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obtained. Turn the knob clockwise to increase idle speed, and anti-clockwise to decrease it. Snap the throttle open and shut a few times, then recheck the idle speed. If necessary, repeat the adjustment procedure.

6 If a smooth, steady idle can't be achieved, the throttle bodies may need synchronising (see Section 17), or there could be a problem with the fuel injection system (see Chapter 4). Also check the intake manifold rubbers for cracks or a loose clamp that will cause an air leak, resulting in a weak mixture.

7 Throttle and fast idle cable check



Every 3500 miles (5500 km)

Throttle cables

- 1 Make sure the throttle grip rotates smoothly and freely 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 15). Check that the inner cables slide freely and easily in the outer cables. If not, replace the cables with new ones. With the cables removed, make sure the throttle twistgrip rotates freely on the handlebar. Install the cables, making sure they are correctly routed. If this fails to improve the operation of the throttle, the cables must be replaced with new ones. Note that in very rare cases the fault could lie in the throttle bodies rather than the cables, necessitating their removal and inspection (see Chapter 4).
- 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, and



7.3 Twist the throttle and measure the amount of free rotation

compare the amount to that listed in this Chapter's Specifications (see illustration). If it's incorrect, adjust the cables to correct it as follows.

- 4 Freeplay adjustments can be made using the adjusters in the cables after they leave the throttle/switch housing on the handlebar. The front cable in the housing is the opening cable, and the rear is the closing cable. Loosen the lockring on the closing cable adjuster and turn the adjuster fully in (see illustration). Now loosen the lockring on the opening cable adjuster and turn the adjuster in or out as required until the specified amount of freeplay is obtained (see this Chapter's Specifications), then retighten the lockring. Now, while holding the twistgrip in the fully closed position, turn the closing cable adjuster out until a resistance can just be felt at this point all the freeplay between the outer cable and its socket in the adjuster has been taken up. Do not turn the adjuster out any further than the point at which the resistance is felt. Tighten the lockring.
- 5 If the adjusters have reached their limit, or if major adjustment is required, reset them so that the freeplay is at a maximum (i.e. the adjusters are fully turned in), then raise the fuel tank (see Chapter 4), and adjust the cables at the throttle body end. Slacken the



7.4 Slacken the adjuster lockrings and turn the adjusters as described

adjuster locknuts (see illustration). Turn the adjuster on the closing (top) cable until there is no freeplay between the outer cable and its socket in the adjuster at the throttle end, as in Step 4. Now turn the adjuster on the opening (bottom) cable until the specified amount of freeplay is obtained (see Step 3). With the throttle held in the closed position check that the exposed section of the closing inner cable (between the end of the adjuster thread and the pulley on the throttle bodies) has about 1 mm of sideways slack (see illustration), and if necessary turn the adjuster to achieve this - the cable should not be taut. Now tighten the adjuster locknut. Further adjustments can now be made at the throttle end. If the cables cannot be adjusted as specified, install new ones (see Chapter 4).



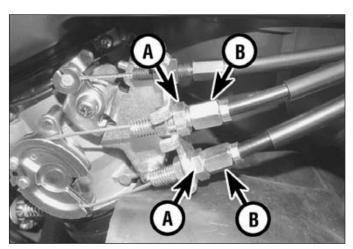
Warning: Turn the handlebars all the way through their travel with the engine idling. Idle speed should not change. If it does, the

cables may be routed incorrectly. Correct this condition before riding the bike.

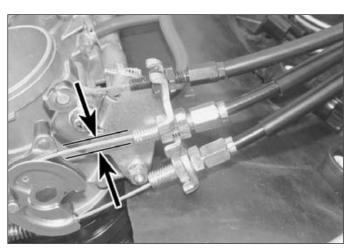
6 Check that the throttle twistgrip operates smoothly and snaps shut quickly when released.

Fast idle cable

7 If the fast idle lever does not operate

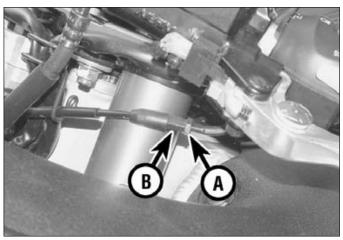


7.5a Slacken the adjuster locknuts (A) and turn the adjusters (B) as described

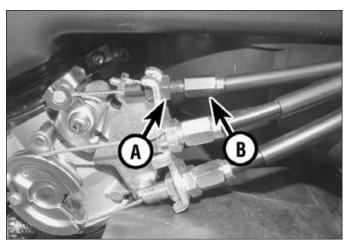


7.5b Check for 1 mm of sideways slack in the closing cable

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7.9 Cable adjuster locknut (A) and adjuster (B)

smoothly this is probably due to a cable fault. If necessary remove the cable (see Chapter 4) and lubricate it (see Section 15). Check that the inner cable slides freely and easily in the outer cable. If not, replace the cable with a new one. With the cable removed, make sure the lever is able to move freely in its guide channel. Install the cable, making sure it is correctly routed.

- 8 Raise the fuel tank (see Chapter 4). Operate the choke lever and check for a small amount of freeplay in the cable before the pulley mechanism on the throttle bodies actuates. Adjust it if necessary using the adjuster at the lever end of the cable. Slacken the locknut, then turn the adjuster as required until a small amount of freeplay is evident, then retighten the locknut (see illustration).
- **9** If the adjuster has reached its limit, or if major adjustment is required, reset it so that the freeplay is at a maximum (i.e. the adjuster is fully turned in), then adjust the cable at the throttle body end. Slacken the adjuster locknut (see illustration). Turn the adjuster in or out as required until there is a small amount of freeplay, then tighten the locknut.
- **10** Refer to Chapter 4 and check the fast idle speed, adjusting it as described if required.



8.3a Check the hose (arrowed) as described . . .

8 Clutch check



- 1 All models are fitted with an hydraulic clutch, for which there is no method of adjustment.
- **2** Check the fluid level in the reservoir (see *Daily (pre-ride) checks).*
- 3 Inspect the hydraulic hose sections and their connections for signs of fluid leakage, and flex them to check for cracking, deterioration and wear (see illustrations). Also check around the release mechanism components (master cylinder on the handlebar and release cylinder in the front sprocket cover) for damage and leakage.
- 4 Change the clutch fluid every two years (see Section 24), and replace the hose and pipe assembly with a new one either if damaged or deteriorated, or every four years irrespective of condition (see Section 27). The master and release cylinder seals should be changed every few years, or if leakage from them is evident (see Section 35).
- 5 Check the operation of the clutch. If there is

evidence of air in the system (spongy feel to the lever, difficulty in engaging gear, drag when in gear), bleed the clutch (see Chapter 2). If the lever feels stiff or sticky, overhaul the release mechanism (see Chapter 2).

6 The clutch lever has a span adjuster that alters the distance of the lever from the handlebar (see illustration). Each setting is identified by a number on the adjuster, which must align with the arrow on the lever. Pull the lever away from the handlebar and turn the adjuster ring until the setting that best suits the rider is obtained.

9 Cooling system check



Every 3500 miles (5500 km)



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

- 1 Check the coolant level (see *Daily (pre-ride)* checks).
- **2** Remove the fairing side panels (see Chapter 8).
- 3 Check the entire cooling system for evidence of leakage. Examine each rubber



8.3b ... at each end



8.6 Clutch lever span adjuster – align the required setting number with the arrow on the lever