

FIELD ENGINEERING AND TECHNOLOGY**Review of *Motor Industry* unit standards**

Subfield	Domain	Id
Motor Industry	Automotive Auxiliary Fittings and Systems	2344
	Automotive Preventative Maintenance	381, 942, 944, 964, 2322, 15406, 15407, 15409
	Automotive Workshop Engineering	913, 949, 950, 2310, 2328, 3381, 3395, 5432, 11722, 11724, 11737, 15425-15433, 19640, 19641

The NZ Motor Industry Training Organisation (Inc) (MITO) has completed the review of the unit standards listed above.

Date new versions published

March 2008

Planned review date

December 2012

Summary of review and consultation process

This review is part of a major review of the Motor Industry and Outdoor Fabric Product qualifications (QReview) being conducted by MITO. The QReview Steering Group endorsed these standards after major consultation was carried out covering a wide range of stakeholders through focus group meetings and followed by industry wide consultation. These standards will form part of the new qualifications for Vehicle Servicing, Automotive Electrical and Mechanical, Automotive Heavy Engineering, Automotive Specialist Engineering, and Automotive Body.

Main changes resulting from the review

- Credits increased from 2 to 4 in standard 2322, from 4 to 15 in standard 11722, and from 4 to 10 in standard 11724; and decreased from 4 to 3 in standard 944; to more accurately reflect the learning requirements.
- Standards 950, 964, 5432, and 15409 were replaced by new standards that separated theory knowledge from practical outcomes.
- Standards 2310 and 3395 were collectively replaced by 24374 and 24375 to separate theory knowledge from practical outcomes and to remove overlaps.
- Standards 15426 and 15431 were replaced by one standard, 24390, to remove the duplication of skills between the existing standards.
- The Automotive Preventative Maintenance domain was lapsed and the standards were reclassified in the Automotive Preventive Maintenance domain.
- The Automotive Auxiliary Fittings and Systems domain was lapsed and the standard was reclassified in the Automotive Workshop Engineering domain.
- Changes were made throughout the standards to titles, special notes, elements, performance criteria and range statements to update terminology, and reflect changes in technology and legislative requirements.
- Standards 913, 15407, 15428, 19640, and 19641 were designated category D and will not be replaced as they no longer meet industry needs.
- Twelve new standards, 24338-24346, and 24393, were developed to reflect new technology and fill gaps in the existing framework of standards.

Unit standards categorised as category C or D expire at the end of December 2011.

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
Domain	Automotive Preventative Maintenance	Any	Domain	Automotive Preventive Maintenance	Same
Standard	950	3	Standards	24372, 24373	3

Impact on Accreditation and Moderation Action Plan (AMAP)

AMAP 0014 was updated to reflect the changes made to the standards.

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

The following MITO qualifications are impacted by the outcome of this review, with the items that generated the affected status in **bold**. These qualifications will be updated as part of the current QReview.

Qualification title	Classification or standard in the qualification
National Certificate in Motor Industry (Automotive Air Conditioning) [Ref: 0002]	913, 964
National Certificate in Motor Industry (Automotive Electrical Engineering) [Ref: 0137]	15433
National Certificate in Motor Industry (Automotive Engineering) [Ref: 0019]	15406
National Certificate in Motor Industry (Automotive Heavy Engineering) with strands in Agricultural Equipment, Plant and Equipment, and Road Transport [Ref: 0003]	913, 950, 964, 2310, 2322, 2344, 15407
National Certificate in Motor Industry (Automotive Machining) [Ref: 0371]	913, 950, 11722, 11724
National Certificate in Motor Industry (Automotive Servicing) [Ref: 0138]	942, 15406
National Certificate in Motor Industry (Automotive Steering, Suspension, and Alignment) with an optional strand in Heavy Commercial Vehicles [Ref: 0246]	913
National Certificate in Motor Industry (Brake Service Engineering) [Ref: 0096]	913
National Certificate in Motor Industry (Diesel Fuel Injection Engineering) [Ref: 0139]	913
National Certificate in Motor Industry (Exhaust Servicing) [Ref: 0372]	913, 11737

Qualification title	Classification or standard in the qualification
National Certificate in Motor Industry (Motorcycle Engineering) [Ref: 0015]	913, 944, 950 , 3381
National Certificate in Motor Industry (Outdoor Power Equipment Servicing) [Ref: 0697]	949, 2328, 15425, 15426, 15431
National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 3) [Ref: 0698]	950, 15409

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

Qualification title	Classification or standard in the qualification	SSB Name
National Certificate in Civil Infrastructure (General Introductory Skills) [Ref: 1125]	Automotive Preventative Maintenance	InfraTrain New Zealand
National Certificate in Snowsport with strands in Aerial Lift Operation, Road and Carpark Services, and Surface Lift Operation [Ref: 0439]	2322	Sport, Fitness and Recreation Industry Training Organisation Limited
National Certificate in Snowsport with strands in Snowgrooming, and Snowmaking [Ref: 0848]	2322	

Review Categories and changes to classification, title, level and credits

All changes are in **bold**.

Key to review category

- A** Dates changed, but no other changes are made - the new version of the standard carries the same Id and a new version number
- 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
- 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
Domain Automotive Auxiliary Fittings and Systems
Domain **Automotive Workshop Engineering**

Id	Title	Level	Credit	Review Category
2344	Repair winches and pulley block assemblies on heavy machinery and equipment Diagnose and repair winches and pulley block assemblies on heavy machinery or equipment	4	2	B

Domain Automotive Preventative Maintenance
Domain **Automotive Preventive Maintenance**

Id	Title	Level	Credit	Review Category
381	Store a vehicle Store a vehicle or machine	3	3	B
942	Carry out a pre-delivery check and rectify defects on cars or light commercial vehicles Carry out a pre-delivery check, rectify defects, and complete the service on a light vehicle	3	3	B

Id	Title	Level	Credit	Review Category
944	Carry out a pre-delivery service and rectify defects on a motorcycle Carry out a pre-delivery check, rectify defects, and complete the service on a motorcycle	3	4 3	B
964 24347 24348	Implement a schedule for an automotive preventative maintenance programme Analyse automotive preventive maintenance programmes Implement a schedule for an automotive preventative maintenance programme	5 5 5	2 2 2	C
2322	Carry out a periodic maintenance check on heavy vehicles and/or equipment Carry out general service checks on heavy vehicles or equipment	3	2 4	B
15406	Carry out a periodic maintenance check and service on cars and light commercial vehicles Carry out general service checks on light vehicles	3	2	B
15407	Demonstrate knowledge of vehicle and/or machine storage procedures	2	1	D
15409 24349 24377	Select and apply lubricants and sealants in a marine environment Demonstrate knowledge of marine lubricants and lubrication systems; and marine adhesives, sealants, and gaskets Select and apply lubricants, adhesives, and sealants in a marine environment	2 2 2	2 2 2	C
24338	Service bearings and seals in vehicles or equipment	3	3	New
24339	Carry out general service checks on all-terrain vehicles (ATVs)	3	2	New
24340	Carry out a pre-delivery check, rectify defects, and complete the service on an all-terrain vehicle (ATV)	3	3	New
24341	Carry out general service checks on non-electric forklifts and forklift attachments	3	4	New
24342	Carry out general service checks on electric forklifts and forklift attachments	3	4	New
24343	Carry out an annual safety inspection on forklifts, and complete an inspection report	4	4	New
24344	Carry out general service checks on chainsaws	3	4	New
24345	Carry out general service checks on equipment used in the outdoor power equipment industry	3	8	New
24346	Select and apply lubricants and sealants for motorcycle or all-terrain vehicle (ATV) applications	2	2	New

Domain Automotive Workshop Engineering

Id	Title	Level	Credit	Review Category
913 21685	Use the oxy-acetylene process for welding and allied uses in the motor industry <i>Use an oxy-acetylene welding plant in the motor industry</i>	3 2	4 3	D
949	Identify types of lawnmower, their application and mechanical operation Demonstrate knowledge of lawnmower types and applications, and their mechanical operation	2	3	B
950 24372 24373	Manual metal arc weld automotive components in flat and vertical positions Manual metal arc weld automotive components Demonstrate knowledge of the manual metal arc welding process in the motor industry	3 3 3	6 4 2	C
2310 3395 24374 24375	Hardface automotive heavy equipment components using the manual electric arc welding process Hard face automotive components using oxy-acetylene Demonstrate knowledge of hard facing automotive components Hard face automotive components using an electric or oxy-acetylene welding process	4 4 4 4	2 2 3 2	C C
2328	Service hand held outdoor powered equipment Inspect and repair hand held outdoor power equipment	4	10	B
3381	Assess and repair damaged motorcycles Inspect and repair damaged motorcycles	4	6	B
5432 24376 24387	Describe hydraulic cylinder resleeving procedures and resleeve a brake and clutch cylinder Demonstrate knowledge of hydraulic brake and clutch cylinder resleeving procedures Resleeve a brake or clutch hydraulic cylinder	4 4 4	5 1 4	C
11722	Repair driveshaft (propeller shaft) assemblies Inspect and repair driveshaft (propeller shaft) assemblies	4	4 15	B
11724	Inspect and balance automotive components	4	4 10	B
11737	Demonstrate knowledge of exhaust shop equipment	2	4	B
15425	Repair hand push mowers Inspect and repair hand push mowers	2	1	B
15426 15431 24390	Repair ride-on rotary mowers Repair walk behind rotary mowers Inspect and repair walk behind rotary mowers, ride-on mowers, and lawn tractors	4 4 4	8 9 9	C C
15427	Sharpen and set reel type mower blades and cutting units	3	6	B

Id	Title	Level	Credit	Review Category
15428	Service 230 volt electrically powered equipment for the outdoor power equipment industry	4	8	D
15429	Inspect and repair industrial equipment in the outdoor power equipment industry Inspect and repair outdoor power equipment	4	20	B
15430	Repair walk behind reel mowers Inspect and repair walk behind reel mowers	4	10	B
15432	Repair ground conditioning and turf equipment Inspect and repair ground conditioning and turf equipment	4	15	B
15433	Repair ride-on battery powered equipment Inspect and repair ride-on battery powered equipment	4	8	B
19640	Make and assemble mobile refrigeration and air conditioning system components under supervision	3	5	D
3831	<i>Assemble and fabricate commercial refrigeration and/or air conditioning system components</i>	3	10	
19641	Install refrigeration and air conditioning systems in vehicles under supervision	4	20	D
22702	<i>Install and commission commercial refrigeration and air conditioning</i>	3	15	
24393	Heat metal automotive components to aid disassembly and assembly in the motor and related industries	2	2	New