YAMAHA

RD 400E

OWNER'S MANUAL

1A1-28199-12

IMPORTANT: PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS VEHICLE.

Particularly important information is distinguished in this manual by the following notations:

NOTE: A NOTE provides key information to make procedures easier or clearer.

CAUTION: A CAUTION indicates special procedures that must be followed to avoid damage to the machine.

WARNING: A WARNING indicates special procedures that must be followed to avoid injury to a machine operator or person inspecting or repairing the machine.

RD400E OWNER'S MANUAL
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INTRODUCTION

Congratulations on your purchase of the Yamaga RD 400E. This model represents the product of many years of Yamaha experience in the production of fine sporting, touring, and pace-setting racing machines. You can now appreciate the high degrees of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will provide the owner with a good basic understanding of the operation, and basic maintenance and inspection items of this vehicle. PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING YOUR NEW MACHINE. If you have any questions regarding the operation or maintenance of your vehicle, please consult your Yamaha dealer.

NOTICE:

Some data in this manual may become outdated due to improvements made to this model in the future. If there is any question concerning this manual, consult your nearby Yamaha dealer.

SERVICE DEPT.
INTERNATIONAL DIVISION
YAMAHA MOTOR CO., LTD.

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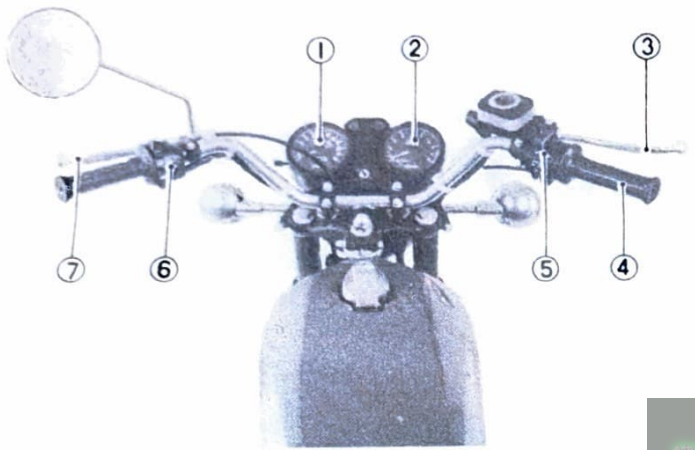

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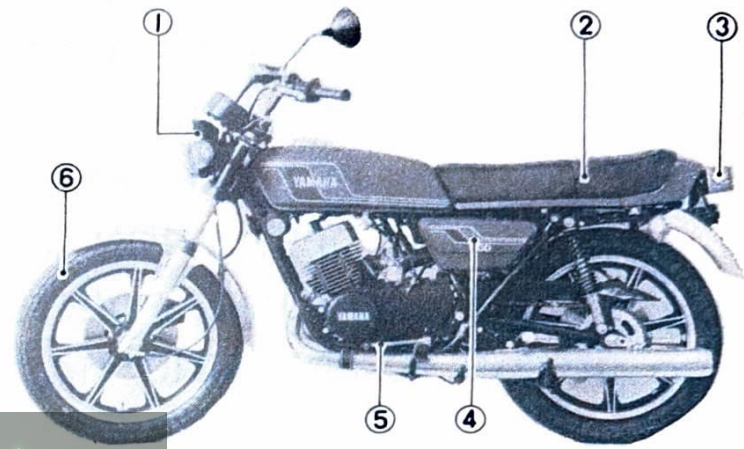
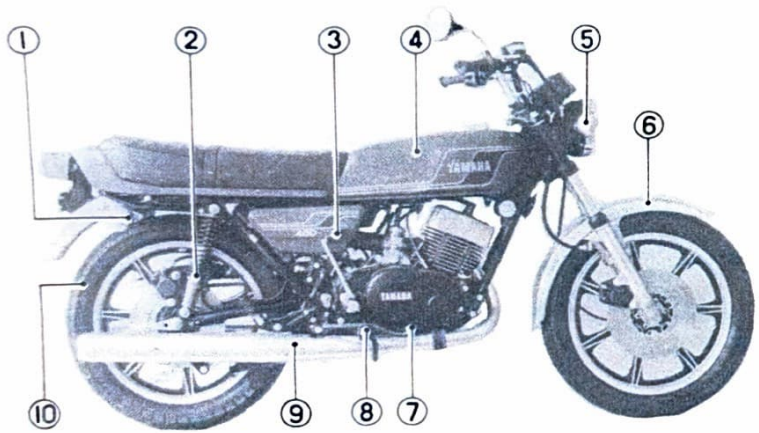


RIGHT SIDE (3)



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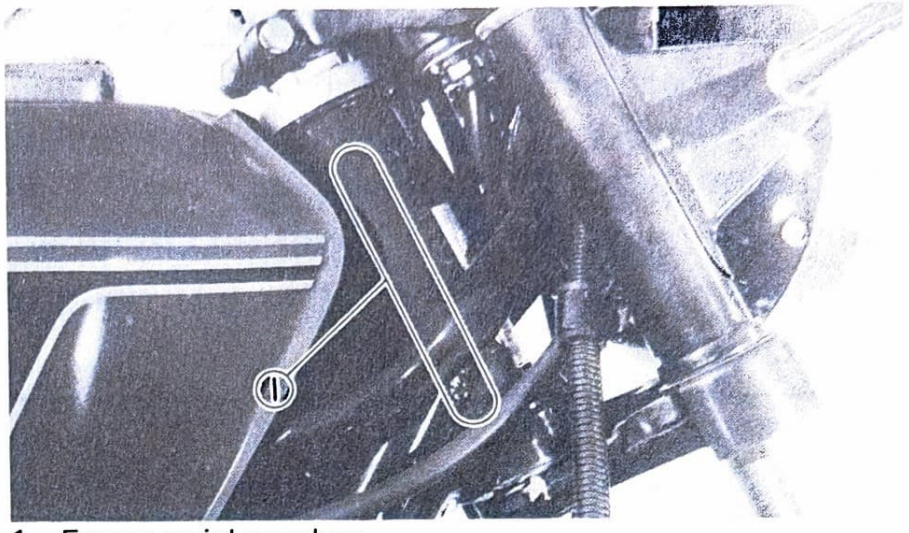
MACHINE IDENTIFICATION

Frame serial number

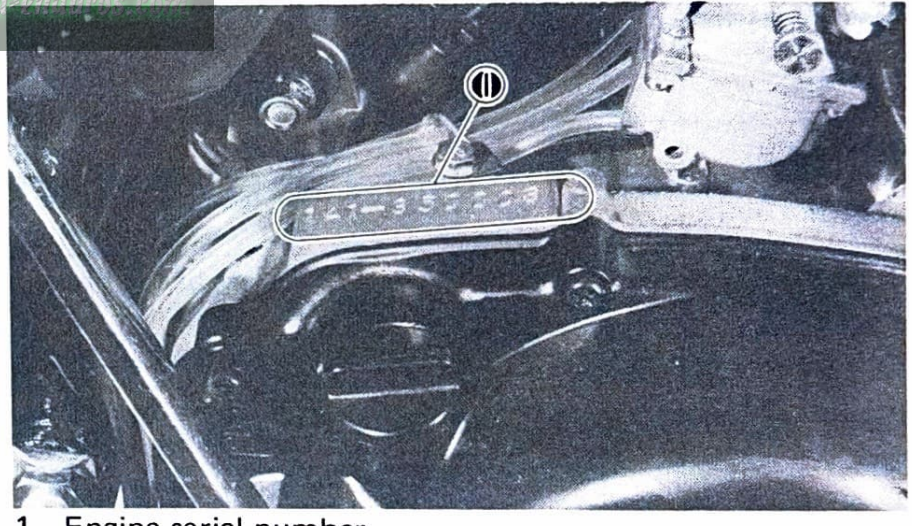
The frame serial number is stamped on the right side of the steering head pipe.



1. Frame serial number

Engine serial number

The engine serial number is stamped into the elevated part of the right rear section of the engine.



1. Engine serial number

NOTE:

The first three digits of these numbers are for model identification; The remaining digits are the unit production number. The two serial numbers are usually identical but they may sometimes be 2 or 3 numbers apart.

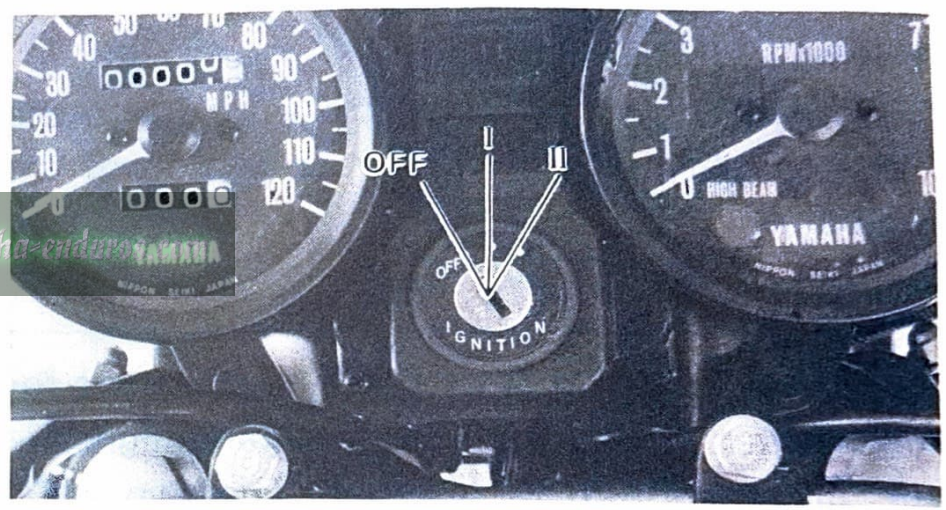
CONTROL FUNCTIONS

Main switch

The following chart shows the key position at which the lights, horn and ignition circuit are switched on or off: (The circle (○) denotes "Switch on".)

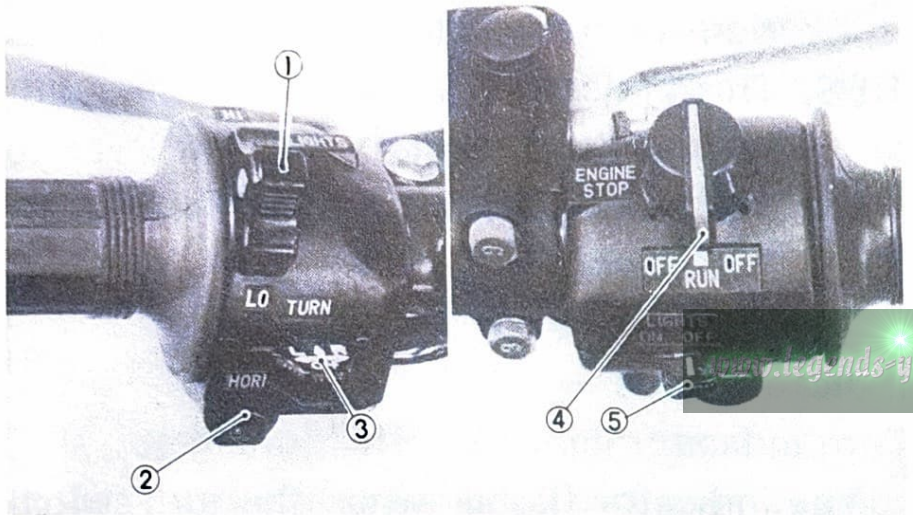
Part name	Key position					Instructions
	*OFF	I		*II		
Lights switch		ON	OFF	ON	OFF	Set the right handle-bar switch
Headlight		○	**○			—
Taillight		○	**○	○		Use II for night parking
Meter lights		○	**○			—
Ignition circuit		○				Kick the kick start-er to start the engine
Neutral light		○				The change pedal is in neutral
Stop light		○				The brake is applied
Flasher lights		○				Turn on the left handlebar switch
Horn		○				Press the horn button

* The key can be removed in this position.
** The light comes on when the engine is started.



Handle switches

The handlebar switches are located near the right and left handle grips (see illustration) and are used for the following functions:



1. Dimmer switch "LIGHTS"
2. "HORN" switch
3. "TURN" switch
4. "ENGINE STOP" switch
5. "LIGHTS" switch

Dimmer switch "LIGHTS"

Turn to the "HI" position for the high beam and to the "LO" position for the low beam.

"HORN" switch

Press button to sound the horn.

"TURN" switch

This model is equipped with a turn indicator switch that is self-cancelling. To signal a right-hand turn, push the switch to the right. To signal a left-hand turn, push the switch to the left. Once the switch is released it will return to the center position. To cancel the signal push the switch "in" after it has returned to the center position. If the switch is not cancelled by hand it will self-cancel after the machine has travelled for 10 seconds or approx. 150 meters (490 feet), whichever is greater.

"ENGINE STOP" switch

Make sure that the engine stop switch is on "RUN". The engine switch has been equipped to ensure safety in an emergency such as when the motorcycle is upset or trouble takes place in the throttle system.

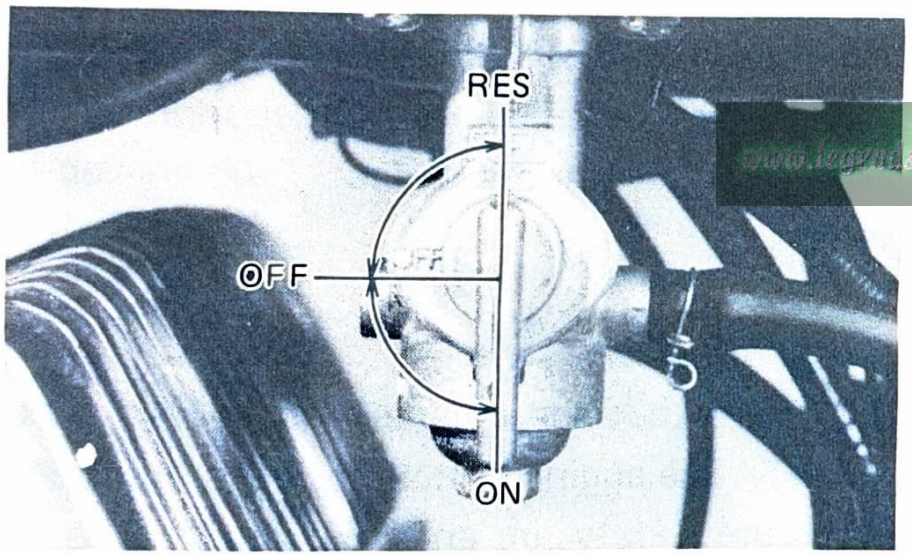
The engine will not start when the engine switch is turned to "OFF".

"LIGHTS" switch

Turn the light switch to the "ON" position to turn on the headlight, taillight and meterlights.

Fuel petcock

The fuel petcock conducts fuel from the tank to the carburetor and also filters the fuel. The fuel petcock has the following three positions:



ON: With the lever in this position fuel flows to the carburetor. Normal driving is done with the lever in this position.

OFF: With the lever in this position fuel will not flow. Return the lever to this position when the engine is not running.

RES: This indicates reserve. If you run out of fuel while driving, move the lever to this position. Then, fill the tank at the first opportunity.

Indicator lights

Turn indicator light "TURN" (orange):

The indicator flashes when the turn switch is "ON".

Neutral indicator light "NEUTRAL" (green):

This indicator lights when the transmission is in neutral.

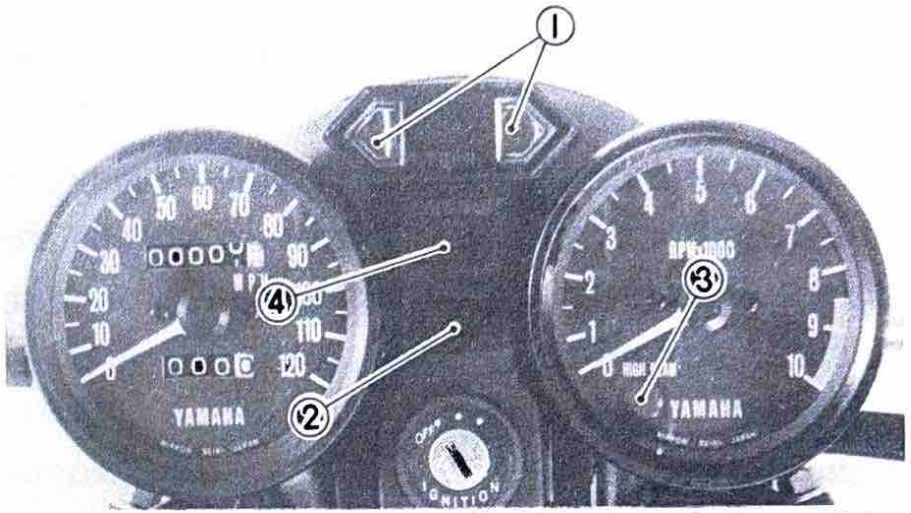
High beam indicator light "HIGH BEAM" (blue):

This indicator lights when the headlight high beam is used.

Oil caution indicator light "OIL" (red):

The light comes on when there is little oil in the oil tank. thus warning the rider.

The rider can check the circuit for any disconnection by putting the machine in neutral. Both the neutral indicator light and the oil caution indicator light should come on.



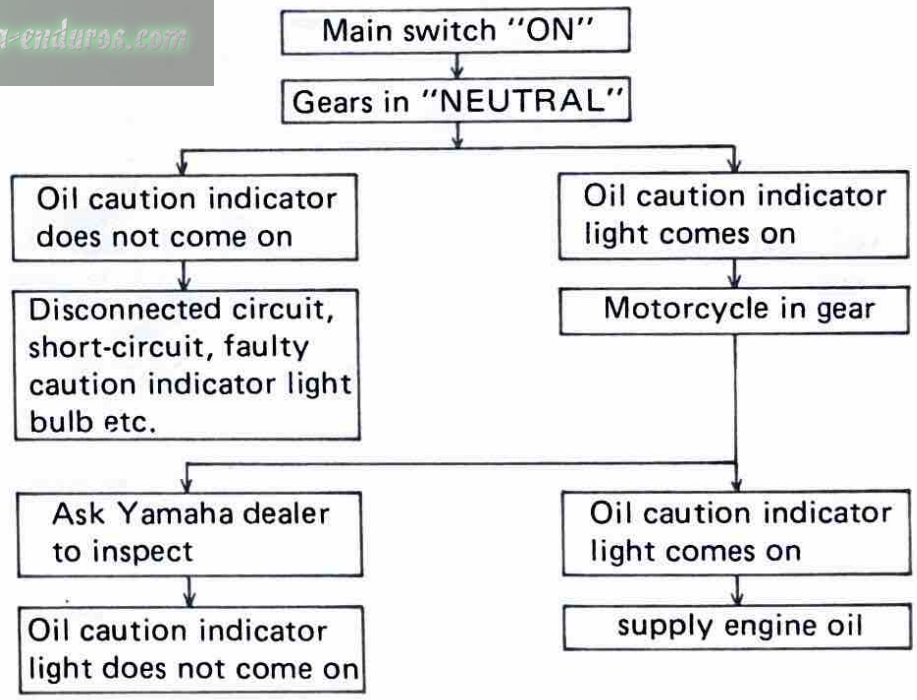
1. Turn indicator light
2. Neutral indicator light
3. hight beam indicator light
4. Oil caution indicator light

NOTE:

If the oil caution indicator light will not light up during this test, have your Yamaha dealer check it. Of course, check the oil level first.

CAUTION:

Do not run the machine until you known the machine has enough oil.

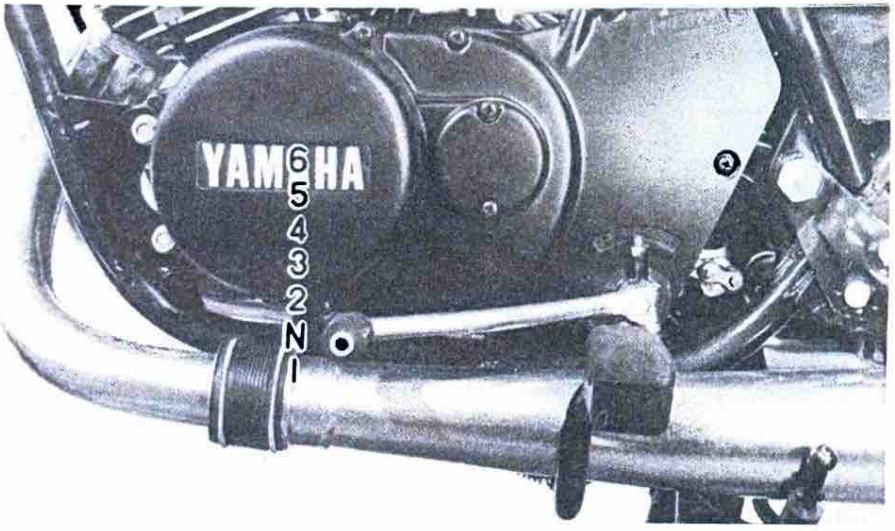


Clutch lever

The clutch lever is located on the left handlebar and disengages or engages the clutch. Pull the clutch lever to the handlebar to disengage the clutch and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth starts.

Gear shifting

The gear ratios of the constant mesh 6 speed transmission are ideally spaced. The gears can be shifted by using the change pedal on the left side of the engine.

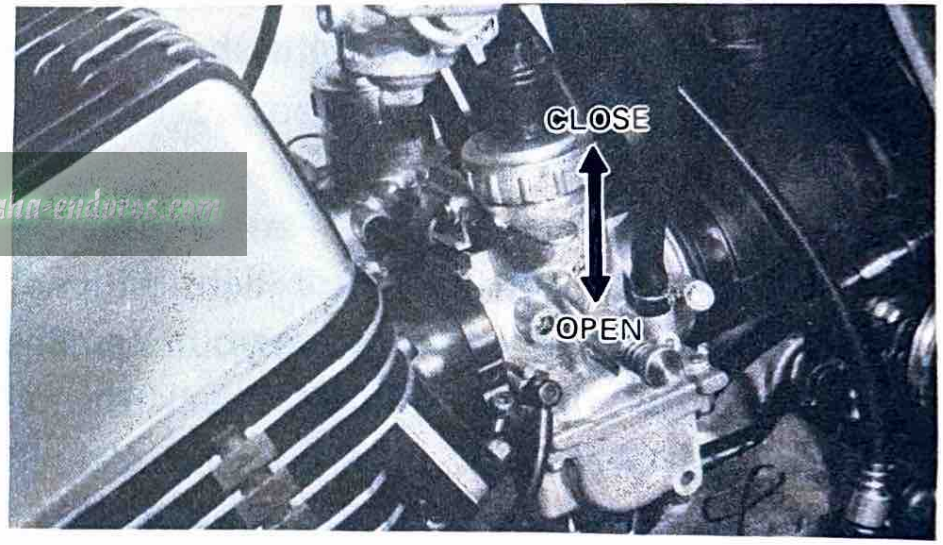


Ⓝ Neutral

Starter lever (choke lever)

When cold the engine requires a richer fuel mixture for starting. A separate starter circuit which is controlled by the starter lever, supplies this mixture.

Push the lever down to open the circuit (for starting) and pull it up to close the circuit.



Front brake lever

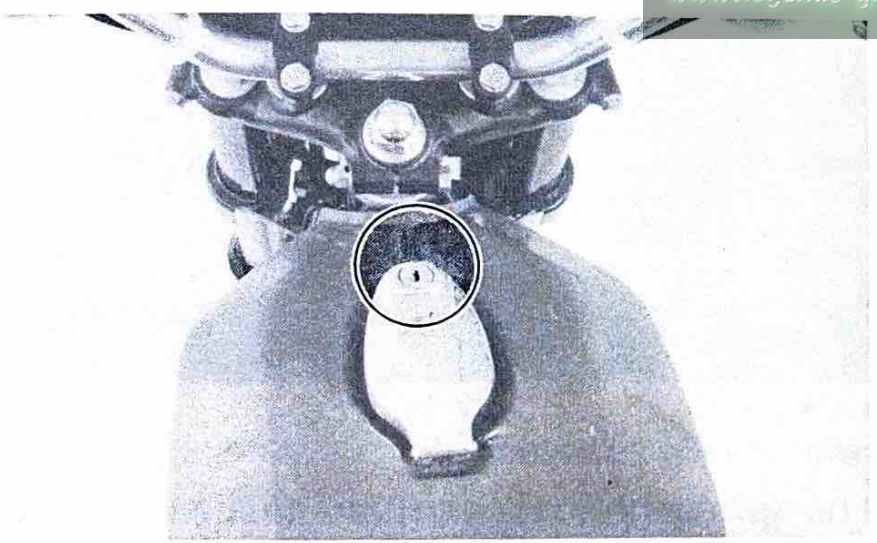
The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake.

Rear brake pedal

The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to activate the rear brake.

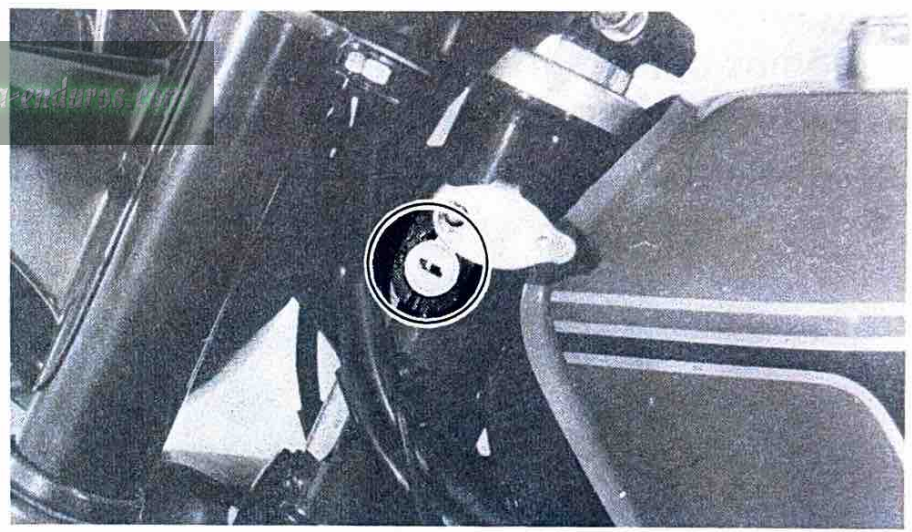
Fuel tank cap

Insert the key and push down and turn clockwise about 1/8 turn. The lock will be released and the fuel tank cap can be opened. The cap can be locked by merely pushing it into position.



Steering lock

To lock the steering, turn the handlebars fully to the right, insert the key into the steering lock and turn the key about 1/8 turn counterclockwise. Then push the key in and turn it about 1/8 turn clockwise. After checking if the lock is engaged, remove the key from the lock. To release the lock, reverse the above steps.



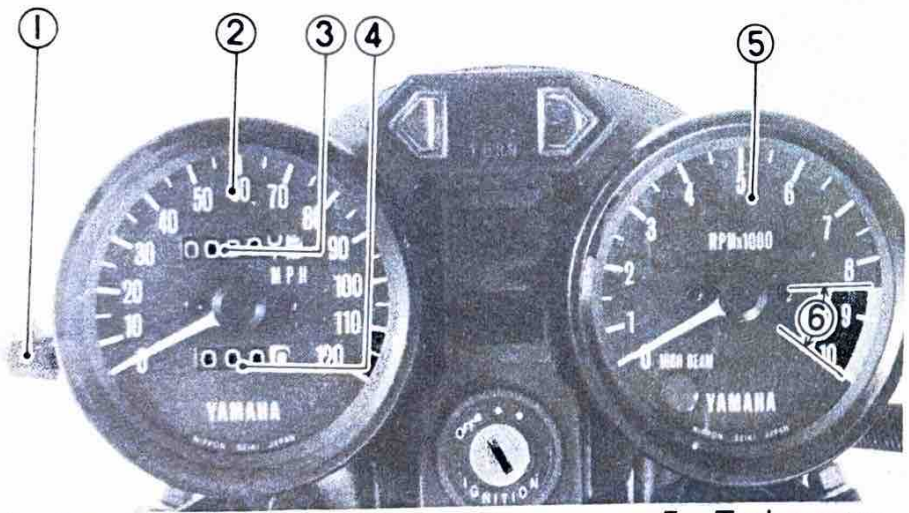
Speedometer

The odometer and trip odometer are built into the speedometer. The trip odometer can be reset to "0" with the reset knob.

Tachometer

The tachometer is provided so the rider can keep engine rpms within the ideal power range.

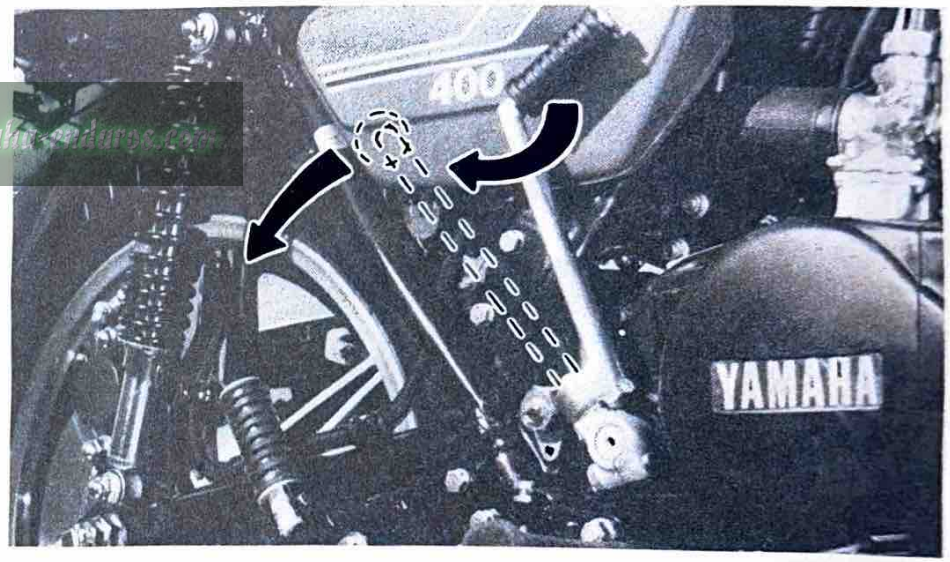
> Do not operate in the red zone.
> Red zone: 8,500 rpm and above



1. Reset knob
2. Speedometer
3. Odometer
4. Trip odometer
5. Tachometer
6. Red zone

Kick starter

To start the engine, rotate the kick crank, push down lightly with foot until gears engage, and then kick with full strength. This model has a primary kick starter so the engine can be started in gear if the clutch is disengaged. As normal practice, however, shift to neutral before starting.

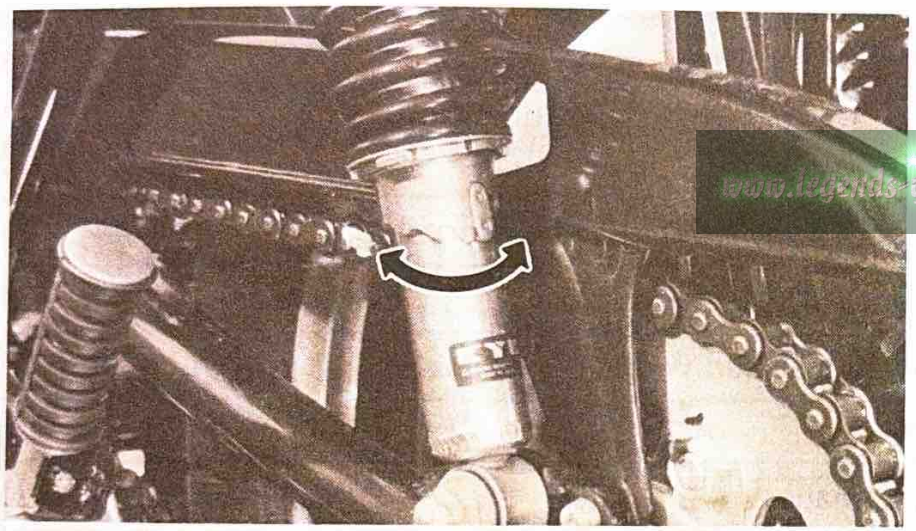


Rear shock absorber

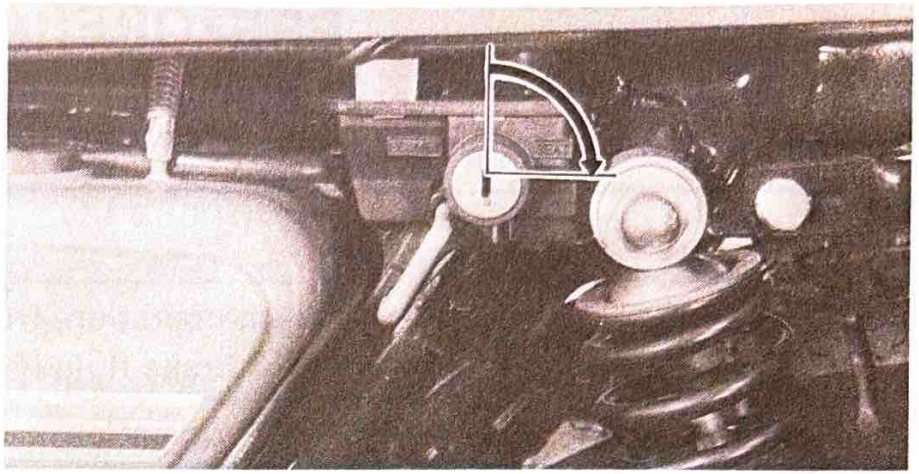
The spring preload of the rear shock absorber can be adjusted to suit rider preference and riding conditions.

If the spring seat is raised, the spring becomes stiffer and if lowered the spring becomes softer.

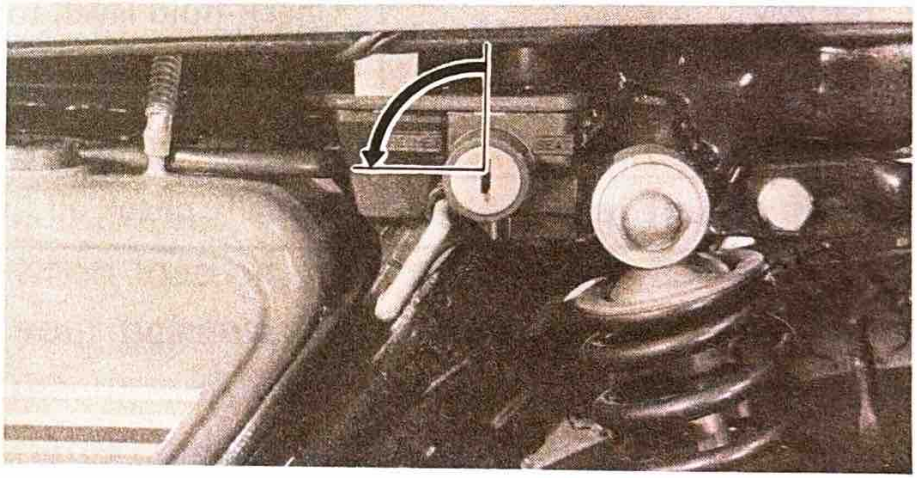
NOTE:
Adjust both the right and left sides to the same position.



Seat lock
To open the seat lock, insert the key in the lock and turn it clockwise.
To lock the seat, replace the seat in the original position.



Helmet holder
To open the helmet holder, insert the key in the lock and turn it counterclockwise.
To lock the helmet holder, replace the holder in the original position.



PRE-OPERATION CHECKS

Before using this motorcycle check the following points:

Item	Routine	Page
Brake (Front and Rear)	Check operation, free play and fluid level, Top-up with DOT No. 3 brake fluid if necessary.	14, 40
Clutch	Check operation, condition and free play, Adjust if necessary.	37
Oil tank	Check oil level/top-up as required	12, 26
Transmission oil	Check transmission oil level, top-up with Yamalube 4-cycle oil or SAE 10W/30 motor oil if necessary.	12, 26
Drive chain	Check chain tension and condition. Adjust if necessary.	44
Throttle	Check for smooth operation. Adjust if necessary.	34
Battery	Check fluid level, top-up with distilled water if necessary.	39
Lights/Signals	Check for proper operation.	—
Wheels/Tires	Check tire pressure, wear, damage.	12
Fittings/Fasteners	Visually check all fittings and fasteners.	—

Fuel

Make sure there is sufficient fuel in the tank.

Recommended gasoline:
Regular or low lead gasoline
Fuel tank capacity:
13 lit (3.4 US gal)

Engine oil

Make sure there is sufficient engine oil in the oil tank. Add oil as necessary.

Recommended oil:
See page 26 "Engine oil section"
Oil tank capacity:
1.8 lit (1.9 US qt)

Transmission oil

Make sure the transmission oil is at the specified level. Add oil as necessary. (See page 26.)

Recommended oil:
Yamalube 4-cycle oil or SAE 10W/30 type "SE" motor oil
Oil quantity:
1,450 ~ 1,550 cc (1.53 ~ 1.64 US qt)

Tires

Check the tire pressure and check the tires for wear.

IMPORTANT NOTICE

Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your machine. **NEVER OVERLOAD YOUR MOTORCYCLE.**

Consider your riding skill, road and weather conditions, and correct weight distribution when loading your motorcycle. Securely pack your heaviest items close to the center of the machine. Always check the condition and inflation pressure of your tires.

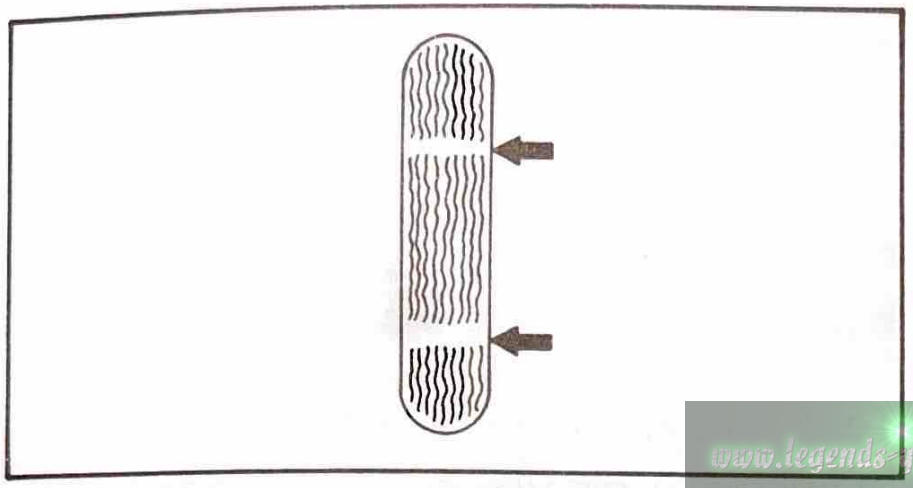
WARNING:

Never overload your motorcycle beyond specified tire limits. Operation of an overloaded tire could cause tire damage, and accident and injury.

	Front	Rear
RD400E BASIC WEIGHT with oil and full fuel tank	75 kg (165 lb)	93 kg (205 lb)
Standard tire	3.25S18-4PR	3.50S18-4PR
Tire load limit	206 kg (455 lb)	224 kg (495 lb)
Cold tire pressure:		
Normal riding	1.8 kg/cm^2 (26 psi)	2.0 kg/cm^2 (28 psi)
With passenger or high speed riding	2.0 kg/cm^2 (28 psi)	2.3 kg/cm^2 (32 psi)
With passenger and extra load riding	2.5 kg/cm^2 (36 psi)	2.5 kg/cm^2 (36 psi)
Minimum tire tread depth	0.8 mm (0.03 in)	0.8 mm (0.03 in)

Make sure the total weight of the motorcycle with accessories, rider(s) etc., does not exceed the tire limits.

If a tire tread shows cross wise lines, it means that the tire is worn to its limit. Replace the tire.



WARNING:

It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have your Yamaha dealer replace the tire immediately.

Aluminum wheels

Always inspect the aluminum wheels before a ride. Place the machine on the center stand and check for cracks, bends or warpage of the wheels If any abnormal condition exists in a wheel, consult your dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replace.

CAUTION:

These aluminum wheels are not designed for use with tubeless tires.

If you must change your own tires, use extreme caution with tire changing tools so as not to damage the wheel surface. Brake pad replacement, tire, tube and related wheel parts replacement should be left to a Yamaha service technician.

Brakes

1. Brake lever and brake pedal

Check for correct play in the front brake lever and rear brake pedal. Make sure they are working properly. Check the brakes at low speed shortly after starting out.

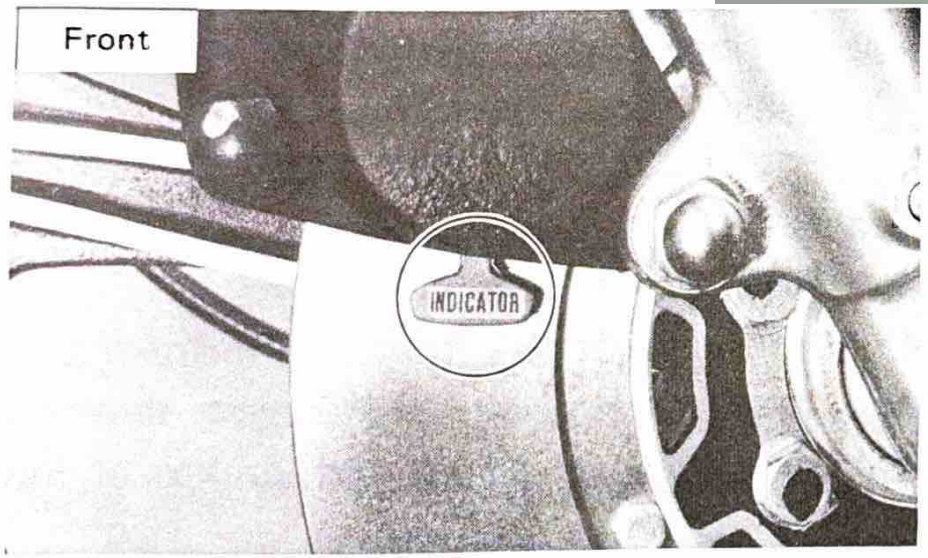
2. Brake fluid

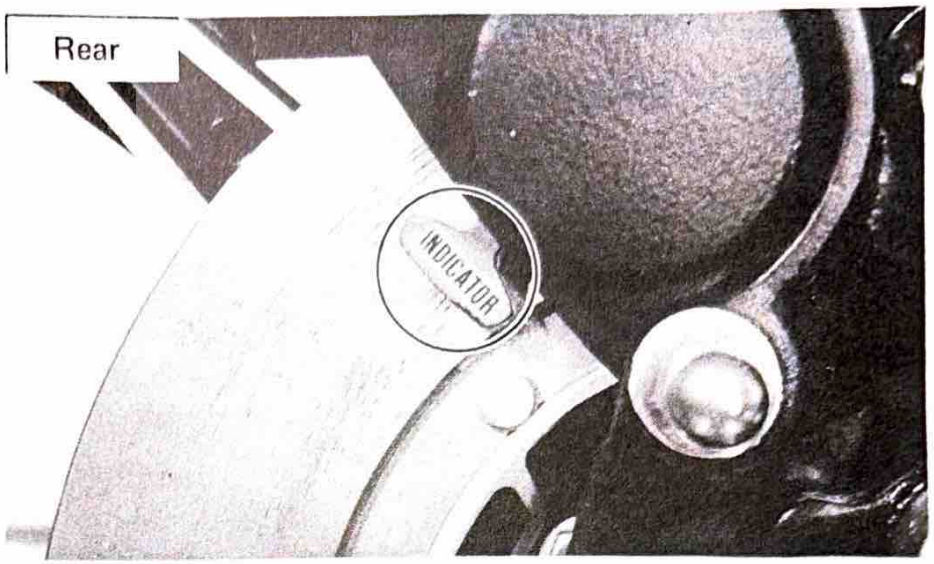
Check the brake fluid level. Add fluid if necessary. (See page 42)

Recommended fluid: DOT #3

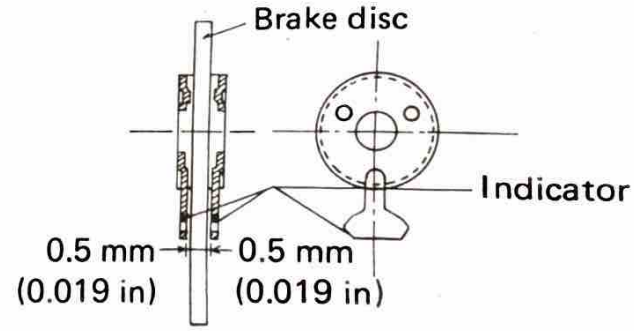
3. Checking the disc brake pads

For easy check of wear on the disc brake pads, a wear indicator is attached to each brake pad. This indicator permits a visual check without disassembling the pads.





To check, apply the brake, and measure the gap between the disc and the indicator. If the gap measures less than 0.5 mm (0.019 in) have your Yamaha dealer replace the pads.



Brake fluid leakage

Apply the brake for a few minutes, and check to see if any brake fluid leaks out from pipe joints or the master clyinder(s).

WARNING:

If brake fluid leakage is found, ask your Yamaha dealer for immediate repairs. Such leakage could indicate a hazardous condition in the brake system.

Clutch

Check for correct play in the cluth lever and make sure the lever operates properly.

Throttle grip

Trun the throttle grip to see if it operates properly and if the play is normal. Make certain the throttle springs closed when released.

Switches

Check the operation of the left and right handlebar switch, brake light switch, main switch, etc.

OPERATION AND IMPORTANT RIDING POINTS

CAUTION:

Before riding this motorcycle, become throughly familiar with all operating controls and their function.

Consult your Yamaha dealer regarding any control or function you do not throughly understand.

Starting a cold engine

1. Shift transmission into neutral.
2. Turn the fuel petcock to "ON".
3. Turn the ignition key to the "I" position and turn the engine stop switch to the "RUN" position.
4. Operate the carburetor starter jet (choke) lever and completely close the throttle grip.

5. Kick the kick crank with full strength to start the engine.
6. After the engine starts, warm up for one or two minutes. Make sure the starter jet (choke) lever is returned to the original position before driving.

Starting a warm engine

To start a warm engine, the starter jet (choke) lever is not required.

CAUTION:

See "Break-in Section" prior to operating engine for the first time.

Warming up

To get maximum engine life, always "warm-up" the engine before staring off. Never accelerate hard with a cold engine! To see whether or not the engine is warm, see if it responds to throttle normally with the starter jet (choke) lever turned off.

Shifting and acceleration

This model has a 6-speed transmission. The transmission allows you to control the amount of power you have available at a given speed or starting accelerating, climbing hills, etc. The use of the change pedal is shown in the illustration (Page 7). To shift into NEUTRAL, repeatedly depress the change pedal to the end of its travel (you will feel a stop when you are in first gear.), then raise it slightly.

To start out and accelerate, proceed as follows:

1. Pull the clutch lever to disengage the clutch.
2. Shift into FIRST gear.
3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
4. At 3,000 to 4,000 rpm close the throttle, and at the same time, pull in the clutch lever quickly.

5. Shift into SECOND. (Be careful not to shift into neutral.)
6. Open the throttle part way and gradually release the clutch lever.
7. To accelerate or decelerate, use the same procedure to shift into next higher or next lower gear, respectively.

Brake operation

Brakes are provided to stop the moving motorcycle. However, care must be exercised when braking at high speeds or under poor driving conditions such as rough roads, snow, rain, etc. Several braking methods are described below for your information.

1. Twisting the throttle grip in the closed direction will permit you to gradually slow down. Downshift through the gears, using the drag of the engine to slow down. However, the best method, and the one most universally used, is to use both engine braking (downshifting through the gear as the machine slows) and the front and rear brakes simultaneously. Since excessive braking pressure will cause the wheel to lock and skid, the rider must use both brakes with moderate pressure to get maximum stopping power without losing control. As the machine continues to slow, shift down through the gears using engine brake to aid the slowing effect. When shifting down, watch the tachometer to see that the engine does not over-rev.
2. Use the engine brake when descending long, steep hills. Do not operate the brakes continuously for very long periods. Use at repeated intervals. Special care is required in braking on poor roads and in bad weather. If the front brake is applied too strongly in such conditions the wheel may lock and cause a fall. At high speeds the front and rear brakes must be applied

with balanced force; apply the brakes repeatedly with moderate force and avoid sudden application. Practice the above procedures for safe braking at all times.

CAUTION:—

When using engine braking for long periods, it is very important not to exceed maximum recommended rpm (tachometer red zone).

Riding on poor roads

When going from a paved road to an unpaved area, lower the engine speed and continue riding at reduced speed.

Riding in rain

Roads become slippery in rainy weather and are very dangerous. Always maintain the proper tire pressure, operate at reduced speed and never apply the brakes or throttle suddenly.

Riding on hilly roads

1. When driving uphill, shift to a lower gear and reduce speed unless the hill can be climbed in the same gear.
2. When driving downhill, use the same gear as for climbing the hill and always use engine braking. It can be dangerous to shift gears in the middle of a hill. Brakes can be used when necessary but be careful not to apply the front brake too suddenly. A fall may result.
3. When stopped in the middle of ascending a hill, re-starting requires some skill. Take the following precautions:
   a) Apply the fornt brake and support the motorcycle with your right leg.
   b) Pull the clutch lever and shift into low gear.
   c) While still gripping the clutch lever, shift the weight to the left leg and step on the brake pedal with the right foot.

d) While opening the throttle grip, gradually release the clutch lever while releasing the brake and move forward.

Cornering

Reduce speed before entering the curve and proceed slowly. Be careful when applying the brakes with the motorcycle leaned into a corner as it may slip.

Engine break-in

There is never a more important period in the life of your motorcycle, than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 400 km (250 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period prolonged full throttle operation, or any condition which might result in excessive heating of the engine must be avoided.

1. 0 ~ 160 km (0 ~ 100 mi):
   Avoid operation above 4,000 rpm.
   Allow a cooling off period of 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one, set throttle position.
2. 160 ~ 400 km (100 ~ 250 mi):
   Avoid prolonged operation above 5,000 rpm. Allow the motorcycle to rev freely through the gears but do not use full throttle at any time.
3. 400 ~ 800 km (250 ~ 500 mi):
   Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 6,000 rpm.
4. 800 km (500 mi) and beyond:
   Avoid prolonged full throttle operation. Avoid engine speeds in excess of 7,000 rpm. Vary speeds occasionally.

CAUTION:

If any engine trouble should occur during the break-in period, consult your Yamaha dealer immediately.

Parking

When parking, stop the engine and remove the ignition key. Make it a habit to turn the fuel petcock to "STOP" whenever stopping the engine.

NOTE:

Select a parking place where the motorcycle is not apt to fall.

Night parking

When temporarily parking at night, turn the ignition key to the parking position and remove it.

NOTE:

If the parking light is use for long periods, the battery may be discharged, making starting difficult.

PERIODIC MAINTENANCE AND MINOR REPAIR

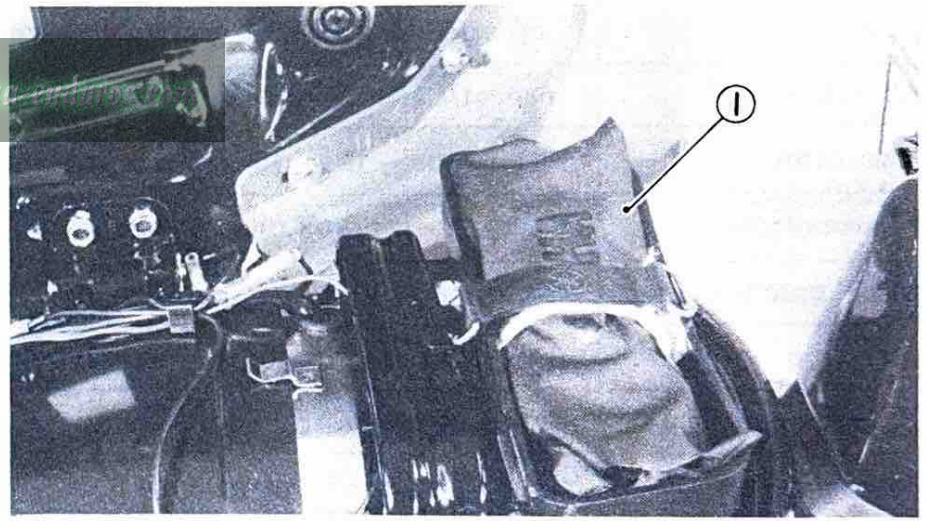
Periodic inspection, adjustment and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The most important points of motorcycle inspection, adjustment and lubrication are explained in the following pages.

CAUTION:

If the owner is not familiar with motorcycle service, this work should be done by a Yamaha dealer.

Tool kit

The servicing information included in this manual is intended provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are sufficient for this purpose, except that a torque wrench is also necessary to properly tighten nuts and bolts.



1. Tool kit

PERIODIC MAINTENANCE

Unit: Km (mile)

Item	Remarks	Initial				Thereafter every	
		400 (250)	800 (500)	1,600 (1,000)	3,200 (2,000)	1,600 (1,000)	3,200 (2,000)
Brake system (Complete)	Check/Adjust as required — Repair as required	○	○	○	○	○	
Clutch	Check/Adjust as required		○	○	○	○	
Battery	Top-up/Check specific gravity and breather pipe	○	○	○	○	○	
Spark plugs	Inspect/Clean or replace as required	○			○		○
Air filter	Paper type — Clean/Replace as required			○	○	○	
Carburetor	Check operation/Adjust as required		○		○		○
Fuel petcock	Clean/Flush tank as required	○		○			○
Ignition timing	Adjust/Clean or replace parts as required		○	○	○		○
Lights/Signals	Check operation/Replace as required	○	○	○	○	○	
Wheels/Tires	Check pressure/Wear/Balance	○	○	○	○	○	
Drive chain	Check tension/Alignment	Every 400 Km (250 mi.)					
Fittings/Fasteners	Tighten before each trip and/or	○	○	○	○	○	

LUBRICATION INTERVALS

Unit: Km (mile)

Item	Remarks	Recommended lubricants	Initial				Thereafter every		
			400 (250)	800 (500)	1,600 (1,000)	3,200 (2,000)	1,600 (1,000)	3,200 (2,000)	6,400 (4,000)
Transmission oil	Replace/Warm engine/ before draining	1. Yamalube 4-cycle oil 2. SAE 10W/30 "SE" motor oil	check	○	○		check	○	
Drive chain	Lube/Adjust as required	Yamaha chain and cable lube or SAE 10W/30 "SE" motor oil	Every 400 Km (250 mi.)						
	Remove/Clean/Lube/ Adjust				○		○		
Control/Meter cables	Apply thoroughly	Yamaha chain and cable lube or SAE 10W/30 motor oil			○	○		○	
Throttle grip/ Housing	Apply lightly	Lithium base grease	○			○			○
Tachometer/ Speedometer gear housing	Inspect thoroughly/ Pack moderately	Lithium base grease							○
Rear arm pivot shaft	Apply grease fully	Medium-weight wheel bearing grease			○		○		
Brake/Change pedal shaft	Apply lightly	Lithium base grease			○			○	
Stand shaft pivots	Apply lightly	Lithium base grease			○			○	

Item	Remarks	Recommended lubricants	Initial				Thereafter every		
			400 (250)	800 (500)	1,600 (1,000)	3,200 (2,000)	1,600 (1,000)	3,200 (2,000)	6,400 (4,000)
Front forks	Drain completely — Check specifications	Yamaha fork oil 20Wt							○
Steering balles/ Ball races	Inspect throughly/ Pack moderately	Medium-weight wheel bearing grease				check			○
Wheel bearings	Do not over-pack	Medium-weight wheel bearing grease				○	check	○	
Point cam lubri-cation wickes	Apply very lightly	Light-weight machine oil			○				○
Hydraulic brake fluid reserve (Front and rear)	Use new fluid only — See following note	DOT No. 3 Brake fluid	check	check	check	check	check		

NOTE:

Brake fluid replacement:

1. When disassembling the master cylinder or caliper cylinder, replace the brake fluid. Normally check the brake fuid level and add the fluid as required.
2. On the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years.
3. Repalce the brake noses every four years, or if cracked or damaged.

TO TIGHTEN BOLTS AND NUTS FOR A SAFE RIDING, PLEASE ASK YAMAHA DEALER NEAR BY FOR THE PROPER OPERATION

Engine oil

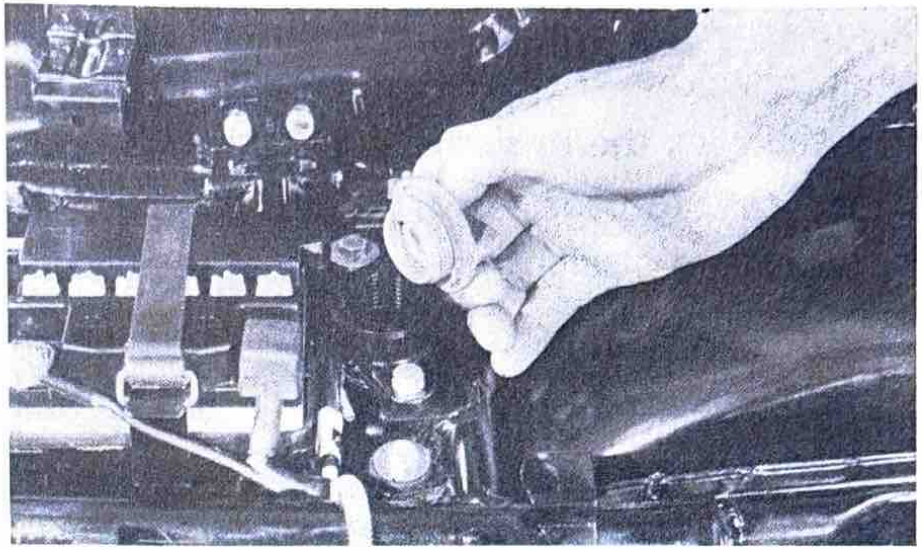
Engine oil is consumed along with gasoline in your engine.

Use the engine oils in the following list. We recommend Yamalube 2-cycle oil (available at most Yamaha dealers) but, if other oils are used, select from the following list which is given in order of preference.

1. 2-stroke engine oil labelled "BIA certified for service TC-W".
2. SAE 30 weight, detergent type automobile engine oil with an "SE" rating.
   This last oil should be used only as an emergency measure when 2-stroke oils are not available.

NOTE:

Oil visocity increases in very cold weather (where the normal temperature is below 0°C or 32°F) and oil does not flow as well. In such areas, consult your Yamaha dealer.



Transmission oil

The only servicing for you to do is to check and fill the transmission lubricating oil. The transmission dip stick is located right above the kickstarter. To check the level, warm the engine up for several minutes, screw the dip stick completely out and then just rest the stick in the hole.

NOTE:

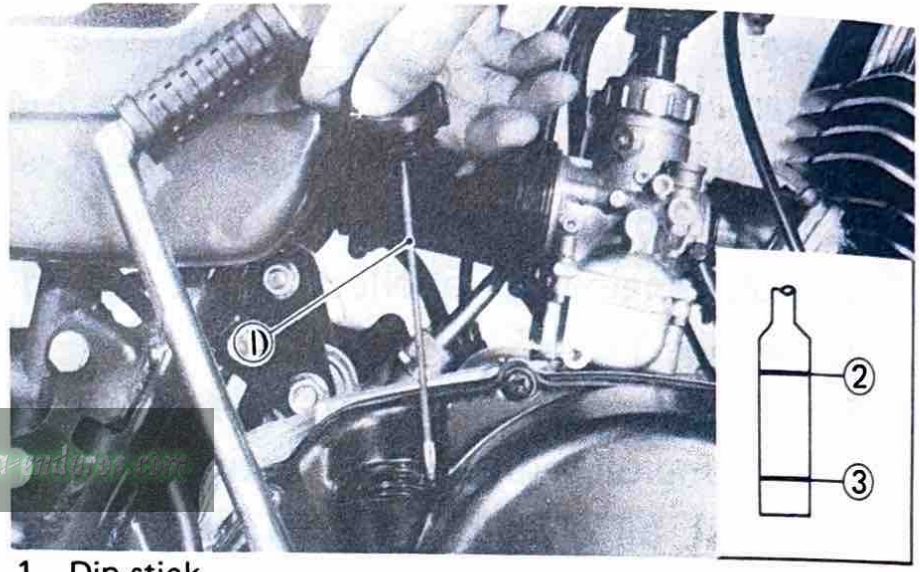
When checking transmission oil level with the dip stick, let the unscrewed dip stick just rest on the case threads. Also, be sure the machine is positioned straight up and on both wheels.

Recommended Oil:
Yamalube 4-cycle oil or SAE
10 W/30 type "SE" motor oil

Oil quantity:
1,450 ~ 1,550 cc
(1.53 ~ 1.64 US. qt)

The dip stick has a Minimum and a Maximum mark, and the oil level should be between the two. If the level is lower, then add sufficient oil to raise it to the proper level.

During the break-in period, you should replace the gear oil 30 days or 800 km (500 mi) after the date of first use.



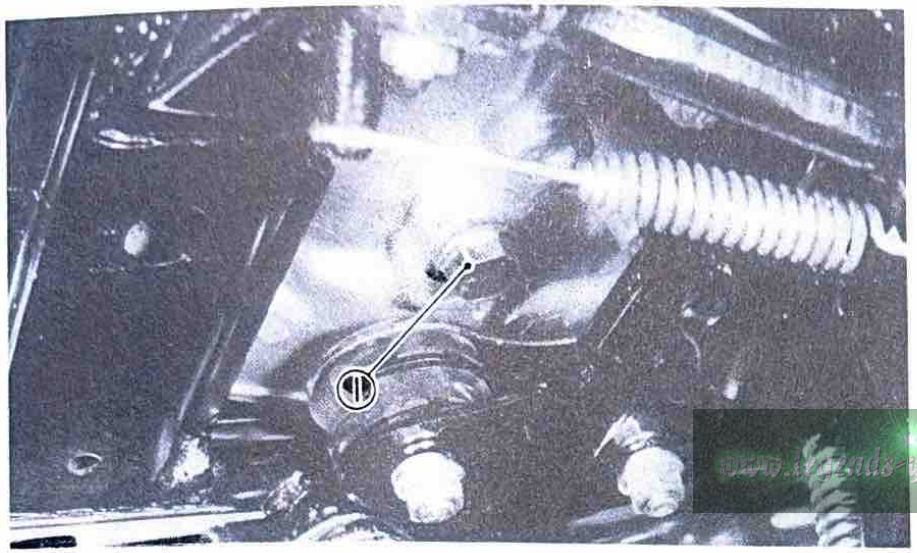
1. Dip stick
2. Maximum level
3. Minimum level

On the bottom of the engine there is a drain plug. Remove it and drain all the transmission oil out. Reinstall the drain plug (make sure it is tight). Add oil through the dip stick hole.

NOTE:

Do not add any chemical additives. Transmis-

sion oil also lubricates the clutch and additives could cause the clutch to slip.



1. Drain plug

Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug reflects the running condition of the engine.

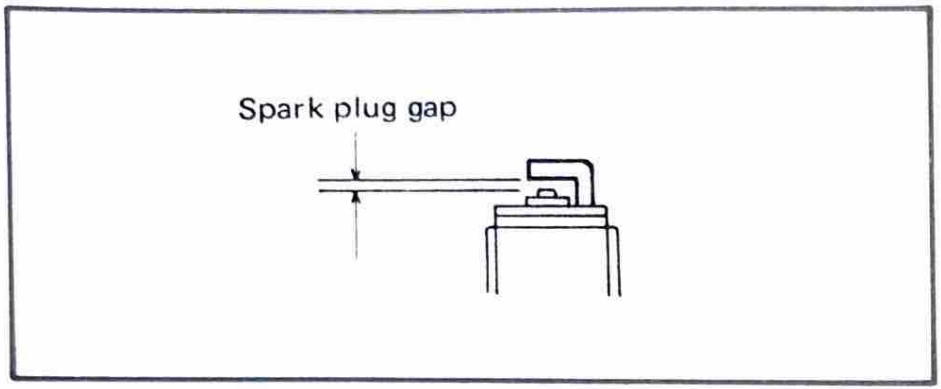
For example, a very white center electrode porcelain color could indicate an intake tract air leak or carburetion problem for that cylinder. Do not attempt to diagnose such problems youself. Instead, take the machine to your Yamaha dealer.

You should periodically remove and inspect the spark plug because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with one of the proper type.

Standard spark plug:
B8ES (N.G.K.)

Before installing any spark plug, measure the spark plug gap with a wire thickness gauge and adjust to specifications.

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



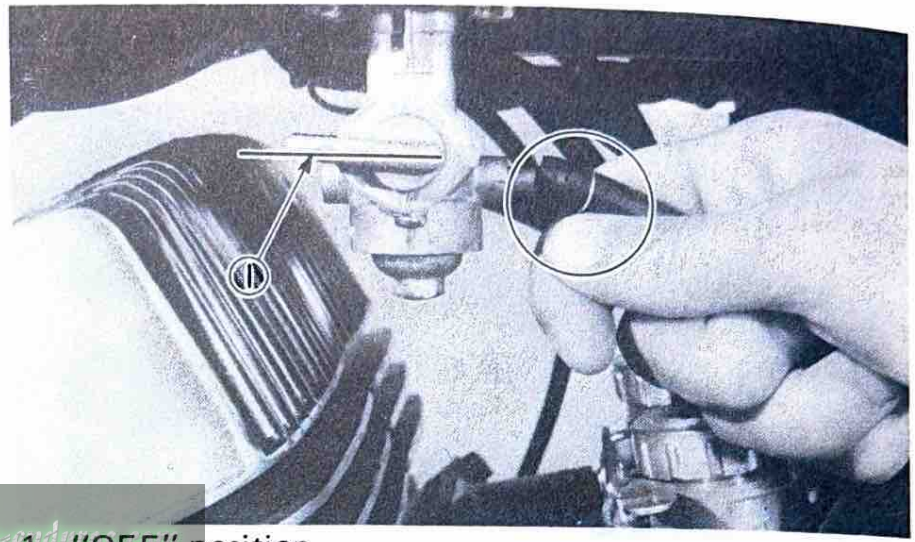
When installing the plug, always clean the gasket surface and use a new gasket. Wipe off any grime from the threads and torque the spark plug properly.

Spark plug torque:
2.0 m-kg (14.5 ft-lb)

Cleaning the air cleaner element

The air cleaner element filters dirt from the air entering the carburetor, keeping engine wear to an absolute minimum. This model uses a paper type element which provides very effective filtering action.

1. Turn the fuel cock lever to "OFF" position, and remove the fuel pipes.

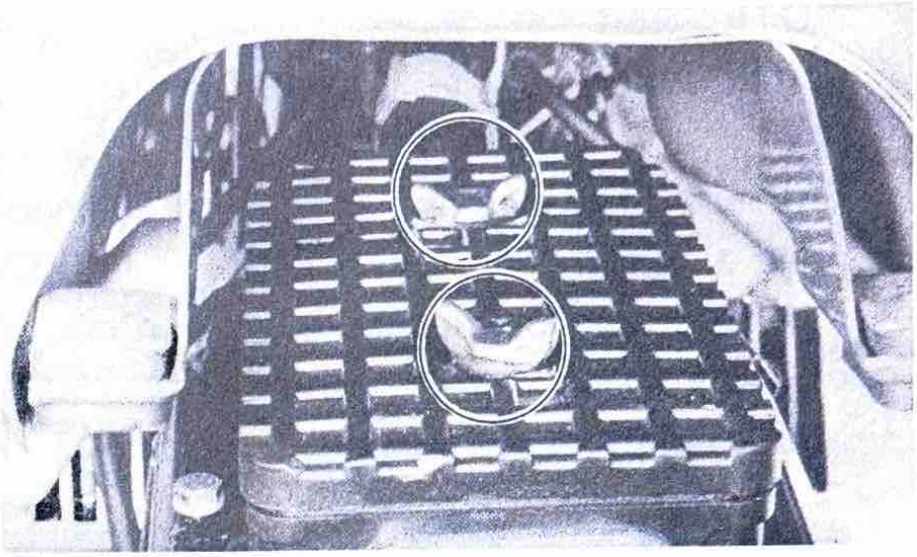


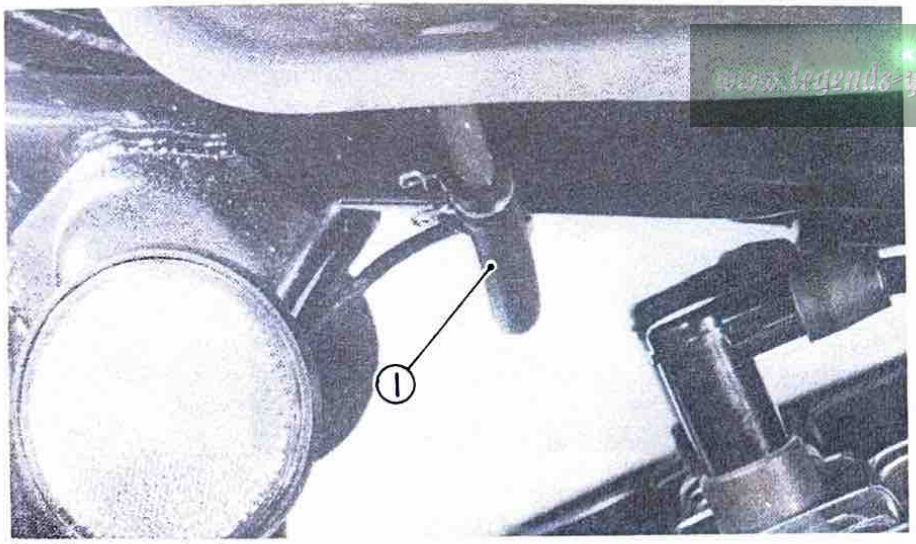
1. "OFF" position

2. Left the seat and remove the bolts (2) holding the fuel tank. Lift the tank.

CAUTION:

In this step take care that the fuel level pipe (front end of fuel tank) is not disconnected.





1. Fuel level pipe

3. Remove the air filter case cap by removing the wing nuts (2). Pull out the element.

4. Tap the element lightly to remove most of the dust and dirt; then blow out the remaining dirt with compressed air through the inner surface of the element. Be careful not to get oil or water on the filter paper. If element is wet, excessively dirty or damaged, replace.
5. Reassemble by reversing the removal procedure. Check whether the element is seated completely against the case.

NOTE:
Install the element as indicated.

6. The air filter element should be cleaned once a month or every 1,600 km (1,000 mi). It should be cleaned every ten hours or more often if the machine is operated in extremely dusty areas.

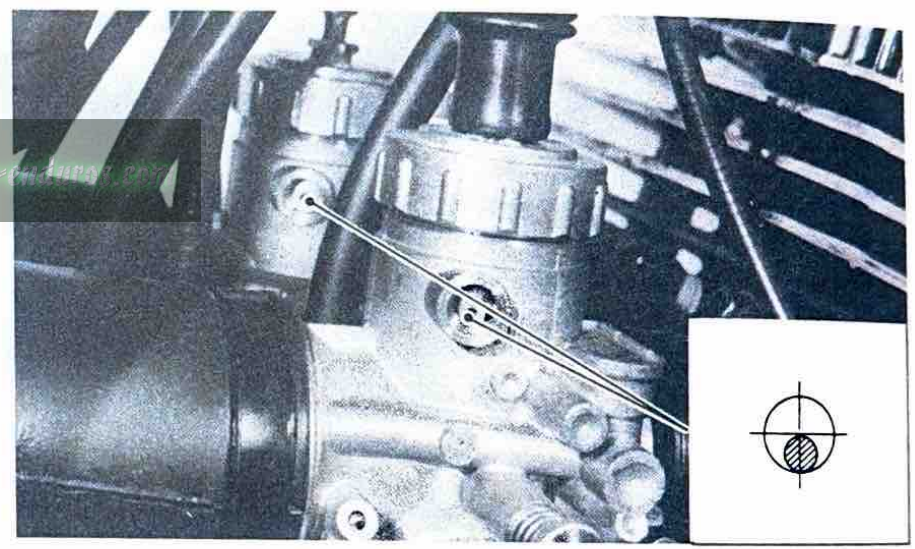
CAUTION:
The engine should never be run without the air cleaner element installed; excessive piston and/or cylinder wear may result.

Carburetor adjustment

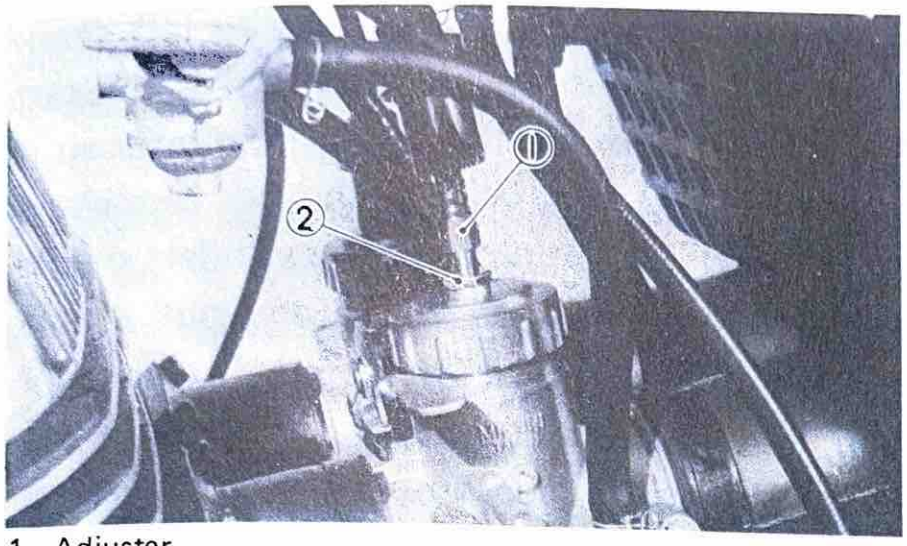
CAUTION:
The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed by someone not having appropriate technical knowledge, poor engine performance and damage may result.

Carburetor (throttle opening) adjustment

1. Remove the screws from the throttle opening adjusting ports of both right and left carburetors, and fully turn the throttle grip out.
2. Adjust the marks on the throttle slides in both carburetors to the positions as illustrated.



a. Loosen the lock nuts.
b. By turning the adjusters in or out, adjust the throttle slides to the same position.
c. Tighten the lock nuts.



1. Adjuster
2. Lock nut

3. Turn the throttle grip in once, and fully open it again. With the throttle grip in this position, check the position of both throttle slides.
4. Install the screws and tighten.

NOTE:

During this operation, take care so that not dust enters the carburetor.

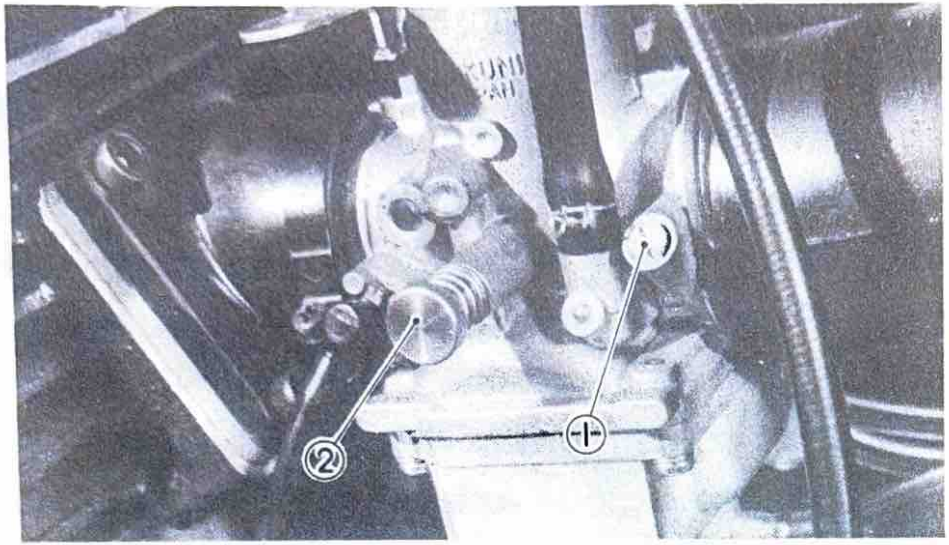
Idle mixture adjustment

The idle mixture adjustment controls the amount of mixture to the engine at low rpms. The idle mixture also insures smooth transition to the main circuit with no power loss or misfire; so it does affect midrange performance.

Make this adjustment as described below:

Tighten the idle mixture (pilot air) screw unit it lightly touches the seat; then back the screw out the specified number of turns (see illustration). This should be done with the engine stopped.

Standard pilot air screw setting (number of turns out): 1-1/2



1. Pilot air screw
2. Throttle stop screw

Idling rpm adjustment

Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2,000 rpm occasionally raising to 4,000 to 5,000 rpm for a few seconds. When the engine responds quickly, the warm up is complete. With the engine stopped, pull off the right spark plug high tension lead. Start the engine and set the left carburetor so it idles at 1,000 rpm.

Stop the engine and connect the left spark plug lead and disconnect the rigth lead. Start the engine and set the right carburetor so it idles at 1,000 rpm. With both leads connected and the engine running, both cylinders should be idling at the same speed and pull evenly as the engine speed is increased. If the engine rpm is too high at idle, back off both idle speed screws an even amount to specified engine rpm.

Standard idling rpm:
1,150 ± 50 rpm

NOTE:

If the specified idling speed cannot be obtained after performing the above adjustment, consult your Yamaha dealer.

Carburetor inspection

In addition to the above adjustment, check the following periodically:

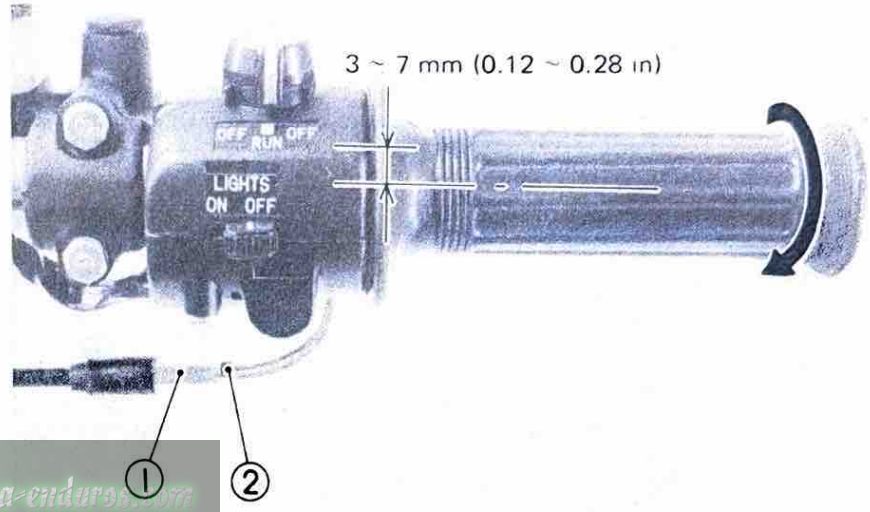
1. Are the carburetor holding screws loose?
2. Is the air vent pipe in the correct position?
3. Is the overflow pipe connected properly?
4. Is the mixing chamber top too loose?

Inspection and adjustment of throttle cable play

A throttle cable should always have some play. If too tight, a sharp turn any cause the engine speed to increase. On the other hand, if the throttle valve does not open fully when the throttle grip is fully turned, full speed is not possible.

Adjust as discribed below:

Check play in turning direction of throttle grip. The play should be 3 ~ 7 mm (0.12 ~ 0.28 in) at grip flange. Loosen the lock nut and turn the wire adjuster to make the necessary adjustment. After adjusting, be sure to tighten the lock nut properly.



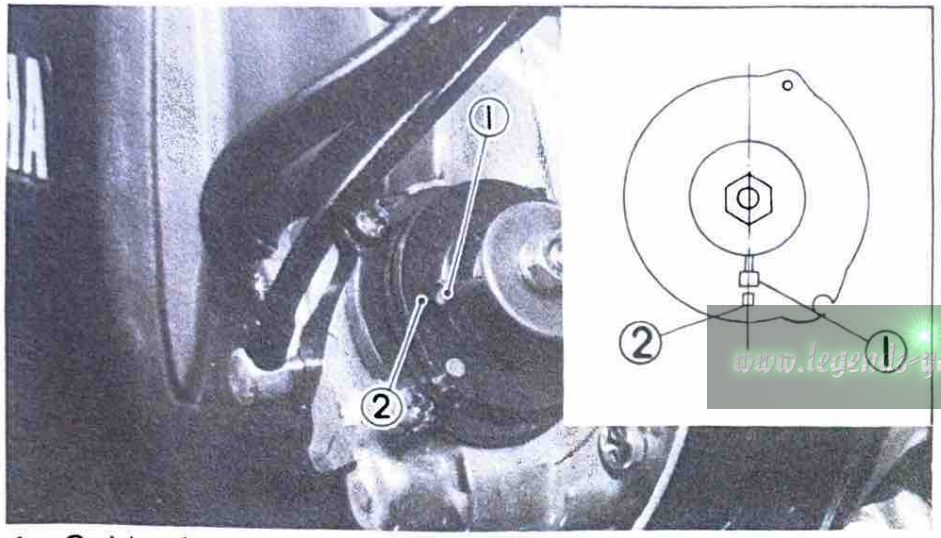
1. Adjuster
2. Lock nut

Autolube pump cable adjustment

NOTE:

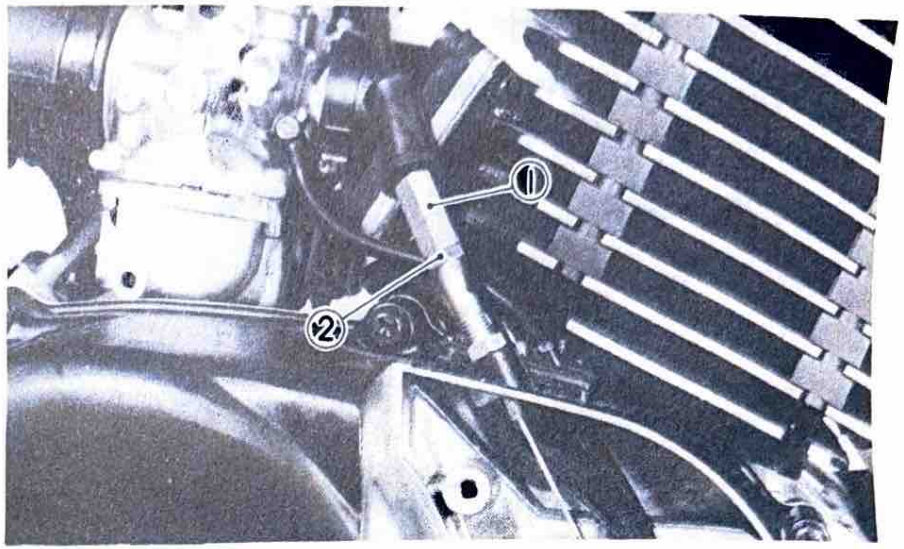
Prior to this adjustment, make sure that the throttle valve can be opened to the full-open position.

1. Fully open the throttle grip, and adjust the pump cable so that the mark on the pump adjusting pulley aligns with the adjusting pulley guide pin.



1. Guide pin
2. Mark

a. Loosen the lock nut.
b. By turning the adjuster in or out, adjust so that the pump marks are correctly aligned.
c. Tighten the lock nut.



1. Adjuster
2. Lock nut

2. Back off the throttle grip once, and fully open it again. Make sure that the pump cable is correctly adjusted.

Bleeding the Autolube pump

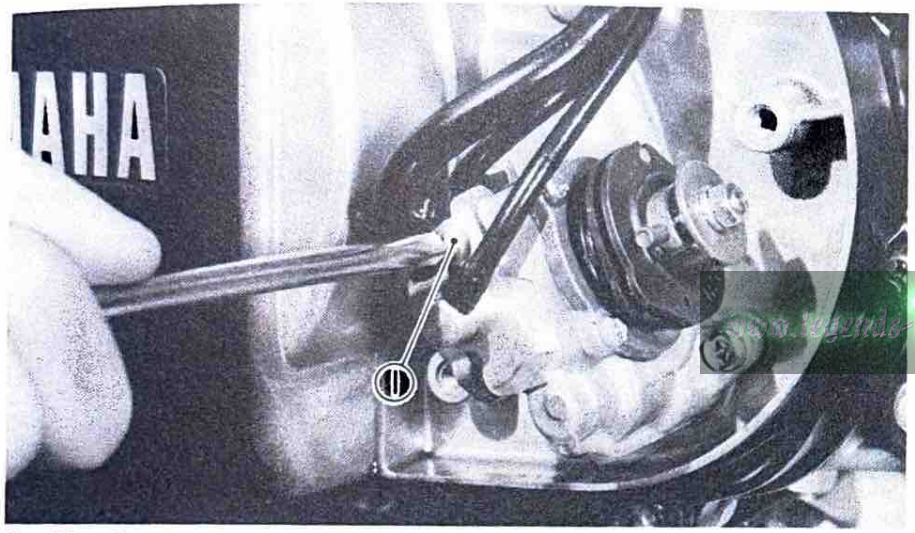
The Autolube Pump and delivery lines must be bled on the following occasions:

* Whenever the Autolube tank has run dry.

* Whenever any portion of the Autolube system is disconnected.

1. Bleeding the pump case and/or oil pipe

a. Remove the pump cover and remove the bleed screw.



1. Bleed screw

b. Keep the oil running out until air bubbles disappear.

c. When air bubbles are expelled completely, tighten the bleed screw and install the pump cover.

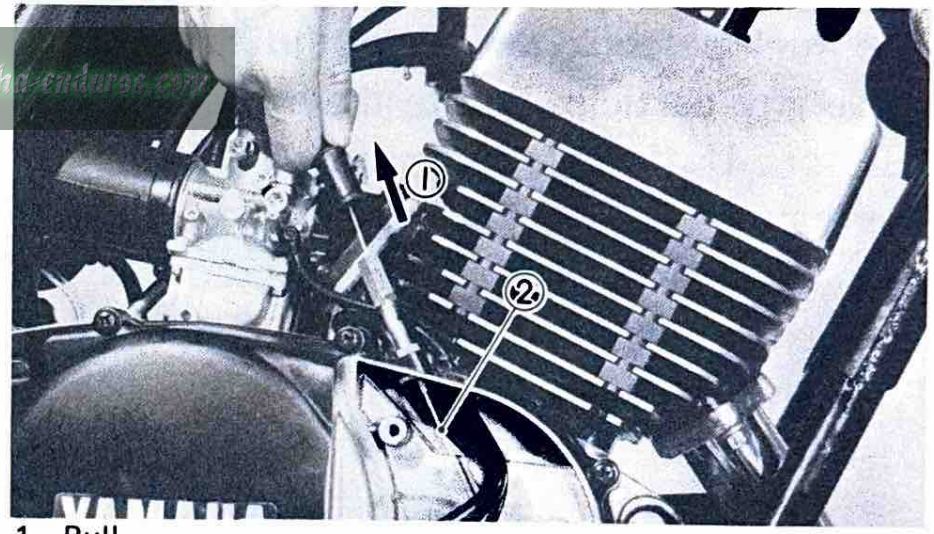
NOTE:

Check the bleed screw gasket, and if damaged, replace with a new one.

2. Bleeding the pump distributor and/or delivery pipe

a. Start the engine.

b. Pull the pump cable all the way out to set the pump stroke to a maximum.



1. Pull
2. Pump cable

NOTE:

It is difficult to bleed the distributor com-

pletely with the pump stroke at a minimum, and therefore the pump stroke should be set to a maximum.

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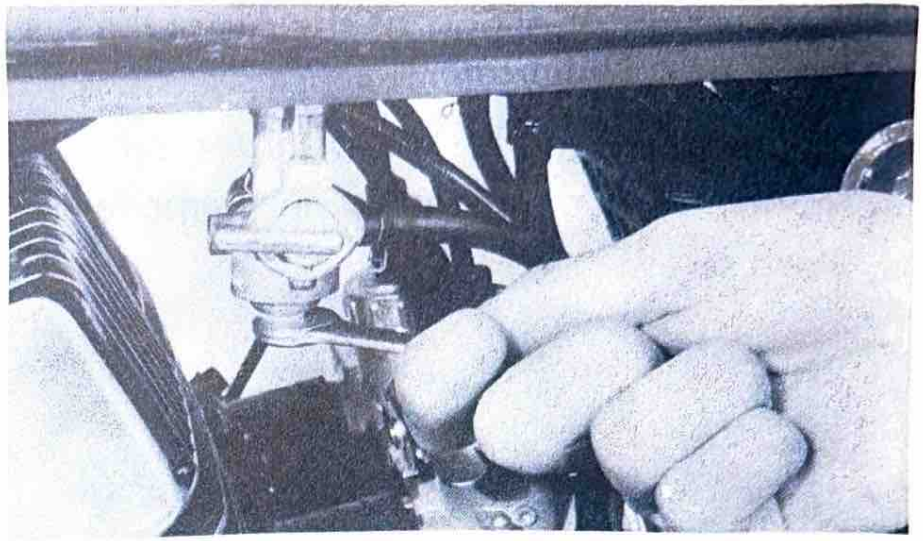
c. Keep the engine running at about 2,000 rpm for five minutes or so, and both distributor and delivery pipe can be completely bled.



Fuel petcock inspection and cleaning

The fuel petcock has a built-in filter to remove any particles before they reach the carburetor. If the filter becomes blocked, the fuel cannot enter the carburetor. To prevent this, inspection and cleaning should be done at recommended intervals.

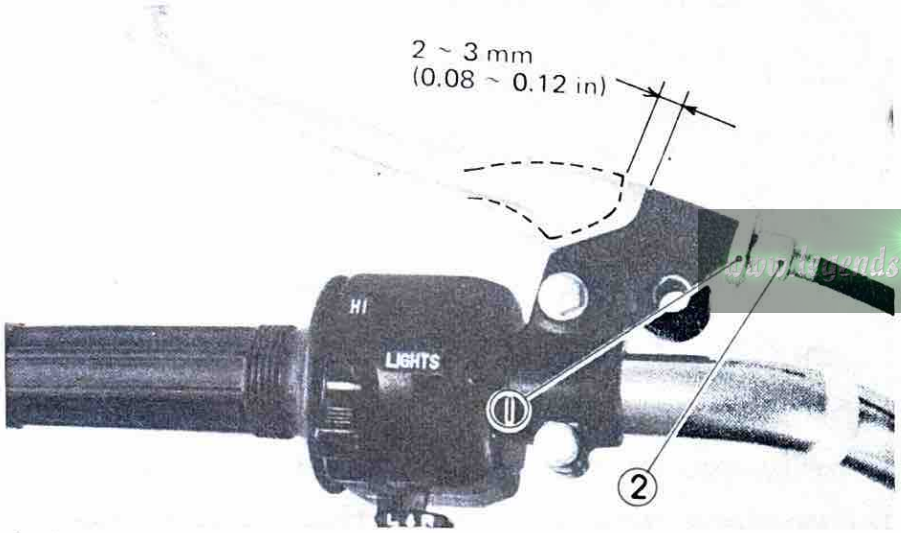
First, turn the petcock lever to the "OFF" position; then remove the filter cup and clean the bottom of the cup with solvent.

Clutch adjustment

This model has a clutch cable length adjuster and a clutch mechanism adjuster. The cable length adjusters are used to take up slack from cable stretch and to provide sufficient free play for proper clutch operation under various operating conditions. The clutch mechanism adjuster is used to provide the correct amount of clutch "throw" for proper disengagement. Normally, once the mechanism is properly adjusted, the only adjustment re-

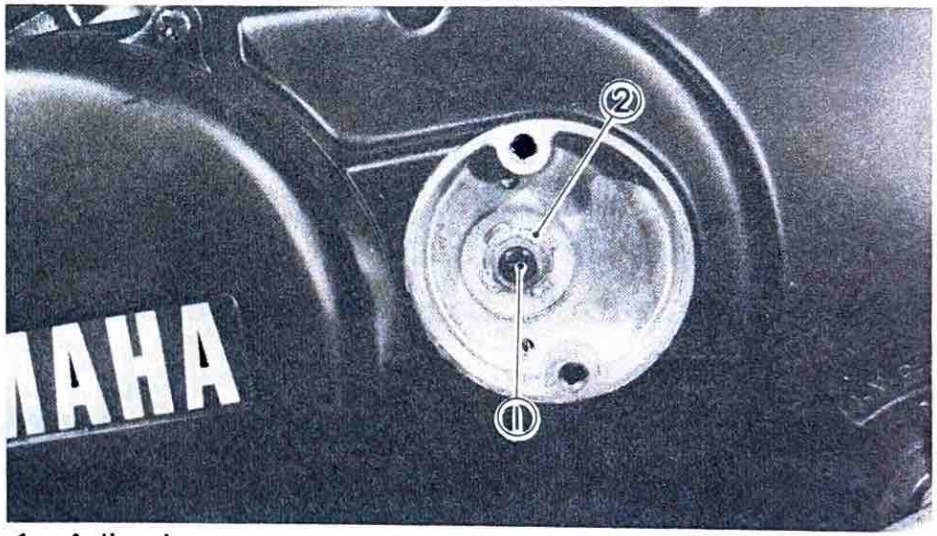
quired is maintenance of free play at the clutch handlebar lever.

1. Free play adjustment
   Loosen the handlebar adjuster lock nut. Next, turn the length adjuster in or out until proper lever free play is achieved.



1. Lock nut
2. Adjuster

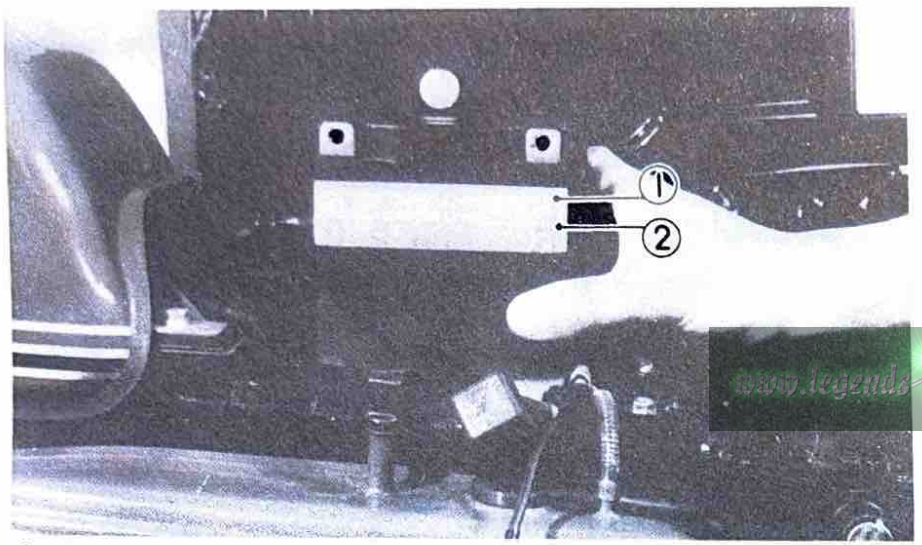
2. Mechanical adjustment
   The second adjustment is located behind the adjusting cover. Removing the cover will expose the adjusting set screw and lock nut.
   Loosen the lock nut, rotate the set screw in until it lightly seats against a clutch push rod that works with the set screw to operate the clutch. Back the set screw out 1/4 turn and tighten the lock nut. This adjustment must be checked because heat and clutch wear will affect this free play, possibly enough to cause incomplete clutch operation.
   Recheck clutch cable adjustment at handlebar after adjusting.



1. Adjusting screw
2. Lock nut

Battery

Check the level of the battery fluid and see if the terminals are tight. Add distilled water if the fluid level is low.



1. Upper level 2. Lower level

Replenishing the battery fluid

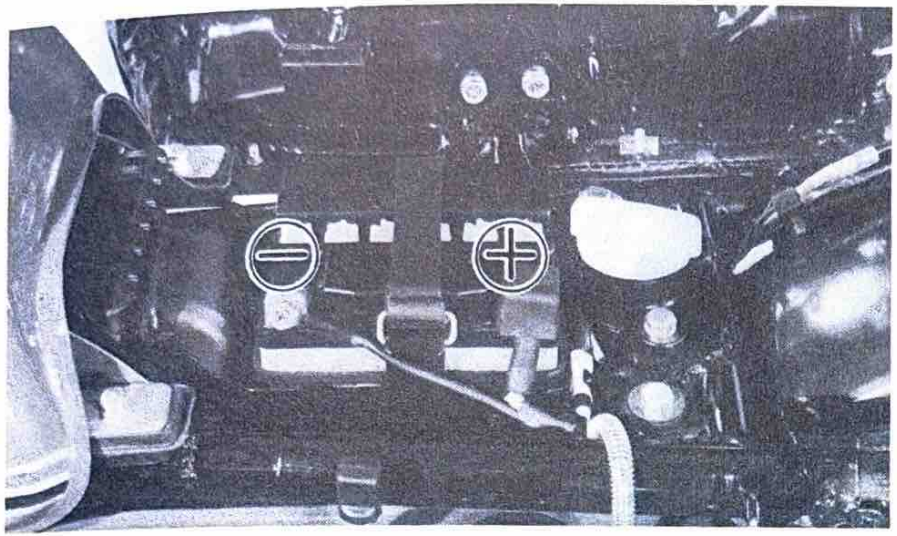
A poorly maintained battery will deteriorate quickly. The battery fluid should be checked at least once a month.

1. The 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. When the motorcycle is not to be used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reusing.
3. If the battery is to be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.
4. Always make sure the connections are correct when putting the battery back in the motorcycle. The red lead is for the + terminal and the black lead is for the – terminal. Make sure the breather pipe is properly connected and is not damaged or obstructed.



Eyes: Flush with water for 15 minutes and get prompt medical attention.
Batteries produce explosive gases.
Keep spraks, flame, cigarettes, etc. away.
Ventilate when charging or using in enclosed space. Always shield eyes when working near batteries.
KEEP OUT OF REACH OF CHILDREN.

WARNING:
Battery fluid is poisonous and dangerous, causing severe burns, etc. Contains sulfuric acid. Avoid contact with skin, eyes or clothing.
Anticote: EXTERNAL-Flush with water.
INTERNAL-Drink large quantities of water or milk. Follow with mild of magnesia, beaten egg or veg. oil.
Call physician immediately.

Brake adjustment

CAUTION:
For the brake adjustment, be sure to proceed as follows:
It is advisable to have your Yamaha dealer make this adjustment.

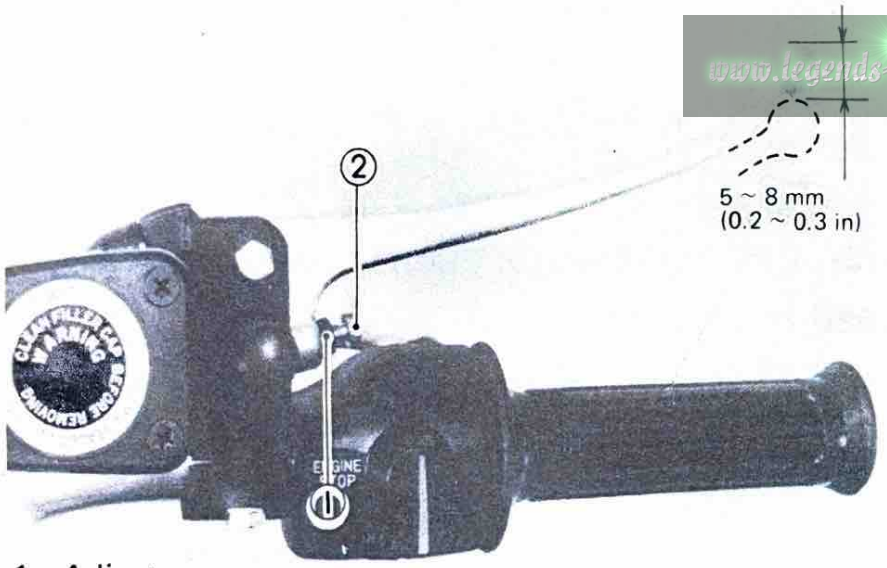
A. Front brake

The front brake lever should be so adjusted that it has a free play of 5 ~ 8 mm (0.20 ~ 0.30 in) at the lever end.

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

NOTE:

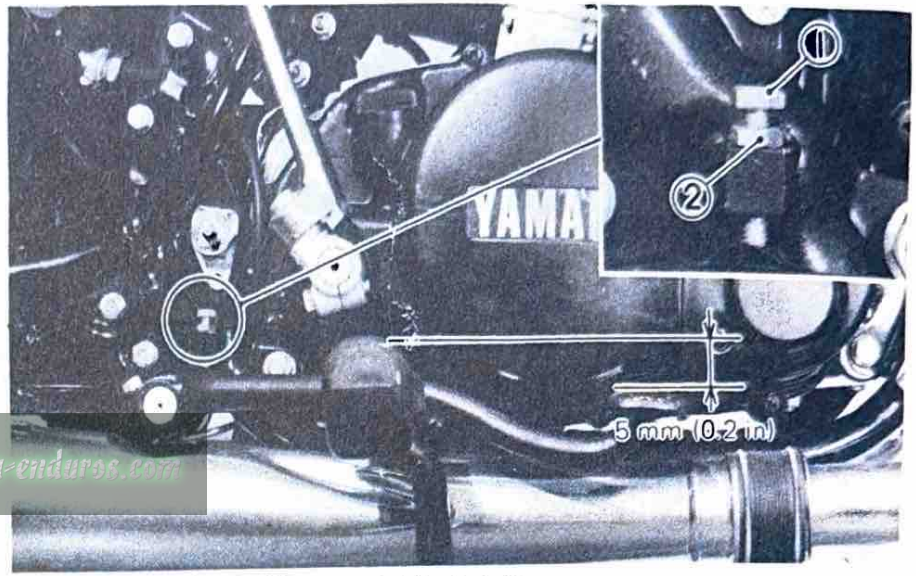
Check for correct play and make sure it is working properly.



1. Adjuster
2. Lock nut

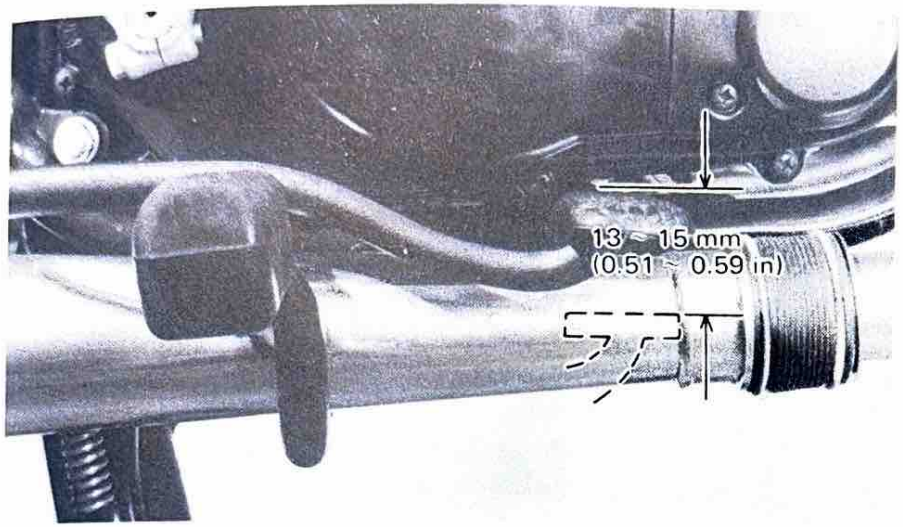
B. Rear brake

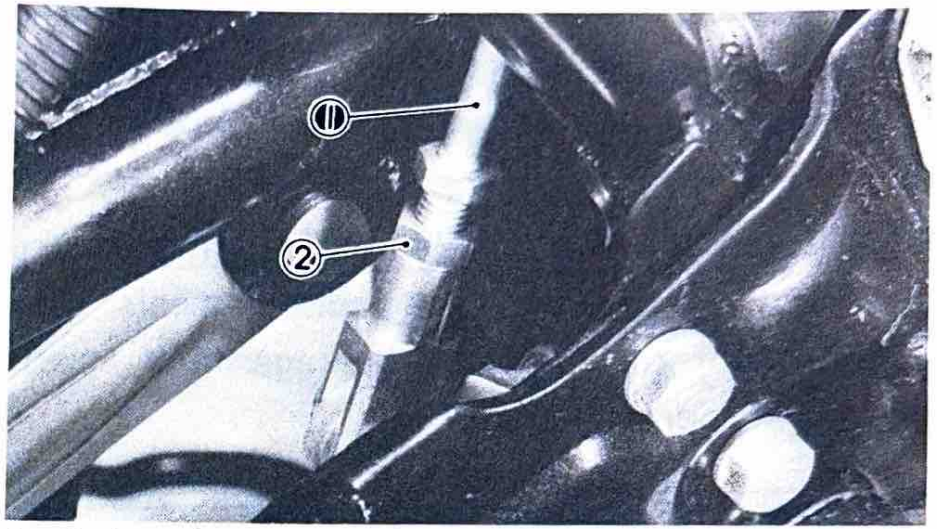
The rear brake pedal should be so adjusted that it has a free play of 13 ~ 15 mm (0.51 ~ 0.59 in) from when the brake pedal is trod to when the brake begins to be effected.



1. Adjuster bolt (for pedal height)
2. Lock nut

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 approx. 5 mm (0.2 in) below the foot rest top end.
3. Tighten the adjuster lock nut.





1. Brake rod
2. Lock nut

4. Loosen the brake rod adjuster lock nut and screw brake rod downward until there is noticeable free play between rod and master cylinder.
5. Turn in the brake rod until it lightly touches the master cylinder, then turn it out by approx. 1-1/2 turns (for proper free play).
6. Tighten the brake rod adjsuter lock nut.

CAUTION:

The pin hole mark on brake rod must not show above lock nut.

Brake fluid level (Front and Rear)

Insufficient brake fluid may allow air to enter the brake system, possibly causing the brakes to become ineffective.

Before driving, check the brake fluid level and replenish when necessary, and observe these precautions:

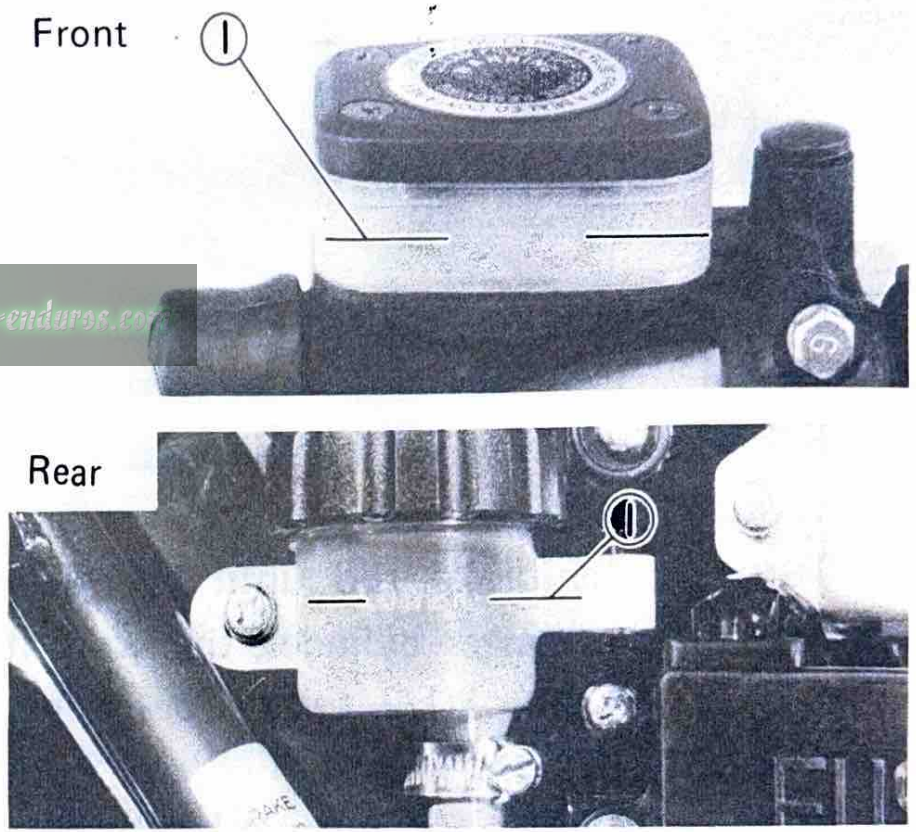
NOTE:

To inspect rear brake master cylinder remove right-hand side cover.

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

Recommended brake fluids:
DOT #3 with 240°C
(464°F) boiling point.

2. Refill with the same type of brake fluid; mixing fluids may result in a harmful chemical reaction and lead to poor performance.
3. Be careful that water or other contamination does not enter the master cylinder when refilling. Water will significantly lower the boiling point and may result in vapor lock.
4. Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.
5. Have a Yamaha dealer check if the brake fluid level goes down.



1. Lower level

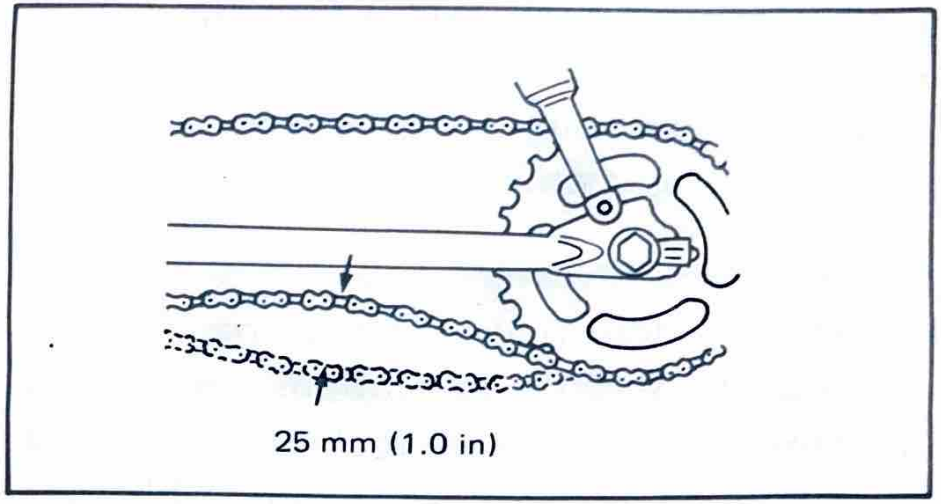
Brake fluid replacement

1. Complete fluid replacement should be done only by trained Yamaha service personnel.
2. Complete fluid replacement should be done whenever the caliper cylinder or master cylinder is disassembled, or the fluid becomes seriouly contaminated.
3. Have your Yamaha dealer replace the following components whenever damaged or leaking. Also:

a. Replace all brake seals every two years.
b. Replace all brake hoses every four years.

Drive chain tension check

Inspect the drive chain with both tires touching the ground. Check the tension at the position shown in the illustration. The normal vertical deflection is approximately 25 mm (1.0 in). If the deflection exceeds 25 mm (1.0 n) adjsust the chain tension.



Drive chain tension adjustment

1. Loosen the tension bar lock nut.
2. Remove the cotter pin of the rear wheel axle nut with pliers.
3. Loosen the rear wheel axle nut and caliper bracket shaft nut.
4. Loosen the adjusting bolt lock nuts on each side. To tighten chain turn chain puller adjusting bolts clockwise and pull wheel backward. To loosen chain turn adjusting bolts counterclockwise. Turn each bolt exactly the same amount to

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

NOTE:

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

5. After adjusting, be sure to tighten the lock nuts, rear wheel axle nut, caliper bracket shaft nut and tension bar lock nut.

Caliper bracket shaft nut torque:
6.5 m-kg (47.0 ft-lb)

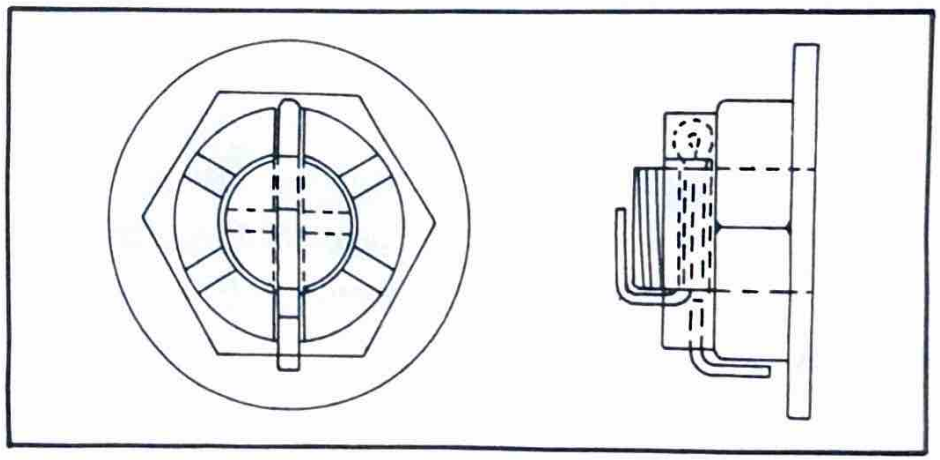
Rear wheel axle nut torque:
15.0 m-kg (108.5 ft-lb)

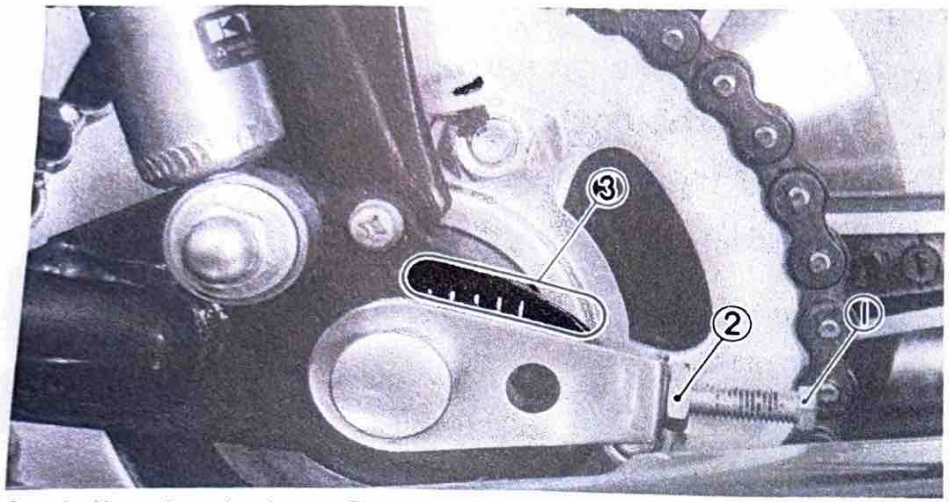
Tension bar lock nut torque:
1.8 m-kg (13.0 ft-lb)

6. Insert the cotter pin into the rear wheel axle nut and bend the end of the cotter pin as shown in the illustration (if the nut notch and the cotter pin hole do not match, loosen the nut slightly to match).

NOTE:

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.





1. Adjusting bolt 2. Lock not 3. Marks for align

Drive chain lubrication

The chain consists of many parts which work against each other. If the chain is not maintained properly, it will wear out rapidly. Without lubrication the chain could wear out within 1,000 km (600 mi); therefore, form the habit of periodically servicing the chain. This service is especially necessary when riding in dusty conditions.

1. Use any of the many brands of spray type chain lubricant. First, remove dirt and mud from the chain with a brush or cloth and then spray the lubricant between both rows of side plates and on all center rollers. This should be performed every 400 km (250 mi).

Cable inspection and lubrication

1. Damage to the outer housing of the various cables, may cause corrosion and often free movement will be obstructed. An unsafe condition may result so replace as soon as possible.
2. If the inner cables do not operate smoothly, lubricate or ask your Yamaha dealer to replace them.

Recommended lubricant:
SAE 10W/30 motor oil

Lubrication of lever, pedal, etc.

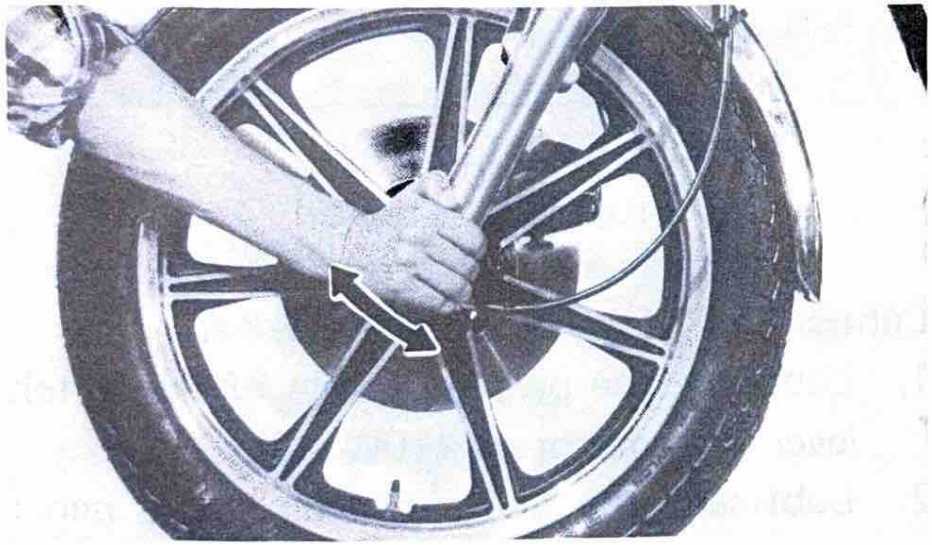
1. Lubricate the pivoting parts of the clutch lever with motor oil (10W/30).
2. Lubricate the shaft of the brake pedal with lithium soap grease.

Steering inspection

Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous.

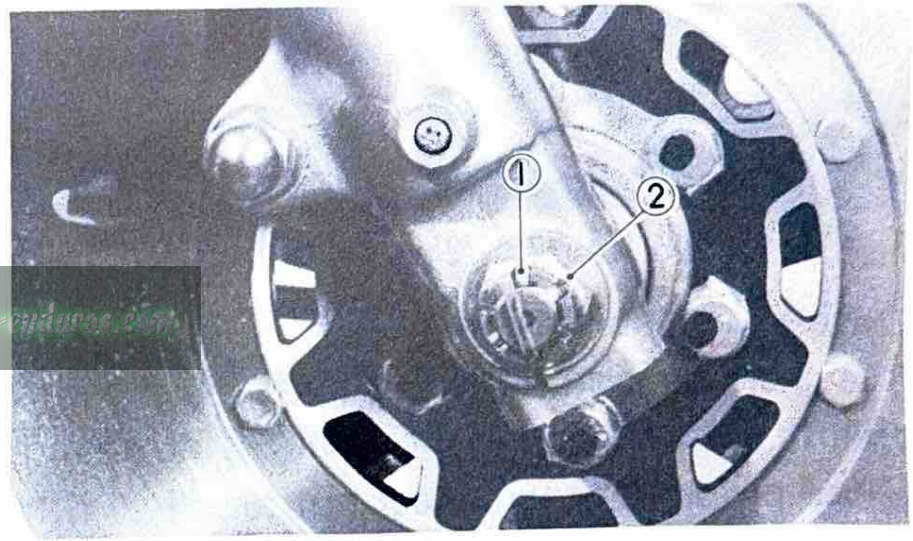
Place a block under the engine to raise the front wheel of the motorcycle off the ground; then hold the lower end of the front fork and try to move forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust.

Inspection is easier if the front wheel is removed.



Front wheel removal

1. Place machine on center stand.
2. Remove the cotter pin and wheel nut.
3. Loosen front wheel axle holder nuts (Do not remove axle holder).

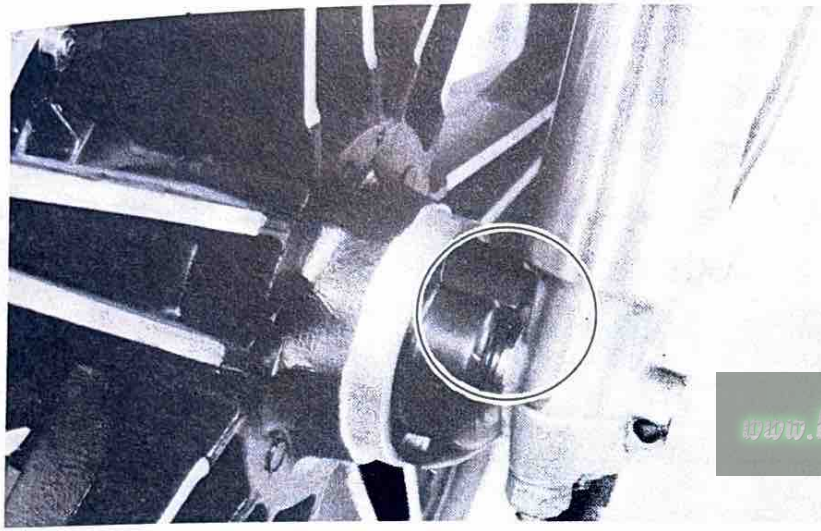


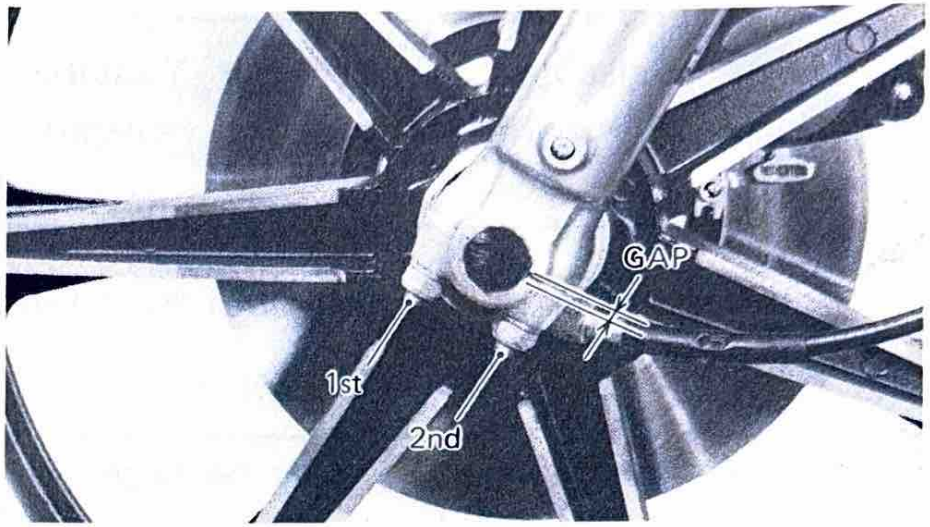
1. Cotter pin
2. Axle nut

4. Make sure the motorcycle is properly supported. Remove front axle and front wheel.
5. During reassembly, check the following:

a. Make sure there is an enough gap between disc pads.

b. Make sure the projecting portion (torque stopper) of the speedometer housing is positioned correctly.





c. The axle holder nuts should be tightened in the sequence as shown. Make sure the axle nut is properly torqued and a new safety cotter pin is installed.

Axle nut torque:
10.5 m-kg (76.0 ft-lb)

Axle holder nut torque:
1.5 m-kg (11.0 ft-lb)

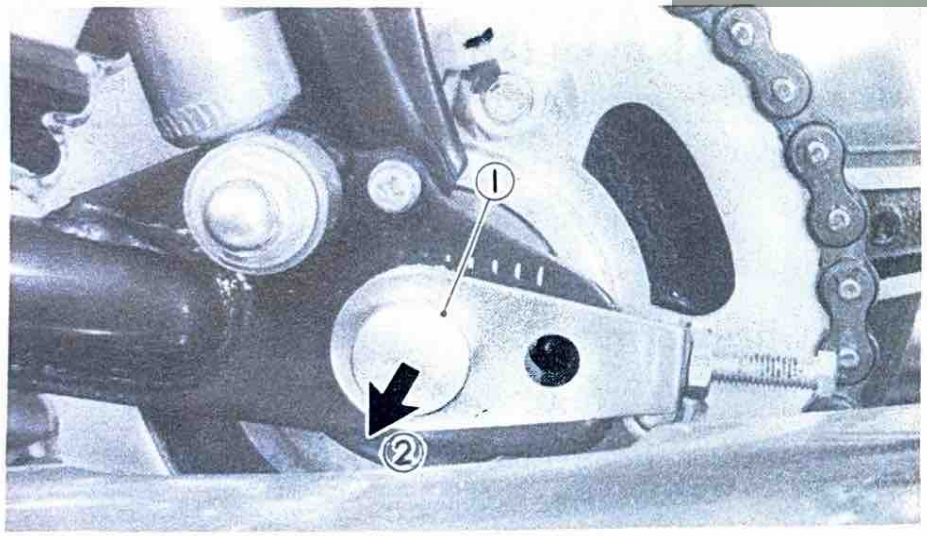
Rear wheel removal

1. Place machine on center stand.
2. Remove drive chain with drive chain cutter.

CAUTION:

It is advisable to have your Yamaha dealer make this removal and reassembly.

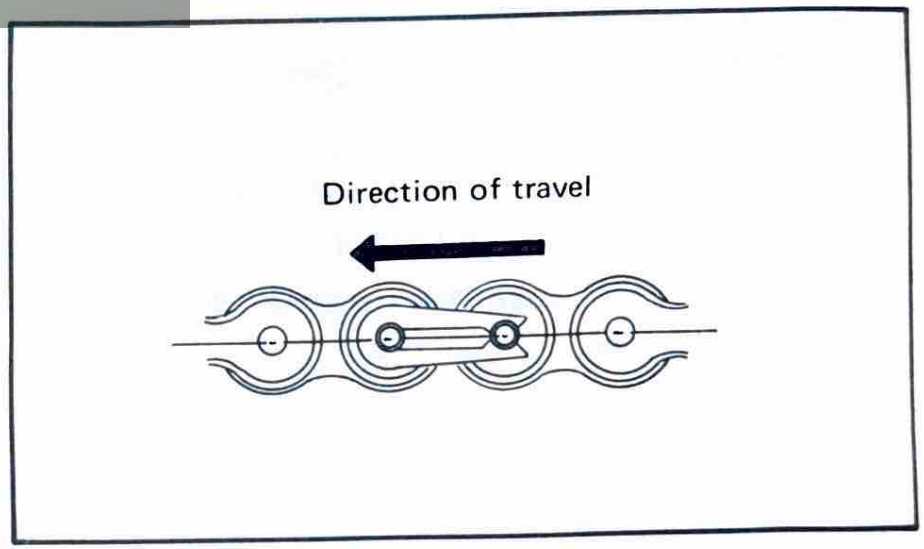
3. Remove cotter pin and axle nut from rear axle.
4. Remove rear axle.
5. Remove rear wheel. It may be necessary to raise the rear of the motorcycle to clear the caliper assembly.



1. Rear axle 2. Pull

6. Reassemble in reverse order. Make sure there is an enough gap between the disc pads. Make sure drive chain master link is correctly installed with rounded end in direction of chain travel. Make sure the axle nut is properly torqued. Install a new safety cotter pin.

Axle nut torque:
15.0 m-kg (108.5 ft-lb)

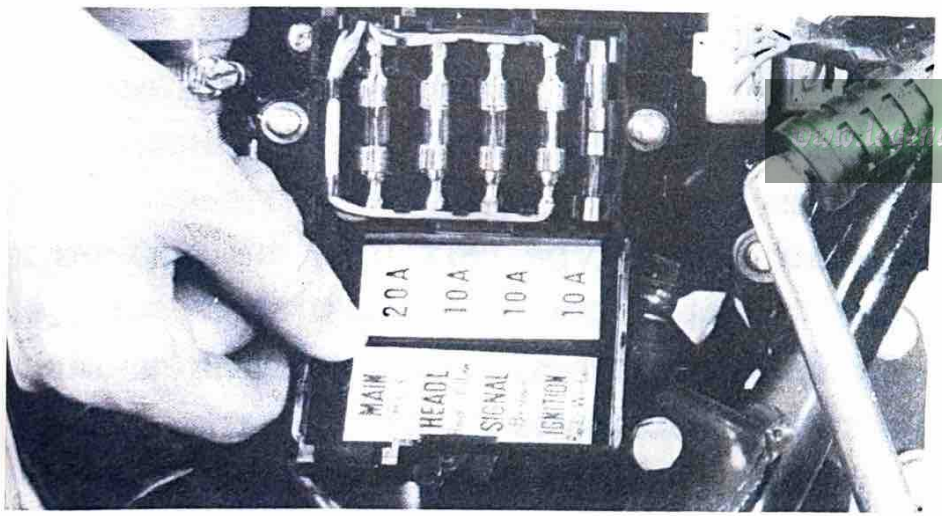


Replacing the headlight bulb

This motorcycle is equipped with a sealed beam headlight. If the headlight burns out, ask your Yamaha dealer for a lens unit replacement and adjustment.

Fuse replacement

1. The fuse block is located in the side cover (R.H).



2. If any fuse is blown, turn off the ignition switch and the switch in the circuit in question and install a new fuse of proper amperage.

Then turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, consult your Yamaha dealer.

CAUTION:

Do not use fuses of a higher amperage rating than those recommended.

CLEANING AND STORAGE

A. CLEANING

Frequent thorough cleaning of your motorcycle will not only enchance its appearance but will improve general performance and extend the useful life of many components.

1. Before cleaning the machine:
   a) Block off end of exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.

b) Remove air cleaner or protect it from water with plastic covering.
c) Make sure spark plug(s), gas cap, oil tank cap, transmission oil filler cap are properly installed.

2. If engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to chain, sprockets, or wheel axles.
3. Rinse dirt and degreaser off with garden hose, using only enough hose pressure to do the job. Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks and transmission seals. Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washes.
4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old tooth brush or bottle brush is handy to reach hard-to-get-to places.
5. Rinse machine off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
6. Immediately after washing, remove excess moisture from chain and lubricate to prevent rust.
7. Chrome-plated parts such as handlebars, forks, etc., may be further cleaned with automotive chrome cleaner.
8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
9. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar paint or protective finish on fuel and oil tanks.
10. After finishing, start the engine immediately and allow to idle for several minutes.

B. STORAGE

Long term storage (30 days or more) of your motorcycle will require some preventive procedures to insure against deterioration. After cleaning machine thoroughly, prepare for storage as follows:

1. Drain fuel tank, fuel lines, and carburetor float bowl(s).
2. Remove empty fuel tank, pour a cup of 10W to 30W oil in tank, shake tank to coat inner surfaces thoroughly and drain off excess oil. Re-install tank.
3. Remove spark plug(s), pour about one tablespoon of 10W to 30W oil in spark plug hole(s) and re-install spark plugs. Kick engine over several times (with ignition off) to coat cylinder walls with oil.
4. Remove drive chain. Clean thoroughly with solvent and lubricate. Re-install chain or store in a plastic bag (tie to frame for safe-keeping).
5. Lubricate all control cables.
6. Block up frame to raise both wheels off ground. (Main stands can be used on machines so equipped.)
7. Tie a plastic bag over exhaust pipe outlet(s) to prevent moisture entering.
8. If storing in humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or seat cover.

Remove battery and charge. Store in a dry place and re-charge once a month. Do not store battery in an excessively warm or cold place (less than 32°F or more than 90°F).

NOTE:

Make any necessary repairs before storing the motorcycle.

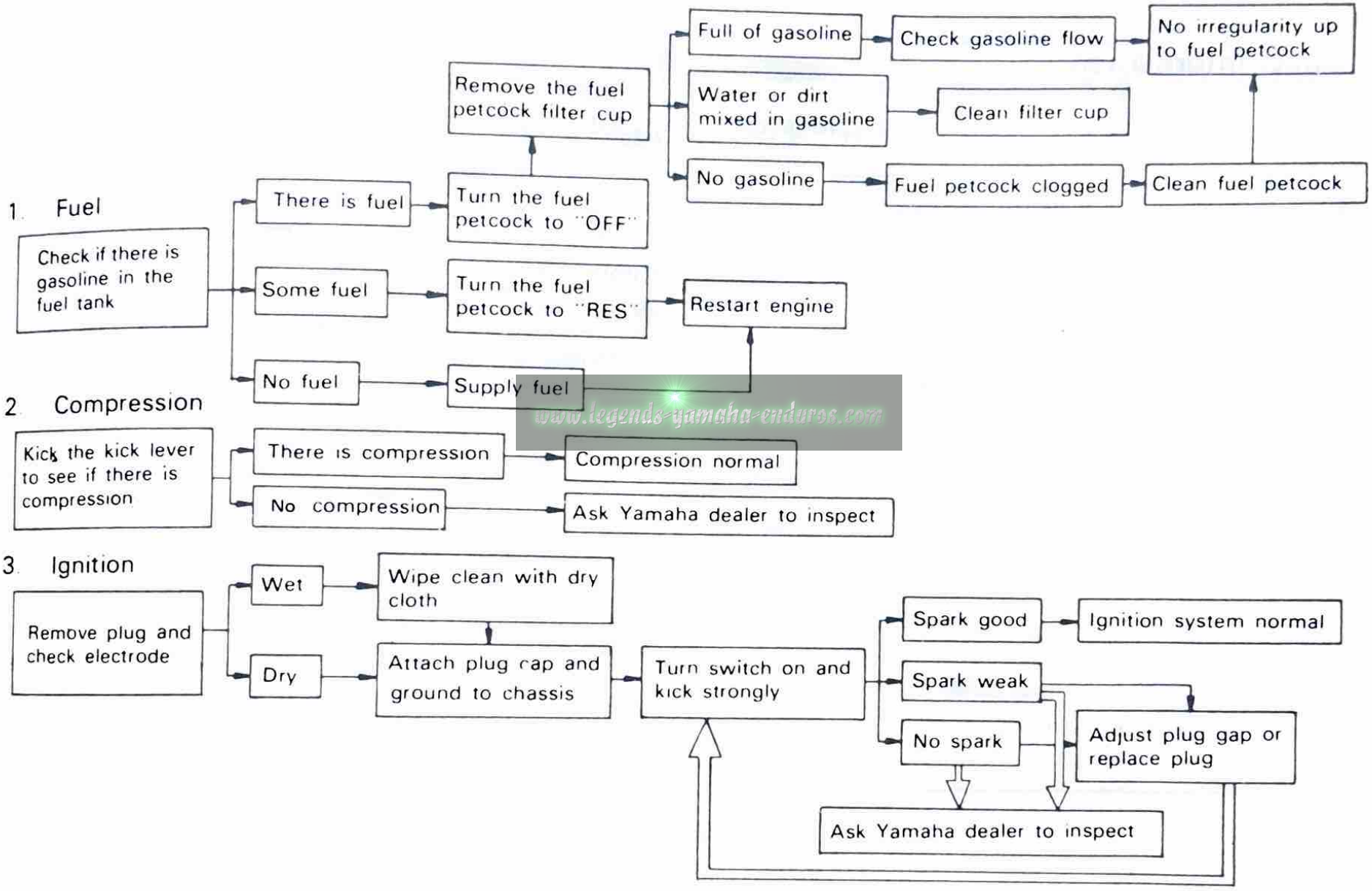
Troubleshooting

Although Yamaha motorcycles are given a rigid inspection before shipment from the factory, trouble may occur in operation. If this happens, check the motorcycle in accordance with the procedures given in the troubleshooting chart below. If repair is necessary, ask your Yamaha dealer.

The skilled technicians at your Yamaha dealer provide excellent service. For replacement parts, use only genuine Yamaha Parts. Imitation parts are simmilar in shape but often inferior in quality of materials and workmanship, consequently, service life is shorter and more expensive repairs may be necessitated.

Any fault in the fuel, compression or ignition systems can cause poor starting or loss of power while driving. The troubleshooting chart describes quick and easy procedures for checking these systems.

Troubleshooting chart



MISCELLANEOUS

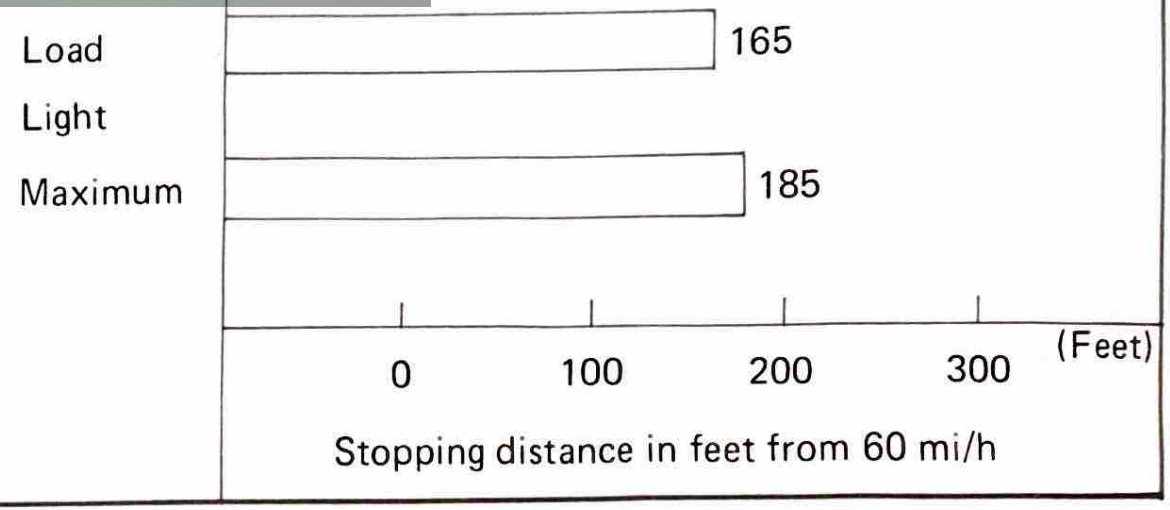
Consumer information

STOPPING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.

Description of vehicles to which this table applies Yamaha motorcycle RD400E

A. Fully Operational Service Brake



ACCELERATION AND PASSING ABILITY

This figure indicates passing times and distances that can be met or exceeded by the vehicles to which it applies, in the situations diagrammed below.

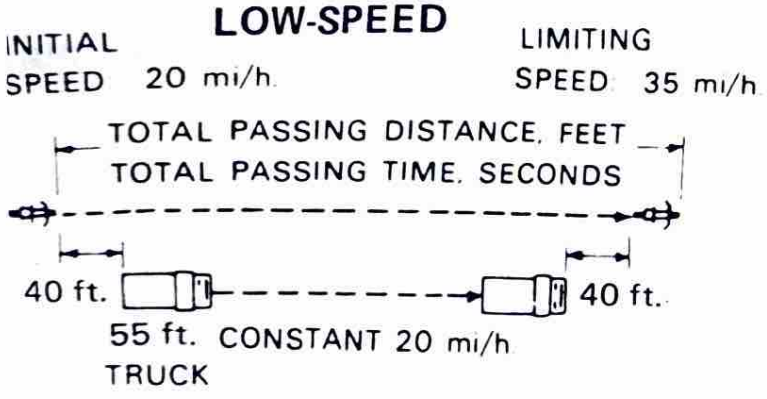
The low-speed pass assumes an initial speed of 20 mi/h and a limiting speed of 35 mi/h. The high-speed pass assumes an initial speed of 50 mi/h. and a limiting speed of 80 mi/h.

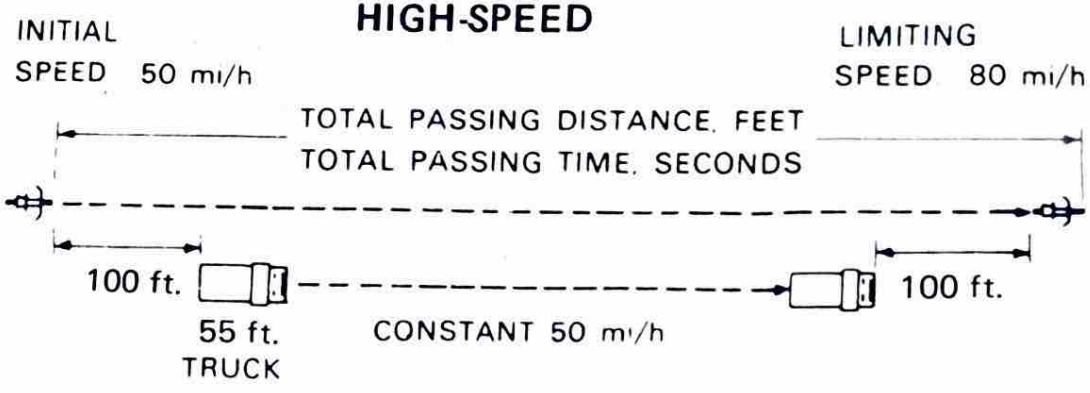
NOTICE: The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicles to which this table applies- Yamaha motorcycle RD-400E

Summary table

Low-speed pass . . . . . 350 feet: 7.1 seconds
High-speed pass . . . . . 970 feet: 9.7 seconds





WARRANTY INFORMATION

Please refer to your copy of the Yamaha Owner's Warranty Guide* for details of the warranty offered on your new Yamaha.

The Warranty Guide contains the warranty policy, an explanation of the warranty, and other important information. Becoming familiar with these policies will be to your advantage in making the best use of Yamaha's warranty programs.

There are certain requirements which you must meet in order to qualify for warranty coverage. FIRST, your new Yamaha must be operated and maintained properly, as explained in this manual. If you have any questions about any procedure in this manual, please consult your dealer. ABUSE AND NEGLECTED MAINTENANCE MAY LEAD TO MECHANICAL FAILURES WHICH CANNOT BE COVERED UNDER WARRANTY.

SECOND, IF ANY PROBLEMS OCCUR WHICH YOU FEEL SHOULD BE COVERED UNDER WARRANTY, NOTIFY YOUR DEALER IMMEDIATELY. Don't delay, as small problems left unrepaired can become large problems which may not be covered under warranty.

We recommend that the Warranty Guide be used as a folder in which you may keep your registration and other important documents related to your new Yamaha.

* The Yamaha Owner's Warranty Guide is to be supplied by your Yamaha dealer at the time of purchase. If you did not receive one, or have lost yours, you may obtain extra copies upon request from your Yamaha dealer or by writing to:

YAMAHA MOTOR CORPORATION, U.S.A.
P.O. Box 6620
Buena Park, California 90620
Attn: Warranty Department

SPECIFICATION

GENERAL SPECIFICATIONS

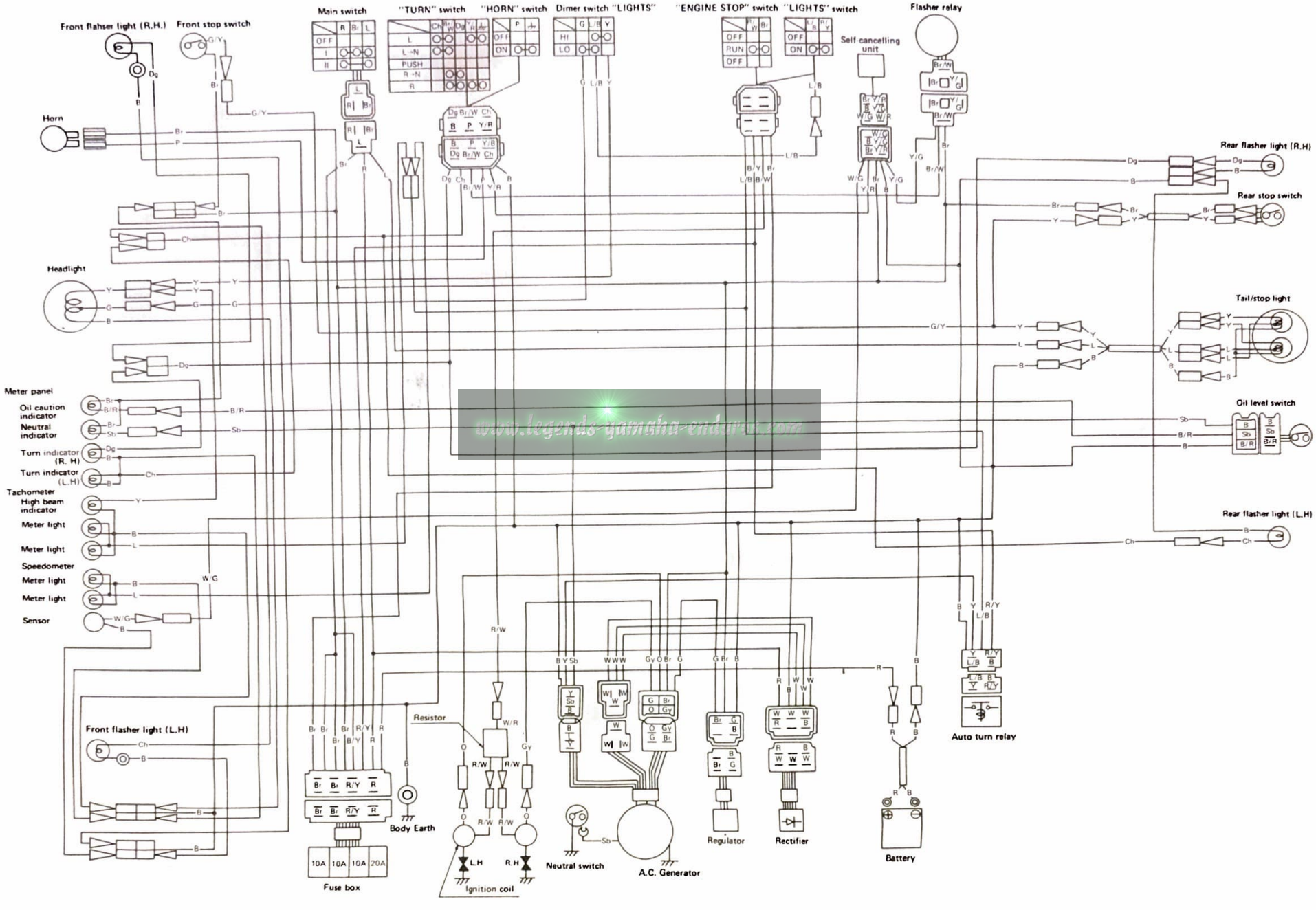
Model	RD400E
Dimension:	
Overall length	2.005 mm (78.9 in)
Overall width	830 mm (32.7 in)
Overall height	1,090 mm (42.9 in)
Wheelbase	1,315 mm (51.8 in)
Minimum road clearance	155 mm (6.1 in)
Weight:	
Dry	155 kg (342 lb)
Performance:	
Minimum turning radius	2,310 mm (90.9 in)
Climbing capacity	28°
Engine:	
Type	2 stroke gasoline, air cooled
Engine model	1A1
Cylinder	Twin in parallel, Forward Inclined, "Torque induction" system
Displacement	398 cc (24.29 cu. in)
Bore and Stroke	64 mm x 62 mm (2.520 in x 2.441 in)
Compression ratio	6.2 : 1

Model		RD400E
Starting system		Kick starter (Primary kick)
Ignition system		Battery ignition
Gasoline tank capacity		13 lit (3.4 US. gal)
Oil tank capacity		1.8 lit (1.9 US. qt)
Transmission oil capacity		Periodic oil change: 1,500 cc (1.6 US. qt)
Lubricating system		Separate lubricant (Yamaha Autolube)
Battery type/Capacity		AYT2-12/12V, 5.5AH
Generator system		A.C. Generator
Spark plug		B-8ES N.G.K.
Carburetor		VM28SC
Air cleaner		Dry, paper filter
Clutch type		Wet, multiple disc
Transmission:		
Primary reduction system		Helical gear
Primary reduction ratio		66/23 (2.869)
Secondary reduction system		Chain
Secondary reduction ratio		38/17 (2.235)
Gear box type		Constant mesh, 6-speed forward
Operating system/Type		Left foot operation/Return
Gear ratio:	First	36/14 (2.571)
	Second	32/18 (1.777)
	Third	29/22 (1.318)
	Fourth	26/24 (1.083)

Model		RD400E
	Fifth	25/26 (0.961)
	Sixth	24/27 (0.888)
Chassis:		
Frame type		Double cradle type
Steering:	Caster	27° 30′
	Trail	109 mm (4.33 in)
Tire size:	Front	3.25S18 – 4PR
	Rear	3.50S18 – 4PR
Braking system:	Front	Hydraulic disc brake/Right hand operation
	Rear	Hydraulic disc brake/Right foot operation
Suspension:	Front	Telescopic fork
	Rear	Swing arm
Shock absorber:	Front	Coil spring, oil damper
	Rear	Coil spring, oil damper
Electrical:		
Headlight (High/Low beam)		12V, 40W/30W
Tail/Stoplight		12V, 3CP/32CP (8W27W)
Flasher light		12V, 27W
Pilot lights:	Flasher	12V, 3.4W
	High beam	12V, 3.4W
	Neutral	12V, 3.4W
	Oil caution	12V, 3.4W
Meter light		12V, 3.4W

MEMO

RD400E CIRCUIT DIAGRAM



Color Code

R . . . . . .Red	Gy . . . . . .Grey
Br . . . . . .Brown	W . . . . . .White
L . . . . . .Blue	R/Y . . . . . .Red/Yellow
Dg. . . . . .Dark green	B/R . . . . . .Black/Red
B . . . . . .Black	W/G. . . . . .White/Green
P . . . . . .Pink	R/W. . . . . .Red/White
Y . . . . . .Yellow	Br/W . . . . .Brown/White
G . . . . . .Green	Y/G. . . . . .Yellow/Green
Ch. . . . . .Dark brown (Chocolate)	W/R. . . . . .White/Red
	Y/R . . . . . .Yellow/Red
Sb. . . . . .Sky blue	L/B . . . . . .Blue/Black
O . . . . . .Orange	

MEMO

SINCE 1887

YAMAHA MOTOR CO.,LTD.

IWATA, JAPAN

LIT-11626-00-73

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