

# 1•18 Every 4000 miles (6000 km) or 6 months

2 Pay particular attention to the following:

*Spark plugs*

*Engine oil drain plugs*

*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.

## 16 Cooling system – check



**Warning:** The engine must be cool before beginning this procedure.

1 Check the coolant level (see *Daily (pre-ride) checks*).

2 The entire cooling system should be checked for evidence of leakage. Examine

each rubber coolant hose along its entire length. Look for cracks, abrasions and other damage. Squeeze each hose at various points. They should feel firm, yet pliable, and return to their original shape when released. If they are dried out or hard, renew them.

3 Check for evidence of leaks at each cooling system joint. Tighten the hose clips carefully to prevent future leaks.

4 Check the radiator for leaks and other damage. Leaks in the radiator leave tell-tale scale deposits or coolant stains on the outside of the core below the leak. If leaks are noted, remove the radiator (see Chapter 3) and have it repaired or renew it.

**Caution:** Do not use a liquid leak stopping compound to try to repair leaks.

5 Check the radiator fins for mud, dirt and insects, which may impede the flow of air through the radiator. If the fins are dirty, remove the radiator (see Chapter 3) and clean it using water or low pressure compressed air directed through the fins from the rear side. If the fins are bent or distorted, straighten them carefully with a screwdriver. If the air flow is restricted by bent or damaged fins over more than 30% of the radiator's surface area, renew the radiator.

6 To access the radiator pressure cap and filler, on TDM models, remove the right-hand fairing side panel, on TRX models remove the fairing, and on XTZ models remove the left-hand fairing side panel (see Chapter 8). On TRX models, remove the security bolt holding the radiator cap (see illustration). Remove

the pressure cap from the radiator filler neck by turning it anti-clockwise until it reaches a stop (see illustrations). If you hear a hissing sound (indicating there is still pressure in the system), wait until it stops. Now press down on the cap and continue turning the cap until it can be removed. Check the condition of the coolant in the system. If it is rust-coloured or if accumulations of scale are visible, drain, flush and refill the system with new coolant (See Section 23). Check the cap seal for cracks and other damage. If in doubt about the pressure cap's condition, have it tested by a Yamaha dealer or renew it. Install the cap by turning it clockwise until it reaches the first stop then push down on the cap and continue turning until it can turn further.

7 Check the antifreeze content of the coolant with an antifreeze hydrometer. Sometimes coolant looks like it's in good condition, but might be too weak to offer adequate protection. If the hydrometer indicates a weak mixture, drain, flush and refill the system (see Section 23).

8 Start the engine and let it reach normal operating temperature, then check for leaks again. As the coolant temperature increases beyond normal, the fan should come on automatically and the temperature should begin to drop. If it does not, refer to Chapter 3 and check the fan switch, fan motor and fan circuit carefully.

9 If the coolant level is consistently low, and no evidence of leaks can be found, have the entire system pressure checked by a Yamaha dealer.

## 17 Throttle and choke cables – check



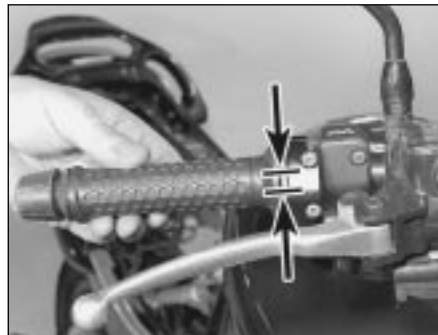
16.6a On TRX models, remove the pressure cap security bolt (arrowed)



16.6b Pressure cap (arrowed) – TDM models



16.6c Pressure cap (arrowed) – XTZ models



17.3 Measure the amount of freeplay at the throttle grip flange

### 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 4) and lubricate them (see Section 18). Install the cables, making sure they are correctly routed. If this fails to improve the operation of the throttle, the cables must be renewed. Note that in very rare cases the fault could lie in the carburetors rather than the cables, necessitating the removal of the carburetors and inspection of the throttle linkage (see Chapter 4).

3 With the throttle operating smoothly, check for a small amount of freeplay in the cable assembly, measured in terms of the amount of twistgrip rotation before the throttle opens and the pull of the cable is felt; compare this amount to that listed in this Chapter's Specifications (see illustration). If it's incorrect, adjust the cable assembly to correct it.

4 Freeplay adjustments can be made at the upper end of the accelerator cable. Loosen the locknut on the adjuster (see illustration). Turn the adjuster until the specified amount of freeplay is obtained, then retighten the locknut. Turn the adjuster clockwise to increase freeplay and anti-clockwise to reduce it.

5 If the adjuster has reached its limit of adjustment, reset it so that the freeplay is at a maximum, then remove the fuel tank and air filter housing (see Chapter 4) and adjust the accelerator cable at the carburettor end. Slacken the adjuster locknut, then screw the adjuster in or out until the specified amount of freeplay is obtained, then tighten the locknut (see illustration). Further adjustments can now be made at the cable's upper end. If the cable cannot be adjusted as specified, renew the accelerator and decelerator cables (see Chapter 4).



**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.

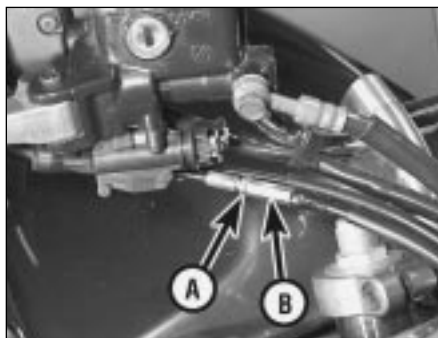
### Choke cable

7 If the choke does not operate smoothly this is probably due to a cable fault. Remove the cable (see Chapter 4) and lubricate it (see Section 18). Install the cable, routing it so it takes the smoothest route possible.

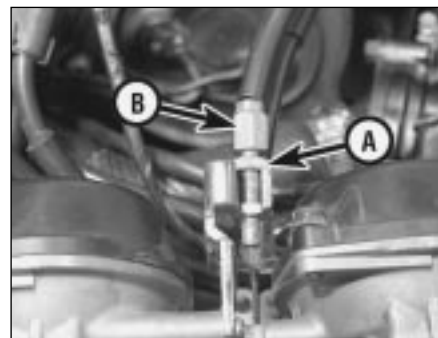
8 If this fails to improve the operation of the choke, the cable must be renewed. Note that in very rare cases the fault could lie in the carburettors rather than the cable, necessitating the removal of the carburettors and inspection of the choke plungers (see Chapter 4). Make sure there is a small 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. If it is, then slacken the choke outer cable bracket screw on the carburettor and slide the cable further into the bracket, creating some freeplay. Otherwise, renew the cable.



18.3a Lubricating a cable with a cable oiler clamp



17.4 Slacken the locknut (A) and turn the adjuster (B) as required



17.5 Slacken the locknut (A) and turn the adjuster (B) as required

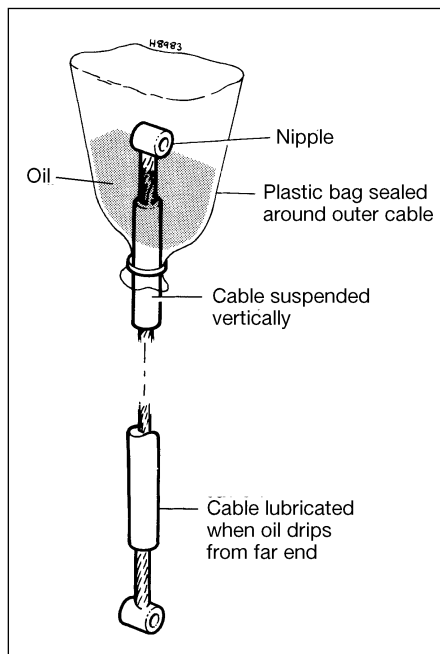
## 18 Stand, lever pivots and cables – lubrication



### Pivot points

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, gearshift lever linkage and sidestand 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



18.3b Lubricating a cable with a makeshift funnel and motor oil

may attract dirt (which could cause the controls to bind or wear at an accelerated rate). **Note:** One of the best lubricants for the control lever pivots is a dry-film lubricant (available from many sources by different names).

### Cables

3 To lubricate the cables, disconnect the relevant cable at its upper end, then lubricate the cable with a cable oiler clamp, or if one is not available, using the set-up shown (see illustrations). See Chapter 4 for the choke and throttle cable removal procedures and Chapter 2 for the clutch cable procedure.

4 The speedometer cable should be removed (see Chapter 9) and the inner cable withdrawn from the outer cable and lubricated 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. Note that the speedometer on 1999 TDM models is electronically operated, and thus does not have a cable.

## 19 Swingarm and suspension bearings (XTZ models) – re-greasing



1

1 The swingarm and suspension linkage components are equipped with grease nipples (see illustration). Clean off the nipples using a rag, then apply some lithium-based grease to the nipples using a grease gun.



19.1 Apply grease to the nipples on the suspension linkage (arrowed) and to the nipple on the swingarm pivot