

Why you do that thing you do? Brake Inspection (Dual Air Brake System)

GOVERNOR "CUT IN" "CUT OUT" TESTS

Why is it important to know where the governor cuts in and cuts out?

Knowing exactly what PSI (POUNDS PER SQUARE INCH) the governor **cuts in**, you can detect a malfunction of the air governor long before the low air warning devices and emergency stopping system activate.

(ex: if "cut in" is always at 100 psi. you should never have less than 100 psi. during any time the engine is running and you are using the brakes.

* Exception- Only in very extreme Downhill Mountain driving conditions could you deplete the air faster than the compressor could refill the supply tanks.

Knowing the "**cut out**" pressure could also help you detect a problem with the governor, (ex: the cut out is always at 120 psi. and suddenly it starts to rise to 125 psi. and then to 130 psi.) even if it is within the limit that the law requires, it may be malfunctioning and causing the air compressor to continuously work in turn causing it to overheat which could eventually lead to air compressor failure.

STATIC TEST Tests the system while not being under a great deal pressure, you could detect leaks in the air gauges, air lines, pressure switches (where the air lines connect to the air tanks), and at the petcocks (drain valves).

The tanks, the lines from the compressor to the tanks, the supply line from the tanks to the service pedals.

APPLIED TEST The most common leaks detected during this test come from brake hoses, service brake chamber, and the service brake pedal (the treadle valve)

Because the parking (spring) brake has been released it is being held back (compressed) by air pressure, the most common leak detected during this test comes from the rear (spring) brake chamber, you may also detect leaks in the parking brake valve (on dash)

Brake lines to each wheel, the brake chambers, and the service side of the brake pedal valve.

LOW AIR WARNING DEVICE TEST

This test is to guarantee that should the air compressor, and or, air governor fails; there will be an audible and visual warning signal to alert the driver that the system has detected low air pressure in the air tanks. The driver should be monitoring these gauges while driving and should notice a loss and stop the bus in a safe place long before the warning devices are activated.

SERVICE BRAKE TEST

This test is to check for any pull in the steering wheel while the brakes are being applied. If the steering wheel pulls to one direction or the other it is an indication that the brakes are possibly out of adjustment.