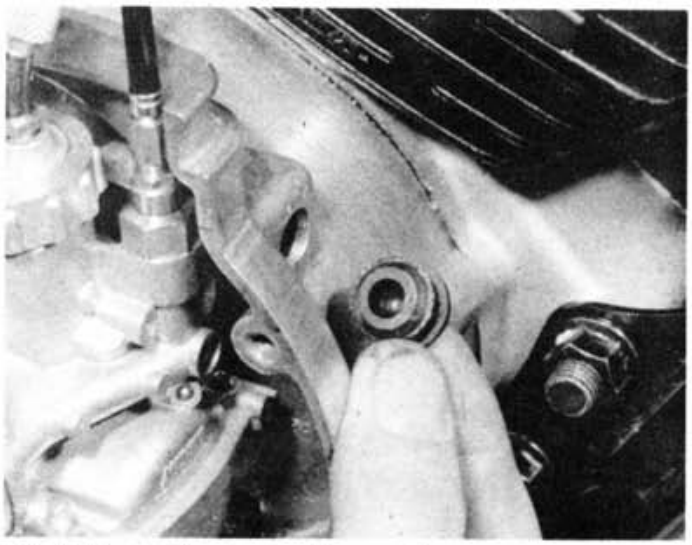
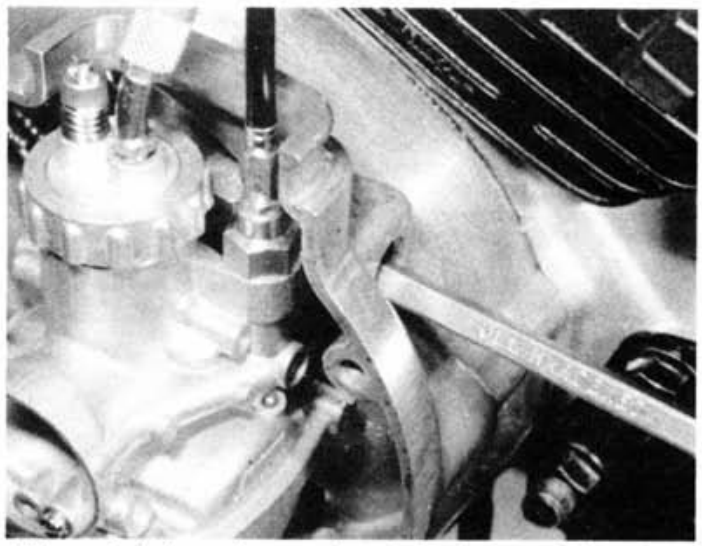
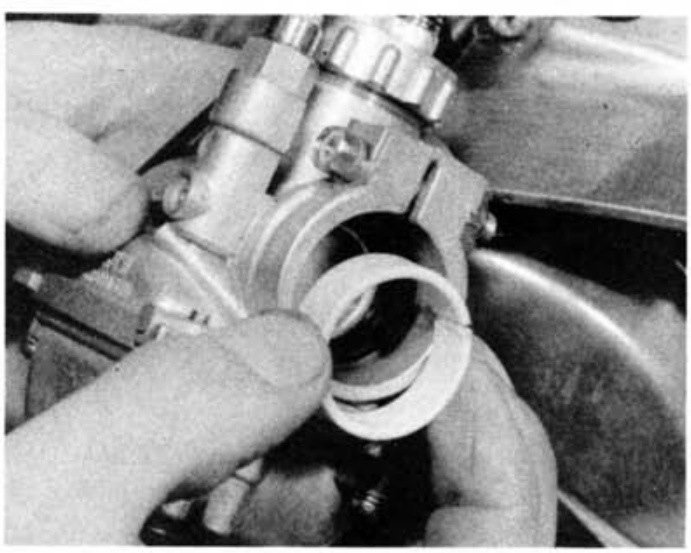


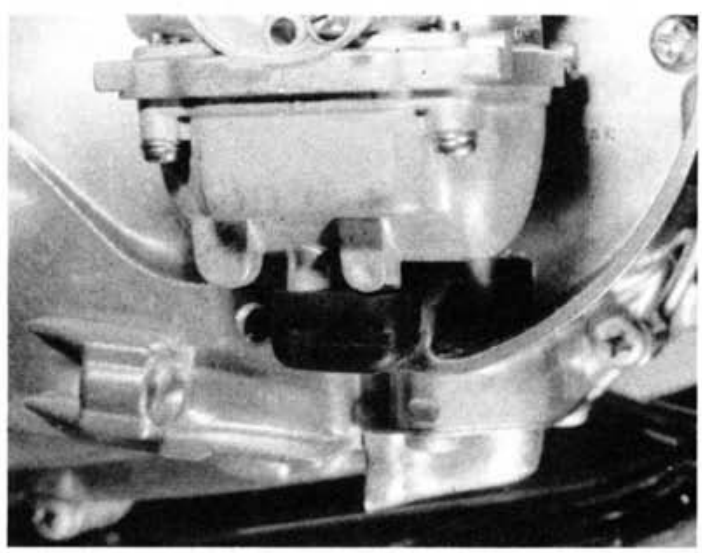
4.6a Withdraw sealing grommet from crankcase cover ...



4.6b ... and slacken carburettor clamp bolt using a screwdriver



4.8a Do not omit spacer and/or seal inside carburettor mouth when refitting



4.8b Ensure overflow grommet is pressed securely into place to prevent leakage

5 Carburettor: dismantling, examination and reassembly

1 With the carburettor removed from the machine as described in the previous Section, unscrew the choke plunger assembly and put it to one side. On KH100 models the cable can be disconnected by compressing the spring and sliding the end nipple out of the plunger.
2 Unscrew the carburettor top and carefully withdraw the throttle valve (slide) assembly; be very careful not to bend the valve rod. To release the rod, withdraw the split pin from its upper end and allow the rod to drop down through the valve; the adjuster screw and spring need not be adjusted. On KH100 models, prise out the wire clip which secures the throttle cable into the adjuster.
3 Compress the throttle return spring against the carburettor top, leaving the valve clear for the retainer to be tipped out. The cable inner wire can then be pressed down and its end nipple slipped into the longer slot so that the two can be separated.
4 On all UK models and early US models the jet needle is now free to be tipped out of the valve. On all US models from the KE100 A8 onwards remove the retaining screw and lock washer from the base of the valve then lift out the retainer plate followed by the spacer, the needle and circlip, the spring seat and the spring.
5 On reassembly, be very careful to check that all components are correctly installed and that none are damaged; be especially careful with the jet needle and the valve rod. On installing the valve assembly in the carburettor, note that the groove in the side of the valve must engage with the projecting pin set in the carburettor body.
6 To dismantle the remainder of the carburettor, first peel the overflow grommet off the base of the float chamber, then prepare a clean working area covered with clean paper to prevent small components from being lost.
7 Remove the float chamber retaining screws. If necessary, tap around the chamber to body joint with a soft-faced hammer to free the chamber. Remove the float pivot pin and detach the twin floats. Displace the float needle and unscrew the float needle seat with sealing washer.
8 Use a narrow-bladed screwdriver to unscrew the pilot jet, then a close-fitting spanner to unscrew the main jet. Do not forget to remove the washer beneath the main jet and be very careful not to damage the soft brass jets. Using a slim wooden rod such as a pencil, tap the needle jet out from below, ie upwards through the throttle valve bore.
9 On all US models from the KE100 A9 onwards the pilot air screw is sealed by a blanking plug. If it is necessary to disturb the screw, use a small punch or similar to pierce the plug until it can be displaced. The

screw can now be removed in the same way as for all other models, ie screw it **inwards** until it seats lightly and count the exact number of turns necessary to do this, before unscrewing it completely and removing it with its spring. On reassembly, simply screw it in until it seats lightly, then unscrew it by the previously noted number of turns to return it to its original position. On late US models no further adjustment is necessary and a new sealing plug should be tapped into place and secured with a small smear of bonding agent. On all other models the screw position will usually serve as a good basis for subsequent adjustment; the setting should be very close to that specified.

10 Before examination, thoroughly clean each part in clean petrol, using a soft nylon brush to remove stubborn contamination and a compressed air jet to blow dry. Avoid using rag because lint will obstruct jet orifices. Do not use wire to clear blocked jets; this will enlarge the jet and increase petrol consumption. If an air jet fails, use a soft nylon bristle. Observe the necessary fire precautions and wear eye protection against blow-back from the air jet.

11 Check carefully for any distorted or cracked castings, renew all O-rings, gaskets, fatigued or broken springs and flattened spring washers.

12 Wear of the float needle takes the form of a groove around its seating area; renew if worn. Check for similar wear of the needle seat and, if possible, renew when worn. Where fitted, check the needle end pin is free to move and is spring-loaded.

13 Check the floats for damage and leakage. Renew if damaged; it is not advisable to attempt a repair.

14 Examine the choke assembly, renewing any worn or damaged parts. Renew hardened drain or fuel feed pipes.

15 Wear of the throttle valve will be indicated by polished areas on its external diameter, causing air leaks which weaken the mixture and produce erratic slow running. Examine the carburettor body for similar wear and renew each component as necessary.

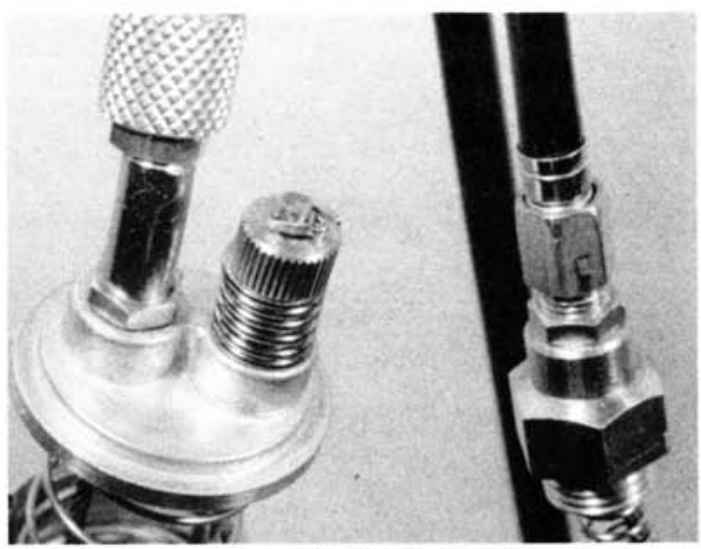
16 Examine the needle for scratches or wear along is length and for straightness. If necessary, it must be renewed, in conjunction with the needle jet. Do not attempt to straighten a bent needle; they fracture very easily.

17 Renew the seal within the mixing chamber top if damaged. The throttle return spring must be free of fatigue or corrosion.

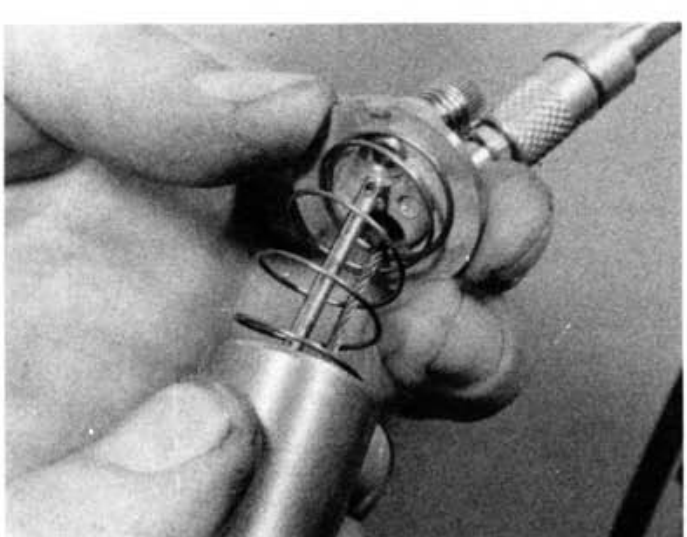
18 Before assembly, clean all parts and replace them on clean paper in a logical order. Do not use excessive force during reassembly, it is easy to shear a jet or damage a casting.

19 Reassembly is the reverse of dismantling. If in doubt, refer to the accompanying figures or photographs.

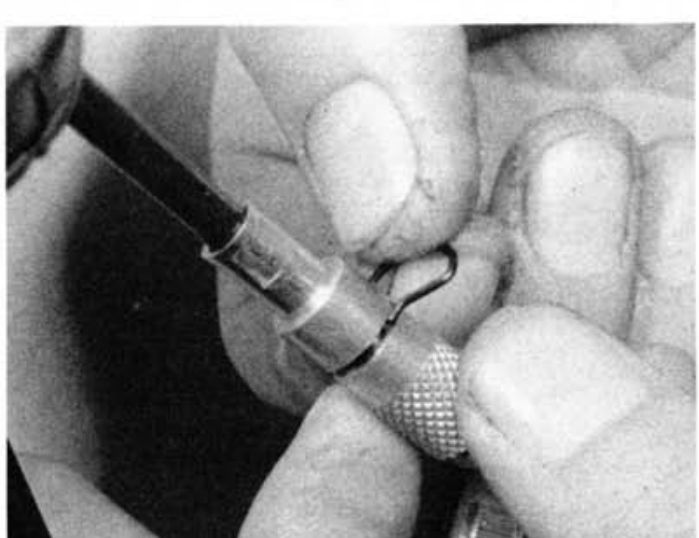
5.1 KH100 models – unscrew choke plunger assembly and disconnect from cable if required



5.2a Straighten and remove split pin from above idle speed adjuster ...



5.2b ... so that valve rod can be lowered away from valve assembly



5.2c Where fitted, remove spring clip to release throttle cable outer from carburettor top