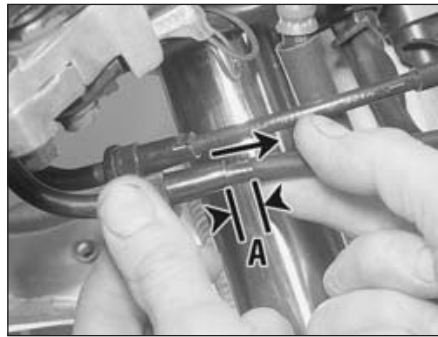


6.3 Idle speed adjuster (arrowed)



7.3a On GSX-R600V models and GSX-R750T and V models, pull the cable out of the socket and measure the free travel (A)



7.3b On GSX-R600W and X models and GSX-R750W and X models, twist the throttle and measure the amount of free rotation (B)

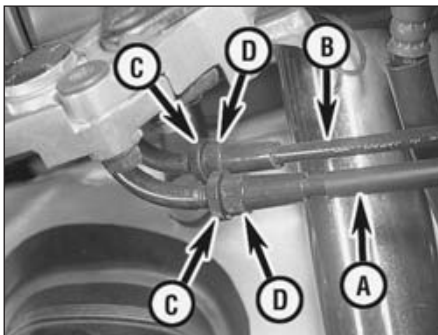
## 6 Idle speed – check and adjustment



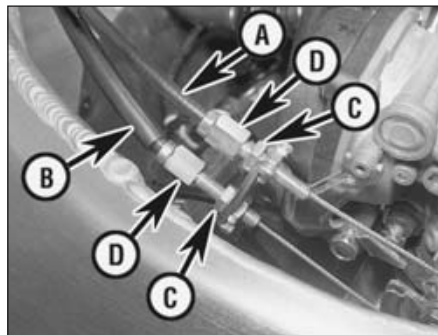
**1** The idle speed should be checked and adjusted before and after the carburettors or throttle bodies are synchronised (balanced) and when it is obviously too high or too low. Before adjusting the idle speed, make sure the valve clearances and spark plug gaps are correct (see Sections 23 and 3). Also, turn the handlebars back-and-forth and see if the idle speed changes as this is done. If it does, the throttle cables may not be adjusted correctly, or may be worn out. This is a dangerous condition that can cause loss of control of the bike. Be sure to correct this problem before proceeding (see Section 7).

**2** The engine should be at normal operating temperature, which is usually reached after 10 to 15 minutes of stop and go riding. Place the motorcycle on its sidestand, and make sure the transmission is in neutral.

**3** The idle speed adjuster is located inside the left-hand fairing side panel (see illustration). With the engine idling, adjust the idle speed by turning the adjuster screw until the idle speed listed in this Chapter's Specifications is obtained. Turn the screw clockwise to increase idle speed, and anti-clockwise to decrease it.



7.4 Accelerator cable (A), decelerator cable (B). Adjuster locknut (C), adjuster (D)



7.6a Accelerator cable (A), decelerator cable (B). Adjuster locknut (C), adjuster (D) – carburettor models

**4** Snap the throttle open and shut a few times, then recheck the idle speed. If necessary, repeat the adjustment procedure.

**5** If a smooth, steady idle can't be achieved, the fuel/air mixture may be incorrect (see Chapter 4) or the carburettors/throttle bodies may need synchronising (see Section 17).

## 7 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 4) and lubricate them (see Section 15). 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 carburettors or throttle bodies, necessitating their removal and inspection of the throttle linkage (see Chapter 4).

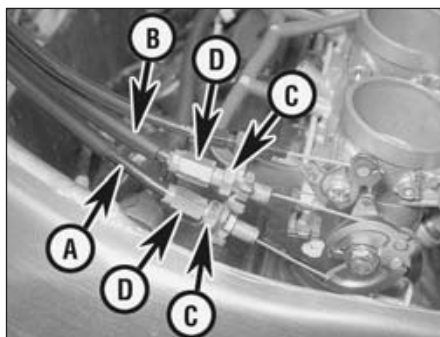
**3** With the throttle operating smoothly, check

for a small amount of freeplay before the throttle opens and compare the amount to that listed in this Chapter's Specifications. On GSX-R600V models and GSX-R750T and V models, freeplay is measured in terms of the amount of free movement the outer cables have in their sockets in the adjusters before they become tight (see illustration). On GSX-R600W and X models and GSX-R750W and X models, freeplay is measured in terms of the amount of throttle (twistgrip) rotation before the throttle opens (see illustration). If it's incorrect, adjust the cables to correct it.

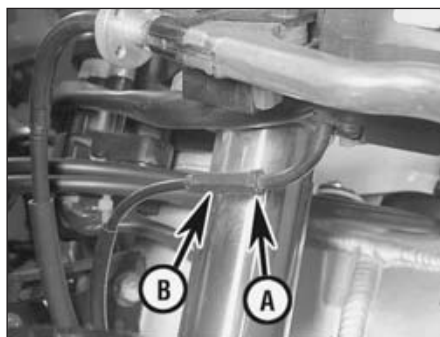
**4** To adjust the cables on GSX-R600V models and GSX-R750T and V models, loosen the locking on the decelerator (throttle closing) cable adjuster, and turn the adjuster until the specified amount of freeplay is obtained (see this Chapter's Specifications) (see illustration). Retighten the locking. Now repeat the procedure for the accelerator (throttle opening) cable.

**5** To adjust the cables on GSX-R600W and X models and GSX-R750W and X models, loosen the locking on the decelerator (throttle closing) cable adjuster and turn the adjuster fully in (see illustration 7.4). Now loosen the locking on the accelerator (throttle opening) cable and turn the adjuster until the specified amount of freeplay is obtained (see this Chapter's Specifications), then retighten the locking. Now turn the decelerator (throttle closing) cable adjuster out until a resistance can just be felt – at this point all the freeplay has been taken up. Do not turn the adjuster out any further than the point at which the resistance is felt. Tighten the locking.

**6** If the adjusters have reached their limit, or if major adjustment is required, reset them so that the freeplay is at a maximum (ie the adjusters are fully turned in), then raise the fuel tank and, if required for improved access, remove the air filter housing (see Chapter 4), and adjust the cables at the carburettor/throttle body end. Slacken the adjuster locknuts, then turn the adjusters until the specified amount of freeplay is obtained (see Step 3), then tighten the locknuts (see illustrations). Further adjustments can now



7.6b Accelerator cable (A), decelerator cable (B). Adjuster locknut (C), adjuster (D) - fuel injection models



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



8.1 Measuring clutch cable freeplay

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

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

### Choke cable

8 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 15). Install the cable, making sure it is correctly routed.

9 Check for a small amount of freeplay in the cable before the choke opens and 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). 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 carburetors rather than the cable, necessitating the removal of the carburetors and inspection of the choke valves (see Chapter 4).

10 On GSX-R750W and X models, the choke cable is also adjustable at the throttle body end, and is done so in the same way as the throttle cables (see Step 6 and illustration 7.6b)

## 8 Clutch – check



### Cable adjustment

1 Periodic adjustment of the clutch cable is necessary to compensate for wear in the clutch plates and stretch of the cable. Check that the amount of freeplay at the clutch lever end is within the specifications listed at the beginning of the Chapter (see illustration). If adjustment is required, it can be made at either the lever end of the cable or at the clutch end.

2 To adjust the freeplay at the lever, turn the adjuster in or out until the required amount of freeplay is obtained (see illustration). To increase freeplay, turn the adjuster clockwise (in). To reduce freeplay, turn the adjuster anti-clockwise (out).

3 If all the adjustment has been taken up at the lever, reset the adjuster (turn it fully in) to give the maximum amount of freeplay, then set the correct amount of freeplay using the

adjuster at the clutch end of the cable (Step 4). Subsequent adjustments can then be made using the lever adjuster only.

4 To adjust the freeplay at the clutch end of the cable, slacken the locknut on the adjuster on the top of the sprocket cover and turn the adjuster until the specified amount of freeplay is obtained (see illustration). To increase freeplay, turn the adjuster clockwise (in). To reduce freeplay, turn the adjuster anti-clockwise (out). Tighten the locknut securely. To improve access to the adjuster, remove the left-hand fairing side panel (see Chapter 8) and displace the coolant reservoir (see Chapter 3).

### Release mechanism adjustment

**Note:** Clutch plate wear can be compensated for by adjusting the release mechanism set in the sprocket cover. If it is impossible to eliminate clutch drag or slip with cable adjustment, set the release mechanism freeplay as follows.

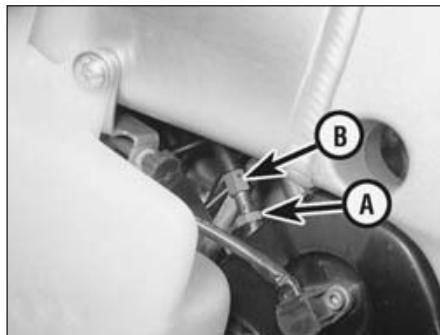
5 Turn the adjuster at the lever end of the cable fully in (see illustration 8.2). This creates slack in the cable.

6 Remove the left-hand fairing side panel (see Chapter 8) and displace the coolant reservoir (see Chapter 3). Remove the rubber cover from the clutch release mechanism set in the engine sprocket cover (see illustration).

7 Slacken the locknut on the release mechanism adjuster screw, then unscrew the



8.2 Turn the adjuster as required



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



8.6 Remove the rubber cover . . .