MODULE CONTENT

| Unit of Competency | **DIAGNOSE AND REPAIR BRAKE SYSTEM** |
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| Module Title | **DIAGNOSING AND REPAIRING BRAKE SYSTEM** |
| Module Descriptor | This unit identifies the competencies required to diagnose and repair the brake systems. |
| Nominal Duration | **hours** |
| Summary of the Learning Outcomes: | |
| Upon completion of this module the student must be able to: | |
| LO1. Prepare to diagnose and repair brake system | |
| LO2. Diagnose brake system | |
| LO3. Repair brake system | |
| LO4. Complete work processes | |

**LEARNING EXPERIENCES**

**LEARNING OUTCOMES NO. 4**

**COMPLETE WORK**

| **Learning Activities** | **Special Instructions** |
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| Read Information Sheet 3.1-1 Complete work processes | If you have some problem with the content of the information sheet don’t hesitate to approach your Trainer.  If you feel that you are now knowledgeable on the content of the information sheet, you can now answer the self-check provided in the module. |
| Answer Self-Check 3.1-1 on Complete work processes | Try to answer the Self-check without looking at the Answer Key  Compare your answer to Answer Key 3.1-1 |
| Observe Trainer’s demonstration on Task Sheet 3.1-1 on Complete work processes | Listen carefully and attentively so that you may be able to perform a task correctly  Ask questions if are in doubt for clarification |
| Perform the Task Sheet 3.1-1 on Complete work processes | Remember the step-by-step procedure the Complete work processes |
| Evaluate the performance using the Performance Criteria Checklist 3.1-1 | Repeat the task in case fail to meet the criteria |

**INFORMATION SHEET 1.1-1**

**COMPLETE WORK**

**Learning Objectives:**

After reading this **Information Sheet**, you must be able to:

1. Made final inspection.
2. Turned-over vehicle.
3. Restored work area.
4. Managed wastes.
5. Checked and stored tools and equipment.
6. Accomplished workplace documents.

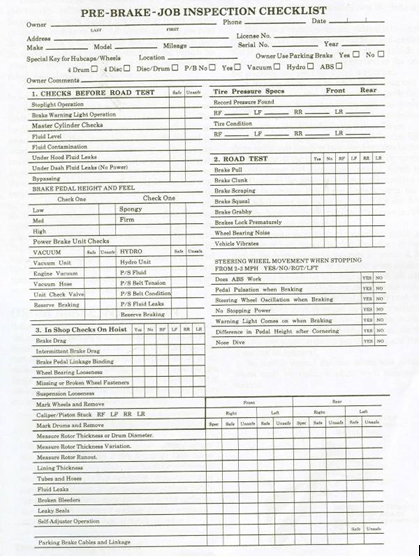
**BRAKE SYSTEM**

**ROAD TESTING BRAKES**

Road testing allows the brake technician to evaluate brake performance under actual driving conditions. Whenever practical, perform the road test before beginning any work on the brake system. In every case, road test the vehicle after any brake work to make sure the brake system is working safely and properly.

| ***W A R N I N G !*** |
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| *Before test driving any car, first check the fluid level in the master cylinder. Depress the brake pedal to be sure there is adequate pedal reserve. Make a series of low-speed stops to be sure the brakes are safe for road testing. Always make a preliminary inspection of the brake system in the shop before taking the vehicle on the road.* |
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Brakes should be road tested on a dry, clean, reasonably smooth, and level roadway. A true test of brake performance cannot be made if the roadway is wet, greasy, or covered with loose dirt. All tires do not grip the road equally. Testing is also adversely affected if the roadway is crowned so as to throw the weight of the vehicle toward the wheels on one side, or if the roadway is so rough that wheels tend to bounce.

Test brakes at different speeds with both light and heavy pedal pressure. Avoid locking the wheels and sliding the tires on the roadway. There are external conditions that affect brake road-test performance. Tires having unequal contact and grip on the road cause unequal braking. Tires must be equally inflated and the tread pattern of right and left tires must be approximately equal. When the vehicle has unequal loading, the most heavily loaded wheels require more braking power than others and a heavily loaded vehicle requires more braking effort. A loose front-wheel bearing permits the drum and wheel to tilt and have spotty contact with the brake linings, causing erratic brake action. Misalignment of the front end causes the brakes to pull to one side. Also, a loose front-wheel bearing could permit the disc to tilt and have spotty contact with brake shoe linings, causing pulsations when the brakes are applied. Faulty shock absorbers that do not prevent the car from bouncing on quick stops can give the erroneous impression that the brakes are too severe.