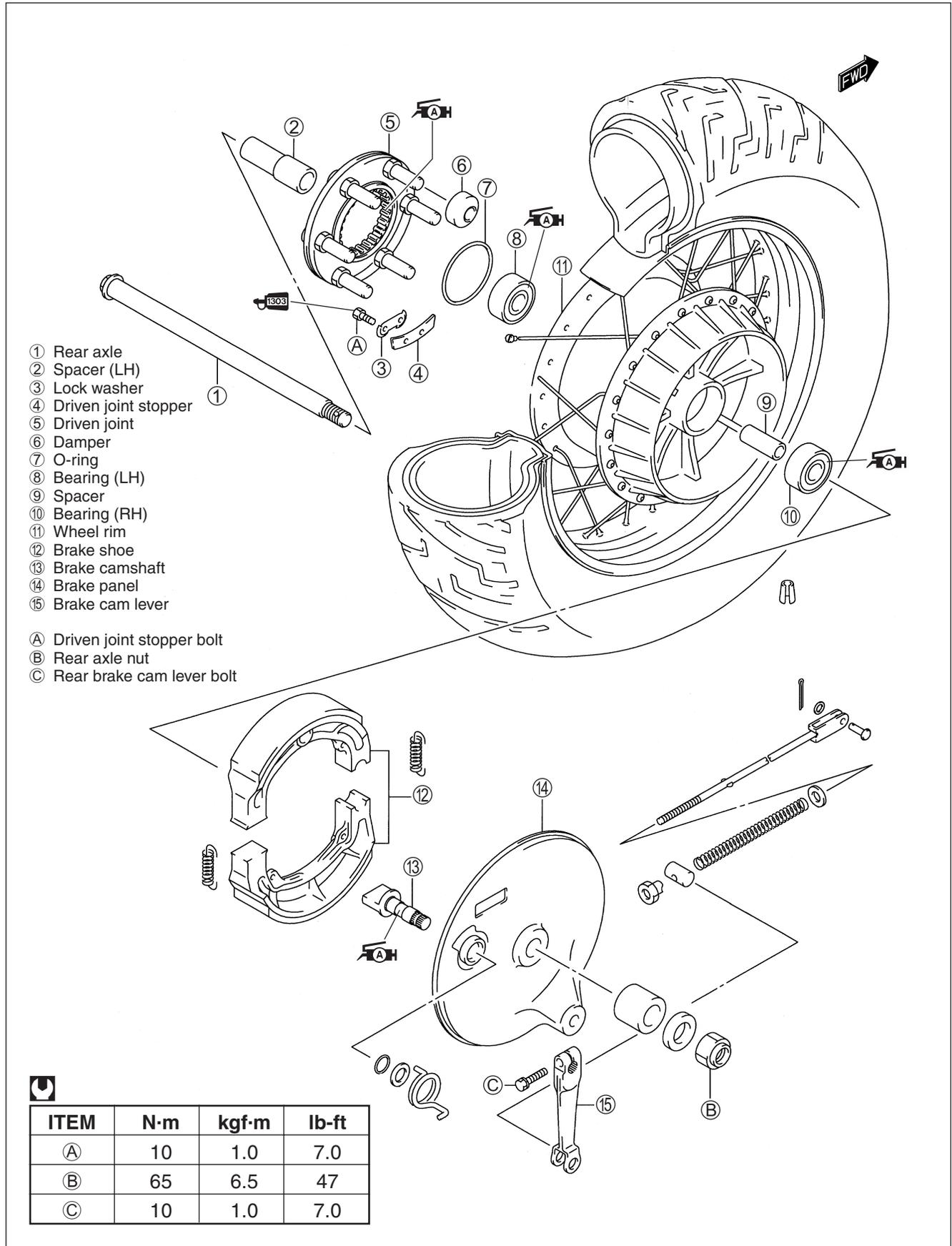
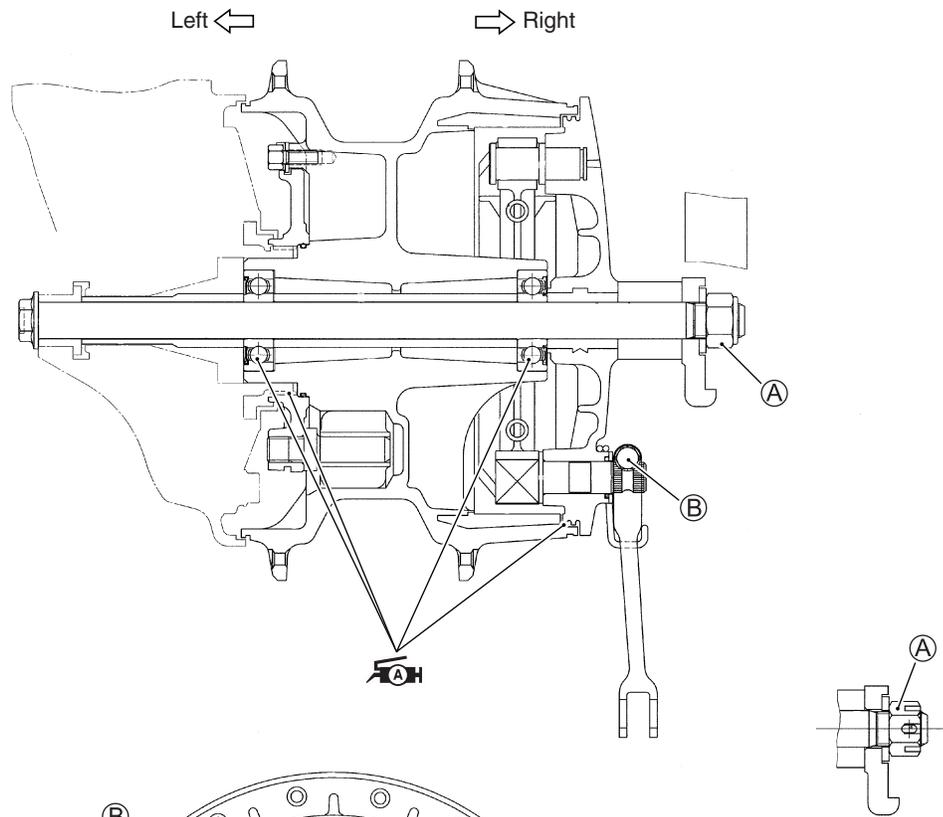
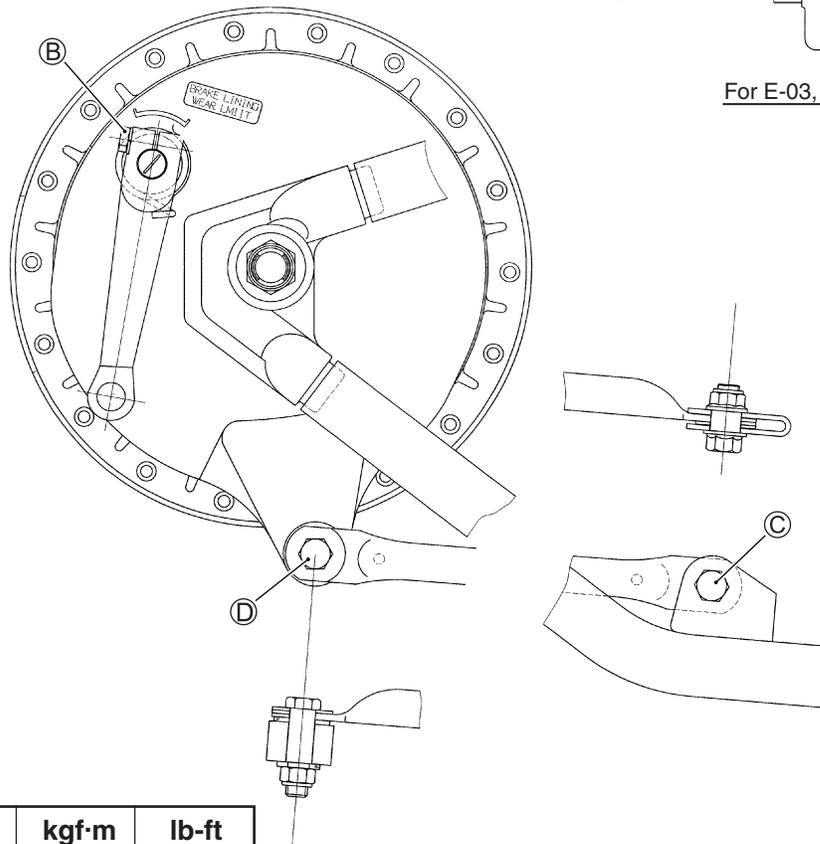


REAR WHEEL CONSTRUCTION





For E-03, E-28, E-33



ITEM	N·m	kgf·m	lb·ft
(A)	65	6.5	47
(B)	10	1.0	0.73
(C)	35	3.5	25.5
(D)	25	2.5	18.0

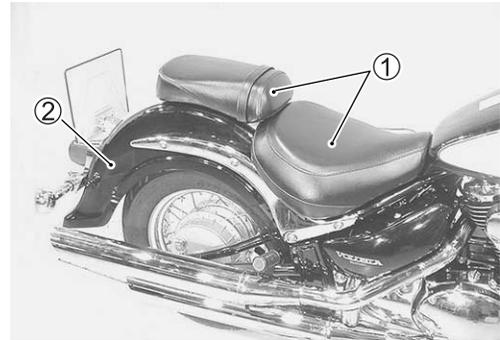
- (A) Rear axle nut
- (B) Brake cam lever nut
- (C) Rear torque link nut (F)
- (D) Rear torque link nut (R)

REMOVAL

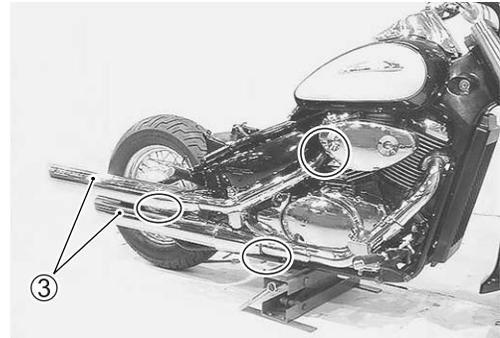
- Remove the seat ①. (☞7-2)
- Remove the rear fender ②. (☞7-3)

NOTE:

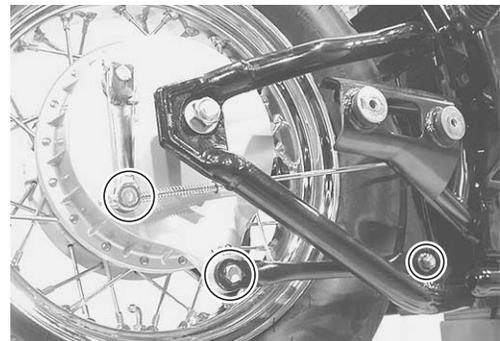
The rear fender removal is not necessary when the rear part of motorcycle can be lifted high enough to take the rear wheel out smoothly.



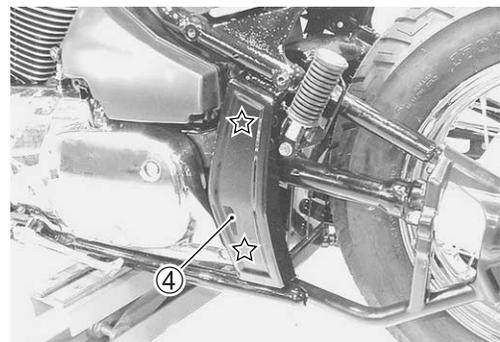
- Remove the exhaust pipes and mufflers assembly ③. (☞3-5)



- Remove the rear brake rod.
- Remove the torque link rod.

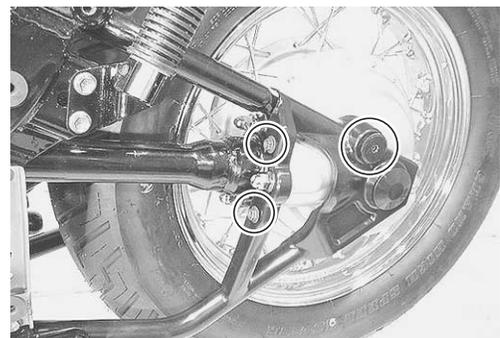


- Remove the left frame cover. (☞7-2)
- Remove the left frame lower cover ④.

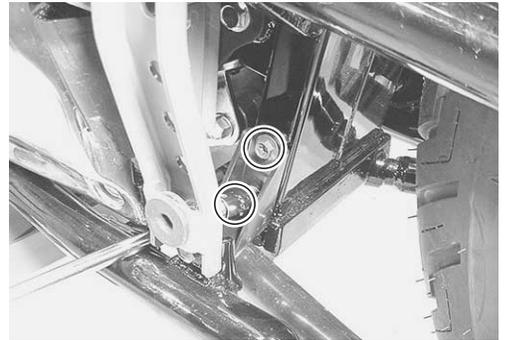


☆ : hooked part

- Remove the rear swingarm left cover mounting bolts.



- Remove the rear swingarm left cover.

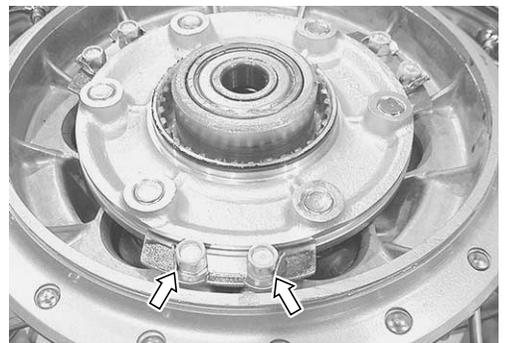


- Remove the rear axle shaft.

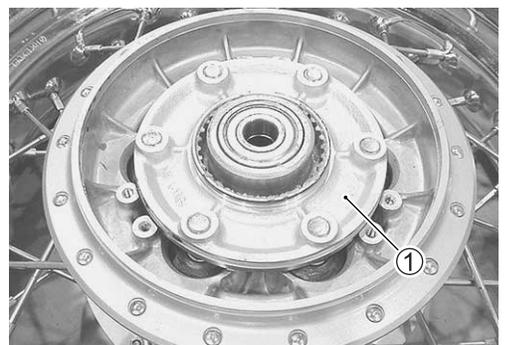


DISASSEMBLY

- Flatten the lock washers.
- Remove the fitting bolts, washers and plates.



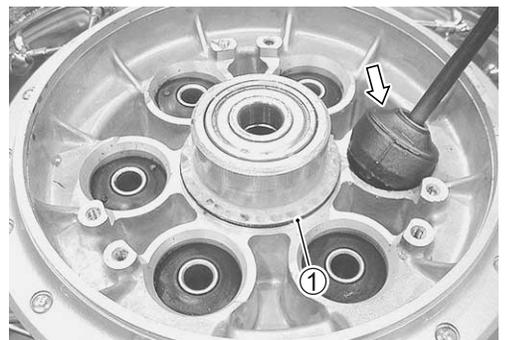
- Pull off the driven joint ①.



- Remove the O-ring ①.
- Remove the dampers with a screw driver.

▲ CAUTION

The removed O-ring must be replaced with a new one.

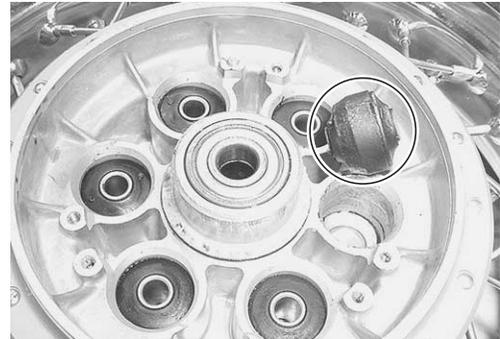


INSPECTION AND DISASSEMBLY

WHEEL BEARING  7-6
 WHEEL AXLE  7-6
 WHEEL RIM  7-6
 TIRE  2-18

WHEEL DAMPER

Inspect the wheel dampers for damage or wear.



REASSEMBLY AND REMOUNTING

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

WHEEL BEARING

- Apply grease to the bearings before installation.

For USA

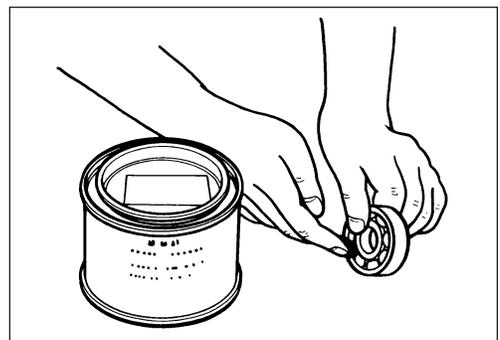
 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

 99000-25010: SUZUKI SUPER GREASE "A"

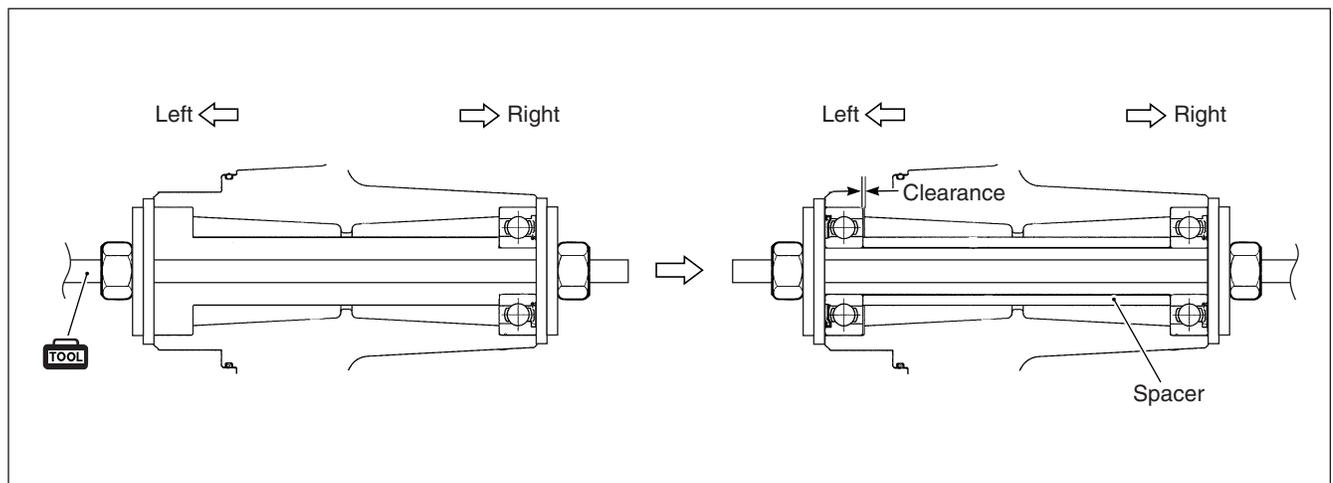
- Install the wheel bearings using the special tool.

 09941-34513: Bearing installer set



CAUTION

- * First, install the right wheel bearing, then install the left wheel bearing.
- * The sealed cover on the bearing must face out.

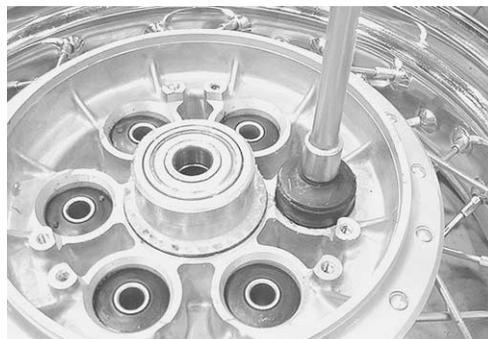


WHEEL DAMPER

- Install the dampers.

NOTE:

If soap water is applied around the damper, it makes the job easier.

**DRIVEN JOINT**

- Install the driven joint.

NOTE:

Apply grease to the O-ring and the final gear spline before installing the driven joint.

For USA

 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

 99000-25010: SUZUKI SUPER GREASE "A"

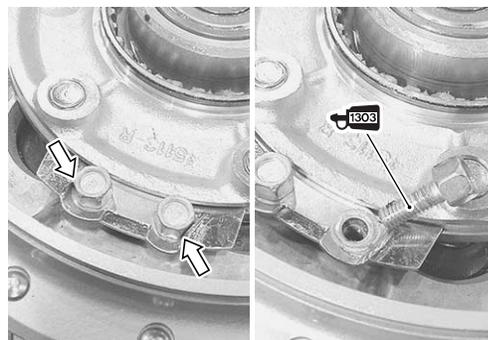
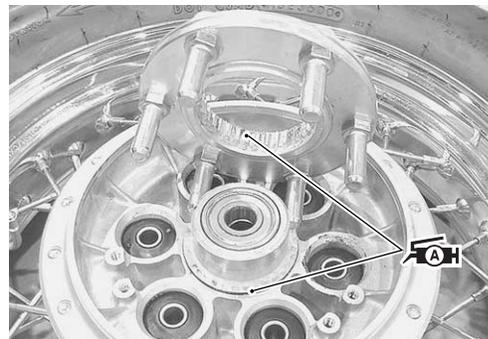
- Apply THREAD LOCK SUPER "1303" to the thread of driven joint stopper bolts.

 99000-32030: THREAD LOCK SUPER "1303"

- Tighten the driven joint stopper bolts to the specified torque.

 **Driven joint stopper bolt: 10 N·m (1.0 kgf·m, 7.0 lb-ft)**

- Bend up the washer to lock the bolts.

**REAR WHEEL**

- Install the spacer ①.
- Apply grease to the final gear spline before installing the rear wheel.

For USA

 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

 99000-25010: SUZUKI SUPER GREASE "A"

- Remount the rear wheel spacer and rear axle.

NOTE:

Refer to the page 7-37 for the spacer positioning.

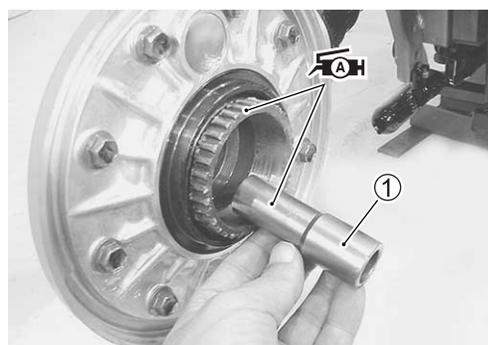
- Tighten the rear axle nut to the specified torque.

 **Rear axle nut: 65 N·m (6.5 kgf·m, 47 lb-ft)**

NOTE:

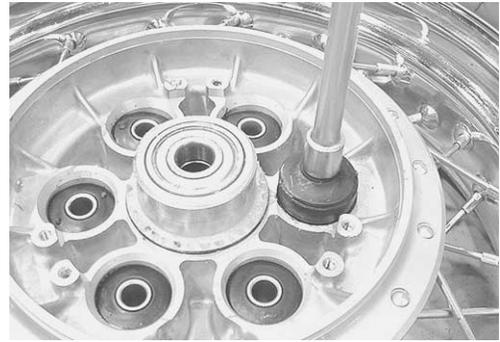
After remounting the rear wheel, check for proper brake operation.

- Install the exhaust pipe and muffler. ( 3-5)
- Install the rear fender ( 7-3)



REAR BRAKE REMOVAL AND DISASSEMBLY

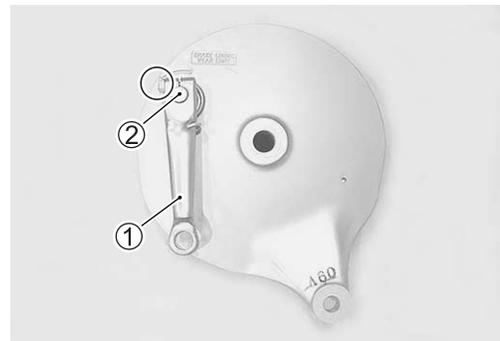
- Remove the rear wheel. (☞ 7-38)
- Remove the rear brake panel.



- Remove the brake shoes.



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



- Remove the washer ③, O-ring ④ and spring ⑤.



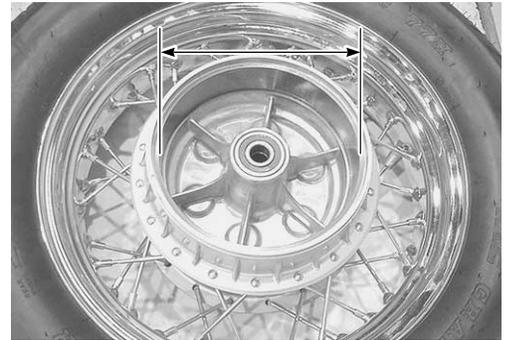
INSPECTION

BRAKE DRUM

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

 **09900-20102: Vernier calipers**

 **Brake drum I.D.: Service Limit: 180.7 mm**



BRAKE SHOES

Check the brake shoe wear ( 2-16) and decide whether it should be replaced or not.

CAUTION

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

REASSEMBLY AND REMOUNTING

BRAKE CAMSHAFT

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

For USA

 **99000-25030: SUZUKI SUPER GREASE "A"**

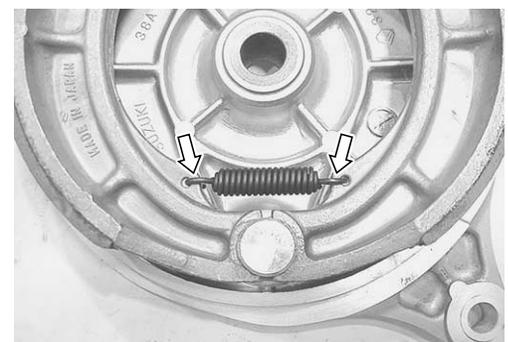
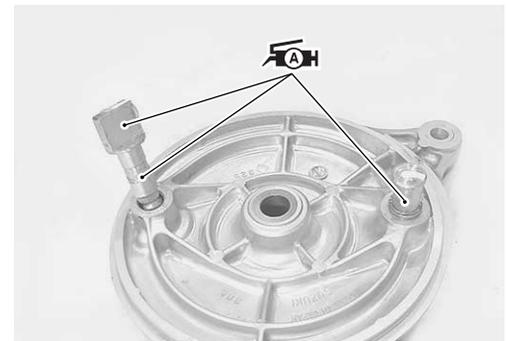
For the other countries

 **99000-25010: SUZUKI SUPER GREASE "A"**

- Install the brake shoes with spring hooks faced inside.

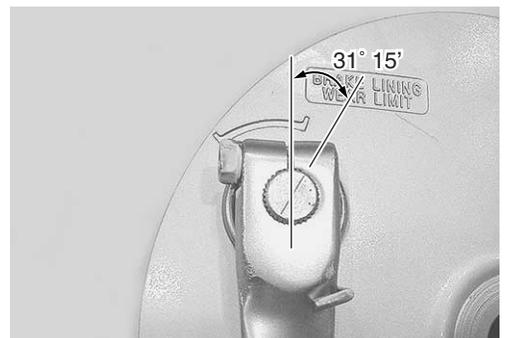
CAUTION

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



BRAKE CAM LEVER

- Install the new O-ring and washer.
- Install the brake cam lever to the brake camshaft as shown.



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

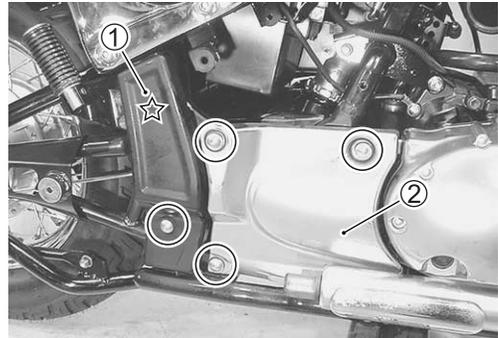
 **Brake cam lever nut: 10 N·m (1.0 kgf·m, 7.0 lb-ft)**

- Install the rear wheel. ( 7-41)
- Adjust the rear brake pedal free travel. ( 2-16)



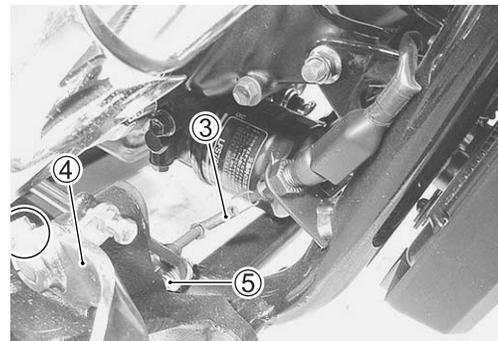
REAR BRAKE ROD REMOVAL AND DISASSEMBLY

- Remove the exhaust pipes and mufflers assembly. ( 3-5)
- Remove the right frame LOWER cover ①, clutch rear cover ②.



☆ : hooked part

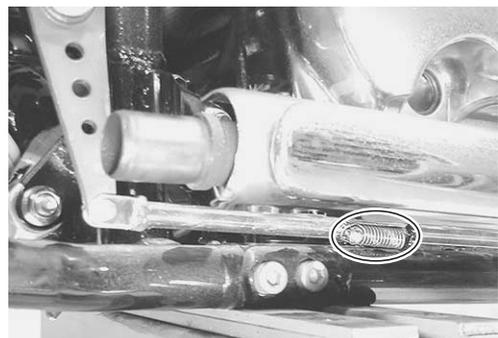
- Remove the rear brake switch spring ③.
- Remove the rear brake pedal ④.
- Remove the cotter pin ⑤.



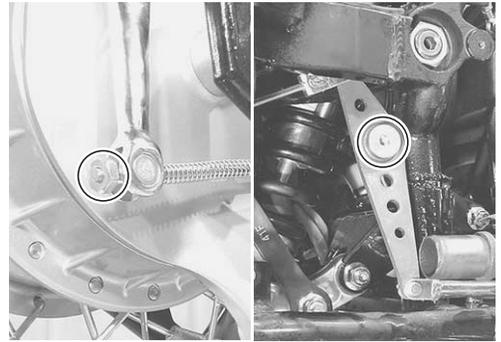
- Remove the rear brake pedal shaft ⑥.



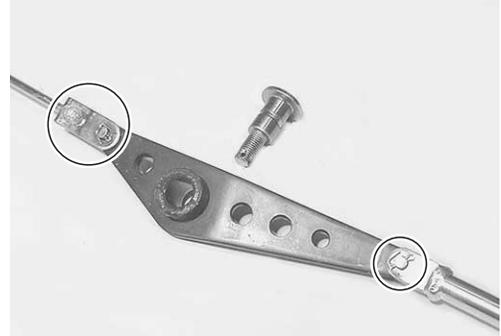
- Remove the return spring.



- Remove the rear brake adjust nut, spring and washer.
- Remove the rear brake link.



- Remove the cotter pins.



REASSEMBLY REMOUNTING

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

- Apply grease to the rear brake link pivot bolt and tighten it to the specified torque.

For USA

 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

 99000-25010: SUZUKI SUPER GREASE "A"

 **Rear brake link pivot bolt: 29 N·m (2.9 kgf·m, 21 lb-ft)**

- Apply grease to the rear brake pedal shaft.

For USA

 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

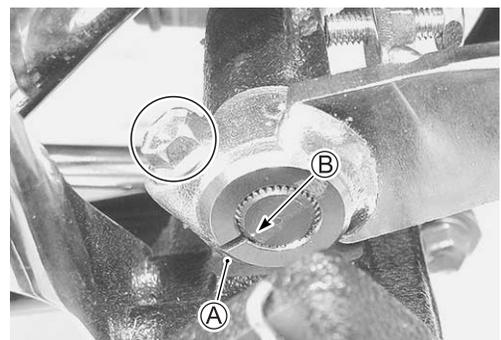
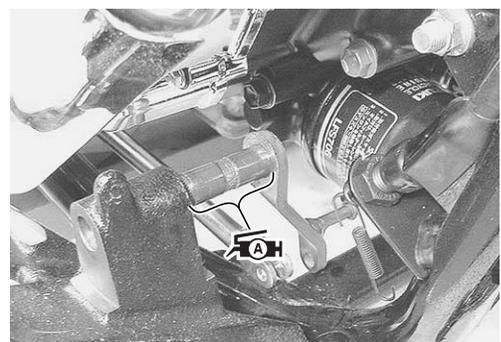
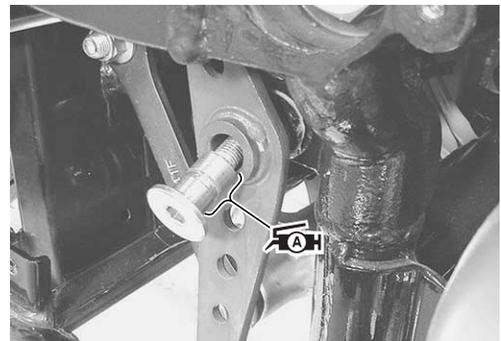
 99000-25010: SUZUKI SUPER GREASE "A"

- Tighten the rear brake pedal mount bolt to the specified torque.

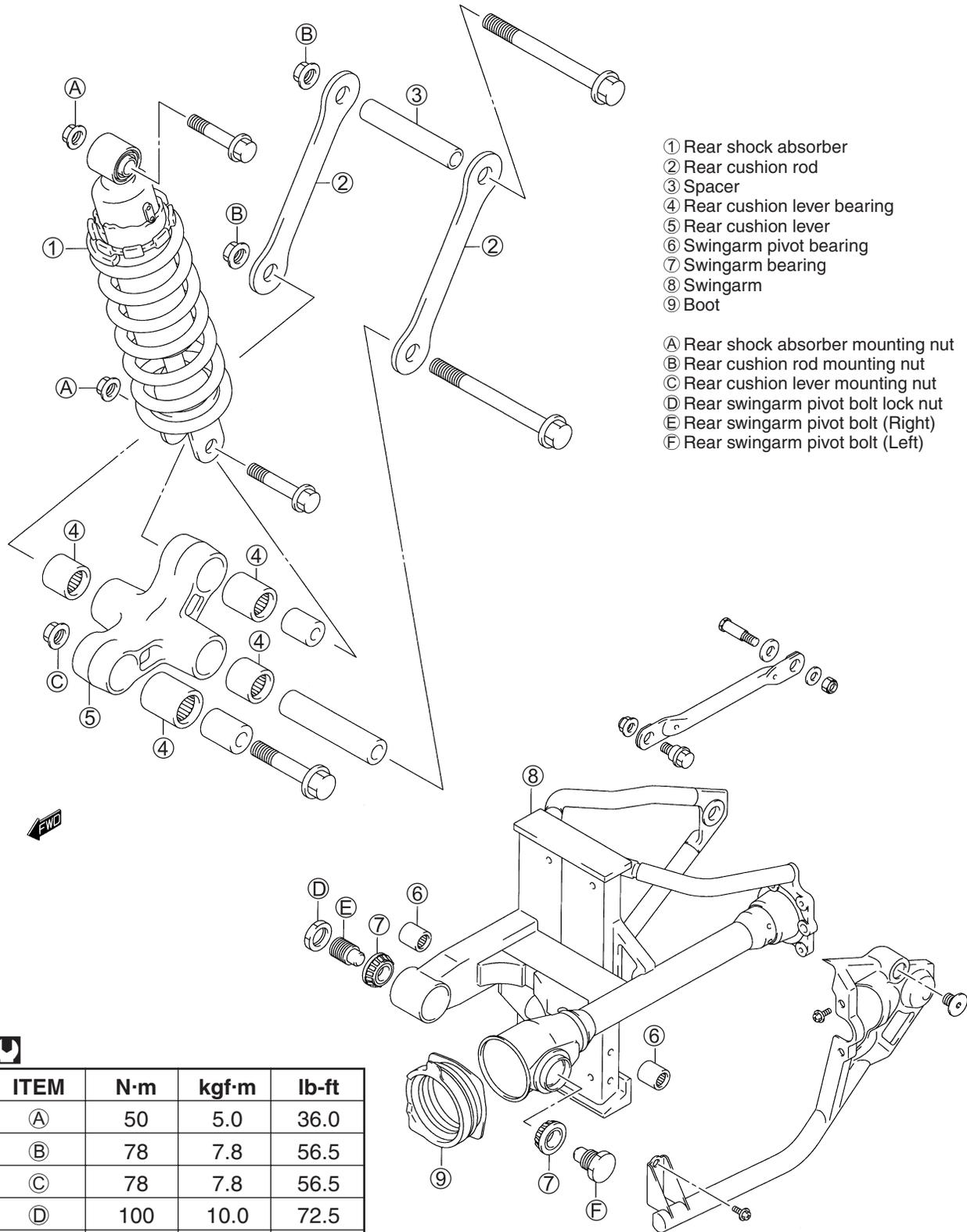
 **Rear brake pedal mount bolt: 11 N·m (1.1 kgf·m, 8.0 lb-ft)**

NOTE:

*When remounting the rear brake pedal onto the rear brake pedal shaft, align the rear brake pedal mounting surface **Ⓐ** with the punch mark **Ⓑ**.*

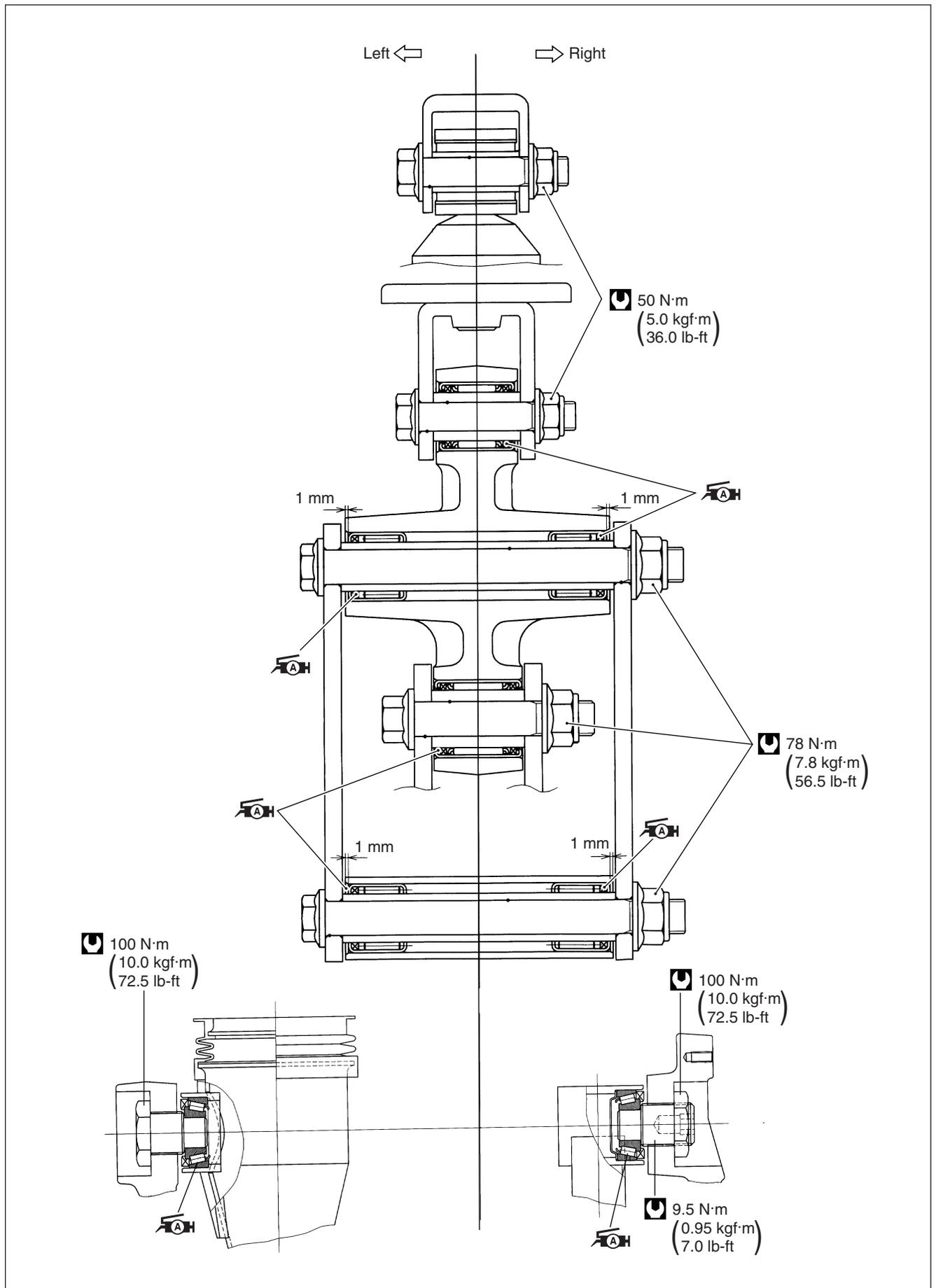


REAR SUSPENSION CONSTRUCTION



ITEM	N·m	kgf·m	lb·ft
A	50	5.0	36.0
B	78	7.8	56.5
C	78	7.8	56.5
D	100	10.0	72.5
E	9.5	0.95	7.0
F	100	10.0	72.5



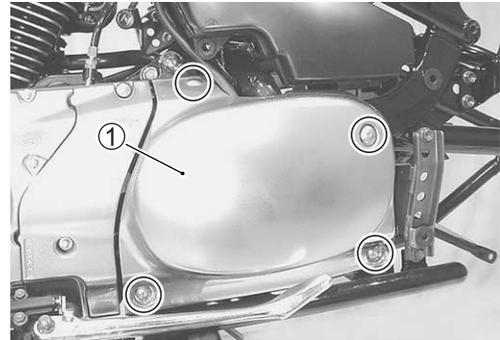


REMOVAL

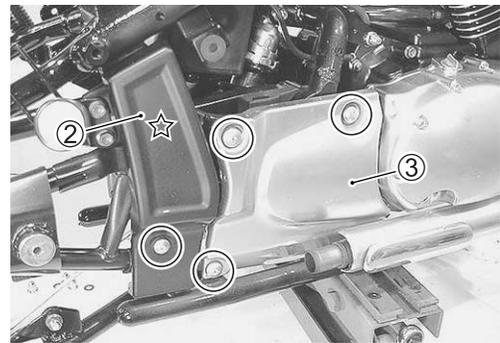
- Remove the rear wheel. (☞ 7-41)
- Remove the final gear case with propeller shaft.



- Remove the secondary gear case cover ①.

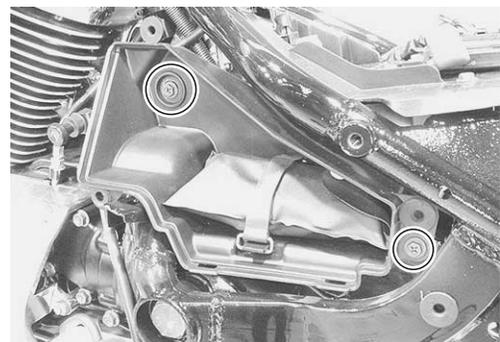


- Remove the right frame lower cover ②, clutch rear cover ③.

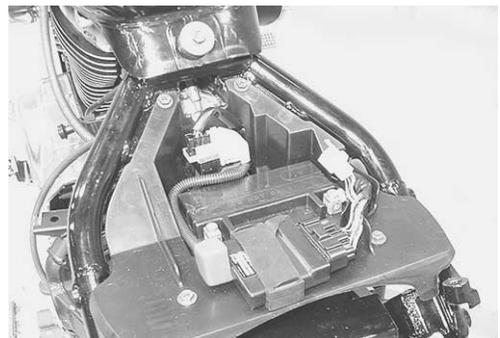


☆ : hooked part

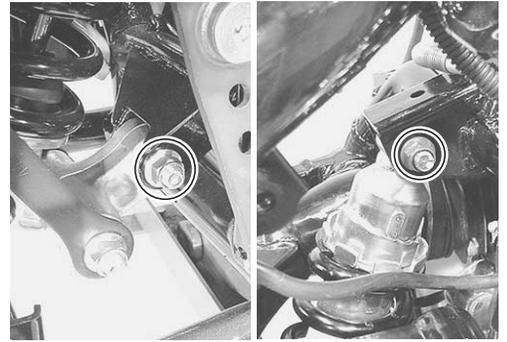
- Remove the tool box.



- Remove the battery case. (☞ 5-6)



- Remove the cushion lever mounting bolt and nut.
- Remove the shock absorber upper mounting bolt and nut.

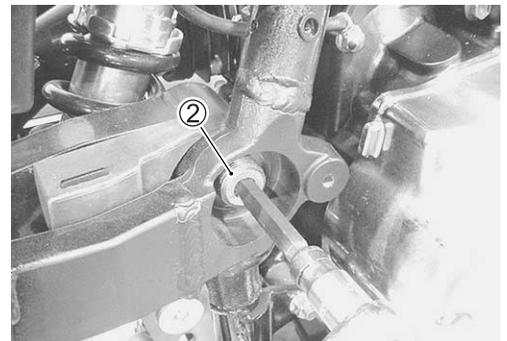
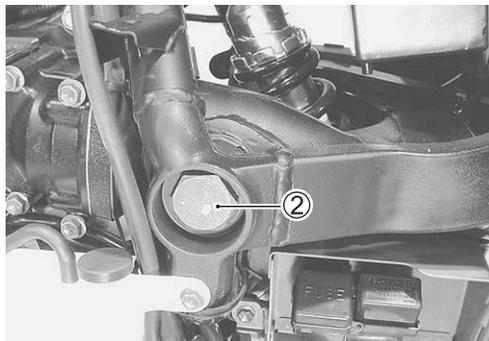
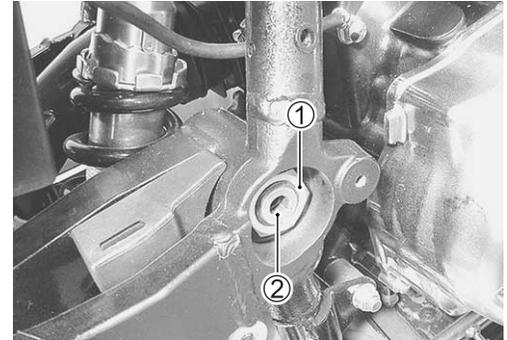


- Remove the right side swingarm pivot bolt lock nut ①.
- Remove the left and right side swingarm pivot bolts ②.

NOTE:

Slightly loosen the cushion rod mounting nuts and the shock absorber lower mounting nut before removing the swingarm to facilitate later disassembly.

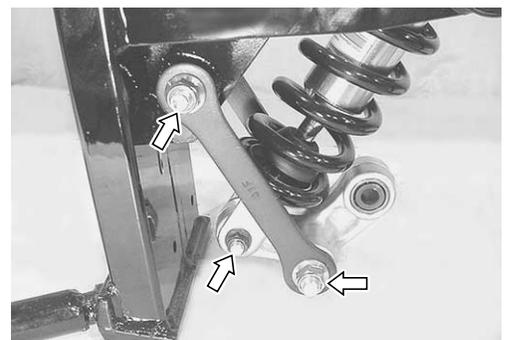
- Remove the rear suspension assembly.



- Remove the tapered roller bearings.



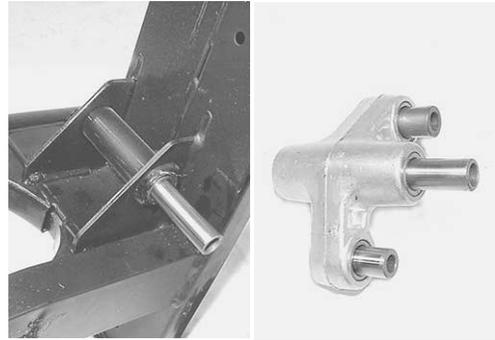
- Remove the shock absorber, cushion lever and cushion rod.



INSPECTION AND DISASSEMBLY

SPACER

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



SWINGARM BEARING

Insert the spacer into swingarm cushion rod upper side bearing and check the play to move the spacer up and down.

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

Inspect the swingarm pivot bearing, its race and dust seal for wear or damage. If any defects are found, replace the bearing with a new one.

- Remove the swingarm pivot right side bearing plate ① and bearing races ② by using a suitable bar and so on.

NOTE:

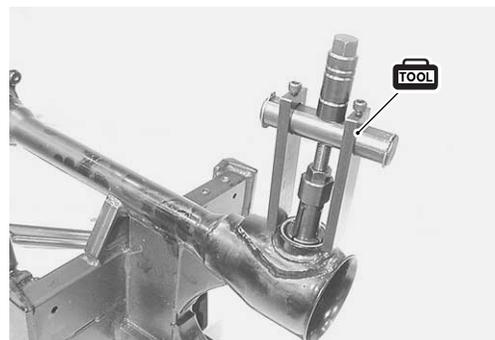
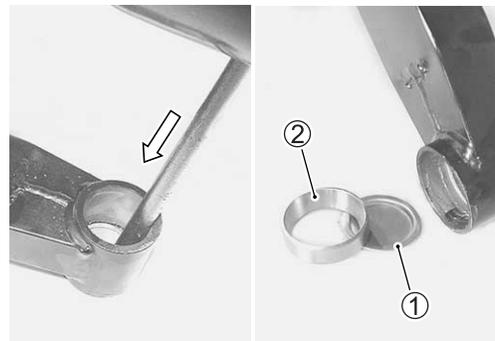
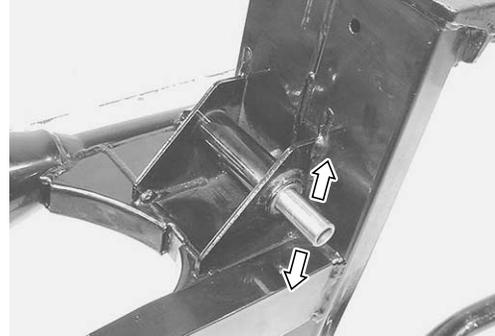
The swingarm pivot right side bearing and its plate are available as one component.

- Remove the swingarm pivot bearing races by using the special tools.

 09921-20220: Bearing remover set (30 mm)

CAUTION

The removed bearings must be replaced with new ones.

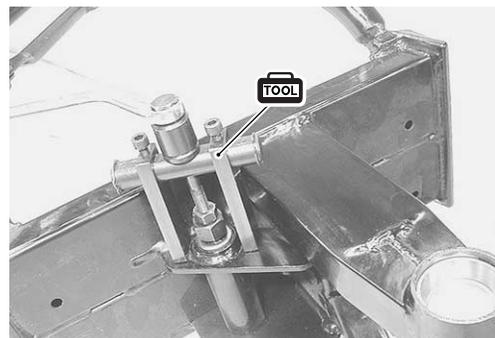


- Remove the swingarm cushion rod upper side bearing by using the special tools.

 09921-20220: Bearing remover set (17 mm)

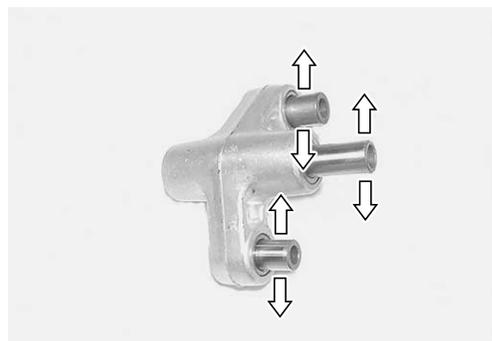
CAUTION

The removed bearings must be replaced with new ones.



CUSHION LEVER BEARING

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

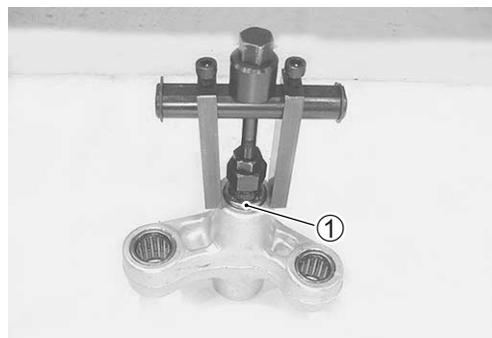


- Remove the cushion rod lower side bearing ① by using the special tools.

TOOL 09921-20220: Bearing remover set (17 mm)

▲ CAUTION

The removed bearings must be replaced with new ones.

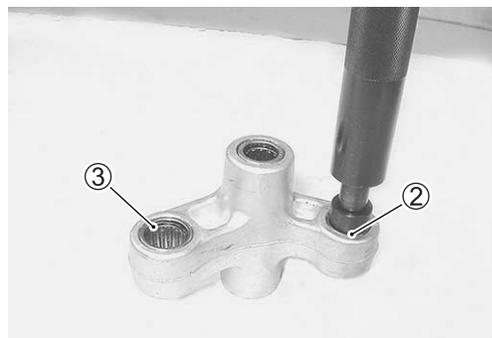


- Remove the cushion lever mounting bearing ② and shock absorber lower side bearing ③ by using the special tools.

TOOL 09913-70210: Bearing installer set

▲ CAUTION

The removed bearings must be replaced with new ones.



SHOCK ABSORBER

Inspect the shock absorber body and bush 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.



REASSEMBLY

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

SWINGARM BEARING

- Install the swingarm pivot bearing races by using the special tool.

 **09913-70210: Bearing installer set (40 mm)**

NOTE:

The swingarm pivot bearing race with plate is positioned right side.

- Install the swingarm cushion rod upper side bearing with the special tool.

 **09924-84521: Bearing installer set**

NOTE:

When reinstalling the bearing, stamped mark of bearing must face outside.

CUSHION LEVER BEARING

- Install the bearings into the cushion lever by using the special tool.

 **09924-84521: Bearing installer**

NOTE:

When installing the bearings, stamped mark of bearing must face outside.

- Apply grease to the spacers and bearings.

For USA

 **99000-25030: SUZUKI SUPER GREASE "A"**

For the other countries

 **99000-25010: SUZUKI SUPER GREASE "A"**

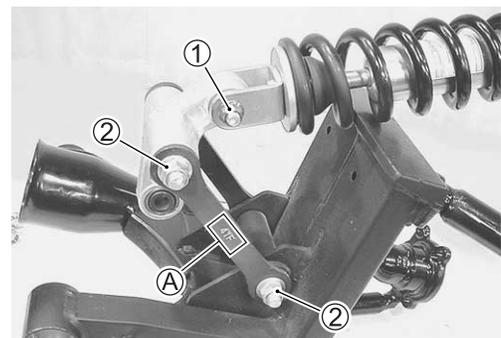
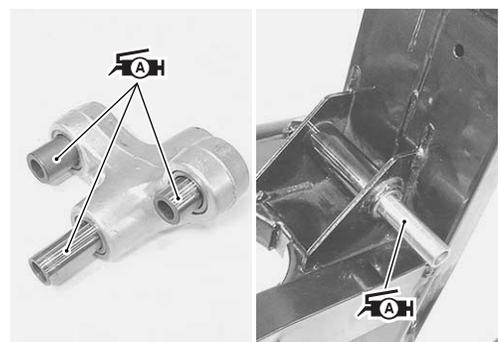
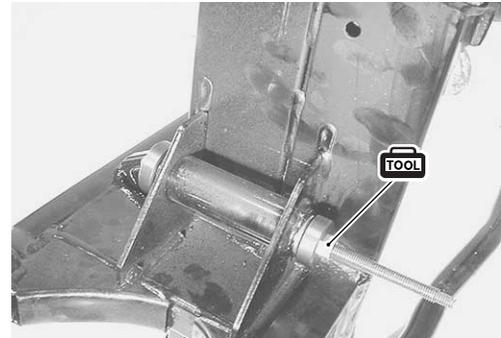
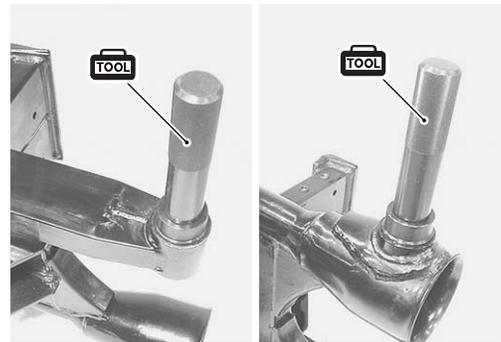
- Assemble the shock absorber, cushion lever and cushion rods onto the swingarm. (☞ 7-47)

 **Shock absorber mounting nut ①: 50 N·m**
(5.0 kgf·m, 36.0 lb-ft)

Cushion rod mounting nut ②: 78 N·m
(7.8 kgf·m, 56.5 lb-ft)

NOTE:

The stamped marks Ⓐ on the cushion rod should be face outside.



REMountING

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

SWINGARM

- Before installing the swingarm, install the boot and the universal joint.

NOTE:

Make sure that the "UP" mark  on the boot faces up.

- Install the swingarm assembly, its pivot bearings and bolts (①, ②).

NOTE:

Apply grease to the swingarm pivot bearings.

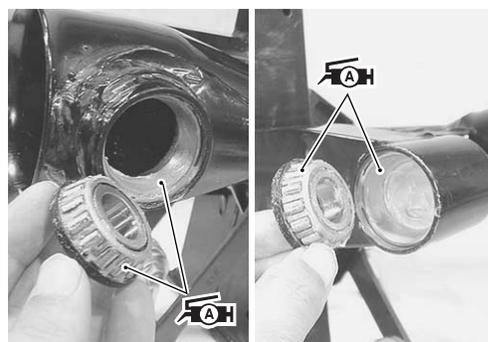
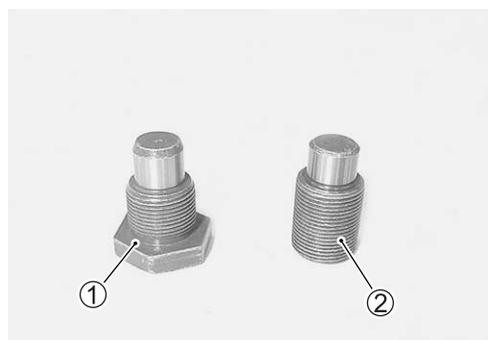
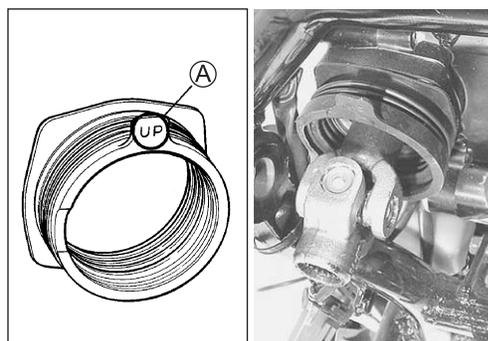
For USA

 99000-25030: SUZUKI SUPER GREASE "A"

For the other countries

 99000-25010: SUZUKI SUPER GREASE "A"

- ①: For left side swingarm pivot bolt
- ②: For right side swingarm pivot bolt



- Tighten the left side swingarm pivot bolt ① to the specified torque.

 **Swingarm pivot bolt (left side): 100 N·m
(10.0 kgf·m, 72.5 lb-ft)**

NOTE:

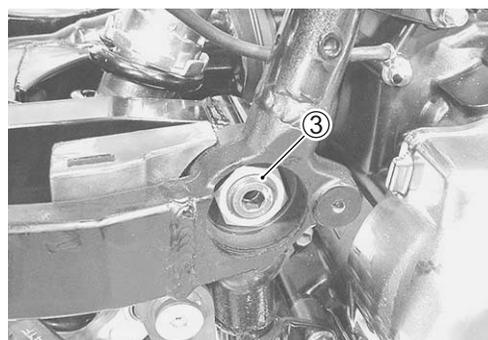
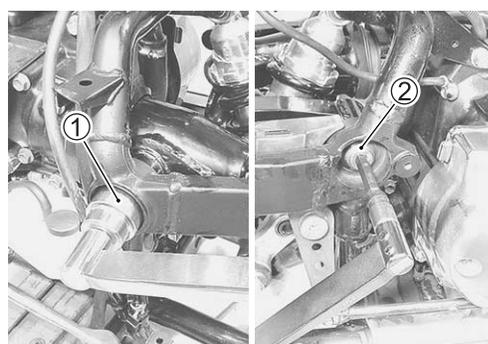
Before tightening the left side swingarm pivot bolt ①, loosen the right side one ②.

- Tighten the right side swingarm pivot bolt ② to the specified torque.

 **Swingarm pivot bolt (right side): 9.5 N·m
(0.95 kgf·m, 7.0 lb-ft)**

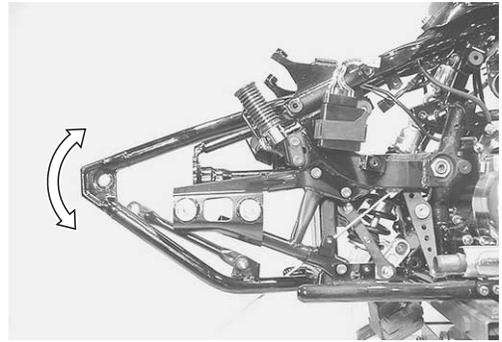
- Tighten the swingarm pivot lock nut ③ to the specified torque.

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



NOTE:

After tightening the swingarm pivot lock nut, be sure to check the swingarm operation.



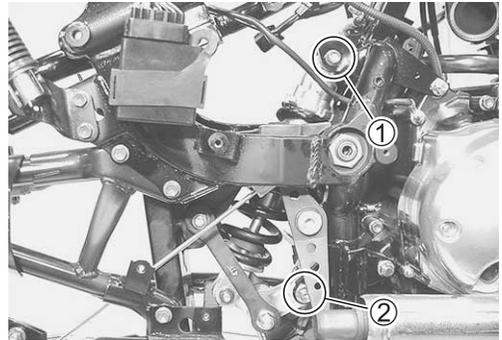
SHOCK ABSORBER AND CUSHION LEVER MOUNTING NUT

- Tighten the shock absorber upper mounting nut ① to the specified torque.

 **Shock absorber mounting nut: 50 N·m
(5.0 kgf·m, 36.0 lb-ft)**

- Tighten the cushion lever mounting nut ② to the specified torque.

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



FINAL GEAR CASE

- Install the plate to the final gear case ①. Apply SUZUKI BOND “1207B” to the mating surface of swingarm and final gear case.

For USA

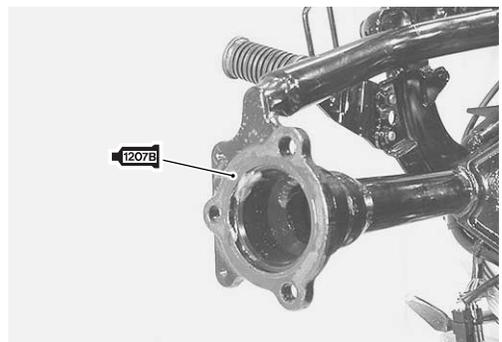
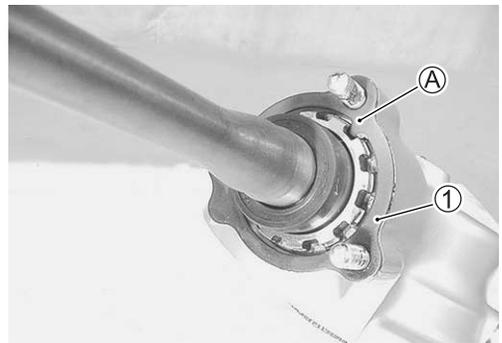
 99104-31140: SUZUKI BOND “1207B”

For the other countries

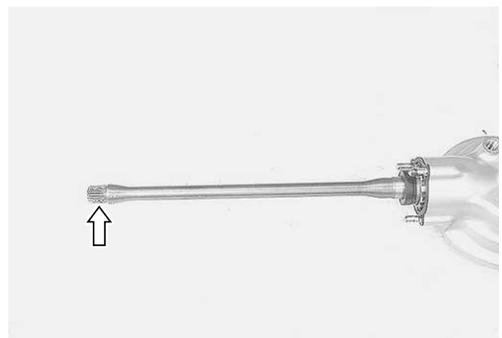
 99000-31140: SUZUKI BOND “1207B”

CAUTION

When installing the plate ①, align the lug  of the plate ① to the bearing retainer groove.

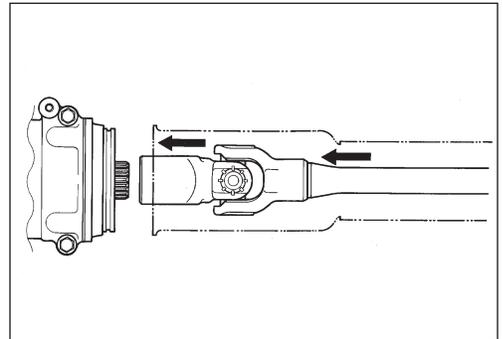
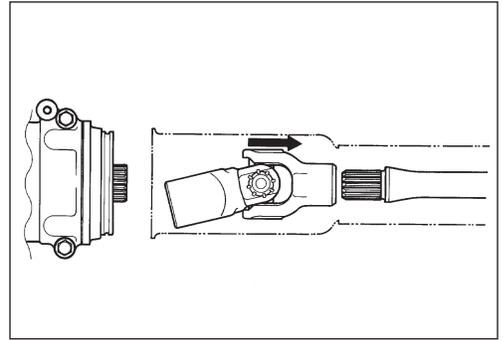


- Apply Lithium Base Molybdenum grease (NLGI #2) to the propeller shaft spline.



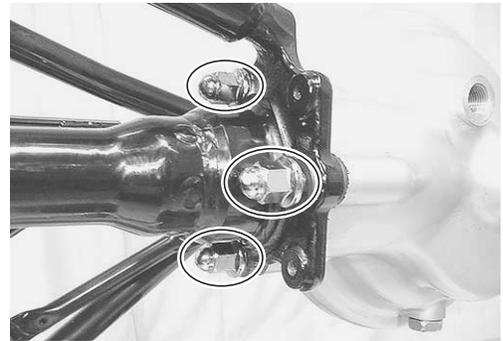
NOTE:

To install the final gear case easily, move the dust boot front and the universal joint back. Engage the universal joint to the propeller shaft first and then engage it to the secondary driven bevel gear shaft.



- Tighten the final gear case mounting nuts to the specified torque.

 **Final gear case mounting nut: 40 N·m**
(4.0 kgf·m, 29.0 lb-ft)



- Install the rear wheel. ( 7-41)
- Install the exhaust pipes and mufflers. ( 3-5)

