

# Brakes: Disc Brake Inspection, Maintenance, and Service

## 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
• Diagnose poor stopping, noise, vibration, pulling, grabbing, dragging, or pulsation concerns; determine necessary action.	C708		5D1; P-1	5D1; P-1
• Remove and clean caliper assembly; inspect for leaks and damage/wear to caliper housing; determine necessary action.	C802	5D1; P-1	5D2; P-1	5D2; P-1
• Clean and inspect caliper mounting and slides/pins for proper operation, wear, and damage; determine necessary action.	C803	5D2; P-1	5D3; P-1	5D3; P-1
• Check brake pad wear indicator; determine necessary action.	C632	5D10; P-2	5D11; P-2	5D11; P-2
• Remove, inspect, and replace pads and retaining hardware; determine necessary action.	C627	5D3; P-1	5D4; P-1	5D4; P-1
• Reassemble, lubricate, and reinstall seat pads and caliper, pads, and related hardware; inspect for leaks.	C805	5D4; P-1	5D5; P-1	5D5; P-1
• Install wheel and torque lug nuts, and make final checks and adjustments.	N/A	N/A	N/A	N/A
• Retract and readjust caliper piston on an integrated parking brake system.	C631	5D9; P-3	5D10; P-3	5D10; P-3
• Describe the importance of operating vehicle to burnish/break in replacement brake pads according to manufacturer's recommendations.	C948	5D11; P-1	5D12; P-1	5D12; P-1

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

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

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

## Materials Required

- Vehicle or simulator with disc brake concern
- Vehicle lifting equipment
- Asbestos removal equipment
- Work light and shop rag
- Line wrench
- Caliper lube
- Torque wrench(es)
- Feeler gauge set

## Some Safety Issues to Consider

- If you need to start the vehicle, you should ensure that the parking brake is firmly applied; if necessary, use wheel chocks to prevent the vehicle from moving when the vehicle is started to verify the completion of these tasks.
- When running any vehicles in the shop, make sure you use the shop's exhaust ventilation system to discharge all exhaust gas safely outside.
- Only students who have their supervisor's/instructor's direct permission should perform this task due to the safety concerns involved.
- Diagnosis of this fault and verification of repairs may require test driving the vehicle on the school grounds. Attempt this task only with full permission from your supervisor/instructor and follow all the guidelines exactly.
- Vehicle 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 hoist's and vehicle manufacturers' operation procedures. Also make sure you have your supervisor's/instructor's permission to use a vehicle hoist.
- **Caution:** Brake dust may contain asbestos, which has been determined to cause cancer when inhaled or ingested. Treat all brake dust as if it contains asbestos and use OSHA-approved asbestos removal equipment. Do not allow brake dust to become airborne by using anything that would disturb the dust. Also, wear protective gloves during this procedure and dispose of or clean them in an approved manner.
- **Caution:** Most types of brake fluid are harmful to painted surfaces. Be sure to prevent brake fluid from coming in contact with a vehicle's paint. Use fender covers to minimize this risk and be sure to wipe up any spilled brake fluid immediately with a wet rag.
- 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