

## CDX Tasksheet Number: MHT1A002

### 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** Inspect level and condition of fuel, oil, diesel exhaust fluid (DEF), and coolant.

**MTST**  
I.A.2; P1

**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 will 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.

Time off \_\_\_\_\_

Time on \_\_\_\_\_

Total time \_\_\_\_\_

Procedure:	Step Completed
1. Reference the appropriate manufacturer's workshop materials.	
a. Identify the engine oil type and quantity. i. Recommended type of engine oil: _____ ii. Recommended engine oil quantity: _____	<input type="checkbox"/>
b. Identify the engine coolant type and quantity. i. Recommended type of coolant: _____  ii. Recommended engine coolant quantity: _____ qts	<input type="checkbox"/>
2. Check the engine oil level as outlined in the manufacturer's workshop materials.	
a. Within manufacturer's specifications: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
If No, describe the recommended corrective action(s):	
3. Using proper equipment and procedure, retrieve an oil sample from the engine. Record the procedure for obtaining the oil sample:	<input type="checkbox"/>
4. Are any of the above tests outside of the manufacturer's specifications? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
If Yes, describe the recommended corrective action(s):	
5. Using a clean glass container, drain off a sample of the diesel fuel from the fuel tank(s).	
a. Inspect the sample for any contaminations (e.g., water). ( <b>Note:</b> In case of poor running conditions or catastrophic failure, it may be necessary to send the sample out to an independent lab to check the fuel.)	<input type="checkbox"/>
b. Is the sample within the manufacturer's specifications? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
If No, describe the recommended corrective action(s):	

6. Using a clean glass container, drain off a sample of the engine coolant from the radiator.	
a. Check the freeze point of coolant and record: _____ degrees below zero	<input type="checkbox"/>
b. Test the pH level of coolant and record: _____	<input type="checkbox"/>
c. Test the supplemental coolant additive (SCA) level and record: _____	<input type="checkbox"/>
d. Are any of the above tests outside of the manufacturer's specifications? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
If Yes, describe the recommended corrective action(s).	
7. Using a clean glass container, drain off a sample of DEF.	
a. Inspect DEF for visible contaminants and record:	<input type="checkbox"/>
b. Using a DEF refractometer, check the DEF concentration and record: _____	<input type="checkbox"/>
c. Using DEF test strips, check for diesel/oil contamination and record: _____	<input type="checkbox"/>
d. Are any of the above tests outside of the manufacturer's specifications? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
If Yes, describe the recommended corrective action(s).	
8. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
9. Discuss your findings with your supervisor/instructor.	<input type="checkbox"/>

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

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 used the appropriate service information to determine engine oil and coolant levels/types.				
Student properly sampled engine oil, diesel fuel, test engine coolant, and DEF.				
Student properly tested engine oil, diesel fuel, test engine coolant, and DEF.				
Student reinstalled all removed components undamaged and in working order.				
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.				
<b>Total Score:</b> <total # of points/4 = %>				

### Supervisor/Instructor:

Supervisor/instructor signature \_\_\_\_\_ Date \_\_\_\_\_

### Comments:

Retest supervisor/instructor signature \_\_\_\_\_ Date \_\_\_\_\_

### Comments:

