might be advisable to arrange for your dealer to fit a lockable type cap as an extra.

3 Petrol tap - removal, dismantling and replacement

1 The petrol tap has three positions:

To the left – STOP – S
To the centre – ON – O
To the right – RESERVE – R

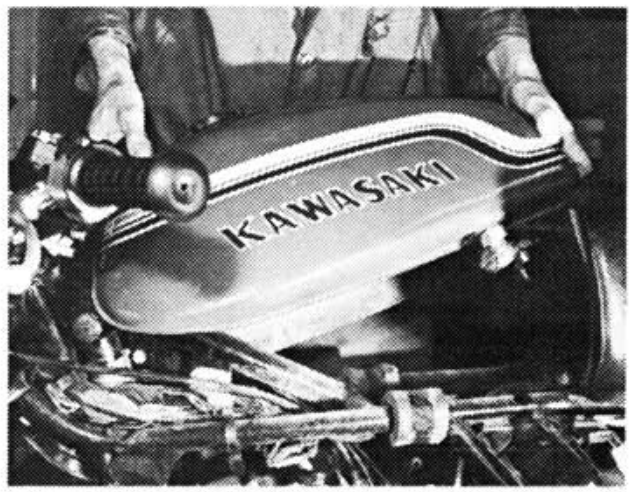
2 In normal operation the fuel will flow whilst its level is above the top of the main pipe protruding into the tank. When switching to RESERVE fuel remaining in the tank can be gravity fed from the top of a filter at the base of the tank. The amount of fuel available in RESERVE is 2 litres or ½ US gallon or 1.76 Imp quarts.
3 To clean the tap, drain petrol as instructed in Section 2. Remove the tap by releasing the nut securing it to tank (using a set spanner across the flats). Clean out any sediment or rust in the tap or the bowl. Blow through with an airline or foot pump and check for leaks after refitting.
4 If the model has an automatic petrol tap a different procedure is necessary. The tap will have a diaphragm attached to it. In addition to the operations above if there are signs of leaking from the tap, remove the diaphragm from its cover. Clean the valve and seat. When reassembling ensure the vent holes re-align. Ensure no air leaks in the negative pressure tube linking the tap to the carburettor. Run the engine and check the operation of the automatic feed to ensure there is a full flow to each carburettor.

4 Carburettors - general

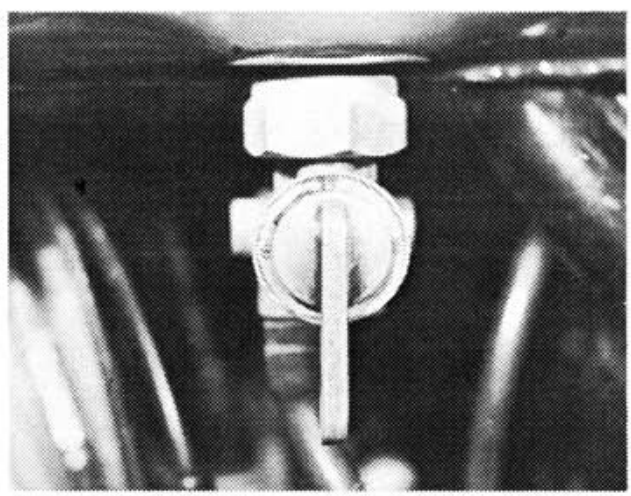
1 The 'S' series Kawasakis are each fitted with three Mikuni carburettors. The type of carburettor can vary between models and our procedures in this Chapter are based on the one removed from the S2 model. Each carburettor comprises:
A main jet and slide system – used for petrol supply during operation at high and medium speeds.
A pilot jet system – used for low speed operation.
A float mechanism – for maintaining the fuel level in the float chamber.
A starter system – to supply a rich fuel during the start operation.
2 A conventional throttle slide and needle arrangement is coupled with a main jet to control the amount of petrol/air mix fed to the engine. The main jet flow is controlled by the pressure drop in the air stream as it passes through the venturi.
3 The right and centre carburettors are identical but the left is assembled slightly differently to cater for its location in the machine. It is however identical in operation.
4 Each carburettor has a short tube extension adjacent to the pilot jet adjustment screw, for linking to the petrol supply.
5 Each carburettor has an overflow pipe adjacent to the petrol feed pipe. This has a plastic tube attached and will operate if the float needle valve sticks.
6 The cold start system is manually operated by cable linkage from the START lever. When the lever is depressed it raises a plunger in the carburettor body and permits a very rich mixture of fuel and air to be mixed with air drawn through the starter air inlet. The resultant very rich mixture comes from the starter outlet on the engine side of the throttle valve and is fed to the engine.

5 Carburettors - removal

1 The three carburettors may be disconnected with or without engine removal. They can also be removed as individual units.
2 Ensure all the pipes from fuel tap have been disconnected.
3 Loosen the clamp screws of the air inlet hose to each carburettor and pull off the tubes.
4 Loosen the screws in the retaining clips around the inlet manifolds.
5 Lift off the carburettor assembly.
6 Retain the plastic vent tube on the carburettor body.



2.4 Lift out the tank from its rubber supports at the front


3.1 The petrol tap has three positions

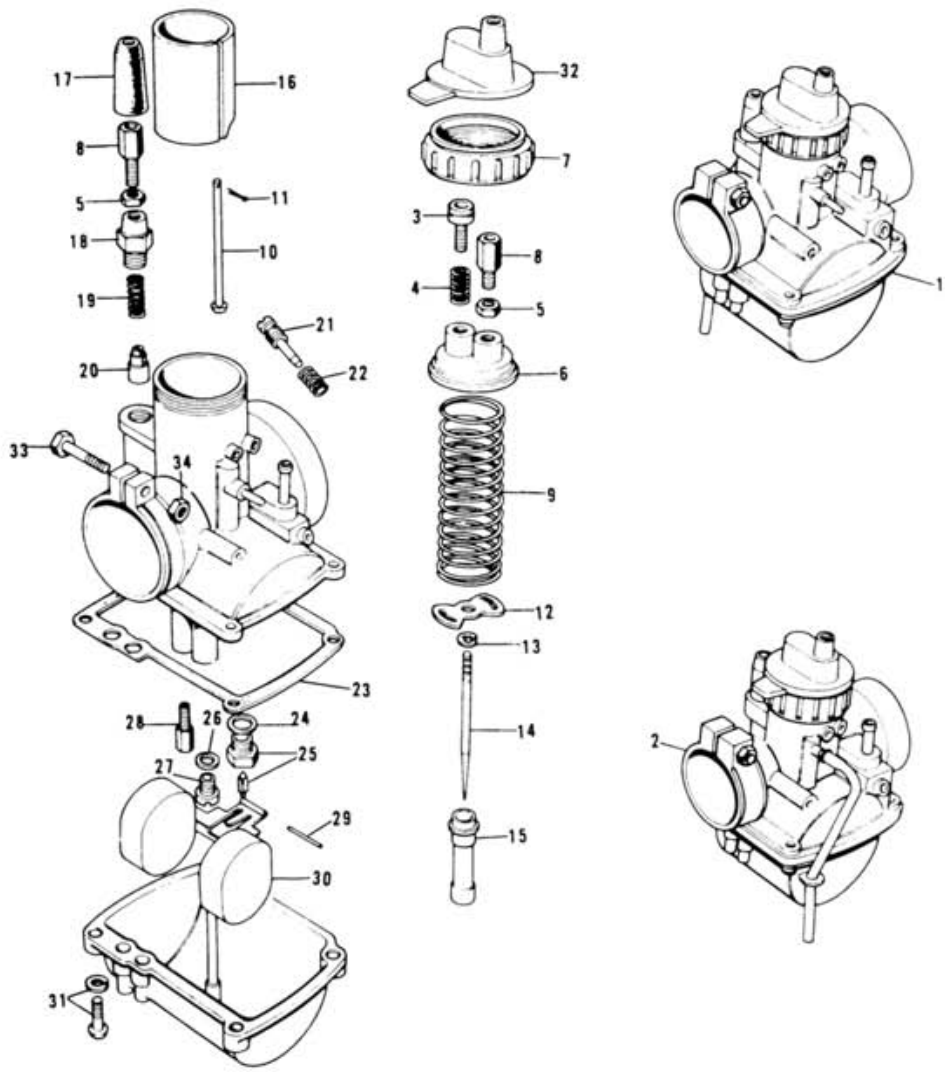


Fig. 2.1. Carburettor

1 *Carburettor assembly, left-hand*
2 *Carburettor assembly, right-hand and centre*
3 *Throttle adjuster - 3 off*
4 *Throttle adjuster spring - 3 off*
5 *Cable adjuster lock nut - 3 off*
6 *Mixing chamber top - 3 off*
7 *Mixing chamber cap - 3 off*
8 *Cable adjuster - 3 off*
9 *Throttle valve return spring - 3 off*
10 *Throttle valve stop rod - 3 off*
11 *Split pin - 3 off*
12 *Throttle valve spring seat - 3 off*
13 *Circlip - 3 off*
14 *Needle - 3 off*
15 *Needle jet - 3 off*
16 *Throttle valve - 3 off*
17 *Rubber cap - 3 off*
18 *Starter plunger cap - 3 off*
19 *Starter plunger spring - 3 off*
20 *Starter plunger - 3 off*
21 *Pilot jet adjusting screw - 3 off*
22 *Pilot jet adjusting screw spring - 3 off*
23 *Float chamber gasket - 3 off*
24 *Float valve seat washer - 3 off*
25 *Float valve assembly - 3 off*
26 *Main jet washer - 3 off*
27 *Main jet - 3 off*
28 *Pilot jet - 3 off*
29 *Float pin - 3 off*
30 *Float assembly - 3 off*
31 *Float chamber retaining screw - 12 off*
32 *Rubber cap - 3 off*
33 *Clamp screw - 3 off*
34 *Nut - 3 off*