



**7.5a** If coolant is leaking from the small hole under the water pump (arrow), it's time for a new water pump seal. This is a CRF250X (CRF250R similar) . . .

**illustration**) and add the proper type of antifreeze solution listed in this Chapter's Specifications until the level is between the UPPER and LOWER marks. If you're working on a CRF250X, you'll have to remove the left side cover to remove the cap and add coolant (see Chapter 8).

## 7 Cooling system - inspection

Refer to illustrations 7.5a and 7.5b

- 1 Remove the radiator shrouds (see Chapter 8) and grilles (see Chapter 3). Clean mud, leaves or other obstructions out of the radiator fins with low-pressure water or compressed air, from the back to the front.
- 2 If any fins are bent, carefully straighten them with a small screwdriver, taking care not to puncture the coolant tubes in the radiator.
- 3 If more than 20 percent of the radiator's surface area is blocked, replace the radiator.
- 4 Check the coolant hoses for swelling, cracks, burns, cuts or other defects. Replace the hoses if their condition is doubtful. Make sure the hose clamps are tight and free of corrosion. Tighten loose clamps and replace corroded or damaged ones.
- 5 Check for leaks at the water pump weep hole (**see illustrations**) and gaskets. Also check for leaks at the coolant drain bolt, which is the lower bolt on the water pump cover. Replace water pump or drain plug gaskets if they've been leaking. If coolant or transmission oil has been



**8.2** Measure throttle freeplay at the grip



**7.5b** . . . and this is a CRF450R (CRF450X similar)

leaking from the weep hole, it's time for new water pump seals (see Chapter 3).

## 8 Throttle and choke operation/grip freeplay - check and adjustment

### Throttle check

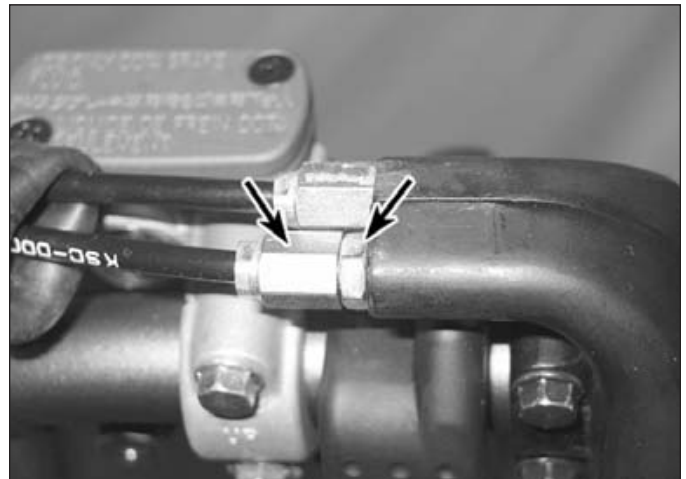
Refer to illustration 8.2

- 1 Make sure the throttle twistgrip moves 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. If the throttle sticks, check the throttle cable for cracks or kinks in the housings. Also, make sure the inner cable is clean and well-lubricated.
- 2 Check for a small amount of freeplay at the twistgrip (**see illustration**) and compare the freeplay to the value listed in this Chapter's Specifications.

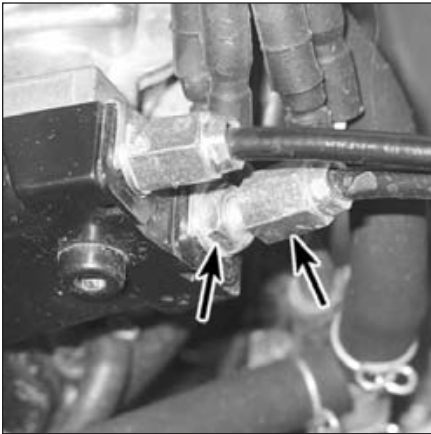
### Throttle adjustment

Refer to illustrations 8.4 and 8.5

- 3 Minor adjustments are made at the throttle lever end of the accelerator cable. Major adjustments are made at the carburetor end of the cable.
- 4 Pull back the rubber cover from the adjuster and loosen the locknut on the cable (**see illustration**). Turn the adjuster until the desired freeplay is obtained, then retighten the locknut.



**8.4** Loosen the locknut (right arrow) and turn the adjuster (left arrow) to make minor freeplay adjustments



**8.5** To make major adjustments, remove the fuel tank (see Chapter 4), loosen the locknut and turn the adjuster



**8.6** The choke knob should click when pulled out and pushed in



**9.1** Measure clutch freeplay at the lever tip

5 If the freeplay can't be adjusted at the grip end, remove the fuel tank (see Chapter 4), and loosen the locknut at the carburetor end of the cable (see illustration). Turn the adjuster to set freeplay, then tighten the locknuts securely.

### Choke - operation check

Refer to illustration 8.6

6 Check that the choke knob clicks when pulled out, and stays in the out position (see illustration). When pushing it back in it should click again, and return completely. If not, refer to Chapter 4 and remove the choke knob for inspection.

## 9 Clutch - check and freeplay adjustment

### Clutch freeplay

Refer to illustrations 9.1, 9.2 and 9.4

1 Operate the clutch lever and measure freeplay at the tip of the lever (see illustration). If it's not within the range listed in this Chapter's Specifications, adjust it as follows.

2 To make minor adjustments on 2004 and later models, turn the thumbwheel at the lever perch (see illustration). To adjust freeplay

on 2002 and 2003 models, pull back the rubber cover, loosen the lockwheel, then turn the adjuster to change the freeplay (turning the adjuster out will decrease freeplay, turning it in will increase freeplay). After adjustment, tighten the lockwheel securely.

3 If freeplay can't be brought within specifications by using the thumbwheel or adjuster at the lever perch, turn the thumbwheel or adjuster in all the way, then back it out one turn and proceed to the next step.

4 Loosen the locknut on the in-line cable adjuster behind the number plate (see illustration). Turn the adjuster to set freeplay, then tighten the locknut.

5 If freeplay still can't be adjusted to within the specified range, the cable is probably stretched and should be replaced with a new one (see Chapter 2), or the clutch may be worn out (see Chapter 2).

### Lever position adjustment

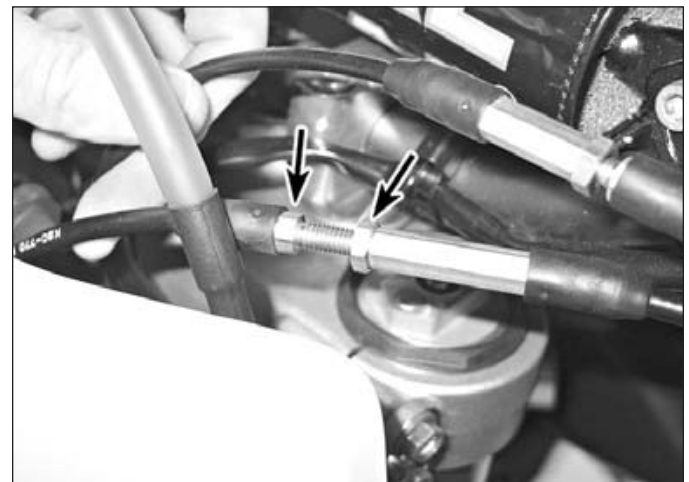
Refer to illustration 9.6

6 On CRF250R and 2004 and later CRF450R models, the clutch lever position (reach) can be adjusted to suit the rider's preference. Loosen the locknut and turn the adjuster bolt, as desired to bring the lever closer to the handlebar or to move it farther away (see illustration).

7 After the adjustment has been made, tighten the locknut securely and adjust the clutch lever freeplay as described previously.



**9.2** Turning the thumbwheel toward you (when sitting on the seat) will increase clutch lever freeplay; turning it away from you will decrease freeplay



**9.4** To make major clutch cable adjustments use the in-line adjuster behind the number plate; loosen the locknut (right arrow) and turn the adjuster (left arrow)