## Transmission Disassembly and Inspection

| Student/Intern information: |                   |     |      |     |  |  |  |
|-----------------------------|-------------------|-----|------|-----|--|--|--|
| Name                        |                   | Dat | teCI | ass |  |  |  |
| Vehicle used for            | or this activity: |     |      |     |  |  |  |
| Year                        | Make              |     | Mode | el  |  |  |  |
| Odometer                    |                   | VIN |      |     |  |  |  |

| Learning Objective/Task  | CDX<br>Tasksheet<br>Number | 2017 MAST<br>NATEF<br>Reference<br>Number;<br>Priority<br>Level |
|--|----------------------------|---|
| • Disassemble, clean, and inspect transmission/transaxle.  | C684                       | 2C6; P-1  |
| • Inspect, measure, and reseal oil pump assembly and components.   | C688                       | 2C10; P-2   |
| Measure transmission/transaxle end play and/or preload; determine needed action.   | C689                       | 2C11; P-1   |
| • Inspect and measure planetary gear assembly components; determine needed action.   | C752                       | 2C15; P-2   |
| Inspect bushings; determine needed action.   | C751                       | 2C14; P-2   |
| • Inspect, measure, and/or replace thrust washers and bearings.  | C750                       | 2C12; P-2   |
| • Inspect one-way clutches, races, rollers, sprags, springs, cages, and retainers; determine needed action.  | C759                       | 2C22; P-2   |
| • Inspect oil delivery circuits, including seal rings, ring grooves, and sealing surface areas, feed pipes, orifices, and check valves/balls.  | C690                       | 2C13; P-2   |
| • Inspect case bores, passages, bushings, vents, and mating surfaces; determine needed action.   | C753                       | 2C16; P-2   |
| • Inspect servo and accumulator bores, pistons, seals, pins, springs, and retainers; determine needed action.  | C686                       | 2C8; P-2  |
| • Inspect clutch drum, piston, check balls, springs, retainers, seals, friction plates, pressure plates, and bands; determine needed action.   | C756                       | 2C19; P-2   |
| Measure clutch pack clearance; determine needed action.  | C757                       | 2C20; P-1   |
| Air test operation of clutch and servo assemblies.   | C758                       | 2C21; P-1   |
| • Inspect, measure, clean, and replace valve body (includes surfaces, bores, springs, valves, switches, solenoids, sleeves, retainers, brackets, check valves/balls, screens, spacers, and gaskets). | C685                       | 2C7; P-2  |
| Diagnose and inspect transaxle drive, link chains, sprockets, gears, bearings, and bushings; perform needed action.  | C754                       | 2C17; P-2   |
| • Inspect, measure, repair, adjust, or replace transaxle final drive components.   | C755                       | 2C18; P-2   |

| Time off   |  |
|------------|--|
| Time on    |  |
|            |  |
|            |  |
| Total time |  |

## Materials Required

- · Vehicle with automatic transmission/transaxle
- Vehicle hoist
- Transmission jack
- Dial indicator
- Drain pan
- Cooler flushing equipment
- Torque wrench
- Manufacturer or job specific special tools
- Transmission/transaxle
- Snap ring pliers
- · Dial indicator
- · Feeler blades
- Straightedge
- · Approved air nozzle
- Manufacturer-specific tools
- 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's/instructor's permission prior to cleaning.
- Automotive transmissions/transaxles are heavy. Make sure they are secured to the transmission jack during removal and installation.
- 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 local, state, and federal safety and environmental regulations.
- Castings and machined parts may have sharp edges. Handle these parts with care.
- Many transmission parts are round and can easily roll off of tables and carts. Be sure to place them in a secure manner to prevent component damage or personal injury from falling objects.
- Compressed air can be very dangerous if applied to broken skin or body cavities. Always use approved air nozzles, and never point them at yourself or another person.
- Transmissions, transaxles, and their component assemblies are heavy and can slip easily. Work safely, get help, and do not overextend your abilities.

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## **Performance Standard**

- **O-No exposure:** No information or practice provided during the program; complete training
- **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