- When using the on-car brake lathe, you must prevent metal shavings from contacting or collecting on the ABS speed sensors.
- Remove any shavings that stick to the ABS speed sensor's magnet. It is best to clean the ABS sensor with the rotor removed.
- If the rotor must be removed for any reason, mark the exact location (rotor to axle hub) before removing the rotor (see Figure 9 on page 10). The rotor must be reinstalled back to the same location.
- Do not tighten the wheel lug nuts with an air impact driver.
- Use a torque wrench to tighten the wheel lug nuts to the proper torque specification. Uneven or high torque applied to the lugs may distort the brake rotor and hub. This may result in increased rotor runout and excessive rotor thickness variation as the rotor wears.

4. After the rotors have been resurfaced:

- Recheck the rotor thickness. Specification: 24.5 mm (0.965 in.) minimum thickness.
- Check the rotor runout. Specification: 0.03 mm (0.001 in) maximum runout.

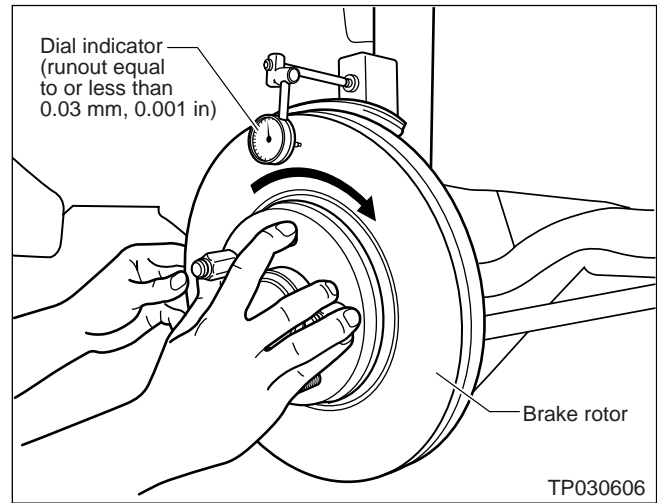
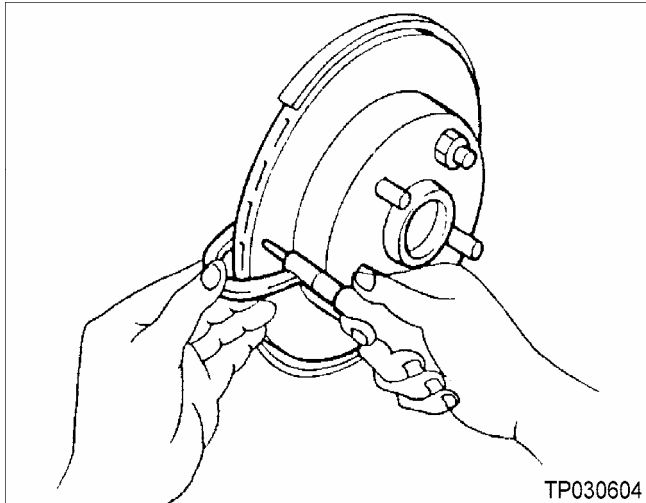


Figure 4

5. Clean the caliper assemblies.

- Remove any adhesive from the caliper and caliper pistons. Be careful not to damage the pistons or boots.

NOTE: For steps 6 through 10, refer to the ESM as needed for brake repair information.

Install the New brake caliper Torque Member—use new torque member bolts.

6. Install the new Torque Members with new Torque Member Bolts (see Figure 5).

- These new parts are listed in the Parts Information.
- **IMPORTANT:** Make sure to use new torque member anchor bolts. **Do not** reuse the old ones.
- Tighten torque member bolts to 210 N-m (21 kg-m, 155 ft-lb).

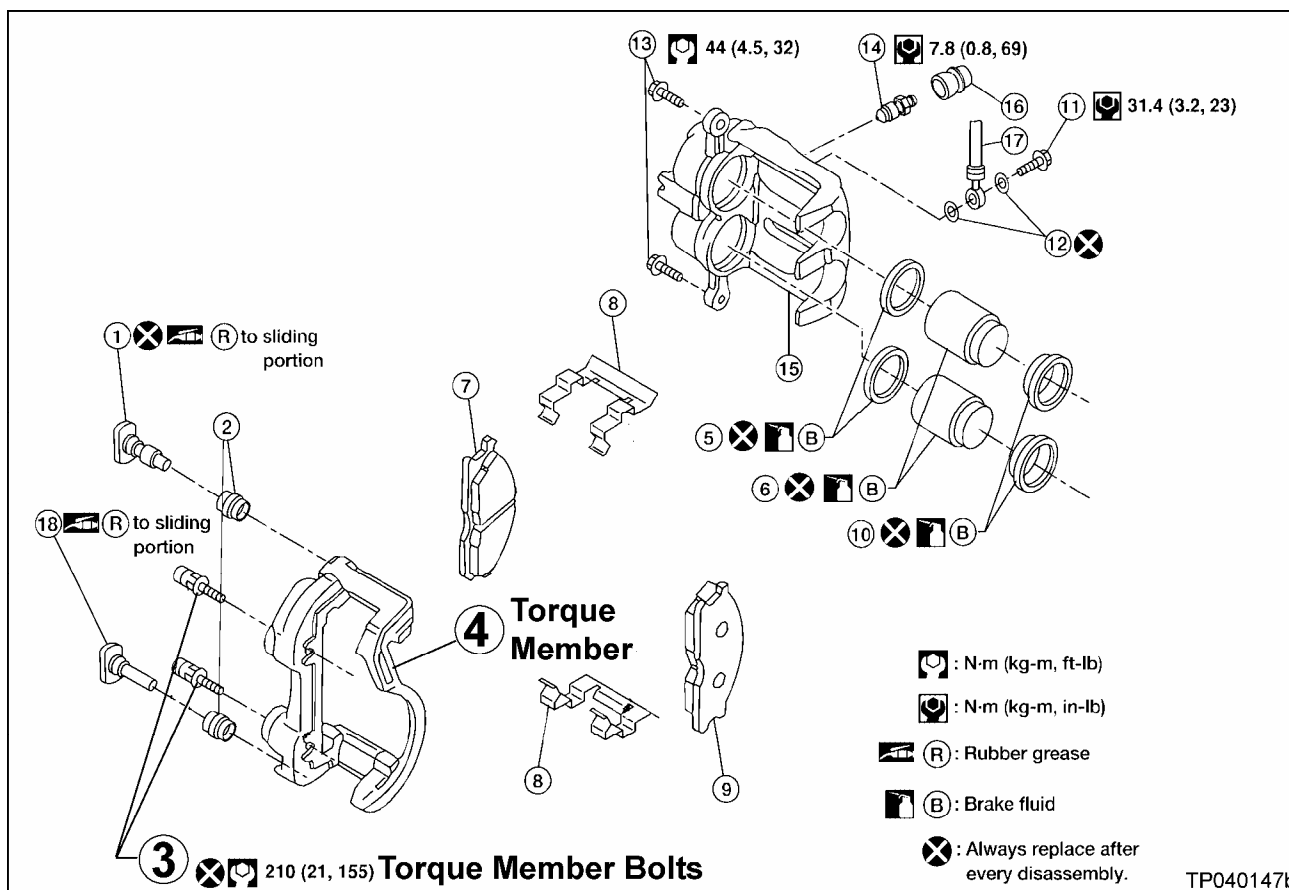


Figure 5

- 1. Upper sliding pin
- 4. Torque member**
- 7. Inner pad
- 10. Piston boot
- 13. Sliding pin bolt
- 16. Cap

- 2. Sliding pin boot
- 5. Piston seal
- 8. Pad retainer
- 11. Union bolt
- 14. Bleed valve
- 17. Brake hose

- 3. Torque member bolt**
- 6. Piston
- 9. Outer pad
- 12. Copper washer
- 15. Cylinder body
- 18. Lower sliding pin

Install the New Sliding Pin Kits.

7. Install the new Sliding Pin Kits (see Figure 6).

- The Sliding Pin Kits are listed in the parts information.
- Apply grease to the sliding pins. Use the grease supplied with the kits.
- The upper sliding pin has a “rubber sleeve”. Make sure this sleeve is installed in the upper sliding pin hole (closest to the bleed valve).

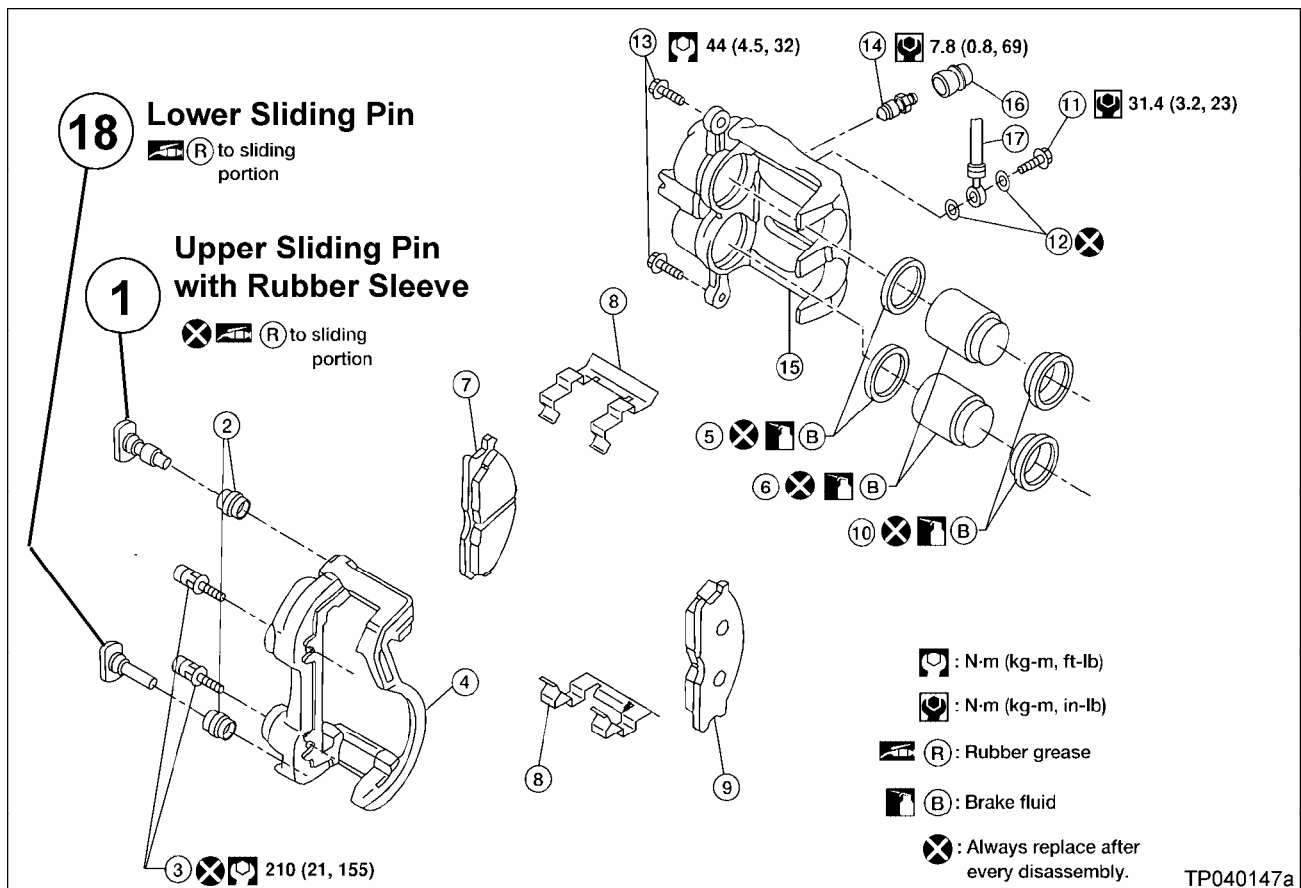


Figure 6

1. Upper sliding pin
 4. Torque member
 7. Inner pad
 10. Piston boot
 13. Sliding pin bolt
 16. Cap

2. Sliding pin boot
 5. Piston seal
 8. Pad retainer
 11. Union bolt
 14. Bleed valve
 17. Brake hose

3. Torque member bolt
 6. Piston
 9. Outer pad
 12. Copper washer
 15. Cylinder body
18. Lower sliding pin

Install the New Front Brake Pad Kit, Which Includes New “Coated” Pad Retainers.

8. Install the new brake pad retainers (see Figure 7).

- Brake pad retainers are included with the brake pad kit listed in the Parts information.
- The new brake pad retainers are pre-coated with dry lubricant. No additional grease is necessary.
- **DO NOT** put any grease on the brake pad retainers or the brake pads.

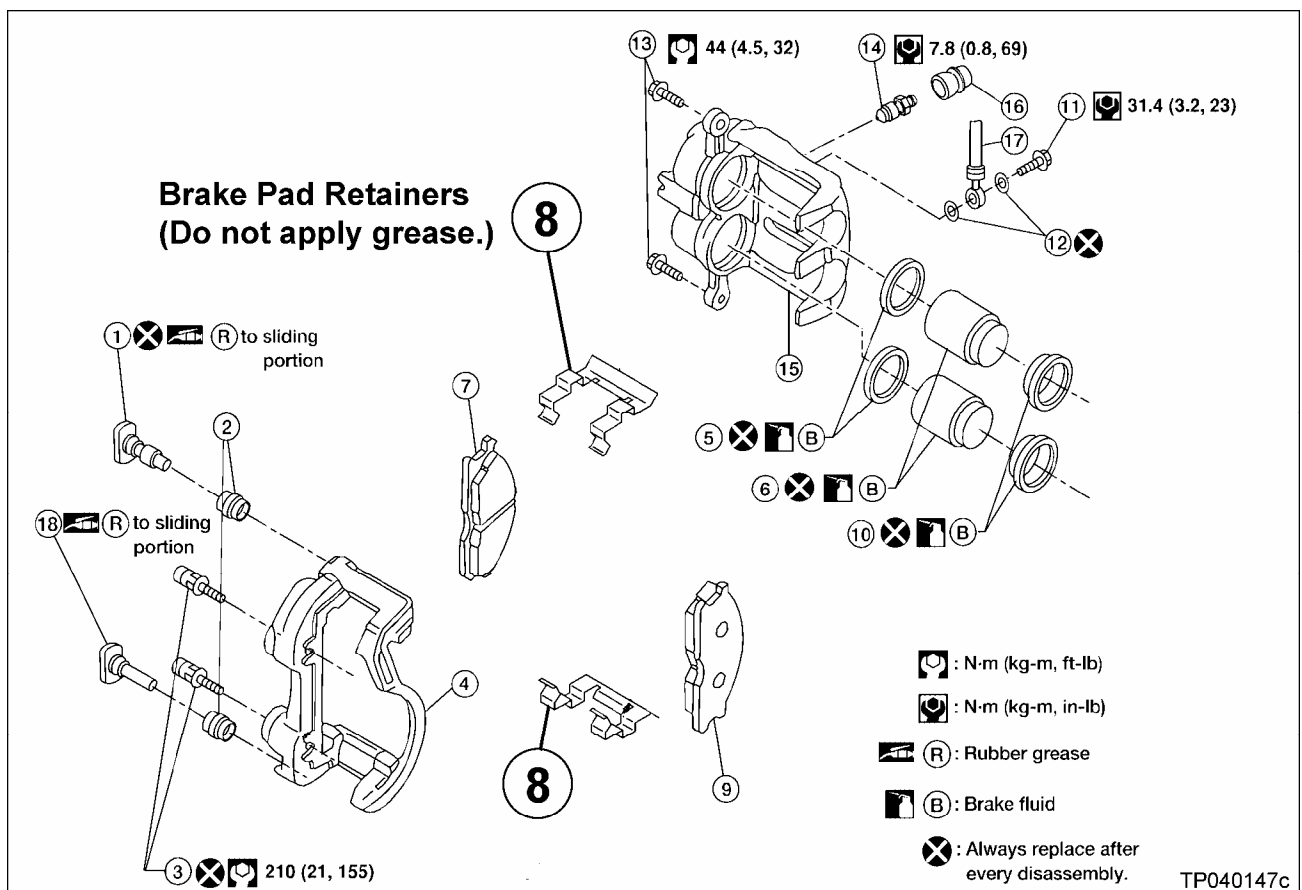


Figure 7

1. Upper sliding pin
2. Sliding pin boot
3. Torque member bolt
4. Torque member
7. Inner pad
10. Piston boot
13. Sliding pin bolt
16. Cap

5. Piston seal
8. Pad retainer
11. Union bolt
14. Bleed valve
17. Brake hose

6. Piston
9. Outer pad
12. Copper washer
15. Cylinder body
18. Lower sliding pin

9. Install the new brake pads.

- Before installation, remove the protective film from the brake pad backing insulators.
- Refer to the ESM for brake pad replacement instructions.

10. Reinstall the brake caliper body.

- Use the new Sliding Pin Bolts (see number 13 in Figure 8).
- New Sliding Pin Bolts are included with the Sliding Pin Kit listed in the Parts Information.
- First, tighten the Lower sliding pin - farthest from the bleed valve. Then tighten the Upper sliding pin.

Torque Spec: 40 – 44 N-m (4.0 – 4.5 kg-m, 30 – 32 ft-lb)

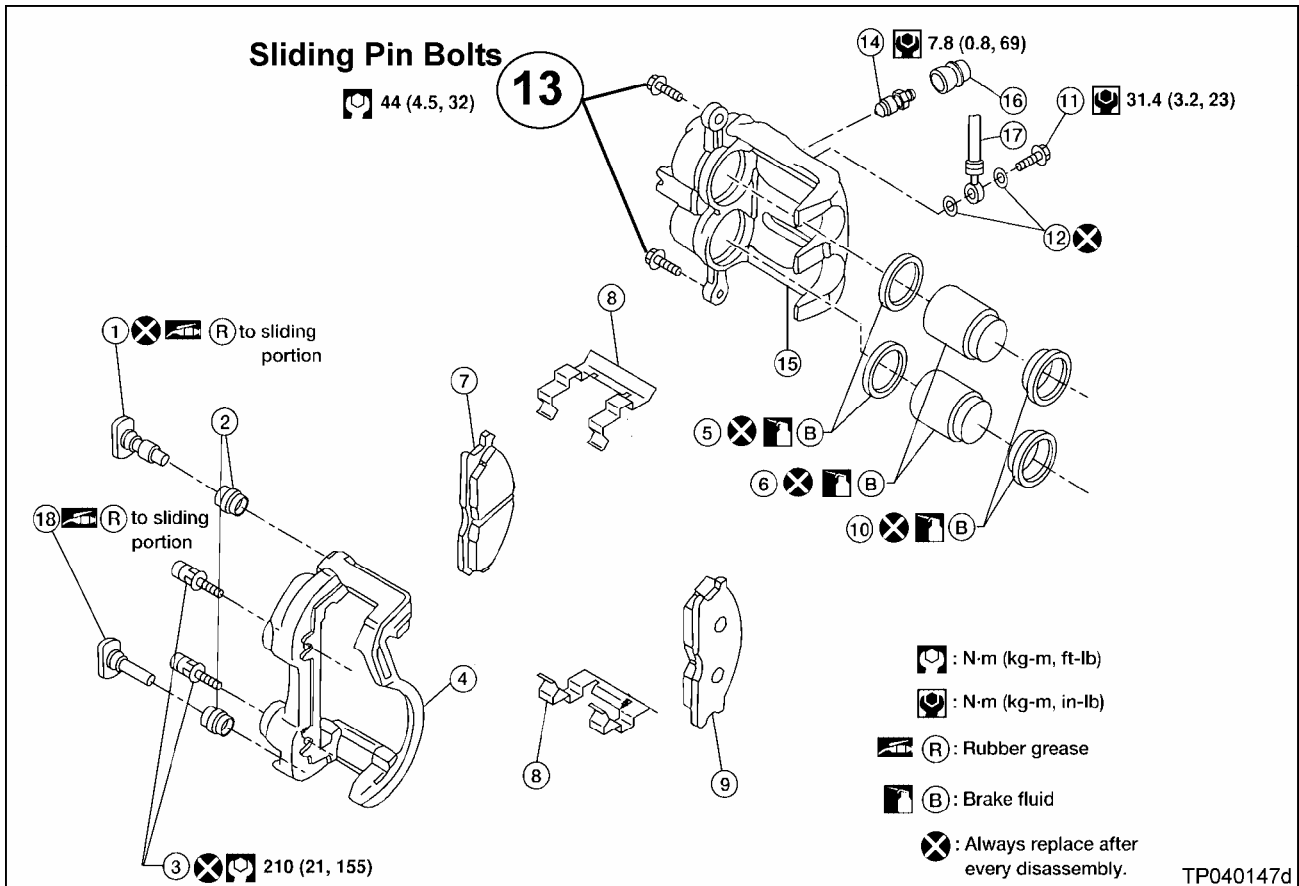


Figure 8

- | | | |
|-----------------------------|---------------------|-----------------------|
| 1. Upper sliding pin | 2. Sliding pin boot | 3. Torque member bolt |
| 4. Torque member | 5. Piston seal | 6. Piston |
| 7. Inner pad | 8. Pad retainer | 9. Outer pad |
| 10. Piston boot | 11. Union bolt | 12. Copper washer |
| 13. Sliding pin bolt | 14. Bleed valve | 15. Cylinder body |
| 16. Cap | 17. Brake hose | 18. Lower sliding pin |

11. Reinstall the wheels and lug nuts. Tighten lug nuts to **133 N·m (14 kg·m, 98 ft-lb)** with a Torque Wrench.

- Do Not tighten the wheel lug nuts with an air impact wrench.
- If you apply uneven or high torque to the lugs it may “distort” the brake rotor and hub. This could cause increased rotor runout and excessive rotor thickness variation as the rotor wears.

Burnish the Brake Pads

12. Burnish the brake pads as follow:

- A. Drive the vehicle on a straight smooth road at about 30 mph (50 kph).
- B. Use medium brake pedal/foot effort to bring the vehicle to a complete stop from about 30 mph (50 kph). Adjust your pedal/foot pressure so that the vehicle stopping time is 3-5 seconds.
- C. Cool the brake system by driving at about 30 mph (50 kph) for approximately one minute without stopping.
- D. Repeat steps A, B and C 10 times to complete the burnishing process.

Rotor Indexing

When installing a new rotor, use the following “indexing” procedure. This helps ensure a minimum amount of rotor runout.

1. Make sure the rotor is fully contacting the hub. Clean the rotor-to-hub surface if it is rusty.

NOTE: For cleaning the hub surface, specifically around the wheel studs, it is recommended to use the Wheel Hub Cleaning Kit #J-42450-A, which can be ordered from Nissan TECH-MATE at 1-800-662-2001.

2. Install the rotor and all lug nuts. Tighten the lug nuts to 40 ft-lbs (for this indexing process only).

3. Place a reference mark on the rotor and hub (see Figure 9).

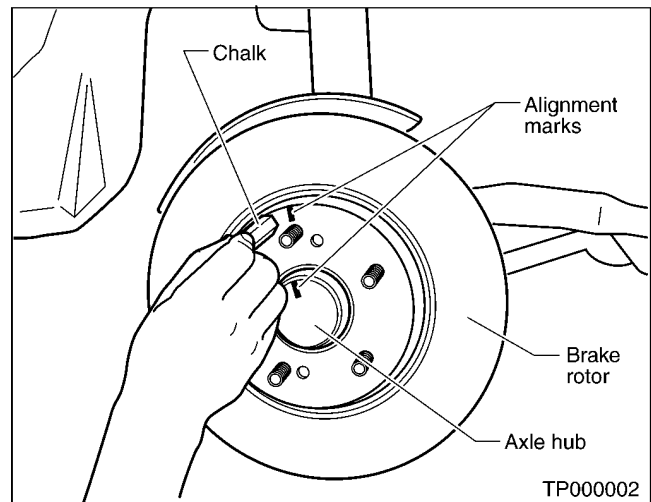


Figure 9

4. Measure rotor runout with a dial indicator (see Figure 10).

- If the runout is above 0.03 mm (0.001 in), continue with step 5.

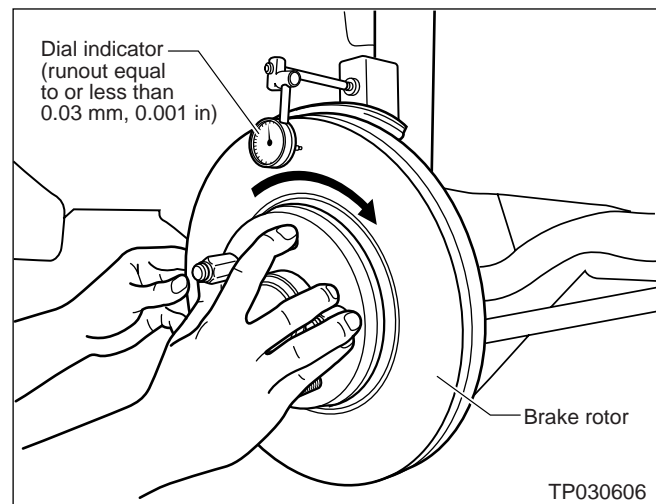


Figure 10

5. Remove the lug nuts and shift the position of the rotor one lug clockwise, then reinstall the lug nuts and torque to 40 ft-lbs. (again, for this indexing process only).

- Repeat step 4 and 5 until the rotor is positioned with the least amount of runout.

6. After you find the position with the least amount of runout, if the runout is still more than 0.03 mm (0.001 in), you'll need to turn (resurface) the new rotors. See step 3 in the Service Procedure.