YAMAHA

XZ550RK

RK

Supplementary

Service Manual

LIT-11616-03-50

28V-28197-10

FOREWORD

This Supplementary Service Manual has been prepared to introduce new service and new data for the XZ550RK. For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with following manual:

XZ550RJ Service Manual (LIT-11616-02-82)

SERVICE DEPT.
INTERNATIONAL DEVISION
YAMAHA MOTOR CO., LTD.

NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motorcycles have a basic understanding of the mechanical concepts and procedures inherent to motorcycle repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit for use and/or unsafe.

This model has been designed and manufactured to perform with certain specifications in regard to performance and emissions. Proper service with the correct tools is necessary to ensure that the motorcycle will operate as designed. If there is any question about a service procedures, it is imperative that you contact a Yamaha dealer for any service information changes that apply to this model. This policy is intended to provide the customer with the most satisfaction from his motorcycle and to conform with federal environmental quality objectives.

Yamaha Motor Company, Ltd. is continually striving to improve all models manufactured by Yamaha. Modifications and significant changes in specifications or procedures will be forwarded to all Authorized Yamaha dealers and will, where applicable, appear in future editions of this manual.

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

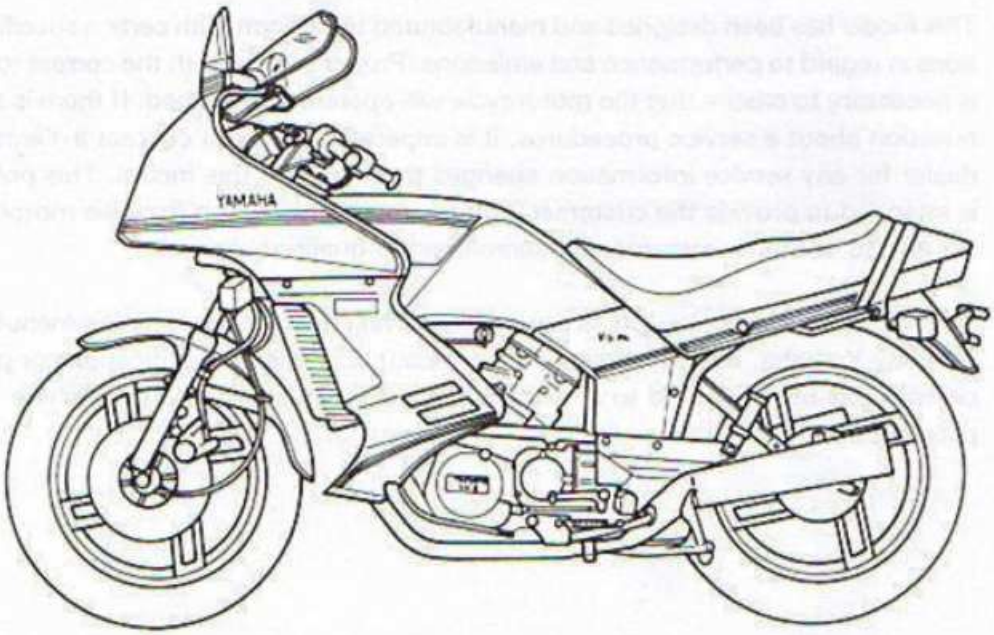
NOTE: A NOTE provides key information to make procedures easier or clearer.

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

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

Starting Serial Number

XZ550RK 11H-100101



NOTE:

Designs and specifications are subject to change without notice.

PERIODIC INSPECTIONS AND ADJUSTMENTS

INTRODUCTION

This chapter includes all information necessary to perform recommended inspections and adjustments. These preventive maintenance procedures, if followed, will ensure more reliable vehicle operation and a longer service life. The need for costly overhaul work will be greatly reduced. This information applies to vehicles already in service and to new vehicles that are being prepared for sale. All service technicians should be familiar with this entire chapter.

MAINTENANCE INTERVALS CHARTS

Proper periodic maintenance is important. 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 maintenance tables, the services related to emissions control are grouped separately.

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 after initial 13,000 km (8,000 mi) or 18 months and thereafter every 12,000 km (7,500 mi) 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 for cracks or damage. Replace if necessary.		○		○
5*	Exhaust system	Check for leakage. Retighten as 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 if necessary.		○	○	

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

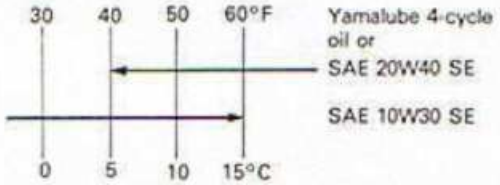
GENERAL MAINTENANCE/LUBRICATION

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 NOTE	○	○	○		
2	Oil filter	Replace	—	○	○		○	
3	Air filter	Clean with compressed air.	—	○	○		○	
4	Cooling system	Check hoses for cracks or damage, replace if necessary. Replace coolant every 24 months.	Ethylene glycol anti-freeze coolant					○
5*	Brake system	Adjust free play. Replace pads if necessary (front). Replace shoes if necessary (rear).	—	○	○	○		
6*	Clutch	Adjust free play.	—	○	○	○		
7	Final gear oil	Replace	SAE80 API GL—4 Hypoid gear oil	○			○	
8*	Control and meter cable	Apply chain lube thoroughly.	Yamaha chain and cable lube or SAE 10W 30 motor oil	○	○	○		
9	Change/ Brake pedal shaft pivot	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W 30 motor oil		○	○		
10	Center and sidestand pivots	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W 30 motor oil		○	○		
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*	Front fork oil	Drain completely. Refill to specification.	Yamaha fork oil 15wt or equivalent					○
13*	Wheel bearings	Check bearings for smooth rotation. Replace if necessary.	—		○	○		
14	Battery	Check specific gravity. Check breather pipe for proper operation.	—		○	○		
15	Brake/ Clutch lever pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W 30 motor oil		○	○		

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

NOTE:

Use Yamalube 4-cycle oil or SAE 20W40 SE motor oil if the temperature does not go below 5°C (40°F). Use SAE 10W30 SE motor oil if the temperature does not go above 15°C (60°F).



NEW SERVICE

*ENGINE

CRANKSHAFT

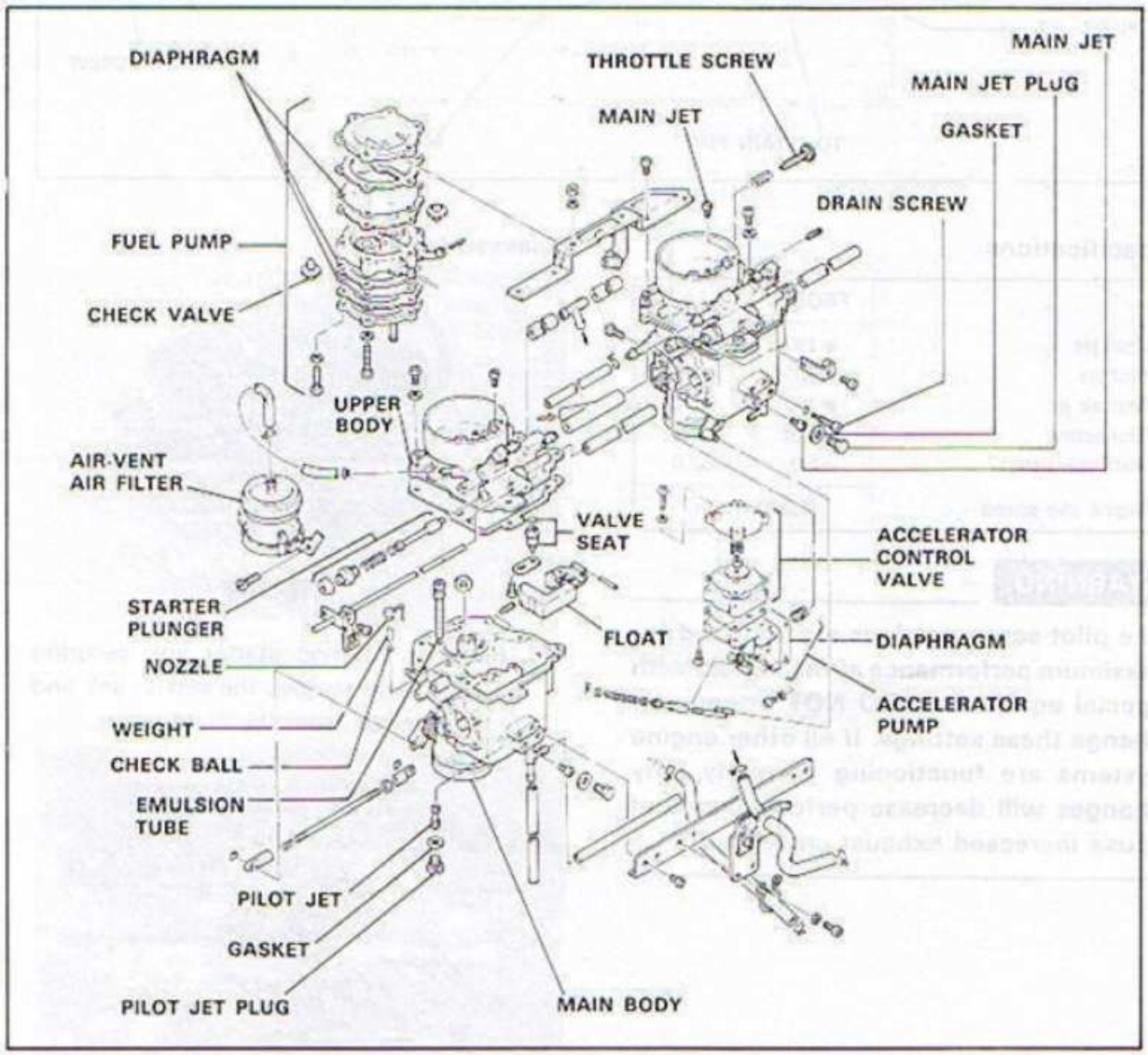
Two digits are stamped on the left-side crank web, as shown in the photograph. The crankshaft identification number is indicated by the left digit and the right digit is used to indicate the crankpin size. The left digit "2" means that this crankshaft used on the XZ 550RK model and no crankshafts without the digit "2" can be used on this model. Otherwise, crankshaft seizure may occur.



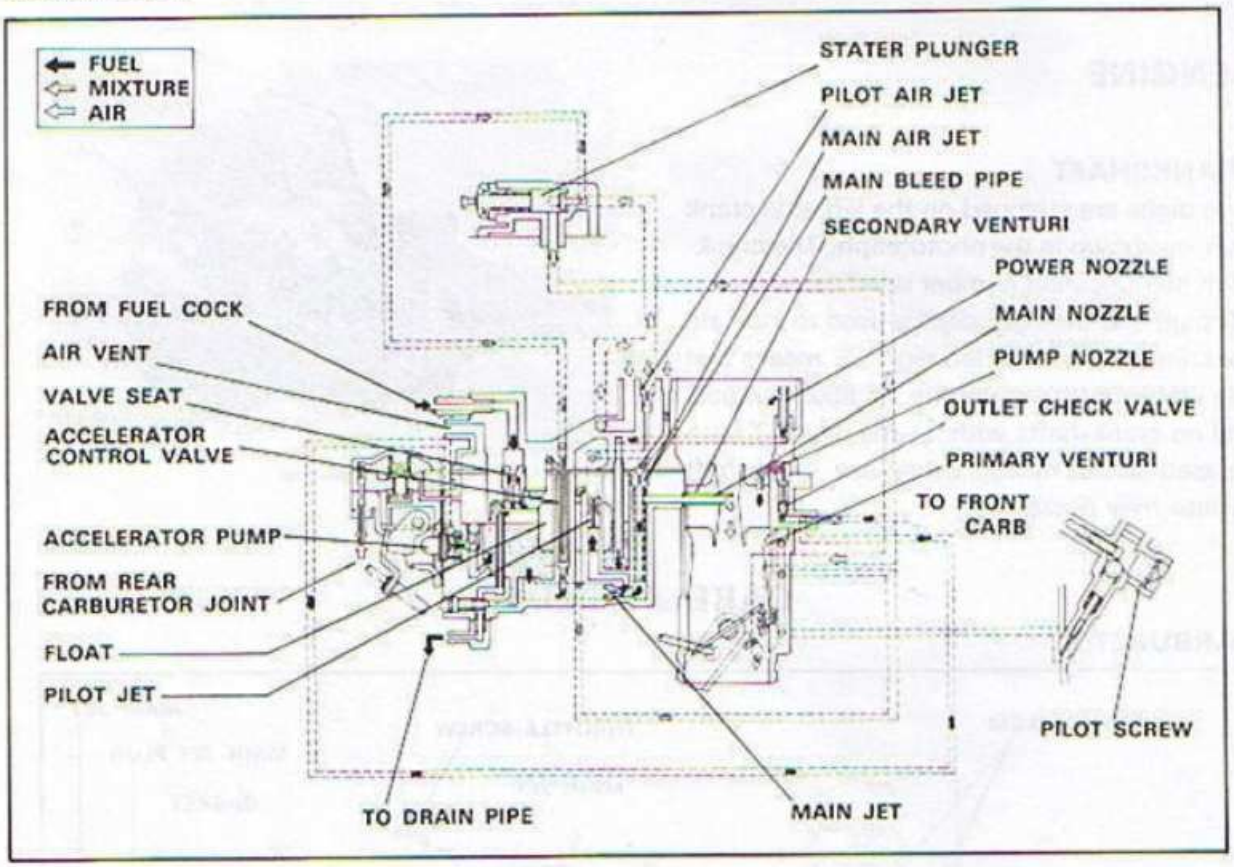
1. Crankpin size
2. Crankshaft identification number

CARBURETION

CARBURETOR



Section view



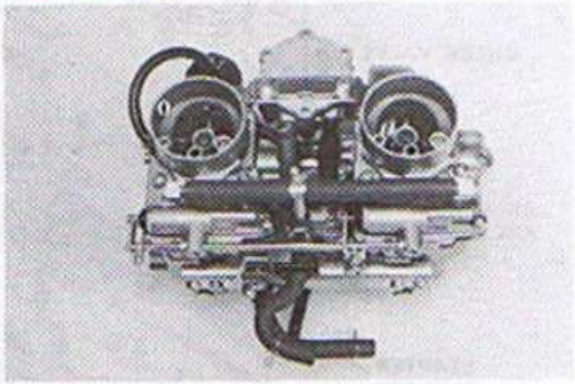
Specifications

	FRONT	REAR
Main jet	#130	#130
Pilot jet	#50	#50
Pilot air jet	#140	#140
Pilot screw	Preset	Preset
Float valve seat	ϕ2.0	ϕ2.0
Engine idle speed	1,300 r/min	

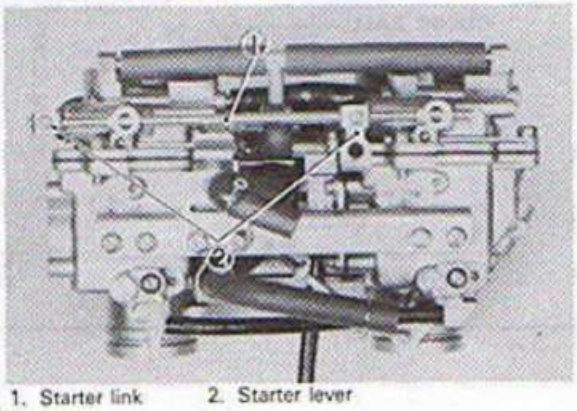
WARNING:

The pilot screw settings are adjusted for maximum performance at the factory with special equipment. DO NOT attempt to change these settings. If all other engine systems are functioning correctly, any changes will decrease performance and cause increased exhaust emissions.

Disassembly

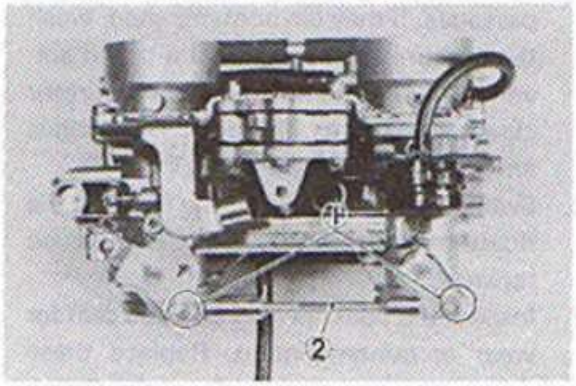


1. Remove the two starter link securing screws, and remove the starter link and starter levers from the carburetors.



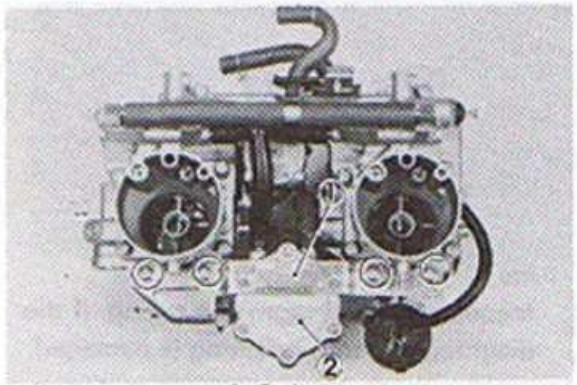
1. Starter link 2. Starter lever

2. Remove the synchronizing rod circlips and remove the synchronizing rod.



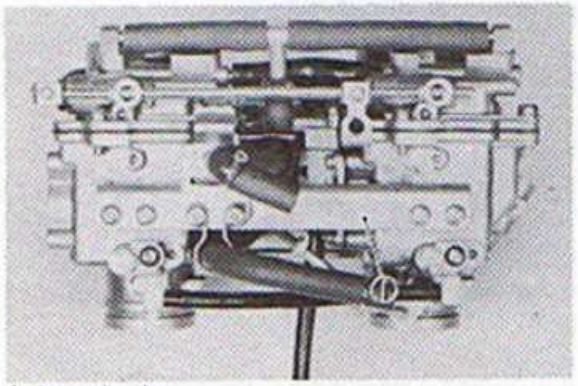
1. Circlip 2. Synchronizing rod

3. Remove the upper bracket securing screws and remove the upper bracket with fuel pump.



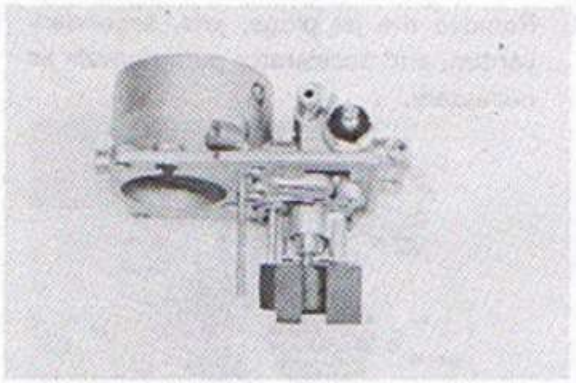
1. Upper bracket 2. Fuel pump

4. Remove the lower brackets from the carburetors and separate the carburetors.

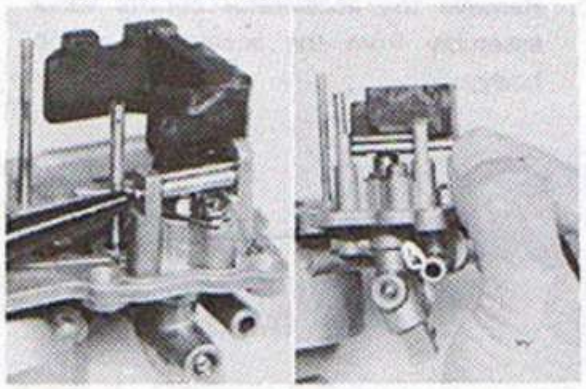


1. Lower bracket

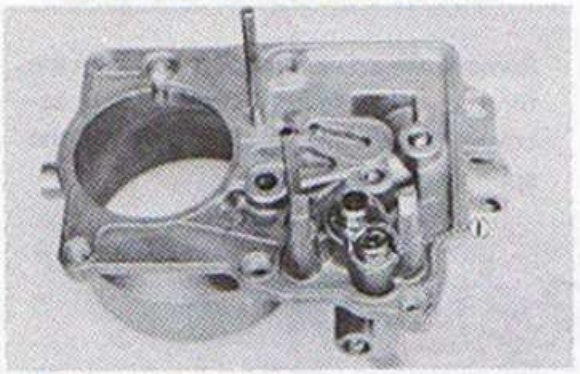
5. Remove the carburetor upper body from the main body.



6. Gently tap the float pivot pin and remove the float pivot pin and float assembly. Be careful not to close the float valve which is under the float arm.

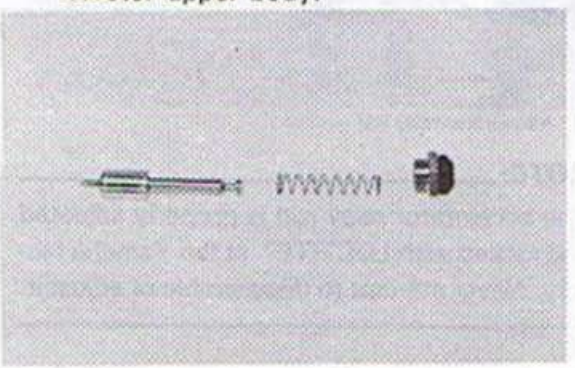


7. Remove the float valve seat securing screw and remove the valve seat.

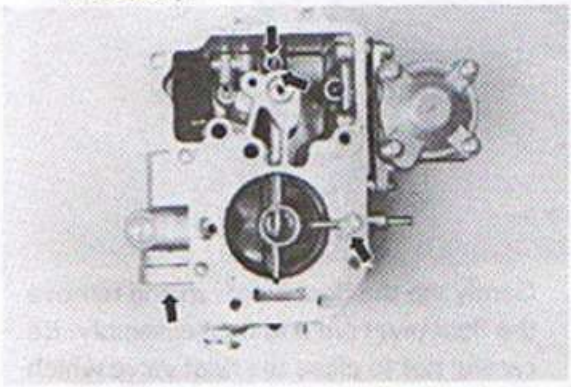


1. Float valve seat securing screw

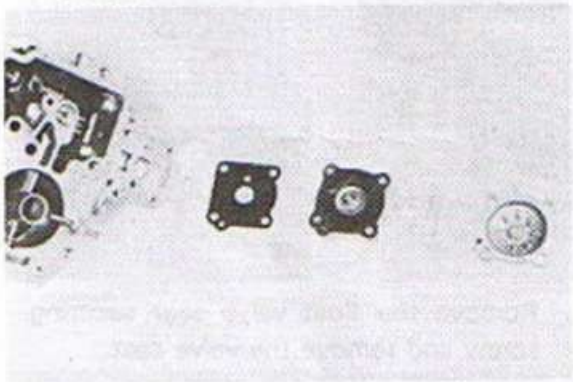
8. Remove the starter plunger from each carburetor upper body.



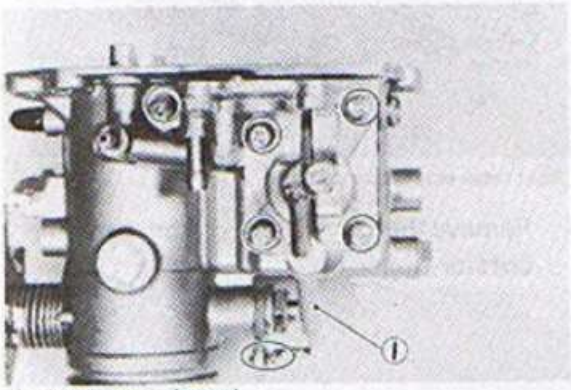
9. Remove the jet plugs, jets, secondary venturi, and accelerator pump nozzle as necessary.



10. Remove the accelerator control valve assembly from the accelerator pump body.



11. Remove the accelerator relay rod from the throttle valve lever. Remove the accelerator pump cover, and remove the spring and diaphragm.



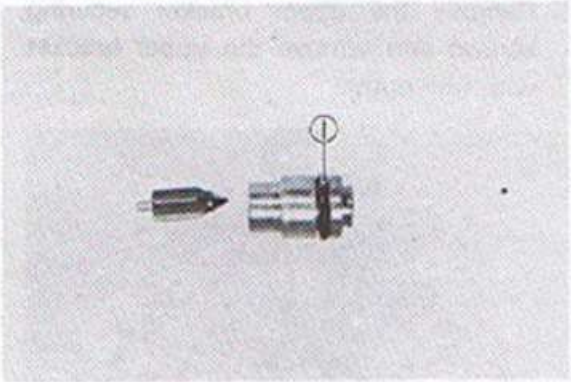
1. Accelerator relay rod

NOTE:

The accelerator relay rod is properly adjusted and locked with LOCTITE® at the Yamaha factory. Never attempt to disassemble or adjust it.

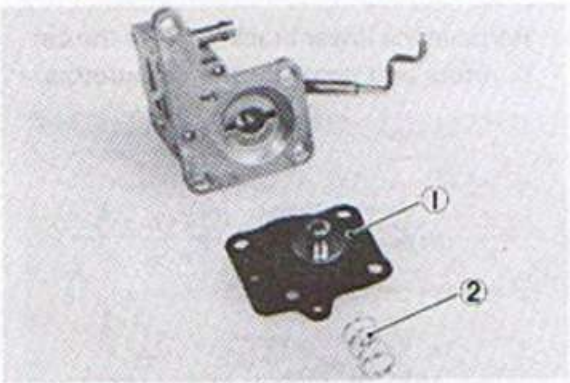
Inspection

1. Examine the carburetor body and fuel passages. If they are contaminated, wash the carburetor in a petroleum-based solvent. Do not use any caustic carburetor cleaning solutions. Blow out all passages and jets with compressed air.
2. Examine the condition of the floats. If the floats are damaged, they should be replaced.
3. Inspect the float needle valve and seat for wear or contamination. Replace these components as a set. Inspect the O-ring for damage, and replace if damaged.



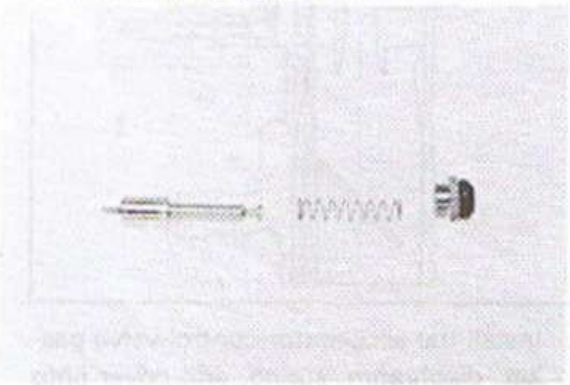
1. O-ring

4. Inspect the diaphragm and spring. If the diaghragm is torn or spring is damaged, replace these components as a set.

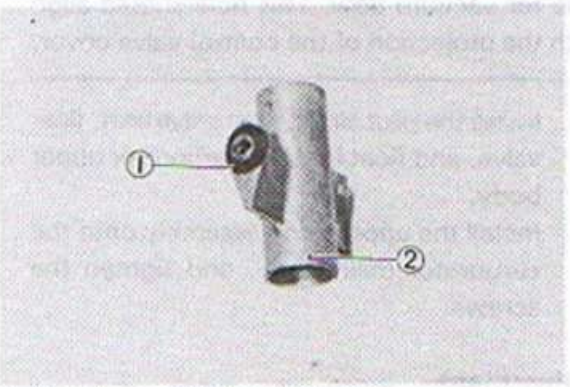


1. Diaphragm 2. Spring

5. Inspect the starter plunger. If it is worn or damaged, replace it.



6. Inspect the secondary venturi gasket for damage. If the gasket is damaged, replace it.

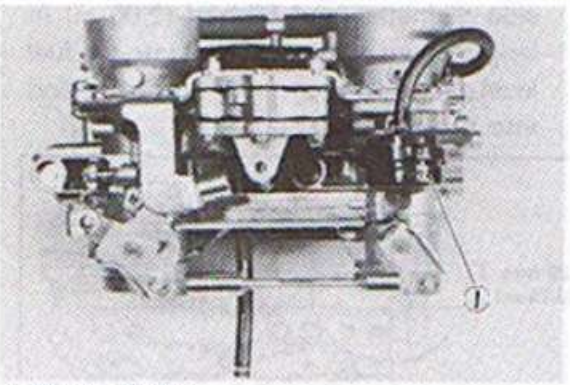


1. Gasket 2. Secondary venturi

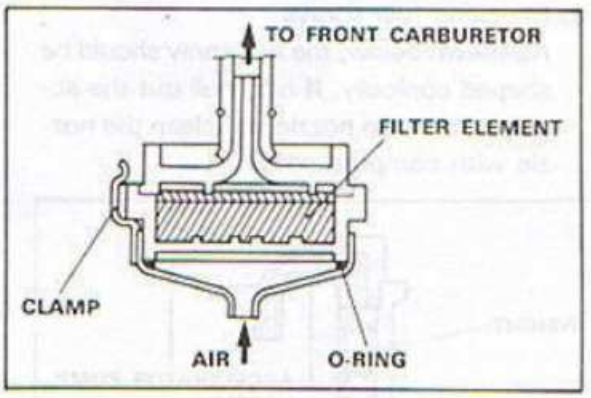
7. Inspect the carburetor gasket for damage, and replace it, as necessary.
8. Inspect the air-vent air filter for looseness. If it is loose, secure the filter body by bending the clamps. Replace if the filter body is damaged.

NOTE:

This filter is not necessary for any maintenance.



1. Air-vent air filter



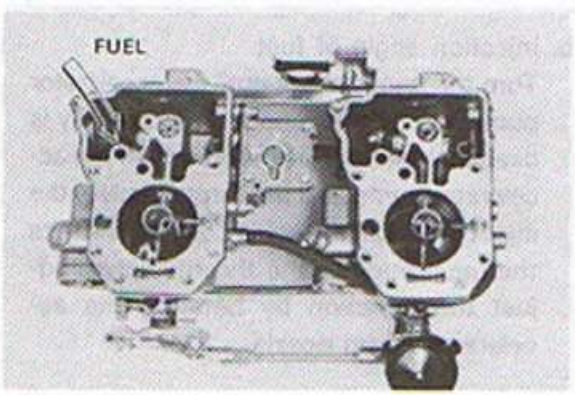
Assembly

1. Install the jets, jet plugs, and secondary venturi into the main body.
2. Install the accelerator pump spring, diaphragm, and cover onto the main body. Install the accelerator relay rod end into the throttle valve lever.

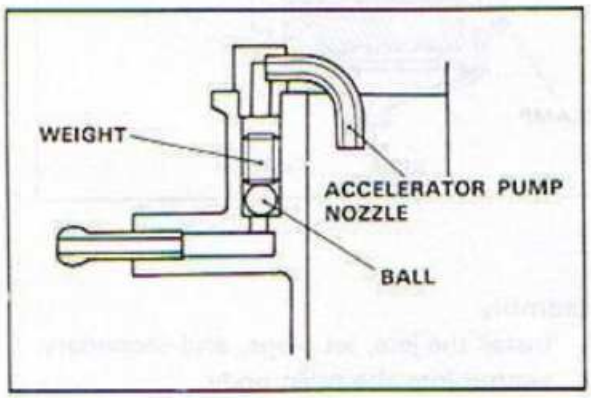
NOTE:

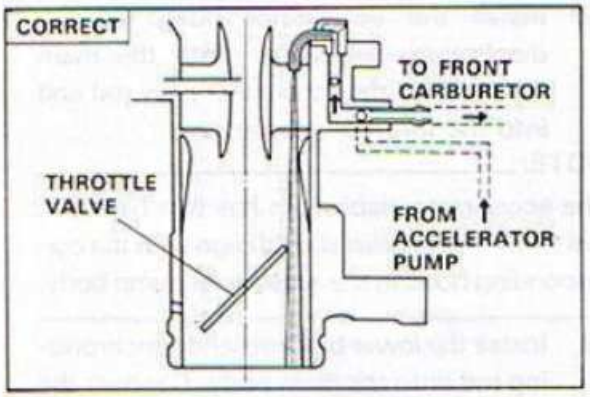
The accelerator diaphragm has two holes for fuel flow. These holes should align with the corresponding holes in the accelerator pump body.

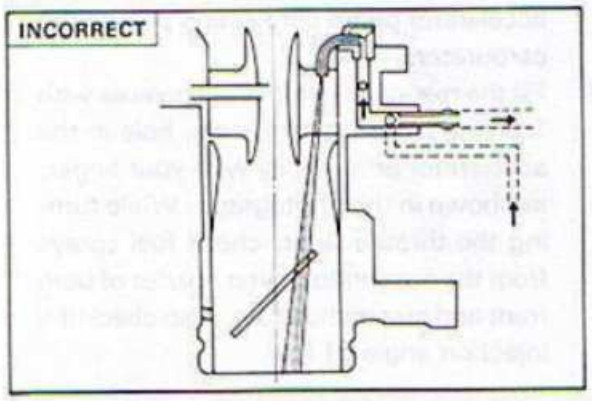
3. Install the lower brackets and synchronizing rod onto the main body. Connect the accelerator pump connecting pipe to the carburetors.
4. Fill the rear-carburetor float chamber with fuel and close the larger dia. hole in the accelerator pump body with your finger, as shown in the photograph. While turning the throttle lever, check fuel sprays from the accelerator pump nozzles of both front and rear carburetors. Also check the injection angle of fuel.



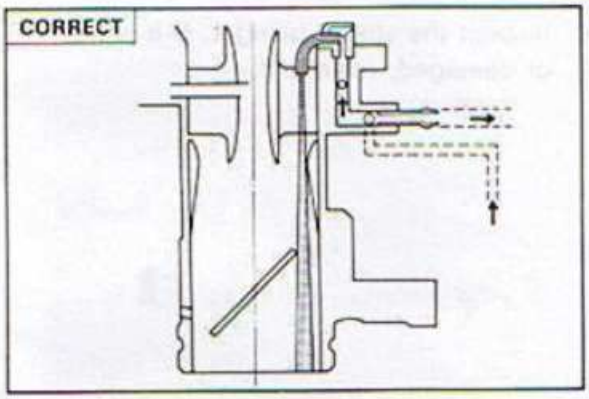
a. Checking fuel sprays
As shown below, the fuel spray should be shaped conically. If not, pull out the accelerator pump nozzle and clean the nozzle with compressed air.







b. Injection angle of fuel
Turn the throttle lever until the accelerator pump lever stops; and if the fuel spray is directed between the main body of the accelerator pump and the throttle valve, the injection angle of fuel is correct. If it hits the main body or the throttle valve, adjust the direction by bending the accelerator pump nozzle.



5. Install the accelerator-control-valve gasket, diaphragm, spring, and cover onto the accelerator pump body.

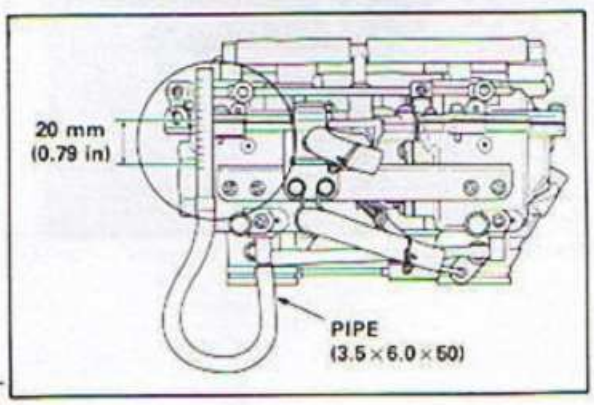
NOTE:
The accelerator-control-valve diaphragm has a hole for vacuum flow. This hole should align with the projection of the control valve cover.

6. Install the pilot air jet, float valve seat, float valve, and float into the carburetor upper body.
7. Install the upper body assembly onto the carburetor main body, and tighten the screws.

Adjustment
Fuel level

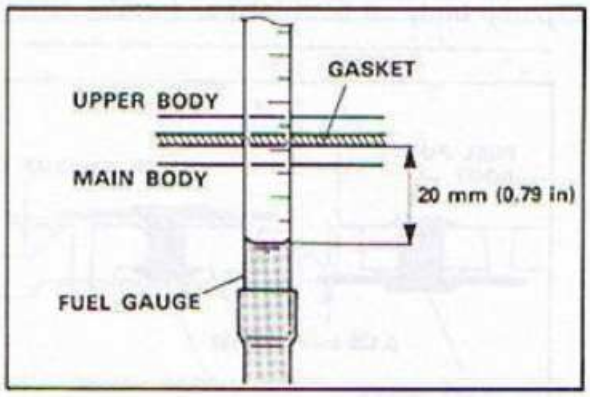
NOTE:
Before checking the fuel level, place the motorcycle on a level surface.

1. Place the motorcycle on its centerstand. Disconnect the drain pipe from the front carburetor.
2. Insert one end of a pipe, 3.5 mm (0.14 in) in inside diameter, 6 mm (0.24 in) in outside diameter, and 50 mm (2.00 in) in length about 10 mm (0.39 in) into the fuel level gauge pipe, and insert the other end into the drain nozzle.

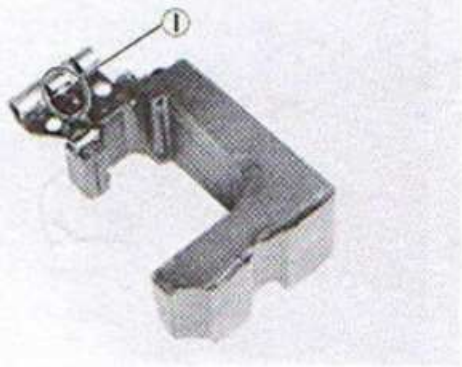


3. As shown above, hold the fuel level gauge vertically, and loosen the front carburetor drain screw.
4. Set the fuel cock to "ON" and start the engine. Stop it after a few minutes.
5. Check the fuel level. It should be within the specified range.

Fuel level: 20 ± 1 mm (0.79 ± 0.04 in) Float height: 36 ± 1 mm (1.72 ± 0.04 in)



6. If the fuel level is not within specification, remove the carburetors, and check the fuel valve and float assembly.
7. If no damage is found in these parts, adjust the float level by slightly bending the tang on the float. Recheck the fuel level.



1. Tang

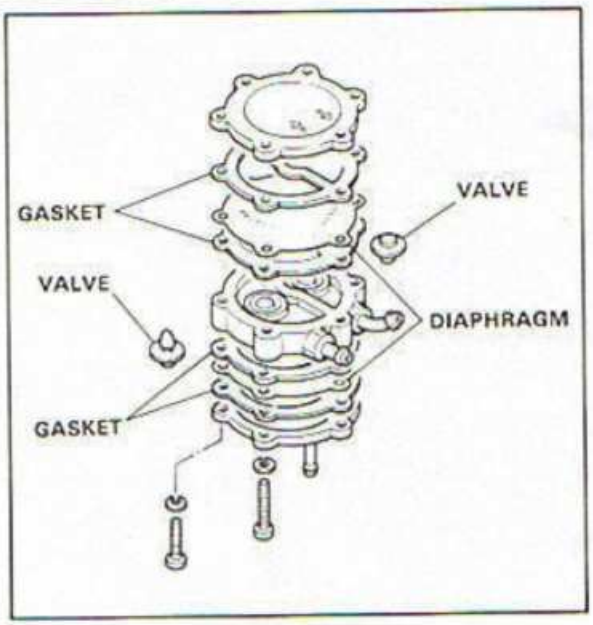
8. Repeat the procedure for the other carburetor.

FUEL PUMP

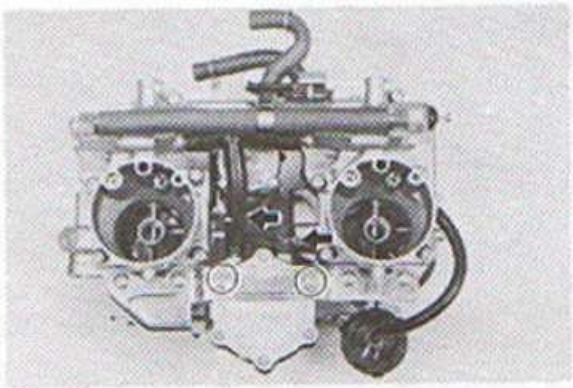
Operation

The fuel pump diaphragm is operated by variations in the pressure in the carburetor joint and thus produces a pumping action that pumps fuel from the fuel tank to the carburetor.

Disassembly



1. Remove the Y.I.C.S. chamber from the fuel pump.
2. Remove the fuel pump from the carburetor upper bracket.



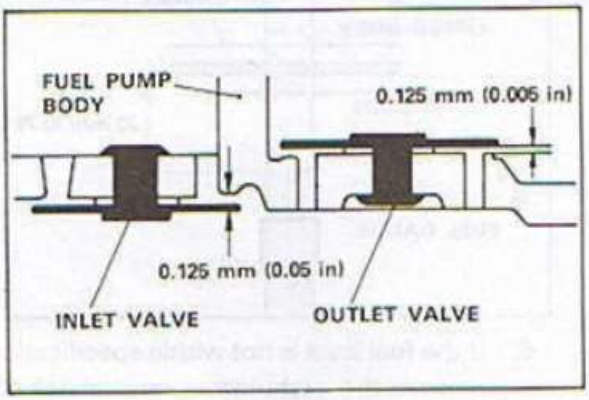
3. Remove the six screws, and remove the fuel pump covers, gaskets, diaphragms, and valves from the fuel pump body.
4. Remove the three screws and remove the regulator cover, spring, and diaphragm from the fuel pump body.

Inspection

1. Examine the fuel pump body and fuel passage. If they are contaminated, wash the fuel pump body in a petroleum-based solvent. Blow out all passages with compressed air.
2. Inspect the fuel pump diaghragm, valve, and gasket for damage. If damaged, replace these components as a set.

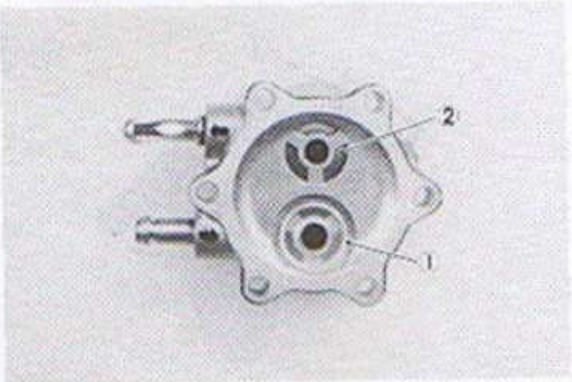
NOTE:

As shown below, a gap of 0.125 mm (0.005 in) is provided between the valve seat and the fuel pump body on both inlet and outlet valves.



Assembly

1. Install the valves into the fuel pump body as shown.



1. Inlet valve 2. Outlet valve

2. Install the diaphragm, gaskets and covers onto the fuel pump body. Tighten the screws to specification.

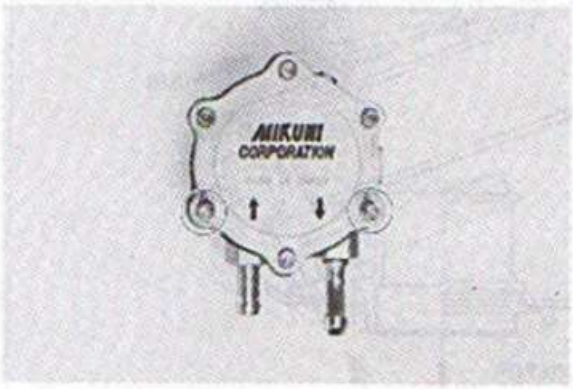
TIGHTENING TORQUE:
3 Nm (0.3 m · kg, 2.2 ft · lb)

CAUTION:

Avoid tightening the screws too hard, or the gasket could be deformed or broken.

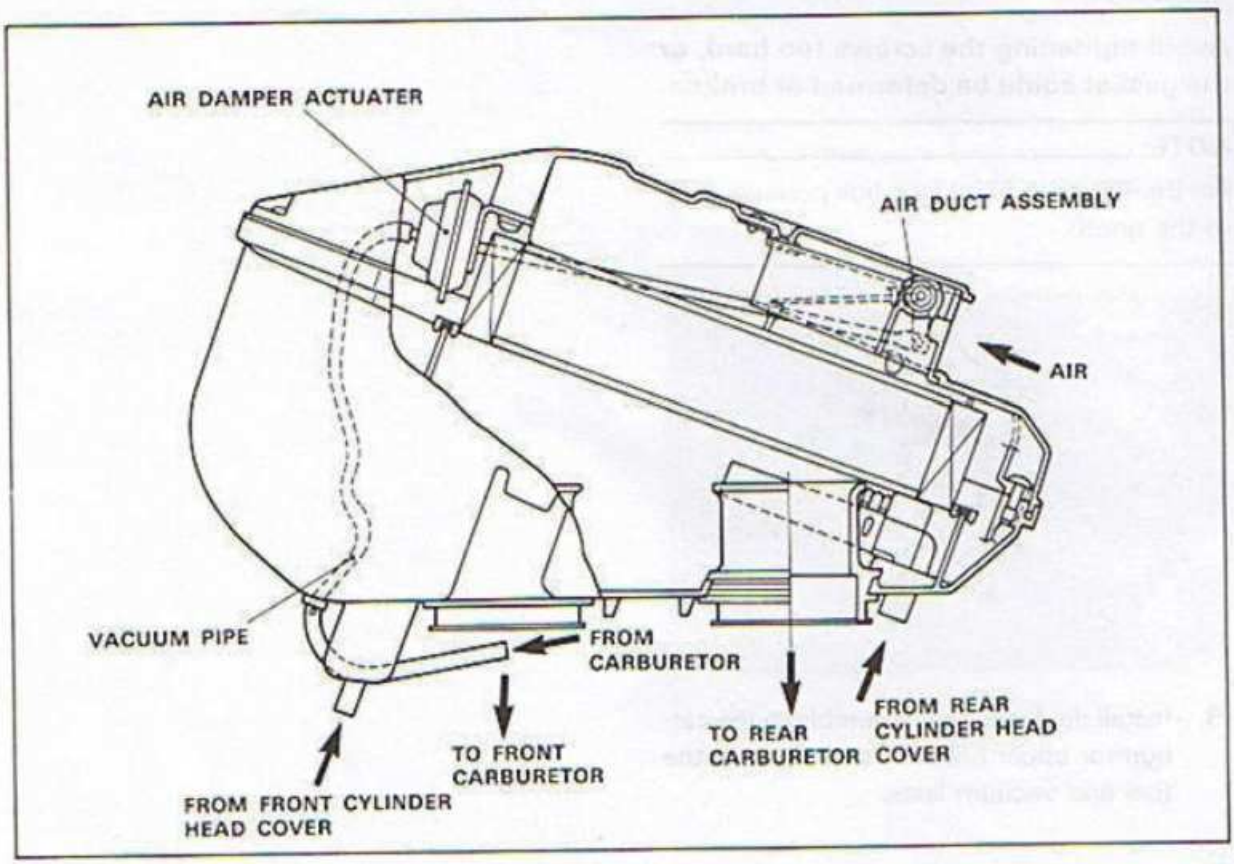
NOTE:

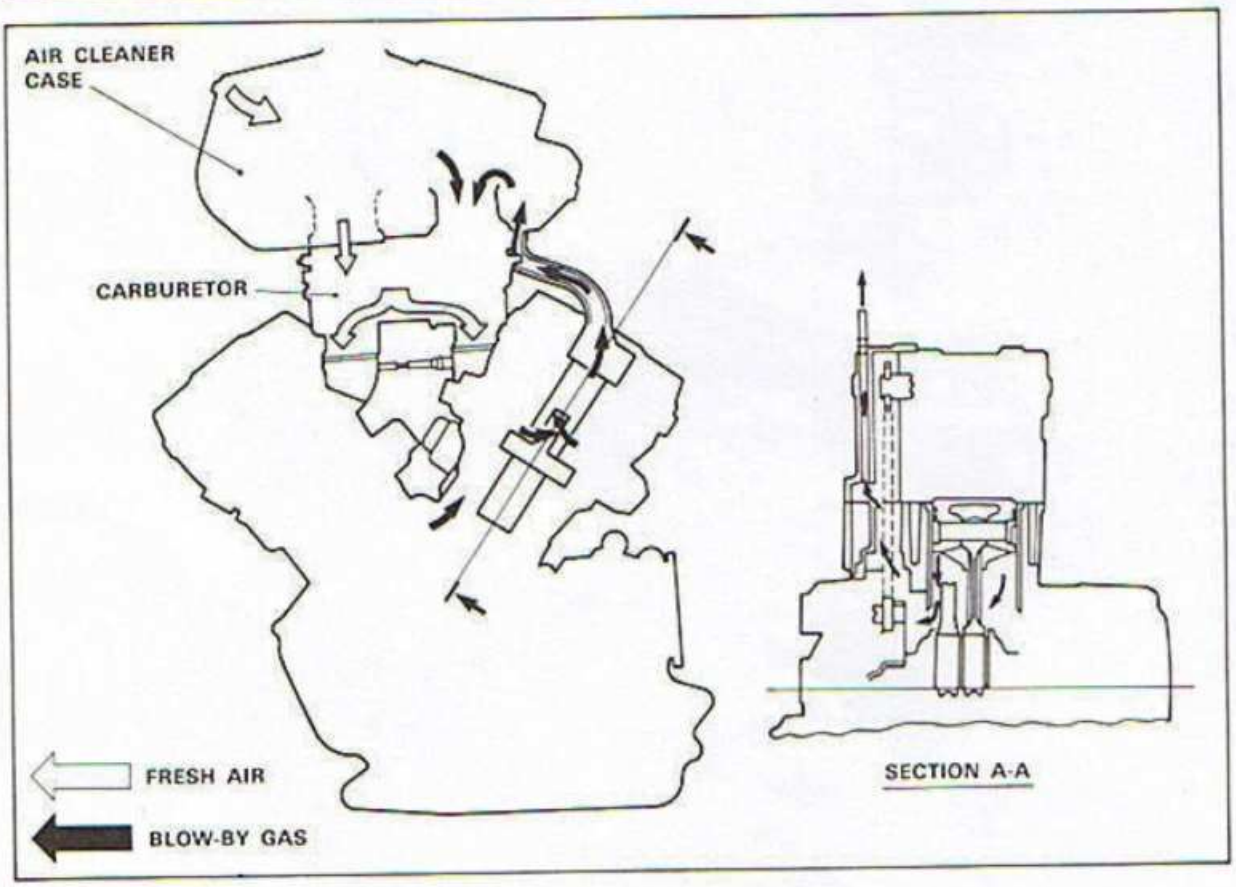
For the 40 mm (1.57 in) long bolt position, refer to the photo.



3. Install the fuel pump assembly to the carburetor upper bracket, and connect the fuel and vacuum lines.

AIR CLEANER AND CRANKCASE VENTILATION SYSTEM

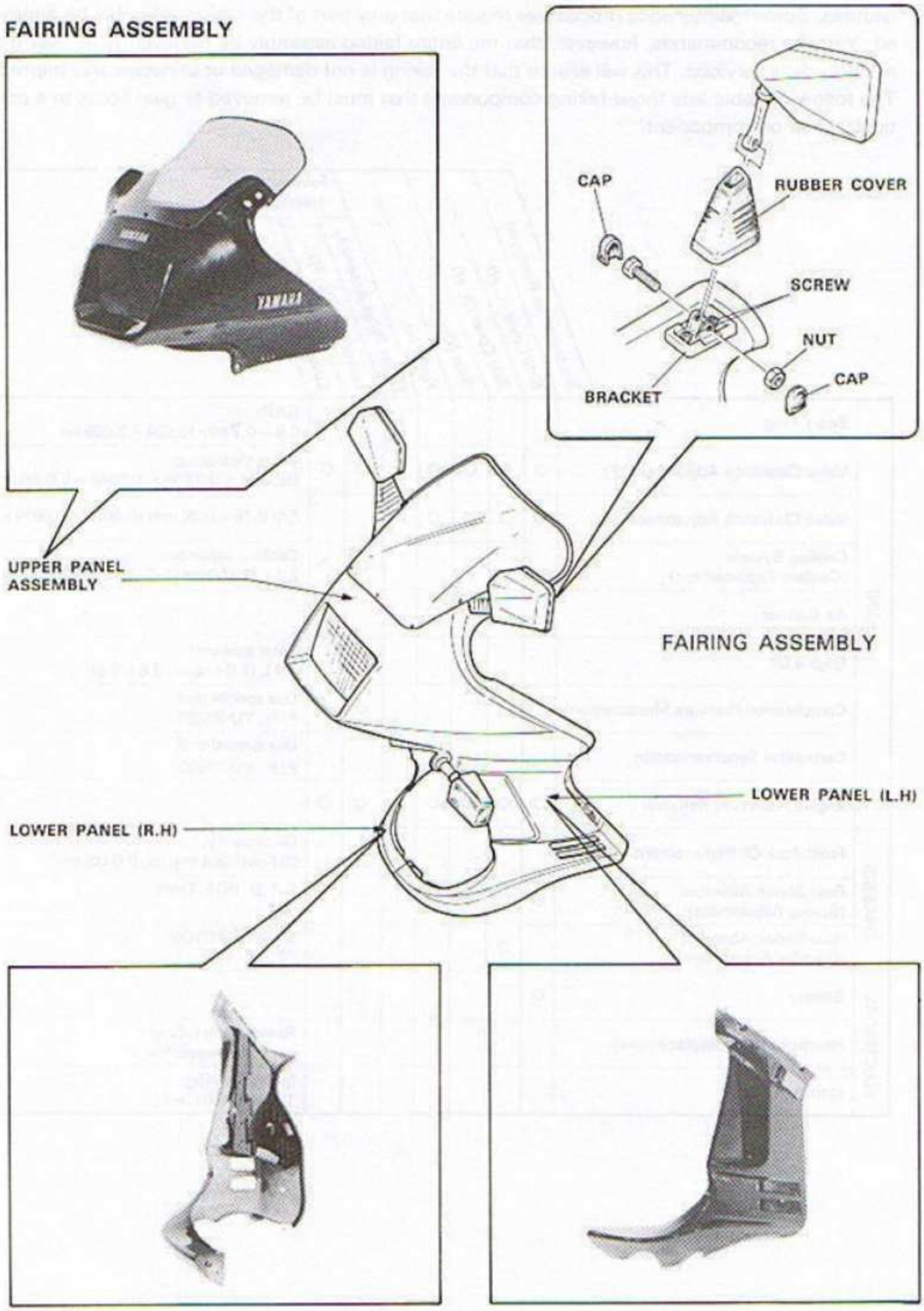




Refer to GENERAL MAINTENANCE/LUBRICATION CHART for the air cleaner maintenance.

*CHASSIS

FAIRING ASSEMBLY



REMOVAL

The fairing assembly must be removed to perform maintenance as well as major overhauling procedures. Some maintenance procedures require that only part of the fairing assembly be removed. Yamaha recommends, however, that the entire fairing assembly be removed whenever the motorcycle is serviced. This will ensure that the fairing is not damaged or unnecessarily marred. The following table lists those fairing components that must be removed to gain acess to a particular area or component:

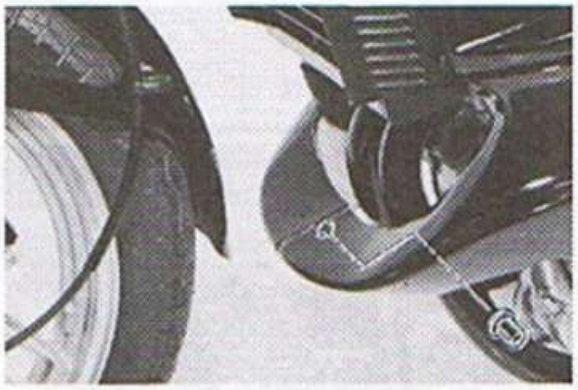
	Section to be Removed	Side Cover (L, H)	Side Cover (R, H)	Seat (Open)	Fuel Tank	Fairing Assembly: Upper Panel Assembly	Fairing Assembly: Lower Panel (L, H)	Fairing Assembly: Lower Panel (R, H)	Remarks
ENGINE	Spark Plug						○		GAP: 0.6 ~ 0.7 mm (0.024 ~ 0.028 in)
	Valve Clearance Adjustment (F)	○	○	○	○		○	○	Valve clearance: IN: 0.11 ~ 0.15 mm (0.0043 ~ 0.0059 in)
	Valve Clearance Adjustment (R)	○	○	○	○				EX: 0.16 ~ 0.20 mm (0.0063 ~ 0.0079 in)
	Cooling System (Coolant Replacement)						○	○	Coolant capacity: 2.1 L (1.85 Imp qt, 2.2 US qt)
	Air Cleaner	○	○	○	○				
	Engine Oil								Total amount: 3.4 L (3.0 Imp qt, 3.6 US qt)
	Compression Pressure Measurement						○		Use special tool P/N. YU-33223
	Carburetor Synchronization								Use special tool P/N. YU-08030
	Engine Assembly Removal	○	○	○	○		○	○	
CHASSIS	Front Fork Oil Replacement								Oil capacity: 267 cm³ (9.4 Imp oz, 9.0 US oz)
	Rear Shock Absorber (Spring Adjustment)	○	○	○	○				S.T.D. POSITION "2"
	Rear Shock Absorber (Damper Adjustment)		○						STD POSITION "3"
ELECTRICAL	Battery	○							
	Headlight (Bulb Replacement)								Remove the rubber caps from upper panel
	Ignition Timing								Ignition timing: 10° at 1,300 r/min

Lower panel removal (left and right)

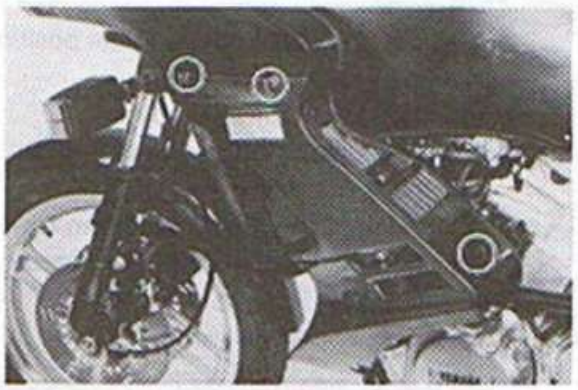
CAUTION:

When removing the lower panels, observe the following procedure for protection against breakage.

1. First remove the nut which connects both lower panels at the bottom. Completely separate the bottoms of these panels.

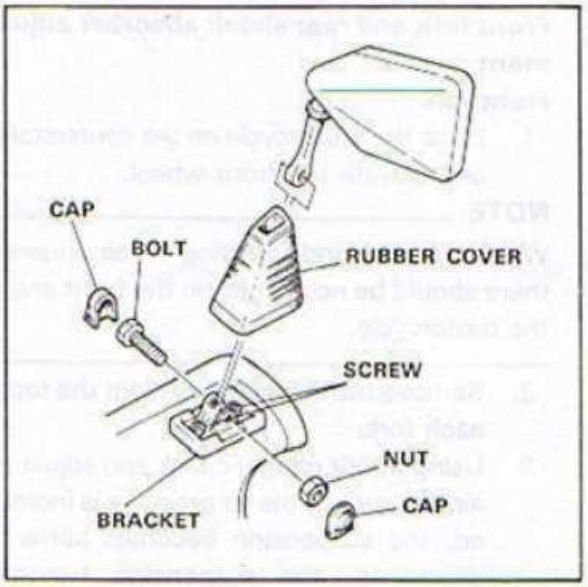


2. Remove the three screws from each panel and remove both lower panels.



Upper panel removal

1. Disconnect both front flasher light leads, and remove the flasher lights.
2. Remove the rear-view-mirror-securing-bolt caps, and loosen the mirror securing bolts. Remove the mirror bracket securing screws. Remove the rear-view-mirrors from the upper panel.



3. Pull out the upper panel assembly toward the front.

Assembly

When installing the panels, reverse the removal procedure.

TIGHTENING TORQUE:
Rear view mirror & upper panel:
3 Nm (0.3 m · kg, 2.2 ft · lb)
Front flasher light:
17 Nm (1.7 m · kg, 12 ft · lb)
Lower panel (Screw):
3 Nm (0.3 m · kg, 2.2 ft · lb)
Lower panel (Nut):
6 Nm (0.6 m · kg, 4.5 ft · lb)

Front fork and rear shock absorber adjustment

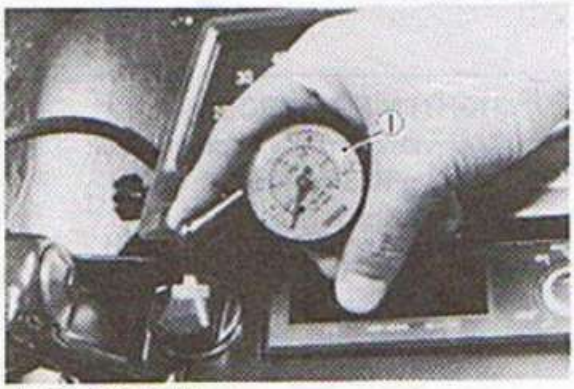
Front fork

1. Place the motorcycle on the centerstand, and elevate the front wheel.

NOTE:

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

2. Remove the air valve cap from the top of each fork.
3. Using the air gauge, check and adjust the air pressure. If the air pressure is increased, the suspension becomes stiffer; if decreased, the suspension becomes softer.
   To increase air pressure: Use a manual air pump or pressurized air supply.
   To decrease air pressure: Release the air by pushing the valve pin.



1. Air check gauge

Standard air pressure:
39.2 kPa (0.4 kg/cm^2, 6 psi)
Maximum air pressure:
245 kPa (2.5 kg/cm^2, 36 psi)
Minimum air pressure: Zero

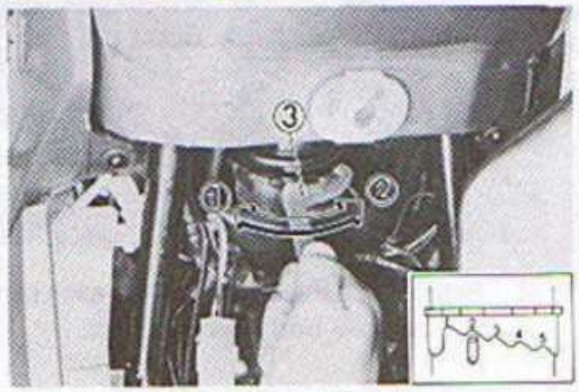
* Never exceed the maximum pressure or oil seal damage may occur.
* The difference between both the left and right tubes should be 9.81 kPa (0.1 kg/cm^2, 14 psi) or less.

4. Reinstall the air valve caps securely.

Rear shock absorber

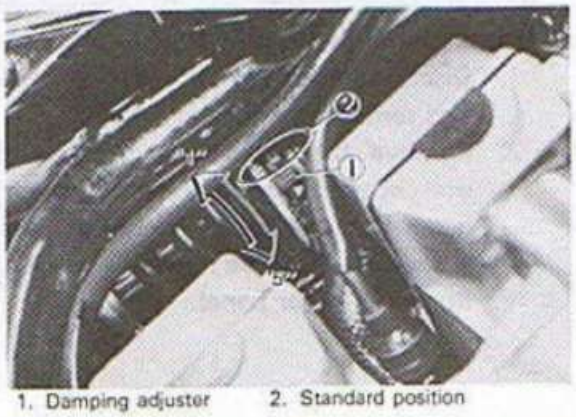
1. Spring
   The spring preload of the rear shock absorber can be adjusted to suit rider's preference, weight, and road conditions.
   a. Open the seat.
   b. To increase preload, raise the spring seat. To decrease preload, lower the spring seat.

	Hard			STD	Soft
Adjusting Position	5	4	3	2	1



1. Stiffer 2. Softer 3. Special nut wrench

   c. Replace the seat in the original position.
2. Damping
   a. Remove the right side cover.
   b. Turn the damping adjuster to increase or decrease the damping.
   c. If the damping adjuster is turned toward the "5", the damping becomes harder; if the adjuster is turned toward the "1", damping becomes softer.



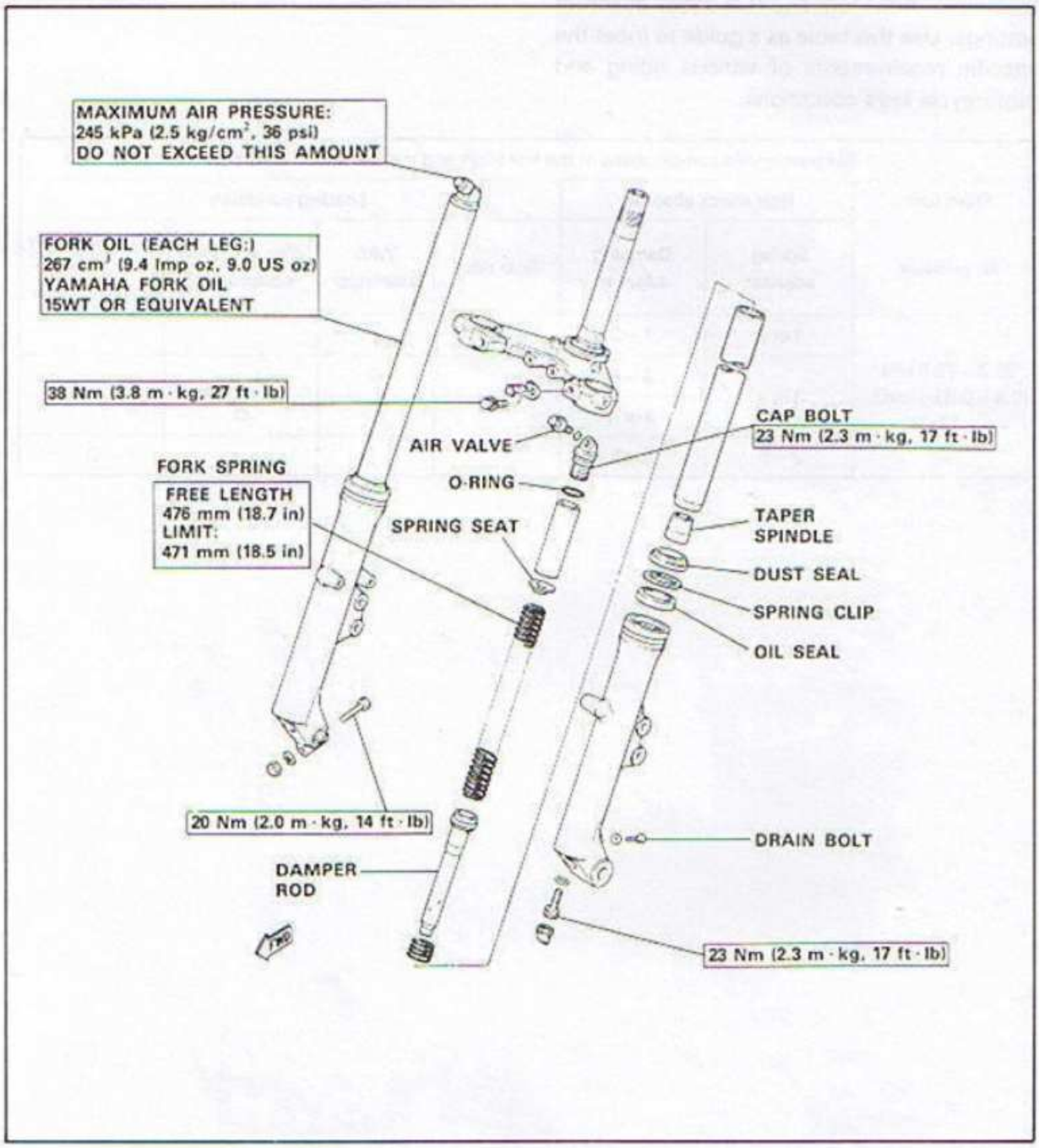
1. Damping adjuster 2. Standard position

Standard position — No. 3
No. 1 — Minimum damping
No. 5 — Maximum damping

The table below shows the recommended combination of front fork and rear shock absorber settings. Use this table as a guide to meet the specific requirements of various riding and motorcycle load conditions.

Recommended combinations of the front fork and the rear shock absorber.						
Front fork	Rear shock absorber		Loading condition			
Air pressure	Spring adjuster	Damping adjuster	Solo rider	With passenger	With accessory equipments	With accessory equipments and passenger
39.2 ~ 78.5 kPa (0.4 ~ 0.8 kg/cm², 6 ~ 12 psi)	1 or 2	1 ~ 3	○			
	3 or 4	3 ~ 5		○		
		3 or 4			○	
	3 ~ 5	3 ~ 5				○

FRONT FORK

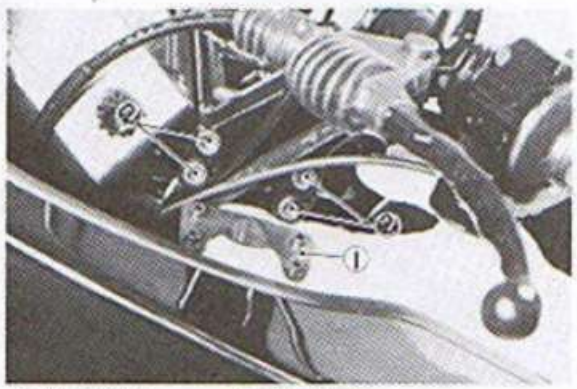


Removal

WARNING:

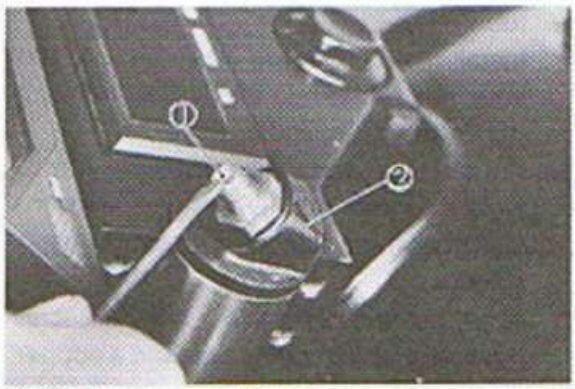
Securely support the motorcycle so there is no danger of it falling over.

1. Disconnect the speedometer cable. Remove the front fender. Remove the brake calipers and the front wheel.
2. Remove the wire holders, pinch bolts, and handlebars.



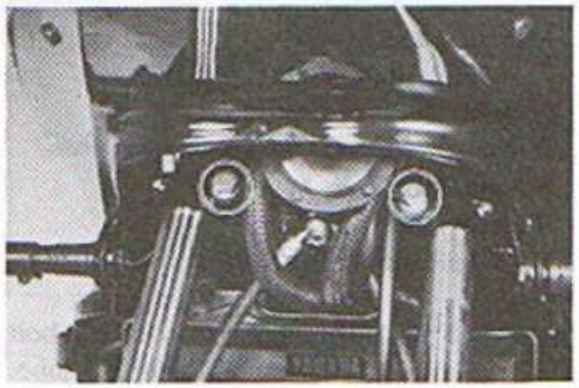
1. Wire holder 2. Pinch bolt

3. Remove the air valve caps from each cap bolt. Keep the air valve open by pressing it for several seconds so that the air can be let out of the inner fork tube.

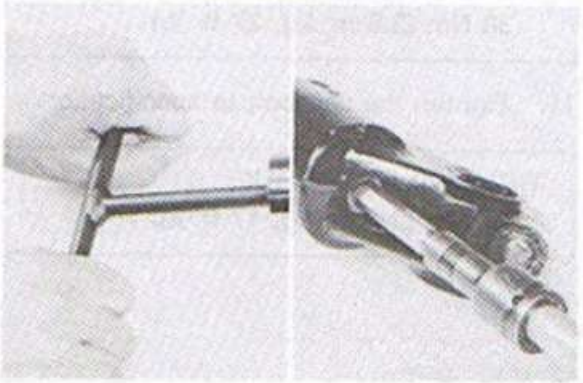


1. Air valve 2. Cap bolt

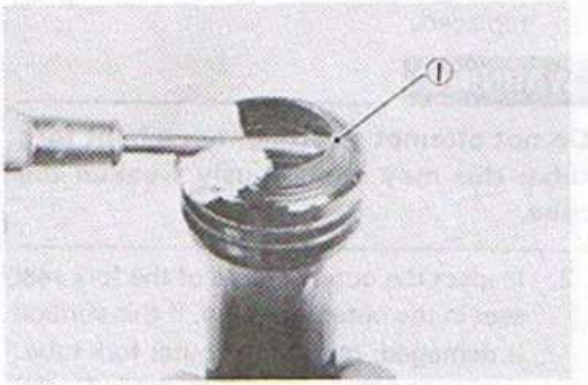
4. Remove the cap bolts and fork spring collors from each inner fork tube.
5. Place an open container under each drain hole. Remove the drain screw from each outer tube.
6. Loosen the pinch bolts on the under bracket, and remove the forks.



7. Remove the fork spring, and remove the cap and cylinder securing bolt from the bottom of the fork assembly. Hold the damper rod with the front-fork-cylinder holder. Remove the damper rod assembly and inner fork tube.



8. Remove the dust seal from the outer fork tube with a screwdriver. Be careful not to scratch the inner fork tube surface.



1. Dust seal

9. Remove the retaining clip from the outer fork tube, and pry out the fork seal. Be careful not to damage the fork tube surface.



1. Retaining clip



1. Oil seal

Inspection

1. Examine the inner fork tube. If the tube is severely scratched or bent, it should be replaced.

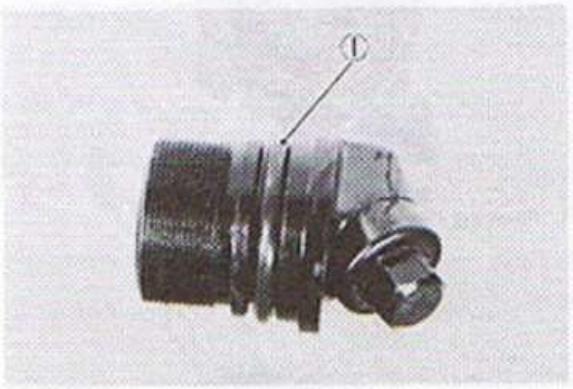
WARNING:

Do not attempt to straighten a bent fork tube; this may dangerously weaken the tube.

2. Inspect the outer surface of the fork seal seat in the outer fork tube. If this surface is damaged, replace the outer fork tube. If it is not damaged, replace the fork seal.
3. Check the outer fork tubes for dents. Replace the tube if it is dented.
4. Check the free length of the springs.

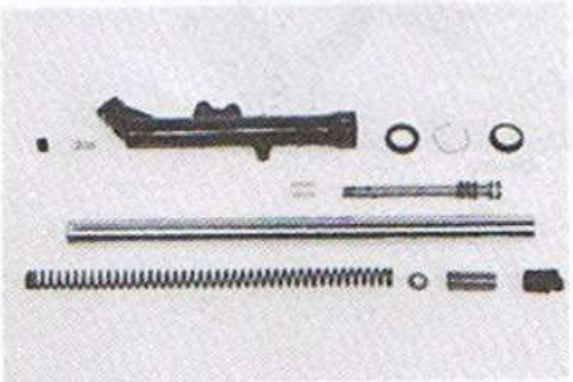
Fork spring free length:
476 mm (18.7 in)

5. Check the O-ring on the cap bolt. If it's damaged, replace it.



1. O-ring

Assembly



1. Make sure all components are clean before assembly. Always install a new fork seal. Do not reuse a seal.
2. Apply oil to the fork seal, and install the fork seal by pressing it in with a large socket. Install the retaining clip.
3. Install the dust seal into the outer fork tube.
4. Install the damper rod assembly into the inner fork tube. Hold the damper rod with the front-fork-cylinder holder.
5. Put the taper spindle on the damper rod.
6. Hold the inner fork tube, and carefully install the outer fork tube over the taper spindle.
7. Apply Loctite® (red) to the cylinder securing bolt, and install the bolt and a copper washer into the outer fork tube. Torque the bolt to specification.

TIGHTENING TORQUE:
23 Nm (2.3 m·kg, 17 ft·lb)

8. Pour the specified amount of fork oil into the inner fork tube.

Fork oil capacity:
267 cm^3 (9.4 Imp oz, 9.0 US oz)
Fork oil level: 127 mm (5.0 in)
(From top of inner tube fully compressed without spring.)
Recommended oil:
Yamaha fork oil 15 wt or equivalent

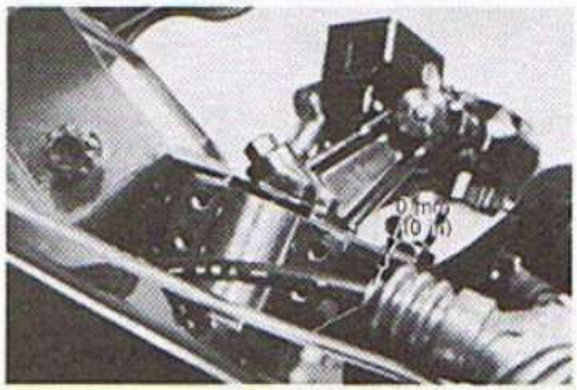
9. Install the fork spring, collor and cap bolt with a new O-ring into the inner fork tube. Finger tighten the cap bolt.
10. Install the fork into the brackets. Tighten the pinch bolt at the under bracket. Torque the bolt to specification.

TIGHTENING TORQUE
38 Nm (3.8 m·kg, 27 ft·lb)

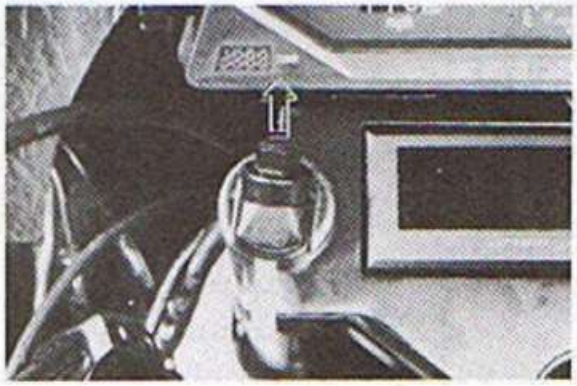
11. Tighten the cap bolt to specification.

TIGHTENING TORQUE:
23 Nm (2.3 m·kg, 17 ft·lb)

12. Loosen the pinch bolts on the under bracket and reinstall the forks in the following procedur.
    a. Level the top of the inner fork tube with the top of the steering crown.



    b. Face the air valve towards the front.



13. Install the handlebars and tighten the pinch bolts. Torque the bolts to specification.

TIGHTENING TORQUE:
Stering crown & Inner fork tube:
20 Nm (2.0 m·kg, 14 ft·lb)
Under bracket & Inner fork tube:
38 Nm (3.8 m·kg, 27 ft·lb)

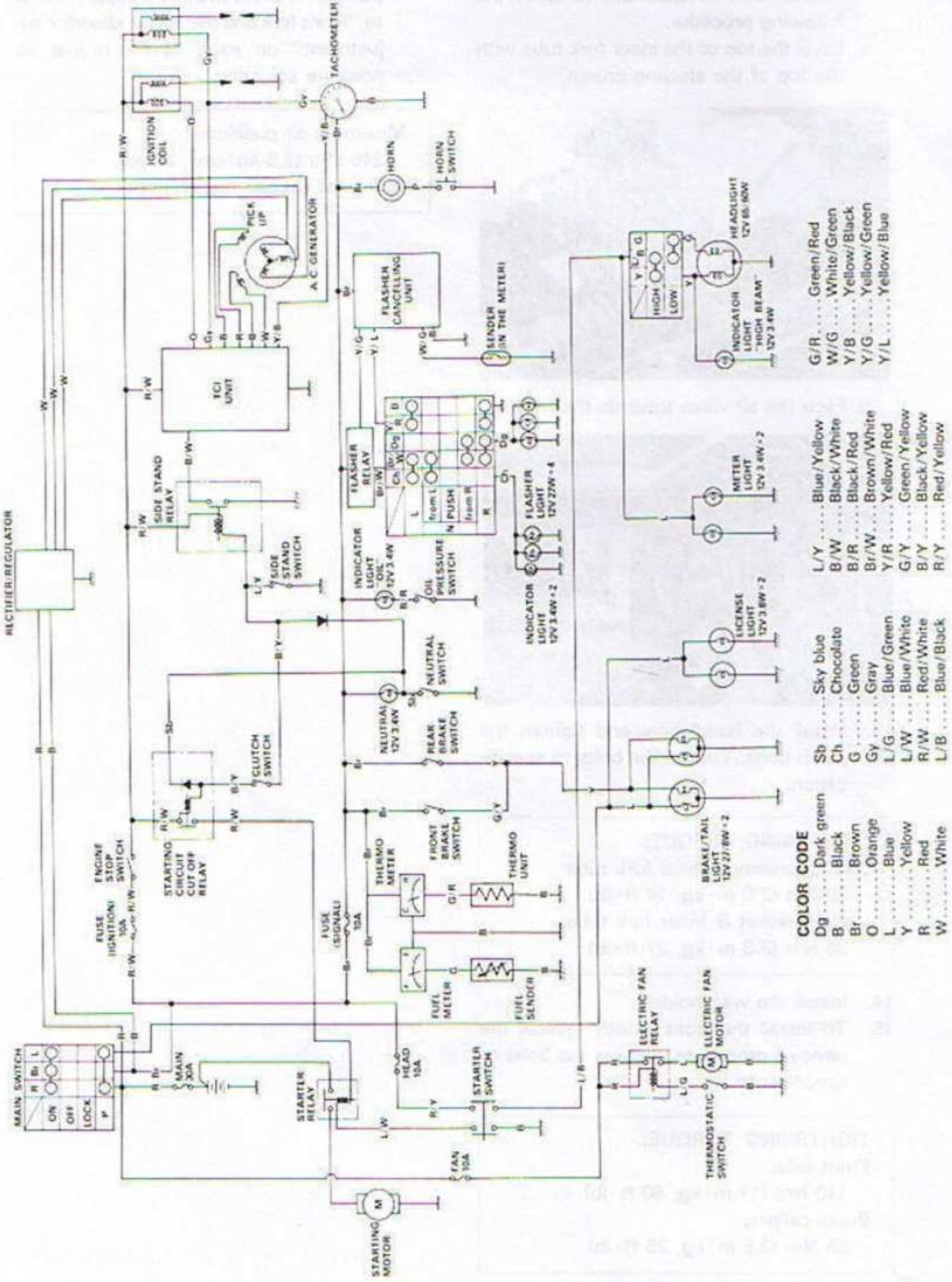
14. Install the wire holders.
15. To install the front wheel, reverse the removal procedure. Torque the bolts to specification.

TIGHTENING TORQUE:
Front axle:
110 Nm (11 m·kg, 80 ft·lb)
Brake caliper:
35 Nm (3.5 m·kg, 25 ft·lb)

16. Fill the fork with air using a maunal air pump or a pressurrized air supply. Refer to "Front fork and rear shock absorber adjustment" on page 16 for proper air pressure adjusting.

Maximum air pressure:
245 kPa (2.5 kg/cm^2, 36 psi)
Do not exceed this amount

*ELECTRICAL

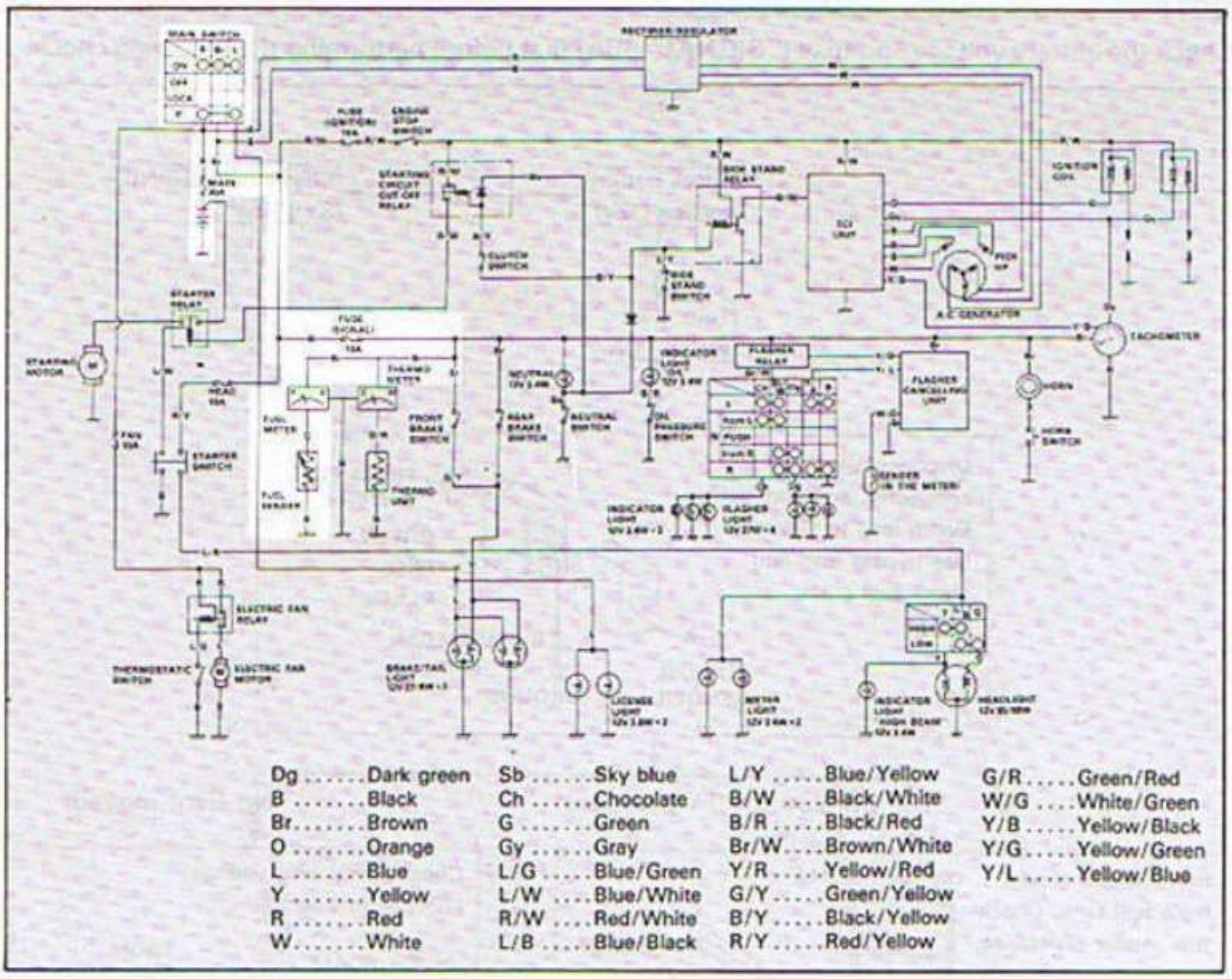


COLOR CODE

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

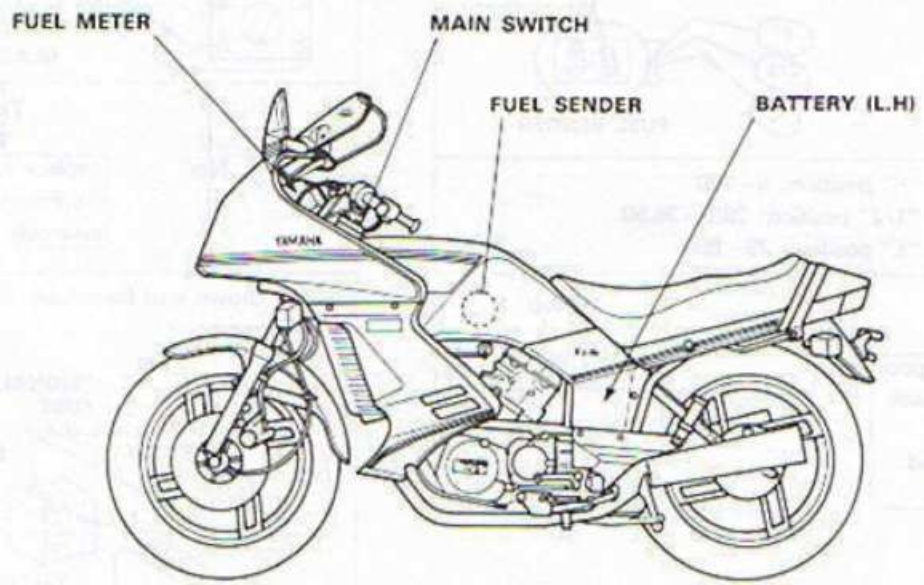
L/Y	Blue/Yellow	G/R	Green/Red
B/W	Black/White	W/G	White/Green
B/R	Black/Red	Y/B	Yellow/Black
Br/W	Brown/White	Y/G	Yellow/Green
Y/R	Yellow/Red	Y/L	Yellow/Blue
G/Y	Green/Yellow		
B/Y	Black/Yellow		
R/Y	Red/Yellow		

FUEL METER AND FUEL SENDER



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

This circuit diagram shows only the fuel meter and fuel sender circuit in the wiring diagram.

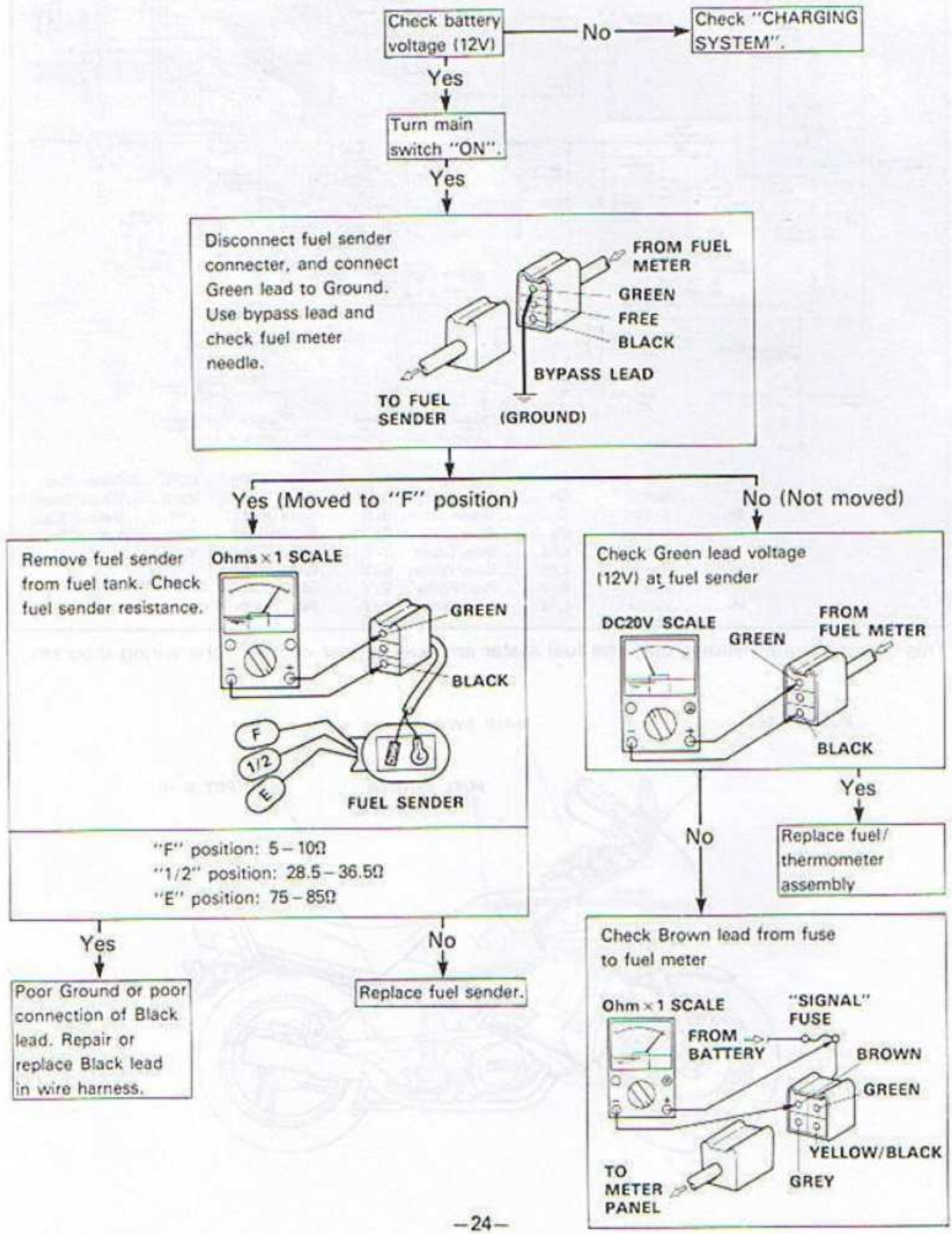


TROUBLESHOOTING

If the fuel meter does not operate or operate improperly, refer to the following troubleshooting chart until the source of the problem is located.

NOTE:

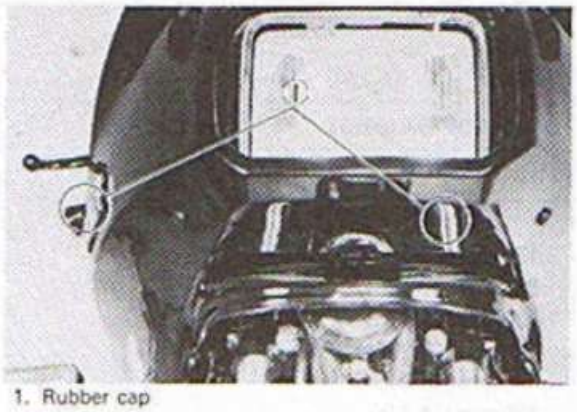
Check the battery voltage and fuse ("SIGNAL" 10A) first before performing the following check.



Headlight

Headlight bulb replacement

1. Remove the rubber caps from the upper panel.



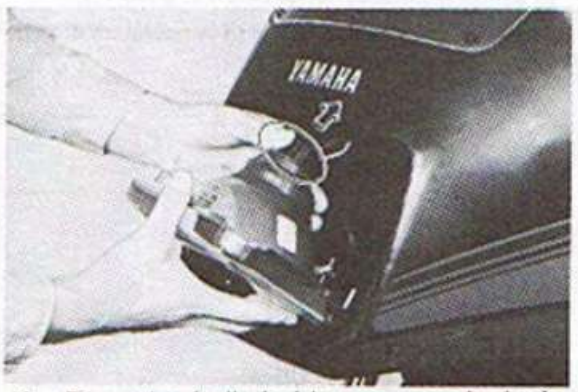
1. Rubber cap

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



1. Holding screw

3. Disconnect the lead wires and remove the light unit assembly.



4. Turn the bulb holder counterclockwise and remove the defective bulb.



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

WARNING:

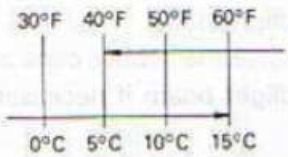
Keep flammable products or your hand away from the bulb while it is on; it gets hot. Do not touch the bulb until it cools down.

6. Reinstall the light unit assembly to the headlight body.
7. Reinstall the rubber caps and adjust the headlight beam if necessary.

APPENDICES

SPECIFICATIONS

GENERAL SPECIFICATIONS

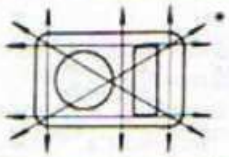
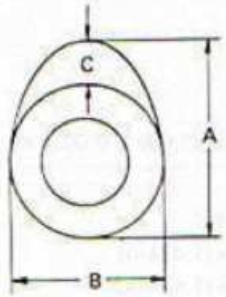
Model	XZ550RK
Model Code Number	28V
Federal V.I.N. Number	JYA11H00*DA100101
Engine Starting Number	11H-100101
Dimensions: Overall Length Overall Width Overall Height Seat Height Wheelbase Minimum Ground Clearance	 2,130 mm (83.9 in) 845 mm (33.3 in) 1,120 mm (44.1 in) 780 mm (30.7 in) 1,445 mm (56.9 in) 135 mm (5.3 in)
Basic Weight: With Oil and Full Fuel Tank	 220 kg (485 lb)
Minimum Turning Radius	2,700 mm (106.3 in)
Engine: Engine Type Cylinder Arrangement Displacement Bore × Stroke Compression Ratio Compression Pressure Starting System	 Liquid cooled, 4-stroke, gasoline, DOHC V-2 cylinder 552 cm^3 80.0 × 55.0 mm (3.150 × 2.165 in) 10.5 : 1 980.7 kPa (10 kg/cm^2, 142.2 psi) at 300 r/min Electric starter
Lubrication System	Wet sump
Oil Type or Grade Engine oil  Middle/Final Gear Oil	 Yamalube 4-cycle oil or SAE 20W40 type SE motor oil (If temperature does not go below 5°C (40°F)) SAE 10W30 type SE motor oil (If temperature does not go above 15°C (60°F)) SAE 80 API "GL-4" Hypoid gear oil
Oil Capacity Engine oil Periodic Oil Change With Oil Filter Replacement Total Amount Final Gear Case Oil Amount	 2.4 L (2.1 Imp qt, 2.5 US qt) 2.7 L (2.4 Imp qt, 2.9 US qt) 3.4 L (3.0 Imp qt, 3.6 US qt) 0.2 L (0.18 Imp qt, 0.21 US qt)
Coolant Capacity (Including All Routes)	2.1 L (1.85 Imp qt, 2.2 US qt)
Air Filter	Dry type element

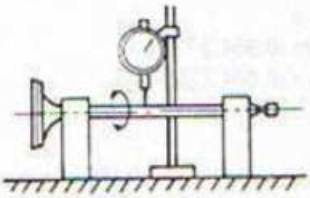
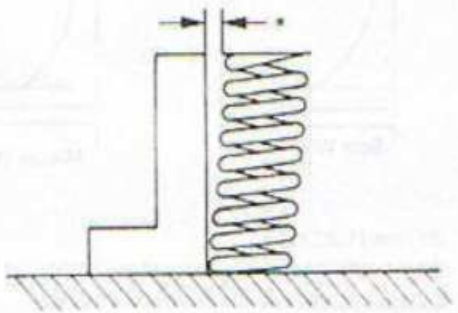
Model	XZ550RK	
Fuel		
Type	Regular gasoline	
Tank Capacity	17 L (3.7 Imp gal, 4.5 US gal)	
Reserve Amount	2.7 L (0.6 Imp gal, 0.7 US gal)	
Carburetor		
Type/Manufacturer/Quantity	BD36/MIKUNI/2	
Spark Plug		
Type/Manufacturer	D8EA (NGK), or X24ES-U (NIPPONDENSO)	
Gap	0.6 ~ 0.7 mm (0.024 ~ 0.028 in)	
Clutch Type	Wet, multiple-disc	
Transmission:		
Primary Reduction System	Gear	
Primary Reduction Ratio	73/33 (2.212)	
Secondary Reduction System	Shaft drive	
Secondary Reduction Ratio	19/18 × 32/11 (3.070)	
Transmission Type	Constant mesh, 5-speed	
Operation	Left foot operation	
Gear Ratio		
1st	43/15 (2.866)	
2nd	39/20 (1.950)	
3rd	31/21 (1.476)	
4th	32/27 (1.185)	
5th	29/30 (0.966)	
Chassis:		
Frame Type	Steel tube backbone	
Caster Angle	26°40′	
Trail	124 mm (4.88 in)	
Tire		
Type	Tubeless	
Size (F)	100/90-18 56H	
Size (R)	110/90-18 61H	
Maximum load limit*	198 kg (437 lb)	
Tire Pressure: (cold tire)	FRONT	REAR
Up to 90 kg (198 lb) load*	177 kPa (1.8 kg/cm², 26 psi)	196 kPa (2.0 kg/cm², 28 psi)
90 kg (198 lb) load ~ 140 kg (308 lb) load*	196 kPa (2.0 kg/cm², 28 psi)	225 kPa (2.3 kg/cm², 32 psi)
140 kg (308 lb) load ~ 195 kg (429 lb) load* (Maximum load)	225 kPa (2.3 kg/cm², 32 psi)	275 kPa (2.8 kg/cm², 40 psi)
High speed riding	225 kPa (2.3 kg/cm², 32 psi)	245 kPa (2.3 kg/cm², 36 psi)
Minimum tire tread depth	1.0 mm (0.04 in)	1.0 mm (0.04 in)
*Load is the total weight of cargo, rider, passanger, and accessories.		
Brake		
Front Brake Type	Dual disc brake	
Operation	Right hand operation	
Rear Brake Type	Drum brake	

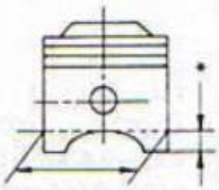
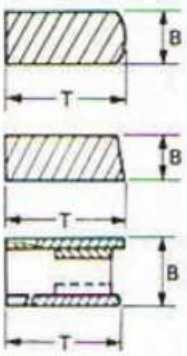
Model	XZ550RK
Operation	Right foot operation
Suspension Front Suspension Rear Suspension	 Telescopic fork Swingarm (Monocross suspension)
Shock Absorber Front Shock Absorber Rear Shock Absorber	 Coil spring/Air-Oil damper Coil spring/Gas-Oil damper
Wheel Travel Front Wheel Travel Rear Wheel Travel	 140 mm (5.5 in) 90 mm (3.5 in)
Electrical: Ignition System Generator System Battery Type or Model Battery Capacity	 T.C.I. A.C. generator YB14L 12V 14AH
Headlight Type	Semi-sealed beam (Quartz bulb)
Bulb Wattage/Quantity Headlight Tail/Brake Light Flasher Light License Light	 65W/60W 8W/27W×2 27W×4 3.8W×2
Indicator light Wattage/Quantity "METER LIGHT" "NEUTRAL" "HIGH BEAM" "OIL" "TURN"	 3.4W×2 3.4W×1 3.4W×1 3.4W×1 3.4W×2

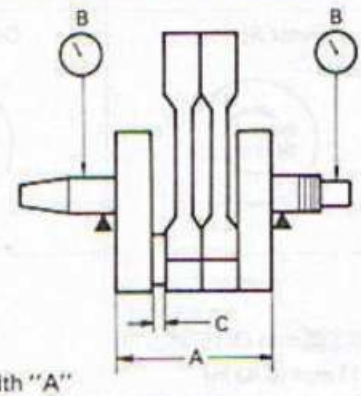
MAINTENANCE SPECIFICATIONS

Engine

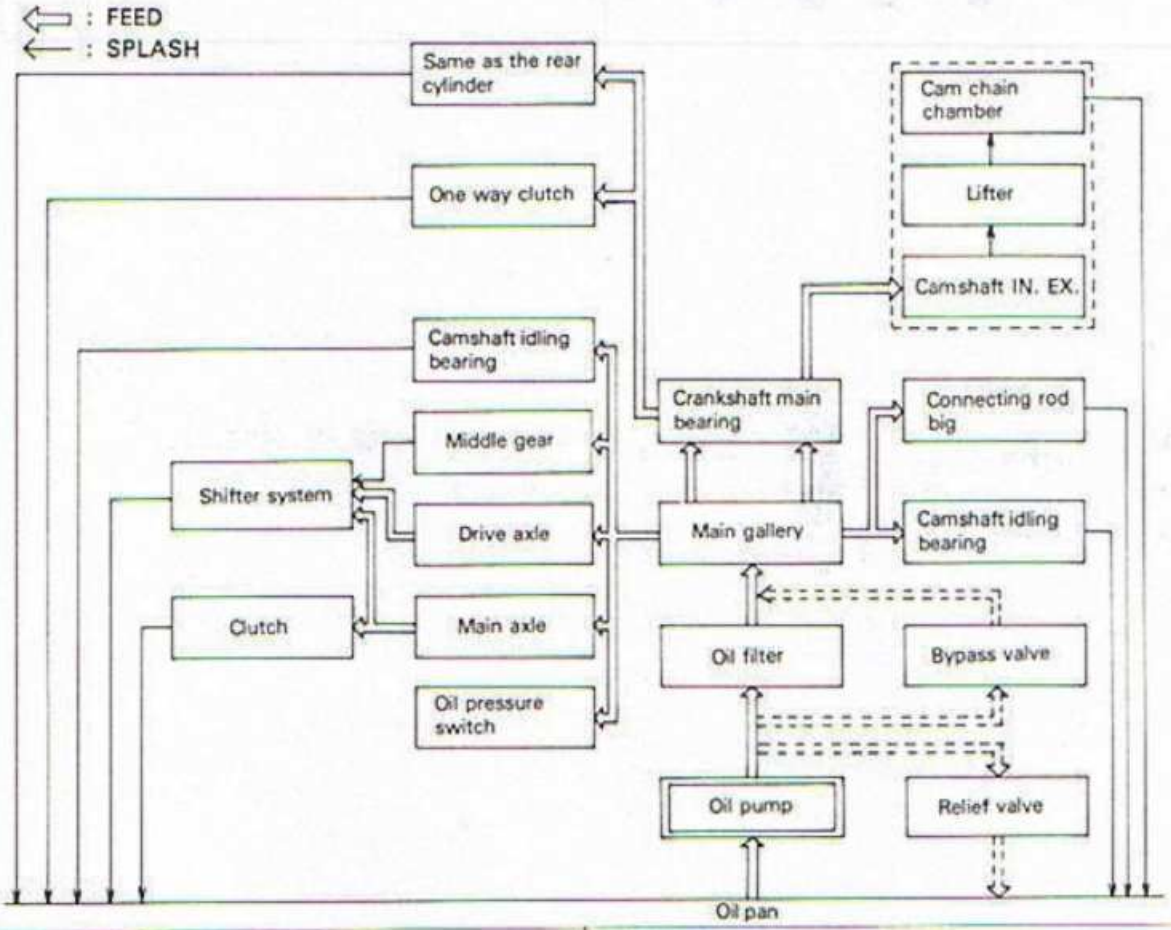
Model		XZ550RK
Cylinder Head Warp Limit		<0.03 mm (0.0012 in)> *Lines indicate straightedge measurement
Cylinder Bore Size Taper Limit Out-of-round Limit		80 mm (3.150 in) <0.005 mm (0.0002 in)> <0.01 mm (0.0004 in)>
Camshaft Drive Method Cam Cap Inside Diameter Camshaft Outside Diameter Shaft-to-cap Clearance Cam Dimensions		Chain drive $25^{+0.021}_{0}$ mm ($0.984^{+0.0008}_{0}$ in) $25^{-0.020}_{-0.040}$ mm ($0.984^{-0.0008}_{-0.0016}$ in) 0.020 ~ 0.061 mm (0.0008 ~ 0.0024 in)
Intake		
	"A"	36.80 ± 0.05 mm (1.449 ± 0.002 in)
	"B"	28.341 ± 0.05 mm (1.116 ± 0.002 in)
	"C"	8.80 mm (0.346 in)
Exhaust	"A"	36.30 ± 0.05 mm (1.429 ± 0.002 in)
	"B"	28.319 ± 0.05 mm (1.115 ± 0.002 in)
	"C"	8.3 mm (0.327 in)
Camshaft Runout Limit Cam Chain Type/Number of Links Cam Chain Adjustment Method		<0.03 mm (0.0012 in)> 7.9-010/112 Links Automatic
Valve, Valve Seat, Valve Guide Valve Clearance (Cold)		
	IN.	0.11 ~ 0.15 mm (0.0043 ~ 0.0059 in)
	EX.	0.16 ~ 0.20 mm (0.0063 ~ 0.0079 in)
Valve Dimensions		
"A" Head Dia.	IN.	31 mm (1.22 in)
	EX.	26 mm (1.02 in)
"B" Face Width	IN.	2.3 mm (0.09 in)
	EX.	2.3 mm (0.09 in)
"C" Seat Limit Width	IN.	1 ± 0.1 mm (0.04 ± 0.004 in)
	EX.	1 ± 0.1 mm (0.04 ± 0.004 in)

Model		XZ550RK
"D" Margin Thickness Limit		
	IN.	1 ± 0.2 mm (0.04 ± 0.008 in)
	EX.	1 ± 0.2 mm (0.04 ± 0.008 in)
Stem Outside Diameter		
	IN.	$6^{-0.010}_{-0.025}$ mm ($0.24^{-0.0004}_{-0.0010}$ in)
	EX.	$6^{-0.025}_{-0.040}$ mm ($0.24^{-0.0010}_{-0.0016}$ in)
Guide Inside Diameter		
	IN.	$6^{+0.012}_{0}$ mm ($0.24^{+0.0005}_{0}$ in)
	EX.	$6^{+0.012}_{0}$ mm ($0.24^{+0.0005}_{0}$ in)
Stem-to-guide Clearance		
	IN.	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.	0.025 ~ 0.052 mm (0.0010 ~ 0.0020 in)
Stem Runout Limit		<0.01 mm (0.0004 in)>
		
Valve Seat Width Standard	IN. & EX	1 ± 0.1 mm (0.039 ± 0.0039 in)
Valve Spring		
Free Length		
Inner Spring	IN.	36.17 mm (1.424 in)
	EX.	36.17 mm (1.424 in)
Outer Spring	IN.	36.63 mm (1.442 in)
	EX.	36.63 mm (1.442 in)
Compressed Length (Valve Closed)		
Inner Spring	IN.	30.5 mm (1.20 in)
	EX.	30.5 mm (1.20 in)
Outer Spring	IN.	32.0 mm (1.26 in)
	EX.	32.0 mm (1.26 in)
Tilt Limit*		
Inner Spring	IN. & EX.	2.5° or 1.6 mm (0.063 in)
Outer Spring	IN. & EX.	2.5° or 1.6 mm (0.063 in)
		

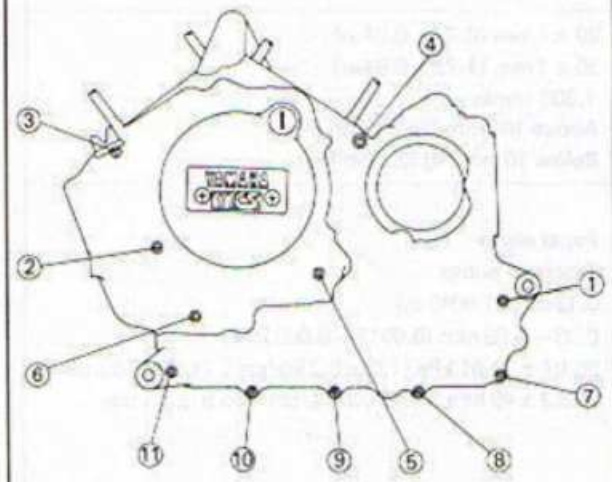
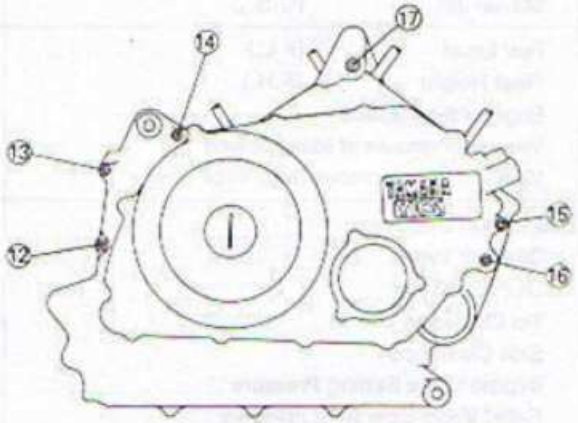
Model	XZ550RK	
Direction of Winding (Top view)	Intake	Exhaust
	Outer Spring 	Outer Spring 
Piston Piston Size/ Measuring Point*  Piston Clearance Oversize 2nd 4th	$80^{-0.040}_{-0.060}$ mm ($3.15^{-0.0016}_{-0.0024}$ in)/ *11 mm (0.43 in) (From bottom line of piston skirt) 0.050 ~ 0.070 mm (0.0020 ~ 0.0028 in) 80.50 mm (3.169 in) 81.00 mm (3.189 in)	
Piston Ring Sectional Sketch  Top Ring 2nd Ring Oil Ring with expander	Barrel B = $1.2^{-0.01}_{-0.03}$ mm ($0.047^{-0.0004}_{-0.0012}$ in) T = 3.3 ± 0.1 mm (0.130 ± 0.0039 in) Taper B = $1.5^{-0.01}_{-0.03}$ mm ($0.059^{-0.0004}_{-0.0012}$ in) T = 3.6 ± 0.1 mm (0.142 ± 0.0039 in) B = $2.8^{+0.03}_{+0.01}$ mm ($0.110^{+0.0012}_{+0.0004}$ in) T = 3.4 ± 0.2 mm (0.134 ± 0.0079 in)	
End Gap (Installed) Top Ring 2nd Ring Oil Ring	 0.3 ~ 0.5 mm (0.012 ~ 0.020 in) 0.3 ~ 0.5 mm (0.012 ~ 0.020 in) 0.3 ~ 0.9 mm (0.012 ~ 0.035 in)	
Side Clearance (Installed) Top Ring 2nd Ring Oil Ring	 0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in) 0.02 ~ 0.06 mm (0.0008 ~ 0.0024 in) 0 mm (0 in)	
Connecting Rod Oil Clearance Color Code (Corresponding Size)	0.035 ~ 0.054 mm (0.0014 ~ 0.0021 in) 1. Blue 2. Black 3. Brown 4. Green 5. Yellow ($1.5^{+0.001}_{-0.003}$) ($1.5^{-0.003}_{-0.007}$) ($1.5^{-0.007}_{-0.011}$) ($1.5^{-0.011}_{-0.015}$) ($1.5^{-0.015}_{-0.019}$)	

Model	XZ550RK		
Crankshaft			
Crank Width "A"	104 mm (4.1 in)		
Runout Limit "B"	<0.002 mm (0.0008 in)>		
Big end side clearance "C"	0.32 ~ 0.424 mm (0.013 ~ 0.017 in)		
Oil clearance (Journal)	0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in)		
Main bearing over size			
Color Code (Corresponding Size)	1. Red ($49^{-0.010}_{-0.015}$)	2. Black ($49^{-0.020}_{-0.025}$)	
Position of Thrust Bearing	No		
Balancer Drive Method	Gear		
Clutch			
Friction Plate Thickness/Quantity	2.8 ± 0.08 mm (0.11 ± 0.003 in)/8		
Wear Limit	<2.6 mm (0.10 in)>		
Clutch Spring Free Length/Quantity	1.6 mm (0.06 in)/7		
Warp Limit	<0.2 mm (0.008 in)>		
Clutch Spring Minimum Length	41.2 mm (1.62 in)/5		
Primary Reduction Gear Backlash Tolerance	0.009 ~ 0.073 mm (0.0004 ~ 0.0029 in)		
Clutch Release Method	Inner push (Cam push)		
Push Rod Bending Limit	<0.5 mm (0.02 in)>		
Transmission			
Main Axle Deflection Limit	<0.08 mm (0.0031 in)>		
Drive Axle Deflection Limit	<0.08 mm (0.0031 in)>		
Shifter			
Shifter Type	Guide bar		
Carburetor			
Type/Manufacturer/Quantity	BD36/MIKUNI/2		
	28V00		
I.D. Mark		FRONT	REAR
Main Jet (M.J.)		# 130	# 130
Main Air Jet (M.A.J.)		# 1.8	# 1.8
Throttle valve (Th.V)		# 130	# 130
Pilot Jet (P.J.)		# 50	# 50
Pilot Air Jet (P.A.J.)		# 140	# 140
Pilot Screw (P.S.)		Preset	Preset

Model		XZ550RK	
		FRONT	REAR
Valve Seat	(V.S.)	ϕ2.0	ϕ2.0
Starter Jet	(G.S.$_1$)	#25	#25
Starter Jet	(G.S.$_2$)	—	—
Fuel Level	(F.L.)	20 ± 1 mm (0.79 ± 0.04 in)	
Float Height	(F.H.)	36 ± 1 mm (1.72 ± 0.04 in)	
Engine Idling Speed		1,300 r/min	
Vacuum Pressure at Idling Speed		Above 180 mm Hg (7.09 in Hg)	
Vacuum Synchronous Difference		Below 10 mm Hg (0.39 in Hg)	
Lubrication System:			
Oil Filter Type		Paper mesh	
Oil Pump Type		Trochoid pump	
Tip Clearance		0.12 mm (0.0047 in)	
Side Clearance		0.03 ~ 0.08 mm (0.0012 ~ 0.0031 in)	
Bypass Valve Setting Pressure		98.07 ± 19.61 kPa (1.0 ± 0.2 kg/cm², 14.2 ± 2.8 psi)	
Relief Valve Operating Pressure		392.3 ± 49 kPa (4.0 ± 0.5 kg/cm², 56.9 ± 7.1 psi)	
Lubrication Chart			



Middle Gear Backlash <Limit>	0.10 ~ 0.20 mm (0.004 ~ 0.008 in) <0.25 mm (0.010 in)>
Final Gear Backlash <Limit>	0.10 ~ 0.20 mm (0.004 ~ 0.008 in) <0.25 mm (0.010 in)>

Model	XZ550RK
Crankcase Tightening Sequence Left case	Right case
	

Tightening torque		Thread Size	Q'ty	Nm	m·kg	ft·lb	Remarks
Cylinder nut	Nut	M10×1.25	4	50	5.0	36.2	Apply oil
head nut	Nut	M8×1.25	1	20	2.0	14.5	
head bolt	Stud bolt	M8×1.25	2	10	1.0	7.2	
Spark plug	—	M12×1.25	2	20	2.0	14.5	
Camshaft cap	Bolt	M6	12	10	1.0	7.2	
Cylinder head cover	Bolt	M6	4	10	1.0	7.2	
Cap	Screw	M6	2	6	0.6	4.3	
Cylinder head	Stud bolt	M8	1	15	1.5	11.0	Apply oil
Hose joint	Bolt	M6	4	10	1.0	7.2	
Drain bolt	Plug	M6	2	7	0.7	5.1	
YICS chamber	Screw	M6	1	10	1.0	7.2	
Connecting rod, big end	Nut	M8×0.75	4	38	3.8	27.0	Apply molyb-denum disulfide grease
Balancer drive gear	Nut	M40×1.0	1	100	10.0	72.0	Use lock washer
Primary drive gear	Nut	M16×1.0	1	60	6.0	43.0	Use lock washer
ACG roter	Bolt	M10×1.25	1	80	8.0	58.0	
Cam sprocket	Bolt	M10×1.25	4	70	7.0	50.0	
Timing gear shaft stopper	Bolt	M6	2	12	1.2	8.7	
Tensioner assembly	Bolt	M6	4	12	1.2	8.7	
Chain guide #2 (Upper)	Cap nut	M6	2	7	0.7	5.1	
Chain guide #2 (Lower)	Bolt	M6	4	8	0.8	5.8	
Water pump cover	Bolt	M6	4	10	1.0	7.2	
Drain bolt	Plug	M14×1.5	1	10	1.0	7.2	
Thermostatic valve cover	Screw	M6	2	7	0.7	5.1	
Radiator assembly	Bolt	M6	3	7	0.7	5.1	
Radiator cover	Screw	M5	4	5	0.5	3.6	
Oil pump assembly	Screw	M6	1	7	0.7	5.1	
	Bolt	M6	3	10	1.0	7.2	
Strainer housing	Bolt	M6	2	10	1.0	7.2	
Air filter cover	Bolt	M6	3	10	1.0	7.2	
Oil delivery pipe	Union bolt	M8×1.25	1	18	1.8	13.0	
Oil drain plug	Plug	M14×1.5	1	43	4.3	31.0	
Carburetor joint		M6	4	12	1.2	8.7	
Exhaust pipe flange	Bolt	M6	8	10	1.0	7.2	
Exhaust pipe & muffler	Bolt	M8×1.25	3	20	2.0	14.0	
Exhaust pipe clamp	Bolt	M6	2	10	1.0	7.2	
Crankcase	Bolt	M6×1.0	16	10	1.0	7.2	
	Nut	M10×1.25	1	30	3.0	22.0	From left side
Bearing cover plate	Screw	M8	4	25	2.5	18.0	
Cylinder stud bolt	Stud bolt	M10×1.25	8	20	2.0	14.0	Apply oil
Crankcase cover (Left)	Bolt	M6	10	10	1.0	7.2	
Middle gear cover	Bolt	M8	6	24	2.4	17.0	

Tightening torque		Thread Size	Q'ty	Nm	m·kg	ft·lb	Remarks
Crankcase cover (Right)	Bolt	M6	11	10	1.0	7.2	
Engine mounting bracket	Flange bolt	M6	2	10	1.0	7.2	
Starter one way clutch	Bolt	M8 × 1.25	3	20	2.0	14.0	Apply LOCTITE®
Primary drive gear	Nut	M16 × 1.0	1	70	7.0	50.0	Use lock washer
Clutch plate	Flange bolt	M6	5	8	0.8	5.8	
Clutch boss	Nut	M20 × 1.0	1	70	7.0	50.0	Use lock washer
Middle gear (Drive pinion)	Nut	M18 × 1.0	1	110	11.0	80.0	
Bearing housing	Flange bolt	M8 × 1.25	3	25	2.5	18.0	
Joint yoke	Nut	M14 × 1.5	1	100	10.0	72.0	Gear lash adjustment
Segment	Screw	M6	1	12	1.2	8.7	Apply LOCTITE®
Change pedal	Bolt	M6	1	10	1.0	7.2	
Startor motor assembly	Bolt	M6	2	10	1.0	7.2	
Stator assembly	Screw	M6	3	7	0.7	5.1	
Pickup assembly	Screw	M6	3	7	0.7	5.1	
Thermostatic switch	—	—	1	15	1.5	11.0	
Thermo-unit	—	—	1	15	1.5	11.0	

Chassis

Model		XZ550RK
Steering System		
Steering Bearing Type		Ball Bearing
No./Size of Steel Balls		
	Upper	19 pcs/1/4 in
	Lower	19 pcs/1/4 in
Front Suspension		
Front Fork Travel		140 mm (5.5 in)
Fork Spring Free Length		476 mm (18.7 in)
Spring Rate/Stroke		K_1 = 4.1 N/mm (0.42 kg/mm, 23.5 lb/in) 0 ~ 140 mm (0 ~ 5.5 in)
Optional Spring		No.
Oil Capacity or		267 cm^3 (9.4 Imp oz, 9.0 US oz)
Oil Level		127 mm (5.0 in) (From top of inner tube fully compressed without spring.)
Oil Grade		Yamaha fork oil 15wt
Rear Suspension		
Shock Absorber Travel		55 mm (2.2 in)
Spring Free Length		221 mm (8.7 in)
Spring Rate/Stroke		K_1 = 73.6 N/mm (7.5 kg/mm, 420.0 lb/in) 0 ~ 27.5 mm (0 ~ 1.1 in) K_2 = 105.9 N/mm (10.8 kg/mm, 604.6 lb/in) 27.5 ~ 55 mm (1.1 ~ 2.2 in)
Optional Spring		No.
Spring preload STD position		3
Enclosed Gas Pressure		1,471 kPa (15 kg/cm^2, 213 psi)
Max. ~ Min.		<1,569 ~ 1,373 kPa (16 ~ 14 kg/cm^2, 228 ~ 199 psi)>
Rear Arm		
Swing Arm Free Play Limit	End	<1.0 mm (0.04 in)>
	Side	<1.0 mm (0.04 in)>
Wheel		
Front Wheel Type		Cast Wheel
Rear Wheel Type		Cast Wheel
Front Rim Size/Material		1.85 × 18/Aluminum
Rear Rim Size/Material		2.15 × 18/Aluminum
Rim Runout Limit		
Vertical		<2.0 mm (0.08 in)>
Lateral		<2.0 mm (0.08 in)>
Disc Brake		
Type	Front	Dual disc
Outside Dia × Thickness		267 × 5 mm (10.5 × 0.2 in)
Pad Thickness		
<Limit>	Inner	6.8 mm (0.27 in) <0.8 mm (0.03 in)>
	Outer	6.8 mm (0.27 in) <0.8 mm (0.03 in)>
Master Cylinder Inside Dia.		15.8 mm (0.62 in)
Caliper Cylinder Inside Dia.		38.1 mm (1.5 in)
Brake Fluid Type		DOT #3

Model	XZ550RK
Drum Brake Type Rear	Leading and trailing
Drum Inside Dia. <Limit>	180 mm (7.09 in) <181 mm (7.13 in)>
Lining Thickness <Limit>	4 mm (0.16 in) <2 mm (0.08 in)>
Brake Lever & Brake Pedal Brake Lever Free Play/position Brake Pedal Position Brake Pedal Free Play	 5 ~ 8 mm (0.2 ~ 0.3 in)/at lever end Same level with footrest top 15 ~ 20 mm (0.60 ~ 0.80 in)
Clutch Lever Free Play/position	2 ~ 3 mm (0.08 ~ 0.12 in)/at lever pivot

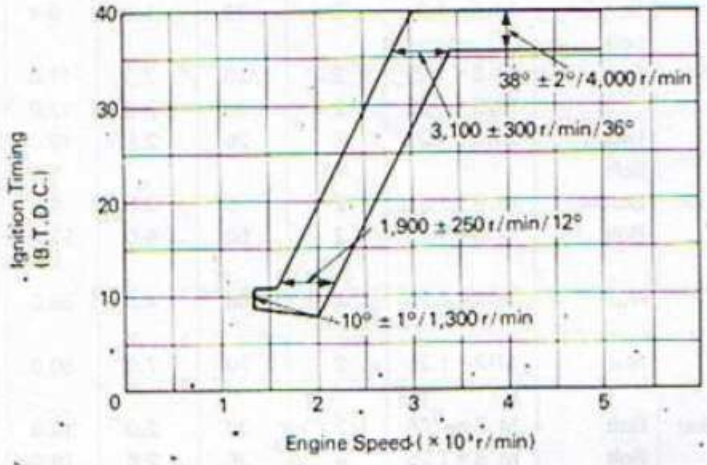
Recommended combinations of the front fork and the rear shock absorber.
Use this table as guidance to meet specific riding conditions and motorcycle load.

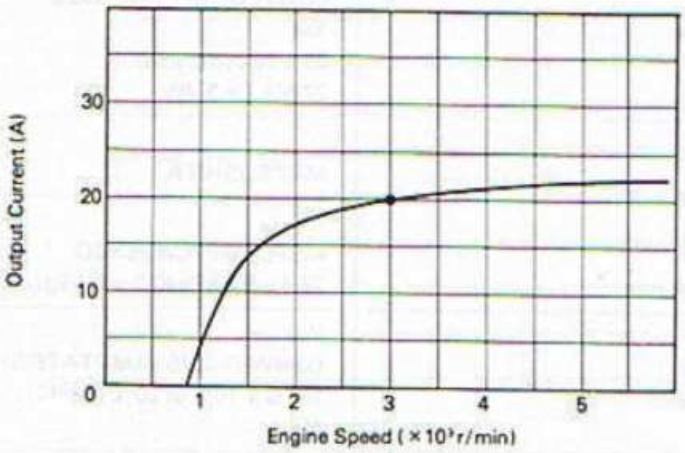
Front fork	Rear shock absorber		Loading condition			
Air pressure	Spring adjuster	Damping adjuster	Solo rider	With passenger	With accessory equipments	With accessory equipments and passenger
39.2 ~ 78.5 kPa (0.4 ~ 0.8 kg/cm², 6 ~ 12 psi)	1 or 2	1 ~ 3	○			
	3 or 4	3 ~ 5		○		
		3 or 4			○	
	3 ~ 5	3 ~ 5				○

Tightening torque		Thread Size	Q'ty	Nm	m·kg	ft·lb	Remarks
Front axle shaft	Nut	M14×1.5	1	110	11.0	80.0	
Front fender & front fork	Bolt	M 8×1.25	4	10	1.0	7.2	
Under bracket pinch bolt	Bolt	M12×1.25	2	38	3.8	27.0	
Steering crown pinch bolt	Bolt	M 8×1.25	4	20	2.0	14.0	
Steering shaft	Bolt	M14×1.25	1	54	5.4	39.0	
Front brake caliper	Bolt	M10×1.25	4	35	3.5	25.0	
Front axle shaft pinch bolt	Bolt	M 8×1.25	1	20	2.0	14.0	
Handle & handlebar (center)	Bolt	M 8×1.25	2	20	2.0	14.0	
(side)	Special bolt	M 6×1.0	2	13	1.3	9.4	
Front fork cylinder securing bolt	Bolt	M 8×1.25	2	23	2.3	17.0	Apply LOCTITE®
Front fork cap bolt		M28×1.25	2	23	2.3	17.0	
Front brake hose	Union bolt	M10×1.25	5	26	2.6	19.0	
Caliper air bleed	Screw	M 8×1.25	2	6	0.6	4.3	
Engine mounting crankcase center	Bolt	M10×1.25	2	50	5.0	37.0	
crankcase rear upper	Nut	M10×1.25	2	48	4.8	35.0	
crankcase rear under	Nut	M12×1.25	2	70	7.0	50.0	
upper bracket	Bolt	M 8×1.25	2	20	2.0	14.0	
Down tube frame	Bolt	M 8×1.25	4	26	2.6	19.0	
Rear shock absorber	Bolt	M10×1.25	1	25	2.5	18.0	
Muffler bracket & frame	Bolt	M10×1.25	4	42	4.2	30.0	
Pivot shaft	Bolt	M16×1.5	1	78	7.8	56.0	Use lock washer
Final gear case & rear arm (side)	Nut	M10×1.25	1	42	4.2	18.0	
	Nut	M10×1.25	4	42	4.2	18.0	
Rear axle shaft	Nut	M14×1.5	1	110	11.0	80.0	
Bracket sidestand	Nut	M10×1.25	1	55	5.5	40.0	
Tension bar & rear arm	Nut	M 8×1.25	1	20	2.0	14.0	
Tension bar & brake shoe plate	Nut	M 8×1.25	1	20	2.0	14.0	
Master cylinder cap	Screw	M 4×0.7	4	1	0.1	0.7	
Master cylinder bracket	Bolt	M 6×1.0	2	9	0.9	6.5	
Rear fender frame	Bolt	M 8×1.25	2	20	2.0	14.0	
Muffler bracket & passenger footrest	Nut	M10×1.25	2	42	4.2	18.0	
Grab bar (upper)		M 6×1.25	2	11	1.1	8.0	
(under)		M 8×1.25	2	26	2.6	19.0	

Electrical

Model	XZ550RK
Voltage	12V
Ignition System	
Ignition Timing (B.T.D.C.)	10° at 1,300 r/min
Advanced Timing (B.T.D.C.)	38° at 4,000 r/min
Advancer Type	Electrical
T.C.I.	
Pickup Coil Resistance (Color)	110 Ω ± 10% at 20°C (68°F) (Red-Black, White-Black)
T.C.I. Unit-Model/Manufacturer	TID12-06/HITACHI
Ignition Coil	
-Model/Manufacturer	CM11-55/HITACHI
Primary Winding Resistance	2.75 Ω ± 10% at 20°C (68°F)
Secondary Winding Resistance	7.9 KΩ ± 20% at 20°C (68°F)
Charging System/Type	A.C. Magneto



Model	XZ550RK
A.C. Generator	
Manufacturer	HITACHI
Nominal Output	14V, 20A at 3,000 r/min
	
Voltage Regulator	
-Type	Semi Conductor
-Model/ Manufacture	SH238-12B/ SHINDENGEN
-No Load Regulated Voltage	14.5 ± 0.5V
Rectifier	
-Model/ Manufacturer	SH238-12B/ SHINDENGEN
Battery	
Capacity	12V 14AH
Specific Gravity	1.280
Electric Starter System	
Type	Constant mesh type
Starter Motor-Model/ Manufacturer	SM-8209/ MITSUBA
-Output	0.6 kw
Armature Coil Resistance	11.5 MΩ ± 10% at 20°C (68 °F)
Brush-Overall Length	10 mm (0.4 in)
<Limit>	<4.5 mm (0.18 in)>
-Spring Pressure	900 ± 90 g (31.7 ± 3.2 oz)
Commutator Dia.	28 mm (1.10 in)
<Wear Limit>	<27 mm (1.06 in)>
-Mica Undercut depth	1.6 mm (0.06 in)
Starter switch	
Manufacturer	HONDA LOCK
Amperage Rating	150A

Model	XZ550RK
Horn	
Type/Quantity	Plain type × 1 pc
Model/Manufacturer	CF-12/NIKKO
Maximum Amperage	2.5A
Flasher Relay	
Type	Condenser type
Model/Manufacturer	FU257CD/NIPPONDENSO
Self Cancelling Device	Yes
Flasher Frequency	85 ± 10 cycle/min
Wattage	27W × 2 + 3.4W
Self Cancelling Unit	
Manufacturer	MATSUSHITA
Oil Pressure Switch	
Model/Manufacturer	KIDFD/NIPPONDENSO
Switch Operating Pressure	29.4 ± 9.8 kPa (0.3 ± 0.1 kg/cm², 4.3 ± 1.4 psi)
Side Stand Relay	Yes
Model/Manufacturer	G2MW-D-3626 (4U8)/TATEISHI
Coil Winding Resistance	100 Ω ± 10% at 20°C (68°F)
Color Code	Blue
Starter Cut-off Relay	Yes
Model/Manufacturer	G2MW-D-3601 (4U7)/TATEISHI
Coil Winding Resistance	100 Ω ± 10% at 20°C (68°F)
Color Code	No
Electric Fan	Yes
Model/Manufacturer	11H/DENSO
Running r/min	2,950 ± 250 r/min
Fan Motor Relay	Yes
Model/Manufacturer	G2MW-D-3660 (5A8)/TATEISHI
Coil Winding Resistance	100 Ω ± 10% at 20°C (68°F)
Coil Code	Red
Thermostatic Switch	Yes
Model/Manufacturer	11H/DENSO
Thermo-unit	Yes
Model/Manufacturer	11H/YAMAHA
Fuel Sender	
Model/Manufacturer	28V/NIPPON SEIKI
Float Position/Resistance (Color)	F/5 ~ 10Ω, 1/2/28.5 ~ 36.5Ω, E/75 ~ 85Ω (Green — Black)
Amperage for Individual Circuit/Quantity	
Main	20A × 1 pc.
Headlight	10A × 1 pc.
Signal	10A × 1 pc.
Ignition	10A × 1 pc.
Electric fan	10A × 1 pc.

NOTICE

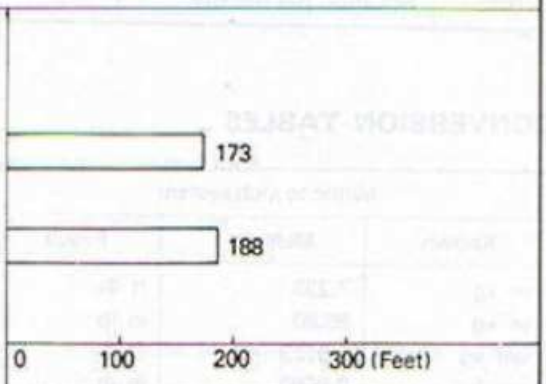
The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

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 XZ550RK

A. Fully Operational Service Brake

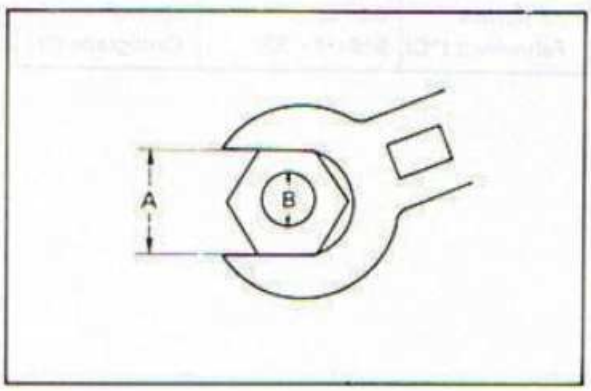


NOTE:
The statement above is required by U.S. Federal law. "Partial failures" of the braking system do not apply to this chart.

GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard I.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

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



DEFINITION OF UNITS

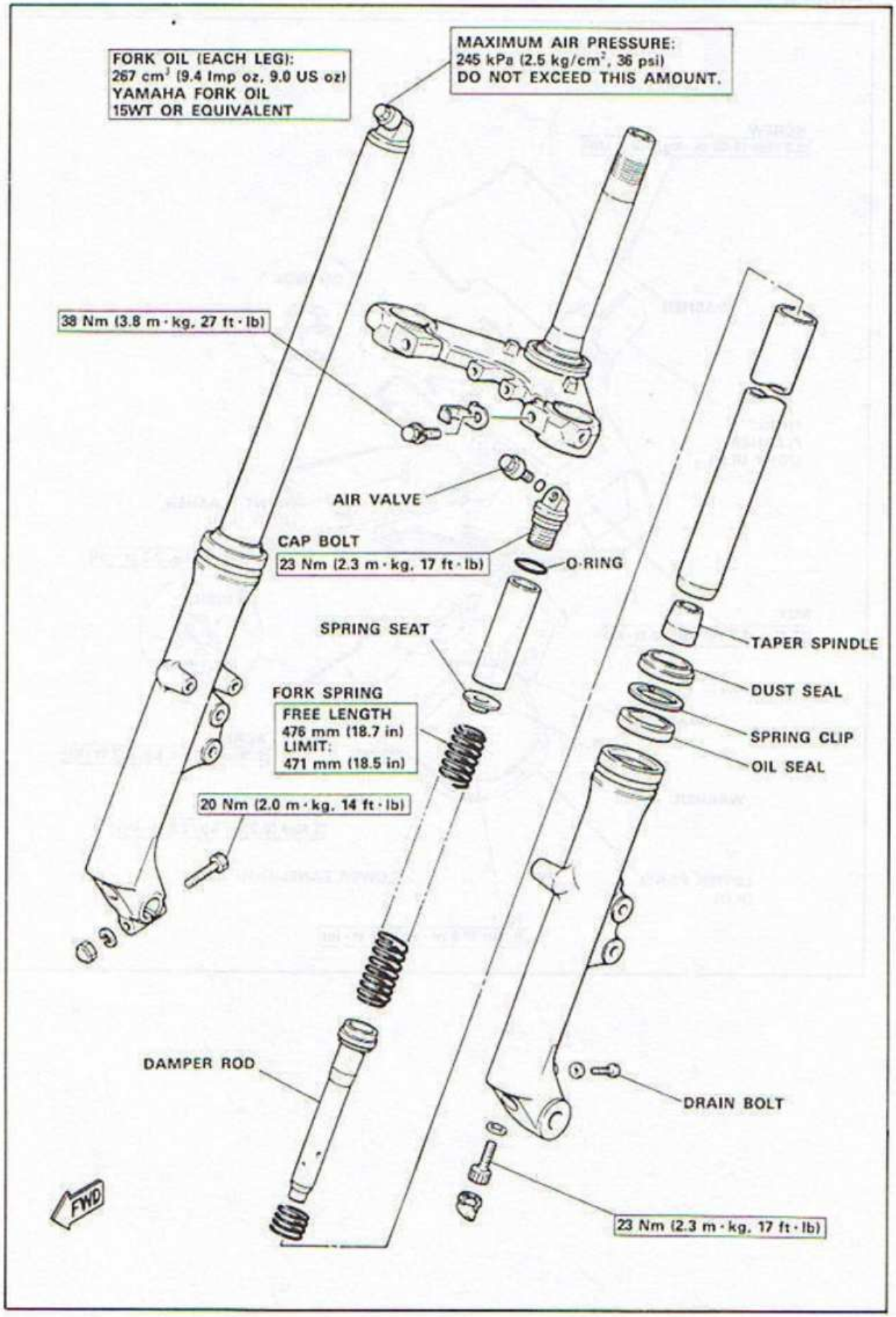
Unit	Read	Definition	Measure
mm cm	millimeter centimeter	10^{-3} meter 10^{-2} meter	Length Length
kg	kilogram	10^{3} gram	Weight
N	Newton	1 kg × m/sec^2	Force
Nm m·kg	Newton meter Meter kilogram	N × m m × kg	Torque Torque
Pa N/mm	Pascal Newton per millimeter	N/m^2 N/mm	Pressure Spring rate
L cm^3	Liter Cubic centimeter	———	Volume or Capacity
r/min	Rotation per minute	———	Engine Speed

CONVERSION TABLES

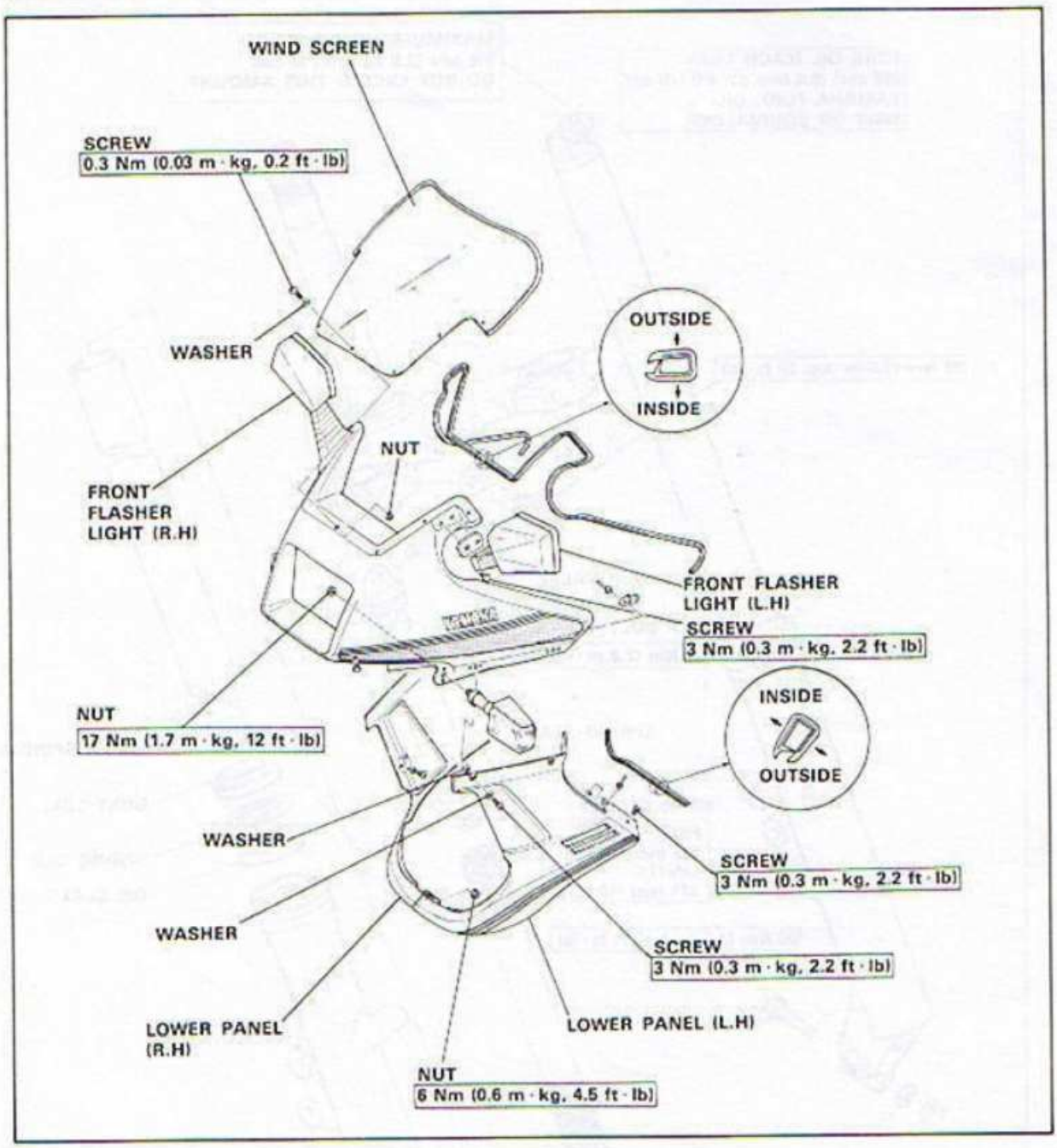
Metric to inch system		
Known	Multiplier	Result
m·kg	7.233	ft·lb
m·kg	86.80	in·lb
cm·kg	0.0723	ft·lb
cm·kg	0.8680	in·lb
kg	2.205	lb
g	0.03527	oz
km/lit	2.352	mpg
km/hr	0.6214	mph
km	0.6214	mi
m	3.281	ft
m	1.094	yd
cm	0.3937	in
mm	0.03937	in
cc (cm^3)	0.03382	oz (US liq)
cc (cm^3)	0.06102	cu in
lit (liter)	2.1134	pt (US liq)
lit (liter)	1.057	qt (US liq)
lit (liter)	0.2642	gal (US liq)
kg/mm	56.007	lb/in
kg/cm^2	14.2234	psi (lb/in^2)
Centigrade (°C)	9/5 (°C) + 32	Fahrenheit (°F)

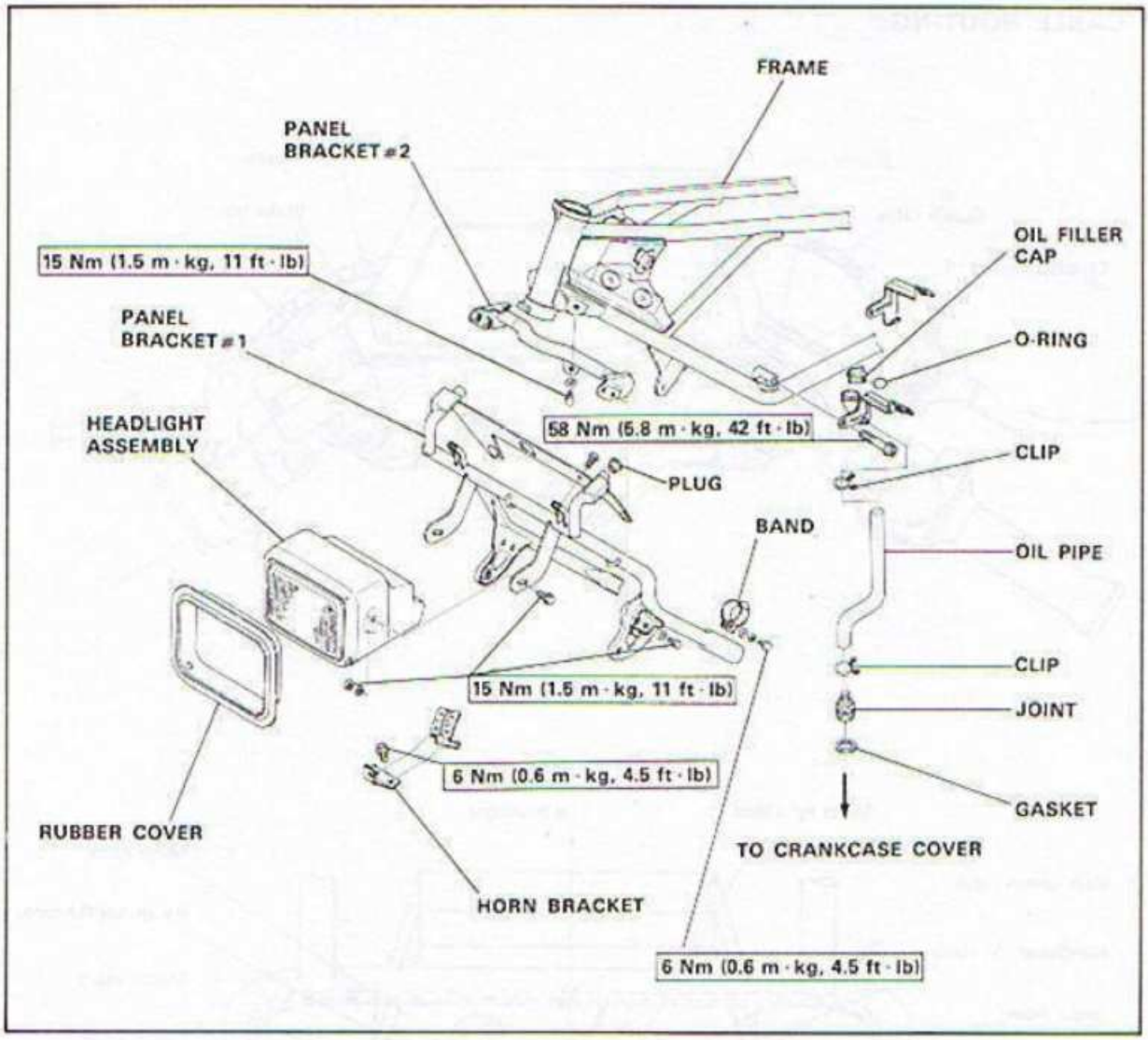
Inch to metric system		
Known	Multiplier	Result
ft·lb	0.13826	m·kg
in·lb	0.01152	m·kg
ft·lb	13.831	cm·kg
in·lb	1.1521	cm·kg
lb	0.4535	kg
oz	28.352	g
mpg	0.4252	km/lit
mph	1.609	km/hr
mi	1.609	km
ft	0.3048	m
yd	0.9141	m
in	2.54	cm
in	25.4	mm
oz (US liq)	29.57	cc (cm^3)
cu in	16.387	cc (cm^3)
pt (US liq)	0.4732	lit (liter)
qt (US liq)	0.9461	lit (liter)
gal (US liq)	3.785	lit (liter)
lb/in	0.017855	kg/mm
psi (lb/in^2)	0.07031	kg/cm^2
Fahrenheit (°C)	5/9 (°F − 32)	Centigrade (°F)

FRONT FORK

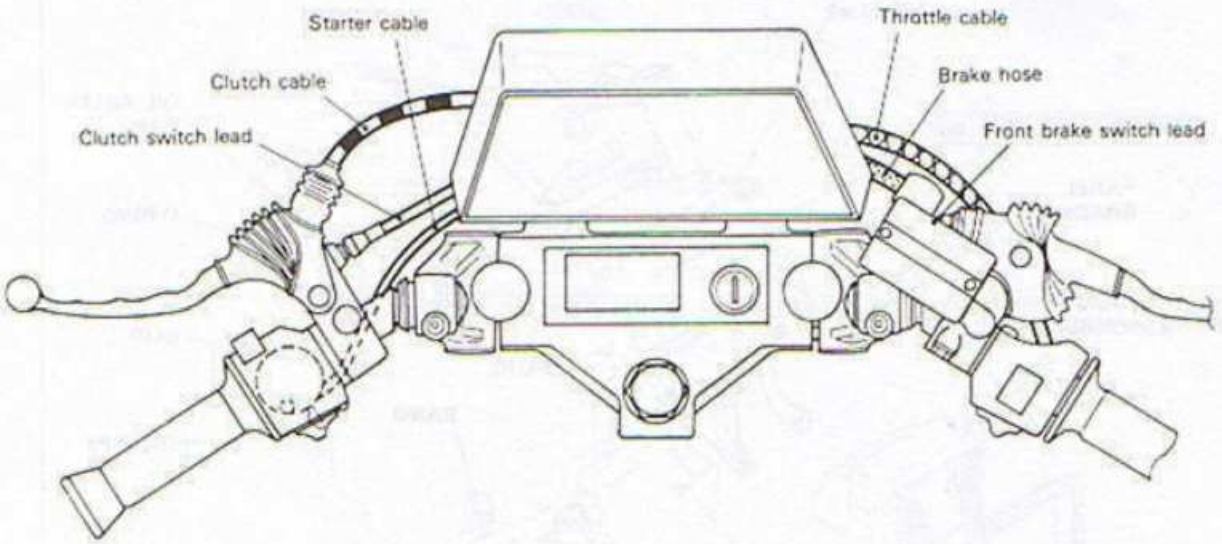

FORK OIL (EACH LEG):
267 cm³ (9.4 Imp oz, 9.0 US oz)
YAMAHA FORK OIL
15WT OR EQUIVALENT
MAXIMUM AIR PRESSURE:
245 kPa (2.5 kg/cm², 36 psi)
DO NOT EXCEED THIS AMOUNT.
38 Nm (3.8 m · kg, 27 ft · lb)
AIR VALVE
CAP BOLT
23 Nm (2.3 m · kg, 17 ft · lb)
O-RING
SPRING SEAT
FORK SPRING
FREE LENGTH
476 mm (18.7 in)
LIMIT:
471 mm (18.5 in)
20 Nm (2.0 m · kg, 14 ft · lb)
DAMPER ROD
TAPER SPINDLE
DUST SEAL
SPRING CLIP
OIL SEAL
DRAIN BOLT
23 Nm (2.3 m · kg, 17 ft · lb)
FWD

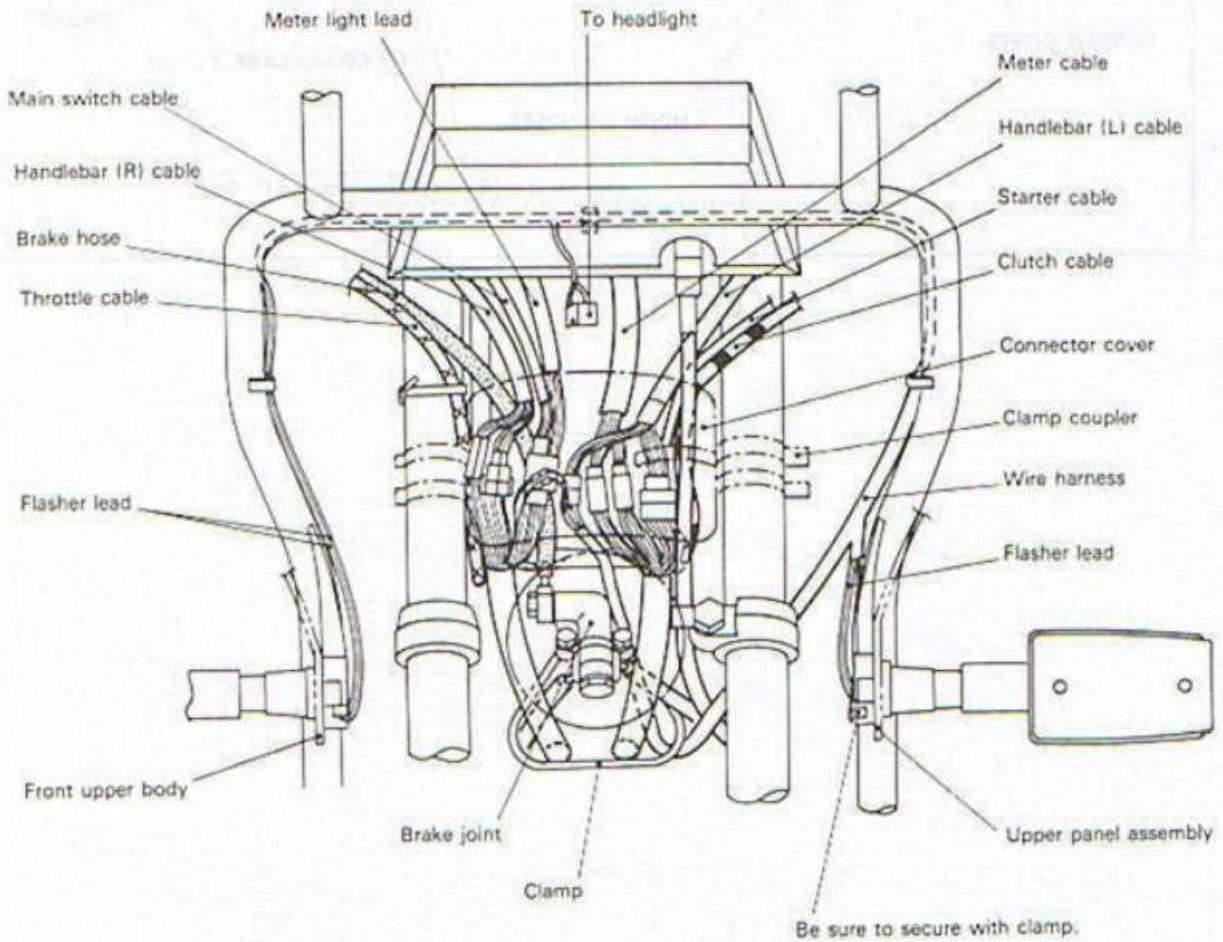
FAIRING ASSEMBLY

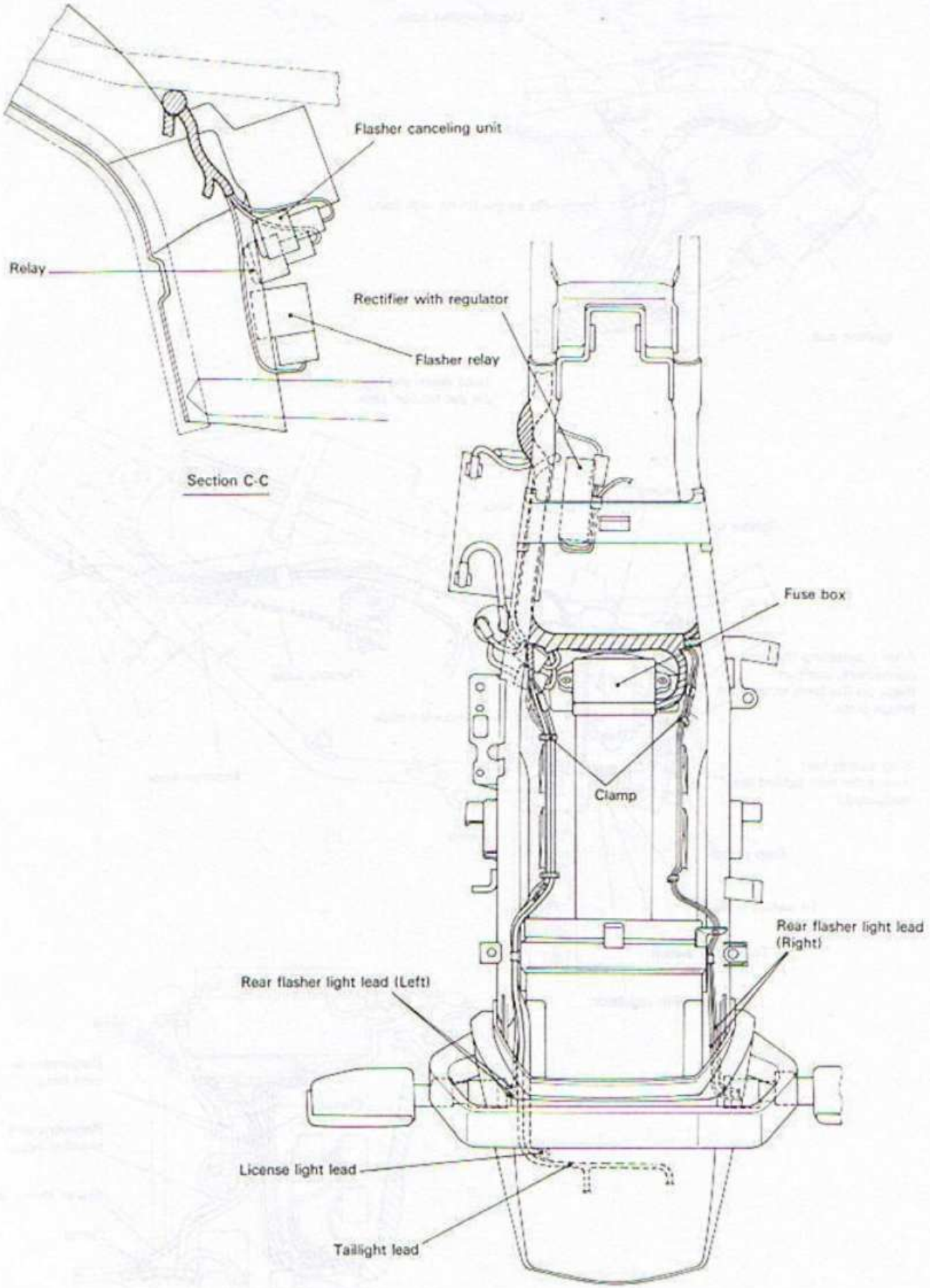


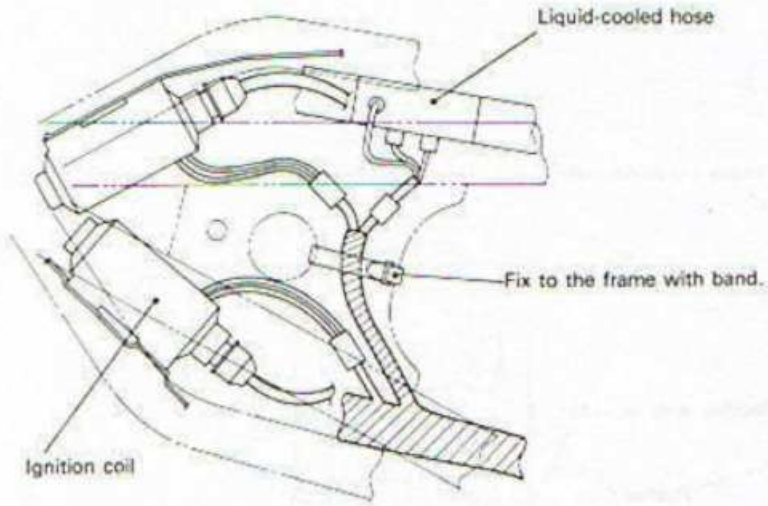

FRAME
PANEL BRACKET #2
15 Nm (1.5 m · kg, 11 ft · lb)
PANEL BRACKET #1
HEADLIGHT ASSEMBLY
58 Nm (5.8 m · kg, 42 ft · lb)
PLUG
BAND
15 Nm (1.5 m · kg, 11 ft · lb)
6 Nm (0.6 m · kg, 4.5 ft · lb)
RUBBER COVER
HORN BRACKET
6 Nm (0.6 m · kg, 4.5 ft · lb)
OIL FILLER CAP
O-RING
CLIP
OIL PIPE
CLIP
JOINT
GASKET
TO CRANKCASE COVER

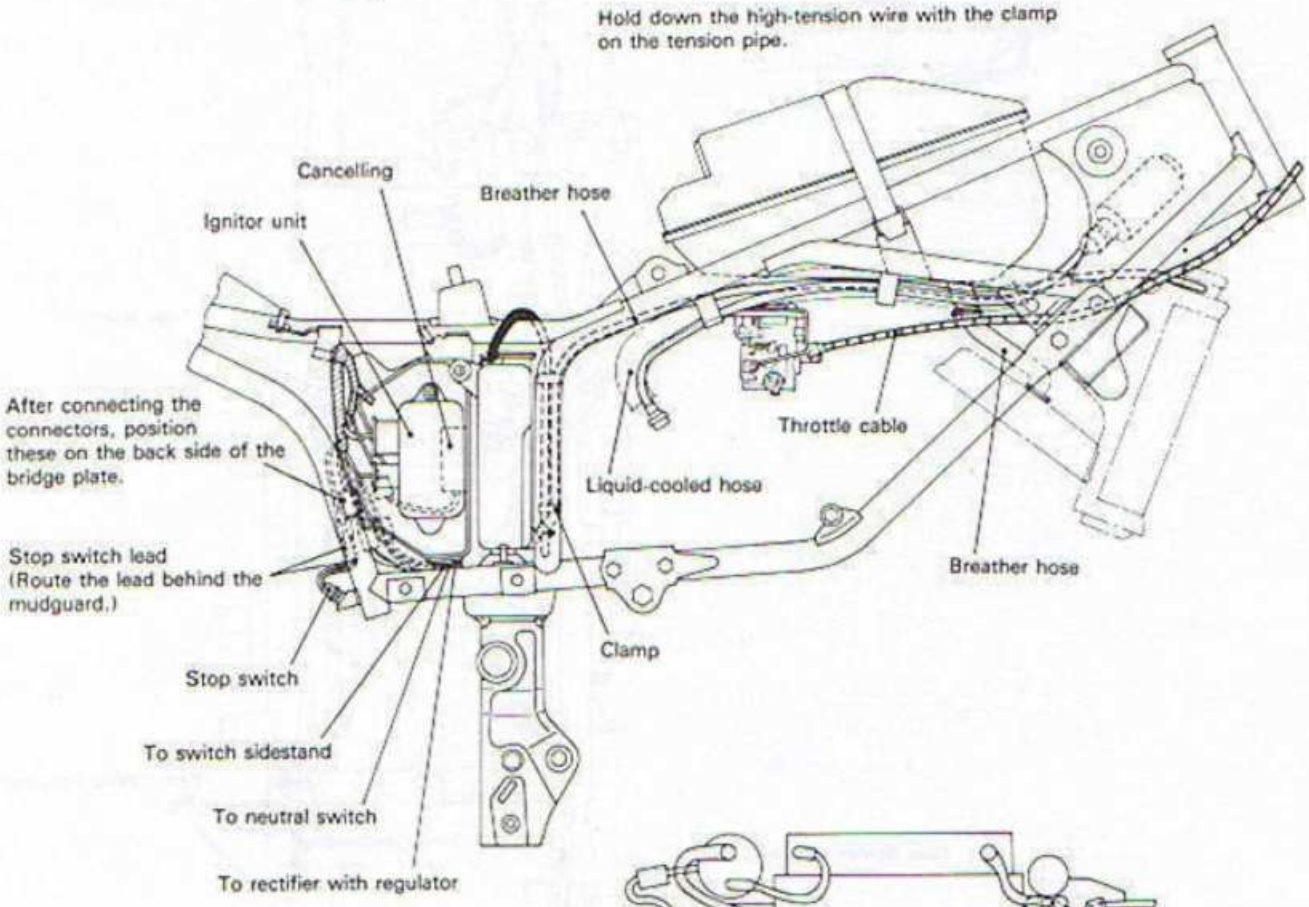
CABLE ROUTING

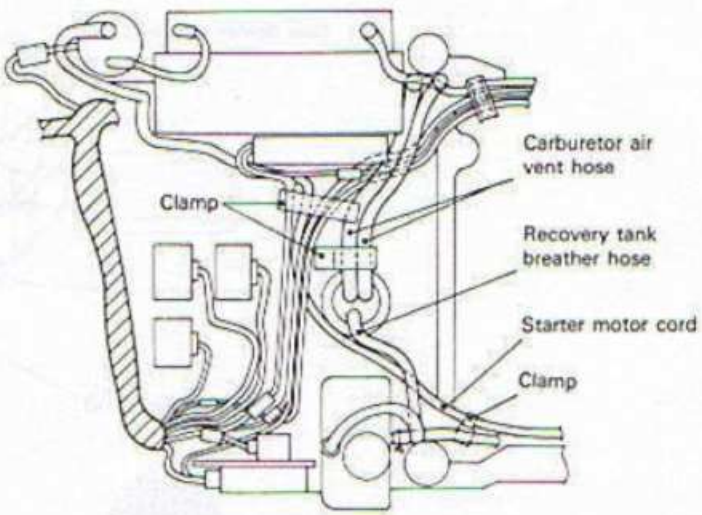


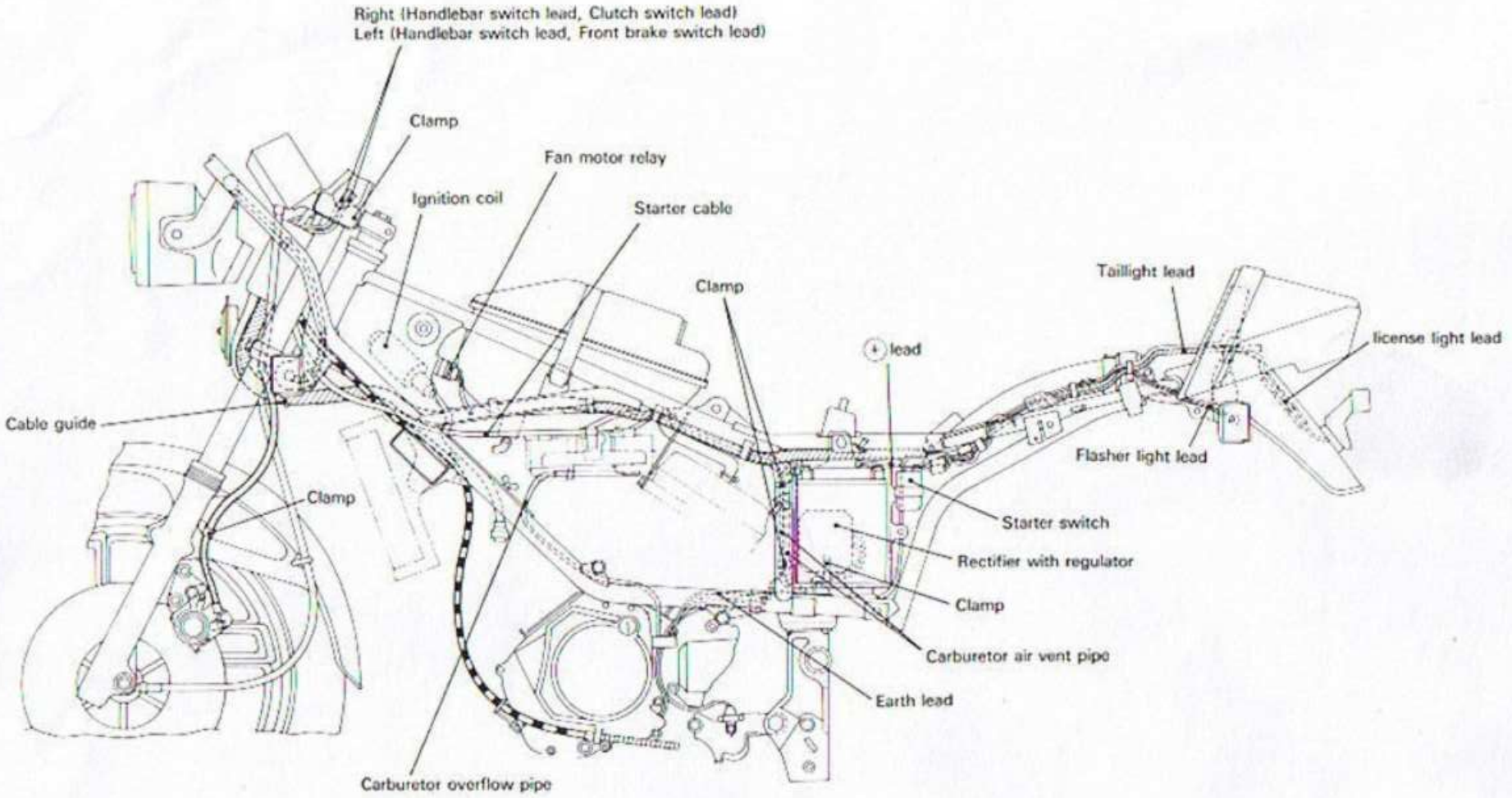



Flasher canceling unit
Relay
Rectifier with regulator
Flasher relay
Section C-C
Fuse box
Clamp
Rear flasher light lead (Right)
Rear flasher light lead (Left)
License light lead
Taillight lead


Liquid-cooled hose
Fix to the frame with band.
Ignition coil


Hold down the high-tension wire with the clamp on the tension pipe.
Cancelling
Breather hose
Ignitor unit
After connecting the connectors, position these on the back side of the bridge plate.
Throttle cable
Liquid-cooled hose
Stop switch lead (Route the lead behind the mudguard.)
Breather hose
Clamp
Stop switch
To switch sidestand
To neutral switch
To rectifier with regulator


Carburetor air vent hose
Clamp
Recovery tank breather hose
Starter motor cord
Clamp


Right (Handlebar switch lead, Clutch switch lead)
Left (Handlebar switch lead, Front brake switch lead)
Clamp
Fan motor relay
Ignition coil
Starter cable
Clamp
Taillight lead
license light lead
⊕ lead
Cable guide
Flasher light lead
Clamp
Starter switch
Rectifier with regulator
Clamp
Carburetor air vent pipe
Earth lead
Carburetor overflow pipe