

FIELD ENGINEERING AND TECHNOLOGY, AND MANUFACTURING

This report was republished in February 2011 to correct an error in the reverse transition tables for qualifications Ref: 0698 and 0699.

Revision of *Motor Industry* qualifications and unit standards**Qualifications**

Qualification Titles	Reference
National Certificate in Motor Industry (Automotive Air Conditioning)	0002
National Certificate in Motor Industry (Automotive Heavy Engineering) with strands in Agricultural Equipment, Plant and Equipment, and Road Transport	0003
National Certificate in Motor Industry (Motorcycle Engineering)	0015
National Certificate in Motor Industry (Automotive Engineering)	0019
National Certificate in Motor Industry (Motor Trimming)	0024
National Certificate in Canvas Fabrication	0079
National Certificate in Motor Industry (Brake Service Engineering)	0096
National Certificate in Motor Industry (Automotive Parts and Accessories Merchandising)	0099
National Certificate in Motor Industry (Automotive Electrical Engineering)	0137
National Certificate in Motor Industry (Automotive Servicing)	0138
National Certificate in Motor Industry (Diesel Fuel Injection Engineering)	0139
National Certificate in Motor Industry (Automotive Dismantling and Recycling)	0170
National Certificate in Motor Industry (Automotive Refinishing)	0178
National Certificate in Motor Industry (Panelbeating)	0179
National Certificate in Motor Industry (Automotive Radiator Repair)	0188
National Certificate in Motor Industry (Vehicle Grooming)	0213
National Certificate in Motor Industry (Automotive Machining)	0371
National Certificate in Motor Industry (Exhaust Servicing)	0372
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	0373
National Certificate in Sailmaking	0374
National Certificate in Motor Industry (Coachbuilding) with strands in Passenger Service Vehicles, Commercial Vehicles, and Motor Homes and Caravans	0413
National Certificate in Motor Industry (Outdoor Power Equipment Servicing)	0697
National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 3)	0698
National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 4)	0699

Unit Standards

Subfield	Domain	ID
Motor Industry	Automotive Administration	225, 382, 386, 387, 389, 391, 392, 398, 984-986, 988, 3384, 3888, 15369, 15370, 15372, 19634
	Automotive Air Conditioning	881
	Automotive Electrical and Electronics	232, 877, 887, 889, 899, 904, 910, 961, 979, 2339, 2348, 3396, 3399, 3864, 5457, 5463, 5464, 5757, 8182, 8187, 15375, 15376, 15379, 16115
	Automotive Fuel Systems and Exhaust	241, 892, 930, 933, 951-954, 962, 969, 982, 989, 3394, 5451, 5452, 5460, 11738, 15385-15396, 15398-15401, 15404, 19302, 19304
	Automotive Hydraulics	931
	Automotive Plastic Repair	876
	Automotive Preventative Maintenance	237, 245, 955, 956
	Automotive Preventive Maintenance	964, 15407, 15409
	Automotive Radiator Repair	7000, 7001, 7003, 7005, 7008, 7010-7014
	Automotive Sales	384, 385, 390, 396, 400, 401, 983, 987, 3382, 3383, 11745, 15411-15413
	Automotive Trailers	941, 2341, 15414
	Automotive Transmission Systems	921, 926, 927, 935, 957-959, 2342, 2343, 5441, 8185, 15417, 15419-15423
	Automotive Workshop Engineering	226-228, 230, 913, 914, 950, 2310, 3395, 3879, 5432, 15426, 15428, 15431, 19640, 19641
	Chassis and Frame Repair	9075
	Coachbuilding	10713, 19639
	Engine Repairs	236, 878, 886, 923, 925, 928, 932, 965, 967, 971, 2317, 2329, 2351, 3391, 3887, 11730, 15440, 15443, 15448, 15449
	Motor Trimming	8298-8303, 8306-8309, 8314-8317, 8320, 8322
	Panelbeating	5741, 5745, 5749, 5752-5756, 5759, 5764, 5765, 5768, 5771, 5774, 5778, 5780, 15657, 15944
	Power Boat Systems	15452, 15453, 15457
	Tractor and Machine Body Systems	5439, 15470

Subfield	Domain	ID
	Tyres	238, 916, 5440, 9074, 11741, 11742, 15472
	Vehicle Bodywork	880, 911, 2629, 3860-3863, 3865, 3867-3870, 3872, 3873, 3875, 3876, 3880-3886, 5442, 5469, 5739, 5746, 5763, 5767, 16097-16100, 16111, 19632
	Vehicle Braking Systems	937, 938, 948, 973, 5431, 5437, 8184, 15475, 15478, 15480
	Vehicle Recovery	2337, 2338, 3388, 3389, 15481
	Vehicle Spraypainting	5706-5709, 5712-5716, 5719, 5721, 5722, 5724, 5730, 5731, 5733, 5734, 5747
	Vehicle Steering and Suspension	896, 901, 2311, 2315, 2327, 2330, 2346, 5443
Outdoor Fabric Products	Canvas Fabrication	1314-1319, 1321-1323, 5023
	Sailmaking	11800

The NZ Motor Industry Training Organisation (Inc) (MITO) has revised the qualifications and unit standards listed above.

Date report republished	February 2011
Date report published	November 2010
New expiry date	December 2016

Reason for the revision

The change to the expiry date was in response to concerns from stakeholders that the original expiry dates were not going to allow sufficient time for candidates to complete the requirements for qualifications in which they were enrolled. The expiry of the affected standards and qualifications was changed to 2016 to allow MITO time to implement programmes leading to the replacement qualifications.

Main changes resulting from the revision

The expiry of the qualifications and unit standards listed above has been changed to 31 December 2016.

There were no changes to titles, levels, or credits.

Transition

National Certificate in Sailmaking [Ref: 0374]

This qualification contains a standard that has been replaced by a later standard. Reverse transition has been included in this qualification to allow candidates to complete the qualification using either the expiring standard or the replacement standard.

For the purpose of this qualification, people who have gained credit for the replacement standard are exempt from the requirement to gain credit for the expiring standard – see table below.

Credit for	Exempt from
25463	7452

National Certificate in Motor Industry (Coachbuilding) with strands in Passenger Service Vehicles, Commercial Vehicles, and Motor Homes and Caravans [Ref: 0413]

This qualification contains standards that have been replaced by later standards. Reverse transition has been included in this qualification, and people can complete the qualification using either expiring standards or replacement standards.

For the purpose of this qualification, people who have gained credit for the replacement standards are exempt from the requirement to gain credit for the expiring standards – see table below.

Credit for	Exempt from
21907	2670

National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 3) [Ref: 0698]

This qualification contains a standard that has been replaced by a later standard. Reverse transition has been included in this qualification to allow candidates to complete the qualification using either the expiring standard or the replacement standard.

For the purpose of this qualification, people who have gained credit for the replacement standard are exempt from the requirement to gain credit for the expiring standard – see table below. Candidates who wish to complete standard 9915 must do so before it expires on 31 December 2013.

Credit for	Exempt from
23243	9915

National Certificate in Motor Industry (Trailer Boat Systems Engineering) (Level 4) [Ref: 0699]

This qualification contains a standard that has been replaced by a later standard. Reverse transition has been included in this qualification to allow candidates to complete the qualification using either the expiring standard or the replacement standard.

For the purpose of this qualification, people who have gained credit for the replacement standard are exempt from the requirement to gain credit for the expiring standard – see table below. Candidates who wish to complete standard 9916 must do so before it expires on 31 December 2013.

Credit for	Exempt from
23243	9916

Any person who feels they have been disadvantaged by these transition arrangements should contact MITO at the following address. All appeals will be considered on a case-by-case basis.

NZ Motor Industry Training Organisation (Inc)
PO Box 10803
Wellington 6143

Telephone 0800 88 21 21
Facsimile 04 494 0006
Email info@mito.org.nz

Appendix

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

The expiry date of the unit standards listed below has been changed to December 2016.

Manufacturing > Outdoor Fabric Products > Canvas Fabrication

ID	Title	Old expiry date	Level	Credit
1314	Operate hand tools and machines used in canvas fabrication	12/31/2010	2	6
1315	Handle and identify materials used in canvas fabrication	12/31/2010	3	3
1316	Perform seaming and finishing operations in canvas fabrication	12/31/2010	3	12
1317	Pack and present product on completion of canvas fabrication	12/31/2010	2	3
1318	Measure, mark out and cut material for production by canvas fabrication	12/31/2010	3	6
1319	Set lockstitch sewing machine for canvas fabrication	12/31/2010	3	4
1321	Apply quilting and fluting to canvas fabrication	12/31/2010	3	3
1322	Operate textile welding machine used in canvas fabrication	12/31/2010	3	6
1323	Select materials for performance requirements of canvas fabrication	12/31/2010	4	12
5023	Produce a scale model and cost an article from detailed drawings for outdoor canvas fabrication production	12/31/2010	4	12

Manufacturing > Outdoor Fabric Products > Sailmaking

ID	Title	Old expiry date	Level	Credit
11800	Carry out calculations in the sailmaking industry	12/31/2010	3	4

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Old expiry date	Level	Credit
225	Identify the occupational areas and structure of the New Zealand Automotive Industry	31/12/2010	1	2
382	Demonstrate knowledge of payment types, and carry out office procedures in an automotive company	31/12/2010	3	4
386	Determine stock levels of automotive products	31/12/2010	5	4
387	Demonstrate knowledge of stock ordering, and maintain stock for an automotive business	31/12/2010	3	6
389	Implement a storage system for automotive parts	31/12/2010	5	6
391	Prepare a quotation for the supply of an automotive product, repair, or service	31/12/2011	3	3
392	Maintain automotive stock and plant security	31/12/2010	2	2
398	Interpret warranties and guarantees that apply to the automotive industry	31/12/2010	4	2
984	Plan an automotive department layout	31/12/2010	5	6
985	Control expense in an automotive department	31/12/2010	6	6
986	Prepare and implement an automotive on-the-job instruction programme	31/12/2010	5	5
988	Demonstrate knowledge of automotive Service Manager's roles	31/12/2010	6	20
3384	Demonstrate an automotive product to show its operation and use	31/12/2010	3	3
3888	Identify the occupational areas and structures associated with the NZ motor body industry	31/12/2010	1	1
15369	Carry out personal workplace requirements in the automotive parts industry	31/12/2010	2	4
15370	Demonstrate knowledge of business responsibilities towards customers within the automotive industry	31/12/2010	4	4
15372	Manage the use and maintenance of material, plant, and equipment in an automotive workplace	31/12/2010	5	6
19634	Book in work, interpret instructions, and plan the job	31/12/2010	3	3

Engineering and Technology > Motor Industry> Automotive Air Conditioning

ID	Title	Old expiry date	Level	Credit
881	Test, service, and repair an automotive air conditioning system	31/12/2011	4	4

Engineering and Technology > Motor Industry> Automotive Electrical and Electronics

ID	Title	Old expiry date	Level	Credit
232	Test an automotive electrical circuit	31/12/2010	2	8
877	Identify functions of automotive lighting systems, rectify lighting faults, and adjust vehicle lamps	31/12/2011	3	5
887	Diagnose and repair automotive wiper system faults	31/12/2011	4	2
889	Repair an automotive alternator	31/12/2011	3	3
899	Carry out automotive wiring repairs and test circuits for serviceability	31/12/2011	3	3
904	Diagnose faults in an automotive generator type charging system, and overhaul a DC generator	31/12/2011	3	5
910	Diagnose and rectify faults in automotive instruments and gauges	31/12/2011	4	5
961	Diagnose and rectify faults in engine management systems	31/12/2011	4	8
979	Diagnose and rectify faults in an engine flywheel ignition system	31/12/2011	4	5
2339	Describe direct current electric motors used in forklifts, and repair speed control systems	31/12/2011	4	6
2348	Diagnose and rectify faults in vehicle and machine body electronics	31/12/2011	4	8
3396	Diagnose and rectify faults in heavy vehicle and/or machine electrical starting and charging systems	31/12/2011	4	8
3399	Demonstrate knowledge of vehicle lighting and rectify lighting circuit faults	31/12/2011	4	5
3864	Identify, remove and replace motor vehicle lamps in the motor industry	31/12/2010	1	1
5457	Test and repair automotive alternator circuits	31/12/2011	4	4
5463	Explain the operation and repair requirements of automotive electronic control systems	31/12/2011	4	8
5464	Explain automotive electrical and electronic applications	31/12/2011	3	12
5757	Remove and replace damaged vehicle wiring	31/12/2011	3	3
8182	Diagnose and rectify faults in automotive electronically controlled systems	31/12/2011	4	6

ID	Title	Old expiry date	Level	Credit
8187	Describe electronic components and circuitry for automotive engineering requirements	31/12/2011	3	8
15375	Diagnose and repair faults in electronically controlled systems used on heavy vehicles and machines	31/12/2011	4	8
15376	Diagnose and repair faults in electronically controlled systems used on motorcycles	31/12/2011	4	5
15379	Demonstrate knowledge of, and service traction batteries on electric forklifts	31/12/2011	3	3
16115	Install a security system in a vehicle	31/12/2011	4	4

Engineering and Technology > Motor Industry> Automotive Fuel Systems and Exhaust

ID	Title	Old expiry date	Level	Credit
241	Describe the operation of a diesel fuel system and perform minor servicing tasks	31/12/2010	2	3
892	Test, diagnose, and rectify faults in an electronic fuel injection (EFI) system on an engine	31/12/2011	4	4
930	Describe turbocharger operation, and service a turbocharger system on a vehicle or machine	31/12/2011	3	3
933	Diagnose and rectify exhaust system faults	31/12/2010	3	2
951	Diagnose and rectify faults in a vehicle LPG (liquefied petroleum gas) fuel system	31/12/2011	4	4
952	Diagnose and rectify faults in a vehicle CNG (compressed natural gas) fuel system	31/12/2011	4	4
953	Install an LPG (liquefied petroleum gas) fuel system to a vehicle	31/12/2011	4	4
954	Install a CNG (compressed natural gas) fuel system to a vehicle	31/12/2011	4	4
962	Diagnose and rectify faults in a motorcycle fuel system	31/12/2011	4	4
969	Retrofit a turbocharger to a petrol engine	31/12/2011	5	4
982	Inspect motor vehicles for alternative fuels inspection certificate requirements	31/12/2011	4	2
989	Retrofit a turbocharger to a diesel engine	31/12/2011	5	4
3394	Repair heavy vehicle and/or machine exhaust systems	31/12/2011	3	4
5451	Demonstrate knowledge of Cummins PT diesel fuel pumps, and overhaul them	31/12/2011	4	6
5452	Demonstrate knowledge of Cummins diesel fuel injectors, and overhaul them	31/12/2011	4	4
5460	Test and repair automotive electronic fuel injection systems	31/12/2011	4	4
11738	Replace exhaust system components	31/12/2010	2	3

ID	Title	Old expiry date	Level	Credit
15385	Demonstrate knowledge of Simms Minimec diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15386	Demonstrate knowledge of DPA type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15387	Demonstrate knowledge of DPS type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15388	Demonstrate knowledge of P type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15389	Demonstrate knowledge of A type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15390	Demonstrate knowledge of VE type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15391	Demonstrate knowledge of RSV type diesel governors, and overhaul them	31/12/2011	4	6
15392	Demonstrate knowledge of RQ and RQV type diesel governors, and overhaul either of them	31/12/2011	4	6
15393	Demonstrate knowledge of RAD and RFD type diesel governors, and overhaul either of them	31/12/2011	4	6
15394	Demonstrate knowledge of R801 and R901 type diesel governors, and overhaul either of them	31/12/2011	4	6
15395	Demonstrate knowledge of RLD type diesel governors, and overhaul them	31/12/2011	4	6
15396	Demonstrate knowledge of VE diesel injection pump additional devices, and overhaul them	31/12/2011	4	8
15398	Demonstrate knowledge of Stanadyne diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15399	Describe Caterpillar diesel fuel injection pumps, and overhaul them	31/12/2011	4	12
15400	Demonstrate knowledge of DPC type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15401	Demonstrate knowledge of EP9 type diesel fuel injection pumps, and overhaul them	31/12/2011	4	8
15404	Demonstrate knowledge of diesel engine air intake and exhaust systems, and inspect and test them	31/12/2011	3	6
19302	Demonstrate knowledge of diesel fuel injectors, and repair them	31/12/2011	4	4
19304	Describe turbocharger diagnostic procedures and recondition an automotive turbocharger	31/12/2011	4	7

Engineering and Technology > Motor Industry> Automotive Hydraulics

ID	Title	Old expiry date	Level	Credit
931	Describe the application of hydraulics for automotive heavy engineering use	31/12/2011	4	8

Engineering and Technology > Motor Industry> Automotive Plastic Repair

ID	Title	Old expiry date	Level	Credit
876	Repair plastic automotive components	31/12/2011	3	7

Engineering and Technology > Motor Industry> Automotive Preventative Maintenance

ID	Title	Old expiry date	Level	Credit
237	Describe automotive brake, steering, and suspension systems, and their operation	31/12/2010	2	3
245	Select and apply lubricants and sealants for automotive and related industry applications	31/12/2010	2	2
955	Inspect motor vehicles and trailers for Warrant of Fitness requirements	31/12/2011	3	4
956	Inspect motorcycles for Warrant of Fitness requirements	31/12/2011	4	2

Engineering and Technology > Motor Industry> Automotive Preventative Maintenance

ID	Title	Old expiry date	Level	Credit
964	Implement a schedule for an automotive preventative maintenance programme	31/12/2011	5	2
15407	Demonstrate knowledge of vehicle and/or machine storage procedures	31/12/2011	2	1
15409	Select and apply lubricants and sealants in a marine environment	31/12/2011	2	2

Engineering and Technology > Motor Industry> Automotive Radiator Repair

ID	Title	Old expiry date	Level	Credit
7000	Select, use, and maintain hand tools and equipment in the radiator repair industry	31/12/2011	2	2
7001	Select, use, and maintain plant and equipment in the radiator repair industry	31/12/2011	3	3
7003	Clean and repair a radiator in the radiator repair industry	31/12/2011	4	12
7005	Clean and repair an aluminium cored radiator in the radiator repair industry	31/12/2011	4	8
7008	Demonstrate product knowledge in the radiator repair industry	31/12/2011	3	6
7010	Use solder to repair radiators in the radiator repair industry	31/12/2011	2	3
7011	Recore and repair a plastic tanked radiator in the radiator repair industry	31/12/2011	3	6

ID	Title	Old expiry date	Level	Credit
7012	Demonstrate knowledge of, and identify and diagnose vehicle cooling system faults	31/12/2011	3	12
7013	Remove and replace cooling system components in the radiator repair industry	31/12/2011	4	8
7014	Analyse cooling system corrosion prevention and vehicle and machine cooling system requirements	31/12/2011	3	8

Engineering and Technology > Motor Industry> Automotive Sales

ID	Title	Old expiry date	Level	Credit
384	Display and sell service station goods	31/12/2010	2	4
385	Sell automotive products	31/12/2010	3	4
390	Promote automotive products	31/12/2010	5	4
396	Offer selective financing arrangements for a vehicle, machine, or components	31/12/2010	5	5
400	Dispense CNG (compressed natural gas) fuel	31/12/2010	2	2
401	Dispense LPG (liquefied petroleum gas) fuel	31/12/2010	2	2
983	Plan and implement an automotive product sales project	31/12/2010	4	7
987	Carry out a sales programme for an automotive product or service	31/12/2010	6	6
3382	Pick, pack, and dispatch automotive parts	31/12/2010	2	3
3383	Identify and dispose of obsolete automotive parts	31/12/2010	5	2
11745	Demonstrate knowledge of and sell automotive service	31/12/2010	3	4
15411	Display and sell automotive parts and accessories	31/12/2010	3	6
15412	Demonstrate knowledge of automotive product promotion, and complete a promotional plan	31/12/2010	4	4
15413	Take care of stock in an automotive business	31/12/2010	2	2

Engineering and Technology > Motor Industry> Trailers

ID	Title	Old expiry date	Level	Credit
941	Describe light trailer servicing requirements, and repair light trailers	31/12/2011	3	2
2341	Describe heavy trailer systems, and maintain and repair heavy trailers and semi-trailers	31/12/2011	4	15
15414	Maintain and repair a power boat trailer	31/12/2011	4	4

Engineering and Technology > Motor Industry> Automotive Transmission Systems

ID	Title	Old expiry date	Level	Credit
921	Describe driveline components and rectify driveline faults on cars or light commercial vehicles	31/12/2011	3	4
926	Demonstrate knowledge of and rectify faults in a motorcycle clutch	31/12/2011	3	3
927	Demonstrate knowledge of, test, and overhaul a motorcycle transmission	31/12/2011	3	5
935	Service an automatic transmission or transaxle assembly	31/12/2011	3	2
957	Diagnose and rectify faults in final drive assemblies on cars or light commercial vehicles	31/12/2011	4	4
958	Diagnose and rectify faults in automatic transmissions on cars or light commercial vehicles	31/12/2011	4	8
959	Test and overhaul manual transmissions on cars or light commercial vehicles	31/12/2011	4	6
2342	Demonstrate knowledge of hydraulic transmission drives on plant and machinery, and repair them	31/12/2011	4	5
2343	Demonstrate knowledge of belt and chain drive systems on heavy equipment, and repair them	31/12/2011	4	2
5441	Describe, diagnose, and rectify faults in tractor and agricultural machine final drive assemblies	31/12/2011	4	6
8185	Describe four wheel drive (4WD) systems, and diagnose and rectify free-wheeling hub faults	31/12/2011	4	4
15417	Describe driveline components, and check and rectify driveline faults on outdoor powered equipment	31/12/2011	3	4
15419	Demonstrate knowledge of, and recondition an automotive continuously variable transmission (CVT)	31/12/2011	4	8
15420	Carry out routine maintenance on automotive automatic transmissions	31/12/2011	3	6
15421	Test and diagnose faults in automotive automatic transmissions	31/12/2011	4	8
15422	Remove and replace an automatic transmission from and in a car or light commercial vehicle	31/12/2011	3	2
15423	Recondition a torque converter from a car and/or light commercial vehicle	31/12/2011	4	8

Engineering and Technology > Motor Industry> Automotive Workshop Engineering

ID	Title	Old expiry date	Level	Credit
226	Perform safe working practices in an automotive workshop	31/12/2010	2	2
227	Carry out general engineering tasks to repair and make automotive components	31/12/2010	2	4
228	Select and use hand tools and workshop equipment for an automotive application	31/12/2010	2	5
230	Repair and manufacture automotive components by oxy-acetylene gas welding	31/12/2010	2	3
913	Use the oxy-acetylene process for welding and allied uses in the motor industry	31/12/2011	3	4
914	Metal-arc gas shield (MIG) weld automotive components	31/12/2011	3	4
950	Manual metal arc weld automotive components in flat and vertical positions	31/12/2011	3	6
2310	Hardface automotive heavy equipment components using the manual electric arc welding process	31/12/2011	4	2
3395	Hard face automotive components using oxy-acetylene	31/12/2011	4	2
3879	Carry out general engineering tasks in the motor body industry	31/12/2010	2	4
5432	Describe hydraulic cylinder resleeving procedures and resleeve a brake and clutch cylinder	31/12/2011	4	5
15426	Repair ride-on rotary mowers	31/12/2011	4	8
15428	Service 230 volt electrically powered equipment for the outdoor power equipment industry	31/12/2011	4	8
15431	Repair walk behind rotary mowers	31/12/2011	4	9
19640	Make and assemble mobile refrigeration and air conditioning system components under supervision	31/12/2011	3	5
19641	Install refrigeration and air conditioning systems in vehicles under supervision	31/12/2011	4	20

Engineering and Technology > Motor Industry> Chassis and Frame Repair

ID	Title	Old expiry date	Level	Credit
9075	Identify and repair a damaged beam and live axle on cars and commercial vehicles	31/12/2011	4	7

Engineering and Technology > Motor Industry> Coachbuilding

ID	Title	Old expiry date	Level	Credit
10713	Carry out fixed glass installation to a vehicle	31/12/2014	3	4
19639	Describe trim and flooring adhesives used in the vehicle body manufacturing industry	31/12/2011	4	6

Engineering and Technology > Motor Industry> Engine Repairs

ID	Title	Old expiry date	Level	Credit
236	Service automotive cooling systems	31/12/2010	2	4
878	Repair an engine cooling system	31/12/2011	3	4
886	Test a four stroke petrol engine using a tunescope	31/12/2011	4	2
923	Carry out general repairs to a cylinder head	31/12/2011	3	4
925	Carry out general repairs to and assemble an engine short block	31/12/2011	3	5
928	Demonstrate knowledge of, and repair a manual starting system on a small engine	31/12/2011	2	2
932	Inspect engine flywheel and fit starter ring gear	31/12/2011	2	1
965	Analyse vehicle or machine cooling system problems and requirements	31/12/2011	5	4
967	Measure and interpret engine performance	31/12/2011	4	4
971	Diagnose and repair diesel engine shut-down systems	31/12/2011	4	2
2317	Service diesel engine braking systems and exhaust braking systems	31/12/2011	4	4
2329	Repair hand held motors	31/12/2011	4	10
2351	Remove, assemble and install a motorcycle engine	31/12/2011	4	3
3391	Diagnose and rectify faults in heavy vehicle and/or machine diesel engine cooling systems	31/12/2011	4	4
3887	Identify, remove, and replace exterior engine components in the motor body industry	31/12/2010	2	2
11730	Inspect and rebuild an engine crankshaft or camshaft	31/12/2011	4	6
15440	Remove and replace a heavy vehicle and/or machine diesel engine cylinder head	31/12/2011	3	2
15443	Demonstrate knowledge of, test, and repair a motorcycle engine cooling system	31/12/2011	3	5
15448	Demonstrate knowledge of engine performance testing, and tune and test a 4 stroke diesel engine	31/12/2011	4	7
15449	Test a diesel engine on a dynamometer and determine engine condition using test results	31/12/2011	4	4

Engineering and Technology > Motor Industry> Motor Trimming

ID	Title	Old expiry date	Level	Credit
8298	Identify, use, and maintain tools and equipment in the motor trimming industry	31/12/2010	2	2
8299	Identify, use, and store materials, and make a template, in the motor trimming industry	31/12/2010	3	3
8300	Repair a seat in the motor trimming industry	31/12/2010	3	6

ID	Title	Old expiry date	Level	Credit
8301	Make a back rest and base cover for a vehicle seat	31/12/2010	3	5
8302	Carry out pleating, fluting, piping, and quilting operations in the motor trimming industry	31/12/2010	3	6
8303	Make, fit, and repair underlay and carpet in the motor trimming industry	31/12/2010	3	4
8306	Design and make a pattern, interpret drawings, plan a job, and write a job specification	31/12/2010	4	6
8307	Identify and fit a zip in the motor trimming industry	31/12/2010	3	2
8308	Make, repair, and fit a vehicle material headlining	31/12/2010	3	6
8309	Remove, repair, and refit a vehicle moulded headlining	31/12/2010	3	4
8314	Make and fit a tonneau and hood cover in the motor trimming industry	31/12/2010	3	4
8315	Make and fit a range of protective covers in the motor trimming industry	31/12/2010	3	4
8316	Make and fit a vinyl roof for a vehicle in the motor trimming industry	31/12/2010	4	4
8317	Make and fit a squab in the motor trimming industry	31/12/2010	3	4
8320	Fit a range of vehicle accessories in the motor trimming industry	31/12/2010	3	2
8322	Remove, replace, and adjust, seals, welts, edge trims and rubbers in the motor trimming industry	31/12/2010	3	3

Engineering and Technology > Motor Industry> Panelbeating

ID	Title	Old expiry date	Level	Credit
5741	Use and maintain a hydraulic body jack and attachments in the motor industry	31/12/2011	3	2
5745	Use vehicle unibody, chassis alignment equipment, and measuring systems	31/12/2011	3	7
5749	Identify and handle CNG (compressed natural gas) and LPG (liquefied petroleum gas) systems in the motor industry	31/12/2011	3	2
5752	Repair and replace perforated corrosion non-structural panels on a motor vehicle	31/12/2011	3	4
5753	Remove and replace damaged vehicle cooling system parts	31/12/2011	3	3
5754	Remove, replace, and repair a vehicle exhaust system	31/12/2010	3	2
5755	Remove and refit a vehicle dash panel and adjacent fittings	31/12/2011	4	6

ID	Title	Old expiry date	Level	Credit
5756	Book in work, interpret a job sheet, and inspect and identify vehicle damage	31/12/2011	3	3
5759	Remove, replace and repair damaged motor vehicle bumpers	31/12/2011	3	6
5764	Repair a damaged glass fibre reinforced plastic panel (GRP) using a repair kit in the motor industry	31/12/2011	3	4
5765	Identify, use, and maintain a resistance spot welding plant in the motor industry	31/12/2011	3	2
5768	Remove and replace a motor vehicle fuel tank	31/12/2011	3	2
5771	Use and maintain a metal-arc gas shield (MIG) welding plant in the motor industry	31/12/2011	4	5
5774	Carry out a full and sectional panel replacement on motor vehicle panels	31/12/2011	4	15
5778	Fill a repair with solder in the motor industry	31/12/2011	3	5
5780	Repair and replace a damaged motor vehicle aluminium panel	31/12/2011	4	6
15657	Remove and replace damaged suspension parts	31/12/2011	3	3
15944	Remove and replace a car and/or light commercial engine	31/12/2011	4	8

Engineering and Technology > Motor Industry> Power Boat Systems

ID	Title	Old expiry date	Level	Credit
15452	Carry out basic marine fibreglass repairs	31/12/2011	4	4
15453	Install, test, and repair or replace electrical accessories on power boats	31/12/2011	4	6
15457	Demonstrate knowledge of saildrive (S drive) transmission units, and repair them	31/12/2011	3	4

Engineering and Technology > Motor Industry> Tractor and Machine Body Systems

ID	Title	Old expiry date	Level	Credit
y	Inspect and fit tractor and agricultural machine safety frames, and repair guarding	31/12/2011	4	4
15470	Inspect and repair forklift mast and carriage	31/12/2011	4	6

Engineering and Technology > Motor Industry> Trailers

ID	Title	Old expiry date	Level	Credit
238	Remove and replace wheels and tyres, and balance wheels	31/12/2010	2	2
916	Repair punctures and fit tyres to wheels	31/12/2011	3	3
5440	Identify tyre applications for tractors and agricultural machinery, and remove and replace tyres	31/12/2011	3	4

ID	Title	Old expiry date	Level	Credit
9074	Demonstrate knowledge of, and rectify faults in, motor vehicle tyres and wheels	31/12/2011	3	7
11741	Check, demount, and mount a heavy off-the-road equipment tyre	31/12/2011	4	10
11742	Remove and replace wheels and tyres from industrial machines and equipment	31/12/2011	3	10
15472	Repair punctures and fit tyres to motorcycle wheels	31/12/2011	3	3

Engineering and Technology > Motor Industry> Vehicle Bodywork

ID	Title	Old expiry date	Level	Credit
880	Remove and fit a windscreen and bonded glass to a vehicle	31/12/2014	3	3
911	Prepare and install a sunroof to a vehicle	31/12/2011	3	4
2629	Demonstrate knowledge of, and work in proximity to, motor vehicle air bag mechanisms	31/12/2014	3	2
3860	Plan the method of carrying out a job in the motor and related industries	31/12/2011	1	2
3861	Remove and replace exterior motor body parts and fit body protection mouldings in the motor industry	31/12/2010	2	3
3862	Remove and replace damaged bolted on motor body panels in the motor body industry	31/12/2010	2	3
3863	Remove and replace road wheels in the motor industry	31/12/2010	1	1
3865	Fill and sand a repair in the motor body industry	31/12/2010	2	2
3867	Prepare a painted surface and feather edge paint damage in the motor body industry	31/12/2010	2	3
3868	Mask a repair for priming in the motor body industry	31/12/2010	2	2
3869	Start work in a new workplace in the motor and related industries	31/12/2011	1	2
3870	Prepare bare metal for painting in the motor body industry	31/12/2010	2	2
3872	Apply finish coats of paint to a complete panel in the motor body industry	31/12/2010	2	2
3873	Flat off and cut and polish an acrylic lacquer painted surface in the motor body industry	31/12/2010	2	2
3875	Shrink a panel repair in the motor body industry	31/12/2010	2	2
3876	Fabricate a new panel in the motor body industry	31/12/2011	2	5
3880	Demonstrate knowledge of and maintain equipment used in a motor body shop	31/12/2010	2	3

ID	Title	Old expiry date	Level	Credit
3881	Identify spray guns and use and maintain a suction feed spray gun in the motor body industry	31/12/2010	2	2
3882	Demonstrate knowledge of colours, paints, and finishing coats used in the motor body industry	31/12/2010	1	2
3883	Identify and use fastening systems in the motor industry	31/12/2010	2	4
3884	Demonstrate knowledge of and use a MIG welding plant in the motor body industry	31/12/2010	2	4
3885	Demonstrate knowledge of and use an oxy-acetylene welding plant in the motor body industry	31/12/2010	2	4
3886	Remove and replace motor vehicle interior trim in the motor body industry	31/12/2010	2	3
5442	Install and repair all terrain vehicle (ATV) safety frames and auxiliary systems	31/12/2011	4	4
5469	Locate and repair vehicle water leaks, rattles, and squeaks	31/12/2014	3	4
5739	Maintain security in the workplace in the motor and related industries	31/12/2010	2	2
5746	Identify and prevent corrosion in the motor industry	31/12/2011	3	3
5763	Identify and dispose of hazardous waste materials in the motor and related industries	31/12/2011	3	3
5767	Demonstrate knowledge of current legislation in the motor body industry	31/12/2011	3	2
16097	Identify, store and use hazardous materials in the motor and related industries	31/12/2010	2	3
16098	Perform safe work practices in the motor industry	31/12/2010	2	4
16099	Use and maintain power tools and equipment in the motor body industry	31/12/2010	2	4
16100	Repair minor non-stretched panel damage and metal finish the repair in the motor body industry	31/12/2010	2	4
16111	Prime, fill and sand a repair in the motor body industry	31/12/2010	2	3
19632	Identify, select, and use adhesives and sealants for vehicle bodywork applications	31/12/2014	3	3

Engineering and Technology > Motor Industry > Vehicle Braking Systems

ID	Title	Old expiry date	Level	Credit
937	Describe brake lining materials and reline brake shoes	31/12/2011	3	2
938	Inspect and overhaul braking system hydraulic componentry off the vehicle	31/12/2011	3	4
948	Machine brake discs and drums	31/12/2011	3	2

ID	Title	Old expiry date	Level	Credit
973	Diagnose and rectify brake system faults on a motorcycle	31/12/2011	4	3
5431	Demonstrate knowledge of the brake bonding process, and bond brake shoes	31/12/2011	4	8
5437	Describe tractor braking systems, and diagnose and rectify faults in wheel tractor braking systems	31/12/2011	4	7
8184	Explain the operation and servicing requirements of car and light commercial vehicle braking systems	31/12/2011	3	6
15475	Demonstrate knowledge of foundation (drum) brakes on heavy vehicles and machines, and repair them	31/12/2011	3	5
15478	Demonstrate knowledge of hydraulic brakes on heavy vehicles and machines, and repair them	31/12/2011	4	4
15480	Demonstrate knowledge of heavy vehicle and machine disc brakes, and repair them	31/12/2011	3	4

Engineering and Technology > Motor Industry > Vehicle Recovery

ID	Title	Old expiry date	Level	Credit
2337	Demonstrate knowledge of vehicle recovery and recover light vehicles and/or machines	31/12/2011	3	2
2338	Describe salvage and recovery procedures and recover heavy vehicles and/or on-road machines	31/12/2011	3	4
3388	Flat tow a car or light commercial vehicle	31/12/2011	3	1
3389	Flat tow a heavy commercial vehicle and/or on-road machine	31/12/2011	3	1
15481	Demonstrate knowledge of heavy commercial vehicle and on-road machine flat towing procedures	31/12/2011	3	4

Engineering and Technology > Motor Industry > Vehicle Spraypainting

ID	Title	Old expiry date	Level	Credit
5706	Mask a repair for two pack painting in the automotive refinishing industry	31/12/2011	3	3
5707	Identify and prepare metals for top coats of paint in the motor and related industries	31/12/2011	3	4
5708	Identify and use primers, fillers, and sealers and prepare for top coats in the motor industry	31/12/2011	3	15
5709	Identify and use a mixing bank and scales in the automotive refinishing industry	31/12/2011	2	2
5712	Use and maintain spray guns and rectify spray gun defects in the motor body or related industries	31/12/2011	3	5

ID	Title	Old expiry date	Level	Credit
5713	Use and maintain shop equipment in the automotive refinishing industry	31/12/2011	3	6
5714	Use and maintain paint drying equipment in the motor industry	31/12/2011	3	4
5715	Identify and apply top coats of paint in the motor and related industries	31/12/2011	3	5
5716	Identify and repair paint defects in the automotive refinishing industry	31/12/2011	4	6
5719	Identify and paint plastics in the motor and related industries	31/12/2011	4	4
5721	Touch up the paintwork on a vehicle using two pack solid colours	31/12/2011	4	5
5722	Book in work, interpret a job sheet, and inspect and identify vehicle paint damage	31/12/2011	3	3
5724	Touch up a vehicle using two pack clear over base finishes	31/12/2011	4	8
5730	Match colours to vehicles in the motor industry	31/12/2011	4	15
5731	Touch up the paintwork on a vehicle using three layer pearl finishes	31/12/2011	4	7
5733	Identify and apply adhesive stripes and graphics to a painted surface in the motor industry	31/12/2011	3	3
5734	Identify and use water borne paint systems in the automotive refinishing industry	31/12/2011	4	6
5747	Remove paint from vehicle panels	31/12/2011	3	5

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Old expiry date	Level	Credit
896	Diagnose and rectify suspension and manual steering faults on cars or light commercial vehicles	31/12/2011	4	4
901	Diagnose and rectify vehicle power-assisted steering system faults	31/12/2011	4	4
2311	Describe, diagnose, and rectify faults in motorcycle frames, suspension, and steering systems	31/12/2011	4	6
2315	Describe heavy vehicle suspension systems, analyse suspension failure, and repair components	31/12/2011	4	8
2327	Demonstrate knowledge of motorcycle wheel assemblies, and repair them	31/12/2011	3	4
2330	Describe heavy equipment suspension systems, and analyse and repair faults in them	31/12/2011	4	6
2346	Demonstrate knowledge of heavy equipment clutch steering systems, and repair them	31/12/2011	4	5

ID	Title	Old expiry date	Level	Credit
5443	Demonstrate knowledge of wheel tractor steering systems, and diagnose and rectify faults in them	31/12/2011	4	4