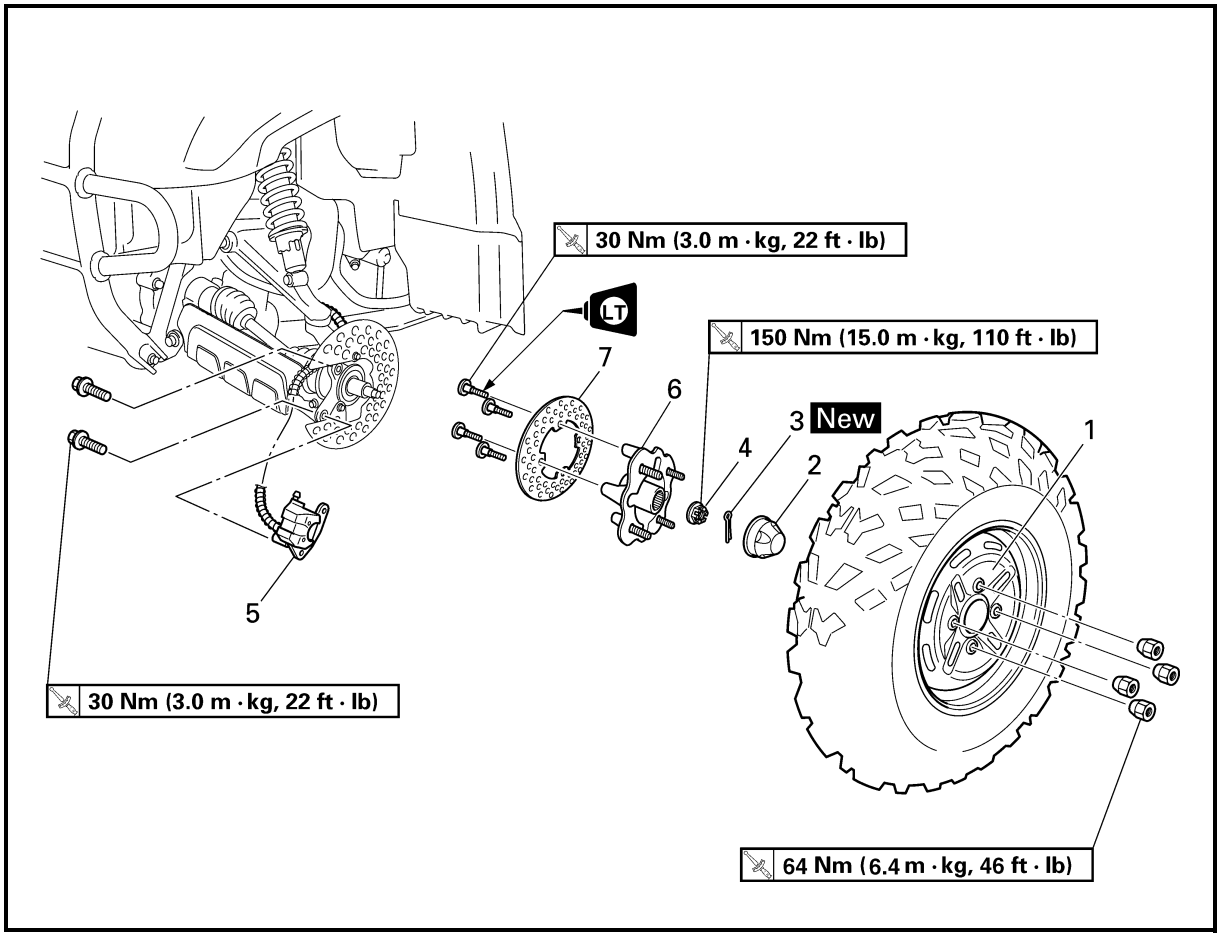
CHASSIS

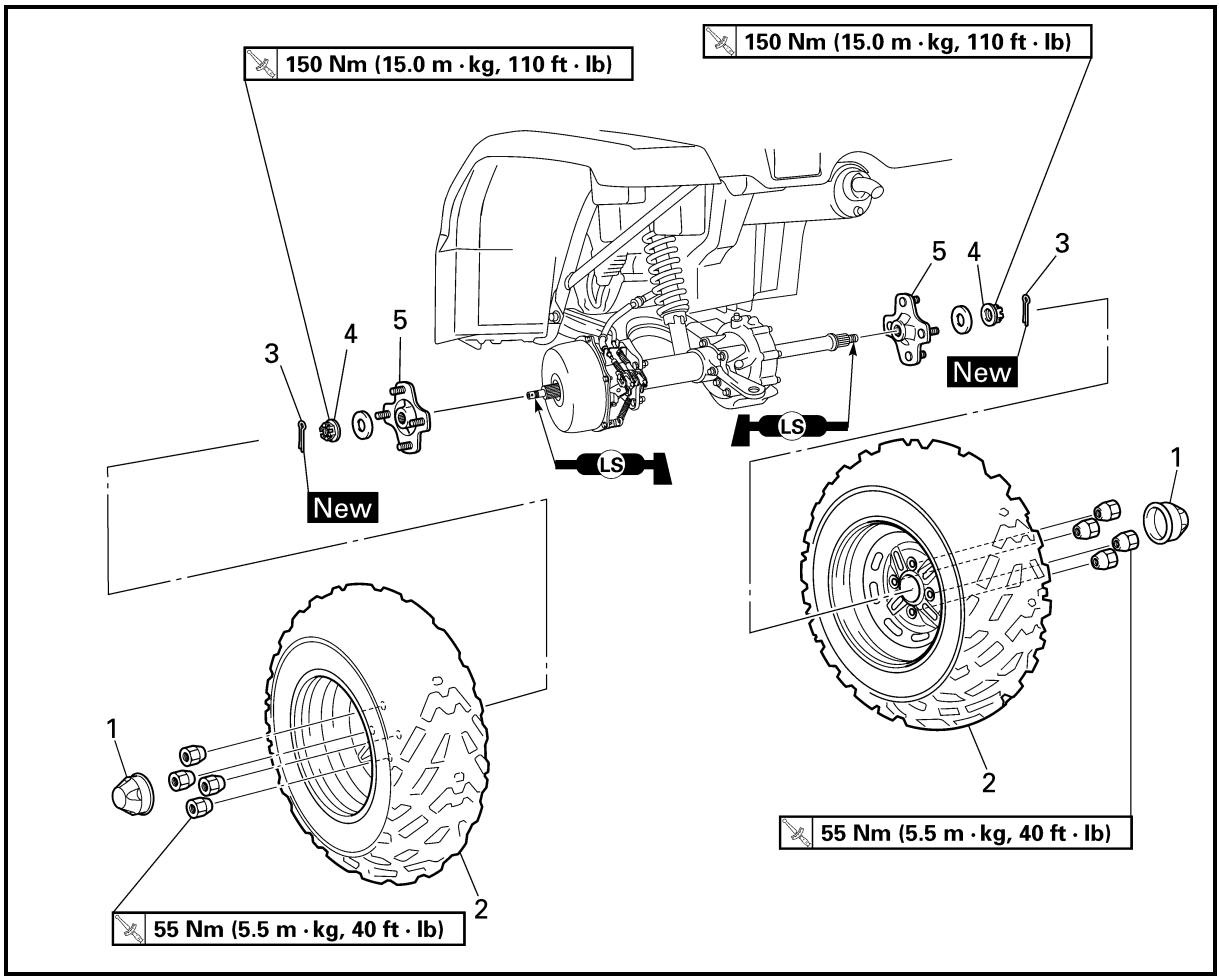
FRONT AND REAR WHEELS

FRONT WHEELS

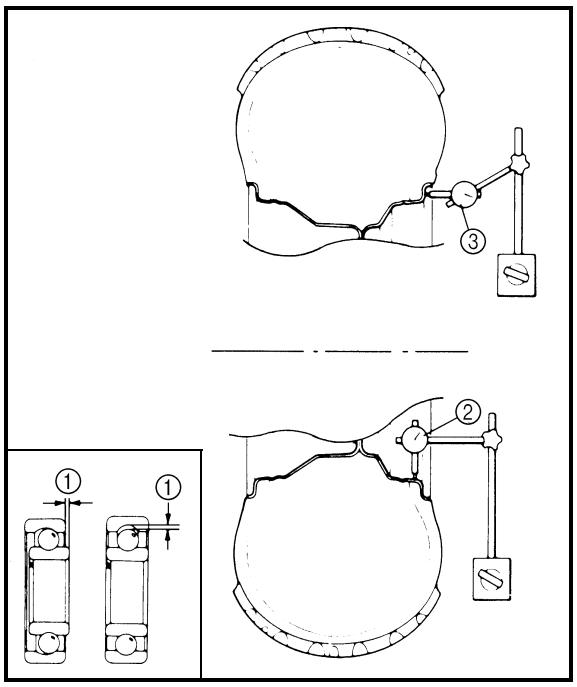


Order	Job name/Part name	Q'ty	Remarks
	Removing the front wheels		Remove the parts in the order below. Place the machine on a level surface. **⚠ WARNING** **Securely support the machine so there is no danger of it falling over.**
1	Front wheel	1	Refer to "INSTALLING THE WHEELS".
2	Wheel cap	1	Refer to "INSTALLING THE WHEEL HUBS".
3	Cotter pin	1	
4	Axle nut	1	
5	Brake caliper assembly	1	**NOTE:** Do not squeeze the brake lever when the brake caliper is off of the brake disc as the brake pads will be forced shut.
6	Wheel hub	1	
7	Brake disc	1	
			For installation, reverse the removal procedure.

REAR WHEELS



Order	Job name/Part name	Q'ty	Remarks
	Removing the rear wheels		Remove the parts in the order below. Place the machine on a level surface. **⚠ WARNING** **Securely support the machine so there is no danger of it falling over.**
1	Wheel cap	2	
2	Rear wheel	2	Refer to "INSTALLING THE WHEELS".
3	Cotter pin	2	Refer to "INSTALLING THE WHEEL HUBS".
4	Axle nut	2	
5	Wheel hub	2	
			For installation, reverse the removal procedure.



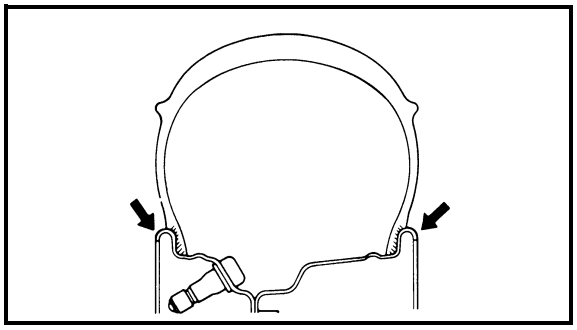
CHECKING THE WHEELS

1.Check:
- Wheel

2.Measure:
- Wheel runout
  Over the specified limit → Replace the wheel or check the wheel bearing plays ①.

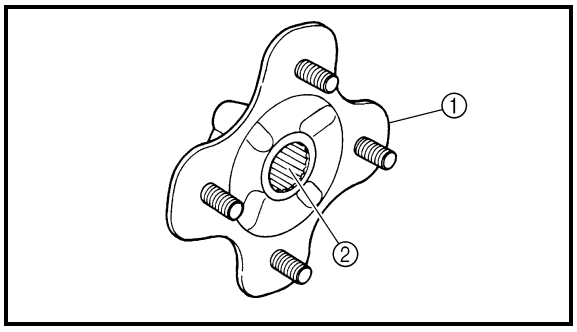
Wheel runout limit:
Radial ②: 2.0 mm (0.08 in)
Lateral ③: 2.0 mm (0.08 in)

3.Check:
- Wheel balance
  Out of balance → Adjust.



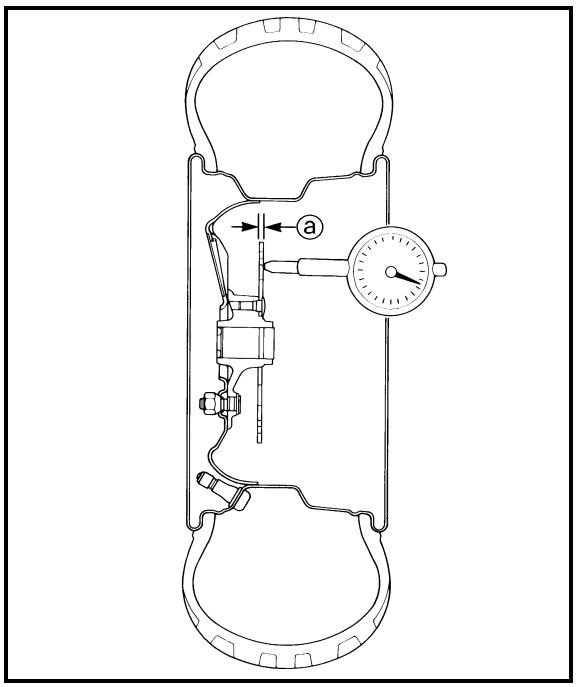
⚠ WARNING

After replacing the tire, ride conservatively to allow the tire to be properly seated in the rim. Failure to do so may cause an accident resulting in machine damage and possible operator injury.



CHECKING THE WHEEL HUBS

1.Check:
- Wheel hub ①
  Cracks/damage → Replace.
- Splines (wheel hub) ②
  Wear/damage → Replace.



CHECKING THE BRAKE DISCS

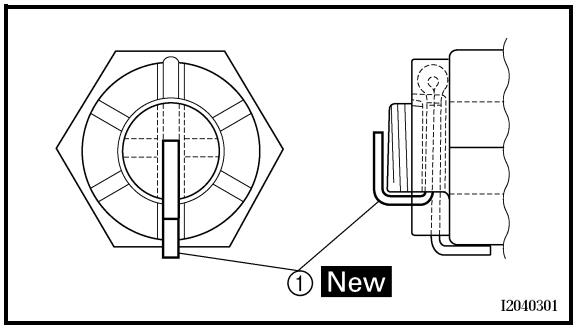
1.Check:
- Brake disc
  Galling/damage → Replace.

2.Measure:
- Brake disc deflection
  Out of specification → Check the wheel runout.
  If wheel runout is within the limits, replace the brake disc.

Brake disc maximum deflection: 0.15 mm (0.006 in)

- Brake disc thickness ⓐ
  Out of specification → Replace.

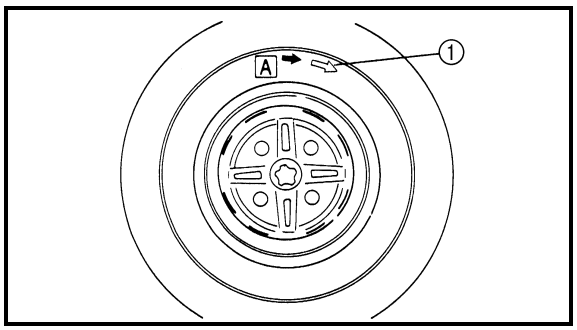
Brake disc minimum thickness: 3 mm (0.12 in)



INSTALLING THE WHEEL HUBS

1.Install:
- Axle nut **150 Nm (15.0 m • kg, 110 ft • lb)**
- Cotter pin ① New

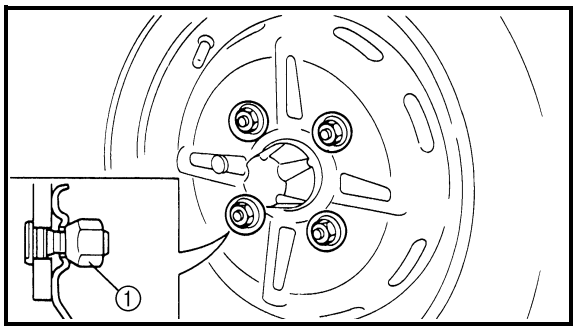
NOTE:
Do not loosen the axle nut after torquing it. If the axle nut groove is not aligned with the cotter pin hole, align the groove with the hole by tightening the axle nut.



INSTALLING THE WHEELS

1.Install:
- Wheel

NOTE:
The arrow mark ① on the tire must point in the direction of rotation A of the wheel.



2.Install:
- Nuts (wheel) ①

⚠ WARNING

Tapered wheel nuts ① are used for both the front and rear wheels. Install each nut with its tapered side towards the wheel.

3.Tighten:
- Nuts (front wheels)

64 Nm (6.4 m • kg, 46 ft • lb)

- Nuts (rear wheels)

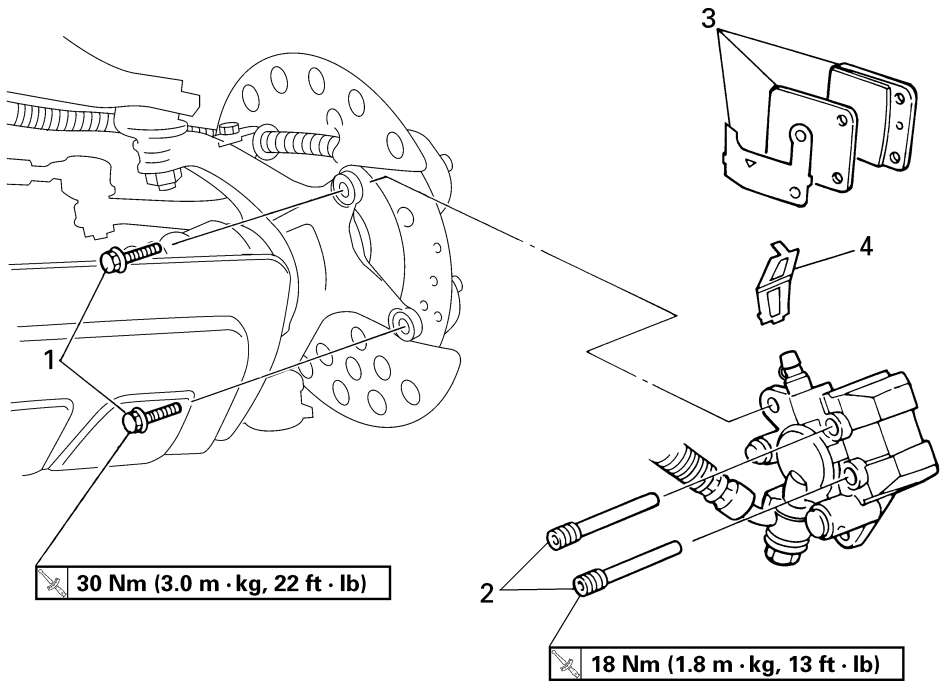
55 Nm (5.5 m • kg, 40 ft • lb)

NOTE:

Tighten the nuts in stages and in a crisscross pattern.

FRONT BRAKE

FRONT BRAKE PADS



Order	Job name/Part name	Q'ty	Remarks
	Removing the front brake pads		Remove the parts in the order below.
	Front wheel		Refer to "FRONT AND REAR WHEELS".
1	Brake caliper mounting bolt	2	
2	Brake pad holding bolt	2	Refer to "REPLACING THE FRONT BRAKE PADS".
3	Brake pad/pad shim	2/1	
4	Pad spring	1	
			For installation, reverse the removal procedure.

CAUTION:

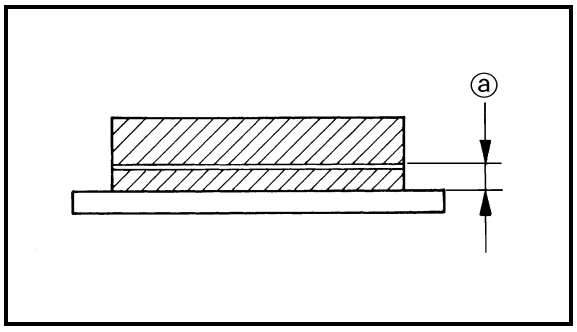
Disc brake components rarely require disassembly. DO NOT:

- **disassemble components unless absolutely necessary;**
- **use solvents on internal brake components;**
- **use spent brake fluid for cleaning; (use only clean brake fluid)**
- **allow brake fluid to come in contact with the eyes, as this may cause eye injury;**
- **splash brake fluid onto painted surfaces or plastic parts, as this may cause damage;**
- **disconnect any hydraulic connection, as this would require the entire brake system to be disassembled, drained, cleaned, properly filled and bled after reassembly.**

REPLACING THE FRONT BRAKE PADS

NOTE:

It is not necessary to disassemble the brake caliper and brake hose to replace the brake pads.



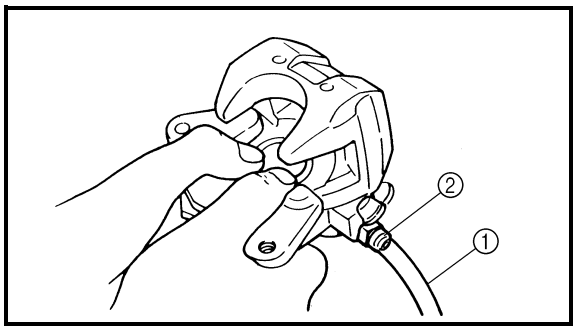
1. Measure:
- Brake pad wear limit ⓐ
  Out of specification → Replace the brake pads as a set.

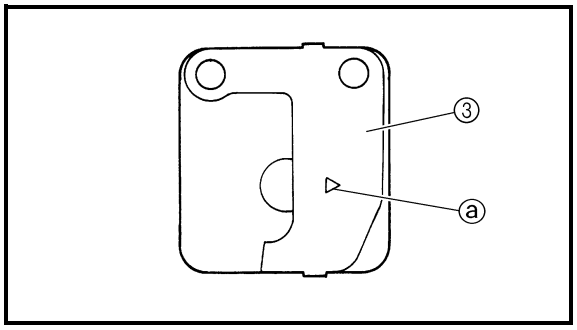
Brake pad wear limit:
1 mm (0.04 in)

2. Install:
- Brake pads
- Brake pad spring

NOTE:

Always install new brake pads, brake pad shim and brake pad spring as a set.





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Installation steps:

- Connect a suitable hose ① tightly to the brake caliper bleed screw ②. Put the other end of this hose into an open container.
- Loosen the brake caliper bleed screw and, using a finger, push the caliper piston into the brake caliper.
- Tighten the brake caliper bleed screw.

Brake caliper bleed screw:
6 Nm (0.6 m • kg, 4.3 ft • lb)

- Install new brake pads, new pad shim ③ and a new brake pad spring.
- Install the holding bolts and brake caliper.

NOTE:
The arrow mark ⓐ on the pad shim must point in the direction of the disc rotation.

Brake pad holding bolt:
18 Nm (1.8 m • kg, 13 ft • lb)
Brake caliper mounting bolt:
30 Nm (3.0 m • kg, 22 ft • lb)

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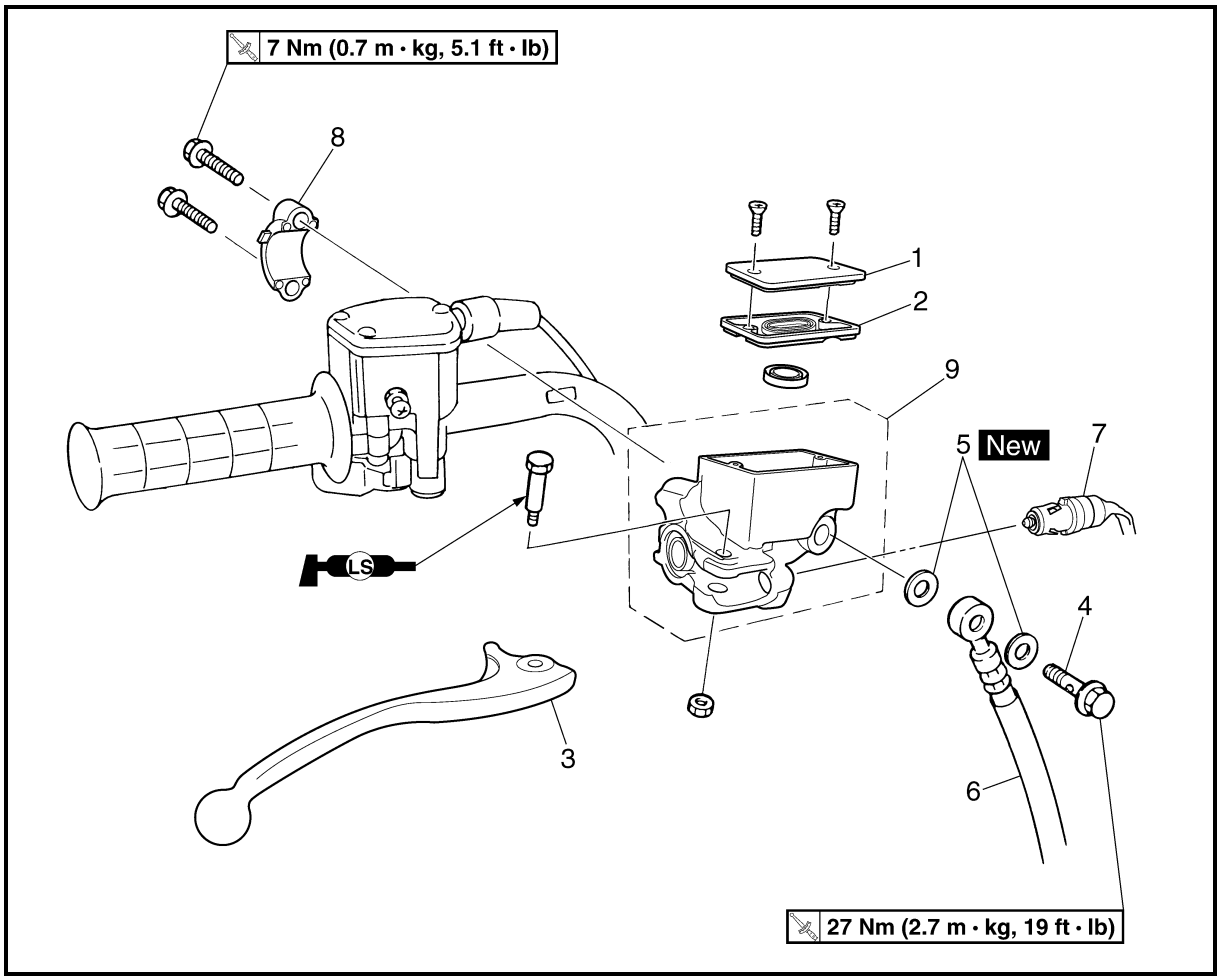
3.Check:
- Brake fluid level
  Refer to “CHECKING THE FRONT BRAKE FLUID LEVEL” in CHAPTER 3.

4.Check:
- Brake lever operation
  Soft or spongy feeling → Bleed the front brake system.
  Refer to “BLEEDING THE HYDRAULIC BRAKE SYSTEM” in CHAPTER 3.

FRONT BRAKE MASTER CYLINDER



Order	Job name/Part name	Q'ty	Remarks
	Removing the front brake master cylinder		Remove the parts in the order below.
	Brake fluid		Drain.
1	Brake fluid reservoir cap	1	
2	Brake fluid reservoir diaphragm	1	
3	Brake lever	1	
4	Union bolt	1	
5	Copper washer	2	
6	Brake hose	1	Refer to "INSTALLING THE FRONT BRAKE MASTER CYLINDER".
7	Front brake light switch	1	
8	Brake master cylinder bracket	1	
9	Brake master cylinder	1	
			For installation, reverse the removal procedure.