IMIMET08

Handle Automotive Refrigerants

Overview

This standard covers the recovery, flushing and recharging of F gas refrigerants associated with automotive mobile air conditioning (MAC) and climate control systems. This standard also includes leak detection and rectification of any leaks.

Note: In order to achieve this NOS, it will also be necessary to hold a valid certificate to meet the current regulatory requirements concerning F Gas.

Performance criteria

You must be able to:

1. use the appropriate personal protective equipment when handling F gas refrigerants
2. support your removal and replacement activities by referring to:
    - 2.1 vehicle and gas related technical data
    - 2.2 manufacturer's guidance
    - 2.3 removal and replacement procedures
    - 2.4 health, safety and legal requirements
3. ensure that the **tools and equipment** you require are calibrated and in a safe working condition to meet manufacturer's and legal requirements
4. select and use the correct tools and equipment to identify refrigerant type and capacities
5. select and use the correct tools and equipment for recovery, flushing and recharging of refrigerants
6. carry out all refrigerant recovery, flushing and recharging activities following:
    - 6.1 recognised safe working methods
    - 6.2 manufacturers' instructions
    - 6.3 your workplace procedures
    - 6.4 health, safety and legal requirements
7. work in a way which reduces the risk of any refrigerant emissions
8. carry out suitable checks and any necessary rectification activities to ensure the recharged system is free from leaks
9. collect and transfer any waste materials to comply with current legislation and workplace policies
10. complete work records accurately, in the format required and pass them to the relevant person(s) promptly

Knowledge and understanding

You need to know and understand:

Legislative and organisational requirements and procedures

1. the health, safety and environmental regulations relating to the handling of F gas refrigerants in automotive mobile air conditioning (MAC) NOSs
2. how the **vehicle** is powered and the associated health and safety risks
3. the legal requirement to maintain and process appropriate F gas records
4. your workplace procedures for:
    4.1 the referral of problems related to refrigerant handling
    4.2 completion of work records
5. the importance of selecting, using and maintaining the appropriate personal protective equipment when handling F gas refrigerants

Equipment

6. how to select, check and use all the tools and equipment required to recover, flush and recharge F gases within automotive mobile air conditioning and climate control systems
7. how to use equipment to identify the type of gas removed

Automotive Mobile Air Conditioning (MAC) Systems

8. the operating principles and function of automotive mobile air conditioning (MAC) and climate control units containing F gas refrigerants
9. the types of refrigerants used in automotive systems and their properties and characteristics
10. the impact of F gas emissions on the environment in relation to their global warming potential and climate change
11. the procedures for the safe handling of F gas refrigerants when recovering, flushing and recharging from automotive mobile air conditioning units
12. how to work in a way that minimises the risk of any refrigerant emissions
13. how to check air conditioning systems for F gas leaks and rectify leakage

14. how to handle refrigerant cylinders
15. the methods of storing removed mobile air conditioning (MAC) parts and the importance of storing them correctly

Scope/range

All the items listed below form part of the National Occupational Standard

1. Tools and equipment are:

    1.1 hand tools
    1.2 special purpose equipment
    1.3 general workshop equipment
    1.4 air conditioning recovery plant
    1.5 refrigerant identifier
    1.6 sealing equipment

Glossary

Vehicles

These can be light vehicles or commercial vehicles.

Handle Automotive Refrigerants

Developed by	IMI
Version Number	2
Date Approved	March 2018
Indicative Review Date	March 2021
Validity	Current
Status	Original
Originating Organisation	IMI
Original URN	IMIMET08
Relevant Occupations	Mechanical, Electrical and Trim Assistant Technician (Automotive); Mechanical, Electrical and Trim Technician (Automotive)
Suite	Accident Repair - Mechanical, Electrical and Trim
Keywords	Handle Automotive Refrigerants, F gas