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ITEM

(A)

N⋅m

35

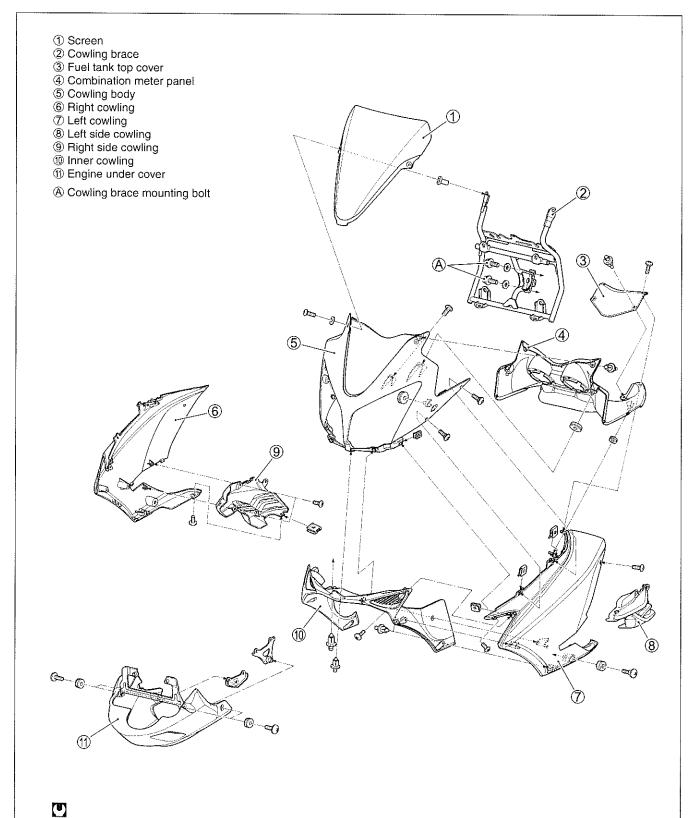
kgf-m

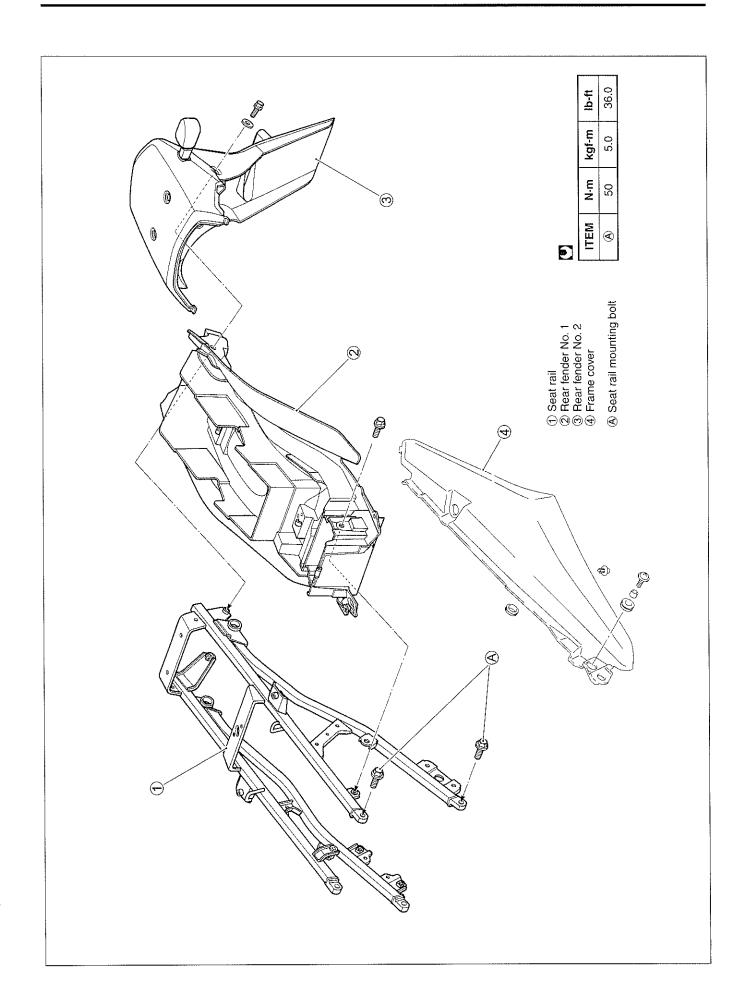
3.5

lb-ft

25.5

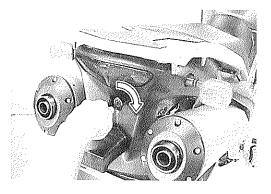
EXTERIOR PARTSCONSTRUCTION

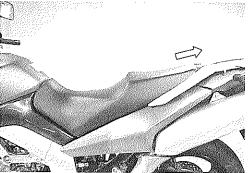




SEAT

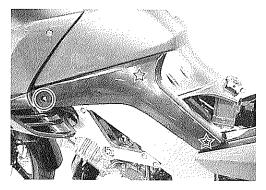
• Remove the seat with the ignition key.



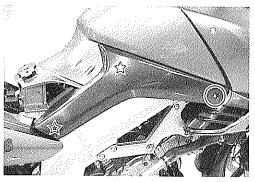


FRONT TANK COVERS

- Remove the seat. (Above)
- Remove the fuel tank side cover mounting secrew.
- Remove thefuel tank side cover by pulling on the hooked parts.

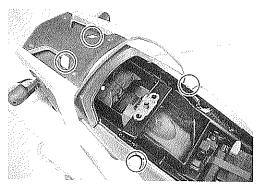


☆: hooked part



CARRIER

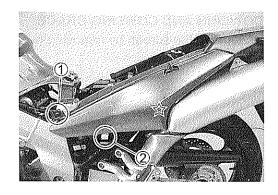
- Remove the seat. (Above)
- Remove the carrier.

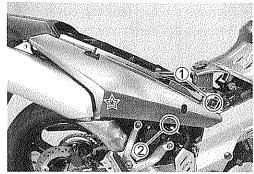


FRAME COVERS

- Remove the seat. (6-4)
- Remove the carrier. (6-4)
- Remove the fuel tank cover. (6-4)
- Remove the screw 1 and clip 2.
- Remove the frame cover by pulling on the hooked part.

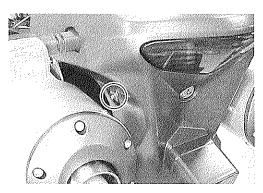
☆: hooked part

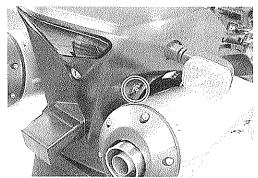




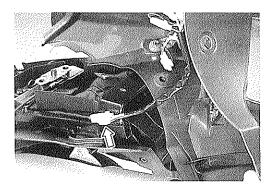
REAR FENDER

- Remove the seat. (76-4)
- Remove the carrier. (76-4)
- · Remove the bolts.





• Disconnect the brake light/taillight lead wire coupler.

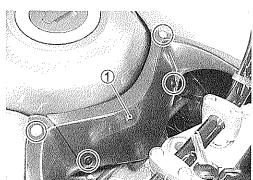


COWLING AND COWLING BRACE

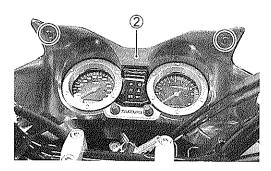
• Remove the screen by removing two screws.



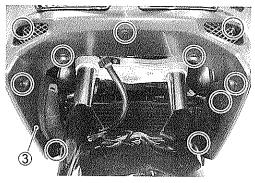
- Remove the fuel tank top cover ① by removing the fasteners.
- Remove the combination cover mounting screws.



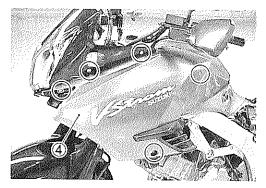
• Remove the combination meter panel ② by removing the fasteners.



• Remove the cowling inner cover ③ by removing two screws and eight fasteners.



• Remove the left cowling 4.

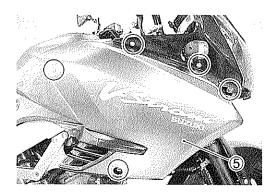


• Remove the right cowling ⑤.

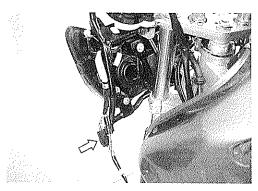
- Remove the turn signals.
- Remove the cowling body 6.

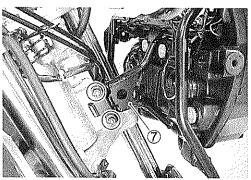
• Disconnect the couplers.

- Remove the cowling blace ⑦.
- Remove the combination meter. (7-22)

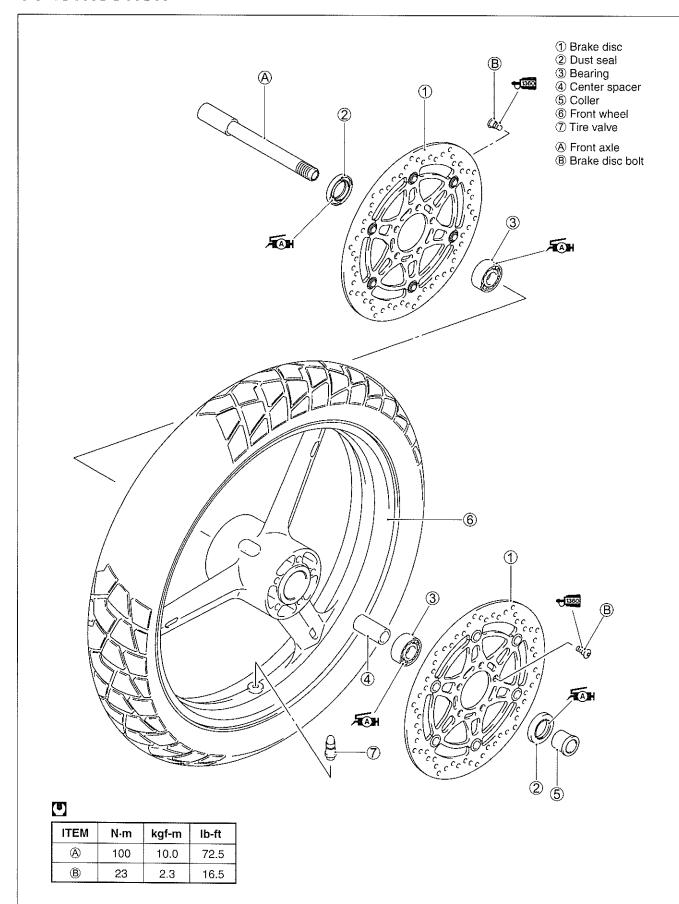








FRONT WHEEL CONSTRUCTION



REMOVAL

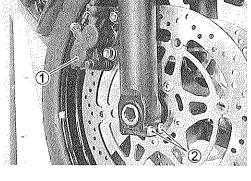
- Remove the right and left brake calipers 1.
- Loosen two axle pinch bolts ② on the right front fork leg.

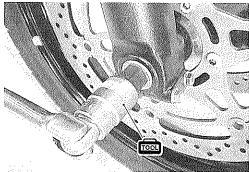
CAUTION

Do not operate the brake lever while removing the calipers.

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

09944-28320: Hexagon bit 19 mm

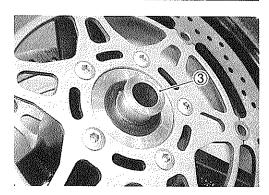




- Raise the front wheel off the ground and support the motorcycle with a jack or a wooden block.
- · Remove the front axle and the front wheel.
- Remove the spacer 3.

NOTE:

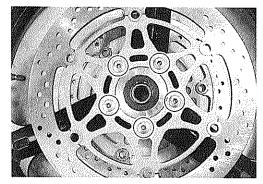
After removing the front wheel, fit the calipers temporarily to the original positions.



INSPECTION AND DISASSEMBLY

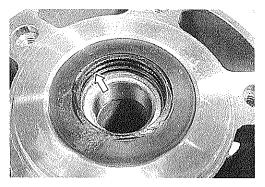
TIRE (6-84)
BRAKE DISC (6-62)

· Remove the brake discs.



DUST SEAL

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

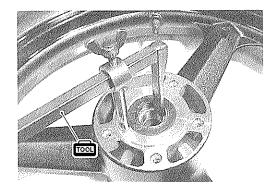


Remove the dust seal by using the oil seal remover.

09913-50121: Oil seal remover

CAUTION

Do not reuse the removed dust seals.



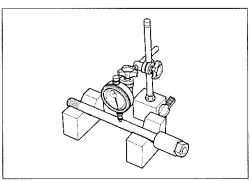
FRONT AXLE

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

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

MAIA Axle shaft runout

Service Limit: 0.25 mm (0.010 in)



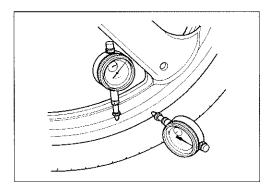
WHEEL

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

(Wheel inspection: F6-84)



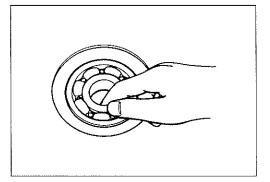
Service Limit (Axial and Radial): 2.0 mm (0.08 in)



WHEEL BEARING

Inspect the play of the wheel bearings by finger while they are in the wheel. Rotate the inner race by finger to inspect for abnormal noise and smooth rotation.

Replace the bearing in the following procedure if there is anything unusual.

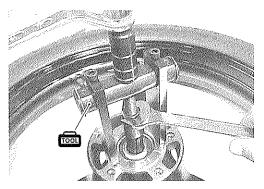


Remove the wheel bearings by using the special tool.



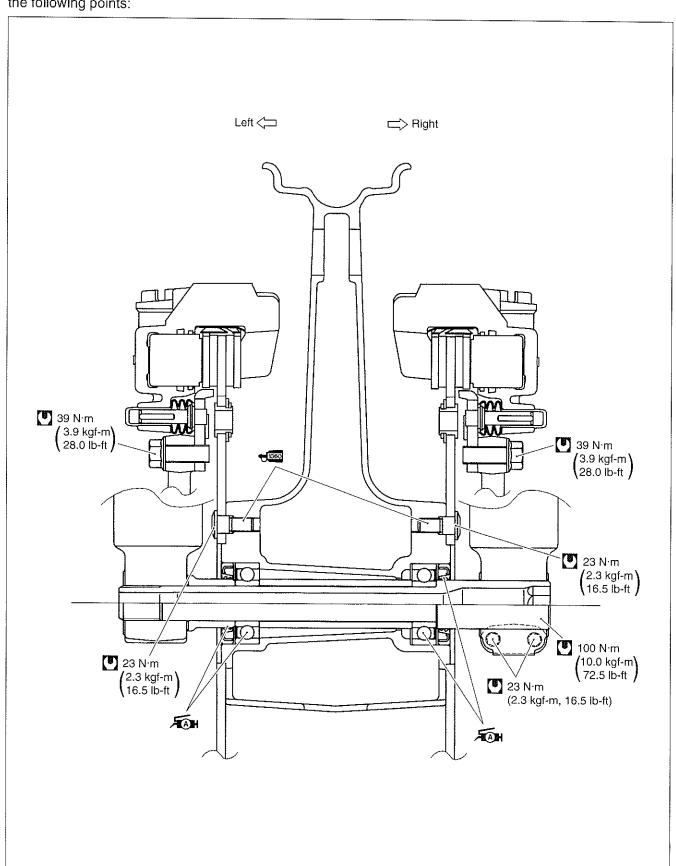
CAUTION

Do not reuse the removed bearings.



REASSEMBLY AND REMOUNTING

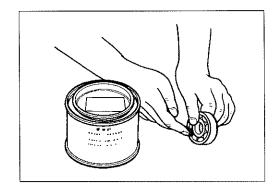
Reassemble and remount the front wheel in the reverse order of removal and disassembly. Pay attention to the following points:



WHEEL BEARING

Apply grease to the wheel bearings.

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

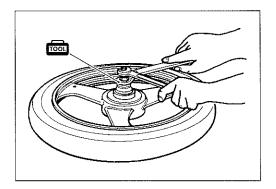


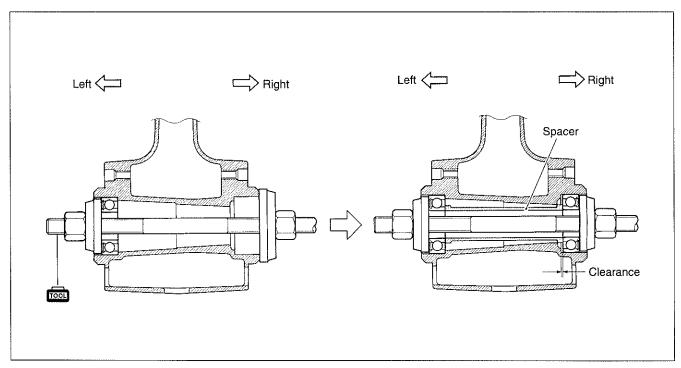
• First install the left wheel bearing, then install the right wheel bearing and spacer by using the special tools.

o9941-34513: Bearing/Steering race installer set

CAUTION

The sealed cover of the bearing must face outside.





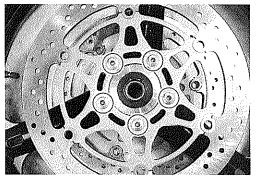
BRAKE DISC

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

 Apply THREAD LOCK SUPER "1360" to the disc mounting bolts and tighten them to the specified torque.

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

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



WHEEL

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

▲ WARNING

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

BRAKE CALIPER

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



39 N·m (3.9 kgf-m, 28.0 lb-ft)

NOTE:

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

FRONT AXLE

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

09944-28320: Hexagon bit 19 mm

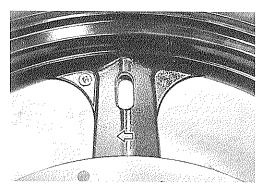
Front axle: 100 N⋅m (10.0 kgf-m, 72.5 lb-ft)

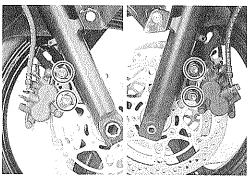
NOTE:

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

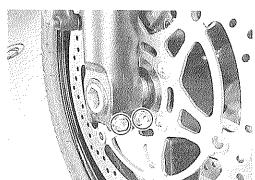
• Tighten two axle pinch bolts on the right front fork leg to the specified torque.

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

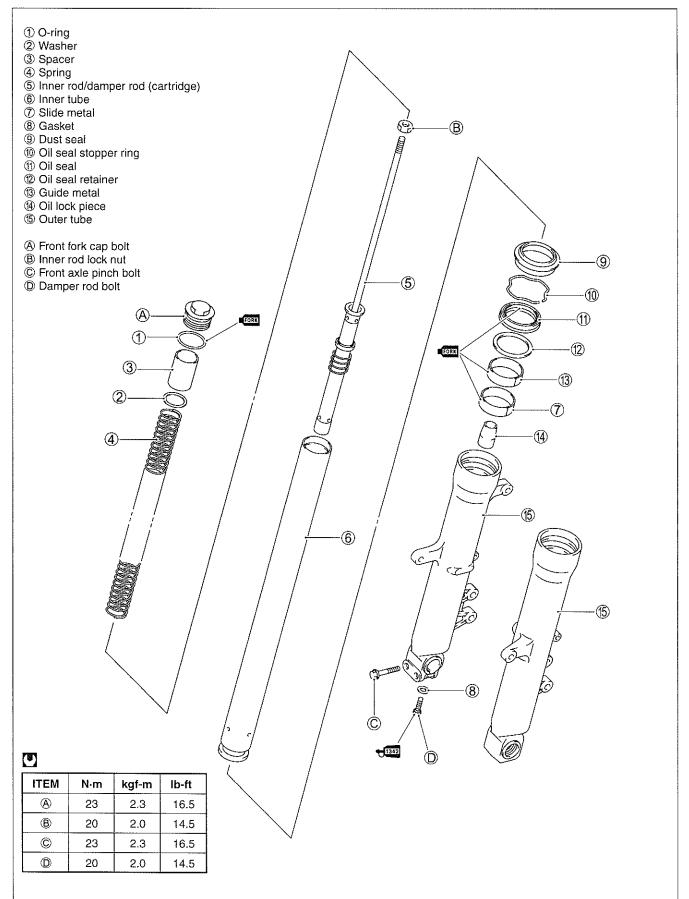






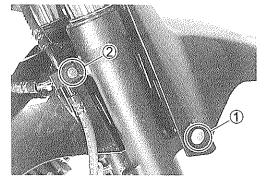


FRONT FORK CONSTRUCTION



REMOVAL AND DISASSEMBLY

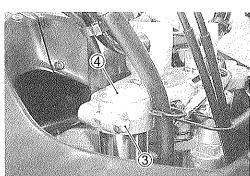
- Remove the front wheel. (6-9)
- Remove the front fender bolt ① and brake hose bolt ②.



• Loosen the front fork upper clamp bolts ③.

NOTE:

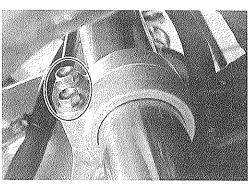
Slightly loosen the front fork cap bolts (4) before loosening the lower clamp bolts to facilitate later disassembly.



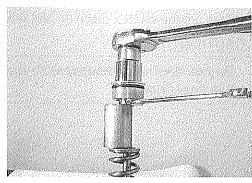
• Loosen the front fork lower clamp bolts.

NOTE:

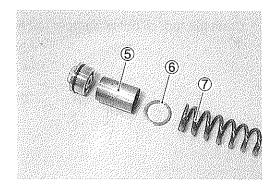
Hold the front fork by the hand to prevent sliding out of the steering stem.



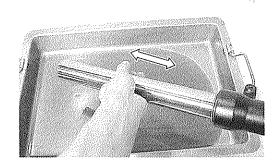
• Loosen and remove the front fork cap bolt.



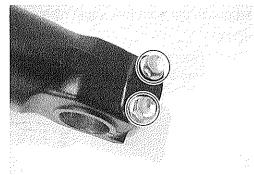
• Remove the spacer ⑤, washer ⑥ and spring ⑦.



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



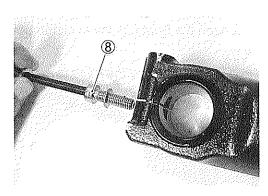
· Remove the front axle pinch bolts.



- Remove the damper rod bolt 8.
- Remove the damper rod.

NOTE:

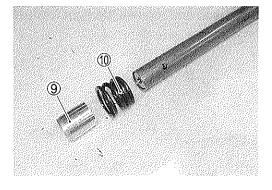
If the damper rod turns together with the damper rod bolt, temporarily install the fork spring, spacer, washer and cap bolt to prevent the damper rod from turning.



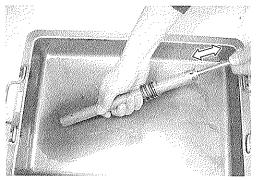
• Remove the oil lock piece (9) and rebound spring (10).

CAUTION

Do not attempt to disassemble the damper rod. It is unserviceable.

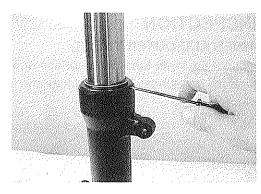


• Drain the fork oil out of damper rod by pumping the rod.



· Remove the dust seal.

· Remove the oil seal stopper ring.





• Pull the inner tube out of the outer tube.

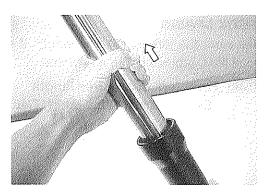
NOTE:

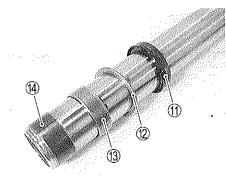
Be careful not to damage the inner tube.

CAUTION

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

- Remove the following parts.
 - 11 Oil seal
 - ② Oil seal retainer
 - (3) Guide metal
 - (4) Slide metal

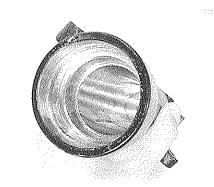


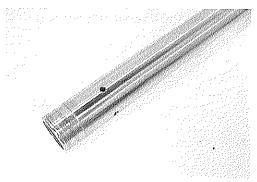


INSPECTION

INNER AND OUTER TUBES

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

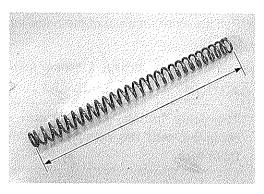




FORK SPRING

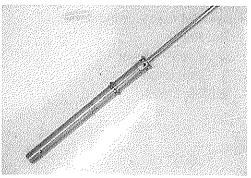
Measure the fork spring free length. If it is shorter than the service limit, replace it with a new one.

Front fork spring free length
Service limit: 442.0 mm (17.40 in)



DAMPER ROD

Move the inner rod by hand to examine it for smoothness. If any defects are found, replace the inner/damper rod (cartridge).



REASSEMBLY AND REMOUNTING

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

TUBE METALS AND SEALS

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

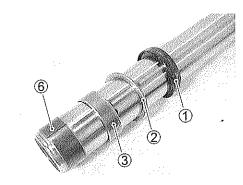
CAUTION

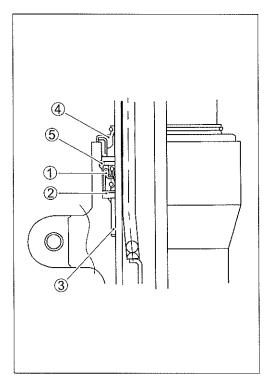
Use special care to prevent damage to the "Teflon" coated surface of the guide metal when mounting it.

- · Apply fork oil to the oil seal lip lightly before installing it.
- · Assemble the following parts as shown.
 - ① Oil seal
 - 2 Oil seal retainer
 - ③ Guide metal
 - 4 Dust seal
 - (5) Oil seal stopper ring
 - 6 Slide metal

CAUTION

- * When installing the oil seal to outer tube, be careful not to damage the oil seal lip.
- * Do not use solvents for washing to prevent oil seal damage.
- * Apply fork oil to the Anti-friction metals and lip of the oil seal.
- * Make sure that the oil seal stopper ring ⑤ has been fitted securely.



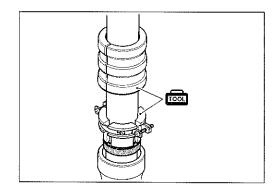


• Insert the inner tube into the outer tube and fit the oil seal and dust seal with the special tool.

09940-52861: Front fork oil seal installer

NOTE:

Stamped mark on the oil seal should face outside.

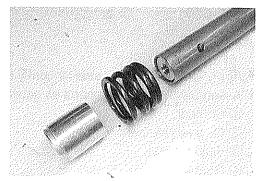


DAMPER ROD BOLT

 Install the rebound spring and oil lock piece to the damper rod.

NOTE:

When installing the rebound spring, the smaller inner diameter of spring must seat the stopper of damper rod.



- Insert the inner rod/damper rod (cartridge) into the outer tube.
- Apply THREAD LOCK "1342" to the damper rod bolt and tighten it to the specified torque.

←1342 99000-32050: THREAD LOCK "1342"

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

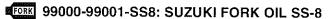
CAUTION

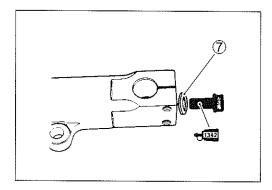
NOTE:

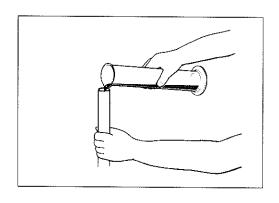
If the damper rod turns together with the damper rod bolt, temporarily install the fork spring, spacer, washer and cap bolt to prevent the damper rod from turning.

FORK OIL

- Place the front fork vertically without spring.
- · Compress the front fork fully.
- Pour the specified front fork oil into the front fork up to the top of the inner rod.







• Move the inner rod slowly more than ten times until no more air bubbles come out from the oil.

09940-52841: Inner rod holder

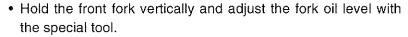
NOTF:

Refill the front fork oil up to the top of the inner tube in oder to find air bubbles while bleeding air.

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

NOTE:

- * Always keep the oil level over the cartridge top end, or air may enter the cartridge during this procedure.
- * Take extream attention to pump out air completely.



NOTE:

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

09943-74111: Front fork oil level gauge

Fork oil level: 133.0 mm (5.24 in)

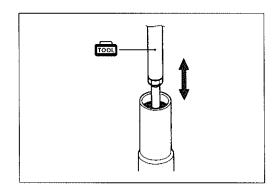
Capacity (each leg): 505.0 ml (17.07/17.78 US/Imp oz)

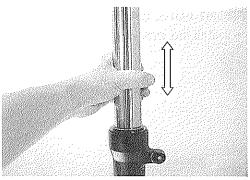
99000-99001-SS8: SUZUKI FORK OIL SS-8

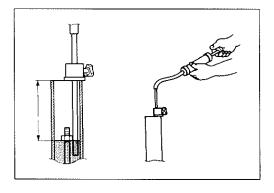
FORK SPRING

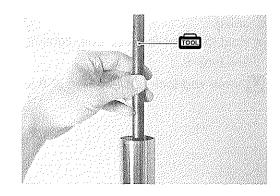
• Pull the inner rod up with the inner rod holder.

09940-52841: Inner rod holder





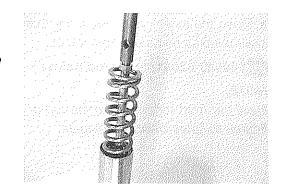




· Install the fork spring.

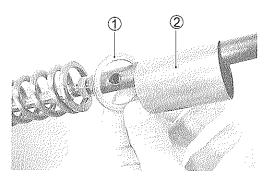
NOTE:

The smaller end of the fork spring should be at the bottom of the front fork.



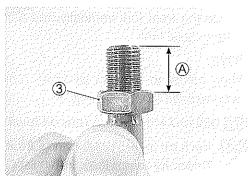
FRONT FORK CAP BOLT

• Install the washer ① and spacer ②.

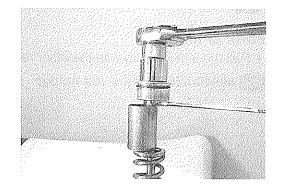


• Adjust the height (A) of the inner rod threads by turning the lock nut (3) as shown.

A: 10.5 mm (0.41 in)



- Tighten the front fork cap bolt to seat at lock nut by hand tightening.
- Hold the front fork cap bolt, tighten the lock nut to the specified torque.
- Inner rod lock nut : 20 N·m (2.0 kgf-m, 14.5 lb-ft)



· Apply fork oil lightly to the O-ring.

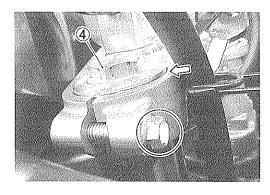
CAUTION

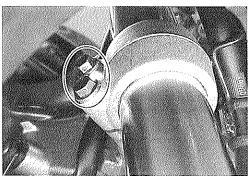
Use a new O-ring to prevent oil leakage.

• Tighten the front fork cap bolt temporarily.



- Set the front fork to the front fork lower bracket temporarily by tightening the lower clamp bolts.
- Tighten the front fork cap bolt ④ to the specified torque.
- Front fork cap bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)
- Align the top of the inner tube to the upper surface of the steering stem upper bracket.
- Tighten the front fork upper and lower clamp bolts.
- Front fork upper clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft) Front fork lower clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)



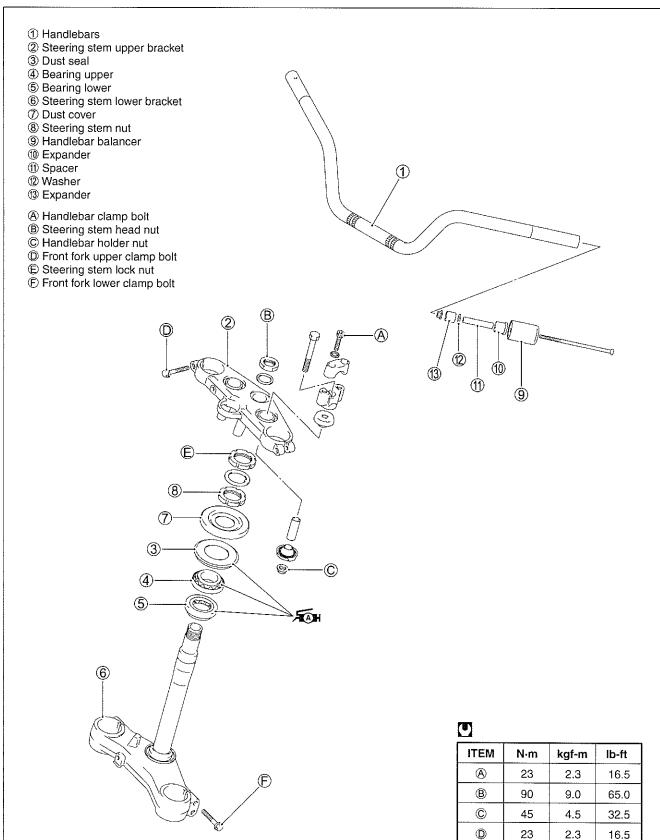


- Install the front wheel. (6-13)
- Install the front brake calipers.(26-13)

NOTE:

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

STEERING AND HANDLEBAR CONSTRUCTION



(E)

€

80

23

8.0

2.3

58.0

16.5

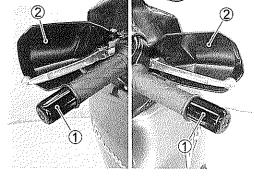
REMOVAL HANDLEBARS

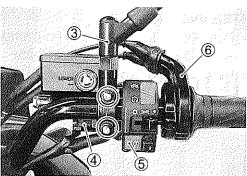
- Remove the handlebar balancer 1.
- Remove the brake/clutch lever covers 2.

NOTE:

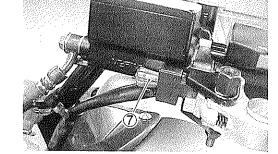
Do not remove the handlebar balancer mounting screw before removing the handlebar balancer. Slightly loosen the mounting screw, and then pull the balancer assembly out of handlebars.

- Remove the rear view mirror 3.
- Disconnect the front brake light switch coupler 4.
- Remove the front brake master cylinder.
- Remove the right handlebar switch box ⑤ and throttle case

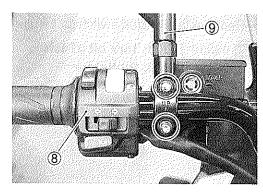




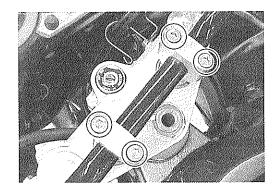
• Disconnect the clutch switch lead wires 7.



- Remove the left handlebar switch box 8.
- Remove the rear view mirror 9.
- · Remove the clutch master cylinder.

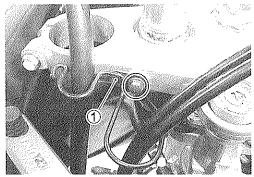


 Remove the handlebars by removing the handlebar clamp bolts.

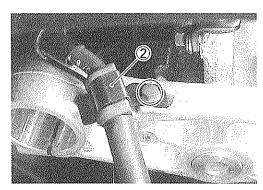


STEERING STEM

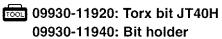
- Remove the front forks and front fender. (6-15)
- Remove the handlebars. (6-25)
- Remove the brake hose guide ①.

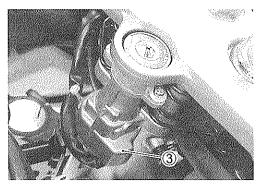


• Remove the brake hose guide ②.

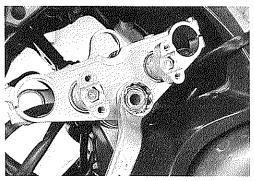


• Remove the ignition switch ③ by using the special tools.

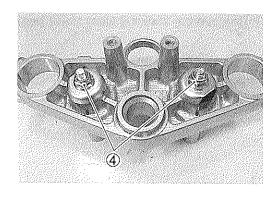


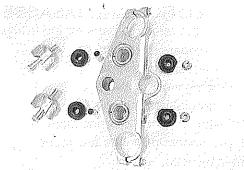


 Remove the steering stem upper bracket by removing the steering stem nut.



• Remove the handle holder nuts ④ and disassemble the handle holder.





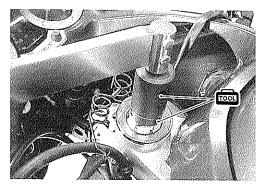
· Remove the steering stem nuts with the special tools.

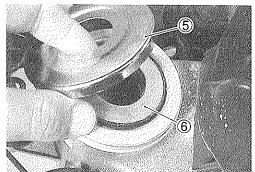
09940-14911: Steering stem nut wrench 09940-14960: Steering stem nut wrench

NOTE:

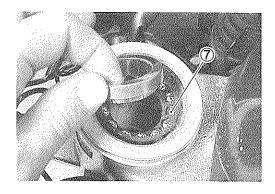
When loosing the stem nuts, hold the steering stem lower bracket to prevent it from falling.

- Remove the steering stem lower bracket.
- Remove the dust cover ⑤, the dust seal ⑥.





• Remove the steering stem upper bearing $\bar{\mathbb{C}}$.



• Remove the steering stem lower bearing 8.



INSPECTION AND DISASSEMBLY

Inspect the removed parts for the following abnormalities.

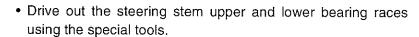
- * Handlebars distriction
- * Race wear and brinelling
- * Bearing wear or damage
- * Abnormal bearing noise
- * Distortion of the steering stem

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

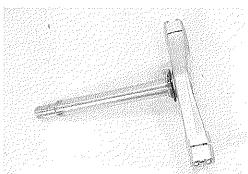
• Remove the steering stem lower bearing inner race using a chisel.

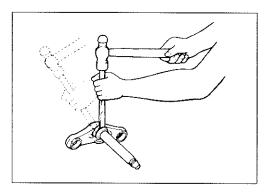
CAUTION

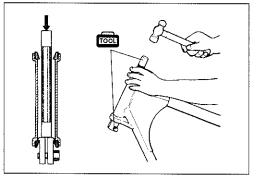
The removed bearing inner race and dust seal must be replaced with the new ones.









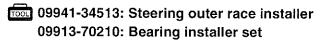


REASSEMBLY AND REMOUNTING

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

OUTER RACES

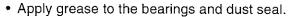
 Press in the upper and lower outer races using the special tool.



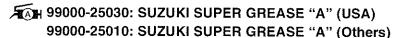
BEARINGS

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





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



STEERING STEM

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

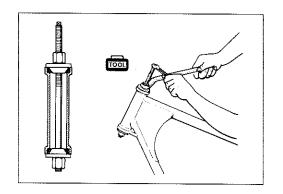
09940-14911: Steering stem nut wrench 09940-14960: Steering stem nut wrench socket

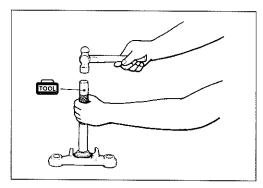
Steering stem nut: 45 N·m (4.5 kgf-m, 32.5 lb-ft)

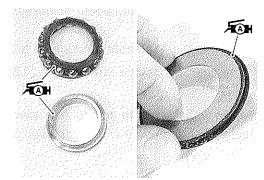
- Turn the steering stem about five or six times to the left and right so that the angular ball bearing will be seated properly.
- Loosen the steering stem nut by $\frac{1}{4} \frac{1}{2}$ turn.

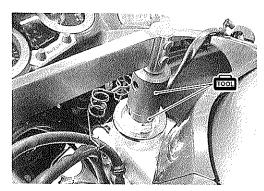
NOTE:

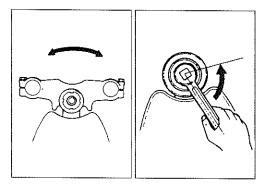
This adjustment will vary from motorcycle to motorcycle.







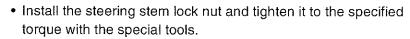




· Install the washer.

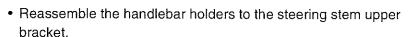
NOTE:

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



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

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



• Tighten the handlebar holder nuts to the specified torque.

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

NOTE:

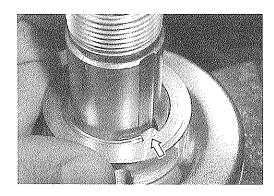
Before tightening the nut to the specified torque, temporarily install the handlebars in order to align both holders.

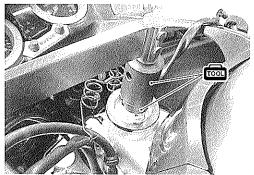
- Install the steering stem upper bracket and tighten the steering stem nut lightly.
- Install the ignition switch ① and harness guide ②. (7-31)

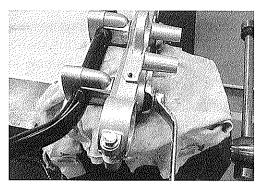
- Install the front fork to the steering stem and tighten the lower clamp bolts temporarily.
- Tighten the steering stem head nut to the specified toupue.

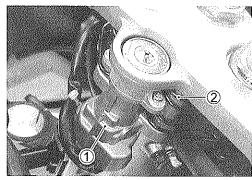
Steering stem head nut: 90 N·m (9.0 kgf-m, 65.0 lb-ft)

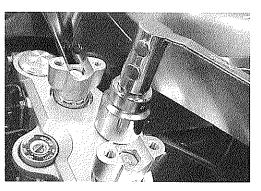
• Remount the front forks and the front fender. (6-23)





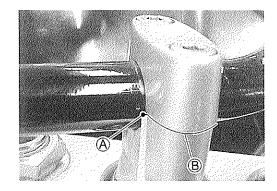






HANDLEBARS

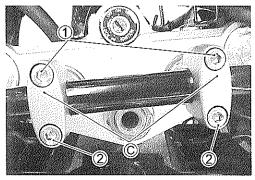
• Install the handlebars with the punch mark (A) aligned with the mating surface (B) of the handlebar holder.



- Set the punch mark © on the handlebar clamp forward.
- Tighten the handlebar clamp bolts to the specified torque.
- Handlebar clamp bolt: 23 N·m (2.3 kgf-m, 16.5 lb-ft)

 NOTE:

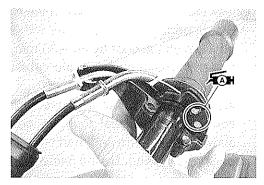
When tightening the handlebar clamp bolts, first tighten the bolt ① and then tighten the bolt ②.



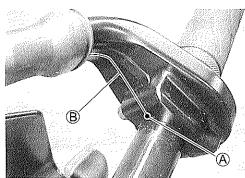
HANDLEBAR SWITCH BOX

- · Install the throttle cable case.
- Apply grease to the throttle cables and their holes.

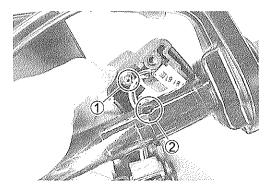
99000-25030: SUZUKI SUPER GREASE "A" (USA)
99000-25010: SUZUKI SUPER GREASE "A" (Others)



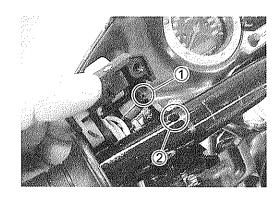
• Align the mating surface ® of the throttle case with the punch mark ® on the handlebars.



- Install the right handlebar switch box to the handlebars by engaging the stopper ① with the handlebar's hole ②.
- Install the front brake master cylinder. (\$\sum_{6}-65\$)



- Install the left handlebar switch box to the handlebars by engaging the stopper ① with the handlebars hole ②.
- Install the clutch master cylinder with the proper clutch hose routing.



- Install the handlebar balancers and the rear view mirrors. (Handlbar balancer installation: \$\tilde{1} 8-31\$)
- Install the front wheel. (6-13)

STEERING TENSION ADJUSTMENT

Check the steering movement in the following procedure.

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

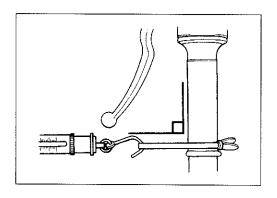
Initial force: 200 – 500 grams

09940-92720: Spring scale

- If the initial force read on the scale when the handlebar starts turning is either too heavy or too light, adjust it till it satisfies the specification.
- 1)First, loosen the front fork upper and lower clamp bolts, steering stem head nut and steering stem lock nut, and then adjust the steering stem nut by loosening or tightening it.
- 2)Tighten the steering stem lock nut, stem head nut and front fork upper and lower clamp bolts to the specified torque and re-check the initial force with the spring scale according to the previously described procedure.
- 3)If the initial force is found within the specified range, adjustment has been completed.

NOTE:

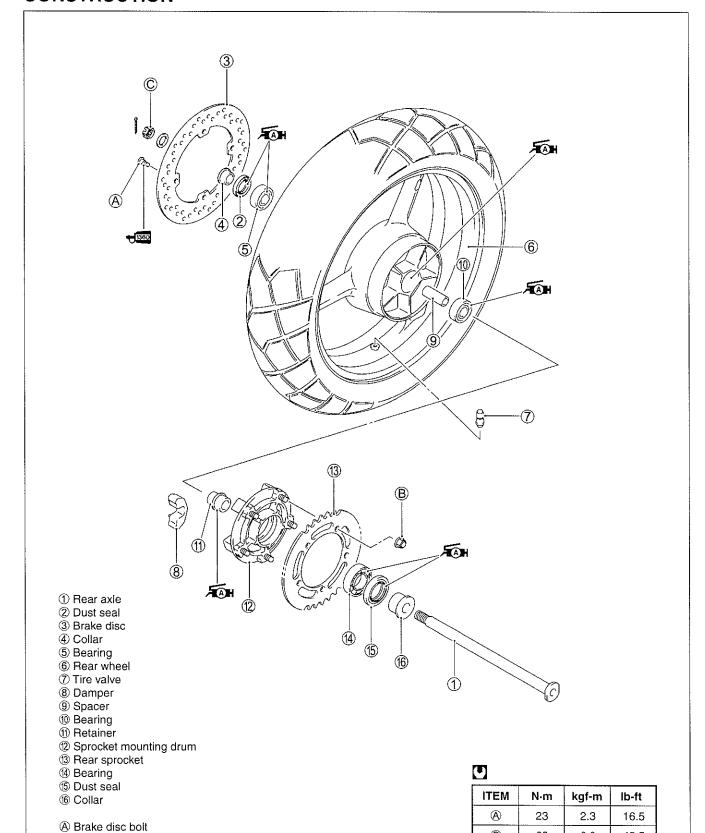
Hold the front fork legs, move them back and forth and make sure that the steering is not loose.





REAR WHEEL CONSTRUCTION

B Rear sprocket nutC Rear axle nut



(B)

©

60

100

6.0

10.0

43.5

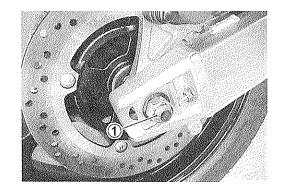
72.5

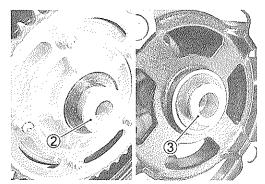
- Remove the cotter pin. (For E-03, 28, 33)
- Loosen the rear axle nut 1.
- Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the axle nut and draw out the rear axle.

CAUTION

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

• Remove the collars 2, 3.



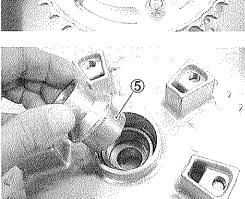


• Remove the rear sprocket mounting drum assembly ④ from the wheel hub.

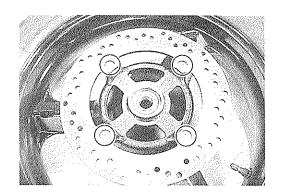
NOTE:

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

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



· Remove the brake disc.



INSPECTION AND DISASSEMBLY

TIRE: (6-84)

WHEEL: (6-10 and 6-84)

REAR AXLE

Using a dial gauge, check the rear axle for runout.

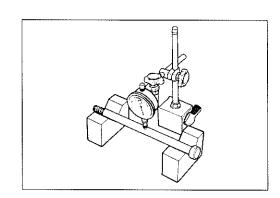
If the runout exceeds the limit, replace the rear axle.

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

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

09900-20701: Magnetic stand

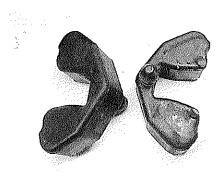
09900-21304: V-block set (100 mm)



WHEEL DAMPER

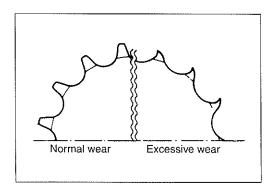
Inspect the dampers for wear and damage.

Replace the damper if there is anything unusual.



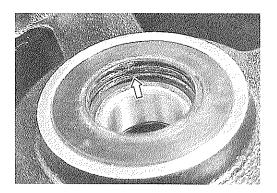
SPROCKET

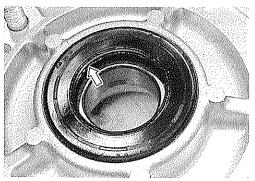
Inspect the rear sprocket teeth for wear. If they are worn as shown, replace the engine sprocket, rear sprocket and drive chain as a set.



DUST SEAL

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



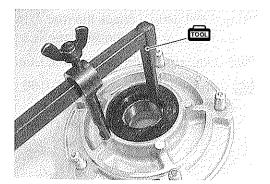


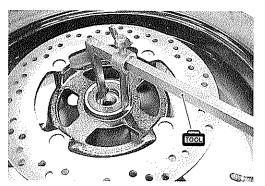
· Remove the dust seal with the special tool.

09913-50121: Oil seal remover

CAUTION

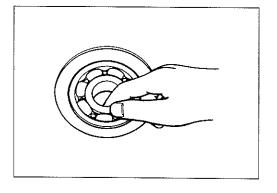
Do not reuse the removed dust seal.





BEARING

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

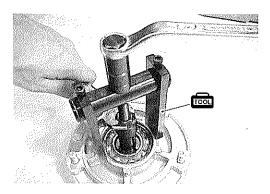


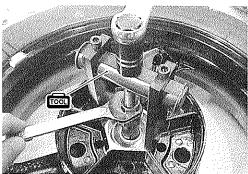
• Remove the sprocket mounting drum bearing and wheel bearings by using the special tool.

09921-20240: Bearing remover set

CAUTION

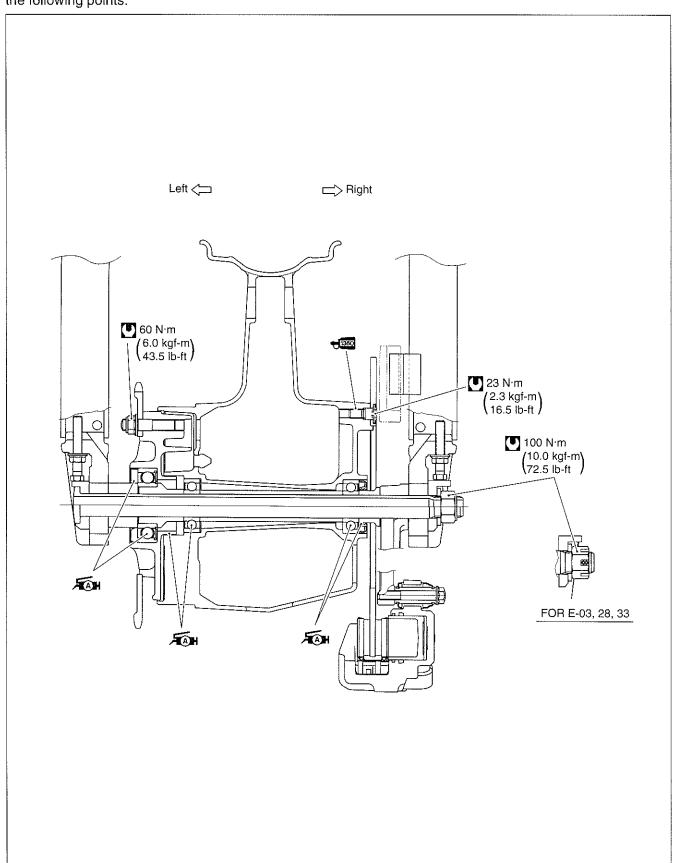
The removed bearings must be replaced with the new





REASSEMBLY AND REMOUNTING

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



BEARING

· Apply grease to the bearings before installing.

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

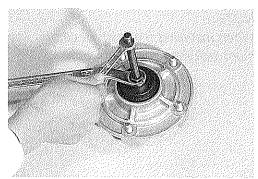


• Install the new bearing to the sprocket mounting drum using the special tool.

09924-84510: Bearing installer set

NOTE:

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

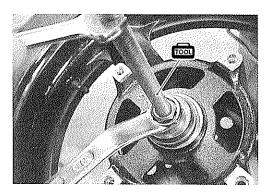


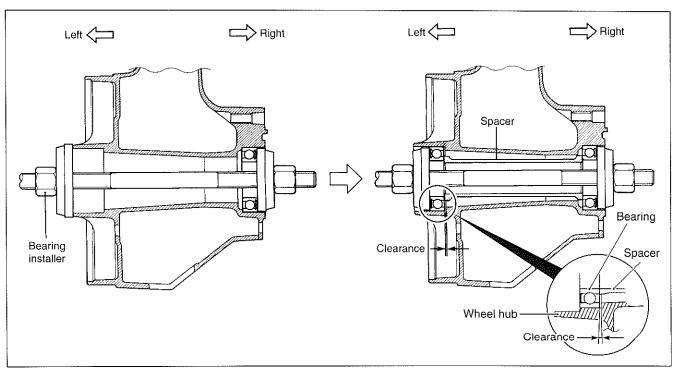
• First install the right wheel bearing, then install the left wheel bearing and spacer using the special tool.

09941-34513: Bearing/Steering race installer set

CAUTION

The sealed cover of the bearing must face outside.





DUST SEAL

Install the new dust seal using the special tool.

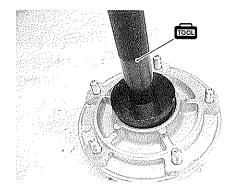
09913-70210: Bearing installer set

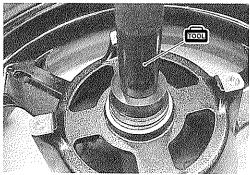
 Apply SUZUKI SUPER GREASE "A" to the dust seal lips before assembling rear wheel.

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

NOTE:

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





BRAKE DISC

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

 Apply THREAD LOCK SUPER "1360" to the disc bolts and tighten them to the specified torque.

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

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

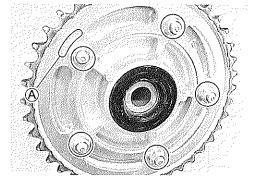
REAR SPROCKET

• Tighten the sprocket mounting nuts to the specified torque.

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

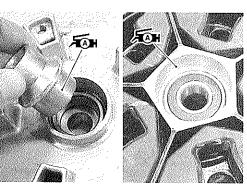
NOTE:

Stamped mark (A) on the sprocket must face outside.

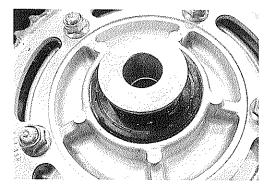


- Apply SUZUKI SUPER GREASE "A" to the rear sprocket mounting retainer.
- Install the rear sprocket mounting drum retainer.
- Apply SUZUKI SUPER GREASE "A" to the contacting surface between the rear wheel and the sprocket drum.

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



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

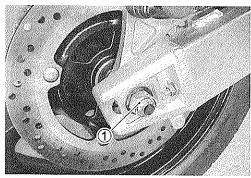


REAR AXLE

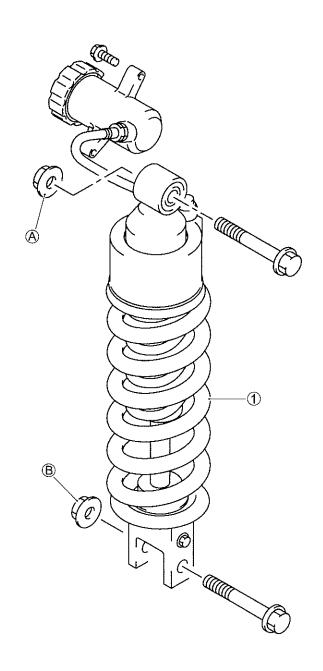
- Remount the rear wheel and rear axle, install the washer and rear axle nut.
- Tighten the rear axle nut ① to the specified torque.
- Adjust the chain slack after rear wheel installation. ($\bigcirc \mathcal{F}2\text{-}21$)

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

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



REAR SHOCK ABSORBER CONSTRUCTION

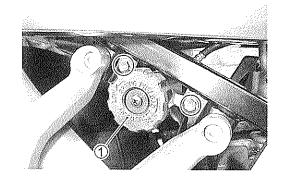


- 1 Rear shock absorber
- A Rear shock absorber upper mounting nutB Rear shock absorber lower mounting nut

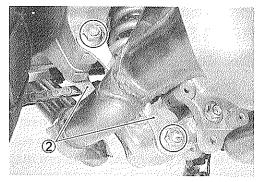
ITEM	N∙m	kgf-m	lb-ft
(A)	50	5.0	36.0
B	50	5.0	36.0

REMOVAL

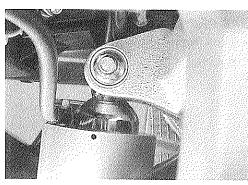
- · Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the pre-load adjuster ①.



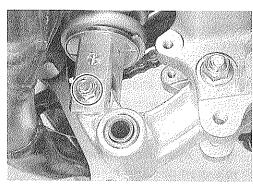
• Remove the cushion lever rod bolts/nuts and the cushion rods 2).



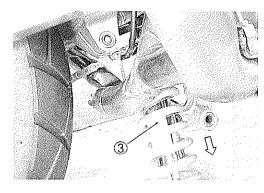
• Remove the rear shock absorber upper mounting bolt.



• Remove the rear shock absorber lower mounting bolt.



• Remove the rear shock absorber ③.



INSPECTION

Inspect the shock absorber body and bushing for damage and oil leakage.

If any defects are found, replace the shock absorber with a new one.

CAUTION

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



REAR SHOCK ABSORBER DISPOSAL

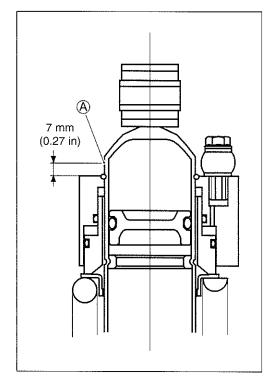
A WARNING

The rear shock unit contains high-pressure nitrogen gas. Mishandling can cause explosion.

- * Keep away from fire and heat. High gas pressure caused by heat can cause an explosion.
- * Release gas pressure before disposing.

GAS PRESSURE RELEASE

• Mark the drill hole at (A), shown in the illustration, with a center punch.



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

A WARNING

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



REMOUNTING

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

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

Rear shock absorber mounting lower nut:

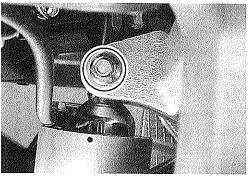
50 N·m (5.0 kgf-m, 36.0 lb-ft)

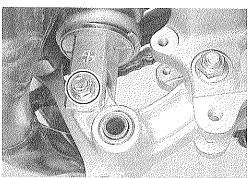
Rear shock absober mounting upper nut:

50 N·m (5.0 kgf-m, 36.0 lb-ft)

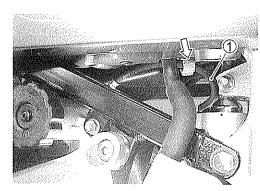
NOTE:

When installing the rear shock absorber, the outlet hose of the prel-load adjuster faces backward.

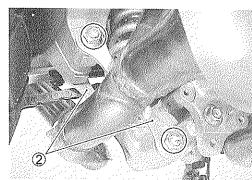




• Clamp the pre-load adjuster hose 1.



- Install the cushion rod 2.
- Tighten the cushion rod nuts to the specified torque.
- Cushion rod nut: 78 N·m (7.8 kgf-m, 56.5 lb-ft)



SUSPENSION SETTING

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

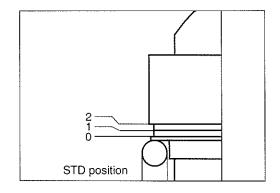
SPRING PRE-LOAD ADJUSTMENT

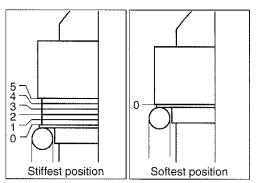
The pre-load is adjusted by turning the pre-load adjuster knob without tool.

Position "0" provides the softest spring pre-load.

Position "5" provides the stiffest spring pre-load.

STD position: "2"





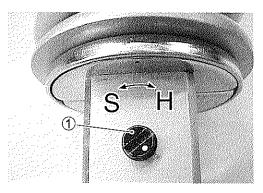
DAMPING FORCE ADJUSTMENT

The rebound damping force is adjusted by turning the adjuster. Fully turn the damping adjuster ① clockwise. It is at stiffest position and turn it out to standard setting position.

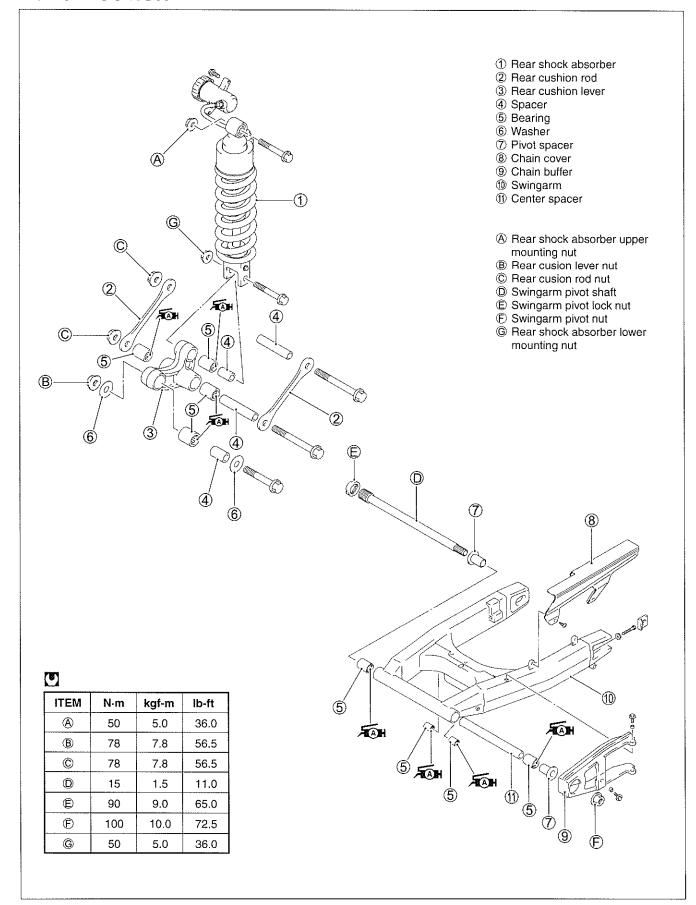
STD position: 1/2 turn out from stiffest position

CAUTION

Do not turn the adjuster more than the given position or the adjuster may be damaged.



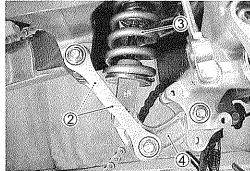
REAR SWINGARM CONSTRUCTION



REMOVAL

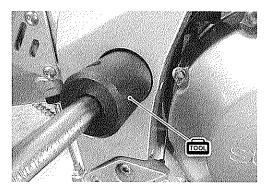
- Remove the exhaust pipe and exhaust muffler. (3-7)
- Raise the rear wheel off the ground and support the motorcycle with a jack or wooden block.
- Remove the rear wheel. (6-34)
- Remove the rear brake hose guide ①.
- Remove the cushion rods ②.
- Remove the shock absorber 3.
- Remove the cushion lever 4.





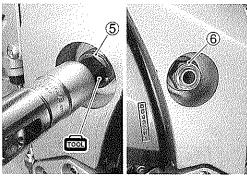
 Remove the swingarm pivot shaft lock nut by using the special tool.

09940-14940: Swingarm pivot thrust adjuster socket wrench

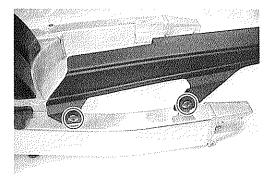


- Hold the swingarm pivot shaft ⑤ and remove the swingarm pivot nut ⑥.
- Remove the swingarm pivot shaft by using the special tool.

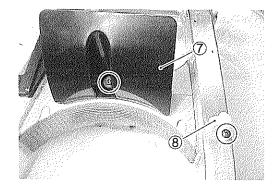
09944-28320: Hexagon bit 19 mm



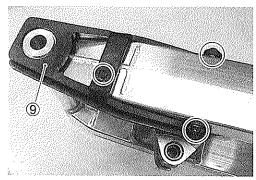
· Remove the chain cover.



• Remove the brake hose guide 8.

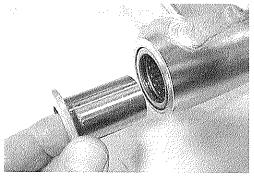


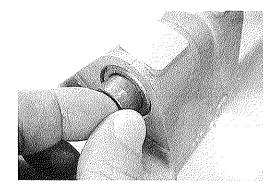
• Remove the chain buffer 9.

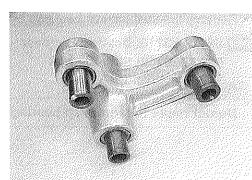


INSPECTION AND DISASSEMBLY SPACER

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







CHAIN BUFFER

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

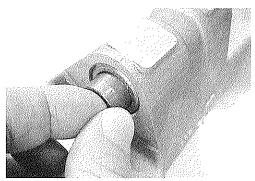


SWINGARM BEARING

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

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



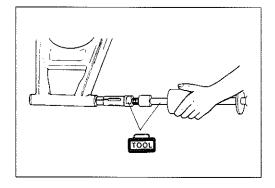


Remove the swingarm pivot bearing and spacer with the special tools.

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

CAUTION

Do not reuse the removed bearings.

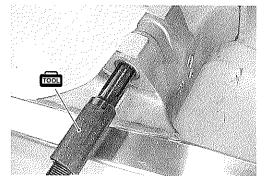


Remove the cushion rod bearings by using the special tool.

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

CAUTION

Do not reuse the removed bearings.



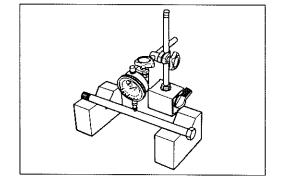
SWINGARM PIVOT SHAFT

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

09900-20607: Dial gauge (1/100 mm, 10 mm)

09900-20701: Magnetic stand 09900-21304: V-block (100 mm)

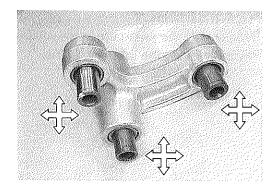
Swingarm pivot shaft runout: Service limit: 0.3 mm (0.01 in)



CUSHION LEVER BEARING

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

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



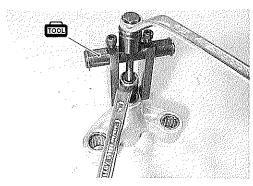
• Draw out the cushion lever bearings with the special tool.



09921-20240: Bearing remover set

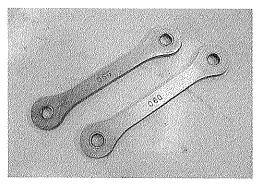
CAUTION

The removed bearings must be replaced with new ones.



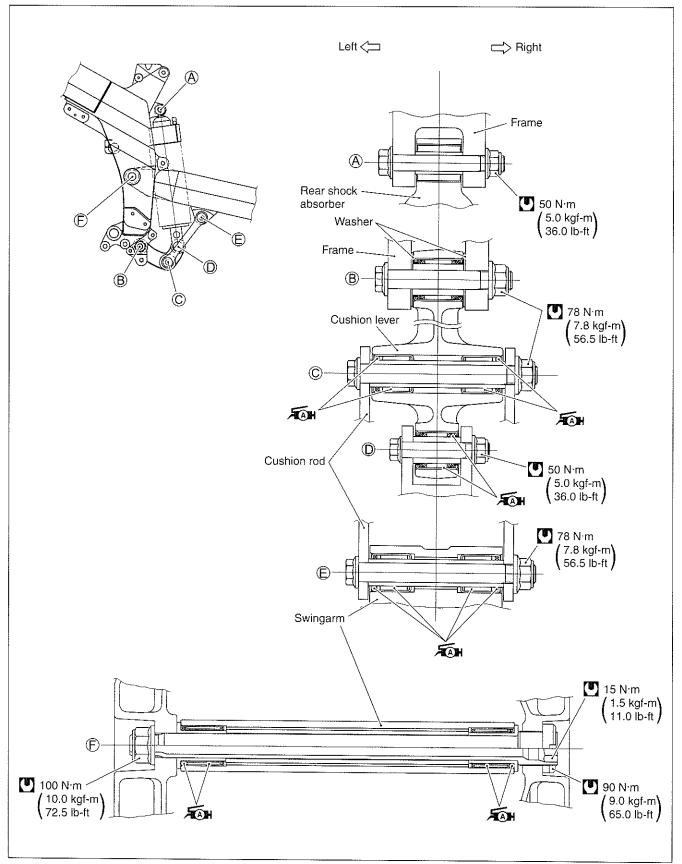
CUSHION LEVER RODS

Inspect the cushion lever rods for damage and distortion.



REASSEMBLY

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



SWINGARM BEARING

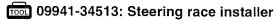
• Install the bearings and spacer into the swingarm pivot all together by using the special tool.



NOTE:

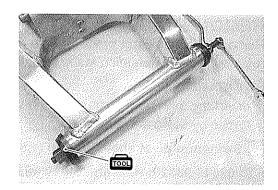
When installing the bearing, the stamped mark on the bearing must face the special tool.

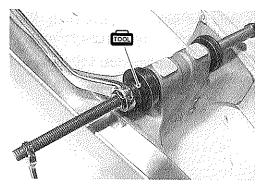
• Install the cushion rod bearing with the special tool.



NOTE:

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





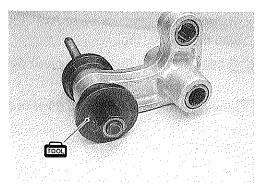
CUSHION LEVER BEARING

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



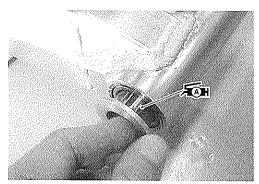
NOTE:

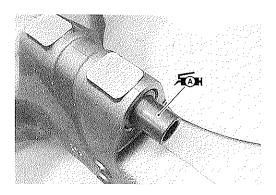
When installing the bearing, the dust seal that is embedded in the bearing must face outside.

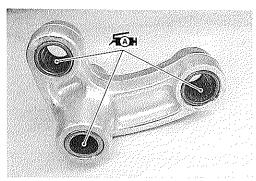


· Apply grease to the bearings and spacers.

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







REMOUNTING

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

SWINGARM

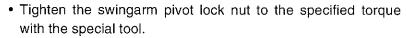
• Insert the swingarm pivot shaft and tighten it to the specified torque by using the special tool.

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

09944-28320: Hexagon bit 19 mm

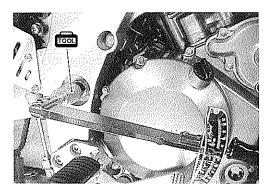
• Hold the swingarm pivot shaft ① and tighten the swingarm pivot nut ② to the specified torque.

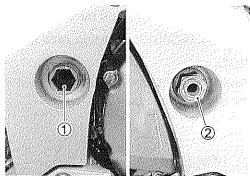
Swingarm pivot nut: 100 N·m (10.0 kgf-m, 72.5 lb-ft)

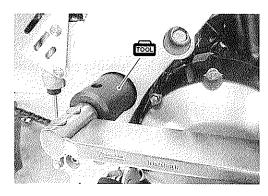


09940-14940: Swingarm pivot thrust adjuster socket wrench

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





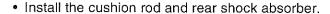


CUSHION LEVER AND CUSHION ROD

• Install the washers ① and cushion lever.

NOTE.

Insert the cushion lever mounting bolt from the left side. $(\square \mathcal{F} 6-52)$



NOTE:

Insert the cushion rod mounting bolts and rear shock absorber mounting bolts from the left side. (36-52)

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

(Cushion lever mounting nut:

78 N·m (7.8 kgf-m, 56.5 lb-ft)

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

Rear shock absorber mounting nut:

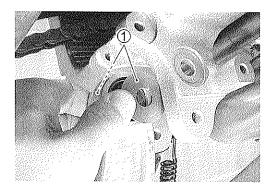
50 N·m (5.0 kgf-m, 36.0 lb-ft)

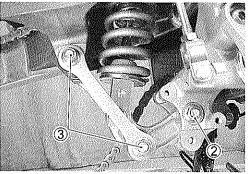
- · Install the rear brake hose guide.
- Install the rear wheel. (6-41)
- Install the exhaust pipe and muffler. (3-15)

FINAL INSPECTION AND ADJUSTMENT

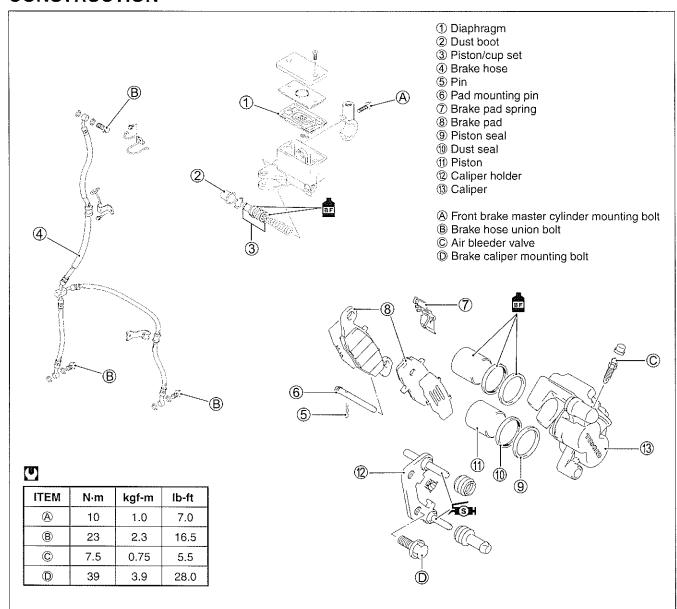
After installing the rear suspension and wheel, the following adjustments are required before driving.

- * Drive chain: 2-21
- * Tire pressure: 76-86
- * Chassis bolts and nuts: 2-28





FRONT BRAKE CONSTRUCTION



A WARNING

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

CAUTION

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