

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Diagnose and rectify commercial vehicle engine and components faults
Code	108722L3
Range	This unit of competency is applicable in commercial Vehicle servicing workshops. Practitioners should be able masterly to conduct complicated fault diagnosis on commercial Vehicle engine and components and conduct or arrange rectification according to the instructions in the commercial Vehicle manufacturer's service manual and the relevant requirements on environment, occupational safety and health regulations. They should also be able to conduct functional tests and complete simple fault report upon completion of work and providing written report.
Level	3
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Structure and operating principles of commercial Vehicle engine and components)</p> <ul style="list-style-type: none"> • Master the structure and operating principles of commercial Vehicle engine and components. • Master the fault diagnosis process for commercial Vehicle engine and components with reference to the instructions in the commercial Vehicle manufacturer's service manual: <ul style="list-style-type: none"> ○ Faults occur within: <ul style="list-style-type: none"> ▪ Engine mechanical systems ▪ Engine electrical and electronic systems ▪ Engine hydraulic and fluid systems ○ Equipment used: <ul style="list-style-type: none"> ▪ Diagnostic and rectification equipment for various systems ▪ Special repair tools • Understand relevant legal requirements on road & safety and environment protection. <p>2. Performance (Conduct diagnosis and rectify commercial Vehicle engine and components faults)</p> <ul style="list-style-type: none"> • Accurately conduct complicated fault diagnosis on commercial Vehicle engine and components according to the instructions in the manufacturer's service manual and the requirements concerning occupational health and safety and that of environmental protection, including the use of special equipment and instruments to assist the diagnostic process. • According to the diagnostic result to process the rectification work. • Conduct functional tests. • Conduct performance and safety inspection after the work and provide written report, focusing: <ul style="list-style-type: none"> ○ Abnormalities ○ Measuring data ○ Major decisions
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are that the practitioner being assessed shall prove that he/she is:</p> <ul style="list-style-type: none"> • Capable of conducting complicated fault diagnosis on commercial vehicle engine and components according to the instructions in the manufacturer's service manual and the relevant requirements on environment, occupational safety and health regulations; and • Capable of conducting or arranging rectification according to diagnostic results;

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	<ul style="list-style-type: none">• Capable of conducting functional tests and completing simple fault report upon completion of work and providing working report.• Capable of assessing the emission or smoke according to the relevant legislation on emission control.
Remark	<p>The credits value of this unit of competency is set on the presumption that the practitioner concerned has already possessed the knowledge of operation of commercial Vehicle engine and components.</p> <p>The major legislations/code involved in this unit of competency are as follows:</p> <ul style="list-style-type: none">• Road Traffic (Construction and Maintenance of Vehicles) Regulations.