



YAMAHA

XV750K

OWNER'S MANUAL

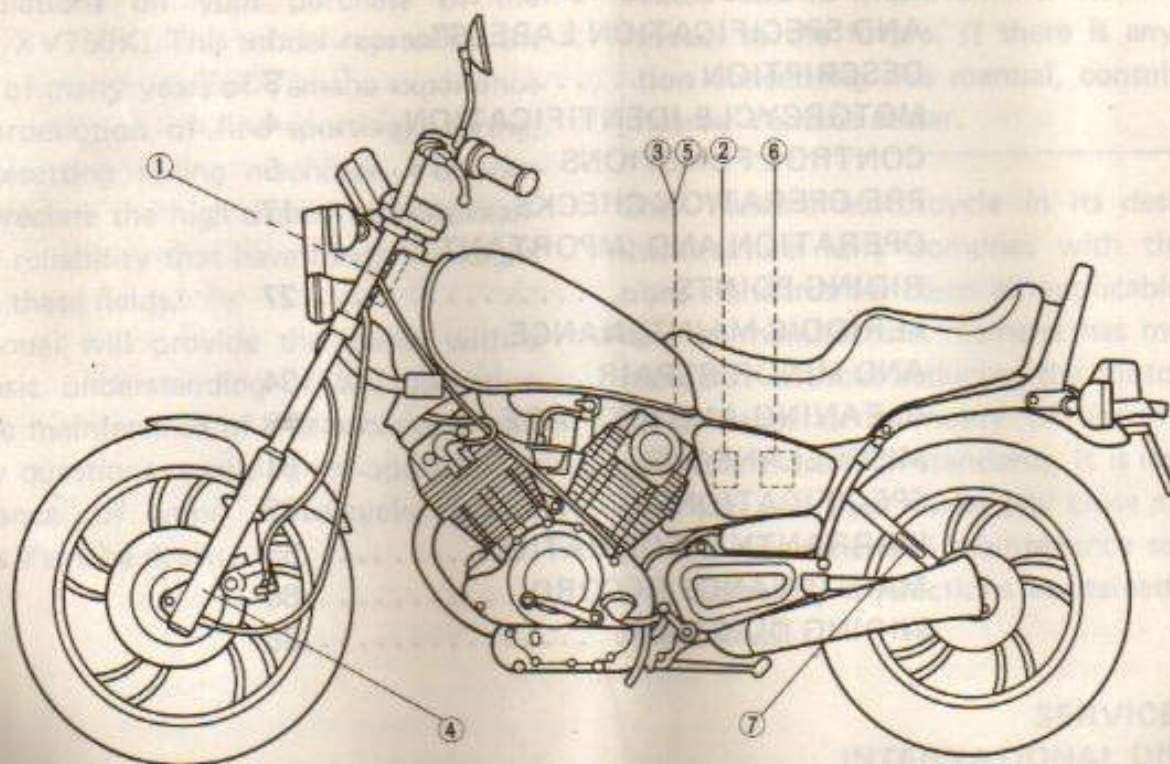
LIT-11626-03-49

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CONTENTS

| | |
|---|----|
| LOCATION OF THE "CAUTION AND SPECIFICATION LABELS" | 1 |
| DESCRIPTION | 3 |
| MOTORCYCLE IDENTIFICATION..... | 4 |
| CONTROL FUNCTIONS | 5 |
| PRE-OPERATION CHECKS..... | 17 |
| OPERATION AND IMPORTANT RIDING POINTS | 27 |
| PERIODIC MAINTENANCE AND MINOR REPAIR | 34 |
| CLEANING AND STORAGE | 78 |
| MISCELLANEOUS..... | 81 |
| SPECIFICATIONS | 82 |
| WARRANTY INFORMATION..... | 85 |
| MAINTENANCE RECORD | 86 |
| WIRING DIAGRAM..... | 88 |

LOCATION OF THE "CAUTION AND SPECIFICATION LABELS"



①

MFD. BY YAMAHA MOTOR CO., LTD., (Month/Year) GVWR 283 LBS.
 GAWR FRONT — xxx LBS. WITH xxxxx TIRE, xxxxx RIM,
 AT xx PSI COLD. REAR — xxx LBS. WITH xxxxx TIRE,
 xxxxx RIM, AT xx 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. xxxxx
 TYPE CLASSIFICATION . . . MOTORCYCLE

②

| VEHICLE EMISSION CONTROL INFORMATION | | THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS APPLICABLE TO THIS MODEL YEAR NEW MOTORCYCLES. |
|--|------|--|
| ENGINE FAMILY : xxxxx DISPLACEMENT : xxxxx EXHAUST EMISSION CONTROL SYSTEM : EM | | |
| BRINK TUNE-UP SPECIFICATIONS AND ADJUSTMENTS AT NORMAL OPERATING TEMPERATURE, PUT VEHICLE IN THE UPRIGHT POSITION, TRANSMISSION IN NEUTRAL, AND WARM UP ENGINE. | | |
| ITEM | SPEC | INSTRUCTIONS |
| 1. IGNITION TIMING IN BYDC AT IDLE SPEED | | NO ADJUSTMENT |
| 2. IDLE SPEED (RPM) xxxxx | | ADJUST THROTTLE STOP SCREW |
| 3. IDLE MIXTURE | | NO ADJUSTMENT |
| 4. VALVE CLEARANCE (MM) IN : xxx OUT : xxx | | SEE SERVICE MANUAL |
| 5. SPARK PLUG : xxx SPARK PLUG GAP (MM) : xxxxx | | |
| FUEL SPECIFICATIONS | | ENGINE LUBRICANT SPECIFICATIONS |
| GASOLINE GRADE : xxx RESEARCH OCTANE : xxx | | ENGINE OIL : xxxxx |
| YAMAHA MOTOR CO., LTD. | | |

③

NEVER DISASSEMBLE

④

CAUTION (AIR SUSPENSION)

1. Containing highly compressed air.
2. Use only air or nitrogen gas, other gases may cause explosion.
3. Do not incinerate.
4. Servicing requires special knowledge and tools. Read owner's manual before operated this suspension.

⑤

YAMAHA MONOCROSS
SUSPENSION
"DE CARBON" SYSTEM4X7-00 Serial
No.YAMAHA MOTOR CO., LTD.
MADE IN JAPAN

— WARNING —

1. Contains high pressure nitrogen gas.
2. See owner's manual for disposal and adjusting unit.
3. Do not open. Do not incinerate. Incineration, puncture or disassembly may cause this unit to explode.

⑥

CAUTION

(BATTERY REMOVAL AND INSTALLATION)

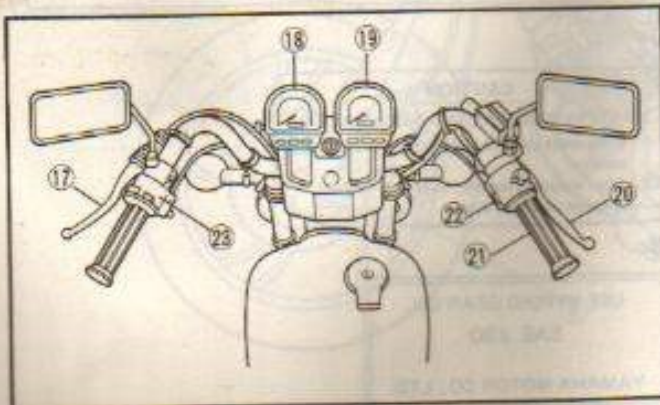
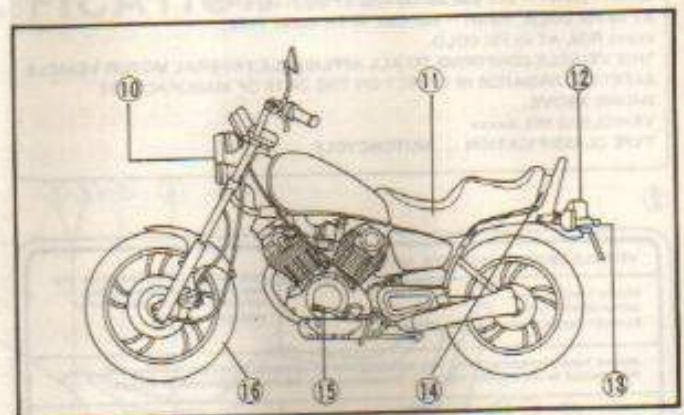
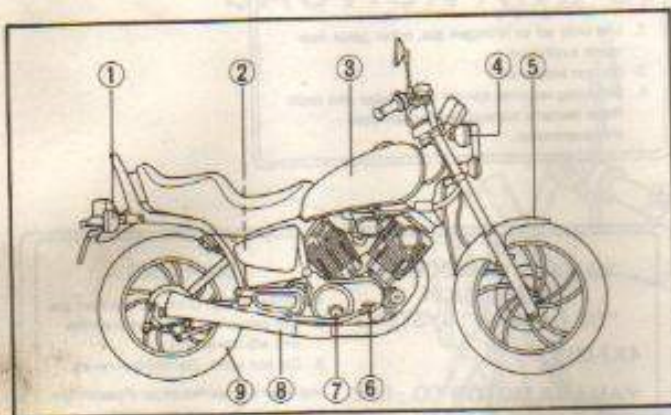
1. Disconnect breather pipe before removing battery.
2. After installing battery, be sure to connect breather pipe into place.

⑦

USE HYPOID GEAR OIL
SAE #80

YAMAHA MOTOR CO., LTD.

DESCRIPTION



- | | |
|------------------------|----------------------------|
| 1. Rear flasher light | 12. Tail/brake light |
| 2. Rear shock absorber | 13. License light |
| 3. Fuel tank | 14. Theft-protection chain |
| 4. Front flasher light | 15. Change pedal |
| 5. Front fender | 16. Front wheel |
| 6. Brake pedal | 17. Clutch lever |
| 7. Footrest | 18. Speedometer |
| 8. Silencer | 19. Tachometer |
| 9. Rear wheel | 20. Brake lever |
| 10. Headlight | 21. Throttle grip |
| 11. Seat | 22. Right handlebar switch |
| | 23. Left handlebar switch |

MOTORCYCLE IDENTIFICATION

Vehicle identification number

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



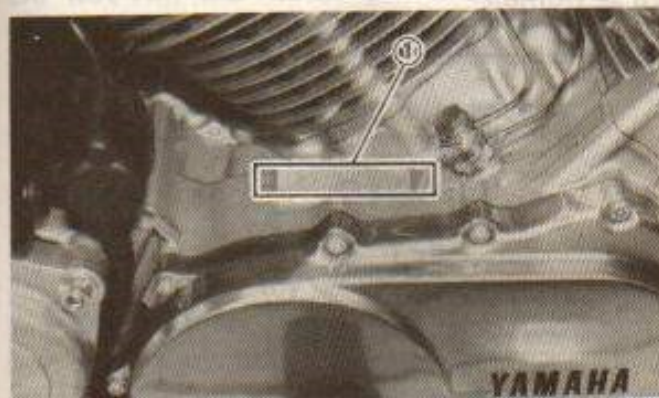
1. Vehicle identification number

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.

Engine serial number

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



2. Engine serial number

NOTE:

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

CONTROL FUNCTIONS

Main switch

Functions of the respective switch positions are as follows:



ON:

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

NOTE:

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

OFF:

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

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 12) for proper operation.

PARKING:

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

NOTE:

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

Indicator lights



1. Turn indicator light
2. High beam indicator light
3. Neutral indicator light
4. Oil level indicator light

"TURN" indicator light (orange):

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

"OIL LEVEL" indicator light (red):

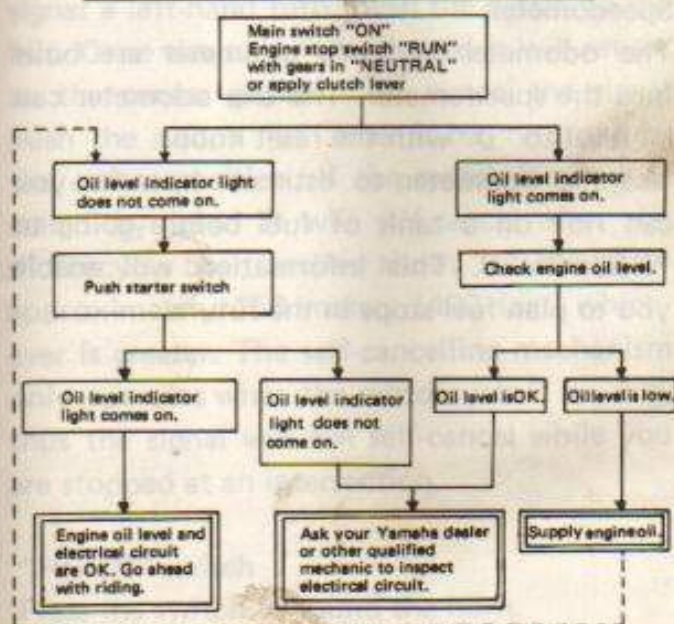
This indicator light comes on when the oil level is low, thus warning the rider. This

light circuit can be checked by the following check up chart.

CAUTION:

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

Oil level indicator circuit check up



"NEUTRAL" indicator light (green):

This indicator lights when the transmission is in neutral.

"HIGH BEAM" indicator light (blue):

This indicator lights when the headlight high beam is used.

Speedometer

The odometer and trip odometer are built into the speedometer. 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. Reset knob 2. Odometer 3. Trip odometer

Tachometer

The tachometer is provided so the rider can keep engine speed within the ideal power range.

This model is provided with an electric tachometer.

CAUTION:

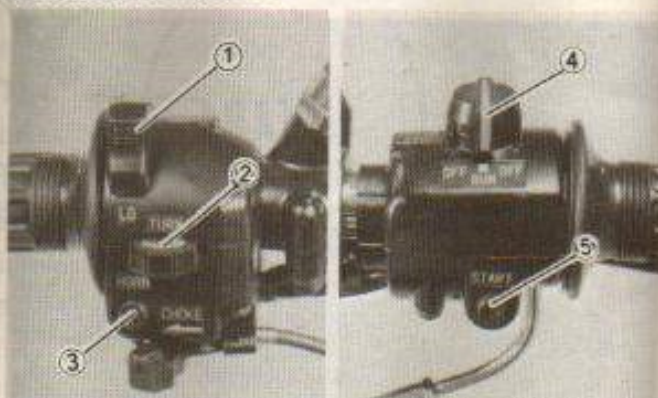
Do not operate in the red zone.

Red zone: 7,000 r/min and above



1. Red zone

Handlebar switches:



- | | |
|-----------------------------|-------------------------|
| 1. "LIGHTS" (Dimmer) switch | 4. "ENGINE STOP" switch |
| 2. "TURN" switch | 5. "START" switch |
| 3. "HORN" switch | |

"LIGHTS" (Dimmer) switch

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

"TURN" switch

This model is equipped with a turn indicator system that is self-cancelling. 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. If the switch is not cancelled by hand it will self-cancel after the motorcycle has travelled about 10 seconds or approximately 150 meters (490 feet) whichever is greater. The self-cancelling mechanism only operates when the motorcycle is moving; thus the signal will not self-cancel while you are stopped at an intersection.

"HORN" switch

Press the switch to sound the horn.

"ENGINE STOP" switch

Make sure that the engine stop switch is on "RUN". The engine stop switch has been equipped to ensure safety in an emergency such as when the motorcycle is upset or trouble takes place in the throttle. The engine will not start when the engine stop switch is turned to "OFF". In case of an emergency, turn the switch to "OFF".

"START" switch

To start the engine, push the starter switch.

CAUTION:

See starting instructions prior to starting engine.

Clutch lever

The clutch lever is located on the left handlebar and the starting circuit cut off 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 the starting circuit cut off switch functions.)

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

Front brake lever

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

Rear brake pedal

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

Fuel tank cap

To open:

Insert the key and turn clockwise 1/4 turn. The lock will be released and the fuel tank cap can be opened.

To close:

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

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.



Fuel cock

The negative pressure fuel cock(s) supplies fuel from the tank to the carburetor(s) and also filters the fuel. The fuel cock(s) has the following three positions:



ON: With the lever in this position fuel flows if the engine is running but stops if the engine is not running.

RES: This indicates "RESERVE". If the run out of fuel while riding, move the lever to "PRI" and switch to "RES" after starting the engine. Then, fill the tank at the first opportunity.

NOTE:

In the "ON" and "RES" the cock works on pressure from the engine turning over. If the line connecting the cock to the carburetor intake manifold is not connected or has a leak the cock will not function properly.

PRI: This indicates "PRIME". With the fuel cock in this position fuel flows whether the engine is running or not. If the fuel tank is completely empty, refill the tank, prime the carburetor in this position, and then switch to the "ON" after starting the engine.

Starter lever (CHOKE)

The starter lever is located on the left handlebar.

Starting a cold engine requires a richer fuel mixture. In such a case, turn the starter lever in the left direction.

After the engine is warm, turn the lever to its original position.

NOTE:

Refer to "Starting and warming up a cold engine" for proper operation.



1. Starter lever

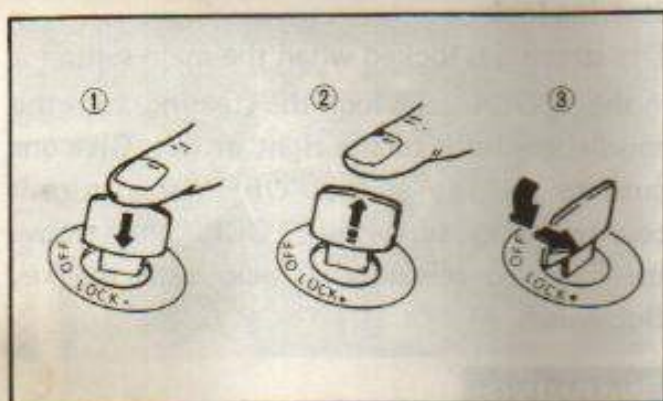
Steering lock

The steering is locked when the main switch is in the "LOCK". To lock the steering, turn the handlebars fully to the right or left. Give one push to the key at the "OFF"; then turn it counterclockwise to the "LOCK" and remove the key. To release the lock, turn the key clockwise.

WARNING:

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





1. Push

2. Release

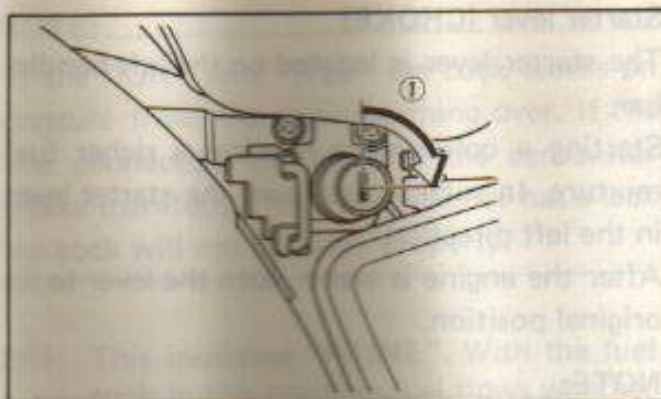
3. Turn

Seat lock

To open the seat lock, insert the key in the lock and turn it clockwise. In reinstalling the seat, insert the hook on the seat end into the receptacle on the frame, then push the seat down at the front.

NOTE:

Make sure that the seat is securely fitted.



1. Open

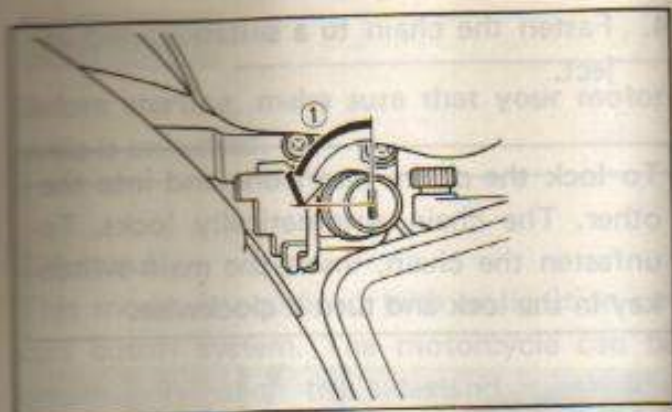
Helmet holder

To open the helmet holder, insert the key in the lock and turn it counterclockwise.

To lock the helmet holder, replace the holder in the original position.

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.



1. Open

Front forks

The front forks of this model are pneumo-mechanical; namely, a combination air and mechanical coil spring in the inner tube provides suspension best suited to the motorcycle's load (ex: optional accessories etc.) and riding conditions by the adjustment of the air pressure. Refer to page 58 for proper adjustment procedures.

WARNING:

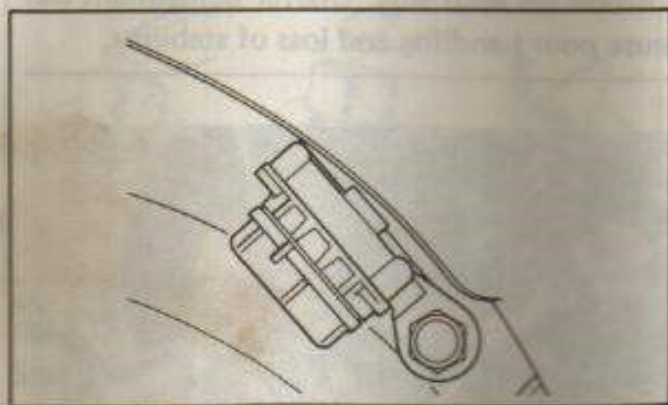
Always adjust the fork preload to the same position on each side. Uneven adjustment can cause poor handling and loss of stability.



Rear shock absorber (Monocross suspension "De Carbon" system)

The air pressure preload and the damping force of the rear shock absorber can be adjusted to suit motorcycle load (ex: optional accessories etc.) and riding conditions.

Refer to page 60 for proper adjustment procedures.



Theft-protection chain

This chain is designed for theft protection of your motorcycle and is placed in the seat.

Take out and use the chain as follows:

1. Remove the seat.
2. Remove the screw from the box.
3. Remove the box and chain from the seat.

4. Fasten the chain to a suitable fixed object.

To lock the chain, insert one end into the other. The chain automatically locks. To unfasten the chain, insert the main switch key in the lock and turn it clockwise.



5. When replacing the chain, make sure that the chain storage cell cover is securely fitted.

CAUTION:

Before starting, make sure that your motorcycle is unlocked.

Sidestand

This model is equipped with an ignition circuit cutoff system. The motorcycle can be ridden only when the sidestand is up. The sidestand is located on the left side of the frame.

(Refer to page 27 for an explanation of this system.)



1. Sidestand

PRE-OPERATION CHECKS (DAILY)

Before using this motorcycle check the following points:

| No. | Item | Routine | Page |
|-----|--------------------|---|--------------------|
| 1 | Brakes (Front) | Check operation, free play, brake fluid and brake fluid leakage. Top-up with DOT #3 brake fluid if necessary. | 18 ~ 19 48 ~ 53 |
| 2 | Brake (Rear) | Check operation, free play and adjust if necessary. | |
| 3 | Clutch | Check operation, condition and free play. Adjust if necessary. | 19, 53 ~ 54 |
| 4 | Engine oil | Check engine oil level, add oil if necessary. | 19, 42 ~ 44 |
| 5 | Final gear oil | Check for leakage visually. | 20, 44 ~ 46 |
| 6 | Throttle | Check for smooth operation. Adjust if necessary. | 19, 55 |
| 7 | Battery | Check fluid level, top-up with distilled water if necessary. | 25, 65 ~ 67 |
| 8 | Lights/Signals | Check operation. | 25 |
| 9 | Wheels/Tires | Check tire pressure, wear damage. | 20 ~ 24 |
| 10 | Fittings/Fasteners | Check all chassis fittings and fasteners. Adjust if necessary. | 25, 41 |

NOTE:

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

WARNING:

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

Brakes (See page 48 for more detail)

1. Brake lever and brake pedal
Check for correct 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.

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 or other qualified mechanic for immediate repairs. A sort, spongy feeling could indicate an hazardous condition in the brake system.

2. Brake fluid
Check the brake fluid level.
Add fluid if necessary.

Recommended brake fluid: DOT #3

3. Checking the disc pads
Refer to page 51.
4. Checking the rear brake shoe
Refer to page 51.

NOTE:

When this brake service is necessary, have a Yamaha dealer or other qualified mechanic replace the pads.

Brake fluid leakage (Front)

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

WARNING:

If brake fluid leakage is found, ask a Yamaha dealer or other qualified mechanic for immediate repairs. Such leakage could indicate a hazardous condition in the brake system.

Clutch (See page 53 for more detail)

Check for correct play in the clutch lever and make sure the lever operates properly.

If the play is incorrect, make an adjustment.

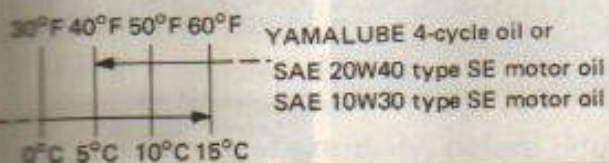
Throttle grip (See page 55 for more detail)

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

Engine oil (See page 42 for more detail)

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

Recommended oil:



Final gear oil (See page 44 for more detail)
Make sure the final gear oil is at the specified level. Add oil as necessary.

Recommended oil:

SAE 80 API GL-4 Hypoid gear oil

If desired, an SAE 80W90 hypoid gear oil may be used for all conditions.

NOTE:

GL-4 is a quality and additive rating. GL-5 or GL-6 rated hypoid gear oils may also be used.

Tires

Check the tire pressure and check the tires for wear.

| | FRONT | REAR |
|--|---|---|
| XV750K BASIC WEIGHT with oil and full fuel tank | 105 kg (231 lb) | 120 kg (265 lb) |
| Standard tire | Bridgestone 3.50H19-4PR | Bridgestone 130/90-16 67H |
| Maximum load limit* | 166 kg (366 lb) | 300 kg (661 lb) |
| Cold tire pressure | | |
| Up to 90 kg (198 lb) load** | 177 kPa (1.8 kg/cm ² , 26 psi) | 196 kPa (2.0 kg/cm ² , 28 psi) |
| 90 kg (198 lb) load ~ 160 kg (353 lb) load** | 196 kPa (2.0 kg/cm ² , 28 psi) | 226 kPa (2.3 kg/cm ² , 32 psi) |
| 160 kg (353 lb) load ~ 240 kg (529 lb) load (Maximum load) | 196 kPa (2.0 kg/cm ² , 28 psi) | 275 kPa (2.8 kg/cm ² , 40 psi) |
| High speed riding | 226 kPa (2.3 kg/cm ² , 32 psi) | 245 kPa (2.5 kg/cm ² , 36 psi) |
| Minimum tire tread depth | 0.8 mm (0.03 in) | 0.8 mm (0.03 in) |

* Total weight of motorcycle with accessories, etc.

** Total weight of accessories, etc. excepting motorcycle.

Tubeless tires and aluminum wheels

This motorcycle is equipped with aluminum wheels designed to be compatible with either tube or tubeless tires.

Tubeless tires are installed as standard equipment.

WARNING:

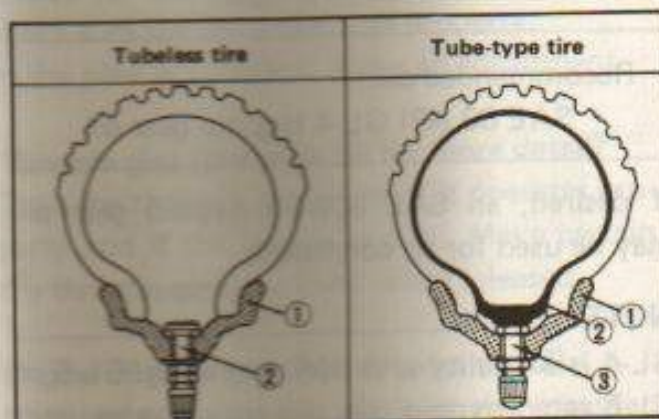
Do not attempt to use tubeless tires on a wheel designed for use only with tube-type tires. Tire failure and personal injury may result from sudden deflation.

Tube-type Wheel → Tube-type
Tires only

Tubeless-type Wheel →
Tube-type or Tubeless tires

WARNING:

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



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

1. Aluminum wheel
2. Tube
3. Air valve

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

1. Always maintain proper air pressure as described in the Chart on page 20.
2. Check tire pressure daily, before riding, and adjust as necessary.
3. Before operation, always check the tire surfaces for wear and/or damage; for example, cracks, glass, nails, metal fragments, stones, etc. Correct any such hazard before riding.
4. Always inspect the aluminum wheels before a ride. Place the motorcycle on the centerstand and check for cracks, bends or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer or other qualified mechanic. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
5. Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel assembly balance can result in poor performance, adverse handling characteristics, and shortened tire life.
6. 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.
7. After repairing or replacing a tire, check to be sure the valve stem lock nut is securely fastened. If not, torque it as specified.

Tightening torque:

1.5 Nm (0.15 m·kg, 1.1 ft·lb)

The standard equipment tires originally fitted to the XV750K are suited to normal riding

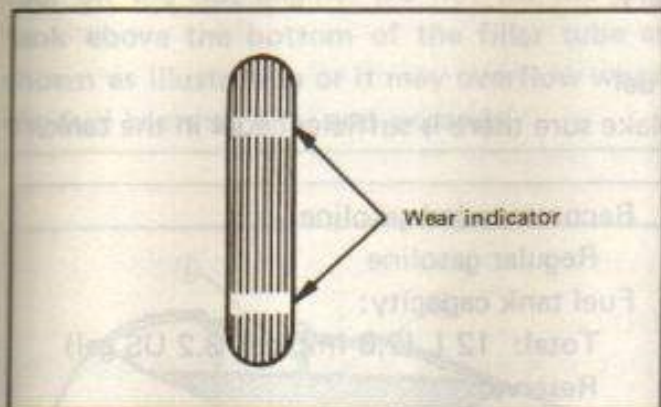
and touring. They are not suited for sustained high speed running or racing and must not be used for such purposes. Consider your riding skill, road and weather conditions, and cor-

rect weight distribution when loading your motorcycle. Securely pack your heaviest items close to the center of the motorcycle.

WARNING:

Proper loading of your motorcycle is important for the handling, braking, and other performance and safety characteristics of your motorcycle. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. 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 does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

If a tire tread shows crosswire lines, it means that the tire is worn to its limit. Replace the tire.



WARNING:

It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines. Have your Yamaha dealer or other qualified mechanic replace the tire immediately. Brake pad replacement, tire, and related wheel parts replacement should be left to a Yamaha Service Technician or other qualified me-

chanic. If you must change your own tire, be sure to use proper tools and procedures as described in the Tubeless Tire and Wheel Manual available from your Yamaha dealer.

Accessories or replacement parts

WARNING:

This motorcycle is not designed to pull a trailer or to be attached to a sidecar. The accessories or replacement parts you choose for your motorcycle should be designed specifically for it, and they must be securely mounted to maintain the inherent stability of the original design. Genuine Yamaha Parts and Accessories are designed and tested to be compatible with your motorcycle. Please consider Genuine Yamaha Parts and Accessories before making an accessory purchase. Use of non-Yamaha-approved parts or accessories may cause loss of handling stability and riding

safety. Since Yamaha cannot control the quality of parts or accessories manufactured by other companies, Yamaha cannot be held liable for any consequence caused by the use of items which have not been approved by Yamaha.

Fittings/Fasteners

Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 41 to find the correct torque.

Lights and signals

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

Switches

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

Battery (See page 65 for more detail)

Check fluid level and top-up if necessary.

Use only distilled water if refilling is necessary.

Fuel

Make sure there is sufficient fuel in the tank.

Recommended gasoline:

Regular gasoline

Fuel tank capacity:

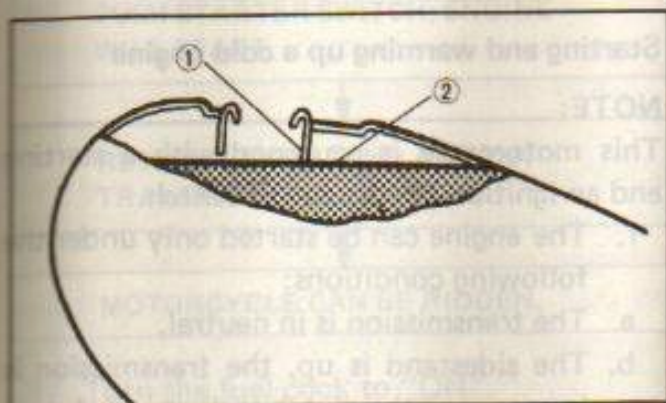
Total: 12 L (2.6 Imp gal, 3.2 US gal)

Reserve:

2.6 L (0.57 Imp gal, 0.69 US gal)

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 as illustration or it may overflow when the fuel heats up later and expands.



1. Filter tube 2. Fuel level

OPERATION AND IMPORTANT RIDING POINTS

WARNING:

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

CAUTION:

1. Be careful where you store personal items on the motorcycle. Avoid blocking the air cleaner intake or performance will suffer.
2. Be careful not to put anything near the battery and its terminals. Electrical failure and acid corrosion may result.

WARNING:

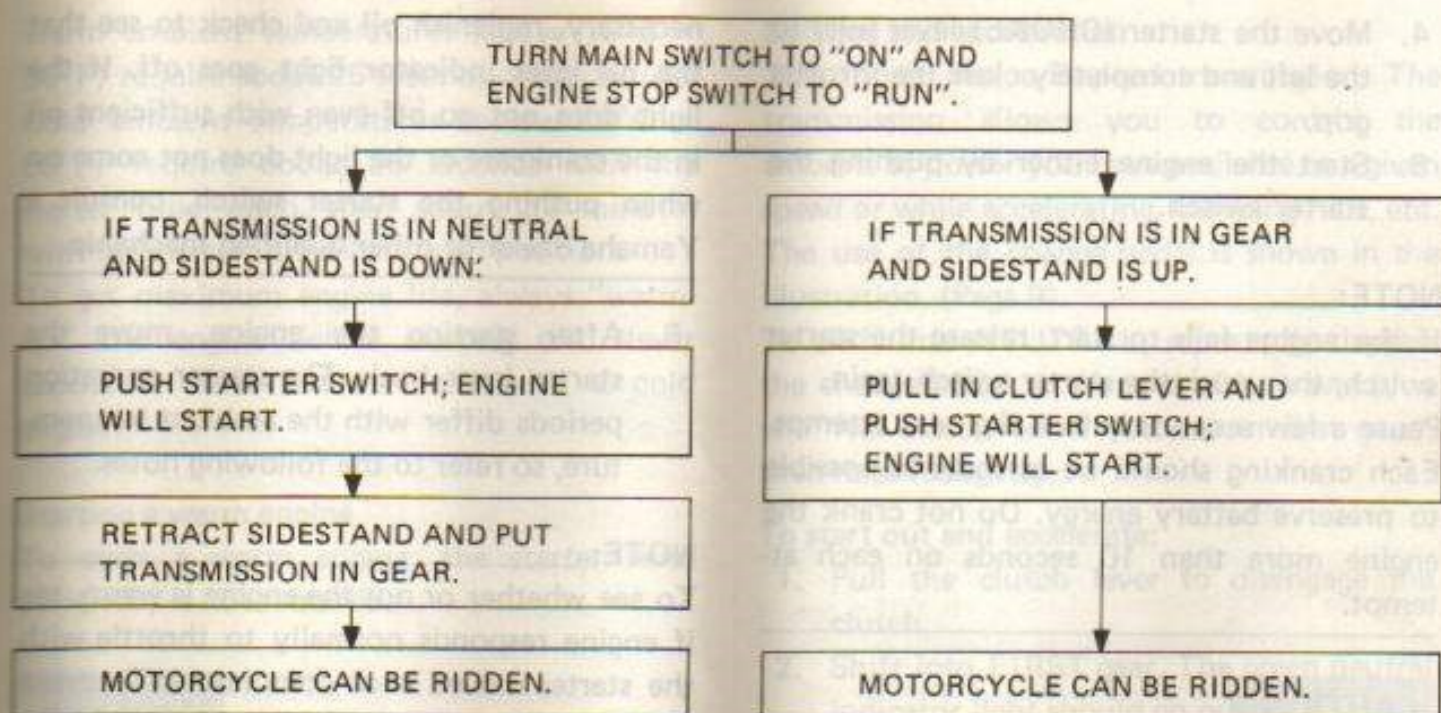
Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.

Starting and warming up a cold engine

NOTE:

This motorcycle is equipped with a starting and an ignition circuit cutoff switch.

1. The engine can be started only under the following conditions:
 - a. The transmission is in neutral.
 - b. The sidestand is up, the transmission is in gear, and the clutch is disengaged.
2. The motorcycle can be ridden only when the sidestand is up.



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

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

4. Move the starter (CHOKE) lever fully to the left and completely close the throttle grip.
5. Start the engine either by pushing the starter switch.

NOTE:

If the engine fails to start, release the starter switch, then push the starter switch again. Pause a few seconds before the next attempt. Each cranking should be as short as possible to preserve battery energy. Do not crank the engine more than 10 seconds on each attempt.

CAUTION:

The oil level indicator light should come on when the starter switch is pushed and should go off when the starter switch is released. If the indicator light flickers or remains on, immediately stop the engine and check for the engine oil level and for oil leakage. If

necessary, replenish oil and check to see that the oil level indicator light goes off. If the light does not go off even with sufficient oil in the crankcase or the light does not come on when pushing the starter switch, consult a Yamaha dealer or other qualified mechanic.

6. After starting the engine, move the starter lever back. The starter operation periods differ with the ambient temperature, so refer to the following notes.

NOTE:

To see whether or not the engine is warm, see if engine responds normally to throttle with the starter moved back completely. To avoid the possibility of excessive exhaust emissions, never leave the starter circuit on longer than necessary.

The length of time the starter is used to start a cold engine depends upon the ambient temperature.

Warm ambient temperatures (above 10°C ~ 50°F) require about 25 seconds of starter use. Cold ambient temperatures (below 10°C ~ 50°F) require about 35 seconds with the starter fully open, then about 2.5 minutes with the starter in the half-open position. To get maximum engine life, always "warm-up" the engine before starting off. Never accelerate hard with a cold with a cold engine!

Starting a warm engine

To start a warm engine, the starter lever (CHOKE) is not required.

CAUTION:

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

Shifting and acceleration

This model has a 5-speed transmission. The transmission allows you to control the amount of power you have available at a given speed or while accelerating, climbing hills, etc. The use of the change pedal is shown in the illustration. (Page 9)

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

To start out and accelerate:

1. Pull the clutch lever to disengage the clutch.
2. Shift into FIRST gear. The green neutral indicator light should go out.
3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
4. At the recommended shift point speed in the table below, close the throttle, and

at the same time, pull in the clutch lever quickly.

5. Shift into **SECOND** gear. (Be careful not to shift into neutral.)
6. Open the throttle part way and gradually release the clutch lever.
7. To accelerate use the same procedure to shift into the next higher gear according to the Recommended Shift Point Chart below.

To decelerate:

1. Apply front and/or rear brakes to slow the motorcycle.
2. When the motorcycle reaches 20 km/h (12.5 mi/h), shift to first gear.
Any time the engine appears about to stall or runs very roughly, pull in the clutch and use the brakes to stop.
3. When motorcycle is almost completely stopped, shift to neutral.
The green neutral indicator light should come on.

Recommended Shift Point

| | Acceleration shift point km/h (mi/h) | Deceleration shift point km/h (mi/h) |
|-----------|--|--|
| 1st → 2nd | 23 (14) | 20 (12.5) |
| 2nd → 3rd | 36 (22) | 20 (12.5) |
| 3rd → 4th | 50 (31) | 20 (12.5) |
| 4th → 5th | 60 (37) | 20 (12.5) |

CAUTION:

1. Do not glide 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 load of forced shifting and can be damaged by shifting without the clutch.

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.

1. 0 ~ 150 km (0 ~ 100 mi):

Avoid operating above 4,000 r/min.

Allow a cooling off period of 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one, set throttle position.

2. 150 ~ 500 km (100 ~ 300 mi):

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

3. 500 ~ 1,000 km (300 ~ 600 mi):

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

4. 1,000 km (600 mi) and beyond:

Avoid prolonged full throttle operation. Avoid engine speeds in excess of 7,000 r/min. Vary speeds occasionally.

CAUTION:

If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately or other qualified mechanic. After 1,000 km (600 mi) of operation, be sure to replace the engine oil, oil filter element, middle and final gear oil.

Parking

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

WARNING:

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

PERIODIC MAINTENANCE AND MINOR REPAIR

Periodic inspection, adjustment and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner.

The most important points of motorcycle inspection, adjustment and lubrication are explained in the following pages.

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

WARNING:

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

PERIODIC MAINTENANCE

PROPER PERIODIC MAINTENANCE OF YOUR MOTORCYCLE IS IMPORTANT TO ITS GIVING YOU LONG, PLEASURABLE SERVICE: ESPECIALLY IMPORTANT ARE THE MAINTENANCE SERVICES RELATED TO EMISSIONS CONTROL. THESE CONTROLS NOT ONLY FUNCTION TO ENSURE CLEANER AIR BUT ARE ALSO VITAL TO PROPER ENGINE OPERATION AND MAXIMUM PERFORMANCE. IN THE FOLLOWING TABLES OF PERIODIC MAINTENANCE. THE SERVICE RELATED TO EMISSIONS CONTROL ARE GROUPED SEPARATELY. THESE SERVICES REQUIRE SPECIALIZED DATA, KNOWLEDGE, AND EQUIPMENT. YAMAHA DEALERS ARE TRAINED AND EQUIPPED TO PERFORM THESE PARTICULAR SERVICES.

Tool kit

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



1 Tool kit

NOTE:

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

WARNING:

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

PERIODIC MAINTENANCE EMISSION CONTROL SYSTEM

| No. | Item | Remarks | Initial break-in | | Thereafter every | |
|-----|------------------------------|---|---------------------------------------|--|--|---|
| | | | 1,000 km (600 mi) or 1 month | 5,000 km (3,000 mi) or 7 months | 4,000 km (2,500 mi) or 6 months | 8,000 km (5,000 mi) or 12 months |
| 1* | Valve clearance | Check and adjust valve clearance when engine is cold. | ○ | ○ | ○ | |
| 2 | Spark plugs | Check condition. Adjust gap. Clean. Replace at 13,000 km (or 18 months) or thereafter every 12,000 km (or 18 months). | | ○ | ○ | Replace every 12,000 km (7,500 mi) or 18 months |
| 3* | Crankcase ventilation system | Check ventilation hose for cracks or damage. Replace if necessary. | | ○ | | ○ |
| 4* | Fuel line | Check fuel hose and vacuum pipe or damage. Replace if necessary. | | ○ | | ○ |
| 5* | Exhaust system | Check for leakage. Retighten if necessary. Replace gasket(s) if necessary. | | ○ | ○ | |
| 6* | Carburetor synchronization | Adjust synchronization of carburetors. | | ○ | ○ | |
| 7* | Idle speed | Check and adjust engine idle speed. Adjust cable free play. | | ○ | ○ | |

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

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.

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. For example, a very white center electrode porcelain color could indicate an intake tract air leak or carburetion problem for that cylinder. Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer or other qualified mechanic.

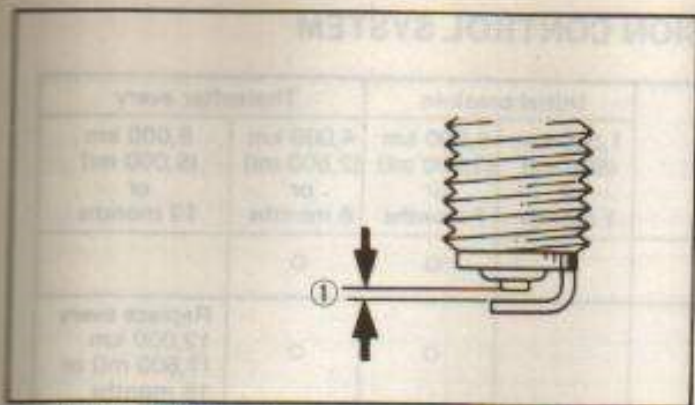
You should periodically remove and inspect the spark plug because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with one of the proper type.

Standard spark plug: BP7ES (NGK)

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

Spark plug gap:

0.7 ~ 0.8 mm (0.028 ~ 0.032 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:
20 Nm (2.0 m·kg, 14 ft·lb)

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.

PERIOD GENERAL MAINTENANCE/LUBRICATION

| No. | Item | Remarks | Type | Initial break-in | | Thereafter every | | |
|-----|------------------------------------|--|--|---------------------------------------|--|--|---|---|
| | | | | 1,000 km (600 mi) or 1 month | 5,000 km (3,000 mi) or 7 months | 4,000 km (2,500 mi) or 6 months | 8,000 km (5,000 mi) or 12 months | 16,000 km (10,000 mi) or 24 months |
| 1 | Engine oil | Warm-up engine before draining | Refer to page 21 | ○ | ○ | ○ | | |
| 2 | Oil filter | Replace | — | ○ | ○ | | ○ | |
| 3 | Final gear oil | Replace | Refer to page 21 | ○ | | | ○ | |
| 4* | Air filter | Clean with compressed air | — | | ○ | | ○ | |
| 5* | Brake system | Adjust free play Replace pads if necessary (front) Replace shoes if necessary (rear) | — | ○ | ○ | ○ | | |
| 6* | Clutch | Adjust free play | — | ○ | ○ | ○ | | |
| 7* | Control and meter cable | Apply chain lube thoroughly | Yamaha chain and cable lube or SAE 10W30 motor oil | ○ | ○ | ○ | | |
| 8 | Brake pedal and change pedal shaft | Apply chain lube lightly | Yamaha chain and cable lube or SAE 10W30 motor oil | | ○ | ○ | | |
| 9 | Center and side stand pivots | Apply chain lube lightly | Yamaha chain and cable lube or SAE 10W30 motor oil | | ○ | ○ | | |

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

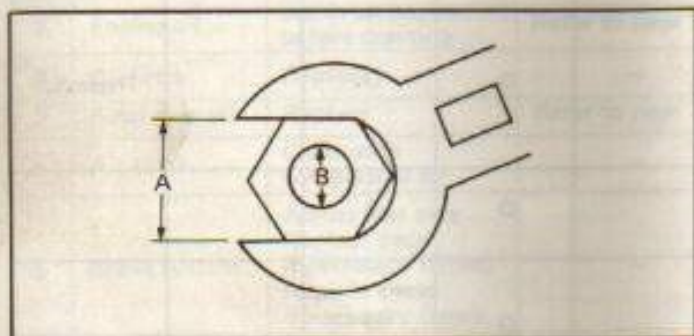
| No. | Item | Remarks | Type | Initial break-in | | Thereafter every | | |
|-----|--------------------------------------|--|--|---------------------------------------|--|--|---|---|
| | | | | 1,000 km (600 mi) or 1 month | 5,000 km (3,000 mi) or 7 months | 4,000 km (2,500 mi) or 6 months | 8,000 km (5,000 mi) or 12 months | 16,000 km (10,000 mi) or 24 months |
| 10* | Front fork oil | Drain completely Refill to specification | Yamaha fork oil 10Wt or equivalent | | | | | ○ |
| 11* | Steering bearing and races | Check bearings assembly for looseness Moderately repack every 16,000 km (10,000 mi) | Medium weight wheel bearing grease | | ○ | ○ | | Repack |
| 12* | Wheel bearings | Check bearings for smooth rotation Replace if necessary | — | | ○ | ○ | | |
| 13 | Battery | Check specific gravity Check breather pipe for proper operation | — | | ○ | ○ | | |
| 14 | Brake/Clutch lever pivot shaft | Apply chain lube lightly | Yamaha chain and cable lube or SAE 10W30 motor oil | | ○ | ○ | | |

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

Torque specifications

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

Use a torque wrench to tighten these items. It is recommended that these items should be



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

checked occasionally, especially before a long trip. Always check the tightness of these items whenever they are loosened for any reason.

| Item | Torque | | |
|----------------------------------|--------|------|-------|
| | Nm | m•kg | ft•lb |
| Spark plug | 20 | 2.0 | 14.0 |
| Engine drain plug | 43 | 4.3 | 31.0 |
| Oil filter bolt | 10 | 1.0 | 7.2 |
| Change pedal | 10 | 1.0 | 7.2 |
| Front engine mount bolts (upper) | 54 | 5.4 | 39.0 |
| Rear engine mount bolts (upper) | 55 | 5.5 | 40.0 |
| Rear engine mount bolts (under) | 55 | 5.5 | 40.0 |
| Steering pinch bolts | 20 | 2.0 | 14.0 |
| Shock absorber (top) | 45 | 4.5 | 32.0 |
| Front wheel axle | 105 | 10.5 | 75.0 |
| Front axle pinch bolt | 20 | 2.0 | 14.0 |
| Rear wheel axle | 105 | 10.5 | 75.0 |
| Rear axle pinch bolt | 6 | 0.6 | 4.3 |
| Final gear drain plug | 23 | 2.3 | 17.0 |

Engine oil

1. Oil level measurement

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

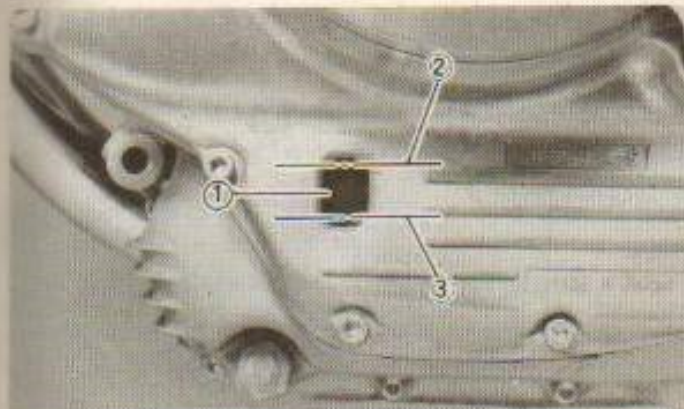
NOTE:

Be sure the motorcycle is positioned straight up when checking the oil level; a slight tilt toward the side cap produce false readings.

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

NOTE:

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

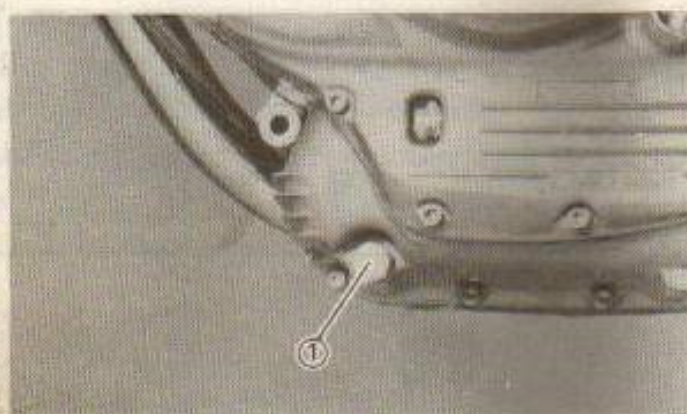


1. Level window 2. Maximum mark 3. Minimum mark

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

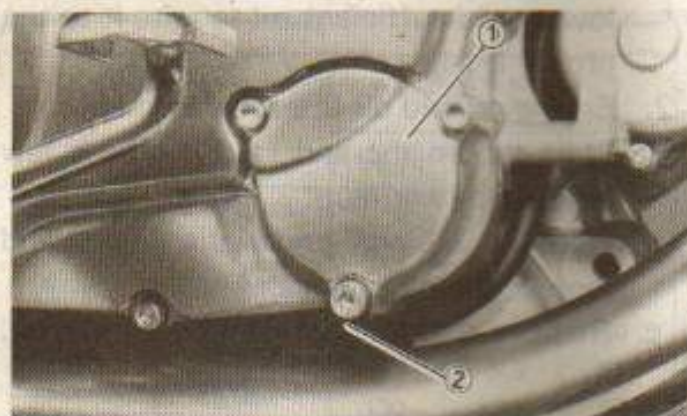
2. Engine oil and oil filter replacement

- a. Start the engine and stop it after a few minutes of warm-up.
- b. Place an oil pan under the engine and remove the oil filler cap.
- c. Remove the drain plug and drain the oil.



1. Engine drain plug

d. Remove the oil filter bolt and filter element.



1. Oil filter cover 2. Clamp

e. Re-install the drain plug (make sure it is tight).

Drain plug torque:

43 Nm (4.3 m·kg, 31.0 ft·lb)

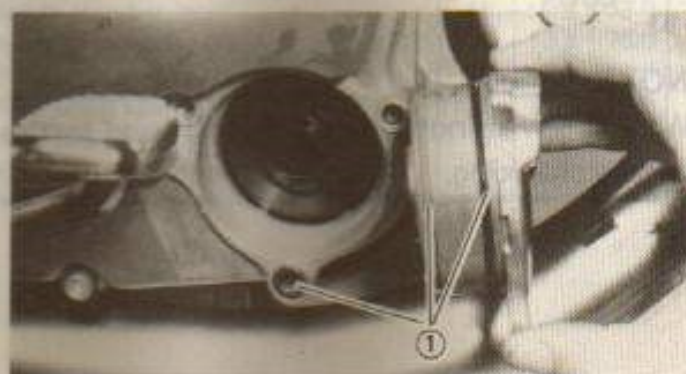
f. Install the new oil filter element, new O-ring and filter cover, tighten the oil filter bolt.

Oil filter bolt:

10 Nm (1.0 m·kg, 7.2 ft·lb)

NOTE:

Make sure the O-ring is positioned properly.



1. Proper O-ring piston

- g. Add oil through the oil filler hole.

Periodic oil change:

3.0 L (2.6 Imp qt, 3.2 US qt)

With oil filter replacement:

3.1 L (2.7 Imp qt, 3.3 US qt)

Recommended oil: See page 21.

CAUTION:

Take care not to allow foreign material to enter the crankcase.



- h. After replacement of engine oil, and/or oil filter, be sure to check for any oil leakage. The oil level indicator light should go off after the oil is filled.

CAUTION:

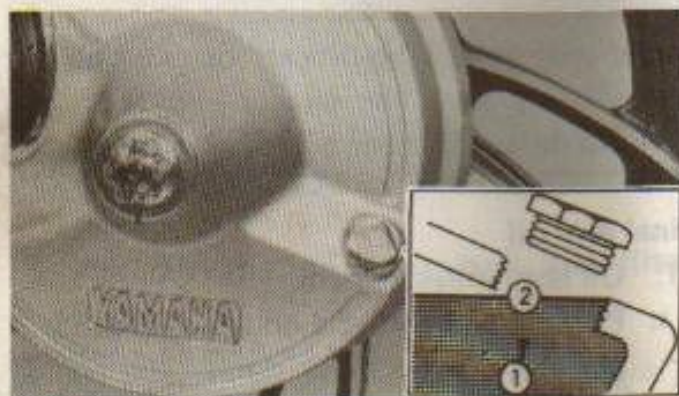
If the indicator light flickers or remains on, immediately stop the engine and consult a Yamaha dealer or other qualified mechanic.

Final gear oil

1. Oil level measurement
 - a. Place the motorcycle on a level place and place it on the main stand. The engine should be cool (at atmospheric temperature).
 - b. Remove the oil filler cap and check the oil level whether it is to the hole brim. If it is not up to this level, replenish oil.

CAUTION:

Take care not to allow foreign material to enter the final gear case.



1. Final gear oil 2. Correct oil level

2. Gear oil replacement

- a. Place on oil pan under the final gear case.
- b. Remove the final gear oil filler cap and the drain plug, and drain the oil.



1. Final gear drain plug

WARNING:

When draining or filling, take care not to allow foreign material to enter the final gear case. Do not allow the gear oil to contact the tire and wheel.

- c. Reinstall and tighten the final gear case drain plug. (See page 41 for torque specifications.)

- d. Fill the gear case to the specified level.

Oil capacity:

Final gear case:

0.2 L (0.18 Imp qt, 0.21 US qt)

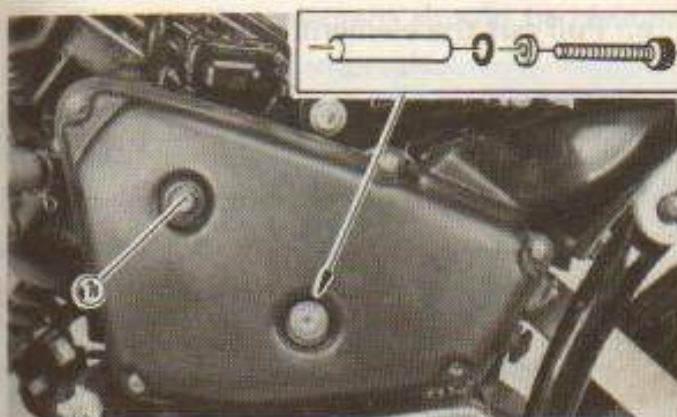
Recommended oil: See page 20

- e. Reinstall the filler cap securely.

Air filter

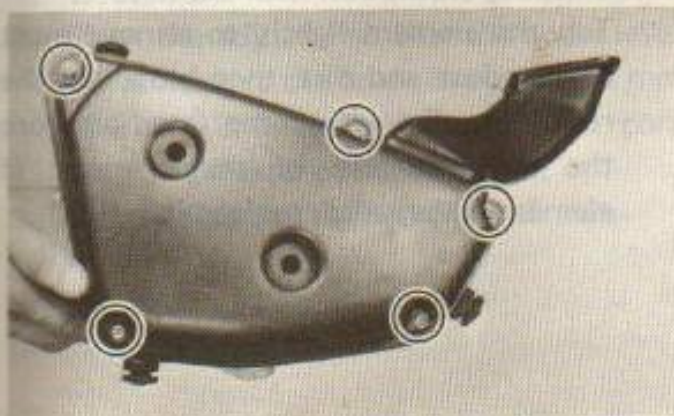
1. Removal

- Remove the seat.
- Remove the left side cover.
- Remove the air filter case assembly holding bolts.



1. Holding bolt

- d. Remove the air filter case cover by removing the five screws.



e. Pull out the element.



1. Air filter element

2. Cleaning method

Tap the element lightly to remove most of the dust and dirt; then blow out the remaining dirt with compressed air from the inner surface of the element. If element is damaged, replace it.



3. Reassembly by reversing the removal procedure. Check whether the element is seated completely against the case.

CAUTION:

1. In reinstalling the air filter assembly, make sure that its air intake passage and air outlet mouth are both installed in position on the frame.
2. Don't block the air intake passage opening with rags or the like.



1. Air intake passage



1. Air outlet mouth

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

CAUTION:

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

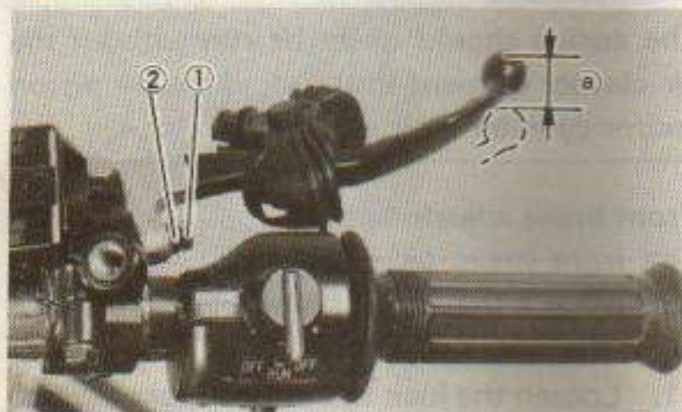
Front brake adjustment

The front brake lever should be so adjusted that it has a free play of 5 ~ 8 mm (0.2 ~ 0.3 in) at the lever end.

1. Loosen the lock nut on the brake lever.
2. Turn the adjuster so that the brake lever movement at the lever end is 5 ~ 8 mm (0.2 ~ 0.3 in) before the adjuster contacts the master cylinder piston.
3. After adjusting, tighten the lock nut.

NOTE:

Check for correct play and make sure it is working properly.



1. Adjuster 2. Lock nut a. 5 ~ 8 mm (0.2 ~ 0.3 in)

WARNING:

A soft or spongy feeling in the brake lever 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 result in greatly diminished braking capability and can

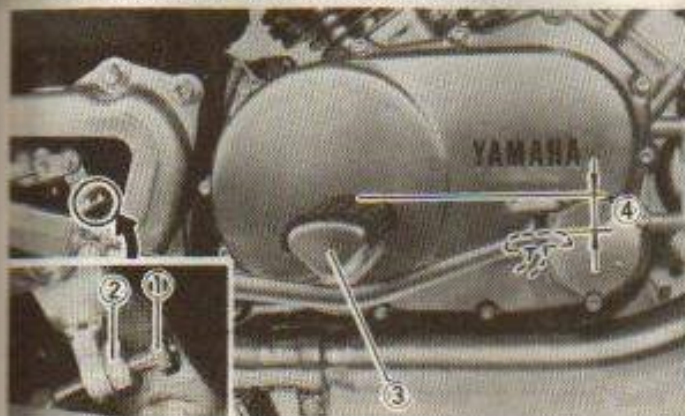
result in loss of control and an accident. Have a Yamaha dealer or other qualified mechanic inspect and bleed the system if necessary.

Rear brake adjustment**WARNING:**

For the brake pedal position adjustment, be sure to proceed as follows; (It is advisable to have a Yamaha dealer or other qualified mechanic make this adjustment.)

1. Pedal height
 - a. Loosen the adjuster lock nut (for pedal height).
 - b. By turning the adjuster clockwise or counterclockwise, adjust the brake pedal position so that its top end is flush with the top of the footrest.

c. Secure the adjuster lock nut.



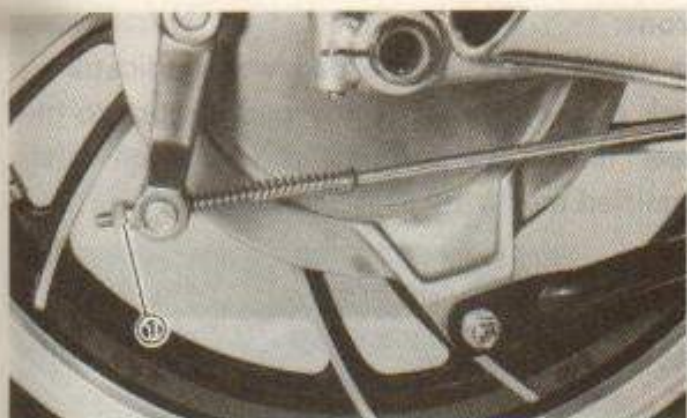
- | | |
|--------------------------------|---|
| 1. Adjuster (for pedal height) | 4. Free play 20 ~ 30 mm (0.8 ~ 1.2 in) |
| 2. Lock nut | |
| 3. Footrest | |

WARNING:

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

2. Free play

Turn the adjuster on the brake rod clockwise or counterclockwise to provide the brake pedal end with a free play of 20 ~ 30 mm (0.8 ~ 1.2 in).



1. Adjuster

WARNING:

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

Checking the front brake pads and rear brake shoes

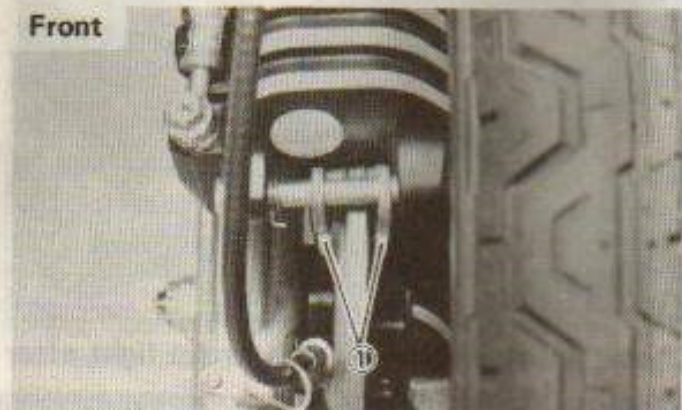
A wear indicator is attached to each brake to facilitate brake pad and shoe check.

This indicator permits a visual check without disassembling the pads.

Front:

To check, look at the pad wear indicator in back of the caliper. If any pad is worn to the wear limit, ask a Yamaha dealer or other qualified mechanic to replace the pads.

Front

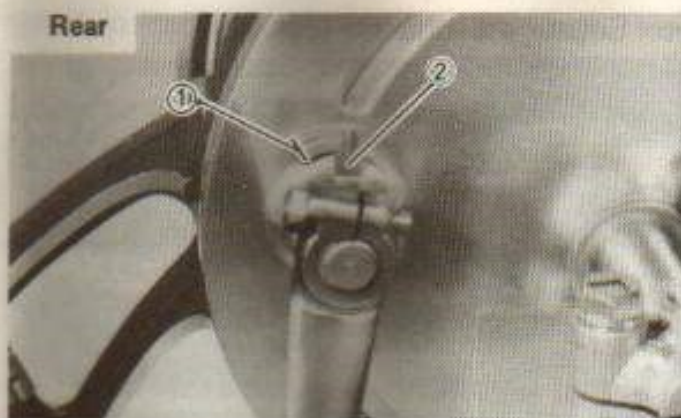


1. Wear indicator

Rear:

To check, see the wear indicator position while depressing the brake pedal. If the indicator reaches to the wear limit line, ask a Yamaha dealer or other qualified mechanic to replace the shoes.

Rear



1. Wear limit 2. Wear indicator

Inspecting the brake fluid level

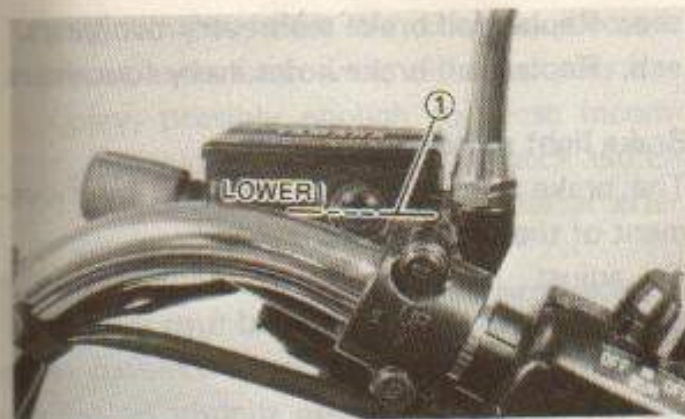
Insufficient brake fluid may allow air to enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check the brake fluid level and replenish when necessary, and observe these precautions:

1. Use only the designated quality brake fluid; otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.

Recommended brake fluid: DOT #3

2. Refill with the same type of brake fluid; mixing fluids may result in a harmful chemical reaction and lead to poor performance.
3. Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point and may result in vapor lock.
4. Brake fluid may erode painted surfaces or plastic parts. Always clean up spilled fluid immediately.
5. Have a Yamaha dealer or other qualified mechanic check the cause if the brake fluid level goes down.



1. Lower level

Brake fluid replacement

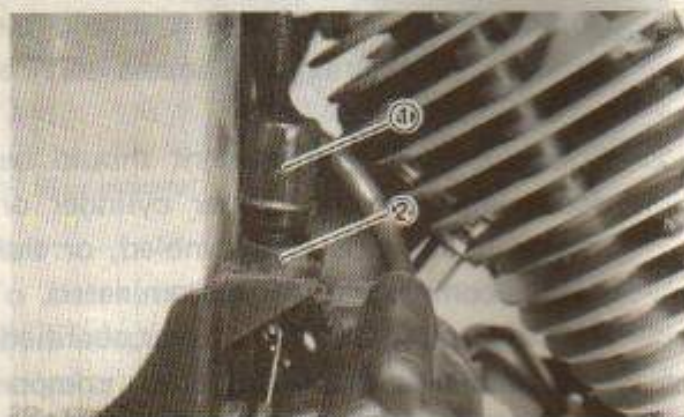
1. Complete fluid replacement should be done only by trained Yamaha service personnel.
2. Complete fluid replacement should be done whenever the caliper cylinder or master cylinder is disassembled, or the fluid becomes seriously contaminated.
3. Have a Yamaha dealer or other qualified mechanic replace the following components whenever damaged or leaking.
Also:

- a. Replace all brake seals every two years.
- b. Replace all brake hoses every four years.

Brake light switch adjustment

The brake light switch is operated by movement of the brake pedal.

To adjust, hold the switch body with the hand so it does not rotate and turn the adjusting nut. Proper adjustment is achieved when the brake light comes on slightly before the brake begins to take effect.



1. Switch body 2. Adjusting nut

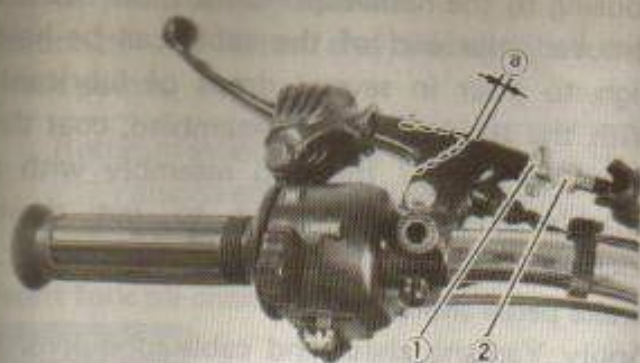
Clutch adjustment

This model has a clutch cable length adjuster and a clutch mechanism adjuster. The cable length adjuster is used to take up slack from cable stretch and to provide sufficient free play for proper clutch operation under various operating conditions. The clutch mechanism adjuster is used to provide the correct amount of clutch "throw" for proper disengagement. Normally, once the mechanism is properly adjusted, the only adjustment required is maintenance of free play at the clutch handlebar lever.

1. Free play adjustment

The clutch should be adjusted to suit rider's preference, but free play at the lever pivot should be 2 ~ 3 mm (0.08 ~ 0.12 in).

Loosen the handlebar lever adjuster lock nut. Next turn the length adjuster either in or out until proper lever free play is achieved.



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

Clutch lever free play:

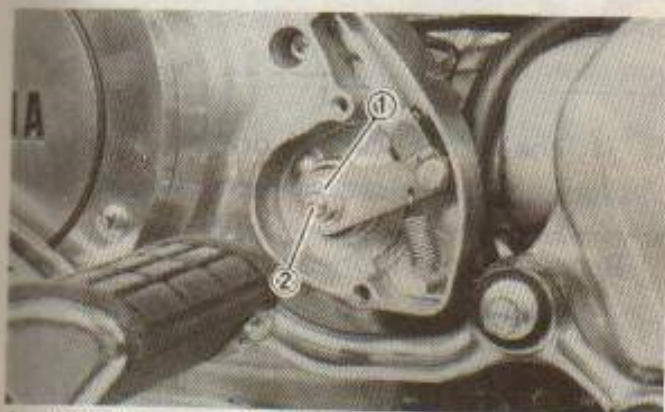
2 ~ 3 mm (0.08 ~ 0.12 in)

2. Mechanism adjustment

The second adjustment is located behind the adjusting cover. Removing the cover will expose the adjuster and lock nut.

Loosen the lock nut, rotate the adjuster in until it lightly seats against the clutch push rod that works with the adjuster to operate the clutch. Back the adjuster out 1/4 turn and tighten the lock nut. This

adjustment must be checked because heat and clutch wear will affect this free play, possibly enough to cause incomplete clutch operation. Recheck clutch cable adjustment at the handlebar after adjusting.



1. Lock nut 2. Adjuster

Cable inspection and lubrication

WARNING:

Damage to the outer housing of the various cables, may cause corrosion and often free movement will be obstructed. An unsafe condition may result so replace such cables as soon as possible.

1. If the inner cables do not operate smoothly, lubricate or replace them.

Recommended lubricant:

Yamaha chain and cable lube or
SAE 10W30 motor oil

Throttle cable and grip lubrication

The throttle twist grip assembly should be greased when 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 to cut down friction.

Brake pedal shaft

Apply Yamaha chain and cable lube or SAE 10W30 motor oil to the brake pedal shaft.

Change pedal/Brake and clutch lever

Lubricate the pivoting parts of each lever and pedal.

Recommended lubricants:

Yamaha chain and cable lube or
SAE 10W30 motor oil

Center and side stand pivots

Lubricate the center and sidestand at their pivot points.

Recommended lubricants:

Yamaha chain and cable lube or
SAE 10W30 motor oil

Front fork oil change

WARNING:

1. 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. Raise the motorcycle or remove the front wheel so that there is no weight on the front end of the motorcycle.
2. Remove the handlebar cover and handlebar.
3. Remove the rubber cap from the top of each fork.



1. Rubber cap

4. Keep the valve open while pressing it for several seconds so that the air can be let out of the inner tube.



1. Push

5. The spring seat and fork spring are retained by a stopper ring (spring wire circlip). It is necessary to depress the spring seat and fork spring to remove the stopper ring. Remove the stopper ring by carefully prying out one end with a small screwdriver.
6. Place an open container under each drain hole. Remove the drain screw from each outer tube.

WARNING:

Do not allow oil to contact the disc brake components. If any oil should contact the brake components it must be removed before the motorcycle is operated. Oil will cause diminished braking capacity and will damage the rubber components of the brake assembly.

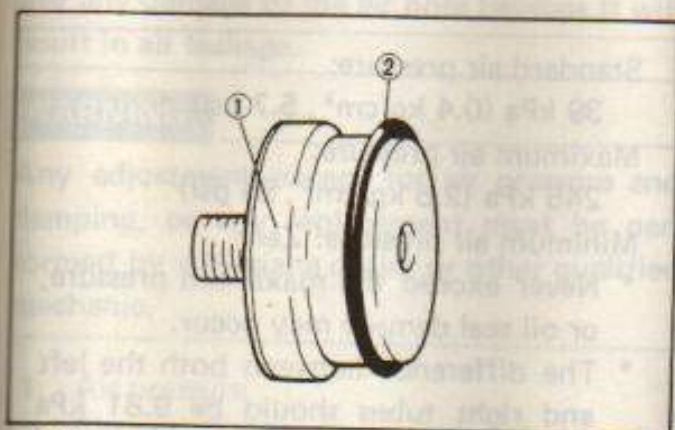


1. Drain screw

7. When most of the oil has drained, slowly raise and lower the outer tubes to pump out the remaining oil.
8. Inspect the drain screw gasket. Replace if damaged. Reinstall the drain screw.
9. Pour the specified amount of oil into the fork inner tube.

Front fork oil (each fork):
278 cm³ (9.8 Imp oz, 9.4 US oz)
Yamaha Fork Oil 10Wt or equivalent

10. After filling, slowly pump the forks up and down to distribute the oil.
11. Inspect the O-ring on the spring seat. Replace O-ring if damaged.



1. Spring seat 2. O-ring

12. Reinstall the spring seat and fill the fork with air using a manual air pump or other pressurized air supply. Refer to "Front fork and rear shock absorber adjustment" for proper air pressure adjusting.

CAUTION:

Always use a new stopper ring (spring wire circlip).

Maximum air pressure:

245 kPa (2.5 kg/cm², 36 psi)

Do not exceed this amount.

Front fork and rear shock absorber adjustment

Front fork:

1. Elevate the front wheel by placing the motorcycle on the centerstand.

NOTE:

When checking and adjusting the air pressure, there should be no weight on the front end of the motorcycle.

2. Remove the handlebar cover and handlebar.

3. Remove the rubber cap from the top of each fork.
4. Using the air check gauge, check and adjust the suspension becomes stiffer and if decreased, it becomes softer.

To increase:

Use a manual air pump or other pressurized air supply.

To decrease:

Release the air by pushing the valve pin.



1. Air check gauge

NOTE:

An optional air check gauge is available. Please ask your nearby Yamaha dealer.

P/No. 2X4-2811A-00

Standard air pressure:

39 kPa (0.4 kg/cm², 5.7 psi)

Maximum air pressure:

245 kPa (2.5 kg/cm², 56 psi)

Minimum air pressure: Zero

- Never exceed the maximum pressure, or oil seal damage may occur.
- The difference between both the left and right tubes should be 9.81 kPa (0.1 kg/cm², 1.4 psi) or less.

5. Install the rubber caps securely.
6. Install the handlebar and handlebar cover.

Rear shock absorber:

CAUTION:

Don't give a dent to the air carburetor nor give any damage to the air hose because it will result in air leakage.

WARNING:

Any adjustment except for air pressure and damping, or any replacement must be performed by a Yamaha dealer or other qualified mechanic.

1. Air pressure

- a. Elevate the rear wheel by placing the motorcycle on the centerstand.

NOTE:

When checking and adjusting the air pressure, there should be no weight on the rear end of the motorcycle.

- b. Remove the air valve cap.

- c. Using the air check gauge, check and adjust the air pressure. If the air pressure is increased, the suspension becomes stiffer, and if decreased, it becomes softer.

To increase:

Use a manual air pump or other pressurized air supply.

To decrease:

Release the air by pushing the valve pin.



1. Air check gauge

NOTE:

An optional air check gauge is available.
Please ask your nearby Yamaha dealer.

P/No. 2X4-2811A-00

Standard air pressure:

98.1 kPa (1.0 kg/cm², 14 psi)

Maximum air pressure:

392 kPa (4.0 kg/cm², 57 psi)

Minimum air pressure:

49.0 kPa (0.5 kg/cm², 7 psi)

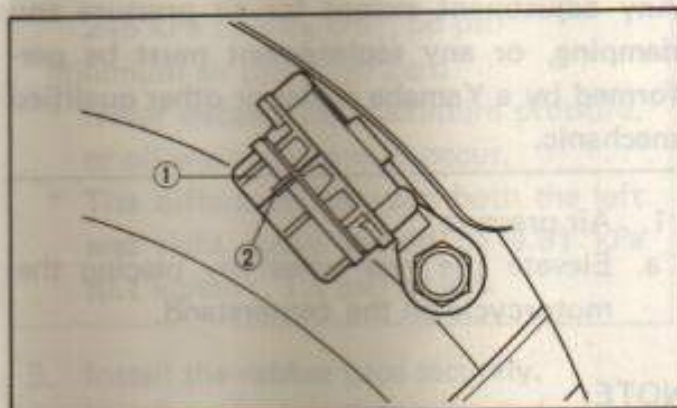
WARNING:

Never ride the motorcycle either above the maximum or below the minimum air pressure because it will cause damage to rear shock absorber and/or loss of motorcycle controllability.

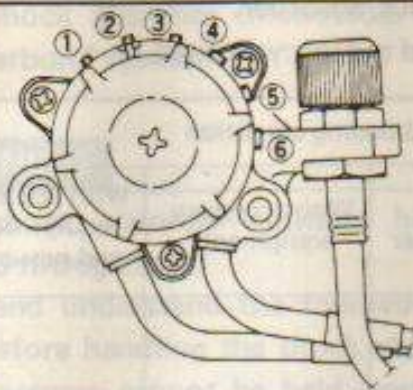
d. Install the air valve cap.

2. Damping

- a. Turn the damping adjuster to increase or decrease the damping.
- b. If the damping adjuster is turned toward the "H", the damping becomes harder; if the adjuster is turned toward the "S", damping becomes softer.



1. Damping adjuster 2. Standard position



Standard position — No. 2

No. 1 — Minimum damping

No. 6 — Maximum damping

1. Do not tamper or attempt to open the cylinder assembly.
2. Do not subject shock absorber to an open flame or other high heat. 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.

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

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

Use this table as guidance to meet specific riding conditions and motorcycle load.

| Front fork | Rear shock absorber | | Loading condition | | | |
|---|---|------------------|-------------------|----------------|---------------------------|---|
| | Air pressure | Damping adjuster | Solo rider | With passenger | With accessory equipments | With accessory equipments and passenger |
| 39.2 ~ 78.4 kPa (0.4 ~ 0.8 kg/cm ² , 5.7 ~ 11.4 psi) | 98.1 ~ 196 kPa (1.0 ~ 2.0 kg/cm ² , 14.2 ~ 28.4 psi) | 1 ~ 3 | ○ | | | |
| | | 3, 4 | | ○ | | |
| | 294 ~ 392 kPa (3.0 ~ 4.0 kg/cm ² , 42.7 ~ 56.9 psi) | 4, 5 | | | ○ | |
| 78.4 ~ 118 kPa (0.8 ~ 1.2 kg/cm ² , 11.4 ~ 17.1 psi) | 392 kPa (4.0 kg/cm ² , 56.9 psi) | 6 | | | | ○ |

maximum or below the minimum air pressure because it will cause damage to rear shock absorber and/or loss of motorcycle control ability.

Rear shock absorber (Monocross suspension "De Carbon" system)

WARNING:

This shock absorber contains highly compressed nitrogen gas.

Rear 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 or attempt to open the cylinder assembly.
2. Do not subject shock absorber to an open flame or other high heat. This may cause the unit to explode due to excessive gas pressure.
3. Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.

4. Bring your shock absorber to a Yamaha dealer or other qualified mechanic for any service.

Steering inspection

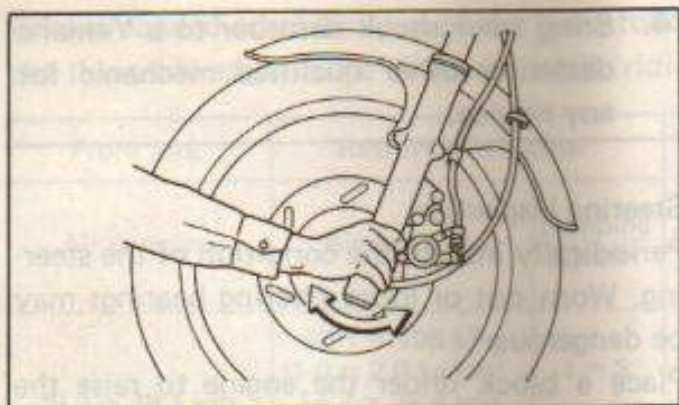
Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous.

Place a block under the engine to raise the front wheel of the motorcycle off the ground: then hold the lower end of the front fork and try to move it forward and backward. If any free play can be felt, ask a Yamaha dealer or other qualified mechanic to inspect and adjust the steering assembly.

Inspection is easier if the front wheel is removed.

WARNING:

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



Wheel bearings

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

Battery

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

CAUTION:

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

WARNING:

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. 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 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 closed space. Always shield 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.

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

CAUTION:

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



1. Upper level 2. Lower level

2. When the motorcycle is not to be used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reusing.
3. If the battery is to be stored for a longer period than the above, check the specific gravity of the fluid at least once a month and recharge the battery when it is too low.

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

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

Headlight

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

1. Headlight bulb replacement

- a. Remove the 2 screws holding the light unit assembly to the headlight body.



1. Holding screw

- b. Disconnect the lead wires and remove the light unit assembly.



- c. Turn the bulb holder counterclockwise and remove the defective bulb.



1. Bulb holder

- d. Slip a new bulb into position and secure it with the bulb holder.

CAUTION:

Avoid touching the glass part of the bulb. Also keep it free from oil stains; otherwise, the transparency of the glass, like of the bulb and illuminous flux will be adversely affected. If the glass is oil stained, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.

WARNING:

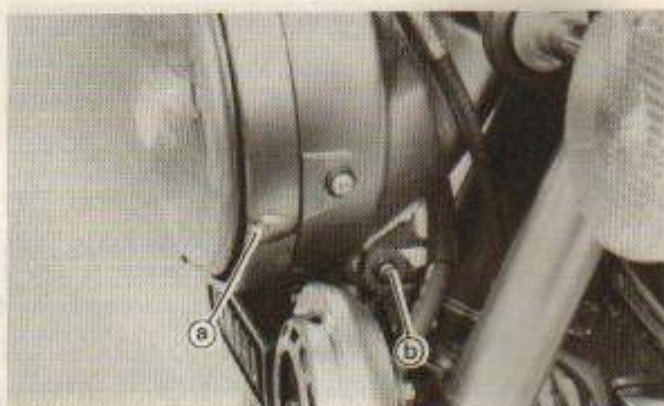
Keep flammable products or your hands away from the bulb while it is on, because it heats up. Do not touch the bulb until it cools down.



- e. Reinstall the light unit assembly to the headlight body. Adjust the headlight beam if necessary.
2. Headlight beam adjustment
 - a. Horizontal adjustment:

To adjust the beam to the right, turn the adjusting screw clockwise.

To adjust the beam to the left, turn the screw counterclockwise.



a. Horizontal adjusting screw

b. Vertical adjusting screw

b. Vertical adjustment:

- 1) Loosen the adjusting screw under the headlight body.
- 2) Adjust vertically by moving the headlight body. When proper adjustment is determined, retighten the adjusting screw.

Fuse replacement

1. There are two fuse blocks on this motorcycle. The main fuse block is located under the seat. The other fuse block is located under the headlight.
2. If any fuse is blown, turn off the ignition switch and the switch in the circuit in question and install a new fuse of proper amperage.

Then turn on the switches, and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer or other qualified mechanic.

WARNING:

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



1. Main fuse



1. Other fuse block

Front wheel removal

1. Place the motorcycle on the centerstand.
2. Remove the cotter pin and wheel axle nut.



3. Remove the speedometer cable holder securing bolt.



4. Loosen the pinch bolt securing the axle.



1. Pinch bolt

5. Remove the axle shaft and the front wheel. In this case, make sure the motorcycle is properly supported.



NOTE: _____
Do not depress the brake lever when the wheel is off the motorcycle as the brake pads will be forced to shut.

6. For reassembly, follow the procedure below with care;
 - a. Install the speedometer cable holder securing bolt.
 - b. Make sure the projecting portion (torque stopper) of the speedometer housing is positioned correctly.



1. Torque stopper

- c. Tighten the axle nut and install a new cotter pin.

Axle nut torque:

107 Nm (10.7 m·kg, 77.5 ft·lb)

WARNING:

Always use a new cotter pin on the axle nut.

- d. Before tightening the pinch bolt, compress the front forks several times to make sure of proper fork operation.
- e. Tighten the axle pinch bolt.

Axle pinch bolt torque:

20 Nm (2.0 m·kg, 14.5 ft·lb)

Rear wheel removal

CAUTION:

It is advisable to have a Yamaha dealer or other qualified mechanic make this removal and reassembly.

1. Place the motorcycle on the center-stand.
2. Remove the tension bar and the brake rod from the brake shoe plate. The tension bar can be removed by removing the cotter pin and nut from the tension bar bolt. The brake rod can be removed by removing the adjuster.



1. Adjuster 2. Tension bar 3. Brake rod

3. Remove the axle nut cotter pin and axle nut. Discard the old pin.



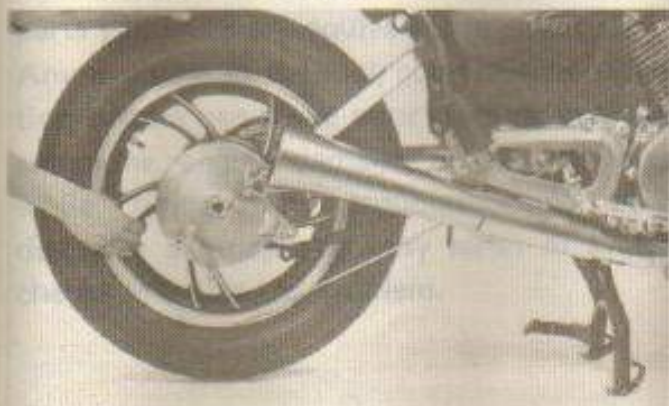
4. Loosen the rear axle pinch bolt and pull out the rear axle.



1. Pinch bolt



5. Move the wheel to the right side to separate it from the final gear case and remove the rear wheel.

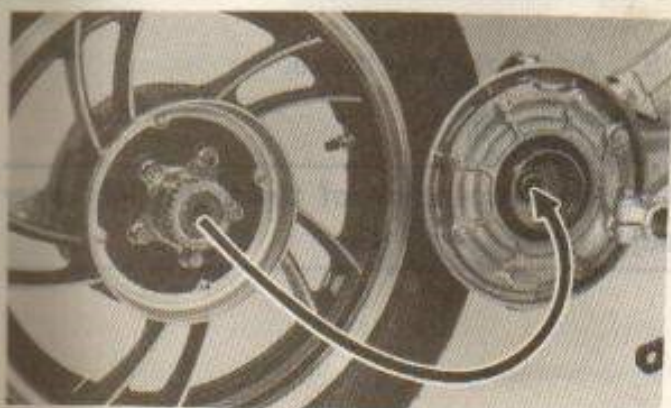


6. To install the rear wheel, reverse the removal procedure.

NOTE:

Before installing the rear wheel, apply light coating of lithium base grease to final gear case splines and rear wheel hub splines.

When installing the rear wheel, be sure the splines on the wheel hub fit into the final gear case.



7. Tighten the axle nut, axle pinch bolt, and install a new cotter pin.

Tightening torque:

Axle nut:

107 Nm (10.7 m·kg, 77.5 ft·lb)

Axle pinch bolt:

6 Nm (0.6 m·kg, 4.3 ft·lb)

WARNING:

Always use a new cotter pin on the axle nut.

8. Adjust the rear brake.

WARNING:

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

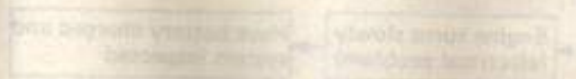
Carburetor adjustment:

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

Troubleshooting

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

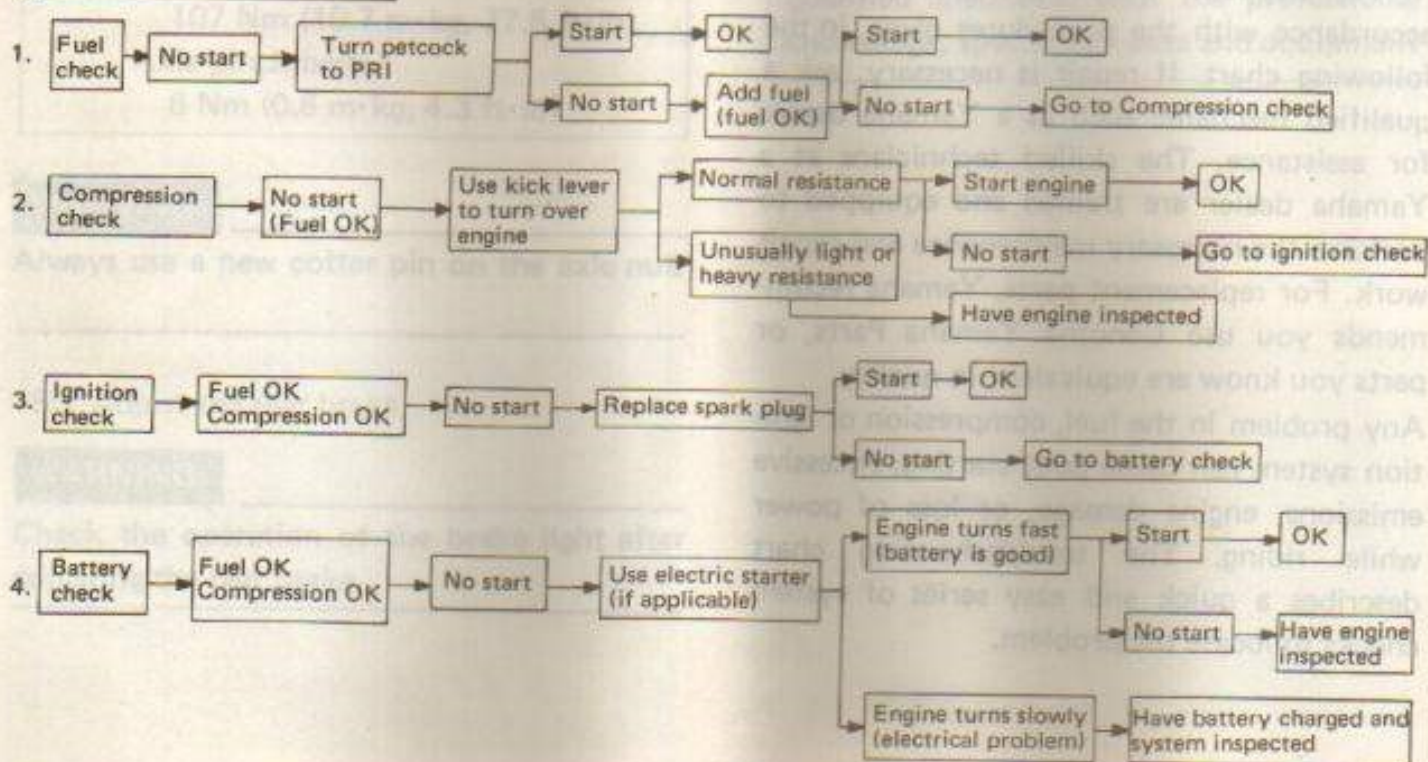
Any problem in the fuel, compression or ignition system can cause poor starting, excessive emissions, engine damage, or loss of power while riding. The troubleshooting chart describes a quick and easy series of system checks to locate the problem.



Troubleshooting chart

WARNING:

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



CLEANING AND STORAGE

A. CLEANING

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

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

CAUTION:

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

4. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old tooth brush or bottle brush is handy to reach hard-to-get-to places.
5. Rinse motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
6. Chrome-plated parts such as handlebars, fenders, forks, etc., may be further cleaned with automotive chrome cleaner.

7. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
8. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar paint or protective finish on the fuel tank and side covers.
9. After finishing, start the engine immediately and allow to idle for several minutes.

B. STORAGE

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

1. Drain fuel tank, fuel lines, and carburetor float bowl.

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

WARNING:

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

4. Lubricate all control cables.
5. Block up the frame to raise both wheels off the ground.

6. Tie a plastic bag over the exhaust pipe outlet to prevent moisture entering.
7. If storing in humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.
8. 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)).

NOTE:

Make any necessary repairs before storing the motorcycle.

MISCELLANEOUS

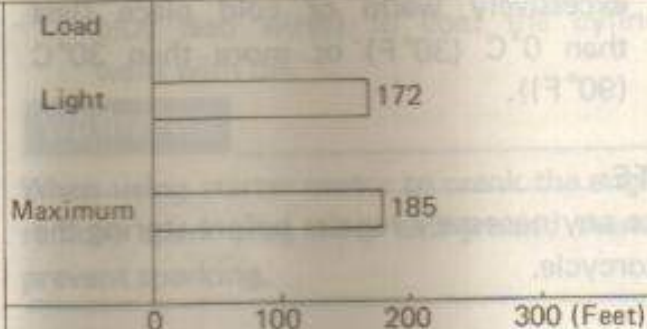
Consumer information

STOPPING DISTANCE

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

Description of vehicles to which this table applies.: Yamaha motorcycle XV750K

A. Fully Operational Service Brake



NOTE:

The statement above is required by U.S. Federal law. "Partial failures" of the braking system do not apply to this chart.

Stopping distance in feet from 60 mi/h

SPECIFICATIONS

General specifications

| MODEL | XV750K |
|-----------------------------|---|
| Dimension: | |
| Overall length | 2,230 mm (87.8 in) |
| Overall width | 850 mm (31.7 in) |
| Overall height | 1,160 mm (45.7 in) |
| Wheelbase | 1,520 mm (60.0 in) |
| Minimum road clearance | 145 mm (5.7 in) |
| Weight: | |
| With oil and full fuel tank | 225 kg (496 lb) |
| Performance: | |
| Minimum turning radius | 2,600 mm (102.4 in) |
| Climbing capacity | 30° |
| Engine: | |
| Type | 4 stroke, gasoline, air-cooled, SOHC |
| Engine model | 4X7 |
| Cylinder | 2-cylinder V-type |
| Displacement | 748 cm ³ (45.6 cu.in) |
| Bore x stroke | 83.0 x 69.2 mm (3.268 x 2.724 in) |
| Compression ratio | 8.7 : 1 |
| Starting system | Electric starter |
| Ignition system | Battery ignition (Full transistor ignition) |

| MODEL | XV750K |
|----------------------------|---|
| Fuel tank capacity | Total: 12 L (2.6 Imp gal, 3.2 US gal) Reserve: 2.6 L (0.57 Imp gal, 0.69 US gal) |
| Engine oil quantity | Total amount: 3.6 L (3.2 Imp qt, 3.8 US qt) Periodic oil change: 3.0 L (2.6 Imp qt, 3.2 US qt) With oil filter replacement: 3.1 L (2.7 Imp qt, 3.3 US qt) |
| Lubrication system | Wet sump |
| Battery type/capacity | YB16AL/12V, 16AH |
| Generator | F3T414 |
| Spark plug | BP7ES (NGK) |
| Carburetor | HSC40 x 2 |
| Air cleaner | Dry type element |
| Clutch type | Wet, multiple-disc |
| Transmission: | |
| Primary reduction system | Gear |
| Primary reduction ratio | 78/47 (1.660) |
| Secondary reduction system | Shaft drive |
| Secondary reduction ratio | $47/45 \times 19/18 \times 32/11 = 3.207$ |
| Gear box type | Constant mesh, 5-speed forward |
| Operation system | Left foot operation |
| Gear ratio: | |
| First | 40/17 (2.353) |
| Second | 40/24 (1.667) |
| Third | 36/28 (1.286) |
| Fourth | 32/31 (1.032) |
| Fifth | 30/33 (0.909) |

| MODEL | | XV750K |
|------------------|-----------|---|
| Chassis: | | |
| Frame type | | Pressed backbone |
| Steering: | Caster | 29°30' |
| | Trail | 133 mm (5.24 in) |
| Tire size: | Front | 3.50H19-4PR Tubeless tire |
| | Rear | 130/90-16 67H Tubeless tire |
| Braking system: | Front | Disc brake/Right hand operation |
| | Rear | Drum brake/Right foot operation |
| Suspension: | Front | Telescopic fork |
| | Rear | Swing arm (Monocross suspension "De Carbon" system) |
| Shock absorber: | Front | Coil/air spring, oil damper |
| | Rear | Air/gas/coil spring, oil damper |
| Electrical: | | |
| Headlight | | 12V, 60W/55W (Quartz bulb) |
| Tail/brake light | | 12V, 8W/27W |
| Flasher light | | 12V, 27W x 4 |
| Pilot lights: | TURN | 12V, 3.4W x 2 |
| | OIL LEVEL | 12V, 3.4W x 1 |
| | NEUTRAL | 12V, 3.4W x 1 |
| | HIGH BEAM | 12V, 3.4W x 1 |
| Meter light | | 12V, 3.4W x 2 |
| License light | | 12V, 8W x 1 |

WIRING DIAGRAM

— OWNER —

SERVICING DEALER
NAME AND ADDRESS

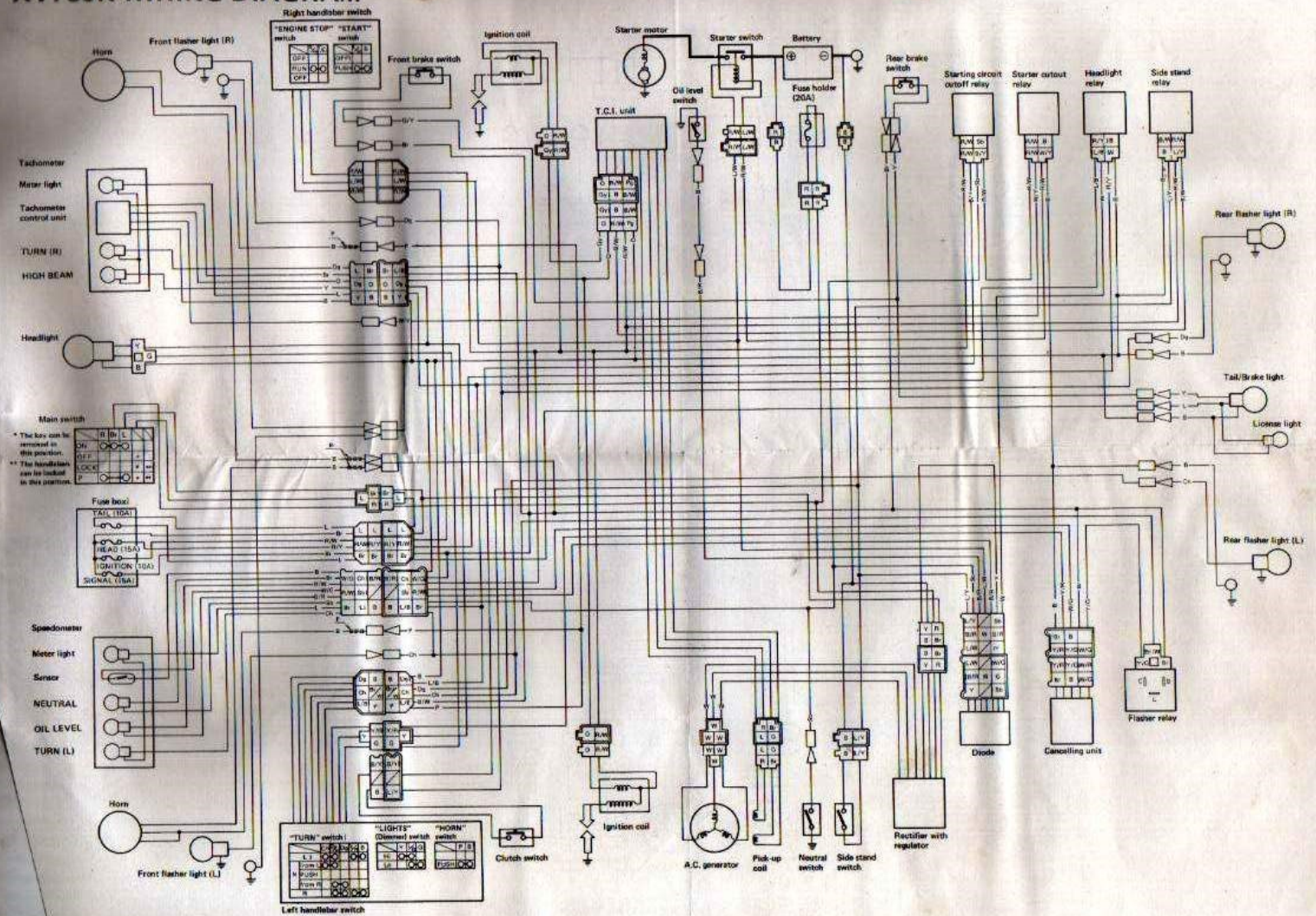
SERVICING
DEALER
SIGNATURE

COLOR CODE

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

L/B Blue/Black
W/Y White/Yellow
R/W Red/White
R/Y Red/Yellow
W/G White/Green
B/R Black/Red
B/W Black/White
Br/W Brown/White
Y/R Yellow/Red
B/Y Black/Yellow
L/Y Blue/Yellow
L/W Blue/White
Y/G Yellow/Green

XV750K WIRING DIAGRAM





YAMAHA MOTOR CO., LTD.

IVATA, JAPAN

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(英)