

Field Engineering and Technology**Development of *Motor Industry* unit standards**

Subfield	Domain	ID
Motor Industry	Automotive Electrical and Electronics	33118-33121, 33128-33130
	Automotive Hydraulics	33156
	Automotive Pneumatics	33124
	Automotive Transmission Systems	33123, 33126
	Automotive Workshop Engineering	33131-33133
	Engines	33122, 33127

Hanga-Aro-Rau Workforce Development Council has completed the development of the unit standards listed above.

Date new versions published

January 2023

Planned review date

December 2027

Summary

The above unit standards were developed in conjunction with industry stakeholders, association members and training providers for the automotive industry to recognise the knowledge and skill requirements for advanced automotive technicians.

Amendments and updates were discussed at meetings throughout 2021-2022 and via email consultation. All relevant feedback was actioned where appropriate.

Main changes

- 16 new unit standards were developed for the Motor Industry subfield.

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

Engineering and Technology > Motor Industry > Automotive Electrical and Electronics

ID	Title	Level	Credit
33118	Diagnose complex faults in vehicle or machine high voltage systems and reflect on diagnostic procedures	5	10
33119	Diagnose complex faults in vehicle or machine accessory systems and reflect on diagnostic procedures	5	10
33120	Design and build vehicle or machine complex electrical systems containing electronics and reflect on build procedures	5	10
33121	Diagnose complex faults in heavy vehicle or machine EMSs and reflect on diagnostic procedures	5	10
33128	Diagnose complex faults in light vehicle engine management systems and reflect on diagnostic procedures	5	10
33129	Diagnose complex faults in vehicle or machine body control systems and reflect on diagnostic procedures	5	10
33130	Diagnose complex faults in vehicle or machine braking, steering and suspension systems and reflect on procedures	5	10

Engineering and Technology > Motor Industry > Automotive Hydraulics

ID	Title	Level	Credit
33156	Diagnose complex faults in heavy vehicle or machine hydraulic systems and reflect on diagnostic procedures	5	10

Engineering and Technology > Motor Industry > Automotive Pneumatics

ID	Title	Level	Credit
33124	Diagnose complex faults in heavy vehicle or machine pneumatic systems and reflect on diagnostic procedures	5	10

Engineering and Technology > Motor Industry > Automotive Transmission Systems

ID	Title	Level	Credit
33123	Diagnose complex faults in heavy vehicle or machine driveline systems and reflect on diagnostic procedures	5	10
33126	Diagnose complex faults in vehicle or machine driveline systems and reflect on diagnostic procedures	5	10

Engineering and Technology > Motor Industry > Automotive Workshop Engineering

ID	Title	Level	Credit
33131	Monitor and control complex system fault repairs on a vehicle or machine	5	20
33132	Repair complex system faults on a vehicle or machine	5	20
33133	Undertake cause and effect analysis for heavy vehicle or machine component metal fatigue failure	5	10

Engineering and Technology > Motor Industry > Engines

ID	Title	Level	Credit
33122	Diagnose complex heavy vehicle or machine mechanical engine failures and reflect on diagnostic procedures	5	10
33127	Diagnose complex light vehicle mechanical engine failures and reflect on diagnostic procedures	5	10