

FUEL SYSTEM

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March, 1964

**To:** ALL ROOTES DEALERS

**SUBJECT:** COMPOUND CARBURETOR-POOR PERFORMANCE  
AND LOSS OF PETROL FROM FLOAT CHAMBER

**MODEL:** RAPIER IV - ALPINE IV

### POOR PERFORMANCE

A number of dealers have requested information regarding the Solex Dual Choke Carburetor, in respect of poor performance.

It should be realized that the new carburetor provides a much smoother delivery of power and if a comparison was made to the preceding twin carburetor specification of these two cars, it is conceivable that the extra smoothness of the compound carburetor would give an impression of lower performance.

Where justified complaints are received from owners, however, we would recommend that the following checks are undertaken in conjunction with the Workshop Manual Section dealing with insufficient top speed:-

- (1) The tune of the engine should be thoroughly checked.
- (2) Ensure that full throttle is being achieved on the primary barrel in the static condition. The accelerator pedal should be depressed within 1/2" of the floor mat, at which time, the throttle should be fully opened. If this condition is not achieved, adjustment must be made at the accelerator pedal cross shaft. The locking nut on the Rapier and Alpine IV, is on the inside of the scuttle on the left hand side. The adjustment of the throttle linkage is helped by placing a piece of wood 1/2" thickness between the pedal and the floor mat and after adjustment, it is advisable to operate the throttle several times with the engine running to ensure that it returns correctly to tickover. Insufficient pedal travel and sticking is sometimes caused by the throttle operating lever fixing and fouling the scuttle which may require easing to give the required clearance.

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- (3) The most critical factor, however, governing performance is the ignition setting and we strongly recommend that you follow the instructions given in the Workshop Manual by setting the ignition for maximum performance against astop watch. It is permissible to advance the setting to a maximum of 15° B.T.D.C. nominal in the interest of maximum performance, although this may result in some loss of smoothness.
- (4) Check that the two screws securing the diaphragm assembly to the main carburetor body are tight, if they are found to be loose, re-tighten using Loctite solution. Part Number 5200444.

PETROL LOSS FROM FLOAT CHAMBER

It may occasionally be noticed after switching off the engine that when it has stood for a few seconds, a quantity of petrol runs from the manifold drain pipe (if fitted). This can be brought about by a blockage in the calibrated air bleed drilling above the slow running jet in the primary barrel. Reference to Section C. WSM.124 and 134, Fig. 7 in the Solex B. 32 PAJA data, shows the calibrated air bleed as item 13 and the slow running jet as item 14.

This blockage prevents the slow running passageways being vented to atmosphere and they, therefore, form a syphon pipe to the float chamber.

ROOTES MOTORS INCORPORATED

*K. Langridge (RT)*  
Kenneth Langridge  
General Service Manager