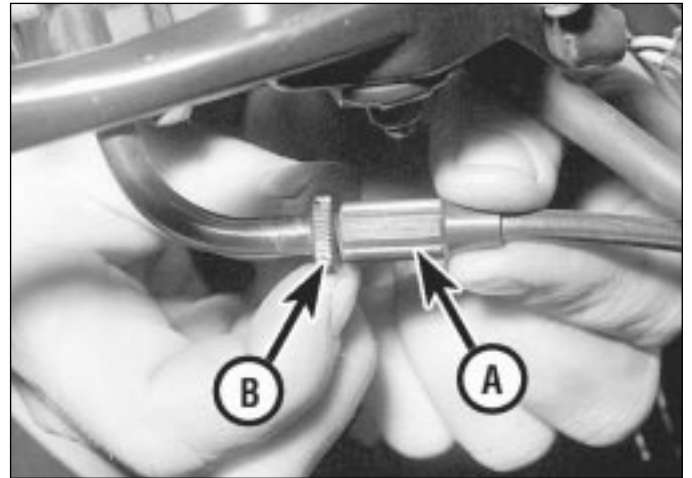


5.3 Throttle cable freeplay is measured in terms of free twistgrip rotation (arrow)



5.4 Throttle cable adjuster (A) and lockwheel (B)

## 5 Throttle and choke cable check



### Throttle cable

1 Make sure the throttle grip rotates easily from fully closed to fully open with the front wheel turned at various angles. The grip should return automatically from fully open to fully closed when released.

2 If the throttle sticks, this is probably due to a cable fault. Remove the cable (see Chapter 3) and lubricate it as described in Section 16. Install the cable, making sure it is correctly routed. If this fails to improve the operation of the throttle, the cable must be replaced. Note that in very rare cases the fault could lie in the carburettors rather than the cable, necessitating the removal of the carburettors and inspection of the throttle linkage (see Chapter 3).

3 With the throttle operating smoothly, check for a small amount of freeplay at the grip (see illustration). The amount of freeplay in the throttle cable, measured in terms of twistgrip rotation, should be as given in this Chapter's Specifications. If adjustment is necessary, adjust the idle speed first (see Section 3).

4 Slacken the lockwheel on the cable adjuster and rotate the adjuster until the correct amount of freeplay is obtained, then tighten the lockwheel against the adjuster (see illustration).

5 Check that the throttle twistgrip operates smoothly and snaps shut quickly when released.

6 With the engine idling, turn the handlebars through the full extent of their travel. The idle speed should not change. If it does, the cable may be incorrectly routed. **Caution:** Correct this condition before riding the bike (see Chapter 4).

### Choke cable

#### 31A, 58L, 2HL and 3NG1 models only

7 Operate the choke lever whilst observing the movement of the carburettor choke shaft on the left side of the carburettor assembly. There should be a small amount of freeplay before the choke shaft contacts the choke plunger. Note that there is no in-line adjuster fitted to the cable, although it may be possible to adjust freeplay by repositioning the outer cable in its clamp on the carburettor.

8 If the choke does not operate smoothly this is probably due to a cable fault. Remove the cable as described in Chapter 3 and lubricate it as described in Section 16. Install the cable, routing it so it takes the smoothest route possible. If this fails to improve the operation of the choke, the cable must be replaced. Note that in very rare cases the fault could lie in the carburettors rather than the cable, necessitating the removal of the carburettors and inspection of the choke plungers and choke shaft as described in Chapter 4.

## 6 Fuel system check



**Warning:** Petrol is extremely flammable, so take extra precautions when you work on any part of the fuel system.

*Don't smoke or allow open flames or bare light bulbs near the work area, and don't work in a garage where a natural gas-type appliance is present. If you spill any fuel on your skin, rinse it off immediately with soap and water. When you perform any kind of work on the fuel system, wear safety glasses and have a fire extinguisher suitable for a Class B type fire (flammable liquids) on hand.*

### Check

1 Remove the fuel tank (see Chapter 3) and check the tank, the tap, the fuel hose and vacuum hose for signs of leakage, deterioration or damage; in particular check that there is no leakage from the fuel hose. Replace any hoses which are cracked or deteriorated.

2 If the fuel tap is leaking, tightening its screws may help. If leakage persists, remove the tap from the tank as described in Chapter 3. Remove the screws and disassemble the tap, noting how the components fit. Inspect all components for wear or damage, and replace the O-rings. If any of the components are worn or damaged beyond repair and are not available individually, a new tap must be fitted.

3 If the carburettor gaskets are leaking, the carburettors should be disassembled and rebuilt using new gaskets and seals (see Chapter 3).

### Filter cleaning

4 Cleaning of the fuel filter is advised after a particularly high mileage has been covered. It is also necessary if fuel starvation is suspected.

5 The fuel tap incorporates a gauze type filter inside the fuel tank (see illustration). Remove the fuel tap as described in Chapter 3 and clean the filter, being careful not to tear the gauze.



6.5 The fuel tap incorporates a gauze type filter

## 7 Engine oil change



1 Consistent routine oil and filter changes are the single most important maintenance procedure you can perform on a motorcycle (see Section 19 for oil filter change). The oil not only lubricates the internal parts of the engine, transmission and clutch, but it also acts as a coolant, a cleaner, a sealant, and a protectant. Because of these demands, the oil takes a terrific amount of abuse and should be replaced often with new oil of the recommended grade and type. Saving a little money on the difference in cost between a good oil and a cheap oil won't pay off if the engine is damaged.

2 Before changing the oil, warm up the engine so the oil will drain easily. Be careful when draining the oil, as the exhaust pipes, the engine, and the oil itself can cause severe burns.

3 Put the motorcycle on its centre stand. On all models except 31A, remove the lower fairing (see Chapter 7). Position a clean drain tray below the engine. Unscrew the oil filler cap on top of the clutch cover to vent the crankcase and to act as a reminder that there is no oil in the engine.

4 Next, remove the drain plug bolt (unscrew the bolt, not the screw within the bolt that is fitted to all models except 31A) from the sump and allow the oil to flow into the drain tray (see illustration). Discard the sealing washer on the drain plug; it should be replaced whenever the plug is removed.

5 Slip a new sealing washer over the drain plug. Fit the plug to the sump and tighten it to the specified torque setting. Avoid overtightening, as damage to the sump will result.

6 Refill the crankcase to the proper level (see *Daily (pre-ride) checks*) with the recommended type and amount of oil and install the filler cap. Start the engine and let it run for two or three minutes (make sure that the oil level light extinguishes after the starter button is released). Shut it off, wait a few minutes, then check the oil level. If necessary, add more oil to bring the level up to the upper mark. Check around the drain plug and filter for leaks.



7.4 The oil drain plug (arrow) is located at the front of the sump

7 The old oil drained from the engine cannot be re-used and should be disposed of properly. Check with your local refuse disposal company, disposal facility or environmental agency to see whether they will accept the used oil for recycling. Don't pour used oil into drains or onto the ground.

**HAYNES**  
**HINT** *Check the old oil carefully - if it is very metallic coloured, then the engine is experiencing wear from break-in (new engine) or from insufficient lubrication. If there are flakes or chips of metal in the oil, then something is drastically wrong internally and the engine will have to be disassembled for inspection and repair. If there are pieces of fibre-like material in the oil, the clutch is experiencing excessive wear and should be checked.*

## 8 Final drive oil level check



1 Place the motorcycle on its centre stand, making sure it is on level ground.

2 The check should be made after the machine has been standing for a few hours. Unscrew the oil filler cap and check that the oil is up to the edge of the filler hole (see illustrations). If the level is below this, look for

signs of leakage, such as oil staining on the underside of the casing. If leakage is evident, the problem must be rectified to avoid the possibility of damage to the final drive and oil contaminating the rear tyre (see Chapter 5).

3 Replenish the oil to the correct level using the type and grade specified at the beginning of the Chapter, then install the filler cap and tighten it securely.

## 9 Brake system check



### Brake pads

1 Each brake pad has a wear indicator groove that can be viewed without removing the pads from the caliper (see illustration). If the pads are worn down to the groove, they must be replaced. The pads fitted as original equipment also have wear limit tangs on their bottom corners; if the tangs contact or are close to the disc when the brake is applied, the pads must be replaced. **Note:** *If the front brake pads require replacement, the pads in both calipers must be replaced at the same time.* The amount of friction material can also be measured and compared to the specifications to determine whether replacement is required (see the Specifications section of this Chapter). Refer to Chapter 6 for details of pad replacement.

2 Due to the use of salt on UK roads, Yamaha advise that the pads are removed from the calipers and any corrosion removed from the pads, pad pins and caliper mouth. **Note:** *This must be carried out more frequently during the Winter period. Refer to Chapter 6, Sections 2 and 6 for details.*

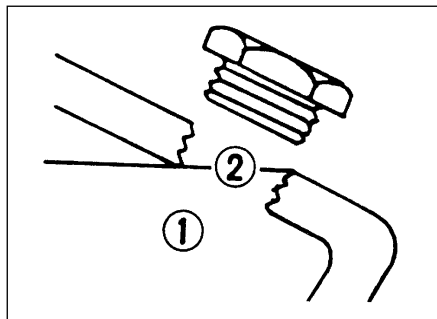
### Brake system - general check

3 A routine general check of the brakes will ensure that any problems are discovered and remedied before the rider's safety is jeopardised.

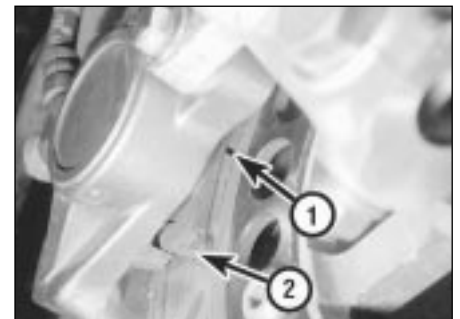
4 Check the brake lever and pedal for loose connections, excessive play, bends, and other damage. Replace any damaged parts with new ones (see Chapter 6).



8.2a Unscrew the oil filler cap from the final drive housing . . .



8.2b . . . and check that the oil (1) is up to the edge of the filler hole (2)



9.1 Brake pad wear indicator groove (1) and tangs (2) can be seen on the bottom of each pad (arrow)