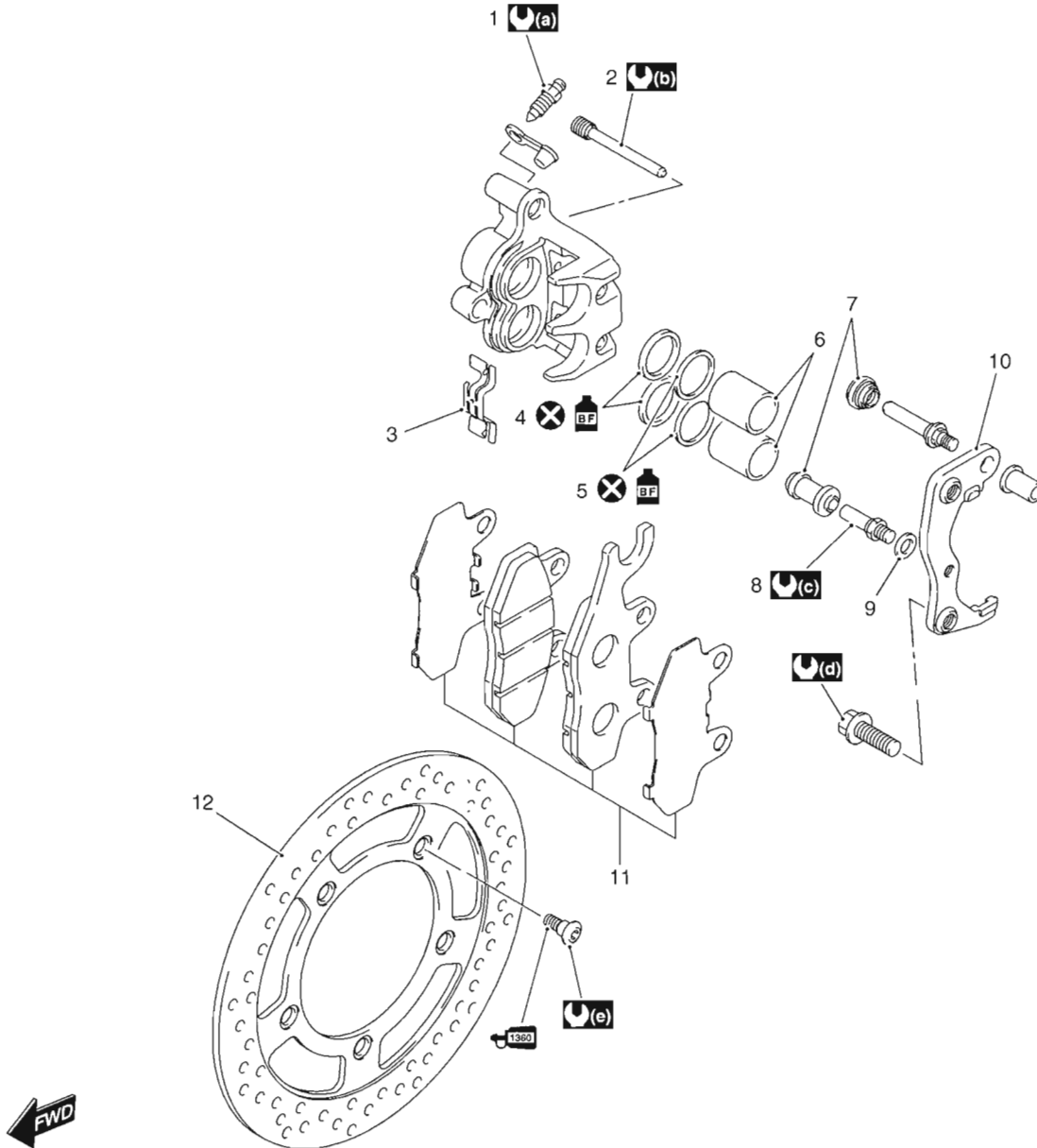


Front Brakes

Repair Instructions

Front Brake Components

B705H24206001



I705H1420026-02

1. Air bleeder valve	8. Pin bolt	: 18 N-m (1.8 kgf-m, 13.0 lb-ft)
2. Pad mounting pin	9. Washer	: 35 N-m (3.5 kgf-m, 25.5 lb-ft)
3. Brake pad spring	10. Bracket	: 23 N-m (2.3 kgf-m, 16.5 lb-ft)
4. Piston seal	11. Front brake pad set	: Apply thread lock to thread part.
5. Dust seal	12. Front brake disc	: Apply brake fluid.
6. Piston	: 6 N-m (0.6 kgf-m, 4.5 lb-ft)	: Do not reuse.
7. Boot	: 18 N-m (1.8 kgf-m, 13.0 lb-ft)	

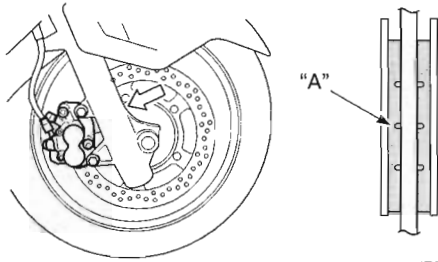
Front Brake Pad Inspection

B705H24206002

The extent of brake pad wear can be checked by observing the grooved limit line "A" on the pad. When the wear exceeds the grooved limit line, replace the pads with the new ones. Refer to "Front Brake Pad Replacement (Page4B-2)".

⚠ CAUTION

Replace the brake pad as a set, otherwise braking performance will be adversely affected.



I705H1420001-02

Front Brake Pad Replacement

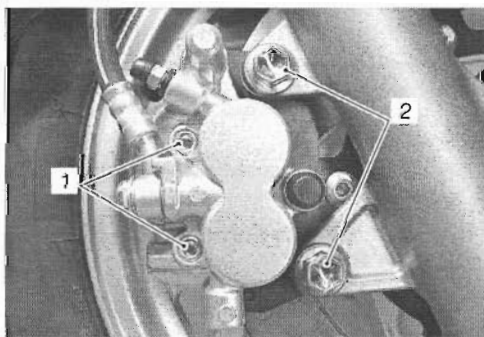
B705H24206003

Replace the front brake pads in the following procedures:

⚠ CAUTION

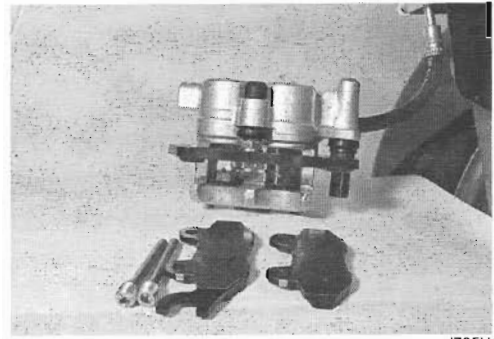
Do not operate the brake lever while removing the caliper.

- 1) Loosen the front brake pad mounting pins (1).
- 2) Remove the front brake caliper mounting bolts (2).
- 3) Remove the front brake caliper.



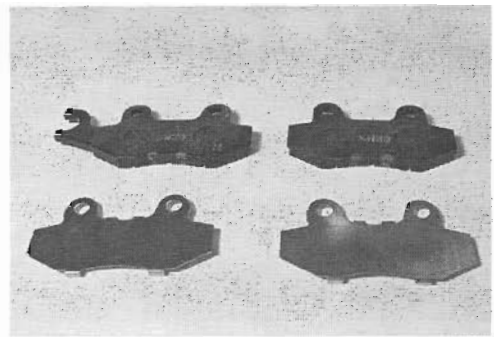
I705H1420002-01

- 4) Remove the front brake pad mounting pins.
- 5) Remove the front brake pads.



I705H1420003-02

- 6) Disassemble the shims from the front brake pads.

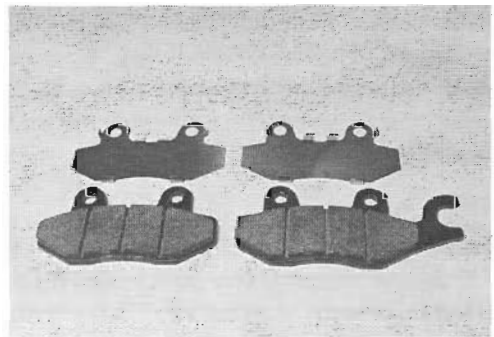


I705H1420004-01

- 7) Clean up the caliper especially around the caliper piston and the shim.
- 8) Assemble the new front brake pads and shims.

⚠ CAUTION

Replace the brake pads as a set, otherwise braking performance will be adversely affected.



I705H1420005-01

4B-3 Front Brakes:

- 9) Install the front brake pads.
- 10) Install the front brake pad mounting pins temporarily.
- 11) Install the front brake caliper.
- 12) Tighten the front brake caliper mounting bolts (1) to the specified torque.

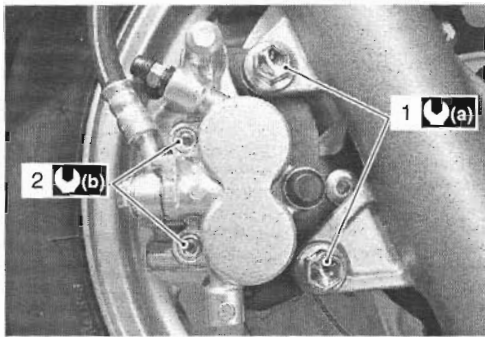
Tightening torque

Front brake caliper mounting bolt (a): 35 N·m (3.5 kgf-m, 25.5 lb-ft)

- 13) Tighten the front brake pad mounting pin (2) to the specified torque.

Tightening torque

Front brake pad mounting pin (b): 18 N·m (1.8 kgf-m, 13.0 lb-ft)



I705H1420006-02

NOTE

After replacing the brake pads, pump the brake lever several times in order to operate the brake correctly and then check the brake fluid level.

Front Brake Caliper Removal and Installation

B705H24206004

Removal

- 1) Drain brake fluid. Refer to "Brake Fluid Replacement in Section 4A (Page4A-5)".
- 2) Remove the brake hose from the caliper by removing the union bolt (1) and catch the brake fluid in a suitable receptacle.

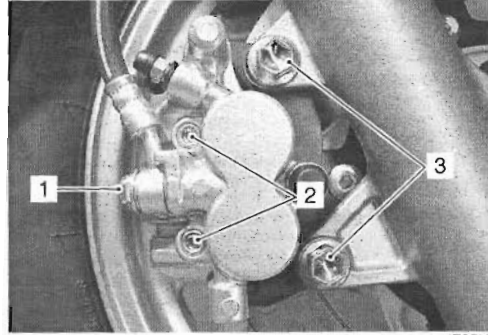
NOTE

Place a rag underneath the union bolt on the brake caliper to catch any spilt brake fluid.

NOTE

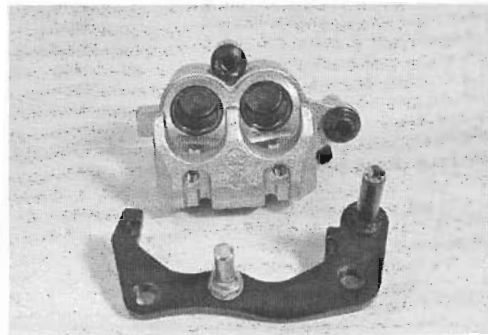
Slightly loosen the brake pad mounting pins (2) to facilitate later disassembly, if necessary.

- 3) Remove the brake caliper by removing the caliper mounting bolts (3).



I705H1420007-01

- 4) Remove the front brake pads. Refer to "Front Brake Pad Replacement (Page4B-2)".
- 5) Remove the front brake caliper bracket.



I705H1420008-01

Installation

Install the front brake caliper in the reverse order of removal. Pay attention to the following points:

⚠ CAUTION

The seal washers should be replaced with the new ones to prevent fluid leakage.

- Tighten each bolt to the specified torque.

Tightening torque

Front brake caliper mounting bolt (a): 35 N·m (3.5 kgf-m, 25.5 lb-ft)

Front brake pad mounting pin (b): 18 N·m (1.8 kgf-m, 13.0 lb-ft)

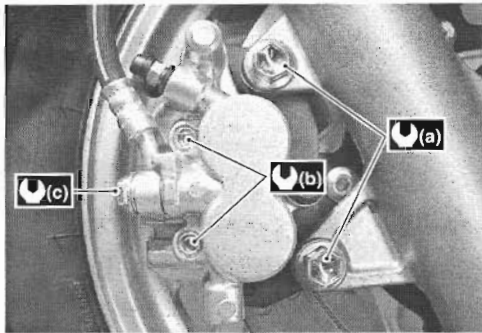
- After setting the brake hose union to the stopper, tighten the union bolt to the specified torque.

⚠ CAUTION

The seal washers should be replaced with the new ones to prevent fluid leakage.

Tightening torque

Front brake hose union bolt (c): 23 N·m (2.3 kgf-m, 16.5 lb-ft)



I705H1420009-03

- Bleed air from the brake system after installing the caliper. Refer to "Air Bleeding from Brake Fluid Circuit in Section 4A (Page4A-4)".
- Check the brake fluid leakage and brake operation.

⚠ WARNING

Brake fluid, if it leaks, will interfere with safe running and discolor painted surfaces. Check the brake hose and hose joints for cracks and fluid leakage.

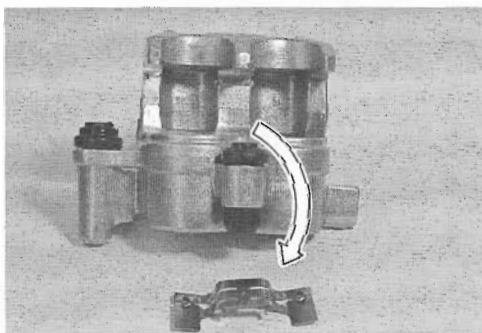
Front Brake Caliper Disassembly and Assembly

B705H24206005

Refer to "Front Brake Caliper Removal and Installation (Page4B-3)"

Disassembly

- 1) Remove the front brake pads. Refer to "Front Brake Caliper Removal and Installation (Page4B-3)".
- 2) Remove the front brake pad spring.

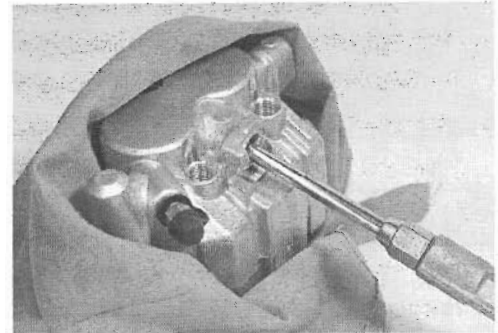


I705H1420010-01

- 3) Place a rag over the pistons to prevent it from popping out and then force out the pistons using compressed air.

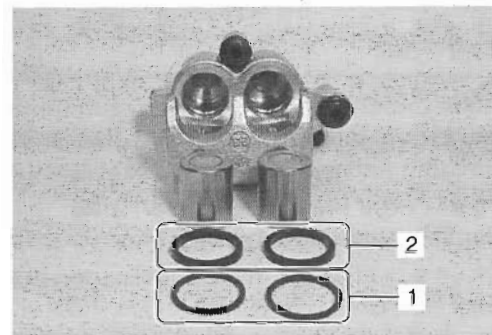
⚠ CAUTION

Do not use high pressure air to prevent piston damage.



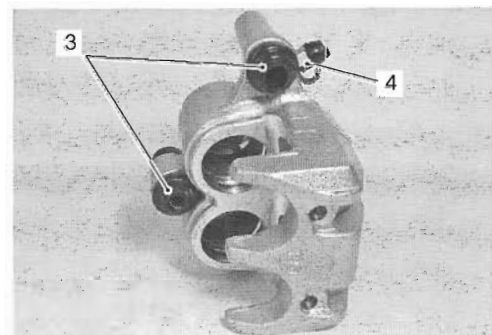
I705H1420011-01

- 4) Remove the dust seals (1) and piston seals (2).



I705H1420012-03

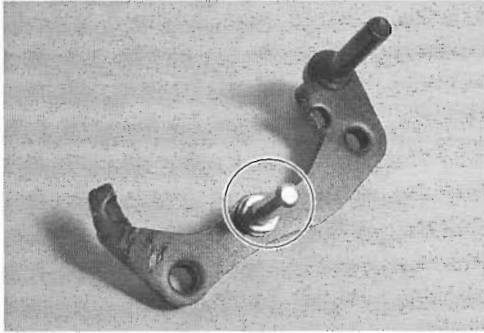
- 5) Remove the rubber boots (3) and the front brake caliper air bleeder valve (4).



I705H1420013-02

4B-5 Front Brakes:

- 6) Remove the pin bolt from the front brake caliper bracket.



I705H1420014-01

Assembly

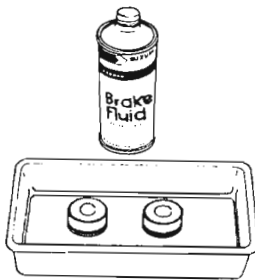
Assemble the front brake caliper in the reverse order of disassembly. Pay attention to the following points:

- Wash the caliper bores and pistons with specified brake fluid. Particularly wash the dust seal grooves and piston seal grooves.

BF: Brake fluid (DOT 4)

⚠ CAUTION

- Wash the caliper components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.
- Do not wipe the brake fluid off after washing the components.
- When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvent such as gasoline, kerosine or the others.



I649G1420012-01

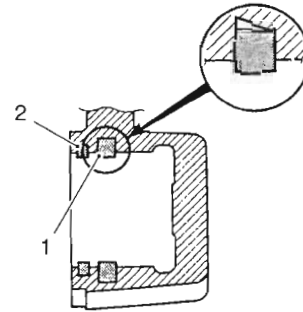
- Apply the brake fluid to piston seals (1) and dust seals (2).

⚠ CAUTION

Replace the piston seals (1) and dust seals (2) with the new ones.

BF: Brake fluid (DOT 4)

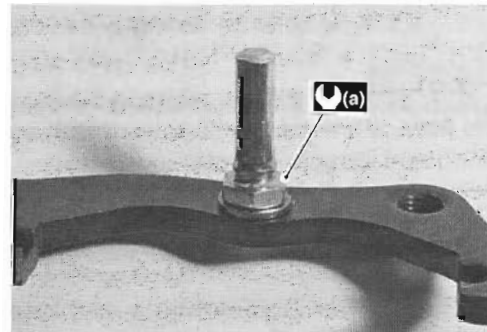
- Install the piston seals as shown in the figure.



I649G1420013-01

Tightening torque

Pin bolt (a): 18 N·m (1.8 kgf·m, 13.0 lb-ft)



I705H1420015-01

Front Brake Caliper Parts Inspection

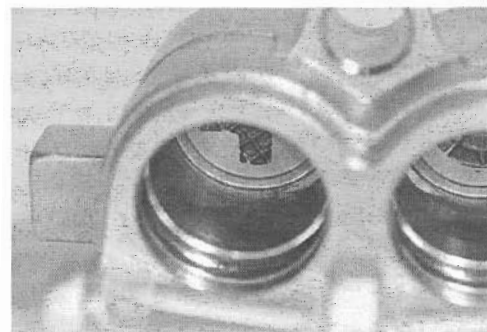
B705H24206006

Refer to "Front Brake Caliper Disassembly and Assembly (Page 4B-4)"

Inspect the following parts.

Brake Caliper Cylinder

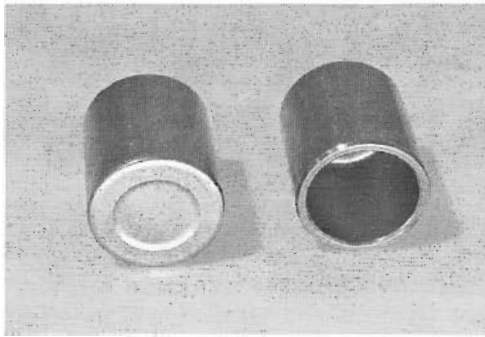
Inspect the brake caliper cylinder wall for nicks, scratches or other damage. If any damage is found, replace the caliper with a new one.



I705H1420016-01

Brake Caliper Piston

Inspect the brake caliper piston surface for any scratches or other damage. If any damage is found, replace the piston with a new one.



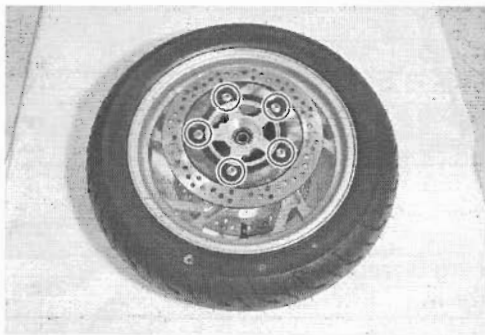
I705H1420017-01

Front Brake Disc Removal and Installation

B705H24206007

Removal

- 1) Remove the front wheel assembly. Refer to "Front Wheel Assembly Removal and Installation in Section 2D (Page2D-4)".
- 2) Remove the front brake disc.




I705H1420025-01

Installation

Install the front brake disc in the reverse order of removal. Pay attention to the following points:

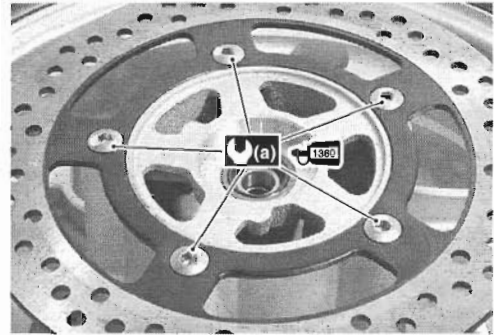
- Make sure that the brake discs are clean and free of any grease.

- Apply thread lock to the brake disc bolts and tighten them to the specified torque.

 : Thread lock cement 99000-32130 (Thread Lock Cement Super 1360 or equivalent)

Tightening torque

Brake disc bolt (a): 23 N·m (2.3 kgf-m, 16.5 lb-ft)



I705H1420024-01

Front Brake Disc Inspection

B705H24206008

Brake Disc Thickness

Check the brake disc for damage or cracks and measure the thickness using the micrometer.

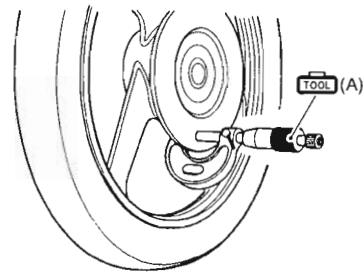
Replace the brake disc if the thickness is less than the service limit or if defect is found.

Special tool

 (A): 09900-20205 (Micrometer (0 - 25 mm))

Brake disc thickness

Service limit (Front): 4.0 mm (0.16 in)




I649G1420019-02


4B-7 Front Brakes:

Brake Disc Runout

- 1) Remove the front brake caliper. Refer to "Front Brake Caliper Removal and Installation (Page4B-3)".
- 2) Measure the runout using the dial gauge.
Replace the disc if the runout exceeds the service limit.

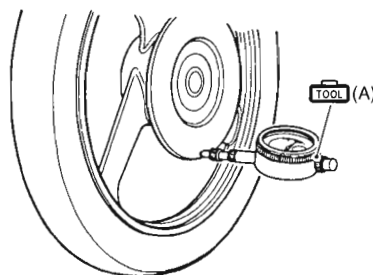
Special tool

 (A): 09900-20607 (Dial gauge (1/100 mm, 10 mm))

 : 09900-20701 (Magnetic stand)

Brake disc runout

Service limit: 0.30 mm (0.012 in)



I649G1420020-02

- 3) Install the front brake caliper. Refer to "Front Brake Caliper Removal and Installation (Page4B-3)".

Specifications

Service Data

B705H24207001

Brake + Wheel

Unit: mm (in)

Item	Standard		Limit
	Front	Rear	
Brake disc thickness	4.5 ± 0.2 (0.18 ± 0.008)	5.0 ± 0.2 (0.20 ± 0.008)	4.0 (0.16)
Brake disc runout	—		0.30 (0.01)
Brake caliper cylinder bore	Front	25.400 – 25.450 (1.000 – 1.002)	—
	Rear	27.00 – 27.05 (1.063 – 1.065)	—
Brake caliper piston diameter	Front	25.318 – 25.368 (0.997 – 0.999)	—
	Rear	26.918 – 26.968 (1.060 – 1.062)	—

Tightening Torque Specifications

B705H24207002

Fastening part	Tightening torque			Note
	N·m	kgf·m	lb·ft	
Front brake caliper mounting bolt	35	3.5	25.5	☞ (Page4B-3) / ☞ (Page4B-3)
Front brake pad mounting pin	18	1.8	13.0	☞ (Page4B-3) / ☞ (Page4B-3)
Front brake hose union bolt	23	2.3	16.5	☞ (Page4B-4)
Pin bolt	18	1.8	13.0	☞ (Page4B-5)
Brake disc bolt	23	2.3	16.5	☞ (Page4B-6)

NOTE

The specified tightening torque is also described in the following.
"Front Brake Components (Page4B-1)"

Reference:

For the tightening torque of fastener not specified in this section, refer to "Tightening Torque Specifications in Section 0C (Page0C-7)".

Special Tools and Equipment

Recommended Service Material

B705H24208001



Material	SUZUKI recommended product or Specification		Note
Brake fluid	DOT 4	—	☞ (Page4B-5) / ☞ (Page4B-5)
Thread lock cement	Thread Lock Cement Super 1360 or equivalent	P/No.: 99000-32130	☞ (Page4B-6)

NOTE

Required service material is also described in the following.
 “Front Brake Components (Page4B-1)”

Special Tool

B705H24208002

09900-20205 Micrometer (0 – 25 mm) ☞ (Page4B-6)		09900-20607 Dial gauge (1/100 mm, 10 mm) ☞ (Page4B-7)	
09900-20701 Magnetic stand ☞ (Page4B-7)	