



OWNER'S MANUAL

XJR1300

XJR1300
XJR1300SP

5EA-28199-E2

Welcome to the Yamaha world of motorcycling!

As the owner of a XJR1300/XJR1300SP, you are benefiting from Yamaha's vast experience in and newest technology for the design and the manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all your XJR1300/XJR1300SP's advantages. The owner's manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.

In addition, the many tips given in this manual will help to keep your motorcycle in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!

IMPORTANT MANUAL INFORMATION

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



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



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

CAUTION:

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

NOTE:

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

NOTE:

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

IMPORTANT MANUAL INFORMATION

EW000002

 **WARNING**

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

IMPORTANT MANUAL INFORMATION

EAU00008

**XJR1300/XJR1300SP
OWNER'S MANUAL**

© 1999 by Yamaha Motor Co., Ltd.

1st Edition, July 1999

**All rights reserved. Any reprinting or
unauthorized use without the written
permission of Yamaha Motor Co., Ltd.
is expressly prohibited.**

Printed in Japan.

1 GIVE SAFETY THE RIGHT OF WAY	1
2 DESCRIPTION	2
3 INSTRUMENT AND CONTROL FUNCTIONS	3
4 PRE-OPERATION CHECKS	4
5 OPERATION AND IMPORTANT RIDING POINTS	5
6 PERIODIC MAINTENANCE AND MINOR REPAIR	6
7 MOTORCYCLE CARE AND STORAGE	7
8 SPECIFICATIONS	8
9 CONSUMER INFORMATION	9
INDEX	



GIVE SAFETY THE RIGHT OF WAY

GIVE SAFETY THE RIGHT OF WAY..... 1-1



GIVE SAFETY THE RIGHT OF WAY

EAU00021

Motorcycles are fascinating vehicles, which can give you an unsurpassed feeling of power and freedom. However, they also impose certain limits, which you must accept; even the best motorcycle does not ignore the laws of physics.

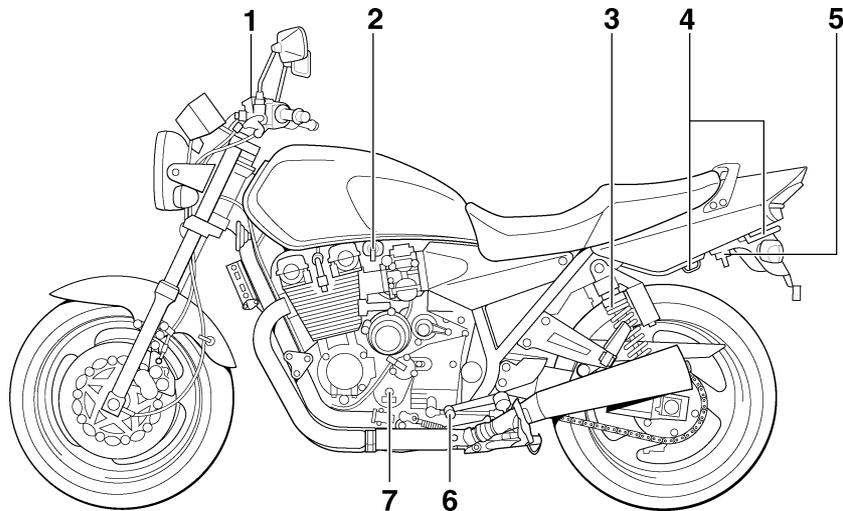
Regular care and maintenance are essential for preserving your motorcycle's value and operating condition. Moreover, what is true for the motorcycle is also true for the rider: good performance depends on being in good shape. Riding under the influence of medication, drugs and alcohol is, of course, out of the question. Motorcycle riders - more than car drivers - must always be at their mental and physical best. Under the influence of even small amounts of alcohol, there is a tendency to take dangerous risks.

Protective clothing is as essential for the motorcycle rider as seat belts are for car drivers and passengers. Always wear a complete motorcycle suit (whether made of leather or tear-resistant synthetic materials with protectors), sturdy boots, motorcycle gloves and a properly fitting helmet. Optimum protective wear, however, should not encourage carelessness. Though full-coverage helmets and suits, in particular, create an illusion of total safety and protection, motorcyclists will always be vulnerable. Riders who lack critical self-control run the risk of going too fast and are apt to take chances. This is even more dangerous in wet weather. The good motorcyclist rides safely, predictably and defensively - avoiding all dangers, including those caused by others.

Enjoy your ride!

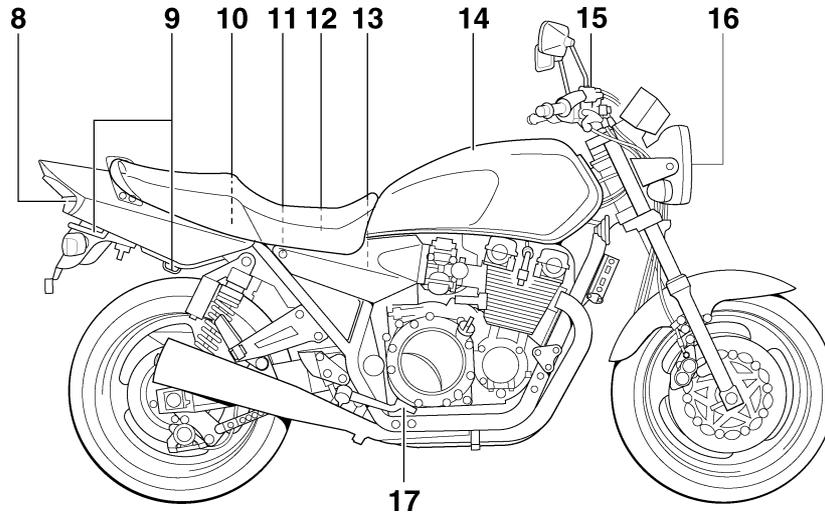
Left view	2-1
Right view.....	2-2
Controls/Instruments.....	2-3

Left view



- | | |
|--|-------------------------|
| 1. Clutch fluid reservoir | (page 6-18) |
| 2. Fuel cock | (page 3-10) |
| 3. Rear shock absorber spring preload adjusting ring | (page 3-13) |
| 4. Luggage strap holders | (page 3-15) |
| 5. Helmet holder/seat lock | (page 3-12 / page 3-11) |
| 6. Shift pedal | (page 3-7) |
| 7. Engine oil filter element | (page 6-8) |

Right view

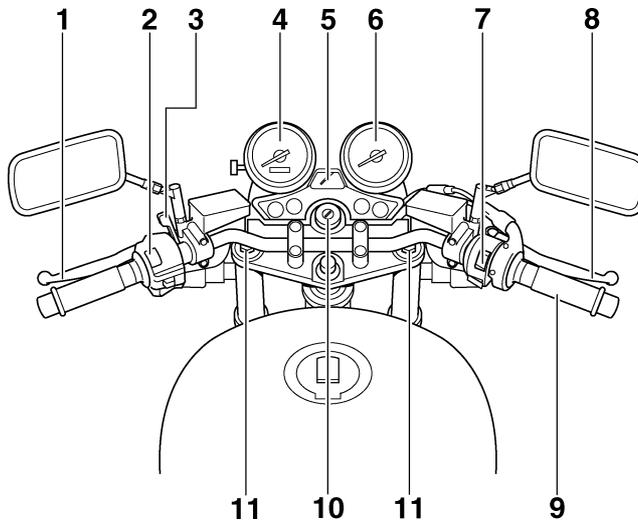


- | | | | |
|--------------------------------|-------------|---------------------------------|-------------|
| 8. Tail/brake light | (page 6-27) | 13. Air filter | (page 6-10) |
| 9. Luggage strap holders | (page 3-15) | 14. Fuel tank | (page 3-9) |
| 10. Tool kit | (page 6-1) | 15. Front brake fluid reservoir | (page 6-18) |
| 11. Rear brake fluid reservoir | (page 6-18) | 16. Headlight | (page 6-25) |
| 12. Fuses | (page 6-25) | 17. Rear brake pedal | (page 3-8) |

DESCRIPTION

Controls/Instruments

2



- 1. Clutch lever
- 2. Left handlebar switches
- 3. Starter (choke) “| \”
- 4. Speedometer
- 5. Fuel gauge
- 6. Tachometer

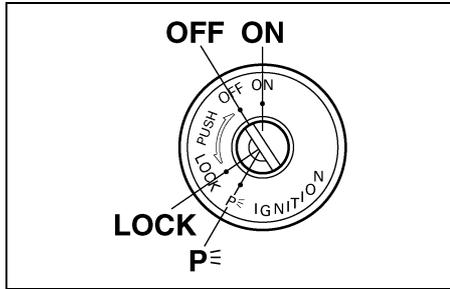
- (page 3-7)
- (page 3-5)
- (page 3-11)
- (page 3-4)
- (page 3-5)
- (page 3-4)

- 7. Right handlebar switches
- 8. Front brake lever
- 9. Throttle grip
- 10. Main switch/steering lock
- 11. Front fork spring preload adjusting bolt

- (page 3-6)
- (page 3-8)
- (page 6-12)
- (page 3-1)
- (page 3-13)

INSTRUMENT AND CONTROL FUNCTIONS

Main switch/steering lock.....	3-1	Fuel tank cap	3-9
Indicator lights	3-2	Fuel	3-9
Oil level indicator circuit check.....	3-3	Fuel cock.....	3-10
Speedometer	3-4	Starter (choke) “ ↘ ”	3-11
Tachometer	3-4	Seat.....	3-11
Antitheft alarm (optional)	3-4	Helmet holder.....	3-12
Fuel gauge.....	3-5	Storage compartment	3-12
Handlebar switches	3-5	Front fork adjustment	3-13
Clutch lever	3-7	Rear shock absorber adjustment	3-13
Shift pedal.....	3-7	Luggage strap holders	3-15
Front brake lever	3-8	Sidestand	3-15
Rear brake pedal	3-8	Sidestand/clutch switch operation check.....	3-15



EAU00029*

Main switch/steering lock

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

EAU00036

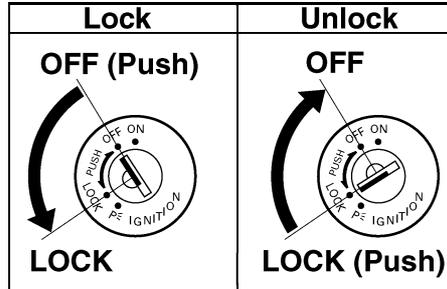
ON

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

EAU00038

OFF

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

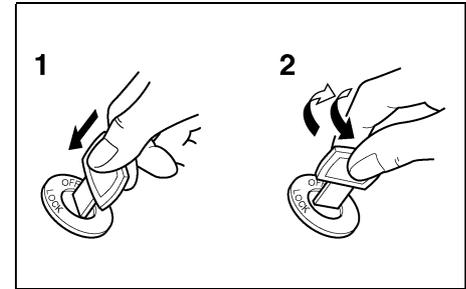


EAU00040

LOCK

The steering is locked in this position and all electrical circuits are switched off. The key can be removed in this position.

To lock the steering, turn the handlebars all the way to the left. While pushing the key into the main switch, turn it from "OFF" to "LOCK" and remove it. To release the lock, turn the key to "OFF" while pushing.



1. Push
2. Turn

EW000016

! WARNING

Never turn the key to "OFF" or "LOCK" when the motorcycle is moving. The electrical circuits will be switched off which may result in loss of control or an accident. Be sure the motorcycle is stopped before turning the key to "OFF" or "LOCK".

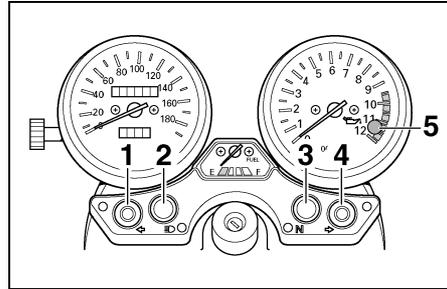
INSTRUMENT AND CONTROL FUNCTIONS

P⊆ (Parking)

EAU01590

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.

To use the parking position, first lock the steering, then turn the key to “P⊆”. Do not use this position for an extended length of time as the battery may discharge.



1. Left turn indicator light “↶”
2. High beam indicator light “≡○”
3. Neutral indicator light “N”
4. Right turn indicator light “↷”
5. Oil level indicator light “⛽”

Indicator lights

EAU00056

Turn indicator lights “↶” / “↷”

EAU00058

The corresponding indicator flashes when the turn switch is moved to the left or right.

High beam indicator light “≡○”

EAU00063

This indicator comes on when the headlight high beam is used.

Neutral indicator light “N”

EAU00061

This indicator comes on when the transmission is in neutral.

Oil level indicator light “⛽”

EAU01313

This indicator comes on when the oil level is low. This light circuit can be checked by the procedure on page 3-3.

3

EC000000

CAUTION:

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

NOTE:

Even if the oil is filled to the specified level, the indicator light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is normal.

INSTRUMENT AND CONTROL FUNCTIONS

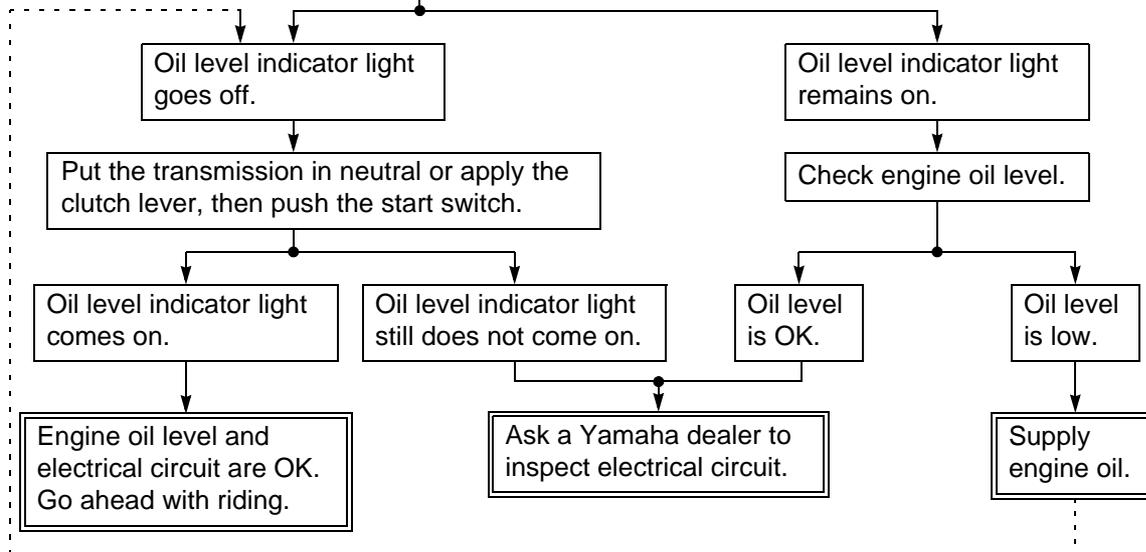
EAU00073

Oil level indicator circuit check

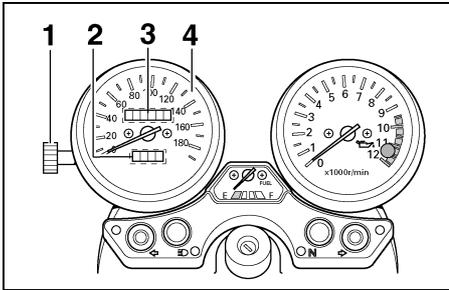
Turn the main switch to "ON".
Turn the engine stop switch to "O".

Wait a few seconds (see NOTE).

NOTE: _____
When the main switch is turned on, the oil level indicator light will come on for a few seconds and then go off. If the indicator light does not come on, ask a Yamaha dealer to inspect the electrical circuit.



INSTRUMENT AND CONTROL FUNCTIONS

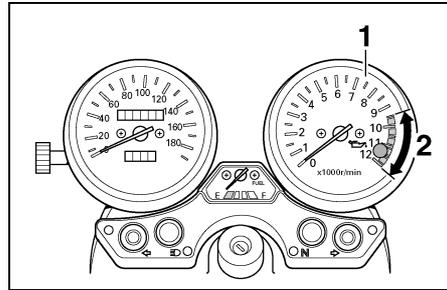


1. Reset knob
2. Tripmeter
3. Odometer
4. Speedometer

Speedometer

EAU00097

The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to “0” with the reset knob. Use the odometer together with the fuel gauge to estimate how far you can ride on a tank of fuel. This information will enable you to plan fuel stops in the future.



1. Tachometer
2. Red zone

Tachometer

EAU00101

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

EC000003

CAUTION:

Do not operate in the red zone.

Red zone: 9,500 r/min and above

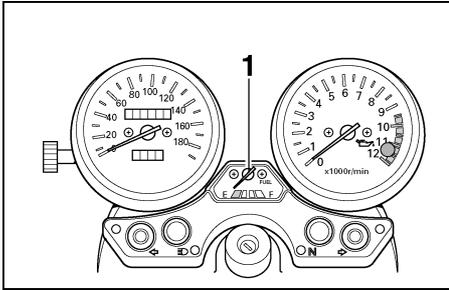
Antitheft alarm (optional)

EAU00109

An antitheft alarm can be equipped to this motorcycle. Consult your Yamaha dealer to obtain and install the alarm.

INSTRUMENT AND CONTROL FUNCTIONS

3

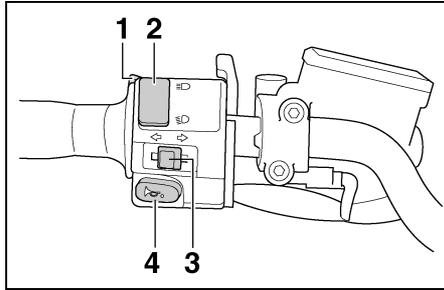


1. Fuel gauge

EAU00110

Fuel gauge

This model is equipped with an electric fuel gauge so the rider can monitor the fuel level in the fuel tank. When the needle indicates “E” (Empty), about 4.5 L remain in the fuel tank.



1. Pass switch “PASS”
2. Dimmer switch
3. Turn signal switch
4. Horn switch “”

EAU00118

Handlebar switches

EAU00120

Pass switch “PASS”

Press the switch to operate the passing light.

EAU00121

Dimmer switch

Turn the switch to “” for the high beam and to “” for the low beam.

EAU00127

Turn signal switch

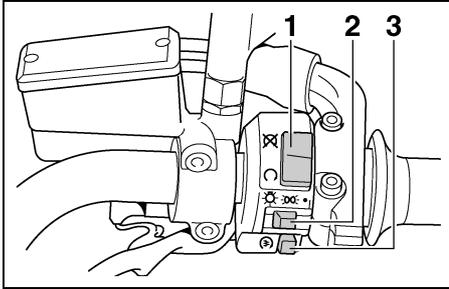
To signal a right-hand turn, push the switch to “”. To signal a left-hand turn, push the switch to “”. Once the switch is released it will return to the center position. To cancel the signal, push the switch in after it has returned to the center position.

EAU00129

Horn switch “”

Press the switch to sound the horn.

INSTRUMENT AND CONTROL FUNCTIONS



1. Engine stop switch
2. Lights switch
3. Start switch “”

EAU00138

Engine stop switch

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

EAU00134

Lights switch

Turning the light switch to “”, turns on the auxiliary light, meter lights and taillight. Turning the light switch to “” turns the headlight on also.

EAU00143

Start switch “”

The starter motor cranks the engine when pushing the start switch.

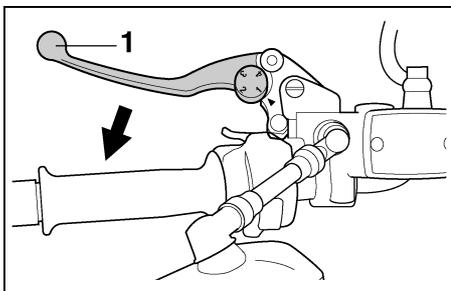
EC000005

CAUTION:

See starting instructions prior to starting the engine.

INSTRUMENT AND CONTROL FUNCTIONS

3



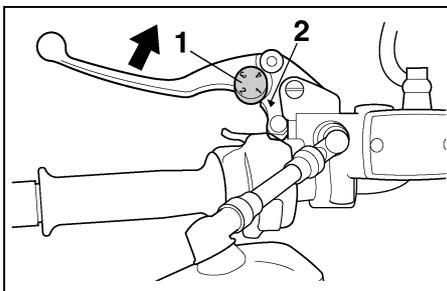
1. Clutch lever

EAU00153

Clutch lever

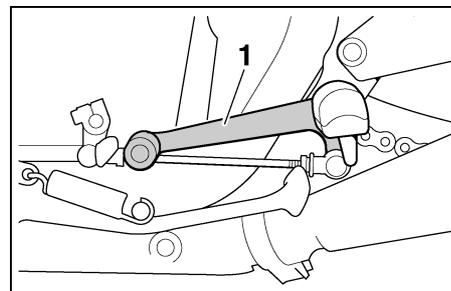
The clutch lever is located on the left handlebar. It is equipped with a clutch lever adjusting dial and a clutch switch, which is integrated into the ignition circuit cut-off system. (Refer to the engine starting procedures for a description of this system.)

To disengage the clutch, pull the clutch lever toward the handlebar. To engage the clutch, release the lever. The lever should be pulled rapidly and released slowly for smooth clutch operation.



1. Adjusting dial
2. Arrow mark

To adjust the distance between the clutch lever and the handlebar grip, turn the clutch adjusting dial while pushing the lever forward. Make sure the setting on the clutch lever adjusting dial is aligned with the arrow mark.



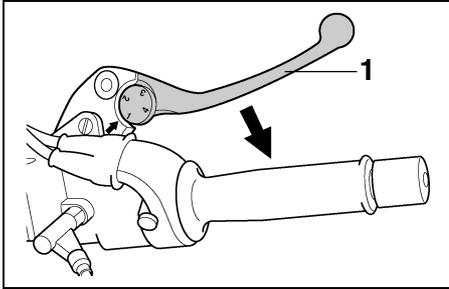
1. Shift pedal

EAU00157

Shift pedal

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

INSTRUMENT AND CONTROL FUNCTIONS

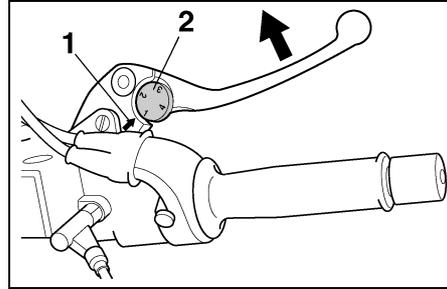


1. Front brake lever

EAU00161

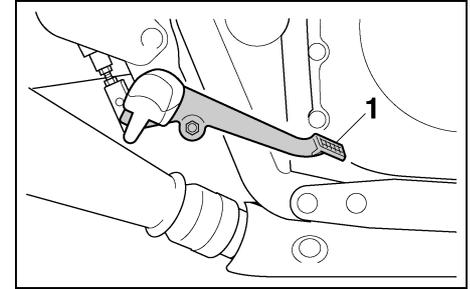
Front brake lever

The front brake lever is located on the right handlebar and is equipped with a brake lever adjusting dial. To activate the front brake, pull the lever toward the handlebar.



1. Arrow mark
2. Adjusting dial

To adjust the front brake lever position, turn the brake lever adjusting dial while pulling the lever forward. Make sure the setting on the brake lever adjusting dial is aligned with the arrow mark.



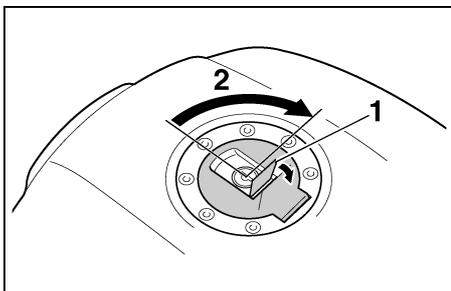
1. Rear brake pedal

EAU00162

Rear brake pedal

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

INSTRUMENT AND CONTROL FUNCTIONS



1. Lock cover
2. Open

EAU02935

Fuel tank cap

To open

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

To close

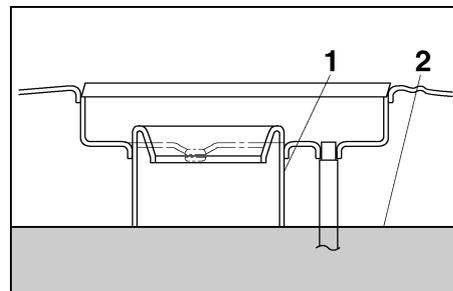
Push the tank cap into position with the key inserted. To remove the key, turn it counterclockwise to the original position. Then, close the lock cover.

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

EW000023

WARNING

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



1. Filler tube
2. Fuel level

EAU01183

Fuel

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

EW000130

WARNING

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

INSTRUMENT AND CONTROL FUNCTIONS

EAU00185

CAUTION:

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

EAU00191

Recommended fuel:

Regular unleaded gasoline with a research octane number of 91 or higher.

Fuel tank capacity:

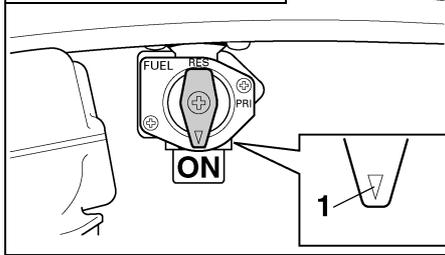
Total:
21 L

Reserve:
4.5 L

NOTE:

If knocking or pinging occurs, use a different brand of gasoline or higher octane grade.

ON: normal position



1. Arrow mark positioned over "ON"

EAU00207

Fuel cock

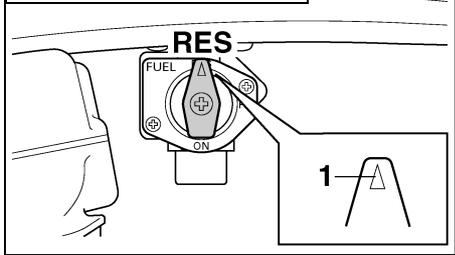
The fuel cock supplies fuel from the tank to the carburetors while also filtering it.

The fuel cock has three positions, which should be set as illustrated.

ON

With the fuel cock in this position, fuel flows to the carburetors when the engine is running. Set the fuel cock to this position when starting the engine and for riding.

RES: reserve position



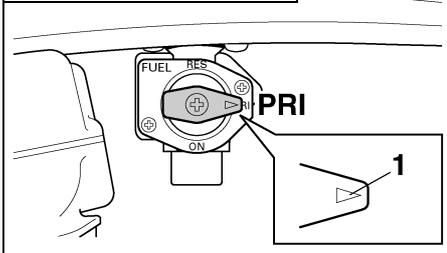
1. Arrow mark positioned over "RES"

RES

This stands for "reserve". If you are running out of fuel while riding with the fuel cock in the "ON" position, quickly turn the lever to this position. Otherwise the engine may die and will have to be primed (see "PRI" below). After turning the lever to "RES", fill the tank at the first opportunity and be sure to set the fuel cock back to "ON"!

INSTRUMENT AND CONTROL FUNCTIONS

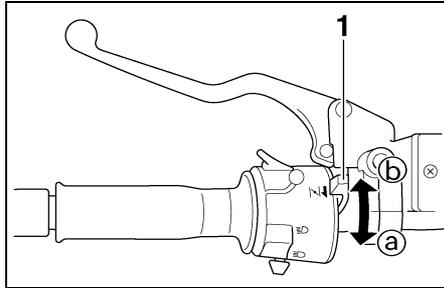
PRI: priming position



1. Arrow mark positioned over "PRI"

PRI

This stands for "prime". If the engine has been allowed to run out of fuel, turn the lever to the "PRI" position to send fuel directly to the carburetors. This will make starting easier. However, be sure to turn the lever to the "ON" position (or "RES" if you have not refuelled yet) after the engine has started.



1. Starter (choke) "||\|"

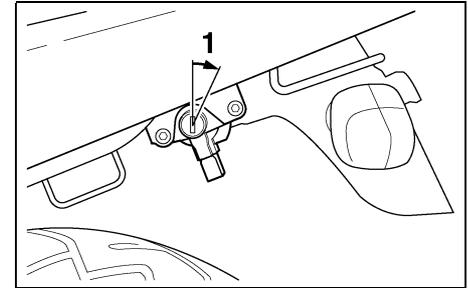
EAU02976

Starter (choke) "||\|"

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

Move in direction ① to turn on the starter (choke).

Move in direction ② to turn off the starter (choke).



1. Open

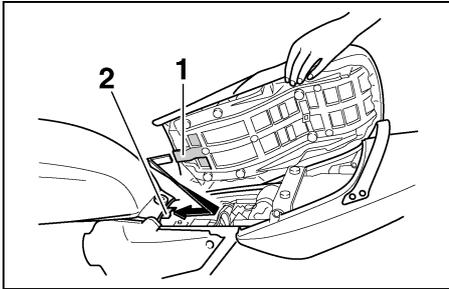
EAU01721

Seat

To remove

Insert the key in the helmet holder lock and turn it as shown.

INSTRUMENT AND CONTROL FUNCTIONS



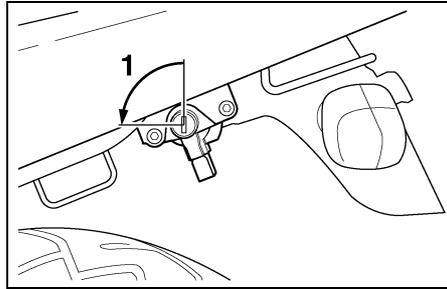
1. Projection
2. Seat holder

To install

Insert the projection on the front of the seat into the holder, then push down the seat.

NOTE:

Make sure that the seat is securely fitted.



1. Open

EAU00260

Helmet holder

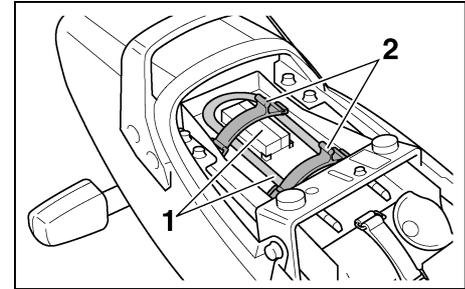
To open the helmet holder, insert the key in the lock and turn it as shown. To lock the helmet holder, replace the holder in its original position.

EW000030



WARNING

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



1. U-LOCK
2. Strap (x 2)

EAU01688

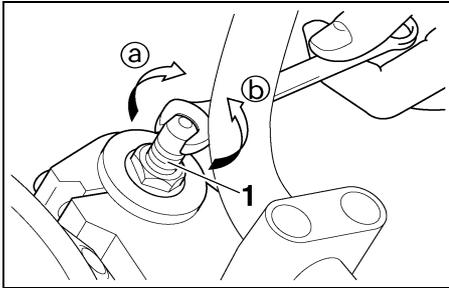
Storage compartment

This compartment is designed to store a genuine Yamaha U-LOCK. (Other locks may not fit.) Be sure the lock is fastened securely with the straps when storing it in the compartment.

To prevent losing the straps, be sure to secure them even when a U-LOCK is not being stored in the compartment. When storing this Owner's manual or other documents in the compartment, be sure to put them in a vinyl bag so they do not get wet. When washing the motorcycle, be careful not to flood this compartment with water.

INSTRUMENT AND CONTROL FUNCTIONS

3



1. Spring preload adjusting bolt

EAU00285

Front fork adjustment

This front fork is equipped with spring preload adjusting bolts.

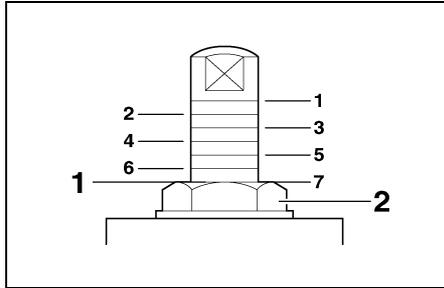
EW000037

! WARNING

Each fork leg must be set to the same pressure. Uneven setting can cause poor handling and loss of stability.

Adjust spring preload as follows.

Turn the adjusting bolts in direction **a** to increase spring preload and in direction **b** to decrease spring preload.



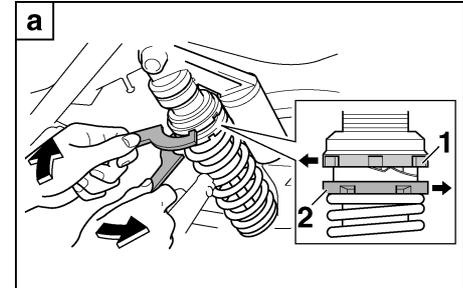
1. Setting
2. Front fork cap bolt

EC000013

CAUTION:

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

	Hard				Standard	Soft	
Adjusting position	1	2	3	4	5	6	7



1. Upper adjusting ring
2. Lower adjusting ring

EAU01783

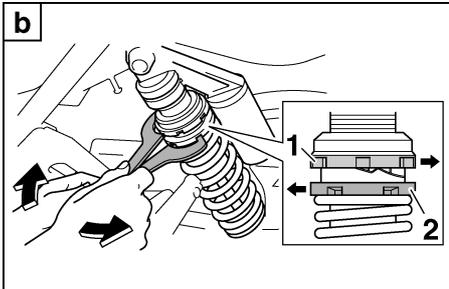
Rear shock absorber adjustment

The shock absorbers are equipped with spring preload adjusting rings.

To increase spring preload, turn the adjusting rings as shown in illustration **a**.

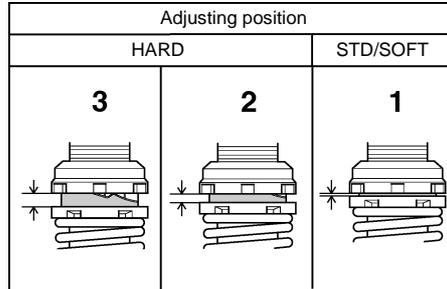
INSTRUMENT AND CONTROL FUNCTIONS

EAU00316



1. Upper adjusting ring
2. Lower adjusting ring

To decrease spring preload, turn the adjusting rings as shown in illustration **b**.



EW000040

! WARNING

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

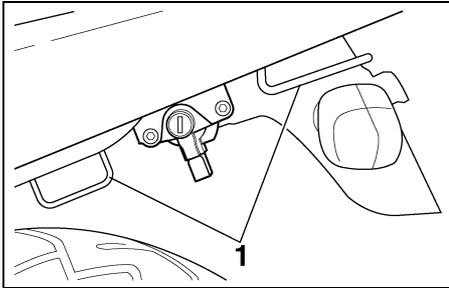
! WARNING

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

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

INSTRUMENT AND CONTROL FUNCTIONS

3



1. Luggage strap holder (× 4)

EAU00324

Luggage strap holders

There are four luggage strap holders below the passenger seat, two of which can be turned outward for easier access.

EAU00330

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.)

EW000044

⚠ WARNING

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

EAU00332

Sidestand/clutch switch operation check

Check the operation of the sidestand switch and clutch switch against the information below.

EW000046

⚠ WARNING

- Be sure to use the centerstand during this inspection.
- If improper operation is noted, consult a Yamaha dealer.

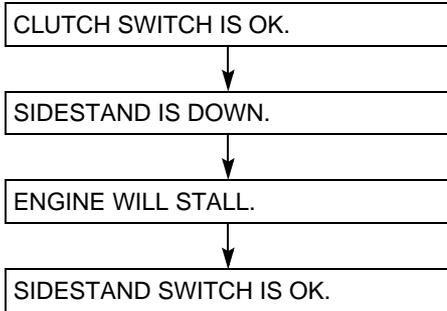
TURN MAIN SWITCH TO "ON" AND ENGINE STOP SWITCH TO "○".

TRANSMISSION IS IN GEAR AND SIDESTAND IS UP.

PULL IN CLUTCH LEVER AND PUSH START SWITCH.

ENGINE WILL START.

INSTRUMENT AND CONTROL FUNCTIONS



Pre-operation check list..... 4-1

PRE-OPERATION CHECKS

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

PRE-OPERATION CHECK LIST

ITEM	CHECKS	PAGE
Front brake	<ul style="list-style-type: none">• Check operation, fluid level and vehicle for fluid leakage.• Fill with DOT 4 brake fluid if necessary.	6-16 ~ 6-19
Rear brake		
Clutch	<ul style="list-style-type: none">• Check operation, fluid level and vehicle for fluid leakage.• Fill with DOT 4 brake fluid if necessary.	6-18
Throttle grip and housing	<ul style="list-style-type: none">• Check for smooth operation.• Lubricate if necessary.	6-12, 6-21
Engine oil	<ul style="list-style-type: none">• Check oil level.• Fill with oil if necessary.	6-7 ~ 6-10
Drive chain	<ul style="list-style-type: none">• Check chain slack and condition.• Adjust if necessary.	6-19 ~ 6-20
Wheels and tires	<ul style="list-style-type: none">• Check tire pressure, wear and damage.• Replace if necessary.	6-13 ~ 6-16
Control and meter cables	<ul style="list-style-type: none">• Check for smooth operation.• Lubricate if necessary.	6-20 ~ 6-21
Brake and shift pedal shafts	<ul style="list-style-type: none">• Check for smooth operation.• Lubricate if necessary.	6-21
Brake and clutch lever pivots	<ul style="list-style-type: none">• Check for smooth operation.• Lubricate if necessary.	6-21
Center and sidestand pivot	<ul style="list-style-type: none">• Check for smooth operation.• Lubricate if necessary.	6-22

PRE-OPERATION CHECKS

ITEM	CHECKS	PAGE
Chassis fasteners	<ul style="list-style-type: none">• Make sure that all nuts, bolts and screws are properly tightened.• Tighten if necessary.	—
Fuel	<ul style="list-style-type: none">• Check fuel level.• Fill with fuel if necessary.	3-9 ~ 3-10
Lights, signals and switches	<ul style="list-style-type: none">• Check for proper operation.	6-25 ~ 6-27

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.

OPERATION AND IMPORTANT RIDING POINTS

Starting the engine	5-1
Starting a warm engine	5-4
Shifting	5-4
Recommended shift points (for Switzerland only)	5-5
Tips for reducing fuel consumption	5-5
Engine break-in	5-5
Parking	5-6

EAU00373

EAU00381

! WARNING

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

Starting the engine

NOTE:

This motorcycle is equipped with an ignition circuit cut-off system. The engine can be started only under one of the following conditions:

- The transmission is in neutral.
- The sidestand is up, the transmission is in gear and the clutch is disengaged.

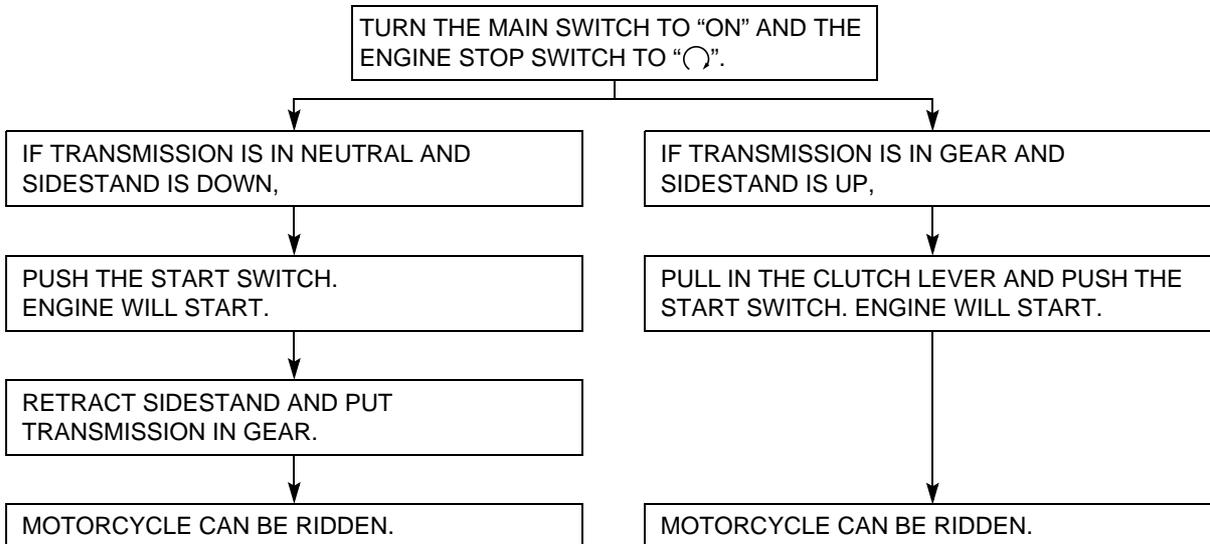
The motorcycle must not be ridden when the sidestand is down.

EW000054

! WARNING

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 3-15.)

OPERATION AND IMPORTANT RIDING POINTS



OPERATION AND IMPORTANT RIDING POINTS

1. Turn the fuel cock to “ON”.
2. Turn the main switch to “ON” and the engine stop switch to “○”.
3. Shift transmission into neutral.

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

4. Turn on the starter (choke) and completely close the throttle grip.
5. Start the engine by pushing the start switch.

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

EC000034

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

6. After starting the engine, move the starter (choke) halfway back.

NOTE: _____
For maximum engine life, never accelerate hard with a cold engine!

7. After the engine is warm, turn off the starter (choke) completely.

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

OPERATION AND IMPORTANT RIDING POINTS

Starting a warm engine

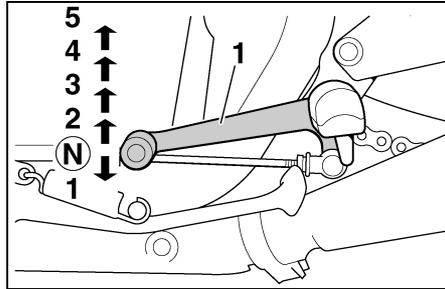
EAU01258

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

EC000046

CAUTION:

See the “Engine break-in” section prior to operating the motorcycle for the first time.



- 1. Shift pedal
- N. Neutral

EAU00423

Shifting

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

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

EC000048

CAUTION:

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

OPERATION AND IMPORTANT RIDING POINTS

EAU02941

Recommended shift points (for Switzerland only)

The recommended shift points are shown in the table below.

	Acceleration shift point (km/h)
1st → 2nd	23
2nd → 3rd	36
3rd → 4th	50
4th → 5th	60

NOTE:

When shifting two gears down from 4th to 2nd, bring your motorcycle to a speed of 35 km/h.

EAU00424

Tips for reducing fuel consumption

Your motorcycle's fuel consumption depends to a large extent on your riding style. The following tips can help reduce fuel consumption:

- Warm up the engine before riding.
- Turn off the starter (choke) as soon as possible.
- Shift up swiftly and avoid high engine speeds during acceleration.
- Do not double-clutch or rev the engine while shifting down and avoid high engine speeds with no load on the engine.
- Turn off the engine instead of letting it idle for an extended length of time, i.e. in traffic jams, at traffic lights or railroad crossings.

EAU01128

Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,600 km. For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,600 km. The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation, or any condition which might result in excessive heating of the engine, must be avoided.

OPERATION AND IMPORTANT RIDING POINTS

0 ~ 1,000 km

EAU01329*

Avoid operation above 4,000 r/min.

1,000 ~ 1,600 km

Avoid cruising speeds in excess of 5,000 r/min.

EC000052*

CAUTION:

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

1,600 km and beyond

Proceed with normal riding.

EC000053*

CAUTION:

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

Parking

EAU00460

When parking the motorcycle, stop the engine and remove the ignition key.

EW000058

WARNING

The exhaust system is 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

Tool kit.....	6-1	Drive chain lubrication.....	6-20
Periodic maintenance and lubrication.....	6-2	Cable inspection and lubrication.....	6-20
Panel removal and installation.....	6-5	Throttle cable and grip lubrication.....	6-21
Panel A.....	6-5	Brake and shift pedal lubrication.....	6-21
Spark plugs.....	6-6	Brake and clutch lever lubrication.....	6-21
Engine oil.....	6-7	Center and sidestand lubrication.....	6-22
Air filter.....	6-10	Front fork inspection.....	6-22
Carburetor adjustment.....	6-11	Steering inspection.....	6-23
Idle speed adjustment.....	6-11	Wheel bearings.....	6-23
Throttle cable free play inspection.....	6-12	Battery.....	6-23
Valve clearance adjustment.....	6-12	Fuse replacement.....	6-25
Tires.....	6-13	Headlight bulb replacement.....	6-25
Wheels.....	6-16	Tail/brake light bulb replacement.....	6-27
Rear brake pedal height adjustment.....	6-16	Turn signal light bulb replacement.....	6-27
Brake light switch adjustment.....	6-17	Front wheel removal.....	6-28
Checking the front and rear brake pads.....	6-17	Front wheel installation.....	6-29
Inspecting the brake fluid level.....	6-18	Rear wheel removal.....	6-30
Brake fluid replacement.....	6-19	Rear wheel installation.....	6-31
Drive chain slack check.....	6-19	Troubleshooting.....	6-31
Drive chain slack adjustment.....	6-19	Troubleshooting chart.....	6-32

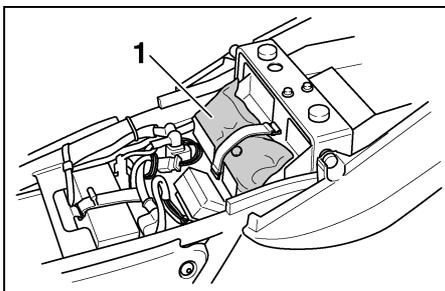
EAU00464

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

EW000060

! WARNING

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



1. Tool kit

EAU00469

Tool kit

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

NOTE:

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

EW000063

! 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.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00473

PERIODIC MAINTENANCE AND LUBRICATION

NO.	ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
				6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
1	* Fuel line	<ul style="list-style-type: none"> • Check fuel hoses and vacuum hose for cracks or damage. • Replace if necessary. 		√	√
2	* Fuel filter	<ul style="list-style-type: none"> • Check condition. • Replace if necessary. 			√
3	Spark plugs	<ul style="list-style-type: none"> • Check condition. • Clean, regap or replace if necessary. 	√	√	√
4	* Valves	<ul style="list-style-type: none"> • Check valve clearance. • Adjust if necessary. 	Every 24,000 km or 24 months (whichever comes first)		
5	Air filter	<ul style="list-style-type: none"> • Clean or replace if necessary. 		√	√
6	* Clutch	<ul style="list-style-type: none"> • Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-4.) • Correct accordingly. 	√	√	√
7	* Front brake	<ul style="list-style-type: none"> • Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-4.) • Correct accordingly. • Replace brake pads if necessary. 	√	√	√
8	* Rear brake	<ul style="list-style-type: none"> • Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-4.) • Correct accordingly. • Replace brake pads if necessary. 	√	√	√
9	* Wheels	<ul style="list-style-type: none"> • Check balance, runout and for damage. • Rebalance or replace if necessary. 		√	√

PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
				6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
10	* Tires	<ul style="list-style-type: none"> • Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary. 		√	√
11	* Wheel bearings	<ul style="list-style-type: none"> • Check bearing for looseness or damage. • Replace if necessary. 		√	√
12	* Swingarm	<ul style="list-style-type: none"> • Check swingarm pivoting point for play. • Correct if necessary. • Lubricate with molybdenum disulfide grease every 24,000 km or 24 months (whichever comes first). 		√	√
13	Drive chain	<ul style="list-style-type: none"> • Check chain slack. • Adjust if necessary. Make sure that the rear wheel is properly aligned. • Clean and lubricate. 	Every 1,000 km and after washing the motorcycle or riding in the rain		
14	* Steering bearings	<ul style="list-style-type: none"> • Check bearing play and steering for roughness. • Correct accordingly. • Lubricate with lithium soap base grease every 24,000 km or 24 months (whichever comes first). 		√	√
15	* Chassis fasteners	<ul style="list-style-type: none"> • Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary. 		√	√
16	Sidestand/centerstand	<ul style="list-style-type: none"> • Check operation. • Lubricate and repair if necessary. 		√	√
17	* Sidestand switch	<ul style="list-style-type: none"> • Check operation. • Replace if necessary. 	√	√	√
18	* Front fork	<ul style="list-style-type: none"> • Check operation and for oil leakage. • Correct accordingly. 		√	√
19	* Rear shock absorber assemblies	<ul style="list-style-type: none"> • Check operation and shock absorbers for oil leakage. • Replace shock absorber assembly if necessary. 		√	√

PERIODIC MAINTENANCE AND MINOR REPAIR

NO.	ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
				6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
20	* Carburetors	<ul style="list-style-type: none"> • Check engine idling speed, synchronization and starter operation. • Adjust if necessary. 	√	√	√
21	Engine oil	<ul style="list-style-type: none"> • Check oil level and vehicle for oil leakage. • Correct if necessary. • Change. (Warm engine before draining.) 	√	√	√
22	Engine oil filter element	<ul style="list-style-type: none"> • Replace. 	√		√

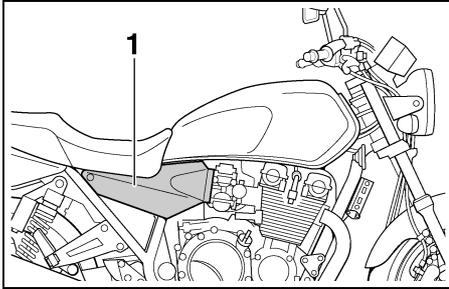
* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

EAU02971

NOTE: _____

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Hydraulic brake and clutch systems
 - After disassembling the master cylinder, caliper or clutch release cylinder, always replace the brake fluid. Check the brake fluid level of the master cylinder and clutch release cylinder regularly and fill as required.
 - Replace the oil seals on the inner parts of the master cylinder, caliper and clutch release cylinder every two years.
 - Replace the brake and clutch hoses every four years or if cracked or damaged.

PERIODIC MAINTENANCE AND MINOR REPAIR

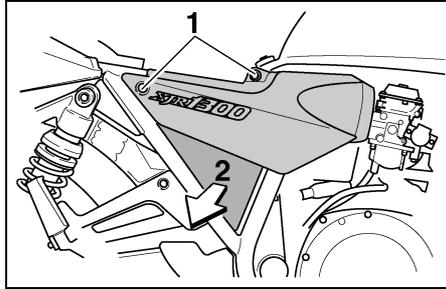


1. Panel A

EAU01777

Panel removal and installation

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



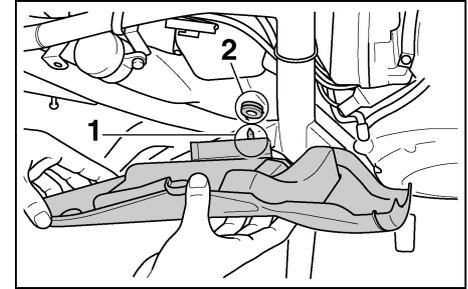
1. Screw (x 2)
2. Pull out

EAU01551

Panel A

To remove

Remove the seat and panel screws. Then pull the panel outward as shown.

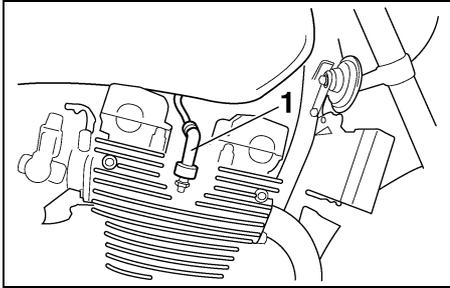


1. Projection
2. Grommet

To install

Insert the projection into the grommet and tighten the panel screws.

PERIODIC MAINTENANCE AND MINOR REPAIR



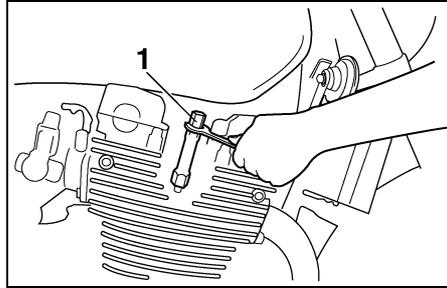
1. Spark plug cap

EAU03053

Spark plugs

Removal

1. Remove the spark plug caps.



1. Spark plug wrench

2. Use the spark plug wrench in the tool kit to remove the spark plugs as shown.

Inspection

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

Normally, all spark plugs from the same engine should have the same color on the white insulator around the center electrode. The ideal color at this point is a medium-to-light tan color for a motorcycle that is being ridden normal-

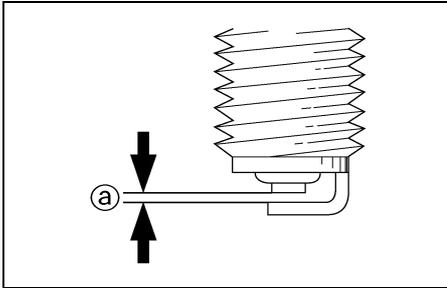
ly. If one spark plug shows a distinctly different color, there could be something wrong with the engine.

Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug:
DPR8EA-9 (NGK) or
X24EPR-U9 (DENSO)

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01784*



a. Spark plug gap

Installation

1. Measure the electrode gap with a wire thickness gauge and, if necessary, adjust the gap to specification.

Spark plug gap:
0.8 ~ 0.9 mm

2. Clean the gasket surface. Wipe off any grime from the threads.
3. Install the spark plug and tighten it to the specified torque.

Tightening torque:
Spark plug:
17.5 Nm (1.75 m·kg)

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

4. Install the spark plug caps.

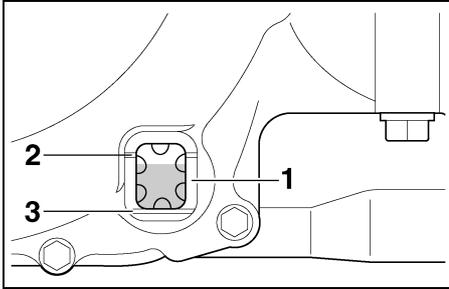
Engine oil

Oil level inspection

1. Place the motorcycle on the centerstand. Warm up the engine for several minutes.

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

PERIODIC MAINTENANCE AND MINOR REPAIR



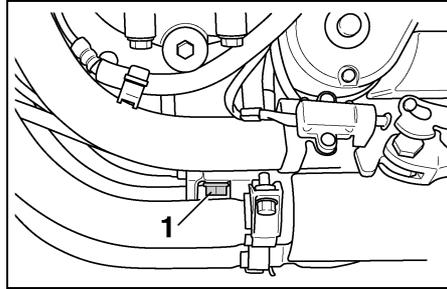
1. Oil level window
2. Maximum level mark
3. Minimum level mark

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

NOTE:

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

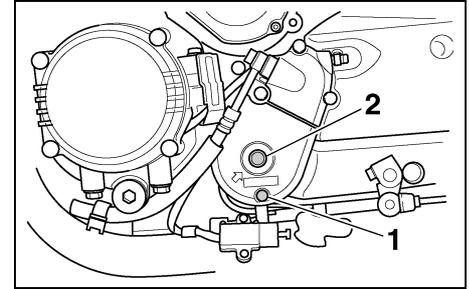
3. The oil level should be between the maximum and minimum level marks. If the level is low, add sufficient oil to raise it to the specified level.



1. Engine oil drain bolt

Engine oil and oil filter element replacement

1. Warm up the engine for several minutes.
2. Stop the engine. Place an oil pan under the engine and remove the oil filler cap.
3. Remove the drain bolt and drain the oil.



1. Oil filter drain screw
2. Oil filter cover bolt

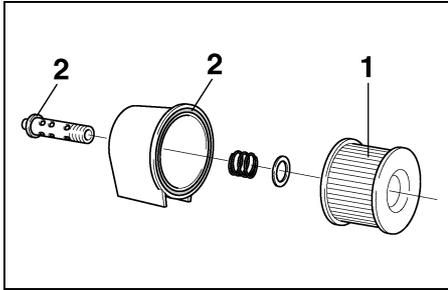
4. Remove the oil filter drain screw, filter cover bolt, filter cover, oil filter element and O-ring.
5. Reinstall the drain bolt and tighten it to the specified torque.

Tightening torque:

Drain bolt:

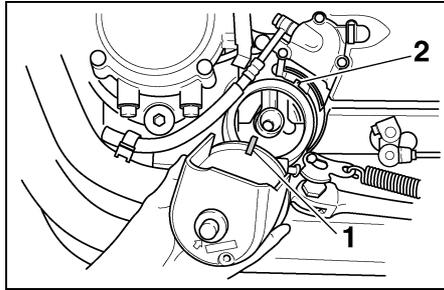
43 Nm (4.3 m·kg)

PERIODIC MAINTENANCE AND MINOR REPAIR



- 1. Oil filter element
- 2. O-ring (x 2)

6. Install the new oil filter element and O-ring.



- 1. Projection
- 2. Slot

- 7. Align the projection on the filter cover with the slot in housing and install the filter cover.
- 8. Tighten the oil filter bolt and oil filter drain screw to the specified torque.

Tightening torque:

- Oil filter bolt:
15 Nm (1.5 m·kg)
- Oil filter drain screw:
7 Nm (0.7 m·kg)

NOTE: _____
Make sure the O-rings are seated properly.

- 9. Fill engine with oil. Install the oil filler cap and tighten.

Recommended oil:

See page 8-1.

Oil quantity:

Total amount:

4.2 L

Periodic oil change:

3.0 L

With oil filter replacement:

3.35 L

EC000066

CAUTION: _____

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

PERIODIC MAINTENANCE AND MINOR REPAIR

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

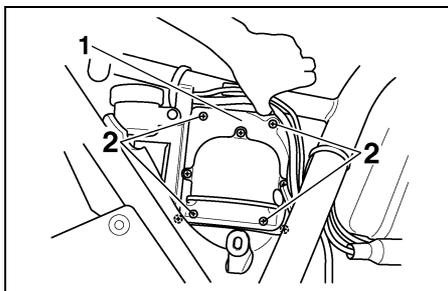
NOTE:

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

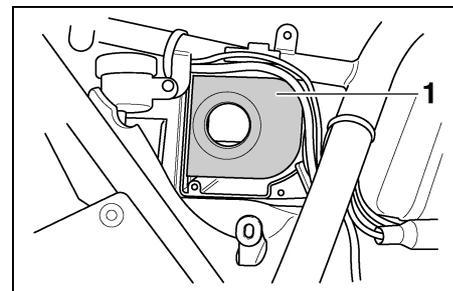
EC000067

CAUTION:

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



1. Air filter case cover
2. Screw (× 4)



1. Air filter
4. Pull out the air filter.

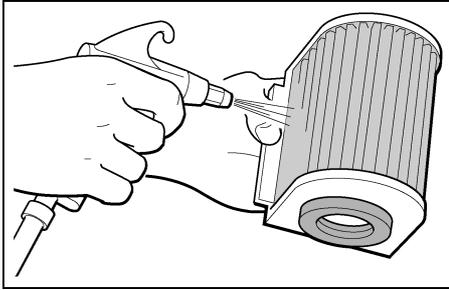
EAU01755

Air filter

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

1. Remove the seat. (See page 3-11 for seat removal and installation procedures.)
2. Remove panel A. (See page 6-5 for panel removal and installation procedures.)
3. Remove the air filter case cover by lifting up the wires as shown and removing the screws.

PERIODIC MAINTENANCE AND MINOR REPAIR



- 6
5. Tap the air filter lightly to remove most of the dust and dirt and blow out the remaining dirt with compressed air as shown. If the air filter is damaged, replace it.
 6. Reassemble by reversing the removal procedure.

EC000082

CAUTION:

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

EAU00630

Carburetor adjustment

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

EC000095

CAUTION:

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

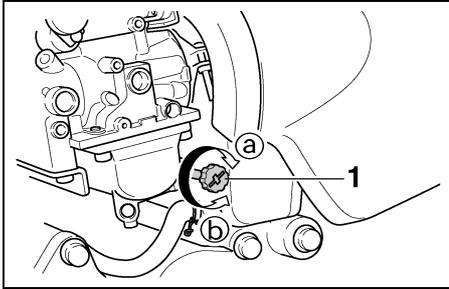
EAU00632

Idle speed adjustment

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00637



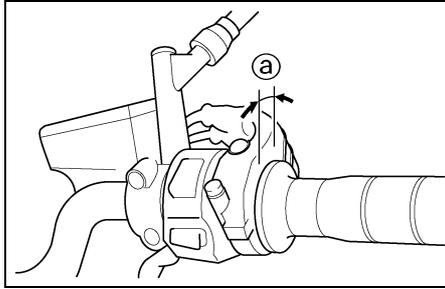
1. Throttle stop screw

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

Standard idle speed:
1,000 ~ 1,100 r/min

NOTE:

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



a. Free play

Valve clearance adjustment

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

EAU00635

Throttle cable free play inspection

There should be a free play of 3 ~ 5 mm at the throttle grip. If the free play is incorrect, ask a Yamaha dealer to make this adjustment.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00658

Tires

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

Tire air pressure

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

EW000082



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.

Maximum load*	207 kg	
	Front	Rear
Cold tire pressure		
Up to 90 kg load*	250 kPa (2.50 kg/cm ² , 2.50 bar)	250 kPa (2.50 kg/cm ² , 2.50 bar)
90 kg Maximum load*	250 kPa (2.50 kg/cm ² , 2.50 bar)	290 kPa (2.90 kg/cm ² , 2.90 bar)
High speed riding	250 kPa (2.50 kg/cm ² , 2.50 bar)	290 kPa (2.90 kg/cm ² , 2.90 bar)

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

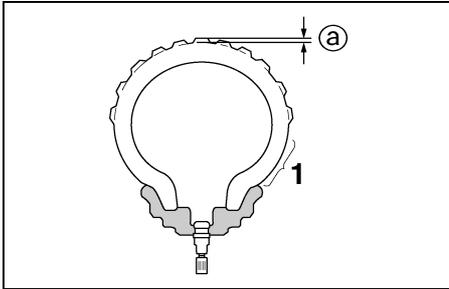
EW000083



Proper loading of your motorcycle is important for several characteristics of your motorcycle, such as handling, braking, performance and safety. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires. NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

PERIODIC MAINTENANCE AND MINOR REPAIR

EW000095



- 1. Side wall
- a. Tread depth

Tire inspection

Always check the tires before operating the motorcycle. If center tread depth reaches the limit as shown, if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.

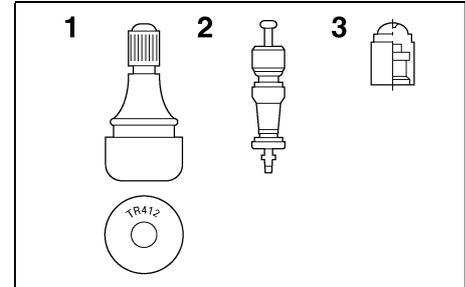
! WARNING

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

Minimum tire tread depth (front and rear)	1.6 mm
--	--------

NOTE:

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



- 1. Tire valve
- 2. Valve core
- 3. Valve cap with seal

Tire information

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EW000080

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.

FRONT

Manufacturer	Size	Type
Dunlop	120/70ZR17 (58W)	D207F
Bridgestone	120/70ZR17 (58W)	BT57F
Michelin	120/70ZR17 (58W)	MACADAM90X

REAR

Manufacturer	Size	Type
Dunlop	180/55ZR17 (73W)	D207
Bridgestone	180/55ZR17 (73W)	BT57R
Michelin	180/55ZR17 (73W)	MACADAM90X

	Type
Tire valve	TR412
Valve core	#9000A (original)

EAU00684

WARNING

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

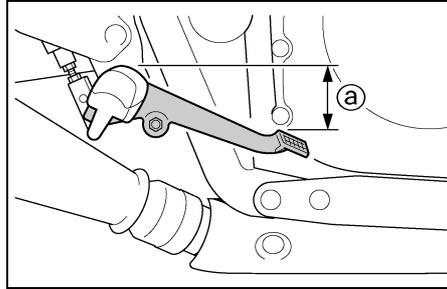
- Never fail to use the specified tires in tire replacement. Other tires may have a danger of bursting at super high-speeds.
- New tires have a relatively low grip on the road surface until they have been slightly worn. Therefore, approximately 100 km should be traveled at normal speed before any high-speed riding is done.
- Before any high-speed runs, the tires should be warmed-up sufficiently.
- Always inflate to the correct tire pressure according to the operating conditions.

EAU00687

Wheels

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

- Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the 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.
- Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.
- Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.



a. Brake pedal height

EAU00712

Rear brake pedal height adjustment

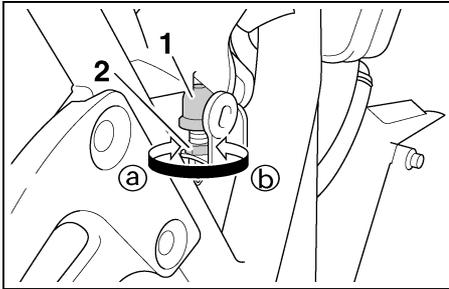
The top of the brake pedal should be positioned 40 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.

EW000109

⚠ WARNING

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

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Brake light switch
2. Adjusting nut

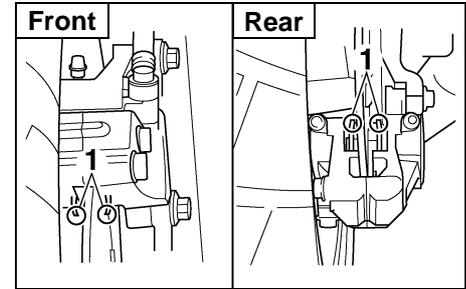
EAU01756

Brake light switch adjustment

The rear brake light switch is activated by the brake pedal and is properly adjusted when the brake light comes on just before braking takes effect. Adjust the brake light switch as follows.

1. Remove panel A. (See page 6-5 for panel removal and installation procedures.)
2. Hold the switch body so it does not rotate while turning the adjusting nut.

3. Turn the adjusting nut in direction ① to make the brake light come on earlier. Turn the adjusting nut in direction ② to make the brake light come on later.



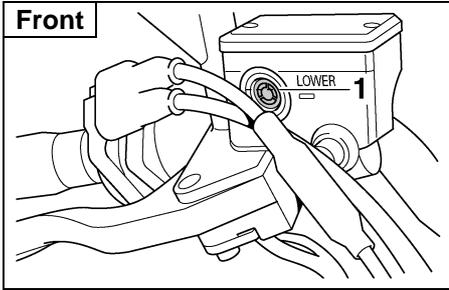
1. Wear indicator (× 2)

EAU00715

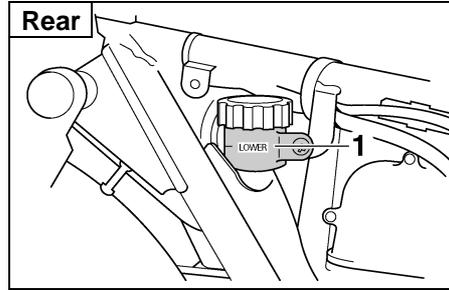
Checking the front and rear brake pads

A wear indicator is provided on each brake. This indicator allows checking of brake pad wear without disassembling the brake. Apply the brake and inspect the wear indicator. If the indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.

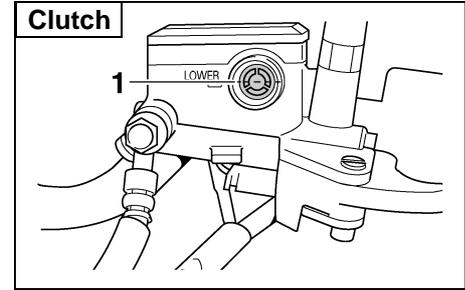
PERIODIC MAINTENANCE AND MINOR REPAIR



1. Minimum level mark



1. Minimum level mark



1. Minimum level mark

Inspecting the brake fluid level

EAU01800*

Insufficient brake fluid may let air enter the brake or clutch system, possibly causing them to become ineffective.

Before riding, check that the brake fluid is above the minimum level and fill when necessary. Low brake fluid levels may indicate worn brake pads and/or fluid leakage. If the brake fluid level is low, be sure to inspect the brake pads for wear and the brake and clutch systems for leakage.

NOTE:

The rear master cylinder is located behind panel A.

Observe these precautions:

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

Recommended brake fluid: DOT 4

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake or clutch performance.

- 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.
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- Have a Yamaha dealer check the cause if the brake fluid level goes down.

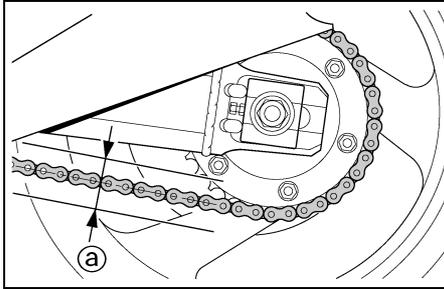
PERIODIC MAINTENANCE AND MINOR REPAIR

Brake fluid replacement

EAU00742

The brake fluid should be replaced only by trained Yamaha service personnel. Have the Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking:

- oil seals (every two years)
- brake hoses (every four years)



a. Chain slack

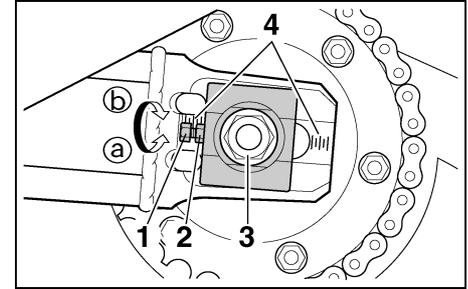
EAU00745

Drive chain slack check

NOTE:

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

Inspect the drive chain when the motorcycle is on the centerstand. Check the slack at the position shown in the illustration. Normal slack is approximately 20 ~ 30 mm. If the slack exceeds 30 mm, adjust.



1. Locknut
2. Adjusting bolt
3. Axle nut
4. Alignment marks

EAU01251

Drive chain slack adjustment

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000096

CAUTION:

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

3. After adjusting, tighten the lock-nuts. Then tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:

150 Nm (15.0 m·kg)

Drive chain lubrication

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

EAU03006

EC000097

CAUTION:

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

EAU02962

Cable inspection and lubrication

EW000112

WARNING

Damage to the outer housing of cables may lead to internal rusting and interfere with the cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.

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

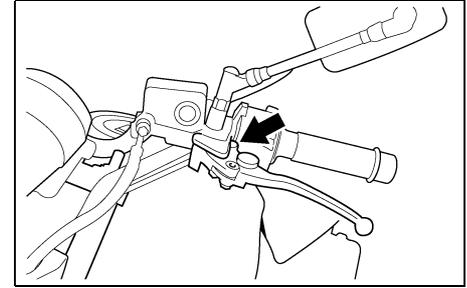
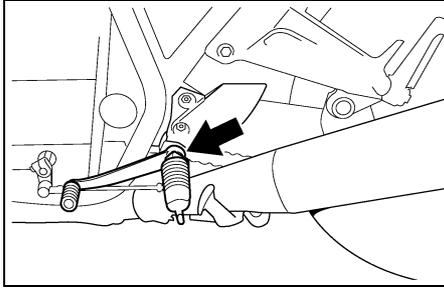
Recommended lubricant:
Engine oil

PERIODIC MAINTENANCE AND MINOR REPAIR

Throttle cable and grip lubrication

EAU00773

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



Brake and shift pedal lubrication

EAU02984

Lubricate the pivoting parts.

Recommended lubricant:
Engine oil

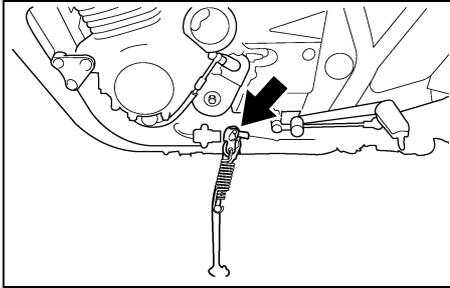
Brake and clutch lever lubrication

EAU02985

Lubricate the pivoting parts.

Recommended lubricant:
Engine oil

PERIODIC MAINTENANCE AND MINOR REPAIR



Front fork inspection

Visual check

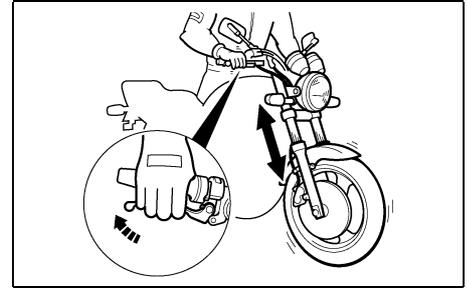
EAU02939

! WARNING

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

EW000115

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



Center and sidestand lubrication

EAU02965

Lubricate the pivoting and mating joints. Check to see that the center and sidestand move up and down smoothly.

Recommended lubricant:
Engine oil

EW000114

! WARNING

If the center and/or sidestand does not move smoothly, consult a Yamaha dealer.

Operation check

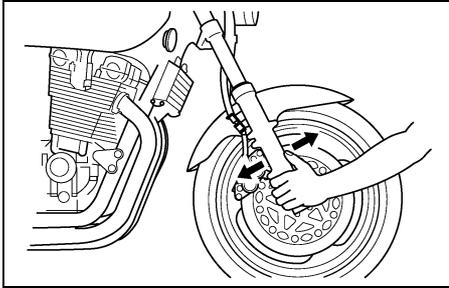
1. Place the motorcycle on a level place.
2. Hold the motorcycle in an upright position and apply the front brake.
3. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

EC000098

CAUTION:

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

PERIODIC MAINTENANCE AND MINOR REPAIR



EAU00794

Steering inspection

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

EW000115

⚠ WARNING

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

EAU01144

Wheel bearings

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

EAU01271

Battery

This motorcycle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or fill the battery with distilled water.

- If the battery seems to have discharged, consult a Yamaha dealer.
- If the motorcycle is equipped with optional electrical accessories, the battery tends to discharge more quickly, so be sure to recharge it periodically.

PERIODIC MAINTENANCE AND MINOR REPAIR

EW000116

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.

Battery storage

When the motorcycle is not used for a month or longer, remove the battery, fully charge it and store it in a cool, dry place.

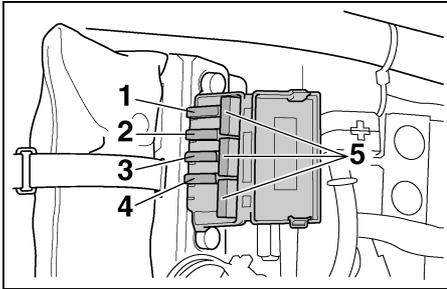
EC000102

CAUTION:

- **Completely recharge the battery before storing.** Storing a discharged battery can cause permanent battery damage.
- **Use a battery charger designed for a sealed-type (MF) battery.** Using a conventional battery charger will cause battery damage. If you do not have a sealed-type battery charger, contact your Yamaha dealer.
- **Always make sure the connections are correct when reinstalling the battery.**

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000103



1. Main fuse
2. Signaling system fuse
3. Headlight fuse
4. Ignition fuse
5. Spare fuse (× 3)

EAU01470

Fuse replacement

The fuse box is located under the seat. (See page 3-11 for seat removal and installation procedures.)

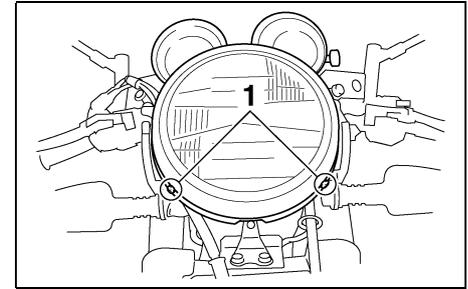
If any fuse is blown, turn off the main switch and the switch of the circuit in question. Install a new fuse of specified amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

CAUTION:

Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.

Specified fuses:

Main fuse:	30 A
Ignition fuse:	7.5 A
Signaling system fuse:	15 A
Headlight fuse:	15 A



1. Screw (× 2)

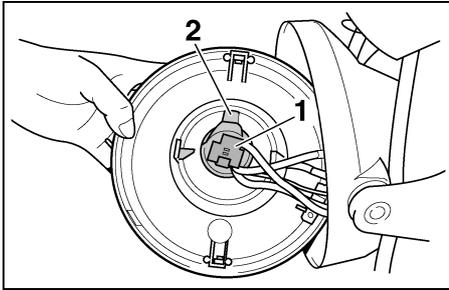
EAU00832

Headlight bulb replacement

This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:

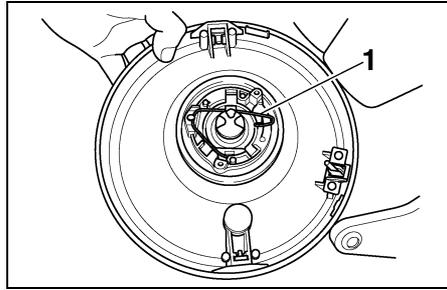
1. Remove the screws holding the headlight assembly.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Connector
2. Bulb cover

2. Remove the headlight connector and the bulb cover.



1. Bulb holder

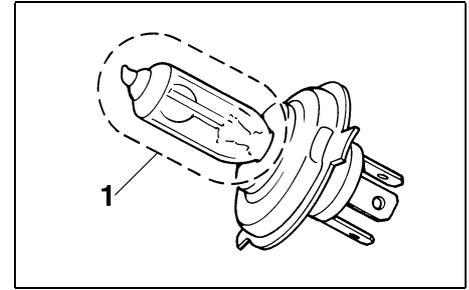
3. Unhook the bulb holder and remove the defective bulb.

EW000119

⚠ WARNING

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

4. Put a new bulb into position and secure it in place with the bulb holder.



1. Don't touch

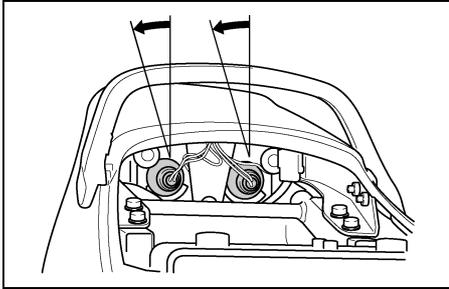
EC000105

CAUTION:

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

5. Install the bulb cover and the headlight connector. If the headlight beam adjustment is necessary, ask a Yamaha dealer to make that adjustment.

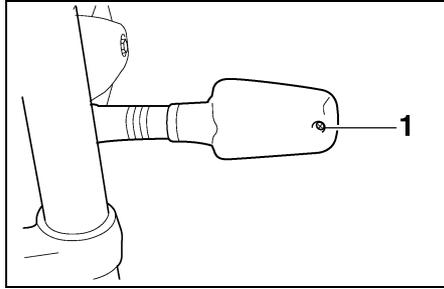
PERIODIC MAINTENANCE AND MINOR REPAIR



EAU00856*

Tail/brake light bulb replacement

1. Remove the seat.
2. To remove the socket, turn it counterclockwise.
3. To remove the defective bulb, turn it counterclockwise.
4. Push a new bulb into the socket and turn it clockwise.
5. Install the socket and turn it clockwise.
6. Install the seat.

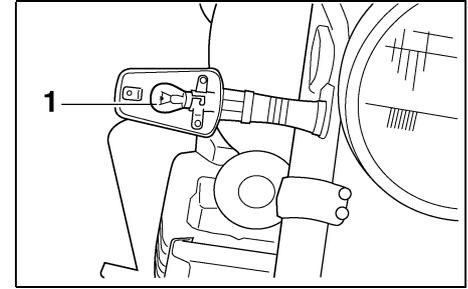


1. Screw

EAU01095

Turn signal light bulb replacement

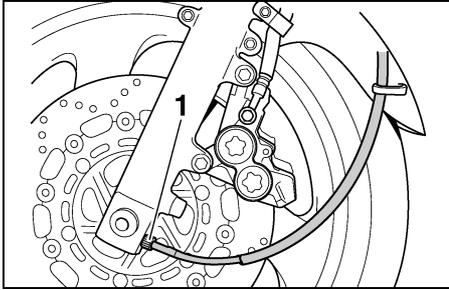
1. Remove the screw and the lens.



1. Bulb

2. Remove the defective bulb by pushing it inward and turning it counterclockwise.
3. Install a new bulb by pushing it inward and turning it clockwise.
4. Install the lens and tighten the screw.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Speedometer cable

EAU00869

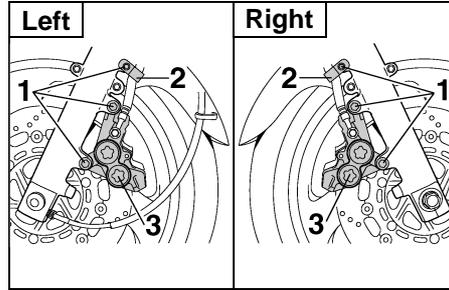
Front wheel removal

EW000122

! WARNING

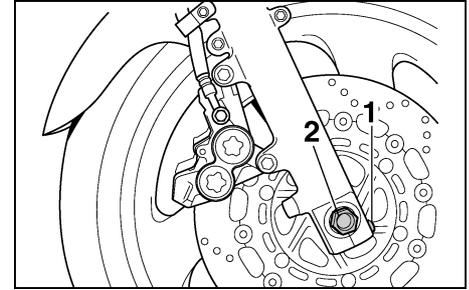
- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the motorcycle so there is no danger of it falling over.

1. Place the motorcycle on the centerstand.
2. Remove the speedometer cable from the front wheel side.



1. Bolt (× 3)
2. Brake hose holder
3. Caliper

3. Remove the brake hose holders and the calipers by removing the bolts.



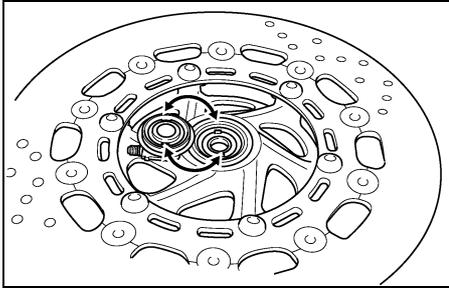
1. Pinch bolt
2. Wheel axle

NOTE:

Do not depress the brake lever when the disc and caliper are separated.

4. Loosen the pinch bolt and wheel axle.
5. Elevate the front wheel by placing a suitable stand under the engine.
6. Remove the wheel axle. Make sure the motorcycle is properly supported.

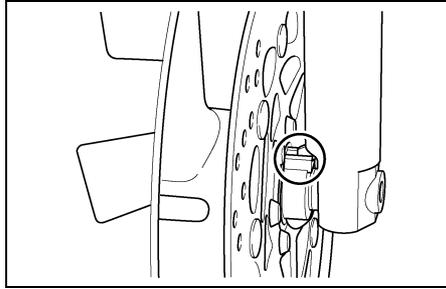
PERIODIC MAINTENANCE AND MINOR REPAIR



EAU01758*

Front wheel installation

1. Install the speedometer gear unit housing into the wheel hub. Make sure the wheel hub and the speedometer gear unit housing are installed with the projections meshed into the slots.



2. Lift up the wheel between the front fork legs. Make sure the slot in the speedometer gear unit housing fits over the stopper on the front fork outer tube.
3. Install the wheel axle and let the motorcycle down.
4. Install the calipers, caliper bolts and brake hose holders. Make sure there is enough gap between the brake pads before installing the calipers onto the brake discs.

5. Tighten the wheel axle, pinch bolt and caliper bolts to the specified torques.

Tightening torque:

Wheel axle:

73 Nm (7.3 m·kg)

Pinch bolt:

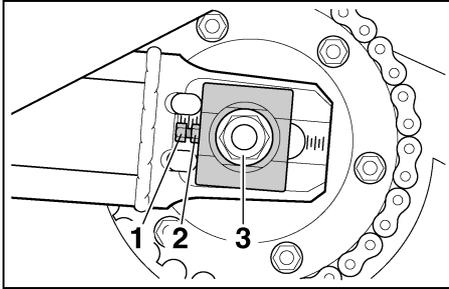
19 Nm (1.9 m·kg)

Caliper bolt:

40 Nm (4.0 m·kg)

6. Install the speedometer cable.
7. Push down hard on the handlebars several times to check for proper fork operation.

PERIODIC MAINTENANCE AND MINOR REPAIR



1. Locknut
2. Adjusting bolt
3. Axle nut

EAU01318

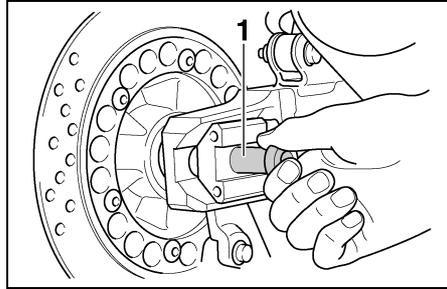
Rear wheel removal

EW000122

⚠ WARNING

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

1. Loosen the axle nut and caliper bolts.
2. Remove the brake torque rod nut and bolt.



1. Wheel axle
3. Place the motorcycle on the centerstand.
4. Remove the axle nut, caliper bolts and caliper.
5. Loosen the locknuts and chain adjusting nuts on each side of the swingarm.
6. Push the wheel forward and remove the drive chain.
7. Support the caliper bracket, pull out the wheel axle and remove the wheel assembly by pulling it backwards.

NOTE:

- Do not depress the brake pedal when the caliper is off the disc as the brake pads will be forced shut.
- You do not have to disassemble the chain in order to remove or install the rear wheel.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01317

Rear wheel installation

1. Install the caliper bracket and wheel assembly, then insert the axle.
2. Install and adjust the drive chain. (See page 6-19 for details about adjusting the drive chain slack.)
3. Install the brake torque rod bolt and nut.
4. Install the caliper and caliper bolts. Make sure there is enough gap between the brake pads before installing the caliper onto the brake disc.
5. Take the motorcycle off the centerstand.
6. Tighten the axle nut, caliper bolts and the brake torque rod nut to the specified torques.

Tightening torque:

Axle nut:

150 Nm (15.0 m·kg)

Caliper bolt:

40 Nm (4.0 m·kg)

Brake torque rod nut:

23 Nm (2.3 m·kg)

EAU01008

Troubleshooting

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

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

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

PERIODIC MAINTENANCE AND MINOR REPAIR

Troubleshooting chart

EAU01297

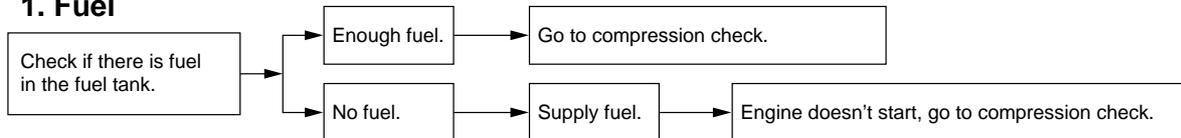
EW000125



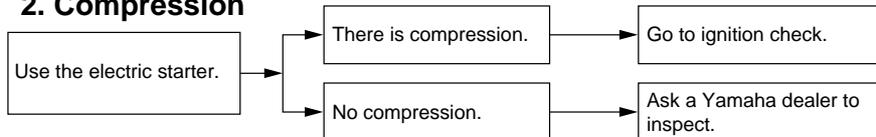
WARNING

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

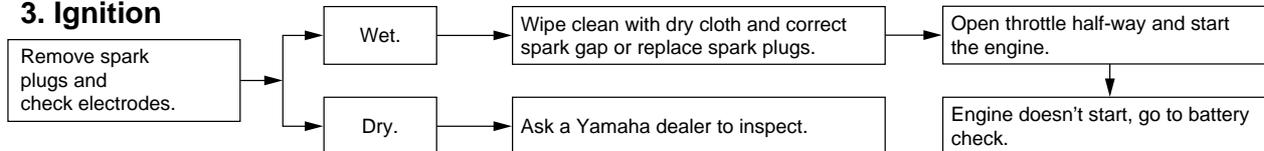
1. Fuel



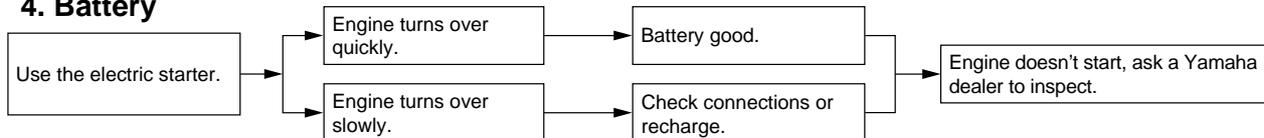
2. Compression



3. Ignition



4. Battery



MOTORCYCLE CARE AND STORAGE

Care	7-1
Storage.....	7-4

Care

The exposure of its technology makes a motorcycle charming but also vulnerable. Although high-quality components are used, they are not all rust-resistant. While a rusty exhaust pipe may remain unnoticed on a car, it does look unattractive on a motorcycle. Frequent and proper care, however, will keep your motorcycle looking good, extend its life and maintain its performance. Moreover, the warranty states that the vehicle must be properly taken care of. For all these reasons, it is recommended that you observe the following cleaning and storing precautions.

Before cleaning

1. Cover up the muffler outlets with plastic bags.
2. Make sure that all caps and covers as well as all electrical couplers and connectors, including the spark plug caps, are tightly installed.
3. Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and a brush, but never apply such products onto seals, gaskets, sprockets, the drive chain and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

After normal use

Remove dirt with warm water, a neutral detergent and a soft clean sponge, then rinse with plenty of clean water. Use a tooth or bottle brush for hard-to-reach parts. Tougher dirt and insects will come off more easily if the area is covered with a wet cloth for a few minutes before cleaning.

MOTORCYCLE CARE AND STORAGE

ECA00010

CAUTION:

- Avoid using strong acidic wheel cleaners, especially on spoked wheels. If you do use such products for hard-to-remove dirt, do not leave it on any longer than instructed, then thoroughly rinse it off with water, immediately dry the area and apply a corrosion protection spray.
- Improper cleaning can damage windshields, cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.
- Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.
- Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel bearings, swingarm bearings, forks and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.
- For motorcycles equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure they do not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.

After riding in the rain, near the sea or on salt-sprayed roads

Since sea salt or salt sprayed on the roads in the winter are extremely corrosive in combination with water, carry out the following steps after each ride in the rain, near the sea or on salt-sprayed roads. (Salt sprayed in the winter may remain on the roads well into spring.)

MOTORCYCLE CARE AND STORAGE

1. Clean your motorcycle with cold water and soap after the engine has cooled down.

ECA00012

CAUTION:

Do not use warm water since it increases the corrosive action of the salt.

2. Be sure to apply a corrosion protection spray on all (even chrome- and nickel-plated) metal surfaces to prevent corrosion.

After cleaning

1. Dry the motorcycle with a chamois or an absorbing cloth.
2. Immediately dry the drive chain and lubricate it to prevent it from rusting.
3. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system. (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
4. To prevent corrosion, it is recommended to apply a corrosion protection spray on all (even chrome- and nickel-plated) metal surfaces.
5. Use spray oil as a universal cleaner to remove any remaining dirt.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces.
8. Let the motorcycle dry completely before storing it or covering it.

EWA00001

! WARNING

Make sure that there is no oil or wax on the brakes and tires. If necessary, clean the brake discs and linings with a regular brake disc cleaner or acetone, and wash the tires with warm water and mild soap. Then, carefully test the motorcycle for its braking performance and cornering behavior.

MOTORCYCLE CARE AND STORAGE

ECA00013

CAUTION:

- Apply spray oil and wax sparingly and wipe off any excess.
- Never apply oil or wax on rubber and plastic parts, but treat them with a suitable care product.
- Avoid using abrasive polishing compounds as they wear away the paint.

NOTE:

Consult a Yamaha dealer for advice on what products to use.

Storage

Short-term

Always store your motorcycle in a cool, dry place and, if necessary, protect it against dust with a porous cover.

ECA00014

CAUTION:

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

Long-term

Before storing your motorcycle for several months:

1. Follow all the instructions in the “Care” section of this chapter.
2. Drain the carburetor float chambers by loosening the drain bolts; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank.
3. Only for motorcycles equipped with a fuel cock which has an “OFF” position: Turn the fuel cock to “OFF”.
4. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
5. Perform the following steps to protect the cylinders, piston rings, etc. from corrosion.

MOTORCYCLE CARE AND STORAGE

- a. Remove the spark plug caps and spark plugs.
 - b. Pour a teaspoonful of engine oil into each spark plug bore.
 - c. Install the spark plug caps onto the spark plugs and place the spark plugs on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
 - d. Turn the engine over several times with the starter. (This will coat the cylinder walls with oil.)
 - e. Remove the spark plug caps from the spark plugs, install the spark plugs and then the spark plug caps.
6. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
 7. Check and, if necessary, correct the tire air pressure, then raise the motorcycle so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
 8. Cover up the muffler outlets with plastic bags to prevent moisture from entering.
 9. Remove the battery and fully charge it. Store it in a cool, dry place and recharge it once a month. Do not store the battery in an excessively cold or warm place (less than 0 °C or more than 30 °C). For more information, see “Battery storage” in the chapter “PERIODIC MAINTENANCE AND MINOR REPAIRS”.

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

7

EWA00003

 **WARNING**

When turning the engine over, be sure to ground the spark plug electrodes to prevent damage or injury from sparking.

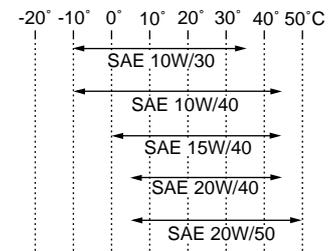
Specifications 8-1
HOW TO USE THE CONVERSION TABLE 8-5

Specifications

Model	XJR1300/XJR1300SP
Dimensions	
Overall length	2,250 mm (for SF, N, S) 2,175 mm (except for SF, N, S)
Overall width	775 mm
Overall height	1,115 mm
Seat height	775 mm
Wheelbase	1,500 mm
Ground clearance	120 mm
Minimum turning radius	2,800 mm
Basic weight (with oil and full fuel tank)	253 kg
Engine	
Engine type	Air-cooled 4-stroke, DOHC
Cylinder arrangement	Forward-inclined parallel 4-cylinder
Displacement	1,250 cm ³
Bore × Stroke	79.0 × 63.8 mm
Compression ratio	9.7:1
Starting system	Electric starter
Lubrication system	Wet sump

Engine oil

Type



Recommended engine oil classification

API Service SE, SF, SG type or higher

CAUTION:

Be sure to use motor oils that do not contain anti-friction modifiers. Passenger car motor oils (often labeled “Energy Conserving”) contain anti-friction additives which will cause clutch and/or starter clutch slippage, resulting in reduced component life and poor engine performance.

Quantity

Periodic oil change	3.0 L
With oil filter replacement	3.35 L
Total amount	4.2 L

Air filter

Dry type element

SPECIFICATIONS

Fuel		
Type	Regular unleaded gasoline	
Fuel tank capacity	21 L	
Fuel reserve amount	4.5 L	
Carburetor		
Type × quantity	BS36 × 4	
Manufacturer	MIKUNI	
Spark plug		
Manufacturer/Type	NGK / DPR8EA-9 or DENSO / X24EPR-U9	
Gap	0.8 ~ 0.9 mm	
Clutch type	Wet, multiple-disc	
Transmission		
Primary reduction system	Spur gear	
Primary reduction ratio	1.750	
Secondary reduction system	Chain drive	
Secondary reduction ratio	2.235	
Transmission type	Constant mesh 5-speed	
Operation	Left foot operation	
Gear ratio		
	1st	2.857
	2nd	2.000
	3rd	1.571
	4th	1.292

	5th	1.115
Chassis		
Frame type	Double cradle	
Caster angle	25° 30'	
Trail	100 mm	
Tires		
Front		
Type	Tubeless	
Size	120/70ZR17 (58W)	
Manufacturer/model	Bridgestone / BT57F Dunlop / D207F Michelin / MACADAM90X	
Rear		
Type	Tubeless	
Size	180/55ZR17 (73W)	
Manufacturer/model	Bridgestone / BT57R Dunlop / D207 Michelin / MACADAM90X	
Maximum load*	207 kg	
Air pressure (cold tire)		
Up to 90 kg load*		
	Front	250 kPa (2.50 kg/cm ² , 2.50 bar)
	Rear	250 kPa (2.50 kg/cm ² , 2.50 bar)

SPECIFICATIONS

90 kg load ~ maximum load*

Front	250 kPa (2.50 kg/cm ² , 2.50 bar)
Rear	290 kPa (2.90 kg/cm ² , 2.90 bar)

High speed riding

Front	250 kPa (2.50 kg/cm ² , 2.50 bar)
Rear	290 kPa (2.90 kg/cm ² , 2.90 bar)

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

Wheels

Front

Type	Cast
Size	17 × MT 3.50

Rear

Type	Cast
Size	17 × MT 5.50

Brakes

Front

Type	Dual disc brake
Operation	Right hand operation
Fluid	DOT 4

Rear

Type	Single disc brake
Operation	Right foot operation
Fluid	DOT 4

Suspension

Front

Type Telescopic fork

Rear

Type Swingarm

Shock absorbers

Front

Coil-air spring / oil damper

Rear

Coil spring / gas-oil damper

Wheel travel

Front

130 mm

Rear

110 mm

Electrical system

Ignition system

T.C.I. (digital)

Charging system

Type

A.C. generator

Standard output

13.5 V, 28 A @ 5,000 r/min

Battery

Type

GT14B-4

Voltage, capacity

12 V, 12 AH

Headlight type

Quartz bulb (halogen)

Bulb voltage, wattage × quantity

Headlight	12 V, 60/55 W × 1
Tail/brake light	12 V, 5/21 W × 2
Auxiliary light	12 V, 4 W × 1
Turn signal lights	12 V, 21 W × 4
Meter light	12 V, 1.7 W × 4
Neutral indicator light	12 V, 1.7 W × 1
High beam indicator light	12 V, 3.4 W × 1
Oil level indicator light	12 V, 1.7 W × 1
Turn indicator light	12 V, 1.7 W × 2

Fuses

Main fuse	30 A
Headlight fuse	15 A
Signaling system fuse	15 A
Ignition fuse	7.5 A

SPECIFICATIONS

EAU01064

HOW TO USE THE CONVERSION TABLE

All specification data in this manual are listed in SI and METRIC UNITS.

Use this table to convert METRIC unit data to IMPERIAL unit data.

Ex.

METRIC		MULTIPLIER	=	IMPERIAL
**mm	×	0.03937	=	**in
2 mm	×	0.03937	=	0.08 in

CONVERSION TABLE

METRIC TO IMPERIAL			
	Metric unit	Multiplier	Imperial unit
Torque	m-kg	7.233	ft-lb
	m-kg	86.794	in-lb
	cm-kg	0.0723	ft-lb
	cm-kg	0.8679	in-lb
Weight	kg	2.205	lb
	g	0.03527	oz
Speed	km/hr	0.6214	mph
Distance	km	0.6214	mi
	m	3.281	ft
	m	1.094	yd
	cm	0.3937	in
	mm	0.03937	in
Volume / Capacity	cc (cm ³)	0.03527	oz (IMP liq.)
	cc (cm ³)	0.06102	cu-in
	lt (liter)	0.8799	qt (IMP liq.)
	lt (liter)	0.2199	gal (IMP liq.)
Misc.	kg/mm	55.997	lb/in
	kg/cm ²	14.2234	psi (lb/in ²)
	Centigrade (°C)	9/5 + 32	Fahrenheit (°F)

Identification number records.....	9-1
Key identification number	9-1
Vehicle identification number.....	9-1
Model label.....	9-2

Identification number records

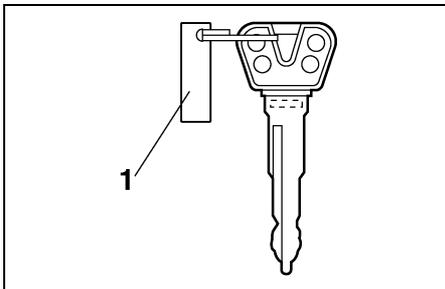
EAU02944

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

1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. MODEL LABEL INFORMATION:

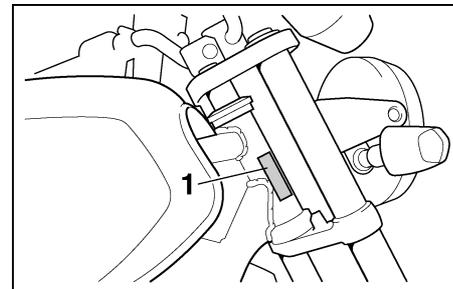


1. Key identification number

EAU01041

Key identification number

The key identification number is stamped on the key tag. Record this number in the space provided and use it for reference when obtaining a new key.



1. Vehicle identification number

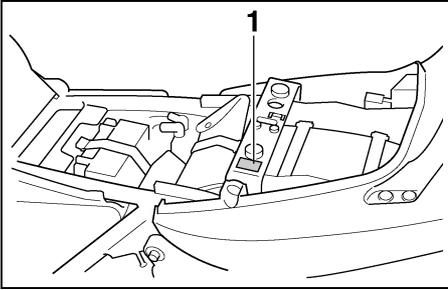
EAU01043

Vehicle identification number

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

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.



1. Model label

EAU01050

Model label

The model label is affixed to the frame under the seat. (See page 3-11 for seat removal procedures.) Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.

INDEX

A

- Air filter6-10
- Antitheft alarm (optional)3-4

B

- Battery6-23
- Brake and clutch lever lubrication.....6-21
- Brake and shift pedal lubrication6-21
- Brake fluid replacement6-19
- Brake light switch adjustment.....6-17

C

- Cable inspection and lubrication6-20
- Carburetor adjustment6-11
- Care7-1
- Center and sidestand lubrication6-22
- Checking the front and rear brake pads6-17
- Clutch lever3-7
- Controls/Instruments2-3

D

- Dimmer switch3-5
- Drive chain lubrication6-20
- Drive chain slack adjustment.....6-19
- Drive chain slack check.....6-19

E

- Engine break-in.....5-5
- Engine oil6-7
- Engine stop switch3-6

F

- Front brake lever.....3-8
- Front fork adjustment3-13

- Front fork inspection6-22
- Front wheel installation6-29
- Front wheel removal6-28
- Fuel3-9
- Fuel cock3-10
- Fuel gauge3-5
- Fuel tank cap.....3-9
- Fuse replacement.....6-25

G

- Give safety the right of way1-1

H

- Handlebar switches3-5
 - Dimmer switch3-5
 - Engine stop switch3-6
 - Horn switch3-5
 - Lights switch3-6
 - Pass switch3-5
 - Start switch3-6
 - Turn signal switch3-5
- Headlight bulb replacement6-25
- Helmet holder3-12
- High beam indicator light3-2
- Horn switch3-5

I

- Identification number records.....9-1
- Idle speed adjustment6-11
- Indicator lights3-2
 - High beam indicator light.....3-2
 - Neutral indicator light.....3-2
 - Oil level indicator light3-2
 - Turn indicator lights3-2
- Inspecting the brake fluid level.....6-18

K

- Key identification number9-1

L

- Left view.....2-1
- Lights switch3-6
- Luggage strap holders3-15

M

- Main switch/Steering lock.....3-1
- Model label9-2

N

- Neutral indicator light3-2

O

- Oil level indicator circuit check3-3
- Oil level indicator light3-2

P

- Panel A6-5
- Panel removal and installation.....6-5
- Parking.....5-6
- Pass switch3-5
- Periodic maintenance and lubrication.....6-2
- Pre-operation check list.....4-1

R

- Rear brake pedal3-8
- Rear brake pedal height adjustment.....6-16
- Rear shock absorber adjustment.....3-13
- Rear wheel installation6-31
- Rear wheel removal6-30
- Recommended shift points (for Switzerland only)5-5
- Right view2-2

S

Seat.....	3-11
Shifting	5-4
Shift pedal	3-7
Sidestand	3-15
Sidestand/clutch switch operation check	3-15
Spark plugs	6-6
Specifications	8-1
Speedometer	3-4
Starter (choke) “ \ ”	3-11
Starting a warm engine.....	5-4
Starting the engine	5-1
Start switch.....	3-6
Steering inspection	6-23
Storage.....	7-4
Storage compartment	3-12

T

Tachometer	3-4
Tail/brake light bulb replacement	6-27
Throttle cable and grip lubrication	6-21
Throttle cable free play inspection	6-12
Tips for reducing fuel consumption	5-5
Tires	6-13
Tool kit.....	6-1
Troubleshooting.....	6-31
Troubleshooting chart.....	6-32
Turn indicator lights	3-2
Turn signal light bulb replacement	6-27
Turn signal switch.....	3-5

V

Valve clearance adjustment	6-12
Vehicle identification number.....	9-1

W

Wheel bearings	6-23
Wheels.....	6-16



PRINTED ON RECYCLED PAPER

PRINTED IN JAPAN
99 · 7 - 0.3 × 1 CR
(E)