



Automotive Tasksheet : C240

Student/Intern Information:

Name Date Class

Vehicle used for this activity:

Make Model

Year Odometer VIN

Learning objective/task:

Inspect, test, and/or replace metering (hold-off), proportioning (balance), pressure differential, and combination valves.

Recommended resource materials:

- CDX Automotive Resource Kit
- CDX eTextbook
- Tech service bulletins, Shop manuals, and any other information applicable to the specific vehicle or components you are working on.

Some safety issues to consider:

- Diagnosis of this fault may require test driving of the vehicle on the school grounds or on a hoist - both of which carry severe risks. Only attempt this task with full permission from your supervisor/instructor and follow all the guidelines exactly.
- Anti-lock Brake Systems store brake fluid under tremendous pressure that can cause severe injury, even when the engine is not running. Always refer to the service manual to determine how to depressurize the system safely whenever working on it.
- **Caution:** most types of brake fluid are harmful to painted surfaces. Be sure to prevent brake fluid from coming in contact with a vehicle's paint. Use fender covers to minimize this risk and be sure to wipe up any spilled brake fluid immediately with a wet rag.
- Always wear correct protective eyewear and clothing and use the appropriate safety equipment, as well as fender covers, seat protectors, and floor mat protectors.
- Make sure that 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.

Materials required:

- Vehicle
- Brake system pressure tester
- Flare nut wrenches

Assignment:

1. Research the brake hydraulic system description and operation, and the testing and diagnosis procedure for this vehicle in the appropriate Service Manual.



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List any specifications related to this task:

2. Metering valve testing

- a. Follow the testing procedure in the appropriate Service Manual.

List any observations:

- b. Determine any necessary action/s:

3. Proportioning valve testing

- a. Follow the testing procedure in the appropriate Service Manual.

List any observations/test results:

- b. Determine any necessary action/s:

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4. Pressure differential valve testing
- a. Follow the testing procedure in the appropriate Service Manual.
- List any observations:
- b. Determine any necessary action/s:
5. Remove and replace metering, proportioning, pressure differential, or combination valves.
- a. Ask your supervisor/instructor to assign one of the above listed valves for replacement and list that here:
- b. List the flat rate time for this task:
- c. Remove the valve, following the Service Manual procedure.
- d. Have your supervisor/instructor verify removal of the valve and initial here:
- Supervisor/instructor’s initials:
- e. Reinstall the valve, following the Service Manual procedure. Bleed the brakes and verify proper operation of the brake system.
6. Return the vehicle to beginning condition and return any tools that you may have used to their proper locations.
7. Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action/s recommended.

CDX

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Student's competency rating

Supervisor/instructor assessing performance marks applicable box

 * 0 *	☐	0 - No exposure <i>No information or practise provided during the program; complete training required</i>
 * 1 *	☐	1 - Exposure only <i>General information provided with no practice time; close supervision needed; additional training required</i>
 * 2 *	☐	2 - Limited practice <i>Has practiced job during training program; additional training is required to develop skill</i>
 * 3 *	☐	3 - Moderately skilled <i>Has performed job independently during training program; limited additional training may be required</i>
 * 4 *	☐	4 – Skilled <i>Can perform job independently with no additional training</i>

Supervisor/instructor signature Date

Supervisor/instructor name

The tasks in this worksheet contain activities that also contribute towards the achievement of a range of educational and interdisciplinary skills. These skills are variously described by such terms as ‘Core Skills’, or ‘Key Competencies’, or ‘Applied Academics’.

