

- (1) AXLE PINCH BOLTS
- (2) AXLE
- (3) SIDE COLLAR

Front Wheel

Removal

Remove the brake caliper mounting bolts and disc cover. Loosen the axle pinch bolts.

Support the motorcycle and front wheel off the ground. Remove the axle, left side collar and front wheel.

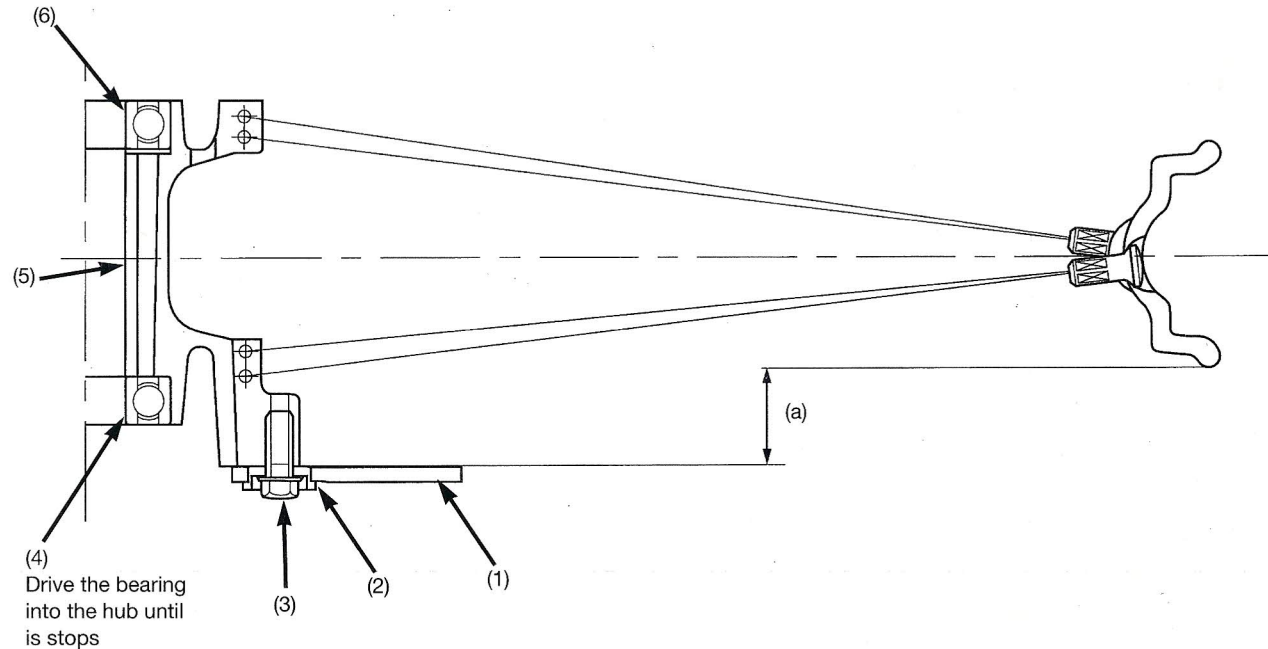
Do not depress the brake lever after the front wheel is removed. The caliper pistons will move and make reassembly difficult.

Disassembly/Assembly

⚠ WARNING

A contaminated brake disc or pad reduces stopping power, and can cause a serious injury or death.

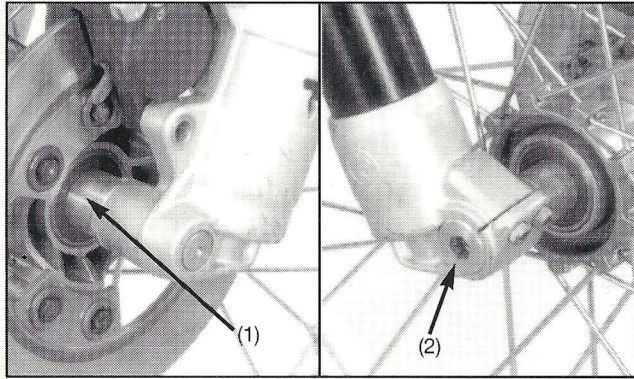
Discard contaminated pads and clean a contaminated disc with a high quality brake degreasing agent.



- (1) BRAKE DISC
- (2) COLLAR
- (3) DISC BOLT
- (4) LEFT WHEEL BEARING
- (5) DISTANCE COLLAR
- (6) RIGHT WHEEL BEARING

(a) 25 ± 0.5 mm

FRAME SERVICING



- (1) SIDE COLLAR
- (2) AXLE

Installation

Clean the surfaces where the axle and axle clamps contact each other.

Place the front wheel between the fork legs.

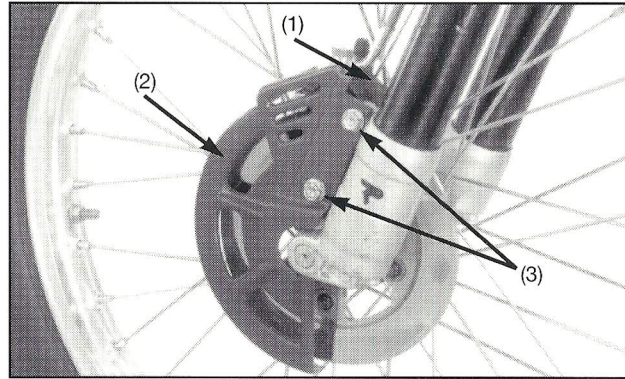
Apply thin layer of grease to the axle surface.

Apply grease to the axle threads.

Install the axle from the right side through the wheel and left side collar.

Tighten the axle to the specified torque.

Torque: 69 N·m (7.0 kgf·m, 51 lbf·ft)

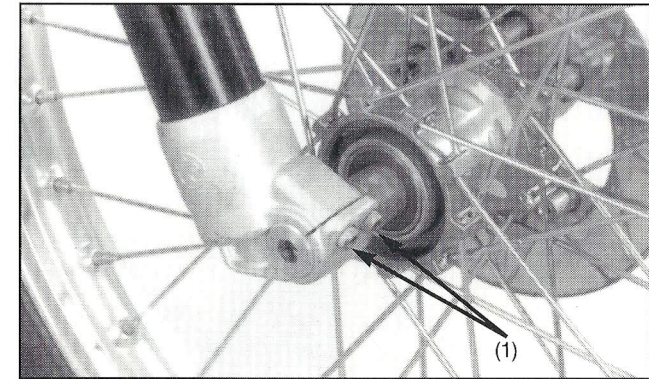


- (1) BRAKE CALIPER
- (2) DISC COVER
- (3) BOLTS

Install the brake caliper and disc cover, tighten the mounting bolts to the specified torque.

Torque: 26 N·m (2.7 kgf·m, 20 lbf·ft)

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



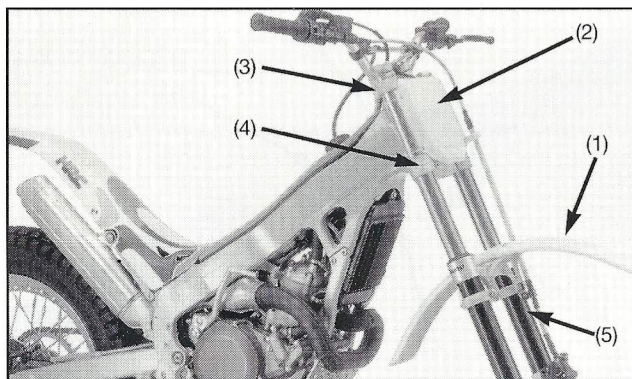
- (1) AXLE PINCH BOLTS

Apply grease to the axle pinch bolt threads and seating surface.

Install the axle pinch bolts.

While keeping the fork parallel, alternately tighten the right axle pinch bolts.

Torque: 10 N·m (1.0 kgf·m, 7 lbf·ft)



- (1) FRONT FENDER
- (2) ZECHEN PLATE
- (3) TOP BRIDGE
- (4) BOTTOM BRIDGE
- (5) FORK LEG

Fork

Removal

Remove the front wheel (page 5-1).

Remove the front fender and zechen plate.

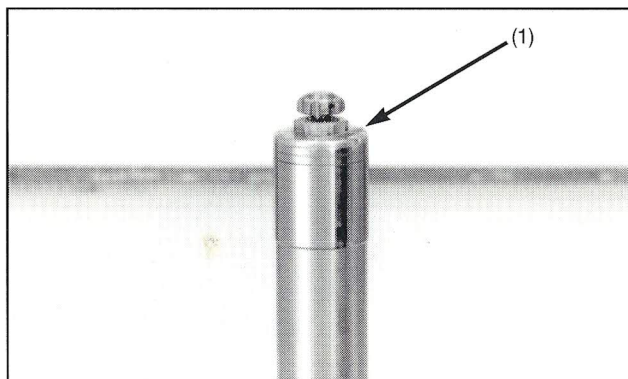
Loosen the top bridge pinch bolt.

If the forks are to be disassembled, loosen the fork bolt.

NOTICE

To avoid damaging the fork bolt threads, loosen the top bridge pinch bolt before loosening the fork bolts.

Loosen the bottom bridge pinch bolts, and pull the fork tube down and out.



- (1) FORK BOLT

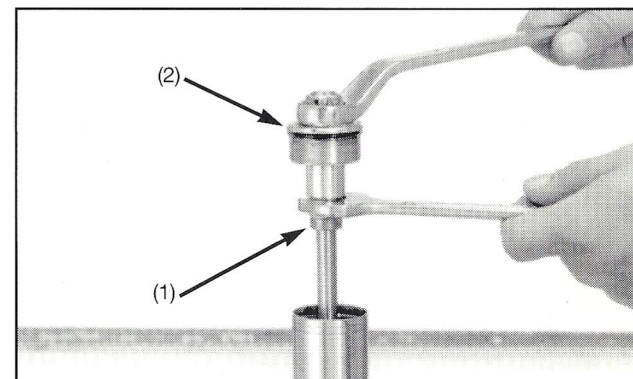
Right Fork Disassembly

Before disassembling the fork, clean the entire sliding surface and the bottom of the fork slider.

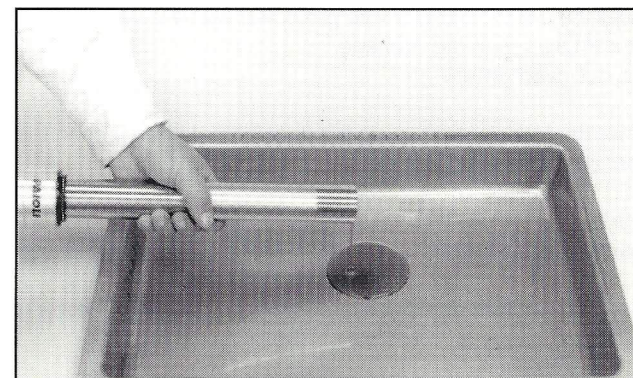
Be careful not to scratch the fork tube.

A scratched fork tube will damage the seal, causing an oil leak.

Hold the fork tube, remove the fork bolt and slide the fork tube down.

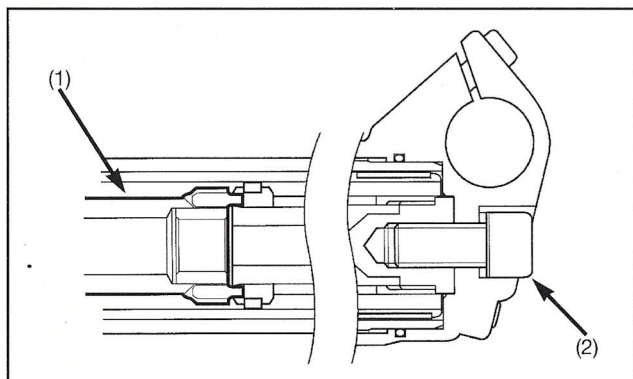


- (1) LOCK NUT
- (2) FORK BOLT



Hold the lock nut and remove the fork bolt from the damper rod.
Pour out the fork fluid.

FRAME SERVICING



- (1) FORK DAMPER HOLDER
(2) BOTTOM SOCKET BOLT

Hold the axle holder in a vise protected with a piece of wood or soft jaws to avoid damage.
Do not overtighten.

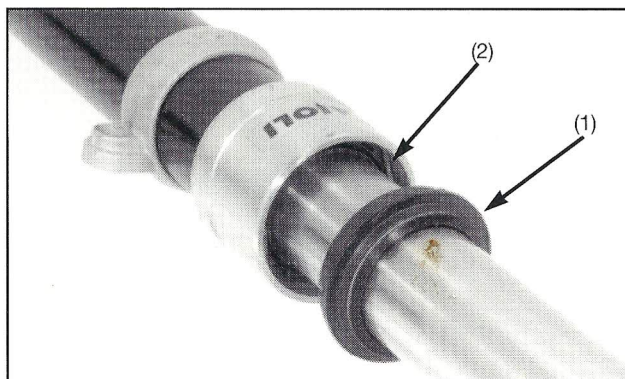
Hold the fork damper using the special tool, then loosen the fork bottom socket bolt.

TOOL:

Fork damper holder

89515-NN3-003

Remove the fork damper assembly from the fork tube.

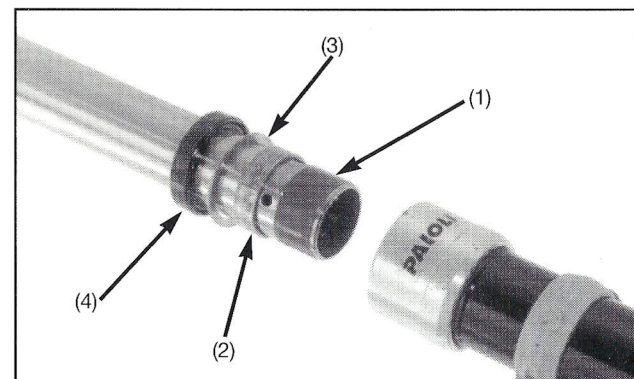


- (1) DUST SEAL
(2) STOP RING

Remove the dust seal and stop ring being careful not to scratch the fork tube.

Check that the fork tube moves smoothly in the slider.
If it does not, check the fork tube bending or damage, and the bushings for wear or damage.
If the slider and bushing are normal, check the fork tube.

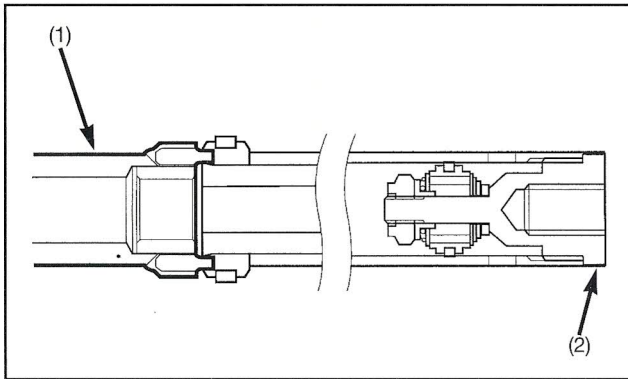
In quick successive motions, pull the fork tube out of the slider.
Empty the fork fluid from the damper by pumping the damper rod 8-10 times.



- (1) FORK TUBE BUSHING (2) GUIDE BUSHING
(3) BACK-UP RING (4) OIL SEAL

Carefully remove the fork tube bushing by prying the slot with a screwdriver until the bushing can be pulled off by hand.
Be careful not to scratch the teflon coating of the bushing.

Remove the guide bushing, back-up ring and oil seal from the fork tube.

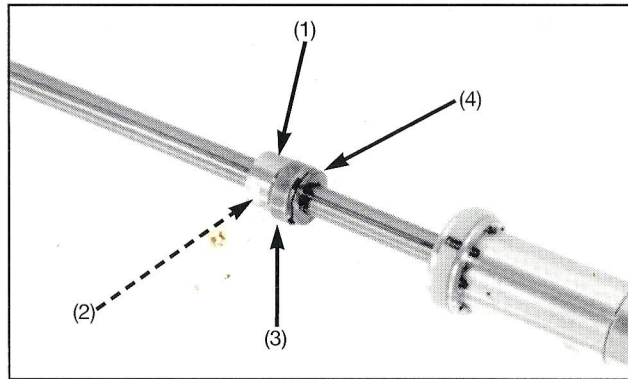


(1) FORK DAMPER HOLDER
(2) COMPRESSION VALVE ASSEMBLY

Hold the fork damper in a vise protected with a piece of woods or soft jaws to avoid damage.
Do not overtighten.

Hold the damper using the special tool, then loosen and remove the compression valve assembly as shown.

TOOL:
Fork damper holder **89515-NN3-003**

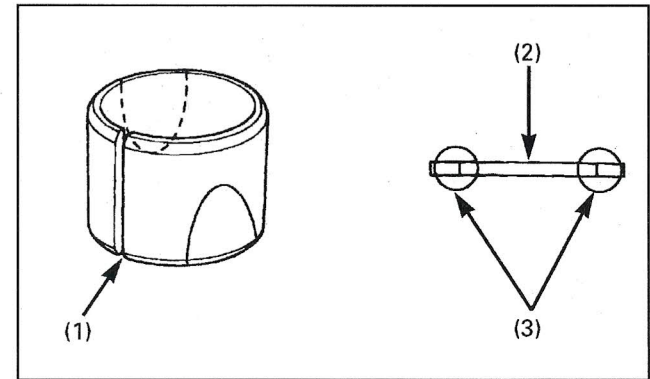


(1) GUIDE STAY NUT (2) STOP RING
(3) OIL LOCK PIECE (4) PIECE HOLDER

Hold the piece holder, then remove the guide stay nut.
Remove the guide stay nut and oil lock piece from the damper rod.

Remove the stop ring and then remove the piece holder.

Remove the damper rod assembly from the fork damper cylinder.



(1) BUSHING
(2) BACK-UP RING
(3) INSPECTION POINT

Left Fork Inspection

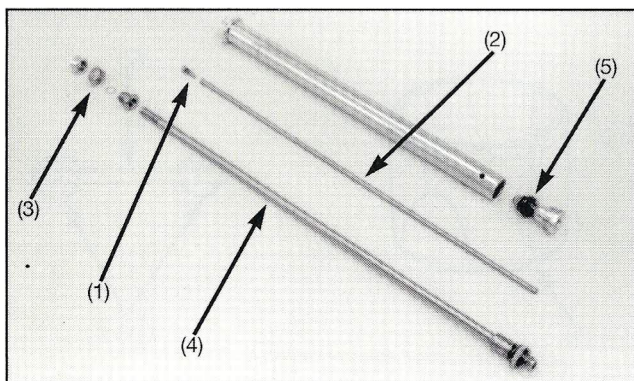
Check the following items (specifications; page 2-3):
- Fork tube for score marks, scratches and excessive wear
- Fork tube runout
- Fork slider for damage or deformation
- Fork damper for damage

Bushing/Back-up Ring

Check the bushings for excessive wear or scratches.
Remove any metal powder from the slider and guide bushings with a nylon brush and fork fluid.
If copper appears on the entire surface, replace the bushing.

Replace the back-up ring if there is any distortion at the points shown.

FRAME SERVICING



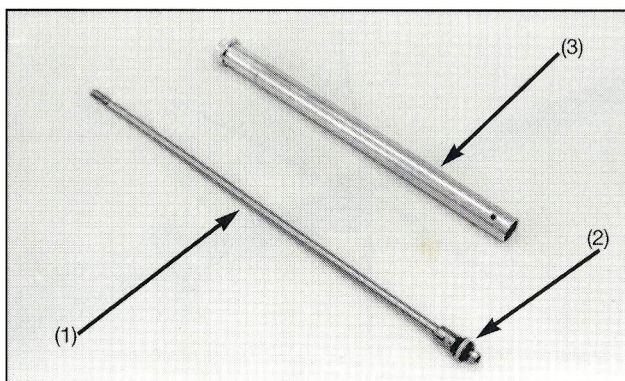
- (1) REBOUND NEEDLE (2) DISTANCE COLLAR
(3) OIL LOCK PIECE (4) DAMPER ROD ASSEMBLY
(5) COMPRESSION VALVE ASSEMBLY

Rebound Adjuster

Check the rebound adjuster needle for bending or other damage.

Fork Damper

Check the fork damper cylinder for damage or deformation.
Check the damper for bend or other damage.
Check the compression valve assembly for wear or damage.

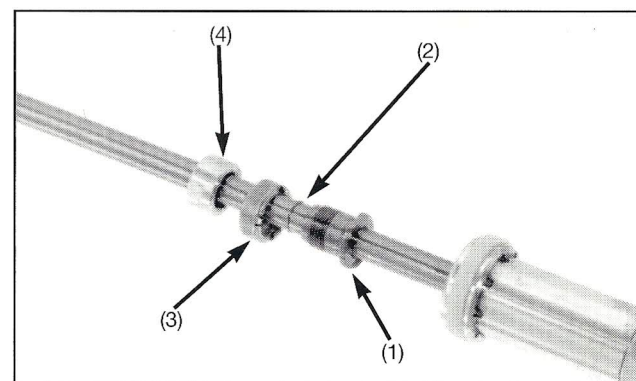


- (1) DAMPER ROD ASSEMBLY
(2) PISTON RING
(3) DAMPER CYLINDER

Left Fork Assembly

Clean the parts thoroughly with non-flammable or high flush point solvent before assembly.

Apply fork fluid to the fork damper rod piston ring.
Install the damper rod assembly into the fork damper cylinder.



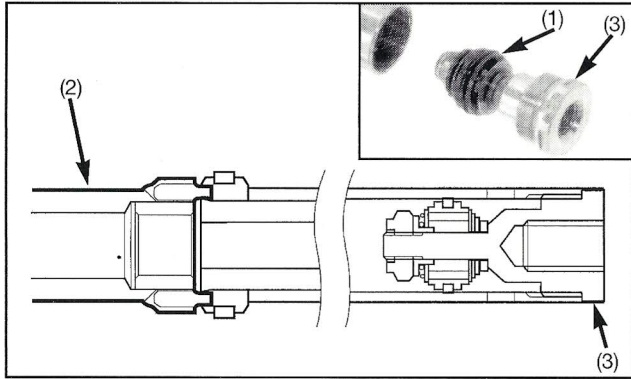
- (1) PIECE HOLDER (2) STOP RING
(3) OIL LOCK PIECE (4) GUIDE STAY NUT

Install the piece holder with its flange side facing the damper cylinder.

Install the oil lock piece with its cut-out side facing the damper cylinder.

Install the stop ring into the groove of the damper rod, then install the guide stay nut.

Hold the piece holder and tighten the guide stay nut securely.



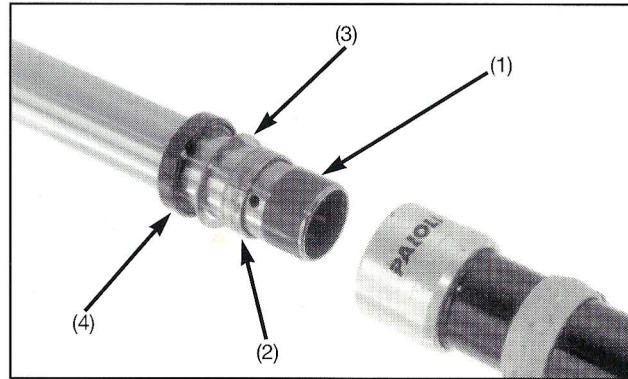
- (1) O-RING
- (2) FORK DAMPER HOLDER
- (3) COMPRESSION VALVE ASSEMBLY

Apply fork fluid to O-ring.
Clean and apply a locking agent to the compression valve assembly threads.

Hold the fork damper in a vise protected with a piece of wood or soft jaws to avoid damage.
Do not overtighten the vise.

Hold the fork damper with the special tool, then install and tighten the compression valve assembly.

Tool:
Fork damper holder **89515-NN3-003**



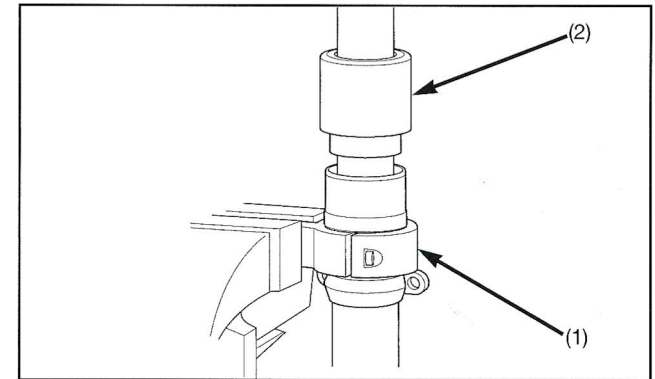
- (1) SLIDER BUSHING
- (2) GUIDE BUSHING
- (3) BACK-UP RING
- (4) OIL SEAL

Install the following:

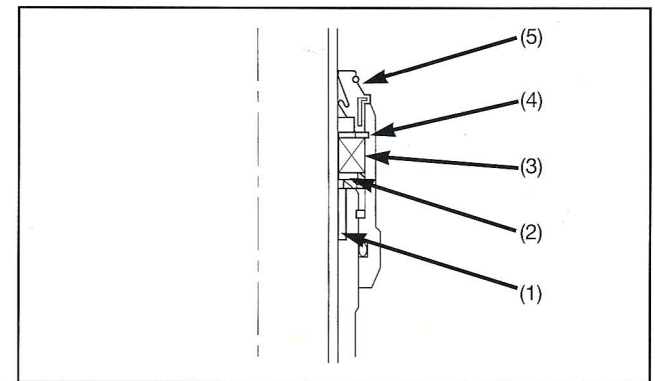
- Slider bushing
- Guide bushing
- Back up ring
- New oil seal

Coat the guide and slider bushings with recommended fork fluid.

Install the fork tube into the fork slider.



- (1) SEAL CASE HOLDER
- (2) FORK SEAL DRIVER



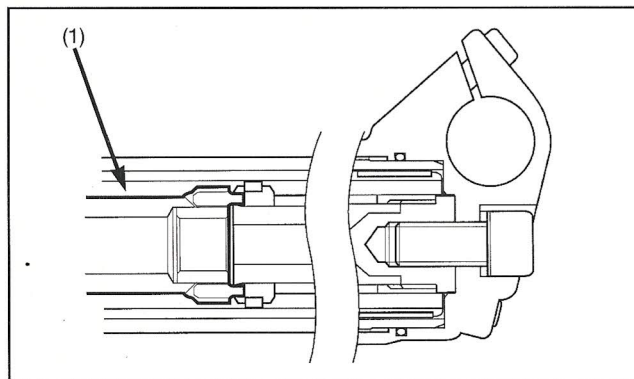
- (1) GUIDE BUSHING
- (2) BACK-UP RING
- (3) OIL SEAL
- (4) STOP RING
- (5) DUST SEAL

Drive the guide bushing, back-up ring and oil seal until the stop ring groove is visible, using the special tools.

TOOLS:
Seal case holder **89517-NN3-003**
Fork seal driver **07947-4630100**

Install the stop ring into the seal case groove securely.
Install the dust seal.

FRAME SERVICING



(1) FORK DAMPER HOLDER

Hold the axle holder in a vise protected with a piece of wood or soft jaws to avoid damage.
Do not overtighten the vise.

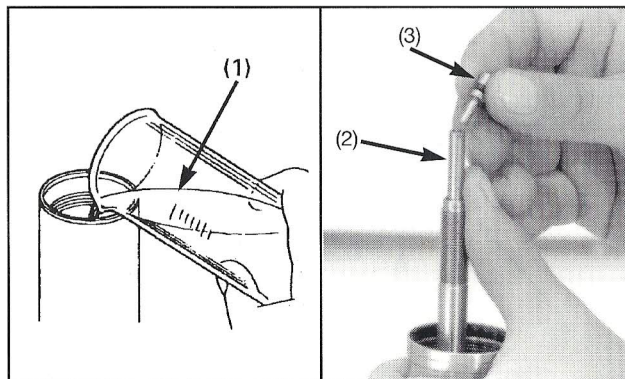
Install the fork damper into the fork tube.
Install the bottom socket bolt with a new sealing washer.

Hold the fork damper using the special tool, then tighten the bottom socket bolt.

TOOL:

Fork damper holder

89515-NN3-003



(1) FORK FLUID
(2) DISTANCE COLLAR
(3) REBOUND NEEDLE

Pour half the required amount of recommended fork fluid in the fork leg and fork damper rod.

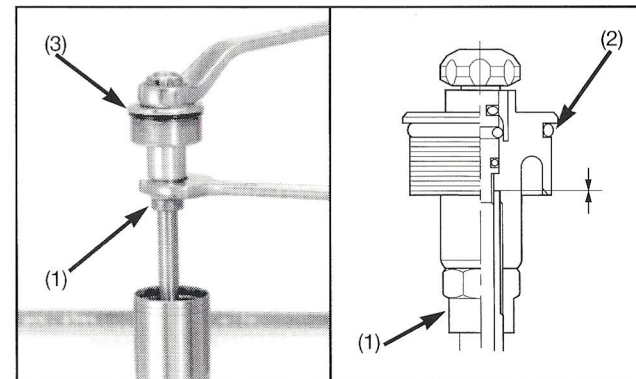
Specified fork fluid: Belray MC5

Pump the fork damper rod slowly 8-10 times.
Pour additional fluid to the specified capacity.

Standard:

Oil capacity: 360 cm³ (12.2 US oz, 12.7 Imp oz)

Install the distance collar and rebound needle.

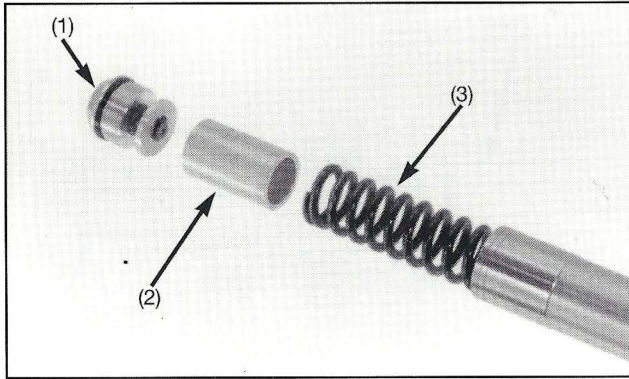


(1) LOCK NUT
(2) NEW O-RING
(3) FORK BOLT

Screw the lock nut onto the damper rod by hand until it stops.

Install a new O-ring onto the fork bolt.
Screw the fork bolt on the damper rod until it seats.
Unscrew the lock nut until it seats on the fork bolt.
Hold the fork bolt and tighten the lock nut.

Apply recommended fork fluid to the O-ring, then screw the fork bolt into the fork tube.



- (1) FORK BOLT
- (2) DISTANCE COLLAR
- (3) SPRING

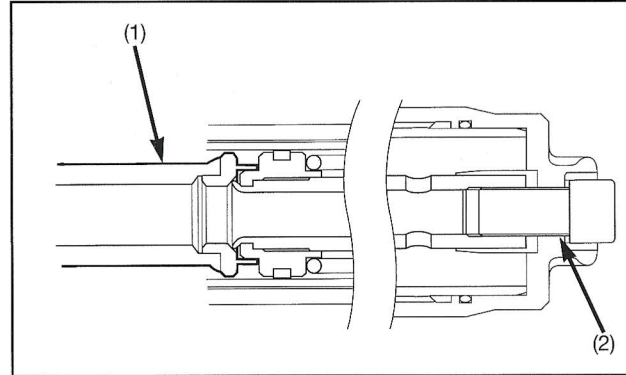
Left Fork Disassembly

Before disassembling the fork, clean the entire sliding surface and the bottom of the fork slider.

Be careful not to scratch the fork tube. A scratched fork tube will damage the seal, causing an oil leak.

The fork bolt under spring pressure. Before removing the fork bolt, turn the pre-load adjuster softest position. Remove the fork bolt from the fork tube.

Remove the distance collar and fork spring. Pour out the fork fluid.



- (1) FORK DAMPER HOLDER
- (2) FORK SOCKET BOLT

Hold the axle holder in a vise protected with a piece of wood or soft jaws to avoid damage. Do not overtighten.

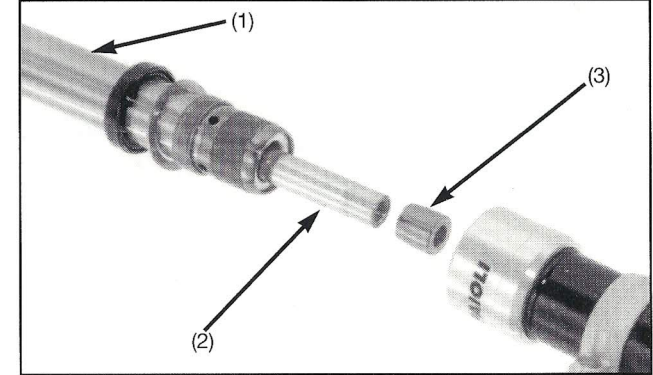
Hold the seat pipe using the special tool and loosen the fork socket bolt as shown.

TOOL:
Fork damper holder **89515-NN3-003**

Remove the fork socket bolt and sealing washer.

Remove the following items using the same procedure as the right fork disassembly (page 5-3):

- Dust seal
- Stop ring
- Fork tube from the fork slider



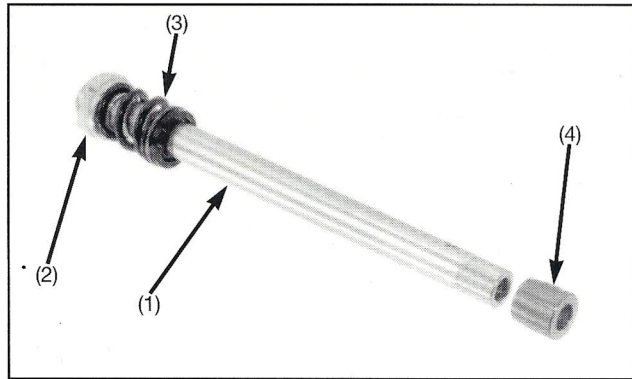
- (1) FORK TUBE
- (2) FORK PISTON
- (3) OIL LOCK PIECE

Remove the oil lock piece from the fork piston. Remove the fork piston from the fork tube.

Remove the following items using the same procedure as the right fork disassembly (page 5-3):

- Oil seal
- Back-up ring
- Guide bushing
- Slider bushing

FRAME SERVICING

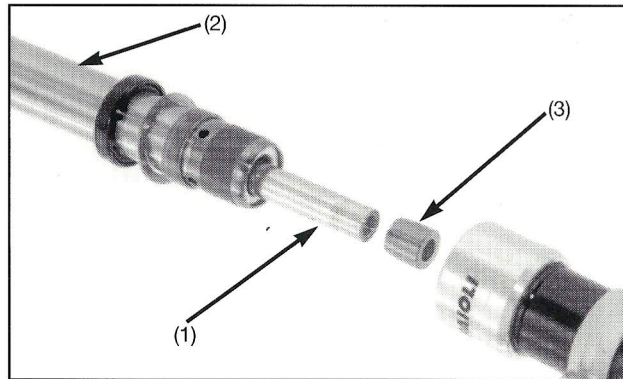


- (1) FORK PISTON (2) PISTON RING
(3) REBOUND SPRING (4) OIL LOCK PIECE

Right Fork Inspection

Check the following items (specifications; page 2-3):

- Fork slider for damage or deformation
- Fork tube runout
- Fork spring free length
- Fork tube for score marks, scratches and excessive wear
- Bushing/back-up ring (page 5-5)
- Fork piston ring for wear or damage
- Oil lock piece for damage
- Rebound spring for fatigue or other damage



- (1) FORK PISTON ASSEMBLY
(2) FORK TUBE
(3) OIL LOCK PIECE

Right Fork Assembly

Clean the parts thoroughly with non-flammable or high flash point solvent before assembly.

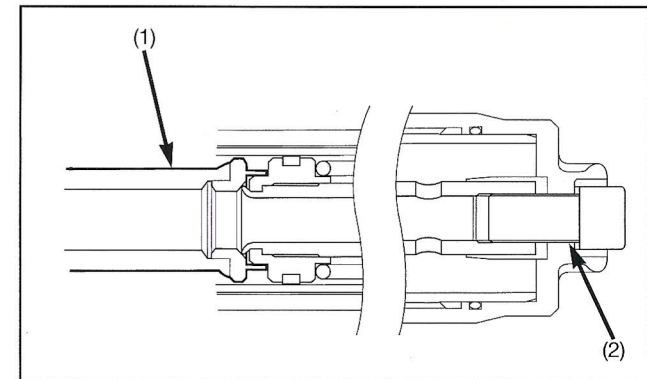
Install the following using the same procedure as the left fork (page 5-5):

- Slider bushing/guide bushing/new oil seal/black-up ring onto the fork tube.
- Fork tube into the fork slider.

Apply fork fluid to the piston ring.

Install the fork piston assembly into the fork tube.

Install the oil lock piece on the end of the seat pipe.



- (1) FORK DAMPER HOLDER
(2) FORK SOCKET BOLT

Hold the axle holder in a vise protected with a piece of wood or soft jaws to avoid damage.
Do not overtighten the vise.

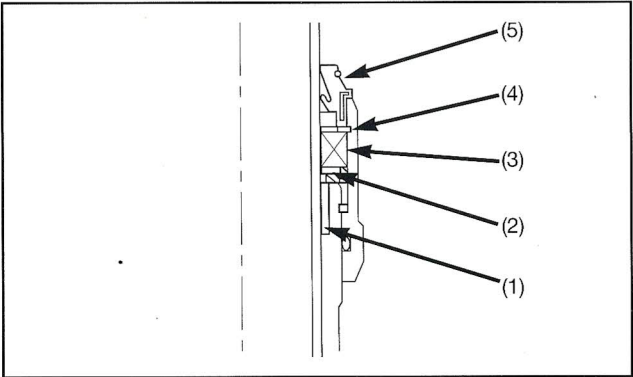
Clean and apply a locking agent to the fork socket bolt threads.

Install the fork socket bolt with a new sealing washer.
Hold the fork piston using the special tool, then tighten the fork socket bolt.

TOOL:

Fork damper holder

89515-NN3-003



- (1) GUIDE BUSHING
- (2) BACK-UP RING
- (3) OIL SEAL
- (4) STOP RING
- (5) DUST SEAL

Drive the guide bushing and oil seal until the stop ring groove is visible, using the special tools (page 5-7).

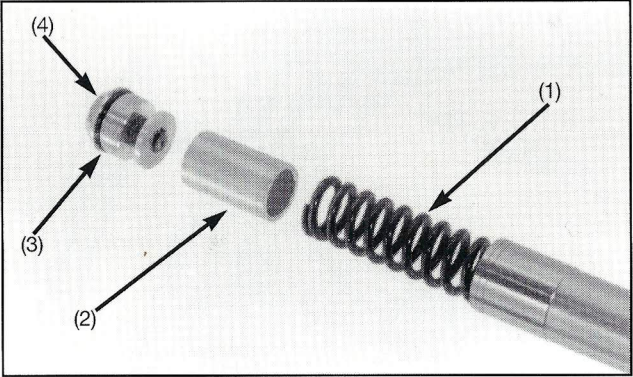
Install the stop ring and dust seal.

Pour half the required amount of recommended fork fluid in the fork leg.

Specified fork fluid:
Belray MC5

Pump the fork tube slowly 8-10 times.
Pour additional fluid to the specified capacity.

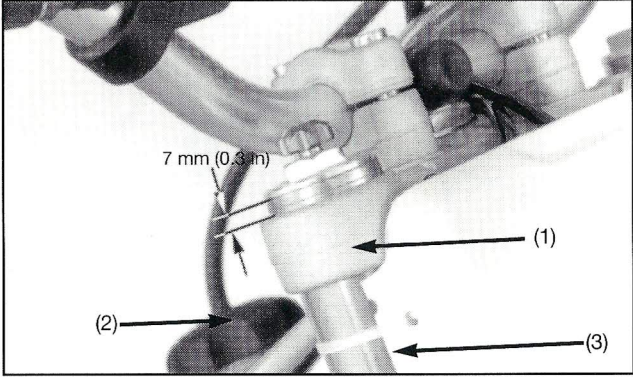
Standard:
Oil capacity: 360 cm³ (12.2 US oz, 12.7 Imp oz)



- (1) FORK SPRING
- (2) DISTANCE COLLAR
- (3) O-RING
- (4) FORK BOLT

Install the fork spring and distance collar.

Apply recommended fork fluid to the new O-ring, then screw the fork bolt into the fork tube.

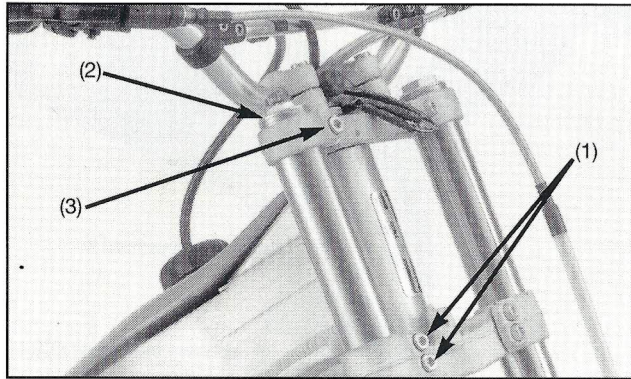


- (1) FORK BOLT
- (2) TOP BRIDGE
- (3) FORK LEG

Installation

Install the fork leg.
Raise the fork through the bottom bridge and top bridge. Position the top end of the fork tube 7 mm (0.3 in) from the upper surface of the top bridge as shown.

FRAME SERVICING



- (1) BOTTOM BRIDGE PINCH BOLTS
- (2) FORK BOLT
- (3) TOP BRIDGE PINCH BOLTS

Apply grease to the fork top and bottom pinch bolt threads.
Tighten the bottom bridge pinch bolts to the specified torque.

Torque: 20 N·m (2.0 kgf·m, 14 lbf·ft)

Overtightening the pinch bolts can deform the outer tube.
Deformed outer tube must be replaced.

Tighten the fork bolt.

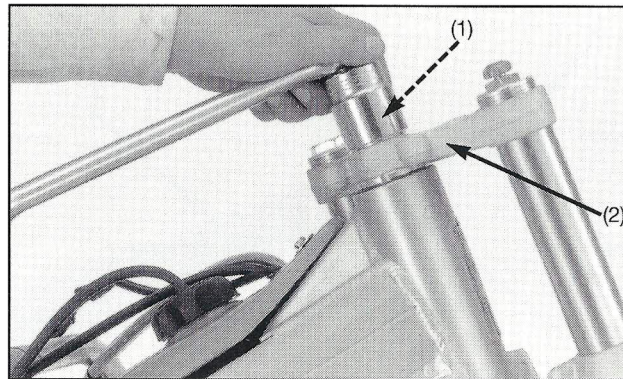
Tighten the top bridge pinch bolt to the specified torque.

Torque: 20 N·m (2.0 kgf·m, 14 lbf·ft)

Return spring pre-load and rebound adjuster to their original positions as noted during removal.

Install the following:

- Front fender
- Front wheel (page 5-2)



- (1) STEM BOLT
- (2) TOP BRIDGE

Steering stem

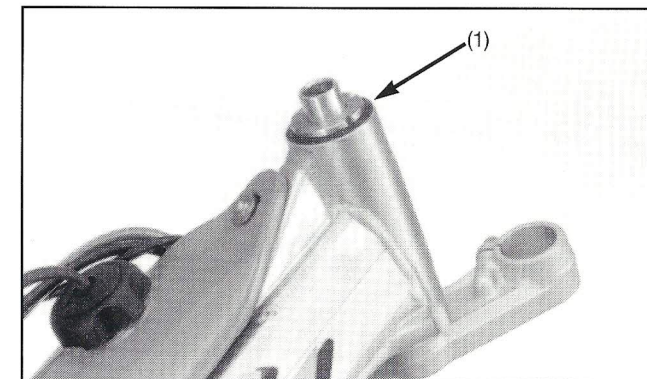
Disassembly

Remove the following:

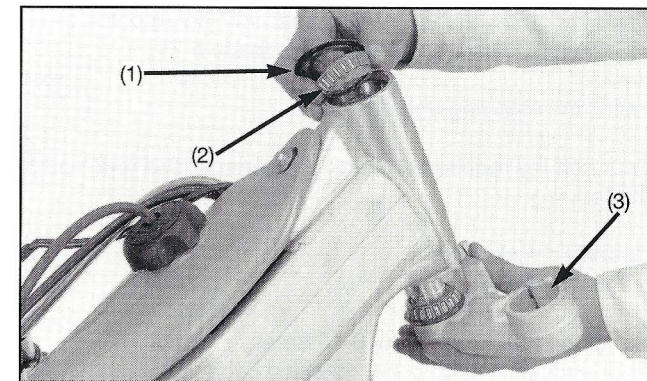
- Handlebar
- Front wheel (page 5-1)
- Front fender

Remove the steering stem bolt and washer.

Remove the fork legs (page 5-3).
Remove the top bridge.



- (1) ADJUSTING NUT

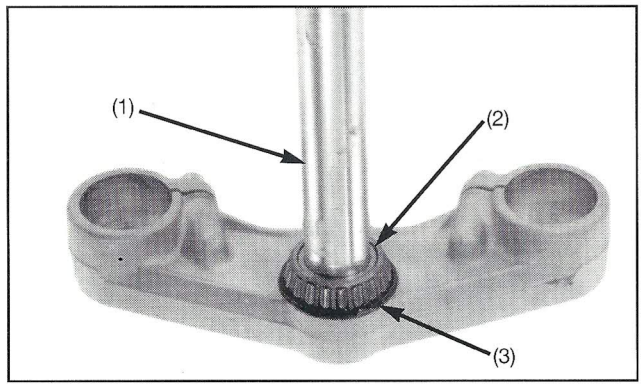


- (1) DUST SEAL
- (2) UPPER BEARING
- (3) STEM

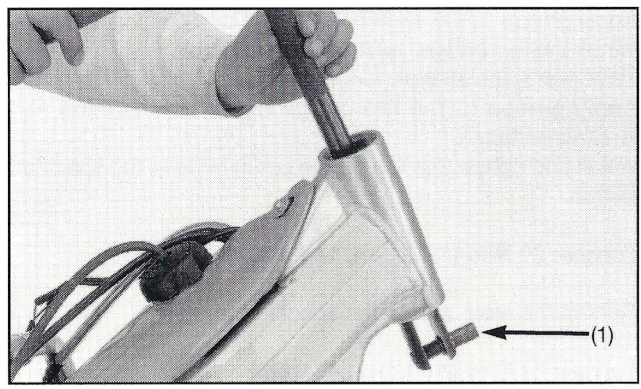
Remove the stem bearing adjusting nut.

Remove the following:

- Dust seal
- Upper bearing
- Steering stem/lower bearing



(1) STEM
(2) LOWER BEARING
(3) DUST SEAL

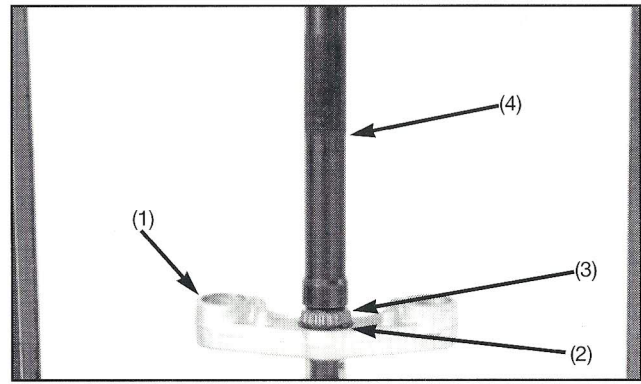


(1) BALL RACE REMOVER

Remove the lower bearing and dust seal from the steering stem.

Remove the upper and lower bearing races from the steering head using special tools.

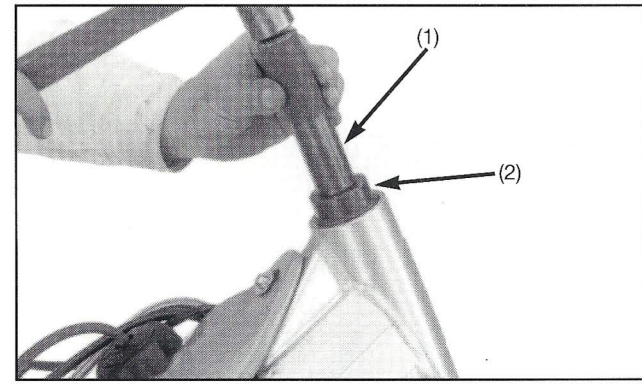
TOOL:
Ball race remover 07948-4630100



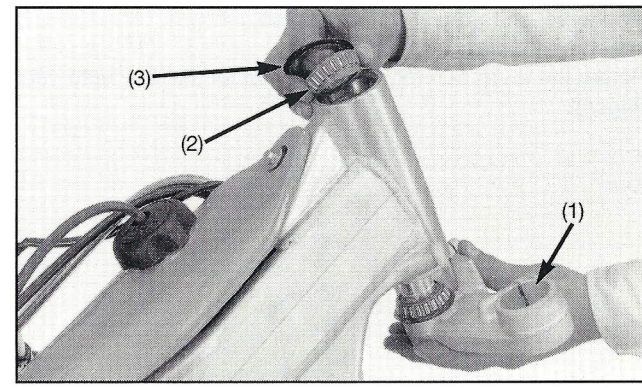
(1) STEM (2) DUST SEAL (3) BEARING
(4) STEERING STEM DRIVER

Install new dust seal onto the steering stem.
Install the new lower bearing into the steering stem using a hydraulic press and driver.

TOOL:
Steering stem driver 07946-4300000



(1) DRIVER
(2) ATTACHMENT



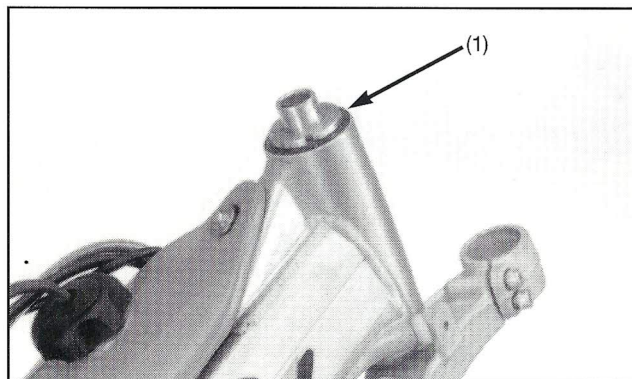
(1) STEM
(2) UPPER BEARING
(3) DUST SEAL

Install new bearing races.

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

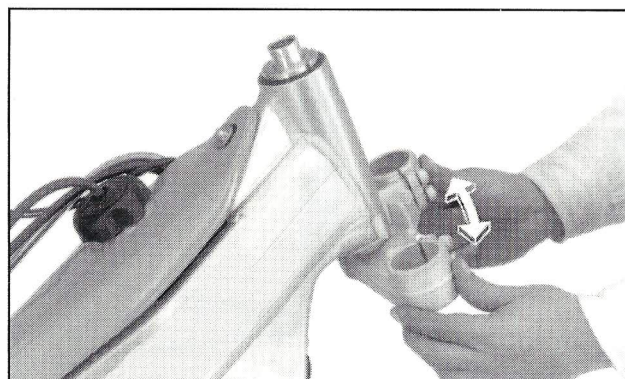
Pack the upper and lower bearings with grease.
Install the steering stem, upper bearing and dust seal.

FRAME SERVICING



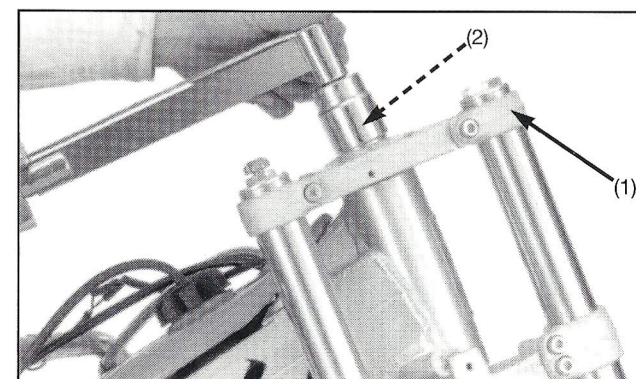
(1) ADJUSTING NUT

Apply grease to the stem bearing adjusting nut threads and seating surfaces.
Screw the stem bearing adjusting nut all the way with your fingers.



Turn the steering stem lock-to-lock 5 times to seat the bearings and retighten the adjusting nut to the specified torque.

Torque: 5 N·m (0.5 kg-m, 3.6 lbf-ft)



(1) TOP BRIDGE
(2) STEM BOLT

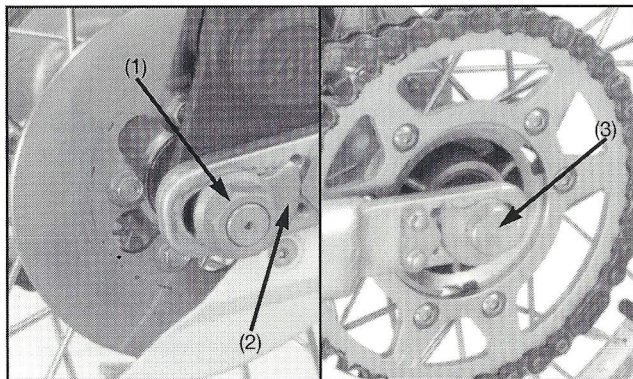
Apply grease to the stem bolt threads and seating surfaces. Install the top bridge, washer and stem bolt. Temporarily install both fork legs. Apply grease to the top bridge pinch bolt threads and seating surfaces. Install and tighten the top bridge pinch bolts to the specified torque.

Torque: 20 N·m (2.0 kg-m, 14 lbf-ft)

Tighten the stem bolt to the specified torque.

Torque: 64 N·m (6.5 kg-m, 47 lbf-ft)

Recheck the steering stem adjustment before installing the removed parts.



- (1) AXLE NUT
- (2) ADJUSTER
- (3) AXLE

Rear Wheel

Removal

Raise the rear wheel off the ground with a block or maintenance stand under the engine.

Remove the following:

- Axle nut and drive chain adjuster
- Drive chain
- Axle, drive chain adjuster, and rear wheel

Do not depress the brake pedal after the rear wheel is removed.

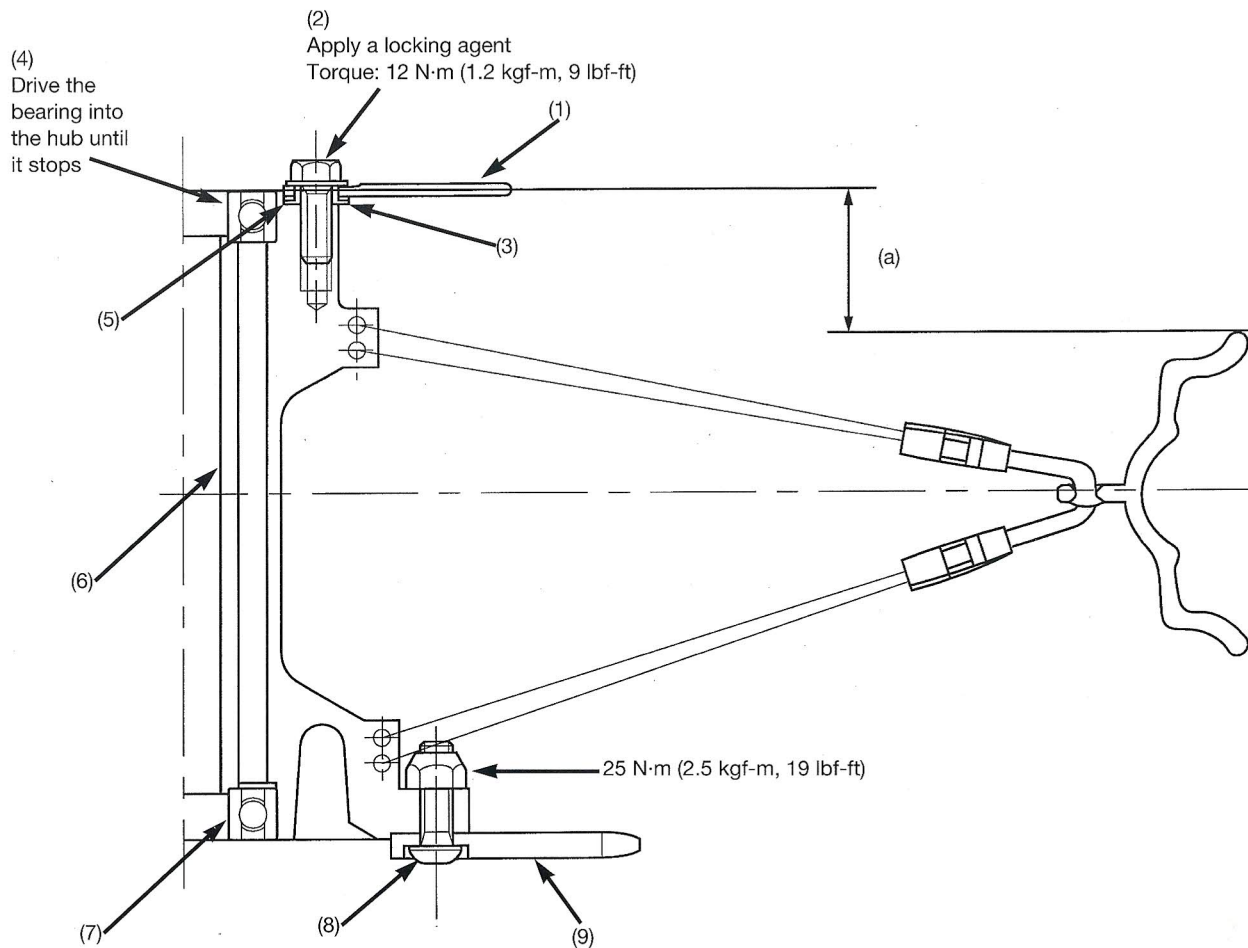
The caliper pistons will move and make reassembly difficult.

Disassembly/Assembly

⚠ WARNING

A contaminated brake disc or pad reduces stopping power, and can cause a serious injury or death.

Discard contaminated pads and clean a contaminated disc with a high quality brake degreasing agent.



- (1) BRAKE DISC
- (2) DISC BOLT
- (3) COLLAR
- (4) RIGHT WHEEL BEARING
- (5) WAVE WASHER
- (6) DISTANCE COLLAR
- (7) LEFT WHEEL BEARING
- (8) DRIVEN SPROCKET BOLT
- (9) DRIVEN SPROCKET

(a) 34 ± 0.5 mm