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. 3**

**REPAIR BRAKE SYSTEM**

| **Learning Activities** | **Special Instructions** |
| --- | --- |
| Read Information Sheet 3.1-1 Repair brake system | 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 Repair brake system | 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 Repair brake system | 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 Repair brake system | Remember the step-by-step procedure the Repair brake system |
| 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**

**REPAIR BRAKE SYSTEM**

**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.

**Mount the master cylinder firmly in a vise, Connect the short lengths of tubing to the outlet**

**being careful not to apply excessive pressure ports, making sure the connections are tight.**

**to the casting. Position the master cylinder**

**so the bore is horizontal**

** **

**Bend the tubing lines so that the ends are in Fill the reservoirs with fresh brake fluid until the**

**each chamber of the master cylinder reservoir. level is above the ends of the tubes.**

** **

**Using a wooden dowel or the blunt end of a Watch out for bubbles to appear at the tube Drift or punch, slowly push on the master ends immersed in the fluid. Slowly release the**

**cylinder pistons until both are completely cylinder piston and allow it to return to its**

**bottomed in their places. original position. Slow piston return is normal**

**for master cylinders.**

** **

**Pump the cylinder piston until no bubbles Remove the tubes from the outlet ports and**

**until no bubbles appear in the fluid. plug the openings with temporary plugs or your fingers. Keep the ports covered until you install the master cylinder on the vehicle.**

** **

**Install the master cylinder on the vehicle. Slowly depress the pedal several times to**

**Appear in the fluid. Attach the lines, but do force out any air that might be trapped in not tighten the tube connections. the connection. Before releasing the pedal,**

**tighten the nut slightly and loosen it before**

**depressing the pedal each time. Soak up the fluid with a rag to avoid damaging the car finish.**

** **

**When there are no air bubbles in the fluid, After reinstalling the master cylinder, bleed the**

**tighten the connections to the manufacturer’s entire brake system on the vehicle.**

**specifications. Make sure the master cylinder**

**reservoirs are adequately filled with brake fluid.**

***Part 2***

Front brake pad replacement begins with Raise the car. Make sure it is safety

removing brake fluid from the master cylinder positioned on the lift. Remove it wheel reservoir. assemblies

Inspect the brake assembly. Look for signs of Loosen the bolts and remove the pad

Fluid leaks, broken or cracked lines, or a locator pins.

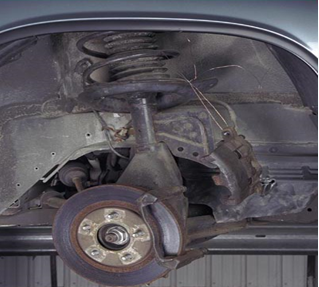
damaged brake rotor. If any problem is found,

correct it before installing the new brake pads.

Lift and rotate the calliper assembly form the Remove the brake pads form the

Rotor. calliper assembly.

Fasten a piece of wire to the car’s frame and Check the condition of the locating pin insula-

**Support the calliper with the wire.**  tor s and sleeves.

Place a piece of wood over the calliper’s piston Remove the clamp and install new locating

And install a C-clamp over the wood and calliper. pin insulators and sleeves, if necessary.

Tighten the clamp tool force the piston back to

its bore.

Install the new pads into the calliper. Set calliper ith pads over the rotor and install the locating pins. After the assembly is in the proper position, torque the pins according to specifications.