INTRODUCTION

Congratulations on your purchase of the Yamaha YZF600R. This model is the result of Yamaha’s vast experience in the production of fine sporting, touring, and pace-setting 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 about the operation or maintenance of your motorcycle, please consult a Yamaha dealer.
Particularly important information is distinguished in this manual by the following notations:

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

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

⚠️ CAUTION
A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.

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

NOTE:
This manual should be considered a permanent part of this motorcycle and should remain with it even if the motorcycle is subsequently sold.

NOTE:
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 your Yamaha dealer.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFETY INFORMATION</td>
<td>1-1</td>
</tr>
<tr>
<td>LOCATION OF THE IMPORTANT LABELS</td>
<td>2-1</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>3-1</td>
</tr>
<tr>
<td>MOTORCYCLE IDENTIFICATION</td>
<td>4-1</td>
</tr>
<tr>
<td>Identification numbers record</td>
<td>4-1</td>
</tr>
<tr>
<td>Key identification number</td>
<td>4-1</td>
</tr>
<tr>
<td>Vehicle identification number</td>
<td>4-2</td>
</tr>
<tr>
<td>Model label</td>
<td>4-2</td>
</tr>
<tr>
<td>CONTROL FUNCTIONS</td>
<td>5-1</td>
</tr>
<tr>
<td>Main switch</td>
<td>5-1</td>
</tr>
<tr>
<td>Indicator lights</td>
<td>5-2</td>
</tr>
<tr>
<td>Oil level indicator circuit check</td>
<td>5-3</td>
</tr>
<tr>
<td>Fuel indicator circuit check</td>
<td>5-5</td>
</tr>
<tr>
<td>Speedometer</td>
<td>5-6</td>
</tr>
<tr>
<td>Tachometer</td>
<td>5-6</td>
</tr>
<tr>
<td>Diagnosis device</td>
<td>5-7</td>
</tr>
<tr>
<td>Engine temperature gauge</td>
<td>5-7</td>
</tr>
<tr>
<td>Handlebar switches</td>
<td>5-8</td>
</tr>
<tr>
<td>Clutch lever</td>
<td>5-9</td>
</tr>
<tr>
<td>Shift pedal</td>
<td>5-10</td>
</tr>
<tr>
<td>Front brake lever</td>
<td>5-10</td>
</tr>
<tr>
<td>Rear brake pedal</td>
<td>5-11</td>
</tr>
<tr>
<td>Fuel tank cap</td>
<td>5-11</td>
</tr>
<tr>
<td>Starter “\”</td>
<td>5-12</td>
</tr>
<tr>
<td>Steering lock</td>
<td>5-13</td>
</tr>
<tr>
<td>Seat</td>
<td>5-14</td>
</tr>
<tr>
<td>Helmet holder</td>
<td>5-15</td>
</tr>
<tr>
<td>Storage compartment</td>
<td>5-15</td>
</tr>
<tr>
<td>Side cowlng removal</td>
<td>5-16</td>
</tr>
<tr>
<td>Front fork adjustment</td>
<td>5-17</td>
</tr>
<tr>
<td>Rear shock absorber</td>
<td>5-20</td>
</tr>
<tr>
<td>Rear shock absorber adjustment</td>
<td>5-20</td>
</tr>
<tr>
<td>Sidestand</td>
<td>5-22</td>
</tr>
<tr>
<td>Sidestand/clutch switch operation check</td>
<td>5-24</td>
</tr>
</tbody>
</table>

---
WARNING

PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE.
PRE-OPERATION CHECKS ...............6-1
Fuel .....................................6-3
Brakes ....................................6-4
Brake fluid leakage ..................6-5
Clutch ....................................6-5
Throttle grip ............................6-5
Engine oil ...............................6-6
Coolant ..................................6-6
Chain ......................................6-7
Tires ......................................6-7
Cast wheels and tires ...............6-12
Fittings and fasteners ...............6-12
Lights, signals and switches .......6-12
Air intake duct .......................6-13

OPERATION AND IMPORTANT
RIDING POINTS ..........................7-1
Starting and warming up a cold engine ......7-1
Starting a warm engine ...............7-4

Shifti ng ....................................7-4
Engine break-in .......................7-5
Parking ....................................7-6

PERIODIC MAINTENANCE AND MINOR REPAIR .........................8-1
Tool kit ....................................8-1
Periodic maintenance / lubrication ....8-3
Engine oil ..................................8-6
Air filter ...................................8-10
Carburetor adjustment ..............8-13
Idle speed adjustment ...............8-14
Throttle cable adjustment ...........8-14
Valve clearance adjustment .......8-15
Spark plug inspection ...............8-15
Front brake lever position
adjustment .............................8-17
Rear brake pedal height
adjustment .............................8-17
Brake light switch adjustment ....8-18
Checking the front and rear brake pads.......................... 8-18
Inspecting the brake fluid level ...... 8-19
Brake fluid replacement......................... 8-21
Clutch lever free play adjustment .... 8-21
Drive chain slack check ....................... 8-22
Drive chain slack adjustment.......... 8-23
Drive chain lubrication ....................... 8-24
Cable inspection and lubrication ....... 8-24
Throttle cable and grip lubrication .......... 8-25
Brake and shift pedal lubrication ....... 8-25
Brake and clutch lever lubrication ........ 8-25
Sidestand lubrication ......................... 8-25
Rear suspension lubrication ............... 8-25
Front fork inspection ......................... 8-26
Steering inspection ............................ 8-27
Wheel bearings .................................. 8-27
Battery.......................................... 8-27
Fuse replacement ............................... 8-29
Headlight bulb replacement ............... 8-30
Air vent hose.................................... 8-32
Troubleshooting ............................... 8-32
Troubleshooting chart....................... 8-33
CLEANING AND STORAGE ..................... 9-1
A. Cleaning.................................... 9-1
B. Storage.................................... 9-2
SPECIFICATIONS ............................. 10-1
HOW TO USE THE CONVERSION TABLE............................................. 11-1
NOISE REGULATION (FOR Australia)......................... 12-1
SAFETY INFORMATION

TWO-WHEELED 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.

HE OR SHE SHOULD:

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

SAFE RIDING

1. Always make pre-operation checks. Careful checks may help prevent an accident.
2. This motorcycle is designed to carry the operator and a passenger.
3. 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:

a. Wear a brightly colored jacket.

b. Use extra caution when you approach and pass through intersections, since intersections are the most likely places for motorcycle accidents.

c. Ride where other motorists can see you. Avoid riding in another motorist’s "blind spot".

4. Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.

a. Make sure you are qualified. Also, only lend your motorcycle to experienced operators.

b. Know your skills and limits. Staying within your limits may help you to avoid an accident.

c. We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with your motorcycle and all of its controls.
5. Many motorcycle accidents have been caused by motorcycle operator errors. A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed).
   a. Always obey the speed limits and never travel faster than warranted by road and traffic conditions.
   b. Always signal before turning or changing lanes. Make sure other motorists see you.
6. The operator’s and passenger’s posture are important for proper control.
   a. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.
   b. The passenger should always hold on to the operator, or the seat strap or grab bar if the motorcycle is so equipped, with both hands and keep both feet on the passenger footrests.
   c. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
7. Never ride under the influence of alcohol or drugs.
8. This motorcycle is designed for on-road use only. It is not suitable for off-road use.
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.

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

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

LOADING AND ACCESSORIES.

Adding accessories or cargo to your motorcycle can adversely affect stability and handling if the weight distribution of the machine is changed. To avoid the possibility of an accident, extreme caution should be used if adding cargo or accessories to your motorcycle. Use extra care if riding a motorcycle which has added cargo or accessories. Here are some general guidelines to follow if loading cargo or adding accessories to your motorcycle:

LOADING

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit of 180 kg.

When loading within these weight limits, keep the following in mind:
1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Be sure to distribute the weight as evenly as possible on both sides of the machine to minimize imbalance or instability.

2. Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Recheck accessory mounts and cargo restraints frequently.

3. Never attach any large or heavy items to the handlebars, front forks, or front fender. These items, including such cargo as sleeping bags, duffle bags, or tents, can create unstable handling or slow steering response.

**ACCESSORIES**

Genuine Yamaha accessories have been specifically designed for use on this motorcycle. Since Yamaha cannot test all other accessories which may be available, you must personally be responsible for the proper selection, installation and use of non-Yamaha accessories. You should use extreme caution when selecting and installing any accessories.

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

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

1. GASOLINE IS HIGHLY FLAMMABLE:
   a. Always turn off the engine when refueling.
   b. Take care not to spill any gasoline on the engine or exhaust pipe(s)/muffler(s) when refueling.
   c. Never refuel while smoking or in the vicinity of an open flame.

2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.

3. Always turn off the engine before leaving the motorcycle unattended and remove the ignition key. When parking the motorcycle, note the following:
   a. The engine and exhaust pipe(s)/muffler(s) may be hot. Park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
   b. Do not park the motorcycle on a slope or soft ground; the motorcycle may fall over.
   c. Do not park the motorcycle near a flammable source, e.g. a kerosene heater, or near an open flame. The motorcycle could catch fire.

4. When transporting the motorcycle in another vehicle, be sure it is kept upright and that the fuel cock(s) is turned to "ON" or "RES" (for vacuum type)/"OFF" (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.
5. If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get in your eye(s), see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it off with soap and water and change your clothes.
LOCATION OF THE IMPORTANT LABELS

Please read the following labels carefully before operating this motorcycle.
WARNING

Before you operate this vehicle, read the owner's manual

English 3HP-21568-00
DESCRIPTION

1. Tail/brake light
2. Seat
3. Fuel tank
4. Headlight
5. Brake pedal
6. Rear view mirror
7. Rear shock absorber compression damping force adjuster
8. Storage compartment
9. Sidestand
10. Shift pedal
11. Radiator
12. Clutch lever
13. Handlebar switches
14. Starter "L" "L"
15. Speedometer
16. Tachometer
17. Engine temperature gauge
18. Brake lever
19. Main switch
20. Throttle grip
21. Air intake duct
22. Grab bar
MOTORCYCLE IDENTIFICATION

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

1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. MODEL LABEL INFORMATION:

Key identification number
The key identification number is stamped on the key tag. Record this number in the space provided and use it for reference when obtaining a new key.
Vehicle identification number
The vehicle identification number is stamped into the steering head pipe.

1 Vehicle identification number

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

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

1 Model label
CONTROL FUNCTIONS

Main switch

The main switch controls the ignition and lighting systems. Its operation is described below.

ON:
Electrical circuits are switched on, and the headlight, meter light, and taillight come on. The engine can be started. The key cannot be removed in this position.

OFF:
All electrical circuits are switched off. The key can be removed in this position.

LOCK:
The steering is locked in this position, and all electrical circuits are switched off. The key can be removed in this position. Refer to “Steering lock” (page 5-13) for operation instructions.

NOTE:
Always turn the main switch to “OFF” or “LOCK” and remove the key when the motorcycle is unattended.
**Indicator lights**

1. Neutral indicator light "N"
2. Oil level indicator light "
3. Fuel indicator light "
4. Turn indicator light "
5. High beam indicator light "

**EAB10102**

**Turn indicator light "\[\]"**
This indicator flashes when the turn switch is moved to the left or right.

**EAB13100**

**Neutral indicator light "N"**
This indicator comes on when the transmission is in neutral.

**High beam indicator light "\[\]"**
This indicator comes on when the headlight high beam is used.

**EAB13401**

**Oil level indicator light "\[\]"**
This indicator comes on when the oil level is low. This light circuit can be checked by the following procedure.

**EUU30000**

**CAUTION:**

*Do not run the motorcycle until you know it has sufficient engine oil.*

**EUU20900**

**NOTE:**

Even if the oil is filled to the specified level, the indicator light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is not abnormal.
Oil level indicator circuit check

1. Turn the main switch to "ON" and the engine stop switch to "⑦".

2. Oil level indicator light does not come on.
   - Put the transmission in neutral or apply the clutch lever, then push the start switch.
   - Oil level indicator light comes on.
     - Engine oil level and electrical circuit are OK. Go ahead with riding.
   - Oil level indicator light does not come on.
     - Ask a Yamaha dealer to inspect electrical circuit.
   - Oil level is OK.
     - Oil level is low.
     - Supply engine oil.
   - Oil level indicator light comes on.
     - Check engine oil level.
1 Neutral indicator light "N"
2 Oil level indicator light "O"n
3 Fuel indicator light "твержда"t"n
4 Turn indicator light "φ φ"n
5 High beam indicator light "φ"n

Fuel indicator light "φ"n
When the fuel level drops below approximately 3.1 L, this light will come on. When this light comes on, fill the tank at the first opportunity.
Fuel indicator circuit check

Turn the main switch to "ON" and the engine stop switch to "○".

Fuel indicator light does not come on
- Put the transmission in neutral or apply the clutch lever, then push the start switch.
  - Fuel indicator light comes on.
    - Fuel level and electrical circuit are OK. Go ahead with riding.
  - Fuel indicator light does not come on.
    - Ask a Yamaha dealer to inspect electrical circuit.

Fuel indicator light comes on.
- Check the fuel level.
  - Fuel level is OK.
    - Supply fuel.
**Speedometer**
The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to "0" with the reset knob. Use the trip odometer to estimate how far you can ride on a tank of fuel. This information will enable you to plan fuel stops in the future.

---

**Tachometer**
This model is equipped with an electric tachometer so the rider can monitor the engine speed and keep it within the ideal power range.

---

**CAUTION:**
Do not operate in the red zone.
Red zone: 13,200 r/min and above
Diagnosis device
This model is equipped with a self diagnosis for the following circuits:

- Throttle Position Sensor (T.P.S.) circuit
- Fuel indicator light circuit

If some trouble should occur in any of these circuits, the tachometer will repeatedly display as follows:

0 r/min for 3 seconds → Specified r/min for the faulty circuit for 2.5 seconds (see chart below) → Current engine r/min for 3 seconds

Use this chart to identify what circuit is faulty according to the specified r/min displayed.

<table>
<thead>
<tr>
<th>Specified r/min</th>
<th>Faulty circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,000 r/min</td>
<td>Throttle Position Sensor (T.P.S.)</td>
</tr>
<tr>
<td>8,000 r/min</td>
<td>Fuel indicator light</td>
</tr>
</tbody>
</table>

If the tachometer displays as described above, take note of the specified r/min and then take your motorcycle to a Yamaha dealer for repair.

CAUTION:
To prevent engine damage, be sure to consult a Yamaha dealer as soon as possible if the tachometer displays a repeated change in rpm.

Engine temperature gauge
This gauge indicates the coolant temperature when the main switch is on. The engine operating temperature will vary with changes in weather and engine load. If the needle points to the red zone or higher, stop your motorcycle and let the engine cool. (see page 6-6 for details)
**CAUTION:**

When the engine is overheated, do not continue riding.

---

**Handlebar switches**

1. Pass switch “PASS”
2. Dimmer switch
3. Turn signal switch
4. Horn switch “![](icon.png)"
5. Engine stop switch
6. Start switch “![](icon.png)”

**Pass switch “PASS”**
Press the switch to operate the passing light.

**Dimmer switch**
Turn the switch to “![](icon.png)” for the high beam and to “![](icon.png)” for the low beam.
**Turn signal switch**
To signal a right-hand turn, push the switch to "ㅁ". To signal a left-hand turn, push the switch to "ㅁ". Once the switch is released it will return to the center position. To cancel the signal, push the switch in after it has returned to the center position.

**Horn switch "ㅁ"**
Press the switch to sound the horn.

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

**Start switch "ㅁ"**
The starter motor cranks the engine when pushing the start switch.

**CAUTION:** See starting instructions prior to starting the engine.

**Clutch lever**
The clutch lever is located on the left handlebar, and the ignition circuit cut-off system is incorporated in the clutch lever holder. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth clutch operation. (Refer to the engine starting procedures for a description of the ignition circuit cut-off system.)
Shift pedal
This motorcycle is equipped with a constant-mesh 6-speed transmission. The shift pedal is located on the left side of the engine and is used in combination with the clutch when shifting.

1 Shift pedal  N Neutral

Front brake lever
The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake. The front brake lever is equipped with a lever position adjuster. Refer to page 8-17 for adjustment.

1 Front brake lever  2 Lever position adjuster
**Rear brake pedal**

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

---

**Fuel tank cap**

TO OPEN:

Open the key cover. Insert the key and turn it 1/4 turn clockwise. The lock will be released and the cap can be opened.
TO CLOSE:
Push the tank cap into position with the key inserted. To remove the key, turn it counterclockwise to the original position. Then, close the key cover.

NOTE:
This tank cap cannot be closed unless the key is in the lock. The key cannot be removed if the cap is not locked properly.

WARNING
Be sure the cap is properly installed and locked in place before riding the motorcycle.

Starter “\”
Starting a cold engine requires a richer air-fuel mixture. A separate starter circuit supplies this mixture.
Move in direction ① to turn on the starter. Move in direction ② to turn off the starter.
Steering lock

The steering is locked when the main switch is turned to “LOCK”. To lock the steering, turn the handlebars all the way to the left. While pushing the key into the main switch, turn it from “OFF” to “LOCK” and remove it. To release the lock, turn the key to “OFF” while pushing.

<table>
<thead>
<tr>
<th>Lock</th>
<th>Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF (Push)</td>
<td>OFF</td>
</tr>
<tr>
<td>LOCK</td>
<td>LOCK (Push)</td>
</tr>
</tbody>
</table>

1. Push
2. Turn

⚠️ WARNING

Never turn the key to “LOCK” when the motorcycle is moving.
Seat
To remove the seat, insert the key into the helmet holder lock and turn it as shown.

1 Unlock

When reinstalling the seat, insert the lobes on the front of the seat into the receptacle on the frame, then push the seat down.

NOTE:
Make sure that the seat is securely fitted.
Helmet holder
To open the helmet holder, insert the key in the lock and turn it as shown. To lock the helmet holder, turn the key to its original position.

![Helmet holder diagram]

1 Helmet holder  2 Unlock

⚠️ WARNING ⚠️
Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.

Storage compartment
This compartment is designed to store Yamaha genuine U-LOCKS. (Other locks may not fit.) Be sure the lock is fastened securely with the straps when storing it in the compartment. To prevent losing the straps, be sure to secure them even when a U-LOCK is not being stored in the compartment. When storing this Owner's manual or other documents in the compartment, be sure to put them in a vinyl bag so they don’t get wet. When washing the motorcycle, be careful not to flood this compartment with water.
Side cowling removal
To remove the side cowling, remove the bolts shown and disconnect the front flasher light leads.
Front fork adjustment
This front fork is equipped with spring preload, rebound and compression damping force adjusters.

WARNING
Always adjust each fork leg to the same setting. Uneven adjustment can cause poor handling and loss of stability.
1. Adjust spring preload as follows.
   Turn the adjuster in direction ③ to increase spring preload and in direction ④ to decrease spring preload.

   **CAUTION:***

   The grooves are provided to show the adjustment level. Always keep the adjustment level equal on both fork legs.

2. Adjust rebound damping force as follows.
   Turn the adjusting screw in direction ① to increase rebound damping force and in direction ② to decrease rebound damping force.

   ![Diagram showing rebound damping force adjusting screw](image)
<table>
<thead>
<tr>
<th>Standard</th>
<th>7 clicks out*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum (soft)</td>
<td>12 clicks out*</td>
</tr>
<tr>
<td>Maximum (hard)</td>
<td>1 click out*</td>
</tr>
</tbody>
</table>

* From the fully turned-in position.

**CAUTION:**

Never attempt to turn the adjuster beyond the maximum or minimum setting.

3. Adjust compression damping force as follows.

Turn the adjusting screw in direction ② to increase compression damping force and in direction ⑤ to decrease compression damping force.

**CAUTION:**

Never attempt to turn the adjuster beyond the maximum or minimum setting.
**WARNING**

This shock absorber contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber. The manufacturer cannot be held responsible for property damage or personal injury that may result from improper handling.

1. Do not tamper with or attempt to open the cylinder assembly.
2. Do not subject the shock absorber to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.
3. Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.
4. Take your shock absorber to a Yamaha dealer for any service.

---

**Rear shock absorber adjustment**

This shock absorber is equipped with spring preload, rebound and compression damping force adjusters.

**CAUTION**

Never attempt to turn the adjuster beyond the maximum or minimum setting.

1. Adjust spring preload as follows.
   - Turn the adjusting ring in direction @ to increase spring preload and in direction © to decrease spring preload.
2. Adjust rebound damping force as follows.

Turn the adjuster in direction ③ to increase rebound damping force and in direction ⑥ to decrease rebound damping force.

<table>
<thead>
<tr>
<th>Adjusting position</th>
<th>Soft</th>
<th>Standard</th>
<th>Hard</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

1. Rebound damping force adjuster
2. Alignment mark
a. Increase
b. Decrease

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard:</td>
<td>10 clicks out*</td>
</tr>
<tr>
<td>Minimum (soft).</td>
<td>20 clicks out*</td>
</tr>
<tr>
<td>Maximum (hard)</td>
<td>0 click out*</td>
</tr>
</tbody>
</table>

* From the fully turned-in position
3. Adjust compression damping force as follows.
   Turn the adjusting screw in direction ③ to increase compression damping force and in direction ④ to decrease compression damping force.

1. Compression damping force adjusting screw
   a. Increase
   b. Decrease

<table>
<thead>
<tr>
<th>Standard</th>
<th>10 clicks in*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum (soft)</td>
<td>0 clicks in*</td>
</tr>
<tr>
<td>Maximum (hard)</td>
<td>20 clicks in*</td>
</tr>
</tbody>
</table>

* From the fully turned-out position

---

**Sidestand**

This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 7-1 for an explanation of this system.)
**WARNING**

This motorcycle must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha has designed into this motorcycle a lockout system to assist the operator in fulfilling the responsibility of retracting the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, return the motorcycle to a Yamaha dealer immediately for repair.
Sidestand/clutch switch operation check
Check the operation of the sidestand switch and clutch switch against the information below.

**TURN THE MAIN SWITCH TO "ON" AND THE ENGINE STOP SWITCH TO " □ "**.

**TRANSMISSION IS IN GEAR AND SIDESTAND IS UP.**

**PULL IN CLUTCH LEVER AND PUSH THE START SWITCH.**

**ENGINE WILL START**

**CLUTCH SWITCH IS OK**

**SIDESTAND IS DOWN**

**ENGINE WILL STALL.**

**SIDESTAND SWITCH IS OK.**

**WARNING**

If improper operation is noted, consult a Yamaha dealer immediately.
PRE-OPERATION CHECKS

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

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ROUTINE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
<td>• Check fuel level/fill with fuel as required</td>
<td>6-3</td>
</tr>
<tr>
<td>Front brake</td>
<td>• Check operation, free play, fluid level and fluid leakage.</td>
<td>6-4 ~ 6-5,</td>
</tr>
<tr>
<td></td>
<td>• Fill with DOT 4 brake fluid if necessary</td>
<td>8-17 ~ 8-21</td>
</tr>
<tr>
<td>Rear brake</td>
<td>• Check operation, free play, fluid level and fluid leakage.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fill with DOT 4 brake fluid if necessary</td>
<td>6-5, 8-21</td>
</tr>
<tr>
<td>Clutch</td>
<td>• Check operation, fluid level and fluid leakage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fill with DOT 4 brake fluid if necessary</td>
<td></td>
</tr>
<tr>
<td>Throttle grip/housing</td>
<td>• Check for smooth operation.</td>
<td>6-5, 8-14 ~ 8-15, 8-25</td>
</tr>
<tr>
<td></td>
<td>• Lubricate if necessary</td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>• Check oil level/fill with oil as required</td>
<td>6-6, 8-6 ~ 8-10</td>
</tr>
<tr>
<td>Coolant reservoir tank</td>
<td>• Check coolant level/fill with coolant as required.</td>
<td>6-6 ~ 6-7</td>
</tr>
<tr>
<td>Drive chain</td>
<td>• Check chain slack and condition</td>
<td>6-7, 8-22 ~ 8-24</td>
</tr>
<tr>
<td></td>
<td>• Adjust if necessary</td>
<td></td>
</tr>
<tr>
<td>Wheels/Tires</td>
<td>• Check tire pressure, wear and damage.</td>
<td>6-7 ~ 6-12, 8-27</td>
</tr>
<tr>
<td>ITEM</td>
<td>ROUTINE</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Control/Meter cable</td>
<td>• Check for smooth operation&lt;br&gt;• Lubricate if necessary</td>
<td>8-24</td>
</tr>
<tr>
<td>Brake and shift pedal shafts</td>
<td>• Check for smooth operation&lt;br&gt;• Lubricate if necessary</td>
<td>8-25</td>
</tr>
<tr>
<td>Brake and clutch lever pivots</td>
<td>• Check for smooth operation&lt;br&gt;• Lubricate if necessary</td>
<td>8-25</td>
</tr>
<tr>
<td>Sidestand pivot</td>
<td>• Check for smooth operation&lt;br&gt;• Lubricate if necessary</td>
<td>8-25</td>
</tr>
<tr>
<td>Fittings/fasteners</td>
<td>• Check all chassis fittings and fasteners&lt;br&gt;• Tighten/Adjust if necessary.</td>
<td>6-12</td>
</tr>
<tr>
<td>Lights and signals</td>
<td>• Check for proper operation</td>
<td>6-12, 8-30 ~ 8-31</td>
</tr>
<tr>
<td>Air intake duct</td>
<td>• Check that the screen is not clogged.&lt;br&gt;• Clean if necessary.</td>
<td>6-13</td>
</tr>
</tbody>
</table>

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

**WARNING**
If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the motorcycle.
Fuel
Make sure there is sufficient fuel in the tank.

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

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

Recommended fuel:
- Regular gasoline
- For Australia: Unleaded fuel only

Fuel tank capacity:
- Total: 19.0 L
- Reserve: 3.1 L

1. Filler tube  2. Fuel level
Brakes

1. Brake lever and brake pedal
   Check for correct free play in the front brake lever and correct rear brake pedal height. Adjust if necessary. Make sure the brakes are working properly by checking at low speed shortly after starting out. (see page 8-17 for details)

---

WARNING

A soft, spongy feeling in the brake lever (and/or brake pedal) indicates a failure in the brake system. Do not operate the motorcycle until the failure in the brake system is corrected. Ask a Yamaha dealer for immediate repairs. A soft, spongy feeling could indicate a hazardous condition in the brake system.

---

2. Brake fluid
   Check the brake fluid level. Fill the master cylinder with brake fluid if necessary.

   Recommended brake fluid: DOT 4

3. Check the disc pads.
   Refer to page 8-18.

---

NOTE:

When this brake service is necessary, consult a Yamaha dealer.
Brake fluid leakage
Apply each brake for a few minutes. Check to see if any brake fluid leaks out from the pipe joints or the master cylinders.

CAUTION
Brake fluid may deteriorate painted surfaces or plastic parts. Never spill any fluid. If spilled, clean it up immediately.

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

Clutch
Check the free play in the clutch lever and make sure the clutch operates properly. If the free play is incorrect, adjust it. (see page 8-21 for details.)

Throttle grip
Turn the throttle grip to see if it operates properly, and check the free play. Make sure the grip returns by spring force when released. Ask a Yamaha dealer to make any necessary adjustments. (see page 8-25 for details.)
Engine oil

Make sure the engine oil is at the specified level. Fill with oil as necessary (see page 8-6 for details).

CAUTION:

Do not put in any chemical additives or use oils with a grade of "CD" or higher. Also, be sure not to use oils labeled "ENERGY CONSERVING II" or higher. Engine oil also lubricates the clutch and additives could cause clutch slippage.

Coolant

Check the coolant level in the reservoir tank when the engine is cold. The coolant level will vary with engine temperature. The coolant level is satisfactory if it is between the minimum and maximum marks on the tank. If the coolant level is at or below the minimum mark, fill with tap water (soft water) to bring the level up to the maximum mark. Have a Yamaha dealer change the coolant every two years.
WARNING
Do not remove the radiator cap when the engine is hot.

Reservoir tank capacity:
0.55 L
From the minimum to maximum marks:
0.25 L

CAUTION:
Hard water or salt water is harmful to the engine. You may use distilled water if you can’t get soft water.

Chain
Check the general condition of the chain and the chain slack before every ride. Lubricate and adjust the chain as necessary. (see page 8-22 for details.)

Tires
To ensure maximum performance, long service and safe operation, note the following:
1. Tire air pressure
   Always check and adjust the tire pressure before operating the motorcycle.
WARNING

Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature. Tire inflation pressure must be adjusted according to total weight of cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.

<table>
<thead>
<tr>
<th>Basic weight</th>
<th>212 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>With oil and full fuel tank</td>
<td>180 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum load*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>Rear</td>
</tr>
<tr>
<td>225 kPa (2.25 kg/cm², 2.25 bar)</td>
<td>250 kPa (2.5 kg/cm², 2.5 bar)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cold tire pressure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 90 kg load*</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>Rear</td>
</tr>
<tr>
<td>250 kPa (2.5 kg/cm², 2.5 bar)</td>
<td>290 kPa (2.9 kg/cm², 2.9 bar)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>90 kg load ~ maximum load*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>Rear</td>
</tr>
<tr>
<td>250 kPa (2.5 kg/cm², 2.5 bar)</td>
<td>290 kPa (2.9 kg/cm², 2.9 bar)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High speed riding</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>Rear</td>
</tr>
<tr>
<td>250 kPa (2.5 kg/cm², 2.5 bar)</td>
<td>290 kPa (2.9 kg/cm², 2.9 bar)</td>
</tr>
</tbody>
</table>

* Load is the total weight of cargo, rider, passenger, and accessories

WARNING

Proper loading of your motorcycle is important for several characteristics of your motorcycle, such as handling, braking, performance and safety. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires. NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.
2. Tire inspection
Always check the tires before operating the motorcycle. If a tread depth shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

⚠️ WARNING
It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have a Yamaha dealer replace the tire immediately. Brakes, tires and related wheel parts replacement should be left to a Yamaha Service Technician.

| Minimum tire tread depth (front and rear) | 10 mm |

3. Tire information
This motorcycle is equipped with tubeless tires, tire valves and cast wheels.
WARNING

- After extensive tests, the tires mentioned below have been approved by Yamaha Motor Co., Ltd. for this model. No guarantee for handling characteristics can be given if tire combinations other than what is approved are used on this motorcycle. The front and rear tires should be of the same manufacture and design.

- The use of tire valves and valve cores other than listed below could cause tire deflation during extreme high speed riding. Always use genuine parts or their equivalent for replacement.

- Be sure to install the valve caps securely, as these are important to prevent air pressure leakage during extreme high speed riding.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunlop</td>
<td>120/60 ZR17</td>
<td>D202F</td>
</tr>
<tr>
<td>Metzeler</td>
<td>120/60 ZR17</td>
<td>MEZ1 ‘Front’</td>
</tr>
<tr>
<td>Bridgestone</td>
<td>120/60 ZR17</td>
<td>BT50F</td>
</tr>
<tr>
<td>Michelin</td>
<td>120/60 ZR17</td>
<td>A89X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Size</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunlop</td>
<td>160/60 ZR17</td>
<td>D202</td>
</tr>
<tr>
<td>Metzeler</td>
<td>160/60 ZR17</td>
<td>MEZ1</td>
</tr>
<tr>
<td>Bridgestone</td>
<td>160/60 ZR17</td>
<td>BT50R</td>
</tr>
<tr>
<td>Michelin</td>
<td>160/60 ZR17</td>
<td>M89X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tire valve</td>
<td>TR412</td>
</tr>
<tr>
<td>Valve core</td>
<td>#9000A (Genuine)</td>
</tr>
</tbody>
</table>
WARNING

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

WARNING

This motorcycle is fitted with super high-speed running tires. The following points must be observed in order for you to make fully effective use of these tires.

1. Never fail to use the specified tires in tire replacement. Other tires may have a danger of bursting at super high-speeds.

2. New tires have a relatively low grip on the road surface until they have been slightly worn. Therefore, approximately 100 km should be traveled at normal speed before any high-speed riding is done.

3. Before any high-speed runs, the tires should be warmed-up sufficiently.

4. Always inflate to the correct tire pressure according to the operating conditions.
Cast wheels and tires
To ensure maximum performance, long service, and safe operation, note the following:

1. Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.

2. Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.

3. Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.

Fittings and fasteners
Always check the tightness of chassis fittings and fasteners before a ride. Take the motorcycle to a Yamaha dealer or refer to the Service Manual for correct tightening torque.

Lights, signals and switches
- Check all the lights, meter lights and indicator lights to make sure they are in working condition.
- Check the operation of the handlebar switches and main switch.
Air intake duct
Check that the screen of the intake duct is not blocked. Clean the screen if necessary.
OPERATION AND
IMPORTANT RIDING
POINTS

EUF67201

WARNING

1. Before riding this motorcycle, become thoroughly familiar with all operating controls and their functions. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.

2. Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.

3. Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

EAF12106

Starting and warming up a cold engine

EUF02801

NOTE: This motorcycle is equipped with an ignition circuit cut-off system.

1. The engine can be started only under the following conditions:
   a. The transmission is in neutral.
   b. The sidestand is up, the transmission is in gear and the clutch is disengaged.

2. The motorcycle must not be ridden when the sidestand is down.
**WARNING**

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 5-24.)

1. **TURN THE MAIN SWITCH TO “ON” AND THE ENGINE STOP SWITCH TO “○”.**

2. **IF TRANSMISSION IS IN NEUTRAL AND SIDESTAND IS DOWN,**
   - **PUSH START SWITCH. ENGINE WILL START.**
   - **RETRACT SIDESTAND AND PUT TRANSMISSION IN GEAR.**
   - **MOTORCYCLE CAN BE RIDDEN.**

3. **IF TRANSMISSION IS IN GEAR AND SIDESTAND IS UP,**
   - **PULL IN CLUTCH LEVER AND PUSH START SWITCH. ENGINE WILL START.**
   - **MOTORCYCLE CAN BE RIDDEN.**
1. Turn the main switch to "ON" and the engine stop switch to "○".

**CAUTION:**

If the fuel indicator light comes on, check the fuel level. If necessary, fill the tank with fuel.

2. Shift the transmission into neutral.

**NOTE:**

When the transmission is in neutral, the neutral indicator light should be on. If the light does not come on, ask a Yamaha dealer to inspect it.

3. Turn on the starter "||" and completely close the throttle grip.

4. Start the engine by pushing the start switch.

**NOTE:**

If the engine fails to start, release the start switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.

**CAUTION:**

The oil level indicator light and fuel indicator light should come on when the start switch is pushed and should go off when the start switch is released. If the oil level indicator light flickers or remains on, immediately stop the engine and check the engine oil level and for oil leakage. If necessary, fill the engine with oil and check to see that the oil level indicator light goes off. If not, consult a Yamaha dealer.
5. After starting the engine, move the starter "\|" to the warming up position.

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

6. After warming up the engine, turn off the starter "\|" completely.

**NOTE:**
The engine is warm when it responds normally to the throttle with the starter "\|" turned off.

**CAUTION:**
See the "Engine break-in" section prior to operating the motorcycle for the first time.

**Shifting**
The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the shift pedal is shown in the illustration. (Page 5-10) To shift into neutral, depress the shift pedal repeatedly until it reaches the end of its travel, then raise the pedal slightly.
CAUTION:  

1. Do not coast for long periods with the engine off, and do not tow the motorcycle a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.

2. Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without using the clutch.

Engine break-in

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

1. 0 ~ 150 km:
   Avoid operation above 8,000 r/min
   Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.
2. 150 ~ 500 km:
   Avoid prolonged operation above 9,000 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

3. 500 ~ 1,000 km:
   Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 10,000 r/min.

**CAUTION**

After 1,000 km of operation, be sure to replace the engine oil and oil filter.

4. 1,000 km and beyond:
   Full throttle can be used.

**CAUTION**

- Never let engine speeds enter the red zone.
- If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.

**WARNING**

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

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

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

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

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

NOTE:

If you do not have necessary tools required during a service operation, take your motorcycle to a Yamaha dealer for service.
## PERIODIC MAINTENANCE / LUBRICATION

<table>
<thead>
<tr>
<th>ITEM</th>
<th>ROUTINE</th>
<th>BREAK-IN 1,000 km</th>
<th>EVERY 6,000 km or 6 months</th>
<th>EVERY 12,000 km or 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve(s)</td>
<td>• Check valve clearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adjust if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spark plug(s)</td>
<td>• Check condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Clean or replace if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air filter</td>
<td>• Clean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replace if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carburetor</td>
<td>• Check idle speed/synchronization/starter operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adjust if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel line</td>
<td>• Check fuel hose for cracks or damage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replace if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel filter</td>
<td>• Check condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replace if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>• Replace (Warm engine before draining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine oil filter</td>
<td>• Replace</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td>• Check operation/liquid leakage (See NOTE page 8-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Correct if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clutch</td>
<td>• Check operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Adjust if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swingarm pivot</td>
<td>• Check swingarm assembly for looseness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Correct if necessary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Moderately repack every 24,000 km or 24 months.*2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2

8-3
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ROUTINE</th>
<th>BREAK-IN 1,000 km</th>
<th>EVERY 6,000 km or 6 months</th>
<th>EVERY 12,000 km or 12 months</th>
</tr>
</thead>
</table>
| * Rear suspension link pivots | * Check operation.  
* Apply grease lightly every 24,000 km or 24 months.*2 |                   |                             |                              |
| * Wheels                  | * Check balance/damage/runout  
* Replace if necessary.               |                   |                             |                              |
| * Wheel bearings          | * Check bearing assembly for looseness/damage  
* Replace if damaged. |                   |                             |                              |
| * Steering bearing        | * Check bearing assembly for looseness.  
* Correct if necessary.  
* Moderately repack every 24,000 km or 24 months.*1 |                   |                             |                              |
| * Front forks             | * Check operation/oil leakage.  
* Repair if necessary.               |                   |                             |                              |
| * Rear shock absorber     | * Check operation/oil leakage  
* Repair if necessary.               |                   |                             |                              |
| Cooling system            | * Check coolant leakage  
* Repair if necessary  
* Replace coolant every 24,000 km or 24 months. |                   |                             |                              |
| Drive chain               | * Check chain slack/alignment  
* Adjust if necessary  
* Clean and lube.               |                   | EVER Y 1,000 km*3           |                              |
| * Fittings/Fasteners      | * Check all chassis fittings and fasteners.  
* Correct if necessary.               |                   |                             |                              |
| * Sidestand               | * Check operation.  
* Repair if necessary.               |                   |                             |                              |
<table>
<thead>
<tr>
<th>ITEM</th>
<th>ROUTINE</th>
<th>BREAK-IN 1,000 km</th>
<th>EVERY 6,000 km or 6 months</th>
<th>EVERY 12,000 km or 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>✗ Sidestand switch</td>
<td>• Check operation • Repair if necessary</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

* It is recommended that these items be serviced by a Yamaha dealer

* 1 Lithium soap base grease
* 2 Molybdenum disulfide grease
* 3 Every 1,000 km and after washing the motorcycle or riding in the rain.

**NOTE:**

Brake fluid replacement:

1. When disassembling the master cylinder or caliper cylinder, replace the brake fluid. Normally check the brake fluid level and fill the master cylinder with fluid as required.
2. On the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years.
3. Replace the brake hoses every four years, or if cracked or damaged.
Engine oil

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

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

   b. With the engine stopped, check the oil level through the level window located at the lower part of the right side crankcase cover.

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

   c. The oil level should be between maximum and minimum marks. If the level is low, fill the engine with sufficient oil to reach the specified level.
2. Engine oil and oil filter cartridge replacement
   a. Remove the side cowling.
   b. Warm up the engine for several minutes.
   c. Stop the engine. Place an oil pan under the engine and remove the oil filler cap.

d. Remove the drain plug and drain the oil.

1 Oil filter cap

1 Engine oil drain plug
e. Remove the oil filter by using an oil filter wrench.

An oil filter wrench is available at a nearby Yamaha dealer.

f. Reinstall the drain plug and tighten it to the specified torque.

Tightening torque:
Drain plug: 43 Nm (4.3 m·kg)

g. Apply a light coat of engine oil to the O-ring of the new oil filter.

Make sure the O-ring is seated properly.
h. Install the oil filter and tighten it to the specified torque with an oil filter wrench.

<table>
<thead>
<tr>
<th>Tightening torque:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil filter:</td>
</tr>
<tr>
<td>17 Nm (1.7 m·kg)</td>
</tr>
</tbody>
</table>

i Fill the engine with sufficient oil to reach the specified level. Install the oil filler cap and tighten it.

Recommended oil:
See page 6-6.

Oil quantity:
Total amount:
3.5 L
Periodic oil change:
2.6 L
With oil filter replacement:
2.9 L
CAUTION:

- Do not put in any chemical additives or use oils with a grade of CD or higher. Also, be sure not to use oils labeled "ENERGY CONSERVING II" or higher. Engine oil also lubricates the clutch and additives could cause clutch slippage.
- Be sure no foreign material enters the crankcase.

j. Start the engine and warm it up for several minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for the cause.

k. After the engine is started, the oil level indicator light should go off if the oil is at the specified level.

CAUTION:

If the indicator light flickers or remains on, immediately stop the engine and consult a Yamaha dealer.

1. Install the side cowling.

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

1. Remove the seat.
2. Remove the bolts holding the fuel tank.
1. Bolt (x 2)

3. Lift the fuel tank upward and position it away from the air filter case. (Do not remove the fuel hoses.)

**WARNING**

- Support the fuel tank carefully during this procedure.
- Do not tilt the fuel tank too much or pull it too hard because the fuel hose connections may become loose causing fuel leakage.
5. Pull out the air filter.

6. Clean the air filter with solvent. After cleaning, remove the solvent from the air filter.

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

Recommended oil: SAE 10W30 type SE motor oil
CAUTION:

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

8 Reverse the removal procedures for installation.

WARNING

- Before reinstallation, make sure that the fuel hoses are not damaged at all. If any damage is found, it may result in a fuel leak, so do not start the engine. Ask a Yamaha dealer for repairs.
- Always make sure that the fuel hoses are properly connected, in place, and not pinched.

Carburetor adjustment

The carburetors are important parts of the engine and require very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the idle speed may be adjusted by the owner as part of routine maintenance.

The carburetors were set at the Yamaha factory after many tests. If they are changed, poor engine performance and damage may result.
Idle speed adjustment

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

2. Set the idle to the specified engine speed by adjusting the throttle stop screw; turn the screw in to increase engine speed, and out to decrease engine speed.

<table>
<thead>
<tr>
<th>Standard idle speed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,200 ~ 1,300 r/min</td>
</tr>
</tbody>
</table>

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

Throttle cable adjustment

**NOTE:**
Before adjusting the throttle cable free play, the engine idling speed should be adjusted.

The throttle cable should have a specified free play in the turning direction at the grip flange. If the free play is incorrect, ask a Yamaha dealer to make adjustment.

<table>
<thead>
<tr>
<th>Free play:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 ~ 7 mm</td>
</tr>
</tbody>
</table>
Valve clearance adjustment
The correct valve clearance changes with use, resulting in improper fuel/air supply or engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment however, should be left to a professional Yamaha service technician.

Spark plug inspection
The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine. Normally, all spark plugs from the same engine should have the same color on the white insulator around the center electrode. The ideal color at this point is a medium-to-light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine.
Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes exces-
sive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug:
CR9E (NGK)
U27ESR-N (NIPPONDENSO)

Before installing any spark plug, measure the electrode gap with a wire thickness gauge. Adjust the gap to specification.

<table>
<thead>
<tr>
<th>Spark plug gap:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.7 ~ 0.8 mm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tightening torque:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spark plug:</td>
</tr>
<tr>
<td>12.5 Nm (1.25 m-kg)</td>
</tr>
</tbody>
</table>

**NOTE:**
If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.
Front brake lever position adjustment
Brake lever distance from the throttle grip can be adjusted. To adjust, turn the adjuster while pushing the lever forward and align the setting on the adjuster with the arrow mark.

Rear brake pedal height adjustment
The top of the brake pedal should be positioned 42 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.

1. Lever position adjuster
2. Arrow mark
a. Lever distance

a. Pedal height 42 mm
A soft or spongy feeling in the brake pedal can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will cause greatly diminished braking capability and can result in loss of control and an accident. Have a Yamaha dealer inspect and bleed the system if necessary.

Brake light switch adjustment
The brake light switch is operated by movement of the brake pedal. To adjust, hold the main body of the switch so it does not rotate and turn the adjusting nut. Proper adjustment is achieved when the brake light comes on just before the brake begins to take effect.

Checking the front and rear brake pads
A wear indicator is provided on each brake pad. These indicators allow checking of brake pad wear without disassembling the brake. Apply the brake and inspect the wear indicators. If an indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.
Inspecting the brake fluid level
Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.
Before riding, check that the brake fluid is above the minimum level and replenish when necessary. Observe these precautions:

1. When checking the fluid level, make sure the top of the master cylinder is level by turning the handlebars.
2. Use only the designated quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.

Recommended brake fluid: DOT 4
3. Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake performance.

4. Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.

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

6. Have a Yamaha dealer check the cause if the brake fluid level goes down.
Brake fluid replacement
1. Complete fluid replacement should be done only by trained Yamaha service personnel.
2. Have a Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking:
   a. Replace all rubber seals every two years.
   b. Replace all hoses every four years.

Clutch lever free play adjustment
The clutch lever free play should be adjusted to 2 ~ 3 mm. If the free play is incorrect, adjust as follows.

| Free play: |
| 2 ~ 3 mm |

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

NOTE: If proper adjustment cannot be obtained or the clutch does not work correctly, ask a Yamaha dealer to inspect the internal clutch mechanism.
Drive chain slack check

NOTE:

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

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

a. 20 ~ 30 mm
Drive chain slack adjustment

1. Loosen the axle nut.
2. Loosen the locknuts on each side. To tighten the chain, turn the chain adjusting nuts in direction (b). To loosen the chain, turn the adjusting nuts in direction (a) and push the wheel forward. Turn each adjusting nut exactly the same amount to maintain correct axle alignment. There are marks on each side of the swingarm. Use these marks to align the rear wheel.

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

3. After adjusting, tighten the locknuts. Then tighten the axle nut to the specified torque.

Tightening torque:
Axle nut: 115 Nm (11.5 m·kg)
Drive chain lubrication
The chain consists of many parts which work with each other. If the chain is not maintained properly, it will wear out quickly. Therefore, the chain must be serviced regularly. This service is especially necessary when riding in dusty areas. This motorcycle is equipped with a sealed type chain. Steam cleaning, high-pressure washes, and solvents can damage chain so do not use these for cleaning it. Use only kerosene to clean the drive chain. Wipe it dry, and thoroughly lubricate it with SAE 30 ~ 50W motor oil. Do not use any other lubricants on the drive chain. They may contain solvents that could damage the sealed chain.

CAUTION
Be sure to oil the chain after washing the motorcycle or riding in the rain.

Cable inspection and lubrication

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

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

Recommended lubricant:
SAE 10W30 motor oil
Throttle cable and grip lubrication
The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

Brake and shift pedal lubrication
Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

Brake and clutch lever lubrication
Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

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

Recommended lubricant:
SAE 10W30 motor oil

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

Rear suspension lubrication
Lubricate the pivoting parts.

Recommended lubricant:
Molybdenum disulfide grease
Front fork inspection

**WARNING**

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

1. Visual check
   Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.
2. Operation check
   Place the motorcycle on a level place.
   a. Hold the motorcycle in an upright position and apply the front brake.
   b. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

**CAUTION:**

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

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

Wheel bearings
If there is play in the front or rear wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings. The wheel bearings should be inspected according to the Maintenance Schedule.

Battery
This motorcycle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or fill the battery with distilled water. If the battery seems to have discharged, consult a Yamaha dealer.
CAUTION:

Do not try to remove the sealing caps of the battery cells. You may damage the battery.

WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes or clothing.
Antidote:
EXTERNAL: Flush with water.
INTERNAL: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.
EYES: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries.
KEEP OUT OF REACH OF CHILDREN.

Storage

1. When the motorcycle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.

CAUTION:

A special battery charger (constant voltage/ampere or constant voltage) is required for recharging the sealed type battery. Using a conventional battery charger may shorten the battery life.

2. Always make sure the connections are correct when putting the battery back in the motorcycle.
**Fuse replacement**

1. The fuse boxes are located under the seat.
2. If any fuse is blown, turn off the main switch and the switch of the circuit in question. Install a new fuse of specified amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

![Fuse Box Diagram]

1. Headlight
2. Signal
3. Ignition
4. Fan
5. Spare (x 2)

---

**CAUTION:**

Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.
Specified fuse:
- Main: 30A
- Head: 20A
- Signal: 15A
- Fan: 7.5A
- Ignition: 7.5A

EA188900

Headlight bulb replacement
This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:
1. Remove the headlight connector and the bulb holder cover.
2. Unhook the bulb holder and remove the defective bulb.
**WARNING**

Keep flammable products and your hands away from the bulb while it is on, as it is hot. Do not touch the bulb until it cools down.

---

**CAUTION:**

Headlight bulb
- Avoid touching the glass part of the bulb. Keep it free from oil; otherwise, the transparency of the glass, life of the bulb, and illuminous flux will be adversely affected. If oil gets on the bulb, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.

Headlight lense
To prevent damage or deforming:
- Do not affix any type of tinted film or stickers to the headlight lense.
- Do not use headlight bulbs of wattage higher than specified.

4. Install the bulb holder cover and reconnect the headlight connector. If the headlight beam adjustment is necessary, ask a Yamaha dealer to make that adjustment.
Air vent hose
If dust or water collects in this hose, remove the hose and clean it.

1 Hose

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

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

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

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

1 Fuel
- Check if there is fuel in the fuel tank
  - Enough fuel ➔ Ask a Yamaha dealer to inspect
  - No fuel ➔ Supply fuel ➔ Restart engine

2 Compression
- Use electric starter
  - There is compression ➔ Compression normal
  - No compression ➔ Ask Yamaha dealer to inspect

3 Ignition
- Remove spark plug(s) and check electrode
  - Wet ➔ Wipe clean with dry cloth ➔ Attach plug cap and ground to chassis ➔ Use electric starter ➔ Spark good ➔ Ignition system normal
  - Dry ➔ Attach plug cap and ground to chassis ➔ Use electric starter ➔ Spark weak ➔ Adjust plug gap or replace plug(s)

4 Battery
- Use electric starter
  - Engine turns over quickly ➔ Battery good
  - Engine turns over slowly ➔ Check connections recharge ➔ Ask Yamaha dealer to inspect
CLEANING AND STORAGE

A. CLEANING

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

1. Before cleaning the motorcycle:
   a. Block off the end of the exhaust pipe and air intake duct to prevent water entry. A plastic bag and a strong rubber band (or tape) may be used.
   b. Make sure the spark plugs and all filler caps are properly installed.

2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the chain, sprockets or wheel axles.

3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job.

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

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

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

6. Dry the chain and lubricate it to prevent rust.

7. Clean windscreen and the headlight lense.

**CAUTION:** Avoid using any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent.

Clean the windscreen and the headlight lense with a cloth or sponge dampened with a neutral detergent, and after cleaning, thoroughly wash it off with water. Some cleaning compounds for plastics may leave scratches on surfaces of the windscreen.

Before using them, make a test by polishing an area which does not affect your visibility.

8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.

9. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish on the fuel tank and side covers. When finished, start the engine and let it idle for several minutes.

**B. STORAGE**

Long term storage (60 days or more) of your motorcycle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the motorcycle, prepare for storage as follows:
1. Drain the fuel tank, fuel lines and carburetor float bowls.
2. Remove the empty fuel tank, pour a cup of SAE 10W30 or 20W40 motor oil in the tank, shake the tank to coat the inner surfaces thoroughly and drain off the excess oil. Reinstall the tank.
3. Remove each spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in each spark plug hole and reinstall the spark plugs. Turn the engine over several times (ground spark plug leads) to coat the cylinder walls with oil.
4. Clean the chain and lubricate it (refer to “Drive chain lubrication”).
5. Lubricate all control cables.
6. Block up the frame to raise both wheels off the ground.
7. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
8. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.
9. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0°C or more than 30°C).

**WARNING**

When using the starter motor to crank the engine, remove the spark plug wires, and ground them to prevent sparking.

**NOTE:** Make any necessary repairs before storing the motorcycle.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>YZF600R</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions.</strong></td>
<td></td>
</tr>
<tr>
<td>Overall length</td>
<td>2,060 mm</td>
</tr>
<tr>
<td>Overall width</td>
<td>800 mm</td>
</tr>
<tr>
<td>Overall height</td>
<td>1,190 mm</td>
</tr>
<tr>
<td>Seat height</td>
<td>805 mm</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>1,415 mm</td>
</tr>
<tr>
<td>Minimum ground clearance</td>
<td>135 mm</td>
</tr>
<tr>
<td>Minimum turning radius</td>
<td>3,200 mm</td>
</tr>
<tr>
<td><strong>Basic weight:</strong></td>
<td></td>
</tr>
<tr>
<td>With oil and full fuel tank</td>
<td>212 kg</td>
</tr>
<tr>
<td><strong>Engine:</strong></td>
<td></td>
</tr>
<tr>
<td>Engine type</td>
<td>Liquid-cooled 4-stroke, DOHC</td>
</tr>
<tr>
<td>Cylinder arrangement</td>
<td>Forward-inclined parallel 4-cylinder</td>
</tr>
<tr>
<td>Displacement</td>
<td>599 cm³</td>
</tr>
<tr>
<td>Bore × stroke</td>
<td>62.0 × 49.6 mm</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>12:1</td>
</tr>
<tr>
<td>Starting system</td>
<td>Electric starter</td>
</tr>
<tr>
<td>Lubrication system.</td>
<td>Wet sump</td>
</tr>
<tr>
<td>Model</td>
<td>YZF600R</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Oil type or grade:</strong></td>
<td>See Page 6-6</td>
</tr>
<tr>
<td>Engine oil</td>
<td></td>
</tr>
<tr>
<td><strong>Oil capacity:</strong></td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>2.6 L</td>
</tr>
<tr>
<td>Periodic oil change</td>
<td>2.9 L</td>
</tr>
<tr>
<td>With oil filter replacement</td>
<td></td>
</tr>
<tr>
<td>Total amount</td>
<td>3.5 L</td>
</tr>
<tr>
<td><strong>Radiator capacity (including all routes):</strong></td>
<td>1.95 L</td>
</tr>
<tr>
<td><strong>Air filter:</strong></td>
<td>Wet type element</td>
</tr>
<tr>
<td><strong>Fuel:</strong></td>
<td>Regular gasoline</td>
</tr>
<tr>
<td>Type</td>
<td>For Australia: Unleaded fuel only</td>
</tr>
<tr>
<td>Fuel tank capacity</td>
<td>19 L</td>
</tr>
<tr>
<td>Fuel reserve amount</td>
<td>3.1 L</td>
</tr>
<tr>
<td><strong>Carburetor:</strong></td>
<td>CVKD36/4</td>
</tr>
<tr>
<td>Type / quantity</td>
<td>KEIHIN</td>
</tr>
<tr>
<td>Manufacturer</td>
<td></td>
</tr>
<tr>
<td><strong>Spark plug.</strong></td>
<td>CR9E/U27ESR-N</td>
</tr>
<tr>
<td>Type</td>
<td>NGK/NIPPONDENSO</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>0.7 ~ 0.8 mm</td>
</tr>
<tr>
<td>Spark plug gap</td>
<td>Wet, multiple-disc</td>
</tr>
<tr>
<td>Clutch type</td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td>YZF600R</td>
</tr>
<tr>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Transmission</strong></td>
<td></td>
</tr>
<tr>
<td>Primary reduction system</td>
<td>Spur gear</td>
</tr>
<tr>
<td>Primary reduction ratio</td>
<td>82/48 (1.708)</td>
</tr>
<tr>
<td>Secondary reduction system</td>
<td>Chain drive</td>
</tr>
<tr>
<td>Secondary reduction ratio</td>
<td>47/15 (3.133)</td>
</tr>
<tr>
<td>Transmission type</td>
<td>Constant mesh 6-speed</td>
</tr>
<tr>
<td>Operation</td>
<td>Left foot operation</td>
</tr>
<tr>
<td>Gear ratio</td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>37/13 (2.846)</td>
</tr>
<tr>
<td>2nd</td>
<td>37/19 (1.947)</td>
</tr>
<tr>
<td>3rd</td>
<td>34/22 (1.545)</td>
</tr>
<tr>
<td>4th</td>
<td>28/21 (1.333)</td>
</tr>
<tr>
<td>5th</td>
<td>25/21 (1.190)</td>
</tr>
<tr>
<td>6th</td>
<td>29/27 (1.074)</td>
</tr>
<tr>
<td><strong>Chassis</strong></td>
<td></td>
</tr>
<tr>
<td>Frame type</td>
<td>Diamond</td>
</tr>
<tr>
<td>Caster angle</td>
<td>25°</td>
</tr>
<tr>
<td>Trail</td>
<td>97 mm</td>
</tr>
<tr>
<td><strong>Tire.</strong></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Tubeless</td>
</tr>
<tr>
<td>Size (front)</td>
<td>120/60ZR17</td>
</tr>
<tr>
<td>(rear)</td>
<td>160/60ZR17</td>
</tr>
<tr>
<td>Model</td>
<td>YZF600R</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Brake</strong></td>
<td></td>
</tr>
<tr>
<td>Front brake type</td>
<td>Dual disc brake</td>
</tr>
<tr>
<td>Front brake operation</td>
<td>Right hand operation</td>
</tr>
<tr>
<td>Rear brake type</td>
<td>Single disc brake</td>
</tr>
<tr>
<td>Rear brake operation</td>
<td>Right foot operation</td>
</tr>
<tr>
<td><strong>Suspension:</strong></td>
<td></td>
</tr>
<tr>
<td>Front suspension</td>
<td>Telescopic fork</td>
</tr>
<tr>
<td>Rear suspension</td>
<td>Swingarm (link suspension)</td>
</tr>
<tr>
<td><strong>Shock absorber:</strong></td>
<td></td>
</tr>
<tr>
<td>Front shock absorber</td>
<td>Coil spring / Oil damper</td>
</tr>
<tr>
<td>Rear shock absorber</td>
<td>Coil-gas spring / Oil damper</td>
</tr>
<tr>
<td><strong>Wheel travel:</strong></td>
<td></td>
</tr>
<tr>
<td>Front wheel travel</td>
<td>130 mm</td>
</tr>
<tr>
<td>Rear wheel travel</td>
<td>120 mm</td>
</tr>
<tr>
<td><strong>Electrical:</strong></td>
<td></td>
</tr>
<tr>
<td>Ignition system</td>
<td>T.C.I. (Digital)</td>
</tr>
<tr>
<td>Generator system</td>
<td>A.C. generator</td>
</tr>
<tr>
<td>Battery type</td>
<td>YTX12-BS</td>
</tr>
<tr>
<td>Battery capacity</td>
<td>12 V 10 AH</td>
</tr>
<tr>
<td><strong>Headlight type:</strong></td>
<td>Quartz bulb (Halogen)</td>
</tr>
<tr>
<td>Model</td>
<td>YZF600R</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Bulb wattage x quantity</td>
<td></td>
</tr>
<tr>
<td>Headlight</td>
<td>12V 60W / 55W x 1</td>
</tr>
<tr>
<td>Tail / brake light</td>
<td>12V 5W / 21W x 1</td>
</tr>
<tr>
<td>Flasher light</td>
<td>12V 21W x 4</td>
</tr>
<tr>
<td>Meter light</td>
<td>12V 1.7W x 4</td>
</tr>
<tr>
<td>Neutral indicator light</td>
<td>12V 3.4W x 1</td>
</tr>
<tr>
<td>Oil level indicator light</td>
<td>12V 3.4W x 1</td>
</tr>
<tr>
<td>Fuel indicator light</td>
<td>12V 3.4W x 1</td>
</tr>
<tr>
<td>Turn indicator light</td>
<td>12V 3.4W x 1</td>
</tr>
<tr>
<td>High beam indicator light</td>
<td>12V 3.4W x 1</td>
</tr>
</tbody>
</table>
HOW TO USE THE CONVERSION TABLE

All specification data in this manual are listed in SI and METRIC UNITS. Use this table to convert METRIC unit data to IMPERIAL unit data.

Ex.

<table>
<thead>
<tr>
<th>METRIC</th>
<th>MULTIPLIER</th>
<th>IMPERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>mm</strong></td>
<td>× 0.03937</td>
<td><strong>in</strong></td>
</tr>
<tr>
<td>2 mm</td>
<td>× 0.03937</td>
<td>0.08 in</td>
</tr>
</tbody>
</table>

**CONVERSION TABLE**

<table>
<thead>
<tr>
<th>Metric unit</th>
<th>Multiplier</th>
<th>Imperial unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-kg</td>
<td>7.233</td>
<td>ft-lb</td>
</tr>
<tr>
<td>m kg</td>
<td>86.794</td>
<td>in-lb</td>
</tr>
<tr>
<td>cm kg</td>
<td>0.0723</td>
<td>ft-lb</td>
</tr>
<tr>
<td>cm-kg</td>
<td>0.8679</td>
<td>in-lb</td>
</tr>
<tr>
<td>kg</td>
<td>2.205</td>
<td>lb</td>
</tr>
<tr>
<td>g</td>
<td>0.03527</td>
<td>oz</td>
</tr>
<tr>
<td>km/hr</td>
<td>0.6214</td>
<td>mph</td>
</tr>
<tr>
<td>km</td>
<td>0.6214</td>
<td>mi</td>
</tr>
<tr>
<td>m</td>
<td>3.281</td>
<td>ft</td>
</tr>
<tr>
<td>m</td>
<td>1.094</td>
<td>yd</td>
</tr>
<tr>
<td>cm</td>
<td>0.3937</td>
<td>in</td>
</tr>
<tr>
<td>mm</td>
<td>0.03937</td>
<td>in</td>
</tr>
<tr>
<td>cc (cm³)</td>
<td>0.03527</td>
<td>oz (IMP liq)</td>
</tr>
<tr>
<td>cc (cm³)</td>
<td>0.06102</td>
<td>cu in</td>
</tr>
<tr>
<td>lt (liter)</td>
<td>0.8799</td>
<td>qt (IMP liq.)</td>
</tr>
<tr>
<td>lt (liter)</td>
<td>0.2199</td>
<td>gal (IMP liq.)</td>
</tr>
<tr>
<td>kg/mm</td>
<td>55 997</td>
<td>lb/in</td>
</tr>
<tr>
<td>kg/cm²</td>
<td>14 2234</td>
<td>psi (lb/in²)</td>
</tr>
<tr>
<td>Centigrade (°C)</td>
<td>9/5 + 32</td>
<td>Fahrenheit (°F)</td>
</tr>
</tbody>
</table>
NOISE REGULATION
(FOR Australia)

"TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED"

Owners are warned that the law may prohibit:

(a) The removal or rendering inoperative by any person other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and

(b) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.