Specification of Competency Standards
for the Automotive
Unit of Competency

Functional Area - Vehicle Servicing

Title	Check and repair vehicle transmission and under-chassis systems
Code	111691L2
Range	This unit of competency is applicable in vehicle servicing workshops. Practitioners should be able to check and repair vehicle transmission and under-chassis systems 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 the systems/components upon completion of work and provide a work report.
Level	2
Credit	6 *(For Reference Only)*
Competency	**Performance Requirements** 1. Knowledge (Structure and basic operating principles of vehicle transmission and under-chassis systems) • Understand the function and application of service tools and equipment and the disposal procedures of vehicle waste such as used fluids, deteriorated parts, etc. • Understand the structure and basic operating principles of vehicle transmission and under-chassis systems and associated components (mechanical, electrical, hydraulic and pneumatic powered), such as: ◦ Steering systems, including wheel alignment ◦ Suspension systems ◦ Braking systems, including retardation units ◦ Transmission systems (including power take-off unit for commercial vehicles) • Understand the general checking and repairing procedures for the systems/components with reference to the instructions in the vehicle manufacturer's service manual and the requirements on occupational safety and health regulations. • Understand the relevant legal requirements on road and vehicle safety and environmental protection.

	2. Performance (Check and repair vehicle transmission and under-chassis systems)
	• Correctly choose and apply suitable service tools and equipment to perform systems checking and repairing procedures, and properly handle the wastes resulting from the processes.
	• According to the instructions in the vehicle manufacturer's service manual and the requirements of occupational safety and health as well as that of environmental protection, safely check and repair the transmission and under-chassis systems, including but not limited to:
	  ○ Identify the general problems in vehicle transmission and under-chassis systems by visual inspection, such as the:
	  ▪ steering system, including wheel alignment
	  ▪ suspension system
	  ▪ braking system including retardation units
	  ▪ transmission systems (including power take-off unit for commercial vehicles)
	  ○ Check and repair the failed items to eliminate the typical faulty function of transmission and under-chassis systems, including removal and replacement of components and functional tests of systems.
	• Conduct performance and safety inspections after the work and provide a work report focusing on:
	  ○ Abnormalities
	  ○ Measured 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 checking and repairing vehicle transmission and under-chassis systems safely according to the instructions in the vehicle manufacturer's service manual and the relevant requirements on environmental protection, occupational safety and health regulations; • Capable of identifying the serviceability of systems and adjusting the system setup to maintain due performance, including but not limited to wheel alignment, spring stiffness, braking efficiency and gear shift point; and • Capable of conducting performance and safety inspections on the systems/components upon completion of work, and providing work report.
Remark	The credit value of this unit of competency is set on the presumption that the practitioner concerned has already possessed basic knowledge of vehicle mechanical servicing and the use of service tools and equipment. The major legislation/code involved in this unit of competency is as follows: • Road Traffic (Construction and Maintenance of vehicles) Regulations (This UoC replaced 108649L2, 108650L2 and 108687L2)