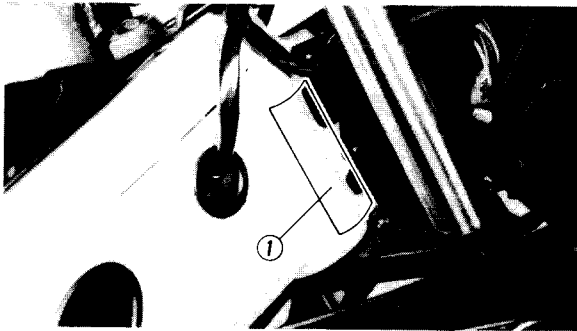


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## GENERAL INFORMATION

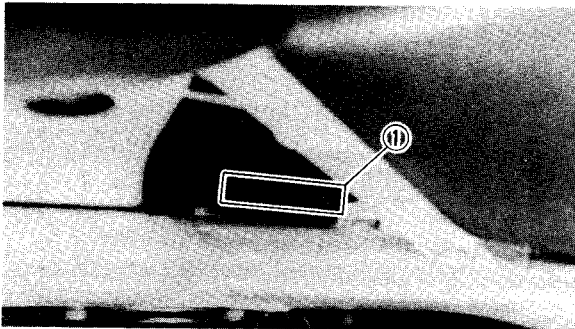
### MOTORCYCLE IDENTIFICATION VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the right side of the steering head.

**Starting serial number:**  
**FZR400A (Except for California):**  
**JYA3BFEO \* LA012101**  
**FZR400SAC (For California):**  
**JYA3FHC0 \* LA003101**

#### NOTE:

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.



### ENGINE SERIAL NUMBER

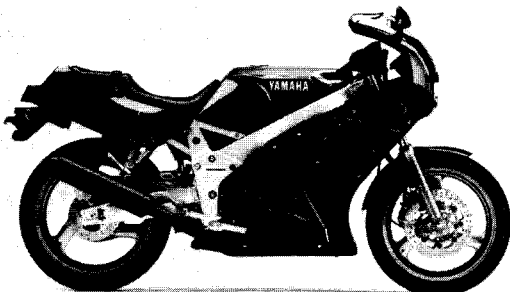
The engine serial number ⑪ is stamped into the right side of the engine.

**Starting serial number:**  
**FZR400A (Except for California):**  
**3BF-012101**  
**FZR400SAC (For California):**  
**3FH-003101**

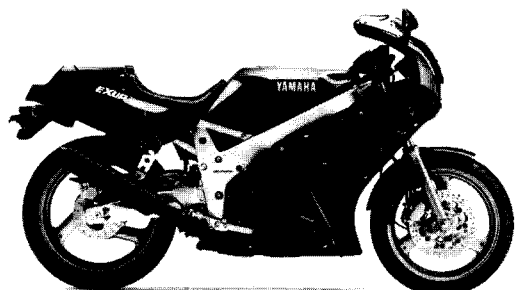
#### NOTE:

- The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

**FZR400A**



**FZR400SAC**





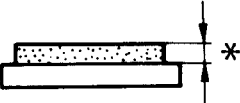
## SPECIFICATIONS

### GENERAL SPECIFICATIONS

Model	FZR400A/FZR400SAC	
Model Code Number:	3BF5 (FZR400A) 3FH3 (FZR400SAC)	
Vehicle Identification Number:	JYA3BFE0 * LA012101 (FZR400A) JYA3FHC0 * LA003101 (FZR400SAC)	
Engine Starting Number:	3BF-012101 (FZR400A) 3FH-003101 (FZR400SAC)	
Basic Weight: With Oil and Full Fuel Tank	188 kg (414 lb) (FZR400A) 191 kg (421 lb) (FZR400SAC)	
Tire: Type Size Manufacture (Type)	Front	Rear
	Tubeless 110/70R17-54H BRIDGESTONE (CY15) DUNLOP (K510F)	Tubeless 140/60R18-64H BRIDGESTONE (CY16) DUNLOP (K510)

**MAINTENANCE SPECIFICATIONS**

**CHASSIS**

Model	FZR400A/FZR400SAC
<b>Front Suspension:</b> Front Fork Travel Front Spring Free Length < Limit > Collar Length Spring Rate: K1 K2 Stroke K1 K2 Optional Spring Oil Capacity Oil Level (Fully Compression)  Oil Grade	130 mm (5.12 in) 412 mm (16.2 in) 408 mm (16.1 in) 160 mm (6.3 in) 4.4 N/mm (0.5 kg/mm, 25.2 lb/in) 6.6 N/mm (0.7 kg/mm, 37.5 lb/in) 0.0 ~ 90 mm (0.0 ~ 3.54 in) 90 ~ 130 mm (3.54 ~ 5.12 in) No 440 cm <sup>3</sup> (15.5 Imp oz, 14.9 US oz) 92 mm (3.62 in) Below the top of inner fork tube without fork spring Yamaha Fork Oil 10WT or equivalent
<b>Front Disc Brake:</b> Type Disc Outside Diameter x Thickness Pad Thickness Inner < Limit > * Pad Thickness Outer < Limit > *   Master Cylinder Inside Diameter Caliper Cylinder Inside Diameter  Brake Fluid Type	Dual 282 x 4 mm (11.10 x 0.16 in) 5.5 mm (0.22 in) 0.5 mm (0.02 in) 5.5 mm (0.22 in) 0.5 mm (0.02 in)  15.87 mm (0.62 in) 32.10 mm (1.26 in)  DOT # 4 or DOT # 3



## TIGHTENING TORQUE

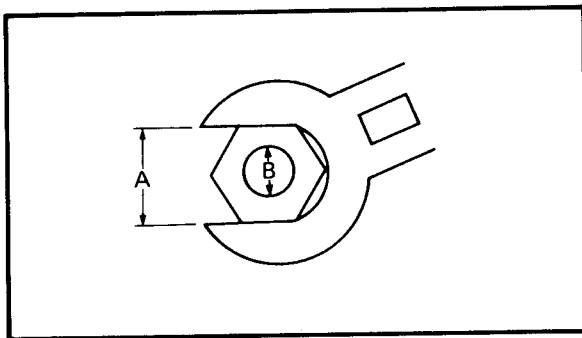
Part to be tightened	Thread size	Tightening torque		
		Nm	m • kg	ft • lb
Front Axle and Outer Tube	M14 x 1.5	58	5.8	42
Rear Axle and Nut	M16 x 1.5	107	10.7	77
Handlebar Crown and Inner Tube	M8 x 1.25	26	2.6	19
Handlebar Crown and Steering Stem	M22 x 1.0	110	11.0	80
Brake Caliper (Front/Rear)	M10 x 1.25	35	3.5	25
Bleed Screw and Brake Caliper	M8 x 1.25	6	0.6	4.3
Brake Hose and Union Bolt	M10 x 1.25	26	2.6	19
Front Master Cylinder and Master Cylinder Holder	M6 x 1.0	9	0.9	6.5
Front Master Cylinder and Cylinder Cap	M5 x 0.8	2	0.2	1.4
Front Fender and Outer Tube	M6 x 1.0	6	0.6	4.3
Handlebar and Inner Tube	M8 x 1.25	23	2.3	17
Engine Mounting: Front	M10 x 1.25	55	5.5	40
Rear — Upper	M10 x 1.25	55	5.5	40
Rear — Lower	M8 x 1.25	45	4.5	32
Down Tube and Frame: Front	M10 x 1.25	60	6.0	43
Rear	M8 x 1.25	33	3.3	24
Footrest Bracket and Frame	M10 x 1.25	33	3.3	24
Pivot Axle and Nut	M14 x 1.5	90	9.0	65
Relay Arm and Frame	M10 x 1.25	40	4.0	29
Arm and Swingarm	M10 x 1.25	40	4.0	29
Arm and Relay Arm	M10 x 1.25	40	4.0	29
Rear Shock Absorber and Relay Arm	M10 x 1.25	40	4.0	29
Rear Shock Absorber and Frame	M10 x 1.25	40	4.0	29
Footrest and Footrest Bracket	M10 x 1.25	57	5.7	41
Rear Footrest Bracket and Frame	M8 x 1.25	20	2.0	14
Rear Master Cylinder and Rear Arm Bracket	M8 x 1.25	20	2.0	14
Cowling and Stay	M6 x 1.0	4	0.4	2.9
Compression Bar and Brake Caliper Bracket	M8 x 1.25	23	2.3	17
Front Fork Pinch Bolt	M8 x 1.25	20	2.0	14
Sprocket and Clutch Hub	M8 x 1.25	32	3.2	23
Brake Disc and Clutch Hub	M8 x 1.25	20	2.0	14
Inner Tube and Steering Stem	M8 x 1.25	22	2.2	16
Frame and Rear Frame: Upper	M10 x 1.25	64	6.4	46
Lower	M12 x 1.25	88	8.8	64



## GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard I.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

A (Nut)	B (Bolt)	General torque specifications		
		Nm	m·kg	ft·lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



A: Distance across flats  
B: Outside thread diameter

## DEFINITION OF UNITS

Unit	Read	Definition	Measure
mm	millimeter	$10^{-3}$ meter	Length
cm	centimeter	$10^{-2}$ meter	Length
kg	kilogram	$10^3$ gram	Weight
N	Newton	$1 \text{ kg} \times \text{m/sec}^2$	Force
Nm	Newton meter	$\text{N} \times \text{m}$	Torque
m·kg	Meter kilogram	$\text{m} \times \text{kg}$	Torque
Pa	Pascal	$\text{N/m}^2$	Pressure
N/mm	Newton per millimeter	N/mm	Spring rate
L	Liter		Volume or Capacity
$\text{cm}^3$	Cubic centimeter		
r/min	Revolution per minute		Engine Speed

## PERIODIC INSPECTIONS AND ADJUSTMENTS CHASSIS

### DRIVE CHAIN SLACK ADJUSTMENT

#### NOTE:

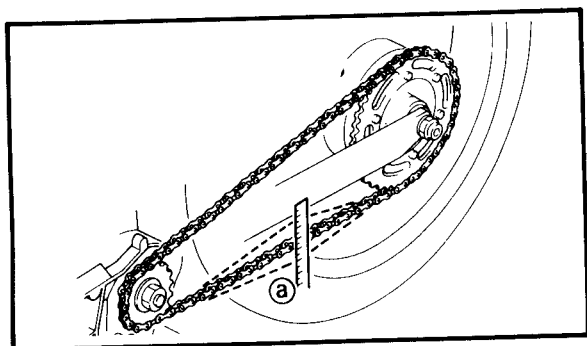
Before checking and/or adjusting the chain slack, rotate the rear wheel several revolutions. Check the chain slack several times to find the point where the chain is the tightest. Check and/or adjust the chain slack where the rear wheel is in this "tight chain" position.

#### CAUTION:

Too little of chain slack will overload the engine and over vital parts; keep the slack within the specified limits.

#### ⚠ WARNING

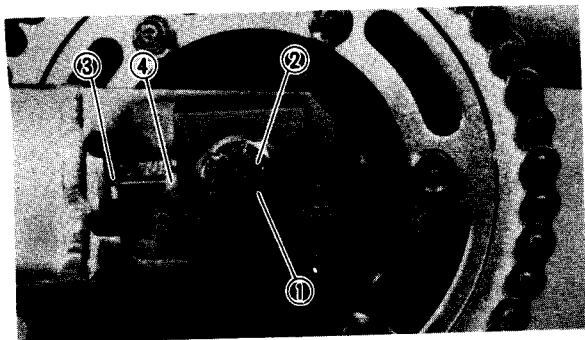
Securely support the motorcycle so there is no danger of it falling over.



1. Place the motorcycle on a level place, and hold it in an upright position.
2. Check:
  - Drive chain slack ①
 Out of specification → Adjust.



**Drive chain slack:**  
10 ~ 20 mm (0.4 ~ 0.8 in)  
at both wheels should be on the ground without the rider on it.



#### 3. Adjust:

- Drive chain slack

#### Adjustment steps:

- Remove the cotter pin ① .
- Loosen the axle nut ② .
- Loosen both locknuts ③ (adjuster) and turn the adjuster ④ clockwise or counter-clockwise until the specified slack is obtained.

Clockwise → Slack is increased.

Counterclockwise → Slack is decreased.

## NOTE:

Turn each adjuster exactly the same amount to maintain correct axle alignment. (There are marks on each side of swingarm; use them to check for proper alignment.)

- Tighten the locknut.
- Tighten the axle nut to specification, while pushing up or down on the chain to zero slack.



Axle nut:

107 Nm (10.7 m·kg, 77 ft·lb)

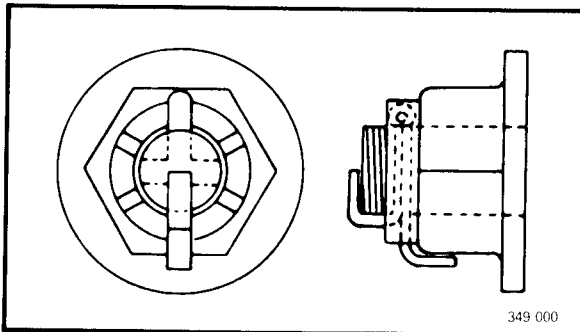
- Install the cotter pin.

## ⚠ WARNING

Always use a new cotter pin on the axle nut.

## CAUTION:

Do not loosen the axle nut after torque tightening. If the axle nut groove is not aligned with the cotter pin hole, align groove with the hole by tightening up on the axle nut.



349 000

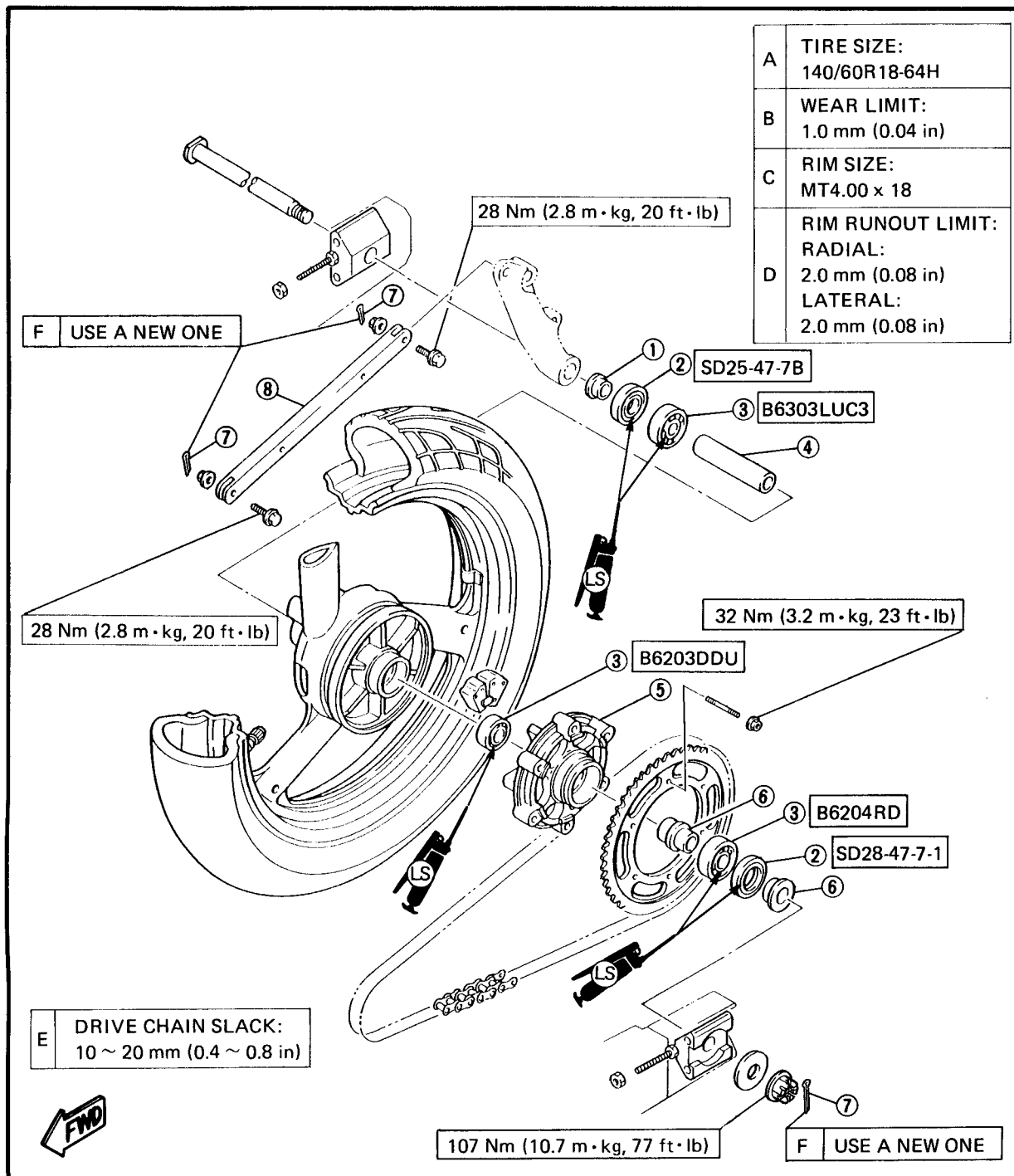




# CHASSIS

## REAR WHEEL

- ① Collar
- ② Oil seal
- ③ Bearing
- ④ Spacer
- ⑤ Clutch hub
- ⑥ Collar
- ⑦ Cotter pin
- ⑧ Tension bar



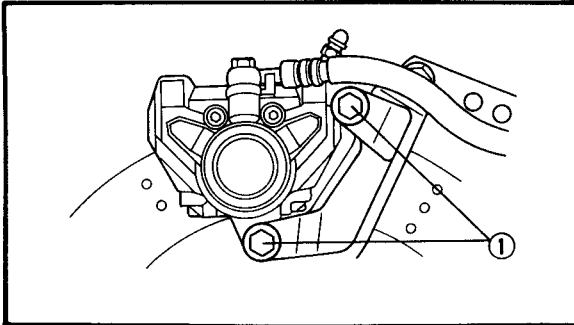
## REMOVAL

1. Place the motorcycle on a level place.

## **⚠ WARNING**

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

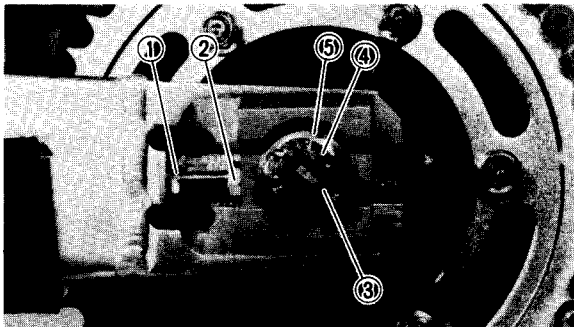
2. Elevate the rear wheel by placing a suitable stand under the swingarm.



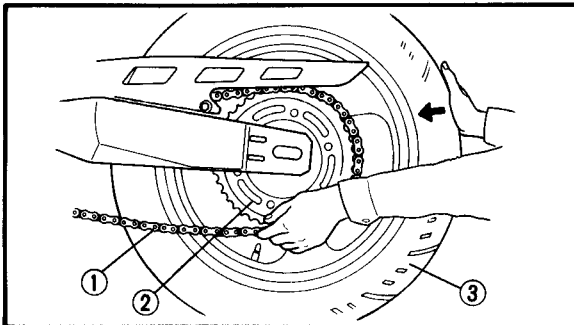
3. Remove:
  - Bolts (brake caliper) ①

## NOTE:

Do not depress the brake pedal while the caliper is removed.



4. Loosen:
  - Locknut ①
  - Adjuster ②
5. Remove:
  - Cotter pin ③
  - Axle nut ④
  - Washer ⑤



6. Push the rear wheel forward and disconnect the drive chain ① from the driven sprocket ②
7. Remove:
  - Rear wheel axle
  - Adjuster collars (left and right)
  - Rear wheel ③

8. Remove:
  - Collar (left and right)



## INSPECTION

### 1. Inspect:

- Tire
- Rear wheel axle
- Wheel
- Wheel bearings
- Oil seals

Refer to the "FRONT WHEEL – INSPECTION".

### 2. Measure:

- Wheel runout

Refer to the "FRONT WHEEL – INSPECTION".

### 3. Check:

- Wheel balance

Refer to the "FRONT WHEEL – INSPECTION".

## INSTALLATION

Reverse the "Removal" procedure.

Note the following points.

### 1. Lubricate:

- Rear wheel axle
- Bearings
- Oil seals
- Spacer
- Collar



Lithium soap base grease

### 2. Adjust:

- Drive chain slack



Drive chain slack:  
10 ~ 20 mm (0.4 ~ 0.8 in)

Refer to the "DRIVE CHAIN SLACK ADJUSTMENT".

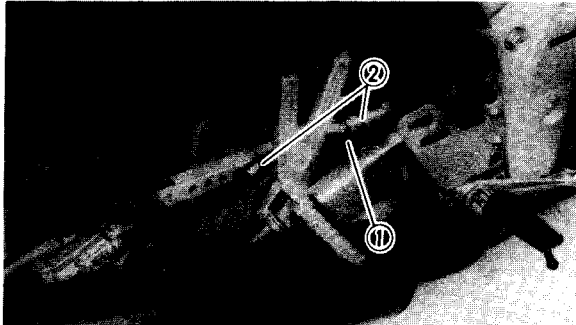
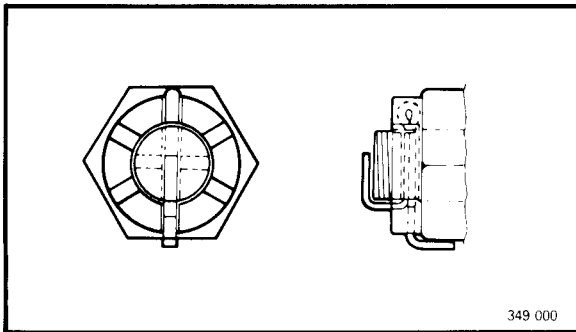
### 3. Tighten:

- Nut (rear wheel axle)
- Bolts (brake caliper)



Nut (rear wheel axle):  
107 Nm (10.7 m · kg, 77 ft · lb)

Bolt (brake caliper):  
35 Nm (3.5 m · kg, 25 ft · lb)



### CAUTION:

- Do not loosen the axle nut after torque tightening.
- If the axle nut groove is not aligned with the wheel shaft cotter pin hole, align groove with the hole by tightening up on the axle nut.

### 4. Install:

- Cotter pin

### ⚠ WARNING

- Always use a new cotter pin on the axle nut.
- Make sure that the brake hose is routed properly.

- ① Brake hose
- ② Brake hose guide

### STATIC WHEEL BALANCE ADJUSTMENT

#### NOTE:

- After replacing the tire and/or rim, wheel balance should be adjusted.
- Adjust the wheel balance with brake disc and wheel hub installed.

### 1. Adjust:

- Wheel balance

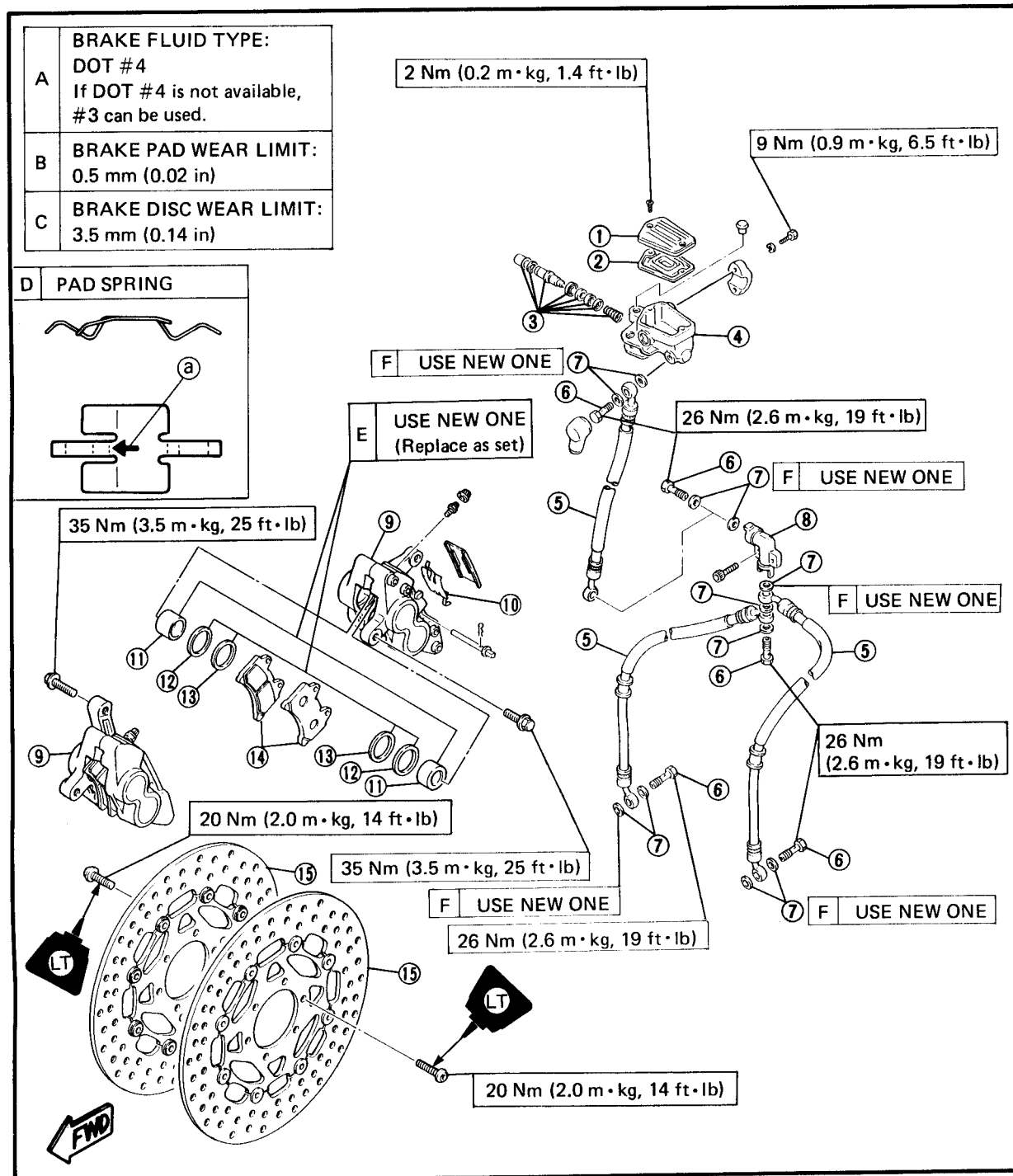
Refer to the "FRONT WHEEL – STATIC WHEEL BALANCE ADJUSTMENT" section.



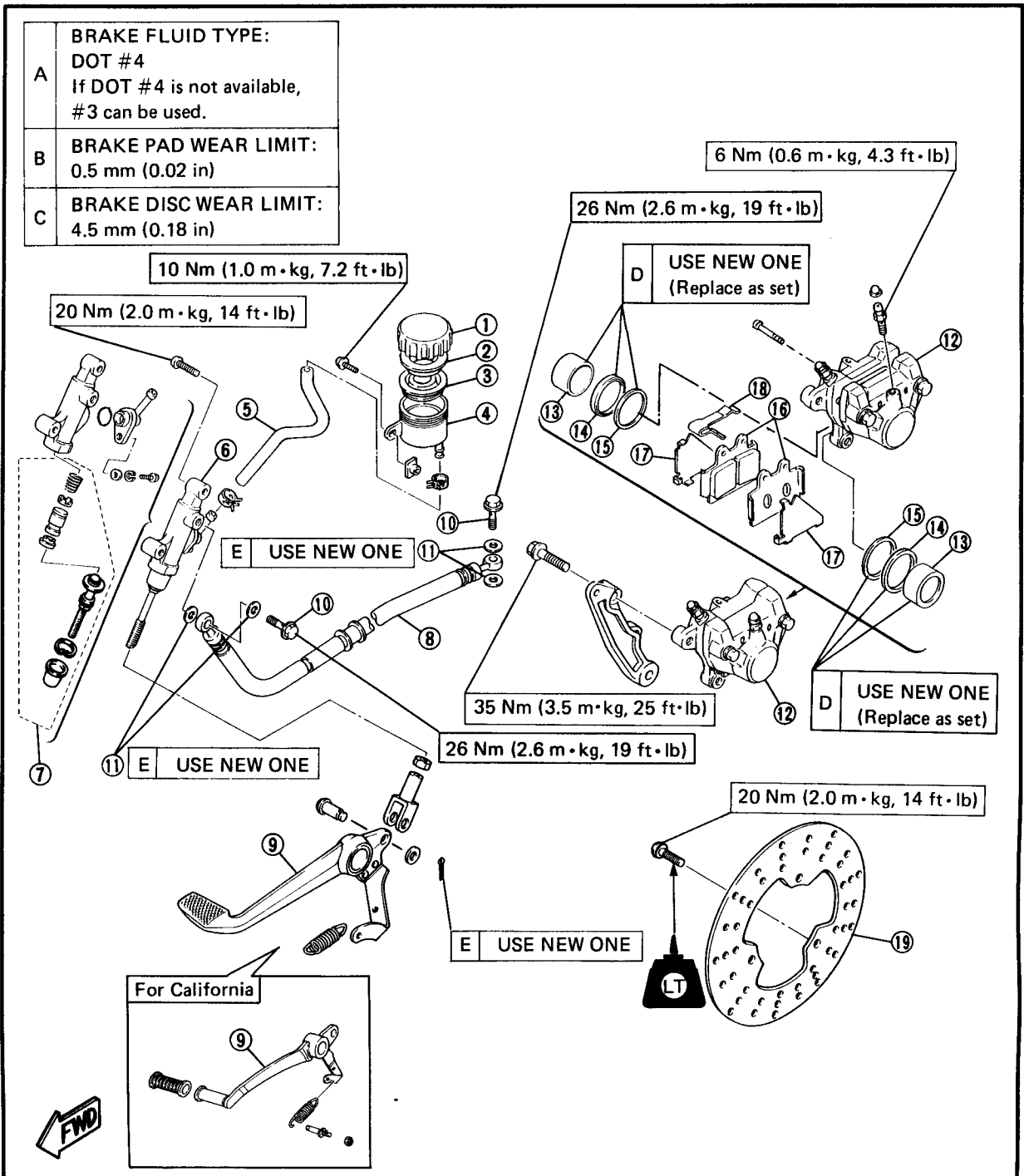
## FRONT AND REAR BRAKE

- |                       |                 |
|-----------------------|-----------------|
| ① Master cylinder cap | ⑨ Brake caliper |
| ② Diaphragm           | ⑩ Pad spring    |
| ③ Master cylinder kit | ⑪ Piston        |
| ④ Master cylinder     | ⑫ Piston seal   |
| ⑤ Brake hose          | ⑬ Dust seal     |
| ⑥ Union bolt          | ⑭ Brake pad     |
| ⑦ Copper washer       | ⑮ Brake disc    |
| ⑧ Joint               |                 |

- D The arrow mark **a** on the pad spring must pointing the disc rotating direction.



- |                       |                 |
|-----------------------|-----------------|
| ① Reservoir tank cap  | ⑩ Union bolt    |
| ② Bush                | ⑪ Copper washer |
| ③ Diaphragm           | ⑫ Brake caliper |
| ④ Reservoir tank      | ⑬ Piston        |
| ⑤ Reservoir hose      | ⑭ Piston seal   |
| ⑥ Master cylinder     | ⑮ Dust seal     |
| ⑦ Master cylinder kit | ⑯ Brake pad     |
| ⑧ Brake hose          | ⑰ Pad shim      |
| ⑨ Brake pedal         | ⑱ Pad spring    |
|                       | ⑲ Brake disc    |



**CAUTION:**

Disc brake components rarely require disassembly. DO NOT:

- Disassembly components unless absolutely necessary.
- Use solvents on internal brake component.
- Use contaminated brake fluid for cleaning.  
Use only clean brake fluid.
- Allow brake fluid to come in contact with the eyes otherwise eye injury may occur.
- Allow brake fluid to contact painted surfaces or plastic parts otherwise damage may occur.
- Disconnect any hydraulic connection otherwise the entire system must be disassembled, drained, cleaned, and then properly filled and bled after reassembly.

**BRAKE PAD REPLACEMENT****NOTE:**

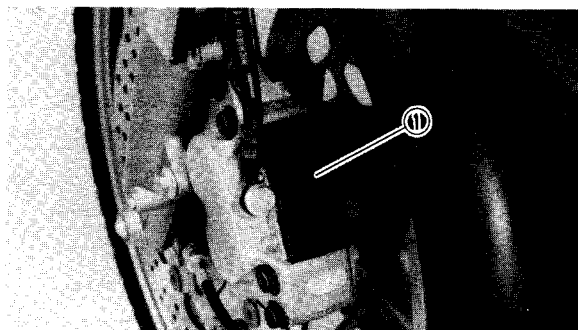
It is not necessary to disassemble the brake caliper and brake hose to replace the brake pads.

**⚠ WARNING**

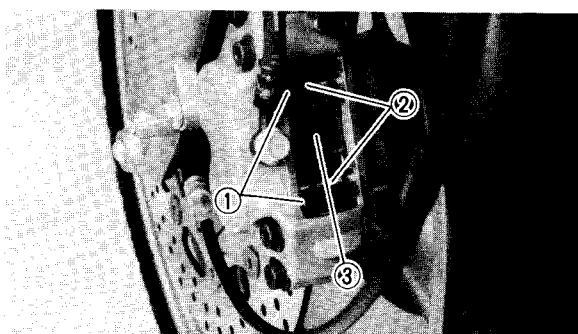
Securely support the motorcycle so there is no danger of it falling over.

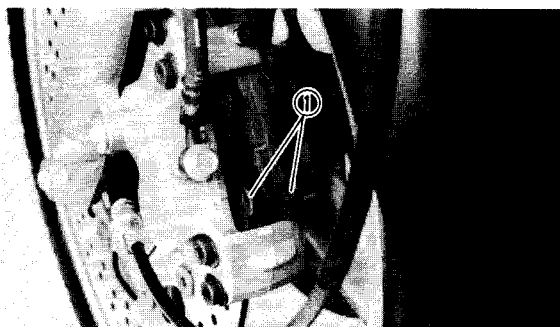
**Front brake****1. Remove:**

- Cover ①

**2. Remove:**

- Retaining clips ①
- Retaining pins ②
- Pad spring ③

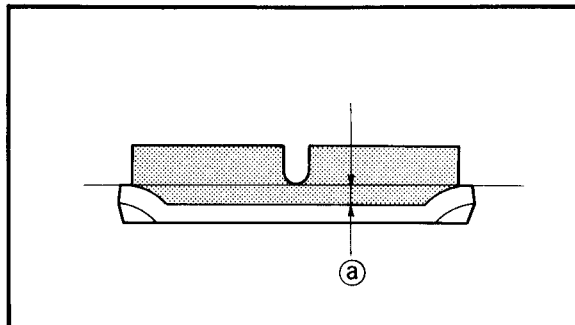




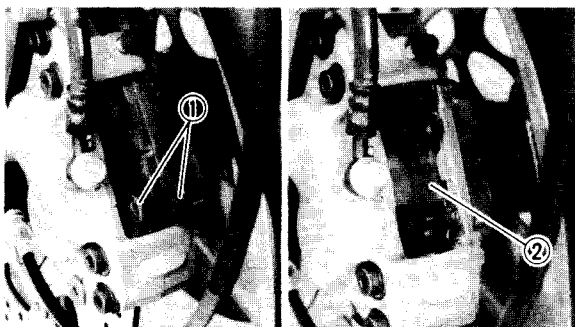
3. Remove:
- Brake pads ①

**NOTE:** \_\_\_\_\_

- Replace the pad spring if the pad replacement is required.
- Replace the pads as a set if either is found to be worn to the wear limit.



**Wear limit ① :**  
0.5 mm (0.02 in)



4. Install:
- Brake pads ①
  - Pad spring ②

**Installation steps:**

- Connect a suitable hose ③ tightly to the caliper bleed screw. Then, place the other end of this hose into an open container.
- Loosen the caliper bleed screw and push the piston into the caliper by your finger.
- Tighten the caliper bleed screw.

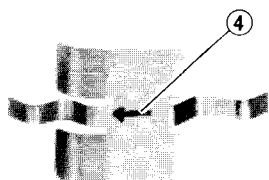
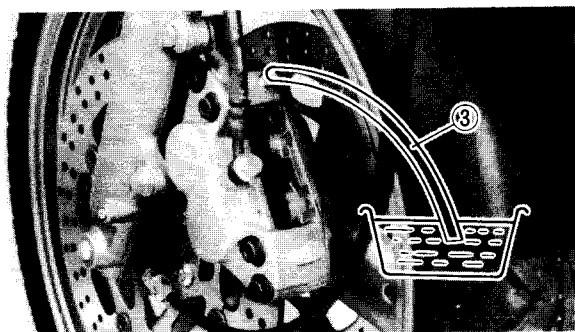


**Caliper bleed screw:**  
6 Nm (0.6 m · kg, 4.3 ft · lb)

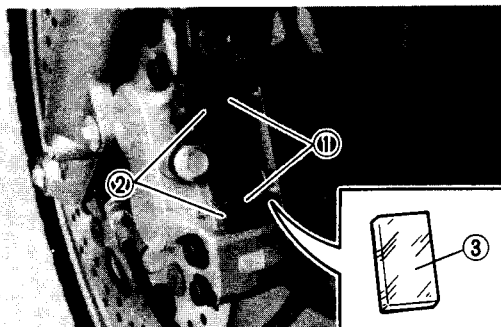
- Install the brake pad (new) and pad spring (new).

**NOTE:** \_\_\_\_\_

The arrow mark ④ on the pad spring must point in the disc rotating direction.

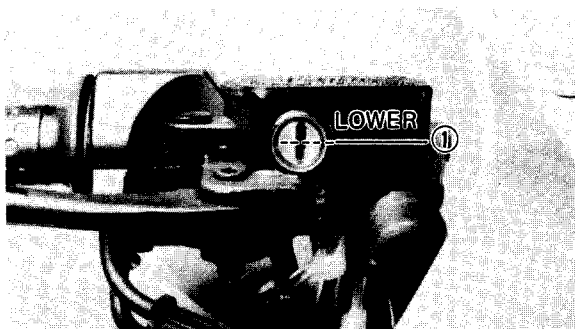






## 5. Install:

- Retaining pins ①
- Retaining clips ②
- Cover ③



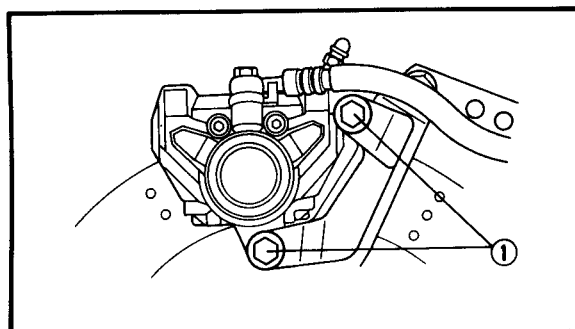
## 6. Inspect:

- Brake fluid level  
Refer to the "BRAKE FLUID INSPECTION" section in the CHAPTER 3.

① "LOWER" level line

## 7. Check:

- Brake lever operation  
A softy or spongy filling → Bleed brake system.  
Refer to the "AIR BLEEDING" section in the CHAPTER 3.



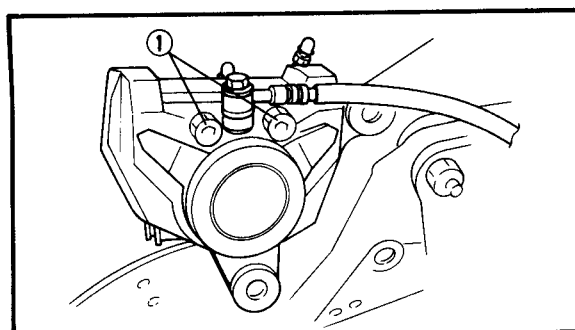
## Rear brake

### 1. Remove:

- Seat

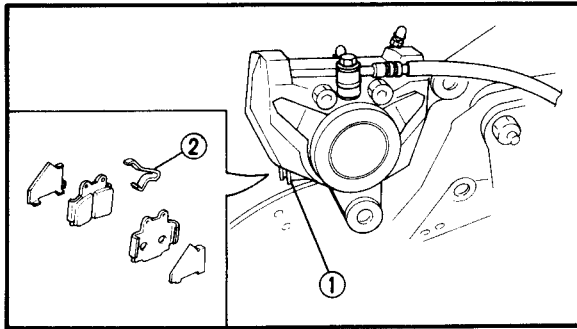
### 2. Remove:

- Bolts (brake caliper) ①



### 3. Remove:

- Retaining bolts ①



## 4. Remove:

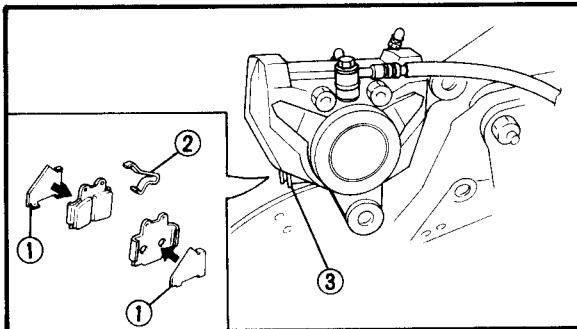
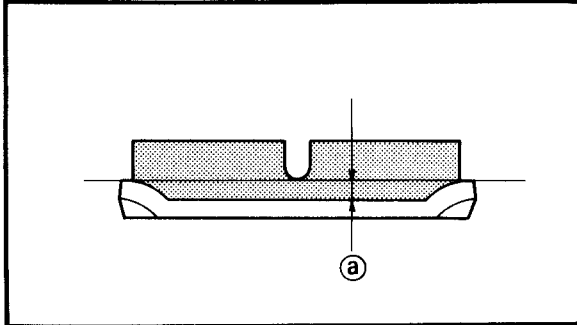
- Brake pads (with shims) ①
- Pad spring ②

## NOTE:

- Replace the pad spring if the pad replacement is required.
- Replace the pads as a set if either is found to be worn to the wear limit.
- Replace the pad shim if the pad replacement is required.



Wear limit (a) :  
0.5 mm (0.02 in)



## 5. Install:

- Pad shims ①
- Pad spring ②
- Brake pads (with shims) ③

## Installation steps:

- Connect a suitable hose ① tightly to the caliper bleed screw. Then, place the other end of this hose into an open container.
- Loosen the caliper bleed screw and push the piston into the caliper by your finger.
- Tighten the caliper bleed screw.

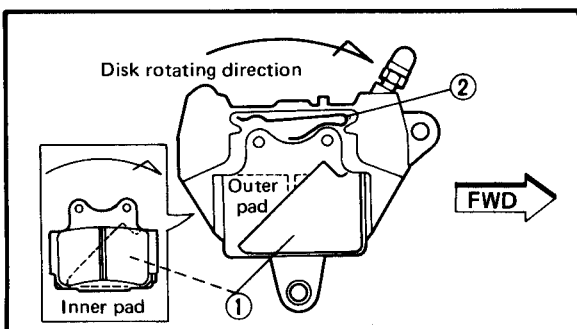


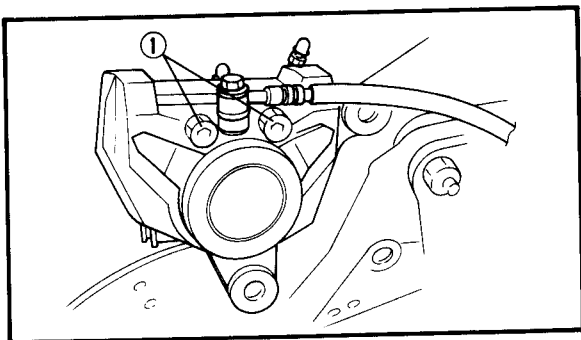
Caliper bleed screw:  
6 Nm (0.6 m · kg, 4.3 ft · lb)

- Install the brake pads (new), pad spring (new) and pad shims (new).

## NOTE:

Install pad shims ① and pad spring ② on caliper as shown in the disc rotating direction.



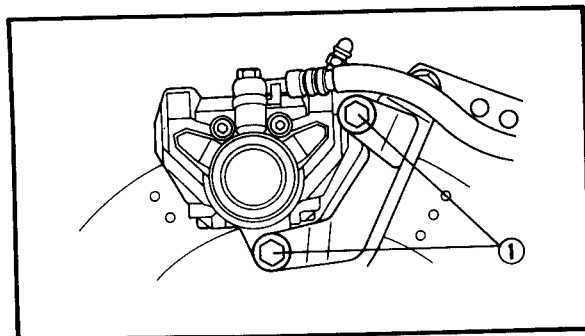


### 6. Install:

- Retaining bolts ①



**Retaining bolts:**  
10 Nm (1.0 m · kg, 7.2 ft · lb)

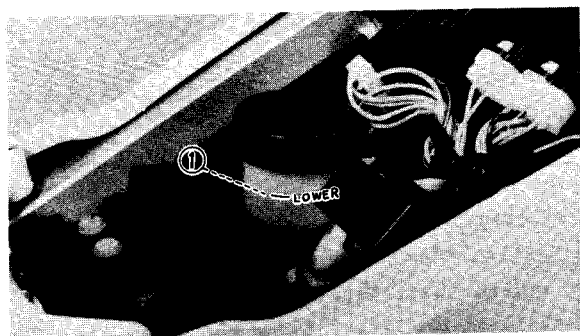


### 7. Install:

- Bolts (brake caliper) ①



**Bolts (brake caliper):**  
35 Nm (3.5 m · kg, 25 ft · lb)



### 8. Inspect:

- Brake fluid level

Refer to the "BRAKE FLUID INSPECTION" section in the CHAPTER 3.

① "LOWER" level line

### 9. Check:

- Brake pedal operation

A softy or spongy filling → Bleed brake system.

Refer to the "AIR BLEEDING" section in the CHAPTER 3.

### 10. Install:

- Seat



### CALIPER DISASSEMBLY

#### NOTE:

Before disassembling the front or rear brake master cylinders, drain the brake hose, master cylinder, brake caliper and reservoir tank of their brake fluid.

#### ⚠ WARNING

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

#### Front brake

##### 1. Remove:

- Cover
- Reflector
- Retaining clips
- Retaining pins
- Pad spring
- Brake pads

Refer to the "BRAKE PAD REPLACEMENT" section.

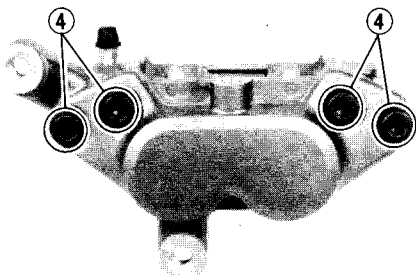
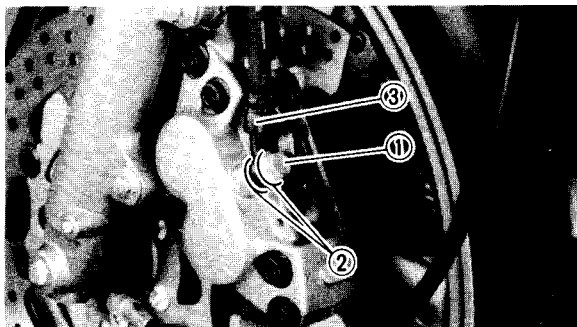
##### 2. Remove:

- Union bolt ①
- Copper washers ②
- Brake hose ③

Place the open hose end into a container and pump the old fluid out carefully.

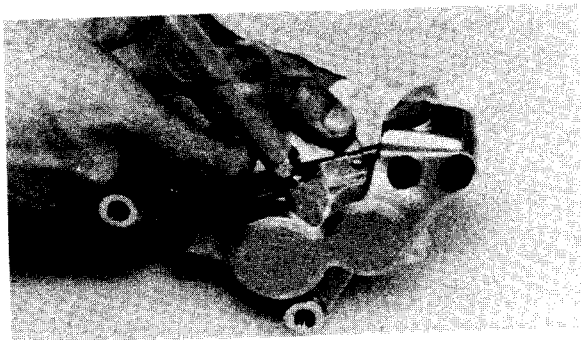
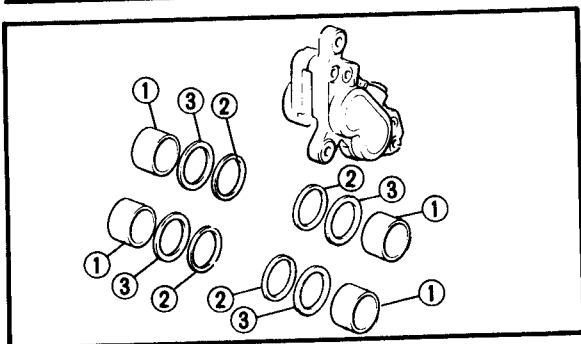
##### 3. Remove:

- Caliper body



#### CAUTION:

Do not loosen the bridge bolts ④ .



### 4. Remove:

- Pistons ①
- Dust seals ②
- Piston seals ③

### Remove steps:

- Blow compressed air into the tube joint opening to force out the piston from the caliper body.

### ⚠ WARNING

- Never try to pry out the piston.
- Cover the piston with a rag. Use care so that piston does not cause injury as it is expelled from the cylinder.

### Rear brake

#### 1. Remove:

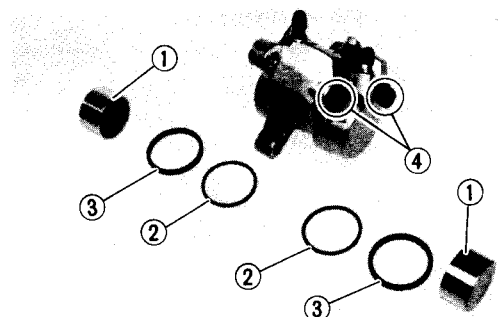
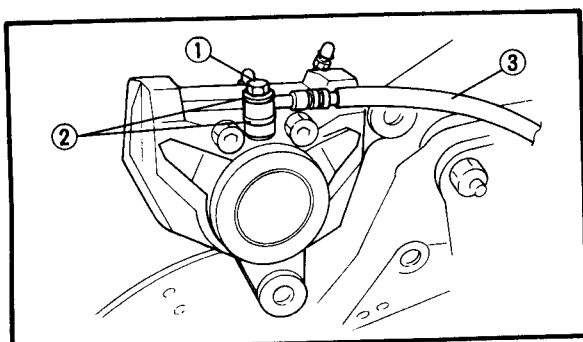
- Bolts (brake caliper)
- Retaining bolts
- Brake pads (with sims)
- Brake spring

Refer to "BRAKE PAD REPLACEMENT" section.

#### 2. Remove:

- Union bolt ①
- Copper washers ②
- Brake hose ③

Place the open hose end into a container and pump the old fluid out carefully.

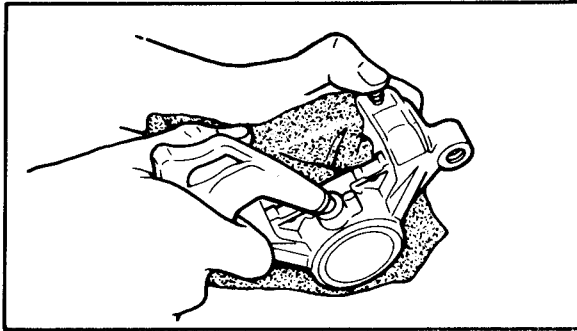


#### 3. Remove:

- Pistons ①
- Dust seals ②
- Piston seals ③

### CAUTION:

Do not loosen the bridge bolts ④ .

**Remove steps:**

- Blow compressed air into the tube joint opening to force out the piston from the caliper body.

**⚠ WARNING**

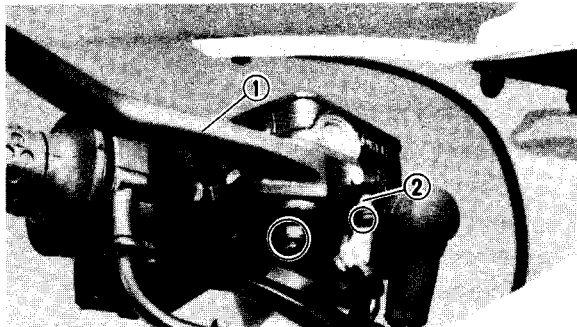
- Never try to pry out the piston.
- Cover the piston with a rag. Use care so that piston does not cause injury as it is expelled from the cylinder.

**MASTER CYLINDER DISASSEMBLY****NOTE:**

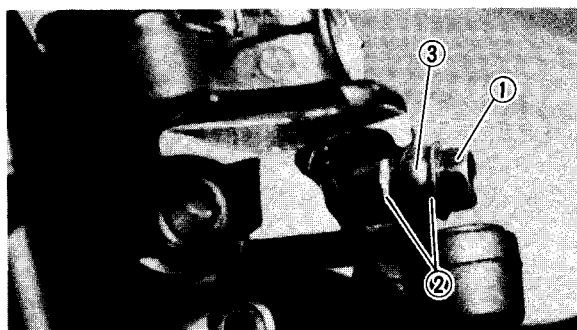
Before disassembling the front or rear brake master cylinders, drain the brake hose, master cylinder, brake caliper and reservoir tank of their brake fluid.

**⚠ WARNING**

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

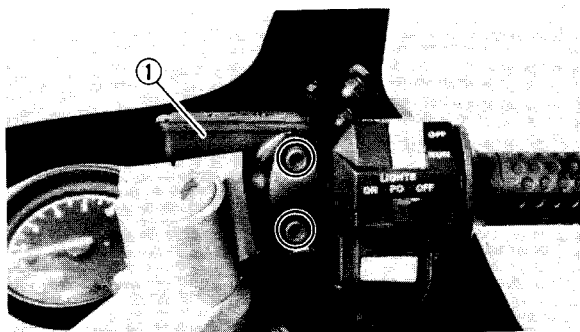
**Front brake****1. Remove:**

- Brake lever ①
- Brake switch ②

**2. Remove:**

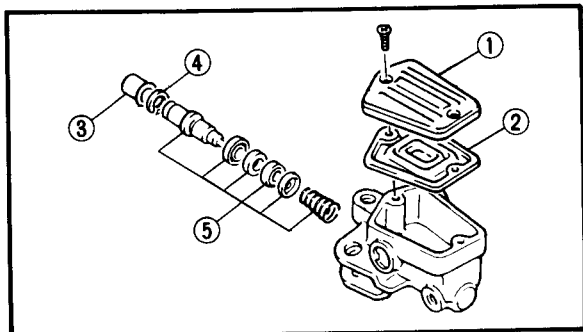
- Union bolt ①
- Copper washer ②
- Brake hose ③

Place the open hose end into a container and pump the old fluid out carefully.



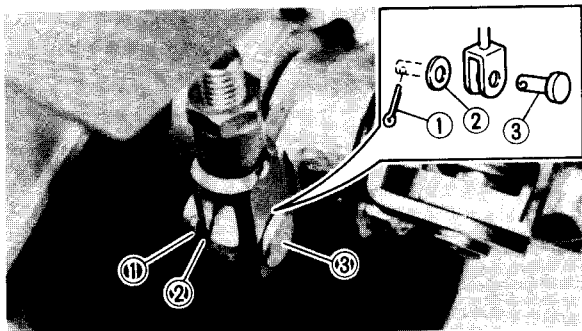
## 3. Remove:

- Master cylinder ①



## 4. Remove:

- Cap (master cylinder) ①
- Diaphragm ②
- Dust boot ③
- Circlip ④
- Master cylinder kit ⑤



## Rear brake

### 1. Remove:

- Seat
- Side cover (right)

### 2. Remove:

- Cotter pin ①
- Washer ②
- Pin ③

### 3. Disconnect:

- Reservoir hose ①

Place the open hose end into a container and pump the old fluid out carefully.

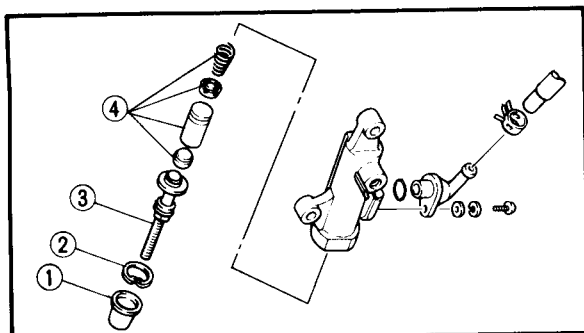
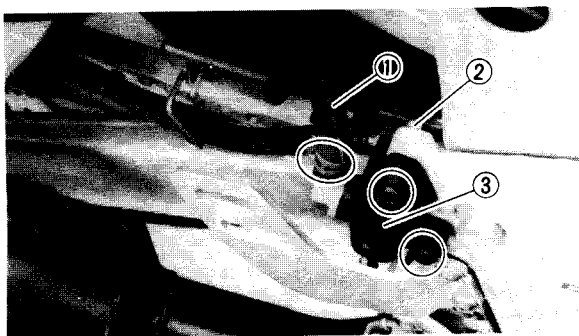
### 4. Remove:

- Union bolt ②
- Copper washers

Place the open hose end into a container and pump the old fluid out carefully.

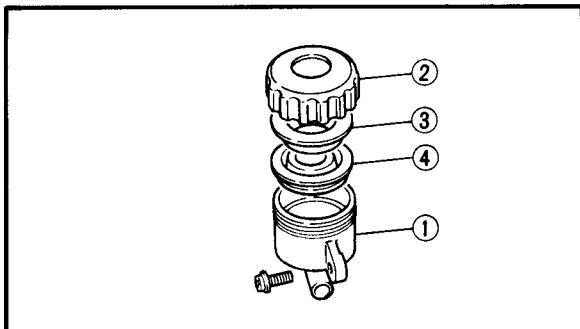
### 5. Remove:

- Master cylinder ③



### 6. Remove:

- Dust boot ①
- Circlip ②
- Push rod ③
- Master cylinder kit ④



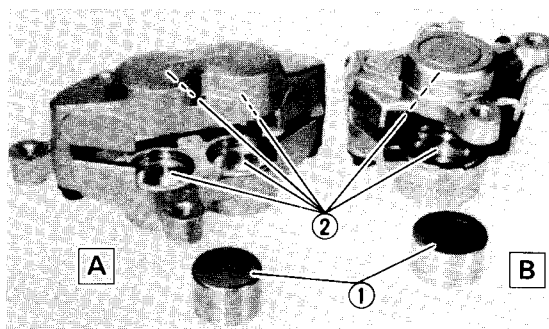
## 7. Remove:

- Reservoir tank ①  
(from frame)
- Cap (reservoir tank) ②
- Holder (diaphragm) ③
- Diaphragm ④

## INSPECTION AND REPAIR

### ⚠ WARNING

All internal parts should be cleaned in new brake fluid only. Do not use solvents will cause seals to swell and distort.



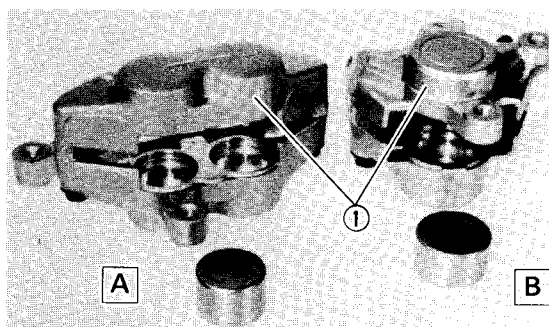
## 1. Inspect:

- Caliper pistons ①  
Scratches/Rust/Wear → Replace.
- Caliper cylinders ②  
Wear/Scratches → Replace.

- A** Front
- B** Rear

### ⚠ WARNING

Replace the piston seal and dust seal whenever a caliper is disassembled.

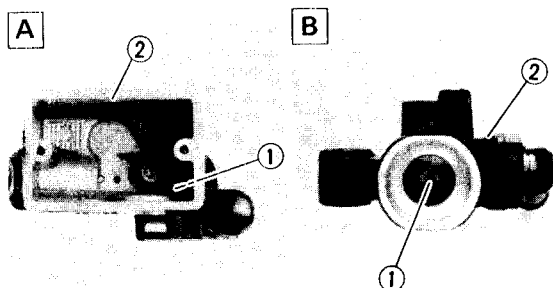


## 2. Inspect:

- Caliper body ①  
Cracks/Damage → Replace.
- Oil delivery passage (caliper body)  
Blow out with compressed air.

- A** Front
- B** Rear



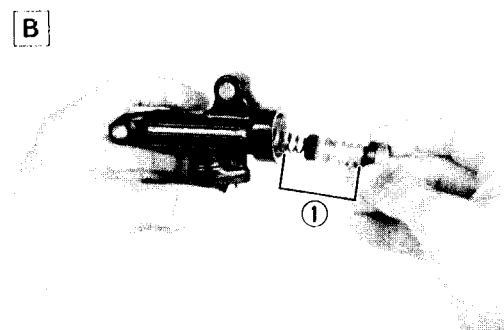
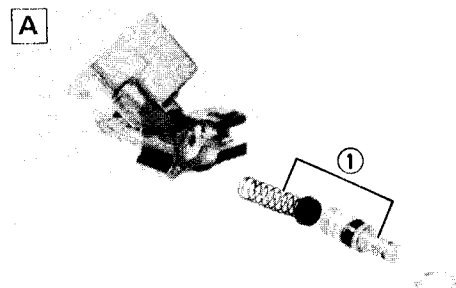


### 3. Inspect:

- Master cylinder ①  
Wear/Scratches → Replace.
- Master cylinder body ②  
Cracks/Damage → Replace.
- Oil delivery passage (master cylinder body)  
Blow out with compressed air.

A Front

B Rear

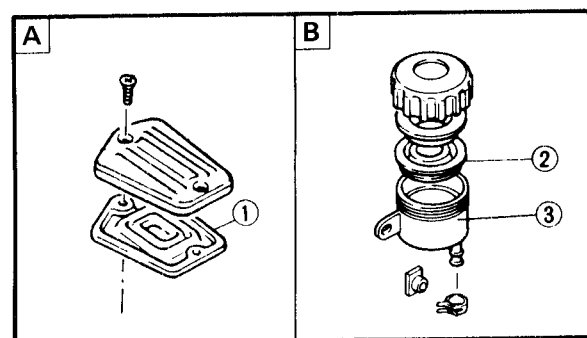


### 4. Inspect:

- Master cylinder kit ①  
Scratches/Wear/Damage → Replace.

A Front

B Rear

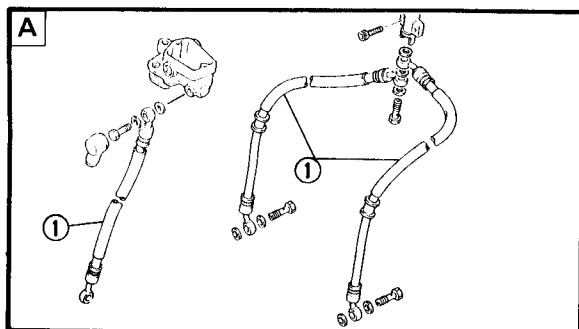


### 5. Inspect:

- Diaphragm (front) ①  
Wear/Damage → Replace.
- Diaphragm (rear) ②  
Wear/Damage → Replace.
- Reservoir tank ③  
Cracks/Damage → Replace.

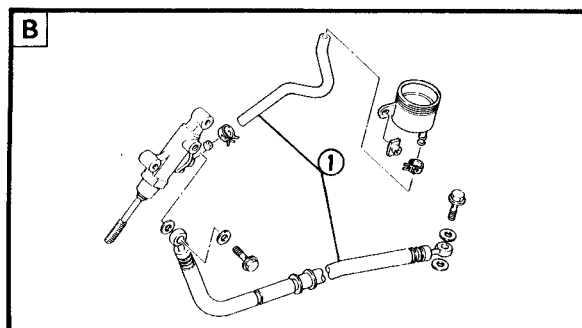
A Front

B Rear



6. Inspect:

- Brake hoses ①  
Cracks/Wear/Damage → Replace.

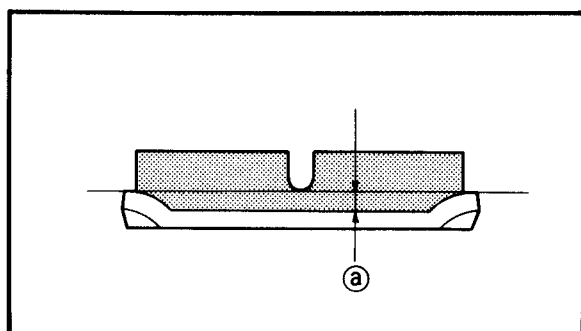


**A** Front

**B** Rear

7. Measure:

- Brake pads (thickness) ②  
Out of specification → Replace.



**Wear limit:**  
0.5 mm (0.02 in)

**NOTE:**

- Replace the pad spring as a set if pad replacement is required.
- Replace the pads as a set if either if found to be worn to the wear limit.



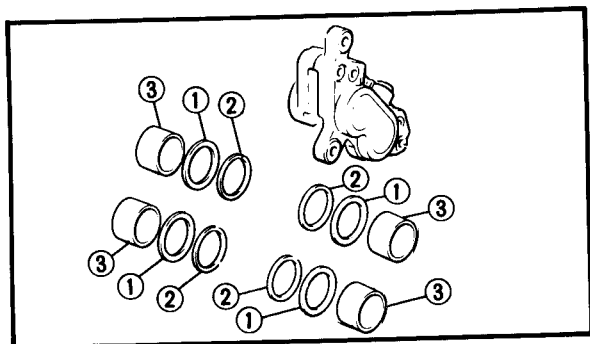
### ASSEMBLY

#### ⚠ WARNING

- All internal parts should be cleaned in new brake fluid only.
- Internal parts should be lubricated with brake fluid when installed.
- Replace the piston seal and dust seal whenever a caliper is disassembled.
- Securely support the motorcycle so there is no danger of it falling over.



Brake fluid:  
DOT #4  
If DOT #4 is not available,  
#3 can be used.



#### Front brake

##### 1. Install:

- Piston seals ①
- Dust seals ②
- Pistons ③

#### ⚠ WARNING

Always use new piston seal and dust seal.

##### 2. Install:

- Brake pads
- Pad spring
- Retaining pins
- Retaining crips
- Cover

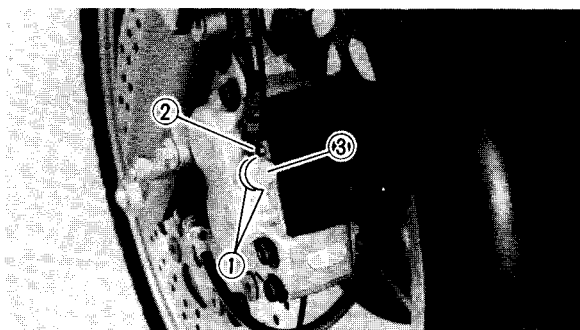
Refer to the "BRAKE PAD REPLACEMENT" section.

##### 3. Install:

- Brake caliper
- Reflector



Bolts (brake caliper):  
35 Nm (3.5 m · kg, 25 ft · lb)



## 4. Install:

- Copper washers ①
- Brake hose ②
- Union bolt ③  
(onto brake caliper)



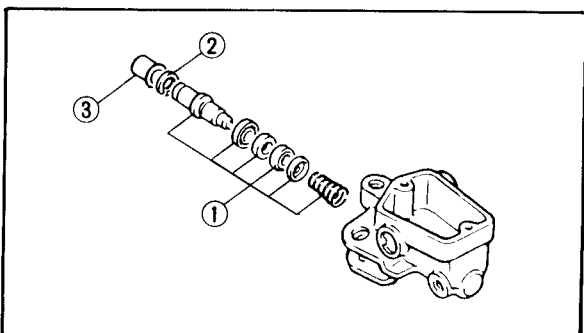
Union bolt:  
26 Nm (2.6 m · kg, 19 ft · lb)

## CAUTION:

When installing the brake hose to the caliper ①, lightly touch the brake pipe with the projection ② on brake caliper.

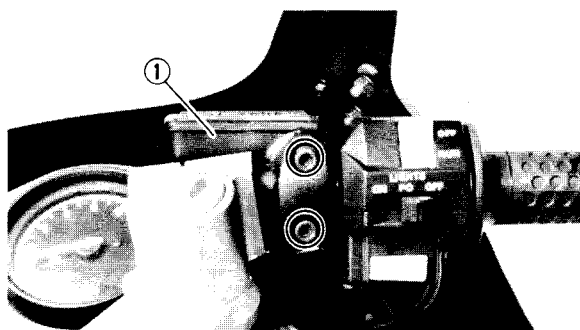
## WARNING

- Proper hose routing is essential to insure safe motorcycle operation. Refer to "CABLE ROUTING".
- Always use new copper washers.



## 5. Install:

- Master cylinder kit ①
- Circlip ②
- Dust boot ③



## 6. Install:

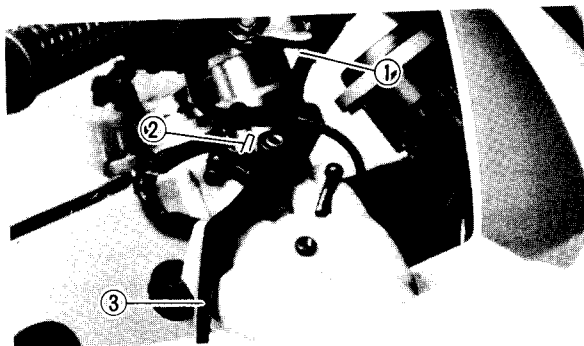
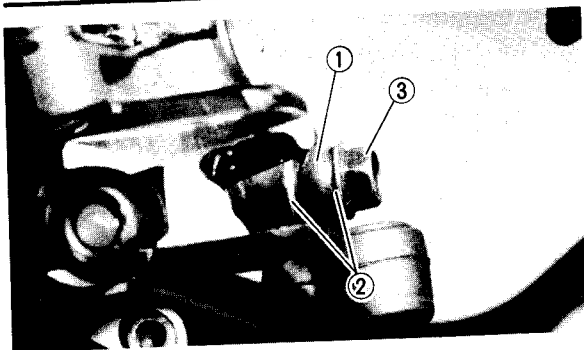
- Master cylinder ①

## NOTE:

Tighten first the upper bolt, then the lower bolt.



Bolts (master cylinder bracket):  
9 Nm (0.9 m · kg, 6.5 ft · lb)



### 7. Install:

- Brake hose ①
- Copper washers ②
- Union bolts ③



Union bolts:  
26 Nm (2.6 m·kg, 19 ft·lb)

### ⚠ WARNING

- Proper hose routing is essential to insure safe motorcycle operation. Refer to the "CABLE ROUTING".
- Always use new copper washers.

### 8. Install:

- Brake switch ①
- Spring ②
- Brake lever ③

### NOTE:

Apply lithium soap base grease to pivot shaft of brake lever.

### 9. Fill:

- Brake fluid



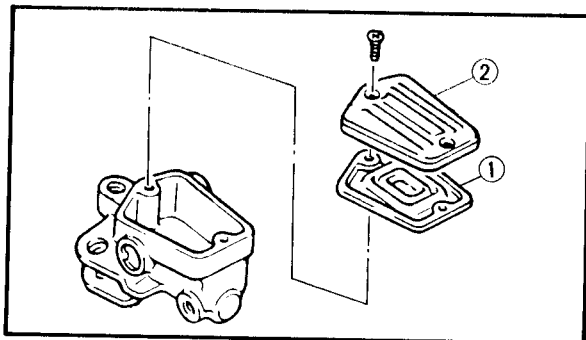
Recommended brake fluid:  
DOT #4  
If DOT #4 is not available,  
#3 can be used.

### CAUTION:

Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.

### ⚠ WARNING

- Use only the designated quality brake fluid: otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid; mixing fluids may result in a harmful chemical reaction and lead to poor performance.
- Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.



### 10. Install:

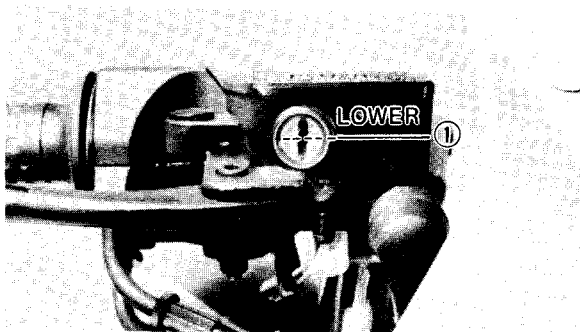
- Diaphragm ①
- Master cylinder cap ②



**Screws (master cylinder cap):**  
2 Nm (0.2 m · kg, 1.4 ft · lb)

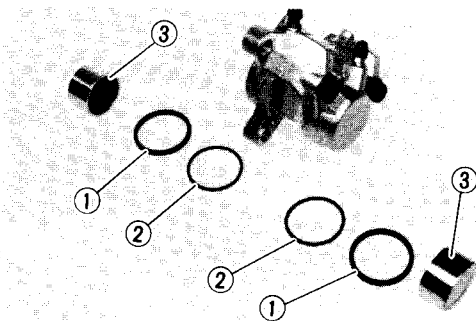
### 11. Air bleed:

- Brake system
- Refer to the "AIR BLEEDING" section in the CHAPTER 3.



### 12. Inspect:

- Brake fluid level
- Fluid level is under "LOWER" level line ①  
→ Replenish.
- Refer to the "BRAKE FLUID INSPECTION" section in the CHAPTER 3.



### Rear brake

#### 1. Install:

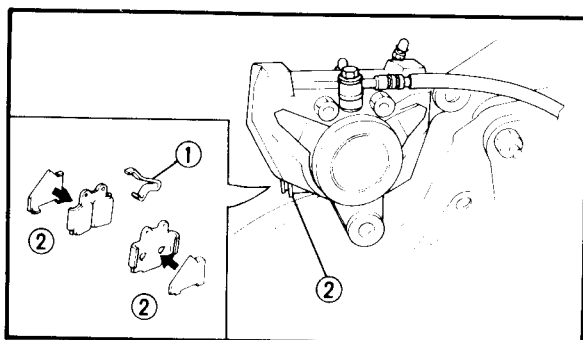
- Piston seals ①
- Dust seals ②
- Pistons ③

#### 2. Install:

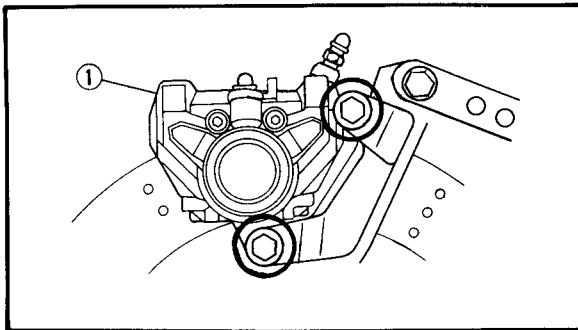
- Pad spring ①
- Brake pads (with shims) ②
- Retaining bolts



**Retaining bolts:**  
10 Nm (1.0 m · kg, 13 ft · lb)



Refer to the "BRAKE PAD REPLACEMENT" section.

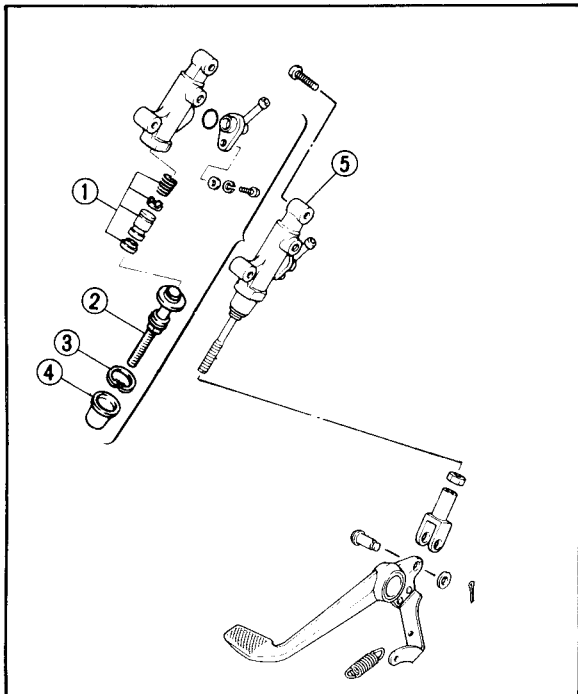


## 3. Install:

- Brake caliper ①



**Bolts (brake caliper):**  
35 Nm (3.5 m · kg, 25 ft · lb)



## 4. Install:

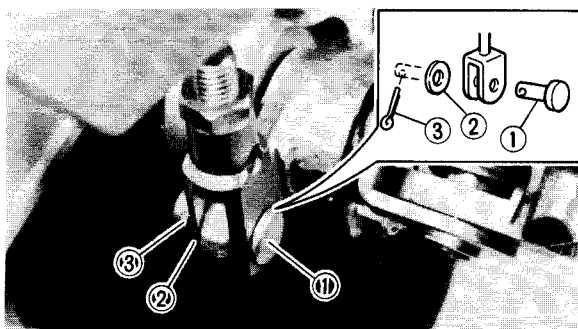
- Master cylinder kit ①
- Push rod ②
- Circlip ③
- Dust boot ④

## 5. Install:

- Master cylinder assembly ⑤



**Bolts (master cylinder assembly):**  
35 Nm (3.5 m · kg, 25 ft · lb)

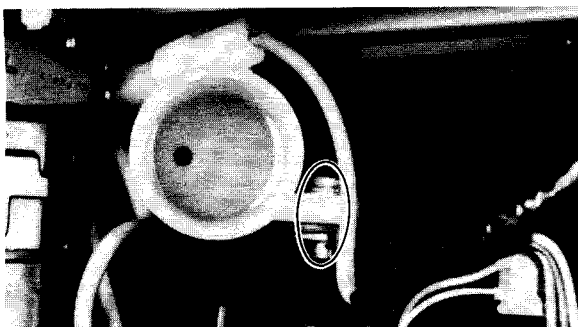


## 6. Install:

- Pin ①
- Plain washer ②
- Cotter pin ③

## ⚠ WARNING

Always use new cotter pin.



## 7. Install:

- Reservoir tank

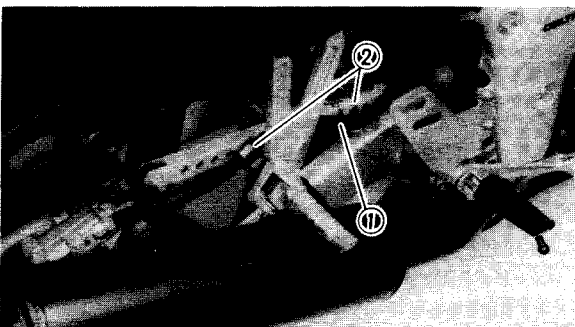
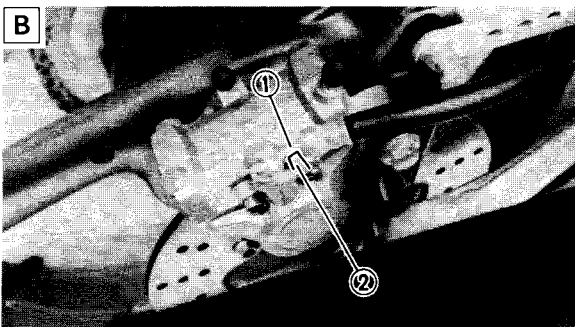
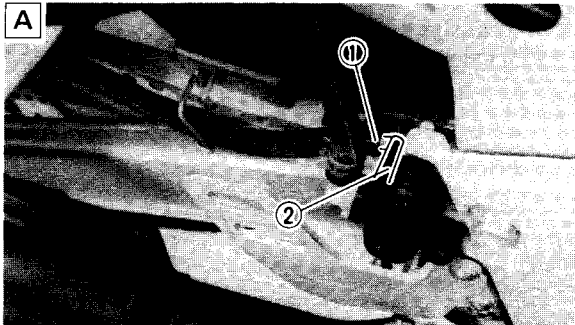


### 8. Install:

- Brake hose
- Copper washers
- Union bolts
- Reservoir hose



Union bolts:  
26 Nm (2.6 m · kg, 19 ft · lb)



### CAUTION:

When installing the brake hose, lightly touch the brake pipe ① with the projections ② on the caliper and master cylinder.

- A Master cylinder  
B Brake caliper

### ⚠ WARNING

- Proper hose routing is essential to insure safe motorcycle operation, Refer to the "CABLE ROUTING".
- Always use new copper washers.

- ① Brake hose  
② Brake hose guide

### 9. Fill:

- Brake fluid



Recommended brake fluid:  
DOT #4  
If DOT #4 is not available,  
DOT #3 can be used.

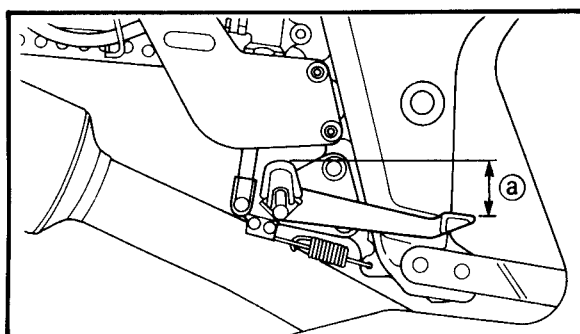
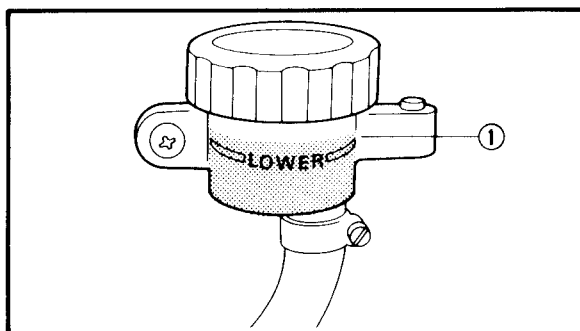
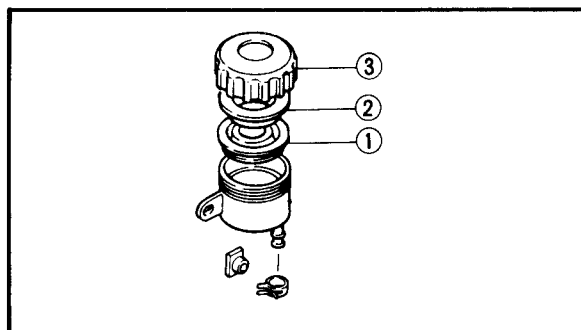
### CAUTION:

Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.



**⚠ WARNING**

- Use only the designated quality brake fluid; otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.
- Refill with the same type of brake fluid; mixing fluids may result in a harmful chemical reaction and lead to poor performance.
- Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.



10. Install:

- Diaphragm ①
- Bush ②
- Reservoir tank cap ③

11. Air bleed:

- Brake system  
Refer to the "AIR BLEEDING" section in the CHAPTER 3.

12. Inspect:

- Brake fluid level  
Fluid level is under "LOWER" level line ①  
→ Replenish.  
Refer to the "BRAKE FLUID INSPECTION" section in the CHAPTER 3.

13. Adjust:

- Rear brake pedal height ②



**Pedal height:**  
42 mm (1.7 in)  
Below top of footrest.

Refer to "REAR BRAKE ADJUSTMENT" section in the CHAPTER 3.

14. Install:

- Side cover (right)
- Seat

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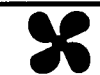
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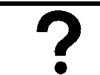
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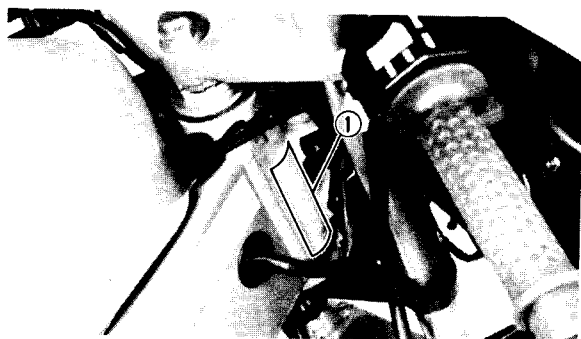
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## GENERAL INFORMATION

### MOTORCYCLE IDENTIFICATION VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the right side of the steering head.

**Starting Serial Number:**

**FZR400U (Except for California):**

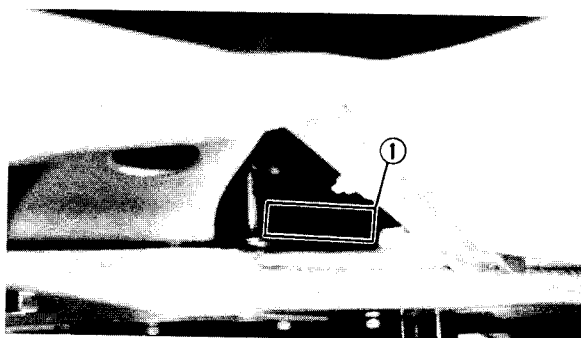
**JYA3BFE0 \* JA000101**

**FZR400SUC (For California):**

**JYA3FHC0 \* JA000101**

**NOTE:**

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.



### ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the right side of the engine.

**Starting Serial Number:**

**FZR400U (Except for California):**

**3BF-000101**

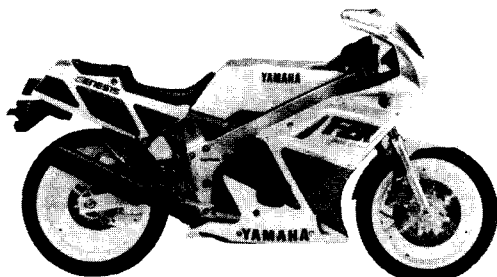
**FZR400SUC (For California):**

**3FH-000101**

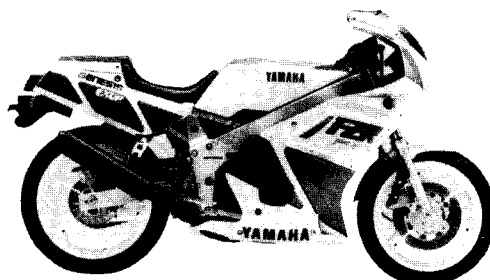
**NOTE:**

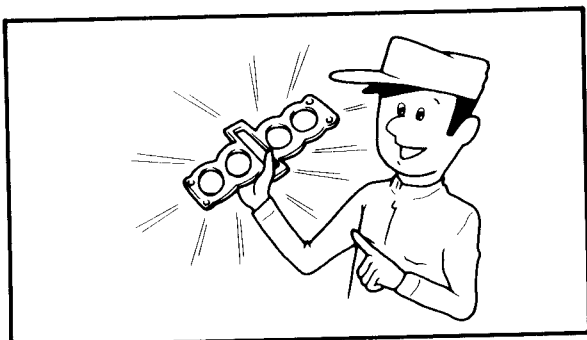
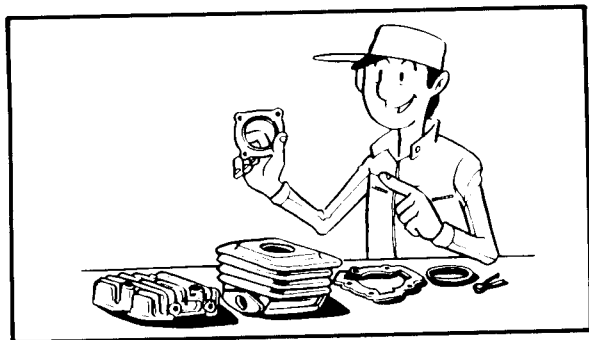
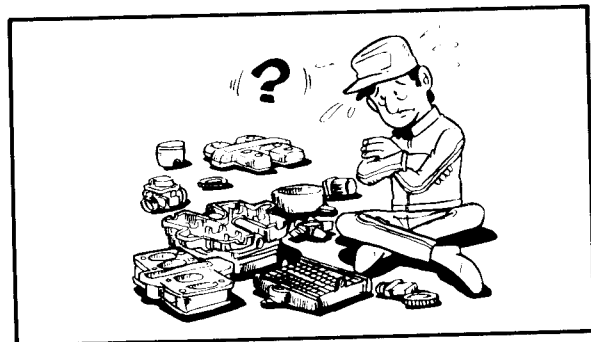
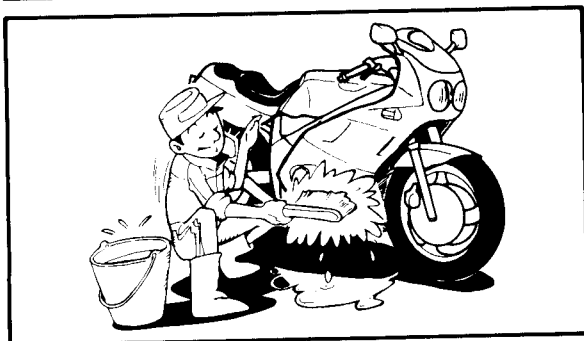
- The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

**FZR400U**



**FZR400SUC**





## IMPORTANT INFORMATION

### PREPARATION FOR REMOVAL

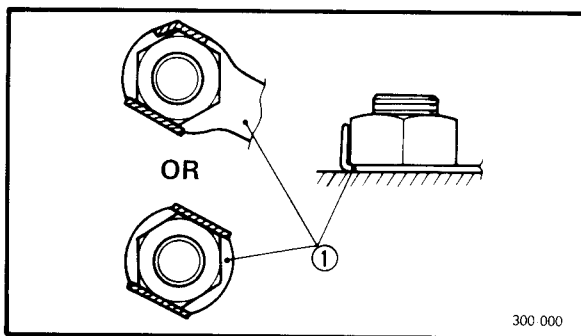
1. Remove all dirt, mud, dust, and foreign material before removal and disassembly.
2. Use proper tools and cleaning equipment. Refer to "SPECIAL TOOL".
3. When disassembling the machine, keep mated parts together. This includes gears, cylinders, pistons, and other mated parts that have been "mated" through normal wear. Mated parts must be reused as an assembly or replaced.
4. During the machine's disassembly, clean all parts and place them in trays in the order of disassembly. This will speed up assembly time and help assure that all parts are correctly reinstalled.
5. Keep away from fire.

### ALL REPLACEMENT PARTS

1. Use only genuine Yamaha parts for all replacements. Use oil and/or grease recommended by Yamaha for assembly and adjustment. Other brands may be similar in function and appearance, but inferior in quality.

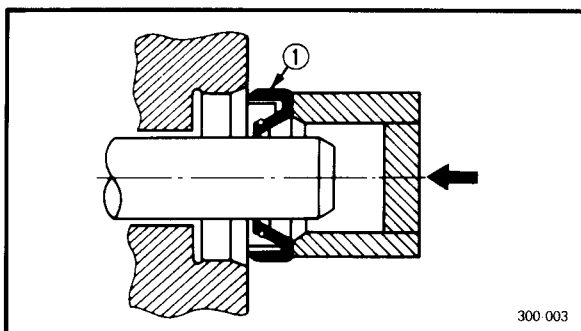
### GASKETS, OIL SEALS, AND O-RINGS

1. All gaskets, seals, and O-rings should be replaced when an engine is overhauled. All gasket surfaces, oil seal lips, and O-rings must be cleaned.
2. Properly oil all mating parts and bearings during reassembly. Apply grease to the oil seal lips.



## LOCK WASHERS/PLATES AND COTTER PINS

1. All lock washers/plates ① and cotter pins must be replaced when they are removed. Lock tab(s) should be bent along the bolt or nut flat(s) after the bolt or nut has been properly tightened.



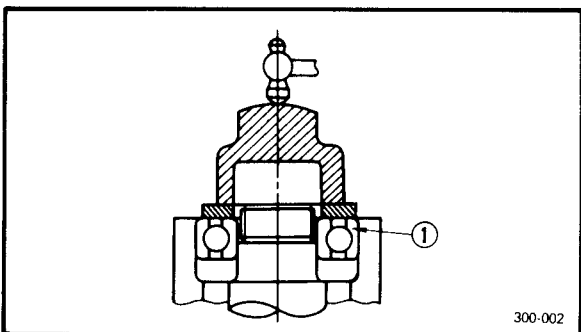
## BEARINGS AND OIL SEALS

1. Install the bearing(s) ① and oil seal(s) ② with their manufacturer's marks or numbers facing outward. (In other words, the stamped letters must be on the side exposed to view.) When installing oil seal(s), apply a light coating of light-weight lithium base grease to the seal lip(s). Oil the bearings liberally when installing.

① Oil seal

### ⚠ CAUTION:

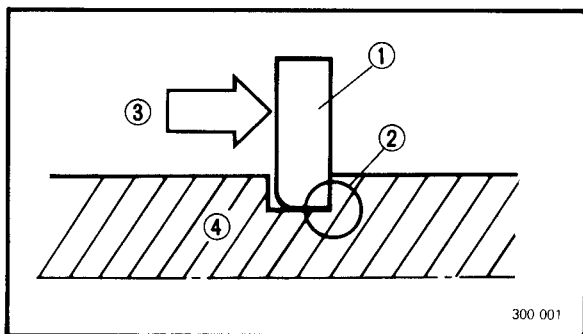
**Do not use compressed air to spin the bearings dry. This causes damage to the bearing surfaces.**



① Bearing

## CIRCLIPS

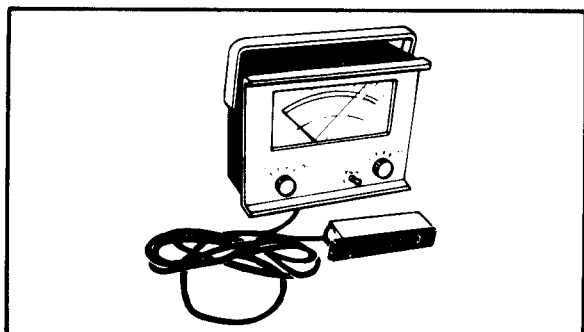
1. All circlips should be inspected carefully before reassembly. Always replace piston pin clips after one use. Replace distorted circlips. When installing a circlip ①, make sure that the sharp edged corner ② is positioned opposite to the thrust ③ it receives. See the sectional view.



④ Shaft

**SPECIAL TOOLS**

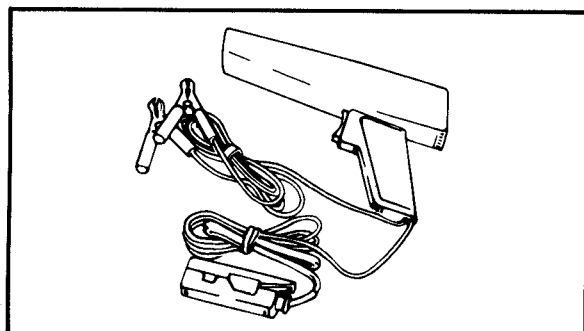
The proper special tools are necessary for complete and accurate tune-up and assembly. Using the correct special tool will help prevent damage caused by the use of improper tools or improvised techniques.

**FOR TUNE UP**

1. Inductive Tachometer

P/N YU-08036

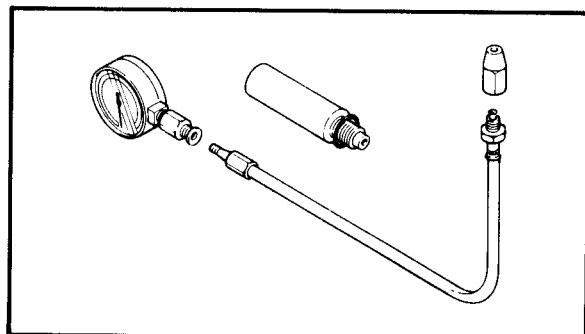
This tool is needed for detecting engine rpm.



2. Inductive Timing Light

P/N YU-08037

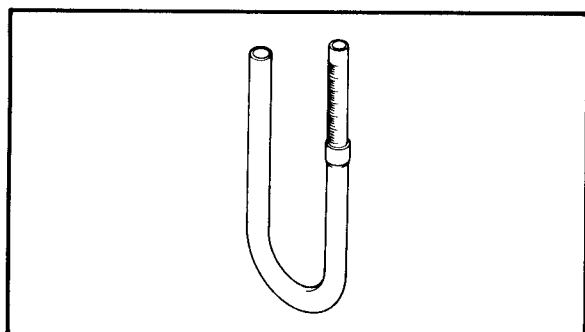
This tool is necessary for checking ignition timing.



3. Compression Gauge

P/N YU-33223

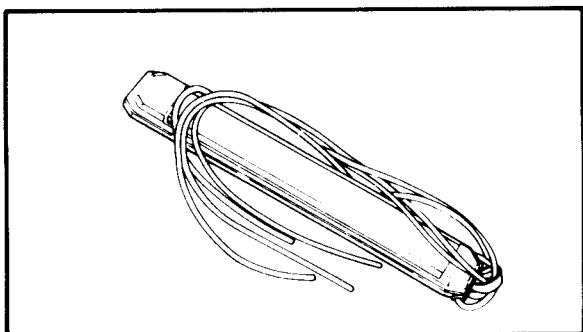
This gauge is used to measure the engine compression.



4. Fuel Level Gauge

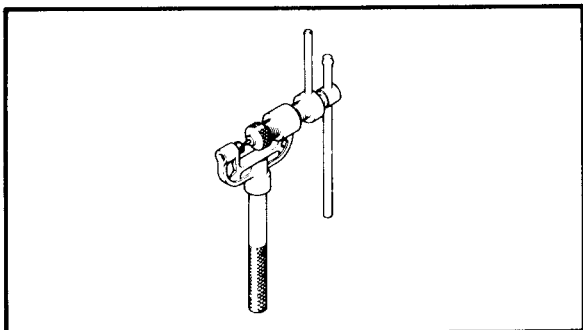
P/N YU-01312

This gauge is used to measure the fuel level in the float chamber.



5. Vacuum Gauge  
P/N YU-08030

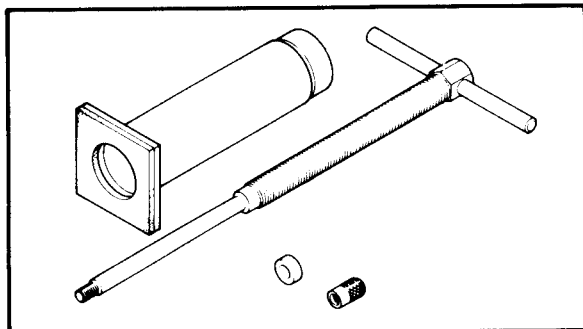
This gauge is needed for carburetor synchronization.



#### FOR ENGINE SERVICE

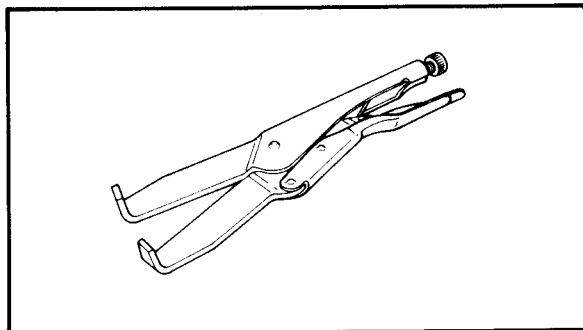
1. Cam Chain Cutter  
P/N YM-01112

This tool is used when cutting the cam chain.



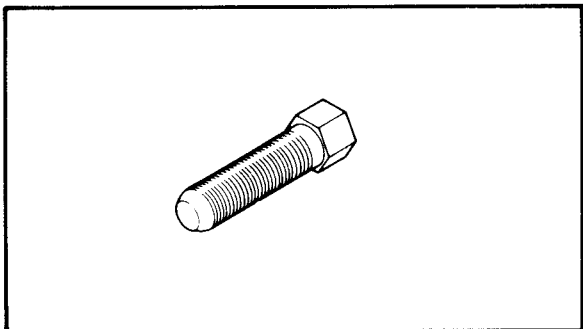
2. Piston Pin Puller  
P/N YU-01304

This tool is used to remove the piston pin.



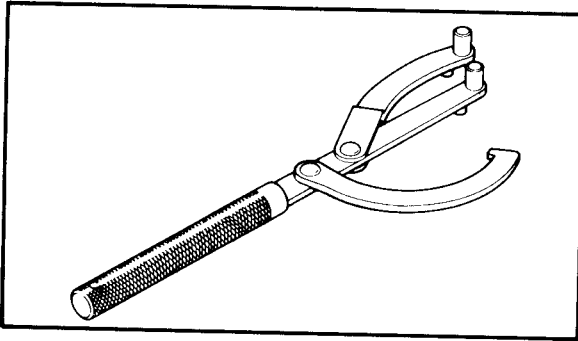
3. Universal Clutch Holder  
P/N YM-91042

This tool is used to hold the clutch when removing or installing the clutch boss locknut.



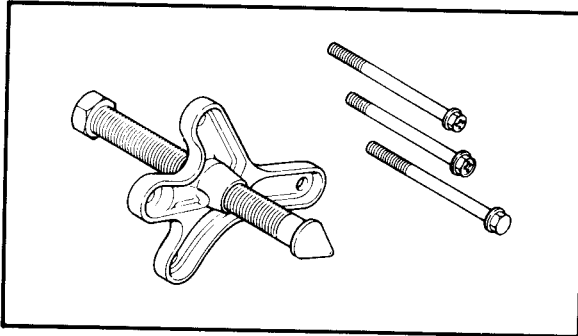
4. Rotor Puller  
P/N YM-01080

This tool is used to remove the rotor.



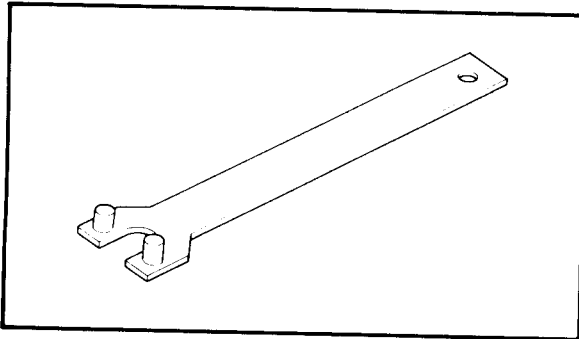
5. Universal Rotor Holder  
P/N YU-01235

This tool is used when loosening or tightening the A.C. magneto securing bolt.



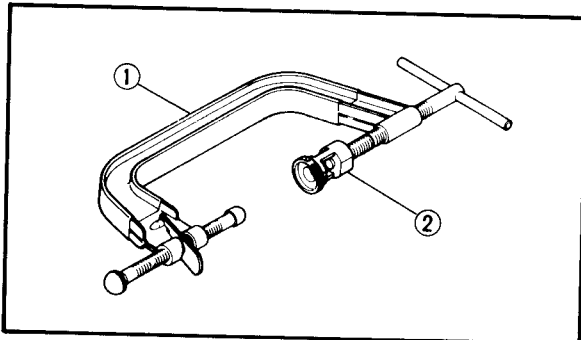
6. Heavy Duty Puller  
P/N YU-33270

This tool is used to remove the starter clutch.



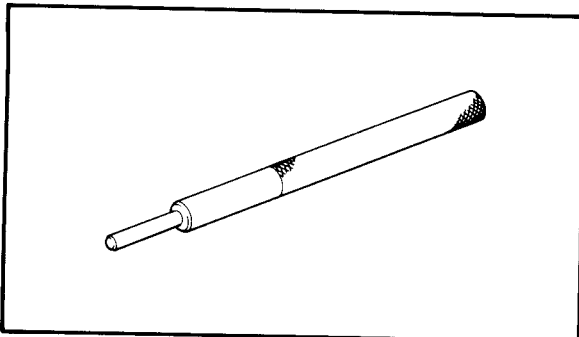
7. Camshaft Wrench  
P/N YM-04115

This tool is used to turn the camshaft.



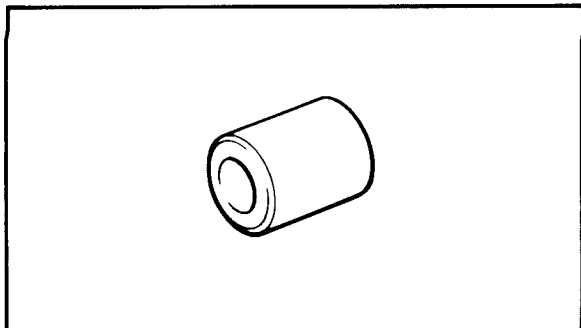
8. Valve Spring Compressor ①  
P/N YM-04019  
Attachment ②  
P/N YM-04114

This tool is needed to remove and install the valve assemblies.



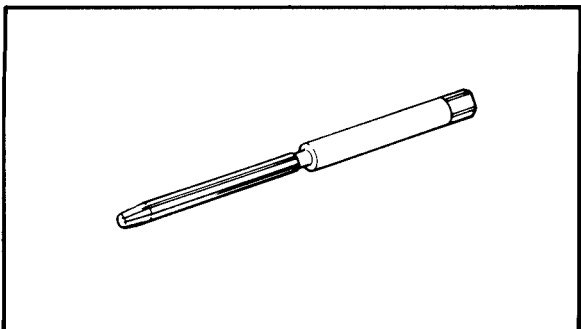
9. Valve Guide Remover (4.5 mm)  
P/N YM-04116

This tool is used to remove the valve guides.



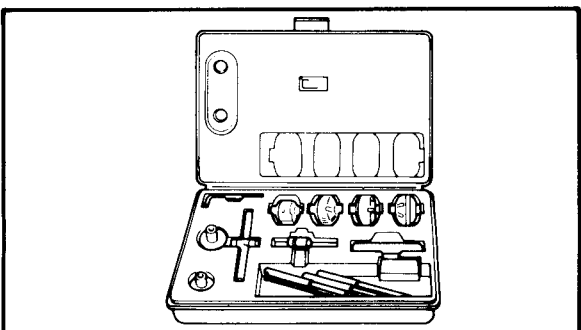
10. Valve Guide Installer  
P/N YM-04117

This tool is needed to install the valve guides properly.



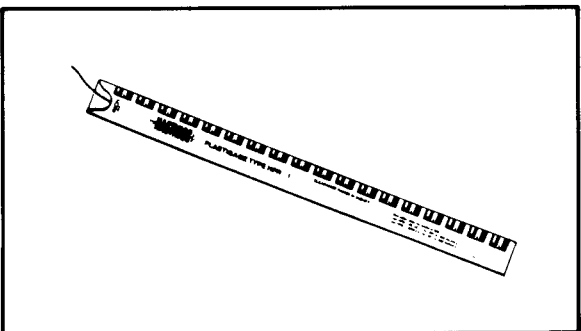
11. Valve Guide Reamer (4.5 mm)  
P/N YM-04118

This tool is used to rebores the new valve guide.



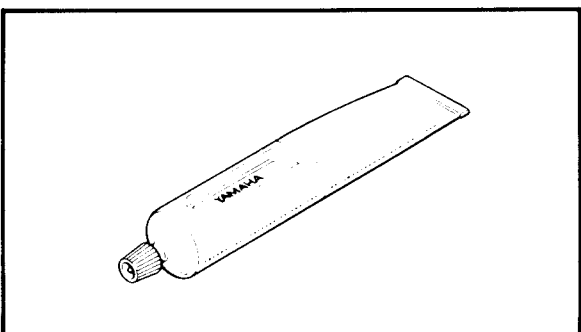
12. Valve Seat Cutter  
P/N YM-91043

This tool is needed to resurface the valve seat.



13. Plastigage® Set "Green"  
P/N YU-33210

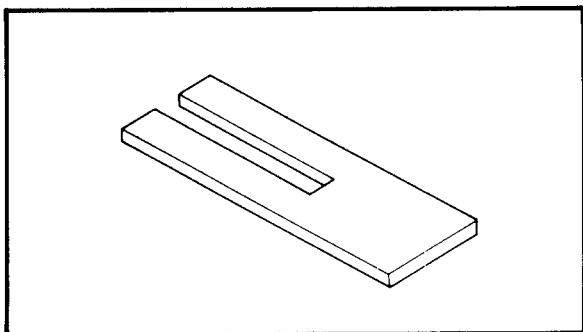
This gauge is needed to measure the clearance for the connecting rod bearing and the crank shaft bearing.



14. Quick Gasket®  
P/N ACC-11001-05-01

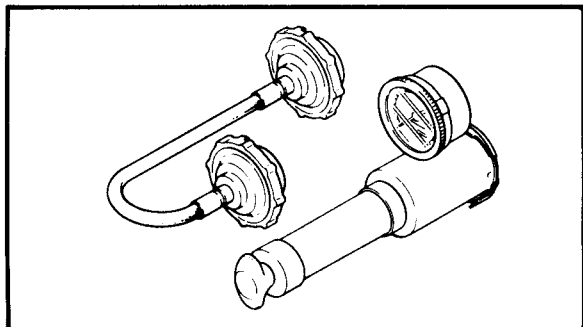
This sealant (Bond) is used for crankcase mating surfaces, etc.





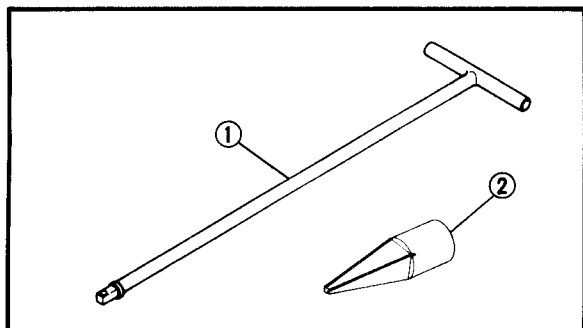
15. Piston Base  
P/N YM-01067

Use 4 of these to hold the piston during cylinder installation.



16. Radiator Cap Tester  
P/N YU-24460-01  
Adaptor  
P/N YU-33984

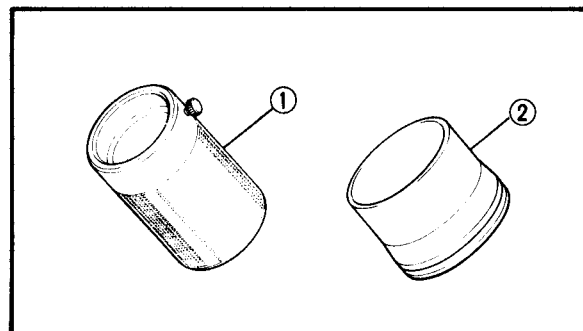
This tester is needed for checking the cooling system.



#### FOR CHASSIS SERVICE

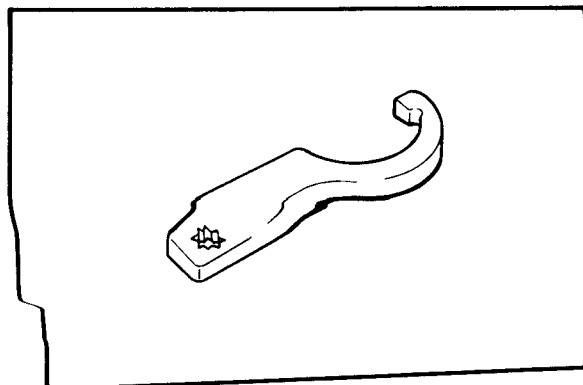
1. T-Handle  
P/N YM-01326 – ①  
Front Fork Cylinder Holder  
P/N YM-01300-1 – ②

This tool is used to loosen and tighten the front fork damper rod holding bolt.



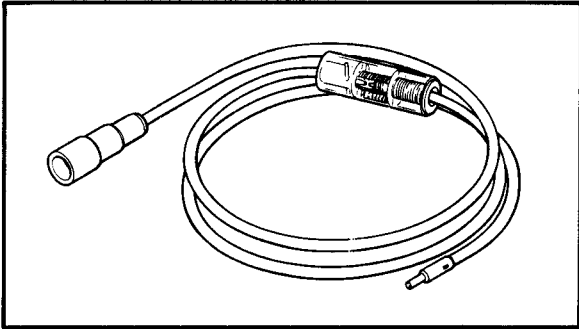
2. Front Fork Seal Driver (weight)  
P/N YM-33963 – ①  
Adapter (38 mm)  
P/N YM-01372 – ②

These tools are used when installing the fork seat.



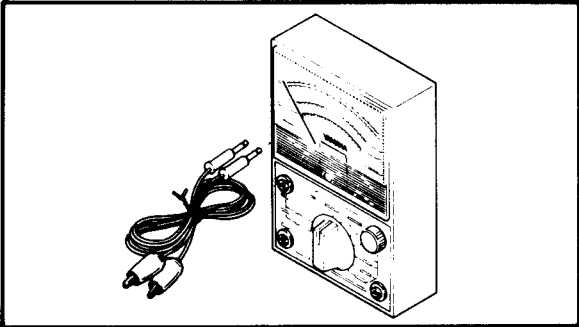
3. Ring Nut Wrench  
P/N YU-33975

This tool is used to loosen and tighten the steering ring nut.

**FOR ELECTRICAL COMPONENTS**

1. Dynamic Coil Tester  
P/N YM-34487

This tester is necessary for checking the ignition system components.



2. Pocket Tester  
P/N YU-03112

This instrument is invaluable for checking the electrical system.