

CDX Tasksheet Number: MHT3C007

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 brake concern
- Vehicle manufacturer's repair information
- Manufacturer-specific tools depending on the concern/procedure(s)
- Vehicle 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.
- Caution: If you are working in an area where there could be brake dust present (it may contain asbestos, which has been determined to cause cancer when inhaled or ingested), ensure you wear and use all OSHA-approved asbestos protective/removal equipment.
- Lifting equipment 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 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.
- Airlines may contain pressurized air so be aware of the potential energy release while working with air brake components. Release the air pressure in the system before attempting any repairs.

Time off _____

Time on _____

Total time _____

► TASK Diagnose concerns related to the mechanical/foundation brake system including poor stopping, brake noise, premature wear, pulling, grabbing, or dragging; determine needed action.

MTST
III.C.7; 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.

Procedure:	Step Completed
1. Reference the appropriate manufacturer's repair information.	☐
2. Obtain information about the circumstances surrounding the complaint.	☐
a. Obtain current vehicle trip maintenance reports.	☐
b. Are there any comments on braking issues? Yes: ☐ No: ☐	☐
i. If yes, summarize the driver's comments:	☐
ii. If the driver's comments are unavailable, obtain as much information as possible on the complaint.	☐
3. Test the air pressure buildup time.	☐
a. Reference the manufacturer's repair information.	☐
b. Record the recommended air pressure buildup time: Specification: _____ psi within _____ minutes	☐
i. Did the air pressure buildup time meet the manufacturer's specifications? Yes: ☐ No: ☐	☐

ii. If no, list the problem and your recommendation(s):	☐
4. Check brake chambers and air lines for secure mounting and damage.	☐
a. Ensure all brake chambers, mountings, and air activation lines are operational and in serviceable conditions.	☐
b. Following the procedure from the repair information, visually inspect the air brake chambers, mounting, and air lines: i. Serviceable: ☐ Need repairs/Unserviceable: ☐	☐
ii. If needs repairs/unserviceable, list the areas and your recommendation(s):	☐
5. Check the brake circuit for any signs of air leakage.	☐
a. Check the air system for air leaks (brakes released).	☐
b. Following the procedure from the repair information, check the air brake system components for air leaks: i. No leaks: ☐ Leaks: ☐	☐
ii. If leaks are detected, list the areas and your recommendation(s):	☐
c. Check the air system for air leaks (brakes applied).	☐
d. Following the procedure from the repair information, recheck the air brake system components for air leaks: i. No leaks: ☐ Leaks: ☐	☐
ii. If leaks are detected, list the areas and your recommendation(s):	☐
6. Check the operation of the brake manual slack adjusters; adjust as needed.	☐
a. Check the serviceability of the manual slack adjusters.	☐
b. Reference the manufacturer's repair information for the correct procedure for checking the manual slack adjusters operation.	☐
c. Inspect each manual slack adjuster for serviceability: i. Within specifications: Yes: ☐ No: ☐	☐

ii. If no, list the problem and your recommendation(s):	☐
d. Apply the foundation brakes.	☐
i. With the brakes applied, check the pushrod travel. ii. Within specifications: Yes: ☐ No: ☐	☐
iii. If no, adjust the manual slack adjusters so they come within the vehicle manufacturer's specifications.	☐
7. Check the operation and adjustment of brake automatic slack adjusters (if applicable).	☐
a. Check serviceability of automatic slack adjusters.	☐
b. Reference the manufacturer's repair information for the correct procedure for checking the automatic slack adjusters' operation.	☐
c. Inspect each automatic slack adjuster for serviceability: i. Within specifications: Yes: ☐ No: ☐	☐
ii. If no, list the problem and your recommendation(s):	☐
d. Apply the foundation brakes.	☐
i. With the brakes applied, check the pushrod travel. ii. Within specifications: Yes: ☐ No: ☐	☐
iii. If no, adjust the automatic slack adjusters so they come within the vehicle manufacturer's specifications.	☐
8. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	☐
9. 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 of complete braking system 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: