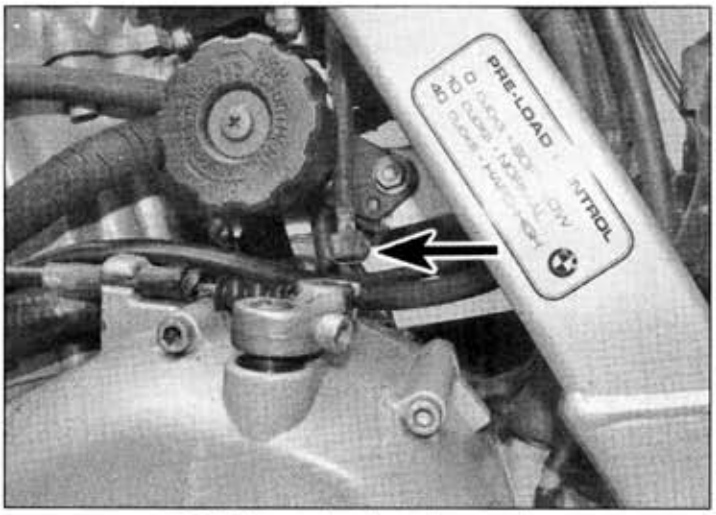
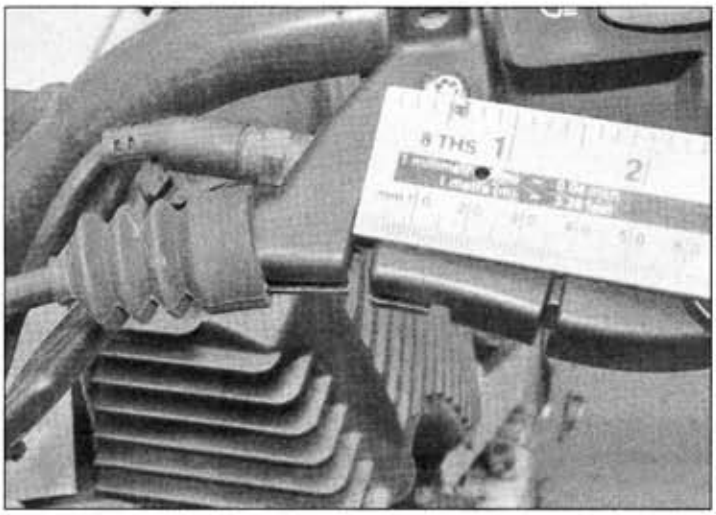


8.3 Idle speed adjuster (arrowed)



9.3 Measuring clutch cable freeplay

worn out. This is a dangerous condition that can cause loss of control of the bike. Be sure to correct this problem before proceeding.

2 The engine should be at normal operating temperature, which is usually reached after 10 to 15 minutes of stop-and-go riding. Make sure the transmission is in neutral.

3 The idle speed adjuster is a small knurled knob located on the left-hand side **(see illustration)**. With the engine running, turn the knob until the engine idles at the speed specified at the beginning of the Chapter. Turn the screw clockwise to increase idle speed, and anti-clockwise to decrease it.

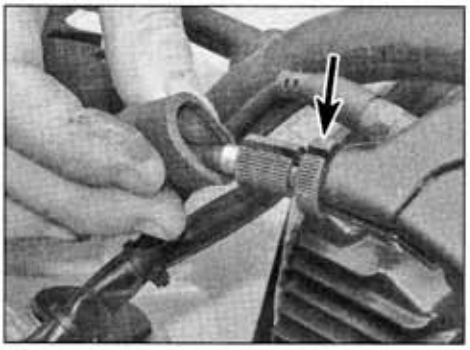
4 Snap the throttle open and shut a few times, then recheck the idle speed. If necessary, repeat the adjustment procedure.

5 If a smooth, steady idle can't be achieved, and the plug(s), air filter and valve clearances are all good, the problem may lie in the carburettors or the ignition system.

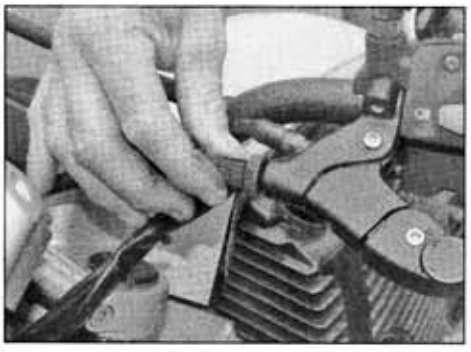
CO level

6 On models equpped with a catalytic converter, the exhaust gas CO content should be checked by a BMW dealer.

9 Clutch, throttle and choke cables



9.4a Pull the boot off and slacken the locknut (arrowed) . . .



9.4b . . . then turn the adjuster as required

Clutch

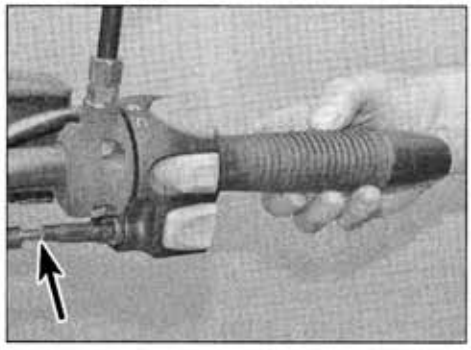
1 Check that the clutch lever operates smoothly and easily.

2 If the clutch lever operation is heavy or stiff, remove the cable (see Chapter 2) and lubricate it (Step 11). Check that the inner cable slides freely and easily in the outer cable. If the cable is still stiff, replace it with a new one. Install the lubricated or new cable (see Chapter 2).

3 With the cable operating smoothly, check that it is correctly adjusted. Periodic adjustment is necessary to compensate for wear in the clutch plates and stretch of the cable. Pull lightly on the clutch lever until freeplay is taken, up then measure the gap between the inner front edge of the lever and the lever bracket **(see illustration)**. Check that the gap is as specified at the beginning of the Chapter.

4 If adjustment is required, pull the rubber boot off the adjuster and fully slacken the adjuster locknut **(see illustration)**. Turn the adjuster in or out until the specified amount of freeplay is obtained **(see illustration)**. To increase freeplay, thread the adjuster into the lever bracket. To reduce freeplay, thread the adjuster out of the bracket. Tighten the locknut on completion, then fit the rubber boot.

5 Make sure that the slots in the adjuster, locknut and lever bracket are not aligned – these slots are to allow removal of the cable, and if they are all aligned while the bike is in use the cable could jump out. Also make sure the adjuster is not threaded too far out of the bracket so that it is only held by a few threads – this will leave it unstable and the threads could be damaged.



9.9 Measure throttle cable freeplay at this point (arrowed)

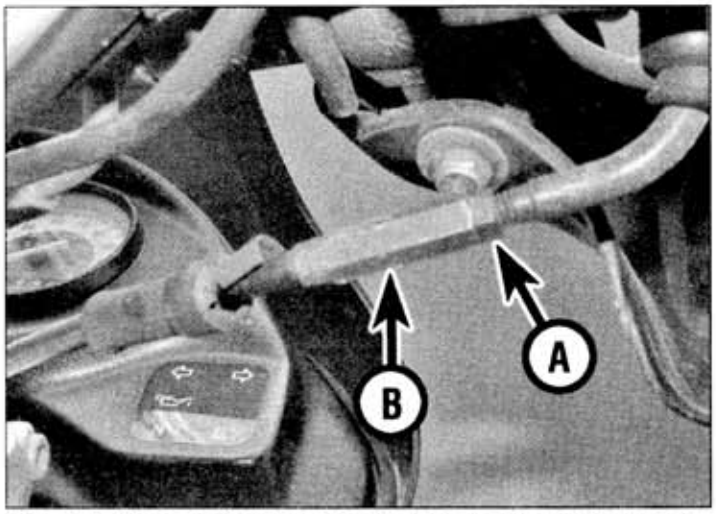
Throttle and choke

6 Make sure the throttle and choke (Funduro and ST models) cables operate smoothly and freely with the front wheel turned at various angles. The throttle grip should return automatically from fully open to fully closed when released.

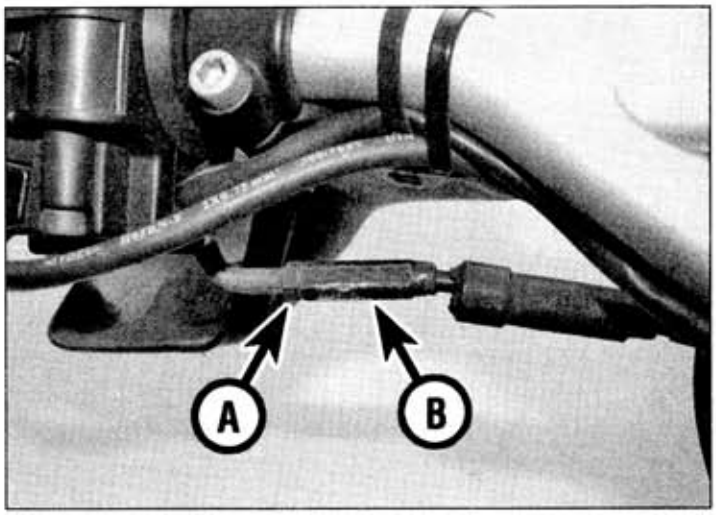
7 If action is sticky, this is probably due to a cable fault. Remove the cable (see Chapter 4A or 4B) and lubricate it (see Step 11). Check that the inner cable slides freely and easily in the outer cable. If not, replace the cable with a new one.

8 With the cable removed, make sure the throttle twistgrip or choke lever operates freely on the handlebar – dirt combined with a lack of lubrication can cause the action to be stiff. If necessary, remove, clean and lubricate the twistgrip or lever (see Chapter 6).

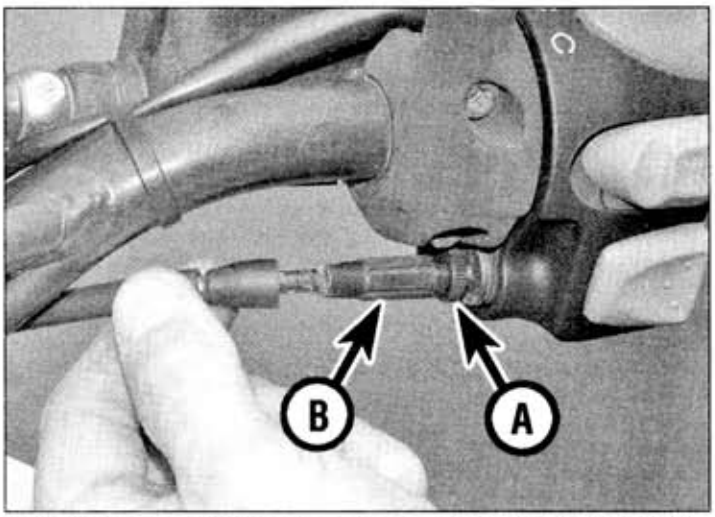
9 With the cable operating smoothly, check for a small amount of freeplay in twistgrip rotation or choke lever travel before the throttle or choke opens **(see illustration)**.



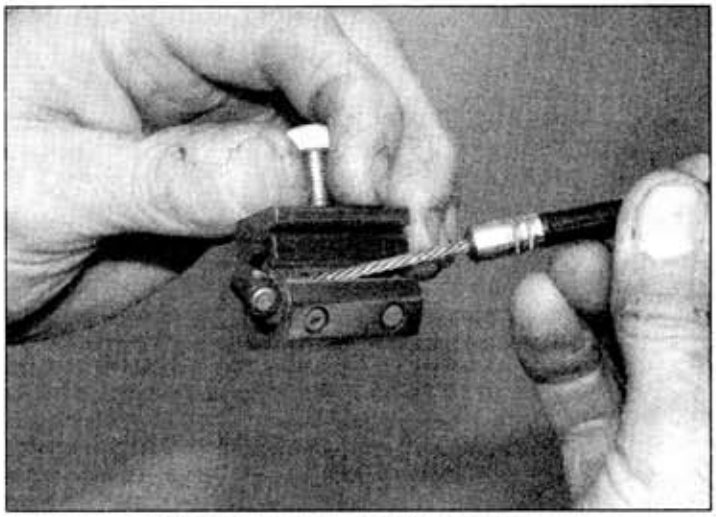
9.10a Pull the boot off to expose the locknut (A) and adjuster (B) – Funduro and ST throttle cable



9.10b Pull the boot off to expose the locknut (A) and adjuster (B) – Funduro and ST choke cable



9.10c Pull the boot off to expose the locknut (A) and adjuster (B) – GS, Dakar and CS



9.11a Fit the cable into the adapter . . .

10 If adjustment is required, pull the rubber boot off the adjuster and fully slacken the adjuster locknut **(see illustrations)**. Turn the adjuster in or out until the specified amount of freeplay is obtained. To increase freeplay, thread the adjuster into the lever bracket. To reduce freeplay, thread the adjuster out of the bracket. Tighten the locknut on completion, then fit the rubber boot.

Lubrication

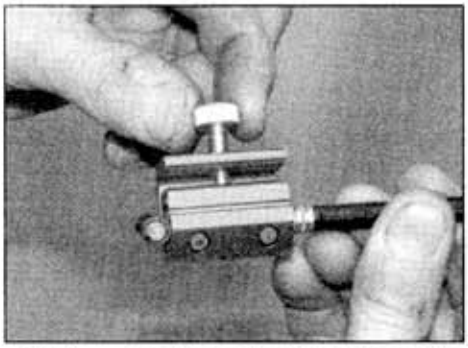
Special tool: *A cable lubricating adapter is necessary for this procedure.*

11 To lubricate the cables, disconnect the relevant cable at its upper end, then lubricate it with a pressure adapter and aerosol lubricant cable lube **(see illustrations)**.

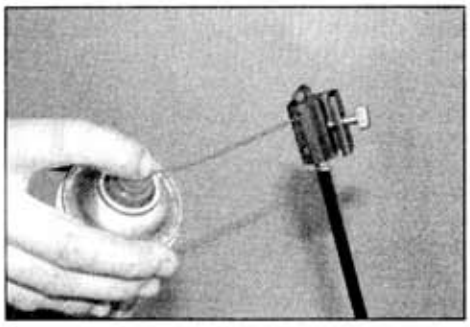
Warning: Turn the handlebars all the way through their travel with the engine idling. Idle speed should not change. If it does, the cables may be routed incorrectly. Correct this condition before riding the bike.

10 Cooling system

Note: *Three types of hose clamp are used on the various hoses across the range of models covered – the non-re-usable type, the re-usable clip type and the screw type. A small screwdriver is required to release the non-reusable type and clip type clamps. Special pliers are required to close them, and these are available from automotive tool suppliers, or from BMW (part No. 131500), along with the clamps where new ones are required.*



9.11b . . . and tighten the screw to seal it in . . .



9.11c . . . then apply the lubricant using the nozzle provided, inserted in the hole in the adapter