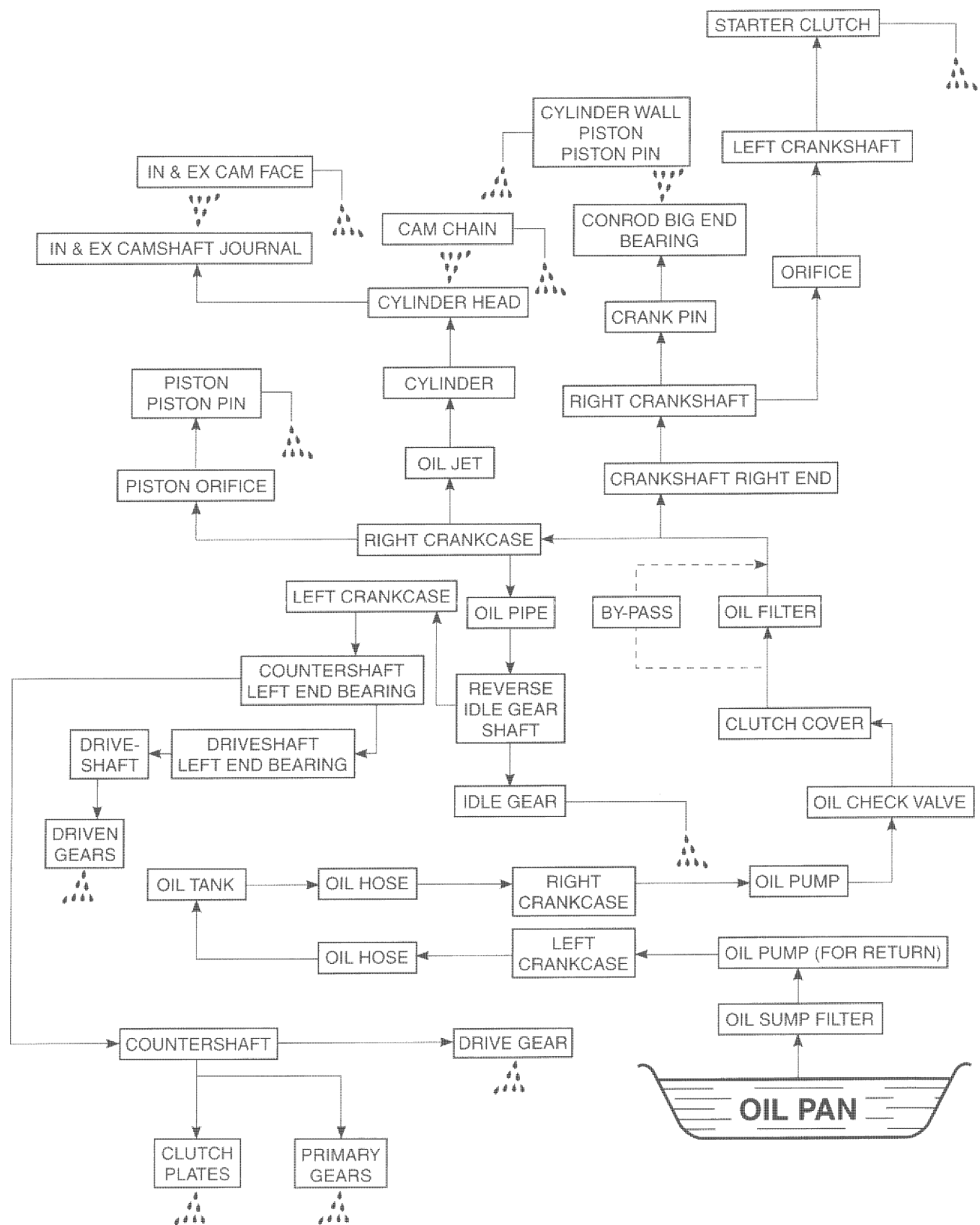


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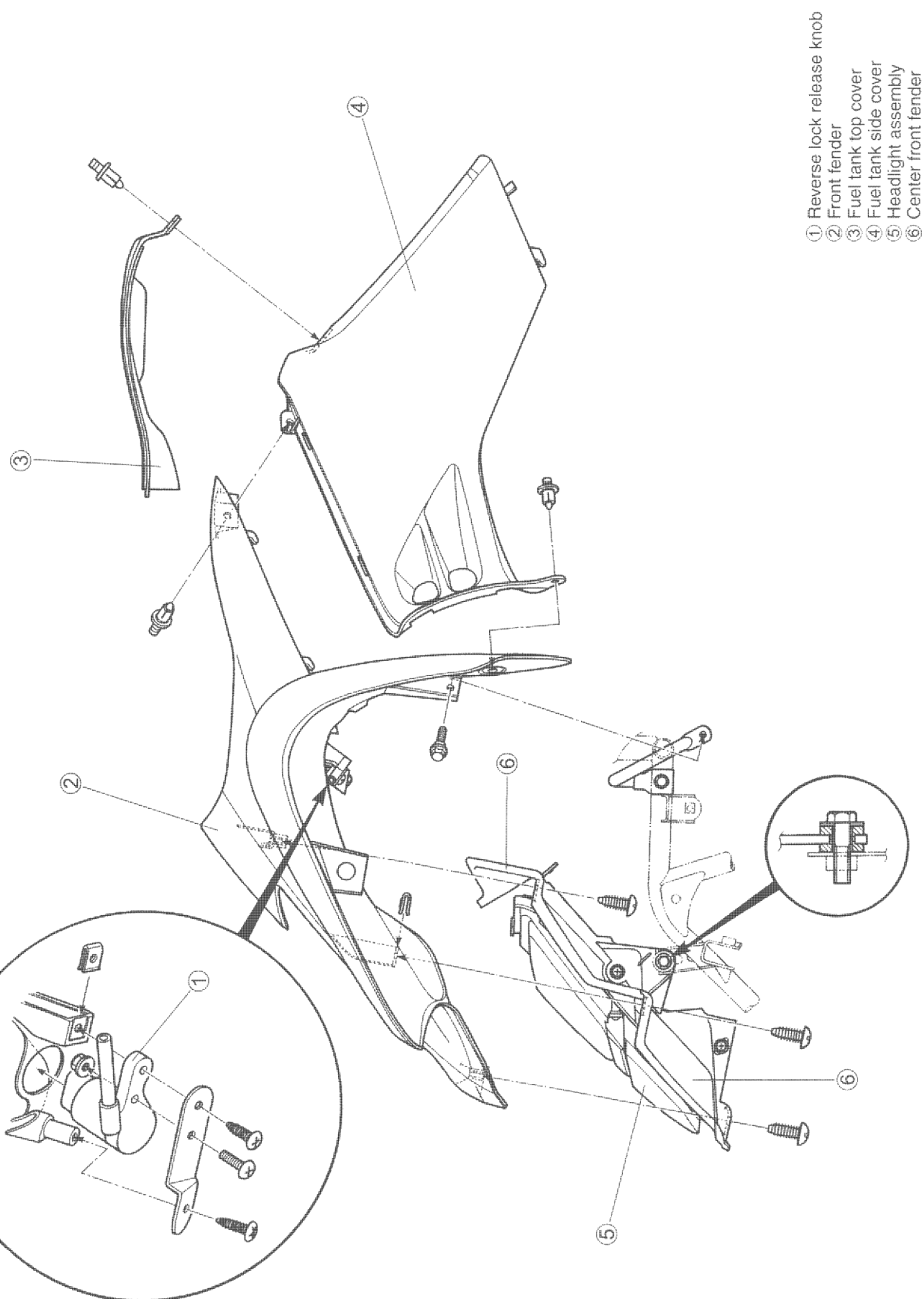
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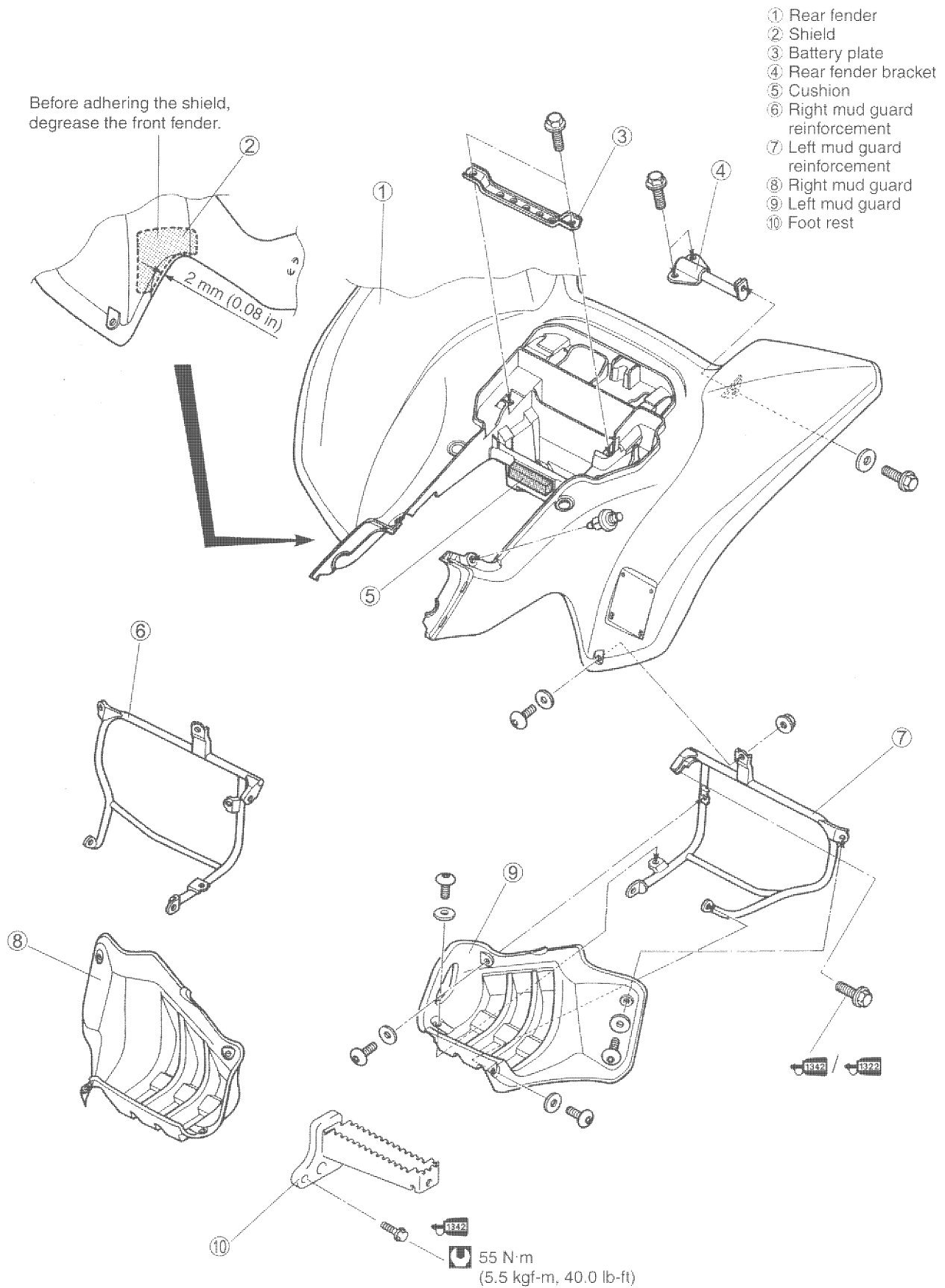


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EXTERIOR PARTS CONSTRUCTION



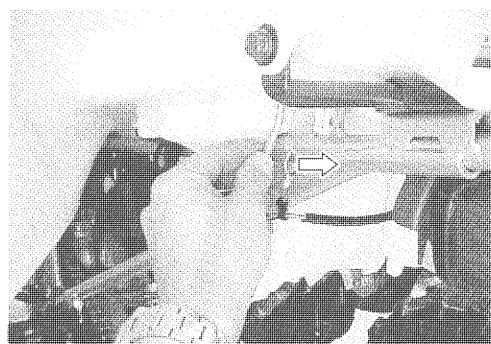
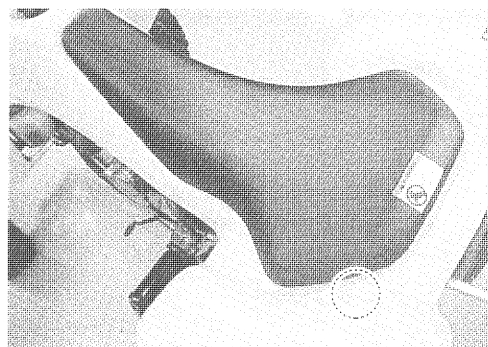
Before adhering the shield,
degrease the front fender.



REMOVAL

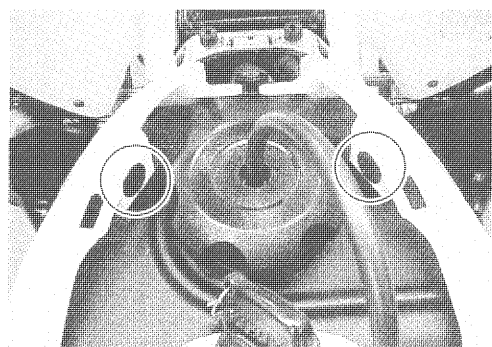
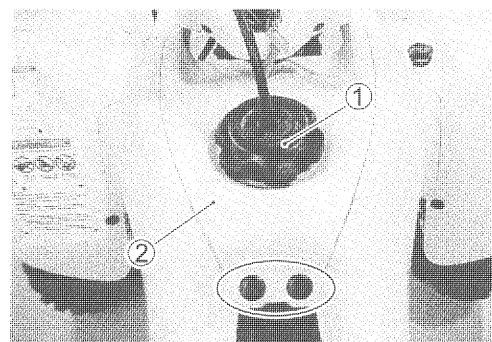
SEAT

- Remove the seat by pulling the lock release lever ① which is located behind the rear fender.

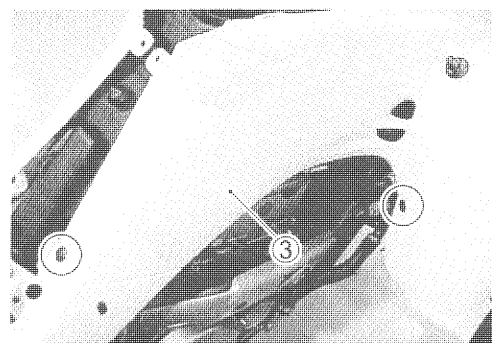
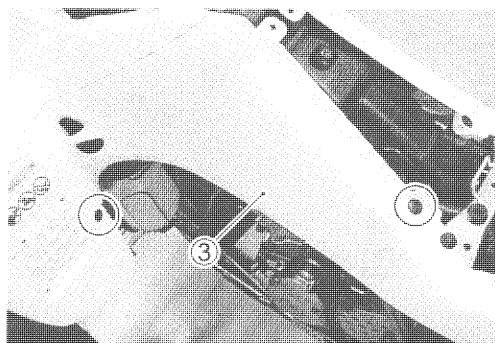


FRONT FENDER

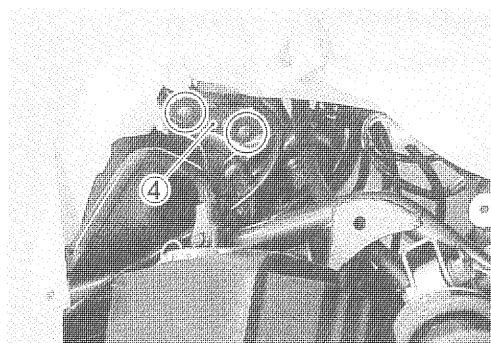
- Remove the seat. (☞ above)
- Remove the fuel tank cap ①.
- Remove the fuel tank top cover ②.



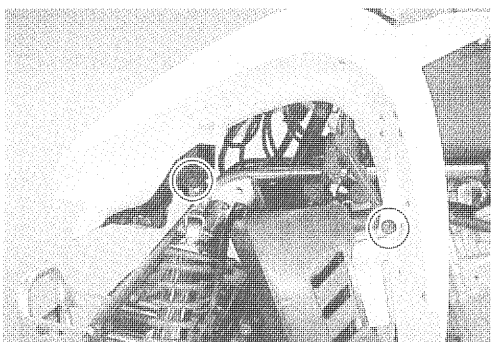
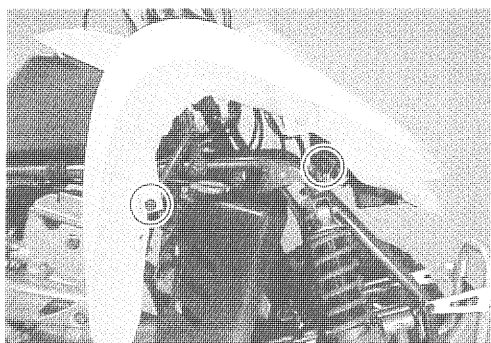
- Remove the fuel tank side covers ③.



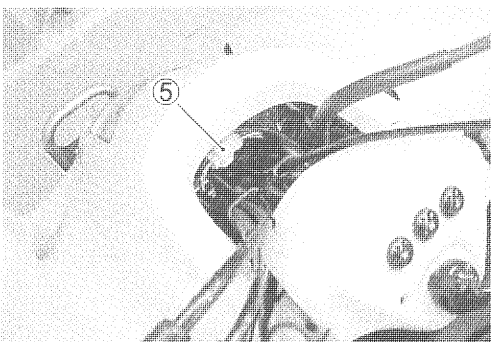
- Remove the reverse lock release knob ④.



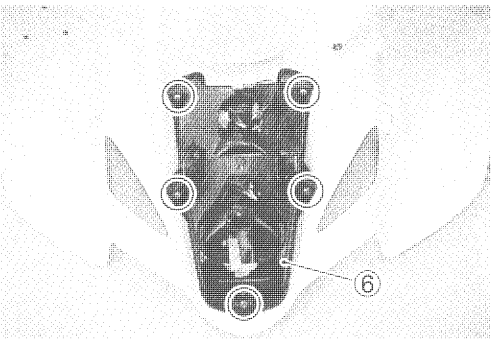
- Remove the front fender mounting bolts.



- Disconnect the headlight coupler ⑤.
- Remove the front fender.

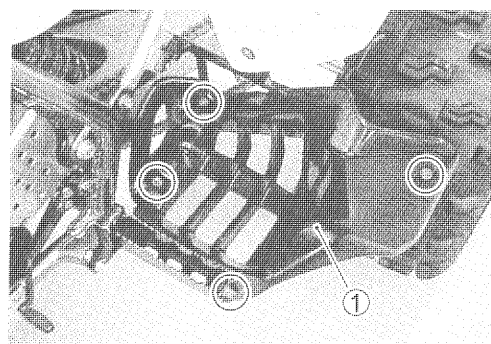
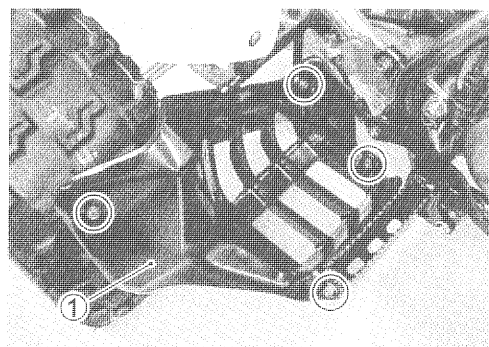


- Remove the headlight assembly ⑥.



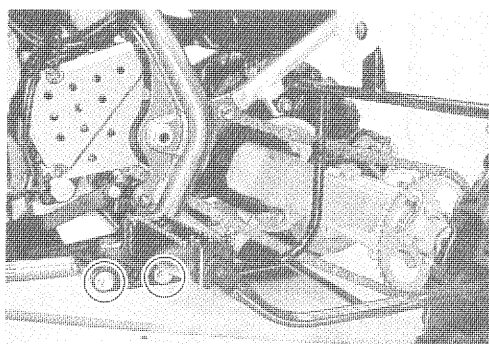
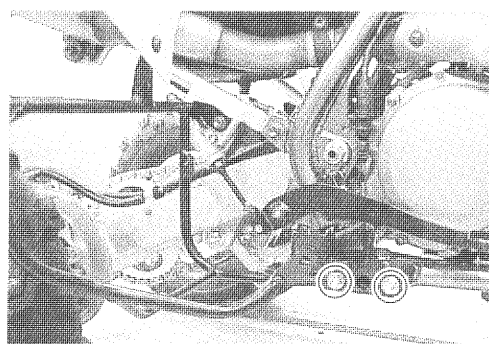
FOOTREST MUD GUARD

- Remove the mud guards ①.



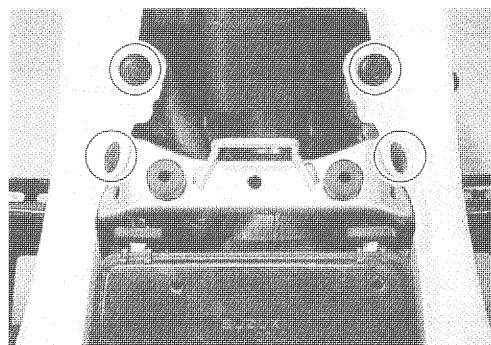
FOOTREST

- Remove the footrest mud guards. (☞ above)
- Remove the footrests.

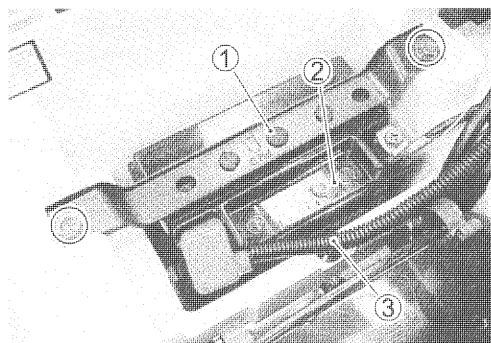


REAR FENDER

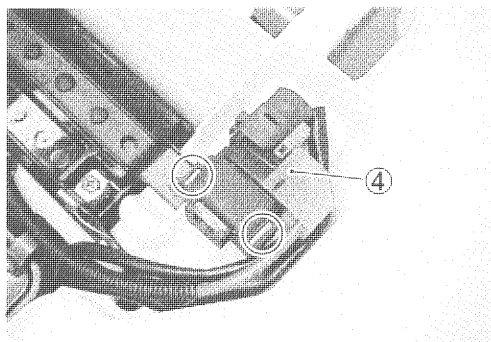
- Remove the seat. (☞ 6-4)
- Remove the fasteners.



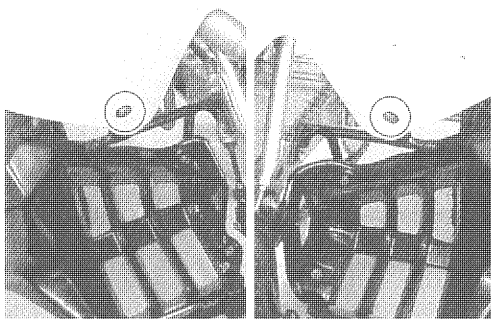
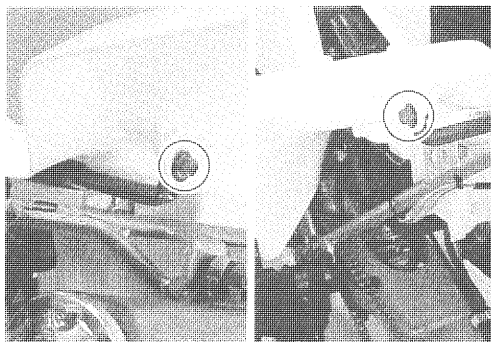
- Remove the battery plate ①.
- Remove the battery ②.
- Disconnect the battery lead wire clamp ③.



- Remove the starter relay ④.



- Remove the rear fender mounting bolts.
- Remove the rear fender.



REMountING

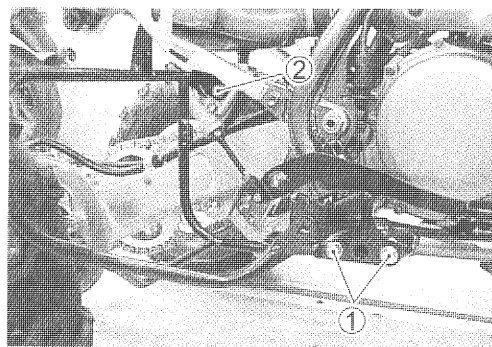
Remount the exterior parts in the reverse order of removal. Pay attention to the following points:

FOOTREST

- Apply THREAD LOCK “1342” to the bolts ① and tighten bolts to the specified torque.

 **1342 99000-32050: THREAD LOCK “1342”**

 **Footrest mounting bolt: 55 N·m (5.5 kgf-m, 40.0 lb-ft)**

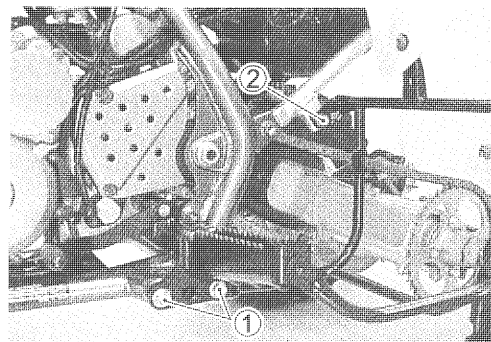


MUD GUARD REINFORCEMENT

- Apply THREAD LOCK SUPER “1322” or “1342” to the mud guard reinforcement mounting bolts ②.

 **1342 99000-32050: THREAD LOCK “1342” (USA)**

 **1322 99000-32110: THREAD LOCK SUPER “1322” (Others)**



FRONT AND REAR WHEELS CONSTRUCTION

- ① Disc cover
- ② Front disc
- ③ Spacer
- ④ Dust seal
- ⑤ Hub bearing
- ⑥ Bearing spacer
- ⑦ Front wheel hub
- ⑧ Hub bearing
- ⑨ Dust seal
- ⑩ Spacer
- ⑪ Washer
- ⑫ Cotter pin
- ⑬ Tire valve
- ⑭ Front tire
- ⑮ Front wheel rim
- ⑯ Sprocket flange
- ⑰ Sprocket
- ⑱ Washer
- ⑲ Rear wheel hub
- ⑳ Washer
- ㉑ Rear tire
- ㉒ Rear wheel rim
- ㉓ Tire valve
- ㉔ Washer
- ㉕ Cotter pin
- ㉖ Hub plate

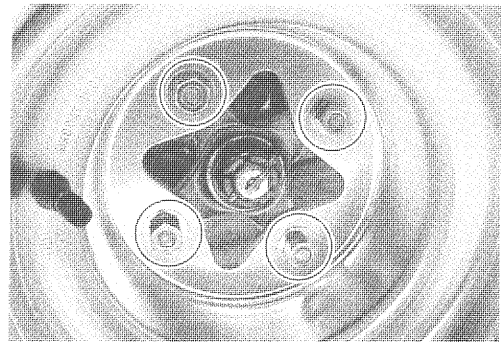
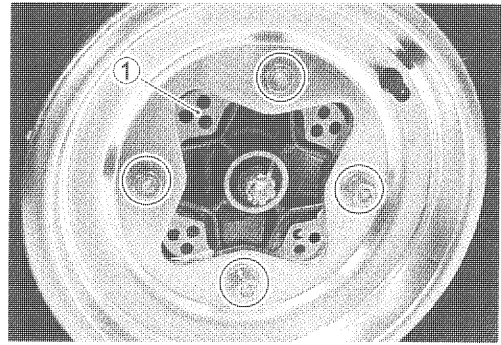
- Ⓐ Disc bolt
- Ⓑ Wheel set nut
- Ⓒ Front hub nut
- Ⓓ Rear axle nut
- Ⓔ Sprocket mounting bolt
- Ⓕ Rear hub nut

ITEM	N·m	kgf·m	lb·ft
(A)	23	2.3	16.5
(B)	50	5.0	36.0
(C)	65	6.5	47.0
(D)	180	18.0	130.0
(E)	54	5.4	39.0
(F)	100	10.0	72.5

REMOVAL

FRONT AND REAR WHEELS

- Place the vehicle on level ground.
- Support the vehicle with a jack or wooden block.
- Remove the wheel.
- Remove the front hub plate ①.

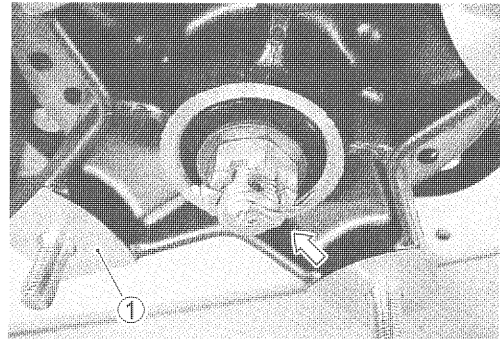


FRONT WHEEL HUB

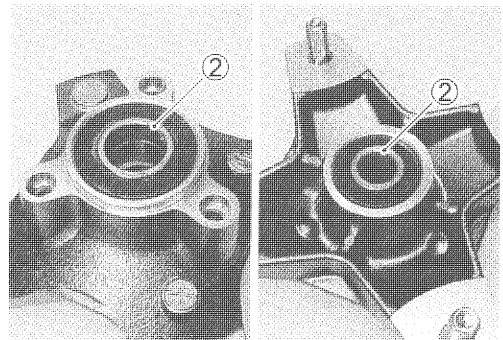
- Remove the front wheel. (☞ See above)
- Remove the cotter pin, then loosen the wheel hub nut.
- Remove the wheel hub nut and washer.
- Remove the front brake caliper. (☞ 6-19)
- Remove the front wheel hub ①.

CAUTION

Do not operate the brake lever while removing the caliper.

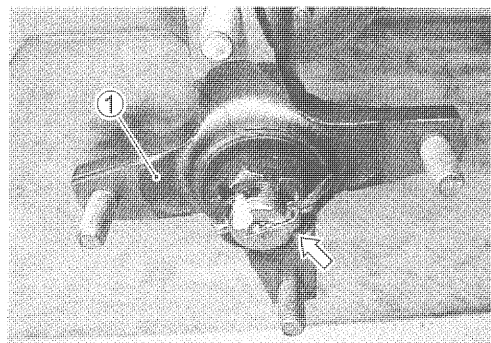


- Remove the disc. (☞ 6-24)
- Remove the spacers ②.



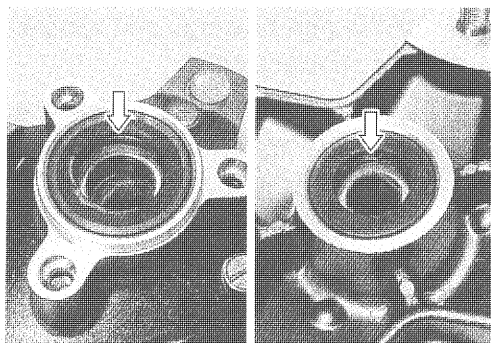
REAR WHEEL HUB

- Remove the rear wheel. (6-10)
- Remove the cotter pin and loosen the wheel hub nut by applying the rear brake.
- Remove the wheel hub nut and washer.
- Remove the wheel hub ①.

**INSPECTION AND DISASSEMBLY****DUST SEAL**

Inspect the dust seal lips for wear or damage.

If any damages are found, replace the dust seal with a new one.

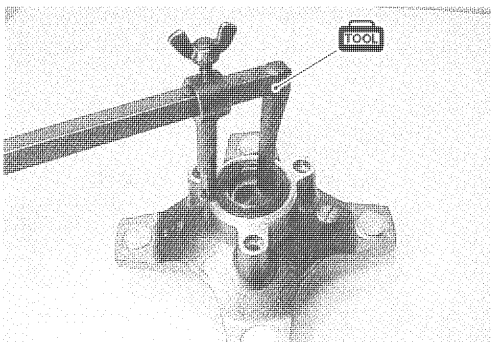


- Remove the dust seals with the special tool.

 **09913-50121: Oil seal remover**

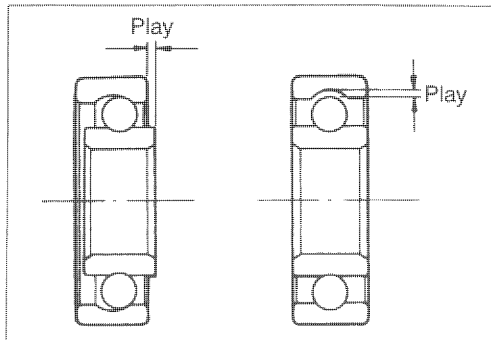
CAUTION

Replace the removed dust seal with a new one.

**HUB BEARINGS**

Inspect the inner race play of the hub bearing by hand while it is in the wheel hub.

Rotate the inner race by hand to inspect for abnormal noise and smooth rotation. If there is anything unusual, replace the bearing with a new one.

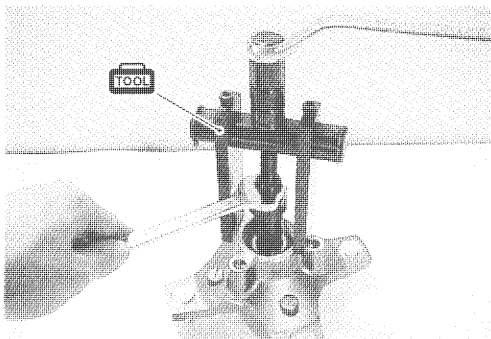


- Remove the hub bearing with the special tool.

 **09921-20240: Bearing remover set**

CAUTION

Do not reuse the removed bearings.

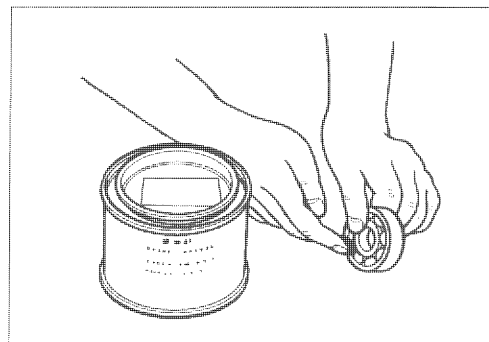


REASSEMBLY AND REMOUNTING

FRONT WHEEL HUB

- Apply SUZUKI SUPER GREASE "A" to the hub bearing.

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

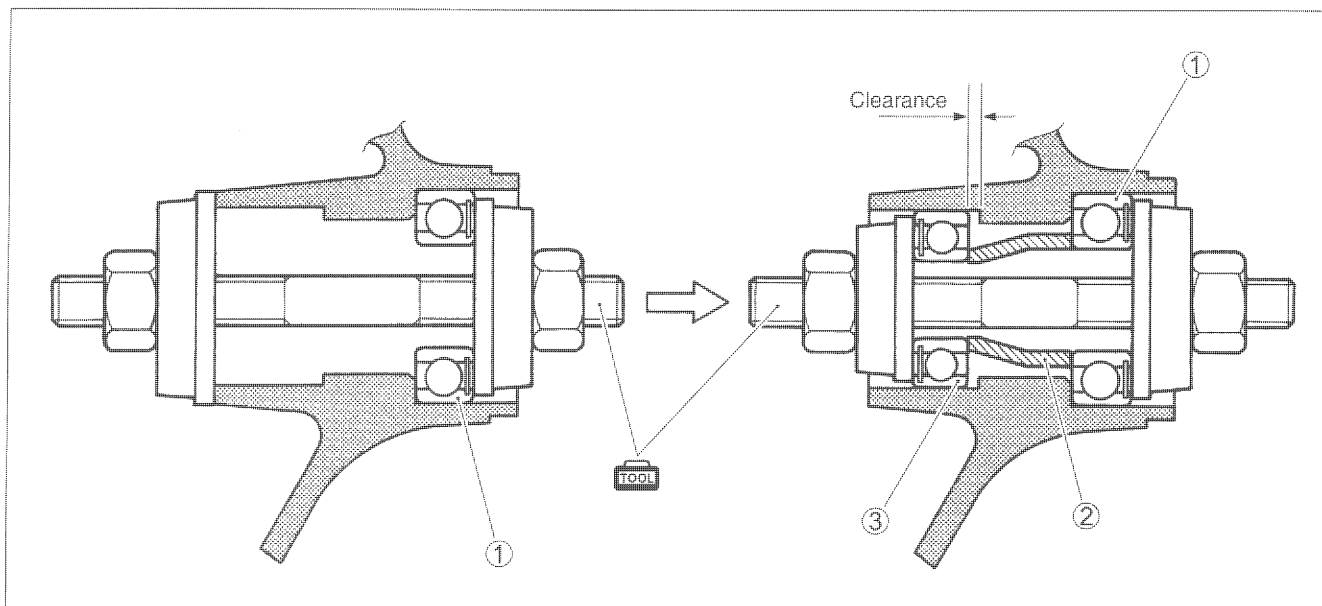


- Install the hub bearings and spacer into the front wheel hub with the special tool.

 **09913-70210: Bearing installer set**
09924-84510: Bearing installer set

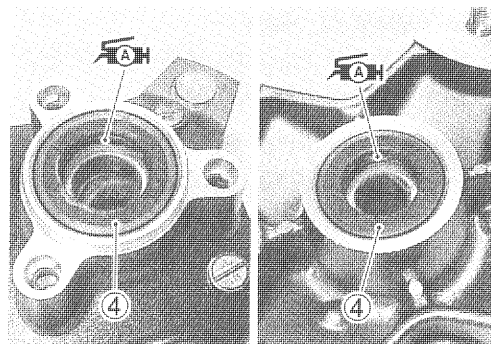
NOTE:

Install the inner bearing ① first, and then install the spacer ② and the outer bearing ③. Make sure that the sealed side of the bearing faces the bearing installer.

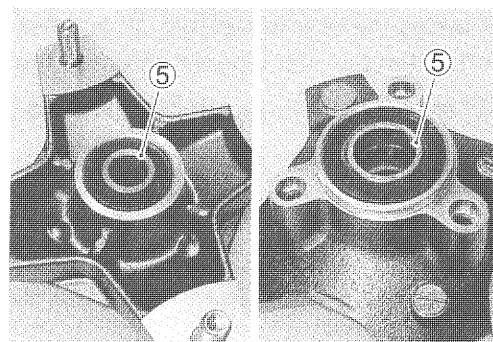


- Install the dust seals ④ into the front wheel hub with fabric portion facing to outside.
- Apply SUZUKI SUPER GREASE "A" to the dust seal's lip.

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



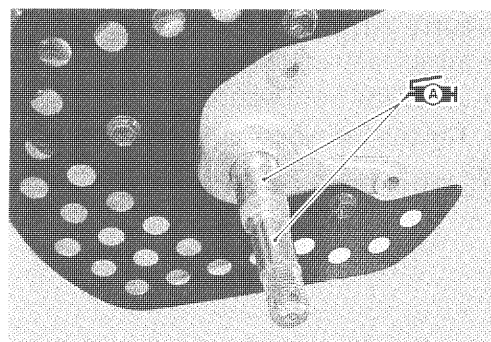
- Install the spacers ⑤ to the wheel hub.



- Install the front disc to the front wheel hub. (6-24)
- Apply SUZUKI SUPER GREASE "A" to the front axle.

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

- Install the wheel hub.
- Install the front brake caliper. (6-23)



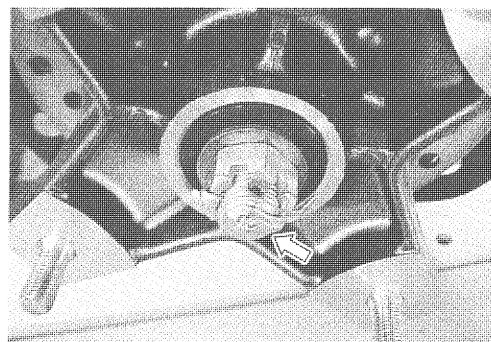
- Tighten the front wheel hub nut to the specified torque.

 **Front wheel hub nut: 65 N·m (6.5 kgf-m, 47.0 lb-ft)**

- Install the cotter pin into the front axle.
- Install the front wheel. (6-14)

CAUTION

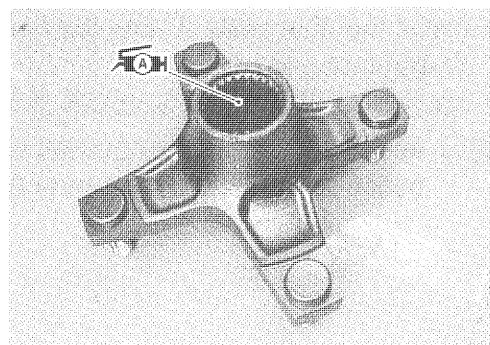
Replace the removed cotter pin with a new one.



REAR WHEEL HUB

- Apply small amount of SUZUKI SUPER GREASE "A" to the wheel hub's spline.

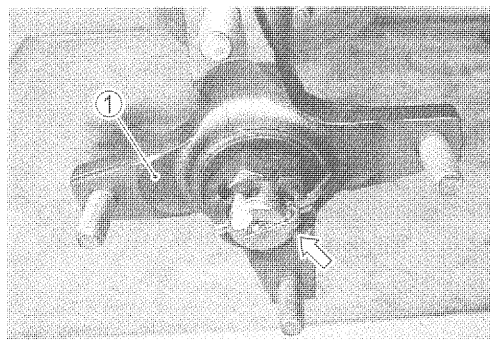
 99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



- Install the rear wheel hub ①, washer and nut.
- Tighten the rear wheel hub nut to the specified torque.

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

- Install the cotter pin into the rear axle.
- Install the rear wheel. (➡ below)

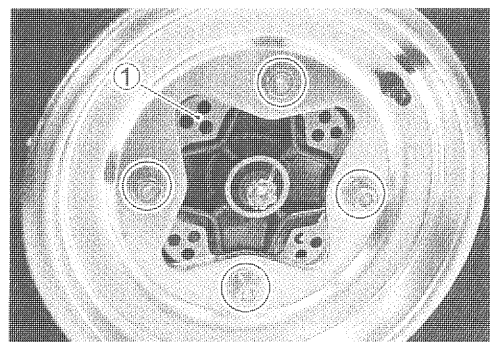
**CAUTION**

Replace the removed cotter pin with a new one.

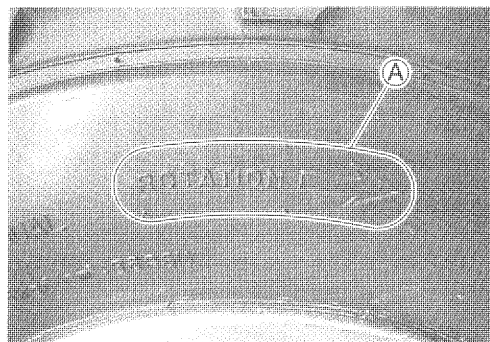
FRONT WHEEL

- Install the hub plate ①.
- Install the front wheel.
- Tighten the wheel set nuts to the specified torque.

 **Wheel set nut: 50 N·m (5.0 kgf-m, 36.0 lb-ft)**

**NOTE:**

When installing the front wheel, make sure that the arrow **A** on the tire points in the direction of rotation.

**REAR WHEEL**

- Install the rear wheel.
- Tighten the wheel set nuts to the specified torque.

 **Wheel set nut: 50 N·m (5.0 kgf-m, 36.0 lb-ft)**

NOTE:

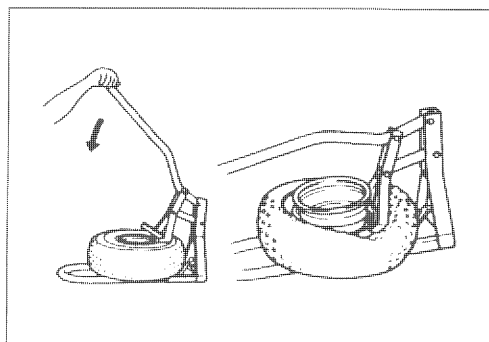
When installing the rear wheel, make sure that the instruction "SIDE FACING OUTWARDS" **B** on the rear tire faces outwards.



TIRES

TIRE REPLACEMENT

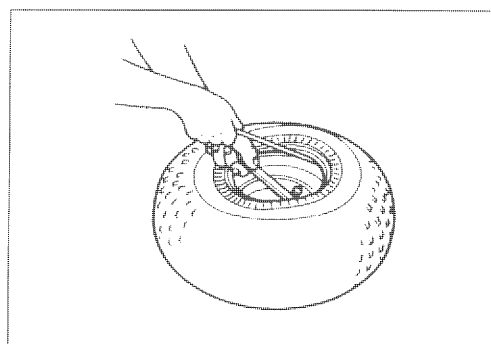
- Remove the front and rear wheels. (☞ 6-10)
- After removing the air valve cap, release the tire pressure by depressing the valve.
- Dismount the bead from the rim completely as shown.



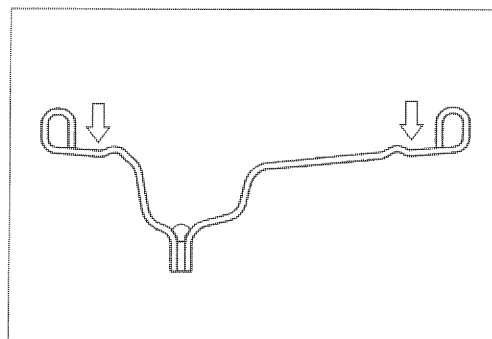
- Separate the tire from the rim by using a set of tire levers and rim protectors.

CAUTION

When using the tire lever, do not scratch or hit the sealing portion (hump) of the wheel or it may cause air-leakage.



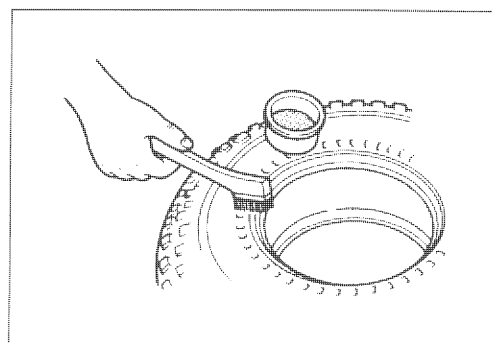
- Inspect the sealing portion of the rim for contamination and distortion. If any damages are found, replace the rim with a new one.
- Clear up the sealing portion of the rim.



- Apply tire lubricant to the tire bead and the flange of the rim.

CAUTION

Never apply grease, oil or gasoline to the tire bead because they will deteriorate the tire.

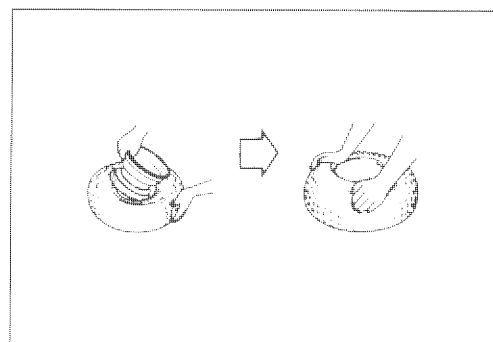


CAUTION

The standard tire fitted on this vehicle is AT22×7R10☆☆ for the front and AT20×10R9☆☆ for the rear.

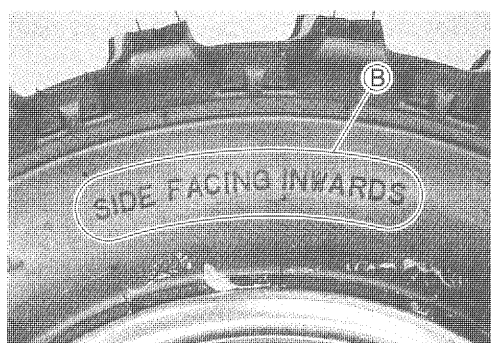
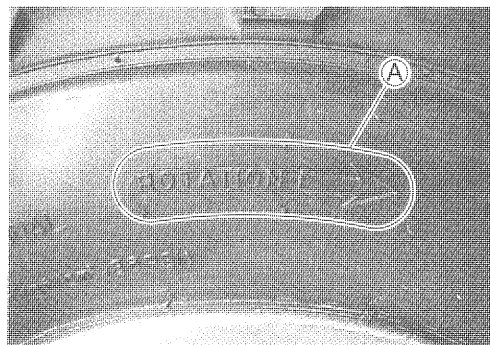
The use of tires other than the standard may cause instability. It is highly recommended to use the specified tire.

- Mount the tire on the rim.



NOTE:

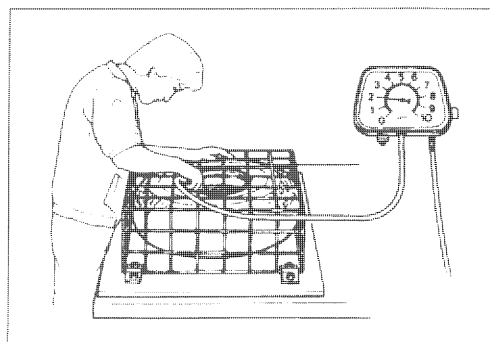
- * For inspecting the tire, refer to page 2-20.
- * Inspect the valve core, before installation.
- * When installing the front tire, make sure that the arrow (A) on the side wall of the front tire points in the direction of rotation.
- * When installing the rear tire, make sure that the instruction "SIDE FACING INWARDS" (B) on the rear tire faces inwards.



- Inflate the tire to seat the tire bead.

DATA Maximum tire bead seat pressureFront : 250 kPa (2.5 kgf/cm², 36 psi)Rear : 250 kPa (2.5 kgf/cm², 36 psi)**CAUTION**

Place the tire under a protective tire cage or similar protective covering device before inflating the tire. To minimize the possibility of tire damage when seating the tire bead, never exceed the **MAXIMUM TIRE BEAD SEAT PRESSURE** rating shown on the tire.

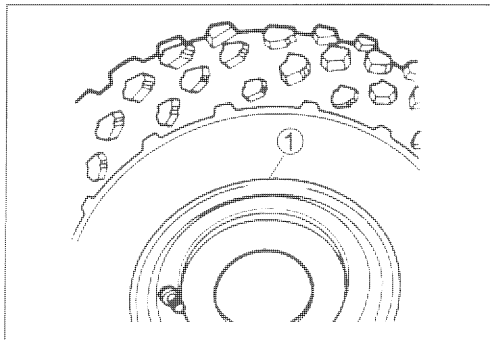
**NOTE:**

Check the "rim line" ① cast on the tire side walls. It must be equidistant from the wheel rim all the way around. If the distance between the rim line and the wheel rim varies this indicates that the bead is not properly seated. If this is so, deflate the tire completely, and unseat the tire bead on both sides. Then, coat the bead with clean water, and re-seat the tire.

- Adjust the tire pressure to the specification. (➡ 2-20)

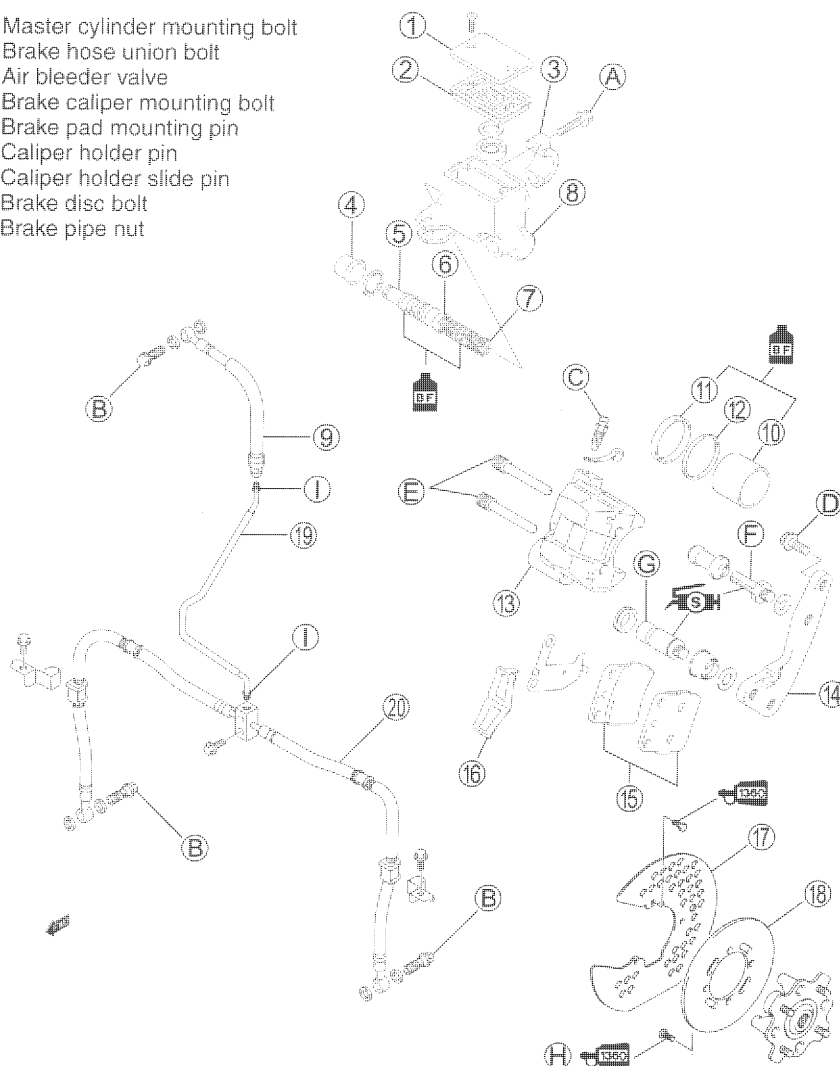
CAUTION

Before inflating the tire, check the **MAXIMUM OPERATING PRESSURE** rating of the tire. This is indicated by a "☆" following the tire size shown on the sidewall. The number of "☆" on the tire indicates the maximum operating pressure.

**DATA** Maximum operating pressure☆☆: 35 kPa (0.35 kgf/cm², 5.1 psi)

FRONT BRAKE CONSTRUCTION

- | | |
|---------------------------------|---------------------------------|
| ① Master cylinder reservoir cap | Ⓐ Master cylinder mounting bolt |
| ② Diaphragm | Ⓑ Brake hose union bolt |
| ③ Master cylinder clamp | Ⓒ Air bleeder valve |
| ④ Boot | Ⓓ Brake caliper mounting bolt |
| ⑤ Piston/cup set | Ⓔ Brake pad mounting pin |
| ⑥ Cup | Ⓕ Caliper holder pin |
| ⑦ Spring | Ⓖ Caliper holder slide pin |
| ⑧ Master cylinder | Ⓗ Brake disc bolt |
| ⑨ Brake hose No.1 | Ⓛ Brake pipe nut |
| ⑩ Piston | |
| ⑪ Piston seal | |
| ⑫ Dust seal | |
| ⑬ Brake caliper | |
| ⑭ Brake caliper holder | |
| ⑮ Brake pad | |
| ⑯ Pad spring | |
| ⑰ Disc cover | |
| ⑱ Front brake disc | |
| ⑲ Brake pipe | |
| ⑳ Brake hose No.2 | |



ITEM	N·m	kgf·m	lb·ft
Ⓐ	10	1.0	7.0
Ⓑ	23	2.3	16.5
Ⓒ	7.5	0.75	5.5
Ⓓ	26	2.6	19.0
Ⓔ	18	1.8	13.0
Ⓕ	18	1.8	13.0
Ⓖ	23	2.3	16.5
Ⓗ	23	2.3	16.5
Ⓛ	16	1.6	11.5

⚠ WARNING

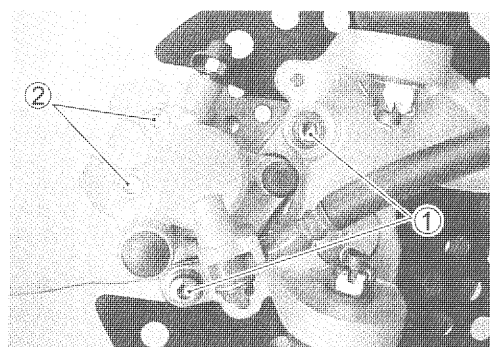
- * This brake system is filled with an ethylene glycol-based DOT 4 brake fluid. Do not use or mix different types of fluid, such as silicone-based or petroleum-based brake fluids.
- * Do not use any brake fluid taken from old, used or unsealed containers. Never reuse brake fluid left over from the last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

CAUTION

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

BRAKE PAD REPLACEMENT

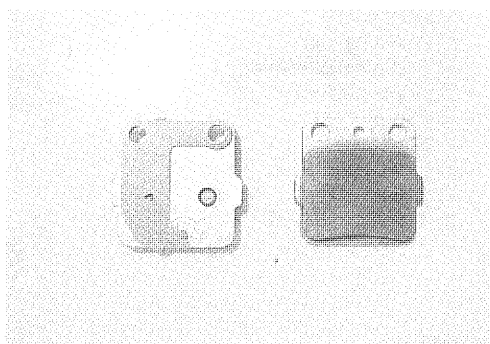
- Remove the front wheel. (☞ 6-10)
- Remove the brake caliper mounting bolts ① and brake pad mounting pins ②.



- Remove the brake pads.

CAUTION

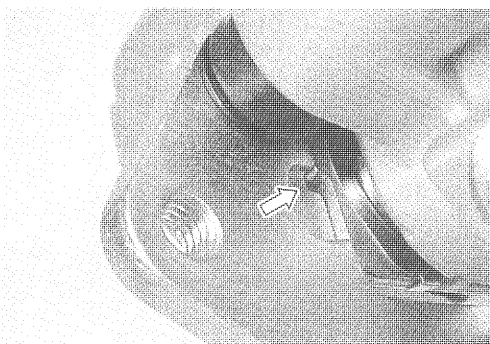
- * Do not operate the brake lever during or after brake pad removal.
- * Replace the brake pads as a set, otherwise braking performance will be adversely affected.



- Install the new brake pads.

NOTE:

- * Before installing the new pads, inspect the pad mounting pins for wear. If excessive wear is found, replace them with new ones.
- * The shim must be installed to the caliper piston side pad.
- * Make sure that the detent of pad is fitted to the detent on the brake caliper holder.

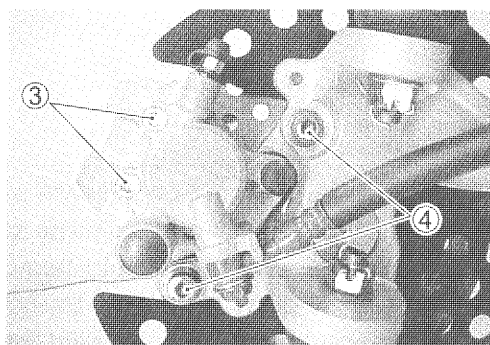


- Tighten the brake pad mounting pins ③ and brake caliper mounting bolts ④ to the specified torque.

- ☑ **Brake pad mounting pin: 18 N·m (1.8 kgf-m, 13.0 lb-ft)**
Brake caliper mounting bolt:
26 N·m (2.6 kgf-m, 19.0 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 vehicle on a level surface and keep the handlebar straight.
- Remove the master cylinder reservoir cap and diaphragm.
- Suck up the old brake fluid as much as possible.
- Fill the reservoir with new brake fluid.



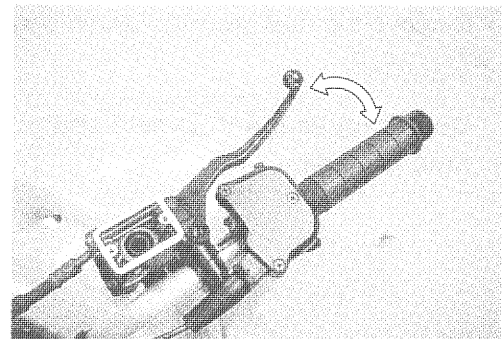
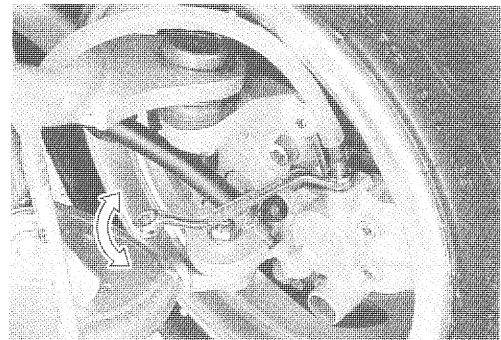
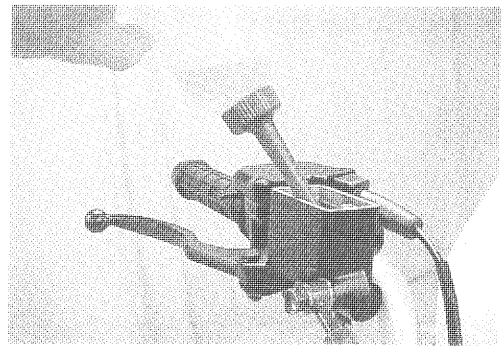
Specification and classification: DOT 4

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

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.
(2-19)

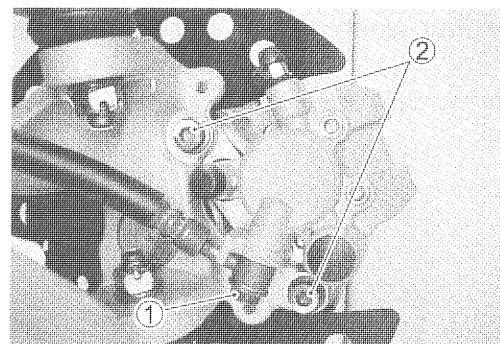


BRAKE CALIPER REMOVAL AND DISASSEMBLY

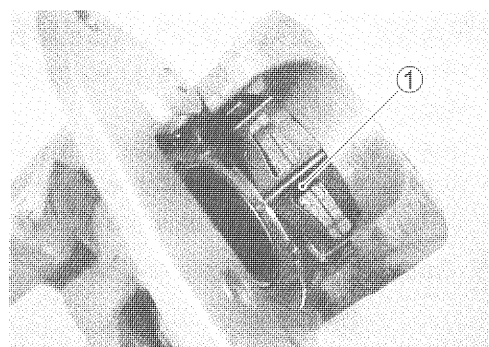
- Remove the front wheel. (6-10)
- Disconnect the brake hose from the brake caliper by removing the brake hose union bolt ① and allow the brake fluid to drain into a suitable receptacle.
- Remove the brake caliper by removing the brake caliper mounting bolts ②.
- Remove the brake pads. (6-18)

▲ WARNING

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



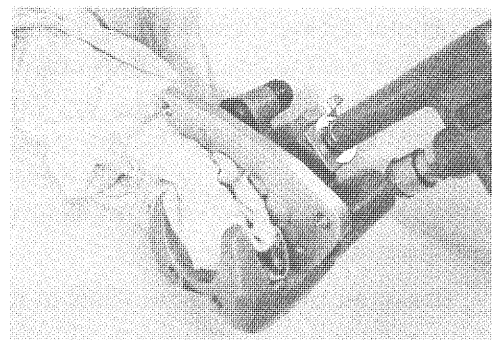
- Remove the spring ①.



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

CAUTION

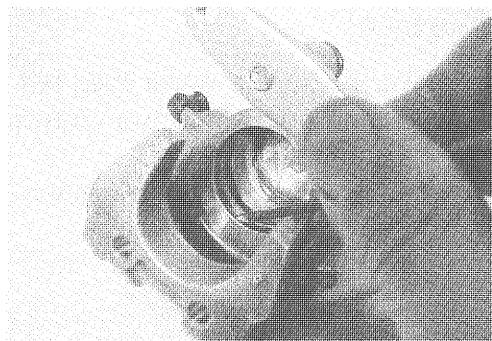
Do not use high pressure air to prevent brake caliper piston damage.



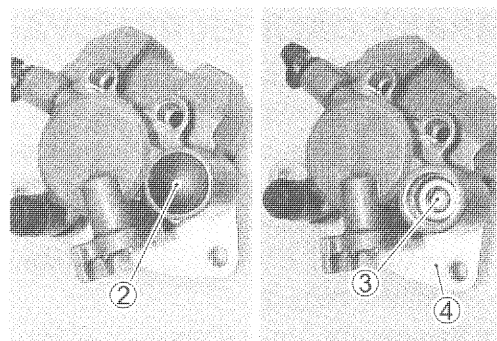
- Remove the dust seal and piston seal.

CAUTION

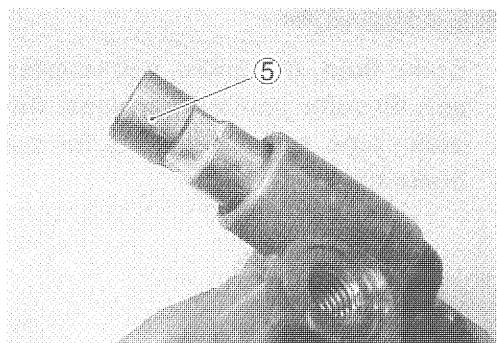
Do not reuse the dust seal and piston seal to prevent fluid leakage.



- Remove the cap ② and loosen the brake caliper holder slide pin ③.
- Remove the brake caliper holder ④.



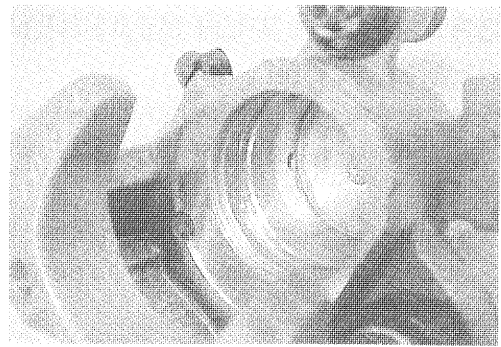
- Remove the brake caliper holder slide pin ⑤.



BRAKE CALIPER INSPECTION

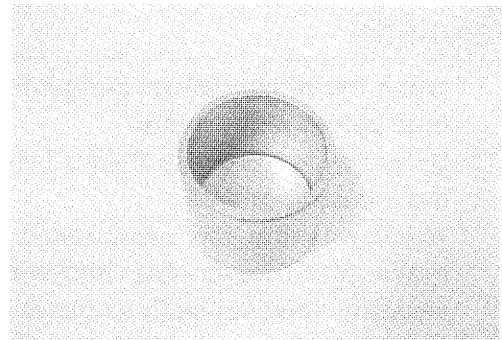
BRAKE CALIPER

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



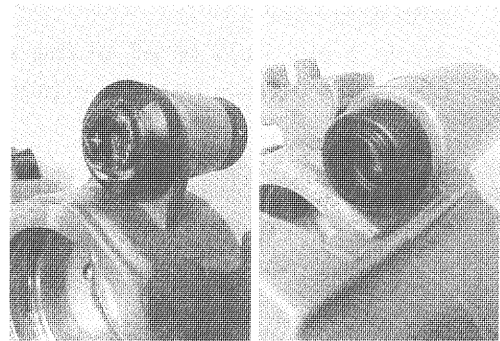
BRAKE CALIPER PISTON

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



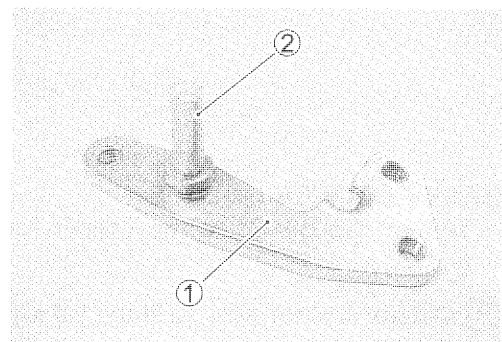
RUBBER PARTS

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



CALIPER HOLDER

Inspect the caliper holder ① and pin ② for damage. If any damages are found, replace them with new ones.



BRAKE CALIPER REASSEMBLY AND REMOUNTING

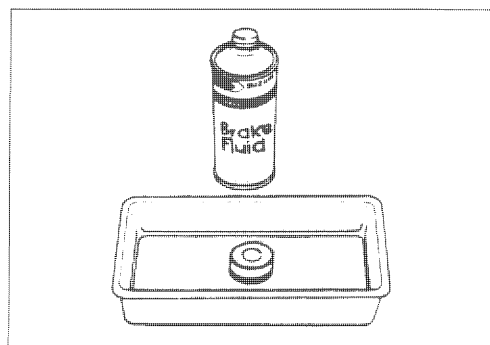
Reassemble and remount the brake caliper in the reverse order of removal and disassembly. Pay attention to the following points:

- Wash the caliper bore and piston with the specified brake fluid. Thoroughly wash the dust seal grooves and piston seal grooves.

 **Specification and classification: DOT 4**

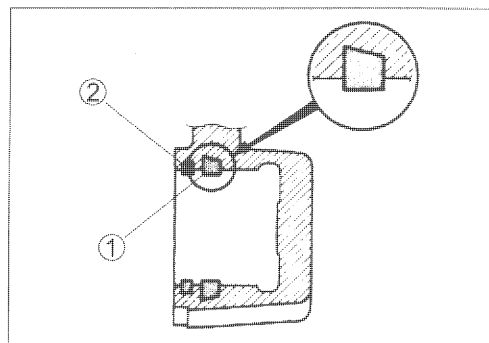
CAUTION

- * Wash the brake caliper components with new brake fluid before reassembly.
- * Do not wipe the brake fluid off with a rag after washing the components.
- * When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvents such as gasoline, kerosine, etc.
- * Replace the removed piston seals and dust seals with new ones.
- * Apply brake fluid to all of the seals, brake caliper bores and pistons before reassembly.



PISTON SEAL

- Install the piston seal ① and dust seal ② as shown.



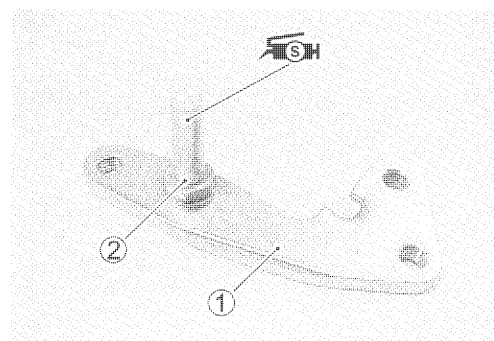
BRAKE CALIPER HOLDER

- Tighten the pin ② to the caliper holder ① to the specified torque.

 **Caliper holder pin: 18 N·m (1.8 kgf-m, 13.0 lb-ft)**

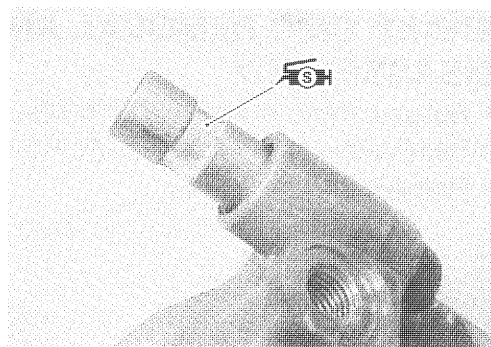
- Apply SUZUKI SILICONE GREASE to the brake caliper holder pin ②.

 **99000-25100: SUZUKI SILICONE GREASE**



- Apply SUZUKI SILICONE GREASE to the brake caliper holder slide pin.

 **99000-25100: SUZUKI SILICONE GREASE**



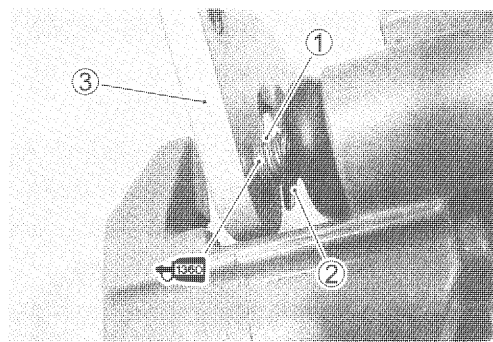
- Install the pin ①, washer ② and caliper holder ③ to the caliper.
- Apply THREAD LOCK SUPER "1360" to the pin ①.

 **99000-32130: THREAD LOCK SUPER "1360"**

- Tighten the pin ① to the specified torque.

 **Caliper holder slide pin: 23 N·m (2.3 kgf-m, 16.5 lb-ft)**

- Install the pads and spring to the caliper.



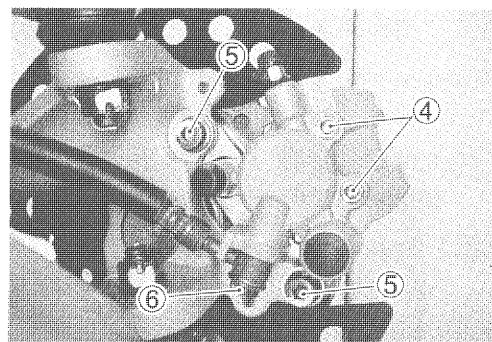
- Tighten the brake pad mounting pins ④, brake caliper mounting bolts ⑤ and brake hose union bolt ⑥ to the specified torque.

 **Brake pad mounting pin: 18 N·m (1.8 kgf-m, 13.0 lb-ft)**

Brake caliper mounting bolt:

26 N·m (2.6 kgf-m, 19.0 lb-ft)

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



NOTE:

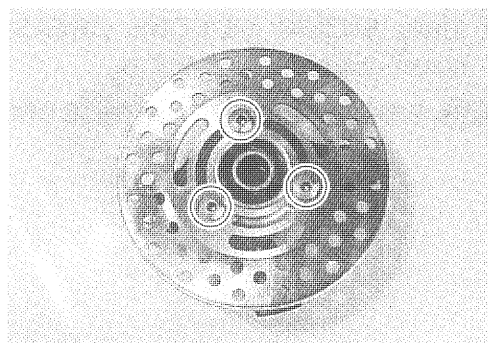
Before remounting the brake caliper, push the brake caliper pistons all the way into the caliper.

CAUTION

Bleed air from the system after reassembling the brake caliper. (👉 2-19)

BRAKE DISC REMOVAL AND DISASSEMBLY

- Remove the front wheel. (🔧 6-10)
- Remove the front wheel hub. (🔧 6-10)
- Remove the brake disc.



BRAKE DISC INSPECTION

- Remove the front wheel. (🔧 6-10)
- Remove the caliper. (🔧 6-19)

Inspect the brake disc for cracks or damage and measure the thickness using the micrometer. If any damages are found or if the thickness is less than the service limit, replace the brake disc with a new one.

 **09900-20205: Micrometer (0 – 25 mm)**

 **Brake disc thickness**

Service Limit: 2.5 mm (0.10 in)

Measure the runout using the dial gauge. If the runout exceeds the service limit, replace the brake disc with a new one.

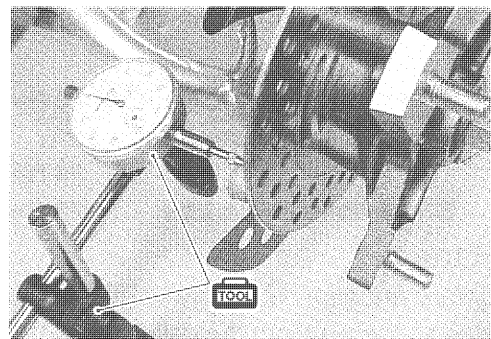
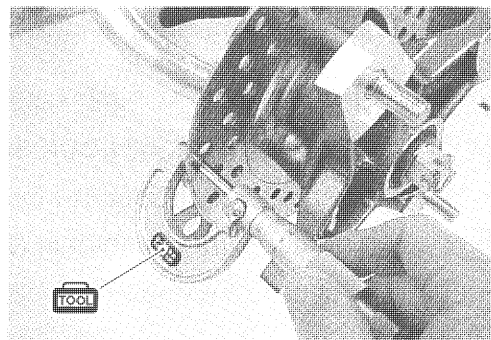
 **09900-20607: Dial gauge (1/100 mm)**

09900-20701: Magnetic stand

 **Brake disc runout**

Service Limit: 0.3 mm (0.012 in)

- If either measurement exceeds the service limit, replace the brake disc with a new one.



BRAKE DISC REASSEMBLY AND REMOUNTING

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

- Install the disc to the wheel hub with the punch mark **A** on the disc showed up.

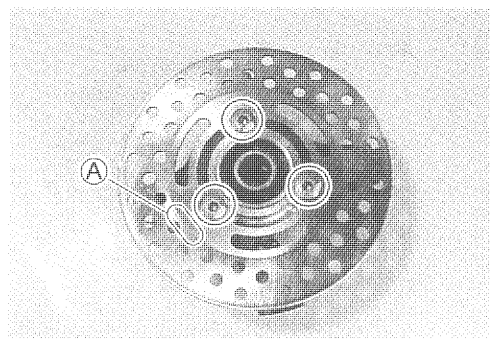
NOTE:

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

- Apply THREAD LOCK SUPER “1360” to the brake 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)**



MASTER CYLINDER REMOVAL AND DISASSEMBLY

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

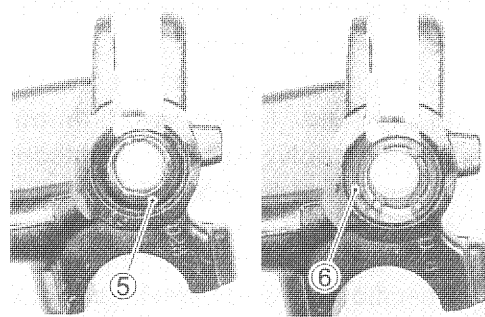
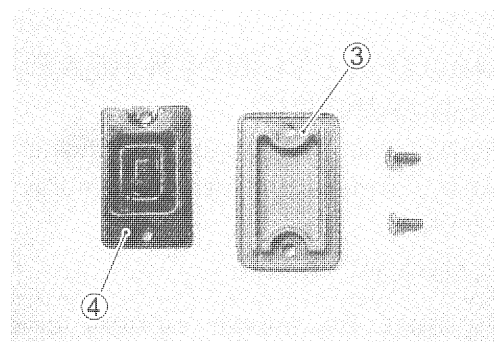
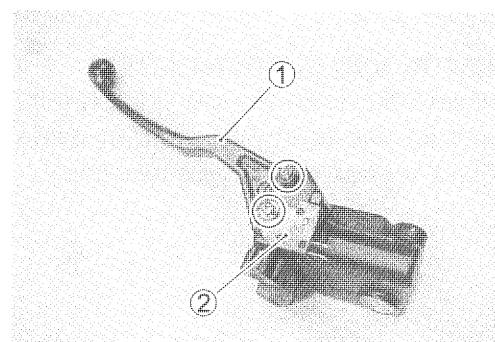
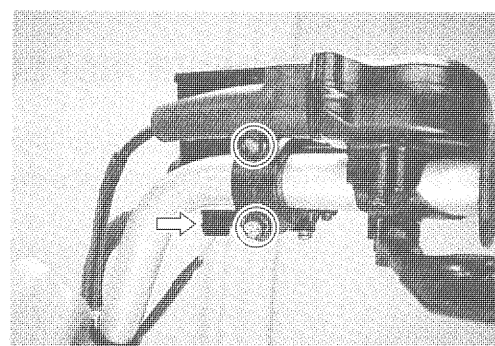
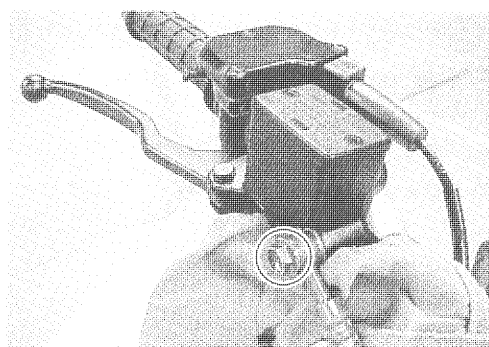
CAUTION

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

- Remove the master cylinder assembly.
- Disconnect the brake switch coupler.
- Remove the brake lever ① and brake switch ②.

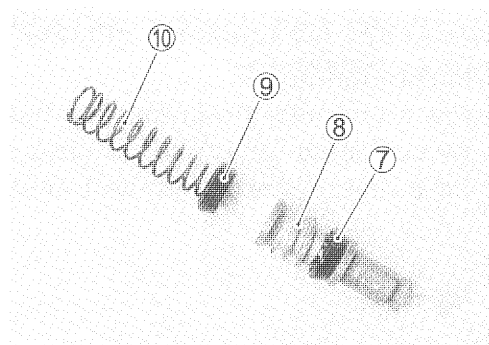
- Remove the reservoir cap ③ and diaphragm ④.
- Drain the brake fluid.

- Pull the dust boot ⑤ out and remove the snap ring ⑥.



- Remove the piston/secondary cup, primary cup and spring.

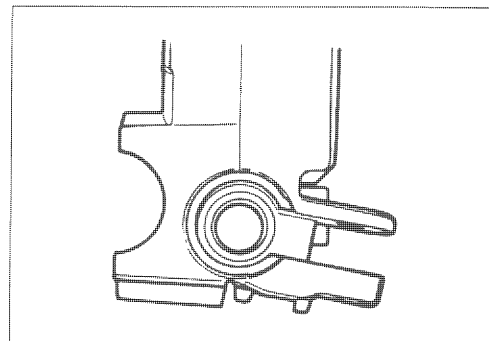
- ⑦ Secondary cup
- ⑧ Piston
- ⑨ Primary cup
- ⑩ Spring



MASTER CYLINDER INSPECTION

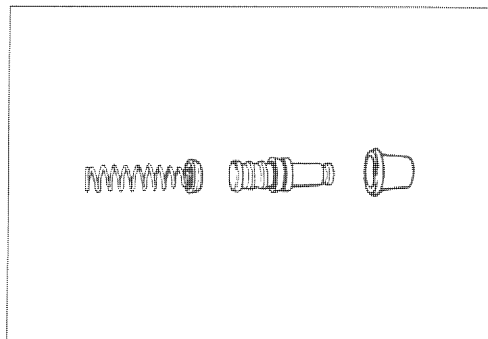
MASTER CYLINDER

Inspect the master cylinder bore for any scratches or damage. If any damages are found, replace the master cylinder with a new one.



PISTON AND RUBBER PARTS

Inspect the piston surface, primary cup, secondary cup and dust boot for any scratches, wear or damage. If any damages are found, replace them with a new one.

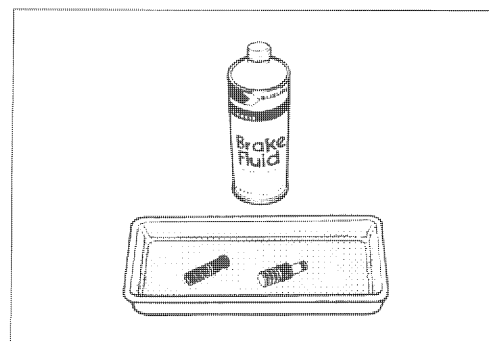


MASTER CYLINDER REASSEMBLY AND REMOUNTING

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

CAUTION

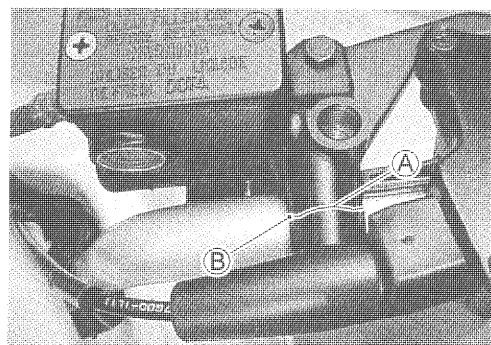
- * Wash the master cylinder components with new brake fluid before reassembly.
- * Do not wipe the brake fluid off with a rag after washing the components.
- * When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvents such as gasoline, kerosine, etc.
- * Apply brake fluid to the master cylinder bore and all the component to be inserted to the bore.



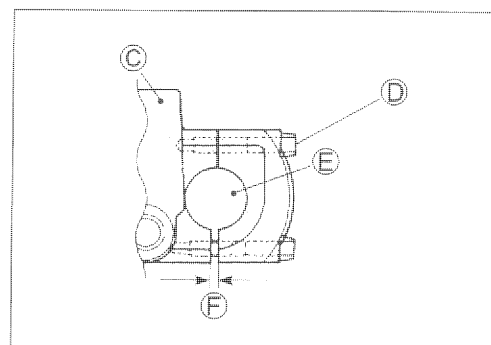
Specification and classification: DOT 4

- Align the master cylinder holder's mating surface (A) with the punch mark (B) on the handlebars and tighten the upper clamp bolt first.

 **Master cylinder clamp bolt: 10 N·m (1.0 kgf-m, 7.0 lb-ft)**



- (C) Master cylinder
- (D) Master cylinder upper clamp bolt
- (E) Handlebar
- (F) Clearance



- Tighten the brake hose union bolt (1) to the specified torque.

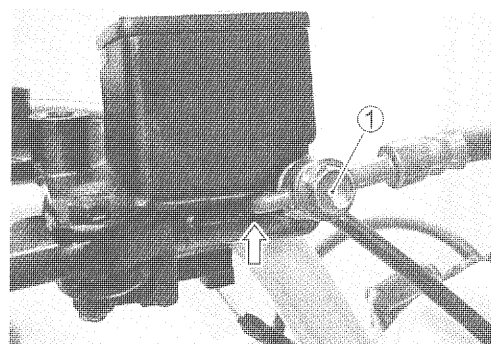
 **Brake hose union bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)**

NOTE:

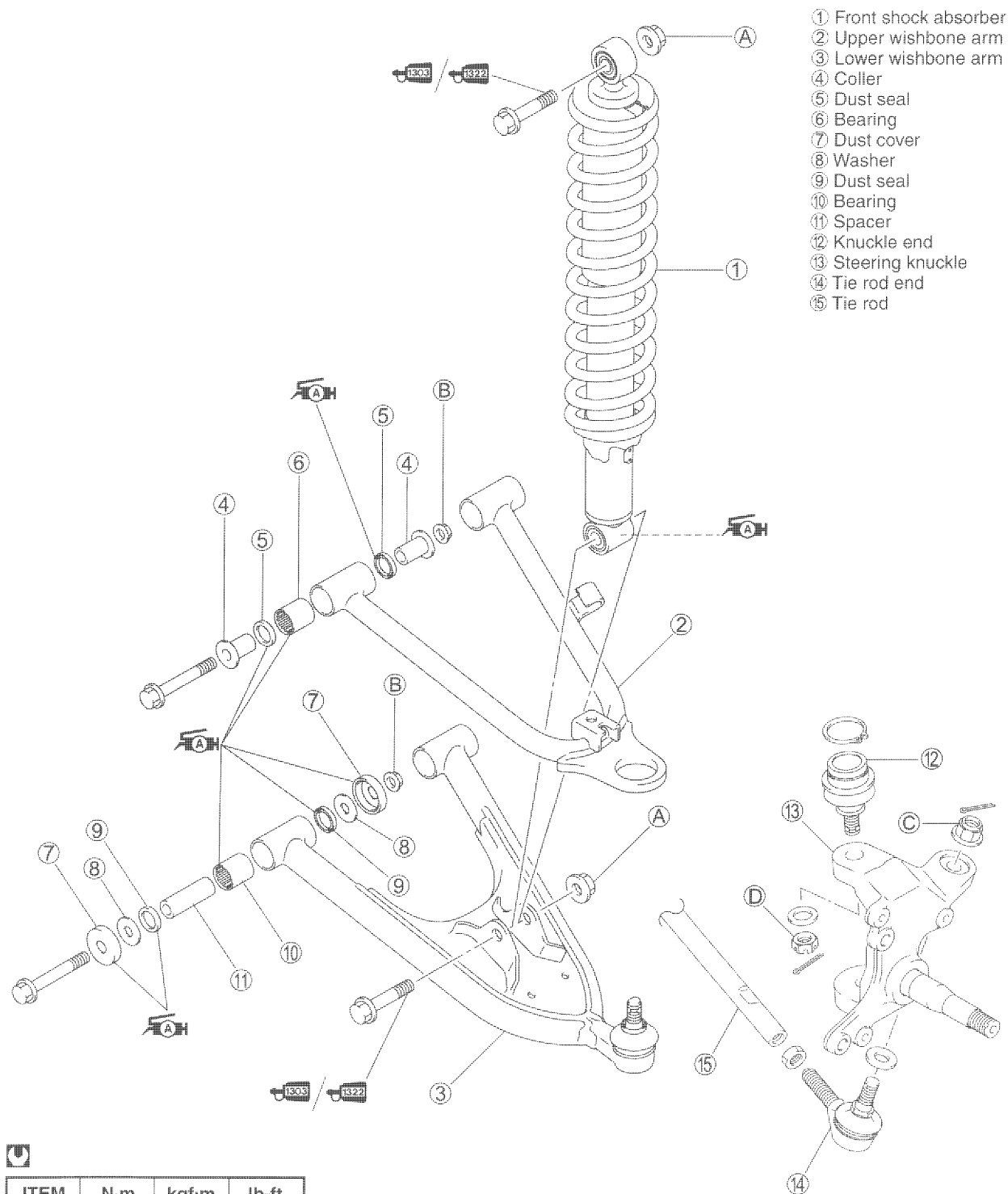
After touching the brake hose union to the stopper, tighten the union bolt.

CAUTION

Bleed air from the brake system after reassembling the master cylinder. (👉 2-19)



FRONT SUSPENSION CONSTRUCTION



- ① Front shock absorber
- ② Upper wishbone arm
- ③ Lower wishbone arm
- ④ Collier
- ⑤ Dust seal
- ⑥ Bearing
- ⑦ Dust cover
- ⑧ Washer
- ⑨ Dust seal
- ⑩ Bearing
- ⑪ Spacer
- ⑫ Knuckle end
- ⑬ Steering knuckle
- ⑭ Tie rod end
- ⑮ Tie rod

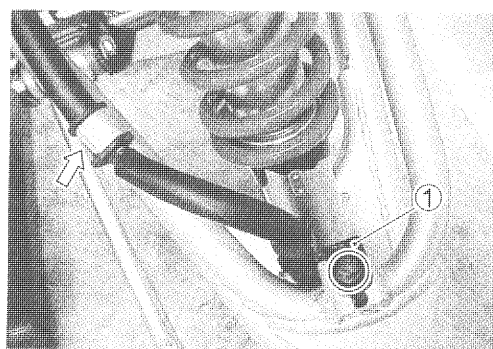


ITEM	N-m	kgf-m	lb-ft
(A)	60	6.0	43.5
(B)	65	6.5	47.0
(C)	60	6.0	43.5
(D)	43	4.3	31.0

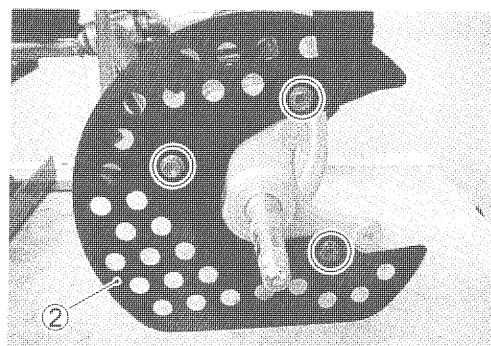
- (A) Front shock absorber mounting nut
- (B) Wishbone arm pivot nut
- (C) Tie rod end nut
- (D) Steering knuckle nut

REMOVAL

- Remove the front wheel. (6-10)
- Remove the front wheel hub. (6-10)
- Remove the brake caliper. (6-19)
- Remove the brake hose clamp ①.
- Disconnect the brake hose at the hose clamp.



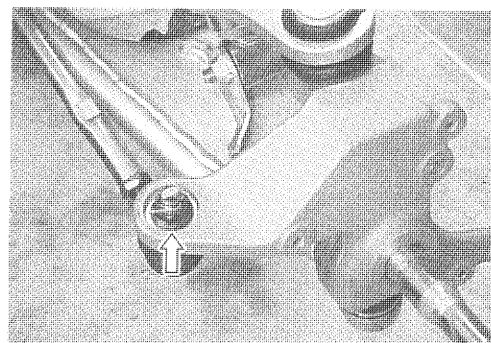
- Remove the front disc cover ②.



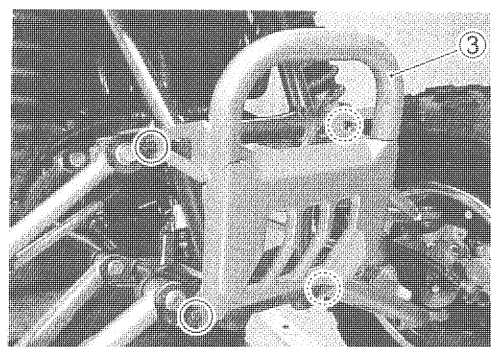
- Remove the cotter pin and tie rod end nut.

CAUTION

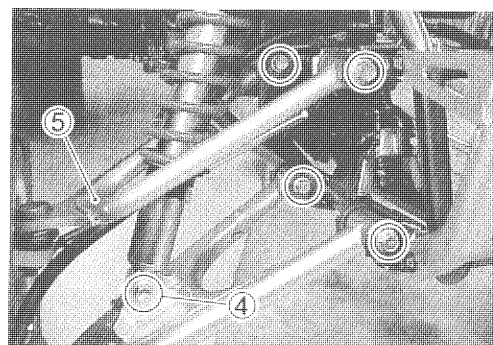
Replace the removed cotter pin with a new one.



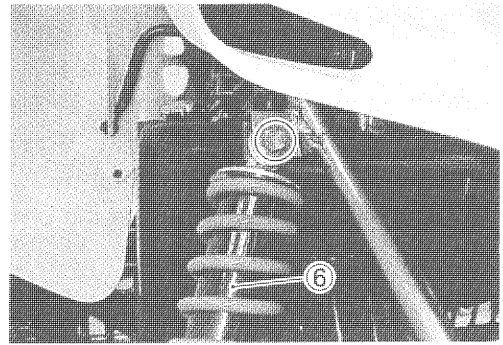
- Remove the front grip ③.



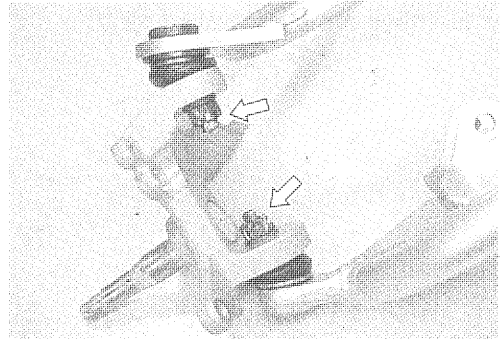
- Remove the shock absorber lower mounting bolt ④.
- Remove the wishbone arm assembly ⑤.



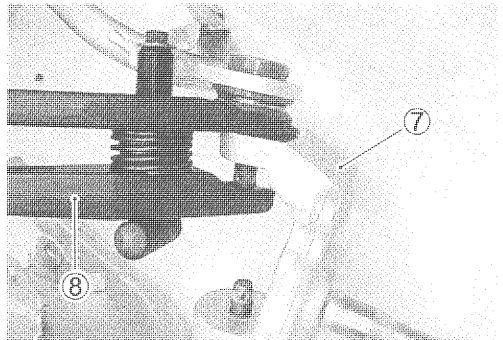
- Remove the shock absorber ⑥.



- Remove the cotter pins and nuts.

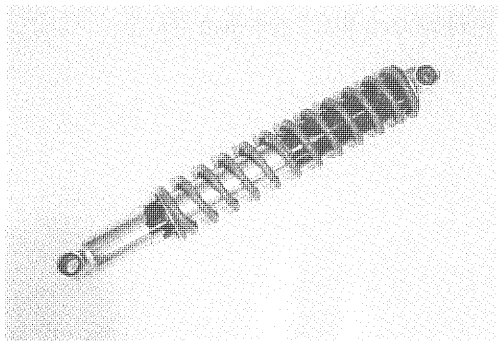


- Remove the steering knuckle ⑦ with a commercially available ball bearing joint remover ⑧.

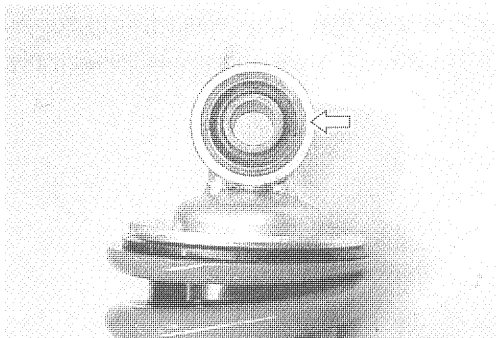


INSPECTION AND DISASSEMBLY FRONT SHOCK ABSORBER

Inspect the shock absorber for oil leakage or damage. If any damages are found, replace the front shock absorber with a new one.



Inspect the rubber bushing for wear or damage. If any damages are found, replace the shock absorber with a new one.

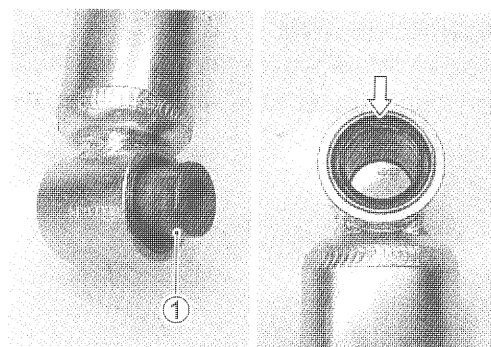


- Remove the spacer ①.

Inspect the bushing and dust seal for wear or damage. If any damages are found, replace the shock absorber with a new one.

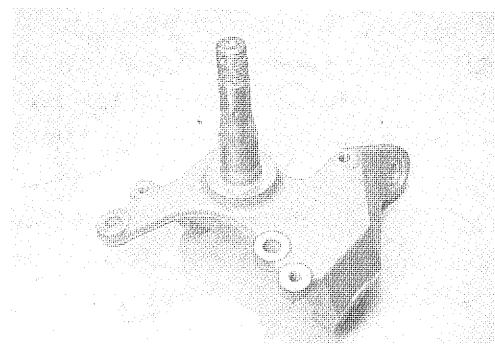
- Apply SUZUKI SUPER GREASE "A" to the bushing and dust seals before remounting.

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



KNUCKLE

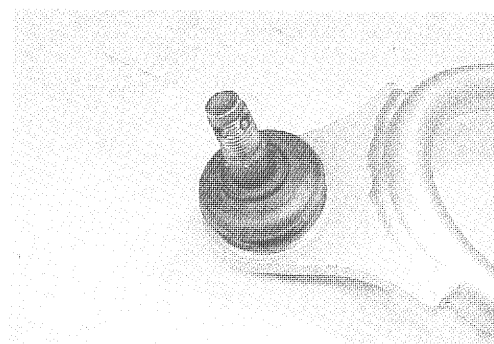
Inspect the knuckle for damage. If any damages are found, replace the knuckle with a new one.



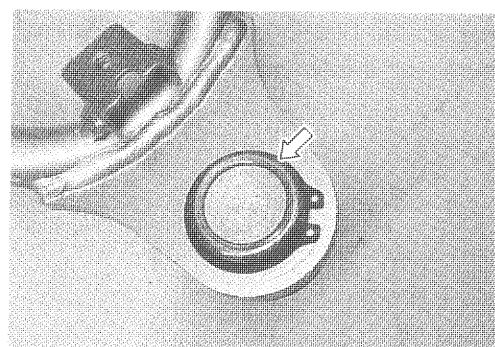
KNUCKLE END

Inspect the knuckle end boot for wear or damage. If any damages are found, replace the knuckle end with a new one.

Inspect the knuckle end for smooth movement. If there are any abnormalities, replace the knuckle end with a new one.

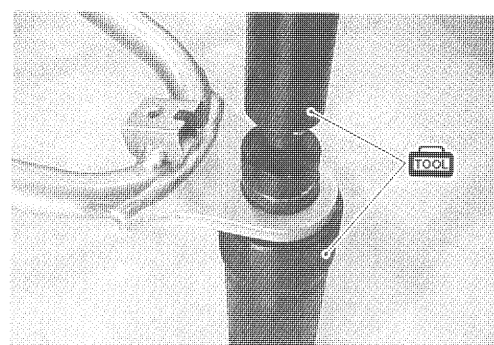


- Remove the snap ring.



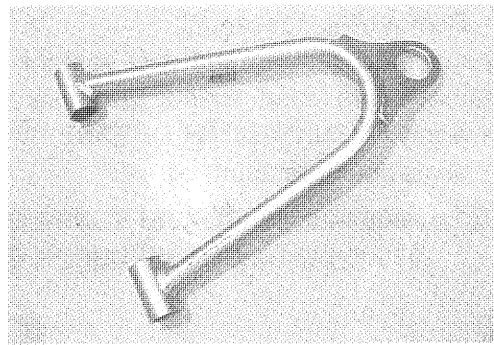
- Remove the knuckle end by using the special tools.

 09913-70210: Bearing installer set



WISHBONE ARM

Inspect the wishbone arm for wear or damage. If any damages are found, replace the wishbone arm with a new one.

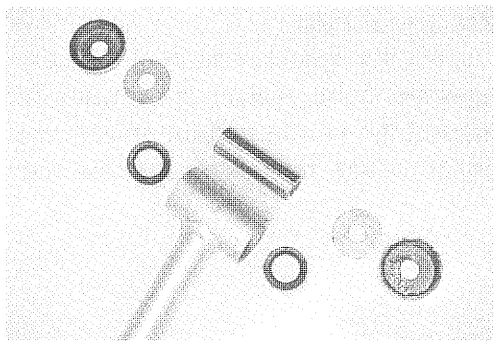
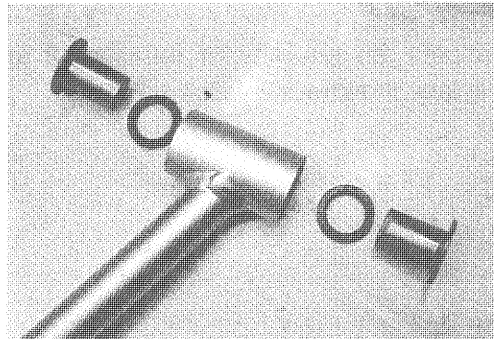
**WISHBONE ARM PIVOT BEARING**

- Remove the spacer and dust seal.

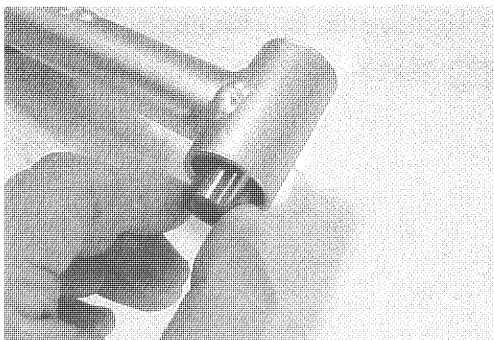
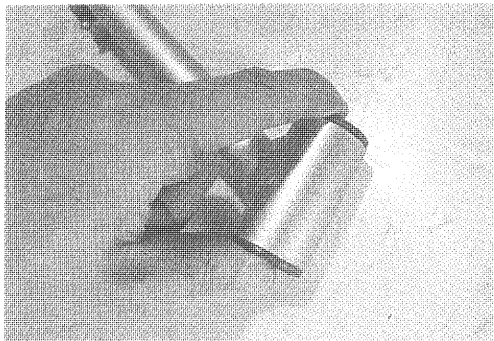
Inspect the dust seal lips and spacers for wear and damage. If any damages are found, replace them with new ones.

NOTE:

Full type roller bearing is equipped at wishbone arm pivot. Take notice that the rollers may fall out of bearing cage when removing the spacer.



Inspect the bearings for play. If excessive play is found, replace them with a new one.

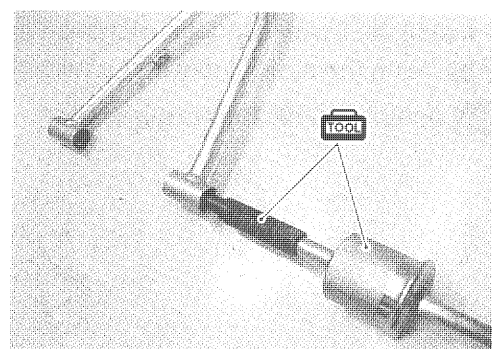


- Remove the needle bearing with the special tools.

TOOL 09923-73210: Bearing puller
09930-30104: Sliding hammer

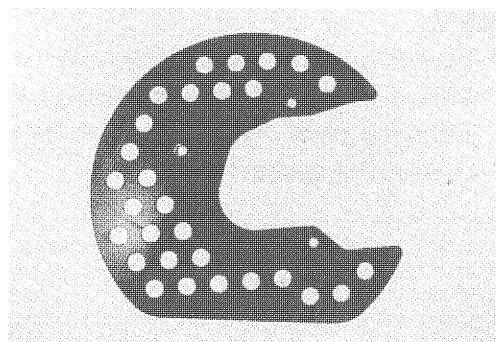
CAUTION

Do not reuse the removed bearing.



BRAKE DISC COVER

Inspect the brake disc cover for damage. If any damages are found, replace the brake disc cover with a new one.

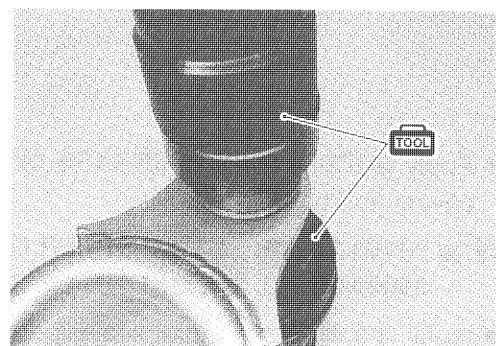


REASSEMBLY AND REMOUNTING

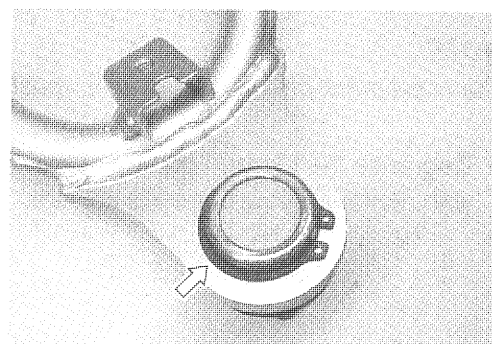
Reassemble and remount the front suspension in the reverse order of removal and disassembly. Pay attention to the following points:

- Install the knuckle end to the wishbone arm by using the special tools.

TOOL 09913-70210: Bearing installer

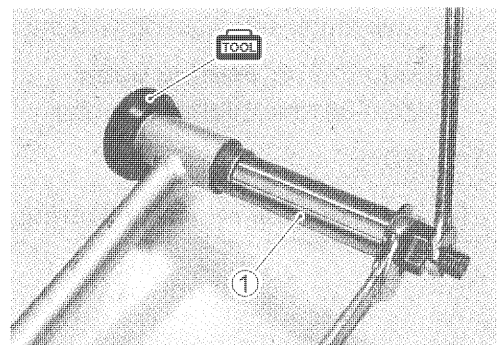


- Install the snap ring.



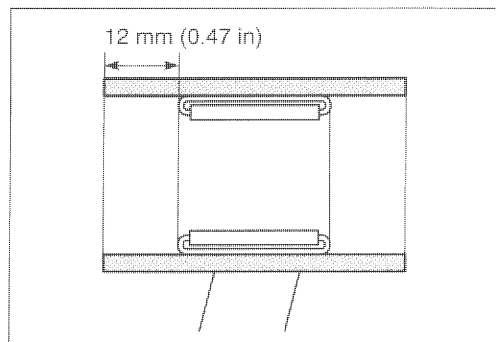
- Install the bearings to the wishbone arm to the specified depth by using the special tool and a suitable spacer ①.

 **09924-84510: Bearing installer**



NOTE:

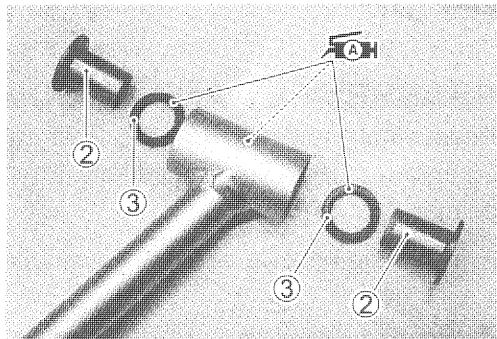
- * Position of the bearing is shown in the illustration.
- * When installing the sealed bearing that is used at the upper wishbone pivot, make sure that the stamped side of bearing faces to the spacer ①.



- Apply SUZUKI SUPER GREASE "A" to the dust seals and bearing.

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

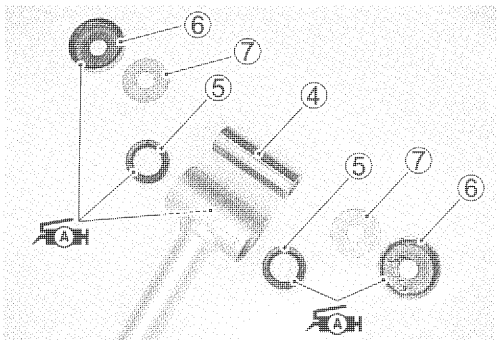
- Install the bearing spacers ② and dust seals ③ into the upper wishbone arm.



- Apply SUZUKI SUPER GREASE "A" to the dust seals, dust covers and bearing.

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

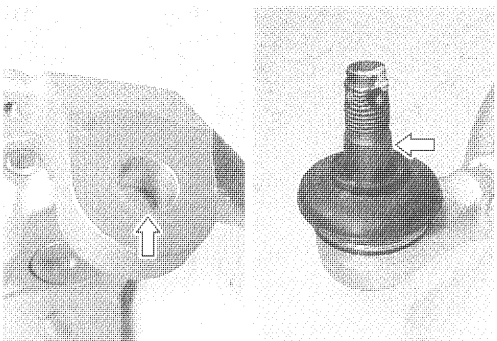
- Install the spacer ④, dust seals ⑤, dust covers ⑥ and washers ⑦ into the lower wishbone arm.



NOTE:

Stamped mark on the dust seal ⑤ must face outside.

- Degrease the tapered portion of knuckle and also knuckle end with nonflammable cleaning solvent.



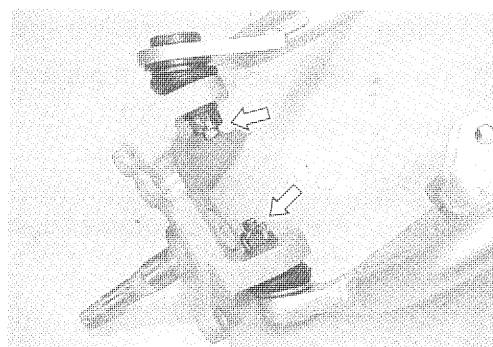
- Install the wishbone arms to the steering knuckle and tighten the knuckle end nuts to the specified torque.

Knuckle end nut: 43 N·m (4.3 kgf-m, 31.0 lb-ft)

- Install the cotter pins.

CAUTION

Replace the removed cotter pins with new ones.



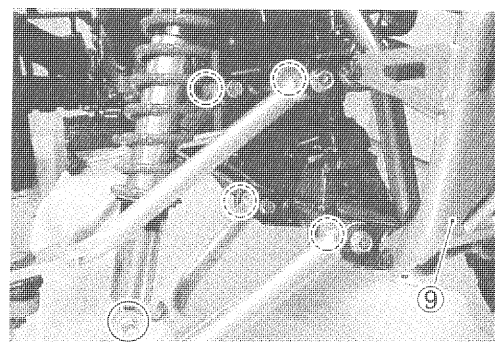
- Tighten the wishbone arm pivot nuts to the specified torque.

Wishbone arm pivot nut: 65 N·m (6.5 kgf-m, 47.0 lb-ft)

- Install the front grip ⑨ and the front shock absorber.
- Apply THREAD LOCK SUPER "1303" or "1322" to the front shock absorber mounting bolts.

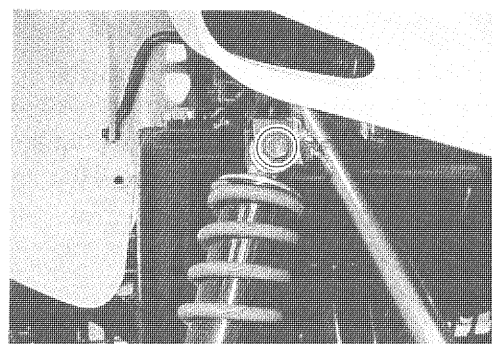
1303 99000-32030: THREAD LOCK SUPER "1303" (USA)

1322 99000-32110: THREAD LOCK SUPER "1322" (Others)



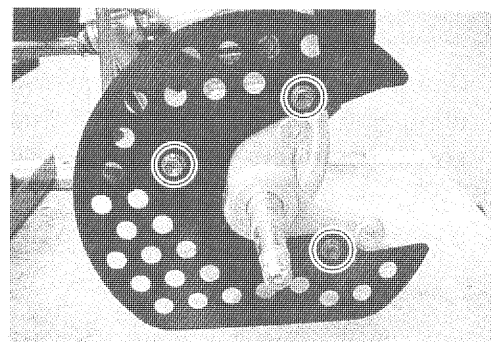
- Tighten the shock absorber mounting nut to the specified torque.

**Shock absorber mounting nut (Upper and Lower):
60 N·m (6.0 kgf-m, 43.5 lb-ft)**



- Apply THREAD LOCK SUPER "1360" to the disc cover mounting bolts, and then tighten the bolts.

1360 99000-32130: THREAD LOCK SUPER "1360"



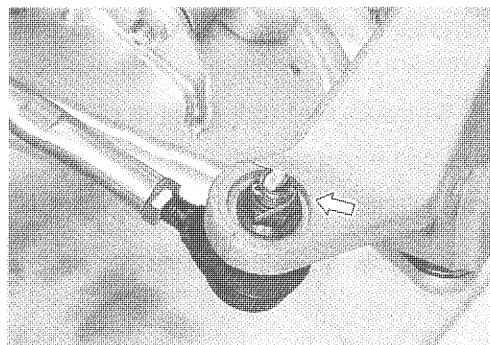
- Tighten the tie rod end nut to the specified torque.

 **Tie rod end nut: 60 N·m (6.0 kgf-m, 43.5 lb-ft)**

- Install the cotter pin.

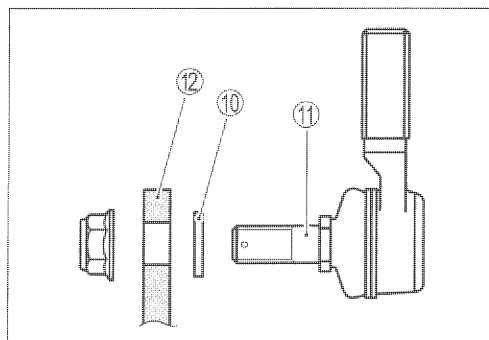
CAUTION

Replace the removed cotter pin with a new one.



NOTE:

When installing the tie rod end, install the washer ⑩ between the tie rod end ⑪ and steering knuckle ⑫.

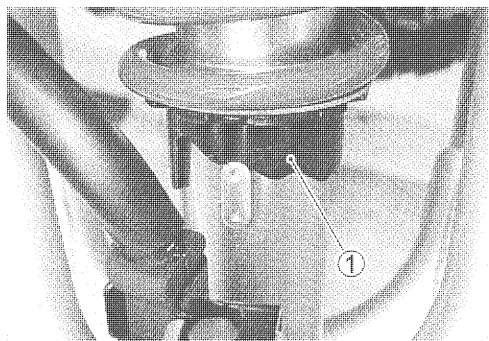


SUSPENSION SETTING

SPRING PRE-LOAD ADJUSTMENT

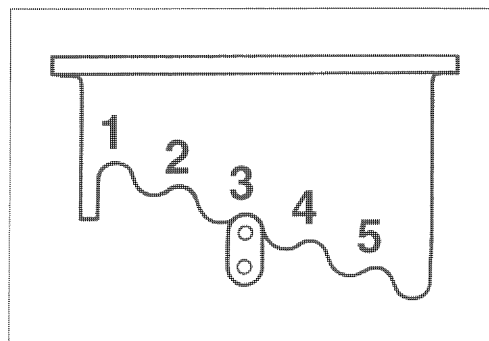
The front suspension spring preload is adjustable. The adjustment can be performed by changing the ring ① position with the adjuster tool. Position 1 provides the softest spring pre-load and position 5 provides the stiffest. The spring preload is set on position 3 at the factory.

STD POSITION: 3



⚠ WARNING

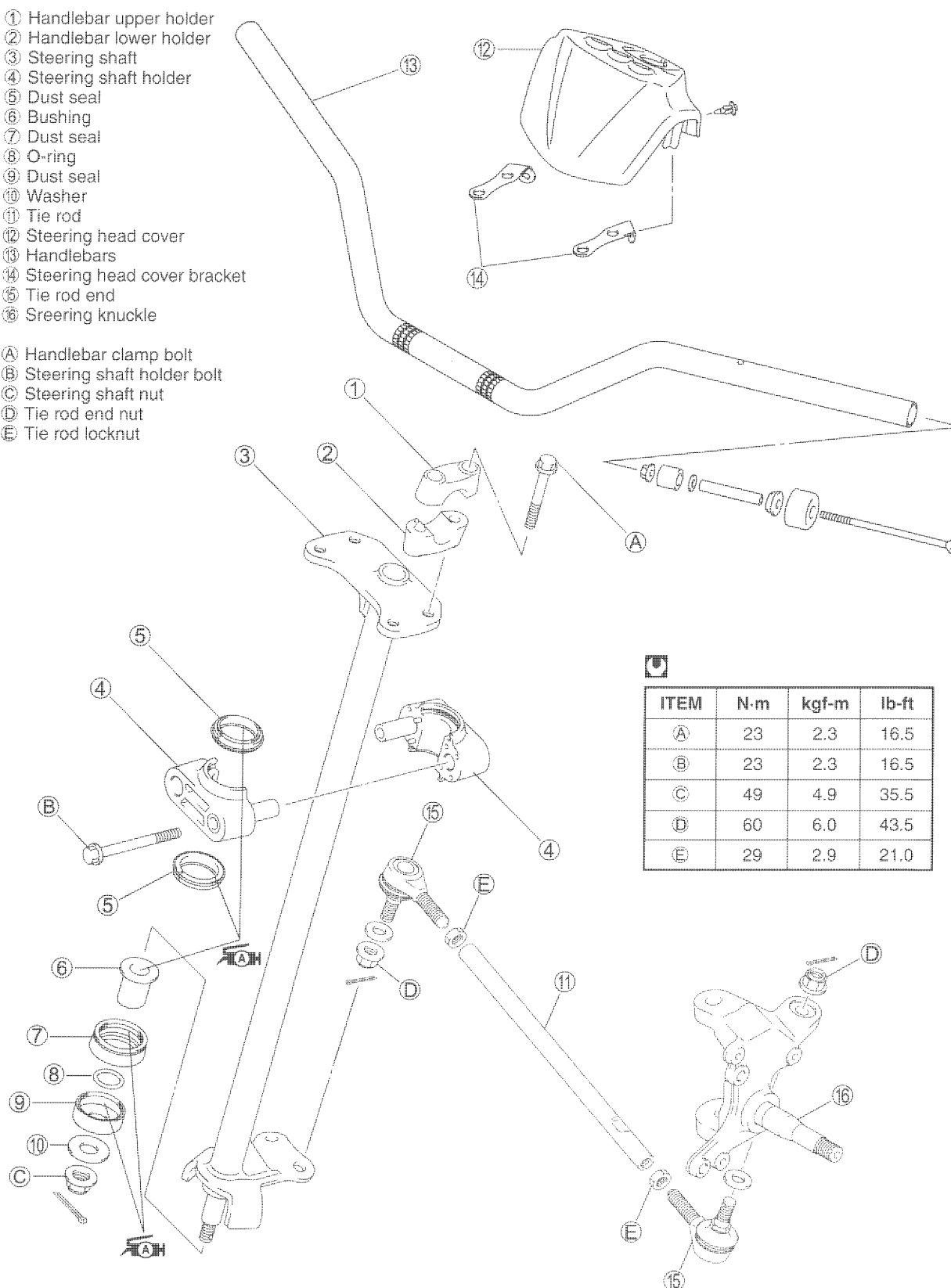
Unequal suspension adjustment can cause poor handling and loss of stability. Adjust the right and left shock absorbers to the same setting.



STEERING CONSTRUCTION

- ① Handlebar upper holder
- ② Handlebar lower holder
- ③ Steering shaft
- ④ Steering shaft holder
- ⑤ Dust seal
- ⑥ Bushing
- ⑦ Dust seal
- ⑧ O-ring
- ⑨ Dust seal
- ⑩ Washer
- ⑪ Tie rod
- ⑫ Steering head cover
- ⑬ Handlebars
- ⑭ Steering head cover bracket
- ⑮ Tie rod end
- ⑯ Steering knuckle

- A Handlebar clamp bolt
- B Steering shaft holder bolt
- C Steering shaft nut
- D Tie rod end nut
- E Tie rod locknut

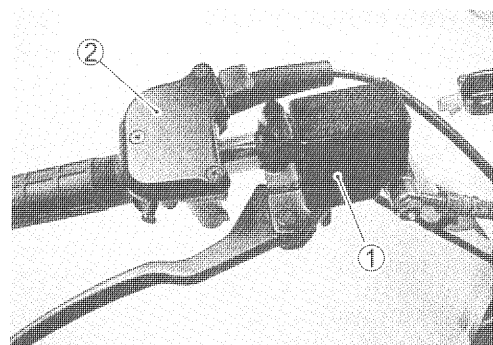


ITEM	N·m	kgf-m	lb-ft
A	23	2.3	16.5
B	23	2.3	16.5
C	49	4.9	35.5
D	60	6.0	43.5
E	29	2.9	21.0

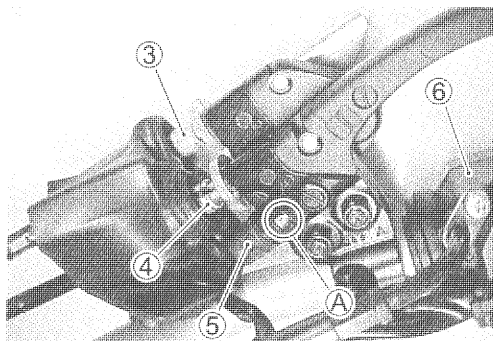
REMOVAL

HANDLEBARS

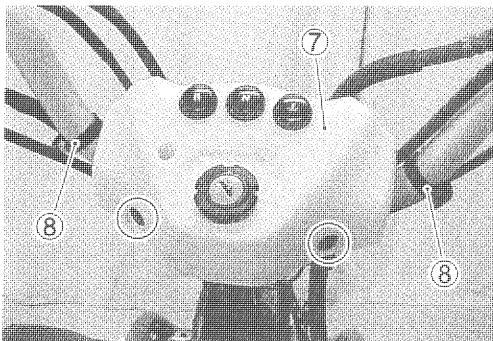
- Remove the front fender. (☞ 6-4)
- Remove the master cylinder assembly ① from the handlebars. (☞ 6-25)
- Remove the throttle lever case ②.



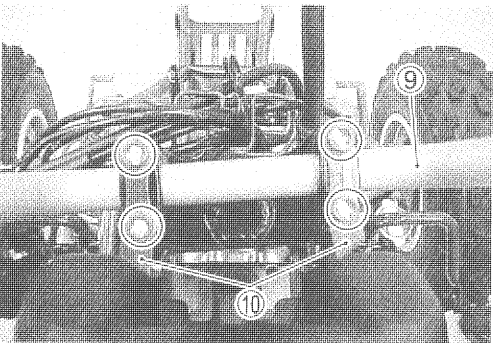
- Disconnect the rear brake cable ③ and the clutch cable ④.
- Remove the clutch switch ⑤ with the detent (A) depressed.
- Remove the handlebar switch box ⑥.



- Remove the steering head cover ⑦.
- Remove the harness clamps ⑧.

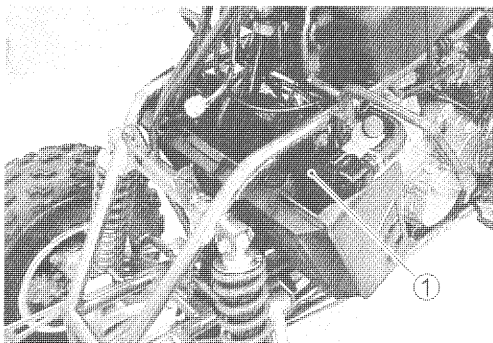


- Remove the handlebars ⑨ and the steering head cover bracket ⑩.

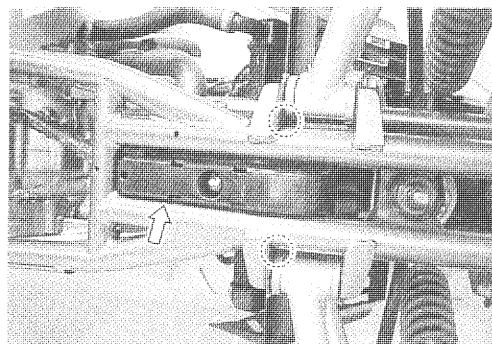


STEERING SHAFT AND TIE ROD

- Drain engine oil and coolant. (☞ 2-12 and 2-14)
- Remove the radiator assembly ①. (☞ 5-5)



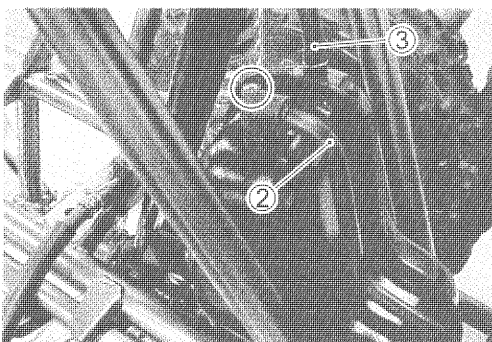
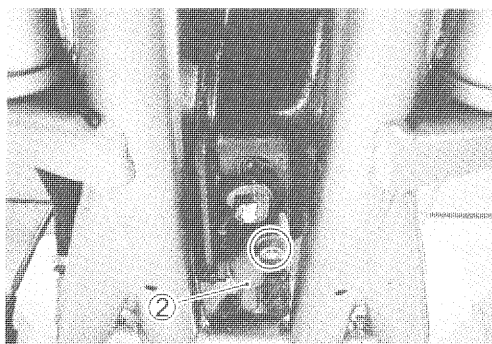
- Remove the oil hose cover by removing two fasteners.



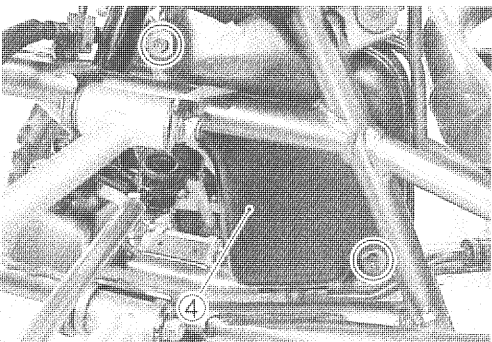
- Disconnect the oil hoses ② and breather hose ③.

CAUTION

Do not reused the removed O-ring in order to prevent leakage of oil.



- Remove the oil tank ④.

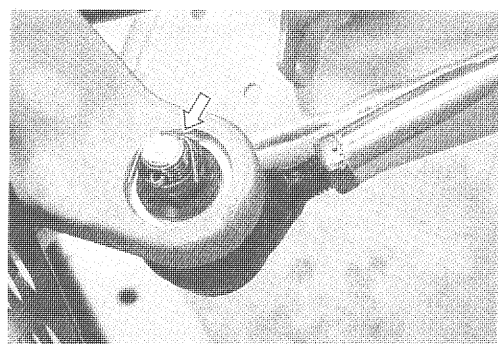
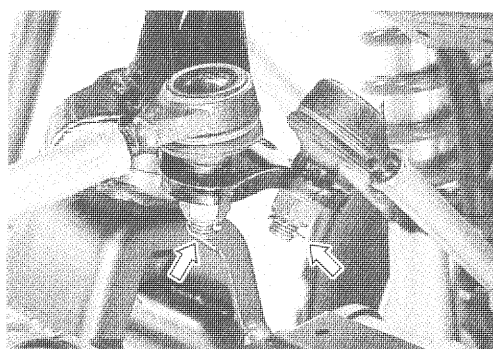


- Remove the cotter pins and tie rod end nuts.

CAUTION

Replace the removed cotter pins with new ones.

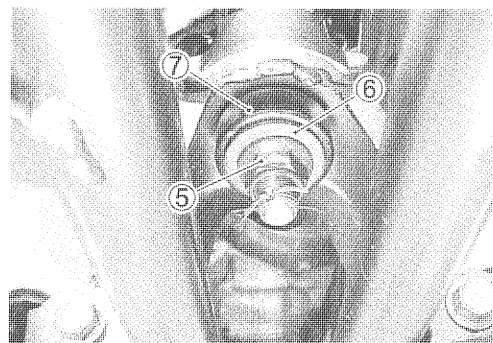
- Remove the tie rods.



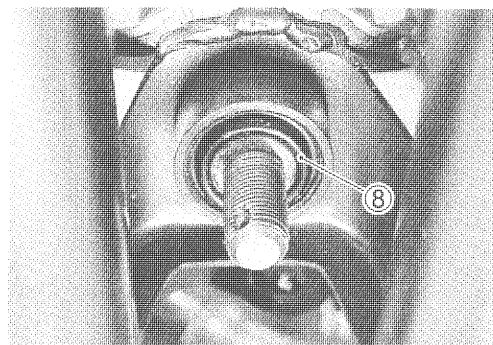
- Remove the cotter pin and steering shaft nut ⑤, washer ⑥ and dust seal ⑦.

CAUTION

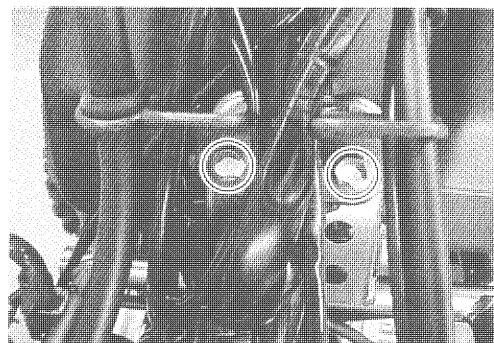
Replace the removed cotter pins with new ones.



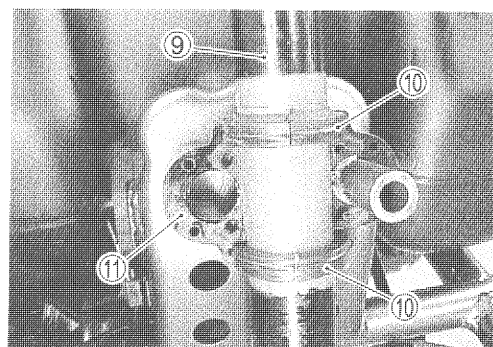
- Remove the O-ring ⑧.



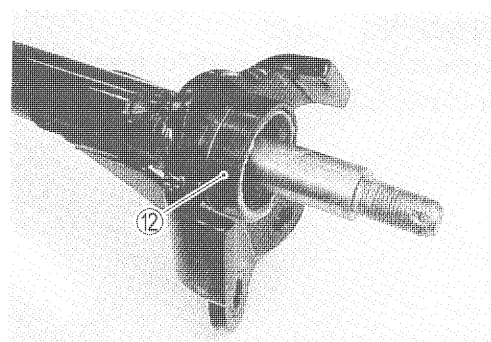
- Remove the steering shaft holder bolts.
- Remove the cable/hose guide and the steering shaft holder half.



- Remove the steering shaft ⑨.
- Remove the dust seals ⑩ from the steering shaft.
- Remove the steering shaft holder half ⑪.



- Remove the dust seal ⑫ from the steering shaft.



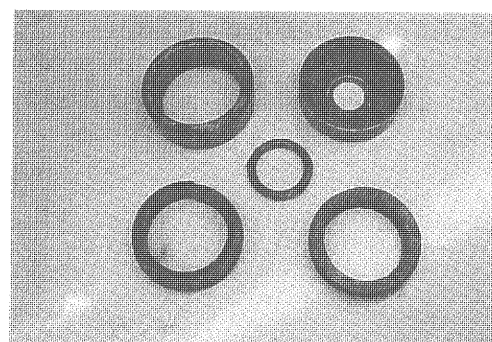
INSPECTION AND DISASSEMBLY

Inspect the removed parts for the following abnormalities.

- * Handlebar distortion
- * Handlebar clamp wear

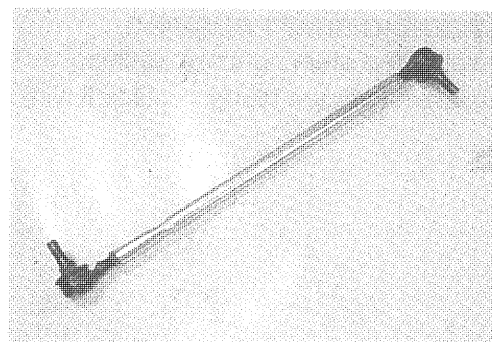
DUST SEALS AND O-RING

Inspect the dust seals and O-ring for wear or damage. If any damages are found, replace the dust seals with new ones.



TIE ROD

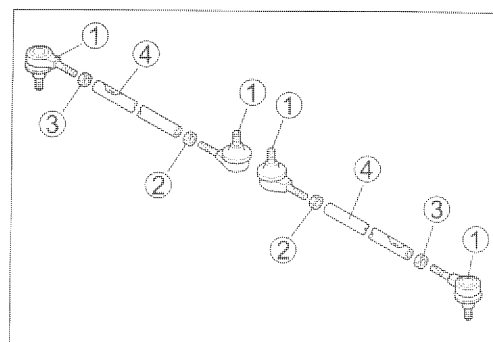
Inspect the tie rod for distortion or damage. If any damages are found, replace the tie rod with a new one.



- ① Tie rod end
- ② Locknut
- ③ Locknut
- ④ Tie rod

CAUTION

The locknuts ② with a yellow finished surface have left-hand threads.

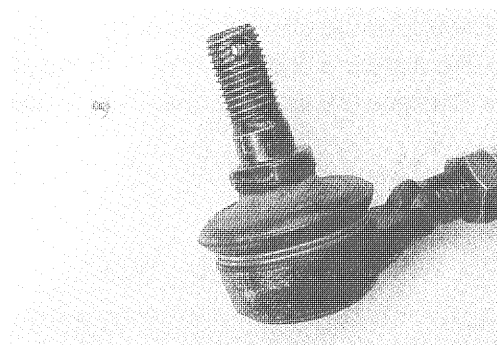


TIE ROD END

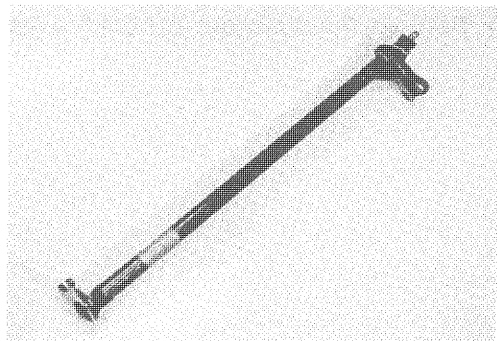
Inspect the tie rod ends for smooth movement. If there are any abnormalities, replace the tie rod end with a new one.

Inspect the tie rod end boot for wear or damage.

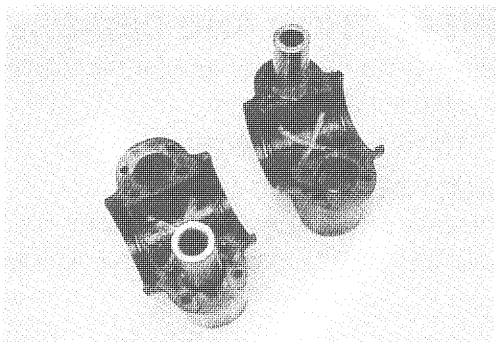
If any damages are found, replace the tie rod end with a new one.

**STEERING SHAFT**

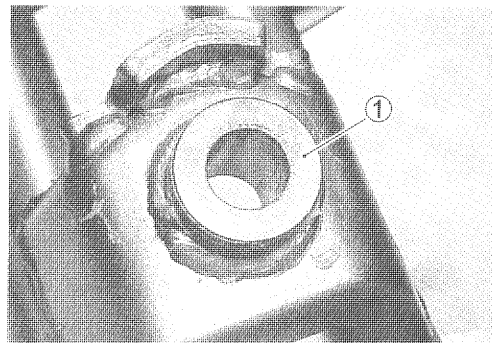
Inspect the steering shaft for distortion or bends. If any damages are found, replace the steering shaft with a new one.

**STEERING SHAFT HOLDER**

Inspect the steering shaft holders for wear or damage. If any damages are found, replace the steering shaft holders with new ones.

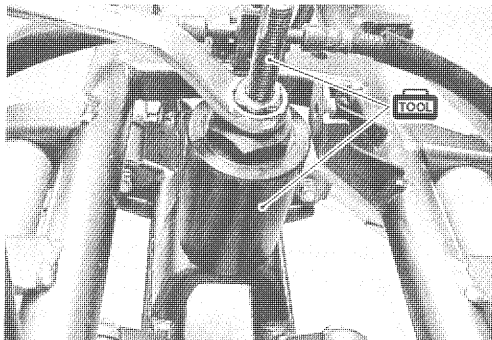
**STEERING SHAFT BUSHING**

Inspect the steering shaft bushing ① for wear and damage. If any damages are found, replace it with a new one.



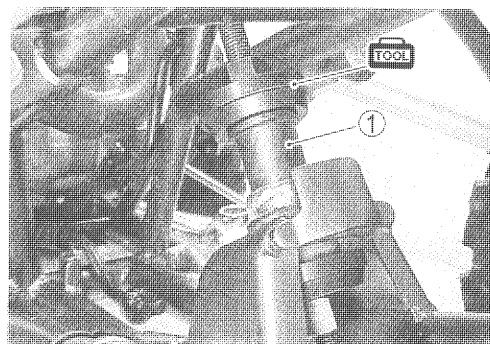
- Remove the steering shaft bushing with the special tools.

TOOL 09924-84510: Bearing installer set
09930-30721: Remover, rotor



- Install the steering shaft bushing ① with the special tool.

 09924-84510: Bearing installer set



REASSEMBLY AND REMOUNTING

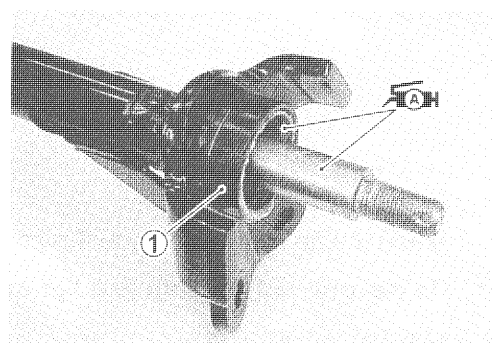
Reassemble and remount the steering shaft in the reverse order of removal and disassembly. Pay attention to the following points:

STEERING SHAFT

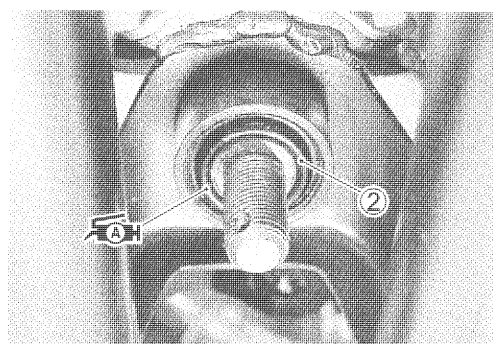
- Apply SUZUKI SUPER GREASE "A" to the O-ring, dust seals and steering shaft before remounting the steering shaft.

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

- Install the dust seal ① to the steering shaft.



- Install the new O-ring ② and dust seal to the steering shaft.



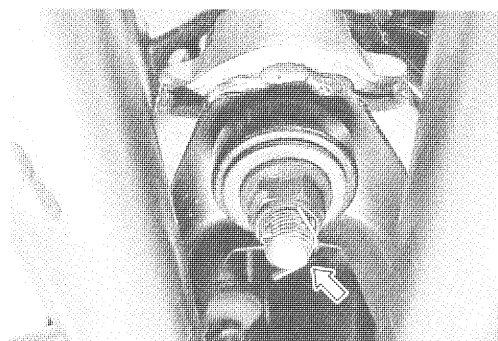
- Tighten the steering shaft nut to the specified torque.

 **Steering shaft nut: 49 N·m (4.9 kgf-m, 35.5 lb-ft)**

- Install the cotter pin.

CAUTION

Replace the removed cotter pin with a new one.

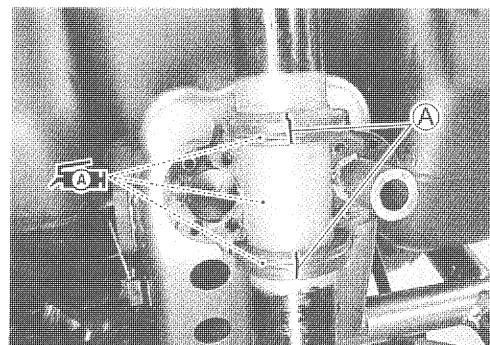


- Apply SUZUKI SUPER GREASE "A" to the dust seal lip and sliding surface of the steering shaft holders before remounting the steering shaft holders.

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

CAUTION

To prevent the entry of dirt, the dust seal end  must face forward when installing the dust seal to the steering shaft.

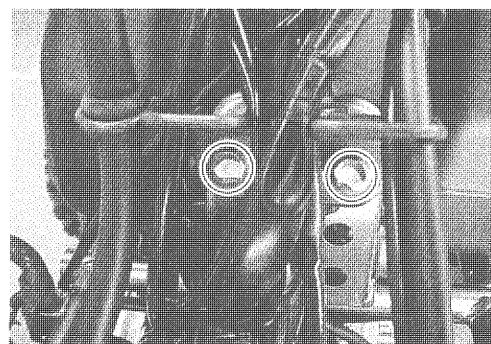


- Tighten the steering shaft holder bolts to the specified torque.

 **Steering shaft holder bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)**

NOTE:

Make sure that the wiring harness, cables and brake hose routing are properly. ( 8-11 to 8-20)



TIE ROD

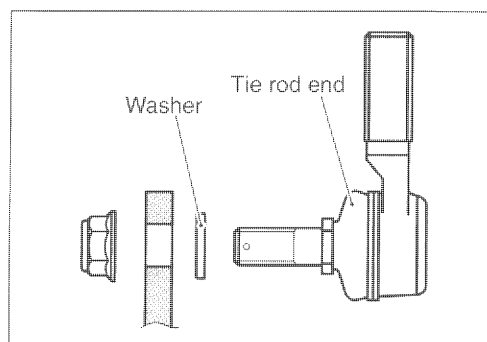
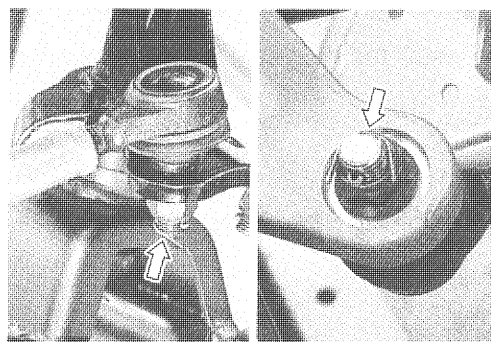
- Tighten the tie rod end nuts to the specified torque.

 **Tie rod end nut: 60 N·m (6.0 kgf-m, 43.5 lb-ft)**

- Install the cotter pins.

CAUTION

Replace the removed cotter pins with new ones.

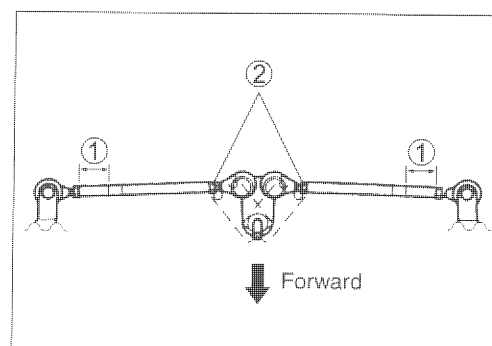


NOTE:

When installing the tie rod, make sure the narrow end ① of the tie rod comes out.

CAUTION

The locknuts ② with a yellow finished surface have left-hand threads.

**OIL TANK AND RADIATOR**

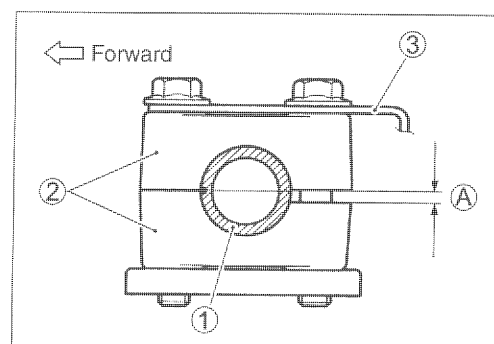
- Install the oil tank. (☞ 5-53)
- Reinstall the radiator assembly. (☞ 5-6)
- Pour engine oil. (☞ 2-12)
- Pour engine coolant and bleed air from the cooling circuit. (☞ 2-14)

HANDLEBARS

- Assemble the handlebars ①, handle holder ② and steering head cover bracket ③.

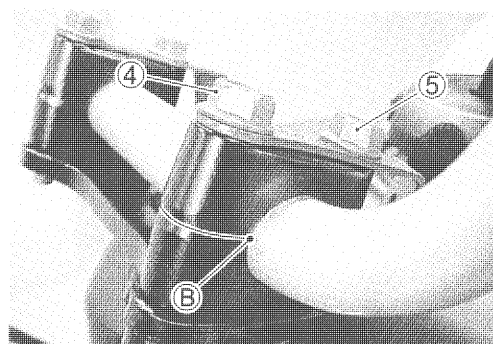
NOTE:

The higher portion of handlebar holder must face forward, so that the clearance ④ of holder is in back of the handlebars.



- Align the punch mark ⑤ on the handlebars with the mating surface of handlebar holder.
- First tighten the bolt ④ to the specified torque and then tighten the bolt ⑤ to the specified torque.

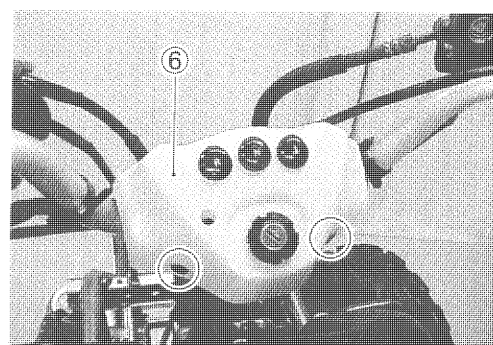
Handlebar clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)



- Install the steering head cover ⑥.

NOTE:

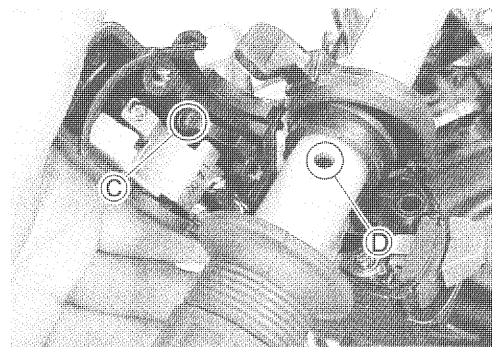
The indicator light position on the steering head cover is described on page 7-22.



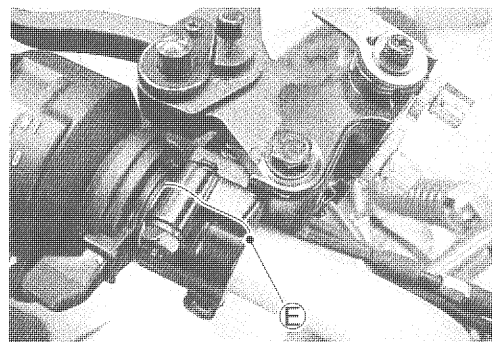
- Install the handle switch box with the lug (C) on the switch half inserted into the hole (D) on the handlebars.

NOTE:

When installing the handlebars, make sure that the cable, wiring harness and brake hose routing are proper. (☞ 8-11 to 8-20)



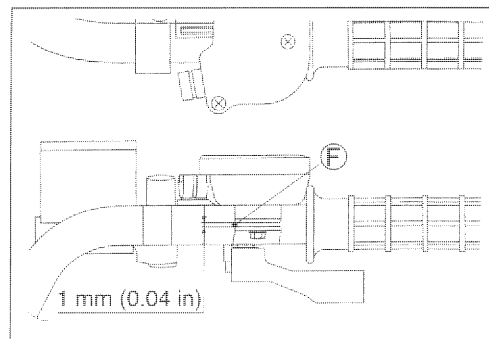
- Install the clutch lever assembly to the handlebars with the mating surface of clutch lever holder aligned with punch mark (E) on the handlebars.
- Connect the clutch cable, rear brake cable and clutch switch.
- Adjust each cable play. (☞ 2-16 and 2-17)



- Install the throttle case to the handlebars with the mating surface of throttle case aligned with the punch mark (F).
- Tighten the throttle case bolts to the specified torque.

 Throttle case bolt: 5 N·m (0.5 kgf-m, 3.7 lb-ft)

- Install the brake master cylinder. (☞ 6-27)



TOE-IN ADJUSTMENT

Adjust the toe-in as follows:

- Place the vehicle on level ground and set the handlebars straight.
Make sure all the tires are inflated to the standard pressure.
(2-20)
- Place 75 kg (165 lbs) of weight on the seat.
- Loosen the locknuts (1, 2) on each tie rod.

CAUTION

The locknuts 2 have left-hand threads.

- Measure the distances (A) and (B) between the front wheels. Subtract the measurements of (A) from the measurements of (B) to find the toe-in. If the toe-in is not within specification, adjust the tie rod to the right or left until the toe-in is within the specified range.

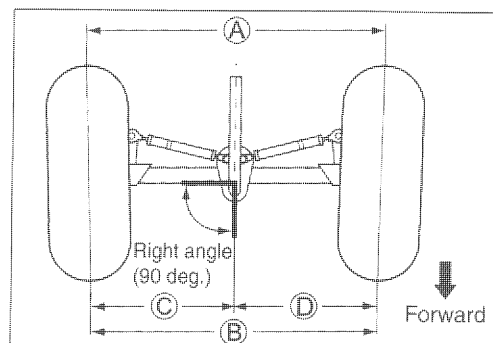
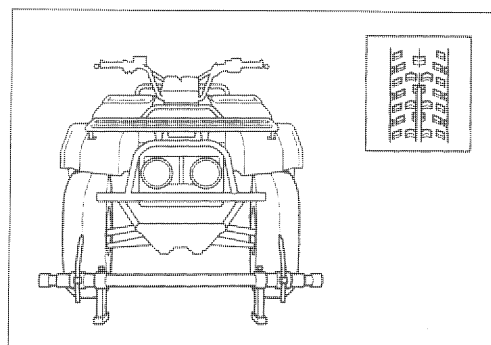
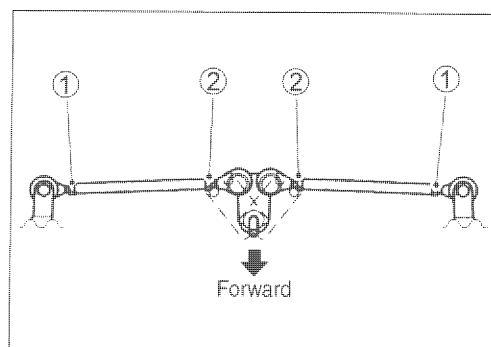
$$(A) - (B) = \text{Toe-in}$$

Toe-in

Standard: $5 \pm 4 \text{ mm}$ ($0.20 \pm 0.16 \text{ in}$)

- Temporarily tighten the four locknuts.
- Check that the distances (C) and (D) are equal, as shown. If the distances are not equal, adjust the tie rod to the right or left until the toe-in is within specification. Check the toe-in again by measuring distances (A) and (B).
- If the toe-in is not within specification, repeat the adjustment as above until the proper toe-in is obtained and distances (C) and (D) become equal.
- After adjustment has been made, tighten the four locknuts (1) to the specified torque.

Tie rod locknut: 29 N·m (2.9 kgf-m, 21.0 lb-ft)



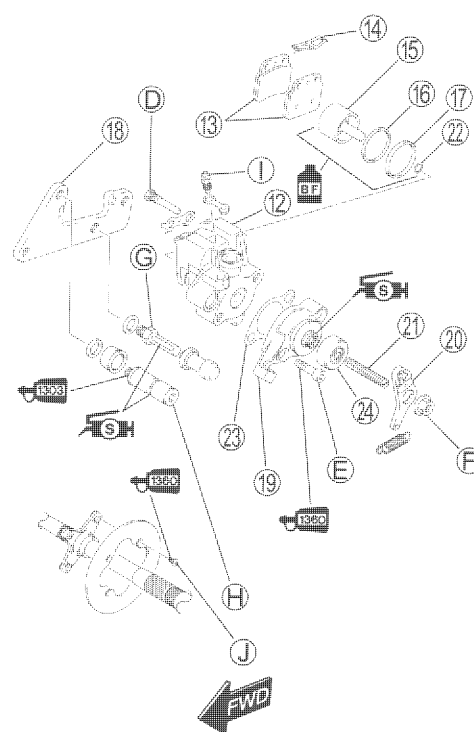
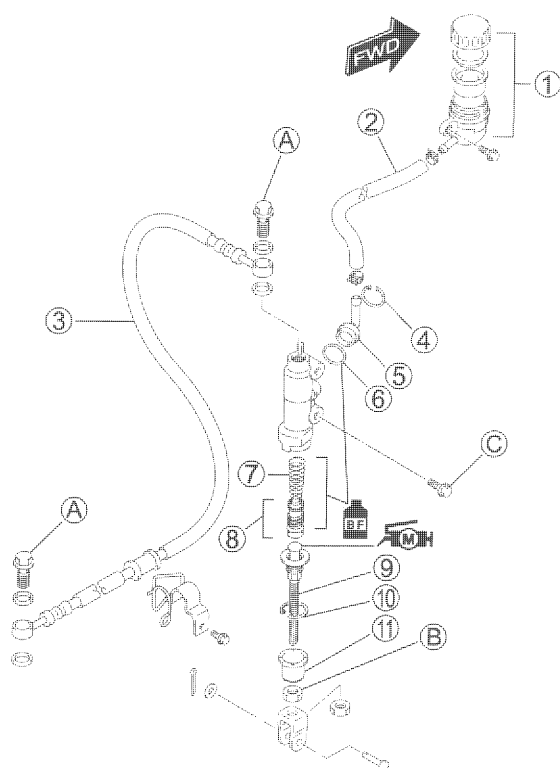
FRONT WHEEL, FRONT BRAKE, FRONT SUSPENSION AND STEERING REASSEMBLING INFORMATION

Technical diagram of the front wheel, brake, suspension, and steering assembly. The diagram includes callouts 1 through 12, indicating specific components and their assembly points. Callout 1 points to the steering knuckle. Callout 2 points to the upper ball joint. Callout 3 points to the lower ball joint. Callout 4 points to the lower control arm. Callout 5 points to the lower control arm bush. Callout 6 points to the lower control arm bush. Callout 7 points to the lower control arm bush. Callout 8 points to the lower control arm bush. Callout 9 points to the lower control arm bush. Callout 10 points to the lower control arm bush. Callout 11 points to the lower control arm bush. Callout 12 points to the lower control arm bush. The diagram also shows the front wheel, brake, and suspension components.

ITEM	N·m	kgf-m	lb-ft
①	23	2.3	16.5
②	23	2.3	16.5
③	60	6.0	43.5
④	49	4.9	35.5
⑤	29	2.9	21.0
⑥	60	6.0	43.5

ITEM	N·m	kgf-m	lb-ft
⑦	60	6.0	43.5
⑧	65	6.5	47.0
⑨	43	4.3	31.0
⑩	50	5.0	36.0
⑪	65	6.5	47.0
⑫	23	2.3	16.5

REAR BRAKE CONSTRUCTION



ITEM	N·m	kgf·m	lb·ft
(A)	23	2.3	16.5
(B)	18	1.8	13.0
(C)	10	1.0	7.0
(D)	18	1.8	13.0
(E)	28	2.8	20.5
(F)	18	1.8	13.0
(G)	18	1.8	13.0
(H)	23	2.3	16.5
(I)	7.5	0.75	5.5
(J)	23	2.3	16.5

- ① Reservoir tank
- ② Reservoir tank hose
- ③ Brake hose
- ④ Snap ring
- ⑤ Connector
- ⑥ O-ring
- ⑦ Spring
- ⑧ Piston/cup set
- ⑨ Push rod
- ⑩ Snap ring
- ⑪ Boot
- ⑫ Caliper
- ⑬ Pad
- ⑭ Spring
- ⑮ Piston
- ⑯ Dust seal
- ⑰ Piston seal

- ⑰ Brake caliper holder
- ⑱ Parking brake
- ⑲ Parking brake lever
- ⑳ Adjuster
- ㉑ O-ring
- ㉒ Gasket
- ㉓ Boot
- (A) Brake hose union bolt
- (B) Brake master cylinder rod locknut
- (C) Brake master cylinder mounting bolt
- (D) Pad mounting pin
- (E) Parking brake bolt
- (F) Parking brake adjuster locknut
- (G) Brake caliper holder pin
- (H) Brake caliper slide pin
- (I) Air bleeder valve
- (J) Disc bolt

⚠ WARNING

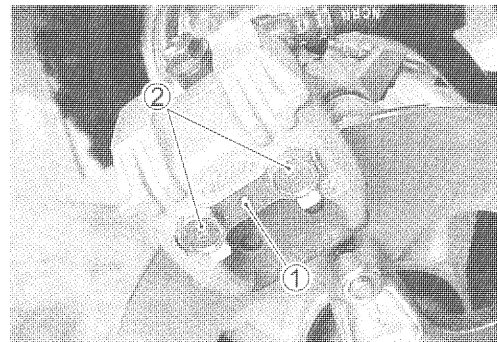
- * This brake system is filled with an ethylene glycol-based DOT 4 brake fluid. Do not use or mix different types of fluid such as silicone-based or petroleum-based.
- * Do not use any brake fluid taken from old, used or unsealed containers. Never reuse brake fluid left over from the last servicing 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 cleaning 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

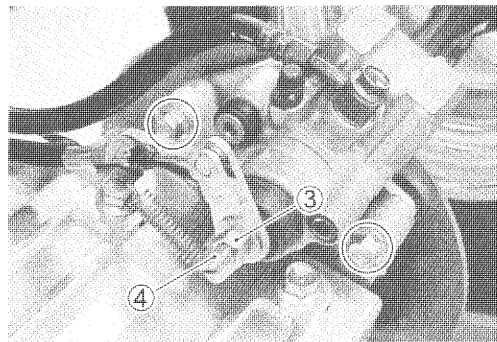
Handle brake fluid with care: the fluid reacts chemically with paint, plastics, rubber materials etc. and will damage them severely.

BRAKE PAD REPLACEMENT

- Flatten the lock washer ①, and then slightly loosen the pad mounting pins ②.



- Loosen the locknut ③ and turn out the parking brake adjuster ④ several turns.
- Remove the caliper.
- Remove the brake pads by removing the pad mounting pins.



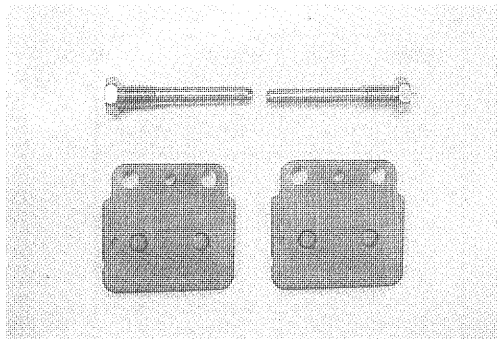
CAUTION

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

- Install the new brake pad.

NOTE:

- * Before installing the new pads, inspect the pad mounting pins for wear. If excessive wear is found, replace them with new ones.
- * Be sure to loosen the parking brake adjuster before installing the pads.

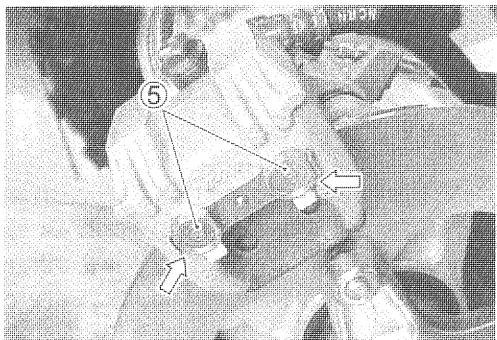


- Tighten the pad mounting pins ⑤ to the specified torque, and then bend the lock washer.

Pad mounting pin: 18 N·m (1.8 kgf-m, 13.0 lb-ft)

NOTE:

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

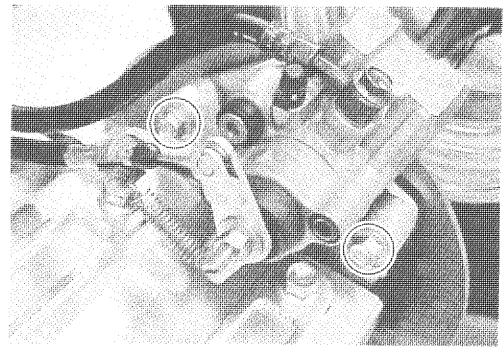


- Tighten the caliper mounting bolts to the specified torque.

 Brake caliper mounting bolt:

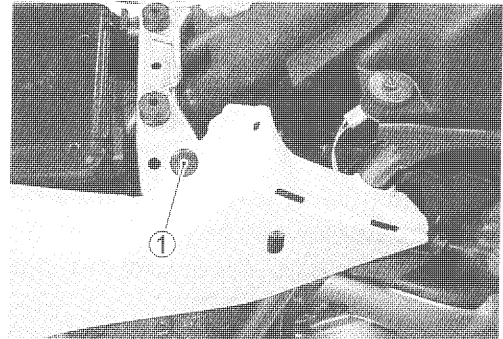
26 N·m (2.6 kgf-m, 19.0 lb-ft)

- Adjust the parking brake. ( 2-17)



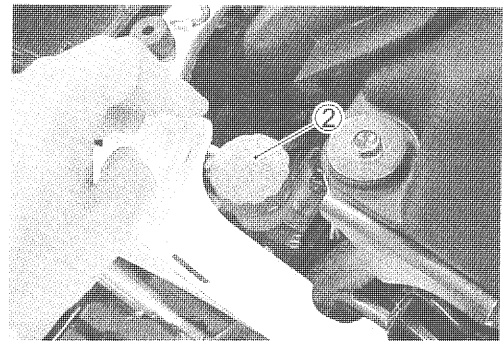
BRAKE FLUID REPLACEMENT

- Place the vehicle on a level surface.
- Remove the seat. ( 6-4)
- Remove the fuel tank right side cover. ( 6-4)
- Remove the fastener ①.



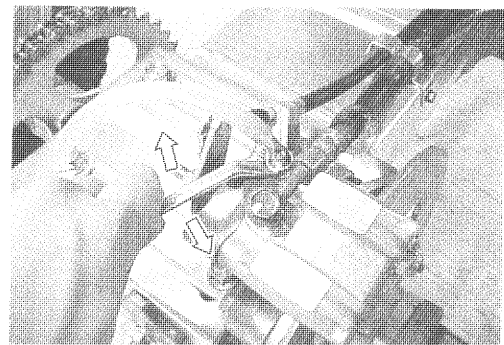
- Remove the master cylinder reservoir cap ② and diaphragm.
- Suck up the old brake fluid as much as possible.
- Fill the reservoir with new brake fluid.

 Specification and classification: DOT 4



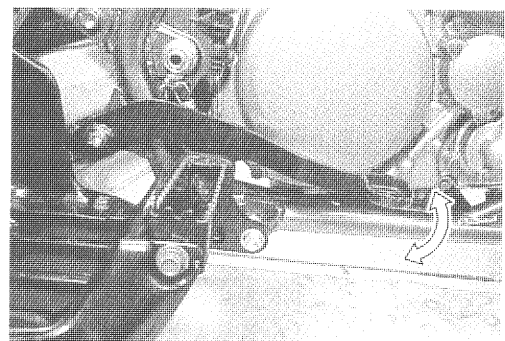
- Connect a clear hose to the air bleeder valve and insert the other end of the hose into a receptacle.
- Loosen the air bleeder valve and pump the brake pedal until the old brake fluid is completely out of the brake system.
- Close the air bleeder valve and disconnect the clear hose. Fill the reservoir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

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



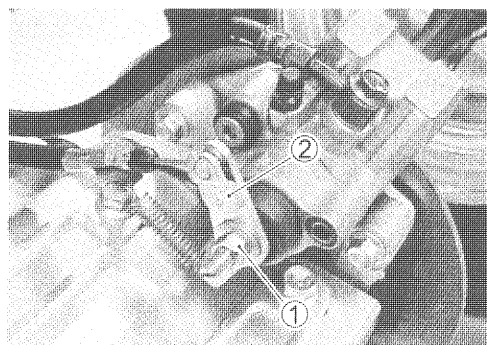
CAUTION

- * 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.
( 2-19)

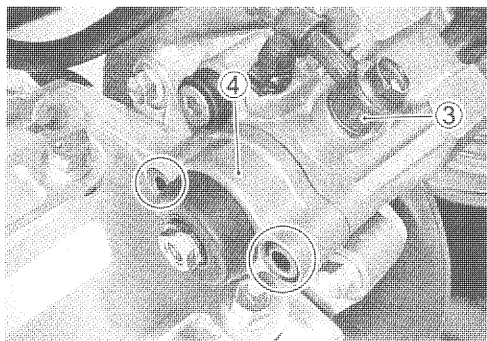


BRAKE CALIPER REMOVAL AND DISASSEMBLY

- Disconnect the parking brake cable by removing the locknut ① and lever ②.



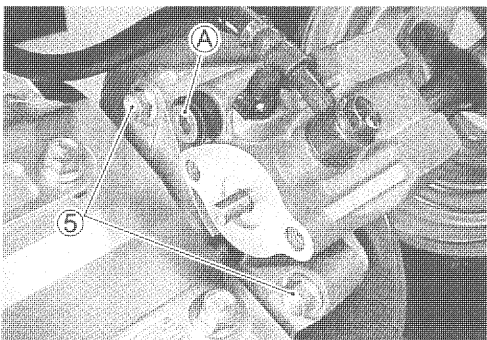
- Disconnect the brake hose ③ and allow the brake fluid to drain into a suitable receptacle.
- Remove the parking brake housing ④.



⚠ 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.

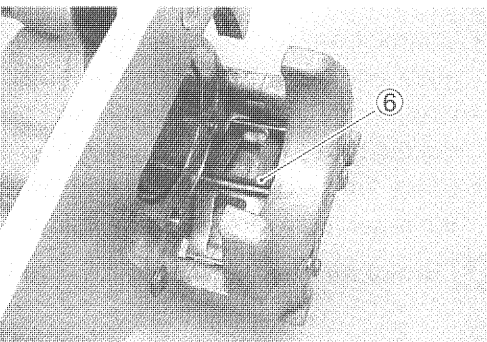
- Remove the brake caliper by removing the caliper mounting bolts ⑤.



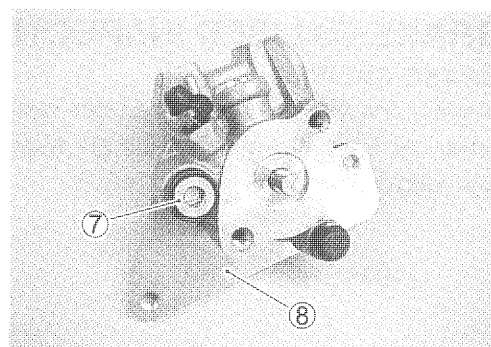
NOTE:

Before removing the caliper, slightly loosen the caliper holder slide pin (A) to facilitate later disassembly.

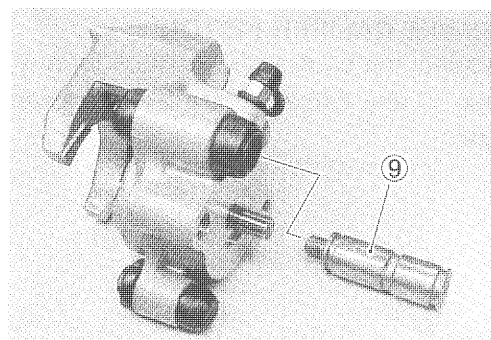
- Remove the pad. (☞ 6-50)
- Remove the pad spring ⑥.



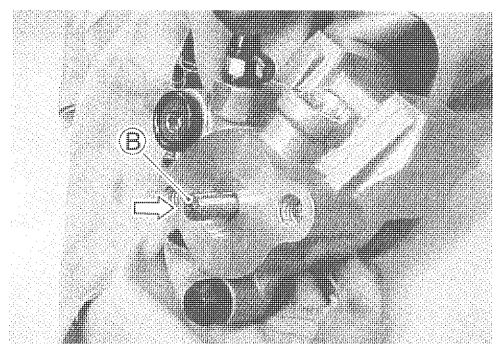
- Loosen the caliper holder slide pin ⑦, and then remove the caliper holder ⑧.



- Remove the caliper holder slide pin ⑨.



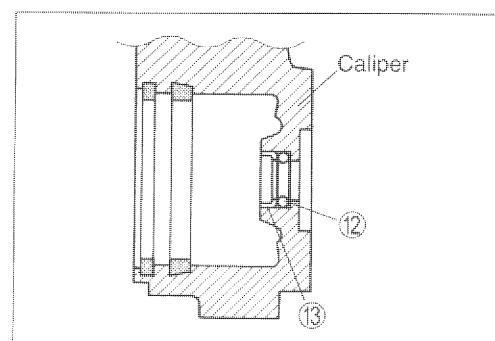
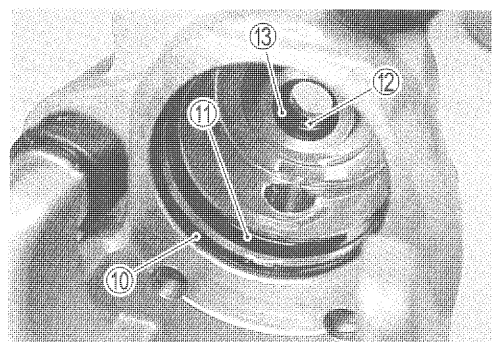
- Place a rag over the brake caliper piston to prevent the piston from popping out.
- Force out the piston by pushing the piston pin ⑬.



- Remove the dust seal ⑩, piston seal ⑪ and O-ring ⑫.

CAUTION

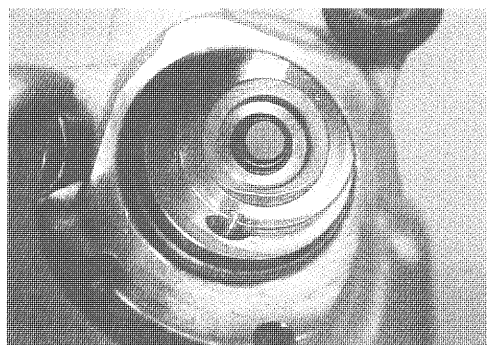
- * Do not reuse the dust seal, piston seal and O-ring to prevent leakage of brake fluid.
- * Do not attempt to remove the retainer ⑬.



BRAKE CALIPER INSPECTION

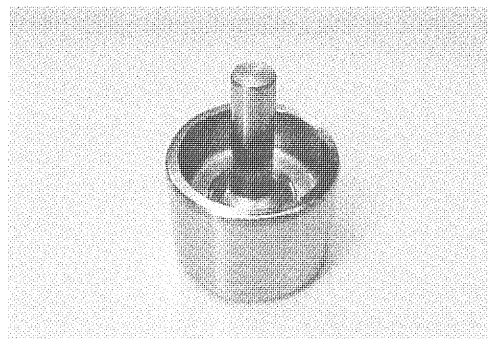
BRAKE CALIPER

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



BRAKE CALIPER PISTON

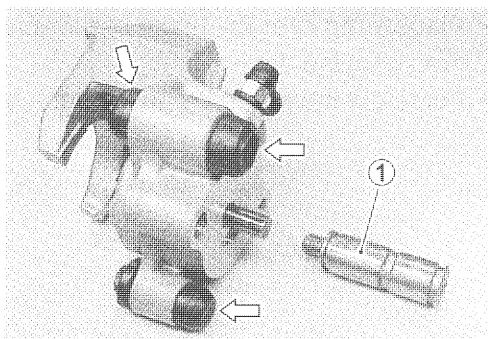
Inspect the brake caliper piston for any scratches or other damage. If any damages are found, replace the piston with a new one.



RUBBER PARTS AND SLIDE PIN

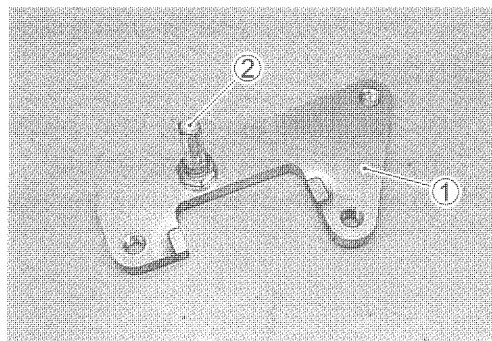
Inspect the rubber parts for damage. If any damages are found, replace them with new ones.

Inspect the slide pin ① for damage. If any damages are found, replace it with a new one.



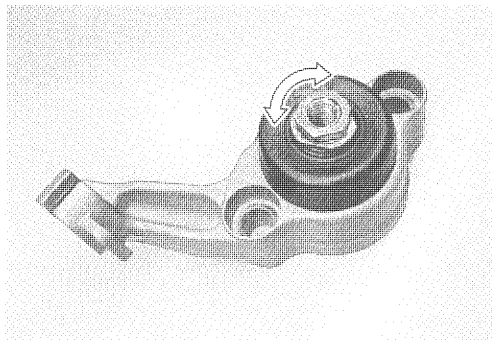
CALIPER HOLDER

Inspect the caliper holder ① and pin ② for damage. If any damages are found, replace them with new ones.



PARKING BRAKE

Inspect the parking brake for any damages and smooth rotation by turning the axle. If there is anything unusual, replace the parking brake with a new one.



BRAKE CALIPER REASSEMBLY AND REMOUNTING

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

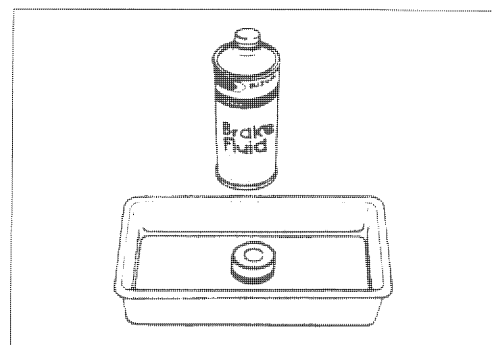
- Wash the caliper bore and piston with the specified brake fluid. Thoroughly wash the dust seal grooves and piston seal grooves.



Specification and classification: DOT 4

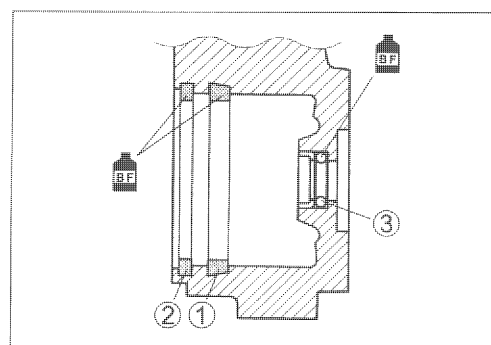
CAUTION

- * Wash the brake caliper components with new brake fluid before reassembly.
- * Do not wipe the brake fluid off with a rag after washing the components.
- * When washing the components, use the specified brake fluid. Never use different types of fluid or cleaning solvents such as gasoline, kerosine, etc.
- * Replace the removed piston seals and dust seals with new ones.
- * Apply brake fluid to all of the seals, brake caliper bores and pistons before reassembly.



PISTON SEALS

- Install the piston seal ①, dust seal ② and O-ring ③ as shown in illustration.



BRAKE CALIPER HOLDER

- Tighten the pin ② to the caliper holder ① to the specified torque.

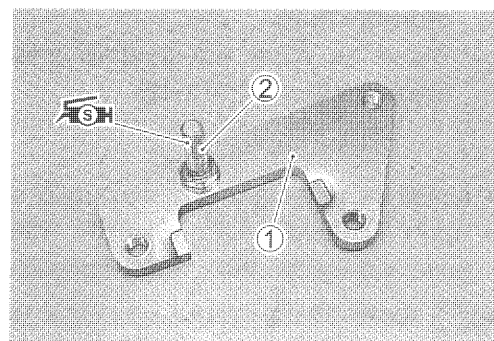


Caliper holder pin: 18 N·m (1.8 kgf-m, 13.0 lb-ft)

- Apply SUZUKI SILICONE GREASE to the brake caliper holder pin ②.

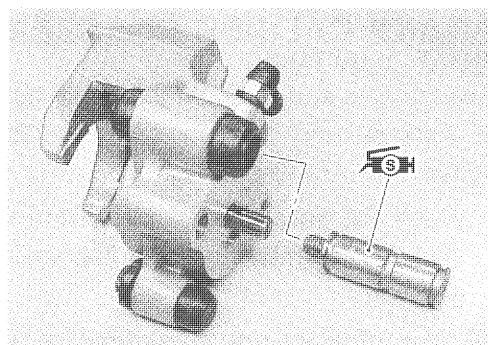


99000-25100: SUZUKI SILICONE GREASE



- Apply SUZUKI SILICONE GREASE to the caliper holder slide pin.
- Install the slide pin into the caliper.

 **99000-25100: SUZUKI SILICONE GREASE**



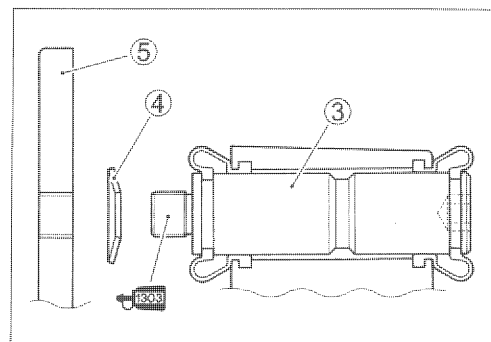
- Install the pin ③, washer ④ and caliper holder ⑤ to the caliper.
- Apply THREAD LOCK SUPER "1303" to the pin ③.

 **99000-32030: THREAD LOCK SUPER "1303"**

- Tighten the pin ③ to the specified torque.

 **Caliper holder slide pin: 23 N·m (2.3 kgf-m, 16.5 lb-ft)**

- Install the pad spring and pads. (☞ 6-50)



NOTE:

When installing the slide pin ③ and washer ④, the convex of washer must face slide pin as shown in illustration.

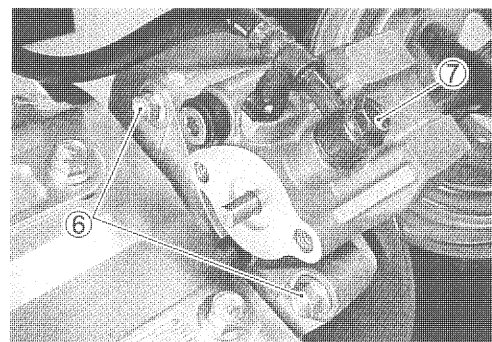
- Tighten the caliper mounting bolts ⑥ and brake hose union bolt ⑦.

 **Brake caliper mounting bolt: 26 N·m (2.6 kgf-m, 19.0 lb-ft)**

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

NOTE:

Before remounting the brake caliper, push the brake caliper piston all the way into the caliper.



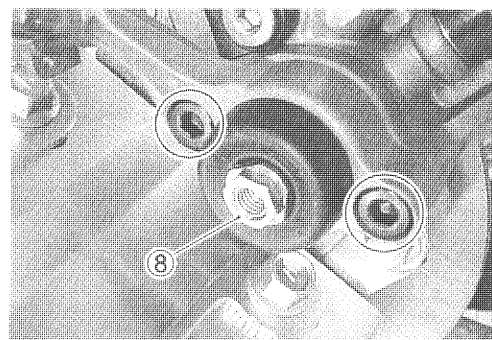
CAUTION

- * The removed brake hose washers should be replaced with new ones in order to prevent leakage of brake fluid.
- * Bleed air from the system after reassembling the brake caliper. (☞ 2-19)

- Install the parking brake housing ⑧ and new gasket.
- Apply THREAD LOCK SUPER "1360" to the parking brake bolts and tighten them to the specified torque.

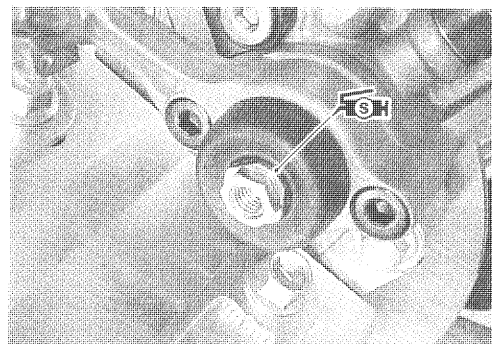
 **99000-32130: THREAD LOCK SUPER "1360"**

 **Parking brake bolt: 28 N·m (2.8 kgf-m, 20.5 lb-ft)**

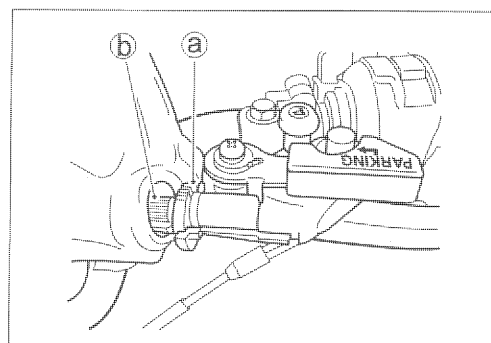


- When replacing the boot with a new one, apply SUZUKI SILICONE GREASE to the groove of parking brake axle.

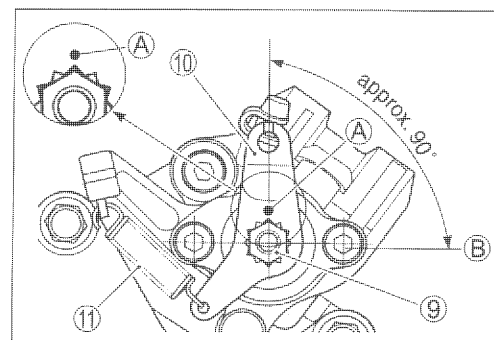
 99000-25100: SUZUKI SILICONE GREASE



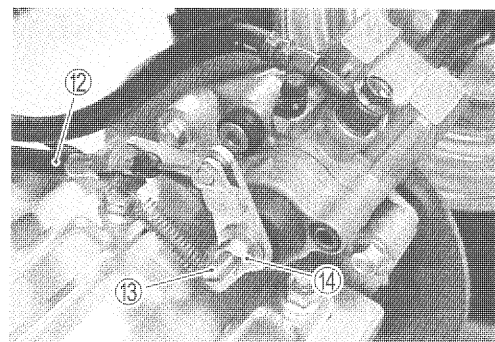
- Loosen the locknut (a) and turn the adjuster (b) in completely, so that the cable play is maximum.



- Set the parking brake shaft (9) in neutral position by rotating the shaft.
- Install the parking lever (10) onto the parking brake shaft (9) with the punch mark (A) aligned with corner of hexagon on the shaft (9), so that parking lever (10) is at angle of approx. 90 degrees to the line (B) as shown in illustration.
- Hook the return spring (11) on the parking lever with the spring end faced the caliper as shown in illustration.



- Connect the parking cable (12).
- Install the adjuster (13) and the locknut (14).
- Adjust the parking brake. (2-17)



BRAKE DISC REMOVAL AND REMOUNTING

- Remove the rear wheel. (☞ 6-10)
- Remove the rear axle. (☞ 6-80)
- Remove the brake disc.
- Install the brake disc to the rear axle with the punch mark **A** showed up.

NOTE:

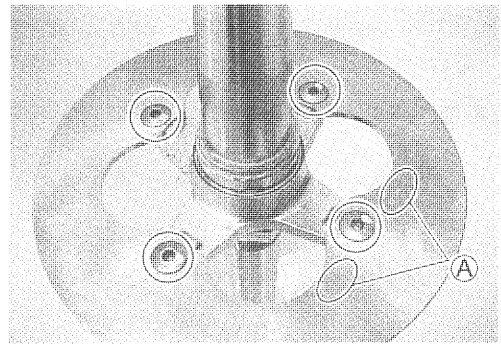
Make sure that the disc is free of any greasy matter.

- Apply THREAD LOCK SUPER "1360" to the brake 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)**

- Install the rear axle. (☞ 6-86)
- Install the rear wheel. (☞ 6-14)



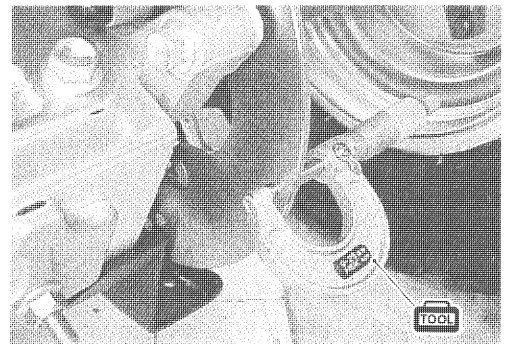
BRAKE DISC INSPECTION

Inspect the brake disc for cracks or damage and measure the thickness using the micrometer. If any damages are found or if the thickness is less than the service limit, replace the brake disc with a new one.

 **09900-20205: Micrometer (0 – 25 mm)**

 **Brake disc thickness**

Service Limit: 3.5 mm (0.13 in)



Measure the runout using the dial gauge. If the runout exceeds the service limit, replace the brake disc with a new one.

 **09900-20607: Dial gauge (1/100 mm)**

09900-20701: Magnetic stand

 **Brake disc runout**

Service Limit: 0.3 mm (0.012 in)

- If either measurement exceeds the service limit, replace the brake disc with a new one.

