

Vacuum Testing

Meets NATEF Task: (A8-A-2) Perform engine absolute (vacuum/boost) manifold pressure tests; determine necessary action. (P-1)

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

- _____ 1. Connect the vacuum gauge to a manifold vacuum source.
- _____ 2. Vacuum at idle = _____ in. Hg. (should be 17-21 in. Hg. and steady).
- _____ 3. Snap accelerate the engine. (Vacuum should drop close to zero, and then increase higher than the idle vacuum snap reading.

_____ / _____

- _____ 4. Drive the vehicle on a level road in high gear at a steady speed.

Cruise vacuum = _____ in. Hg. (should be 10 - 15 in. Hg.)

- _____ 5. Accelerate the vehicle in high gear to W.O.T.

W.O.T. vacuum = _____ in. Hg. (should be almost zero)

- _____ 6. Decelerate the vehicle from 50 MPH with the throttle closed.

Deceleration vacuum = _____ in. Hg. (should be higher than idle vacuum)

- _____ 7. With the engine out of gear and the brake firmly applied, raise the engine speed to 2,000 RPM and hold for one full minute. This tests for an exhaust restriction.

Results = _____ in. Hg.

- _____ 8. Stop the engine. Disable the ignition or the fuel ignition system. Crank the engine and observe the vacuum during cranking.

Cranking vacuum = _____ in. Hg. (should be higher than 2.5 in. Hg.)

- _____ 9. Based on the test results, what is the necessary action? _____

