# WYAMAHA DT100J

OWNER'S MANUAL



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

DO NOT ATTEMPT TO OPERATE THIS MOTORCYCLE UNTIL YOU HAVE ATTAINED A SATISFACTORY KNOWLEDGE OF ITS CONTROLS AND OPERATING FEATURES AND UNTIL YOU HAVE BEEN TRAINED IN SAFE AND PROPER RIDING TECHNIQUES.

REGULAR INSPECTIONS AND CAREFUL MAINTENANCE, ALONG

REGULAR INSPECTIONS AND CAREFUL MAINTENANCE, ALONG WITH GOOD RIDING SKILLS, WILL ENSURE THAT YOU SAFELY ENJOY THE CAPABILITIES AND THE RELIABILITY OF THIS MOTORCYCLE.

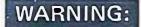
Particularly important information is distinguished in this manual by the following notations:

NOTE:

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



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



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

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

# -SAFETY WARNINGS:-

- 1. Traffic regulations vary from state to state. Study the regulations in your state before riding this motorcycle.
- 2. GASOLINE IS HIGHLY FLAMMABLE:
  - \* Always turn off the engine when refuelling.
  - \* Take care not to spill any gasoline on the engine or exhaust pipe(s)/muffler(s) when refuelling.
- 3. If you should swallow some gasoline, inhale a lot of gasoline vapor, or allow some gasoline to get in your eye(s), see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it with soap and water and change your clothes.
- 4. Always turn off the engine before leaving the motorcycle unattended, and do not forget to remove the ignition key. When parking the motorcycle, note the following:
  - \* 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 the motorcycle.
  - \* Do not park the motorcycle on a slope or soft ground; the motorcycle may overturn.

- 5. When transporting the motorcycle in another vehicle, be sure it is kept upright and that the fuel petcock(s) is turned to the "ON" or "RES" position (for vacuum type)/"OFF" position (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.
- 6. Never start your 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 with adequate ventilation.
- 7. Always wear a helmet, gloves, trousers (tapered around the cuff and ankle so they do not flap), and a brightly colored jacket.
- 8. This motorcycle is designed for use as a two-wheeled vehicle capable of carrying an operator only (no passenger). The total weight of the rider, accessories, and cargo must not exceed the maximum load limit. (See page 19.)

# INTRODUCTION

Congratulations on your purchase of the Yamaha DT100J. This model represents the product of many years of Yamaha experience in the production of fine sporting, touring, and pace-setting racing motorcycles. You can now appreciate the high degrees of craftsmanship and reliability that have made Yamaha a leader in these fields.

PLEASE READ THIS MANUAL CAREFUL-LY AND COMPLETELY BEFORE OPER-ATING YOUR NEW MOTORCYCLE. This manual will provide you with a good basic understanding of the features, operation, and basic maintenance and inspection of this vehicle. If you have any questions regarding the operation or maintenance of your motorcycle, please consult your Yamaha dealer.

### NOTICE:-

Some data in this manual may become outdated due to improvements made to this model in the future. If you have any question about this manual or your motorcycle, please consult your Yamaha dealer.

This Yamaha motorcycle in its design and manufacture fully complies with the emissions standards for clean air applicable at the time of manufacture.

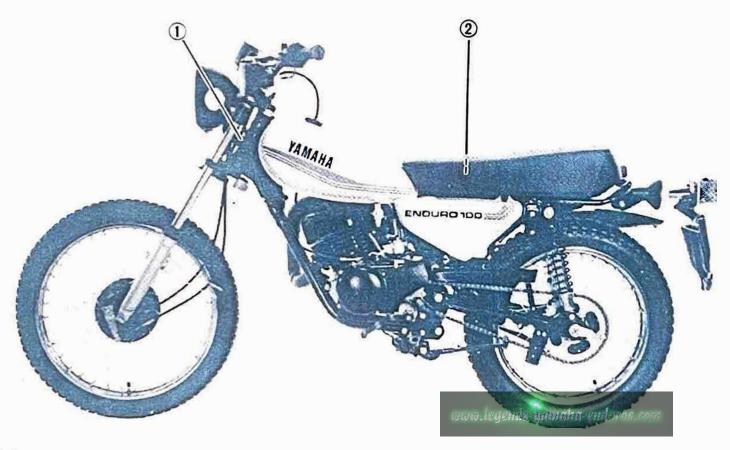
Yamaha has met these standards without reducing the motorcycle's performance or economy of operation. To maintain these high standards, it is important that you and your dealer pay close attention to the recommended maintenance schedules and operating instructions contained within this manual.

SERVICE DEPT.
INTERNATIONAL DIVISION
YAMAHA MOTOR COMPANY, LTD.

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# LOCATION OF THE "CAUTION AND SPECIFICATION LABELS"



NOTE:-

The design and specification of the motorcycle you have purchased may partly differ from those shown in the photos this manual carries.

1

MFD. BY YAMAHA MOTOR CO., LTD., (Month/Year) GVWR xxx LBS.

GAWR FRONT - xxx LBS. WITH xxx TIRE. xxx RIM.

AT xxx PSI COLD. REAR - xxx LBS. WITH xxx TIRE.

xxx RIM, AT xxx PSI COLD.

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VEHICLE ID NO. xxx... (17 digits)

TYPE CLASSIFICATION ... MOTORCYCLE

(2)

**VEHICLE EMISSION CONTROL INFORMATION** 

ENGINE FAMILY: CYA010021A4 DISPLACEMENT: 97 cc

IDLE SPEED: 1300 - 1450 RPM (TRANSMISSION IN NEUTRAL)

IGNITION TIMING: 21° BTDC AT 2000 RPM

GASOLINE GRADE: REGULAR (LEADED)

**RESEARCH OCTANE: 91 MIN.** 

**ENGINE OIL:** 

YAMALUBE 2 CYCLE OIL

TC - W (B.I.A. CERTIFIED)

THIS VEHICLE CONFORMS TO U.S. EPA REGULATION APPLICABLE TO 1982 MODEL YEAR NEW MOTORCYCLES.

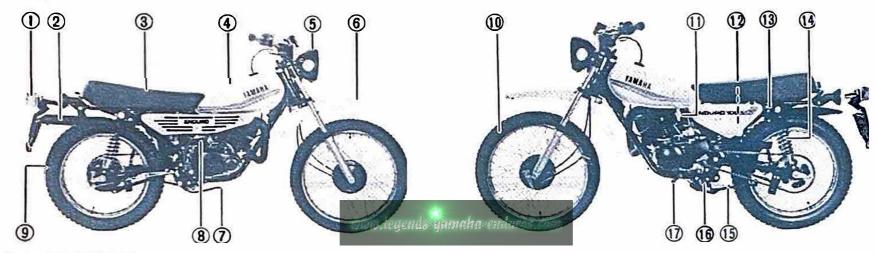
YAMAHA MOTOR CO., LTD.



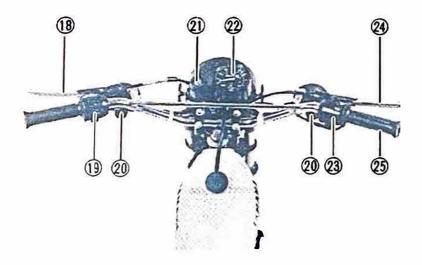
# **DESCRIPTION**

### RIGHT SIDE

# LEFT SIDE



# **INSTRUMENTS**

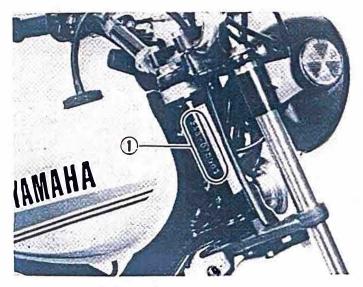


- 1. Tail/brakelight 14. Rear shock absorber 2. Muffler 15. Sidestand 3. Seat 16. Footrest
- 4. Fuel tank 17. Change pedal 18. Clutch lever 5. Headlight
- 6. Front fender 19. Left handlebar switch
- 7. Brake pedal 20. Flasher light 8. Kick starter 21. Main switch 9. Rear wheel 22. Speedometer
- 10. Front wheel 23. Right handlebar switch
- 11. Fuel petcock 24. Brake lever 12. Oil tank 25. Throttle grip
- 13. Helmet holder

# MOTORCYCLE IDENTIFICATION

#### Frame serial number

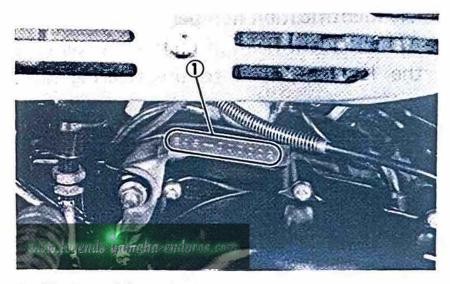
The frame serial number is stamped into the right side of the steering head pipe.



1. Frame serial number

# **Engine serial number**

The engine serial number is stamped into the elevated part of the right rear section of the engine.



1. Engine serial number

### 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 your Yamaha dealer.

# Vehicle identification number

The vehicle identification number is stamped on the label attached to the steering head pipe.



1. Vehicle identification number

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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.

# **CONTROL FUNCTION**

#### Main switch

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

Key position	Description	Key remova	
OFF	All the electrical systems inoperative. Engine cannot be started. Lights and horn with not function.	Possible	
ON	Engine can be operated. Turn, brake, and horn circuits can be operated. Taillight and meter lights always on and with the engine running, the headlight comes on automatically. Headlight functions only when the engine is running.	Not possible	



# Indicator lights

"TURN" indicator light (orange):

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

# "NEUTRAL" indicator light (green):

This indicator light comes on when the transmission is in neutral.

# "HIGH BEAM" indicator light (blue):

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



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

# "OIL" warning indicator light (red):

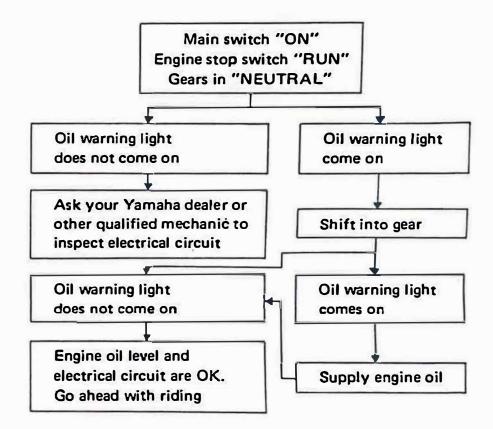
This indicator light comes on when the oil level is low, thus warning the rider. This light circuit can be checked by the procedures shown in the following chart.

# NOTE:-

If the oil warning light will not light up during this test, have your Yamaha dealer or other qualified mechanic check it. Of couse, check the oil level first.

# CAUTION:

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



# Speedometer

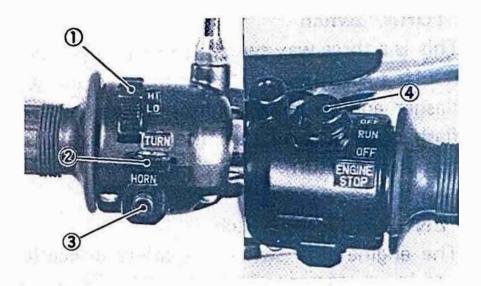
Use the odometer to estimate how far you can ride on a tank of fuel before going to "RESERVE". This information will enable you to plan fuel stops in the future.



1. Odometer

## Handlebar switches

The handlebar switches are located near the right and left handlebar grips and are used for the following functions:



- 1. "LIGHTS" (Dimmer) switch 3.
  - 3. "HORN" switch

2. "TURN" switch

4. "ENGINE STOP" switch

# "LIGHTS" (Dimmer) switch

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

## "HORN" switch

Push the switch to sound the horn.

#### "TURN" switch

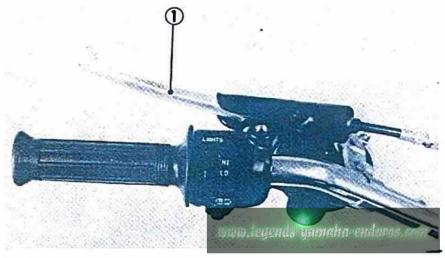
This is a three-way switch: the center position is off; turn to the "L" position for the left flasher and to the "R" position for the right flasher. Be sure to turn the switch off after completing a turn.

#### "ENGINE STOP" switch

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

#### Clutch lever

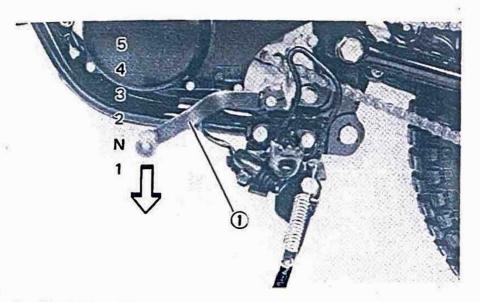
The clutch lever is located on the left handlebar; it disengages or engages the clutch. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth starts.



1. Clutch lever

# Change pedal

The gear ratios of the constant-mesh 5-speed transmission are ideally spaced. The gears are shifted by using the change pedal on the left side of the engine.



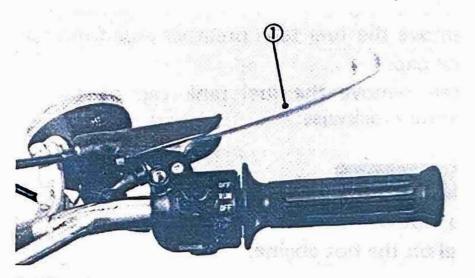
1. Change pedal

#### Front brake lever

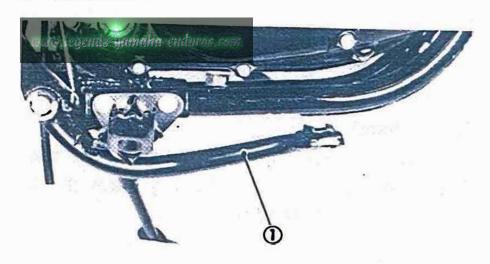
The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake.

# Rear brake pedal

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



#### 1. Front brake lever



#### 1. Rear brake pedal

# Fuel tank cap

Remove the fuel tank breather pipe from fuel tank cap.

Then remove the fuel tank cap by turning counterclockwise.

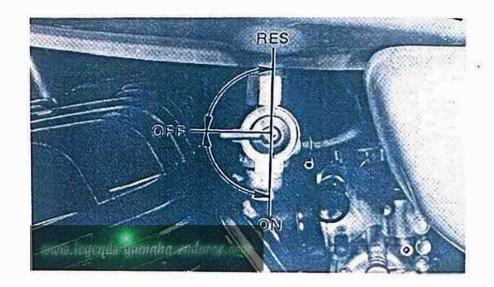
# **WARNING:**

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.

# Fuel petcock

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



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

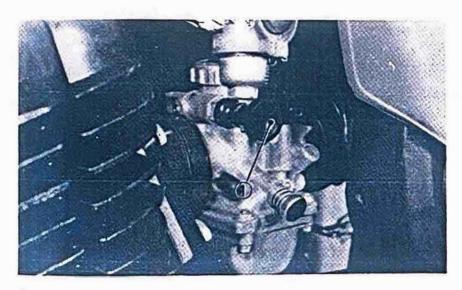
ON: With the lever in this position fuel flows to the carburetor. Normal riding is done with the lever in this position.

RES: This indicates "RESERVE". If you run out of fuel while riding, move the lever to this position. THEN, FILL THE TANK AT THE FIRST OPPORTUNITY.

# Starter knob (CHOKE)

When cold, the engine requires a richer fuel mixture for starting. A separate starter circuit, which is controlled by the starter knob, supplies this mixture.

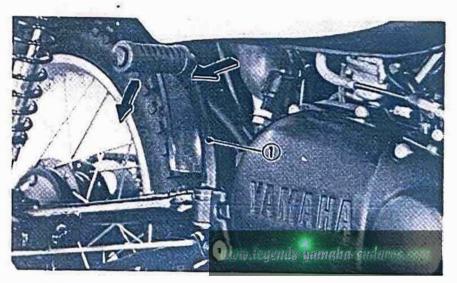
Pull the knob out to open the circuit for starting. When the engine has warmed up, push the knob in to close the circuit before riding. See "Starting Instructions" before attempting to start the engine.



1. Starter knob

#### Kick starter

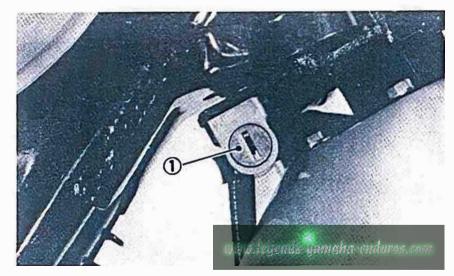
Rotate the kick starter away from the engine. Push the kick starter down lightly with your foot until the gears engage, then kick smoothly and forcefully to start the engine. This model has a primary kick starter so the engine can be started in gear if the clutch is disengaged. In normal practice, however,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



1. Kick starter

# Steering lock

To lock the steeirng, turn the handlebars all the way to the left, insert the key into the steering lock under the head pipe, and turn the key 1/2 turn. After the lock is engaged, remove the key from the lock. To release the lock, insert the key and turn it 1/2 turn in either direction.



1. Steering lock

#### Seat lock

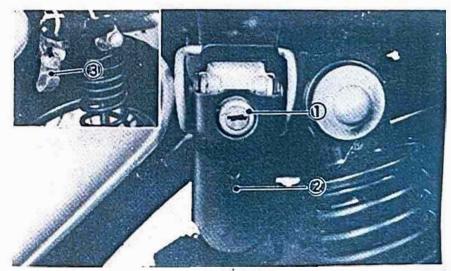
To open the seat lock, insert the key in the lock and turn it clockwise.

#### Helmet holder

Unlock the helmet holder with the main switch key, hang your helmet on the hook, and lock the holder.

# CAUTION:

To avoid damage to the battery, do not store anything under the seat.



1. Seat lock

2. Seat latch

3. Helmet holder

# 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.

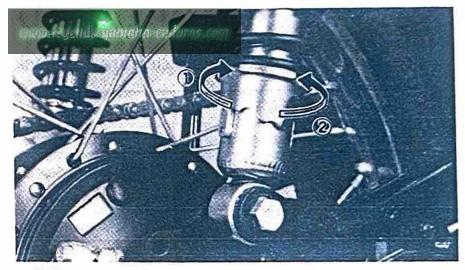
#### Rear shock absorber

The spring preload of the rear shock absorber can be adjusted to suit the rider's preference and riding conditions.

If the spring seat is raised, by turning it in one direction the spring becomes stiffer and if lowered, the spring becomes softer.

# WARNING:

Always adjust the shock absorbers on each side to the same position. Uneven adjustment can cause poor handling and loss of stability.



- 1. Stiffer
- 2. Softer

#### Sidestand

This model is equipped with an ignition circuit cutoff system. The motorcycle can be ridden only when the sidestand is up. The sidestand is located on the left side of the frame. Refer to page 21 for an explanation of this system.

# PRE-OPERATION CHECKS (DAILY)

Before using this motorcycle be sure to check the following points.

No.	ITEM	REMARKS	PAGE
1.	Brake (Front and Rear)	Check operation, free play. Adjust if necessary.	40 ~ 42
2.	Clutch	Check operation, condition, and free play. Adjust if necessary.	39
3.	Engine Oil	Check Autolube tank oil level, top-up with Yamalube 2-cycle oil or 2-stroke engine oil with "BIA certified for service TC-W" if necessary	38
4. Transmission Oil		Check oil level. Top-up with Yamalube 4-cycle oil or SAE 10W/30 "SE" motor oil or "GL" gear oil, if necessary.	36, 37
5.	Drive Chain	Check chain tension and condition. Adjust/Lubricate, if necessary.	43 ~ 45
6.	Throttle Check for smooth operation. Adjust if necessary.		42
7.	Battery	Check fluid level, top-up with distilled water if necessary.	48 ~ 50
8.	Lights/Signals Check operation.		18
9.	Wheels/Tires  Check/Adjust tire pressure, wear, damage, and tightness of spokes.		18 ~ 20
10.	Fittings/Fasteners	Check all chassis fittings and fasteners. Retighten if necessary.	20

NOTE:-

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

# WARNING:

- 1. The engine, exhaust pipe(s), and muffler(s) will be very hot after the engine has been run. Be careful not to touch them or to allow any clothing item to contact them during inspection or repair.
- 2. If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the motorcycle.

# Brake (Front and Rear)

(See page 40 for more detail)

Check for correct play in the brake lever and pedal, and make sure they are working properly. Check the brakes at low speed shortly after starting out. If the play is incorrect, make an adjustment.

# Clutch (See page 39 for more detail)

Check for correct play in the clutch lever, and make sure the lever operates properly. If the play is incorrect, make an adjustment.

# Engine oil (Oil tank)

(See page 38 for more detail)

Make sure there is sufficient engine oil in the oil tank. Add oil as necessary.

# Recommended oil:

Yamalube 2-cycle oil or 2-stroke engine oil with "BIA certified for service "TC-W"

Transmission oil (See page 36 for more detail)
Make sure the transmission oil is at the specified level. Add oil as necessary.

#### Recommended oil:

Yamalube 4-cycle oil or SAE 10W/30 "SE" motor oil, or "GL" gear oil

Drive chain (See page 43 for more detail) Check the chain tension and condition. Adjust if necessary.

#### **Throttle**

Turn the throttle grip to see if it operates properly and if the play is normal. Make certain the throttle snaps closed when released. Adjust if necessary.

Battery (See page 48 for more detail) Check the fluid level and top-up if necessary. Use only distilled water if refilling is necessary.

# Lights/Signals

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

# Wheels/Tires

Check the tire pressure and check the tires for wear.

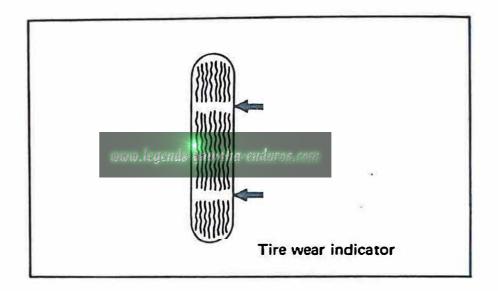
# **WARNING:**

1. This motorcycle is not designed to pull a trailer or to be attached to a side car. The accessories you choose for your motorcycle should be designed specifically for it and should be securely mounted in such a fashion as to maintain the inherent stability of the original design as much as possible. Yamaha has

- a full line of sport and touring accessories designed specially for this motorcycle. Please consider them before making a purchase. Use of non-approved accessories may cause loss of handling stability and riding safety. Consult your Yamaha dealer or other qualified mechanic regarding the consequences of using such items.
- 2. Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your motorcycle. NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the rider accessories, and cargo, do not exceed the maximum load limit. Operation of an overloaded motorcycle could cause tire damage, an accident, and injury.

	FRONT	REAR
DT100J BASIC WEIGHT with oil and full fuel tank.	38 kg (84 lb)	49 kg (108 lb)
Standard tire	INOUE 2.50-18-4PR	INOUE 3.00-16-4PR
Maximum load limit*	85.7 kg(145 lb)	147.4 kg(325 lb)
Cold tire pressure Normal riding	1.6 kg/cm <sup>2</sup> (22 psi)	2.0 kg/cm <sup>2</sup> (28 psi)
Off road riding	1.0 kg/cm <sup>2</sup> (14 psi)	1.2 kg/cm <sup>2</sup> (18 psi)
Minimum tire tread depth	0.8 mm (0.03 in)	0.8 mm (0.03 in)

<sup>\*</sup> Total weight of the motorcycle with accessories, etc.



If a tire tread shows lines crossing the tread (wear indicator), it means that the tire is worn to its limit. Replace the tire.

# WARNING:

It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have your Yamaha dealer or other qualified mechanic replace the tire immediately.

Check for wheel damage, and check the tightness of spokes.

# **WARNING:**

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.

# Fittings/Fasteners

Always check the tightness of chassis fittings and fasteners before riding.

#### **Fuel**

Make sure there is sufficient fuel in the tank.

Recommended fuel: Regular gasoline

Fuel tank capacity: 4.5 lit (1.2 U.S. gal)

# OPERATION AND IMPORTANT RIDING POINTS

# CAUTION:

- Before riding this motorcycle, become thoroughly familiar with all operating controls and their function. Consult your Yamaha dealer or other qualified mechanic regarding any control or function you do not thoroughly understand.
- 2. Be careful where you store personal items on the motorcycle. Avoid blocking the air cleaner intake or performance will suffer.
- 3. Be careful not to put anything near the battery and its terminals. Electrical failure and acid corrosion may result.

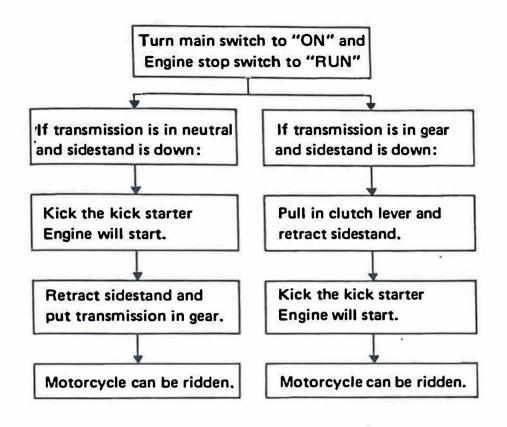
# **WARNING:**

Never start your 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 with adequate ventilation.

# Starting and warming up a cold engine NOTE:

This motorcycle is equipped with an ignition circuit cutoff 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 can be ridden only when the sidestand is up.



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

#### NOTE:-

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

- 4. Pull the starter knob to ON; place the throttle grip in the fully closed or slightly opened position.
- 5. Kick the kick starter to start the engine.
- 6. After the engine has started, adjust the throttle grip opening to keep up the proper idling speed (1,300 ~ 1,450 r/min).
- 7. After the recommended time\*, push the starter knob to OFF.

<sup>\*</sup>Recommended time for the starter operation.

Above 20°C	Approx. 5 sec.
20°C to 10°C	5 to 20 sec.
10°C to 0°C	20 to 60 sec.
Below 0°C	Approx. 60 sec.

Vary the duration of starter operation according to ambient temperatures.

# Starting a warm engine

The starter knob is not required when the engine is warm.

# Warm-up

To get maximum engine life, always warm-up the engine before starting off. Never accelerate hard with a cold engine! To see whether or not the engine is warm, see if it responds to throttle normally with the starter knob push off.

# **CAUTION:**

See "Break-in Section" prior to operating engine for the first time.

# 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 operation clearances. During this period prolonged full throttle operation, or any condition which might result in excessive heating of the cylinder, must be avoided.

1.  $0 \sim 150$  km (0  $\sim 100$  mi): Avoid operation above 40 km/h (25 mi/h) in 5th gear. Allow a cooling off period of 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 constant throttle position.

- 150 ~ 500 km (100 ~ 300 mi):
   Avoid prolonged operation above 50 km/h (31 mi/h) in 5th gear. Allow the motorcycle to rev freely through the gears but do not use fully throttle at any time.
- 500 ~ 1,000 km (300 ~ 600 mi):
   Avoid prolonged full throttle operation.
   Avoid cruising speeds in excess of 60 km/h (37 mi/h) in 5th gear.
- 1,000 km (600 mi) and beyond:
   Avoid prolonged full throttle operation.
   Vary speeds occasionally.

# CAUTION:

- 1. After 1,000 km (600 mi) operation, be sure to replace the transmission oil.
- 2. If any engine trouble should occur during the break-in period, consult your Yamaha dealer or other qualified mechanic immediately.

# Shifting and accerelation

This model has a 5-speed transmission. The transmission allows you to control the amount of power you have avilable at a given speed for starting, accelerating, climbing hills, etc. To shift into neutral, rapidly depress the change pedal to the end of its travel (you will feel a stop when you are in first gear). then raise it slightly.

#### To start out and accelerate:

- 1. Pull the clutch lever to disengage the clutch.
- 2. Shift into FIRST gear. The green neutral indicator light should go out.
- 3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
- 4. At the recommended shift point speed in the table below, close the throttle, and at the same time, quickly pull in the clutch lever.
- 5. Shift into SECOND gear. Be careful not to shift into NEUTRAL.
- 6. Open the throttle part way and gradually release the clutch lever.
- 7. Follow the same procedure when shifting to the next higher gear. Always shift gears at the recommended shift points.

#### To decelerate:

- 1. Apply front and/or rear brakes to slow the motorcycle.
- When the motorcycle reaches 20 km/h (12.5 mi/h), shift into first gear.
   Anytime the engine appears about to stall or runs very roughly, pull in the clutch and use the brakes to stop.
- 3. When the motorcycle is almost completely stopped, shift into neutral.

  The green neutral indicator light should come on.

# Recommended shift point

Acceleration	Deceleration		
Speed range km/h (mi/h)	Shift position	km/h (mi/h)	
0~15 (9)	1 st	20 (12)	
15 (9) ~ 25 (16)	2 nd	20 (12)	
25 (16) ~35 (22)	3 rd	20 (12)	
35 (22) ~45 (28)	4 th	20 (12)	
45 (28) or more	5 th	20 (12)	

# **Parking**

When parking, stop the engine and remove the ignition key. Make it a habit to turn the fuel petcock to "OFF" whenever stopping the engine.

# 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 can easily 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 most important points of motorcycle inspection, adjustment, and lubrication are explained on the following pages.

"Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual using any part which is certified (if applicable)."

# CAUTION:

If the owner is not familiar with motorcycle service, this work should be done by a Yamaha dealer or other qualified mechanic.

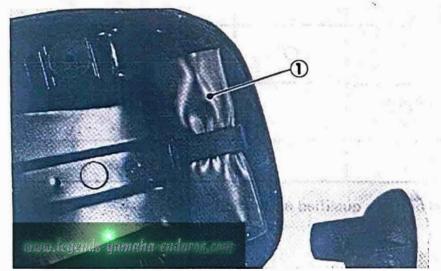
# PERIODIC MAINTENANCE

PROPER PERIODIC MAINTENANCE OF YOUR MOTORCYCLE IS IMPORTANT TO ITS GIVING YOU LONG, PLEASURABLE SERVICE. ESPECIALLY IMPORTANT ARE THE MAINTENANCE SERVICES RELATED TO EMISSIONS CONTROL. THESE CONTROLS NOT ONLY FUNCTION TO ENSURE CLEANER AIR BUT ARE ALSO VITAL TO PROPER ENGINE OPERATION AND MAXIMUM PERFORMANCE. IN THE FOLLOWING TABLES OF PERIODIC MAINTENANCE, THE SERVICES RELATED TO EMISSIONS CONTROL ARE GROUPED SEPARATELY.

THESE SERVICES REQUIRE SPECIAL-IZED DATA, KNOWLEDGE, AND EQUIP-MENT. YAMAHA DEALERS ARE TRAIN-ED AND EQUIPPED TO PERFORM THESE PARTICULAR SERVICES.

#### **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 this purpose; a torque wrench, however, is also necessary to properly tighten nuts and bolts.



1. Tool kit

# NOTE:-

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

# WARNING:

Modifications to this motorcycle not approved by Yamaha may cause loss of performance, excessive emissions, and render it unsafe for use. Consult your Yamaha dealer or other qualified mechanic before attempting any changes.

#### PERIODIC MAINTENANCE EMISSION CONTROL SYSTEM

N. ITEM				BREAK-IN	THERE- AFTER EVERY
No.	ITEM	REMARKS	1,000 km or 1 month (600 mi)	4,000 km or 7 months (2,500 mi)	3,000 km or 6 months (2,000 mi)
1	Spark plug	Check spark plug condition and plug gap. Replace plug every 3,000 km (2,000 mi).		Replace	Replace
2*	Fuel Line	Check fuel hose for cracks and damage. Replace if necessary.		0	0
3*	Fuel petcock	Check fuel filter screen. Clean it, if necessary.	0	0	0
4*	Exhaust System	Check for leakage, retighten if necessary.  Replace gasket(s) if necessary.		. 0	0
5*	Idle Speed	Check and adjust engine idle speed.		0	0

<sup>\*</sup> It is recommended that these items be serviced by your Yamaha dealer or other qualified mechanic.

#### Spark plug inspection

The spark plug is an important engine component and is easy to inspect.

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

The condition of the spark plug reflects the running condition of the engine. For example: if the center electrode porcelain is very white, this could indicate an intake tract air leak or carburetion problem.

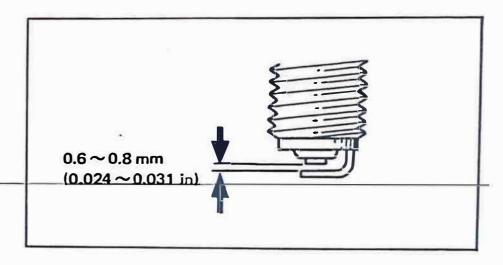
Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to your Yamaha dealer or other qualified mechanic.

Standard spark plug: B7ES (NGK)

Before installing any spark plug, measure the spark gap with a wire thickness gauge and adjust it to specification.

Spark gap:

 $0.6 \sim 0.8 \text{ mm} (0.024 \sim 0.031 \text{ in})$ 



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

Spark plug torque: 2.5 m-kg (18 ft-lb)

NOTE:				
It is advisable when travelling		•	spark	plug
			******	

NOTE:-

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

#### **ANTICIPATED MAINTENANCE**

The maintenance items in this table are set apart from the regular periodic maintenance items because of their anticipated need for irregular service intervals. The service interval is dependent upon variable factors such as the severity of use, operating conditions, etc. Therefore, perform this maintenance when the described symptoms warrant it.

No.	ITEM	REMARKS
1	Spark plug	If any spark plug failure is noticed replace it.  Symptoms indicating spark plug failure are anticipated to occur around 3,000 km (2,000 mi).
2*	Decarbonization	If heavy power loss is evident, decarbonize the cylinder head, piston head, and exhaust system. Carbon builb-up is anticipated to occur around $5,000 \sim 10,000 \mathrm{km} (3,000 \sim 6,000 \mathrm{mi})$ .
3*	Piston	If the piston rattles, the vehicle becomes hard to start, appears to be lacking power, or becomes inoperative, repair as follows: replace the piston and piston rings, clean, hone, or replace the cylinder. These symptoms are anticipated to occur mainly below 500 km (300 mi).

<sup>\*</sup> It is recommended that these items be serviced by your Yamaha dealer or other qualified mechanic.

# **GENERAL MAINTENANCE/LUBRICATION**

				INITIAL	BREAK-IN	THEREAFT	TER EVERY
No.	ITEM	REMARKS	TYPE	1,000 km or 1 month (600 mi)	4,000 km or 7 months (2,500 mi)	3,000 km or 6 months (2,000 mi)	15,000 km or 24 months (9,500 mi)
1	Transmission oil	Warm up engine before draining.	Yamalube 4-cycle oil or SAE 10W/30 "SE" motor oil or "GL" gear oil.	Replace	Replace	Replace	
2*	Autolube pump	Check and adjust pump cable and minimum pump stroke.	_	O	o	O	
3*	Air filter	Check for clogging. If necessary clean and dampen with oil.	-	0	0	0	
4	Control and meter cables	Inspect and lubricate thoroughly.	Yamaha chain and cable lube or SAE 10W/30 motor oil	0	0	o	
5*	Clutch	Adjust free play	-	0	0	0	
6*	Brake system	Inspect and adjust Replace shoes if necessary.	-	0	o	0	*:
7*	Throttle	Adjust as necessary. Lightly Jubricate.	Lithium base grease		O	0	
8	Brake/Clutch pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil.		o	0	
9*	Drive Chain	Check chain condition. Adjust chain tension. Lubricate chain thoroughly.	Yamaha chain and cable lube or SAE 10W/30 motor oil.	Every 500 km (300 mi)		ä	

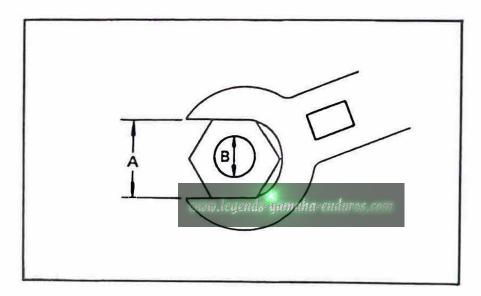
				INITIAL	BREAK-IN	THEREAFT	TER EVERY
No.	ITEM	REMARKS	TYPE	1,000 km or 1 month (600 mi)	4,000 km or 7 months (2,500 mi)	3,000 km or 6 months (2,000 mi)	15,000 km or 24 months (9,500 mi)
10	Sidestand pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil		0	0	
11*	Front fork oil	Drain completely. Fill to specification.	Yamaha fork oil 10wt or equivalent				Replace
12*	Steering bearings	Check steering assembly for looseness. Moderately repack every 15,000 km (9,500 mi).	Medium weight wheel bearing grease		0		Repack
13*	Wheel bearings	Check bearings for smooth rotation. Moderately repack every 15,000 km (9,500 mi).	Medium weight wheel bearing grease		0		Repack
14•	Battery	Check specific gravi- ty and breather pipe for proper function.	_		0	0	

<sup>\*</sup> It is recommended that these items be serviced by your Yamaha dealer or other qualified mechanic.

#### Torque specifications

(For a more complete list, refer to the Service Manual for this model.)

Use a torque wrench to tighten these items. It is recommended that these items should be checked occasionally, especially before a long trip. Always check the tightness of these items whenever they are loosened for any reason.



Α	В	General torque	e specifications
(Nut)	(Bolt)	m-kg	ft-lb
10 mm	6 mm	0.6	4.5
12 mm	8 mm	1.5	11
14 mm	10 mm	3.0	22
17 mm	12 mm	5.5	40
19 mm	14 mm	8.5	61
22 mm	16 mm	13.0	94

leam	Tor	que
Item	m-kg	ft-lb
Spark plug	2.5	18.0
Drive sprocket	6.0	43.0
Kick crank	1.5	11.0
Engine mount, upper	2.5	18.0
lower	4.0	29.0
Rear absorber, frame	4.0	29.0
swing arm	2.5	18.0
Handle crown, pinch bolt	2.5	18.0
fitting bolt	7.0	50.0
Handle upper bracket	2.0	14.0
Front axle nut	4.5	32.0
Rear axle nut	4.0	29.0
Sprocket shaft nut	11.0	80.0
Footrest	2.0	14.0
Tension bar	2.0	14.0

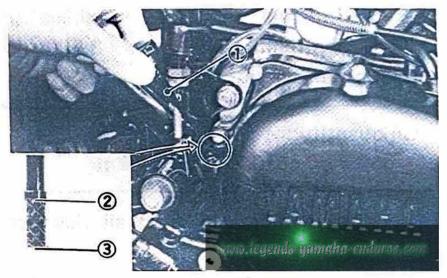
#### Transmission oil

The only service for you to do is to check and fill the transmission with lubricating oil. To check the level, warm the engine up for several minutes, screw the dip stick completely our, then just rest the stick in the hole.

#### NOTE:-

When checking transmission oil level with the dip stick, let the unscrewed dip stick just rest on the case threads. Be sure the motorcycle is positioned straight up and on both wheels.

The dip stick has a minimum and maximum mark; the oil level should be between the two. If the level is lower, add sufficient oil to raise it to the proper level.



1. Dip stick

2. Maximum level

3. Minimum level

#### Recommended oil:

Yamalube 4-cycle oil or SAE 10W/30 type "SE" motor oil or "GL" gear oil

During the break-in period, you should replace the transmission oil 30 days or 1,000 km (600 mi) after the date of first use.

The transmission should be drained and refilled approximately every 3,000 km (2,000 mi) or 6 months.

Oil quantity:

 $650 \pm 50 cc (0.7 \pm 0.05 US. qt)$ 

Remove drain plug and drain all the transmission oil.



1. Drain plug

Reinstall the drain plug (make sure it is tight). Add oil through the dipstick hole.

#### NOTE:-

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

#### Autolube pump

Have your Yamaha dealer or other qualified mechanic check and adjust the Autolube pump cable and the minimum pump stroke. Be sure your oil tank never runs out of oil. If it does, before operating your motorcycle, have your dealer bleed all the air out of the oil injection system.

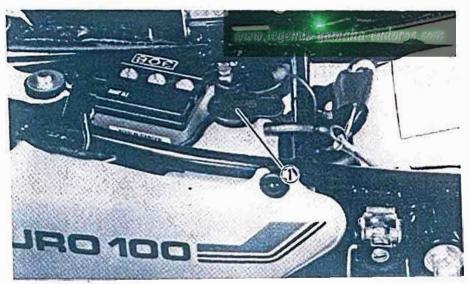
#### **WARNING:**

Failure to bleed the injection system could result in excessive engine damage and an accident.

#### Engine oil (Autolube oil)

We recommend Yamalube 2-cycle oil (available at most Yamaha dealers) but if unavailable, 2-stroke engine oil with "BIA certified for service TC-W".

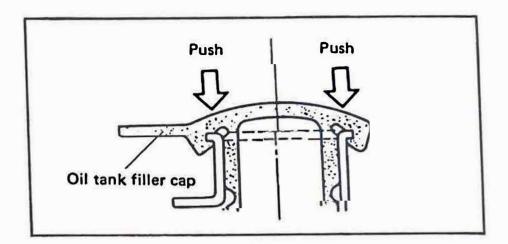
Oil tank capacity: 1.0 lit (1.1 US. qt)



1. Oil tank filler cap

NOTE: ---

Install the oil tank filler cap and push it fully into the filler.



#### Air filter

The air filter protects the engine from dirt which can enter with the intake air and cause rapid engine wear. This dirt is filtered from the air by the air filter element.

The air filter element should be cleaned and oiled at specified intervals. Ask your Yamaha dealer or other qualified mechanic clean the filter element.

#### CAUTION:

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

#### Cable inspection and lubrication

#### **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 your Yamaha dealer or other qualified mechanic to replace them.

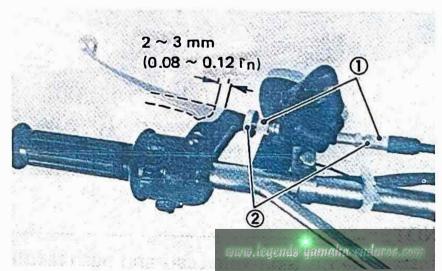
Recommended lubricant:
Yamaha Chain and Cable Lube or
SAE 10W/30 motor oil

#### Clutch adjustment

This model has two clutch cable length adjusters and a clutch mechanism adjuster.

Normally, once the mechanism is properly adjusted, the only adjustment required is maintenance of free play at the clutch lever holder.

The clutch should be adjusted to suit the rider's preference, but free play at the lever pivot should be  $2 \sim 3$  mm (0.08  $\sim$  0.12 in). To adjust, loosen either the lever holder lock nut or the cable in-line length locknut. Next, turn the length adjuster either in or out until proper lever free play is achieved.



1. Adjuster

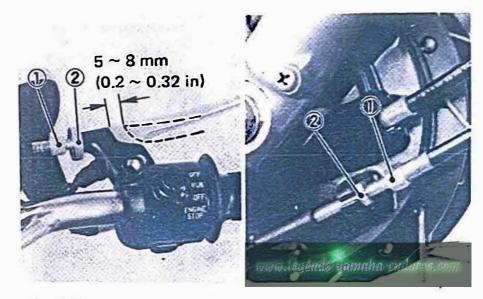
2. Lock nut

#### Front brake adjustment

The front brake should be adjusted to suit rider's preference, but free play at the lever pivot should be  $5 \sim 8$  mm (0.2  $\sim$  0.3 in). Adjustment is made at one of two places; either the lever holder or the front brake hub.

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

If proper adjustment cannot be obtained at the lever holder, have a Yamaha dealer or other qualified mechanic make a brake hub adjustment.

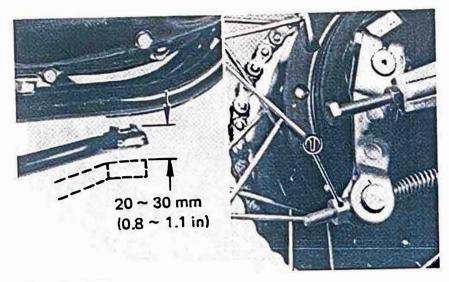


1. Adjuster 2. Lock nut

#### Rear brake adjustment

The rear brake should be adjusted to suit rider's preference, but free play at the end of the brake pedal should be  $20 \sim 30$  mm (0.8  $\sim$  1.2 in). To adjust, turn the adjuster on the brake rod clockwise to reduce play; turn the adjuster counterclockwise to increase play.

After adjusting, be sure the brakelight operates correctly.



1. Adjuster

#### **WARNING:**

Always check brakelight operation after rear brake adjustment.

#### Brakelight switch adjustment

The brakelight switch is operated by the movement of the brake pedal. To adjust, loosen the lock nut and rotate the adjuster. Proper adjustment is achieved when the brake starts to take effect and the brakelight

illuminates simultaneously. After adjusting, tighten the lock nut.



1. Brakelight switch

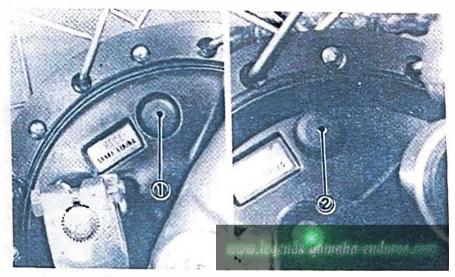
2. Adjuster

3. Lock nut

#### **Brake lining inspection**

The specified thickness of the brake lining is 4 mm (0.16 in). The lining should be replaced when it wears to less than 2 mm (0.079 in). To inspect, remove the plug from the inspection hole on the brake shoe plate, and check the thickness of the lining. If worn out, ask your Yamaha dealer or other qualified

mechanic to install a new set. Be sure to replace the plug carefully so water cannot enter the shoe plate.



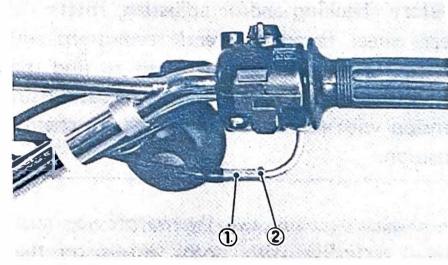
1. Inspection hole (Front)

2. Inspection hole (Rear)

# **WARNING:**

Be sure to replace the inspection hole plug securely. If water enters the brake shoe area it can cause a temporary loss of braking which may cause loss of control and injury. Inspection and adjustment of play in throttle cable.

Check the play in the throttle cable. The play should be  $5 \sim 7$  mm (0.2  $\sim$  0.28 in) at grip flange. Loosen the lock nut and turn the wire adjuster to make the necessary adjustment. After adjusting, be sure to tighten the lock nut properly.



1. Adjuster

2. Lock nut

#### Lubrication of levers, pedals, etc.

- 1. Lubricate the pivoting parts of the brake and clutch levers with spray lubricant.
- 2. Lubricate the shaft of the brake pedal with lithium base grease.

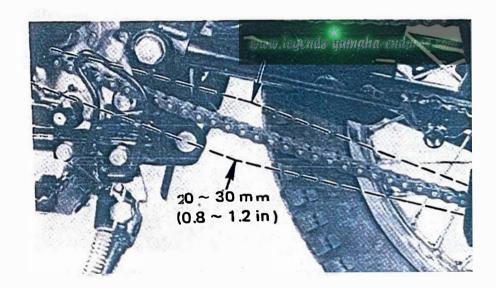
#### Drive chain tension check

NOTE:-

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

To check the chain play, the motorcylce must stand vertically with both wheels on the ground and without rider on it.

Measure the play at the bottom of the chain at a point midway between the drive and driven sprockets. The normal vertical deflection is approximately  $20 \sim 30$  mm (0.8  $\sim 1.2$  in). If the chain deflection is not as specified, adjust the chain tension.

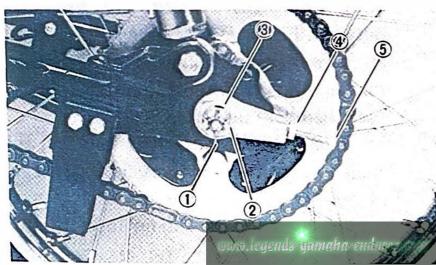


#### Drive chain tension adjustment

- 1. Loosen the rear brake adjuster.
- 2. Remove the cotter pin.
- 3. Loosen the sprocket shaft nut and axle nut.

4. Loosen the lock nuts on each side chain puller. To decrease the deflection, turn chain puller adjusting bolt clockwise. To increase the deflection, turn chain puller adjusting bolts counterclockwise and push wheel forward.

Turn each bolt exactly the same amount to maintain correct axle alignment. (There are marks on each side of rear arm and on each chain puller; use them to check for proper alignment.)



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

5. After adjusting, be sure to tighten the lock nut, shaft nut, and rear wheel axle nut properly.

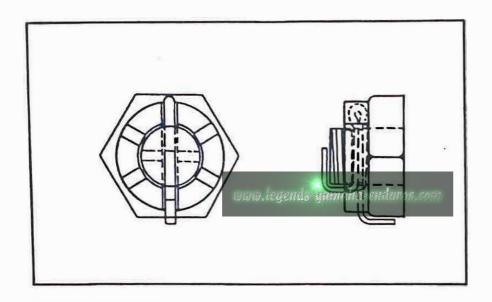
Rear axle nut torque:

4.0 m-kg (29.0 ft-lb)

Sprocket shaft nut torque:

11.0 m-kg (80.0 ft-lb)

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



#### **WARNING:**

Always use a new cotter pin on the axle nut.

7. In the final step, adjust the play in the brake pedal and adjust brakelight switch operation.

#### CAUTION:

Excessive chain tension will overload the engine and other vital parts; keep the tension within the specified limits.

#### **Drive chain lubrication**

The chain consists of many moving parts. If the chain is not maintained properly, it will wear out rapidly. Therefore, from the habit of periodically servicing the chain. This service is especially necessary when riding in dusty conditions.

- 1. Use Yamaha Chain and Cable Lube or any of the many brands of spray type chain lubricant. First, remove dirt and mud from the chain with a brush or cloth and then spray the lubricant between both rows of side plates and on all center rollers. This should be performed every 500 km (300 mi.) or whenever the chain becomes dry.
- To clean the chain, first 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. After drying, lubricate the chain to prevent rust.

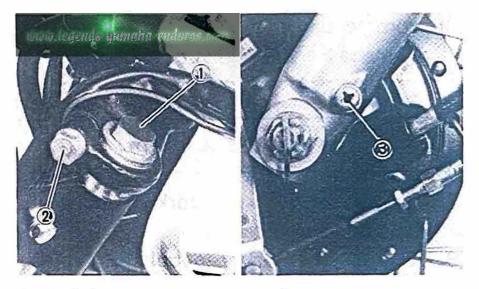
#### Sidestand pivot

Lubricate the sidestand pivot point with Yamaha Chain and Cable Lube or SAE 10W/30 motor oil.

#### Front fork oil change

#### **WARNING:**

- 1. Securely support the motorcycles so there is no danger of it falling over.
- Fork oil leakage can cause loss of stability and safe handling. Have any problem corrected before operating the motorcycle.
- 1. Elevate front wheel by placing a suitable stand under the engine.
- 2. Loosen the pinch bolts and remove cap bolts from inner fork tubes.
- 3. Place container under each fork tube. Remove drain screw from each outer tube.



- 1. Cap bolt
- 2. Pinch bolt

- 3. Drain screw
- 4. After most of oil has drained, slowly raise and lower the outer tubes to pump out remaining oil.
- 5. Replace the drain screw.

NOTE:	·
Check the gasket.	replace if damaged.

6. Measure the correct amount of oil and pour if into each leg.

#### Recommended oil:

Yamaha Fork Oil 10wt or equivalent

Quantity per leg: 116 cc (4.0 oz)

- 7. Inspect the O-ring on fork cap bolts and replace them if damaged.
- 8. Tighten the fork cap bolts and pinch bolts.

Fork cap bolt torque: 2.0 m-kg (15 ft-lb)

#### **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; then hold the lower end of the front fork and try to move it

forward and backward. If any free play can be felt, ask your Yamaha dealer or other qualified mechanic to inspect and adjust the steering assembly.

Inspection is easier if the front wheel is removed.

#### **WARNING:**

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

#### **Wheel Bearings**

If the wheel bearings in the front or rear wheel allow play in the wheel hub, or if the wheel does not turn smoothly, have your Yamaha dealer or other qualified mechanic inspect the wheel bearings. The wheel bearings should be inspected according to the General Maintenance/Lubrication chart. (See page 34)

#### **Battery**

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

### CAUTION:

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

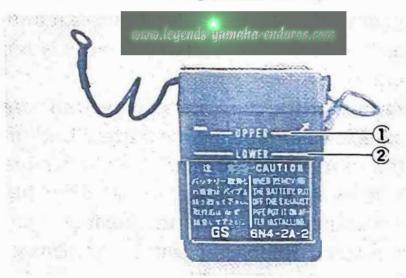
## **WARNING:**

Battery fluid on the chain can cause premature failure and a possible accident.

#### 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

NOTE:-

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

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



#### **WARNING:**

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. It contains sulfuric acid. Avoid contact with skin, eyes, or clothing.

Antidote: EXTETNAL — Flush with water. INTERNAL — Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call 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 enclosed space. Always shield your eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

#### Fuse replacement

If the 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 your Yamaha dealer or other qualified mechanic.

#### **○WARNING:**

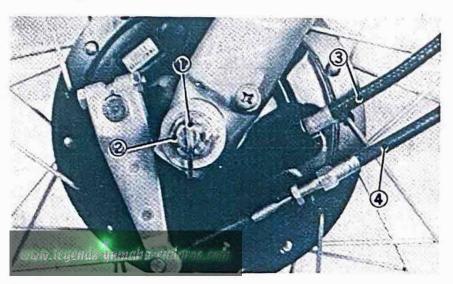
Do not use fuses of a higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possible fire.



1. Fuse

#### Front wheel removal

- 1. Elevate the front wheel by placing a suitable stand under the engine.
- 2. Remove speedometer cable from front brake shoe plate; first remove the clip then pull the cable out.
- 3. Remove the brake cable: Loosen all cable adjuster screws and remove the cable from handle lever holder. Then remove the cable from cam lever at the front brake shoe plate.



1. Cotter pin

3. Speedometer cable

2. Axle nut

- 4. Brake cable
- 4. Remove the cotter pin from the front wheel axle and remove the axle nut.
- 5. Turn and pull out the front wheel axle; the wheel assembly can now be removed.

#### Front wheel installation

When installing front wheel, reverse the removal procedure taking care of the following points.

- 1. Check for proper engagement of the boss on the outer fork tube with the locating slot on the brake shoe plate.
- 2. Make sure the axle nut is properly torqued and a new cotter pin is installed.

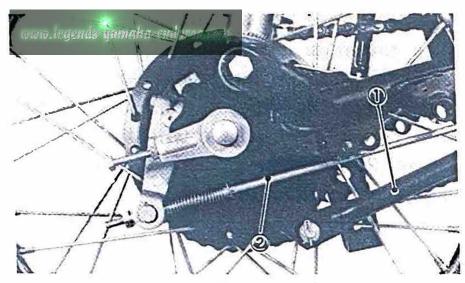
Axle nut torque: 4.5 m-kg (32 ft-lb)

#### **WARNING:**

Always use a new cotter pin on the axle nut.

#### Rear wheel removal

- 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 bolt. The brake rod can be removed by removing the adjuster.
- 2. Loosen the lock nuts of the right and left chain adjusters and loosen the adjuster.



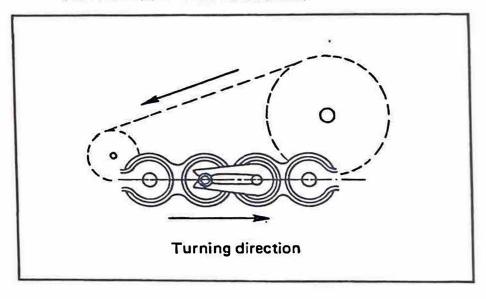
1. Tension bar

- 2. Brake rod
- 3. Remove the joint link clip and joint link, and remove the chain from the rear sprocket.
- 4. Remove the axle nut cotter pin, the sprocket shaft nut, and axle nut.
- 5. The rear wheel assembly, the collar, the chain adjuster(s), etc., can be removed from the motorcycle by pulling the wheel axle.

#### Rear wheel installation

The rear wheel can be installed by reversing the removal procedure. Note the following:

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



- 2. Be sure to adjust the tension of the chain. (Refer to "Drive chain tension adjustment".)
- 3. Make sure the nuts and tension bar bolt are properly torqued.

Axle nut torque: 4.0 m-kg (29.0 ft-lb)

Sprocket shaft nut torque:

11.0 m-kg (80.0 ft-lb)

Tension bar bolt torque:

2.0 m-kg (14.5 ft-lb)

#### **WARNING:**

Always use a new cotter pin on the axle nut.

4. Adjust the brake pedal and brakelight switch.

#### Replacing the headlight bulb

This motorcycle is equipped with a sealed beam headlight. If the headlight burns out, ask your Yamaha dealer or other qualified mechanic to replace and adjust the unit. Carburetor adjustment:

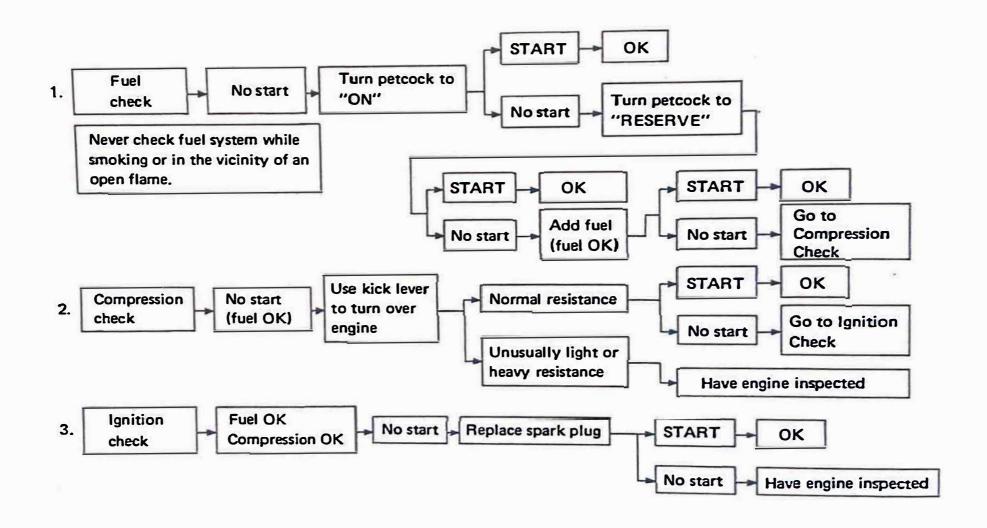
The carburetor is a vital part of the engine and its emission control system. Adjustment should be left to a Yamaha dealer or other qualified mechanic with the professional knowledge, specialized data, and equipment to do so properly.

#### Troubleshooting:

Although Yamaha motorcycles are given a rigid inspection before shipment from the factory, trouble may occur during operation. If this happens, check the motorcycle in accordance with the procedures given in the chart below. If repair is necessary, ask a qualified mechanic such as your Yamaha dealer for assistance. The skilled technicians at your Yamaha dealer are trained and equipped to perform the necessary maintenance and repair work. For replacement parts, Yamaha recommends you use Genuine Yamaha Parts or parts you know are equivalent in quality.

Any problem in the fuel, compression, or ignition system can cause poor starting, excessive emissions, engine damage, or loss of power while riding. The troubleshooting chart describes a quick and easy series of system checks to locate the problem.

#### Troubleshooting chart



# CLEANING AND STORAGE

#### A. CLEANING

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

- 1. Before cleaning the motorcycle:
  - a. Block off the end of the exhaust pipe to prevent water entry; a plastic bag and a strong rubber band may be used.
  - b. Make sure the spark plug, fuel tank cap, oil tnak cap, and transmission oil filler cap are installed properly.
- 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, using only enough hose pressure to do the job.

#### **CAUTION:**

Excessive hose pressure may cause water see pag and contamination of wheel bearings, front forks, brake drums, and transmission seals. Many expensive repair bills have resulted from improper applications of high-pressure washes.

- 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 bruch or bottle brush is handy to reach hard-to-get-to places.
- 5. Rinse the motorcycle off immediately with clean water and dry all its surfaces with compressed air, a chamois, clean towel, or soft absorbent cloth.

- 6. Chrome-plated parts such as handlebars, rims, spokes, forks etc., may be further cleaned with automotive chrome cleaner.
- 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 on the fuel and oil tanks.
- 9. After finishing, start the engine immediately and allow it to idle for several minutes to dry it off completely.

#### **B. STORAGE**

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

- 1. Drain the fuel tank, fuel lines, and carburetor float bowl.
- Remove the empty fuel tank, pour a cup of 10W/30 or 20W/40 oil in tank, shake the tank to coat the inner surfaces thoroughly and drain off excess oil. Reinstall the tank.
- 3. Remove the spark plug, pour about one tablespoon of 10W/30 or 20W/40 oil in to the spark plug hole, and reinstall the spark plug. Kick the engine over several times (with ignition off) to coat cylinder walls with oil.
- 4. Lubricate all the control cables.
- 5. Block up the frame to raise both wheels off ground.

- 6. Tie a plastic bag over exhaust pipe outlet to prevent moisture from entering.
- 7. If storing in humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or cover.

Remove the battery and charge it. Store it in a dry place and re-charge 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)).

NOTE	:				
Make	any	necessary	repairs	before storin	g the
moto	rcycl	e.			

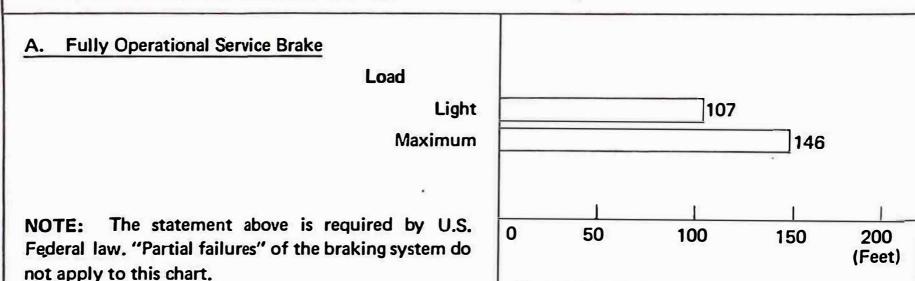
# **MISCELLANEOUS**

#### **Consumer Information**

#### STOPPEING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading and with partial failures of the braking system. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.





Stoppeing distance in feet from 50 mi/h

# **SPECIFICATIONS**

MODEL	DT100J
Dimension:	
Overall length	1,880 mm (74.0 in)
Overall width	800 mm (31.5 in)
Overall height	990 mm (39.0 in)
Seat height	730 mm (28.7 in)
Wheelbase	1,190 mm (46.8 in)
Minimum road clearance	200 mm ( 7.9 in)
Weight	
Gross	80 kg (176 lb)
Performance:	
Minimum tuning radius	1,810 mm (71.3 in)
Climbing capacity	35°
Engine:	
Туре	2-stroke, gasoline, air cooled, torque induction
Engine model	3A3
Cylinder	Single, forward inclined
Displacement	97 cc (5.92 cu. in)
Bore x Stroke	52 x 45.6 mm (2.05 x 1.8 in)
Compression ratio	6.7:1 (9.7:1)
Starting system	Primary kick starter

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MODEL	DT100J
Ignition system	C.D.I.
Gasoline tank capacity	4.5 lit (1.2 US. gal)
Oil tank capacity	1.0 lit (1.1 US. qt)
Lubricating system	Separate lubrication (Yamaha Autolube)
Battery type/capacity	6N4-2A-2/6V, 4AH
Generator	Flywheel magneto
Spark plug	B7ES (N.G.K.)
Carburator	VM22SS
Air cleaner	Wet, foam rubber
Clutch type	Wet, multiple-disc
Transmission:	Ü≈ <b>e</b> Háui 96.6077
Primary reduction system	Gear
Primary reduction ratio	74/19 (3.895)
Secondary reduction system	Chain
Secondary reduction ratio	45/14 (3.214)
Gear box type	Constant mesh, 5-speed forward
Operation system	Left foot operation, 1 down, 4 up
Gear ratio:	
First	35/11 (3.182)
Second	30/15 (2.000)
Third	26/19 (1.368)
Fourth	23/23 (1.000)
Fifth	20/25 (0.800)

	MODEL	DT100J
hassis:		
Frame type		Tubular, double-cradle
Steering:	Caster	61°
	Trail	103 mm (4.1 in)
Tire size:	Front	2.50—18—4PR
	Rear	3.00-16-4PR
Braking system:	Front	Drum brake/Right hand operation
3	Rear	Drum brake/Right foot operation
Suspension:	Fornt	Telescopic fork
	Rear	Swing arm
Shock absorber:	Front	Coil spring, oil damper
	Rear	Coil spring, oil damper
Electrical:	- www.legends-yamaha-en	
Headlight		6V, 30W/30W
Tail/soplight		6V, 5.3W (3 cp)/25W (32 cp)
Meter light		6V, 3W
Flasher light		6V, 17W
Pilot light	Flasher	6V, 3W
•	High beam	6V, 3W
	Neutral	6V, 3W
	Oil	6V, 3W

# **WARRANTY INFORMATION**

Please refer to your copy of the Yamaha Owner's Warranty Guide\* for details of the warranty offered on your new Yamaha.

The Warranty Guide contains the warranty policy, an explanation of the warranty, and other important information. Becoming familiar with these policies will be to your advantage in making the best use of Yamaha's warranty programs.

Therer are certain requirements which you must meet in order to qualify for warranty coverage. FIRST, your new Yamaha must be operated and maintained properly, as explained in this manual. If you have any questions about procedure in this manual, please consult your dealer. ABUSE AND NEGLECTED MAINTENANCE MAY LEAD TO MECHANICAL FAILURES WHICH CANNOT BE COVERED UNDER WARRANTY.

SECOND, IF ANY PROBLEMS OCCUR WHICH YOUR FEEL SHOULD BE COVERED UNDER WARRANTY, NOTIFY YOUR DEALER IMMEDIATELY. Don't delay, as small problems left unrepaired can become large problems which may not be covered under warranty. We recommend that the Warranty Guide be used as a folder in which you may keep your registration and other important documents related to your new Yamaha.

\* The Yamaha Owner's Warranty Guide is to be supplied by your Yamaha dealer at the time of purchase. If you did not receive one, or have lost yours, you may obtain extra copies upon request from your Yamaha dealer or by writing to:

YAMAHA MOTOR CORPORATION, U.S.A. 6555 KATELLA AVE. CYPRESS, CALIFORNIA 90630

P.O. Box 6555

ATTN: WARRANTY DEPARTMENT

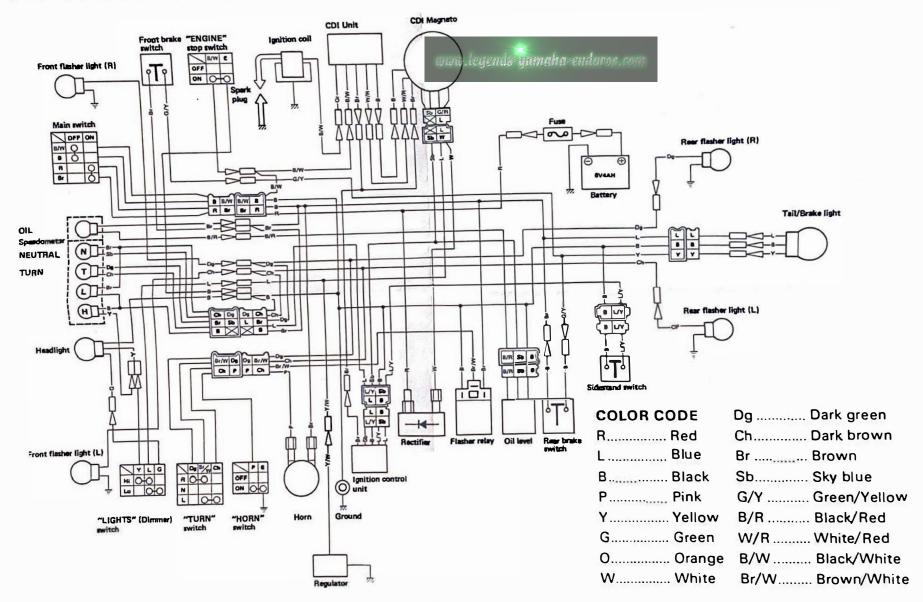
# MAINTENANCE RECORD

Copies of work orders and/or receipts for parts you purchase and install will be required to document maintenance done in accordance with the emission warranty. The chart below is printed only as a reminder to you that the maintenance work is required. It is not acceptable proof of maintenance work.

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND ADDRESS	SERVICING DEALER SIGNATURE
1,000 km or 600 mi or 1 month				
4,000 km or 2,500 mi or 7 months				
7,000 km or 4,500 mi or 13 months		muser lactarida	ymaha enduros, som	
10,000 km or 6,200 mi or 19 months		www.tegenus	- grasifi en a e e e e e e e e e e e e e e e e e	

13,000 km or 8,000 mi or 25 months			,.	
16,000 km or 10,000 mi or 31 months				i i
19,000 km or 12,000 mi or 37 months	•			
22,000 km or 13,700 mi or 43 months				
25,000 km or 15,500 mi or 49 months				
28,000 km or 17,400 mi or 55 months				
31,000 km or 19,200 mi or 61 months		www.legends-yama	ha=enduros.com	

# **WIRING DIAGRAM**



# www.legends-yamaha-enduros.com

