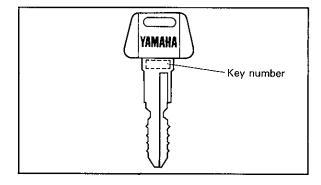


IDENTIFICATION NUMBERS RECORD

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

TW200EU

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Printed in Japan

OWNER'S MANUAL

INTRODUCTION

Congratulations on your purchase of the Yamaha TW200EU 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. U 001

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Some data in this manual may become outdated due to future improvement on this model.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 OPERATIONS
YAMAHA MOTOR CO., LTD.

WARNING:

PLEASE READ THIS MANUAL CARE-FULLY 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

J-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.

ATIPS FOR SAFETY:

TWO-WHEELED MOTORCYCLES ARE SINGLE TRACK VEHICLES. THEIR SAFE USE AND OPERATION ARE DEPENDENT UPON THE USE OF PROPER RIDING TECH-NIQUES 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 OWN-
- ER'S MANUAL. 3. OBTAIN QUALIFIED TRAINING IN SAFE AND PROPER RIDING TECHNIQUES.
- 4. OBTAIN PROFESSIONAL TECHNICAL SERVICE AS INDICATED BY THE OWN-ER'S MANUAL AND/OR WHEN MADE NECESSARY BY MECHANICAL CON-DITIONS.

SAFE RIDING

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

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."
- 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 qulified. 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.
- 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 and passenger's posture are important for proper control.
- a. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.

 b. The passenger should always hold on to the operator, or the seat strap or grab

bar if the motorcycle is so equipped with both hands and keep both feet on the passenger footrests.

c. Never carry a passenger unless he or she can firmly place both feet on the pas-

senger footrests.

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.
- 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 abrations 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.
- 6. A passenger should also observe the above precautions.

MODIFICATION

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

LOADING AND ACCESSORIES

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

LOADING

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit of 346 lb (157 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.
- 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.
- 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)/mu' 'ar(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.

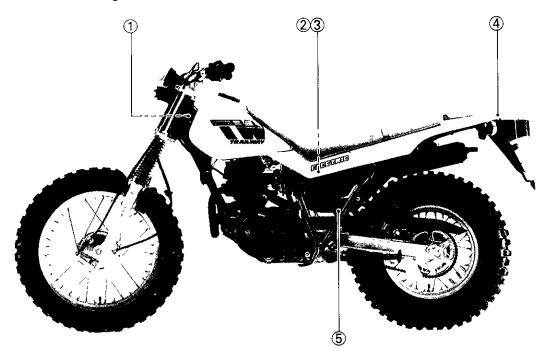
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Indicator lights	Chain
Speedometer	fires
Handlebar switches	Wheels
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A 400

LOCATION OF THE IMPORTANT LABELS

Please read following labels carefully before operating this motorcycle



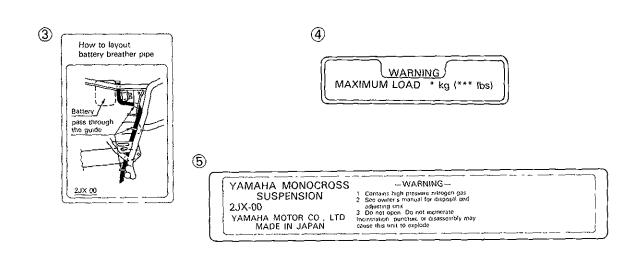
MFD BY YAMAHA MOTOR CO, LTD A GVWR *** &g GAWR FRONT-*** &g WITH ***/**** *** P (B) TIRE *** *** RIM AT *** PSI COLD REAR *** &g WITH ***/**** *** P (B) TIRE *** MT *** RIM AT *** PSI COLD THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE VEHICLE ID NO B TYPE CLASSIFICATION MOTORCYCLE

(2)

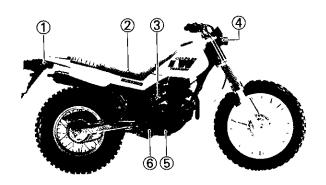
CAUTION

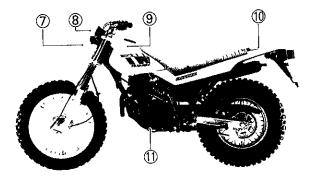
(BATTERY REMOVAL AND INSTALLATION)

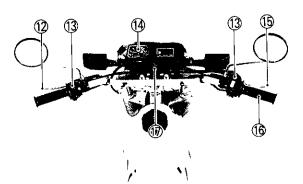
- 1 Be careful not to splash the electrolyte to the drive chain.
- 2 Remove the breather pipe before demaunting the battery
- 3 After installing the battery, be sure to connect the breather pipe into place



DESCRIPTION







- Rear flasher light
- 2 Seat
- 3 Kick starter
- 4 Front flasher light
- 5 Brake pedal
- 6. Footrest
- 7 Headlight
- 8 Headlight cowl
- 9 Fuel tank

- 10 Rear carrier
- 11 Change pedal
- 12 Clutch lever
- 13 Handlebar switch
- 14 Speedometer
- 15 Brake lever
- 6 Throttle grip
- 17 Main switch

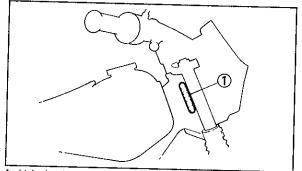
A-600

MOTORCYCLE IDENTIFICATION

A 800

Vehicle identification number

The vehicle identification number is stamped into the steering head pipe



Vehicle identification number

U 004

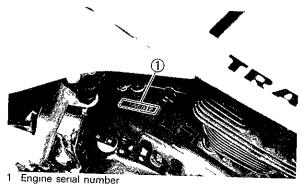
NOTE:

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.



NOTE: _____

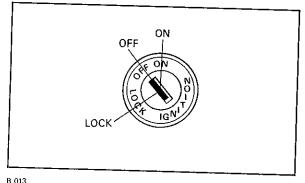
The first three digits of these numbers are for model identification; the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer. B-000

CONTROL FUNCTIONS

B-001

Main switch

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



ON:

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

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 4-8) for proper operation.

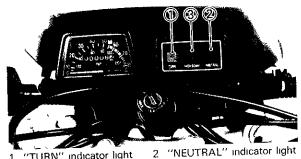
U 007

NOTE:

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

B 100

Indicator lights



"TURN" indicator light "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

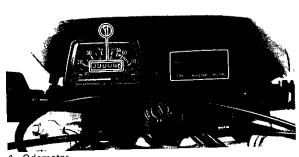
"HIGH BEAM" indicator light (blue):

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

8 407K

Speedometer

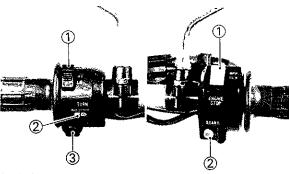
The odometer is built into the speedometer.



Odometer

8 600

Handlebar switches:



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

1 "ENGINE STOP" switch 2 "START" 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 motor-cycle overturns or when trouble occurs in the throttle system. The engine will not run when the engine stop switch is turned to "OFF." In case of emergency, turn the switch to "OFF."

B 607

"START" switch

To start the engine, push the starter

U-307



See starting instructions prior to starting engine.

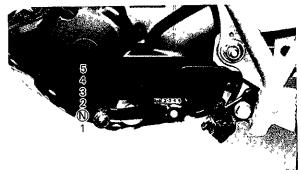
B-700

Clutch lever

The clutch lever is located on the left handlebar, and the starting circuit cutoff switch is incorporated in the clutch lever holder. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth starts (Refer to the engine starting procedures for a description of the starting circuit cut-off switch.) B-800

Change pedal

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



N Neutral

B 900

Front brake lever

The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake. 8-901

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 003

Fuel tank cap

 To remove the tank cap, insert the key in the lock and turn the key 1/4 turn counterclockwise. Rotate the cap 1/3 turn counterclockwise and remove it from the tank.

U-013

NOTE:

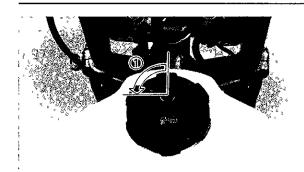
The tank cap cannot be reinstalled unless it is unlocked. The key must remain in the cap until the cap is properly installed and locked onto the fuel tank.

 To reinstall the tank cap, set the cap in the filler neck and rotate the cap 1/3 turn clockwise. Lock the cap by turning the key 1/4 turn clockwise, and remove the key.

U-611

WARNING:

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



1 Open

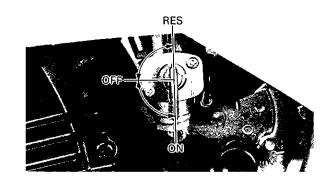
Fuel cock

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.

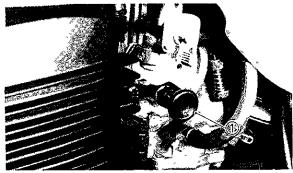
RES: This indicates reserve. If you run out of fuel while riding, move the lever to this position. FILL THE TANK AT THE FIRST OPPORTUNITY BE SURE TO SET THE LEVER TO "ON" AFTER REFUELING.



C-202

Starter knob (CHOKE)

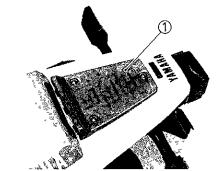
When cold, the engine requires a richer air-fuel mixture for starting. A separate starter circuit supplies this mixture. Pull the starter knob out to open the circuit for starting. When the engine has warmed up, push the knob in to close the circuit.



1 Starter knob

C 720K

Rear carrier



Rear carrier

U 760K

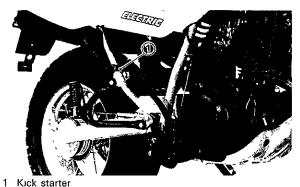
WARNING:

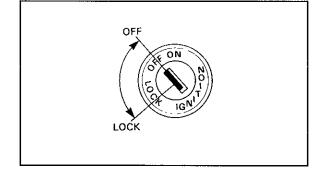
Do not exceed maximum load. Maximum load: 3 kg (6.6 lb)

C-602

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.

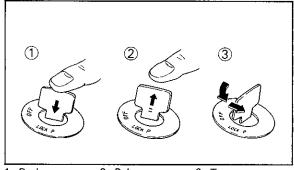




C-300

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.



Push

2 Refease

3 Turn

WARNING:

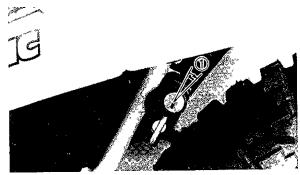
Never turn the key to "LOCK" when the motorcycle is moving.

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 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-301

Sidestand

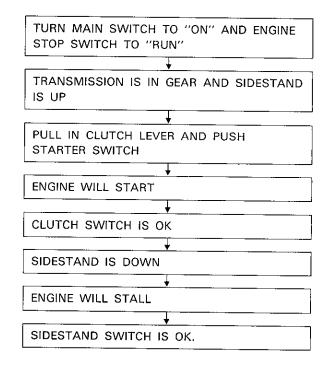
This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 6-2 for an explanation of this system.)

WARNING:

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

D 308K

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



U 691

WARNING:

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

PRE-OPERATION CHECK

Before using this motorcycle, check the following points:

ltem	Routine	Page
Front and rear brakes	Check operation, condition and free play Adjust if necessary	5-3, 7-17~7-20
Clutch	Check operation, condition and free play Adjust if necessary	5-3, 7-21~7-22
Throttle grip/Housing	Check for smooth operation. Lubricate/Adjust if necessary	5-3, 7-13~7-14, 7-25
Engine oil	Check oil level/add oil as required	5-3~5-4, 7-6~7-10
Drive chain	Check chain slack and condition Adjust if necessary.	5-4, 7-22~7-25
Wheels/Tires	Check tire pressure, wear, damage and spoketightness	5-4~5-7, 7-36~7-40
Control/Meter cable	Check for smooth operation Lubricate if necessary	7-25
Brake and change pedal shafts	Check for smooth operation Lubricate if necessary	7-26
Brake and clutch lever pivots	Check for smooth operation Lubricate if necessary	7-26
Sidestand pivot	Check for smooth operation. Lubricate if necessary	7-26
Fittings/fasteners	Check all chassis fittings and fasteners Tighten/Adjust, if necessary	5-7, 7-5
Fuel tank	Check fuel level/top-up as required	5-7~5-8
Lights and signals	Check for proper operation	5-7, 7-34~7-36
Battery	Check fluid level, top-up with distilled water if necessary	5-7, 7-30~7-33

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

WARNING:

worth the time involved.

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

Brakes (See page 7-17 for more detail)

- 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 7-20.

U	-0	2

NOTE:	
14016	

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

E-200

Clutch (See page 7-21 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 7-13 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 400

Engine oil (See page 7-6 for more detail) Make sure the engine oil is at the specified level. Add oil as necessary.

Recommended oil:



Oil quantity:

Total amount:

1.3 L (1.1 Imp qt, 1.4 US qt)

Periodic oil change:

1.0 L (0.9 Imp qt, 1.1 US qt)

With oil filter replacement:

1 1 L (1.0 Imp qt, 1.2 US qt)

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

E-500

Chain (See page 7-22 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.

E-911

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.

U-675

WARNING:

Tire inflation pressure should be checked

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

Basic weight With oil and full fuel tank	126 kg (278 lb)	
Maximum load*	157 kg (346 lb)	
Cold tire pressure	Front	Rear
Up to 80 kg (176 lb) load*	130 kPa (1 3 kg/cm², 18 psi)	130 kPa (1 3 kg/cm², 18 psi)
80 kg (176 lb) ~ Maximum load*	150 kPa {1.5 kg/cm², 21 psi}	180 kPa (1 8 kg/cm², 25 psi)
High speed riding	150 kPa (1 5 kg/cm², 21 psi)	180 kPa (1 8 kg/cm², 25 psı)

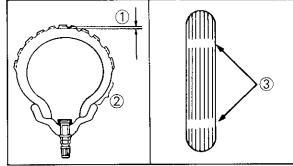
^{*}Load is the total weight of cargo, rider, passenger, and accessories

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 destribute 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, passenger, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

2. Tire inspection

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



1 Tread depth

2 Side wall

3 Wear indicator

FRONT

Manufacture	Size	Type
Bridgestone	130/80-18 66P	TW31

REAR

Manufacture	Size	Type
Bridgestone	180/80-14 78P	TW32

Minimum tire tread depth (front and rear)	1 0 mm (0 04 in)

U 700

WARNING:

 It is dangerous to ride with a wornout 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.

E-934

Wheels

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

 Always inspect the wheels before a ride Check for cracks, bends, or warpage of the 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.

- 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.
- 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 707

Switches

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

E-705

Battery (See page 7-30 for more detail) Check the fluid level and top-up if necessary. Use only distilled water if refilling is necessary.

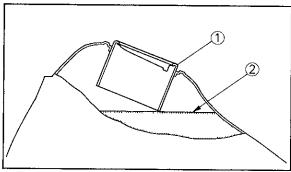
E 800

Fuel

Make sure there is sufficient fuel in the tank.

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.



1 Filler tube

2 Fuel level

E-803

Recommended fuel: Regular gasoline Fuel tank capacity:

Total:

7.0 L (1.5 Imp gal, 1.8 US gal) Reserve:

1.0 L (0.2 Imp gal, 0.3 US gal)

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:

- Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.
- Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

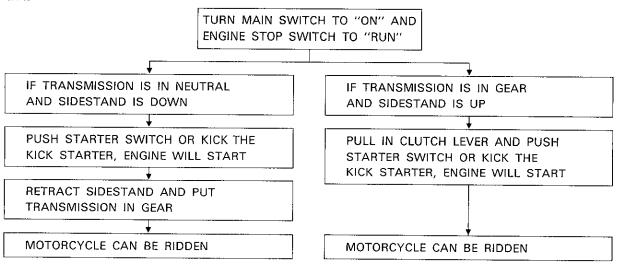
This motorcycle is equipped with a starting and an ignition circuit cut-off switch.

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

U 692

WARNING:

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 4-10.)



- 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:	_
Mhan tha transmission is in nautral, the naut	-01

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. Fully open the starter (CHOKE), and completely close the throttle grip.
- 5. Start the engine by pushing the starter switch or by using the kick starter

1103			
	ı	ı	US

NOTE:

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

If the engine does not start with the starter motor, use the kick starter to start the engine.

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

U 026

NOTE: _____

To get maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine! 7. After warming up the engine, turn off the starter completely.

J-027
NOTE:
The engine is warm when it responds normally
to the throttle with the starter turned off.

F-108

Starting a warm engine

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

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 4-4)

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:

> 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.

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-324K

- 0~150 km (0~90 mi):
 Avoid operation abvove 1/3 throttle 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
- 150~500 km (90~300 mi):
 Avoid prolonged operation above 1/2 throttle. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

throttle position.

500~1,000 km (300~600 mi):
 Avoid cruising speeds in excess of 3/4 throttle.

CAUTION:

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

1,000 km (600 mi) and beyond:
 Avoid prolonged full-throttle operation.
 Vary speed occasionally.

U-322



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

F-401

Parking

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

U 630

WARNING:

The muffler and exhaust pipe are hot. Park the motorcycle in a place where pedestrians or children are not likely to touch the motorcycle.

Do not park the motorcycle on a slope or soft ground; the motorcycle may overturn.

H-000

PERIODIC MAINTENANCE AND MINOR REPAIR

H-004

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

U 632

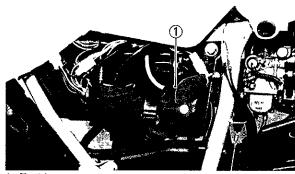
WARNING:

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

H-101

Tool kit

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



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)

			EV	EVERY	
ITEM	REMARKS	BREAK-IN 1,000 (600)	6,000 (4,000) or 6 months	12,000 (8,000) or 12 months	
Valve(s)*	Check valve clearance Adjust if necessary	0	0	0	
Cam chain*	Check chain tension Adjust if necessary	0	0	0	
Spark plug(s)	Check condition Clean or replace if necessary.	0	0	0	
Air filter	Clean Replace if necessary		0	0	
Carburetor*	Check idle speed/starter operation Adjust if necessary	0	0	0	
Fuel line*	Check fuel hose for cracks or damage Replace if necessary		0	0	
Engine oil	Replace (Warm engine before draining)	0	0	0	
Engine oil filter	Clean	0	0	0	
Engine oil strainer	Clean	0	0	0	
Brake	Check operation Adjust if necessary		0	0	
Clutch	Check operation Adjust if necessary		0	0	
Rear arm pivot*	Check rear arm assembly for looseness Correct if necessary Moderately repack ***	0	0	0	
Wheels*	Check balance/damage/runout/spoke tightness Repair if necessary		0	0	
Wheel bearings*	Check bearings assembly for looseness/damage Replace if damaged		0	0	
Steering bearing*	Check bearings assembly for looseness Correct if necessary Moderately repack every 24,000 (16,000) or 24 months **	0		0	

			EVERY	
ITEM	REMARKS	BREAK-IN 1,000 (600)	6,000 (4,000) or 6 months	12,000 (8,000) or 12 months
Front forks*	Check operation/oil leakage Repair if necessary		0	0
Rear shock absorber*	Check operation/oil leakage Repair if necessary		0	0
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	0	0	0
Sidestand*	Check operation Repair if necessary	0	0	0
Sidestand switch*	Check operation Clean or replace if necessary	0	0	0
Battery*	Check specific gravity. Check breather pipe for proper operation. Correct if necessary		0	0

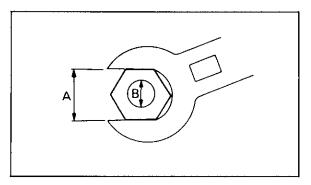
It is recommended that these items be serviced by a Yamaha dealer
 Medium weight wheel bearing grease
 Lithium soap base grease

H-301

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.

Α	В	General torque specifications				
(Nut)	(Bolt)	Nm	m∙kg	ft•lb		
10 mm	6 mm	6	06	43		
12 mm	8 mm	15	15	11		
14 mm	10 mm	30	3 0	22		
17 mm	12 mm	55	5.5	40		
19 mm	14 mm	85	8 5	61		
22 mm	16 mm	130	13 0	94		



ITEM		Torque				
I I CIVI	Nm	m•kg	ft•lb			
Spark plug	17 5	1 75	12 5			
Engine drain bolt	43	4 3	31			
Oil filter cover screw (pan head)	7	0 7	51			
Oil filter cover screw (internal hexagon)	10	10	72			
Front fork pinch bolt	23	2 3	17			
Front fork cap bolt	23	23	17			
Front wheel axle nut	90	90	65			
Rear wheel axle nut	90	90	65			

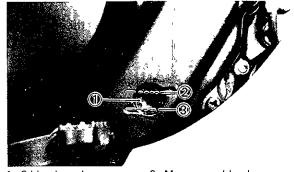
H 443K

Engine oil

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

U 039
NOTE:
Be sure the motorcycle is positioned straigh
up when checking the oil level; a slight til
toward the side can produce false readings.

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



1 Oil level window 3 Minimum oil level Maximum oil level

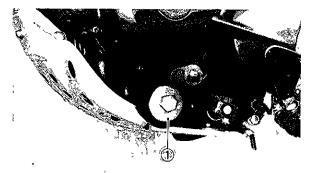
U 040

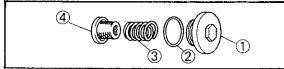
NOTE:

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

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

- 2. Engine oil replacement
- a. Warm-up the engine for a few minutes.
- b. Stop the engine. Place an oil pan under the engine, and remove the oil filler cap.
- c Remove the drain plug and drain bolt attached to the oil filter cover.





- 1 Drain plug
- 2 O-ring
- 3 Compression spring

4 Oil strainer

U 068

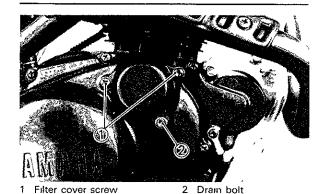
NOTE: _____

The oil filter cover is secured by three screws The lower one should be removed so that the filter cavity will drain.

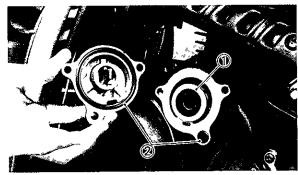
U-414K

CAUTION:

When removing the oil drain plug, O-ring, compression spring, and oil strainer will fall off. Take care not to lose these parts.



- d. Remove the other filter cover screws and remove the oil filter cover.
- e. Clean the filter element and oil strainer with solvent Replace if necessary.



1 Filter element

- 2 O-ring
- f. Check O-ring. If damaged, replace it.
- g. Reinstall the drain plug, filter element and the filter cover screws.

U 041						
NOTE	::					
Make	sure	the	O-ring	is	positioned	properly.

U-415K

EAUTION

Before reinstalling the oil drain plug, do not forget to fit the O-ring, compression spring, and oil strainer.

Tightening torque

Drain plug:

43 Nm (4.3 m•kg, 31 ft•lb)

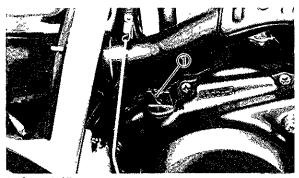
Filter cover screw (pan head):

7 Nm (0.7 m•kg, 5.1 ft•lb)

Filter cover screw (internal hexagon head):

10 Nm (1.0 m•kg, 7.2 ft•lb)

h. Add engine oil. Install the oil tank filler cap and tighten



1 Oil tank filler cap

Oil capacity: See page 5-3

Recommended oil: See page 5-3

U 323

CAUTION:

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

U-324



Be sure no foreign material enters the crankcase.

- Start the engine and allow a few minutes of warm-up. While warming up, check for oil leakage If oil leaks, stop the engine immediately, and check for the cause
- j. Stop the engine and check the oil level

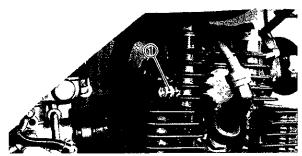
LI 418K



After replacing the engine oil, be sure to check the oil pressure as described below.

 Remove the check bolt in the cyinder head.

- 2. Start the engine and keep it idling until oil flows out of the check bolt (see the photo). If no oil comes out after a lapse of one minute, turn off the engine immediately so it will not seize. In such a case go to the nearest Yamaha dealer for repairs.
- 3. After checking, tighten the check bolt securely.

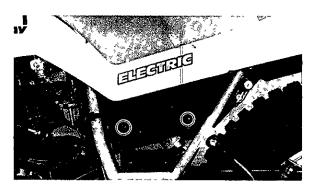


1 Check bolt

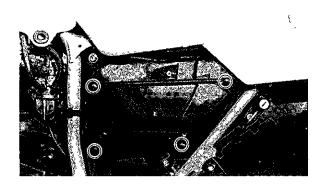
H 635K

Air filter

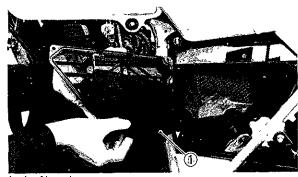
1. Remove the side cover.



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



 Remove the element from its case, and clean it with solvent. After cleaning, remove the remaining solvent by squeezing the element.



1 Air filter element

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:

Foam-air-filter oil or SAE 10W30 motor 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.
- 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.

U-326 CAUTION:

The engine should never be run without the air cleaner element; excessive piston and/or cylinder wear may result. H 900

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.

U 330



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

H-901

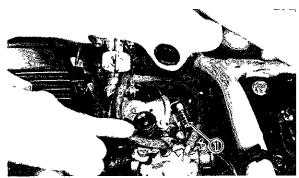
Idle speed adjustment

1. Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at ap-

proximately 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:

1,350 ~ 1,450 r/min

U 045	
NOTE:	

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

H 909

Throttle cable adjustment

U 064

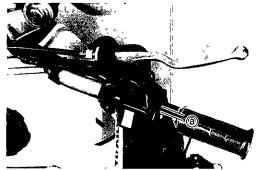
NOTE:

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.

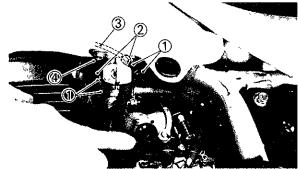
Free play:

 $2 \sim 5 \text{ mm} (0.08 \sim 0.20 \text{ in})$

- Loosen the lock nuts on the carburetor side of throttle cable 1, and turn the adjuster in or out so the play is correct. After the adjustment, be sure to tighten the lock nut.
- If the play is still incorrect after the adjuster is loosened 5 mm (0.20 in), make an adjustment with the adjuster on the throttle cable 2.



a 2~5 mm (0 08~0 20 in)



- 1 Lock nut
- 3 Throttle cable 1

- 2 Adjuster
- 4 Throttle cable 2

H-916K

Cam chain adjustment

The cam chain becomes longer with use, resulting in improper valve timing and engine noise. To prevent this, the cam chain tensioner must be adjusted regularly. This adjustment, however, should be left to a professional Yamaha service technician.

H 908

Valve clearance adjustment

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

H-203

Spark plug inspection

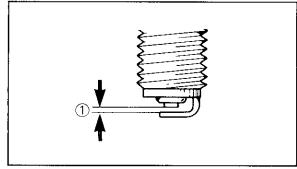
The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something of the condition of the engine.

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:

DR8ES-L (NGK) or X24ESR-U (NIPPON DENSO) 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 6~0 7 mm (0 024~0 028 in)



1 Spark plug gap

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: 17 5 Nm (1.75 m•kg, 12 5 ft•lb)

U 038

NOTE.

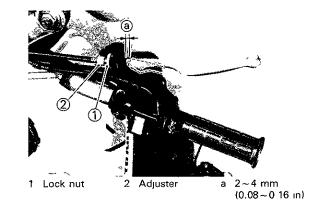
If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turns past finger tight. Have the spark plug torqued to the correct value as soon as possible with a torque wrench.

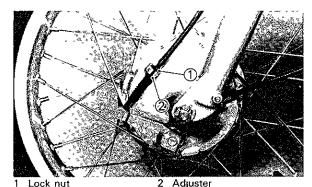
Front brake adjustment

The front brake should be adjusted to suit the rider's preference; but free play at the brake lever pivot point should be $2\sim4$ mm (0.08 \sim 0.16 in). Adjustment can be made at one of two places; either the handlebar 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.

When it is impossible to make the proper adjustment at the brake lever, ask a Yamaha dealer to adjust the brake shoe plate.





7-17

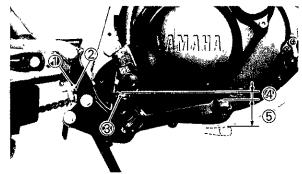
Rear brake adjustment

U-643

WARNING:

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

- 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. 10 mm (0.4 in) below the top of the footrest.
- c. Secure the adjuster lock nut.



- l Lock nut
- 2 Adjuster
- 3 Footrest
- 4 Pedal height 10 mm (0 4 in)
- 5 Free play 20~30 mm (0 8~1 2 in)

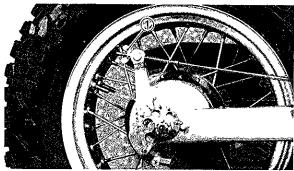
U 644

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 $20 \sim 30$ mm $(0.8 \sim 1.2 \text{ in})$. Turn the adjuster on the brake rod clockwise to reduce play; turn the adjuster counterclockwise to increase play.



Adjuster

U-698

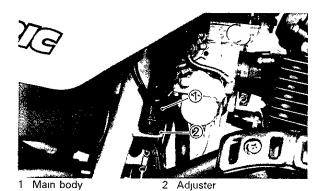
WARNING:

- 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.

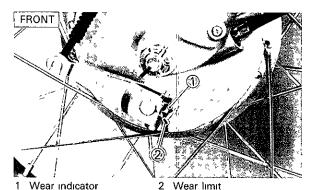


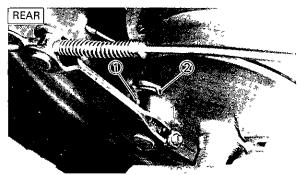


Checking the brake shoes

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 indicator

2 Wear limit

I-001

Clutch adjustment

This model has two clutch cable length adjusters. The cable length adjusters are used to take up slack from cable stretch and to provide sufficient free play for proper clutch operation.

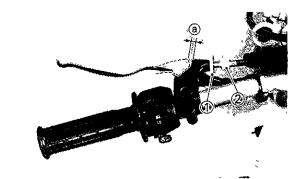
Normally, once the clutch cable length adjuster (crankcase) is properly set; the only adjustment required is maintenance of free play at the clutch cable length adjuster (handlebar lever).

1-005

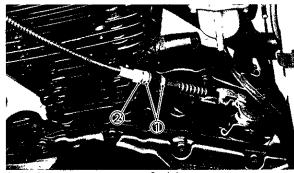
Free play adjustment

The clutch should be adjusted to suit the rider's preference; but, free play at the lever pivot should be $2\sim3$ mm (0.08 ~0.12 in).

Loosen either the handlebar lever adjuster lock nut or the cable length adjuster lock nut. Turn the cable 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 Lock nut 2 Adjuster a 2~3 mm (0.08~0 12 in)



Lock nut

2 Adjuster

I 408

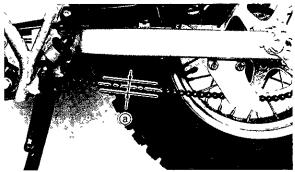
Drive chain slack check

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 $30 \sim 40 \text{ mm}$ (1.2 $\sim 1 \text{ 6 in}$). If the deflection exceeds 40 mm (1.6 in) adjust the chain slack.



a 30~40 mm (12~16 in)

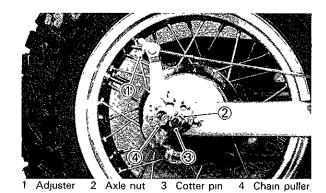
Drive chain slack adjustment

- Loosen the rear brake adjuster.
- 2. Remove the cotter pin from the rear wheel axle nut.
- 3. Loosen the rear wheel axle nut
- Turn chain puller both left and right, until axle is situated in same puller slot position.

U-333



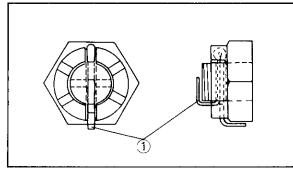
Too small chain slack will overload the engine and other vital parts; keep the slack within the specified limits.



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

Axle nut torque:
90 Nm (9 0 m•kg, 65 ft•lb)

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



1 Cotter pin

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.

 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). 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.

1-101

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.

1 302

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 Jubricant

Yamaha Chain and Cable Lube or

SAE 10W30 motor oil

1.312

Sidestand

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

Recommended Jubricant:

Yamaha Chain and Cable Lube or SAE 10W30 motor oil

U 704

WARNING:

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

1.314

Rear suspension

Lubricate the pivoting parts.

Recommended lubricant:

Swingarm pivots: Bearing grease Other pivots: Lithium soap base grease



1 560K

Front fork oil change

U-649

WARNING:

- Fork oil leakage can cause loss of stability and safe handling. Have any problem corrected before operating the motorcycle.
- 2. Securely support the motorcycle so there is no danger of it falling over.

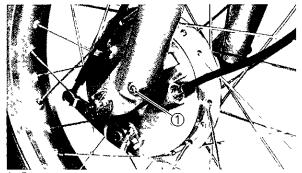
- 1. Elevate the front wheel by placing a suitable stand under the engine.
- Loosen the front fork pinch bolts and remove the cap bolts from the inner fork tubes.



Cap bolt

2 Pinch bolt

 Place an open container under each drain hole. Remove the drain screw from each outer tube.



Drain screw

- After most of the oil has been drained, slowly pump the forks up and down to remove any remaining oil
- 5. Inspect the drain screw gasket Replace if damaged Reinstall the drain screws.
- 6. Pour the specified amount of oil into each fork inner tube.

Front fork oil capacity (each fork): 238 cm³ (8.4 lmp oz, 8.0 US oz) Recommended oil:

- Yamaha fork oil 10wt or equivalent
- 7. After filling, slowly pump the forks up and down to distribute the oil.
- Inspect the O-ring on the cap bolts. Replace if damaged.



1 O-ring

9 Reinstall the cap bolt and tighten the pinch bolt.

Tightening torque:
Cap bolt.
23 Nm (2.3 m•kg, 14 ft•lb)
Pinch bolt:
23 Nm (2.3 m•kg, 14 ft•lb)

1 515

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.

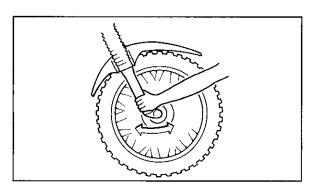
- Do not tamper with or attempt to open the cylinder assembly.
- Do not subject shock absorber to an open flame or other high heat source.
 This may cause the unit to explode due to excessive gas pressure.
- Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping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

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.

1-602

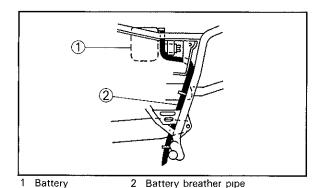
Wheel bearings

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.

1 700

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



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.

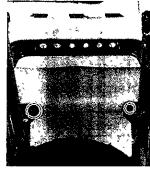
Eyes: Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

Replenishing the battery fluid

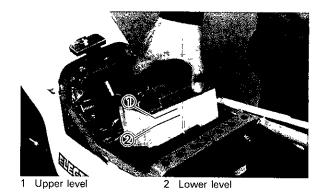
A poorly maintained battery will deteriorate quickly. The battery fluid should be checked at least once a month.

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





Remove the seat



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.

- 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.
- 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.
- Always make sure the connections are correct when putting the battery back in the motorcycle.

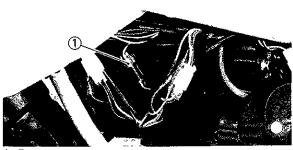
Make sure the breather pipe is properly connected and is not damaged or obstructed.

1910

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 Fuse

CAUTION:

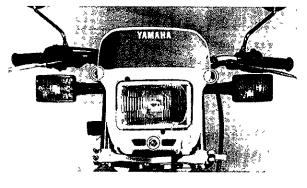
Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.

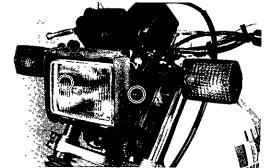
I-812

Replacing the headlight bulb

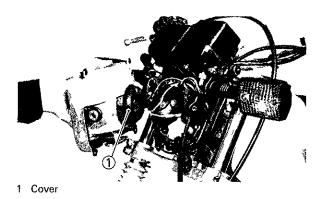
This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:

1. Remove the headlight cowl and headlight unit assembly.

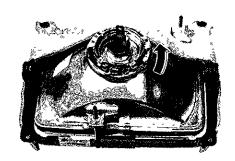




2. Disconnect the lead wires, and remove the cover.



Turn the bulb holder counterclockwise and remove the defective bulb.



U 660

WARNING:

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

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

U-341

CAUTION:

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

Reinstall the light unit assembly and headlight cowl. Adjust the headlight beam if necessary

1-809

Headlight beam adjustment

U-343



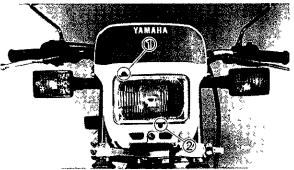
For the headlight beam adjustment, be sure to proceed as follows; (It is advisable to have a Yamaha dealer make this adjustment.)

Horizontal adjustment:
 To adjust the beam to the left, turn the adjusting screw clockwise
 To adjust the beam to the right, turn the screw counterclockwise.

2. Vertical adjustment:

To raise the beam, turn the adjusting screw clockwise.

To lower the beam, turn the screw counterclockwise.



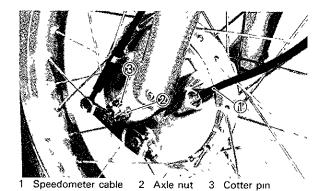
1 Horizontal adjusting screw

2 Vertical adjusting screw

J-204

Front wheel removal

 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



- 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.

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

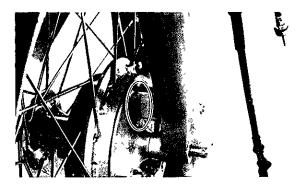
J-210

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



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:
90 Nm (9.0 m•kg, 65 ft•lb)

4. Adjust the free play in the brake lever.

J 322

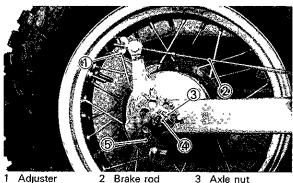
Rear wheel removal

U-662

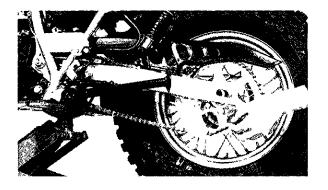
WARNING:

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.
- Remove the brake adjuster and brake rod from the brake cam lever.



- Cotter pin
- Brake rod 5. Chain puller
- 3 Axle nut
- Remove the cotter pin from the axle nut and remove the axle nut.
- 4. The rear wheel assembly, the collar, the chain pullers, etc., can be removed from the motorcycle by pulling the wheel axle.



U-069

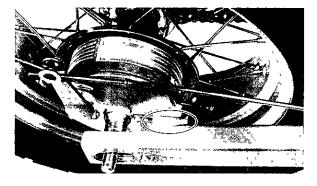
NOTE:

A special tool is usually required for separating the chain; however, it is usually not necessary to unlink the chain to remove or reinstall the rear wheel.

Rear wheel installation

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

 Be sure the swingarm boss correctly engages the locating slot on the brake shoe plate.



2 Make sure the rear wheel axle is inserted on the left-hand side and that the chain pullers are installed with the punched side outward.

- 3. Adjust the drive chain.
- 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:

90 Nm (9.0 m•kg, 65 ft•lb)

5 Adjust the rear brake. (See page 7-18)

U-645

WARNING:

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

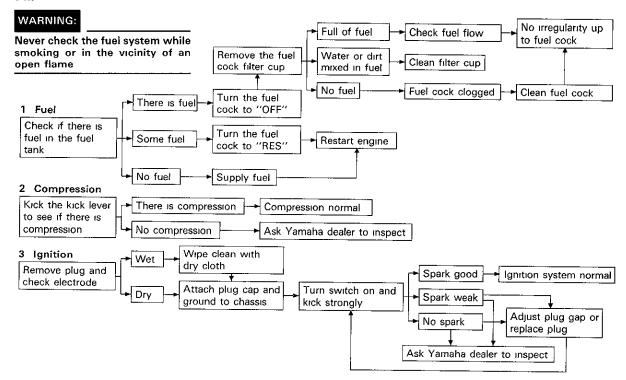
Troubleshooting

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



K 000

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.
- If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the chain, sprockets, or wheel axles.
- 3. Rinse the dirt and degreaser off with a garden hose, use only enough pressure to do the job.

U-346



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.
- Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
- Dry the chain and lubricate it to prevent rust.

- 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 006

B. STORAGE

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

1. Drain the fuel tank, fuel lines, and carburetor float bowl(s).

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

U 664

WARNING:

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

- Remove the drive chain. Clean it thoroughly with solvent and lubricate it. 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.
- Tie a plastic bag over the exhaust pipe outlet(s) to prevent moisture from entering.
- 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 rubber parts or to the seat cover.
- 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	TW200EU
Dimension:	
Overall length	2,090 mm (82.3 in)
Overall width	815 mm (32.1 in)
Overall height	1,115 mm (43.9 in)
Seat height	790 mm (31.1 in)
Wheel base	1,325 mm (52.2 in)
Minimum ground clearance	250 mm (9 8 in)
Basic weight.	
With oil and full fuel tank	126 kg (278 lb)
Mınımum turnıng radius.	1,900 mm (74.8 in)
Engine:	
Туре	Air cooled 4-stroke, gasoline, SOHC
Model	2KA
Cylinder arrangement	Single cylinder, Forward inclined
Displacement	196 cm ³
Bore×Stroke	67.0×55 7 mm (2.64×2 19 in)
Compression ratio	95 1
Starting system	Electric and kick starter
Lubrication system	Wet sump

	Model	TW200EU
	30 40 50 60°F 0 5 10 15°C c oil change il filter replacement	Yamalube 4 (20W40) or SAE 20W40 type SE motor oil (If temperature does not go below 5°C/40°F), Yamalube 4 (10W30) or SAE 10W30 type SE motor oil (If temperature does not go above 15°C/60°F) 1.0 L (0.9 Imp qt, 1.1 US qt) 1.1 L (1.0 Imp qt, 1.2 US qt) 1.3 L (1.1 Imp qt, 1.4 US qt)
Aır filter		Wet type element
Fuel: Type Tank cap Reserve a	•	Regular gasoline 7 0 L (1 5 Imp gal, 1.8 US gal) 1.0 L (0 2 Imp gal, 0 3 US gal)
Carburetor Type/mai	: nufacturer	Y24P-5C/TEIKEI

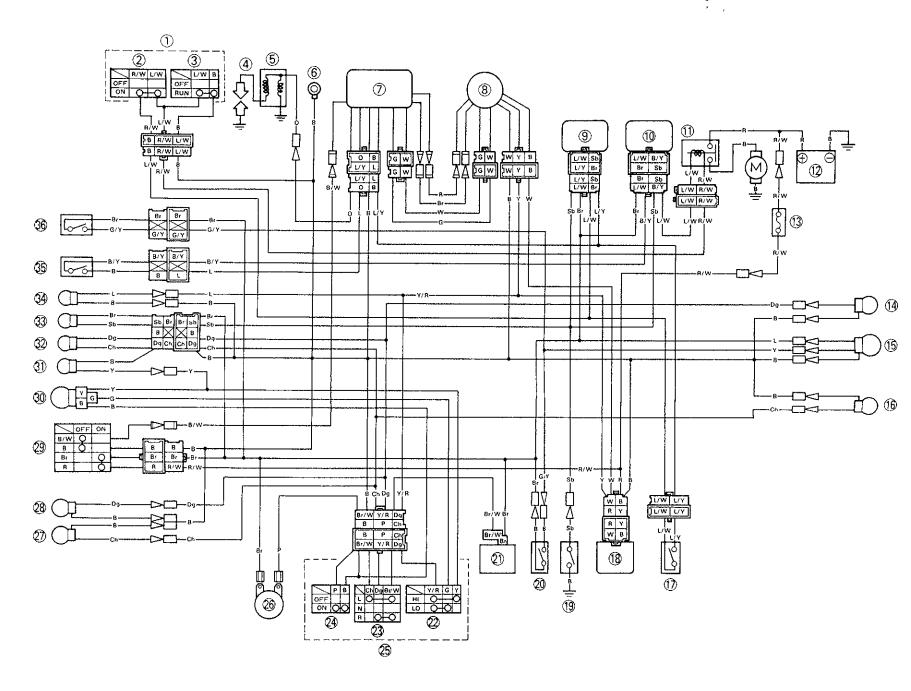
Model	TW200EU
Spark plug: Type/manufacturer Gap	DR8ES-L/NGK or X24ESR-U/NIPPON DENSO 0 6~0 7 mm (0.024~0.028 in)
Clutch type:	Wet, multi-disc
Transmission: Primary reduction system Primary reduction ratio Secondary reduction system Secondary reduction ratio Transmission type Operation	Spur gear 73/22 (3.318) Chain drive 50/14 (3 571) Constant mesh 5-speed Left foot operation
Gear ratio 1st 2nd 3rd 4th 5th	34/12 (2.833) 34/19 (1.789) 29/22 (1 318) 26/25 (1 040) 23/28 (0 821)

Model	TW200EU
Chassis.	Diamond
Frame type	26.5°
Caster angle	
Trail	94 mm (3.7 in)
Tire:	
Type	With tube
Size — Front	130/80-18 66P
Rear	180/80-14 78P
Brake:	
Front brake type	Drum brake
Operation	Right hand operation
Rear brake type	Drum brake
Operation	Right foot operation
Suspension:	
Front	Telescopic fork
Rear	Swing arm (Monocross suspension)
Shock Absorber	
Front	Coil spring, Oil damper
Rear	Gas, Coil spring, Oil damper

Model	TW200EU
Wheel travel: Front Rear	160 mm (6 3 in) 150 mm (5 9 in)
Electrical. Ignition system Generator system Battery type/capacity	CDI magneto Flywheel magneto GM7CZ-3D/12V 7AH
Headlight type:	Quarz bulb
Bulb wattage/quantity Headlight Tail/brake light Flasher light Meter light	35W/35W 27W/8W 27W×4 3.4W
Indicator light wattage/quantity: "NEUTRAL" "HIGH BEAM" "TURN"	3 4W 3.4W 3.4W



O 500 SCHEMA DE CABLAGE



1	Handlebar switch (Right)
2	"START" switch
3	"ENGINE STOP" switch
4	Spark plug
5	Ignition coil
6	Earth
7	C D I unit
8	C D I magneto
9	Ignition circuit cut-off relay
10	Starting circuit cut-off relay
11	Starter switch
12	Battery
13	Fuse
14	Rear flasher light (Right)
15	Tail/Brake light
16	Rear flasher light (Left)
17	Sidestand switch
18	Rectifier/Regulator
19	Neutral switch
20	
21	
22	
23	"TURN" switch
	"HORN" switch
25	Handlebar switch (Left)
26	Horn

0	DIACK
Br	Brown
Ch	Chocolate
Dg	Dark green
G	Green
L	Blue
0	Orange
Р	Pink
R	Red
Sb	Sky blue
w	White
Ÿ	Yellow
B/Y	Black/Yellow
Br/W	Brown/White
G/Y	Green/Yellow
Ľ/W	Blue/White
L/Y	Blue/Yellow
R/W	Red/White
Y/R	Yellow/Red
B/W	Błack/White
D/ VV	DIGCK/ VVIIILE

COLOR CODE

Black

1	Commutateur sur guidon (Droit)
2	Commutateur de demarreur "START"
3	Coupe-circuit de securité "ENGINE STOP"
4	Bougie
5	Bobine d'allumage
6	Masse
7	Bloc C D I
8	Magneto C D I
9	Relais de coupure de circuit d'allumage
10	Relais de coupure de circuit de démairage
11	Contacteur de demarreur
12	Batterie
13	Fusible
14	Clignotant arrière (Droit)
15	Feu stop/airiere
16	Clignotant arrière (Gauche)
17	Contacteur de la bequille laterale
18	Redresseur/Régulateur
19	Contacteur de point mort
20	Contacteur du feu stop arrière
21	Relais de clignotant
22	Commutateur feu de 10ute/feu de croisement
	"LIGHTS"
23	Contacteur de ignotant "TURN"
24	Commutateur d'avertisseur "HORN"
25	Commutateur sur guidon (Gauche)
26	Avertisseur
27	Clignotant avant (Gauche)
28	Clignotant avant (Dioit)
29	Contacteur a clé
30	Phare
31	Lampe-témoin de feu de route "HIGH
	AM"
32	Témoin de clignotant "TURN"

CODE	E COULEUR
В	Noir
Br	Brun
Ch	Chocolat
Dg	Vert fonce
G	Vert
L	Bleu
O	Orange
₽	Rose
R	Rouge
Sb	Bleu ciel
W	Blanc
Y	Jaune
B/Y	Noir/Jaune
Br/W	Brun/Blanc
G/Y	Vert/Jaune
L/W	Bleu/Blanc
L/Y	Bleu/Jaune
R/W	Rouge/Blanc
Y/R	Jaune/Rouge
B/W	Non/Blanc

20	Front Hasher Agnt (Fight)
29	Main switch
30	Headlight
31	"HIGH BEAM" indicator light
32	"TURN" indicator light
33	"NEUTRAL" indicator light
34	Meter light
35	Clutch switch
36	Front brake switch

28 29 30

Front flasher light (Left)

Front flasher light (Right)

BE	AM''
32	Témoin de clignotant "TURN"
33	Lampe-temoin de point mort "NEUTRAL"
34	Lampe de compteur
35	Contacteur d'embrayage
36	Contacteur du feu stop avant