Specification of Competency Standards
for the Automotive
Unit of Competency

Functional Area - Vehicle Servicing

Title	Remove and replace vehicle engine units and components
Code	111687L2
Range	This unit of competency is applicable in vehicle service workshops. Practitioners should be able to remove and replace vehicle engine units and components safely according to the instructions in the vehicle manufacturer's service manual and the relevant requirements on environmental protection, occupational safety and health regulations. They should also be able to conduct basic tests on components and provide a simple work report upon completion of work.
Level	2
Credit	3 *(For Reference Only)*

Competency	**Performance Requirements**
	1. Knowledge (Structure and basic operating principles of vehicle engine units and components)
	• Understand the structure and basic operating principles of vehicle engine units and components, including:
	  ○ Engine mechanical systems
	  ○ Cooling systems
	  ○ Intake and exhaust systems, including pressure charging and emission control units
	  ○ Fuel supply and metering systems
	  ○ Lubrication systems
	  ○ Electrical systems, including the ignition system (for spark-ignition engines only)
	• Understand the general checking and repairing procedures for the components with reference to the instructions in the respective vehicle manufacturer's service manual.
	• Understand the relevant legal requirements on road and vehicle safety and environmental protection.
	2. Performance (Remove and replace vehicle engine units and components)
	• According to the manufacturer's service manual and relevant legal requirements concerning occupational safety and health and environmental protection, safely remove and replace vehicle engine units and components, including:
	  ○ Identification of the general problems in vehicle engine units and components by visual inspection
	  ○ Functional test and assessment of the effectiveness of all components
	  ○ Elimination of typical system failures
	• Conduct performance and safety inspection after the work and provide a simple work report, focusing on:
	  ○ Abnormalities
	  ○ Measuring data
	  ○ Major decisions

Assessment Criteria	The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is:

	• Capable of removing and replacing vehicle engine units and components safely in accordance with the manufacturer service manual, relevant legal requirements and the relevant requirements on environmental protection, occupational safety and health regulations; and • Capable of conducting basic tests on components and providing a simple work report upon completion of work.
Remark	The credits value of this unit of competency is set on the presumption that the practitioner concerned has already possessed basic knowledge of vehicle mechanical servicing. The major legislation / code involved in this unit of competency is as follows: • Road Traffic (Construction and Maintenance of vehicles) Regulations • Factories and Industrial Undertakings (Lifting Appliances and Lifting gear) Regulations (This UoC replaced 108685L2)