

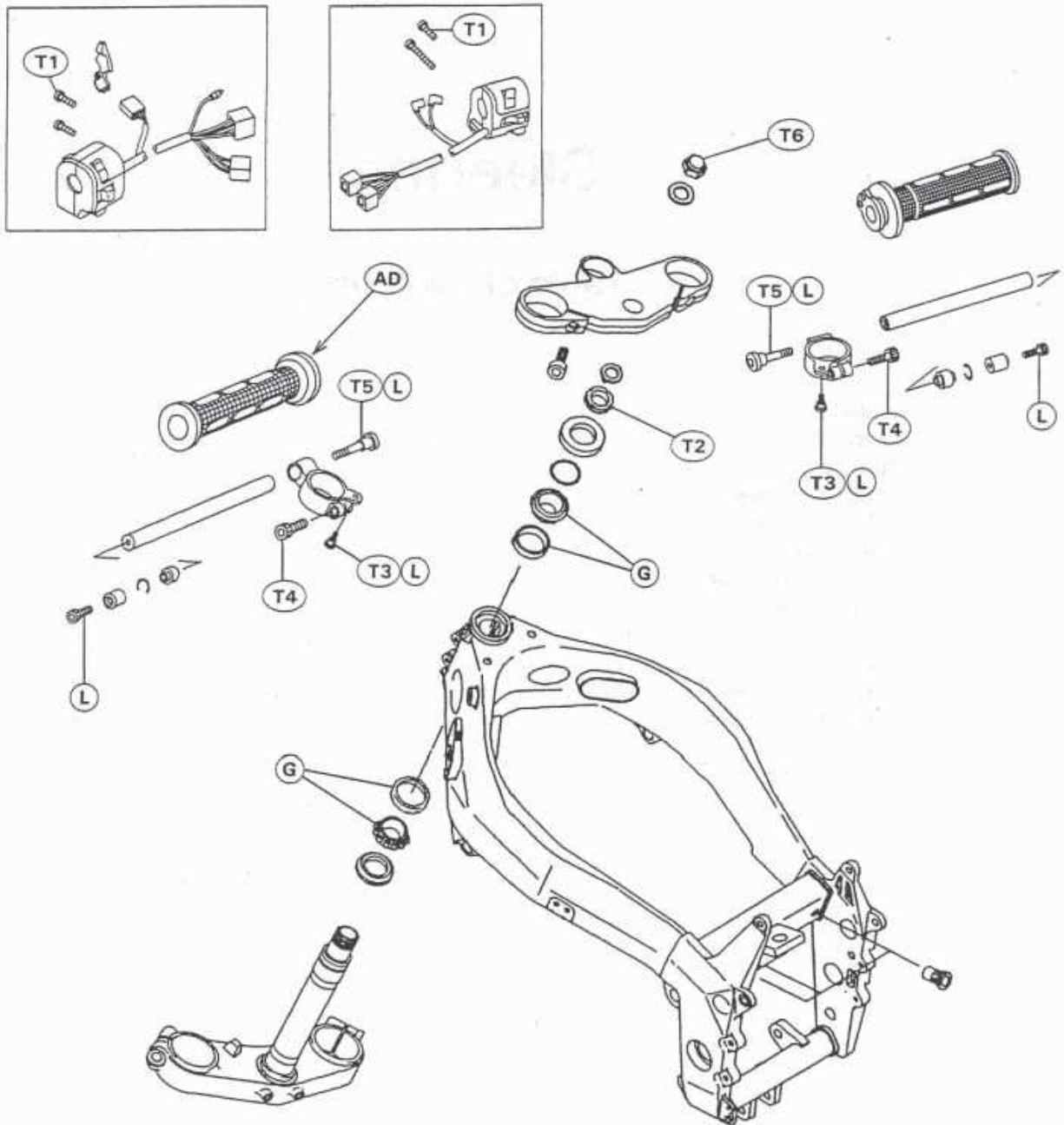
Steering

Table of Contents

Exploded View	13-2
Specifications	13-3
Steering	13-4
Steering Inspection	13-4
Steering Adjustment	13-4
Steering Stem	13-5
Stem, Stem Bearing Removal	13-5
Stem, Stem Bearing Installation	13-5
Stem Bearing Lubrication	13-7
Handlebar	13-8
Handlebar Removal	13-8
Handlebar Installation	13-8

13-2 STEERING

Exploded View



AD: Apply adhesive.
G: Apply grease.
L: Apply a non-permanent locking agent.

T1: 3.4 N-m (0.35 kg-m, 30 in-lb)
T2: 4.9 N-m (0.50 kg-m, 43 in-lb)
or Hand-tight
T3: 9.8 N-m (1.0 kg-m, 87 in-lb)
T4: 23 N-m (2.3 kg-m, 16.5 ft-lb)
T5: 34 N-m (3.5 kg-m, 25 ft-lb)
T6: 54 N-m (5.5 kg-m, 40 ft-lb)

Specifications

Special Tool – Head Pipe Outer Race Press Shaft: 57001-1075
Head Pipe Outer Race Drivers: 57001-1077 (2)
Steering Stem Nut Wrench: 57001-1100
Jack: 57001-1238
Steering Stem Bearing Driver: 57001-1344
Steering Stem Bearing Driver Adapter: 57001-1345



13-4 STEERING

Steering

Steering Inspection

- Check the steering.
- Lift the front wheel off the ground using the jack.

Special Tool – Jack: 57001-1238

- With the front wheel pointing straight ahead, alternately tap each end of the handlebar. The front wheel should swing fully left and right from the force of gravity until the fork hits the stop.
- ★ If the wheel binds or catches before the stop, the steering is too tight.
- Feel for steering looseness by pushing and pulling the forks.
- ★ If you feel looseness, the steering is too loose.

NOTE

- The cables and wiring will have some effect on the motion of the fork which must be taken into account.
Be sure the wires and cables are properly routed.
- The bearings must be in good condition and properly lubricated in order for any test to be valid.

Steering Adjustment

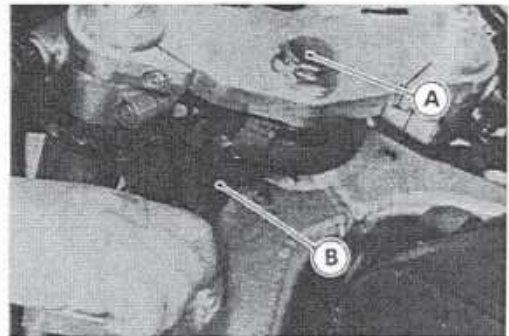
- Remove:
 - Upper fairing (see Frame chapter)
 - Fuel Tank (see Fuel System chapter)
 - Rear View Mirror Bracket and Mounting Bolts
- Loosen:
 - Lower Fork Clamp Bolts (both sides)
 - Stem Head Nut [A]
- Adjust the steering.

Special Tool – Steering Stem Nut Wrench: 57001-1100 [B]

- ★ If the steering is too tight, loosen the stem nut a fraction of a turn.
- ★ If the steering is too loose, tighten the nut a fraction of a turn.

NOTE

- Turn the stem nut $1/8$ turn at a time maximum.
- Tighten the steering stem head nut and lower fork clamp bolts.
 - Torque – Steering Stem Head Nut: 54 N-m (5.5 kg-m, 40 ft-lb)**
 - Lower Front Fork Clamp Bolts (ZX750N): 21 N-m (2.1 kg-m, 15.0 ft-lb)**
 - Lower Front Fork Clamp Bolts (ZX750P): 28 N-m (2.9 kg-m, 21 ft-lb)**
- Check the steering again.
- ★ If the steering is still too tight or too loose, repeat the adjustment.



Steering Stem

Stem, Stem Bearing Removal

● Remove:

- Upper and lower Fairings (see Frame chapter)
- Fuel Tank (see Fuel System chapter)
- Rear View Mirror Bracket
- Front Wheel (see Wheels/Tires chapter)
- Front Fork (see Suspension chapter)
- Brake Hose Joint Mounting Bolts [A]
- Bolts [B] and Meter Bracket [C]
- Steering Stem Head Nut and Washer
- Steering Stem Head
- Horn Lead Connectors

- Pushing up the stem base, and remove the lock washer [A], stem nut [B], stem cap [C] and O-ring, then remove the steering stem [D] and stem base.

Special Tool – Steering Stem Nut Wrench: 57001-1100

● Remove:

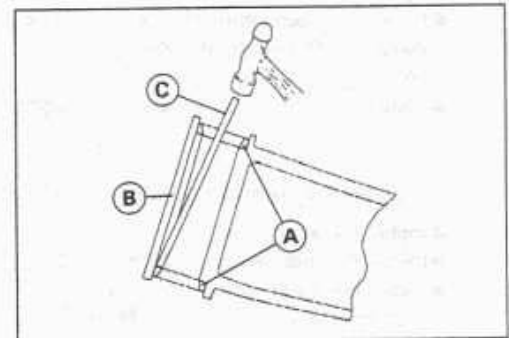
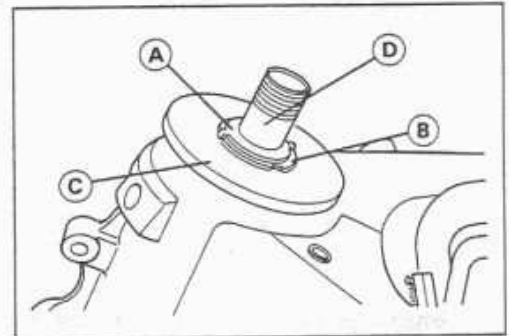
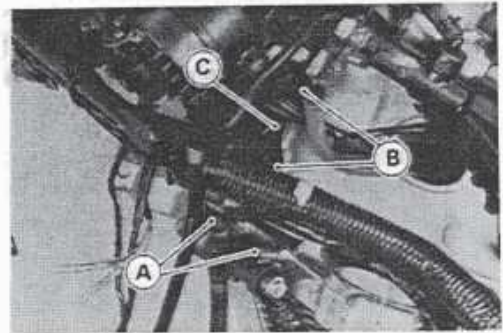
- Upper Stem Bearing Inner Race
- Horn

- To remove the outer races [A] pressed into the head pipe [B], insert a bar [C] into the head pipe, and hammer evenly around the circumference of the opposite race to drive it out.

NOTE

○ If either steering stem bearing is damaged, it is recommended that both the upper and lower bearings (including outer races) should be replaced with new ones.

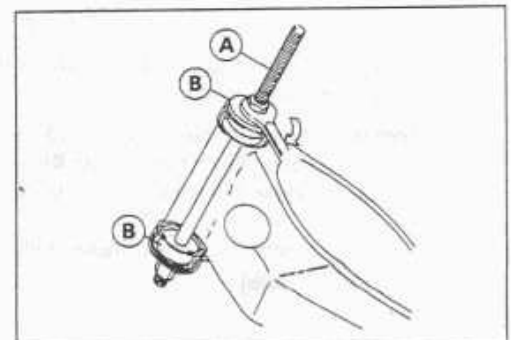
- Remove the lower stem bearing (with its grease seal) which is pressed onto the steering stem with a suitable commercially available bearing puller.



Stem, Stem Bearing Installation

- Apply grease to the outer races, and drive them into the head pipe at the same time.

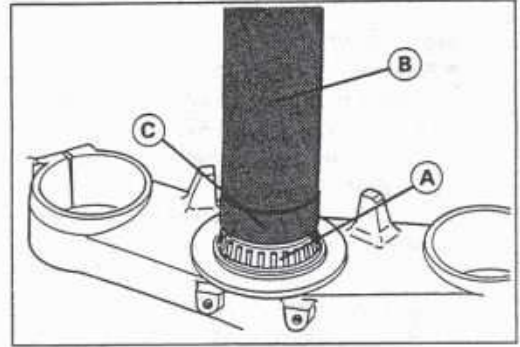
Special Tool – Head Pipe Outer Race Press Shaft: 57001-1075 [A]
Head Pipe Outer Race Drivers: 57001-1077 [B] (2)



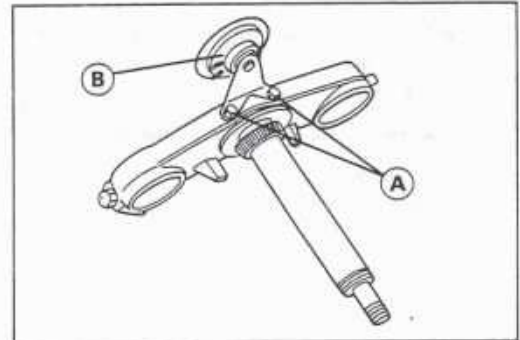
13-6 STEERING

- Apply grease to the lower inner race [A], and drive it onto the stem.

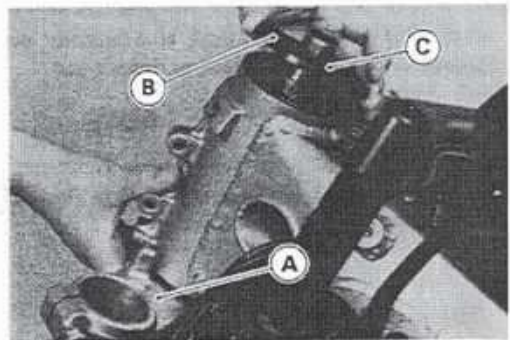
Special Tool – Steering Stem Bearing Driver: 57001-1344 [B]
Steering Stem Bearing Driver Adapter: 57001-1345 [C]



- Install the bolts [A] and horn [B] as shown.



- Apply grease to the upper inner race, and install it in the head pipe.
- Apply grease to the O-ring.
- Install the stem through the head pipe and the upper inner race, and install the O-ring on the stem shaft while pushing up on the stem base [A].
- Install the stem cap [B], and hand tighten the stem nut [C].



NOTE

○ Install the steering stem nut so that the stepped side faces down.

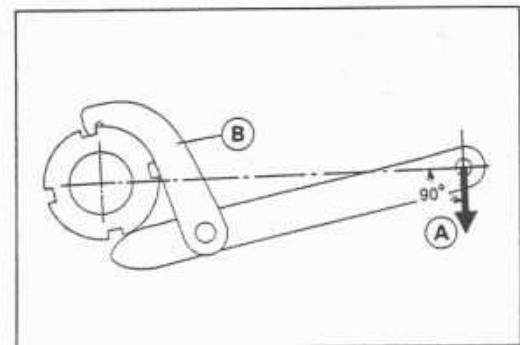
- Install the stem head.
- Install the washer, and tighten the stem head nut lightly.
- Settle the inner races in place as follows:
 - Tighten the stem nut to 54 N-m (5.5 kg-m, 40 ft-lb) of torque. (To tighten the steering stem nut to the specified torque, hook the wrench on the stem nut, and pull the wrench at the hole by 30.5 kg [A] force in the direction shown.)

Special Tool – Steering Stem Nut Wrench: 57001-1100 [B]

- Check that there is no play and the steering stem turns smoothly without rattles. If not, the bearings on the inner races may be damaged.
- Again back out the stem nut a fraction of a turn until it turns lightly.
- Turn the stem nut lightly clockwise until it just becomes hard to turn. Do not overtighten, or the steering will be too tight.

Torque – Steering Stem Nut: Hand-tight or 4.9 N-m (0.50 kg-m, 43 in-lb)

- Install the front fork (see Suspension chapter).



NOTE

○ Tighten the fork upper clamp bolts first, next the stem head nut, last the fork lower clamp bolts.

Torque – Steering Stem Head Nut: 54 N-m (5.5 kg-m, 40 ft-lb)
Upper Front Fork Clamp Bolts: 21 N-m (2.1 kg-m, 15 ft-lb)
Lower Front Fork Clamp Bolts (ZX750N): 21 N-m (2.1 kg-m, 15 ft-lb)
Lower Front Fork Clamp Bolts (ZX750P): 28 N-m (2.9 kg-m, 21 ft-lb)

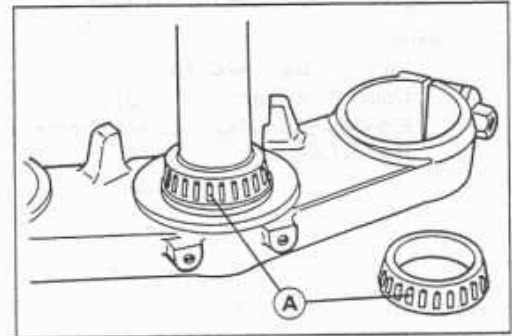
- Install the removed parts (see appropriate chapters).

⚠ WARNING

Do not impede the handlebar turning by routing the cables, harnesses and hoses improperly (see General Information chapter).

Stem Bearing Lubrication

- Remove the steering stem.
- Using a high flash-point solvent, wash the upper and lower tapered roller bearings in the cages, and wipe the upper and lower outer races, which are press-fitted into the frame head pipe, clean off grease and dirt.
- Visually check the outer races and the rollers.
- ★ Replace the bearing assemblies if they show wear or damage.
- Pack the upper and lower tapered roller bearings [A] in the cages with grease, and apply a light coat of grease to the upper and lower outer races.
- Install the steering stem, and adjust the steering.



13-8 STEERING

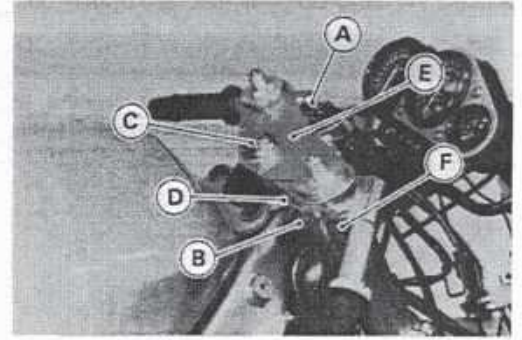
Handlebar

Handlebar Removal

- Remove:
 - Clutch Master Cylinder
 - Left Handlebar Switch Housing
 - Clutch Fluid Reservoir Bracket
 - Front Brake Fluid Reservoir Bracket
 - Front Brake Master Cylinder
 - Right Handlebar Switch Housing
 - Throttle Grip
 - Handlebar Bolts [A]
 - Handlebar Holder Bolts [B]
- Raise the front wheel off the ground.

Special Tool – Jack: 57001-1238

- Remove:
 - Steering Stem Head Nut [C]
 - Upper Fork Clamp Bolts [D]
 - Steering Stem Head [E] and Handlebar Holders [F]
 - Handlebars



Handlebar Installation

- Fit the pin [A] of the handlebar in the handlebar holder recess [B].
- Apply a non-permanent locking agent to the handlebar bolts and tighten the following bolts.

Torque – Upper Front Fork Clamp Bolts: 21 N-m (2.1 kg-m, 15.0 ft-lb)
Handlebar Holder Bolts: 23 N-m (2.3 kg-m, 16.5 ft-lb)
Handlebar Bolts: 34 N-m (3.5 kg-m, 25 ft-lb)
Steering Stem Head Nut: 54 N-m (5.5 kg-m, 40 ft-lb)

- Install the removed parts (see appropriate chapters).

