YAMAHA

TT500C

OWNER'S MANUAL

583-28199-10

NOTICE

Yamaha Motor Company is confident you will enjoy your new Yamaha to the utmost.

We have made every effort to provide you with a safe, well-engineered and constructed product.

This Owner's Manual will acquaint you with several features and maintenance procedures concerning your Yamaha. However, if you are unfamiliar with the product, or the features or procedures outlined within this manual, we strongly urge you to consult your Authorized Yamaha Dealer for additional information.

TT 500 C OWNER'S MANUAL
FIRST EDITION AUGUST 1975

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FOREWORD

Yamaha's TT 500 C is completely new model designed solely for the rigors of off-road riding.

Each unit is assembled and checked according to the same rigorous principles as our championship competition models.

This Owner's Manual is included to provide basic information for operation and maintenance.

Additional information regarding major repairs can be found within the TT 500 C Service Manual and various other information and training manuals available from your Authorized Yamaha Dealer.

YAMAHA MOTOR CO., LTD.
SERVICE DEPARTMENT
INTERNATIONAL DIVISION
IWATA, JAPAN

CONTENTS

FEATURES

Aluminum cylinder construction

The aluminum cylinder has a special cast liner which has superior heat dissipation characteristics. Even during extended high speed operation the engine operates efficiently and there is no significant loss of output.

Dry sump lubrication system

The dry sump system lubricates the engine using a separate oil tank and feed pump. After lubricating the engine parts under pressure, the oil is returned to the oil tank by a scavenging pump. Consequently, loss and overheating of oil is reduced because the oil inside the crankcase is not agitated by the crankshaft. Furthermore, the oil does not deteriorate as quickly as it does in other systems.

To make the machine width smaller, the oil tank is built in the frame. In addition, the ground clearance is made higher by the use of the dry sump system.

5-speed transmission

With 5-speeds, power is delivered efficiently to the rear wheel, providing excellent performance for all operating conditions.

Starter equipped carburetor

The carburetor on this vehicle has a separate starter system. By merely operating the starter (choke) lever a rich mixture is supplied to the engine when starting.
This makes starting easy even in cold weather.

Adjustable rear suspension

The rear spring preload can be adjusted to suit rider preference and riding conditions

The nitrogen/oil type rear shock absorber has improved the stability of the machine.

CAUTION:

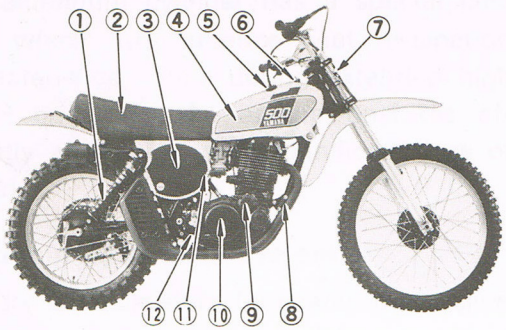
This shock absorber is filled with a high pressure gas. It should be handled with special care. For details, refer to "Rear Shock Absorber" on page 63.

Lighting equipment

As options, headlight, taillight, light switch and wire harness are available. A lighting coil is mounted in the machine. For details, see your Yamaha dealer.

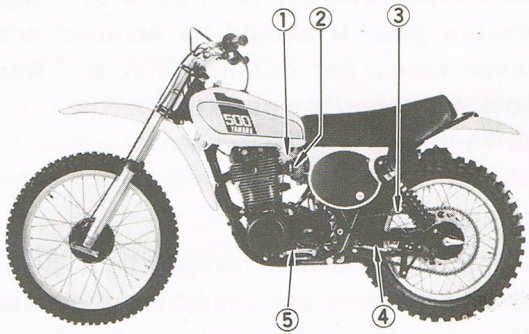
NOMENCLATURE

Right side view



1. Rear shock absorber
2. Seat
3. Right side cover (Number plate)
4. Fuel tank
5. Fuel tank cap
6. Engine oil tank cap
7. Front number plate
8. Exhaust pipe
9. Oil filter cover
10. Rear brake pedal
11. Kick pedal
12. Foot rest

Left side view



1. Full petcock
2. Carburetor
3. Drive chain
4. Side stand
5. Shift lever

SPECIFICATIONS

NOTICE:

Some data in this manual may become outdated due to improvements made to the machine in the future. If there is any question concerning this manual, consult your nearby Yamaha dealer.

GENERAL SPECIFICATIONS

Model	TT500C
Dimension:	
Overall length	2,110 mm (83.1 ins)
Overall width	935 mm (36.8 ins)
Overall height	1,120 mm (44.1 ins)
Wheelbase	1,420 mm (55.9 ins)
Minimum road clearance	215 mm (8.5 ins)
Net weight	119 kgs (262 lbs)
Minimum turning radius	2,100 mm (82.7 ins)
Engine:	
Type	4 stroke, single over head cam, gasoline
Engine model	583
Cylinder	Single cylinder
Displacement	499 cc (30.4 cu. in)

Model		TT500C
Bore and Stroke		87 × 84 mm (3.425 × 3.307 ins)
Compression ratio		9.0
Starting system		Kick starter system
Ignition system		Flywheel magneto
Gasoline tank capacity		8.5 lits (2.24 US.gal)
Engine oil quantity		2.5 lits (2.6 US.qt) Periodic oil change: 2.0 lits (2.1 US.qt)
Lubricating system		Dry sump
Spark plug		BP7ES NGK
Carburetor		VM34SS MIKUNI
Air cleaner		Oiled, foam rubber
Transmission:		
Primary reduction system		Gear
Primary reduction ratio		2.566 (77/30)
Secondary reduction system		Chain
Secondary reduction ratio		3.466 (52/15)
Clutch		Wet, multi-disc type
Gear box type		Constant mesh, 5-speed forward
Operation system		Left foot operation
Gear ratio:	First	2.357 (33/14)
	Second	1.555 (28/18)
	Third	1.190 (25/21)
	Fourth	0.916 (22/24)

Model		TT500C
	Fifth	0.777 (21/27)
Steering:	Caster	59° 50′
	Trail	134 mm (5.28 ins)
Tire size:	Front	3.00—21—4PR
	Rear	4.60—18—4PR
Suspension:	Front	Telescopic fork
	Rear	Swing arm
Shock absorber:	Front	Coil spring, oil damper
	Rear	Coil spring, nitrogen/oil damper
Frame		Semi-double cradle

MACHINE IDENTIFICATION

Frame number

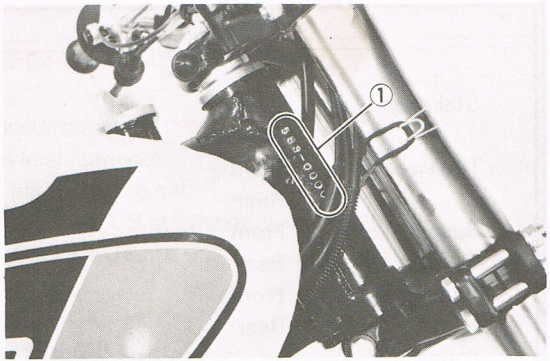
The frame number is stamped on the right side of the steering head pipe.

Engine number

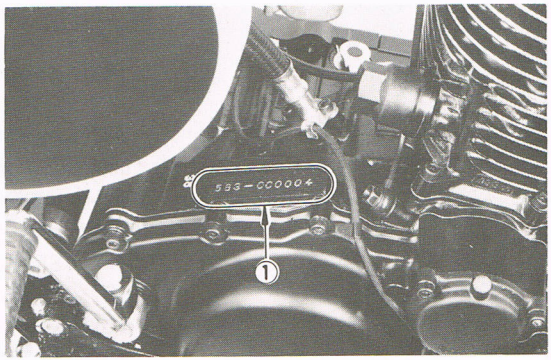
The engine serial number is stamped into the elevated part of the right rear section of the engine.

NOTE:

The first three digits of these numbers are for model identifications; the remaining digits are the unit production number. The two serial numbers are usually identical but they may sometimes be 2 or 3 numbers apart.



1. Frame number

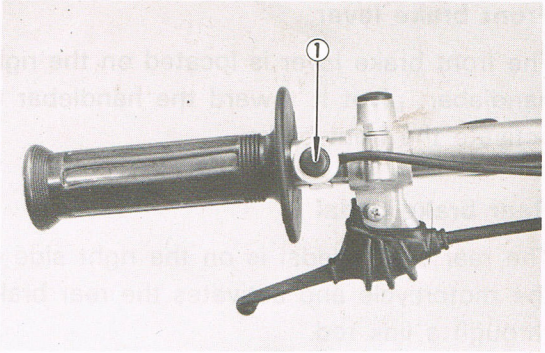


1. Engine number

CONTROL FUNCTIONS

Engine stop button

The engine stop button is located on the left handlebar. Push and hold to turn engine off.

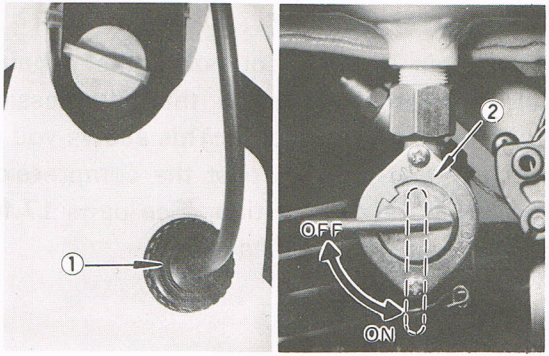


1. Engine stop button

Fuel tank and petcock

The fuel tank incorporates a threaded plastic filler cap.

The fuel petcock is located on the rear left-side of the fuel tank. Turn the petcock lever to the vertical position and fuel will flow to the carburetor. Turn lever to the horizontal position to shut off fuel supply to the carburetor.



1. Fuel tank cap 2. Petcock

Front brake lever

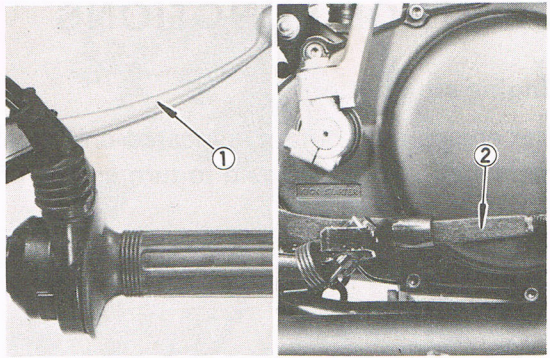
The front brake lever is located on the right handlebar; pivot it toward the handlebar to activate the front brake.

Rear brake pedal

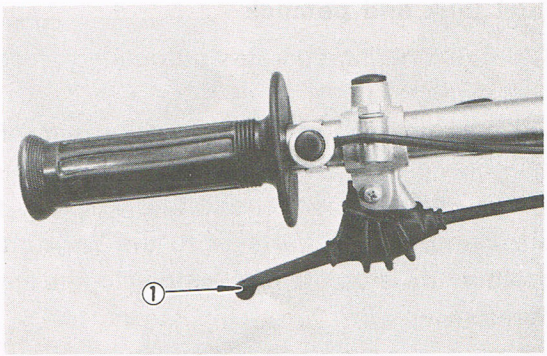
The rear brake pedal is on the right side of the motorcycle and activates the rear brake through a link rod.

Decompression lever

When this lever is squeezed, the exhaust valve is forced open so the compression pressure can be reduced. This allows you to move the piston just past the compression stroke before kick starting. See page 17 for proper operating procedure.



1. Brake lever 2. Brake pedal



1. Decompression lever

Throttle

The throttle is the positive-return type, and is located on the right handlebar.

Kick crank

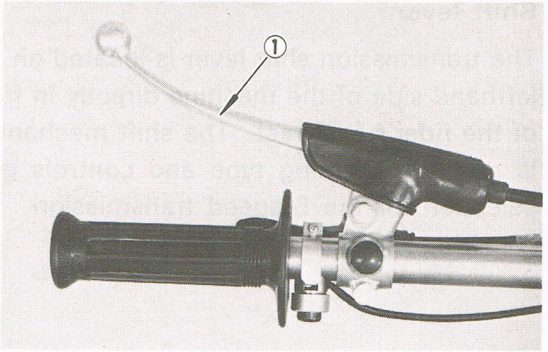
The kick starter crank is located on the right, rear side of the engine.

NOTE:

When starting the engine use the decompression lever.

Clutch lever

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

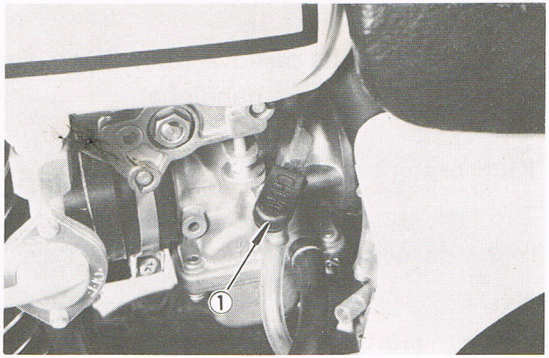


1. Clutch lever

Starter lever (choke lever)

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

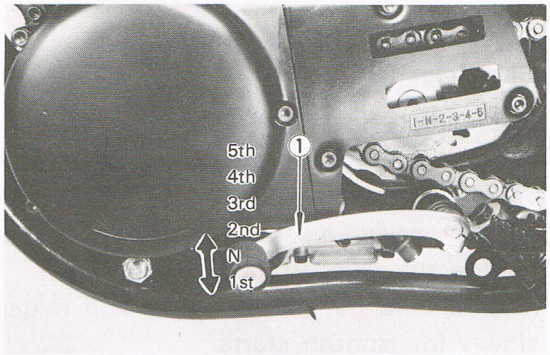
Push the lever down to open the circuit (for starting) and pull it up to close the circuit.



1. Starter lever (Choke lever)

Shift lever

The transmission shift lever is located on the lefthand side of the machine directly in front of the rider's foot rest. The shift mechanism is of the ratcheting type and controls gear selection for the 5-speed transmission.

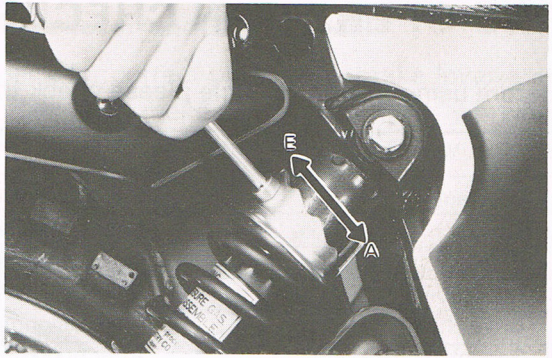


1. Shift lever

Rear shock absorber

The rear suspension should be adjusted to fit the load, speed and road conditions.
Turn it to change the spring rate.

Soft..... A
〉 (5 positions)
Stiff..... E



PRE-OPERATION CHECKS

Before using this motorcycle please check the following points:

Item	Routine	Page
Fuel tank	Check gas level/top-off as required	9,15
Brakes	Check operation/adjustment	27,28
Clutch	Check operation/adjustment	28
Engine oil	Check oil level/top-off as required	15,34
Drive chain	Check alignment/adjustment/lubrication	52～54
Sprk plug	After break-in check color/cond'n	33
Throttle	Check for proper throttle cable operation	32,54
Decompression lever	Check for proper cable free play	15
Air filter	Foam type — must be clean and damp w/oil always	49～51
Wheels and tires	Check pressure/runout/spoke tightness/axle nuts	67～69
Fittings/fasteners	Check all — tighten as necessary	—

NOTE:

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

Fuel

Make sure there is sufficient fuel in the tank.
Recommended gasoline:
Premium gasoline (90 octane)
Fuel tank capacity:
8.5 lit (2.24 U.S.gal.)

Engine oil

Make sure the engine oil is at the specified level.
Add oil as necessary.
Recommended oil:
1. Yamalube 4-cycle oil
2. SAE 20W/40 type "SE" motor oil (more than 15°C, 59°F)
3. SAE 10W/30 type "SE" motor oil (below 15°C, 59°F)

Oil quantity:
2.5 lits (2.6 US.qt), periodic
Oil change:
2.0 lits (2.1 US.qt)

Brake lever and brake pedal

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

Clutch lever

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

Throttle grip

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

Decompression lever

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

Tires

Check the tire pressure. (Normal riding)

FRONT	0.9 kg/cm^2 (13 psi)
REAR	1.1 kg/cm^2 (15 psi)

OPERATION

CAUTION:

Before riding this motorcycle, become thoroughly familiar with all operating controls and their function.

Consult your Yamaha dealer regarding any control or function you do not thoroughly understand.

WARNING:

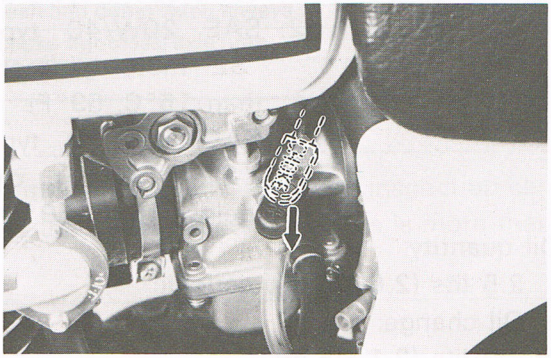
This model is designed for off-road use only. It is not equipped with U.S. Government approved lighting, mirrors, horn or directional signals. In most instances, it is illegal to ride this model (either day or night) on any public street or highway.

Starting a cold engine

WARNING:

If the proper starting procedure (using the decompression lever) is not followed, the engine could kick back causing injury to the rider.

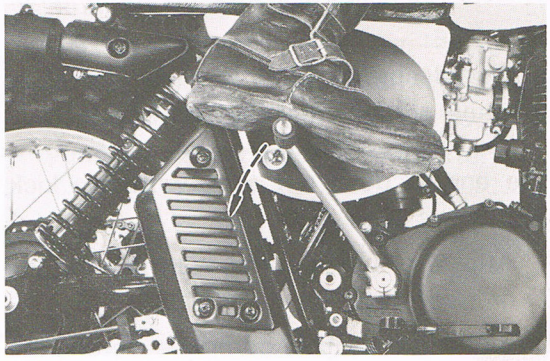
1. Turn the fuel petcock to "ON".
2. Open the carburetor starter jet (choke) by pushing down on the lever and completely close the throttle grip.



3. By slowly depressing the kick pedal, find the compression stroke.

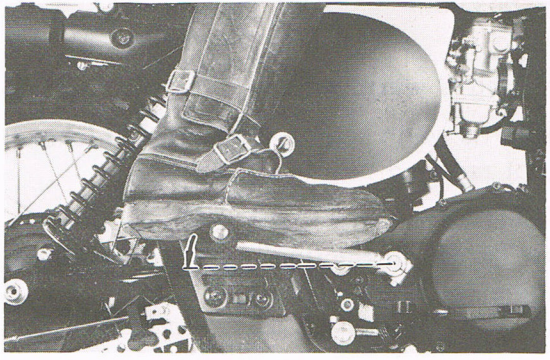
NOTE:

When considerable resistance of the kick pedal is felt, the engine is on the compression stroke.



4. Squeeze the decompression lever, and depress the kick pedal slowly to the position shown in the figure. This advances the engine just beyond the compression stroke.

5. Release the decompression lever, and allow the kick pedal to return to its home position.



6. Kick the kick pedal to start the engine.

NOTE:

The decompression lever is not used while actually starting the engine.

If the engine does not start with one kick, repeat steps 3 ~ 6.

7. After the engine starts, warm up for one or two minutes.
8. When warm-up is complete, return the starter jet (chock) lever to its original position.

Starting a warm engine

To start a warm engine, the starter jet (choke) is not required.

CAUTION:

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

Warming up

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

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 starting accelerating, climbing hills, etc. The use of the change pedal is shown in the illustration (page 12). 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.

Break-in procedure

NOTE:

1. After fueling and pre-operational checks have been made, refer to "OPERATION" and start the engine.
2. Allow the engine to warm up. Check engine idle speed. Check operating controls and engine stop button operation.

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1. 0 ~ 250 km (150 miles):
   Avoid operation above half-throttle.
2. 250 ~ 500 km (150 ~ 300 miles):
   Avoid operation above 3/4 throttle.
3. 500 km (300 miles) and beyond:
   Full-throttle operation is allowed, but unnecessary full-throttle operation should be avoided.
   After 500 km (300 miles) operation, be sure to replace the engine oil and oil filter element, and clean the oil strainers. (See page 39)

CAUTION:

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

PERIODIC MAINTENANCE AND MINOR REPAIR

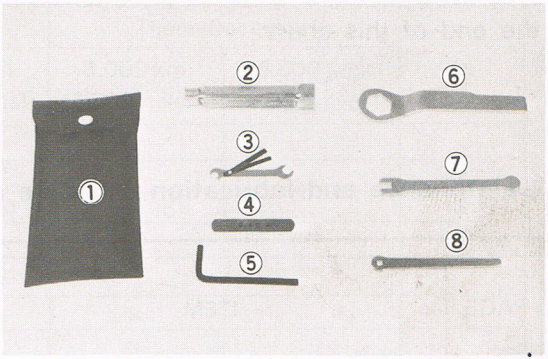
Should you desire additional service information on this model a copy of Service Manual can be purchased from any Authorized Yamaha Dealer.

CAUTION:

The following sections provide information for the disassembly, troubleshooting and maintenance of various components of the motorcycle. If you do not have the necessary tools and an understanding of the mechanical principles involved, please refrain from attempting repairs. The use of improper tools and/or procedures can cause major damage to the unit with resultant additional repair costs.

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

NOTE:
A 27 mm Box end wrench is required to remove the oil strainer. (See page 39)



1. Tool bag
2. Socket wrench (12 mm × 21 mm)
3. Point wrench (5.5 mm × 7 mm)
4. Thickness gauge (0.10 mm, 0.15 mm)
5. Allen wrench (5 mm)
6. Offset wrench (22 mm)
7. Spoke wrench
8. Valve adjust wrench

PERIODIC MAINTENANCE

The most important points of motorcycle inspection, adjustment and lubrication are explained below; if the owner is not familiar with motorcycle service, this work should be done by a Yamaha dealer.

The number in parentheses (1) after an item refers to the recommended lubricant. See list at the end of this chart.

Maintenance and lubrication schedule chart

PAGE	ITEM	Initial	Thereafter every		As required
		500 km (300 miles)	3,000 km (2,000 miles)	6,000 km (4,000 miles)	
	ENGINE:				
35～41	Change engine oil	× (1)	×		
35～41	Change oil filter	×		×	
35～41	Clean oil strainer	×		×	
43～46	Adjust valve	×	×		×
42～43	Adjust cam chain	×			×
—	Check compression	×		×	×
—	Check cylinder head bolt torque	×		×	
28～30	Adjust clutch	×	×		×
30～32	Check and adjust carburetor	×	×		×
—	Clean carburetor				×
—	Inspect exhaust system	×		×	×
—	Check flywheel nut torque	×			×

PAGE	ITEM	Initial	Thereafter every		As required
		500 km (300 miles)	3,000 km (2,000 miles)	6,000 km (4,000 miles)	
—	Check decomp.	×	×		×
—	Check oil pressure	×		×	×
49～51	Clean and oil air filter	× (5)	× (5)		× (5)
49～51	Replace air filter				×
	CHASSIS				
27	Adjust brake (front and rear)	×	×		×
28	Check front fork	×	×		
60～63	Change fork oil	× (4)			× (4)
63～66	Check rear shock absorber	×	×		
—	Check swing arm	×		×	×
—	Check and adjust controls and cables	×	×		
53～54	Lubricate cables	× (2)	× (2)		× (2)
55	Check steering head	×		×	
—	Lubricate swing arm pivot			× (3)	× (3)
68～69	Check rim runout	×		×	×
—	Check spoke tension	×		×	×
—	Check wheel bearing	×			×
52～53	Check drive chain tension and alignment	×	×		×
53	Clean and lubricate drive chain	× (2)	× (2)		× (2)

PAGE	ITEM	Initial	Thereafter every		
		500 km (300 miles)	3,000 km (2,000 miles)	6,000 km (4,000 miles)	As required
—	Replace drive chain				×
—	Clean fuel tank				×
—	Clean petcock				×
	ELECTRICAL				
—	Check breaker points	×	×		×
47～48	Check and adjust ignition timing	×	×		×
—	Check wiring connection	×	×		×
33	Check spark plug	×	×		×
—	Replace spark plug				×

Maintenance and lubrication schedule chart — notes

No. 1 At ambient temperature above 15°C (59°F), use YAMALUBE 4-cycle oil, or SAE 20W-40 type "SE" motor oil.
At ambient temperature below 15°C (59°F), use SAE 10W-30 type "SE" motor oil.
Do not use "additives" in oil.

No. 2 Use SAE 10W-30 type "SE" motor oil. (If desired, specialty lubricants of quality manufacture such as YAMAHA CHAIN AND CABLE LUBE, may be used.

No. 3 Use lithium soap base grease.
No. 4 Use HAMAHA FORK OIL.
No. 5 Air filter element must be damp with oil at all times to function properly. Clean and lube every outing. Do not over-oil. Use SAE 30W oil.

Torque specifications

The list below covers those stud bolt sizes with standard I.S.O. pitch threads. Torque specifications for components with thread pitches other than standard are given within the applicable chapter.

Torque specifications call for dry, clean threads. Components such as the cylinder or cylinder head should be at room temperature prior to torquing. A cylinder head or any other item with several fasteners should be torqued down in a crisscross pattern in successive stages until torque specification is reached. The method (which is similar to installing an automobile wheel) will avoid warping the component.

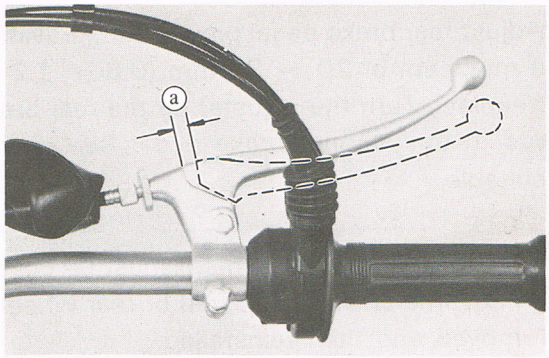
A (NUT)	B (BOLT)	TORQUE SPECIFICATION		
		m-kgs	ft-lbs	in-lbs
10 mm	6 mm	1.0	7.2	85
12 mm	8 mm	2.0	15	175
14 mm	10 mm	3.5 ~ 4.0	25 ~ 29	300 ~ 350
17 mm	12 mm	4.0 ~ 4.5	29 ~ 33	350 ~ 400
19 mm	14 mm	4.5 ~ 5.0	33 ~ 36	400 ~ 440
22 mm	16 mm	5.8 ~ 7.0	42 ~ 50	500 ~ 600
24 mm	18 mm	5.8 ~ 7.0	42 ~ 50	500 ~ 600
27 mm	20 mm	7.0 ~ 8.3	50 ~ 60	600 ~ 700
SPARK PLUG		2.5 ~ 3.0	18 ~ 22	220 ~ 260

Front brake

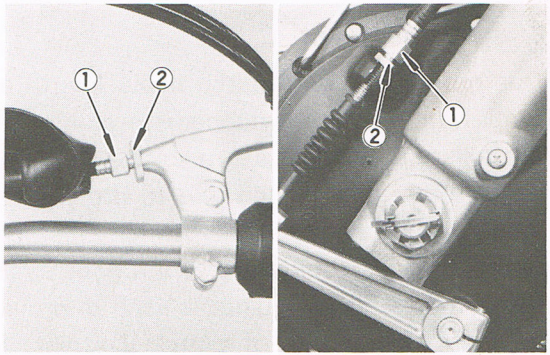
Front brake should be adjusted to suit rider preference with a minimum cable slack of 5 ~ 8 mm (0.2 ~ 0.3 in) play at the brake lever pivot point.

Adjustment is accomplished at one of two places; either the handle lever holder or the front brake hub.

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



a. 5 ~ 8 mm (0.2 ~ 0.3 in)



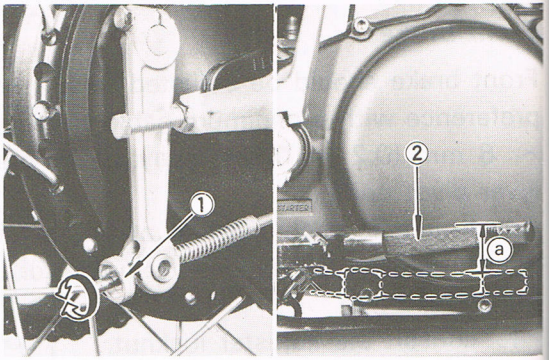
1. Adjuster 2 Adjuster locknut

Rear brake

Adjust rear brake pedal play to suit, providing a minimum of 20 ~ 30 mm (0.8 ~ 1.2 in) freeplay. Turn the adjuster on the rear brake rod in or out until brake pedal free play is suitable.

NOTE:

Rear brake pedal adjustment must be checked anytime chain is adjusted or rear wheel is removed and then reinstalled.



1. Adjuster
2. Brake pedal

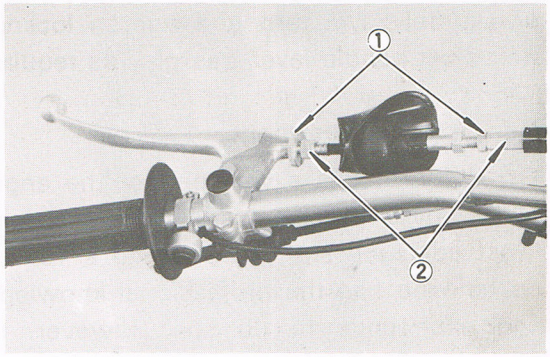
a. 20 ~ 30 mm (0.8 ~ 1.2 in)

Clutch adjustment

This model has two clutch cable length adjusters and a clutch mechanism adjuster. Cable length adjusters are 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 handle lever.

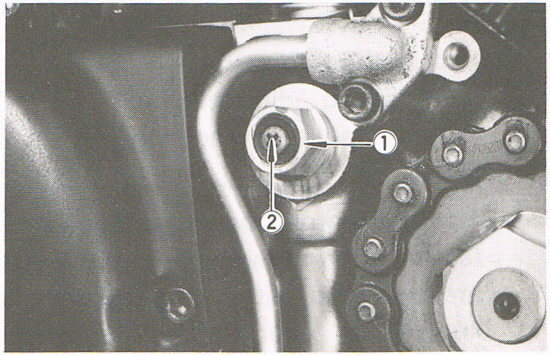
FREEPLAY ADJUSTMENT:
Loosen either the handle lever adjuster locknut or the cable in-line length adjuster locknut. Next, turn the length adjuster either in or out until proper lever free play is achieved (see illustration).



1. Adjuster locknut 2. Adjuster

Mechanism adjustment

Remove rear, lefthand crankcase cover. Note position of clutch axle lever.
Loosen adjust screw locknut and fully tighten eccentric adjust screw. Next turn either cable length adjuster in or out until lever is positioned slightly forward of main axle center line. Then back eccentric adjust screw out until axle lever shaft contacts clutch push



1. Adjuster locknut 2. Adjust screw

rod inside engine. Turn adjust screw in approximately 1/8 turn and tighten locknut. Re-adjust handle lever free play as required.

Carburetor adjustment

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjusting should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following three points may be serviced by the owner as part of his usual maintenance routine.

1. Idle mixture adjustment
2. Idling speed adjustment
3. Throttle cable play adjustment

NOTE:

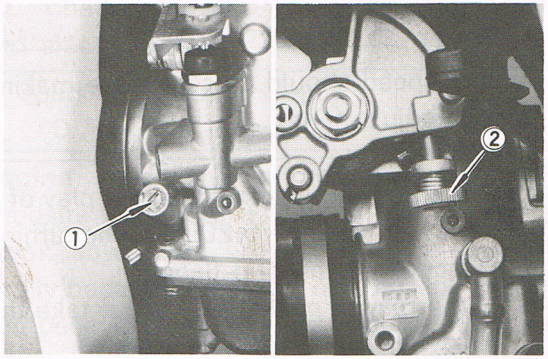
The carburetor was set at the Yamaha factory after many tests. If the settings are disturbed without having technical knowledge, poor engine performance and damage may result.

1. Idle mixture and idle speed adjustment
a. Turn the pilot screw in until lightly seated.
b. Back out 1-1/4 turns.
c. Turn the idle speed adjust screw until idle is at desired rpm.
d. Turn the pilot screw in or out until speed is at highest rpm.
e. Turn the idle speed adjust screw in or out until idle speed is at desired rpm.

NOTE:

Pilot screw and idle speed adjust screws should be adjusted so that engine responds from idle position without hesitation.

PILOT SCREW: Back out 1-1/4 turns.
IDLE SPEED: As desired.



1. Pilot screw 2. Idle speed adjust screw

2. Throttle cable adjustment

NOTE:

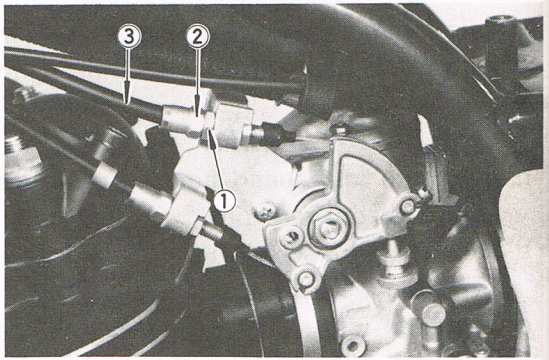
Idle speed should be set before making this adjustment.

The throttle grip should have a play of 2 ~ 5 mm (0.08 ~ 0.20 in) in the turning direction at the grip flange.

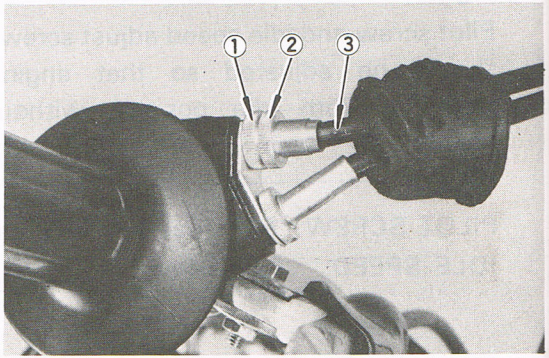
If the play is not in this range, take the following steps for adjustment:

a. Loosen the adjuster lock nut on the carburetor side of throttle cable 1, and turn the adjuster in and out so the play is correct. After the adjustment, be sure to tighten the locknut.

b. If the play is still incorrect after the adjuster is loosened 5 mm (0.20 in), remove the rubber cap on the throttle grip side and make an adjustment with the adjuster on the grip side.



1. Adjuster locknut 2. Adjuster 3. Throttle cable 1



1. Adjuster locknut 2. Adjuster 3. Throttle cable 1

Spark plug

The spark plug indicates how the engine is operating. If the engine is operating correctly, and the machine is being ridden correctly, then the tip of the white insulator around the positive electrode of the spark plug will be a medium tan color. If the insulator is very dark brown or black color, then a plug with a hotter heat range might be required. This situation is quite common during the engine break-in period.

If the insulator tip shows a very light tan or white color is actually pure white and glazed or if electrodes show signs of melting, then a spark plug with a colder heat range is required.

Remember, the insulator area surrounding the positive electrode of the spark plug must be a medium tan color. If it is not, check carburetion, timing and ignition adjustments.

The spark plug must be removed and checked. Check electrode wear, insulator color, and electrode gap.

Spark Plug Gap:
0.7 ~ 0.8 mm (0.028 ~ 0.031 in)

Engine heat and combustion chamber deposits will cause any spark plug to slowly break down and erode. If the electrodes finally become too worn, or if for any reason you believe the spark plug is not functioning correctly, replace it.

When installing the plug, always clean the gasket surface, use a new gasket, wipe off any grime that might be present on the surface of the spark plug, torque the spark plug properly.

Standard Spark Plug	Tightening Torque
BP7ES (NGK)	2.5 ~ 3.0 m-kg (18 ~ 22 ft-lb)

Engine oil

In this model, the dry sump lubrication system is used. That is, oil is supplied to the engine, transmission and clutch by means of the feed pump, after lubricating is over, the oil is fed back to the oil tank by means of the scavenging pump.

Therefore, the oil level can be checked at the oil tank. The engine oil tank is built in the frame, and the oil filler cap is located between the fuel tank and steering head pipe.

1. Oil level measurement

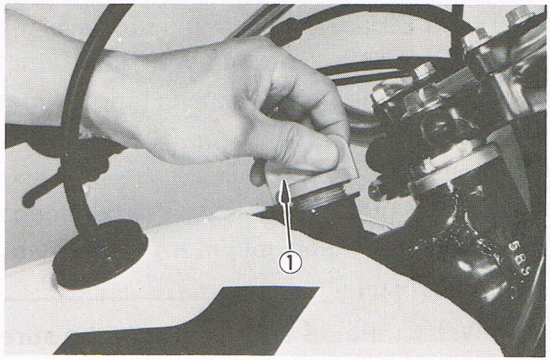
a. Place the machine on a level place and hold it in an upright position.

b. Remove the oil filler cap, and check the oil level.

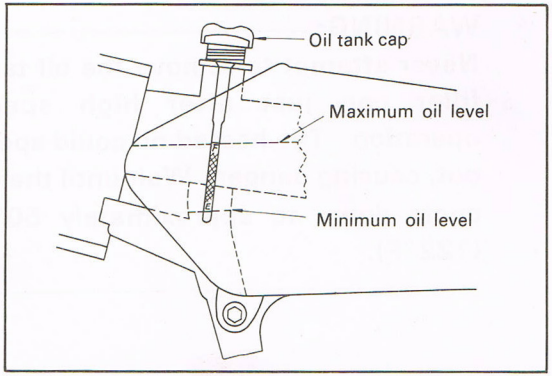
NOTE:

When checking, do not screw the oil level gauge into the oil tank. Insert the gauge lightly. For accuracy, check with the machine held upright.

c. If the oil level is between the maximum level lines marked on the oil level gauge, you may start the engine.



1. Oil filler cap



d. If there is no oil on the oil level gauge, add oil up to the minimum level.
Start the engine and warm up until the oil temperature rises to approximately 50°C (122°F). Stop the engine and check the oil level.
Adjust the oil level so it is between the maximum and minimum level lines.

CAUTION:

When the oil tank is empty, be sure to add oil before starting the engine.

WARNING:

Never attempt to remove the oil tank filler cap just after high speed operation. The heated oil could spout out, causing danger. Wait until the oil cools down to approximately 50°C (122°F).

2. Oil capacity
a. Regular oil replacement:
2.0 lit (2.1 US.qt)
b. Oil filter replacement:
2.1 lit (2.2 US.qt)

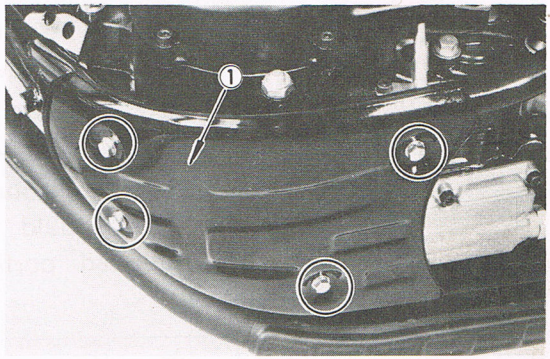
Engine oil and oil filter replacement

1. Oil filter replacement.

NOTE:

When replacing the engine oil after the break-in period, clean the oil strainer at the bottom end of the down -tube and oil strainer at the bottom of the engine.

a. Start the engine. After a few minutes of warm-up stop the engine.
b. Remove the engine under-guard, and place an oil receiver under the engine.

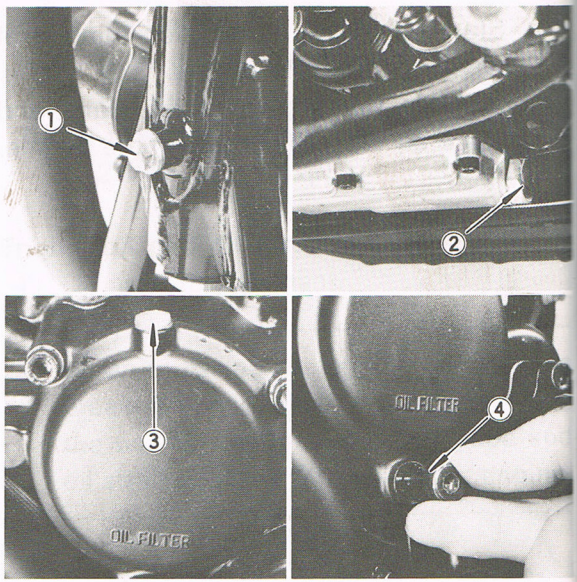


1. Under-guard

c. Remove the oil tank filler cap, drain plugs (at two places) and air bleeder screw attached to the oil filter cover, and drain the engine oil.

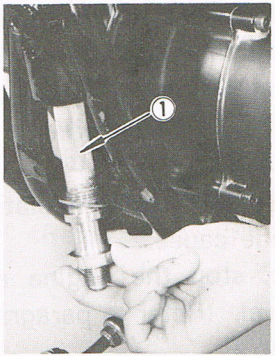
NOTE:

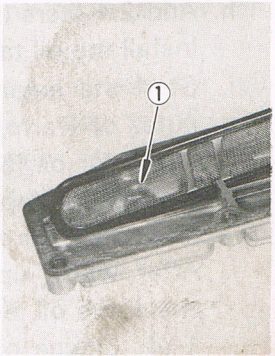
The oil filter cover is secured by three screws. The lower one should be loosened until the threaded portion comes out completely.



1. Drain plug
2. Drain plug
3. Air bleeder screw
4. Filter cover screw

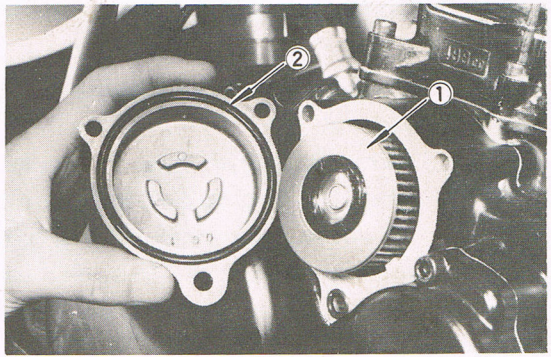
d. Remove the oil pipe attached to the frame downtube, and remove the oil strainer. Clean the filter screen. Remove the oil strainer at the bottom of the engine, and clean.





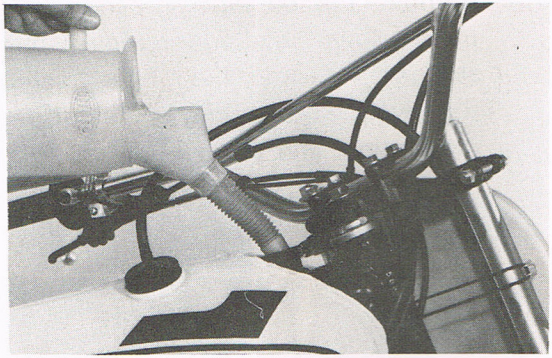
1. Filter screen

e. Remove the oil filter cap, and replace the filter element.
f. Check each gasket. If damaged, replace.
g. Install the drain bolts, air bleeder screw, oil filter, oil pipes and engine under-guard.



1. Filter element 2. "O" ring

h. Add 2.1 liters (2.2 US.qt) of engine oil. Install the oil tank filler cap and tighten.
i. Start the engine and allow a few minutes of warm up. While warming up, check for oil leakage.
If oil leaks, stop the engine immediately, and check for the cause.
j. After warm up, stop the engine and check the oil level. (Refer to paragraph 1 of "Engine oil".)



CAUTION:

After replacement of engine oil, be sure to check the oil pressure in the following procedure.

1. **Remove the air bleeder screw from oil filter cover.**
2. **Start the engine and keep it idle running till oil flows out of the bleeder hole. If no oil comes out even after a lapse of over one minute, cut the engine immediately for fear of seizure. In such a case go to the nearest YAMAHA DEALER for repairs.**
3. **Fit the air bleeder screw securely with care taken not to leave out the gasket.**

2. Regular oil replacement (without replacing filter)

a. Start the engine and stop after a few minutes of warm-up

b. Place an oil receiver under the engine.

c. Remove the oil tank filler cap, drain plugs (at two places), and air bleeder screw attached to the oil filter cover.

NOTE:

The oil filter cover is secured by three screws. The lower one should be loosened until the threaded portion comes out completely.

d. Check each gasket. If damaged, replace.

e. Install the drain bolts (at two places) and the bleed screw.

f. Add 2.0 liters (2.1 US.qt) of engine oil. Install the oil tank filler cap and tighten.

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

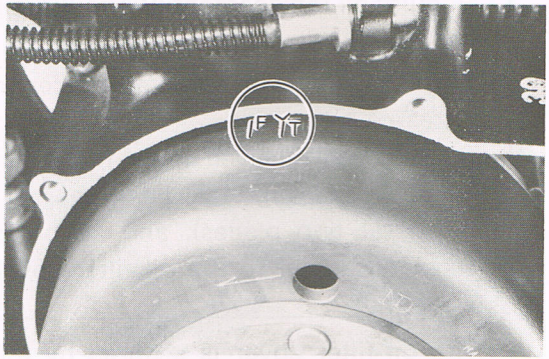
h. Stop the engine and check the oil level. (Refer to paragraph 1 of "Engine oil.")

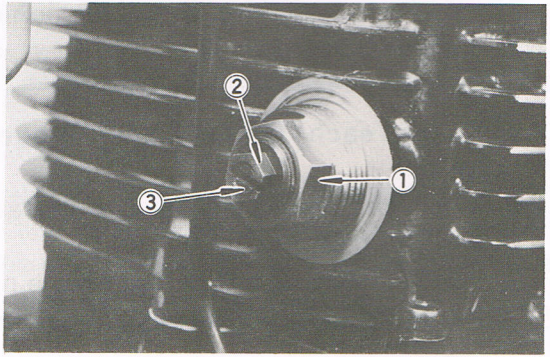
Cam chain adjustment

1. Remove the left crankcase cover.
2. Rotate crank shaft in a counterclockwise direction (viewed from the left side of the engine) to place all slack in the area of the chain tensioner.
   And align the "T" mark on the flywheel with the timing mark on the crankcase at the compression stroke.
3. Remove the adjuster cap.
4. Loosen the adjuster locknut.
5. Turn the adjuster in until the push rod. (inside the adjuster) is flush with the end of the adjuster.

NOTE:

Start the engine. While keeping it idling, check the movement of the push rod. If it moves slightly, the adjustment is correct. If it does not move at all, the adjuster is tightened too much. Loosen





1. Adjuster locknut 2. Adjuster 3. Push rod

the adjuster so the push rod moves slightly

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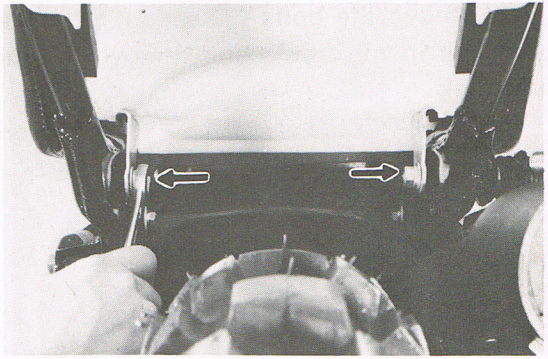
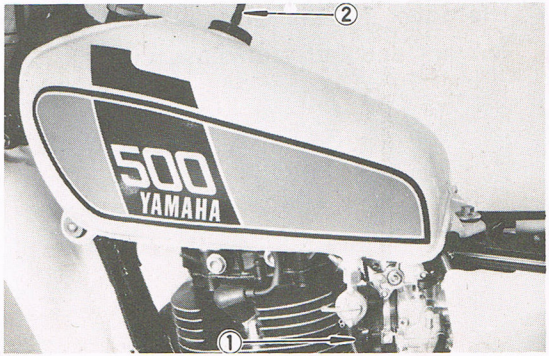
6. Tighten the adjuster locknut.
7. Install the adjuster cap and the left crankcase cover.

Valve clearance adjustment

1. Remove the bolts (2) securing the seat to the frame, remove the seat.
2. Turn the fuel petcock to "OFF" and disconnect the fuel pipe and air breather pipe.

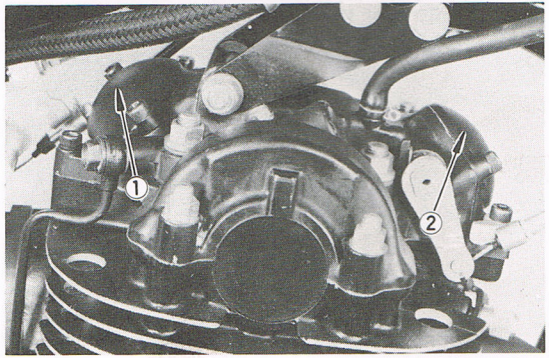




1. Fuel pipe 2. Air breather pipe

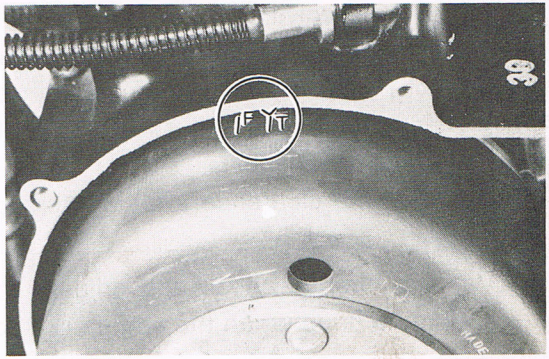
3. Remove the bolts (3) securing the fuel tank to the frame and remove the fuel tank.

4. Remove intake and exhaust tappet covers and left crankcase cover.



1. Intake tappet cover
2. Exhaust tappet cover

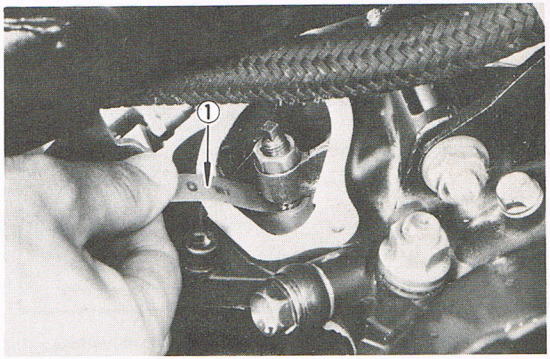
5. Align the "T" mark on the flywheel with the timing mark on the crankcase. This places the piston at the top dead center and the valve clearance should be checked and adjusted at the T.D.C. of compression stroke. This can be noted by observing when the valve adjusters have clearance.



6. Use a feeler gauge to determine the existing clearance.

   EXHAUST VALVE: 0.15 mm (0.0059 in)

   INTAKE VALVE: 0.10 mm (0.0039 in)

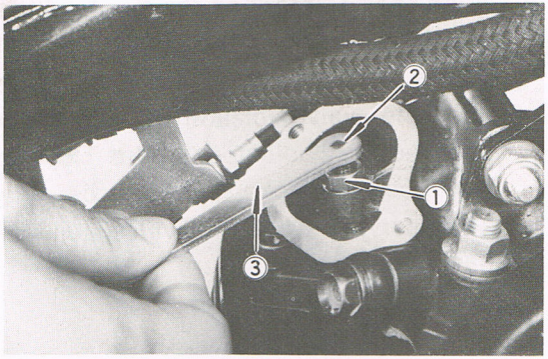


1. Feeler gauge

7. Loosen the valve adjuster locknut. Turn the adjuster in or out to obtain the correct clearance. Hold the adjuster to prevent it from moving and thoroughly tighten the lock nut.
   Recheck the clearance after tightening.

   NOTE:
   Valve clearance check and adjustment should be done when the engine is cold.

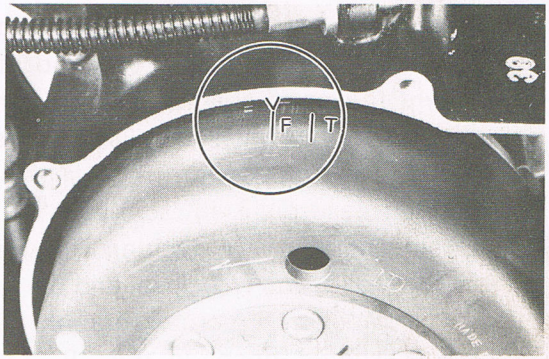
8. Install the intake and exhaust tappet covers and left crankcase cover.
9. Install the fuel tank and seat.
10. Connect the pipes.



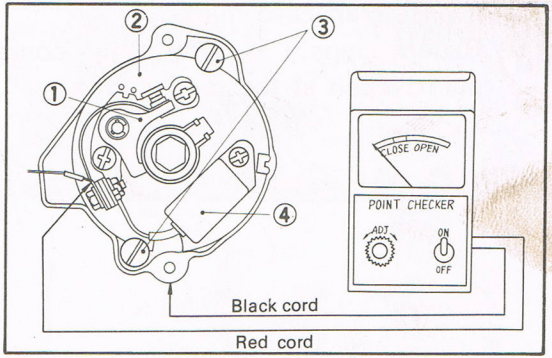
1. Adjuster locknut
2. Adjuster
3. Valve adjust wrench

Ignition timing

1. Remove left-hand crankcase cover and align the "F" mark on the flywheel with the timing mark on the crankcase. The ignition points should open as the crank shaft passes this point.



2. Remove contact point cover and connect a Yamaha point checker or an ohmmeter ($\Omega \times 1$ scale) as shown.

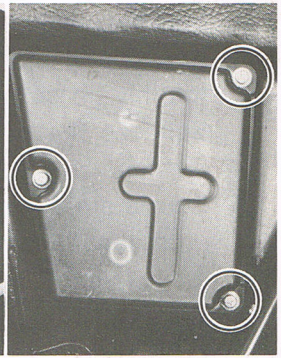


1. Contact breaker points
2. Base plate
3. Base plate set screw
4. Condenser

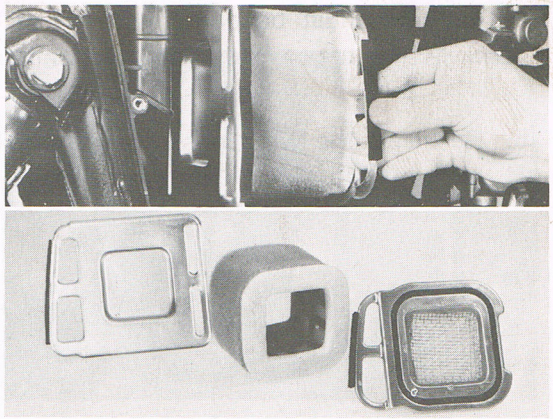
3. Loosen base plate set screws and move the base plate assembly to the position where the point checker indicates that the points are just breaking contact (needle will move from zero slightly). Tighten base plate set screws.
4. Check setting by turning flywheel backward (points will close) and the turn in the direction of normal rotation. The points should open as the "F" mark passes crankcase mark.
5. Repeat steps 1 ~ 4 until the contact points open at the proper time.

Air filter

1. Remove the right number plate.
2. Remove the screws from the filter case cover and remove the cover.



3. Remove the filter element from the filter case.

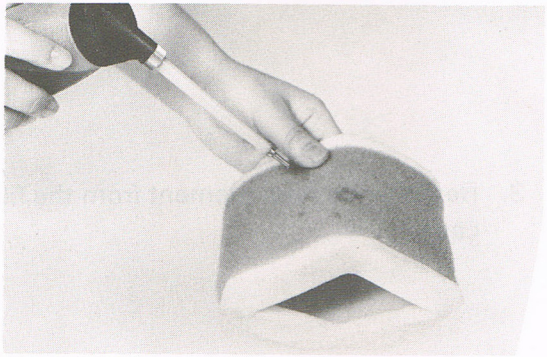


4. Slip the element from the guide.
5. Wash the element gently, but thoroughly, in solvent.
6. Squeeze the excess solvent out of the element and let dry.
7. Pour a small quantity of 30W motor oil onto the filter element and work thoroughly into the porous foam material.

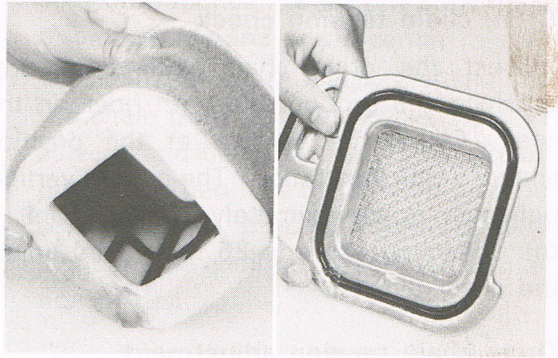
NOTE:

In order to function properly, the element must be damp with oil at all time ... but not "dripping" with oil.

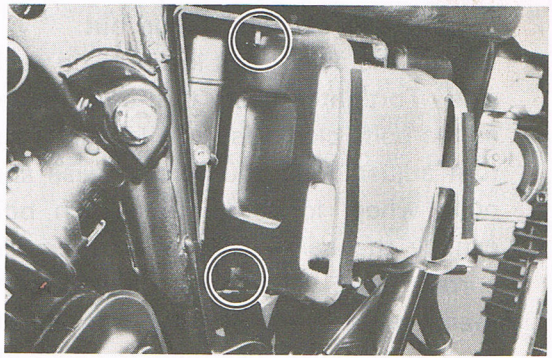
8. Re-insert the wire mesh guide into the element.



9. Coat both edges of the filter with all-purpose grease for an air-tight seal between the filter case cover and filter seat.

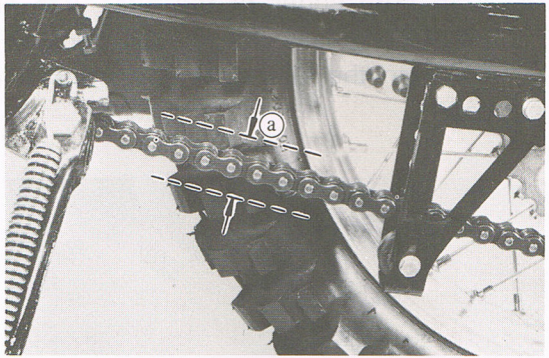


10. Install the filter element into the filter case.
11. Install the case cover and right number plate.



Drive chain tension check

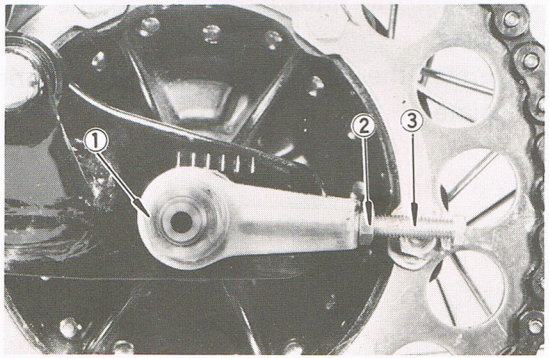
Inspect the drive chain with both tires touching the ground and with rider on the seat. Check the tension at the position shown in the illustration. The normal vertical deflection is approximately 25 mm (1 in). If the deflection exceeds 25 mm (1 in) adjust the chain tension.



a. 25 mm (1 in)

Drive chain tension adjustment

1. Loosen the rear brake adjust nut.
2. Loosen the rear wheel axle nut.
3. Loosen the adjust bolt locknuts on each side. To tighten chain turn chain puller adjust bolts clockwise. To loosen chain turn adjust bolts counterclockwise and push wheel forward. Turn each bolt exactly the same amount to maintain correct axle alignment. (There are marks on each side of rear arm and on each chain puller; use them to check for proper alignment).



1. Axle nut 2. Adjust bolt locknut 3. Adjust bolt

NOTE:

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

4. After adjusting be sure to tighten the locknuts and the rear wheel axle nut.
5. In the final step, adjust the play in the brake pedal.

Drive chain lubrication

The chain consists of many parts which work against each other. If the chain is not maintained properly, it will wear out rapidly, therefore, form the habit of periodically servicing the chain. This service is especially necessary when driving in dusty conditions.

1. First, remove dirt and mud from the chain with a brush or cloth and then spray the lubricant between both rows of side plates and on all center rollers.
2. To clean the entire chain, first remove the chain from the motorcycle, dip it in solvent and clean out as much dirt as possible. Then take the chain out of the solvent and dry it. Immediately, lubricant the chain to prevent the formation of rust.

Cable inspection and lubrication

1. 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 as soon as possible.
2. If the inner cables do not operate smoothly, lubricate or ask your Yamaha dealer to replace them.

Recommended lubricant:
YAMAHA CHAIN AND CABLE LUBE, or SAE 10W/30 type "SE" motor oil.

Throttle cables and grip lubrication

The throttle twist grip assembly should be greased at the time that the cables are lubricated, since the grip must be removed to get at the ends of the throttle cables. Two screws clamp the throttle housing to the handlebar. Once these two are removed, the ends of the cables can be held high to pour in several drops of lubricant. With the throttle grip disassembled coat the metal surfaces of the grip assembly with a suitable all-purpose grease to cut down friction.

Lubrication of levers, pedals, etc.

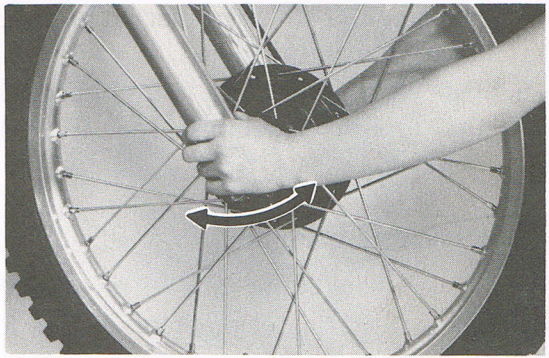
1. Lubricate the pivoting parts of the decomp., brake and clutch levers with motor oil (10W/30).
2. Lubricate the shaft of the brake pedal with lithium soap grease.

Steering inspection

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

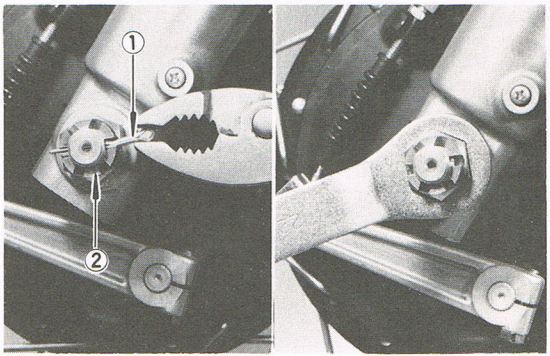
Place a block under the engine to raise the front wheel of the motorcycle off the ground; then hold the lower end of the front fork and try to move forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust.

Inspection is easier if the front wheel is removed.



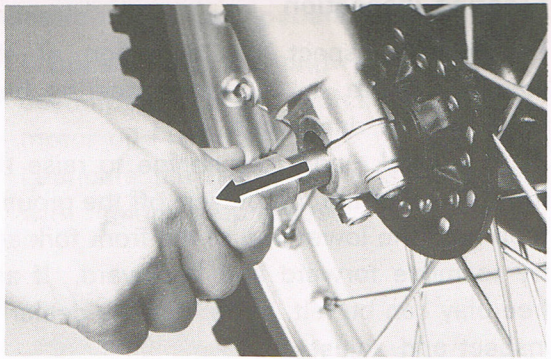
Front wheel removal

1. Remove brake cable: Loosen all cable adjust screws and remove cable from handle lever holder.
2. Remove cotter pin from front wheel axle and remove axle nut.
3. Loosen axle holder nuts at other end of axle.



1. Cotter pin 2. Axle nut

4. Elevate front wheel by placing a suitable stand under the engine.
5. Turn and pull out the front wheel axle; the wheel assembly can now be removed.



Front wheel installation

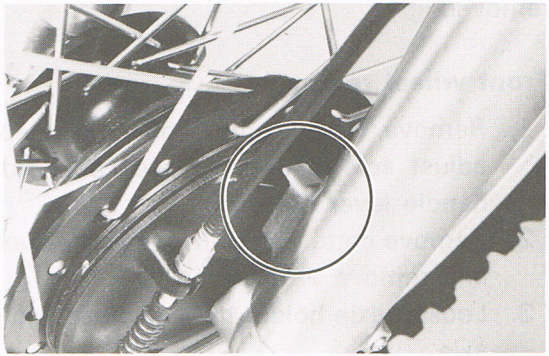
When installing front wheel, reverse the removal procedure taking care of the following points:

1. Check for proper engagement of the boss on the outer fork tube with the locating slot on the brake shoe plate.
2. Always secure the front wheel axle as follows:

a. Torque the axle nut.

Axle nut torque:
7.0 ~ 10.0 m-kg (50.6 ~ 72.3 ft-lb)

b. Install a new cotter pin; discard old pin.

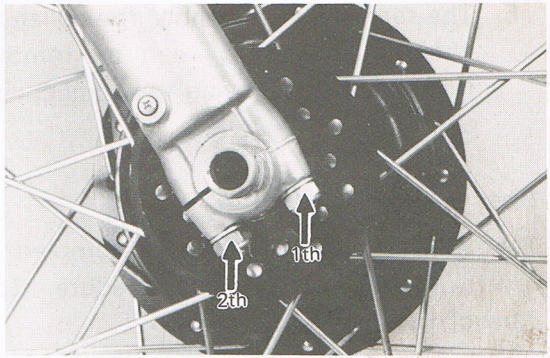


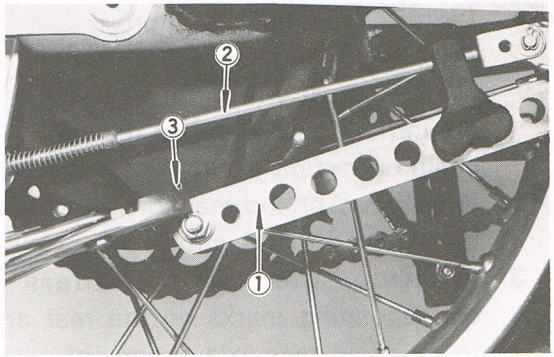
c. Install the axle holder as shown. First tighten the nut on the front end of the axle holder, and tighten the nut on the rear end.

Axle holder nut torque:
0.8 ~ 1.25 m-kg (5.8 ~ 9.0 ft-lb)

Removing the rear wheel

1. 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 adjust nut.
2. Loosen the lock nuts of the right and left chain pullers and loosen the adjust bolts.
3. Remove the master link clip and master link and remove the chain from the rear sprocket.
4. Remove the rear wheel axle nut.





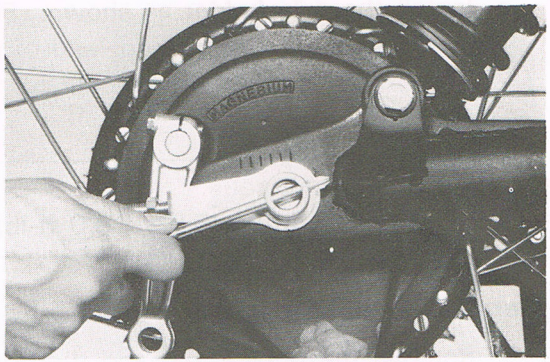
1. Tension bar 2. Brake rod 3. Cotter pin

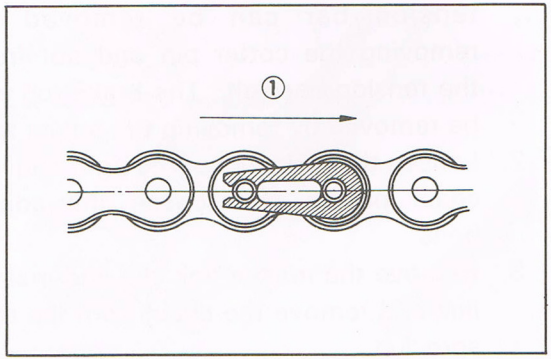
5. The rear wheel assembly, the collar, the chain puller(s), etc., can be removed from the motorcycle by pulling the axle.

Rear wheel installation

The rear wheel can be reassembled by reversing the disassembly procedure. Take care of the following points.

1. When connecting the chain, make certain closed end of master link clip is facing direction of rotation.
2. Be sure to adjust the tension of the chain. Adjust with both wheels on the ground and with rider on the seat. The chain deflection at the center (between drive sprocket and rear sprocket) should be adjusted to 25 mm (1 in).
3. Position the chain pullers at corresponding marks on the rear arms to maintain rear axle alignment.
4. Adjust the brake pedal.

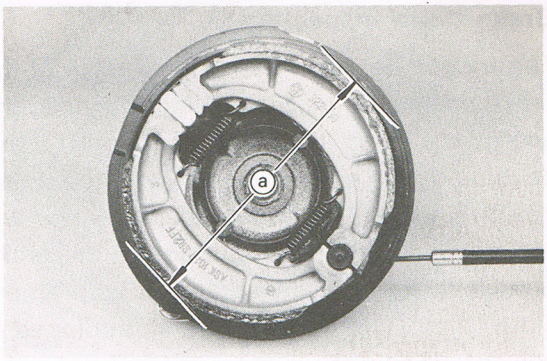




1. Turning direction

Brake lining inspection

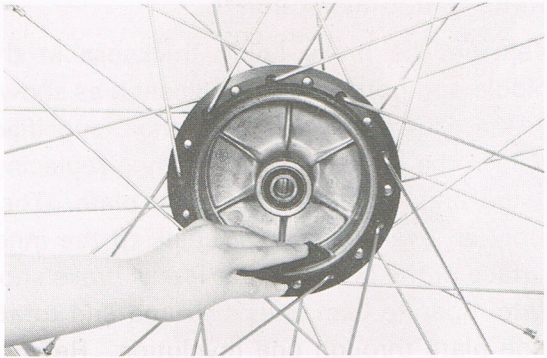
Measure the brake lining thickness at the middle and both ends of each shoe as shown in the illustration. If less than specified, replace the brake shoe set. When replacing, fit the brake shoe to the brake plate. Then apply an even coating of chalk to the inner surface of the brake drum. Install brake shoe plate, operate cam lever by hand and rotate shoe plate through one revolution. Remove shoe plate and check for areas of no contact. Use coarse sandpaper to sand off lining material at the high spots until at least two-thirds of each shoe touches drum.



a.	Wear limit:	Front 126 mm (4.96 in) Rear 156 mm (6.14 in)

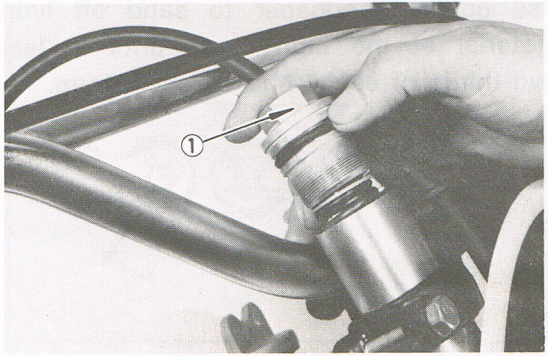
Brake drum inspection

The friction between the inner surface of the brake drum and the brake lining provides the energy to stop the motorcycle. If these become damaged or if oil contacts the drum, noise may occur and brake performance will suffer. Check the inner surface of the brake drum and remove any scratches with emery cloth. Remove any oil with a cloth dipped in solvent. If damage is more extensive, have a Yamaha dealer replace the wheel hub.



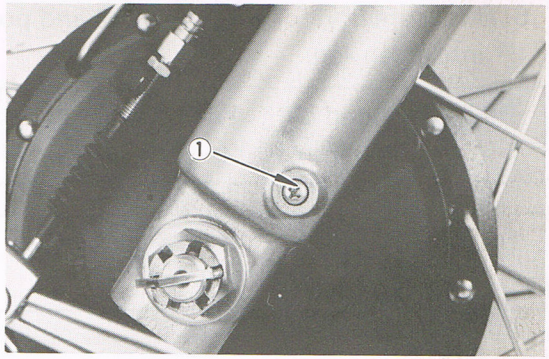
Front fork oil change

1. Elevate front wheel by placing a suitable stand under the engine.
2. Remove cap bolts from inner fork tubes.



1. Cap bolt

3. Remove drain screw from each outer tabe with open container under each drain hole.

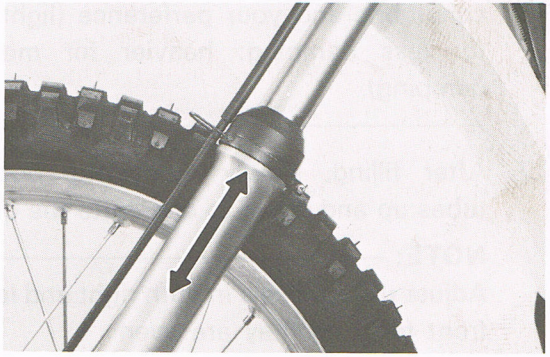


1. Drain screw

4. After most of oil has drained, slowly raise and lower outer tubes to pump out remaining oil.
5. Replace drain screws.

NOTE:

Check gasket, replace if damaged.



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

Recommended oil: Yamaha fork oil or SAE 10W/30

Quantity per leg: 224±4 cc (7.58±0.13 oz)

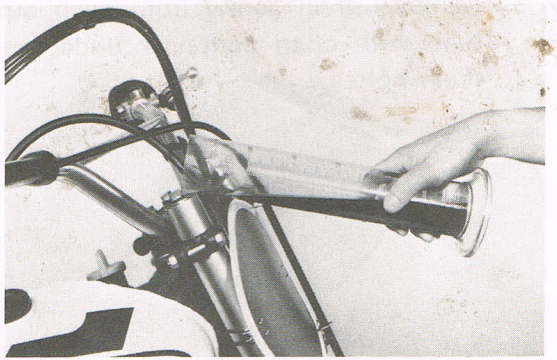
NOTE:

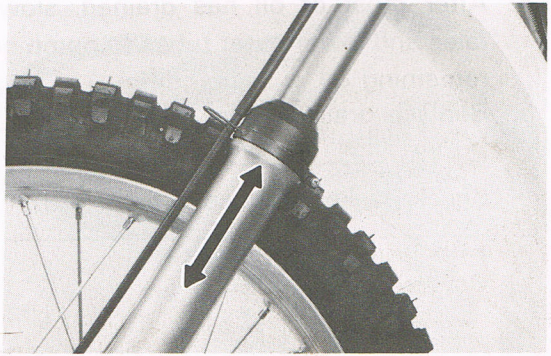
Select the weight oil that suits local conditions and your perference (lighter for less damping; heavier for more damping).

7. After filling, slowly pump the outer tubes up and down to distribute the oil.

NOTE:

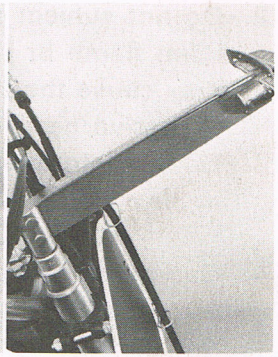
Adjust the oil levels in both right and left front forks so they are even.





8. Inspect "O" ring on fork cap bolts and replace if damaged.
9. Replace fork cap bolts and torque to specification.

Fork cap bolt torque:
1.5 ~ 3.0 m-kg (10.8 ~ 21.7 ft-lb)



1. "O" ring

Rear shock absorber

WARNING:

This shock absorber contains highly pressurized nitrogen gas.

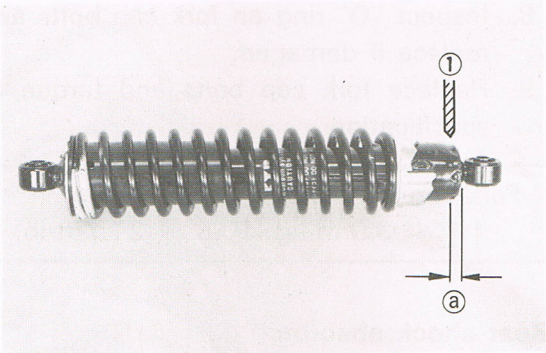
Read and understand the following information before handling the shock absorber. The manufacturer connot be held responsible for property damage or personal injury that may result from improper handling.

1. **Do not tamper with or attempt to remove the snap ring or bearing at the top of the cylinder.**

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. Gas pressure must be released before disposing of the shock absorber. To do so, drill a 2 ~3 mm hole through the cylinder wall at a point 10 ~ 15 mm above the bottom of the cylinder.

WARNING:

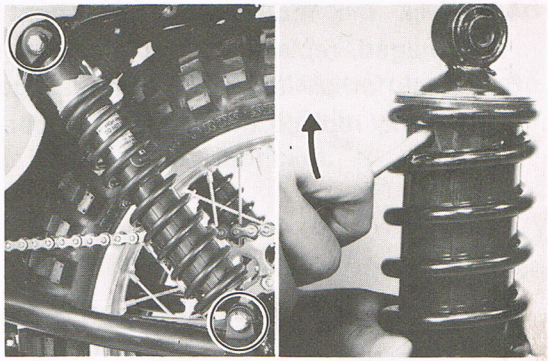
Wear eye protection to prevent eye damage from escaping gas and/or metal chips.



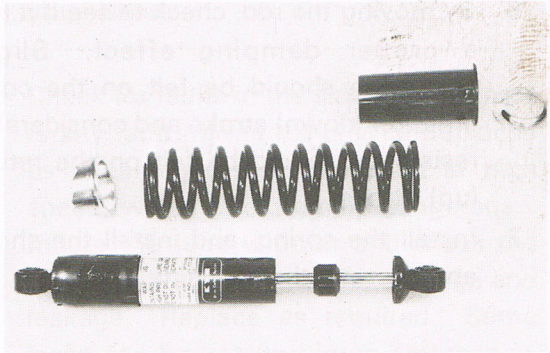
1. Drill 2~3 mmϕ (0.08~0.12 inϕ)
a. 10~15 mm (0.40~0.60 in)

Inspection

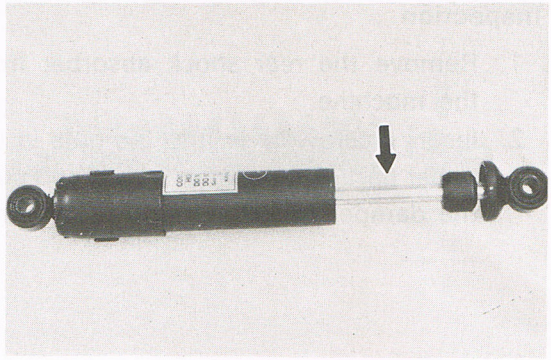
1. Remove the rear shock absorber from the machine.
2. Insert a screwdriver into the hole in the upper part of the plastic cover, and push the damper rubber slightly downward.



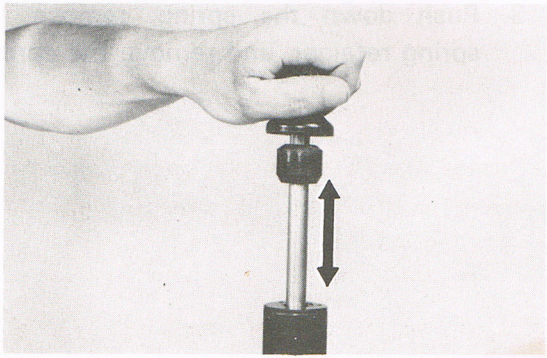
3. Push down the spring, remove the spring retainer, and remove the spring.



4. Check the rod, and if it is bent or damaged, replace the shock absorber.
5. Check for oil leakage. If oil leakage is evident, replace the shock absorber.



6. By moving the rod, check to see if it has a proper damping effect. Slight resistance should be felt on the compression (down) stroke and considerable resistance should be felt on the return (up) stroke.
7. Install the spring, and install the shock absorber on the machine.



Tire repair

REMOVING THE TIRE

1. Remove the wheel from the motorcycle (see page 54).
2. Loosen and back-off the bead stopper locknuts as much as possible.
3. Remove locknut from valve stem and release as much air as possible from the tire.
4. Push both tire beads away from the edges of the rim.
5. Starting opposite the valve stem on one side, use two round-ended tire irons to work the bead off the rim.

NOTE:

Use a tire removal lubricant and be careful not to pinch the tube with the tire irons.

6. Remove the valve stem from its hole and remove the tube.
7. Remove the rim band and bead stoppers.
8. If the tire is to be changed, remove, the second bead from the rim using the tire irons and tire lubricant.

INSPECTION

1. Use a cloth to check for nails or other sharp objects in the tire.

WARNING:

Always use a cloth to avoid cutting your hand.

2. Check for faults in the side wall. If there is any fault, the tire should be replaced as a damaged tire may burst at high speed, which is extremely dangerous.
3. Inflate the tube with air and check the valve stem and the tube for damage and leakage. Replace as required. Some leaks can be patched in an emergency, but it is best to replace tube.

4. Inspect rim band and bead stoppers and replace if damaged.

REASSEMBLY

1. Install the bead stoppers and the rim band on the rim.
2. Install one tire bead on the rim using tire irons and lubricant and then install the tube.
3. Inflate tube with air to about one-third the specified pressure. Hit the outer circumference of the tire with a soft hammer to make certain the tube is not caught between tire and rim. Release air from tube.
4. Install second tire bead starting opposite the valve stem using tire irons and tire mounting lubricant.
5. Inflate tire to approximately 30 p.s.i. and then reduce pressure to specified setting.
6. Tighten the bead stoppers and the valve stem locknut.

NOTE:

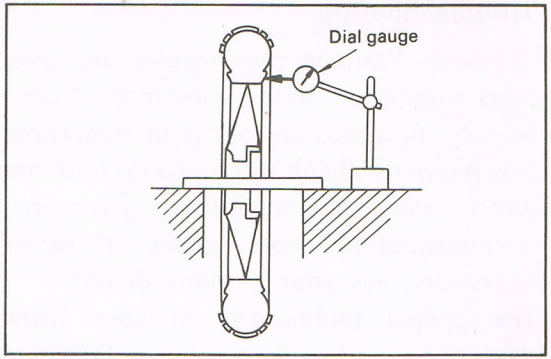
Check the valve stem; it must be pointing directly at center of wheel hub. If angled in any direction, release air and adjust tube position.

Rim and spokes

There are checks that you can perform to determine if wheel work is necessary for your dealer to do. First, check for any loose spokes. This can be checked by bracing the front end off the ground so that the front wheel can spin free. Slowly revolve the front wheel and at the same time let the metal shaft of a fairly heavy screwdriver bounce off each spoke. If all the spokes are tightened approximately the same, then the sound given off by the screwdriver hitting the spokes should sound the same.

If one spoke makes a dull flat sound, then check it for looseness. While you have the front end up in the air, you should check that the front wheel does not have too much run-out. "Run-out" is the amount the front wheel deviates from a straight line as it spins. Secure the front forks from turning, spin the front wheel, and solidly anchor some sort of a pointer about 1/8 in. away from the side of the rim.

As the wheel spins, the distance between the pointer and the rim should not change more than 1/16 in. total. Any greater fluctuation means that you should have your dealer remove this rim warpage by properly adjusting the spokes.

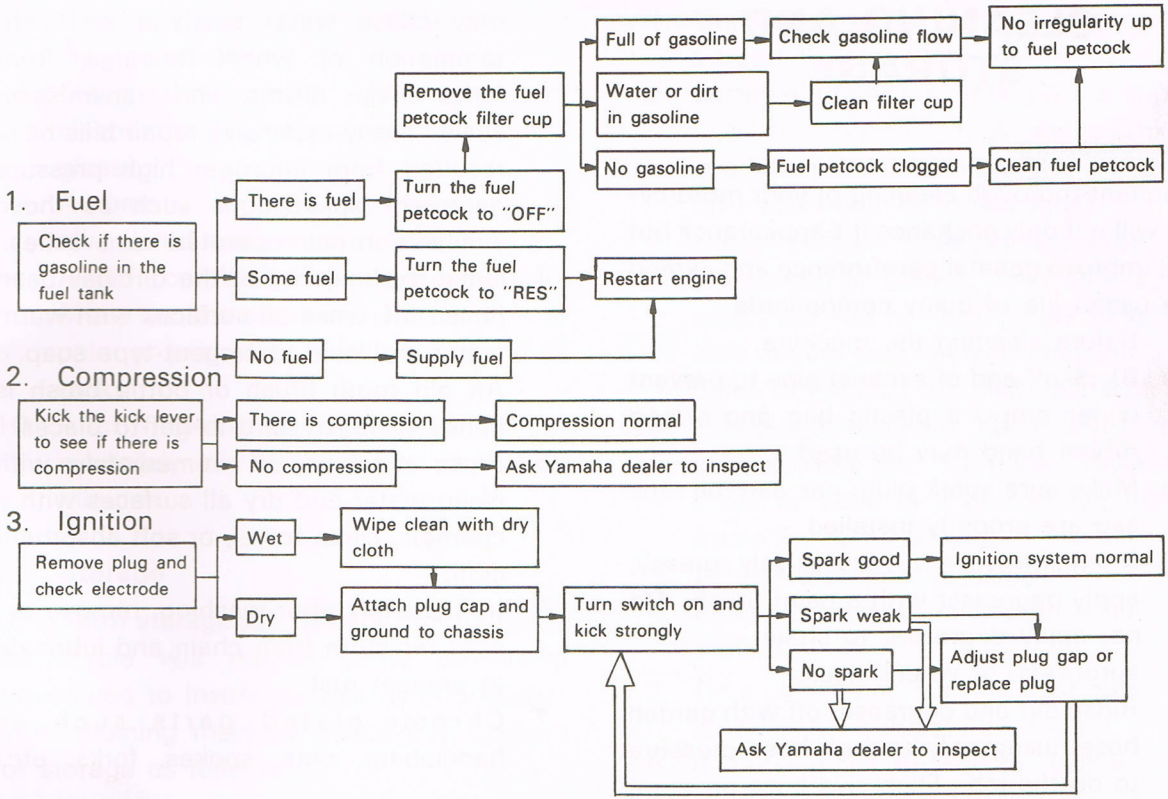


Troubleshooting

Although Yamaha motorcycles are given a rigid inspection before shipment from the factory, trouble may occur in operation. If this happens check the motorcycle in accordance with the porcedures given in the troubleshooting chart below. If repair is necessary, ask your Yamaha dealer.

The skilled technicians at your Hamaha dealer provide excellent service. For replacement parts, use only genuine Yamaha Parts. Imitaion parts are similar in shape but often inferior in quality of materials and workmanship, consequently, service life is shorter and more expensive repairs may be necessitated.

Any fault in the fuel, compression or ignition systems can cause poor starting or loss of power while driving. The troubleshooting chart describes quick and easy procedures for checking these systems.


1. Fuel
Check if there is gasoline in the fuel tank
There is fuel
Some fuel
No fuel
Turn the fuel petcock to "OFF"
Turn the fuel petcock to "RES"
Supply fuel
Restart engine
Remove the fuel petcock filter cup
Full of gasoline
Water or dirt in gasoline
No gasoline
Check gasoline flow
Clean filter cup
Fuel petcock clogged
Clean fuel petcock
No irregularity up to fuel petcock
2. Compression
Kick the kick lever to see if there is compression
There is compression
No compression
Compression normal
Ask Yamaha dealer to inspect
3. Ignition
Remove plug and check electrode
Wet
Dry
Wipe clean with dry cloth
Attach plug cap and ground to chassis
Turn switch on and kick strongly
Spark good
Spark weak
No spark
Ignition system normal
Adjust plug gap or replace plug
Ask Yamaha dealer to inspect

CLEANING AND STORAGE

A. Cleaning

Frequent thorough cleaning of your motorcycle will not only enchance it's appearance but will improve general perofrmance and extend the useful life of many components.

1. Before cleaning the machine:
   a. Block off end of exhaust pipe to prevent water entry; a plastic bag and strong rubber band may be used.
   b. Make sure spark plug, gas cap, oil tank cap are properly installed.
2. If engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to chain. sprockets, or wheel axles.
3. Rinse dirt and degreaser off with garden hose, using only enough hose pressure to do the job. Excessive hose pressure may cause water seepage and contamination of wheel bearings, front forks, brake drums, and transmission seals. Many expensive repair bills have resulted from improper 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 machine off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
6. Immediately after washing, remove excess moisture from chain and lubricate to prevent rust.
7. Chrome-plated parts such as handlebars, rims, spokes, forks, etc.,

may be further cleaned with automotive chrome cleaner.

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

B. Storage

Long term storage (30 days or more) of your motorcycle will require some preventive procedures to insure against deterioration. After cleaning 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 10W to 30W oil in tank, shake tank to coat inner surfaces thoroughly and drain off excess oil. Re-install tank.
3. Remove spark plug, pour about one tablespoon of 10W to 30W oil in spark plug hole and re-install spark plug. Kick engine over several times (with ignition off) to coat cylinder walls with oil.
4. Remove drive chain. Clean thoroughly with solvent and lubricate. Re-install chain or store in a plastic bag (tie to frame for safe-keeping).
5. Lubricate all control cables.
6. Block up frame to raise both wheels off ground.
7. Tie a plastic bag over exhaust pipe outlet to prevent moisture entering.
8. If storing in humid or salt-air at-

mosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to rubber parts or seat cover.

NOTE:

Make any necessary repairs before storing the motorcycle.

MISCELLANEOUS

Metric to Inch System

	Known	MULTIPLIER (Rounded off)	RESULT
TORQUE	m-kg	7.233	ft-lbs
	m-kg	86.80	in-lbs
	cm-kg	0.0723	ft-lbs
	cm-kg	0.8680	in-lbs
WT.	kg	2.205	lb
	g	0.03527	oz
FLOW/DISTANCE	km/l	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
VOL./CAPACITY	cc (cm^3)	0.03382	oz (U.S. liq.)
	cc (cm^3)	0.06102	cu.in.
	l (liter)	2.1134	pt (U.S.liq.)
	l (liter)	1.057	qt (U.S. liq.)
	l (liter)	0.2642	gal (U.S. liq.)

MISC.	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 (Rounded off)	RESULT
TORQUE	ft-lbs	0.13826	m-kg
	in-lbs	0.01152	m-kg
	ft-lbs	13.831	cm-kg
	in-lbs	1.1521	cm-kg
WT.	lb	0.4535	kg
	oz	28.352	g
FLOW/DISTANCE	mpg	0.4252	km/l
	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

	KNOWN	MULTIPLIER (Rounded off)	RESULT
VOL./CAPACITY	oz (U.S. liq.)	29.57	cc (cm^3)
	cu.in.	16.387	cc (cm^3)
	pt (U.S. liq.)	0.4732	l (liter)
	qt (U.S. liq.)	0.9461	l (liter)
	gal (U.S. liq.)	3.785	l (liter)
MISC.	lb/in	0.017855	kg/mm
	psi (lb/in^2)	0.07031	kg/cm^2
	Fahrenheit(°F)	5/9(°F -32)	Centigrade(°C)

DEFINITION OF TERMS:

m-kg = Meter-kilograms: Usually torque.

g = Gram(s).

kg = Kilogram(s): 1,000 grams.

km = Kilometer(s).

l = Liter(s).

km/l = Kilometer(s) per liter: Mileage.

cc = Cubic centimeter(s) (cm^3): Volume or capacity.

kg/mm = Kilogram(s) per millimeter: Usually spring compression rate.

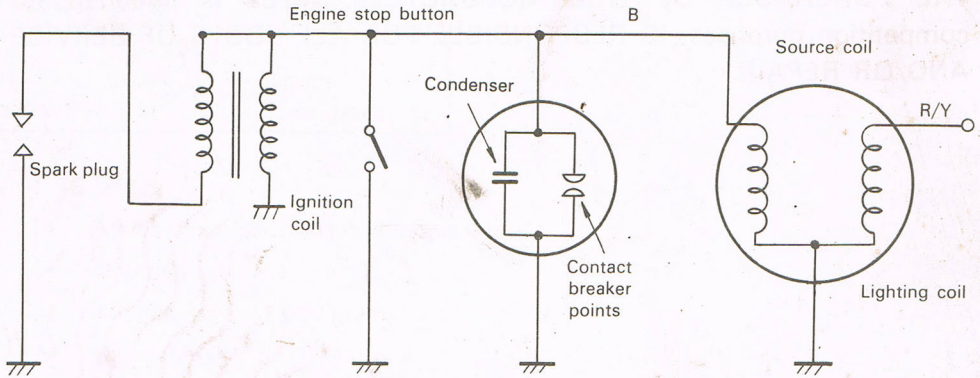
Kg/cm^2 = Kilogram(s) per square centimeter: Pressure.

STATEMENT OF PURCHASER'S RESPONSIBILITY

This (model) Yamaha motorcycle is sold AS IS, WITHOUT ANY WARRANTIES EXPRESSED OR IMPLIED REGARDLESS OF THE INTENDED USE.

THE PURCHASER OF THIS MOTORCYCLE, which is intended for competition purposes, IS RESPONSIBLE FOR ALL COSTS OF SERVICE AND/OR REPAIR.

CIRCUIT DIAGRAM



Wire color abbreviations

B: Black
R/Y: Red/Yellow

YAMAHA MOTOR CO., LTD.

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