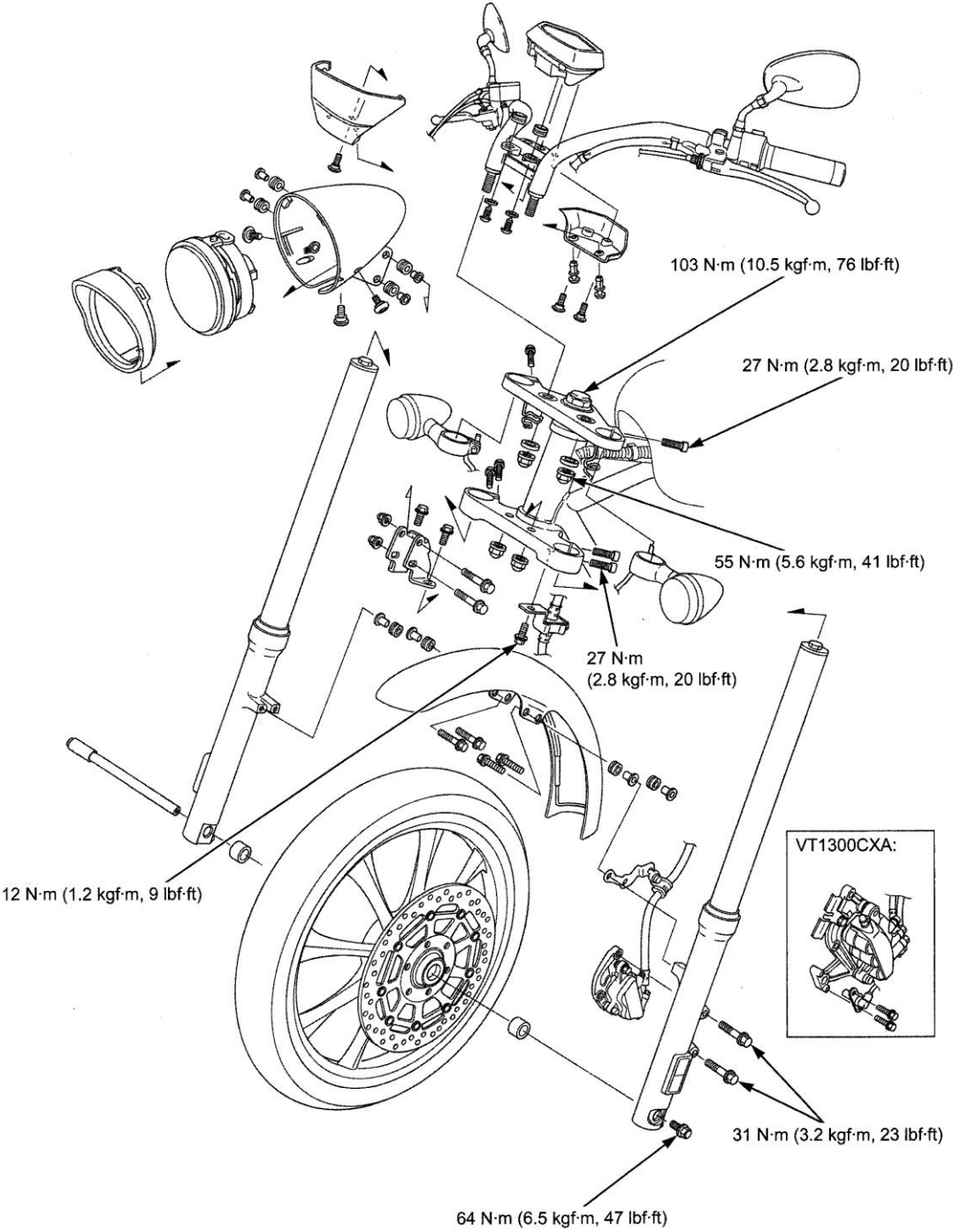


# 15. FRONT WHEEL/SUSPENSION/STEERING

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COMPONENT LOCATION .....	15-2	FRONT WHEEL .....	15-12
SERVICE INFORMATION .....	15-3	LEFT FRONT FORK .....	15-19
TROUBLESHOOTING.....	15-5	RIGHT FRONT FORK .....	15-29
HANDLEBAR .....	15-6	STEERING STEM .....	15-37

**FRONT WHEEL/SUSPENSION/STEERING**  
**COMPONENT LOCATION**



## SERVICE INFORMATION

### GENERAL

- When servicing the front wheel, fork or steering stem, support the motorcycle using a safety stand or hoist.
- A contaminated brake disc or pad reduces stopping power. Discard contaminated pads and clean a contaminated disc with a high quality brake degreasing agent.
- Do not operate the brake lever after removing the caliper and front wheel. To do so will cause difficulty in fitting the brake disc between the brake pads.
- Use only tires marked "TUBELESS" and tubeless valve stems on rim marked "TUBELESS TIRE APPLICATION".
- After the front wheel installation, check the brake operation by applying the brake lever.
- For hydraulic brake information (page 17-4).

### SPECIFICATIONS

Unit: mm (in)

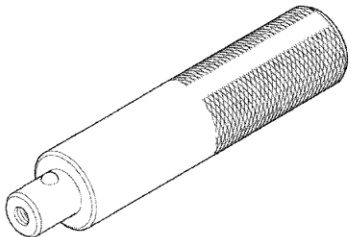
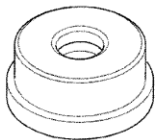
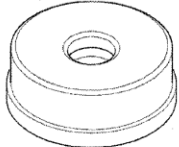

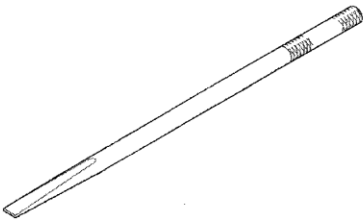
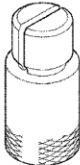
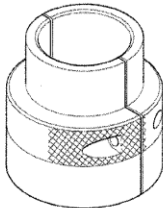

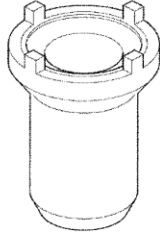
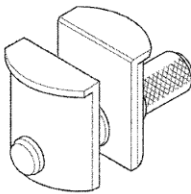
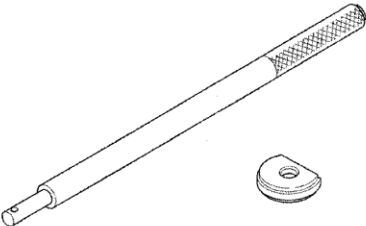
ITEM		STANDARD	SERVICE LIMIT	
Minimum tire tread depth		-	1.5 (0.06)	
Cold tire pressure	Up to 90 kg (200 lbs) load	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)	-	
	Up to maximum weight capacity	225 kPa (2.25 kgf/cm <sup>2</sup> , 33 psi)	-	
Axle runout		-	0.2 (0.01)	
Wheel rim runout	Radial	-	2.0 (0.08)	
	Axial	-	2.0 (0.08)	
Wheel balance weight		-	60 g (2.1 oz) max.	
Fork	Spring free length	471.2 (18.55)	461.8 (18.18)	
	Tube runout	-	0.2 (0.01)	
	Recommended fork fluid		Pro Honda Suspension Fluid SS-47 (10W)	-
	Fluid level	Left side	119 (4.7)	-
		Right side	131 (5.2)	-
	Fluid capacity	Left side	682 ± 2.5 cm <sup>3</sup> (23.1 ± 0.08 US oz, 24.0 ± 0.09 Imp oz)	-
Right side		712 ± 2.5 cm <sup>3</sup> (24.1 ± 0.08 US oz, 25.1 ± 0.09 Imp oz)	-	
Steering head bearing pre-load		8.2 – 12.3 N (0.8 – 1.3 kgf)	-	

### TORQUE VALUES

Clutch lever pivot bolt	1 N·m (0.1 kgf·m, 0.7 lbf·ft)	
Clutch lever pivot nut	6 N·m (0.6 kgf·m, 4.4 lbf·ft)	
Handlebar mounting nut	55 N·m (5.6 kgf·m, 41 lbf·ft)	Lock nut; replace with a new one.
Front master cylinder holder socket bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	
Front brake disc socket bolt	29 N·m (3.0 kgf·m, 21 lbf·ft)	ALOC bolt; replace with a new one.
Front brake hose clamp bolt (VT1300CX)	12 N·m (1.2 kgf·m, 9 lbf·ft)	ALOC bolt; replace with a new one.
Front brake hose guide bolt	12 N·m (1.2 kgf·m, 9 lbf·ft)	ALOC bolt; replace with a new one.
Front axle bolt	64 N·m (6.5 kgf·m, 47 lbf·ft)	
Front axle pinch bolt	22 N·m (2.2 kgf·m, 16 lbf·ft)	
Fork center socket bolt	20 N·m (2.0 kgf·m, 15 lbf·ft)	Apply locking agent to the threads.
Fork cap	22 N·m (2.2 kgf·m, 16 lbf·ft)	
Fork damper rod lock nut (Left side)	20 N·m (2.0 kgf·m, 15 lbf·ft)	
Fork top bridge pinch bolt	27 N·m (2.8 kgf·m, 20 lbf·ft)	
Fork bottom bridge pinch bolt	27 N·m (2.8 kgf·m, 20 lbf·ft)	
Front brake caliper mounting bolt	31 N·m (3.2 kgf·m, 23 lbf·ft)	ALOC bolt; replace with a new one.
Steering top thread	-	Apply engine oil to the threads (page 15-42).
Steering stem nut	103 N·m (10.5 kgf·m, 76 lbf·ft)	
Front pulser ring mounting bolt (VT1300CXA)	7 N·m (0.7 kgf·m, 5.2 lbf·ft)	ALOC bolt; replace with a new one.

**FRONT WHEEL/SUSPENSION/STEERING**

**TOOLS**

<p>Driver 07749-0010000</p> 	<p>Attachment, 42 x 47 mm 07746-0010300</p> 	<p>Attachment, 52 x 55 mm 07746-0010400</p> 
<p>Pilot, 20 mm 07746-0040500</p> 	<p>Bearing remover shaft 07GGD-0010100</p> 	<p>Bearing remover head, 20 mm 07746-0050600</p> 
<p>Fork seal driver, 45 mm 07KMD-KZ30100</p>  <p>or 07KMD-KZ3010A (U.S.A. only)</p>	<p>Attachment, 35 mm I.D. 07746-0030400</p> 	<p>Steering stem socket 07916-3710101</p>  <p>or 07916-3710100</p>
<p>Bearing remover 07946-3710500</p> 	<p>Ball race remover 07953-MJ10000</p>  <p>or 07953-MJ1000B or 07953-MJ1000A (U.S.A. only)</p>	



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## TROUBLESHOOTING

### Hard steering

- Steering top thread too tight
- Worn or damaged steering head bearings
- Bent steering stem
- Insufficient tire pressure
- Faulty tire

### Steers to one side or does not track straight

- Bent fork leg
- Damaged steering top thread
- Loose steering head bearings
- Bent frame
- Worn wheel bearings
- Bent axle
- Worn swingarm pivot components (page 16-17)

### Front wheel wobbles

- Bent rim
- Worn wheel bearings
- Faulty tire
- Unbalanced tire and wheel
- Axle fastener not tightened properly

### Wheel turns hard

- Faulty wheel bearings
- Bent axle
- Brake drag (page 17-6)

### Soft suspension

- Weak fork spring
- Low fork fluid level
- Insufficient fork fluid weight (low viscosity)
- Low tire pressure

### Stiff suspension

- High tire pressure
- Bent fork tube
- Fork slider binds
- High fork fluid level
- Incorrect fork fluid weight (high viscosity)
- Clogged fork fluid passage

### Front suspension noise

- Loose fork fasteners
- Insufficient fork fluid weight (low viscosity)
- Worn slider or fork tube bushing

**HANDLEBAR**

**REMOVAL**

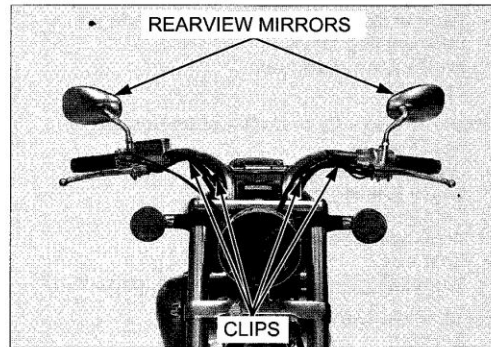
Remove the following:

- Headlight unit (page 22-5)
- Speedometer (page 22-12)

Remove the rearview mirrors.

Remove the wire clips from the handlebar.

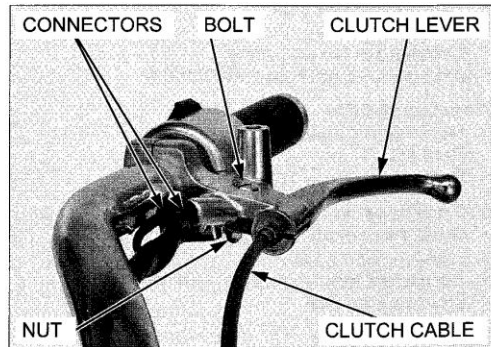
*Pull the clips while holding the lock tab with a small screwdriver to remove them.*



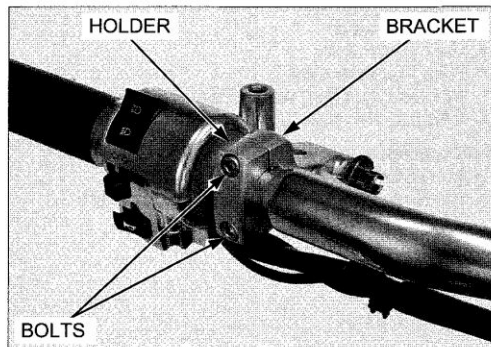
Remove the clutch lever pivot nut and bolt.

Remove the clutch lever from the clutch lever bracket while disconnecting the clutch cable.

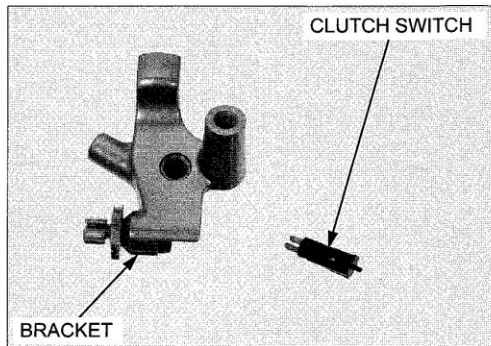
Disconnect the clutch switch connectors from the clutch switch.



Remove the socket bolts, holder and clutch lever bracket.

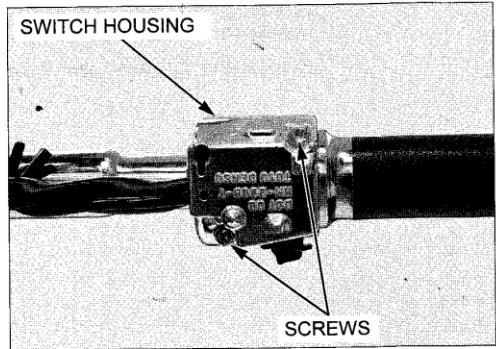


Remove the clutch switch from the clutch lever bracket.

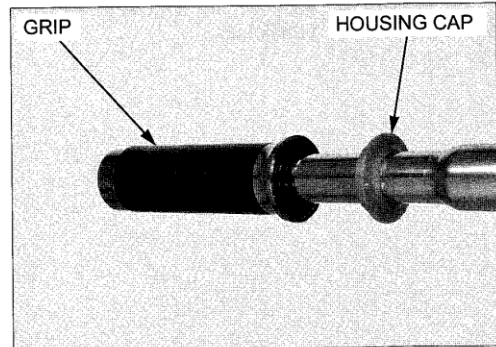


## FRONT WHEEL/SUSPENSION/STEERING

Remove the screws and left handlebar switch housing.



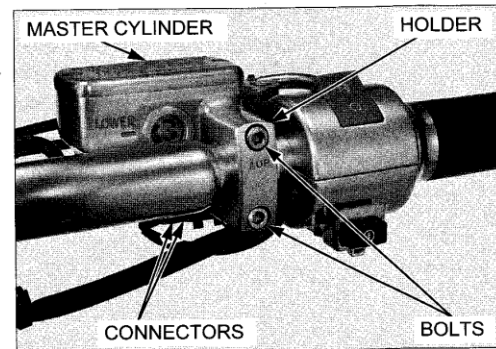
Remove the left handlebar grip and housing cap.



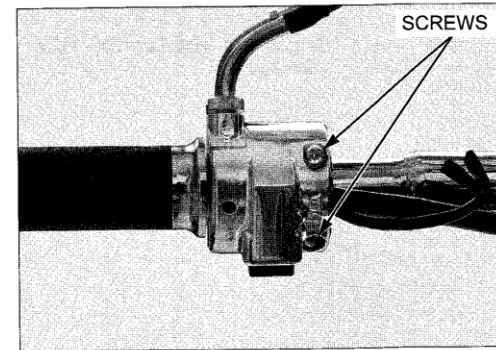
Disconnect the front brake light switch wire connectors from the switch.

*Keep the reservoir upright to prevent air from entering the hydraulic system.*

Remove the socket bolts, holder and master cylinder assembly.

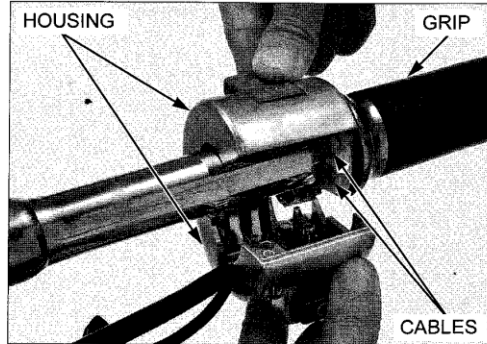


Remove the screws.

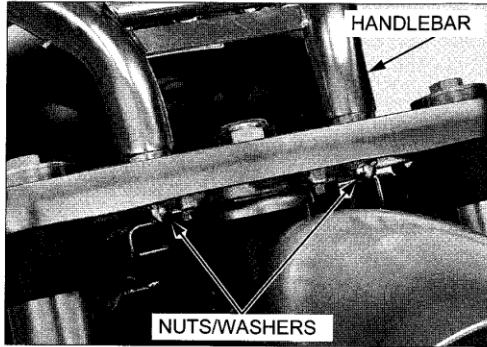


## FRONT WHEEL/SUSPENSION/STEERING

Disconnect the throttle cables from the throttle pipe and remove the throttle grip/pipe from the handlebar.  
Remove the right handlebar switch/throttle housing.



*Do not reuse the handlebar mounting nuts.* Remove the handlebar mounting nuts, washers and handlebar.

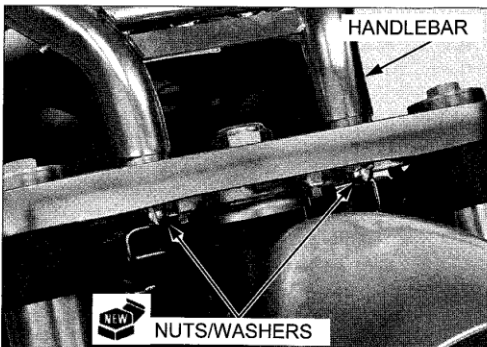


### INSTALLATION

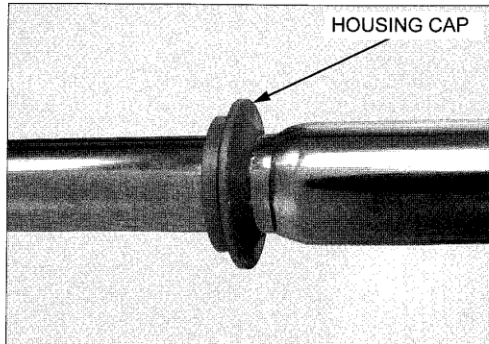
Install the handlebar onto the top bridge with new handlebar mounting nuts and washers.

Tighten the handlebar mounting nuts to the specified torque.

**TORQUE: 55 N·m (5.6 kgf·m, 41 lbf·ft)**



Install the housing cap onto the left side of the handlebar.



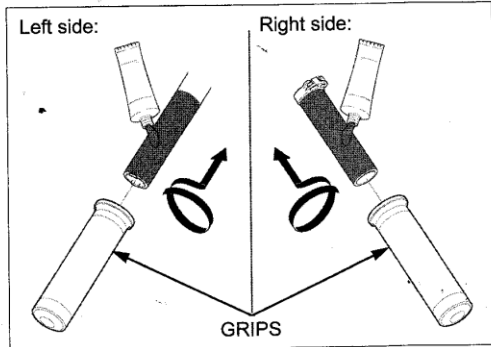
## FRONT WHEEL/SUSPENSION/STEERING

Clean the inside surface of both handlebar grip and the outside surface of the handlebar and throttle pipe.

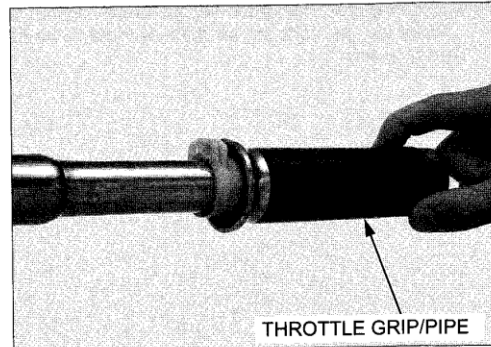
Apply Honda Bond A, Pro Honda handgrip cement or equivalent to the inside surface of the handlebar grip and to the outside surface of the handlebar and throttle pipe. Wait 3 – 5 minutes and install the grip.

*Allow the adhesive to dry for one hour before using.*

Rotate the grip for even application of the adhesive.



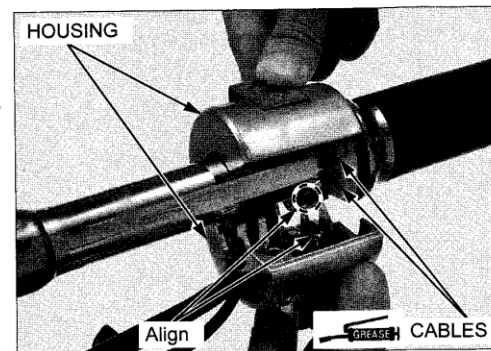
Install the throttle grip/pipe to the handlebar.



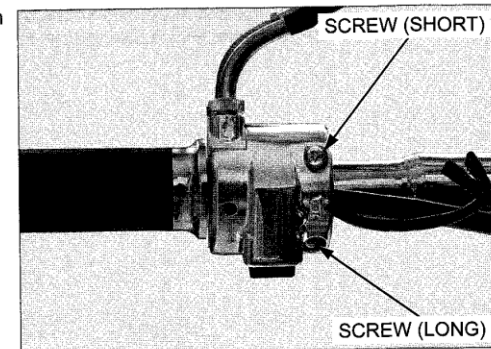
Apply 0.2 – 0.3 g (0.007 – 0.011 oz) of grease to the throttle pipe flange groove and throttle cable end.

Connect the throttle cables to the throttle pipe flange.

Install the right handlebar switch/throttle housing by aligning the locating pin with the hole in the handlebar.



Install and tighten the front (short) screw first, then tighten the rear (long) screw.



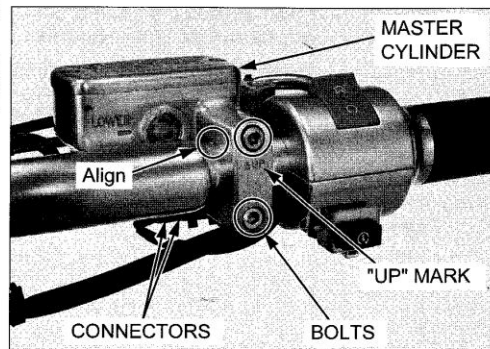
## FRONT WHEEL/SUSPENSION/STEERING

*Install the holder with its "UP" mark facing up.*

Install the master cylinder with the holder and socket bolts. Align the edge of the master cylinder with the punch mark on the handlebar and tighten the upper socket bolt first, then tighten the lower socket bolt to the specified torque.

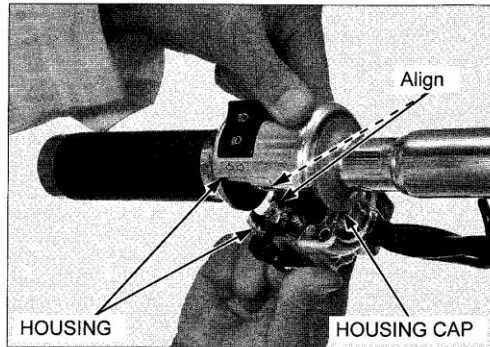
**TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)**

Connect the brake light switch connectors.

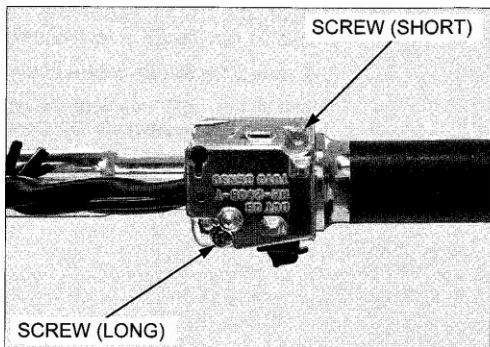


*Set the housing cap flange into the housing groove.*

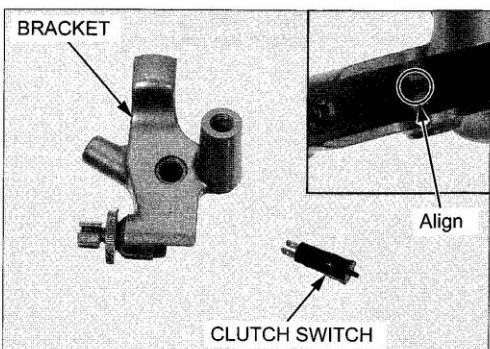
Install the left handlebar switch housing by aligning the locating pin with the hole in the handlebar.



Install and tighten the front (short) screw first, then tighten the rear (long) screw.

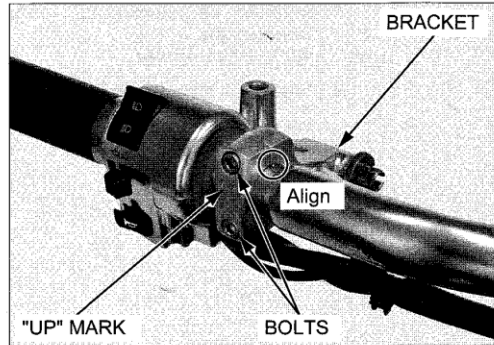


Install the clutch switch into the bracket, aligning the tab of the clutch switch and groove of the bracket.



*Install the holder with its "UP" mark facing up.*

Install the clutch lever bracket with the holder and socket bolts.  
Align the edge of the bracket with the punch mark on the handlebar and tighten the upper socket bolt first, then tighten the lower socket bolt.



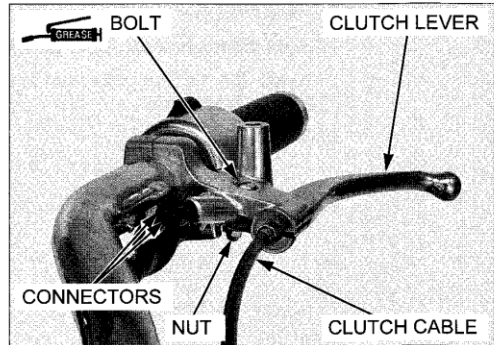
Connect the clutch switch connectors.  
Connect the clutch cable to the clutch lever.  
Install the clutch lever to the bracket.

Apply grease to the clutch lever pivot bolt sliding surface.  
Install and tighten the clutch lever pivot bolt to the specified torque.

**TORQUE: 1 N·m (0.1 kgf·m, 0.7 lbf·ft)**

Install and tighten the clutch lever pivot nut to the specified torque while holding the pivot bolt.

**TORQUE: 6 N·m (0.6 kgf·m, 4.4 lbf·ft)**



Install the wire clips to the studs on the handlebar (page 1-22).

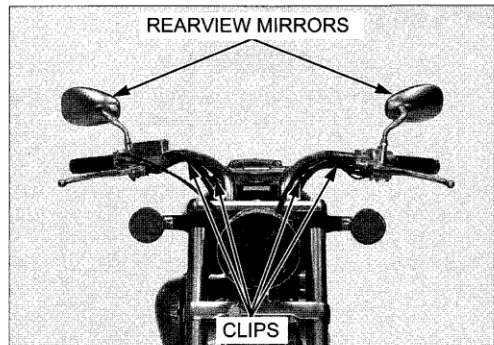
Secure the switch wires with the wire clips.

Install the rearview mirrors.

Install the following:

- Speedometer (page 22-12)
- Headlight unit (page 22-5)

Adjust the clutch lever freeplay (page 4-24).



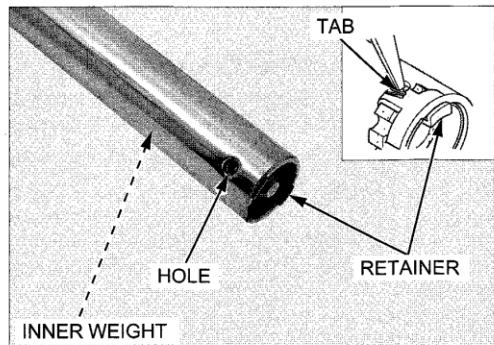
**INNER WEIGHTS REPLACEMENT**

Remove the throttle grip/pipe and left handlebar grip (page 15-6).

Straighten the weight retainer tab by the screwdriver or punch.

Remove the inner weight assembly.

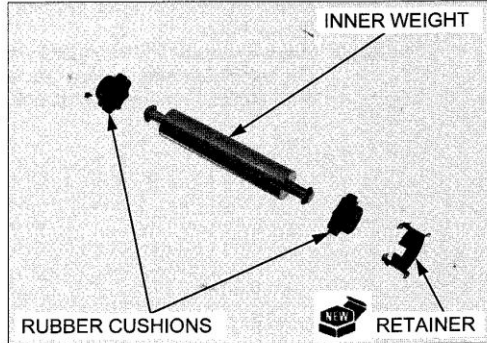
*Apply lubricant spray through the tab retainer hole to the rubber for easy removal.*



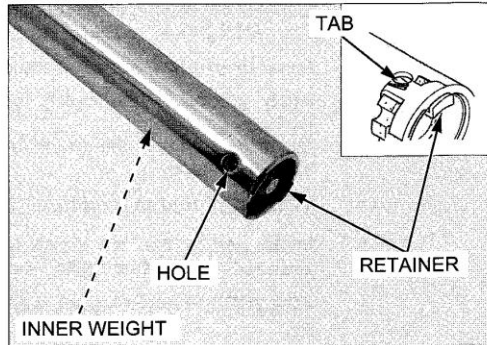


## FRONT WHEEL/SUSPENSION/STEERING

Remove the retainer and rubber cushions from the inner weight.  
Discard the retainer.  
Check the rubber cushion for wear or damage.  
Install the rubber cushions and new retainer to the inner weight.



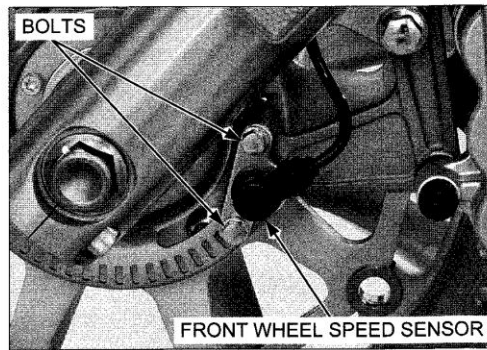
Insert the inner weight assembly into the handlebar.  
Hook the retainer tab with the hole in the handlebar.  
Install the throttle grip/pipe and left handlebar grip (page 15-8).



## FRONT WHEEL

### REMOVAL

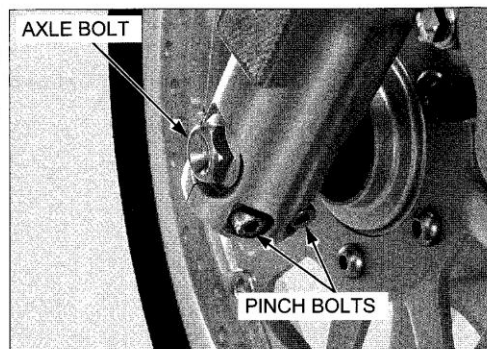
VT1300CXA: Remove the bolts and front wheel speed sensor from the caliper bracket.



Loosen the axle bolt.

Support the motorcycle using a safety stand or hoist and raise the front wheel off the ground.

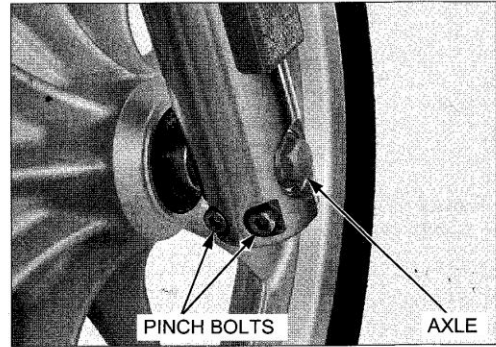
Remove the axle bolt and loosen the left axle pinch bolts.



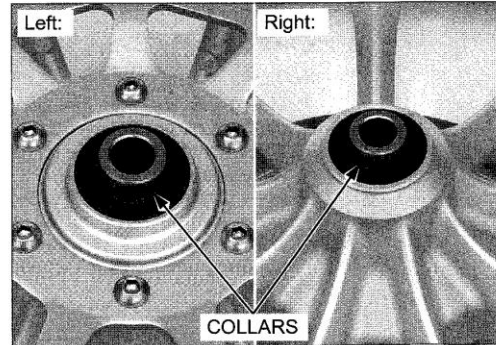


Loosen the right axle pinch bolts.  
Remove the axle and front wheel.

*Do not operate the brake lever after removing the wheel. To do so will cause difficulty in fitting the brake disc between the brake pads.*



Remove the side collars.



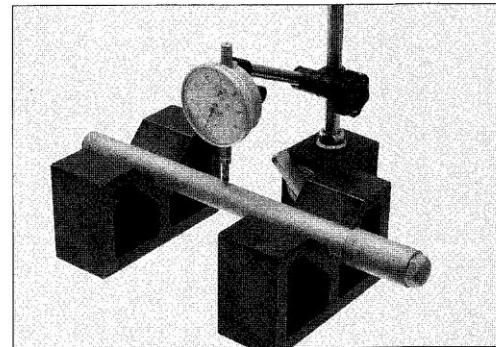
**INSPECTION**

**AXLE**

Set the front axle on V-blocks.  
Turn the axle and measure the runout using a dial indicator.

Actual runout is 1/2 the total indicator reading.

**SERVICE LIMIT: 0.2 mm (0.01 in)**



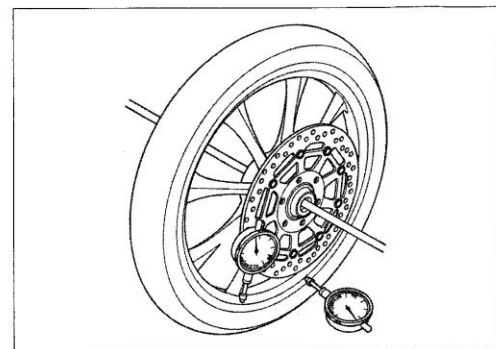
**WHEEL RIM**

Check the rim runout by placing the wheel in a truing stand.

Spin the wheel slowly and read the runout using a dial indicator.

Actual runout is 1/2 the total indicator reading.

**SERVICE LIMITS: Radial: 2.0 mm (0.08 in)  
Axial: 2.0 mm (0.08 in)**



## FRONT WHEEL/SUSPENSION/STEERING

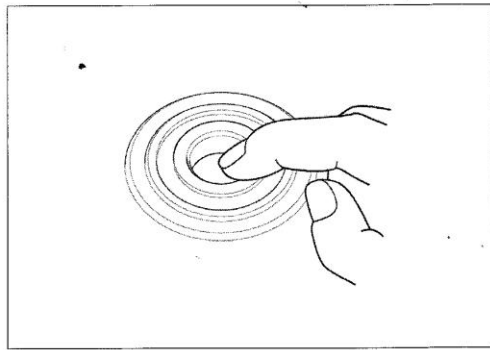
### WHEEL BEARING

Turn the inner race of each bearing with your finger. The bearings should turn smoothly and quietly. Also check that the outer race fits tightly in the hub.

Remove and discard the bearings if the races do not turn smoothly and quietly, or if the outer race fits loosely in the hub.

*Replace the wheel bearings in pairs.*

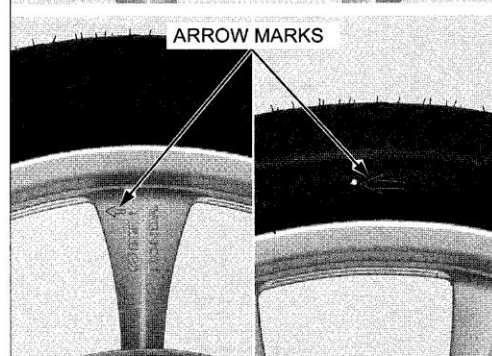
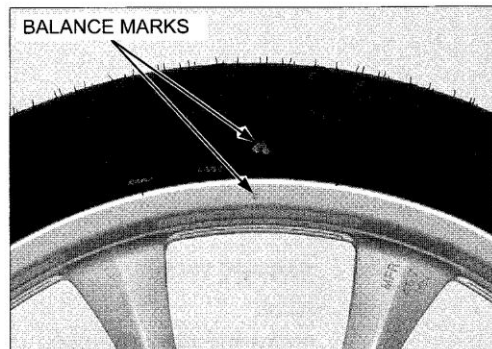
Replace the wheel bearings, if necessary (page 15-15).



### WHEEL BALANCE

#### NOTE:

- Mount the tire with the arrow mark facing in the direction of rotation.
- The wheel balance must be checked when the tire is remounted.
- For optimum balance, the tire balance mark (light mass point: a paint dot on the side wall) must be located next to the wheel balance mark (heavy mass point: a paint dot on the wheel rim). Remount the tire if necessary.



Remove the dust seals.

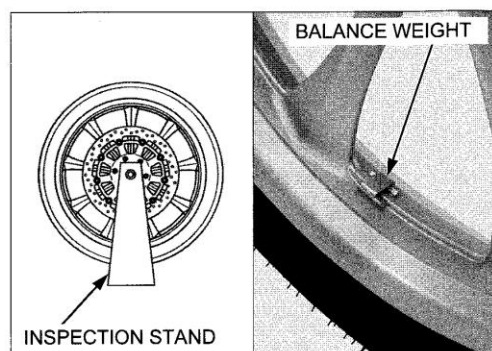
Mount the wheel, tire and brake disc assembly on an inspection stand.

Spin the wheel, allow it to stop, and mark the lowest (heaviest) part of the wheel with chalk.

Do this two or three times to verify the heaviest area. If the wheel is balanced, it will not stop consistently in the same position.

To balance the wheel, install a balance weight on the highest side of the rim, the side opposite the chalk marks. Add just enough weight so the wheel will no longer stop in the same position when it is spun.

Do not add more than 60 g (2.1 oz) to the front wheel.

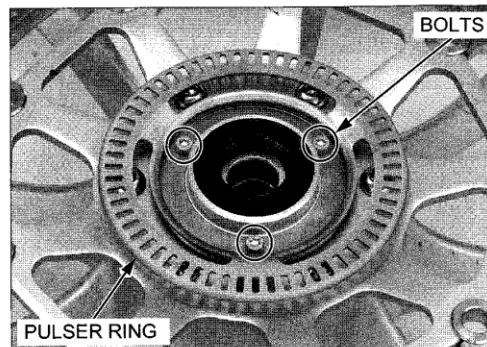


**DISASSEMBLY**

VT1300CXA: Remove the torx bolts and pulser ring.

**NOTE:**

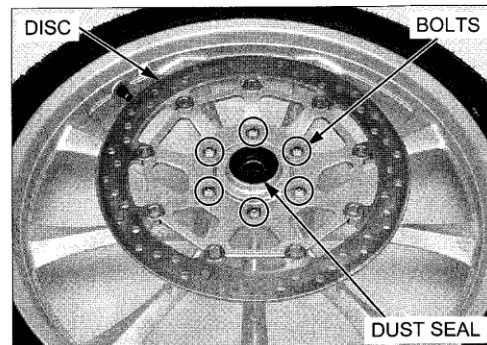
- Do not reuse the torx bolts.



Remove the dust seals from both sides of the hub.

*Do not reuse the bolts.*

Remove the front brake disc socket bolts and brake disc.



*Replace the wheel bearings in pairs. Do not reuse old bearing.*

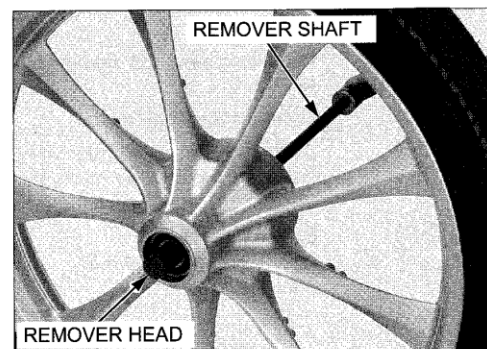
Install the remover head into the bearing.

From the opposite side of the wheel, install the remover shaft and drive the bearing out of the wheel hub.

Remove the distance collar and drive out the other bearing.

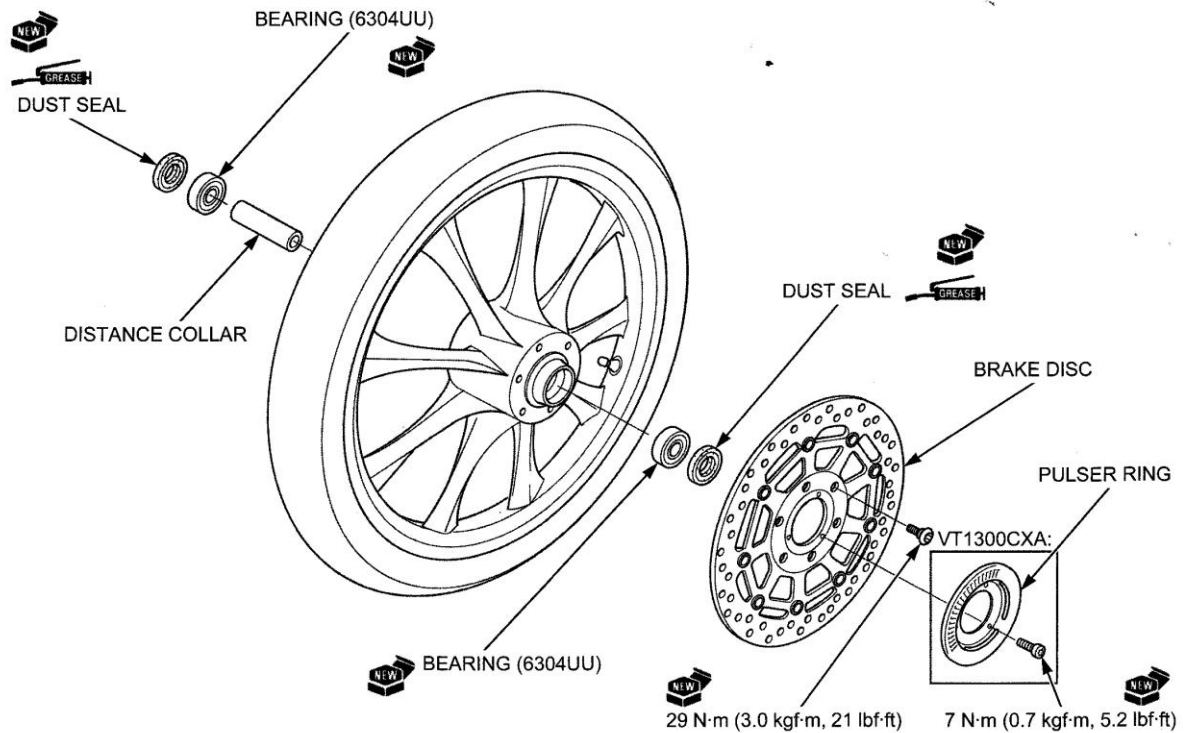
**TOOLS:**

- Bearing remover shaft 07GGD-0010100
- Bearing remover head, 20 mm 07746-0050600



# FRONT WHEEL/SUSPENSION/STEERING

## ASSEMBLY



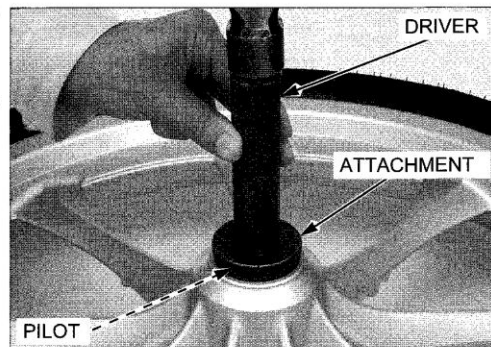
Drive in a new left bearing squarely until it is fully seated.

Install the distance collar.

Drive in a new right bearing squarely until it is fully seated on the distance collar using the special tools.

**TOOLS:**

<b>Driver</b>	<b>07749-0010000</b>
<b>Attachment, 52 x 55 mm</b>	<b>07746-0010400</b>
<b>Pilot, 20 mm</b>	<b>07746-0040500</b>



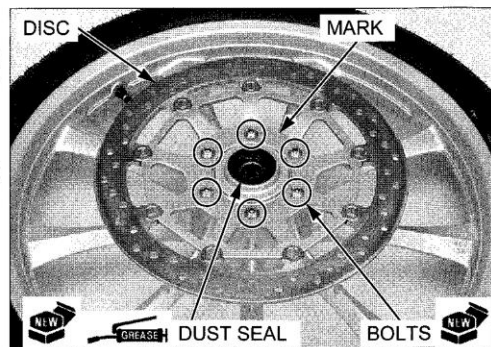
*Do not get grease on the brake disc or stopping power will be reduced.*

Install the brake disc with the marked side facing out.

Install and tighten new front brake disc socket bolts to the specified torque in a crisscross pattern in several steps.

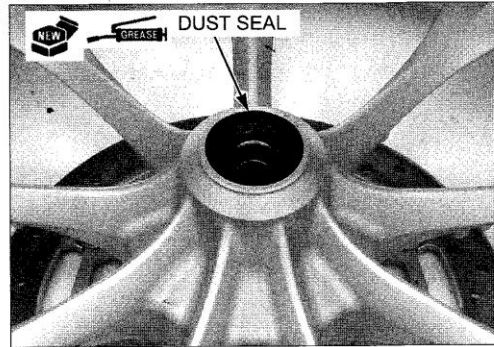
**TORQUE: 29 N·m (3.0 kgf·m, 21 lbf·ft)**

Apply grease to a new dust seal lips and install it until it is flush with the left wheel hub.



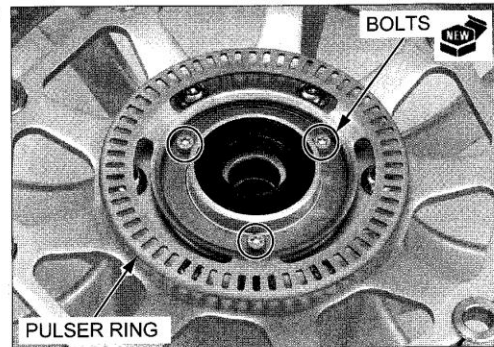
## FRONT WHEEL/SUSPENSION/STEERING

Apply grease to a new dust seal lips and install it until it is flush with the right wheel hub.



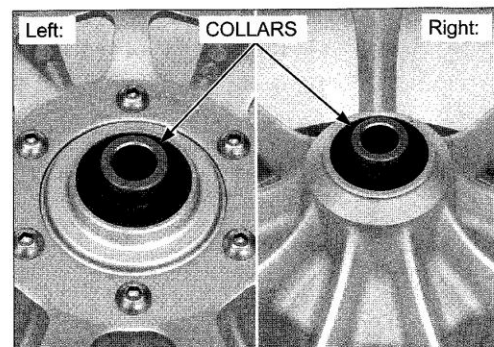
VT1300CXA: Install the pulser ring and new torx bolts and tighten them to the specified torque.

**TORQUE: 7 N·m (0.7 kgf·m, 5.2 lbf·ft)**



### INSTALLATION

Install the side collars.



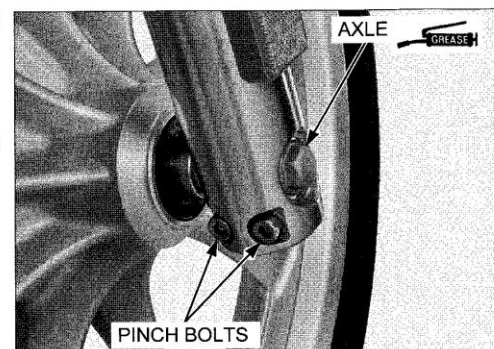
*Be careful not to damage the pads.* Install the front wheel between the fork legs so the brake disc is positioned between the brake pads.

Apply thin coat of grease to the axle sliding surface.

Install the axle from the right side until it is fully seated.

Tighten the right front axle pinch bolts to the specified torque.

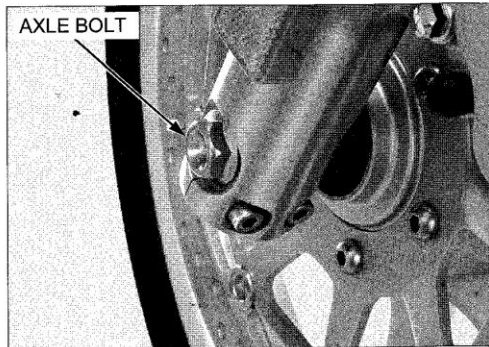
**TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)**



## FRONT WHEEL/SUSPENSION/STEERING

Install and tighten the front axle bolt to the specified torque while holding the axle.

**TORQUE: 64 N·m (6.5 kgf·m, 47 lbf·ft)**

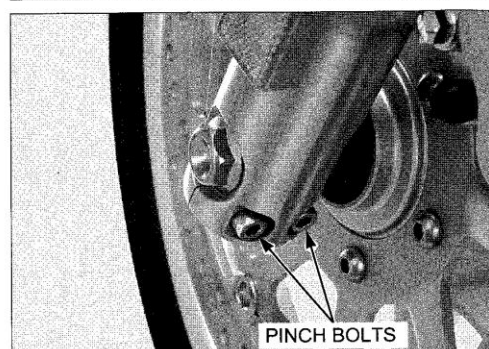


With the front brake applied, pump the forks up and down several times to seat the axle and check brake operation.



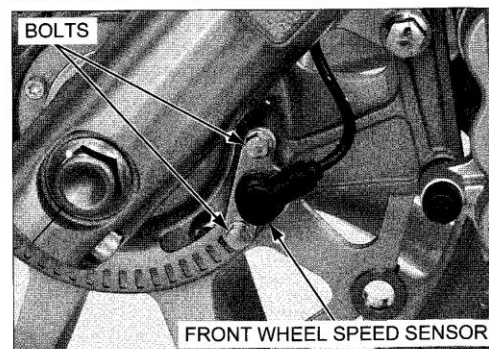
Tighten the left front axle pinch bolts to the specified torque.

**TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)**



**VT1300CXA:** Install the front wheel speed sensor and tighten the bolts securely.

Check the air gap between the front wheel speed sensor and pulser ring (page 18-26).





## LEFT FRONT FORK

### REMOVAL

Remove the following:

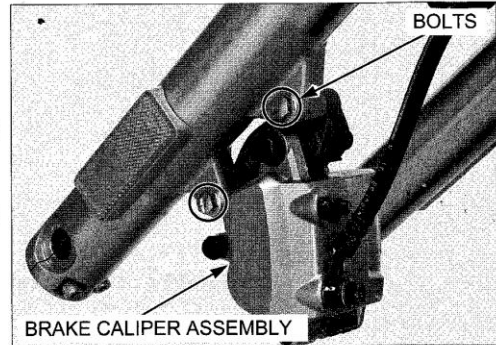
- Front wheel (page 15-12)
- Front fender (page 3-7)
- Front left turn signal light (page 22-8)

*Do not reuse the caliper mounting bolt.*

Remove the brake caliper mounting bolts and brake caliper assembly.

#### NOTE:

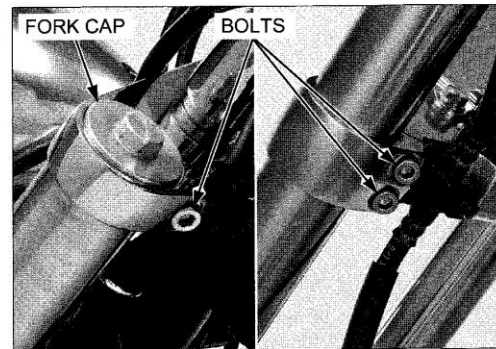
- Support the brake caliper so it does not hang from the brake hose. Do not twist the brake hose.



Loosen the top and bottom bridge pinch bolts. Pull the fork leg down and remove the fork tube from the fork bridges.

#### NOTE:

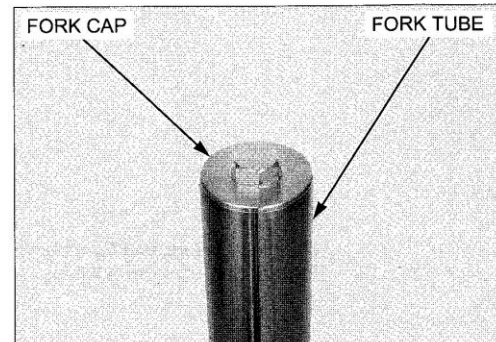
- When the fork is ready to be disassembled, loosen the fork cap, but do not remove it.



### DISASSEMBLY

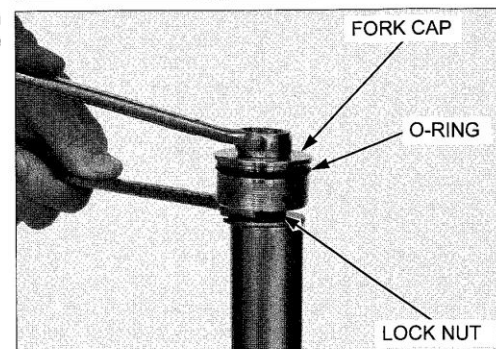
*The fork cap is under spring pressure; use care when loosening it.*

Remove the fork cap and slide the fork tube down.



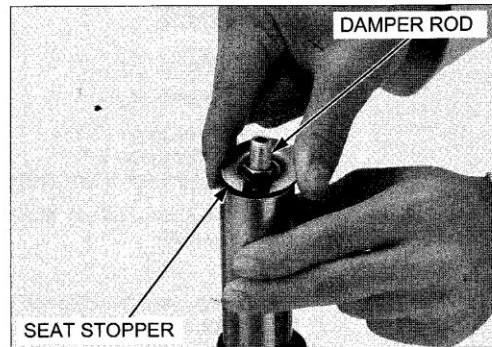
Hold the fork damper rod lock nut with a 14 mm open end wrench, then loosen the lock nut and remove the fork cap.

Remove the O-ring.

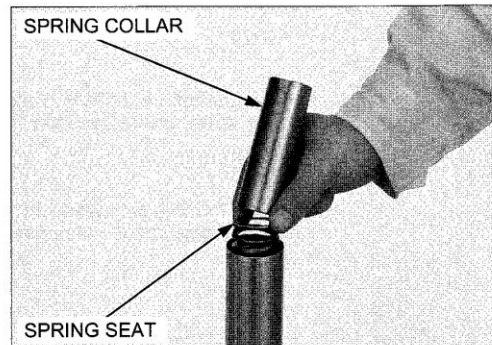


## FRONT WHEEL/SUSPENSION/STEERING

Remove the spring seat stopper from the damper rod.

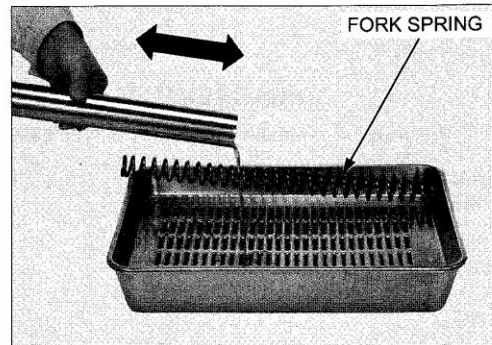


Remove the spring collar and spring seat.

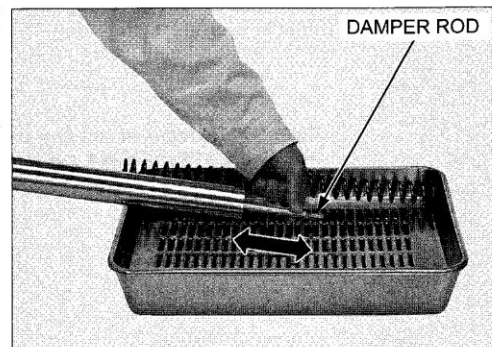


Remove the fork spring

Pour out the fork fluid by pumping the fork tube several times.



Pour out the fork fluid from the fork damper by pumping the damper rod several times.





## FRONT WHEEL/SUSPENSION/STEERING

*Do not over-tighten the vise on the fork slider.*

Hold the fork slider in a vise with a piece of wood or soft jaws to avoid damage.

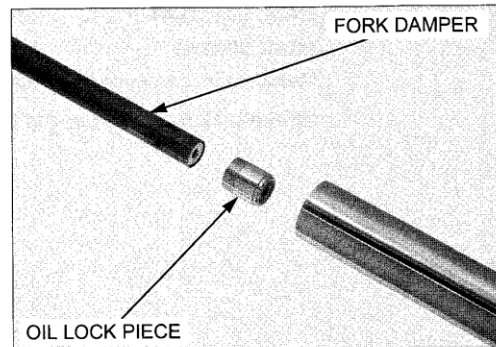
Remove the fork center socket bolt and sealing washer.

**NOTE:**

- If the fork piston turns with the center bolt, temporarily install the fork spring, spring seat, spring collar and fork cap.

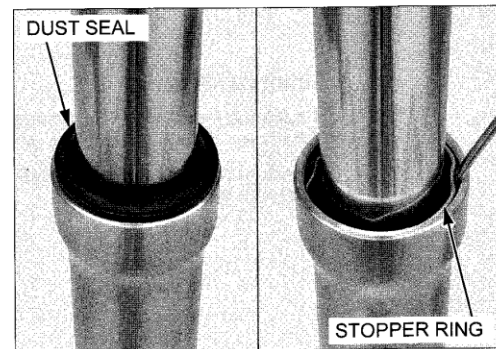


Remove the fork damper and oil lock piece from the fork tube.

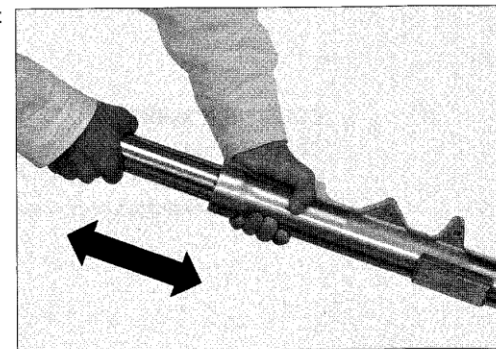


*Be careful not to scratch the fork tube sliding surface.*

Remove the dust seal and oil seal stopper ring.



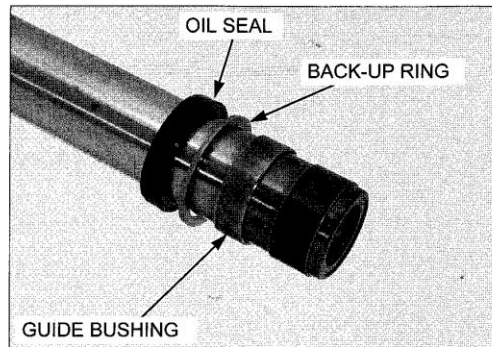
Using quick successive motions, pull the fork tube out of the fork slider.



## FRONT WHEEL/SUSPENSION/STEERING

Remove the following:

- Oil seal
- Back-up ring
- Guide bushing

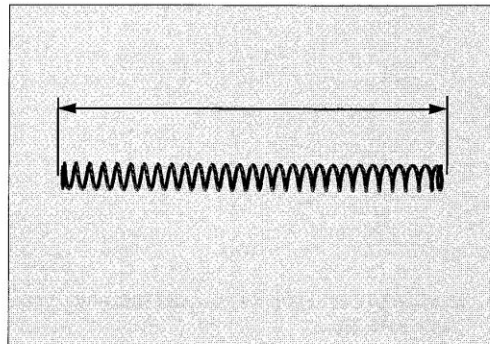


### INSPECTION

#### FORK SPRING

Measure the fork spring free length.

**SERVICE LIMIT: 461.8 mm (18.18 in)**

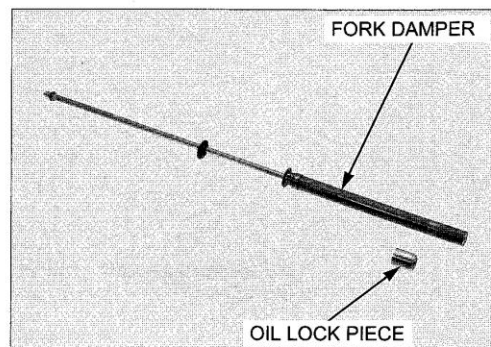


#### FORK DAMPER

Check the fork damper for damage.

Check the oil lock piece for wear or damage.

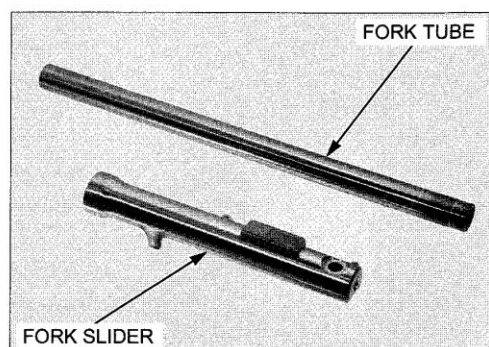
Check the oil lock piece for score marks, and excessive or abnormal wear.



#### FORK TUBE/SLIDER

Check the fork tube and fork slider for score marks, scratches, excessive or abnormal wear.

Replace any damaged component if necessary.

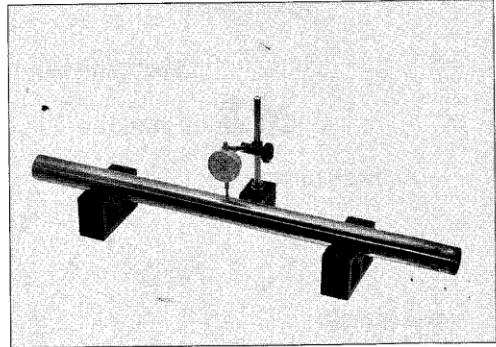


Set the fork tube on V-blocks.

Turn the fork tube and measure the runout using a dial indicator.

Actual runout is 1/2 the total indicator reading.

**SERVICE LIMIT: 0.2 mm (0.01 in)**

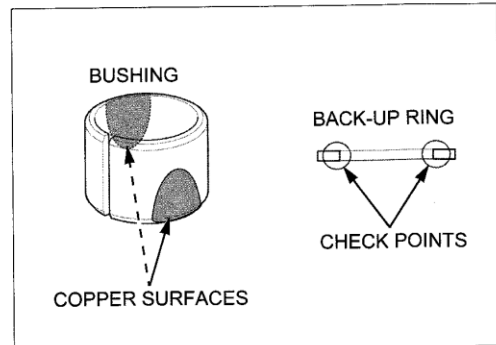


### BUSHING

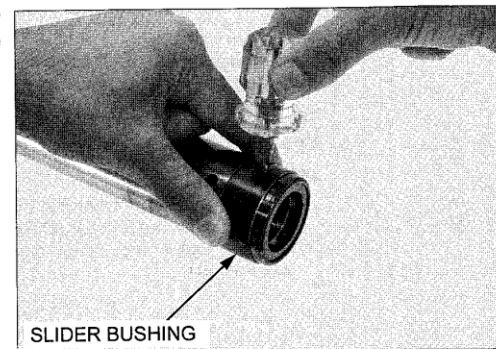
Visually inspect the slider and guide bushings.

Replace the bushings if there is excessive scoring or scratching, or if the teflon is worn so that the copper surface appears on more than 3/4 of the entire surface.

Check the back-up ring; replace it if there is any distortion at the points shown.

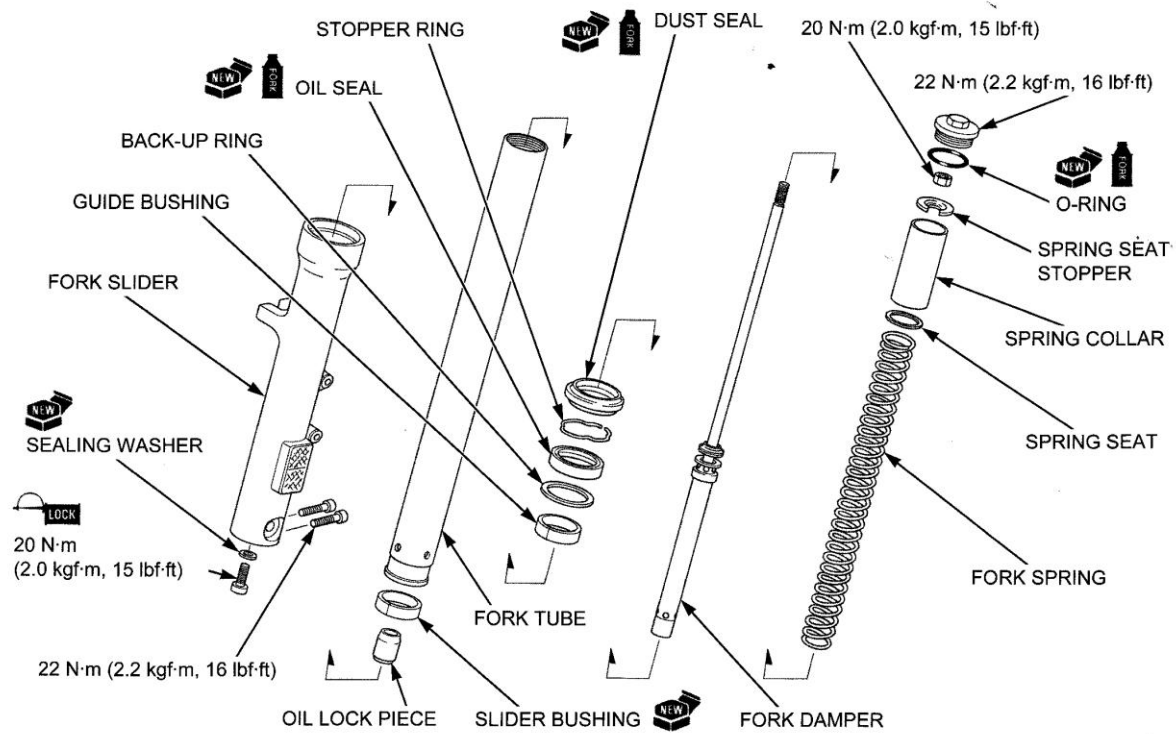


*Do not damage the fork slider bushing contact area of the fork tube.* When replacing the fork slider bushing, remove it by prying the slit with a flat blade screwdriver until the bushing can be pulled off by hand.



# FRONT WHEEL/SUSPENSION/STEERING

## ASSEMBLY

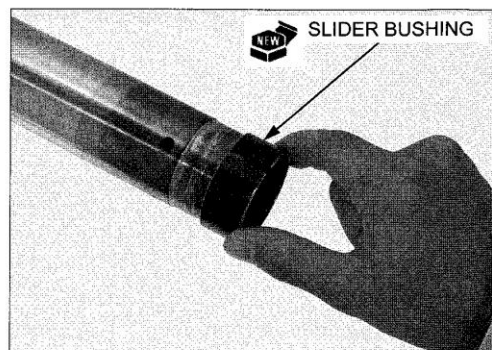


Before assembly, wash all parts with a high flash or non-flammable solvent and blow them dry.

When removing the fork slider bushing, install a new slider bushing.

**NOTE:**

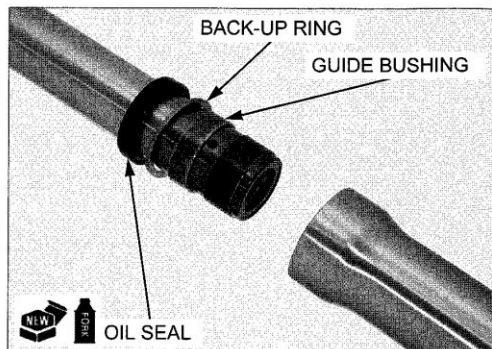
- Remove the burrs from the bushing mating surface, being careful not to peel off the coating.
- Do not open the slider bushing slit more than necessary.



Install the guide bushing, back-up ring to the fork tube.

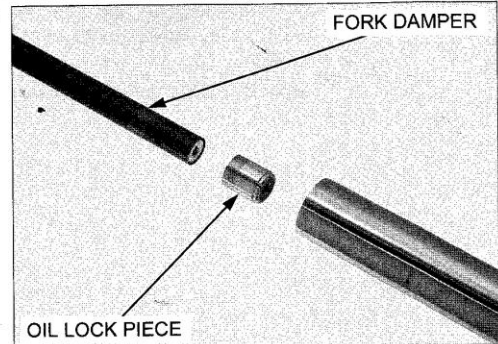
*Install the oil seal with its marked side facing up.*

Apply fork fluid to a new oil seal lips and install it.



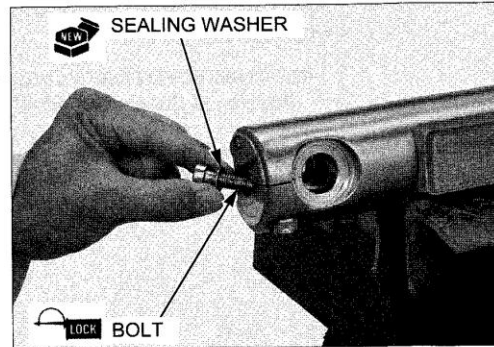
## FRONT WHEEL/SUSPENSION/STEERING

Install the oil lock piece and fork damper assembly into the fork tube.



*Do not over-tighten the vise on the fork slider.* Hold the fork slider in a vise with a piece of wood or soft jaws to avoid damage.

Apply locking agent to the fork center socket bolt threads. Install the socket bolt with a new sealing washer.

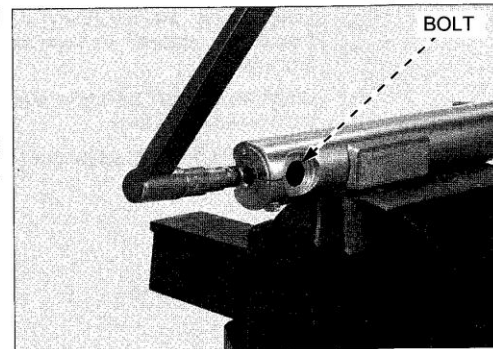


Tighten the fork center socket bolt to the specified torque.

**TORQUE: 20 N·m (2.0 kgf·m, 15 lbf·ft)**

**NOTE:**

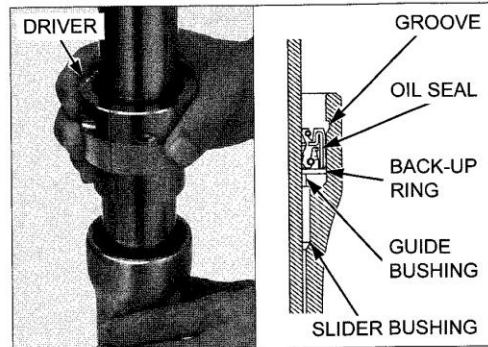
- If the fork piston turns with the fork center socket bolt, temporarily install the fork spring, spring seat, spring collar and fork cap



Drive in the oil seal until the stopper ring groove is visible using the special tool.

**TOOL:**  
Fork seal driver, 45 mm

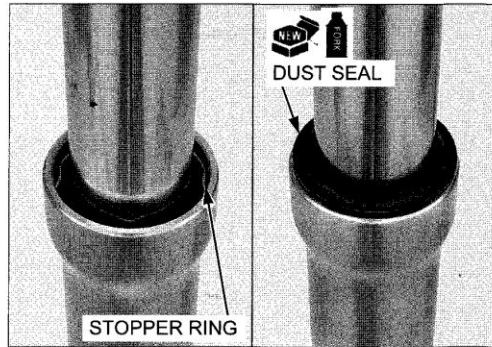
**07KMD-KZ30100 or  
07KMD-KZ3010A  
(U.S.A. only)**



## FRONT WHEEL/SUSPENSION/STEERING

Install the stopper ring into the groove into the fork slider, being careful not to scratch the fork tube sliding surface.

Apply fork fluid to a new dust seal lips and install it.



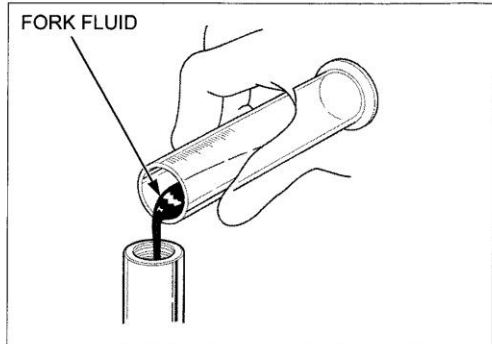
Pour the specified amount of the recommended fork fluid into the fork tube.

**RECOMMENDED FORK FLUID:**

**Pro Honda Suspension Fluid SS-47 (10W)**

**FORK FLUID CAPACITY:**

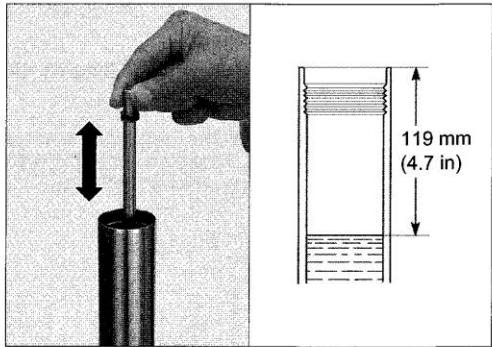
**682 ± 2.5 cm<sup>3</sup> (23.1 ± 0.08 US oz, 24.0 ± 0.09 Imp oz)**



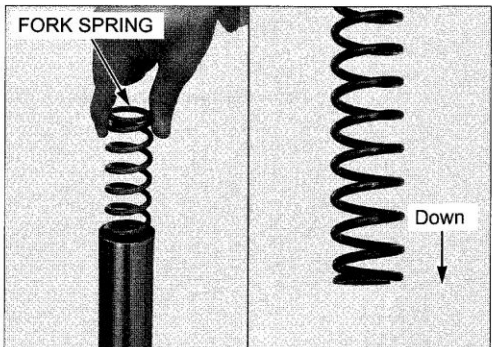
Slowly pump the fork damper rod several times to remove any trapped air from the lower portion of the fork tube.

Compress the fork tube fully. Measure the oil level from the top of the fork tube.

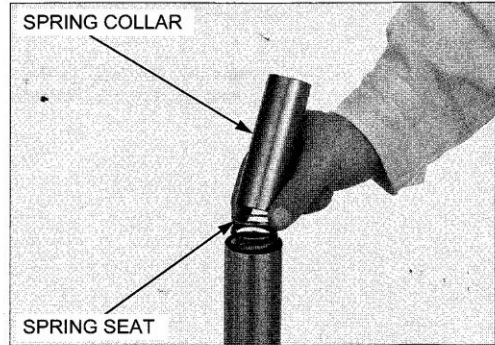
**FORK FLUID LEVEL: 119 mm (4.7 in)**



Pull the fork tube up and install the fork spring with the tapered end facing down.

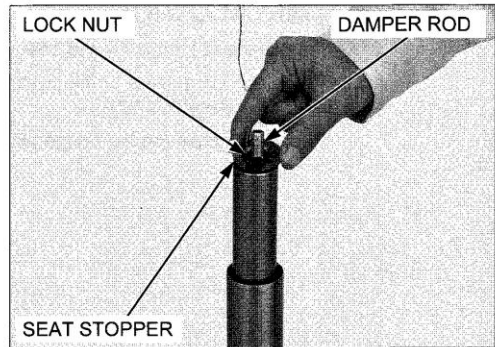


Install the spring seat and spring collar.



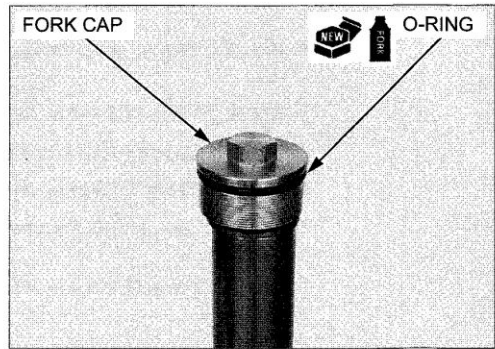
*Attach a piece of wire to the damper rod to prevent it from falling into the fork tube.*

Screw the damper rod lock nut fully seated by hand.  
Install the spring seat stopper.



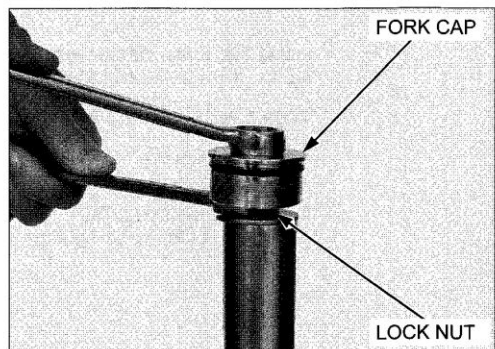
Apply fork fluid to a new O-ring and install it to the fork cap groove.

Hold the damper rod and screw the fork cap onto the damper rod until it seats on the fork damper rod lock nut.



Hold the fork cap and tighten the fork damper rod lock nut to the specified torque.

**TORQUE: 20 N·m (2.0 kgf·m, 15 lbf·ft)**



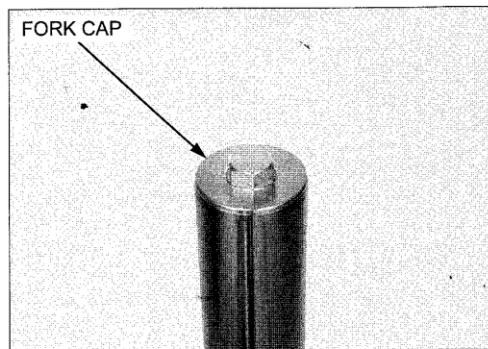


## FRONT WHEEL/SUSPENSION/STEERING

Loosely tighten the fork cap into the fork tube.

**NOTE:**

- Tighten the fork cap to the specified torque after installing the fork tube into the fork bridge.

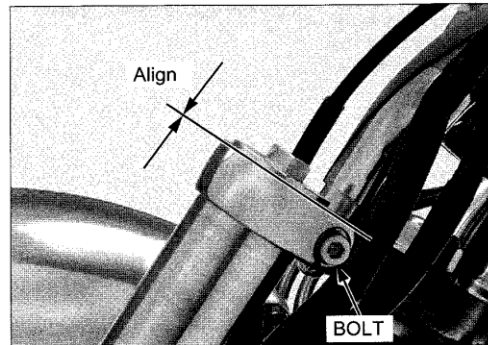


### INSTALLATION

Install the fork tube into the bottom and top bridges.

Align the top surface of the top bridge with the fork tube upper surface as shown.

Loosely tighten the top bridge pinch bolt.



Tighten the bottom bridge pinch bolts to the specified torque.

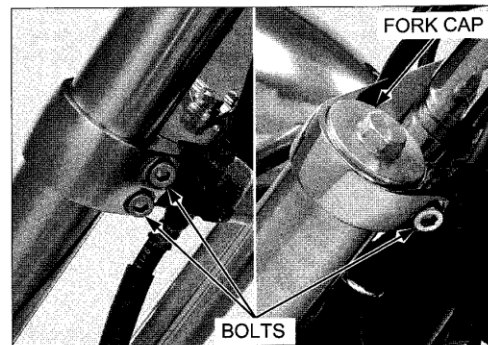
**TORQUE: 27 N·m (2.8 kgf·m, 20 lbf·ft)**

Tighten the top bridge pinch bolt to the specified torque.

**TORQUE: 27 N·m (2.8 kgf·m, 20 lbf·ft)**

Tighten the fork cap to the specified torque if it was removed.

**TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)**

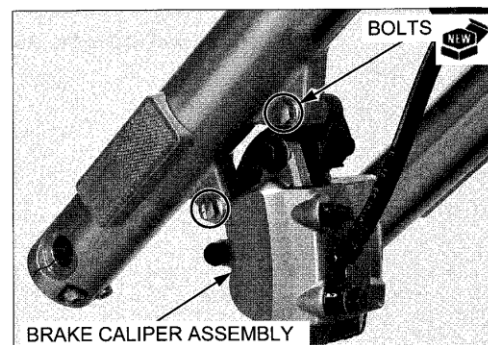


Install the brake caliper with new mounting bolts and tighten them to the specified torque.

**TORQUE: 31 N·m (3.2 kgf·m, 23 lbf·ft)**

Install the following:

- Front wheel (page 15-17)
- Front fender (page 3-7)
- Front left turn signal light (page 22-8)





## RIGHT FRONT FORK

### REMOVAL

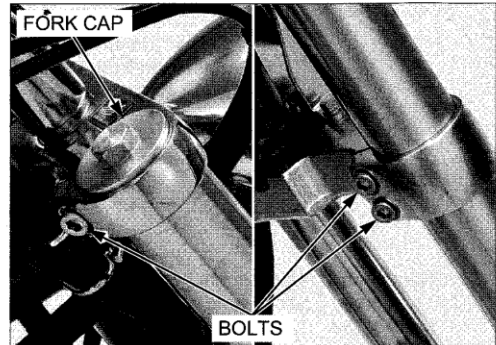
Remove the following:

- Front wheel (page 15-12)
- Front fender (page 3-7)
- Front right turn signal light (page 22-8)

Loosen the top and bottom bridge pinch bolts. Pull the fork leg down and remove the fork tube from the fork bridges.

#### NOTE:

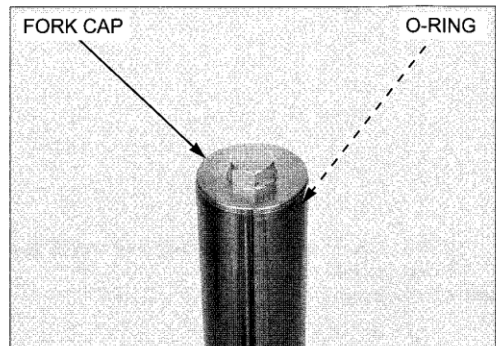
- When the fork is ready to be disassembled, loosen the fork cap, but do not remove it.



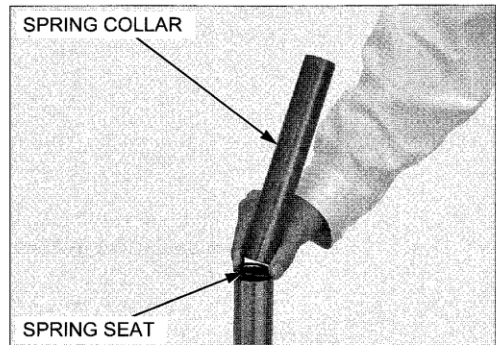
### DISASSEMBLY

*The fork cap is under spring pressure; use care when loosening it.*

Remove the fork cap and O-ring.

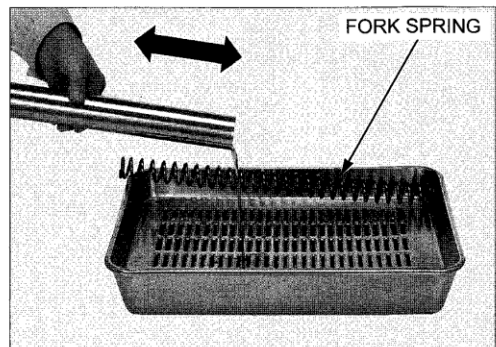


Remove the spring collar and spring seat.



Remove the fork spring.

Pour out the fork fluid by pumping the fork tube several times.



## FRONT WHEEL/SUSPENSION/STEERING

*Do not over-tighten the vise on the fork slider.* Hold the fork slider in a vise with a piece of wood or soft jaws to avoid damage.

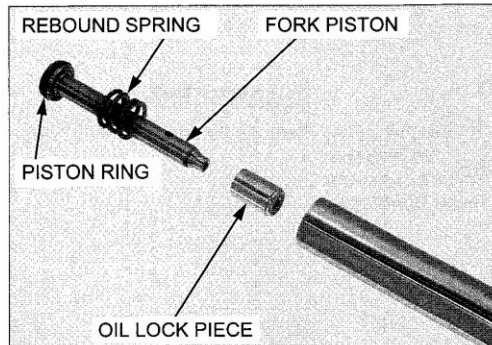
Remove the fork center socket bolt and sealing washer.

**NOTE:**

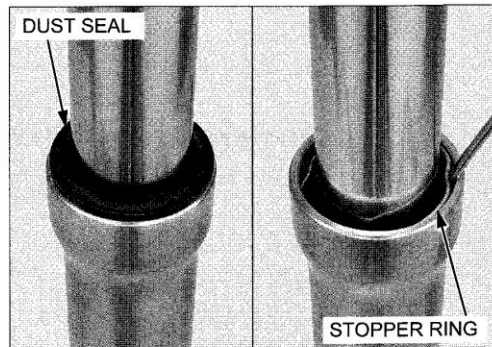
- If the fork piston turns with the center bolt, temporarily install the fork spring, spring seat, spring collar and fork cap.



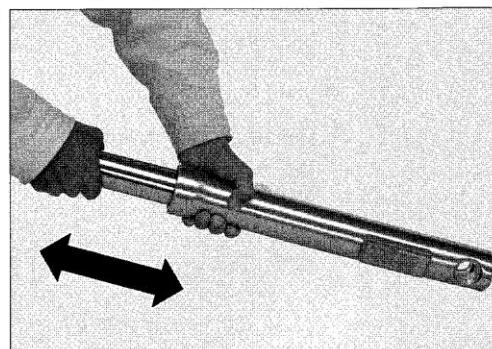
*Do not remove the fork piston ring, unless it is necessary to replace with a new one.* Remove the fork piston, rebound spring and oil lock piece.



*Be careful not to scratch the fork tube sliding surface.* Remove the dust seal and oil seal stopper ring.

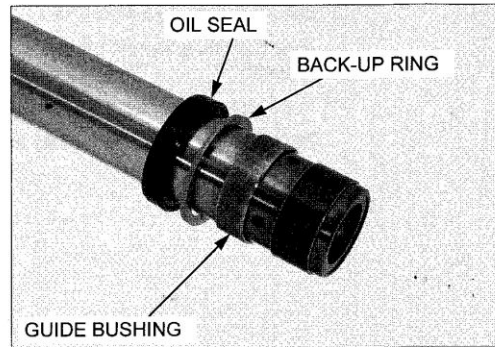


Using quick successive motions, pull the fork tube out of the fork slider.



Remove the following:

- Oil seal
- Back-up ring
- Guide bushing

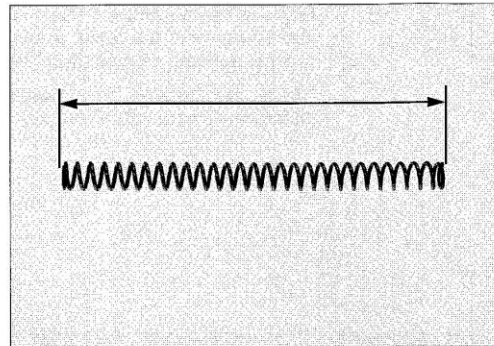


### INSPECTION

#### FORK SPRING

Measure the fork spring free length.

**SERVICE LIMIT: 461.8 mm (18.18 in)**

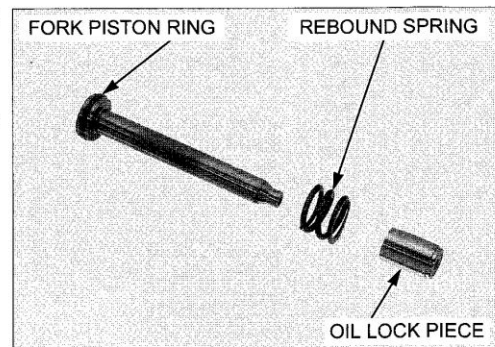


#### FORK PISTON

Check the fork piston for score marks, and excessive or abnormal wear.

Check the fork piston ring for wear or damage.  
Check the rebound spring for fatigue or damage.  
Check the oil lock piece for score marks, and excessive or abnormal wear.

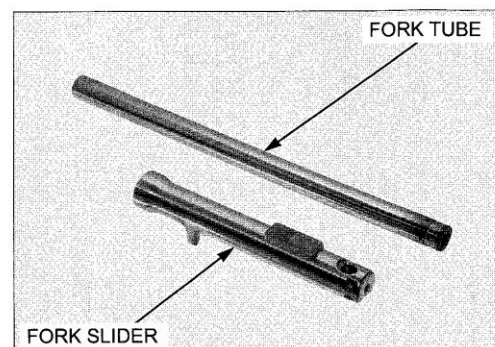
Replace any damaged component if necessary.



#### FORK TUBE/SLIDER

Check the fork tube and fork slider for score marks, scratches, excessive or abnormal wear.

Replace any damaged component if necessary.



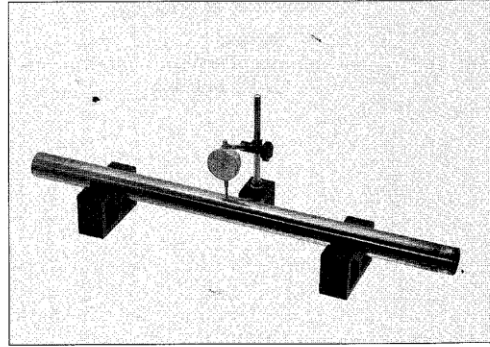
## FRONT WHEEL/SUSPENSION/STEERING

Set the fork tube on V-blocks.

Turn the fork tube and measure the runout using a dial indicator.

Actual runout is 1/2 the total indicator reading.

**SERVICE LIMIT: 0.2 mm (0.01 in)**

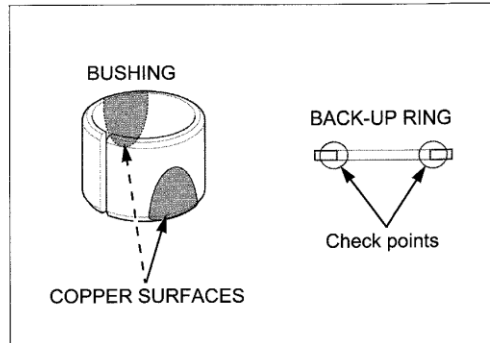


### BUSHING

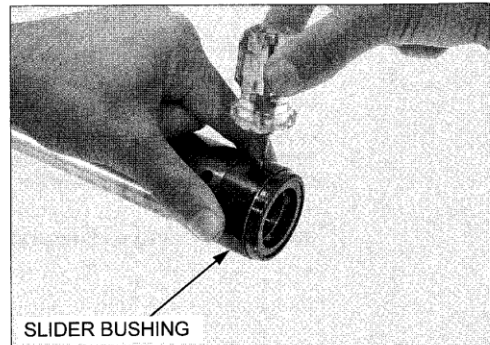
Visually inspect the slider and guide bushings.

Replace the bushings if there is excessive scoring or scratching, or if the teflon is worn so that the copper surface appears on more than 3/4 of the entire surface.

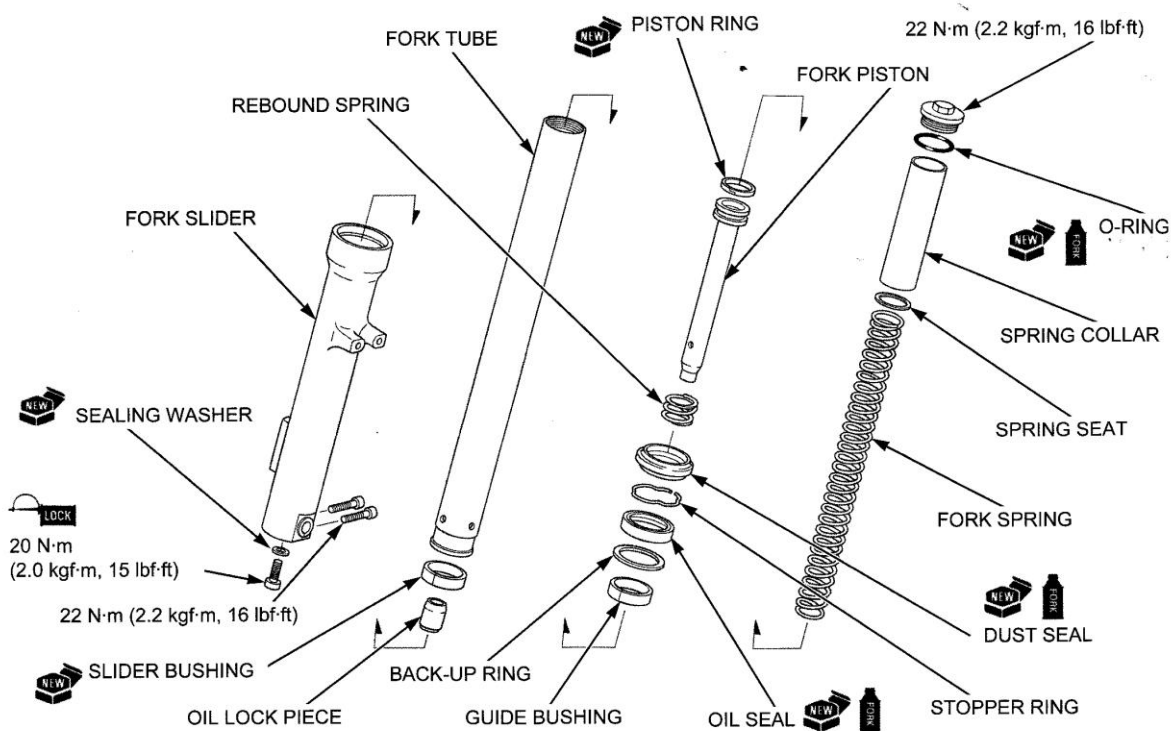
Check the back-up ring; replace it if there is any distortion at the points shown.



*Do not damage the fork slider bushing contact area of the fork tube.* When replacing the fork slider bushing, remove it by prying the slit with a flat blade screwdriver until the bushing can be pulled off by hand.



ASSEMBLY

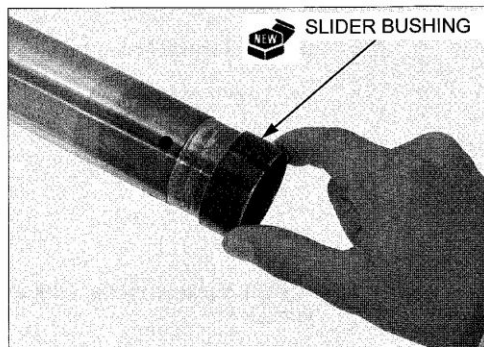


Before assembly, wash all parts with a high flash or non-flammable solvent and blow them dry.

When removing the fork slider bushing, install a new slider bushing.

NOTE:

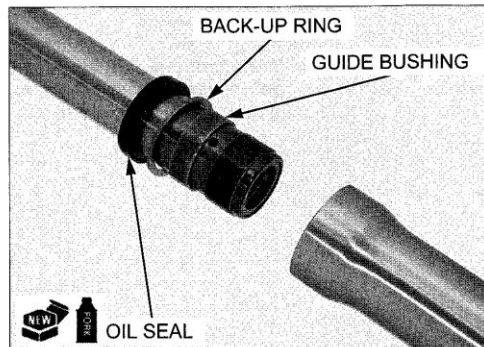
- Remove the burrs from the bushing mating surface, being careful not to peel off the coating.
- Do not open the slider bushing slit more than necessary.



Install the guide bushing, back-up ring to the fork tube.

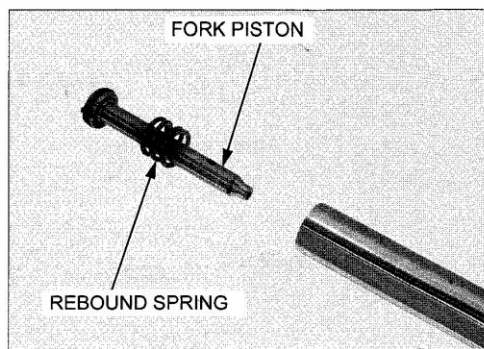
*Install the oil seal with its marked side facing up.*

Apply fork fluid to a new oil seal lips and install it.

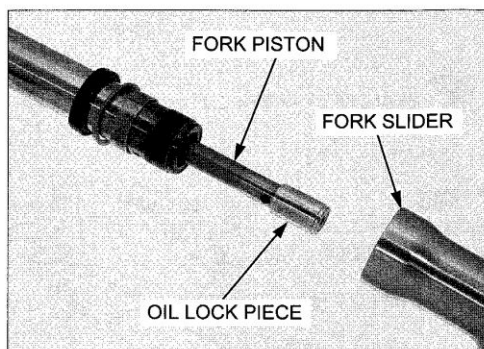


## FRONT WHEEL/SUSPENSION/STEERING

Install the rebound spring to the fork piston, then install them into the fork tube.



Install the oil lock piece to the fork piston end and install them to the fork slider.

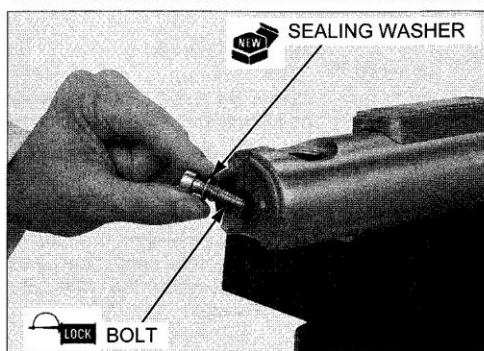


*Do not over-tighten the vise on the fork slider.*

Hold the fork slider in a vise with a piece of wood or soft jaws to avoid damage.

Apply locking agent to the fork center socket bolt threads.

Install the socket bolt with a new sealing washer.

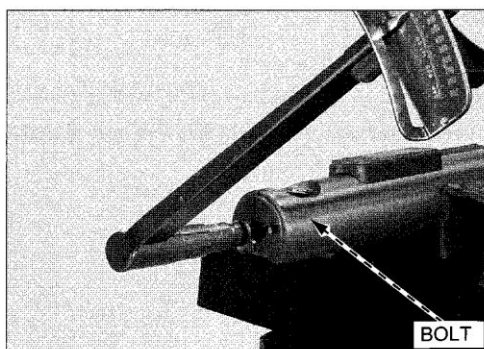


Tighten the fork center socket bolt to the specified torque.

**TORQUE: 20 N·m (2.0 kgf·m, 15 lbf·ft)**

**NOTE:**

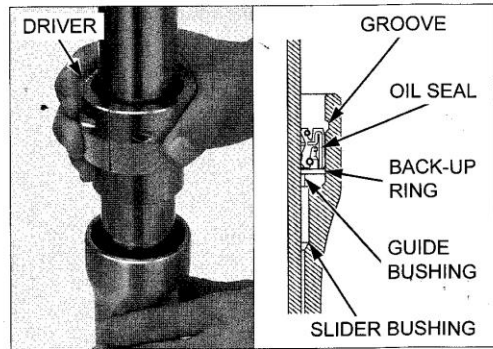
- If the fork piston turns with the fork center socket bolt, temporarily install the fork spring, spring seat, spring collar and fork cap.



Drive in the oil seal until the stopper ring groove is visible using the special tool.

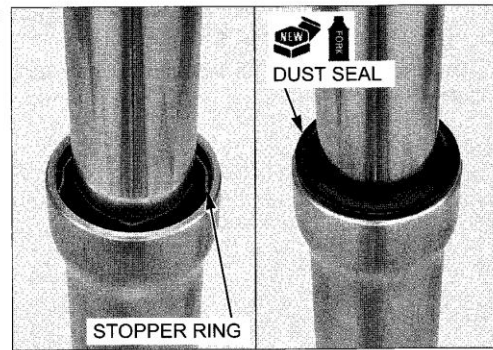
**TOOL:**  
Fork seal driver, 45 mm

07KMD-KZ30100 or  
07KMD-KZ3010A  
(U.S.A. only)



Install the stopper ring into the groove into the fork slider, being careful not to scratch the fork tube sliding surface.

Apply fork fluid to a new dust seal lips and install it.



Pour the specified amount of the recommended fork fluid into the fork tube.

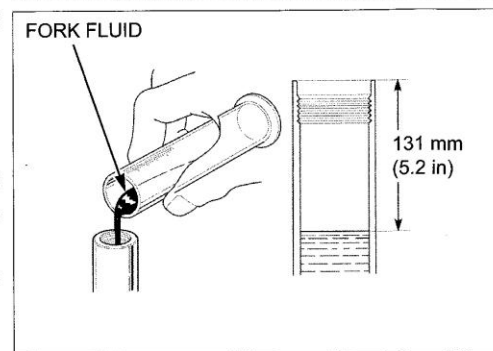
**RECOMMENDED FORK FLUID:**  
Pro Honda Suspension Fluid SS-47 (10W)

**FORK FLUID CAPACITY:**  
712 ± 2.5 cm<sup>3</sup> (24.1 ± 0.08 US oz, 25.1 ± 0.09 Imp oz)

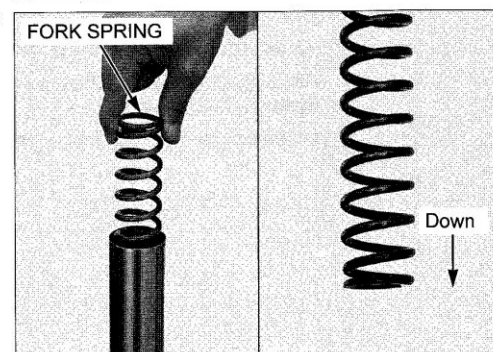
Slowly pump the fork tube several times to remove any trapped air from the lower portion of the fork tube.

Compress the fork tube fully. Measure the oil level from the top of the fork tube.

**FORK FLUID LEVEL: 131 mm (5.2 in)**



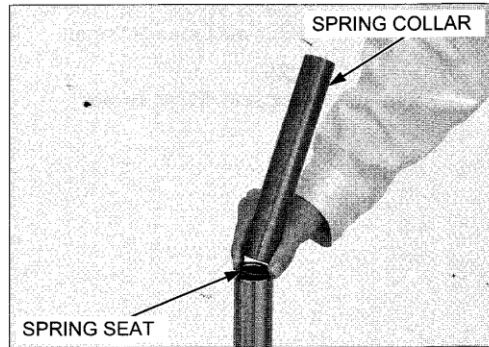
Pull the fork tube up and install the fork spring with the tapered end facing down.





## FRONT WHEEL/SUSPENSION/STEERING

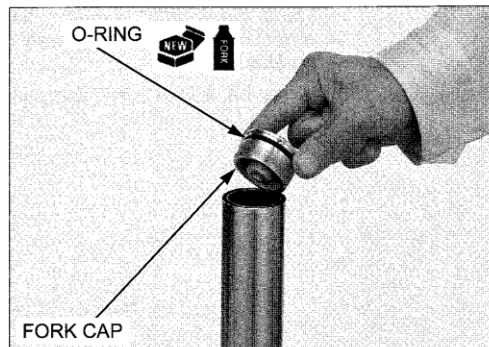
Install the spring seat and spring collar.



Apply fork fluid to new O-ring and install it to the fork cap groove.

*Be careful not to cross-thread the fork cap.*

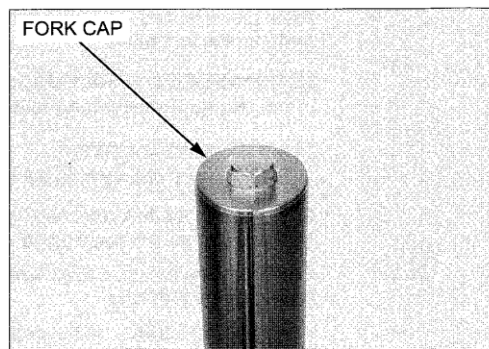
Hold the fork cap securely and install it into the fork tube.



Loosely tighten the fork cap into the fork tube.

### NOTE:

- Tighten the fork cap to the specified torque after installing the fork tube into the fork bridge.

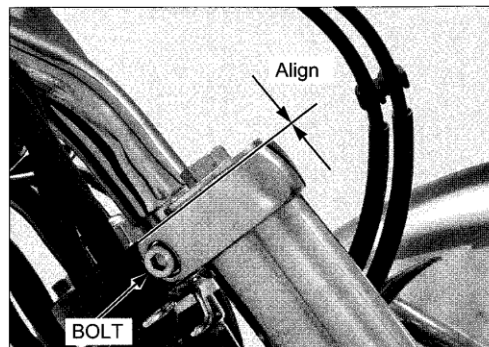


## INSTALLATION

Install the fork tube into the bottom and top bridges.

Align the top surface of the top bridge with the fork tube upper surface as shown.

Loosely tighten the top bridge pinch bolt.





Tighten the bottom bridge pinch bolts to the specified torque.

**TORQUE: 27 N·m (2.8 kgf·m, 20 lbf·ft)**

Tighten the top bridge pinch bolt to the specified torque.

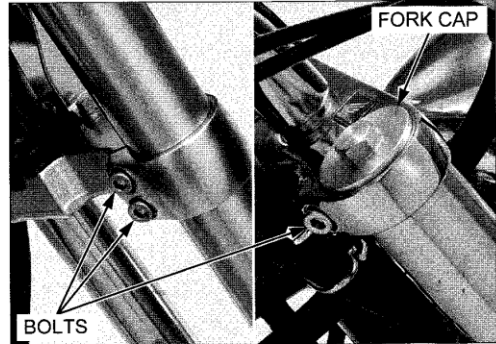
**TORQUE: 27 N·m (2.8 kgf·m, 20 lbf·ft)**

Tighten the fork cap to the specified torque if it was removed.

**TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)**

Install the following:

- Front wheel (page 15-17)
- Front fender (page 3-7)
- Front right turn signal light (page 22-8)



## STEERING STEM

### REMOVAL

Remove the following:

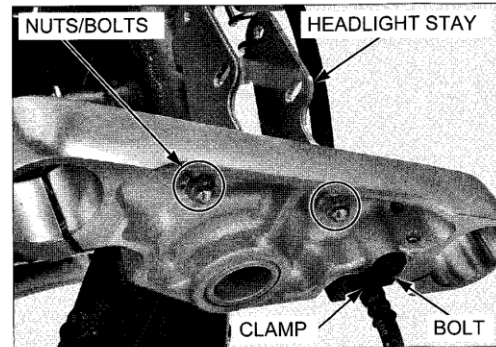
- Handlebar (page 15-6)
- Fork legs:
  - Left front fork (page 15-19)
  - Right front fork (page 15-29)
- Headlight case (page 22-7)

**VT1300CX:** Remove the bolt and hose clamp.

**NOTE:**

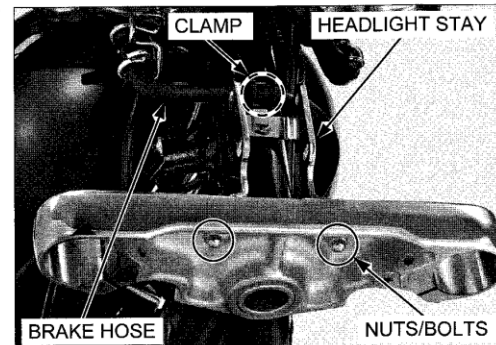
- Do not reuse the bolt.

Remove the nuts, bolts and headlight stay.



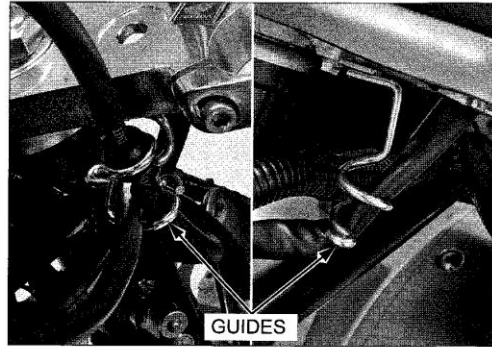
**VT1300CXA:** Remove the front brake hose from the headlight stay clamp.

Remove the nuts, bolts and headlight stay.

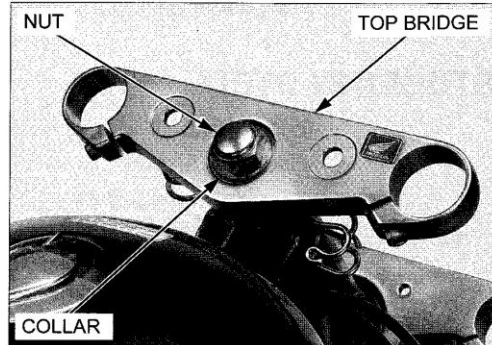


## FRONT WHEEL/SUSPENSION/STEERING

Release the cables, hose and wires from the cable guides.



Remove the steering stem nut, collar and top bridge.



Straighten the lock washer tabs.  
Remove the lock nut and lock washer.



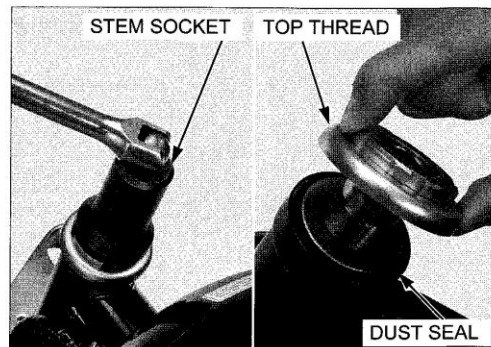
Loosen the steering top thread using the special tool.

**TOOL:**

**Steering stem socket**

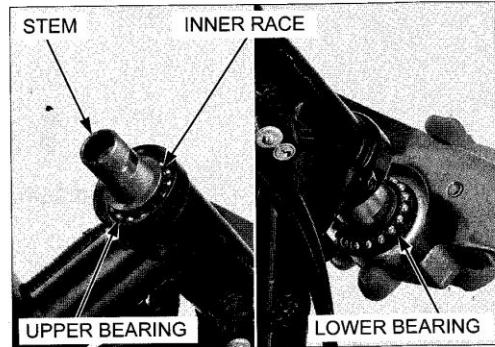
**07916-3710101 or  
07916-3710100**

While holding the steering stem, remove the steering top thread and dust seal.



Remove the following:

- Steering stem
- Upper inner race
- Upper steering head bearing
- Lower steering head bearing

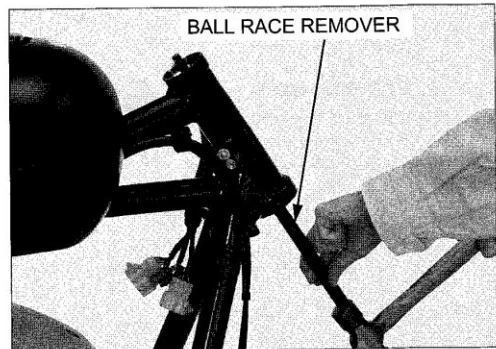


Remove the upper outer race using the special tools.

**TOOLS:**

**Ball race remover**

07953-MJ10000 or  
07953-MJ1000B or  
07953-MJ1000A  
(U.S.A. only)

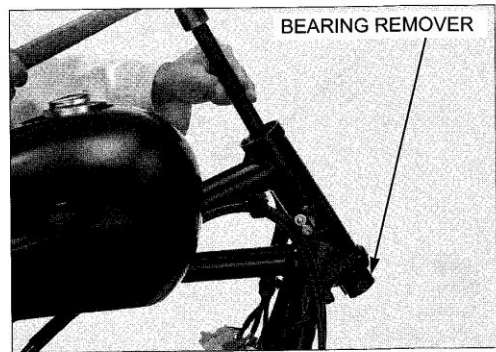


Remove the lower outer race using the special tool.

**TOOL:**

**Bearing remover**

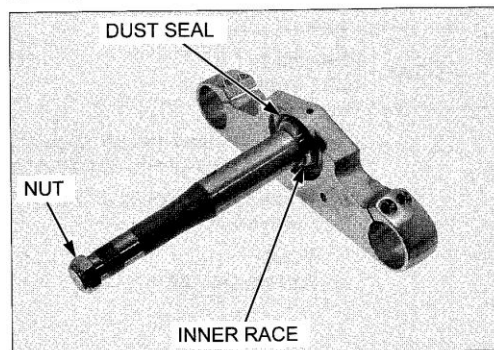
07946-3710500



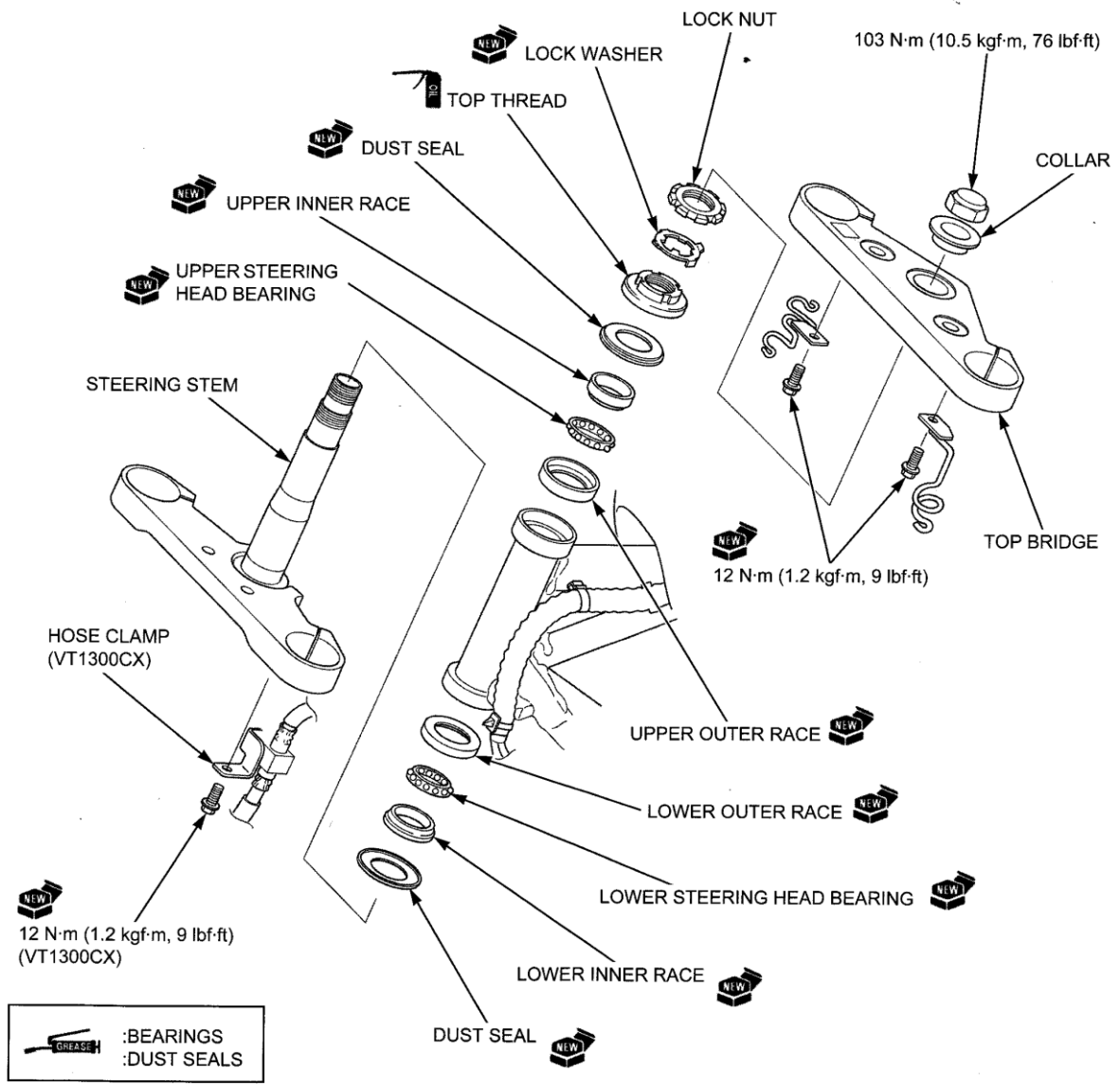
Install the steering stem nut onto the steering stem to prevent the threads from being damaged when removing the lower inner race.

Remove the lower inner race with a chisel or equivalent tool, being careful not to damage the steering stem.

Remove the steering stem nut, lower inner race and dust seal from the steering stem.



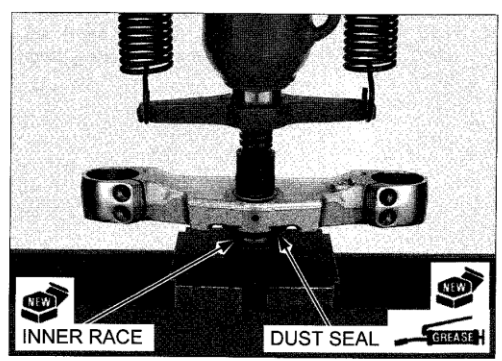
# FRONT WHEEL/SUSPENSION/STEERING INSTALLATION



Apply specified grease (page 1-21) to a new dust seal lips and install it onto the steering stem.

Install a new lower inner race using the special tool and hydraulic press.

**TOOL:**  
Attachment, 35 mm I.D.      07746-0030400

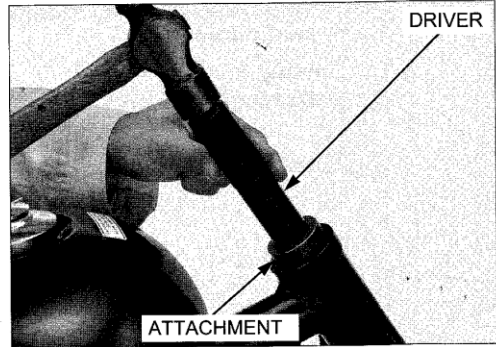


## FRONT WHEEL/SUSPENSION/STEERING

Drive in a new upper outer race into the steering head pipe using the special tools.

**TOOLS:**

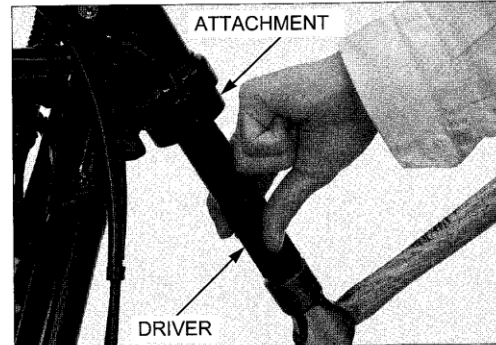
**Driver** 07749-0010000  
**Attachment, 42 x 47 mm** 07746-0010300



Drive in a new lower outer race using the special tools.

**TOOLS:**

**Driver** 07749-0010000  
**Attachment, 52 x 55 mm** 07746-0010400



Apply 3 – 5 g (0.11 – 0.18 oz) of specified grease (page 1-21) to each new steering head bearing.

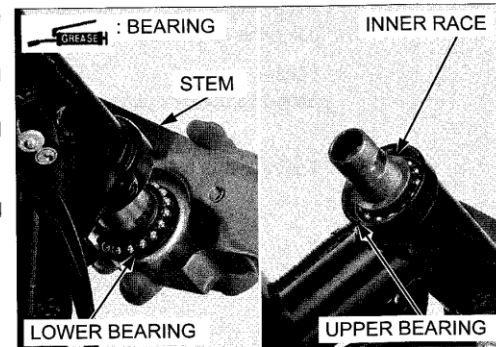
Install the lower steering head bearing onto the steering stem.

Apply specified grease (page 1-21) to a new dust seal lips.

Apply engine oil to the steering top thread threads.

Insert the steering stem into the steering head pipe and install the following while holding the stem:

- Upper steering head bearing
- Upper inner race
- Dust seal
- Steering top thread



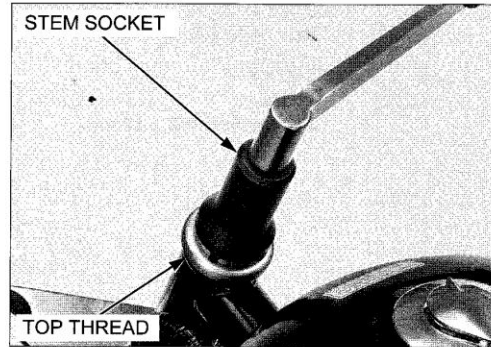
## FRONT WHEEL/SUSPENSION/STEERING

Tighten the steering top thread to the specified torque using the special tool.

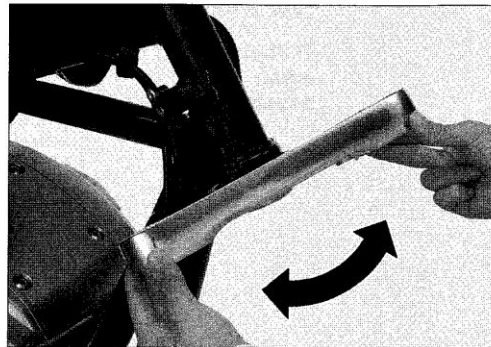
**TOOL:**

**Steering stem socket**                    **07916-3710101 or**  
**07916-3710100**

**TORQUE: 23 N·m (2.3 kgf·m, 17 lbf·ft)**



Move the steering stem left and right, lock-to-lock, five times to seat the bearings.

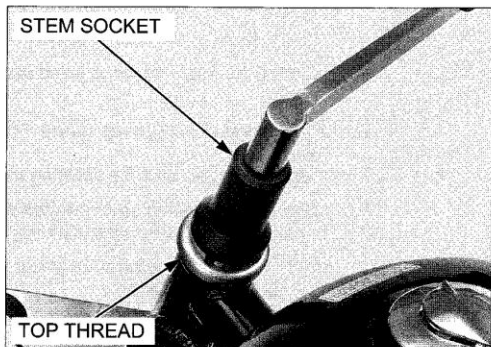


Retighten the steering top thread to the specified torque using the special tool.

**TOOL:**

**Steering stem socket**                    **07916-3710101 or**  
**07916-3710100**

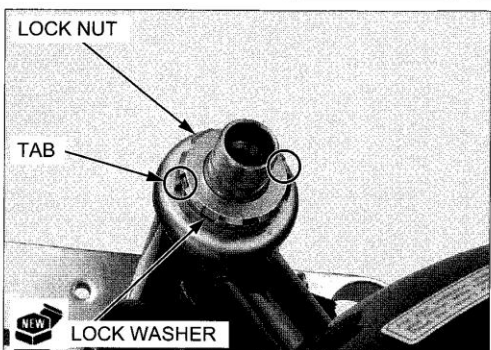
**TORQUE: 23 N·m (2.3 kgf·m, 17 lbf·ft)**



Install a new lock washer to align its bended tabs with the grooves in the steering top thread.

Install the lock nut and finger tighten it all the way.

Further tighten the lock nut, within 90°, to align its grooves with the tabs of the lock washer. Bend up the lock washer tabs into the grooves of the lock nut.



## FRONT WHEEL/SUSPENSION/STEERING

Install the top bridge, collar and steering stem nut.

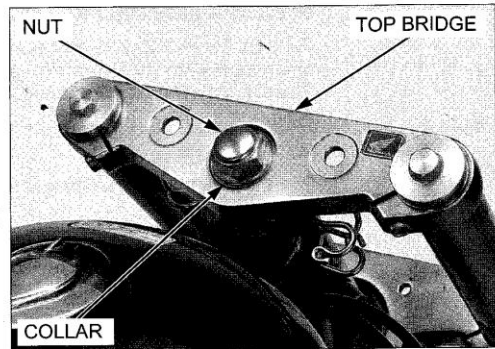
Install the fork legs:

- Left front fork (page 15-28)
- Right front fork (page 15-36)

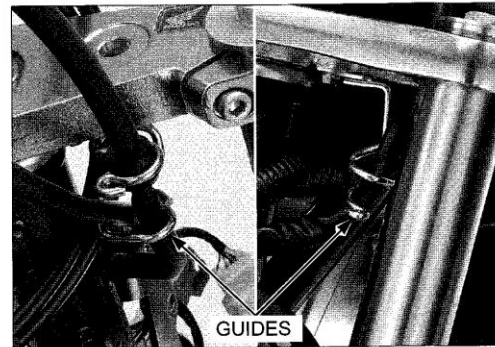
Tighten the steering stem nut to the specified torque.

**TORQUE: 103 N·m (10.5 kgf·m, 76 lbf·ft)**

Make sure the steering stem moves smoothly, without play or binding.



Route the hose, wires and cables into the cable guides.



**VT1300CX:** Install the headlight stay, bolts and nuts.

Tighten the nuts.

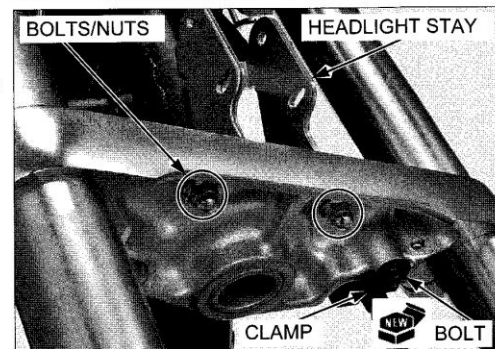
Install the hose clamp and new front brake hose clamp bolt.

Tighten the bolt to the specified torque.

**TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)**

Install the following:

- Handlebar (page 15-8)
- Front wheel (page 15-17)
- Headlight case (page 22-7)
- Front turn signal light (page 22-8)



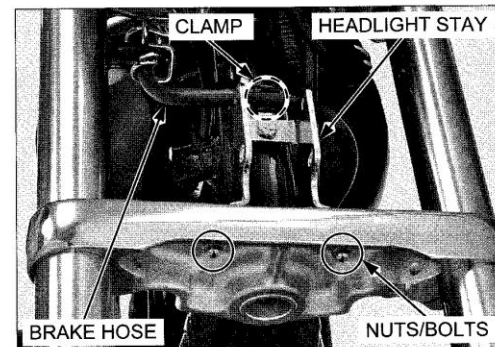
**VT1300CXA:** Install the headlight stay, bolts and nuts.

Tighten the nuts.

Install the front brake hose to the headlight stay clamp.

Install the following:

- Handlebar (page 15-8)
- Front wheel (page 15-17)
- Headlight case (page 22-7)
- Front turn signal light (page 22-8)





## FRONT WHEEL/SUSPENSION/STEERING

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### STEERING BEARING PRE-LOAD

Support the motorcycle using a safety stand or hoist and raise the front wheel off the ground. Position the steering stem straight ahead.

*Make sure there is no cable, wire harness or hose interference.*

Hook a spring scale to the fork tube between the fork top and bottom bridges.

Pull the spring scale keeping it at a right angle to the steering stem. Read the scale at the point where the steering stem just starts to move.

### STEERING BEARING PRE-LOAD:

**8.2 – 12.3 N (0.8 – 1.3 kgf)**

If the readings do not fall within the limits, readjust the steering bearing adjustment.

