

Test 1

1. Fit the servo unit to the mounting bracket and before connecting the air or fluid pipes, fit a bleed screw to the fluid outlet port (14) and the special adaptor to the fluid inlet port (9).
2. Connect the vacuum pipe from the engine inlet manifold to the adaptor. Remove the air filter element.
3. Start the engine and while "ticking over" place fingers over the air inlet port of the air filter and the vacuum port to determine if there is any suction at either orifice.
4. If suction can be detected, it indicates that the bores are scored or the components incorrectly assembled.
5. Remove the adaptor, and bleed screw.

Test 2

1. Connect the vacuum pipe from the inlet manifold to the vacuum port.
2. Connect the fluid inlet and outlet pipes to their respective ports and bleed the hydraulic system of air.
3. Start and run the engine. While the brake is being applied, it should be possible to hear the hiss of the air inlet and with the hand on the vacuum cylinder feel the movement of the piston inside the vacuum cylinder.

Test 3

1. Start and run the engine for half a minute then switch off and leave for two minutes.
2. Apply the brake and the servo unit should operate and the operation should be detected as described in Test 2.

Test 4

Start and run the engine, apply the brake hard and hold it on for fifteen to twenty seconds. There should be no perceptible creep in the brake pedal.

If there is any creep, it indicates leaks or scored bores.

Test 5

1. Jack up the front roadwheels.
2. Start and run the engine.
3. Apply the brakes and release.
4. The front roadwheels should be free to move half a second after the release of the pedal.

Tests 2 to 5 can be used to test a suspect Vacuum Servo Unit before it is removed from the car.

IF THE RESULT IS UNSATISFACTORY ON:—

Test 2. It means the servo unit is not working at all, which could be caused by lack of vacuum possibly a faulty non-return valve, or a fault within the servo unit.

Test 3. It indicates leaking gaskets, air valve or rubber grommet. Run the engine for half a minute, then while ticking over clamp the vacuum hose and leave for two minutes. If satisfactory, the non-return valve is faulty. To test for a leaking air valve run the engine and place the finger over the air inlet. If the suction is only slight the air valve is satisfactory and the leak is elsewhere.

Test 4. The source of the trouble can only be found by elimination. Check for leaks. If no leak of hydraulic fluid is evident repeat the test as necessary clamping each brake hose in turn. Finally plug the master cylinder outlet and test. If creeping of the pedal is evident when the hoses are clamped and the pedal is solid when the master cylinder outlet is plugged, the servo unit is faulty.

Test 5. If the brakes remain on, disconnect the vacuum pipe, operate the brakes to eliminate all the vacuum in the servo unit and repeat the test. If the brakes remain on, the fault is not in the servo unit. If the brakes now release normally, the fault is in the servo unit and the alignment of the vacuum cylinder is suspect.