

# Assemble Engine Block

## 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
• Verify engine mechanical timing.	C899	1A6; P-1
• Inspect and replace camshaft and drive belt/chain; (includes checking drive gear wear and backlash, endplay, sprocket and chain wear, overhead cam drive sprocket[s], drive belt[s], belt tension, tensioners, camshaft reluctor ring/tone-wheel, and valve timing components); verify correct camshaft timing.	C676	1B5; P-1
• Determine piston-to-bore clearance.	C597	1C11; P-2
• Inspect, measure, and install piston rings.	C040	1C12; P-2
• Assemble engine block.	C731	1C14; P-1

Time off \_\_\_\_\_

Time on \_\_\_\_\_

Total time \_\_\_\_\_

## Materials Required

- Engine block, pistons, and piston rings
- Engine stand
- Feeler blade set
- Inside and outside micrometer sets
- Torque wrench
- Plastigauge®
- Piston ring compressor

## Some Safety Issues to Consider

- 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