Specification of Competency Standards
for the Automotive
Unit of Competency

Functional Area - Vehicle Servicing

Title	Check and repair various types of fuel supply systems
Code	111727L3
Range	This unit of competency is applicable in vehicle service workshops. Practitioners should be able to check and repair various types of fuel supply systems equipped on gasoline and diesel vehicles according to the instructions in the vehicle manufacturer's service manual and the relevant requirements on occupational safety and health, and environmental protection. They should also be able to conduct performance tests on the systems and provide a check report upon completion of work.
Level	3
Credit	3 *(For Reference Only)*
Competency	**Performance Requirements** 1. Knowledge (Structure and operating principles of various types of fuel supply systems equipped on gasoline and diesel vehicles) • Comprehend the nature, characteristics, handling and safety precautions of automotive fuels, such as gasoline, diesel and biodiesel. • Good understanding of the structure, operating and control principles of gasoline and diesel fuel supply systems and the associated components, including sensors and actuators. • Good understanding of the application of different fuel control and injection modes, the performance of fuel supply system and associated components, their effects on power output and emission control. • Comprehend the procedure of checking and repairing various types of fuel supply systems and associated system components. • Understanding of the relevant legal requirements on occupational safety and health, road and vehicle safety and environmental protection.

	2. Performance (Check and repair various types of fuel supply systems equipped on gasoline and diesel vehicles)
	• According to the instructions in the vehicle manufacturer's service manual, the Road Traffic Ordinances of Hong Kong and the relevant requirements on occupational safety and health, and environmental protection, safely check the proper operation of the fuel supply system, repair and replace the associated faulty system components, including:
	  ◦ Identify the general problems of various types of fuel supply systems by visual inspection and live tests.
	  ◦ Apply the appropriate special testing devices to identify the faulty functions of various fuel supply system types and associated components.
	  ◦ Rectify the faulty system components, including but not limited to, dismantlement, replacement, reassembly and testing of the fuel supply system components, such as pump, regulator, sensors and actuators, to eliminate typical system failure and restore performance.
	• Conduct performance and safety inspection after the work and provide a check report focusing on:
	  ◦ Abnormalities
	  ◦ Measured data
	  ◦ Major decisions

Assessment Criteria	The integrated outcome requirement of this unit of competency is that the practitioner being assessed shall prove that he/she is: • Capable of checking and repairing various types of fuel supply systems and associated components for gasoline and diesel vehicles, and applying special testing devices to conduct functional tests on the system components, including sensors and actuators, and the effectiveness of system controls, according to the instructions in the vehicle manufacturer's service manual and the relevant requirements on occupational safety and health, and environmental protection. • Capable of conducting the system performance test and safety inspection, and providing check report upon completion of work.
Remark	The credit value of this unit of competency is set on the presumption that the practitioner concerned has already possessed good knowledge of automotive technology, servicing skills and handling of various types of fuel. The major legislation/rules involved in this unit of competency are as follows: • Road Traffic (Construction and Maintenance of Vehicles) Regulations • Dangerous Goods Ordinance • Occupational Safety and Health Ordinance • (This UoC replaced 108648L2)