



**YAMAHA**

**FZR600W**

**OWNER'S MANUAL**

**3HG-28199-20**

## IDENTIFICATION NUMBERS RECORD

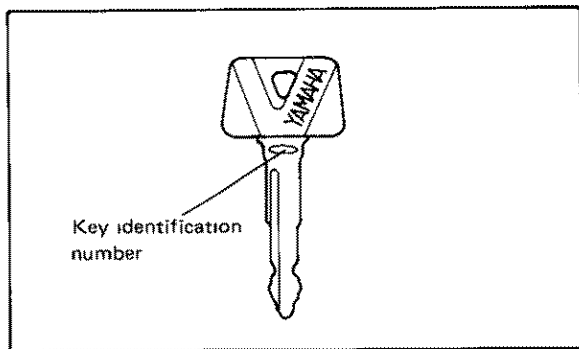
### 1. KEY IDENTIFICATION NUMBER

Your key identification number is stamped on your key as shown in the following illustration.

Record this number in the space provided for reference if you need a new key.

### 2. VEHICLE IDENTIFICATION NUMBER: (For Australia) FRAME SERIAL NUMBER: (Except for Australia)

### 3. ENGINE SERIAL NUMBER:



Record your vehicle identification number (or frame serial number) and engine serial number in the spaces provided to assist you in ordering spare parts from your Yamaha dealer or for reference in case your vehicle is stolen. (See page 2-1)

A-001

**FZR600W**

**OWNER'S MANUAL**

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**1st Edition, January 1989**

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## INTRODUCTION

Congratulations on your purchase of the Yamaha FZR600W. 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.

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**NOTE:** 

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Some data in this manual may become outdated due to future improvement on this model. If you have any questions about this manual or your motorcycle, please consult a Yamaha dealer.

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**TECHNICAL PUBLICATIONS  
SERVICE DIVISION  
MOTORCYCLE GROUP  
YAMAHA MOTOR CO., LTD.**

**⚠ WARNING:**

**PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE.**

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

**NOTE:**

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

**⚠ CAUTION:**

A CAUTION indicates special procedures that must be followed to avoid damage to the motorcycle

**⚠ WARNING:**

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

U-000

**NOTE:**

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

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** THINK OF YOUR SAFETY:**

Both motorcycles and mopeds are fascinating vehicles which give a tremendous feeling of freedom to their riders. They must be correctly maintained at all times in order to ensure optimum performance. However, as a rider you must also ensure that your physical condition is good, and that you are not tired, in order that you too can optimise your vehicle control. Medicines, drugs and alcohol should not be combined with riding, especially alcohol which increases the individual's likelihood of taking risks. Alcohol is dangerous, even in small quantities: Correct protective riding gear is just as much a part of motorcycling safety as the safety belt is in the car; a good leather suit and gloves, sturdy boots and a good quality, properly fitting crash helmet are ideal. But beware: good protective clothing can result in the individual being lulled into a false sense of security. When this happens more risks are taken and speeds increase... this particularly applies in wet weather. The good motorcyclist therefore rides defensively and protectively in order to minimise risks.

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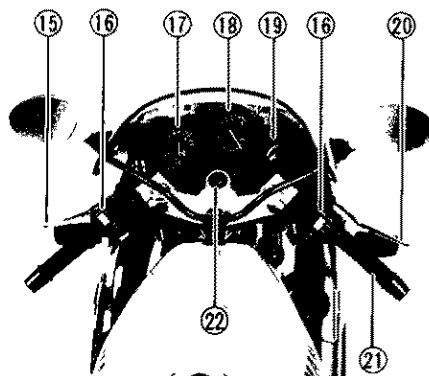
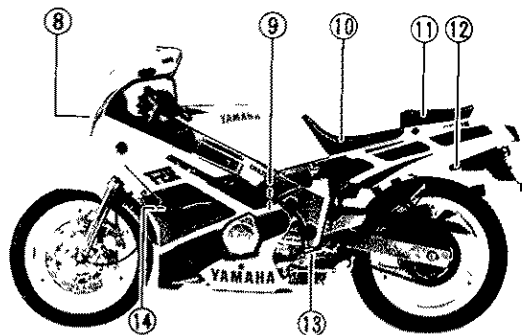
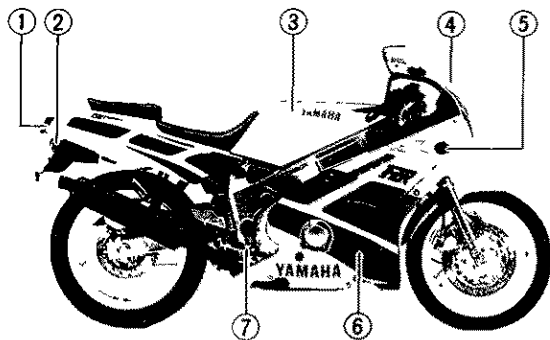
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## DESCRIPTION



- |                       |                             |
|-----------------------|-----------------------------|
| 1 Tail/brake light    | 12 Helmet holder            |
| 2 Rear flasher light  | 13 Change pedal             |
| 3 Top cover           | 14 Radiator                 |
| 4 Upper cowl          | 15 Clutch lever             |
| 5 Front flasher light | 16 Handlebar switches       |
| 6 Lower cowl          | 17 Speedometer              |
| 7 Brake pedal         | 18 Tachometer               |
| 8 Headlight           | 19 Engine temperature gauge |
| 9 Fuel cock           | 20 Brake lever              |
| 10 Rider seat         | 21 Throttle grip            |
| 11 Passenger seat     | 22 Main switch              |

U-002

**NOTE:**

The motorcycle you have purchased may differ slightly from those shown in the photographs

## MOTORCYCLE IDENTIFICATION

### Frame serial number (Except for Australia)

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

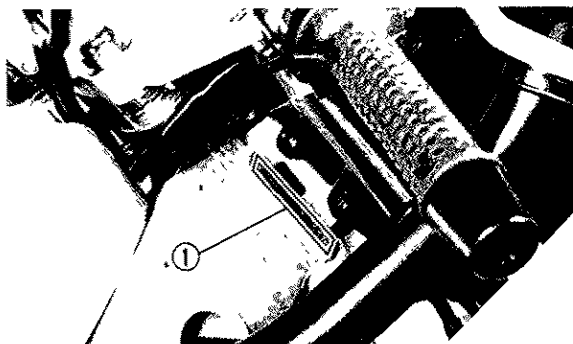
### Vehicle identification number (For Australia)

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

### 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

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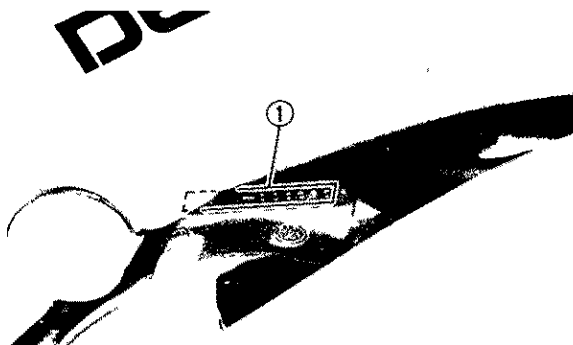


1 Frame serial number

1 Vehicle identification number

## Engine serial number

The engine serial number is stamped into the right side of the engine.



1 Engine serial number

U-003

### NOTE:

The first three digits of these numbers are for model identification, the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer

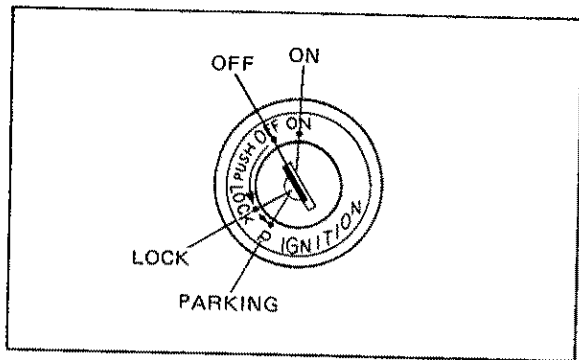
B-000

## CONTROL FUNCTIONS

B-001

### Main switch

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



B-005

### ON.

Electrical circuits are switched on. The engine can be started. The key cannot be removed in this position.

B-006

### OFF.

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

B-007

### 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 3-10) for proper operation.

B-012

### PARKING.

The steering is locked in this position, and the taillight and auxiliary light come on but all other circuits are off. The key can be removed in this position.

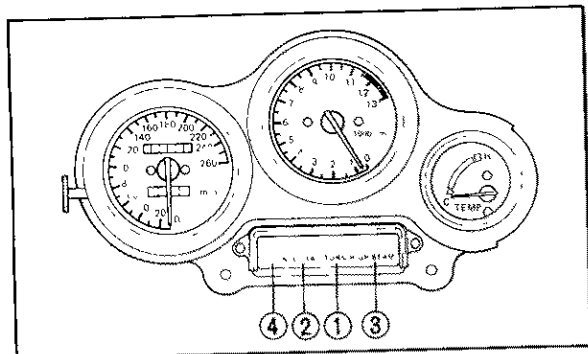
U-007

### NOTE:

Always turn the main switch to "OFF" or "LOCK" and remove the key when the motorcycle is unattended.

B-100

## Indicator lights



- 1 "TURN" indicator light
- 2 "NEUTRAL" indicator light
- 3 "HIGH BEAM" indicator light
- 4 "OIL LEVEL" indicator light

B-101

"TURN" indicator light (orange)

This indicator flashes when the turn switch is "ON"

B-102

"NEUTRAL" indicator light (green)

This indicator comes on when the transmission is in neutral.

B-103

"HIGH BEAM" indicator light (blue)

This indicator comes on when the headlight high beam is used

B-106

"OIL LEVEL" indicator light (red)

This indicator comes on when the oil level is low. This light circuit can be checked by the following procedure.

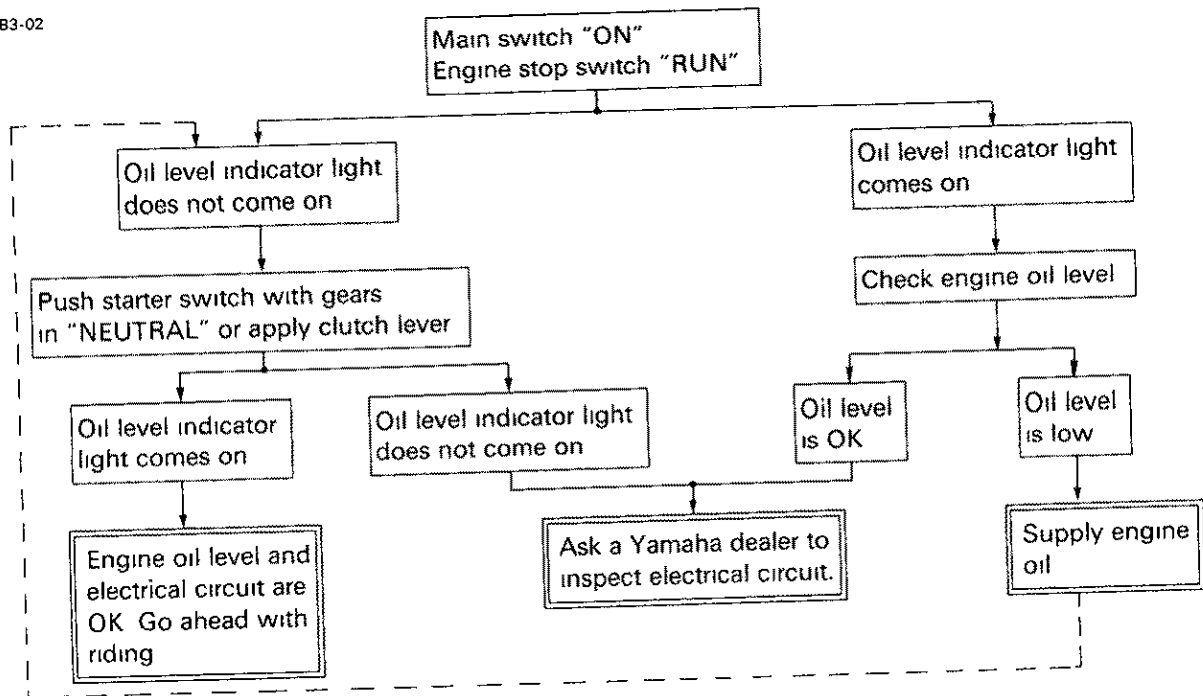
U 300

### **CAUTION**

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

## Oil level indicator circuit check

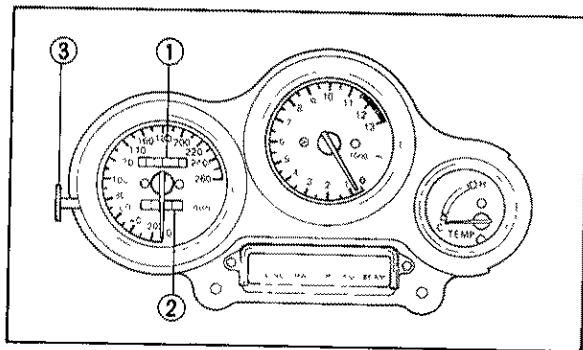
CB3-02



## Speedometer

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

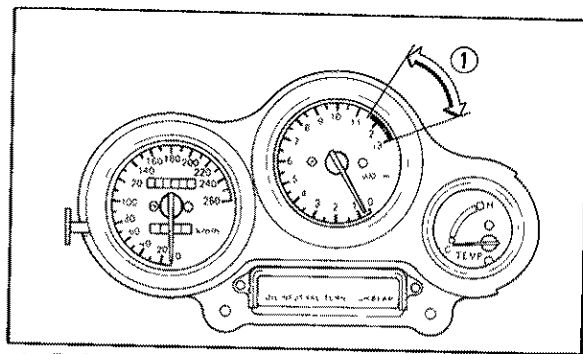
Use the odometer to estimate how far you can ride on a tank of fuel before going to "RESERVE". This information will enable you to plan fuel stops in the future.



1 Odometer 2 Trip odometer 3 Reset switch

## 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.



1 Red zone

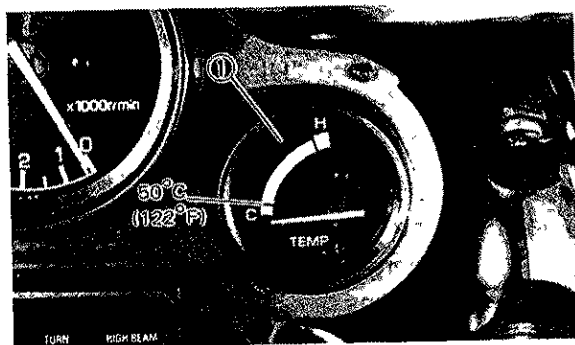
U 304

## CAUTION:

**Do not operate in the red zone**  
**Red zone: 11,500 r/min and above**

## 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 6-10 for more detail.)

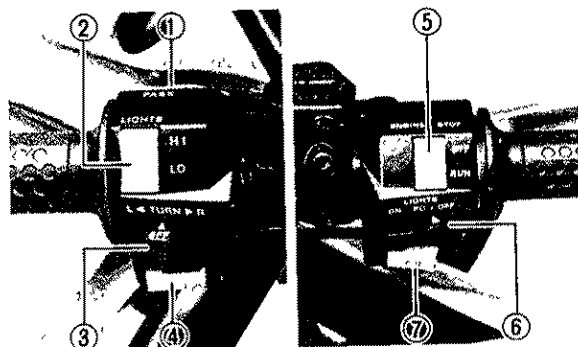


1. Engine temperature gauge

## CAUTION

When the engine is overheated, do not continue riding.

## Handlebar switches:



1. "PASS" switch
2. "LIGHTS" (Dimmer) switch
3. "TURN" switch
4. "HORN" switch
5. "ENGINE STOP" switch
6. "LIGHTS" switch
7. "START" switch

B-610

### **"PASS" switch**

When you are passing a vehicle ahead, the passing light switch should be depressed so that the headlight gives a signal to the rider

B-603

### **"TURN" signal switch**

This model is equipped with self-cancelling turn signals. To signal a right-hand turn, push the switch to the right; to signal a left-hand turn, push the switch to the left. Once the switch is released it will return to the center position. To cancel the signal, push the switch in after it has returned to the center position. If the switch is not cancelled by hand, it will self-cancel after the motorcycle has travelled for about 10 seconds or approximately 150 meters (490 feet) whichever is greater. The self-cancelling mechanism only operates when the motorcycle is moving, thus the signal will not self-cancel while you are stopped at an intersection

B-602

### **"HORN" switch**

Press the switch to sound the horn

B-612

### **"LIGHTS" switch**

Turn the light switch to "ON" to turn on the headlight, taillight, and meter lights. Turn the light switch to "PO" to turn on the auxiliary light, taillight, and meter lights

B-601

### **"LIGHTS" (Dimmer) switch**

Turn the switch to "HI" for the high beam and to "LO" for the low beam

B-609

### **"ENGINE STOP" switch**

The engine stop switch is a safety device for use in an emergency such as when the motorcycle overturns or when trouble occurs in the throttle system. The engine will not run when the engine stop switch is turned to "OFF". In case of emergency, turn the switch to "OFF".

B-607

## **"START" switch**

To start the engine, push the starter

U-307



**See starting instructions prior to starting engine.**

B-700

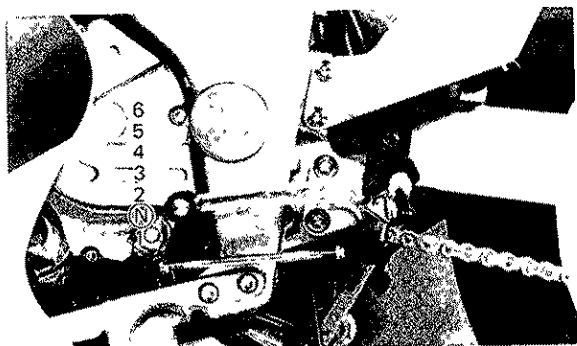
## **Clutch lever**

The clutch lever is located on the left handlebar, and the starting circuit cut-off switch 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 starts. (Refer to the engine starting procedures for a description of the starting circuit cut-off switch.)

B-800

## **Change pedal**

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



N Neutral

B-900

## **Front brake lever**

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

## Rear brake pedal

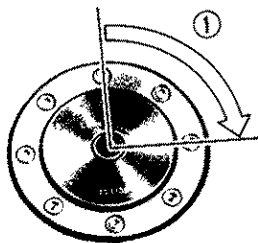
The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to activate the rear brake.

C-008

## Fuel tank cap

### TO OPEN.

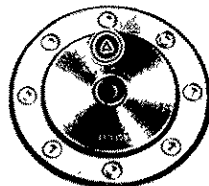
Insert the key and turn clockwise 1/4 turn. The lock will be released and the cap can be opened.



1 Open

### TO CLOSE.

Push the tank cap into position (Δ mark front) with the key inserted.



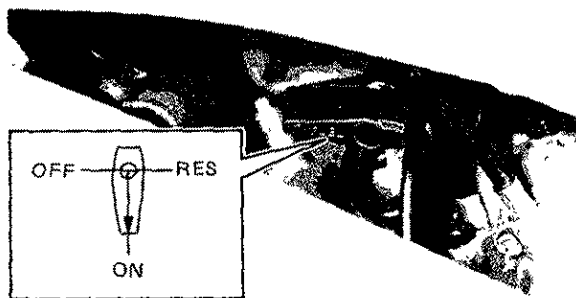
C-101

## Fuel cock

The fuel cock supplies fuel from the tank to carburetor while filtering the fuel. The fuel cock has the three positions:

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

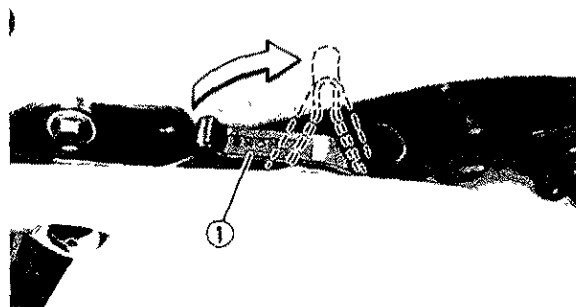
- ON.** With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.
- RES:** This indicates reserve. If you run out of fuel while riding, move the lever to this position. **FILL THE TANK AT THE FIRST OPPORTUNITY. BE SURE TO SET THE LEVER TO "ON" AFTER REFUELING.**



### **Starter lever (CHOKE)**

When cold, the engine requires a richer air-fuel mixture for starting. A separate starter circuit supplies this mixture. The starter on this model is a 2-position type.

1. Turn the lever projection fully toward you
  - When starting a cold engine.
2. Turn the lever projection half-way back.
  - When warming up the engine.



1. Starter lever (CHOKE)

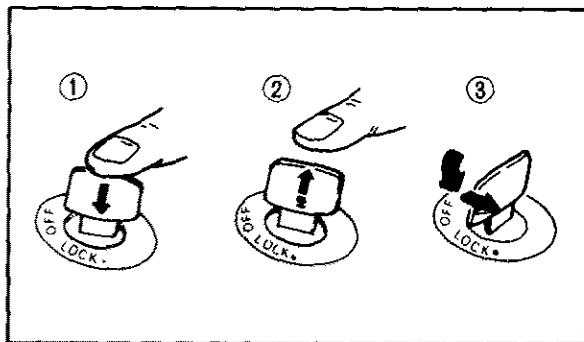
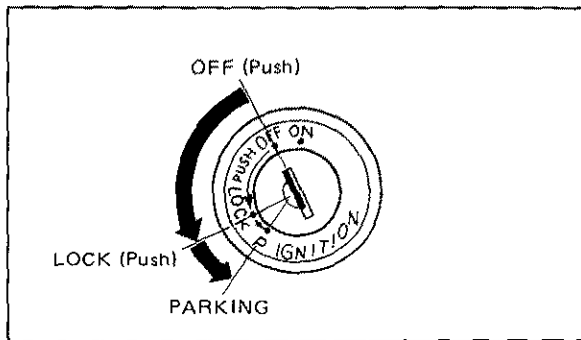
**NOTE:**

Refer to "Starting and warming up a cold engine" for proper operation

C-304

**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. With the key at "OFF," push it into the main switch, turn the key counterclockwise to "LOCK," and remove the key. To release the lock, turn the key clockwise



1 Push

2. Release

3 Turn

U-814

**⚠ WARNING:**

Never turn the key to "LOCK" when the motorcycle is moving.

EAC35100

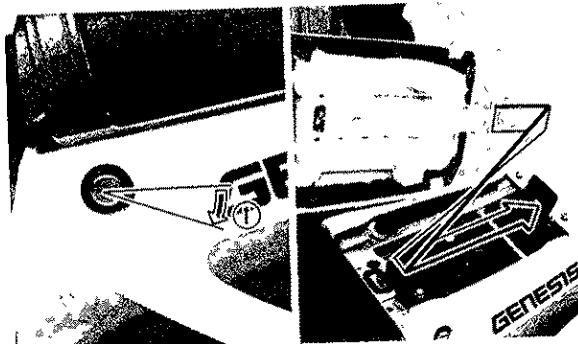
**Parking**

For "P", push the key at "LOCK", let the fingers off, and then turn it counterclockwise. To release, simply turn the key clockwise.

## Seat lock

### 1. Passenger seat

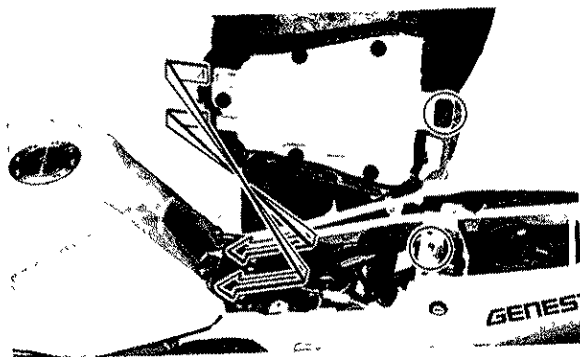
To open the seat lock, insert the key in the lock and turn it clockwise. When reinstalling the seat insert the lobe on the seat back into the receptacle on the seat end cover, then push down the seat.



1. Open

### 2. Rider seat

- a. Remove the passenger seat and pull up the rider seat.
- b. When reinstalling the rider seat, insert the lobes on the seat front into the receptacles on the frame and fit the hitch over the stopper.



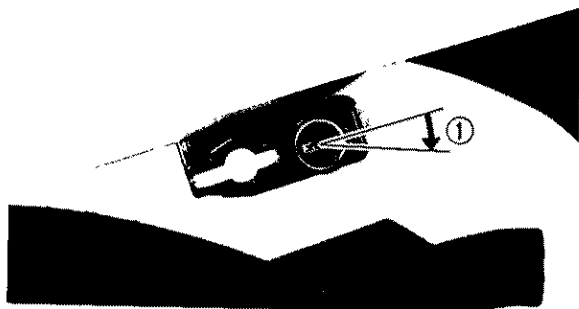
- c. Reinstall the passenger seat.

EUU01700

**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, replace the holder in its original position.



1 Open

U-615

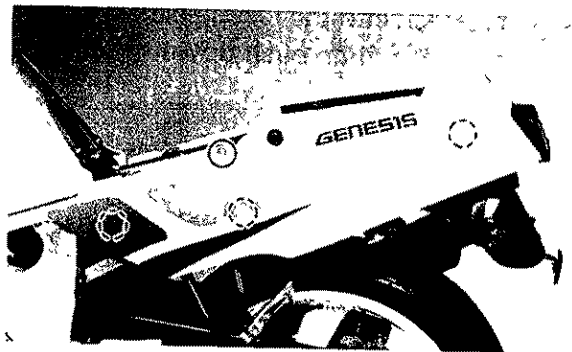
### **⚠ WARNING:**

Never ride with a helmet in the helmet holder. It could interfere with rear wheel movement, causing loss of control and possibly an accident.

## Side cover

### Removal

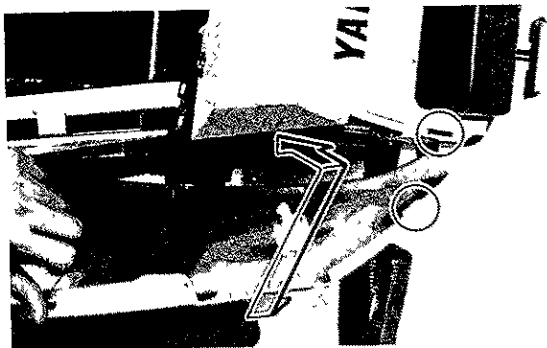
- 1 Remove the seats (passenger and rider seats).
- 2 Remove the bolt and pull out the knobs.



3. Remove the side cover while lowering it slightly.

### Installation

- 1 Fit the side cover pawl into the seat end cover hole
- 2 Insert the side cover knobs into the frame holes.

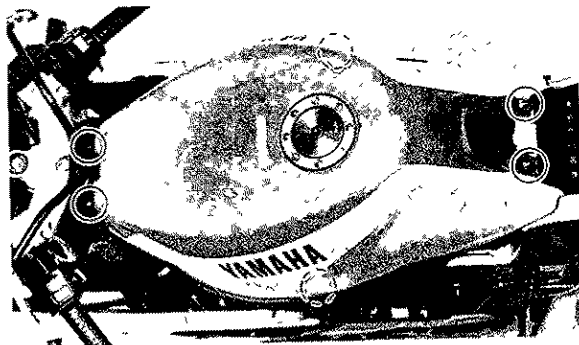


- 3 Tighten the bolt and reinstall the seats

C-724

### Top cover removal

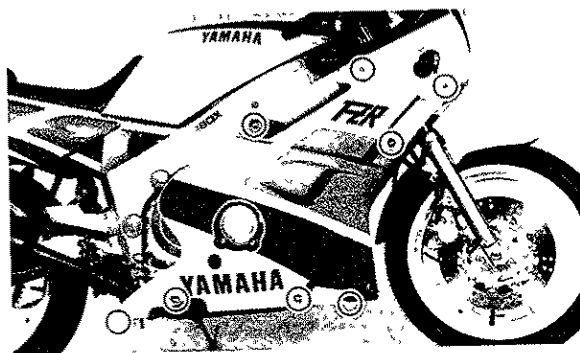
- 1 Remove the passenger seat and rider seat.
2. Remove the fuel tank cap.
3. Remove the top cover installation bolts

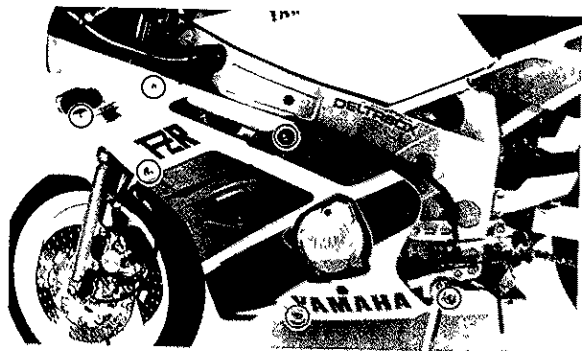


D-603

### Cowling removal

To remove the cowling, remove the bolts as shown.

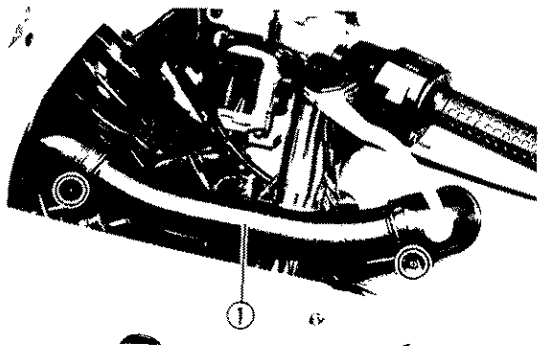
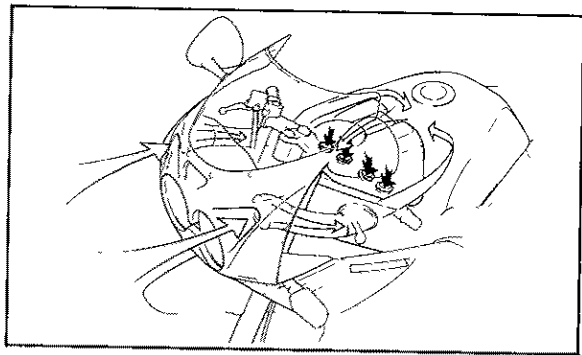




D-703

## Fresh Air Intake

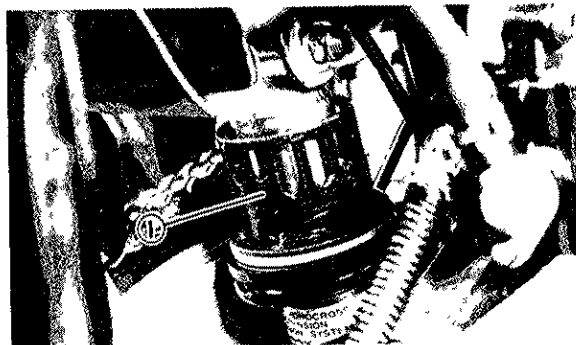
Fresh Air Intakes direct cool and dense air around the air cleaner box, to achieve better cylinder filling. To remove the air duct, remove the two bolts as shown.



1 Air duct

## Rear shock absorber

The spring preload of the rear shock absorber can be adjusted to suit motorcycle's load (ex optional accessories etc ) and riding conditions. Refer to page 6-31 for proper adjustment procedures.



1. Adjuster

D-301

## 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 5-1 for an explanation of this system.)

U-689

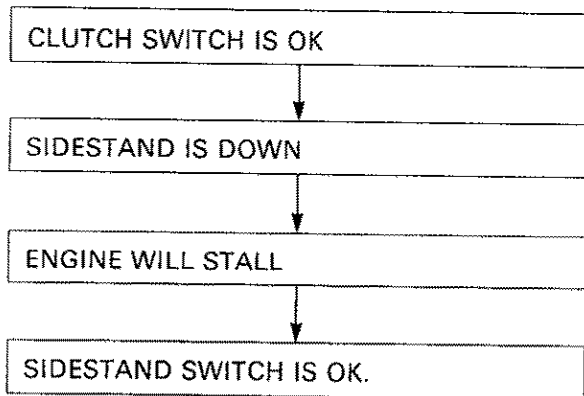
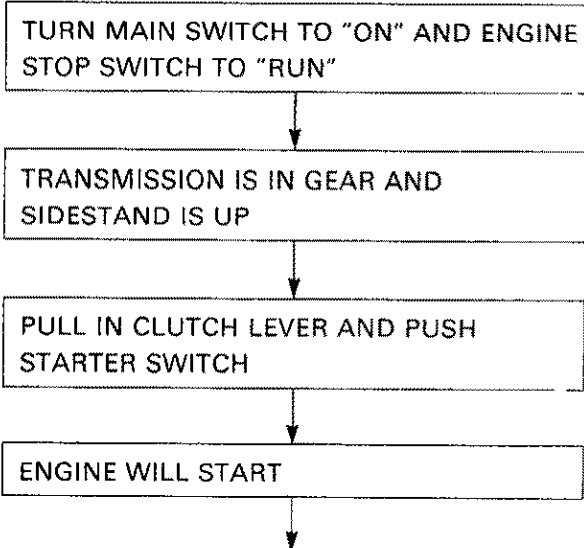
### **WARNING:**

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 his responsibility of retracting the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, you must 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.

CD3-01



U-691

**⚠ WARNING:**

If improper operation is noted, consult a Yamaha dealer immediately.

# PRE-OPERATION CHECKS

Before using this motorcycle, check the following points.

| Item                          | Routine                                                                                                           | Page                 |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------|
| Front brake                   | Check operation, free play, fluid level, and fluid leakage<br>Top-up with DOT#4 brake fluid if necessary          | 4-3~4-4<br>6-20~6-25 |
| Rear brake                    | Check operation, free play, fluid level, and fluid leakage.<br>Top-up with DOT#4 (or #3) brake fluid if necessary | 4-3~4-4<br>6-21~6-25 |
| Clutch                        | Check operation, condition and free play. Adjust if necessary                                                     | 4-4, 6-25~6-26       |
| Throttle grip/Housing         | Check for smooth operation Lubricate/Adjust if necessary                                                          | 4-4, 6-18~6-19, 6-29 |
| Engine oil                    | Check oil level/add oil as required                                                                               | 4-4~4-5, 6-7~6-10    |
| Coolant reservoir tank        | Check coolant level/top up as required                                                                            | 4-5, 6-10~6-15       |
| Drive chain                   | Check chain slack and condition Adjust if necessary.                                                              | 4-6, 6-26~6-28       |
| Wheels/Tires                  | Check tire pressure, wear, damage                                                                                 | 4-6~4-11, 6-40~6-46  |
| Control/Meter cable           | Check for smooth operation. Lubricate if necessary.                                                               | 6-29                 |
| Brake and change pedal shafts | Check for smooth operation Lubricate if necessary                                                                 | 6-29                 |
| Brake and clutch lever pivots | Check for smooth operation Lubricate if necessary                                                                 | 6-29                 |
| Sidestand pivot               | Check for smooth operation Lubricate if necessary                                                                 | 6-30                 |
| Fittings/fasteners            | Check all chassis fittings and fasteners Tighten/Adjust, if necessary                                             | 4-11, 6-6            |

| Item               | Routine                                                     | Page            |
|--------------------|-------------------------------------------------------------|-----------------|
| Fuel tank          | Check fuel level/top-up as required                         | 4-12~4-13       |
| Lights and signals | Check for proper operation                                  | 4-11, 6-37~6-40 |
| Battery            | Check fluid level, top-up with distilled water if necessary | 4-11, 6-33~6-36 |

#### 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.

**Brakes (See page 6-20 for more detail)****1 Brake lever and brake pedal**

Check for correct free play in the front brake lever and rear brake pedal. Make sure they are working properly. Check the brakes at low speed shortly after starting out. If the free play is incorrect, adjust it.

U-619

**⚠ 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.  
Add fluid if necessary.

|                                |
|--------------------------------|
| Recommended brake fluid: DOT#4 |
|--------------------------------|

**NOTE:**

(Rear brake fluid only)

If DOT#4 is not available, #3 can be used.

**3. Check the disc pads**

Refer to page 6-23.

U-022

**NOTE:**

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

E-107

**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 cylinder(s).

**⚠ WARNING:**

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

E-200

**Clutch (See page 6-25 for more detail)**

Check the free play in the clutch lever, and make sure the lever operates properly. If the free play is incorrect, adjust it

E-301

**Throttle grip (See page 6-18 for more detail)**

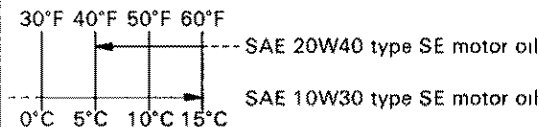
Turn the throttle grip to see if it operates properly, and check the free play. Make sure the grip returns by spring force when released. Ask a Yamaha dealer to make any necessary adjustments.

E-401

**Engine oil (See page 6-7 for more detail)**

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

CE4-02

**Recommended oil****Oil quantity.**

Total amount:

3.1 L (2.7 Imp qt, 3.3 US qt)

Periodic oil change

2.3 L (2.0 Imp qt, 2.4 US qt)

With oil filter replacement.

2.6 L (2.3 Imp qt, 2.7 US qt)

**NOTE:**

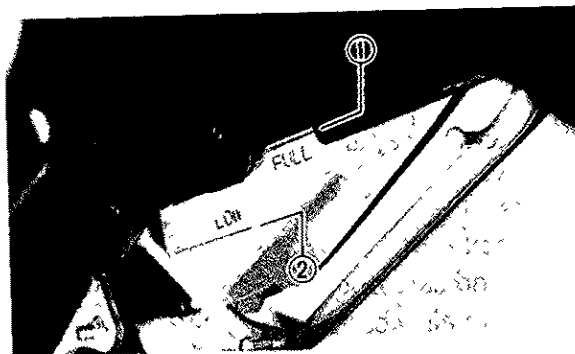
Recommended engine oil classification, API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc ).

**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 FULL and LOW marks on the tank. If the coolant level is at or below the LOW level, add tap water (soft water) to bring the level up to FULL. Change the coolant every two years. (See page 6-10 for more detail.)

**⚠ WARNING:**

**Do not remove the radiator cap when the engine is hot.**



1 "FULL" level

2 "LOW" level

**⚠ CAUTION:**

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

Reservoir tank capacity.

Total.

700 cm<sup>3</sup> (0.62 Imp qt, 0.74 US qt)

From LOW to FULL level.

180 cm<sup>3</sup> (0.16 Imp qt, 0.19 US qt)

**Chain (See page 6-26 for more detail)**

Check the general condition of the chain and check the chain slack before every ride. Lubricate and adjust the chain as necessary.

EAE95000

**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.

EUU67500

**⚠ 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.

|                                             |                                                 |                                                 |
|---------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Basic weight<br>With oil and full fuel tank | 201 kg (443 lb)                                 |                                                 |
| Maximum load*                               | 192 kg (423 lb)                                 |                                                 |
| Cold tire pressure                          | Front                                           | Rear                                            |
| Up to 90 kg (198 lb) load*                  | 230 kPa<br>(2.3 kg/cm <sup>2</sup> ,<br>33 psi) | 250 kPa<br>(2.5 kg/cm <sup>2</sup> ,<br>36 psi) |
| 90 kg (198 lb) ~<br>Maximum load*           | 250 kPa<br>(2.5 kg/cm <sup>2</sup> ,<br>36 psi) | 290 kPa<br>(2.9 kg/cm <sup>2</sup> ,<br>41 psi) |
| High speed riding                           | 250 kPa<br>(2.5 kg/cm <sup>2</sup> ,<br>36 psi) | 290 kPa<br>(2.9 kg/cm <sup>2</sup> ,<br>41 psi) |

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

EUU67700

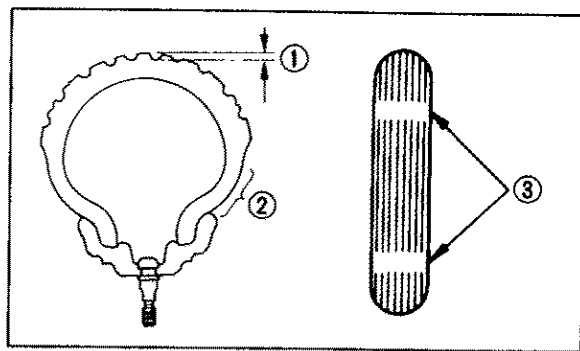
**⚠ WARNING:**

Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your motorcycle. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the mo-

torcycle, 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 tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have him replace the tire.



1 Tread depth      2. Side wall      3 Wear indicator

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

U-679

### **⚠ 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.**

### 3. Tire information

This motorcycle is equipped with tubeless tires, tire valves and cast wheels

EUU76700

#### **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.

CE9-02

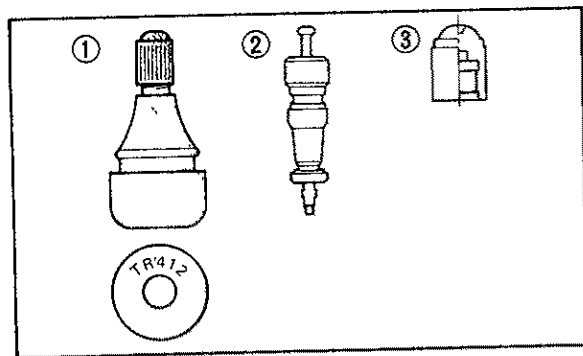
#### FRONT

| Manufacture | Size              | Type  |
|-------------|-------------------|-------|
| Bridgestone | 110/70 V17 — V240 | G549  |
| Dunlop      | 110/70 V17 — V240 | K275F |
| Pirelli     | 110/70 V17        | MT79  |

#### REAR

| Manufacture | Size              | Type |
|-------------|-------------------|------|
| Bridgestone | 130/70 V18 — V240 | G550 |
| Dunlop      | 130/70 V18 — V240 | K275 |
| Pirelli     | 130/70 V18        | MT78 |

|            | Type             |
|------------|------------------|
| Tire valve | TR412            |
| Valve core | #9000A (genuine) |



1. Tire valve  
3. Valve cap with seal

2. Valve core

U-685

### **⚠ WARNING:**

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

1. Never fail to use "V" range tires in tire replacement. "S" or "H" tires may have a danger of bursting at super high-speeds.

2. Tires have a relatively low gripping on the road surface when new, so do not allow any new ones to be subjected to load from maximum speed until after approx. 100 km (60 mi).
3. Before any high-speed runs, remember to give a sufficient warm-up to the tires.
4. Always use the correct tire inflation pressure according to the operating conditions.

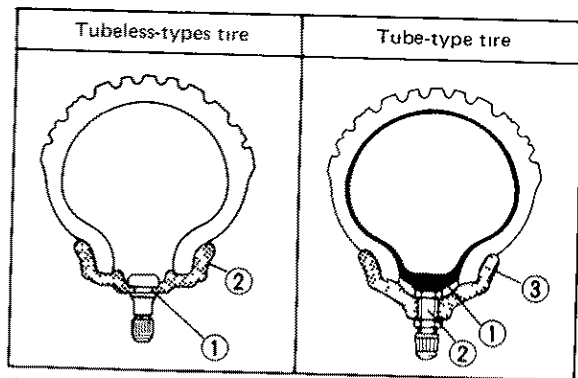
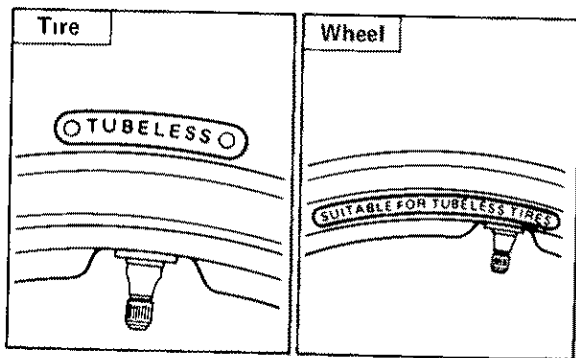
E-941

### **Tubeless tires and cast wheels**

This motorcycle is equipped with cast wheels designed for either tube or tubeless tires. Tubeless tires are installed as standard equipment.

**⚠ WARNING:**

Do not attempt to use tubeless tires on a wheel designed for use only with tube-type tires. Tire failure and personal injury may result from sudden deflation.



- 1 Air valve  
2 Cast wheel  
(Tubeless wheel)

- 1 Tube  
2 Air valve  
3. Cast wheel

**Tube-type Wheel**

→ Tube-type Tires only

**Tubeless-type Wheel**

→ Tube-type or Tubeless tires

**⚠ WARNING:**

When using tube-type tires, be sure to install the proper tube also.

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. After installing a tire, ride conservatively to allow the tire to seat itself on the rim properly. Failure to allow proper seating may cause tire failure, resulting in damage to the motorcycle and injury to the rider.

E-850

### **Fittings/Fasteners**

Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 6-6 to find the correct torque.

E-700

### **Lights and signals**

Check the headlight, flasher lights, taillight, brake light, meter lights, and all the indicator lights to make sure they are in working condition.

E-707

### **Switches**

Check the operation of the headlight switch, turn switch, brake light switch, horn switch, starter switch, main switch, etc.

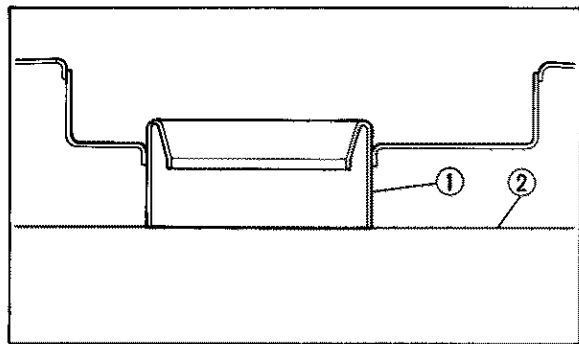
E-705

### **Battery (See page 6-33 for more detail)**

Check the fluid level and top-up if necessary. Use only distilled water if refilling is necessary.

## Fuel

Make sure there is sufficient fuel in the tank



1. Filler tube

2. Fuel level

### **⚠ 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 the spilled fuel immediately with a dry and clean soft cloth etc. Fuel containing alcohol may erode painted surfaces or plastic parts.

Recommended fuel: Regular gasoline

For Australia. Unleaded fuel only

Fuel tank capacity:

Total:

18.0 L (4.0 Imp gal, 4.8 US gal)

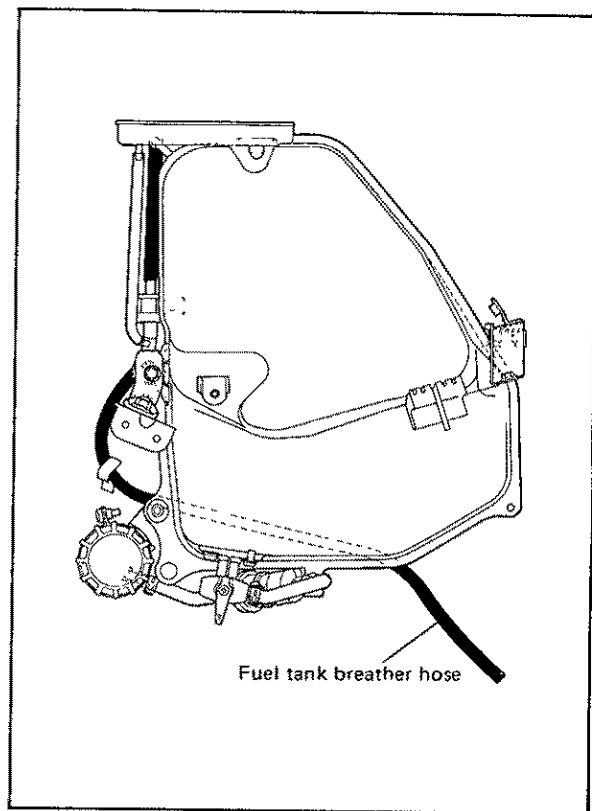
Reserve:

3.4 L (0.8 Imp gal, 0.9 US gal)

**Fuel tank breather hose**

This model is equipped with the fuel tank breather hose. Before using this motorcycle be sure to check the following.

1. Check hose connection.
2. Check hose for cracks or damage. Replace if damaged
3. Make sure the bottom hose is not blocked. Clean it if necessary.



## OPERATION AND IMPORTANT RIDING POINTS

U-672

### WARNING:

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

U-628

### WARNING:

1. 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.

2. 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.

F-112

### Starting and warming up a cold engine

U-028

### NOTE:

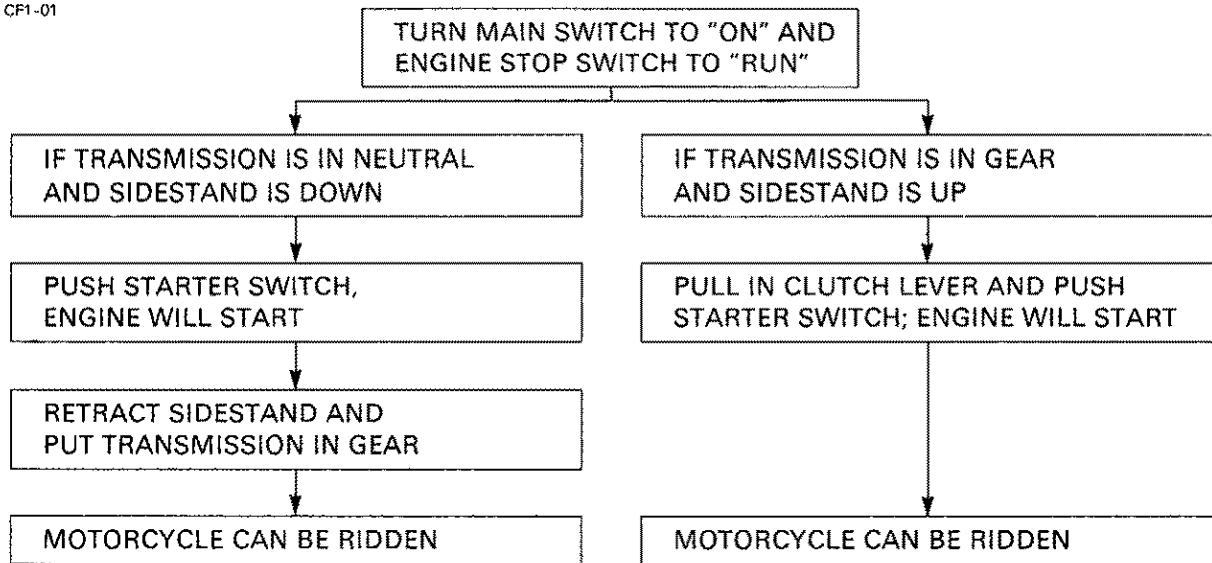
This motorcycle is equipped with a starting and an ignition circuit cut-off switch

- 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 side-stand switch and clutch switch. (Refer to page 3-16.)

CF1-01



- 1 Turn the fuel cock to "ON."
- 2 Turn the ignition key to "ON" and the engine stop switch to "RUN "
3. Shift transmission into neutral

U-030

**NOTE:**

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

4. Turn the starter (CHOKE) lever fully toward you and completely close the throttle grip
- 5 Start the engine by pushing the starter switch

U-026

**NOTE:**

If the engine fails to start, release the starter 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.

U-355

**CAUTION:**

The oil level indicator light should come on when the starter switch is pushed and should go off when the starter switch is released. If the indicator light flickers or remains on, immediately stop the engine and check for the engine oil level and for oil leakage. If necessary, replenish oil and check to see that the oil level indicator light goes off. If the light does not go off even with sufficient oil in the crankcase or the light does not come on when pushing the starter switch, consult a Yamaha dealer.

- 6 After starting the engine, turn back the starter lever (CHOKE) to warming up position (about halfway)

U-026

**NOTE:** \_\_\_\_\_

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

---

7. After warming up the engine, turn off the starter lever by turning it back completely.

U-027

**NOTE:** \_\_\_\_\_

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

---

F-108

### **Starting a warm engine**

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

U-314

### **CAUTION:** \_\_\_\_\_

**See "Break-in section" prior to operating the motorcycle for the first time.**

---

F-200

### **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 change pedal is shown in the illustration. (Page 3-7)

To shift into NEUTRAL, depress the change pedal repeatedly until it reaches the end of its travel (you will feel a stop when you are in first gear) 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 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 (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation or any condition which might result in excessive heating of the engine, must be avoided.

F-301

- 1 0 ~ 150 km (0 ~ 90 mi).

Avoid operation above 5,000 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 (90 ~ 300 mi):  
Avoid prolonged operation above 6,500 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.
3. 500 ~ 1,000 km (300 ~ 600 mi).  
Avoid prolonged full throttle operation.  
Avoid cruising speeds in excess of 8,000 r/min.

U-320

**CAUTION:**

After 1,000 km (600 mi) of operation, be sure to replace the engine oil and oil filter element.

4. 1,000 km (600 mi) and beyond:  
Full throttle can be used.

U-387

**CAUTION:**

Never let engine speeds enter the red zone.

U-322

**CAUTION:**

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

F-401

**Parking**

When parking the motorcycle, stop the engine and remove the ignition key. Turn the fuel cock to "OFF" whenever stopping the engine.

U-630

**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

H-004

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 HIS ENVIRONMENT. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages.

U-632

### WARNING:

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

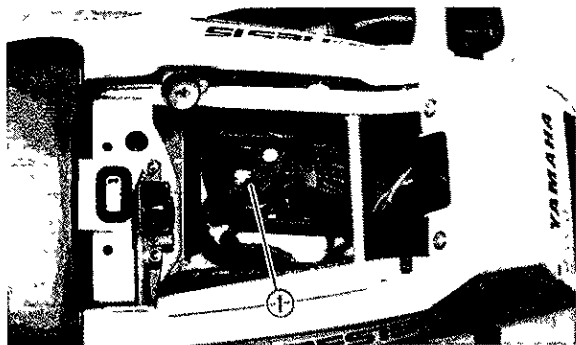
H-101

### 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 sufficient for most of these purposes, however a torque wrench is also necessary to properly tighten nuts and bolts.

**⚠ 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.



1. Tool kit

U-060

**NOTE:**

If you do not have a torque wrench available during a service operation requiring one, take your motorcycle to a Yamaha dealer to check the torque settings and adjust them as necessary.

# PERIODIC MAINTENANCE/LUBRICATION

Unit km (miles)

| ITEM                            | REMARKS                                                                                                                     | BREAK-IN<br>1,000(600) | EVERY                           |                                   |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------|-----------------------------------|
|                                 |                                                                                                                             |                        | 6,000<br>(4,000) or<br>6 months | 12,000<br>(8,000) or<br>12 months |
| Valve(s)*                       | Check valve clearance Adjust if necessary                                                                                   | EVERY 24 000 (16 000)  |                                 |                                   |
| Spark plug(s)                   | Check condition Clean or replace if necessary                                                                               | ○                      | ○                               | ○                                 |
| Air filter                      | Clean Replace if necessary                                                                                                  |                        | ○                               | ○                                 |
| Carburetor*                     | Check idle speed/synchronization/starter operation<br>Adjust if necessary                                                   | ○                      | ○                               | ○                                 |
| Fuel line*                      | Check fuel hose for cracks or damage Replace if<br>necessary                                                                |                        | ○                               | ○                                 |
| Fuel filter*                    | Check condition Replace every 30 000 (20 000)                                                                               |                        |                                 | ○                                 |
| Engine oil                      | Replace (Warm engine before draining)                                                                                       | ○                      | ○                               | ○                                 |
| Engine oil filter*              | Replace                                                                                                                     | ○                      |                                 | ○                                 |
| Brake*                          | Check operation/fluid leakage/See NOTE<br>Correct if necessary                                                              |                        | ○                               | ○                                 |
| Clutch                          | Check operation Adjust if necessary                                                                                         |                        | ○                               | ○                                 |
| Rear arm pivot*                 | Check rear arm assembly for looseness<br>Correct if necessary<br>Moderately repack every 24,000 (16,000)<br>or 24 months ** |                        |                                 | ○                                 |
| Rear suspension link<br>pivots* | Check operation Apply grease lightly<br>every 24,000 (16,000) or 24 months **                                               |                        |                                 | ○                                 |
| Wheel*                          | Check balance/damage/runout<br>Repair if necessary                                                                          |                        | ○                               | ○                                 |
| Wheel bearings*                 | Check bearings assembly for looseness/damage<br>Replace if damaged                                                          |                        | ○                               | ○                                 |

Unit km (miles)

| ITEM                 | REMARKS                                                                                                                     | BREAK-IN<br>1,000(600) | EVERY                           |                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------------|-----------------------------------|
|                      |                                                                                                                             |                        | 6,000<br>(4,000) or<br>6 months | 12,000<br>(8,000) or<br>12 months |
| Steering bearing*    | Check bearings assembly for looseness<br>Correct if necessary<br>Moderately repack every 24,000 (16,000)<br>or 24 months ** | ○                      |                                 | ○                                 |
| 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<br>Replace coolant every 24,000 (16,000) or<br>24 months                          |                        | ○                               | ○                                 |
| Drive chain          | Check chain slack/alignment Adjust if necessary<br>Clean and lube                                                           | EVERY 500 (300)        |                                 |                                   |
| Fittings/Fasteners*  | Check all chassis fittings and fasteners<br>Correct if necessary                                                            | ○                      | ○                               | ○                                 |
| Sidestand*           | Check operation Repair if necessary                                                                                         | ○                      | ○                               | ○                                 |
| Sidestand switch*    | Check operation Clean or replace if necessary                                                                               | ○                      | ○                               | ○                                 |
| Battery*             | Check specific gravity Check breather pipe for<br>proper operation Correct if necessary                                     |                        | ○                               | ○                                 |

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

\*\* Medium weight wheel bearing grease

**NOTE:** \_\_\_\_\_

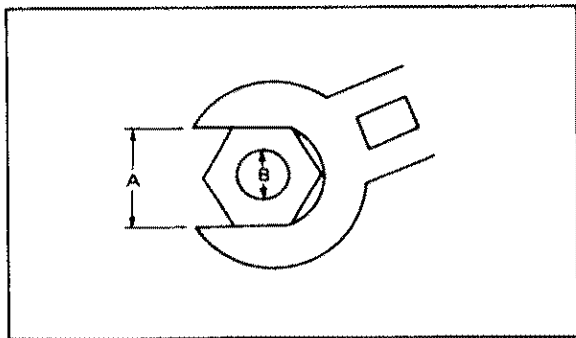
Brake fluid replacement.

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

## Torque specifications

Use a torque wrench to tighten these items. It is recommended that these items be checked occasionally, especially before a long trip.

Always check the tightness of these items whenever they are loosened for any reason.



| A<br>(Nut) | B<br>(Bolt) | General torque specifications |      |       |
|------------|-------------|-------------------------------|------|-------|
|            |             | Nm                            | m·kg | ft·lb |
| 10 mm      | 6 mm        | 6                             | 0.6  | 4.3   |
| 12 mm      | 8 mm        | 15                            | 1.5  | 11    |
| 14 mm      | 10 mm       | 30                            | 3.0  | 22    |
| 17 mm      | 12 mm       | 55                            | 5.5  | 40    |
| 19 mm      | 14 mm       | 85                            | 8.5  | 61    |
| 22 mm      | 16 mm       | 130                           | 13.0 | 94    |

| Item                  | Torque |      |       |
|-----------------------|--------|------|-------|
|                       | Nm     | m·kg | ft·lb |
| Spark plug            | 13     | 1.3  | 9.4   |
| Engine drain plug     | 43     | 4.3  | 31    |
| Oil filter bolt       | 15     | 1.5  | 11    |
| Coolant drain bolt    | 7      | 0.7  | 5.1   |
| Exhaust pipe joint    | 10     | 1.0  | 7.2   |
| Silencer              | 20     | 2.0  | 14    |
| Front axle pinch bolt | 20     | 2.0  | 14    |
| Front axle            | 58     | 5.8  | 42    |
| Rear wheel axle       | 107    | 10.7 | 77    |
| Tension bar bolt      | 28     | 2.8  | 20    |

## Engine oil

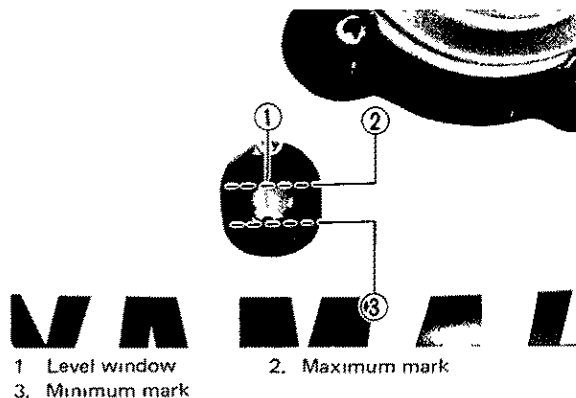
1. Oil level measurement
  - a Place the motorcycle on a level place and hold it in an upright position. Warm up the engine for several minutes.

EUU03900

### NOTE:

Be sure the motorcycle is positioned straight up when checking the oil level, a slight tilt toward the side can produce 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



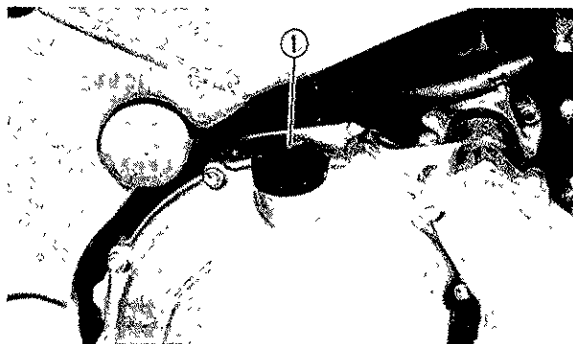
EUU04000

### NOTE:

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

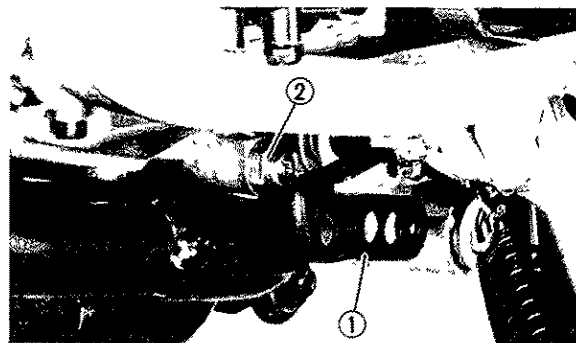
- c The oil level should be between the maximum and minimum marks. If the level is low, add sufficient oil to raise it to the proper level

2. Engine oil and oil filter replacement
  - a Remove the lower cowl.
  - b Warm up the engine for a few minutes.
  - c Stop the engine. Place an oil pan under the engine, and remove the oil filler cap.



1. Oil filler cap

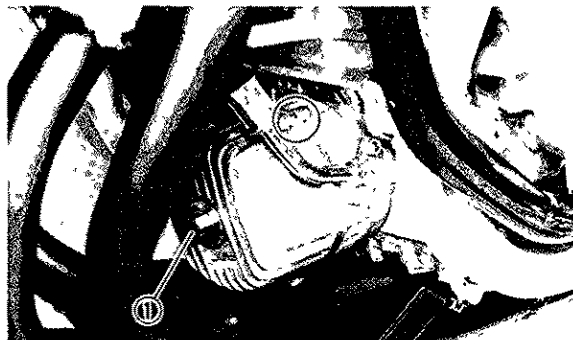
- d. Remove the lower cowl stay
- e. Remove the drain plug and drain the oil



1. Stay

2. Drain plug

- f. Remove the oil filter bolt and filter element.



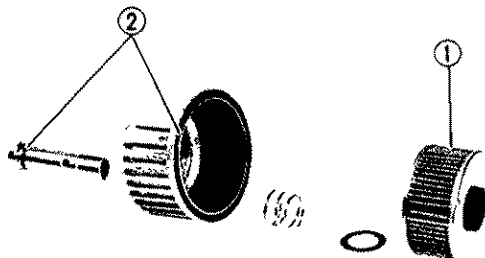
1. Oil filter bolt

- g Reinstall the drain plug (make sure it is tight)

Drain plug torque:

43 Nm (4.3 m·kg, 31 ft·lb)

- h. Install the new oil filter element, new O-ring, and the filter cover, tighten the oil filter bolt.



1. Oil filter element

2. O-ring

Oil filter bolt

15 Nm (1.5 m·kg, 11 ft·lb)

EUU04100

**NOTE:**

Make sure the O-ring is positioned properly

- 1 Add oil through the oil filler hole.

Periodic oil change:

2.3 L (2.0 Imp qt, 2.4 US qt)

With oil filter replacement.

2.6 L (2.3 Imp qt, 2.7 US qt)

Recommended oil See page 4-4

EUU32300

**CAUTION:**

Do not add any chemical additives. Engine oil also lubricates the clutch and additives could cause clutch slippage.

**⚠ CAUTION:**

**Be sure no foreign material enters the crankcase.**

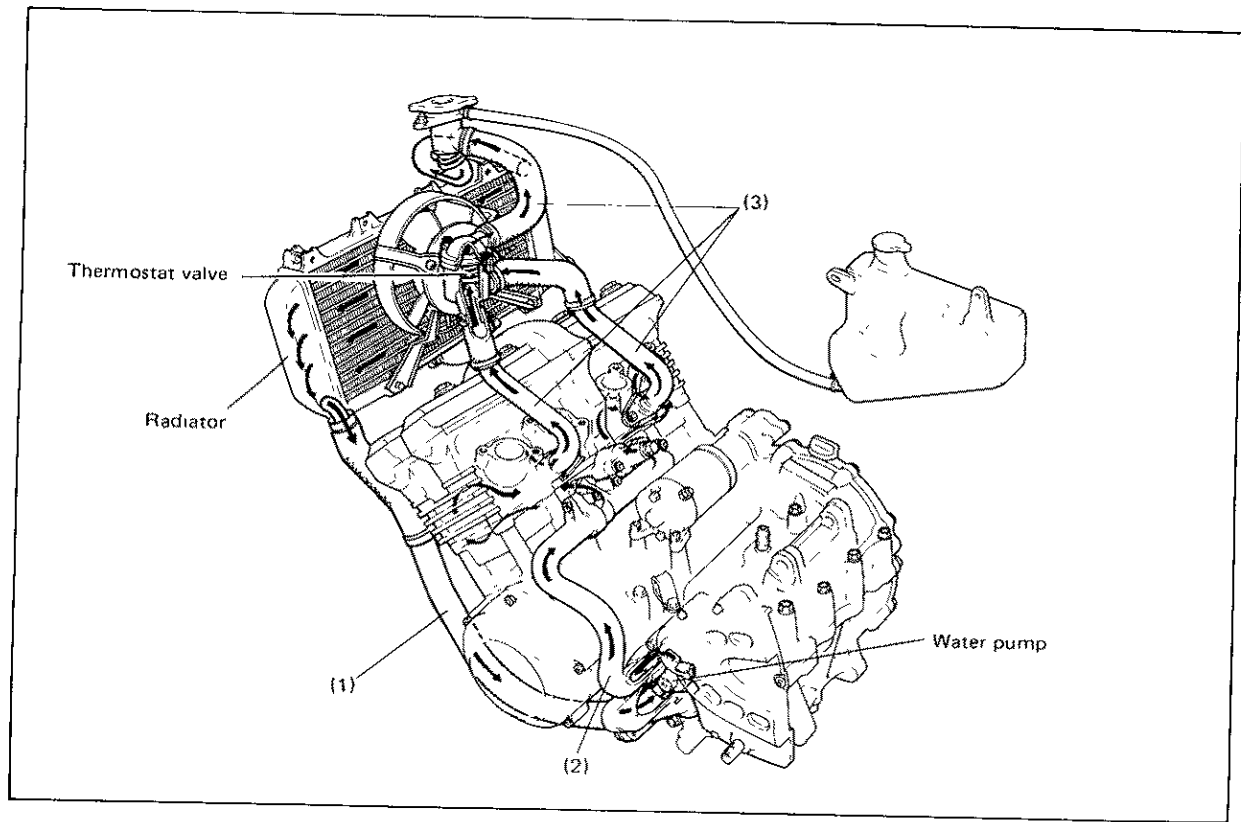
- J. After replacement of engine oil and/or oil filter, be sure to check for oil leaks. The oil level indicator should go off after the oil is filled.

**⚠ CAUTION:**

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

**Cooling system**

The coolant is circulated by an impeller type pump mounted on the left-hand crankcase and driven by a gear. The coolant is drawn by the pump from the bottom tank of the radiator, through the outlet pipe (1), and discharged into the cylinder and cylinder-head through the joint pipe (2). The coolant passes from the cylinder to the cylinder-head through coolant passages. After circulating around the combustion chamber jacket, it enters the radiator upper tank via the inlet pipe (3). The heated coolant from the engine then passes down through the finned tubes to the bottom tank of the radiator. These finned tubes present a large surface area to the air and dissipate the heat.

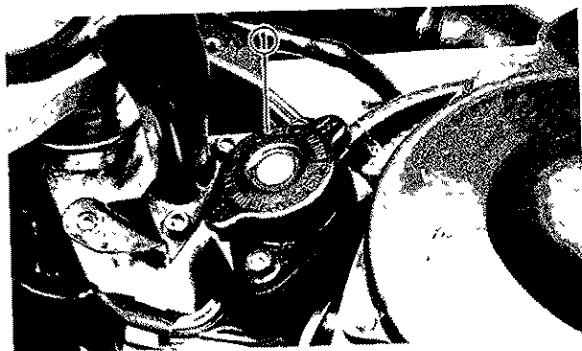


1. If your motorcycle overheats

EUU71300

**⚠ WARNING:**

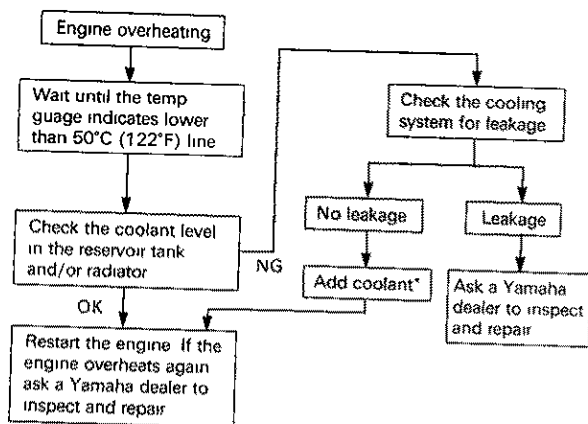
Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under pressure, which could cause serious injury. When the engine has cooled, open the radiator cap by the following procedure: Place a thick rag, like a towel, over the radiator cap, slowly rotate the cap counterclockwise to the detent. This procedure allows any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning counterclockwise and remove it.



1. Radiator cap

If overheating is detected, perform the following checks.

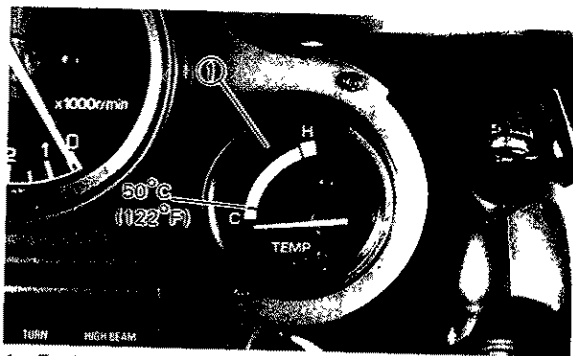
CH5-01



EUU04300

**\*NOTE:**

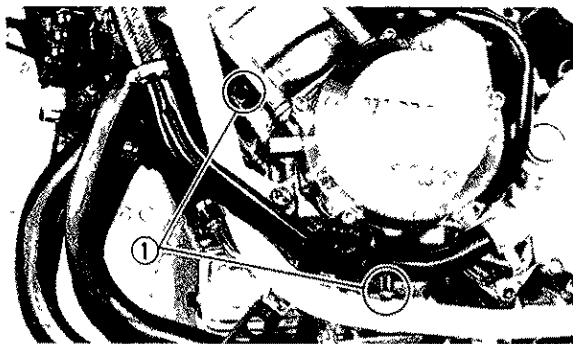
If it is difficult to get the recommended coolant, tap water can be temporarily used, provided that it is changed to the recommended coolant as soon as possible



1 Engine temperature gauge

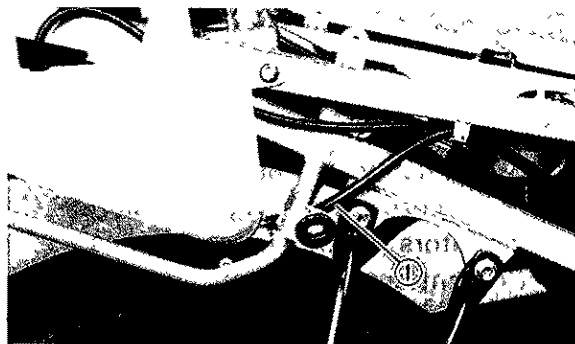
2. Changing the coolant
  - a Remove the passenger seat, rider seat, top cover and right-hand side cover.
  - b Temporarily install the fuel tank cap
  - c Place a container under the engine.
  - d Remove the radiator cap

e. Remove the drain bolts.



1. Drain bolt

f. Disconnect the reservoir tank pipe on the reservoir tank side, and drain the reservoir tank of its coolant



1. Reservoir tank pipe

- g Drain the coolant completely, and thoroughly flush the cooling system with clean tap water
- h Retighten the drain bolts. If the gasket is damaged, replace it

Tightening torque

Drain bolt.

7 Nm (0.7 m·kg, 5.1 ft·lb)

- i Reinstall the reservoir tank pipe

- j. Pour the recommended coolant into the radiator until the radiator is full

#### Recommended coolant

High quality ethylene glycol anti-freeze containing corrosion inhibitors for aluminum engines

Coolant and water mixed ratio:  
50%/50%

Total amount.

2.2 L (1.9 Imp qt, 2.3 US qt)

Reservoir tank capacity.

(From LOW to FULL level)

0.18 L (0.16 Imp qt, 0.19 US qt)

EUU30900



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

- k. Reinstall the radiator cap.
- l. Run the engine several minutes to re-check the coolant level in the radiator. If it is low, add more coolant until it reaches the top of the radiator.
- m. Fill the reservoir tank with coolant up to "FULL" level.
- n. Reinstall the reservoir tank cap and check for coolant leakage.

EUU04400

**NOTE:** \_\_\_\_\_

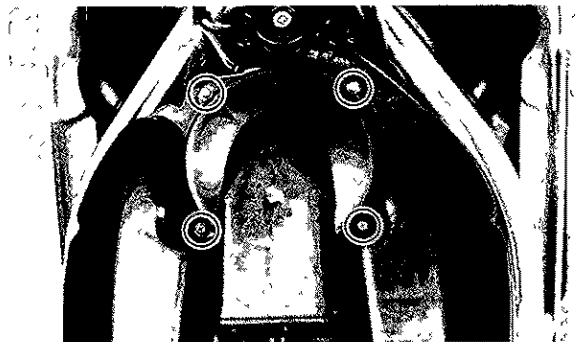
If you find any leaks, ask a Yamaha dealer to inspect.

- o. Reinstall the top cover, rider seat, passenger seat and right-hand side cover.

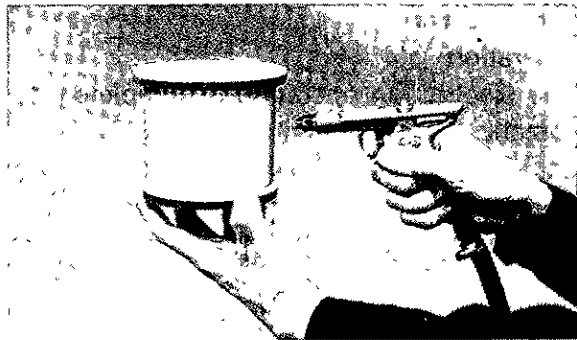
EAH64400

#### Air filter

1. Remove the top cover.
2. Remove the air filter case fitting screws and the filter case cover.



3. Pull out the element.
4. Tap the element lightly to remove most of the dust and dirt, blow out the remaining dirt with compressed air from the outer surface of the element. If the element is damaged, replace it.



5. Reassemble by reversing the removal procedure
6. The air filter element should be cleaned at the specified intervals

EUU32800

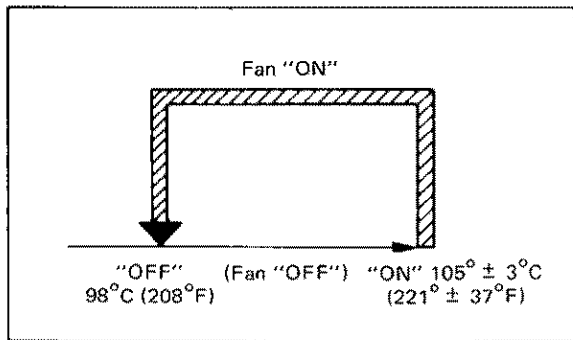
**CAUTION:**

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

## Electric fan

### Operation

The electric fan operation is completely automatic. It will be switched "ON" or "OFF" according to the coolant temperature in the radiator.



## Carburetor adjustment

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge

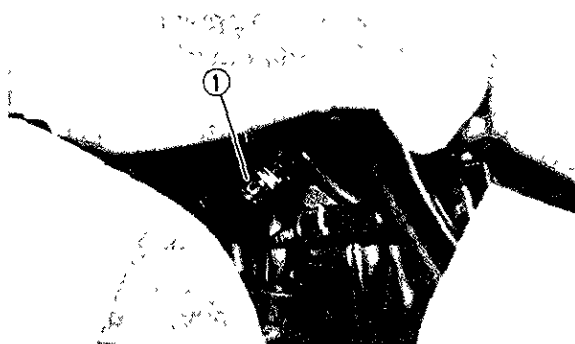
and experience to do so. However, the following point may be serviced by the owner as part of this routine maintenance.

### CAUTION

The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed, 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, turn the screw out to decrease engine speed.



1 Throttle stop screw

Standard idle speed  
1,150 ~ 1,250 r/min

U-045

**NOTE:**

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

H-903

## Throttle cable adjustment

U-D64

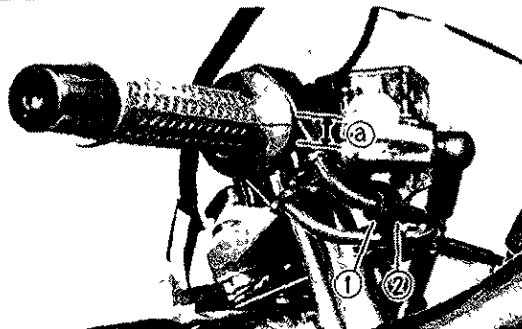
**NOTE:**

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 play is incorrect, take the following steps for adjustment.

Free play:

3 ~ 5 mm (0.12 ~ 0.20 in)



1. Lock nut

2. Adjuster

a. Free play

1. Loosen the lock nut.
2. Turn the adjuster in or out until the adjustment is suitable
3. Tighten the lock nut

H-908

### **Valve clearance adjustment**

The valve clearance becomes larger with use, resulting in improper fuel/air supply and engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment, however, should be left to a professional Yamaha service technician.

H-201

### **Spark plug inspection**

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something of the condition of the engine.

Normally, all spark plugs from the same engine should have the same color on the white porcelain insulator around the center elec-

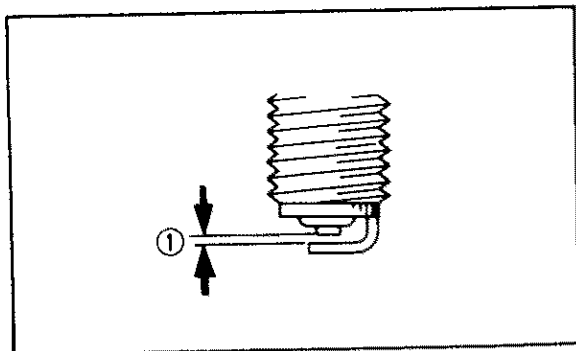
trode. The ideal color at this point is a medium to light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine.

Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer.

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

Standard spark plug.

CR9E (NGK) or U27ESR-N (ND)



1. Spark plug gap

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

Spark plug gap:

0.7 ~ 0.8 mm (0.028 ~ 0.031 in)

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

Spark plug torque.

13 Nm (1.3 m·kg, 9.4 ft·lb)

U-038

**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 turns past finger tight. Have the spark plug torqued to the correct value as soon as possible with a torque wrench

H-801

**Front brake adjustment**

The free play at the end of the front brake lever should be 2 ~ 5 mm (0.08 ~ 0.20 in).

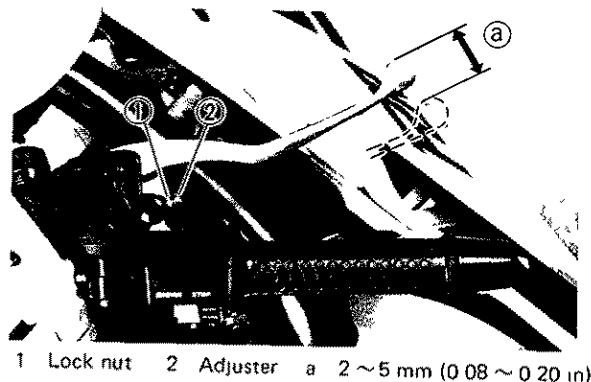
1. Loosen the lock nut.
2. Turn the adjuster so that the brake lever movement at the lever end is 2 ~ 5 mm (0.08 ~ 0.20 in) before the adjuster contacts the master cylinder piston.
3. After adjusting, tighten the lock nut

**⚠ WARNING:**

Check the brake lever free play. Be sure the brake is working properly.

**⚠ WARNING:**

A soft or spongy feeling in the brake lever 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.



1 Lock nut 2 Adjuster a 2 ~ 5 mm (0.08 ~ 0.20 in)

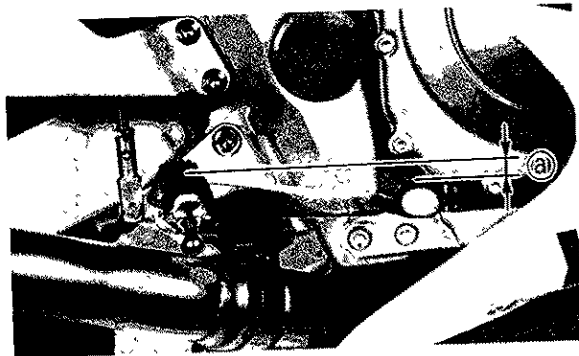
H 804

**Rear brake adjustment**

The brake pedal top end should be 44 mm (1.7 in) below the top of the footrest. If not, ask a Yamaha dealer

## 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 with your hand 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.

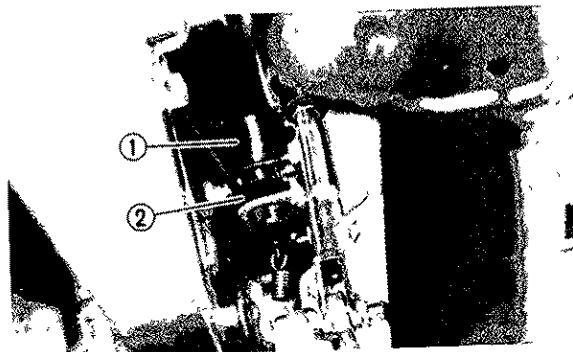


a 44 mm (1.7 in)

U-688

### **⚠ WARNING:**

An incorrect free play indicates a hazardous condition 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.

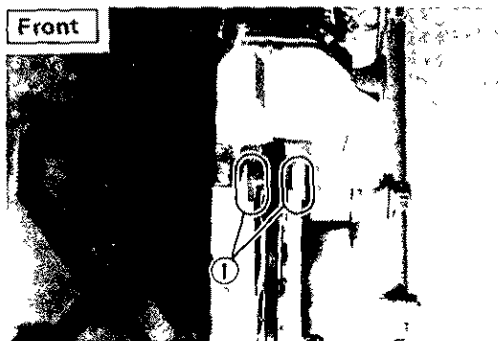


1. Main body

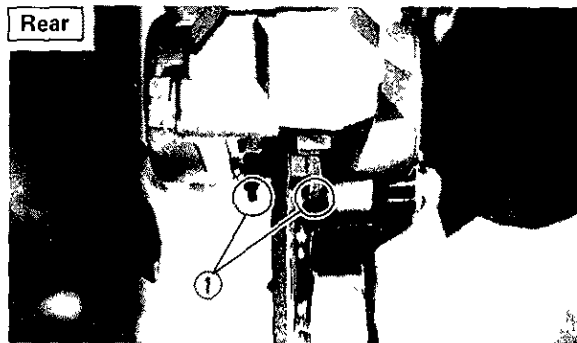
2. Adjusting nut

### Checking the front and rear brake pads

A wear indicator is attached to each brake pad to facilitate disc brake pad checks. This indicator permits a visual check without disassembling the pads. To check, depress the brake and inspect the wear indicator. If the wear indicator is **ALMOST** in contact with the disc plate, ask a Yamaha dealer to replace the pads.



1 Wear indicator



1 Wear indicator

H-828

### 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 the brake fluid level and replenish when necessary, observe these precautions

1. When checking the fluid level, make sure the master cylinder top is horizontal 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 fluids: DOT #4

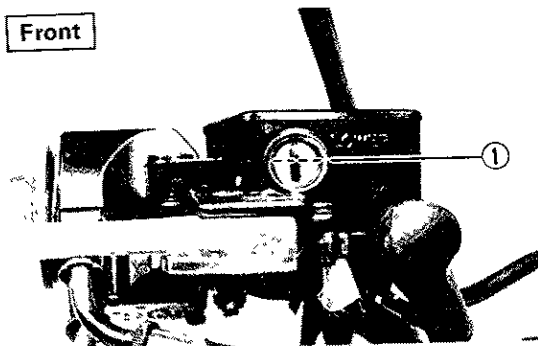
**NOTE:**

(Rear brake fluid only)

If DOT#4 is not available, #3 can be used.

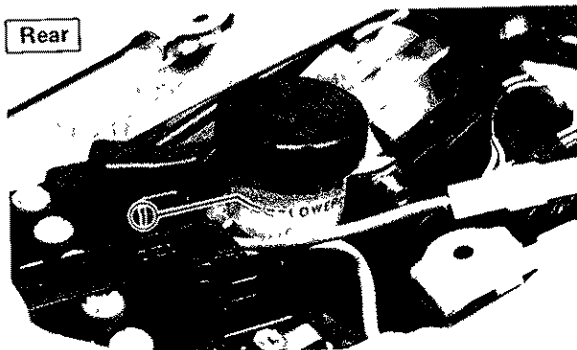
3. Refill with the same type of brake fluid, mixing fluids may result in a harmful chemical reaction and lead to poor performance.
4. Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
5. Brake fluid may erode 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.

Front



1. Lower level

Rear



1. Lower level

## 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 when indicated in the schedule or when they are damaged or leaking.
  - a. Replace all rubber seals every two years
  - b. Replace all hoses every four years

I-000

## Clutch adjustment

This model has a clutch cable length adjuster and a clutch mechanism adjuster. The cable length adjuster is used to take up slack from cable stretch and to provide sufficient free play for proper clutch operation.

The clutch mechanism adjuster is used to provide the correct amount of clutch "throw" for proper disengagement. Normally, once the mechanism is properly adjusted, the only

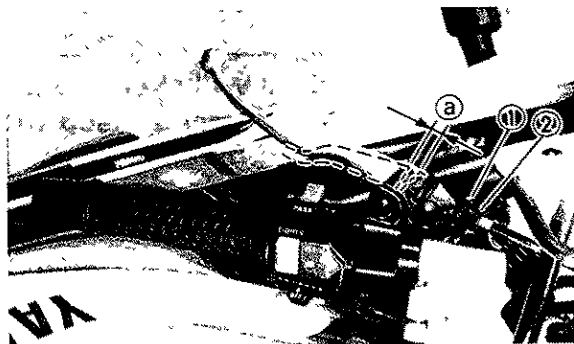
necessary adjustment involves maintaining the proper free play at the clutch lever

I-002

## Free play adjustment

The clutch should be adjusted to suit the rider's preference, but free play at the lever pivot should be 2~3 mm (0.08~0.12 in). Loosen the handlebar lever adjuster lock nut. Next turn the length adjuster either in or out until proper lever free play is achieved.

|                                                 |
|-------------------------------------------------|
| Clutch lever free play<br>2~3 mm (0.08~0.12 in) |
|-------------------------------------------------|



1. Lock nut      2. Adjuster      a. Free play

I-006

## Mechanism adjustment

When it is impossible to make an adjustment at the clutch lever, ask a Yamaha dealer or a qualified mechanic for adjustment of the internal clutch mechanism.

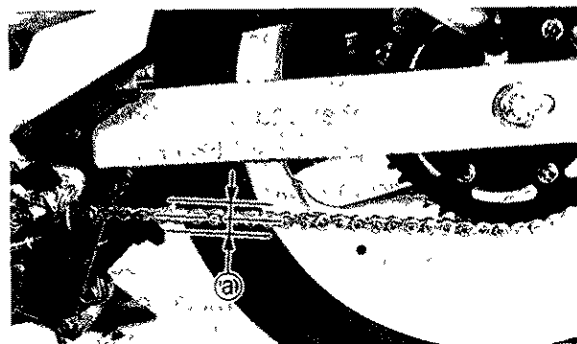
I-408

## Drive chain slack check

U-048

### NOTE:

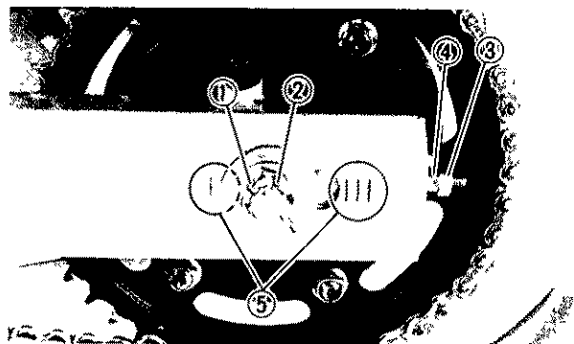
Before checking and/or adjusting the chain slack, rotate the rear wheel through several revolutions. Check the chain slack several times to find the point where the chain is the tightest. Check and/or adjust the chain slack where the rear wheel is in this "tight chain" position.



a 20 ~ 30 mm (0.8 ~ 1.2 in)



**Too small chain slack will overload the engine and other vital parts; keep the slack within the specified limits.**



- |              |                        |             |
|--------------|------------------------|-------------|
| 1 Cotter pin | 2. Axle nut            | 3. Lock nut |
| 4 Adjuster   | 5. Marks for alignment |             |

- 4 After adjusting, be sure to tighten the lock nuts and the axle nut

Axle nut torque  
107 Nm (10.7 m·kg, 7.7 ft·lb)

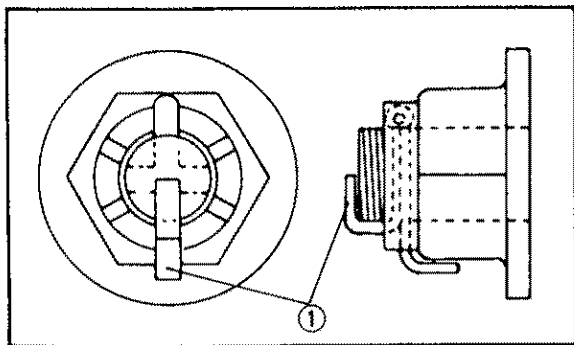
To check the chain slack the motorcycle must stand vertically with its both wheels on the ground and without a rider. Check the slack at the position shown in the illustration. The normal vertical deflection is approximately 20 ~ 30 mm (0.8 ~ 1.2 in). If the deflection exceeds 30 mm (1.2 in) adjust the chain slack.

EAI42200

### Drive chain slack adjustment

- 1 Remove the cotter pin from the rear wheel axle nut.
2. Loosen the rear wheel axle nut
- 3 Loosen the lock nuts on each side. To tighten the chain, turn the chain adjuster clockwise. To loosen the chain, turn the adjuster counterclockwise and push the wheel forward. Turn each adjuster exactly the same amount to maintain correct axle alignment. (There are marks on each side of the swingarm, use them to check for proper alignment.)

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



1. Cotter pin

EUU64700

**⚠ WARNING:**

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

L-407

## Drive chain lubrication

The chain consists of many parts which work against each other. If the chain is not maintained properly, it will wear out rapidly, therefore, form the habit of periodically servicing the chain. This service is especially necessary when riding in dusty conditions. This motorcycle has a drive chain with small rubber O-rings between the chain plates. Steam cleaning, high-pressure washes, and certain solvent can damage these O-rings. 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 O-rings.

## Cable inspection and lubrication

U-646

### **WARNING:**

**Damage to the outer housing of the various cables may cause corrosion and interfere with the movement of the cable. An unsafe condition may result so replace such cables as soon as possible.**

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

Recommended lubricant  
SAE 10W30 motor oil

I-102

## 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. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

I-306

## Brake and change pedals

Lubricate the pivoting parts.

Recommended lubricant  
SAE 10W30 motor oil

I-307

## Brake and clutch levers

Lubricate the pivoting parts.

Recommended lubricant  
SAE 10W30 motor oil

## Sidestand

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

Recommended lubricant:  
SAE 10W30 motor oil

U-704

### **⚠ WARNING:**

If the sidestand movement is not smooth, consult a Yamaha dealer.

I-205

## Front fork inspection

U-657

### **⚠ WARNING:**

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

#### 1 Visual check

Check any scratch/damage on the inner tube and excessive oil leakage with the front fork.

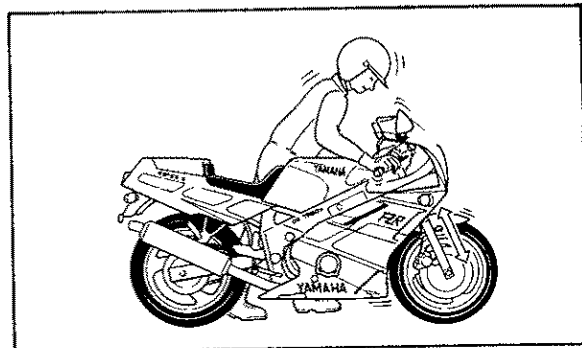
#### 2. Operation check

Place the motorcycle on a level place.

- a Hold the motorcycle on an upright position with a rider's hands on the handlebar and apply the front brake
- b. Pump the front fork up and down for several times.

### **⚠ CAUTION:**

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



## Rear shock (Monocross suspension "De Carbon" system)

U-673

### **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 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. Bring your shock absorber to a Yamaha dealer for any service.

EAI57800

### Rear shock absorber adjustment

The spring preload of the rear shock absorber can be adjusted to suit rider's preference, weight, and the course conditions

To increase preload, turn the adjuster clockwise.

To decrease preload, turn the adjuster counterclockwise

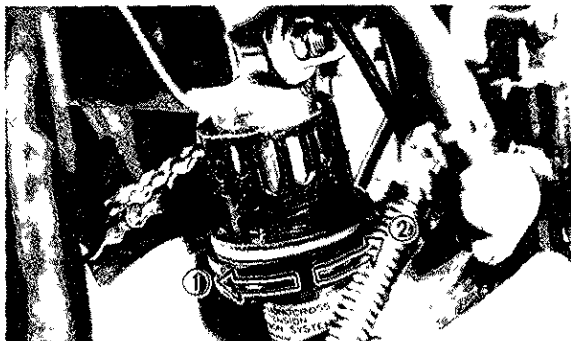
|                    | Hard |   |   |   | STD | Soft |   |
|--------------------|------|---|---|---|-----|------|---|
| Adjusting position | 7    | 6 | 5 | 4 | 3   | 2    | 1 |

### Steering inspection

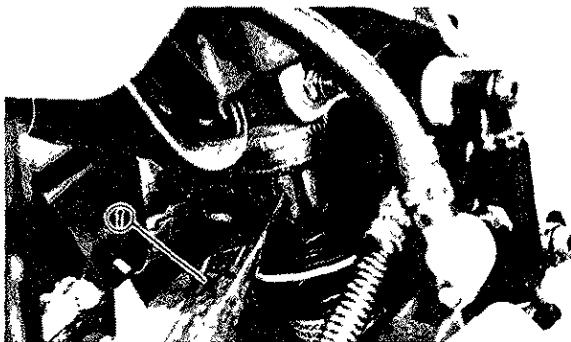
Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous

Place a block under the engine to raise the front wheel off the ground.

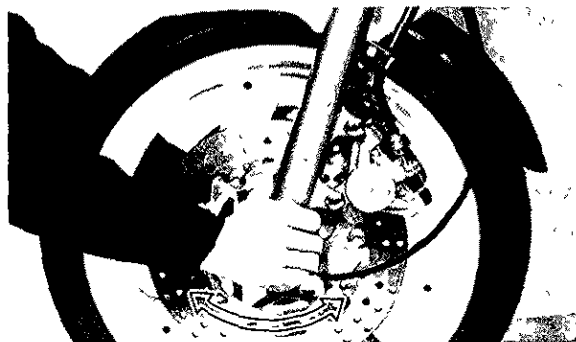
Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.



1. Increase spring preload      2. Decrease spring preload



1 Special wrench



**⚠ WARNING:**

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

---

I-602

**Wheel bearings**

If the wheel bearings in the front or rear wheel allow play in the 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.

I-700

**Battery**

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

**⚠ CAUTION:**

**When inspecting the battery, be sure the breather pipe is routed correctly. If the breather pipe touches the frame or exits in such a way as to cause battery electrolyte or gas to exit onto the frame, structural and cosmetic damage to the motorcycle can occur.**

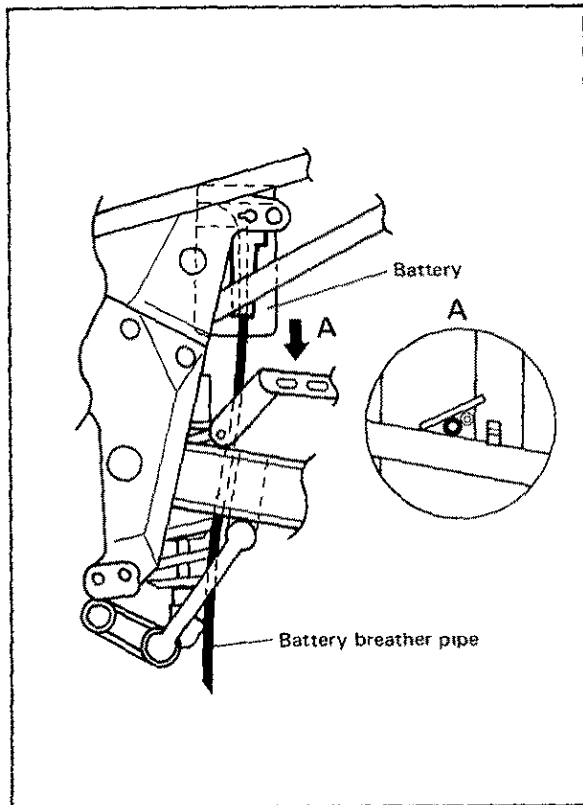
---

**⚠ 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.

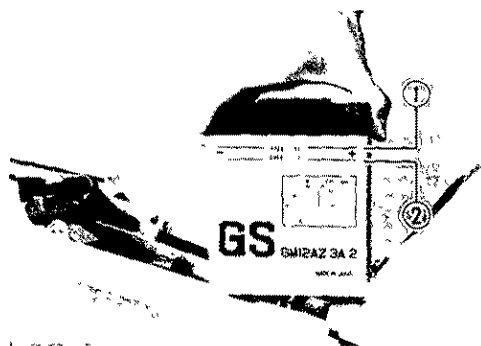
Eyes: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries. **KEEP OUT OF REACH OF CHILDREN.**



## Replenishing the battery fluid

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

- 1 The level should be between the upper and lower level marks. Use only distilled water if refilling is necessary.



1 Upper level

2 Lower level

## ⚠ CAUTION

Normal tap water contains minerals which are harmful to a battery; therefore, refill only with distilled water.

## ⚠ WARNING:

Battery fluid on the chain can cause premature failure and possibly an accident.

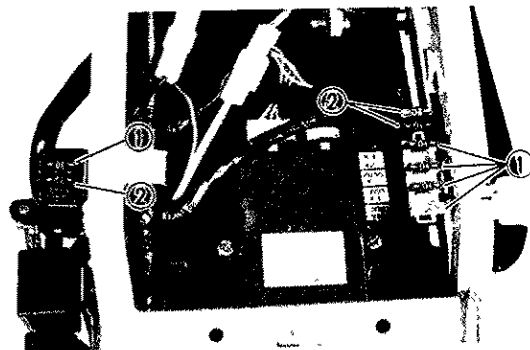
- 2 When the motorcycle will not be used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reusing it.
- 3 If the battery will be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.

4. Always make sure the connections are correct when putting the battery back in the motorcycle. The red lead is for the + terminal and the black lead is for the - terminal. Always connect the red lead first then connect the black lead. Make sure the breather pipe is properly connected and is not damaged or obstructed.

I-903

### Fuse replacement

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



1. Fuse

2. Spare fuse

U-344

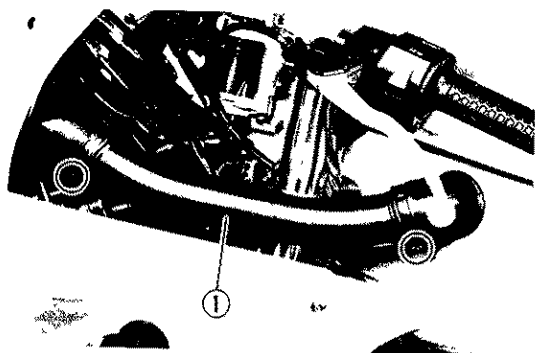
### CAUTION

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.

## Replacing the headlight bulb

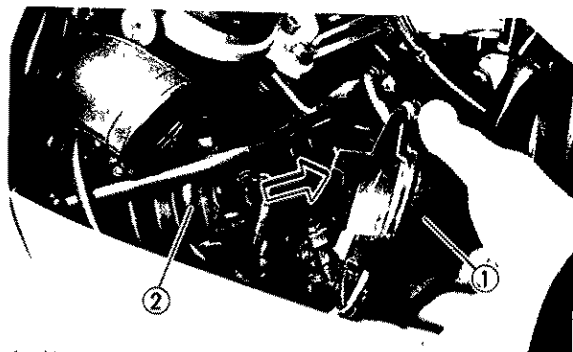
If the headlight bulb burns out, replace the bulb as follows:

- 1 Remove the air duct.



1. Air duct

- 2 Remove the headlight cover.

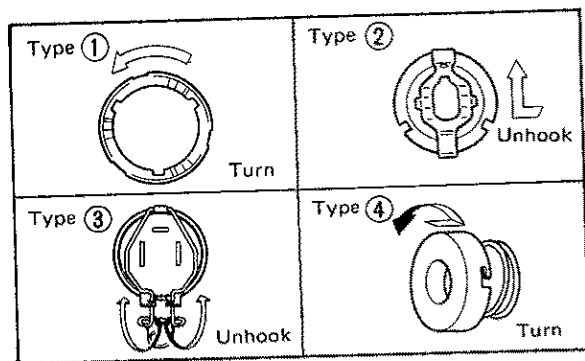


1 Headlight cover

2 Cover

- 3 Disconnect the headlight lead wires, and remove the cover.
- 4 Remove the bulb holder

**NOTE:** \_\_\_\_\_  
Removal is different according to the bulb holder. Remove your bulb holder by referring to the following illustration



5. Remove the defective bulb.

U-660

**⚠ WARNING:**

**Keep flammable products or your hands away from the bulb while it is on, it will be hot. Do not touch the bulb until it cools down.**

6 Insert a new bulb into position and secure it in place with the bulb holder.

**⚠ CAUTION:**

**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.**

7. Reconnect the headlight wires.
8. Reinstall the headlight cover and air duct.  
Adjust the headlight beam if necessary.

I-837

**Headlight beam adjustment**

This model is equipped with dual headlight. Adjust the headlight beam for each individual headlight

**CAUTION:**

For the headlight beam adjustment, be sure to proceed as follows; (It is advisable to have a Yamaha dealer make this adjustment.)

1 Horizontal adjustment

(Right)

To adjust the beam to the right, turn the adjusting screw clockwise.

To adjust the beam to the left, turn the screw counterclockwise

(Left)

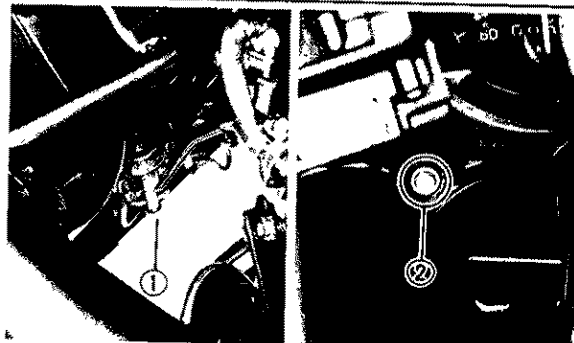
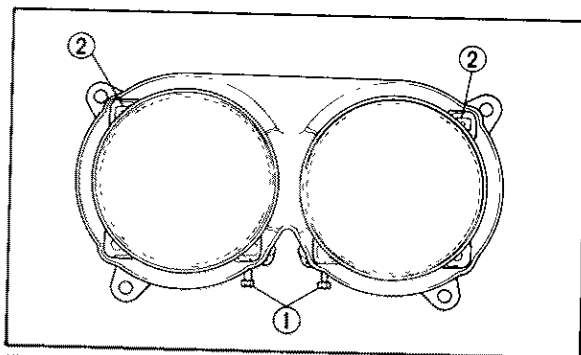
To adjust the beam to the right, turn the adjusting screw counterclockwise

To adjust the beam to the left, turn the screw clockwise

2 Vertical adjustment.

To raise the beam, turn the adjusting screw clockwise

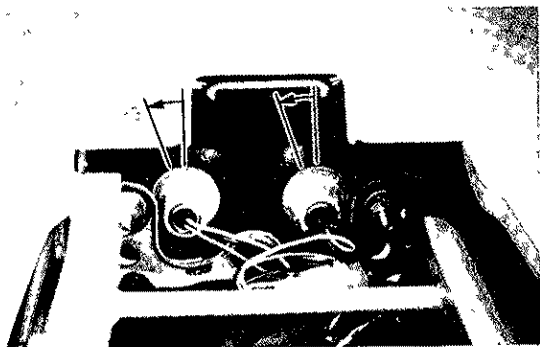
To lower the beam, turn the screw counterclockwise



1 Horizontal adjusting screw 2 Vertical adjusting screw

## Taillight bulb replacement

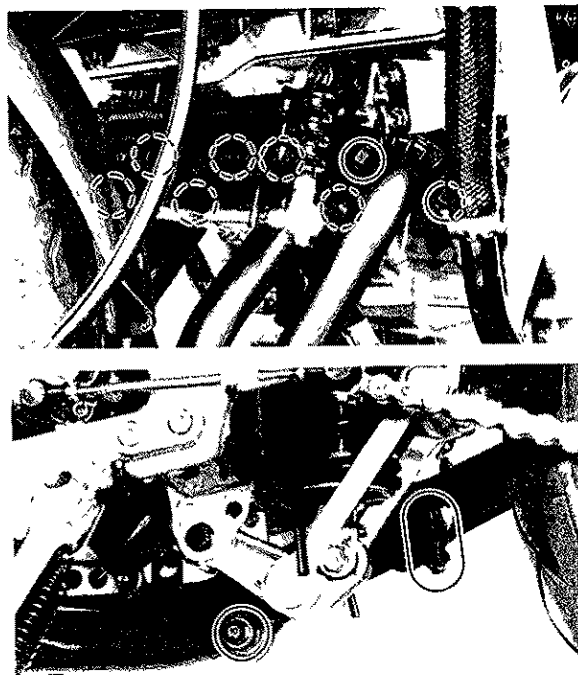
1. Remove the seat.
2. To remove the socket, turn it approximately 30° counterclockwise.



3. Turn the bulb counterclockwise and remove the defective bulb
4. Push a new bulb into position and turn it clockwise
5. To install the socket, reverse the removal procedure

## Front wheel removal

1. Remove the lower cowl
2. Remove the silencer

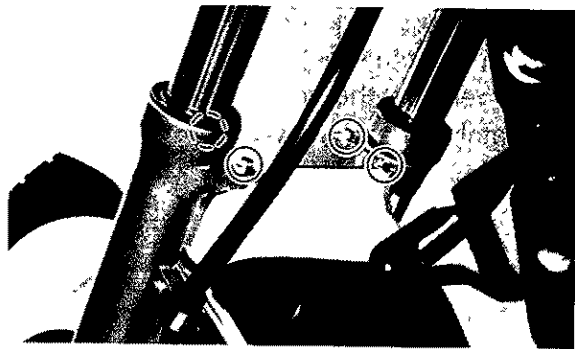


- 3 Elevate the front wheel by placing a suitable stand under the engine.
- 4 Remove the speedometer cable at the speedometer gear housing.



1 Speedometer cable

5. Remove the front fork brace securing bolts and remove the brace with fender



- 6 Loosen the pinch bolt.



1. Pinch bolt

2. Axle

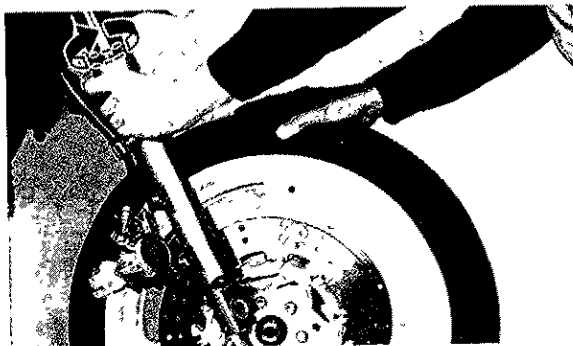
7. Remove the axle. Make sure the motorcycle is properly supported

U-054

**NOTE:**

Do not depress the brake lever when the disc is off the caliper as the brake pads will be forced shut

8. Lower the wheel until the discs come off the calipers. Turn the calipers outward so they do not obstruct the wheel and remove the wheel.

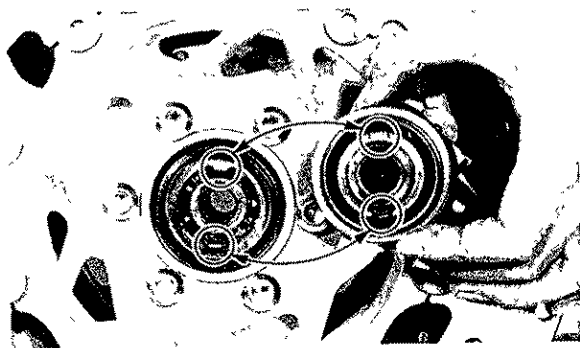


J-246

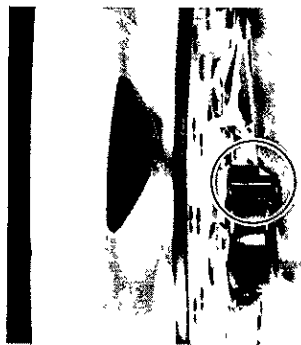
**Front wheel installation**

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

1. Make sure the wheel hub and the speedometer clutch assembly are installed with the projections meshed into the slots.



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



- 3 Make sure the axle and silencer are properly torqued

**Tightening torque:**

Axle.

58 Nm (5.8 m·kg, 42 ft·lb)

Exhaust pipe joint

10 Nm (1.0 m·kg, 7.2 ft·lb)

Silencer

20 Nm (2.0 m·kg, 14 ft·lb)

- Before tightening the pinch bolt, compress the front forks several times to check for proper fork operation.
- Tighten the axle pinch bolt

**Axle pinch bolt torque**  
20 Nm (2.0 m·kg, 14 ft·lb)

EAJ36900

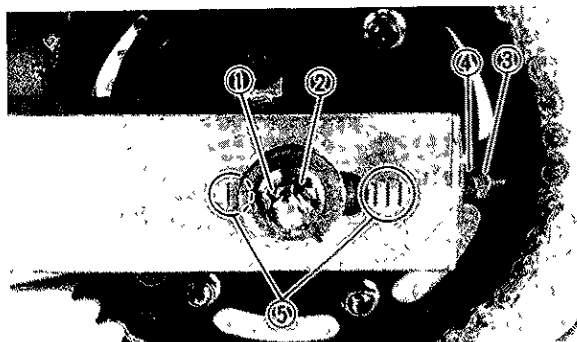
**Rear wheel removal**

EUU66200

**⚠ WARNING:**

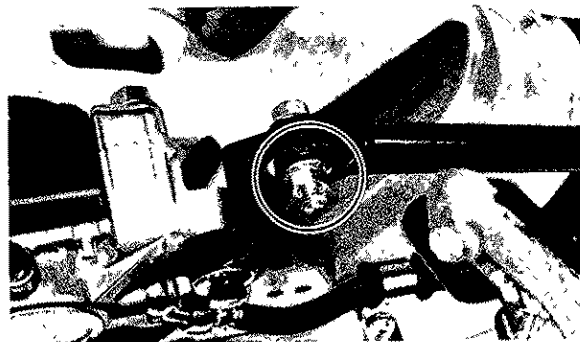
**It is advisable to have a Yamaha dealer service the rear wheel.**

- Elevate the rear wheel by placing a suitable stand under the rear arm
- Remove the axle nut cotter pin and the axle nut.

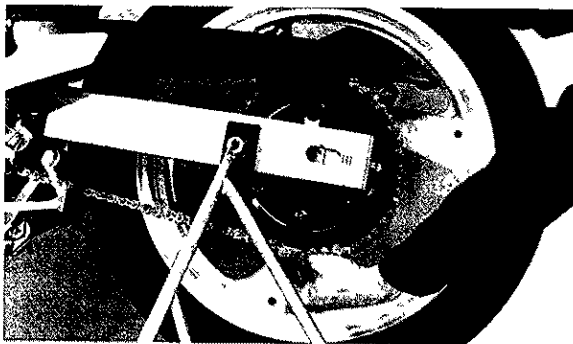


- 1. Cotter pin      2. Axle nut      3. Lock nut
- 4. Adjuster      5. Marks for alignment

3. Remove the caliper installation bolt from the tension bar by removing the cotter pin and nut.



4. Loosen the lock nuts of right and left chain adjusters and loosen the adjusters
- 5 Push the wheel forward and remove the drive chain



- 6 While supporting the brake caliper, pull out the rear axle
- 7 Remove the wheel assembly.

EUU05500

**NOTE:** \_\_\_\_\_

Do not depress the brake pedal when the disc is off the caliper as the brake pads will be forced shut

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EUU05600

**NOTE:** \_\_\_\_\_

You do not have to disassemble the chain in order to remove or install the rear wheel.

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J-326

**Rear wheel installation**

When installing the rear wheel, reverse the removal procedure

Pay attention to the following points

1. Make sure there is enough gap between the brake pads before inserting the brake disc
- 2 Adjust the drive chain
- 3 Make sure the axle nut and tension bar bolt are properly torqued, and a new cotter pin is installed.

U-647

**⚠ WARNING:** \_\_\_\_\_

Always use a new cotter pin on the axle nut.

---

**Tightening torque**

Axle nut.

107 Nm (10.7 m·kg, 77 ft·lb)

Tension bar bolt.

28 Nm (2.8 m·kg, 20 ft·lb)

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.

J-500

## **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 a loss of power. The troubleshooting chart describes a quick, easy procedure for checking these systems.

If your motorcycle requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealer have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts

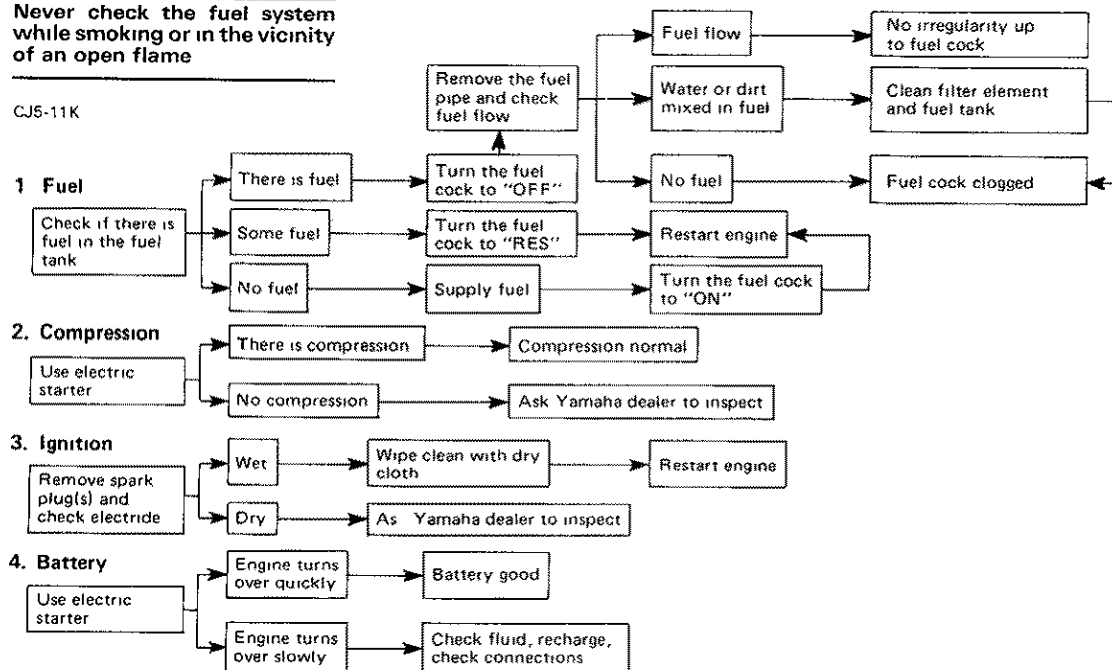
# Troubleshooting chart

U-663

## WARNING:

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

CJ5-11K



## CLEANING AND STORAGE

K-013

### 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 exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
  - b. Make sure the spark plug(s) 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

U-346

### CAUTION

Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brakes and transmission seals. 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 tooth brush or bottle brush is handy for hard-to-get-to 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. Windscreen cleaning.

**CAUTION**

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

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

When finished, start the engine and let it idle for several minutes.

K-012

**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 bowl(s)
2. Remove empty fuel tank, pour a cup of SAE 10W30 or 20W40 motor oil in tank, shake the tank to coat the inner surfaces thoroughly and drain off the excess oil. Reinstall the tank.
3. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole and reinstall the spark plug. Turn the engine over several times (ground spark plug lead wires) to coat the cylinder walls with oil.

**⚠ WARNING:**

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

- 4 Remove the drive chain. Thoroughly clean the chain with kerosene and lubricate. Reinstall the chain or store it in a plastic bag (tied to frame for safe-keeping).
- 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(30 °F) or more than 30 °C(90 °F)).

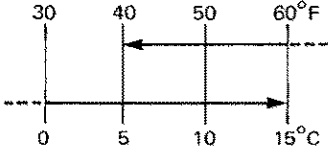
U-058

**NOTE:**

Make any necessary repairs before storing the motorcycle.

## SPECIFICATIONS

| Model                                                                                                                                                 | FZR600W                                                                                                                                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dimension</b><br>Overall length<br>Overall width<br>Overall height<br>Seat height<br>Wheel base<br>Minumum ground clearance                        | 2,095 mm (82.5 in)<br>700 mm (27.6 in)<br>1,160 mm (45.7 in)<br>785 mm (30.9 in)<br>1,420 mm (55.9 in)<br>135 mm (5.3 in)                                                                  |
| <b>Basic weight</b><br>With oil and full fuel tank                                                                                                    | 201 kg (443 lb)                                                                                                                                                                            |
| <b>Minimum turning radius</b>                                                                                                                         | 3,500 mm (137.8 in)                                                                                                                                                                        |
| <b>Engine</b><br>Type<br>Model<br>Cylinder arrangement<br>Displacement<br>Bore x Stroke<br>Compression ratio<br>Starting system<br>Lubrication system | Liquid cooled, 4-stroke, gasoline, DOHC<br>3HG1<br>Parallel 4-cylinder, Forward inclined<br>599 cm <sup>3</sup><br>59.0 x 54.8 mm (2.32 x 2.16 in)<br>12:1<br>Electric starter<br>Wet sump |

| Model                                                                                                                                                                                               | FZR600W                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine oil (4-cycle)<br>Type<br><br>Capacity<br>Periodic oil change<br>With oil filter replacement<br>Total amount | SAE 20W40 type SE motor oil<br>(If temperature does not go below 5°C/40°F)<br><br>SAE 10W30 type SE motor oil<br>(If temperature does not go above 15°C/60°F)<br><br>2.3 L (2.0 Imp qt, 2.4 US qt)<br>2.6 L (2.3 Imp qt, 2.7 US qt)<br>3.1 L (2.7 Imp qt, 3.3 US qt) |
| Radiator capacity<br>(Including all routes)                                                                                                                                                         | 2.2 L (1.9 Imp qt, 2.3 US qt)                                                                                                                                                                                                                                        |
| Air filter                                                                                                                                                                                          | Dry type element                                                                                                                                                                                                                                                     |
| Fuel<br>Type<br><br>Tank capacity<br>Reserve amount                                                                                                                                                 | Regular gasoline<br>For Australia: Unleaded fuel only<br>18.0 L (4.0 Imp gal, 4.8 US gal)<br>3.4 L (0.8 Imp gal, 0.9 US gal)                                                                                                                                         |
| Carburetor<br>Type/manufacturer                                                                                                                                                                     | BDST32/MIKUNI                                                                                                                                                                                                                                                        |
| Spark plug<br>Type/manufacturer<br>Gap                                                                                                                                                              | CR9E/NGK, U27ESR-N/ND<br>0.7~0.8 mm (0.028 ~ 0.031 in)                                                                                                                                                                                                               |

| Model                      | FZR600W               |
|----------------------------|-----------------------|
| Clutch type                | Wet, multi-disc       |
| Transmission               |                       |
| Primary reduction system   | Spur gear             |
| Primary reduction ratio    | 82/48 (1 708)         |
| Secondary reduction system | Chain drive           |
| Secondary reduction ratio  | 46/15 (3 067)         |
| Transmission type          | Constant mesh 6-speed |
| Operation                  | Left foot operation   |
| Gear ratio                 |                       |
| 1st                        | 42/15 (2 800)         |
| 2nd                        | 43/22 (1 955)         |
| 3rd                        | 31/20 (1 550)         |
| 4th                        | 28/21 (1 333)         |
| 5th                        | 31/26 (1 192)         |
| 6th                        | 30/27 (1 111)         |
| Chassis                    |                       |
| Frame type                 | Double cradle         |
| Caster angle               | 25°                   |
| Trail                      | 94 mm (3 7 in)        |
| Tire                       |                       |
| Type                       | Tubeless              |
| Size — Front               | 110/70 V17 (V240)     |
| Rear                       | 130/70 V18 (V240)     |

| Model                                                                                                     | FZR600W                                                                                |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Brake<br>Front brake type<br>Operation<br>Rear brake type<br>Operation                                    | Dual, Disk brake<br>Right hand operation<br>Single, Disk brake<br>Right foot operation |
| Suspension<br>Front<br>Rear                                                                               | Telescopic fork<br>Swing arm (Link suspension)                                         |
| Shock absorber<br>Front<br>Rear                                                                           | Coil spring, Oil damper<br>Gas, Coil spring, Oil damper                                |
| Wheel travel<br>Front<br>Rear                                                                             | 130 mm (5 1 in)<br>115 mm (4 5 in)                                                     |
| Electrical<br>Ignition system<br>Generator system<br>Battery type/capacity                                | TCI (Digital)<br>AC magneto generator<br>GM12AZ/12V 12AH                               |
| Headlight type                                                                                            | Quartz Bulb                                                                            |
| Bulb wattage/quantity<br>Headlight<br>Tail/brake light<br>Flasher light<br>Auxiliary light<br>Meter light | 12W 35W/35W x 2<br>12V 5W/21W x 2<br>12V 21W x 4<br>12V 3 4W x 2<br>12V 1 7W x 5       |

| Model                            | FZR600W  |
|----------------------------------|----------|
| Indicator light wattage/quantity |          |
| “NEUTRAL”                        | 12V 3 4W |
| “HIGH BEAM”                      | 12V 3 4W |
| “OIL LEVEL”                      | 12V 3 4W |
| “TURN”                           | 12V 3 4W |

## **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.





— MEMO —



**YAMAHA MOTOR CO.,LTD.**

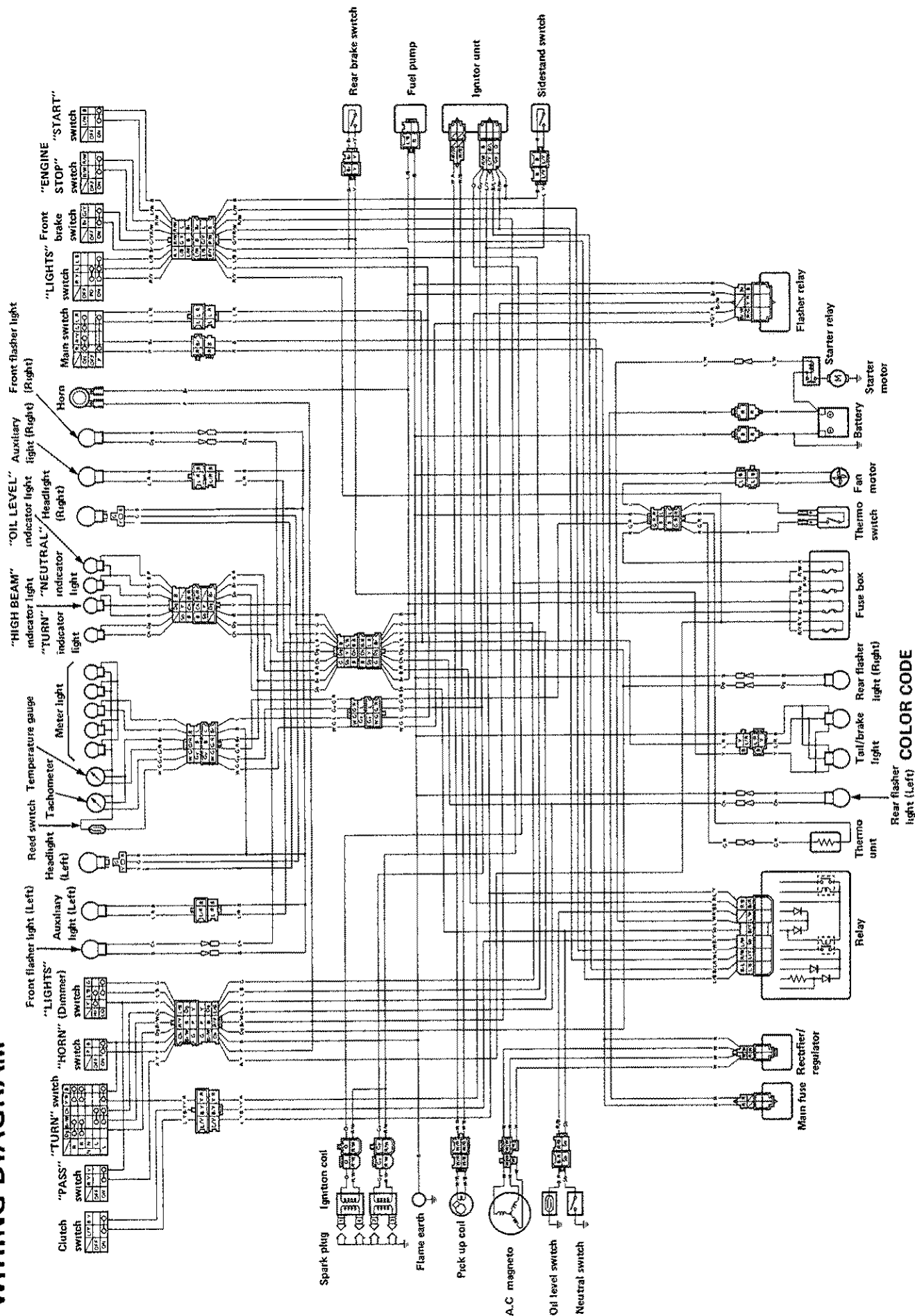
IWATA, JAPAN

PRINTED IN JAPAN

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# WIRING DIAGRAM



## COLOR CODE

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