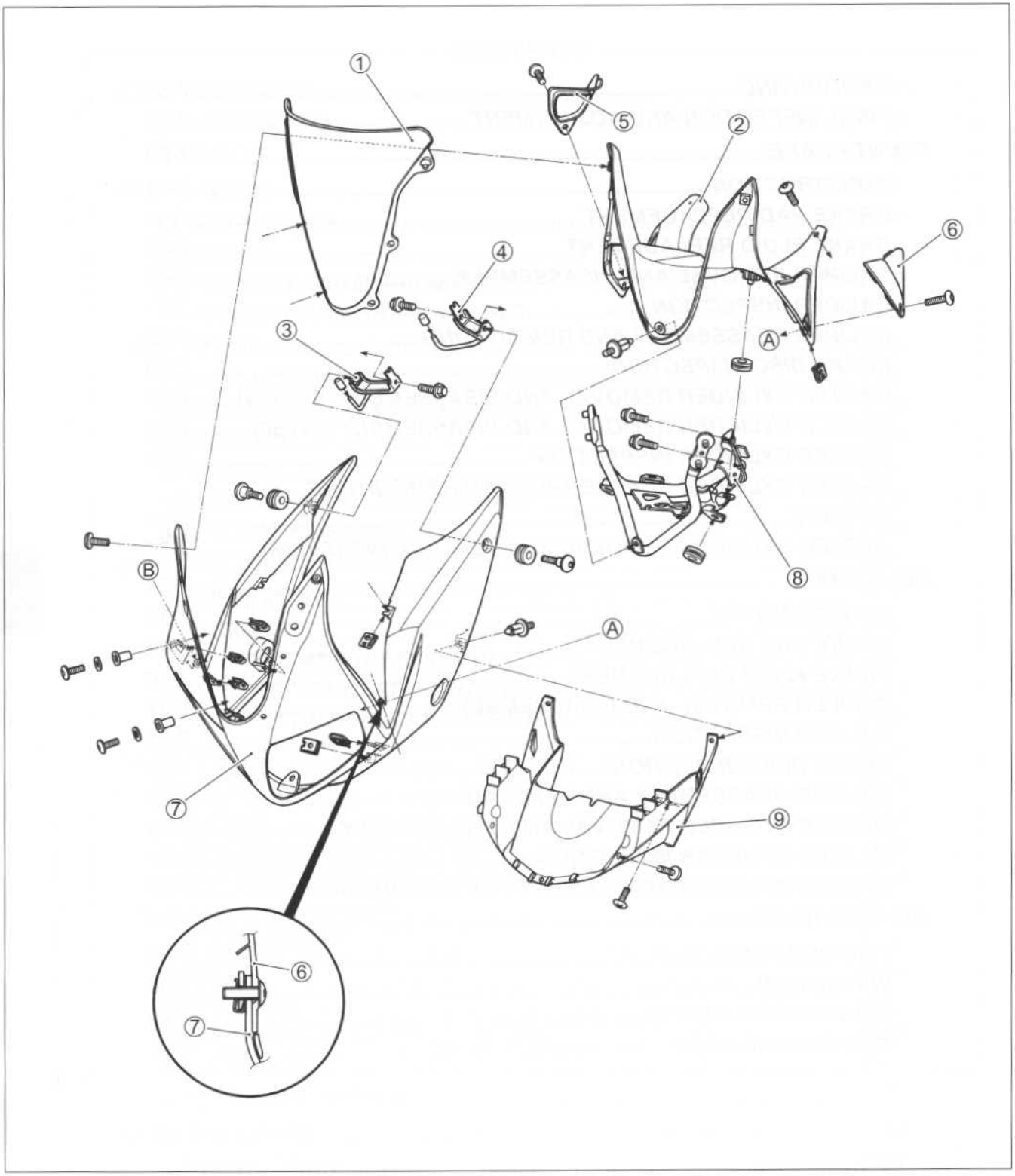
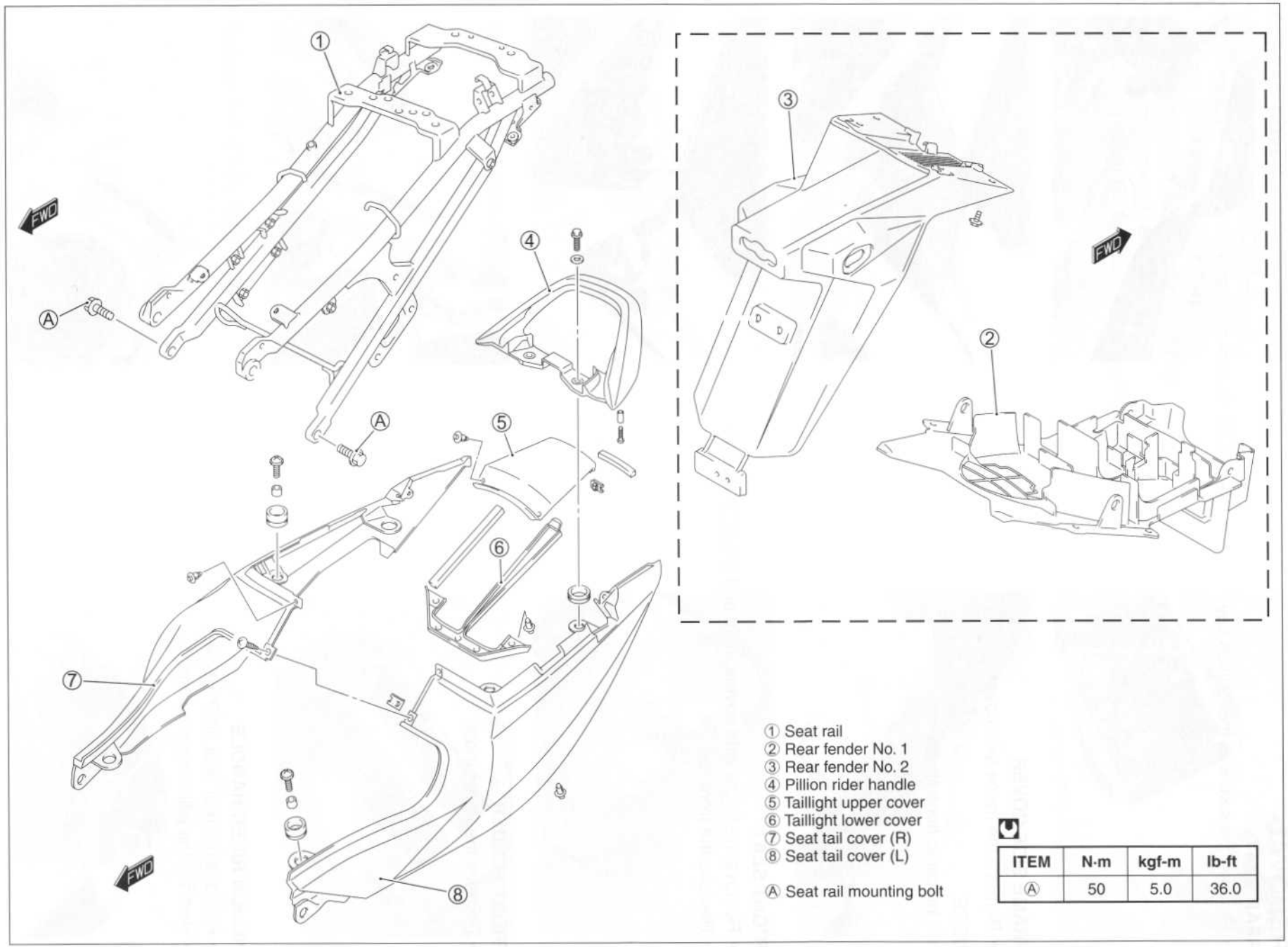
CHASSIS

CONTENTS

EXTERIOR PARTS
CONSTRUCTION



① Wind screen
② Meter panel
③ Cowling bracket, RH
④ Cowling bracket, LH
⑤ Meter panel lid, RH
⑥ Meter panel lid, LH
⑦ Body cowling
⑧ Cowling brace
⑨ Cowling inner cover



① Seat rail
② Rear fender No. 1
③ Rear fender No. 2
④ Pillion rider handle
⑤ Taillight upper cover
⑥ Taillight lower cover
⑦ Seat tail cover (R)
⑧ Seat tail cover (L)

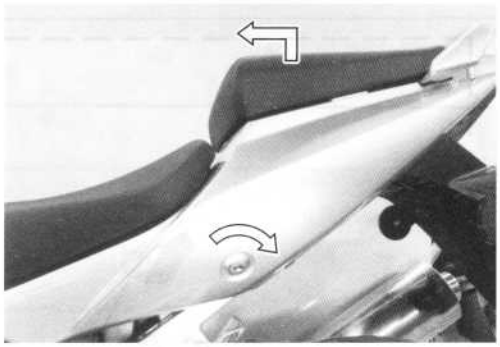
Ⓐ Seat rail mounting bolt

ITEM	N·m	kgf-m	lb-ft
Ⓐ	50	5.0	36.0

REMOVAL

REAR SEAT

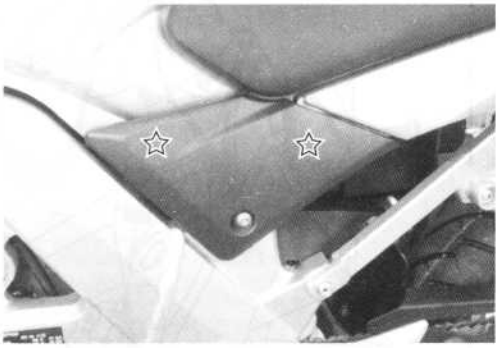
- Remove the seat with the ignition key.



FRAME SIDE COVER

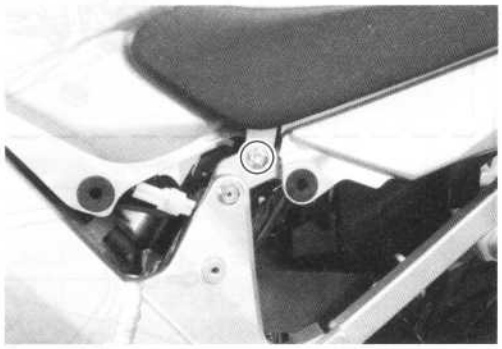
- Remove the frame side cover.

NOTE:
"☆" indicates hook location.



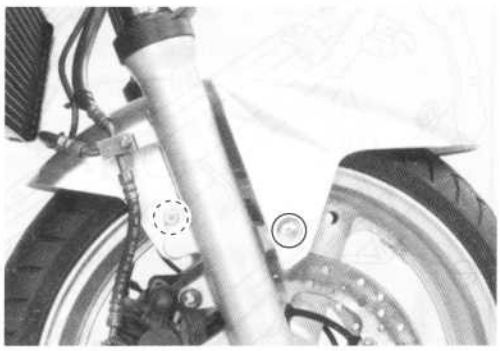
FRONT SEAT

- Remove the frame side covers, right and left. (☞Above)
- Remove the front seat.



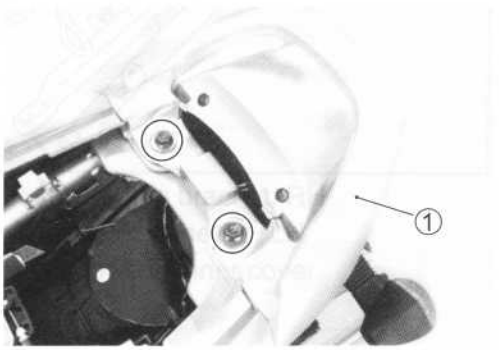
FRONT FENDER

- Remove the front fender.



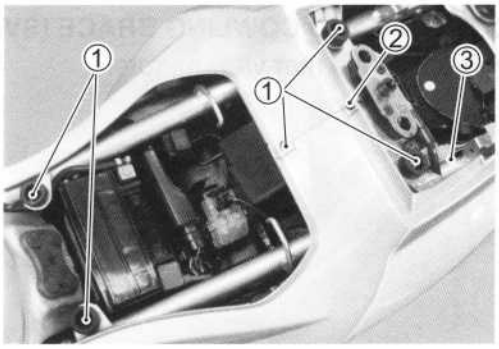
PILLION RIDER HANDLE

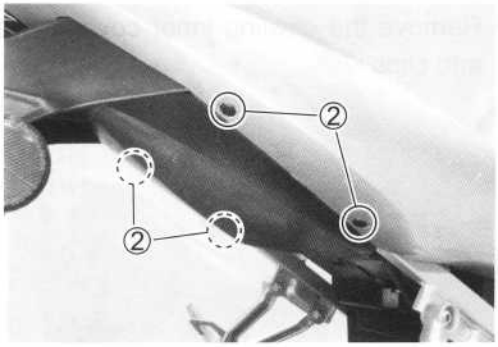
- Remove the rear seat. (☞Above)
- Remove the pillion rider handle ①.



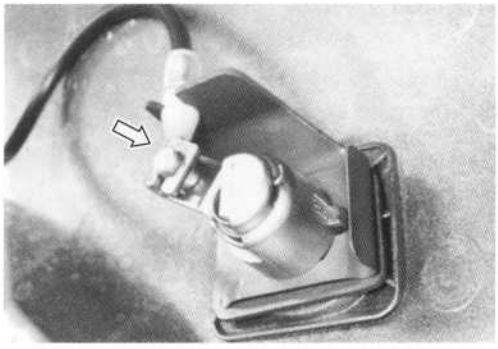
SEAT TAIL COVER

- Remove the rear seat. (☞7-4)
- Remove the frame side covers, right and left. (☞7-4)
- Remove the front seat. (☞7-4)
- Remove the pillion rider handle. (☞7-4)
- Remove the screws ① and clips ②.
- Disconnect the brake light/taillight lead wire coupler ③.

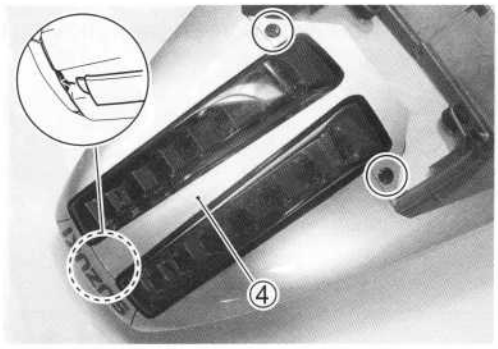




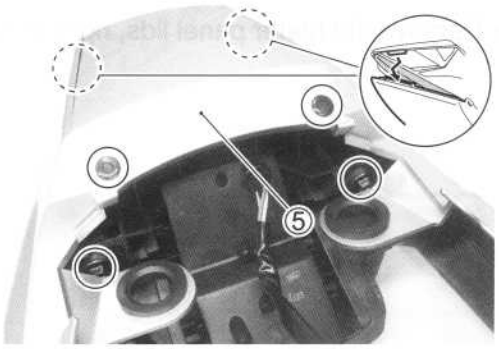
- Disconnect the seat lock cable.
- Remove the seat tail cover.



- Remove the taillight lower cover ④.



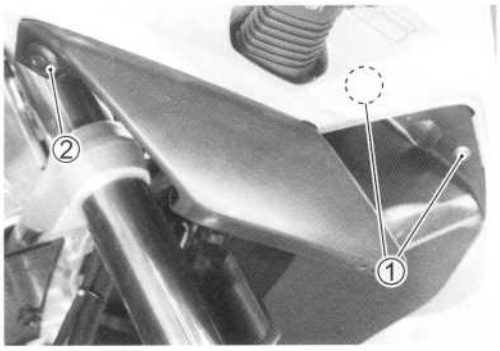
- Remove the taillight upper cover ⑤.

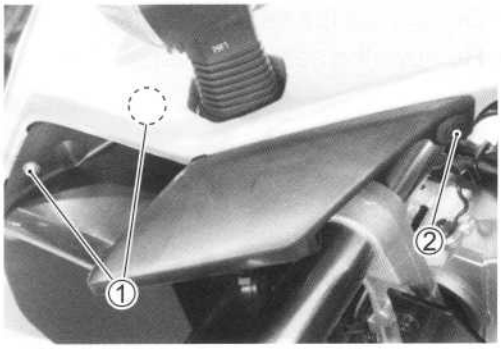


COWLING AND COWLING BRACE (SV650S)

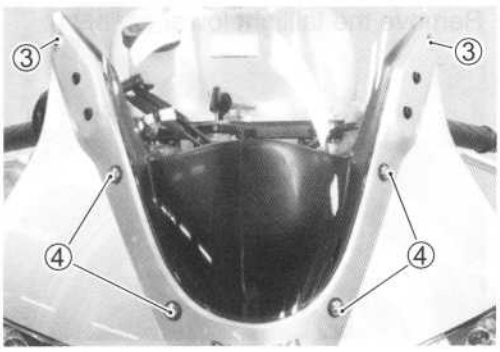
- Remove the rear view mirrors.

- Remove the cowling inner cover by removing the screws ① and clips ②.

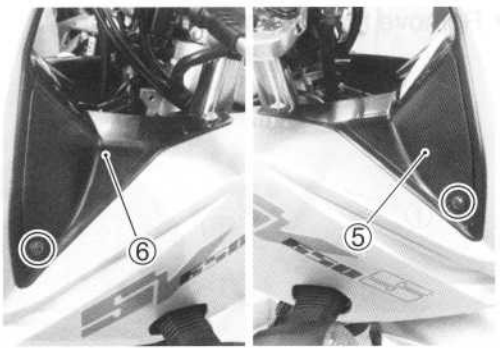




- Remove the wind screen by removing screws ③, ④.

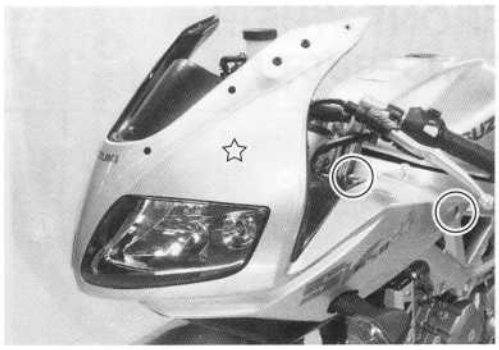


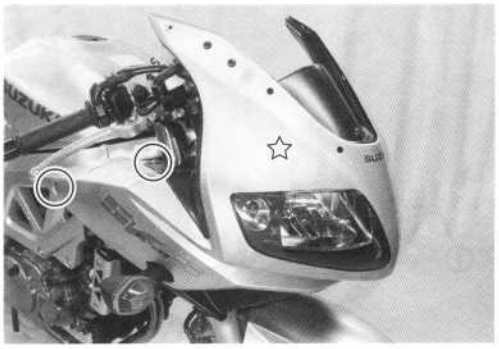
- Remove the meter panel lids, right ⑤ and left ⑥.



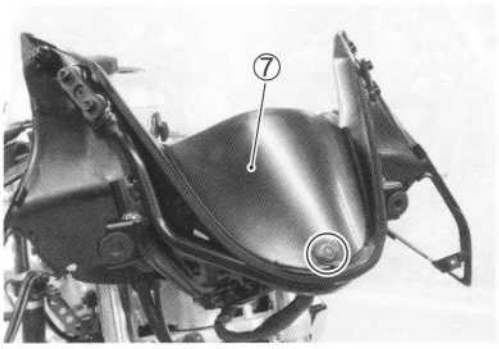
- Remove the body cowling.
- Disconnect the head light/turn light coupler.

NOTE:
"☆" indicates hook location.

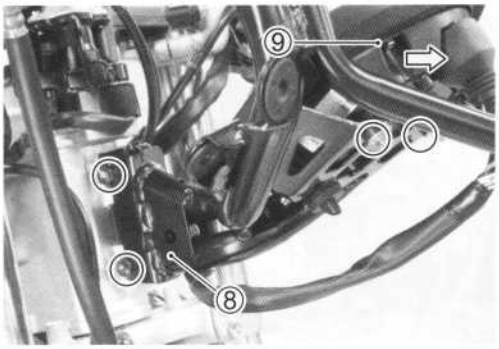




- Remove the meter panel ⑦.



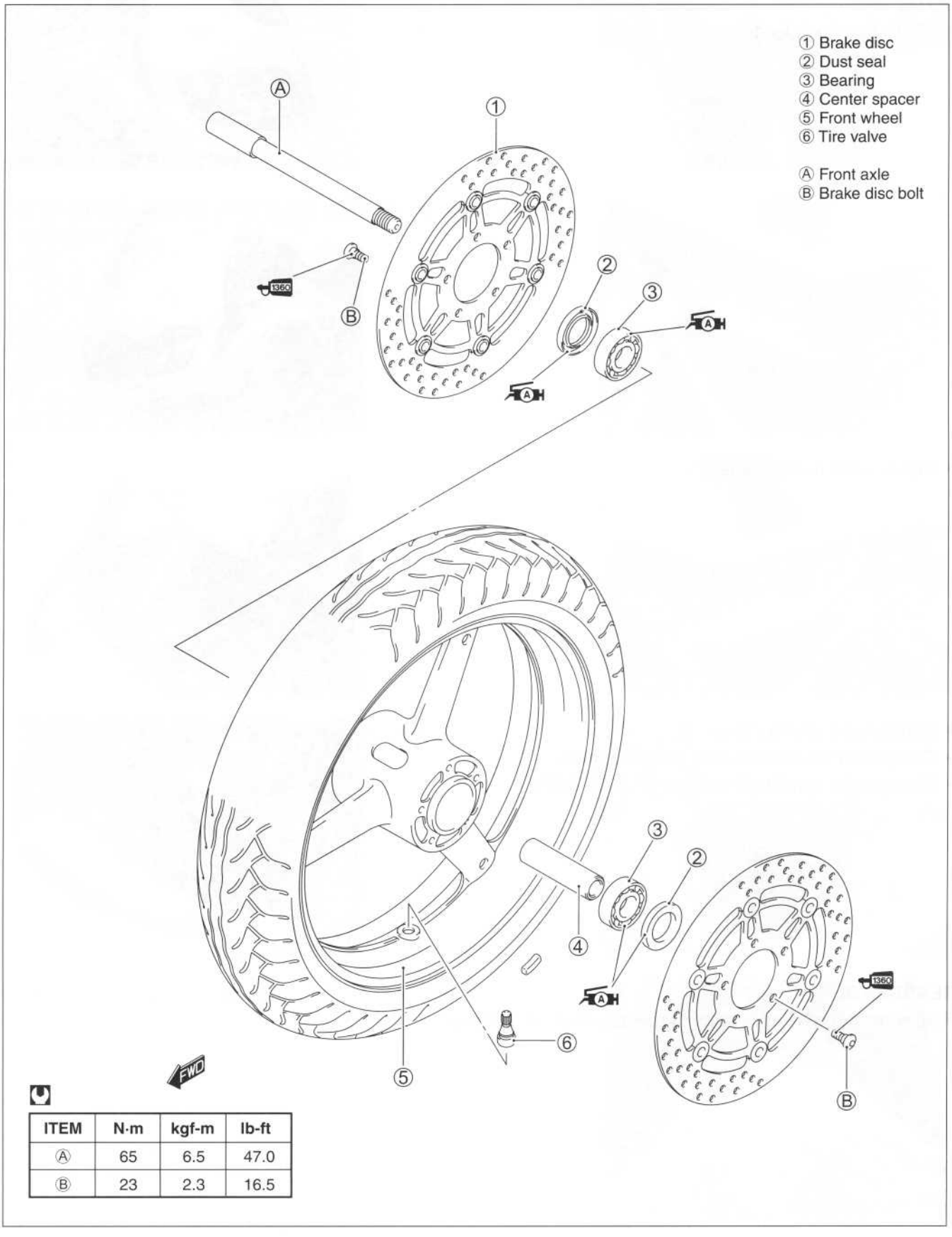
- Remove the cowling brace ⑧.
- Disconnect the combination meter couplers.
- Remove the combination meter ⑨. (☞8-29)



REASSEMBLY

Reassemble the exterior parts in reverse order of removal.

FRONT WHEEL
CONSTRUCTION



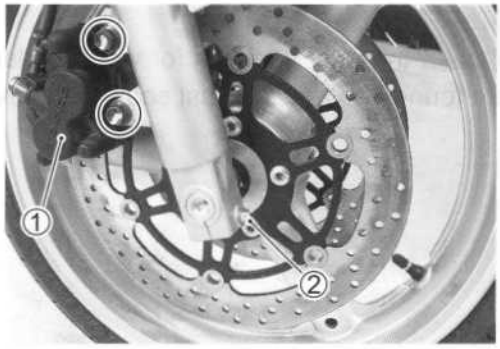
ITEM	N·m	kgf-m	lb-ft
Ⓐ	65	6.5	47.0
Ⓑ	23	2.3	16.5

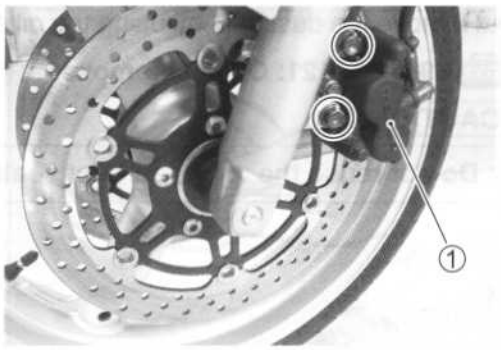
REMOVAL

- Remove the right and left brake calipers ①.
- Loosen the axle pinch bolt ② on the right front fork leg.

CAUTION

Do not operate the brake lever while removing the calipers.



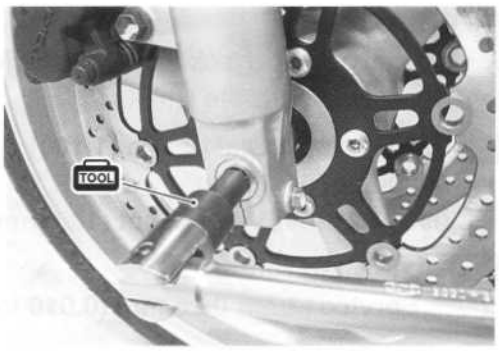


- Slightly loosen the front axle by using the special tool.

TOOL 09900-18710: Hexagon bit 12 mm

- Raise the front wheel off the ground and support the motorcycle with a jack or a wooden block.
- Remove the front axle and the front wheel.

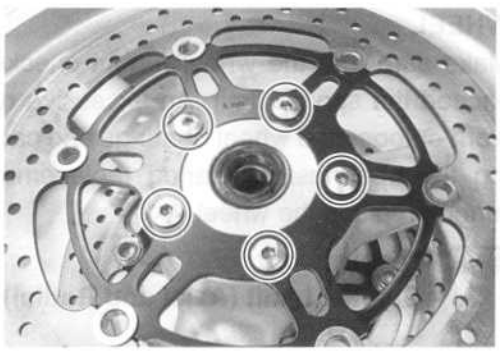
NOTE:
After removing the front wheel, fit the calipers temporarily to the original positions.



INSPECTION AND DISASSEMBLY

TIRE (☞7-89)
BRAKE DISC (☞7-69)

- Remove the brake discs.



DUST SEAL

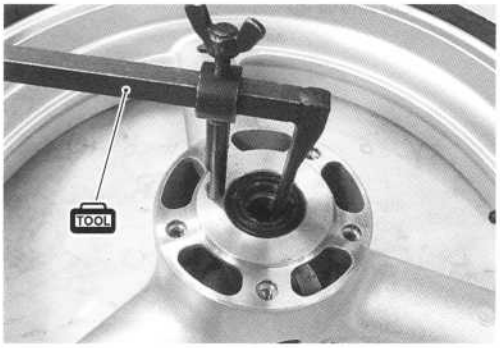
Inspect the dust seal lips for wear or damage. If any damages are found, replace the dust seals with new ones.

- Remove the dust seal by using the oil seal remover.

TOOL 09913-50121: Oil seal remover

CAUTION

Do not reuse the removed dust seals.

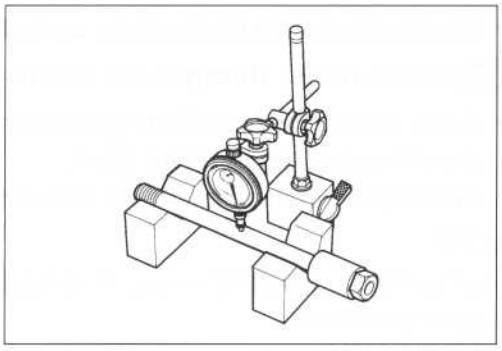


FRONT AXLE

Using a dial gauge, check the front axle for runout and replace it if the runout exceeds the limit.

TOOL 09900-20607: Dial gauge (1/100)
09900-20701: Magnetic stand
09900-21304: V-block set (100 mm)

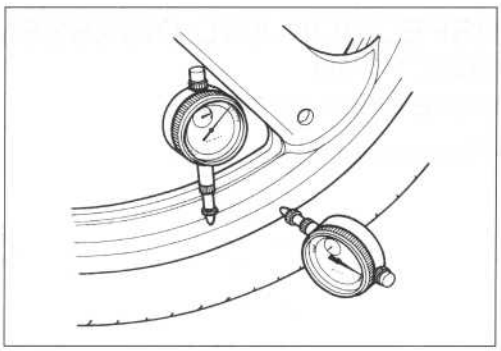
DATA Axle shaft runout
Service Limit: 0.25 mm (0.010 in)



WHEEL

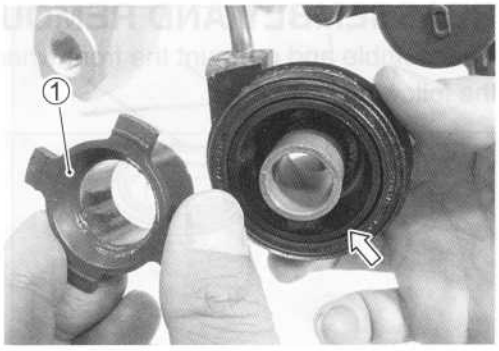
Make sure that the wheel runout checked as shown does not exceed the service limit. An excessive runout is usually due to worn or loosened wheel bearings and can be reduced by replacing the bearings. If bearing replacement fails to reduce the runout, replace the wheel.

DATA Wheel runout
Service Limit (Axial and Radial): 2.0 mm (0.08 in)



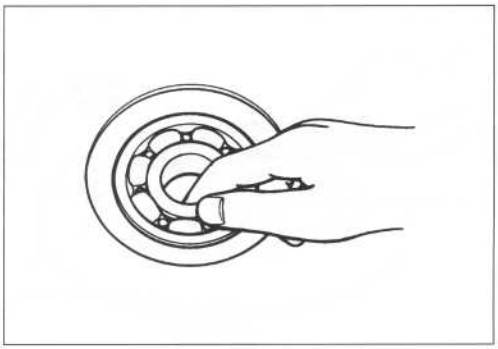
SPEED SENSOR

Inspect the smooth rotation of the speed sensor rotor ① by hand.
Inspect the dust seal for damage or wear.



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.

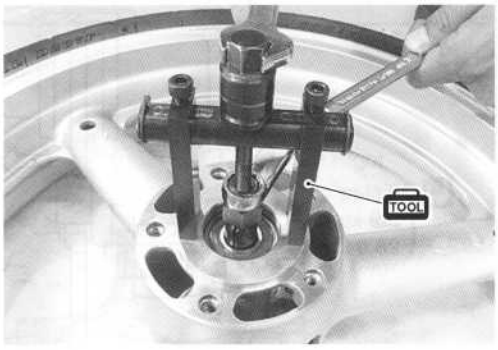


- Remove the wheel bearings by using the special tool.

TOOL 09921-20240: Bearing remover set

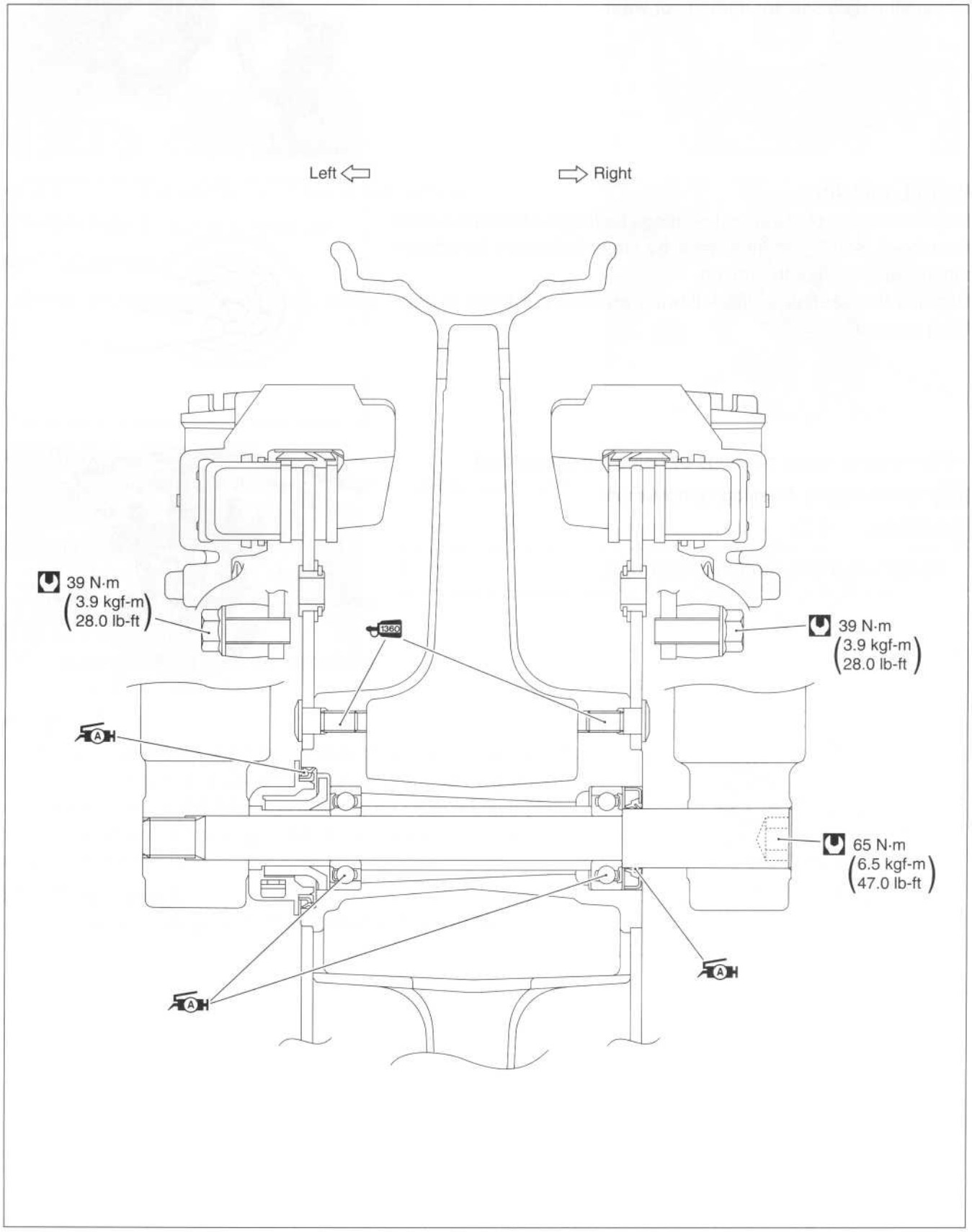
CAUTION

Do not reuse the removed bearings.



REASSEMBLY AND REMOUNTING

Reassemble and remount the front wheel in the reverse order of removal and disassembly. Pay attention to the following points:



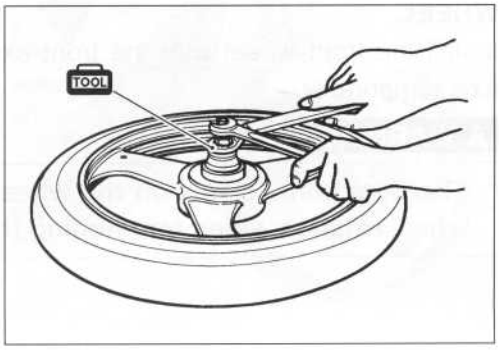
WHEEL BEARING

- Apply SUZUKI SUPER GREASE to the wheel bearings.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

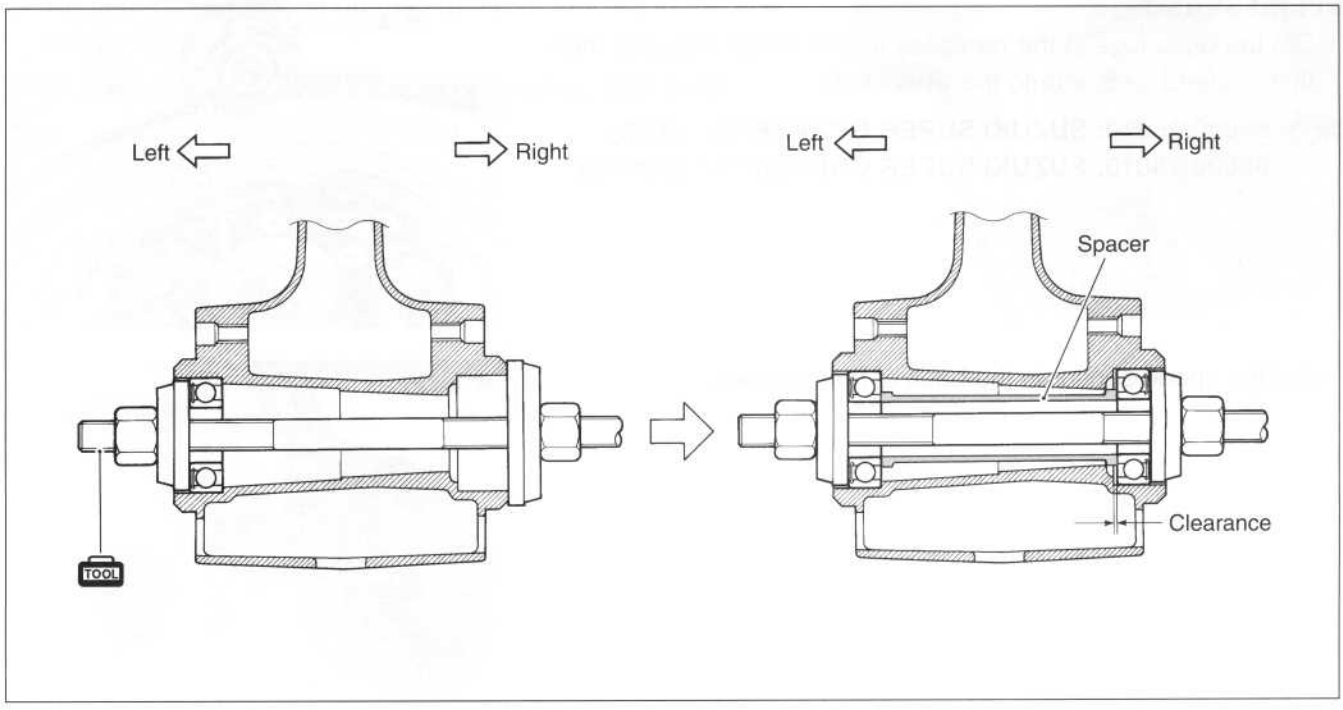
- First install the left wheel bearing, then install the right wheel bearing and spacer by using the special tools.

09941-34513: Bearing/Steering race installer set
09913-70210: Bearing installer set



CAUTION

The sealed cover of the bearing must face outside.



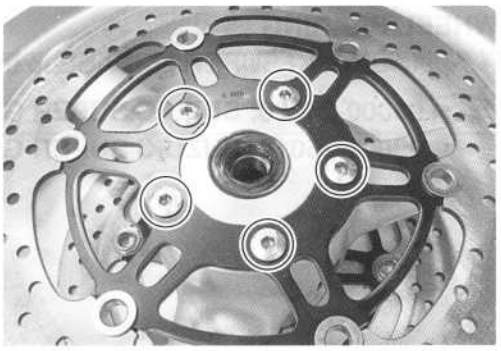
BRAKE DISC

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

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

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

99000-32130: THREAD LOCK SUPER "1360"

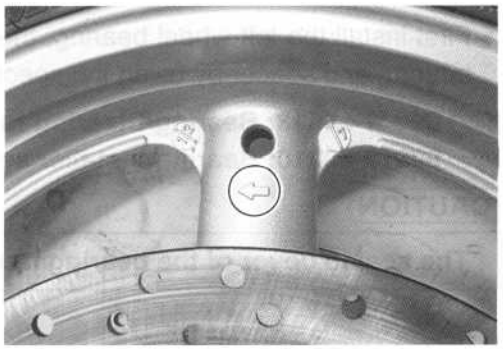


WHEEL

Install the front wheel with the front axle and tighten the front axle temporarily.

⚠ WARNING

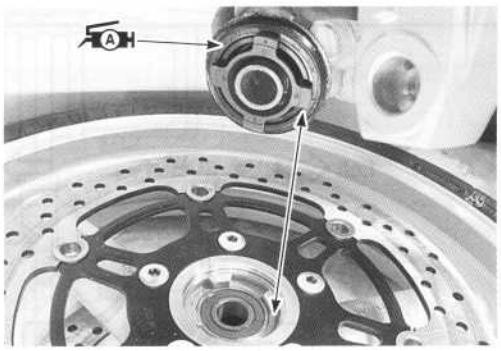
The directional arrow on the wheel must point to the wheel rotation, when remounting the wheel.



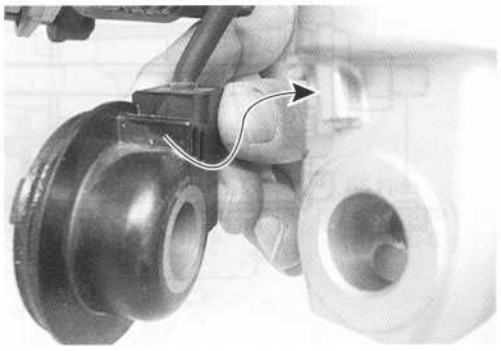
SPEED SENSOR

- Set the drive lugs in the recesses on the wheel hub and then fit the speed sensor onto the wheel hub.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



- Set the speed sensor in the back of fork stopper.

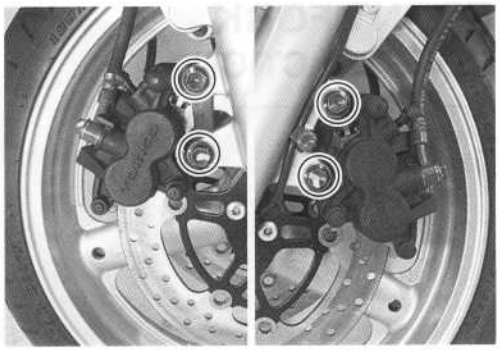


BRAKE CALIPER

- Tighten the brake caliper mounting bolts to the specified torque.

Front brake caliper mounting bolt:
39 N·m (3.9 kgf-m, 28.0 lb-ft)

NOTE:
Push the pistons all the way into the caliper and remount the calipers.



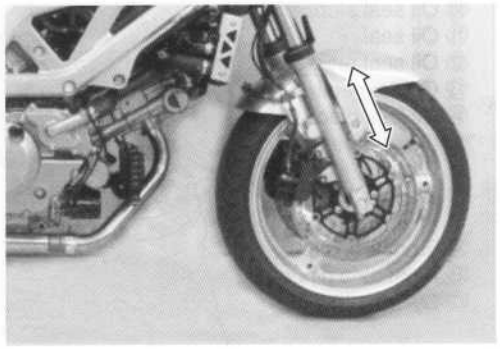
FRONT AXLE

- Tighten the front axle to the specified torque with special tool.

09900-18710: Hexagon bit 12 mm

Front axle: 65 N·m (6.5 kgf-m, 47.0 lb-ft)

NOTE:
Before tightening the two axle pinch bolts on the right front fork leg, move the front fork up and down 4 or 5 times without applying front brake.



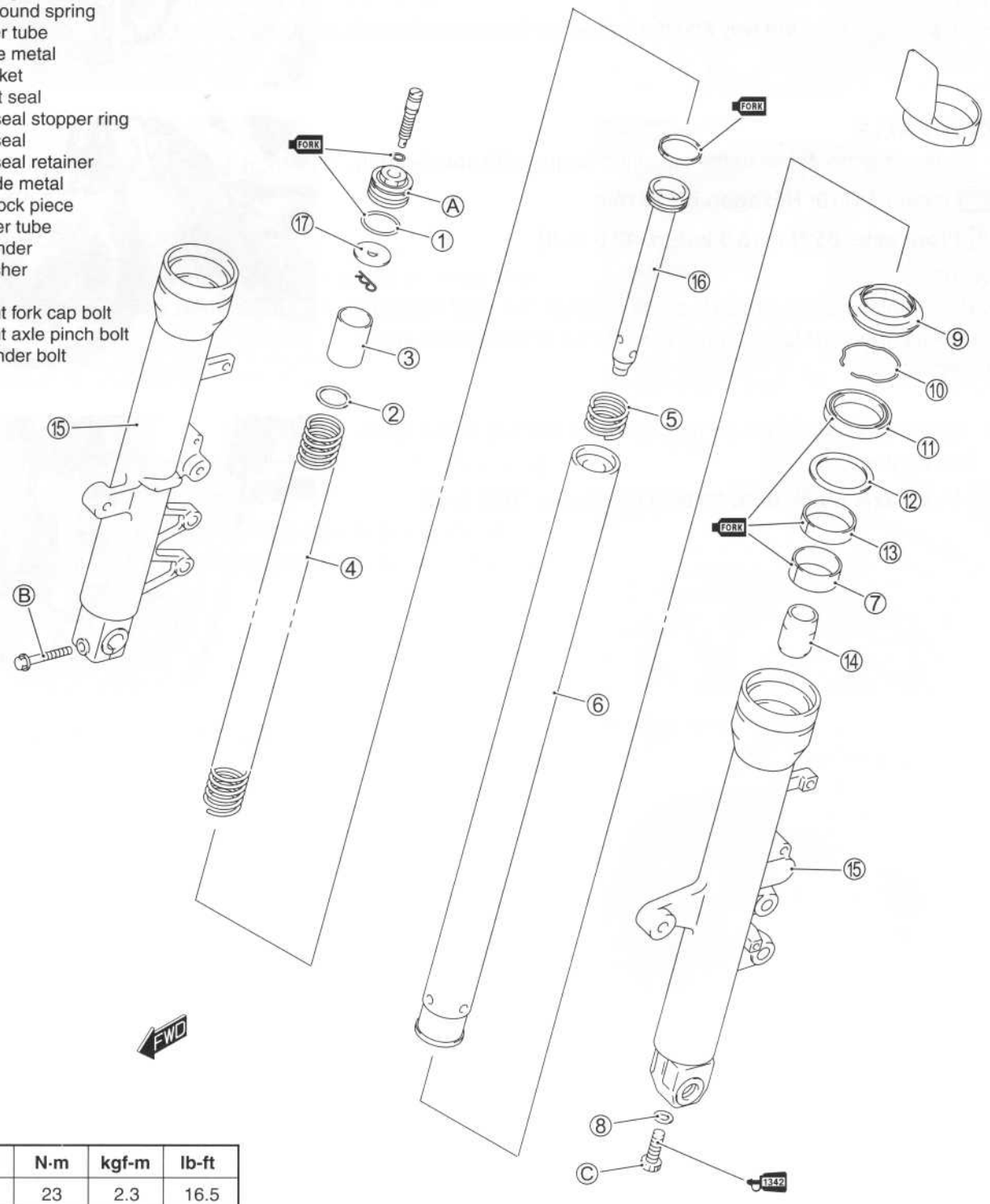
- Tighten axle pinch bolt on the right front fork leg to the specified torque.

Front axle pinch bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

FRONT FORK
CONSTRUCTION

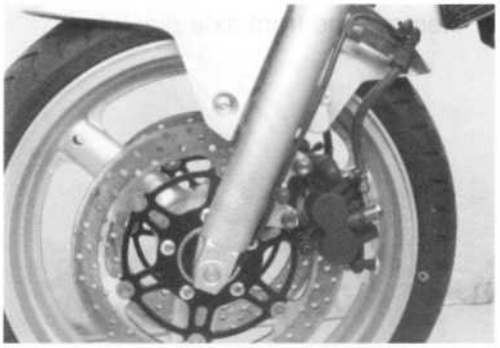
① O-ring
② Washer
③ Spacer
④ Spring
⑤ Rebound spring
⑥ Inner tube
⑦ Slide metal
⑧ Gasket
⑨ Dust seal
⑩ Oil seal stopper ring
⑪ Oil seal
⑫ Oil seal retainer
⑬ Guide metal
⑭ Oil lock piece
⑮ Outer tube
⑯ Cylinder
⑰ Washer

Ⓐ Front fork cap bolt
Ⓑ Front axle pinch bolt
Ⓒ Cylinder bolt

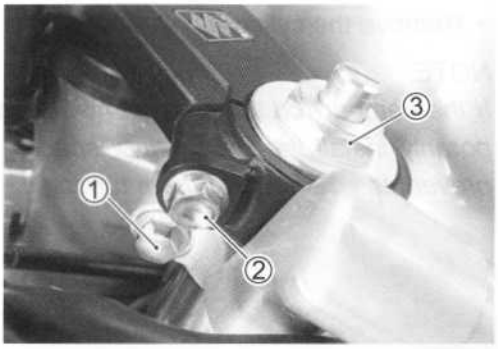


ITEM	N·m	kgf-m	lb-ft
Ⓐ	23	2.3	16.5
Ⓑ	23	2.3	16.5
Ⓒ	20	2.0	14.5

REMOVAL AND DISASSEMBLY

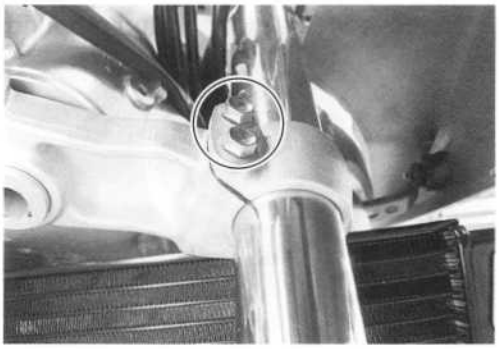


- Remove the front wheel. (☞7-9)
- Remove the brake hose clamp bolt and speed sensor clamp bolts.
- Remove the front fender. (☞7-4)



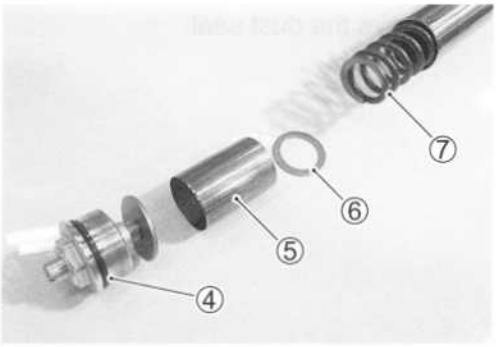
- Loosen the handlebar clamp bolt ①. (SV650S)
- Loosen the front fork upper clamp bolt ②.

NOTE:
Slightly loosen the front fork cap bolts ③ before loosening the lower clamp bolts to facilitate later disassembly.

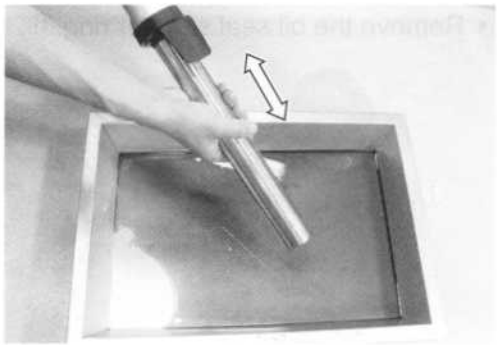


- Loosen the front fork lower clamp bolts.

NOTE:
Hold the front fork by hand to prevent it from sliding out of the steering stem.

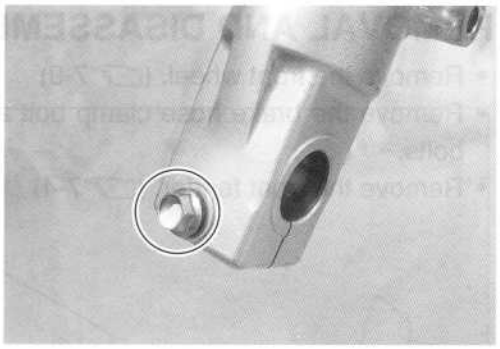


- Remove the front fork cap bolt ④.
- Remove the spacer ⑤ the washer ⑥ and the spring ⑦.



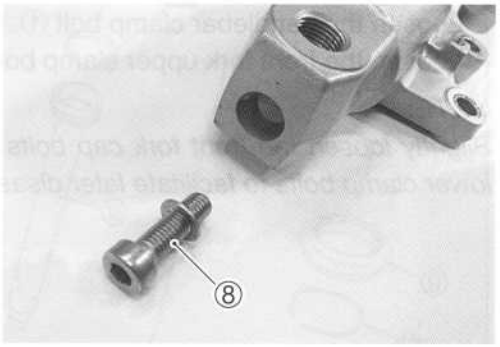
- Invert the fork and drain the fork oil out of the fork by stroking.
- Hold the fork inverted for a few minutes to drain oil completely.

- Remove the front axle pinch bolt.

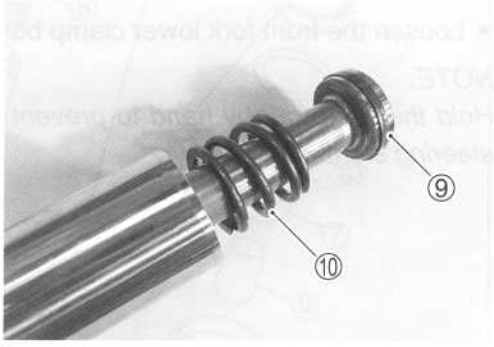


- Remove the cylinder bolt ⑧.

NOTE:
If the damper rod turns together with the damper rod bolt, temporarily install the fork spring, spacer, washer and cap bolt to prevent the damper rod from turning.



- Remove the cylinder ⑨ and rebound spring ⑩.



- Remove the dust seal.

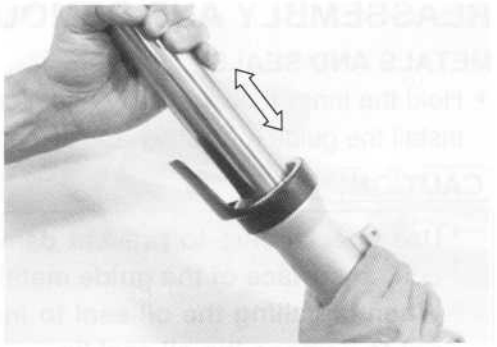
- Remove the oil seal stopper ring ⑪.

- Pull the inner tube out of the outer tube with light impact.

NOTE:
Be careful not to damage the inner tube.

CAUTION

The slide metals, oil seal and dust seal must be replaced with the new ones when reassembling the front fork.

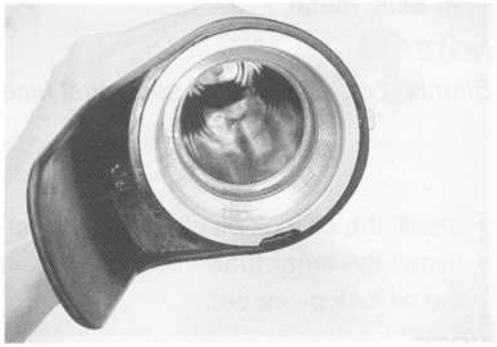


- Remove the following parts.
  - ⑫ Oil seal
  - ⑬ Oil seal retainer
  - ⑭ Guide metal
  - ⑮ Slide metal
  - ⑯ Oil lock piece

INSPECTION

INNER AND OUTER TUBES

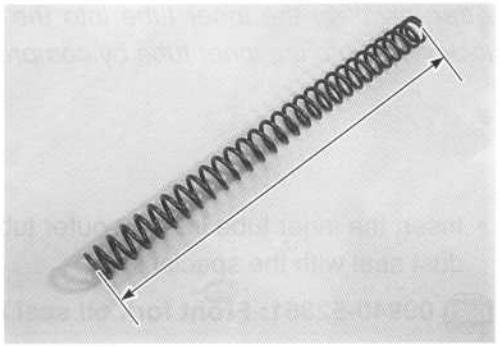
Inspect the inner tube outer surface and the outer tube inner surface for scratches. If any defects are found, replace them with the new ones.



FORK SPRING

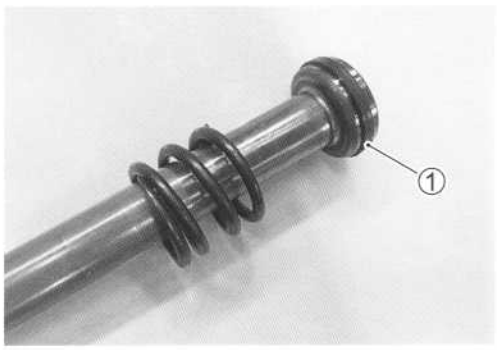
Measure the fork spring free length. If it is shorter than the service limit, replace it with a new one.

DATA Front fork spring free length
Service limit: 420 mm (16.53 in) for SV650
428 mm (16.85 in) for SV650S



CYLINDER

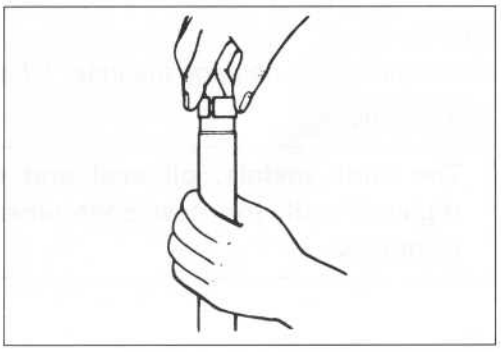
Inspect the cylinder and cylinder ring ① for damage.
If any defects are found, replace them with new ones.



REASSEMBLY AND REMOUNTING

METALS AND SEALS

- Hold the inner tube vertically and clean the metal groove and install the guide metal by hand as shown.

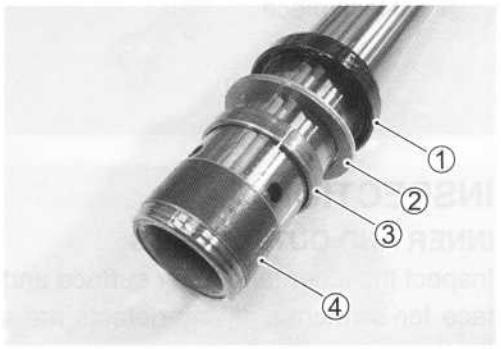


CAUTION

*** Use special care to prevent damage to the "Teflon" coated surface of the guide metal when mounting it.**
*** When installing the oil seal to inner tube, be careful not to damage the oil seal lip.**
*** Replace the removed metals and seals with new ones.**
*** Apply fork oil to the Anti-friction metals and lip of the oil seal.**

- Assemble the following parts as shown.
  ① Oil seal
  ② Oil seal retainer
  ③ Guide metal
  ④ Slide metal

NOTE:
Stamped mark on the oil seal must face upward.

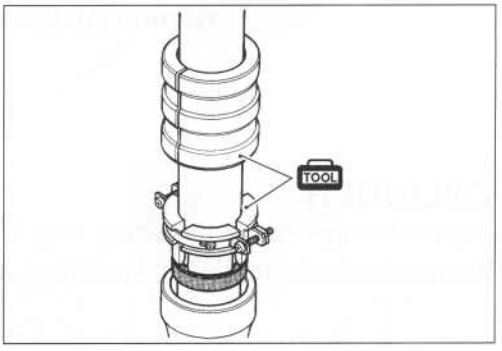


- Install the oil lock piece into the inner tube.
- Install the inner tube into the outer tube with care not to drop the oil lock piece out.

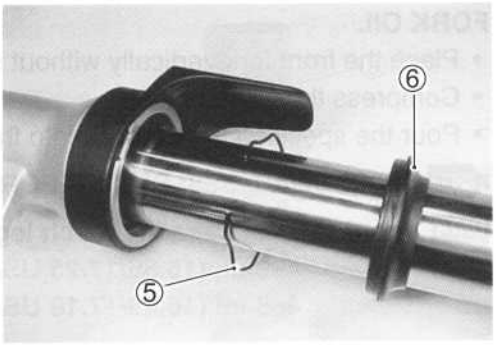
NOTE:
After installing the inner tube into the outer tube, keep the oil lock piece into the inner tube by compressing the front fork fully.

- Insert the inner tube into the outer tube and fit the oil seal and dust seal with the special tool.

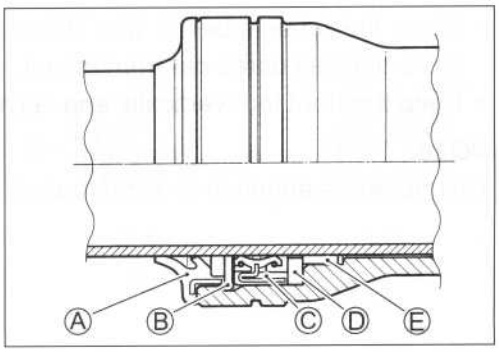
TOOL 09940-52861: Front fork oil seal installer



- Install the oil seal stopper ring ⑤ and the dust seal ⑥.

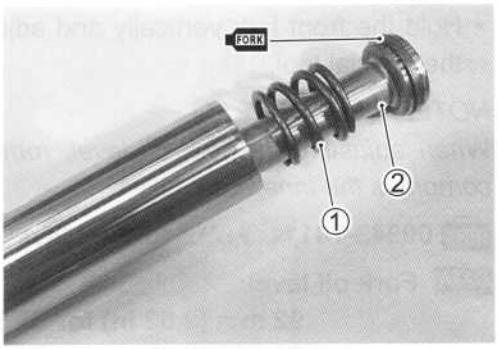


Ⓐ Dust seal
Ⓑ Oil seal stopper ring
Ⓒ Oil seal
Ⓓ Oil seal retainer
Ⓔ Guide metal



CYLINDER BOLT

- Install the rebound spring ① to the cylinder ②.
- Apply fork oil to the cylinder ring.
- Install the cylinder into the front fork.



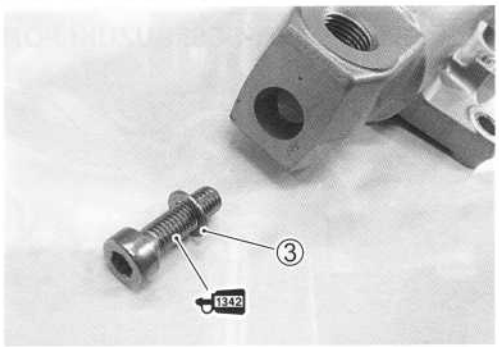
- Apply THREAD LOCK to the cylinder bolt and tighten it to the specified torque.

1342 99000-32050: THREAD LOCK "1342"

Cylinder bolt: 20 N·m (2.0 kgf-m, 14.5 lb-ft)

CAUTION

Use a new gasket ③ to prevent oil leakage.



NOTE:

** If the cylinder turns together with the cylinder bolt, temporarily install the fork spring, spacer, washer and cap bolt to prevent the cylinder from turning.*

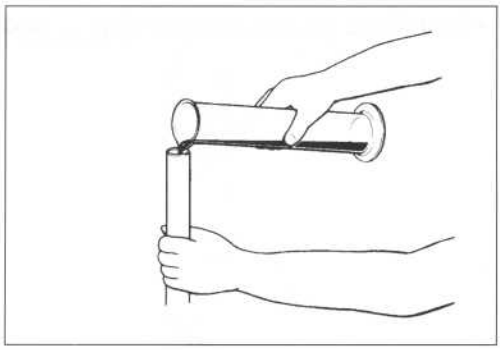
** Check the front fork for smoothness by stroking it after installing the cylinder.*

FORK OIL

- Place the front fork vertically without spring.
- Compress the front fork fully.
- Pour the specified front fork oil into the front fork.

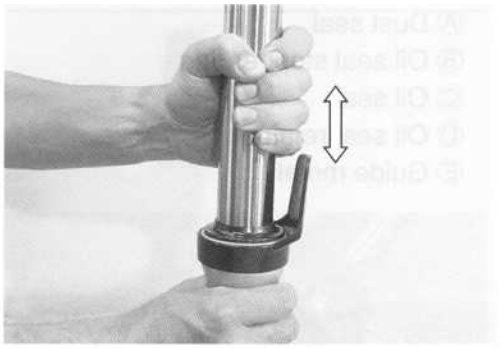
FORK 99000-99001-SS8: SUZUKI FORK OIL SS-08

DATA Front fork oil capacity (each leg):
490 ml (16.56/17.25 US/Imp oz) for SV650
488 ml (16.49/17.18 US/Imp oz) for SV650S



- Move the inner tube up and down several strokes until no more bubbles come out from the oil.
- Keep the front fork vertically and leave it during 5 – 6 minutes.

NOTE:
Take extreme attention to pump out air completely.



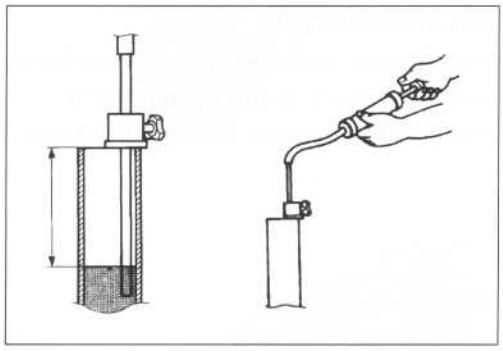
- Hold the front fork vertically and adjust the fork oil level with the special tool.

NOTE:
When adjusting the fork oil level, remove the fork spring and compress the inner tube fully.

TOOL 09943-74111: Front fork oil level gauge

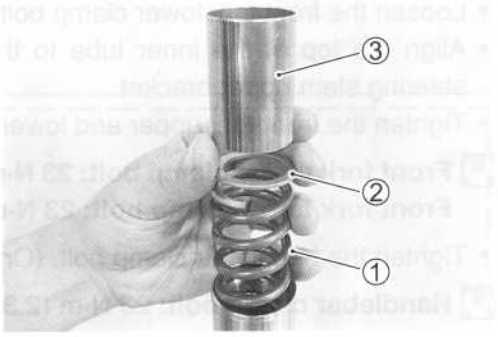
DATA Fork oil level:
92 mm (3.62 in) for SV650
94 mm (3.70 in) for SV650S

FORK 99000-99001-SS8: SUZUKI FORK OIL SS-08



FORK SPRING

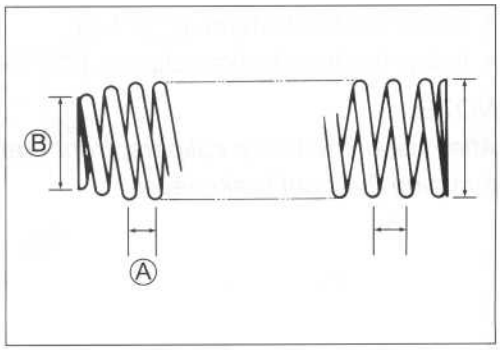
- Install the fork spring ① into the front fork.
- Install the washer ② and spacer ③.



NOTE:

** The smaller spring pitch end Ⓐ must face downward. (SV650S)*

** The smaller spring end diameter Ⓑ must face downward. (SV650)*



- Apply fork oil lightly to the O-ring.

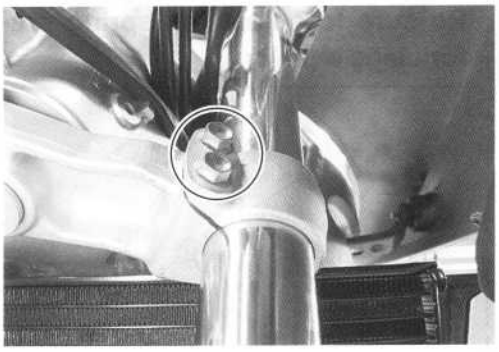
CAUTION

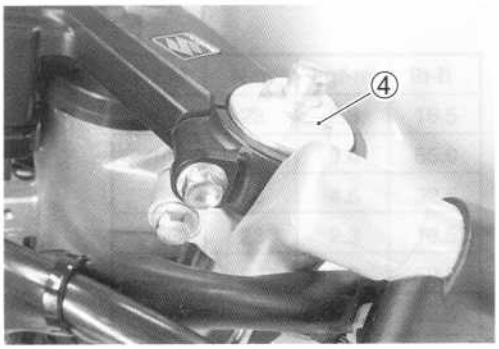
Use a new O-ring to prevent oil leakage.

- Tighten the front fork cap bolt temporarily.

- Set the front fork to the front fork lower bracket temporarily by tightening the lower clamp bolts.
- Tighten the front fork cap bolt ④ to the specified torque.

Front fork cap bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)



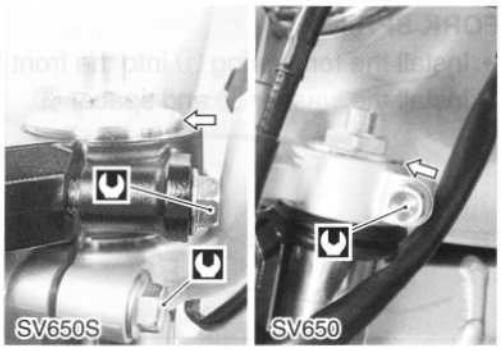


- Loosen the front fork lower clamp bolt.
- Align the top of the inner tube to the upper surface of the steering stem upper bracket.
- Tighten the front fork upper and lower clamp bolts.

Front fork upper clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)
Front fork lower clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

- Tighten the handlebar clamp bolt. (Only SV650S)

Handlebar clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)



- Install the front wheel. (☞7-9)
- Install the front brake calipers. (☞7-68)

NOTE:
After install the brake calipers, front brake should be efficient by pumping the front brake lever.

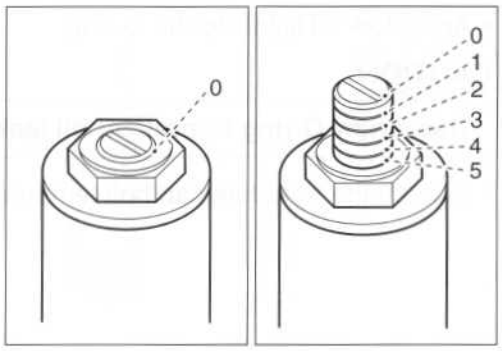
SUSPENSION SETTING

After installing the front fork, adjust the spring per-load as follows.

SPRING PRE-LOAD ADJUSTMENT

There are five grooved lines on the side of the spring adjuster. Position 0 provides the maximum spring pre-load and position 5 provides the minimum spring pre-load.

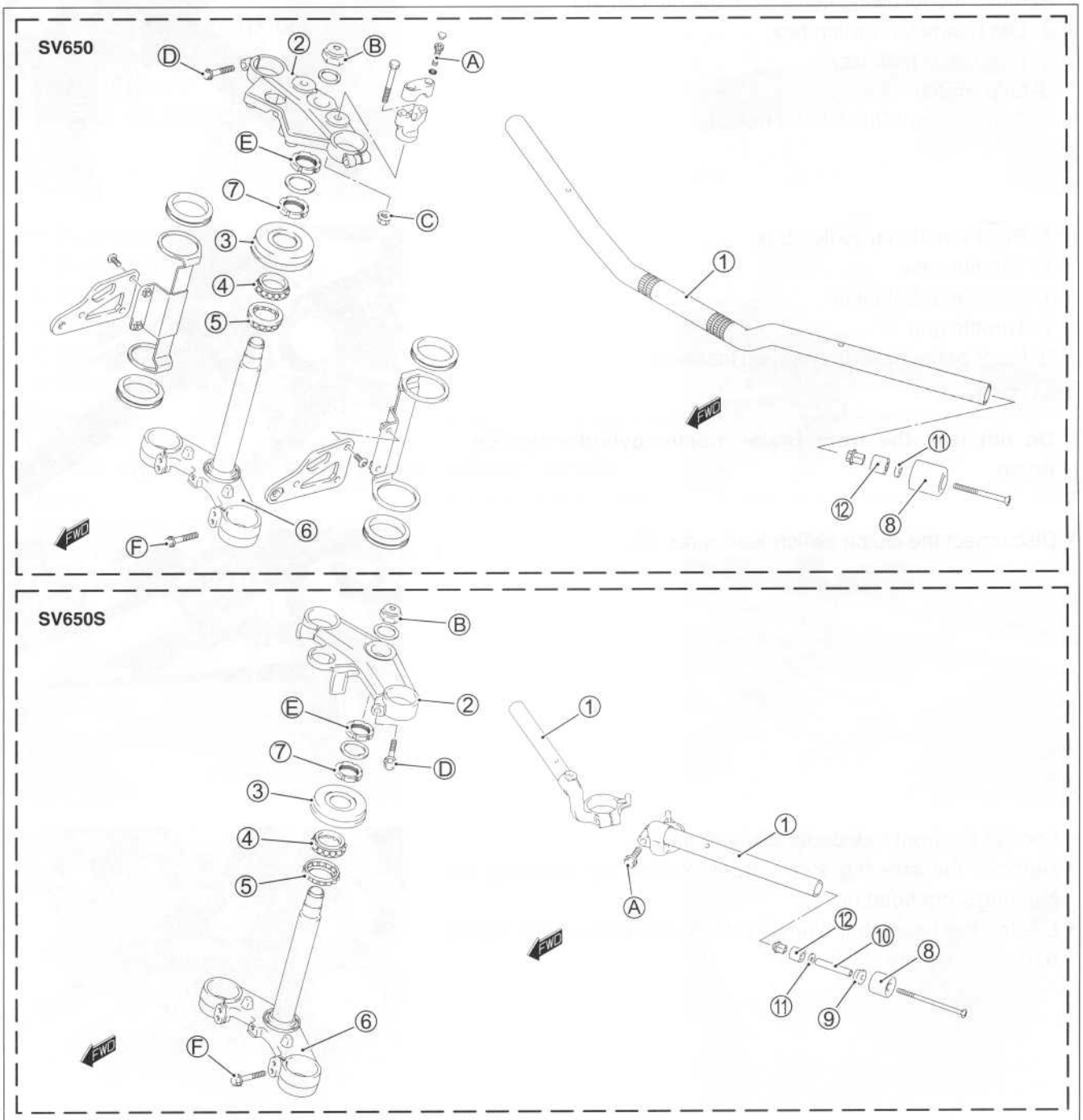
STD POSITION: 3



⚠ WARNING

Be sure to adjust the spring pre-load on both front fork legs equally.

STEERING AND HANDLEBAR
CONSTRUCTION



① Handlebars
② Steering stem upper bracket
③ Dust seal
④ Bearing upper
⑤ Bearing lower
⑥ Steering stem lower bracket
⑦ Steering stem nut
⑧ Handlebar balancer
⑨ Expander
⑩ Spacer
⑪ Washer
⑫ Expander

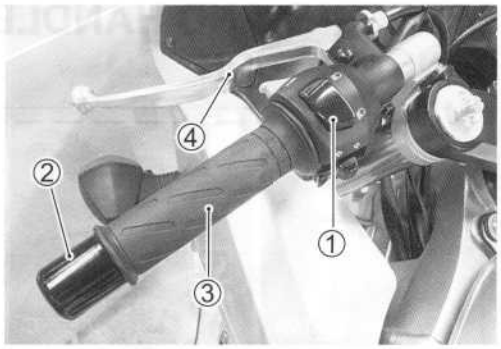
Ⓐ Handlebar clamp bolt
Ⓑ Steering stem head nut
Ⓒ Handlebar holder nut
Ⓓ Front fork upper clamp bolt
Ⓔ Steering stem lock nut
Ⓕ Front fork lower clamp bolt

ITEM	N·m	kgf-m	lb-ft
Ⓐ	23	2.3	16.5
Ⓑ	90	9.0	65.0
Ⓒ	45	4.5	32.5
Ⓓ	23	2.3	16.5
Ⓔ	80	8.0	58.0
Ⓕ	23	2.3	16.5

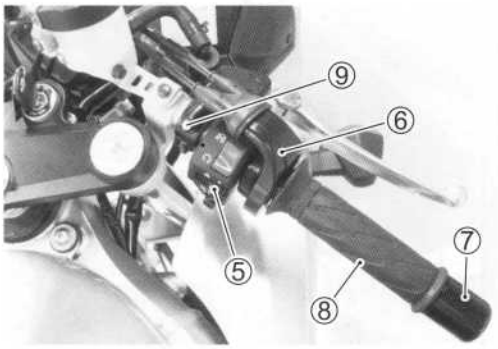
REMOVAL

HANDLEBARS (SV650S)

- Remove the following items from the handlebars.
  ① Left handlebar switch box
  ② Handlebar balancer
  ③ Grip rubber
  ④ Clutch cable/Clutch lever holder



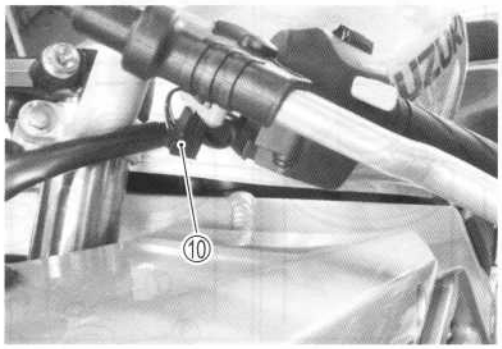
⑤ Right handlebar switch box
⑥ Throttle case
⑦ Handlebar balancer
⑧ Throttle grip
⑨ Front brake master cylinder/Reservoir



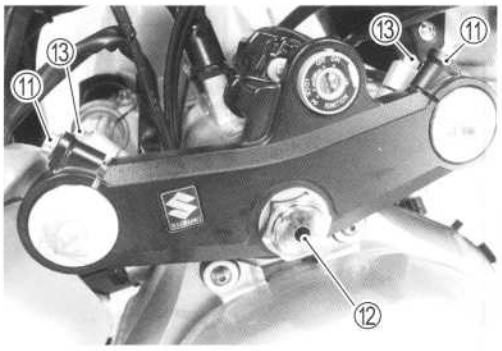
CAUTION

Do not turn the front brake master cylinder upside down.

- Disconnect the clutch switch lead wires ⑩.

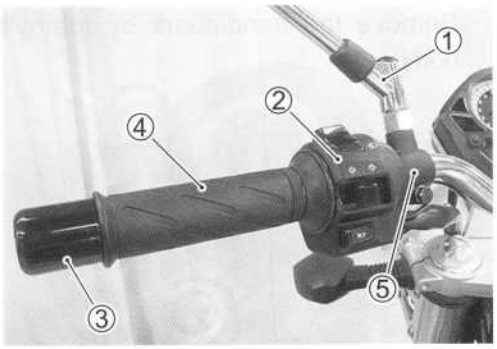


- Loosen the front fork upper clamp bolts ⑪.
- Remove the steering stem upper bracket by removing the steering stem head nut ⑫.
- Loosen the handlebar clamp bolts ⑬ and remove the handle bars.

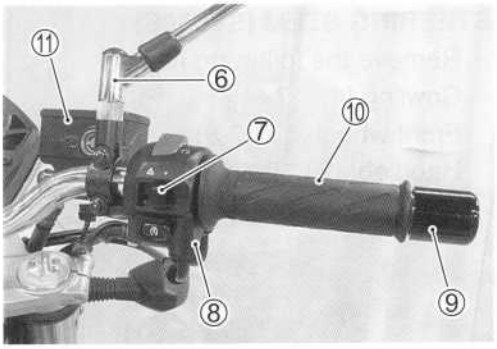


HANDLEBARS (SV650)

- Remove the following items from the handlebars.
  ① Rear view mirror
  ② Left handlebar switch box
  ③ Handlebar balancer
  ④ Grip rubber
  ⑤ Clutch cable/Clutch lever holder



  ⑥ Rear view mirror
  ⑦ Right handlebar switch box
  ⑧ Throttle cables
  ⑨ Handlebar balancer
  ⑩ Throttle grip
  ⑪ Front brake master cylinder

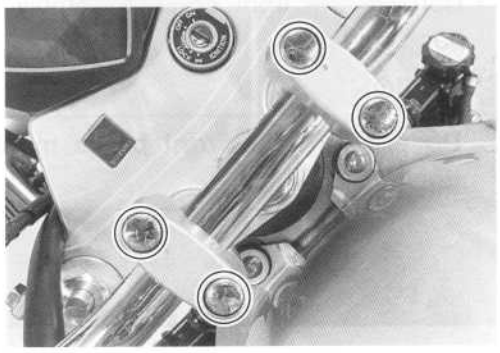


CAUTION

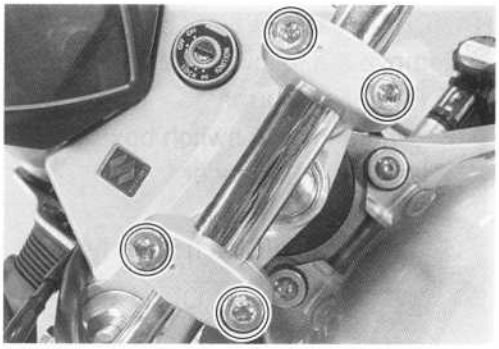
Do not turn the front brake master cylinder upside down.

- Disconnect the clutch switch lead wires ⑫.

- Remove the bolt caps.



- Remove the handlebars by removing the handlebar clamp bolts.



STEERING STEM (SV650S)

- Remove the following items.
  Cowling (☞7-6)
  Front wheel (☞7-9)
  Handlebars (☞7-26)
  Front fork (☞7-17)

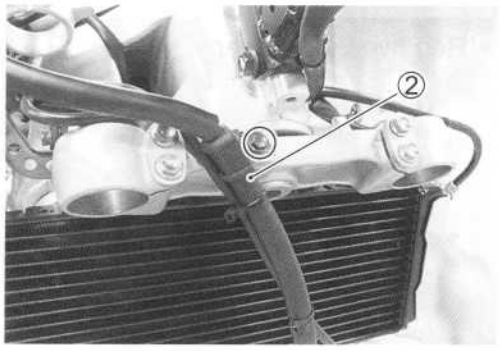
- Remove the ignition switch ① by using the special tools.

TOOL **09930-11920: Torx bit JT40H**
09930-11940: Bit holder

- Remove the front brake assembly by removing the brake hose guide ②.

CAUTION

Do not turn the front brake master cylinder upside down.

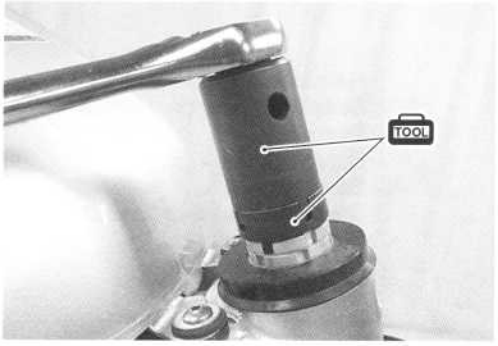


- Remove the steering stem nuts with the special tools.

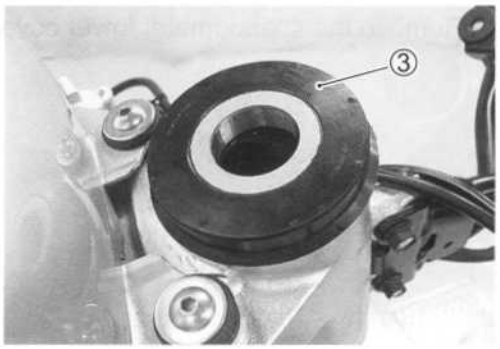
TOOL **09940-14911: Steering stem nut wrench**
09940-14960: Steering stem nut wrench socket

NOTE:
When loosing the stem nuts, hold the steering stem lower bracket to prevent it from falling.

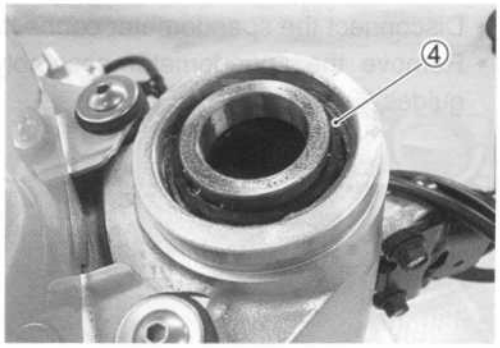
- Remove the steering stem lower bracket.



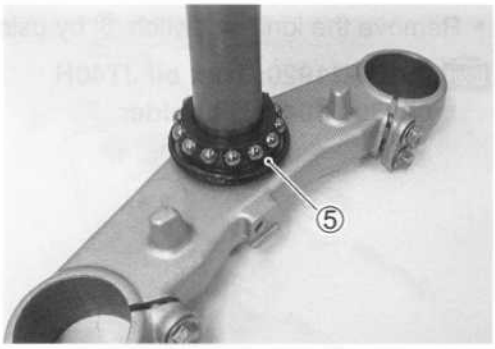
- Remove the dust seal ③.



- Remove the steering stem upper bearing ④.

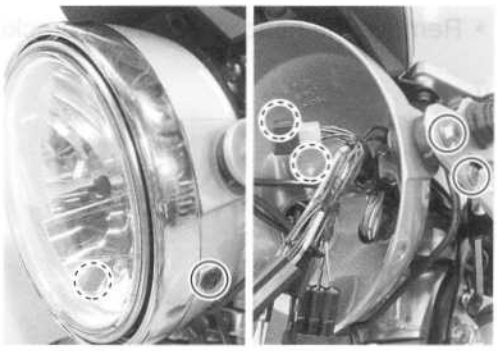


- Remove the steering stem lower bearing ⑤.



STEERING STEM (SV650)

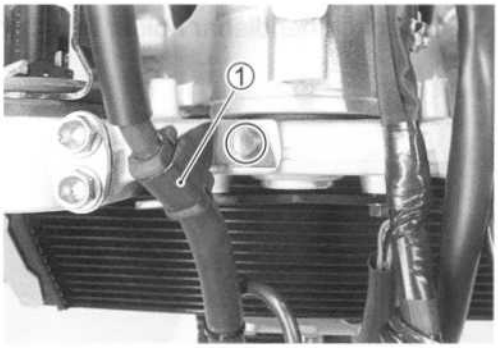
- Remove the following items.
  Front wheel (☞7-9)
  Handlebar (☞7-27)
  Front fork (☞7-17)
- Remove the headlight and its housing.



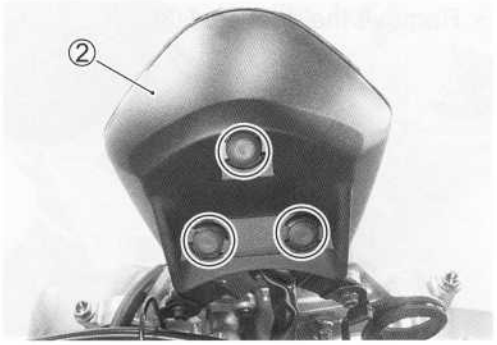
- Remove the front brake assembly by removing the brake hose guide ①.

CAUTION

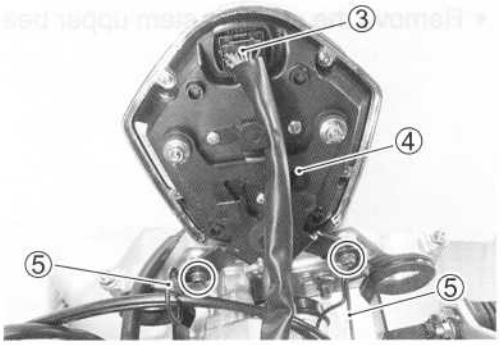
Do not turn the front brake master cylinder upside down.



- Remove the speedometer lower cover ②.

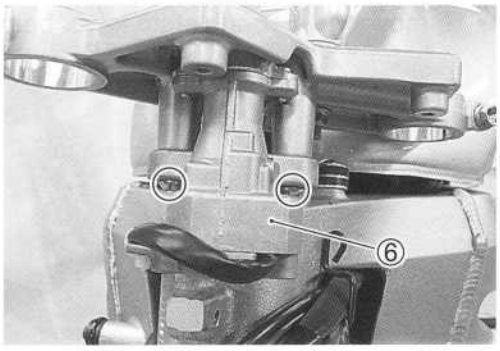


- Disconnect the speedometer connector ③.
- Remove the speedometer assembly ④ and throttle cable guides ⑤.

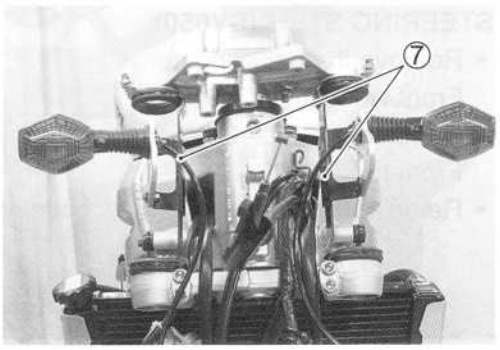


- Remove the ignition switch ⑥ by using the special tools.

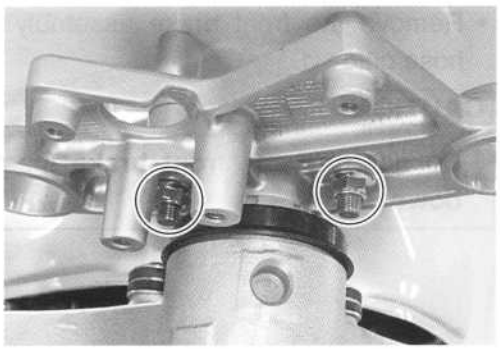
TOOL **09930-11920: Torx bit JT40H**
09930-11940: Bit holder



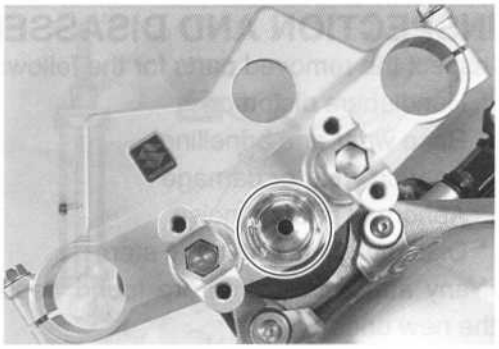
- Remove the headlight housing brackets ⑦.



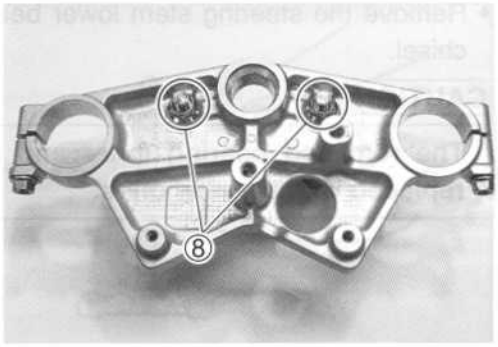
- Loosen the handlebar holder nuts lightly.

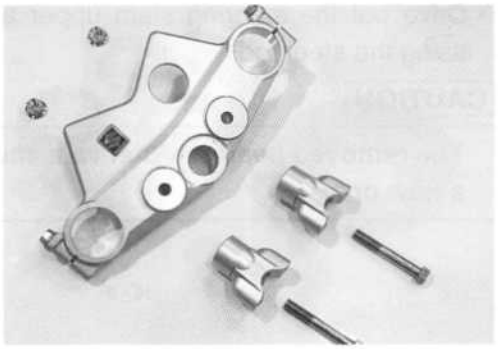


- Remove the steering stem upper bracket by removing the steering stem head nut.



- Remove the handle holder nuts ⑧ and disassemble the handle holder.





- The removal procedure of steering stem is the same as SV650S. (☞7-28)

INSPECTION AND DISASSEMBLY

Inspect the removed parts for the following abnormalities.

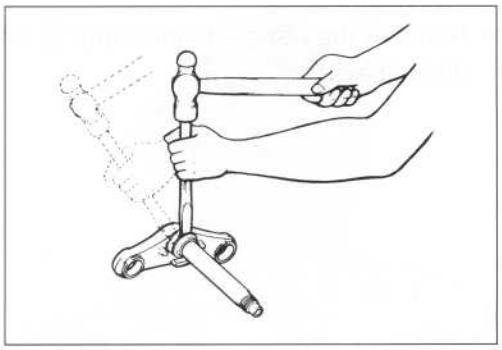
* Handlebars distortion
* Race wear and brinelling
* Bearing wear or damage
* Abnormal bearing noise
* Distortion of the steering stem

If any abnormal points are found, replace defective parts with the new ones.

- Remove the steering stem lower bearing inner race using a chisel.

CAUTION

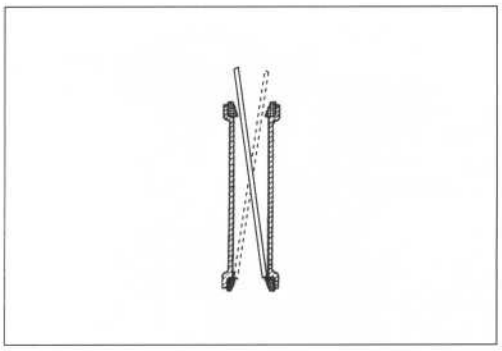
The removed bearing inner and dust seal must be replaced with the new ones.



- Drive out the steering stem upper and lower bearing races using the steel rod.

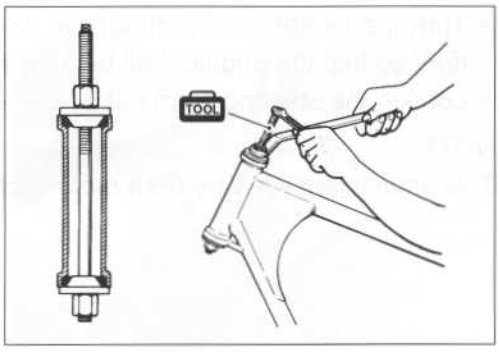
CAUTION

The removed bearing outer race must be replaced with a new one.



REASSEMBLY AND REMOUNTING

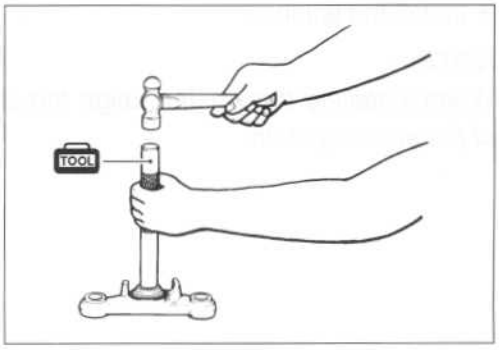
Reassemble and remount the steering stem in the reverse order of removal and disassembly. Pay attention to the following points:



OUTER RACES

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

09941-34513: Steering outer race installer
09924-84510: Bearing installer set



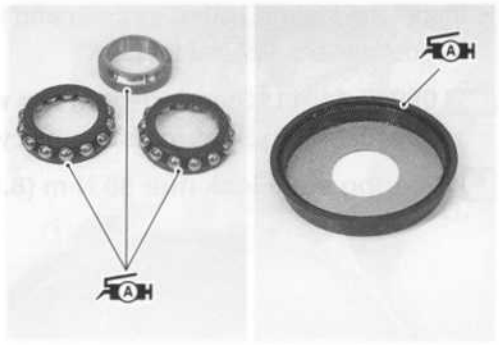
BEARINGS

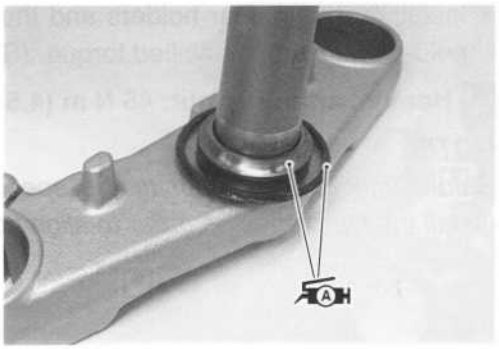
- Press in the dust seal and lower bearing using the special tool.

09925-18011: Steering bearing installer

- Apply SUZUKI SUPER GREASE to the bearings and dust seal.
- Install the lower bearing to the steering stem lower bracket.
- Install the upper bearing, bearing inner race, dust seal and dust cover onto the frame.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



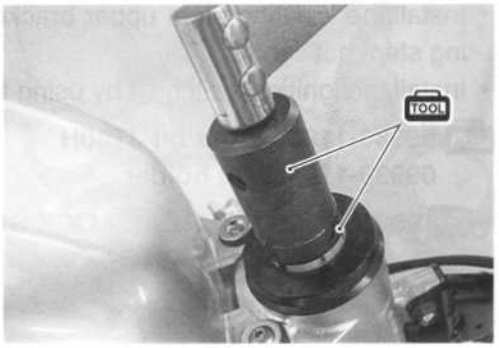


STEERING STEM

- Tighten the steering stem nut to the specified torque with the special tools.

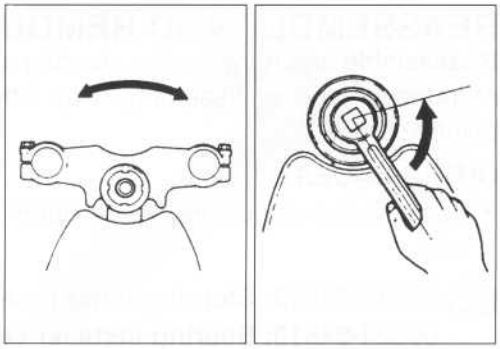
09940-14911: Steering stem nut wrench
09940-14960: Steering stem nut wrench socket

Steering stem nut: 45 N·m (4.5 kgf-m, 32.5 lb-ft)



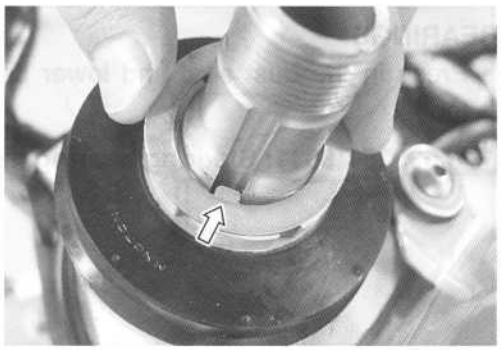
- Turn the steering stem about five or six times to the left and right so that the angular ball bearing will be seated properly.
- Loosen the steering stem nut by 1/4 – 1/2 turn.

NOTE:
This adjustment will vary from motorcycle to motorcycle.



- Install the washer.

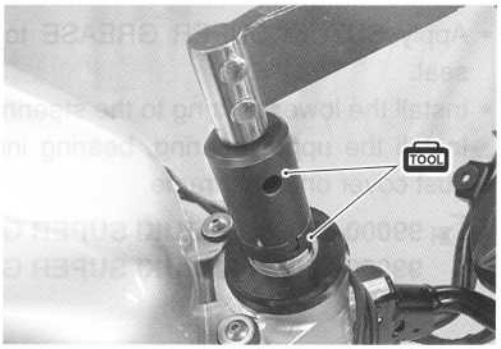
NOTE:
When installing the washer, align the stopper lug to the groove of the steering stem.



- Install the steering stem lock nut and tighten it to the specified torque with the special tools.

TOOL 09940-14911: Steering stem nut wrench
09940-14960: Steering stem nut wrench socket

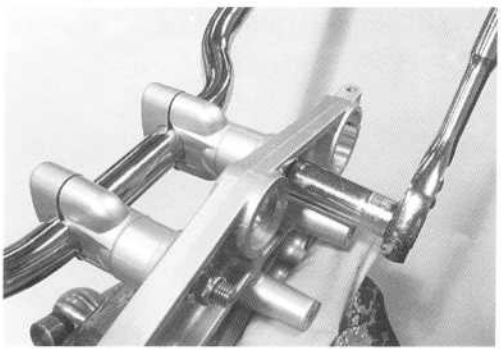
Steering stem lock nut: 80 N·m (8.0 kgf-m, 58.0 lb-ft)



- Install the handlebar holders and then tighten the handlebar holder nuts to the specified torque. (SV650)

Handlebar holder nut: 45 N·m (4.5 kgf-m, 32.5 lb-ft)

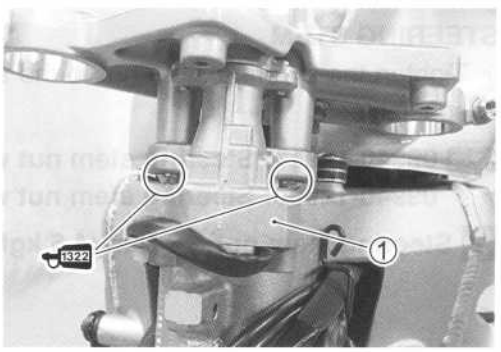
NOTE:
Before tightening the nut to the specified torque, temporarily install the handlebars in order to align both holders.



- Install the steering stem upper bracket and tighten the steering stem nut lightly.
- Install the ignition switch ① by using the special tool.

TOOL 09930-11920: Torx bit JT40H
09930-11940: Bit holder

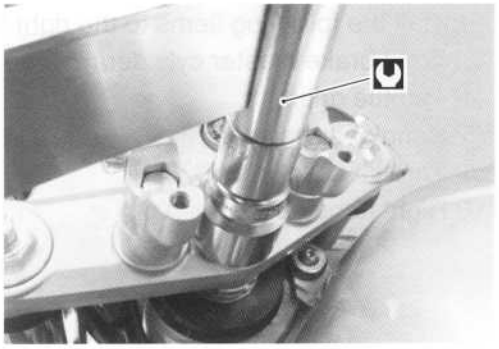
1322 99000-32050: THREAD LOCK SUPER "1322"



- Install the front fork to the steering stem and tighten the lower clamp bolts temporarily. (SV650)
- Tighten the steering stem head nut to the specified torque.

Steering stem head nut: 90 N·m (9.0 kgf-m, 65.0 lb-ft)

- Remount the front forks and the front fender. (☞7-20)

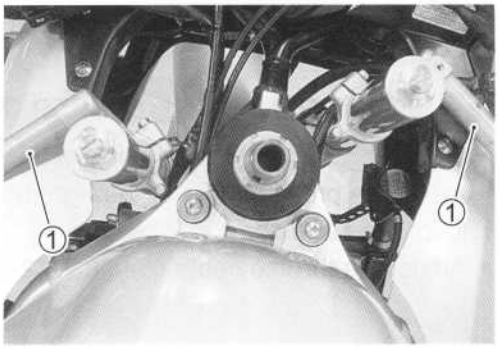


NOTE:
As for SV650S, install the handlebars to the front forks before installing the steering stem head.

- Install the following items.
  * Front brake assembly.
  * Front wheel (☞7-12)
  * Cowling (SV650S) (☞7-7)

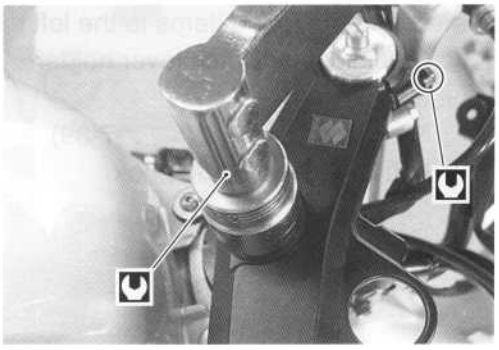
HANDLEBARS (SV650S)

- Install the handlebars ① to the front forks.



- Tighten the steering stem head nut and front fork upper clamp bolts to the specified torque.

Steering stem head nut: 90 N·m (9.0 kgf-m, 65.0 lb-ft)
Front fork upper clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

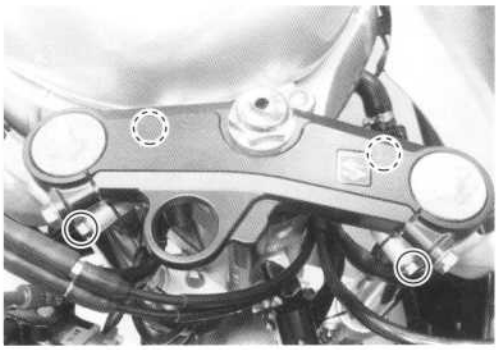


- Tighten the handlebar clamp bolts

Handlebar clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

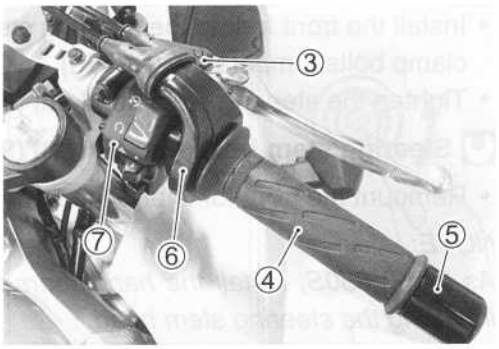
CAUTION

United the projection of the handlebars and the hole of the steering stem upper bracket.



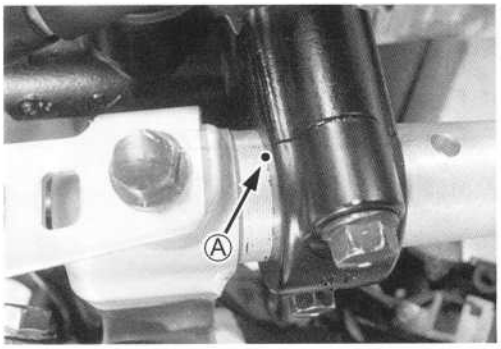
- Install the ignition switch by using the special tools. (☞8-46)

- Install the following items to the right handlebar.
  ③ Front brake master cylinder/reservoir
  ④ Throttle grip
  ⑤ Handlebar balancer (☞7-39)
  ⑥ Throttle case
  ⑦ Right handlebar switch box



- Align the front brake master cylinder holder's matching surface with the punched mark Ⓐ on the handlebar and tighten the upper mounting bolt first, then lower one.
- Tighten the front brake master cylinder mounting bolts to the specified torque.

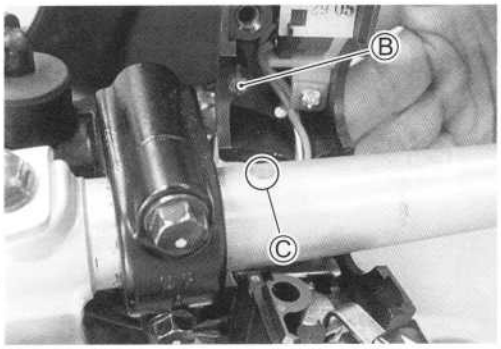
Front brake master cylinder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)



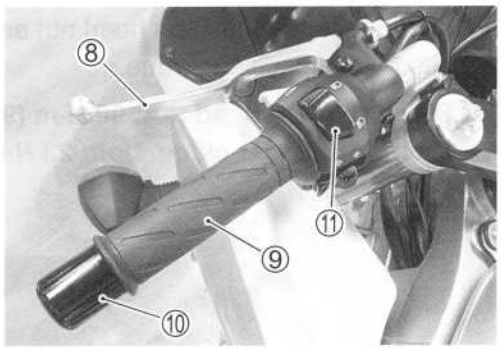
- Apply SUZUKI SUPER GREASE to the throttle cable and cable drum.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

- Insert the projection Ⓑ of the right handlebar switch into hole Ⓒ of the handlebar.
- Adjust the throttle cable play. (☞2-17)

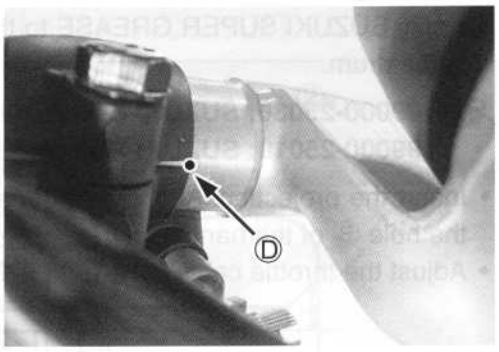


- Install the following items to the left handlebar.
  ⑧ Clutch cable/Clutch lever holder
  ⑨ Grip rubber
  ⑩ Handlebar balancer (☞7-39)
  ⑪ Left handlebar switch box



- Align the clutch holder's matching surface with the punched mark Ⓓ on the handlebar.
- Tighten the clutch holder mounting bolt to the specified torque.

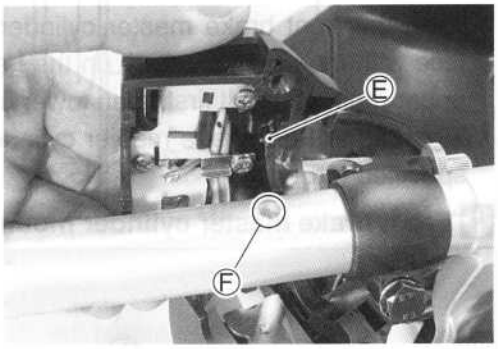
Clutch holder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)



NOTE:

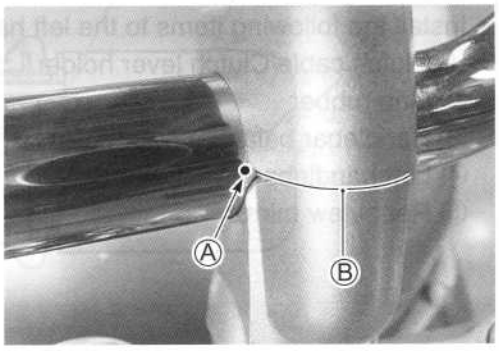
** Insert the projection Ⓔ of the left handlebar switch box into the hole Ⓕ of the handlebar.*

** Adhere the left grip rubber to the left handlebar.*



HANDLEBARS (SV650)

- Install the handlebars with the punch mark Ⓐ aligned with the mating surface Ⓑ of the handlebar holder.

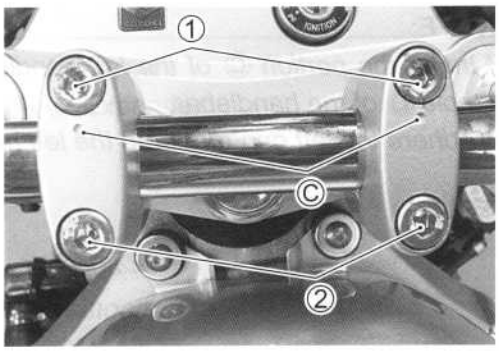


- Set the punch mark Ⓒ on the handlebar clamp forward.
- Tighten the handlebar clamp bolts to the specified torque.

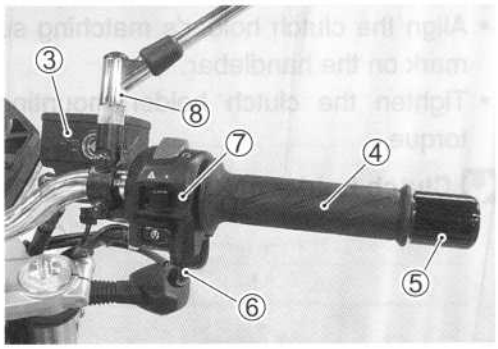
Handlebar clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

NOTE:

When tightening the handlebar clamp bolts, first tighten the bolts ① and then tighten the bolts ②.



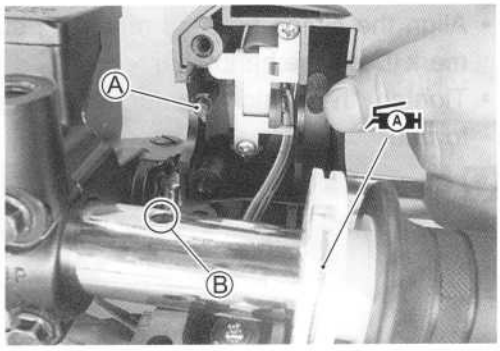
- Install the following items to the right handlebar.
  - ③ Front brake master cylinder/reservoir
  - ④ Throttle grip
  - ⑤ Handlebar balancer (☞7-39)
  - ⑥ Throttle cables
  - ⑦ Right handlebar switch box
  - ⑧ Rear view mirror



- Apply SUZUKI SUPER GREASE to the throttle cable and the cable drum.

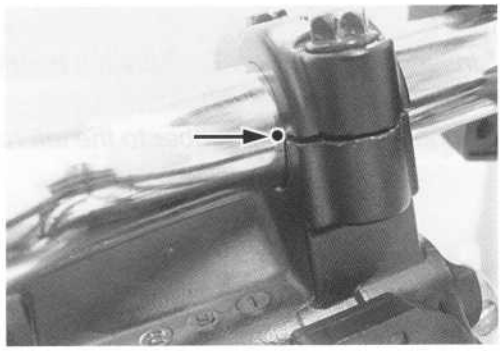
99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

- Insert the projection Ⓐ of the right handlebar switch box into the hole Ⓑ of the handlebar.
- Adjust the throttle cable play. (☞2-17)

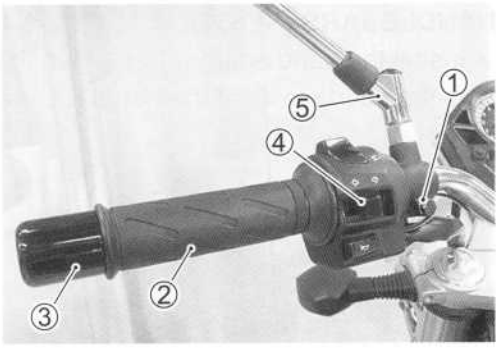


- Align the front brake master cylinder holder's matching surface with the punched mark on the handlebar and tighten the upper mounting bolt first, then lower one.
- Tighten the front brake master cylinder mounting bolts to the specified torque.

Front brake master cylinder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)



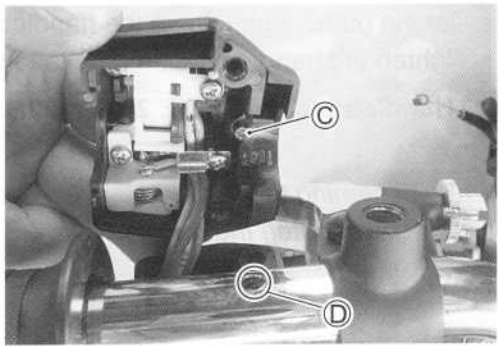
- Install the following items to the left handlebar.
  ① Clutch cable/Clutch lever holder
  ② Grip rubber
  ③ Handlebar balancer (☞7-39)
  ④ Left handlebar switch box
  ⑤ Rear view mirror



NOTE:

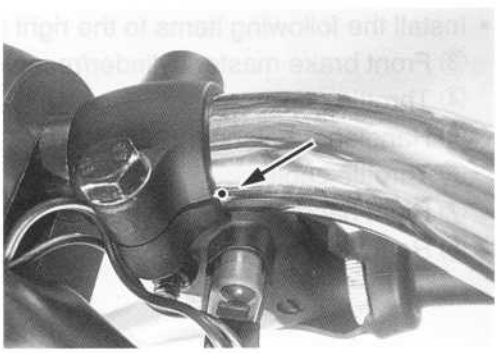
** Insert the portion Ⓒ of the left handlebar switch box into the hole Ⓓ of the handlebar.*

** Adhere the left grip rubber to the left handlebar.*



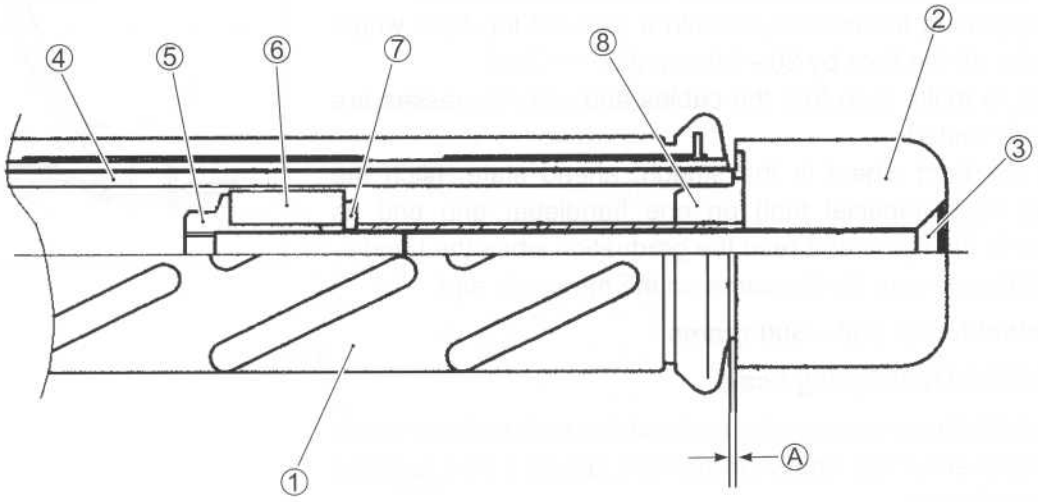
- Align the clutch holder's matching surface with the punched mark on the handlebar.
- Tighten the clutch holder mounting bolt to the specified torque.

Clutch holder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)

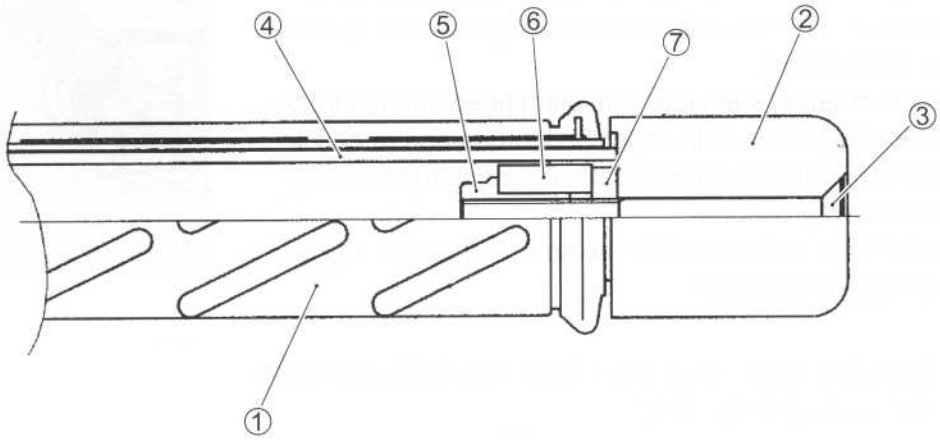


Handlebar balancer installation information.

SV650S



SV650



① Throttle grip
② Handlebar balancer
③ Screw
④ Handlebar
⑤ Nut
⑥ Expander
⑦ Washer
⑧ Expander

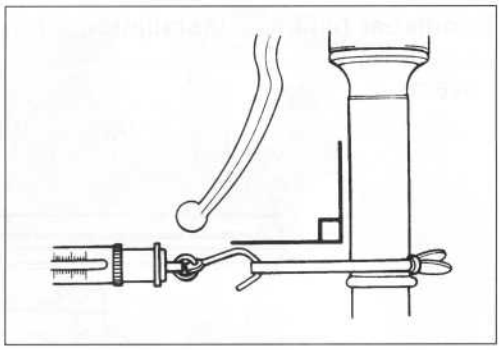
Clearance Ⓐ: 0 mm (LH)
0.5 – 1.5 mm (RH)

NOTE:
After installing the RH balancer, make sure that throttle grip operating is smooth.

STEERING TENSION ADJUSTMENT

Check the steering movement in the following procedure.

- By supporting the motorcycle with a jack, lift the front wheel until it is off the floor by 20 – 30 mm (0.8 – 1.2 in).
- Check to make sure that the cables and wire harnesses are properly routed.
- With the front wheel in the straight ahead state, hitch the spring scale (special tool) on one handlebar grip end as shown in the figure and read the graduation when the handlebar starts moving. Do the same on the other grip end.

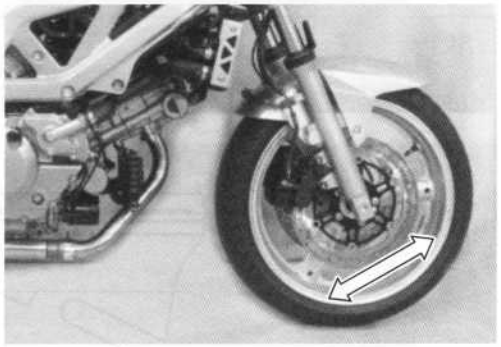


DATA Initial force: 200 – 500 grams

TOOL 09940-92720: Spring scale

- If the initial force read on the scale when the handlebar starts turning is either too heavy or too light, adjust it till it satisfies the specification.

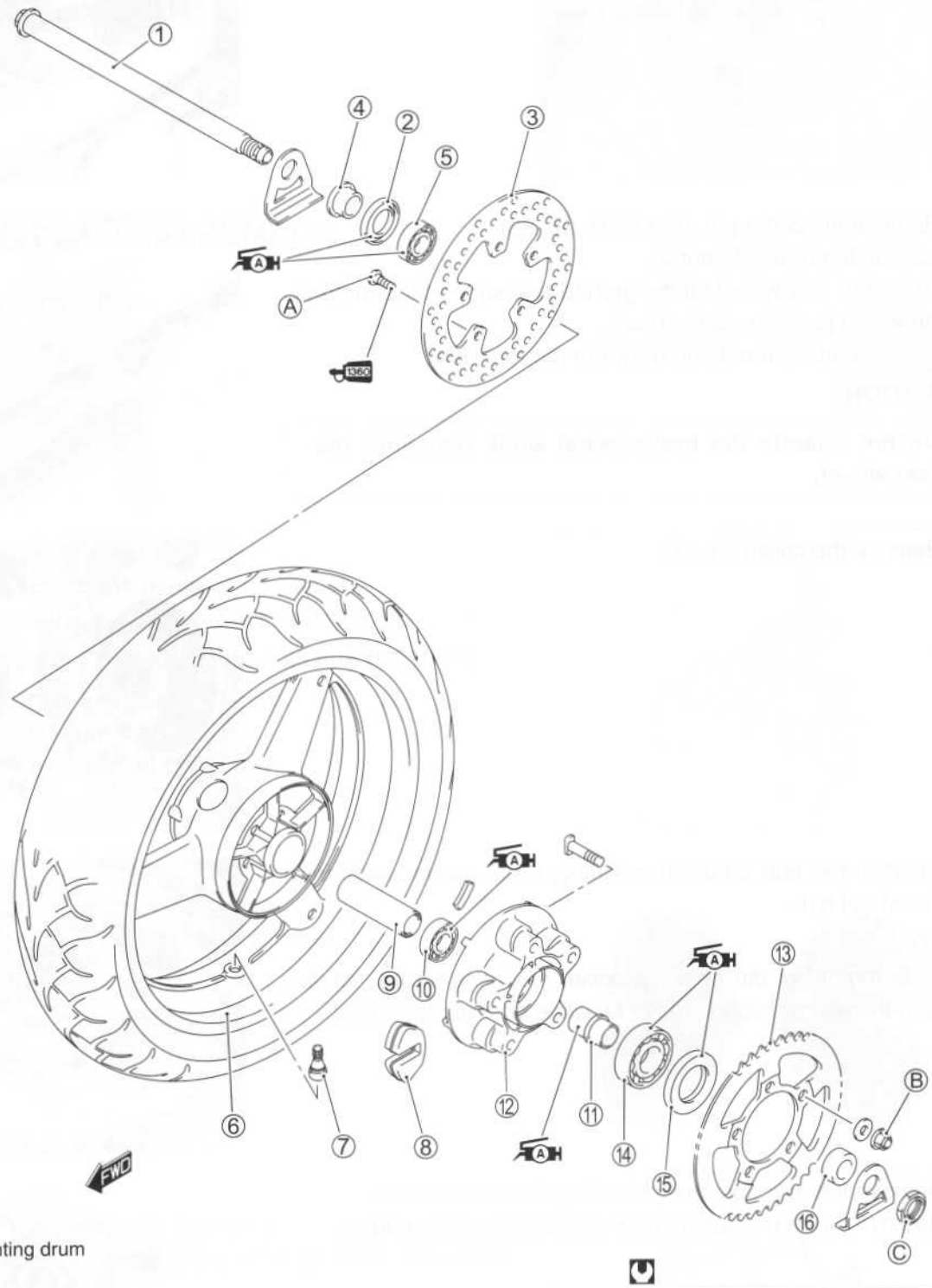
1) First, loosen the front fork upper clamp bolts, handlebar clamp bolts (only SV650S), steering stem head nut and steering stem lock nut, and then adjust the steering stem nut by loosening or tightening it.
2) Tighten the steering stem lock nut, stem head nut and front fork upper clamp bolts to the specified torque and re-check the initial force with the spring scale according to the previously described procedure.
3) If the initial force is found within the specified range, adjustment has been completed.



NOTE:

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

REAR WHEEL
CONSTRUCTION



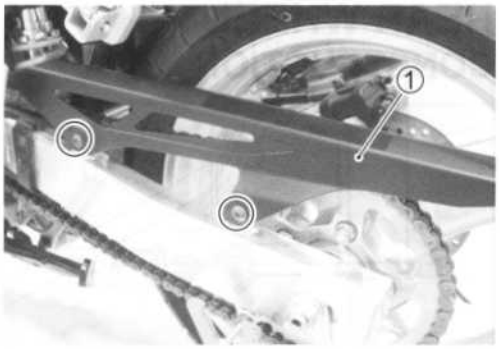
① Rear axle
② Dust seal
③ Brake disc
④ Collar
⑤ Bearing
⑥ Rear wheel
⑦ Tire valve
⑧ Damper
⑨ Spacer
⑩ Bearing
⑪ Retainer
⑫ Sprocket mounting drum
⑬ Rear sprocket
⑭ Bearing
⑮ Dust seal
⑯ Spacer

Ⓐ Brake disc bolt
Ⓑ Rear sprocket nut
Ⓒ Rear axle nut

ITEM	N·m	kgf-m	lb-ft
Ⓐ	23	2.3	16.5
Ⓑ	60	6.0	43.5
Ⓒ	100	10.0	72.5

REMOVAL

- Remove the chain cover ①.

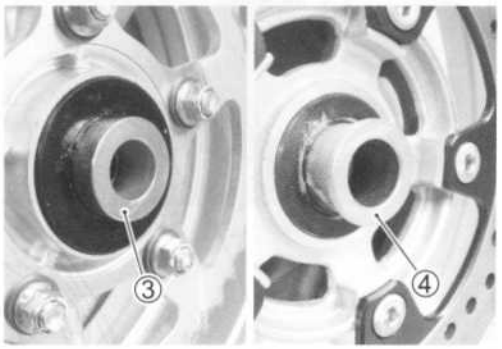


- Remove the cotter pin. (For E-03, 28, 33)
- Loosen the rear axle nut ②.
- Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the axle nut and draw out the rear axle.

CAUTION

Do not operate the brake pedal while removing the rear wheel.

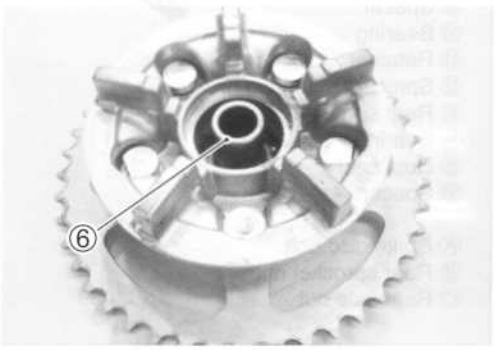
- Remove the collars ③, ④.



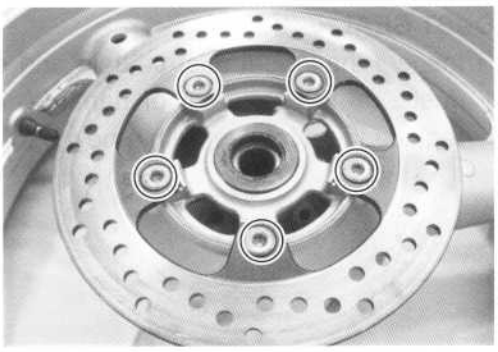
- Remove the rear sprocket mounting drum assembly ⑤ from the wheel hub.

NOTE:
Before removing the rear sprocket mounting drum, slightly loosen the rear sprocket nuts to facilitate later disassembly.

- Remove the rear sprocket mounting drum retainer ⑥.
- Remove the rear sprocket from sprocket mounting drum.



- Remove the brake disc.



INSPECTION AND DISASSEMBLY

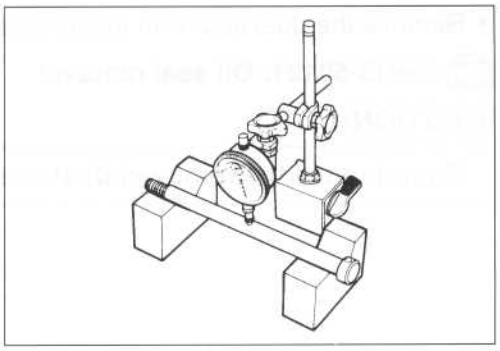
TIRE: (☞7-89)
WHEEL: (☞7-10 and 7-89)

REAR AXLE

Using a dial gauge, check the rear axle for runout.
If the runout exceeds the limit, replace the rear axle.

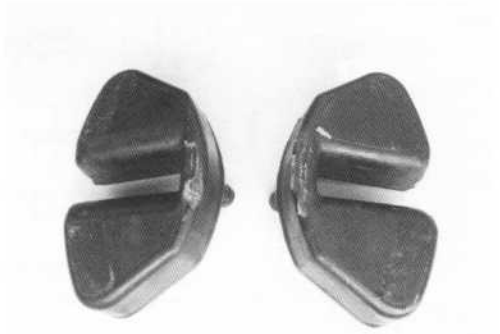
DATA Axle shaft runout: Service Limit: 0.25 mm (0.010 in)

TOOL 09900-20607: Dial gauge (1/100 mm)
09900-20701: Magnetic stand
09900-21304: V-block set (100 mm)



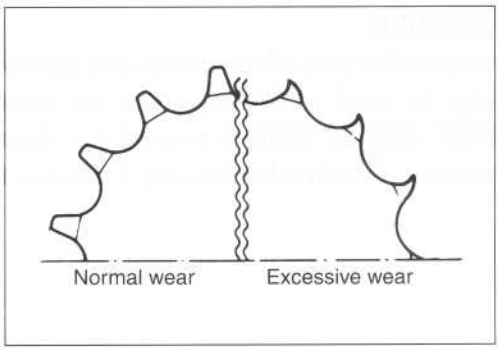
WHEEL DAMPER

Inspect the dampers for wear and damage.
Replace the damper if there is anything unusual.



SPROCKET

Inspect the rear sprocket teeth for wear. If they are worn as shown, replace the engine sprocket, rear sprocket and drive chain as a set.



DUST SEAL

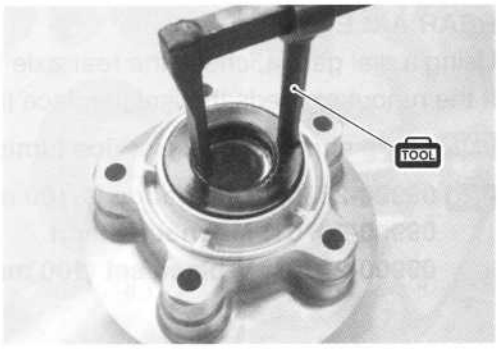
- Inspect the wheel dust seal lip and sprocket mounting drum dust seal lips for wear or damage. If any damage is found, replace the dust seal with a new one.

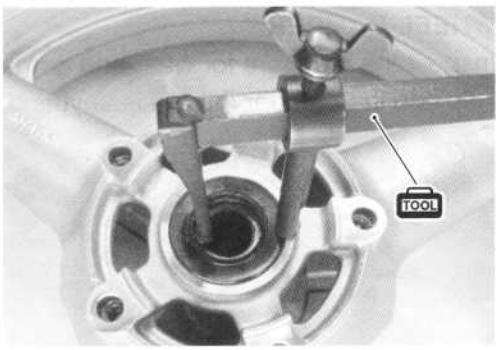
- Remove the dust seal with the special tool.

TOOL 09913-50121: Oil seal remover

CAUTION

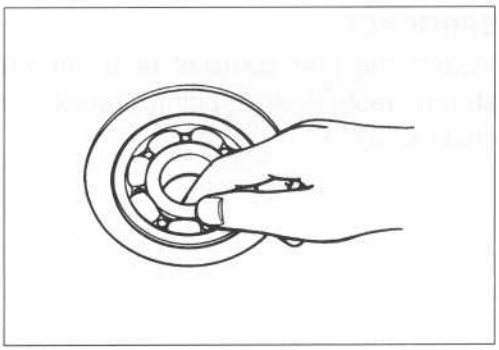
Do not reuse the removed dust seal.





BEARING

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

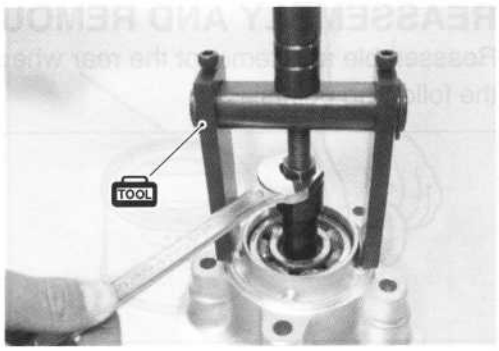


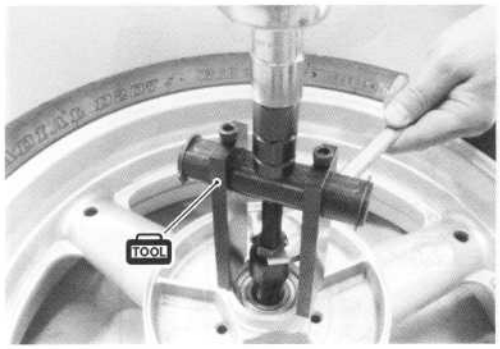
- Remove the sprocket mounting drum bearing and wheel bearings by using the special tool.

TOOL 09921-20240: Bearing remover set

CAUTION

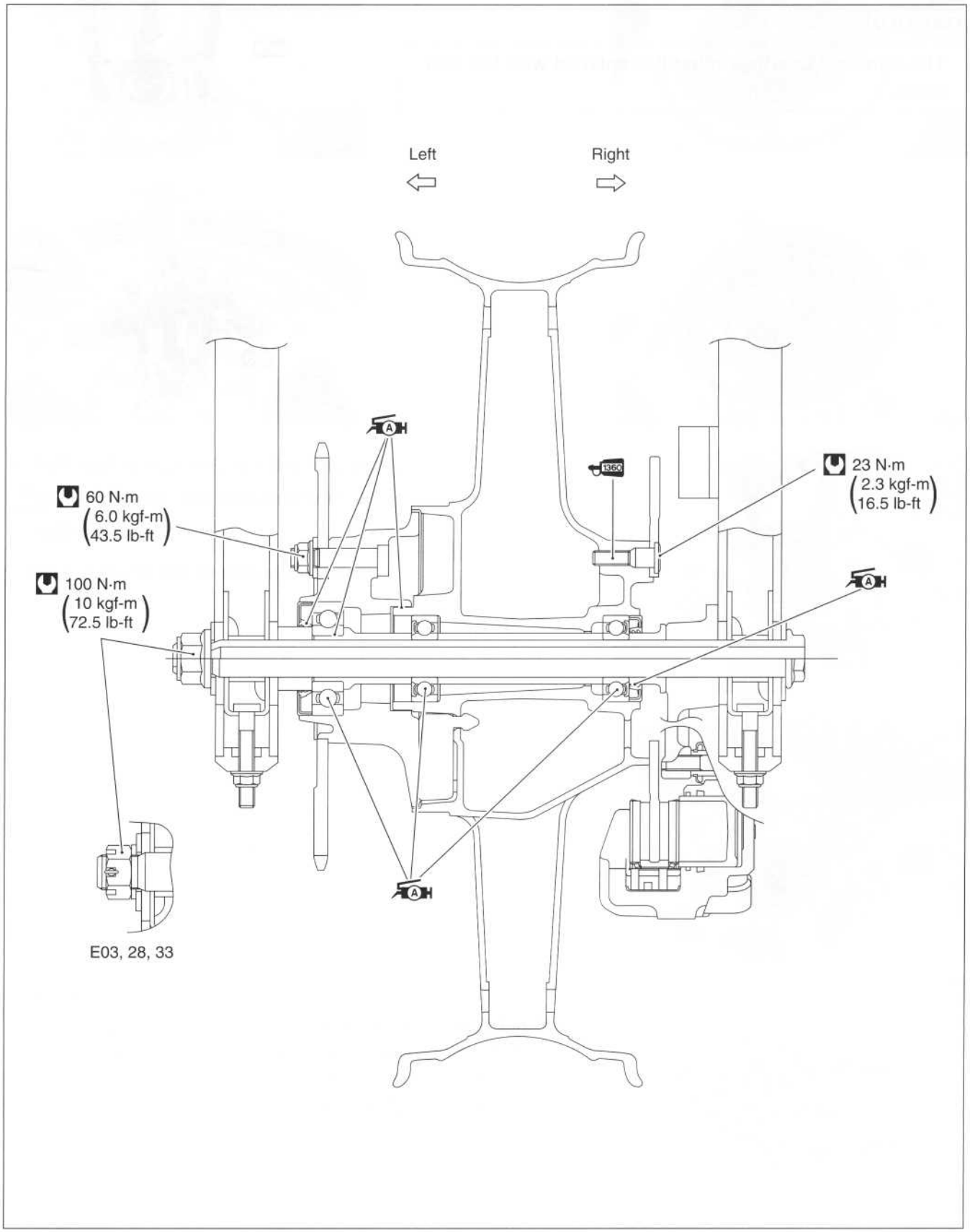
The removed bearings must be replaced with the new ones.





REASSEMBLY AND REMOUNTING

Reassemble and remount the rear wheel in the reverse order of removal and disassembly. Pay attention to the following points:



BEARING

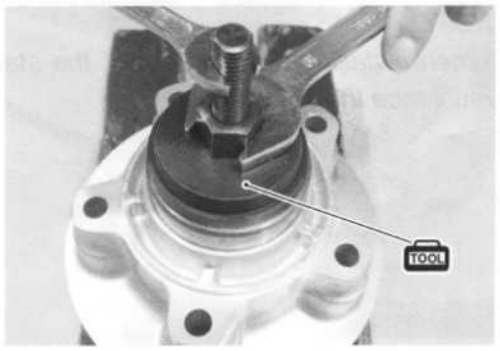
- Apply SUZUKI SUPER GREASE to the bearings before installing.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

- Install the new bearing to the sprocket mounting drum using the special tool.

09924-84510: Bearing installer set

NOTE:
When installing the bearing, non-sealed side of bearing must face the special tool.

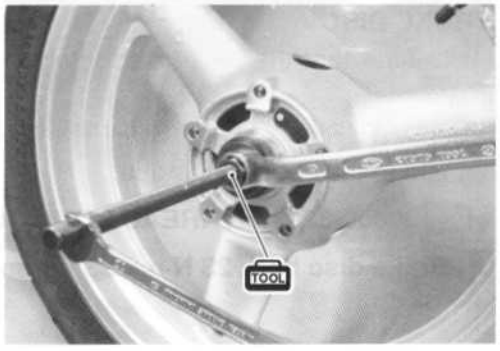


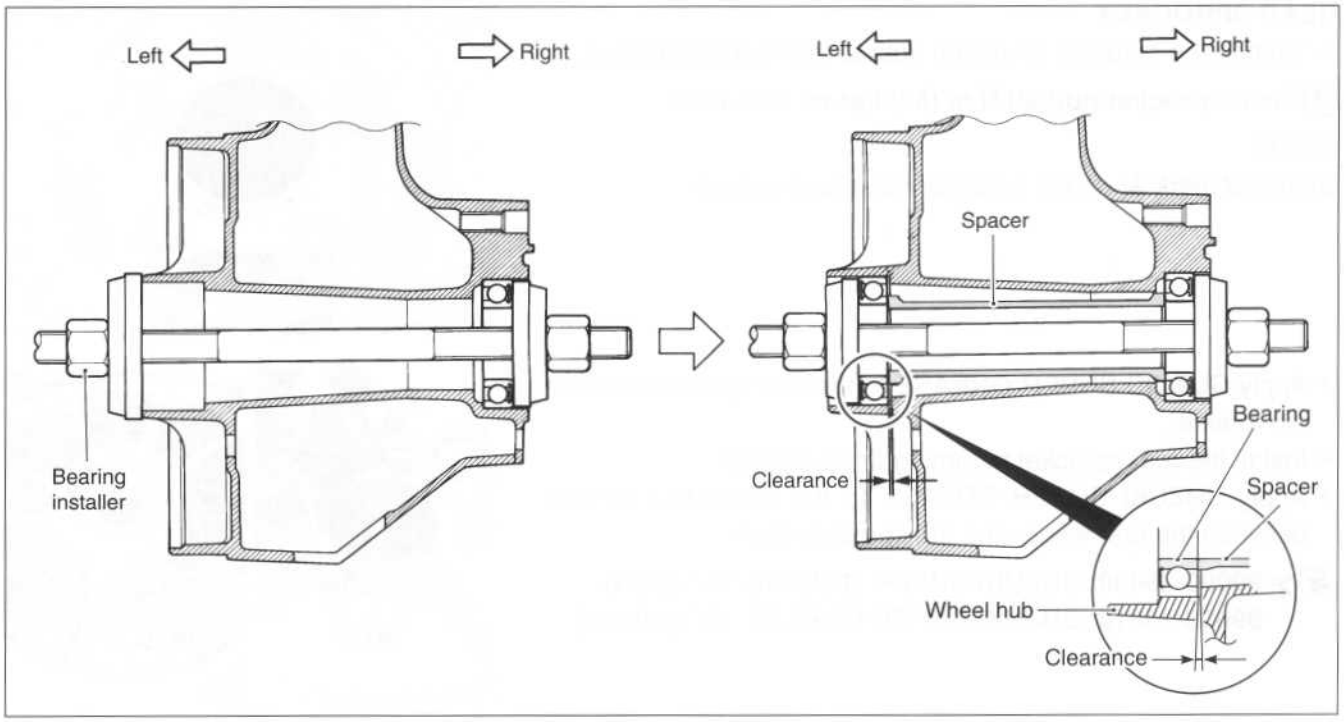
- First install the right wheel bearing, then install the left wheel bearing and spacer using the special tool.

09941-34513: Bearing/Steering race installer set
09913-70210: Bearing installer set

CAUTION

The sealed cover of the bearing must face outside.





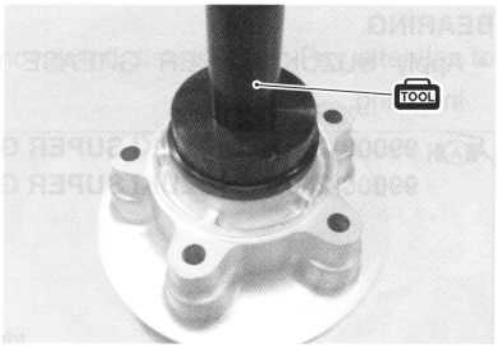
DUST SEAL

- Install the new dust seal using the special tool.

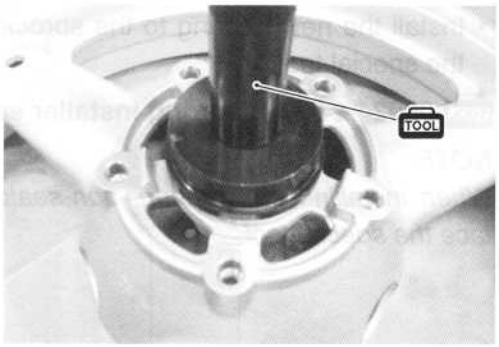
09913-70210: Bearing installer set

- Apply SUZUKI SUPER GREASE to the dust seal lips before assembling rear wheel.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



NOTE:
When installing the dust seals, the stamped mark of dust seal must face the special tool.



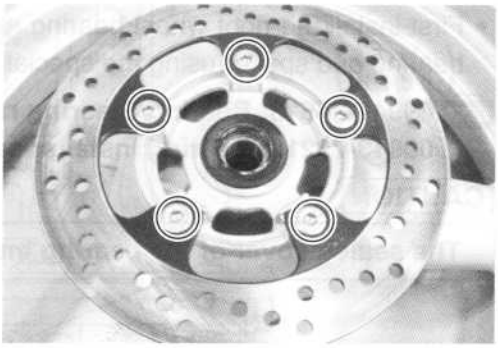
BRAKE DISC

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

- Apply THREAD LOCK SUPER to the disc bolts and tighten them to the specified torque.

99000-32130: THREAD LOCK SUPER "1360"

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

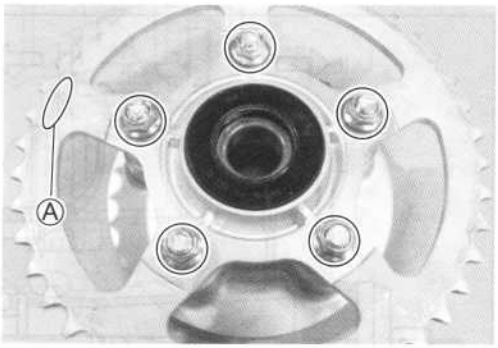


REAR SPROCKET

- Tighten the sprocket mounting nuts to the specified torque.

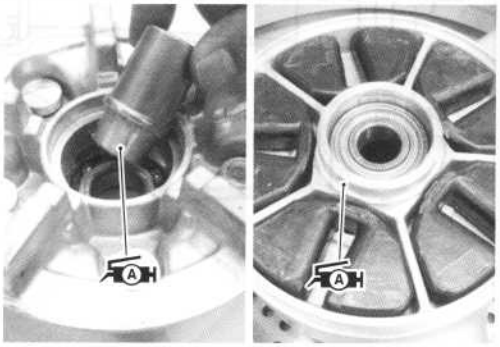
Rear sprocket nut: 60 N·m (6.0 kgf-m, 43.5 lb-ft)

NOTE:
Stamped mark Ⓐ on the sprocket must face outside.



- Apply SUZUKI SUPER GREASE to the rear sprocket mounting retainer.
- Install the rear sprocket mounting drum retainer.
- Apply SUZUKI SUPER GREASE to the contacting surface between the rear wheel and the sprocket drum.

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



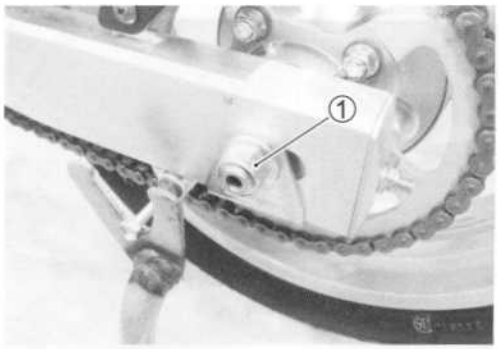
- Install the rear sprocket mounting drum to the rear wheel.
- Install the collar.

REAR AXLE

- Remount the rear wheel and rear axle, install the washer and rear axle nut.
- Tighten the rear axle nut ① to the specified torque.
- Adjust the chain slack after rear wheel installation. (☞2-22)

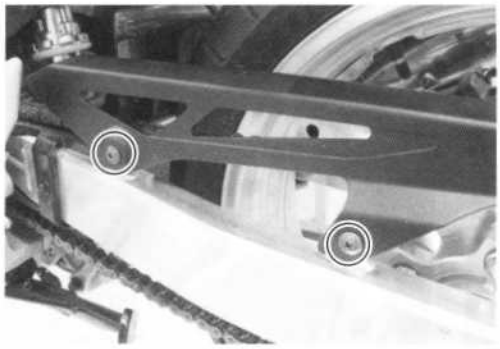
Rear axle nut: 100 N·m (10.0 kgf-m, 72.5 lb-ft)

- Install the new cotter pin. (For E-03, 28, 33)

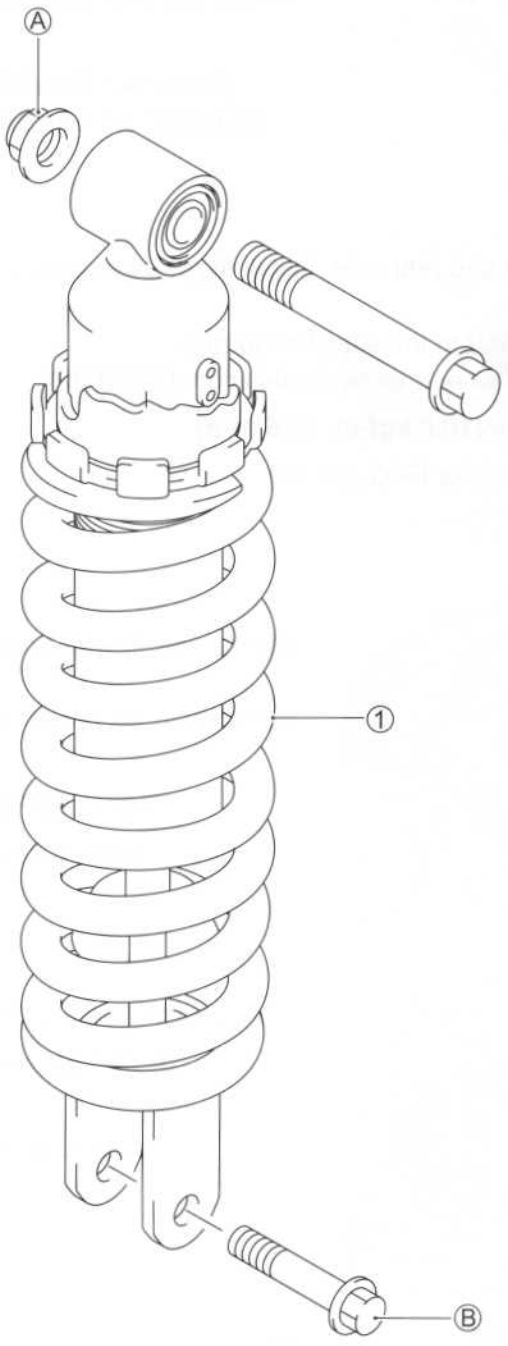


CHAIN COVER

- Install the chain cover.



REAR SHOCK ABSORBER
CONSTRUCTION



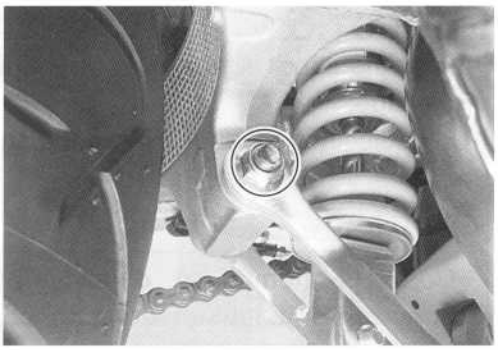
① Rear shock absorber

Ⓐ Rear shock absorber upper mounting nut
Ⓑ Rear shock absorber lower mounting bolt

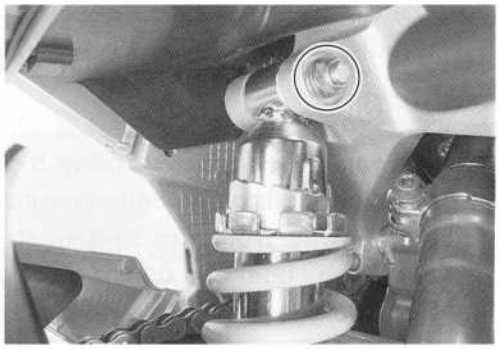
ITEM	N·m	kgf-m	lb-ft
Ⓐ	50	5.0	36.0
Ⓑ	50	5.0	36.0

REMOVAL

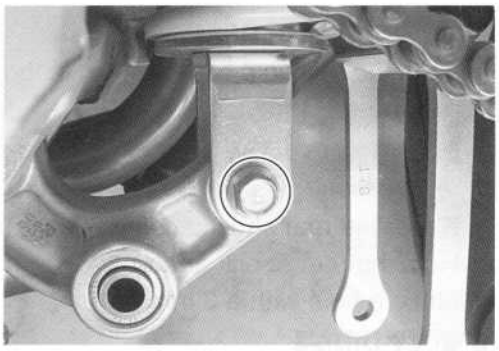
- Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the cushion rod bolt/nut.



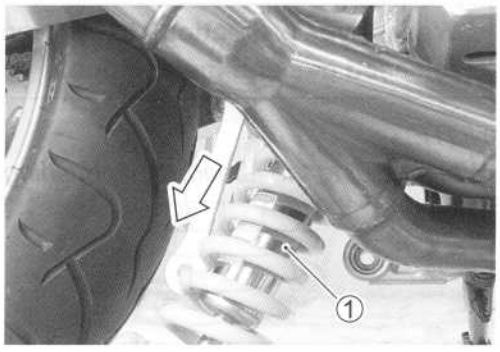
- Remove the rear shock absorber upper mounting bolt.



- Remove the rear shock absorber lower mounting bolt.



- Remove the rear shock absorber ①.



INSPECTION

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

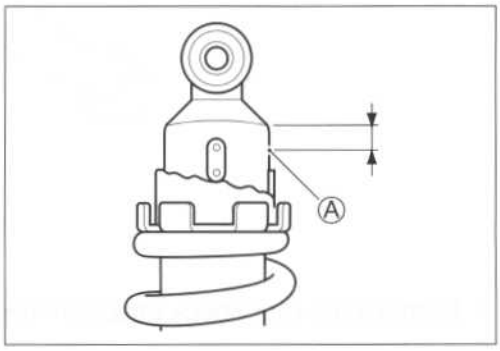
CAUTION

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

REAR SHOCK ABSORBER DISPOSAL

⚠ WARNING

The rear shock unit contains high-pressure nitrogen gas. Mishandling can cause explosion.
*** Keep away from fire and heat. High gas pressure caused by heat can cause an explosion.**
*** Release gas pressure before disposing.**



GAS PRESSURE RELEASE

- Mark the drill hole at Ⓐ, shown in the illustration, with a center punch.

  Ⓐ: 7 mm (0.28 in)

- Cover the rear shock absorber with a transparent vinyl bag ①.
- Hold the rear shock absorber ② with a vice.
- Make a hole with a 3 mm drill.

⚠ WARNING

Wear eye protection to protect your eyes from released gas and metal chips.

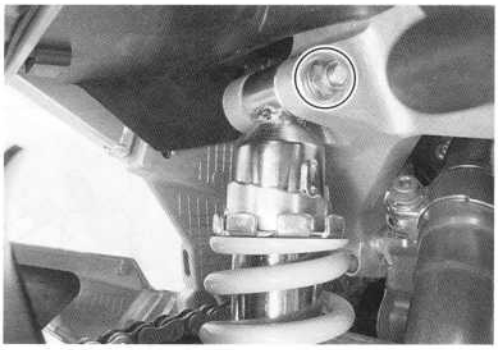
NOTE:
When holding the absorber, its bushing must be faced upward.

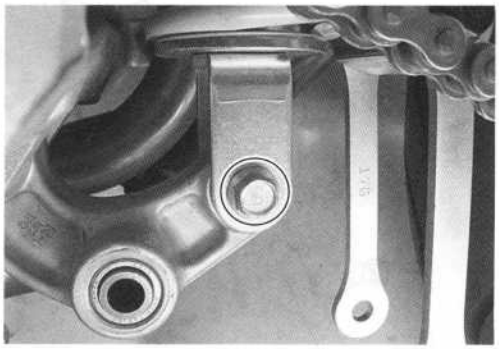
REMOUNTING

Remount the rear shock absorbers in the reverse order of removal. Pay attention to the following points:

- Install the rear shock absorber and tighten the rear shock absorber upper/lower mounting nuts.

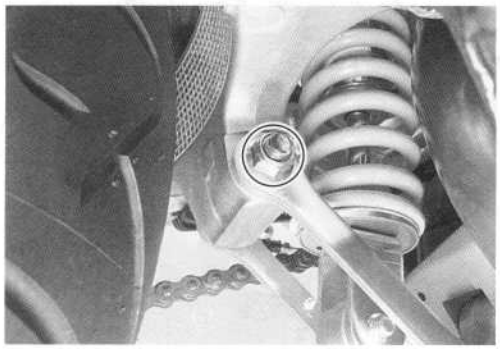
Rear shock absorber mounting lower nut:
50 N·m (5.0 kgf-m, 36.0 lb-ft)
Rear shock absorber mounting upper nut:
50 N·m (5.0 kgf-m, 36.0 lb-ft)





- Install the cushion rod bolt/Nut.
- Tighten the cushion rod nuts to the specified torque.

Cushion rod nut: 78 N·m (7.8 kgf-m, 56.5 lb-ft)

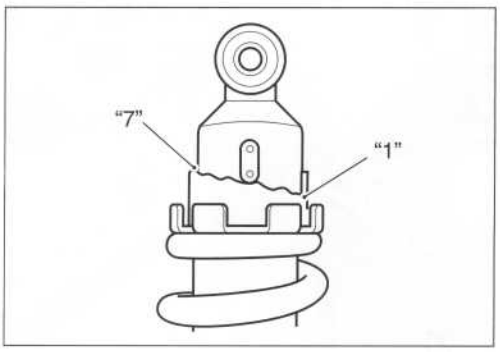


SUSPENSION SETTING

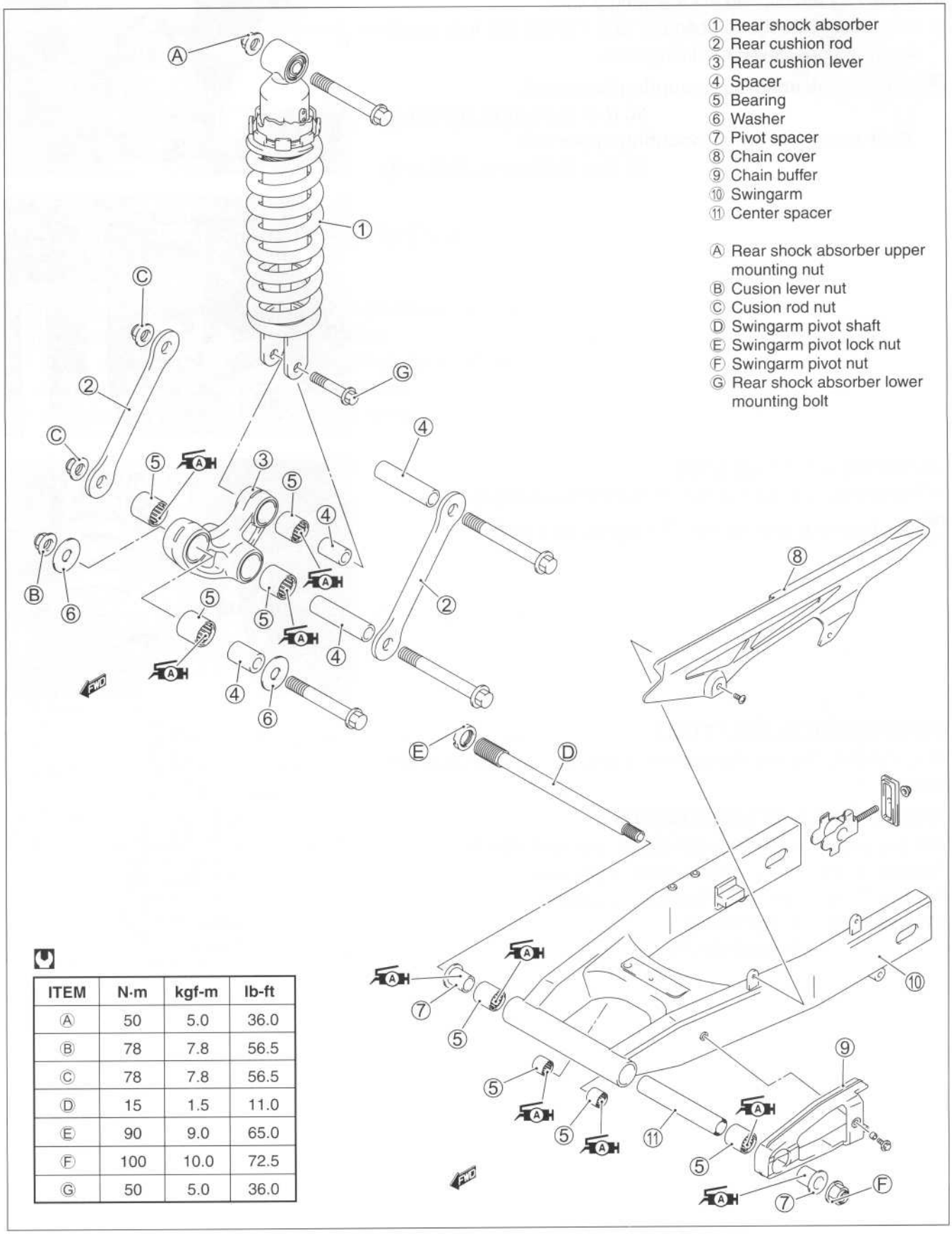
After installing the rear suspension, adjust the spring pre-load as follows.

SPRING PRE-LOAD ADJUSTMENT

The pre-load is adjusted by turning the pre-load adjuster.
Position "1" provides the softest spring pre-load.
Position "7" provides the stiffest spring pre-load.
STD position: "3" for SV650
"4" for SV650S



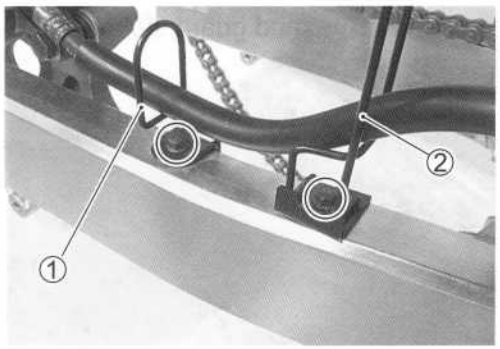
REAR SWINGARM
CONSTRUCTION



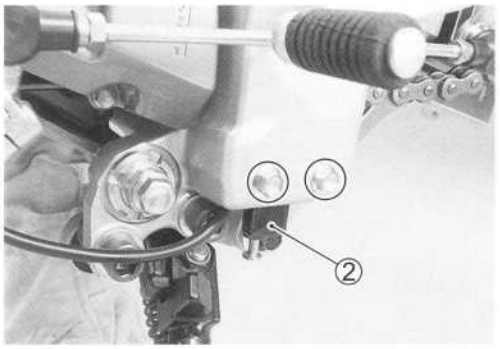
ITEM	N·m	kgf-m	lb-ft
Ⓐ	50	5.0	36.0
Ⓑ	78	7.8	56.5
Ⓒ	78	7.8	56.5
Ⓓ	15	1.5	11.0
Ⓔ	90	9.0	65.0
Ⓕ	100	10.0	72.5
Ⓖ	50	5.0	36.0

REMOVAL

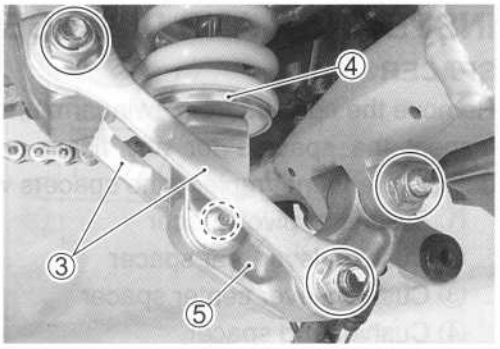
- Remove the exhaust pipe and exhaust muffler. (☞3-6)
- Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the chain cover.
- Remove the rear wheel. (☞7-42)
- Remove the rear brake hose guides ① and ②. (SV650S isn't equipped with the hose guide ①.)



- Remove the side-stand switch ②.

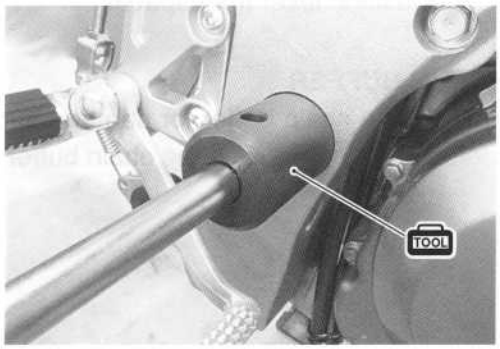


- Remove the cushion rods ③.
- Remove the shock absorber ④. (☞7-51)
- Remove the cushion lever ⑤.



- Remove the swingarm pivot shaft locknut by using the special tool.

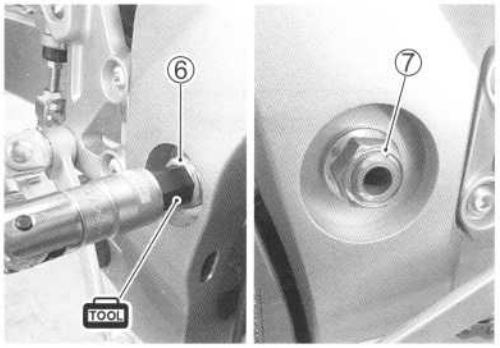
TOOL 09940-14940: Swingarm pivot thrust adjuster socket wrench



- Hold the swingarm pivot shaft ⑥ and remove the swingarm pivot nut ⑦.
- Remove the swingarm pivot shaft by using the special tool.

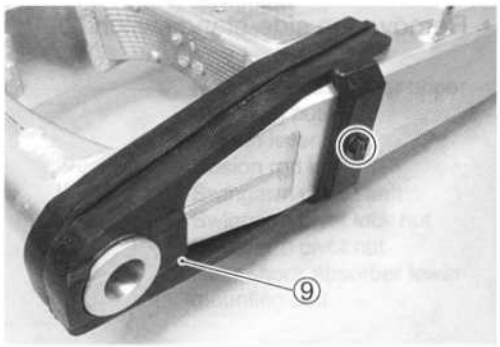
TOOL 09944-28320: Hexagon bit 19 mm

- Remove the swingarm.



• Remove the mud guard ⑧.

• Remove the chain buffer ⑨.

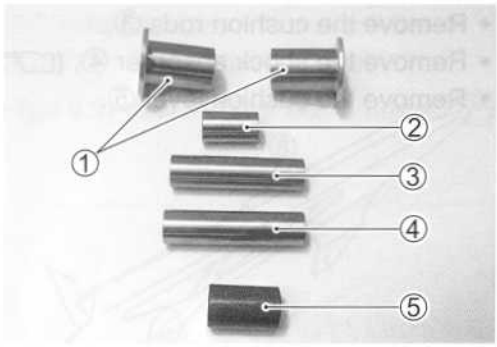


INSPECTION AND DISASSEMBLY

SPACER

Remove the spacers from swingarm and cushion lever.
Inspect the spacers for any flaws or other damage. If any defects are found, replace the spacers with the new ones.

① Swingarm pivot spacer
② Cushion lever rear spacer
③ Cushion lever center spacer
④ Cushion rod spacer
⑤ Cushion lever front spacer



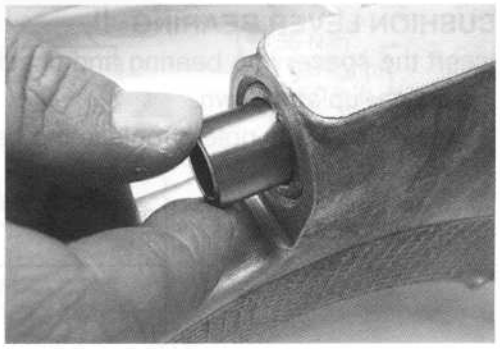
CHAIN BUFFER

Inspect the chain buffer for damage and excessive wear. If any defect is found, replace the chain buffer with a new one.

SWINGARM BEARING

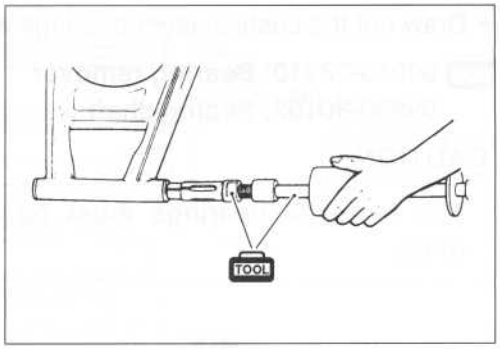
Insert the spacer into bearing and check the play when moving the spacer up and down.

If excessive play is noted, replace the bearing with a new one.



- Remove the swingarm pivot bearing and spacer with the special tools.

09923-74511: Bearing remover
09930-30102: Sliding shaft

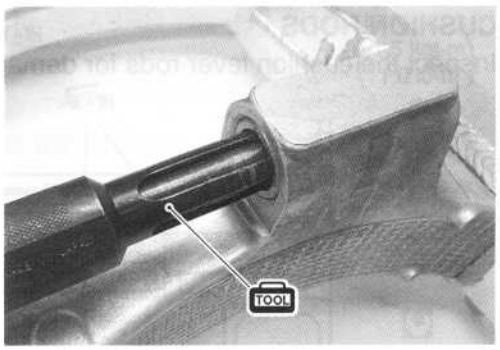


CAUTION

Do not reuse the removed bearings.

- Remove the cushion rod bearings by using the special tool.

09913-73210: Bearing remover
09930-30102: Sliding shaft



CAUTION

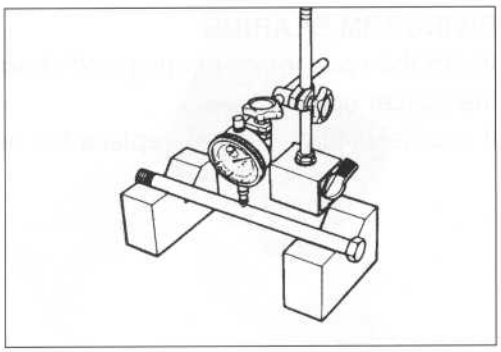
Do not reuse the removed bearings.

SWINGARM PIVOT SHAFT

Using a dial gauge, check the pivot shaft runout and replace it if the runout exceeds the limit.

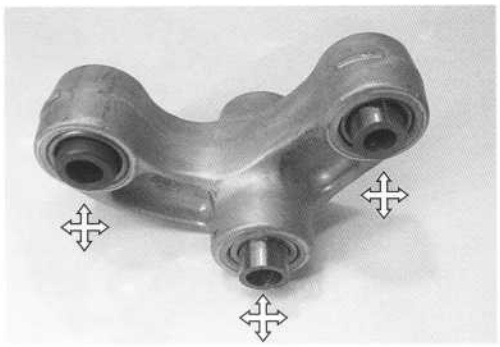
TOOL 09900-20607: Dial gauge (1/100 mm, 10 mm)
09900-20701: Magnetic stand
09900-21304: V-block (100 mm)

DATA Swingarm pivot shaft runout:
Service limit: 0.3 mm (0.01 in)



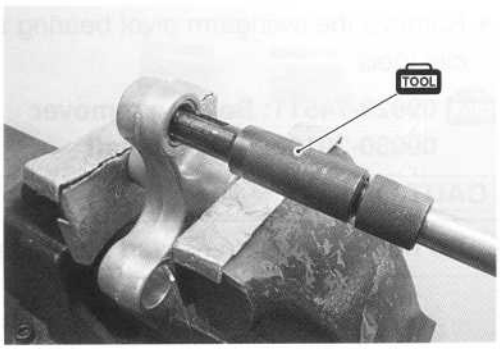
CUSHION LEVER BEARING

Insert the spacer into bearing and check the play when moving the spacer up and down.
If excessive play is noted, replace the bearing with a new one.



- Draw out the cushion lever bearings with the special tool.

TOOL 09913-73210: Bearing remover
09930-30102: Sliding shaft



CAUTION

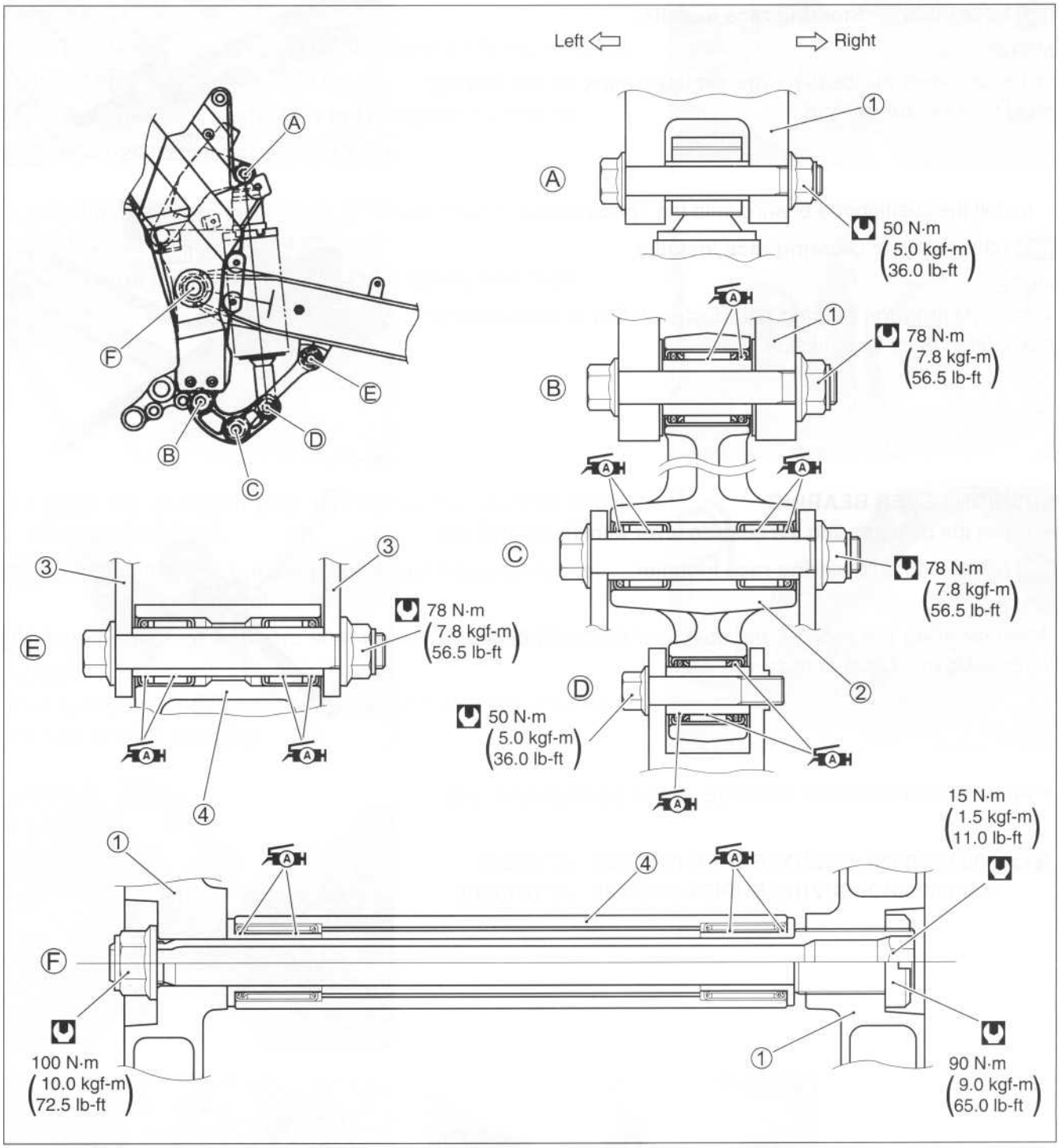
The removed bearings must be replaced with new ones.

CUSHION RODS

Inspect the cushion lever rods for damage and distortion.

REASSEMBLY

Reassemble the swingarm in the reverse order of disassembly and removal.
Pay attention to the following points:



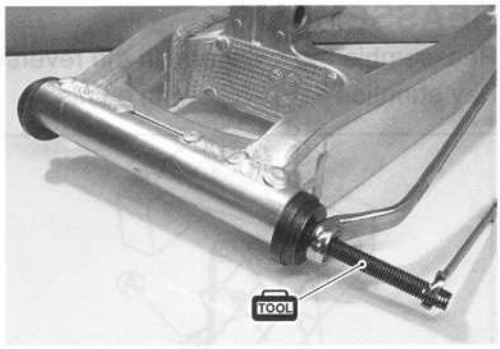
① Frame ② Cushion lever ③ Cushion rod ④ Swingarm

SWINGARM BEARING

- Install the bearings and spacer into the swingarm pivot all together by using the special tool.

TOOL 09941-34513: Steering race installer

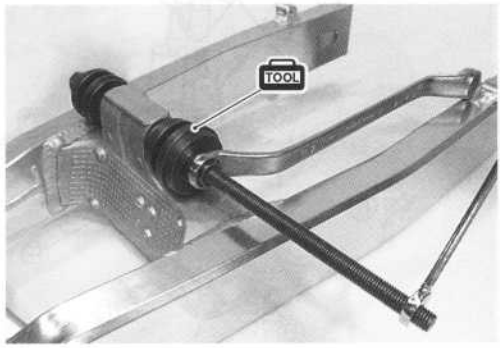
NOTE:
When installing the bearing, the stamped mark on the bearing must face the special tool.



- Install the cushion rod bearing with the special tool.

TOOL 09941-34513: Steering race installer

NOTE:
When installing the bearing, the dust seal that is embedded in the bearing must face outside.

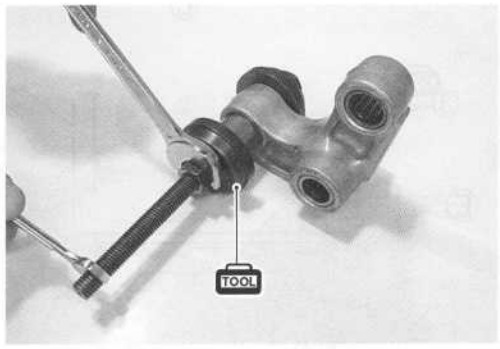


CUSHION LEVER BEARING

- Press the bearings into the cushion lever with the special tool.

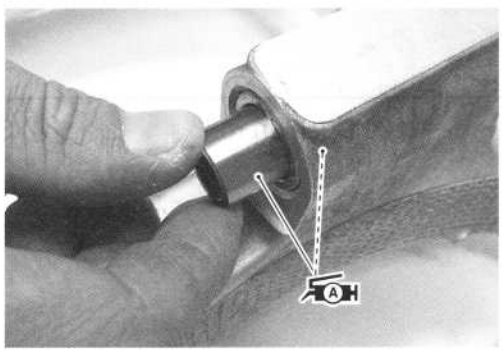
TOOL 09941-34513: Steering race installer

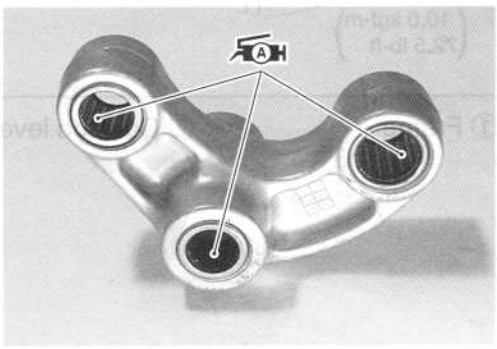
NOTE:
When installing the bearing, the dust seal that is embedded in the bearing must face outside.



- Apply SUZUKI SUPER GREASE to the bearings and spacers.

A 99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)





REMOUNTING

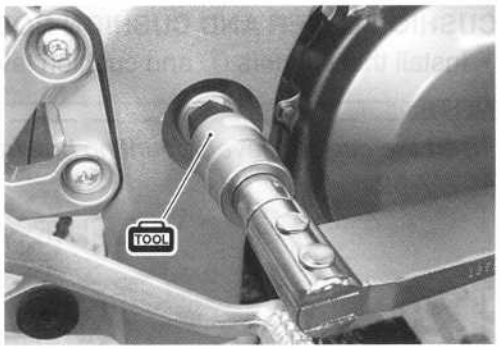
Remount the swingarm in the reverse order of disassembly and removal, and pay attention to the following points:

SWINGARM

- Insert the swingarm pivot shaft and tighten it to the specified torque by using the special tool.

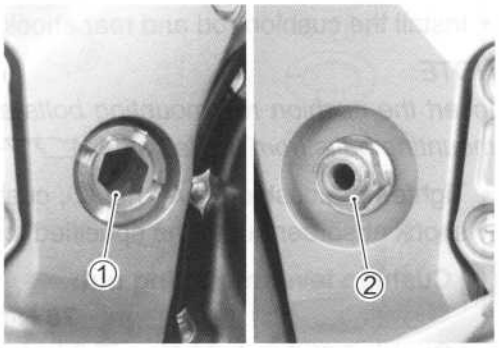
Swingarm pivot shaft: 15 N·m (1.5 kgf-m, 11.0 lb-ft)

09944-28320: Hexagon bit 19 mm



- Hold the swingarm pivot shaft ① and tighten the swingarm pivot nut ② to the specified torque.

Swingarm pivot nut: 100 N·m (10.0 kgf-m, 72.5 lb-ft)



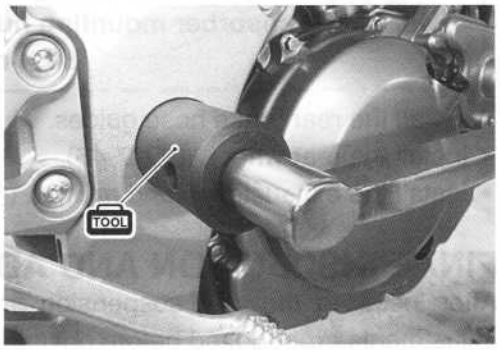
- Tighten the swingarm pivot lock nut to the specified torque with the special tool.

09940-14940: Swingarm pivot thrust adjuster socket wrench

Swingarm pivot lock nut: 90 N·m (9.0 kgf-m, 65.0 lb-ft)

NOTE:

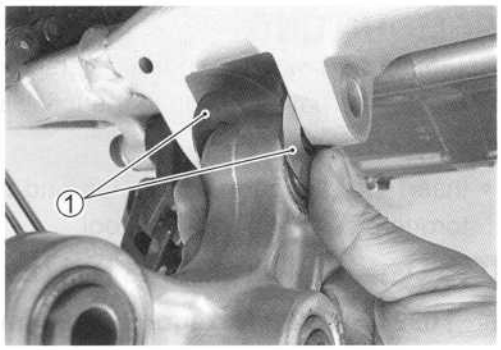
After tightening the pivot shaft nut and lock nut, inspect the swingarm for smooth swinging.



CUSHION LEVER AND CUSHION ROD

- Install the washers ① and cushion lever.

NOTE:
Insert the cushion lever mounting bolt from the left side. (☞7-59)

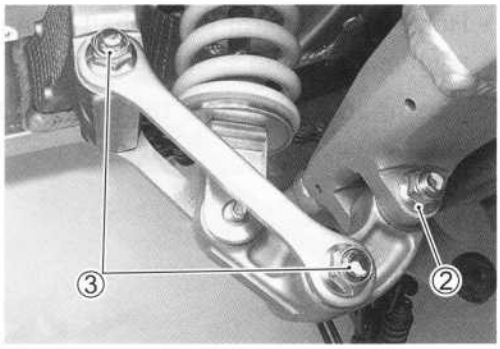


- Install the cushion rod and rear shock absorber. (☞7-53)

NOTE:
Insert the cushion rod mounting bolts and rear shock absorber mounting bolts from the left side. (☞7-59)

- Tighten the cushion lever nut ②, cushion rod nut ③ and rear shock absorber nut to the specified torque.

Cushion lever mounting nut:
78 N·m (7.8 kgf-m, 56.5 lb-ft)
Cushion rod nut: 78 N·m (7.8 kgf-m, 56.5 lb-ft)
Rear shock absorber mounting nut:
50 N·m (5.0 kgf-m, 36.0 lb-ft)



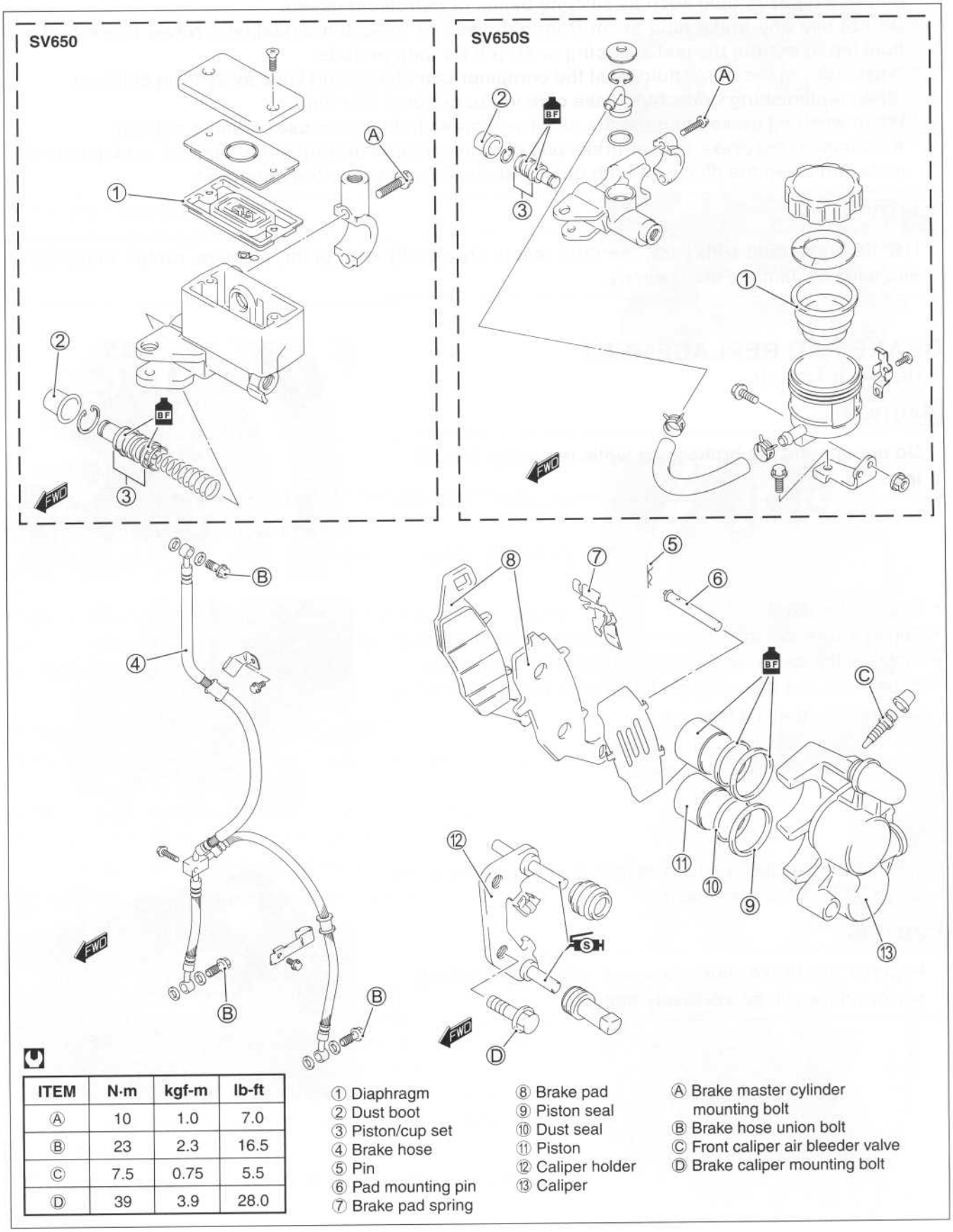
- Install the rear brake hose guides.
- Install the rear wheel. (☞7-46)
- Install the exhaust pipe and muffler. (☞3-20)

FINAL INSPECTION AND ADJUSTMENT

After installing the rear suspension and wheel, the following adjustments are required before driving.

* Drive chain: ☞2-24
* Tire pressure: ☞7-92
* Chassis bolts and nuts: ☞2-32

FRONT BRAKE
CONSTRUCTION



ITEM	N·m	kgf-m	lb-ft
Ⓐ	10	1.0	7.0
Ⓑ	23	2.3	16.5
Ⓒ	7.5	0.75	5.5
Ⓓ	39	3.9	28.0

① Diaphragm
② Dust boot
③ Piston/cup set
④ Brake hose
⑤ Pin
⑥ Pad mounting pin
⑦ Brake pad spring
⑧ Brake pad
⑨ Piston seal
⑩ Dust seal
⑪ Piston
⑫ Caliper holder
⑬ Caliper
Ⓐ Brake master cylinder mounting bolt
Ⓑ Brake hose union bolt
Ⓒ Front caliper air bleeder valve
Ⓓ Brake caliper mounting bolt

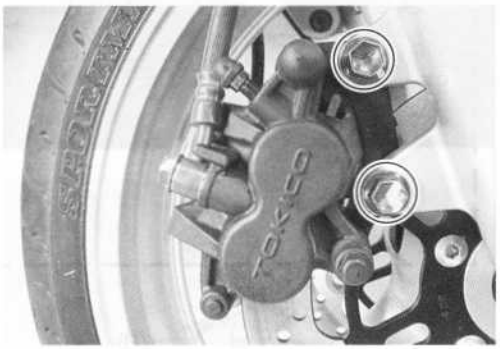
⚠ WARNING

*** This brake system is filled with an ethylene glycol-based DOT 4 brake fluid. Do not use mix different types of fluid such as silicone-based or petroleum-based.**
*** Do not use any brake fluid taken from old, used or unsealed containers. Never reuse brake fluid left over from the last servicing or stored for long periods.**
*** When storing the brake fluid, seal the container completely and keep away from children.**
*** When replenishing brake fluid, take care not to get dust into fluid.**
*** When washing brake components, use fresh brake fluid. Never use cleaning solvent.**
*** A contaminated brake disc or brake pad reduces braking performance. Discard contaminated pads and clean the disc with high quality brake cleaner or neutral detergent.**

CAUTION

Handle brake fluid with care: the fluid reacts chemically with paint, plastics, rubber materials etc. and will damage then severly.

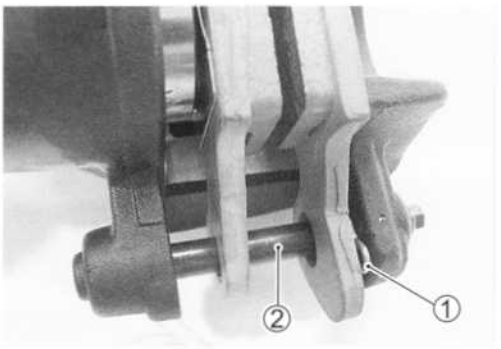
BRAKE PAD REPLACEMENT



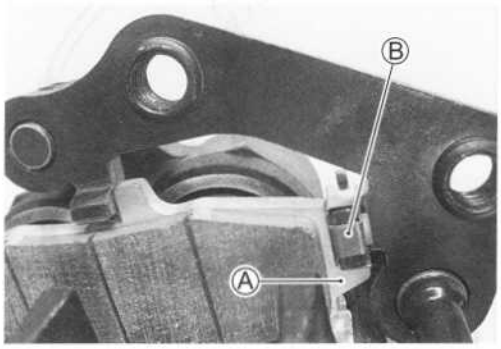
- Remove the caliper.

CAUTION

Do not operate the brake lever while removing the caliper.



- Remove the pin ①.
- Remove the brake pads by removing the pad mounting pin ②.
- Clean up the caliper especially around the caliper pistons.
- Inspect the pad mounting pin for wear or damage. If necessary, replace it with a new one.

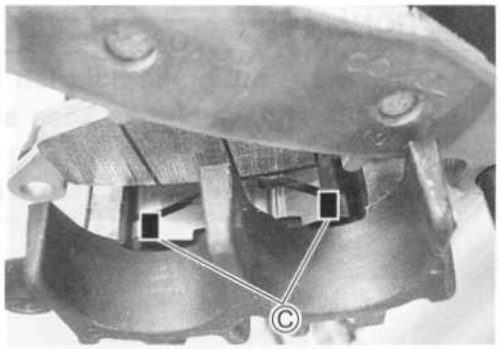


- Install the outer pad with the detent Ⓐ of pad fitted to the detent Ⓑ on the caliper holder.

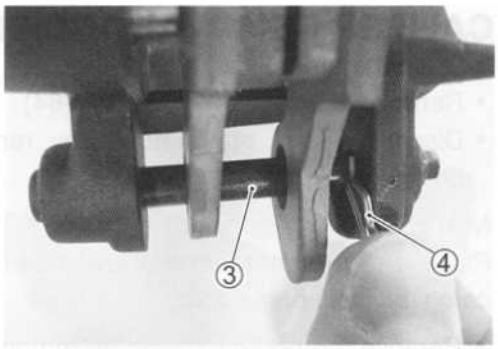
CAUTION

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

- Install the inner pad so that the inner pad will be seated on the hatched part Ⓒ.

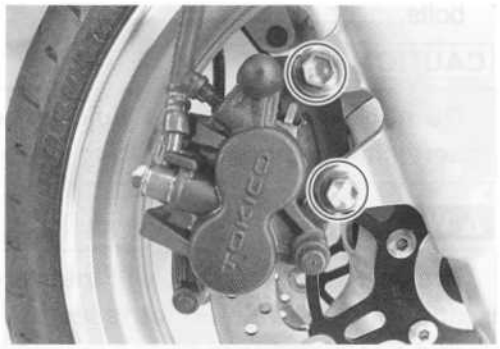


- Install the pad mounting pin ③.
- Install the pin ④ securely.



- Remount the caliper.
- Tighten the caliper mounting bolts to the specified torque.

Front brake caliper mounting bolt:
39 N·m (3.9 kgf-m, 28.0 lb-ft)



NOTE:
After replacing the brake pads, pump the brake lever several times to check for proper brake operation and then check the brake fluid level.

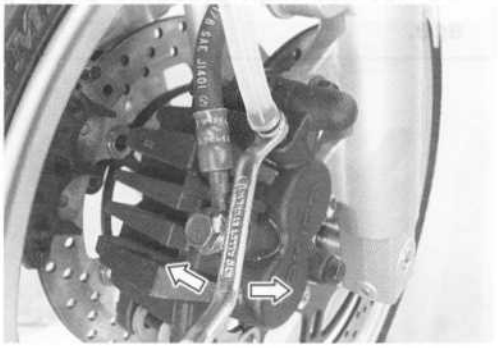
BRAKE FLUID REPLACEMENT

- Place the motorcycle on a level surface and keep the handlebars straight.
- Remove the brake fluid reservoir cap and diaphragm.
- Suck up the old brake fluid as much as possible.
- Fill the reservoir with the new brake fluid.

Specification and Classification: DOT 4

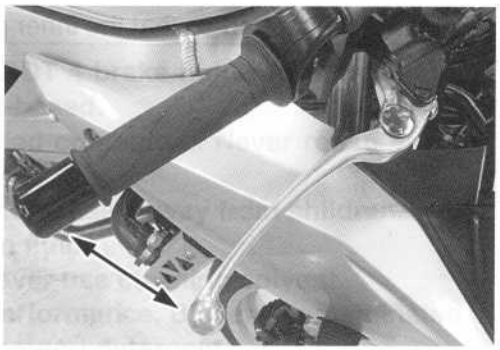
- Connect a clear hose to the caliper air bleeder valve and insert the other end of hose into a receptacle.
- Loosen the air bleeder valve and pump the brake lever until old brake fluid flows out of the bleeder system.
- Close the caliper air bleeder valve and disconnect a clear hose. Fill the reservoir with the new fluid to the upper mark of the reservoir.

Brake air bleeder valve: 7.5 N·m (0.75 kgf-m, 5.5 lb-ft)



CAUTION

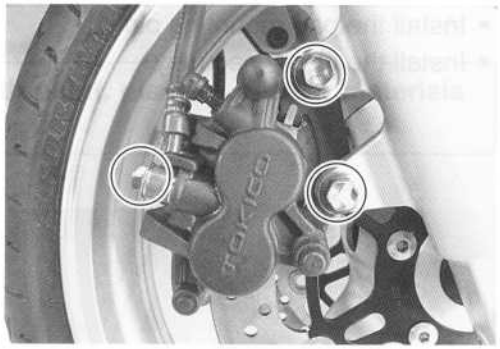
*** Never reuse the brake fluid left over from previous servicing and which has been stored for long periods of time.**
*** Bleed air from the brake system. (☞2-28)**



CALIPER REMOVAL AND DISASSEMBLY

- Drain the brake fluid. (☞7-65)
- Remove the brake pads. (☞7-64)
- Disconnect the brake hoses by removing the brake hose union bolts.

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



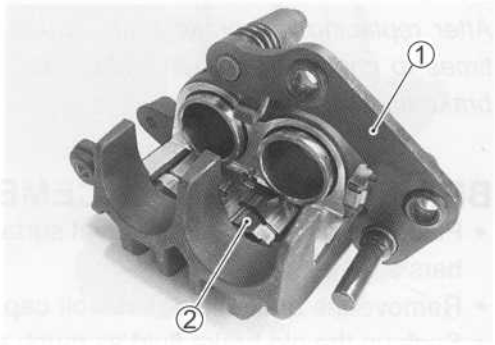
- Remove the brake calipers by removing the caliper mounting bolts.

CAUTION

Do not reuse the brake fluid left over from previous servicing and stored for long periods of time.

⚠ WARNING

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



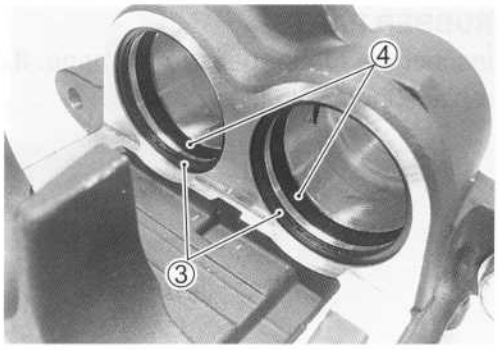
- Remove the caliper holder ①.
- Remove the pad spring ②.

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

CAUTION

Do not use high pressure air to prevent piston damage.

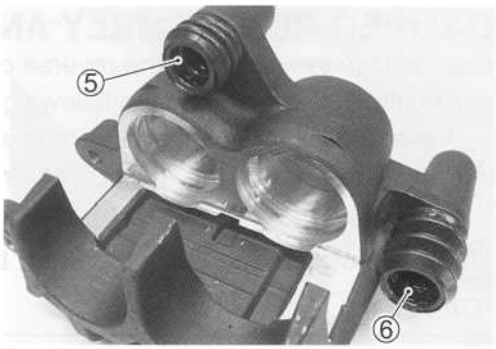
- Remove the dust seals ③ and piston seals ④.



CAUTION

Do not reuse the removed dust seals and piston seals to prevent fluid leakage.

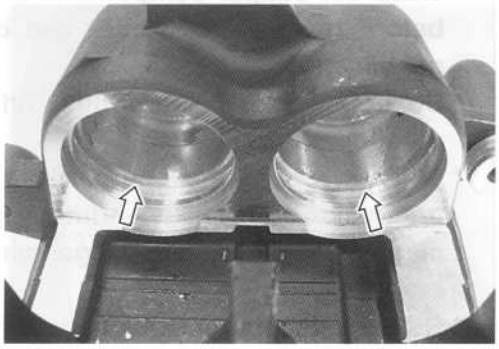
- Remove the rubber parts ⑤, ⑥.



CALIPER INSPECTION

BRAKE CALIPER

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



BRAKE CALIPER PISTON

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

CALIPER HOLDER

- Inspect the caliper holder for damage. If any damage is found, replace it with a new one.

RUBBER PARTS

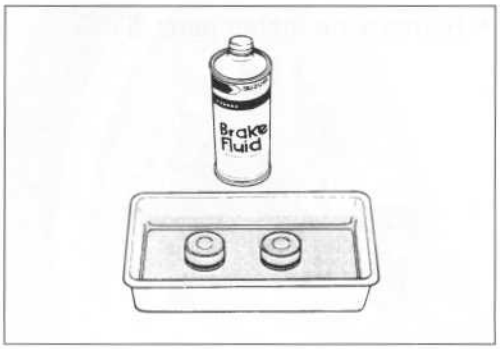
Inspect the rubber parts for damage. If any damages are found, replace them with the new ones.

CALIPER REASSEMBLY AND REMOUNTING

Reassemble the caliper in the reverse order of removal and disassembly. Pay attention to the following points:

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

Specification and Classification: DOT 4

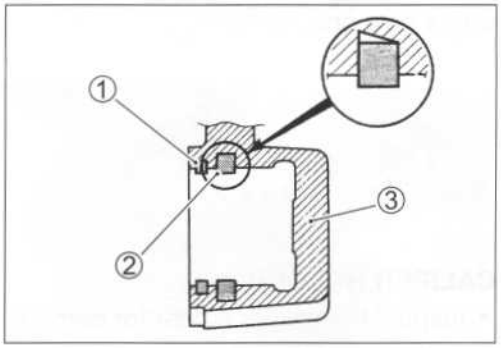


CAUTION

*** Wash the caliper components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.**
*** Do not wipe the brake fluid off after washing the components with a rag.**
*** When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvent such as gasoline, kerosine or others.**
*** Replace the piston seals and dust seals with the new ones when reassembly.**
*** Apply the brake fluid to both seals when installing them.**

PISTON SEAL

- Install the piston seals as shown in the illustration.
- Install the piston to the caliper.



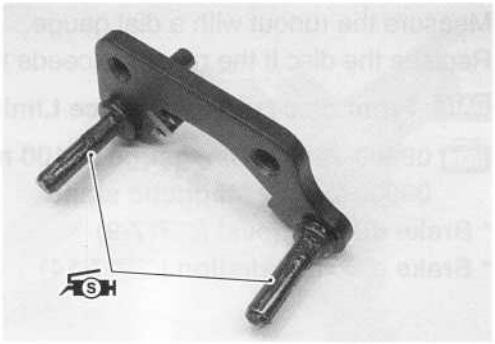
① Dust seal
② Piston seal
③ Caliper

CALIPER HOLDER

- Apply SUZUKI SILICONE GREASE to the caliper holder pin.

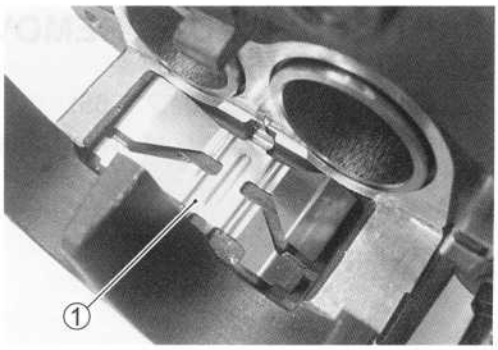
99000-25100: SUZUKI SILICONE GREASE

- Install the caliper holder to the caliper.



- Install the pad spring ①.
- Install the brake pads. (☞7-64)

NOTE:
Before remounting the caliper, push the piston all the way into the caliper.

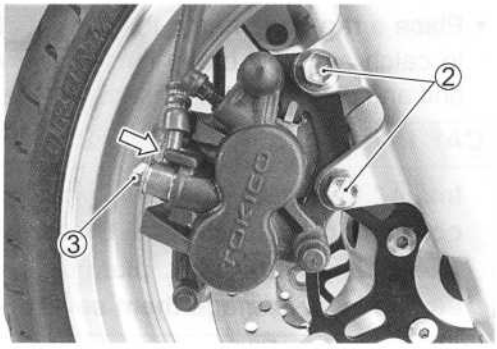


- Remount the brake caliper to the front fork.

Front brake caliper mounting bolt ②:
39 N·m (3.9 kgf-m, 28.0 lb-ft)

- Install the brake hose.
- After setting the brake hose union to the stopper (refer to page 9-33, 9-34), tighten the union bolt to the specified torque.

Front brake hose union bolt ③:
23 N·m (2.3 kgf-m, 16.5 lb-ft)



CAUTION

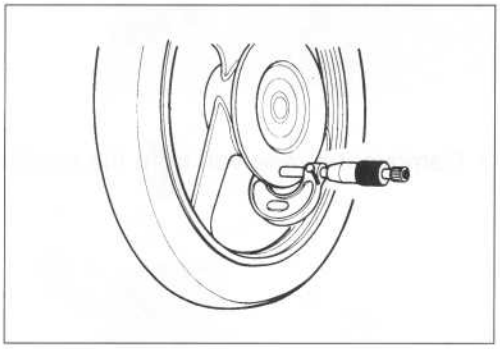
*** The seal washers should be replaced with the new ones to prevent fluid leakage.**
*** Bleed air from the system after reassembling the caliper. (☞2-28)**

BRAKE DISC INSPECTION

Visually check the brake disc for damage or cracks.
Measure the thickness with a micrometer.
Replace the disc if the thickness is less than the service limit or if damage is found.

Front disc thickness: Service Limit: 4.0 mm (0.16 in)

09900-20205: Micrometer (0 – 25 mm)

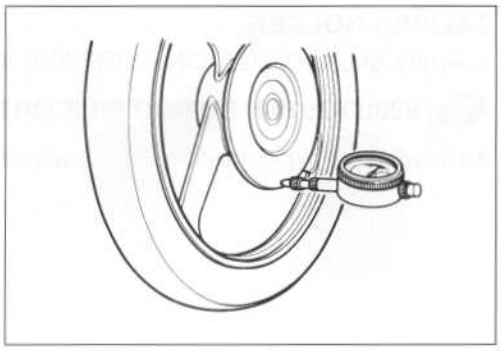


Measure the runout with a dial gauge.
Replace the disc if the runout exceeds the service limit.

DATA Front disc runout: Service Limit: 0.30 mm (0.012 in)

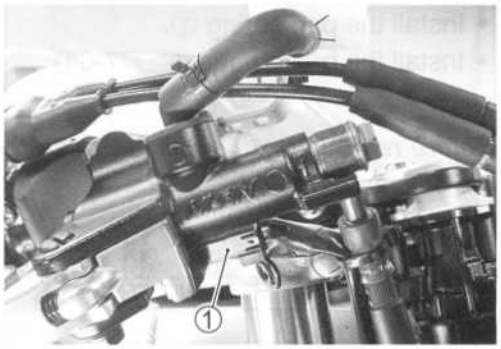
TOOL 09900-20607: Dial gauge (1/100 mm)
09900-20701: Magnetic stand

*** Brake disc removal (☞7-9)**
*** Brake disc installation (☞7-14)**



MASTER CYLINDER REMOVAL AND DISASSEMBLY (SV650S)

- Drain the brake fluid. (☞7-65)
- Disconnect the brake light switch coupler ①.

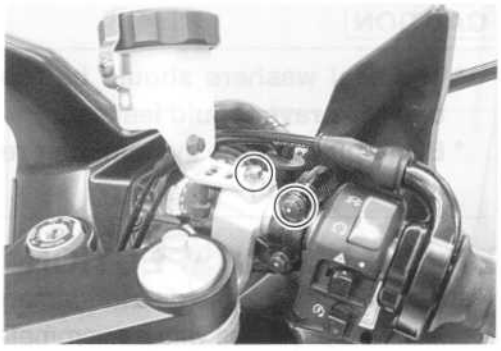


- Place a rag underneath the union bolt on the master cylinder to catch any spilt brake fluid. Remove the brake hose union bolt and disconnect the brake hose.

CAUTION

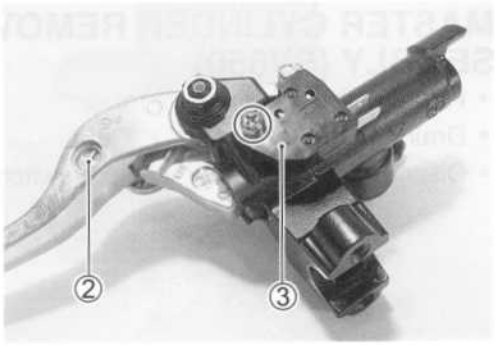
Immediately and completely wipe off any brake fluid contacting any part of the motorcycle. The fluid reacts chemically with paint, plastics and rubber materials, etc. and will damage them severely.

- Remove the master cylinder along with the reservoir.

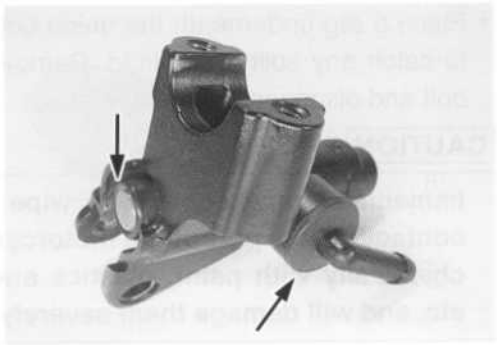


- Remove the reservoir from the master cylinder.

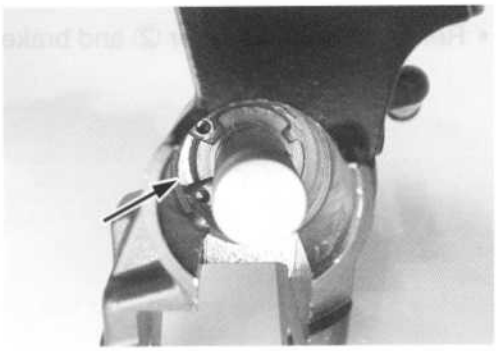
- Remove the brake lever ② and brake light switch ③.



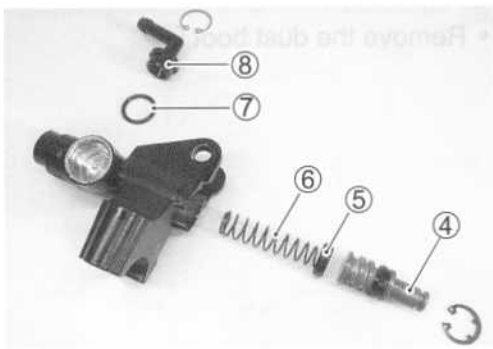
- Remove the dust cover and dust boot.



- Remove the snap rings.

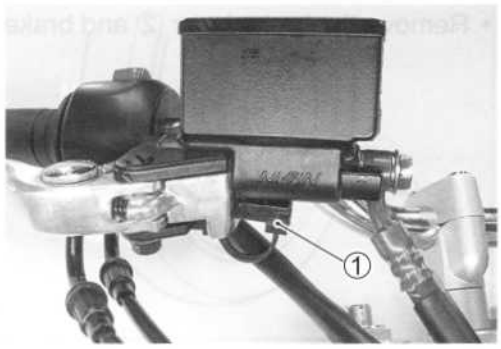


- Remove the piston and return spring.
  - ④ Piston/Cup set
  - ⑤ Primary cup
  - ⑥ Return spring
  - ⑦ O-ring
  - ⑧ Brake hose connector



MASTER CYLINDER REMOVAL AND DISASSEMBLY (SV650)

- Remove the rear view mirror.
- Drain the brake fluid. (☞7-65)
- Disconnect the front brake light switch coupler ①.



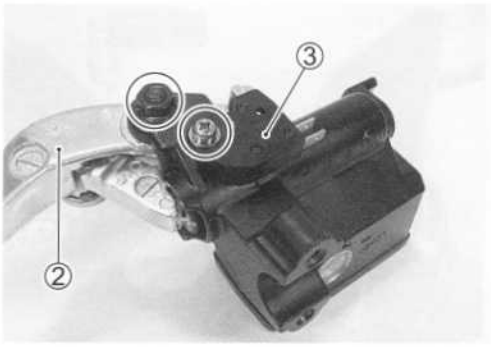
- Place a rag underneath the union bolt on the master cylinder to catch any spilt brake fluid. Remove the brake hose union bolt and disconnect the brake hose.

CAUTION

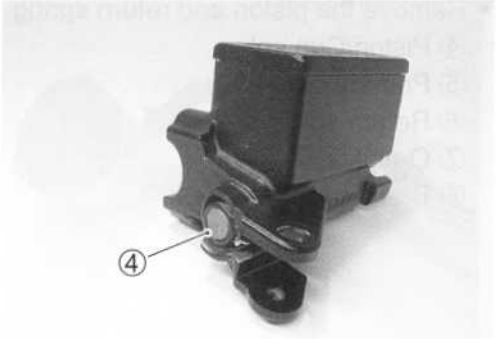
Immediately and completely wipe off any brake fluid contacting any part of the motorcycle. The fluid reacts chemically with paint, plastics and rubber materials, etc. and will damage them severely.

- Remove the master cylinder.

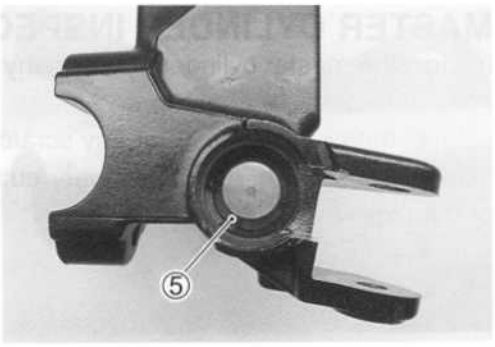
- Remove the brake lever ② and brake light switch ③.



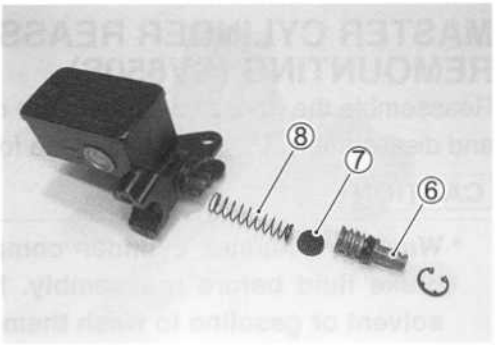
- Remove the dust boot ④.



- Remove the snap ring ⑤.

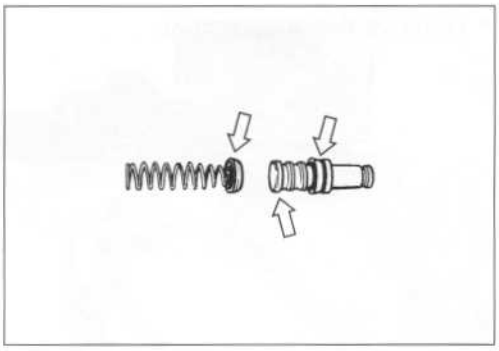


- Remove the piston and return spring.
  - ⑥ Piston/Cup set
  - ⑦ Primary cup
  - ⑧ Return spring



MASTER CYLINDER INSPECTION

Inspect the master cylinder bore for any scratches or other damage.
Inspect the piston surface for any scratches or other damage.
Inspect the primary cup, secondary cup and dust seal for wear or damage.

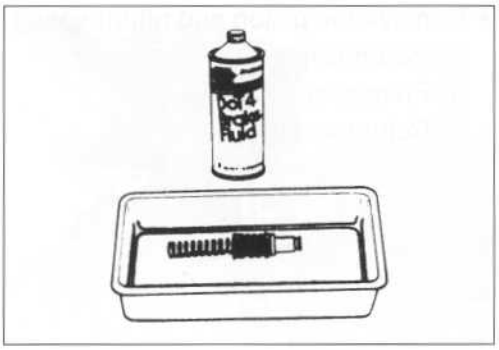


MASTER CYLINDER REASSEMBLY AND REMOUNTING (SV650S)

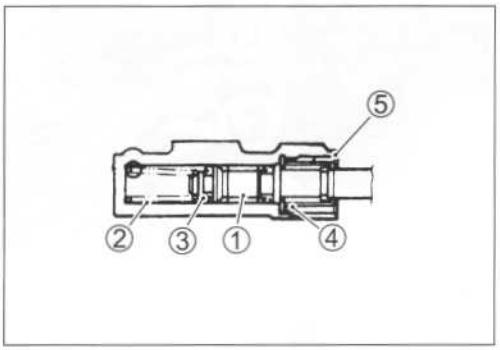
Reassemble the master cylinder in the reverse order of removal and disassembly. Pay attention to the following points:

CAUTION

*** Wash the master cylinder components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.**
*** Do not wipe the components with a rag.**
*** Apply brake fluid to the cylinder bore and all the component to be inserted into the bore.**



- Install the piston/Cup set into the master cylinder.
  ① Piston
  ② Return spring
  ③ Primary cap
  ④ Snap ring
  ⑤ Dust boot

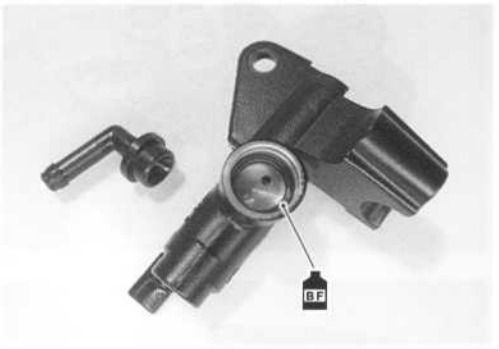


- Apply brake fluid to the O-ring, then install the O-ring to the master cylinder.
- Install the brake hose connector.

CAUTION

Use a new O-ring to prevent the fluid leakage.

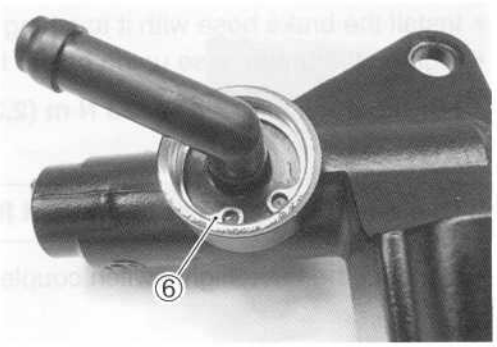
Specification and Classification: DOT 4



- Install the snap ring ⑥.

CAUTION

The round edge side of the circlip must be against to inside.



- Install the dust cover ⑦ and dust boot ⑧.

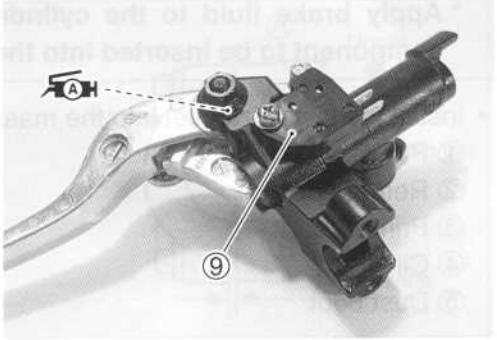
- Install the brake lever and brake light switch ⑨.

NOTE:

** Apply SUZUKI SUPER GREASE to the brake lever pivot bolt when installing.*

99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

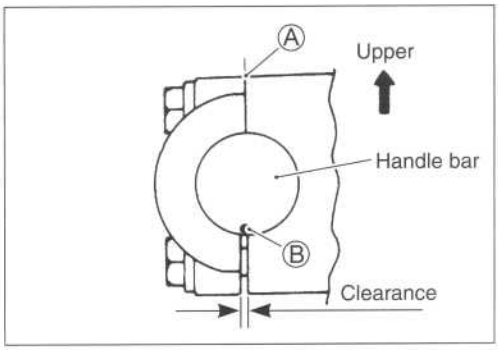
** Align the projection on the brake light switch with the hole on the master cylinder.*



- Install the reservoir to the master cylinder.

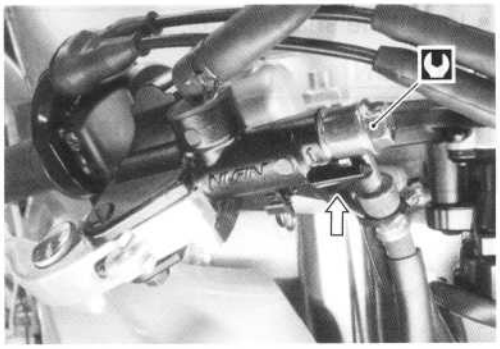
- When remounting the brake master cylinder onto the handlebar, align the master cylinder holder's mating surface Ⓐ with punched mark Ⓑ on the handlebar and tighten the upper clamp bolt first as shown.

Front brake master cylinder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)



- Install the brake hose with it touching the stopper. (☞9-33)
- Tighten the brake hose union bolt to the specified torque.

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



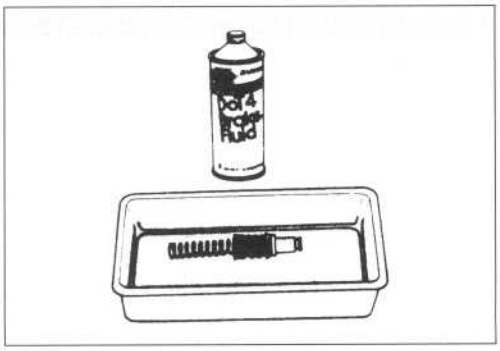
CAUTION

Use new seal washers to prevent fluid leakage.

- Connect the brake light switch coupler.

MASTER CYLINDER REMOVAL AND REMOUNTING (SV650)

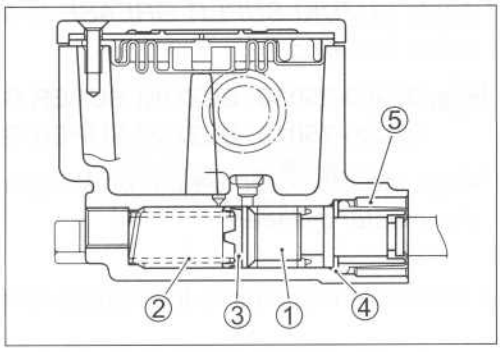
Reassemble the master cylinder in the reverse order of removal and disassembly. Pay attention to the following points:



CAUTION

*** Wash the master cylinder components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.**
*** Do not wipe the components with a rag.**
*** Apply brake fluid to the cylinder bore and all the component to be inserted into the bore.**

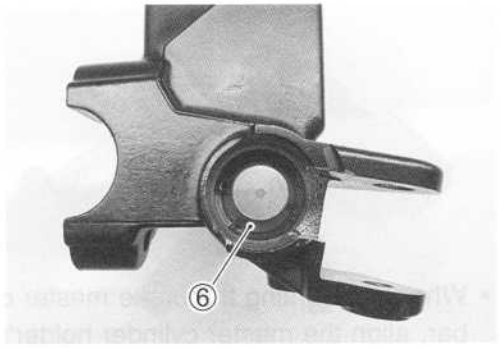
- Install the piston/cup set into the master cylinder.
  ① Piston
  ② Return spring
  ③ Primary cap
  ④ Circlip
  ⑤ Dust boot



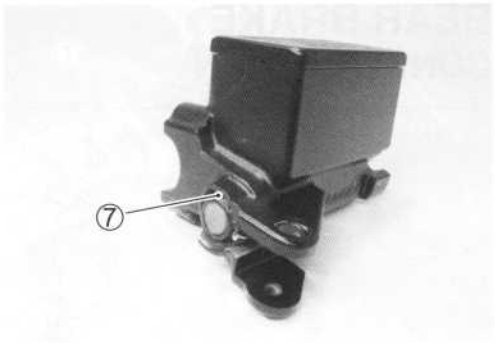
- Install the snap ring ⑥.

CAUTION

The round edge side of the circlip must be against to inside.



- Install the dust boot ⑦.



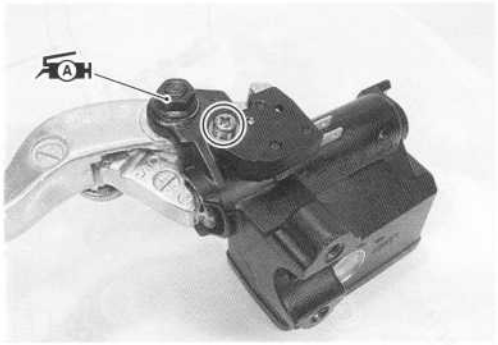
- Install the brake lever and brake light switch.

NOTE:

** Apply SUZUKI SUPER GREASE to the brake lever pivot bolt when installing.*

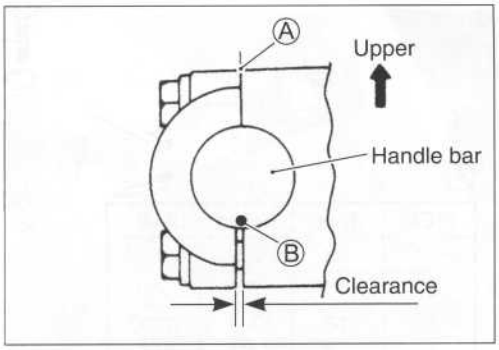
99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)

** Align the projection on the brake light switch with the hole on the master cylinder.*



- When remounting the brake master cylinder onto the handlebar, align the master cylinder holder's mating surface Ⓐ with punched mark Ⓑ on the handlebar and tighten the upper clamp bolt first as shown.

Front brake master cylinder mounting bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)



- Install the brake hose with it touching the stopper. (☞9-32)
- Tighten the brake hose union bolt to the specified torque.

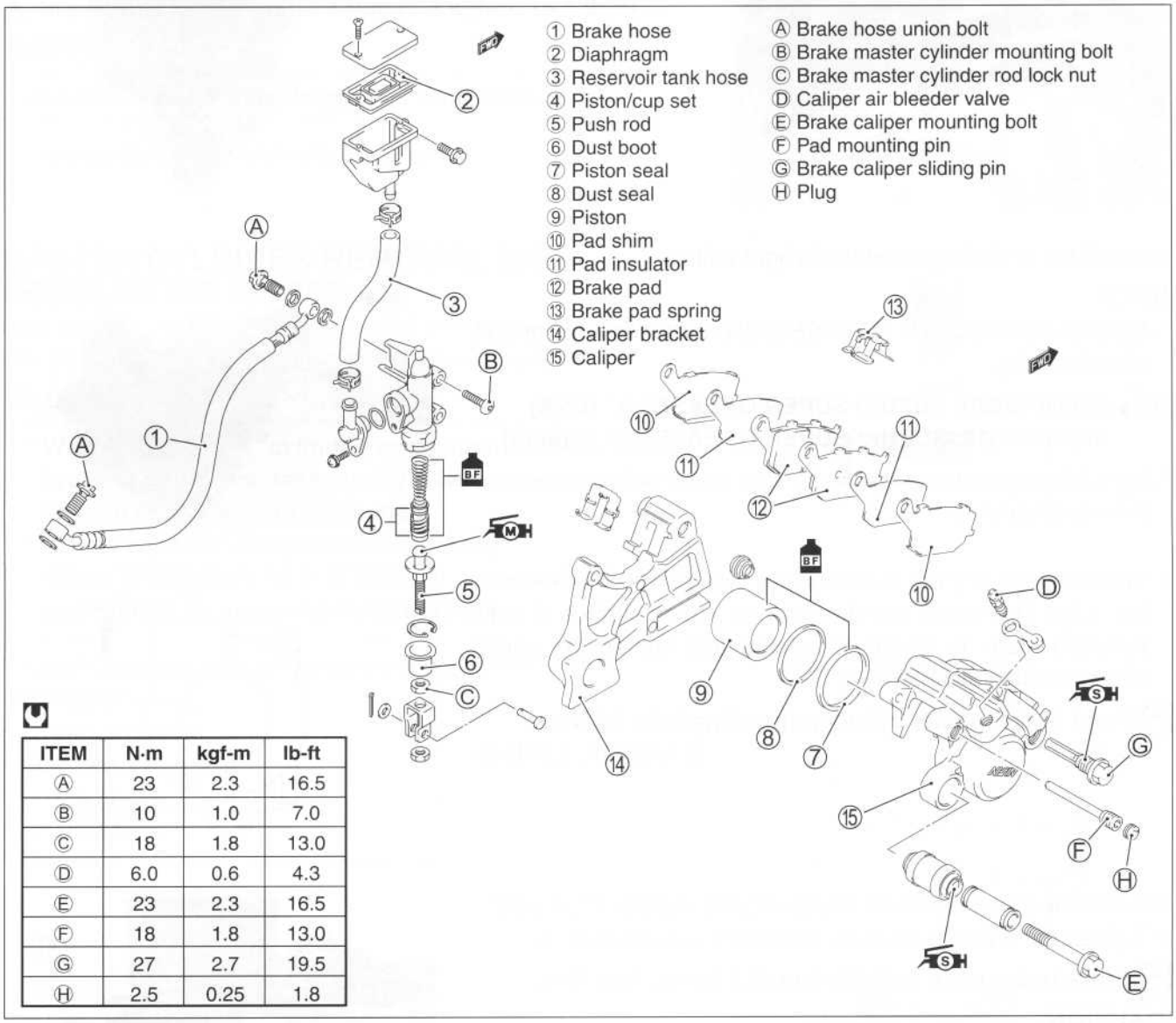
Brake hose union bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

CAUTION

Use new seal washers to prevent fluid leakage.

- Connect the brake light switch.

REAR BRAKE
CONSTRUCTION



ITEM	N·m	kgf-m	lb-ft
Ⓐ	23	2.3	16.5
Ⓑ	10	1.0	7.0
Ⓒ	18	1.8	13.0
Ⓓ	6.0	0.6	4.3
Ⓔ	23	2.3	16.5
Ⓕ	18	1.8	13.0
Ⓖ	27	2.7	19.5
Ⓗ	2.5	0.25	1.8

⚠ WARNING

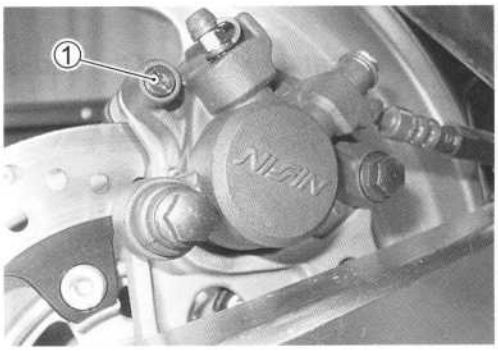
*** This brake system is filled with an ethylene glycol-based DOT 4 brake fluid. Do not use or mix different types of fluid such as silicone-based or petroleum-based.**
*** Do not use any brake fluid taken from old, used or unsealed containers. Never reuse brake fluid left over from the last servicing or stored for long periods.**
*** When storing the brake fluid, seal the container completely and keep away from children.**
*** When replenishing brake fluid, take care not to get dust into fluid.**
*** When washing brake components, use fresh brake fluid. Never use cleaning solvent.**
*** A contaminated brake disc or brake pad reduces braking performance. Discard contaminated pads and clean the disc with high quality brake cleaner or neutral detergent.**

CAUTION

Handle brake fluid with care: the fluid reacts chemically with paint, plastics, rubber materials etc. and will damage them severly.

BRAKE PAD REPLACEMENT

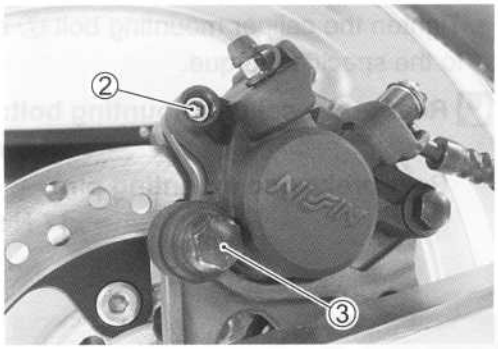
- Remove the plug ①.



- Loosen the pad mounting pin ②.
- Remove the caliper bracket bolt ③.

CAUTION

*** Do not operate the brake pedal while dismounting the pads.**
*** Replace the brake pads as a set, otherwise braking performance will be adversely affected.**

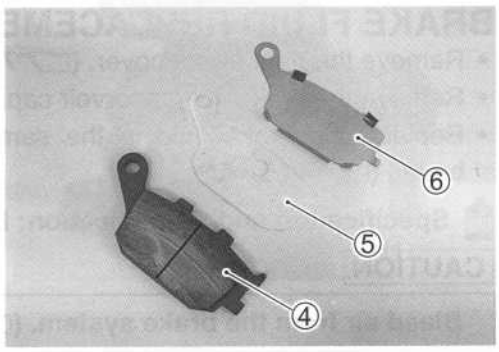


- Remove the pad mounting pin and brake pads with the rear caliper pivoted up.
- Clean up the caliper especially around the caliper pistons.
- Inspect the pad mounting pin for wear or damage. If necessary, replace it with a new one.

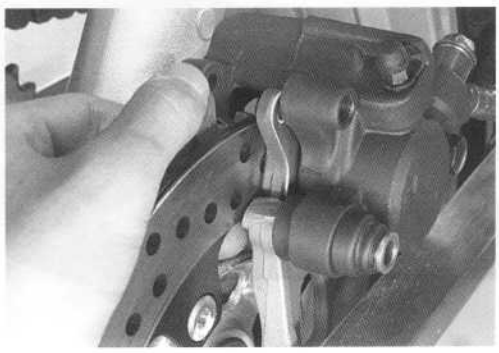
- Assemble the new brake pad ④, insulator ⑤ and shim ⑥.

CAUTION

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



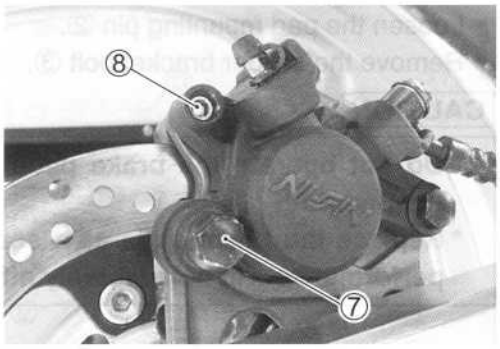
- Install the new brake pads and pad mounting pin.



NOTE:
Make sure that the detent of the pad is seated onto the retainer on the caliper bracket.

- Tighten the caliper mounting bolt ⑦ and pad mounting pin ⑧ to the specified torque.

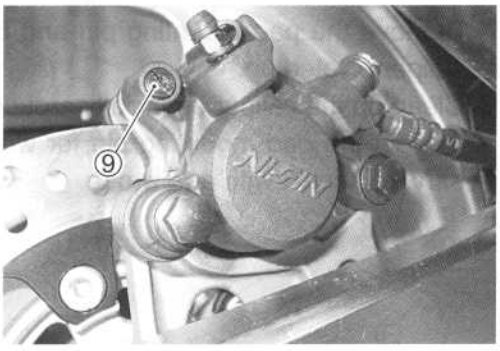
Rear brake caliper mounting bolt:
23 N·m (2.3 kgf-m, 16.5 lb-ft)
Rear brake pad mounting pin:
17 N·m (1.7 kgf-m, 12.5 lb-ft)



- Install the plug ⑨ to the specified torque.

Pad pin plug: 2.5 N·m (0.25 kgf-m, 1.8 lb-ft)

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



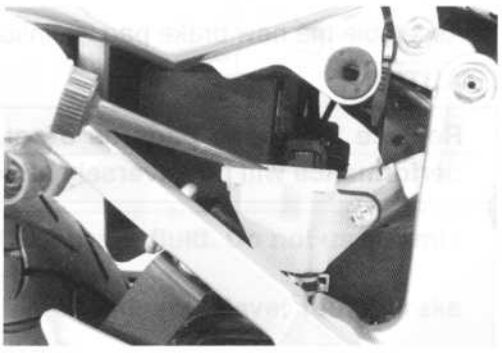
BRAKE FLUID REPLACEMENT

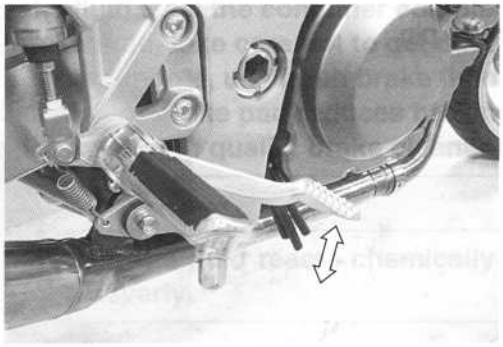
- Remove the right frame cover. (☞7-4)
- Remove the brake fluid reservoir cap.
- Replace the brake fluid in the same manner as the front brake. (☞7-65)

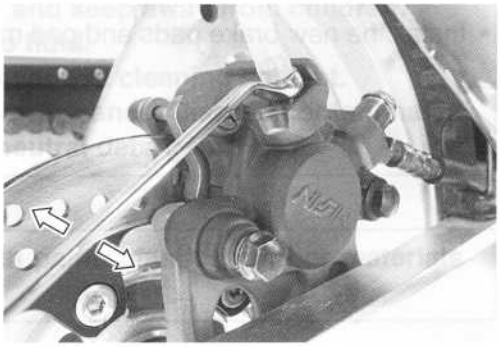
Specification and Classification: DOT 4

CAUTION

Bleed air from the brake system. (☞2-28)







CALIPER REMOVAL AND DISASSEMBLY

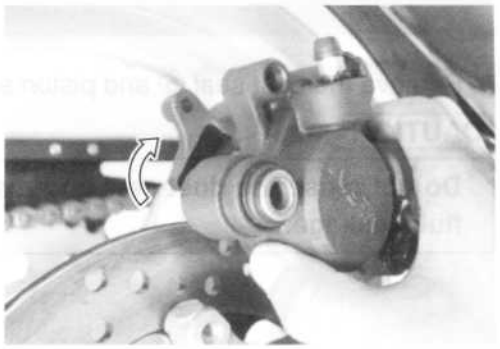
- Drain the brake fluid. (☞7-65)
- Remove the brake pads. (☞7-79)
- Place a rag underneath the union bolt to catch any spilt brake fluid.
- Disconnect the brake hose by removing the brake hose union bolt.

CAUTION

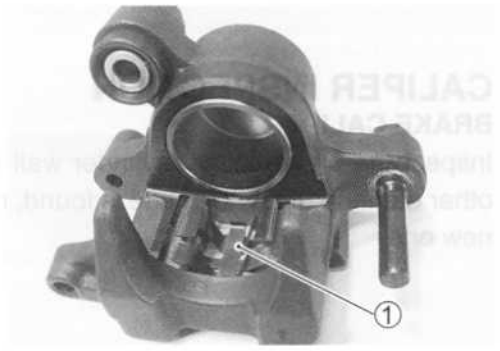
Do not reuse the brake fluid left over from previous servicing and stored for long periods.

⚠ WARNING

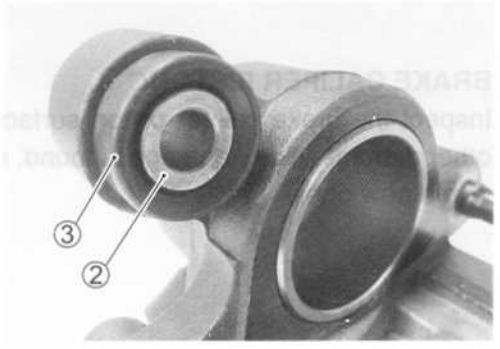
Brake fluid, if it leaks, will interfere with safe running and discolor painted surfaces. Check the brake hose and hose joints for cracks and fluid leakage.



- Pivot the caliper up and remove the caliper from the caliper bracket.

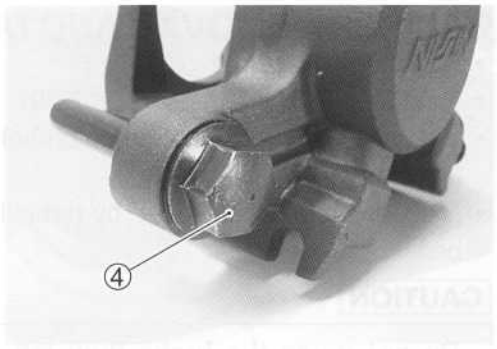


- Remove the brake pad spring ①.



- Remove the spacer ② and boot ③ from the caliper.

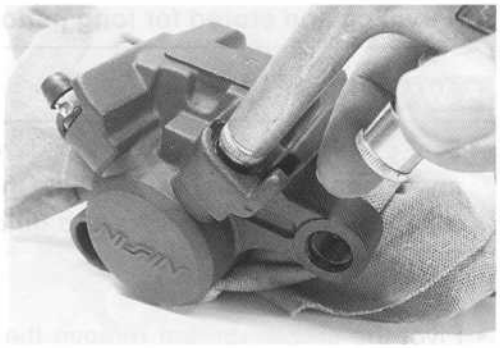
- Remove the slide pin ④.



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

CAUTION

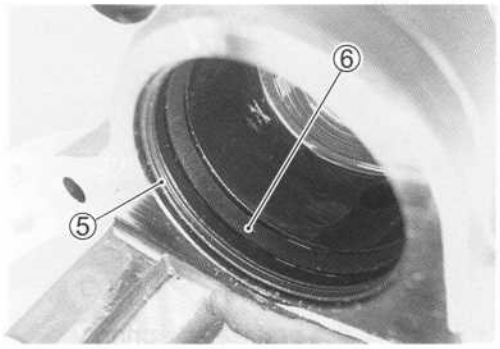
Do not use high pressure air to prevent piston damage.



- Remove the dust seal ⑤ and piston seal ⑥.

CAUTION

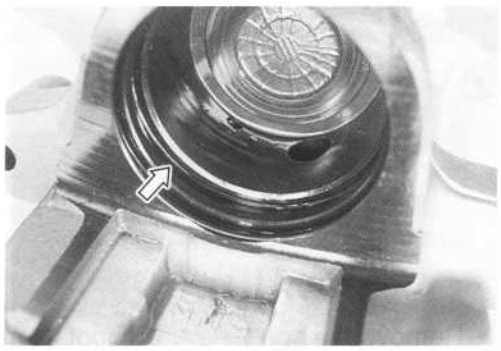
Do not reuse the dust seal and piston seal to prevent fluid leakage.



CALIPER INSPECTION

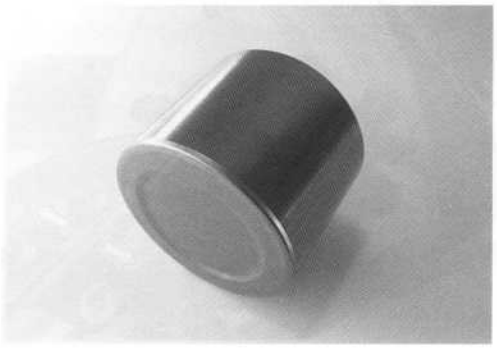
BRAKE CALIPER

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



BRAKE CALIPER PISTON

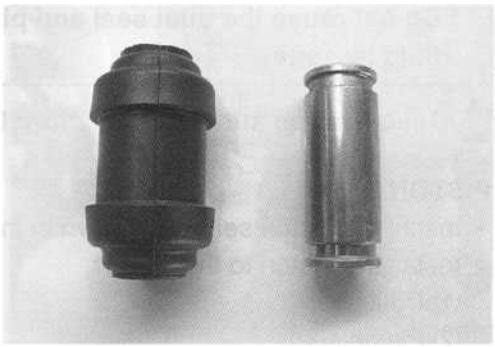
Inspect the brake caliper piston surface for any scratches and other damage. If any damage is found, replace the caliper piston with a new one.



BRAKE CALIPER SLIDING PIN

Inspect the brake caliper sliding pin for wear and other damage. If any damage is found, replace the sliding pin with a new one.

Inspect the boot and spacer for damage and wear. If any damages are found, replace boot and spacer with new ones.



BRAKE DISC INSPECTION

Inspect the rear brake disc in the same manner as that of the front one. (☞7-69)

DATA **Service Limit**

Rear disc thickness: 4.5 mm (0.18 in)

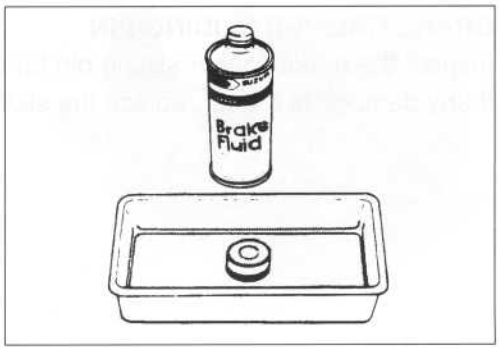
Rear disc runout: 0.30 mm (0.012 in)

*** Brake disc removal (☞7-43)**

*** Brake disc installation (☞7-48)**

CALIPER REASSEMBLY AND REMOUNTING

Reassemble and remount the caliper in the reverse order of removal and disassembly. Pay attention to the following points:



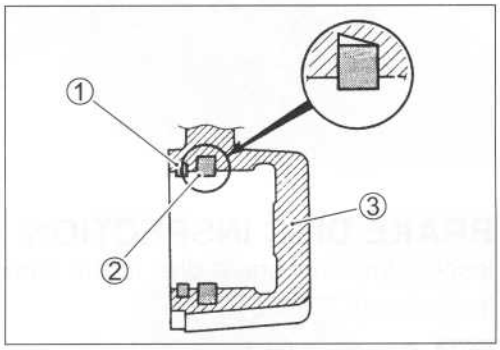
CAUTION

*** Wash the caliper components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.**
*** Apply brake fluid to the caliper bore and piston to be inserted into the bore.**
*** Do not reuse the dust seal and piston seal to prevent fluid leakage.**

Specification and Classification: DOT 4

PISTON SEAL

- Install the piston seals as shown in the right illustration.
- Install the piston to the caliper.
  ① Dust seal
  ② Piston seal
  ③ Caliper

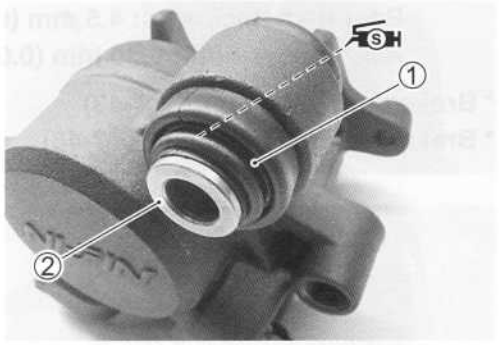


SLIDING PIN

- Install the boot ①.
- Apply SUZUKI SILICONE GREASE to the inside of the boot.

99000-25100: SUZUKI SILICONE GREASE

- Install the spacer ②.

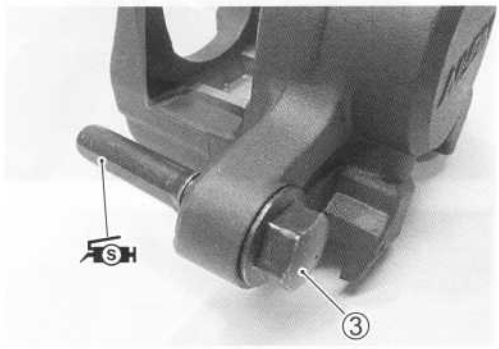


- Tighten the sliding pin ③ to the specified torque.

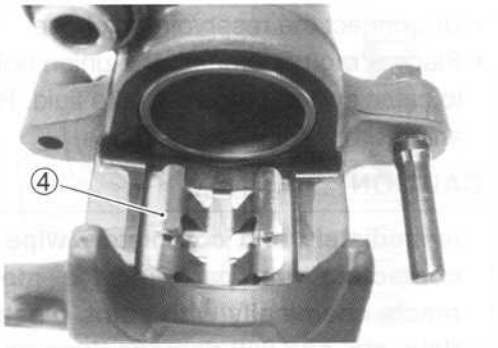
Brake caliper sliding pin: 27 N·m (2.7 kgf-m, 19.5 lb-ft)

- Apply SUZUKI SILICONE GREASE to the sliding pin.

99000-25100: SUZUKI SILICONE GREASE



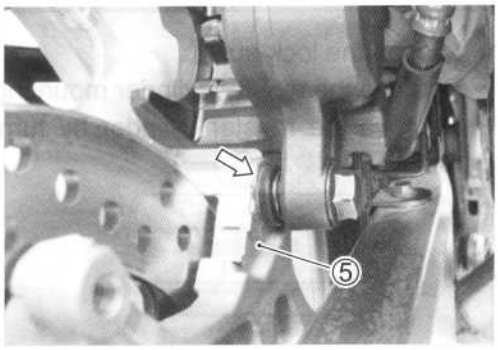
- Install the brake pad spring ④ so that the longer tabs will be on piston side as shown.



- Install the caliper to the caliper bracket ⑤.
- Set the boot onto the sliding pin securely.
- Install the brake pad. (☞7-79)

CAUTION

Confirm that there is a brake pad spring when installing the brake pads.

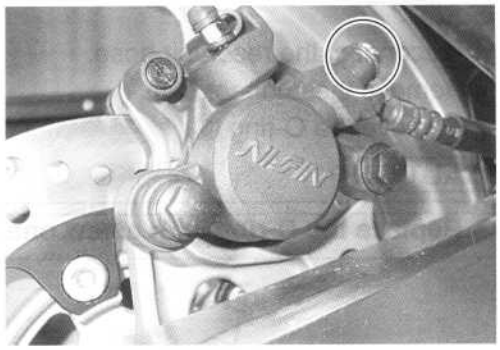


- Tighten the brake hose union bolt with the brake hose union pipe seated in the cutout on the caliper.
  (Rear brake hose routing: ☞9-34 and 35)

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

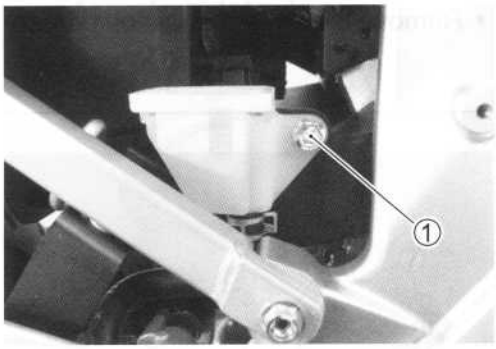
CAUTION

*** The seal washers should be replaced with the new ones to prevent fluid leakage.**
*** Bleed air from the system after reassembling the caliper. (☞2-28)**

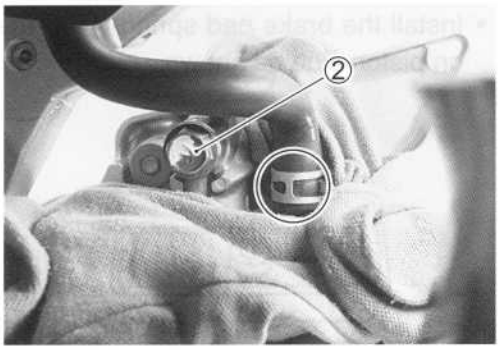


MASTER CYLINDER REMOVAL AND DISASSEMBLY

- Drain the brake fluid. (☞7-65)
- Remove the brake fluid reservoir tank mounting bolt ①.



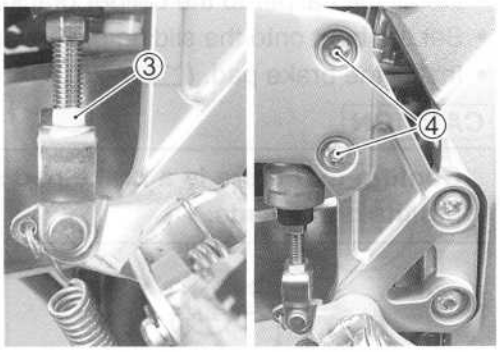
- Disconnect the reservoir tank hose.
- Place a rag underneath the union bolt on the master cylinder to catch spilled drops of brake fluid. Remove the union bolt ② and disconnect the brake hose.



CAUTION

Immediately and completely wipe off any brake fluid contacting any parts of the motorcycle. The fluid reacts chemically with paint, plastic and rubber materials, etc. and will damage them severely.

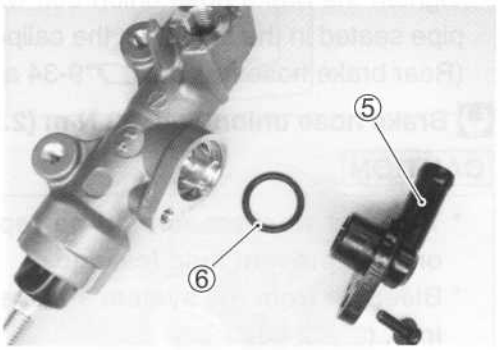
- Loosen the lock nut ③.
- Remove the master cylinder mounting bolts ④.
- Remove the master cylinder by turning the master cylinder rod.



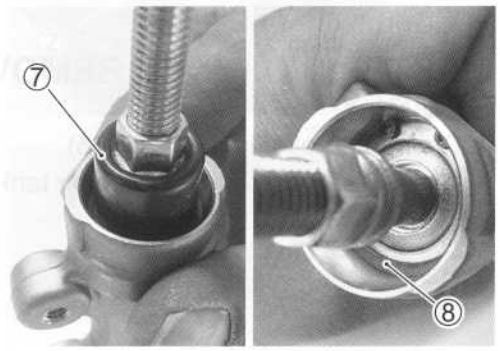
- Disconnect the reservoir hose.
- Remove the connector ⑤.
- Remove the O-ring ⑥.

CAUTION

Replace the O-ring with a new one.



- Pull out the dust boot ⑦, then remove the snap ring ⑧.
- Remove the push rod, piston/primary cup and spring.

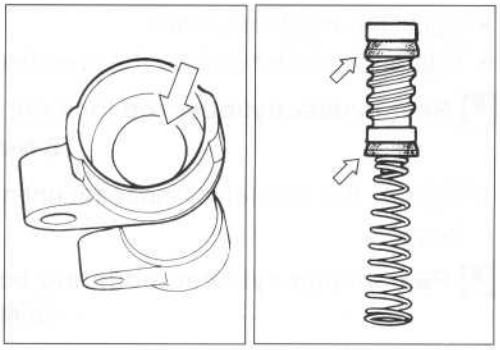


MASTER CYLINDER INSPECTION

CYLINDER, PISTON AND CUP SET

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

Inspect the cup set and each rubber part for damage.

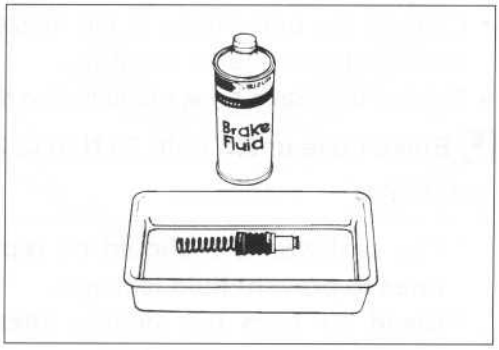


MASTER CYLINDER REASSEMBLY AND REMOUNTING

Reassemble and remount the master cylinder in the reverse order of removal and disassembly. Pay attention to the following points:

CAUTION

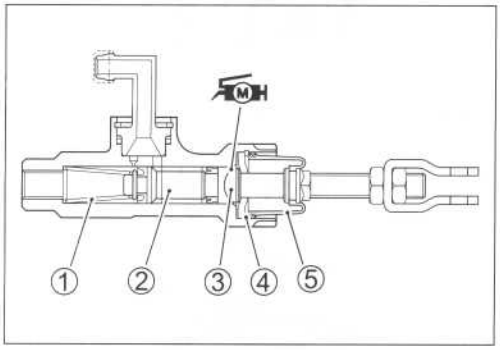
*** Wash the master cylinder components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.**
*** Do not wipe the components with a rag.**
*** Apply brake fluid to the cylinder bore and all the component to be inserted into the bore.**



Specification and Classification: DOT 4

- Apply brake fluid to the piston/Cup set.
- Install the following parts.
  ① Return spring
  ② Piston/Primary cup
  ③ Push rod
  ④ Snap ring
  ⑤ Dust boot
- Apply SUZUKI MOLY PASTE to the push rod.

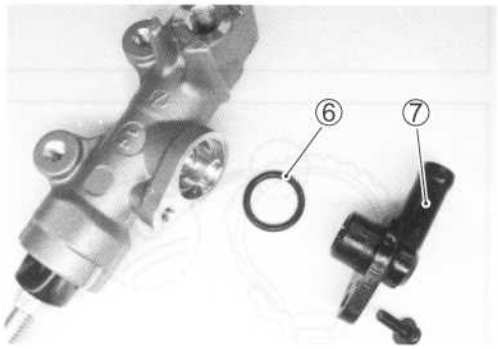
99000-25140: SUZUKI MOLY PASTE



- Install the O-ring ⑥ and connector ⑦ to the master cylinder.

CAUTION

Replace the removed O-ring with a new one.

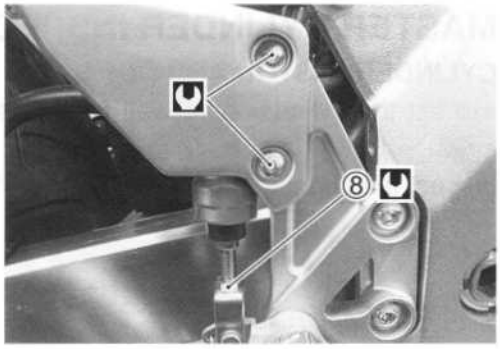


- Install the master cylinder.
- Tighten the lock nut ⑧ to the specified torque.

Rear master cylinder rod lock nut:
18 N·m (1.8 kgf-m, 13.0 lb-ft)

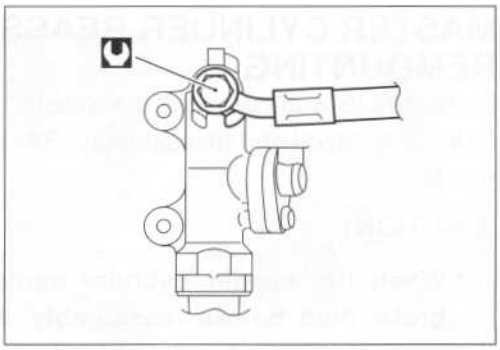
- Tighten the master cylinder mounting bolts to the specified torque.

Rear master cylinder mounting bolt:
10 N·m (1.0 kgf-m, 7.0 lb-ft)



- Connect the brake hose to the master cylinder. (Rear brake hose routing: ☞9-34 and 35)
- Tighten the brake hose union bolt to the specified torque.

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



CAUTION

*** The seal washers should be replaced with the new ones to prevent fluid leakage.**
*** Bleed air from the system after reassembling the master cylinder. (☞2-28)**

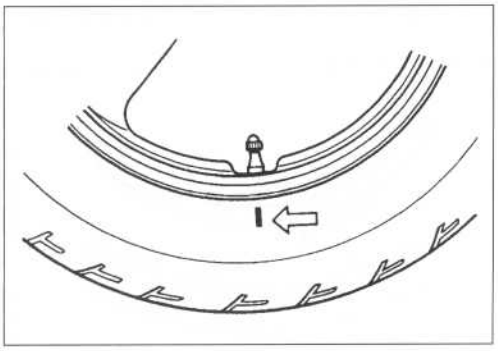
- Adjust the brake pedal height. (☞2-27)
- Reinstall the master cylinder.

TIRE AND WHEEL

TIRE REMOVAL

The most critical factor of a tubeless tire is the seal between the wheel rim and the tire bead. For this reason, it is recommended to use a tire changer that can satisfy this sealing requirement and can make the operation efficient as well as functional.
For operating procedures, refer to the instructions supplied by the tire changer manufacturer.

NOTE:
When removing the tire in the case of repair or inspection, mark the tire with a chalk to indicate the tire position relative to the valve position.
Even though the tire is refitted to the original position after repairing puncture, the tire may have to be balanced again since such a repair can cause imbalance.

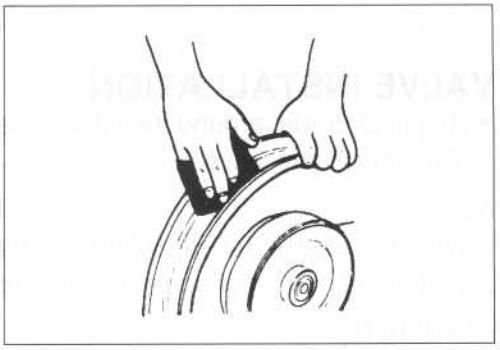


INSPECTION

WHEEL

Wipe the wheel clean and check for the following:

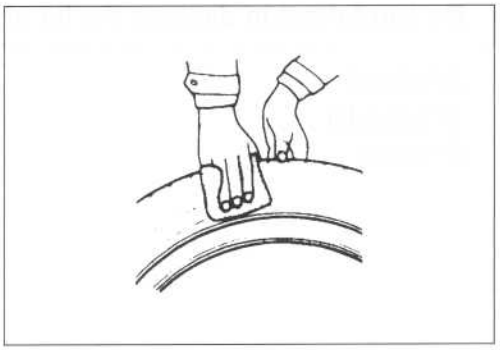
* Distortion and crack
* Any flaws and scratches at the bead seating area.
* Wheel rim runout (☞7-10)

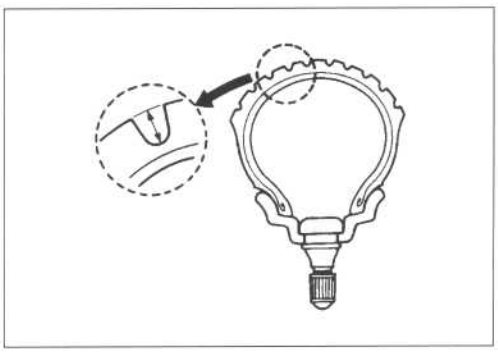


TIRE

Tire must be checked for the following points:

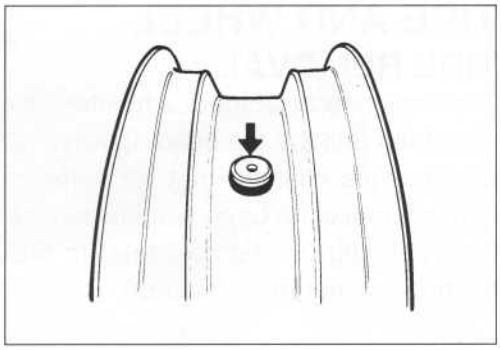
* Nick and rupture on side wall
* Tire tread depth (☞2-29)
* Tread separation
* Abnormal, uneven wear on tread
* Surface damage on bead
* Localized tread wear due to skidding (Flat spot)
* Abnormal condition of inner liner

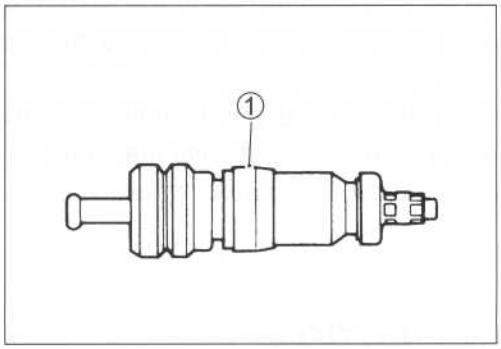




VALVE

- Inspect the valve after the tire is removed from the rim. Replace the valve with a new one if the seal rubber is peeling or has damage.
- Inspect the valve core. If the seal ① has abnormal deformation, replace the valve with a new one.





VALVE INSTALLATION

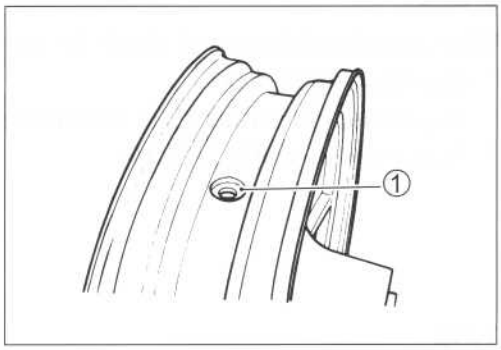
- Any dust or rust around the valve hole ① must be cleaned off. Then install the valve in the rim.

NOTE:

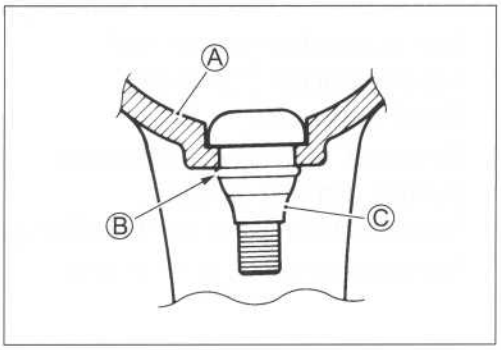
To properly install the valve into the valve hole, apply a special tire lubricant or neutral soapy liquid to the valve.

CAUTION

Be careful not to damage the lip of valve.



Ⓐ Wheel
Ⓑ Valve lip
Ⓒ Valve



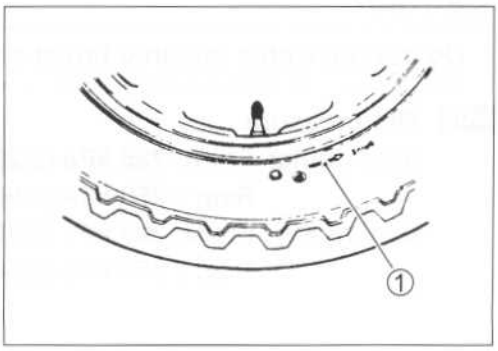
TIRE INSTALLATION

- Apply tire lubricant to the tire bead.
- When installing the tire onto the wheel, observe the following points.

CAUTION

*** Do not reuse the valve which has been once removed.**
*** Do not use oil, grease or gasoline on the tire bead in place of tire lubricant.**

- When installing the tire, the arrow ① on the side wall should point to the direction of wheel rotation.
- Align the chalk mark put on the tire at the time of removal with the valve position.

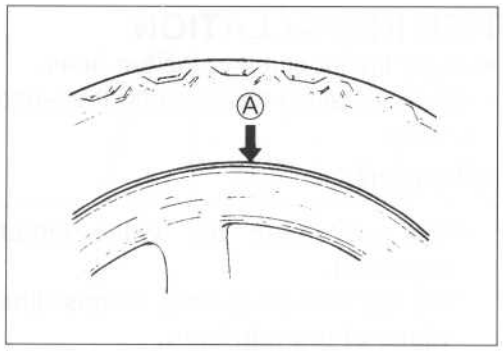


- For installation procedure of tire onto the wheel, follow the instructions given by the tire changer manufacturer.
- Bounce the tire several times while rotating. This makes the tire bead expand outward to contact the wheel, thereby facilitating air inflation.
- Inflate the tire.

⚠ WARNING

*** Do not inflate the tire to more than 400 kPa (4.0kgf/cm²). If inflated beyond this limit, the tire can burst and possibly cause injury. Do not stand directly over the tire while inflating.**
*** In the case of preset pressure air inflator, pay special care for the set pressure adjustment.**

- In this condition, check the "rim line" Ⓐ cast on the tire side walls. The line must be equidistant from the wheel rim all around. If the distance between the rim line Ⓐ and wheel rim varies, this indicates that the bead is not properly seated. If this is the case, deflate the tire completely and unseat the bead for both sides. Coat the bead with lubricant and fit the tire again.
- When the bead has been fitted properly, adjust the pressure to specification.
- As necessary, adjust the tire balance.



CAUTION

Do not run with a repaired tire at a high speed.

DATA Tire pressure

Solo riding: Front: 225 kPa (2.25 kgf/cm², 33 psi)
Rear : 250 kPa (2.50 kgf/cm², 36 psi)
Dual riding: Front: 225 kPa (2.25 kgf/cm², 33 psi)
Rear : 250 kPa (2.50 kgf/cm², 36 psi)