

Field Manufacturing, and Engineering and Technology

Review, and Rollover and Revision of *Boating Industries, Composites, and Motor Industry* unit standards

Subfield	Domain	ID
Motor Industry	Trailer Boat Systems	15451
Boating Industries	Boatbuilding	9925, 9927, 9929, 9931, 9934, 9939, 9940, 9941, 9942, 9943, 9945, 9947, 9948, 10843, 11776, 11777, 11780, 11783, 11784, 11785, 11791, 11792, 11793, 11794, 11795, 11796, 11797, 11798, 11799, 23038, 23047, 23242, 23247, 25157, 26088
	Marine Design	10853-10856, 10858-10863, 10865-10869
Composites	Industrial Composites	3180, 26562
	Production Composites	3188, 3196, 23254, 26559, 26560
	Specification and Design Composites	3191, 3194, 3195, 3197

The NZ Marine and Composites Industry Training Organisation (NZMAC ITO) has completed the review of the unit standards listed above. The unit standards in **bold** were rolled over and revised only.

Date new versions published

July 2018

Planned review date (new and reviewed standards)

December 2023

Planned review date (rolled over and revised standards)

December 2020

Summary

NZMAC ITO carried out a review to better align these unit standards to the graduate profile outcomes of the New Zealand qualifications relating to the marine and composites industry and also to reflect the new health and safety legislation. Industry and subject matter experts provided feedback and input into the review of these unit standards.

Unit standard 3180 was recommended to expire as it is no longer fit for purpose.

NZMAC ITO developed new unit standards for the New Zealand Certificate in Power Boat Rigging (Level 4) [Ref: 3847] and the New Zealand Certificate in Power Boat Systems Servicing and Repair (Technician) (Level 4) [Ref: 3848] to meet the graduate outcomes of these qualifications. The review was carried out in consultation with, and endorsed by, representatives from the trailer boat sector.

Main changes

- Content of the unit standards and titles were updated to better reflect the standard outcomes.
- Guidance information was updated to reflect the changes in legislation.
- Unit standards in the domains listed above in **bold** were rolled over and revised to update legislation and references.
- Unit standard 3180 was designated expiring and will not be replaced.
- 15 new unit standards were developed.

The Category D unit standard will expire at the end of December 2020

The last date for assessment of superseded versions of Category B unit standards is December 2020

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

New and Reviewed unit standards

Engineering and Technology > Motor Industry > Trailer Boat System

ID	Title	Level	Credit	Review Category
15451	Demonstrate knowledge of the construction and rigging requirements of trailer boats Demonstrate knowledge of rigging requirements of power boats	3	10	B
31199	Check and rectify manual starting system component faults on a small marine engine	3	2	New
31201	Diagnose and repair faults on four stroke marine engine	4	15	New
31202	Demonstrate knowledge of petrol and an electronic fuel injection (EFI) system for a marine engine	3	4	New
31204	Explain marine engine management systems	3	4	New
31205	Inspect, diagnose, and repair a two stroke marine engine	4	6	New
31206	Inspect, service and repair a boat trailer	4	6	New
31208	Disassemble and rectify faults on a marine engine short block	4	5	New
31209	Apply lubricants and sealants in a marine engine system	2	2	New
31210	Service outboard marine engine	3	4	New
31211	Inspect and test a four stroke petrol marine engine	3	4	New

Manufacturing > Boating Industries > Boatbuilding

ID	Title	Level	Credit	Review Category
9934	Construct interior support structures for boats	4	15	B
9940	Plank and glass sheathe a mould or boat	4	15	B
23038	Form and shape compound aluminium plate for boats	4	10	B
23242	Loft full sized decks and superstructures	4	6	B
25157	Build metal boat framework under supervision Build metal boat framework	3	20	B
31200	Demonstrate basic knowledge of carburettor system in a marine engine	3	3	New
31203	Diagnose, repair, and test marine engine electrical wiring faults	4	5	New

ID	Title	Level	Credit	Review Category
31207	Dismantle, check, and rectify cylinder head of a marine engine	4	4	New
31212	Test and rectify faults in marine engine charging and starting systems	4	5	New
31213	Test, diagnose and rectify marine electronic fuel injection (EFI) system	4	6	New

Manufacturing > Composites > Industrial Composites

ID	Title	Level	Credit	Review Category
3180	Produce an item by centrifugal force for composites	4	7	D

Manufacturing > Composites > Production Composites

ID	Title	Level	Credit	Review Category
3196	Test properties of a composite laminate Test a composite laminate	4	10	B
23254	Touch up and restore gelcoat	4	4	B
26559	Lift, support, and secure large composite components safely	3	5	B
26560	Demonstrate knowledge of gelcoat application equipment	4	4	B