

YAMAHA

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OWNER'S MANUAL
RT100J

3UL-28199-77

INTRODUCTION

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.

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IMPORTANT MANUAL INFORMATION

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



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

! WARNING

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.

 WARNING

PLEASE READ THIS MANUAL 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.

 **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.

EAA00100

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RT100J

OWNER'S MANUAL

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1st Edition, June 1996

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Printed in Japan

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! SAFETY INFORMATION

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 EXPERTISE 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.**

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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.

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.**

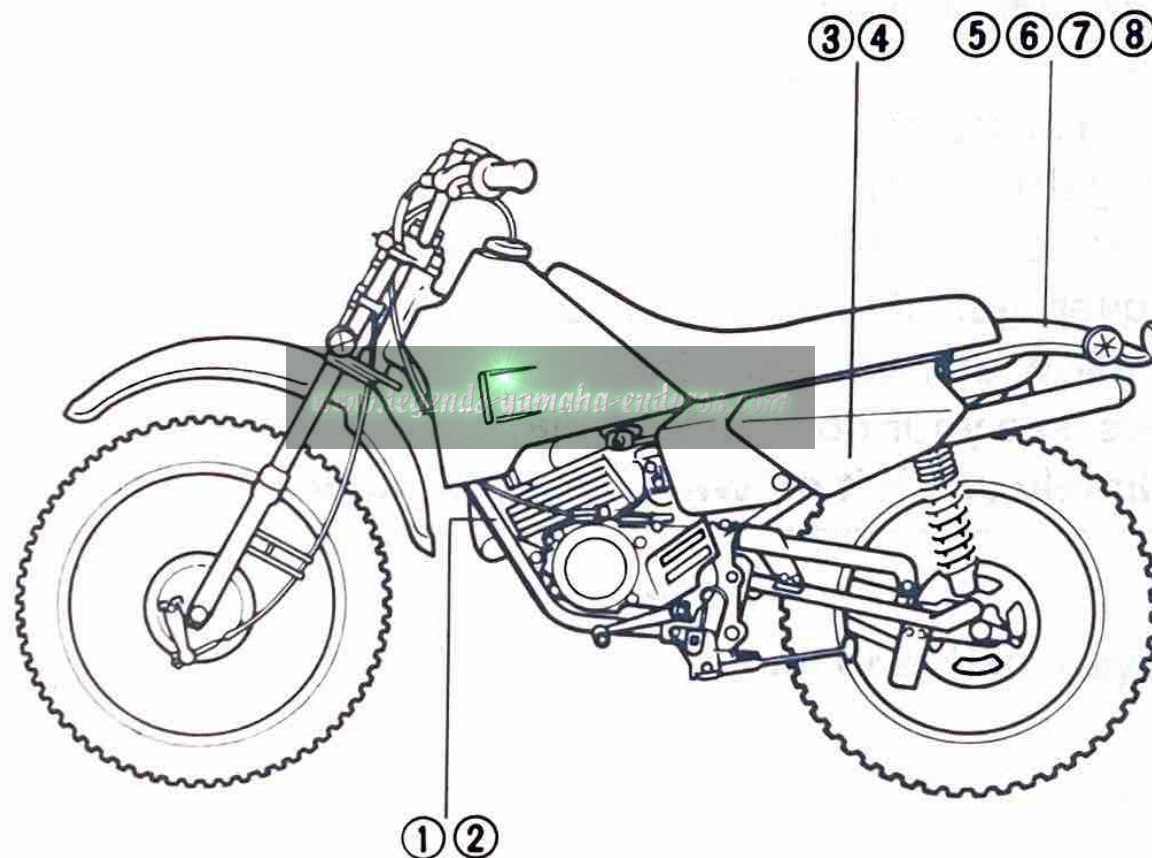
GASOLINE AND EXHAUST GAS

- 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.**

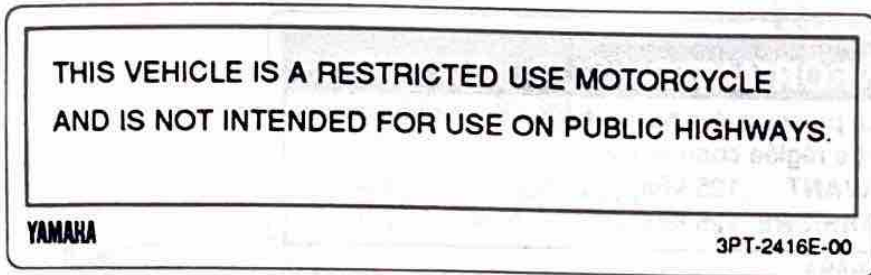
- 3. Always turn off the engine before leaving the machine unattended and remove the ignition key. When parking the machine, note the following:**
 - a. The engine and exhaust system may be hot. Park the machine in a place where pedestrians or children are not likely to touch these hot areas.**
 - b. 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.**

LOCATION OF THE IMPORTANT LABELS

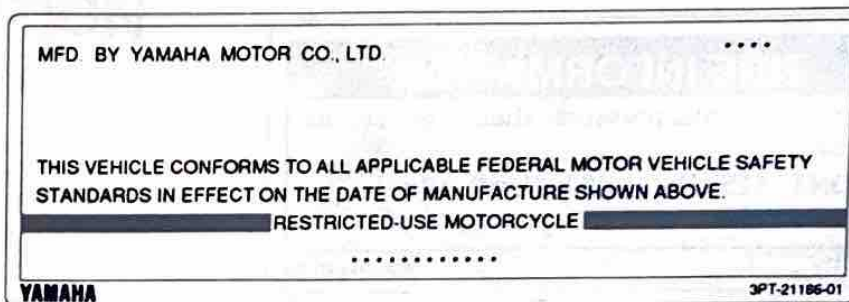
Please read the following labels carefully before operating this machine.



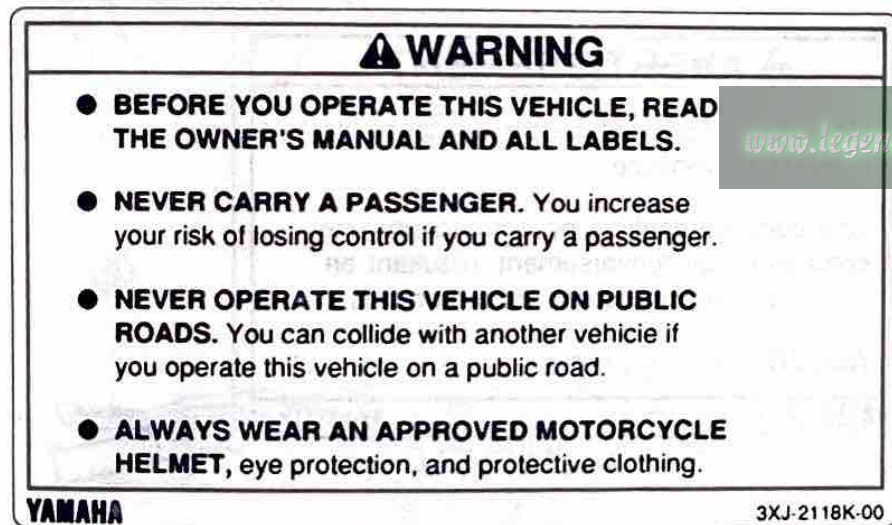
① (Left)



② (Right)



③ (Left)



④ (Right)



5

TIRE INFORMATION

Cold tire normal pressure should be set as follows.

FRONT : 125 kPa, {1.25 kgf/cm²}, 18 psi

REAR : 125 kPa, {1.25 kgf/cm²}, 18 psi

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3UL-21668-00

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INFORMATION SUR LES PNEUS

La pression des pneus à froid doit normalement être réglée comme suit.

AVANT : 125 kPa, {1.25 kgf/cm²}, 18 psi

ARRIERE : 125 kPa, {1.25 kgf/cm²}, 18 psi

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3UL-21668-12

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⚠ 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.

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3XJ-2151H-00

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⚠ AVERTISSEMENT

Un passager pourrait causer une perte de contrôle du véhicule.

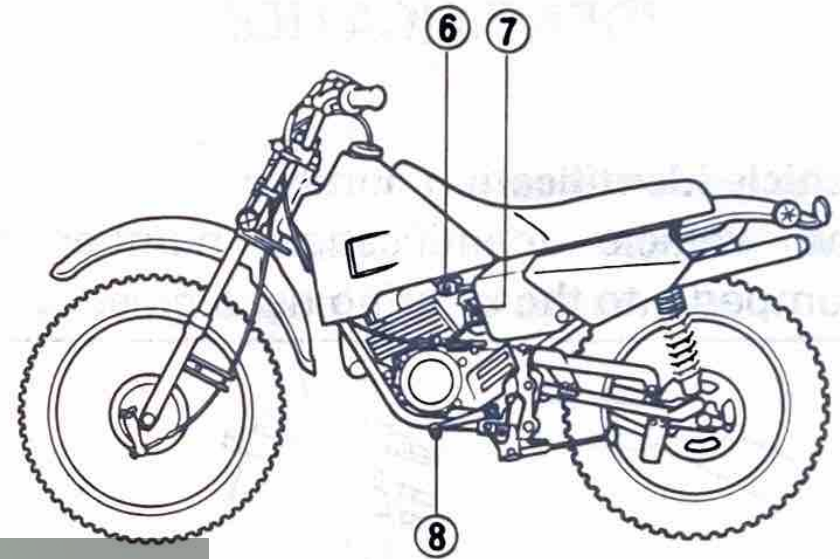
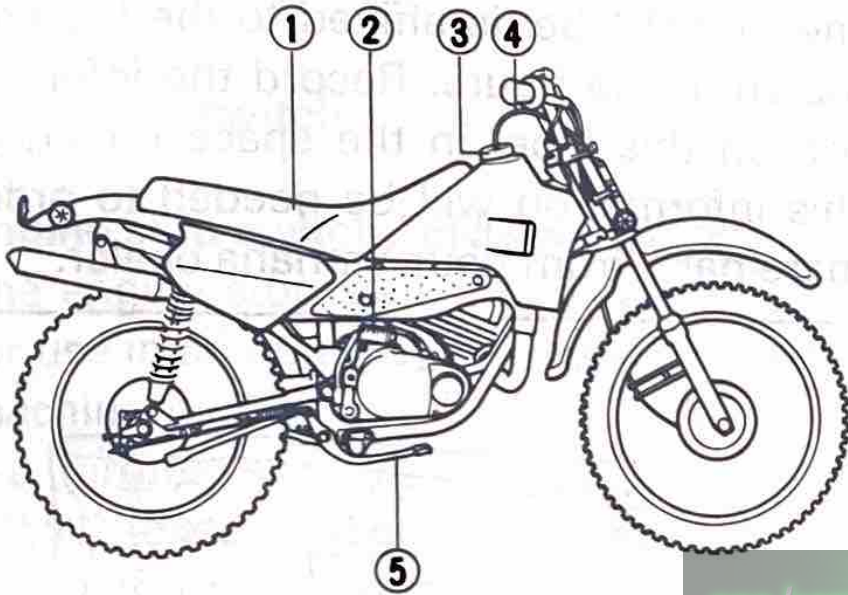
Une perte de contrôle peut provoquer une collision ou un renversement, résultant en des blessures sérieuses, voire mortelles.

AUCUN passager permis.

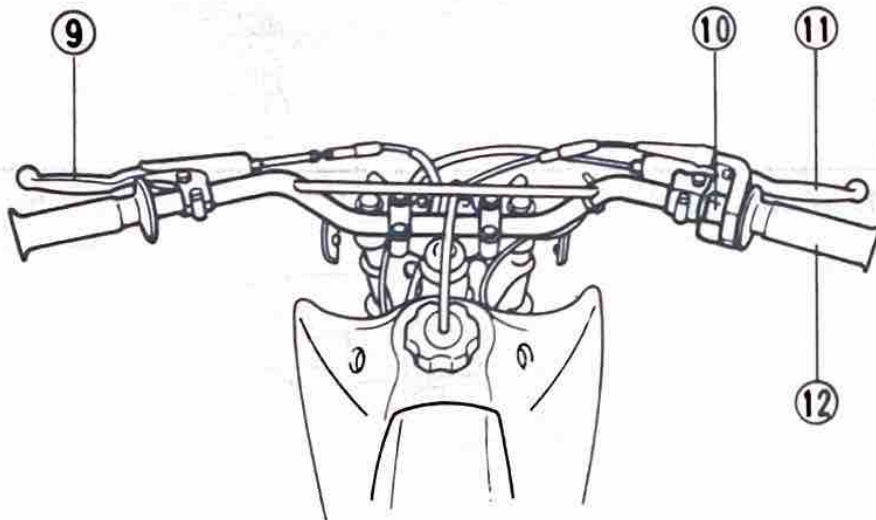
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3XJ-2151H-10

DESCRIPTION



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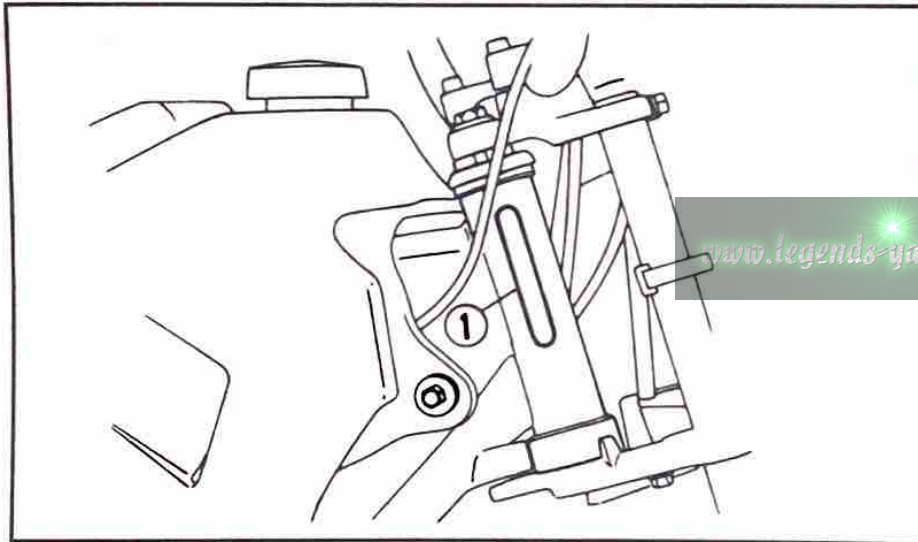
1. Seat
2. Kick starter
3. Fuel tank cap
4. Fuel tank breather hose
5. Rear brake pedal
6. Fuel cock
7. Starter "CHOKE"
8. Shift pedal
9. Clutch lever
10. Engine stop switch
11. Front brake lever
12. Throttle grip

MACHINE IDENTIFICATION

EAA80000

Vehicle identification number

The vehicle identification number is stamped into the steering head pipe.



1. Vehicle identification number

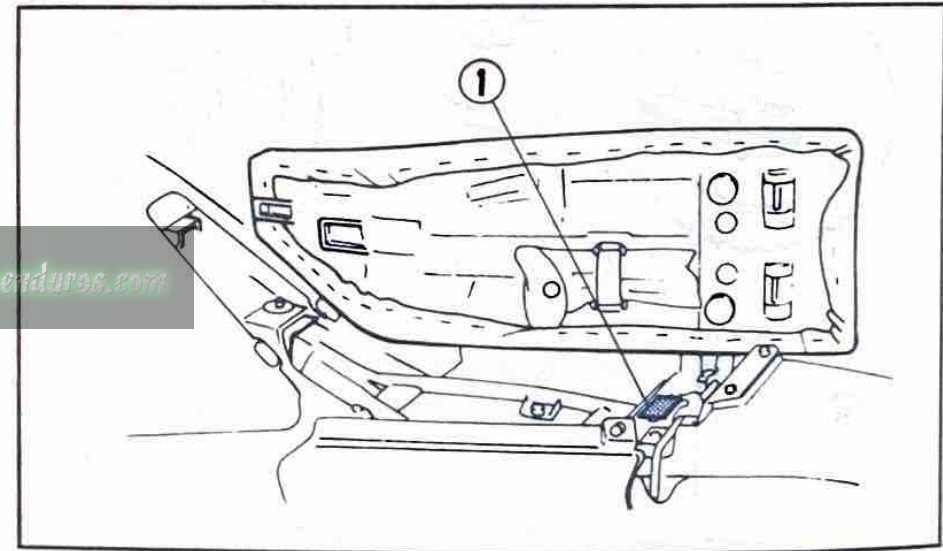
EUU00400

NOTE:

The vehicle identification number is used to identify your machine and may be used to register your machine with the licensing authority in your state.

Model label

The model label is affixed to the location shown in the figure. Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.



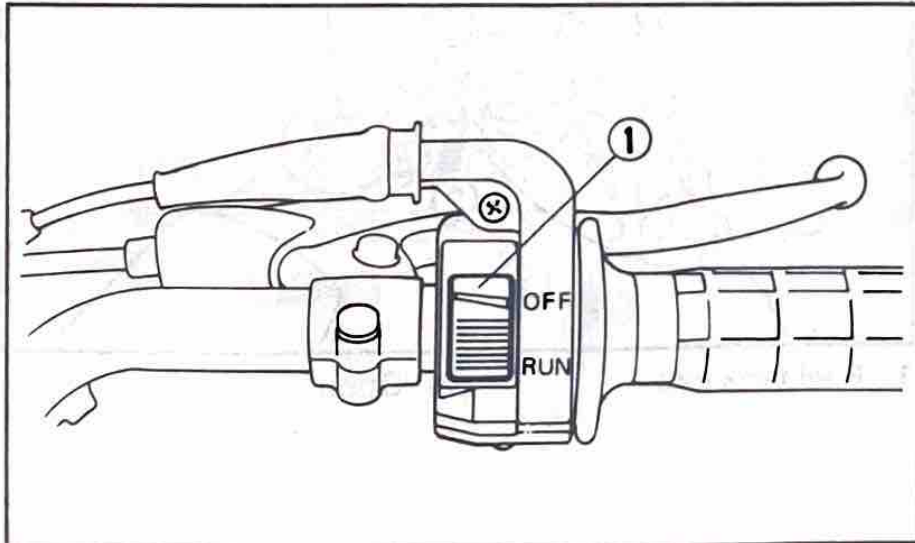
1. Model label

CONTROL FUNCTIONS

Handlebar switch

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. Engine stop switch "ENGINE STOP"

Clutch lever

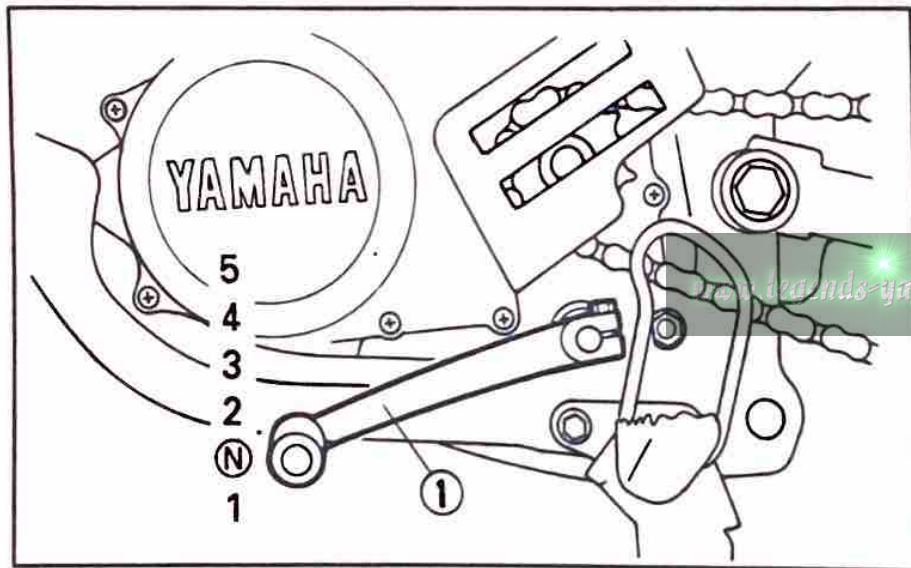
The clutch lever is located on the left handlebar. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth clutch operation.

EAB80001

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.



N. Neutral

1. Shift pedal

EAB90001

Front brake lever

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

EAB90101

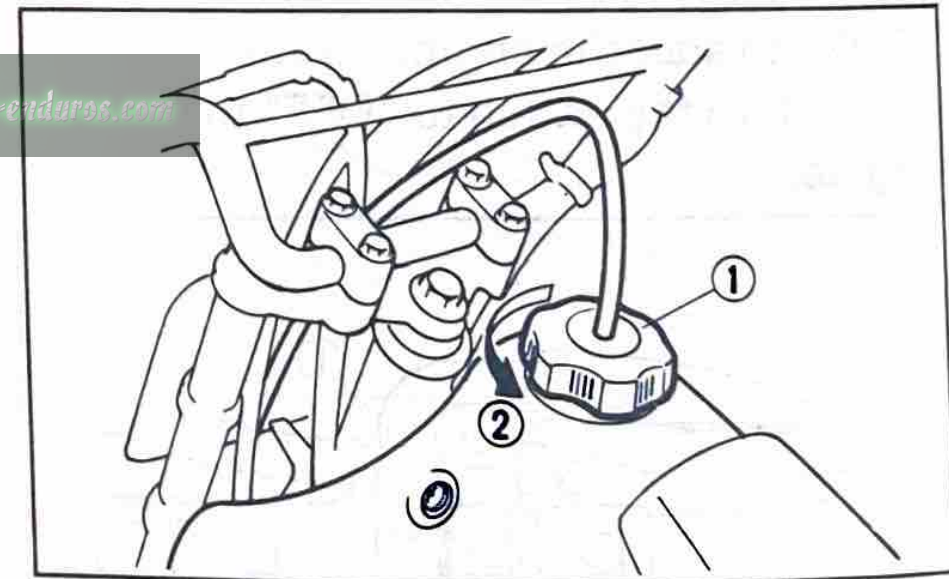
Rear brake pedal

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

EAC01100

Fuel tank cap

Remove the fuel tank cap by turning it counterclockwise.



1. Fuel tank cap

2. Open

Fuel cock

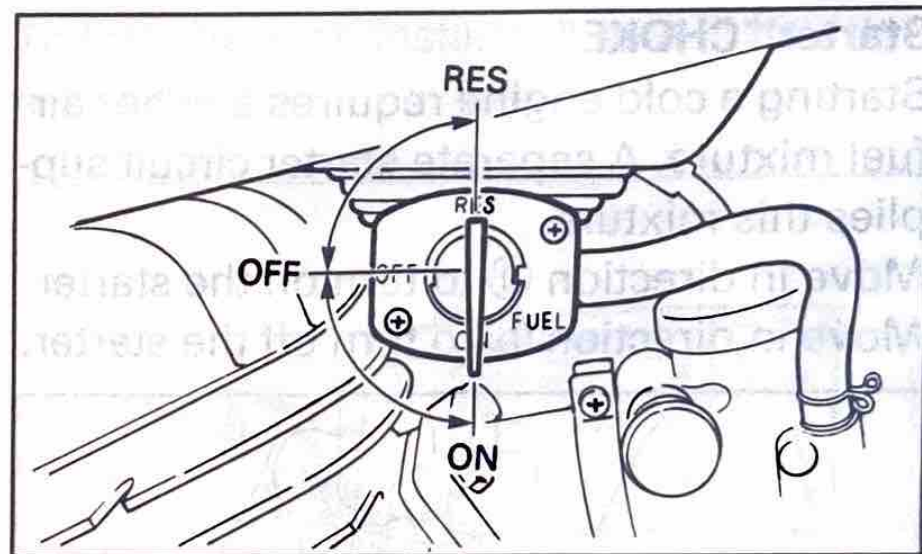
The fuel cock supplies fuel from the tank to the carburetor while filtering it also.

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.

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

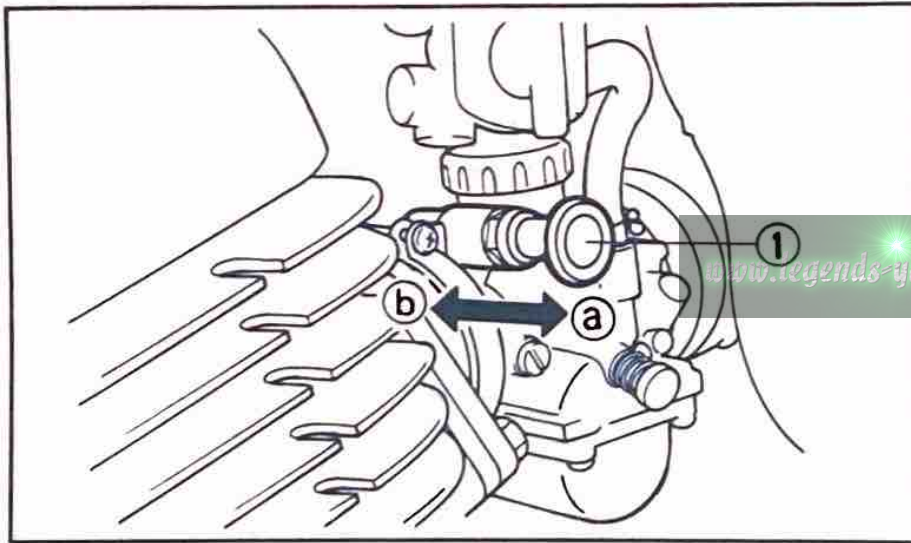
RES: This indicates reserve. If you run out of fuel while riding, move the lever to this position. FILL THE TANK AT THE FIRST OPPORTUNITY. BE SURE TO SET THE LEVER TO "ON" AFTER REFUELING.



Starter "CHOKE"

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

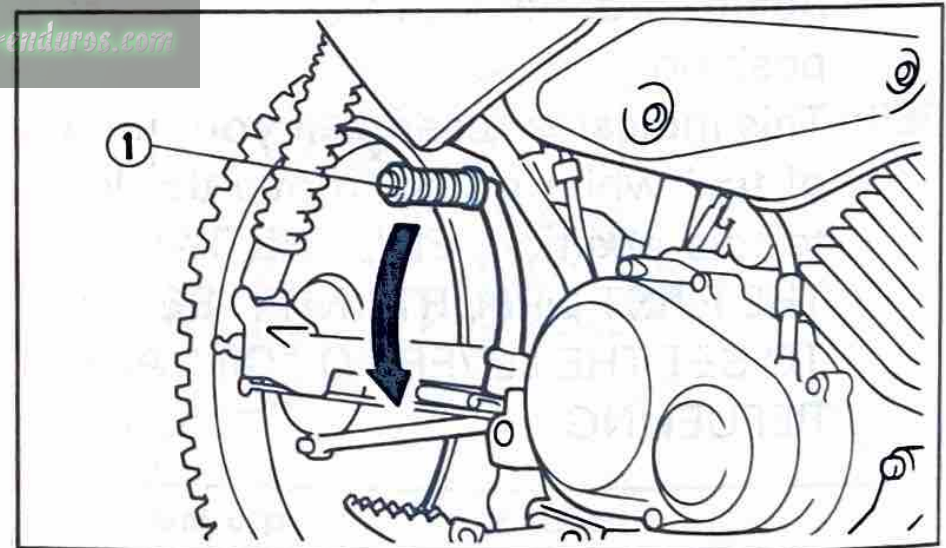
Move in direction (a) to turn on the starter.
Move in direction (b) to turn off the starter.



1. Starter "CHOKE"

Kick starter

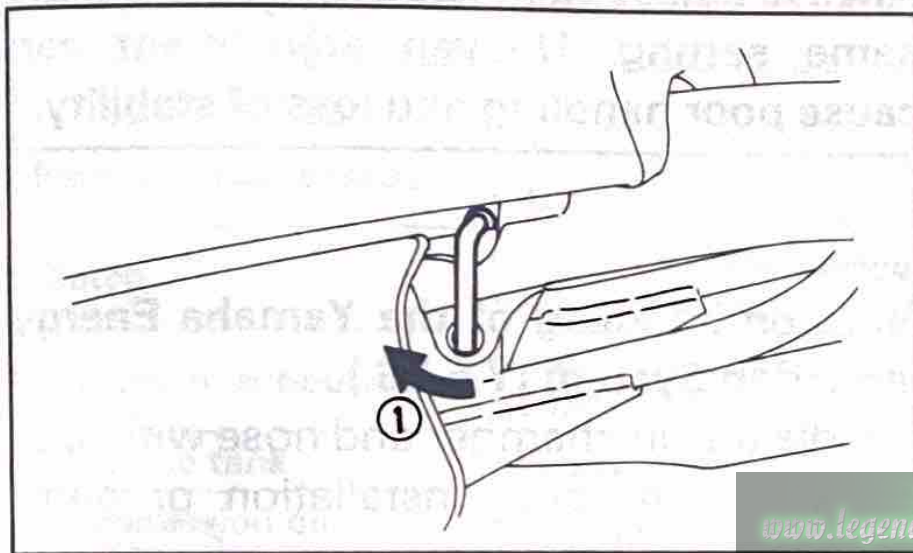
Rotate the kick starter away from the engine. Push the starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine. This model has a primary-coupled kick starter so the engine can be started in any gear if the clutch is disengaged. However, shifting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



1. Kick starter

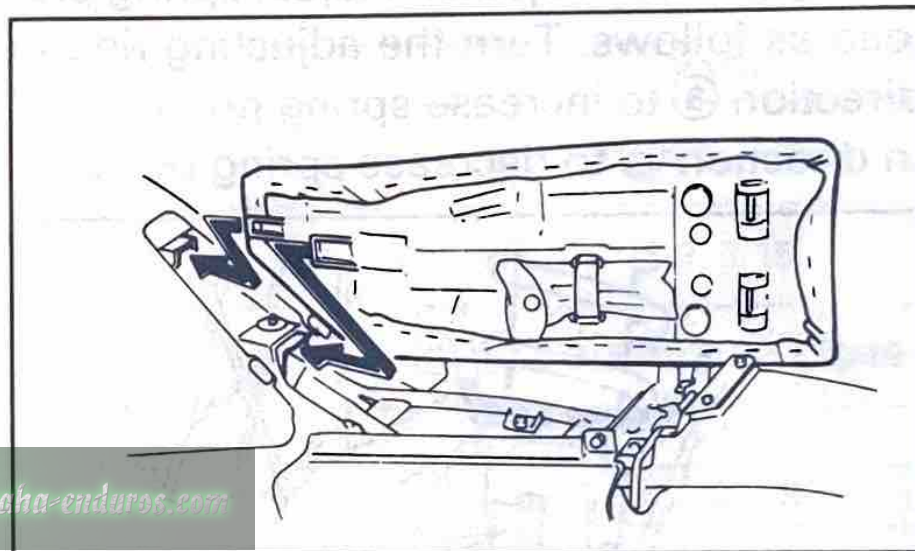
Seat

To open the seat, turn the knob as shown.



1. Open

To lock the seat, install the seat in its original position.

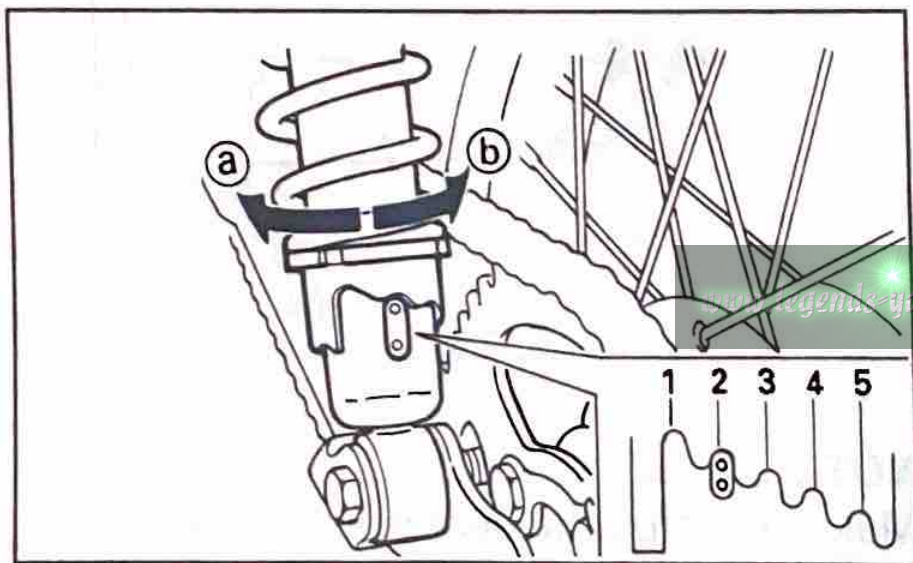


EUU01700

NOTE: _____
Make sure that the seat is securely fitted.

Rear shock absorber adjustment

Each shock absorber is equipped with a spring preload adjuster. Adjust spring preload as follows. Turn the adjusting ring in direction (a) to increase spring preload and in direction (b) to decrease spring preload.



a. Increase

b. Decrease

| | Soft | Standard | Hard | | |
|--------------------|------|----------|------|---|---|
| Adjusting position | 1 | 2 | 3 | 4 | 5 |

! WARNING

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

Note on handling of the Yamaha Energy Induction System (Y.E.I.S.)

Handle the air chamber and hose with special care. Improper installation or damaged parts will result in poor performance. Replace any cracked or damaged parts immediately. No modification of this system in any form can be made.

CAUTION:

Never attempt to modify the Yamaha Energy Induction System.

PRE-OPERATION CHECKS

Before using this machine, check the following points:

| ITEM | ROUTINE | PAGE |
|--------------------------------------|---|------------------------|
| Front and rear brakes | <ul style="list-style-type: none"> • Check operation, condition and free play. • Adjust if necessary. | 6-3, 8-12 ~ 8-14 |
| Clutch | <ul style="list-style-type: none"> • Check operation, condition and free play. • Adjust if necessary. | 6-3, 8-15 |
| Throttle grip/housing | <ul style="list-style-type: none"> • Check for smooth operation. • Lubricate/adjust if necessary. | 6-3, 8-10 ~ 8-11, 8-19 |
| Autolube tank | <ul style="list-style-type: none"> • Check oil level/top up as required. | 8-19 |
| Transmission oil | <ul style="list-style-type: none"> • Check oil level/top up as required. | 6-4, 8-5 ~ 8-7 |
| Drive chain | <ul style="list-style-type: none"> • Check chain slack and condition. • Adjust if necessary. | 6-4, 8-15 ~ 8-18 |
| Wheels/tires | <ul style="list-style-type: none"> • Check tire pressure, wear, damage and spoke tightness. | 6-4 ~ 6-7, 8-22 ~ 8-25 |
| Control cables | <ul style="list-style-type: none"> • Check for smooth operation. • Lubricate if necessary. | 8-19 |
| Brake and shift pedal shafts | <ul style="list-style-type: none"> • Check for smooth operation. • Lubricate if necessary. | 8-20 |
| Brake and clutch lever pivots | <ul style="list-style-type: none"> • Check for smooth operation. • Lubricate if necessary. | 8-20 |
| Sidestand pivot | <ul style="list-style-type: none"> • Check for smooth operation. • Lubricate if necessary. | 8-20 |

| ITEM | ROUTINE | PAGE |
|--------------------------|--|---------|
| Chassis fasteners | <ul style="list-style-type: none"> • Check all chassis fittings and fasteners. • Tighten/adjust, if necessary. | 6-7 |
| Fuel tank | <ul style="list-style-type: none"> • Check fuel level/top up as required. | 6-7~6-8 |

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

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If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the machine.

Brakes

1. Brake lever and brake pedal
Check for correct free play in the front brake lever and rear brake pedal and adjust if necessary. (See page 8-12 for details.) Make sure the brakes are working properly by checking at low speed shortly after starting out.
2. Check the brake shoes.
Refer to page 8-14.

EUU02201

NOTE:

When this brake service is necessary, consult a Yamaha dealer.

EAE20001

Clutch

Check the free play in the clutch lever, and make sure the clutch operates properly. If the free play is incorrect, adjust it. (See page 8-15 for details.)

EAE30201

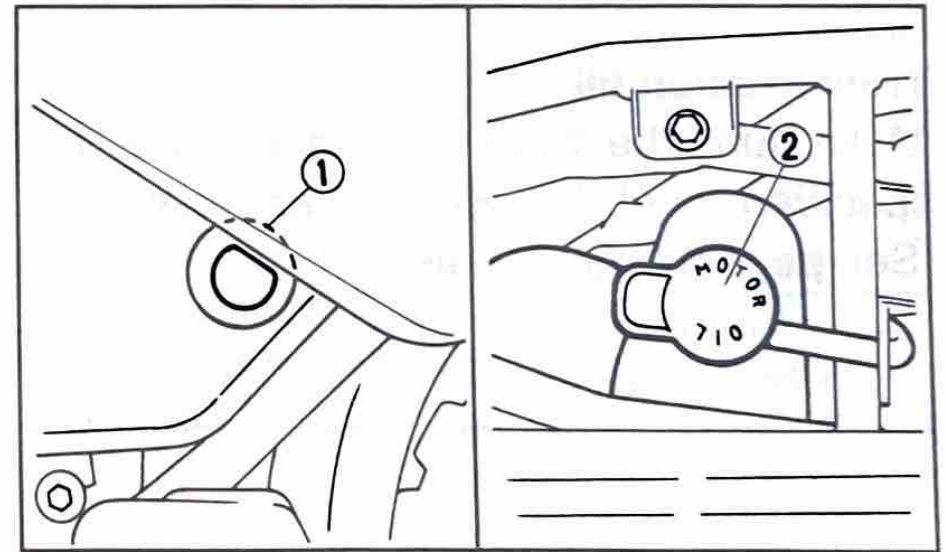
Throttle grip

Turn the throttle grip to see if it operates properly, and check the free play. If the free play is incorrect, adjust it. (See page 8-10 for details.) Make sure the grip returns by spring force when released. If it doesn't return smoothly, ask a Yamaha dealer to make any necessary adjustments.

EAE41302

Engine oil

Make sure the engine oil is at the specified level. Fill with oil as necessary.



1. Oil level window

2. Oil tank filler cap

Recommended oil:

YAMALUBE 2-cycle oil or
air-cooled 2-stroke engine oil

Oil quantity:

Total amount

1.0 L (0.88 Imp qt, 1.06 US qt)

EUU04201

NOTE:

Be sure the cap is properly seated when replacing.

Recommended oil:

YAMALUBE 4 (10W30) or
SAE 10W30 type SE motor oil

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)

EAE50001

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Chain

Check the general condition of the chain and the chain slack before every ride. Lubricate and adjust the chain as necessary. (See page 8-15 for details.)

EAE96200

Tires

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

EAE41901

Transmission oil

Make sure the transmission oil is at the specified level. Fill with oil as necessary. (See page 8-5 for details.)

1. Tire air pressure

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

EUU79000

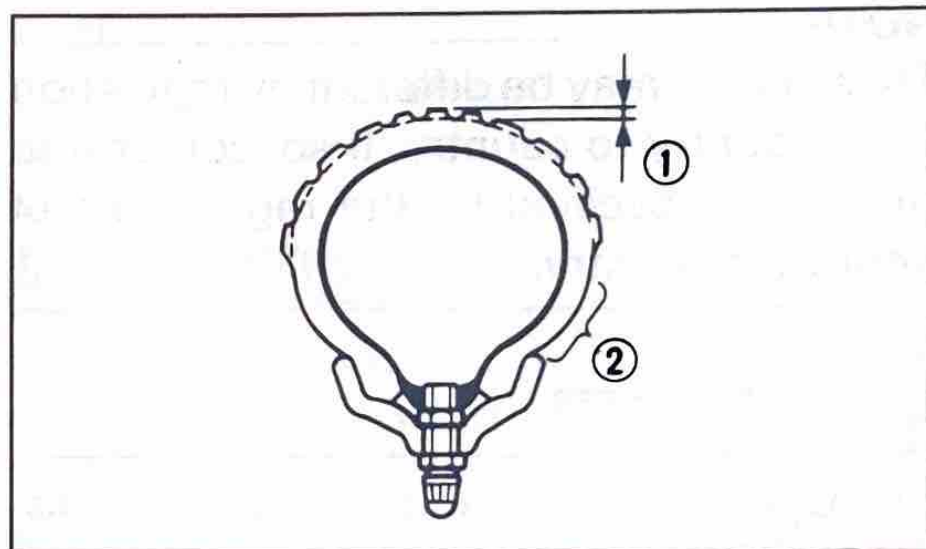
! WARNING

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 ² , 18 psi) | 125 kPa (1.25 kgf/cm ² , 18 psi) |

2. Tire inspection

Always check the tires before operating the machine. If center tread depth reaches the limit as shown, 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.



1. Tread depth

2. Side wall

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) | 4.5 mm (0.18 in) |
|--|------------------|

NOTE:

These limits may be different by regulation from country to country. If so, conform to the limits specified by the regulations of your own country.

⚠ WARNING

- 1. Operating the machine with excessively worn tires decrease riding stability and can lead to loss of control. Have excessively worn tires replaced by a Yamaha dealer immediately. Brakes, tires, and related wheel parts replacement should be left to a Yamaha Service Technician.**
- 2. 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.**

Wheels

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

- 1. 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.**
- 2. 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.

EAE85101

Chassis fasteners

Always check the tightness of all chassis nuts, bolts and screws before a ride. Take the machine to a Yamaha dealer or refer to the Service Manual for correct tightening torque.

EAE71101

Switch

Check the operation of the engine stop switch.

EAE80000

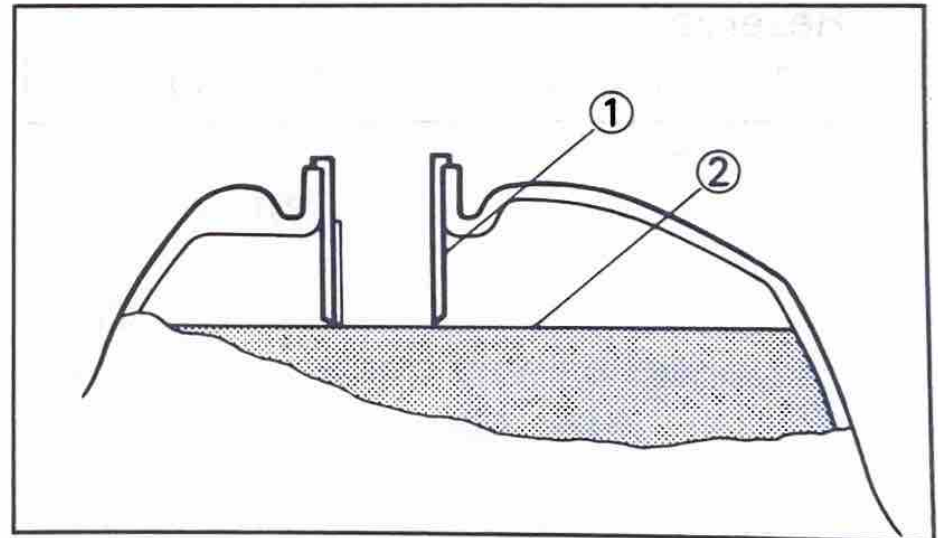
Fuel

Make sure there is sufficient fuel in the tank.

EUU61000

! 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 as shown in the illustration or it may overflow when the fuel heats up later and expands.



1. Filler tube

2. Fuel level

CAUTION:

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

EAE81600

Recommended fuel:

REGULAR UNLEADED GASOLINE

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.

OPERATION AND IMPORTANT RIDING POINTS

EUU72201

WARNING

1. **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.**
2. **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.**
3. **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.**

EAF19501

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 back to the halfway position.

EUU02600

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.

EUU02701

NOTE:

The engine is warm when it responds normally to the throttle with the starter "CHOKE" turned off.

Starting a warm engine

The starter "CHOKE" is not required when the engine is warm.

EUU31401

CAUTION:

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

EAF20003

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. (Page 5-2) To shift into neutral, depress the shift pedal repeatedly until it reaches the end of its travel, then raise the pedal slightly.

CAUTION:

1. 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.
2. 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.

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.

1. 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.
2. 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.
3. After break-in
Avoid prolonged full-throttle operation. Vary speed occasionally.

EUU32200

CAUTION:

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

EAF40300

Parking

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

EUU63000

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

EAH00101

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 most important points of machine inspection, adjustment, and lubrication are explained in the following pages.

“Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual using any part which is certified (if applicable)”.

EUU63200

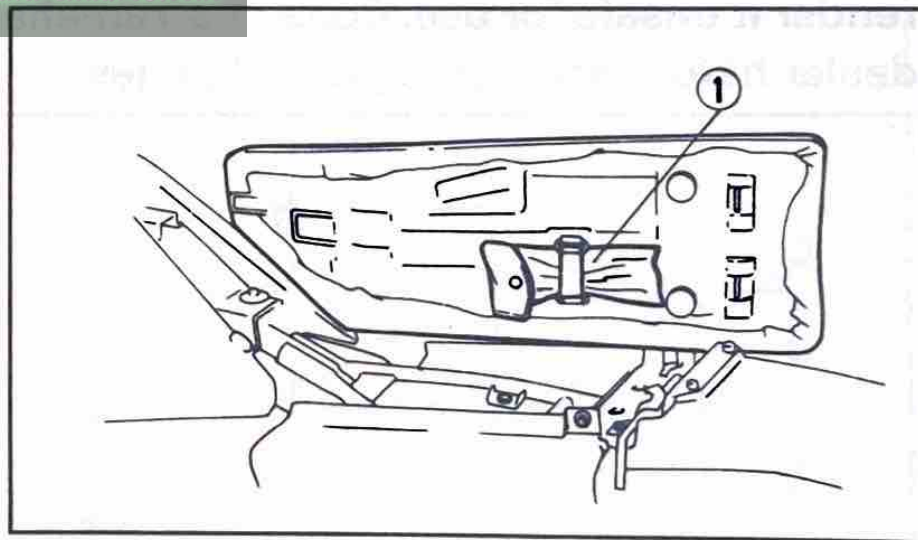
! WARNING

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

EAH10102

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.



1. Tool kit

NOTE:

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

! 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 / LUBRICATION

| ITEM | ROUTINE | BREAK-IN 1 month | EVERY | |
|--------------------------|---|---------------------|----------|-----------|
| | | | 6 months | 12 months |
| Spark plug | <ul style="list-style-type: none"> • Check condition. • Clean or replace if necessary. | ○ | ○ | ○ |
| Air filter | <ul style="list-style-type: none"> • Clean. • Replace if necessary. | | ○ | ○ |
| Carburetor* | <ul style="list-style-type: none"> • Check idle speed/starter operation. • Adjust if necessary. | ○ | ○ | ○ |
| Fuel line* | <ul style="list-style-type: none"> • Check fuel hose for cracks or damage. • Replace if necessary. | | ○ | ○ |
| Transmission oil* | <ul style="list-style-type: none"> • Check oil level/oil leakage. • Correct if necessary. • Replace every 24 months. (Warm engine before draining) | REPLACE | ○ | ○ |
| Autolube pump* | <ul style="list-style-type: none"> • Check operation. • Correct if necessary. • Air bleeding. | ○ | ○ | ○ |
| Brakes* | <ul style="list-style-type: none"> • Check operation. • Adjust if necessary. | | ○ | ○ |
| Clutch | <ul style="list-style-type: none"> • Check operation. • Adjust if necessary. | | ○ | ○ |
| Rear arm pivot* | <ul style="list-style-type: none"> • Check rear arm assembly for looseness. • Correct if necessary. • Moderately repack every 24 months.*** | ○ | | ○ |
| Wheels* | <ul style="list-style-type: none"> • Check balance/damage/runout/spoke tightness. • Repair if necessary. | | ○ | ○ |
| Wheel bearings* | <ul style="list-style-type: none"> • Check bearing assembly for looseness/damage. • Replace if damaged. | | ○ | ○ |

| ITEM | ROUTINE | BREAK-IN 1 month | EVERY | |
|------------------------------|--|---|----------|-----------|
| | | | 6 months | 12 months |
| Steering bearings* | <ul style="list-style-type: none"> • Check bearing assembly for looseness. • Correct if necessary. • Moderately repack every 24 months.** | ○ | | ○ |
| Front forks* | <ul style="list-style-type: none"> • Check operation/oil leakage. • Repair if necessary. | | ○ | ○ |
| Rear shock absorbers* | <ul style="list-style-type: none"> • Check operation/oil leakage. • Repair if necessary. | | ○ | ○ |
| Drive chain | <ul style="list-style-type: none"> • Check chain slack/alignment. • Adjust if necessary. • Clean and lube. | Every Ride (More often in wet or dusty areas) | | |
| Chassis fasteners* | <ul style="list-style-type: none"> • Check all chassis fittings and fasteners. • Correct if necessary. | ○ | ○ | ○ |
| Sidestand* | <ul style="list-style-type: none"> • Check operation. • Repair if necessary. | ○ | ○ | ○ |

Items marked with an asterisk (*) require special tools, data and technical skills for servicing. Take the machine to a Yamaha Dealer or refer to the Service Manual when servicing these items.

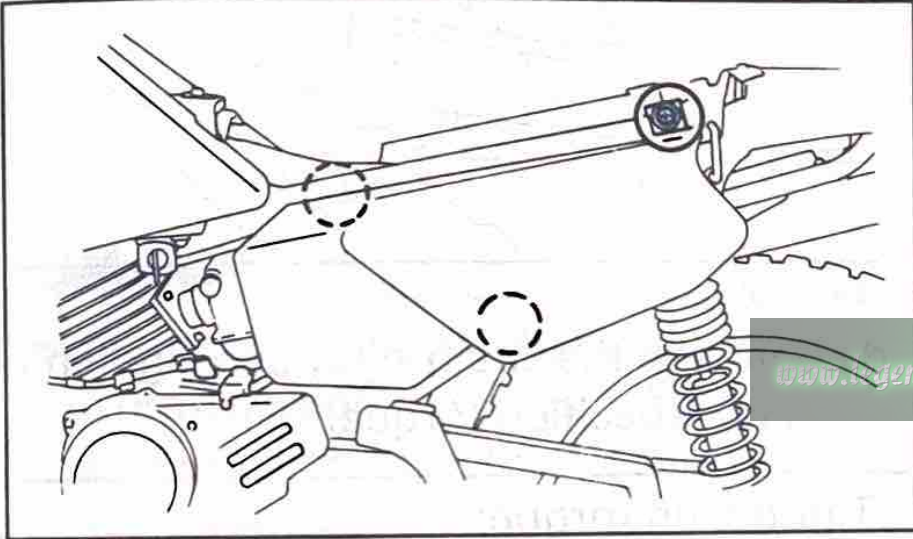
** : Medium weight wheel bearing grease

*** : Lithium soap base grease

EAC70701

Side cover removal

Remove the seat(s) and side cover screw(s). Then remove the side cover by pulling outward on the areas as shown.



EAH40303

Transmission oil

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

EUU03901

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.

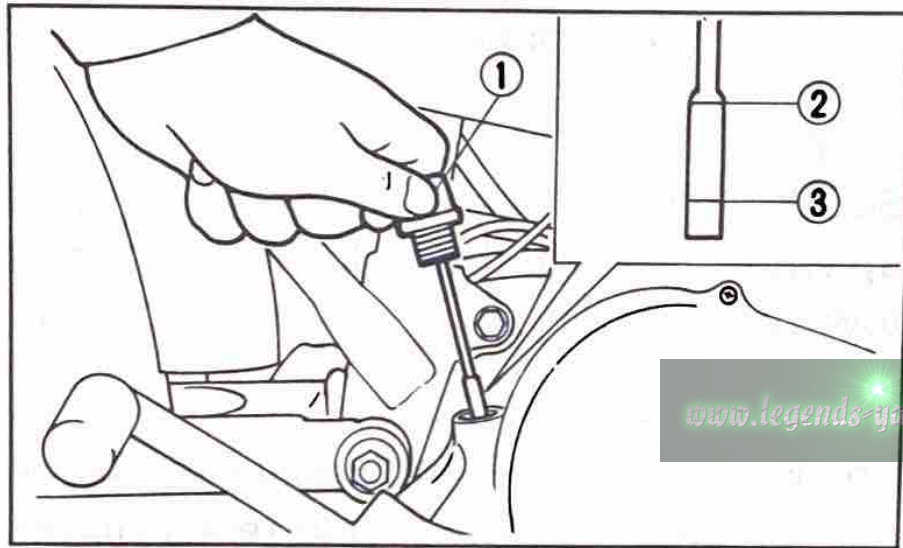
- b. With the engine stopped, unscrew the oil filler cap/dipstick and rest it on the threads of the oil filler hole.

EUU04000

NOTE:

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

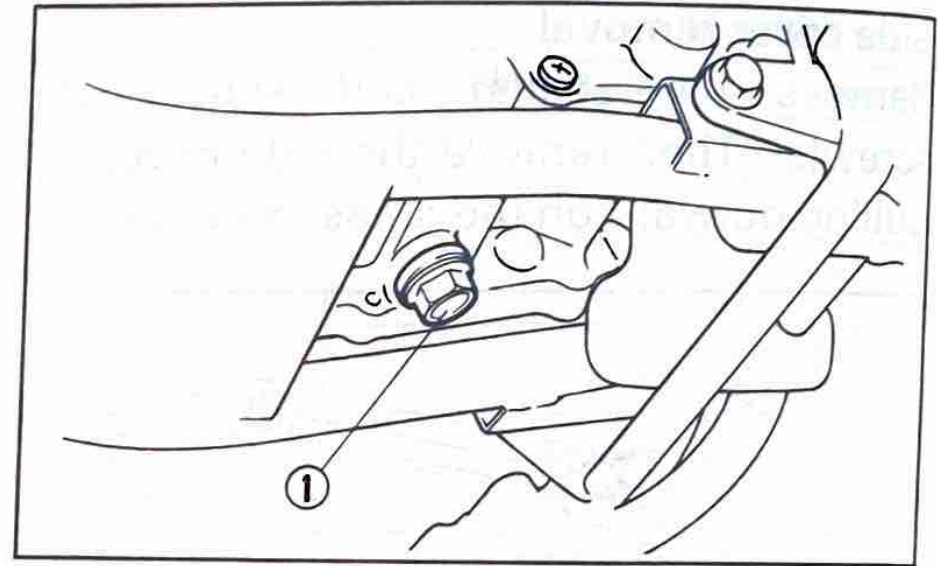
- c. The oil level should be between the maximum and minimum level as shown. If the level is low, add sufficient oil to raise it to the proper level.



1. Oil filler cap/dipstick
2. Maximum level mark
3. Minimum level mark

2. Transmission oil replacement

- a. Warm up the engine for several minutes.
- b. Stop the engine. Place an oil pan under the engine, and remove the oil filler cap/dipstick.
- c. Remove the drain plug and drain the oil.



1. Drain plug

- d. Reinstall the drain plug and tighten it to the specified torque.

Tightening torque:

Drain plug:

20 Nm (2.0 m·kg, 14 ft·lb)

- e. Fill the engine with oil. Install the oil filler cap/dipstick and tighten it.

Recommended oil:

See page 6-4

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)

EUU48700

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.

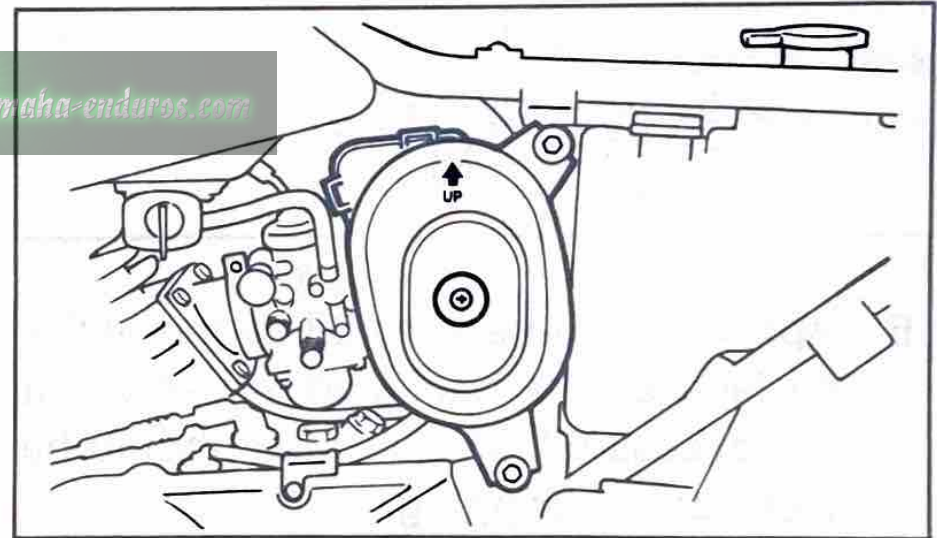
- f. Start the engine and warm up for a few minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for cause.

EAH67901

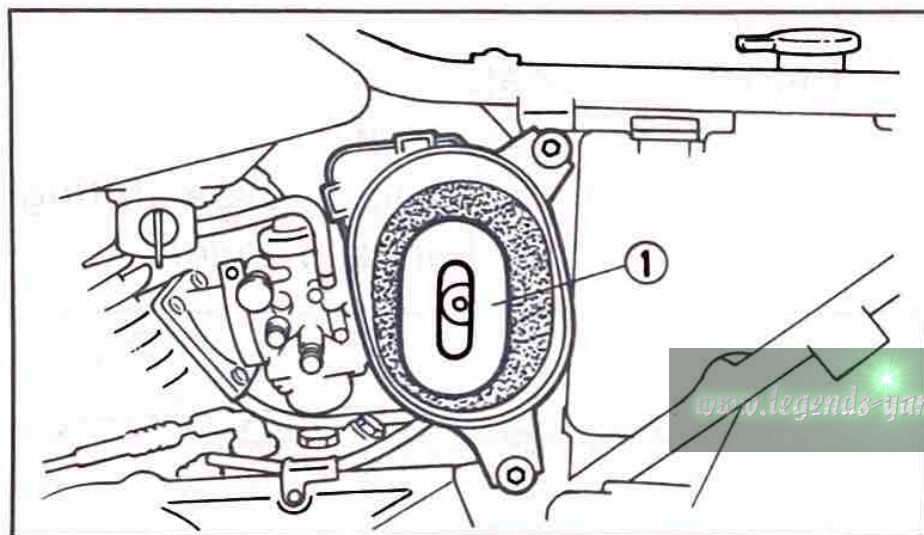
Air filter

The air filter 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 the seat.
2. Remove the side cover.
3. Remove the air filter case fitting screws and the filter case cover.



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

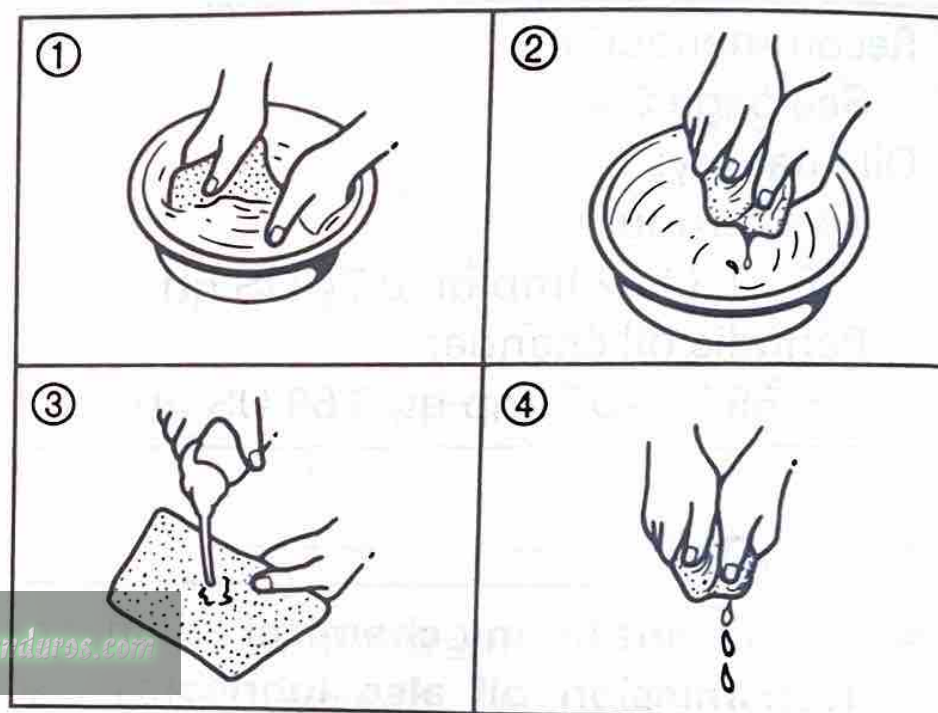


1. Air filter

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

Recommended oil:

Yamaha foam air filter oil or other quality air filter oil



6. Install the air filter in its case.

EUU42403

CAUTION:

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

Carburetor adjustment

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following may be serviced by the owner as part of routine maintenance.

EUU33001

CAUTION:

The carburetor was set at the Yamaha factory after many tests. If the settings are changed, poor engine performance and damage may result.

Idle speed adjustment

1. Attach the tachometer. Start the engine and warm it up for a few minutes (normally, 1 or 2 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.
2. Set the idle to the specified engine speed by adjusting the throttle stop screw; turn the screw in to increase engine speed, and out to decrease engine speed.

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

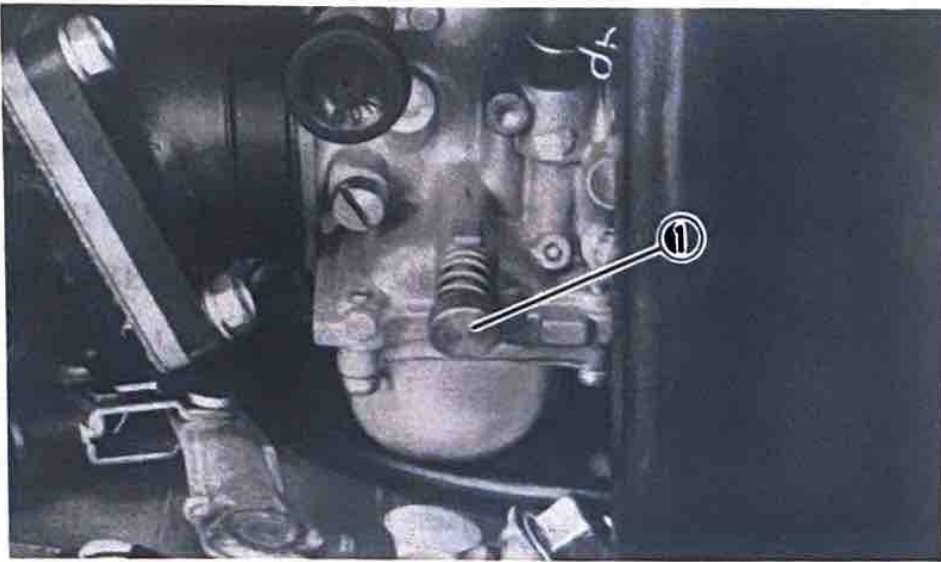
Throttle cable adjustment

EUU06400

NOTE:

Before adjusting 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.



1. Throttle stop screw

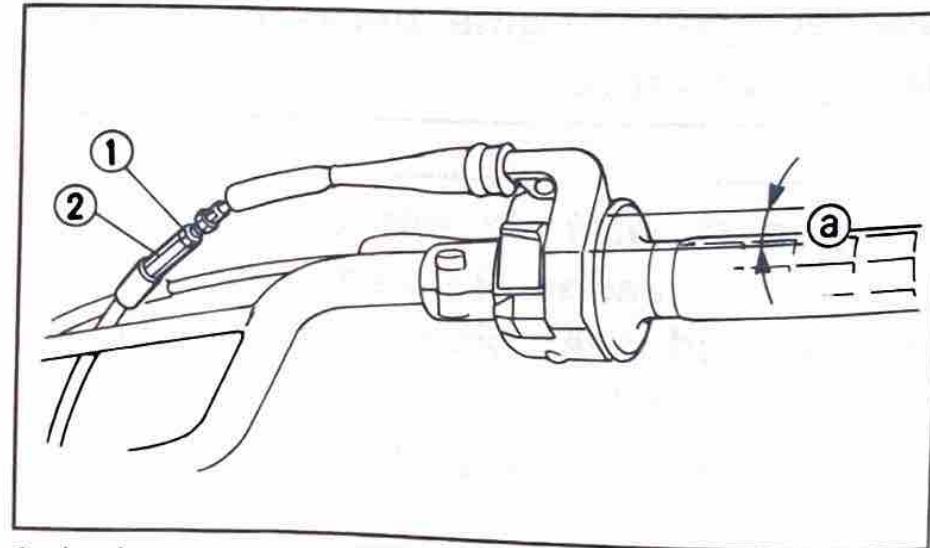
EUU04500

NOTE:

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

Free play:

3 ~ 5 mm (0.12 ~ 0.20 in)



8-10 1. Locknut 2. Adjuster a. Free play

1. Loosen the locknut.
2. Turn the adjusting nut in or out until specified free play is obtained.
3. Tighten the locknut.

EAH20304

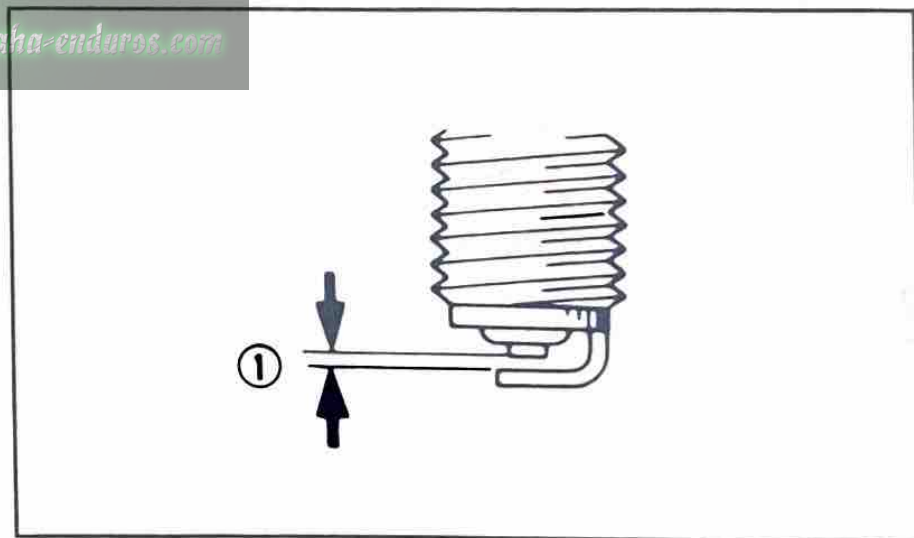
Spark plug inspection

The spark plug is an important engine component and is easy to inspect. 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. You should periodically remove and inspect the spark plug 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, you should replace the spark plug with the specified plug.

Specified spark plug:
BR7ES (NGK)

Before installing the spark plug, measure the electrode gap with a wire thickness gauge; adjust the gap to specification as necessary.

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



1. Spark plug gap

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

Tightening torque:

Spark plug:

25 Nm (2.5 m·kg, 18 ft·lb)

EUU03802

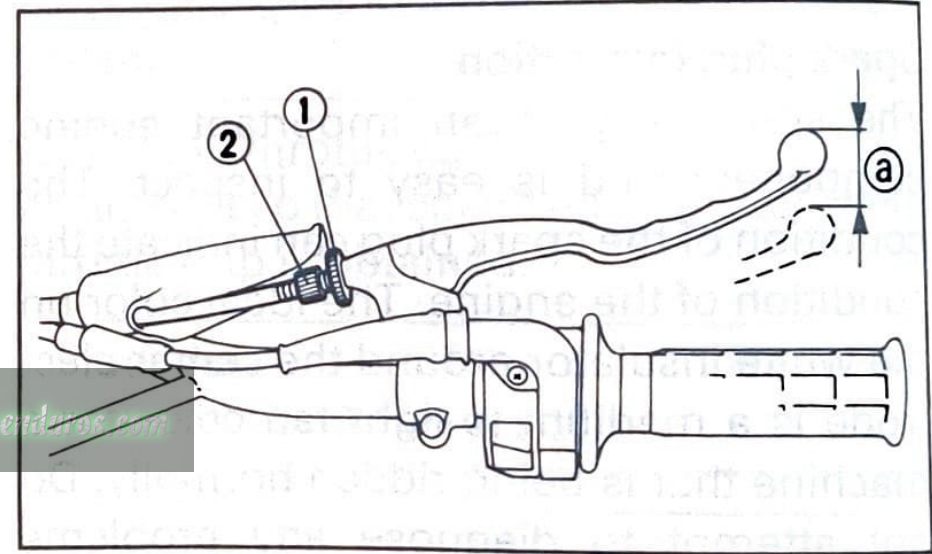
NOTE:

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

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.

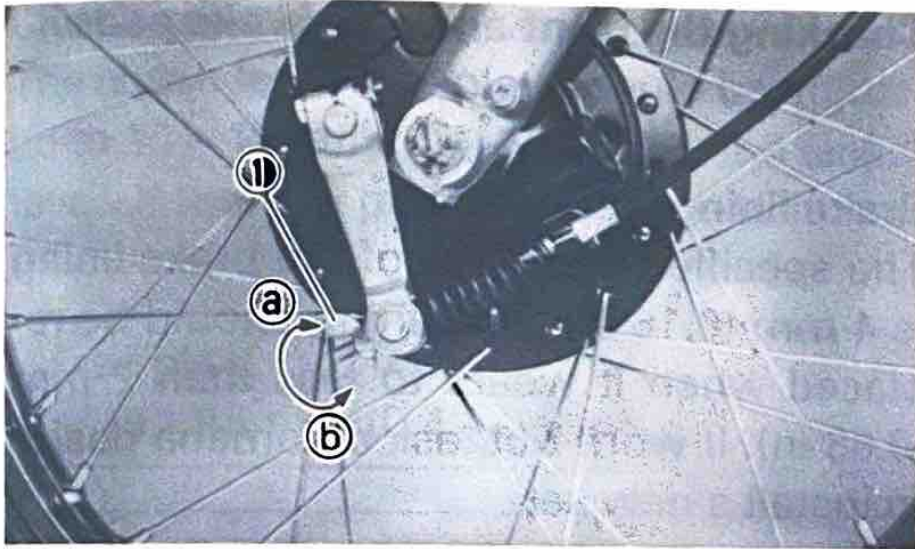


1. Locknut

2. Adjusting bolt

a. 10 ~ 15 mm (0.4 ~ 0.6 in)

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.

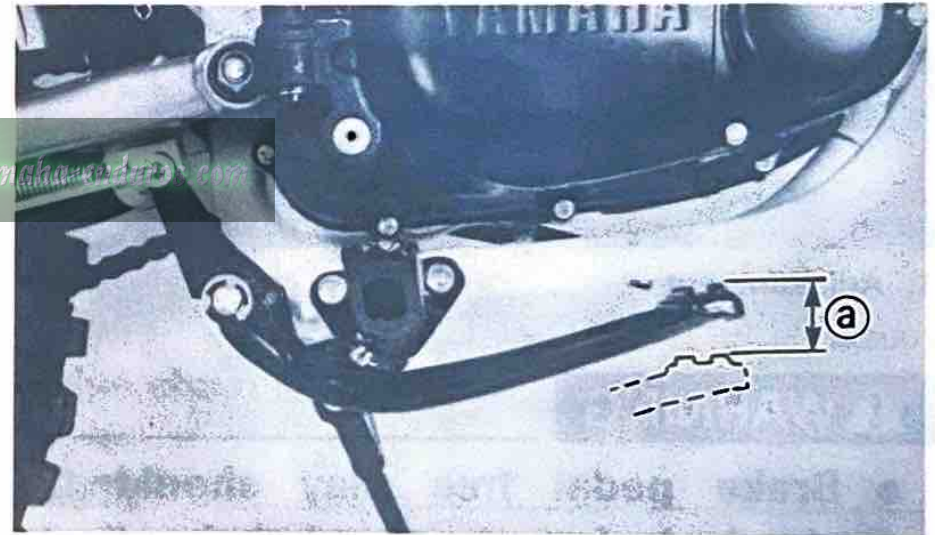
4. Loosen the locknut at the brake lever.
5. Turn the adjusting bolt at the brake lever in direction ① to loosen the cable.
6. Loosen the locknut at the brake hub.
7. Turn the adjusting nut at the brake hub in direction ② to increase free play or in direction ③ to decrease free play.

8. Tighten the locknut at the brake hub and the brake lever.

EAH821A0

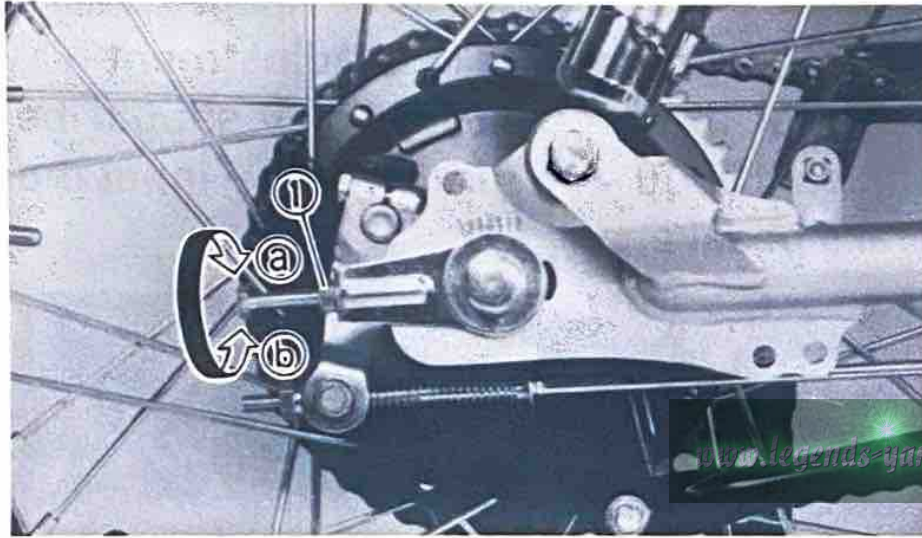
Rear brake pedal free play adjustment

The rear brake pedal free play should be adjusted to 10 ~ 15 mm (0.4 ~ 0.6 in) at the brake pedal end.



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

Turn the adjusting nut in direction (a) to increase free play and in direction (b) to decrease free play.



1. Adjusting nut

EUU69801

⚠ 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.

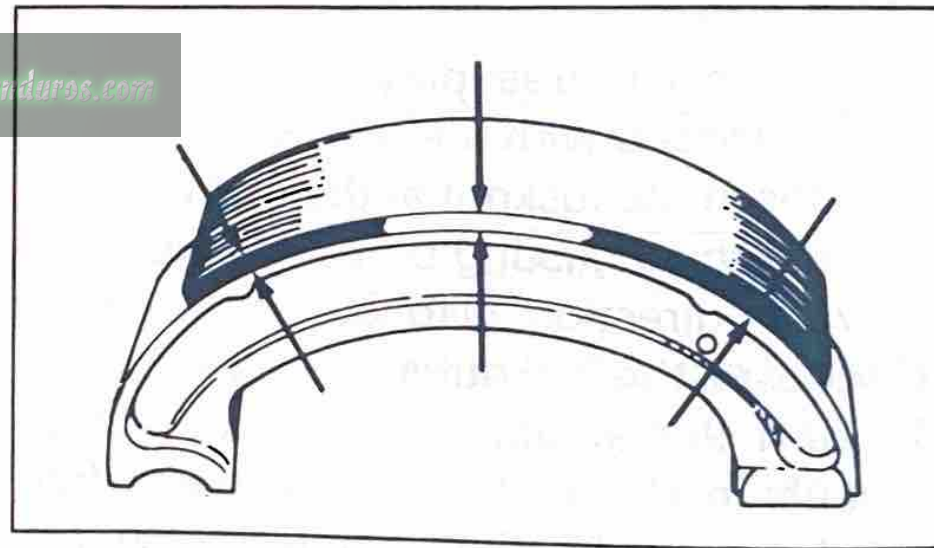
EAH81301

Checking the front and rear brake pads

EAH89300

Brake lining inspection

The specified thickness of the brake lining is 4 mm (0.16 in). The lining should be replaced when it wears to less than 2 mm (0.08 in). If worn out, ask a Yamaha dealer to install a new set.

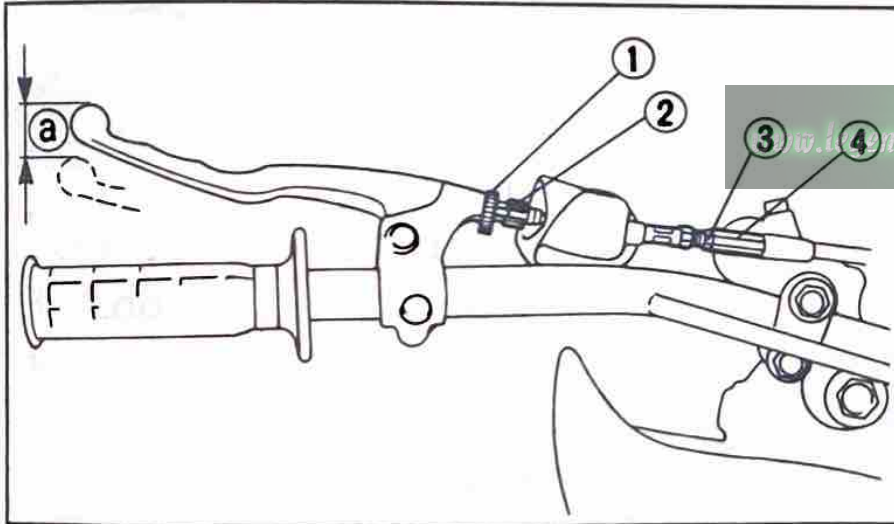


Clutch adjustment

The clutch lever free play should be adjusted to 10 ~ 15 mm (0.4 ~ 0.6 in) at the clutch lever. If the free play is incorrect, adjust as follows.

Free play:

10 ~ 15 mm (0.4 ~ 0.6 in)



1. Clutch lever adjuster lock nut
2. Clutch lever adjuster
3. Cable adjuster lock nut
4. Cable adjuster
- a. Clutch lever free play

1. Loosen the lock nut at the clutch lever.
2. Turn the adjuster in or out until proper lever free play is obtained.
3. Tighten the lock nut.
4. If the free play is still incorrect, make an adjustment at the cable adjuster.

EUU17800

NOTE:

If proper adjustment cannot be obtained or the clutch does not work correctly, ask a Yamaha dealer to inspect the internal clutch mechanism.

EAI40801

Drive chain slack check

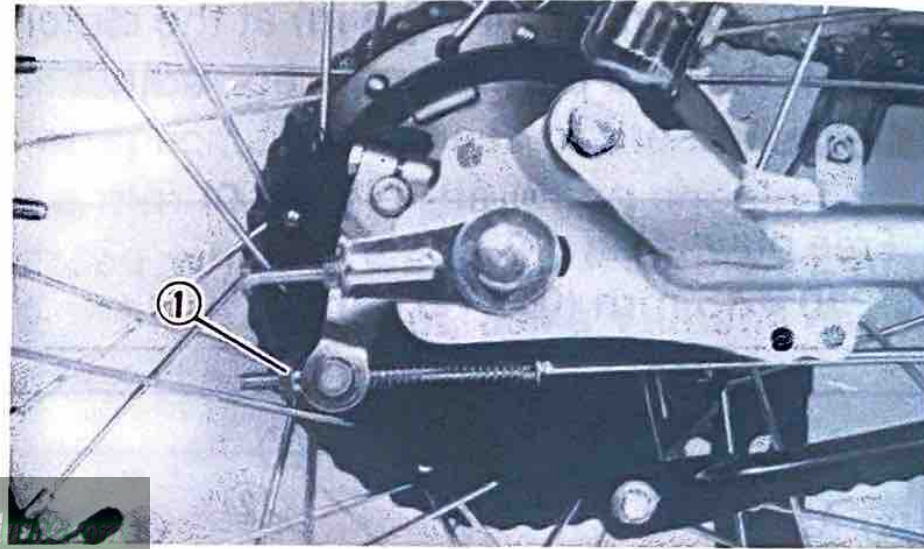
EUU04801

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.

Drive chain slack adjustment

1. Loosen the rear brake adjusting nut.



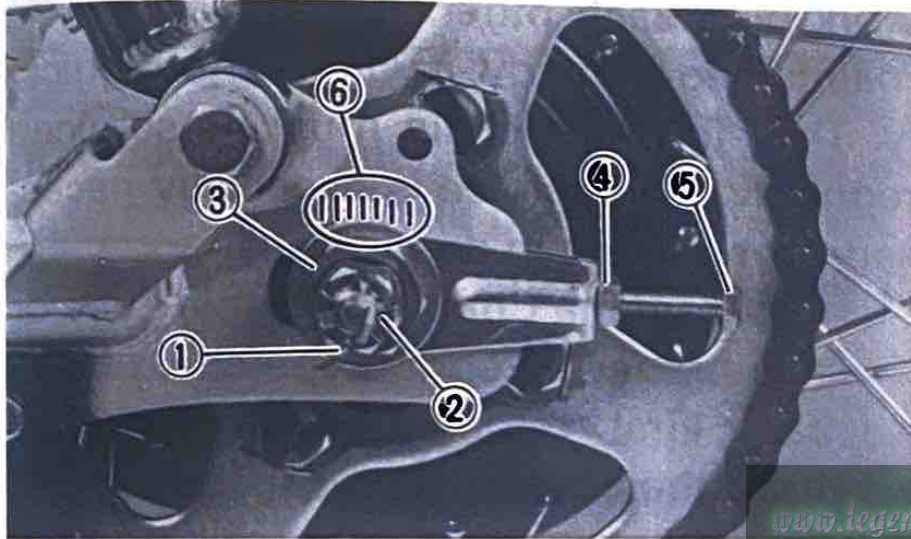
1. Rear brake adjusting nut

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.



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

2. Remove the cotter pin from the axle nut.



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

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 nut in direction (b) and push the wheel forward. Turn each adjusting nut exactly the same amount to maintain correct axle align-

ment. 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.

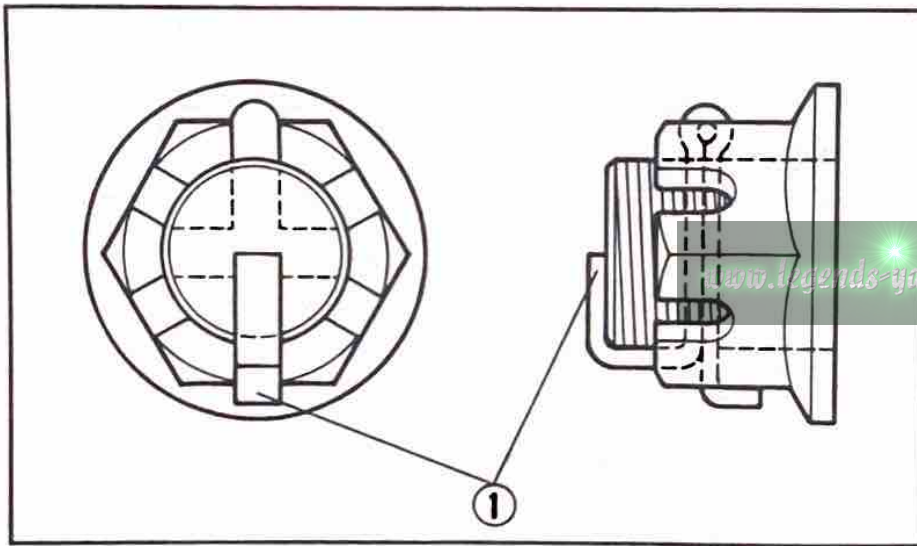
EUU33301

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)

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.



1. Cotter pin

EUU64700

! 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 500 km (300 mi).
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

EUU64601

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 inner cable and the cable end. If it does not operate smoothly, ask a Yamaha dealer to replace them.

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

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.

EAI10801

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.

EAI30202

Brake and shift pedal lubrication

Lubricate the pivoting parts.

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

EAI30301

Brake and clutch lever lubrication

Lubricate the pivoting parts.

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

EAI31202

Sidestand lubrication

Lubricate the sidestand pivoting and mating parts. Check to see that the sidestand moves up and down smoothly.

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

EUU70401

! WARNING

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

EAI31301

Rear suspension lubrication

Lubricate the pivoting parts.

Recommended lubricant:
Lithium soap base grease

EAI20502

Front fork inspection

EUU65700

! WARNING

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

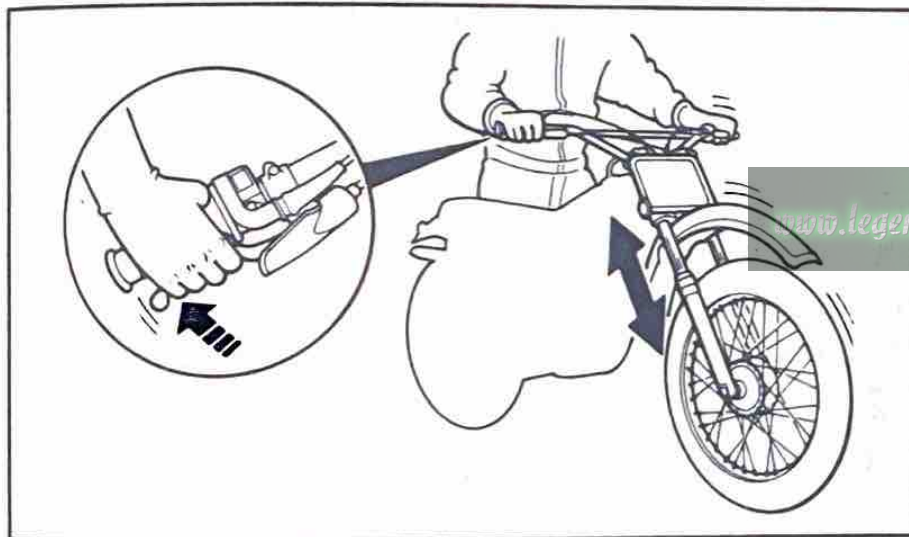
1. Visual check

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

2. Operation check

Place the machine on a level place.

- Hold the machine in an upright position and apply the front brake.
- Push down hard on the handlebars several times and check if the fork rebounds smoothly.



EUU42500

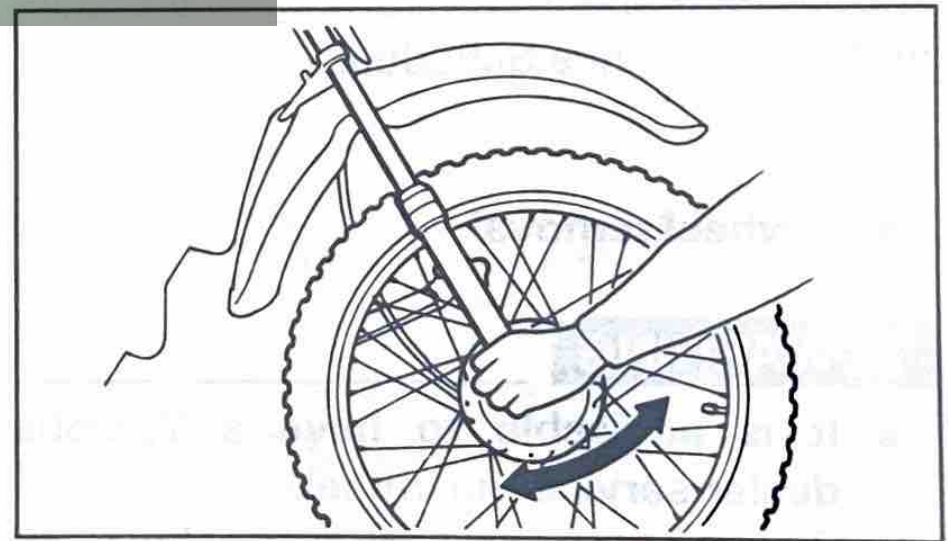
CAUTION:

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

EAI60301

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.



⚠ WARNING

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

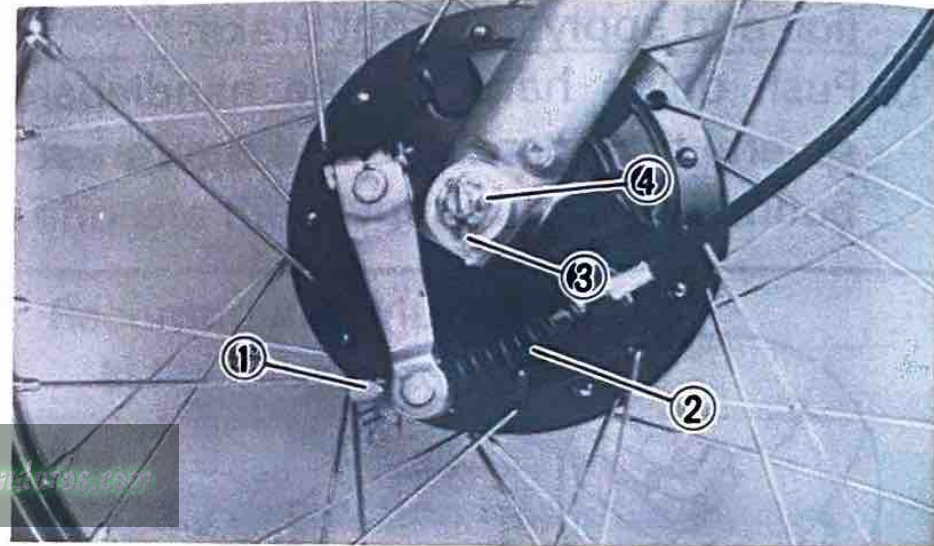
Wheel bearings

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. The wheel bearings should be inspected according to the General Maintenance Schedule.

Front wheel removal**⚠ 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.

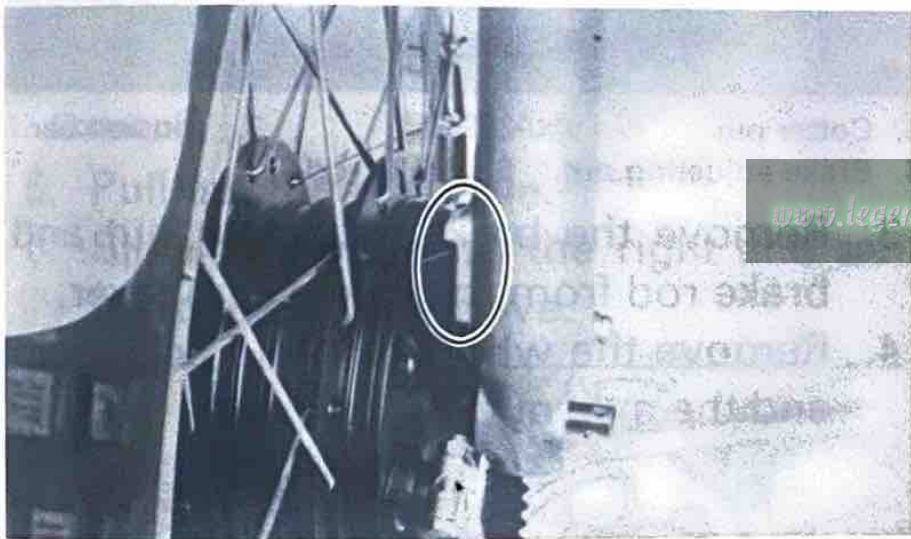


- | | |
|------------------|-------------|
| 1. Adjusting nut | 2. Cable |
| 3. Cotter pin | 4. Axle nut |
2. Remove the cotter pin and axle nut.
 3. Elevate the front wheel by placing a suitable stand under the engine.
 4. Remove the wheel axle. Make sure the machine is properly supported.

Front wheel installation

When installing the front wheel, reverse the removal procedure. Pay attention to the following points:

1. Make sure the slot in the brake shoe plate fits over the stopper on the front fork outer tube.



2. Make sure the axle nut is properly torqued, and a new cotter pin is installed.

! WARNING

Always use a new cotter pin.

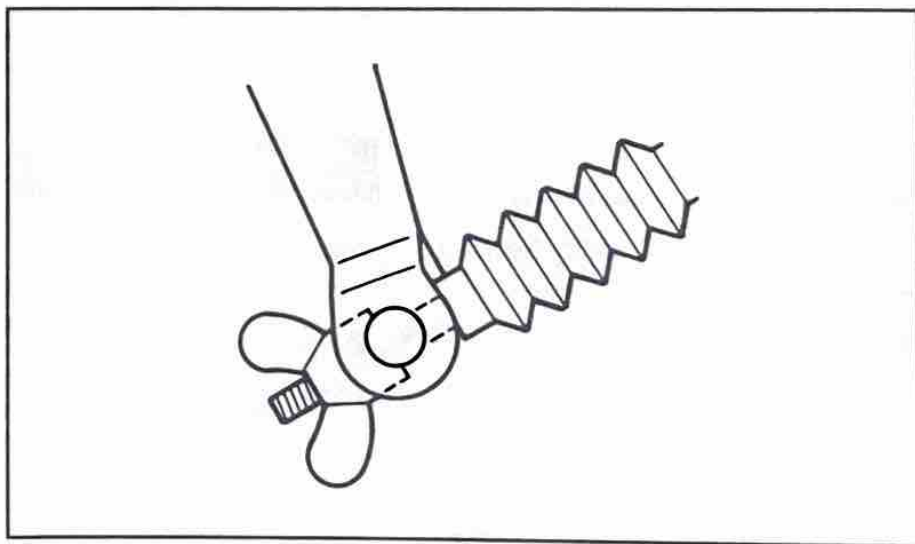
Axle nut torque:

43 Nm (4.3 m·kg, 31 ft·lb)

3. Adjust the free play in the brake lever.

NOTE:

Make sure that the concave portion of the adjusting nut at the front brake cam lever is positioned on the stopper as shown.

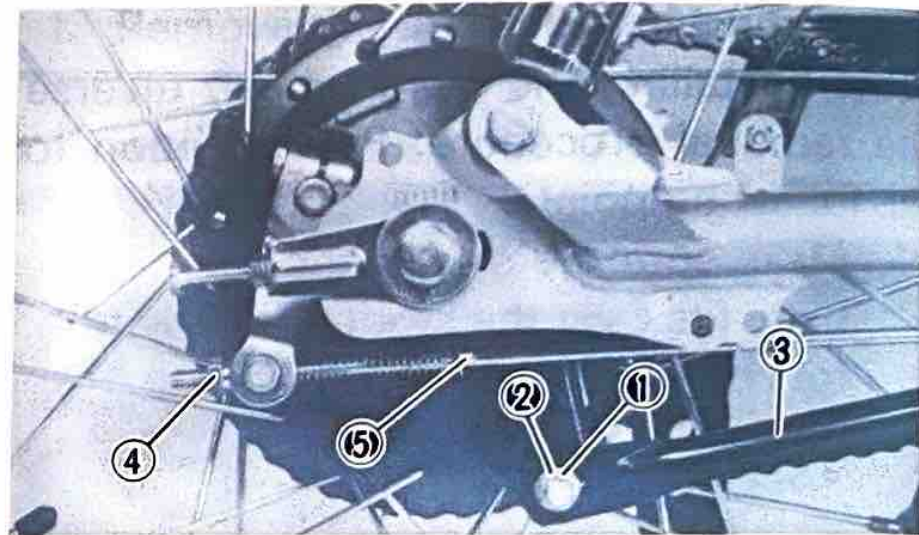


Rear wheel removal

! 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. Elevate the rear wheel by placing a suitable stand under the engine.
2. Remove the cotter pin and nut. Then remove the tension bar bolt from the brake shoe plate.

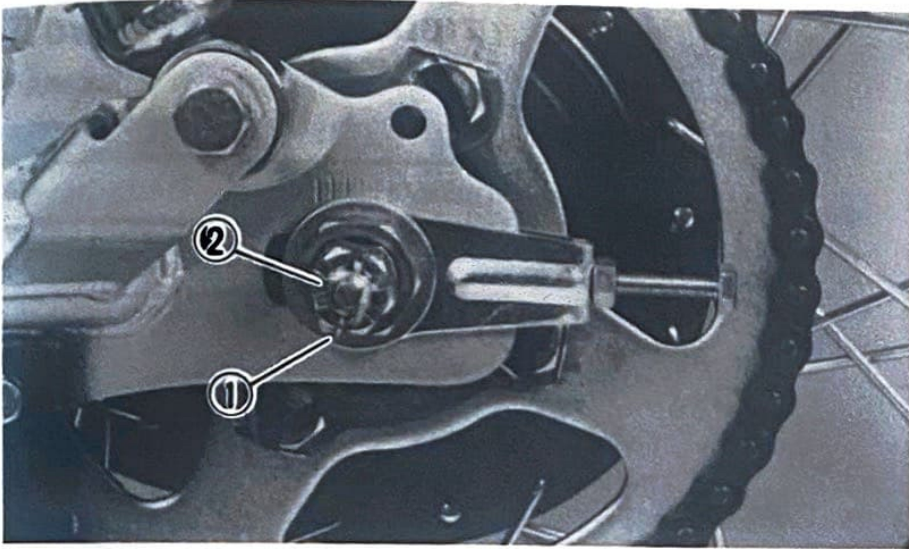


- | | | |
|------------------------|--------------|----------------|
| 1. Cotter pin | 2. Nut | 3. Tension bar |
| 4. Brake adjusting nut | 5. Brake rod | |
3. Remove the brake adjusting nut and brake rod from the brake cam lever.
 4. Remove the wheel axle nut cotter pin and the axle nut.

Rear wheel installation

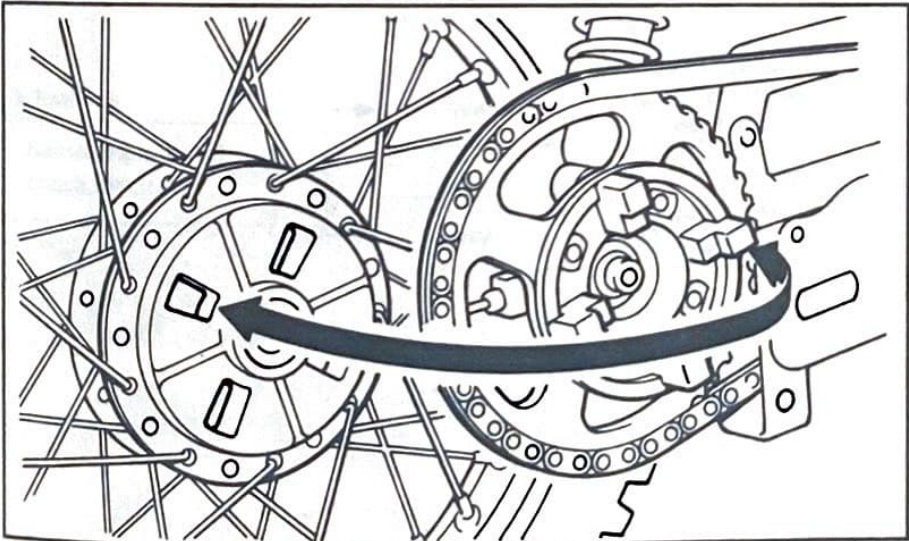
When installing the rear wheel, reverse the removal procedure. Pay attention to the following points:

1. Adjust the drive chain.
2. Tighten the following parts to the specified torque and make sure a new cotter pin is installed.



1. Cotter pin 2. Axle nut

5. Pull out the rear axle.
6. Slide the wheel to the right and pull backwards to remove.



Tightening torque:

Axle nut:

39 Nm (3.9 m·kg, 28 ft·lb)

Tension bar bolt:

18 Nm (1.8 m·kg, 13 ft·lb)

EUU78000

⚠ WARNING

Always use a new cotter pin.

3. Adjust the rear brake pedal height and free play (see page 8-13).

Troubleshooting

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

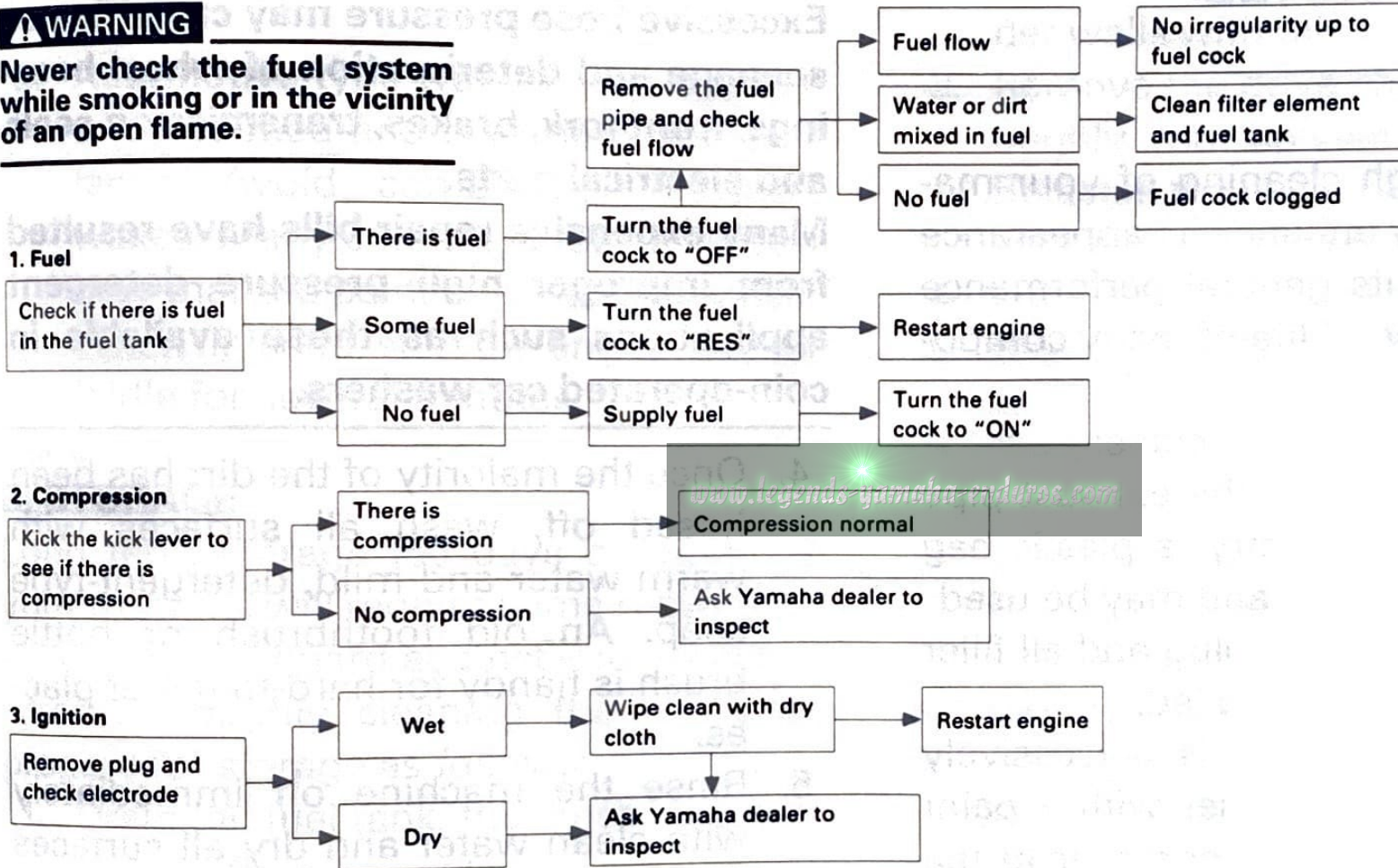
Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks.

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.

Troubleshooting chart

! WARNING

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



CLEANING AND STORAGE

EAK00203

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.

EUV34602

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.

EAK01800

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(s).
2. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole(s) and reinstall the spark plug.

Kick the engine over several times (with the ignition off) to coat the cylinder walls 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.

EUU05800

NOTE: _____
Make any necessary repairs before storing the machine.

SPECIFICATIONS

| Model | RT100 |
|---|--|
| Dimension: Overall length Overall width Overall height Seat height Wheel base Minimum ground clearance | 1,795 mm (70.7 in) 760 mm (29.9 in) 960 mm (37.8 in) 730 mm (28.7 in) 1,190 mm (46.9 in) 200 mm (7.9 in) |
| Basic weight: With oil and full fuel tank | 79 kg (174 lb) |
| Minimum turning radius: | 1,810 mm (71.3 in) |
| Engine: Type Cylinder arrangement Displacement Bore × Stroke Compression ratio Starting system Lubrication system | Air-cooled 2-stroke, gasoline Single cylinder, Forward inclined 97 cm ³ 52.0 × 45.6 mm (2.05 × 1.80 in) 6.7 : 1 Kick starter Separate lubrication (Yamaha Autolube) |

| Model | RT100 |
|--|---|
| Engine oil (2-cycle) Type Capacity | YAMALUBE 2-cycle or Air cooled 2-stroke engine oil 1.0 L (0.88 Imp qt, 1.06 US qt) |
| Transmission oil: Type Capacity Periodic oil change Total amount | YAMALUBE 4 (10W30) or SAE 10W30 type SE motor oil 0.65 L (0.57 Imp qt, 0.69 US qt) 0.7 L (0.62 Imp qt, 0.74 US qt) |
| Air filter: | Wet type element |
| Fuel: Type Tank capacity Reserve amount | Regular unleaded gasoline 5.0 L (1.1 Imp gal, 1.3 US gal) 1.5 L (0.3 Imp gal, 0.4 US gal) |
| Carburetor: Type/manufacturer | VM22SS/MIKUNI |
| Spark plug: Type/manufacturer Gap | BR7ES/NGK 0.7 ~ 0.8 mm (0.028 ~ 0.031 in) |
| Clutch type: | Wet, multi-disc |

| Model | RT100 |
|---|--|
| Transmission: Primary reduction system Primary reduction ratio Secondary reduction system Secondary reduction ratio Transmission type Operation Gear ratio 1st 2nd 3rd 4th 5th | Helical gear 74/19 (3.895) Chain drive 48/14 (3.429) Constant mesh 5-speed Left foot operation 35/11 (3.182) 30/15 (2.000) 26/19 (1.368) 23/23 (1.000) 20/25 (0.800) |
| Chassis: Frame type Caster angle Trail | Double cradle 29° 103 mm (4.1 in) |
| Tire: Type Size – Front Rear | With tube 2.50-18 4PR 3.00-16 4PR |
| Brake: Front brake type Operation Rear brake type Operation | Drum brake Right hand operation Drum brake Right foot operation |

| Model | RT100 |
|---|--|
| Suspension: Front Rear | Telescopic fork Swingarm |
| Shock absorber: Front Rear | Coil spring, Oil damper Coil spring, Oil damper |
| Wheel travel: Front Rear | 110 mm (4.3 in) 80 mm (3.2 in) |
| Electrical: Ignition system Generator system | CDI magneto Flywheel magneto |

YAMAHA MOTOR CANADA LTD. MOTORCYCLE WARRANTY GUIDE

Congratulations on the purchase of your new Yamaha motorcycle. You have chosen a quality product designed and manufactured to bring you years of enjoyment.

This information explains Yamaha warranty policies. You will find the answers to most of your questions by reading it through.

If you require further assistance, see your Yamaha dealer. His qualified personnel will be pleased to meet all your service requirements, both during and after the warranty period.

Keep in mind that Yamaha manufactures many other quality products too. For further information on our complete line-up contact your dealer or Yamaha Motor Canada Ltd.

For a product brochure, or a dealer nearest you, call 1-800-267-8577.

Yamaha Motor Canada Ltd.
480 Gordon Baker Road NORTH YORK, Ontario
M2H 3B4 (416) 498-1911

Yamaha motorcycle Warranty Policy

In this warranty, the term MOTORCYCLE shall refer to a new MOTORCYCLE manufactured by the YAMAHA MOTOR COMPANY, LTD. ('MANUFACTURER') under the trade name of Yamaha, distributed by YAMAHA MOTOR CANADA LTD.

('YAMAHA'), sold at retail by an authorized YAMAHA dealer ('DEALER'), normally operated within Canada and registered in Canada. The term CUSTOMER shall refer to the owner or lessee of record of the MOTORCYCLE registered with YAMAHA and to any subsequent owner, and the term DELIVERY shall refer to the date of delivery of a MOTORCYCLE from the DEALER to the CUSTOMER.

Section A - Warranty

Subject to Section D, YAMAHA offers the following warranty coverage to the CUSTOMER:

1. Period of Warranty:
 - Pleasure use (including government use)-
 - a. the period of warranty shall be ninety days commencing on DELIVERY on all models designated RT, PW, BW, TT, IT, MX, TY and on model YZ80;
 - b. the period of warranty shall be two years on DELIVERY, unlimited mileage on model GTS1000;

- c. the period of warranty shall be one year on DELIVERY, unlimited mileage on all other models.
Commercial use -
The period of warranty shall be half of the warranty period indicated for pleasure use, commencing on DELIVERY on all MOTORCYCLES.
2. During these periods of warranty:
 - a. any part defective by reason of the MANUFACTURER'S faulty workmanship or material will be replaced or repaired free of charge;
 - b. Any repairs or adjustments made necessary by reason of the MANUFACTURER'S faulty workmanship or material will be performed free of charge.

The MANUFACTURER reserves the right to change the design of any model without obligation to modify any model previously manufactured.

Section B - Subsequent Owner

The warranty provided for in Section A may be transferred to any subsequent owner provided that the period of warranty has not expired and that the CUSTOMER has complied with all terms and conditions of this warranty.

The subsequent owner has the responsibility for ensuring that a subsequent owner card is sent to YAMAHA at the time of such transfer of ownership.

This transfer MUST be done by contacting the DEALER who will forward the following information to YAMAHA:

- a. the complete model and serial number as shown on the original warranty document;
- b. the name of the previous owner;
- c. the original delivery date of the MOTORCYCLE;
- d. the complete name and address of the subsequent owner;
- e. the indication that the subsequent owner has received and read the Owner's Manual and this warranty policy.

Section C - Obtaining Repairs Under Warranty

To obtain repairs under warranty, the CUSTOMER must:

1. Ensure that the MOTORCYCLE is properly operated, maintained and stored as specified in the Owner's Manual.
 2. Give notice to a DEALER of any and all apparent defects immediately upon discovery, and make the entire MOTORCYCLE available at that time for inspection and repair at the DEALER'S place of business.
 3. Provide proof of warranty coverage to such DEALER (CUSTOMER'S copy of the New Vehicle Information Statement: N.V.I.S.).
 4. Authorize the DEALER to tear down the MOTORCYCLE for diagnostic evaluation should it be required.
- All warranty repairs must be done by a DEALER and final approval of any repairs rests with YAMAHA. All parts replaced become the property of YAMAHA.

Section D - Exclusions

1. This warranty does not apply unless:
 - a. the MOTORCYCLE has been fully assembled and set to the MANUFACTURER'S operating specifications by a DEALER prior to DELIVERY to the CUSTOMER;
 - b. the CUSTOMER has followed the break-in and storage instructions contained in the Owner's Manual, and all other instructions shown in the Owner's Manual;
 - c. the CUSTOMER can provide record of maintenance having been performed as recommended in the Owner's Manual;
 - d. requests for repairs under warranty have been made as prescribed in Section C.
2. This warranty does not cover the repair of damage resulting from abuse or neglect of the MOTORCYCLE. Examples of abuse and neglect include, but are not limited to:
 - a. racing, competition, MOTORCYCLE designated by model prefix TZ, WR, or YZ with the exception of model YZ80, modification of original parts, abnormal strain;
 - b. use of lubricants, oils and fuel/oil mixtures other than those recommended in the Owner's Manual, improperly installed accessories and use of parts or accessories that are not equivalent in design and quality to genuine Yamaha parts;
 - c. damage as a result of accidents, collisions, contact with foreign materials, impact, submersion or use of the MOTORCYCLE after discovery of a defect;

- d. appearance-related damages of body parts. Examples of such damages include but are not limited to: scratches, dents, fading, flaking, peeling.
- 3. This warranty does not extend to:
 - a. MOTORCYCLES which have been modified in any way from the standard specifications as shown in the Owner's Manual, including any MOTORCYCLE whose odometer has been altered;
 - b. normal wear and tear, corrosion and routine maintenance, such as the recommended service inspections;
 - c. pre-delivery inspection and assembly;
 - d. MOTORCYCLES from which the MANUFACTURER'S identification numbers have been removed or whose identification numbers have been altered or mutilated;
 - e. parts replaced due to normal wear or routine maintenance such as drive chain, clutch plate and facings, oil and lubricants, spark plugs, batteries, generator brushes, sealed beams, lightbulbs, tires, filters, drive belts, brake pads and fuses;
 - f. inconvenience, loss of time, loss of income or loss of use of the MOTORCYCLE or any consequential damage of any kind;
 - g. damages from theft, fire, vandalism, explosion, water or acts of God;
 - h. storage costs, or transportation and shipping costs related to the performance of this warranty;

Section E – Emissions Control System Warranty (For applicable models only)

YAMAHA warrants to the CUSTOMER of a MOTORCYCLE covered by this warranty with a displacement of 50cc or greater, that the MOTORCYCLE is designed, built and equipped so as to conform at the time of DELIVERY with all federal emissions standards applicable at the time of manufacture and that it is free from defects in materials and workmanship which would cause it not to meet these standards within the periods listed immediately below. Failures other than those resulting from defects in material or workmanship which arise solely as a result of owner abuse and/or lack of proper maintenance are not covered by this warranty.

| Engine Displacement | Period |
|---------------------|--|
| 50cc to 169cc | 12,000 km or 5 years, whichever occurs first |
| 170cc to 279cc | 18,000 km or 5 years, whichever occurs first |
| 280cc and over | 30,000 km or 5 years, whichever occurs first |

Section F

This warranty is in addition to, and not a modification of, any legal warranty required by the laws of any province of Canada.

Subject to any applicable sales or consumer legislation, the above warranty is in lieu of any warranty or representation, expressed or implied, including any warranty of performance, merchantability or fitness for a particular purpose on the part of YAMAHA, and any other obligation or liability on behalf of YAMAHA, and the above warranty constitutes your sole remedy and the full liability of YAMAHA. In no event shall YAMAHA be liable for special, incidental or consequential damages howsoever caused, whether by negligence or otherwise resulting directly or indirectly from the use of the MOTORCYCLE, or the MOTORCYCLE'S having replacement parts or the unavailability of replacement parts.

YAMAHA does not assume, or authorize any person to create or assume for YAMAHA, any obligation or liability in connection with the MOTORCYCLE or any part thereof distributed by YAMAHA.

Original Equipment Tires

Tires supplied as original equipment on your MOTORCYCLE are warranted separately by the individual tire manufacturer or its representatives. Generally speaking, this warranty covers defects in workmanship and material.

If an adjustment becomes necessary, present your MOTORCYCLE to your DEALER and have the DEALER contact the appropriate tire manufacturer.

Storing your MOTORCYCLE

If your MOTORCYCLE is not to be used for 60 days or more, it must be properly stored to ensure against deterioration

You should consult your Owner's Manual for storage details, but WE RECOMMEND THAT YOU HAVE AN

AUTHORIZED YAMAHA MOTORCYCLE DEALER PREPARE YOUR MOTORCYCLE FOR STORAGE. His highly-trained staff have the experience and the qualifications to do the job right.

YAMAHA cannot accept responsibility for damage to your vehicle or personal injury resulting from negligence or lack of experience in the preparation of your MOTORCYCLE for storage.

Pre-delivery Checklist

The DEALER has assembled and inspected the MOTORCYCLE according to the following pre-delivery checklist prior to DELIVERY to the CUSTOMER. (Some items may not be applicable to all models.)

| | |
|---------------------|---|
| Appearance | ● check for and correct superficial damage or missing parts |
| Battery | ● fill with electrolyte ● charge battery properly ● check vent hose routing |
| Valves | ● check valve clearances ● check cam chain tension |
| Spark plug(s) | ● check gap |
| Carburetor(s) | ● drain float bowl(s) before starting ● check idle speed, synchronization, starter operation |
| Fuel line | ● check fuel hose routing and ensure that clamps are in proper position |
| Oil levels | ● check engine oil, transmission, final drive |
| Oil pump (2-stroke) | ● bleed oil pump ● check oil pump settings (cable and minimum stroke) |
| Coolant | ● check coolant level in radiator and recovery tank |
| Cables | ● check for proper routing and freeplay on throttle, brake, clutch |
| Clutch | ● check operation |
| Brakes | ● check operation, freeplay, fluid level ● check parking brake operation |
| Drive chain | ● check freeplay |
| Wheels | ● check tire pressures and wheel run out ● check wheel nut torque ● check spokes for proper tension |
| Steering system | ● check operation |
| Suspension | ● check operation and adjustment |
| Drive select lever | ● check operation |

Fittings/
Fasteners

- check all for loose or missing hardware

Electricals

- check all light and switch operations
- check safety switches and horn for proper operation

Ignition
Final

- check headlight aim
- check ignition timing
- check and correct superficial damage or missing parts
- test ride and observe any abnormal noise or function.

www.legends-yamaha-enduros.com

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YAMAHA
YAMAHA MOTOR CO., LTD.

PRINTED ON RECYCLED PAPER

PRINTED IN JAPAN
96 · 7 - 0.3 × 1 CR
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