Wheel Alignment Diagnosis, Adjustment, and Repair

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
• Diagnose vehicle wander, drift, pull, hard steering, bump steer, memory steer, torque steer, and steering return concerns; determine needed action.	C206	4E1; P-1
• Perform prealignment inspection and measure vehicle ride height; determine needed action.	C617	4E2; P-1
• Prepare vehicle for wheel alignment on alignment machine; perform four-wheel alignment by checking and adjusting front and rear wheel caster, camber, and toe as required; center steering wheel.	C618	4E3; P-1
• Check toe-out-on-turns (turning radius); determine needed action.	C213	4E4; P-2
• Check steering axis inclination (SAI) and included angle; determine needed action.	C214	4E5; P-2
• Check rear wheel thrust angle; determine needed action.	C216	4E6; P-1
• Check for front wheel setback; determine needed action.	C217	4E7; P-2
• Check front and/or rear cradle (subframe) alignment; determine needed action.	C795	4E8; P-3
• Reset steering angle sensor.	C940	4E9; P-2

Materials Required

- Vehicle with alignment concern
- Tire-pressure gauge and inflator
- Tape measure
- Wheel-alignment machine
- Manufacturer- or job-specific tools

Some Safety Issues to Consider

- Diagnosis of this fault may require test-driving the vehicle on the school grounds. Attempt this task only with full permission from your instructor and follow all guidelines and policies exactly.
- 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.
- Vehicle springs store a lot of energy, which, if released improperly, can cause injury or death. Please familiarize yourself with the manufacturer's safety precautions related to these procedures.
- Some suspension systems are electronically controlled, and can raise or lower without notice. Please familiarize yourself with the manufacturer's safety precautions related to these procedures.
- 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