## STARTING THE ENGINE

### om cold

Pull the choke control out fully. Operate the starter. When the engine starts, move the choke control back far enough for the engine to run at a fast idling speed without stalling. As the engine warms up the choke control should be moved as far back as possible.

*The choke control operates as a hand throttle for the first part of its movement. This enables a faster idling speed to be obtained when the engine is cold which is useful when manoeuvring in confined spaces.*

### When warm or hot

When the engine is warm, operate the starter. Should the engine hesitate to start depress the accelerator pedal a short way, and release when the engine starts.

If the engine is difficult to start when hot, fully depress the accelerator while operating the starter, and release it directly the engine starts.

## DIAGNOSIS OF FAULTS

The carburettor cannot function correctly if the ignition system, fuel supply, or engine condition are at fault.

Unless known to be in perfect condition the following items should be checked before making any adjustments, or concluding that the carburettor is not operating correctly.

If after making the following checks, the carburettor is proved to be faulty the possible cause, or causes, will be found under the headings "Excessive Fuel Consumption" and onwards.

### Ignition system

Check spark plugs. Clean and set gaps.

Check condition and tightness of H.T. and L.T. leads

Check condition and setting of contact breaker points, and moving contact point spring tension.

Ensure that the centrifugal and vacuum advance mechanisms are working correctly.

### Fuel system

Ensure that an adequate supply of fuel is being delivered to the float chamber.

Check that fuel pump output pressure is correct to the figures given under "Fuel System" in the General Data Section.

Examine induction manifold and carburettor flanges for air leaks.

Ensure that the air cleaners are fitted correctly and not restricting the air supply to the carburettor due to the element being dirty.

### Compression

Check valve clearances and compression pressures.

Make sure valves are not sticking.

### Exhaust system

Check that the exhaust system has not become damaged or blocked.

### Excessive fuel consumption (See Fig. 1)

1. Ensure that the complaint is genuine and not caused by heavy traffic conditions or other adverse operating conditions.
2. Check that each carburettor air valve piston (9) falls freely when lifted to its full extent and then allowed to fall. Each piston should require a noticeable effort to lift it against the action of its hydraulic damper (1) and should fall freely onto the carburettor body.
3. Check that the slow running is set correctly as described under ADJUSTMENTS—slow running and synchronising of carburettors. This is most important because incorrect adjustment can cause one, or both carburettors to give a wrong mixture over the whole of the throttle range.
4. If suspect, check that the correct needles are fitted. If either needle or jet show signs of wear they should be renewed. The needle reference designation is given in the General Data Section under "Fuel System"
5. Check the entire system for fuel leaks, particularly between the float chamber and centralising bolt, and between this bolt and the jet adjustment. "O" rings (15) and (16) are used between those items.