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**REAR BRAKE/REAR FORK/REAR WHEEL/  
REAR SHOCK ABSORBER**

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# 14. REAR BRAKE/REAR FORK/REAR WHEEL/REAR SHOCK ABSORBER

## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

- When performing the services stated in this section, the engine and exhaust muffler must be cold to avoid scalding.
- During servicing, keep oil or grease off the brake pads and brake disk.

### SPECIFICATIONS

Item	Standard (mm)	Service Limit (mm)
Rear wheel rim runout	□	2.0
Rear shock absorber spring free length	214.7	197.7
Rear brake drum I.D.	110	111
Rear brake disk/ lining thickness	3.5_ 3.8/4.0	3.0/2.0
Rear brake disk runout	□	0.30
Rear brake master cylinder I.D.	12.700_ 12.743	12.755
Rear brake master cylinder piston O.D.	12.657_ 12.684	12.645
Rear brake caliper cylinder I.D.	33.895_ 33.928	33.860
Rear brake caliper piston O.D.	33.960_ 34.010	34.045

### TORQUE VALUES

Exhaust muffler lock bolt	29.4_	39.2N-m
Rear axle nut	78.4_	98.0N-m
Rear shock absorber lower mount bolt	19.6_	29.4N-m
Rear shock absorber upper mount bolt		39.2N-m
Rear damper lock nut	14.7_	24.5N-m (apply locking agent)
Rear brake caliper bolt	19.6_	29.4N-m

### SPECIAL TOOLS

- Rear shock absorber remover
- Shock absorber spring compressor

## TROUBLESHOOTING

### Rear wheel wobbling

- Bent rim
- Faulty tire
- Axle not tightened properly

### Soft rear shock absorber

- Weak shock absorber spring
- Damper oil leaks

### Rear wheel noise

- Worn rear wheel axle bearings
- Worn rear fork bearings
- Deformed rear fork

### Poor brake performance

- Air in brake system
- Deteriorated brake fluid
- Contaminated brake pad surface
- Worn brake pads
- Clogged brake fluid line
- Deformed brake disk
- Unevenly worn brake caliper

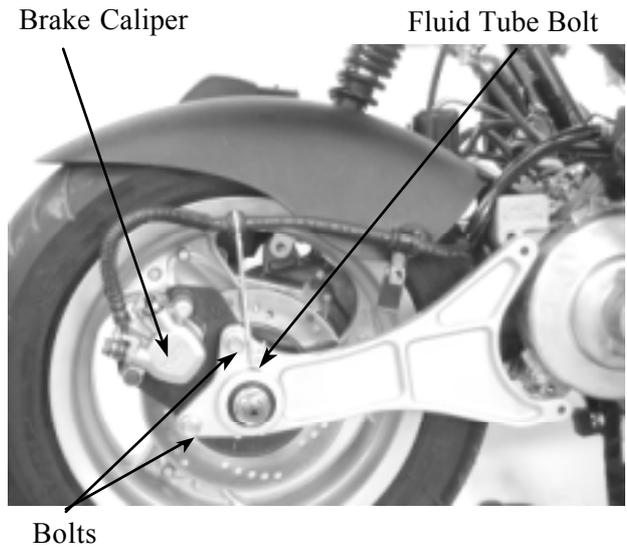
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## REAR BRAKE (SH10DA)

### REAR BRAKE CALIPER REMOVAL

First remove the exhaust muffler. (⇒2-6)  
Remove the rear brake fluid tube bolt and disconnect the brake fluid tube.  
Remove the two bolts attaching the rear brake caliper.  
Remove the rear brake caliper.

\* When removing the brake fluid tube, use shop towels to cover plastic parts and coated surfaces to avoid damage.



### INSPECTION

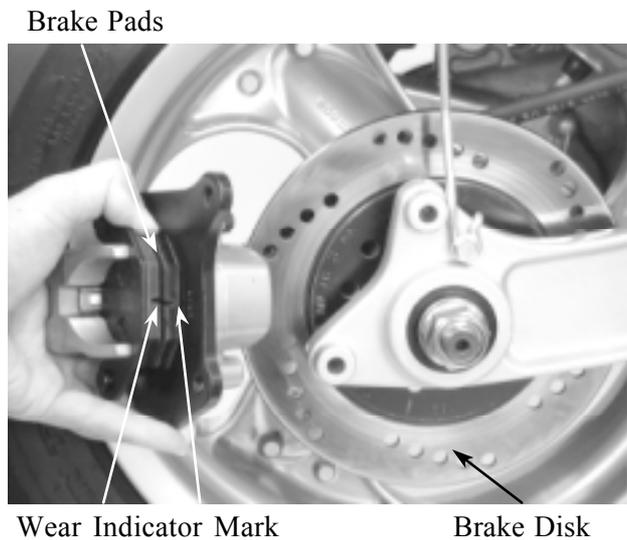
Inspect the brake pads and brake disk.  
Visually check the brake pad thickness and it should not exceed the wear indicator mark.  
Measure the brake disk thickness.

**Service Limit:** 3.0mm replace if below

### DISASSEMBLY

Disassemble the rear brake caliper. (⇒14-11)  
Inspect and assemble the rear brake caliper. (⇒14-12)

Note: The rear brake caliper and front brake caliper have the same specification.



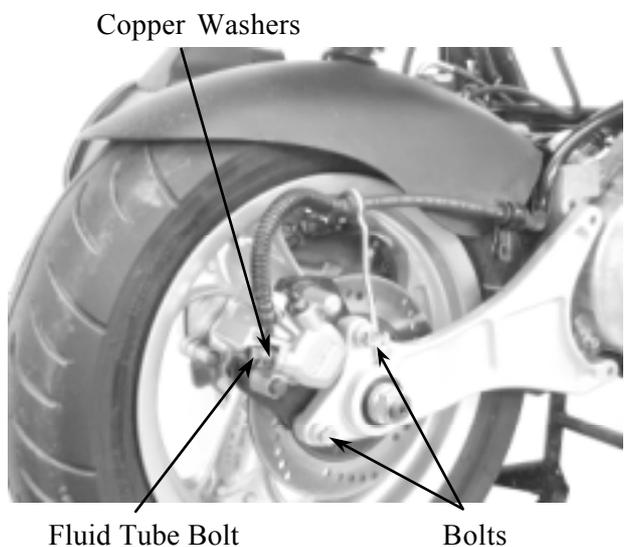
### INSTALLATION

Install the brake caliper to the rear fork and tighten the two bolts.

**Torque:** 24.5\_ 34.3N-m

Connect the brake fluid tube to the brake caliper and tighten the fluid tube bolt.  
Fill the brake reservoir with the specified brake fluid and bleed air from the brake system. (⇒13-11)

\* When installing the brake fluid tube, be sure to install the two copper sealing washers.



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## REAR FORK (SF10DA)

### REMOVAL

Remove the exhaust muffler. (⇒2-6)

Remove the rear brake caliper. (⇒14-2)

Remove the rear axle nut and remove the collar.

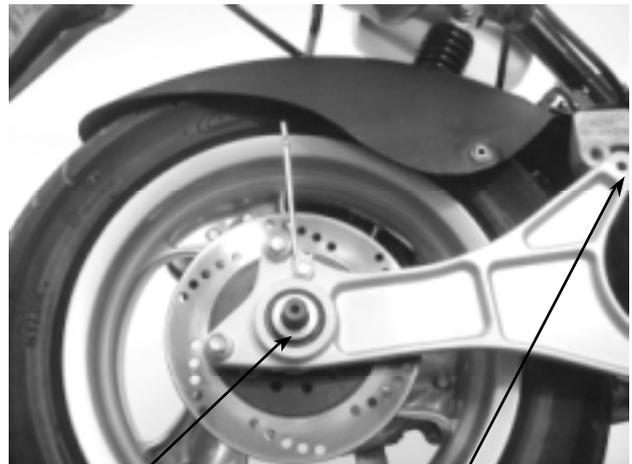
Remove the rear fork.

The installation sequence is the reverse of removal.

### Torque:

Rear fork bolt: 19.6\_ 29.4N-m

Rear axle nut: 78.4\_ 98.0N-m



Collar

Rear Fork Bolts

## REAR WHEEL

### REMOVAL

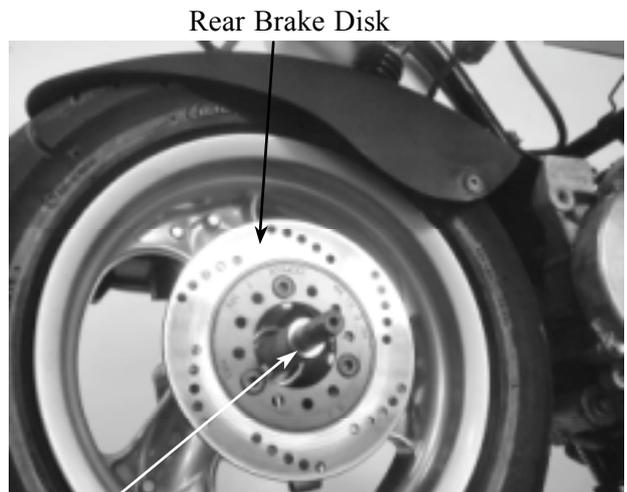
Remove the exhaust muffler. (⇒2-6)

Remove the rear brake caliper. (⇒14-2)

Remove the rear fork.

Remove the rear axle collar.

Remove the rear wheel.



Rear Brake Disk

Rear Axle Collar

### REMOVAL

Remove the exhaust muffler. (⇒2-6)

Remove the rear axle nut to remove the rear wheel.



Rear Axle Nut

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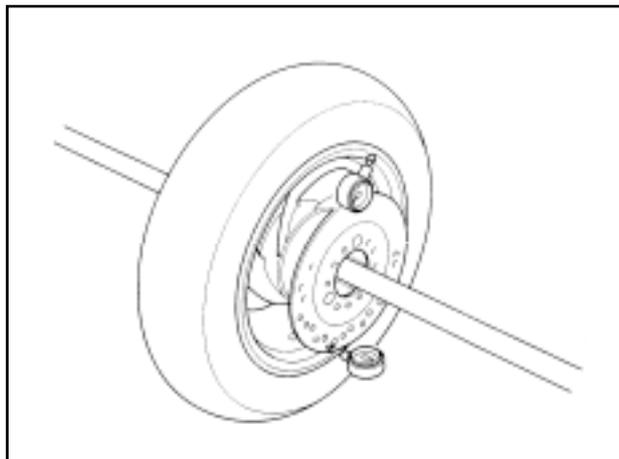
## INSPECTION

Measure the rear wheel rim runout.

### Service Limits:

**Radial:** 2.0mm replace if over

**Axial:** 2.0mm replace if over

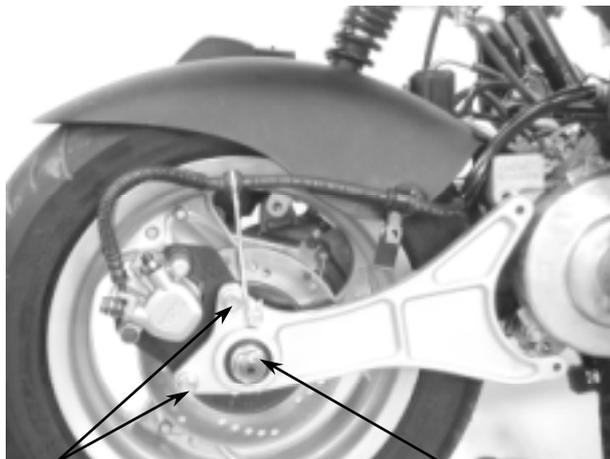


## INSTALLATION

The installation sequence is the reverse of removal.

### Torque:

Rear axle nut: 78.4\_ 98.0N-m



Brake Caliper Bolts

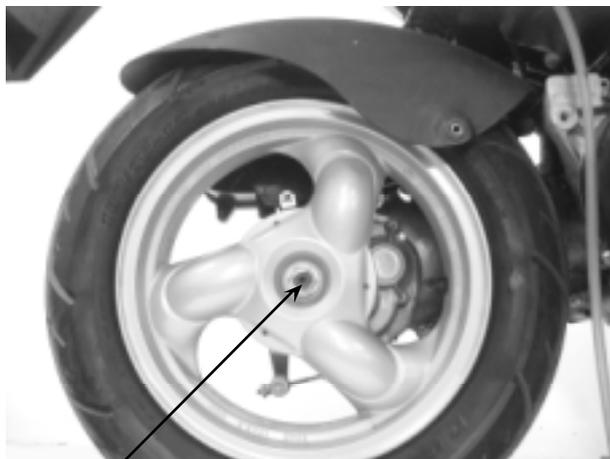
Axle Nut

## INSTALLATION

Install the rear wheel and apply SAE30# engine oil to the axle threads. Then, tighten the rear axle nut.

### Torque values:

Rear axle nut: 107.8\_ 127.4N-m

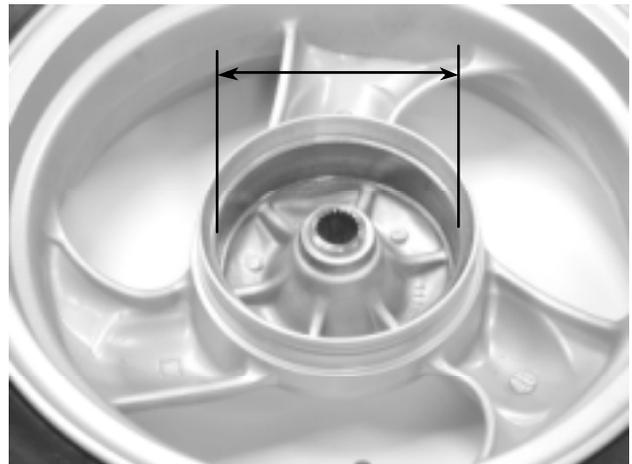


Rear Axle Nut

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## REAR BRAKE DRUM

Remove the rear wheel. (⇒14-3)  
Inspect the rear brake drum.  
Measure the rear brake drum I.D.  
**Service Limit:** 95.5mm replace if over



## BRAKE LINING INSPECTION

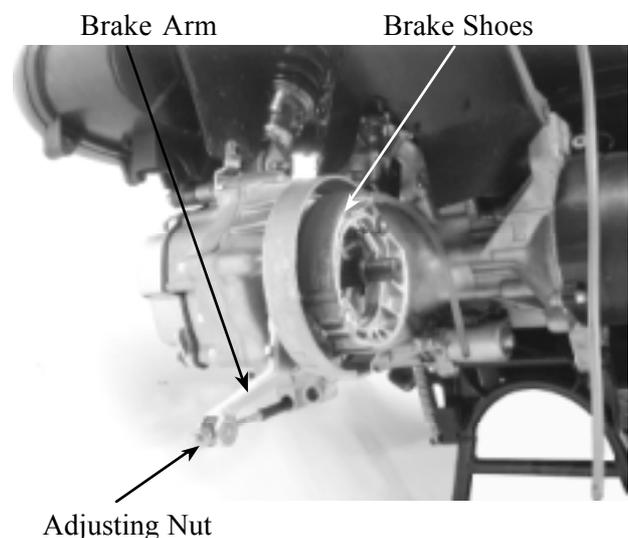
Measure the brake lining thickness.  
**Service Limit:** 2.0mm replace if below

\* Keep oil or grease off the brake linings.



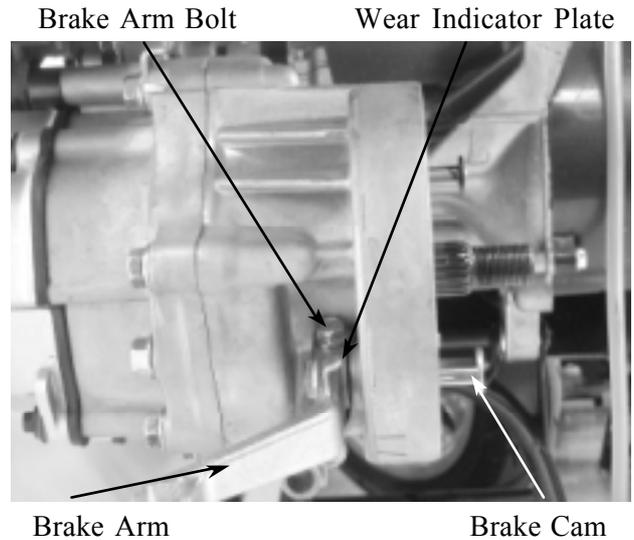
## REAR BRAKE DISASSEMBLY

Remove the rear brake adjusting nut and disconnect the rear brake cable.  
Remove the rear brake shoes.



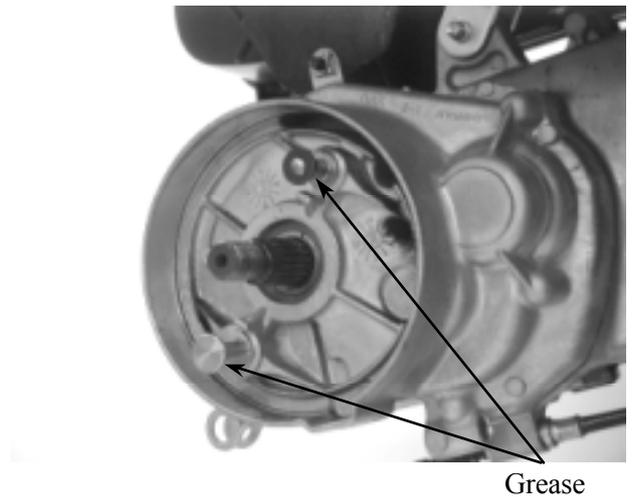
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Remove the brake arm bolt to remove the brake arm, wear indicator plate and felt seal. Remove the brake cam.



## REAR BRAKE ASSEMBLY

Apply grease to the anchor pin and brake shoe moving parts.  
Apply grease to the brake cam and install it.



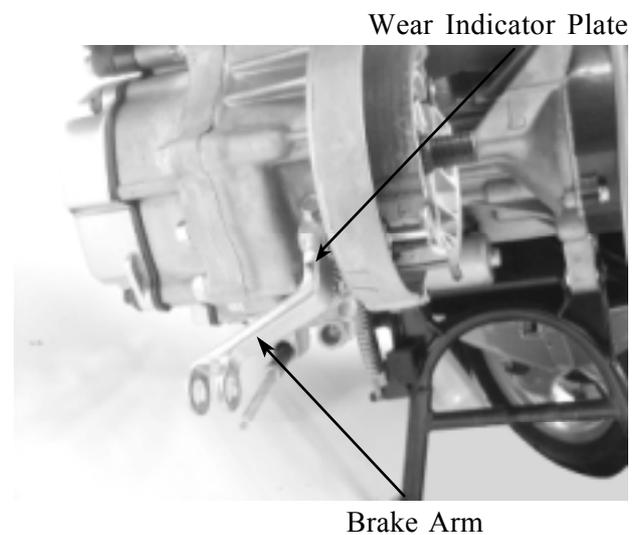
Apply engine oil to the felt seal and install it to the brake cam.  
Install the wear indicator plate.

\* Align the wide tooth of the wear indicator plate with the wide groove on the brake cam.

Install the brake arm onto the brake cam.

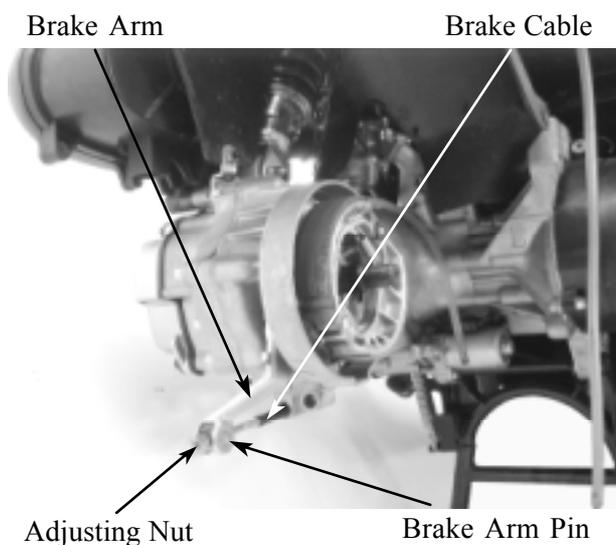
\* Align the punch mark on the brake arm with the scribed line on the brake cam.

Install and tighten the brake arm bolt.  
Install the brake arm return spring.  
Install the brake shoes.



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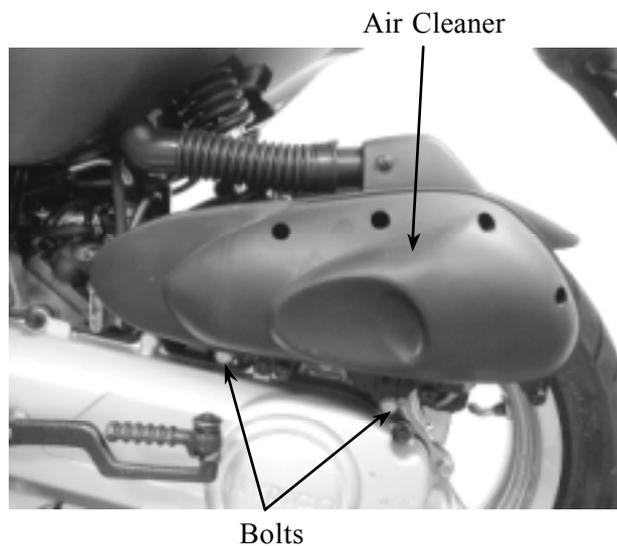
Install the brake arm pin.  
Connect the brake cable and install the adjusting nut.  
Install the rear wheel.  
Adjust the rear brake lever free play. (⇒3-12)



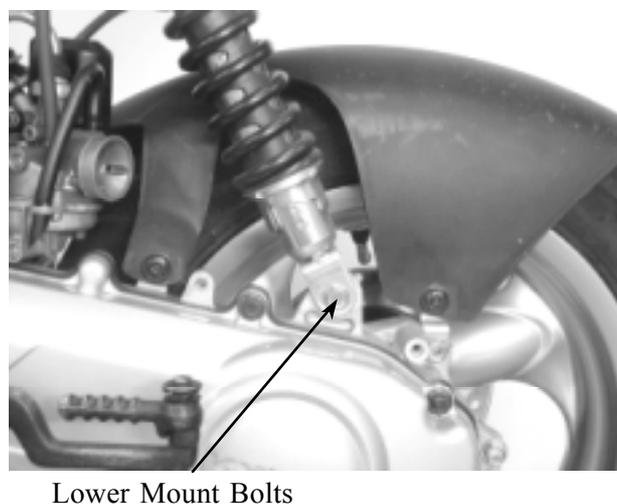
## REAR SHOCK ABSORBER

### REMOVAL

Remove the rear carrier and frame body cover.  
(⇒2-2)  
Remove the met-in box. (⇒2-2)  
Remove the two air cleaner bolts.



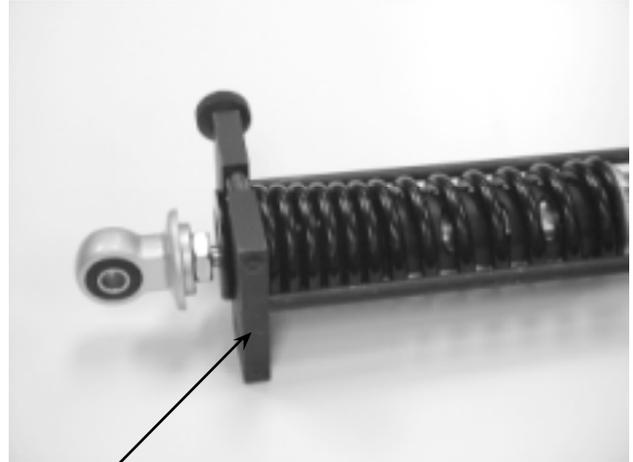
Remove the rear shock absorber upper mount bolt.  
Remove the left rear shock absorber upper and lower mount bolts.  
Remove the left rear shock absorbers.



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## DISASSEMBLY

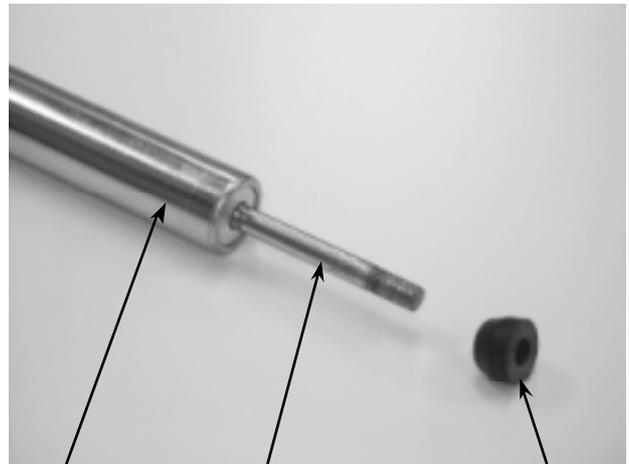
Disassemble the left rear shock absorbers using the rear shock absorber remover.



Rear Shock Absorber Remover

## INSPECTION

Inspect the damper rod for bending or damage.  
Inspect the damper for oil leaks.  
Inspect the damper rubber for deterioration or damage.



Damper

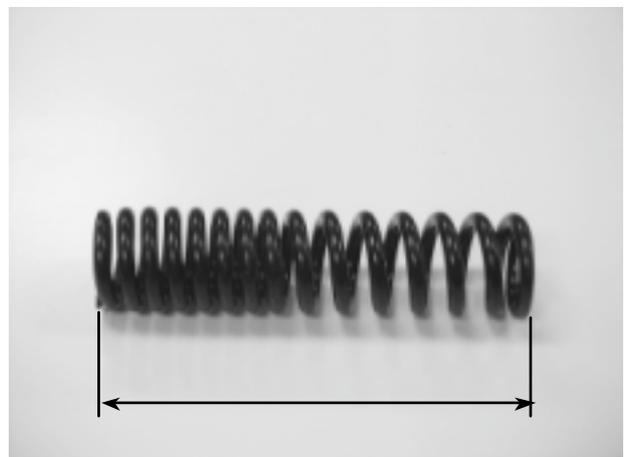
Damper Rod

Rubber

Measure the front shock absorber spring free length.

### Service Limit:

Left : 226mm



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## ASSEMBLY

Assemble the rear shock absorbers in the reverse order of disassembly.



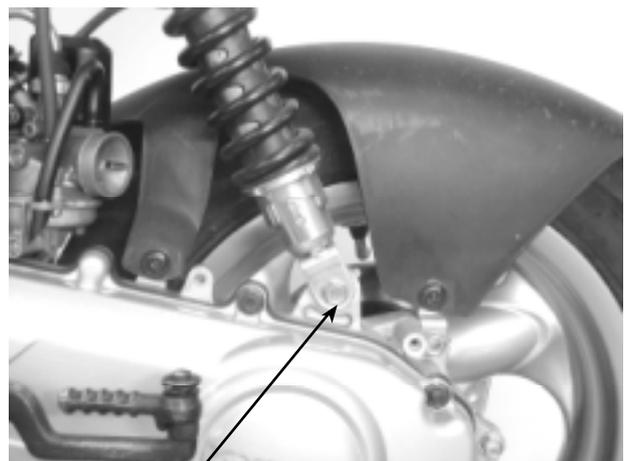
## INSTALLATION

Install the rear shock absorbers in the reverse order of removal.

### Torque:

Upper Mount Bolt: 39.2N-m

Lower Mount Bolt: 19.6\_ 29.4N-m



Lower Mount Bolts