



OWNER'S MANUAL

YAMAHA

TDM850

3VD-28199-E1

INTRODUCTION

Congratulations on your purchase of the Yamaha TDM850. 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.

TDM850 OWNER'S MANUAL

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



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

⚠ WARNING

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

CAUTION:

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

NOTE:

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

NOTE:

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

NOTE:

Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your machine and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.

⚠ WARNING

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

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⚠️ THINK OF YOUR SAFETY:

Both motorcycles and mopeds are fascinating vehicles which give a tremendous feeling of freedom to their riders.

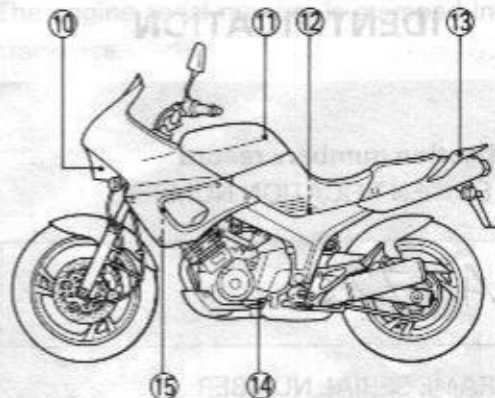
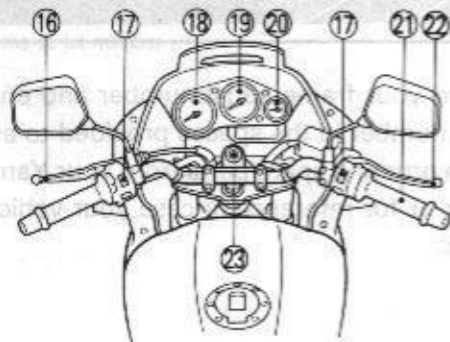
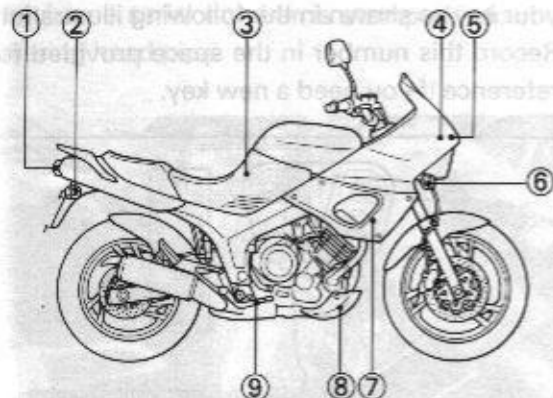
They must be correctly maintained at all times in order to ensure optimum performance. However, as a rider you must also ensure that your physical condition is good, and that you are not tired, in order that you too can optimize your vehicle control. Medicines, drugs and alcohol should not be combined with riding, especially alcohol, which increases the individual's likelihood of taking risks.

Alcohol is dangerous, even in small quantities.

Correct protective riding gear is just as much a part of motorcycling safety as the safety belt is in the car; a good leather suit and gloves, sturdy boots and a good quality, properly fitting crash helmet are ideal. But beware: good protective clothing can result in the individual being lulled into a false sense of security. When this happens more risks are taken and speeds increase... this particularly applies in wet weather.

The good motorcyclist therefore rides defensively and protectively in order to minimize risks.

DESCRIPTION



- | | |
|------------------------|------------------------------|
| 1. Tail/Brake light | 13. Grab bar |
| 2. Rear flasher light | 14. Shift pedal |
| 3. Seat | 15. Radiator |
| 4. Upper cowl | 16. Clutch lever |
| 5. Auxiliary light | 17. Handlebar switches |
| 6. Front flasher light | 18. Speedometer |
| 7. Side cowl | 19. Tachometer |
| 8. Engine guard | 20. Engine temperature gauge |
| 9. Brake pedal | 21. Throttle grip |
| 10. Headlight | 22. Brake lever |
| 11. Fuel tank | 23. Main switch |
| 12. Helmet holder | |

MOTORCYCLE IDENTIFICATION

EAA60801

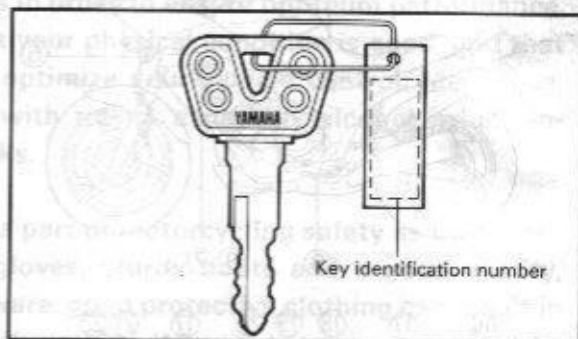
Identification numbers record

1. KEY IDENTIFICATION NUMBER:

2. FRAME SERIAL NUMBER:

3. ENGINE SERIAL 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 frame serial number and engine serial number in the spaces provided to assist you in ordering spare parts from your Yamaha dealer or for reference in case your vehicle is stolen.

Frame serial number

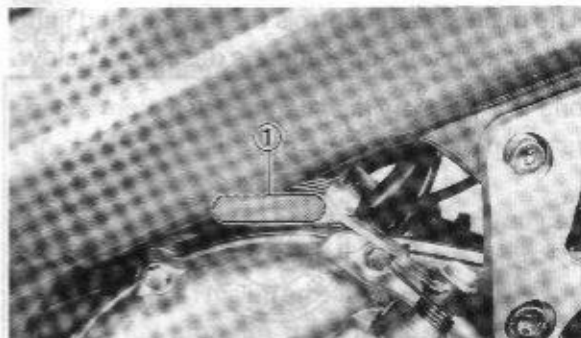
The frame serial number is stamped into the steering head pipe.



1. Frame serial number

Engine serial number

The engine serial number is stamped into the crankcase.



1. Engine serial number

EUV00300

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.

CONTROL FUNCTIONS

EAB00100

Main switch

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



EAB00500

ON:

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

EAB00600

OFF:

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

EAB00701

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 4-10) for operation instructions.

EAB01201

PARKING:

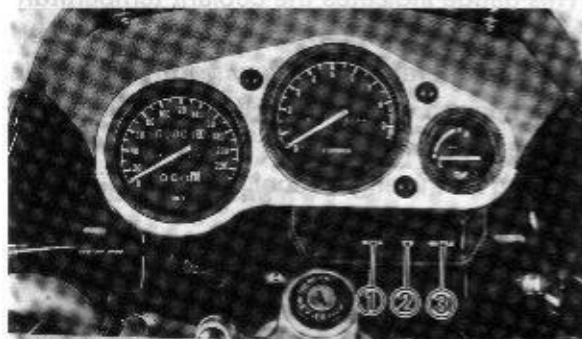
The steering is locked in this position, and the taillight and auxiliary light come on but all other circuits are off. The key can be removed in this position.

EUU00700

NOTE:

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

Indicator lights



1. "NEUTRAL" indicator light
2. "TURN" indicator light
3. "HIGH BEAM" indicator light

EAB12200

"TURN" indicator light (green):

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

EAB10200

"NEUTRAL" indicator light (green):

This indicator comes on when the transmission is in neutral.

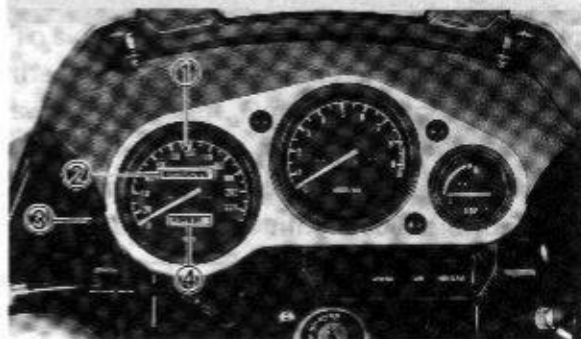
"HIGH BEAM" indicator light (blue):
This indicator comes on when the headlight high beam is used.

EAB40002

Speedometer

The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to "0" with the reset knob.

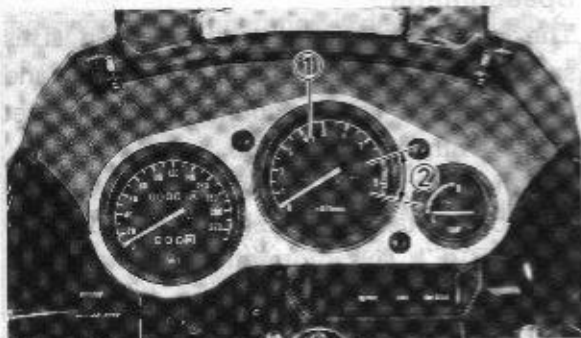
Use the odometer to estimate how far you can ride on a tank of fuel before going to "RESERVE". This information will enable you to plan fuel stops in the future.



- | | |
|----------------|------------------|
| 1. Speedometer | 2. Odometer |
| 3. Reset knob | 4. Trip odometer |

Tachometer

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



1. Tachometer

2. Red zone

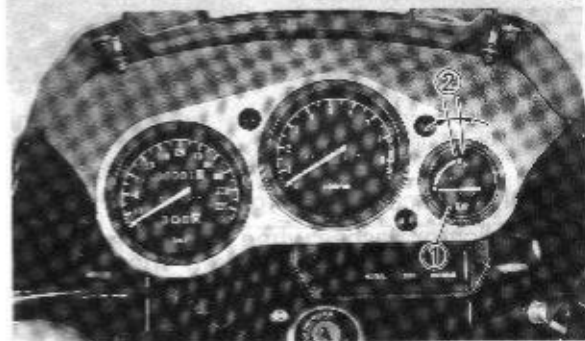
EUU30400

CAUTION:

Do not operate in the red zone.
Red zone: 8,000 r/min and above

Engine temperature gauge

This gauge indicates the coolant temperature when the main switch is ON. The engine operating temperature will vary with changes in weather and engine load. If the needle points to the red zone or higher, stop your motorcycle and let the engine cool. (See page 7-10 for details.)

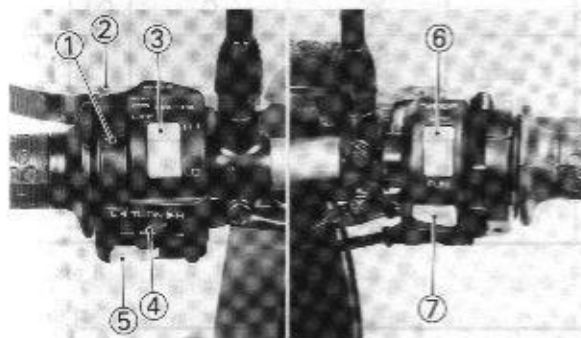


1. Engine temperature gauge 2. Red zone

CAUTION:

When the engine is overheated, do not continue riding.

EAB60000

Handlebar switches:

- "LIGHTS" switch
- "PASS" switch
- "LIGHTS" (Dimmer) switch
- "TURN" signal switch
- "HORN" switch
- "ENGINE STOP" switch
- "START" switch

EAB63200

"PASS" switch

Press the switch to operate the passing light. light switch should be depressed so that the headlight gives a signal to the driver of the other vehicle.

EAB60100

"LIGHTS" (Dimmer) switch

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

EAB62101

"TURN" signal switch

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

"HORN" switch

Press the switch to sound the horn.

"LIGHTS" switch

Turning the light switch to "PO" turns on the auxiliary light, taillight, and meter lights. Turning to "ON", turns the headlight on also.

Headlight beam variation

☀ : LIGHT "ON"

○ : LIGHT "OFF"

		Left	Right	Bulb to be used		Destination
1	HI	☀	☀	Quarz bulb	 	Germany Belgium Switzerland Portugal Sweden France
	LO	○	☀			
2	HI	☀	☀	Bulb	 	Finland Netherlands Austria
	LO	○	☀			
3	HI	☀	☀	Quarz bulb	 	England
	LO	☀	☀			
4	HI	☀	☀	Bulb	 	Norway Greece Denmark Spain Italy
	LO	☀	☀			

EU10000

NOTE:

Right and left directions are those assumed from the position of a person facing the front of the motorcycle.

"ENGINE STOP" switch

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

EAB00701

"START" switch

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

EUJ30700

CAUTION:

See starting instructions prior to starting the engine.

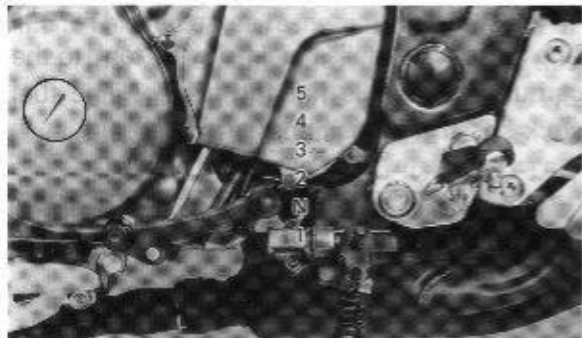
Clutch lever

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 clutch operation. (Refer to the engine starting procedures for a description of the starting circuit cutoff switch.)

EAB80001

Shift pedal

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



N. Neutral

EAB90401

Front brake lever

The front brake lever is located on the right handlebar. Pull it toward the handlebar to activate the front brake. The front brake lever is equipped with a lever position adjuster. Refer to page 7-20 for adjustment.

EAB90101

Rear brake pedal

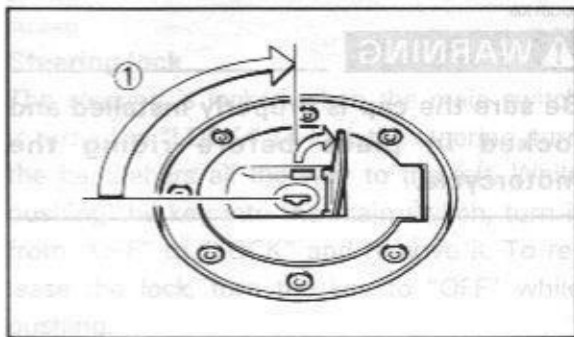
The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to apply the rear brake.

EAC00501

Fuel tank cap

TO OPEN:

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



1. Open

TO CLOSE:

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

EUU01200

NOTE:

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

EUU61100

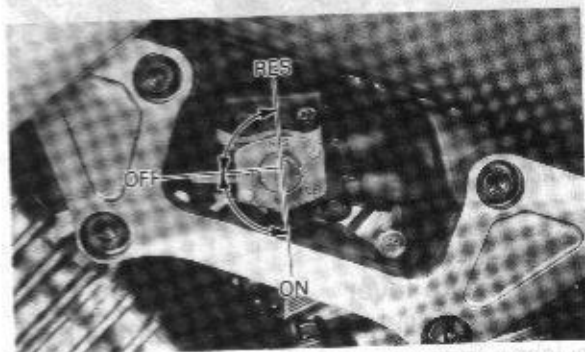
⚠ WARNING

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

EAC10101

Fuel cock

The fuel cock supplies fuel from the tank to the carburetor(s) while filtering it also. The fuel cock has three positions:



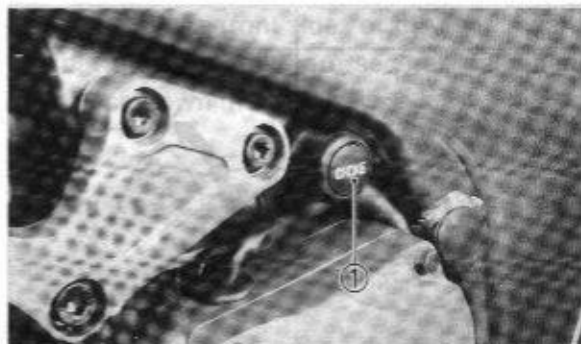
- OFF:** With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.
- ON:** With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.

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

EAC20202

Starter knob (CHOKE)

Starting a cold engine requires a richer air-fuel mixture. 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 (CHOKE)

EAC30600

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

Helmet holder

The helmet holder is under the seat. Remove the seat and hook the helmet on the helmet holder.

Then, reinstall the seat and lock it.



1. Helmet holder
EUU72900

WARNING

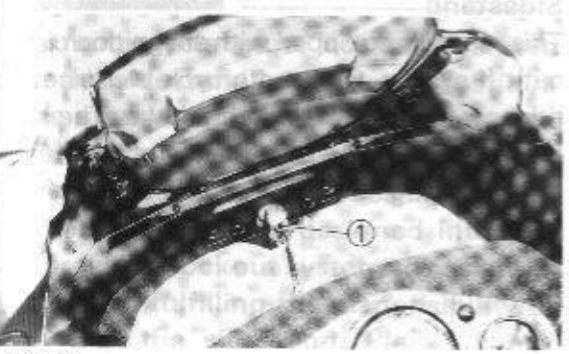
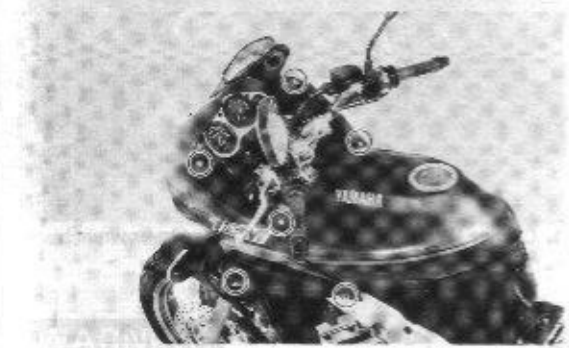
Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.

Side cowl/upper cowl

1. Remove the side cowl by removing the screws as shown.



2. Remove the upper cowl by removing the screw as shown, then disconnect the auxiliary light coupler.



Coupler

3. To install, reverse the above steps.

EACB1400

Front fork

The spring preload and damping force of the front fork can be adjusted to suit the rider's preference, motorcycle's load (ex: optional accessories etc.) and road conditions. Refer to page 7-30 for proper adjustment procedures.



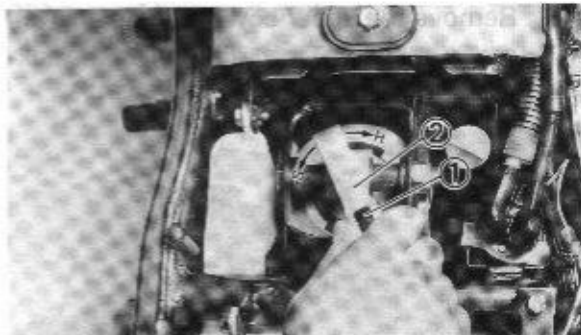
1. Spring preload adjuster 2. Damping force adjuster

Rear shock absorber

The HARD/SOFT settings, spring preload and the damping force of the rear shock absorber can be adjusted to suit the rider's preference, motorcycle's load (ex: optional accessories etc.) and road conditions. Refer to page 7-32 for proper adjustment procedures.



1. Damping force adjuster 2. Spring preload adjuster

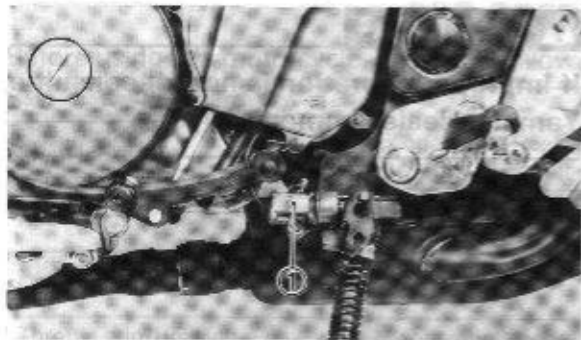


1. Change lever 2. Change lever wrench

EAD30101

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.)



1. Sidestand switch

EUU68901

⚠ WARNING

This motorcycle must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha has designed into this motorcycle a lockout system to assist the operator in fulfilling the responsibility of retracting the sidestand. Please check

carefully the operating instructions listed below and if there is any indication of a malfunction, return the motorcycle to a Yamaha dealer immediately for repair.

EAD30800

Sidestand/clutch switch operation check

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

⚠ WARNING

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

WARNING

This motorcycle must not be operated with the sidestand in the down position. If the sidestand is not properly retracted, it could contact a ground and cause the operator, resulting in a possible loss of control. Yamaha has designed this motorcycle a lockout system to assist the operator in fulfilling the responsibility of

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

TRANSMISSION IS IN GEAR AND SIDESTAND IS UP.

PULL IN CLUTCH LEVER AND PUSH STARTER SWITCH.

ENGINE WILL START.

CLUTCH SWITCH IS OK.

SIDESTAND IS DOWN.

ENGINE WILL STALL.

SIDESTAND SWITCH IS OK.

PRE-OPERATION CHECK

Before using this motorcycle, check the following points:

Item	Routine	Page
Front brake	Check operation, free play, fluid level, and fluid leakage. Top-up with DOT#4 (or DOT #3) brake fluid if necessary.	5-3~5-4, 7-20~7-23
Rear brake	Check operation, free play, fluid level, and fluid leakage. Top-up with DOT#4 (or DOT #3) brake fluid if necessary.	
Clutch	Check operation, condition and free play. Adjust if necessary.	5-4, 7-24
Throttle grip/Housing	Check for smooth operation. Lubricate/Adjust if necessary.	5-4, 7-17~7-18, 7-28
Engine oil	Check oil level/Add oil as required.	5-4~5-5, 7-6~7-10
Coolant reservoir tank	Check coolant level/top up as required.	5-5~5-6, 7-10~7-13
Drive chain	Check chain slack and condition. Adjust if necessary.	5-6, 7-24~7-27
Wheels/Tires	Check tire pressure, wear, damage.	5-6~5-11, 7-41~7-45
Control/Meter cable	Check for smooth operation. Lubricate if necessary.	7-27
Brake and shift pedal shafts	Check for smooth operation. Lubricate if necessary.	7-28
Brake and clutch lever pivots	Check for smooth operation. Lubricate if necessary.	7-28
Sidestand pivot	Check for smooth operation. Lubricate if necessary.	7-28
Fittings/Fasteners	Check all chassis fittings and fasteners. Tighten/Adjust, if necessary.	5-11, 7-5

Item	Routine	Page
Fuel tank	Check fuel level/top-up as required.	5-11~5-12
Lights and signals	Check for proper operation.	5-11, 7-39~7-41

NOTE:

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

WARNING

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

Brakes (See page 7-20 for details)**1. Brake lever and brake pedal**

Check for correct free play in the front brake lever and correct rear brake pedal and adjust if necessary. Make sure the brakes are working properly by checking at low speed shortly after starting out.

EUU61900

⚠ WARNING

A soft, spongy feeling in the brake lever (and/or brake pedal) indicates a failure in the brake system. Do not operate the motorcycle until the failure in the brake system is corrected. Ask a Yamaha dealer for immediate repairs. A soft, spongy feeling could indicate a hazardous condition in the brake system.

2. Brake fluid

Check the brake fluid level. Add fluid if necessary.

Recommended brake fluid: DOT #4

EUU13100

NOTE:

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

3. Check the disc pads.

Refer to page 7-21.

EUUC2201

NOTE:

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

Brake fluid leakage

Apply each brake for a few minutes. Check to see if any brake fluid leaks out from the pipe joints or the master cylinder(s).

EUU37801

CAUTION:

Brake fluid may deteriorate painted surfaces or plastic parts. Never spill any fluid. If spilled, clean it up immediately.

EUU62500

! WARNING

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

Clutch (See page 7-24 for details)

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

EAE30200

Throttle grip (See page 7-17 for details)

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

EAE40100

Engine oil (See page 7-6 for details)

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

Recommended oil:

SAE 20W40 type SE motor oil

Oil quantity:

Total amount:

4.2 L

Periodic oil change:

3.8 L

With oil filter replacement:

3.9 L

EJUU06000

NOTE:

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

EAE60001

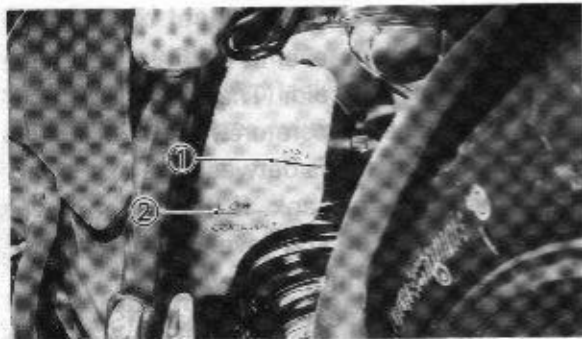
Coolant

Check the coolant level in the reservoir tank when the engine is cold. (The coolant level will vary with engine temperature.) The coolant level is satisfactory if it is between the FULL and LOW marks on the tank. If the coolant level is at or below the LOW level, add tap water (soft water) to bring the level up to FULL. Change the coolant every two years. (See page 7-10 for details.)

EJUU62600

WARNING

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



1. "FULL" level

2. "LOW" level

EUU30800

CAUTION:

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

Reservoir tank capacity:

0.3 L

From LOW to FULL level:

0.2 L

Chain (See page 7-24 for details)

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

EAE90502

Tires

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

1. Tire air pressure

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

EUU67500

⚠ WARNING

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

Basic weight: With oil and full fuel tank	230 kg	
Maximum load*	205 kg	
Cold tire pressure	Front	Rear
Up to 90 kg load*	200 kPa (2.00 kgf/cm ² , 2.00 bar)	225 kPa (2.25 kgf/cm ² , 2.25 bar)
90 kg~Maximum load*	200 kPa (2.00 kgf/cm ² , 2.00 bar)	250 kPa (2.50 kgf/cm ² , 2.50 bar)
High speed riding	200 kPa (2.00 kgf/cm ² , 2.00 bar)	250 kPa (2.50 kgf/cm ² , 2.50 bar)

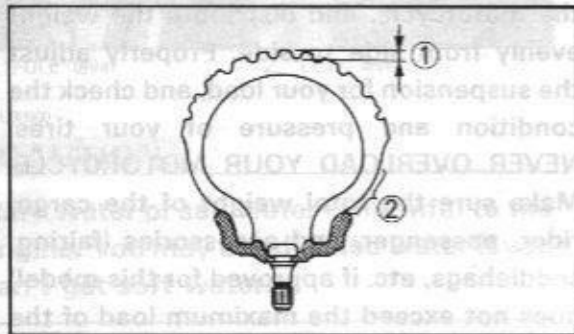
*Load is the total weight of cargo, rider, passenger, and accessories.

WARNING

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

2. Tire inspection

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



1. Tread depth

2. Side wall

EUU67900

⚠ WARNING

After extensive tests, the tires mentioned below have been approved by Yamaha Motor Co., Ltd. for this model. No guaran-

tee for handling characteristics can be given if tire combinations other than what is approved are used on this motorcycle. The front and rear tires should be of the same manufacture and design.

FRONT:

Manufacturer	Size	Type
BRIDGESTONE	110/80-18 58H	G547
DUNLOP	110/80-18 58H	K505F
METZLER	110/80-18 58H	ME33
PIRELLI	110/80-18 58H	MT09

REAR:

Manufacturer	Size	Type
BRIDGESTONE	150/70-17 69H	G548G
DUNLOP	150/70-17 69H	K505
METZLER	150/70-17 69H	ME55A
PIRELLI	150/70-17 69H	MT08

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

NOTE:

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

EUJ67901

WARNING

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

EAEM4100

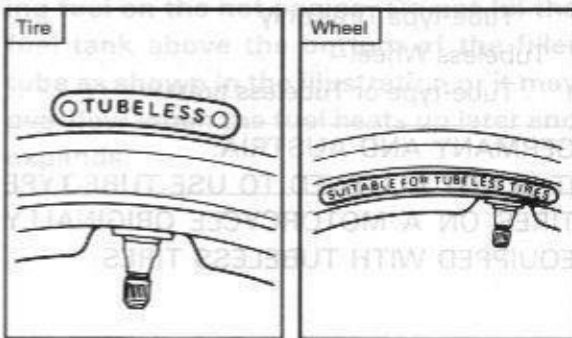
Tubeless tires and cast wheels

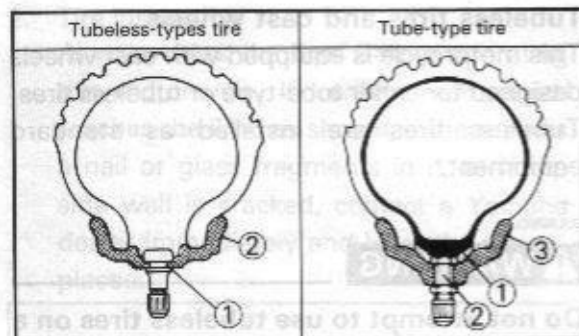
This motorcycle is equipped with cast wheels designed for either tube-type or tubeless tires. Tubeless tires are installed as standard equipment.

EUJ68600

WARNING

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





1. Air valve
2. Cast wheel
(Tubeless wheel)

1. Tube
2. Air valve
3. Cast wheel

Tube-type Wheel→

Tube-type Tires only

Tubeless Wheel→

Tube-type or Tubeless tires

GERMANY AND AUSTRIA:

IT IS NOT ALLOWED TO USE TUBE-TYPE TIRES ON A MOTORCYCLE ORIGINALLY EQUIPPED WITH TUBELESS TIRES.

⚠ WARNING

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

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

1. Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
2. Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.

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

EAE85000

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.

EAE71300

Lights and signals

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

EAE70700

Switches

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

EAE90000

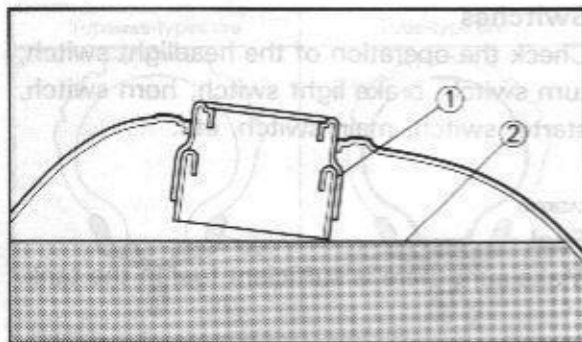
Fuel

Make sure there is sufficient fuel in the tank.

EUU61000

⚠ 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

EUU39302

CAUTION:

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

Recommended fuel:

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

Fuel tank capacity:

Total:

18 L

Reserve:

3.5 L

EUU12700

NOTE:

1. If knocking or pinging occurs, use a different brand of gasoline or higher octane grade.
2. If unleaded gasoline is not available, then leaded gasoline can be used.

OPERATION AND IMPORTANT RIDING POINTS

EJUS67200

⚠ WARNING

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

PUSH STARTER SWITCH
ENGINE WILL START

RETRACT SIDESTAND AND PUT
TRANSMISSION IN GEAR

MOTORCYCLE CAN BE RIDDEN

EJUS2900

EJUS2900

⚠ WARNING

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

PULL IN CLUTCH LEVER AND
PUSH STARTER SWITCH;
ENGINE WILL START

MOTORCYCLE CAN BE RIDDEN

⚠ WARNING

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 4-16.)

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

IF TRANSMISSION IS IN NEUTRAL
AND SIDESTAND IS DOWN

PUSH STARTER SWITCH;
ENGINE WILL START

RETRACT SIDESTAND AND PUT
TRANSMISSION IN GEAR

MOTORCYCLE CAN BE RIDDEN

IF TRANSMISSION IS IN GEAR
AND SIDESTAND IS UP

PULL IN CLUTCH LEVER AND
PUSH STARTER SWITCH;
ENGINE WILL START

MOTORCYCLE CAN BE RIDDEN

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

EUU03000

NOTE:

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

4. Fully open the starter (CHOKE) and completely close the throttle grip.
5. Start the engine by pushing the starter switch.

EUU02500

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.

6. After starting the engine, turn back the starter (CHOKE) to the halfway position.

EUU18700

NOTE:

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

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

EUU02700

NOTE:

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

Starting a warm engine

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

EUU31400

CAUTION:

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

EAF20002

Shifting

The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the shift pedal is shown in the illustration. (Page 4-7)

To shift into NEUTRAL, depress the shift 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.

EUU31501

CAUTION:

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

Recommended shift point (For Switzerland only)

The recommended shift points are shown in the table below.

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

EUJ06600

NOTE:

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

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. 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. 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.

EAF30700

1. 0~150 km:

Avoid operation above 4,000 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.

2. 150~500 km:

Avoid prolonged operation above 5,000 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

3. 500~1,000 km:

Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 6,000 r/min.

EUU32000

CAUTION:

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

4. 1,000 km and beyond:

Full throttle can be used.

EUU38700

CAUTION:

Never let engine speeds enter the red zone.

CAUTION:

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

EAF40100

Parking

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

EUU63000

⚠ WARNING

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAH000400

Periodic inspection, adjustment and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals.

YOU MUST TAKE INTO CONSIDERATION THAT WEATHER, TERRAIN, GEOGRAPHICAL LOCATIONS, AND A VARIETY OF INDIVIDUAL USES ALL TEND TO DEMAND THAT EACH OWNER ALTER THIS TIME SCHEDULE TO SHORTER INTERVALS TO MATCH THE ENVIRONMENT. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages.

WARNING

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

EAH10101

Tool kit

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

⚠ WARNING

Modifications to this motorcycle not approved by Yamaha may cause loss of performance, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.



1. Tool kit

EUU18500

NOTE:

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

2. On the inner parts of the front fork tubes.

Rear.

3. Replace the brake hose every 2 years or 20,000 km (12,500 miles).

PERIODIC MAINTENANCE/LUBRICATION

Unit: km

ITEM	REMARKS	BREAK-IN 1,000	EVERY	
			6,000 or 6 months	12,000 or 12 months
Valve(s)*	Check valve clearance. Adjust if necessary.	EVERY 42,000 or 42 months		
Spark plug(s)	Check condition. Clean or replace if necessary.	○	○	○
Air filter	Clean. Replace if necessary.		○	○
Carburetor*	Check idle speed/synchronization/starter operation. Adjust if necessary.	○	○	○
Fuel line*	Check fuel hose and vacuum pipe for cracks or damage. Replace if necessary.		○	○
Engine oil	Replace (Warm engine before draining).	○	○	○
Engine oil filter*	Replace.	○		○
Brakes*	Check operation/fluid leakage/See Page 7-4. Correct if necessary.		○	○
Clutch	Check operation. Adjust if necessary.		○	○
Rear arm pivot*	Check rear arm assembly for looseness. Correct if necessary. Moderately repack every 24,000 or 24 months.***			○
Wheels*	Check balance/damage/runout. Replace if necessary.		○	○
Wheel bearings*	Check bearing assembly for looseness/damage. Replace if damaged.		○	○
Steering bearings*	Check bearing assembly for looseness. Correct if necessary. Moderately repack every 24,000 or 24 months.**	○		○

ITEM	REMARKS	BREAK-IN 1,000	EVERY	
			6,000 or 6 months	12,000 or 12 months
Front forks*	Check operation/oil leakage. Repair if necessary.		○	○
Rear shock absorber*	Check operation/oil leakage. Repair if necessary.		○	○
Cooling system	Check coolant leakage. Repair if necessary. Replace coolant every 24,000 or 24 months.		○	○
Drive chain	Check chain slack/alignment. Adjust if necessary. Clean and lube.	EVERY 500		
Fittings/Fasteners*	Check all chassis fittings and fasteners. Correct if necessary.	○	○	○
Sidestand*	Check operation. Repair if necessary.	○	○	○
Sidestand switch*	Check operation. Clean or replace if necessary.	○	○	○

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

**: Medium weight wheel bearing grease.

***: Molybdenum disulfide grease.

NOTE:

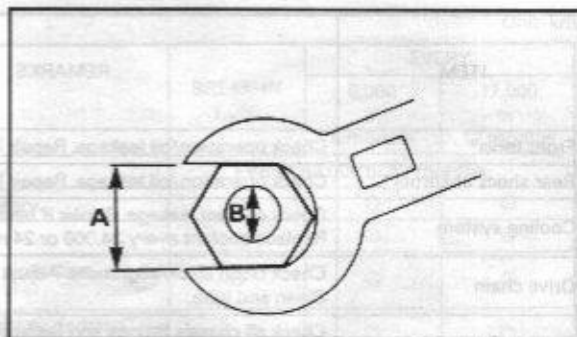
Brake fluid replacement:

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

Torque specifications

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

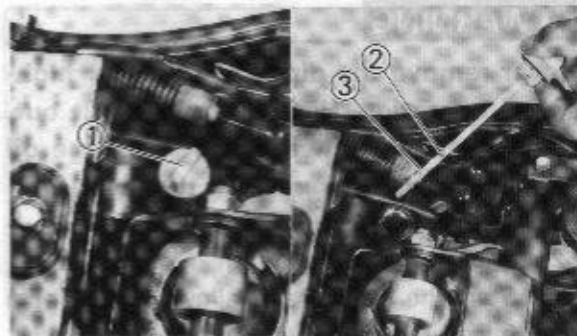
A (Nut)	B (Bolt)	General torque specifications	
		Nm	m • kg
10 mm	6 mm	6	0.6
12 mm	8 mm	15	1.5
14 mm	10 mm	30	3.0
17 mm	12 mm	55	5.5
19 mm	14 mm	85	8.5
22 mm	16 mm	130	13.0



Item	Torque	
	Nm	m • kg
Spark plug	18	1.8
Engine oil drain bolt ①	35	3.5
Engine oil drain bolt ②	30	3.0
Oil filter cover screw	10	1.0
Engine oil check bolt	20	2.0
Coolant drain bolt	10	1.0
Front fender securing bolt	9	0.9
Front wheel axle	58	5.8
Front axle pinch bolt	19	1.9
Rear wheel axle nut	110	11.0
Rear caliper bracket installation bolt	35	3.5

Engine oil

1. Oil level measurement
 - a. Place the motorcycle on a level place and put it on the centerstand.
 - b. Remove the dipstick and check the oil level.
 - c. Place the dipstick in the filler hole without screwing it in. Then remove it and check the oil level. If the oil level is between the minimum and maximum level lines marked on the dipstick, install the dipstick and start the engine. If there is no oil on the dipstick, add enough oil to reach the minimum level line. Install the dipstick and start the engine.



1. Oil tank cap/dipstick

2. Maximum oil level

3. Minimum oil level

- d. Allow the engine to idle for 2 to 3 minutes.
- e. Stop the engine and check the oil level again. Add enough oil to reach the maximum level line.

EUL/30000

CAUTION

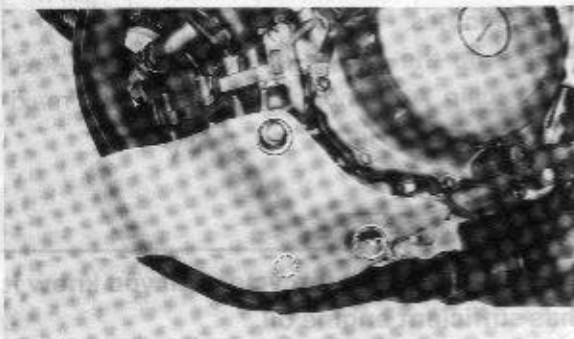
Do not run the motorcycle until you know it has sufficient engine oil.

⚠ WARNING

Never remove the dipstick just after high-speed operation. Hot oil could spout out, causing danger. Always wait until the oil cools down before removing the dipstick.

2. Engine oil replacement

- Start the engine and allow to idle for a few minutes.
- Stop the engine and remove the engine guard.



- Place an oil pan under the engine.
- Remove the dipstick and drain bolts to drain the oil.



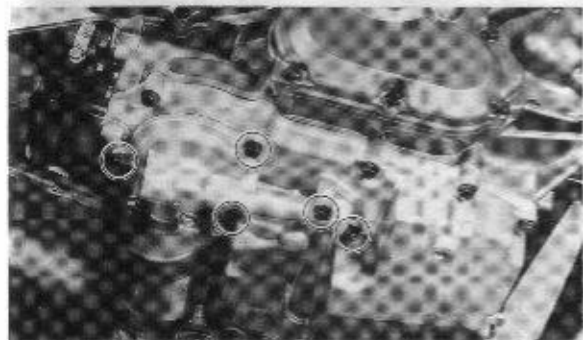
1. Drain bolt ①



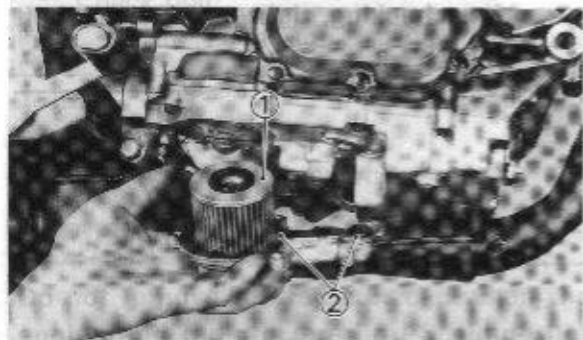
2. Drain bolt ②

- Remove the oil filter cover screws, oil filter cover and the oil filter.
- Install the new oil filter and new O-rings.

Cockpit drain bolt	10	10
Front fender mounting bracket	8	8.5
Front wheel axle	14	14
Front axle pinch bolt	1.15	1.15
Rear wheel axle nut	110	110
Rear caliper bracket nut	25	25



g. Install the filter cover, oil filter cover screws and the drain bolts.



1. Filter element

2. O-ring

Tightening torque:

Drain bolt (A):

35 Nm (3.5 m • kg)

Drain bolt (B):

30 Nm (3.0 m • kg)

Filter cover screw:

10 Nm (1.0 m • kg)

h. Fill engine with oil. Install the dipstick and tighten.

Recommended oil:

SAE 20W40 type SE motor oil

Oil quantity:

Total amount:

4.2 L

Periodic oil change:

3.8 L

With oil filter replacement:

3.9 L

NOTE:

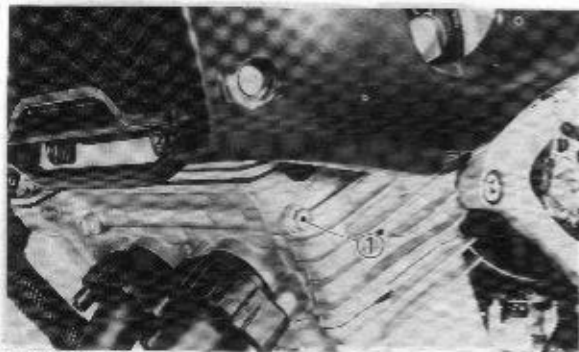
Recommended engine oil classification; API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc.).

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

CAUTION:

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

1. Remove the check bolt in the cylinder head.
2. Start the engine and keep it idling until oil flows out of the bleed hole. If no oil comes out after 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

Tightening torque:

Check bolt:

10 Nm (1.0 m • kg)

EAH52102

Cooling system

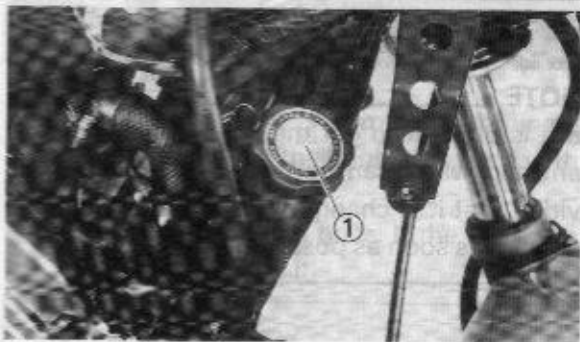
1. If your motorcycle overheats

EUL70501

⚠ WARNING

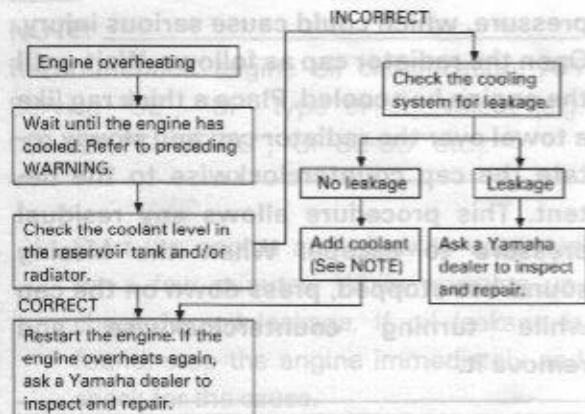
Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under

pressure, which could cause serious injury. Open the radiator cap as follows. Wait until the engine has cooled. Place a thick rag like a towel over the radiator cap and slowly rotate the cap counterclockwise to the detent. This procedure allows any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning counterclockwise and remove it.



1. Radiator cap

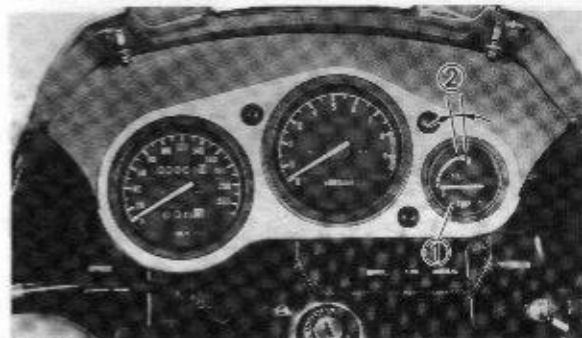
If overheating is detected, perform the following checks.



ELIU04303

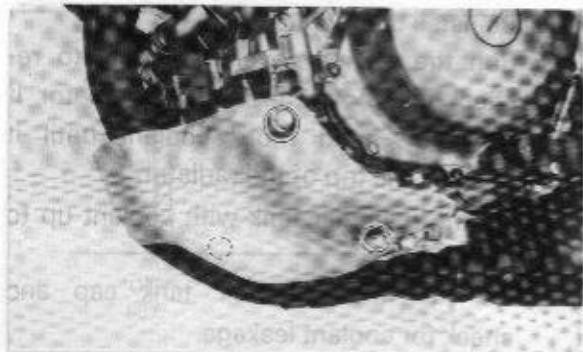
NOTE:

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



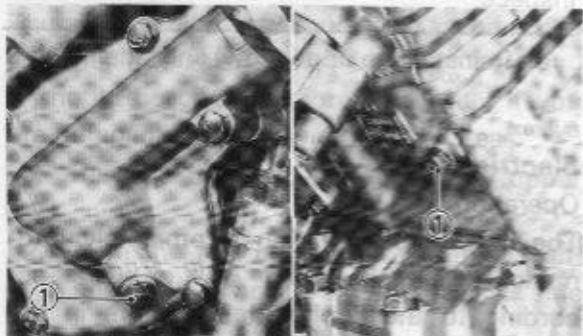
1. Engine temperature gauge 2. Red zone

2. Changing the coolant
 - a. Remove the side cowls and upper cowl.
 - b. Remove the radiator cap.
 - c. Remove the engine guard.



d. Place a container under the engine.

e. Remove the drain bolts.



1. Drain bolt

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



1. Reservoir tank hose

g. After the coolant is completely drained, thoroughly flush the cooling system with clean tap water.

h. Retighten the drain bolts. If the gasket is damaged, replace it.

Tightening torque:

Drain bolt :

10 Nm (1.0 m • kg)

- i. Reconnect the reservoir tank hose.
- j. Pour the recommended coolant into the radiator until it's full.

Recommended coolant:

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

Coolant and water mixed ratio:

50/50%

Total amount:

1.7 L

Reservoir tank capacity:

0.3 L

From LOW to FULL level:

0.2 L

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

EUJ04400

NOTE:

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

- o. Reinstall the upper cowl and side cowls.

EAH70000

Electric fan

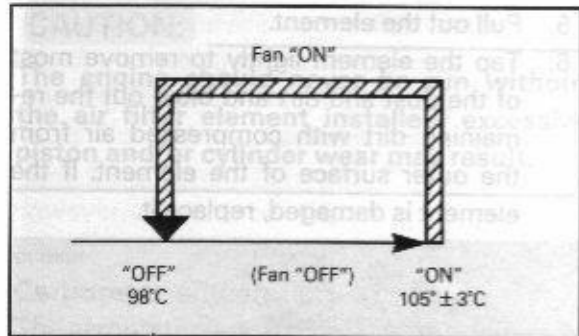
Operation

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

EUJ030900

CAUTION:

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



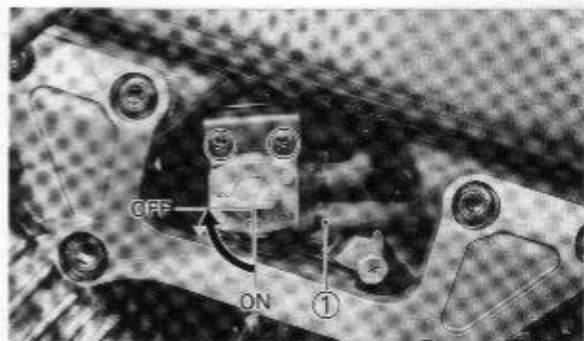
EAHE5901

Air filter

The air filter element should be cleaned at the specified intervals.

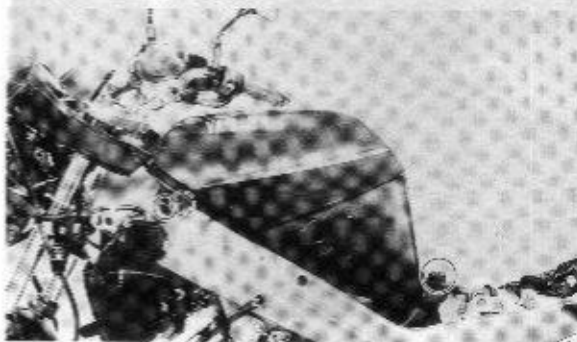
It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

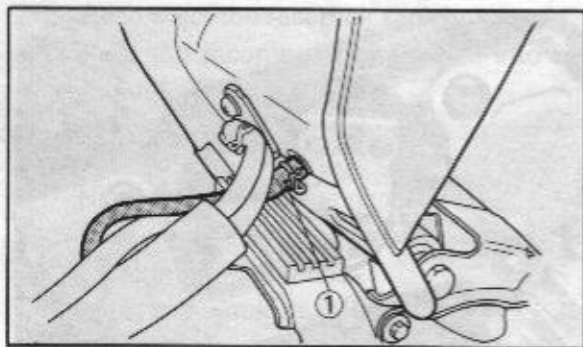
1. Remove the seat, side cowl and upper cowl.
2. Turn the fuel cock lever to off. Disconnect the fuel hose from the fuel cock side and remove the fuel cock.



1. Fuel hose

3. Remove the fuel tank by removing the holding bolts, then disconnect the breather hose.





1. Breather hose

4. Remove the air filter case cover by removing the screws as shown.



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



7. Reassemble by reversing the removal procedure.

EJUU35701

CAUTION:

Make sure the element is properly seated in the filter case.

CAUTION:

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

EAH90001

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 may be serviced by the owner as part of routine maintenance.

EUU33001

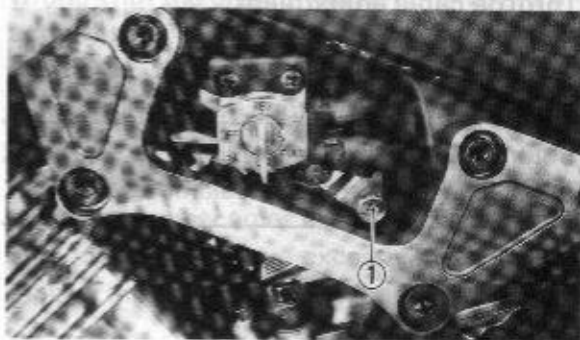
CAUTION:

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

EAH90100

Idle speed adjustment

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



1. Throttle stop screw

Standard idle speed:
1,000 ~ 1,200 r/min

EUU04900

NOTE:

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

EAH92200

Throttle cable adjustment

EUU06400

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 free play is incorrect, ask a Yamaha dealer to make adjustment.

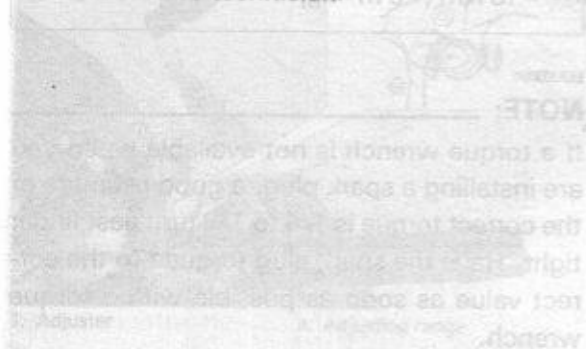
Free play: 3~5 mm



a. 3~5 mm

Valve clearance adjustment

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



CAH90001

Rear brake adjustment

The top of the brake pedal should be positioned 17-41 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.

Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine. Normally, all spark plugs from the same engine should have the same color on the white porcelain insulator around the center electrode. The ideal color at this point is a medium to light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine. Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

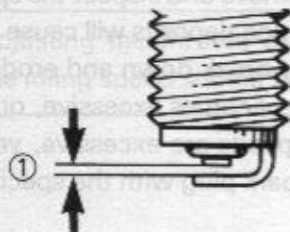
and an accident. Have a Yamaha dealer inspect and bleed the system if necessary.

Standard spark plug:

DPR8EA-9/DPR9EA-9 (NGK) or
X24EPR-U9/X27EPR-U9
(NIPPONDENSO)

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

Spark plug gap:
0.8 ~ 0.9 mm



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:
18 Nm (1.8 m • kg)

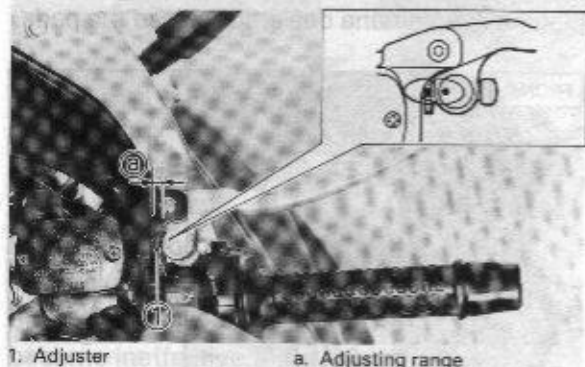
ELU03801

NOTE:

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

Front brake lever position adjustment

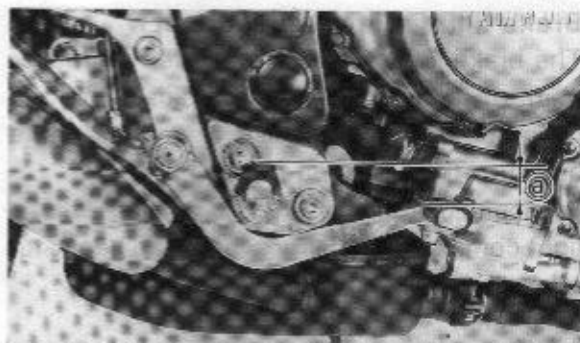
Brake lever distance from the throttle grip can be adjusted. To adjust, turn the adjuster while pushing the lever forward and align the mark (■) on the adjuster with the mark (●) on the lever.



EAH80401

Rear brake adjustment

The top of the brake pedal should be positioned 17~41 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.



a. 17~41 mm

EUU78000

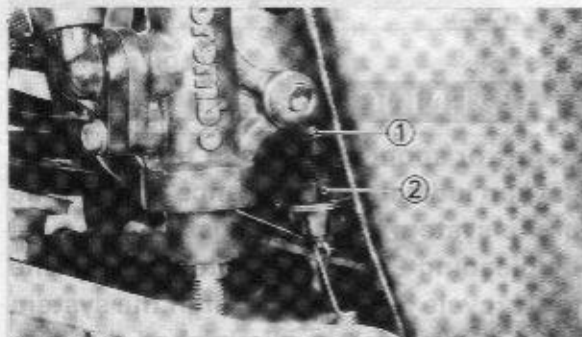
⚠ WARNING

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

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 so it does not rotate and turn the adjusting nut.

Proper adjustment is achieved when the brake light comes on just before the brake begins to take effect.

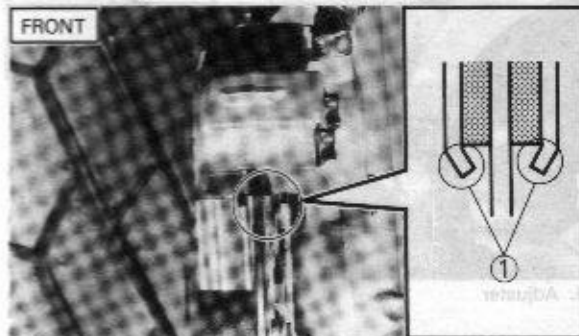


1. Main body

2. Adjusting nut

Checking the front and rear brake pads

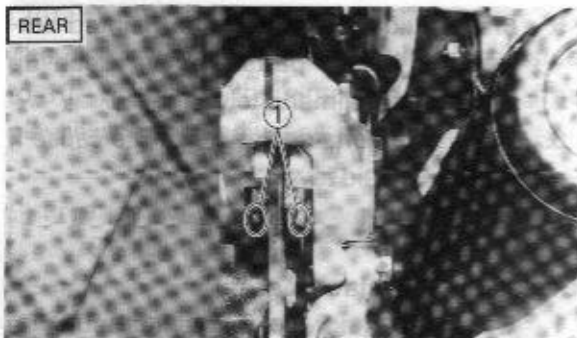
A wear indicator is provided on each brake. This indicator allows checking of brake pad wear without disassembling the brake. Apply the brake and inspect the wear indicator. If the indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.



1. Wear indicator

Rear brake adjustment

The top of the brake pedal should be positioned 17-41 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.



1. Wear indicator

Inspecting the brake fluid level

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

Before riding, check that the brake fluid is above the lower level and replenish when necessary. Observe these precautions:

- Turn the adjuster in or out until proper lever free play is obtained.
- Tighten the lock nut.



1. Lower level



1. Lower level

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

Recommended brake fluid: DOT #4

EUU13100

NOTE:

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

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

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

EAH83501

Brake fluid replacement

1. Complete fluid replacement should be done only by trained Yamaha service personnel.
2. Have a Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking.
 - a. Replace all rubber seals every two years.
 - b. Replace all hoses every four years.

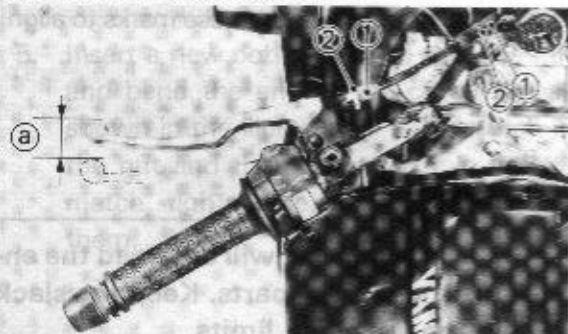
Clutch adjustment

The clutch lever free play should be adjusted to 10~15 mm at the clutch lever. If the free play is incorrect, adjust as follows.

Free play:

10 ~ 15 mm

1. Loosen the lock nut.



1. Adjuster

2. Lock nut

a. 10 ~ 15 mm

2. Turn the adjuster in or out until proper lever free play is obtained.
3. Tighten the lock nut.

NOTE:

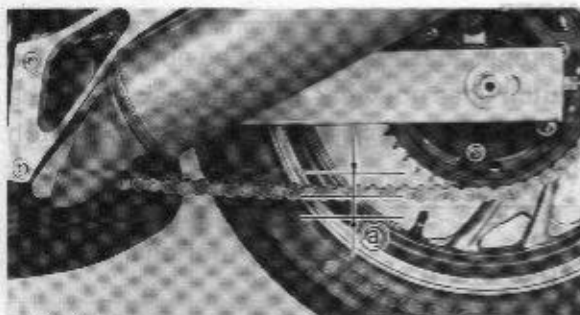
If proper adjustment cannot be obtained or the clutch does not work correctly, ask a Yamaha dealer to inspect the internal clutch mechanism.

Drive chain slack check

NOTE:

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

To check the chain slack the motorcycle must be held straight up with both wheels on the ground and without rider. Check the slack at the position shown in the illustration. Normal slack is approximately 40~50 mm. If the slack exceeds 50 mm, adjust.

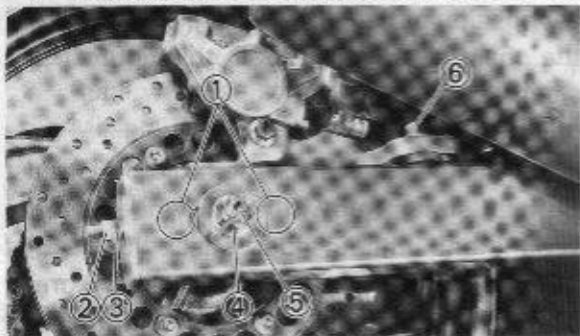


a. 40~50 mm

FA142700

Drive chain slack adjustment

1. Remove the cotter pin from the axle nut.



1. Alignment marks
2. Lock nut
3. Adjuster
4. Axle nut
5. Cotter pin
6. Caliper bracket installation bolt

2. Loosen the axle nut and caliper bracket bolt.
3. Loosen the lock nuts on each side. To tighten the chain, turn the chain adjuster clockwise. To loosen the chain, turn the adjuster counterclockwise and push the wheel forward. Turn each adjuster exactly the same amount to maintain correct axle alignment. There are marks on each side of the swingarm. Use these marks to align the rear wheel.

FUJIZ3301

CAUTION:

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

4. After adjusting, be sure to tighten the loosened parts.

Tightening torque:

Axle nut:

110 Nm (11.0 m • kg)

Caliper bracket bolt:

35 Nm (3.5 m • kg)

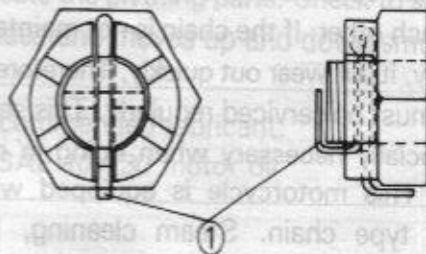
5. Insert a new cotter pin into the axle nut and bend the end of the cotter pin as shown in the illustration. If the notch in the nut and the cotter pin hole do not match, tighten the nut slightly to align them.

Brake and clutch levers

Lubricate the pivoting parts.

Recommended lubricant:

SAE 10W/30 motor oil



1. Cotter pin

EUU54700

WARNING

Always use a new cotter pin on the axle nut.

Recommended lubricant:

Molybdenum disulfide grease

Drive chain lubrication

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



1. Alignment marks
2. Lock nut
3. Adjuster
4. Lock nut
5. Center pin
6. Calliper bracket with center bolt

Cable inspection and lubrication

EUIJ04001

⚠ WARNING

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

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

Recommended lubricant:
SAE 10W30 motor oil

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. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

EAI30601

Brake and shift pedals

Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

EAI30700

Brake and clutch levers

Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

Sidestand

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

Recommended lubricant:
SAE 10W30 motor oil

EUU70401

WARNING

If the sidestand does not move smoothly, consult a Yamaha dealer.

EAI31900

Rear suspension

Lubricate the pivoting parts.

Recommended lubricant:
Molybdenum disulfide grease

Front fork inspection

EUU65/700

⚠ WARNING

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

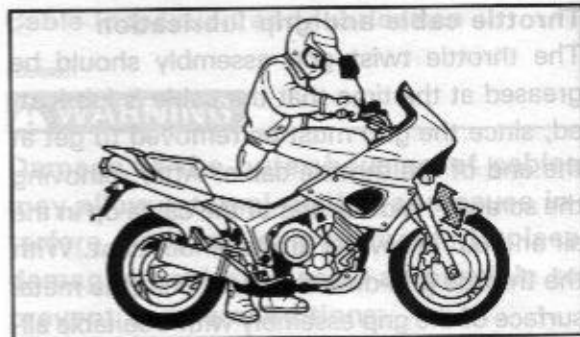
1. Visual check

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

2. Operation check

Place the motorcycle on a level place.

- Hold the motorcycle in an upright position and apply the front brake.
- Stroke the front forks up and down several times.



EUU42500

CAUTION:

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

Front fork adjustment

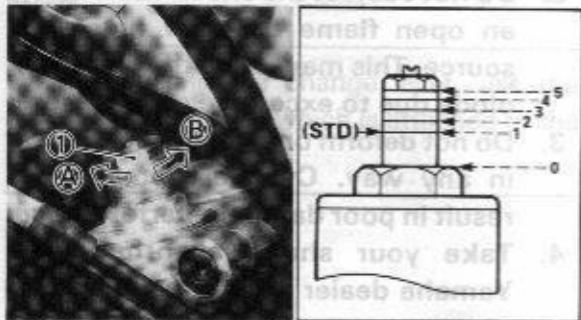
This front fork is equipped with a spring preload and damping force adjuster.

EUJ66901

⚠ WARNING

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

- Adjust spring preload as follows.
Turn adjuster in direction **(A)** to increase spring preload and in direction **(B)** to decrease spring preload.



1. Spring preload adjuster A. Increase B. Decrease

EUJ18000

NOTE:

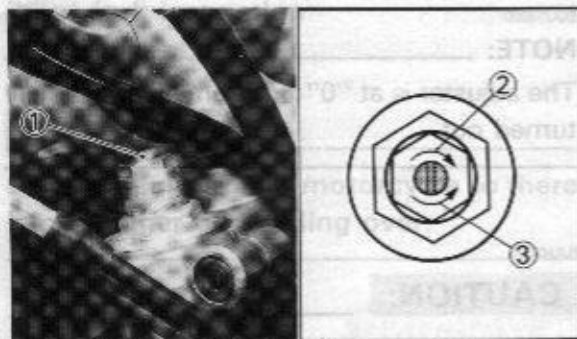
The adjuster is at "0" position when it is fully turned out.

EUJ43001

CAUTION:

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

- Adjust damping force as follows.
Turn adjuster in direction **(2)** to increase damping force and in direction **(3)** to decrease damping force.



1. Damping force adjuster 2. Increase 3. Decrease

S.T.D.	4 clicks out*
MIN.	6 clicks out*
MAX.	2 clicks out*

*: From fully turned in position

EUU36300

CAUTION:

Never attempt to turn the adjuster beyond the maximum or minimum setting.

Rear shock absorber

EUU67301

⚠ WARNING

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

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

Rear shock absorber adjustment

This shock absorber is equipped with a HARD/SOFT change lever, spring preload and damping force adjuster.

1. HARD/SOFT change lever

This is used to select the "HARD" or "SOFT" setting position.

a. Remove the seat.

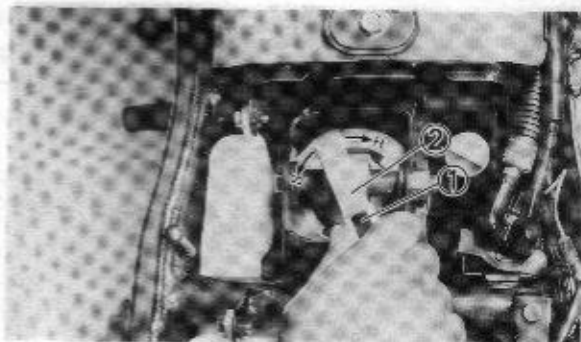
b. Select the "HARD" position by turning the change lever to "H".

Select the "SOFT" position by turning the change lever to "S".

ELU16700

NOTE:

When adjusting the change lever, use the change lever wrench which is attached to the owner's tool kit.



1. Change lever

2. Change lever wrench

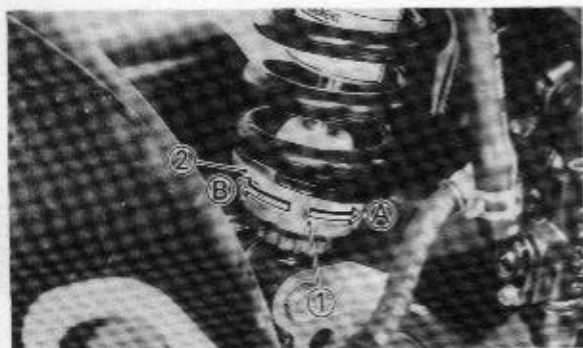
c. Install the seat.

2. Adjust spring preload as follows.

a. Loosen the lock nut.

b. Turn adjuster in direction **A** to increase spring preload and in direction **B** to decrease spring preload.

Never attempt to turn the adjuster beyond the maximum or minimum setting.



1. Lock nut
A. Increase

2. Adjuster
B. Decrease

EUU05200

NOTE:

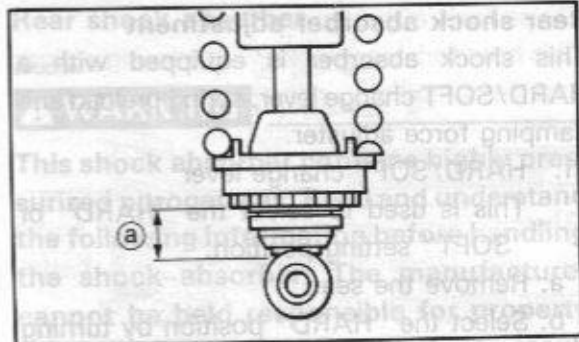
When adjusting, use the special wrench which is included in the owner's tool kit.

- c. The length of the spring (installed) changes 1 mm per turn of the adjuster.

Never attempt to turn the adjuster beyond the maximum or minimum setting.

SAFETY

SAFETY



a. Measurement "A"

Measurement "A"

2. Standard length (installed):

24 mm

Minimum length (installed):

22 mm

Maximum length (installed):

29 mm

CAUTION:

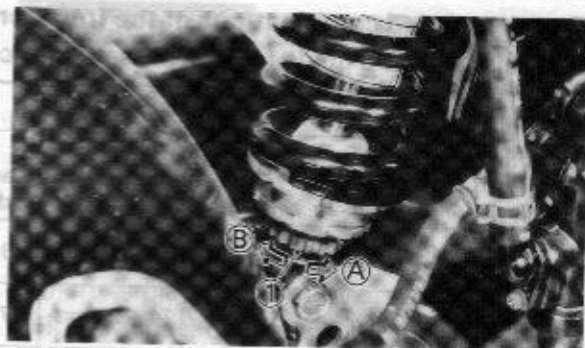
Never attempt to turn the adjuster beyond the maximum or minimum setting.

Tightening torque:
70 Nm (7.0 m • kg)

CAUTION:

Always tighten the lock nut against the spring adjuster and torque the lock nut to specification.

- Adjust damping force as follows.
Turn adjuster in direction (A) to increase damping force and in direction (B) to decrease damping force.



- Damping force adjuster
 - A. Increase
 - B. Decrease

S.T.D.	10 clicks out*
MIN.	15 clicks out*
MAX.	5 clicks out*

* : From fully turned in position

CAUTION:

Never attempt to turn the adjuster beyond the maximum or minimum setting.

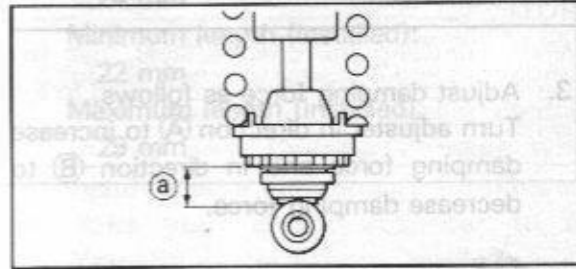
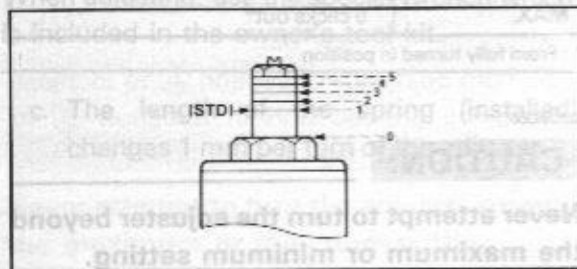
Recommended combinations of the front fork and the rear shock absorber settings.

Use this table as a guide for specific settings according to motorcycle load conditions.

Front fork		Rear shock absorber			Loading condition			
Spring preload adjuster	*1 Damping adjuster	HARD/SOFT selector	*2 Spring preload adjuster	*1 Damping adjuster	Solo rider	With passenger	With accessories and equipment	With accessories, equipment and passenger
0 ~ 3	4 ~ 6	S	22 ~ 25.5 mm	8 ~ 15	○			
1 ~ 4	3 ~ 5	H	24 ~ 28 mm	7 ~ 10		○		
0 ~ 3	3 ~ 5	S or H	24 ~ 28 mm	6 ~ 10			○	
1 ~ 5	2 ~ 5	H	26 ~ 29 mm	5 ~ 8				○

*1: Clicks out from the fully turned-in position.

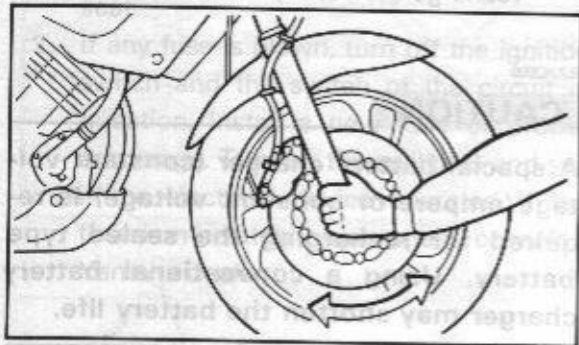
*2: Measurement "A"



a. Measurement "A"

Steering inspection

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



⚠ WARNING

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

Wheel bearings

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

Battery

This motorcycle is equipped with a "Sealed type" battery. Therefore, it is not necessary to check the electrolyte or add distilled water in the battery. If the battery seems to have discharged, consult a Yamaha dealer.

CAUTION:

Do not try to remove the sealing caps of the battery cells. You may damage the battery.

EUUB5800

⚠ 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.

EAIB5000

Battery maintenance

1. When the motorcycle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.

EUU43500

CAUTION:

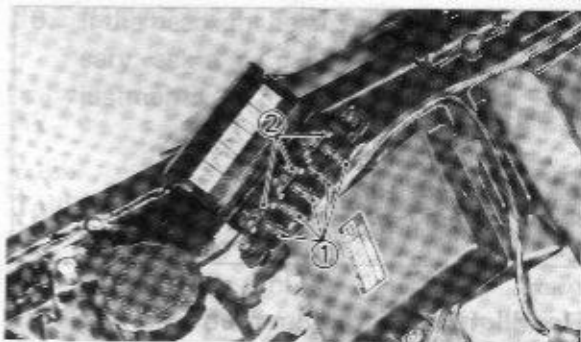
A special battery charger (constant voltage/ampere or constant voltage) is required for recharging the sealed type battery. Using a conventional battery charger may shorten the battery life.

2. Always make sure the connections are correct when reinstalling the battery. The red (positive) lead is for the + terminal and the black (negative) lead is for the - terminal. Always connect the red (positive) lead first, then connect the black (negative) lead.

EA19C312

Fuse replacement

1. The fuse box(es) are located under the seat.
2. If any fuse is blown, turn off the ignition switch and the switch of 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. Fuses 2. Spare fuses

EUU34400

CAUTION:

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

Specified fuse:

Main : 30A

Head : 20A

Signal : 10A

Fan : 10A

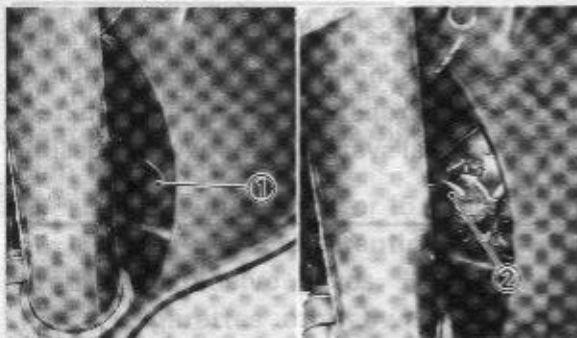
Ignition : 10A

EA/86300

Headlight bulb replacement

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

1. Remove the cover and disconnect the headlight lead(s).



1. Cover

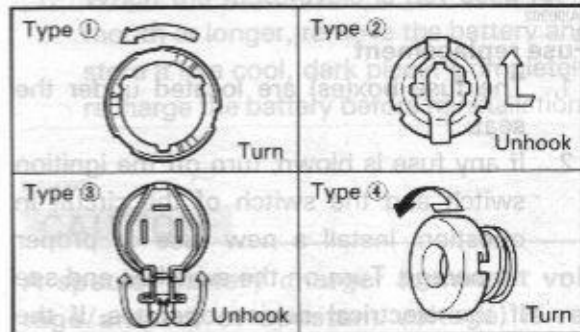
2. Headlight lead

2. Remove the bulb holder.

EUU12801

NOTE:

Removal procedure is different according to the bulb holder. Remove your bulb holder by referring to the following illustration.



3. Remove the defective bulb.

⚠ WARNING

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

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

EUJ34100

CAUTION:

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

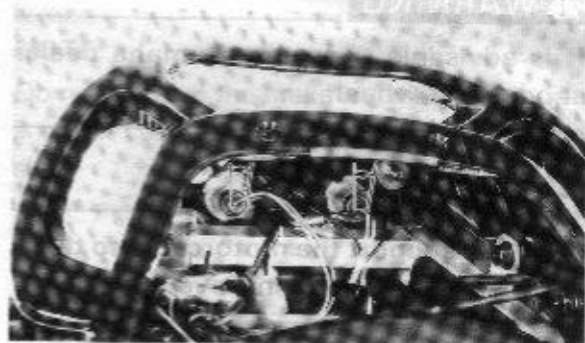
- Connect the headlight lead(s) and install the cover.

- If the headlight beam adjustment is necessary, ask a Yamaha dealer to make adjustment.

EJ10801

Taillight bulb replacement

- Remove the seat.
- Remove the tool kit.
- To remove the socket, turn it counter-clockwise.



4. To remove the defective bulb, turn it counterclockwise.
5. Push a new bulb into the socket and turn it clockwise.
6. Install the socket and turn it clockwise.
7. Install the tool kit and seat.

EAJZ7000

Front wheel removal

EUU66201

⚠ WARNING

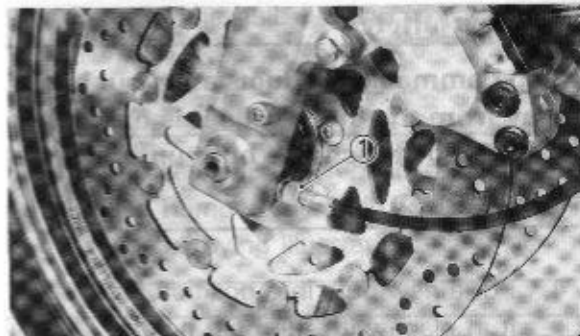
It is advisable to have a Yamaha dealer service the wheel.

EUU66700

⚠ WARNING

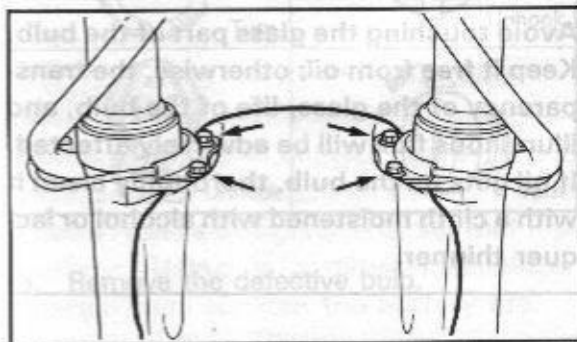
Securely support the motorcycle so there is no danger of it falling over.

1. Remove the speedometer cable from the front wheel side.

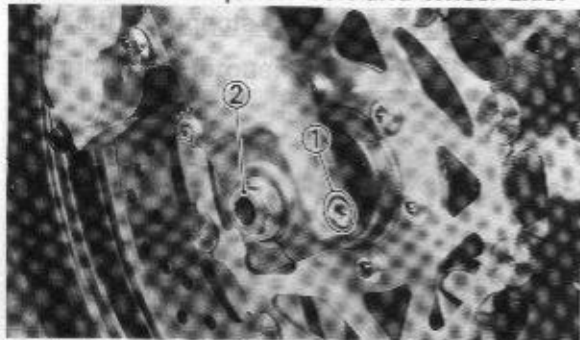


1. Speedometer cable

2. Remove the front fender.

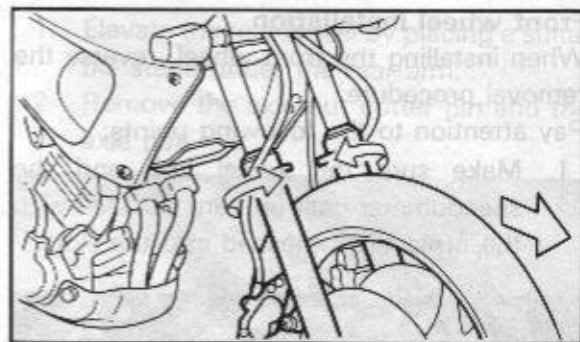


3. Loosen the pinch bolt and wheel axle.



1. Pinch bolt

2. Axle



EUU05400

NOTE:

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

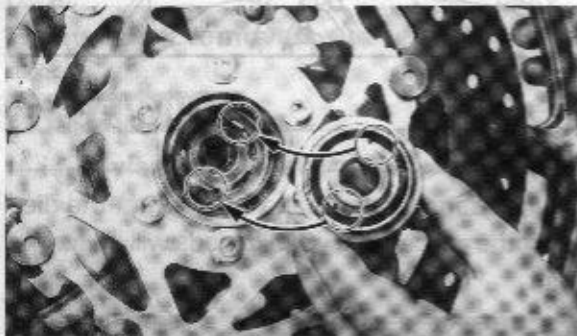
4. Elevate the front wheel by placing a suitable stand under the engine.
5. Remove the wheel axle.
Make sure the motorcycle is properly supported.
6. Lower the wheel until the discs come off the calipers. Turn the calipers outward so they do not obstruct the wheel and remove the wheel.

Front wheel installation

When installing the front wheel, reverse the removal procedure.

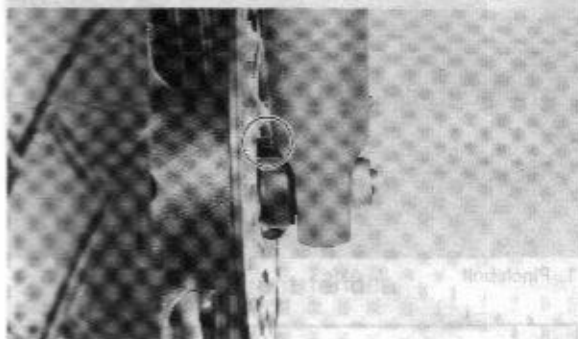
Pay attention to the following points:

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



2. Make sure there is enough gap between the brake pads before inserting the brake disc(s).

3. Make sure the slot in the speedometer gear unit fits over the stopper on the front fork outer tube.



4. Make sure the wheel axle is properly torqued.

Tightening torque:

58 Nm (5.8 m • kg)

5. Before tightening the pinch bolt, stroke the front fork several times to check for proper fork operation.

6. Tighten the pinch bolt.

Tightening torque:
19 Nm (1.9 m • kg)

7. Tighten the front fender securing bolts.

Tightening torque:
9 Nm (0.9 m • kg)

EAJ61000

Rear wheel removal

EUU65201

WARNING

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

EUU65700

WARNING

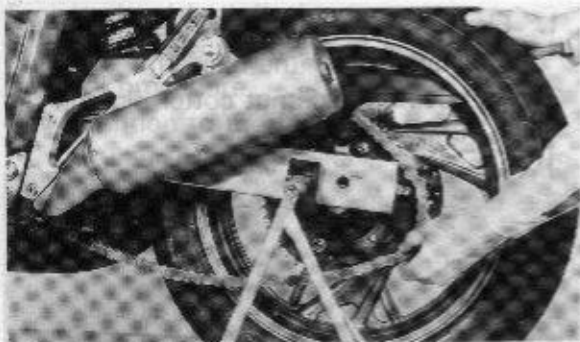
Securely support the motorcycle so there is no danger of it falling over.

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



1. Lock nut 2. Adjuster 3. Axle nut 4. Cotter pin
5. Caliper bracket bolt

3. Loosen the lock nuts of right and left chain adjuster and loosen the adjusters.
4. Loosen the caliper bracket bolt.
5. While supporting the brake caliper, pull out the rear axle.
6. Push the wheel forward and remove the drive chain.



7. Remove the wheel assembly.

EUU05601

NOTE:

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

EUU05600

NOTE:

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

EAJ63001

Rear wheel installation

When installing the rear wheel, reverse the removal procedure.

Pay attention to the following points:

1. Make sure there is enough gap between the brake pads before setting the caliper or disc.
2. Adjust the drive chain.
3. Make sure the following parts are properly torqued, and a new cotter pin is installed.

Tightening torque:

Axle nut:

110 Nm (11.0 m • kg)

Caliper bolt:

35 Nm (3.5 m • kg)

EUU64700

⚠ WARNING

Always use a new cotter pin on the axle nut.

Troubleshooting

Although Yamaha motorcycles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks. If your motorcycle requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealership have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts on your motorcycle. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.

Do not apply degreaser to the chain, sprockets, or wheel axles.

3. Rinse the dirt and degreaser off with a low garden hose. Use only enough pressure to do the job.

Troubleshooting chart

EUU66300

⚠ WARNING

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

1. Fuel

Check if there is fuel in the fuel tank

There is fuel

Remove the fuel pipe and check fuel flow

Turn the fuel cock to "OFF"

Fuel flow

No irregularity up to fuel cock

Some fuel

Turn the fuel cock to "RES"

Water or dirt mixed in fuel

Clean filter element and fuel tank

No fuel

Fuel cock clogged

No fuel

Supply fuel

Restart engine

Turn the fuel cock to "ON"

2. Compression

Use electric starter

There is compression

Compression normal

No compression

Ask Yamaha dealer to inspect

3. Ignition

Remove spark plug(s) and check electrode

Wet

Wipe clean with dry cloth

Restart engine

Dry

Ask Yamaha dealer to inspect

4. Battery

Use electric starter

Engine turns over quickly

Battery good

Engine turns over slowly

Check connections, recharge

⚠ WARNING

CLEANING AND STORAGE

EAK01302

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

CAUTION:

Excessive hose pressure may cause water seepage and deterioration of wheel bearings, front fork, brakes, transmission seals and electrical parts. 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 toothbrush or bottle brush is handy for hard-to-get-at places.
5. Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
6. Dry the chain and lubricate it to prevent rust.
7. Windscreen cleaning

CAUTION

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

Clean the windscreen with a cloth or sponge dampened with a neutral detergent, and after cleaning, thoroughly wash it off with water. Some cleaning compounds for plastics may leave scratches on surfaces of the windscreen. Before using them, make a test by polishing an area which does not affect your visibility.

8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
9. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish on the fuel tank

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

EAK01200

B. STORAGE

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

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

⚠ WARNING

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

4. Remove the drive chain. Thoroughly clean the chain with kerosene and lubricate 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.
7. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
8. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.
9. Remove the battery and charge it. Store it in a dry place and recharge it once a month. Do not store the battery in an ex-

cessively warm or cold place (less than 0°C or more than 30°C).

EUU06800

NOTE:

Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

Model	TDM850
Dimension: Overall length Overall width Overall height Seat height Wheel base Minimum ground clearance	2,225 mm (CH)(S)(DK)(SF)(N)(D) 2,175 mm (NL)(GB)(F)(I)(A)(B)(E)(GR)(P) 780 mm 1,260 mm 795 mm 1,475 mm 160 mm
Basic weight: With oil and full fuel tank	230 kg
Minimum turning radius:	2,900 mm
Engine: Type Model Cylinder arrangement Displacement	Liquid cooled, 4-stroke, gasoline DOHC 3VD9 (F)(B)(D)(DK)(SF)(GB)(I)(NL)(N)(GR)(P) 3VDA (E) 4CN5 (CH)(A) 4CM5 (S) Parallel 2-cylinder Forward inclined 849 cm ³

Model	TDM850
Bore × Stroke	89.5 × 67.5 mm (3.52 × 2.66 in)
Compression ratio	9.2 : 1
Starting system	Electric starter
Lubrication system	Dry sump
Engine oil (4-cycle):	
Type	SAE20W40 type SE motor oil
Capacity	
Periodic oil change	3.8 L
With oil filter replacement	3.9 L
Total amount	4.2 L
Radiator capacity:	
(Including all routes)	1.7 L
Air filter:	Dry type element
Fuel:	
Type	Regular unleaded gasoline
Tank capacity	18 L
Reserve	3.5 L

Model	TDM850
Carburetor: Type/manufacturer	BDST38/MIKUNI
Spark plug: Type/manufacturer	DPR8EA-9/DPR9EA-9 (NGK) or X24EPR-U9/X27EPR-U9 (NIPPONDENSO)
Gap	0.8–0.9 mm
Clutch type:	Wet, multi-disc
Transmission:	
Primary reduction system	Spur gear
Primary reduction ratio	67/39 (1.718)
Secondary reduction system	Chain drive
Secondary reduction ratio	44/16 (2.750)
Transmission type	Constant mesh 5-speed
Operation	Left foot operation
Gear ratio	
1st	37/13 (2.846)
2nd	37/20 (1.850)
3rd	29/22 (1.318)
4th	29/27 (1.074)
5th	27/30 (0.900)

Model	TDM850
Chassis:	
Frame type	Pressed backbone
Caster angle	25.0°
Trail	105 mm
Tire:	
Type	Tubeless
Size — Front	110/80-18 58H
Rear	150/70-17 69H
Brake:	
Front brake type	Dual, Disc brake
Operation	Right hand operation
Rear brake type	Single, Disc brake
Operation	Right foot operation
Suspension:	
Front	Telescopic fork
Rear	Swingarm
Shock absorber:	
Front	Coil spring, Oil damper
Rear	Gas, Coil spring, Oil damper

Model	TDM850
Wheel travel: Front Rear	160 mm 140 mm
Electrical: Ignition system Generator system Battery type/capacity	TCI (Digital) AC Magneto generator YTX12-BS/12V 10AH or GTX12-BS/12V10AH
Headlight type:	(See Page 4-6)
Bulb wattage/quantity: Headlight Tail/brake light Flasher light Auxiliary light Meter light	(See Page 4-6) 12V 5W/21W × 2 12V 21W × 4 12V 5W × 1 12V 3.4W × 3 and 12V 3W × 1
Indicator light wattage/quantity: "NEUTRAL" "HIGH BEAM" "TURN"	12V 3.4W × 1 12V 3.4W × 1 12V 3.4W × 1

HOW TO USE THE CONVERSION TABLE

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

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

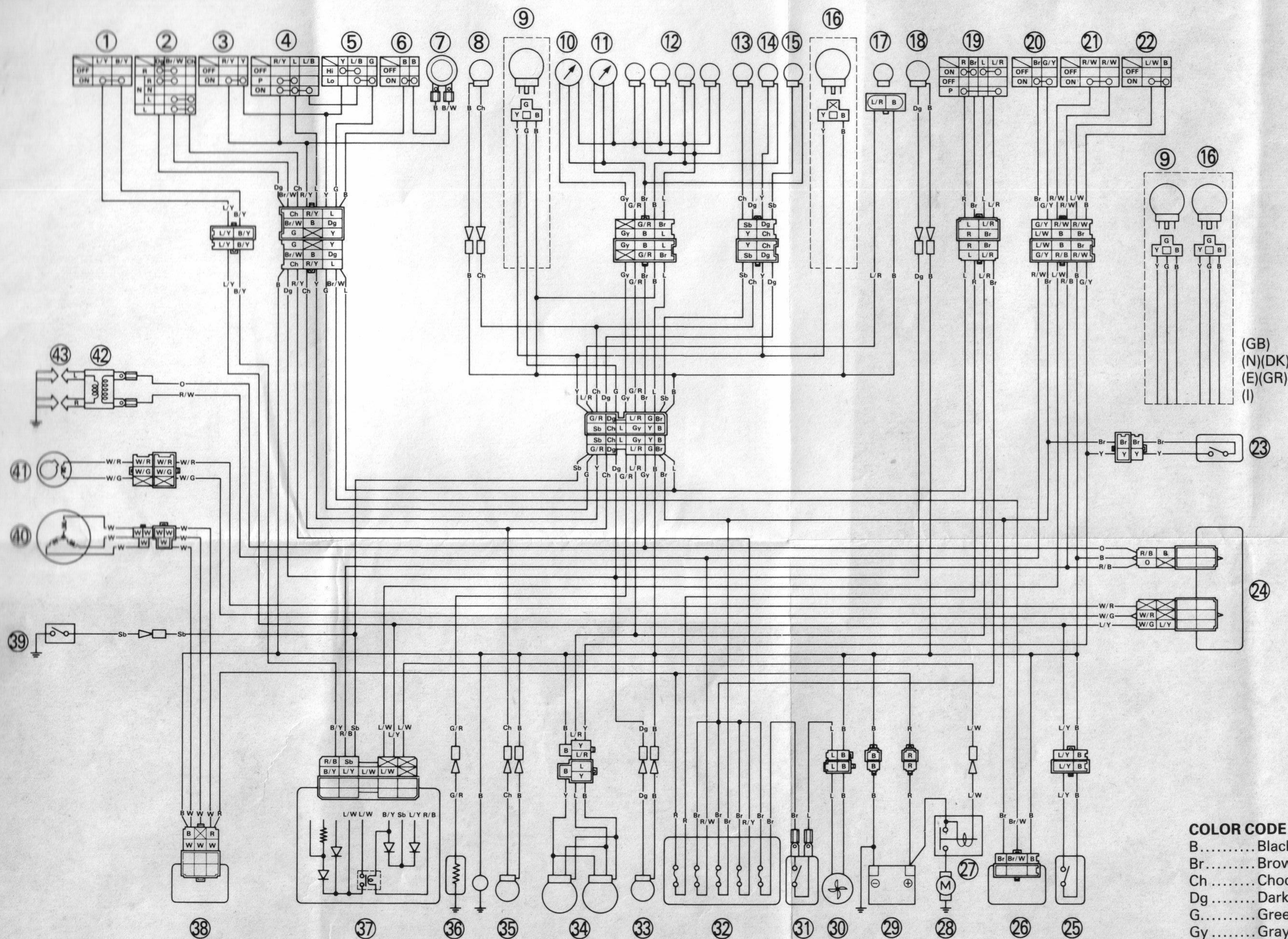
Ex.

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

CONVERSION TABLE

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

WIRING DIAGRAM



1. Clutch switch
2. "TURN" signal switch
3. "PASS" switch
4. "LIGHTS" switch
5. "LIGHTS" (Dimmer) switch
6. "HORN" switch
7. Horn
8. Front flasher light (Left)
9. Headlight (Left)
10. Tachometer
11. Engine temperature gauge
12. Meter light
13. "TURN" indicator light
14. "HIGH BEAM" indicator light
15. "NEUTRAL" indicator light
16. Headlight (Right)
17. Auxiliary light (Left)
18. Front flasher light (Right)
19. Main switch
20. Front brake switch
21. "ENGINE STOP" switch
22. "START" switch
23. Rear brake switch
24. Ignitor unit
25. Sidestand switch
26. Flasher relay
27. Starter relay
28. Starter motor
29. Battery
30. Fan motor
31. Thermo switch
32. Fuse box
33. Rear flasher light (Right)
34. Tail/brake light
35. Rear flasher light (Left)
36. Thermo unit
37. Relay
38. Rectifier/regulator
39. Neutral switch
40. A.C. magneto
41. Pick up coil
42. Ignition coil
43. Spark plug

(GB)
(N)(DK)
(E)(GR)
(I)

COLOR CODE

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

YAMAHA MOTOR CO.,LTD.

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