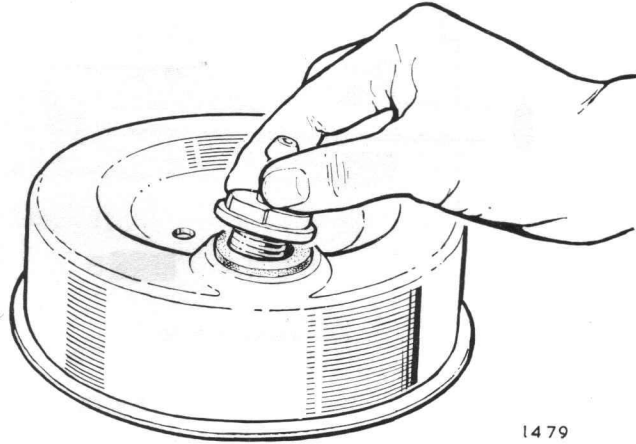


Replacing the non-return valve

- (a) Lever out the non-return valve by inserting a large screwdriver between the rubber grommet and valve. Do not drop the grommet into the vacuum cylinder.
- (b) Fit the grommet to the rear shell.
- (c) Lubricate the ribs of the new non-return valve with the grease provided and push the valve fully home into the grommet as shown in Fig. 21.

To remove and refit

- (a) Disconnect the hydraulic supply pipes and vacuum hose.
- (b) Remove the servo unit complete with mounting bracket by unscrewing four bolts.
- (c) Remove the bracket from the servo by unscrewing three screws.
- (d) Refitting is a reversal of the removal procedure, giving attention to the following:—
 - (i) Bleed the hydraulic system.



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Fig. 21. Replacing the non-return valve.**TESTING THE MK.IIB SERVO UNIT**

The use of these tests will assist in diagnosis, but obviously they do not equal the quality of the testing which is done on specially designed equipment at the production factory. If a servo or Powerstop gives cause for doubt it is best to replace it by a guaranteed factory-tested unit. It is assumed that any faults connected with the brake system, such as contamination, lack of adjustment, air in the system, fluid leaks, etc., have been recognised and eliminated.

TEST 1

Start the engine and as the brake is applied, it should be possible to hear the "hiss" of the air inlet and, with a hand on the centre of the front shell, feel the movement of the unit working. With the brakes held on, there should be no "hiss" from the air inlet.

TEST 2

Run the engine for half a minute, switch off, leave for two minutes, apply the brake and the Servo Unit should operate and the operation should be detected as in test 1.

TEST 3

Run the engine and apply the brake hard and hold it down for fifteen to twenty seconds—there should be no perceptible creep of the pedal. If pedal creep is evident, it indicates leaks or scored bores in the hydraulic components. If the pedal pushes back, the hydraulic connections may have been wrongly connected or there is a fault in the unit.

Unsatisfactory result on Test 1

It means the unit is not working at all, which could be caused by lack of vacuum, possible a faulty non-return valve or a fault within the unit.

Unsatisfactory result on Test 2

This indicates leaking gaskets, air valve or rubber grommet. Run the engine, clamp the hose and repeat test, if satisfactory the non-return valve is faulty.

To test for a leaking air valve, run the engine and place a finger over the air inlet, if the suction is only slight the air valve is satisfactory and the leak is elsewhere.

Unsatisfactory result on Test 3

The source of trouble can only be found by elimination. Check for leaks and if no leak of hydraulic fluid is evident, clamp each hose successively and repeat test each time. Finally, plug the master cylinder outlet and test. If creeping of the pedals is evident when the hoses are clamped, and the pedal is solid when the master cylinder outlet is plugged, the servo unit is faulty.