

Main changes resulting from the review

The extent and nature of changes made include:

- Standards 225-228, 230, 232, 236-238, 241, 245, 392, 933, 3861-3865, 3867, 3868, 3870, 3872, 3875, 3879, 3880-3886, 3888, 5739, 5754, 11738, 16097-16100, and 16111 replaced by new standards and in most cases, also reclassified
- Standard 3864 reclassified and increased in level from 1 to 2
- Standard 11738 reclassified and increased in level from 2 to 3
- Standards 3873 and 3887 expired and will not be replaced
- Change of credits to some standards
- Change to range statements
- Domain change for standard 3856
- Change in title to some standards
- Entry information changed on some standards.

Unit standards categorised as category C and D expire at the end of December 2010.

Impact on existing provider accreditations

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Subfield	Motor Industry	1	Standard	21696, 21711, 21719, 21722	2
		2	Standard	21678, 21708	3
Domain	Automotive Administration	2	Standard	21708	3
Domain	Automotive Fuel Systems and Exhaust	2	Standard	21678	3
Domain	Automotive Preventative Maintenance	2+	Standard	21720, 21721	2
Domain	Tyres	2+	Standard	21869	1
Domain	Vehicle Bodywork	2+	Standard	21869	1
		2+	Standard	3856, 21669, 21682, 21683, 21684, 21685, 21673, 21700, 21714, 21715, 21718, 21722, 21858, 21859,	2
		2+	Standard	21708	3
Standard	225	1	Standard	21857	1
Standard	226	2	Standard	21858	2
Standard	227	2	Standard	21670, 21671	2
Standard	228	2	Standard	21669, 21859	2
Standard	230	2	Standard	21682, 21685	2
Standard	232	2	Standard	21676, 21707	2
Standard	236	2	Standard	21686, 21717	2
Standard	237	2	Standard	21720, 21721	2
Standard	238	2	Standard	21722	2
				21869	1
Standard	241	2	Standard	21677, 21692	2
Standard	245	2	Standard	21680, 21716	2

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Standard	392	2	Standard	21673	2
				21708	3
Standard	933	3	Standard	21678	3
Standard	3861	2	Standard	21698, 21701	2
Standard	3862	2	Standard	21704, 21709	2
Standard	3863	1	Standard	21722	2
				21869	1
Standard	3864	1	Standard	21719	2
Standard	3865	2	Standard	21705, 21710	2
Standard	3867	2	Standard	21699, 21702	2
Standard	3868	2	Standard	21694, 21703	2
Standard	3870	2	Standard	21699, 21702	2
Standard	3875	2	Standard	21695, 21697	2
Standard	3879	2	Standard	21670, 21671	2
Standard	3880	2	Standard	21669, 21859	2
Standard	3883	2	Standard	21714, 21715	2
Standard	3884	2	Standard	21683, 21684	2
Standard	3885	2	Standard	21682, 21685	2
Standard	3886	2	Standard	21698, 21701	2
Standard	3888	1	Standard	21857	1
Standard	5739	2	Standard	21673	2
				21708	3
Standard	5754	3	Standard	21678	3
Standard	11738	2	Standard	21678	3
Standard	16097	2	Standard	21700, 21718	2
Standard	16098	2	Standard	21858	2
Standard	16099	2	Standard	21693, 21713	2
Standard	16100	2	Standard	21695, 21697	2
Standard	16111	2	Standard	21694, 21703	2

Impact on existing qualifications

Qualifications that contain the reviewed standards or classifications are tabled below.

Affected	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
Not materially affected	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

In the following tables qualifications that contain unit standards and classifications in both categories are identified in the *Affected* table, with the items that generated the *Affected* status in **bold**.

The following MITO qualifications are affected by the outcome of this review and will be updated as part of the present QReview conducted by NZ Motor Industry Training Organisation (MITO).

Qualification title	Standard in the qualification
National Certificate in Motor Industry (Automotive Air Conditioning) [Ref: 0002]	392

Qualification title	Standard in the qualification
National Certificate in Motor Industry (Automotive Heavy Engineering) with strands in Agricultural Equipment, Plant and Equipment, and Road Transport [Ref: 0003]	225, 227, 228, 230, 232, 235-238, 241, 243, 245, 248
National Certificate in Motor Industry (Motorcycle Engineering) [Ref: 0015]	225-230, 232, 235-237, 243, 244, 245, 248, 392, 933
National Certificate in Motor Industry (Entry to Automotive Trades) [Ref: 0017]	225, 227-230, 232, 235-238, 241, 243, 244, 245, 247, 248
National Certificate in Motor Industry (Entry to Motor Body Trades) [Ref: 0018]	248, 3856, 3861-3865 3867, 3868, 3870, 3872, 3873, 3875, 3879-3888, 16097, 16099, 16100, 16111
National Certificate in Motor Industry (Automotive Engineering) [Ref: 0019]	227-229, 232, 235-237, 241, 243, 244, 11738
National Certificate in Motor Industry (Motor Trimming) [Ref: 0024]	3856, 3884, 5739, 16097
National Certificate in Motor Industry (Vehicle Sales) [Ref: 0025]	225, 229, 247
National Certificate in Motor Industry (Service Station Sales) [Ref: 0026]	225, 229, 238, 245, 247, 392
National Certificate in Motor Industry (Brake Service Engineering) [Ref: 0096]	225-230, 232, 237, 245, 248, 392
National Certificate in Motor Industry (Automotive Parts and Accessories Merchandising) [Ref: 0099]	225, 229
National Certificate in Motor Industry (Automotive Electrical Engineering) [Ref: 0137]	227-230, 232, 235-237, 241, 243, 245, 247, 392
National Certificate in Motor Industry (Automotive Servicing) [Ref: 0138]	225, 228-230, 236-238, 241, 243, 245, 247, 11738
National Certificate in Motor Industry (Diesel Fuel Injection Engineering) [Ref: 0139]	225, 227-230, 232, 241, 244, 245, 248, 392
National Certificate in Motor Industry (Automotive Dismantling and Recycling) [Ref: 0170]	225, 226, 228-230, 232, 237, 245, 392, 16097
National Certificate in Motor Industry (Automotive Refinishing) [Ref: 0178]	3856, 3861, 3863-3865, 3867, 3868, 3882, 3886, 5739, 16097, 16099
National Certificate in Motor Industry (Panelbeating) [Ref: 0179]	3856, 3861-3865, 3867, 3870, 3875, 3879, 3883, 3885-3887, 5739, 5754, 16099, 16100
National Certificate in Motor Industry (Automotive Radiator Repair) [Ref: 0188]	226, 230, 3856, 5739, 16097
National Certificate in Motor Industry (Vehicle Grooming) [Ref: 0213]	226, 228, 229, 392
National Certificate in Motor Industry (Automotive Steering, Suspension, and Alignment) with an optional strand in Heavy Commercial Vehicles [Ref: 0246]	5739
National Certificate in Motor Industry (Automotive Machining) [Ref: 0371]	225-228, 230, 235, 236, 241, 243, 244, 245, 248, 392
National Certificate in Motor Industry (Exhaust Servicing) [Ref: 0372]	226-230, 241, 392, 933, 11738
National Certificate in Motor Industry (Tyre Servicing) with optional strands in Light and Heavy Commercial Vehicle Tyres, Agricultural Equipment Tyres, Off-The-Road Equipment Tyres, Industrial Tyres, and Steering and Suspension [Ref: 0373]	226, 228, 237, 238, 392
National Certificate in Motor Industry (Coachbuilding) with strands in Passenger Service Vehicles, Commercial Vehicles, and Motor Homes and Caravans [Ref: 0413]	232, 248, 3856, 3861-3863 3865, 3870, 3879, 3883, 3885, 3888, 5739, 16097, 16099
National Certificate in Motor Industry (Automotive Service Reception) [Ref: 0676]	15408

Qualification title	Standard in the qualification
National Certificate in Motor Industry (Outdoor Power Equipment Servicing) [Ref: 0697]	225-230, 232, 235, 243, 244, 245, 248
National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 3) [Ref: 0698]	227, 228, 230, 232, 235, 241, 244, 392

The following MITO qualification is not materially affected by the changes. It will be updated as part of the present QReview conducted by NZ Motor Industry Training Organisation (MITO).

Qualification title	Standard in the qualification
National Certificate in Canvas Fabrication [Ref: 0079]	3856

The following qualifications are also affected by the outcome of this review. The standard setting bodies (SSBs) have been advised that they require revision.

Qualification title	Classification or standard in the qualification	SSB Name
National Certificate in Boatbuilding with strands in Marine Cabinetmaking, Composite Sparmaking, Alloy Boatbuilding, Marine Rigging, Marine Painting, Composite Boatbuilding, Steel Boatbuilding, Wooden Boatbuilding, Marine Systems Engineering, and Metal Sparmaking [Ref: 0877]	241	Boating Industry Training Organisation
National Certificate in Snowsport (Level 2) with strands in Surface Lift Operation, Aerial Lift Operation, Road and Carpark Services, and Maintenance [Ref: 0439]	226, 228, 229, 247	Sport, Fitness and Recreation Industry Training Organisation

The following qualification is not materially affected by the changes and the SSB has been advised that it requires revision.

Qualification title	Classification or standard in the qualification	SSB Name
National Certificate in Snowsport (Level 2) with strands in Snowgrooming and Snowmaking [Ref: 0848]	247	Sport, Fitness and Recreation Industry Training Organisation

Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

Key to review category

- A** Dates changed, but no other changes are made - the replacement standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same - the replacement standard carries the same Id and a new version number
- C** Major changes that necessitate the registration of a replacement standard with a new Id
- D** Standard will expire and not be replaced

Subfield Motor Industry

Id	Domain	Title	Level	Credit	Review Category
226 and 16098 21858	Automotive Workshop Engineering Vehicle Bodywork Automotive Workshop Engineering	Perform safe working practices in an automotive workshop Perform safe work practices in the motor industry Demonstrate good work habits and perform safe work practices in the motor and related industries	2 2 2	2 4 4	C C
228 and 3880 21669 and 21859	Automotive Workshop Engineering Vehicle Bodywork Automotive Workshop Engineering Automotive Workshop Engineering	Select and use hand tools and workshop equipment for an automotive application Demonstrate knowledge of and maintain equipment used in a motor body shop Demonstrate knowledge of hand tools and workshop equipment for motor industry applications Select and use hand tools and workshop equipment for an automotive application	2 2 2 2	5 3 2 2	C C
230 and 3885 21682 and 21685	Automotive Workshop Engineering Vehicle Bodywork Automotive Workshop Engineering Automotive Workshop Engineering	Repair and manufacture automotive components by oxy-acetylene gas welding Demonstrate knowledge of and use an oxy-acetylene welding plant in the motor body industry Demonstrate knowledge of an oxy-acetylene welding plant in the motor industry Use an oxy-acetylene welding plant in the motor industry	2 2 2 2	3 4 2 3	C C
237 21720 and 21721	Automotive Preventative Maintenance Vehicle Braking Systems Vehicle Steering and Suspension	Describe automotive brake, steering, and suspension systems, and their operation Demonstrate knowledge of vehicle braking systems Demonstrate knowledge of vehicle steering and suspension systems	2 2 2	3 2 2	C

Id	Domain	Title	Level	Credit	Review Category
238 and 3863 21722 and 21869	Tyres Vehicle Bodywork Tyres Automotive Preventative Maintenance	Remove and replace wheels and tyres, and balance wheels Remove and replace road wheels in the motor industry Balance wheels off a vehicle in the motor industry Remove and replace road wheels in the motor industry	2 1 2 1	2 1 2 1	C C
392 and 5739 21673 and 21708	Automotive Administration Vehicle Bodywork Automotive Administration Automotive Administration	Maintain automotive stock and plant security Maintain security in the workplace in the motor and related industries Demonstrate knowledge of maintaining stock security in the motor and related industries Maintain stock security in the workplace in the motor and related industries	2 2 2 3	2 2 2 2	C C
3856	Vehicle Bodywork Automotive Administration	Identify emergency procedures in the motor and related industries	2	2	B
3883 21714 and 21715	Vehicle Bodywork Automotive Workshop Engineering Automotive Workshop Engineering	Identify and use fastening systems in the motor industry Demonstrate knowledge of fastening systems used in the motor industry Select and use fastening systems in the motor industry	2 2 2	4 2 2	C
3884 21683 and 21684	Vehicle Bodywork Automotive Workshop Engineering Automotive Workshop Engineering	Demonstrate knowledge of and use a MIG welding plant in the motor body industry Demonstrate knowledge of MIG welding in the motor industry Use a MIG welding plant in the motor industry	2 2 2	4 2 3	C

Id	Domain	Title	Level	Credit	Review Category
16097	Vehicle Bodywork	Identify, store and use hazardous materials in the motor and related industries	2	3	C
21700	Automotive Workshop Engineering	Store and use hazardous materials in the motor and related industries	2	2	
and 21718	Automotive Workshop Engineering	Demonstrate knowledge of hazardous materials used in the motor and related industries	2	2	
933	Automotive Fuel Systems and Exhaust	Diagnose and rectify exhaust system faults	3	2	C
and 5754	Panelbeating	Remove, replace, and repair a vehicle exhaust system	3	2	C
and 11738	Automotive Fuel Systems and Exhaust	Replace exhaust system components	2	3	C
21678	Automotive Fuel Systems and Exhaust	Remove, repair, and/or replace a vehicle and/or machine exhaust system	3	2	

Subfield Motor Industry
Domain Automotive Administration

Id	Title	Level	Credit	Review Category
225	Identify the occupational areas and structure of the New Zealand Automotive Industry	1	2	C
and 3888	Identify the occupational areas and structures associated with the NZ motor body industry	1	1	C
21857	Identify the occupational areas and structure of the New Zealand Motor Industry	1	2	
248	Describe an apprenticeship employment contract for the automotive industry Describe an apprenticeship employment agreement for the automotive and related industries	2	1	B
249	Carry out automotive industry personal workplace requirements	2	5	B
21672	Demonstrate knowledge of new and emerging technology in the motor industry	2	5	New
21674	Demonstrate knowledge of terminology used in the motor industry	2	2	New
21681	Demonstrate knowledge of taking care of stock in the motor and related industries	2	2	New

Domain Automotive Electrical and Electronics

Id	Title	Level	Credit	Review Category
232	Test an automotive electrical circuit	2	8	C
21676	Select test equipment and test an automotive electrical circuit	2	4	
and 21707	Demonstrate knowledge of automotive electrical principles	2	6	
233	Service an automotive battery	2	2	B
234	Describe automotive starting and charging systems and their operation	2	4	B
235	Describe automotive ignition systems and their operation	2	3 4	B
3864	Identify, remove and replace motor vehicle lamps in the motor industry	1	1	C
21719	Remove and replace motor vehicle lamps in the motor industry	2	1	
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2	B
21667	Demonstrate knowledge of testing automotive electrical circuits	2	3	New
21675	Demonstrate knowledge of automotive batteries	2	2	New

Domain Automotive Fuel Systems and Exhaust

Id	Title	Level	Credit	Review Category
240	Demonstrate knowledge of petrol fuel systems	2	3	B
241	Describe the operation of a diesel fuel system and perform minor servicing tasks	2	3	C
21677	Demonstrate knowledge of a diesel fuel system	2	2	
and 21692	Perform minor servicing tasks on a diesel fuel system	2	2	

Domain Automotive Preventative Maintenance

Id	Title	Level	Credit	Review Category
229	Identify the functions and general locations of motor vehicle systems and components	2	5	B
	Identify the general locations and functions of motor vehicle systems and main components		4	
245	Select and apply lubricants and sealants for automotive and related industry applications	2	2	C
21680	Demonstrate knowledge of automotive lubricants and sealants	2	2	
and 21716	Select and apply lubricants and sealants for automotive and related industry applications	2	1	
247	Prepare a vehicle and/or machine for use and shut-down after use	2	2	B
	Prepare a vehicle and/or machine for use and shutdown after use			

Id	Title	Level	Credit	Review Category
15408	Describe motor vehicle safe motoring requirements and general locations of systems and components	1	3 4	B
21679	Demonstrate knowledge of interchanging and balancing road wheels in the motor industry	2	2	New
21690	Perform general servicing checks on a motor vehicle	2	3	New

Domain Automotive Transmission Systems

Id	Title	Level	Credit	Review Category
239	Demonstrate knowledge of automotive manual transmissions	2	2	B

Domain Automotive Workshop Engineering

Id	Title	Level	Credit	Review Category
227 and 3879	Carry out general engineering tasks to repair and make automotive components	2	4	C
21670 and 21671	Demonstrate knowledge of general engineering tasks in the motor industry	2	3	C
	Carry out general engineering tasks in the motor industry	2	4	
924	Clean automotive components and maintain cleaning equipment	2	1	B
16113	Demonstrate knowledge of safe working practices in an automotive workshop	2	2	B
21668	Demonstrate knowledge of cleaning automotive components	2	2	New

Domain Engine Repairs

Id	Title	Level	Credit	Review Category
231	Explain the operation of two and four stroke petrol and diesel engines	2	4	B
236 21686 and 21717	Service automotive cooling systems	2	4	C
	Demonstrate knowledge of automotive cooling systems	2	2	
	Service automotive cooling systems	2	3	
243	Carry out basic tuning on a four stroke petrol engine	2	4	B
	Carry out basic tuning on a four stroke petrol engine under supervision			
244	Disassemble and assemble a four stroke engine	2	6	B
	Disassemble and reassemble a four cylinder four stroke engine to a running state			
3887	Identify, remove, and replace exterior engine components in the motor body industry	2	2	D

Id	Title	Level	Credit	Review Category
21687	Demonstrate knowledge of basic tuning on a four stroke petrol engine	2	3	New
21688	Demonstrate knowledge of disassembling and reassembling a four stroke multi-cylinder engine	2	3	New
21691	Disassemble and reassemble a single cylinder or multi-cylinder four stroke engine under supervision	1	2	New

Domain Vehicle Bodywork

Id	Title	Level	Credit	Review Category
399	Detail and groom a vehicle	2	4	B
3861 and 3886	Remove and replace exterior motor body parts and fit body protection mouldings in the motor industry Remove and replace motor vehicle interior trim in the motor body industry	2 2	3 3	C C
21698 and 21701	Remove and replace exterior and interior motor body parts and trim in the motor industry Demonstrate knowledge of exterior and interior motor body parts and trim in the motor industry	2 2	3 2	
3862	Remove and replace damaged bolted on motor body panels in the motor body industry	2	3	C
21704 and 21709	Demonstrate knowledge of removing and replacing damaged bolted-on motor body panels Remove and replace damaged bolted-on motor body panels in the motor body industry	2 2	2 2	
3865	Fill and sand a repair in the motor body industry	2	2	C
21705 and 21710	Demonstrate knowledge of fillers, and filling and sanding a repair in the motor body industry Fill and sand a repair in the motor body industry	2 2	2 1	
3867 and 3870	Prepare a painted surface and feather edge paint damage in the motor body industry Prepare bare metal for painting in the motor body industry	2 2	3 2	C C
21699 and 21702	Prepare a painted surface and prepare bare metal for painting in the motor body industry Demonstrate knowledge of preparing a vehicle body surface for painting, and preparing bare metal	2 2	3 2	
3868 and 16111	Mask a repair for priming in the motor body industry Prime, fill and sand a repair in the motor body industry	2 2	2 3	C C
21694 and 21703	Mask a repair for priming; and prime, fill, and sand a repair in the motor body industry Demonstrate knowledge of masking, and primers and primer fillers in the motor body industry	2 2	3 2	

Id	Title	Level	Credit	Review Category
3872 and 3882	Apply finish coats of paint to a complete panel in the motor body industry Demonstrate knowledge of colours, paints, and finishing coats used in the motor body industry	2 1	2 2	C C
21696 and 21711	Apply finish coats of paint to a complete panel in the motor body industry Demonstrate knowledge of colours and finish coats in the motor body industry	2 2	2 2	
3873	Flat off and cut and polish an acrylic lacquer painted surface in the motor body industry	2	2	D
3875 and 16100	Shrink a panel repair in the motor body industry Repair minor non-stretched panel damage and metal finish the repair in the motor body industry	2 2	2 4	C C
21695 and 21697	Repair minor panel damage, shrink, and metal finish a repair in the motor body industry Demonstrate knowledge of repairing minor panel damage and shrinking a repair in the motor industry	2 2	3 2	
3881	Identify spray guns and use and maintain a suction feed spray gun in the motor body industry	2	2	C
21706 and 21712	Use and maintain a suction feed spray gun in the motor body industry Demonstrate knowledge of spray guns used in the motor body industry	2 2	2 2	
16099	Use and maintain power tools and equipment in the motor body industry	2	4	C
21693 and 21713	Demonstrate knowledge of power tools and equipment used in the motor body industry Use and maintain power tools and equipment in the motor body industry	2 2	2 3	

Domain Vehicle Braking Systems

Id	Title	Level	Credit	Review Category
21689	Demonstrate knowledge of hydraulic brake fluid, fluid replacement, and brake bleeding procedures	2	2	New