

Suspension

Table of Contents

Exploded View	12-2
Specifications	12-4
Special Tools	12-4
Front Fork	12-5
<i>Air Pressure Adjustment</i>	12-5
<i>Anti-Dive Adjustment</i>	12-5
<i>Fork Oil Changing</i>	12-6
<i>Front Fork Removal (each fork leg)</i>	12-6
<i>Front Fork Installation Note</i>	12-7
<i>Front Fork Disassembly</i>	12-8
<i>Front Fork Assembly</i>	12-8
<i>Inner Tube Inspection</i>	12-9
<i>Guide Bush Inspection</i>	12-9
<i>Oil Seal and Dust Seal Inspection</i>	12-10
AVDS (Automatic Variable Damping System)	12-10
<i>Anti-Dive Valve Removal</i>	12-10
<i>TCV (Travel Control Valve) Removal</i>	12-10
<i>Anti-Dive Installation</i>	12-10
<i>TCV Installation Notes</i>	12-10
<i>Anti-Dive Brake Plunger Disassembly</i>	12-11
<i>Brake Fluid and Fork Oil Leak Inspection</i>	12-11
<i>Brake Plunger Assembly Test</i>	12-11
<i>Anti-Dive Valve Assembly Test</i>	12-11
<i>Brake Pipe Damage</i>	12-12
<i>Anti-Dive System Part Replacement</i>	12-12
<i>TCV Troubleshooting</i>	12-12
Rear Shock Absorber	12-13
<i>Spring Force Adjustment</i>	12-13
<i>Damping Force Adjustment</i>	12-13
<i>Rear Shock Absorber Removal</i>	12-14
<i>Rear Shock Absorber Installation Note</i>	12-15
<i>Rear Shock Absorber Inspection</i>	12-15
<i>Rear Shock Scrapping</i>	12-16
Swing Arm, Uni-trak	12-16
<i>Swing Arm Removal</i>	12-16
<i>Swing Arm Installation</i>	12-16
<i>Uni-trak Removal</i>	12-17
<i>Swing Arm, Uni-trak Sleeve Inspection</i>	12-17
<i>Swing Arm, Uni-trak Needle Bearing Inspection</i>	12-17
<i>Swing Arm, Uni-trak Lubrication</i>	12-17

12-2 SUSPENSION

Exploded View

T1: 7.8 N-m (0.8 kg-m, 69 in-lb)

T2: 23 N-m (2.3 kg-m, 16.5 ft-lb)

T3: 21 N-m (2.1 kg-m, 15.0 ft-lb)

T4: 4.4 N-m (0.45 kg-m, 39 in-lb)

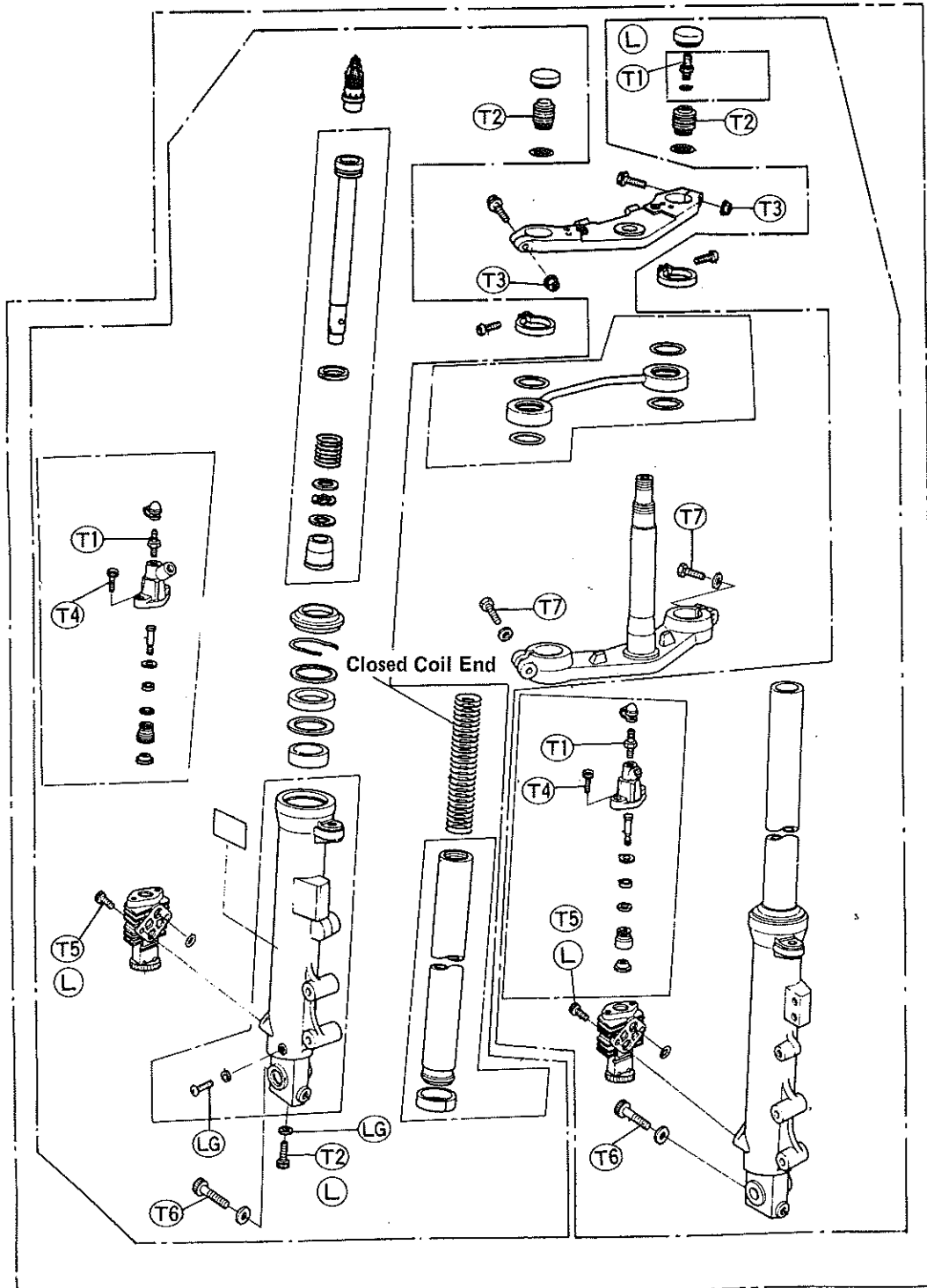
T5: 6.9 N-m (0.7 kg-m, 61 in-lb)

T6: 20 N-m (2.0 kg-m, 14.5 ft-lb)

L : Apply a non-permanent locking agent to the threads.

LG: Apply liquid gasket.

T7: 27 N-m (2.8 kg-m, 20 ft-lb)



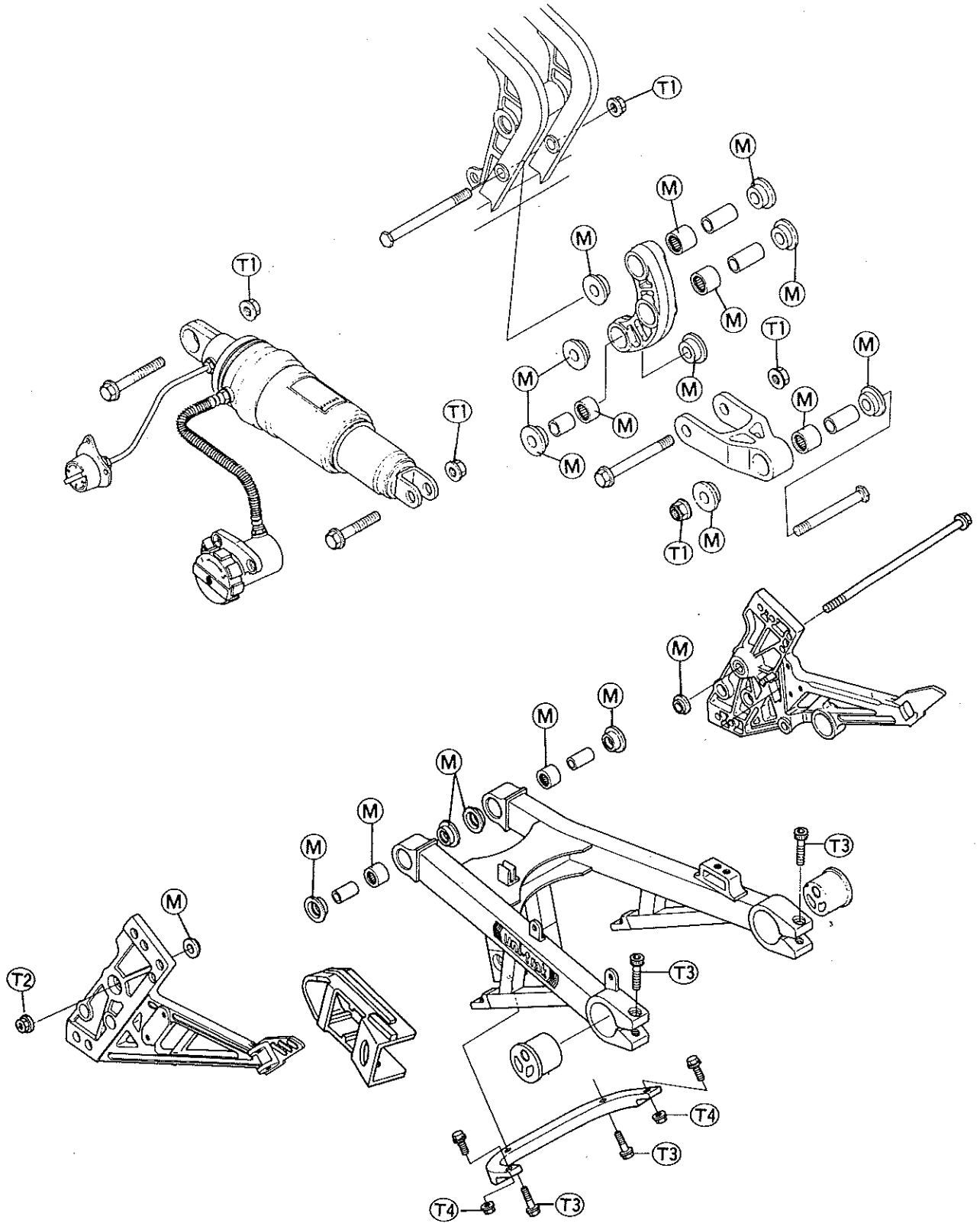
T1: 49 N-m (5.0 kg-m, 36 ft-lb)

T2: 59 N-m (6.0 kg-m, 43 ft-lb)

T3: 35 N-m (3.6 kg-m, 26 ft-lb)

T4: 23 N-m (2.3 kg-m, 16.5 ft-lb)

M : Apply a molybdenum disulfide grease to the internal surface.



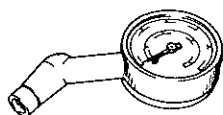
12-4 SUSPENSION

Specifications

Item	Standard	Service Limit
Front Fork:		
Oil type	SAE10W	---
Oil capacity	281 ±4 mL (when assembling) approx. 240 mL (when oil changing)	---
Oil level (extended, without main spring)	331 ±2mm	---
Air pressure	59 -78 kPa (0.6 - 0.8 kg/cm ² , 8.5 - 11 psi)	---
Anti-Dive setting	No.1	
Rear Shock Absorber:		
Damper setting	No.1	
Spring setting	No.1	
Swing Arm		
Sleeve outside diameter	19.979 - 20.000 mm	19.95 mm
Uni-trak		
Sleeve outside diameter		
Rocker arm	26.979 - 27.000 mm	26.95 mm
Tie-rod	26.979 - 27.000 mm	26.95 mm

Special Tools

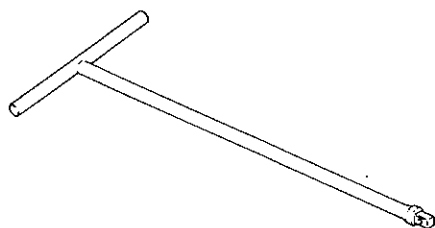
Air Pressure Gauge: 52005-1003



Front Fork Cylinder Holder Adapter: 57001-1057



Front Fork Cylinder Holder Handle: 57001-183



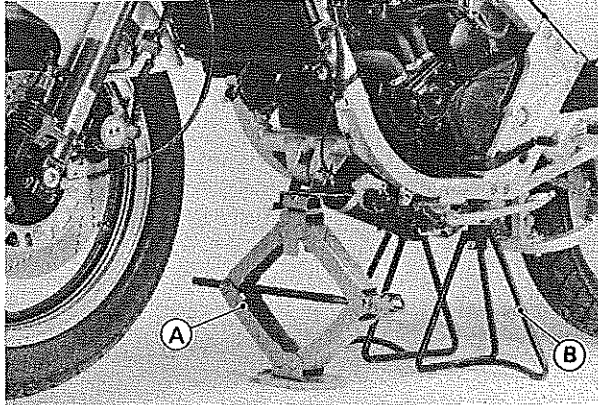
Front Fork Oil Seal Driver: 57001-1091



Front Fork

Air Pressure Adjustment

- Hold the frame by lift or chain block to raise the front wheel. Or, after removal of the front muffler and the reservoir tank, support the frame and the tank bracket with a stand and a jack as shown.



A. Jack

B. Stand

- Use the air pressure gauge (special tool: P/N 52005-1003) specially made for air suspensions.
- Check and adjust the air pressure when the front fork is cold (room temperature).

NOTE

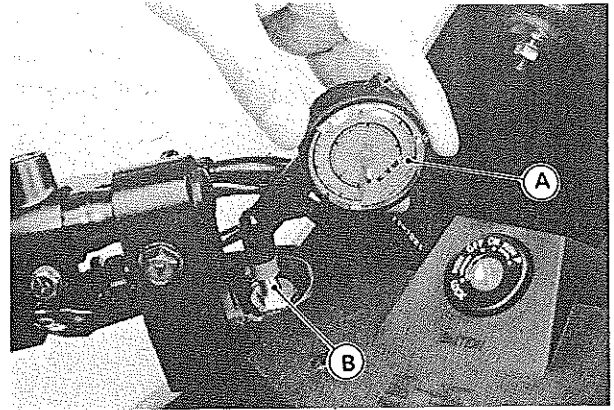
- Do not use a tire gauge for checking air suspension's air pressure. They do not indicate the correct pressure because of air leaks that occur when the gauge is applied to the valve.
- Lower air pressure is for comfortable riding, but it should be increased for high speed riding, or riding on bad roads.

CAUTION

- Inject air little by little so that air pressure does not rise rapidly. Air pressure exceeding 245 kPa (2.50 kg/cm², 36 psi) may damage the oil seal.

WARNING

- Be sure to adjust the air pressure within the usable range. Pressure too high or too low can produce a hazardous riding condition.
- Only air or nitrogen gas can be used. Never inject oxygen or any kind of explosive gas.
- Do not incinerate the front fork.
- Do not remove the springs and rely on compressed air only. Correct springs must be used in this suspension system. Use without springs can lead to a condition causing accident and injury.



A. Pressure Gauge: 52005-1003 B. Air Valve

Front Fork Air Pressure

Standard	69 kPa (0.7 kg/cm ² , 10 psi)
Usable range:	59 – 78 kPa (0.6 – 0.8 kg/cm ² 8.5 – 11 psi)

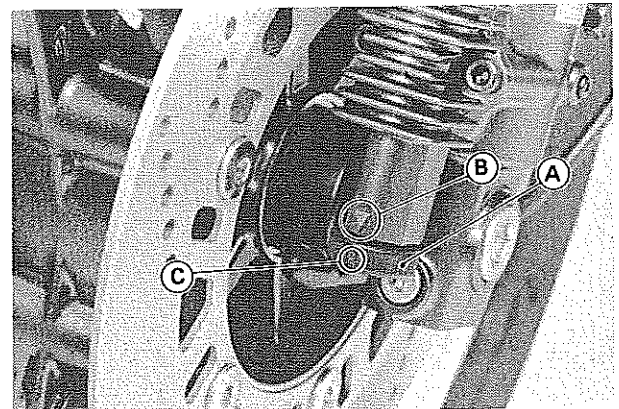
Anti-Dive Adjustment

The anti-dive adjuster on each front fork leg has 3 positions so that the anti-dive system can be adjusted for different road and loading conditions. The numbers on the adjuster show the setting position of the anti-dive system.

- Turn the anti-dive adjuster until you feel a click so that the desired position number aligns with the triangular mark.
- Check to see that both adjusters are turned to the same relative position.

WARNING

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

A. Anti-Dive Adjuster
B. Triangular Mark

C. Position Number

12-6 SUSPENSION

Anti-Dive Adjustment

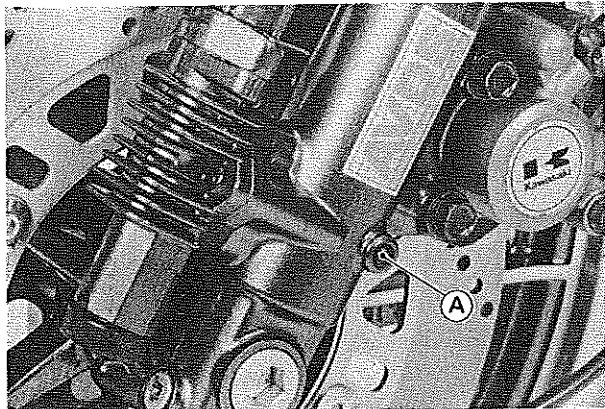
Position 1	Weak
Position 2	Moderate
Position 3	Strong

NOTE

○The recommended setting position is the lowest position for one rider with no accessories.

Fork Oil Changing

- Release the air in both fork legs through the air valve at the top of the fork leg.
- Unscrew the drain screw and top plug from one fork leg, and pull out the fork spring.



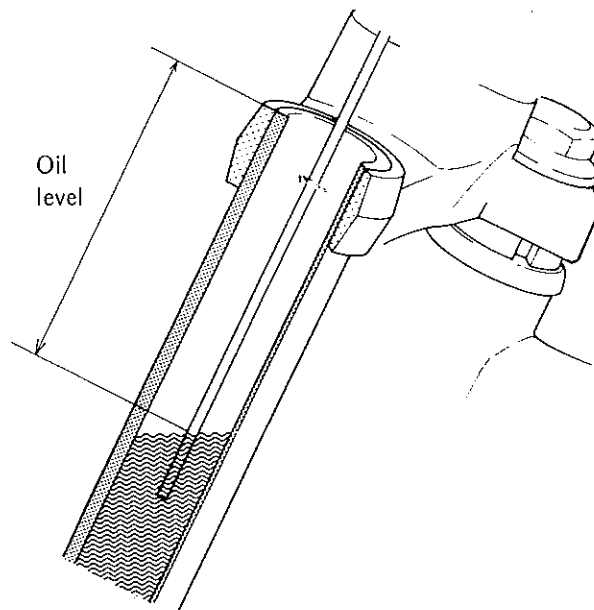
A. Drain Screw

- Allow the oil to drain into a suitable container. If you pump the fork legs to force out the oil, be sure to catch the oil in a container as it squirts out.
- Wash the drain screw threads clean of oil, and blow them dry.
- Apply a liquid gasket to the threads of the drain screw, and install the screw and gasket.
- Pour in the type and amount of oil and adjust the oil level (see Specification).
- Pump the fork enough times to expel the air from the upper and lower chambers.
- With the fork fully extended, insert a tape measure or rod in the inner tube, and measure the distance from the top of the inner tube to the oil.
- ★If the oil is above or below the specified level, remove or add oil and recheck the oil level.

CAUTION

○The operation of air front fork is especially dependent upon correct oil level. Higher level than specified may cause oil leakage and seal breakage. So be sure to maintain the specified level.

Fork Oil Level Measurement



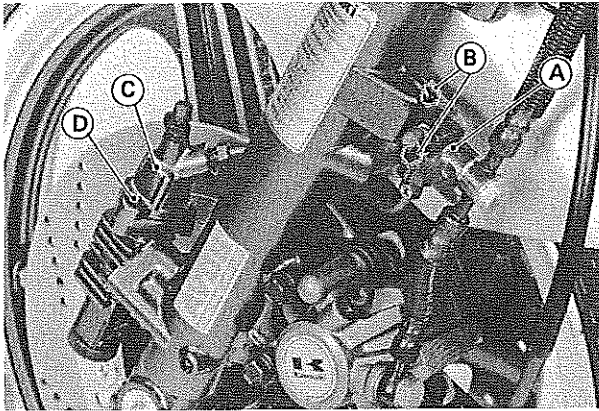
- Inspect the O-ring on the top plug, and replace it with a new one if it is damaged.
- Install the spring.
- Tighten the top plug.
- Change the oil of the other fork leg in the same manner.
- Adjust the air pressure.

Front Fork Oil

Viscosity	SAE 10W
When changing oil:	about 240 mL
After disassembly and completely dry:	281 ±4 mL
Oil level (extended, without main spring)	331 ±2 mm

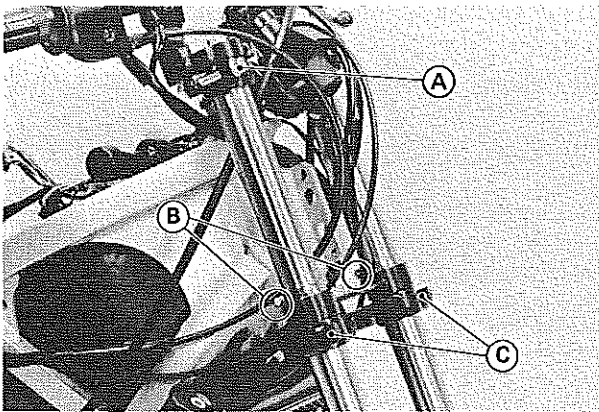
Front Fork Removal (each fork leg)

- Remove the fork leg from the motorcycle as follows.
- Release air pressure from the fork.
- Remove the fairing assembly (see Fairing Removal in Frame chapter).
- Remove the handlebars.
- Loosen the front fork top plug if the front fork is to be disassembled.
- Remove the front wheel (see Front Wheel Removal in Wheels and tires chapter).
- Remove the front fender (see Front Fender Removal in Frame).
- Remove the brake plunger Allen bolts and separate the plunger.
- Remove the brake joint mounting bolt and take the joint off.



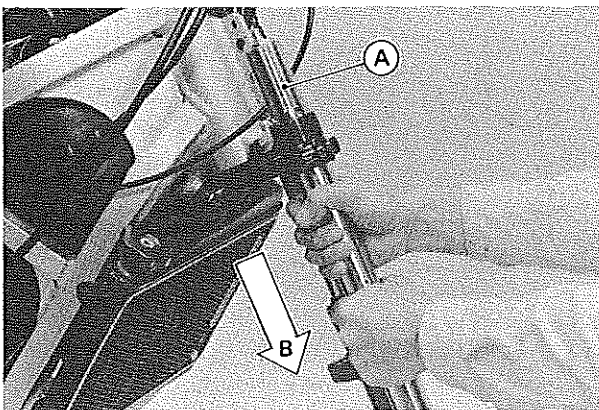
A. Brake Joint C. Brake Plunger
B. Joint Mounting Bolt D. Brake Plunger Allen Bolt

- Loosen the upper and lower fork clamp bolts, and the connecting pipe clamp screws.



A. Upper Clamp Bolt C. Lower Clamp Bolt
B. Connecting Clamp Screw

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

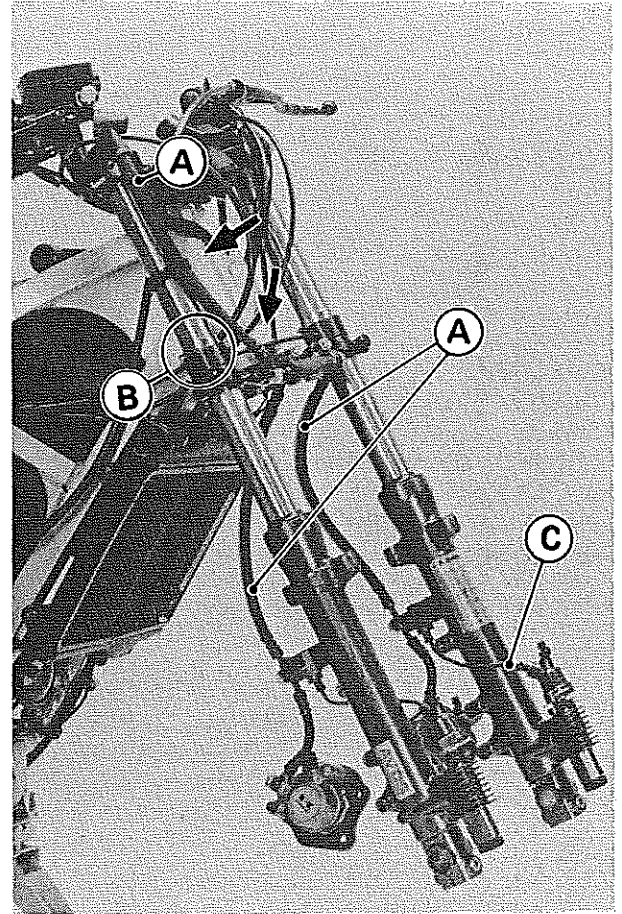


A. Fork Leg B. Removal Direction

- Stick a tape on the air hole to keep the oil from flowing out of the fork.

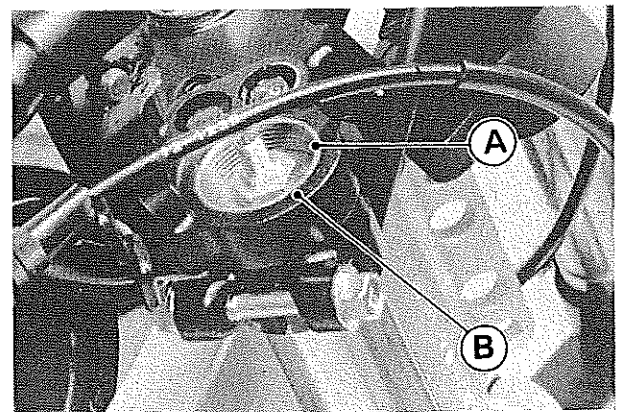
Front Fork Installation Note

- Install the brake hoses, the brake pipes and the connecting pipes as shown.



A. Brake Hoses C. Brake Pipe
B. Clamp Screws

- Install the fork tube so that the top of the fork inner tube is aligned with upper surface of the handle holder.
- Tighten the clamp bolts to the specified torque (see Exploded Views).



A. Inner Tube Top
B. Upper Surface of the Handle Holder

12-8 SUSPENSION

- Set the connecting pipe on the steering stem and tighten the clamp screws.
- After installing the fork tube, tighten the top plug to the specified torque (see Exploded Views).
- Apply a non-permanent locking agent to the air valve, and tighten the valve to the specified torque (see Exploded Views).

Front Fork Disassembly

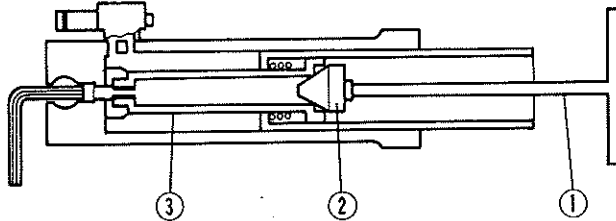
- Remove the front fork leg.
- Remove the top plug, O-ring, and spring.

NOTE

○The top plug should be loosened before the fork is removed.

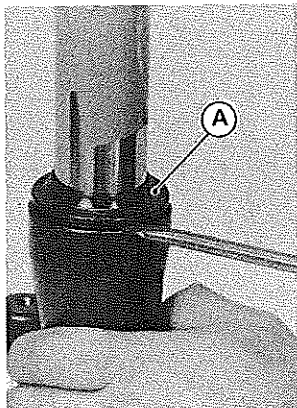
- Pour out the fork oil, and take off the main spring and the TCV (Travel Control Valve).
- Stop the cylinder from turning by using the front fork cylinder holder and adapter (special tools). Unscrew the Allen bolt and take off the bolt, and gasket from the bottom of the outer tube.

Front Fork Cylinder Holder Removal

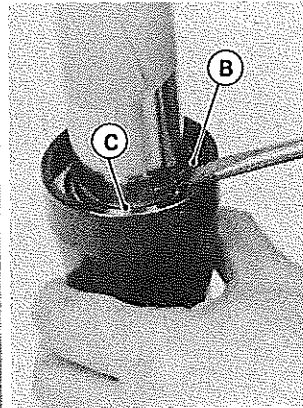


1. Front Fork Cylinder Holder Handle: 57001-183
2. Adapter: 57001-1057
3. Front Fork Cylinder

- Remove the piston and cylinder unit and short spring up side down of the front fork.
- Separate the inner tube from the outer tube as follows.
 - Remove the dust seal from the outer tube.
 - Remove the snap ring and washer from the outer tube.

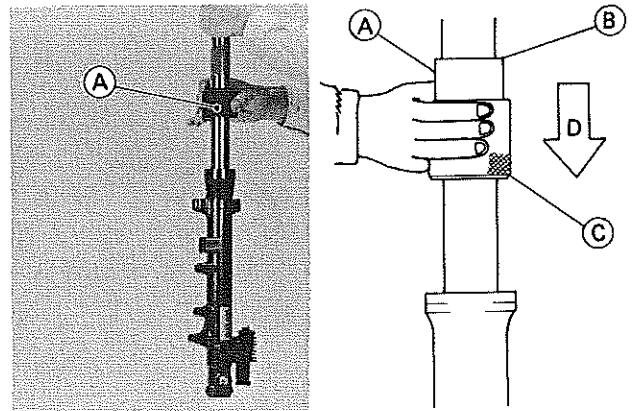


A. Dust Seal
B. Snap Ring



C. Washer

- Holding the inner tube by hand and keeping the fork leg in a vertical position, tap the outer tube on the upper end with the driver (special tool) until the outer tube falls off the inner tube. Face the big end of the driver downward.

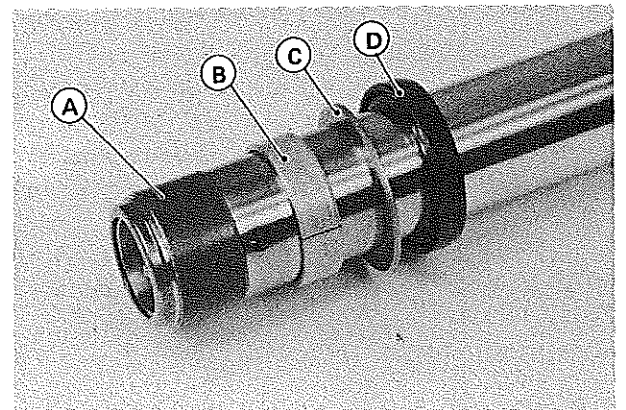


A. Driver: 57001-1091
B. Small End

C. Big End
D. Tap

CAUTION

- To avoid damaging the inner tube guide bush, do not tap the outer tube when the fork leg is put horizontally on a work bench.
- Remove the oil seal, washer and outer tube guide bush, from the inner tube.
- Remove the cylinder base out of the outer tube bottom.

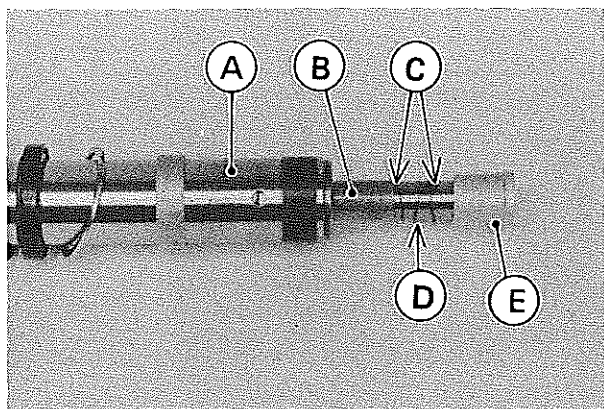


A. Inner Tube Guide Bush
B. Outer Tube Guide Bush
C. Washer
D. Oil Seal

Front Fork Assembly

- Fork assembly is the reverse of disassembly. Pay attention to the following items.
 - Check the top plug O-rings. Replace them with new ones if damaged.
 - Replace the removed oil seal with a new one.

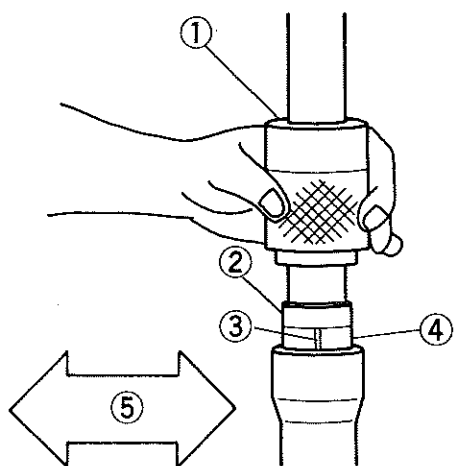
- Inspect the guide bushes (see Guide Bush Inspection), and replace them with new ones if necessary.
- Insert the cylinder unit to the inner tube, and put on the washers and cylinder base.



A. Inner Tube
 B. Cylinder
 C. Spring Washer
 D. Washer
 E. Cylinder Base

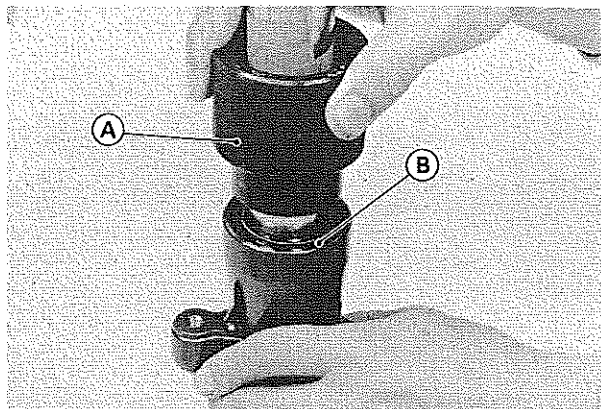
- Insert the inner tube and cylinder as a set into the outer tube.
- Apply liquid gasket to both sides of the gasket, apply a non-permanent locking agent to the Allen bolt. Tighten the Allen bolt to the specified torque, using the front fork cylinder holder handle and holder adapter (special tools) to stop the cylinder from turning.
- Install the guide bush with a used guide bush as a tool by tapping the used guide bush with the driver (special tool) until it stops. The bush split must be faced toward the left or right.

Guide Bush Installation



1. Driver: 57001-1091
 2. Used Guide Bush
 3. Slit
 4. New Guide Bush
 5. Front and Rear

- Replace the oil seal with a new one.
- Apply oil to the outside, and install it with the oil seal driver (special tools).



A. Oil Seal Driver: 57001-1091
 B. Oil Seal

Inner Tube Inspection

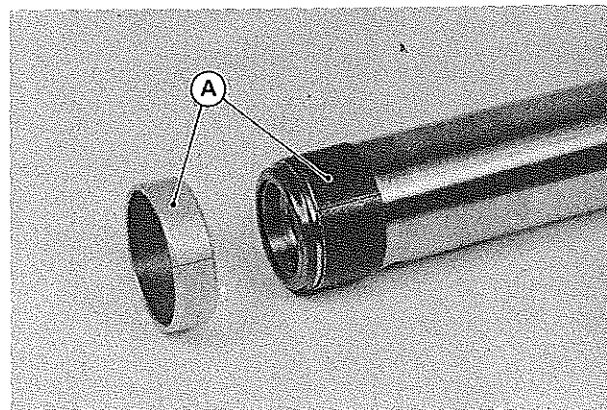
- Visually inspect the inner tube, and repair any damage.
- Nicks or rust damage can sometimes be repaired by using a wet-stone to remove sharp edges or raised areas which cause seal damaged.
- ★If the damage is not repairable, replace the inner tube. Since damage to the inner tube damages the oil seal, replace the oil seal whenever the inner tube is repaired or replaced.
- Temporarily assemble the inner and outer tubes, and pump them back and forth manually to check for smooth operation.

CAUTION

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

Guide Bush Inspection

- Visually inspect the guide bushes, and replace them if necessary.

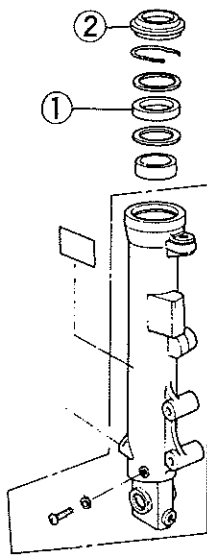


A. Guide Bushes

12-10 SUSPENSION

Oil Seal and Dust Seal Inspection

- Inspect the oil seal and dust seal for any signs of deterioration or damage.
- ★ Replace them if necessary. Replace the oil seal with a new one whenever it has been removed.



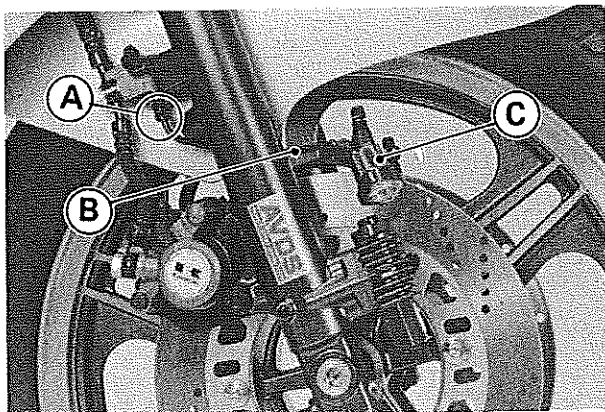
1. Oil Seal

2. Dust Seal

AVDS (Automatic Variable Damping System)

Anti-Dive Removal

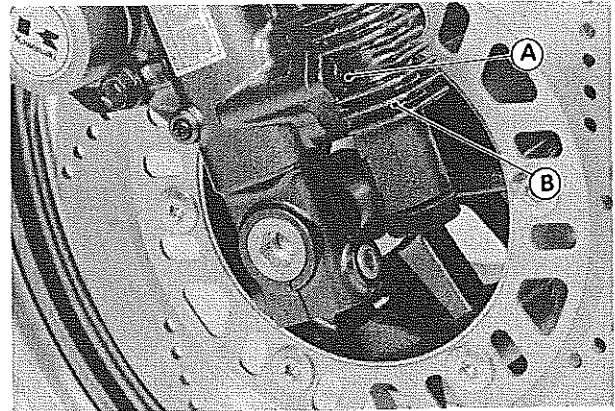
- Remove the bolts and separate the brake plunger from the anti-dive valve.
- Drain the front brake oil (see Brake chapter).
- Remove the brake pipe joint, and then brake pipe and brake plunger.



A. Brake Pipe Joint
B. Brake Pipe

C. Brake Plunger

- Remove the mounting bolts and take off the anti-dive valve from the outer tube.



A. Bolts

B. Anti-Dive Valve Assembly

NOTE

- Do not disassemble the anti-dive valve assembly for repair or replacement of internal parts. Always replace it as a unit.

TCV (Travel Control Valve) Removal

- Remove the front fork leg.
- Remove the top plug, O-ring, spring, and pour the fork oil, and take off the TCV up side down of the fork.

NOTE

- Do not disassemble the TCV assembly for repair or replacement of parts. Always replace it as a unit.

Anti-Dive Installation

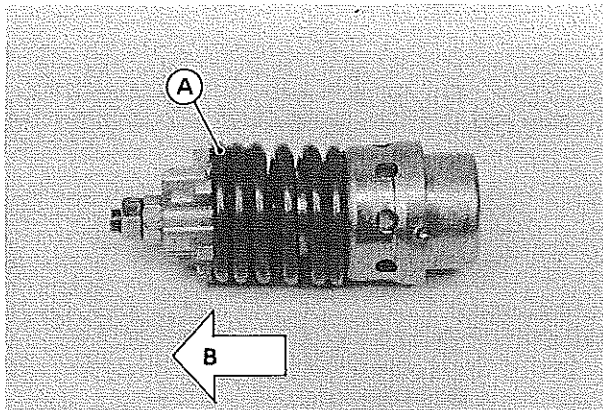
- Reinstall the anti-dive valve and brake plunger assembly, and brake pipe.

NOTE

- Bleed the anti-dive and brake line after anti-dive valve installation.

TCV Installation Notes

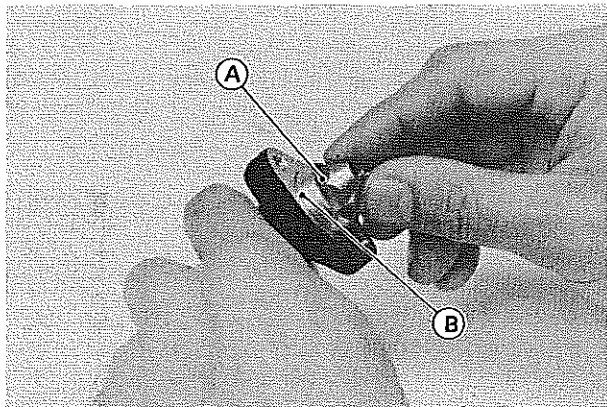
- Install the TCV with the nut side end top.
- Installation is the reverse of removal.
- Install the fork main springs so that the end with more closely spaced coils is upward.



A. TCV B. Top

Anti-Dive Brake Plunger Disassembly

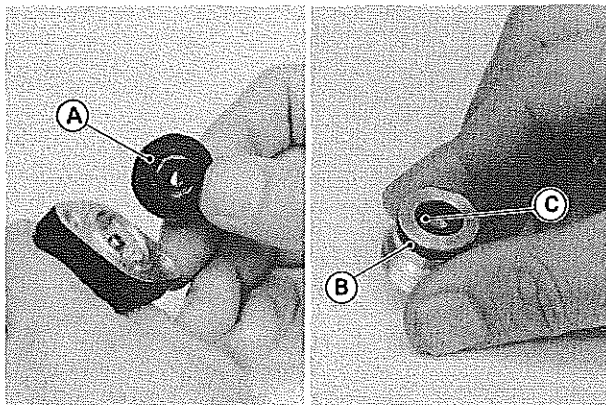
- Remove the rubber cap.
- Remove the seal case using a suitable nut.



A. Suitable Nut (width across flats: 14 mm) B. Seal Case

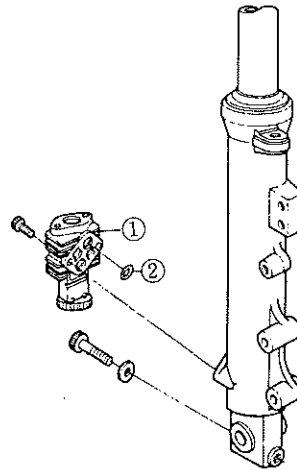
Brake Fluid and Fork Oil Leak Inspection

- Visually inspect the anti-dive unit for brake fluid and fork oil leakage.
- ★ If the brake fluid leaks, replace the brake plunger parts – the rubber cap, O-ring, and seal ring.



A. Rubber Cap B. O-Ring C. Seal Ring

★ If the fork oil leaks, replace the O-rings or anti-dive valve assembly.



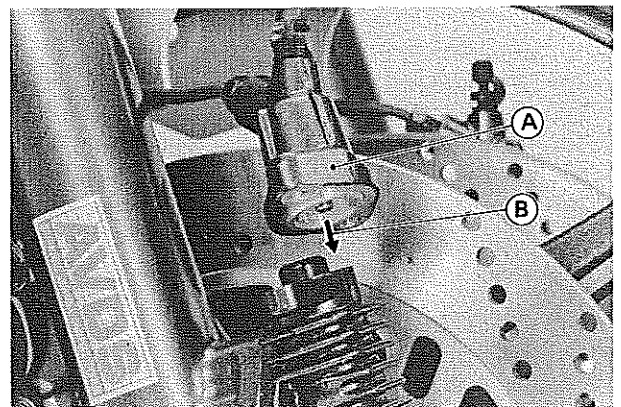
1. Anti-Dive Valve Assembly
2. O-ring

Brake Plunger Assembly Test

The brake plunger assembly can be tested by separating it from the anti-dive valve assembly with the brake line connected to the brake plunger assembly.

- Separate the plunger assembly from the anti-dive valve assembly being careful not to damage or deform the brake pipe.
- Check to see if the plunger in the brake plunger assembly comes out by a 2 mm when the front brake is lightly applied, and check to see if the plunger goes in smoothly when it is pushed in with your finger.

★ If the plunger does not move lightly or is stuck in the body, replace the brake plunger assembly.



A. Brake plunger B. 2 mm

Anti-Dive Valve Assembly Test

The operation of the anti-dive valve assembly can be checked by removing the front fork leg from the motor-cycle.

12-12 SUSPENSION

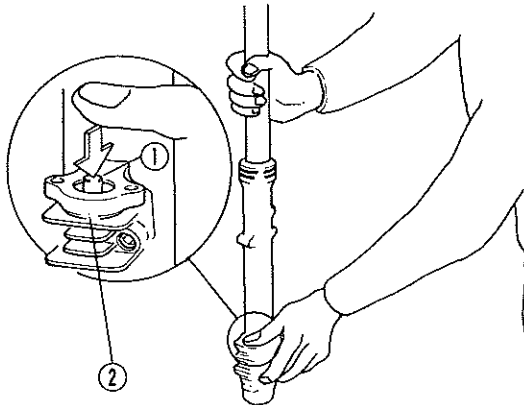
- Separate the brake plunger assembly from the anti-dive valve assembly with the brake line connected.
- Unscrew the top plug, and take the fork spring out of the fork tube.
- Remove the front wheel, disc brake caliper, front fender and brake line junction from the fork leg.
- Remove the front fork leg with its anti-dive valve assembly installed and tape the equalizing hole in the fork inner tube to prevent the fork oil from flowing out during anti-dive valve assembly test.
- With the fork leg held upright, compress the fork leg, and see that the compression stroke is light and smooth when the valve rod is not pushed in and that there is notable damping when the valve rod is pushed in with your finger.

NOTE

○ The extension stroke should be smooth with notable damping regardless of valve rod positions.

★ If the fork leg has heavy compression stroke when the valve rod is left released, or if it has light compression stroke when the rod is pushed in; the anti-dive valve assembly does not operate properly necessitating replacement of the anti-dive assembly.

Anti-Dive Assembly Test



1. Valve Rod
2. Valve Assy

Brake Pipe Damage

- The brake pipes which feed the brake fluid to the anti-dive units are made of plated steel, and will rust if the plating is damaged. Replace the pipe if it is rusted, cracked (especially check the fitting), or if the plating is badly scratched.

Anti-Dive System Part Replacement

In accordance with the Periodic Maintenance Chart, replace the following anti-dive system parts.

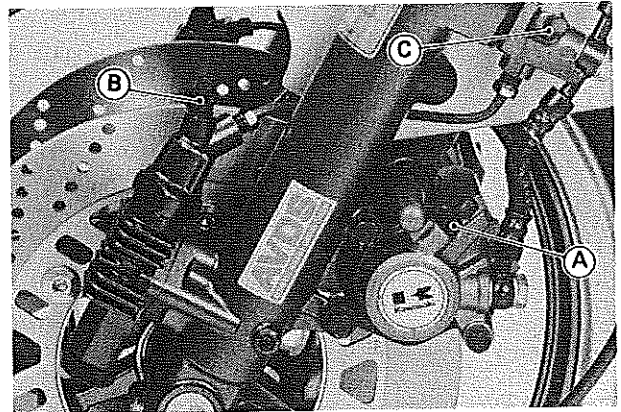
Periodic Replacement Parts on Anti-Dive System

Brake plunger parts:

rubber cap, O-ring, seal ring

Brake pipe (between anti-dive unit and brake pipe joint)

- Be sure to bleed the air from the brake line after replacement.
- Bleed the air from the brake line, first using the bleed valves on the brake calipers and the anti-dive units, and then using the bleed valves on the junction blocks.

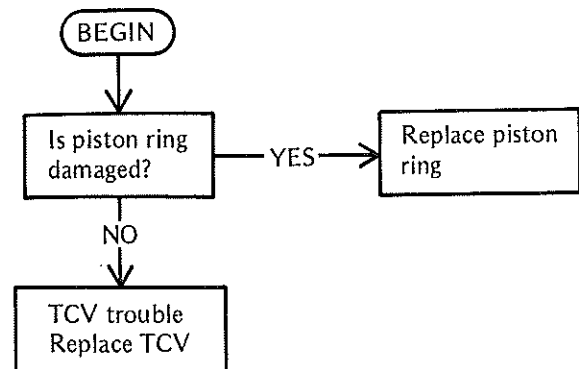


- A. Air Bleed Valve (caliper)
- B. Air Bleed Valve (anti-dive)
- C. Air Bleed Valve (junction block)

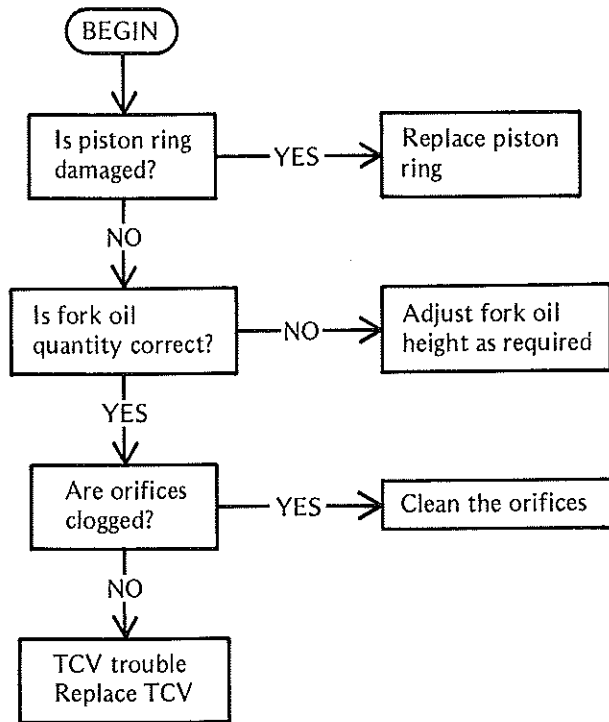
TCV Troubleshooting

If the damping force is not working, inspect the TCV according to the troubleshooting guide.

Damping force is not working at compression stroke

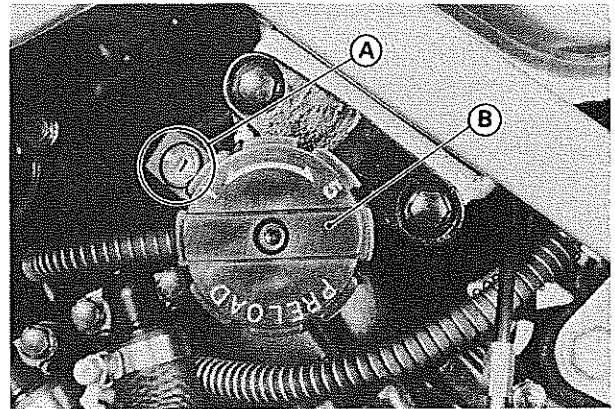


Damping force is not working on extension stroke



Spring Force

Adjuster Position	Spring Force	Setting	Load	Road
1	↓ Stronger	Soft	Light	Good
↕		↕	↕	↕
5		Hard	Heavy	Bad



A. Numbers on the window B. Dial (Preload Adjuster)

Rear Shock Absorber

The rear shock absorber can be adjusted by changing the spring force and damping force to suit various riding and loading conditions.

Spring Force Adjustment

- The numbers on the window show the setting position.
- Turn the preload adjuster until the desired number is at middle of the window and you feel a click.

NOTE

○The recommended setting position is the 1 position for one rider with no accessories.

★If the spring action feels too soft or too stiff, adjust it in accordance with the following table.

Damping Force Adjustment

- Turn the remote damper adjuster to the desired position so that the number on the adjuster aligns with the arrow.

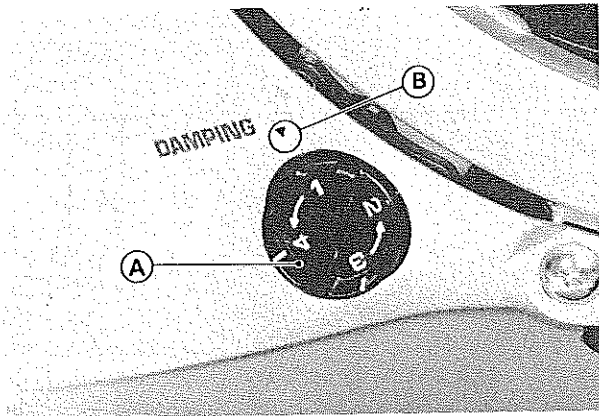
NOTE

- 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 damper setting feels too soft or too stiff, adjust it in accordance with the following table:
- The recommended setting position is the 1 position for one rider with no accessories.

Damping Force

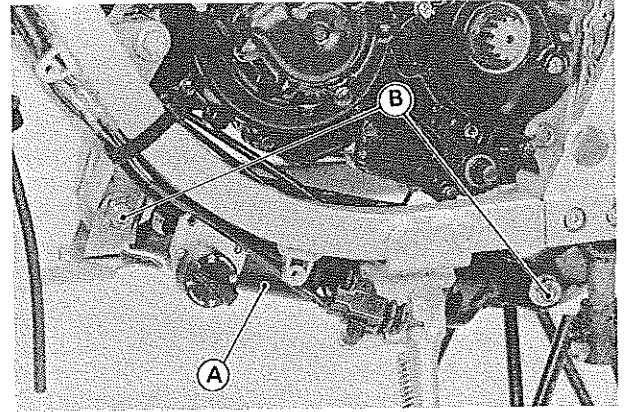
Setting Position	Damping Force	Setting	Load	Road	Speed
1	↓ Stronger	Soft	Light	Good	Low
2		↕	↕	↕	↕
3		↓	↓	↓	↓
4		Hard	Heavy	Bad	High

12-14 SUSPENSION



A. Damper Adjuster

B. Triangular Mark



A. Rear Shock Absorber

B. Bolts and Nuts

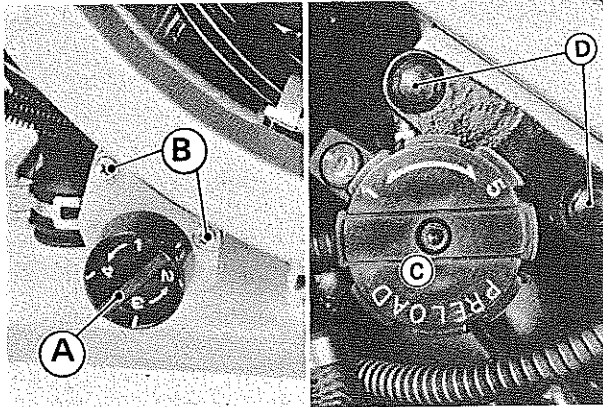
- Remove the shock absorber by taking off the mounting bolts and nuts.

NOTE

- Support the rear wheel to slide out the shock absorber mounting bolts.
- Do not twist the damper adjuster body and cable during the shock absorber removal or installation. This could cause the plastic gear in the absorber to turn and to upset the adjuster indication requiring adjuster matching.

Rear Shock Absorber Removal

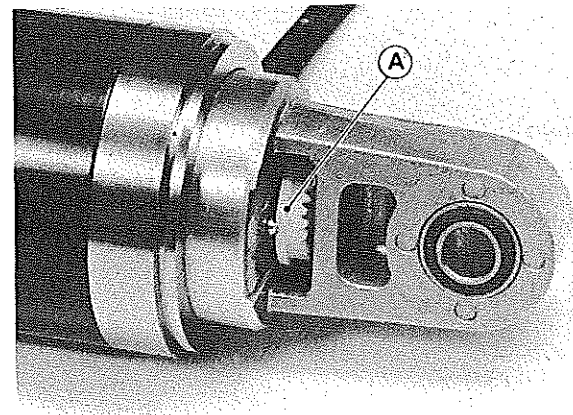
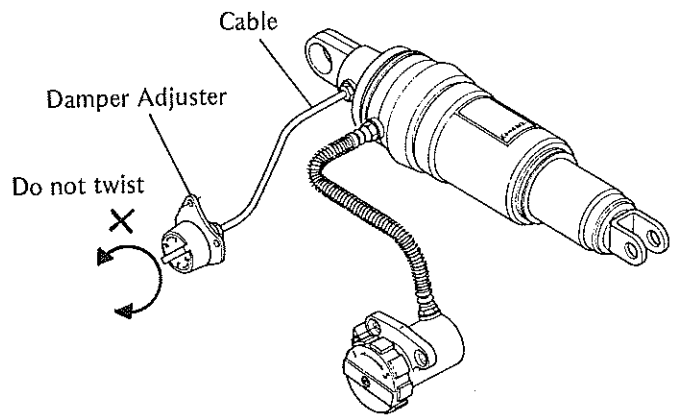
- Remove the following parts before rear shock absorber removal.
 - Lower fairing
 - Coolant reserve tank
 - Front muffler
- Remove the remote adjusters.



A. Damper Adjuster
B. Screws

C. Preload Adjuster
D. Bolts

- Loosen the shock absorber mounting bolts. Do not remove them yet.
- Use a stand under the frame or other suitable means to lift the rear wheel.



A. Plastic Gear

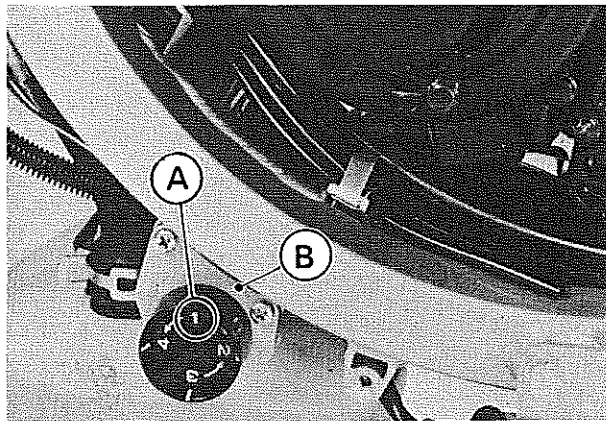
Rear Shock Absorber Installation Notes

Damper Indication Check

NOTE

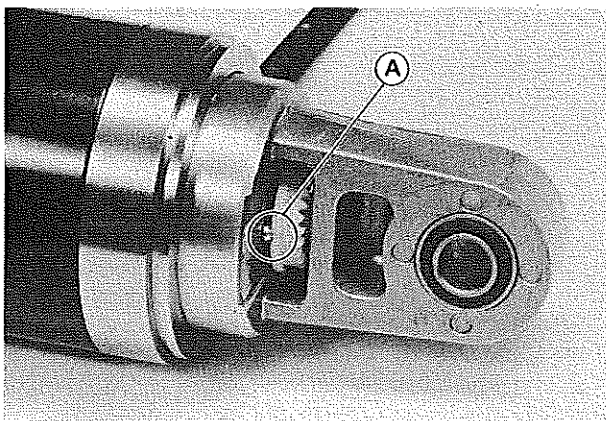
○Before installation, check to see if the damper adjuster indication matches with the plastic gear mark in the shock absorber.

- Turn the damper adjuster dial until you feel a click and the number 1 is located on the mounting bracket as shown.



A. Dial 1 B. Mounting Bracket

- Slide the dust cover off of the shock absorber top.
- Check that the gear mark I is at the middle of the window.



A. Gear Mark I (red painted mark)

- ★Any other mark in the window means that the damper adjuster is upset and needs to be matched.

Damper Adjuster Matching

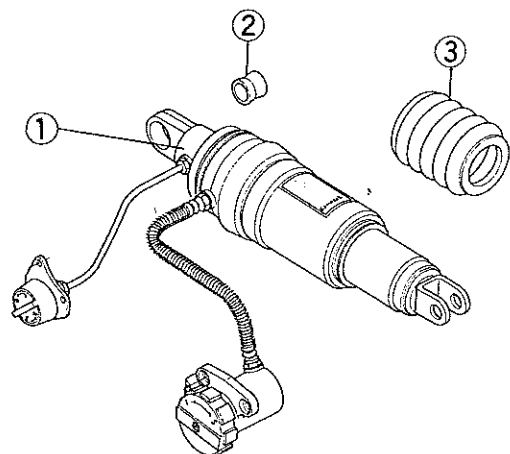
- While keeping the dial 1 in position on the bracket, turn the adjuster body and cable in the same direction until the mark I on the plastic gear is at the middle of the window (see above).
- Install the damper adjuster on the frame being careful not to twist the adjuster body and cable.
- Slide back the dust cover.
- Install the rear shock absorber and tighten the mounting bolts to the specified torque.

Rear Shock Absorber Inspection

Since the rear shock absorber is sealed unit which cannot be disassembled, only external checks of operation are necessary.

- With the shock removed, extend it and see that the extension stroke is smooth and that there is damping in addition to spring resistance to extend. When the unit is released, the spring should not suddenly snap it to original length. It should retract smoothly with notable damping. When the shock absorber is operated, there should be no oil leakage.
- ★If the shock absorber does not perform all of these operations satisfactorily, replace the shock absorber.
- Check the rubber damper and rear boot.
- ★Replace any that is worn, cracked, hardened, or otherwise damaged.
- ★If the front boot is damaged, replace the shock absorber.

Rear Shock Absorber Inspection



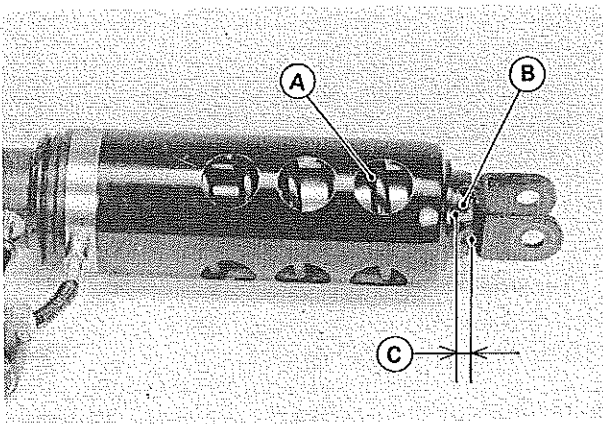
1. Front Boot
2. Damper
3. Rear Boot

12-16 SUSPENSION

Rear Shock Scrapping

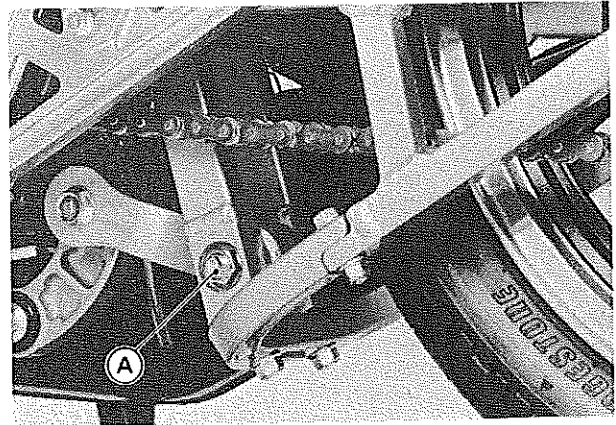
WARNING

- Since the rear shock absorber contains nitrogen gas, do not incinerate or disassemble the rear shock absorber.
- Since the oil in the shock absorber will be blown out by high pressure gas, do not try to release the oil.
- Before a rear shock absorber is scrapped, drill a hole at a point about 3 – 5 mm forward from the rear of the cylinder 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.



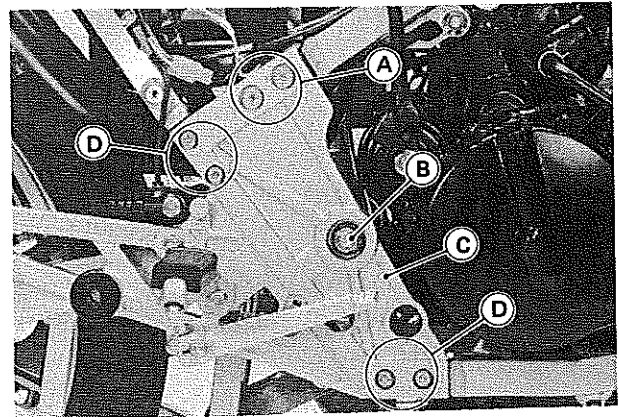
A. Rear of the shock absorber
B. Drill here

C. 3 – 5 mm



A. Bolt and Nut

- Remove the pivot shaft. If the pivot shaft is difficult to remove, loosen the right side footpeg bracket bolts and nuts.



A. Bolts and Nuts
B. Pivot Shaft
C. Right Side Footpeg Bracket
D. Bolts

- Remove the swing arm with the drive chain.

Swing Arm, Uni-trak

Swing Arm Removal

- Remove the following parts before swing arm removal. Support the frame with a stand during swing arm removal.
 - Front Muffler
 - Rear Wheel
 - Rear Brake Caliper
 - Engine Sprocket
- Remove the bolt and nut of the tie rod.

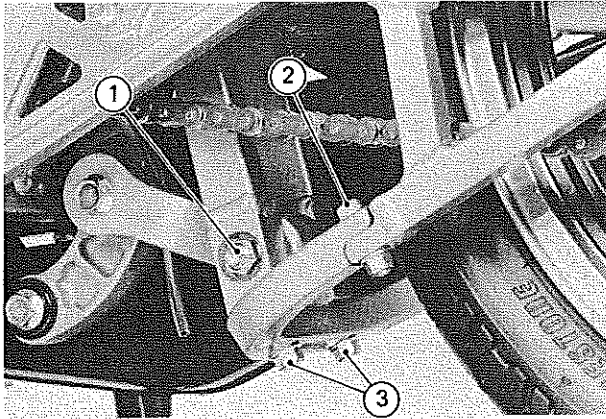
Swing Arm Installation

- Run the drive chain into the swing arm.
- Temporarily install the swing arm.
- Insert the pivot shaft from the vehicle right side for drive chain installation or removal convenience.
- Tighten the pivot shaft nut to the specified torque.
- Install the tie-rod and swing arm holder.

NOTE

○ If the holder mounting bolts are used ones, apply a non-permanent locking agent to the threads.

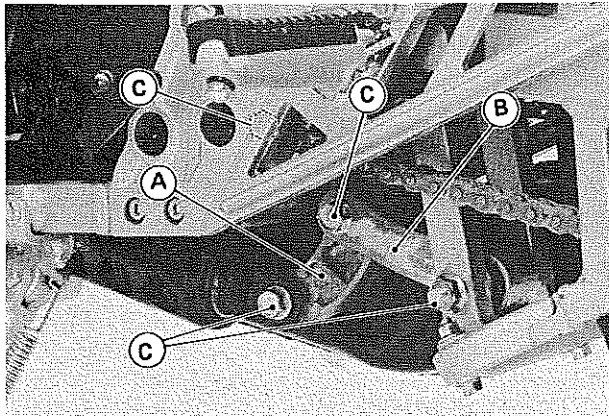
- Tighten the tie-rod bolt and nut, the holder mounting bolts and nuts, and the holder mounting bolts to the specified torque in the order of index number.



1. Tie-Rod Bolt and Nut
2. Holder Mounting Bolts and Nuts
3. Holder Mounting Bolts

Uni-trak Removal

- Support the frame with a stand during Uni-trak removal.
- Remove the following bolts and nuts while holding up the rear wheel, and take off the rocker arm and the tie rod.



- A. Rocker Arm C. Bolts and Nuts
B. Tie Rod

Swing Arm, Uni-trak Sleeve Inspection

- ★If there is visible damage, or the outside diameter is worn past the service limit, replace the sleeve and needle bearing as a set (see Specification section).

Swing Arm, Uni-trak Needle Bearing Inspection

- The rollers in the needle bearings wear so little that the wear is difficult to measure. Instead, inspect the needle bearings for abrasion, color change, or other damage.
- ★If there is any doubt as to the condition of either needle bearing, replace the bearing and sleeve as a set.

Swing Arm, Uni-trak Lubrication

In order for the uni-trak suspension to function safely and wear slowly, it should be lubricated in accordance with the Periodic Maintenance Chart or whenever disassembled.

- Disassemble the uni-trak suspension.
- Using a high flash-point solvent, wash the sleeves and needle bearings, and dry them.
- Inspect the needle bearings, sleeves and grease seals for abrasion, color change, or other damage.
- Apply a molybdenum disulfide chassis assembly grease to the outer circumference of the sleeves, and pack the needle bearings with same grease (see Exploded Views).
- Assemble the uni-trak suspension.