

## CHAPTER 2. PERIODIC INSPECTION AND ADJUSTMENT

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# PERIODIC INSPECTION AND ADJUSTMENT

## INTRODUCTION

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 and to new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

## MAINTENANCE INTERVALS CHARTS

Proper periodic maintenance is important. Especially important are the maintenance services related to emissions control. These controls not only function to ensure cleaner air but are also vital to proper engine operation and maximum performance. In the following maintenance tables, the services related to emissions control are grouped separately.

### PERIODIC MAINTENANCE EMISSION CONTROL SYSTEM

No.	Item	Remarks	Initial Break-In		Thereafter every	
			1,000 km (600 mi.) or 1 month	5,000 km (3,000 mi) or 7 months	4,000 km (2,500 mi.) or 6 months	8,000 km (5,000 mi.) or 12 months
1.	Cam Chain	Check and adjust chain tension.	○	○		○
2.	Valve Clearance	Check and adjust valve clearance when engine is cold.	○	○		○
3.	Spark Plugs	Check condition. Adjust gap and clean. Replace after 13,000 km (or 18 months) and thereafter every 12,000 km (or 18 months)		○	○	
4.	Crankcase Ventilation System	Check ventilation hose for cracks or damage. Replace if necessary.		○		○
5.	Fuel Line	Check fuel hose and vacuum pipe for cracks or damage. Replace if necessary.		○		○
6.	Exhaust System	Check for leakage. Retighten if necessary. Replace gasket(s) if necessary.		○	○	
7.	Carburetor Synchronization	Adjust synchronization of carburetors.		○	○	
8.	Idle Speed	Check and adjust engine idle speed. Adjust cable free play if necessary.		○	○	

## GENERAL MAINTENANCE/LUBRICATION

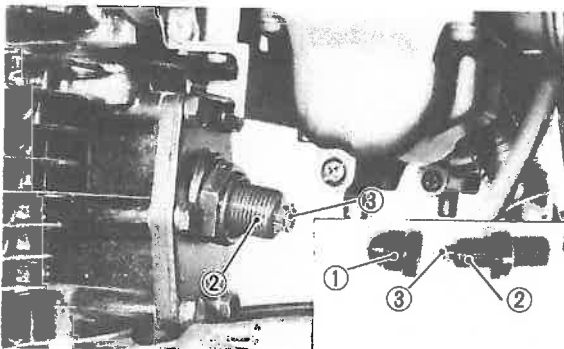
No.	Item	Remarks	Type	Initial Break-In		Thereafter Every			
				1,000 km (600 mi.) or 1 month	5,000 km (3,000 mi.) or 7 months	4,000 km (2,500 mi.) or 6 months	8,000 km (5,000 mi.) or 12 months	16,000 km (10,000 mi.) or 24 months	
1.	Engine Oil	Warm up engine before draining.	Yamalube 4-cycle oil or SAE 20W/40 type "SE" motor oil.	○	○	○			
2.	Oil Filter	Clean element in solvent.	—		○		○		
3.	Air Filter	Dry type filter. Clean with compressed air.	—		○		○		
4.	Brake System	Adjust free play. Replace pads (front brake only) or shoes (rear brake only) if necessary.	—	○	○	○			
5.	Clutch	Adjust free play.	—	○	○	○			
6.	Drive chain	Check chain condition. Adjust and lubricate chain thoroughly.	Yamaha chain and cable lube or SAE 10W/30 motor oil	<b>CHECK CHAIN TENSION AND LUBE</b> Every 500 km (300 mi)					
7.	Control and Meter Cable	Apply chain lube thoroughly.	Yamaha chain and cable lube or SAE 10W/30 motor oil	○	○	○			
8.	Rear Arm Pivot Shaft	Apply until new grease shows.	Lithium soap base grease.			○			
9.	Brake Pedal and Change Pedal Shaft	Lubricate. Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil.		○	○			
10.	Brake/clutch lever pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil		○	○			
11.	Center/Side Stand Pivots and Kick Crank Boss	Lubricate. Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil.		○	○			
12.	Front Fork Oil	Drain completely. Refill to specification.	Yamaha fork oil 10 wt or equivalent					○	
13.	Steering Bearings	Check bearings assembly for looseness. Moderately repack every 16,000 km (10,000 mi)	Medium weight wheel bearing grease.		○	○		REPACK	
14.	Wheel Bearings	Check bearings for smooth rotation.			○	○			
15.	Battery	Check specific gravity and breather pipe for proper operation.			○	○			
16.	A.C. Generator	Replace generator brushes. Replace at 9,000 km (5,500 mi) and thereafter every 8,000 km (5,000 mi)					○		

## ENGINE

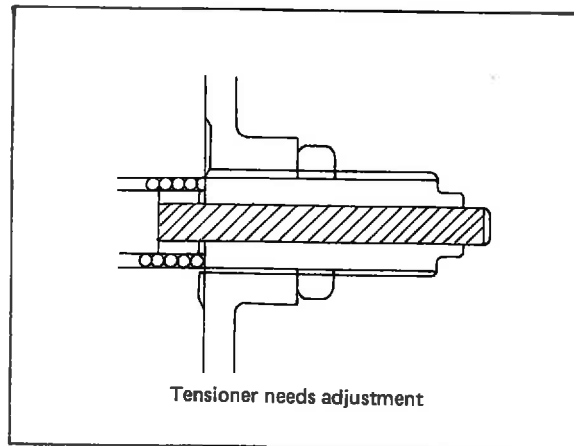
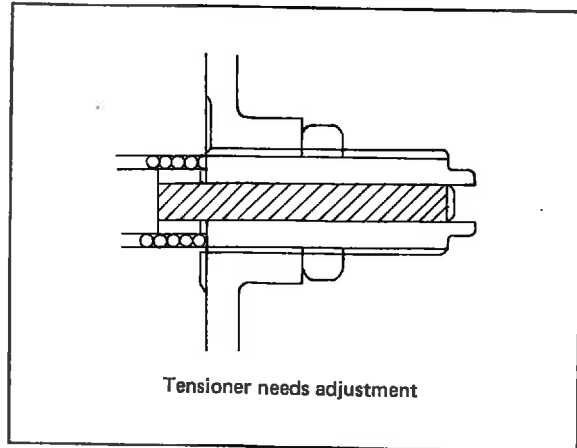
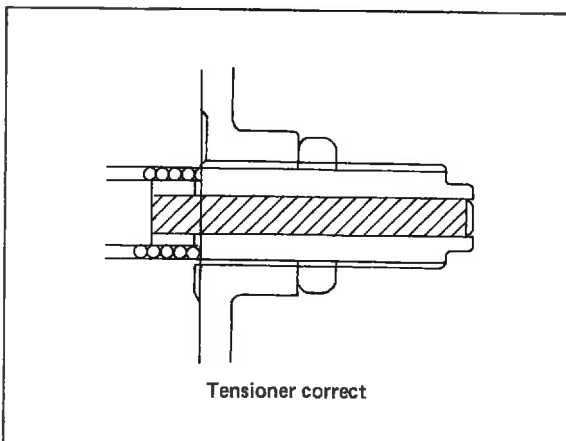
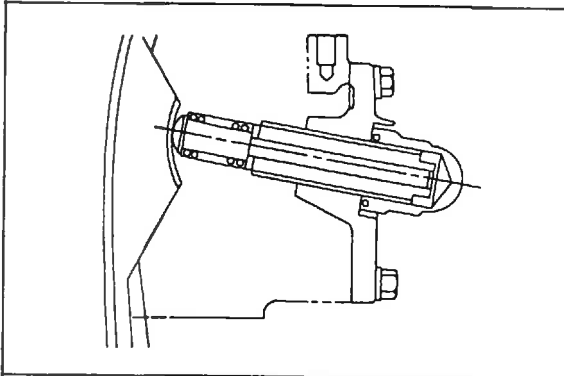
### A. Cam Chain/Valve Clearance

Check and adjust the chain tension as follows:

- a. Remove the generator cover.
- b. Remove the cap nut and loosen the lock nut.
- c. Turn the left end of the crankshaft counterclockwise. As the crankshaft is turning, check to see that the cam chain adjuster push rod is flush with the end of the bolt. If not, turn the adjuster bolt until the push rod is flush.
- d. Tighten the lock nut.
- e. Reinstall the cap nut and the generator cover.



1. Cap nut 2. Adjuster bolt 3. Push rod



### • Valve Clearance

Adjust valve clearance as follows:

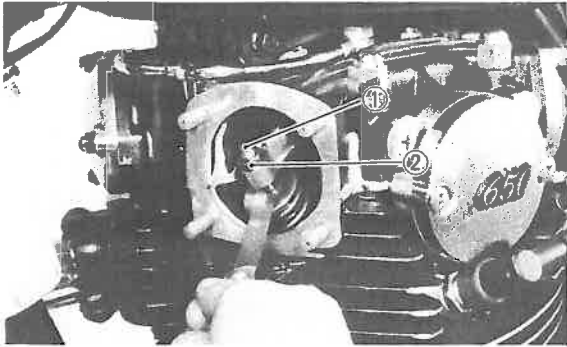
#### NOTE:

Valve clearance must be measured when the engine is cool to the touch.

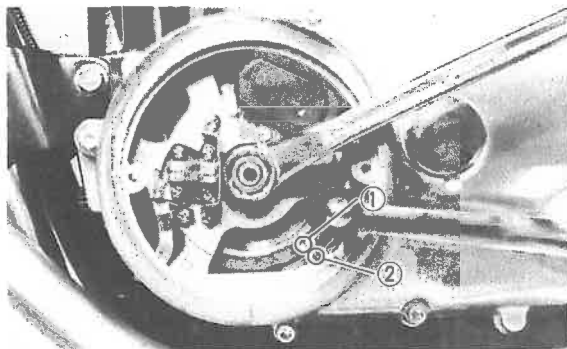
1. Remove the intake and exhaust tappet covers and the left crankcase cover.
2. Turn the crankshaft to align the rotor mark with the "T" mark on the starter.
3. Adjust the clearance as specified by turning the adjuster in or out.

Valve clearance	Intake: 0.06 mm
	Exhaust: 0.15 mm

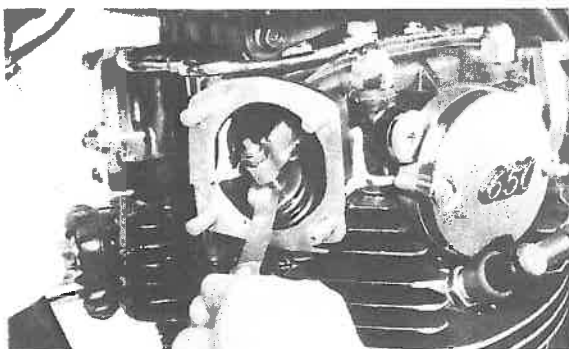
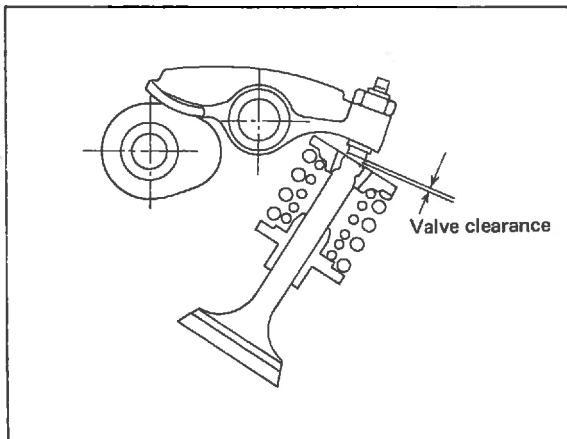
4. Repeat above steps for the other cylinder.



1. Adjuster 2. Lock nut



1. Align mark 2. T mark



### B. Spark Plug

1. Check electrode condition and wear, insulator color, and electrode gap.
2. Clean the spark plug with spark plug cleaner if necessary. Use a wire gauge

to adjust the plug gap to the specification.

3. If either electrodes is too worn, replace the spark plug.
4. When installing the plug, always clean the gasket surface, wipe off any grime that might be present on the surface of the spark plug, and torque the spark plug properly.

Standard Spark Plug: NGK BP7ES

Spark Plug Gap:

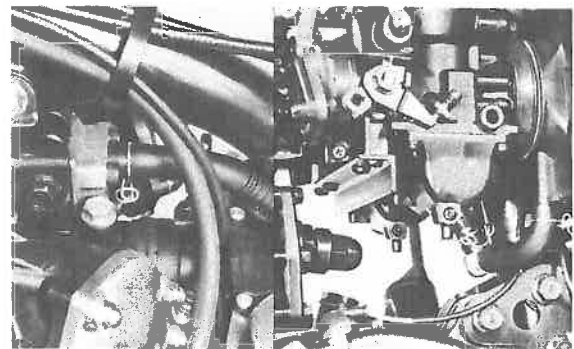
0.7 ~ 0.8 mm (0.028 ~ 0.032 in)

Spark Plug Tightening Torque:

19.6 Nm (2.0 m·kg, 14.5 ft·lb)

### C. Crankcase Ventilation System

Check the ventilation hose from the cylinder head cover to air cleaner case for cracks or damage; replace the hose if necessary.



### D. Fuel Line

Check the fuel hoses and vacuum lines for cracks or damage; replace if necessary.

### E. Exhaust System

1. Tighten the intake manifold bolts and nuts.
2. Replace the intake manifold gasket(s) if necessary.

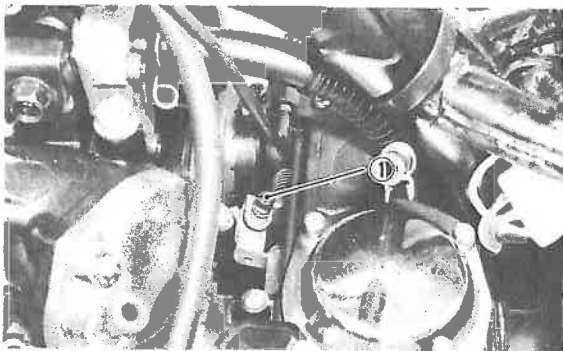
### F. Carburetor Synchronization

Carburetors must be adjusted to open and close simultaneously. Adjust as follows:

#### NOTE:

Valve clearance must be set properly before synchronizing the carburetors.

1. Turn petcock to "PRI" position. Remove the vacuum pipe and the rubber cap from intake manifolds.
2. Connect the vacuum gauge on intake manifolds.
3. Start engine and let it warm-up for a few minutes. The warm-up is complete when the engine responds normally to changes in the throttle.
4. Adjust the damping valve on the vacuum gauge until the indicator barely fluctuates. Some fluctuation is required to insure the gauges are not over damped.
5. Both gauge readings will indicate the same reading if the carburetors are synchronized.
6. If not, turn the synchronizing screw until the gauge readings are the same.

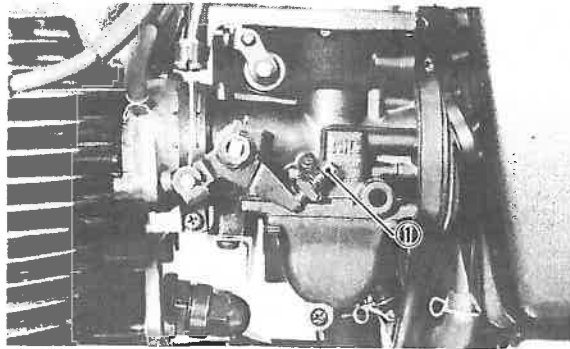


1. Synchronizing screw

7. After adjustment, reinstall the vacuum pipe and the rubber cap.

#### G. Idle Speed

1. Start the engine, and warm it up for a few minutes.
2. Set the engine idle speed to the specified level by adjusting the throttle stop screw. Turning the throttle stop screw in (clockwise) increases the engine speed; turning it out (counterclockwise) decreases the engine speed. Use a tachometer for checking and adjusting the engine speed.



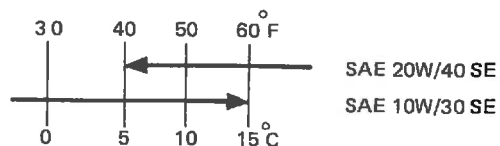
1. Throttle stop screw

Engine Idle: 1,200 r/min

#### H. Engine Oil

##### Recommended oil

Use Yamalube 4-cycle oil or SAE 20W 40 SE motor oil if the temperature does not go below 5°C (40°F). Use SAE 10W 30 SE motor oil if the temperature does not go above 15°C (60°F).



##### Oil level measurement

1. Place the motorcycle on the center stand. Warm up the engine for several minutes.

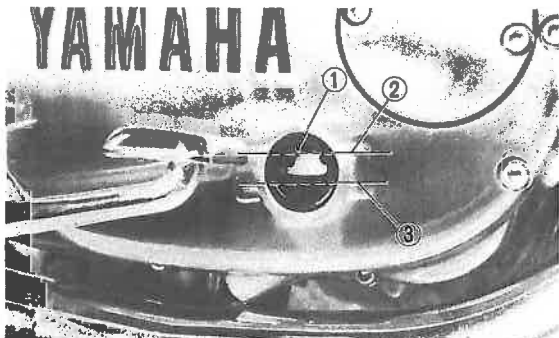
##### NOTE:

Be sure the motorcycle is positioned straight up when checking the oil level; a slight tilt toward the side can produce false readings.

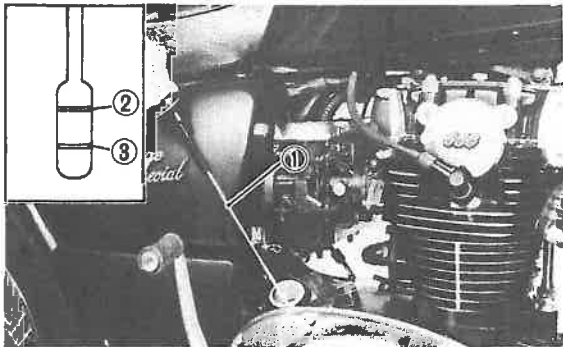
2. With the engine stopped, check the oil level through the level window located at the lower part of the right side crankcase cover, or screw the dip stick completely out and then the stick in the hole.

##### NOTE:

Wait a few minutes until the oil level settles before checking. When checking engine oil level with the dip stick, let the unscrewed dip stick rest on the case threads.



1. Level window 2. Maximum level 3. Minimum level



1. Dip stick 2. Maximum level 3. Minimum level

- The oil level should be between the maximum and minimum marks. If the level is lower, add sufficient oil to raise it to the proper level.

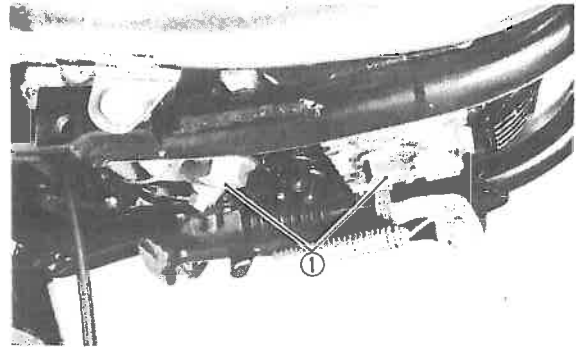
#### Oil change (without filter change)

- Warm up the engine for several minutes.
- Place an oil pan under the engine.
- Remove the oil filler cap and the drain plugs.
- Install the drain plugs and the filter cover bolt.

Drain plug torque:

43.2 Nm (4.4 m·kg, 32 ft·lb)

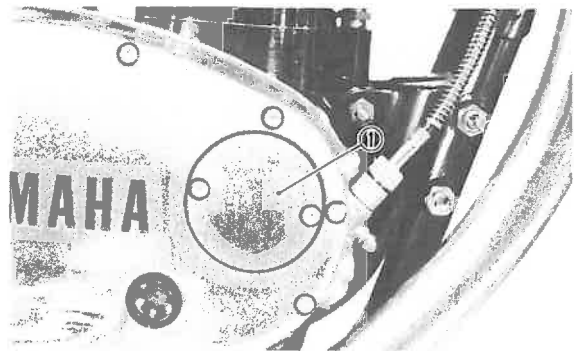
- Add 2.0 L (1.76 Imp qt, 2.1 US qt) of engine oil. Install the oil filler cap.
- Start the engine, and let it warm up. During warm-up, check for oil leakage. If oil leaks, stop the engine immediately, and check for the cause.
- Stop the engine and check the oil level.



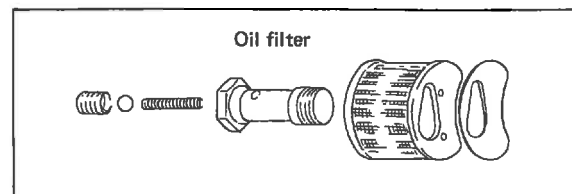
1. Drain plugs

#### Oil and filter change

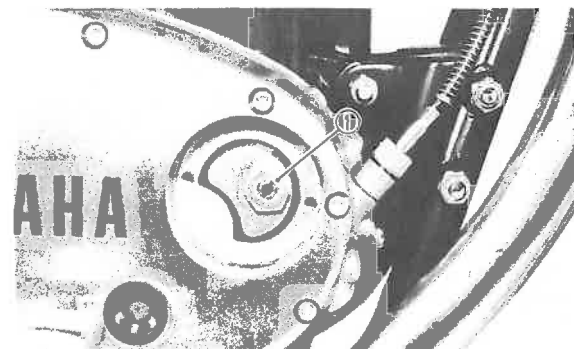
- Warm up the engine for several minutes.
- Place an oil pan under the engine.
- Remove the oil filler cap and the drain plugs; drain the engine oil.



1. Filter cover



- Remove the oil filter cover and oil filter securing bolt.



1. Filter securing bolt

- Install the drain plugs, new oil filter, and oil filter cover.

Filter torque:  
9.8 Nm (1.0 m-kg , 7 ft-lb)

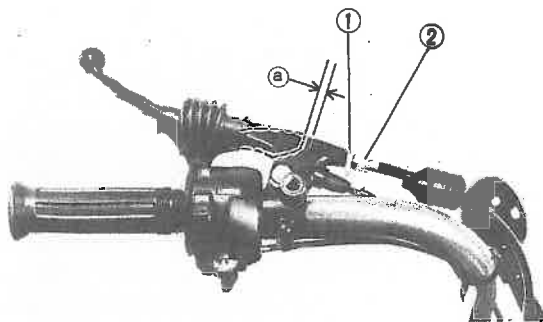
Drain plug torque:  
43.2 Nm (4.4 m-kg, 32 ft-lb)

6. Add 2.2 L (1.94 Imp qt, 2.3 US qt) of engine oil. Install the oil filler cap.
7. Start the engine, and let it warm up. During warm-up, check for oil leaks. If oil leaks, stop the engine immediately, and check for the cause.
8. After warm-up, stop the engine and check the oil level.

### I. Clutch Adjustment

#### Free play adjustment

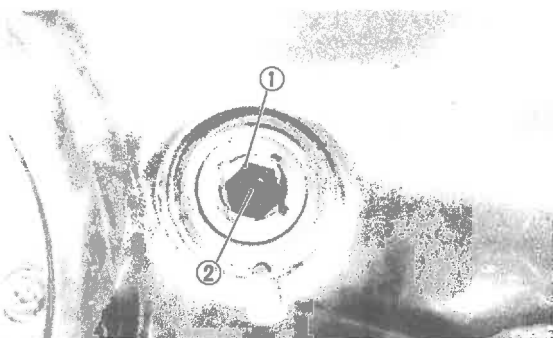
1. Loosen the clutch-lever-adjuster lock nut.
2. Turn the cable adjuster either in or out until proper lever free play is attained. Tighten the lock nut.



1. Lock nut 2. Adjuster a. 2~3 mm (0.08~0.12 in)

#### Mechanism adjustment

1. Completely loosen the clutch cable.
2. Remove the adjuster cover. Loosen the lock nut and turn the adjuster in (clockwise) until it lightly seats against a clutch push rod.



1. Adjuster 2. Lock nut

3. Back the adjuster out 1/4 turn and tighten the lock nut. Install the adjuster cover.
4. Adjust the clutch lever free play.

### J. Checking Ignition Timing

Check the ignition timing with a timing light by observing the position of the rotor pointer and the marks stamped on the timing plate.

The timing plate is marked as follows:  
"□" ..... Firing range for No. 1 (L.H.) cylinder  
"T" ..... Top Dead Center for No. 1 (L.H.) cylinder

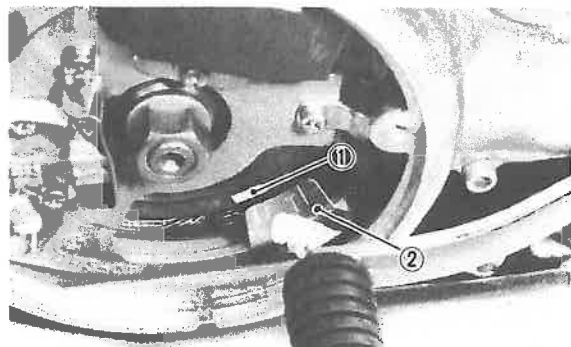
1. Remove the generator cover.
2. Connect the timing light to the left (#1) cylinder spark plug wire.
3. Start the engine, and keep the engine running at the specified speed. Use a tachometer to check the engine speed.

Engine Speed: 1,200 r/min

4. The rotor pointer should be within the limits of "□" on the timing plate. If it exceeds the limits or does not steady, check the timing plate for tightness and/or ignition system for damage.

#### NOTE:

Ignition timing is not adjustable.



1. Rotor pointer 2. Timing plate

5. Reinstall the generator cover.

### K. Compression Pressure Measurement

Insufficient compression pressure will result in performance loss and may indicate leaking



valves or worn or damaged piston rings.

1. Make sure the valve clearance is correct.
2. Warm up the engine for 2~3 minutes; stop the engine.
3. Remove both spark plugs.
4. Install a compression gauge.
5. Turn over the engine with the electric starter (make sure the battery is fully charged) with the throttle wide open until the pressure indicated on the gauge does not increase further. The compression should be within the specified levels.

Compression pressure (at sea level):

Standard

..... 1,080 kPa (11 kg/cm<sup>2</sup>, 156 psi)

Minimum

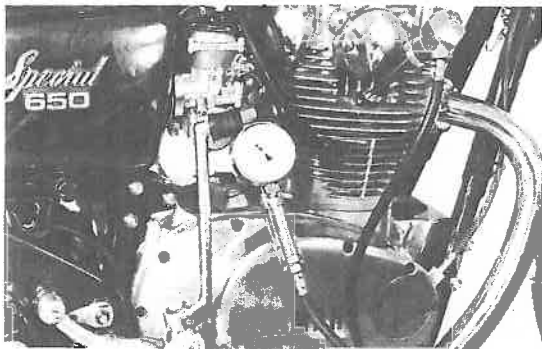
..... 883 kPa (9 kg/cm<sup>2</sup>, 128 psi)

Maximum

..... 1,180 kPa (12 kg/cm<sup>2</sup>, 171 psi)

**WARNING:**

When cranking the engine, ground the spark plug wires to prevent sparking.



6. If the pressure is too low, squirt a few drops of oil into the cylinder being measured. Measure compression again. If there is a higher reading than before (without oil), the piston rings may be worn or damaged. If the pressure remains the same after measuring with the oil, one or both rings and valves may be the source of the problem.
7. Check both cylinders. Compression pressure should not vary more than the

specified value from one cylinder to the other.

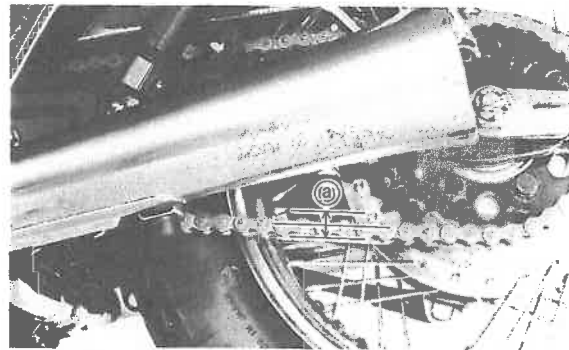
Difference between each cylinder:  
Less than 98.1 kPa (1 kg/cm<sup>2</sup>, 14 psi)

## CHASSIS

### A. Drive Chain Tension Check/Drive Chain Tension Adjustment

**NOTE:**

Before checking and/or adjusting, rotate rear wheel through several revolutions and check tension several times to find the tightest point. Check and/or adjust chain tension with rear wheel in this "tight chain" position.



a. 20~30 mm (0.8~1.2 in)

Inspect the drive chain with the center stand put up. Check the tension at the position shown in the illustration. The normal vertical deflection is approximately 20 ~ 30 mm (0.8 ~ 1.2 in). If the deflection exceeds 20~30 mm (0.8 ~ 1.2 in) adjust the chain tension.

• **Drive chain tension adjustment**

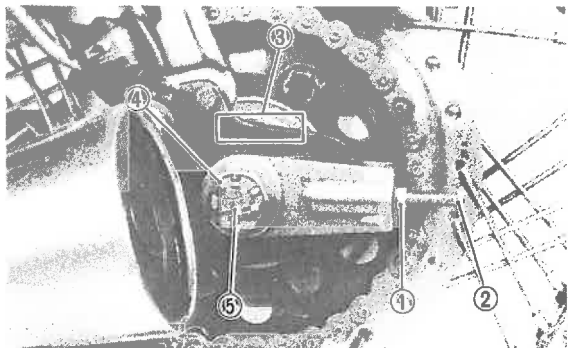
1. Loosen the rear brake adjuster.
2. Remove the cotter pin of the rear wheel axle nut with pliers.

**NOTE:**

The rear wheel axle nut is located on the right side.

3. Loosen the rear wheel axle nut.
4. Loosen the lock nuts on each side. To tighten chain turn chain puller adjusters clockwise. To loosen chain turn adjusters counterclockwise and push wheel forward. Turn each adjuster exactly the

same amount to maintain correct axle alignment. (There are marks on each side of the rear arm and on each chain puller; use them to check for proper alignment.)

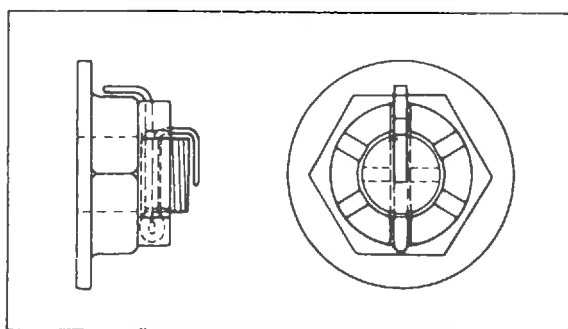


1. Lock nut
2. Adjuster
3. Marks for align
4. Rear wheel axle nut
5. Cotter pin

5. After adjusting, be sure to tighten the lock nuts and the rear wheel axle nut.
6. Insert the cotter pin into the rear wheel axle nut and bend the end of the cotter pin (if the nut notch and the cotter pin hole do not match, tighten the nut slightly to match).

**CAUTION:**

Excessive chain tension will overload the engine and other vital parts; keep the tension within the specified limits. Also, replace the rear axle cotter pin with a new one.

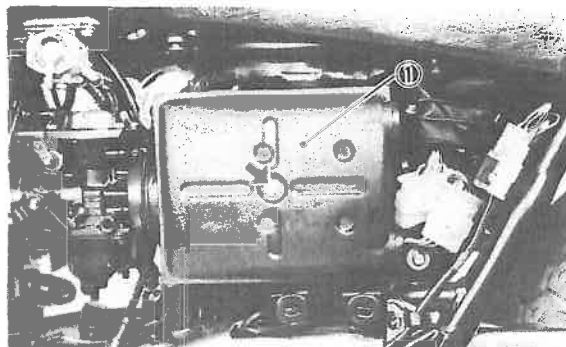


7. In the final step, adjust the play in the brake pedal.

**B. Air Filter**

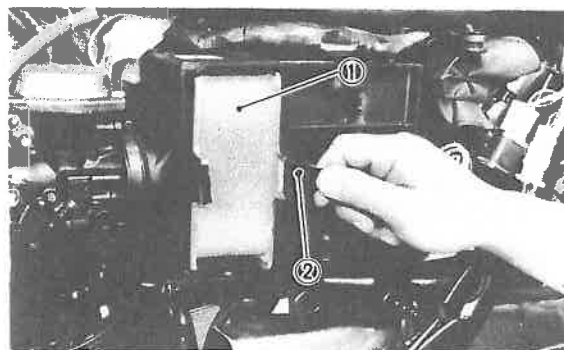
1. Remove the left and right hand side covers from the motorcycle.

2. Remove the fitting bolt and remove the air filter cover.



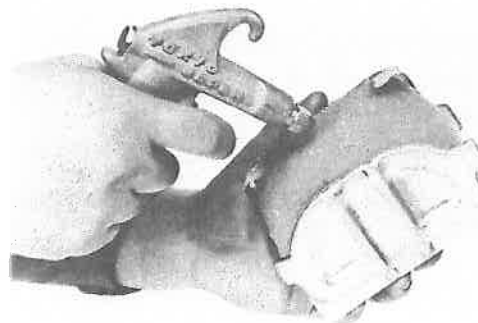
1. Air filter cover

3. Remove the filter fitting plate, and remove the air filter.



1. Air filter 2. Filter fitting plate

4. Clean the air filter with compressed air. Air flow should go from inside the filter towards the outside so dirt will be blown out of the filter element.



5. Install the cleaned filter in the air-filter case, and reinstall the filter fitting plate. Secure the air-filter cover in place with the fitting bolt.

**NOTE:**

Be sure that the foam rubber gasket is properly seated against the air-filter case.

6. Reinstall the left and right-hand side cover.

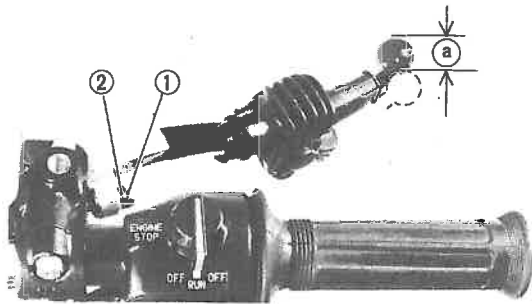
### C. Front and Rear Brake

#### Front-brake-lever free play adjustment.

The brake can be adjusted by simply adjusting the free play of the brake lever. The piston in the caliper moves forward as a brake pad wears out, automatically adjusting the clearance between the brake pads and brake disc.

#### **CAUTION:**

**Proper lever free play is essential to avoid excessive brake drag.**



1. Lock nut    2. Adjuster    a. 5 ~ 8 mm  
(0.2 ~ 0.3 in)

1. Loosen the adjuster lock nut on the brake lever.
2. Turn the adjuster so that the brake lever movement at the lever end is 5 ~ 8 mm (0.2 ~ 0.3 in) before the adjuster contacts the master cylinder piston.
3. After adjusting, tighten the lock nut.

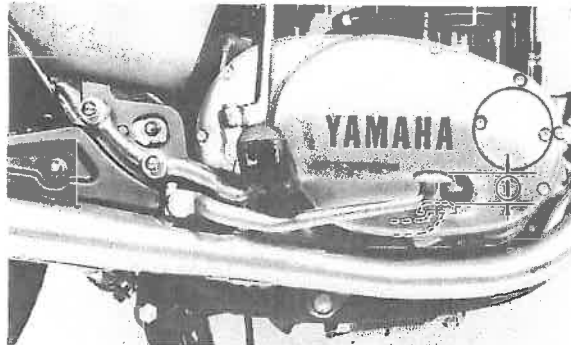
#### Rear-brake-pedal height adjustment.

1. Loosen the adjuster lock nut (for pedal height).
2. By turning the adjuster bolt clockwise or counterclockwise, adjust the brake pedal position so that its top end is flush with the top of the footrest.
3. Secure the adjuster lock nut.

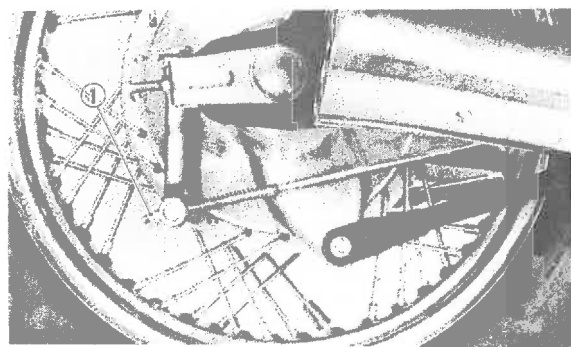
#### **WARNING:**

**After adjusting the pedal height, the brake-pedal free play should be adjusted.**

#### Rear brake-pedal free play adjustment.



1. 20 ~ 30 mm (0.8 ~ 1.2 in)



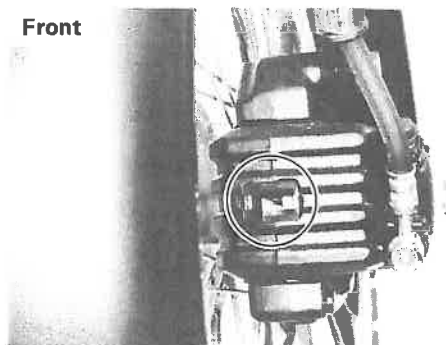
1. Align the punched marks on the brake shaft and the brake pedal, and secure the brake pedal.
2. Turn the adjuster on the brake rod clockwise or counterclockwise to provide the brake pedal end with a free play of 20 ~ 30 mm (0.8 ~ 1.2 in)
3. Check the brake pedal for smooth action.

#### **WARNING:**

**Check to see whether or not the brake light operates correctly after adjusting.**

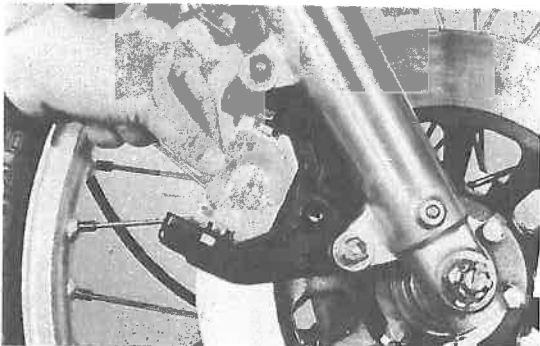
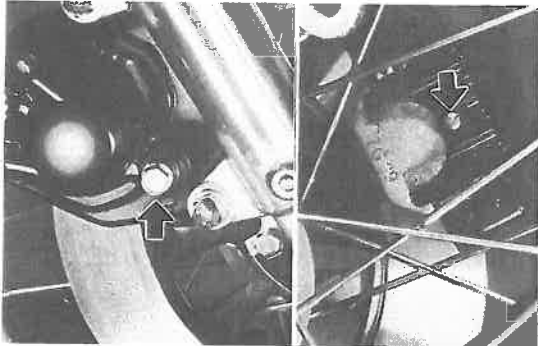
#### Front brake pad

To check, examine the pads in the front brake. If any pad is worn to the wear limit (red line), replace both pads in the caliper.



### Brake pad replacement

1. Remove the support bolt.
2. Remove the pad screw.
3. Remove the caliper from the support bracket.
4. Remove the pads from the support bracket.



5. Install the new pads into the support bracket.
6. Install the caliper onto the support bracket.
7. Tighten the support bolt and the pad screw.

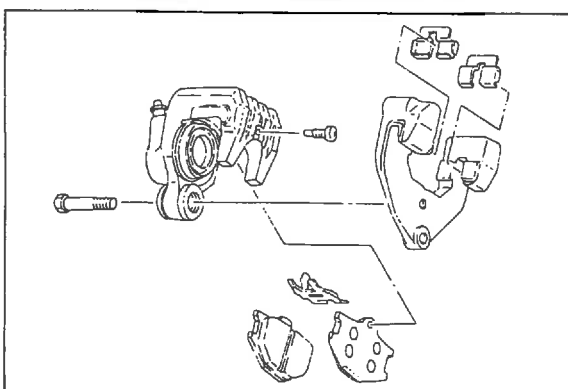
#### TIGHTENING TORQUE:

Support bolt

17.6 Nm (1.8 m kg, 13 ft lb)

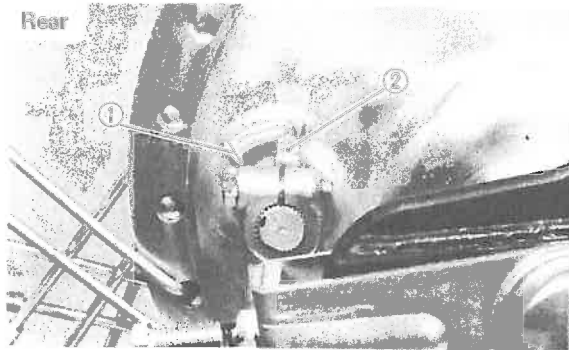
Pad screw

2.9 Nm (0.3 m kg, 2.17 ft lb)



### Rear brake shoe

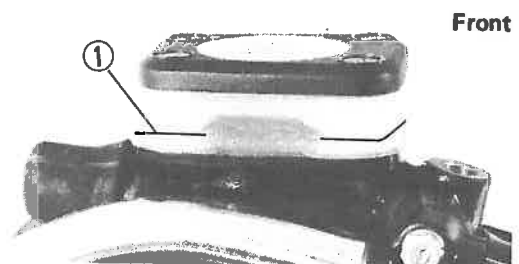
The specified thickness of the brake lining is 4 mm (0.16 in). The lining should be replaced when it wears to less than 2 mm (0.079 in). To check, see the wear indicator position while depressing the brake pedal.



1. Wear limit 2. Wear indicator

### Brake fluid

Insufficient brake fluid may allow air to enter the brake system, possibly causing the brake to become ineffective. Check the brake fluid level and replenish when necessary; observing these precautions:



1. Lower level

- Use only the designated quality brake fluid; otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.

Recommended brake fluid: DOT #3

- Refill with the same type and brand of brake fluid; mixing fluids may result in a harmful chemical reaction and lead to poor performance.

Be careful that water or other contaminants do not enter the master cylinder when refilling. Water will significantly lower the boiling point of the brake fluid and may result in vapor lock.

- Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.

#### D. Cable Inspection and Lubrication

The throttle twist grip assembly should be greased when the cable is lubricated since the grip must be removed to get at the end of the throttle cable. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease to cut down friction.

1. Damage to the outer housing of the various cables may cause corrosion. Often free movement will be obstructed. An unsafe condition may result. Replace such cables as soon as possible.
2. If the inner cables do not operate smoothly, lubricate or replace them.

Recommended lubricant:  
Yamaha Chain and Cable Lube or  
10W 30 motor oil

#### E. Brake and Change Pedals/Brake and Clutch Levers

Lubricate the pivoting parts of each lever and pedal.

Recommended lubricant:  
Yamaha Chain and Cable Lube or  
10W 30 motor oil

#### F. Centerstands and Sidestands

Lubricate the centerstands and sidestands at their pivot points.

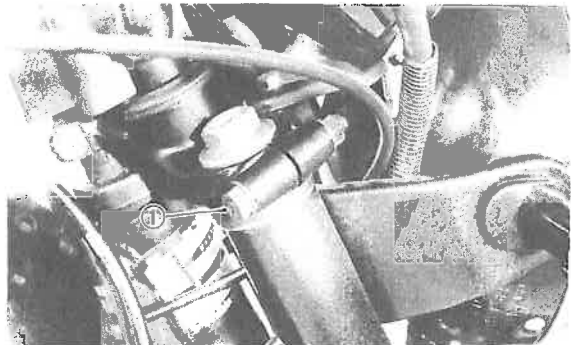
Recommended lubricant:  
Yamaha Chain and Cable Lube or  
10W 30 motor oil

#### G. Front Fork Oil Change

##### **WARNING:**

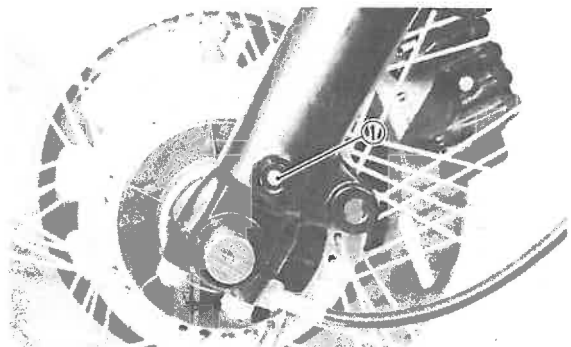
Securely support the motorcycle so there is no danger of it falling over.

1. Raise the motorcycle or remove the front wheel so that there is no weight on the front end of the motorcycle. Remove the handlebar if necessary.
2. Loosen the fork pinch bolts.
3. Remove the rubber cap from the top of each fork.



1. Pinch bolt

4. Loosen the cap bolt (adjuster unit).
5. Remove drain screw from each outer tube with open container under each drain hole.



1. Drain screw

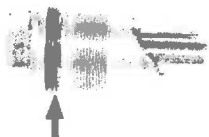
##### **WARNING:**

Do not let oil contact the disc brake components. If any oil should contact the brake components, it must be removed before the motorcycle is operated. Oil will cause diminished braking capacity and will damage the rubber components of the brake assembly.

6. When most of the oil has drained, slowly raise and lower the outer tubes to pump out the remaining oil.
7. Inspect the drain screw gasket. Replace if damaged. Reinstall the drain screw.
8. Pour the specified amount of oil into the fork inner tube.

Front fork oil (each fork):  
 164 ~ 172 cm<sup>3</sup> (5.78 ~ 6.07 Imp oz,  
 5.54 ~ 5.82 US oz)  
 Recommended oil:  
 Yamaha Fork Oil 10 wt, or equivalent

9. After filling, slowly pump the forks up and down to distribute the oil.
10. Inspect the O-ring on the spring seat.



Replace if damaged.

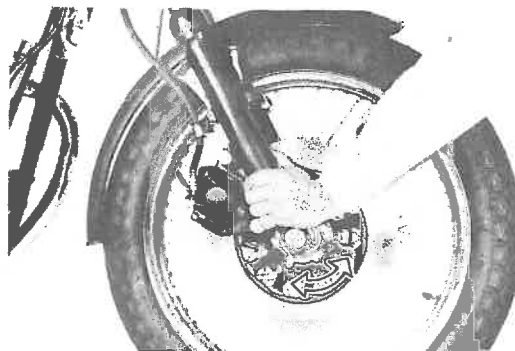
11. Install fork cap bolts.
12. Tighten pinch bolts.

Tightening torque:			
	Nm	m-kg	ft-lb
Fork cap bolt	49	5.0	36
Pinch bolt	9.81	1.0	7

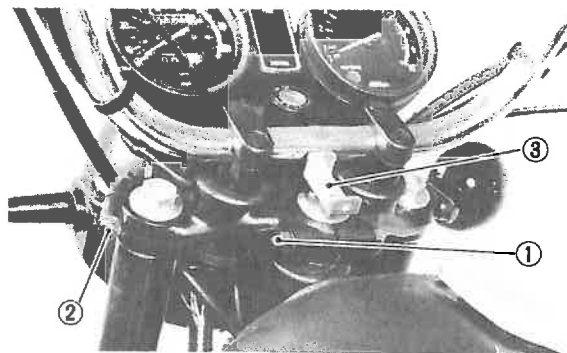
### I. Steering Head Adjustment

The steering assembly should be checked periodically for looseness.

1. Raise the front end of the motorcycle so that there is no weight on the front wheel.
2. Grasp the bottom of the forks and gently rock the fork assembly backward and forward, checking for looseness in the steering assembly bearings.



3. If the steering head is loose, adjust it. Loosen the steering stem, front fork pinch bolts, and steering fitting bolt.



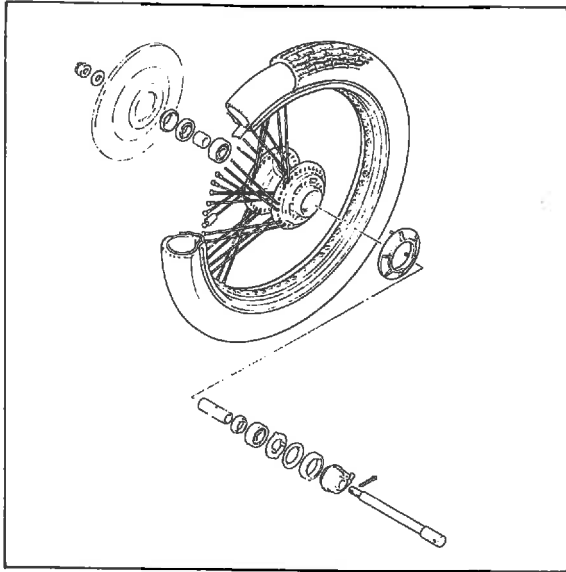
1. Crown pinch bolt    2. Fork pinch bolt  
 3. Steering fitting bolt

4. Use a steering nut wrench to loosen the top steering fitting nut. The top nut serves as a lock nut.
5. Tighten the lower steering fitting nut until the steering head is tight but does not bind when the forks are turned.
6. Retighten the top steering fitting nut, steering fitting bolt, and steering stem, and the front fork pinch bolts in that order.
7. Recheck steering adjustment to make sure there is no binding when the forks are moved from lock to lock. If necessary, repeat the adjustment procedure.

### J. Wheel Bearings

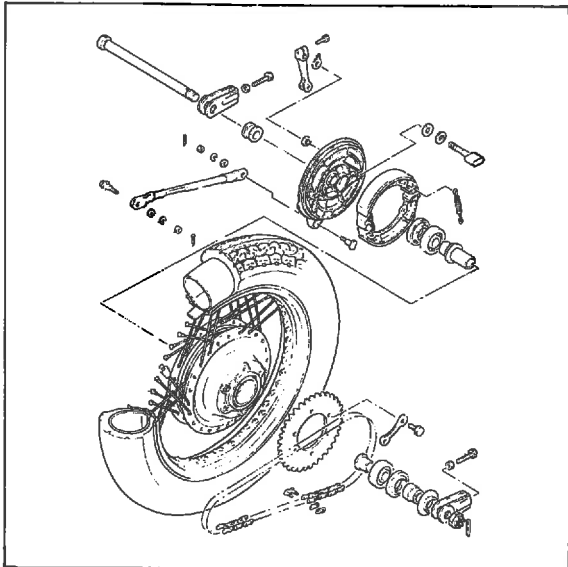
If a rolling rumble is noticed and increases with increasing wheel speed (not engine or transmission speed), the wheel bearings may be worn. Check the wheel bearings for both the front and rear wheels.

### Front wheel



1. Raise the front end of the motorcycle, and spin the wheel by hand. Touch the axle or front fender while spinning the wheel. If you feel any excessive vibration, the bearings are rough and should be replaced.

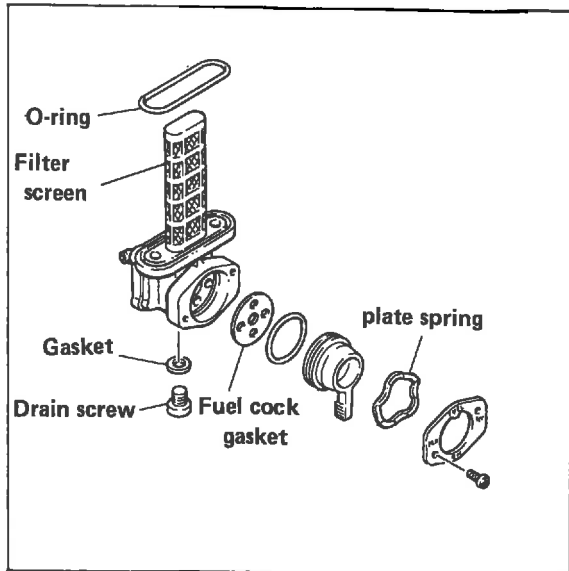
### Rear wheel



1. Remove the rear wheel, and check the bearing movement with your finger. Replace the bearings if they are rough or worn.

### K. Fuel Cock

If either fuel cock is leaking or is excessively contaminated, it should be removed from the fuel tank and inspected.

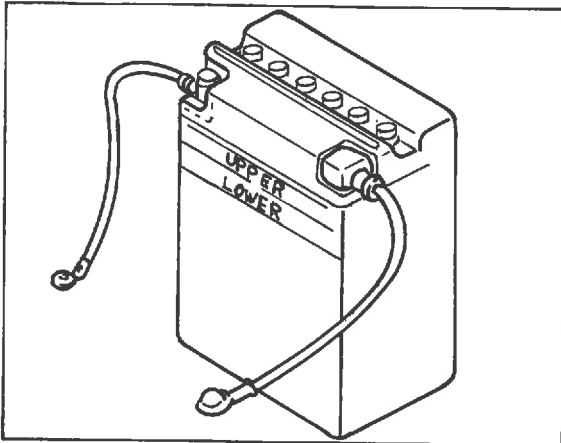


1. Remove the fuel tank and position it so that fuel will not spill when the fuel cock is removed.
2. Remove the fuel cock and inspect the filter screen. Replace the filter if it is seriously contaminated.
3. Remove the screws on the front and rear of the petcock; remove the plate, gaskets, lever, and diaphragm.
4. Inspect all components, and replace any that are damaged. If the diaphragm is damaged in any way or if the petcock gasket surfaces are scratched or corroded, the petcock assembly must be replaced. If there is abrasive damage to any components, the fuel tank must be drained and flushed.
5. Reassemble the petcock, and install it on the fuel tank.

## ELECTRICAL

### A. Battery

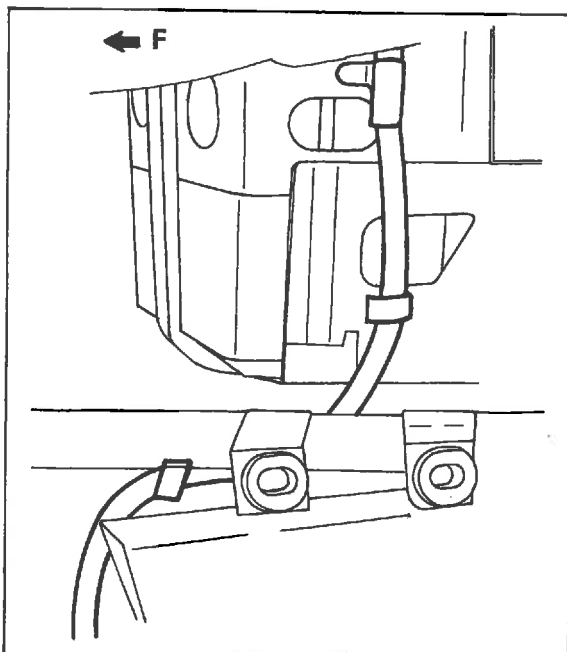
1. The fluid level should be between the upper and lower level marks. Use only distilled water if refilling is necessary.



### CAUTION:

Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.

2. Always make sure the connections are correct when installing the battery. Make sure the breather pipe is properly connected, properly routed, and is not damaged or obstructed.



### CAUTION:

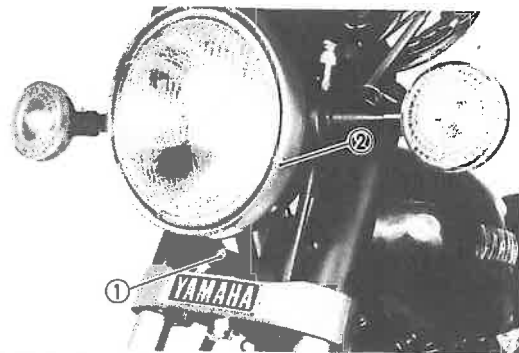
The battery must be charged before using to ensure maximum performance. Failure to charge the battery properly before first use or a low electrolyte level will cause premature failure of the battery. Charging current: 1.6 amps/10 hrs. or until the specific gravity reaches 1.280 at 20°C (68°F)

### B. Headlight

1. Headlight beam adjustment  
When necessary, adjust the headlight beam as follows:
  - a. Adjust horizontally by tightening or loosening the adjust screw.

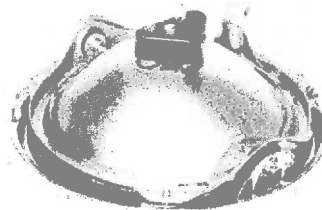
To adjust to the right:  
Tighten the screw  
To adjust to the left:  
Loosen the screw

- b. Adjust vertically as follows:
  - 1) Loosen adjusting screw and adjust vertically by moving the headlight body.
  - 2) Retighten the screw.



1. Vertical adjustment      2. Horizontal adjustment

2. Replacing the headlight bulb.





- a. Loosen bolts and replace bulb.
- b. After installing, adjust headlight beam.

**NOTE:** \_\_\_\_\_

Take care not to damage the headlight. It is very fragile.

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**C. Fuse**

The fuse box is located under the seat. If any fuse is blown, turn off the ignition switch and the switch in the circuit in question; install a new fuse of proper amperage. Turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, check the circuit in question (refer to "Chapter 6. ELECTRICAL").

**WARNING:** \_\_\_\_\_

Do not use fuses of a higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and a possible fire.

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