

# CDX Tasksheet Number: MHT3D005

## 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)

## 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.
- 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.
- Air lines 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.

**► TASK** Identify and test the anti-compounding brake function; determine needed action.

**MTST**  
III.D.5; 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 \_\_\_\_\_

**Note:** The anti-compounding function in the air brake system is designed to prevent the parking brake and service brake from being applied at the same time, thus saving the slack adjuster and foundation brakes from any undue stress that may cause a premature failure.

<b>Procedure:</b>	<b>Step Completed</b>
1. Reference the appropriate manufacturer's repair information.	<input type="checkbox"/>
2. Identify the anti-compounding valve in the R-8 or R-14 relay valve by its exhaust cover and an air line connected to the balance/quick release exhaust port.	<input type="checkbox"/>
3. Check to make sure there are no air leaks at the exhaust cover by spraying the area with a soap and water solution; observe any air bubbles present.	<input type="checkbox"/>
a. Air leaks at exhaust cover: Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
4. Check for any leaks present at the air line connections to the valve.	<input type="checkbox"/>
a. Are leaks present at connections? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	<input type="checkbox"/>
5. Check for any cracks or restrictions in the air lines.	<input type="checkbox"/>
a. Condition of air lines: Good: <input type="checkbox"/> Bad: <input type="checkbox"/>	<input type="checkbox"/>
6. If any leaks are present, follow the manufacturer's repair information and record the procedure to repair or replace the valve.	<input type="checkbox"/>
7. To test the anti-compounding function follow the procedure below.	<input type="checkbox"/>
a. Park the vehicle but do not apply the parking brake. Place wheel chocks in front and behind the drive axle tires.	<input type="checkbox"/>
b. Install an air pressure gauge in the delivery line of the R-8/R-14 valve or at the spring brake chamber.	<input type="checkbox"/>

c. Make sure that maximum air pressure is available.	<input type="checkbox"/>
d. Pull out the parking brake valve knob, which will exhaust all air from the valve and apply the spring brakes.	<input type="checkbox"/>
e. Make a service brake application by stepping on the foot valve.	<input type="checkbox"/>
f. Observe and record the pressure on the gauge in the service line to the valve or brake chambers.	<input type="checkbox"/>
i. Pressure reading: _____ psi	<input type="checkbox"/>
g. If reservoir pressure is present on the gauge, the function of the anti-compounding valve is operational.	<input type="checkbox"/>
8. If no pressure is available to the gauge, consult the manufacturer's repair information and record the procedure to repair or replace the anti-compounding valve:	<input type="checkbox"/>
9. Return the vehicle to its beginning condition, and return any tools you used to their proper locations.	<input type="checkbox"/>
10. 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 (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 procedures 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.				
<b>Total Score:</b> <total # of points /4 = %>				

### Supervisor/Instructor:

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

### Comments:

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

### Comments:

