

CHASSIS

CONTENTS

EXTERIOR PARTS	6- 1
FRAME COVER	6- 2
REAR FRAME COVER	6- 4
FRONT WHEEL	6- 6
FRONT BRAKE	6- 10
HANDLEBARS	6- 17
FRONT FORK	6- 19
STEERING	6- 26
REAR WHEEL	6- 32
REAR BRAKE	6- 39
REAR SHOCK ABSORBER	6- 43
SWING ARM	6- 45

EXTERIOR PARTS

⊙ FRONT FENDER

- With the bolts removed, remove the front fender.



⊙ FRONT SEAT

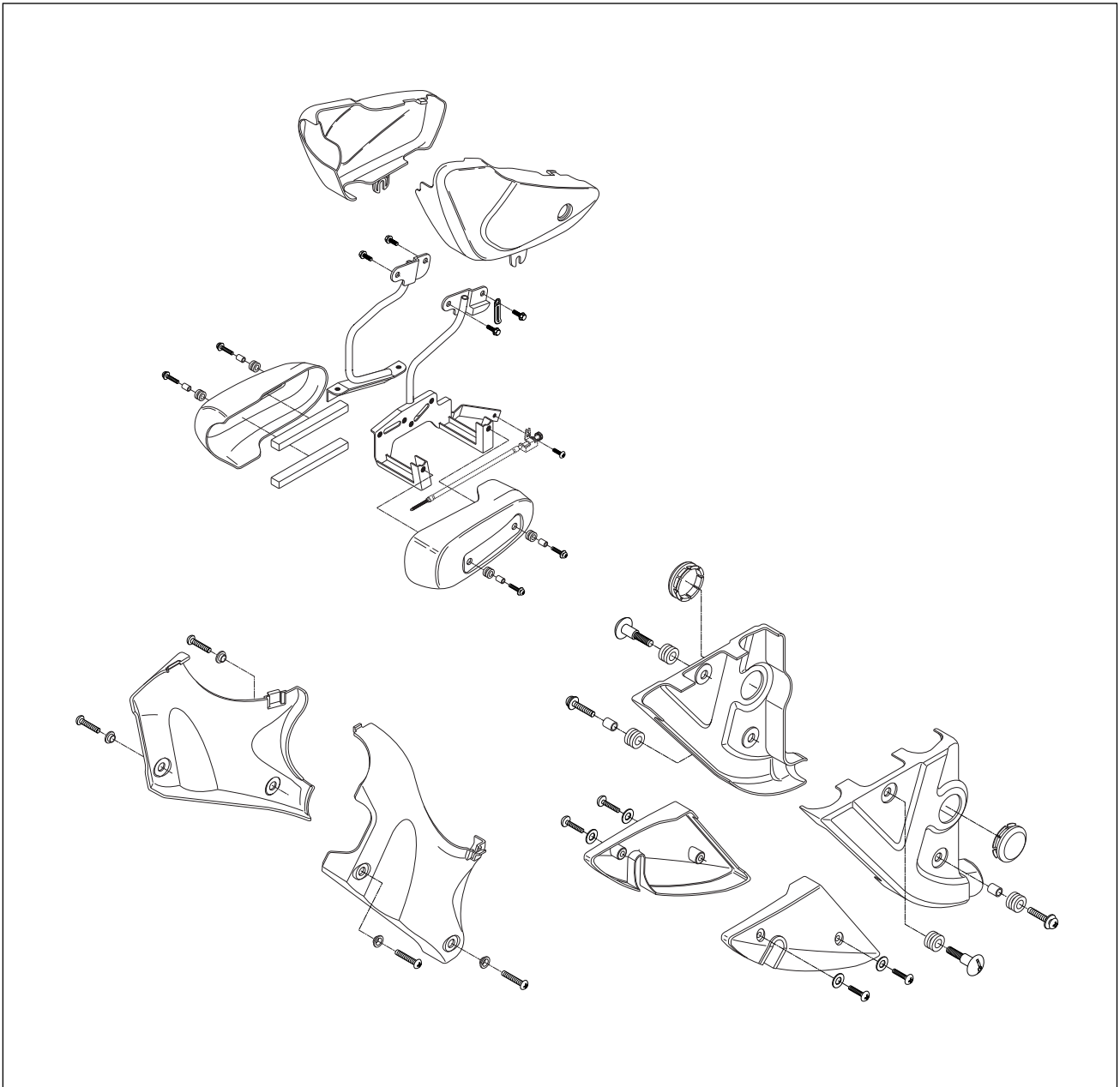
- Remove the front seat with the ignition key.



⊙ REAR SEAT

- With the bolts removed, remove the rear seat.



FRAME COVER**● RIGHT FRAME COVER**

- Remove the screw ①.
- With the hook ②, ③ removed, remove the right frame cover.



6-3 CHASSIS

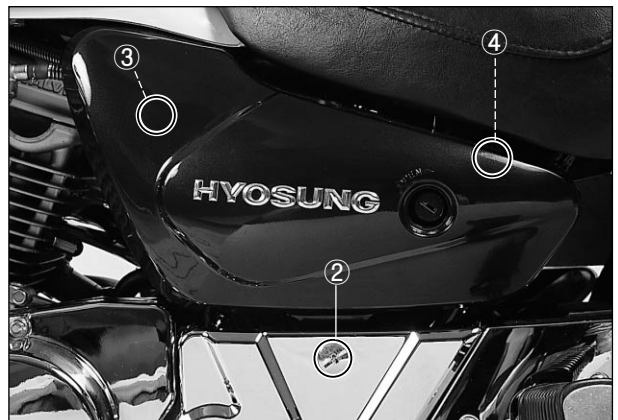
⊙ RIGHT REAR FRAME COVER

- Remove the right frame cover.
- With the bolts ① removed, remove the right rear frame cover.



⊙ LEFT FRAME COVER

- Remove the screw ②.
- Remove the hook ③, ④.

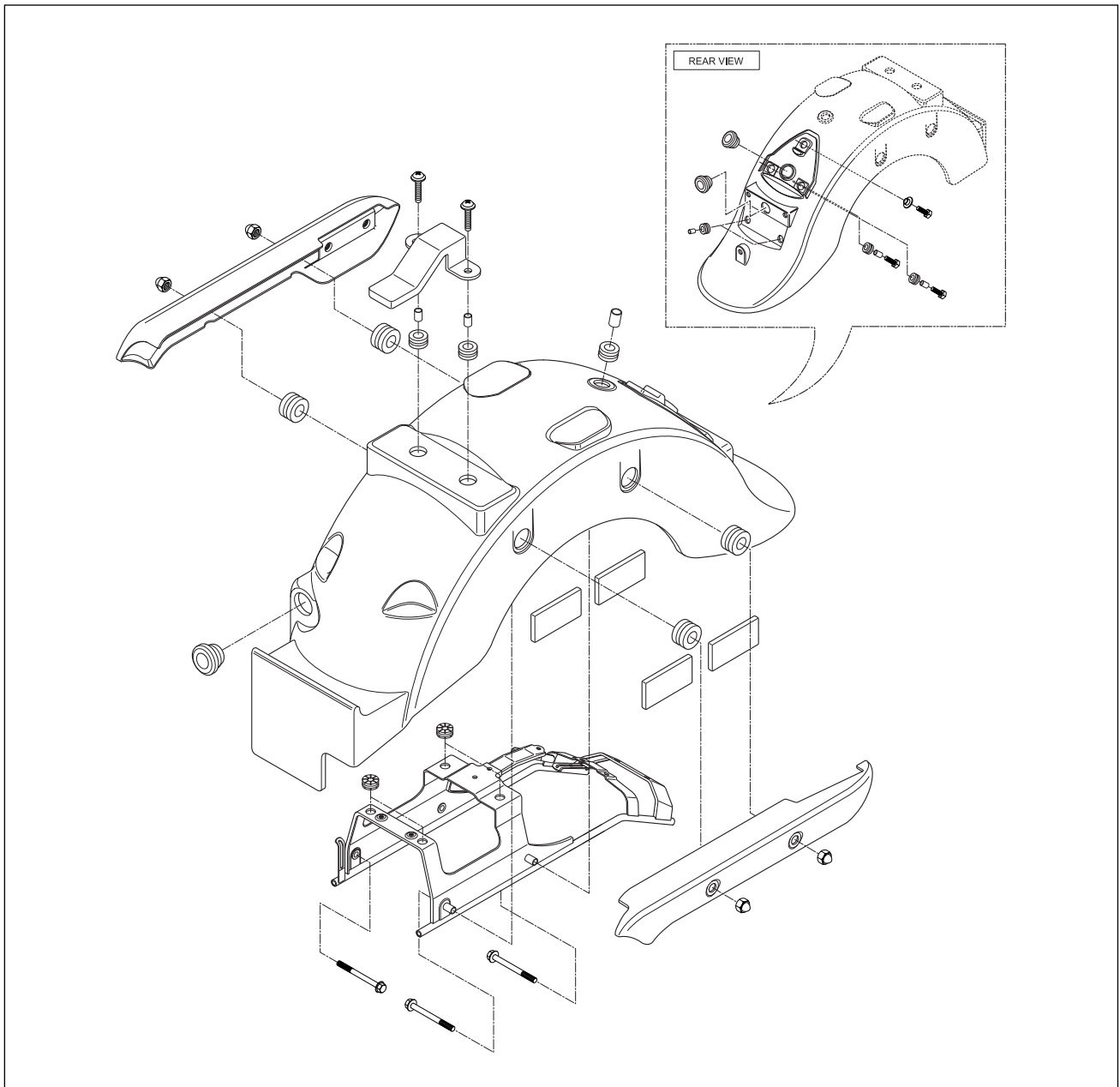


⊙ LEFT REAR FRAME COVER

- Remove the left frame cover.
- With the bolts ⑤ removed, remove the left rear frame cover.



REAR FRAME COVER

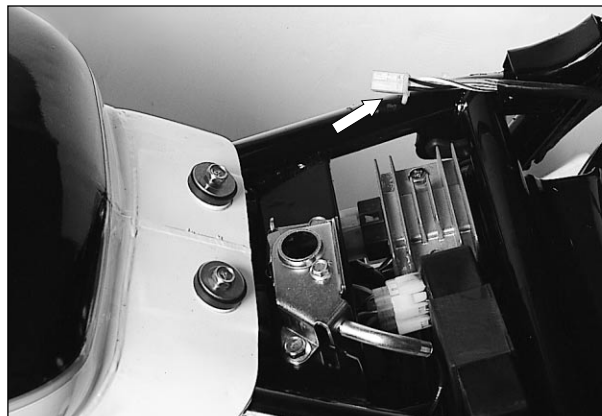


- Remove the front and rear seats.(Refer to page 6-1)
- Remove the frame covers.(Refer to page 6-2·3)
- Remove the C.D.I unit ① and rectifier / regulator ②.

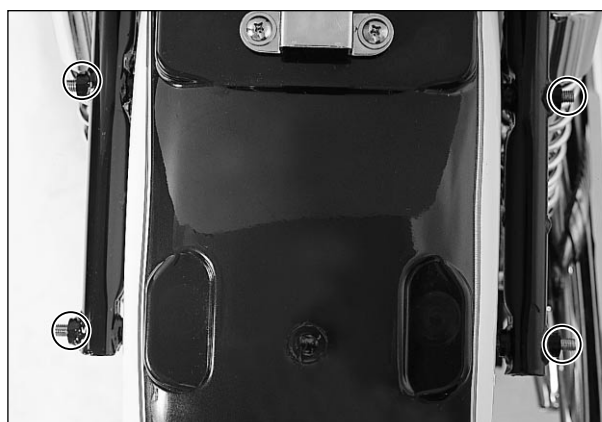


6-5 CHASSIS

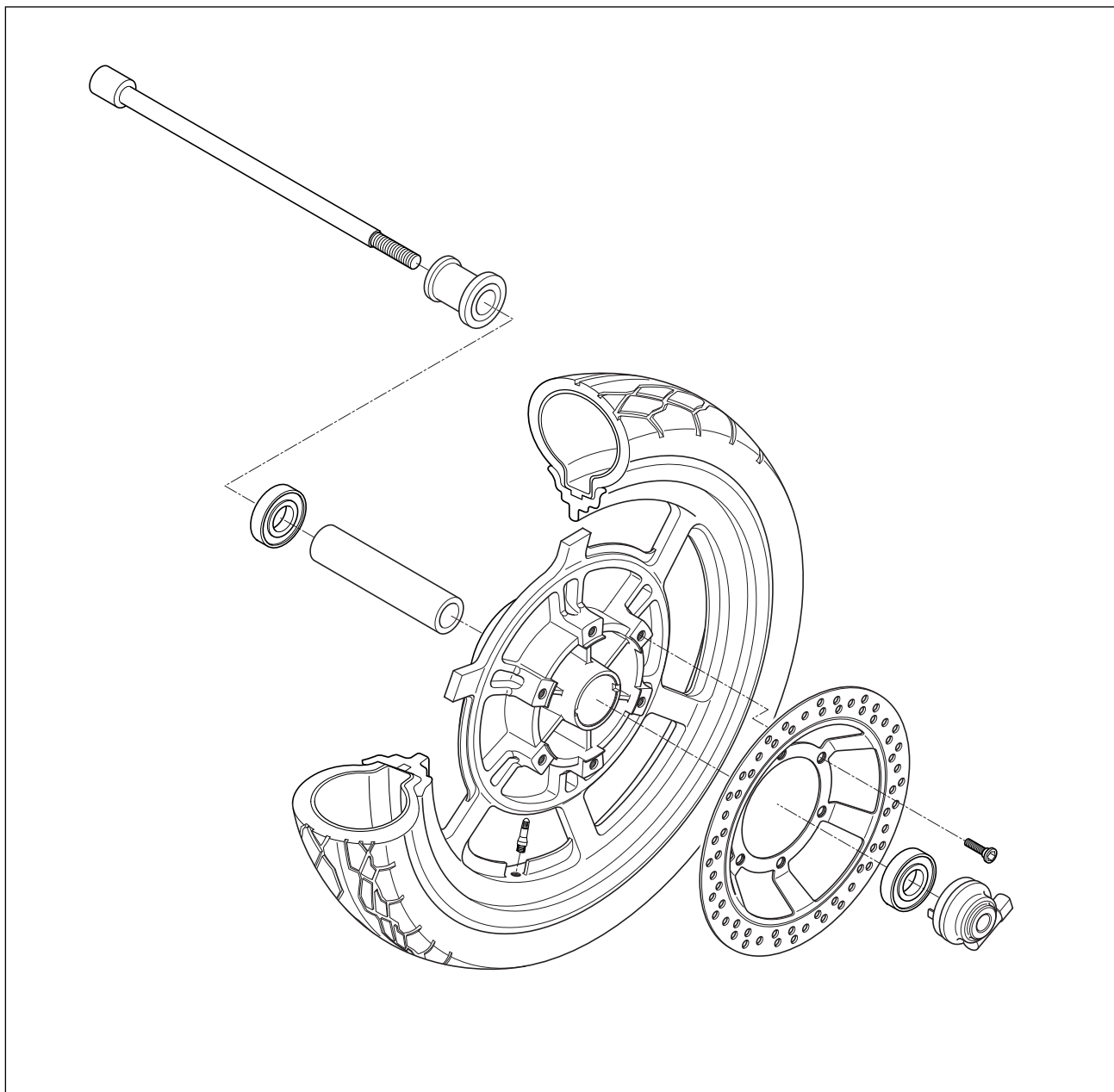
- Disconnect the rear turn signal lamp couplers and rear combination lamp coupler.



- With the four bolts removed, remove the rear frame cover.



FRONT WHEEL



REMOVAL

- Loosen the axle pinch bolt ①.
- Loosen the front axle ②.
- Raise the front wheel off the ground with a block or jack.

CAUTION

When using a jack, take care not to cause scratches on the chassis.

- Remove the front wheel by removing the front axle ②.



6-7 CHASSIS

- Remove the brake disc.



⊙ INSPECTION AND DISASSEMBLY

■ TIRE

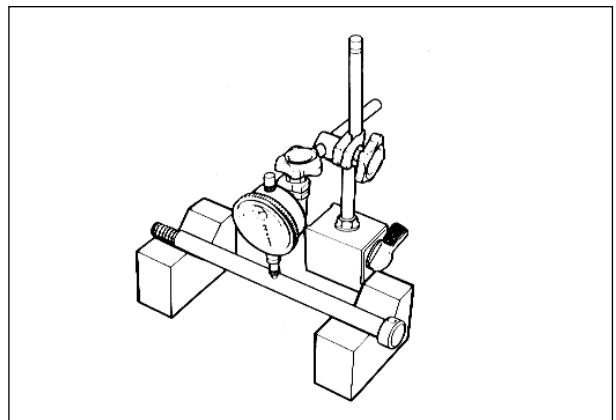
For inspection of the tire : Refer to page 2-19.

■ FRONT AXLE

Measure the front axle runout using the dial gauge. If the runout exceeds the limit, replace the front axle.

Axle shaft runout	Service limit
	0.25 mm

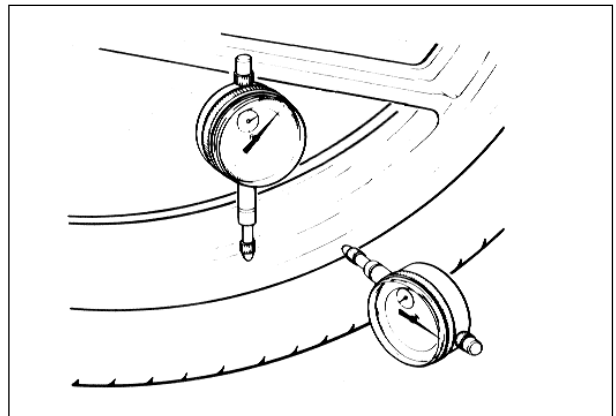
-  Dial gauge : 09900-20606
- Magnetic stand : 09900-20701
- V-block : 09900-21304



■ WHEEL

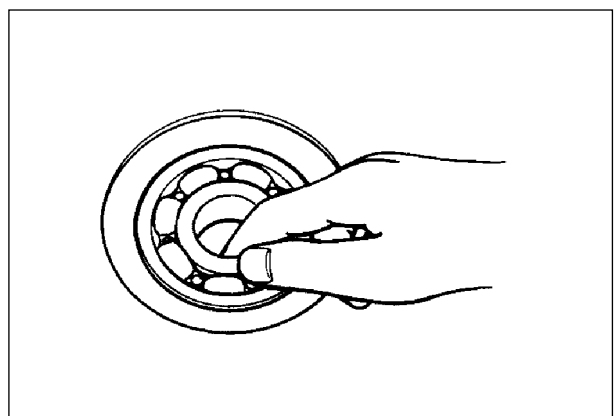
Make sure that the wheel runout (axial and radial) does not exceed the service limit when checked as shown. An excessive amount of runout is usually due to worn or loose wheel bearings and can be corrected by replacing the bearings. If bearing replacement fails to reduce the wheel.

Wheel runout (axial and radial)	Service limit
	2.0 mm



■ WHEEL BEARING

Inspect the play of the wheel bearings by finger while they are in the wheel. Rotate the inner race by finger to inspect for abnormal noise and smooth rotation. Replace the bearing in the following procedure if there is anything unusual.



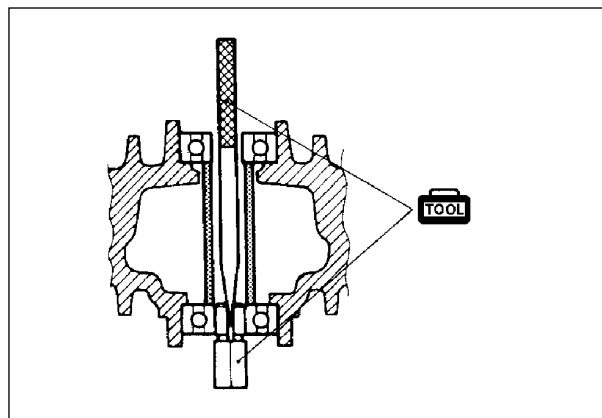
■ WHEEL BEARING REMOVAL

- Remove the wheel bearing by using the special tool.

 Wheel bearing remover : 09941-50111

⚠ CAUTION

The removed bearing should be replaced with new ones



⊙ REASSEMBLY

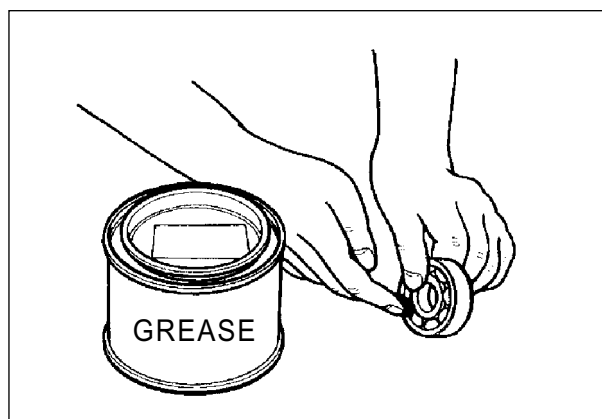
Reassemble the front wheel in the reverse order of removal and disassembly.

Pay attention to the following points :

■ WHEEL BEARING

- Apply SUPER GREASE "A" to the wheel bearings.

 SUPER GREASE "A"



- Install the wheel bearings as follows by using the special tools.

 Steering race installer : 09941-34513

⚠ CAUTION


First install the right wheel bearing, then install the left wheel bearing.



■ BRAKE DISC

Make sure that the brake disc is clean and free of any greasy matter.

- Apply THREAD LOCK "1324" to the disc mounting bolts and tighten them to the specified torque.

 Brake disc bolt : 18~28 N · m (1.8 ~2.8 kg · m)

 THREAD LOCK "1324"

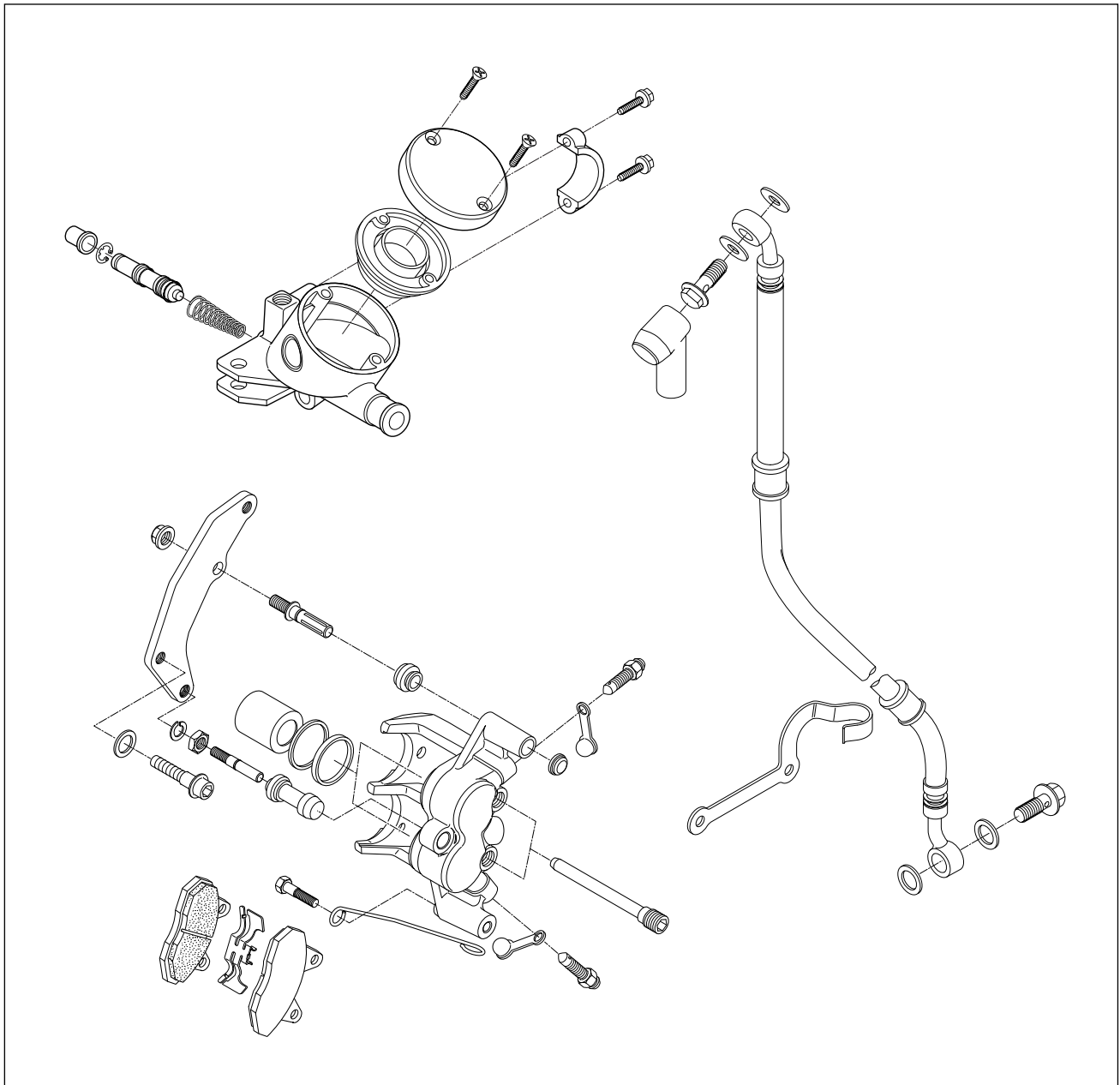


6-9 CHASSIS

● Tighten the front axle ① and axle pinch bolt ② to the specified torque.

- 🔧 **Front axle : 50~80 N · m (5.0 ~8.0 kg · m)**
- Front axle pinch bolt : 15~25 N · m (1.5 ~2.5 kg · m)**



FRONT BRAKE**⚠ WARNING**

- ❖ Do not mix with brake fluid of different brand.
- ❖ Do not use a brake fluid kept in an open container or stored for long period of time.
- ❖ To store brake fluid, make sure to seal the container and keep it in a safe place to be out of reach of children.
- ❖ When filling brake fluid, take care not to allow water or dirt to enter the system.
- ❖ To wash the brake system parts, use brake fluid and not any other material.
- ❖ Do not allow dirt and fluid to contact the brake disc or pad.

⚠ CAUTION

Do not allow brake fluid to contact the paint surface, plastic or rubber parts, or its chemical reaction can cause discoloration or crack.

● **BRAKE FLUID REPLACEMENT**

● For replacing procedure of brake fluid : Refer to page 2-15

● **BRAKE PAD REPLACEMENT**

● For replacing procedure of brake pad : Refer to page 2-15

● **CALIPER DISASSEMBLY**

● Drain brake fluid. (Refer to page 2-15)

⚠ CAUTION

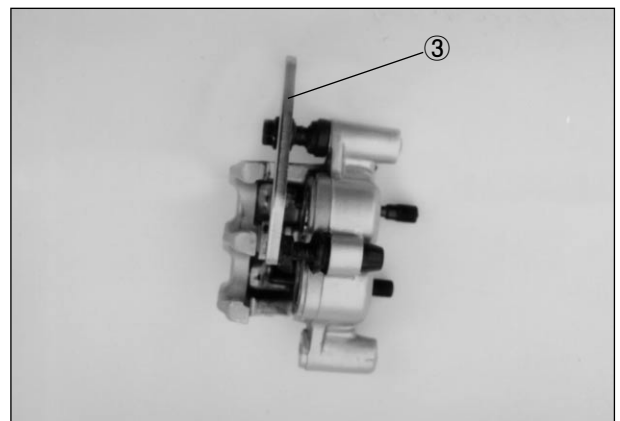
To prevent brake fluid from splashing on the parts nearby, cover the parts with cloth.

● Remove the union bolt ① and caliper mounting bolts ②.



● Remove the brake pad. (Refer to page 2-15)

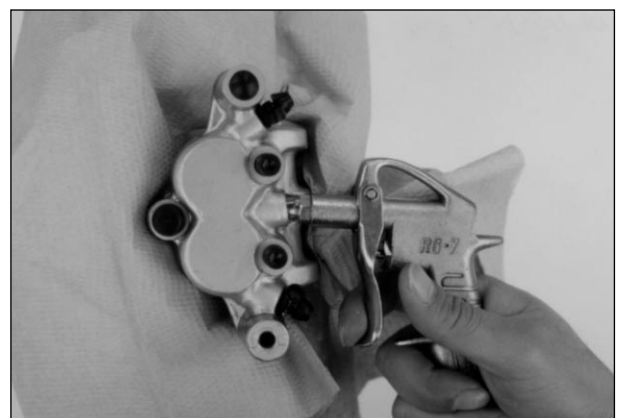
● Remove the brake caliper holder ③.



● Using an air gun, push out the caliper piston.

⚠ WARNING

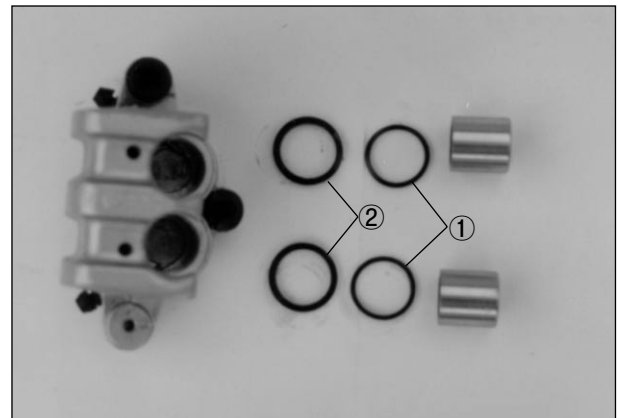
- ❖ Place a rag over the piston to prevent it from popping out and flying and keeping hand off the piston.
- ❖ Be careful of brake fluid which can possibly splash.
- ❖ Do not use high pressure air but increase the pressure gradually.



- Remove the dust seal ① and piston seal ②.

⚠ CAUTION

- ❖ Care not to cause scratch on the cylinder bore.
- ❖ Do not reuse the piston seal and dust seal that have been removed.



⊙ **CALIPER INSPECTION**

Inspect the caliper cylinder wall and piston surface for scratch, corrosion or other damages. If any abnormal condition is noted, replace the caliper.

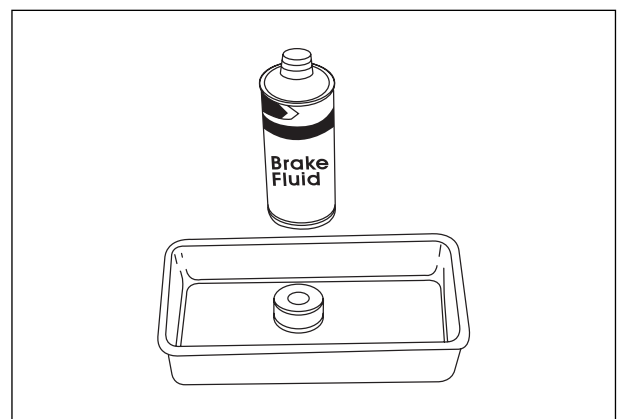


⊙ **CALIPER REASSEMBLY**

Reassemble the caliper in the reverse order of disassembly procedures and observe the following points.

⚠ CAUTION

- ❖ Wash the caliper components with fresh brake fluid before reassembly. Do not wipe off brake fluid after washing the components.
- ❖ Replace the piston seal and dust seal with new ones with brake fluid applied.



Brake fluid specification and classification : DOT 3 or DOT 4

- Install the brake pad spring.

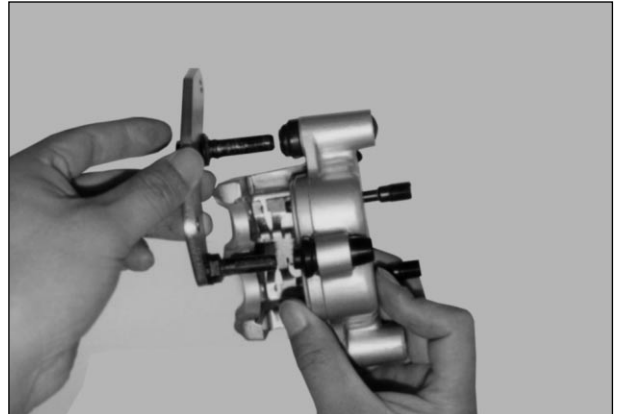


6-13 CHASSIS

- Apply SILICONE GREASE to the brake caliper holder.

SILICONE GREASE

- Install the brake pads. (Refer to page 2-15)



- Tighten the caliper mounting bolts ①.
- With the hose end seated to the stopper, tighten the union bolt ②.

- U **Front brake caliper mounting bolts**
 :18~28 N · m (1.8~2.8 kg · m)
- Front brake hose union bolts**
 :20~25 N · m (2.0~2.5 kg · m)

- Fill the system with brake fluid and bleed air. (Refer to page 2-16)
 Inspection after reassembly : Refer to page 2-14



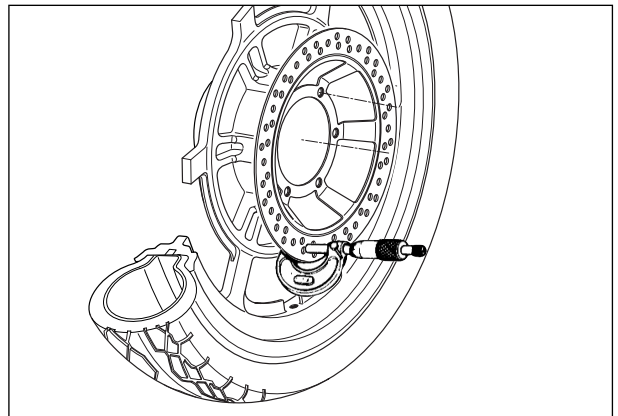
⊙ BRAKE DISC INSPECTION

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

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

Brake disc thickness	Service limit
	3.0 mm

TOOL **Micrometer (0 ~ 25 mm) : 09900-20201**



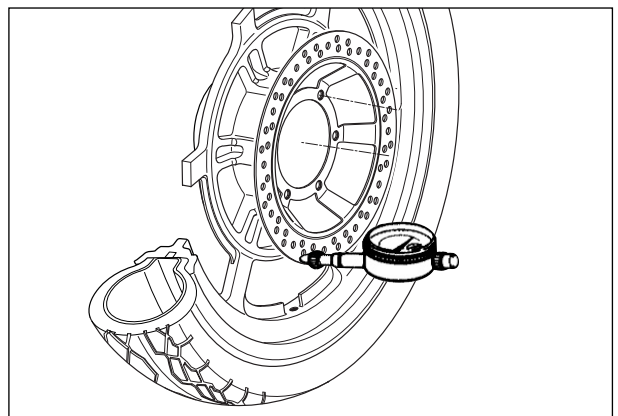
Measure the runout using the dial gauge.

Replace the brake disc if the runout exceeds the service limit.

Brake disc runout	Service limit
	0.3 mm

TOOL **Dial gauge : 09900-20606**
Magnetic stand : 09900-20701

- If either measurement exceeds the service limit, replace the brake disc. (Refer to page 6-7)

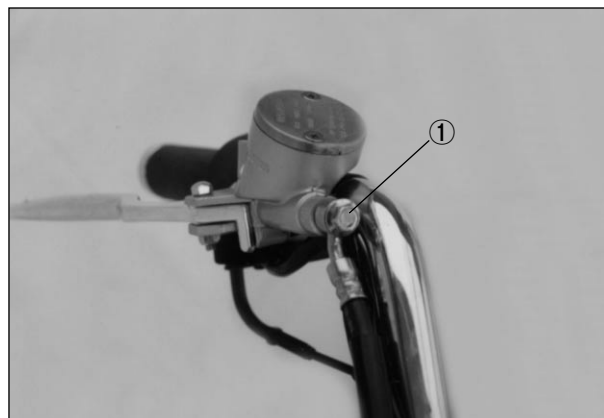


⊙ MASTER CYLINDER DISASSEMBLY

- Drain brake fluid the master cylinder.
- Disconnect the brake lamp switch lead wire coupler.
- Remove the union bolt ①.

⚠ CAUTION

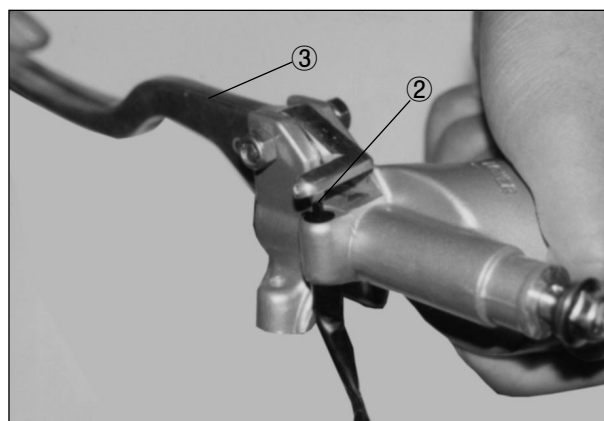
Place a rag under the union bolt so that brake fluid can not contact the parts.



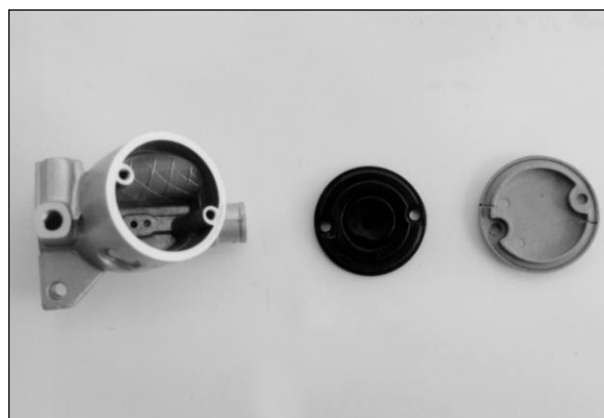
- Remove the master cylinder.



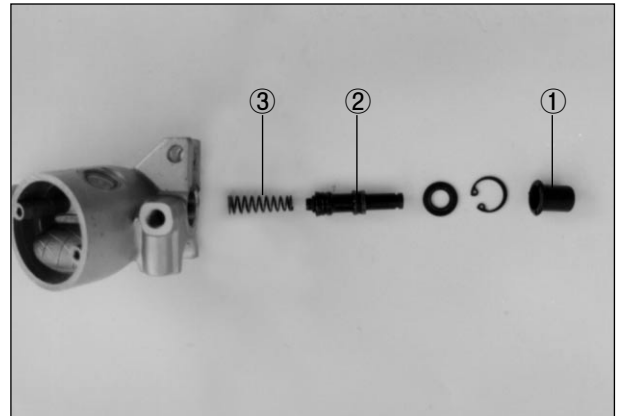
- Remove the brake lamp switch ② and brake lever ③.



- Remove the master cylinder cap.



- Detach the dust seal boot ① and remove the circlip.
- Pull out the piston/cup set ② and spring ③.



⦿ **MASTER CYLINDER INSPECTION**

Inspect the master cylinder bore for any scratches or other damage.

Inspect the piston surface for any scratches or other damage.

⦿ **MASTER CYLINDER REASSEMBLY**

Reassemble the master cylinder in the reverse order of disassembly.

Pay attention to the following points :

⚠ CAUTION

- ❖ Wash the master cylinder components with new brake fluid before reassembly.
- ❖ When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvents such as gasoline, kerosine, etc.



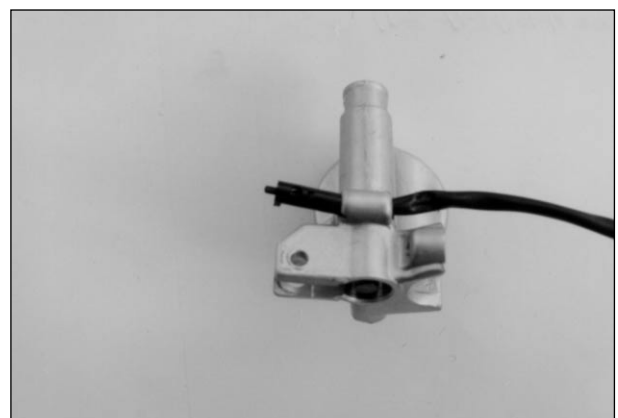
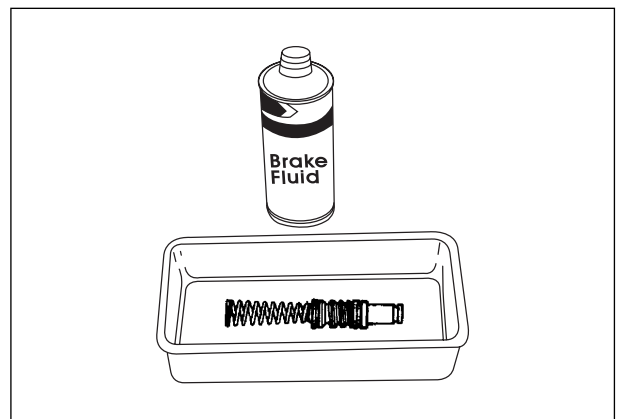
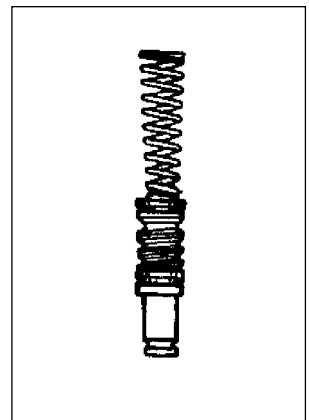
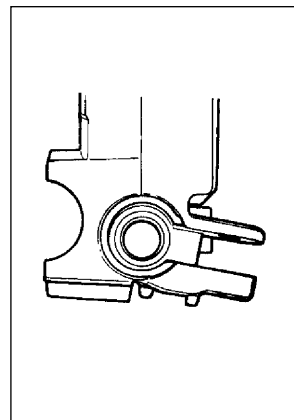
Specification and Classification

: DOT 3 or DOT 4

NOTE:

When installing the circlip, make sure that the sharp edge of the circlip faces outside.

- When reinstalling the brake lamp switch, align the projection on the switch with the hole in the master cylinder.




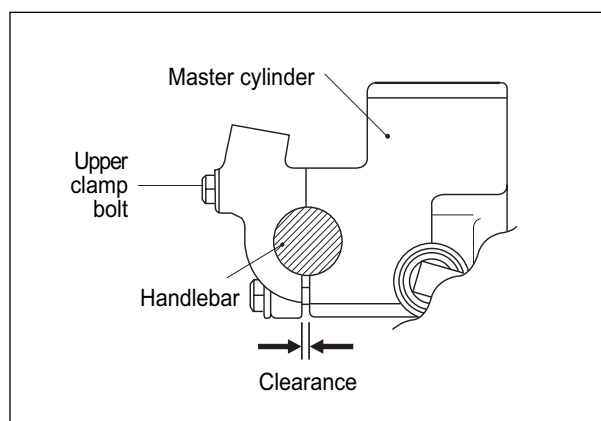
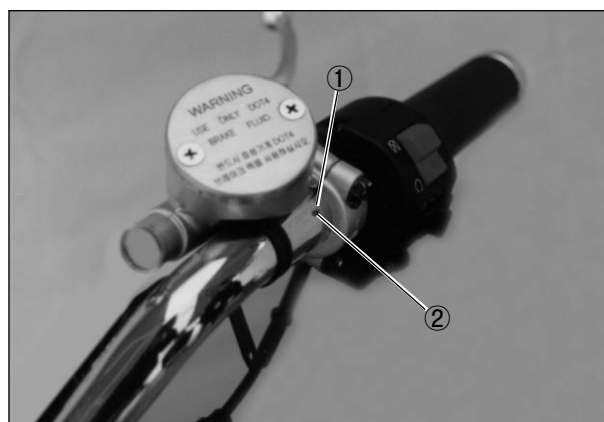
- Apply SUPER GREASE “A” to the brake lever pivot.

 SUPER GREASE “A”




- When remounting the master cylinder onto the handlebars, align the master cylinder holder's mating surface ① with punch mark ② on the handlebar and tighten the upper clamp bolt first.

 Front brake master cylinder mounting bolt
: 5~8 N · m (0.5 ~0.8 kg · m)



- Install the brake hose union, tighten the union bolt to the specified torque.

 Front brake hose union bolt
: 20~25 N · m (2.0 ~2.5 kg · m)

CAUTION

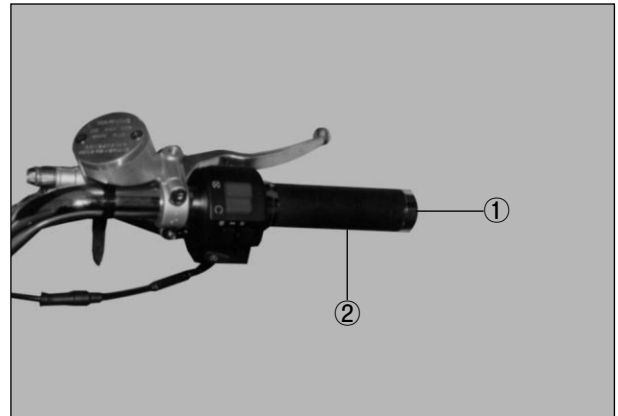
Bleed air from the brake system after reassembling the master cylinder. (Refer to page 2-16)



HANDLEBARS

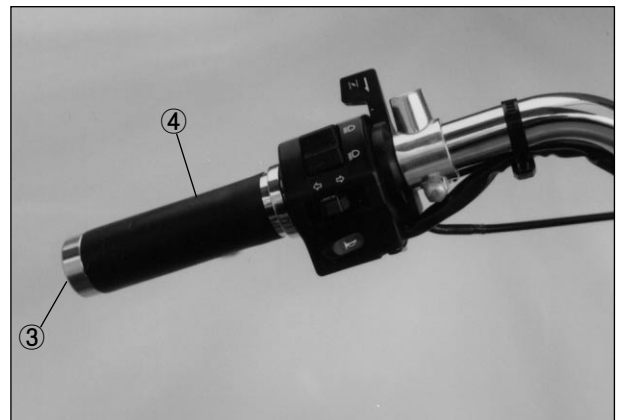
⦿ HANDLEBARS RIGHT SIDE PARTS REMOVAL

- Remove the right handlebar switches.
- Disconnect the brake lamp switch lead wires and remove the master cylinder. (Refer to page 6-14)
- Remove the handlebar balancer ① and grip ②.



⦿ HANDLEBARS LEFT SIDE PARTS REMOVAL

- Remove the left handlebar switches.
- Remove the handlebar balancer ③ and grip ④.
- Remove the clutch lever holder.



- Remove the clamp bolts and detach the handlebar holders.
- Remove the handlebar.



⦿ REMOUNTING

Perform the remounting work in the reverse order of the removal procedures while observing the following instructions.

- Install the handlebars with the punch mark ⑤ aligned with the handlebar clamp as shown.
- Tighten the handlebar clamp bolts to the specified torque.



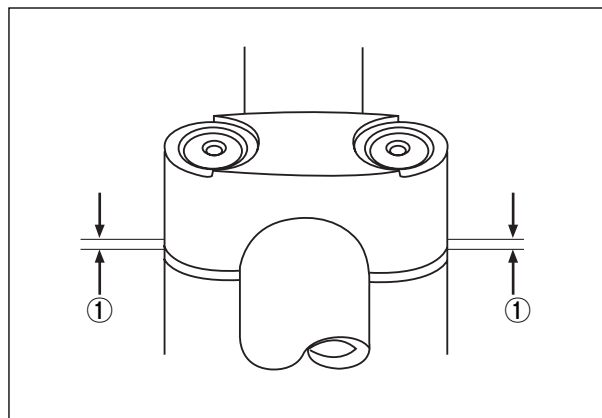
Handlebar clamp bolt

: 18~28 N · m (1.8 ~2.8 kg · m)



NOTE:

The gap ① between the handlebar clamp and holder should be even.

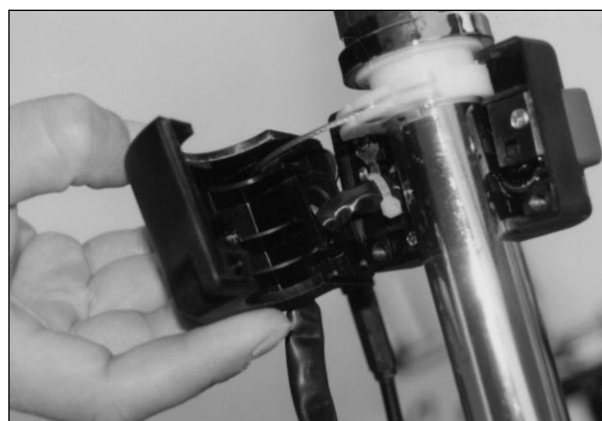


- Align the mating face of clutch lever holders with the respective punch marks and tighten the bolt.

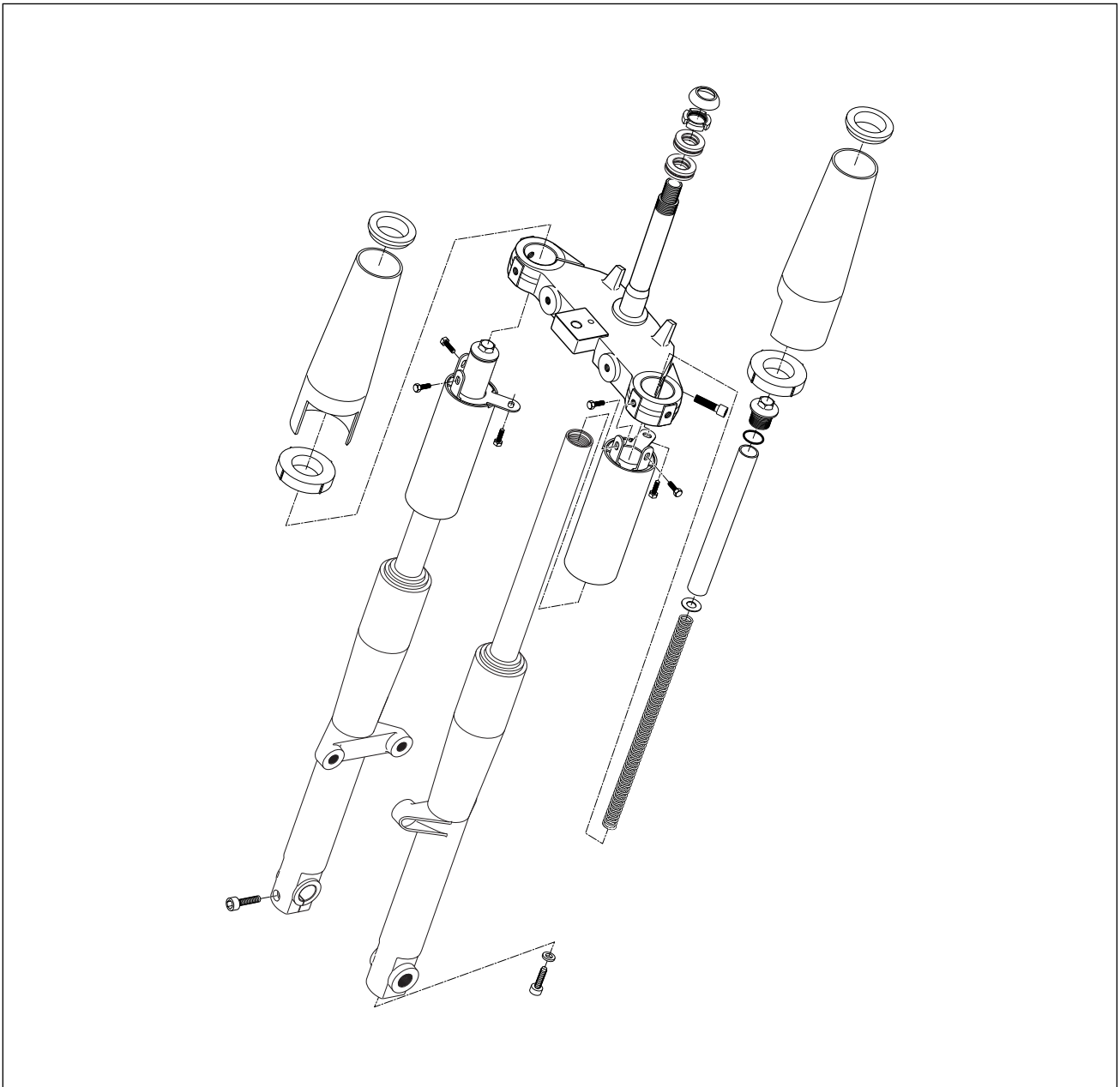


- Install the brake master cylinder. (Refer to page 6-15).
- Apply SUPER GREASE "A" to the throttle cables and assemble them.

 SUPER GREASE "A"



FRONT FORK



● DISASSEMBLY

- Remove the front wheel. (Refer to page 6-6)
- Remove the brake caliper. (Refer to page 6-11)

▲ CAUTION

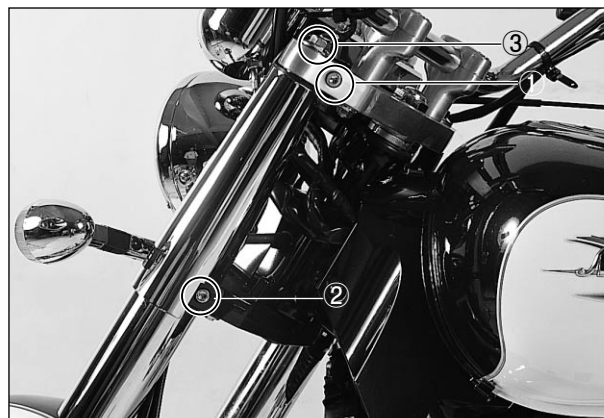
Secure the brake caliper to the frame with a string etc., taking care not to bend the brake hose.

- Remove the front fender. (Refer to page 6-1)

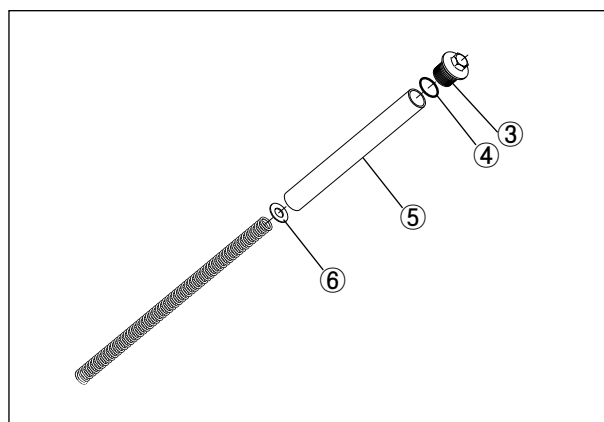
- Remove the front fork after loosening the front fork upper ① and lower ② clamp bolts .

NOTE:

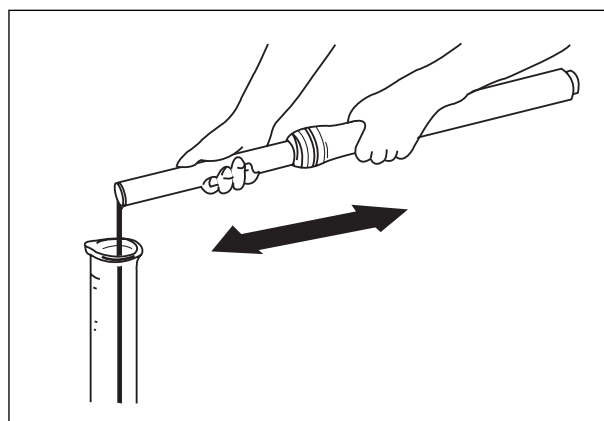
Slightly loosen the front fork upper bolt ③ to facilitate later disassembly.



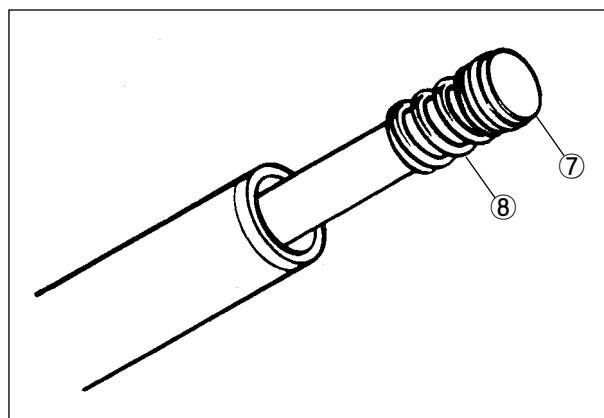
- Remove the front fork upper bolt ③, O-ring ④, front fork inner spacer ⑤ and spring guide ⑥.



- Invert the front fork and stroke it several times to drain out the fork oil.
- Hold the front fork in the inverted position for a few minutes to allow the fork oil to fully drain.

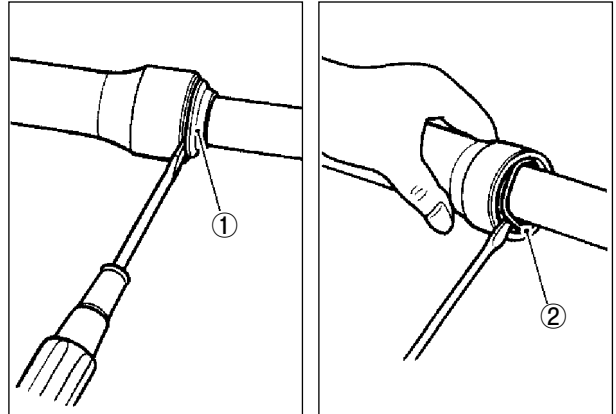


- With the damper rod held immovable, remove the damper rod bolt.
- Remove the damper rod ⑦ and rebound spring ⑧ from the inner tube.

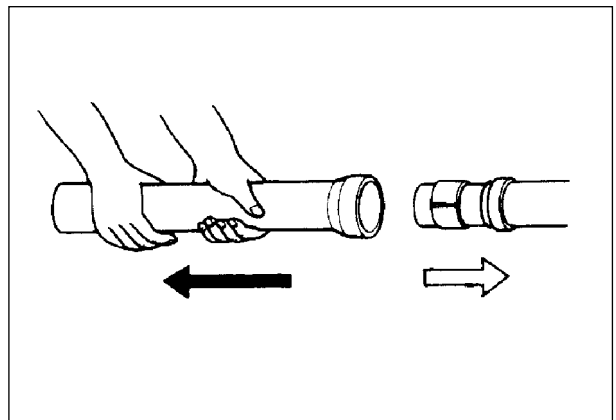


6-21 CHASSIS

- Remove the dust seal ① and oil seal stopper ring ②.



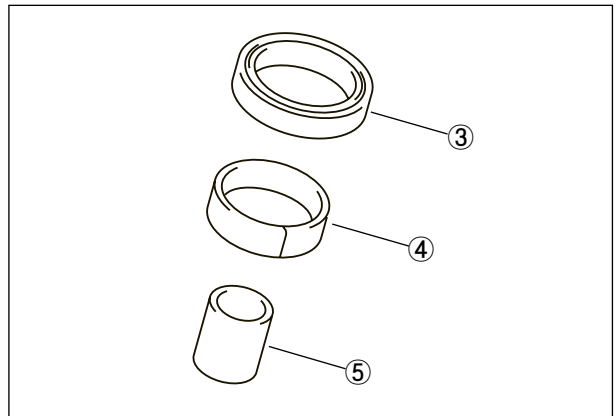
- Separate the inner tube from the outer tube.



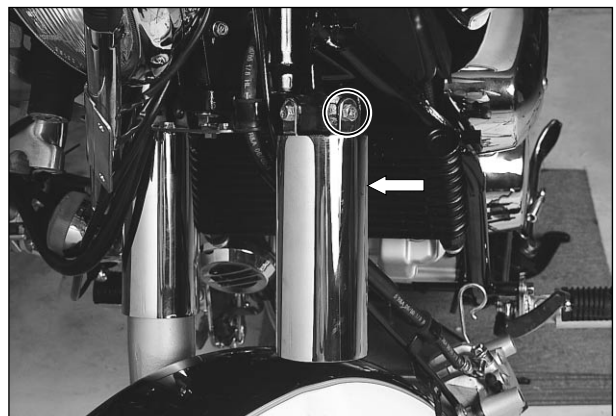
- Remove the following parts.
 - ③ Oil seal
 - ④ Slide metal
 - ⑤ Oil lock piece

⚠ CAUTION

The removed oil seal and slide metal should be replaced with new ones.



- Remove the front fork cover bolt.

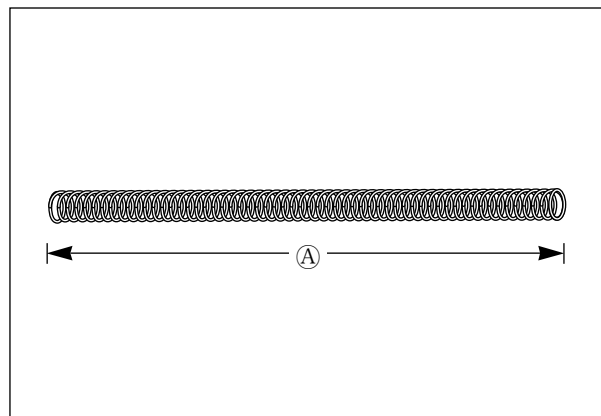


⦿ INSPECTION

■ FRONT FORK SPRING

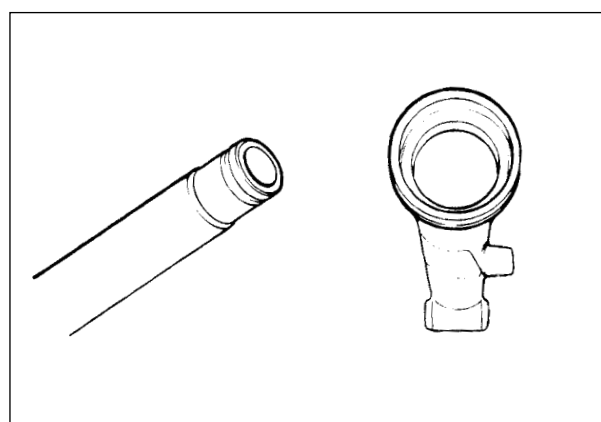
Measure the free length of the front fork spring ①. If the length is found shorter than the service limit, replace the spring.

Front fork spring free length ①	Service limit
	356 mm



■ INNER TUBE AND OUTER TUBE

Check the sliding of the inner tube, outer tube and damper rod ring for scratch, wear, bending, or other abnormal condition.



⦿ REASSEMBLY

Perform the reassembly and remounting work in the reverse order of the disassembly and removal procedures while observing the following instructions.

⚠ CAUTION

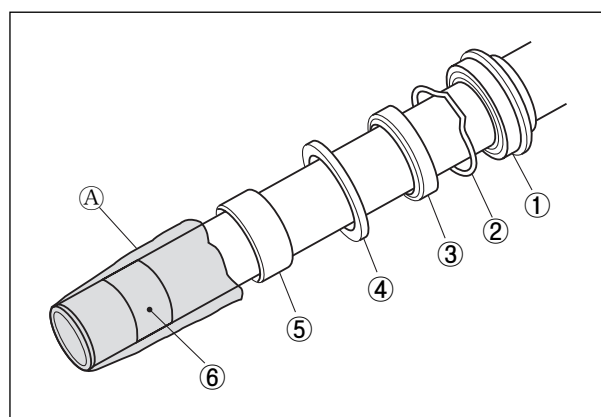
- ❖ Thoroughly wash all the component parts being assembled.
Insufficient washing can result in oil leakage or premature wear of the parts.
- ❖ When reassembling the front fork, use new fork oil.
- ❖ Use the specified fork oil for the front fork.
- ❖ When reassembling, replace the slide metals, oil seal, dust seal and damper rod bolt gasket with new ones.

● On the inner tube, assemble the following parts.

- ① Dust seal
- ② Oil seal stopper ring
- ③ Oil seal
- ④ Oil seal retainer
- ⑤ Slide metal
- ⑥ Guide bushing

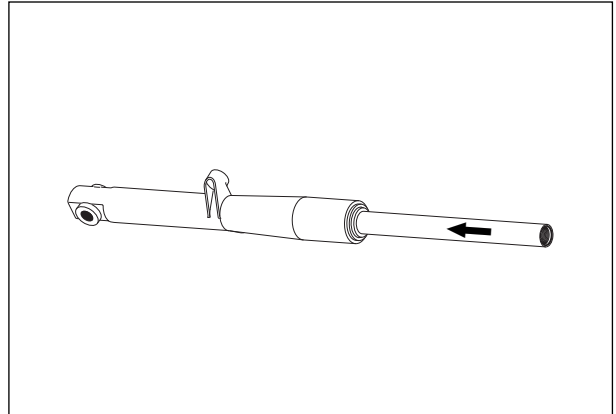
⚠ CAUTION

To prevent the lip of oil seal ③ from being damaged, cover the inner tube with vinyl sheet ⑦ during installation.



6-23 CHASSIS

- With the oil lock piece fitted to the inner tube, assemble the inner tube to the outer tube.



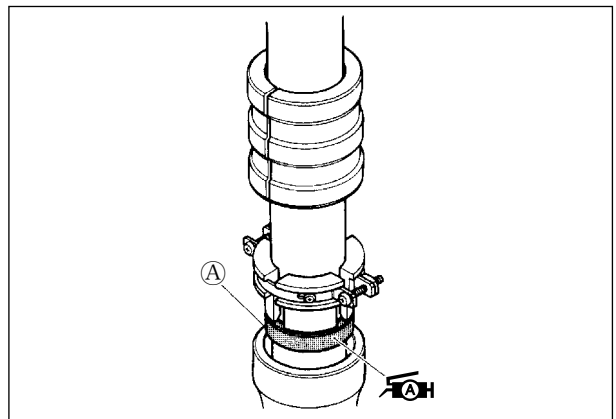
- Apply SUPER GREASE "A" to the lip of the oil seal (A) and install it into the outer tube using the front fork oil seal installer.

 **SUPER GREASE "A"**

 **Front fork oil seal installer set : 09940-52861**

 **CAUTION**

Wash and clean the front fork oil seal installer before using. If dirt is on the installer, the inner tube may possibly be damaged during press-fitting work.

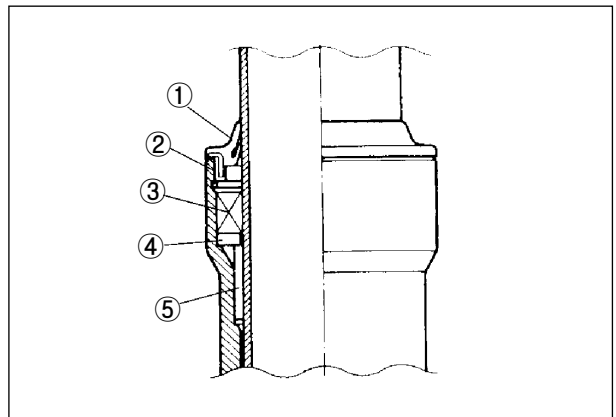


- Fit the stopper ring (2) and dust seal (1).

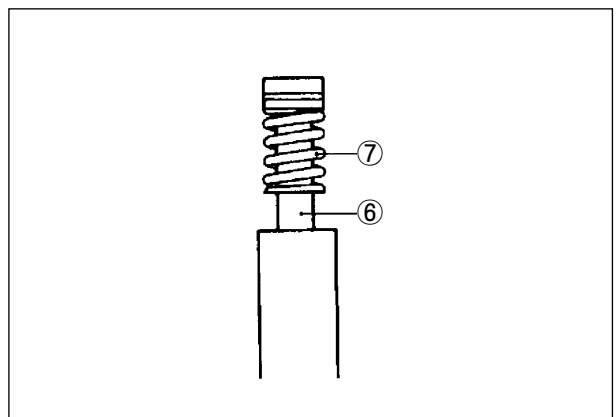
 **CAUTION**

Make sure that the stopper ring is securely fitted into the groove on the outer tube.


- ① Dust seal
- ② Oil seal stopper ring
- ③ Oil seal
- ④ Oil seal retainer
- ⑤ Slide metal



- Fit the rebound spring (7) on the damper rod (6) and install them together to the inner tube.



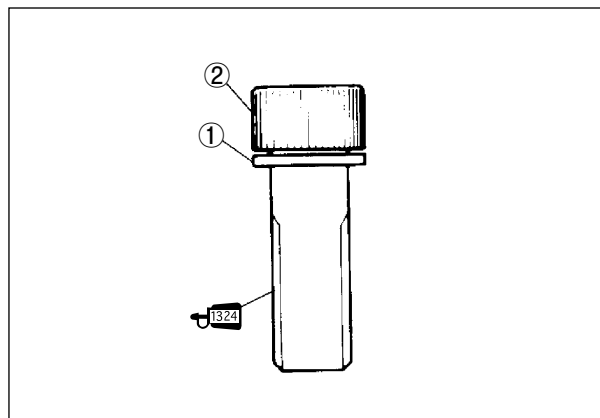
- Apply THREAD LOCK “1324” to the damper rod bolt ②.
- With the damper rod held immovable, with the gasket ① fitted, tighten the damper rod bolt ②.

 **Front fork damper rod bolt**
: 15~25 N · m (1.5~2.5 kg · m)

 **THREAD LOCK “1324”**

CAUTION

Replace the gasket with a new one.



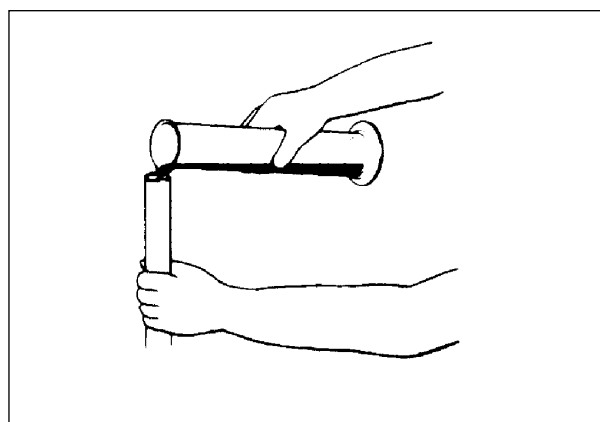
FRONT FORK OIL

- With the inner tube in fully compressed position, pour the specified amount of fork oil and stroke the tube several times to expel air.

 **Front fork oil specification : TELLUS #22**

Front fork oil capacity	Each leg
	250 cc

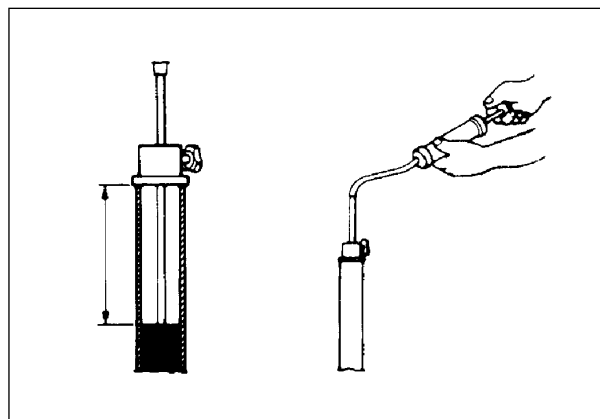
- With the front fork held in vertical position, compress the inner tube all the way.



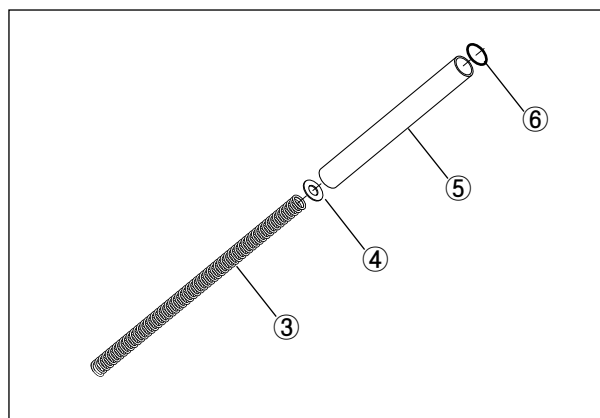
- Wait until the fluid level stabilizes, measure and adjust the level to specification using the special tool.

Front fork oil level	325 mm (without spring)
-----------------------------	----------------------------

 **Front fork oil level gauge : 09943-74111**



- Install the front fork spring ③.
- Install the spring guide ④, front fork inner spacer ⑤, and O-ring ⑥.



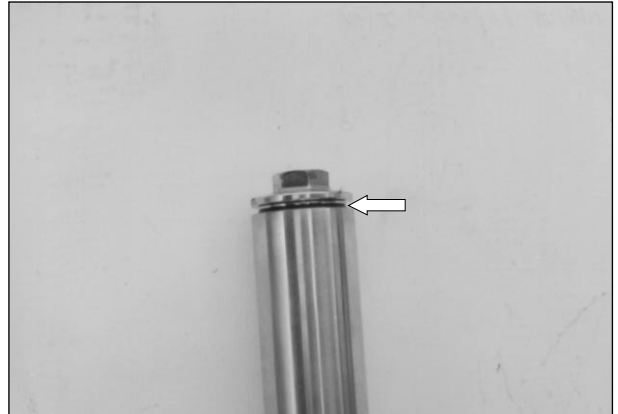
6-25 CHASSIS

- Fit the O-ring to the front fork upper bolt and apply SUPER GREASE "A".

 **SUPER GREASE "A"**

CAUTION


Use a new O-ring to prevent oil leakage.



- Install the front fork to the motorcycle.
- Align the upper surface of the inner tube with the upper surface of the steering stem upper bracket.

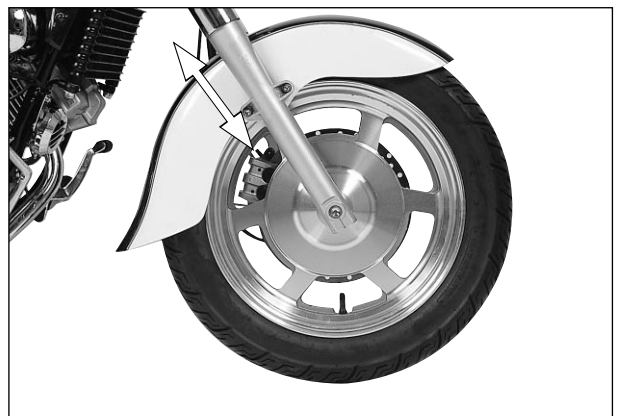


- Tighten the front fork lower clamp bolts ① and front fork upper bolts ② to the specified torque.
- Tighten the front fork upper clamp bolts ③ to the specified torque.

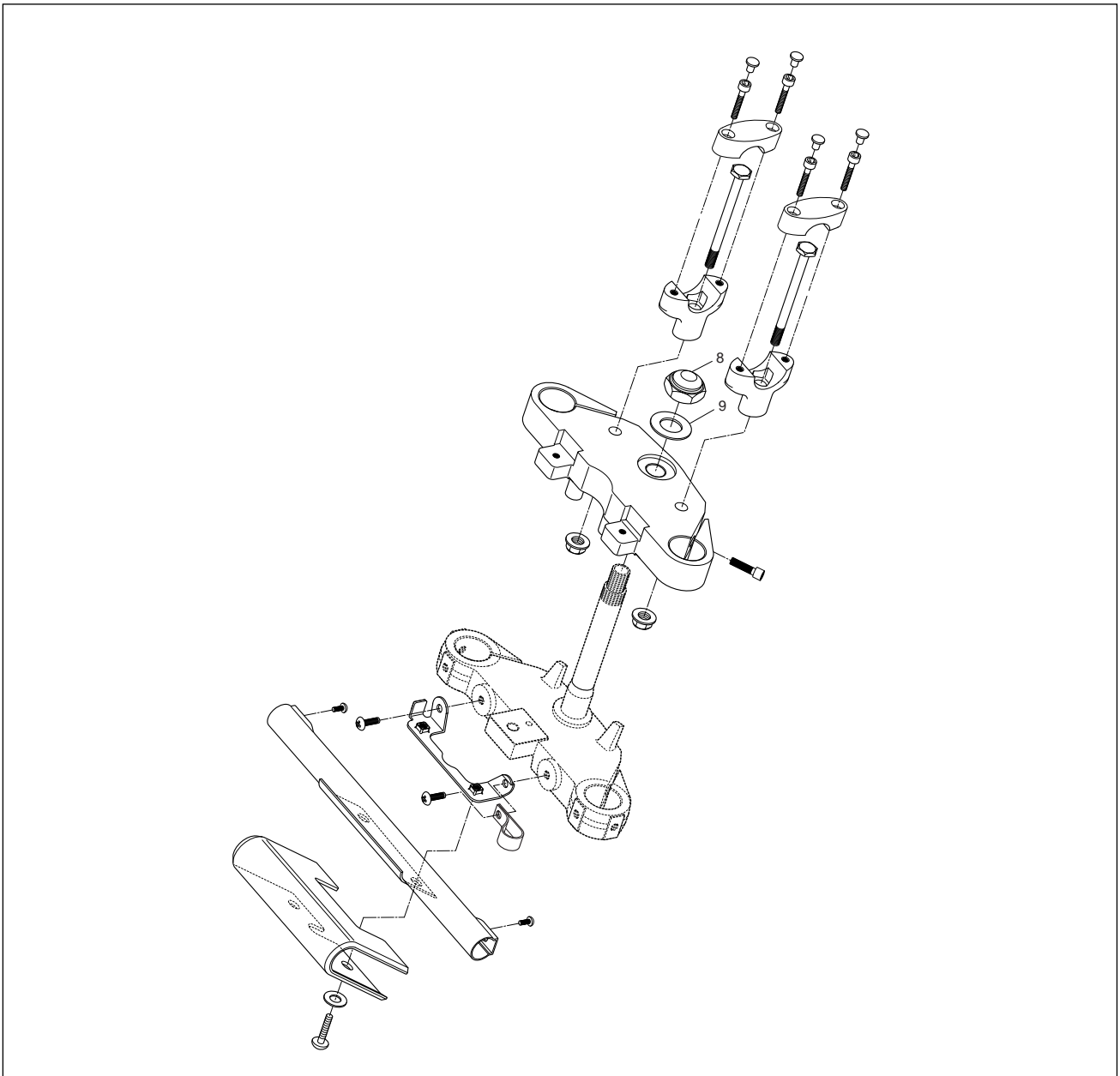
-  **Front fork upper clamp bolt**
: 22~35 N · m (2.2~3.5 kg · m)
- Front fork lower clamp bolt**
: 22~35 N · m (2.2~3.5 kg · m)
- Front fork upper bolt**
: 15~30 N · m (1.5~3.0 kg · m)



- Install the front fender and tighten the mounting bolts temporarily.
- Install the front wheel. (Refer to page 6-8)
- Install the front brake caliper. (Refer to page 6-12)
- Move the front fork up and down several times.
- Tighten the front fender mounting bolts securely.



STEERING



● DISASSEMBLY

- Remove the front wheel. (Refer to page 6-6)
- Remove the front fork. (Refer to page 6-19)
- Remove the cable guide.

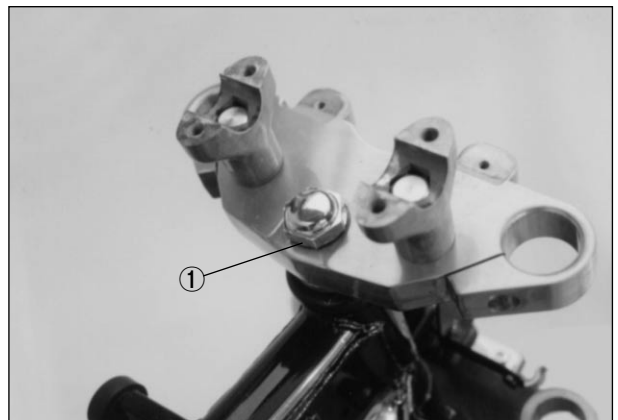


6-27 CHASSIS


- With the nuts removed, remove the headlamp housing.
- Remove the handlebars. (Refer to page 6-17)



- Remove the steering stem head nut ①.
- Remove the steering stem upper bracket.



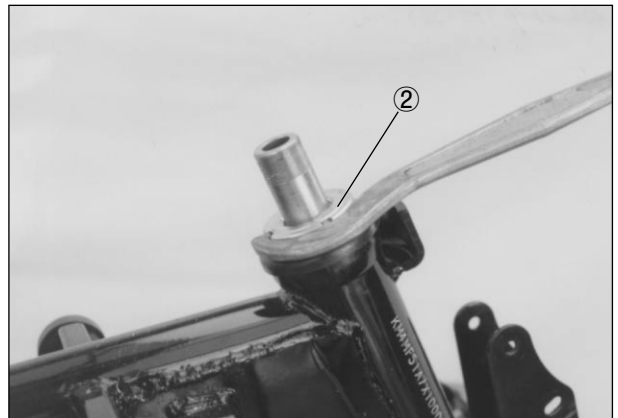
- Remove the steering stem nut ② using the special tool.

 **Clamp wrench : 09940-10122**

- Draw out the steering stem lower bracket.

NOTE:

Hold the steering stem lower bracket to prevent it from falling.



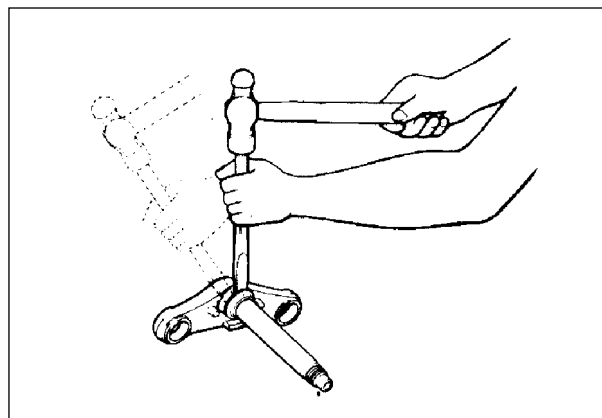
- Remove the handlebar holders by removing the nuts.



- To remove the lower inner race, use a chisel like.

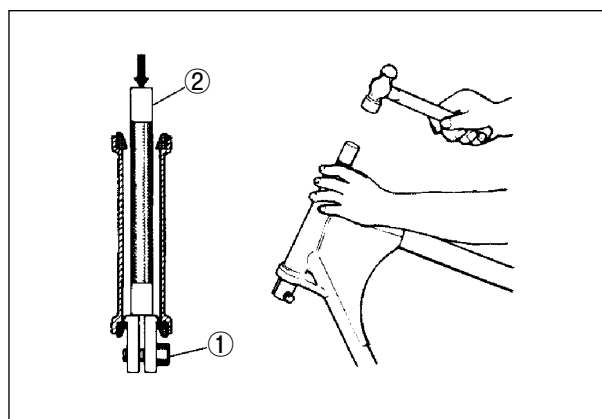
⚠ CAUTION

- ❖ Unless corrosion, damage or other abnormal condition is found, the bearing race need not be replaced.
- ❖ Once the lower inner race has been removed, replace it with a new one.



- Drive out the steering stem bearing outer races using the special tools ① and a suitable wedge bar ②.

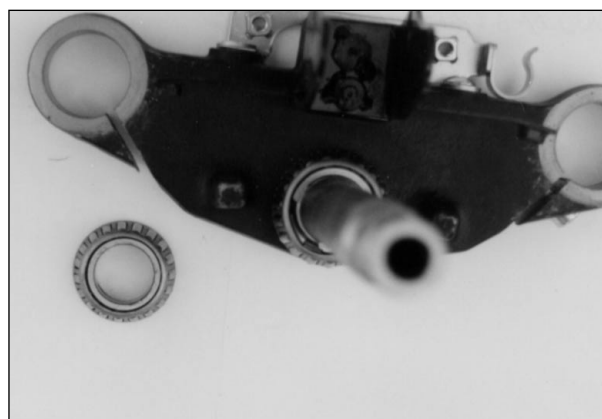
TOOL Bearing outer race remover ① : 09941-54911



⊙ INSPECTION

Check the steering stem and steering stem head for any damage.

Check the bearing and race for corrosion, nick or other damage.



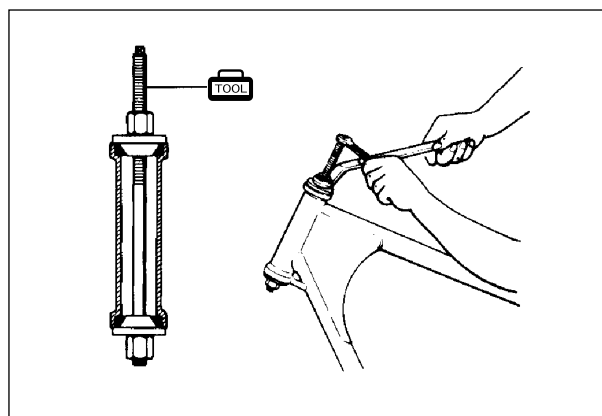
⊙ REASSEMBLY

Reassembly can be performed in reverse order of disassembly procedures.

However, operate the work taking care for the following points.

- Press in the upper and lower outer race using the special tool.

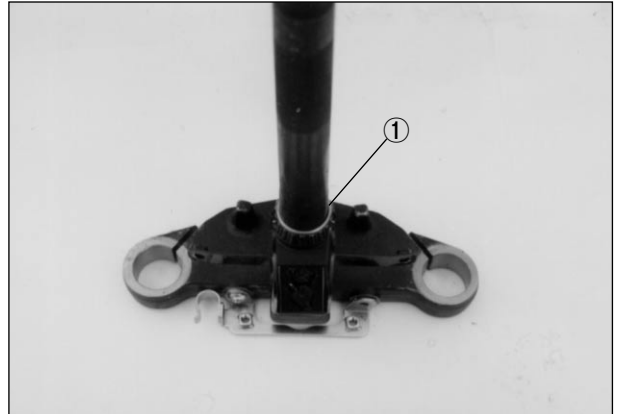
TOOL Steering race installer : 09941-34513



6-29 CHASSIS

- Press in the lower inner race ①.

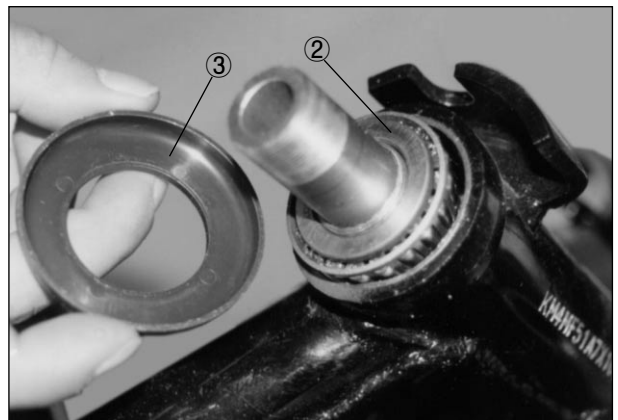
 **Bearing installer : 09913-80112**



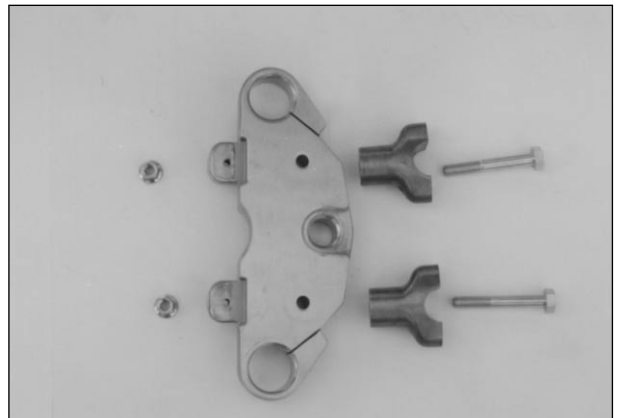
- Apply SUPER GREASE "A" to the upper bearing, lower bearing and outer races prior to installing the steering stem.

 **SUPER GREASE A**

- Install the upper inner race ② and dust cover ③.



- Install the handlebar holders and tighten their nuts temporarily.



- Install the steering stem.
- Tighten the steering stem nut.

 **Steering stem nut : 40~50 N · m (4.0~5.0 kg · m)**

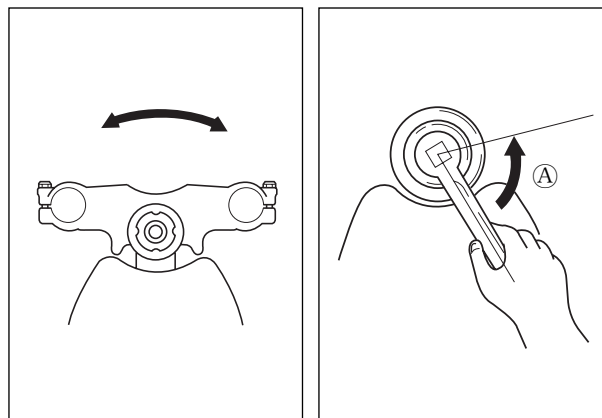
 **Clamp wrench : 09940-10122**



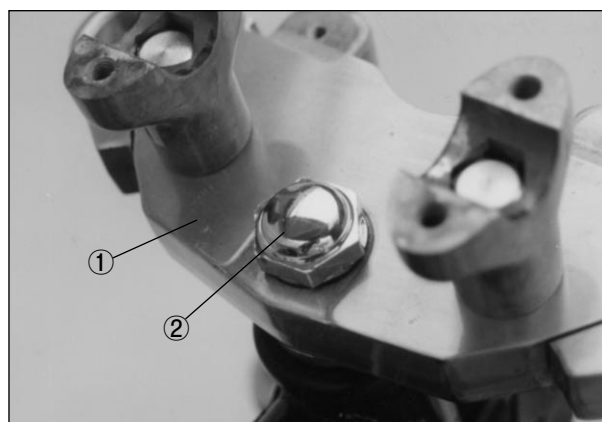
- Turn the steering stem lower bracket about five or six times to the left and right.
- Loosen the steering stem nut $\frac{1}{4}$ - $\frac{1}{2}$ of a turn (A).

NOTE:

This adjustment will vary from motorcycle to motorcycle. Make sure that the steering turns smoothly and easily in both directions without play.

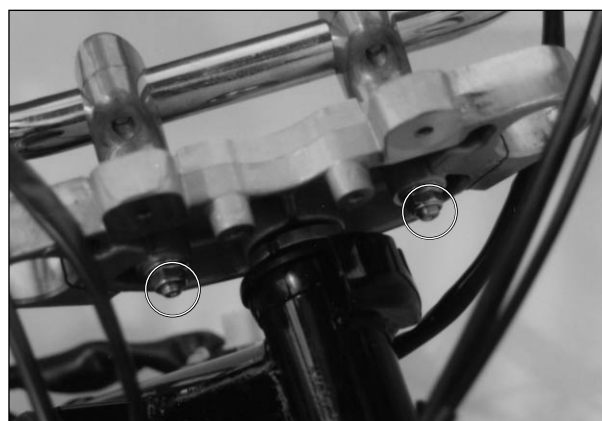


- Install the steering stem upper bracket (1) and washer (2).
- Tighten the steering stem head nut temporarily.



- Install the handlebars. (Refer to page 6-17)
- Tighten the handlebar holder nuts to the specified torque.

🔩 Handlebar holder lower nut
: 40~60 N · m (4.0~6.0 kg · m)



- Align the upper surface of the front fork inner tube with the upper surface of the steering stem upper bracket.
- Tighten the upper front fork clamp bolts to the specified torque.

🔩 Front fork upper clamp bolt
: 22~35 N · m (2.2~3.5 kg · m)

- Tighten the steering stem head nut to the specified torque.

🔩 Steering stem head nut
: 80~100 N · m (8.0~10.0 kg · m)



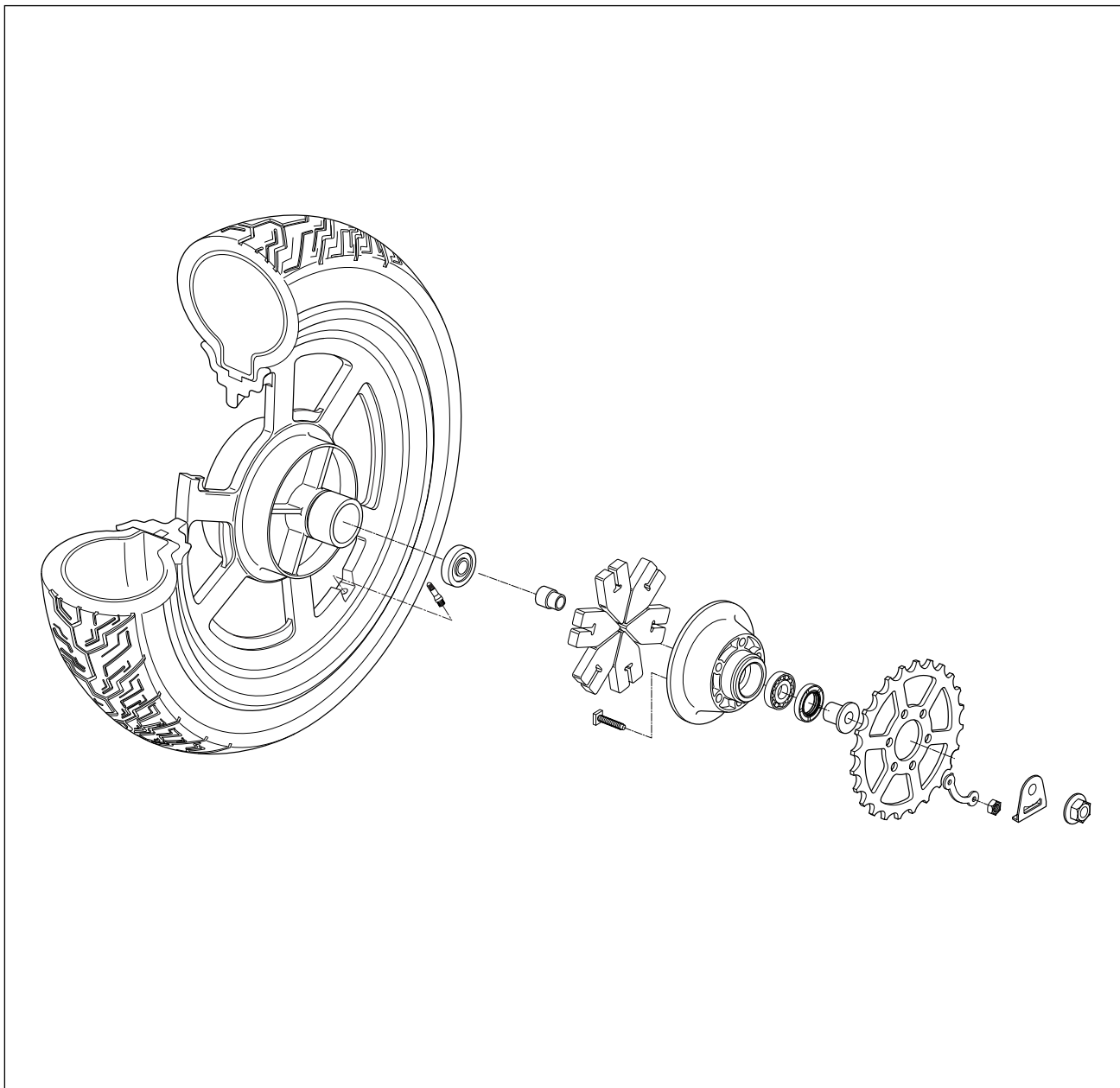
6-31 CHASSIS

- Install the cable guide.
- Install the front wheel. (Refer to page 6-8)



NOTE:
*Hold the front fork legs, move them back and forth
and make sure that the steering is not loose.*



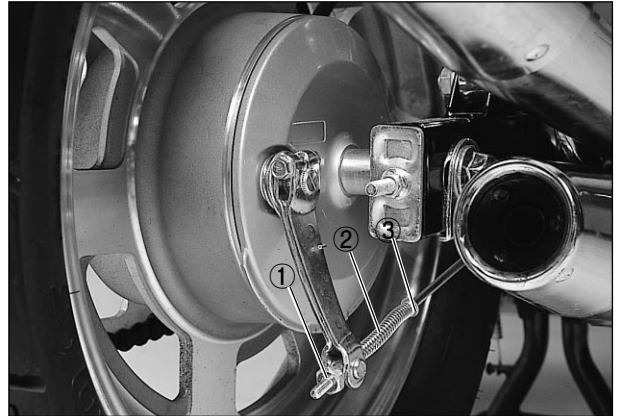
REAR WHEEL**REMOVAL**

- Remove the drive chain cover.

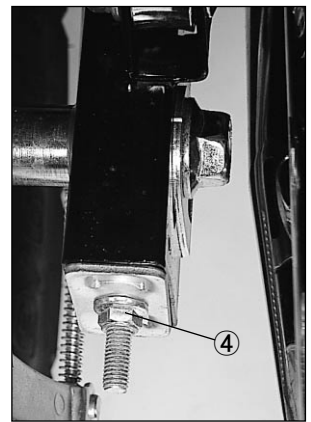
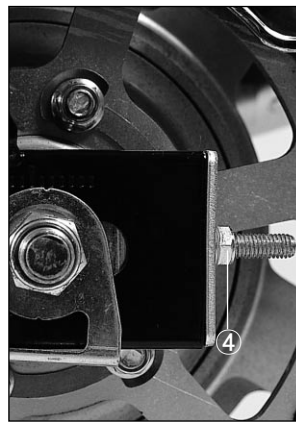


6-33 CHASSIS

- Remove the rear brake adjusting nut ①, spring ② and washer ③.



- Raise the rear wheel off the ground with a jack or block.
- Loosen the drive chain adjuster ④, right and left.
- Disengage the drive chain from the rear sprocket.



- Loosen the rear shock absorber upper bolt ⑤, right and left.



- Draw out the rear axle ⑥ with the rear wheel push to the bottom.
- Pull the rear wheel assembly rearward.



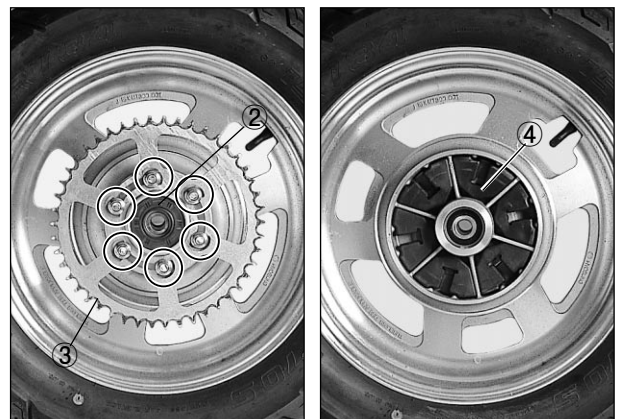
- Remove the rear brake panel ①.
(Refer to page 6-39)



- Remove the spacer ②.
- Remove the rear sprocket ③ with mounting drum from the rear wheel.

NOTE:
Before separating the rear sprocket and mounting drum, slightly loosen the rear sprocket bolts.

- Remove the rear wheel shock absorber ④.



- Remove the rear sprocket ⑤ from the rear sprocket mounting drum.



- Remove the dust seal.

 Oil seal remover : 09913-50121



● **INSPECTION**

WHEEL AXLE : Refer to page 6-7

WHEEL : Refer to page 6-7

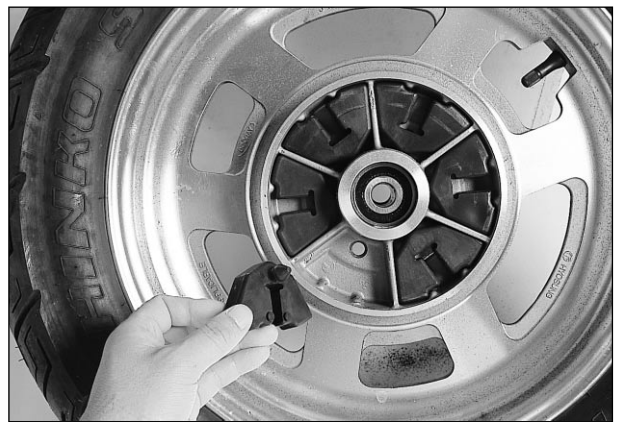
WHEEL BEARING : Refer to page 6-7

REAR SPROCKET MOUNTING DRUM BEARING : Refer to page 6-7

BRAKE DRUM : Refer to page 6-40

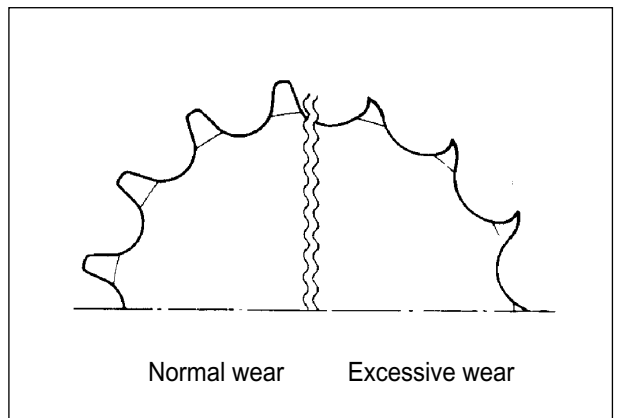
■ **REAR WHEEL SHOCK ABSORBER**

Inspect the rear wheel shock absorber for wear and damage. Replace the rear wheel shock absorber if there is anything unusual.



■ **SPROCKET**

Inspect the sprocket's teeth for wear. If they are worn, replace the sprocket and drive chain as a set.



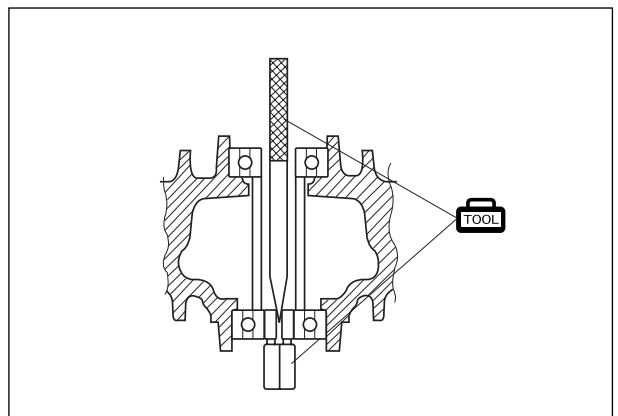
■ **WHEEL BEARING REMOVAL**

● Remove the bearing by using the special tool.

 Wheel bearing remover : 09941-50111


 **CAUTION**

The removed bearing should be replaced with new one.



■ REAR SPROCKET MOUNTING DRUM BEARING

- Remove the bearing by using special tool.

 Bearing remover(17mm) : 09923-73210

CAUTION

The removed bearing should be replaced with new one.



○ REASSEMBLY

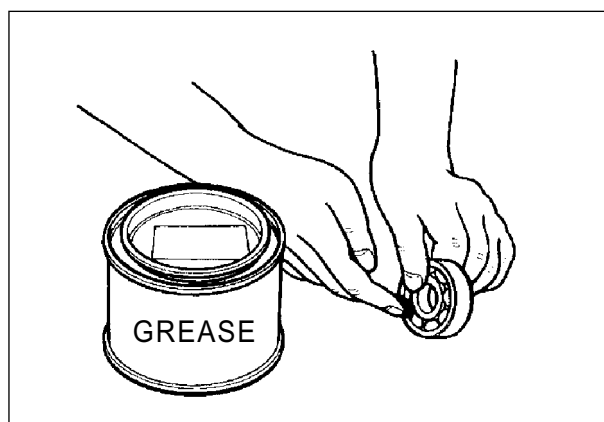
Reassemble the rear wheel and rear brake in the reverse order of disassembly.

Pay attention to the following points :

■ WHEEL BEARING

- Apply SUPER GREASE "A" to the bearing before installation.

 SUPER GREASE "A"



- Press fit the bearing to the wheel using the special tools.

 Steering race installer : 09941-34513

CAUTION

First install the right wheel bearing, then left wheel bearing.



■ REAR SPROCKET MOUNTING DRUM BEARING

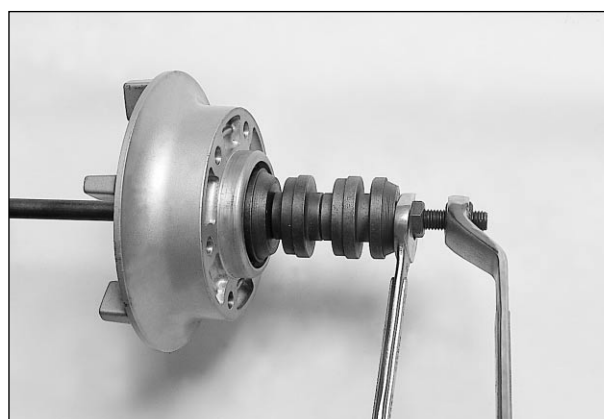
- Install the rear sprocket mounting drum bearing and dust seal using the special tool.

 Steering race installer : 09941-34513

NOTE:

Apply grease to the bearing and dust seal lip before assembling the rear sprocket mounting drum.

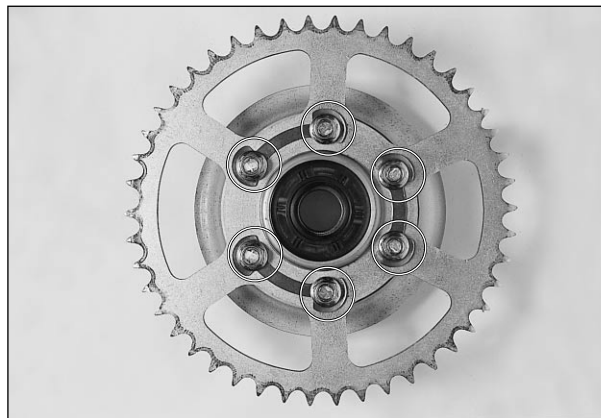
 SUPER GREASE "A"



■ REAR SPROCKET

● Tighten the rear sprocket nuts to the specified torque.

🔧 Rear sprocket nut : 22~35 N · m (2.2~3.5 kg · m)



● Install the retainer to the mounting drum as shown.



■ REAR WHEEL

● After the rear wheel install, tighten the rear axle nut ① to the specified torque.

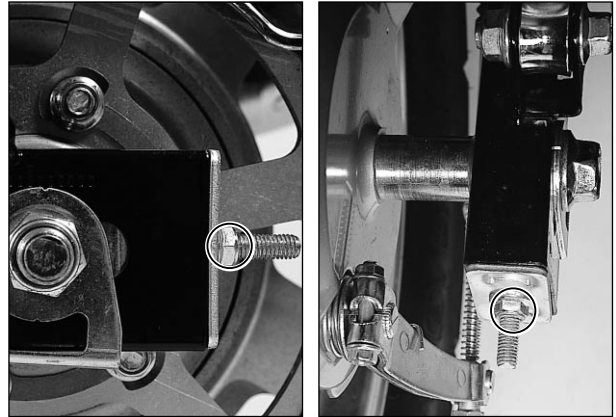
🔧 Rear axle nut : 90~140 N · m (9.0~14.0 kg · m)



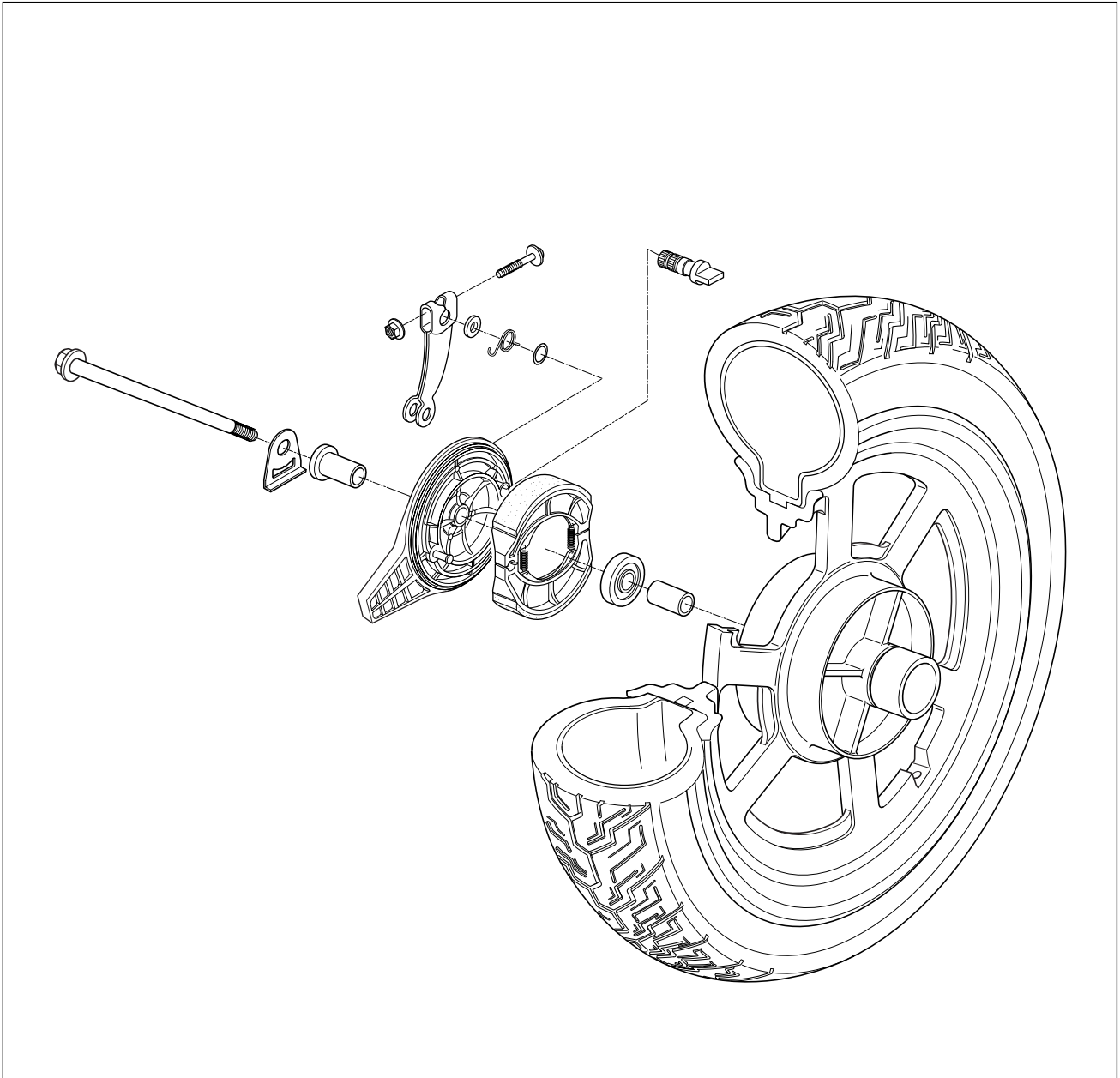
● Tighten the rear shock absorber upper bolt ②, right and left



- After installing the drive chain to the rear sprocket, adjust the drive chain.
- Tighten both chain adjusting nuts securely.
- Adjust the rear brake pedal free travel. (Refer to page 2-17)



REAR BRAKE



⦿ DISASSEMBLY

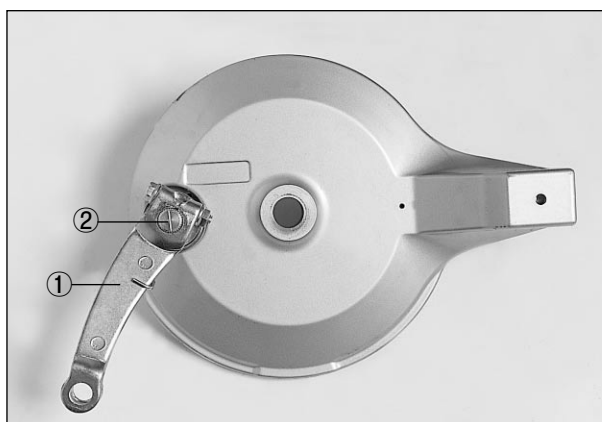
- Remove the rear wheel. (Refer to page 6-32)
- Remove the brake panel.



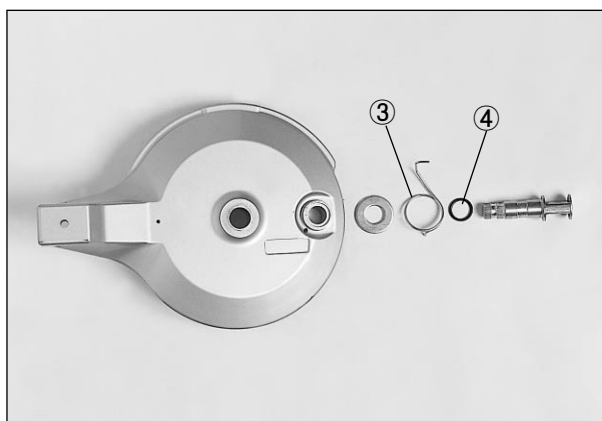
- Remove the brake shoes.



- Remove the rear brake cam lever ① and rear brake cam ② by removing nut.



- Remove the washer ③ and O-ring ④.



⊙ **INSPECTION**

■ **BRAKE DRUM**

Inspect the brake drum and measure the brake drum I.D. to determine the extent of wear. Replace the brake drum if the measurement exceeds the service limit. The value of this limit is indicated inside the brake drum.

Brake drum I.D.	Service limit
	160.7 mm

 Vernier calipers : 09900-20101



■ BRAKE SHOES

Check the brake shoe wear (Refer to page 2-17) and decide whether it should be replaced or not.

⚠ CAUTION

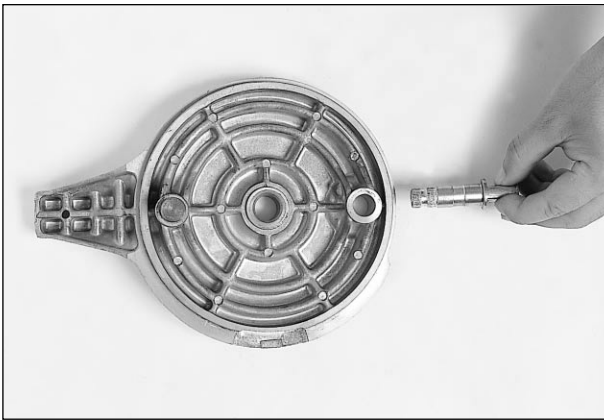
Replace the brake shoes as a set, otherwise braking performance will be adversely affected.

⊙ REASSEMBLY

■ BRAKE CAMSHAFT

● When installing the brake camshaft, apply SUPER GREASE "A" to the camshaft and cam face.

 SUPER GREASE "A"



● Install the brake shoes with spring hooks faced inside.

⚠ CAUTION

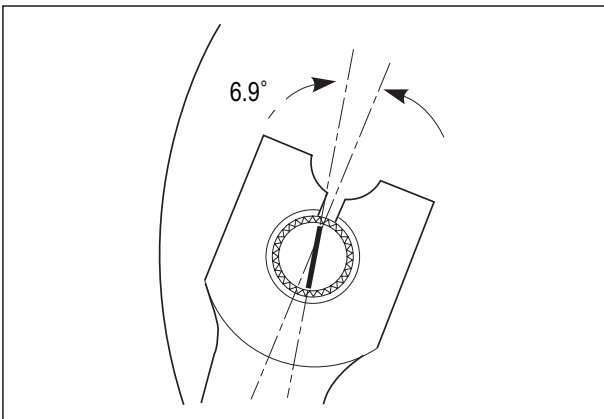
Be careful not to apply too much grease to the cam and pin. If grease gets on the lining, brake slippage will result.



■ BRAKE CAM LEVER

● Install the new O-ring and washer.

● Install the brake cam lever to the brake camshaft as shown.



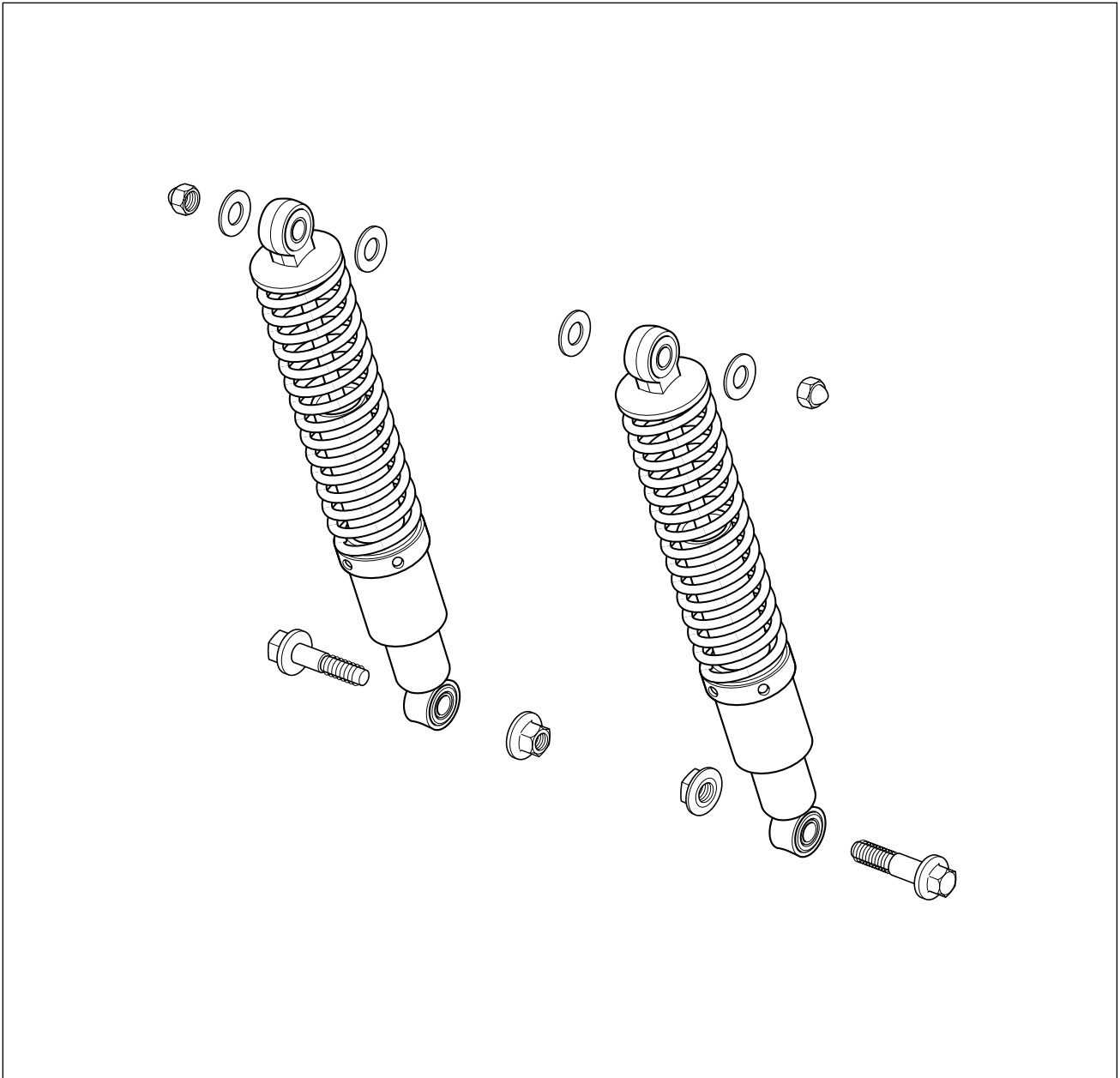
- Tighten the brake cam lever nut to the specified torque.

 Rear brake cam lever nut : 8~12 N · m (0.8~1.2 kg · m)



- Install the rear wheel. (Refer to page 6-36)
- Adjust the rear brake pedal free travel. (Refer to page 2-17)

REAR SHOCK ABSORBER



● REMOVAL

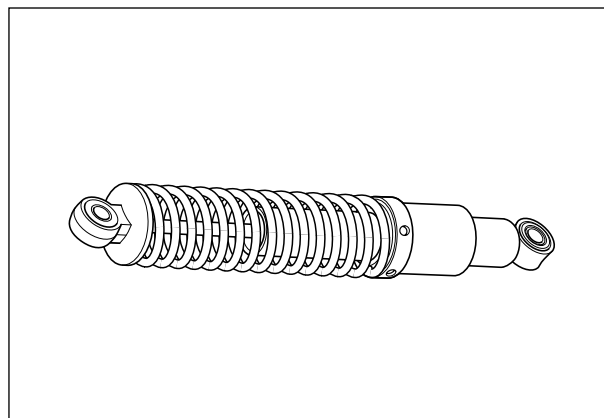
- Remove the right and left rear frame cover. (Refer to page 6-2)
- Remove the right and left rear shock absorbers by removing their nuts.

⦿ **INSPECTION**

Inspect the rear shock absorber for damage and oil leakage. If any defects are found, replace the rear shock absorber with a new one.

⚠ CAUTION

Do not attempt to disassemble the rear shock absorber. It is unserviceable.



⦿ **REMountING**

● Install the rear shock absorber and tighten the nuts to the specified torque.

- 🔧 Shock absorber mounting nut (upper)
: 20~30 N · m (2.0~3.0 kg · m)
- Shock absorber mounting nut (lower)
: 35~55 N · m (3.5~5.5 kg · m)

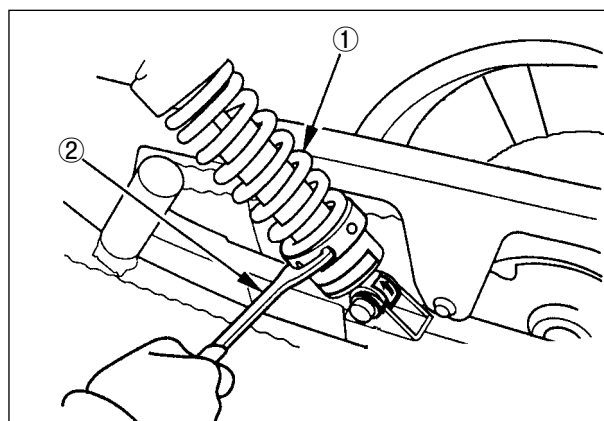


⦿ **SPRING PRE-LOAD ADJUSTMENT**

● Adjust the rear shock absorber spring pre-load.

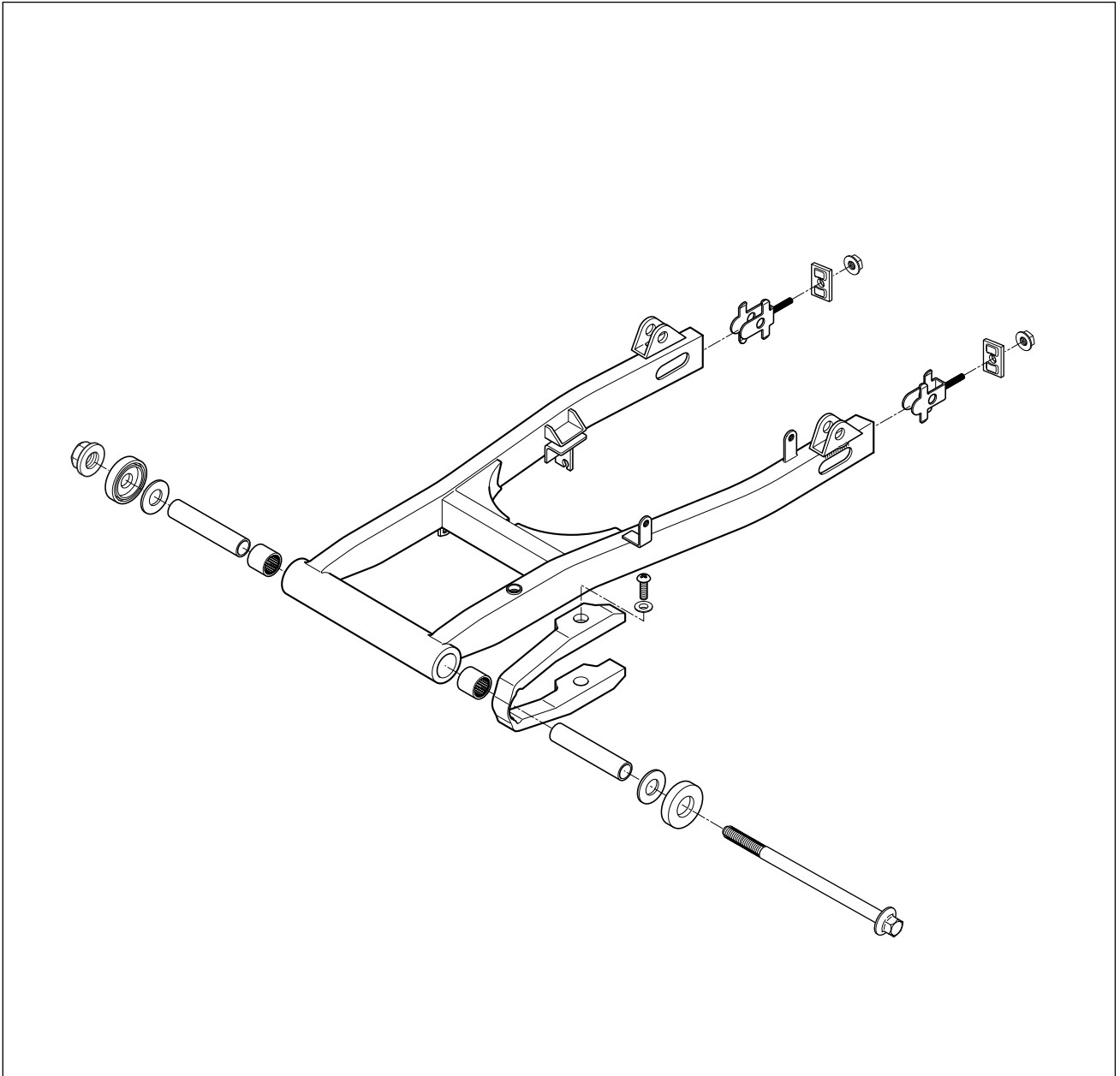
Rear shock absorber	Standard
spring length	199.8 mm

Rear shock absorber	Standard
spring pre-load	1/5 position



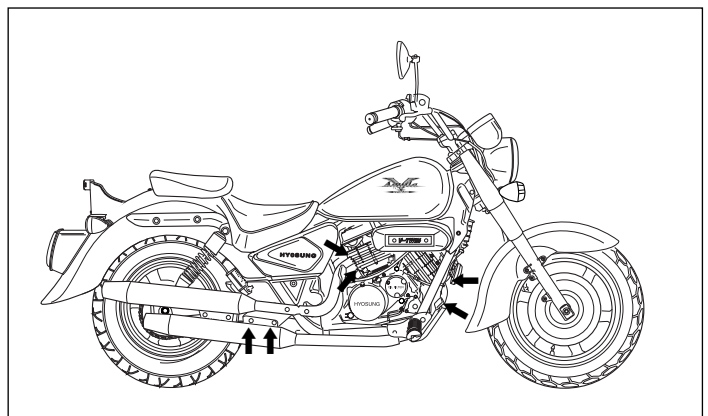
① Rear shock absorber ② Pin spanner

SWINGARM

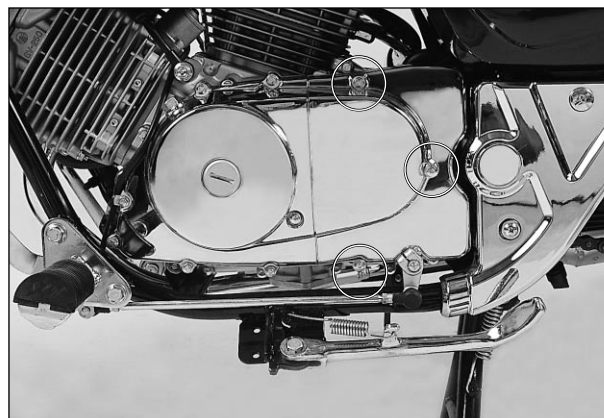


● REMOVAL

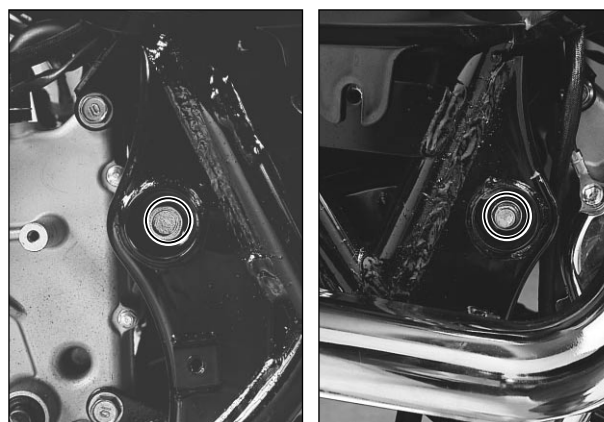
- Remove the rear wheel. (Refer to page 6-32)
- Remove the exhaust pipe and mufflers. (Refer to page 3-2)



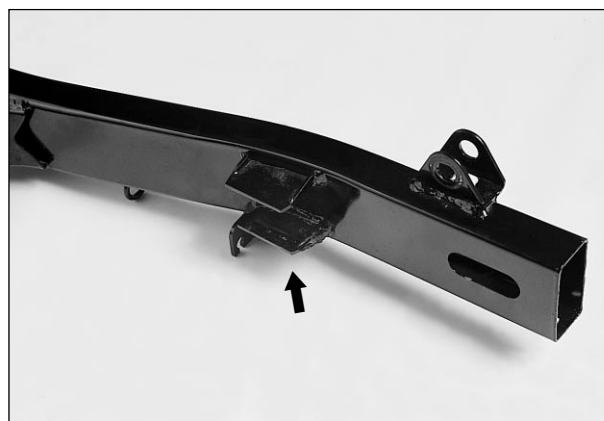
- Remove the engine sprocket cover.



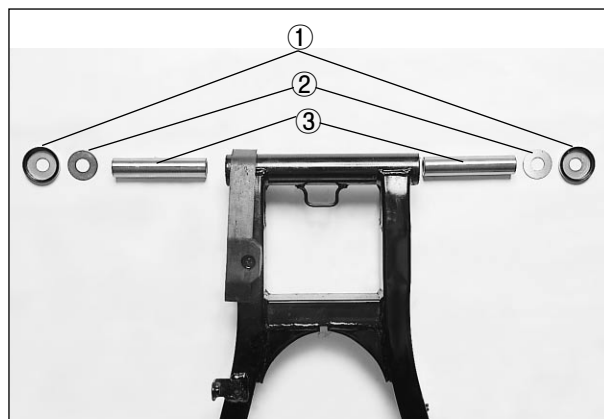
- Remove the swingarm pivot nut and washer.
- Remove the swingarm by removing the pivot shaft.



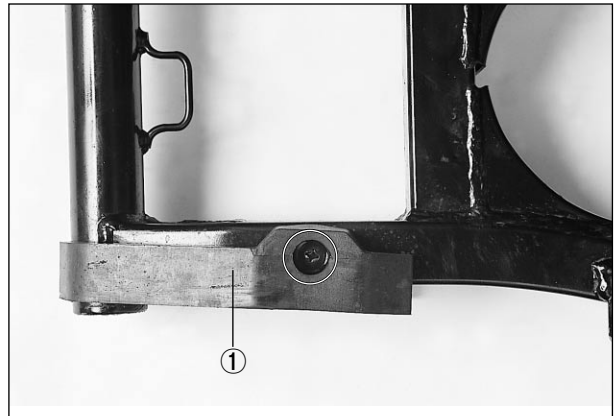
- Remove the rear brake hub from the swingarm.



- Remove the dust covers ①, washers ② and spacers ③.



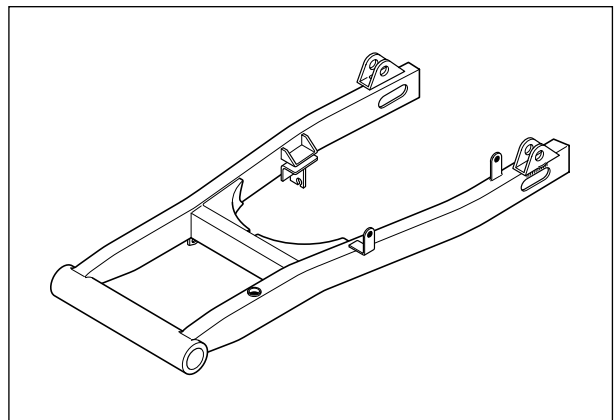
- Remove the chain buffer ① from the swingarm.



⊙ **INSPECTION**

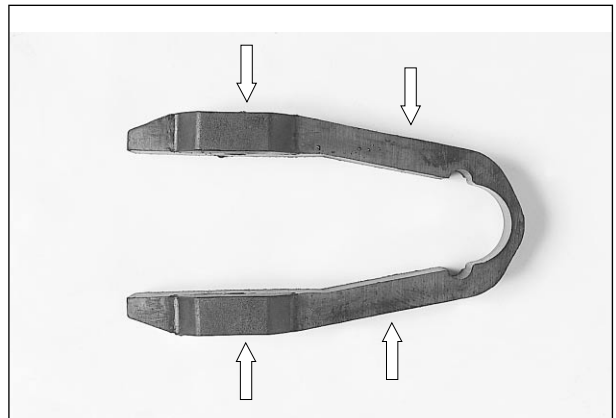
■ **SWINGARM**

Inspect the swingarm for damage. If any defects are found, replace the swingarm with a new one.



■ **CHAIN BUFFER**

Inspect the chain buffer for wear and damage. If any defects are found, replace the chain buffer with a new one.

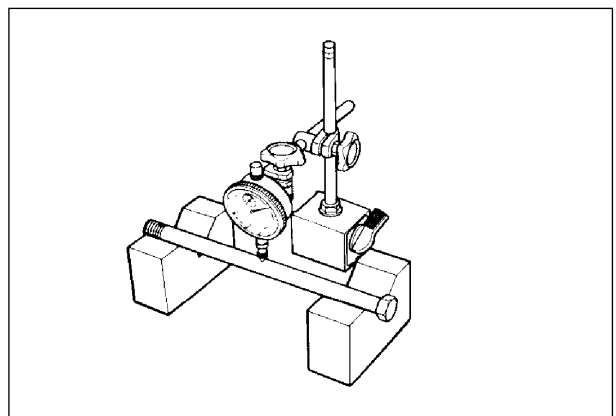


■ **SWINGARM PIVOT SHAFT**

Measure the pivot shaft runout using the dial gauge. If the pivot shaft exceeds the service limit, replace it with a new one.

Swingarm pivot shaft runout	Service limit
	0.6 mm

- Dial gauge : 09900-20606
- Magnetic stand : 09900-20701
- V-block : 09900-21304



■ SWINGARM PIVOT SPACERS AND DUST SEALS


Inspect the swingarm pivot spacers and dust seals for damage. If any defects are found, replace the spacer with a new one.

■ SWINGARM NEEDLE BEARINGS

Insert the spacers into the needle bearings, rotate the spacer and check for abnormal noise and smooth rotation.

If there is anything unusual, replace the bearing(-s) with a new one.

- Remove the swingarm needle bearings using the special tool.

 **Bearing remover(φ 17mm) : 09923-73210**

CAUTION

The removed bearings should be replaced with new ones.

⦿ REASSEMBLY

Reassemble the swingarm and rear shock absorber in the reverse order of disassembly.

Pay attention to the following points :


- Press the needle bearings into the swingarm pivot using the special tool.

 **Steering race installer : 09941-34513**

- Apply SUPER GREASE "A" to the needle bearing and spacers.

 **SUPER GREASE "A"**

- Install the swingarm and tighten the swingarm pivot nut to the specified torque.

 **Swingarm pivot nut : 45-70 N · m (4.5-7.0 kg · m)**

- Install the rear shock absorber. (Refer to page 6-44)
- Install the rear wheel. (Refer to page 6-37)
- Adjust the following points :
 - Drive chain slack : Refer to page 2-13
 - Rear brake pedal free travel : Refer to page 2-17

