MODULE CONTENT

| Unit of Competency | **REPAIR MANUAL AIR-CONDITIONER COMPRESSOR MAGNETIC CLUTCH** |
| --- | --- |
| Module Title | **REPAIRING MANUAL AIR-CONDITIONER COMPRESSOR MAGNETIC CLUTCH** |
| Module Descriptor | This unit covers the knowledge, skills and attitudes required to replace and adjust manual air-conditioner compressors. |
| Nominal Duration | **hours** |
| Summary of the Learning Outcomes: | |
| Upon completion of this module the student must be able to: | |
| LO1. Prepare to repair manual air conditioner compressor magnetic clutch | |
| LO2. Remove magnetic clutch components | |
| LO3. Install magnetic clutch components | |
| LO4. Complete work processes | |

**LEARNING EXPERIENCES**

**LEARNING OUTCOMES NO. 1**

**PREPARE TO REPAIR MANUAL AIR CONDITIONER COMPRESSOR MAGNETIC CLUTCH**

| **Learning Activities** | **Special Instructions** |
| --- | --- |
| Read Information Sheet 3.1-1 Prepare to repair manual air conditioner compressor magnetic clutch | 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 Prepare to repair manual air conditioner compressor magnetic clutch | 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 Prepare to repair manual air conditioner compressor magnetic clutch | 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 Prepare to repair manual air conditioner compressor magnetic clutch | Remember the step-by-step procedure of the Prepare to repair manual air conditioner compressor magnetic clutch |
| 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**

**PREPARE TO REPAIR MANUAL AIR CONDITIONER COMPRESSOR MAGNETIC CLUTCH**

**Learning Objectives:**

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

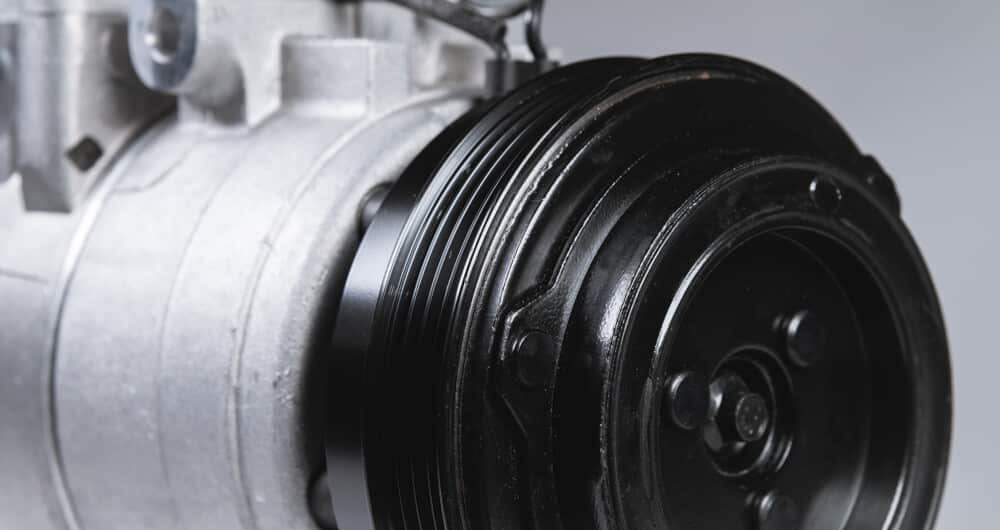
1. Determined job requirements.
2. Sourced and interpreted information.
3. Identified hazards associated with the work are and managed risks.
4. Selected and checked tools.
5. Reported defective and damaged tools.
6. Checked and reported availability.
7. Applied safety practices.

**What is the function of magnetic clutch in AC?**

Magnetic force **locks the rotor and the armature plate together**. This solid connection then allows the pulley to rotate the compressor crankshaft and operate the compressor. Compressor operation will continue until the electrical circuit is broken to the clutch coil, when the magnetic force is de-energized.

**How does a compressor magnetic clutch work?**

Function. When the electromagnet turns on, it produces a powerful magnetic field through the rotor. ... Once they are touching, however, friction between the two plates makes the air conditioner rotor spin. When the electromagnet is turned off, the friction plates spring apart and the compressor stops moving.



The AC compressor clutch is responsible for converting energy from the engine and delivering it to the compressor. When you turn on the air conditioning, the clutch engages and begins spinning to transfer the power.