

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Check and repair various types of vehicle braking systems
Code	108649L2
Range	This unit of competency is applicable in vehicle servicing workshops. Practitioners should be able to check and repair the mechanical parts of various types of vehicle braking systems safely according to the instructions in the vehicle manufacturer's servicing manual. They should also be able to conduct basic tests on components upon completion of work and providing written report as well as calculate and assess the performance of various types of vehicle braking systems according to the relative provisions under the Road Traffic Ordinance of Hong Kong.
Level	2
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Structure and basic operating principles of various types of braking systems)</p> <ul style="list-style-type: none"> • Understand the structure and basic operating principles of various types of braking systems, such as: <ul style="list-style-type: none"> ○ Hydraulic Braking System ○ Compressed Air Braking System • Understand the general checking and repairing procedure for various types of vehicle braking systems according to the instructions in the vehicle manufacturer's servicing manual and the requirements of Road Traffic Ordinance of Hong Kong. • Understand the characteristics of brake oil. • Understanding of the relevant legal requirements on road and vehicle safety and environment protection. <p>2. Performance (Check and repair various types of vehicle braking systems)</p> <ul style="list-style-type: none"> • According to the instructions in the vehicle manufacturer's servicing manual and the requirements of occupational safety and health, safely check and repair various types of vehicle braking systems, including: <ul style="list-style-type: none"> ○ Capable of identifying the general problems in various types of vehicle braking systems by visual inspection ○ Maintain various types of vehicle braking systems, including cleaning the brake pad dust, adjusting drum brake pad and hand brake lever stroke etc. ○ Measure the wear and tear of brake pad, brake disc and brake drum; and assess component condition correctly according to the data contained in vehicle manufacturer's servicing manual ○ Check and repair various types of vehicle braking systems components, including dismantle, replace and re-assemble vehicle system components ○ Use pedals, negative pressure or pressurization methods to release the air stored in the hydraulic pipes in the course of repairing ○ Accurately check and rectify the air leakage in the compressed air systems ○ Eliminate typical system failure • Capable of calculating and assess if the testing data of vehicle hydraulic braking systems can meet the prescribed requirement according to the relevant provisions of the Road Traffic Ordinance. • Conduct performance and safety inspection after the work and provide written report focusing on: <ul style="list-style-type: none"> ○ Abnormalities ○ Measured data ○ Major decisions

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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 checking and repairing the various types of vehicle braking systems of general vehicles safely according to the instructions in the vehicle manufacturer's servicing manual;• Capable of conducting basic tests on components upon completion of work and providing written report;• Capable of calculating and assessing the performance of various types of vehicle braking systems according to the relevant provisions of the Road Traffic Ordinance.
Remark	<p>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 and know how to handle hydraulic oil.</p> <p>The major legislation/rule involved in this unit of competency is as follows:</p> <ul style="list-style-type: none">• Road Traffic (Construction and Maintenance of vehicles) Regulations