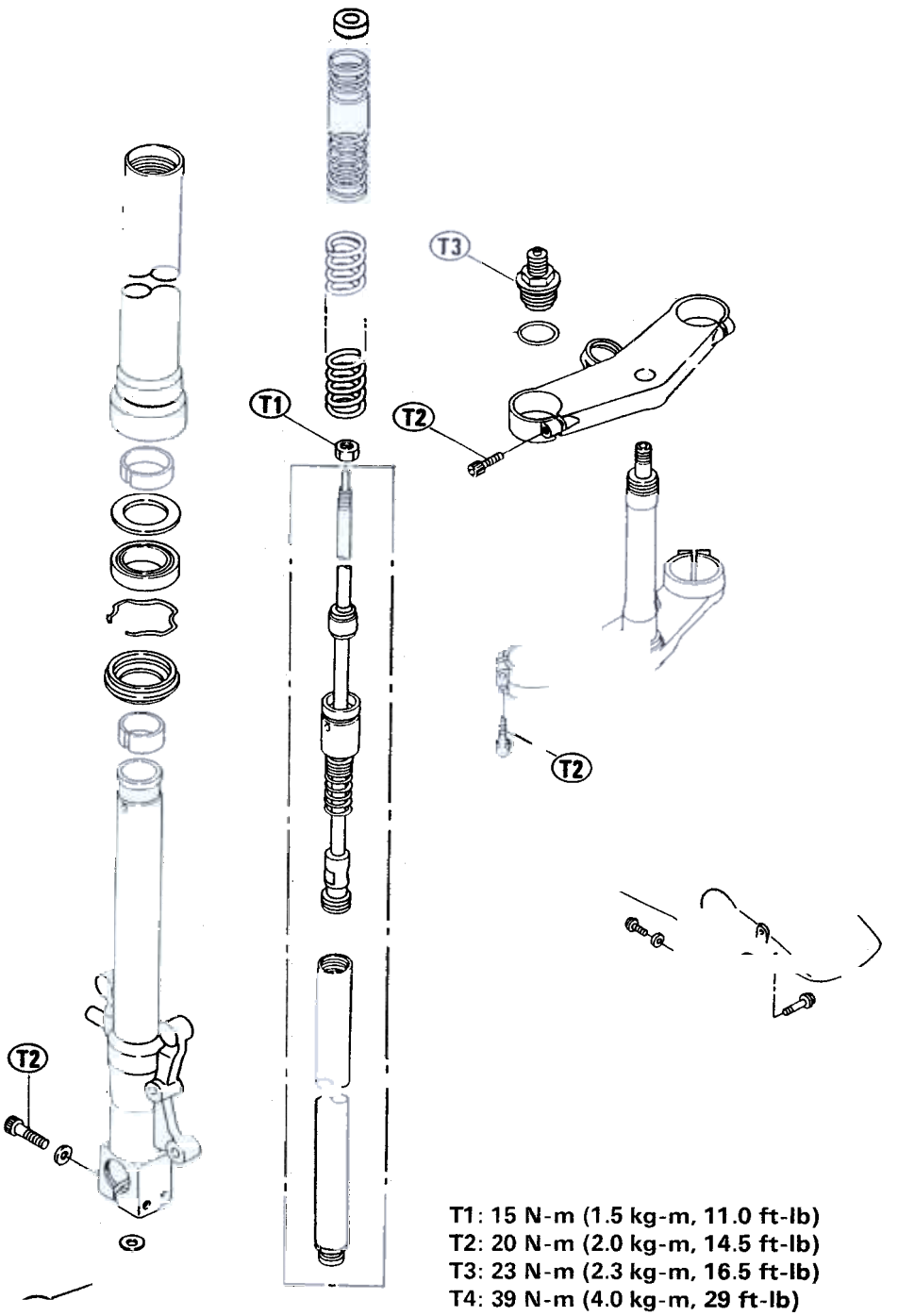
Suspension

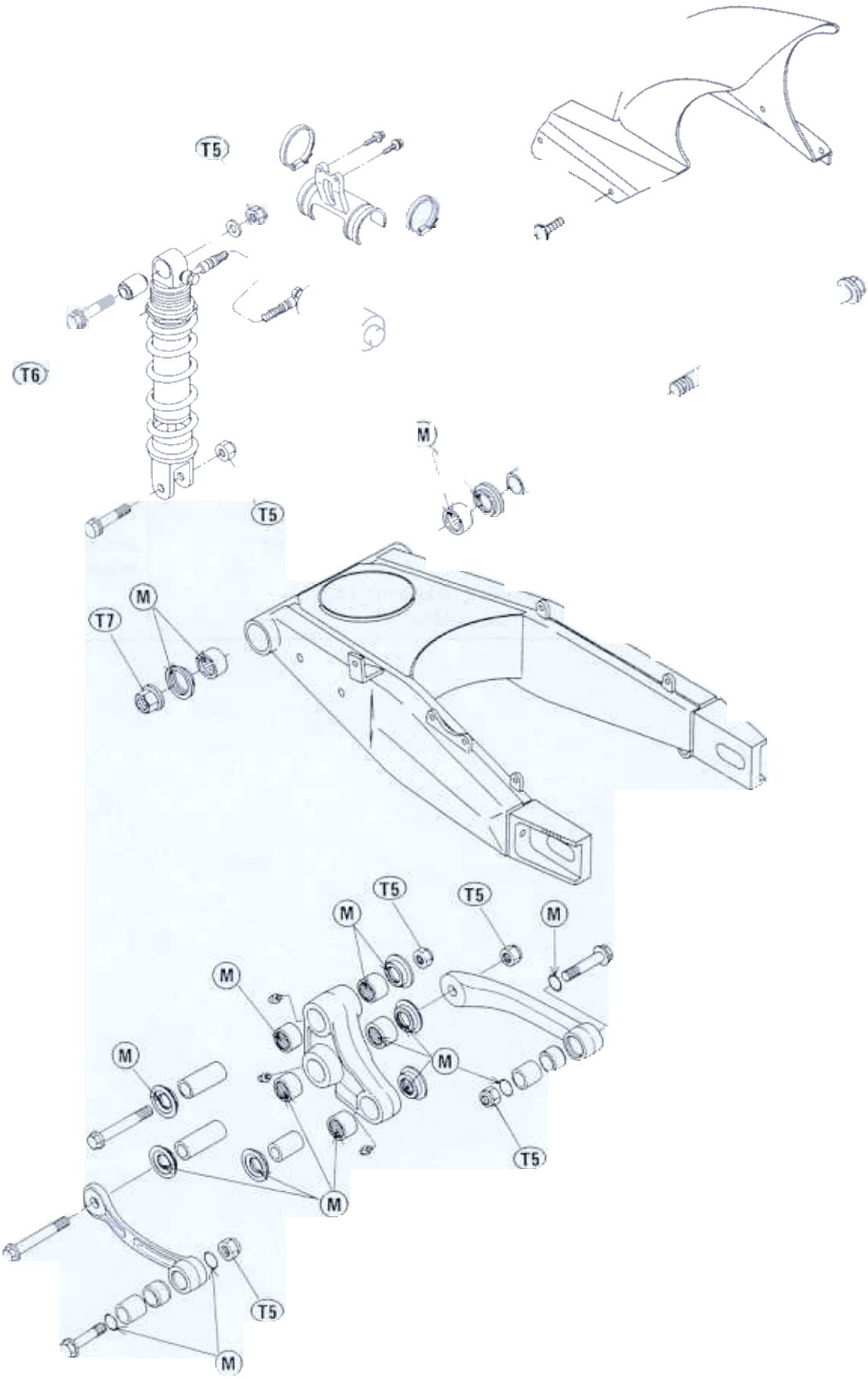
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Exploded View



T1: 15 N-m (1.5 kg-m, 11.0 ft-lb)
T2: 20 N-m (2.0 kg-m, 14.5 ft-lb)
T3: 23 N-m (2.3 kg-m, 16.5 ft-lb)
T4: 39 N-m (4.0 kg-m, 29 ft-lb)
T5: 49 N-m (5.0 kg-m, 36 ft-lb)
T6: 88 N-m (9.0 kg-m, 65 ft-lb)
T7: 110 N-m (11.0 kg-m, 80 ft-lb)
L : Apply molybdenum disulfide grease.
M: Apply a non-permanent locking agent to the threads.

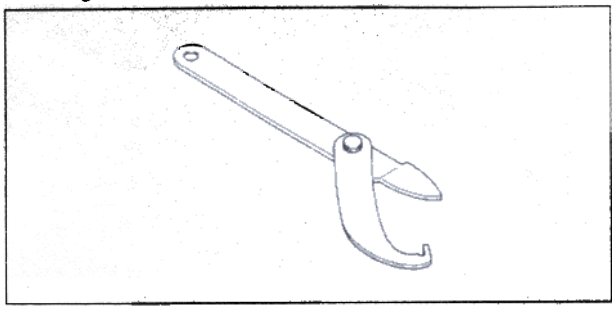

T5
T6
M
T5
T7
M
T5
T5
M
M
M
M
M
T5
M
T5
M

Specifications

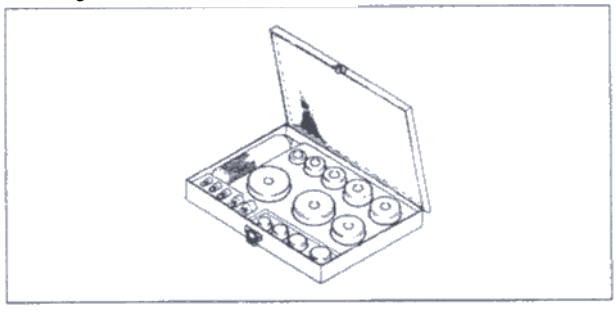
Item	Standard	Service Limit
Front Fork:		
Rebound damping setting	6th click from fully counterclockwise position	– – –
Spring preload setting	1/4 turn out position from fully counterclockwise position	– – –
Fork oil:		
Viscosity	SAE 5W	
Amount (perside):		
when changing oil	355 mL	
After disassembly and completely dry	421 ±4 mL	
Oil level (fully compressed, without spring)	94 ±2 mm below from top of inner tube	
Fork spring free length	311.6 mm	305 mm
Rear Shock Absorber:		
Rebound damping setting	No. 1 of 4 position	– – –
Spring preload setting	Spring free length minus 12 mm	Spring free length minus 12 mm to 24 mm
Gas pressure	980 kPa (10 kg/cm², 142 psi)	– – –
	Non-adjustable	

Special Tools

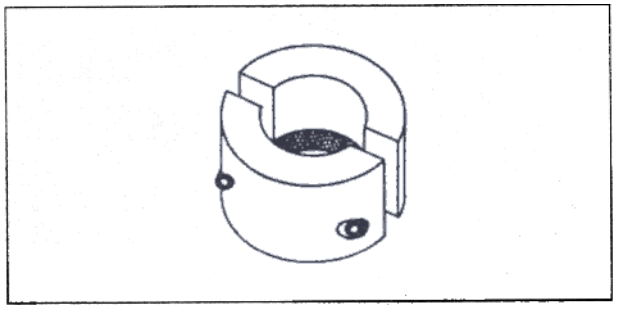
Steering Stem Nut Wrench: 57001-1100



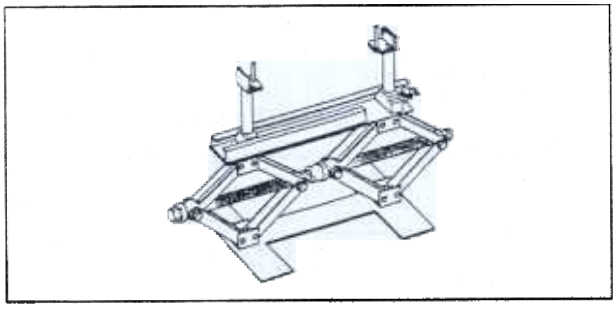
Bearing Driver Set: 57001-1129



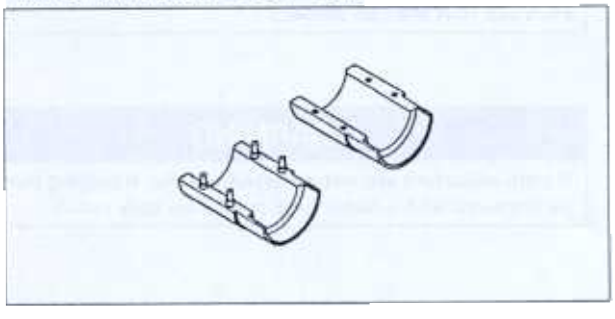
Fork Outer Tube Weight: 57001-1218



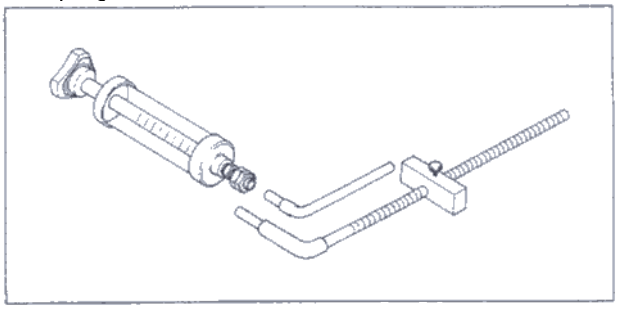
Jack: 57001-1238



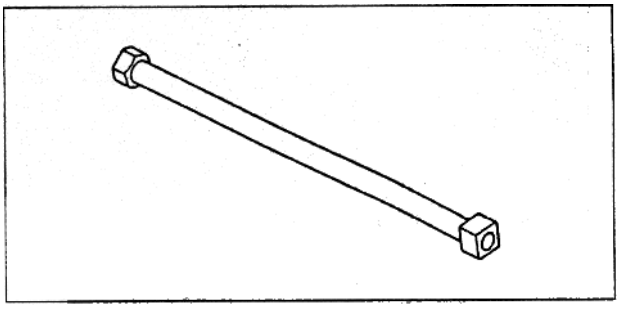
Fork Oil Seal Driver: 57001-1288



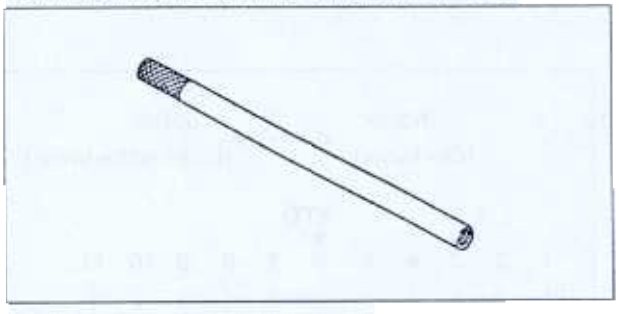
Oil Syringe: 57001-1290



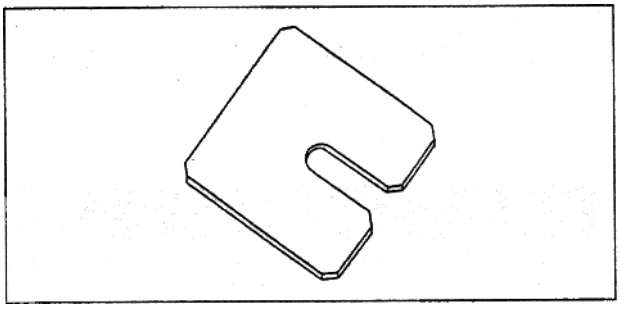
Fork Cylinder Holder: 57001-1297



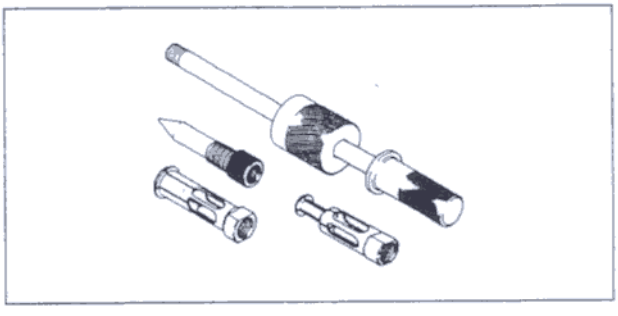
Fork Piston Rod Puller, M10 x 1.0: 57001-1298



Fork Spring Stopper: 57001-1316



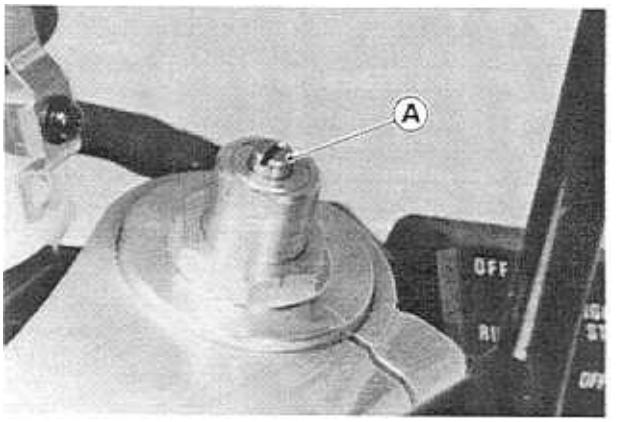
Oil Seal & Bearing Remover: 57001-1058



Front Fork

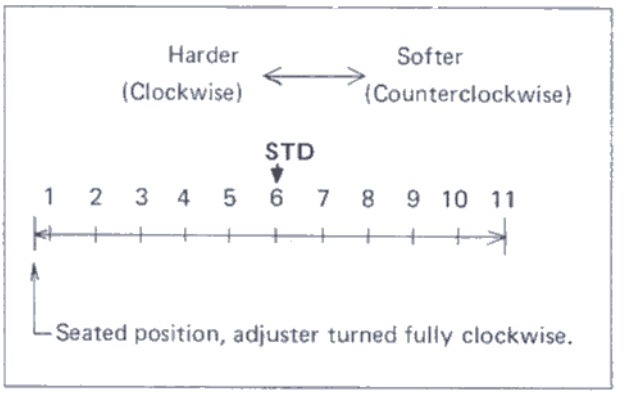
Rebound Damping Force Adjustment

●To adjust the rebound damping, turn the rebound damping adjuster until you feel a click.



A. Rebound Damping Adjuster

○The standard adjuster setting is the **6th click** from the fully clockwise position.

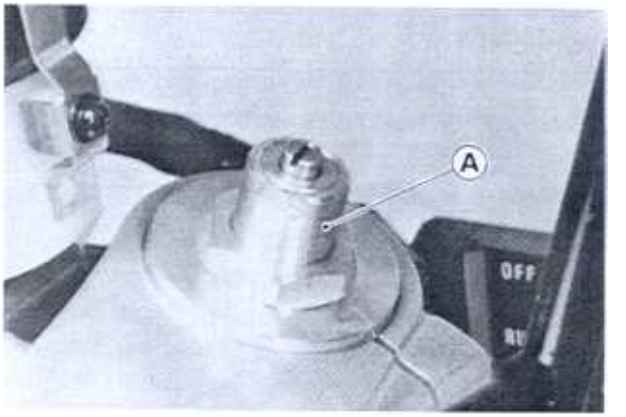


⚠WARNING

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

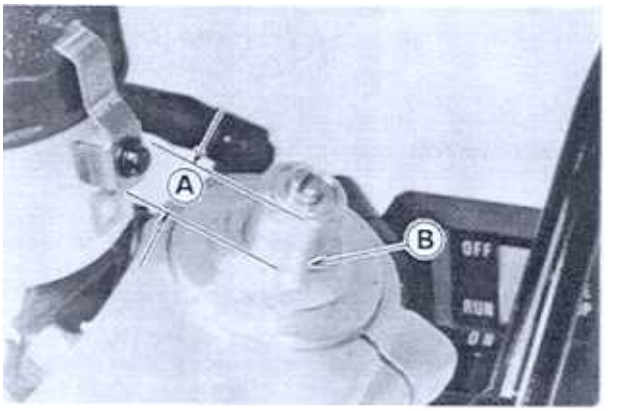
Spring Preload Adjustment

●Turn the adjuster in to increase spring preload and out to decrease spring preload.



A. Preload Adjuster

○The standard adjuster setting for the average-build rider of 68 kg (150 lb) with no passenger and no accessories is **14 mm** as shown.



A. 14 mm B. 5 Marks

Adjuster Protrusion

Standard: 14 mm (5 Marks)
Usable Range: 5 ~ 20 mm (1 ~ 8 Marks)

CAUTION

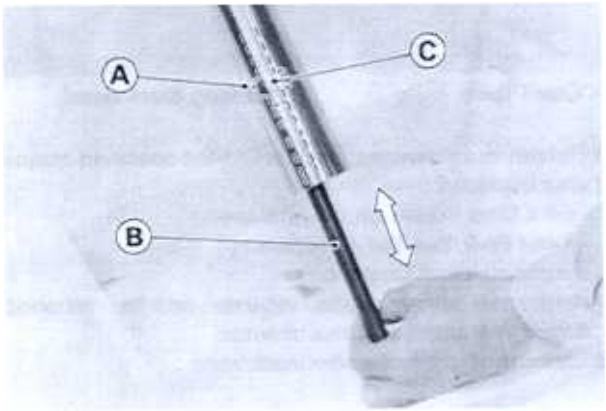
When setting the standard position, do not turn adjuster beyond the fully counterclockwise position. Fork top bolt may be loosen.

⚠WARNING

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

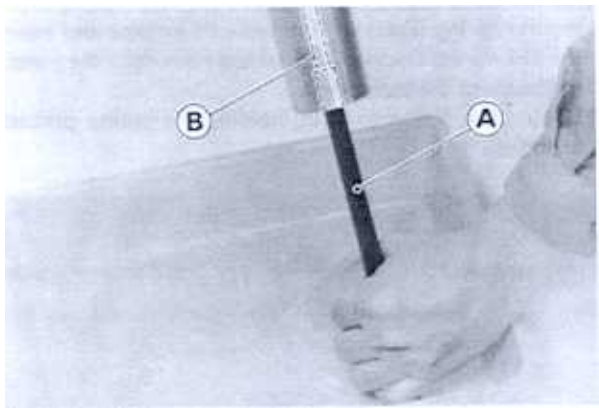
Fork Oil Change

●Remove the following.
Front Fork (see Front Fork Removal)
Top Bolt
Top Spring
Main Spring
●Pour out the fork oil with the fork upside down.
●Using the piston rod puller (special tool), move the piston rod up and down several times in order to expel all the oil from inside the fork cylinder.



A. Inner Tube C. Piston Rod
B. Rod Puller: 57001-1298

●Fill the specified type of oil in the fork cylinder.
●Using the fork position rod puller (special tool), bleed the air in the fork oil by pumping the push rod.



A. Fork Piston Rod Puller: 57001-1298
B. Piston Rod

●Pull up the piston rod with the fork piston rod puller (special tool).

NOTE

○*Pull up the piston rod slowly so as not to spill the fork oil out of the fork tube.*

●Measure the fork oil level. Fork oil level may be measured using the oil syringe (special tool).

NOTE

○*Measure the fork oil level, compressing the outer tube and piston rod down with the push rod installed.*

○Set the oil syringe stopper so that its lower side shows the oil level distance specified.

NOTE

○*The gauge tube is graduated in 1 cm division.*
○*The syringe body is graduated in 10 mL division, excluding the gauge tube of about 5 mL capacity.*

Oil Level (fully compressed, without spring)

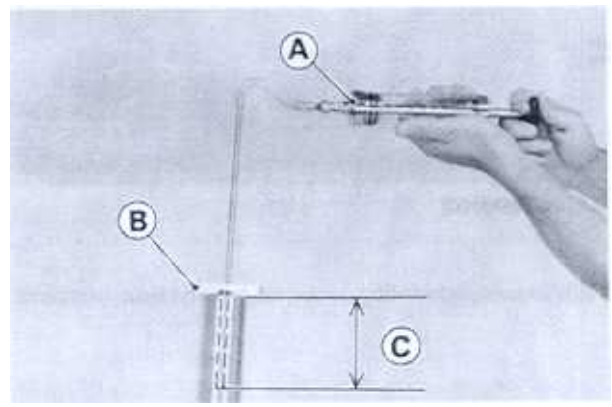
94 ±2 mm (from the top of the inner tube)

○With the fork fully compressed, insert the gauge the into the inner tube and position the stopper across the inner tube top end.

NOTE

○*Position the stopper so that the gauge tube is the center of inner tube diameter, or the specified oil level can not get correctly.*

○Pull the handle slowly to pump out the excess oil until the oil comes out no longer.
★If no oil is pumped out, there is insufficient oil in the inner tube. Pour in enough oil, then pump out the excess oil as shown above.

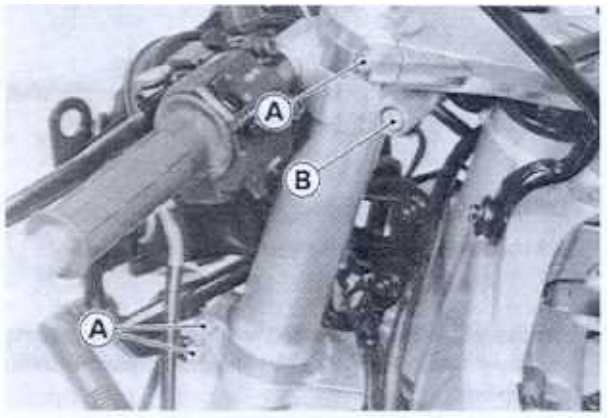


A. Oil Syringe: 57001-1290 C. Oil Level Distance
B. Stopper

★If the oil is above or below the specified level, remove or add oil and recheck the oil level.
●Tighten the fork top plug to the specified torque (see Exploded View).
●Change the oil of the other fork leg in the same manner.
●Adjust the rebound damping force and the spring preload (see this chapter).

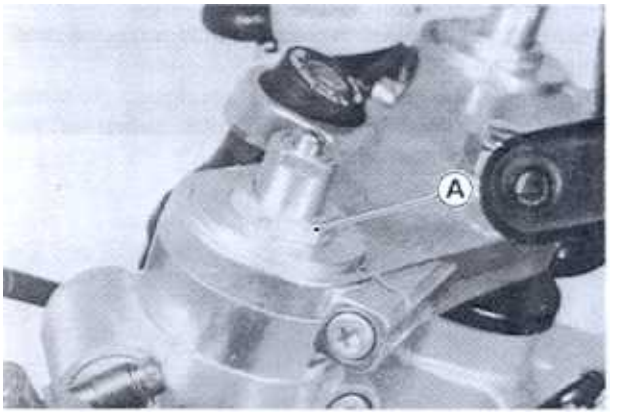
Removal

● Remove the following.
Lower Fairing
Front Wheel
Front Fender Mounting Bolts and Screws
Fork Clamp Bolts (upper and lower, loosen)
Handle Holder Clamp Bolts (loosen)



A. Fork Clamp Bolts B. Handle Holder Clamp Bolt

● If the fork leg is to be disassembled, loosen the fork top bolt.

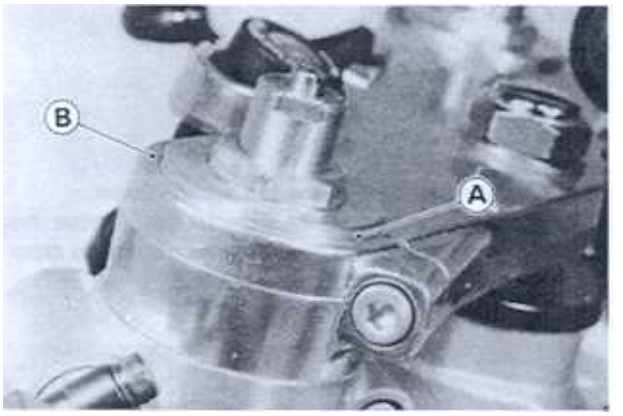


A. Fork Top Bolt

● With a twisting motion, work the fork leg down and out.

Installation

● If the fork leg was disassembled, adjust the fork oil level.
● Align the bottom of chamfer on the outer tube upper end, with the upper surface of the steering stem head.

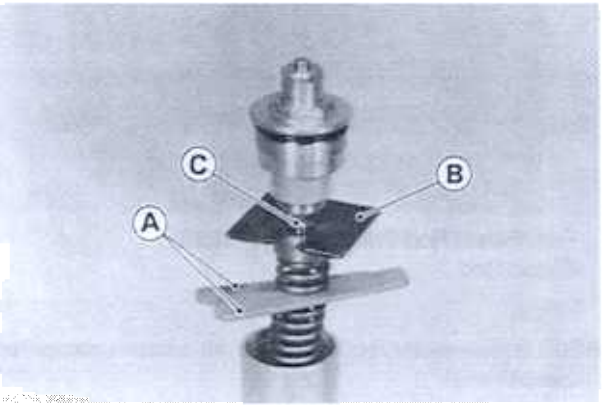


A. Outer Tube B. Steering Stem Head

● Tighten the following fasteners to the specified torque (see Exploded View).
Fork Clamp Bolts (upper and lower)
Front Fork Top Bolt (if necessary)
Handle Holder Clamp Bolt
● Adjust the spring preload adjuster and the rebound damping adjuster (see this chapter).
● Check the front brake after installation.

Disassembly

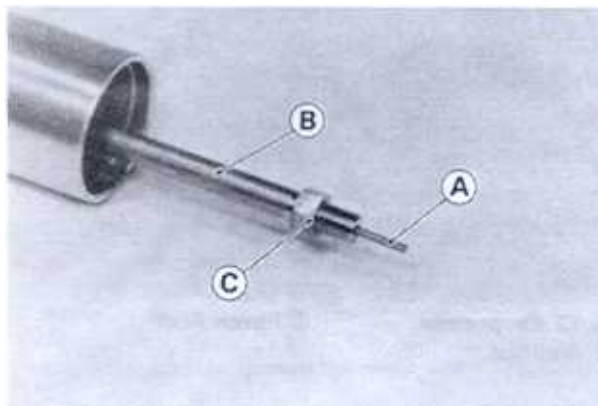
● Remove the front fork (see this chapter).
● Drain the fork oil.
● Turn the spring preload adjuster fully counterclockwise until the adjuster stops.
● Remove the fork top bolt from the outer tube.
● To loose the piston rod nut inside the top spring press the top spring down with suitable thin plates and insert the fork spring stopper (special tool) between the piston rod nut and the top spring.
○ Loosen the piston rod nut, holding the spring preload adjuster.



A. Suitable Thin Plates C. Piston Rod Nut
B. Fork Spring Stopper: 57001-1316

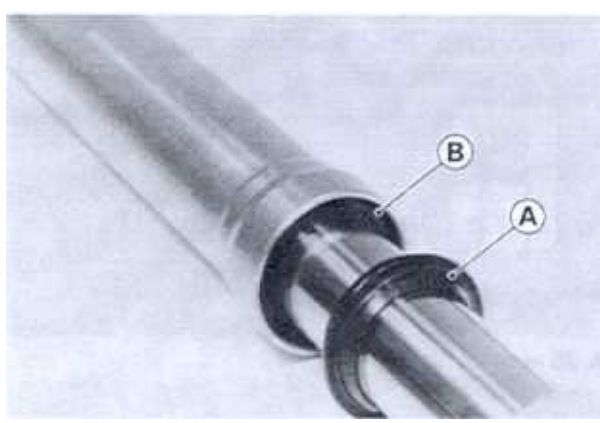
● Remove the following.
Fork Top Bolt
Collar
Top Spring with Fork Spring Guide
Main Spring

Push Rod
Piston Rod Nut



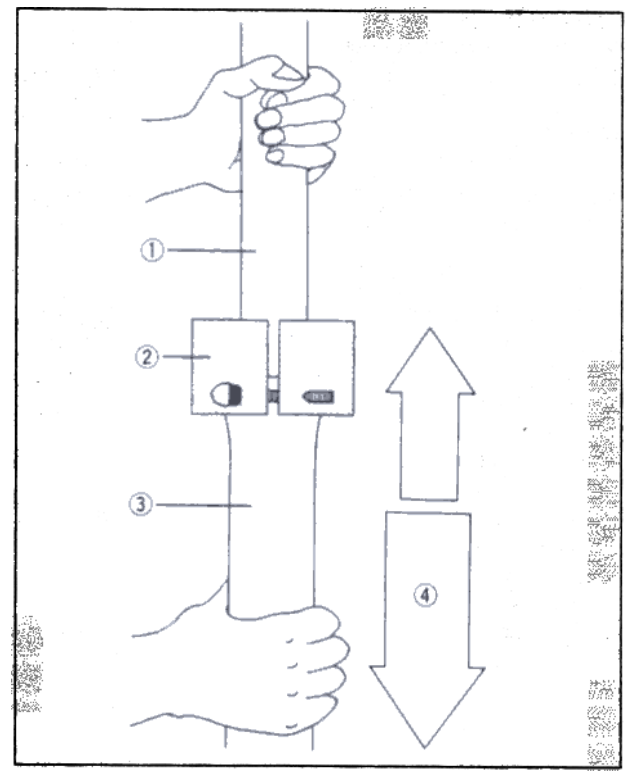
A. Push Rod
B. Piston Rod
C. Piston Rod Nut

● Pour the fork oil into a container.
● Remove the following from the outer tube.
Dust Seal
Circlip



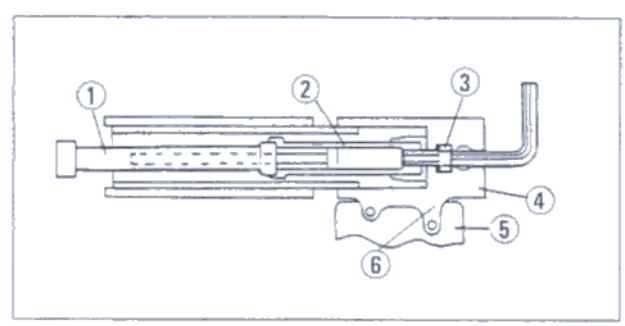
A. Dust Seal
B. Circlip

● Use the fork outer tube weight (special tool) to separate the inner tube from the outer tube.
○ Holding the inner tube by hand in a vertical position, pull down the outer tube several times to pull out the inner tube.



1. Inner Tube
2. Weight: 57001-1218
3. Outer Tube
4. Pull down.

○ The oil seal, washer, and guide bushes come off with the inner tube.
● Hold the axle holder in a vise.
● Stop the cylinder from turning by using the front fork cylinder holder (special tool).
● Unscrew the Allen bolt, then take the bolt and gasket out of the bottom of the axle holder.



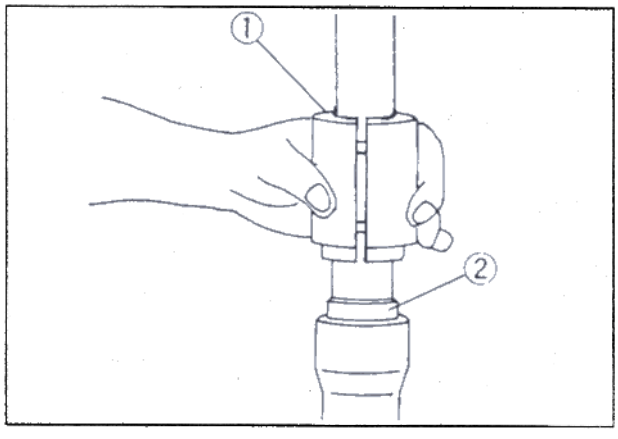
1. Cylinder Holder: 57001-1297
2. Piston Cylinder Unit
3. Allen Bolt
4. Allen Wrench
5. Vise
6. Axle Holder

CAUTION

Be sure to hold the outer tube at disassembling. Or the piston cylinder unit could loosen and the bottom Allen bolt cannot be removed.

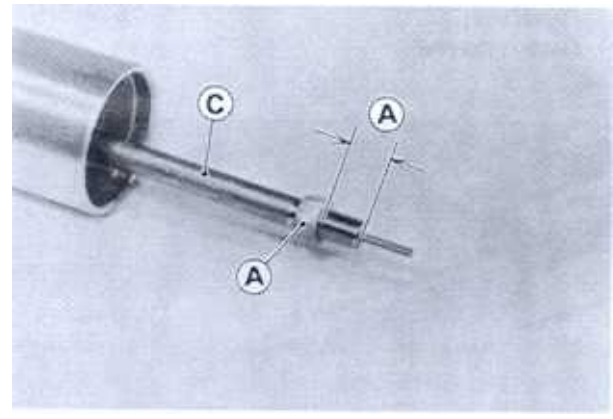
Assembly

- Replace the bottom Allen bolt gasket with new one.
- Replace the following with new ones whenever they have removed from inner tube.
  - Oil Seal
  - Dust Seal
- Visually inspect the following, and replace them if necessary.
  - Guide Bush
  - O-ring of the Top Bolt
- Remove the guide bush from the inner tube and cover the groove with vinyl for installing new dust seal and oil seal.
- Install the following onto the inner tube.
  - Dust Seal
  - Oil Seal (spring force upward)
  - Guide Bush (outer tube side)
- Install the following into the outer tube, using the oil seal driver (special tool).
  - Guide Bush (outer tube side)
  - Washer
  - Oil Seal



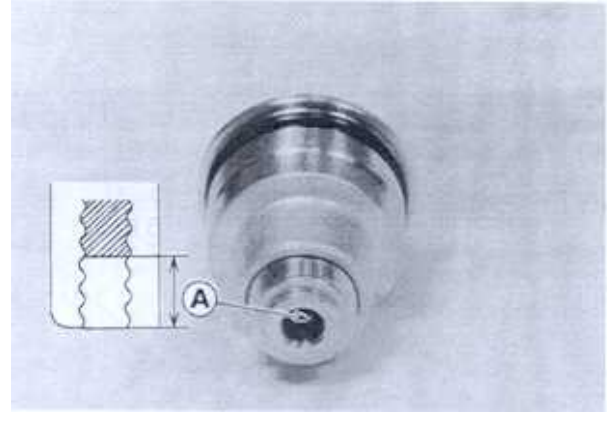
1. Fork Oil Seal Driver: 57001-1288
2. Oil Seal

- Apply a non-permanent locking agent to the Allen bolt, and tighten it to the specified torque (see Exploded View).
- Insert the push rod in the piston rod.
- Pour in the specified type and amount of oil (see Fork Oil Change).
- Tighten the fork top bolt.
- ○ Tighten the rod nut finger-tight.
- ○ Check that the visible thread length is at least 12 mm.



A. 12 mm or more
B. Rod Nut
C. Piston Rod

- ○ Turn the spring preload adjuster fully counterclockwise until the adjuster stops.
- ○ Screw in the rebound damping adjuster on the top bolt so that the distance between the adjuster bottom and the spring prelaod adjuster end is 25 mm.



A. 25 mm

- ○ Install the main spring onto the push rod so that the closed side is upward.
- ○ Install the top spring and collar onto the push rod.
- ○ Press the top spring down with drivers, and insert the fork spring stopper (special tool) between the piston rod and the top spring.
- ○ Tighten the top bolt finger-tight.
- ○ While holding the fork top bolt, tighten the rod nut to the specified torque (see Exploded View).

NOTE

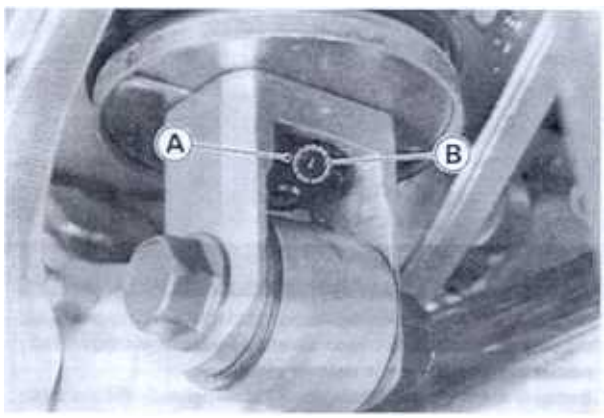
- ○ *Do not remove the fork spring stopper (special tool), while pressing the top spring down so that the spring cause the force against the rod nut.*

- ○ Install the top bolt in the outer tube.

Rear Shock Absorber

Rebound Damping Force Adjustment

The rebound damping force adjuster at the lower end of the rear shock absorber has 4 positions so that the rebound damping force can be adjusted for different road and loading conditions. The numbers on the adjuster show the setting position.



A. Rebound Damping Force Adjuster
B. Number

If the damping feels too soft or too stiff, adjust it in accordance with the following table:

Position	1	2	3	4
Damping Force	----→ Larger			

○The standard setting position of the adjuster for an average-build rider of 68 kg (150 lb) with no passenger and no accessories is No. 1.

●Turn the rebound damping force adjuster to the desired number until you feel a click.

Spring Preload Adjustment

●Remove the shock absorber from the frame (see this chapter).

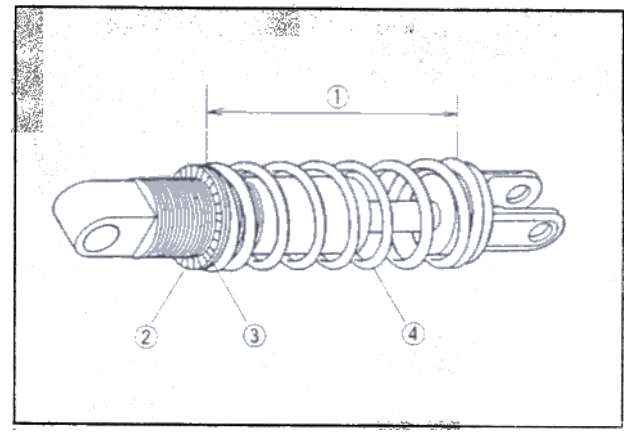
●Loosen the locknut and turn out the adjusting nut to free the spring using stem nut wrenches (special tools: 57001-1100).

●Measure the spring free length.

●Turn in the adjusting nut to the desired position and tighten the locknut.

Spring Preload Setting

Standard:	Spring free length minus 12 mm
Usable Range:	Spring free length minus 12 to 24 mm (weaker to stronger)



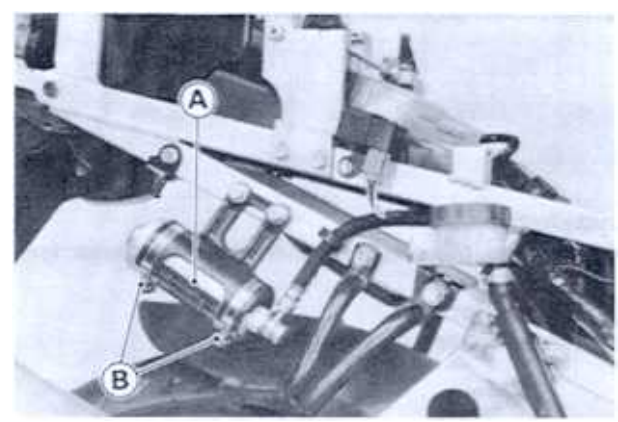
1. Spring Length
2. Locknut
3. Adjusting Nut
4. Spring

★If the spring action feels too soft or too stiff, adjust it as in the front spring preload adjustment section of this chapter.

Removal

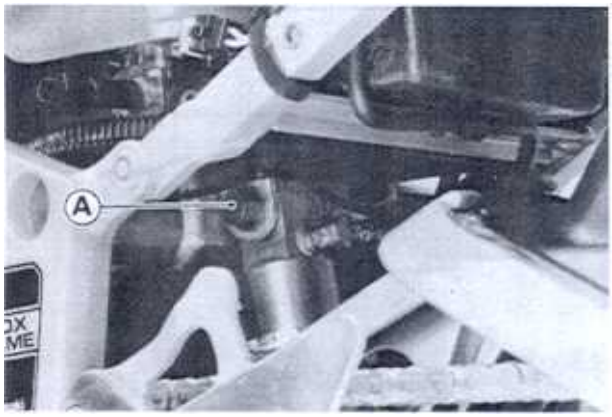
●Remove the following.
Seats
Side Cover Assembly
Rear Brake Reservoir Bracket
Shock Absorber Reservoir Clamps (loosen)
Rear Fender Upper Mounting Bolts, Nuts

●Remove the shock absorber reservoir from the bracket, then pull it forward between the rear frame and the rear fender.

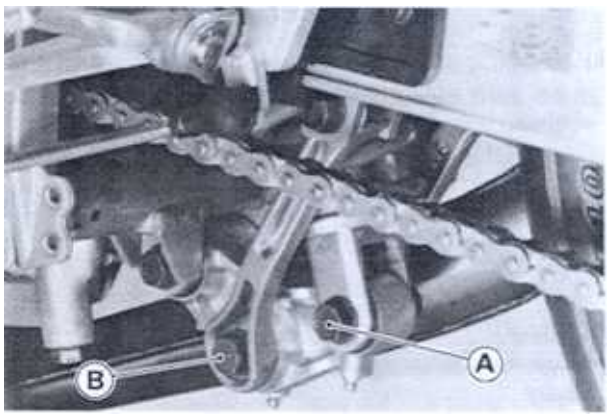


A. Shock Absorber Reservoir
B. Clamp

●Remove the following.
Lower Fairings (see Frame chapter)
Tie-Rod Bolts, Nut (lower)
Rear Shock Absorber Mounting Nut (upper and lower, do not remove the bolt as yet.)



A. Rear Shock Absorber Mounting Bolt, Nut (upper)



A. Rear Shock Absorber Mounting Bolt, Nut (lower)
B. Tie-Rod Bolt, Nut (lower)

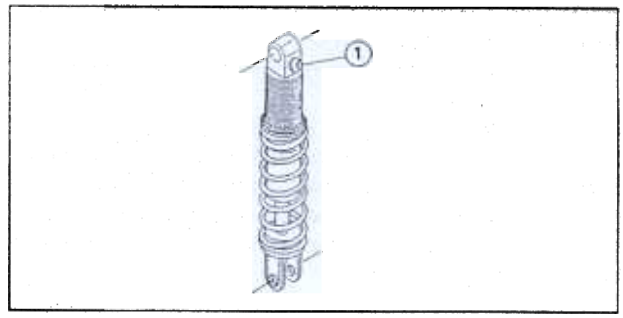
○ Using the jack (special tool), raise the rear wheel off the ground (see Frame chapter).
● Remove the shock absorber mounting bolt (lower).
● Remove the shock absorber mounting bolt (upper).
● Remove the shock absorber towards the ground.

Installation

● Tighten the following nuts to the specified torque (see Exploded View).
Tie-Rod Nut
Shock Absorber Mounting Nuts

Disassembly

● Since the rear shock absorber contains high pressure nitrogen gas, do not remove or loosen the oil hose banjo bolt or disassemble the rear shock absorber.

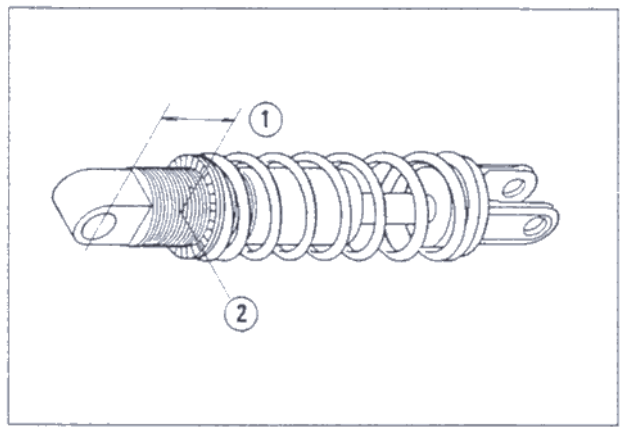


1. Banjo Bolt

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 a 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.

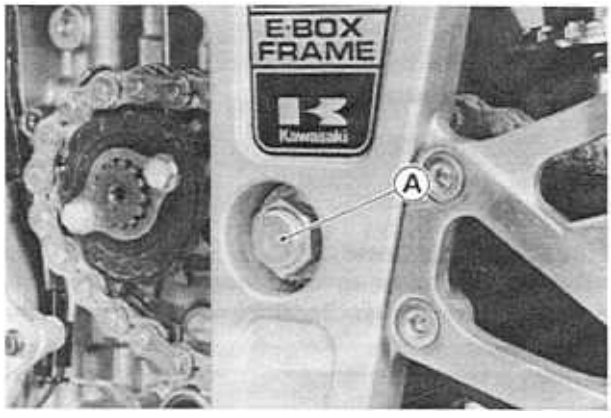


1. 42 ~ 44 mm 2. Hole

Swing Arm

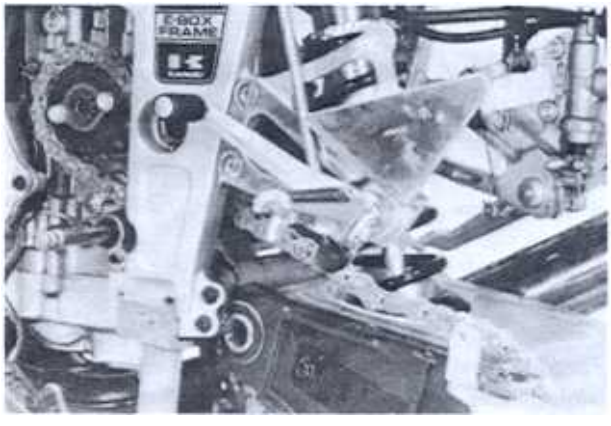
Removal

● Remove the following.
Rear Wheel (see Wheels/Tires chapter)
Shock Absorber Mounting Bolt (lower)
Tie-Rod Bolts (upper)
Swing Arm Shaft



A. Swing Arm Shaft

● Remove the swing arm.



Installation

● Tighten the following fasteners to the specified torque (see Exploded View).
Swing Arm Nut
Shock Absorber Mounting Nut
Tie-Rod Nut
● Install the rear wheel (see Wheels/Tires chapter).

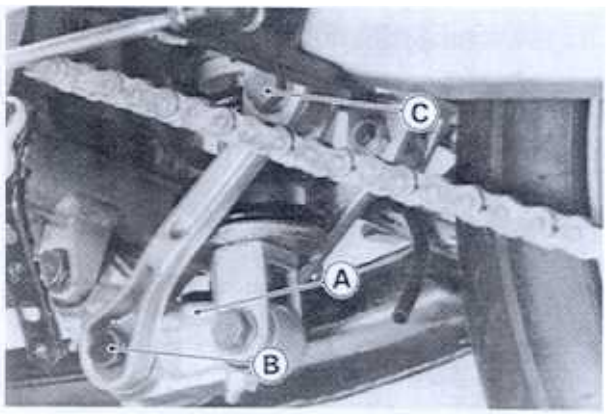
Swing Arm Sleeve Inspection

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

Tie-Rod, Rocker Arm

Tie-Rod Removal

●Remove the following.
Lower Fairings (see Frame chapter)
Rocker Arm (see Rear Shock Removal)
Lower and Upper Tie-Rod Bolts



A. Rocker Arm
B. Lower Tie-Rod Bolt
C. Upper Tie-Rod Bolt

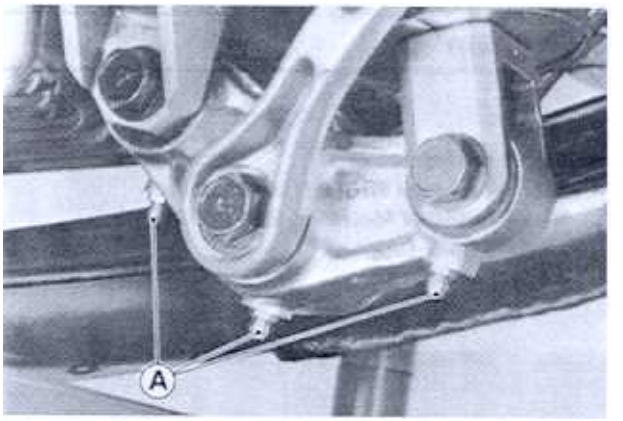
●Remove the tie-rods.

Tie-Rod Installation

●Pack the following bearings with molybdenum disulfide grease.
Rocker Arm Needle Bearings
Tie-Rod Needle Bearings
●Tighten the tie-rod upper and lower nuts to the specified torque (see Exploded View).

Rocker Arm Pivot Lubrication

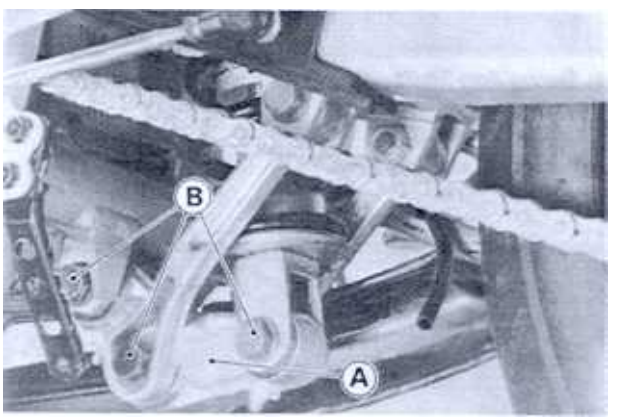
●Lubricate the rocker arm pivots with molybdenum disulfide grease through the grease fitting using a grease gun according to the Periodic Maintenance Chart (see General Information chapter and General Lubrication in the Appendix chapter).
●It is normal for a small amount of grease to seep out around the grease seals.
★If the rocker arm pivots arm pivots are disassembled. Lubricate the pivots as follows.
●Wipe all the old grease off the bearings, sleeves, and grease seals and grease them.



A. Rocker Arm Grease Nipples

Rocker Arm Removal

●The rocker arm is removed during the rear shock removal. Refer to Rear Shock Removal in this chapter.



A. Rocker Arm
B. Bolts

Rocker Arm Installation

●Installation is the reverse of removal. Note the following.
●Apply molybdenum disulfide grease to the inside of the needle bearings.
●Tighten the following nuts to the specified torque (see Exploded View).
Rocker Arm Nuts
Shock Absorber Mounting Nut
Tie-Rod Nut

Needle Bearing Inspection

★If there is any doubt as to the condition of either needle bearing, replace the bearing(s) and sleeve as a set.
●To remove the needle bearings, use the oil seal and bearing remover (special tool: 57001-1058).

Tie-Rod, Rocker Arm Sleeve Inspection

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