

CDX Tasksheet Number: MHT4E005

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 suspension and steering concerns
- 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, repair, and/or replace air springs, mounting plates, springs, suspension arms, and bushings.

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I.V.E.5; 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.

Time off _____

Time on _____

Total time _____

Procedure:	Step Completed
1. Reference the appropriate manufacturer's repair information.	☐
2. Inspect the entire system for broken or missing components such as fasteners and bushings.	☐
3. Check the air system hoses and valves for proper routing, mounting, and connections. (Note: The air spring system stroke from jounce to rebound can be much longer than other suspensions.)	☐
a. Pay particular attention to the air springs themselves for abrasion. Air springs will fail rapidly if they are chaffing.	☐
4. Check and re-torque frame hangers, the air spring, and shock absorber mounting hardware.	☐
a. Inspect the Huck fasteners for looseness.	☐
b. Check for rust streaking from the frame hanger. Streaks can indicate movement between the hanger and frame.	☐
5. Check and re-torque all suspension attaching bolts, pivot bolts, and torque rod bushing bolts.	☐
6. Check air beam to axle mounting components for torque and alignment.	☐

7. Inflate the suspension to at least 75 psi (517 kPa) and check for any air leaks in lines, connections, valves, and the air springs using a soapy water mixture.	☐
8. Check the support beam (Z-spring or trailing arm) for dents, heavy scratches, or gouges and/or signs of interference with other components.	☐
9. Check the fasteners on all torque-rod bushings for proper torque.	☐
a. Check the bushings for rubber shredding, metal-to-metal contact, or excessive movement. No free movement is allowed.	☐
10. Check all suspension components for impact damage, dents, bending, or heavy scratches or gouging. All damaged components should be replaced.	☐
11. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	☐
12. 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 (PPE).	☐
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 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:

