

EAS00108

CHASSIS

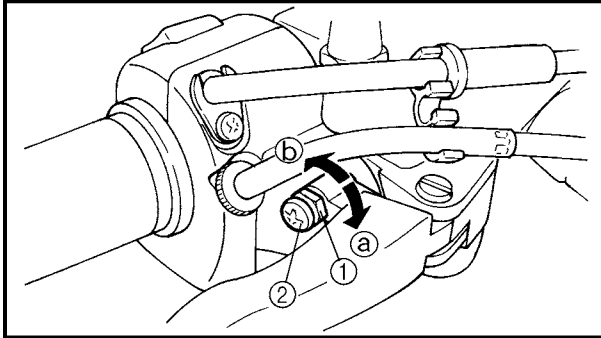
ADJUSTING THE FRONT BRAKE

1. Measure:

- brake lever free play Ⓐ
- Out of specification → Adjust.



Brake lever free play (at the end of the brake lever)
2 ~ 5 mm (0.08 ~ 0.20 in)



2. Adjust:

- brake lever free play



a. Loosen the locknut ①.

b. Turn the adjusting screw ② in direction Ⓐ or Ⓑ until the specified brake lever free play is obtained.

Direction Ⓐ	Brake lever free play is increased.
Direction Ⓑ	Brake lever free play is decreased.

c. Tighten the locknut.

⚠ WARNING

A soft or spongy feeling in the brake lever can indicate the presence of air in the brake system. Before the vehicle is operated, the air must be removed by bleeding the brake system. Air in the brake system will considerably reduce braking performance and could result in loss of control and possibly an accident. Therefore, check and, if necessary, bleed the brake system.

CAUTION:

After adjusting the brake lever free play, make sure there is no brake drag.



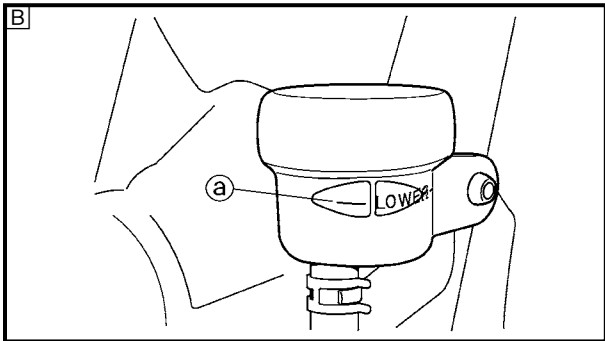
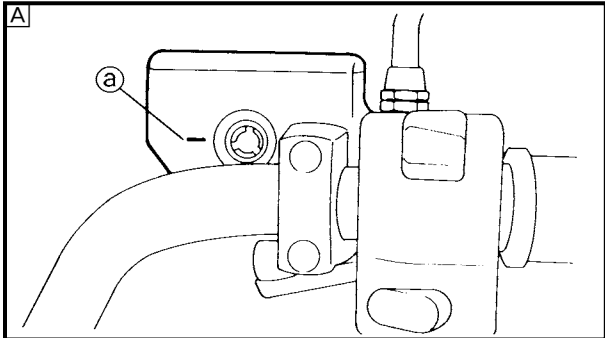
EAS00115

CHECKING THE BRAKE FLUID LEVEL

1. Stand the motorcycle on a level surface.

NOTE: _____

- Place the motorcycle on a suitable stand.
- Make sure the motorcycle is upright.



2. Check:

- brake fluid level
Below the minimum level mark (a) → Add the recommended brake fluid to the proper level.

Recommended brake fluid
DOT 4

A Front brake

B Rear brake

⚠ WARNING _____

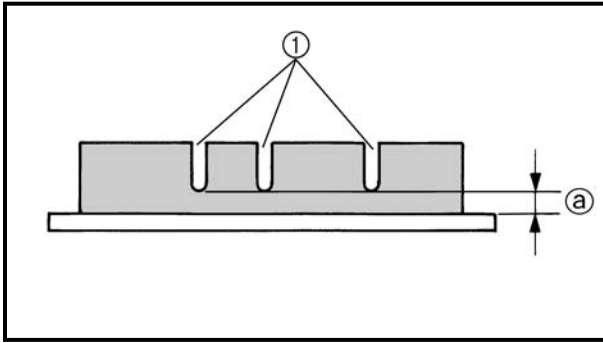
- **Use only the designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.**
- **Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.**
- **When refilling, be careful that water does not enter the brake fluid reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.**

CAUTION: _____

Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any spilt brake fluid immediately.

NOTE: _____

In order to ensure a correct reading of the brake fluid level, make sure the top of the brake fluid reservoir is horizontal.



EAS00120

CHECKING THE FRONT BRAKE PADS

The following procedure applies to all of the brake pads.

1. Operate the brake.
2. Check:

- brake pad

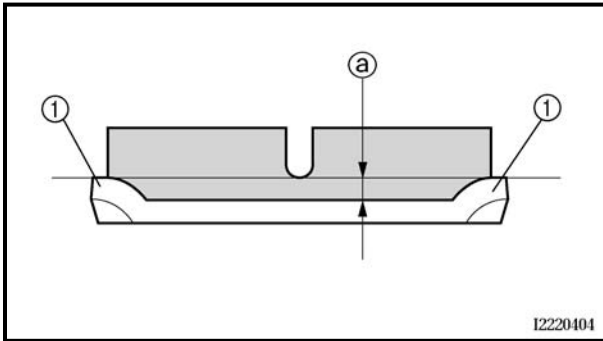
Wear indicator groove ① almost disappeared → Replace the brake pads as a set.

Refer to “REPLACING THE FRONT BRAKE PADS” in chapter 4.



Brake pad wear limit ②
0.5 mm (0.02 in)

3



EAS00118

CHECKING THE REAR BRAKE PADS

The following procedure applies to all of the brake pads.

1. Operate the brake.
2. Check:

- brake pad

Wear indicators ① almost touch the brake disc → Replace the brake pads as a set.

Refer to “REPLACING THE REAR BRAKE PADS” in chapter 4.



Brake pad wear limit ②
0.5 mm (0.02 in)

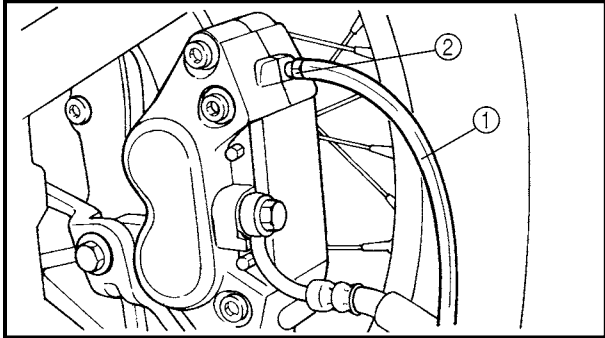
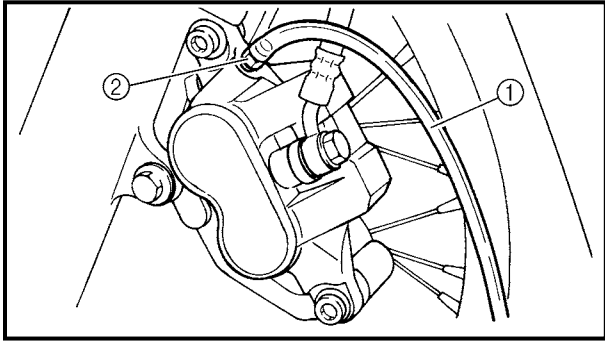
EAS00128

ADJUSTING THE REAR BRAKE LIGHT SWITCH

NOTE: _____

The rear brake light switch is operated by movement of the brake pedal.

The rear brake light switch is properly adjusted when the brake light comes on just before the braking effect starts.



c. Connect a clear plastic hose ① tightly to the bleed screw ②.

A Front B Rear

d. Place the other end of the hose into a container.

e. Slowly apply the brake several times.

f. Fully squeeze the brake lever or fully depress the brake pedal and hold it in position.

g. Loosen the bleed screw.

NOTE: _____
Loosening the bleed screw will release the pressure and cause the brake lever to contact the throttle grip or the brake pedal to fully extend.

h. Tighten the bleed screw and then release the brake lever or brake pedal.

i. Repeat steps (e) to (h) until all of the air bubbles have disappeared from the brake fluid in the plastic hose.

j. Tighten the bleed screw to specification.

	Bleed screw 6 Nm (0.6 m • kg, 4.3 ft • lb)
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k. Fill the brake fluid reservoir to the proper level with the recommended brake fluid.

Refer to "CHECKING THE BRAKE FLUID LEVEL".

⚠ WARNING _____
After bleeding the hydraulic brake system, check the brake operation.




4. Install:
- plastic clamps
 - muffler bracket


	26 Nm (2.6 m • kg, 19 ft • lb)
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- muffler

5. Tighten:
- muffler bolts

	30 Nm (3.0 m • kg, 22 ft • lb)
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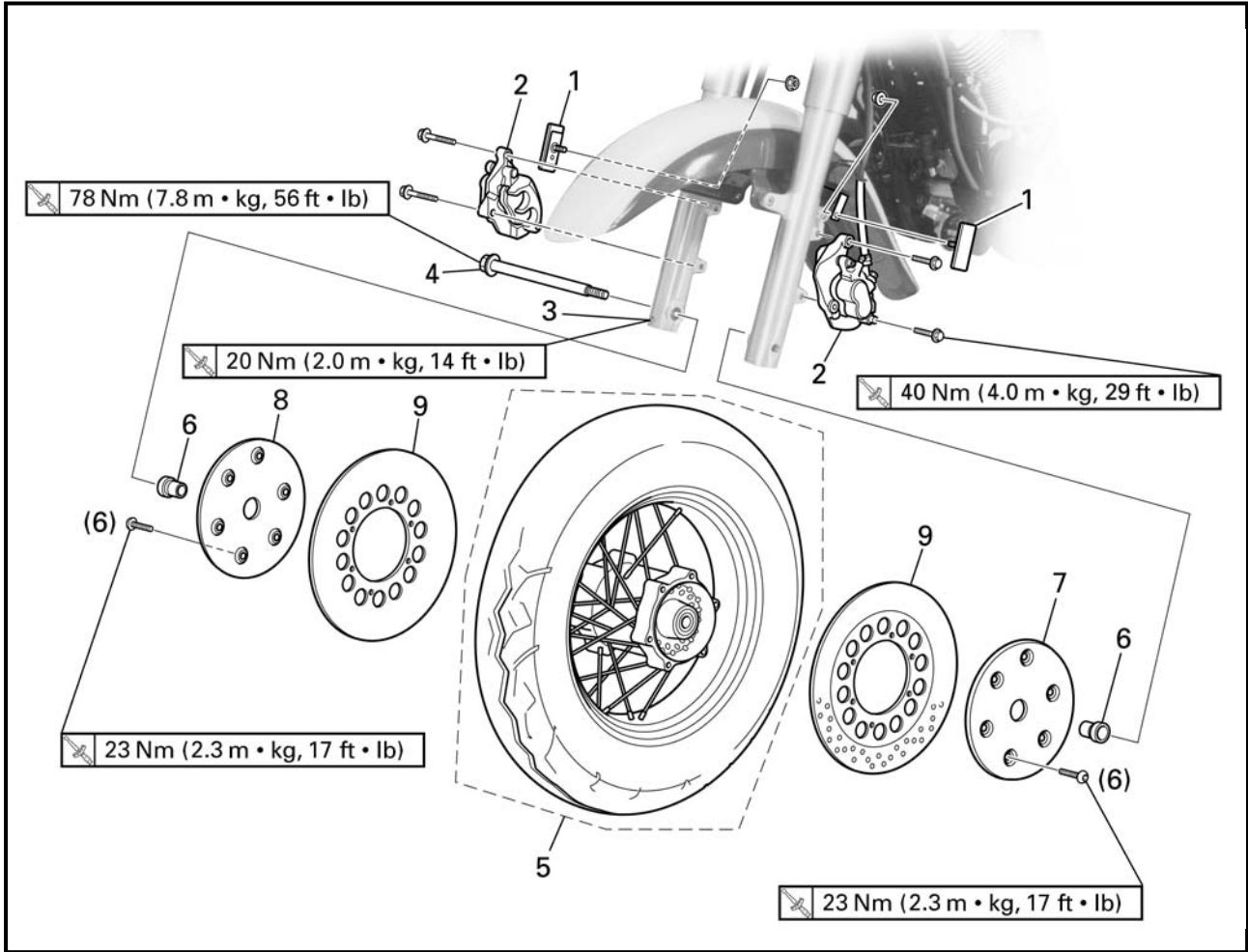
- muffler clamp bolts

	25 Nm (2.5 m • kg, 18 ft • lb)
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EAS00514

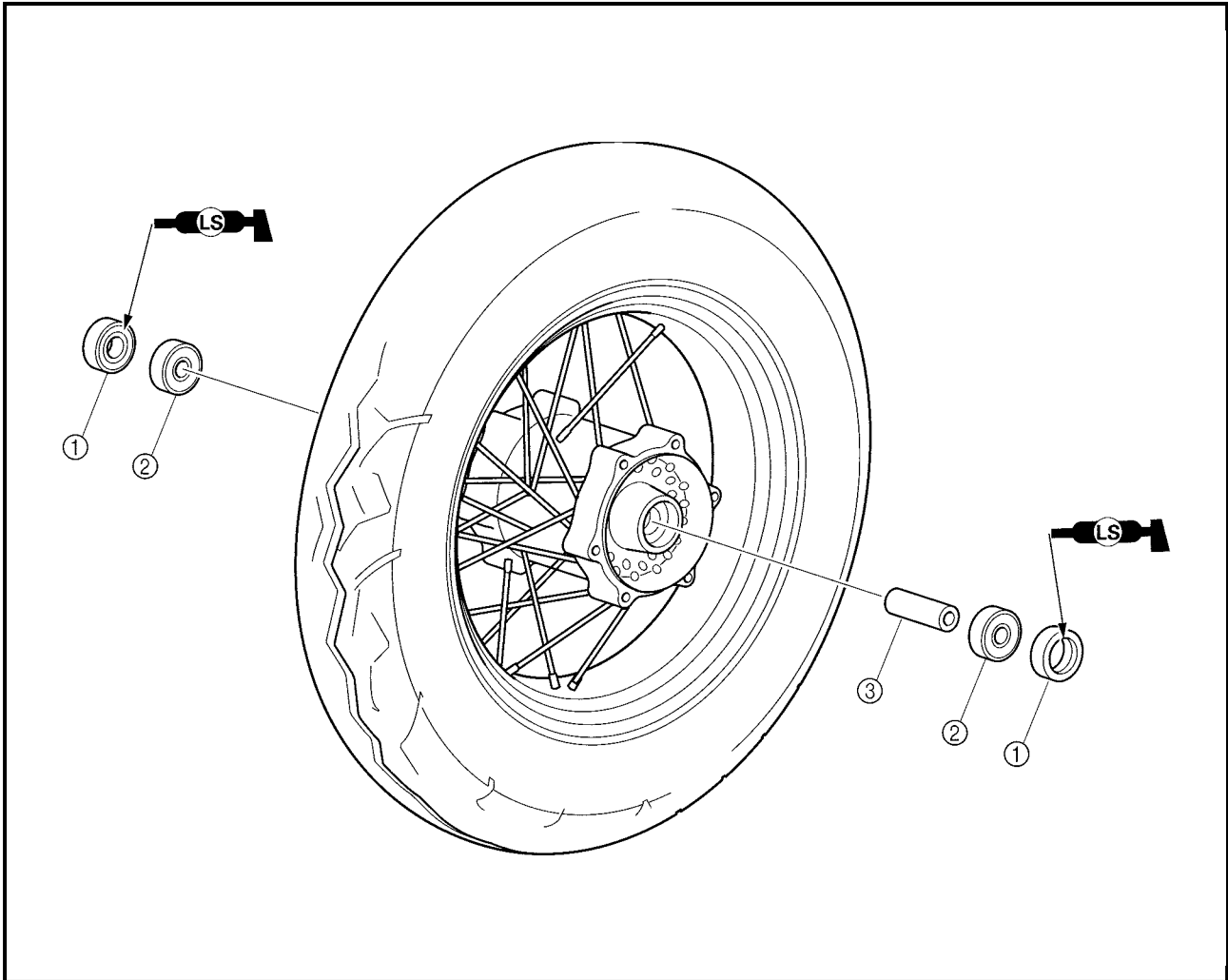
CHASSIS

FRONT WHEEL AND BRAKE DISCS



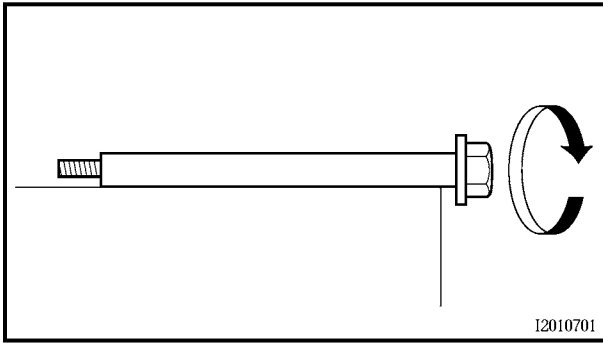
4

Order	Job/Part	Q'ty	Remarks
	Removing the front wheel and brake discs		Remove the parts in the order listed.
			NOTE: _____ Place the motorcycle on a suitable stand so that the front wheel is elevated.
1	Reflector (left and right)	2	Loosen.
2	Brake caliper (left and right)	2	
3	Wheel axle pinch bolt	1	
4	Front wheel axle	1	
5	Front wheel	1	
6	Collar (left and right)	2	For installation, reverse the removal procedure.
7	Brake disc cover (left)	1	
8	Brake disc cover (right-with weight)	1	
9	Brake disc (left and right)	2	



4

Order	Job/Part	Q'ty	Remarks
	Disassembling the front wheel		Remove the parts in the order listed.
①	Oil seal (left and right)	2	
②	Wheel bearing (left and right)	2	
③	Spacer	1	
			For assembly, reverse the disassembly procedure.



EAS00526

CHECKING THE FRONT WHEEL

1. Check:
 - wheel axle
 - Roll the wheel axle on a flat surface.
 - Bends → Replace.

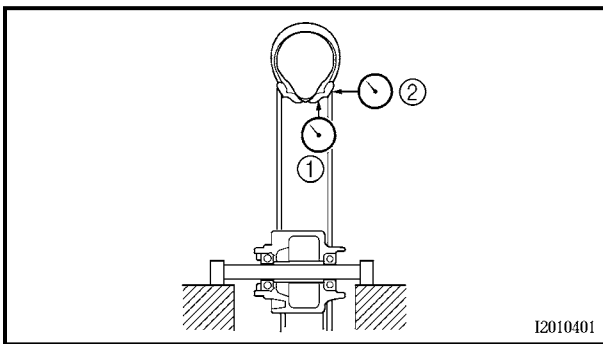
⚠ WARNING

Do not attempt to straighten a bent wheel axle.

2. Check:
 - tire
 - front wheel
 - Damage/wear → Replace.
 - Refer to “CHECKING THE TIRES” and “CHECKING THE WHEELS” in chapter 3.

3. Check:
 - spokes
 - Bends/damage → Replace.
 - Loose → Tighten.
 - Refer to “CHECKING AND TIGHTENING THE SPOKES” in chapter 3.

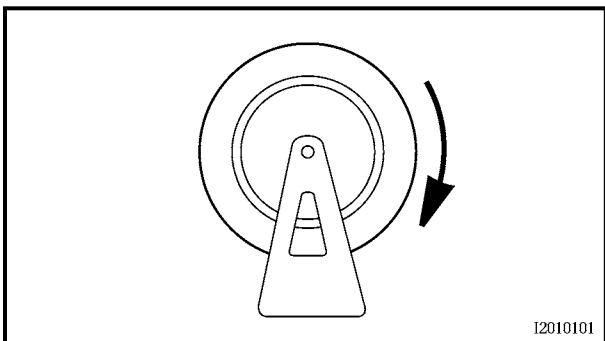
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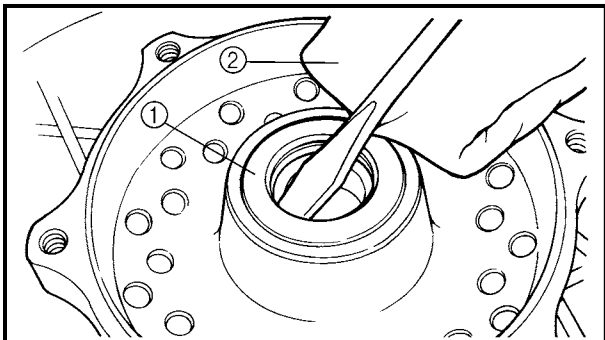
4. Measure:
 - radial wheel runout ①
 - lateral wheel runout ②
 - Over the specified limits → Replace.

	Maximum radial wheel runout
	1.0 mm (0.04 in)
	Maximum lateral wheel runout
	0.5 mm (0.02 in)

5. Check:
 - collars
 - Damage/wear → Replace.

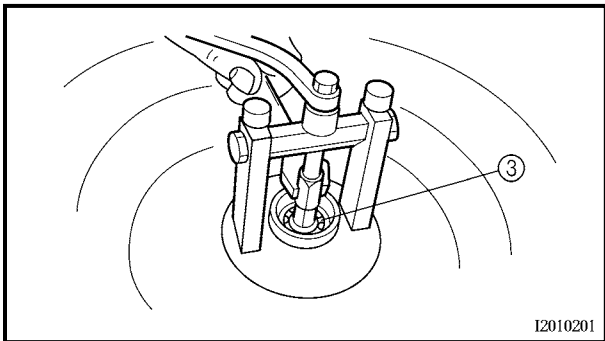


6. Check:
- wheel bearings
Front wheel turns roughly or is loose → Replace the wheel bearings.
 - oil seals
Damage/wear → Replace.



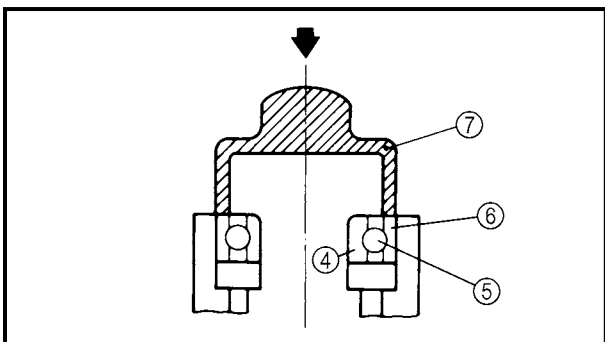
7. Replace:
- wheel bearings **New**
 - oil seals **New**
-
- a. Clean the outside of the front wheel hub.
b. Remove the oil seals ① with a flat-head screwdriver.

NOTE: _____
To prevent damaging the wheel, place a rag ② between the screwdriver and the wheel surface.



- c. Remove the wheel bearings ③ with a general bearing puller.
d. Install the new wheel bearings and oil seals in the reverse order of disassembly.

CAUTION: _____
Do not contact the wheel bearing inner race ④ or balls ⑤. Contact should be made only with the outer race ⑥.




NOTE: _____
Use a socket ⑦ that matches the diameter of the wheel bearing outer race and oil seal.



4

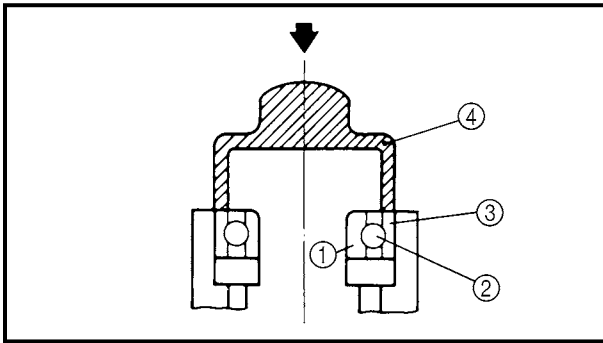
NOTE: _____
Tighten the brake disc bolts in stages and in a crisscross pattern.

	<p>Brake disc bolt 23 Nm (2.3 m · kg, 17 ft · lb) LOCTITE®</p>
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- d. Measure the brake disc deflection.
- e. If out of specification, repeat the adjustment steps until the brake disc deflection is within specification.
- f. If the brake disc deflection cannot be brought within specification, replace the brake disc.



4



EAS00539
ASSEMBLING THE FRONT WHEEL

1. Install:
 - wheel bearings
 - oil seals **New**
 Install the new wheel bearings and oil seals in the reverse order of disassembly.

CAUTION: _____
Do not contact the wheel bearing inner race ① or balls ②. Contact should be made only with the outer race ③.

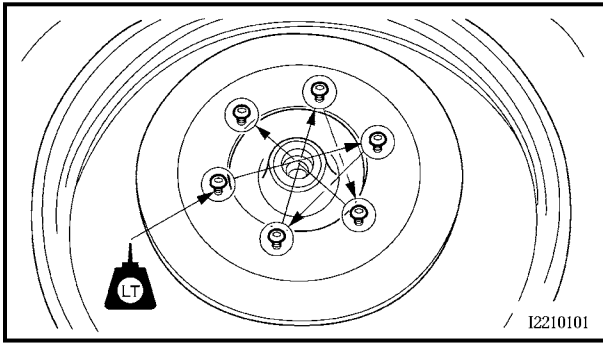
NOTE: _____
Use a socket ④ that matches the diameter of the wheel bearing outer race and oil seal.

EAS00544
INSTALLING THE FRONT WHEEL

The following procedure applies to both brake discs.

1. Lubricate:
 - wheel axle
 - oil seal lips

	<p>Recommended lubricant Lithium soap base grease</p>
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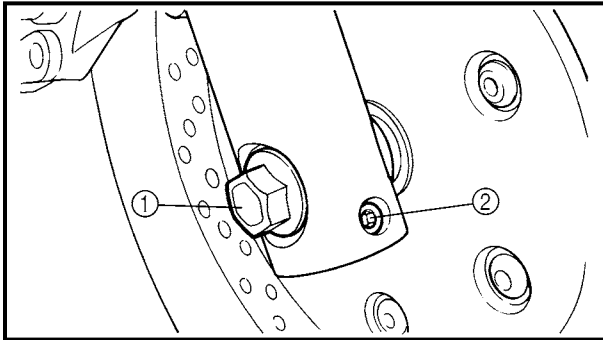


2. Install:
 - brake discs
 - brake disc covers

23 Nm (2.3 m · kg, 17 ft · lb)

NOTE:

- Apply locking agent (LOCTITE® 648) to the threads of the brake disc bolts.
- Tighten the brake disc bolts in stages and in a crisscross pattern.



3. Install:
 - collars
 - front wheel
 - front wheel axle

4. Tighten:
 - front wheel axle ①

78 Nm (7.8 m · kg, 56 ft · lb)

- wheel axle pinch bolt ②

20 Nm (2.0 m · kg, 14 ft · lb)

CAUTION:

Before tightening the wheel axle nut, push down hard on the handlebar several times and check if the front fork rebounds smoothly.

4

5. Install:
 - brake calipers

40 Nm (4.0 m · kg, 29 ft · lb)

⚠ WARNING

Make sure the brake hose is routed properly.

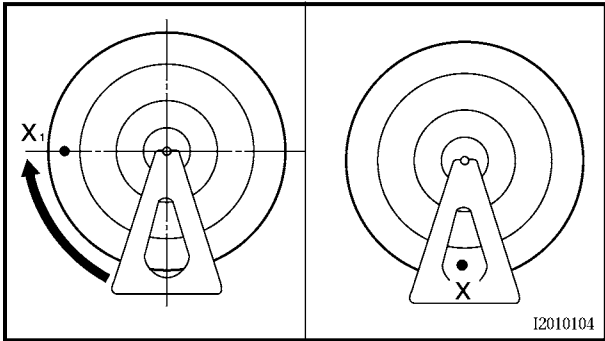
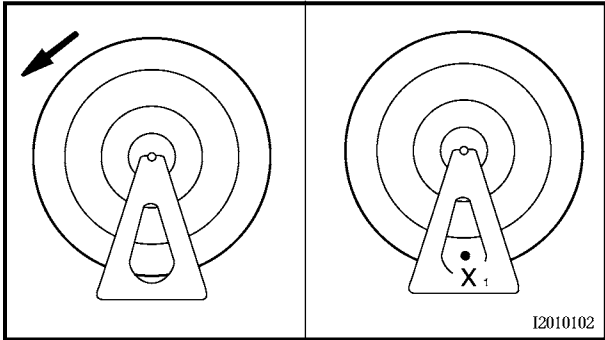
6. Install:
 - reflectors

EAS00549

ADJUSTING THE FRONT WHEEL STATIC BALANCE

NOTE: _____

- After replacing the tire, wheel, or both, the front wheel static balance should be adjusted.
- Adjust the front wheel static balance with the brake discs installed.



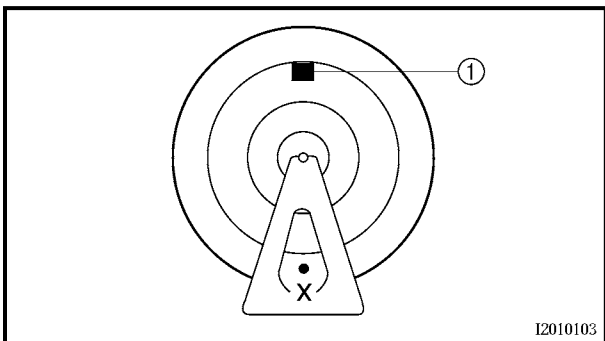
1. Remove:
 - balancing weight(s)
2. Find:
 - front wheel's heavy spot



- a. Place the front wheel on a suitable balancing stand.
- b. Spin the front wheel.
- c. When the front wheel stops, put an "X₁" mark at the bottom of the wheel.
- d. Turn the front wheel 90° so that the "X₁" mark is positioned as shown.
- e. Release the front wheel.
- f. When the wheel stops, put an "X₂" mark at the bottom of the wheel.
- g. Repeat steps (b) through (f) several times until all the marks come to rest at the same spot.
- h. The spot where all the marks come to rest is the front wheel's heavy spot "X".



4



3. Adjust:
 - front wheel static balance

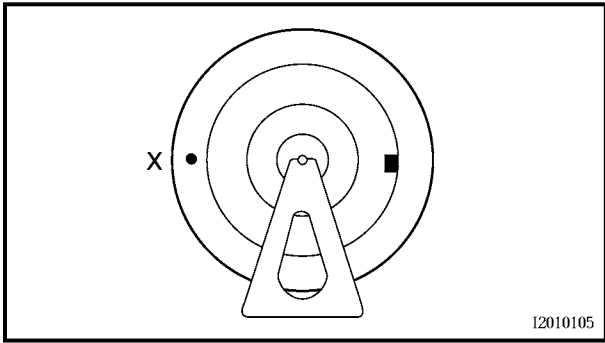


- a. Install a balancing weight ① onto the rim exactly opposite the heavy spot "X".

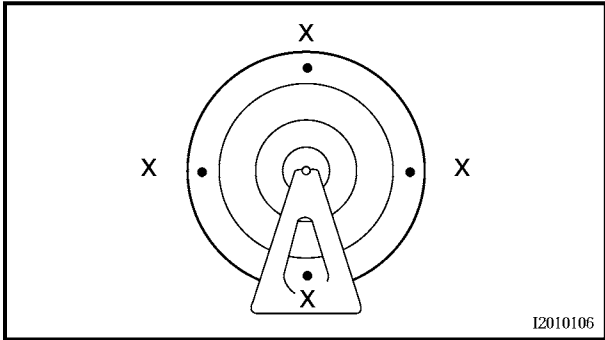
NOTE: _____

Start with the lightest weight.

- b. Turn the front wheel 90° so that the heavy spot is positioned as shown.



- c. If the heavy spot does not stay in that position, install a heavier weight.
- d. Repeat steps (b) and (c) until the front wheel is balanced.

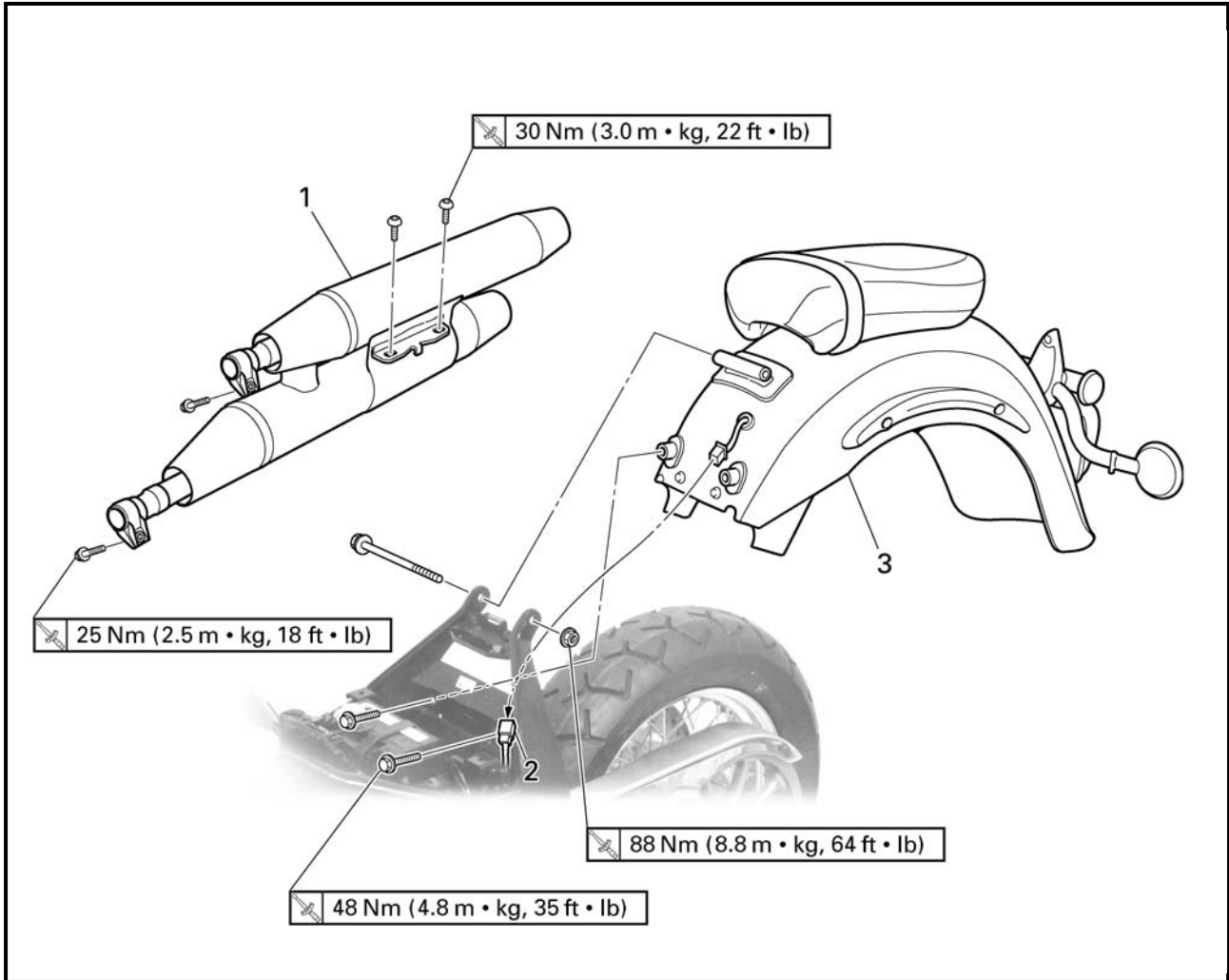


- 4. Check:
 - front wheel static balance
- a. Turn the front wheel and make sure it stays at each position shown.
- b. If the front wheel does not remain stationary at all of the positions, rebalance it.



EAS00550

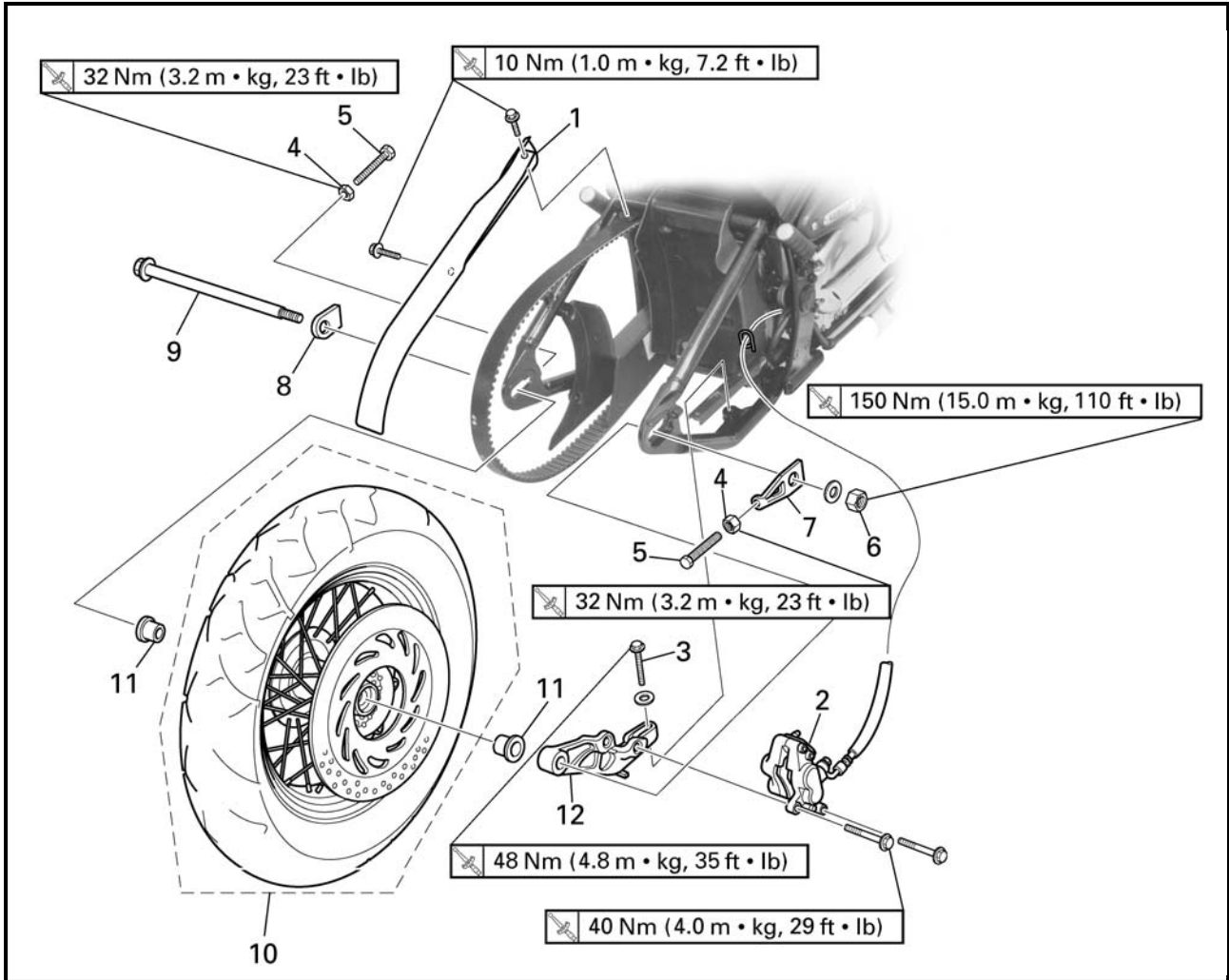
REAR WHEEL, BRAKE DISC AND REAR WHEEL PULLEY



4

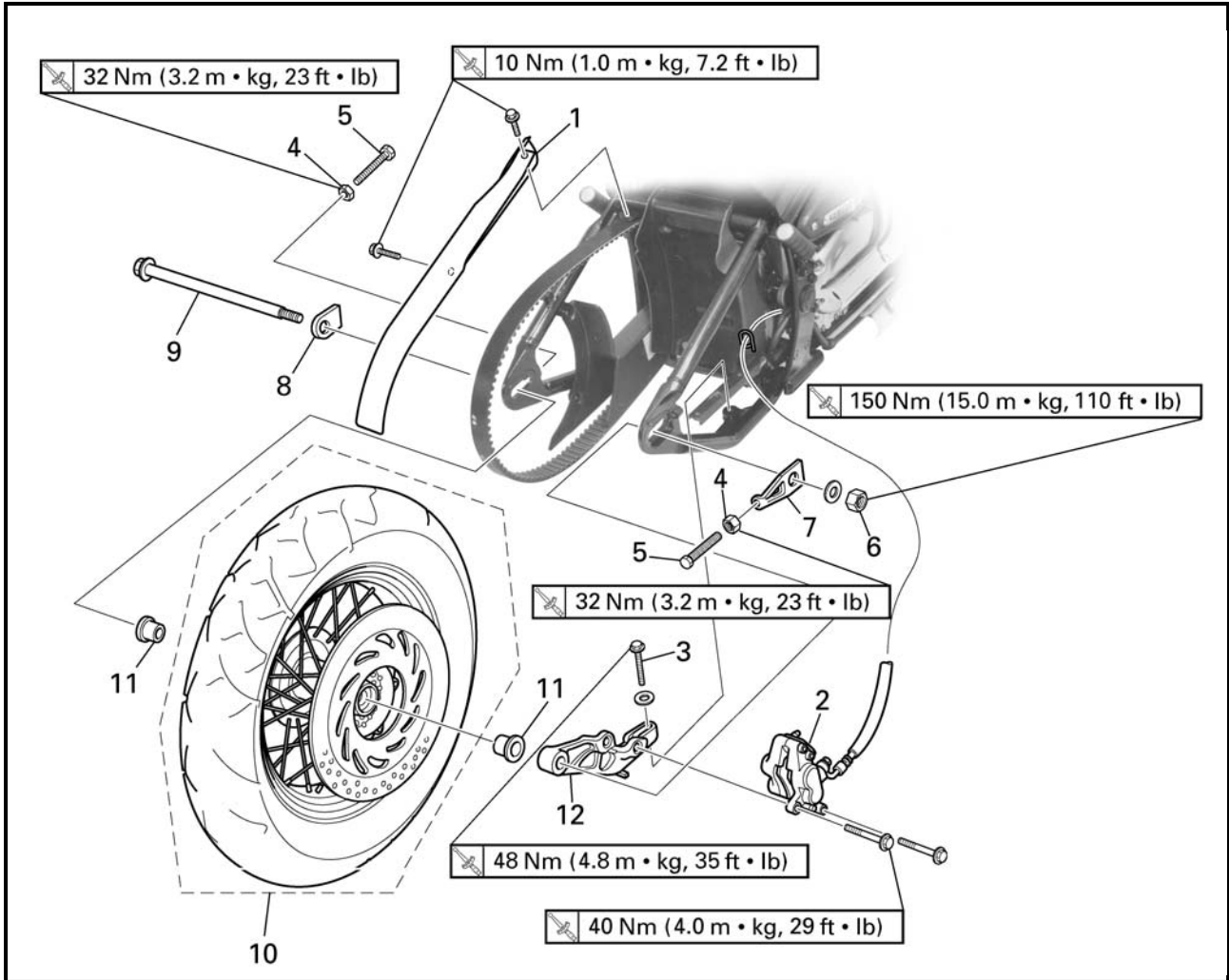
Order	Job/Part	Q'ty	Remarks
	Removing the rear fender and muffler		Remove the parts in the order listed.
	Rider seat		Refer to "SEATS AND SIDE COVERS" in chapter 3.
1	Muffler	1	
2	Tail/brake light and turn signal light sub-wire harness	1	Disconnect.
3	Rear fender assembly	1	For installation, reverse the removal procedure.

EAS00550



4

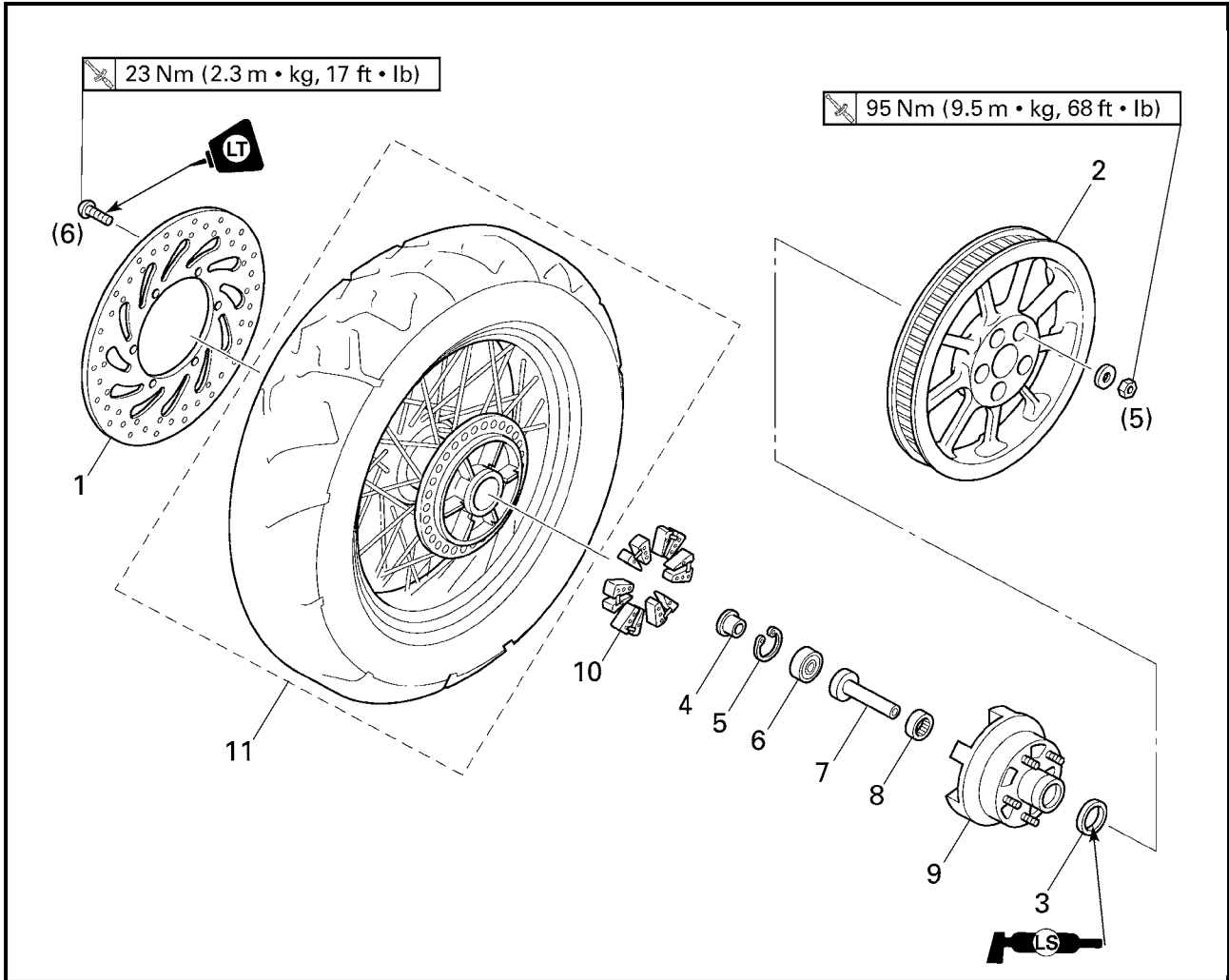
Order	Job/Part	Q'ty	Remarks
	Removing the rear wheel		Remove the parts in the order listed.
			NOTE: _____ Place the motorcycle on a suitable stand so that the rear wheel is elevated.
1	Upper drive belt cover	1	
2	Brake caliper	1	
3	Brake caliper bracket bolt	1	
4	Locknut (left and right)	2	Loosen.
5	Adjusting bolt (left and right)	2	Loosen.
6	Wheel axle nut	1	
7	Right adjusting plate	1	
8	Left adjusting plate	1	
9	Rear wheel axle	1	



4

Order	Job/Part	Q'ty	Remarks
10	Rear wheel	1	For installation, reverse the removal procedure.
11	Collar (left and right)	2	
12	Brake caliper bracket	1	

EAS00556



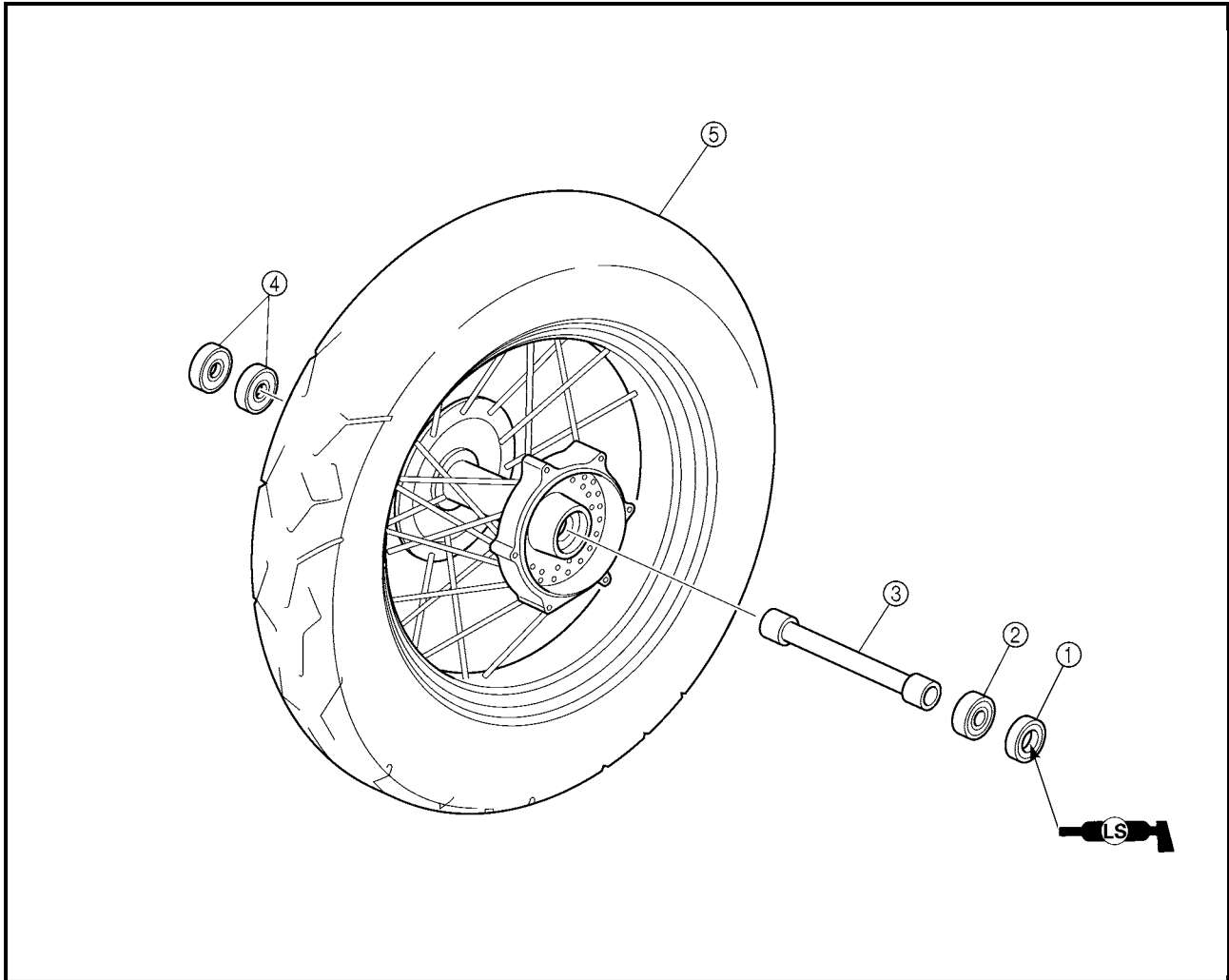
4

Order	Job/Part	Q'ty	Remarks
	Removing the brake disc and rear wheel pulley		Remove the parts in the order listed.
1	Brake disc	1	
2	Rear wheel pulley	1	
3	Oil seal	1	
4	Collar	1	
5	Circlip	1	
6	Bearing	1	
7	Collar	1	
8	Bearing	1	
9	Rear wheel drive hub	1	
10	Rear wheel drive hub damper	6	
11	Rear wheel	1	
			For installation, reverse the removal procedure.



EAS00560

4



Order	Job/Part	Q'ty	Remarks
	Disassembling the rear wheel		Remove the parts in the order listed.
①	Oil seal	1	
②	Bearing	1	
③	Spacer	1	
④	Bearing	4	
			For assembly, reverse the disassembly procedure.



EAS00561

REMOVING THE REAR WHEEL

1. Stand the motorcycle on a level surface.

⚠ WARNING

Securely support the motorcycle so that there is no danger of it falling over.

NOTE:

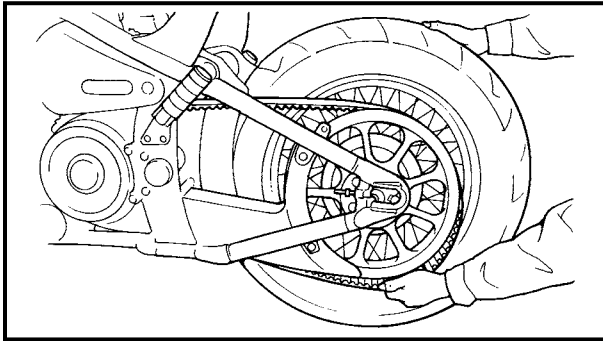
Place the motorcycle on a suitable stand so that the rear wheel is elevated.

2. Remove:

- brake caliper

NOTE:

Do not depress the brake pedal when removing the brake caliper.



3. Remove:

- rear wheel

NOTE:

Push the rear wheel forward and remove the drive belt from the rear wheel pulley.

4

EAS00566

CHECKING THE REAR WHEEL

1. Check:

- wheel axle
- rear wheel
- wheel bearings
- oil seals

Refer to "FRONT WHEEL AND BRAKE DISCS".

2. Check:

- tire
- rear wheel

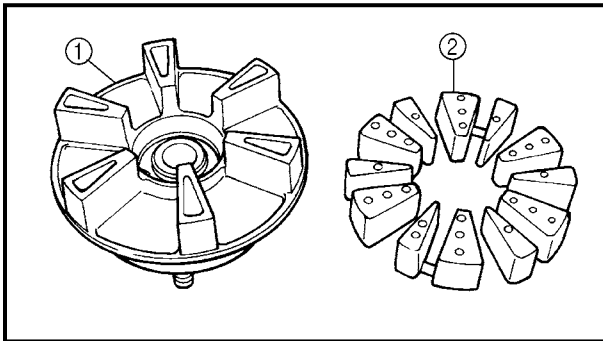
Damage/wear → Replace.

Refer to "CHECKING THE TIRES" and "CHECKING THE WHEELS" in chapter 3.

3. Check:
 - spokes
 Refer to “FRONT WHEEL AND BRAKE DISCS”.

4. Measure:
 - radial wheel runout
 - lateral wheel runout
 Refer to “FRONT WHEEL AND BRAKE DISCS”.

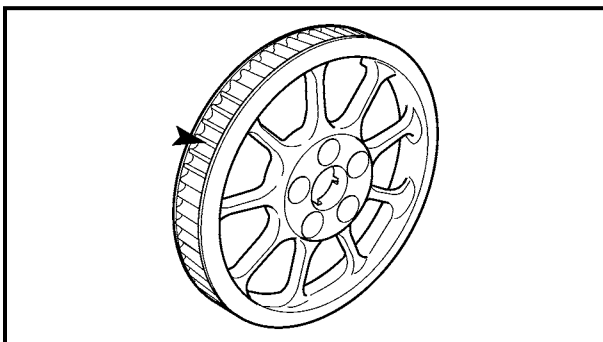
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EAS00567

CHECKING THE REAR WHEEL DRIVE HUB

1. Check:
 - rear wheel drive hub ①
Cracks/damage → Replace.
 - rear wheel drive hub dampers ②
Damage/wear → Replace.



EAS00568

CHECKING AND REPLACING THE REAR WHEEL PULLEY

1. Check:
 - rear wheel pulley
Surface plating has come off → Replace the rear wheel pulley.
Bent teeth → Replace the rear wheel pulley.

2. Replace:
 - rear wheel pulley



- a. Remove the self-locking nuts and the rear wheel pulley.
- b. Clean the rear wheel drive hub with a clean cloth, especially the surfaces that contact the pulley.
- c. Install the new rear wheel pulley.

 **Rear wheel pulley self-locking nut**
95 Nm (9.5 m • kg, 68 ft • lb)

NOTE: _____
Tighten the self-locking nuts in stages and in a crisscross pattern.



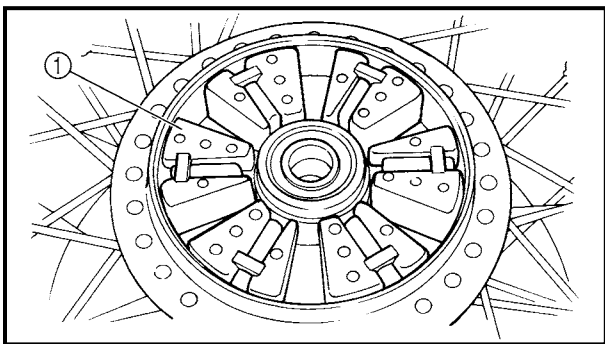
ASSEMBLING THE REAR WHEEL

1. Install:
 - bearings
 - spacer
 - bearing
 - oil seal **New**
 Refer to "FRONT WHEEL AND BRAKE DISCS".

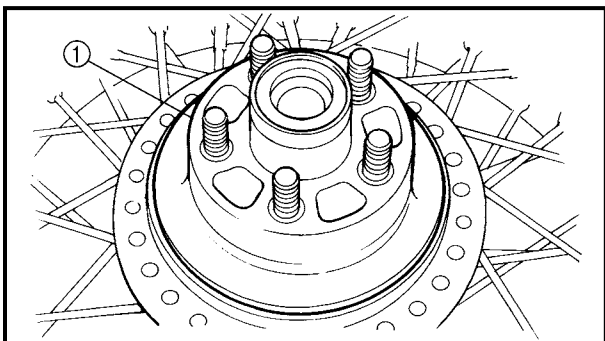
EAS00572
INSTALLING THE REAR WHEEL

1. Lubricate:
 - oil seal lips

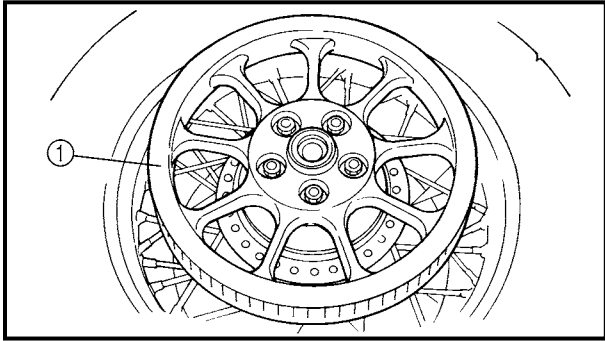
 **Recommended lubricant**
Lithium soap base grease




2. Install:
 - rear wheel drive hub dampers ①



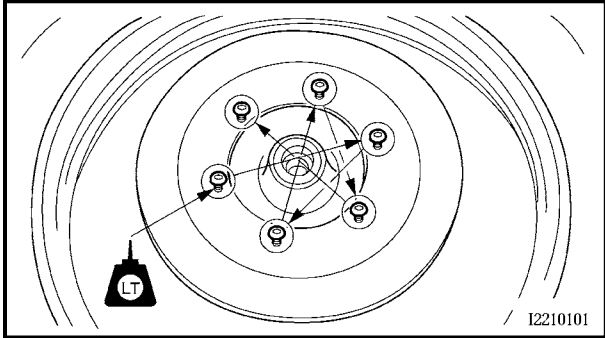
3. Install:
 - rear wheel drive hub assembly ①



4. Install:
- rear wheel pulley ①

 95 Nm (9.5 m · kg, 68 ft · lb)

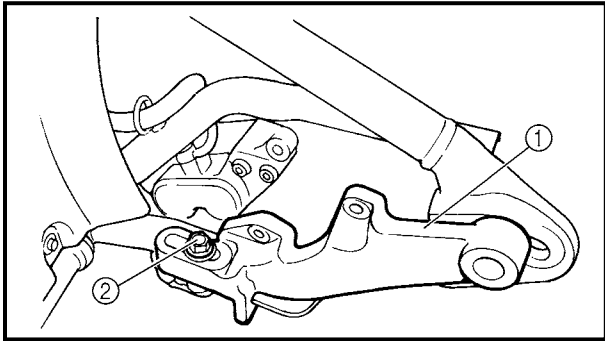
NOTE: _____
Tighten the self-locking nuts in stages and in a crisscross pattern.



5. Install:
- brake disc

NOTE: _____
• Apply locking agent (LOCTITE® 648) to the threads of the brake disc bolts.
• Tighten the brake disc bolts in stages and in a crisscross pattern.

4



6. Install:
- brake caliper bracket ①
 - washer
 - brake caliper bracket bolt ②

NOTE: _____
Temporarily tighten the brake caliper bracket bolt.


7. Install:
- collars
 - rear wheel
 - adjusting plates
 - rear wheel axle
 - washer
 - wheel axle nut

NOTE: _____
Temporarily tighten the wheel axle nut.


8. Adjust:
- drive belt slack
- Refer to “ADJUSTING THE DRIVE BELT SLACK” in chapter 3.

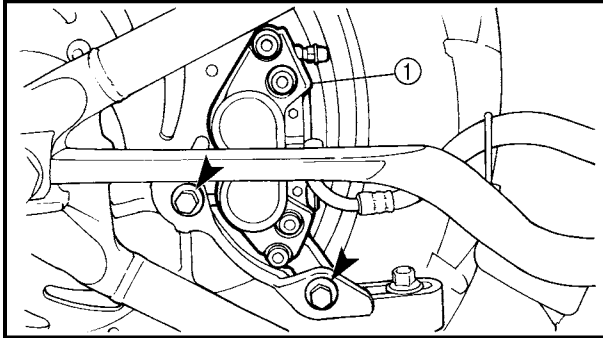
9. Tighten:

- wheel axle nut

 150 Nm (15.0 m · kg, 110 ft · lb)


- brake caliper bracket bolt

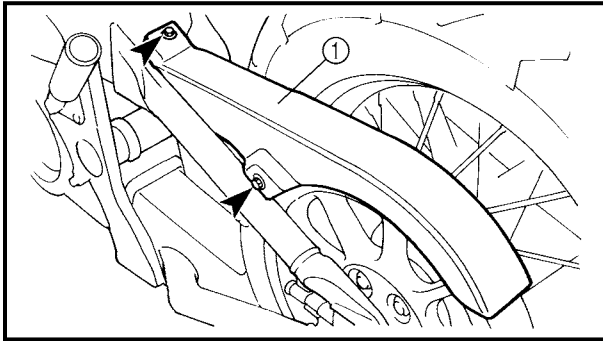
 48 Nm (4.8 m · kg, 35 ft · lb)



10. Install:


- brake caliper ①

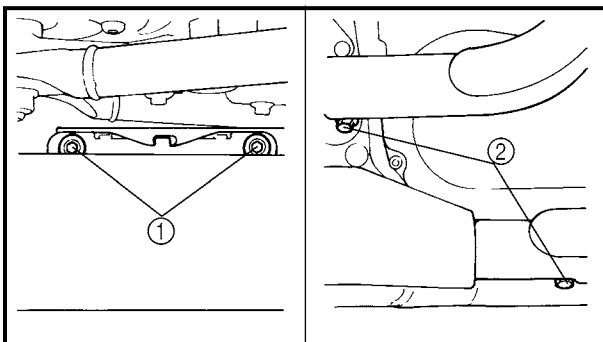
 40 Nm (4.0 m · kg, 29 ft · lb)



11. Install:

- upper drive belt cover ①

 10 Nm (1.0 m · kg, 7.2 ft · lb)




12. Install:


- muffler

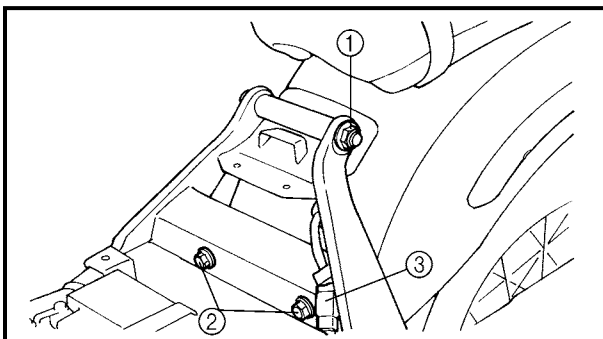
13. Tighten:

- muffler mounting bolt ①

 30 Nm (3.0 m · kg, 22 ft · lb)

- Clamp bolt ②

 25 Nm (2.5 m · kg, 18 ft · lb)




14. Install:


- rear fender assembly

15. Tighten:

- nut ①

 88 Nm (8.8 m · kg, 64 ft · lb)

- bolts ②

 48 Nm (4.8 m · kg, 35 ft · lb)

16. Connect:

- tail/brake light and turn signal light sub-wire harness coupler ③



17. Install:

- rider seat

Refer to "SEATS AND SIDE COVERS" in chapter 3.

EAS00575

ADJUSTING THE REAR WHEEL STATIC BALANCE

NOTE: _____

- After replacing the tire, wheel, or both, the rear wheel static balance should be adjusted.
- Adjust the rear wheel static balance with the brake disc and rear wheel drive hub installed.

1. Adjust:

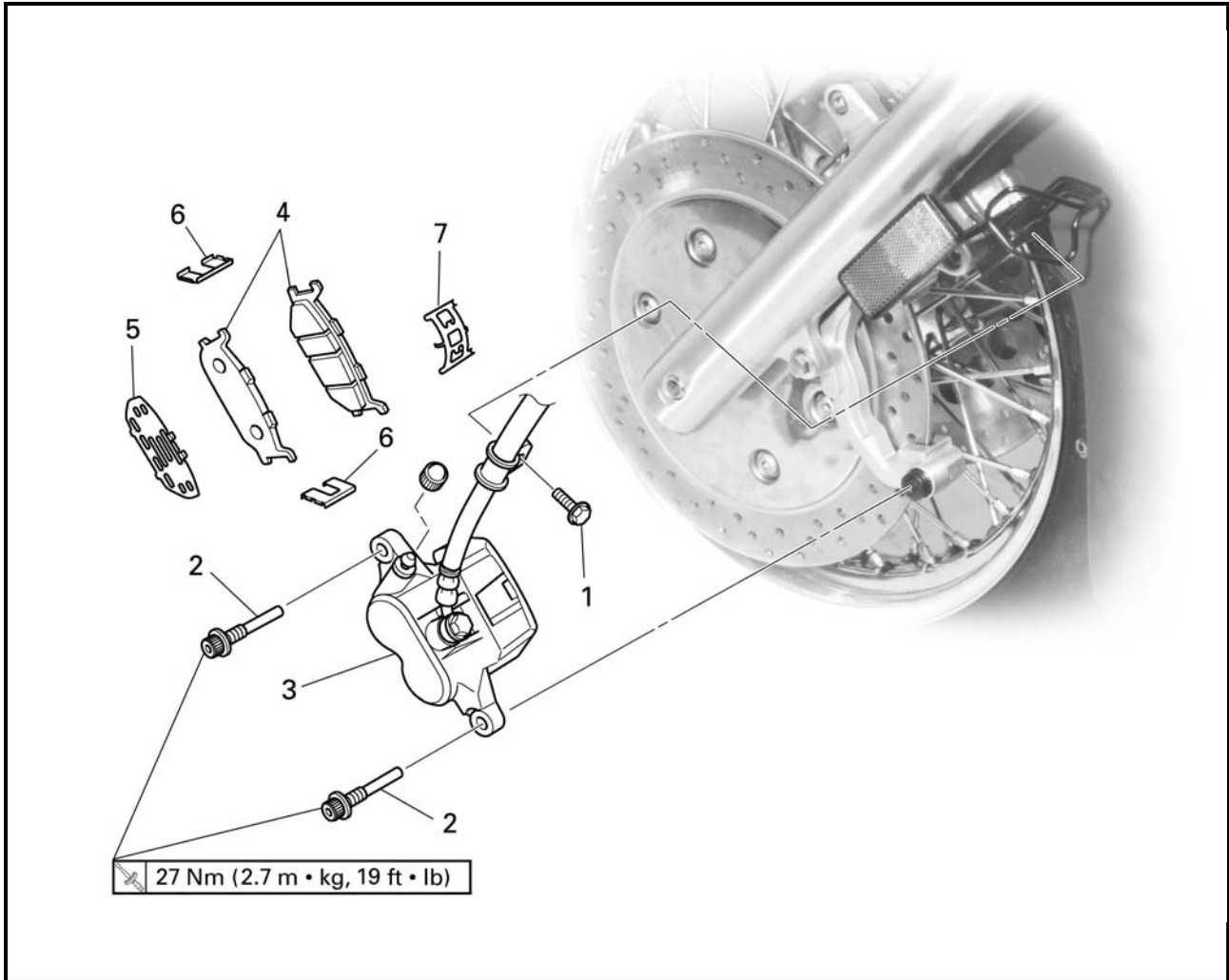
- rear wheel static balance

Refer to "FRONT WHEEL AND BRAKE DISCS".

EAS00577

FRONT AND REAR BRAKES

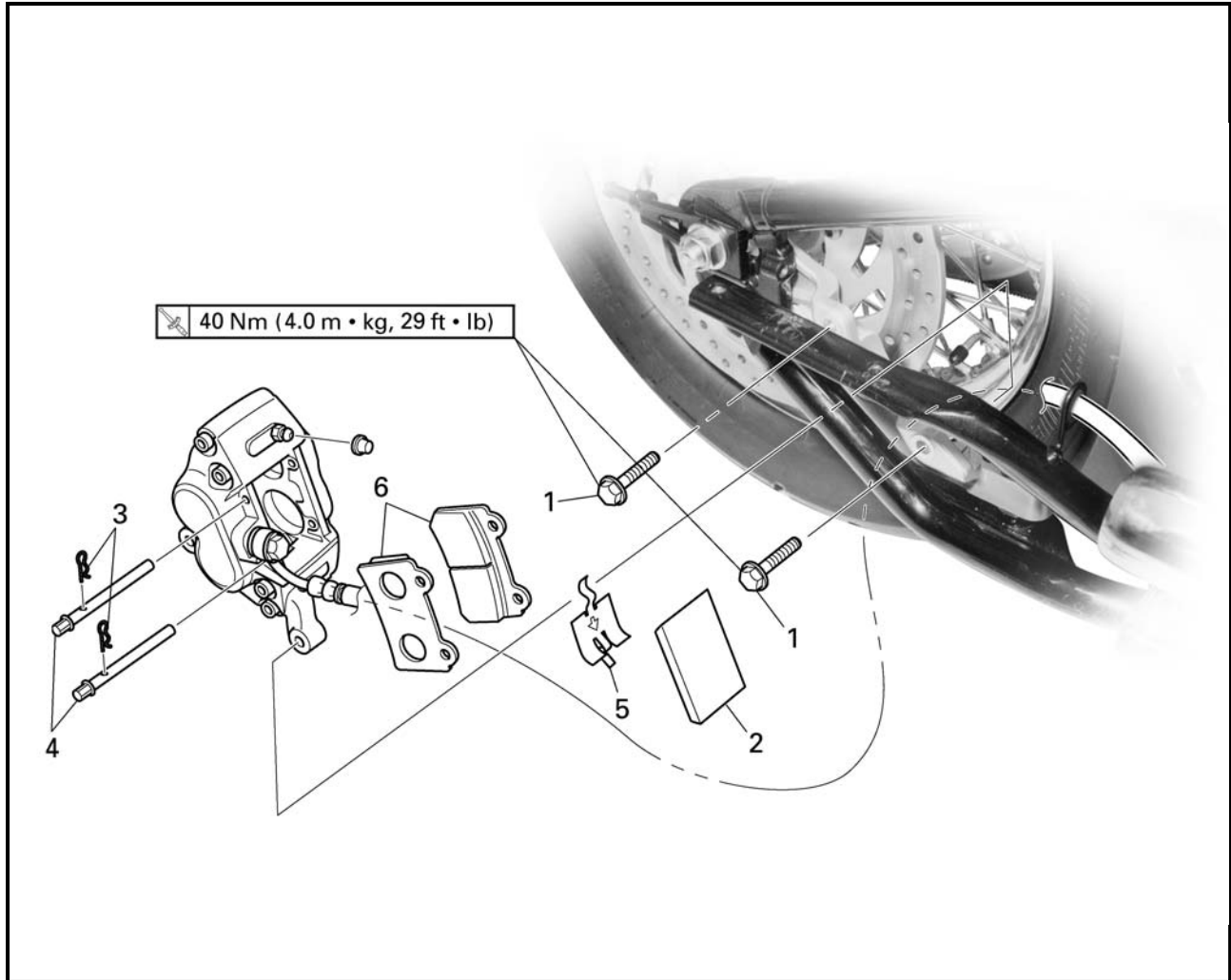
FRONT BRAKE PADS



4

Order	Job/Part	Q'ty	Remarks
	Removing the front brake pads		Remove the parts in the order listed. The following procedure applies to both of the front brake calipers.
1	Brake hose holder bolt	1	
2	Retaining bolt	2	
3	Brake caliper	1	
4	Brake pad	2	
5	Brake pad shim	1	
6	Brake pad spring	2	
7	Brake pad spring	1	
			For installation, reverse the removal procedure.

EAS00578
REAR BRAKE PADS



4

Order	Job/Part	Q'ty	Remarks
	Removing the rear brake pads		
	Muffler		Remove the parts in the order listed. Refer to "REAR WHEEL, BRAKE DISC AND REAR WHEEL PULLEY".
1	Brake caliper bolt	2	
2	Brake pad cover	1	
3	Brake pad clip	2	
4	Brake pad pin	2	
5	Brake pad spring	1	
6	Brake pad	2	
			For installation, reverse the removal procedure.



EAS00579

CAUTION:

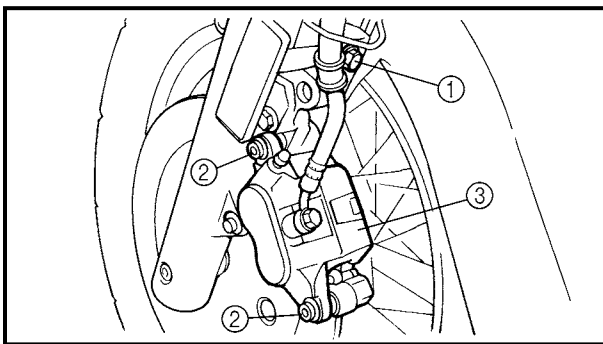
Disc brake components rarely require disassembly.

Therefore, always follow these preventive measures:

- Never disassemble brake components unless absolutely necessary.
- If any connection on the hydraulic brake system is disconnected, the entire brake system must be disassembled, drained, cleaned, properly filled, and bled after reassembly.
- Never use solvents on internal brake components.
- Use only clean or new brake fluid for cleaning brake components.
- Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any spilt brake fluid immediately.
- Avoid brake fluid coming into contact with the eyes as it can cause serious injury.

FIRST AID FOR BRAKE FLUID ENTERING THE EYES:

- Flush with water for 15 minutes and get immediate medical attention.



EAS00580

REPLACING THE FRONT BRAKE PADS

The following procedure applies to both brake calipers.

NOTE:

When replacing the brake pads, it is not necessary to disconnect the brake hose or disassemble the brake caliper.

1. Remove:

- brake hose holder bolt ①
- brake caliper retaining bolts ②
- brake caliper ③



5. Lubricate:
- brake caliper retaining bolt



Recommended lubricant
Lithium soap base grease

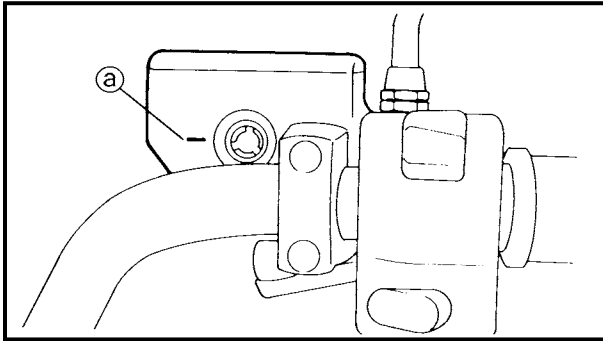
CAUTION:

- Do not allow grease to contact the brake pads.
- Remove any excess grease.

6. Install:
- brake caliper
 - brake caliper retaining bolts

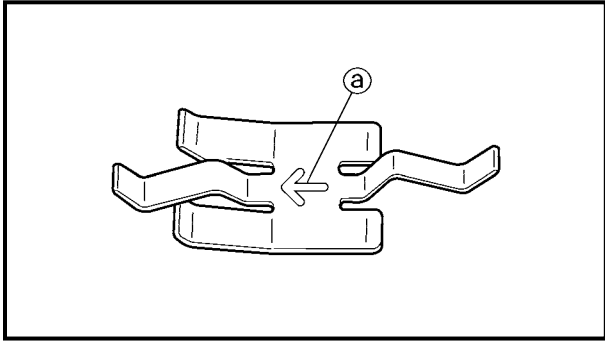
27 Nm (2.7 m · kg, 19 ft · lb)

- brake hose holder bolt



7. Check:
- brake fluid level
Below the minimum level mark **a** → Add the recommended brake fluid to the proper level.
Refer to “CHECKING THE BRAKE FLUID LEVEL” in chapter 3.

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



- b. Loosen the bleed screw and push the brake caliper pistons into the brake caliper with your finger.
- c. Tighten the bleed screw.


	<p>Bleed screw 6 Nm (0.6 m · kg, 4.3 ft · lb)</p>
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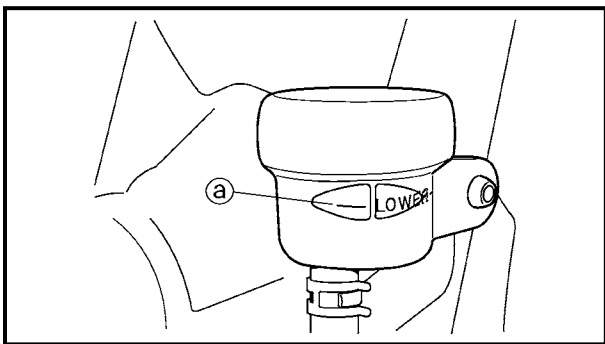
- d. Install new brake pads and a new brake pad spring.

NOTE: _____
 The arrow Ⓐ on the brake pad spring must point in the direction of disc rotation.



- 6. Install:
 - brake pad pins
 - brake pad clips
 - brake pad cover
 - brake caliper

	<p>40 Nm (4.0 m · kg, 29 ft · lb)</p>
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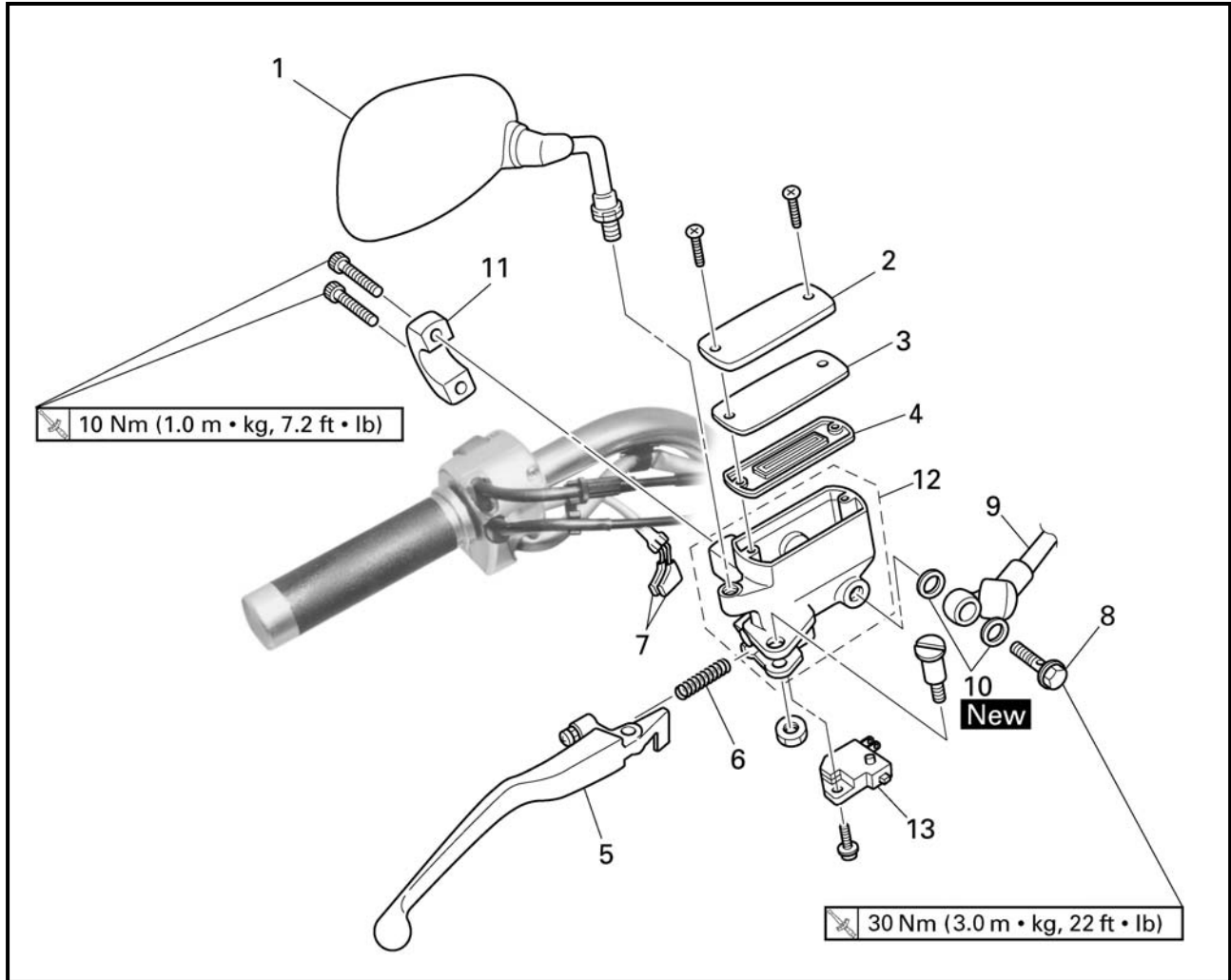


- 7. Check:
 - brake fluid level
 Below the minimum level mark Ⓐ → Add the recommended brake fluid to the proper level.
 Refer to “CHECKING THE BRAKE FLUID LEVEL” in chapter 3.

- 8. Check:
 - brake pedal operation
 Soft or spongy feeling → Bleed the brake system.
 Refer to “BLEEDING THE HYDRAULIC BRAKE SYSTEM” in chapter 3.

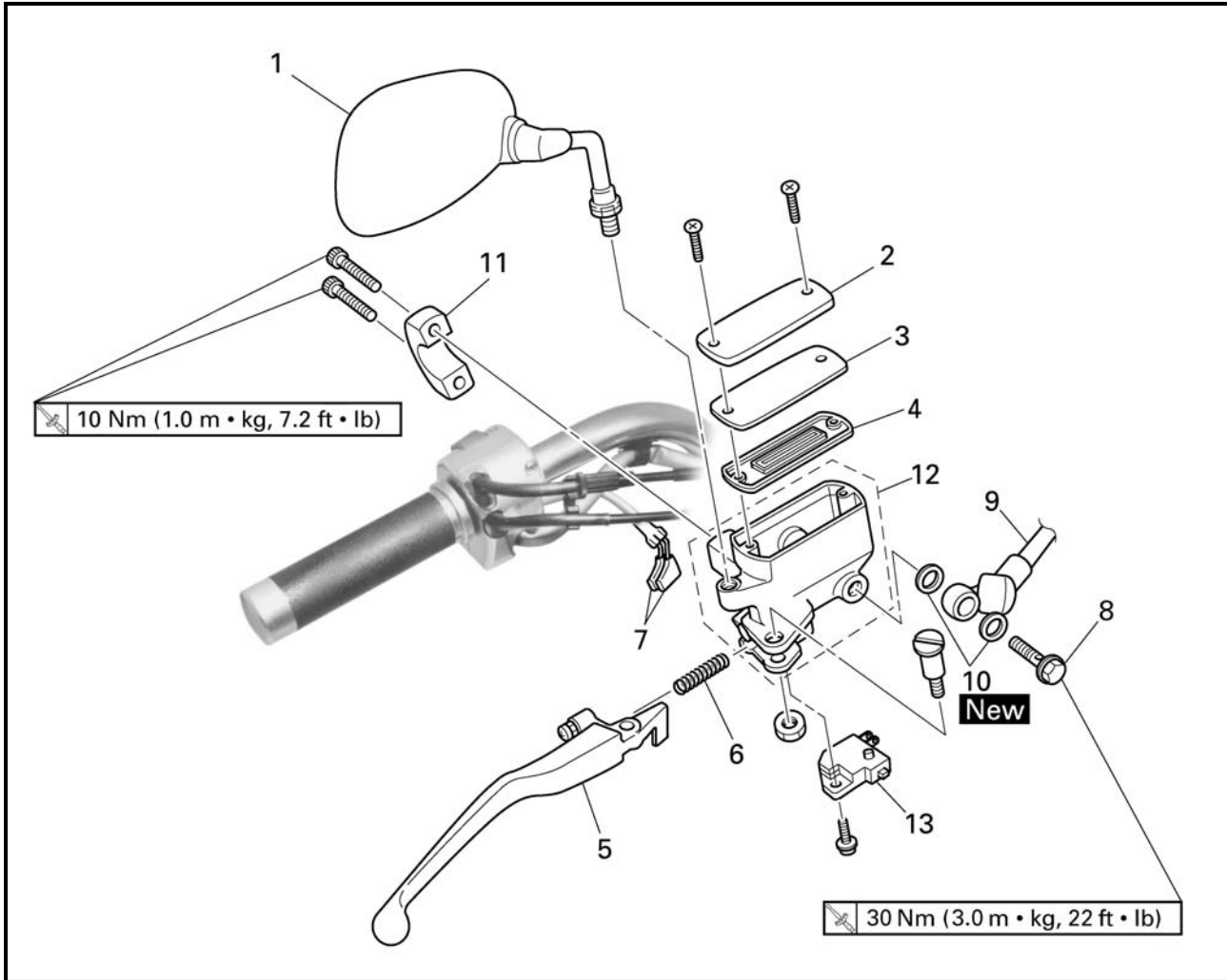
EAS00584

FRONT BRAKE MASTER CYLINDER



4

Order	Job/Part	Q'ty	Remarks
	Removing the front brake master cylinder		Remove the parts in the order listed.
	Brake fluid		Drain.
1	Rear view mirror	1	
2	Brake master cylinder reservoir cap	1	
3	Brake master cylinder reservoir diaphragm holder	1	
4	Brake master cylinder reservoir diaphragm	1	
5	Brake lever	2	
6	Brake lever spring	1	
7	Front brake light switch connector	2	Disconnect.
8	Union bolt	1	
9	Brake hose	1	Disconnect.
10	Copper washer	2	



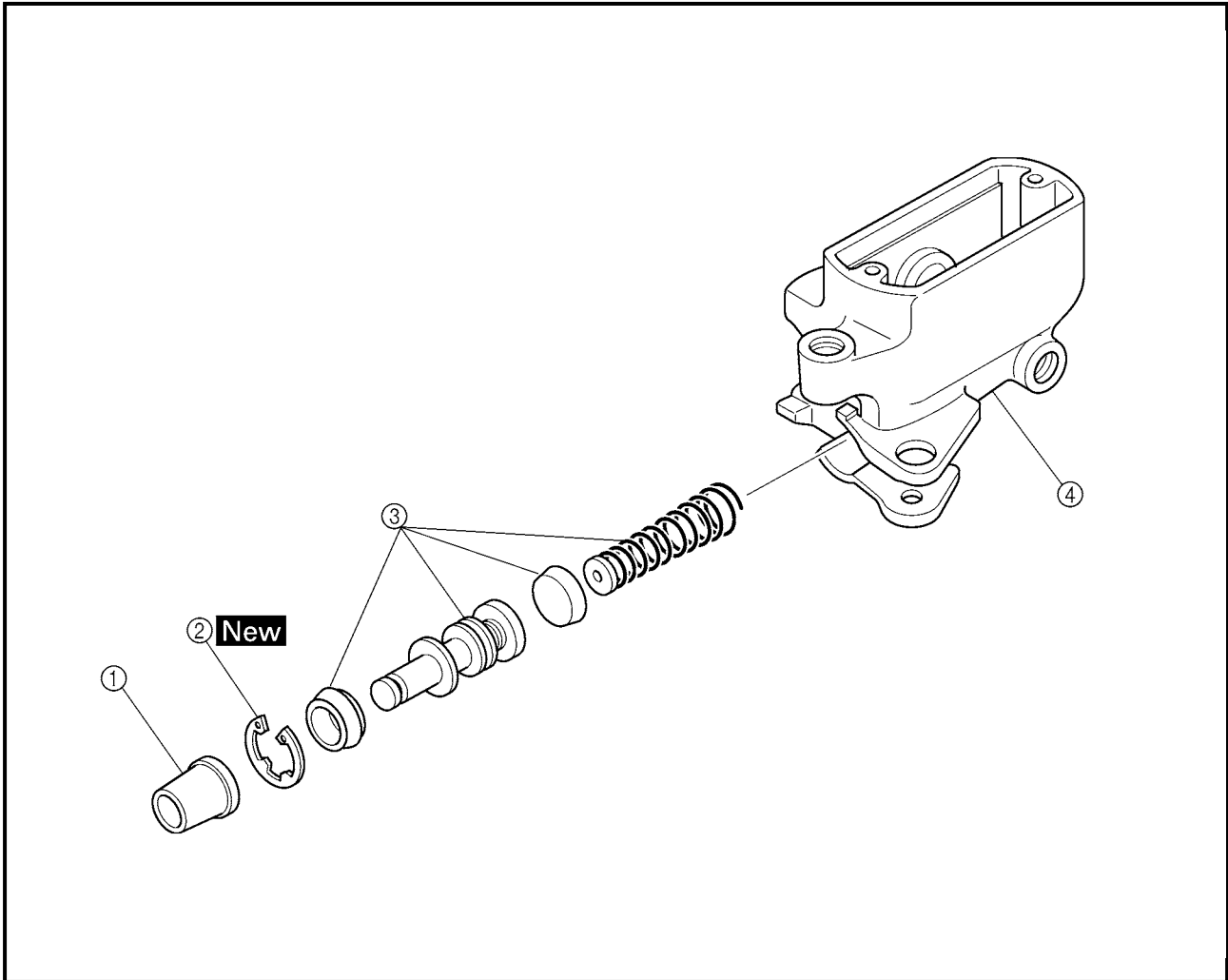
4

Order	Job/Part	Q'ty	Remarks
11	Brake master cylinder holder	1	For installation, reverse the removal procedure.
12	Brake master cylinder	1	
13	Front brake light switch	1	



EAS00585

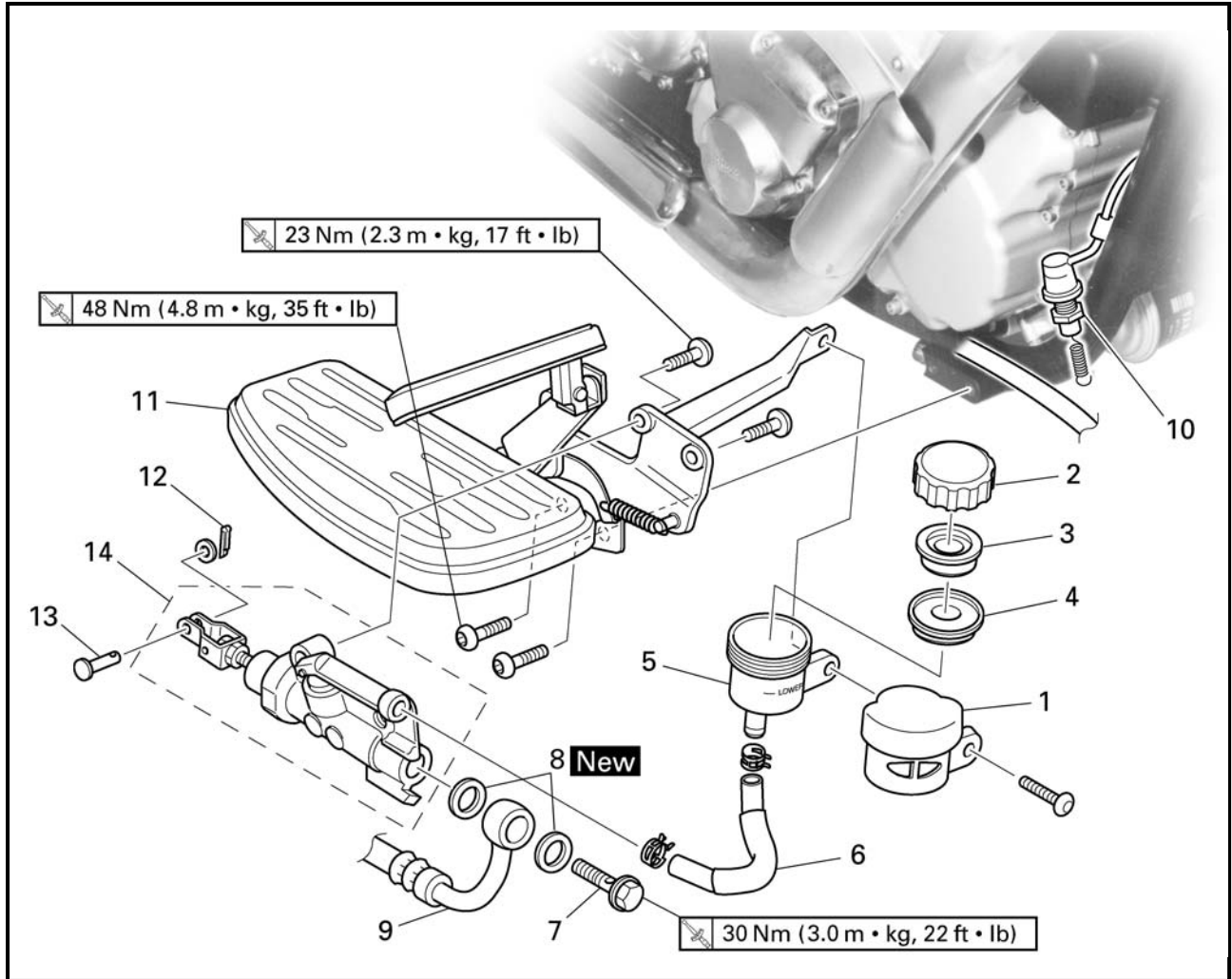
4



Order	Job/Part	Q'ty	Remarks
	Disassembling the front brake master cylinder		Remove the parts in the order listed.
①	Dust boot	1	
②	Circlip	1	
③	Brake master cylinder kit	1	
④	Brake master cylinder	1	
			For assembly, reverse the disassembly procedure.

EAS00586

REAR BRAKE MASTER CYLINDER

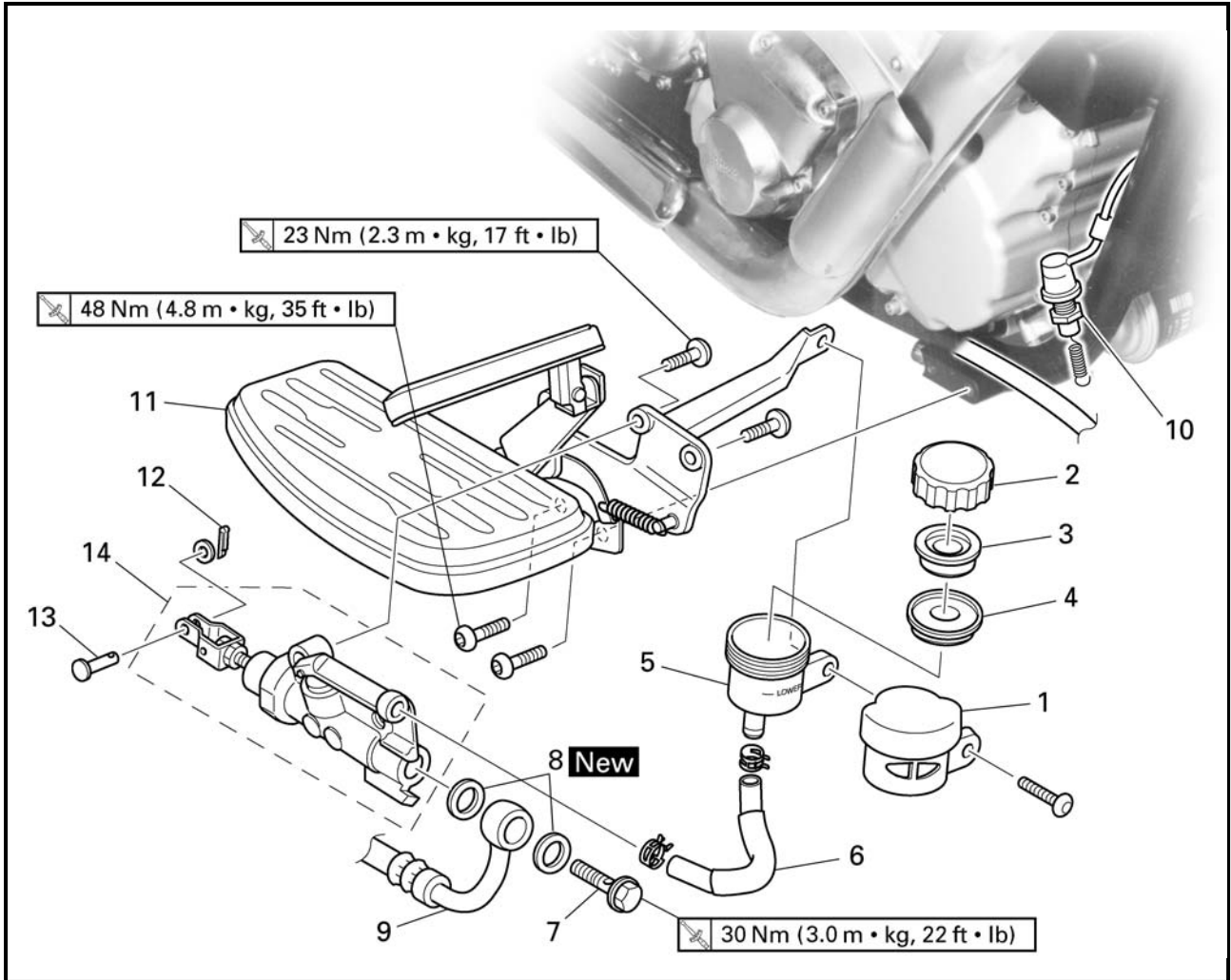


4

Order	Job/Part	Q'ty	Remarks
	Removing the rear brake master cylinder		Remove the parts in the order listed.
	Brake fluid		Drain.
1	Brake fluid reservoir cover	1	
2	Brake fluid reservoir cap	1	
3	Brake fluid reservoir diaphragm holder	1	
4	Brake fluid reservoir diaphragm	1	
5	Brake fluid reservoir	1	
6	Brake fluid reservoir hose	1	
7	Union bolt	1	
8	Copper washer	2	
9	Brake hose	1	Disconnect.
10	Rear brake light switch	1	Disconnect.



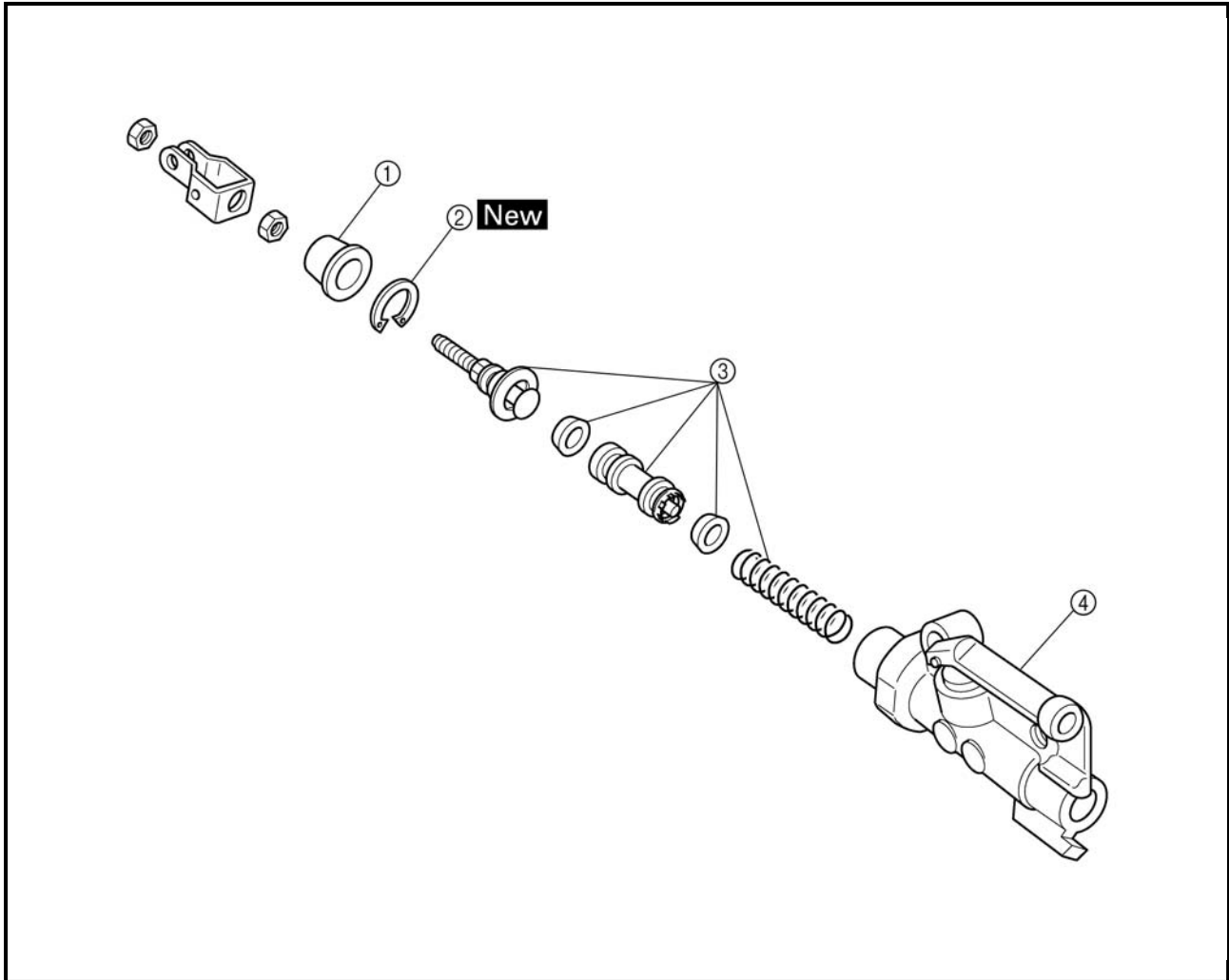
4



Order	Job/Part	Q'ty	Remarks
11	Left footrest assembly	1	For installation, reverse the removal procedure.
12	Cotter pin	1	
13	Pin	1	
14	Brake master cylinder	1	



EAS00587



4

Order	Job/Part	Q'ty	Remarks
	Disassembling the rear brake master cylinder		Remove the parts in the order listed.
①	Dust boot	1	
②	Circlip	1	
③	Brake master cylinder kit	1	
④	Brake master cylinder	1	
			For assembly, reverse the disassembly procedure.

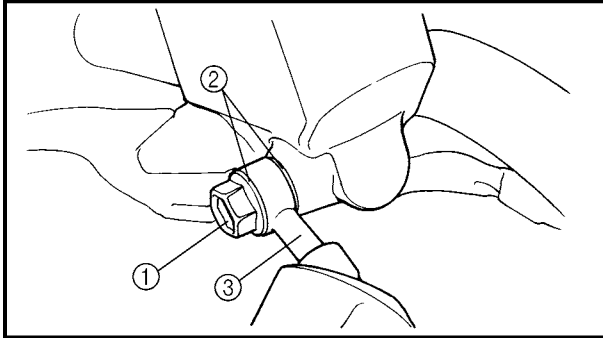


EAS00588

DISASSEMBLING THE FRONT BRAKE MASTER CYLINDER

NOTE:

Before disassembling the front brake master cylinder, drain the brake fluid from the entire brake system.



1. Remove:

- union bolt ①
- copper washers ②
- brake hose ③

NOTE:

To collect any remaining brake fluid, place a container under the master cylinder and the end of the brake hose.

EAS00589

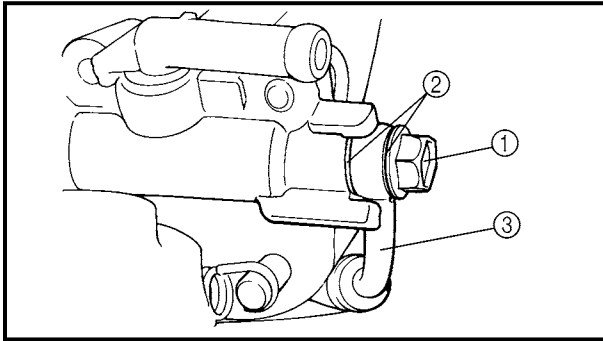
DISASSEMBLING THE REAR BRAKE MASTER CYLINDER

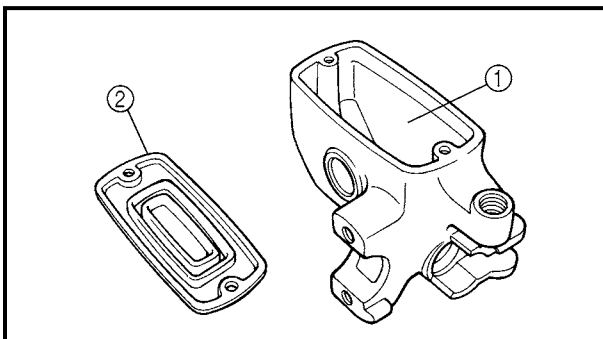
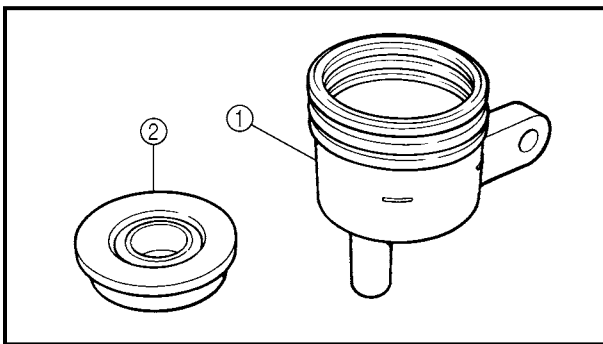
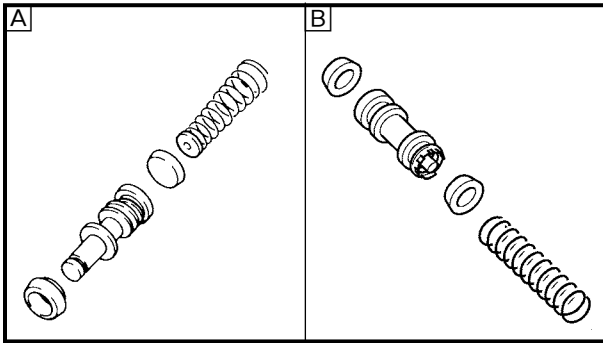
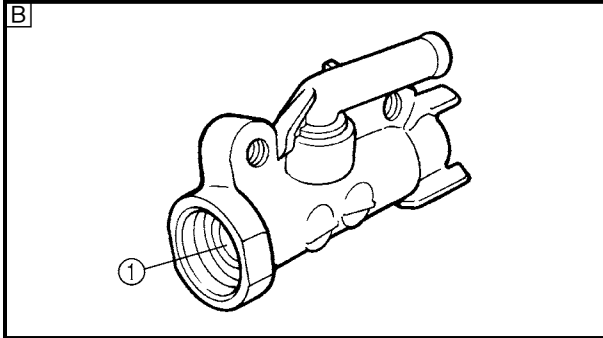
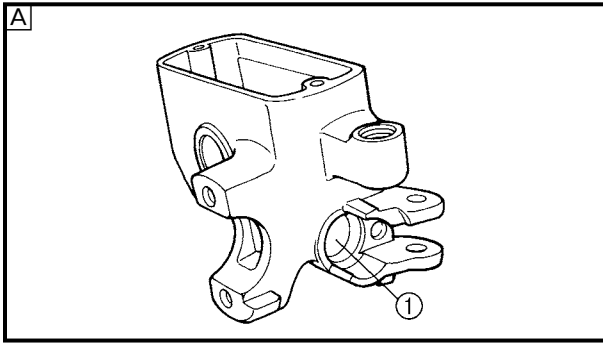
1. Remove:

- union bolt ①
- copper washers ②
- brake hose ③

NOTE:

To collect any remaining brake fluid, place a container under the master cylinder and the end of the brake hose.





EAS00592

CHECKING THE FRONT AND REAR BRAKE MASTER CYLINDERS

The following procedure applies to both brake master cylinders.

1. Check:
 - brake master cylinder ①
Damage/scratches/wear → Replace.
 - brake fluid delivery passages (brake master cylinder body)
Obstruction → Blow out with compressed air.

- A Front
- B Rear

2. Check:
 - brake master cylinder kit ①
Damage/scratches/wear → Replace.

- A Front
- B Rear

3. Check:
 - rear brake fluid reservoir ①
Cracks/damage → Replace.
 - rear brake fluid reservoir diaphragm ②
Cracks/damage → Replace.

4. Check:
 - front brake master cylinder reservoir ①
Cracks/damage → Replace.
 - front brake master cylinder reservoir diaphragm ②
Damage/wear → Replace.



5. Check:
 - brake hoses
 - brake fluid reservoir hose
 Cracks/damage/wear → Replace.

EAS00598

ASSEMBLING AND INSTALLING THE FRONT BRAKE MASTER CYLINDER

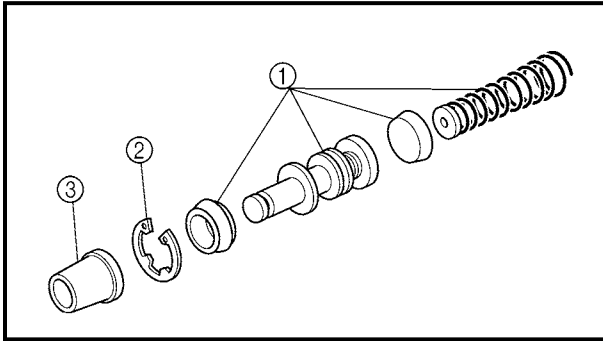
⚠ WARNING

- Before installation, all internal brake components should be cleaned and lubricated with clean or new brake fluid.
- Never use solvents on internal brake components.

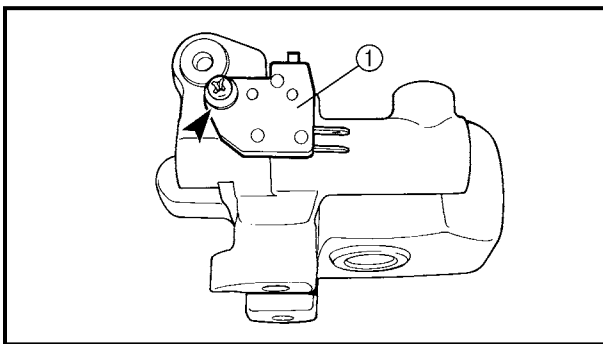


**Recommended brake fluid
DOT 4**

1. Install:
 - brake master cylinder kit ①
 - circlip ② **New**
 - dust boot ③



2. Install:
 - front brake light switch ①

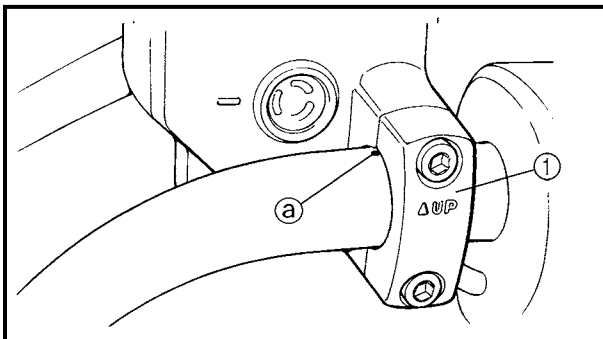


3. Install:
 - brake master cylinder
 - brake master cylinder holder ①

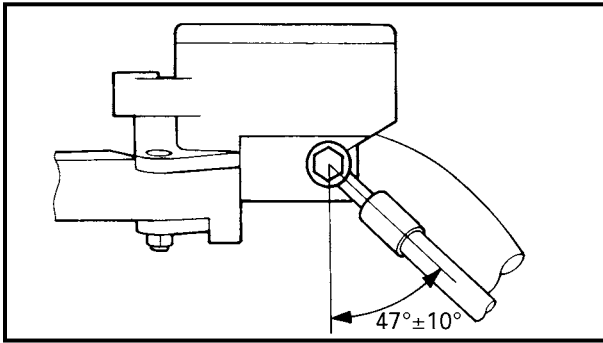
10 Nm (1.0 m · kg, 7.2 ft · lb)

NOTE:

- Install the brake master cylinder holder with the "UP" mark facing up.
- Align the end of the brake master cylinder holder with the punch mark ① in the handlebar.
- First, tighten the upper bolt, then the lower bolt.



4



4. Install:

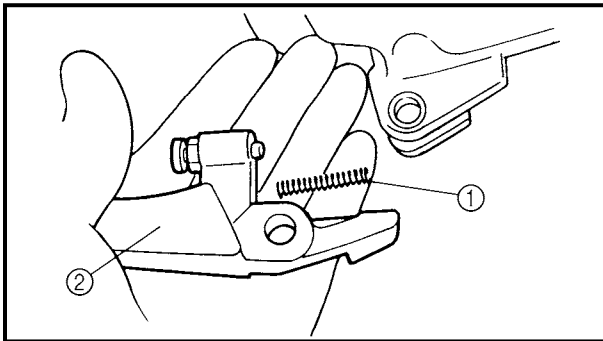
- copper washers **New**
- brake hose
- union bolt 30 Nm (3.0 m · kg, 22 ft · lb)

⚠ WARNING

Proper brake hose routing is essential to insure safe motorcycle operation. Refer to "CABLE ROUTING".

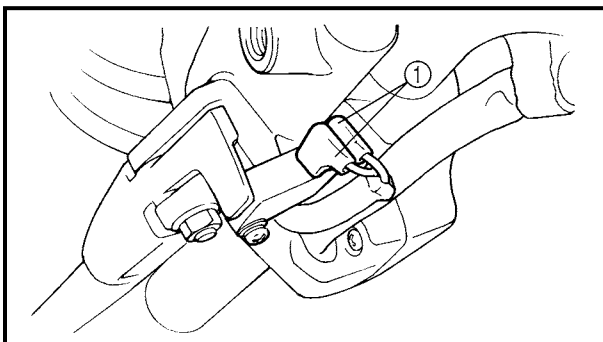
NOTE:

- While holding the brake hose, tighten the union bolt as shown.
- Turn the handlebar to the left and to the right to make sure the brake hose does not touch other parts (e.g., wire harness, cables, leads). Correct if necessary.



5. Install:

- brake lever spring ①
- brake lever ②



6. Connect:

- front brake light switch connectors ①

7. Fill:

- brake master cylinder reservoir (with the specified amount of the recommended brake fluid)

	Recommended brake fluid DOT 4
--	--



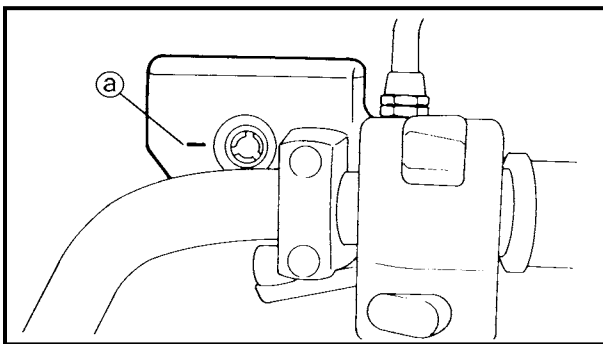
⚠ WARNING

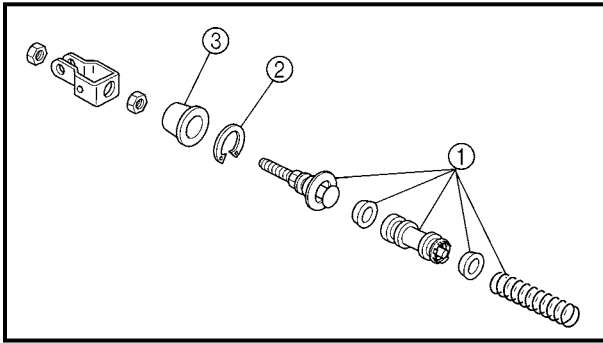
- Use only the designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.
- When refilling, be careful that water does not enter the brake master cylinder reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.

CAUTION:

Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any spilt brake fluid immediately.

- Bleed:
 - brake system
Refer to "BLEEDING THE HYDRAULIC BRAKE SYSTEM" in chapter 3.
- Install:
 - brake master cylinder diaphragm
 - brake master cylinder diaphragm holder
 - brake master cylinder cap
 - rear view mirror
- Check:
 - brake fluid level
Below the minimum level mark (a) → Add the recommended brake fluid to the proper level.
Refer to "CHECKING THE BRAKE FLUID LEVEL" in chapter 3.
- Check:
 - brake lever operation
Soft or spongy feeling → Bleed the brake system.
Refer to "BLEEDING THE HYDRAULIC BRAKE SYSTEM" in chapter 3.

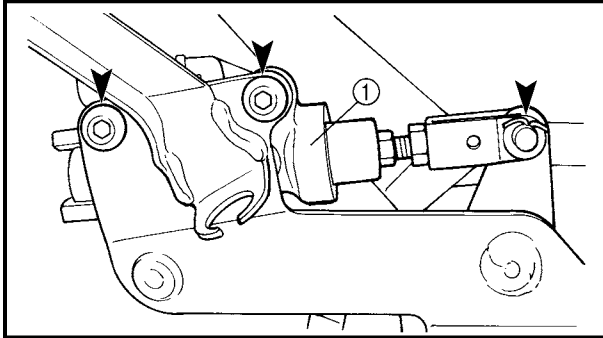




EAS00608

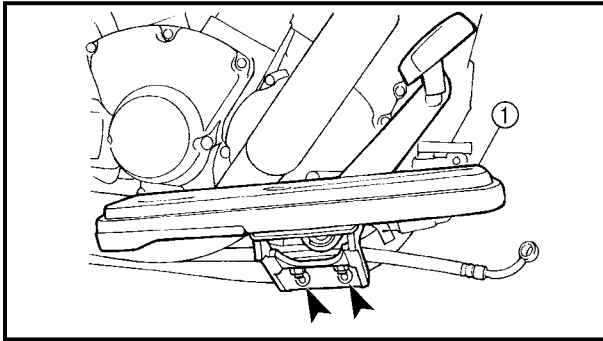
ASSEMBLING AND INSTALLING THE REAR BRAKE MASTER CYLINDER

1. Install:
- brake master cylinder kit ①
 - circlip ② **New**
 - dust boot ③



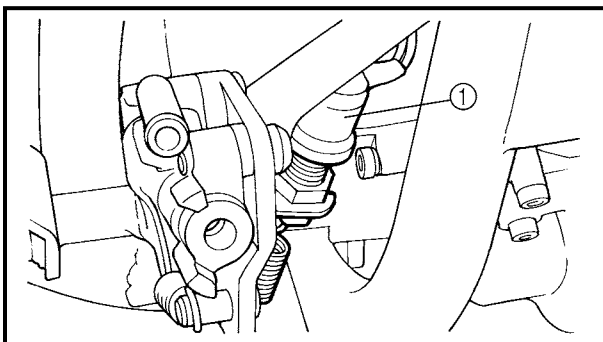
2. Install:
- brake master cylinder ①

23 Nm (2.3 m · kg, 17 ft · lb)



3. Install:
- left footrest assembly ①

48 Nm (4.8 m · kg, 35 ft · lb)

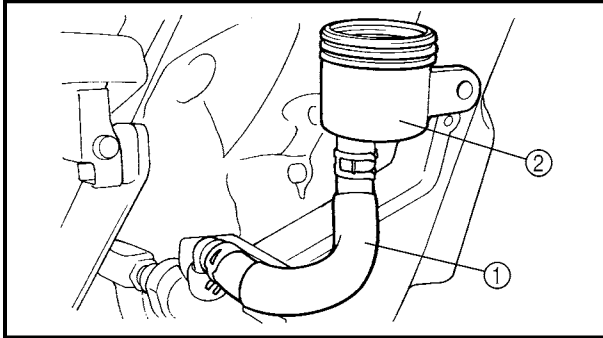
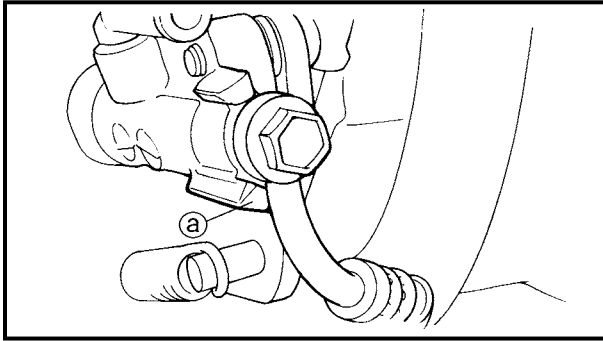


4. Install:
- rear brake light switch ①

5. Install:
- copper washers **New**
 - brake hose
 - union bolt **30 Nm (3.0 m · kg, 22 ft · lb)**

⚠ WARNING

Proper brake hose routing is essential to insure safe motorcycle operation. Refer to "CABLE ROUTING".

**CAUTION:**

When installing the brake hose onto the brake master cylinder, make sure the brake pipe touches the projection ① as shown.

6. Install:

- brake fluid reservoir hose ①
- brake fluid reservoir ②

7. Fill:

- brake fluid reservoir
(to the maximum level mark)



**Recommended brake fluid
DOT 4**

⚠ WARNING

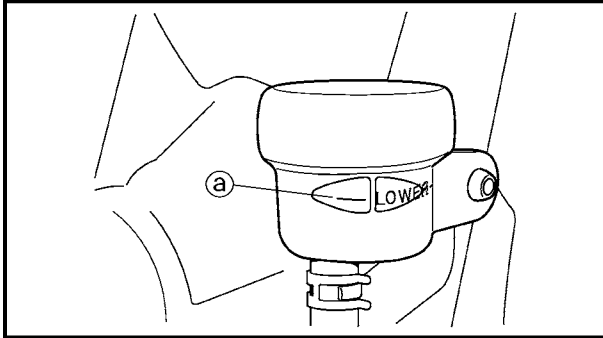
- Use only the designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.
- When refilling, be careful that water does not enter the brake fluid reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.

CAUTION:

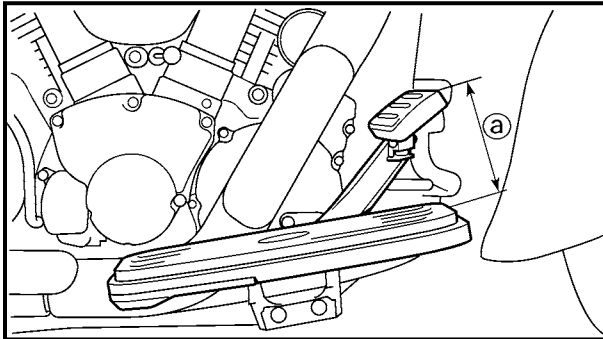
Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any spilt brake fluid immediately.



8. Bleed:
 - brake systemRefer to “BLEEDING THE HYDRAULIC BRAKE SYSTEM” in chapter 3.
9. Install:
 - brake fluid reservoir diaphragm
 - brake fluid reservoir diaphragm holder
 - brake fluid reservoir cap
 - brake fluid reservoir cover



10. Check:
 - brake fluid levelBelow the minimum level mark (a) → Add the recommended brake fluid to the proper level.
Refer to “CHECKING THE BRAKE FLUID LEVEL” in chapter 3.



11. Adjust:
 - brake pedal position (a)Refer to “ADJUSTING THE REAR BRAKE” in chapter 3.



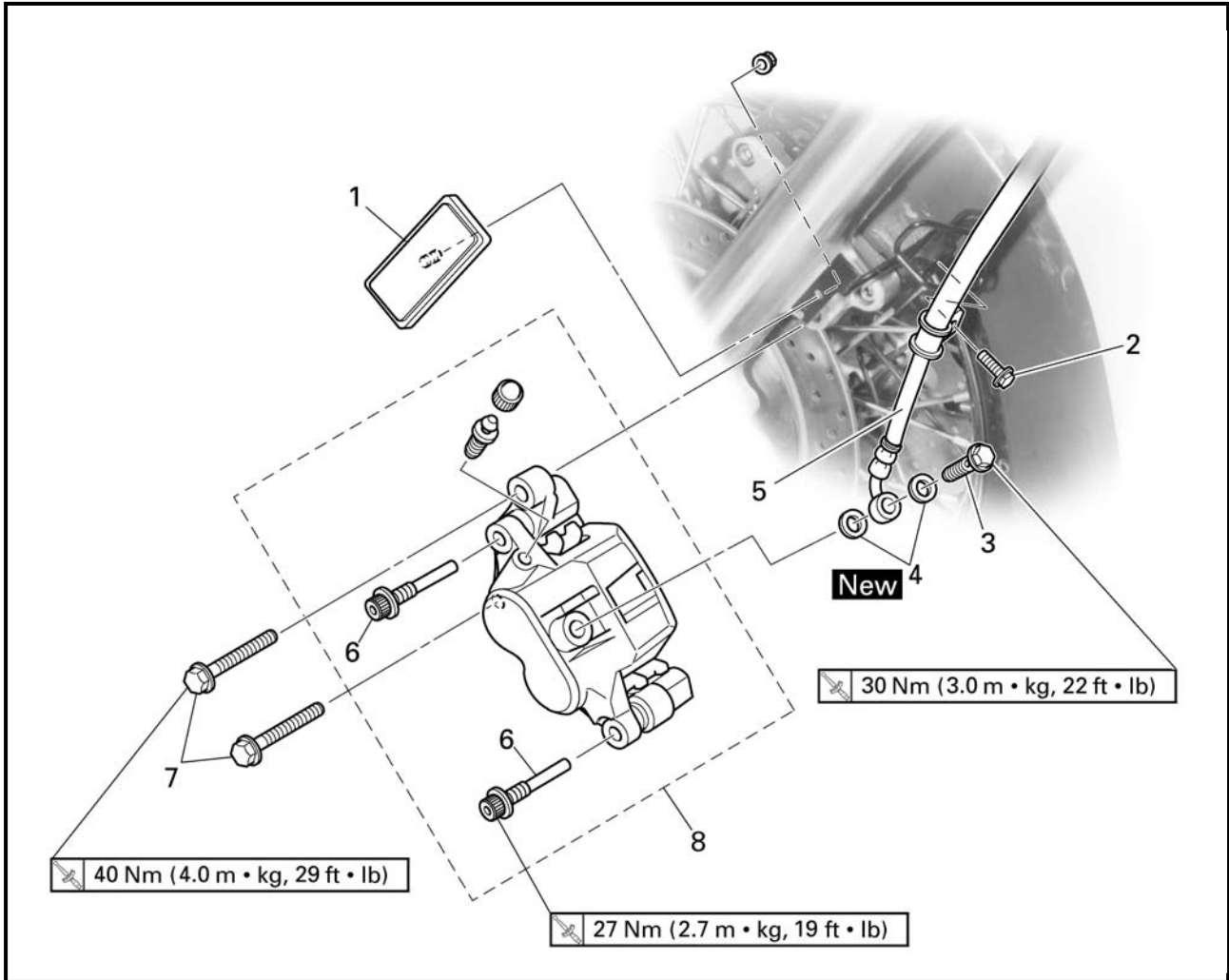
**Brake pedal position (below the top of the rider footrest)
100 mm (3.9 in)**

12. Adjust:
 - rear brake light operation timingRefer to “ADJUSTING THE REAR BRAKE LIGHT SWITCH” in chapter 3.

EAS00613

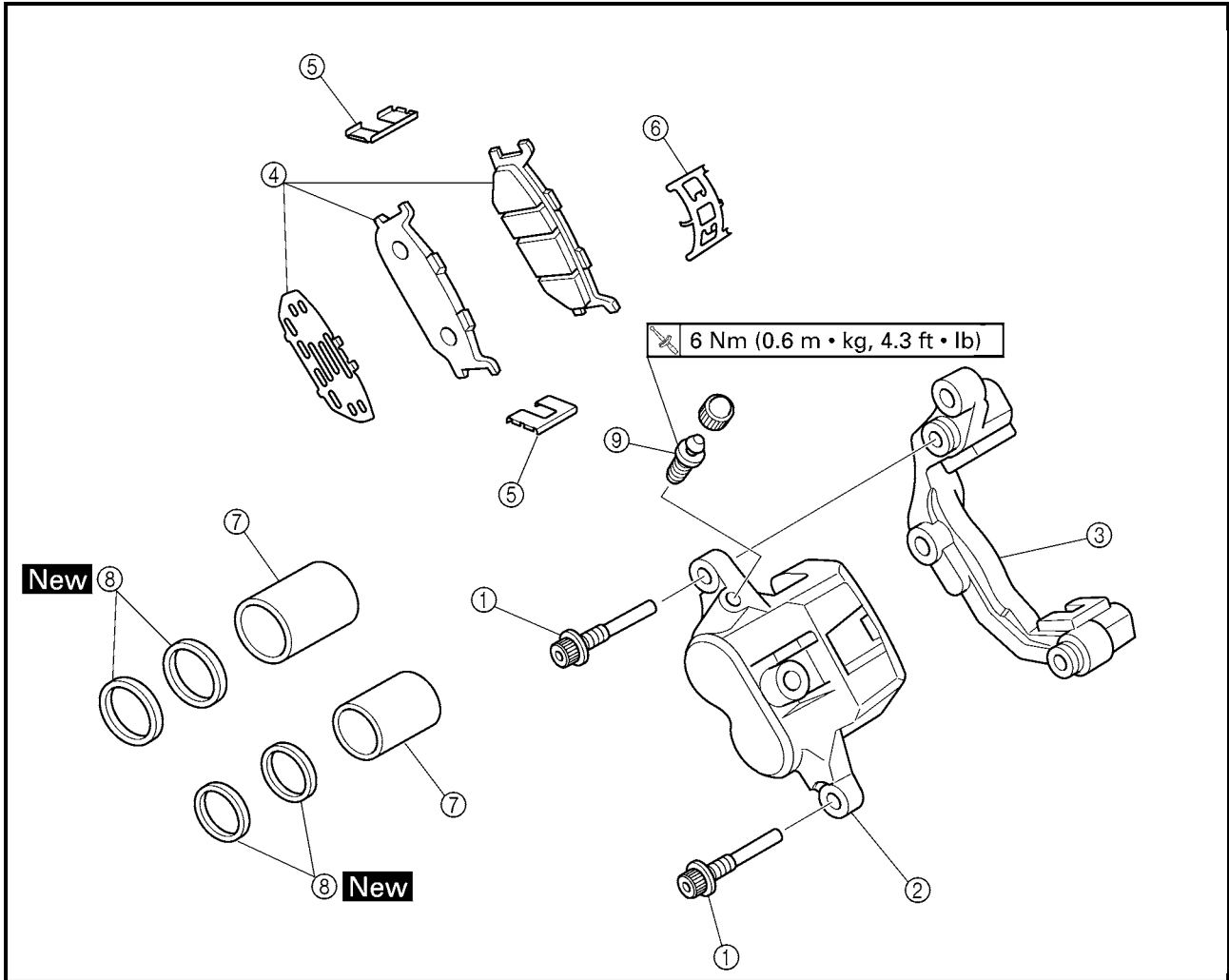
FRONT BRAKE CALIPERS

4



Order	Job/Part	Q'ty	Remarks
	Removing the front brake calipers		Remove the parts in the order listed. The following procedure applies to both of the front brake calipers. Drain.
	Brake fluid		
1	Reflector	1	
2	Brake hose holder bolt	1	
3	Union bolt	1	
4	Copper washer	2	
5	Brake hose	1	
6	Retaining bolt	2	Loosen.
7	Brake caliper bolt	2	
8	Brake caliper	1	
			For installation, reverse the removal procedure.

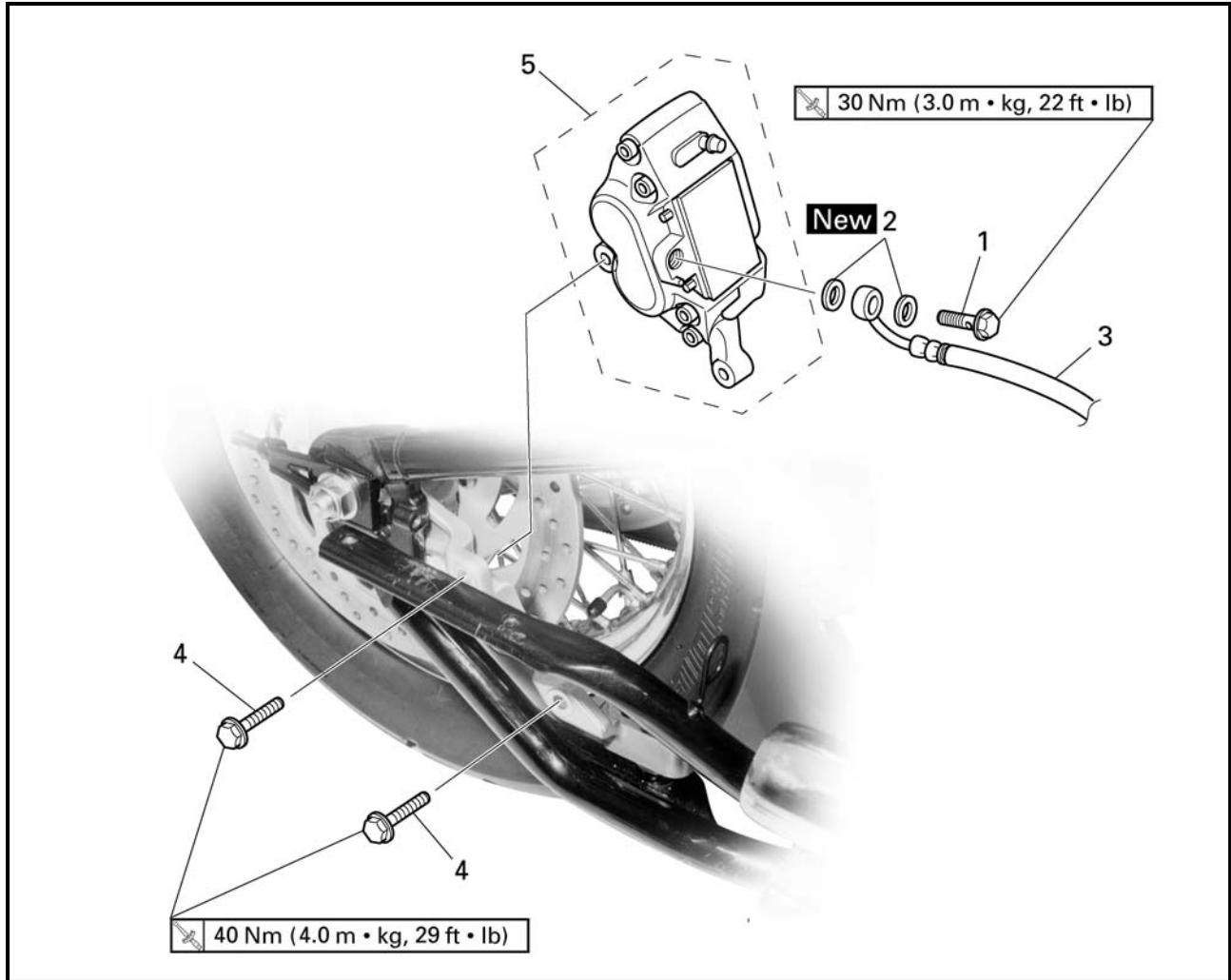
EAS00615



Order	Job/Part	Q'ty	Remarks
	Disassembling the front brake calipers		Remove the parts in the order listed.
			The following procedure applies to both of the front brake calipers.
①	Retaining bolt	2	
②	Brake caliper	1	
③	Brake caliper bracket	2	
④	Brake pad	2	
⑤	Brake pad spring	2	
⑥	Brake pad spring	1	
⑦	Brake caliper piston	2	
⑧	Brake caliper piston seal	4	
⑨	Bleed screw	1	
			For assembly, reverse the disassembly procedure.

EAS00616

REAR BRAKE CALIPER

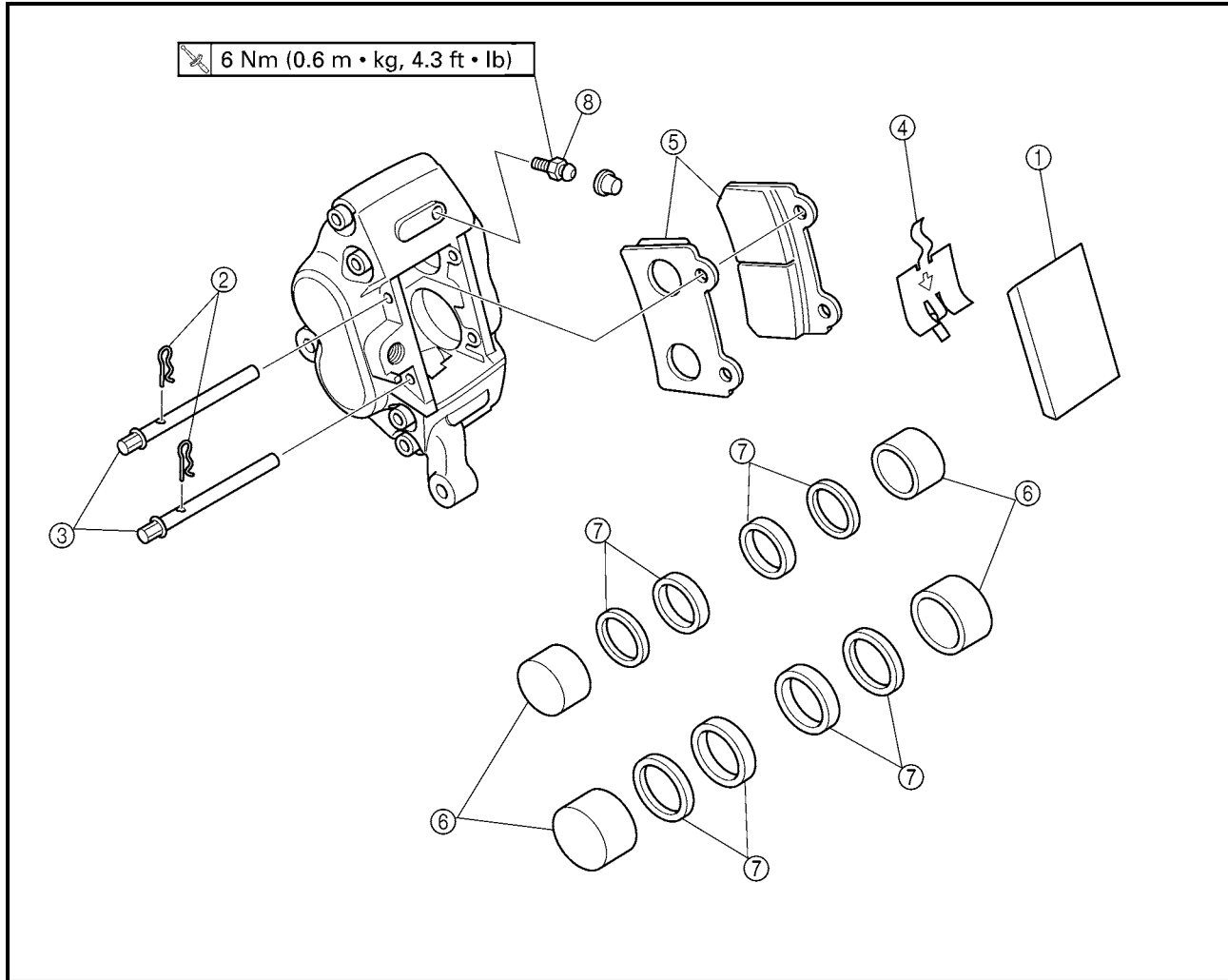


4

Order	Job/Part	Q'ty	Remarks
	Removing the rear brake caliper		
	Muffler		Remove the parts in the order listed. Refer to "REAR WHEEL, BRAKE DISC AND REAR WHEEL PULLEY".
	Brake fluid		Drain.
1	Union bolt	1	
2	Copper washer	2	
3	Brake hose	1	
4	Brake caliper bolt	2	
5	Brake caliper	1	
			For installation, reverse the removal procedure.

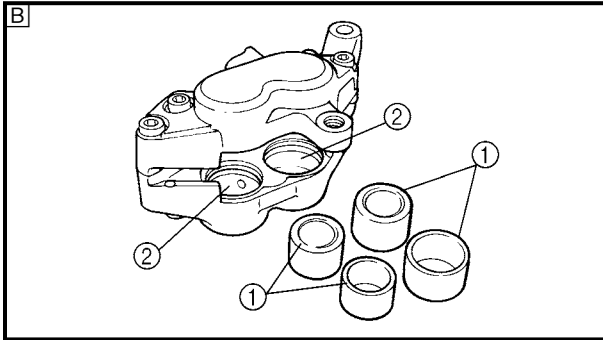
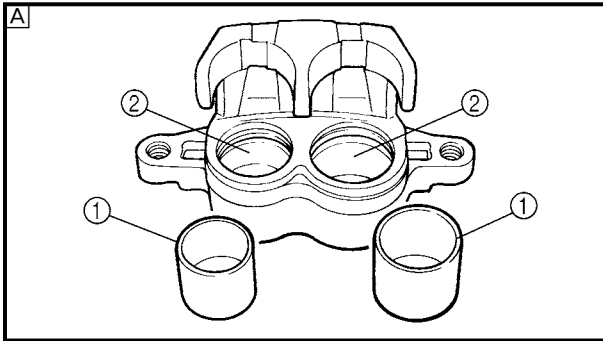


EAS00617



4

Order	Job/Part	Q'ty	Remarks
	Disassembling the rear brake caliper		Remove the parts in the order listed.
①	Brake pad cover	1	
②	Brake pad clip	2	
③	Brake pad pin	2	
④	Brake pad spring	1	
⑤	Brake pad	2	
⑥	Brake caliper piston	4	
⑦	Brake caliper piston seal	8	
⑧	Bleed screw	1	
			For assembly, reverse the disassembly procedure.



1. Check:
 - brake caliper pistons ①
Rust/scratches/wear → Replace the brake caliper.
 - brake caliper cylinders ②
Scratches/wear → Replace the brake caliper.
 - brake calipers
Cracks/damage → Replace.
 - brake fluid delivery passages (brake caliper body)
Obstruction → Blow out with compressed air.

⚠ WARNING

Whenever a brake caliper is disassembled, replace the brake caliper piston seals.

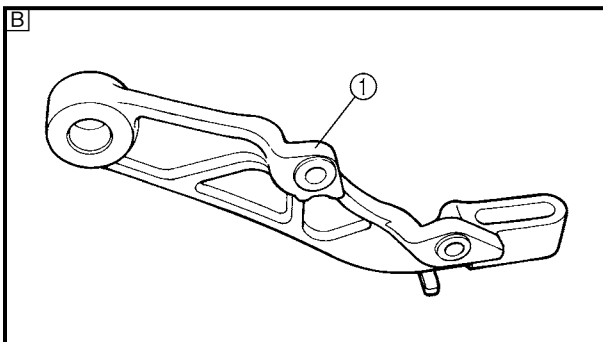
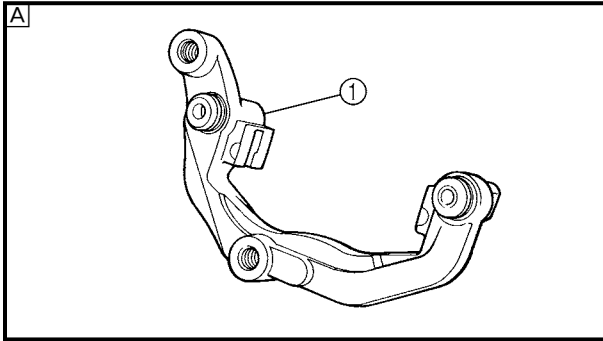
Ⓐ Front

Ⓑ Rear

2. Check:
 - brake caliper brackets ①
Cracks/damage → Replace.

Ⓐ Front

Ⓑ Rear



EAS00638

ASSEMBLING AND INSTALLING THE FRONT BRAKE CALIPERS

The following procedure applies to both of the brake calipers.

⚠ WARNING

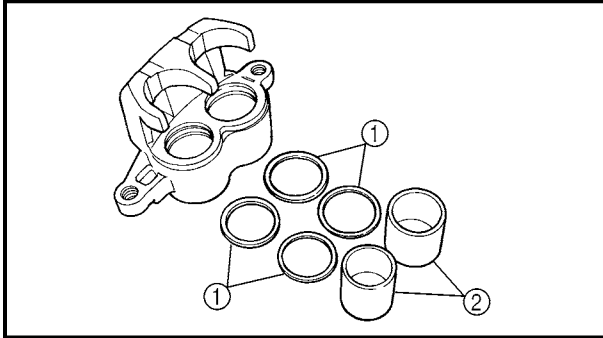
- **Before installation, all internal brake components should be cleaned and lubricated with clean or new brake fluid.**



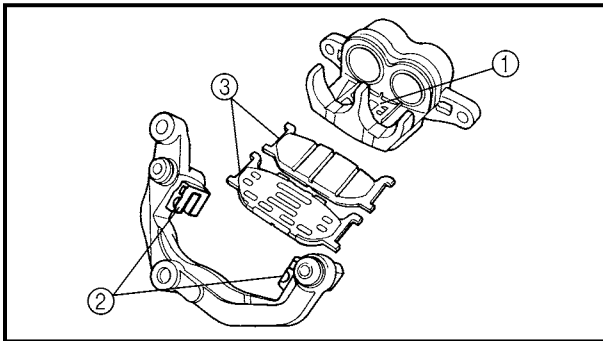
- Never use solvents on internal brake components as they will cause the piston seals to swell and distort.
- Whenever a brake caliper is disassembled, replace the brake caliper piston seals.



Recommended brake fluid
DOT 4

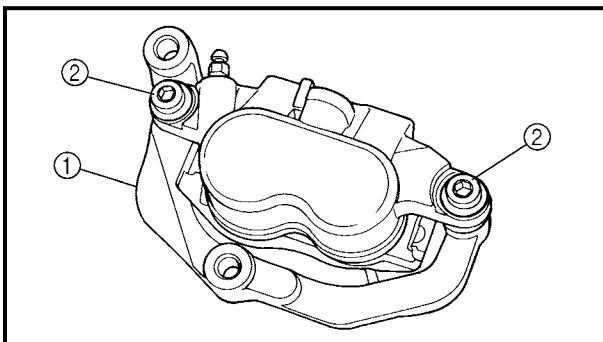


1. Install:
 - bleed screw
 - brake caliper piston seals ① **New**
 - brake caliper pistons ②



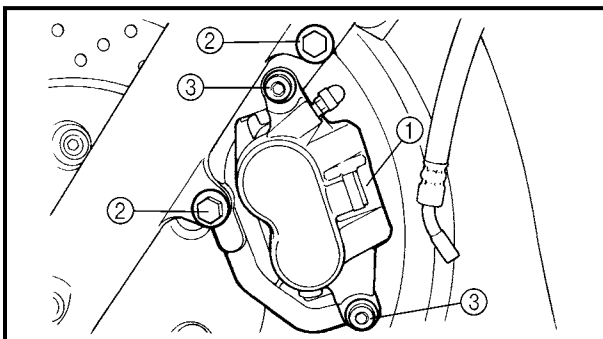
2. Install:
 - brake pad spring ①
 - brake pad springs ②
 - brake pads ③

NOTE: _____
Install the brake pad with the attached brake pad shim on the brake caliper piston side.



3. Install:
 - brake caliper bracket ①
 - retaining bolts ②

NOTE: _____
Temporarily tighten the retaining bolts.

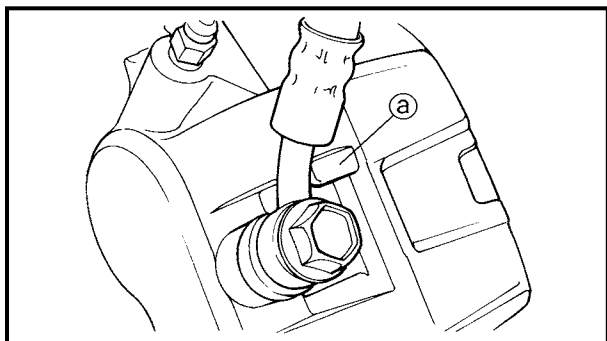


4. Install:
 - brake caliper ①
 - brake caliper bolts ②

40 Nm (4.0 m · kg, 29 ft · lb)

5. Tighten:
 - retaining bolts ③

27 Nm (2.7 m · kg, 19 ft · lb)



6. Install:

- copper washers **New**
- brake hose
- union bolt 30 Nm (3.0 m · kg, 22 ft · lb)

⚠ WARNING

Proper brake hose routing is essential to insure safe motorcycle operation. Refer to "CABLE ROUTING".

CAUTION:

When installing the brake hose onto the brake caliper, make sure the brake pipe touches the projection ① on the brake caliper.

7. Fill:

- brake master cylinder reservoir (with the specified amount of the recommended brake fluid)



Recommended brake fluid
DOT 4

⚠ WARNING

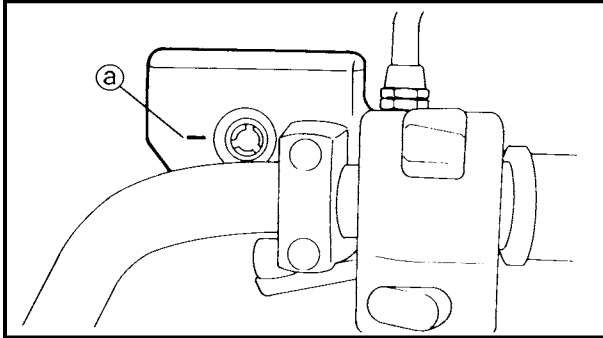
- Use only the designated brake fluid. Other brake fluids may cause the rubber seals to deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid that is already in the system. Mixing brake fluids may result in a harmful chemical reaction, leading to poor brake performance.
- When refilling, be careful that water does not enter the brake master cylinder reservoir. Water will significantly lower the boiling point of the brake fluid and could cause vapor lock.

CAUTION:

Brake fluid may damage painted surfaces and plastic parts. Therefore, always clean up any spilt brake fluid immediately.



8. Bleed:
- brake system
- Refer to "BLEEDING THE HYDRAULIC BRAKE SYSTEM" in chapter 3.



9. Check:
- brake fluid level
- Below the minimum level mark (a) → Add the recommended brake fluid to the proper level.
- Refer to "CHECKING THE BRAKE FLUID LEVEL" in chapter 3.

10. Check:
- brake lever operation
- Soft or spongy feeling → Bleed the brake system.
- Refer to "BLEEDING THE HYDRAULIC BRAKE SYSTEM" in chapter 3.

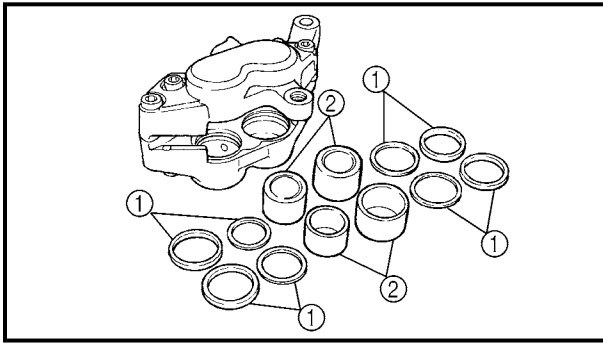
EAS00642

ASSEMBLING AND INSTALLING THE REAR BRAKE CALIPER

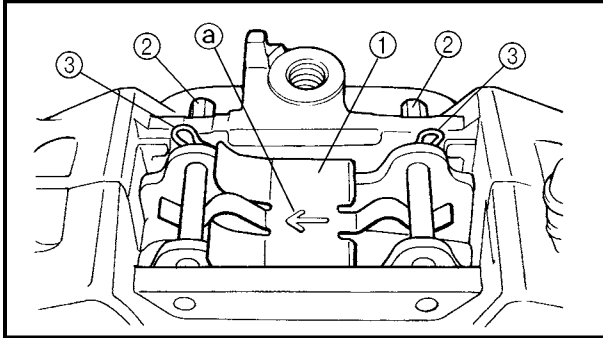
⚠ WARNING

- Before installation, all internal brake components should be cleaned and lubricated with clean or new brake fluid.
- Never use solvents on internal brake components as they will cause the piston seals to swell and distort.
- Whenever a brake caliper is disassembled, replace the brake caliper piston seals.

	<p>Recommended brake fluid DOT 4</p>
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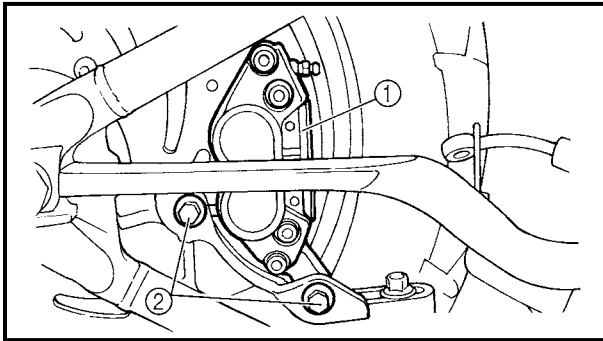


1. Install:
 - bleed screw
 - brake caliper piston seals ① **New**
 - brake caliper pistons ②



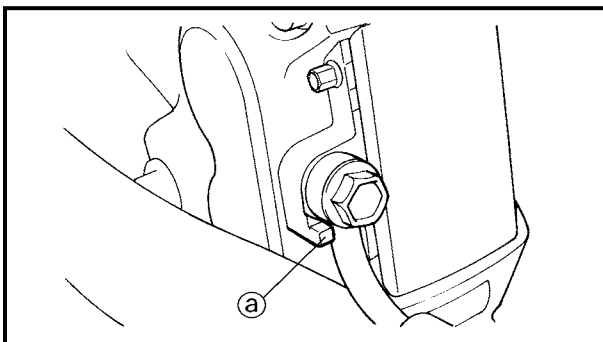
2. Install:
 - brake pads
 - brake pad spring ①
 - brake pad pins ②
 - brake pad clips ③

NOTE: _____
 The arrow ② on the brake pad spring must point in the direction of disc rotation.



3. Install:
 - brake pad cover
4. Install:
 - brake caliper ①
 - brake caliper bolts ②

40 Nm (4.0 m · kg, 29 ft · lb)



5. Install:
 - copper washers **New**
 - brake hose
 - union bolt 30 Nm (3.0 m · kg, 22 ft · lb)

⚠ WARNING _____
 Proper brake hose routing is essential to insure safe motorcycle operation. Refer to "CABLE ROUTING".

CAUTION: _____
 When installing the brake hose onto the brake caliper, make sure the brake pipe touches the projection ② on the brake caliper.

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