

Specification of Competency Standards
for the Automotive Industry
Unit of Competency

Functional Area - Vehicle Servicing

Title	Analyse the vehicle test result and evaluate the performance
Code	108746L6
Range	This unit of competency is applicable to the senior engineering staff of the vehicle servicing and inspection departments. Practitioners should be able to master the standards of various vehicle specifications and performance, analysing data, evaluating the performance of vehicle systems and suggesting optimisation to enhance vehicle performance.
Level	6
Credit	6 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Knowledge (Testing standards and vehicle specifications)</p> <ul style="list-style-type: none"> • Master the methods of handling testing data, such as the reliability assessment, data integration, quantification and presentation. • Fully Master the standard parameters of various vehicle specifications and performance tests (e.g. manufacturer standard, approved international standard and respective regulations). <p>2. Performance (Analyse results, evaluate performance and make optimisation suggestions)</p> <ul style="list-style-type: none"> • Integrate, quantify and ascertain the reliability of data obtained from various testing items, and analyse the causes for discrepancies according to standard parameters. • Evaluate the performance and make optimisation suggestions, such as: <ul style="list-style-type: none"> ○ The effect of chassis stability control affected by the braking, suspension, steering and traction control systems ○ The anti-roll ability affected by factors of systems layout and vehicle body ○ The accuracy of illumination and aim alignment ○ The impact of the performance of the engine and its sub systems on power output and fuel consumption ○ The impact of the performance of emission control and after-treatment systems as well as the engine and its sub systems on the emission of pollutants concentration ○ The suppression effect of working noise ○ The smoothness and accuracy of automatic shift • Review the effectiveness of respective analysis and evaluation, and able to make adjustments or improvements.
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 mastering the techniques of testing data handling and analysing, comparing the data with the standard parameters to ascertain the performance of the testing items, and analysing the causes of discrepancies; and • Capable of effectively evaluating the performance of vehicle systems and suggesting optimisation to enhance vehicle performance.
Remark	The credit value of this competency unit assumes that the practitioner has possessed a certain understanding of the structure of the car, the working principle and testing of each system.