CDX Tasksheet Number: MHT1G009

Student/Intern Information

Name _____ Date _____ Class _____

Vehicle, Customer, and Service Information

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

Materials Required

- Vehicle with possible engine concern
- Engine manufacturer's workshop materials
- Manufacturer-specific tools depending on the concern/procedure(s)
- Vehicle/component lifting equipment, if applicable

Task-Specific Safety Considerations

- Activities may require test-driving the vehicle on the school grounds or on a hoist, both of which carry severe risks. Attempt this task only with full permission from your supervisor/instructor, and follow all the guidelines exactly.
- Lifting equipment and machines such as vehicle jacks and stands, vehicle hoists, and engine hoists are important tools that increase productivity and make the job easier. However, they can also cause severe injury or death if used improperly. Make sure you follow the manufacturer's operation procedures. Also make sure you have your supervisor's/instructor's permission to use any particular type of lifting equipment.
- Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with federal, state, and local regulations.
- Always wear the correct protective eyewear and clothing and use the appropriate safety equipment, as well as wheel chocks, fender covers, seat protectors, and floor mat protectors.
- Make sure you understand and observe all legislative and personal safety procedures when carrying out practical assignments. If you are unsure of what these are, ask your supervisor/instructor.

▶ TASK Demonstrate knowledge of how to set performance parameters using its electronic service tools (ESTs) and service information system access.

MTST *I.G.9; P2*

Time off _____

Time on _____

Total time _____

Student Instructions: Read through the entire procedure prior to starting. Prepare your workspace and any tools or parts that may be needed to complete the task. When directed by your supervisor/instructor, begin the procedure to complete the task and check the box as each step is finished.

Note: This tasksheet may require the student to check the condition of miscellaneous vehicle fluids, some of which may be flammable and could damage the environment or cause health problems if not handled properly. Observe all safety precautions and follow local regulations for the proper disposal of fluids.

Procedure:	Step Completed
1. Connect the electronic service tool as outlined in the manufacturer's workshop materials, and record any fault codes that may prohibit the changing of any engine parameters:	
a. If directed by your supervisor/instructor, repair the above fault codes.	☐
2. Record the procedure for changing fuel injector trim codes as outlined in the manufacturer's workshop materials:	☐
3. Connect the electronic service tool and swap fuel injector trim codes 1–3 with those of 4–6 and 4–6 with those of 1–3. (**Note:** If directed by your supervisor/instructor, replace the fuel injectors with new trim codes.)	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If No, describe the recommended corrective action(s):	☐
4. If new injectors were not installed and trim codes for cylinders 1–3 and 4–6 were swapped, return trim codes back to their original cylinder positions.	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If No, describe the recommended corrective action(s):	☐

5. Record the procedure for adjusting engine idle as outlined in the manufacturer's workshop materials, and adjust to maximum setting:	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If Yes, return idle back to original setting.	☐
c. If No, describe the recommended corrective action(s):	☐
6. Record the procedure for adjusting engine idle timer as outlined in the manufacturer's workshop materials, and adjust to maximum setting:	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If Yes, return idle back to original setting.	☐
c. If No, describe the recommended corrective action(s):	☐
7. Record the procedure for adjusting vehicle top speed as outlined in the manufacturer's workshop materials, and adjust to maximum setting:	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If Yes, return idle back to original setting.	☐
c. If No, describe the recommended corrective action(s):	☐

8. Record the procedure for adjusting vehicle tire size to the correct speedometer reading as outlined in the manufacturer's workshop materials, and adjust tire size to 496 revolutions per mile: (**Note:** If current setting is 496, see supervisor/instructor for different setting.)	
a. Was the above procedure successful? Yes: ☐ No: ☐	☐
b. If Yes, return tire revolutions per mile back to original setting.	☐
c. If No, describe the recommended corrective action(s):	☐
9. Record the procedure for reflashing an engine control module (ECM) as outlined in the manufacturer's workshop materials:	
a. If directed by your supervisor/instructor, reflash the engine ECM.	☐
b. Was the above procedure successful? Yes: ☐ No: ☐	☐
c. If No, describe the recommended corrective action(s):	☐
10. Discuss your findings with your supervisor/instructor.	☐

Non-Task-Specific Evaluations:	Step Completed
1. Tools and equipment were used as directed and returned in good working order.	☐
2. Complied with all general and task-specific safety standards, including proper use of any personal protection equipment.	☐
3. Completed the task in an appropriate time frame (recommendation: 1.5 or 2 times the flat rate).	☐
4. Left the workspace clean and orderly.	☐
5. Cared for customer property and returned it undamaged.	☐

Student signature _____ Date _____

Comments:

Have your supervisor/instructor verify satisfactory completion of this procedure, any observations made, and any necessary action(s) recommended.

Evaluation Instructions: The scoring box below is intended to act as a guide for both student and supervisor/instructor. Each criterion listed will help students to understand what is expected of them and help supervisors/instructors articulate the level of success at a particular task. The scoring is set up to allow a second attempt at each task (see the Test and Retest columns). Scoring is also designed to award students points only for task criteria that were completed correctly. Points are lost for failure to complete the employability requirements (see Non-Task–Specific Evaluation criteria). When all criteria are evaluated, tally the points for a total at the bottom of each column.

Tasksheet Scoring

	Test		Retest	
Evaluation Items	**Pass**	**Fail**	**Pass**	**Fail**
Task-Specific Evaluation	**(1 pt)**	**(0 pts)**	**(1 pt)**	**(0 pts)**
Student properly retrieved and corrected fault codes.				
Student properly changed fuel injector trim codes.				
Student properly adjusted engine idle, engine idle timer, vehicle top speed, and vehicle tire size.				
Student properly reflashed ECM.				
Non-Task–Specific Evaluation	**(0 pts)**	**(−1 pt)**	**(0 pts)**	**(−1 pt)**
Student successfully completed at least three of the non-task–specific steps.				
Student successfully completed all five of the non-task–specific steps.				
Total Score: <total # of points/4 = %>				

Supervisor/Instructor:

Supervisor/instructor signature _____ Date _____

Comments:

Retest supervisor/instructor signature _____ Date _____

Comments: