Vacuum Testing

Meets NATEF Task: (A1-A-8, A8-A-8) Perform engine vacuum 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 (source of vacuum at idle).

_____ **2.** Vacuum at idle = _____ in. Hg.   (should be 17-21 in. Hg. and steady).

_____ **3.** Drive the vehicle on a level road in high gear at a steady speed.

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

_____ **4.** Accelerate the vehicle in high gear to W.O.T.

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

_____ **5.** Decelerate the vehicle from 50 MPH with the throttle closed.

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

_____ **6.** 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.

_____ **7.** Stop the engine. Disable the ignition. Crank the engine and observe the vacuum during cranking.

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

OK_____   **NOT OK**_____

_____ **8.** Based on the vacuum test results, what is the necessary action? _____

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