

17.3a The throttle stop screw (arrow, typical early model) is turned to change the idle speed (you may need a stubby screwdriver on some models) . . .

number of turns required to bottom the adjuster.

3 Completely unscrew the adjuster and blow the orifice out with compressed air.

4 Install the adjusting screw and turn it in until it bottoms, then back it out the required number of turns to its original position. The normal setting is 1/4-turn open.

5 The oiler should release two or three drops of oil per minute. Turn the adjusting screw in if less oil is desired; turn it out if more oil is needed.

17 Idle speed (carbureted models) - adjustment



1 The idle speed should be checked and adjusted if it's obviously too high or too low. Before adjusting the idle speed, be sure the ignition timing is set correctly and the spark plug gaps are correct.

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

3 Turn the throttle stop screw until the specified speed is obtained (**see illustrations**).

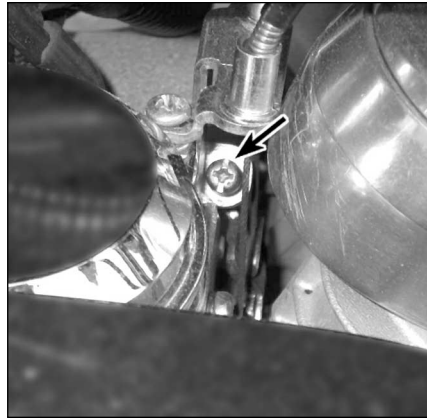
4 If a smooth, steady idle cannot be obtained, the fuel/air mixture may be incorrect. Refer to Chapter 3 for fuel/air mixture adjustment procedures.

18 Throttle operation/grip freeplay - check and adjustment



Check

1 With the engine stopped, make sure the throttle grip rotates easily from fully closed to fully open with the front wheel turned at vari-



17.3b . . . while on later models with a Keihin CV carburetor, a long screwdriver will be needed to reach the screw (arrow)

ous angles. The grip should return automatically from fully open to fully closed when released. If the throttle sticks, check the throttle cables for cracks or kinks in the housings. Also, make sure the inner cables are clean and well lubricated.

2 Check for a small amount of freeplay at the grip and compare the freeplay to the value listed in this Chapter's Specifications.

Adjustment

Spiral throttle control

3 Early models use a spiral-type throttle control with a single throttle cable. It can be identified by the screw in the end of the grip (drum type throttle controls have an end cap, rather than an end screw).

4 When turned by hand and released, the throttle grip must return to the closed (idle) position. There should be 1/4-inch between the carburetor control clip and throttle control coil with the throttle closed. If not, or if the grip turns stiffly, the grip should be disassembled, cleaned and inspected (see Chapter 3).

Single cable, drum type throttle control

5 When turned by hand and released, the throttle grip must return to the closed (idle) position. If it doesn't return freely, back off the friction screw until it does.

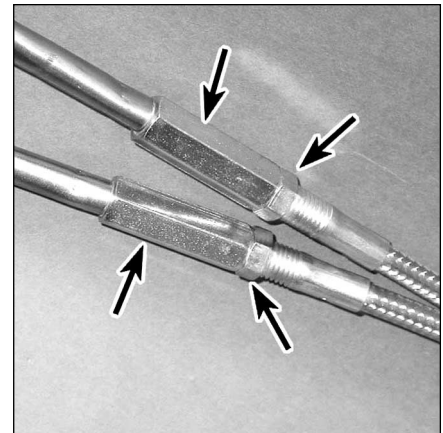
6 If the throttle grip turns stiffly, or if backing off the friction screw doesn't cause it to return freely, it should be disassembled, cleaned and inspected (see Chapter 3).

7 Locate the throttle cable's connection at the carburetor. Watch it while turning the handlebars all the way from full left to full right lock. The inner cable should not pull on the carburetor lever as the handlebars are turned.

8 If it does, loosen the knurled round locknut on the cable adjuster (not the hex locknut on the elbow fitting). Turn the adjuster to change the cable's effective length, then tighten the locknut. Recheck as



18.13a Slide back the rubber boots for access to the throttle cable adjusters



18.13b Loosen the locknuts (right arrows) and turn the adjusters (left arrows)

described in Step 7.

9 Center the front wheel in the straight-ahead position and open the throttle all the way. The carburetor throttle lever should reach the full-open position as the grip reaches the end of its travel. If not, adjust the stop screw on the underside of the grip with a 2 mm Allen wrench. Don't allow the grip to have remaining travel when the carburetor is all the way open, or the cable will be damaged by the strain.

Dual cables (1981 and later models)

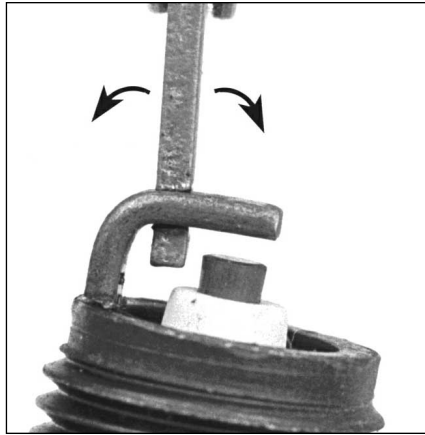
Note: These motorcycles use two throttle cables - a throttle (pull) cable and an idle (push) cable.

10 Start freeplay adjustments at the throttle end of the cables. Loosen the locknut on each cable where it leaves the handlebar. Turn the adjusters to eliminate all throttle grip play, but leave the locknuts loose for the time being.

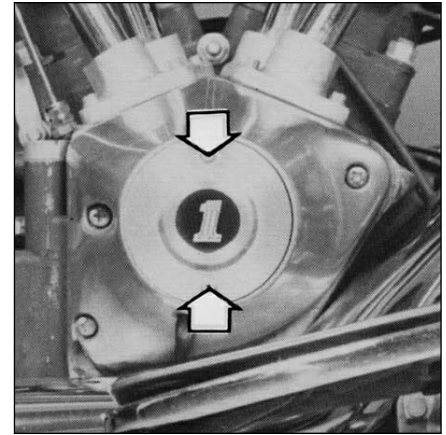
11 While holding the throttle wide open, make sure the cam on the throttle pulley just touches its stop. If necessary, turn the adjuster on the throttle cable to change the position of the throttle pulley cam. Once this is done, tighten the throttle cable locknut.



20.6a Spark plug manufacturers recommend using a wire-type gauge when checking the gap - if the wire doesn't slide between the electrodes with a slight drag, adjustment is required



20.6b To check the gap, bend the side electrode only, as indicated by the arrows, and be very careful not to crack or chip the ceramic insulator surrounding the center electrode



21.2 The breaker point cover is retained by two screws (arrows)

12 Release the throttle grip and turn the handlebars all the way to full right lock.

13 Turn the idle cable adjuster at the handlebar while watching the cable housing at the carburetor or throttle body (**see illustrations**). The adjustment is correct when the cable housing just touches the spring inside the cable tube on the cable bracket.

14 Make sure the throttle pulley returns to idle when the throttle grip is in the closed throttle position.



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.

19 Choke knob - check



1 Inspect the choke knob and cable. The choke should pull out easily and stay out by itself.

2 If the knob doesn't operate correctly, loosen the hex nut behind the mounting bracket. Hold the cable with a wrench on the cable flats and adjust the knob's tension with the plastic knurled nut behind the knob. If this doesn't help, check the plunger bushing for wear or damage and replace as necessary. Don't lubricate the cable.

20 Spark plugs - check and replacement



1 Make sure your spark plug wrench or socket is the correct size before attempting to remove the plugs.

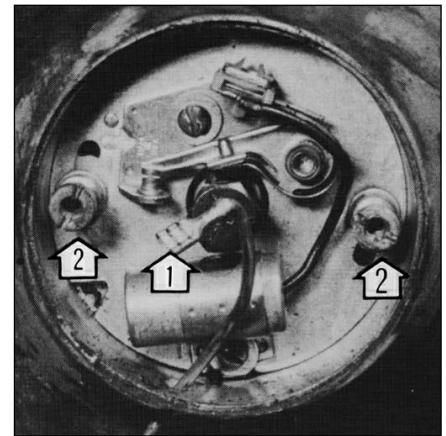
2 Disconnect the spark plug caps. Clean any dirt from around the base of the plugs with compressed air, a damp cloth or a brush, then remove the plugs. Inspect the electrodes for wear. Both the center and side electrodes should have square edges and the side electrode should be of uniform thickness. Look for excessive deposits and a cracked or chipped insulator around the center electrode. Compare the spark plugs to the color spark plug photos on the inside back cover of this manual. Check the threads, the washer and the ceramic insulator body for cracks and other damage.

3 Inspect the electrodes for wear. Both the center and side electrodes should have square edges and the side electrodes should be of uniform thickness. Look for excessive deposits and a cracked or chipped insulator around the center electrode. Compare the spark plugs to the color spark plug photos on the inside back cover of this manual. Check the threads, the washer and the ceramic insulator body for cracks and other damage.

4 If the electrodes aren't excessively worn, and if the deposits can be easily removed with a wire brush, the plugs can be regapped and reused (if no cracks or chips are visible in the insulator). If in doubt concerning the condition of the plugs, replace them with new ones, as the expense is minimal.

5 Cleaning spark plugs by sandblasting isn't recommended, since grit from the sandblasting process may remain in the plug and be dislodged after it's installed in the engine, which obviously can cause damage and increased wear.

6 Before installing new plugs, make sure they're the correct type and heat range. Check the gap between the electrodes - they're not pre-set. For best results, use a wire-type gauge rather than a flat gauge to check the gap (**see illustration**). If the gap must be adjusted, bend the side electrode



21.3 Detach the primary wire (1) and remove the screws (2) securing the baseplate

only and be very careful not to chip or crack the insulator nose (**see illustration**).

7 Thread the plug into the head by hand. Tighten the plugs finger-tight (until the washers bottom on the cylinder head) then use a wrench to tighten them an additional 1/4-turn. Do not overtighten them.

8 Reconnect the spark plug caps.

21 Contact breaker points - check and replacement



1 If the contact breaker points are badly burned, pitted or worn, they should be replaced with a new set. This also applies if the fiber heel that rides on the breaker cam is badly worn.

2 To remove the points, detach the point cover (**see illustration**), then remove the two screws that secure the base plate to the camshaft cover on the engine.

3 You'll also have to disconnect the primary wire (**see illustration**).

4 Prior to removal, mark the base plate in relation to the distributor or camshaft cover