

Seven Step Air Brake Test

By Lt Dan McDonald

Be sure to chock the rear wheels before conducting an air brake test.

The Seven-Step Air Brake check is designed to test the governor cut-in and cut-out pressures, air pressure leakage, warning buzzer, brake valves and air pressure rebuild rates.

Brakes off means the yellow and/or red valve is pushed in (on = valve out).

1. **Engine on / Brakes on** – check gauges to make sure governor cuts compressor off at 120 psi. Pump brakes until pressure drops below 100 psi to make sure governor cuts compressor on.
2. **Engine off / Brakes off** – do not touch brakes – watch gauges to make sure pressure does not drop more than 3 psi in one minute.
3. **Press and hold brake pedal** – watch gauges to make sure pressure does not drop more than 4 psi in one minute.
4. **Turn- key on / Engine off / Brakes off** – pump brake until pressure drops to 60 psi – **warning buzzer should sound at or before 60 psi.**
5. **Continue pumping brakes until reaching 20 to 40 psi** – Emergency (red) and Service (yellow) brake valves should pop out turning brakes on.
6. **Rebuild air pressure in tank** – hold accelerator at 1500 RPM. Watch air gauges and notice that pressure rate of build between 85 psi and 100 psi should not take more than 45 seconds.
7. **Perform tug test.** Tug against Parking Brake only. With the parking brake on, accelerate the engine to about 1000 rpm and the parking brake should hold.

Brake only. Tug against Hand Brake only. Test service brake by accelerating to 5mph and pressing brake pedal. If vehicle pulls to one side, this indicates a brake alignment problem.

If there is a problem discovered while testing the Air Brakes, do not drive the vehicle. It is your responsibility to make sure it is repaired by a mechanic. Never operate a vehicle that is unsafe to drive.