

Automatic Transmission/Transaxle Inspection and Testing

Student/intern information:

Name _____ Date _____ Class _____

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

Learning Objective/Task	CDX Tasksheet Number	2008 NATEF Reference Number	2008 NATEF Priority Level
• Diagnose fluid loss and condition concerns; check fluid level in transmissions with and without dip-stick; determine necessary action.	C682	2A5	P-1
• Perform pressure tests (including transmissions/transaxles equipped with electronic pressure control); determine necessary action.	C740	2A6	P-1
• Perform stall test; determine necessary action.	C741	2A7	P-3
• Perform lock-up converter system tests; determine necessary action.	C063	2A8	P-3

Time off _____

Time on _____

Total time _____

Recommended Resource Materials

- CDX Automotive program
- Technical service bulletins, shop manuals, and any other information applicable to the specific vehicle or components you are working on
- Class notes

Materials Required

- Vehicle with automatic transmission/transaxle and lock-up converter
- Vehicle hoist
- Flashlight or shop light
- Optional: fluorescent dye and ultraviolet light
- Transmission pressure gauge set
- Tachometer
- Scan tool
- DVOM/DMM

Some Safety Issues to Consider

- Vehicle 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/instructor's permission to use any particular type of lifting equipment.
- This procedure may require cleaning the transmission or axle assembly prior to inspection. If so, use the proper equipment and procedures to carry this out safely. Also, get your supervisor/instructor's permission prior to cleaning.
- **Caution:** Stall testing for more than a few seconds can damage the transmission or other parts of the vehicle. It is also a hazardous task. Perform this task with utmost care!
- When running any vehicles in the shop, make sure you use the shop's exhaust ventilation system to discharge all exhaust gas safely outside.
- Diagnosis of this fault may require test driving the vehicle on the school grounds. Attempt this task only with full permission from your instructor and follow all the guidelines exactly.
- 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.

Performance Standard

0–No exposure: No information or practice provided during the program; complete training required

1–Exposure only: General information provided with no practice time; close supervision needed; additional training required

2–Limited practice: Has practiced job during training program; additional training required to develop skill

3–Moderately skilled: Has performed job independently during training program; limited additional training may be required

4–Skilled: Can perform job independently with no additional training

► TASK Diagnose fluid loss and condition concerns; check fluid level in transmissions with and without dip-stick; determine necessary action.

C682 2A5

1. List the transmission designation for this vehicle: _____
2. Research the following specifications for this vehicle in the appropriate service information.
 - a. Fluid type: _____
 - b. Fluid capacity: _____ qt/lit
 - c. Is the fluid level checked with a dip-stick? **Yes/No** (Circle one)
 - d. If not, how is the fluid level checked?

3. Safely raise the vehicle on a hoist.
4. Inspect the transmission/transaxle assembly for leaks.
 - a. Identify and list the source of any leak/s:

5. Check the fluid level and list your observation/s:

6. Inspect the condition of the fluid. Look for contaminants, metal shavings, and degraded fluid condition. List your observation/s:

Total time

Time on

Time off

7. Determine any necessary action/s:

8. Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action/s recommended.

Performance Rating

CDX Tasksheet Number: C682

2008 NATEF Reference Number: 2A5



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Supervisor/instructor signature _____ Date _____

TASK Perform pressure tests (including transmissions/transaxles equipped with electronic pressure control); determine necessary action.

C740 2A6

Time off _____

Time on _____

Total time _____

1. Research all applicable specifications and test procedure/s for this transmission in the appropriate service information.
 - a. Line pressure: _____ psi/kPa
 - b. Governor pressure: _____ psi/kPa
 - c. Low gear servo/clutch pressure: _____ psi/kPa
 - d. Second gear servo/clutch pressure: _____ psi/kPa
 - e. Direct clutch pressure: _____ psi/kPa
 - f. Cooler circuit pressure: _____ psi/kPa
2. Perform the applicable transmission pressure tests. Be sure to follow the specified procedures, and list your observations below.
 - a. Line pressure: _____ psi/kPa
 - b. Governor pressure: _____ psi/kPa
 - c. Low gear servo/clutch pressure: _____ psi/kPa
 - d. Second gear servo/clutch pressure: _____ psi/kPa
 - e. Direct clutch pressure: _____ psi/kPa
 - f. Cooler circuit pressure: _____ psi/kPa
3. Determine any necessary action/s:

4. Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action/s recommended.

Performance Rating

CDX Tasksheet Number: C740

2008 NATEF Reference Number: 2A6



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Supervisor/instructor signature _____ Date _____

Total time _____

Time on _____

Time off _____

▶ TASK Perform stall test; determine necessary action.

C741 2A7

1. Research the specifications and procedures to stall test this transmission.

NOTE ▶ Do not perform this test on a transmission if the line pressure is not up to specifications or further damage could be done to the transmission.

a. Specified stall speed/s:

b. List all precautions when performing the stall test:

2. Perform the stall test. Be sure to follow all safety precautions, and list your observation/s below:

3. Determine any necessary action/s:

4. Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action/s recommended.

Performance Rating

CDX Tasksheet Number: C741

2008 NATEF Reference Number: 2A7



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Supervisor/instructor signature _____ Date _____

