

CDX Tasksheet Number: MHT5D003

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 alternator concern, including cable, wiring, or connector faults
- Vehicle manufacturer's workshop materials
- Belt tension gauge
- Personal protection equipment (PPE)

Task-Specific Safety Considerations

- Activities may require running the engine and managing an environment of rotating equipment and large current draw, which carry severe risks. Attempt this task only with full permission from your supervisor/instructor, and follow all the guidelines exactly.
- Ensure that your supervisor/instructor checks the connectors of any test equipment.
- Do not run the alternator without a load connected or allow the output voltage to exceed the manufacturer's specified maximum.
- Use extreme caution when working around batteries. Immediately remove any electrolyte that may come in contact with you. Electrolyte is a mixture of sulfuric acid and water. Batteries may produce explosive mixtures of gas containing hydrogen; avoid creating any sparks around batteries. Consult with the shop safety and emergency procedures when working with or around batteries.
- 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, adjust, and/or replace generator (alternator) drive belt; check pulleys and tensioners for wear; check fans and mounting brackets; verify proper belt alignment; determine needed action.

MTST
V.D.3; P1

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.

Procedure:	Step Completed
1. Using the appropriate service information for the vehicle you are working on, locate "Inspecting, Adjusting, and/or Replacing Alternator Drive Belts, Pulleys, Fans, Tensioners, and Mounting Brackets; Check Pulley and Belt Alignment."	
a. List the steps outlined in the service information:	<input type="checkbox"/>
b. Write down the specified tension of the alternator drive belt:	<input type="checkbox"/>
c. List faults to look for when inspecting drive belts, pulleys, tensioners, fans, and mounting brackets:	<input type="checkbox"/>
d. Describe how to check correct pulley and belt alignment:	<input type="checkbox"/>
2. Remove the vehicle drive belt(s).	<input type="checkbox"/>
3. Inspect the vehicle drive belts, pulleys, tensioners, fans, and mounting brackets for faults.	
a. List any faults identified on the vehicle drive belt(s), pulleys, tensioners, fans, and mounting brackets:	<input type="checkbox"/>
4. Refit the vehicle drive belts using appropriate service information.	<input type="checkbox"/>
5. Retension the drive belt(s) using appropriate service information.	<input type="checkbox"/>

6. Check for correct pulley, tensioner, and drive belt alignment.	<input type="checkbox"/>
7. Return the vehicle to a satisfactory condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
8. Discuss your findings with your supervisor/instructor.	<input type="checkbox"/>

Non-Task-Specific Evaluations:	Step Completed
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 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 research "Inspecting, Adjusting, and/or Replacing Alternator Drive Belts, Pulleys, Fans, Tensioners, and Mounting Brackets; Check Pulley and Belt Alignment."				
Student correctly removed the vehicle belt and accurately inspected belts, pulleys, tensioners, fans, and mounting brackets for faults.				
Student properly reinstalled the vehicle drive belt, set the correct belt tension, and ensured proper belt alignment.				
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.				
Total Score: <total # of points/4 = %>				

Supervisor/Instructor:

Supervisor/instructor signature _____ Date _____

Comments:

Retest supervisor/instructor signature _____ Date _____

Comments: