

CDX Tasksheet Number: MHT2E004

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 drive-axle concern
- Vehicle manufacturer's repair information
- Manufacturer-specific tools depending on the concern/procedure(s)

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.
- 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 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.
- While working on the vehicle, wheel chocks must be placed on both sides of one set of tires or as directed by your supervisor/instructor.
- Exhaust evacuation hoses must be placed over exhaust outlets while the engine is used in the confined shop space.

► **TASK** Inspect the drive-axle shafts; determine needed action.

MTST
11.E.4; P2

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.

Time off _____

Time on _____

Total time _____

Procedure:	Step Completed
1. Reference the appropriate manufacturer's workshop materials.	<input type="checkbox"/>
2. Inspect the drive-axle shafts.	<input type="checkbox"/>
3. Remove the drive-axle shaft bolts or nuts (depending on the type of axle arrangement).	<input type="checkbox"/>
4. Remove the axle(s) from the differential carrier housing.	<input type="checkbox"/>
5. Inspect the axle flange for distortion or rust buildup and mounting holes for ovality or elongation.	<input type="checkbox"/>
a. Describe the condition of the axle flange:	<input type="checkbox"/>
b. Describe the condition of the mounting holes:	<input type="checkbox"/>
6. If reusing the axle, clean the gasket material from the axle flange.	<input type="checkbox"/>
7. Inspect the axle housing hub for damage to the threaded holes or stripped or broken studs.	<input type="checkbox"/>

8. Inspect the axle shaft for cracks and straightness.	<input type="checkbox"/>
a. Describe the condition of the axle shaft:	<input type="checkbox"/>
<p>9. Inspect the axle splines for damage or twisting (see Figure 36-1).</p> <div data-bbox="235 556 1169 976"> <p>Make sure flange is flat and free of rust and gasket material</p> <p>Check mounting holes for elongation or distortion</p> <p>Inspect axle for cracks and straightness</p> <p>Check splines for any damage or twisting</p> <p>Figure 1</p> </div>	<input type="checkbox"/>
a. Describe the condition of the axle splines:	<input type="checkbox"/>
10. Reinstall the axle and gasket with the correct bolts or nuts and record the torque specification according to the manufacturer's workshop manual.	<input type="checkbox"/>
a. Torque required: _____ ft-lb (Nm)	<input type="checkbox"/>
11. Refill the differential with the manufacturer's specified fluid to the proper level.	<input type="checkbox"/>
12. If the axle is not within specification, list the procedure from the manufacturer's workshop manual to rectify the problem:	<input type="checkbox"/>

13. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
14. 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 (PPE).	<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 to 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 only to award students points 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 detailed the 3 Cs on the submitted repair order.				
Student used manufacturer's repair information.				
Student performed diagnostic measurements properly and made appropriate conclusions.				
Student completed repairs as directed by the supervisor/instructor.				
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:

