

NATIONAL CERTIFICATE IN BOATBUILDING COMPOSITE PRODUCTION TRAILER BOATS (Level 4)

263 CREDITS Version 5

An apprentice completing this NZQA registered qualification will gain the knowledge and skills required to be Marine Industry recognized and qualified as a competent **Composite Production Trailer Boatbuilder**.

This qualification is designed for apprentices in the boatbuilding sector of the Marine Industry who specialise in the building of composite production trailer boats.

In this qualification, apprentices undertake detailed training in the use of composite materials, construction methods and the correct use of tools and machinery relevant to building composite production trailer boats.

Composite production trailer boats is one of the largest sectors of the industry and owning such a boat represents one of the major aspirations of a large number of New Zealanders. Up to a maximum of around 8 metres in length, these boats are mainly owned by individuals and families for recreational purposes, though a number operate in commercial applications. It is an exciting part of the industry to be part of.

This qualification takes, on average 3 to 4 years to complete.



Andrew Martyn

Andrew Martyn has completed two boatbuilding qualifications, both the National Certificate in Boatbuilding (Composite) Level 4 and the National Certificate in Boatbuilding (Composite Production Trailer Boat) Level 4.

He is now the head gel-coater at Tristram Marine in Hamilton and spends part of his time passing on his skills to younger apprentices.

Andrew's other love is rugby and he has just been offered a contract to play in England where he will be checking out the opportunities to work in the Mediterranean using his boatbuilding skills once he finishes up with rugby.

"If you get the chance, doing more than one qualification will set you up well for the future"
– Andrew Martyn

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Unit Standard Content

Unit Number	Unit Title	Level	Credit Value
414	Demonstrate knowledge of the distribution environment	2	4
3160	Produce a laminated polyester resin item to a product specification for composites	3	5
3167	Deposit composite matrix with depositor or chopper gun	3	6
3168	Deposit a polyester gel coat by hand for composites	3	4
3169	Deposit a polyester gel coat by spray methods for composites	3	6
3171	Produce a cored laminate for composites	3	3
3181	Produce a plug or pattern for composites	4	12
3182	Produce a mould or tool from a plug or pattern for composites	4	5
3183	Prepare pre-form materials for lamination for composites	3	4
3184	Prepare a mould for moulding composites	4	5
3185	Demould laminated items for composites	3	6
3186	Finish product to specification for composites	3	5
3190	Repair damaged or faulty composite	4	5
3193	Apply quantity surveying to composite production	3	2
3198	Alter resin rheology with fillers, extenders and additives for composites	5	3
5433	Demonstrate knowledge of electrical and electronic applications for marine use	4	8
9913	Demonstrate a knowledge of the New Zealand marine industry	2	3
9917	Demonstrate knowledge of boatbuilding methods	2	4
9922	Produce templates and patterns used in boatbuilding	3	4
10836	Produce scale drawings of boat surfaces from corrected offsets	2	6
18158	Select, use and care for hand tools used in boatbuilding	2	5
18159	Select, use and care for portable power tools used in boatbuilding	2	5
18160	Operate a mechanical plant used in boat building	2	12
18161	Perform measurements and calculations used in boatbuilding	3	5
18162	Calculate quantities and costs for boatbuilding projects	3	4
18163	Demonstrate a knowledge of boatbuilding construction drawings and produce related freehand sketches	3	2
18166	Participate in a project team in the boating industry	2	4
18170	Contribute to a project team in the boating industry	3	3
23049	Demonstrate knowledge of composite technology for boatbuilding	4	6
23241	Loft a boat hull	4	10
23242	Loft full sized decks and superstructures	4	6
23243	Identify and explain the causes and prevention of material deterioration in the marine environment	4	8
23244	Identify and apply health and safety procedures for the boatbuilding industry	3	4
23245	Fit hatches, windscreens & screen rails on production trailer boats	3	3
23246	Apply linings and floor coverings on production trailer boats	3	3
23247	Describe upholstery applications on production trailer boats	3	3
23248	Detail production trailer boats	3	3
23249	Fit electrical systems to production trailer boats	3	3
23250	Describe production trailer boat support and transport requirements	3	3
23251	Demonstrate knowledge of production processes used in trailer boatbuilding	3	8
23252	Demonstrate knowledge of production trailer boat design	4	4
23253	Join composite production trailer boat hulls and decks	4	4
23254	Restore and repair gelcoat on production trailer boats	4	4
23255	Install an outboard motor on a production trailer boat	4	3
23256	Demonstrate knowledge of quality control for production trailer boats	4	3
23257	Install and describe a production trailer boat fuel system	4	5
25115	Describe, install and test plumbing systems in boats	3	6
25343	Identify boat fittings and fastenings	2	4
25344	Demonstrate knowledge of marine trades and expectations of employees	2	3
25345	Demonstrate knowledge of terminology used in the marine industry	2	6
26542	Demonstrate basic knowledge of the operation of recreational craft by day	2	6

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Unit Number	Unit Title	Level	Credit Value
3161	Produce an Epoxy resin item to a product specification for composites	3	5
3162	Produce a vinyl ester resin item to a product specification for composites	3	5
3170	Produce a laminate by vacuum bagging for composites	4	2
9941	Carry out the repair, restoration, and structural alteration of fibre-reinforced composite boats	4	20
11777	Install production inboard engine packages in boats	3	6
11788	Prepare fibre-reinforced composite substrates for marine surface coatings	4	5
18165	Demonstrate knowledge of computer technology used in the boating industry	3	6
23035	Describe and install boat tankage systems	3	6
23036	Describe infusion and resin transfer moulding processes used in boatbuilding	4	4
25113	Describe filling and fairing technology used in boatbuilding	3	4
25152	Apply 2D CAD/CAM in boatbuilding	4	5
25153	Describe computerised manufacturing processes used in boatbuilding	4	3

