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OWNER'S MANUAL

**RT**

**RT100M**

LIT-11626-13-15

3UL-28199-1C

Congratulations on your purchase of the Yamaha RT100. This model is the result of Yamaha's vast experience in the production of fine sporting, touring, and pacesetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will give you an understanding of the operation, inspection, and basic maintenance of this machine. If you have any questions about the operation or maintenance of your machine, please consult a Yamaha dealer.

# IMPORTANT MANUAL INFORMATION

EAUG0063

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



The Safety Alert Symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



Failure to follow **WARNING** instructions could result in severe injury or death to the machine operator, a bystander or a person inspecting or repairing the machine.

**CAUTION:**

A **CAUTION** indicates special precautions that must be taken to avoid damage to the machine.

**NOTE:**

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

## **NOTE:**

- This manual should be considered a permanent part of this machine and should remain with it even if the machine is subsequently sold.
- Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your machine and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.

# IMPORTANT MANUAL INFORMATION

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## WARNING

PLEASE READ THIS MANUAL AND THE “YOU AND YOUR MOTORCYCLE: RIDING TIPS” BOOKLET CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MACHINE. DO NOT ATTEMPT TO OPERATE THIS MACHINE UNTIL YOU HAVE ATTAINED A SATISFACTORY KNOWLEDGE OF ITS CONTROLS AND OPERATING FEATURES AND UNTIL YOU HAVE BEEN TRAINED IN SAFE AND PROPER RIDING TECHNIQUES. REGULAR INSPECTIONS AND CAREFUL MAINTENANCE, ALONG WITH GOOD RIDING SKILLS, WILL ENSURE THAT YOU SAFELY ENJOY THE CAPABILITIES AND THE RELIABILITY OF THIS MACHINE.

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EAU00006

## WARNING

THIS MACHINE IS DESIGNED AND MANUFACTURED FOR OFF-ROAD USE ONLY. IT IS ILLEGAL TO OPERATE THIS MACHINE ON ANY PUBLIC STREET, ROAD OR HIGHWAY. SUCH USE IS PROHIBITED BY LAW. THIS MACHINE COMPLIES WITH ALMOST ALL STATE OFF-HIGHWAY NOISE LEVEL AND SPARK ARRESTER LAWS AND REGULATIONS. PLEASE CHECK YOUR LOCAL RIDING LAWS AND REGULATIONS BEFORE OPERATING THIS MACHINE.

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AFFIX DEALER

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LABEL HERE

EAU01399

**RT100M**

**OWNER'S MANUAL**

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**Printed in Japan**

**P/N LIT-11626-13-15**

<b>1</b>	<b>SAFETY INFORMATION.....</b>	<b>1-1</b>			
	Safe riding .....	1-1			
	Protective apparel .....	1-2			
	Modification .....	1-2			
	Loading and accessories .....	1-3			
	Gasoline and exhaust gas.....	1-4			
	Location of the important labels .....	1-5			
<b>2</b>	<b>DESCRIPTION.....</b>	<b>2-1</b>			
	Left view .....	2-1			
	Right view .....	2-1			
	Controls/Instruments .....	2-1			
<b>3</b>	<b>INSTRUMENT AND CONTROL FUNCTIONS .....</b>	<b>3-1</b>			
	Handlebar switch.....	3-1			
	Clutch lever.....	3-1			
	Shift pedal.....	3-1			
	Front brake lever .....	3-2			
	Rear brake pedal.....	3-2			
	Fuel tank cap.....	3-2			
	Fuel.....	3-3			
	2-stroke engine oil.....	3-4			
	Fuel cock .....	3-4			
	Starter (choke).....	3-5			
	Kick starter.....	3-6			
	Seat.....	3-6			
	Rear shock absorber adjustment .....	3-7			
<b>4</b>	<b>PRE-OPERATION CHECKS .....</b>	<b>4-1</b>			
	Pre-operation check list .....	4-1			
<b>5</b>	<b>OPERATION AND IMPORTANT RIDING POINTS .....</b>	<b>5-1</b>			
	Starting and warming up a cold engine .....	5-1			
	Starting a warm engine.....	5-1			
	Shifting.....	5-2			
	To start out and accelerate.....	5-2			
	To decelerate.....	5-3			
	Engine break-in.....	5-3			
	Parking.....	5-4			
<b>6</b>	<b>PERIODIC MAINTENANCE AND MINOR REPAIR .....</b>	<b>6-1</b>			
	Tool kit .....	6-1			
	Periodic maintenance and lubrication .....	6-2			
	Panel removal and installation.....	6-4			
	Panel A .....	6-4			
	Spark plug inspection .....	6-5			
	Transmission oil.....	6-6			
	Air filter .....	6-7			
	Spark arrester cleaning.....	6-9			

# TABLE OF CONTENTS

---

Carburetor adjustment .....	6-9
Idle speed adjustment.....	6-10
Throttle cable free play adjustment .....	6-11
Tires .....	6-11
Wheels .....	6-13
Accessories or replacement parts .....	6-13
Clutch lever free play adjustment .....	6-14
Front brake lever free play adjustment.....	6-15
Rear brake pedal free play adjustment .....	6-15
Checking the front and rear brake shoes .....	6-16
Drive chain slack check .....	6-16
Drive chain slack adjustment.....	6-17
Drive chain lubrication .....	6-18
Cable inspection and lubrication.....	6-18
Throttle cable and grip lubrication .....	6-19
Autolube pump adjustment.....	6-19
Brake and shift pedal lubrication .....	6-19
Brake and clutch lever lubrication.....	6-20
Sidestand lubrication .....	6-20
Rear suspension lubrication .....	6-20
Front fork inspection .....	6-21
Steering inspection .....	6-21
Wheel bearings .....	6-22
Supporting the machine.....	6-22
Front wheel removal .....	6-23
Front wheel installation.....	6-23

Rear wheel removal .....	6-24
Rear wheel installation .....	6-25
Troubleshooting.....	6-26
Troubleshooting chart .....	6-27

<b>7</b>	CLEANING AND STORAGE .....	7-1
	A. Cleaning.....	7-1
	B. Storage .....	7-2

<b>8</b>	SPECIFICATIONS .....	8-1
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<b>9</b>	CONSUMER INFORMATION .....	9-1
	Vehicle identification number .....	9-1
	Model label .....	9-1
	Machine noise regulation .....	9-2
	Maintenance record .....	9-3
	Off-road machine warranty .....	9-5



# SAFETY INFORMATION

EAU00026

TWO-WHEELED MACHINES ARE SINGLE TRACK VEHICLES. THEIR SAFE USE AND OPERATION ARE DEPENDENT UPON THE USE OF PROPER RIDING TECHNIQUES AS WELL AS THE EXPERIENCE OF THE OPERATOR.

EVERY OPERATOR SHOULD KNOW THE FOLLOWING REQUIREMENTS BEFORE RIDING. HE OR SHE SHOULD:

1. OBTAIN THOROUGH INSTRUCTIONS FROM A COMPETENT SOURCE ON ALL ASPECTS OF MACHINE OPERATION.
2. OBSERVE THE WARNINGS AND MAINTENANCE REQUIREMENTS IN THE OWNER'S MANUAL.
3. OBTAIN QUALIFIED TRAINING IN SAFE AND PROPER RIDING TECHNIQUES.
4. OBTAIN PROFESSIONAL TECHNICAL SERVICE AS INDICATED BY THE OWNER'S MANUAL AND/OR WHEN MADE NECESSARY BY MECHANICAL CONDITIONS.

## Safe riding

1. Always make pre-operation checks. Careful checks may help prevent an accident.
2. This machine is designed for off-road use only. It is illegal for this machine to be operated on any public street, road, or highway. Off-road use on public lands may be illegal. Please check local regulations before riding.
3. This machine is designed to carry the operator only. No passengers.
4. Many accidents involve inexperienced operators.
  - a. Know your skills and limits. Staying within your limits may help you to avoid an accident.
  - b. Only lend your machine to experienced operators.
5. Many machine accidents have been caused by machine operator errors. A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed). Never travel faster than warranted by conditions.





6. Ride cautiously in unfamiliar areas. You may encounter hidden obstacles which could cause an accident.
7. The operator's posture is important for proper control. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the machine.
8. Never ride under the influence of alcohol or drugs.

## Protective apparel

The majority of fatalities from machine accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

1. Always wear an approved helmet.
2. Wear a face shield or goggles. Wind on your unprotected eyes could contribute to an impairment of vision which could delay seeing a hazard.
3. The use of heavy boots, jacket, trousers, gloves, etc. is effective in preventing or reducing abrasions or lacerations.
4. Never wear loose fitting clothing. It could catch on the control levers, footrests, or wheels and cause injury or accident.
5. Never touch the engine or exhaust system during or after operation. They become very hot and can cause burns. Always wear protective clothing that covers your legs, ankles, and feet.

## Modification

Modifications made to the machine not approved by Yamaha, or the removal of original equipment, may render your machine unsafe for use and may cause severe personal injury. Modifications may also make your machine illegal to use.



# SAFETY INFORMATION

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## Loading and accessories

Adding accessories or cargo to your machine can adversely affect stability and handling if the weight distribution of the machine is changed. To avoid the possibility of an accident, extreme caution should be used if adding cargo or accessories to your machine. Use extra care if riding a machine which has added cargo or accessories. Genuine Yamaha accessories have been specifically designed for use on this machine. Since Yamaha cannot test all other accessories which may be available, you must personally be responsible for the proper selection, installation and use of non-Yamaha accessories. You should use extreme caution when selecting and installing any accessories. Keep in mind these guidelines for mounting accessories in addition to those provided under "LOADING".

1. Never install accessories or carry cargo that would impair the performance of your machine. Carefully inspect the accessory before using it to make sure it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.
  - a. Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
  - b. Bulky or large accessories may seriously affect the stability of the machine due to aerodynamic effects. Wind may attempt to lift the machine, or the machine may become unstable in cross winds. These accessories may also cause instability when being passed by or passing large vehicles.
  - c. Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability. Therefore such accessories are not recommended.



2. Caution must be used if adding electrical accessories. If these accessories exceed the capacity of the machine's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

### Gasoline and exhaust gas

1. GASOLINE IS HIGHLY FLAMMABLE:
  - a. Always turn off the engine when refueling.
  - b. Take care not to spill any gasoline on the engine or exhaust system when refueling.
  - c. Never refuel while smoking or in the vicinity of an open flame.
2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your machine in an area that has adequate ventilation.
3. Always turn off the engine before leaving the machine unattended and remove the ignition key. When parking the machine, note the following:
  - a. The engine and exhaust system may be hot. Park the machine in a place where pedestrians or children are not likely to touch these hot areas.
  - b. Do not park the machine on a slope or soft ground; the machine may fall over.
  - c. Do not park the machine near a flammable source, e.g. a kerosene heater, or near an open flame. The machine could catch fire.
4. When transporting the machine in another vehicle, be sure it is kept upright and that the fuel cock is turned to "ON" or "RES" (for vacuum type)/"OFF" (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.
5. If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get in your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it off with soap and water and change your clothes.



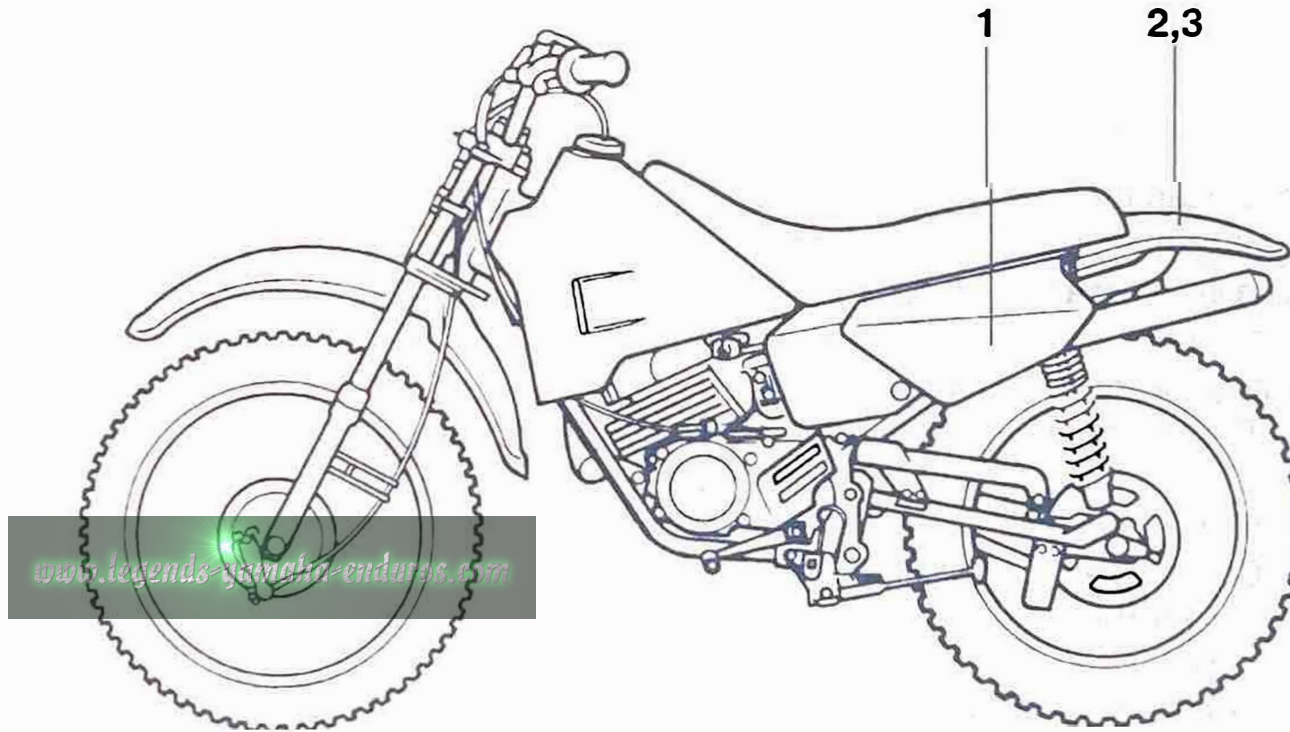
# SAFETY INFORMATION

EAU02971

## Location of the important labels

Please read the following labels carefully before operating this machine.

1





# SAFETY INFORMATION

1

## WARNING

- **BEFORE YOU OPERATE THIS VEHICLE, READ THE OWNER'S MANUAL AND ALL LABELS.**
- **NEVER CARRY A PASSENGER.** You increase your risk of losing control if you carry a passenger.
- **NEVER OPERATE THIS VEHICLE ON PUBLIC ROADS.** You can collide with another vehicle if you operate this vehicle on a public road.
- **ALWAYS WEAR AN APPROVED MOTORCYCLE HELMET,** eye protection, and protective clothing.

SRV-211BK-00

2

## WARNING

Riding as a passenger can cause the vehicle to go out of control.

Loss of control can cause a collision or rollover, which can result in severe injury or death.

**NEVER** ride as a passenger.

3XJ-2151H-A0

1

3

## TIRE INFORMATION

Cold tire normal pressure should be set as follows.

**FRONT** : 125 kPa, {1.25 kgf/cm<sup>2</sup>}, 18 psi

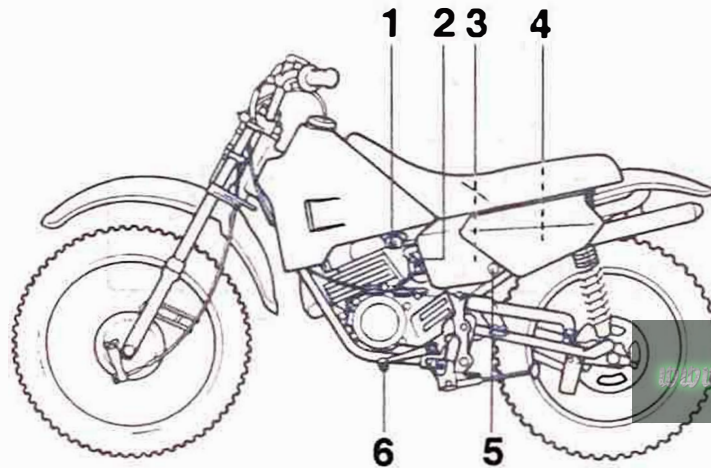
**REAR** : 125 kPa, {1.25 kgf/cm<sup>2</sup>}, 18 psi

JUL-21088-00

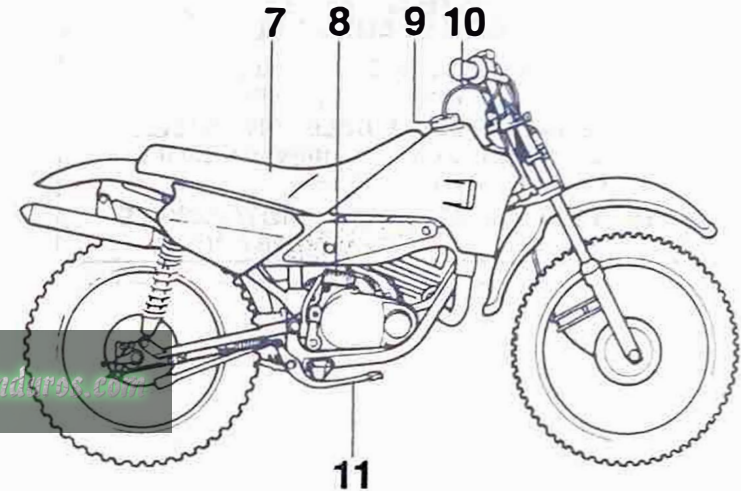
# DESCRIPTION

EAU00026

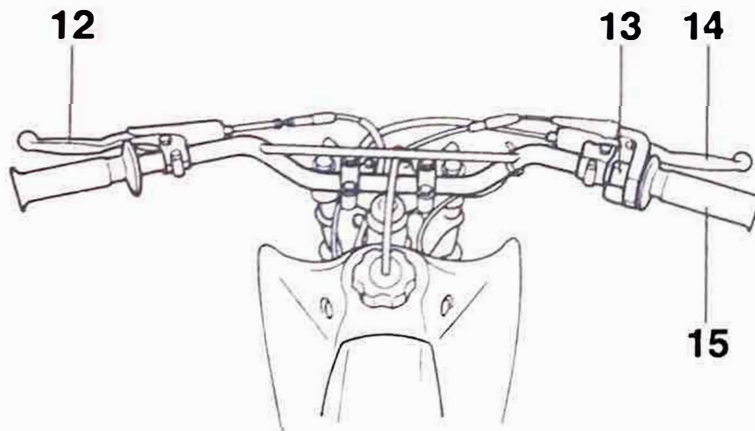
## Left view



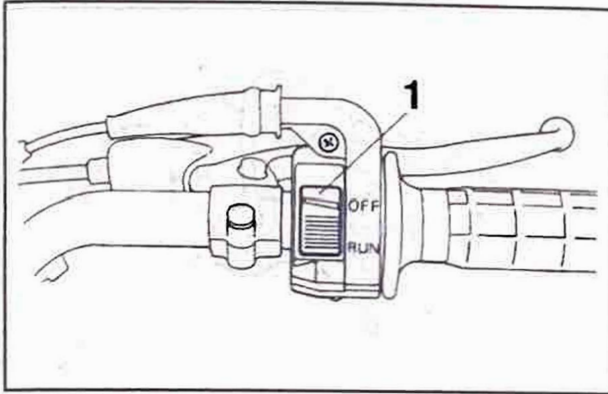
## Right view



## Controls/Instruments



1. Fuel cock (page 3-4)
2. Starter (choke) (page 3-5)
3. Air filter (page 6-7)
4. Oil tank (page 3-4)
5. Oil level window (page 3-4)
6. Shift pedal (page 3-1)
7. Seat (page 3-6)
8. Kick starter (page 3-6)
9. Fuel tank cap (page 3-2)
10. Fuel tank breather hose
11. Rear brake pedal (page 3-2)
12. Clutch lever (page 3-1)
13. Engine stop switch (page 3-1)
14. Front brake lever (page 3-2)
15. Throttle grip (page 6-11)



1. Engine stop switch "ENGINE STOP"

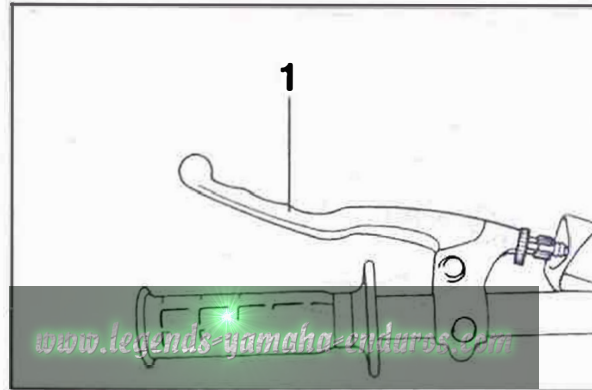
EAU00118\*

## Handlebar switch

EAU00137

### Engine stop switch "ENGINE STOP"

The engine stop switch is a safety device for use in an emergency such as when the machine overturns or if trouble occurs in the throttle system. Turn the switch to "RUN" to start the engine. In case of emergency, turn the switch to "OFF" to stop the engine.

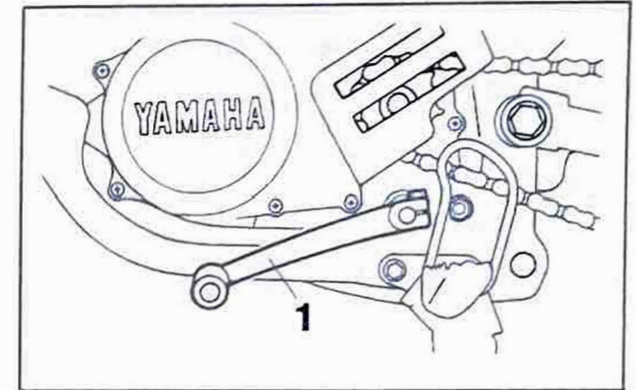


1. Clutch lever

EAU00155

## Clutch lever

The clutch lever is located on the left handlebar. 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 clutch operation.



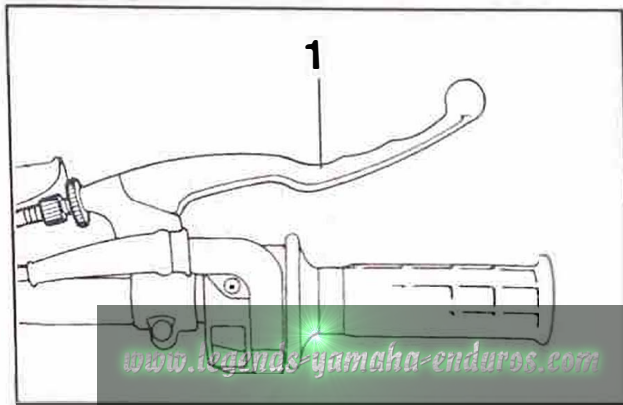
1. Shift pedal

EAU00157

## Shift pedal

This machine is equipped with a constant-mesh 5-speed transmission. The shift pedal is located on the left side of the engine and is used in combination with the clutch when shifting.

# INSTRUMENT AND CONTROL FUNCTIONS

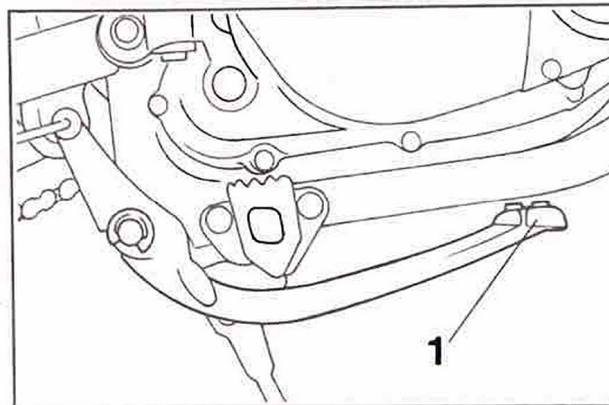


1. Front brake lever

EAU00158

## Front brake lever

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

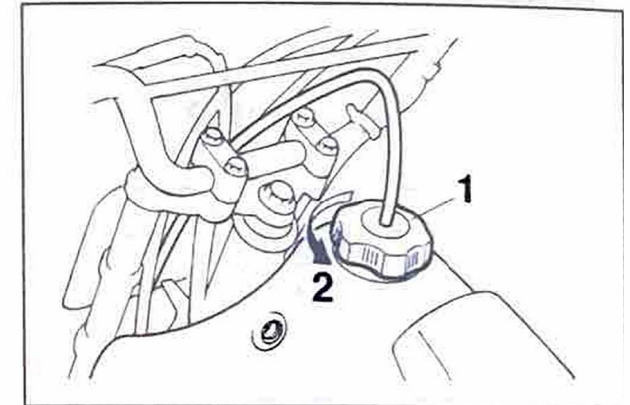


1. Rear brake pedal

EAU00162

## Rear brake pedal

The rear brake pedal is on the right side of the machine. Press down on the brake pedal to apply the rear brake.



1. Fuel tank cap

2. Open

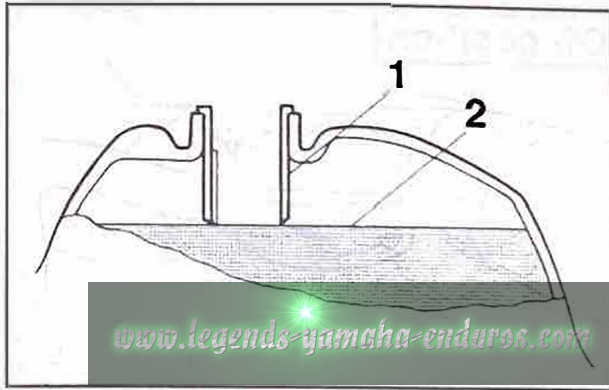
EAU00179

## Fuel tank cap

Remove the fuel tank cap by turning it counterclockwise.



# INSTRUMENT AND CONTROL FUNCTIONS



1. Filler tube
2. Fuel level

EAU01183

## Fuel

Make sure there is sufficient fuel in the tank. Fill the fuel tank to the bottom of the filler tube as shown in the illustration.

EW000130

## **!** WARNING

**Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler tube or it may overflow when the fuel heats up later and expands.**

EAU00185

## CAUTION:

**Always wipe off spilled fuel immediately with a dry and clean soft cloth. Fuel may deteriorate painted surfaces or plastic parts.**

EAU00189

Recommended fuel:  
**UNLEADED FUEL**

Fuel tank capacity:

Total:

5.0 L (1.1 Imp gal, 1.3 US gal)

Reserve:

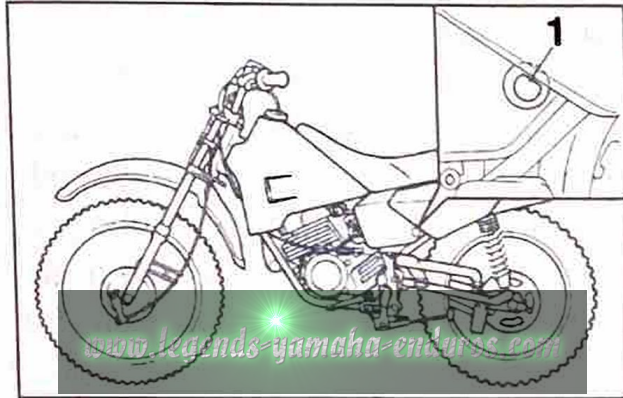
1.5 L (0.3 Imp gal, 0.4 US gal)

Your Yamaha engine has been designed to use regular unleaded gasoline with a pump octane number  $([R+M]/2)$  of 86 or higher, or research octane number of 91 or higher. If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel. Unleaded fuel will give you longer spark plug life and reduced maintenance cost. If unleaded gasoline is not available, then leaded regular gasoline can be used.

## Gasohol

There are two types of gasohol; gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10%. Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage or vehicle performance problems.

# INSTRUMENT AND CONTROL FUNCTIONS

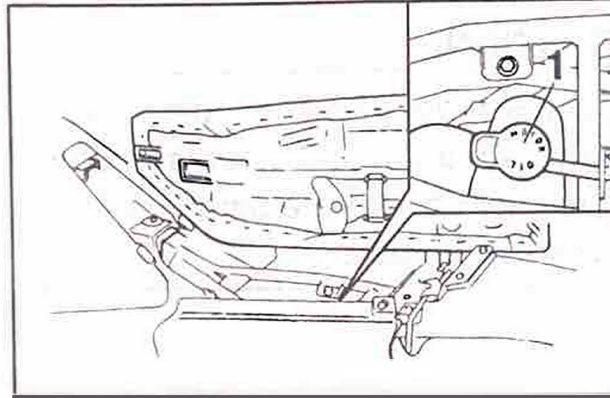


1. Oil level window

EAU02999

## 2-stroke engine oil

Make sure there is sufficient 2-stroke engine oil in the oil tank. Add the recommended oil as necessary.



1. Oil tank filler cap

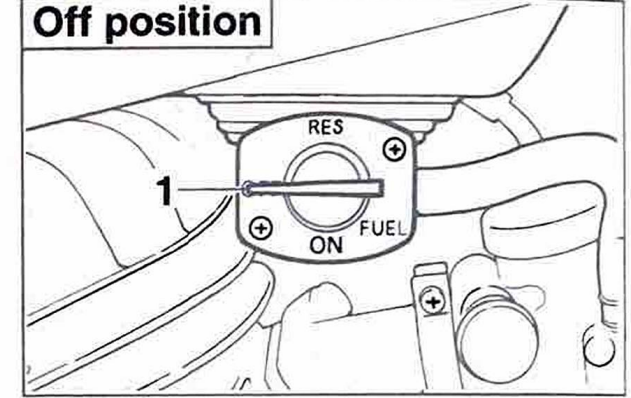
Recommended oil:

Yamalube 2 or 2-stroke engine oil

Oil quantity:

Total amount:

1.0 L (0.88 Imp qt, 1.06 US qt)



1. Arrow mark positioned over "OFF"

EAU01121

## Fuel cock

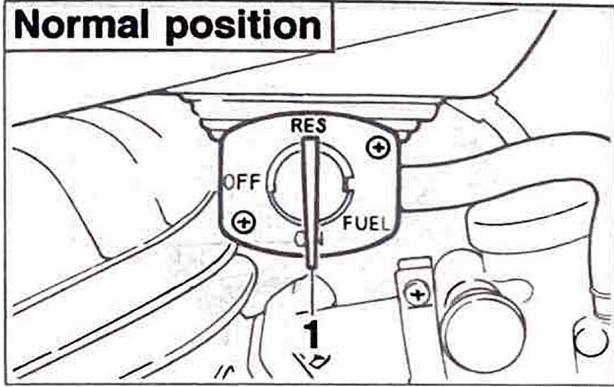
The fuel cock supplies fuel from the tank to the carburetor while filtering it also.

The fuel cock has three positions:

### OFF

With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.

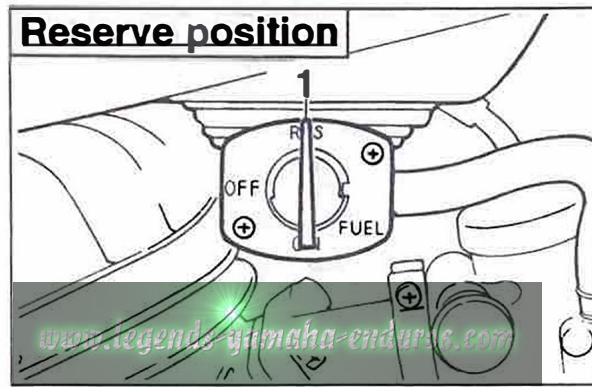
# INSTRUMENT AND CONTROL FUNCTIONS



1. Arrow mark positioned over "ON"

## ON

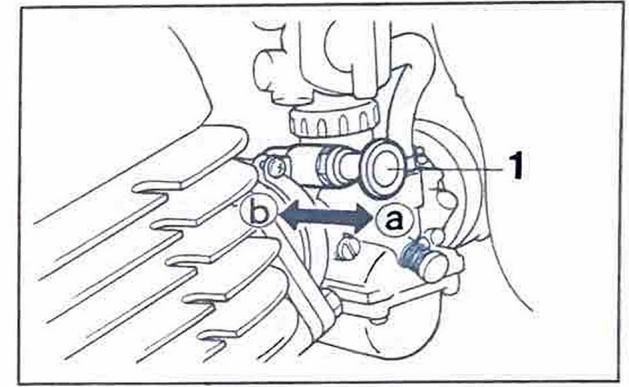
With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.



1. Arrow mark positioned over "RES"

## RES

This indicates reserve. If you run out of fuel while riding, move the lever to this position. Fill the tank at the first opportunity. Be sure to set the fuel cock back to "ON" after refueling!



1. Starter (choke)

## Starter (choke)

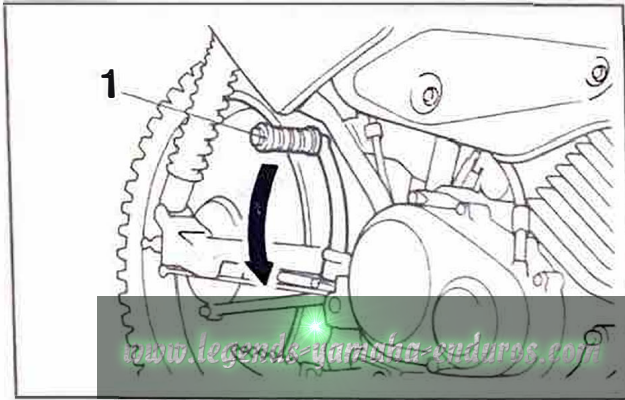
Starting a cold engine requires a richer air-fuel mixture. A separate starter circuit supplies this mixture.

Move in direction **a** to turn on the starter (choke).

Move in direction **b** to turn off the starter (choke).

EAU00211

# INSTRUMENT AND CONTROL FUNCTIONS

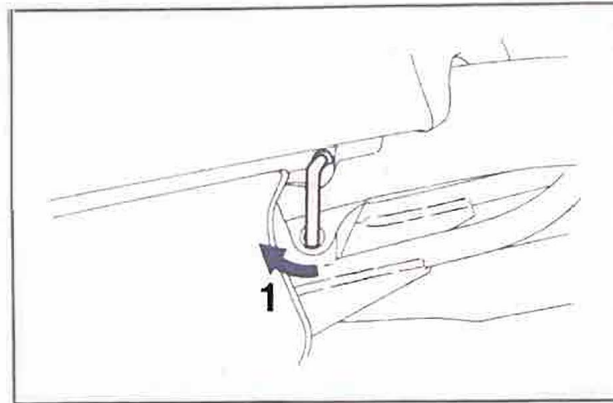


1. Kick starter

EAU00212

## Kick starter

Rotate the kick starter away from the engine. Push the starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine. This model has a primary-coupled kick starter so the engine can be started in any gear if the clutch is disengaged. However, shifting to neutral before starting is recommended.



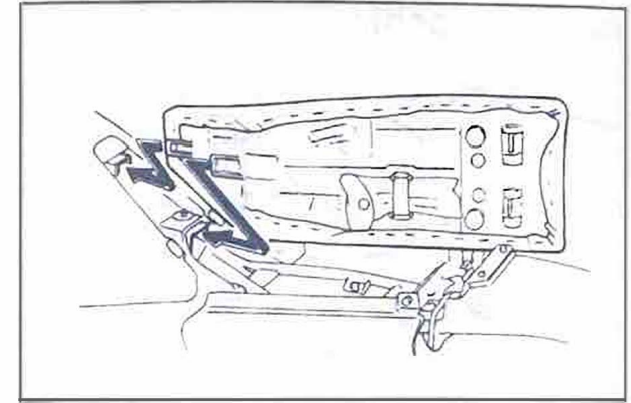
1. Open

EAU02991

## Seat

### To open the seat

Turn the lever as shown.



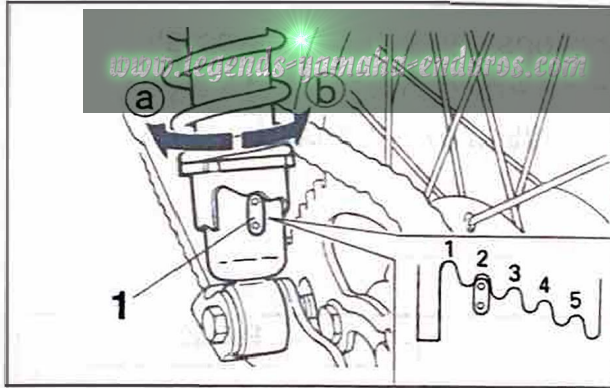
### To lock the seat

Install the seat in its original position.

**NOTE:** \_\_\_\_\_  
Make sure that the seat is securely fitted.  
\_\_\_\_\_

# INSTRUMENT AND CONTROL FUNCTIONS

EW000040



## **! WARNING**

Always adjust each shock absorber to the same setting. Uneven adjustment can cause poor handling and loss of stability.

1. Position indicator

EAU00300

## Rear shock absorber adjustment

Each shock absorber is equipped with a spring preload adjusting ring. Adjust spring preload as follows. Turn the adjusting ring in direction ① to increase spring preload and in direction ② to decrease spring preload. Make sure that the appropriate notch in the adjusting ring is aligned with the position indicator on the rear shock absorber.

	Soft	Standard	Hard		
Adjusting position	1	2	3	4	5

# PRE-OPERATION CHECKS

EAU01114

Owners are personally responsible for their vehicle's condition. Your machine's vital functions can start to deteriorate quickly and unexpectedly, even if it remains unused (for instance, if it is exposed to the elements). Any damage, fluid leak or loss of tire pressure could have serious consequences. Therefore, it is very important that, in addition to a thorough visual inspection, you check the following points before each ride.

EAU00340

## PRE-OPERATION CHECK LIST

ITEM	ROUTINE	PAGE
<b>Front and rear brakes</b>	<ul style="list-style-type: none"><li>• Check operation, condition and free play.</li><li>• Adjust if necessary.</li></ul>	6-15 ~ 6-16
<b>Clutch</b>	<ul style="list-style-type: none"><li>• Check operation, condition and free play.</li><li>• Adjust if necessary.</li></ul>	6-14
<b>Throttle grip and housing</b>	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate.</li><li>• Adjust if necessary.</li></ul>	6-11, 6-19
<b>2-stroke engine oil</b>	<ul style="list-style-type: none"><li>• Check oil level.</li><li>• Fill with oil as required.</li></ul>	6-19
<b>Transmission oil</b>	<ul style="list-style-type: none"><li>• Check oil level.</li><li>• Fill with oil as required.</li></ul>	6-6 ~ 6-7
<b>Drive chain</b>	<ul style="list-style-type: none"><li>• Check chain slack and condition.</li><li>• Adjust if necessary.</li></ul>	6-16 ~ 6-18
<b>Wheels and tires</b>	<ul style="list-style-type: none"><li>• Check tire pressure, wear, damage and spoke tightness.</li></ul>	6-11 ~ 6-13, 6-22 ~ 6-25
<b>Brake cables</b>	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate if necessary.</li></ul>	6-18
<b>Brake and shift pedal shafts</b>	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate if necessary.</li></ul>	6-19

# PRE-OPERATION CHECKS

ITEM	ROUTINE	PAGE
<b>Brake and clutch lever pivots</b>	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate if necessary.</li></ul>	6-20
<b>Sidestand pivot</b>	<ul style="list-style-type: none"><li>• Check for smooth operation.</li><li>• Lubricate if necessary.</li></ul>	6-20
<b>Chassis fasteners</b>	<ul style="list-style-type: none"><li>• Check the tightness of all chassis nuts, bolts and screws.</li><li>• Tighten if necessary.</li></ul>	—
<b>Fuel</b>	<ul style="list-style-type: none"><li>• Check fuel level.</li><li>• Fill with fuel as required.</li></ul>	3-3

## NOTE:

Pre-operation checks should be made each time the machine is used. Such an inspection can be thoroughly accomplished in a very short time, and the added safety it assures is more than worth the time involved.

## WARNING

- The engine and exhaust system will be very hot after the engine has been run. Be careful not to touch them or to allow any clothing item to contact them during inspection or repair.
- If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the machine.

EAU00374

## WARNING

- This model is designed for off-road use only. In most instances, it is illegal to ride this model (either day or night) on any public street or highway.
- Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your machine in an area with adequate ventilation.
- Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

EAU02992

## Starting and warming up a cold engine

1. Turn the fuel cock to "ON".
2. Turn the engine stop switch to "RUN".
3. Shift transmission into neutral.
4. Turn on the starter (choke) and completely close the throttle grip.
5. Kick the kick starter to start the engine.
6. After starting the engine, move the starter (choke) halfway back to the warming up position.

### NOTE:

For maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine.

7. After warming up the engine, turn off the starter (choke) completely.

### NOTE:

The engine is warm when it responds normally to the throttle with the starter (choke) turned off.

EAU0125a

## Starting a warm engine

The starter (choke) is not required when the engine is warm.

EC000046

## CAUTION:

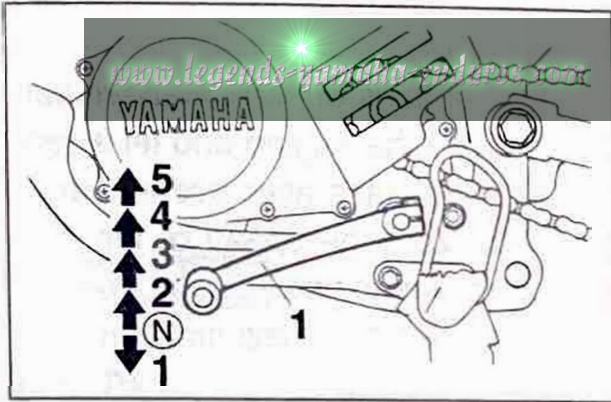
See the "Engine break-in" section prior to operating the machine for the first time.



# OPERATION AND IMPORTANT RIDING POINTS

EC000048

EAU00426



- 1. Shift pedal
- N. Neutral

EAU00423

## Shifting

The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the shift pedal is shown in the illustration.

To shift into neutral, depress the shift pedal repeatedly until it reaches the end of its travel, then raise the pedal slightly.

## CAUTION:

- Do not coast for long periods with the engine off, and do not tow the machine a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.
- Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without using the clutch.

## To start out and accelerate

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. Once the machine has reached a high enough speed to change gears, close the throttle and at the same time, quickly pull in the clutch lever.
5. Shift into second gear. (Be careful not to shift into neutral.)
6. Open the throttle part way and gradually release the clutch lever.
7. Follow the same procedure when shifting to the next higher gear.

# OPERATION AND IMPORTANT RIDING POINTS

EAU00428

## To decelerate

1. Close the throttle and apply both the front and the rear brakes at the same time to slow the machine.
2. Downshift through the gears and when the machine is almost completely stopped, shift into neutral.

EAU00437

## Engine break-in

There is never a more important period in the life of your machine than the period between zero and 20 hours of riding. 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 several hours of running. 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. However, momentary full throttle operation under load (2 ~ 3 seconds maximum) does not harm the engine. Each full throttle acceleration sequence should be followed with a substantial rest period for the engine by cruising at lower RPM's so the engine can cool down from the temporary build up of heat.

### 0 ~ 10 hours

Avoid continuous operation above half throttle. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the machine from time to time. Do not operate it at one set throttle position.

### 10 ~ 20 hours

Avoid prolonged operation above 3/4 throttle. Rev the machine freely through the gears, but do not use full throttle at any time.

### After break-in

Avoid prolonged full-throttle operation. Vary speed occasionally.

EC000049

### **CAUTION:**

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

# OPERATION AND IMPORTANT RIDING POINTS

EAU00459

## Parking

When parking the machine, stop the engine. Turn the fuel cock to "OFF" whenever the engine is stopped.

EW000059

### WARNING

The muffler and exhaust pipe are hot. Park the machine in a place where pedestrians or children are not likely to touch the machine. Do not park the machine on a slope or soft ground; the machine may overturn.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00462

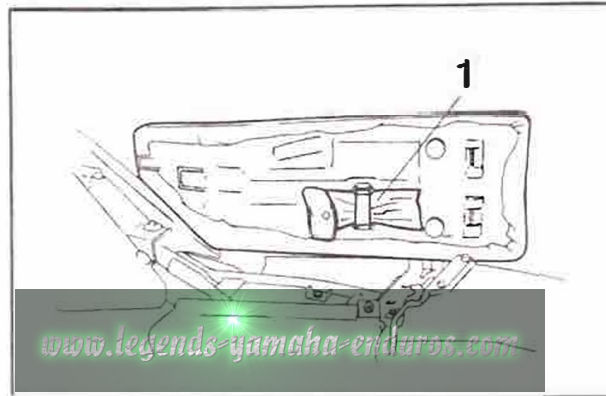
EAU00465

Periodic inspection, adjustment, and lubrication will keep your machine in the safest and most efficient condition possible. Safety is an obligation of the machine owner. The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals. YOU MUST TAKE INTO CONSIDERATION THAT WEATHER, TERRAIN, GEOGRAPHICAL LOCATIONS, AND A VARIETY OF INDIVIDUAL USES ALL TEND TO DEMAND THAT EACH OWNER ALTER THIS TIME SCHEDULE TO SHORTER INTERVALS TO MATCH THE ENVIRONMENT. The most important points of machine inspection, adjustment and lubrication are explained in the following pages.

EW000060

## **! WARNING**

**If you are not familiar with machine service, this work should be done by a Yamaha dealer.**



1. Tool kit

EAU00465

## **Tool kit**

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are to assist you in the performance of periodic maintenance. However, some other tools such as a torque wrench are also necessary to perform the maintenance correctly.

## **NOTE:**

If you do not have necessary tools required during a service operation, take your machine to a Yamaha dealer for service.

EW000062

## **! WARNING**

**Modifications to this machine not approved by Yamaha may cause loss of performance, excessive emissions, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.**

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00473

## PERIODIC MAINTENANCE AND LUBRICATION

NO.	ITEM	ROUTINE	INITIAL 1 month	EVERY	
				6 months	12 months
1	Spark plug	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Clean, regap or replace if necessary.</li> </ul>	√	√	√
2	Spark arrester	<ul style="list-style-type: none"> <li>• Clean.</li> </ul>		√	√
3	Air filter	<ul style="list-style-type: none"> <li>• Clean.</li> <li>• Replace if necessary.</li> </ul>		√	√
4 *	Carburetor	<ul style="list-style-type: none"> <li>• Check engine idling speed and starter operation.</li> <li>• Adjust if necessary.</li> </ul>	√	√	√
5 *	Fuel line	<ul style="list-style-type: none"> <li>• Check fuel hose for cracks or damage.</li> <li>• Replace if necessary.</li> </ul>		√	√
6	Transmission oil	<ul style="list-style-type: none"> <li>• Check oil level and vehicle for oil leakage.</li> <li>• Correct accordingly.</li> <li>• Replace every 24 months. (Warm engine before draining.)</li> </ul>	REPLACE	√	√
7 *	Autolube pump	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Correct if necessary.</li> <li>• Bleed if necessary.</li> </ul>	√	√	√
8 *	Front brake	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Adjust brake lever free play and replace brake shoes if necessary.</li> </ul>	√	√	√
9 *	Rear brake	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Adjust brake lever free play and replace brake shoes if necessary.</li> </ul>	√	√	√
10 *	Clutch	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Adjust if necessary.</li> </ul>		√	√
11 *	Rear arm pivot	<ul style="list-style-type: none"> <li>• Check rear arm assembly for looseness.</li> <li>• Correct if necessary.</li> <li>• Moderately repack every 24 months.***</li> </ul>	√		√
12 *	Wheels	<ul style="list-style-type: none"> <li>• Check balance, runout, spoke tightness and for damage.</li> <li>• Tighten spokes and rebalance, replace if necessary.</li> </ul>		√	√
13 *	Wheel bearings	<ul style="list-style-type: none"> <li>• Check bearing for looseness or damage.</li> <li>• Replace if necessary.</li> </ul>		√	√

# PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	ROUTINE	INITIAL 1 month	EVERY	
				6 months	12 months
14 *	Steering bearings	<ul style="list-style-type: none"> <li>• Check bearing assembly for looseness.</li> <li>• Correct if necessary.</li> <li>• Moderately repack every 24 months.**</li> </ul>	√		√
15 *	Front fork	<ul style="list-style-type: none"> <li>• Check operation and for oil leakage.</li> <li>• Correct accordingly.</li> </ul>		√	√
16 *	Rear shock absorbers	<ul style="list-style-type: none"> <li>• Check operation and oil leakage.</li> <li>• Repair if necessary.</li> </ul>		√	√
17	Drive chain	<ul style="list-style-type: none"> <li>• Check chain slack and alignment.</li> <li>• Adjust if necessary.</li> <li>• Clean and lubricate.</li> </ul>	Every Ride (More often in wet or dusty areas)		
18 *	Chassis fasteners	<ul style="list-style-type: none"> <li>• Check the tightness of all chassis nuts, bolts and screws.</li> <li>• Tighten if necessary.</li> </ul>	√	√	√
19 *	Sidestand	<ul style="list-style-type: none"> <li>• Check operation.</li> <li>• Repair if necessary.</li> </ul>	√	√	√

\* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

\*\* Medium weight wheel bearing grease

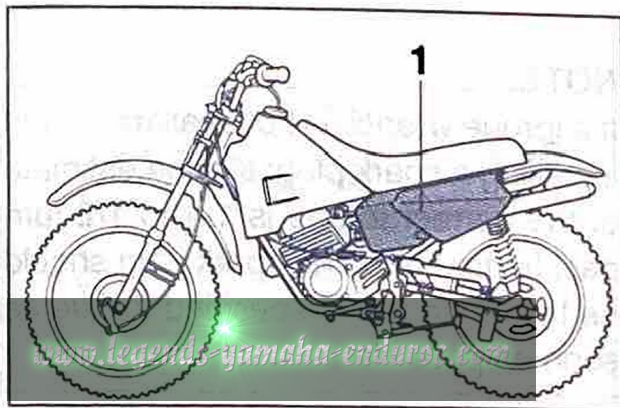
\*\*\* Lithium soap base grease

EAU00479

## NOTE:

The air filter needs more frequent service if you are riding in unusually wet or dusty areas.

# PERIODIC MAINTENANCE AND MINOR REPAIR

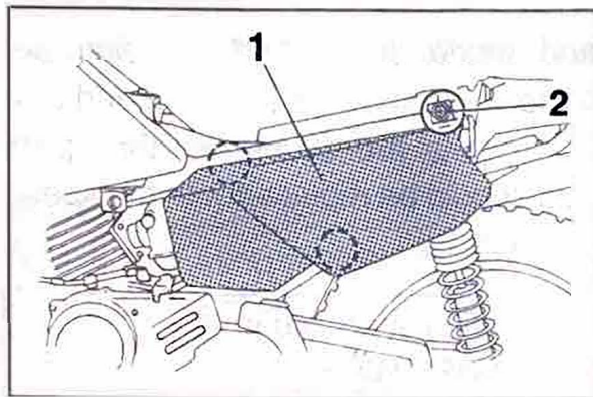


1. Panel A

EAU01777

## Panel removal and installation

The panel illustrated needs to be removed to perform some of the maintenance described in this chapter. Refer to this section each time the panel has to be removed or installed.



1. Panel A  
2. Screw

EAU03021

## Panel A

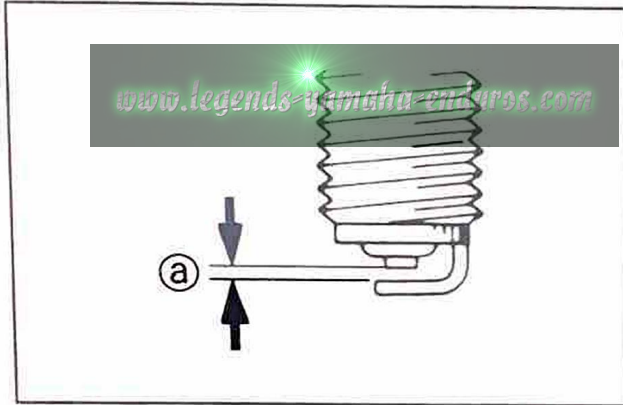
### To remove

1. Remove the seat. (See page 3-6 for seat removal and installation procedures.)
2. Remove the screw and pull upward on the areas shown.

### To install

1. Place the panel in the original position and install the screw.
2. Install the seat.

# PERIODIC MAINTENANCE AND MINOR REPAIR



a. Spark plug gap

EAU01651

## Spark plug inspection

The spark plug is an important engine component and should be inspected periodically, preferably by a Yamaha dealer. The condition of the spark plug can indicate the condition of the engine. The ideal color on the white insulator around the center electrode is a medium-to-light tan color for a machine that is being ridden normally. Do not attempt to diagnose any problems yourself. Instead, take the machine to a Yamaha dealer. The spark plug should be periodically removed and inspected because heat and deposits will cause the spark plug to slowly break down

and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, the spark plug should be replaced with the specified plug.

Specified spark plug:  
BR7ES (NGK)

Before installing the spark plug, measure the electrode gap with a wire thickness gauge and adjust it to specification.

Spark plug gap:  
0.7 ~ 0.8 mm (0.028 ~ 0.031 in)

When installing the plug, the gasket surface should always be cleaned and a new gasket used. Any grime should be wiped off from the threads and the spark plug tightened to the specified torque.

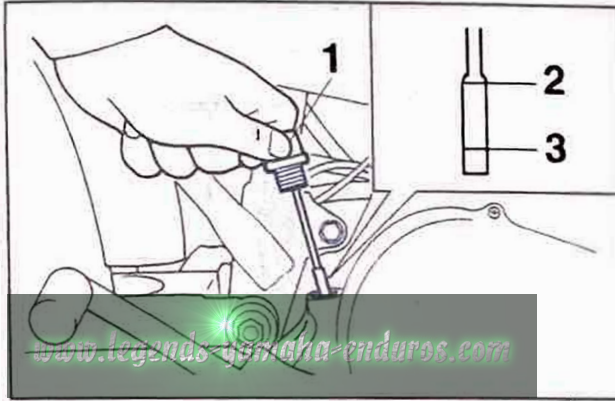
Tightening torque:  
Spark plug:  
25 Nm (2.5 m·kg, 18 ft·lb)

## NOTE:

If a torque wrench is not available when installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. The spark plug should be tightened to the specified torque as soon as possible.



# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Dipstick
2. Maximum level mark
3. Minimum level mark

EAU02994

## Transmission oil

### Oil level measurement

1. Place the machine on a level place and hold it in an upright position. Warm up the engine for several minutes.

#### NOTE: \_\_\_\_\_

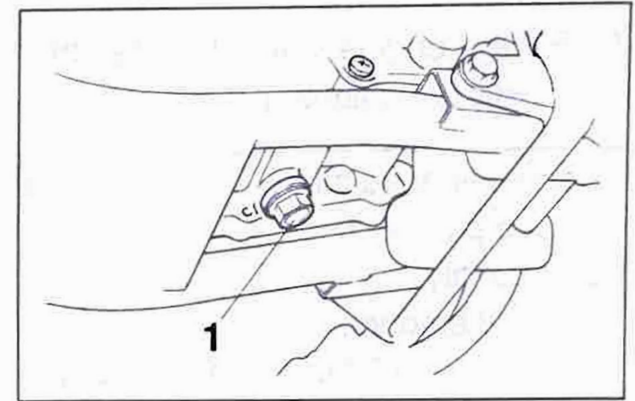
Be sure the machine is positioned straight up when checking the oil level. A slight tilt toward the side can result in false readings.

2. With the engine stopped, unscrew the dipstick and rest it on the threads of the oil filler hole.

#### NOTE: \_\_\_\_\_

Wait a few minutes until the oil level settles before checking.

3. The oil level should be between the maximum and minimum level marks as shown. If the level is low, add sufficient oil to raise it to the proper level.



1. Drain bolt

### Transmission oil replacement

1. Warm up the engine for several minutes.
2. Stop the engine. Place an oil pan under the engine, and remove the dipstick.
3. Remove the drain bolt and drain the oil.
4. Install the drain bolt and tighten it to the specified torque.

#### Tightening torque:

Drain bolt:

20 Nm (2.0 m·kg, 14 ft·lb)

# PERIODIC MAINTENANCE AND MINOR REPAIR

5. Fill the engine with oil. Install the dipstick and tighten it.

Recommended oil:

See page 8-1.

Oil quantity:

Total amount:

0.7 L (0.62 Imp qt, 0.74 US qt)

Periodic oil change:

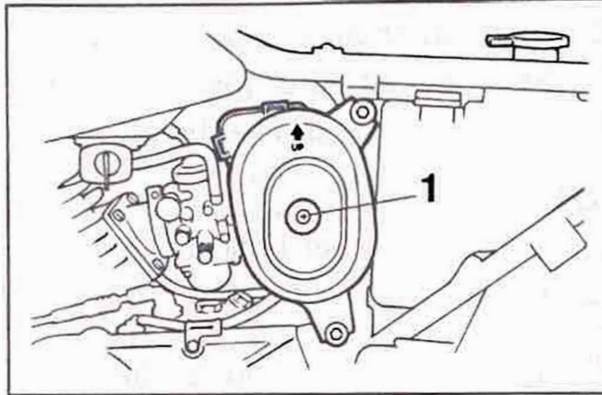
0.65 L (0.57 Imp qt, 0.69 US qt)

EC000077

## CAUTION

- Do not put in any chemical additives. Transmission oil also lubricates the clutch and additives could cause clutch slippage.
- Be sure no foreign material enters the crankcase.

6. Start the engine and warm up for a few minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for cause.



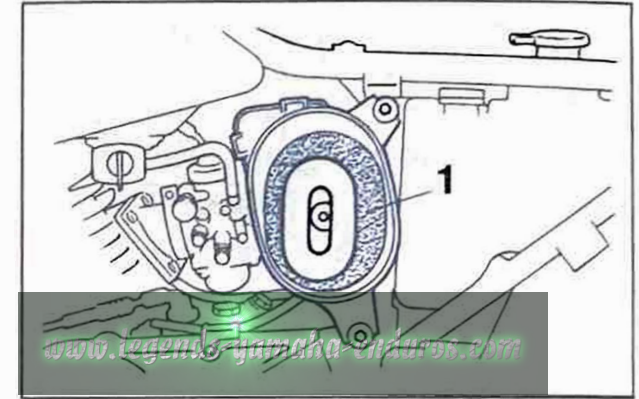
1. Screw

EAU03000

## Air filter

The air filter element should be cleaned at the specified intervals. It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

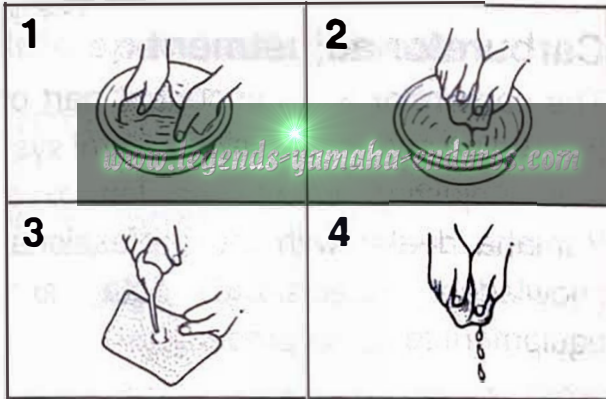
1. Remove panel A. (See page 6-4 for panel removal and installation procedures.)
2. Remove the air filter case fitting screw and the air filter case cover.



1. Air filter element

3. Remove the air filter element from its case and clean it with solvent. After cleaning, remove the remaining solvent by squeezing it.

# PERIODIC MAINTENANCE AND MINOR REPAIR



4. Apply the recommended oil to the entire surface of the air filter element and squeeze out the excess oil. It should be wet but not dripping.

Recommended oil:  
Yamaha foam air filter oil or  
other quality air filter oil

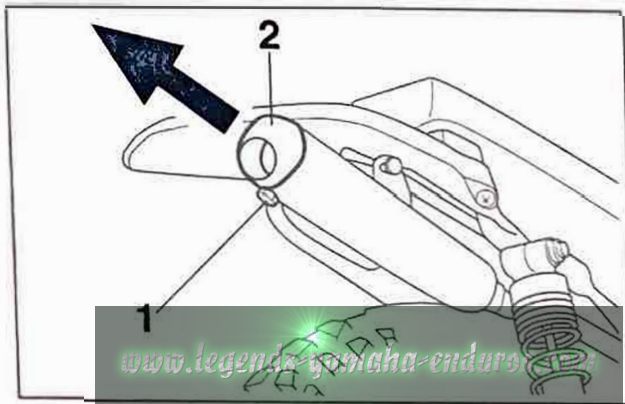
5. Install the air filter element in its case.
6. Install the panel.

EC000085

## CAUTION:

- Make sure the air filter is properly seated in the filter case.
- The engine should never be run without the air filter installed. Excessive piston and/or cylinder wear may result.

# PERIODIC MAINTENANCE AND MINOR REPAIR



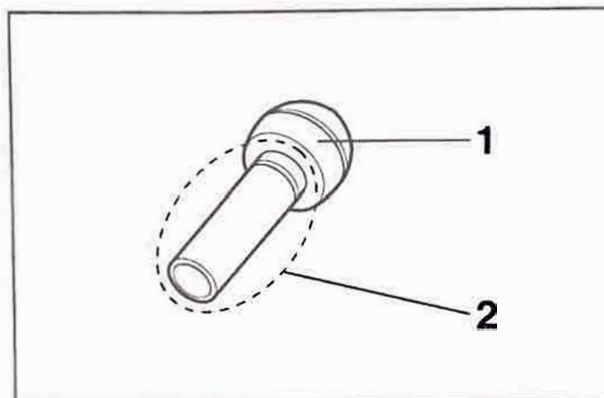
1. Screw
2. Tail pipe

EAU01549

## Spark arrester cleaning

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

1. Remove the screw.
2. Remove the tailpipe by pulling it out of the muffler.
3. Tap the tailpipe lightly, then use a wire brush to remove any carbon deposits from the spark arrester portion of the tailpipe.
4. Insert the tailpipe into the muffler and align the screw holes.



1. Tail pipe
2. Spark arrester

5. Install the screw and tighten it.

EWA00007

### **! WARNING**

- Always let the exhaust system cool prior to touching exhaust components.
- Do not start the engine when cleaning the exhaust system.

EAU01752

## Carburetor adjustment

The carburetor is an important part of the engine and its emission control system. Adjusting should be left to a Yamaha dealer with the professional knowledge, specialized data and equipment to do so properly.

# PERIODIC MAINTENANCE AND MINOR REPAIR

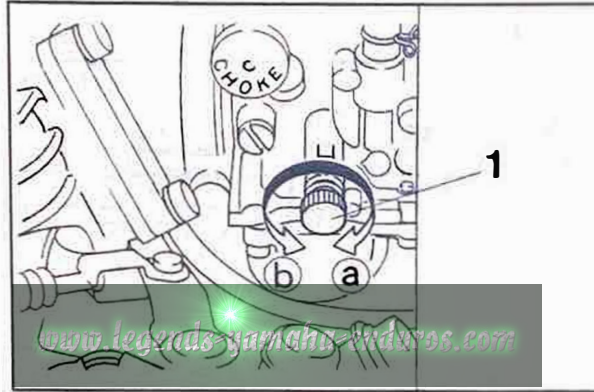
EAU00633

## Idle speed adjustment

### NOTE:

A diagnostic tachometer must be used for this procedure.

1. Attach the tachometer. Start the engine and warm it up for a few minutes at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.



1. Throttle stop screw
2. Set the idle to the specified engine speed by adjusting the throttle stop screw. Turn the screw in direction Ⓐ to increase engine speed and in direction Ⓑ to decrease engine speed.

Standard idle speed:  
1,300 ~ 1,450 r/min

### NOTE:

If the specified idle speed cannot be obtained by performing the above adjustment, consult a Yamaha dealer.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00634

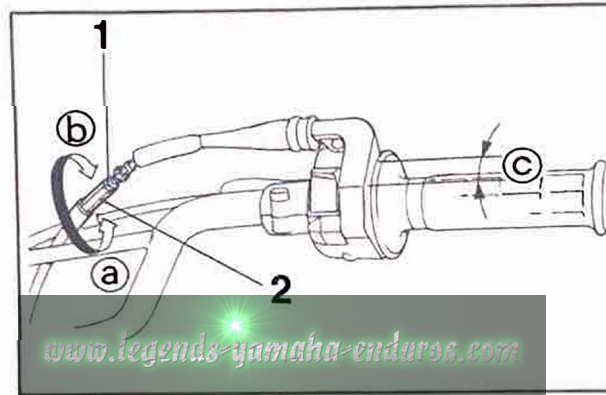
## Throttle cable free play adjustment

### NOTE:

Before checking the throttle cable free play, the engine idling speed should be adjusted.

Adjust the throttle cable by turning the adjusting nut so that specified free play at the throttle grip is obtained.

Free play:  
3 ~ 5 mm (0.12 ~ 0.20 in)



1. Locknut
2. Adjusting nut
- c. Free play

1. Loosen the locknut.
2. Turn the adjusting nut in direction (a) to increase free play and in direction (b) to decrease free play.
3. Tighten the locknut.

EAU00577

## Tires

To ensure maximum performance, long service, and safe operation, note the following:

### Tire air pressure

Always check and adjust the tire pressure before operating the machine.

EW000091

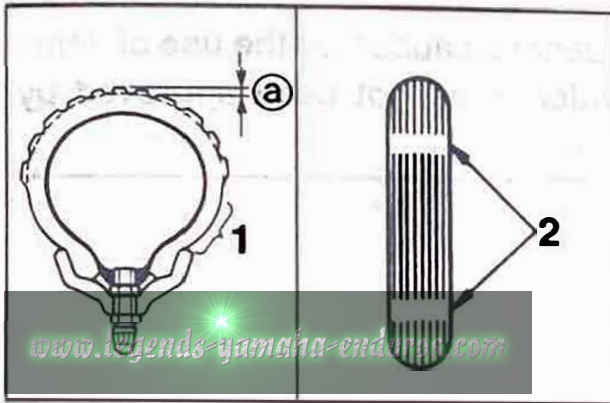
### **! WARNING**

**Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature.**

	Front	Rear
Off-road riding	125 kPa (1.25 kgf/cm <sup>2</sup> , 18 psi)	125 kPa (1.25 kgf/cm <sup>2</sup> , 18 psi)

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU0068C



1. Side wall
2. Wear indicator
- a. Tread depth

## Tire inspection

Always check the tires before operating the machine. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

### FRONT

Manufacturer	Size	Type
CHENG SHIN	2.50-18 4PR	KNOBBY

### REAR

Manufacturer	Size	Type
CHENG SHIN	3.00-16 4PR	KNOBBY

Minimum tire tread depth (front and rear)	1.0 mm (0.04 in)
---	------------------

## **!** WARNING

- It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have a Yamaha dealer replace the tire immediately. Brakes, tires, and related wheel parts replacement should also be left to a Yamaha dealer.
- Patching a punctured tube is not recommended. If it is absolutely necessary to do so, use great care and replace the tube as soon as possible with a good quality replacement.

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Wheels

EAU00685

To ensure maximum performance, long service, and safe operation, note the following:

- Always inspect the wheels before a ride. Check for cracks, bends or warpage of the wheel. Be sure the spokes are tight and undamaged. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
- Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.
- Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.

## Accessories or replacement parts

EAU00691

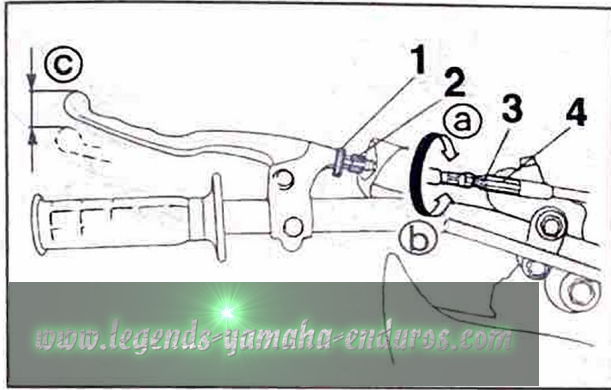
EW000098

### **WARNING**

**This machine is not designed to pull a trailer or to be attached to a sidecar. The accessories or replacement parts you choose for your machine should be designed specifically for it, and they must be securely mounted to maintain the inherent stability of the original design. Genuine Yamaha Parts and Accessories are designed and tested to be compatible with your machine. Please consider Genuine Yamaha Parts and Accessories before making an accessory purchase. Use of non-Yamaha-approved parts or accessories may cause loss of handling stability and riding safety. Since Yamaha cannot control the quality of parts or accessories manufactured by other companies, Yamaha cannot be held liable for any conse-**

**quences caused by the use of items which have not been approved by Yamaha.**





1. Locknut ①
2. Adjusting bolt ②
3. Locknut ③
4. Adjusting nut ④
- c. Free play

EAU02996

## Clutch lever free play adjustment

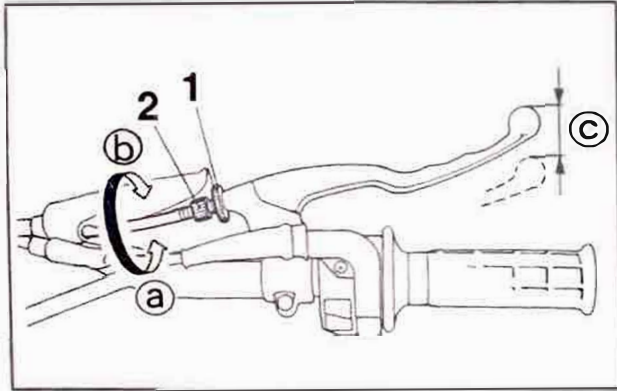
The clutch lever free play should be adjusted to 10 ~ 15 mm (0.4 ~ 0.6 in).

1. Loosen the locknut ①.
2. Turn the adjusting bolt ② in direction ① to increase free play or in direction ② to decrease free play.
3. Tighten the locknut ①.

If the specified free play cannot be obtained, proceed with the following steps.

4. Loosen the locknut ①.
5. Turn the adjusting bolt ② in direction ③ to loosen the cable.
6. Loosen the locknut ③.
7. Turn the adjusting nut ④ in direction ④ to increase free play or in direction ⑤ to decrease free play.
8. Tighten both locknuts.

# PERIODIC MAINTENANCE AND MINOR REPAIR



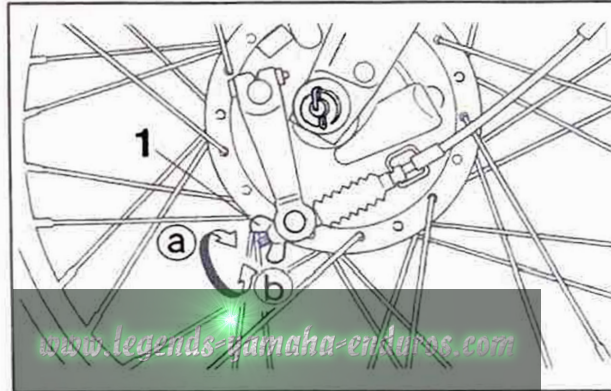
1. Locknut
2. Adjusting bolt
- c. Free play

EAU01472

## Front brake lever free play adjustment

The front brake lever free play should be adjusted to 10 ~ 15 mm (0.4 ~ 0.6 in).

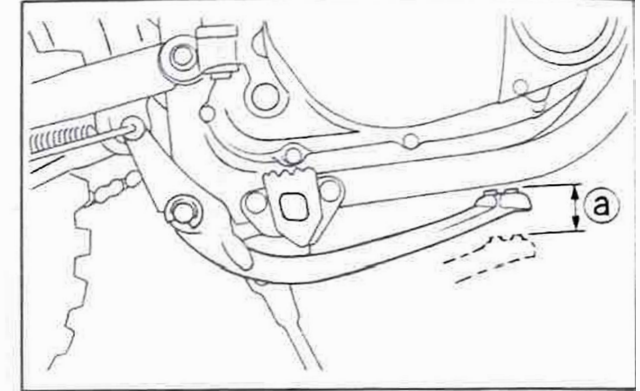
1. Loosen the locknut at the brake lever.
2. Turn the adjusting bolt at the brake lever in direction (a) to increase free play or in direction (b) to decrease free play.
3. Tighten the locknut at the brake lever.



1. Adjusting nut

If the specified free play cannot be obtained, proceed with the following steps.

4. Loosen the locknut at the brake lever.
5. Turn the adjusting bolt at the brake lever in direction (a) to loosen the cable.
6. Turn the adjusting nut at the brake hub in direction (a) to increase free play or in direction (b) to decrease free play.
7. Tighten the locknut at the brake hub and the brake lever.



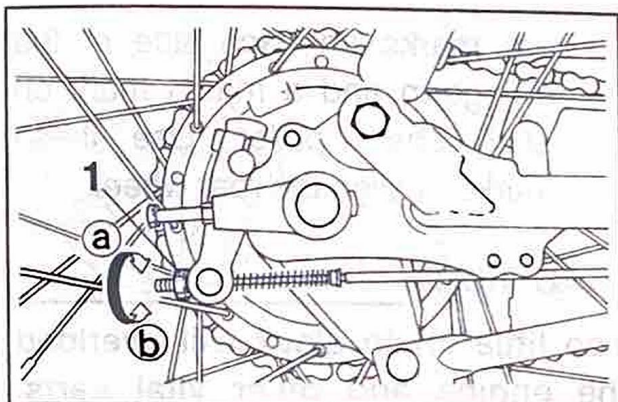
- a. Free play

EAU01510\*

## Rear brake pedal free play adjustment

The rear brake pedal free play should be adjusted to 20 ~ 30 mm (0.8 ~ 1.2 in) at the brake pedal end.

# PERIODIC MAINTENANCE AND MINOR REPAIR



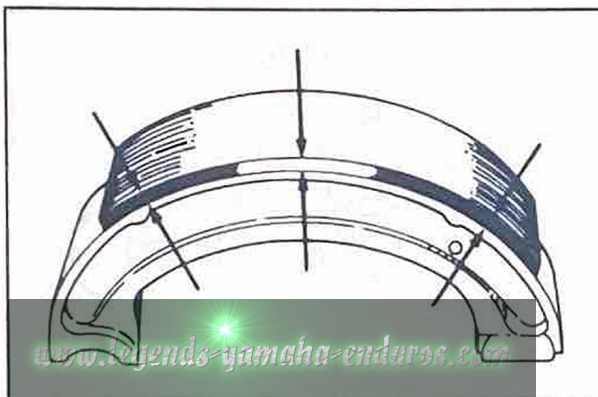
## 1. Adjusting nut

Turn the adjusting nut in direction ① to increase free play and in direction ② to decrease free play.

EW000102

### **! WARNING**

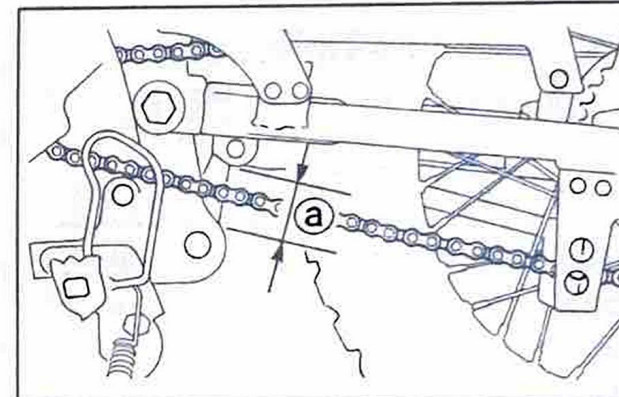
- Brake pedal free play should be checked whenever the chain is adjusted or the rear wheel is removed and then reinstalled.
- If it is impossible to make proper adjustment, consult a Yamaha dealer.



EAU01387

## Checking the front and rear brake shoes

Check the brake shoes for damage and wear. If the thickness is less than 2 mm (0.08 in), have a Yamaha dealer replace the shoes as a set.



a. Chain slack

EAU00744

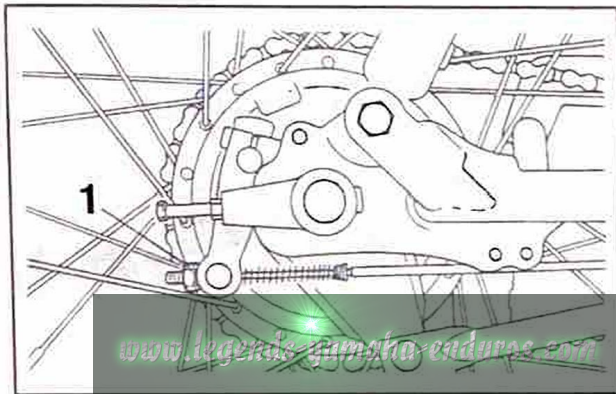
## Drive chain slack check

### NOTE:

Spin the wheel several times and find the tightest position of the chain. Check and/or adjust the chain slack while it's in this tightest position.

To check the chain slack the machine must be held straight up with both wheels on the ground and without rider. Check the slack at the position shown in the illustration. Normal slack is approximately 20 ~ 30 mm (0.8 ~ 1.2 in). If the slack exceeds 30 mm (1.2 in), adjust.

# PERIODIC MAINTENANCE AND MINOR REPAIR

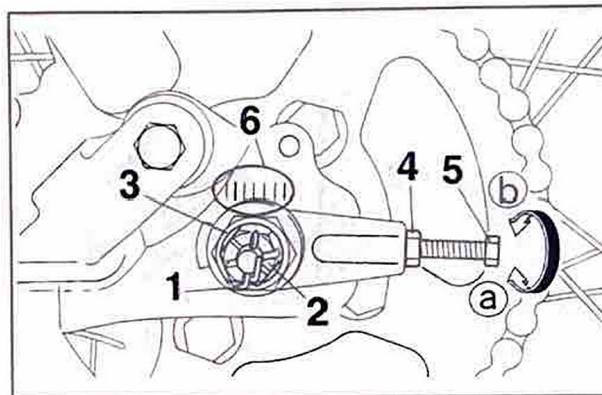


1. Adjusting nut

EAU00752

## Drive chain slack adjustment

1. Loosen the rear brake adjusting nut.



1. Cotter pin
2. Axle nut
3. Sprocket shaft nut
4. Locknut
5. Adjusting bolt
6. Alignment marks

2. Remove the cotter pin from the axle nut.
3. Loosen the axle nut.
4. Loosen the sprocket shaft nut and locknuts on each side. To tighten the chain, turn the chain adjusting bolt in direction (a). To loosen the chain, turn the chain adjusting bolt in direction (b) and push the wheel forward. Turn each adjusting nut exactly the same amount to maintain correct axle alignment. There

are marks on each side of the swingarm and a match mark on each chain puller. Use these marks to align the rear wheel.

EC000096

### CAUTION:

**Too little chain slack will overload the engine and other vital parts. Keep the slack within the specified limits.**

5. After adjusting, be sure to tighten the axle nut and sprocket shaft nut to the specified torque.

#### Tightening torque:

Axle nut:

39 Nm (3.9 m·kg, 28 ft·lb)

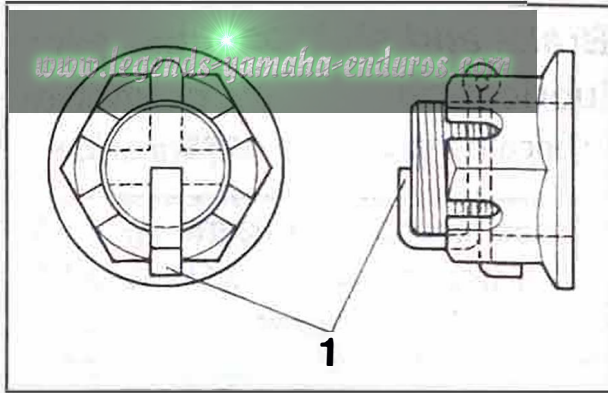
Sprocket shaft nut:

85 Nm (8.5 m·kg, 61 ft·lb)

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00767\*

EAU01541



1. Cotter pin

6. Insert a new cotter pin into the axle nut and bend the end of the cotter pin as shown in the illustration. If the notch in the nut and the cotter pin hole do not match, tighten the nut slightly to align them.

EW000110

## **! WARNING**

**Always use a new cotter pin on the axle nut.**

7. Adjust the free play in the brake pedal.

## Drive chain lubrication

The chain consists of many parts which work with each other. If the chain is not maintained properly, it will wear out quickly. Therefore, the chain must be serviced regularly. This service is especially necessary when riding in dusty areas.

1. Use Yamaha Chain and Cable Lube or any brands of spray-type chain lubricant. First, remove all dirt and mud from the chain with a brush or cloth, then spray lubricant between both rows of side plates and on all center rollers. The chain should be lubricated every 6 months.
2. To clean the chain, remove it from the machine, dip it in solvent, and clean out as much dirt as possible. Take the chain out of the solvent and dry it. Immediately lubricate the chain to prevent it from rusting.

## Cable inspection and lubrication

EW000111

### **! WARNING**

**Damage to the outer housing of cables may allow internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.**

Lubricate the cables and cable ends. If a cable does not operate smoothly, ask a Yamaha dealer to replace it.

Recommended lubricant:

Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00773

## Throttle cable and grip lubrication

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

EAU00774

## Autolube pump adjustment

The autolube pump is a vital part of the engine and requires very sophisticated adjustment. Adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to do so.

EAU00775

## Brake and shift pedal lubrication

Lubricate the pivoting parts.

Recommended lubricant:

Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Brake and clutch lever lubrication

EAU00777

Lubricate the pivoting parts.

Recommended lubricant:  
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

## Sidestand lubrication

EAU01542

Lubricate the sidestand pivoting point and metal-to-metal contact surfaces. Check that the sidestand moves up and down smoothly.

Recommended lubricant:  
Yamaha Chain and Cable Lube  
or SAE 10W30 motor oil

EW000113

### **WARNING**

**If the sidestand does not move smoothly, consult a Yamaha dealer.**

## Rear suspension lubrication

EAU00791

Lubricate the pivoting parts.

Recommended lubricant:  
Lithium soap base grease

# PERIODIC MAINTENANCE AND MINOR REPAIR

## Front fork inspection

### Visual check

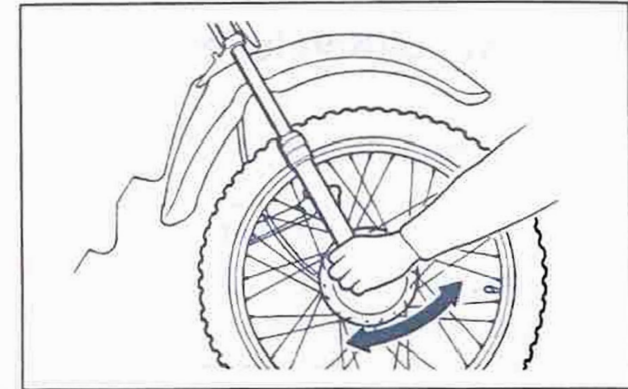
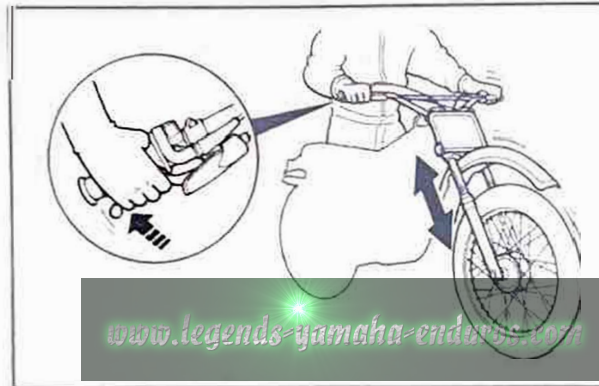
EAU02939

EW000115

#### **! WARNING**

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

Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.



EAU00794

### Operation check

1. Place the machine on a level place.
2. Hold the machine in an upright position and apply the front brake.
3. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

EC000098

#### **CAUTION:**

**If any damage or unsmooth movement is found with the front fork, consult a Yamaha dealer.**

## Steering inspection

Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous. Place a stand under the engine to raise the front wheel off the ground. Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.

EW000115

#### **! WARNING**

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



# PERIODIC MAINTENANCE AND MINOR REPAIR

## Wheel bearings

EAU01144

If there is play in the front or rear wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings.

## Supporting the machine

EAU01578

Since the Yamaha RT100 has no centerstand, follow these precautions when removing the front and rear wheel or performing other maintenance requiring the machine to stand upright. Check that the machine is in a stable and level position before starting any maintenance. A strong wooden box can be placed under the engine for added stability.

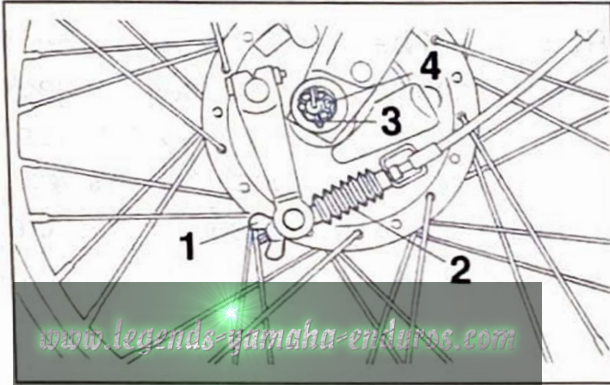
## Front wheel service

To stabilize the rear of the machine, either use a machine stand or place a machine jack under the frame in front of the rear wheel to prevent it from moving from side to side. Then use a machine stand to elevate the front wheel off of the ground.

## Rear wheel service

Use a machine stand or machine jack to elevate the machine so the rear wheel is off the ground. Alternatively, two jacks can be placed under the frame or swingarm.

# PERIODIC MAINTENANCE AND MINOR REPAIR



1. Adjusting nut
2. Cable
3. Cotter pin
4. Axle nut

EAU00906

## Front wheel removal

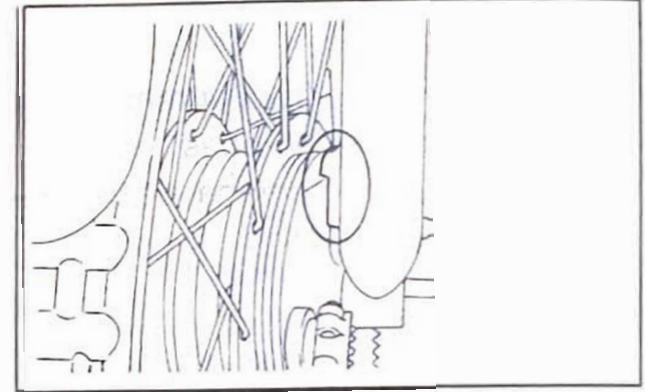
EW000122

### **⚠ WARNING**

- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the machine so there is no danger of it falling over.

1. Remove the adjusting nut and the cable from the cam lever at the front wheel hub.

2. Remove the cotter pin and axle nut.
3. Elevate the front wheel by placing a suitable stand under the engine.
4. Remove the wheel axle. Make sure the machine is properly supported.



EAU01471

## Front wheel installation

1. Lift up the wheel between the front fork legs.
2. Install the wheel axle (make sure the slot in the brake shoe plate fits over the stopper on the front outer tube) and let the machine down.
3. Push down hard on the handlebars several times to check for proper fork operation.
4. Install the wheel axle nut and tighten to the specified torque.

Tightening torque:

Wheel axle nut:

43 Nm (4.3 m·kg, 31 ft·lb)

# PERIODIC MAINTENANCE AND MINOR REPAIR

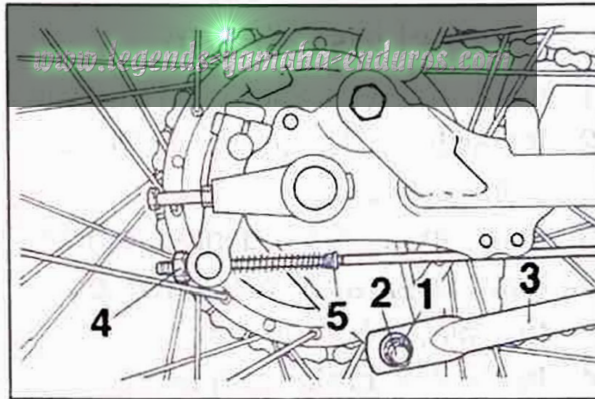
5. Install the cotter pin.

EW000124

## **! WARNING**

**Always use a new cotter pin.**

6. Install the brake cable and adjusting nut.
7. Adjust the brake lever free play.  
(See page 6-15.)



1. Cotter pin
2. Nut
3. Brake torque rod
4. Adjusting nut
5. Brake rod

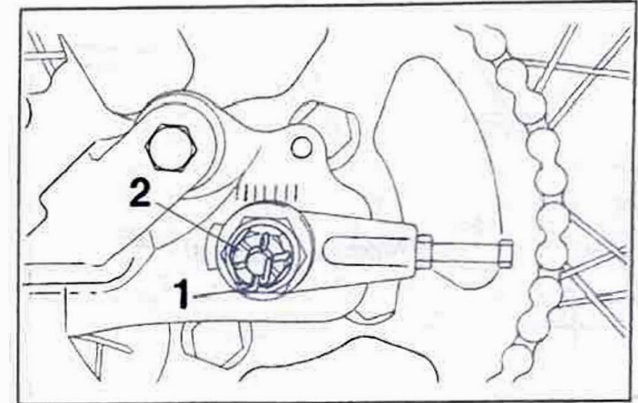
EAU01732

## Rear wheel removal

EW000122

## **! WARNING**

- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the machine so there is no danger of it falling over.



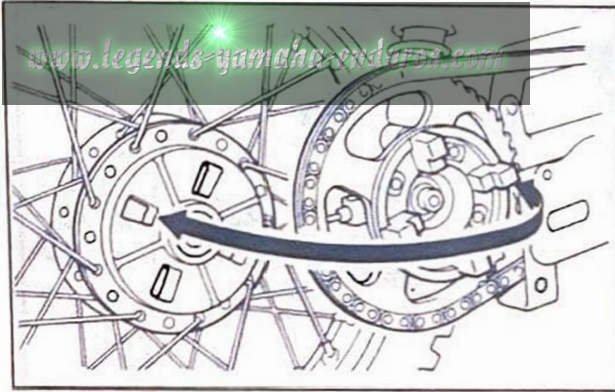
1. Cotter pin
2. Axle nut

1. Remove the cotter pin, nut and the brake torque rod bolt from the brake shoe plate.
2. Remove the brake free play adjusting nut and brake rod from the brake cam lever.
3. Loosen the wheel axle nut.
4. Elevate the rear wheel by placing a suitable stand under the engine.
5. Remove the wheel axle nut cotter pin and the axle nut.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01686\*

EW00G124



6. Pull out the axle.
7. Slide the wheel to the right and pull it backwards to remove.

## Rear wheel installation

1. Install the rear wheel and the axle.
2. Install the axle nut and let the machine down.
3. Insert the brake rod into the brake cam lever and install the brake free play adjusting nut.
4. Install the brake torque rod onto the brake shoe plate and tighten the bolt and axle nut to the specified tightening torque. Then install a new cotter pin.

### Specified torque:

Brake torque rod bolt:

18 Nm (1.8 m·kg, 13 ft·lb)

Axle nut:

39 Nm (3.9 m·kg, 28 ft·lb)

## **WARNING**

**Always use a new cotter pin.**

5. Adjust the rear brake pedal free play. (See page 6-15.)

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01008

## Troubleshooting

Although Yamaha machines receive a rigid inspection before shipment from the factory, trouble may occur during operation.

Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks.

If your machine requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealership have the tools, experience, and know-how to properly service your machine. Use only genuine Yamaha parts on your machine. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.

# PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01532

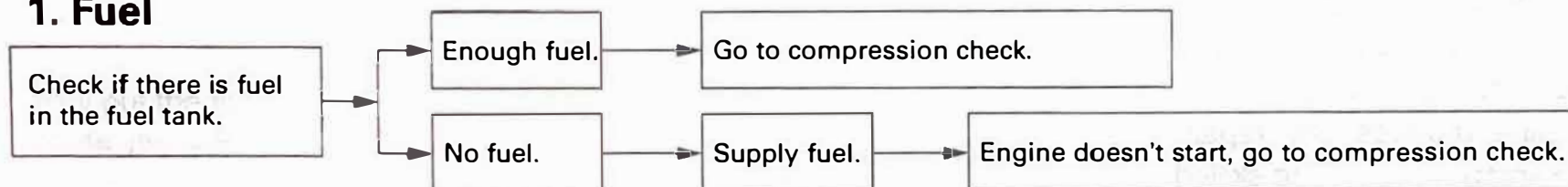
## Troubleshooting chart

EW000125

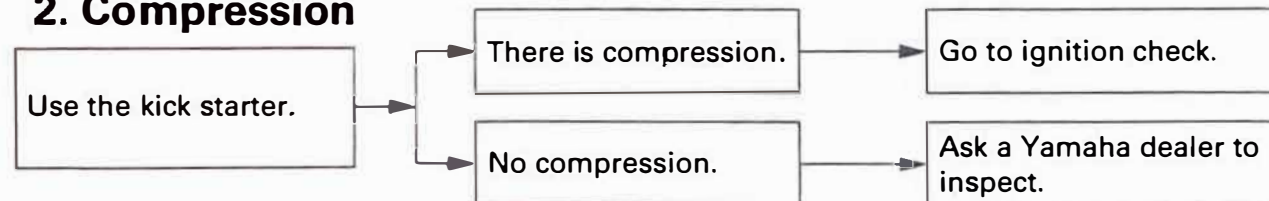
### WARNING

Never check the fuel system while smoking or in the vicinity of an open flame.

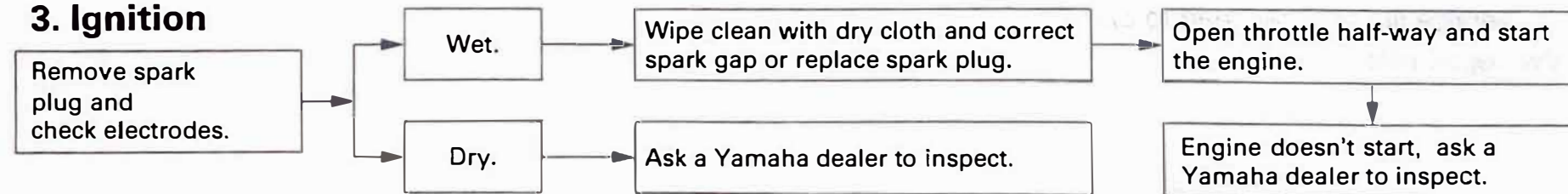
### 1. Fuel



### 2. Compression



### 3. Ignition



EAU01022

EC000111

## A. CLEANING

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

1. Before cleaning the machine:
  - a. Block off the end of the exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
  - b. Make sure the spark plug and all filler caps are properly installed.
2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the chain, sprockets or wheel axles.
3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job.

### CAUTION:

**Excessive hose pressure may cause water seepage and deterioration of wheel bearings, front fork, brakes, transmission seals and electrical parts.**

**Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.**

4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old toothbrush or bottle brush is handy for hard-to-get-at places.
5. Rinse the machine off immediately with clean water and dry all surfaces with a chamois, clean towel or soft absorbent cloth.
6. Dry the chain and lubricate it to prevent rust.

7. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
8. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish. When finished, start the engine and let it idle for several minutes.

# CLEANING AND STORAGE

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EAU01037

## B. STORAGE

Long term storage (60 days or more) of your machine will require some preventive procedures to guard against deterioration. After thoroughly cleaning the machine, prepare for storage as follows:

1. Drain the fuel tank, fuel lines, and carburetor float bowl.
2. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole and reinstall the spark plug. Kick the engine over several times (with the ignition off) to coat the cylinder wall with oil.
3. Remove the drive chain. Clean it thoroughly with solvent and lubricate it. Reinstall the chain or store it in a plastic bag (tied to frame for safe-keeping).
4. Lubricate all control cables.
5. Block up the frame to raise both wheels off the ground.

6. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
7. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.

**NOTE:**

Make any necessary repairs before storing the machine.



## Specifications

<b>Model</b>	<b>RT100</b>	<b>Engine oil</b>	
<b>Dimensions</b>		Type	YAMALUBE 2-cycle oil or 2-stroke engine oil
Overall length	1,795 mm (70.7 in)	Quantity	
Overall width	760 mm (29.9 in)	Total amount	1.0 L (0.88 Imp qt, 1.06 US qt)
Overall height	960 mm (37.8 in)	<b>Transmission oil</b>	
Seat height	730 mm (28.7 in)	Type	YAMALUBE 4 (10W30) or SAE10W30 type SE motor oil
Wheelbase	1,190 mm (46.9 in)	Quantity	
Ground clearance	200 mm ( 7.9 in)	Periodic oil change	0.65 L (0.57 Imp qt, 0.69 US qt)
Minimum turning radius	1,810 mm (71.3 in)	Total amount	0.7 L (0.62 Imp qt, 0.74 US qt)
<b>Basic weight (with oil and full fuel tank)</b>	79 kg (174 lb)	<b>Air filter</b>	Wet type element
<b>Engine</b>		<b>Fuel</b>	
Engine type	Air-cooled 2-stroke	Type	Unleaded fuel
Cylinder arrangement	Forward inclined single cylinder	Fuel tank capacity	5.0 L (1.1 Imp qt, 1.3 US qt)
Displacement	97 cm <sup>3</sup>	Reserve amount	1.5 L (0.3 Imp qt, 0.4 US qt)
Bore × Stroke	52.0 × 45.6 mm (2.05 × 1.80 in)	<b>Carburetor</b>	
Compression ratio	6.7:1	Type × quantity	VM22SS × 1
Starting system	Kick starter	Manufacturer	MIKUNI
Lubrication system	Separate lubrication (Yamaha autolube)	<b>Spark plug</b>	
		Type/Manufacturer	BR7ES / NGK
		Gap	0.7 ~ 0.8 mm (0.028 ~ 0.031 in)
		<b>Clutch type</b>	Wet, multiple-disc

# SPECIFICATIONS

## Transmission

Primary reduction system	Helical gear
Primary reduction ratio	3.895
Secondary reduction system	Chain drive
Secondary reduction ratio	3.429
Transmission type	Constant mesh 5-speed
Operation	Left foot operation
Gear ratio	
	1st 3.182
	2nd 2.000
	3rd 1.368
	4th 1.000
	5th 0.800

## Chassis

Frame type	Double cradle
Caster angle	29°
Trail	103 mm (4.1 in)

## Tires

Front	
Type	With tube
Size	2.50-18 4PR
Manufacturer/model	CHENG SHIN/KNOBBY

## Rear

Type	With tube
Size	3.00-16 4PR
Manufacturer/model	CHENG SHIN/KNOBBY
Air pressure (cold tire)	
Off-road riding	
Front	125 kPa (1.25 kgf/cm <sup>2</sup> , 18 psi)
Rear	125 kPa (1.25 kgf/cm <sup>2</sup> , 18 psi)

## Wheels

Front	
Type	Spoke
Size	18 × 1.40
Rear	
Type	Spoke
Size	16 × 1.60

## Brakes

Front	
Type	Drum brake
Operation	Right hand operation
Rear	
Type	Drum brake
Operation	Right foot operation

## Suspension

Front

Type

Telescopic fork

Rear

Type

Swingarm

## Shock absorbers

Front

Coil spring / oil damper

Rear

Coil spring / oil damper  
Spring preload adjustable

## Wheel travel

Front

110 mm (4.3 in)

Rear

80 mm (3.2 in)

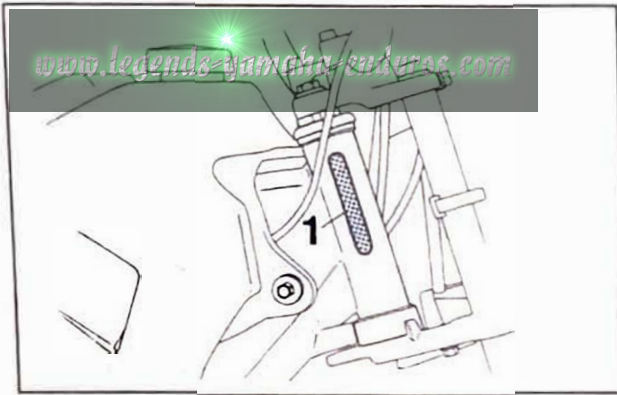
## Electrical system

Ignition system

C.D.I.

Generator system

C.D.I. magneto



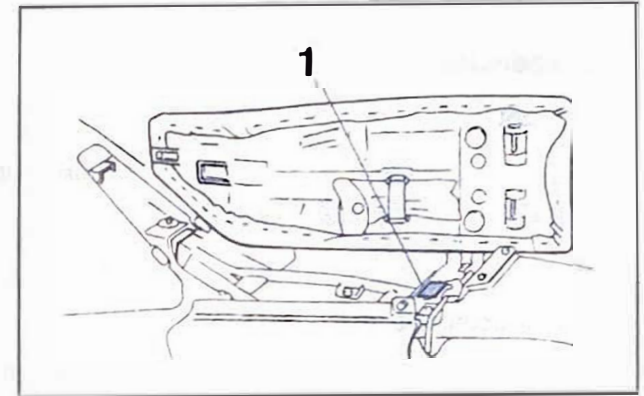
1. Vehicle identification number

EAU01043\*

## Vehicle identification number

The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

VEHICLE IDENTIFICATION  
NUMBER:



1. Model label

EAU01050\*

## Model label

The model label is affixed to the frame under the seat. (See page 3-6 for seat removal procedures.) Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.

MODEL LABEL INFORMATION:

## Machine noise regulation

### TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

“AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW”.

These acts include tampering with the following systems; i.e., modification, removal, etc.

Exhaust system	Muffler Exhaust pipe Silencer
Intake system	Air cleaner case Air cleaner element Intake duct

# CONSUMER INFORMATION

EAU02932

## Maintenance record

Make sure whoever performs the maintenance completes this record.

DATE OF SERVICE	SERVICING DEALER NAME AND ADDRESS	MILEAGE	MAINTENANCE	REMARKS
1 month				
6 months				
12 months				
18 months				
24 months				
30 months				
36 months				

# CONSUMER INFORMATION

DATE OF SERVICE	SERVICING DEALER NAME AND ADDRESS	MILEAGE	MAINTENANCE	REMARKS
42 months				
48 months				
54 months				
60 months	<a href="http://www.legends-yamaha-enduros.com">www.legends-yamaha-enduros.com</a>			

# CONSUMER INFORMATION

EAU02922

## YAMAHA MOTOR CORPORATION, U.S.A. OFF-ROAD MOTORCYCLE LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants that each new Yamaha off-road motorcycle purchased from an authorized Yamaha motorcycle dealer in the continental United States will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

**THE PERIOD OF WARRANTY** for Yamaha off-road motorcycles shall be ninety (90) days from the date of purchase, with no mileage limitation.

**MODELS EXCLUDED FROM WARRANTY** include those used for non-Yamaha-authorized renting, leasing, or other commercial purposes.

**DURING THE PERIOD OF WARRANTY** any authorized Yamaha motorcycle dealer will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corp. U.S.A.

**GENERAL EXCLUSIONS** from this warranty shall include any failures caused by:

- a. Competition or racing use (except TY models used for sanctioned trials).
- b. Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- c. Abnormal strain, neglect, or abuse.
- d. Lack of proper maintenance.
- e. Accident or collision damage.
- f. Modification to original parts.

**SPECIFIC EXCLUSIONS** from this warranty shall include parts replaced due to normal wear or routine maintenance.

**THE CUSTOMER'S RESPONSIBILITY** under this warranty shall be to:

1. Operate and maintain the motorcycle as specified in the appropriate Owner's Manual, and
2. Give notice to an authorized Yamaha motorcycle dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs at such dealer's place of business.

**WARRANTY TRANSFER:** To transfer the warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized Yamaha motorcycle dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.

**YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.**

**SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY IN-**

**cidental or consequential damages including loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.**

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

YAMAHA MOTOR CORPORATION, U.S.A.  
P. O. Box 6555  
Cypress, California 90630



## WARRANTY QUESTIONS AND ANSWERS

- Q. What costs are my responsibility during the warranty period?
- A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damages, and oil, oil filters, air filters, spark plugs, and brake shoes.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
- A. These terms are general and overlap each other in areas. Specific examples include: Running the machine out of oil, sustained high-rpm, full-throttle, operating the machine with a broken or damaged part which causes another part to fail, damage or failure due to improper or careless transportation and or tie down. If you have any specific questions on operation or maintenance, please contact your dealer for advice.
- Q. Does the warranty cover incidental costs such as towing or transportation due to a failure?
- A. No. The warranty is limited to repair of the machine itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's Manual instead of having the dealer do them?
- A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's and Service Manual. We do recommend, however, that items requiring special tools or equipment be done by Yamaha Motorcycle dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new motorcycle exactly as specified in the Owner's Manual?
- A. No. The warranty on a new motorcycle cannot be "voided" or "cancelled." However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's Manual, that failure may not be covered under warranty.
- Q. What responsibility does my dealer have under this warranty?
- A. Each Yamaha Motorcycle dealer is expected to:
1. Completely set up every new machine before sale.
  2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date.
  3. Each Yamaha Motorcycle dealer is held responsible for his setup, service and warranty repair work.
- Q. Is the warranty transferable to second owners?
- A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha Motorcycle dealer for the policy to remain effective.

## CUSTOMER SERVICE

If your machine requires warranty service, you must take it to any authorized Yamaha Motorcycle dealer within the continental United States. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

YAMAHA MOTOR CORPORATION U.S.A.  
CUSTOMER RELATIONS DEPARTMENT  
P.O. Box 6555  
Cypress, California 90630

When contacting Yamaha Motor Corporation, U.S.A. don't forget to include any important information such as names, addresses, model, V.I.N. (frame number), dates, and receipts.

## CHANGE OF ADDRESS

The federal government requires each manufacturer of a motor vehicle to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase.

If you should move after you have purchased your new motorcycle, please advise us of your new address by sending a postcard listing your motorcycle model name, V.I.N. (frame number), dealer number (or dealer's name) as it is shown on your warranty card, your name and new mailing address. Mail to:

YAMAHA MOTOR CORPORATION, U.S.A.  
P.O. Box 6555  
Cypress, California 90630  
Attention: Warranty Department

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.

**PROTECT YOUR INVESTMENT**

**Use Genuine YAMAHA Parts And Accessories**

**See your Authorized YAMAHA Dealer for a Genuine YAMAHA Service Manual.**

[www.legends-yamaha-enduros.com](http://www.legends-yamaha-enduros.com)



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