

Product: 1997 Kawasaki ZXR250 Motorcycle Service Repair Workshop Manual  
 Full Download: <https://www.arepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/>

# Suspension

## Table of Contents

Exploded View .....	12-2
Specifications .....	12-4
Front Fork .....	12-5
Rebound Damping Force Adjustment .....	12-5
Compression Damping Force Adjustment .....	12-5
Spring Preload Adjustment .....	12-6
Front Fork Removal (each fork leg) .....	12-6
Front Fork Installation .....	12-7
Fork Oil Change .....	12-7
Front Fork Disassembly .....	12-10
Front Fork Assembly .....	12-11
Inner Tube, Outer Tube Inspection .....	12-12
Dust Seal Inspection .....	12-12
Spring Tension .....	12-12
Rear Shock Absorber .....	12-13
Spring Preload Adjustment .....	12-13
Rear Shock Absorber Removal .....	12-13
Rear Shock Absorber Installation .....	12-13
Rear Shock Absorber Scrapping .....	12-14
Swingarm .....	12-15
Swingarm Removal .....	12-15
Swingarm Installation .....	12-15
Swingarm Bearing Removal .....	12-15
Swingarm Bearing Installation .....	12-16
Tie-Rod, Rocker Arm .....	12-17
Tie-Rod Removal .....	12-17
Tie-Rod Installation .....	12-17
Rocker Arm Removal .....	12-17
Rocker Arm Installation .....	12-17
Needle Bearing Inspection .....	12-18
Tie-Rod, Rocker Arm Sleeve Inspection .....	12-18

Sample manual. Download All pages at:

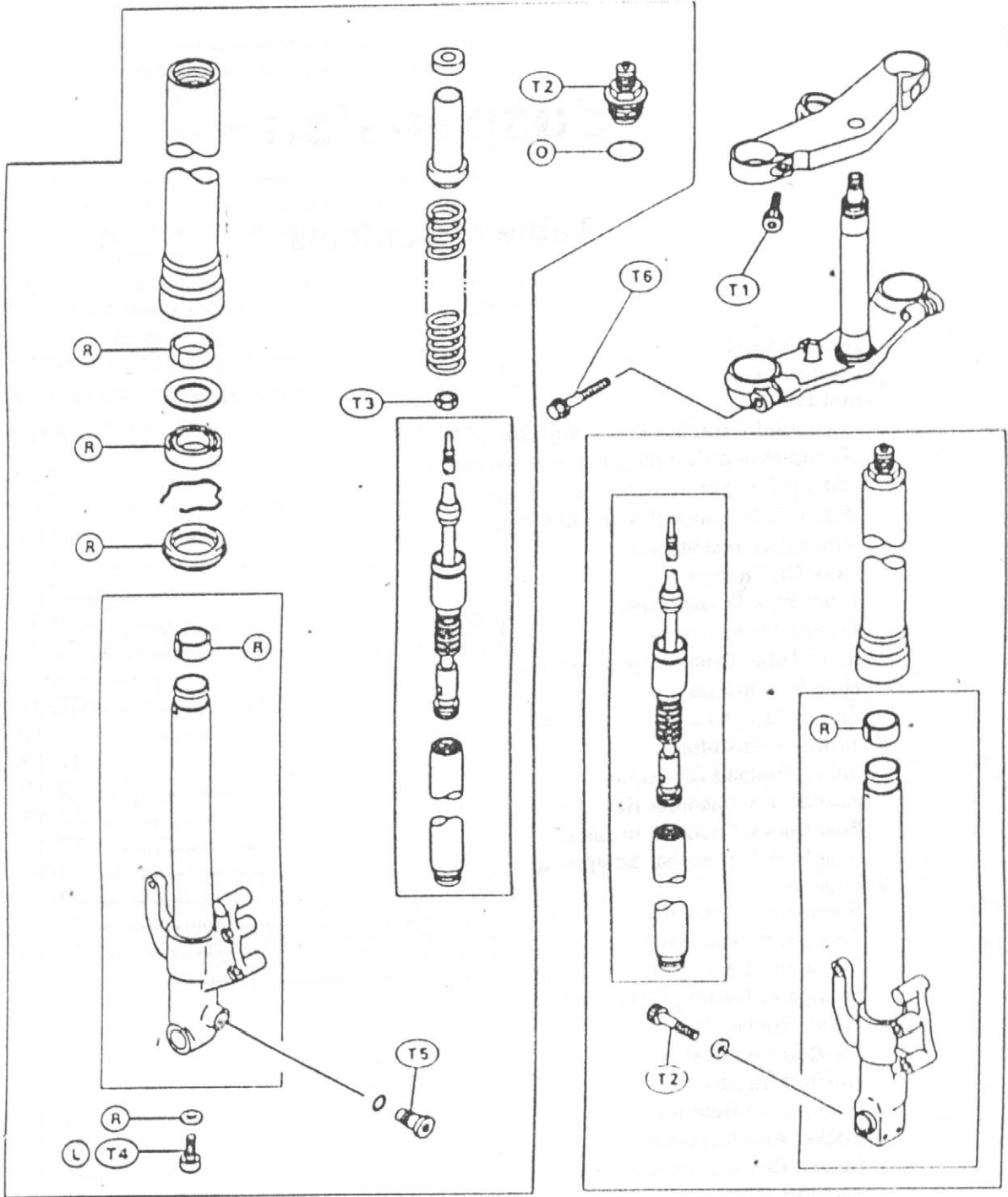
<https://www.arepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/>

# 12-2 SUSPENSION

Product: 1997 Kawasaki ZXR250 Motorcycle Service Repair Workshop Manual

Full Download: <https://www.irepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/>

-motorcycle-service-repair-workshop-manual/



- T1: 20 N·m (2.0 kg·m)
- T2: 23 N·m (2.3 kg·m)
- T3: 15 N·m (1.5 kg·m)
- T4: 39 N·m (4.0 kg·m)
- T5: 18 N·m (1.8 kg·m)
- T6: 29 N·m (3.0 kg·m)
- T7: 93 N·m (9.5 kg·m)
- T9: 49 N·m (5.0 kg·m)

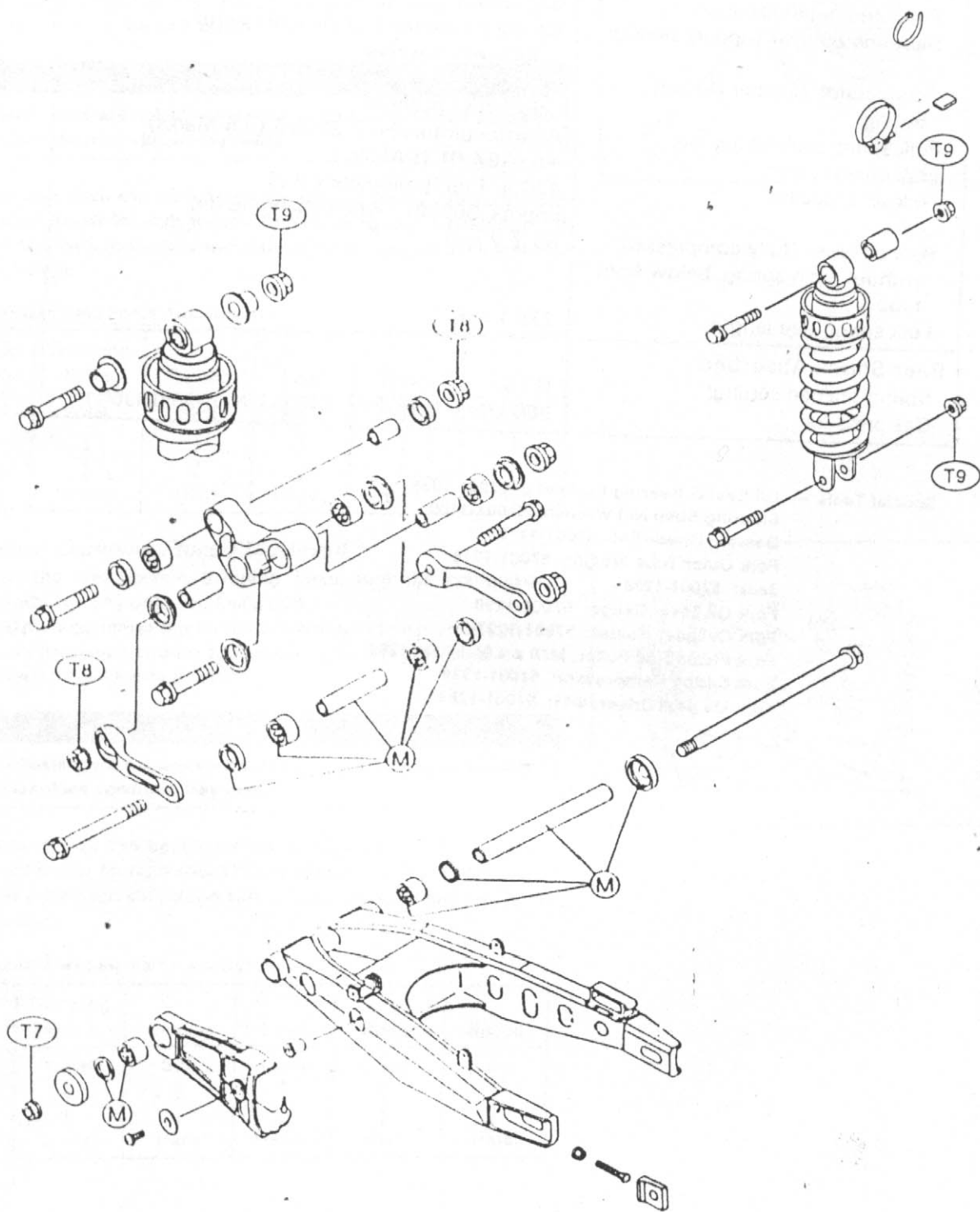
L: Apply a non-permanent locking agent

O: Apply oil

R: Replacement Parts

Sample manual Download All pages at:

<https://www.irepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/>



M: Apply molybdenum disulfide grease.

## 12-4 SUSPENSION

### Specifications

Item	Standard	Service Limit
<b>Front Fork (per one unit):</b>		
Fork inner tube diameter:	φ41 mm	---
Rebound damper (upper) setting:	6th click from the first click of the fully clockwise position	---
Compression damper (lower) setting:	6th click from the first click of the fully clockwise position	---
Fork spring preload setting:	Adjuster protrusion is 20 mm (8.5 Marks)	5 ~ 20 mm
Fork oil viscosity:	KAYABA 01 (SAE5W)	---
Fork oil capacity:	430 ± 4 ml (completely dry) approx. 365 mL (when changing oil)	---
Fork oil level: (fully compressed, without main spring, below from tube top)	85 ± 2 mm	---
Fork spring free length:	225.1 mm	221 mm
<b>Rear Shock Absorber:</b>		
Spring preload setting:	No.3	1 ~ 7
Gas pressure	980 kPa (10 kg/cm <sup>2</sup> , 142 psi, Non-adjustable)	---

**Special Tools -** Oil Seal & Bearing Remover: 57001-1058  
 Steering Stem Nut Wrench: 57001-1100  
 Bearing Driver Set: 57001-1129  
 Fork Outer Tube Weight: 57001-1218  
 Jack: 57001-1238  
 Fork Oil Level Gauge: 57001-1290  
 Fork Cylinder Holder: 57001-1297  
 Fork Piston Rod Puller, M10 x 1.0: 57001-1298  
 Fork Spring Compressor: 57001-1338  
 Fork Oil Seal Driver, φ41: 57001-1288

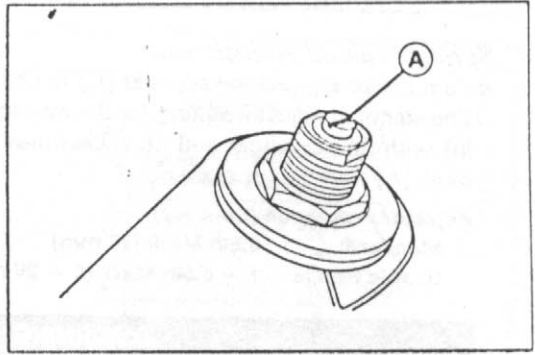
Front Fork

*Rebound Damping Force Adjustment*

- To adjust the rebound damping force, turn the rebound damping adjuster [A] until you feel a click.
- The standard adjuster setting for the average built rider of 68 kg (150 lb) with no passenger and no accessories is the 6th click from the 1st click of the fully clockwise position.

**⚠WARNING**

If both adjusters are not adjusted equally, handling may be impaired and a hazardous condition may result.



- The damping force can be left soft for average riding. But it should be adjusted harder for high speed riding or riding with a passenger. If the damping feels too soft or too stiff, adjust it in accordance with the following table.

**Rebound Damping Force Adjustment**

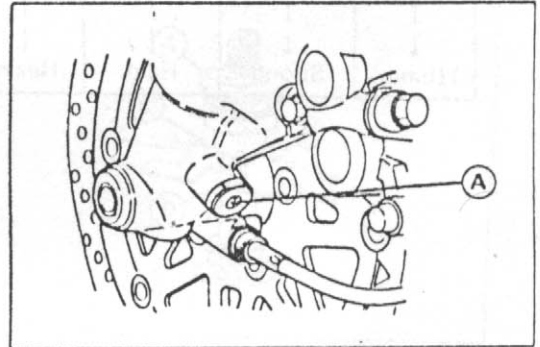
Adjuster Position	Damping Force	Setting	Load	Road	Speed
12 ~ 13	Weak	Soft *	Light	Good	Low
↑	↑	↑	↑	↑	↑
↓	↓	↓	↓	↓	↓
1	Strong	Hard	Heavy	Bad	High

*Compression Damping Force Adjustment*

- To adjust the compression damping force, turn the compression damping adjuster [A] until you feel a click.
- The standard adjuster setting for the average built rider of 68 kg (150 lb) with no passenger and no accessories is the 6th click from the 1st click of the fully clockwise position.

**⚠WARNING**

If both adjusters are not adjusted equally, handling may be impaired and a hazardous condition may result.



- The damping force can be left soft for average riding. But it should be adjusted harder for high speed riding or riding with a passenger. If the damping feels too soft or too stiff, adjust it in accordance with the following table.

**Compression Damping Force Adjustment**

Adjuster Position	Damping Force	Setting	Load	Road	Speed
7 ~ 9	Weak	Soft	Light	Good	Low
↑	↑	↑	↑	↑	↑
↓	↓	↓	↓	↓	↓
1	Strong	Hard	Heavy	Bad	High

**Spring Preload Adjustment**

- Turn the spring preload adjuster [C] to change spring preload setting.
- The standard adjuster setting for the average build rider of 68 kg (150 lb) with no passenger and no accessories is the 8.5th mark [B] (20 mm) [A] from top as shown.

**Adjuster Protrusion (from top)**

- Standard: 8.5th Mark (20 mm)
- Usable Range 1 ~ 8.5th Mark (5 ~ 20 mm)

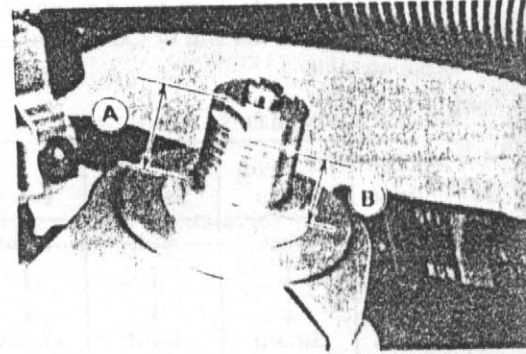
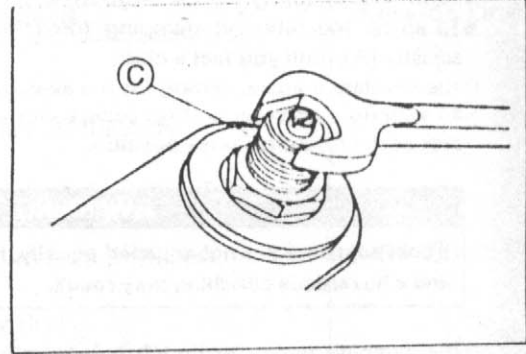
**⚠WARNING**

If both adjusters are not adjusted equally, handling may be impaired and a hazardous condition may result.

- The spring preload can be left soft for average riding. But it should be adjusted harder for high speed riding or riding with a passenger. If the spring action feels too soft or too stiff, adjust it in accordance with the following table.

**Spring Action**

Adjuster Position	Dumping Force	Setting	Load	Road	Speed
8.5 (20 mm)	Weak	Soft	Light	Good	Low
↑ ↓	↑ ↓	↑ ↓	↑ ↓	↑ ↓	↑ ↓
1 (5mm)	Strong	Hard	Heavy	Bad	High



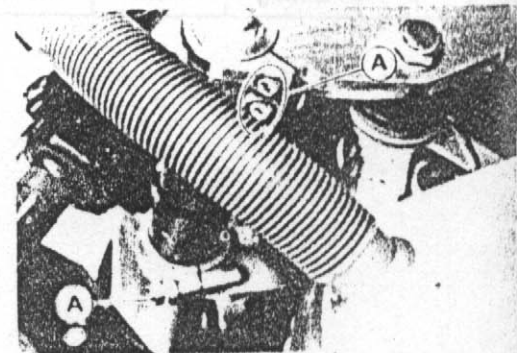
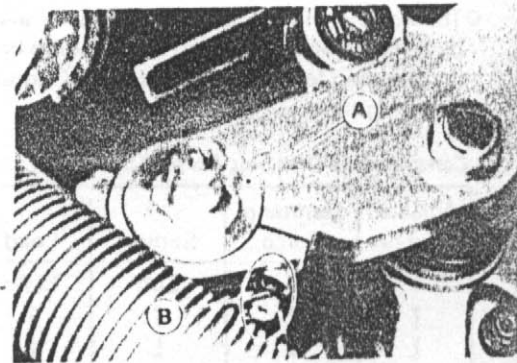
**Front Fork Removal (each fork leg)**

- Remove:
  - Upper and Lower Fairings (see Frame chapter)
  - Front Wheel (see Wheels/Tires chapter)
  - Front Fender (see Frame chapter)
- ★ Loosen the upper and lower fork clamp bolts [B] and fork top plug [A] beforehand if the fork leg is to be disassembled

**NOTE**

- Loosen the top plug after loosening the upper fork clamp bolts.

- Loosen the upper and lower fork clamp bolts [A].
- With a twisting motion, work the fork leg down and out.



### Front Fork Installation

- Install the fork so that the top end [A] of the outer tube is flush with the upper surface [B] of the steering stem head
- Tighten the lower fork clamp bolt and fork top plug

Torque – Lower Front Fork Clamp Bolt: 29 N·m (3.0 kg·m)  
 Front Fork Top Plug: 23 N·m (2.3 kg·m)

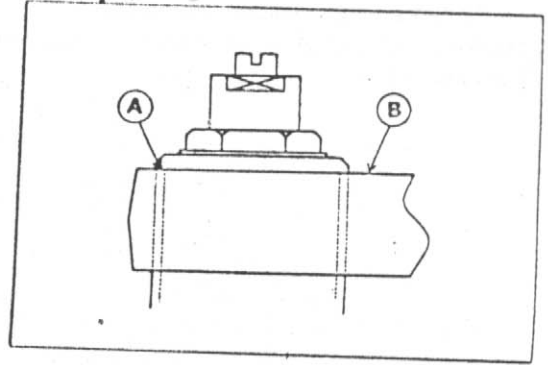
- Tighten the upper fork clamp bolt.

Torque – Upper Front Fork Clamp Bolts: 20 N·m (2.0 kg·m)

### NOTE

○ Tighten the top plug before tightening the upper fork clamp bolt

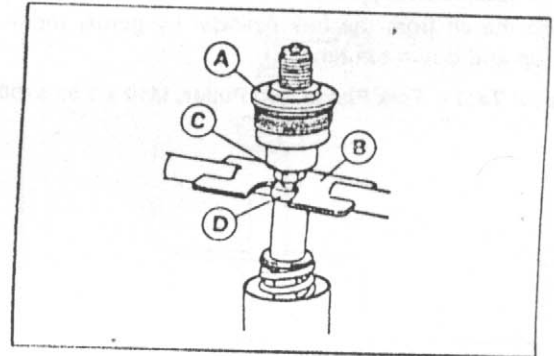
- Install the removed parts (see appropriate chapters)
- Adjust the spring preload and the damping force.



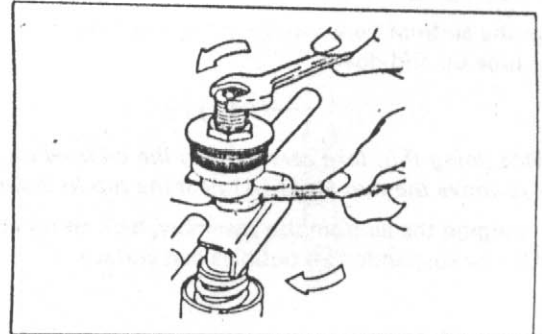
### Fork Oil Change

- Remove the front fork (see Front Fork Removal).
- Hold the inner tube lower end in a vise.
- Unscrew the top plug [A] out of the outer tube.
- While holding up the top plug by one person, push down the fork spring compressor [B] and insert it between the piston rod nut [C] and the spacer guide [D].

Special Tool – Fork Spring Compressor: 57001-1338



- Holding the piston rod nut with a wrench, remove the top plug from the piston rod.



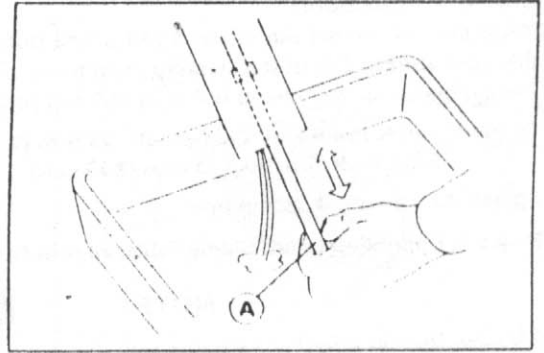
- Remove:
  - Rebound Damping Adjuster Rod
  - Fork Spring Compressor

### NOTE

○ While holding down the spacer guide, pull out the fork spring compressor.

- Remove:
  - Spacer Guide
  - Spacer
  - Fork Spring

- Drain the fork oil into a suitable container.
- Pump the piston rod [A] up and down at least ten times to expel the oil from the fork.



- Hold the fork tube upright, press the outer tube and the piston rod all the way down.

### NOTE

○ The spring should not be installed.

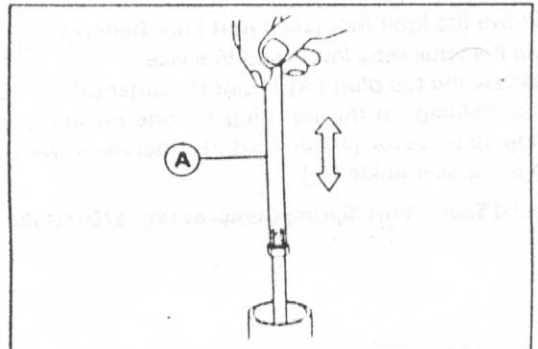
- Fill the front fork to the top with the specified oil.

#### Recommended Oil

**KAYABA 01 (SAE5W)**

- Purge the air from the fork cylinder by gently moving the rod puller [A] up and down ten times.

Special Tool – Fork Piston Rod Puller, M10 x 1.0: 57001-1298

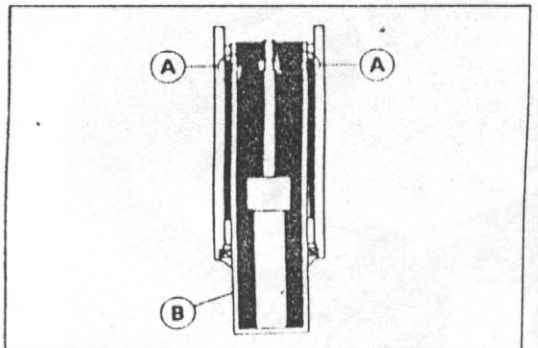


- Purge the air from between the inner and outer tubes by pumping the outer tube up and down.

### NOTE

○ While doing this, take care to keep the oil level topped off so that it stays above the two holes [A] near the top of the inner tube [B].

- After purging the air from the assembly, let it sit for about five minutes so that any suspended air bubbles can surface.

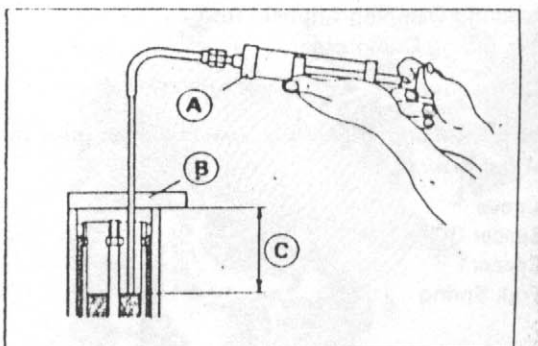


- Measure the oil level, using the fork oil level gauge [A].

Special Tool – Fork Oil Level Gauge: 57001-1290

- Insert the gauge tube into the inner tube and position stopper across the top of the outer tube.
- Set the gauge stopper [B] so that its lower side shows the oil level distance specified [C].
- Pull the handle slowly to draw out the excess oil until no more oil comes up the tube.

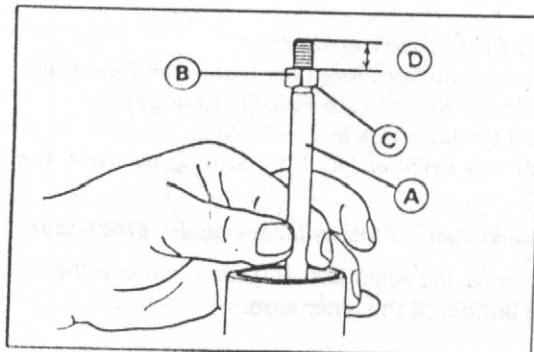
- ★ If no oil is drawn out, there is not enough oil in the fork. Pour in some more oil, then draw out the excess.



**Front Fork Oil Level (Fully compressed without fork spring)**

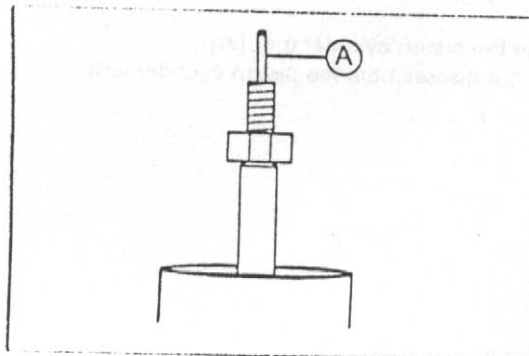
Standard:  $85 \pm 2 \text{ mm}^*$

- Pull the piston rod [A] up above the outer tube top
- Screw the rod nut [B] on to the piston rod with the chamfered side [C] down.
- Check that the visible thread length is at least 12 mm [D]



- Insert the rebound damping adjuster rod [A] into the piston rod
- Screw the fork piston rod puller onto the end of the rod

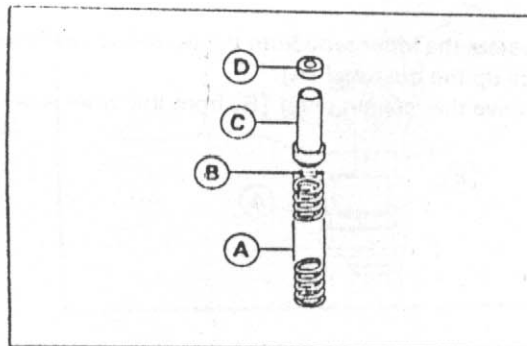
**Special Tool - Fork Piston Rod Puller, M10 x 1.0: 57001-1298**



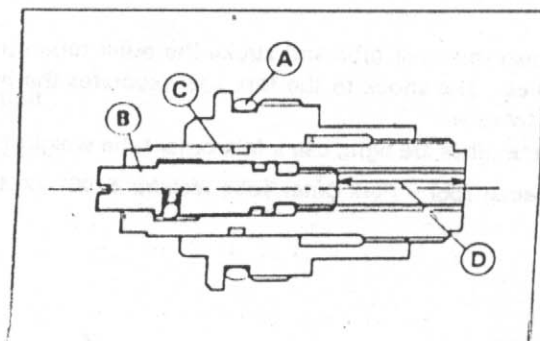
- Install the fork spring [A] with the smaller end [B] facing upward.
- Install the spacer [C] and spacer guide [D].
- While holding up the fork piston rod puller by one person, push down the fork spring compressor and insert it between the piston rod nut and spacer guide.

**Special Tool - Fork Spring Compressor: 57001-1338**

- Remove the fork piston rod puller.



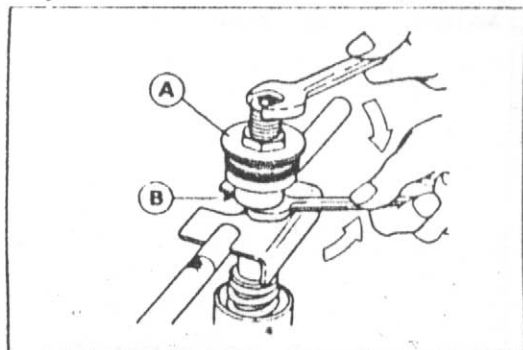
- Check the O-ring [A] on the top plug and replace it with a new one if damaged.
- Screw in the damper adjuster [B] of the top plug so that the distance between the adjuster bottom and the spring adjuster [C] end is 25 mm [D].



- Holding the top plug [A] with a wrench, tighten the piston rod nut [B] against the top plug.

Torque - Piston Rod Nut: 15 N-m (1.5 kg-m, 11.0 ft-lb)

- Remove the fork spring compressor.
- Raise the outer tube and screw the top plug into it.
- Install the front fork (see Front Fork Installation).

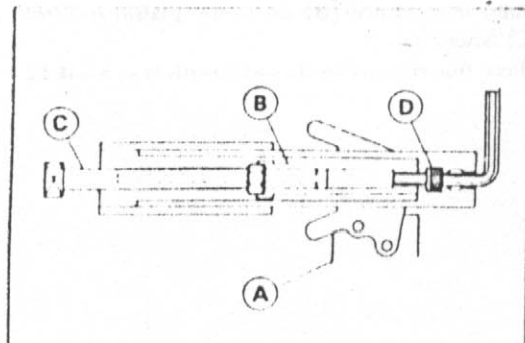


**Front Fork Disassembly**

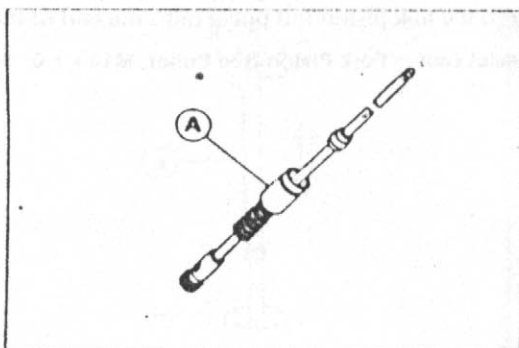
- Remove the front fork (see Front Fork Removal).
- Drain the fork oil (see Fork Oil Change).
- Hold the front fork in a vise [A].
- Stop the cylinder [B] from turning by using the fork cylinder holder [C].

Special Tool - Fork Cylinder Holder: 57001-1297

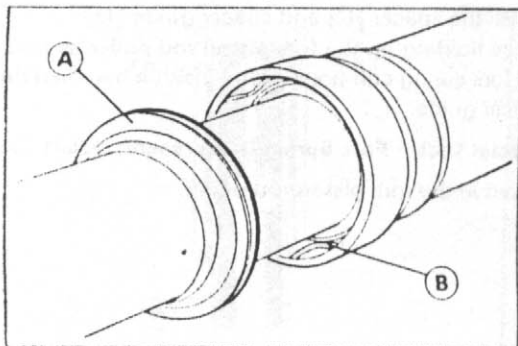
- Unscrew the Allen bolt [D], then remove the bolt and gasket out of the bottom of the inner tube.



- Take the piston cylinder unit [A].
- Do not disassemble the piston cylinder unit.



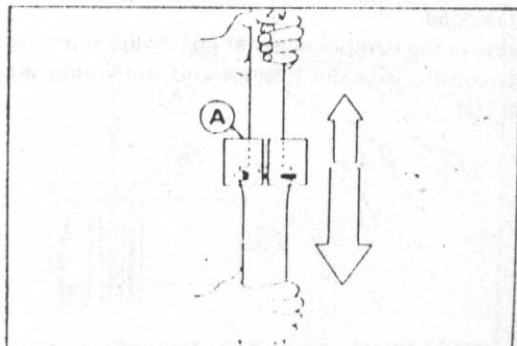
- Separate the inner tube from the outer tube as follows.
  - Slide up the dust seal [A].
  - Remove the retaining ring [B] from the outer tube.



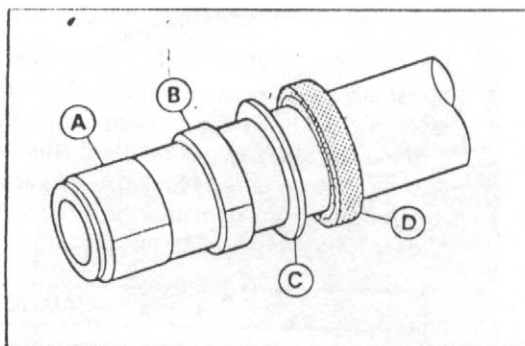
- Grasp the inner tube and stroke the outer tube up and down several times. The shock to the fork seal separates the inner tube from the outer tube.

★ If the tubes are tight, use a fork outer tube weight [A].

Special Tool - Fork Outer Tube Weight: 57001-1218



- Remove the inner tube guide bushing [A], outer tube guide bushing [B], washer [C], oil seal [D], retaining ring and dust seal from the inner tube.



### Front Fork Assembly

- Replace the following parts with new ones

Oil Seal

Guide Bushings

Bottom Allen Bolt Gasket

- Place an oil coated plastic bag [A] over the end of the inner tube to protect the dust seal [B] and oil seal.

○ The inner tube bushing groove has a sharp edge that can cut the sealing lip of the seals as they are pushed down over the inner tube.

- Install the following parts onto the inner tube.

Dust Seal

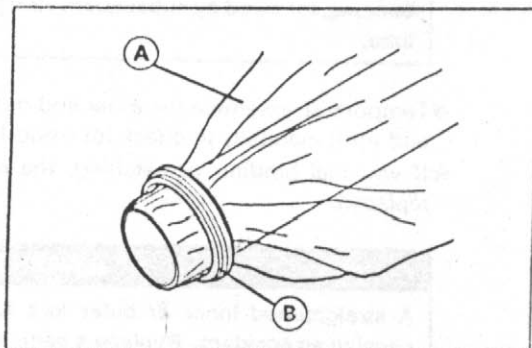
Retaining Ring

Oil Seal

Washer

Outer Tube Guide Bushing

Inner Tube Guide Bushing

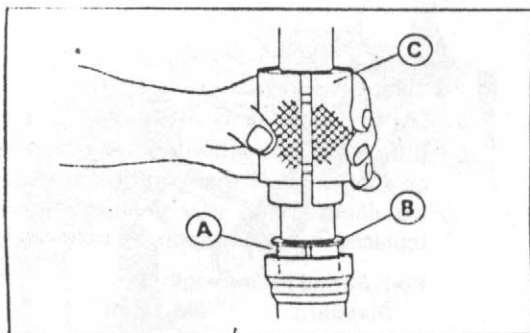


- When assembling the new outer tube guide bushing [A], hold the washer [B] against the new bushing and tap the washer with the fork oil seal driver [C] until it stops.

**Special Tool – Fork Oil Seal Driver,  $\Phi 41$ : 57001-1288**

- After installing the washer, install the oil seal by using the fork oil seal driver.

- Install the retaining ring and dust seal by hand



- Install the piston cylinder unit in the inner tube
- Stop the cylinder from turning by using the fork cylinder holder.

**Special Tool – Fork Cylinder Holder: 57001-1297**

- Apply a non-permanent locking agent to the threads of the Allen bolt and tighten it.

**Torque – Front Fork Bottom Allen Bolt: 39 N·m (4.0 kg·m)**

- Pour in the specified type of oil (see Fork Oil Change).

**Inner Tube, Outer Tube Inspection**

- Visually inspect the inner tube [A], and repair any damage.
- Nicks or rust damage can sometimes be repaired by using a wet stone to remove sharp edges or raised areas which cause seal damage.
- ★ If the damage is not repairable, replace the inner tube. Since damage to the inner tube damages the oil seal, replace the oil seal whenever the inner tube is repaired or replaced.

**CAUTION**

If the inner tube is badly bent or creased, replace it. Excessive bending, followed by subsequent straightening, can weaken the inner tube.

- Temporarily assemble the inner and outer tubes, and pump them back and forth manually to check for smooth operation.
- ★ If you feel binding or catching, the inner and outer tubes must be replaced.

**WARNING**

A straightened inner or outer fork tube may fall in use, possibly causing an accident. Replace a badly bent or damaged inner or outer tube, and inspect the other tube carefully before reusing it.

**Dust Seal Inspection**

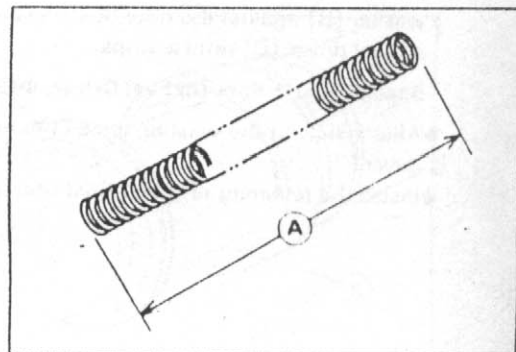
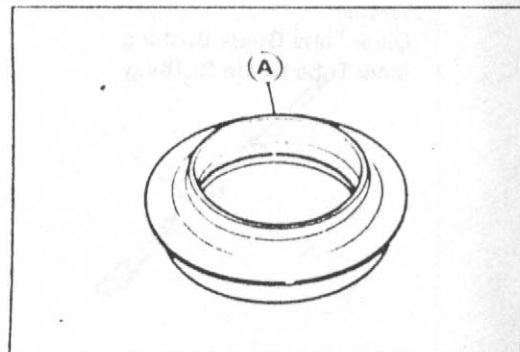
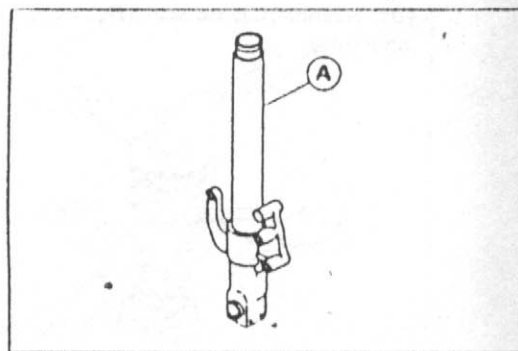
- Inspect the dust seals [A] for any signs of deterioration or damage.
- ★ Replace it if necessary.

**Spring Tension**

- Since a spring becomes shorter as it weakens, check its free length [A] to determine its condition.
- ★ If the spring of either fork leg is shorter than the service limit, it must be replaced. If the length of a replacement spring and that of the remaining spring vary greatly, the remaining spring should also be replaced in order to keep the fork legs balanced for motorcycle stability.

**Fork Spring Free Length**

Standard: 225.1 mm  
Service Limit: 221 mm



## Rear Shock Absorber

### Spring Preload Adjustment

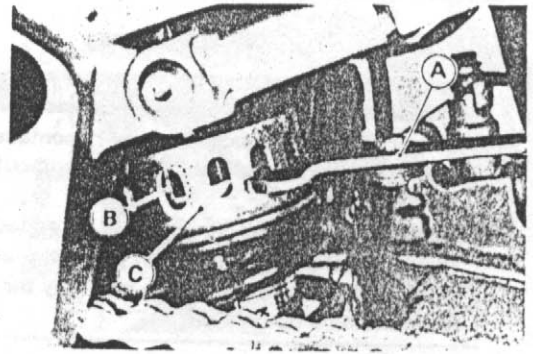
- To adjust the spring preload, turn in the adjuster [C] to the desired position.

**Special Tool - Steering Stem Nut Wrench: 57001-1100 [A]**

[B] Stopper

- The standard adjuster setting for an average-build rider of 68 kg (150 lb) with no passenger and no accessories is No. 3 position.

★ If the spring action feels too soft or too stiff, adjust it.



### Spring Adjustment

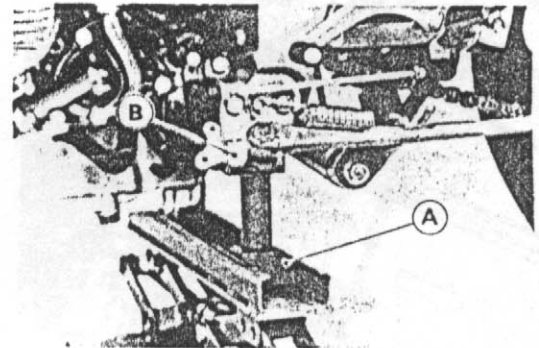
Adjuster Position	Damping Force	Setting	Load	Road	Speed
1 mm	Weak	Soft	Light	Good	Low
↑	↑	↑	↑	↑	↑
↓	↓	↓	↓	↓	↓
7 mm	Strong	Hard	Heavy	Bad	High

### Rear Shock Absorber Removal

- Remove the muffler (see Engine Top End chapter).
- Using the jack [A] and wooden block [B], raise the rear wheel off the ground.

**Special Tool - Jack: 57001-1238**

- Squeeze the brake lever slowly and hold it with a band.

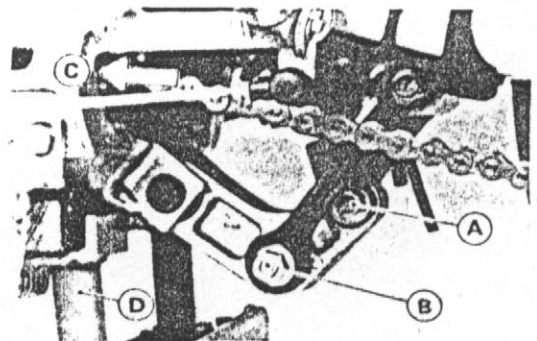


- Remove:

Lower Shock Absorber Bolt [A]  
Lower Tie Rod Bolt [B]  
Upper Shock Absorber Bolt

- Remove the shock absorber toward the ground

[C] Front  
[D] Jack



### Rear Shock Absorber Installation

- Pack the rocker arm needle bearing with molybdenum disulfide grease.
- Install the lower rear shock absorber bolt from the left side and lower tie-rod bolt from the right side.
- Tighten the shock absorber nuts and tie-rod nut.

**Torque - Rear Shock Absorber Nuts: 49 N·m (5.0 kg·m)**

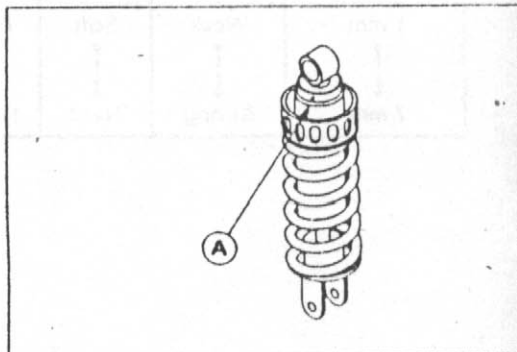
**Tie-Rod Nut: 59 N·m (6.0 kg·m)**

*Rear Shock Absorber Scrapping***⚠WARNING**

Since the rear shock absorber contains nitrogen gas, do not incinerate the rear shock absorber without first releasing the gas or it may explode.

Before a rear shock absorber is scrapped, drill a hole at the point shown to release the nitrogen gas completely. Wear safety glasses when drilling the hole, as the gas may blow out bits of drilled metal when the hole opens.

- Hold the rear shock upright with the adjuster side up to prevent the oil from blowing out of the shock when drilling.
- Drill a hole [A] at the point shown.



## Swingarm

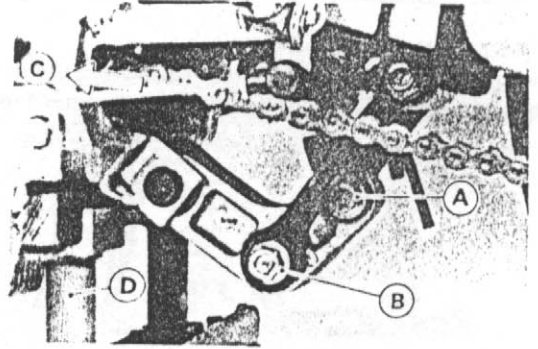
### Swingarm Removal

- Remove the muffler (see Engine Top End chapter).
- Using the jack [D] and wooden block, raise the rear wheel off the ground.

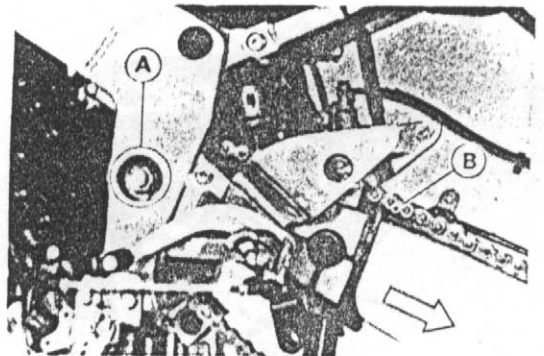
**Special Tool – Jack: 57001-1238**

- Squeeze the brake lever slowly and hold it with a band.
- Remove:
  - Rear Wheel (see Wheels/Tires chapter)
  - Chain Cover
  - Brake Hose Clamps
- Remove:
  - Lower Tie-Rod Bolt [B]
  - Lower Shock Absorber Bolt [A]

[C] Front



- Unscrew the swingarm pivot nut [A], and pull off the pivot shaft while supporting the swingarm.
- Remove the swingarm toward the rear with the chain [B] left on the engine sprocket.



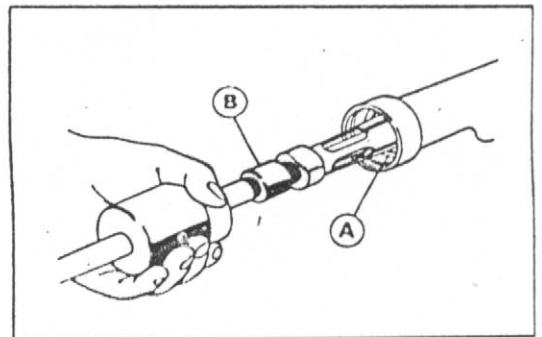
### Swingarm Installation

- Apply plenty of molybdenum disulfide grease to the ball bearing, needle bearings and grease seals.
  - Install the pivot shaft from the right side, and tighten the nut
- Torque – Swingarm Pivot Shaft Nut: 93 N-m (9.5 kg-m)**
- Install the removed parts (see appropriate chapters).

### Swingarm Bearing Removal

- Remove the needle bearings [A] using the oil seal & bearing remover [B].

**Special Tool – Oil Seal & Bearing Remover: 57001-1058**



*Swingarm Bearing Installation*

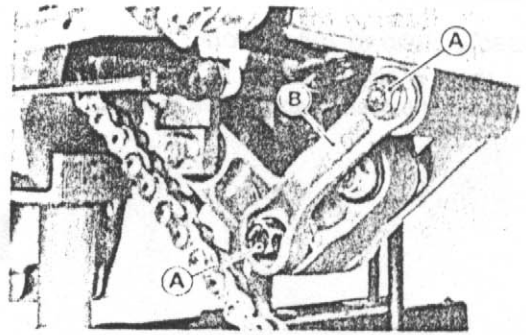
- Apply plenty of molybdenum disulfide to the needle bearings.
- Install the bearings so that the manufacturer's marks face out.

**Special Tool - Bearing Driver Set: 57001-1129**

## Tie-Rod, Rocker Arm

### Tie-Rod Removal

- Remove:
    - Muffler (see Engine Top End chapter)
  - Using the jack, raise the rear wheel off the ground.
- Special Tool – Jack: 57001-1238**
- Squeeze the brake lever slowly and hold it with a band.
  - Remove the upper and lower tie-rod bolts [A], and take out the tie-rods [B].

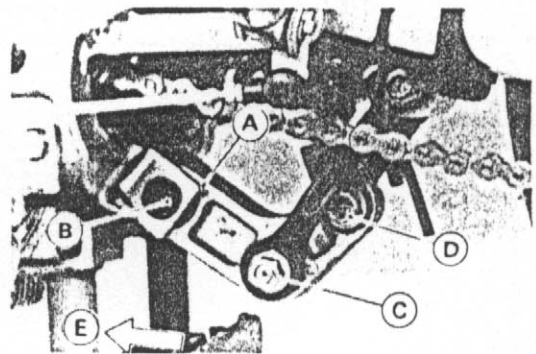


### Tie-Rod Installation

- Apply molybdenum disulfide grease to the inside of the needle bearings and oil seals.
  - Tighten the upper and lower tie-rod bolts
- Torque – Tie-Rod Nuts: 59 N-m (6.0 kg-m)**

### Rocker Arm Removal

- Remove:
    - Muffler (see Engine Top End chapter)
  - Using the jack and wooden block, raise the rear wheel off the ground.
- Special Tool – Jack: 57001-1238**
- Squeeze the brake lever slowly and hold it with a band.
- Remove:
- Lower Rear Shock Absorber Bolt [D]
  - Lower Tie-Rod Bolt [C]
  - Rocker Arm Bolt [B]
  - Rocker Arm [A]



### Rocker Arm Installation

- Apply molybdenum disulfide grease to the inside of the needle bearings and oil seals.
- Tighten the rocker arm bolt, tie-rod bolt and shock absorber bolt.

**Torque – Rocker Arm Nut: 59 N-m (6.0 kg-m)**  
**Tie-Rod Nut: 59 N-m (6.0 kg-m)**  
**Rear Shock Absorber Nut: 49 N-m (5.0 kg-m)**

*Needle Bearing Inspection*

★If there is any doubt as to the condition of either needle bearing, replace the bearing and sleeve as a set.

*Tie-Rod, Rocker Arm Sleeve Inspection*

★If there is visible damage, replace the sleeve and needle bearing as a set.



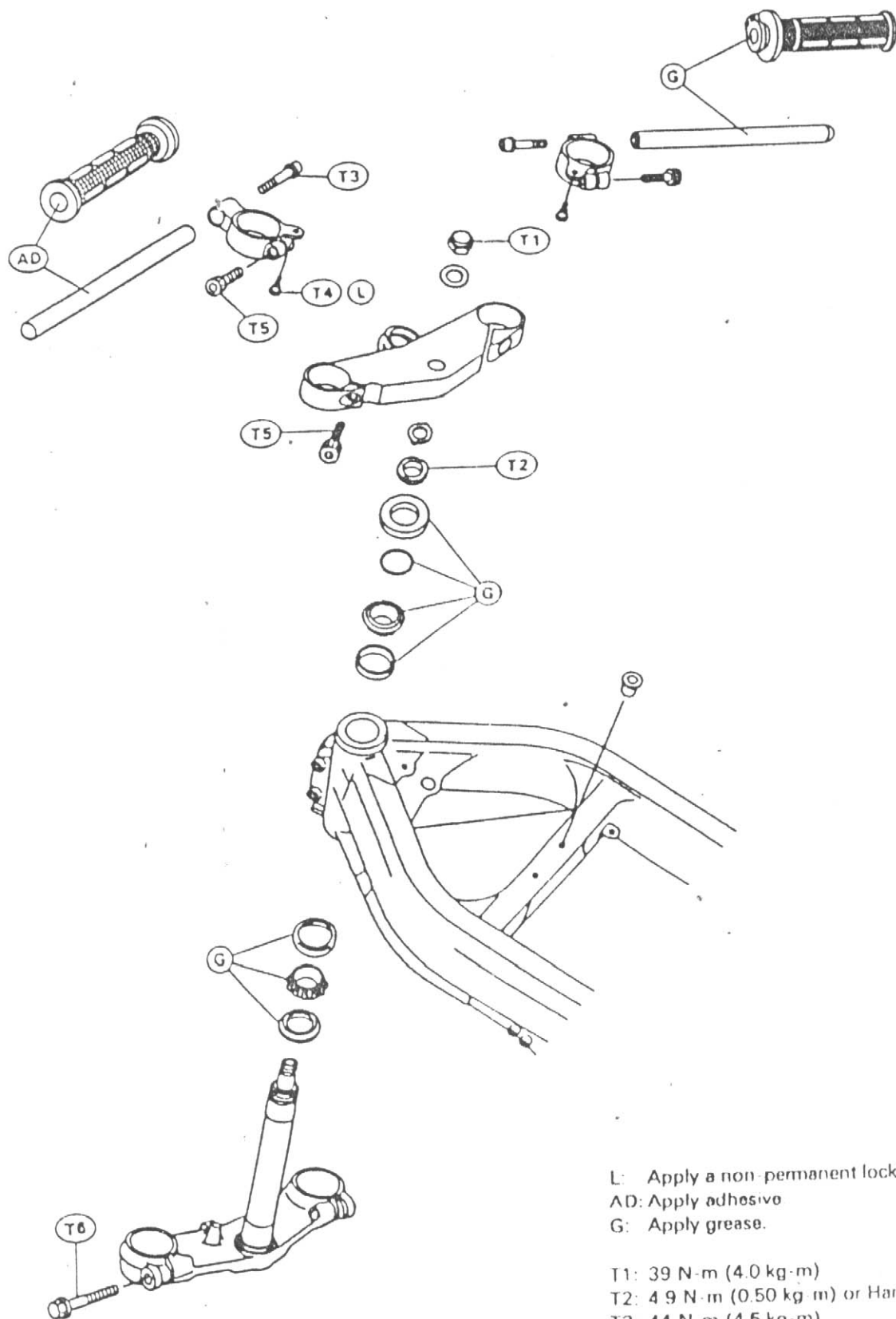
# Steering

## 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

# 13-2 STEERING

## Exploded View



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

- T1: 39 N·m (4.0 kg·m)
- T2: 4.9 N·m (0.50 kg·m) or Hand-tight
- T3: 44 N·m (4.5 kg·m)
- T4: 9.8 N·m (1.0 kg·m)
- T5: 20 N·m (2.0 kg·m)
- T6: 29 N·m (3.0 kg·m)

**Specifications**

**Special Tools** - Head Pipe Outer Race Press Shaft: 57001-1075  
Head Pipe Outer Race Driver: 57001-1106  
Head Pipe Outer Race Remover: 57001-1107  
Steering Stem Nut Wrench: 57001-1100  
Jack: 57001-1238  
Steering Stem Bearing Driver: 57001-137  
Steering Stem Bearing Driver Adapter: 57001-1092

## 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)
- 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 : 39 N-m (4.0 kg-m)
- Lower Front Fork Clamp Bolts : 29 N-m (3.0 kg-m)
- Check the steering again.
- ★ If the steering is still too tight or too loose, repeat the adjustment.

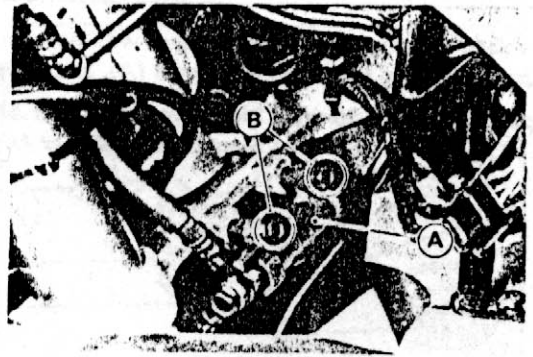


## Steering Stem

### Stem, Stem Bearing Removal

#### ● Remove:

- Upper and lower Fairings (see Frame chapter)
- Fuel Tank (see Fuel System chapter)
- Front Wheel (see Wheels/Tires chapter)
- Front Fork (see Suspension chapter)
- Brake Hose Joint Mounting Bolts [B] and Joint [A]
- Steering Stem Head Nut and Washer
- Steering Stem Head

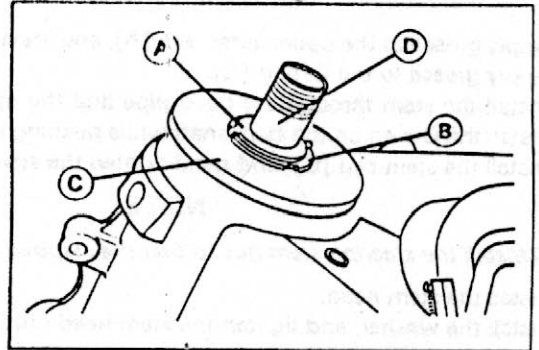


- Pushing up the stem base, and remove the lock washer [A], stem nut [B], stem cap [C] and O-ring, then remove the steering stem [D] and stem base.

**Special Tool – Steering Stem Nut Wrench: 57001-1100**

#### ● Remove:

- Upper Stem Bearing Inner Race

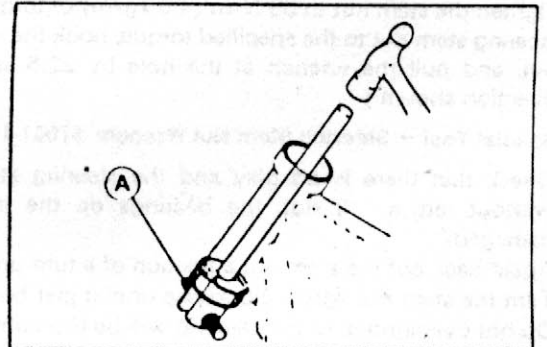


- Drive out the bearing outer races from the head pipe.

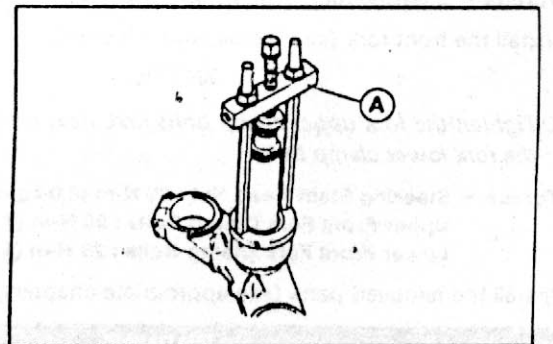
**Special Tool – Head Pipe Outer Race Remover: 57001-1107 [A]**

### 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.*



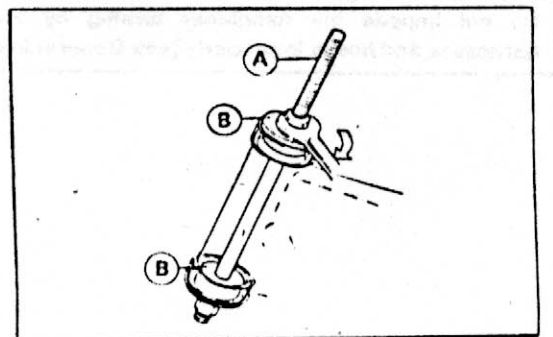
- Remove the lower stem bearing (with its grease seal) which is pressed onto the steering stem with a suitable commercially available bearing puller [A].



### Stem, Stem Bearing Installation

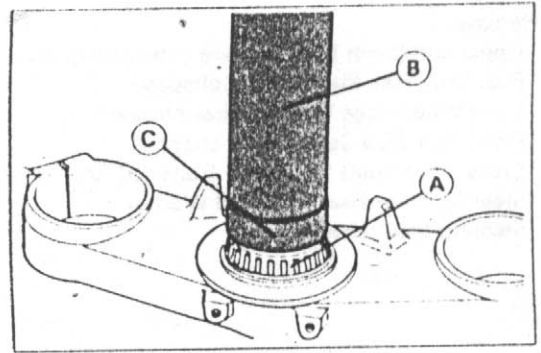
- Replace the bearing outer races with new ones.
- Apply grease to the outer races, and drive them into the head pipe at the same time.

**Special Tools – Head Pipe Outer Race Press Shaft: 57001-1075 [A]  
Head Pipe Outer Race Driver: 57001-1106 [B] (2)**



- Replace the stem bearing inner races with new ones.
- Apply grease to the lower inner race [A], and drive it onto the stem.

**Special Tools - Steering Stem Bearing Driver: 57001-137 [B]**  
**Steering Stem Bearing Driver Adapter: 57001-1092 [C]**



- Apply grease to the upper inner race [A], and install it in the head pipe.
- Apply grease to the O-ring [B].
- 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.
- Install the stem cap [C], and hand tighten the stem nut [D].

#### 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 39 N-m (4.0 kg-m) 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 22.5 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)**

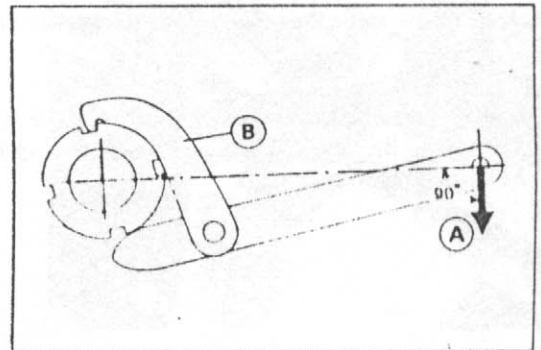
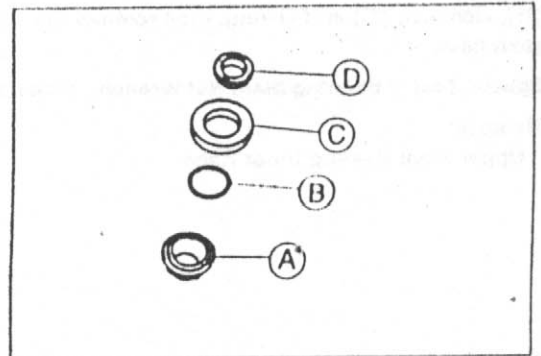
- Install the front fork (see Suspension chapter).

#### NOTE

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

**Torque - Steering Stem Head Nut: 39 N-m (4.0 kg-m)**  
**Upper Front Fork Clamp Bolts: 20 N-m (2.0 kg-m)**  
**Lower Front Fork Clamp Bolts: 29 N-m (3.0 kg-m)**

- Install the removed parts (see appropriate chapters).

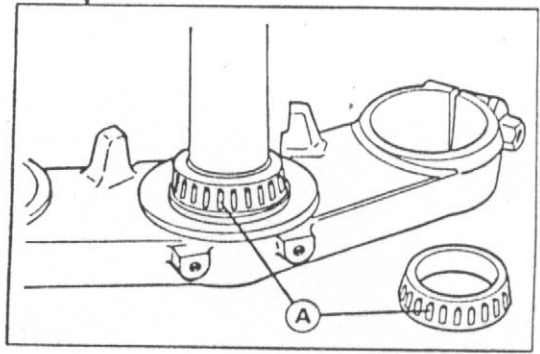


#### ▲WARNING

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.



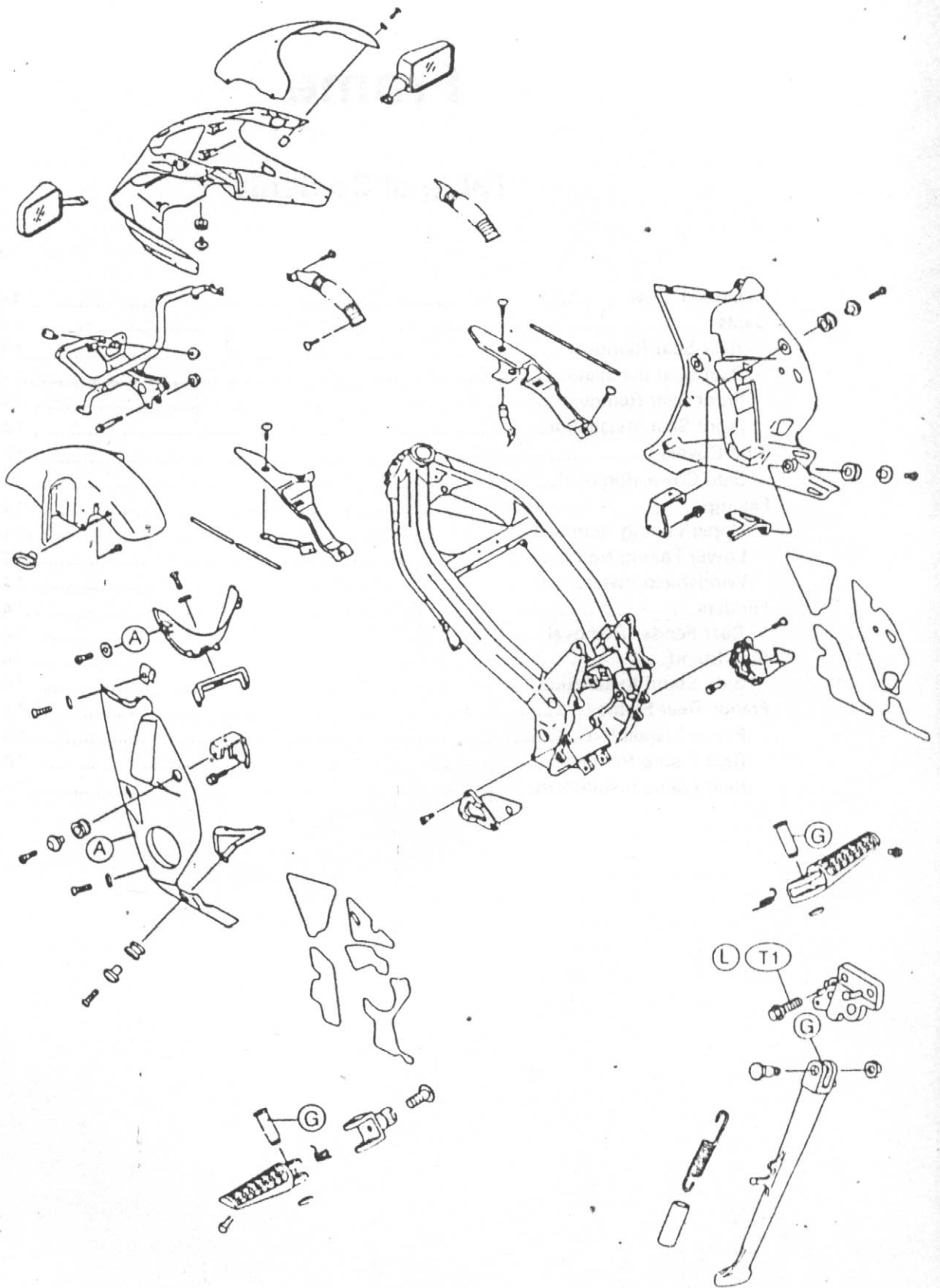
# Frame

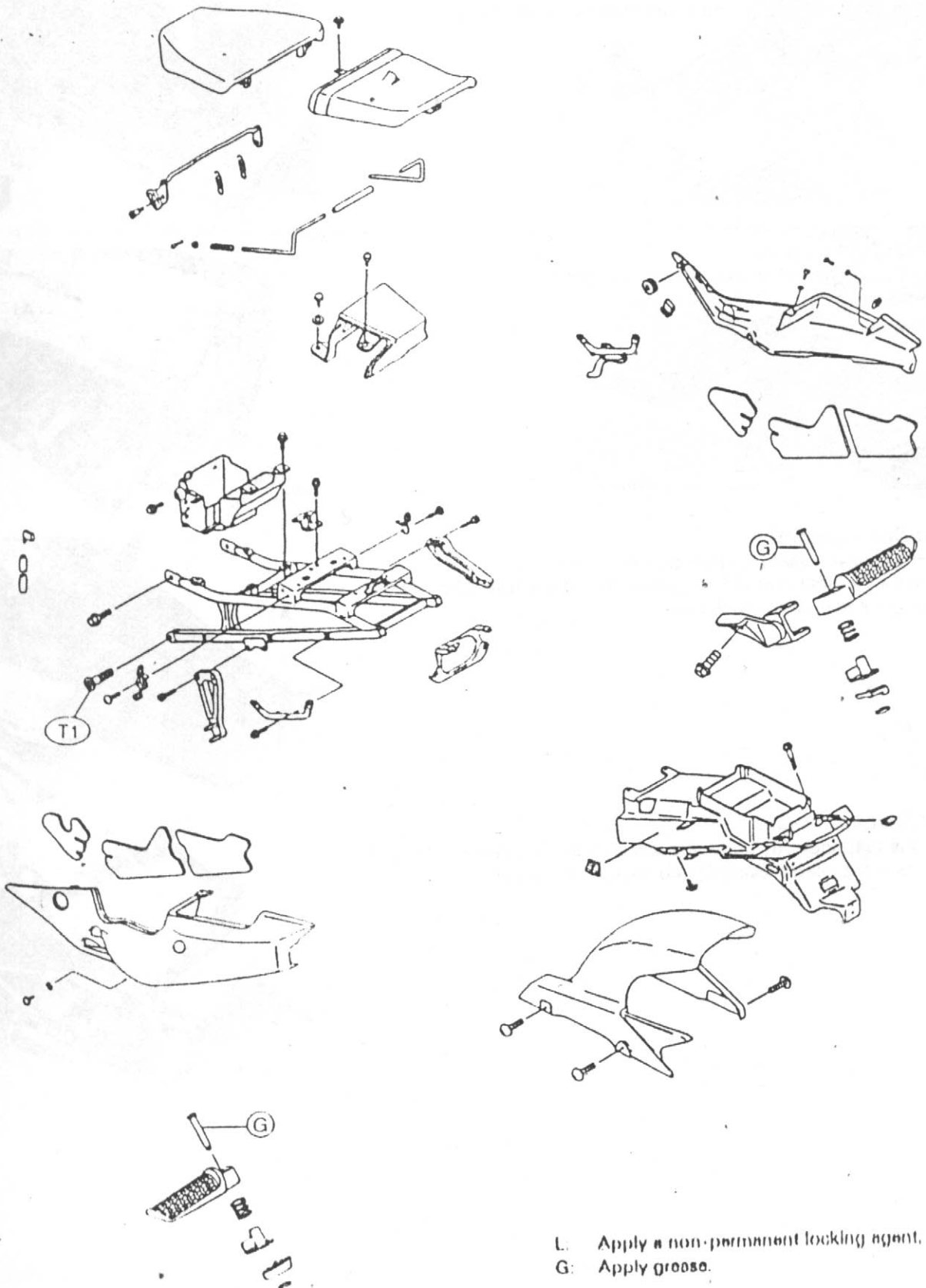
## Table of Contents

Exploded View .....	14-2
Seats .....	14-4
Rear Seat Removal .....	14-4
Rear Seat Installation .....	14-4
Front Seat Removal .....	14-4
Front Seat Installation .....	14-4
Side Covers .....	14-5
Side Cover Removal .....	14-5
Fairings .....	14-6
Upper Fairing Removal .....	14-6
Lower Fairing Removal .....	14-6
Windshield Installation .....	14-6
Fenders .....	14-7
Rear Fender Removal .....	14-7
Side Stand .....	14-8
Side Stand Installation .....	14-8
Frame, Rear Frame .....	14-9
Frame Inspection .....	14-9
Rear Frame Removal .....	14-9
Rear Frame Installation .....	14-9

14-2 FRAME

Exploded View



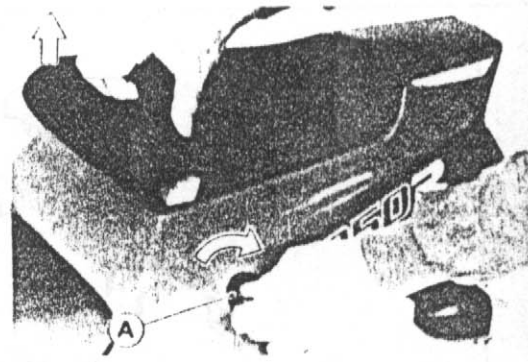


L: Apply a non-permanent locking agent.  
 G: Apply grease.  
 T1: 44 N·m (4.5 kg·m)

Seats

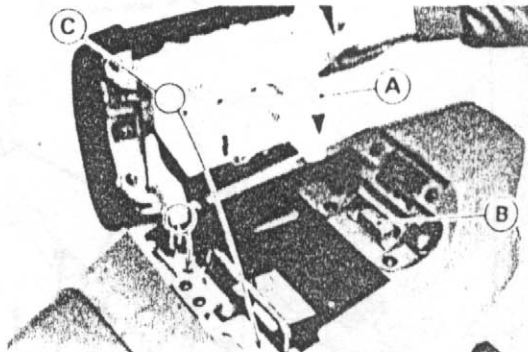
*Rear Seat Removal*

- Insert the ignition switch key [A] into the seat lock, turning the key clockwise, pulling up on the front of the seat, and pulling it forward.



*Rear Seat Installation*

- Slip the seat hook [A] under the bracket [B].
- Insert the seat pins [C] into the hole.



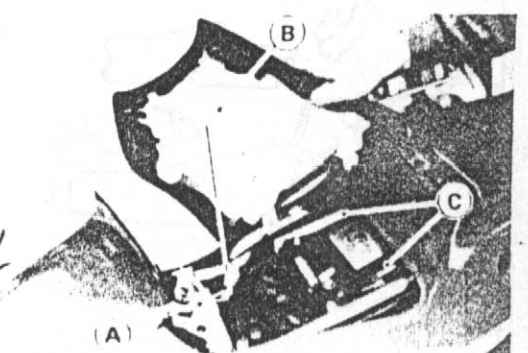
*Front Seat Removal*

- Remove the rear seat (see Rear Seat Removal).
- Remove the front seat [A] by pulling the release lever [B] and then pulling the seat up and to the rear.



*Front Seat Installation*

- Slip the seat hook [B] under the brace on the fuel tank bracket [A], and insert the release lever [C] into the hole of the seat.

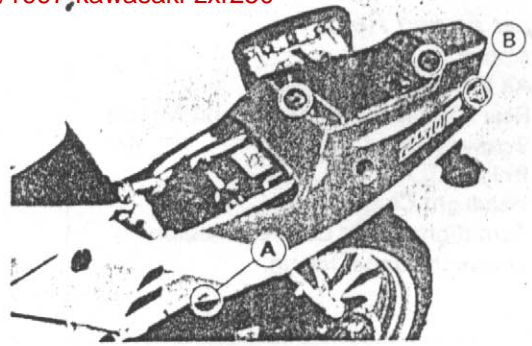


**Side Covers**

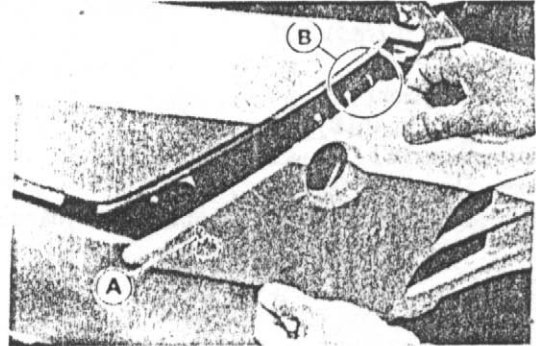
Product: 1997 Kawasaki ZXR250 Motorcycle Service Repair Workshop Manual

Full Download: <https://www.arepairmanual.com/downloads/1997-kawasaki-zxr250>[-motorcycle-service-repair-workshop-manual/](https://www.arepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/)**Side Cover Removal**

- Remove:
  - Seats
  - Screws (White) [A]
  - Screws (Black) [B]



- Pull the front pin [A] of the side cover outward and then push down it to clear the stoppers [B].
- Remove the side covers.



Sample manual. Download All pages at:

<https://www.arepairmanual.com/downloads/1997-kawasaki-zxr250-motorcycle-service-repair-workshop-manual/>