

**Field      Engineering and Technology****Review of *Motor Industry* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>ID</b>
Motor Industry	Automotive Administration	5777, 29582
	Automotive Electrical and Electronics	16114, 24090, 24091, 24119-24123, 24141, 24142,
	Automotive Fuel Systems and Exhaust	15384, 24237
	Automotive Transmission Systems	922, 24337
	Engines	893
	Vehicle Bodywork	5775
	Vehicle Braking Systems	960, 23818

MITO New Zealand Incorporated (MITO) has completed the review of the unit standards listed above.

**Date new versions published**

**February 2018**

**Planned review date**

**December 2022**

**Summary**

As a result of the Targeted Review of Qualifications process, MITO has reviewed the unit standards listed above, and developed new unit standards to reflect the graduate profile outcomes in the New Zealand Certificate qualifications and to meet MITO's ongoing unit standard review schedule.

The development of these unit standards has resulted in fit-for-purpose assessment content being made available to industry that reflects current industry practice.

MITO's automotive industry working group endorsed the development of the unit standards. Representation in the working group included subject matter experts, industry representatives, provider representatives and MITO representatives. The unit standards were circulated in the working group's greater networks and all feedback was actioned where appropriate.

**Main changes**

- 17 unit standards were reviewed and replaced with 14 new unit standards.
- Two standards were expired.
- Content of standard 29582 was updated to remain fit for purpose.
- Six new unit standards were developed to align with the graduate profile outcomes of the new qualifications.

**Category C and D unit standards will expire at the end of December 2020**

**The last date for assessment of superseded versions of the Category B unit standard is December 2020**

### Impact on existing organisations with consent to assess

Current consent for			Consent extended to		
Nature of consent	Classification or ID	Level	Nature of consent	Classification or ID	Level
Subfield	Motor Industry	3	Standards	31051, 31056, 31062, 31063	4
Domain	Automotive Electrical and Electronics	3	Standards	31056, 31062	4
Domain	Automotive Transmission Systems	3	Standard	31051	4
Domain	Vehicle Braking Systems	3	Standard	31063	4
Standard	893	4	Standard	31049	4
Standard	922	3	Standard	31051	4
Standard	960	4	Standard	31054	4
Standard	23818	3	Standard	31063	4
Standard	24090	3	Standard	31056	4
Standard	24091	4	Standard	31048	4
Standard	24119	4	Standard	31066	4
Standard	24120	4	Standard	31053	4
Standards	24121, 24122, 24123	4	Standard	31062	4

### Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and the same version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

### Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit	Review Category
5777	Demonstrate knowledge of estimate and quotation procedures in the motor and related industries	5	6	C
<b>31065</b>	<b>Demonstrate knowledge of estimates and quotations in the automotive industry</b>	<b>4</b>	<b>3</b>	
29582	Demonstrate knowledge of customer service requirements and business responsibilities in the automotive industry	3	2 <b>4</b>	B

## Engineering and Technology &gt; Motor Industry &gt; Automotive Electrical and Electronics

ID	Title	Level	Credit	Review Category
16114	Demonstrate knowledge of vehicle security systems and their installation	3	4	C
24121	Demonstrate knowledge of vehicle body electronic control safety systems, and testing and rectifying faults	4	3	C
24122	Demonstrate knowledge of vehicle body electronic control security systems, and testing and rectifying faults	4	3	C
24123	Demonstrate knowledge of vehicle comfort and entertainment electronic control systems, and testing and rectifying faults	4	3	C
<b>31062</b>	<b>Demonstrate knowledge of automotive body electrical and electronic systems</b>	<b>4</b>	<b>6</b>	
24090	Demonstrate knowledge of diagnosing faults in engine management systems	3	1	C
<b>31056</b>	<b>Demonstrate knowledge of engine management system fault diagnosis</b>	<b>4</b>	<b>4</b>	
24091	Inspect, diagnose, and rectify faults in engine management systems	4	6	C
<b>31048</b>	<b>Diagnose and repair engine management system faults</b>	<b>4</b>	<b>10</b>	
24119	Demonstrate knowledge of vehicle steering and suspension electronic control systems, and testing and rectifying faults	4	3	C
<b>31066</b>	<b>Demonstrate knowledge of electronically controlled steering and suspension systems, and system fault diagnosis</b>	<b>4</b>	<b>6</b>	
24120	Test for and rectify faults in vehicle mechanical and body electronic control systems	4	10	C
<b>31053</b>	<b>Diagnose and repair automotive body electrical and electronic system faults</b>	<b>4</b>	<b>5</b>	
24141	Demonstrate knowledge of vehicle ABS, TCS, and ESC, and testing for faults in these systems	4	3	C
<b>31064</b>	<b>Describe the operation of vehicle electronic braking systems</b>	<b>4</b>	<b>4</b>	
24142	Test and rectify faults in vehicle ABS, TCS, or ESC electronic control systems	5	6	C
<b>31055</b>	<b>Diagnose and repair vehicle electronic braking system faults</b>	<b>4</b>	<b>8</b>	
<b>31047</b>	<b>Diagnose and repair electronically controlled steering and suspension system faults</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>31052</b>	<b>Diagnose and repair a Supplemental Restraint System fault</b>	<b>4</b>	<b>4</b>	<b>New</b>
<b>31061</b>	<b>Demonstrate knowledge of diagnosing faults in Supplemental Restraint Systems</b>	<b>3</b>	<b>3</b>	<b>New</b>

## Engineering and Technology &gt; Motor Industry &gt; Automotive Fuel Systems and Exhaust

ID	Title	Level	Credit	Review Category
15384	Demonstrate knowledge of electronic diesel management	4	4	C
<b>31058</b>	<b>Demonstrate knowledge of a diesel engine management system</b>	<b>4</b>	<b>2</b>	
24237	Demonstrate knowledge of the operation and testing of vehicle diesel emission controls	3	4	D
<b>31057</b>	<b>Demonstrate knowledge of diagnosing automotive emission control system faults</b>	<b>3</b>	<b>4</b>	<b>New</b>

## Engineering and Technology &gt; Motor Industry &gt; Automotive Transmission Systems

ID	Title	Level	Credit	Review Category
922	Check and rectify faults in manual single plate clutches used on light vehicles	3	2	C
<b>31051</b>	<b>Replace an automotive clutch assembly</b>	<b>4</b>	<b>8</b>	
24337	Demonstrate knowledge of automated manual transmissions (AMTs) and AMT shift control operation	3	1	C
<b>31059</b>	<b>Demonstrate knowledge of electronically controlled manual transmissions</b>	<b>3</b>	<b>4</b>	
<b>31050</b>	<b>Diagnose and repair automotive driveline system faults</b>	<b>4</b>	<b>10</b>	<b>New</b>
<b>31060</b>	<b>Demonstrate knowledge of diagnosing faults in automotive driveline systems</b>	<b>3</b>	<b>2</b>	<b>New</b>

## Engineering and Technology &gt; Motor Industry

ID	Domain	Title	Level	Credit	Review Category
893	Engines	Diagnose and rectify vehicle emission control system faults	4	3	C
<b>31049</b>	<b>Automotive Electrical and Electronics</b>	<b>Diagnose and repair automotive emission control system faults</b>	<b>4</b>	<b>10</b>	

## Engineering and Technology &gt; Motor Industry &gt; Vehicle Bodywork

ID	Title	Level	Credit	Review Category
5775	Remove and replace motor vehicle supplementary restraint systems	4	6	D

## Engineering and Technology &gt; Motor Industry &gt; Vehicle Braking Systems

ID	Title	Level	Credit	Review Category
960	Diagnose and rectify brake system faults on light vehicles	4	4	C
<b>31054</b>	<b>Diagnose and repair hydraulic braking system faults</b>	<b>4</b>	<b>4</b>	

ID	Title	Level	Credit	Review Category
23818	Demonstrate knowledge of braking system fault diagnosis and repair requirements for light vehicles	3	3	C
<b>31063</b>	<b>Demonstrate knowledge of hydraulic brake system fault diagnosis</b>	<b>4</b>	<b>2</b>	