



YAMAHA

DT50W

OWNER'S MANUAL

3BK-28199-71

IDENTIFICATION NUMBERS RECORD

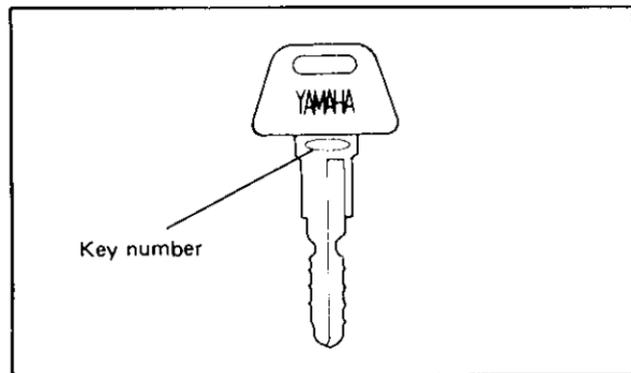
1. KEY NUMBER:

2. VEHICLE NUMBER:

3. ENGINE NUMBER:

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

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



Record your vehicle and engine numbers in the spaces provided to assist you in ordering spare parts from your Yamaha dealer or for reference in case your vehicle is stolen. (See page 3-1)

A-001

DT50W

OWNER'S MANUAL

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1st Edition, June 1988

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INTRODUCTION

Congratulations on your purchase of the Yamaha DT50W. This model is the result of Yamaha's vast experience in the production of fine sporting, touring, and pacesetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will give you an understanding of the operation, inspection, and basic maintenance of this motorcycle. If you have any questions about the operation or maintenance of your motorcycle, please consult a Yamaha dealer.

NOTE: _____

Some data in this manual may become outdated due to future improvement on this model.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

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

⚠ WARNING:

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

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

NOTE:

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

⚠ CAUTION:

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

⚠ WARNING:

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

U-000

NOTE:

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

 **TIPS FOR SAFETY**

TWO-WHEELED MOTORCYCLES ARE SINGLE TRACK VEHICLES. THEIR SAFE USE AND OPERATION ARE DEPENDENT UPON THE USE OF PROPER RIDING TECHNIQUES AS WELL AS THE EXPERTISE OF THE OPERATOR.

EVERY OPERATOR SHOULD KNOW THE FOLLOWING REQUIREMENTS BEFORE RIDING.

HE OR SHE SHOULD:

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

SAFE RIDING

1. Always make pre-operation checks. Careful checks may help prevent an accident.
2. This motorcycle is designed to carry the operator only No passengers.
3. The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

Therefore:

- a. Wear a brightly colored jacket.
 - b. Use extra caution when you approach and pass through intersections, since intersections are the most likely places for motorcycle accidents.
 - c. Ride where other motorists can see you. Avoid riding in another motorist's "blind spot."
4. Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
 - a. Make sure you are qualified. Also, only lend your motorcycle to experienced operators.

- b. Know your skills and limits. Staying within your limits may help you to avoid an accident.
 - c. We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with your motorcycle and all of its controls.
5. Many motorcycle accidents have been caused by motorcycle operator errors. A typical error made by the operator is veering wide on a turn due to **EXCESSIVE SPEED** or undercornering (insufficient lean angle for the speed).
- a. Always obey the speed limits and never travel faster than warranted by road and traffic conditions.
 - b. Always signal before turning or changing lanes. Make sure other motorists see you.
6. Operator's posture is important for proper control. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.
7. Never ride under the influence of alcohol or drugs.

PROTECTIVE APPAREL

The majority of fatalities from motorcycle accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

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

MODIFICATION

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

LOADING AND ACCESSORIES

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

LOADING

The total weight of the operator, accessories and cargo must not exceed the maximum load limit of 157 lbs. (71 kg).

When loading within these weight limits, keep the following in mind:

1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Be sure to distribute the weight as evenly as possible on both sides of the machine to minimize imbalance or instability.
2. Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Recheck accessory mounts and cargo restraints frequently.

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

ACCESSORIES

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

Keep in mind these guidelines for mounting accessories in addition to those provided under "LOADING".

1. Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.

- a. **Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as light weight as possible and should be kept to a minimum.**
 - b. **Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when being passed by or passing large vehicle.**
 - c. **Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability. Therefore such accessories are not recommended.**
- 2. Caution must be used if adding electrical accessories. If these accessories exceed the capacity of motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.**

GASOLINE AND EXHAUST GAS

- 1. GASOLINE IS HIGHLY FLAMMABLE:**
 - a. Always turn off the engine when refueling.
 - b. Take care not to spill any gasoline on the engine or exhaust pipe(s)/muffler(s) when refueling.
 - c. Never refuel while smoking or in the vicinity of an open flame.
- 2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.**
- 3. Always turn off the engine before leaving the motorcycle unattended and remove the ignition key. When parking the motorcycle, note the following:**
 - a. The engine and exhaust pipe(s)/muffler(s) may be hot. Park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
 - b. Do not park the motorcycle on a slope or soft ground: the motorcycle may fall over.
 - c. Do not park the motorcycle near an flammable source, e.g. a kerosene heater, or near an open flame. The motorcycle could catch fire.

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

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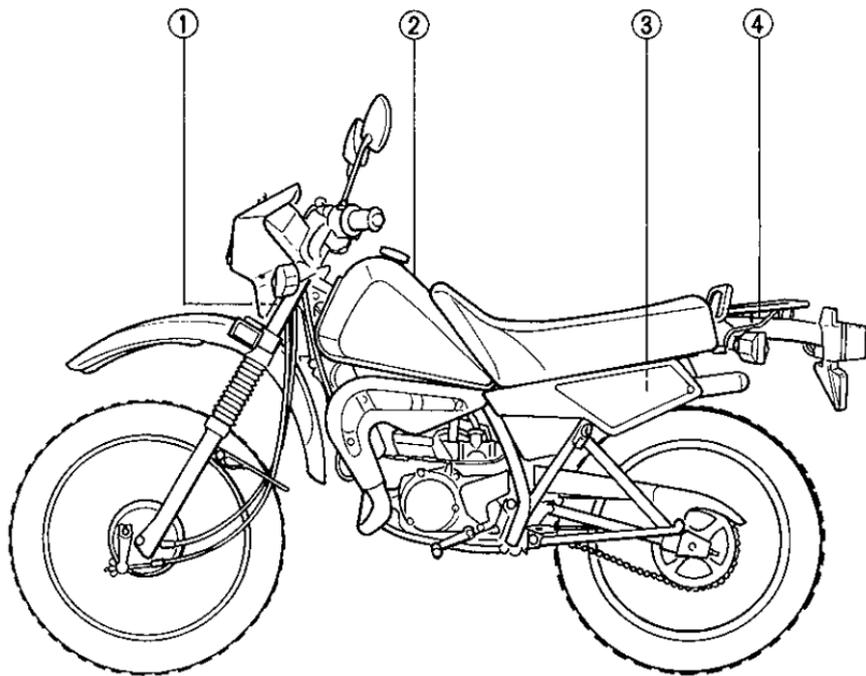
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WIRING DIAGRAM

LOCATION OF THE IMPORTANT LABELS

Please read following labels carefully before operating this motorcycle.

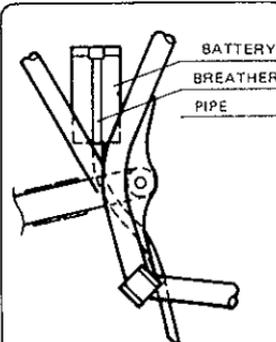


① MFD. BY YAMAHA MOTOR CO., LTD. [] A (506)
 GVWR ***** kg GAWR FRONT - ***** kg. WITH ***** (B) TIRE,
 ***** RIM, AT ***** PSI COLD. REAR - ***** Kg. WITH
 ***** (B) TIRE, ***** RIM, AT ***** PSI COLD.
 THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTORVEHICLE
 SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE
 SHOWN ABOVE.
 VEHICLE ID NO. [] B
 TYPE CLASSIFICATION . . . MOTORCYCLE.

② **WARNING**
 OPERATOR ONLY
 NO PASSENGERS

AVERTISSEMENT
 OPERATEUR UNIQUEMENT
 PAS DE PASSAGERS

③ HOW TO LAYOUT
BATTERY BREATHER
 PIPE



BATTERY
 BREATHER
 PIPE

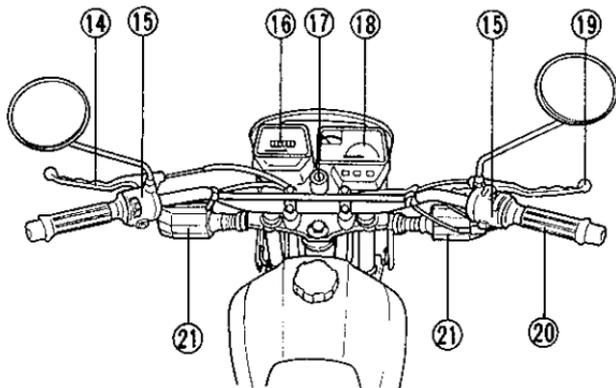
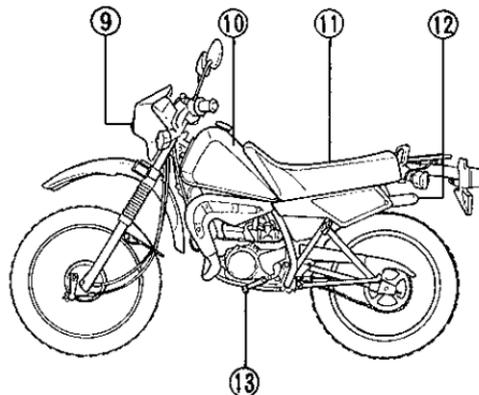
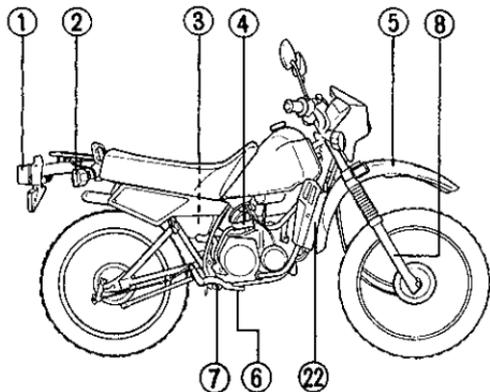
21A-00

CAUTION
 (BATTERY REMOVAL AND INSTALLATION)

1. Be careful not to splash the electrolyte to the drive chain.
2. Remove the breather pipe before demounting the battery.
3. After installing the battery, be sure to connect the breather pipe into place.

④ **WARNING**
 Max. Load 3 kg (6.6 lbs)

DESCRIPTION



- | | |
|-------------------------|-------------------------|
| 1. Tail/Brake light | 12. Silencer |
| 2. Rear flasher light | 13. Change pedal |
| 3. Monocross suspension | 14. Clutch lever |
| 4. Kick starter | 15. Handlebar switch |
| 5. Front fender | 16. Speedometer |
| 6. Brake pedal | 17. Main switch |
| 7. Footrest | 18. Tachometer |
| 8. Front fork | 19. Brake lever |
| 9. Headlight | 20. Throttle grip |
| 10. Fuel tank | 21. Front flasher light |
| 11. Seat | 22. Radiator |

U-002

NOTE:

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

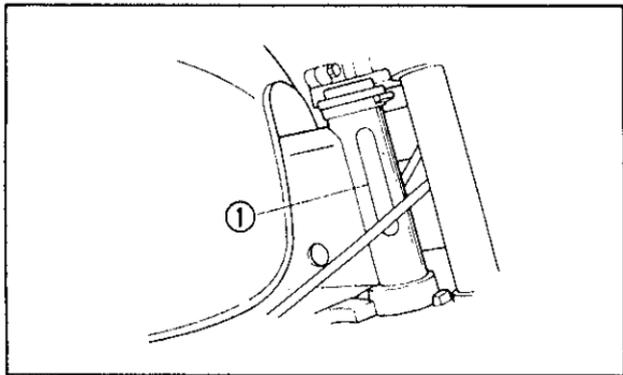
A-600

MOTORCYCLE IDENTIFICATION

A-800

Vehicle identification number

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



1. Vehicle identification number

U-004

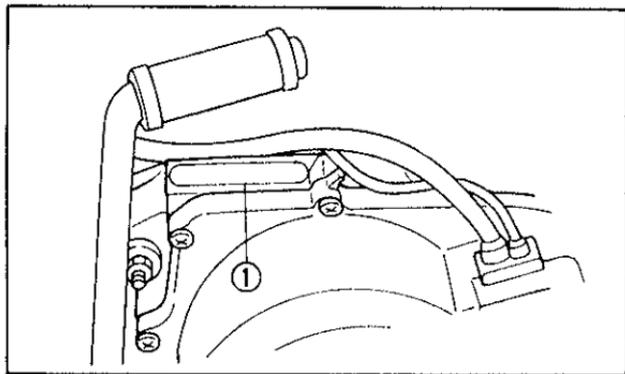
NOTE:

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.

A-701

Engine serial number

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



1. Engine serial number

U-003

NOTE:

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

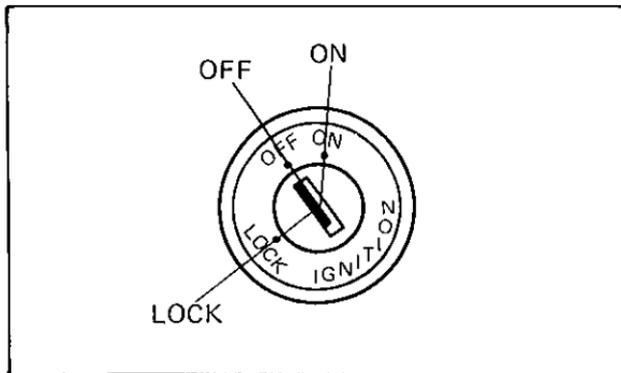
B-000

CONTROL FUNCTIONS

B-001

Main switch

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



B-014

ON:

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

U-006

NOTE: _____

When the engine is started, the headlight and meter lights come on automatically, and the lights stay on until the main switch is turned to "OFF" even if the engine stalls.

B-006

OFF:

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

B-007

LOCK:

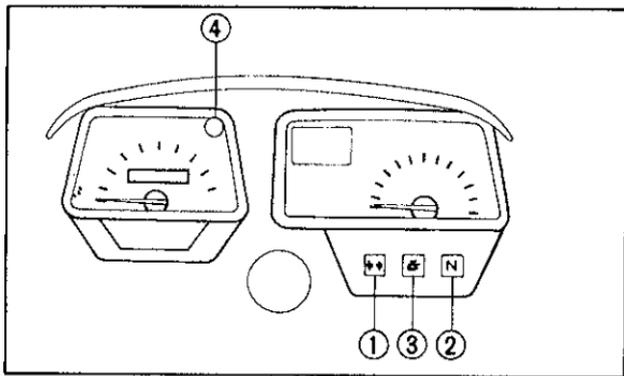
The steering is locked in this position, and all electrical circuits are switched off. The key can be removed in this position. Refer to "Steering lock" (Page 4-9) for proper operation.

U-007

NOTE: _____

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

Indicator lights



1. "TURN" indicator light
2. "NEUTRAL" indicator light
3. "OIL" warning indicator light
4. "HIGH BEAM" indicator light

B-101

"TURN" indicator light (orange):

This indicator flashes when the turn switch is "ON".

B-102

"NEUTRAL" indicator light (green):

This indicator comes on when the transmission is in neutral.

B-103

"HIGH BEAM" indicator light (blue):

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

B-107

"OIL" warning indicator light (red):

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

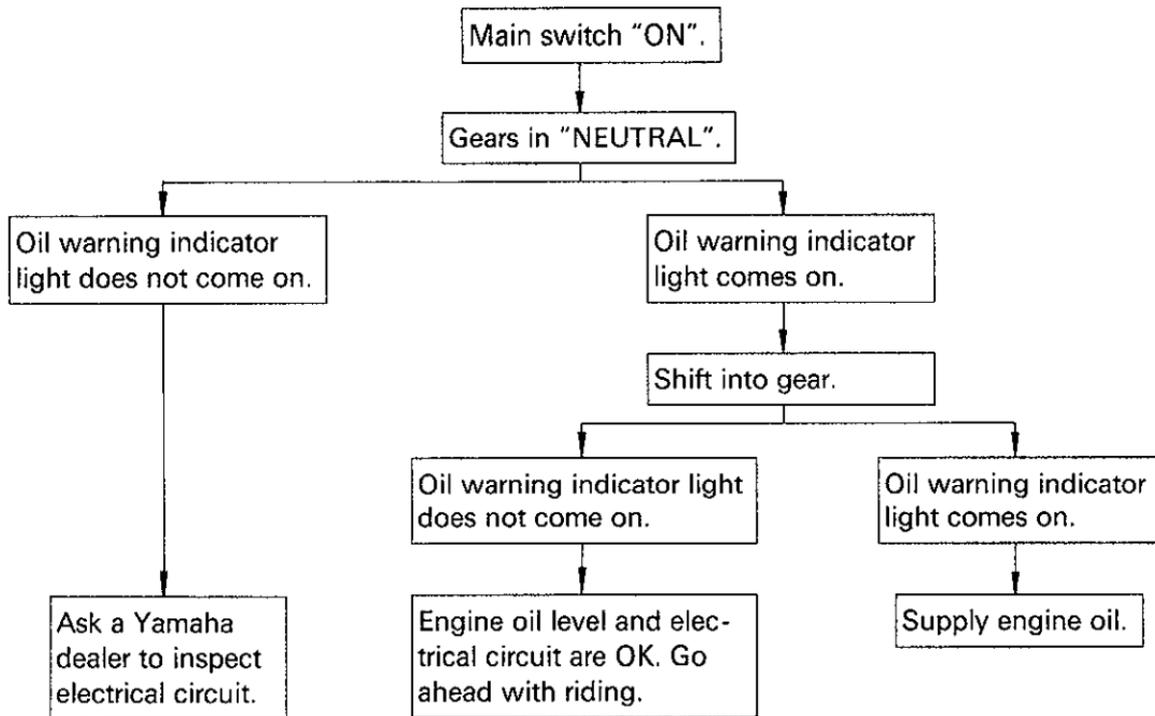
U-300

CAUTION:

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

Oil warning light checking method

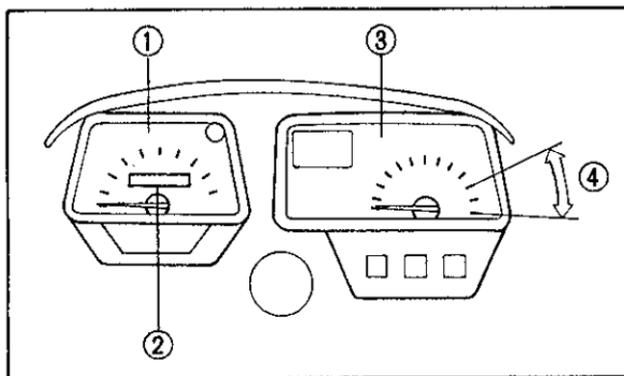
CB3-03



B-407

Speedometer

The odometer is built into the speedometer.



1. Speedometer
2. Odometer
3. Tachometer
4. Red zone

B-403

Tachometer

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

U-304

⚠ CAUTION:

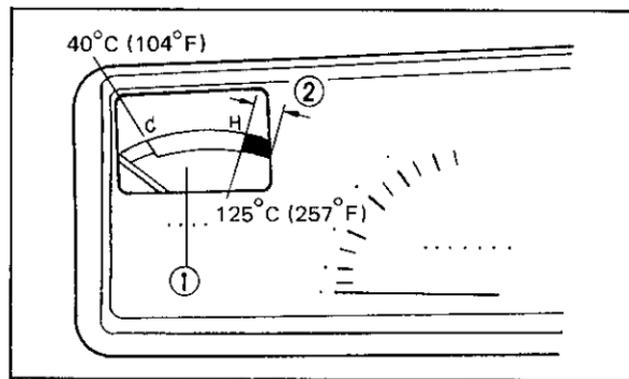
Do not operate in the red zone

Red zone: 10,000 r/min and above

B-501

Engine temperature gauge

This gauge indicates the coolant temperature when the main switch is ON. The engine operating temperature will vary with changes in weather and engine load. If the needle points to the red zone or higher, stop your motorcycle and let the engine cool. (See page 7-8 for more detail.)



1. Engine temperature gauge 2. Red zone

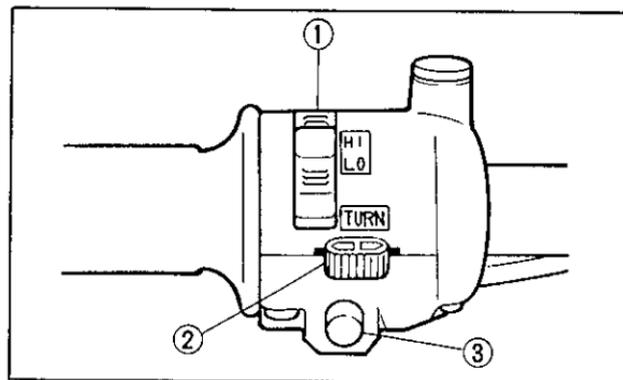
U-305

CAUTION:

When the engine is overheated, do not continue riding.

B-600

Handlebar switches:



1. "LIGHTS" (Dimmer) switch 2. "TURN" switch
3. "HORN" switch

B-601

"LIGHTS" (Dimmer) switch

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

B-605

"TURN" signal switch

This is a three-way switch: the center position is off; turn to the "L" to turn on the left flasher and to the "R" for the right flasher. Be sure to turn the switch off after completing a turn.

B-602

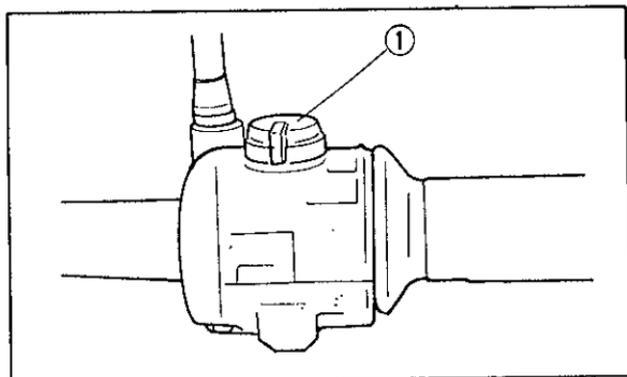
"HORN" switch

Press the switch to sound the horn.

B-609

"ENGINE STOP" switch

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



1. "ENGINE STOP" switch

B-701

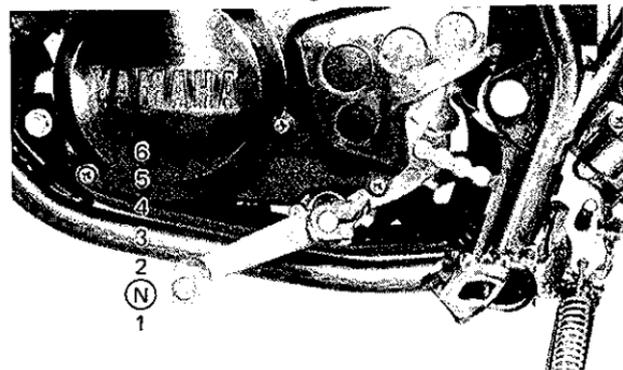
Clutch lever

The clutch lever is located on the left handlebar; it disengages or engages the clutch. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth starts.

B-800

Change pedal

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



B-900

Front brake lever

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

B-901

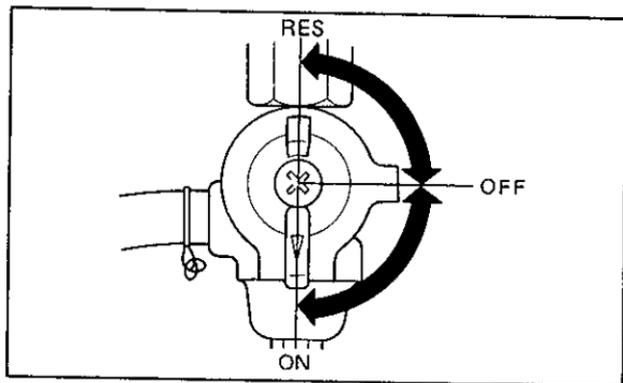
Rear brake pedal

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

C-101

Fuel cock

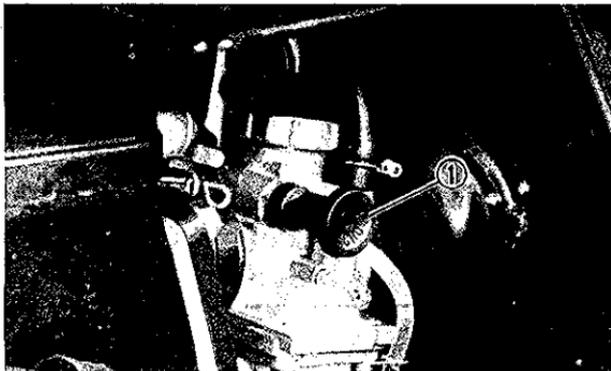
The fuel cock supplies fuel from the tank to carburetor while filtering the fuel. The fuel cock has the three positions:



- OFF:** With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.
- ON:** With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.
- RES:** This indicates reserve. If you run out of fuel while riding, move the lever to this position. **FILL THE TANK AT THE FIRST OPPORTUNITY. BE SURE TO SET THE LEVER TO "ON" AFTER REFUELING.**

Starter knob (CHOKE)

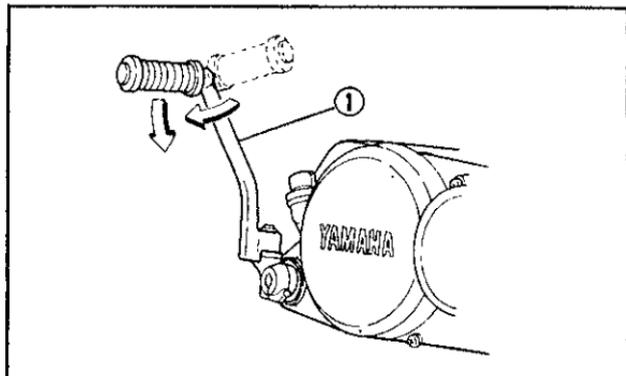
When cold, the engine requires a richer air-fuel mixture for starting. A separate starter circuit supplies this mixture. Pull the starter knob out to open the circuit for starting. When the engine has warmed up, push the knob in to close the circuit.



1. Starter knob

Kick starter

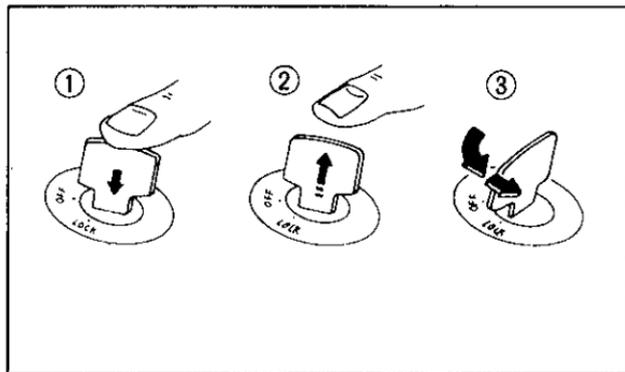
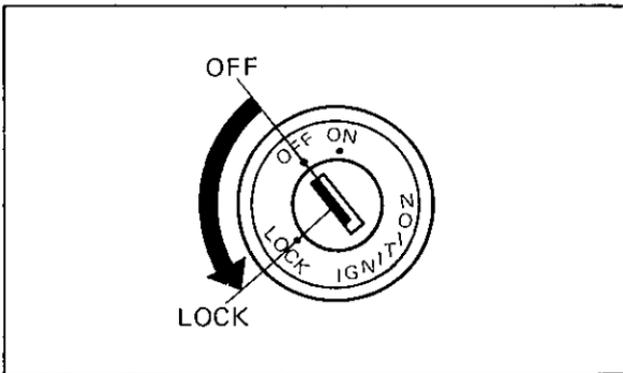
Rotate the kick starter away from the engine. Push the starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine. This model has a primary kick starter so the engine can be started in any gear if the clutch is disengaged. In normal practices, however,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



1. Kick starter

Steering lock

The steering is locked when the main switch is turned to "LOCK." To lock the steering, turn the handlebars all the way to the left or right. With the key at "OFF," push it into the main switch, turn the key counterclockwise to "LOCK," and remove the key. To release the lock, turn the key clockwise.



1. Push

2. Release

3. Turn

U-614

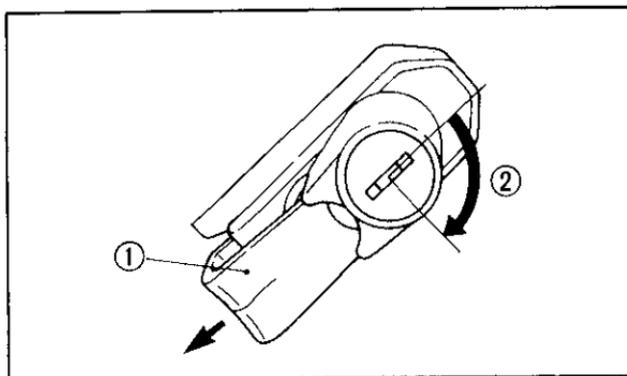
⚠ WARNING:

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

C-500

Helmet holder

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



1. Helmet holder 2. Open

U-615

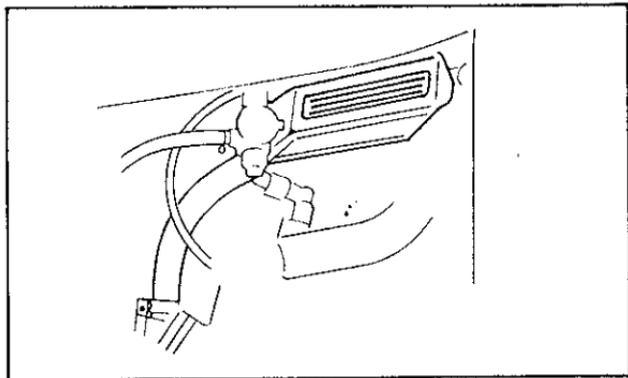
⚠ WARNING:

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

D-550

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

Handle the air chamber and hose with special care. Improper installation or damaged parts will result in poor performance. Replace any cracked or damaged parts immediately. No modification of this system in any form is not allowed.



U-376

⚠ CAUTION:

Never attempt to modify the Yamaha Energy Induction System.

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 6-2 for an explanation of this system.)

U-689

WARNING:

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

cycle to a Yamaha dealer immediately for repair.

D-305

Sidestand switch operation check

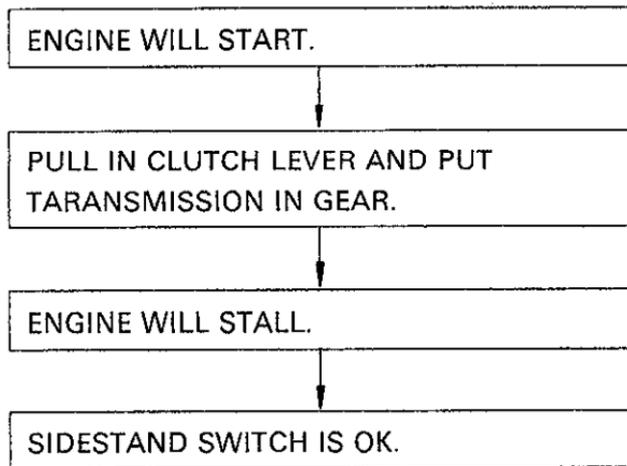
Check the operation of the sidestand switch against the information below.

CD3-02

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

TRANSMISSION IS IN NEUTRAL AND SIDESTAND IS DOWN.

KICK THE KICK STARTER.



U-691

⚠ WARNING:

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

PRE-OPERATION CHECKS

Before using this motorcycle, check the following points:

Item	Routine	Page
Front and rear brakes	Check operation, condition and free play. Adjust if necessary.	5-3,7-16~7-19
Clutch	Check operation, condition and free play. Adjust if necessary.	5-3, 7-19~7-20
Throttle grip/Housing	Check for smooth operation. Lubricate if necessary.	5-3, 7-23
Autolube tank	Check oil level/top up as required.	7-24
Transmission oil	Check oil level/top-up as required.	5-4~5-5,7-6~7-8
Coolant reservoir tank	Check coolant level/top up as required.	5-5~5-6,7-8~7-11
Drive chain	Check chain slack and condition. Adjust if necessary.	5-6,7-20~7-23
Wheels/Tires	Check tire pressure, wear, damage and spoketightness	5-6~5-9
Fittings/Fasteners	Check all chassis fittings and fasteners. Tighten/Adjust, if necessary.	5-9, 7-5
Fuel tank	Check fuel level/top-up as required.	5-9~5-10
Lights and signals	Check for proper operation.	5-9,7-30~7-32
Battery	Check fluid level, top-up with distilled water if necessary.	5-9,7-27~7-29

NOTE:

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

 WARNING:

If any item in the Pre-Operation Check is not working properly, have it inspected and repaired before operating the motorcycle.

Brakes (See page 7-16 for more detail)

1. Brake lever and brake pedal
Check for correct free play in the front brake lever and rear brake pedal. Make sure they are working properly. Check the brakes at low speed shortly after starting out. If the free play is incorrect, adjust it.
2. Check the brake shoes.
Refer to page 7-19.

U-022

NOTE:

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

E-200

Clutch (See page 7-19 for more detail)

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

E-301

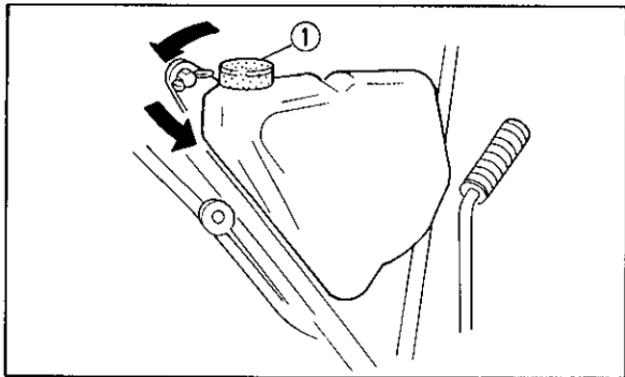
Throttle grip (See page 7-23 for more detail)

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

E-413

Engine oil

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



1. Oil tank filler cap

Recommended oil:

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

Oil quantity:

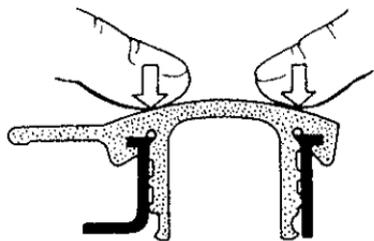
Total amount

1.3 L (1.1 Imp qt, 1.4 US qt)

U-042

NOTE: _____

Be sure to push the cap into the filler neck until it is properly seated.



E-404

Transmission oil (See page 7-6 for more detail)

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

Recommended oil:

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

Oil quantity:

Total amount:

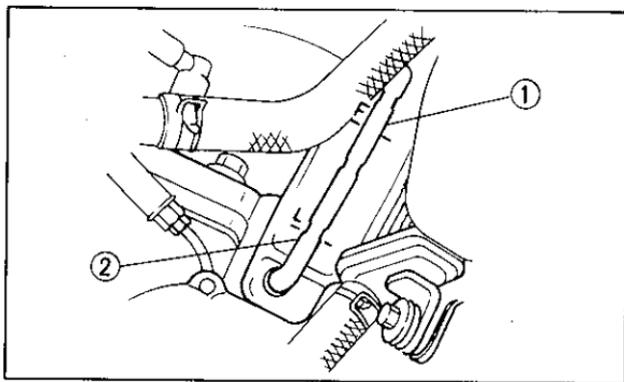
0.75 L (0.66 Imp qt, 0.79 US qt)

Periodic oil change:

0.7 L (0.61 Imp qt, 0.74 US qt)

Coolant

Check the coolant level in the reservoir tank when the engine is cold. (The coolant level will vary with engine temperature.) The coolant level is satisfactory if it is between the FULL and LOW marks on the tank. If the coolant level is at or below the LOW level, add tap water (soft water) to bring the level up to FULL. Change the coolant every two years. (See page 7-8 for more detail.)



1. "FULL" level

2. "LOW" level

⚠ WARNING:

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

⚠ CAUTION:

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

Reservoir tank capacity:

Total:

0.38 L (0.33 Imp qt, 0.40 US qt)

From LOW to FULL level:

0.20 L (0.18 Imp qt, 0.21 US qt)

Chain (See page 7-20 for more detail)

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

Tires

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

1. Tire air pressure

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

⚠ WARNING:

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

Basic weight: With oil and full fuel tank	86 kg (190 lb)	
Maximum load*	71 kg (157 lb)	
Cold tire pressure	Front	Rear
0 kg (0 lb) ~ Maximum load*	130 kPa (1.3 kg/cm ² , 18 psi)	130 kPa (1.3 kg/cm ² , 18 psi)

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

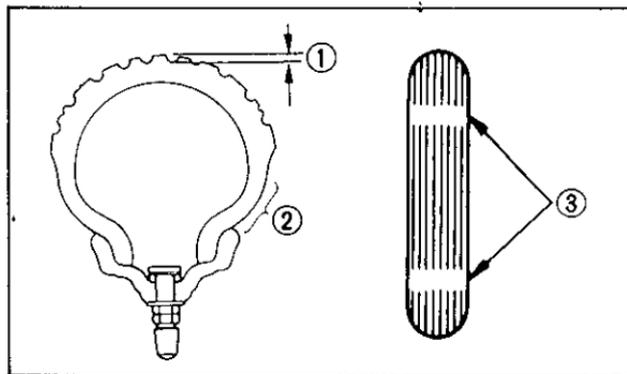
⚠ WARNING:

Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your motorcycle. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Check the condition and pressure of your tires.

NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the cargo, rider, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

2. Tire inspection

Always check the tires before operating the motorcycle. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer or other qualified mechanic immediately and have him replace the tire.



1. Tread depth 2. Side wall 3. Wear indicator

CE9-02

FRONT:

Manufacture	Size	Type
INOUE	2.50 - 19 4 PR	

REAR:

Manufacture	Size	Type
INOUE	3.00 - 17 4 PR	

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

⚠ WARNING:

- 1. It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines. Have a Yamaha dealer replace the tire immediately. Brakes, tires, and related wheel parts replacement should be left to a Yamaha Service Technician.**
 - 2. Patching a punctured tube is not recommended. If it is absolutely necessary to do so, use great care and replace the tube as soon as possible with a good quality replacement.**
-

Wheels

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

1. Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the wheel; be sure the spokes are tight and undamaged. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
2. Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.
3. After installing a tire, ride conservatively to allow the tire to seat itself on the rim properly. Failure to allow proper seating may cause tire failure, resulting in damage to the motorcycle and injury to the rider.

E-850

Fittings/Fasteners

Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 7-5 to find the correct torque.

E-700

Lights and signals

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

E-704

Switches

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

E-705

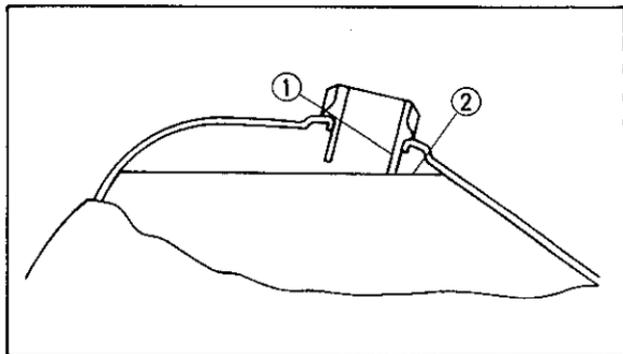
Battery (See page 7-27 for more detail)

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

E-800

Fuel

Make sure there is sufficient fuel in the tank.



1. Filler tube 2. Fuel level

U-610

WARNING:

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

Recommended fuel:

REGULAR UNLEADED GASOLINE

Fuel tank capacity:

Total: 8.5 L (1.9 Imp gal, 2.2 US gal)

Reserve: 2.0 L (0.4 Imp gal, 0.5 US gal)

Your Yamaha engine has been designed to use regular unleaded gasoline with a pump octane number ($[R + M]/2$) of 86 or higher, or research octane number of 91 or higher. If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel. Unleaded fuel will give you longer spark plug life and reduced maintenance cost. If unleaded gasoline is not available, then leaded regular gasoline can be used.

Gasohol

There are two types of gasohol, gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can

be used if ethanol content does not exceed 10%. Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage or vehicle performance problems.

OPERATION AND IMPORTANT RIDING POINTS

U-672

⚠ WARNING:

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

U-628

⚠ WARNING:

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

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

F-123

Starting a cold engine

U-074

NOTE:

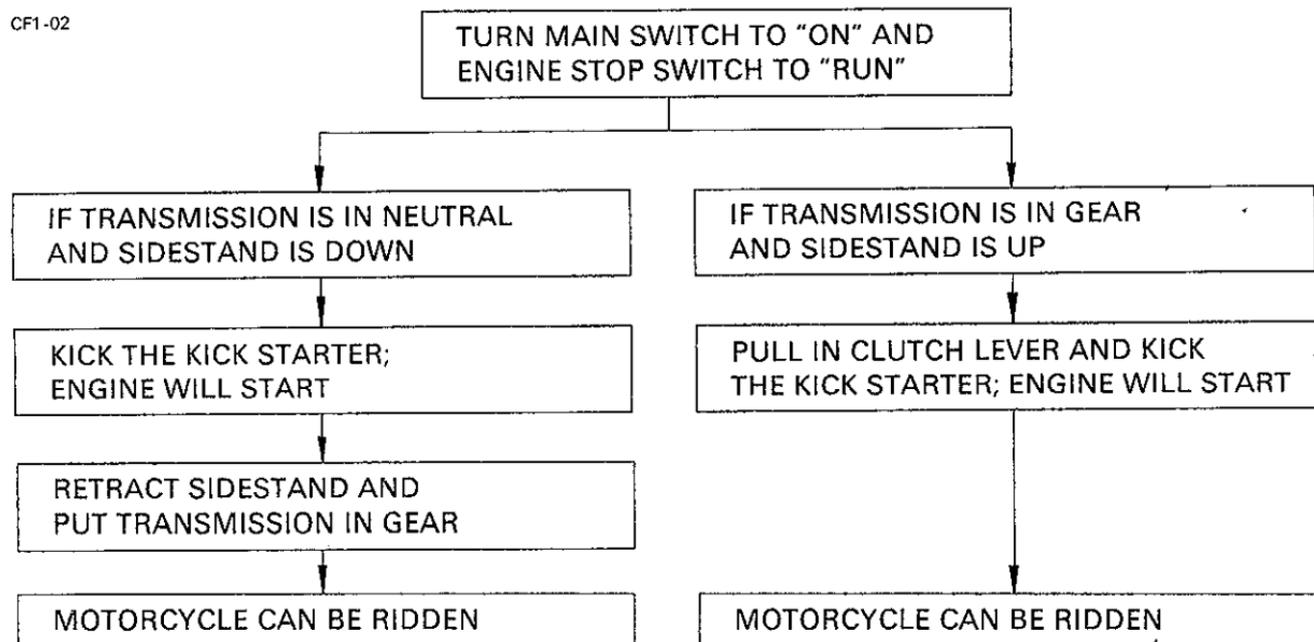
This motorcycle is equipped with an ignition circuit cut-off switch.

1. The engine can be started only under the following conditions:
 - a. The transmission is in neutral.
 - b. The sidestand is up, the transmission is in gear, and the clutch is disengaged.
2. The motorcycle must not be ridden when the sidestand is down.

⚠ WARNING:

Before going through the following steps, check the function of the sidestand switch. (Refer to page 4-11.)

CF1-02



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

U-030

NOTE: _____

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

4. Operate the starter (CHOKE) and completely close the throttle grip.
5. Kick the kick starter to start the engine.
6. After the engine starts, warm it up for one or two minutes. Make sure the starter is returned to its original position before riding.

F-110

Engine warm-up

To ensure maximum engine life, always warm up the engine before riding your motorcycle.

Never accelerate hard with a cold engine. An engine is warm if it responds normally to the throttle when the starter (CHOKE) is turned off.

F-108

Starting a warm engine

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

U-314

CAUTION: _____

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

F-200

Shifting

The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the change pedal is shown in the illustration. (Page 4-6)

To shift into NEUTRAL, depress the change pedal repeatedly until it reaches the end of its travel (you will feel a stop when you are in first gear) then raise the pedal slightly.

U-315

⚠ CAUTION:

- 1. Do not coast for long periods with the engine off, and do not tow the motorcycle a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.**
 - 2. Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without the clutch.**
-

F-300

Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation or any condition which might result in excessive heating of the engine, must be avoided.

F-309

- 1. 0 ~ 500 km (0 ~ 300 mi):**
Avoid operation above 4,000 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.

2. 500 ~ 1,000 km (300 ~ 600 mi):
Avoid prolonged operation above 5,000 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

U-354

⚠ CAUTION: _____

After 1,000 km (600 mi) of operation, be sure to replace the transmission oil.

3. 1,000 km (600 mi) and beyond:
Full throttle can be used.

U-387

⚠ CAUTION: _____

Never let engine speeds enter the red zone.

U-322

⚠ CAUTION: _____

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

F-401

Parking

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

U-830

⚠ WARNING: _____

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

PERIODIC MAINTENANCE AND MINOR REPAIR

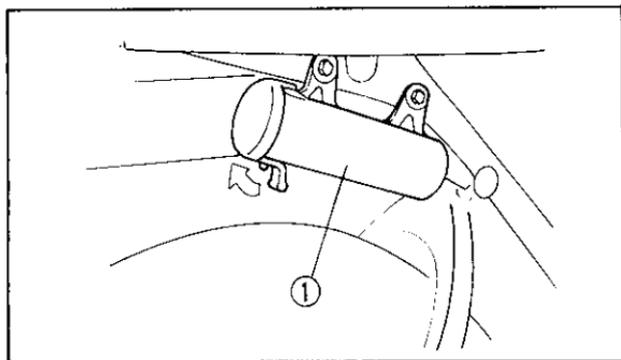
Periodic inspection, adjustment, and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication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

WARNING:

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

Tool kit

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are sufficient for most of these purposes; however a torque wrench is also necessary to properly tighten nuts and bolts.



1. Tool kit

U-060

NOTE: _____

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

U-671

⚠ 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/LUBRICATION

Unit: km (miles)

ITEM	REMARKS	BREAK-IN 1,000(600)	EVERY	
			3,000 (2,000) or 6 months	6,000 (4,000) or 12 months
Spark plug(s)	Check condition. Clean or replace if necessary.	○	○	○
Air filter	Clean. Replace if necessary.		○	○
Carburetor*	Check idle speed(/synchronization)/starter operation. Adjust if necessary.	○	○	○
Fuel line*	Check fuel hose (and vacuum pipe) for cracks or damage. Replace if necessary.		○	○
Transmission oil*	Check oil level/oil leakage. Correct if necessary. Replace every 12,000 (8,000) or 24, months (Warm engine before draining.)	REPLACE	○	○
Autolube pump*	Check operation. Correct if necessary. Air bleeding.	○	○	○
Brake	Check operation. Adjust it necessary.		○	○
Clutch*	Check operation. Adjust if necessary.		○	○
Wheels*	Check balance/damage/runout/spoke tightness. Repair if necessary.		○	○
Wheel bearings*	Check bearings assembly for looseness/damage. Replace if damaged.		○	○
Steering bearing*	Check bearings assembly for looseness. Correct if necessary. Moderately repack every 24,000 (16,000) or 24 months.**	○		○
Front forks*	Check operation/oil leakage. Repair if necessary.		○	○
Rear shock absorber*	Check operation/oil leakage. Repair if necessary.		○	○

ITEM	REMARKS	BREAK-IN 1,000(600)	EVERY	
			3,000 (2,000) or 6 months	6,000 (4,000) or 12 months
Cooling system	Check coolant leakage. Repair if necessary. Replace coolant every 24,000 (16,000) or 24 months.		○	○
Drive chain	Check chain slack/alignment. Adjust if necessary. Clean and lube.	EVERY 500 (300)		
Fittings/Fasteners*	Check all chassis fittings and fasteners. Correct if necessary.	○	○	○
Sidestand*	Check operation. Repair if necessary.	○	○	○
Sidestand switch	Check operation. Clean or replace if necessary.	○	○	○
Battery*	Check specific gravity. Check breather pipe for proper operation. Correct if necessary.		○	○

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

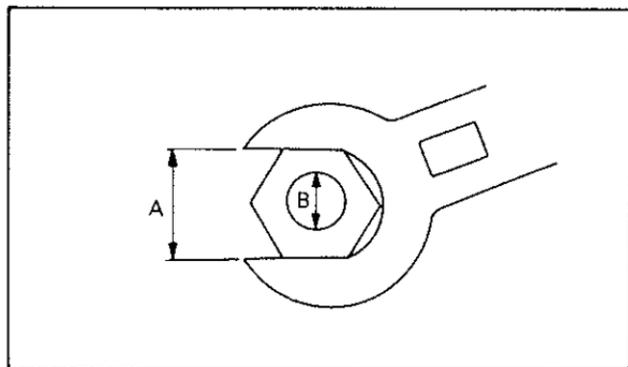
** : Medium weight wheel bearing grease.

Torque specifications

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

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

Item	Torque		
	Nm	m·kg	ft·lb
Spark plug	25	2.5	18
Drain plug—Transmission	20	2.0	14
Front wheel axle	45	4.5	32
Rear wheel axle	60	6.0	43
Drain bolt—Cylinder side	14	1.4	10
Drain bolt—Housing cover side	8	0.8	6
Tension bar bolt	18	1.8	13

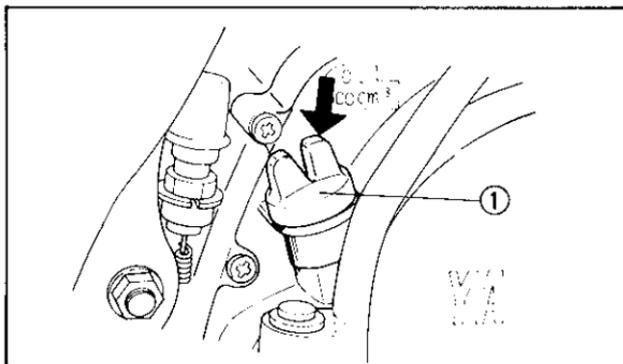


CH3-01

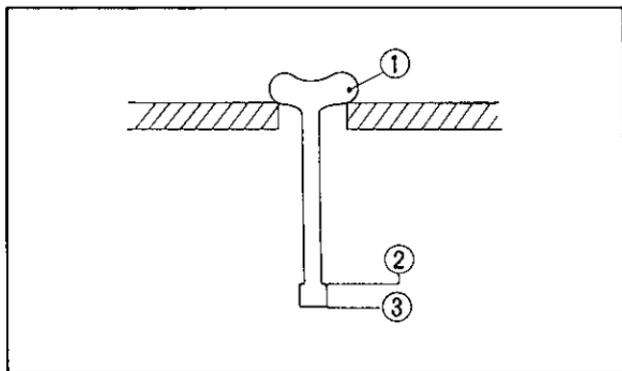
A (Nut)	B (Bolt)	General torque specifications		
		Nm	m·kg	ft·lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94

Transmission oil level check

1. To check the oil level, the motorcycle must stand **VERTICALLY** with its both wheels on the ground. A slight tilt toward the side can produce false readings.
2. When checking the oil level, stop the engine and remove the dip stick. Rest the dip stick on the threads of the hole.
3. The dip stick has a minimum and maximum mark; the oil level should be between the two. If the level is low add oil to raise it to the proper level.



1. Oil filler cap



1. Dip stick 2. Maximum level 3. Minimum level

Recommended oil:

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

Oil quantity:

0.75 L (0.66 Imp qt, 0.79 US qt)

U-349

⚠ CAUTION:

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

U-324

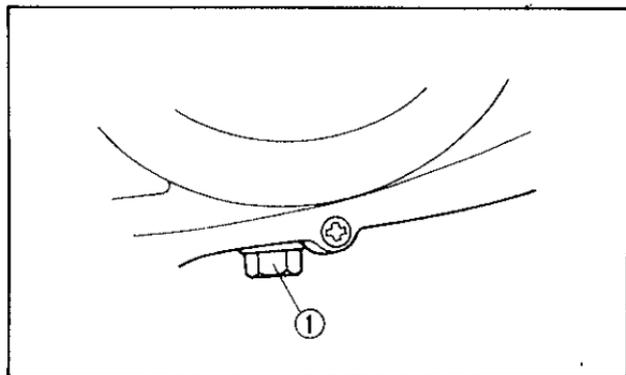
⚠ CAUTION:

Be sure no foreign material enters the crankcase.

H-404

Transmission oil replacement

1. To drain the oil, warm up the engine for several minutes.
2. Place an oil pan under the engine.
3. Remove the drain plug and drain the oil.



1. Drain plug

4. Reinstall the drain plug (make sure it is tight).

Drain plug torque:
20 Nm (2.0 m·kg, 14 ft·lb)

5. Add oil through the dip stick hole.

Periodic oil change:
0.7 L (0.61 Imp qt, 0.74 US qt)

6. After replacement of transmission oil, be sure to check for oil leaks.

H-509K

Cooling system

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

1. If your motorcycle overheats

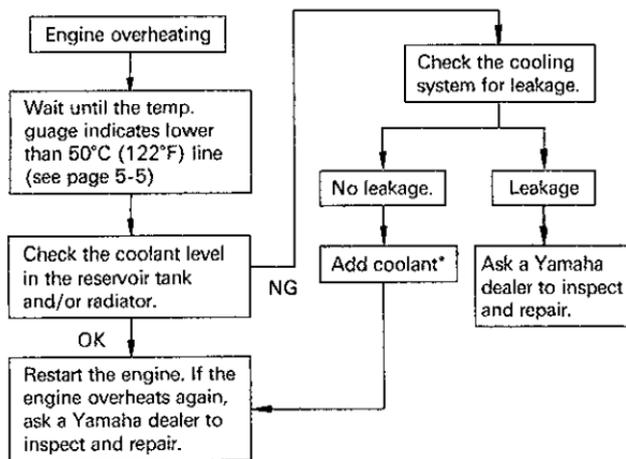
U-705K

WARNING:

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

If overheating is detected, perform the following checks:

CH5-01

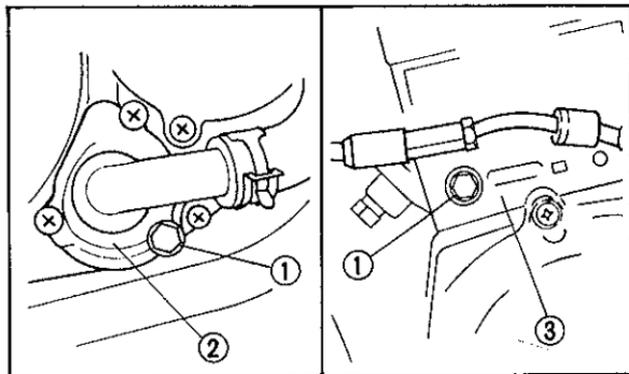


U-043

NOTE:

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

2. Changing the coolant
 - a. Remove the radiator cover and radiator cap.
 - b. Place a container under the engine.
 - c. Remove the drain bolts.



1. Drain bolts 2. Hosing cover 3. Cylinder

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

Tightening torque:

Drain bolts:

Cylinder side

14 Nm (1.4 m·kg, 10 ft·lb)

Housing cover side

8 Nm (0.8 m·kg, 6 ft·lb)

- f. Pour the recommended coolant into the radiator is full.

Recommended coolant:

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

Coolant and water mixed ratio:

50%/50%

Total amount:

0.6 L (0.53 Imp qt, 0.63 US qt)

Reservoir tank capacity:

0.38 L (0.33 Imp qt, 0.40 US qt)

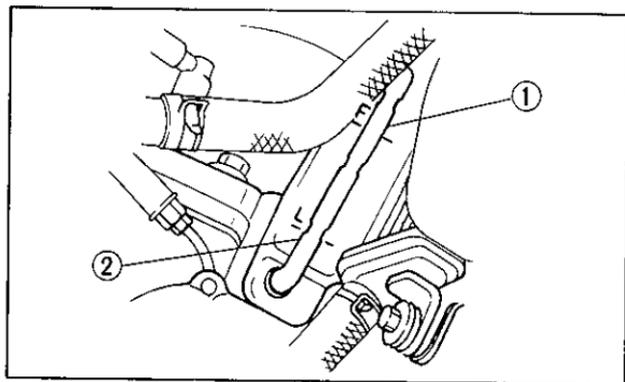
From LOW to FULL level:

0.20 L (0.18 Imp qt, 0.21 US qt)

⚠ CAUTION:

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

- g. Reinstall the radiator cap.
h. Run the engine several minutes to re-check the coolant level in the radiator. If it is low, add more coolant until it reaches the top of the radiator.



1. "FULL" level

2. "LOW" level

- i. Fill the reservoir tank with coolant up to "FULL" level.
- j. Reinstall the reservoir tank cap and check for coolant leakage.

U-044

NOTE: _____

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

- k. Install the radiator cover.

H-600

Fuel cock cleaning

The fuel cock has a built-in filter to remove any particles before they reach the carburetor. If the filter becomes blocked, fuel cannot enter the carburetor.

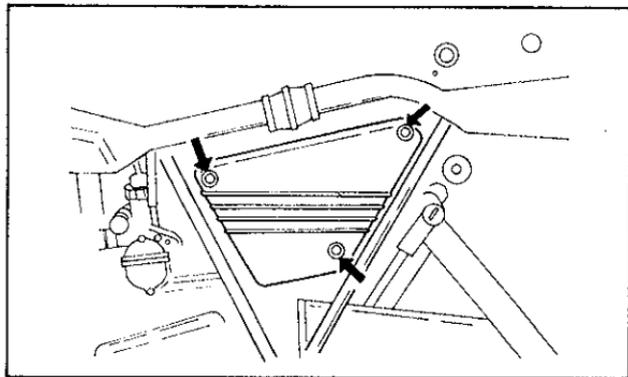
1. First, turn the cock lever to the "OFF" then remove the filter cup and clean the bottom of the cup with solvent.

2. After removing the filter cup, remove and clean the filter screen. At the same time, you should examine the condition of the filter gasket. Replace if damaged.
3. When reassembling, be careful not to clamp the filter cup too tightly as this may unseat the O-ring and lead to a fuel leak.

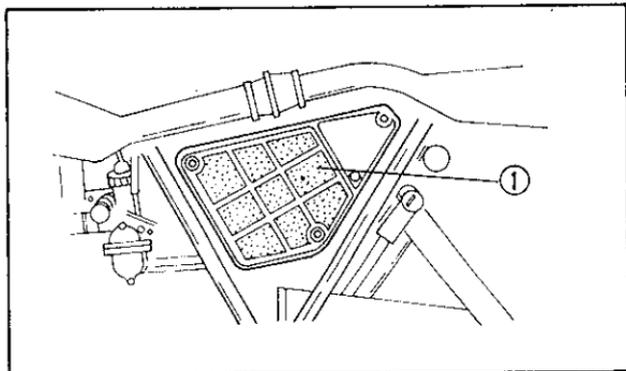
H-635

Air filter

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



3. Remove the element from its case, and clean it with solvent.

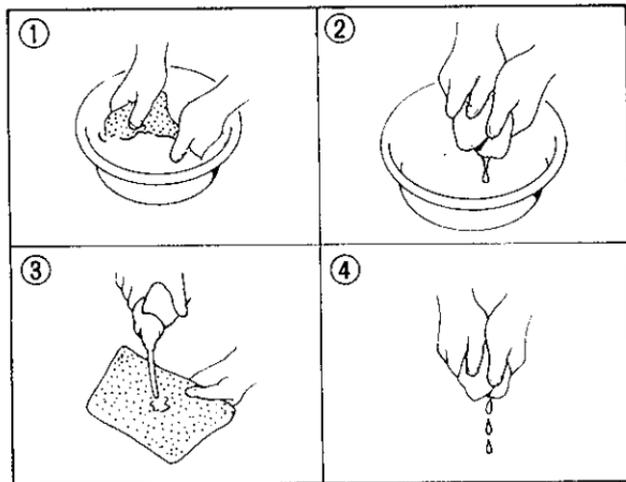


1. Air filter element

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

Recommended oil:

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



5. When installing the element in its case, be sure its sealing surface matches the sealing surface of the case so there is no air leak.
6. The element should be cleaned at the specified intervals. It should be cleaned more often if the motorcycle is operated in dusty or wet areas.

⚠ CAUTION:

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

Carburetor adjustment

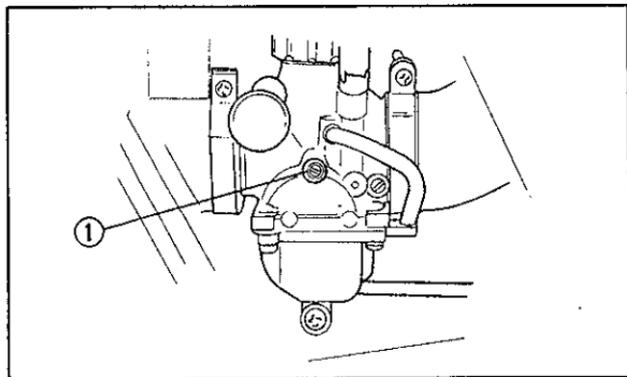
The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following point may be serviced by the owner as part of this routine maintenance.

⚠ CAUTION:

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

Idle speed adjustment

1. Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.
2. Set the idle to the specified engine speed by adjusting the throttle stop screw; turn the screw in to increase engine speed, turn the screw out to decrease engine speed.



1. Throttle stop screw

Standard idle speed:
1,300 r/min

U-045

NOTE:

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

H-903

Throttle cable adjustment

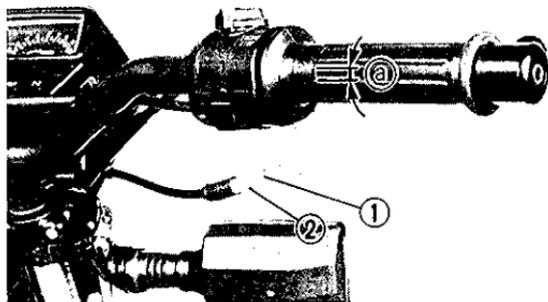
U-064

NOTE:

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

The throttle cable should have a specified free play in the turning direction at the grip flange. If the play is incorrect, take the following steps for adjustment.

Free play:
2 ~ 5 mm (0.08 ~ 0.2 in)



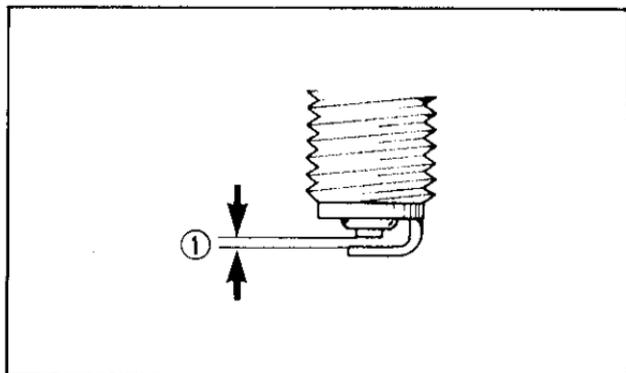
1. Lock nut 2. Adjuster
a. 2 ~ 5 mm (0.08 ~ 0.2 in)

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

Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something of the condition of the engine. The ideal color on the white porcelain insulator around the center electrode is a medium to light tan color for a motorcycle that is being ridden normally. Do not attempt to diagnose any problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plug because heat and deposits will cause the spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with a proper type plug.

Standard spark plug:
BR8ES (NGK)



1. Spark plug gap

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

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

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

Spark plug torque:
25 Nm (2.5 m·kg, 18 ft·lb)

U-038

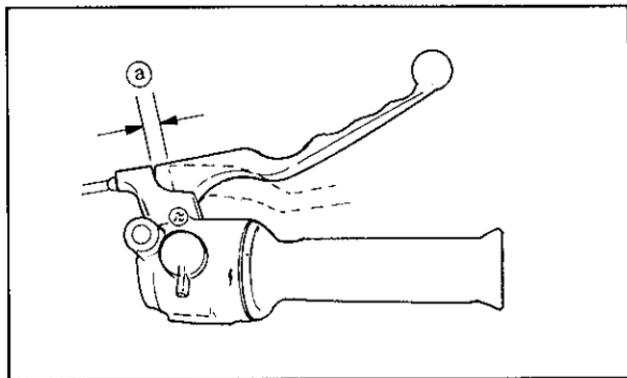
NOTE:

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

H-855

Front brake adjustment

The front brake should be adjusted to suit the rider's preference; but free play at the brake lever pivot point should be 5 ~ 8 mm (0.2 ~ 0.3 in). Adjustment is accomplished at the front brake hub. To adjust, turn the adjuster clockwise to reduce play; turn it counter-clockwise to increase play.

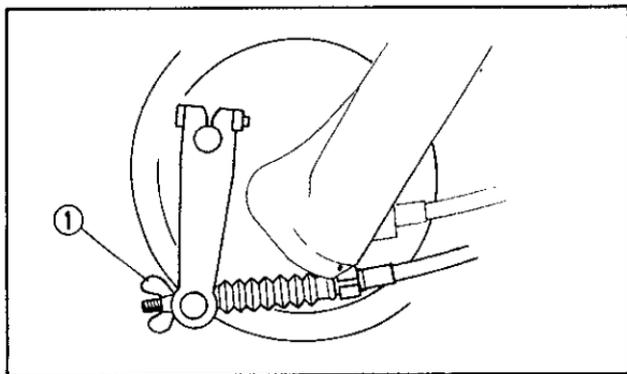


a. 5 ~ 8 mm (0.2 ~ 0.3 in)

U-732K

⚠ WARNING:

When it is impossible to make the proper adjustment, ask a Yamaha dealer.



1. Adjuster

H-849

Rear brake adjustment

U-643

⚠ WARNING:

For brake pedal adjustment, be sure to proceed as follows: (It is advisable to have a Yamaha dealer make this adjustment.)

1. Pedal height
 - a. Loosen the adjuster lock nut (for pedal height).

- b. By turning the adjuster clockwise or counterclockwise, adjust the brake pedal position so that its top end is approx. 20 mm (0.8 in) below the top of the footrest.
- c. Secure the adjuster lock nut.

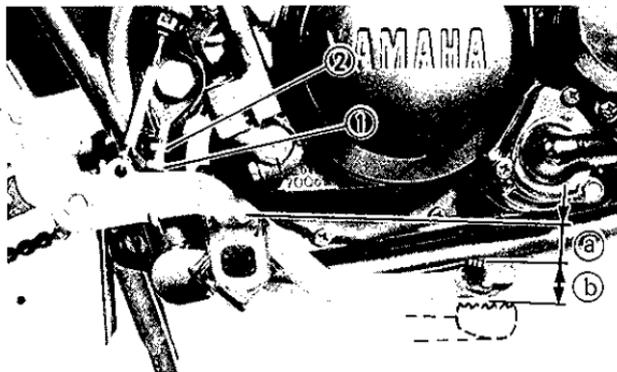
U-644

⚠ WARNING:

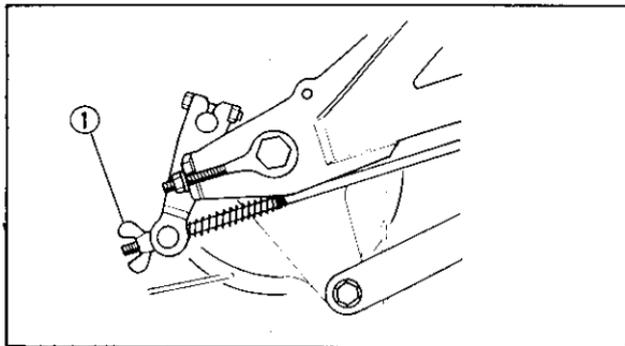
After adjusting the pedal height, adjust brake pedal free play.

2. Free play

The rear brake should be adjusted to suit the rider's preference; but free play at the brake pedal end must be 20 ~ 30 mm (0.8 ~ 1.2 in). Turn the adjuster on the brake rod clockwise to reduce play; turn the adjuster counterclockwise to increase play.



1. Adjuster bolt (For pedal height)
2. Lock nut
 - a. 20 mm (0.8 in)
 - b. 20 ~ 30 mm (0.8 ~ 1.2 in)



1. Adjuster

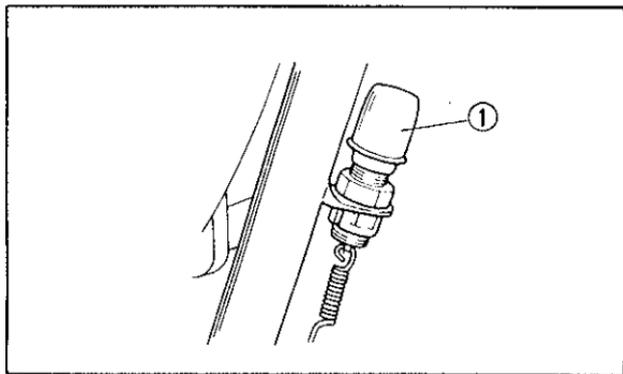
⚠ WARNING:

1. The rear brake pedal adjustment must be checked anytime chain is adjusted or rear wheel is removed and then reinstalled.
2. Check the operation of the brake light after adjusting the rear brake.

H-833

Brake light switch adjustment

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

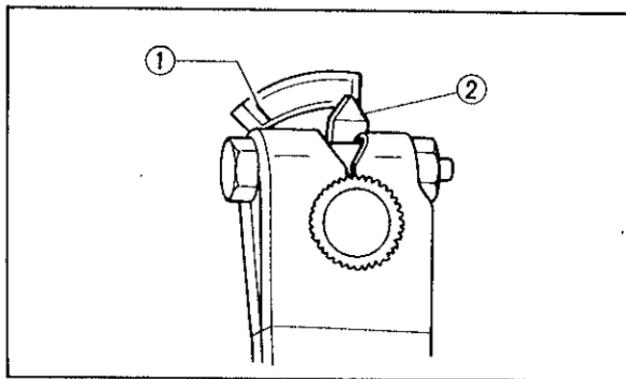


1. Brake light switch

H-816

Checking the brake shoes

A wear indicator is attached to each brake to facilitate brake shoes check. This indicator permits a visual check without disassembling the brake. To check, look at the wear indicator while depressing the brake pedal or pulling the brake lever. If the indicator reaches to the wear limit line, ask a Yamaha dealer to replace shoes.



1. Wear limit

2. Wear indicator

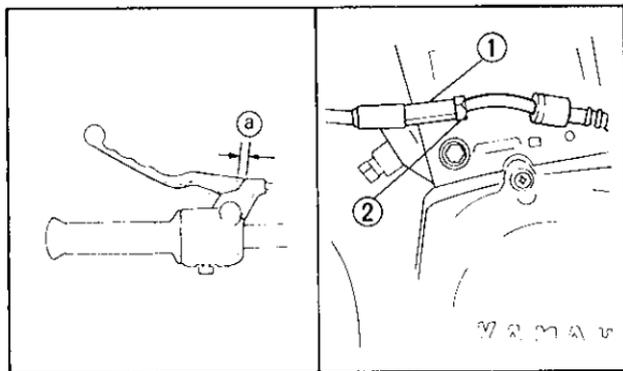
I-012

Clutch adjustment

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

Clutch lever free play:

2 ~ 3 mm (0.08 ~ 0.12 in)



1. Adjuster 2. Lock nut a. 2 ~ 3 mm (0.08 ~ 0.12 in)

I-014K

Mechanism adjustment

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

I-408

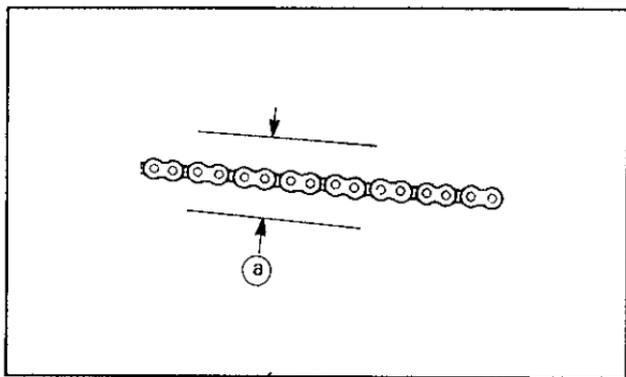
Drive chain slack check

U-048

NOTE:

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

To check the chain slack the motorcycle must stand vertically with its both wheels on the ground and without a rider. Check the slack at the position shown in the illustration. The normal vertical deflection is approximately 40 ~ 50 mm (1.6 ~ 2.0 in). If the deflection exceeds 50 mm (2.0 in) adjust the chain slack.



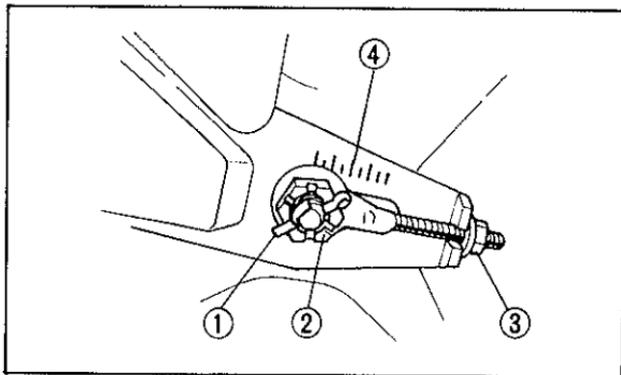
a. 40 ~ 50 mm (1.6 ~ 2.0 in)

I-414

Drive chain slack adjustment

1. Loosen the rear brake adjuster.
2. Remove the cotter pin from the rear wheel axle nut.
3. Loosen the rear wheel axle nut.
4. To tighten the chain, turn chain adjuster clockwise. To loosen the chain, turn the adjuster counterclockwise and push the wheel forward. Turn each adjuster exactly the same amount to maintain correct axle alignment. (There are marks

on each side of swingarm and on each chain adjuster; use them to check for proper alignment.)



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

U-333

CAUTION:

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

5. After adjusting, be sure to tighten the axle nut.

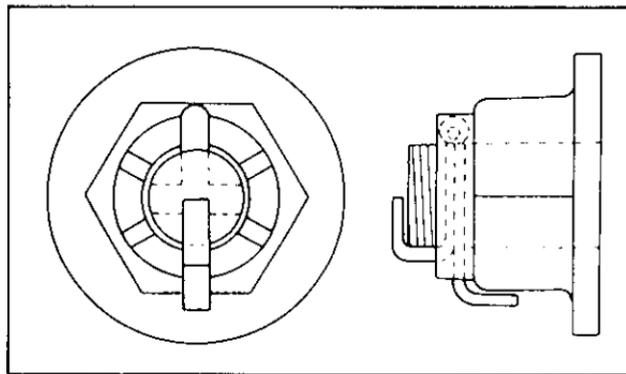
Axle nut torque:
60 Nm (6.0 m·kg, 43 ft·lb)

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

U-647

⚠ WARNING:

Always use a new cotter pin on the axle nut.



7. Adjust the free play in the brake pedal.

U-645

⚠ WARNING:

Check the operation of the brake light after adjusting the rear brake.

I-406

Drive chain lubrication

The chain consists of many parts which work against each other. If the chain is not maintained properly, it will wear out rapidly, therefore, service the chain regularly.

This service is especially necessary when riding in dusty conditions.

1. Use any of the many brands of spray type chain lubricant. First, remove all dirt and mud from the chain with a brush or cloth then spray a lubricant between both rows of side plates and on all center rollers. This should be performed every 500 km (300 mi).
2. To clean the chain, remove the chain from the motorcycle, dip it in solvent, and clean out as much dirt as possible. Take the chain out of the solvent and dry it. Immediately lubricate the chain to prevent rust.

I-101

Cable inspection and lubrication

U-646

⚠ WARNING:

Damage to the outer housing of the various cables may cause corrosion and interfere with the movement of the

cable. An unsafe condition may result so replace such cables as soon as possible.

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

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

I-102

Throttle cable and grip lubrication

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

I-108

Autolube pump adjustment

The Autolube pump is a vital part of the engine and requires very sophisticated adjustment. Most adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to do so.

I-302

Brake and change pedals

Lubricate the pivoting parts.

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

I-303

Brake and clutch levers

Lubricate the pivoting parts.

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

I-312

Sidestand

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

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

U-704

⚠ WARNING:

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

I-205K

Front fork inspection

U-667

⚠ WARNING:

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

1. Visual check

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

U-121K

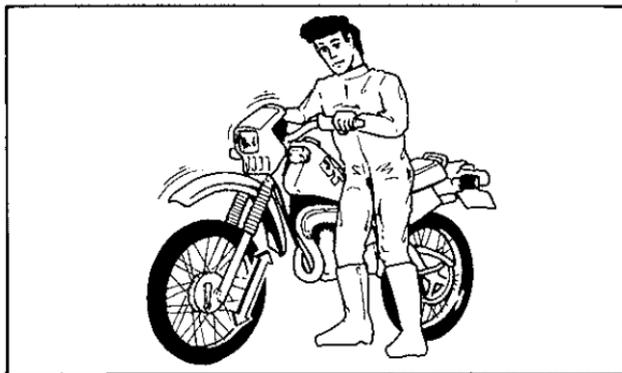
NOTE: _____

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

2. Operation check

Place the motorcycle on a level place.

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



U-122K

NOTE: _____

If the front fork movement is not smooth consult a Yamaha dealer.

Rear shock (Monocross suspension "De Carbon" system)

U-673

⚠ WARNING:

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

1. Do not tamper with or attempt to open the cylinder assembly.
2. Do not subject shock absorber to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.
3. Do not deform or damage the cylinder in any way. Cylinder damage

will result in poor damping performance.

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

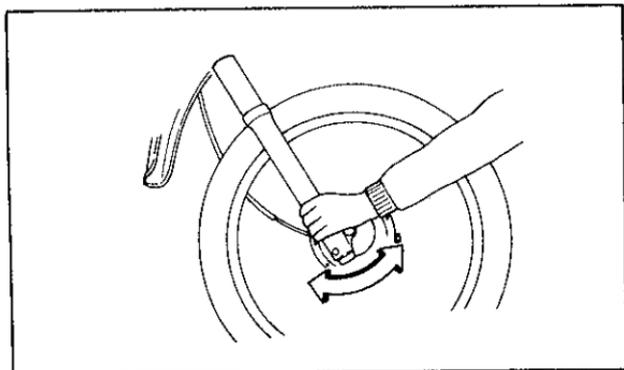
I-603

Steering inspection

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

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

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



U-657

⚠ WARNING:

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

I-602

Wheel bearings

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

I-700

Battery

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

U-336

⚠ CAUTION:

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

U-658

⚠ 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.

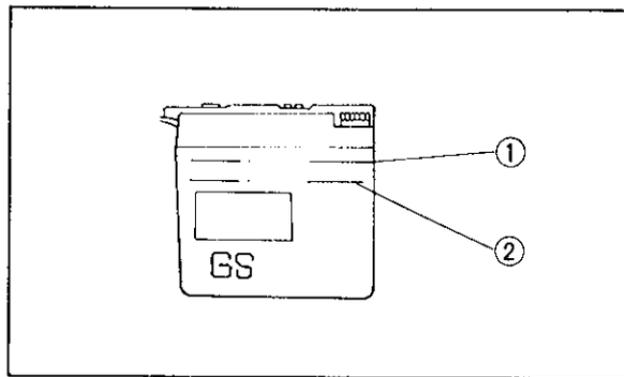
Eyes: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries. KEEP OUT OF REACH OF CHILDREN.

I-704

Replenishing the battery fluid

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

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



1. Upper level

2. Lower level

U-338

⚠ CAUTION:

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

U-659

⚠ WARNING:

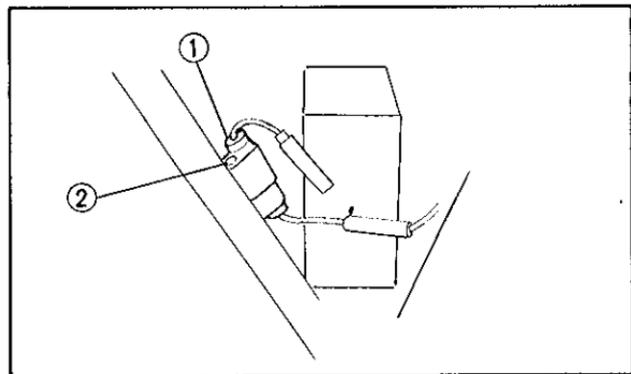
Battery fluid on the chain can cause premature failure and possibly an accident.

2. When the motorcycle will not be used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reusing.
3. If the battery will be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.
4. Always make sure the connections are correct when putting the battery back in the motorcycle. Make sure the breather pipe is properly connected and is not damaged or obstructed.

Fuse replacement

If a fuse is blown, turn off the ignition switch and the switch in the circuit in question. Install a new fuse of proper amperage.

Turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.



1. Main fuse 2. Spare fuse.

⚠ 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.

I-807

Replacing the headlight bulb

This motorcycle is equipped with a sealed beam headlight. If the headlight burns out, ask a Yamaha dealer to replace the bulb and adjust the unit.

I-819

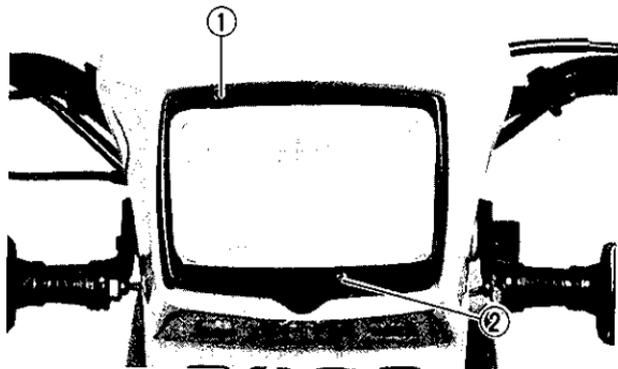
Headlight beam adjustment

U-343

⚠ CAUTION:

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

1. Horizontal adjustment:
To adjust the beam to the right, turn the adjuster clockwise.
To adjust the beam to the left, turn the adjuster counterclockwise.
2. Vertical adjustment:
To raise the beam, turn the adjuster counterclockwise.
To lower the beam, turn the adjuster clockwise.



1. Horizontal adjuster screw 2. Vertical adjuster screw

Replacing the taillight and flasher light bulb:

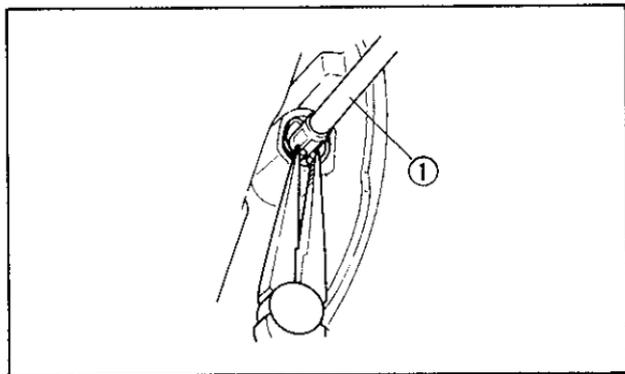
1. Remove the two screws, and now the lens can be removed. Replace the oil seal, if damaged.
2. Push in the bulb and turn it about 30° to remove the bulb.
3. For installation, reverse the above procedure.

NOTE:

Make sure the oil seal is positioned properly.

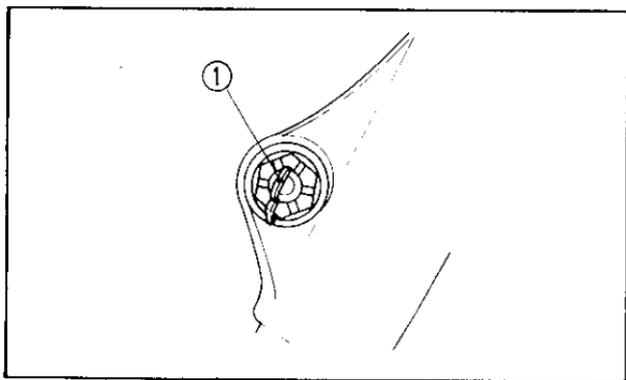
Front wheel removal

1. Elevate the front wheel by placing a suitable stand under the engine.
2. Remove the speedometer cable from front brake shoe plate: first remove the clip and then pull cable out.



1. Speedometer cable

3. Remove the brake cable: loosen all cable adjusters and remove the cable from handlebar lever holder. Then remove the cable from cam lever at the front brake shoe plate.
4. Remove the cotter pin from front wheel axle and remove the axle nut.



1. Cotter pin

5. Turn and pull out the front wheel axle; the wheel assembly can now be removed.

J-210

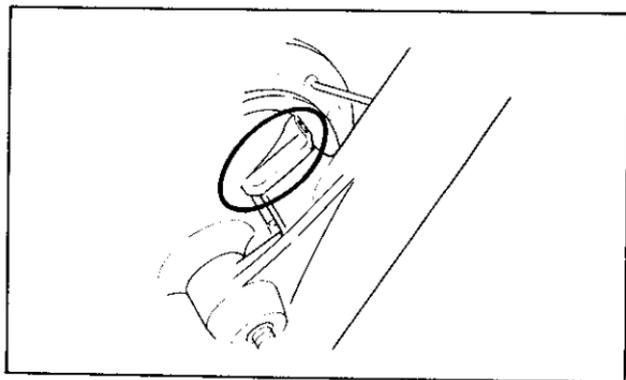
Front wheel installation

When installing the front wheel, reverse the removal procedure.

Pay attention to the following points:

1. Make sure the wheel hub and the brake shoe plate assembly are installed with the projections meshed into the slots.

2. Be sure the boss on the outer fork tube correctly engages with the locating slot on the brake shoe plate.



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

U-647

⚠ WARNING:

Always use a new cotter pin on the axle nut.

Axle nut torque:
45 Nm (4.5 m·kg, 32 ft·lb)

4. Adjust the free play in the brake lever.

J-364K

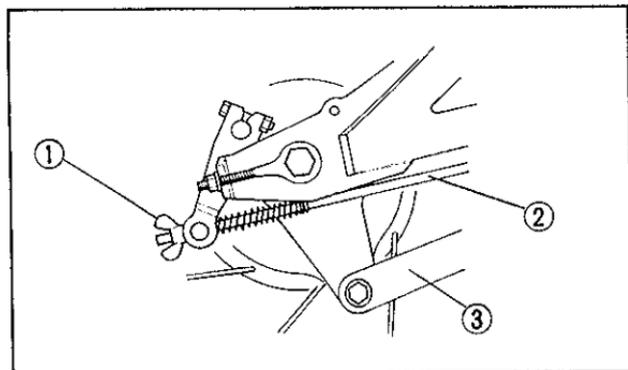
Rear wheel removal

U-662

⚠ WARNING:

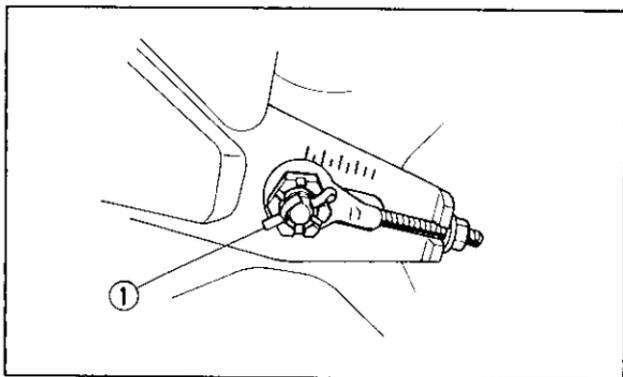
It is advisable to have a Yamaha dealer service the rear wheel.

1. Elevate the rear wheel by placing a suitable stand under the engine.
2. Remove the tension bar and the brake rod from the brake shoe plate. The tension bar can be removed by removing the cotter pin and nut from the tension bar blot. The brake rod can be removed by removing the adjuster.



1. Adjuster 2. Brake rod 3. Tention bar

3. Disconnect the drive chain.
4. Remove the cotter pin from the wheel axle and remove the rear wheel axle nut.
5. Then the rear wheel assembly, collar, chain puller(s), etc., can be removed from the motorcycle by pulling out the wheel axle.



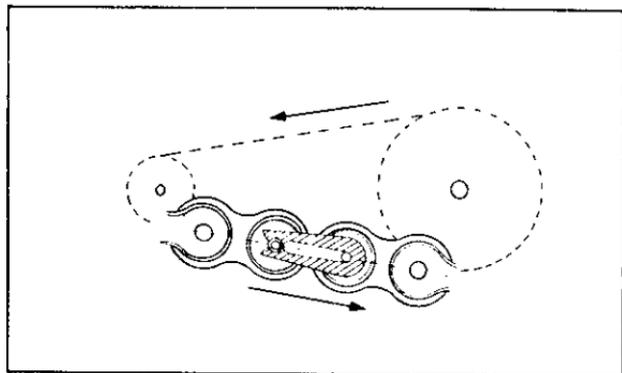
1. Cotter pin

J-365K

Rear wheel installation

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

1. When connecting the chain, make certain the closed end of the master link clip is facing the direction of rotation.



2. Adjust the drive chain.
3. Make sure the axle nut and tension bar bolt are properly torqued, and a new cotter pin is installed.

U-647

⚠ WARNING:

Always use a new cotter pin on the axle nut.

⚠ WARNING:

Always use a new cotter pin on the tension bar bolt.

Tightening torque:

Axle nut:

60 Nm (6.0 m·kg, 43 ft·lb)

Tension bar bolt:

18 Nm (1.8 m·kg, 13 ft·lb)

4. Adjust the rear brake. (See page 7-17.)

⚠ WARNING:

Check the operation of the brake light after adjusting the rear brake.

Troubleshooting

Although Yamaha motorcycles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and a loss of power. The troubleshooting chart describes a quick, easy procedure for checking these systems.

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

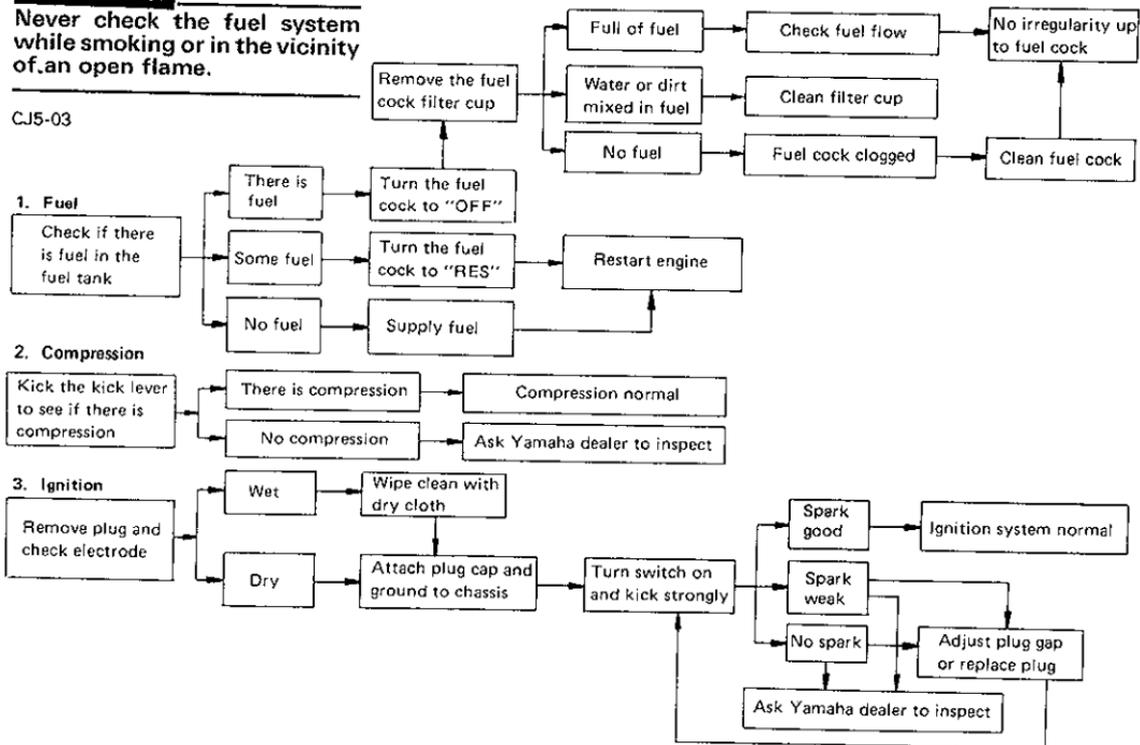
Troubleshooting chart

U-663

⚠ WARNING:

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

CJ5-03



CLEANING AND STORAGE

K-009

A. CLEANING

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

1. Before cleaning the motorcycle:
 - a. Block 'off the end of exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
 - b. Make sure the spark plug(s) and all filler caps are properly installed.
2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the chain, sprockets, or wheel axles.
3. Rinse the dirt and degreaser off with a garden hose, use only enough pressure to do the job.

⚠ CAUTION:

Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brakes and transmission seals. Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.

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

7. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
8. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish. When finished, start the engine and let it idle for several minutes.

K-007

B. STORAGE

Long term storage (60 days or more) of your motorcycle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the motorcycle, prepare it for storage as follows:

1. Drain the fuel tank, fuel lines, and carburetor float bowl(s).
2. Remove the empty fuel tank, pour a cup of SAE 10W30 or 20W40 motor oil in tank, shake the tank to coat the inner

surfaces thoroughly and drain off the excess oil. Reinstall the tank.

3. Remove the spark plug(s), pour about one tablespoon of SAE 10W30 or 20W40 motor oil in spark plug hole(s) and reinstall spark plugs. Kick the engine over several times (with ignition off) to coat the cylinder walls with oil.
4. Remove the drive chain. Thoroughly clean the chain with solvent and lubricate. Reinstall the chain or store it in a plastic bag (tied to frame for safe-keeping).
5. Lubricate all control cables.
6. Block up the frame to raise both wheels off the ground.
7. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
8. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.

9. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0° C (30° F) or more than 30° C (90° F)).

U-058

NOTE: _____

Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

Model	DT50W
Dimension: Overall length Overall width Overall height Seat height Wheel base Minimum ground clearance	1,960 mm (77.2 in) 845 mm (33.3 in) 1,100 mm (43.3 in) 785 mm (30.9 in) 1,235 mm (48.6 in) 265 mm (10.4 in)
Basic weight: With oil and full fuel tank	86 kg (190 lb)
Minimum turning radius:	2,000 mm (78.7 in)
Engine: Type Model Cylinder arrangement Displacement Bore x Stroke Compression ratio Starting system Lubrication system	Liquid cooled, 2-stroke, gasoline 3BK4 Single cylinder, Forward inclined 49 cm ³ 40.0 x 39.2 mm (1.57 x 1.54 in) 6.5 : 1 Kick starter Separate lubrication (Yamaha Autolube)

Model	DT50W
Engine oil (2-cycle): Type Capacity	Yamalube 2-cycle oil or air cooled 2-stroke engine oil 1.3 L (1.1 Imp qt, 1.4 US qt)
Transmission oil: Type Capacity Periodic oil change Total amount	YAMALUBE 4 (10W30) or SAE 10W30 type SE motor oil 0.7 L (0.61 Imp qt, 0.74 US qt) 0.75 L (0.66 Imp qt, 0.79 US qt)
Radiator capacity: (Including all routes)	0.6 L (0.53 Imp qt, 0.63 US qt)
Air filter:	Wet type element
Fuel: Type Tank capacity Reserve amount	REGULAR UNLEADED GASOLINE 8.5 L (1.9 Imp gal, 2.2 US gal) 2.0 L (0.4 Imp gal, 0.5 US gal)
Carburetor: Type/manufacturer	VM16SS/MIKUNI
Spark plug: Type/Manufacturer Gap	BR8ES/NGK 0.7 ~ 0.8 mm (0.028 ~ 0.031 in)

Model	DT50W
Clutch type:	Wet, multi-disc
Transmission: Primary reduction system Primary reduction ratio Secondary reduction system Secondary reduction ratio Transmission type Operation Gear ratio 1st 2nd 3rd 4th 5th 6th	Helical gear 68/19 (3.578) Chain drive 48/13 (3.692) Constant meth 6-speed Left foot operation 39/12 (3.250) 34/16 (2.125) 31/20 (1.550) 27/22 (1.227) 26/25 (1.040) 24/26 (0.923)
Chassis: Frame type Caster angle Trail	Semi double cradle 28.33° 98 mm (3.86 in)
Tire: Type Size – Front Rear	With tube 2.50-19 4PR 3.00-17 4PR

Model	DT50W
Brake: Front brake type Operation Rear brake type Operation	Drum brake Right hand operation Drum brake Right foot operation
Suspension: Front Rear	Telescopic fork Swing arm (Monocross suspension)
Shock absorber: Front Rear	Air, Coil spring, Oil damper Gas, Coil spring, Oil damper
Wheel travel: Front Rear	170 mm (6.7 in) 150 mm (5.9 in)
Electrical: Ignition system Generator system Battery type/capacity	CDI magneto Flywheel magneto 6N4B-2A/6V 4AH
Headlight type:	Sealed beam

Model	DT50W
Bulb wattage/quantity: Headlight Tail/brake light Flasher light Meter light	25W/25W 5.3W/25W 17W x 4 3W x 2
Indicator light wattage/quantity: "NEUTRAL" "HIGH BEAM" "OIL" "TURN"	3W 3W 3W 3W

— MEMO —

A series of ten horizontal dotted lines spanning the width of the page, providing a template for writing a memo.



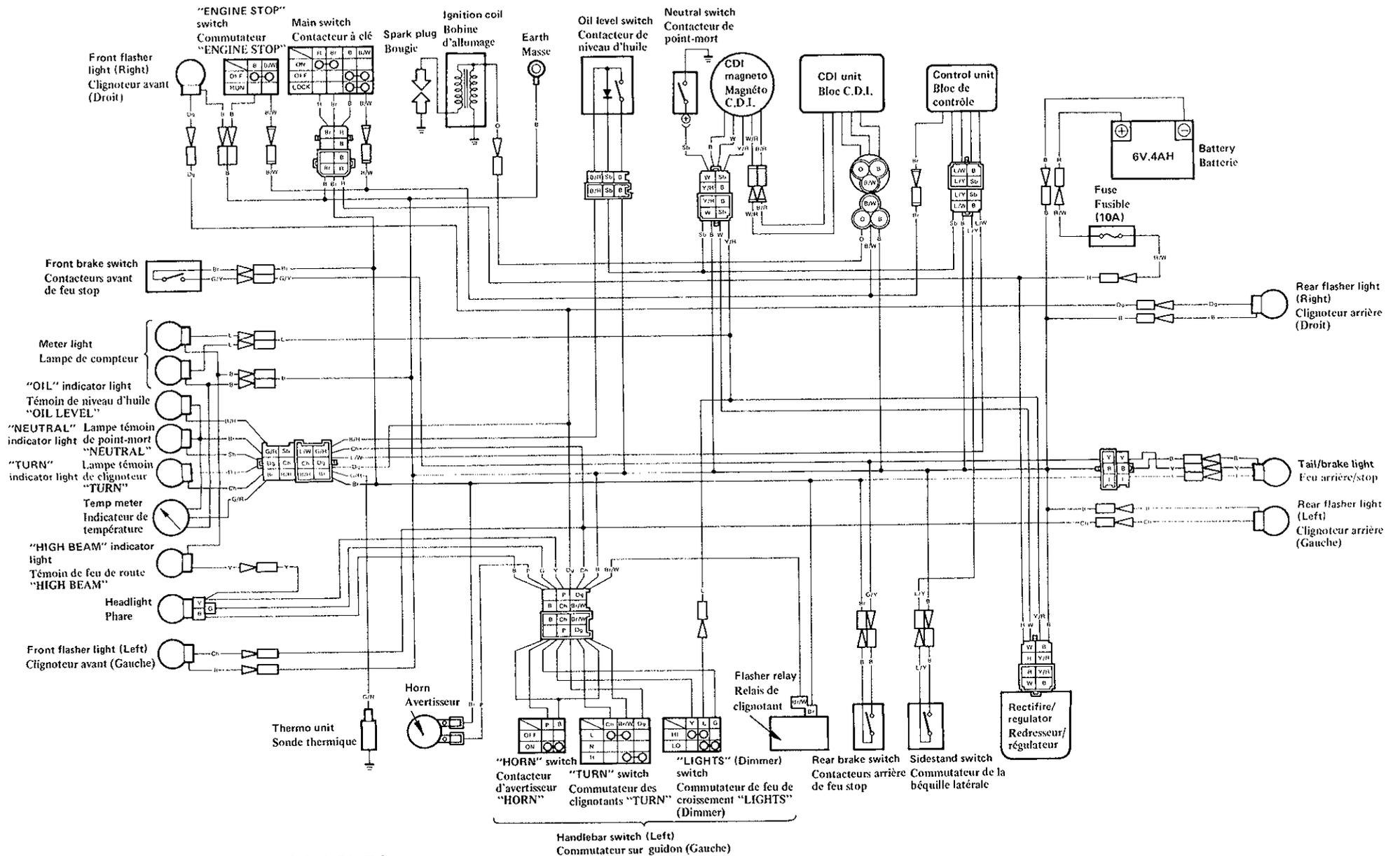
YAMAHA MOTOR CO.,LTD.

IWATA, JAPAN

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DT50W WIRING DIAGRAM

PLAN DE CABLAGE DE LA DT50W

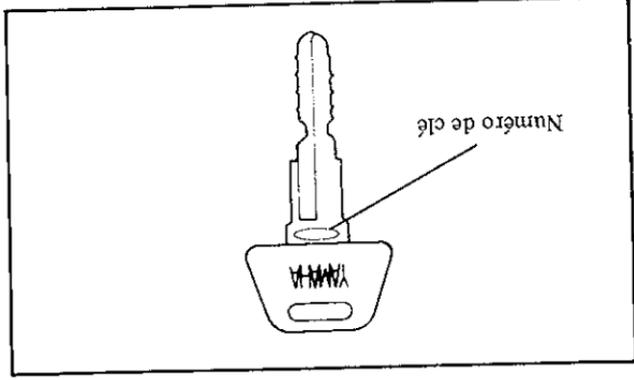


COLOR CODE/ CODE DE COULEUR

B	Black Noir	R	Red Rouge	Br.	Brown Brun	B/R	Black/Red Noir/Rouge	Y/R	Yellow/Red Jaune/Rouge	Br/W	Brown/White Brun/Blanc
G	Green Vert	P	Pink Rose	Sb	Sky blue Bleu ciel	B/W	Black/White Noir/Blanc	L/Y	Blue/Yellow Bleu/Jaune	W/R	White/Red Blanc/Rouge
Y	Yellow Jaune	O	Orange Orange	Dg	Dark green Vert foncé	G/Y	Green/Yellow Vert/Jaune	L/W	Blue/White Bleu/Blanc	R/W	Red/White Rouge/Blanc
L	Blue Bleu	Ch	Chocolate Chocolat	W	White Blanc	G/R	Green/Red Vert/Rouge				

ENREGISTREMENT DES NUMEROS D'IDENTIFICATION

Enregistrez ce numéro à l'endroit prévu pour référence si vous avez besoin d'une nouvelle clé.



Enregistrez les numéros de véhicule et de moteur aux emplacements prévus pour vous permettre de commander des pièces de re-change à votre concessionnaire Yamaha ou comme référence dans le cas ou votre véhicule serait volé. (Voir page 3-1)

1. NUMERO DE CLE

2. NUMERO DE VEHICULE

3. NUMERO DE MOTEUR

Votre numéro d'identification de clé est gravé sur votre clé comme indiqué à la figure sui-
vante.

3BK-28199-71

MANUEL DU PROPRIÉTAIRE

DT50W

YAMAHA

