

3. INSPECTION/ADJUSTMENT

3

INSPECTION/ADJUSTMENT

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3. INSPECTION/ADJUSTMENT

SERVICE INFORMATION

GENERAL

WARNING

- Before running the engine, make sure that the working area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas which may cause death to people.
- Gasoline is extremely flammable and is explosive under some conditions. The working area must be well-ventilated and do not smoke or allow flames or sparks near the working area or fuel storage area.

SPECIFICATIONS

Throttle grip free play : 3~5 mm (0.12~0.2 in)

Spark plug gap : 0.6~0.7 mm (0.024~0.028 in)

Spark plug: Standard: CR7E (NGK)

Valve clearance : IN: 0.1 mm (0.004 in)
EX: 0.1 mm (0.004 in)

Idle speed : 1500±100 rpm

Engine oil capacity

At disassembly : 3.6 liter (3.17 lmp qt, 3.82 Us qt)

At change : 3 liter (2.64 lmp qt, 3.18 Us qt)

After draining and oil filter cartridge change: 3.2 liter (2.82 lmp qt, 3.39 Us qt)

Front drive gear oil

Recommended oil: SAE 90

At disassembly: 300 cc (10.6 lmp oz, 10.1 Us oz)

At change: 300 cc (10.6 lmp qt, 10.1 Us qt)

Rear drive gear oil

Recommended oil: SAE 80

At disassembly: 150 cc (5.33 lmp oz, 5 Us oz)

At change: 130 cc (4.63 lmp qt, 4.33 Us qt)

Cylinder compression: 15 kg/cm² (1500 kPa, 213 psi)

Ignition timing: 5°±1°/1500 rpm

3. INSPECTION/ADJUSTMENT

Tire pressure

	1 Rider
Front	0.28 kgf/cm ² (28 Kpa, 3.2 psi)
Rear	0.28 kgf/cm ² (28 Kpa, 3.2 psi)

Tire size:

Front : 25X8-12

Rear : 25X10-12

TORQUE VALUES

Spark plug	1.2kgf-m (12 N-m, 8.6 lbf-ft)
Tappet ADJ nut	0.9 kgf-m (9 N-m, 6.5 lbf-ft)
Engine oil filter cap	1.5 kgf-m (15 N-m, 11 lbf-ft)
Engine oil filter cartridge	1 kgf-m (10 N-m, 7.2 lbf-ft)
Engine oil drain plug	2.5 kgf-m (25 N-m, 18 lbf-ft)
Rear drive gear oil drain bolt	2 kgf-m (20 N-m, 15 lbf-ft)
Rear drive gear oil level check bolt	2 kgf-m (20 N-m, 15 lbf-ft)
Rear drive gear oil filler cap	1.5 kgf-m (15 N-m, 11 lbf-ft)
Front drive gear oil drain bolt	3.2 kgf-m (32 N-m, 23 lbf-ft)
Front drive gear oil filler cap	3.5 kgf-m (35 N-m, 25.5 lbf-ft)
Front drive gear oil level check bolt	1 kgf-m (10 N-m, 7.2 lbf-ft)
Tie-rod adjusting nut	3.5 kgf-m (35 N-m, 25.2 lbf-ft)
Front wheel hub nut	7 kgf-m (70 N-m, 50 lbf-ft)
Rear wheel hub nut	10 kgf-m (100 N-m, 72 lbf-ft)

SPECIAL TOOLS

Valve adjusting wrench A120E00036

Oil cartridge wrench A120E00061

3. INSPECTION/ADJUSTMENT

MAINTENANCE SCHEDULE

This chapter includes all information necessary to perform recommended inspections and adjustments. These preventive maintenance procedures, if followed, will ensure more reliable vehicle operation and a longer service life. The need for costly overhaul work will be greatly reduced. This information applies to vehicles already in service as well as new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

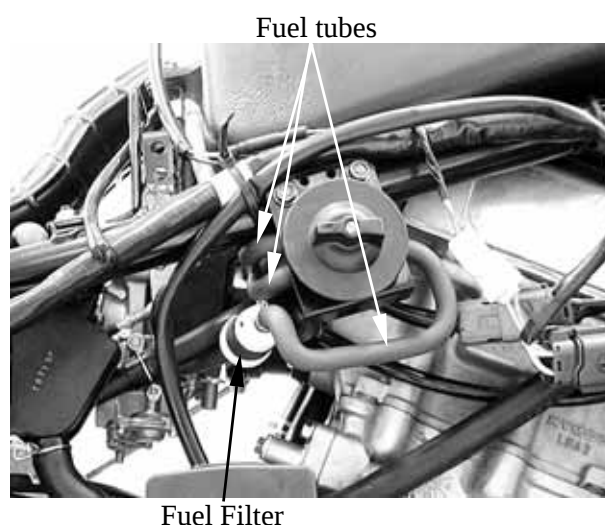
ITEM	WHICHEVER COMES FIRST ROUTINE	INITIAL			
		mi	100	600	1200
		Km	150	1000	2000
		MONTH	1	6	12
Engine oil	•Replace (Warm engine before draining).		○	○	○
Oil strainer	•Clean. •Replace if necessary.		○	○	○
Engine oil filter cartridge	•Replace		○	○	○
Front drive gear oil	•Check oil level/oil leakage •Replace every 12 months.		○		○
Rear drive gear oil	•Check oil level/oil leakage •Replace every 12 months.		○		○
Air filter element (for engine and "V-belt compartment")	•Clean. (More often in wet or dusty areas.) •Replace if necessary.			○	○
Carburetor	•Check idle speed/starter operation. •Adjust if necessary.		○	○	○
Cylinder head cover breather system	•Check breather hose for cracks or damage. •Replace if necessary.			○	○
Spark plug	•Check condition. •Adjust gap and clean. •Replace if necessary.		○	○	○
Fuel line	•Check fuel hose for cracks or damage. •Replace if necessary.			○	○
Valves	•Check valve clearance. •Adjust if necessary.		○	○	○
Brake	•Check operation and brake fluid. •Replace brake pad if necessary.		○	○	○
Coolant	•Check coolant leakage. •Replace if necessary. •Replace coolant every 24 months.		○	○	○
V-belt	•Check operation. •Replace if damage or excessive wear.		○		○
Exhaust system	•Check leakage. •Retighten if necessary. •Replace gasket if necessary.			○	○
Spark arrester	•Clean			○	○
Wheels	•Check balance/damage/runout. •Replace if necessary.		○	○	○
Wheel bearings	•Check bearing assembly for looseness/damage. •Replace if damaged.		○	○	○
Steering system	•Check operation. •Replace if damaged. •Check toe-in. •Adjust if necessary.		○	○	○
Drive shaft boots	•Check operation. •Replace if damaged.			○	○
Suspension	•Check operation. •Correct if necessary.			○	○
Knuckle shafts/ Steering shaft	•Lubricate every 6 months.			○	○
Fittings and Fasteners	•Check all chassis fittings and fasteners. •Correct if necessary.		○	○	○

3. INSPECTION/ADJUSTMENT

FUEL LINE

Check the fuel tubes and replace any parts, which show signs of deterioration, damage or leakage.

* Do not smoke or allow flames or sparks in your working area.



THROTTLE OPERATION

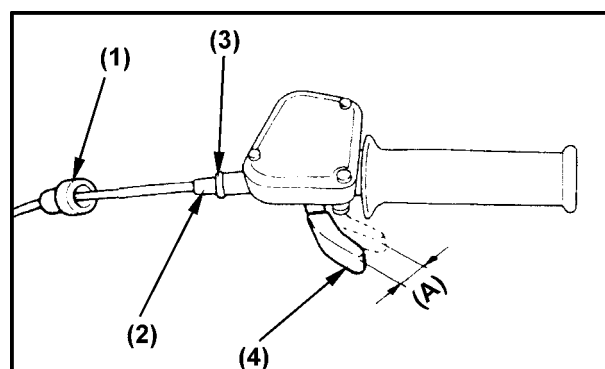
Check the throttle to swing for smooth movement.

Measure the throttle to swing free play.

Free Play (A): 3~5 mm (0.12~0.2 in)

To adjust throttle free play:

1. Slide the rubber sleeve (1) back to expose the throttle cable adjuster (2).
2. Loosen the lock nut (3), then turn the adjuster to obtain the correct free play. (3~5 mm or 0.12~0.2 in)
3. Tighten the lock nut and reinstall the sleeve.



Other checks:

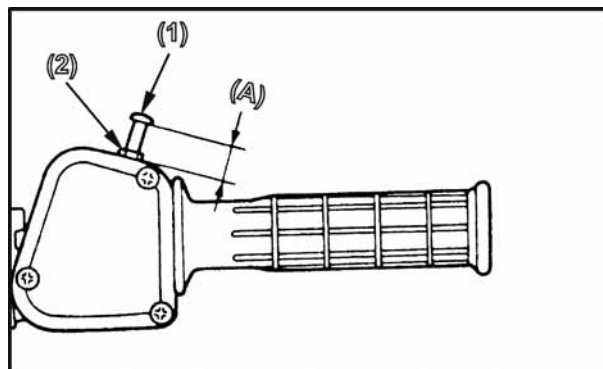
Check the throttle cable for kinks and signs of wear that could cause stretching or failure. Lubricate the throttle cable with a commercially available lubricant to prevent premature wear and corrosion.

3. INSPECTION/ADJUSTMENT

SPEED LIMITER

The speed limiter keeps the throttle from fully opening, even when the throttle lever is pushed to the maximum. Screwing in the adjuster limits the maximum engine power available and decreases the maximum speed of the ATV.

Speed limiter length (A): 13 mm (0.52 in)



WARNING

POTENTIAL HAZARD

Improper adjustment of the speed limiter and throttle.

WHAT CAN HAPPEN

The throttle cable could be damaged. Improper throttle operation could result. You could lose control, have an accident or be injured.

HOW TO AVOID THE HAZARD

Do not turn the speed adjuster out more than 13 mm (0.52 in). Always make sure the throttle lever free play is adjusted to 1.0~4.0 mm (0.04~0.16 in).

Adjustment

1. Loosen the lock nut (1).
2. Turn the adjuster (2) in or out until the specified speed limiter length is obtained.

Turning in:

Speed limiter length is decreased.

Turning out:

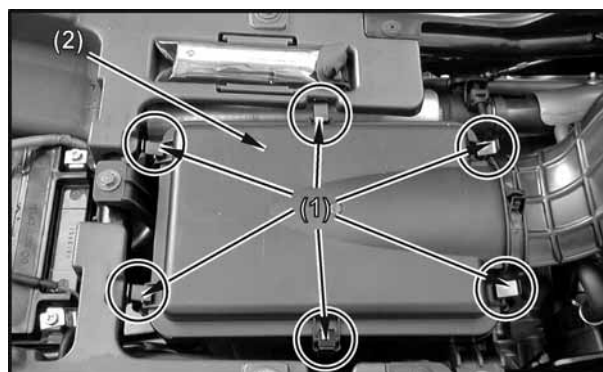
Speed limiter length is increased.

3. Tighten the lock nut.

AIR CLEANER

AIR CLEANER REPLACEMENT

1. Remove the seat (refer to the “**FRAME COVERS**” section in the chapter 2).
3. Unlatch the six retainer clips (1) and remove the air cleaner housing cover (2).

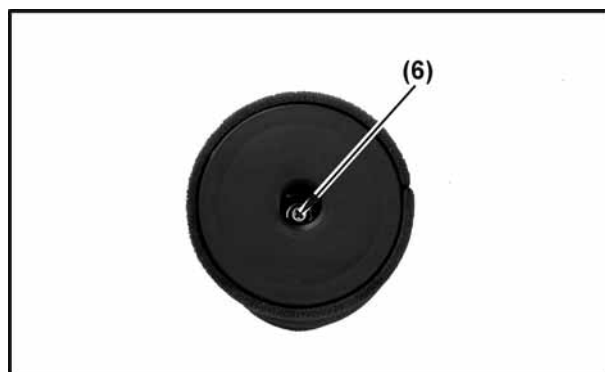


3. INSPECTION/ADJUSTMENT

3. Loosen the screw (3) and remove the air cleaner assembly (4) from the air cleaner housing.
4. Unscrew the clamp (5)



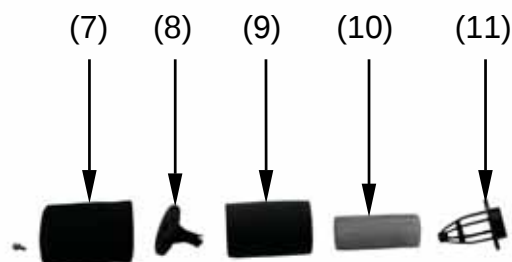
5. Remove the outer air cleaner (7).
6. Remove the screw/washers (6) and remove the air cleaner assembly from the air cleaner holder (8).
7. Remove the inner air cleaner (9) and air cleaner screen (10) from the air cleaner guide (11).
8. Remove the air cleaner screen from the inner air cleaner.



CLEAN AIR FILTER ELEMENT

Wash the element gently, but thoroughly in solvent.

- * Use parts cleaning solvent only. Never use gasoline or low flash point solvents which may lead to a fire or explosion.

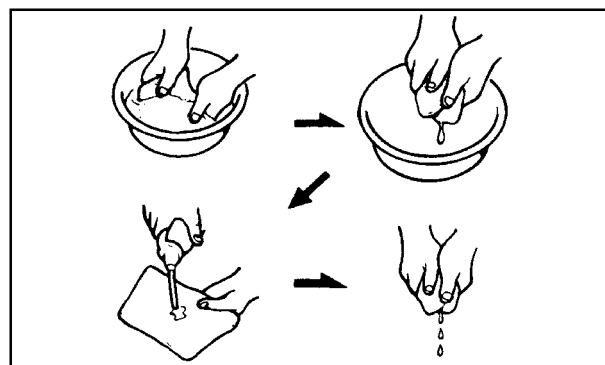


Squeeze the excess solvent out of the element and let dry.

- * Do not twist or wring out the foam element. This could damage the foam material.

Apply the engine oil.
Squeeze out the excess oil.

- * The element should be wet but not dripping.



More frequent replacement is required when riding in unusually dusty or rainy areas.

3. INSPECTION/ADJUSTMENT

AIR CLEANER HOUSING DRAIN

1. Remove the drain tube (1) by removing the clip (3).
2. Drain the deposits.
3. Reinstall the drain tube, securing it with the clip.

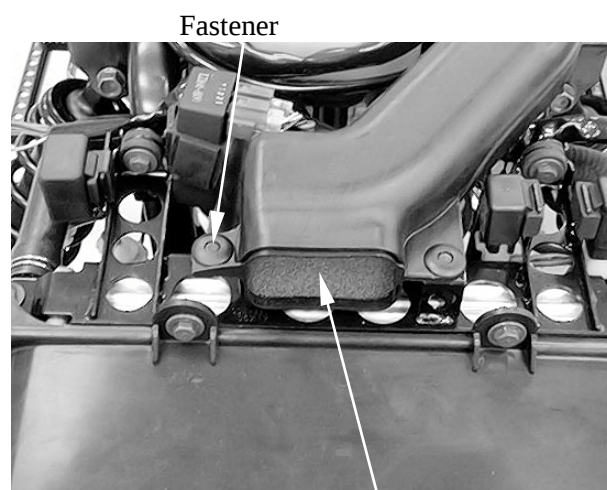


AIR FILTER FOR DRIVE BELT

To clean the air filter:

Remove front center cover (refer to the “**FRAME COVERS**” section in the chapter 2).

Remove a fastener from air inlet hose.
 Remove air filter.



Air Filter

Tap the element lightly to remove most of the dust and dirt.

Blow out the remaining dirt with compressed air.

Installation is in the reverse order of removal.

If necessary replace the air filter.



Air Filter

3. INSPECTION/ADJUSTMENT

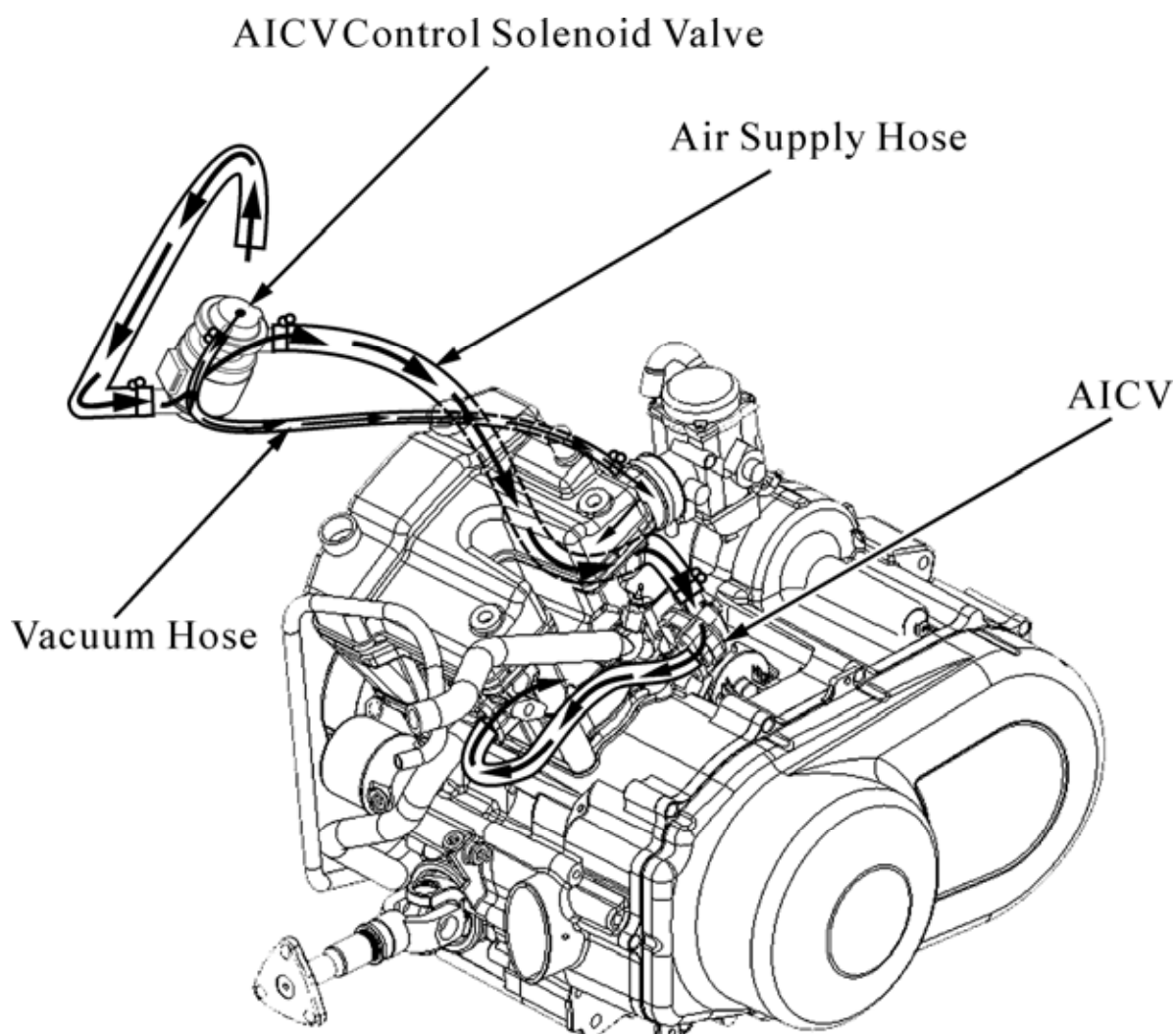
SECONDARY AIR SUPPLY SYSTEM

This model is equipped with a built-in secondary air supply system. The pulse secondary air supply system is located on the cylinder head.

The secondary air supply system introduces filtered air into exhaust gases in the exhaust port. The secondary air is drawn into the exhaust port whenever there is negative pressure pulse in the exhaust system. This charged secondary air promotes burning of the unburned exhaust gases and changes a considerable amount of hydrocarbons and carbon monoxide into relatively harmless carbon dioxide and water.

Check the AICV (air injection control valve) hoses between the AICV control solenoid valve and cylinder head for deterioration, damage or loose connections. Make sure the hoses are not cracked.

If the hoses show any signs of heat damage, inspect the AICV check valve in the AICV reed valve cover damage.

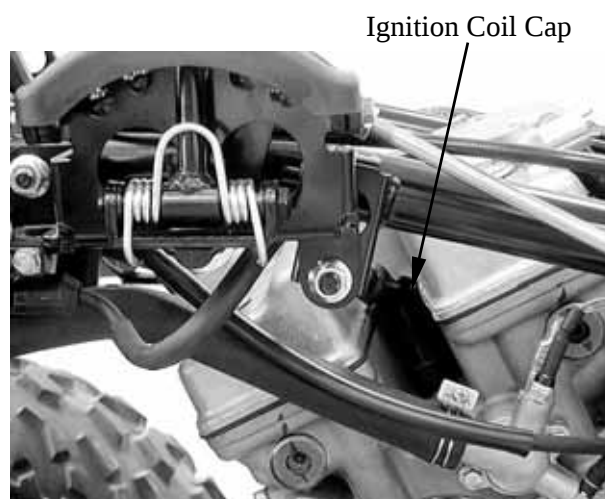


3. INSPECTION/ADJUSTMENT

SPARK PLUG

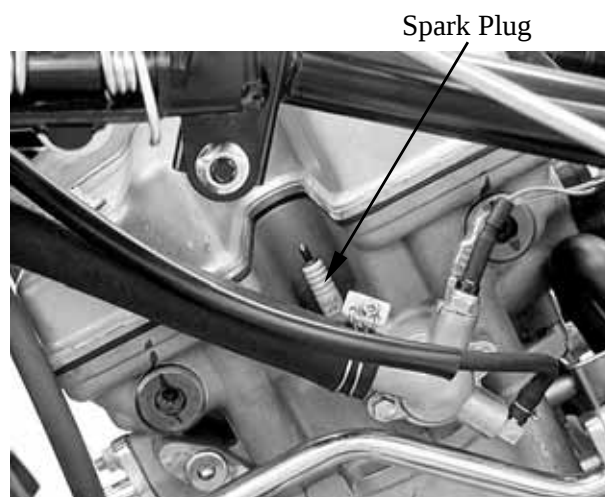
Disconnect the spark plug cap and clean around the spark plug.

- * Clean around the spark plug base with compressed air before removing, and be sure that no debris is allowed to enter the combustion chamber.



Remove the spark plug using a equipped spark plug wrench or an equivalent tool.

Inspect or replace as described in the maintenance schedule.

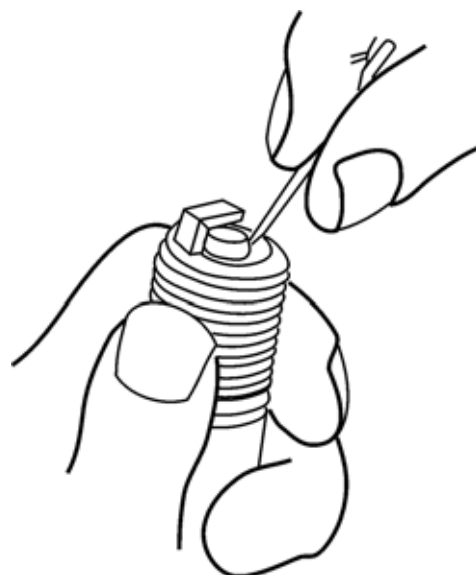


INSPECTION

Remove the carbon deposits from the spark plug with a small wire brush or a spark plug cleaning machine.

The spark plug should be replaced periodically. Whenever removing the carbon deposits, be sure to observe the operational color of the spark plug's porcelain tip. This color tells you whether or not the standard spark plug is suitable for your type of usage. A normal operating spark plug should be light brown or tan color. If the spark plug is very white or glazed appearing, then it has been operating much too hot. This spark plug should be replaced with the colder plug.

Recommended spark plug: NGK: CR7E



3. INSPECTION/ADJUSTMENT

Measure the spark plug gap between the center and side electrodes with the feeler gauge.

If necessary, adjust the gap by bending the side electrode carefully.

Spark plug gap:

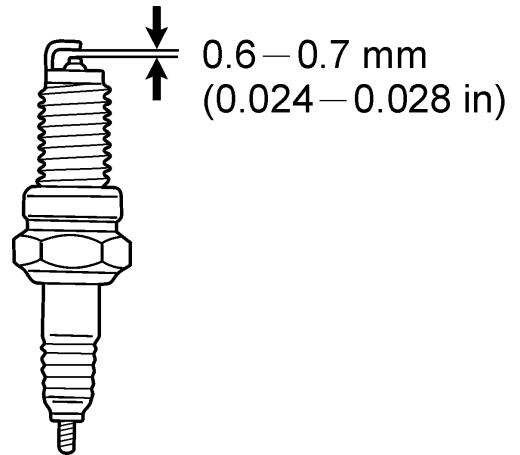
0.6 – 0.7 mm (0.024 – 0.028 in)

Install the spark plug in the cylinder head and hand tighten, then torque to the specification.

Torque: 1.2 kgf-m (12 N-m, 8.6 lbf-ft)

Install the spark plug cap.

Install the removed parts in the reverse order of removal.



3. INSPECTION/ADJUSTMENT

VALVE CLEARANCE

*

Inspect and adjust the valve clearance while the engine is cold (Below 35°C/95°F).

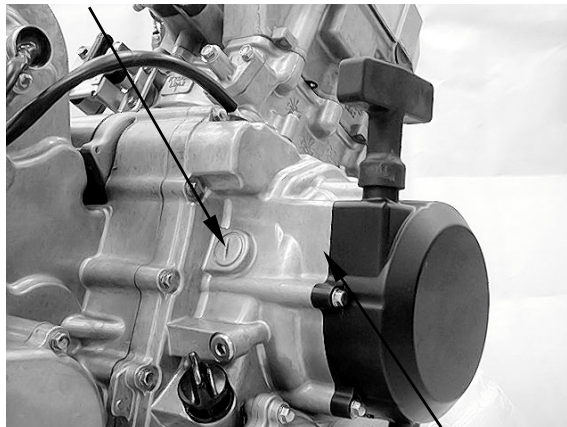
To adjust:

Remove the right floorboard (refer to the “**FRAME COVERS**” section in the chapter 2).

Remove the cylinder head cover (refer to the “**CYLINDER HEAD COVER REMOVAL/INSTALLATION**” section in the chapter 8).

Remove the timing hole cap and O-ring.

Timing Hole Cap/O-ring

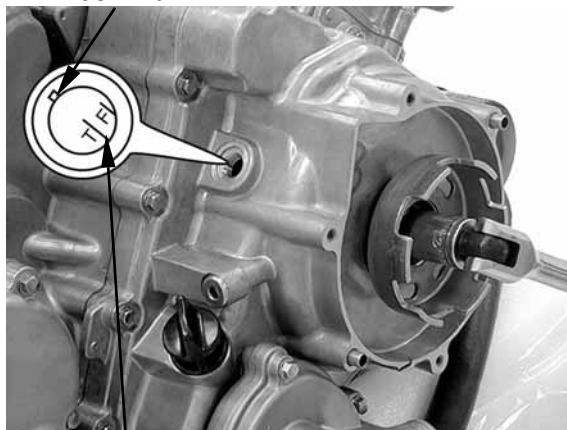


Crankshaft Hole Cap/O-ring

Remove the recoil starter and O-rings (refer to the “**STARTER PULLEY REMOVAL/INSPECTION/INSTALLATION**” section in the chapter 8).

Turn the crankshaft clockwise and align the “T” mark on the flywheel with the index mark on the right crankcase cover.

Index Mark

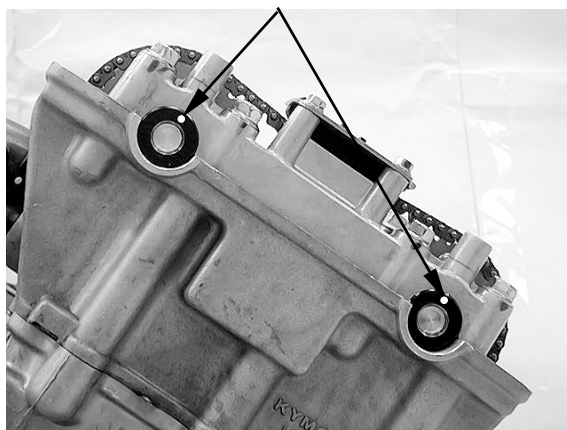


“T” Mark

The punch marks on the camshaft should face upward as shown.

If the punch marks on the camshaft are facing downward, turn the crankshaft clockwise one full turn (360°) and the punch marks are facing upward.

Punch Marks



3. INSPECTION/ADJUSTMENT

Adjust by loosening the valve adjusting screw lock-nut and turning the adjusting screw until there is a slight drag on the thickness gauge.

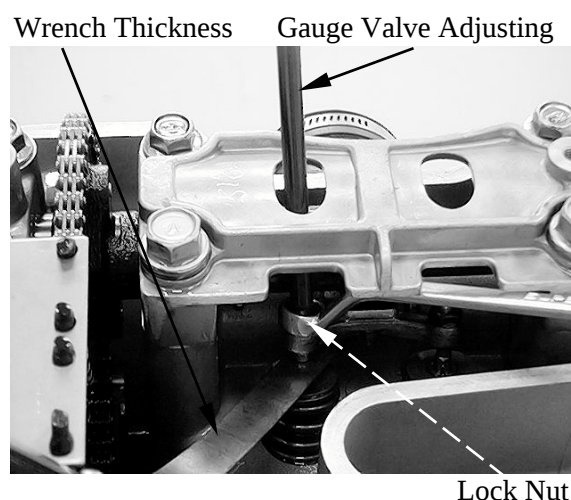
Valve clearance (when cold):

IN.: 0.1 mm (0.004 in)

EX.: 0.1 mm (0.004 in)

Apply oil to the valve adjusting screw lock-nut threads and seating surface.

Hold the adjusting screw and tighten the lock nut.



Special tool:

Valve adjusting wrench A120E00036

Torque: 0.9 kgf-m (9 N-m, 6.5 lbf-ft)

After tightening the lock nut, recheck the valve clearance.

Install the removed parts in the reverse order of removal.

CARBURETOR IDLE SPEED

* The engine must be warm for accurate idle speed inspection and adjustment.

Warm up the engine before this operation. Start the engine and connect a tachometer. Turn the throttle stop screw to obtain the specified idle speed.

Idle Speed: 1500±100 rpm

When the engine misses or run erratic, adjust the pilot screw (refer to the “CARBURETOR DISASSEMBLY/INSPECTION/ASSEMBLY” section in the chapter 5).



Throttle Stop Screw

3. INSPECTION/ADJUSTMENT

CYLINDER COMPRESSION

Warm up the engine before compression test.

Remove the spark plug.

Insert a compression gauge.

Open the throttle valve fully and push the starter button to test the compression.

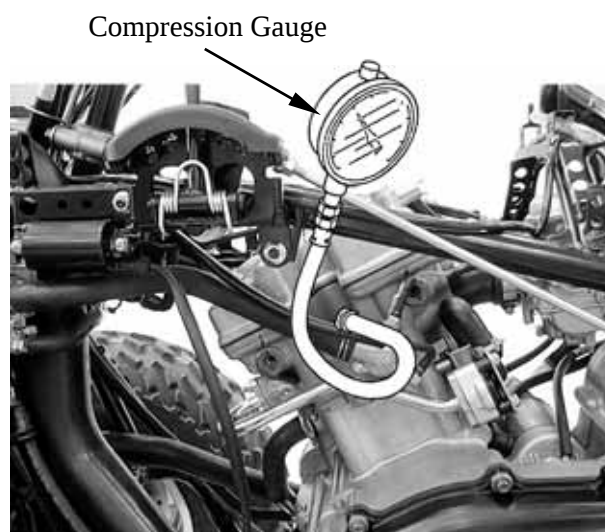
Cylinder compression:

15 kg/cm² (1500 kPa, 213 psi)

If the compression is low, check for the following:

- Leaky valves
- Valve clearance too small
- Leaking cylinder head gasket
- Worn piston rings
- Worn piston/cylinder

If the compression is high, it indicates that carbon deposits have accumulated on the combustion chamber and the piston head.



ENGINE OIL

OIL LEVEL

Place the machine on a level place.

Warm up the engine for several minutes and stop it.

- * Run the engine for 2~3 minutes and check the oil level after the engine is stopped for 2~3 minutes.

Check the oil level through the inspection window.

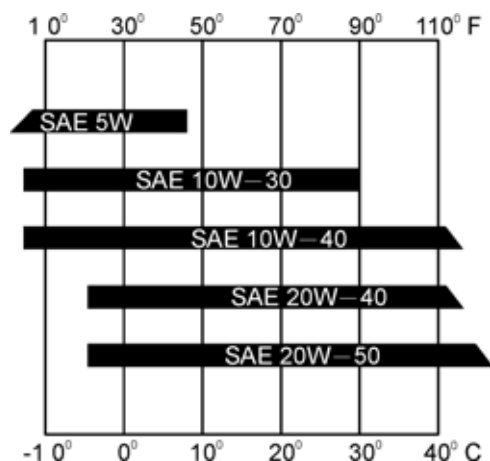
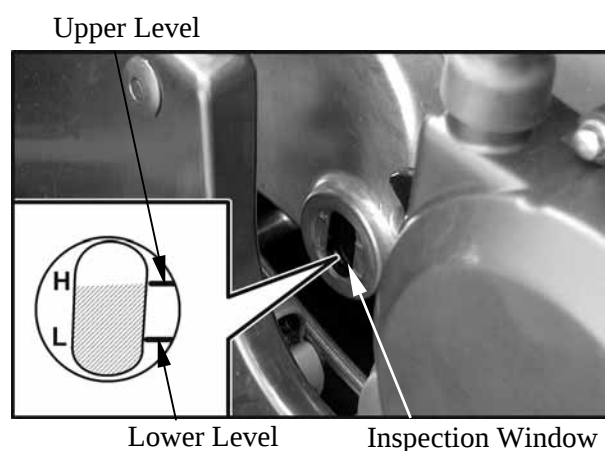
The oil level should be between the maximum (H) and minimum (L) marks. If the level is low, add oil to raise it to the proper level.

Recommended engine oil:

KYMCO 4-stroke oil or equivalent motor oil API service classification: SJ

Viscosity: SAE 5W50

- * Other viscosities shown in the chart may be used when the average temperature in your riding area is within the indicated range.



3. INSPECTION/ADJUSTMENT

ENGINE OIL REPLACEMENT AND OIL FILTER CLEANING

1. Place the machine on a level place.
2. Warm up the engine for several minutes and stop it.
3. Place a container under the engine.
4. Remove the oil filler cap (1).

* Be sure no foreign material enters the crankcase.



5. Remove the oil filter cap (2) to drain the oil.

* The engine oil will drain more easily while the engine is warm.



6. Clean the oil strainer with solvent. Inspect the O-ring and replace if damaged. Reinstall the O-ring, oil strainer, compression spring and oil filter cap. Tighten the oil filter cap to specification.

Torque: 1.5 kgf-m (15 N-m, 11 lbf-ft)

7. Fill the engine with oil and install the oil filler cap.

Engine oil capacity

At disassembly:

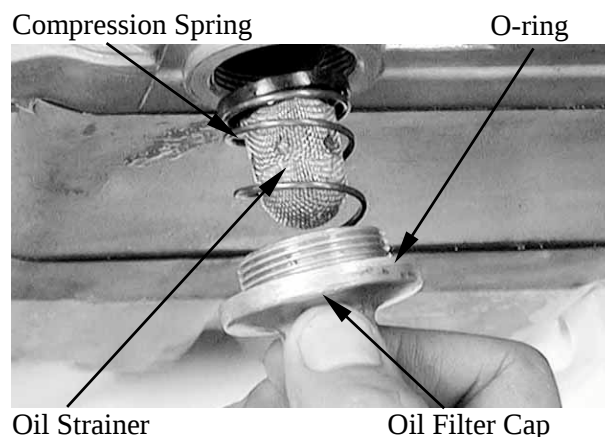
3.6 liter (3.17 Imp qt, 3.82 Us qt)

At change:

3 liter (2.64 Imp qt, 3.18 Us qt)

After draining and oil filter cartridge change:

3.2 liter (2.82 Imp qt, 3.39 Us qt)

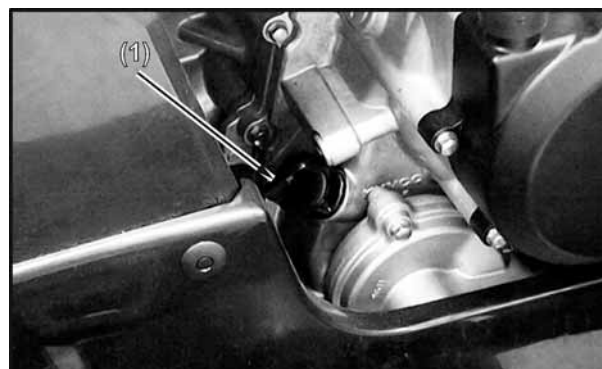


3. INSPECTION/ADJUSTMENT

ENGINE OIL REPLACEMENT (WITH OR WITHOUT OIL FILTER CARTRIDGE REPLACEMENT)

1. Place the machine on a level place.
2. Warm up the engine for several minutes and stop it.
3. Place a container under the engine.
4. Remove the oil fill cap (1).

* Be sure no foreign material enters the crankcase.



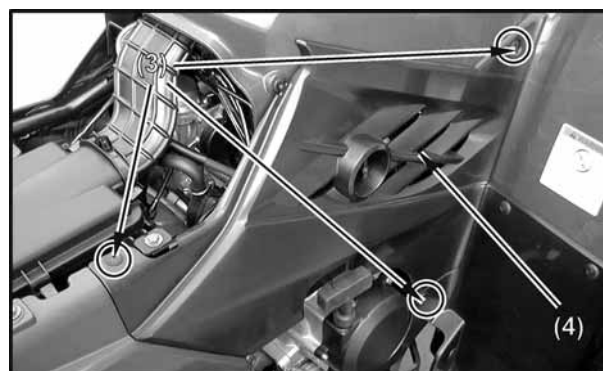
5. Remove the drain plug (2) to drain the oil.

* The engine oil will drain more easily while the engine is warm.



* Skip steps 6 to 10 if the oil filter cartridge is not being replaced.

6. Remove the three fasteners (3) and then remove right side cover (4).



3. INSPECTION/ADJUSTMENT

7. Remove the oil filter cartridge (5) with an oil cartridge wrench.

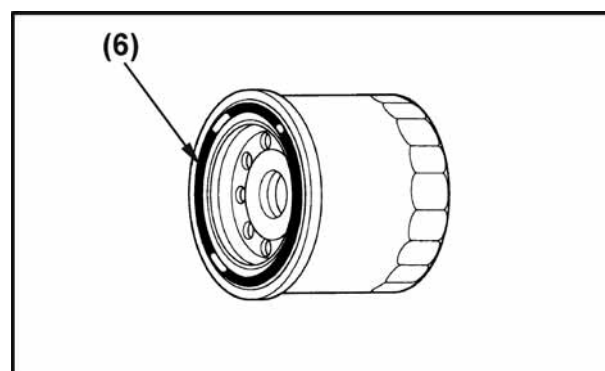
Special tool:

Oil cartridge wrench A120E00061



8. Apply a light coat of clean engine oil to the O-ring (6) of the new oil filter cartridge.

* Make sure the O-ring is seated properly.



9. Install the new oil filter cartridge with an oil cartridge wrench, and then tighten it to the specified torque.

Torque: 1 kgf-m (10 N-m, 7.2 lbf-ft)

10. Install right side cover.
11. Reinstall the drain plug and tighten the drain plug to the specified torque.

Torque: 2.5 kgf-m (25 N-m, 18 lbf-ft)

12. Add the specified amount of recommended engine oil, and then install the engine oil filler cap and tighten it.

Engine oil capacity

At disassembly:

3.6 liter (3.17 Imp qt, 3.82 Us qt)

At change:

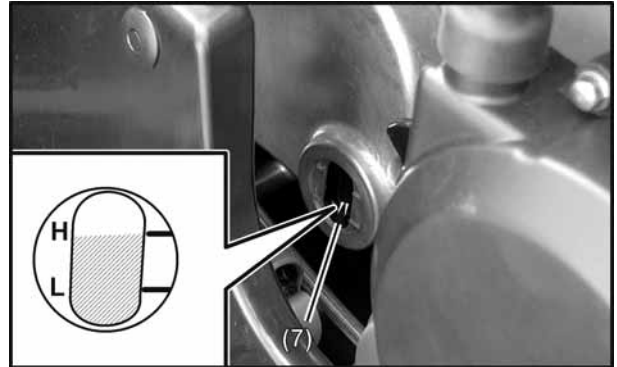
3 liter (2.64 Imp qt, 3.18 Us qt)

After draining and oil filter cartridge change:

3.2 liter (2.82 Imp qt, 3.39 Us qt)

* Be sure no foreign material enters the crankcase.

13. Start the engine and warm it up for several minutes. While warming up, check for oil leakage. If oil leakage is found, turn the engine off immediately and check for the cause.
14. Turn the engine off, and then check the oil level through the inspection window (7) and correct it if necessary.

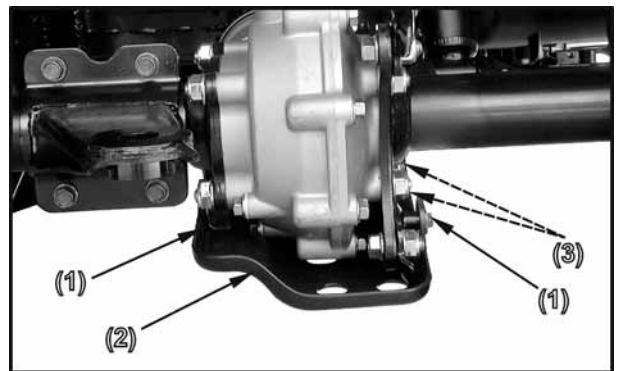


REAR DRIVE GEAR OIL

Change the oil in the rear drive gear case when specified by the Maintenance Schedule. Change the oil with the rear drive gear case warm, and the ATV on level ground to assure complete and rapid draining.

Rear drive gear oil replacement

1. Remove the two bolts (1) on the skid plate (2) right/left side and two bolts (3) under the skid plate, remove skid plate.
2. To drain the oil, first place an oil drain pan under the oil drain plug (4).
3. Remove the oil filler cap (5), then remove the drain plug.
4. After the oil has completely drained, reinstall the drain plug.



Torque: 2 kgf-m (20 N-m, 15 lbf-ft)

5. Fill the gear case with the recommended oil.
Recommended oil: SAE 80
Oil quantity:
Periodic oil change:
0.13 L (4.63 Imp oz, 4.33 US oz)

Remove the oil level check bolt (6).
Make sure the oil level reaches the oil level check hole.



3. INSPECTION/ADJUSTMENT

6. Install the oil filler cap and oil level check bolt.

Torque:

Oil filler cap: 1.5 kgf-m (15 N-m, 12 lbf-ft)

Oil level check bolt:

2 kgf-m (20 N-m, 15 lbf-ft)

* Be sure no foreign material enters the crankcase.

7. Install the skid plate.

FRONT DRIVE GEAR OIL

Change the oil in the front drive gear case when specified by the Maintenance Schedule. Change the oil with the front drive gear case warm, and the ATV on level ground to assure complete and rapid draining.

Front drive gear oil replacement

1. To drain the oil, first place an oil drain pan under the oil drain plug (1).
2. Remove the oil filler bolt (2).
3. Remove the drain plug.
4. After the oil has completely drained, reinstall and tighten the drain plug to the specified torque.

Torque: 3.2 kgf-m (32 N-m, 23 lbf-ft)

5. Fill the gear case with the recommended oil.

Recommended oil: SAE 90

Oil quantity:

Periodic oil change:

0.3 L (10.6 imp oz, 10.1 US oz)



3. INSPECTION/ADJUSTMENT

6. Remove the oil level check bolt (3).
Make sure the oil level reaches the oil level check hole.
7. Install and tighten the oil filler bolt and oil level check bolt to the specified torque.

Torque:

Oil filler cap:

3.5 kgf-m (35 N-m, 25.5 lbf-ft)

Oil level check bolt:

1 kgf-m (10 N-m, 7.2 lbf-ft)

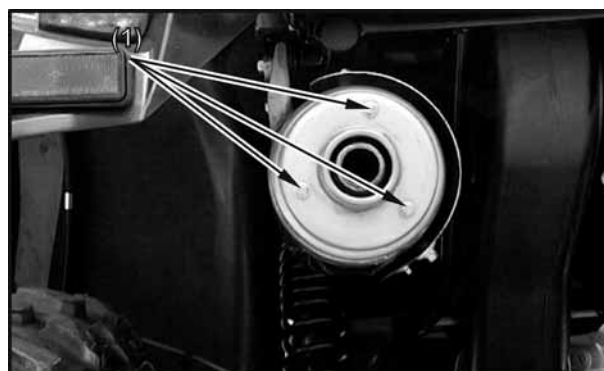
* Be sure no foreign material enters the crankcase.



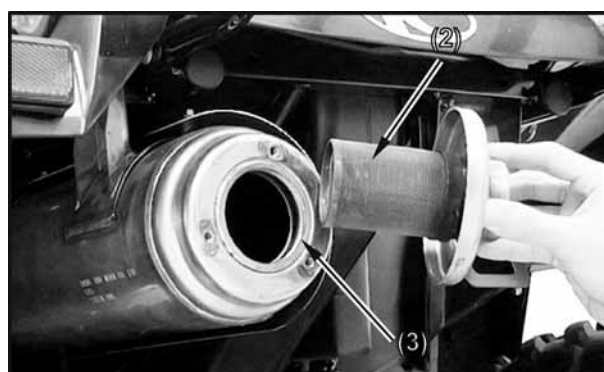
SPARK ARRESTER

Be sure the exhaust pipe and muffler are cool before cleaning the spark arrester.

1. Remove the three bolts (1).

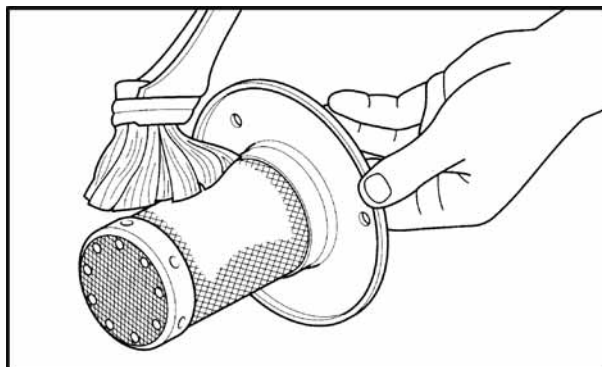


2. Remove the spark arrester (2) and the gasket (3) from the muffler.



3. INSPECTION/ADJUSTMENT

3. Use a brush to remove carbon deposits from the spark arrester screen. Be careful to avoid damaging the spark arrester screen. The spark arrester must be free of breaks and holes. Replace, if necessary. Check the gasket. Replace, if necessary.
4. Install the spark arrester and the gasket in the muffler and tighten the three bolts securely.



WARNING

POTENTIAL HAZARD

**Improper cleaning of the spark arrester.
Hot exhaust system.**

WHAT CAN HAPPEN

Could injure the eyes.

Could cause burns.

**Could cause carbon monoxide poisoning,
possibly leading to death.**

Could start a fire

HOW TO AVOID THE HAZARD

When cleaning the spark arrester:

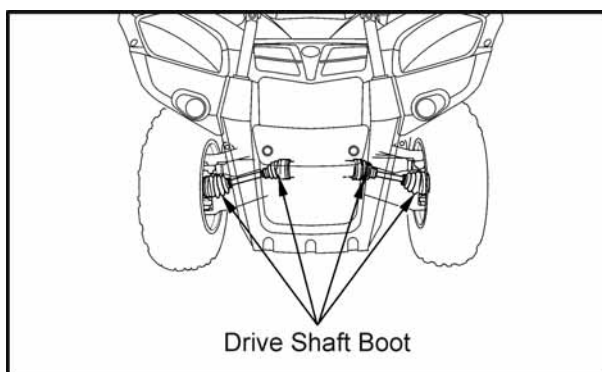
**Always let the exhaust system cool prior to
touching exhaust components**

**Do not start the engine when cleaning the
exhaust system.**

DRIVE SHAFT BOOTS

Check the protective boots for holes or tears.

If any damage is found, have them replaced.



3. INSPECTION/ADJUSTMENT

DRIVE BELT

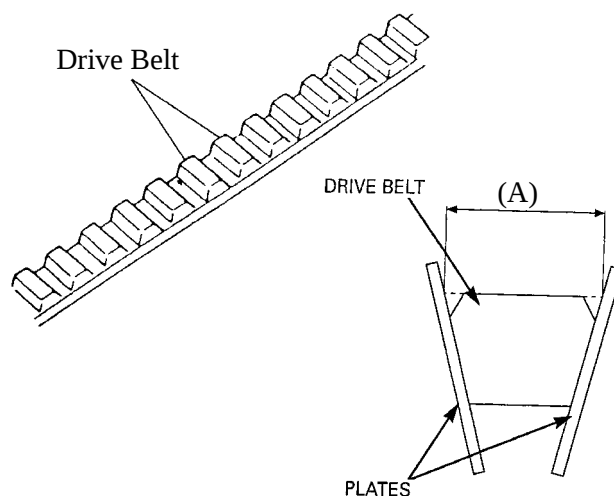
Remove the left crankcase cover (refer to the “**LEFT CRANKCASE COVER REMOVAL/INSTALLATION**” section in the chapter 10).

Inspect the drive belt for cracks, scaling, chipping or excessive wear.
 Measure the V-belt width

Service limit (A): 30.8 mm (1.232 in)

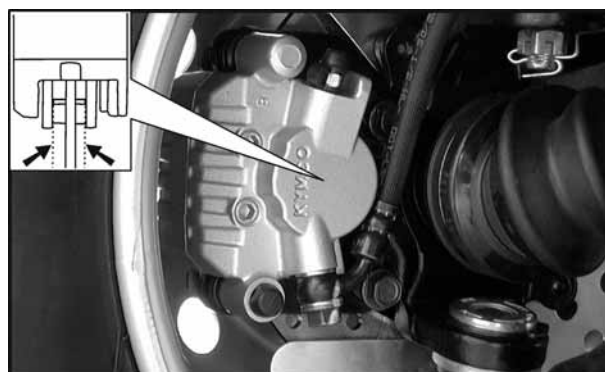
Replace the drive belt if out of specification.

Refer to the “**DRIVE PULLEY, DRIVE V-BELT AND DRIVEN PULLEY REMOVAL/INSPECTION/INSTALLATION**” section in the chapter 10 for removal/installation.



BRAKE PADS INSPECTION

A wear indicator is provided on each brake. The indicators allows checking of brake pads wear. Check the position of the indicator. If the indicator reaches the wear limit line, to replace the pads.

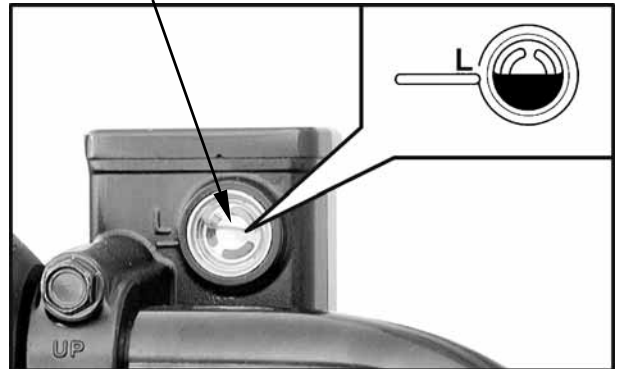


3. INSPECTION/ADJUSTMENT

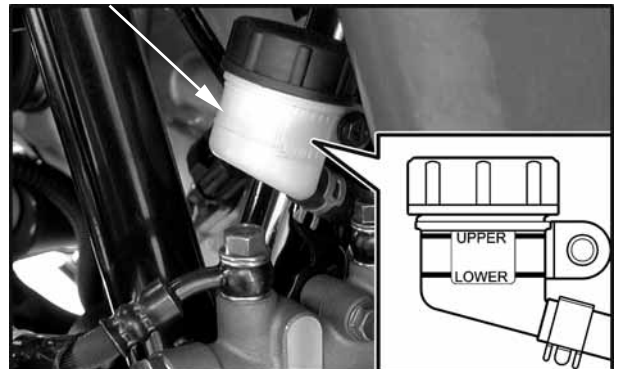
BRAKE FLUID INSPECTION

Check if the fluid level is below the lower level mark through the inspection window.

Inspection Window (R/L Brake Lever)



Inspection Window (Rear Brake Pedal)



HEADLIGHT AIM

Turn the ignition switch ON and start the engine.
Turn on the headlight switch.
Adjust the headlight aim by turning the headlight aim adjusting screws.

Adjust Screws



3. INSPECTION/ADJUSTMENT

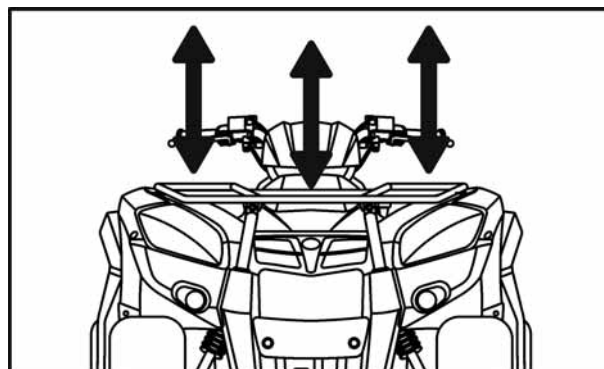
STEERING SYSTEM INSPECTION

Place the machine on a level place.

Check the steering column bushings and bearings:

Move the handlebar up and down, and/or back and forth.

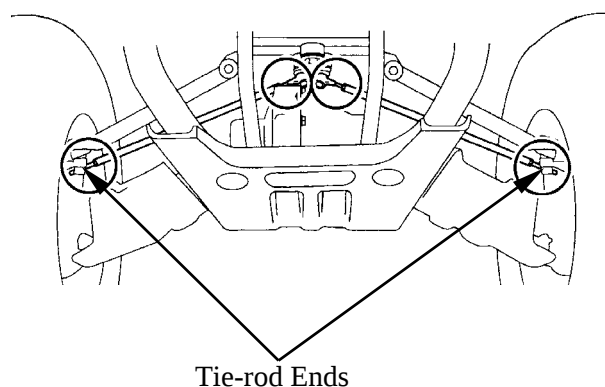
Replace the steering column bushings and or bearings if excessive play



Check the tie-rod ends

Turn the handlebar to the left and/or right until it stops completely, then slightly move the handlebar from left to right.

Replace the tie-rod ends if tie-rod end has any vertical play.

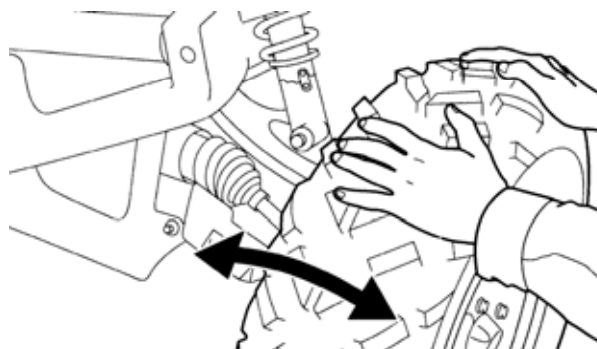


Raise the front end of the machine so that there is no weight on the front wheels.

Check ball joints and/or wheel bearings.

Move the wheels laterally back and forth.

Replace the front arms and/or wheel bearings if excessive free play.



3. INSPECTION/ADJUSTMENT

TOE-IN ADJUSTMENT

Place the machine on a level place.

Measure the toe-in

Adjust if out of specification.

Toe-in measurement steps:

Mark both front tire tread centers.

Raise the front end of the machine so that there is no weight on the front tires.

Fix the handlebar straight ahead.

Measure the width A between the marks.

Rotate the front tires 180 degrees until the marks come exactly opposite.

Measure the width B between the marks.

Calculate the toe-in using the formula given below.

Toe-in = $B - A$

Toe-in: 0~15 mm (0~0.6 in)

If the toe-in is incorrect, adjust the toe-in.

Adjust the toe-in step:

Mark both tie-rods ends.

This reference point will be needed during adjustment.

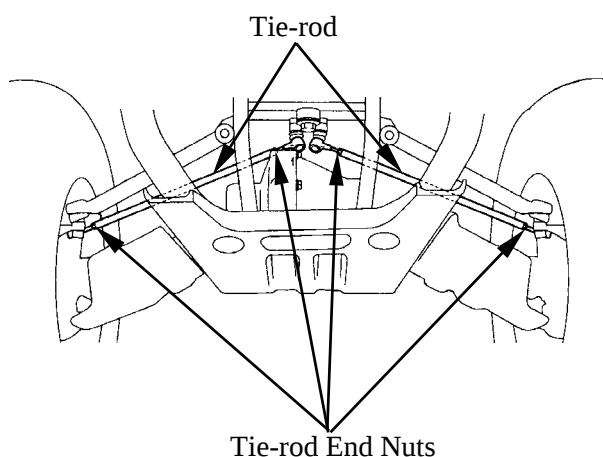
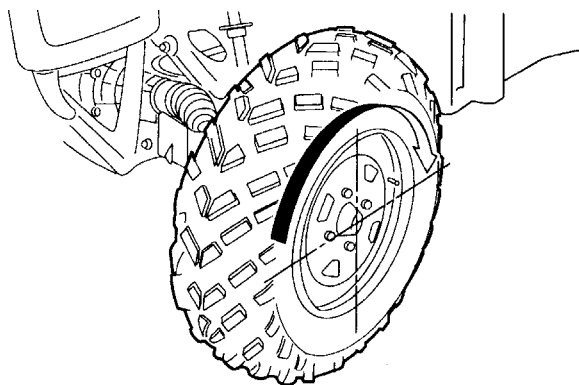
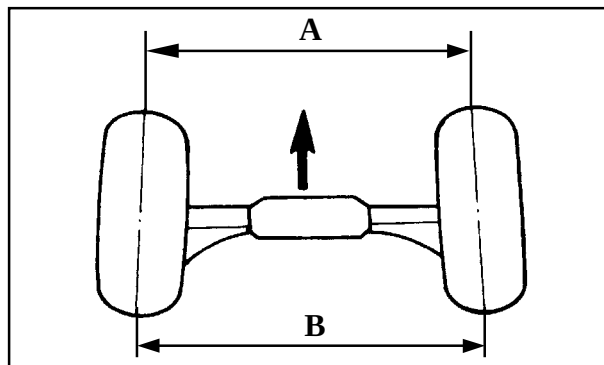
Loosen the lock nuts (tie-rod end) of both tie-rods

The same number of turns should be given to both tie-rods right and left until the specified toe-in is obtained, so that the lengths of the rods will be kept the same.

Tighten the rod end lock nuts of both tie-rods

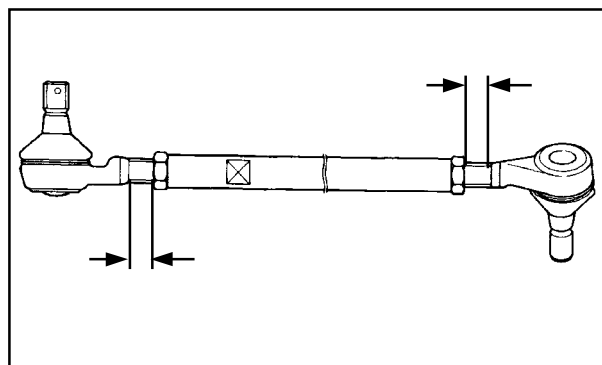
Torque: 3.5 kgf-m (35 N-m, 25.2 lbf-ft)

- Be sure that both tie-rod are turned the same amount. If not, the machine will drift right or left even though the handlebar is positioned straight which may lead to mishandling and accident.
- After setting the toe-in to specification, run the machine slowly for some distance with hands placed lightly on the handlebar and check that the handlebar responds correctly. If not, turn either the right or left tie-rod within the toe-in specification.



3. INSPECTION/ADJUSTMENT

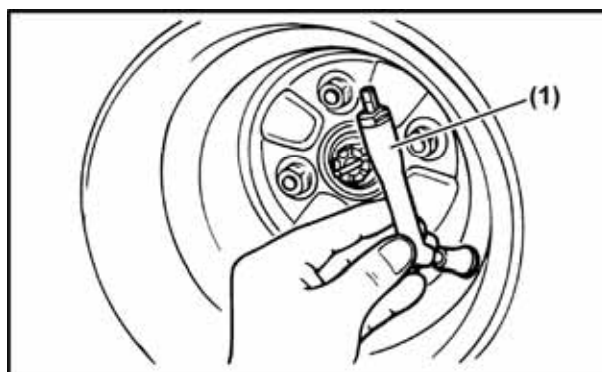
- * The threads on both rod-end must be of the same length.



WHEELS/TIRES

Check the tires for cuts, imbedded nails or other damages.
 Check the tire pressure.

- * Tire pressure should be checked when tires are cold.



TIRE PRESSURE

	1 Rider
Front	0.28 kgf/cm ² (28 Kpa, 3.2 psi)
Rear	0.28 kgf/cm ² (28 Kpa, 3.2 psi)

TIRE SIZE

Front : 25X8-12
Rear : 25X10-12

Check the front axle nut for looseness.



3. INSPECTION/ADJUSTMENT

Check the rear axle nut for looseness.
If the axle nuts are loose, tighten them to the specified torque.

Torque:

Front: 7 kgf-m (70 N-m, 50 lbf-ft)

Rear: 10 kgf-m (100 N-m, 72 lbf-ft)

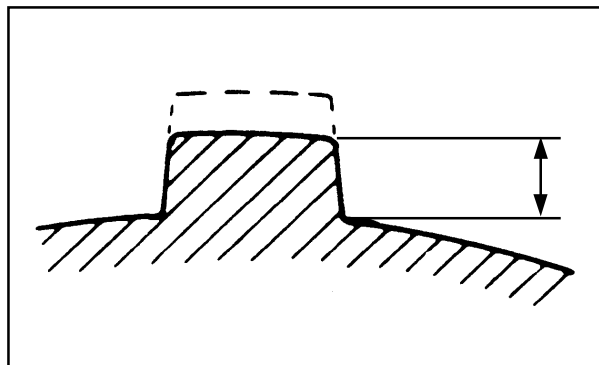


Rear Axle Nut

Inspect the tire surfaces.
Replace if wear or damage.

Tire wear limit: 4 mm (0.16 in)

* It is dangerous to ride with a worn out tire. When a tire wear is out of specification, replace the tire immediately.



WHEEL INSPECTION

Inspect the wheel.
Replace if damage or bends
Always balance the wheel when a tire or wheel has been changed or replaced.

*

- Never attempt even small repairs to the wheel.
- Ride conservatively after installing a tire to allow it to seat itself properly on the rim.

3. INSPECTION/ADJUSTMENT

FRONT SHOCK ABSORBER

- * Always adjust both front shock absorber spring preload to the same setting. Uneven adjustment can cause poor handling and loss of stability.

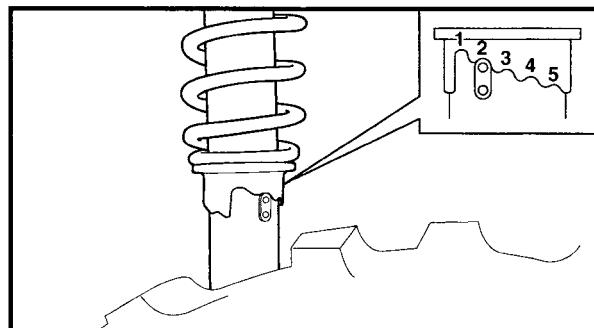
Adjustment

Turn the adjuster to increase or decrease the spring preload.

Standard position: 2

Minimum (Soft) position: 1

Maximum (Hard) position: 5



REAR SHOCK ABSORBER

- * Always adjust both rear shock absorber spring preload to the same setting. Uneven adjustment can cause poor handling and loss of stability.

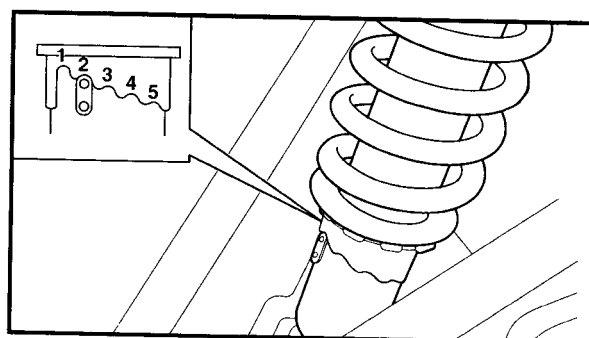
Adjustment

Turn the adjuster to increase or decrease the spring preload.

Standard position: 2

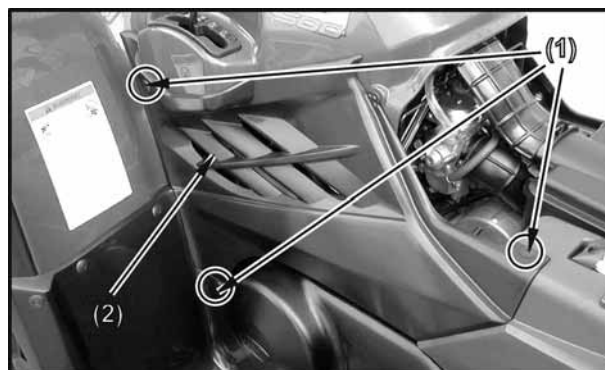
Minimum (Soft) position: 1

Maximum (Hard) position: 5



DRIVE SELECT LEVER ADJUSTMENT

1. Turn the ignition switch is ON and make sure the engine stop.
2. Remove 3 fasteners (1), then remove the left side cover (2).



3. INSPECTION/ADJUSTMENT

3. Loosen the lock nuts (3) of rod (4).
4. Remove the bolt and nut from the rod end (shift arm side).

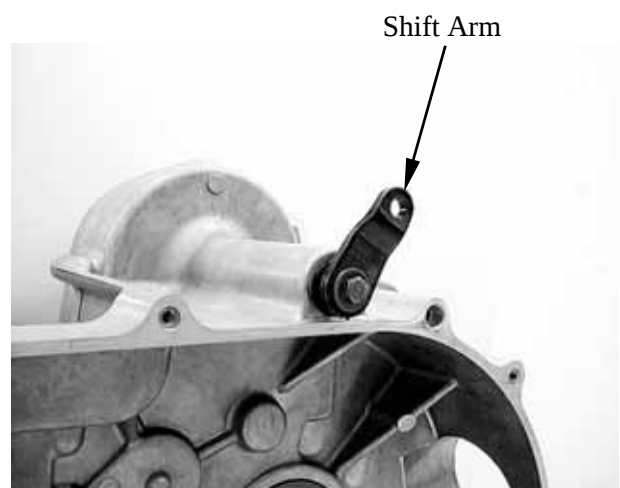


Bolt/Nut

5. Shift the drive select lever to neutral along the shift guide.



6. Shift the gear to neutral by moving the shift arm (The neutral indicator lamp comes on.)

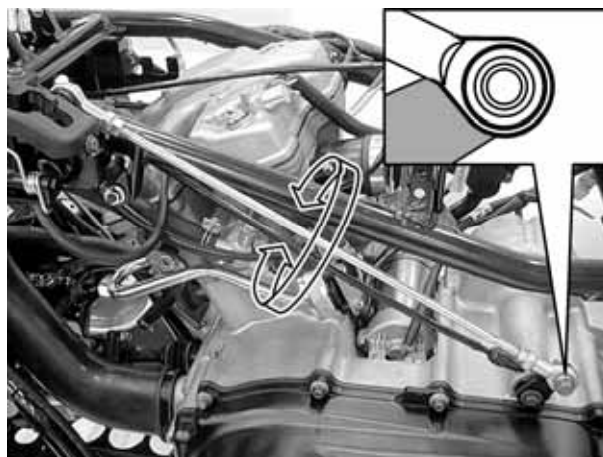


3. INSPECTION/ADJUSTMENT

7. Turn the rod clockwise or counterclockwise to align the joint ball in the rod with the hole on the shift arm, then install and tighten the bolt and nut.

* When align the joint ball in the rod with the hole on the shift arm. Always keep the joint ball original position, do not turn the joint ball.

8. Tighten the lock nuts of the rod.



CABLE INSPECTION AND LUBRICATION

* Damaged cable sheath may cause corrosion and interfere with the cable movement. An unsafe condition may result so replace such cable as soon as possible.

Inspect the cable sheath.
 Replace if damage.
 Check the cable operation.
 Lubricate or replace if unsmooth operation.

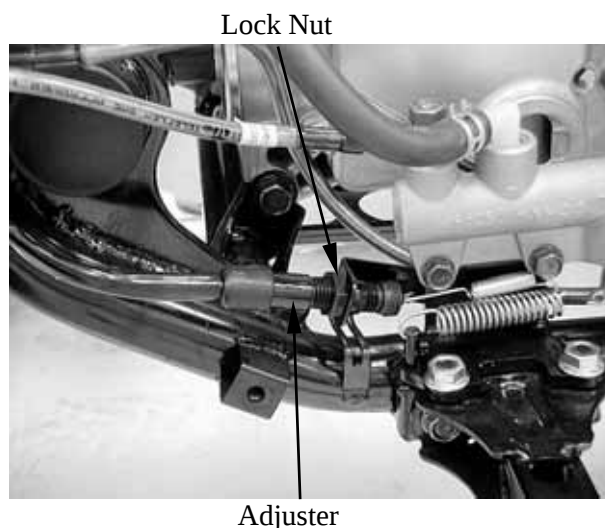
* Hold cable end high and apply several drops of lubricant to cable.

LEVER LUBRICATION

Lubricate the pivoting parts of each lever.

ADJUSTING THE REAR BRAKE LIGHT SWITCH (BRAKE PEDAL)

1. Loosen the lock nut.
2. Turn the adjusting nut clockwise or counterclockwise until the rear brake light comes on at the proper time.
3. Tighten the lock nut securely.



3. INSPECTION/ADJUSTMENT

COOLING SYSTEM

COOLANT LEVEL INSPECTION

Place the machine on the level ground.
Remove the front center cover (refer to the “**FRAME COVERS**” section in the chapter 2).

Check the coolant level in the coolant reservoir when the engine is cold as the coolant level will vary with engine temperature. The level should be between the “**FULL**” (2) and “**LOW**” (3) level surface.

If the level is low, remove the reserve tank cap (1) and fill the tank to the “**FULL**” level line with 1:1 mixture of distilled water and antifreeze (coolant mixture preparation: refer to the chapter 6 “**COOLING SYSTEM**”)



* Using coolant with silicate inhibitors may cause premature wear of water pump seals or blockage of radiator passages. Using tap water may cause engine damage.

Check to see if there are any coolant leaks when the coolant level decrease very rapidly.

If reserve tank becomes completely empty, there is a possibility of air getting into the cooling system.

Be sure to remove all air from the cooling system (refer to the “**COOLANT REPLACEMENT**” section in the chapter 6).

Reinstall the filler cap.

3. INSPECTION/ADJUSTMENT

Check for any coolant leakage from the water pump, radiator hoses and hose joints.

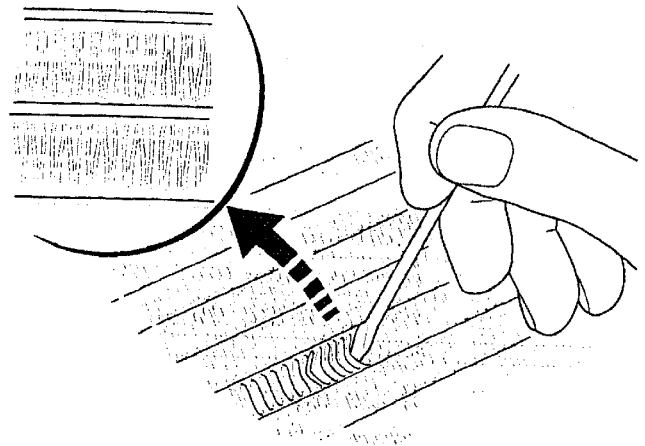
Check the radiator hoses for cracks or deterioration and replace if necessary.

Check that all hose clamps are tight.

Check the radiator air passages for clogs or damage.

Straighten any bent fins, and remove insects, mud or other obstructions with compressed air or low water pressure.

Replace the radiator if the air flow is restricted over more than 20% of the radiating surface.



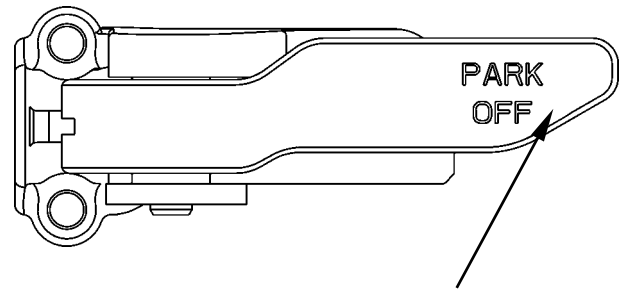
3. INSPECTION/ADJUSTMENT

REAR PARKING BRAKE ADJUSTMENT (ON ROAD)

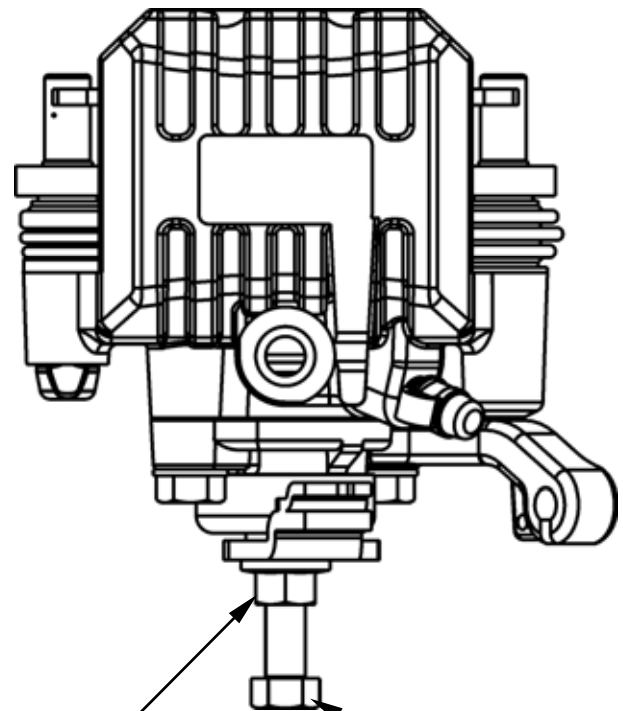
Parking brake adjustment may be required if the parking brake does not work properly. Every time the brake pads are replaced, adjust the parking brake.

To adjust:

1. Release the parking brake lever.
2. Loosen the lock nut and adjusting bolt on the rear caliper.



Parking Brake Lever

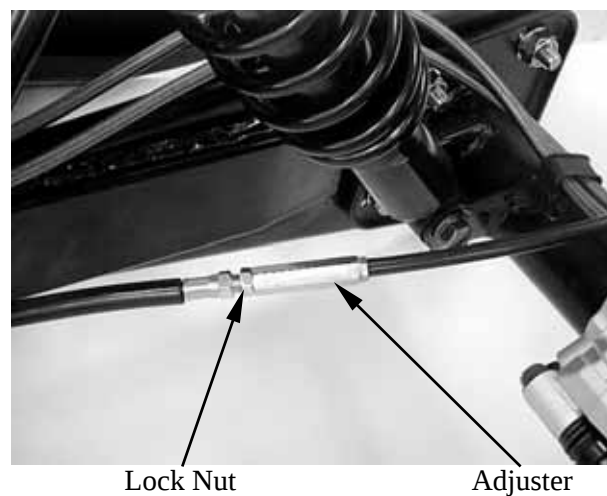


Lock Nut

Adjusting bolt

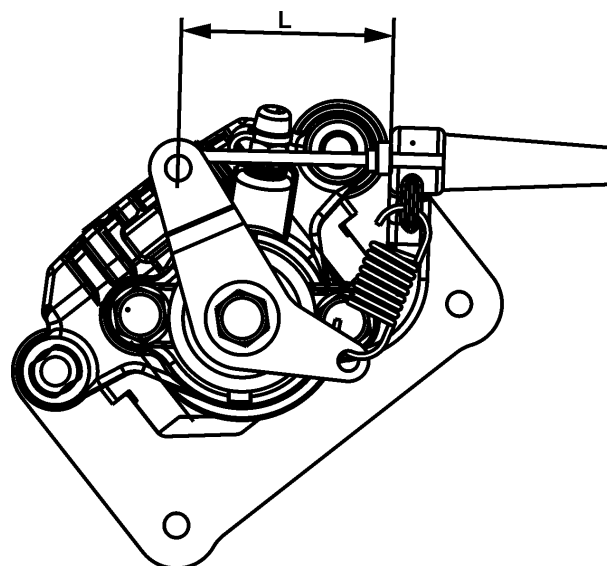
3. INSPECTION/ADJUSTMENT

3. Loosen the lock nut and adjuster on the cable.
4. Turn the adjuster in or out until the specified brake cable end length "L" is obtained.
Tighten the lock nut.



Parking brake cable end length:

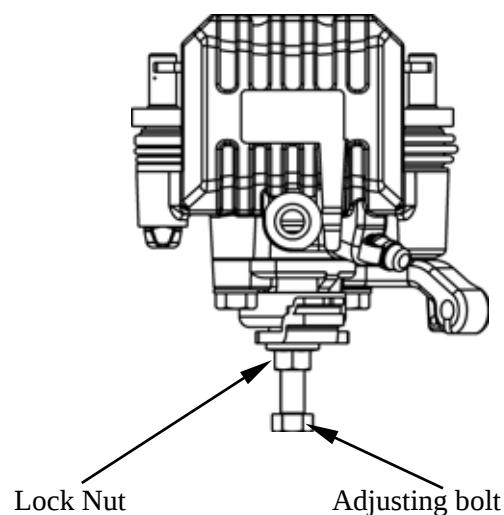
L: 53 ± 2 mm (2.12 ± 0.08 in)



5. Slowly turn the adjusting bolt on the caliper clockwise until resistance is felt, then turn adjusting bolt 1/8 counterclockwise.
6. Tighten the lock nut to the specified torque while hold the adjusting bolt.

Torque:

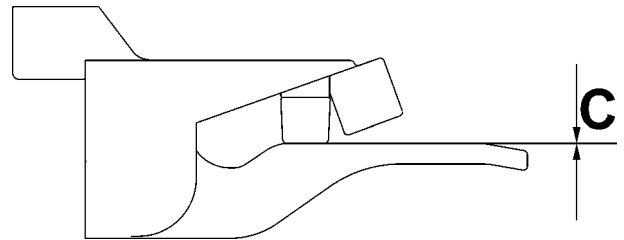
1.6 kgf-m (16 N-m, 11.52 lbf-ft)



3. INSPECTION/ADJUSTMENT

7. Check the parking brake lever free play “C”.

Free play: 0 mm (0 in)



8. If the free play is incorrect, adjust the free play by adjuster on the cable.

