2 Lubricate the stand pivots regularly (see Section 16), and check the bolts are tight.

3 The sidestand switch prevents the motorcycle being started if the stand is extended. Check its operation by shifting the transmission into neutral, retracting the stand and starting the engine. Pull in the clutch lever and select a gear. Extend the sidestand. The engine should stop as the sidestand is extended. If the sidestand switch does not operate as described, check its circuit (see Chapter 8). The clutch switch is also part of the same circuit – to check it, retract the sidestand, then select a gear. With the clutch lever pulled in, start the engine – if the engine starts, the switch is good. Otherwise, check the circuit (see Chapter 8).

14 Nuts and bolts – tightness check

1 Since vibration of the machine tends to loosen fasteners, all nuts, bolts, screws, etc. should be periodically checked for proper tightness.

2 Pay particular attention to the following:

Spark plugs
Engine oil drain plug
Final drive oil drain plug
Gearchange lever, brake and clutch lever, and brake pedal bolts
Footrest and stand bolts
Engine mounting bolts
Shock absorber and suspension linkage bolts and swingarm pivot bolts
Handlebar clamp bolts
Front axle bolt and axle clamp bolts
Front fork clamp bolts (top and bottom yoke)
Rear axle nut
Brake caliper mounting bolts
Brake hose banjo bolts and caliper bleed valves
Brake disc bolts
Exhaust system bolts/nuts

3 If a torque wrench is available, use it along with the torque specifications at the beginning of this and other Chapters.

15 Throttle and choke cables – check

Throttle cables

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 cables (see Chapter 3) and lubricate them (see Section 16). Install the cables, making sure they are correctly routed. If this fails to improve the operation of the throttle, new cables must be installed. Note that in very rare cases the fault could lie in the carburettors rather than the cables, 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 in the cables, measured in terms of the amount of twistgrip rotation before the throttle opens **(see illustration)**, and compare the amount to that listed in this Chapter's Specifications. If it's incorrect, adjust the cables to correct it.

4 Freeplay adjustments can be made at the throttle end of the cable. Pull back the rubber cover on the adjuster, then loosen the locknut **(see illustration)**. Turn the adjuster until the specified amount of freeplay is obtained (see this Chapter's Specifications), then retighten the locknut. Turn the adjuster in to increase freeplay and out to reduce it. Refit the rubber boot on completion.

5 If the adjuster has reached its limit of adjustment, reset it so that the freeplay is at a maximum, then adjust the cable at the carburettor end as follows: Remove the air filter housing (see Chapter 3). Fully slacken the locknut on the upper cable, then feed the cable down in the bracket until the captive nut is clear of the lug, and slip the cable out of the bracket **(see illustrations)**. Thread the captive nut up or down as required (threading it up the cable will increase freeplay, threading it down will decrease it) **(see illustration)**. Slip the cable back into the bracket and pull it up so the captive nut locates against the lug. Tighten the locknut down against the bracket. Further adjustments can now be made at the throttle end. If the cable cannot be adjusted as specified, renew the cable (see Chapter 3).

Warning: Turn the handlebars all the way through their travel with the engine idling. Idle speed should not change. If it does, the cable may be routed incorrectly. Correct this condition before riding the bike.

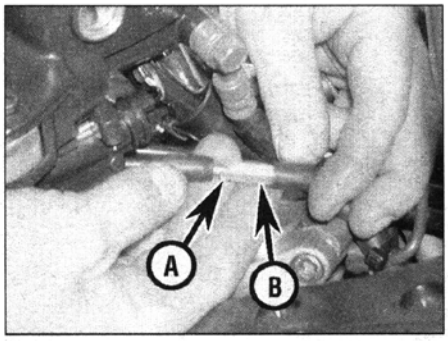
6 Check that the throttle twistgrip operates smoothly and snaps shut quickly when released.

Choke cable

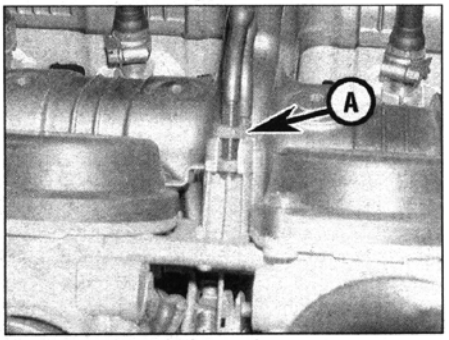
7 If the choke does not operate smoothly this is probably due to a cable fault. Remove the cable (see Chapter 3) and lubricate it (see Section 16). Install the cable, routing it so it takes the smoothest route possible.

8 If this fails to improve the operation of the choke, a new cable must be installed. 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 (see Chapter 3).

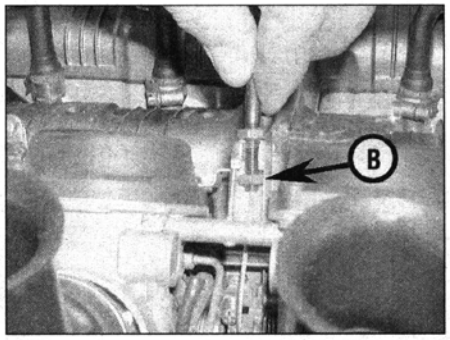
9 Make sure there is a small amount of freeplay in the cable before the plungers move. If there isn't, check that the cable is seating correctly at the carburettor end –



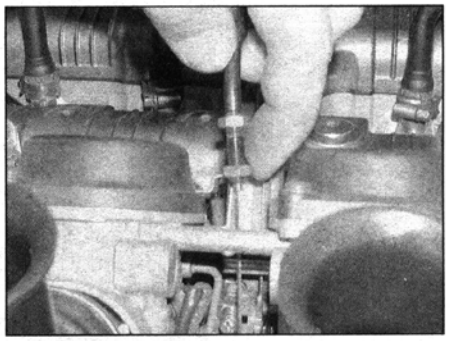
15.4 Throttle cable adjuster locknut (A) and adjuster (B)



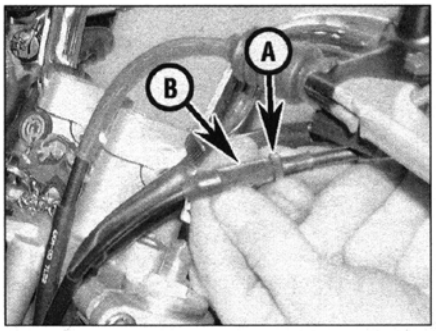
15.5a Slacken the locknut (A) and slide the cable down in the bracket . . .



15.5b . . . until the bottom nut (B) is clear of the lug. Slip the cable out of the bracket . . .

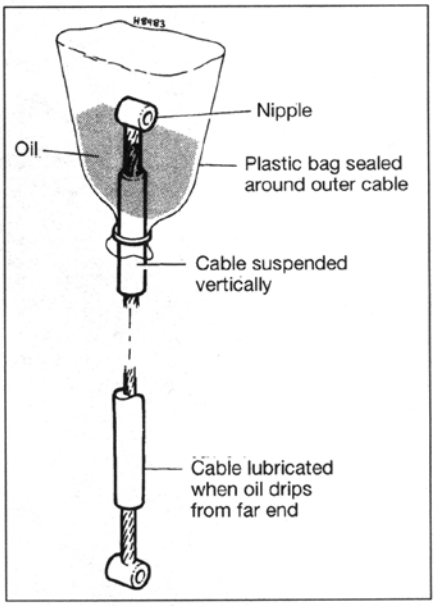


15.5c . . . and thread the bottom nut up or down as required



15.9 Choke cable adjuster locknut (A) and adjuster (B)

16.3a Lubricating a cable with a pressure lubricator. Make sure the tool seals around the inner cable



16.3b Lubricating a cable with a makeshift funnel and motor oil

remove the air filter housing for access (see Chapter 3). If it is, you can create some freeplay in the cable by slackening the locknut on the cable adjuster and turning the adjuster in **(see illustration)**. If there is to much freeplay, turn the adjuster out to reduce it. Otherwise, renew the cable.

16 Stands, lever pivots and cables – lubrication

1 Since the controls, cables and various other components of a motorcycle are exposed to the elements, they should be lubricated periodically to ensure safe and trouble-free operation.

2 The footrests, clutch and brake levers, brake pedal, gearchange lever linkage and sidestand/centrestand pivots should be lubricated frequently. In order for the lubricant to be applied where it will do the most good, the component should be disassembled. However, if chain and cable lubricant is being used, it can be applied to the pivot joint gaps and will usually work its way into the areas where friction occurs. If motor oil or light grease is being used, apply it sparingly as it may attract dirt (which could cause the controls to bind or wear at an accelerated rate). Refer to the Specifications at the beginning of the Chapter for the recommended lubricants. **Note:** *One of the best lubricants for the control lever pivots is a dry-film lubricant (available from many sources by different names).*

3 To lubricate the throttle and choke cables, disconnect the relevant cable at its upper end, then lubricate the cable with a pressure adapter, or if one is not available, using the set-up shown **(see illustrations)**. See Chapter 3 for the throttle and choke cable removal procedures, and Chapter 2 for the clutch cable.

4 To lubricate the speedometer cable, remove it (see Chapter 8), then withdraw the inner cable from the outer cable and lubricate the inner cable with motor oil or cable lubricant. Do not lubricate the upper few inches of the cable as the lubricant may travel up into the instrument head.

17 Suspension – check

1 The suspension components must be maintained in top operating condition to ensure rider safety. Loose, worn or damaged suspension parts decrease the motorcycle's stability and control.

Front suspension

2 While standing alongside the motorcycle, apply the front brake and push on the handlebars to compress the forks several times. See if they move up-and-down smoothly without binding. If binding is felt, the forks should be disassembled and inspected (see Chapter 5).

3 Inspect the area around the dust seal for signs of oil leakage, then carefully lever off the dust seal using a flat-bladed screwdriver and inspect the area around the fork seal **(see illustration)**. If leakage is evident, new seals must be fitted (see Chapter 5). Check the fork tubes for scratches, corrosion and pitting as these will cause premature seal failure. If the damage is excessive new tubes should be installed (see Chapter 5).

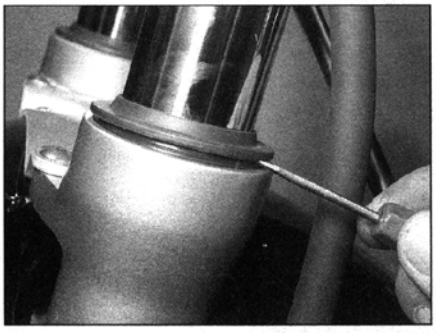
4 Check the tightness of all suspension nuts and bolts to be sure none have worked loose, referring to the torque settings specified at the beginning of Chapter 5.

Rear suspension

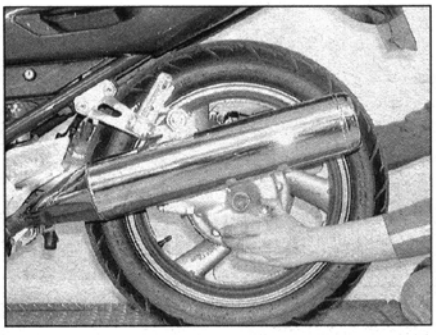
5 Inspect the rear shock for fluid leakage and tightness of its mountings. If leakage is found, a new shock should be installed (see Chapter 5).

6 With the aid of an assistant to support the bike, compress the rear suspension several times. It should move up and down freely without binding. If any binding is felt, the worn or faulty component must be identified and renewed. The problem could be due to either the shock absorber, the suspension linkage components or the swingarm components.

7 Support the motorcycle on the centrestand so that the rear wheel is off the ground. Grab the swingarm and rock it from side to side – there should be no discernible movement at the rear (Yamaha specify a maximum of 1 mm) **(see illustration)**. If there's a little movement or a slight clicking can be heard, inspect the tightness of all the rear suspension mounting bolts and nuts, referring to the torque settings specified at the beginning of Chapter 5, and re-check for



17.3 Lever off the dust seal and check underneath it for signs of oil leakage



17.7a Checking for play in the swingarm bearings