Crankshaft and Oil Pump Service

Student/Intern information:

Name _____ Date _____ Class _____

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

Time off _____

Time on _____

Total time _____

Learning Objective/Task	CDX Tasksheet Number	2017 MAST NATEF Reference Number; Priority Level
• Inspect crankshaft for straightness, journal damage, keyway damage, thrust flange and sealing surface condition, and visual surface cracks; check oil passage condition; measure end play and journal wear; check crankshaft position sensor reluctor ring (where applicable); determine needed action.	C728	1C7; P-1
• Inspect main and connecting rod bearings for damage and wear; determine needed action.	C036	1C8; P-2
• Identify piston and bearing wear patterns that indicate connecting rod alignment and main bearing bore problems; determine needed action.	C729	1C9; P-3
• Inspect oil pump gears or rotors, housing, pressure relief devices, and pump drive; perform needed action.	C733	1D13; P-2

Materials Required

- Engine block, crankshaft, and oil pump
- Engine stand
- Dial indicator
- Straightedge and feeler blade set
- Inside and outside micrometer sets
- Dial bore gauge set

Some Safety Issues to Consider

- Compressed air can be very dangerous. Never blow it at someone. Never use it to remove dirt or dust from your skin or clothing. Never use it without an OSHA-approved nozzle.
- Make sure the engine stand is rated for the weight of the engine you are mounting on it. Also, use bolts with the proper strength and length. Severe injury could occur if the engine were to fall due to failure of the engine stand or bolts.
- Engine castings and parts can have sharp edges. Always exercise extreme caution when working around them. Also, the parts are relatively heavy and can cause serious pinching of fingers. Be careful when handling them.

- 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

> NOTE In order to easily compare specifications to measurements, space has been provided in each of the sections below to write the specifications.