

Power Steering Pump Maintenance and Service

Student/Intern information:

Name _____ Date _____ Class _____

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

| Learning Objective/Task | CDX Tasksheet Number | 2017 MAST NATEF Reference Number; Priority Level |
|---|----------------------------|---|
| • Inspect power steering fluid level and condition. | C177 | 4B9; P-1 |
| • Flush, fill, and bleed power steering system; use proper fluid type per manufacturer specification. | C178 | 4B10; P-2 |
| • Remove, inspect, replace, and/or adjust power steering pump drive belt. | C180 | 4B12; P-1 |
| • Inspect for power steering fluid leakage; determine needed action. | C179 | 4B11; P-1 |
| • Inspect, remove, and/or replace power steering hoses and fittings. | C183 | 4B15; P-2 |
| • Test power steering pressure; determine needed action. | C1001 | 4B20; P-2 |
| • Remove and reinstall power steering pump. | C181 | 4B13; P-2 |
| • Remove and reinstall press fit power steering pump pulley; check pulley and belt alignment. | C699 | 4B14; P-2 |

Time off _____

Time on _____

Total time _____

Materials Required

- Vehicle or simulator, equipped with power steering
- Correct power steering fluid
- White piece of paper
- Power steering flush machine or drain pan
- Funnel
- Belt-tension gauge
- Power steering pump pulley remover/installer tool
- Depending on the type of concern, special diagnostic tools may be required. See your supervisor/instructor for instructions to identify what tools may be required.
- Special tools for Stretch Fit belts
- Power steering pressure gauge or analyzer

Some Safety Issues to Consider

- You will be working under the hood of a running vehicle. Keep your hands and fingers away from moving belts, fans, and other parts.
- When running any vehicles in the shop, make sure you use the shop's exhaust ventilation system to discharge all exhaust gas safely outside.
- 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.
- Caution must be exercised when working around the power steering pump, especially if the vehicle has been driven recently or the engine is at operating temperature. The power steering fluid can be extremely hot and can burn if it comes in contact with unprotected skin. When operating the power steering system, it can be under high hydraulic pressure.
- 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.

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