

Carry out non high energy electrical system work on or near electric and hybrid vehicles

Overview

This standard is for people who work on or near electric and hybrid vehicles but do not work on the vehicle's high energy electrical system.

Examples of these job roles include:

sales staff, cleaners/valeters or vehicle fitters. The standard includes essential knowledge of the hazards associated with electric and hybrid vehicles and the precautions to follow to avoid these.

Note: This standard does not deem someone competent to maintain, service or repair high energy electrical systems.

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Performance criteria

You must be able to:

1. collect relevant information about the **electric/hybrid vehicle** and any potential hazards
2. wear personal protective equipment appropriate to the work activities you are carrying out
3. follow the correct procedures to ensure the electric/hybrid vehicle has been made safe prior to starting any work
4. carry out **work activities** in a way that avoids contact with, or damage to, **high energy electrical systems** and their components
5. refer any problems with the electric/hybrid vehicle to a relevant person in your workplace
6. report the work activities you have carried out on or near the electric /hybrid vehicle to relevant colleagues

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Knowledge and understanding

You need to know and understand:

1. the hazards associated with high energy electrical vehicle components
2. the health and safety legislation and workplace procedures relevant to working on or near electric/hybrid vehicles, including the appropriate personal protective equipment and its use
3. your workplace procedures for:
 - 3.1 checking that the vehicle has been made safe as appropriate to the work you are carrying out
 - 3.2 referring/reporting problems when working with electric/hybrid vehicles
 - 3.3 making others aware of the work carried out on electric/hybrid vehicles
4. the differences between an electric/hybrid and non-electric vehicle
5. how to operate an electric/hybrid vehicle safely
6. how to charge an electric/hybrid vehicle with plug-in capability
7. the precautions necessary when using plug-in charging equipment
8. how to make an electric/hybrid vehicle safe, including isolating high energy electrical systems where required within your level of training
9. the implications of electrical conductivity through the human body and other potential medical conditions that can occur regardless of current type present in the electric/hybrid vehicle
10. how to find, interpret and use sources of information applicable to electric/hybrid vehicles as appropriate to your job role
11. the hazards associated with electric/hybrid vehicle batteries when exposed to extreme temperatures, impact and other adverse conditions

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Scope/range

Scope of this standard

1. **Electric/hybrid vehicle** - any vehicle that is powered wholly or in part by an electrical drive train. This includes electric hybrid plug-in vehicles.
2. **High energy electrical/high voltage** – typical voltages used for a range of Electric and Hybrid Vehicles 100-650V ECE R100(relating to vehicle regulations) paragraph 2.14 clearly defines high voltage: “High Voltage” means the classification of an electric component or circuit, if its working voltage is > 60 V and 1500 V DC or > 30 V and 1000 V AC root mean square (rms).’
3. **Work activities** – not involving work on the high energy electrical system and its components.

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Originating Organisation	IMI
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Relevant Occupations	Sales Executive (Automotive); Sales Controller (Automotive); Vehicle Fitting Operations (Automotive); Vehicle Valet (Automotive); Specialist Tyre Fitting Operations (Automotive); Hire and Rental Delivery and Collection Operations; Hire and Rental Operations; Hire and Rental Counter Operations; Rental and Leasing Customer Service Advisor (Automotive); Rental and Leasing Maintenance Advisors (Automotive); Rental and Leasing Technical Service Advisor (Automotive); Body Repair Technician (Automotive); Body Repair and Alignment Technician (Automotive); Cosmetic Refinishing Technician (Automotive); Cosmetic Senior Refinishing Technician (Automotive); PDR Senior Technician (Automotive); PDR Technician (Automotive); Body Builder (Automotive); Body Builder Workshop Controller (Automotive); Vehicle Damage Assessment Operators; Vehicle Damage Assessor (Automotive); Vehicle Fitters; Insurance Engineer (Automotive)
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