

## Block Disassembly, Inspection, and Repair

### 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
• Remove, inspect, and/or replace crankshaft vibration damper (harmonic balancer).	C679	1C1; P-1
• Disassemble engine block; clean and prepare components for inspection and reassembly.	C029	1C2; P-1
• Inspect engine block for visible cracks, passage condition, core and gallery plug condition, and surface warpage; determine needed action.	C030	1C3; P-2
• Inspect and measure cylinder walls/sleeves for damage, wear, and ridges; determine needed action.	C726	1C4; P-2
• Inspect and measure piston skirts and ring lands; determine needed action.	C678	1C10; P-2
• Deglaze and clean cylinder walls.	C727	1C5; P-2
• Inspect and measure camshaft bearings for wear, damage, out-of-round, and alignment; determine needed action.	C034	1C6; P-3
• Inspect auxiliary shaft(s) (balance, intermediate, idler, counterbalance, and/or silencer); inspect shaft(s) and support bearings for damage and wear; determine needed action; reinstall and time.	C730	1C13; P-2

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

- Complete engine, simulator, or vehicle
- Harmonic balance puller

### Some Safety Issues to Consider

- Lifting equipment such as 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.
- If using an engine stand, 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.
- 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.
- 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