

# Suspension and Steering Systems: Wheel and Tire Maintenance

## Student/intern information:

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

## Vehicle used for this activity:

Year \_\_\_\_\_ Make \_\_\_\_\_ Model \_\_\_\_\_

Odometer \_\_\_\_\_ VIN \_\_\_\_\_

Learning Objective/Task	CDX Tasksheet Number	2013 MLR NATEF Reference Number; Priority Level	2013 AST NATEF Reference Number; Priority Level	2013 MAST NATEF Reference Number; Priority Level
• Inspect tire condition; identify tire wear patterns; check for correct size and application (load and speed ratings) and adjust air pressure; determine necessary action.	C619	4D1; P-1	4F1; P-1	4F1; P-1
• Rotate tires according to manufacturer's recommendations.	C222	4D2; P-1	4F3; P-1	4F3; P-1
• Dismount, inspect, and remount tire on wheel; balance wheel and tire assembly (static and dynamic).	C620	4D3; P-1	4F6; P-1	4F6; P-1
• Demonstrate knowledge of steps required to remove and replace sensors in a tire-pressure monitoring system.	C936	4D8; P-2	4F11; P-1	4F11; P-1
• Dismount, inspect, and remount tire on wheel equipped with tire-pressure monitoring system sensor.	C621	4D4; P-2	4F7; P-2	4F7; P-2

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

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

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

## Materials Required

- Worn tire assigned by supervisor/instructor
- Tread-depth gauge
- Tire-pressure gauge
- Tire inflator
- Tire valve core tool
- Wheel weight hammer
- Vehicle hoist
- Lug wrench (or impact wrench with appropriate impact socket)
- Torque wrench and appropriate socket
- Tire mounting and balancing equipment
- 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.

## Some Safety Issues to Consider

- Worn or damaged tires may have steel cords sticking out of the tire. These wires are very sharp and will severely cut you. Do not rub your hand across a tire without checking first for exposed cords.
- Vehicle hoists are important tools that increase productivity and make the job easier. However, they also can cause severe injury or death if used improperly. Make sure you follow the hoist and vehicle manufacturer's operation procedures. Also make sure you have your supervisor's/ instructor's permission to use a vehicle hoist.
- 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.
- Over-inflating tires could cause the tire to explode with great force. Never exceed the maximum tire pressure for the tire you are working on. Use a tire cage when inflating a tire that has been removed from a rim or repaired.
- Tires, even if they have good tread, only have a safe life of 6-10 years depending on type, condition, and environment. Check your state and local regulations about the age that tires should be replaced, and do not repair/service a tire older than that.
- Lug nuts must always be torqued to the proper torque. Always use a properly calibrated torque wrench. Never use an impact wrench to tighten lug nuts. This could cause the wheel to come loose and fall off if under-tightened. Or, if over-tightened, the lug studs might get damaged which could also cause the wheel to fall off the vehicle. It could also cause the brake rotors to become warped.
- 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