YAMAHA

OWNER'S MANUAL
MANUEL DU PROPRIÉTAIRE
BEDIENUNGSANLEITUNG

⚠ Read this manual carefully before operating this vehicle.
⚠ Il convient de lire attentivement ce manuel avant la première utilisation du véhicule.
⚠ Bitte lesen Sie diese Bedienungsanleitung sorgfälfig durch, bevor Sie das Fahrzeug in Betrieb nehmen.

TT-R125

MOTORCYCLE

TT-R125LWE

2PT-F8199-88

PRINTED IN BRAZIL
2021.04-FAMAS (E, F, G)

YAMAHA

OWNER'S MANUAL

⚠ Read this manual carefully before operating this vehicle.

TT-R125

MOTORCYCLE

TT-R125LWE

2PT-F8199-88-E0

⚠ Read this manual carefully before operating this vehicle. This manual should stay with this vehicle if it is sold.

EC Declaration of Conformity

conforming to Directive 2006/42/EC

We, YAMAHA MOTOR CO., LTD. 2500 Shingai, Iwata, Japan, declare in sole responsibility, that the product

TT-R125LWE (9C6CE21W000008801-)

(Make, model)

to which this declaration applies, conforms to the essential health and safety requirements of Directive 2006/42/EC

(If applicable)

and to the other relevant Directives of EEC

2014/30/EU

(Title and/or number and date of issue of the other Directives of EEC)

(If applicable)

To effect correct application of the essential health and safety requirements stated in the Directives of EEC, the following-standards and/or technical specifications were consulted:

EN16029

(Title and/or number and date of issue of standards and/or specifications)

Manufacturer

YAMAHA MOTOR DA AMAZONIA LTDA.

Rua Rio Jaguaro,2452,Bairro:Distrio Industrial-Cep.69074-160,Manaus,AM,Brazil

Authorized Representative

YAMAHA MOTOR EUROPE N.V.

Koolhovenlaan 101, 1119 NC Schiphol-Rijk, The Netherlands

Signature Shin Yokomizo

Shin Yokomizo

Senior General Manager.

PF Model Development Section, PF Model Unit

YAMAHA MOTOR CO., LTD.

Date of Issue 22nd, Feb, 2021

UK CA Declaration of Conformity

In accordance with UK Government guidance

We, YAMAHA MOTOR CO., LTD. 2500 Shingai, Iwata, Japan, declare in sole responsibility, that the product

TT-R125LWE (9C6CE21W000008801-)

(Make, model)

The object of the declaration described above is in conformity with the relevant UK Statutory Instruments (and their amendments):

2008 No. 1597 The Supply of Machinery (Safety) Regulations 2008

2016 No. 1091 The Electromagnetic Compatibility Regulations 2016

References to the relevant designated standards used or references to the other technical specifications in relation to which conformity is declared:

EN16029

(Title and/or number and date of issue of standards and/or specifications)

Manufacturer

YAMAHA MOTOR DA AMAZONIA LTDA.

Rua Rio Jaguaro,2452,Bairro:Distrio Industrial-Cep.69074-160,Manaus,AM,Brazil

Authorized Representative

YAMAHA MOTOR EUROPE N.V.

Koolhovenlaan 101, 1119 NC Schiphol-Rijk, The Netherlands

Signature Shin Yokomizo

Shin Yokomizo

Senior General Manager.

PF Model Development Section, PF Model Unit

YAMAHA MOTOR CO., LTD.

Date of Issue 22nd, Feb, 2021

EAUW4200

Congratulations on your purchase of the Yamaha TT-R125LWE. 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 motorcycle. If you have any questions concerning the operation or maintenance of your motorcycle, please consult a Yamaha dealer.
The design and manufacture of this Yamaha motorcycle fully comply with the emissions standards for clean air applicable at the date of manufacture. Yamaha has met these standards without reducing the performance or economy of operation of the motorcycle. To maintain these high standards, it is important that you and your Yamaha dealer pay close attention to the recommended maintenance schedules and operating instructions contained within this manual.
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 motorcycle and this manual. If there is any question concerning this manual, please consult a Yamaha dealer.

EWA10032

⚠ WARNING

Please read this manual carefully and completely before operating this motorcycle.

EWA14352

⚠ WARNING

This motorcycle is designed and manufactured for off-road use only. It is illegal to operate this motorcycle on any public street, road or highway. Such use is prohibited by law. This motorcycle 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 motorcycle.

EWA16291

⚠ WARNING

This vehicle is not suitable for novice riders. This vehicle shall only be used by trained and experienced riders.

Introduction

AN IMPORTANT SAFETY MESSAGE:

- Read this manual completely before operating your motorcycle. Make sure you understand all instructions.
- Pay close attention to the warning and notice labels on the motorcycle.
- Never operate a motorcycle without proper training or instruction.

AN IMPORTANT NOTE TO PARENTS:

This motorcycle is not a toy. Before you let your child ride this motorcycle, you should understand the instructions and warnings in this Owner's Manual. Then be sure your child understands and will follow them. Children differ in skills, physical abilities, and judgment. Some children may not be able to operate a motorcycle safely. Parents should supervise their child's use of the motorcycle at all times. Parents should permit continued use only if they determine that the child has the ability to operate the motorcycle safely.

Motorcycles 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 this motorcycle.

He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.

EAU10134

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

⚠	**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**
⚠ WARNING	**A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
NOTICE	**A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.**
TIP	A TIP provides key information to make procedures easier or clearer.

*Product and specifications are subject to change without notice.

Important manual information

EAUW0012

TT-R125LWE
OWNER'S MANUAL

Printed in Brazil.

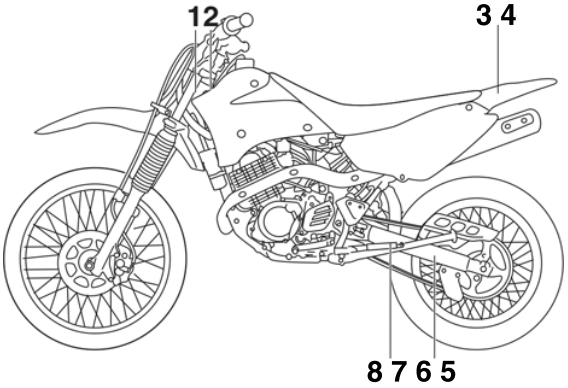
Table of contents

Table of contents

EAU48116

Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.

For Canada



Location of important labels

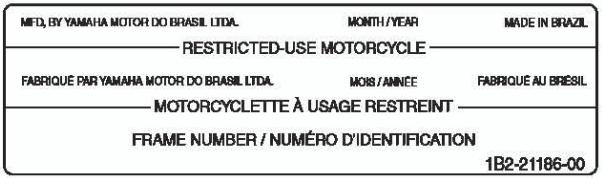
For Canada

1

THIS VEHICLE IS A RESTRICTED USE MOTORCYCLE AND IS NOT INTENDED FOR USE ON PUBLIC HIGHWAYS.
CE VÉHICLE EST UNE MOTORCYCLETTE À USAGE RESTREINT DONT L'USAGE N'EST PAS DESTINÉ AUX VOIES PUBLIQUES.

YAMAHA 3PT-2416E-11

2



3

⚠ 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.

3PT-2118K-A2

4

⚠ AVERTISSEMENT

- **LIRE LE MANUEL DU PROPRIETAIRE AINSI QUE TOUTES LES ETIQUETTES AVANT D'UTILISER CE VEHICULE.**
- **NE JAMAIS TRANSPORTER DE PASSAGER.** La conduite avec passager augmente les risques de perte de contrôle.
- **NE JAMAIS ROULER SUR DES CHEMINS PUBLICS.** Vous pourriez entrer en collision avec un autre véhicule.
- **TOUJOURS PORTER UN CASQUE DE MOTOCYCLISTE APPROUVE,** des lunettes et des vêtements de protection.

3PT-2118K-B1

For Canada

5

TIRE INFORMATION

Cold tire normal pressure should be set as follows.

FRONT: 100kPa, (1.00kgf/cm^2), 15psi
REAR: 100kPa, (1.00kgf/cm^2), 15psi

YAMAHA 3RV-21668-A0

6

INFORMATION SUR LES PNEUS

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

AVANT: 100kPa, (1.00kgf/cm^2), 15psi
ARRIÈRE: 100kPa, (1.00kgf/cm^2), 15psi

YAMAHA 3RV-21668-B0

7

VEHICLE EMISSION CONTROL INFORMATION YAMAHA MOTOR DO BRASIL LTDA.
ENGINE: NYMXX.124AAE PERM: NYMXPP402BC7
THIS VEHICLE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE.
TUNE-UP SPECIFICATIONS AND ADJUSTMENTS (REFER TO YOUR OWNER'S MANUAL)
DISPLACEMENT: 124 cm^3 EXHAUST EMISSION CONTROL SYSTEM: EM
SPARK PLUG GAP: 0.6 ~ 0.7 mm VALVE LASH IN: 0.08-0.12 mm, EX: 0.10-0.14 mm
IDLE SPEED: 1400 r/min IN NEUTRAL AT NORMAL OPERATING TEMPERATURE
FUEL: UNLEADED GASOLINE 91 RON MIN. ENGINE OIL: SAE10W40
NO OTHER ADJUSTMENTS NEEDED.
THIS VEHICLO MEETS US EPA REGULATIONS FOR 2022 MODEL YEAR NEW OFF-ROAD MC AND IS CERTIFIED TO HC+NOx 1,5 (g/km) AND CO (15 g/km)
THIS MC MEETS 1986 AND LATER EPA NOISE EMISSION REQUIREMENTS OF THE FED. TEST PROCEDURES. MODIFICATIONS WHICH CAUSE THIS MC TO EXCEED FED. NOISE ST'D ARE PROHIBITED BY FED. LAW. SEE OWNER'S MANUAL.
LIMIT/CLOSING: 80 dBA/7600 r/min MODEL CODE: YAM1B20124
2PT-2179C-00

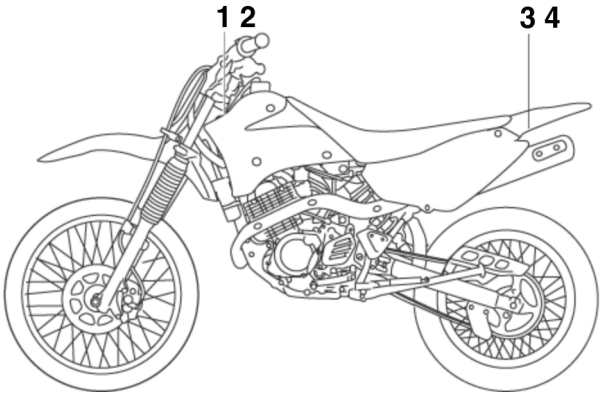
8

RENSEIGNEMENTS SUR LE CONTRÔLE DES GAZ ÉMIS PAR LE VÉHICULE
YAMAHA MOTOR DO BRASIL LTDA.
MOTEUR: NYMXX.124AAE PERM: NYMXPP402BC7
CE VÉHICULE EST CERTIFIÉ POUR OPÉRER AVEC DE L'ESSENCE SANS PLOMB.
INSTRUCTIONS ET RÉGLAGES DE MISE AU POINT (CONSULTEZ GUIDE DU PROPRIÉTAIRE)
CYLINDRÉE: 124 cm^3 SYSTÈME DU CONTRÔLE DE L'ÉMISSION: EM
ÉCART.ÉLECTRODES BOUGIE: 0.6 ~ 0.7 mm
JEU DE SOUPAPE ADM.: 0.08-0.12 mm ÉCHAPP.: 0.10-0.14 mm
RALENTI: 1400 tr/min AU PT MORT À TEMP.NORMALE DE FONCTIONNEMENT.
CARBURANT: ESSENCE SANS PLOMB IOR MIN. À 91 HUILE: SAE10W40
AUCUN AUTRE RÉGLAGE NÉCESSAIRE.
CE VÉHICULE EST CONFORME AUX RÈGLEMENTS DE L'EPA DES É.-U. POUR LES MOTOCYCLETTES HORS-ROUTE 2022 NEUVES ET IL EST AUTORISÉ POUR UNE ÉMISSION MAXIMALE À FAMILLE DE L'EPA FEL: HC+NOx 1,5 (g/km), CO (15 g/km).
CODE DE MODÈLE: YAM1B20124
2PT-2179C-00

Location of important labels

1

For Europe

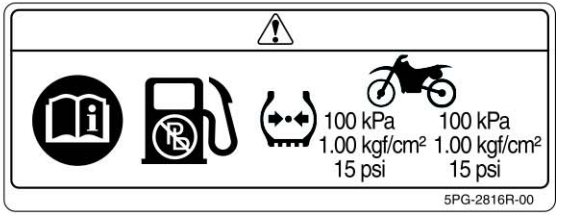


For Europe

1

2

3



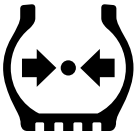
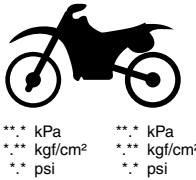
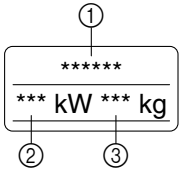
4

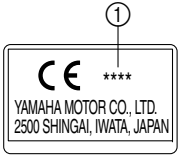
Location of important labels

1

Familiarize yourself with the following pictograms and read the explanatory text.

	Read the Owner's manual.		Never use on paved roads.
	Always use an approved helmet and protective gear.		Never carry passengers.
	Use from 6 years old. Operation of this motorcycle by children under the age of 6 increase the risk of severe injury or death.		This unit contains high-pressure nitrogen gas. Mishandling can cause an explosion. Do not incinerate, puncture or open.
	Adult supervision required for children.		Turn off the main switch after riding to avoid draining the battery.

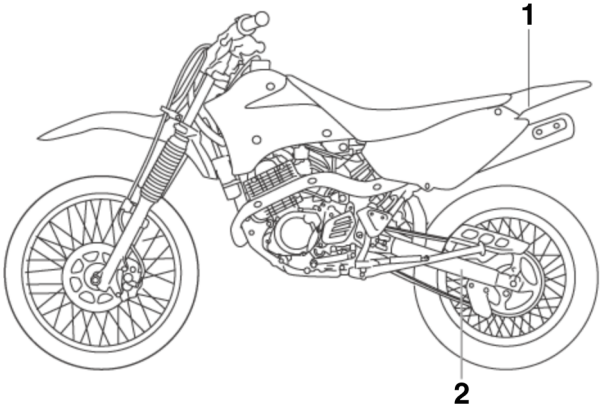
	Use unleaded gasoline only.
	Measure the tire pressure when the tires are cold.
	Adjust the tire pressure. Improper tire pressure can cause loss of control. Loss of control can result in severe injury or death.
	① Model Name ② Max. Power ③ Mass In Running Order

	① Year of construction

Location of important labels

1

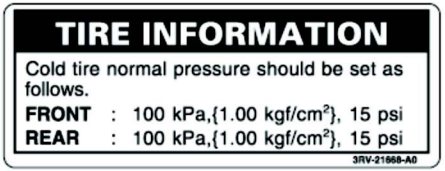
For Oceania and South Africa



For Oceania and South Africa

1

2



EAU41469

2

Be a Responsible Owner

As the vehicle's owner, you are responsible for the safe and proper operation of your motorcycle.
Motorcycles 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 this motorcycle.
He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.
- Never operate a motorcycle without proper training or instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized motorcycle dealer to find out about the training courses nearest you.

Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See page 5-1 for a list of pre-operation checks.

- This motorcycle is designed for off-road use only, therefore, it is illegal to operate it on public streets, roads, or highways, even a dirt or gravel one. Off-road use on public lands may be illegal. Please check local regulations before riding.
- This motorcycle is designed to carry the operator only. No passengers.
- The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

  Therefore:
  - Wear a brightly colored jacket.
  - Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
  - Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
  - Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle maintenance. Certain maintenance can only be carried out by certified staff.

- Many accidents involve inexperienced operators.
  - Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
  - Know your skills and limits. Staying within your limits may help you to avoid an accident.
  - We recommend that you practice riding your motorcycle until you have become thoroughly familiar with the motorcycle and all of its controls.
- Many accidents have been caused by error of the motorcycle operator. 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.
- Ride cautiously in unfamiliar areas. You may encounter hidden obstacles that could cause an accident.
- The posture of the operator is important for proper control. The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
- Never ride under the influence of alcohol or other drugs.
- Be sure the transmission is in neutral before starting the engine.

Protective Apparel

The majority of fatalities from motorcycle 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.

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

Avoid Carbon Monoxide Poisoning

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion, and eventually death.

Carbon Monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poi-

soning, leave the area immediately, get fresh air, and SEEK MEDICAL TREATMENT.

- Do not run engine indoors. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
- Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.
- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Genuine Yamaha Accessories

Choosing accessories for your vehicle is an important decision. Genuine Yamaha accessories, which are available only from a Yamaha dealer, have been designed, tested, and approved by Yamaha for use on your vehicle.

Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that these aftermarket companies produce. Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

Aftermarket Parts, Accessories, and Modifications

While you may find aftermarket products similar in design and quality to genuine Yamaha accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle.

Keep the following guidelines in mind, as well as those provided under "Loading" when mounting accessories.

- Never install accessories that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure that it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation.
  - Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution. 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.
  - Bulky or large accessories may seriously affect the stability of the motorcycle. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds.
  - 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.

- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

Aftermarket Tires and Rims

The tires and rims that came with your motorcycle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. Refer to page 7-15 for tire specifications and more information on replacing your tires.

Transporting the Motorcycle

Be sure to observe following instructions before transporting the motorcycle in another vehicle.

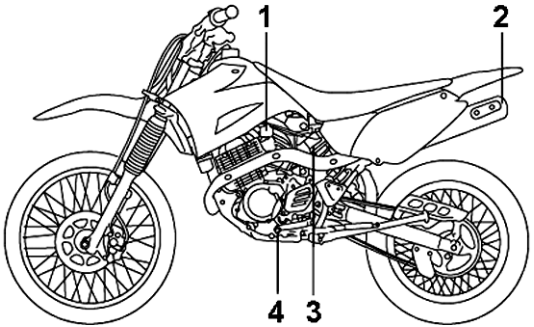
- Remove all loose items from the motorcycle.
- Check that the fuel cock (if equipped) is in the "OFF" position and that there are no fuel leaks.
- Point the front wheel straight ahead on the trailer or in the truck bed, and choke it in a rail to prevent movement.
- Shift the transmission in gear (for models with a manual transmission).
- Secure the motorcycle with tiedowns or suitable straps that are attached to solid parts of the motorcycle, such as the frame or upper front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.
- The suspension should be compressed somewhat by the tiedowns, if possible, so that the motorcycle will not bounce excessively during transport.

Description

EAU32221

Left view

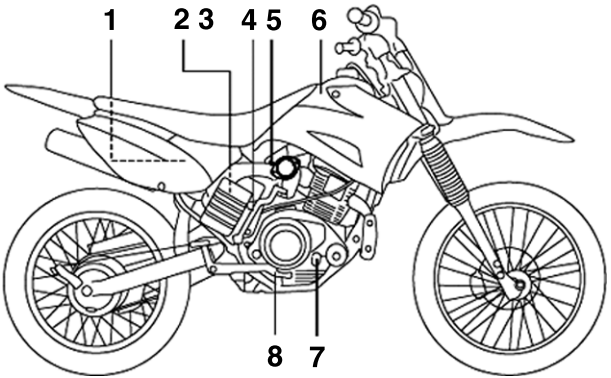
3



1. Fuel cock (page 4-6)
2. Spark arrester (page 7-12)
3. Shock absorber assembly spring preload adjusting nut (page 4-9)
4. Shift pedal (page 4-2)

EAU32231

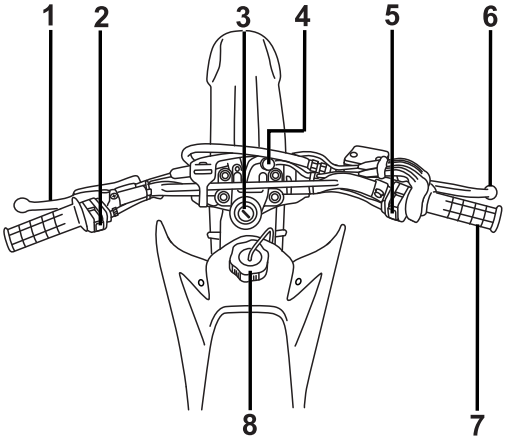
Right view



1. Air filter element (page 7-10)
2. Battery (page 7-27)
3. Fuse (page 7-28)
4. Kickstarter (page 4-7)
5. Throttle stop screw (page 7-13)
6. Fuel tank (page 4-3)
7. Engine oil filler cap (page 7-8)
8. Brake pedal (page 4-3)

EAU10431

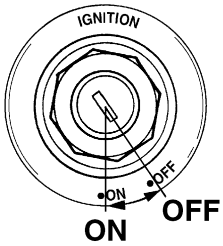
Controls and instruments



1. Clutch lever (page 4-2)
2. Engine stop switch (page 4-1)
3. Main switch (page 4-1)
4. Starter (choke) knob (page 4-6)
5. Start switch (page 4-1)
6. Front brake lever (page 4-3)
7. Throttle grip (page 7-14)
8. Fuel tank cap (page 4-3)

EAU40341

Main switch



The main switch controls the ignition system. The main switch positions are described below.

EAU10631

ON

All electrical systems are supplied with power, and the engine can be started. The key cannot be removed.

EAU45752

OFF

All electrical systems are off. The key can be removed.

EWA10073

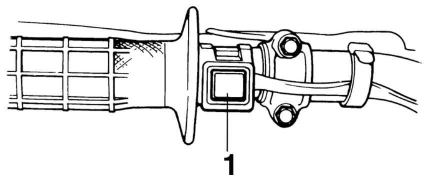
WARNING

Never turn the key to "OFF" while the vehicle is moving, otherwise the electrical systems will be switched off, which may result in loss of control or an accident.

EAU1234R

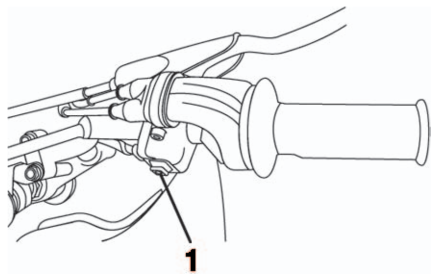
Handlebar switches

Left



1. Engine stop button "ENGINE STOP"

Right



1. Start switch " "

EAU12672

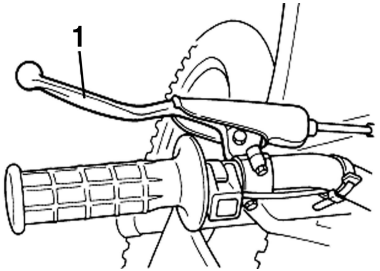
Engine stop button "ENGINE STOP"
Hold this button pushed until the engine stops in case of an emergency, such as when the vehicle overturns or when the throttle cable is stuck.

EAU12713

Start switch "⍟"
Push this switch to crank the engine with the starter. See page 6-2 for starting instructions prior to starting the engine.

EAU31642

Clutch lever

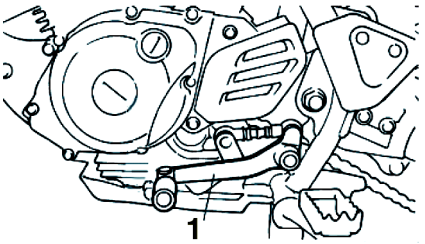


1. Clutch lever

The clutch lever is located on the left side of the handlebar. To disengage the clutch, pull the lever toward the handlebar grip. To engage the clutch, release the lever. The lever should be pulled rapidly and released slowly for smooth clutch operation.
The clutch lever is equipped with a clutch switch, which is part of the starting circuit cut-off system. (See page 4-12.)

EAU12876

Shift pedal

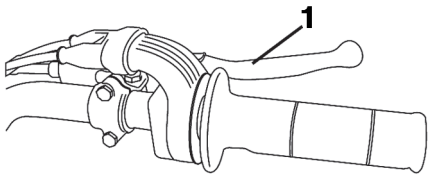


1. Shift pedal

The shift pedal is located on the left side of the motorcycle. To shift the transmission to a higher gear, move the shift pedal up. To shift the transmission to a lower gear, move the shift pedal down. (See page 6-3.)

EAU12892

Brake lever

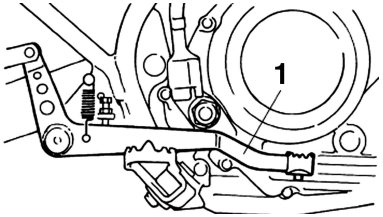


1. Front brake lever

The brake lever is located on the right side of the handlebar. To apply the front brake, pull the lever toward the throttle grip.

EAU12944

Brake pedal

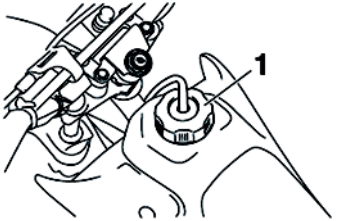


1. Brake pedal

The brake pedal is located on the right side of the motorcycle. To apply the rear brake, press down on the brake pedal.

EAU13183

Fuel tank cap



1. Fuel tank cap

To remove the fuel tank cap, turn it counterclockwise, and then pull it off. To install the fuel tank cap, insert it into the tank opening, and then turn it clockwise.

EWA11092

⚠ WARNING

Make sure that the fuel tank cap is properly closed after filling fuel. Leaking fuel is a fire hazard.

EAU13213

Fuel

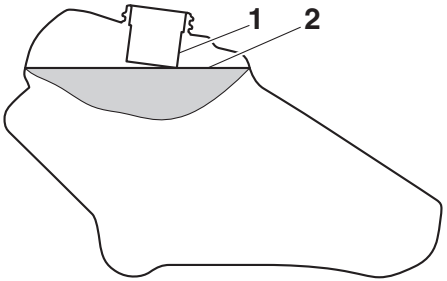
Make sure there is sufficient gasoline in the tank.

EWA10882

⚠ WARNING

Gasoline and gasoline vapors are extremely flammable. To avoid fires and explosions and to reduce the risk of injury when refueling, follow these instructions.

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
2. Do not overfill the fuel tank. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



1. Fuel tank filler tube
2. Maximum fuel level

3. Wipe up any spilled fuel immediately. ***NOTICE:*** **Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.** [ECA10072]
4. Be sure to securely close the fuel tank cap.

EWA15152

⚠ WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immediately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

EAUW4102

Your Yamaha engine was designed to use unleaded gasoline with a research octane number of 90 or higher. If engine knocking or pinging occurs, use a gasoline of a different brand or higher octane rating.

Recommended fuel:
Unleaded gasoline (E10 acceptable)
Octane number (RON):
90
Fuel tank capacity:
6.0 L (1.6 US gal, 1.3 Imp.gal)
Fuel reserve amount:
0.8 L (0.21 US gal, 0.18 Imp.gal)

About the recommended fuel

Since the available fuel grades vary by location, use the following information as a guide. Be sure to use a gasoline of the minimum stated octane rating or higher.

North America: [(R+M)/2] 86 octane
Europe: RON 95 octane
Oceania, Africa: RON 91 octane

Gasohol (alcohol-blended fuels)

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if the ethanol content does not exceed 10% (E0, E5, E10 are all acceptable). Gasohol containing methanol is not recommended by Yamaha because it can cause damage to the fuel system or vehicle performance problems.

ECA11401

NOTICE

Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.

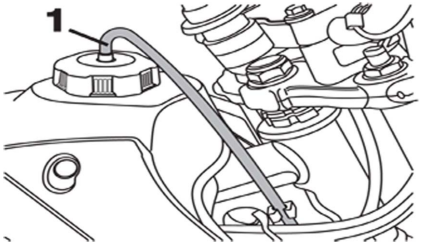
For Europe

TIP

- This mark identifies the recommended fuel for this vehicle as specified by European regulation (EN228).
- Confirm the gasoline pump nozzle has the same fuel identification mark.

Fuel tank breather hose

EAU13414



1. Fuel tank breather hose

Before operating the motorcycle:

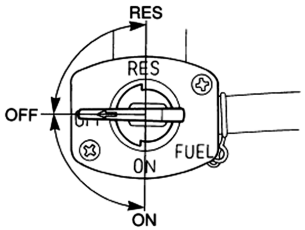
- Check the fuel tank breather hose connection.
- Check the fuel tank breather hose for cracks or damage, and replace it if necessary.
- Make sure that the fuel tank breather hose is not blocked, and clean it if necessary.

EAU13563

Fuel cock

The fuel cock supplies fuel from the tank to the carburetor(s) 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

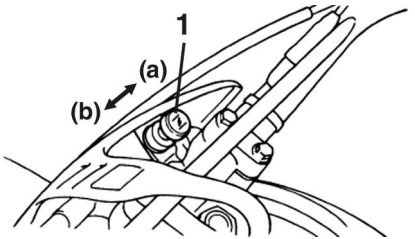
With the lever in this position, fuel flows to the carburetor(s). Normal riding is done with the lever in this position.

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 back to "ON" after refueling!

EAU13601

Starter (choke) knob "|↖|"

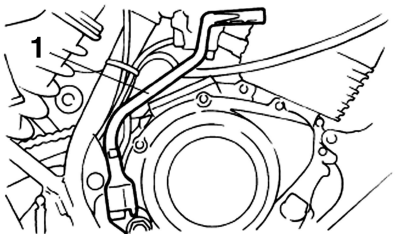


1. Starter (choke) knob "|↖|"

Starting a cold engine requires a richer air-fuel mixture, which is supplied by the starter (choke).
Move the knob in direction (a) to turn on the starter (choke).
Move the knob in direction (b) to turn off the starter (choke).

EAU13661

Kickstarter



1. Kickstarter

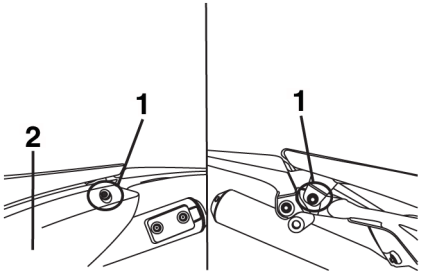
If the engine fails to start by pushing the start switch, try to start it by using the kickstarter. To start the engine, fold out the kickstarter lever, move it down lightly with your foot until the gears engage, and then push it down smoothly but forcefully. This model is equipped with a primary kickstarter, allowing the engine to be started in any gear if the clutch is disengaged. However, shifting the transmission into the neutral position before starting is recommended.

EAUW0483

Seat

To remove the seat

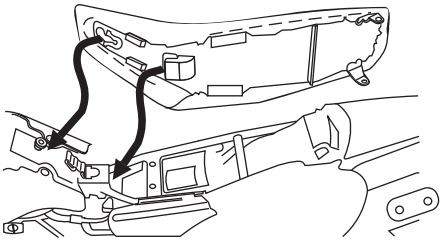
1. Remove panel A. (See page 7-6.)
2. Remove the bolt.
3. Remove the bolt that fastens the seat and panel C.
4. Remove the seat by pulling it off.



1. Bolt
2. Panel C

To install the seat

1. Insert the seat projections into the seat holders as shown.



2. Place the seat in the original position, and then tighten the bolts.
3. Install the panel.

TIP

Make sure that the seat is properly secured before riding.

4

EAU53762

Cable lock (for Europe)

Your motorcycle came with an external anti-theft device to help prevent unauthorized use. Please locate the cable and lock assembly that came with your motorcycle.

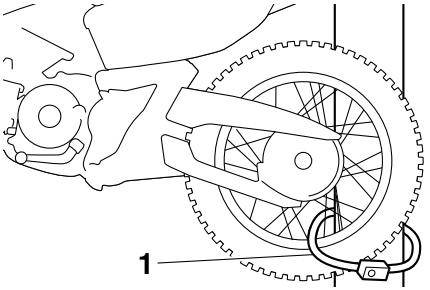
EWA16301

⚠ WARNING

Properly stow the cable and lock assembly inside a bag or other secure location before operating your motorcycle. Do not hang your cable lock from anywhere on the motorcycle or your person! It may become entangled with the wheels, handlebars, or other parts of the motorcycle, causing loss of control and possibly an accident.

To lock your motorcycle

1. Park your motorcycle in the desired location.
2. Make sure that the motorcycle is securely parked. Use the sidestand/centerstand or other support.
3. Disconnect the cable from the lock assembly.
4. Route one end of the cable through the rear wheel, and then insert both ends of the cable into the lock assembly and lock it.



1. Correct cable and lock assembly use

5. Perform the above steps in reverse order before riding your motorcycle.

EAU14726

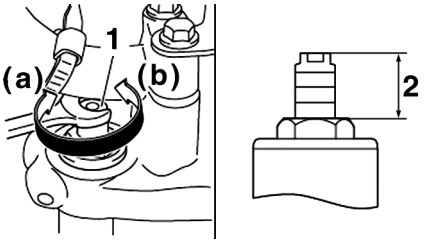
Adjusting the front fork

EWA10181

⚠ WARNING

Always adjust both fork legs equally, otherwise poor handling and loss of stability may result.

The front fork is equipped with spring preload adjusting bolts.



1. Adjusting bolt
2. Distance A

Turn the adjusting bolt in direction (a) to increase the spring preload. Turn the adjusting bolt in direction (b) to decrease the spring preload.

Spring preload setting:
Minimum (soft):
14.0 mm (0.55 in)
Standard:
14.0 mm (0.55 in)
Maximum (hard):
4.0 mm (0.16 in)

ECA10102

NOTICE

To avoid damaging the mechanism, do not attempt to turn beyond the maximum or minimum settings.

EAUW4221

Adjusting the shock absorber assembly

This shock absorber assembly is equipped with a spring preload adjusting nut, a rebound damping force adjusting dial and a compression damping force adjusting knob.

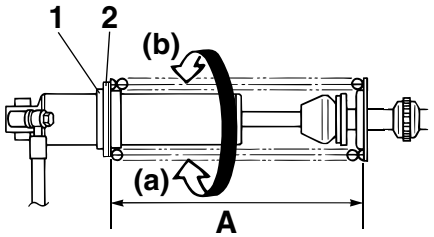
ECA10102

NOTICE

To avoid damaging the mechanism, do not attempt to turn beyond the maximum or minimum settings.

Spring preload

1. Loosen the locknut.
2. Turn the adjusting nut in direction (a) to increase the spring preload. Turn the adjusting nut in direction (b) to decrease the spring preload.



1. Locknut
2. Adjusting nut

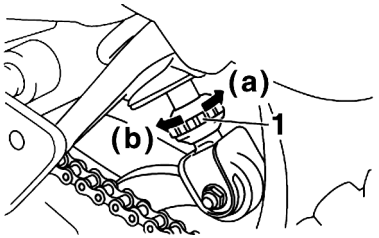
The spring preload setting is determined by measuring distance A, shown in the illustration. The shorter distance A is, the higher the spring preload; the longer distance A is, the lower the spring preload.

Spring preload:
Minimum (soft):
Distance A = 167.5 mm (6.59 in)
Standard:
Distance A = 160.5 mm (6.32 in)
Maximum (hard):
Distance A = 147.5 mm (5.81 in)

3. Tighten the locknut to the specified torque. ***NOTICE:*** **Always tighten the locknut against the adjusting nut, and then tighten the locknut to the specified torque.** [ECA11242]

Tightening torque:
Locknut:
42 N·m (4.2 kgf·m, 31 lb·ft)

Rebound damping force
Turn the adjusting dial in direction (a) to increase the rebound damping force.
Turn the adjusting dial in direction (b) to decrease the rebound damping force.
To set the rebound damping force, turn the adjuster in direction (a) until it stops, and then count the clicks in direction (b).



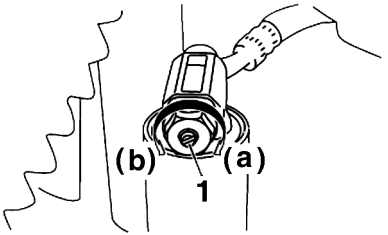
1. Rebound damping force adjusting dial

Rebound damping setting:
Minimum (soft):
20 click(s) in direction (b)
Standard:
12 click(s) in direction (b)
Maximum (hard):
0 click(s) in direction (b)

TIP

- When turning the damping force adjuster in direction (a), the 0 click position and the 1 click position may be the same.
- When turning the damping force adjuster in direction (b), it may click beyond the stated specifications, however such adjustments are ineffective and may damage the suspension.

Compression damping force
Turn the adjusting knob in direction (a) to increase the compression damping force.
Turn the adjusting knob in direction (b) to decrease the compression damping force.
To set the compression damping force, turn the adjuster in direction (a) until it stops, and then count the clicks in direction (b).



1. Compression damping force adjusting knob

Compression damping setting:
Minimum (soft):
18 click(s) in direction (b)
Standard:
9 click(s) in direction (b)
Maximum (hard):
0 click(s) in direction (b)

TIP

- When turning the damping force adjuster in direction (a), the 0 click position and the 1 click position may be the same.
- When turning the damping force adjuster in direction (b), it may click beyond the stated specifications, however such adjustments are ineffective and may damage the suspension.

EWA10222

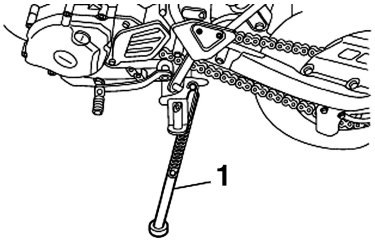
⚠ WARNING

This shock absorber assembly contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber assembly.

- **Do not tamper with or attempt to open the cylinder assembly.**
- **Do not subject the shock absorber assembly to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.**
- **Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.**
- **Do not dispose of a damaged or worn-out shock absorber assembly yourself. Take the shock absorber assembly to a Yamaha dealer for any service.**

EAU37491

Sidestand



1. Sidestand

The sidestand is located on the left side of the frame. Raise the sidestand or lower it with your foot while holding the vehicle upright.

EWA14191

⚠ WARNING

The vehicle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control.

4

EAU15397

Starting circuit cut-off system

This system prevents in-gear engine starts unless the clutch lever is pulled. Periodically check the system via the following procedure.

TIP

- This check is most reliable if performed with a warmed-up engine.
- See pages 4-1 and 4-1 for switch operation information.

With the engine turned off:
1. Set engine stop switch to run position.
2. Turn main switch to on position.
3. Shift transmission into neutral.
4. Push the start switch.

Does the engine start?

YES **NO** → The neutral switch may not be working. **The vehicle should not be ridden** until checked by a Yamaha dealer.

5. Stop the engine.
6. Set engine stop switch to run position.
7. Shift transmission into gear.
8. Pull the clutch lever.
9. Push the start switch.

Does the engine start?

YES **NO** → The clutch switch may not be working. **The vehicle should not be ridden** until checked by a Yamaha dealer.

The system is OK. **The motorcycle can be ridden.**

⚠ WARNING

If a malfunction is found, have the vehicle inspected before riding.

For your safety – pre-operation checks

EAU1559B

Inspect your vehicle each time you use it to make sure the vehicle is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.

EWA11152

⚠ WARNING

Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. Do not operate the vehicle if you find any problem. If a problem cannot be corrected by the procedures provided in this manual, have the vehicle inspected by a Yamaha dealer.

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage.	4-4
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	7-8
Front brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check lever free play. • Adjust if necessary. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage.	7-18, 7-20, 7-20
Rear brake	• Check operation. • Check pedal free play. • Adjust if necessary.	7-19, 7-20

ITEM	CHECKS	PAGE
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	7-17
Throttle grip	• Make sure that operation is smooth. • Check throttle grip free play. • If necessary, have Yamaha dealer adjust throttle grip free play and lubricate cable and grip housing.	7-14, 7-24
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	7-23
Drive chain	• Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary.	7-22, 7-23
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	7-15, 7-17
Brake and shift pedals	• Make sure that operation is smooth. • Lubricate pedal pivoting points if necessary.	7-24
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	7-24
Sidestand	• Make sure that operation is smooth. • Lubricate pivot if necessary.	7-25
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	—
Engine stop switch	• Check operation.	4-1

EAU15952

Read the Owner's Manual carefully to become familiar with all controls. If there is a control or function you do not understand, ask your Yamaha dealer.

EWA10272

⚠ WARNING

Failure to familiarize yourself with the controls can lead to loss of control, which could cause an accident or injury.

EAU16851

Engine break-in

There is never a more important period in the life of your engine than the first 20 hours of riding. For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 20 hours of operation. 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 that might result in engine overheating must be avoided. However, momentary full-throttle operation under load (i.e., two to three seconds maximum) does not harm the engine. Each full-throttle acceleration should be followed with a substantial rest period for the engine. To allow the engine to cool down from the temporary build-up of heat, cruise at a lower engine speed.

0–10 hours

- Avoid prolonged operation above 1/2 throttle.
- After every hour of operation, stop the engine, and then let it cool for five to ten minutes.
- Vary the engine speed from time to time. Do not operate the engine at one set throttle position.

10–20 hours

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

After break-in

Avoid prolonged full-throttle operation. Vary the engine speed occasionally.

ECA10271

NOTICE

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

EAUW0504

Starting a cold engine

The starting circuit cut-off system will enable starting when:

- the transmission is in the neutral position or
- The transmission is in gear with the clutch lever pulled.

To start the engine

1. Turn the fuel cock lever to on.
2. Turn the main switch on.
3. Shift the transmission into the neutral position.
4. Turn the starter (choke) on and completely close the throttle. (See page 4-6.)
5. Start the engine by pushing the start switch or by pushing the kickstarter lever down.
6. Release the start switch when the engine starts, or after 5 seconds. Wait 10 seconds before pressing the switch again to allow battery voltage to restore.
7. After starting the engine, move the starter (choke) back halfway.
8. As the engine warms up, reduce the choke.
9. When the engine can idle normally, turn off the choke.
10. Confirm the engine is warm by testing throttle response. When the engine responds quickly, the engine is warm and the vehicle can be driven normally.

TIP

- To prevent excessive exhaust emissions, do not use the choke longer than necessary.
- The time necessary for choke use depends on the ambient temperature and when the engine was last started. The colder the temperature or the longer in-between uses, the longer the choke will need to be used.

ECA11043

NOTICE

For maximum engine life, never accelerate hard when the engine is cold!

EAU16641

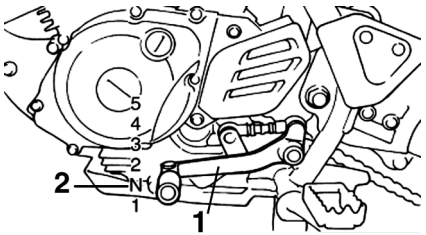
Starting a warm engine

Follow the same procedure as for starting a cold engine with the exception that the starter (choke) is not required when the engine is warm.

6

Shifting

EAU16675



1. Shift pedal
2. Neutral position

Shifting gears lets you control the amount of engine power available for starting off, accelerating, climbing hills, etc.
The gear positions are shown in the illustration.

TIP

To shift the transmission into the neutral position (**N**), press the shift pedal down repeatedly until it reaches the end of its travel, and then slightly raise it.

ECA10262

NOTICE

- **When shifting, press the shift pedal firmly until you feel the gear shift is complete.**
- **Even with the transmission in the neutral position, do not coast for long periods of time with the engine off, nor tow the motorcycle for long distances. The transmission is properly lubricated only when the engine is running. Inadequate lubrication may damage the transmission.**
- **Always use the clutch while changing gears to avoid damaging the engine, transmission, and drive train, which are not designed to withstand the shock of forced shifting.**

EAU16691

To start out and accelerate

1. Pull the clutch lever to disengage the clutch.
2. Shift the transmission into first gear.
3. Open the throttle gradually and simultaneously release the clutch lever slowly.
4. Once the motorcycle has reached a speed high enough to change gears, close the throttle, and at the same time, quickly pull the clutch lever in.
5. Shift the transmission into second gear. (Make sure not to shift the transmission into the neutral position.)
6. Open the throttle halfway and gradually release the clutch lever.
7. Follow the same procedure when shifting to the next gear.

EAU16711

To decelerate

1. Close the throttle and apply both the front and the rear brakes to slow the motorcycle.
2. Downshift through the gears and shift the transmission into the neutral position when the motorcycle is almost completely stopped.

EAU17173

Parking

When parking, stop the engine, remove the key from the main switch, and then turn the fuel cock lever to the off position.

EWA10312

⚠ WARNING

- **Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them and be burned.**
- **Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.**
- **Do not park near grass or other flammable materials which might catch fire.**

EAU17246

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

The intervals given in the periodic maintenance charts should be simply considered as a general guide under normal riding conditions. However, depending on the weather, terrain, geographical location, and individual use, the maintenance intervals may need to be shortened.

EWA10322

⚠ WARNING

Failure to properly maintain the vehicle or performing maintenance activities incorrectly may increase your risk of injury or death during service or while using the vehicle. If you are not familiar with vehicle service, have a Yamaha dealer perform service.

EWA15123

⚠ WARNING

Turn off the engine when performing maintenance unless otherwise specified.

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-2 for more information about carbon monoxide.**

EWA15461

⚠ WARNING

Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.

EAU39945

Periodic maintenance chart for the emission control system

TIP

- From 7000 km (4200 mi) or 18 months, repeat the maintenance intervals starting from 3000 km (1800 mi) or 6 months.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

No.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL	ODOMETER READINGS	
				1000 km (600 mi) or 1 month or 30 hours	3000 km (1800 mi) or 6 months or 90 hours	5000 km (3000 mi) or 12 months or 150 hours
1	*	**Fuel line**	• Check fuel hoses for cracks or damage. • Replace if necessary.		√	√
2		**Spark plug**	• Check condition. • Adjust gap and clean.		√	√
3	*	**Valve clearance**	• Check and adjust valve clearance when engine is cold.			√
4	*	**Air filter element**	• Clean with solvent. • Replace if necessary.		√	√
5	*	**Crankcase breather system**	• Check ventilation hose for cracks or damage and drain any deposits. • Replace if necessary.	√	√	√
6	*	**Carburetor**	• Check engine idling speed and starter operation. • Adjust if necessary.	√	√	√
7		**Exhaust system**	• Check for leakage. • Tighten if necessary. • Replace gasket(s) if necessary.		√	√
8	*	**Spark arrester**	• Clean.			√
9		**Engine oil**	• Change (warm engine before draining).	√	√	√

EAU3534D

General maintenance and lubrication chart

TIP

- From 7000 km (4200 mi) or 18 months, repeat the maintenance intervals starting from 3000 km (1800 mi) or 6 months.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

No.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL	ODOMETER READINGS	
				1000 km (600 mi) or 1 month or 30 hours	3000 km (1800 mi) or 6 months or 90 hours	5000 km (3000 mi) or 12 months or 150 hours
1	*	**Clutch**	• Check operation. • Adjust if necessary.	√	√	√
2	*	**Front brake**	• Check operation, fluid level, and for fluid leakage.	√	√	√
			• Replace brake pads.	Whenever worn to the limit		
3	*	**Rear brake**	• Check operation. • Adjust brake pedal free play and replace brake shoes if necessary.	√	√	√
4	*	**Brake hoses**	• Check for cracks or damage. • Check for correct routing and clamping.		√	√
			• Replace.	Every 4 years		
5	*	**Brake fluid**	• Change.	Every 2 years		
6	*	**Wheels**	• Check runout, spoke tightness and for damage. • Tighten spokes if necessary.	√	√	√
7	*	**Tires**	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√

No.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL	ODOMETER READINGS	
				1000 km (600 mi) or 1 month or 30 hours	3000 km (1800 mi) or 6 months or 90 hours	5000 km (3000 mi) or 12 months or 150 hours
8	*	**Wheel bearings**	• Check bearings for smooth operation. • Replace if necessary.		√	√
9	*	**Swingarm pivot bearings**	• Check bearing assemblies for looseness. • Moderately repack with lithium-soap-based grease.		√	√
10		**Drive chain**	• Check chain slack/alignment and condition. • Adjust and lubricate chain with Yamaha chain lubricant or other suitable chain lubricant thoroughly.	Every ride		
11	*	**Steering bearings**	• Check bearing assemblies for looseness. • Moderately repack with lithium-soap-based grease.	√		√
12	*	**Chassis fasteners**	• Check all chassis fitting and fasteners. • Correct if necessary.	√	√	√
13		**Brake lever pivot shaft**	• Apply silicone grease lightly.		√	√
14		**Brake pedal pivot shaft**	• Apply lithium-soap-based grease lightly.		√	√
15		**Clutch lever pivot shaft**	• Apply lithium-soap-based grease (all-purpose grease) lightly.		√	√
16		**Shift pedal pivot shaft**	• Apply lithium-soap-based grease (all-purpose grease) lightly.		√	√
17		**Sidestand pivot**	• Check operation. • Apply lithium-soap-based grease lightly.	√		√
18	*	**Front fork**	• Check operation and for oil leakage. • Replace if necessary.		√	√
19	*	**Shock absorber assembly**	• Check operation and for oil leakage. • Replace if necessary.			√

No.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL	ODOMETER READINGS	
				1000 km (600 mi) or 1 month or 30 hours	3000 km (1800 mi) or 6 months or 90 hours	5000 km (3000 mi) or 12 months or 150 hours
20	*	Rear suspension link pivots	• Check operation.		√	√
			• Lubricate with lithium-soap-based grease.			√
21	*	Control cables	• Apply Yamaha cable lubricant or other suitable cable lubricant thoroughly.	√	√	√
22	*	Throttle grip	• Check operation. • Check throttle grip free play, and adjust if necessary. • Lubricate cable and grip housing.	√	√	√

EAU18671

7

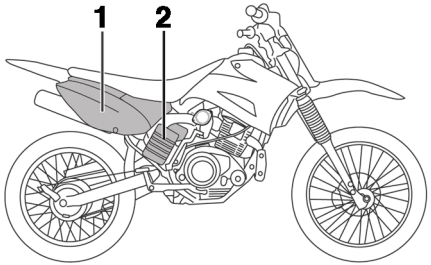
TIP

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Hydraulic brake service
  - Regularly check and, if necessary, correct the brake fluid level.
  - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

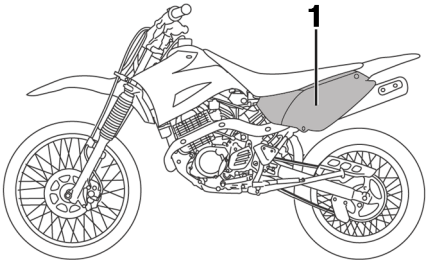
EAU18773

Removing and installing panels

The panels shown need to be removed to perform some of the maintenance jobs described in this chapter. Refer to this section each time a panel needs to be removed and installed.



1. Panel A
2. Panel B



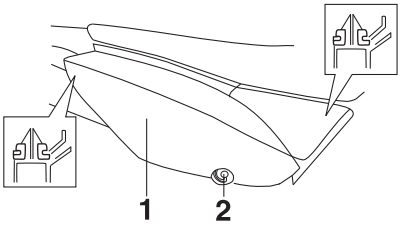
1. Panel C

EAUW3160

Panel A

To remove the panel

Remove the quick fastener, and then take the panel off.



1. Panel A
2. Quick fastener

To install the panel

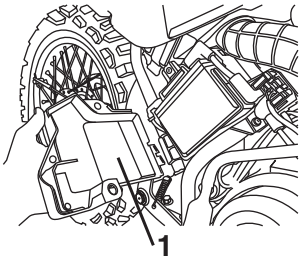
Place the panel in the original position, and then install the quick fastener.

Panel B and C

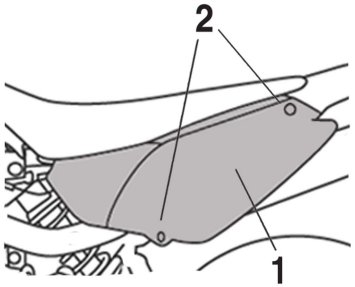
To remove the panel

Remove the bolts, and then take the panel off.

7



1. Panel B



1. Panel C
2. Bolt

To install the panel
Place the panel in the original position, and then install the bolts.

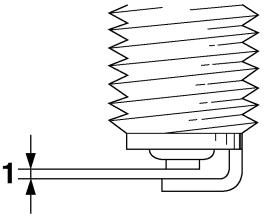
EAU19623

Checking the spark plug

The spark plug is an important engine component, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, it should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the condition of the spark plug can reveal the condition of the engine.
The porcelain insulator around the center electrode of the spark plug should be a medium-to-light tan (the ideal color when the vehicle is ridden normally). If the spark plug shows a distinctly different color, the engine could be operating improperly. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle.
If the spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

Specified spark plug:
NGK/CR7HSA

Before installing a spark plug, the spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.



1. Spark plug gap

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

Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.

Tightening torque:
Spark plug:
13 N·m (1.3 kgf·m, 9.6 lb·ft)

TIP

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

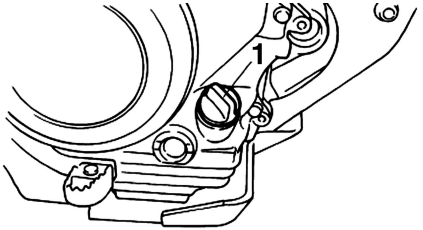
EAUW043C

Engine oil

The engine oil level should be checked before each ride. In addition, the oil must be changed at the intervals specified in the periodic maintenance and lubrication chart.

To check the engine oil level

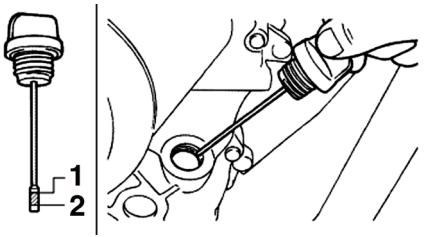
1. Place the vehicle on a level surface and hold it in an upright position. A slight tilt to the side can result in a false reading.
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes for the oil level to settle for an accurate reading, remove the engine oil filler cap, wipe the engine oil dipstick clean, insert it back into the oil filler hole (without screwing it in), and then remove it again to check the oil level. **WARNING! Never remove the engine oil filler cap after high-speed operation, otherwise hot engine oil could spout out and cause damage or injury. Always let the engine oil cool down sufficiently before removing the oil filler cap.** [EWA17640]
NOTICE: **Do not operate the vehicle until you know that the engine oil level is sufficient.** [ECA10012]



1. Engine oil filler cap

TIP

The engine oil should be between the minimum and maximum level marks.

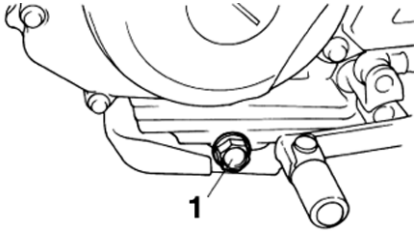


1. Maximum level mark
2. Minimum level mark

4. If the engine oil is at or below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.
5. Check the O-ring for damage, and replace it if necessary.
6. Insert the dipstick into the oil filler hole, and then tighten the oil filler cap.

To change the engine oil

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap and engine oil drain bolt and its gasket to drain the oil from the crankcase.



1. Engine oil drain bolt

4. Install the drain bolt and its new gasket, and then tighten the bolt to the specified torque.

Tightening torque:
Engine oil drain bolt:
20 N·m (2.0 kgf·m, 15 lb·ft)

5. Refill with the specified amount of the recommended engine oil.

Recommended engine oil:
See page 9-1.
Oil change quantity:
1.00 L (1.06 US qt, 0.88 Imp.qt)

TIP

Be sure to wipe off spilled oil on any parts after the engine and exhaust system have cooled down.

ECAW0033

NOTICE

- **In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD". Make sure that the engine oil doesn't contain friction-reducing additives.**
- **Make sure that no foreign material enters the crankcase.**

6. Check the O-ring for damage, and replace it if necessary.
7. Install and tighten the oil filler cap.
8. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.

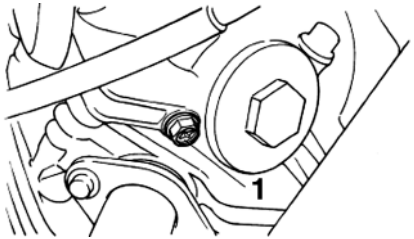
9. Turn the engine off, wait a few minutes for the oil level to settle for an accurate reading, and then check the oil level and correct it if necessary.

ECA10441

NOTICE

After changing the engine oil, be sure to check the oil pressure as described below.

10. Remove the bleed bolt, start the engine and keep it idling until oil flows out. If no oil comes out after several minutes, turn the engine off immediately and consult a Yamaha dealer for inspection.



1. Bleed screw

11. After checking the oil pressure, tighten the bleed bolt to the specified torque.

Tightening torque:
Bleed bolt:
7 N·m (0.7 kgf·m, 5.2 lb·ft)

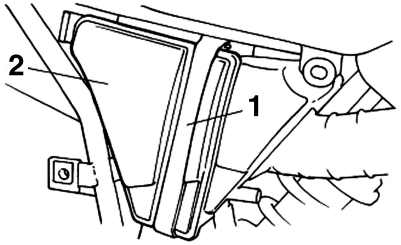
EAUW0522

Cleaning the air filter element and check hoses

The air filter element should be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Clean the air filter element more frequently if you are riding in unusually wet or dusty areas. The air filter check hoses must be frequently checked and cleaned if necessary.

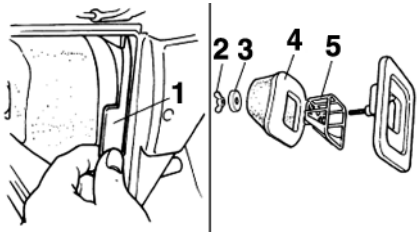
Cleaning the air filter element

1. Remove panel A. (See page 7-6.)
2. Remove the air filter case cover by removing the band.



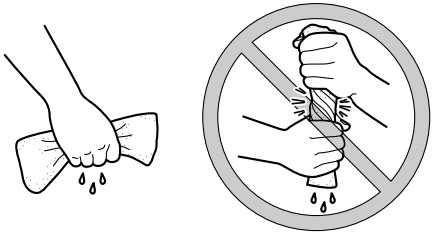
1. Band
2. Air filter case cover

3. Pull the air filter element out of the air filter case.



1. Air filter element
2. Nut
3. Washer
4. Air filter sponge material
5. Air filter element guide

4. Remove the wing nut, and then pull the air filter element off the guide.
5. Remove the sponge material from the air filter element frame.



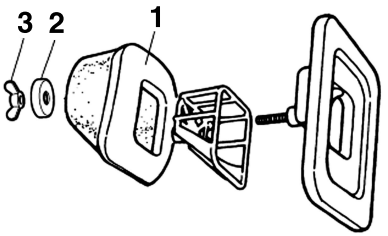
6. Clean the sponge material with solvent, and then squeeze the remaining solvent out. ***NOTICE:*** **To avoid damaging the sponge material, handle it gently and carefully, and do not twist it.** [ECA15102]
7. Apply oil of the recommended type to the entire surface of the sponge material, and then squeeze the excess oil out.

TIP

The sponge material should be wet but not dripping.

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

8. Install the sponge material onto the frame, place the air filter element in the original position on the guide, and then tighten the wing nut.



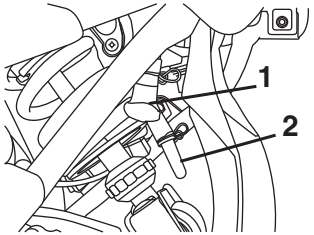
1. Air filter sponge material
2. Washer
3. Nut

9. Insert the air filter element into the air filter case. ***NOTICE:*** **Make sure that the air filter element is properly seated in the air filter case. The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.** [ECA10482]

10. Install the air filter case cover by installing the band.
11. Install the panel.

Checking and cleaning the air filter case check hoses

1. Check the air filter case check hoses for accumulation of dust or water.



1. Air filter check hose plug
2. Air filter check hose

2. If dirt or water is visible, remove the hoses, clean them, and then install them.

EAUW0451

Cleaning the spark arrester

The spark arrester should be cleaned at the intervals specified in the periodic maintenance and lubrication chart.

EWA10981

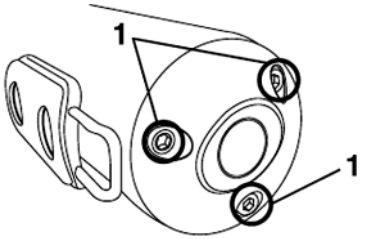
WARNING

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

TIP

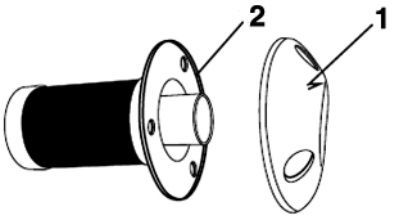
Make sure to select a well-ventilated area free of combustible materials to clean the spark arrester.

1. Remove the spark arrester cap by removing the bolts, and then pull the spark arrester out of the muffler.



1. Spark arrester cap bolts

2. Tap the spark arrester lightly, and then use a wire brush to remove any carbon deposits, then clean the inside of the spark arrester.



1. Spark arrester cap
2. Spark arrester

3. Insert the spark arrester into the muffler, install the spark arrester cap and the bolts, and then tighten the bolts to the specified torque.

Tightening torque:
Spark arrester cap bolt:
10 N·m (1.0 kgf·m, 7.4 lb·ft)

TIP
Make sure to align the bolt holes when installing the spark arrester cap.

EAU39931

Adjusting the carburetor

The carburetor is an important part of the engine and requires very sophisticated adjustment. Therefore, most carburetor adjustments should be left to a Yamaha dealer, who has the necessary professional knowledge and experience. The adjustment described in the following section, however, may be serviced by the owner as part of routine maintenance.

ECA10551

NOTICE

The carburetor has been set and extensively tested at the Yamaha factory. Changing these settings without sufficient technical knowledge may result in poor performance of or damage to the engine.

EAU21363

Adjusting the engine idling speed

The engine idling speed must be checked and, if necessary, adjusted as follows at the intervals specified in the periodic maintenance and lubrication chart.

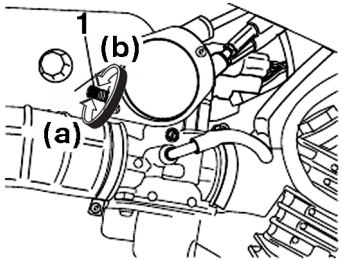
TIP
A diagnostic tachometer is needed to make this adjustment.

1. Attach the tachometer to the spark plug lead.
2. Start the engine and warm it up for several minutes at 1000–2000 r/min while occasionally revving it to 4000–5000 r/min.

TIP
The engine is warm when it quickly responds to the throttle.

3. Check the engine idling speed and, if necessary, adjust it to specification by turning the throttle stop screw. To increase the engine idling speed, turn the screw in

direction (a). To decrease the engine idling speed, turn the screw in direction (b).



1. Throttle stop screw

Engine idling speed:
1300–1500 r/min

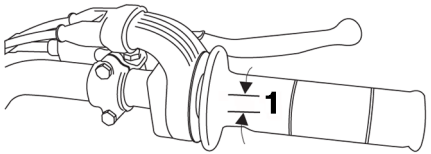
TIP

If the specified idling speed cannot be obtained as described above, have a Yamaha dealer make the adjustment.

EAU21377

Adjusting the throttle grip free play

Measure the throttle grip free play as shown.



1. Throttle grip free play

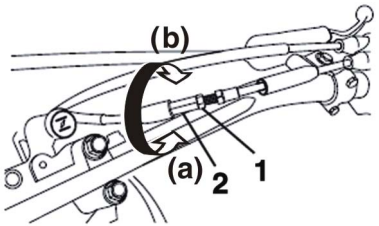
Throttle grip free play:
3.0–5.0 mm (0.12–0.20 in)

Periodically check the throttle grip free play and, if necessary, adjust it as follows.

TIP

The engine idling speed must be correctly adjusted before checking and adjusting the throttle grip free play.

1. Loosen the locknut.
2. To increase the throttle grip free play, turn the throttle grip free play adjusting nut in direction (a). To decrease the throttle grip free play, turn the adjusting nut in direction (b).



1. Locknut
2. Adjusting nut

3. Tighten the locknut.

7

EAU21403

Valve clearance

The valves are an important engine component, and since valve clearance changes with use, they must be checked and adjusted at the intervals specified in the periodic maintenance chart. Unadjusted valves can result in improper air-fuel mixture, engine noise, and eventually engine damage. To prevent this from occurring, have your Yamaha dealer check and adjust the valve clearance at regular intervals.

TIP

This service must be performed when the engine is cold.

EAU64940

Tires

Tires are the only contact between the vehicle and the road. Safety in all conditions of riding depends on a relatively small area of road contact. Therefore, it is essential to maintain the tires in good condition at all times and replace them at the appropriate time with the specified tires.

Tire air pressure

The tire air pressure should be checked and, if necessary, adjusted before each ride.

EWA10442

⚠ WARNING

Operation of this vehicle with improper tire pressure may cause severe injury or death from loss of control.

- **The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature).**
- **The tire air pressure must be adjusted in accordance with the riding speed and with the total weight of rider, cargo, and accessories approved for this model.**

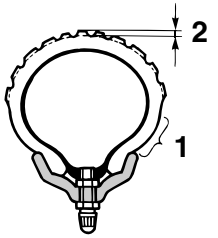
Standard tire pressure:
Front:
100 kPa (1.00 kgf/cm², 15 psi)
Rear:
100 kPa (1.00 kgf/cm², 15 psi)

EWA10512

⚠ WARNING

Never overload your vehicle. Operation of an overloaded vehicle could cause an accident.

Tire inspection



1. Tire sidewall
2. Tire tread depth

The tires must be checked before each ride. If a tire tread depth reaches the specified limit, if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a Yamaha dealer replace the tire immediately.

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

TIP

The tire tread depth limits may differ from country to country. Always comply with the local regulations.

Tire information

This model is equipped with tube tires. Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10462

⚠ WARNING

The front and rear tires should be of the same make and design, otherwise the handling characteristics of the vehicle may be different, which could lead to an accident.

After extensive tests, only the tires listed below have been approved for this model by Yamaha.

Front tire:
Size:
70/100-19 42M
Manufacturer/model:
IRC/IX05H
Rear tire:
Size:
90/100-16 52M
Manufacturer/model:
IRC/IX05H

EWA14391

⚠ WARNING

- **Have a Yamaha dealer replace excessively worn tires. Operating the motorcycle with excessively worn tires decreases riding stability and can lead to loss of control.**
- **The replacement of all wheel- and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.**
- **It is not recommended to patch a punctured tube. If unavoidable, however, patch the tube very carefully and replace it as soon as possible with a high-quality product.**

EAU21945

Spoke wheels

To maximize the performance, durability, and safe operation of the vehicle, note the following points.

- Check each wheel for cracks, deformation and other damage. If any damage is found, have the wheel inspected by your Yamaha dealer. Do not attempt to repair or straighten a bent or damaged wheel.
- Check the spokes for looseness. If any loose spokes are found, have the wheel adjusted by your Yamaha dealer. Improperly tightened spokes can cause wheel misalignment.
- Have the wheel balanced whenever the tire or tube has been replaced. An unbalanced wheel can result in adverse handling characteristics and shortened tire life.

EWA10611

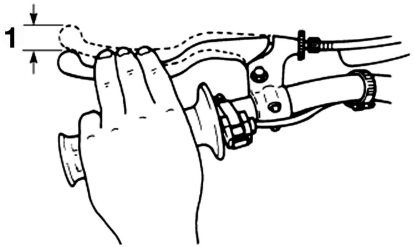
⚠ WARNING

The wheels on this model are not designed for use with tubeless tires. Do not attempt to use tubeless tires on this model.

EAU22038

Adjusting the clutch lever free play

Measure the clutch lever free play as shown.



1. Clutch lever free play

Clutch lever free play:
10.0–15.0 mm (0.39–0.59 in)

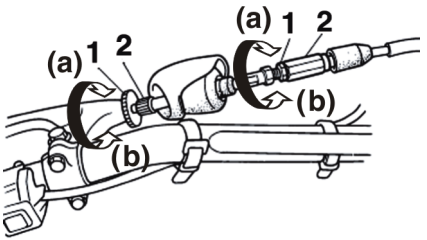
Periodically check the clutch lever free play and, if necessary, adjust it as follows.

1. Slide the rubber cover back at the clutch lever.
2. Loosen the locknut.
3. To increase the clutch lever free play, turn the clutch lever free play adjusting bolt in direction (a). To decrease the clutch lever free play, turn the adjusting bolt in direction (b).

TIP

If the specified clutch lever free play could be obtained as described above, skip steps 4–8.

4. Fully turn the adjusting bolt in direction (a) to loosen the clutch cable.
5. Slide the rubber cover back at the clutch cable.
6. Loosen the locknut further down the clutch cable.



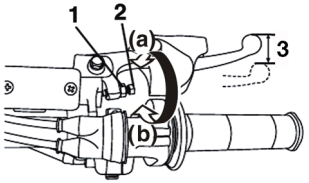
1. Locknut (clutch cable)
2. Clutch lever free play adjusting bolt

7. To increase the clutch lever free play, turn the clutch lever free play adjusting nut in direction (a). To decrease the clutch lever free play, turn the adjusting nut in direction (b).
8. Tighten the locknut at the clutch cable, and then slide the rubber cover to its original position.
9. Tighten the locknut at the clutch lever, and then slide the rubber cover to its original position.

EAU22095

Adjusting the brake lever free play

Measure the brake lever free play as shown.



1. Locknut
2. Brake lever free play adjusting nut
3. Brake lever free play

Brake lever free play:
2.0–5.0 mm (0.08–0.20 in)

Periodically check the brake lever free play and, if necessary, adjust it as follows.

1. Loosen the locknut at the brake lever.
2. To increase the brake lever free play, turn the brake lever free play adjusting screw in direction (a). To decrease the brake lever free play, turn the adjusting screw in direction (b).
3. Tighten the locknut.

EWA10631

⚠ WARNING

- **After adjusting the brake lever free play, check the free play and make sure that the brake is working properly.**
- **A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the motorcycle. Air in the hydraulic system will diminish the braking performance, which may result in loss of control and an accident.**

Adjusting the brake pedal height and free play

EAUW0655

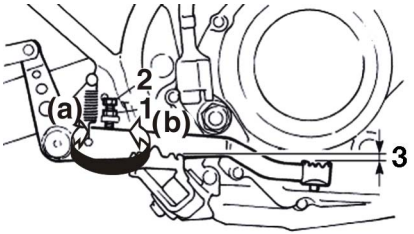
EWA10671

⚠ WARNING

It is advisable to have a Yamaha dealer make these adjustments.

Brake pedal height

The top of the brake pedal should be positioned at the specified distance below the top of the footrest as shown.



1. Locknut
2. Brake pedal height adjusting bolt
3. Brake pedal position

Brake pedal height:
1.0 mm (0.04 in)

Periodically check the brake pedal height and, if necessary, adjust it as follows.

1. Loosen the locknut at the brake pedal.
2. To raise the brake pedal, turn the adjusting bolt in direction (a). To lower the brake pedal, turn the adjusting bolt in direction (b).
3. Tighten the locknut.

EWA11232

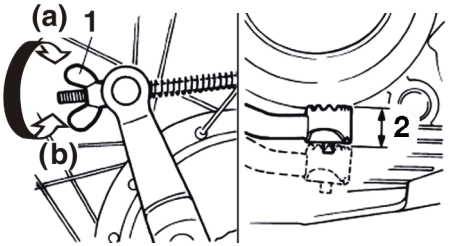
⚠ WARNING

After adjusting the brake pedal height, the brake pedal free play must be adjusted.

Brake pedal free play

The brake pedal free play should measure 20.0–30.0 mm (0.79–1.18 in) as shown. Periodically check the brake pedal free play and, if necessary, adjust it as follows.

To increase the brake pedal free play, turn the adjusting nut at the brake rod in direction (a). To decrease the brake pedal free play, turn the adjusting nut in direction (b).



1. Brake pedal free play adjusting nut
2. Brake pedal free play

EWAW0031

⚠ WARNING

- **After adjusting the drive chain slack or removing and installing the rear wheel, always check the brake pedal free play.**
- **If proper adjustment cannot be obtained as described, have a Yamaha dealer make this adjustment.**

EAU22382

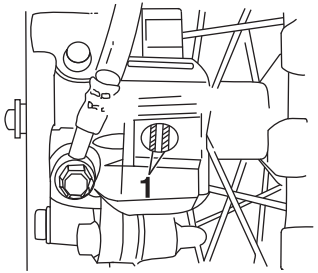
Checking the front brake pads and rear brake shoes

The front brake pads and the rear brake shoes must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart.

EAUW0462

Front brake pads

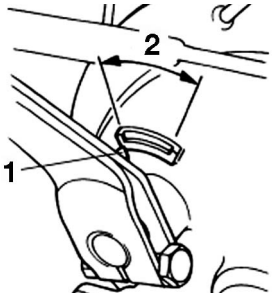
The front brake is provided with a check plug, which, if it is removed, allows you to check the brake pad wear without disassembling the brake. If the lining thickness is less than 0.8 mm (0.03 in), have a Yamaha dealer replace the brake pads as a set.



1. Lining thickness

EAU22541

Rear brake shoes



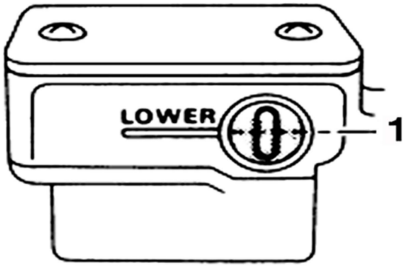
1. Brake shoe wear indicator
2. Brake shoe wear limit line

The rear brake is provided with a wear indicator, which allows you to check the brake shoe wear without having to disassemble the brake. To check the brake shoe wear, check the position of the wear indicator while applying the brake. If a brake shoe has worn to the point that the wear indicator reaches the wear limit line, have a Yamaha dealer replace the brake shoes as a set.

EAU32346

Checking the brake fluid level

Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.



1. Minimum level mark

Specified brake fluid:
DOT 4

EWA15991

⚠ WARNING

Improper maintenance can result in loss of braking ability. Observe these precautions:

- **Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.**
- **Clean the filler cap before removing. Use only DOT 4 brake fluid from a sealed container.**
- **Use only the specified brake fluid; otherwise, the rubber seals may deteriorate, causing leakage.**
- **Refill with the same type of brake fluid. Adding a brake fluid other than DOT 4 may result in a harmful chemical reaction.**
- **Be careful that water does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.**

ECA17641

NOTICE

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

As the brake pads wear, it is normal for the brake fluid level to gradually go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake fluid level goes down suddenly, have a Yamaha dealer check the cause before further riding.

EAU22725

Changing the brake fluid

Have a Yamaha dealer change the brake fluid at the intervals specified in the periodic maintenance and lubrication chart. In addition, have the oil seals of the brake master cylinder and caliper as well as the brake hose replaced at the intervals listed below or whenever they are damaged or leaking.

- Brake seals: Replace every two years.
- Brake hose: Replace every four years.

EAU22762

Drive chain slack

The drive chain slack should be checked before each ride and adjusted if necessary.

EAU22787

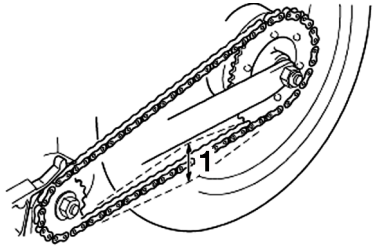
To check the drive chain slack

1. Place the motorcycle on the sidestand.

TIP

When checking and adjusting the drive chain slack, there should be no weight on the motorcycle.

2. Shift the transmission into the neutral position.
3. Measure the drive chain slack as shown.



1. Drive chain slack

Drive chain slack:
35.0–50.0 mm (1.38–1.97 in)

4. If the drive chain slack is incorrect, adjust it as follows. ***NOTICE:*** **Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slippage or breakage. To prevent this from occurring, keep the drive chain slack within the specified limits.** [ECA10572]

TIP

When checking the drive chain slack, the chain tensioner should not be touching the drive chain.

EAUW0664

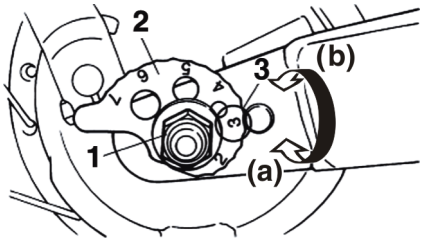
To adjust the drive chain slack

Consult a Yamaha dealer before adjusting the drive chain slack.

1. Loosen the brake pedal free play adjusting nut.
2. Loosen the axle nut.
3. To tighten the drive chain, turn the drive chain slack adjusting plate on each side of the swingarm in direction (a). To loosen the drive chain, turn the adjusting plate on each side of the swingarm in direction (b), and then push the rear wheel forward.

TIP

Make sure that both adjusting plates are in the same position for proper wheel alignment.



1. Axle nut
2. Drive chain slack adjusting plate
3. Position indicator

4. Tighten the axle nut to the specified torque.

Tightening torque:
Axle nut:
60 N·m (6.0 kgf·m, 44 lb·ft)

5. Adjust the brake pedal free play. (See page 7-19.)
6. Make sure that the drive chain pullers are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.

EAU23018

Cleaning and lubricating the drive chain

The drive chain must be cleaned and lubricated at the intervals specified in the periodic maintenance and lubrication chart, otherwise it will quickly wear out, especially when riding in dusty or wet areas. Service the drive chain as follows.

ECA10584

NOTICE

The drive chain must be lubricated after washing the motorcycle, riding in the rain or riding in wet areas.

1. Remove all dirt and mud from the drive chain with a brush or cloth.

TIP

For a thorough cleaning, have a Yamaha dealer remove the drive chain and soak it in solvent.

2. Spray Yamaha chain lubricant or other suitable chain lubricant on the entire chain, making sure that all side plates and rollers have been sufficiently oiled.

EAU23098

Checking and lubricating the cables

The operation of all control cables and the condition of the cables should be checked before each ride, and the cables and cable ends should be lubricated if necessary. If a cable is damaged or does not move smoothly, have a Yamaha dealer check or replace it. **WARNING! Damage to the outer housing of cables may result in internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.** [EWA10712]

Recommended lubricant:
Yamaha cable lubricant or other suitable cable lubricant

EAU23115

Checking and lubricating the throttle grip and cable

The operation of the throttle grip should be checked before each ride. In addition, the cable should be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance chart.

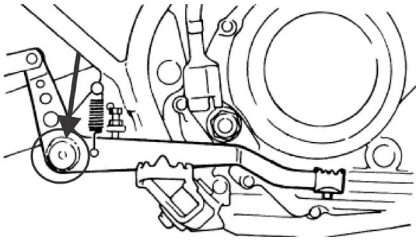
The throttle cable is equipped with a rubber cover. Make sure that the cover is securely installed. Even though the cover is installed correctly, it does not completely protect the cable from water entry. Therefore, use care not to pour water directly onto the cover or cable when washing the vehicle. If the cable or cover becomes dirty, wipe clean with a moist cloth.

EAU44276

Checking and lubricating the brake and shift pedals

The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

Brake pedal

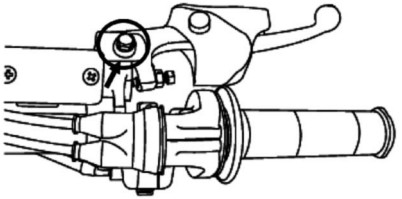


Recommended lubricant:
Lithium-soap-based grease

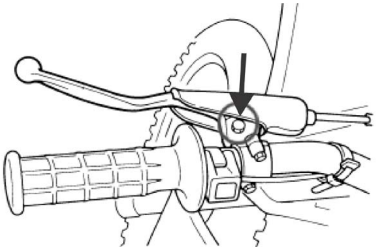
EAU43612

Checking and lubricating the brake and clutch levers

Brake lever



Clutch lever

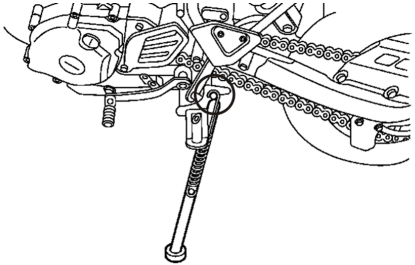


The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

Recommended lubricant:
Lithium-soap-based grease

EAU23203

Checking and lubricating the sidestand



The operation of the sidestand should be checked before each ride, and the sidestand pivot and metal-to-metal contact surfaces should be lubricated if necessary.

EWA10732

⚠ WARNING

If the sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it. Otherwise, the sidestand could contact the ground and distract the operator, resulting in a possible loss of control.

Recommended lubricant:
Lithium-soap-based grease

EAU23273

Checking the front fork

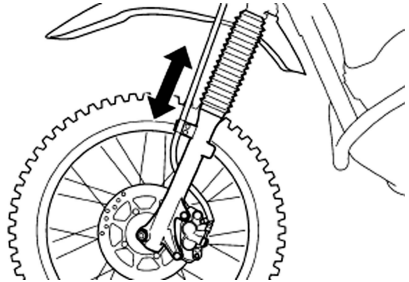
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

Check the inner tubes for scratches, damage and excessive oil leakage.

To check the operation

1. Place the vehicle on a level surface and hold it in an upright position. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10591

NOTICE

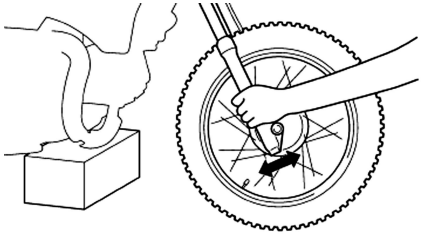
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU23285

Checking the steering

Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Raise the front wheel off the ground. (See page 7-29.) **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering.



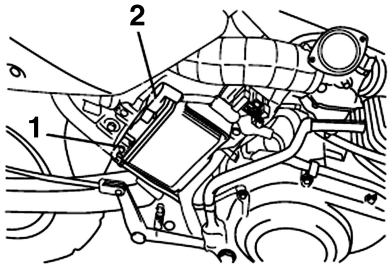
EAU23292

Checking the wheel bearings

The front and rear wheel bearings must be checked at the intervals specified in the periodic maintenance and lubrication chart. If there is play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer check the wheel bearings.

Battery

EAU2338A



1. Negative battery lead (black)
2. Positive battery lead (red)

7

The battery is located behind panel B. (See page 7-6.)
This model is equipped with a VRLA (Valve Regulated Lead Acid) battery. There is no need to check the electrolyte or to add distilled water. However, the battery lead connections need to be checked and, if necessary, tightened.

EWA10761

⚠ WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.**
  - **EXTERNAL: Flush with plenty of water.**
  - **INTERNAL: Drink large quantities of water or milk and immediately call a physician.**
  - **EYES: Flush with water for 15 minutes and seek prompt medical attention.**
- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

ECA10621

NOTICE

Never attempt to remove the battery cell seals, as this would permanently damage the battery.

To charge the battery

Have a Yamaha dealer charge the battery as soon as possible if it seems to have discharged. Keep in mind that the battery tends to discharge more quickly if the vehicle is equipped with optional electrical accessories.

ECA16522

NOTICE

To charge a VRLA (Valve Regulated Lead Acid) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery.

To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place. ***NOTICE:*** **When removing the battery, be sure to turn the main switch off, then disconnect the negative lead before disconnecting the positive lead.** [ECA16304]
2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.

3. Fully charge the battery before installation. ***NOTICE:*** **When installing the battery, be sure to turn the main switch off, then connect the positive lead before connecting the negative lead.** [ECA16842]
4. After installation, make sure that the battery leads are properly connected to the battery terminals.

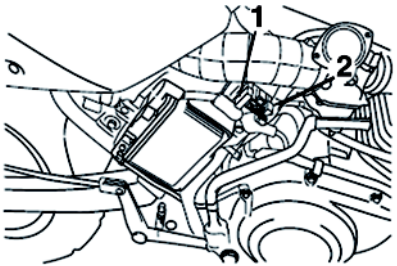
ECA16531

NOTICE

Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

EAU23505

Replacing the fuse



1. Main fuse
2. Spare fuse

The fuse holder is located behind panel B. (See page 7-6.)
If the fuse is blown, replace it as follows.

1. Turn the key to "OFF" and turn off all electrical circuits.
2. Remove the blown fuse, and then install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.** [EWA15132]

Specified fuse:
10.0 A

3. Turn the key to "ON" and turn on the electrical circuits to check if the devices operate.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

EAU24351

Supporting the motorcycle

Since this model is not equipped with a centerstand, follow these precautions when removing the front and rear wheel or performing other maintenance requiring the motorcycle to stand upright. Check that the motorcycle is in a stable and level position before starting any maintenance. A strong wooden box can be placed under the engine for added stability.

To service the front wheel

1. Stabilize the rear of the motorcycle by using a motorcycle stand or, if an additional motorcycle stand is not available, by placing a jack under the frame in front of the rear wheel.
2. Raise the front wheel off the ground by using a motorcycle stand.

To service the rear wheel

Raise the rear wheel off the ground by using a motorcycle stand or, if a motorcycle stand is not available, by placing a jack either under each side of the frame in front of the rear wheel or under each side of the swingarm.

EAU24361

Front wheel

EAU56231

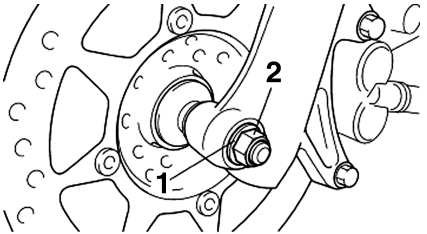
To remove the front wheel

EWA10822

⚠ WARNING

To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Loosen the axle nut.
2. Lift the front wheel off the ground according to the procedure in the previous section “Supporting the motorcycle”.
3. Remove the axle nut and washer.



1. Washer
2. Axle nut

4. Pull the wheel axle out, and then remove the wheel. ***NOTICE:*** **Do not apply the brake after the wheel and brake disc have been removed, otherwise the brake pads will be forced shut.** [ECA11073]

To install the front wheel

1. Lift the wheel up between the fork legs.

TIP

Make sure that there is enough space between the brake pads before inserting the brake disc into the caliper.

2. Insert the wheel axle, and then install the washer and axle nut.
3. Lower the front wheel so that it is on the ground.
4. Tighten the axle nut to the specified torque.

Tightening torque:
Axle nut:
45 N·m (4.5 kgf·m, 33 lb·ft)

5. Push down hard on the handlebar several times to check for proper fork operation.

Rear wheel

EAU25081

EAU56610

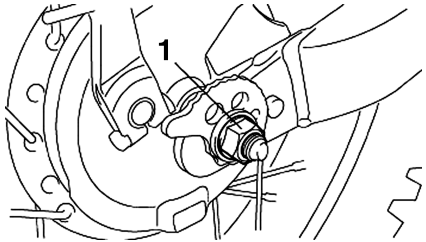
To remove the rear wheel

EWA10822

WARNING

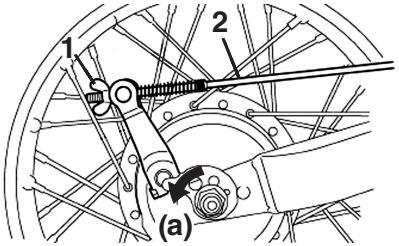
To avoid injury, securely support the vehicle so there is no danger of it falling over.

1. Loosen the axle nut.



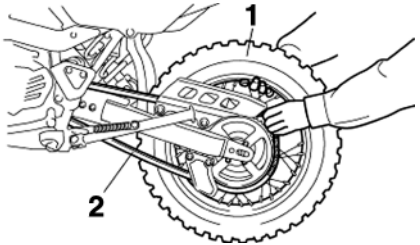
1. Axle nut

2. Remove the brake pedal free play adjusting nut, and then disconnect the brake rod from the brake camshaft lever.



1. Brake pedal free play adjusting nut
2. Brake rod

3. Turn the drive chain adjusting plate on each side of the swingarm fully in direction (a).



1. Rear wheel
2. Drive chain

7

4. Lift the rear wheel off the ground according to the procedure on page 7-29.
5. Remove the axle nut, and then pull the wheel axle out.
6. Push the wheel forward, and then remove the drive chain from the rear sprocket.

TIP

The drive chain does not need to be disassembled in order to remove and install the wheel.

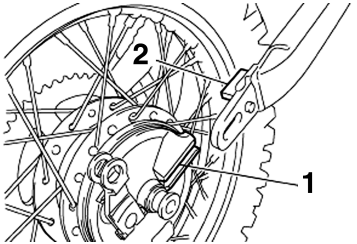
7. Remove the wheel.

To install the rear wheel

1. Insert the wheel axle from the left-hand side.

TIP

Make sure that the drive chain adjusting plates are installed with the punched sides facing to the outside and that the slot in the brake shoe plate fits over the retainer on the swingarm.



1. Slot
2. Retainer

2. Install the drive chain onto the rear sprocket, and then adjust the drive chain slack. (See page 7-22.)
3. Install the axle nut, and then lower the rear wheel so that it is on the ground.
4. Tighten the axle nut to the specified torque.

Tightening torque:
Axle nut:
60 N·m (6.0 kgf·m, 44 lb·ft)

5. Install the brake rod onto the brake camshaft lever, and then install the brake pedal free play adjusting nut onto the brake rod.
6. Adjust the brake pedal free play. (See page 7-19.)

EAU25853

Troubleshooting

Although Yamaha motorcycles receive a thorough inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems, for example, can cause poor starting and loss of power.

The following troubleshooting chart represents a quick and easy procedure for checking these vital systems yourself. However, should your motorcycle require any repair, take it to a Yamaha dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the motorcycle properly.

Use only genuine Yamaha replacement parts. Imitation parts may look like Yamaha parts, but they are often inferior, have a shorter service life and can lead to expensive repair bills.

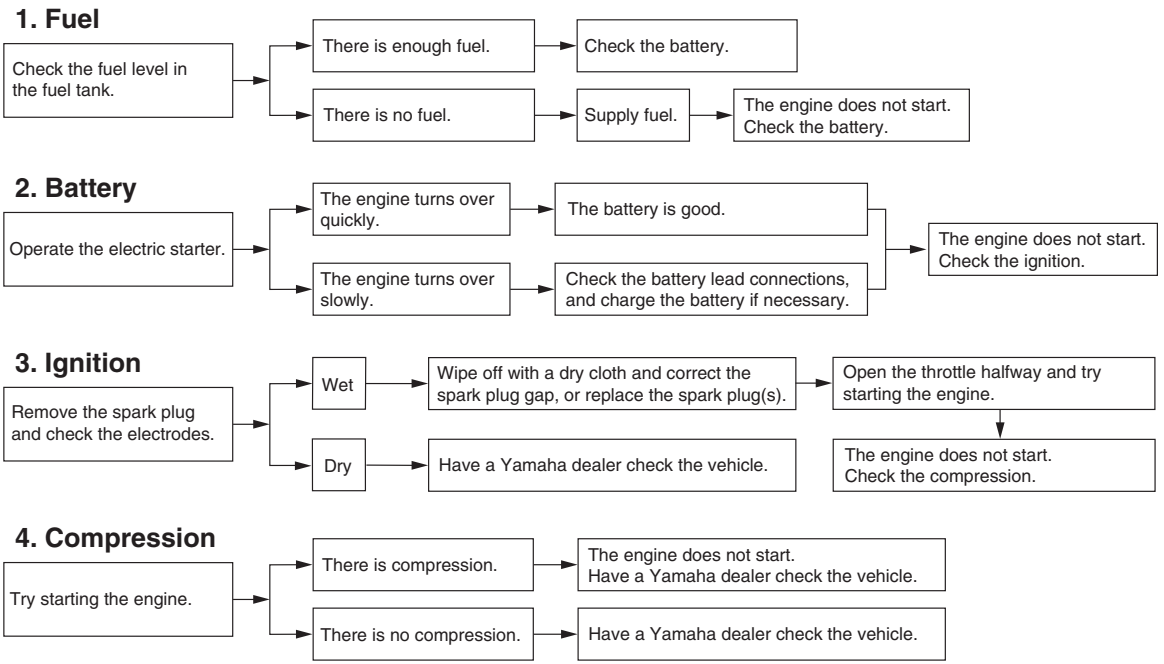
EWA15142

⚠ WARNING

When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

EAU25905

Troubleshooting chart



EAU86440

Care

Frequent, thorough cleaning of the vehicle will not only enhance its appearance but also will improve its general performance and extend the useful life of many components. Washing, cleaning, and polishing will also give you a chance to inspect the condition of the vehicle more frequently. Be sure to wash the vehicle after riding in the rain or near the sea, because salt is corrosive to metals.

TIP

- The roads of heavy snowfall areas may be sprayed with salt as a deicing method. This salt can stay on the roads well into spring, so be sure to wash the underside and chassis parts after riding in such areas.
- Genuine Yamaha care and maintenance products are sold under the YAMALUBE brand in many markets worldwide.

ECA26280

NOTICE

Improper cleaning can cause cosmetic and mechanical damage. Do not use:

- **high-pressure washers or steam-jet cleaners. Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Avoid high-pressure detergent applications such as those available in coin-operated car washers.**
- **harsh chemicals, including strong acidic wheel cleaners, especially on spoke or magnesium wheels.**
- **harsh chemicals, abrasive cleaning compounds, or wax on matte-finished parts. Brushes can scratch and damage the matte-finish, use soft sponge or towel only.**
- **towels, sponges, or brushes contaminated with abrasive cleaning products or strong chemicals such as, solvents, gasoline, rust removers, brake fluid, or antifreeze, etc.**

Before washing

1. Park the vehicle out of direct sunlight and allow it to cool. This will help avoid water spots.
2. Make sure all caps, covers, electrical couplers and connectors are tightly installed.
3. Cover the muffler end with a plastic bag and a strong rubber band.
4. Pre-soak stubborn stains like insects or bird droppings with a wet towel for a few minutes.
5. Remove road grime and oil stains with a quality degreasing agent and a plastic-bristle brush or sponge. ***NOTICE:*** **Do not use degreasing agent on areas requiring lubrication such as seals, gaskets, and wheel axles. Follow product instructions.**

[ECA26290]

Washing

1. Rinse off any degreaser and spray down the vehicle with a garden hose. Use only enough pressure to do the job. Avoid spraying water directly into the muffler, instrument panel, air inlet, or other inner areas such as underseat storage compartments.
2. Wash the vehicle with a quality automotive-type detergent mixed with cool water and a soft, clean towel or sponge. Use an old toothbrush or plastic-bristle brush for hard-to-reach places. ***NOTICE:*** **Use cold water if the vehicle has been exposed to salt. Warm water will increase salt's corrosive properties.** [ECA26301]
3. For windshield-equipped vehicles: Clean the windshield with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windshield cleaner or polish for motorcycles. ***NOTICE:*** **Never use any strong chemicals to clean the windshield. Additionally, some cleaning compounds for plastic may scratch the windshield, so be sure to test all cleaning products before general application.** [ECA26310]
4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

After washing

1. Dry the vehicle with a chamois or absorbent towel, preferably microfiber terrycloth.
2. For drive chain-equipped models: Dry and then lubricate the drive chain to prevent rust.
3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.
4. Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces. **WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle.** [EWA20650]
5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.
8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
10. Let the vehicle dry completely before storing or covering it.

ECA26320

NOTICE

- **Do not apply wax to rubber or unpainted plastic parts.**

- **Do not use abrasive polishing compounds as they will wear away the paint.**
- **Apply sprays and wax sparingly. Wipe off excess afterwards.**

EWA20660

⚠ WARNING

Contaminants left on the brakes or tires can cause loss of control.

- **Make sure there is no lubricant or wax on the brakes or tires.**
- **If necessary, wash the tires with warm water and a mild detergent.**
- **If necessary, clean the brake discs and pads with brake cleaner or acetone.**
- **Before riding at higher speeds, test the vehicle's braking performance and cornering behavior.**

EAU86460

Storage

Always store the vehicle in a cool, dry place. If necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the vehicle. If the vehicle often sits for weeks at a time between uses, the use of a quality fuel stabilizer is recommended after each fill-up.

ECA21170

NOTICE

- **Storing the vehicle in a poorly ventilated room or covering it with a tarp, while it is still wet, will allow water and humidity to seep in and cause rust.**
- **To prevent corrosion, avoid damp cellars, stables (because of the presence of ammonia) and areas where strong chemicals are stored.**

Long term storage

Before storing the vehicle long term (60 days or more):

1. Make all necessary repairs and perform any outstanding maintenance.
2. Follow all instructions in the Care Section of this chapter.
3. Fill up the fuel tank and add fuel stabilizer according to product instructions.
4. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
5. For vehicles with a fuel cock: Turn the fuel cock lever to the off position.
6. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
7. Use a quality engine fogging oil according to product instructions. If engine fogging oil is not available, perform the following steps for each cylinder:
   a. Remove the spark plug cap and spark plug.

b. Pour a teaspoonful of engine oil into the spark plug bore.
c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
d. Turn the engine over several times with the starter or kickstarter. (This will coat the cylinder wall with oil.) **WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.** [EWA10952]
e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.

8. Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
9. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. If maintenance stands are not available, turn the wheels a little once a month in order to prevent the tires from becoming degraded in one spot.
10. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
11. For vehicles with a battery: Remove and fully charge it, or attach a maintenance charger. ***NOTICE:*** **Confirm that the battery and its charger are compatible. Do not charge a VRLA battery with a conventional charger.** [ECA26330]

Dimensions:
Overall length:
1885 mm (74.2 in)
1900 mm (74.8 in) (CAN)
Overall width:
795 mm (31.3 in)
Overall height:
1085 mm (42.7 in)
Seat height:
805 mm (31.7 in)
Wheelbase:
1270 mm (50.0 in)
Ground clearance:
295 mm (11.61 in)
Minimum turning radius:
2.0 m (6.56 ft)

Weight:
Curb weight:
90 kg (198 lb)
Technical permissible mass (Maximum load + Curb weight):
180 kg (397 lb)

Noise and vibration level:
Noise level (77/311/EEC):
75.8 dB(A) at 4000 r/min
Uncertainty of measurement:
3.0 dB(A)
Vibration on seat (EN1032, ISO5008):
Will not exceed 0.5 m/s²
Uncertainty of measurement:
0.1 m/s²
Vibration on handlebar (EN1032, ISO5008):
Will not exceed 2.5 m/s²
Uncertainty of measurement:
0.3 m/s²

Engine:
Combustion cycle:
4-stroke
Cooling system:
Air cooled
Valve train:
SOHC
Number of cylinders:
Single cylinder
Displacement:
124 cm³
Bore × stroke:
54.0 × 54.0 mm (2.13 × 2.13 in)
Starting system:
Electric starter and kickstarter

Engine oil:
Recommended brand:
YAMALUBE®
SAE viscosity grades:
10W-40
Recommended engine oil grade:
API service SG type or higher, JASO standard MA
Engine oil quantity:
Oil change:
1.00 L (1.06 US qt, 0.88 Imp.qt)

Fuel:
Recommended fuel:
Unleaded gasoline (E10 acceptable)
Octane number (RON):
90
Fuel tank capacity:
6.0 L (1.6 US gal, 1.3 Imp.gal)
Fuel reserve amount:
0.8 L (0.21 US gal, 0.18 Imp.gal)

Carburetor:
Type × quantity:
VM20 × 1

Drivetrain:
Gear ratio:
1st:
2.643 (37/14)
2nd:
1.778 (32/18)
3rd:
1.316 (25/19)
4th:
1.045 (23/22)
5th:
0.875 (21/24)

Front tire:
Type:
With tube
Size:
70/100-19 42M
Manufacturer/model:
IRC/IX05H
Speed rating:
130 km/h (81 mph)

Rear tire:
Type:
With tube

Size:
90/100-16 52M
Manufacturer/model:
IRC/IX05H
Speed rating:
130 km/h (81 mph)

Front brake:

Type:
Hydraulic single disc brake

Rear brake:

Type:
Mechanical leading trailing drum brake

Front suspension:

Type:
Telescopic fork

Rear suspension:

Type:
Swingarm (link suspension)

Electrical system:

System voltage:
12 V

Battery:

Model:
GT4L-BS
Voltage, capacity:
12 V, 2.6 Ah (10 HR) (CAN)
12 V, 3.0 Ah (10 HR)

EAU40793

Identification numbers

Record the vehicle identification number and model label information in the spaces provided below for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

EAU26401

Vehicle identification number

1. Vehicle identification number

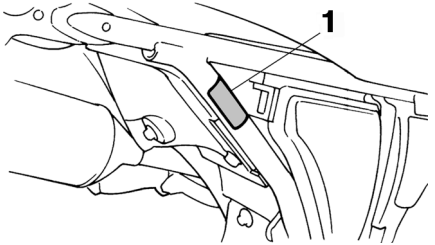
The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

TIP

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

EAU26461

Model label

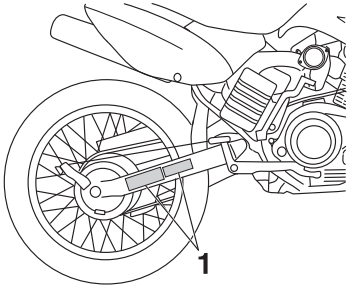


1. Model label

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

EAU48121

Vehicle Emission Control Information label (For Canada)



1. Vehicle Emission Control Information label

The Vehicle Emission Control Information label is affixed at the location in the illustration. This label shows specifications related to exhaust emissions as required by federal law, state law and Environment Canada.

WARNING

Improper Motorcycle use can result in SEVERE INJURY or DEATH.

READ OWNER'S MANUAL CAREFULLY

ALWAYS USE AN APPROVED HELMET

NEVER USE ON PUBLIC ROAD

NEVER CARRY PASSENGERS

NEVER operate:

* without proper training or instruction.
* at speeds too fast to your skills or the conditions.
* on public roads - a collision can occur with another vehicle.
* with a passenger - passengers affect balance and steering and increase risk or losing control.

ALWAYS:

* use proper riding techniques to avoid vehicle overturns on hills and rough terrain in turns.
* avoide paved surfaces - pavement may seriously affect handling and control.

LOCATE AND READ OWNER'S MANUAL. FOLLOW ALL INSTRUCTIONS AND WARNINGS.

YAMAHA

YAMAHA MOTOR DA AMAZÔNIA LTDA.

PRINTED IN BRAZIL
2021.04-FAMAS (E)