

Field Engineering and Technology

Review of *Motor Industry* unit standards

Subfield	Domain	ID
Motor Industry	Automotive Fuel Systems and Exhaust	894, 917, 8183, 15380, 15381, 15405, 19305, 21692, 23805, 24178, 24180, 24181, 24185, 24189, 24191, 24192, 24235
	Automotive Heating, Ventilation, and Air Conditioning	902, 981, 24443-24448
	Automotive Hydraulics	2314, 23928
	Automotive Pneumatics	2324
	Automotive Preventive Maintenance	247, 942, 2322, 2347, 21679, 21690, 23807, 24268, 24338, 24343, 24346, 24349
	Automotive Sales	393, 394, 397, 23844

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

Date new versions published

April 2021

Planned review date

December 2025

Summary

MITO reviewed and revised motor industry unit standards to ensure they are fit-for-purpose for the industry sectors.

MITO was supported by the motor industry's working groups including subject matter experts and MITO representatives. The standards were circulated to the working groups' networks, and a consultation period was held. Feedback received was actioned where appropriate.

Main changes

- Purpose statements, guidance information, references, outcomes, performance criteria, and range statements were amended to ensure they are current, accurate and fit for purpose, reflect the standard content and to ensure clarity for users.
- Unit standard 24191 with little use over the past five years was set to expire without replacement as it no longer reflects the learning and assessment needs of industry.
- Titles of unit standards 247, 397, 2314, 2324, 2347, 19305, 21679, 23805, 23844, 24178, 24180, 24185, 24268, 24343, 24346, 24445 were amended to enhance readability and better reflect the purpose.

Category D unit standard will expire at the end of December 2022

The last date for assessment of superseded versions of Category B unit standards is December 2022

Detailed list of unit standards – 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

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

ID	Title	Level	Credit	Review Category
894	Diagnose and rectify faults in a carburetted petrol fuel system	4	4	B
917	Remove and replace a diesel fuel injection pump	3	2	B
8183	Demonstrate knowledge of the operation, service checks, fault diagnosis, and repair of carburettors	3	6	B
15380	Demonstrate knowledge of carburettors used on outdoor powered equipment	3	4	B
15381	Diagnose and rectify faults in carburetted petrol fuel systems used on outdoor powered equipment	4	4	B
15405	Repair diesel engine air intake and exhaust systems	4	4	B
19305	Test electronic diesel management systems and replace components Test electronic fuel management systems and replace components	4	4	B
21692	Perform minor servicing tasks on a diesel fuel system	2	2	B
23805	Demonstrate knowledge of fuel systems and fuel system requirements for competition race vehicles Demonstrate knowledge of fuel systems and fuel system requirements for a competition race vehicle	3	3	B
24178	Demonstrate knowledge of exhaust systems on heavy vehicles and equipment Demonstrate knowledge of exhaust systems of heavy vehicles and equipment	3	3	B
24180	Inspect and test diesel engine intake and exhaust systems Inspect and test diesel engine induction and exhaust systems	3	4	B
24181	Demonstrate knowledge of engine tuning procedures and equipment malfunction causes on LPG fuelled vehicles	4	2	B
24185	Demonstrate knowledge of liquefied petroleum gas (LPG) vehicle fuel systems Demonstrate knowledge of liquefied petroleum gas vehicle fuel systems	4	2	B
24189	Demonstrate knowledge of motorcycle carburettors, and diagnosing fuel system faults and their causes	3	2	B
24191	Demonstrate knowledge of fabricating, assembling and fitting exhaust systems in the motor and related industries	4	2	D
24192	Repair heavy vehicle or machine exhaust systems	3	3	B
24235	Diagnose and rectify faults in a common rail diesel fuel system	4	3	B

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

ID	Title	Level	Credit	Review Category
902	Test a vehicle heating and ventilation system	3	3	B
981	Install an automotive air conditioning system	3	3	B
24443	Prepare to test, test and diagnose faults in an automotive air conditioning system	4	5	B
24444	Service and rectify faults in an automotive air conditioning system	4	7	B
24445	Remove and replace automotive air conditioning components Remove and replace automotive air conditioning components in the passenger compartment and engine bay	3	2	B
24446	Demonstrate knowledge of preparing to test, and testing for faults in an automotive air conditioning system	4	4	B
24447	Recover refrigerant from, and evacuate and charge an automotive air conditioning system	3	2	B
24448	Demonstrate knowledge of servicing automotive air conditioning systems	3	2	B

Engineering and Technology > Motor Industry > Automotive Hydraulics

ID	Title	Level	Credit	Review Category
2314	Test and service hydraulic systems on equipment, vehicles, and/or machines Test and service hydraulic systems on equipment, vehicles, or machines	3	6	B
23928	Demonstrate knowledge of automotive hydraulic circuit diagrams and oil requirements	3	3	B

Engineering and Technology > Motor Industry > Automotive Pneumatics

ID	Title	Level	Credit	Review Category
2324	Repair and test heavy vehicle and/or equipment compressors and adjust their controls Repair and test heavy vehicle or equipment compressors, and adjust their controls	3	4	B

Engineering and Technology > Motor Industry > Automotive Preventive Maintenance

ID	Title	Level	Credit	Review Category
247	Prepare a vehicle and/or machine for use and shutdown after use Prepare a vehicle or machine for use, and shutdown after use	2	2	B
942	Carry out a pre-delivery check, rectify defects, and complete the service on a light vehicle	3	3	B
2322	Carry out general service checks on heavy vehicles or equipment	3	4	B

ID	Title	Level	Credit	Review Category
2347	Complete a pre-assessment of a motor vehicle to determine compliance with Certificate of Fitness (CoF) requirements Complete a pre-assessment of a motor vehicle to determine compliance with Certificate of Fitness requirements	4	2	B
21679	Demonstrate knowledge of interchanging and balancing road wheels in the motor industry Demonstrate knowledge of interchanging and balancing wheels in the automotive industry	2	2	B
21690	Perform general servicing checks on a motor vehicle	2	3	B
23807	Carry out competition race vehicle preparation and maintenance requirements at a motorsport event	4	6	B
24268	Carry out general service checks on motorcycles Carry out general service checks on systems and components of a motorcycle, and check a motorcycle for serviceability	3	2	B
24338	Service bearings and seals in vehicles or equipment	3	3	B
24343	Carry out an annual safety inspection on forklifts, and complete an inspection report Carry out an annual safety inspection on a forklift, and complete an inspection report	4	4	B
24346	Select and apply lubricants and sealants for motorcycle or all-terrain vehicle (ATV) applications Select and apply a lubricant and sealant for a motorcycle or all-terrain vehicle application	2	2	B
24349	Demonstrate knowledge of marine lubricants and lubrication systems; and marine adhesives, sealants, and gaskets	2	2	B

Engineering and Technology > Motor Industry > Automotive Sales

ID	Title	Level	Credit	Review Category
393	Carry out automotive service station forecourt duties	3	5	B
394	Carry out a motor vehicle sales presentation	4	4	B
397	Interpret legislation relevant to motor vehicle sales Demonstrate knowledge of legislation relevant to motor vehicle sales	4	6	B
23844	Demonstrate knowledge of selective financing arrangements for a vehicle, machine, or automotive components Demonstrate knowledge of selective financing, and insurance options for a vehicle, machine, or automotive component	3	3	B