CAUTION:

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.

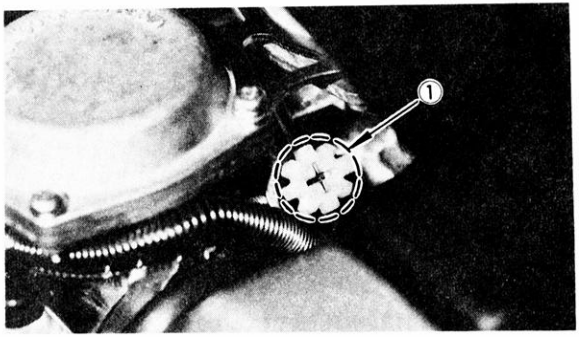
Idling rpm adjustment

1. **Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2.000 rpm. occasionally raising to 4,000 to 5.000 rpm for a few seconds. When the engine responds quickly. the warm-up is complete.**
2. **Set the engine idle speed to specified rpm by turning the throttle stop screw in to increase the engine speed and back off the throttle stop screw to decrease the engine speed.**

Standard idling rpm:
1.050 ~ 1.150 rpm

NOTE:

If the specified idling speed cannot be obtained after performing the above adjustment, consult Your Yamaha dealer.



1. Throttle stop screw

Spark plug inspection

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

Normally, all spark plugs from the same engine should have the same coloration on the white porcelain insulator around the center electrode. The ideal coloration at this point is a medium to light tan color for a machine that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine. For example, a very white center electrode porcelain color could indicate an intake tract air leak or carburetion problem for that cylinder. Do not attempt to diagnose such problems yourself. Instead. take the machine to your Yamaha dealer.

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

Standard spark plug:
BP-7ES (NGK) or N-7Y (Champion)

Spark plugs are produced in several different thread lengths. The thread length (reach) is the distance from the spark plug gasket seat to the end of the threaded portion. If the reach is too long, overheating and engine damage may result.

If the reach is too short, spark plug fouling and poor performance may result: also, carbon will form on the exposed threads resulting in combustion chamber hot spots and thread damage. Always use a spark plug with the proper reach.

Spark plug reach: 19 mm (3/4 in)

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

Spark plug gap:
0.6 ~ 0.7 mm
(0.024 ~ 0.028 in)

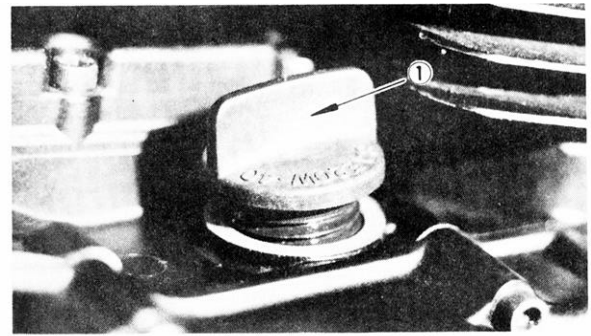
When installing the plug. always clean the gasket surface and use a new gasket. Wipe off any grime from the threads and torque the spark plug properly.

Spark plug torque:
2.0 m-kg (14 ft-lb)

Engine/Transmission oil

1. Oil level measurement

a. Place machine on center stand. Warm up engine for 1 or 2 minutes.
With the engine stopped, screw the dip stick completely out and then rest the stick in the hole



1. Oil level dip stick

NOTE:

When checking engine oil level with the dip stick, let the unscrewed dip stick rest

on the case threads. Also, be sure the engine is stopped and the machine is positioned straight up and on both wheels.

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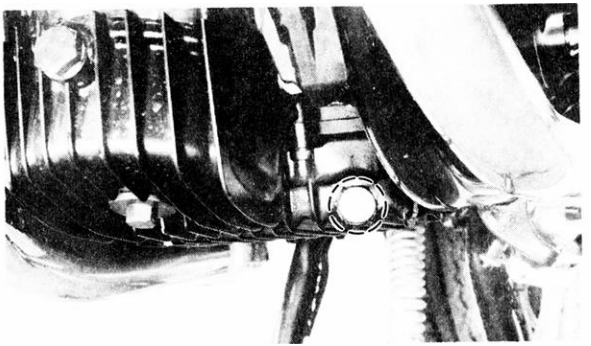
b The dip stick has a Minimum and a Maximum mark. The oil level should be between the two.
If the level is lower, add sufficient oil to raise it to the proper level.

2. Engine/Transmission oil and oil filter replacement

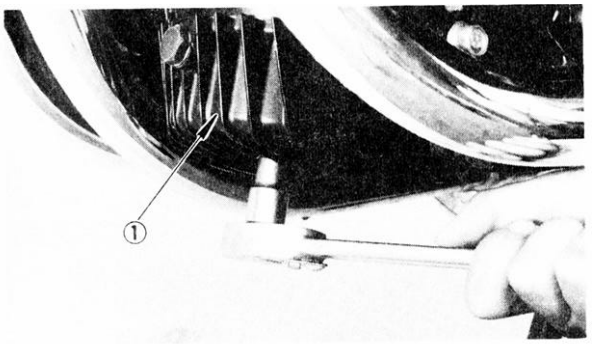
a Start the engine and stop after a few minutes of warm-up.

b Place an oil pan under the engine and remove the oil filler cap.

c Remove the drain plug and drain the oil.



d. Remove the oil filter bolt and filter element.



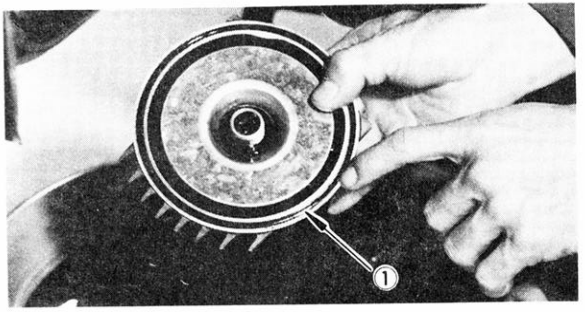
1. Oil filter cap

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

Drain plug torque:
4.5 m-kg (33 ft-lb)

f **Install the oil filter element and cover. tighten the oil filter bolt.**

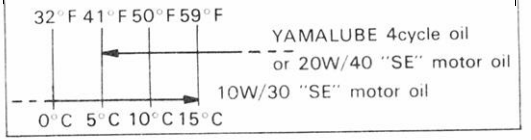
NOTE:
Make sure the "O" ring is positioned properly.



1 Proper O-ring position

g. Add oil through the dip stick hole.

Oil quantity:
3.1 lit (3.28 US.qt):
Periodic oil change
3.5 lit (3.70
With oil filter replacement
Recommended oil:



h. After replacement of engine oil. and/or oil filter, be sure to check the oil pressure and oil leakage. The oil pressure indicator light should go off after the engine is started.

CAUTION:

If the indicator light flickers or remains on, immediately stop the engine and consult your Yamaha dealer.

Middle gear/final gear oil

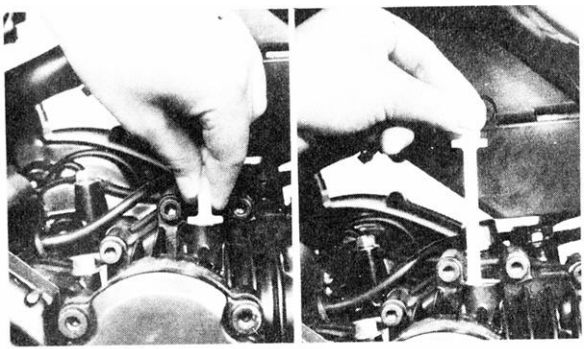
1. Oil level measurement

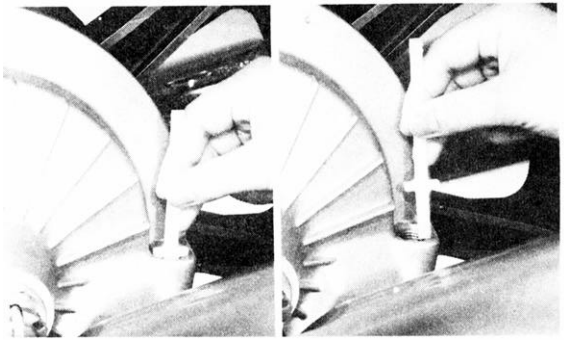
a Place the machine on a level place and place it on the center stand. The engine should be cool (at atmospheric temperature).

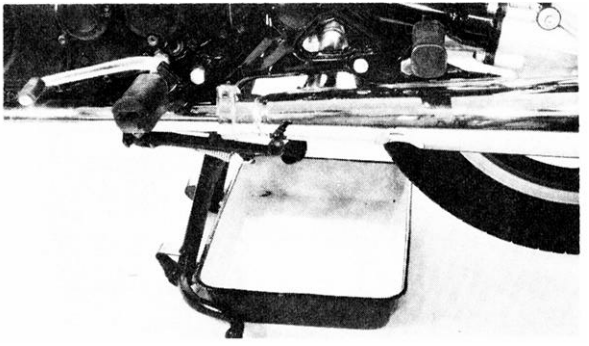
b Remove the oil filler cap. Check the oil level with level gauge (from tool kit) as shown The correct oil level is between the two marks on each end of the level gauge. Use the tool end marked "REAR" for measuring the rear (final) gear case. Use the end marked "MIDDLE" for measuring the middle gear case.

NOTE:

Middle gear and final gear oil can be checked with same level gauge. which is in the owners tool kit.





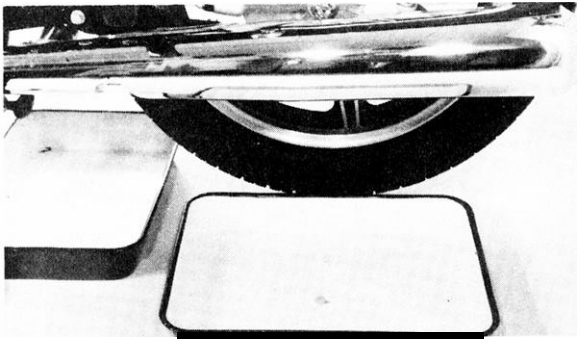


CAUTION:

Take care not to allow foreign material to enter the middle and/or final gear case.

2. Gear oil replacement

a. Place an oil pan under the transmission for the middle gear and under the final gear case.



b. Remove the middle and/or final gear oil filler cap(s) and the drain plug(s). and drain the oil.