

National Certificate in Motor Industry (Vehicle Servicing) with strands in Brake and Clutch, Exhaust Systems, Radiator Repair, Steering and Suspension, Tyres, Underbody and General Service, and Vehicle Security, and with an optional strand in Heavy Vehicle Steering and Suspension

Level 2 or 3

Credits 80-152

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2019.

Transition Arrangements

This qualification has been reviewed and replaced by New Zealand Certificate in Automotive Engineering (Level 3) [Ref: 3097].

The last date for entry into training programmes or courses leading to replaced qualification is 31 December 2017.

The last date to meet the requirements of the replaced qualification is 31 December 2019, when the qualification will be discontinued. From that date no results can be reported against the qualification.

People currently working towards the replaced qualification must complete its requirements or transfer to a programme of study or training leading to a replacement qualification by 31 December 2019.

It is anticipated that no existing candidates will be disadvantaged by these transition arrangements. However, anyone who feels that they have been disadvantaged may appeal to MITO at the address below. Appeals will be considered on a case by case basis.

For detailed information see [Review Summaries](#) on the NZQA website.

This qualification contains expiring standards that have been replaced by later standards. Exemptions have been included in this qualification so people can complete the qualification using either the 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
29372	24234
29582	24077
29579 or 29580	21858
29371 or 30571	21707 and 21667

NZQF Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	August 2008	December 2019
Review	2	November 2015	December 2019
Republished	2	December 2018	December 2019

Standard Setting Body

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National Certificate in Motor Industry (Vehicle Servicing) with strands in Brake and Clutch, Exhaust Systems, Radiator Repair, Steering and Suspension, Tyres, Underbody and General Service, and Vehicle Security, and with an optional strand in Heavy Vehicle Steering and Suspension

Level	2 or 3
Credits	80-152

Purpose

The National Certificate in Motor Industry (Vehicle Servicing) with strands in Brake and Clutch, Exhaust Systems, Radiator Repair, Steering and Suspension, Tyres, Underbody and General Service, and Vehicle Security, and with an optional strand in Heavy Vehicle Steering and Suspension [Ref: 1420] recognises the skills and knowledge required for people in roles within the vehicle servicing sector of the motor industry that involve general vehicle repair and service work.

The qualification includes a Core Compulsory and Core Elective section. This core covers knowledge and skills in generic areas such as health and safety, communication, customer service, and self-management, as well as industry specific knowledge and skills including: quality control and industry standards, legislation, tools and equipment used in the industry, new and emerging technology, business responsibilities towards customers, and stock security in the workplace. Each strand comprises a set of compulsory unit standards, which reflect the specific requirements of each of the vehicle servicing industry sectors, and an elective section that allows candidates to add further skills that are relevant to their position and/or specific workplace requirements.

In order to recognise a minimum and consistent set of fundamental competencies across all roles in all qualifications at each level, a common set of standards appear consistently across the core sections in all of the Level 3 qualifications in the *Motor Industry* subfield. This structure has been modelled on the *Qualifications Roadmap* (the motor industry career pathway document), which allows a candidate to move more easily between strands of qualifications in similar areas and to transfer skills from this qualification to other motor industry qualifications.

The qualification strands recognise the competencies required to work in a range of vehicle servicing roles in workplaces whose primary focus is:

- the overall servicing and repair of brake and clutch components and systems used on vehicles, equipment and machines
- the overall servicing and repair of exhaust systems and exhaust system components on light vehicles
- the recoring, repair, modification, and custom-building of radiators, radiator components, and coolers for all types of vehicles
- the overall servicing and repair of steering and suspension systems on light vehicles and heavy vehicles and machines where this type of work is undertaken

- the repair and replacement of tyres and puncture repairs for all types of vehicles, equipment and machines
- the general servicing and rectification of common faults in light vehicles that don't require specialist equipment (see below regarding comparison to Light Vehicle strand)
- the installation and repair of vehicle security systems in all types of vehicles.

This qualification is one of a suite of qualifications developed at the introductory to intermediate level for the motor industry. The qualifications in this suite are grouped to reflect the industry recognised sector subsets of: automotive body, automotive electrical and mechanical engineering, automotive heavy engineering, automotive specialist engineering, and vehicle servicing. In most cases these subsets are also divided into two levels to provide clearer entry points to and exit points from training.

People wishing to obtain information on career pathways, should contact the NZ Motor Industry Training Organisation (Incorporated) (see contact details below).

While they are not considered prerequisite qualifications to this qualification, candidates may follow on from the National Certificate in Motor Industry (Foundation Skills) (Level 1) [Ref: 1222] or the National Certificate in Motor Industry (Entry Skills) (Level 2) with strands in Automotive Electrical and Mechanical, and Collision Repair [Ref: 1252], as a number of standards are common to both qualifications. Whilst this qualification does not lead on to any other specific automotive national qualification, a logical step would be to any of the other level 3 Motor Industry qualifications, with the National Certificate in Motor Industry (Automotive Electrical and Mechanical Engineering) (Level 3) with strands in Electrical and Electronics, Light Vehicle, Motorcycle, Outdoor Power Equipment, and Trailer Boat Systems [Ref: 1421] having the most significant number of standards in common.

There is significant overlap in the competencies required in the Underbody and General Service strand of this qualification and the Light Vehicle strand of the National Certificate in Motor Industry (Automotive Electrical and Mechanical Engineering) (Level 3) with strands in Electrical and Electronics, Light Vehicle, Motorcycle, Outdoor Power Equipment, and Trailer Boat Systems [Ref: 1421]. However, these qualifications are intended for different target audiences. The Underbody and General Service strand is applicable to candidates employed in smaller, generally non-franchise, workshops where a lesser scope of work is able to be undertaken in the workshop, and more complex or specialist work is outsourced to larger or more specialist workshops. The Light Vehicle strand is applicable to candidates employed in workshops that have the expertise and equipment required to undertake a wider scope of work, and the workshop will therefore be able to complete the requirements of most jobs without the need to outsource. As a result of this, candidates could logically progress from the Underbody and General Service strand into the Light Vehicle strand as their career develops, but the opposite would neither be logical nor beneficial.

Replacement Information

This qualification replaced the National Certificate in Motor Industry (Brake Service Engineering) [Ref: 0096], National Certificate in Motor Industry (Automotive Servicing) [Ref: 0138], National Certificate in Motor Industry (Automotive Radiator Repair) [Ref: 0188], National Certificate in Motor Industry (Automotive Steering, Suspension, and Alignment) with an optional strand in Heavy Commercial Vehicles [Ref: 0246], National Certificate in Motor Industry (Exhaust Servicing) [Ref: 0372], and the 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].

Special Notes

The award of the Heavy Vehicle Steering and Suspension Optional Strand is dependent on the prior award of the Steering and Suspension Strand of this qualification. NZQA will check this requirement before award of the qualification.

Application for the recognition of current competency should be made to the NZ Motor Industry Training Organisation or an accredited training provider. Credits are not automatic and an assessment of ability is required.

Credit Range

	Core Compulsory	Core Elective
Level 1 credits	-	0-4
Level 2 credits	21	0-6
Level 3 credits	4	0-6
Minimum totals	25	6

	Brake and Clutch Strand		Exhaust Systems Strand	
	Compulsory	Elective	Compulsory	Elective
Level 1 credits	1	-	-	-
Level 2 credits	20	0-11	29	0-9
Level 3 credits	25	0-13	17	0-9
Level 4 credits	5	0-11	4	0-9
Level 5 credits	4	0-3	-	-
Minimum totals	55	13	50	9
Qualification totals	99		90	
Level of qualification	3		2	

	Radiator Repair Strand		Steering and Suspension Strand	
	Compulsory	Elective	Compulsory	Elective
Level 1 credits	-	-	1	-
Level 2 credits	13	0-14	16	0-11
Level 3 credits	33	0-14	26	0-11
Level 4 credits	20	0-11	2	0-11
Minimum totals	66	14	45	11
Qualification totals	111		87	
Level of qualification	3		2	

	Tyres Strand		Underbody and General Service Strand	
	Compulsory	Elective	Compulsory	Elective
Level 1 credits	1	-	-	-
Level 2 credits	10	0-9	57	-
Level 3 credits	18	0-20	55	7-9
Level 4 credits	-	0-19	-	0-2
Minimum totals	29	20	112	9
Qualification totals	80		152	
Level of qualification	2		3	

	Vehicle Security Strand		Heavy Vehicle Steering and Suspension Optional Strand	
	Compulsory	Elective	Compulsory	Elective
Level 2 credits	17	0-3	-	-
Level 3 credits	26	0-3	10	0-10
Level 4 credits	9	-	15	0-10
Minimum totals	52	3	25	10
Qualification totals	86		122	
Level of qualification	2		3	

Requirements for Award of Qualification

Award of NQF Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided in section 7 of the New Zealand Qualifications Authority (NZQA) *Rules and Procedures* publications available at <http://www.nzqa.govt.nz/ncea/acrp/index.html>.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

Summary of Requirements

- Core Compulsory standards
- Core Elective – A minimum of 6 credits as specified

One of the following strands is required

- Brake and Clutch Strand
- Exhaust Systems Strand
- Radiator Repair Strand
- Steering and Suspension Strand
- Tyres Strand
- Underbody and General Service Strand
- Vehicle Security Strand

The following strand is optional

- Heavy Vehicle Steering and Suspension Optional Strand

Detailed Requirements

Core Compulsory

The following standards are required

Core Generic > Core Generic > Self-Management

ID	Title	Level	Credit
7123	Demonstrate knowledge of problem solving and apply a problem solving technique to a problem	2	2

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
249	Carry out automotive industry personal workplace requirements	2	5
21078	Demonstrate knowledge of quality control standards in the motor and related industries	3	2
23743	Demonstrate knowledge of general legislation and regulations in the motor industry	3	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
21718	Demonstrate knowledge of hazardous materials used in the motor and related industries	2	2
21858	Demonstrate good work habits and perform safe work practices in the motor and related industries	2	4
21859	Select and use hand tools and workshop equipment for an automotive application	2	2

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
3856	Identify emergency procedures in the motor and related industries	2	2
16113	Demonstrate knowledge of safe working practices in an automotive workshop	2	2
21669	Demonstrate knowledge of hand tools and workshop equipment for motor industry applications	2	2

Core Elective

A minimum of 6 credits

Core Generic > Core Generic > Work and Study Skills

ID	Title	Level	Credit
7118	Manage own learning programme	2	3

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
21672	Demonstrate knowledge of new and emerging technology in the motor industry	2	5
21673	Demonstrate knowledge of maintaining stock security in the motor and related industries	2	2
21708	Maintain stock security in the workplace in the motor and related industries	3	2
24077	Demonstrate knowledge of business responsibilities towards customers within the automotive industry	3	1

Humanities > Communication Skills > Interpersonal Communications

ID	Title	Level	Credit
1277	Communicate information in a specified workplace	2	3

Humanities > Communication Skills > Reading

ID	Title	Level	Credit
2990	Read texts to research information	3	4

Service Sector > Service Sector Skills > Service Sector - Core Skills

ID	Title	Level	Credit
56	Attend to customer enquiries face-to-face and on the telephone	1	2
64	Perform calculations for the workplace	1	2

Brake and Clutch Strand

Meet the requirements of all of the following sets

- Brake and Clutch Compulsory
- Brake and Clutch Elective

Brake and Clutch Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
946	Book in and receive work for an automotive or related business	3	4

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
21869	Remove and replace road wheels in the motor industry	1	1

Engineering and Technology > Motor Industry > Automotive Transmission Systems

ID	Title	Level	Credit
239	Demonstrate knowledge of automotive manual transmissions	2	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1
21671	Carry out general engineering tasks in the motor industry	2	4
24376	Demonstrate knowledge of hydraulic brake and clutch cylinder resleeving procedures	4	1
24393	Heat metal automotive components to aid disassembly and assembly in the motor and related industries	2	2

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2
21670	Demonstrate knowledge of general engineering tasks in the motor industry	2	3

Engineering and Technology > Motor Industry > Vehicle Braking Systems

ID	Title	Level	Credit
242	Change the fluid and bleed a brake hydraulic system	2	2

ID	Title	Level	Credit
936	Make up brake pipes for a particular braking application	3	1
960	Diagnose and rectify brake system faults on light vehicles	4	4
974	Diagnose and rectify faults in a car or light commercial vehicle anti-lock braking system (ABS)	5	4
5466	Remove and replace light vehicle brake pads and shoes	3	2
21689	Demonstrate knowledge of hydraulic brake fluid, fluid replacement, and brake bleeding procedures	2	2
21720	Demonstrate knowledge of vehicle braking systems	2	2
23817	Demonstrate knowledge of braking principles and system component operation for light vehicles	3	5
23818	Demonstrate knowledge of braking system fault diagnosis and repair requirements for light vehicles	3	3
24407	Demonstrate knowledge of brake lining friction materials	3	2
24408	Inspect braking system for safe operation on light vehicles, and inspect hydraulic components off the vehicle	3	3
24409	Prepare and overhaul hydraulic braking system components from light vehicles	3	2
24410	Demonstrate knowledge of machining brake disc rotors and brake drums	3	1
24411	Machine brake disc rotors and brake drums	3	2

Brake and Clutch Elective

A minimum of 13 credits

- Of which a minimum of 2 credits at Level 3 or above

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
22785	Demonstrate knowledge of stock ordering and stocktaking in the motor or related industries	3	3
22786	Maintain stock and carry out stocktaking duties in the motor or related industries	3	3
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
24141	Demonstrate knowledge of vehicle ABS, TCS, and ESC electronic control systems, and testing and rectifying faults	5	3

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
21680	Demonstrate knowledge of automotive lubricants and sealants	2	2
21716	Select and apply lubricants and sealants for automotive and related industry applications	2	1
24338	Service bearings and seals in vehicles or equipment	3	3

Engineering and Technology > Motor Industry > Automotive Transmission Systems

ID	Title	Level	Credit
922	Check and rectify faults in manual single plate clutches used on light vehicles	3	2
3380	Overhaul light vehicle clutch cover assemblies and repair and/or replace associated components	3	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
21682	Demonstrate knowledge of an oxy-acetylene welding plant in the motor industry	2	2
21685	Use an oxy-acetylene welding plant in the motor industry	2	3
24387	Resleeve a brake or clutch hydraulic cylinder	4	4

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Engineering and Technology > Motor Industry > Vehicle Braking Systems

ID	Title	Level	Credit
24406	Prepare and reline brake shoes in the automotive repair industry	3	2
24414	Demonstrate knowledge of the brake bonding process	4	1
24415	Bond brake shoes	4	6

ID	Title	Level	Credit
24418	Demonstrate knowledge of foundation (drum) brakes on heavy vehicles and machines	3	2

Exhaust Systems Strand

Meet the requirements of all of the following sets

- Exhaust Systems Compulsory
- Exhaust Systems Elective

Exhaust Systems Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
946	Book in and receive work for an automotive or related business	3	4

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2

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

ID	Title	Level	Credit
11733	Demonstrate knowledge of vehicle exhaust systems	3	4
11735	Select, make, and fit exhaust brackets and mounts	2	2
11736	Copy, make, and fit an exhaust tube to a vehicle or machine	4	4
21678	Remove, repair, and/or replace a vehicle and/or machine exhaust system	3	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1
11737	Demonstrate knowledge of exhaust shop equipment	2	4
21671	Carry out general engineering tasks in the motor industry	2	4
21682	Demonstrate knowledge of an oxy-acetylene welding plant in the motor industry	2	2
21683	Demonstrate knowledge of MIG welding in the motor industry	2	2

ID	Title	Level	Credit
21685	Use an oxy-acetylene welding plant in the motor industry	2	3
21714	Demonstrate knowledge of fastening systems used in the motor industry	2	2
21715	Select and use fastening systems in the motor industry	2	2
23992	Use and maintain a gas metal arc welding (GMAW) plant in the motor and related industries	3	5

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2
21670	Demonstrate knowledge of general engineering tasks in the motor industry	2	3

Exhaust Systems Elective

A minimum of 9 credits

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Mechanical Engineering > Welding

ID	Title	Level	Credit
2676	Weld stainless steel sheet with the gas tungsten arc welding process	3	6
21907	Demonstrate and apply knowledge of safe welding procedures under supervision	2	3

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
22786	Maintain stock and carry out stocktaking duties in the motor or related industries	3	3
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

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

ID	Title	Level	Credit
5461	Demonstrate knowledge of fuel emissions, and vehicle emission controls	3	4

ID	Title	Level	Credit
11732	Determine requirements and make an exhaust muffler to a sample or drawing	4	8
24191	Demonstrate knowledge of fabricating, assembling and fitting exhaust systems in the motor and related industries	4	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
24393	Heat metal automotive components to aid disassembly and assembly in the motor and related industries	2	2

Radiator Repair Strand

Meet the requirements of all of the following sets

- Radiator Repair Compulsory
- Radiator Repair Elective

Radiator Repair Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Radiator Repair

ID	Title	Level	Credit
7002	Recore a brass tank vehicle or machine radiator	3	7
7006	Plan and prepare to modify, and modify a vehicle or machine radiator	4	10
7007	Plan and prepare to custom build, and custom build a vehicle or machine radiator	4	10
24453	Inspect, test and rectify faults in a vehicle or machine radiator	3	6
24454	Recore a plastic tank vehicle or machine radiator	3	4
24455	Prepare to clean out, and clean out a plastic tank vehicle or machine radiator assembly	3	4
24456	Prepare to clean out, and clean out a brass tank vehicle or machine radiator assembly	3	6

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1
21682	Demonstrate knowledge of an oxy-acetylene welding plant in the motor industry	2	2
21685	Use an oxy-acetylene welding plant in the motor industry	2	3

Engineering and Technology > Motor Industry > Engines

ID	Title	Level	Credit
19636	Remove and install vehicle engine exterior components	3	2
21686	Demonstrate knowledge of automotive cooling systems	2	2
21717	Service automotive cooling systems	2	3
24269	Demonstrate knowledge of cooling system operation, and factors that affect system efficiency on vehicles or machines	3	4

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2

Radiator Repair Elective

A minimum of 14 credits

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Mechanical Engineering > Welding

ID	Title	Level	Credit
2677	Weld aluminium with the gas tungsten arc welding process in the downhand positions	3	6
21907	Demonstrate and apply knowledge of safe welding procedures under supervision	2	3

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
946	Book in and receive work for an automotive or related business	3	4
5777	Demonstrate knowledge of estimate and quotation procedures in the motor and related industries	4	2
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2

ID	Title	Level	Credit
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2

Engineering and Technology > Motor Industry > Automotive Radiator Repair

ID	Title	Level	Credit
6999	Repair a damaged metal vehicle or machine fuel tank	4	4
7004	Test and rectify faults in an oil cooler in the radiator repair industry	4	5
7009	Test for, and rectify faults and refit a vehicle or machine heater assembly	3	4
7015	Test, recore and rectify faults in bolt-on industrial and heavy vehicle and machine cooling equipment	3	8

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
21683	Demonstrate knowledge of MIG welding in the motor industry	2	2
21684	Use a MIG welding plant in the motor industry	2	3

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Steering and Suspension Strand

Meet the requirements of all of the following sets

- Steering and Suspension Compulsory
- Steering and Suspension Elective

Steering and Suspension Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2

ID	Title	Level	Credit
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
21869	Remove and replace road wheels in the motor industry	1	1

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1
21671	Carry out general engineering tasks in the motor industry	2	4
21714	Demonstrate knowledge of fastening systems used in the motor industry	2	2

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2
21670	Demonstrate knowledge of general engineering tasks in the motor industry	2	3

Engineering and Technology > Motor Industry > Tyres

ID	Title	Level	Credit
24457	Demonstrate knowledge of light vehicle tyres and wheels	3	4

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
883	Check and adjust vehicle front and rear wheel alignment	3	4
884	Dismantle, inspect, and overhaul vehicle manual steering boxes and rack assemblies	3	2
21721	Demonstrate knowledge of vehicle steering and suspension systems	2	2

ID	Title	Level	Credit
24025	Diagnose suspension and manual steering faults on light vehicles	3	2
24026	Demonstrate knowledge of motor vehicle wheel alignment	3	3
24426	Demonstrate knowledge of diagnosing and rectifying vehicle power-assisted steering system faults	4	2
24440	Demonstrate knowledge of electric power steering (EPS) systems	3	1
24564	Remove and replace steering and suspension components on motor vehicles or machines	3	3

Steering and Suspension Elective

A minimum of 11 credits

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
946	Book in and receive work for an automotive or related business	3	4
5777	Demonstrate knowledge of estimate and quotation procedures in the motor and related industries	4	2
22785	Demonstrate knowledge of stock ordering and stocktaking in the motor or related industries	3	3

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
21682	Demonstrate knowledge of an oxy-acetylene welding plant in the motor industry	2	2
21683	Demonstrate knowledge of MIG welding in the motor industry	2	2
21715	Select and use fastening systems in the motor industry	2	2
23992	Use and maintain a gas metal arc welding (GMAW) plant in the motor and related industries	3	5
24393	Heat metal automotive components to aid disassembly and assembly in the motor and related industries	2	2

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
5775	Remove and replace motor vehicle supplementary restraint systems	4	6
24000	Demonstrate knowledge of motor vehicle restraint systems	3	5

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
24427	Test, diagnose, and rectify vehicle hydraulic power-assisted steering system faults	4	2
24428	Overhaul a power steering pump	4	2

Tyres Strand

Meet the requirements of all of the following sets

- Tyres Compulsory
- Tyres Elective

Tyres Compulsory

The following standards are required

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
946	Book in and receive work for an automotive or related business	3	4
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
21869	Remove and replace road wheels in the motor industry	1	1

Engineering and Technology > Motor Industry > Tyres

ID	Title	Level	Credit
24457	Demonstrate knowledge of light vehicle tyres and wheels	3	4

ID	Title	Level	Credit
24458	Prepare to repair, and repair punctures in tubes and tubeless tyres on light vehicles	3	5

Service Sector > Retail, Distribution, and Sales > Sales Transactions

ID	Title	Level	Credit
12008	Sell goods and/or services in a retail or distribution environment	2	6

Tyres Elective

A minimum of 20 credits

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
22785	Demonstrate knowledge of stock ordering and stocktaking in the motor or related industries	3	3
22786	Maintain stock and carry out stocktaking duties in the motor or related industries	3	3

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
233	Service an automotive battery	2	2
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2

Engineering and Technology > Motor Industry > Tyres

ID	Title	Level	Credit
11739	Repair and replace heavy vehicle tyres	3	10
24405	Repair punctures and fit tyres to motorcycle and all-terrain vehicle (ATV) wheels	3	2

ID	Title	Level	Credit
24459	Demonstrate knowledge of tractor and agricultural machinery tyres and wheels	3	4
24460	Remove and refit wheels from tractors and agricultural machinery	3	2
24461	Demonstrate knowledge of heavy machine and equipment tyres and wheels	4	4
24462	Check, remove, and refit wheels and tyres from heavy machines or equipment	4	10
24463	Demonstrate knowledge of heavy vehicle tyres and wheels	3	4

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
883	Check and adjust vehicle front and rear wheel alignment	3	4
21721	Demonstrate knowledge of vehicle steering and suspension systems	2	2
24026	Demonstrate knowledge of motor vehicle wheel alignment	3	3
24403	Demonstrate knowledge of motorcycle and all-terrain vehicle (ATV) wheel assemblies, tyres, and puncture repairs	3	3
24564	Remove and replace steering and suspension components on motor vehicles or machines	3	3

Service Sector > Retail, Distribution, and Sales > Retail and Distribution Management

ID	Title	Level	Credit
10458	Communicate product information to sales clients	4	5

Service Sector > Retail, Distribution, and Sales > Sales Transactions

ID	Title	Level	Credit
11831	Apply skills and qualities of a salesperson in a retail or distribution environment	3	6

Underbody and General Service Strand

Meet the requirements of all of the following sets

- Underbody and General Service Compulsory

- Underbody and General Service Elective

Underbody and General Service Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
946	Book in and receive work for an automotive or related business	3	4

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
233	Service an automotive battery	2	2
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2
21667	Demonstrate knowledge of testing automotive electrical circuits	2	3
21676	Select test equipment and test an automotive electrical circuit	2	4
24092	Demonstrate knowledge of automotive lighting systems, and headlamp adjustment	3	2
24093	Rectify simple vehicle lighting faults, and adjust vehicle lamps	3	3

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

ID	Title	Level	Credit
21692	Perform minor servicing tasks on a diesel fuel system	2	2
24234	Perform minor servicing tasks on a petrol fuel system	2	2

Engineering and Technology > Motor Industry > Automotive Heating, Ventilation, and Air Conditioning

ID	Title	Level	Credit
15373	Demonstrate knowledge of automotive air conditioning	3	4

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
229	Identify the general locations and functions of motor vehicle systems and main components	2	4
15406	Carry out general service checks on light vehicles	3	2

ID	Title	Level	Credit
21679	Demonstrate knowledge of interchanging and balancing road wheels in the motor industry	2	2
21680	Demonstrate knowledge of automotive lubricants and sealants	2	2
21716	Select and apply lubricants and sealants for automotive and related industry applications	2	1

Engineering and Technology > Motor Industry > Automotive Transmission Systems

ID	Title	Level	Credit
239	Demonstrate knowledge of automotive manual transmissions	2	2
922	Check and rectify faults in manual single plate clutches used on light vehicles	3	2
24307	Demonstrate knowledge of driveline components on light vehicles	3	2
24308	Rectify driveline faults on light vehicles, and overhaul universal and constant velocity (CV) joints	3	3
24332	Diagnose and rectify oil leaks on transmission and driveline components on light vehicles	3	2
24336	Demonstrate knowledge of light vehicle automatic transmissions and their servicing requirements	3	2
24689	Carry out routine maintenance on automotive automatic transmissions	3	4

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1
21714	Demonstrate knowledge of fastening systems used in the motor industry	2	2
21715	Select and use fastening systems in the motor industry	2	2

Engineering and Technology > Motor Industry > Engines

ID	Title	Level	Credit
231	Explain the operation of two and four stroke petrol and diesel engines	2	4
243	Carry out basic tuning on a four stroke petrol engine under supervision	2	4
15446	Remove and replace a light vehicle engine cam belt	3	3
21686	Demonstrate knowledge of automotive cooling systems	2	2
21687	Demonstrate knowledge of basic tuning on a four stroke petrol engine	2	3
21717	Service automotive cooling systems	2	3

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Engineering and Technology > Motor Industry > Vehicle Braking Systems

ID	Title	Level	Credit
5466	Remove and replace light vehicle brake pads and shoes	3	2
23818	Demonstrate knowledge of braking system fault diagnosis and repair requirements for light vehicles	3	3
24408	Inspect braking system for safe operation on light vehicles, and inspect hydraulic components off the vehicle	3	3

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
21721	Demonstrate knowledge of vehicle steering and suspension systems	2	2
24026	Demonstrate knowledge of motor vehicle wheel alignment	3	3
24564	Remove and replace steering and suspension components on motor vehicles or machines	3	3

Service Sector > Retail, Distribution, and Sales > Sales Transactions

ID	Title	Level	Credit
12008	Sell goods and/or services in a retail or distribution environment	2	6

Underbody and General Service Elective

A minimum of 9 credits

Engineering and Technology > Mechanical Engineering > Refrigeration and Air Conditioning

ID	Title	Level	Credit
19666	Demonstrate knowledge of ozone and how it relates to the refrigeration and air conditioning industry	3	3

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
5777	Demonstrate knowledge of estimate and quotation procedures in the motor and related industries	4	2
22785	Demonstrate knowledge of stock ordering and stocktaking in the motor or related industries	3	3
22786	Maintain stock and carry out stocktaking duties in the motor or related industries	3	3
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

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

ID	Title	Level	Credit
21678	Remove, repair, and/or replace a vehicle and/or machine exhaust system	3	2

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit
942	Carry out a pre-delivery check, rectify defects, and complete the service on a light vehicle	3	3

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
5468	Fit car and light commercial vehicle accessories	3	3
22803	Locate and rectify vehicle interior water leaks	3	2
22927	Locate and rectify vehicle body rattles, vibration, and squeaks	3	3

Engineering and Technology > Motor Industry > Vehicle Recovery

ID	Title	Level	Credit
3387	Respond to vehicle and/or machine breakdown	3	1

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
883	Check and adjust vehicle front and rear wheel alignment	3	4

Vehicle Security Strand

Meet the requirements of all of the following sets

- Vehicle Security Compulsory
- Vehicle Security Elective

Vehicle Security Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
946	Book in and receive work for an automotive or related business	3	4
5777	Demonstrate knowledge of estimate and quotation procedures in the motor and related industries	4	2
22789	Demonstrate knowledge of warranties and guarantees that apply to the motor or related industries	3	2

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
233	Service an automotive battery	2	2
898	Identify a wiring diagram and translate information to a circuit in the motor and related industries	3	3
909	Install electrical accessories in vehicles, and test for and rectify faults	3	2
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2	2
5742	Protect electronics when servicing or repairing a vehicle or machine in the motor industry	3	2
16114	Demonstrate knowledge of vehicle security systems and their installation	3	4
21667	Demonstrate knowledge of testing automotive electrical circuits	2	3
21676	Select test equipment and test an automotive electrical circuit	2	4
21707	Demonstrate knowledge of automotive electrical principles	2	6
24105	Demonstrate knowledge of wiring and wiring diagrams used in automotive circuits	3	2
24106	Carry out automotive wiring repairs and replace a wiring circuit	3	2
24122	Demonstrate knowledge of vehicle body electronic control security systems, and testing and rectifying faults	4	3
24138	Install an immobiliser system in a vehicle	3	2
24139	Install an aftermarket vehicle or machine body control security system	4	4

Engineering and Technology > Motor Industry > Vehicle Bodywork

ID	Title	Level	Credit
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	3	1

ID	Title	Level	Credit
22800	Describe safe working precautions on vehicles equipped with air bags and seatbelt pre-tensioners	3	2

Vehicle Security Elective

A minimum of 3 credits

Business > Business Administration > Business Administration Services

ID	Title	Level	Credit
327	Document business transactions	2	4

Engineering and Technology > Motor Industry > Automotive Administration

ID	Title	Level	Credit
934	Cost a job for the supply of a product, repair, or service in the motor and related industries	3	3
22786	Maintain stock and carry out stocktaking duties in the motor or related industries	3	3

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
924	Clean automotive components and maintain cleaning equipment	2	1

Engineering and Technology > Motor Industry > Motor Industry - Introductory Skills

ID	Title	Level	Credit
21668	Demonstrate knowledge of cleaning automotive components	2	2

Heavy Vehicle Steering and Suspension Optional Strand

Prior award of National Certificate in Motor Industry (Vehicle Servicing) [Ref: 1420] with strand Steering and Suspension

Meet the requirements of all of the following sets

- Heavy Vehicle Steering and Suspension Compulsory
- Heavy Vehicle Steering and Suspension Elective

Heavy Vehicle Steering and Suspension Compulsory

The following standards are required

Engineering and Technology > Motor Industry > Automotive Transmission Systems

ID	Title	Level	Credit
2316	Demonstrate knowledge of heavy vehicle and machine driveline and drive assembly operation and terminology	3	3

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
2312	Repair road transport heavy vehicle steering systems	4	4
15482	Demonstrate knowledge of heavy vehicle and trailer wheel alignment procedures	4	5
16112	Demonstrate knowledge of heavy vehicle and machine power steering systems	3	4
24432	Demonstrate knowledge of heavy vehicle suspension systems and identifying suspension failure	3	3
24433	Diagnose suspension failure on a heavy vehicle and repair components	4	6

Heavy Vehicle Steering and Suspension Elective

A minimum of 10 credits

Engineering and Technology > Motor Industry > Collision Repair

ID	Title	Level	Credit
9076	Repair vehicle chassis damage	4	10
23978	Demonstrate knowledge of chassis alignment system equipment, measuring systems, and structural damage on a vehicle	3	4
23979	Use vehicle unibody chassis alignment equipment and measuring systems under supervision	3	6

Engineering and Technology > Motor Industry > Vehicle Steering and Suspension

ID	Title	Level	Credit
3398	Disassemble, inspect, and overhaul power steering boxes and power steering rack assemblies	4	3

Previous version of the qualification

Version 2 was republished in December 2018 to include exemptions for unit standards 24234, 24077, 21858, 21707 and 21667.

This qualification replaced the National Certificate in Motor Industry (Brake Service Engineering) [Ref: 0096], National Certificate in Motor Industry (Automotive Servicing) [Ref: 0138], National Certificate in Motor Industry (Automotive Radiator Repair) [Ref: 0188], National Certificate in Motor Industry (Automotive Steering, Suspension, and Alignment) with an optional strand in Heavy Commercial Vehicles [Ref: 0246], National Certificate in Motor Industry (Exhaust Servicing) [Ref: 0372], and the 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].

Industry will continue to recognise the former qualifications, so there should be no need to 'upgrade' by those who have already achieved one.

Differences between new and replaced qualifications

There are substantial differences between the new and replaced qualifications. Changes included: the new qualification has core compulsory and core elective sections; the new qualification has strands in Brake and Clutch, Exhaust Systems, Radiator Repair, Steering and Suspension, Tyres, Underbody and General Service, and Vehicle Security, with an optional strand in Heavy Vehicle Steering and Suspension, with compulsory and elective sections in each strand; and candidates must complete a strand to meet the requirements of the qualification.

This qualification contains standards that replace or are being used as substitutes for earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement or substitute standards – see table below.

Credit for	Exempt from
59, 60	11831
226	21858
227	21670, 21671
228	21669, 21859
230	21682, 21685
232	21676, 21707
236	21686, 21717
237	21720, 21721
238	21869
241	21692
245	21680, 21716
382	327
385	12008
387	22785, 22786
391	934
392	21673, 21708
398	22789
877	24092, 24093
896	24025, 24564

Credit for	Exempt from
899	24105, 24106
901	24426, 24427, 24428
913	21685
914	23992
916	24458
921	24307, 24308
933	21678
935	24689
937	24406, 24407
938	24408, 24409
948	24410, 24411
965	24269
2315	24432, 24433
2327	24403
2348	24122
2629	22799, 22800
2670	21907
3391	24269
3394	24191
3863	21869
3879	21670, 21671
3880	21669, 21859
3883	21714, 21715
3884	21683, 21684
3885	21682, 21685
5431	24414, 24415
5432	24376, 24387
5440	24459, 24460

Credit for	Exempt from
5463	24122
5469	22803, 22927
5739	21673, 21708
5745	23978, 23979
5754	21678
5757	24105
5767	23743
5771	23992
5772	21721
7000	21669, 21859
7003, 7005, 7011	24453, 24454, 24455, 24456
7012	21686, 21717, 24269
7013	21717
7014	24269
8184	23817, 23818
9074	24457, 24458
11738	21678
11741	24462
11742	24461, 24462
11745	12008
15411	12008
15420	24689
15472	24405
15475	24407, 24418
15657	24564
16097	21718
16098	21858
16115	24138, 24139

Other standard setting bodies whose standards are included in the qualification

Competenz
 NZQA
 ServiceIQ

Certification

This certificate will display the logos of NZQA, the NZ Motor Industry Training Organisation (Incorporated) and the accredited organisation.

Classification

This qualification is classified according to the NQF classification system and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		NZSCED	
Code	Description	Code	Description
257	Engineering and Technology > Motor Industry	030503	Engineering and Related Technologies > Automotive Engineering and Technology > Vehicle Mechanics

Quality Management Systems

Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Organisation with consent to assess and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Consent to assess requirements and the moderation system are outlined in the associated Consent and Moderation Requirements (CMR) for each standard.