
Overview

This standard is about the bench-based overhaul of light electric vehicle e- system units, involving dismantling, assessment, repair, replacement or adjustment of internal components together with re-assembly and testing. Units and components include motors, controllers, sensors and wiring.

For the purposes of this standard, a light electric vehicle is any small vehicle powered by an electric motor (e-system) with 1, 2, 3 or more wheels, for example electric bikes, electric scooters, quadrimobiles, etc.

Performance criteria

You must be able to:

P1 use suitable personal protective equipment throughout all **overhauling activities**

P2 use suitable sources of technical information to support your **overhauling activities**

P3 assess and prepare all the **tools and equipment** required, following manufacturer's instructions, prior to use

P4 use the **tools and equipment** required correctly and safely throughout all overhauling activities

P5 carry out all **overhauling activities** following:

P5.1 manufacturer's instructions

P5.2 your workplace procedures

P5.3 health and safety requirements

P6 work in a way which minimises the risk of:

P6.1 damage to other vehicle systems, units and components

P6.2 contact with leakage, hazardous substances and high voltage systems

P6.3 damage to your working environment

P6.4 injury to yourself and others

P7 ensure your assessment of the dismantled unit accurately identifies its condition and suitability for overhaul

P8 promptly inform the relevant person(s) where an overhaul is uneconomic or unsatisfactory to perform

P9 use **testing methods** which comply with the manufacturer's requirements

P10 correctly adjust the mechanical unit's components correctly to ensure that they operate to meet the light electric vehicle e-system operating requirements, when necessary

P11 ensure the overhauled units and assemblies conform to the light electric vehicle operating specification and any legal requirements

P12 ensure your overhaul records are accurate, complete and promptly passed to the relevant person(s) in the format required

P13 complete all **overhauling activities** within the agreed timescale

P14 promptly report any anticipated delays in completion to the relevant person(s)

IMICY15

Overhaul light electric vehicle e-system units and components



Knowledge and understanding

You need to know and understand: