

# Vacuum Testing

**Meets NATEF Task:** (A8-A-5) P-1 Perform engine vacuum tests; determine needed Action.

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 operating and the transmission in neutral or park, 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 needed action? \_\_\_\_\_