

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Diagnosis and rectify motorcycle engine and components faults
Code	108718L3
Range	This unit of competency is applicable in motorcycle servicing workshops. Practitioners should be able to conduct complicated fault diagnosis on motorcycle engine and components and conduct or arrange rectification according to the instructions in the motorcycle 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 motorcycle engine and components)</p> <ul style="list-style-type: none"> • Master the structure and operating principles of motorcycle engine and components. • Master the fault diagnosis process for motorcycle engine and components with reference to the instructions in the motorcycle 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 motorcycle engine and components faults)</p> <ul style="list-style-type: none"> • Accurately conduct complicated fault diagnosis on motorcycle engine and components according to the instructions in the manufacturer's service manual, including the use of special equipment and instruments to assist the diagnostic process, meeting requirements of occupational health and safety and that of environmental protection. • Accordingly process the rectification work. • Conduct functional tests. • Conduct performance and safety inspection after the work and provide written report, focusing on: <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 motorcycle 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; • Capable of conducting performance tests and completing working report upon completion of work. • Capable of conducting emission test within the limit of the emission regulations.

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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 motorcycle 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.
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