

Boatbuilder Apprenticeship On-Programme Brief

Supporting the delivery of the Boatbuilder Standard Version 1

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Purpose of this document

This document provides information for apprentices, employers and training providers to aid the delivery of the Boatbuilder Apprenticeship Standard and End Pont Assessment and places the different aspects of apprenticeship delivery into context.

The relationship between the Boatbuilder Standard, Assessment Plan and this On-Programme Brief is explained below.

Boatbuilder Standard

- Provides a boatbuilder profile
- Lists the key boatbuilding work aspects undertaken by boatbuilders
- Lists the knowledge, understanding, skills and behaviours required by boatbuilders
- Provides the typcial entry requirements to the boatbuilding industry
- Details required qualifications (typcially needed to undertake the apprenticeship and those attained during the apprenticeship)
- Details the professional registration an apprentice can apply for on completion of the apprenticeship

Boatbuilder End Point Assessment Plan

- Highlights the typical journey to end point assessment
- Details the end point assssment requirements and methods
- Details the responsibilities of those involved in the end point assessment process

Boatbuilder On-Programme Brief

- Provides additional information that places the requirements of the boatbuilder standard apprenticeship into context
- Suggests how the on programme training, development and assessment can be undertaken
- Provides information about the resources that apprentices/ employers/ training providers can utilise
- Provides links to documents that assist employers undertake job development and assessment

The boatbuilder role

Boatbuilders build boats such as yachts, workboats and superyachts and/or refit and repair existing boats. Boats may be made of composites, metals, or wood, so a boatbuilder can work with and understand the capabilities of a variety of materials. Boatbuilders can read and interpret engineering and technical drawings to produce moulds, jigs, plugs and templates to create complex shapes using a variety of measuring equipment, machines, and hand tools. They manufacture and assemble components that form the structure of a boat as well as the interior and exterior fit out. They will be expected to work both individually and as part of a team. They understand and comply with organisational and statutory safety requirements, including sustainability needs and can work with minimum supervision. They are responsible for the quality and accuracy of their work and are good communicators and problem solvers. Boatbuilders typically work with associated trades such as Marine Engineers and have a strong understanding of the marine industry.

An apprentice boatbuilder needs to demonstrate competence across the work aspects (knowledge, understanding, skills and behaviours) detailed in the boatbuilder apprenticeship standard.

Delivering the standard – an overview

An apprentice's employer and external training provider(s) commissioned by the employer should deliver an apprenticeship programme that meets the criteria detailed in the boatbuilder standard and provide an environment that enables the apprentice to acquire the necessary knowledge, understanding, skills and behaviours to reach and complete the end point assessment.

Employers need to provide a boatbuilder apprenticeship programme that offers both on the job and off the job training and development opportunities that enable apprentices to progress from simple boatbuilding tasks to more complex ones, appropriate to an apprentice's stage of development and that meet a business's operational needs, ensuring that the requirements detailed on the boatbuilder standard are met across the duration of the apprenticeship. Definitions of 'on' and 'off' the job training are provided in the Skills Funding Agency documents.

The apprenticeship reforms provide more control to employers to decide how, when, and where apprenticeship training, development, and assessment is provided. The apprenticeship funding rules (May 2017) give control to employers to negotiate and agree the price and schedule for the off the job training and development delivered by training providers. A collaborative relationship needs to be established between employers and their training provider(s). To receive apprenticeship levy or apprenticeship funds under the new Government apprenticeship co-funded finance scheme, the training providers selected must be on the new Register of Apprenticeship Training Providers (RoATP).

The Government provide information for employers and training providers about the requirements of each party in delivering the apprenticeship in the following documents:

- Respective Funding Rules and Performance Management Guidance
- Apprenticeship Funding How it Will Work

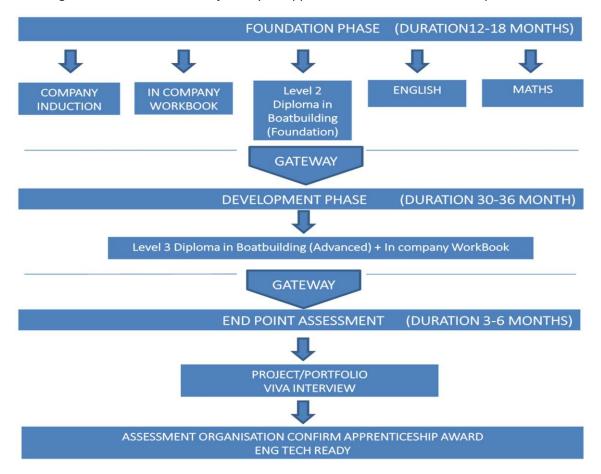
Please note that the Government produce updated versions of the above at regular intervals. Employers and training provider must ensure that they are aware of the current requirements.

Understanding the on-programme journey to end point assessment

The End Point Assessment (EPA) Plan focuses on the assessment undertaken by apprentices at the end of their apprenticeship and which determines whether an apprentice has acquired and can demonstrate boatbuilder competence across the depth and breadth of the apprenticeship standard.

This section looks at the journey an apprentice takes to acquire competence prior to undertaking the end point assessment.

The diagram below illustrates the journey an apprentice will take to reach end point assessment.



The foundation and development phases provide a structure where an apprentice is supported by their employer and nominated training provider(s).

At the beginning of an apprenticeship the employer, apprentice, and the training provider need to develop a schedule detailing outcomes that an apprentice is expected to achieve throughout the apprenticeship and timeframes for achieving these.

The Foundation Phase (12-18 months)

During the Foundation Phase, apprentices should:

- Complete a formal work based induction and industry induction, which introduces them to the wider scope and opportunities offered within the boatbuilding and marine sector.
- Demonstrate that they are developing skills of long-term value to their employer.
- Demonstrate that they are developing transferable skills that are of value to different sectors.
- Demonstrate their competence in undertaking a variety of different boatbuilding tasks at foundation phase and against the required foundation units of competence.
- Demonstrate that they have developed competency in working with at least two different types of materials (wood, composites, or metals).
- Complete and pass the foundation technical qualification City and Guilds Level 2 Diploma in Boatbuilding (foundation).
- Complete and pass any other courses and/or qualifications identified by the employer and training provider(s), as meeting the requirements of the standard's foundation phase.

In addition to the above, apprentices without Level 2 English and Mathematics should achieve these during the foundation phase and before passing through the first gateway. This then ensures that the focus of an apprentice's time during the development phase is on developing more complex boatbuilding knowledge and skills required by the standard and enabling the apprentice to be more productive and contribute more fully towards the achievement of the business's objectives during the latter part of the apprenticeship.

The on-programme foundation technical qualification has a common assessment specification to ensure consistent implementation, documentation, content coverage and grading, as defined by the awarding body (City and Guilds). The on-programme foundation technical qualification and functional skills level detailed in the standard are recommended elements for an apprentice to progress through the first gateway.

Achievement of the above requirements should be evidenced by an apprentice and reviewed and confirmed by the employer.

During the foundation phase apprentices should have regular professional and developmental meetings with their employer to review their progress and their current levels of competence against the requirements of the business and the apprenticeship standard. It is strongly recommended that formal reviews should be undertaken at least annually, but on-going developmental reviews are recommended at least quarterly to ensure that the required progress is being made against agreed objectives. More regular informal checks should be undertaken by company staff to ensure that the apprentice is 'on target' and identify any issues that need to be addressed.

If employers choose to adopt an NVQ qualification to support on programme competence development, then the appropriate NVQ competence and quality records need to be produced and

maintained. The NVQ qualification undertaken must meet the requirements of the boatbuilding standard.

If employers decide not to use NVQs, as a means of on-programme formative developmental assessment, then it is strongly recommended that apprentices record evidence of their development against the required standard work aspects and areas of competence. The process of recording evidence encourages apprentices to continuously reflect on their training, development, and performance and assists them in identifying areas where improvements and more experience is required. An apprentice's records can also assist in performance review discussions. Where possible, the apprentice's development records should be maintained electronically.

British Marine has produced record books that contain a series of templates that can be used as part of the on-programme assessment and development reviews. The different templates can be amended to meet the needs of employers and apprentices. There will be record books that cover both phases (foundation and development).

Apprentices should successfully complete the foundation phase prior to progressing to the next phase (gateway to the development phase) of the apprenticeship. Employers should decide with their relevant lead training provider when an apprentice can pass through the gateway. This is undertaken by reviewing evidence collected by the apprentice along with reviews of an apprentice's performance at foundation phase.

Development Phase

Core to the development phase will be learning and work activities that prepare apprentices to achieve full competence against the standard, with the Level 3 Diploma in Boatbuilding (Advanced) qualification, being successfully undertaken during this time, along with more complex work activities that enable the apprentice to acquire and demonstrate competence across the depth and breadth of the standard.

Regular development reviews and more formal meetings between the employer and the apprentice need to be undertaken to review progress and performance, review the development of the apprentice's competence, and plan further work activities and training to develop the apprentice's competence so that they can progress to end point assessment.

Once again, it is strongly recommended that apprentices maintain records evidencing their continuing competence. Depending on the approach taken by employers this could be for example via NVQ records, or via evidence in a development record book, or combination of these or other methods.

Learning and development evidence that an apprentice collates that is formally assessed or which forms part of external qualifications during this phase **cannot be used** as part of the end point assessment.

Qualifications undertaken

An apprentice gains qualifications at different stages of the apprenticeship (see illustrated journey):

- City and Guilds Diploma in Boatbuilding (foundation) Level 2 (2473-02).
- City and Guilds Diploma in Boatbuilding (advanced) Level 3 (2473-03).

Individual employers may decide that apprentices need to complete additional qualifications that enable their apprentices to meet the requirements of the boatbuilder standard and will need to negotiate with their lead provider for the delivery and costs of these. These could include, for example:

- Performing engineering operations (PEO) level 2 Foundation stage.
- NVQs occupational assessment against agreed work tasks/units.
- Others that allow an apprentice to achieve the requirements of the standard, for example powerboat level 2, competent crew, etc.

The lead training provider will provide guidance to employers regarding which additional external courses and qualifications can be funded via the apprenticeship levy or co-funded finance model.

Qualifications undertaken will be assessed and verified through the respective awarding organisation's processes. These will not form part of the end point assessment process.

City and Guilds technical certificate

Level 2 Diploma in Boatbuilding (Foundation) - this qualification contains the following units:

- Unit 201 Introduction to the marine industry (mandatory unit assessed by multiple choice test).
- Unit 202 Principles of boatbuilding technology (mandatory unit assessed by multiple choice test).
- Unit 203 Business improvement techniques (mandatory unit assessed by short answer questions).
- Unit 204 Yacht and boatbuilding assembly and sub-assembly (optional unit assessed by centre devised practical tasks and short answer questions)
- Unit 205 Production of external boat components (optional unit assessed by centre devised practical tasks and short answer questions)
- Unit 206 Interior installation and fitting out of boats (optional unit assessed by centre devised practical tasks and short answer questions)
- Unit 207 FRP manufacture for marine construction (optional unit assessed by centre devised practical tasks and short answer questions).

To ensure coverage the Level 2 qualification is completed during the foundation phase.

The Level 3 Diploma in Boatbuilding (Advanced) is undertaken during the development phase. The development of this course has commenced. This document will be amended in due course once the detail of the course/qualification content has been agreed and the course specification/handbook has been produced.

Passes of the qualification at both levels (2 and 3) are graded as pass, merit, or distinction.

Detailed information about these two courses is provided on the <u>City and Guilds</u> website under the 2473 suite.

Employers and training providers should be familiar with the content of the recommended two new technical certificate qualifications.

In the transition period there may be some apprentices who have been enrolled in and are completing, or have recently completed, the older 2363-02 City and Guilds programme, as part of the Level 2 Engineering Manufacture Apprenticeship Framework Pathway 2 (ship, yacht, boatbuilding maintenance and repair). The new 2473-02 and 2473-03 qualifications are more robust and rigorous. Training providers should ensure that an apprentice moving from the older 2463-02 to the new 2473-03 is not disadvantaged. To ensure this training providers will need to undertake some supplementary activity to get a 2463-02 student 'up to speed'. This could include access to the Business Improvement Technique unit and covering new content. Training providers should refer to City and Guilds for more information about this.

City and Guilds plan to retire the older 2463 suite over time.

National Vocational Qualifications (NVQ)

NVQs are optional qualifications that assess job competence. If used, these qualifications are undertaken as part of the on-programme developmental assessment. They will not form part of the end point assessment process.

If offering an NVQ qualification then the selection of NVQ units must meet the requirements of the boatbuilder apprenticeship standard and the required number of units stated by the NVQ awarding body need to be completed and evidenced. Training providers will assist employers decide which boatbuilding NVQ units fit the requirements of the standard, the employer's business objectives, and the industry focus.

Those employers who do not want to deliver NVQs should use other forms of on-programme assessment to determine whether an apprentice is developing the required competence and to help decide when an apprentice is ready to progress to end point assessment.

Knowing whether an apprentice is developing competence

How do employers know that an apprentice is progressing, or has reached the required standard to undertake end point assessment? The following table summarises this.

Foundation phase	Development phase
 Workplace experience (learning, skills, behaviours) - review against respective Units of Competence at foundation level (L2), or vocational qualifications, if these are undertaken 	 Workplace experience (learning, skills, behaviours) - review against respective Units of Competence at developmnet level (L3), or vocational qualifications if these are undertaken, and the standard work aspects
 Recommended that the above are assessed using a development record book/portfolio, regular training and development reviews and specific gateway review for progression to development phase 	 Recommended that above assessed using a development record book/portfolio, regular training and development reviews and specific gateway review and progression to end point assessment

- Assessed by employer and /or training provider
- Support from training provider, if vocational qualification is being undertaken
- Successful completion of level 2
 English and mathematics, and digital skills (if required)
- Diploma in Boatuilding (Foundation) (pass/ merit/distinction gained)
- Successful completion of any other qualification and courses, as identified by employer and training provider as meeting the standard at this stage of the apprenticeship
- Employer agrees gateway progression from regular performance reviews

- Assessed by employer and/ or training provider
- Support from training provider, if vocational qualification is being undertaken
- Required qualification pass Diploma in Boatbuilding (Advanced) (pass/ merit/ distinction)
- Successful completion of any other qualification or courses, as identified by the employer or training provider as meeting the requirements of the apprenticeship standard
- Employer agrees gateway progression and readiness for end point assessment (EPA) - confirmed by employer from evidence provided from regular performance reviews

The on-programme assessment methods undertaken to ensure apprentices are developing their knowledge, understanding and skills as they progress throughout the apprenticeship may include:

- Professional discussions.
- Observations of work being carried out.
- Review of produced work artefacts.
- Oral questioning.
- Review of witness testimony (others who have observed work being undertaken, or questioned outputs, etc. and have recorded comments).

A minimum of a pass in the respective qualification along with successful completion of work tasks in the workplace are required to progress to the development phase and also to the end point assessment.

Requirements for end point assessment and the evidence that must be collected and demonstrated is produced and communicated separately by the registered and approved assessment organisation, and details of this are detailed in the end point assessment plan.

Employers and training providers – types of dialogue required

Employers and colleges/training providers should maintain a dialogue throughout the duration of an employee's apprenticeship in order to:

- Negotiate and agree areas of external training and developmental assessment and the costs for delivery of these.
- Agree the payment schedules for the agreed delivery.

- Ensure there is a common understanding about the requirements of the apprenticeship (the standard and assessment).
- Ensure employers have a clear understanding of the environment and facilities that apprentices will have access to when undertaking courses/qualifications.
- Ensure employers have a common understanding of how the apprentices will develop the required knowledge, understanding, skills and behaviours whilst undertaking courses/ qualifications with a training provider.
- Discuss an apprentice's progress and ensure it is going as planned.
- Ensure an apprentice is attending the required external off the job training.
- Identify any problems with course delivery.
- Ensure that off the job and on the job experiences 'dovetail,' as planned.
- Ensure an apprentice gets the required and agreed support from tutors, mentors, etc.
- Identify any issues with apprentices (they are representing the employer's organization whilst undertaking courses).
- Give and receive feedback about the training and learning, etc.
- Determine whether the apprentice has passed the required elements of the technical courses and other external events and is ready to progress to the next gateway, as required.
- Organise end point assessment.

Training providers delivering the courses / qualifications and receiving levy or government coinvestment funds must be approved providers detailed on the <u>Register of Apprenticeship Training</u> <u>Providers (RoATP)</u> and have the required awarding body's approval for delivering the courses.

The technical qualifications along with other externally provided courses, etc., will form part of the minimum 20% off the job training, other off the job training can comprise other courses that have relevance to the standard along with for example, conducting classroom learning - lectures, tutorials, presentations, facilitated discussions, simulations, providing directed self-study materials to apprentices, distance learning or eLearning, and writing of assignments.

Guidance produced by <u>GOV.UK</u> detail what on and off the job training can include and what elements of an apprentice's development can be funded.

Every organisation, irrespective of size should have a well-planned induction programme providing all the information that new apprentices require. This should be planned so that it is relevant and timely. Both the <u>CIPD</u> and also <u>ACAS</u> provide useful information for employers on the development and contents of effective induction programmes.

Boatbuilding Units of Competence (UC)

Boatbuilding units of competence are based on the requirements of the Boatbuilding National Occupational Standards (NOS) and the requirements of the Boatbuilding Apprenticeship Standard.

NOS are:

- Statements detailing the nationally agreed standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding.
- Occupational because they describe the performance required of an individual when carrying out functions in the workplace, i.e. in their boatbuilding role.
- Standards, as they detail effective performance, which have been agreed by a representative sample of employers and other key stakeholders and approved by the UK NOS Panel.

Employers have freedom and control to choose the way that they formatively assess (review performance of apprentices as they progress through an apprenticeship standard up to, but not including, end point assessment). The formative assessment can be undertaken against the:

- Requirements of the units of competence (which have behaviours included).
- Required NVQ units.
- Training provider /Employer behavioural assessments.
- Other means selected by the employer.

Employers may decide that they have staff with the relevant experience to conduct the on-programme assessment against the requirements of the provided units or areas of competence. If they do not, or they do not want to utilize competent company staff, then they may decide to ask a training provider to undertake the on-programme assessment for them, or assess and / or award an NVQ.

If an employer wants to offer NVQ qualifications these must be undertaken via an approved training provider. To use levy or co-funded apprenticeship funds these qualifications must be offered by an approved training provider registered on the Register of Apprenticeship Training Providers (RoATP). The NVQ qualification (units undertaken) must meet the requirements detailed in the Boatbuilder Standard.

Formal and informal progress reviews undertaken by the employer are also recommended.

The **units of competence** contain statements outlining the standards of performance apprentices must achieve when performing specific tasks in the workplace, together with the necessary underpinning knowledge and understanding. The units of competence provide one means of assessing an apprentice's competence of given tasks.

If assessing against the units of competence, apprentices need to demonstrate their competence against a minimum of 3 different units of competence at foundation stage and a similar minimum number during the development phase.

The units of competence selected should, across the apprenticeship, encompass the depth and breadth of the level the apprentice is at in their apprenticeship journey, and allow the apprentice to demonstrate their knowledge, understanding, skills and behaviour over a number of occasions and receive feedback from occupationally competent staff to allow them to develop and become

competent across a range of work activities. The units of competence selected should have direct relevance to the requirements of the standard and the operational needs of the business.

The units of competence are of use to:

- Apprentices to see what is required of them.
- Occupationally competent staff or assessors, as a guide to what is expected of apprentices when undertaking certain work tasks.
- Training providers who are undertaking the on-programme assessment for an employer.

The units of competence and other formative assessment (performance reviews, etc.) help apprentices and employers discuss the progress and development of the apprentice.

The following table details the relevant NOS, Units of Competence and NVQ units.

Boatbuilding Units of Competence

Based	Unit of	Units of Competence	<u>Development</u>	NVQ unit if
on	<u>Competence</u>	(based on NOS)	<u>Assessment</u>	applicable
SEMME	<u>Codes</u>		Records	
<u>NOS</u>			(DAR)	
	Level 2 Wood			
<u>2116</u>	UCL2.116	Cutting and shaping wooden components for yachts and boats using hand tools	2.116	R/601/2618
<u>2117</u>	UCL2.117	Cutting and shaping wooden components for yachts and boats using machines	2.117	Y/601/2619
<u>2118</u>	UCL2.118	Assisting in the assembly of wooden furniture / outfitting units for yachts and boats	2.118	L/601/2620
<u>2119</u>	UCL2.119	Assisting in the installation of wooden furniture / outfitting units for yachts and boats	2.119	L/601/2621
<u>2120</u>	UCL2.120	Assisting in the assembly of wooden structural components to produce yachts and boats	2.120	Y/601/2623
<u>2121</u>	UCL2.121	Applying surface finishes to yacht and boat wooden assemblies	2.121	D/601/2623
<u>2122</u>	UCL2.122	Fitting seating, interior panels, soft furnishing and trim in yachts and boats	2.122	K/601/2625
<u>2123</u>	UCL2.123	Carrying out repairs to yacht and wooden components and assemblies	2.123	M/601/2626
	Level 2 composi	'te		
<u>2124</u>	UCL2.124	Carrying out repairs to yacht and boat composite components	2.124	T/601/2627
<u>2055</u>	UCL2.055	Using wet lay-up techniques to produce marine composite components	2.055	F/601/2288
<u>2056</u>	UCL2.056	Using pre-preg laminating techniques to produce marine composite components	2.056	A/601/2290
<u>2057</u>	UCL2.057	Forming marine components by acrylic moulding	2.057	F/601/2291
<u>2058</u>	UCL2.058	Assembling marine composite components	2.058	L/601/2293
<u>2059</u>	UCL2.059	Vacuum forming marine composite materials	2.059	R/601/2294
<u>2060</u>	UCL2.060	Carrying out trimming operations on marine composite mouldings	2.060	M/601/2299
<u>2061</u>	UCL2.061	Fitting composite components to the vessel, craft, or structure	2.061	H/601/2302
<u>2062</u>	UCL2.062	Carrying out bonding operations on marine composite components	2.062	J/601/2308
<u>2063</u>	UCL2.063	Carrying out repairs to marine composite mouldings	2.063	L/601/2312
<u>2064</u>	UCL2.064	Checking marine composite components/mouldings for defects	2.064	K/601/2317

	Level 2 metal			
<u>2065</u>	UCL2.065	Marking out marine sheet metalwork	2.065	K/601/2320
<u>2066</u>	UCL2.066	Cutting and shaping marine sheet metal using hand and machine tools	2.066	A/601/2323
<u>2067</u>	UCL2.067	Bending and forming marine sheet metal using hand and machine tools	2.067	D/601/2329
2068	UCL2.068	Cutting and shaping materials using CNC laser profiling operations	2.068	J/601/2356
2069	UCL2.069	Cutting and shaping materials using CNC plasma or gas cutting machines	2.069	J/601/2358
<u>2070</u>	UCL2.070	Assembling marine sheet metal components	2.070	L/601/2360
<u>2071</u>	UCL2.071	Assisting in the installation of marine sheet metal components or assemblies	2.071	H/601/2364
<u>2072</u>	UCL2.072	Using mechanical fasteners to join marine sheet metal components	2.072	K/601/2365
<u>2073</u>	UCL2.073	Using resistance welding to join marine sheet metal materials	2.073	T/601/2367
2074	UCL2.074	Joining marine materials and components using adhesives	2.074	J/601/2373
<u>2076</u>	UCL2.076	Joining marine materials / structures using the manual metal arc (MMA) welding process	2.076	D/601/2380
<u>2077</u>	UCL2.077	Joining marine materials/structures using semiautomatic MIG/MAG and flux cored arc	2.077	K/601/2382
		processes		
<u>2078</u>	UCL2.078	Joining marine materials/structures using manual TIG and plasma-arc welding processes	2.078	A/601/2385
<u>2079</u>	UCL2.079	Joining marine materials/structures using the manual oxy/fuel gas welding process	2.079	L/601/2388
<u>2080</u>	UCL2.080	Joining materials using manual torch brazing and soldering	2.080	
2100	UCL2.100	Carrying out the preparation of material surfaces by abrasive blasting	2.100	

Level 3

Based on	Unit of Competence	Unit of Competence title	Development Assessment	NVQ unit if applicable
SEMME	Code		Records (DAR)	аррпсаыс
NOS			,	
3216	UCL3.216	Repairing yacht and boat wooden components and assemblies	3.216	L/601/8207
3218	UCL3.218	Marking out for the manufacture of wooden furniture/outfitting components for yachts and boats	3.218	R/601/8211
3219	UCL3.219	Marking out for the installation of wooden furniture/outfitting units in yachts and boats	3.219	H/601/8214
3220	UCL3.220	Producing/finishing wooden furniture/outfitting components for yachts and boats using hand tools	3.220	M/601/8216
3221	UCL3.221	Producing wooden furniture/outfitting components for yachts and boats using machines	3.221	F/601/8236
3222	UCL3.222	Assembling wooden furniture/outfitting units for yachts and boats	3.222	J/601/8240
<u>3223</u>	UCL3.223	Installing wooden furniture/outfitting units in yachts and boats	3.223	J/601/8240
3224	UCL3.224	Finishing yacht and boat wooden furniture/outfitting units by applying surface finishes	3.224	L/601/8241
<u>3225</u>	UCL3.225	Installing seating, interior panels, soft furnishing and trim in yachts and boats	3.225	D/601/8244
<u>3226</u>	UCL3.226	Installing composite components in yachts and boats	3.226	T/601/8248
<u>3227</u>	UCL3.227	Marking out for the manufacture of structural components for wooden yachts and boats	3.227	A/601/8249
<u>3228</u>	UCL3.228	Lining off for assembly and erection of yachts and boat wooden components	3.228	M/601/8250
<u>3229</u>	UCL3.229	Producing/finishing wooden structural components for yachts and boats using hand tools	3.229	A/601/8252
<u>3230</u>	UCL3.230	Producing wooden structural components for yachts and bots using machines	3.230	F/601/8253
<u>3231</u>	UCL3.231	Assembling/installing wooden structural components to produce yachts and boats	3.231	L/601/8255
<u>3237</u>	UCL3.237	Applying fairing / filling compounds to yachts and boats	3.237	R/601/8399

	Level 3 composite	s		
3143	UCL3.143	Producing marine composite components using wet layup techniques	3.143	R/601/3347
3144	UCL3.144	Producing marine composite components using pre-preg laminating techniques	3.144	R/601/3350
<u>3145</u>	UCL3.145	Producing marine components by acrylic moulding	3.145	D/601/3352
3146	UCL3.146	Producing marine composite assemblies	3.146	J/601/3636
3147	UCL3.147	Trimming marine composite mouldings	3.147	L/601/8465
3148	UCL3.148	Installing marine composite components	3.148	M/601/3646
3149	UCL3.149	Bonding marine composite components	3.149	H/601/4194
<u>3150</u>	UCL3.150	Repairing marine composite components and assemblies	3.150	K/601/4195
<u>3151</u>	UCL3.151	Identifying defects in marine composite components and assemblies	3.151	R/601/4224
3217	UCL3.217	Repairing yacht and boat composite components	3.217	K/601/4195
<u>3226</u>	UCL3.226	Installing composite components in yachts and boats	3.226	T/601/8248

	Level 3 metal			
<u>3240</u>	UCL3.240	Producing marine outfitting components in sheet metal	3.240	
3241	UCL3.241	Producing marine sheet metal outfitting assemblies	3.241	
3243	UCL3.243	Installing marine outfitting components and assemblies	3.243	
<u>3152</u>	UCL3.152	Marking out for fabrication and assembly of marine sheet metalwork	3.152	D/601/4226
<u>3153</u>	UCL3.153	Cutting sheet metal to shape using hand and machine tools	3.153	H/601/4261
<u>3154</u>	UCL3.154	Forming marine sheet metal components using hand and machine tools	3.154	A/601/4279
<u>3155</u>	UCL3.155	Producing marine sheet metal assemblies	3.155	M/601/4294
<u>3156</u>	UCL3.156	Installing marine sheet metal components and assemblies	3.156	L/601/4366
3157	UCL3.157	Joining marine sheet metal components using mechanical fasteners	3.157	F/601/4364
3160	UCL3.160	Bonding marine materials and components using adhesives	3.160	D/601/4405
<u>3161</u>	UCL3.161	Heat treating materials for marine fabrication activities	3.161	J/601/4415
3162	UCL3.162	Welding marine materials and structures using the manual metal arc process	3.162	R/601/4434
3163	UCL3.163	Welding marine materials and structures using semiautomatic MIG/MAG and flux	3.163	D/601/4436
		cored arc processes		
<u>3164</u>	UCL3.164	Welding marine materials and structures using manual TIG and plasma arc welding	3.164	K/601/4441
		processes		

<u>3165</u>	UCL3.165	Welding marine materials and structures using the manual oxy/fuel gas welding	3.165	F/601/4445
		process		
3166	UCL3.166	Welding marine pipe/tube using multiple manual arc welding processes	3.166	L/601/4447
<u>3167</u>	UCL3.167	Welding marine plate and structures using multiple manual welding processes	3.167	H/601/4471
3168	UCL3.168	Joining marine materials by manual torch brazing and soldering	3.168	K/601/4472
3181	UCL3.181	Preparing marine material surfaces using hand and mechanical tools	3.181	D/601/5330
3182	UCL3.182	Preparing marine coatings for application	3.182	H/601/5331

Boatbuilder Units of Competence explained

The format and structure of the boatbuilder units of competence are outlined below.

Unit title – this details the title and unit of competence reference number. The competence level is also detailed here (level 2 - Foundation or level 3 - Advanced).

Unit overview – provides a summary of the requirements of the unit.

Areas of competence – provides details of each area of competence along with additional information to assist employers.

Knowledge and understanding – the different areas of knowledge and understanding that are required to meet the unit of competence.

Behaviours – the behaviours that apprentices must develop and demonstrate over the course of the apprenticeship.

An extract from a unit of competence is shown on the next page.

Example – selected extracts (note: not a full unit)

Boatbuilder Apprenticeship Foundation Level Unit of Competence – Cutting and shaping wooden components for yachts and boats using hand tools (UCL2.116)

Unit overview

This unit identifies the competencies an apprentice needs to cut and shape wood and manufacture board components for yachts and boats using hand tools, in accordance with approved procedures.

The apprentice will be required to interpret drawings and work instructions and to use appropriate tools based on the type of operations to be performed, the size of the components to be produced and thee materials to be used. The size and complexity of the components produced will vary and it is anticipated that the production will involve roughing out the components using fixed or portable machine tools and finally finishing them using hand tools.

Areas of competence The apprentice must be able to

- C1 Work safely at all times, complying with health and safety legislation, regulations, directives and other relevant guidelines
 - Adhere to procedures or systems in place for risk assessment, COSHH, personal protective equipment and other relevant safety regulations
 - Ensure the work area is free from hazards
- C2 Obtain and follow all the necessary information to carry out the hand cutting /shaping / fitting task (relevant specification, job instructions, drawings, etc) for the component to be produced

Knowledge and understanding The apprentice must know and understand

- KU1 The specific safety precautions to be taken whilst using hand tools to cut and shape the yacht or wooden structural components (including any specific legislation, regulations, and codes of practice relating to the activities, equipment and materials).
- KU2 The health and safety requirements of the work area in which the apprentice is carrying out the wood working activities and the responsibility they place on the apprentice
- KU15 How to conduct any necessary checks to ensure the accuracy and quality of the components to be produced and the type of equipment that is used

Behaviours

The apprentice must demonstrate developing behaviours in:

Appropriate safety behaviours individually and towards others.

Commitment to quality and continuous improvement.

Commercial awareness and business acumen.

Focus on the requirements of the customer.

The units of competence act as an aide memoire, providing guidance to those who observe, assess, and provide feedback to apprentices about their work and their on-going development needs. This may be occupationally competence employer's staff or contracted training provider's staff who have recent boatbuilding experience (within last 5 years).

Each unit of competence has a corresponding Development Assessment Record (DAR). The DARs may be used by apprentices and those who are responsible for assessing an apprentice's development.

Development Assessment Record (DAR) templates

DAR templates mirror the requirements of the units of competence and have been designed so that they can be used by apprentices to record evidence of their developing knowledge, understanding, skills and behaviours in undertaking the respective units of competence. If used, they can also provide a mechanism for apprentices and occupationally competent witnesses to detail information about the work undertaken and the knowledge, understanding, skills and behaviours displayed.

The forms can be completed on a number of occasions, over time, to evidence the apprentice's ongoing development and to demonstrate that an apprentice has reached the required competence in the work activity across different situations and circumstances.

If using the DAR templates, as part of the on-programme development assessment process and record keeping, the first part is completed by an apprentice. The form requires an apprentice to actively consider the requirements of a task and take responsibility for evidencing the work undertaken and the apprentice's developing competence. The form is designed to encourage active learning and reflection and commence the process of continuous professional development. This is an essential skill which needs to be demonstrated by apprentices throughout their apprenticeship and also when going on to apply for professional engineering registration (EngTech).

The second part of the form is completed by an occupationally competent person who witnesses an apprentice undertake a work activity or examines work produced and provides developmental feedback to the apprentice.

Remember, employers have choice in how they monitor and review an apprentice's developing competence throughout the on-programme phases up to end point assessment.

Some employers may have their own forms that allow apprentices and staff to record evidence in the same way. Irrespective of the type of form used (DAR, or company specific formset, NVQ, etc.), they along with any other forms that evidence competence should be filed in an apprentice's Record Book, or other file that is used.

A hyperlink to the different DARs is provided on the previous table.

Assessment of behaviours

The boatbuilder standard details the required behaviours that an apprentice should develop and demonstrate. Both informal and formal feedback on the demonstrated behaviours across different work situations should be given to apprentices throughout their apprenticeships.

The required behaviours are detailed on the respective Units of Competence and also the DARs.

The following provides some guidance regarding the supportive and non-supportive elements for each of the required behaviours. These can be used as a base for assessing an apprentice's performance.

Where employers have their own behavioural matrices these can be used providing the behaviours detailed in the boatbuilder standard are covered.

Appropriate safety behaviours individually and towards others

Supportive	Non supportive
Acts in accordance with relevant health and safety legislation, regulations, policies and codes of practice	Does not take into account the health and safety of self and others
Takes responsibility for safety of self and others	Can take risks which could put self and others in danger
Contacts supervisor/line manager regarding any health and safety concerns	Puts minimum effort into ensuring health and safety of self and others
Identifies and challenges areas /incidents which can result in risk to self and others	Fails to recognize hazards

A commitment to quality and continuous improvement

Supportive	Non supportive
Maintains high standards despite pressing	Does not always work within timeframe
deadlines	
Identifies way to improve own performance	Does not see problems or ways to improve
	performance
Works with others to resolve issues and deliver	Allows others to identify and resolve issues
quality services	
Identifies problems and seeks ways to	Gets bogged down in unnecessary detail
overcome these	
Is supportive of change initiatives, taking	Reluctant to implement change
responsibility to understand need for change	
and embraces the change process	

Commercial awareness and business acumen

Supportive	Non supportive
Understand how the work of own division fits	Does not consider how own work impacts on
within the broader organizational context	the broader organizational context
Always complies with corporate policies	Does not always adhere to corporate policies
Uses company property and information	Uses company property and/or information
appropriately	inappropriately
Adopts a proactive approach to minimizing	Does not always consider cost of resources and
costs and encourages others to do so	materials

Ability to communicate at all levels of the organisation

Supportive	Non supportive
Clearly communicates needs and instructions	Is hesitant, nervous and uncertain when speaking
Listens to others and checks understanding when necessary	Does not listen, and interrupts at inappropriate times
Deals with issues directly	Speaks without first thinking through what to say
Speaks with confidence	Speaks in a rambling way
Changes the style of communication to meet the needs of the audience	Does not consider the target audience
Summarises information to check people understand it	Avoids answering difficult questions
Produces clear and well-structured records, communications, etc.	Writes and makes notes in an unstructured way
Supports discussions and ideas effectively	Assumes others understand what has been said without actually checking

An ability to work effectively individually and as part of a team

Supportive	Non supportive
Understands own role in organization	Does not volunteer to help other staff
Actively supports and assists the team and	Is only interested in taking part in high profile
organization to reach their objective	and interesting activities
Works harmoniously with others to get a job	Takes credit for successes without recognizing
done	the contribution of others
Asks for and accepts help when needed	Plays one person off against another
Coordinates own work with others	Does not offer advice or get advice from others
Willingly takes on unpopular or routine tasks	Shows little interest in working jointly with
	other groups to meet the goals of everyone
	involved
Contributes to team objectives no matter what	Does not discourage conflict within the
the direct personal benefit may be	organization

Takes pride in their work and the work of teams	Works to own agenda rather than contributing
	to team performance

A focus on the requirements of the customer

Supportive	Non supportive
Supports strategies that aim to build an	Is not customer focused and loses sight of
organization that reflects customers' needs	customer needs
Tries to sort out customers' problems as quickly	Presents an unprofessional image to customers
as possible	
Responds appropriately to customer requests	Shows little interest in the customer
Makes sure that customers are satisfied with	Slow to respond to customers' requests
the service they receive	
Manages customer expectations	Fails to check that customers' needs have been
	met
Keeps customers updated on progress	Fails to keep customers and others informed on
	progress

A recognition and appreciation of equality and diversity in the workplace

Supportive	Non supportive
Acts in accordance with relevant legislation, regulations, policies and codes of practice which relate to promoting equality and diversity	Plays lip service to the relevant legislation, regulations, policies and codes of practice relating to equality and diversity
Treats all people fairly and with respect	Does not value the beliefs and values of others
Acts in ways that respects diversity and does not discriminate against individuals	Uses language that can offend the values and beliefs of others
Takes into account how their behaviour affects others	Does not consider how their behaviour can offend others
Seeks and considers diverse perspectives and ideas	Shows insensitivity to individual differences
Challenges people when they are not promoting equality and valuing diversity	Does not like to be challenged and takes offence to others

Strong work ethic, motivated, committed, meticulous, reliable, proactive and adaptable

Supportive	Non supportive
Is comfortable working alone with an	Gets easily upset, frustrated and annoyed
appropriate level of supervision and guidance	
Takes action to resolve problems and fulfil own	Panics and becomes agitated when problems
responsibilities	occur
Accepts feedback and takes action to improve	Needs constant reassurance, support and
performance	supervision

Says 'no' when necessary	Gets too emotionally involved in situations
Adopts a 'can do' mentality	Complains and whines about problems rather
	than dealing with them
Takes a positive, rational and consistent	Worries about making mistakes and avoids
approach to work	difficult situations wherever possible
Shows keenness in developing their knowledge,	Puts in the minimum effort that is needed to
understanding and skills	get by

Formal apprenticeship development reviews

In addition to the developmental feedback and assessment that is undertaken as part of an apprentice's planned day-to-day on the job training and work, formal performance management reviews should be held with an apprentice to:

- Discuss and provide formal feedback on progress.
- Discuss and agree with the apprentice further performance and developmental objectives and work outputs.

It is recommended that these formal performance management reviews are typically undertaken at least every 12 weeks. A template that employers can use is detailed, see Appendix 1.

Employers may have their own performance management systems and forms, where this is the case employers should review their forms and check that over the duration of the apprenticeship the requirements of the standard are covered.

These formal development reviews will assist an employer decide when the apprentice is ready to progress through the two gateways and give a feel for how the apprentice is developing.

Gateway to end-point assessment

An apprentice's progression to end-point assessment is made when the employer confirms that the apprentice has:

- Passed the necessary technical qualifications.
- Demonstrated competence against selected units of competence.
- Demonstrated the competence against the requirements of the boatbuilding apprenticeship standard.
- The ability to successfully complete the end-point assessment.

A boatbuilder standard competence checklist template that can be used to record an apprentice's competence achievement has been produced. A draft copy of this form can be found as an appendix to this document.

Summative end-point assessment

Apprentices need to undertake and pass the end-point assessment.

The end-point assessment is separate to any qualifications or assessments apprentices undertake during the on-programme phases (foundation or development).

To ensure independence in the apprenticeship end-point assessment process, the end-point assessment must involve an independent party (an assessment organisation) that does not stand to benefit financially from the outcome of the assessment. The selected assessment organisation must also be on the Register of Apprentice Assessment Organisations (RoAAO).

Employers select an assessment organisation from those detailed on the above register and the lead training provider assists the employer to co-ordinate securing the assessment organisation's services and agreeing the costs of the end point assessment.

The end-point assessment (EPA) is undertaken once the apprentice has undertaken the foundation and development phases successfully. The end point assessment is usually undertaken during the last 3 to 6 months of the apprenticeship. Once an apprentice has been deemed competent to undertake the end-point assessment, the lead training provider will forward the apprentice's details to the selected assessment organisation. The selected assessment organisation will inform the apprentice, his/her employer and the training provider of a full overview of the end-point assessment and time schedules for completing the EPA. Detailed guidance should be received to ensure that those involved are clear about the process, roles and responsibilities of those involved, and associated costs.

The boatbuilder end-point assessment comprises:

- Work based project(s) that reflect the operational activities of the employer and allow competence across the depth and breadth of the boatbuilder standard. In completing the work based project an apprentice collects evidence of their knowledge relevant to the project, and compile a simple portfolio, which will contain images and documentation demonstrating the different boatbuilding work methods.
 - Information about the project(s) requirements and content along with guidance on the completion of the project(s) will be provided by the assessment organisation.
- Viva Interview, this is based on a presentation of the work that has been produced as part of
 the work based project(s). The Viva will also comprise a question and answer session. The
 assessment organisation will provide guidance for apprentices to prepare for their
 presentation and associated interview.

See the Boatbuilder Assessment Plan for more information regarding the end point assessment process.

Employers and training providers must refer to the latest government documentation Education and Skills Funding Agency for more detailed guidance on organising end point assessment.

Membership of professional bodies

On commencing a boatbuilder apprenticeship apprentices can gain free membership to IMarEST. Apprentices should be encouraged to become student members. Information on how to apply to become a student member is available on the IMarEST website.

In becoming student members, apprentices:

- Gain access to articles, trade magazines, etc.
- Have networking opportunities.
- Receive e-Marine IMarEST's bi-monthly newsletter.
- Receive discounts on selected book titles.

On successful completion of the apprenticeship an apprentice can apply for Engineering Technician Professional Membership. There are many benefits in an apprentice doing this, for example:

- It shows that they are a skilled professional and working at a certain level.
- It shows that their level of competence is recognised nationally and internationally.
- It enhances their employability.
- It provides access to IMarEST professional resources.

Further sources of reference

The Government publish a wealth of apprenticeship publications. These are regularly published/updated. The following link provides details of the most up to date titles and versions: https://www.gov.uk/topic/further-education-skills/apprenticeships/latest

Appendices

• Boatbuilder Apprentice Performance and Development Review Form – specimens.

These templates can be used by employers to record and discuss an apprentice's progress /set on-going development objectives.

There are different ones for foundation and development phases.

Employers may have their own forms, if using these companies must ensure that the elements of the standard are discussed and reviewed at the appropriate phase and details are recorded.

The progress and achievements of an apprentice should increase as the apprenticeship journey progresses.

- Boatbuilder Standard Competence Checklist this summary form records an apprentice's competence over time and the employer can determine whether an apprentice is ready to proceed to end point assessment.
- Provides examples as to the requirements for gaining Engineering Technician / Marine Engineering Technician Registration (EngTech/MarEngTech).

Please note that the respective Apprentice Boatbuilder Record Books contain templates of other forms that can be used to record an apprentice's progress and evidence competence achieved.

Apprentice Performance Development Review Foundation Phase

Job role: Review date:				
Stage of apprenticeship (week number): Reviewer's name and position:				
Please consider the following aspects.				
Washamaka	Please tick the relevant box (See rating guidance on subsequent pages)			
Work aspects	Exceptional	Above standard	Achieves standard	Below expected standard
Adherence to H&S and Environmental regulations and legislation at work – safe working practices followed				
Planning of work tasks				
Focus on the needs of customers				
Follows instructions, policies, procedures, codes of practice, etc when undertaking work tasks				
Selection and use of appropriate tools, equipment, materials, and machinery				
Level of involvement and assistance when competing tasks				
Pace of work undertaken				
Quality of work completed				
Effectiveness in communicating in the workplace and when undertaking work tasks				
Level of teamwork, and positive working relationships maintained				
Manner of conduct and attitude to work shown				
Level of development and progress made against expected training and development plan				
Other areas as defined by employer				
General comments by person conducting the review	ı	<u>I</u>	<u>I</u>	1
Apprentice's comments				
Action/further development plan agreed (add contents, as approp	riate)			

Further development activities
Development objectives
Resources required and time frames
Supervisor/line manager signature:
Apprentice signature:
Applemice signature.

Grading guidance

Exceptional	Where performance consistently exceeds expectations and requirements at this stage of the apprenticeship. Examples could include where considerable technical capability is displayed to undertake own work and this is beyond the expected capability at this stage; where all required tasks are completed accurately and well within expected time frames; works well and at ease with others and always responds enthusiastically to new challenges, where supportive behaviour traits are always displayed, etc.
Above standard	Where performance often exceeds that expected at this stage of the apprenticeship but does not always consistently achieve this. Examples could include where tasks are completed within time frame; where work is organised well with only a little assistance from others; demonstrates above average understanding and competence of work aspects; where more supportive behaviours are displayed, etc.
Achieves standard	Where performance is at the required level at the particular stage in the apprenticeship. Examples could include where work targets are regularly achieved in required time frames; where required awareness is demonstrated to perform tasks; where on odd

	occasions needs support at the stage of the apprenticeship; where supportive behaviour traits are often displayed, etc.
Below standard expected	Where performance is not what is expected at a particular stage in the apprenticeship.
	Examples could include where work is not undertaken in required time frames and there is not sufficient reason for this; where reminders need to be given for producing work tasks to the required standard; where considerable support is required which is not expected at the stage of the apprenticeship; where a range of non-supportive behaviour traits are displayed.

See also the guidance regarding supportive and non-supportive behaviours see earlier in this document.

Apprentice Boatbuilder Performance and Development Review Development Phase

Name of apprentice:	Job role of apprentice:
Review date: Do	epartment apprentice works in:
Stage of apprenticeship (year):	Reviewer's name and position:

When conducting the performance and development review please consider the information on the following pages.

When undertaking the review, reference should also be made to the requirements of the boatbuilder apprenticeship standard and also the units of competence relevant to the development phase.

Grading guidance is given at the end of this document.

Further information about supportive and non-supportive behaviours was detailed earlier in this document.

WORK ASPECTS	KNOWLEDGE/ UNDERSTANDING/ SKILLS PERFORMANCE				
	(Place tick in ap	propriate colun Above standard	nn below) Achieved standard	Below standard expected	
Work methods					
Respond to customer needs					
Work planning and set up					
Manufacture and assemble/ disassemble and repair components					
Fit out					
Finish					
Support commissioning and sea trials					

Behaviours	Exceptional	Above standard	Achieves required standard	Below the standard expected
Safety				
Continuous improvement				
Commercial awareness and business acumen				
Communication				
Teamwork				
Customer focus				
Equality and diversity				
Work ethic – motivates, committed, reliable, proactive, adaptable				
Overall progress being made at this stage of the apprenticeship				

General comments by person conducting review:
Apprentice's comments

Action /further development plan agreed (add contents, as appropriate)	
Further development activities	
Turtier development activities	
Development objectives	
Resources required and time frames	
Apprentice signature	ata
Supervisor/manager signature Da	ate

Grading guidance

Exceptional	Where performance consistently exceeds targets and time frames for current stage of the apprenticeship.
	Examples could include where considerable technical capability is displayed to undertake own work and this is beyond the expected capability at this stage; where all required tasks are completed accurately and well within expected time frames; works well and at ease with others and always responds enthusiastically to new challenges, where supportive behaviour traits are always displayed, etc.
Above standard	Where performance often exceeds that expected at this stage of the apprenticeship but does not always consistently achieve this.
	Examples could include where tasks are always completed within time frame; where work is organised well with only a little assistance from others; demonstrates above average understanding and competence of work aspects; where more supportive behaviours are displayed, etc.
Achieves standard	Where performance is at the required level at the particular stage in the apprenticeship.
	Examples could include where work targets are regularly achieved in required time frames; where required awareness is demonstrated to perform tasks; where on odd occasions needs support at the stage of the apprenticeship; where mostly supportive behaviour traits are displayed, etc.
Below standard expected	Where performance is not what is expected at a particular stage in the apprenticeship.
	Examples could include where work is not undertaken in required time frames and there is not sufficient reason for this; where reminders need to be given for producing work tasks to the required standard; where considerable support is required which is not expected at the stage of the apprenticeship; where a range of non-supportive behaviour traits are displayed.

See also the guidance regarding supportive and non-supportive behaviours see earlier in the On-Programme Brief.

Boatbuilder Standard Competence Record

This form can be used to record the progress and achievement of competence against the requirements of the boatbuilder standard; the form acts as record confirming that the apprentice has demonstrated the required competence to progress through gateways and to end-point assessment.

Apprentice name:			
	Location of evidence /Evidence Ref. Numbers	If used - relevant units of competence /DAR areas covered (part or full)	Competence achieved Signed off by (name and position of person and date)
Apprenticeship standard requirements			
Appropriate work methods used			
Prepared the work area			
Maintained safe, clean and efficient work methods and			
environments			
Identified and minimized hazards and risks in the workplace			
Selected, used, maintained and stored equipment, tools and			
materials			
Followed and maintained work procedures, method statements			
and production records			
Made the most efficient and effective use of resources, time and			
materials			
Identify and respond to customer needs			
Prepared for meetings and discussions			
Used appropriate language, listening, questioning, recording and			
presentation techniques			

Used appropriate marine terminology	
Used estimating techniques to support discussions	
Planning and set up	
Reviewed and verified designs and plans	
Finalised times and cost of the work to be done	
Identified and sourced equipment, machinery, tools and materials	
Made, produced, and used jigs and templates	
Set up tools and machinery	
Manufactured or repaired components to the required	
specification	
Moved components using the appropriate safe methods	
Checked components for robustness, fit and tolerances	
Analysed problems with machinery, equipment, tools and material	
proposed / implemented solutions, where necessary	
Moved, shaped and manipulated components to achieve best fit	
Selected and used appropriate methods for holding materials and	
components in place during assembly, and when connecting, fixing	
and assembling materials and components	
Safeguarded materials and components during assembly	
Selected suitable methods of repair that were effective and	
maintained original construction	
Selected suitable methods for fault finding and analysis	
Made repairs whilst safeguarding the integrity of components and	
surrounding areas	
Identified, marked, stored and organized dismantled parts for	
reassembly	

Apprentice name	Location of evidence /Evidence Ref. Numbers	If used - relevant units of competence /DAR areas covered (part or full)	Competence achieved Signed off by (name and position of person and date)
Fit out	1		
Determined the order and work methods			
Installed and fixed components using the most appropriate			
method and material			
Ensured that joints were suitably made and treated			
Positioned and fixed items			
Finalised fit out for deck hardware			
Checked joints were sealed and fit for purpose			
Prepared surfaces, treated suitable and checked free from defects			
and protected			
Softened or suitable finished edges			
Assessed quality of work			
Assessed fixtures and fittings for quality and stability			
Contributed to the commissioning of the boat as required			
Assembled required documentation			
Briefed recipients verbally with necessary documentation			

Apprentice name:	Location of evidence /Evidence Ref. Numbers	If used - relevant units of competence /DAR areas covered (part or full)	Competence achieved Signed off by (name and position of person and date)
Behaviours			
Appropriate safety behaviours individually and towards others			
Commitment to quality and continuous improvement			
Commercial awareness and business acumen			
Focus on the requirements of the customer			
Ability to work effectively individually and as part of the team			
Communicate at different levels			
Strong work ethic including motivated, meticulous, reliable, proactive and adaptable			
Equality and diversity			

Signed off by	Position
End Point Assessment Gateway Ready date	

The Engineering Technical Standard – Boatbuilding evidence

On successfully completing the boatbuilding apprenticeship, apprentices can apply for Engineering Technician registration. In applying to IMarEST registration for EngTech/MarEngTech can be applied for.

The UK Standard for Professional Competence (<u>UK-SPEC</u>) describes the value of becoming EngTech registered and describes the requirements that apprentices must meet.

Engineering technicians apply proven techniques to the solution of practical engineering problems. They are required to apply safe systems of work and are able to demonstrate:

- Evidence of their contribution to either the design, development, manufacture, commissioning, decommissioning, operation or maintenance of products, equipment, processes or services.
- Supervisory or technical responsibility.
- Effective interpersonal skills in communicating technical matters.
- Commitment to professional engineering value.

The competencies that must be evidenced in applying for EngTech are detailed below along with some examples of how these may be evidenced from an apprentice's boatbuilding work experiences.

EngTech competence and commitment standard	Examples from EngTech documentation	Some examples that may have help you identify boatbuilding activities/actions you can provide to demonstrate competence for EngTech registration You may want to include evidence from your development record books, on programme assessment, or end-point assessment activities to reinforce how you have met the registration criteria
A Use engineering knowledge and understanding to apply technical and practical skills	Evidence that you know how to do the job, and are able to go beyond the immediate	Describe an example of work undertaken that went well, the choices you made, and the outcomes achieved
	requirements and use your initiative or can improve a process	Explain something in the boatbuilding work you have undertaken that didn't quite work out and explain why this was and the actions taken to resolve the issue

A1 Review and select appropriate techniques, procedures and methods to	Describe something in your work you have been involved in and which didn't quite work	Explain a technique, procedure or method you improved on and explain why you decided the improvement was required
undertake tasks A2 Use appropriate scientific, technical or engineering principles	and explain why Drawing from experience, this might be an explanation of how a piece of equipment system or mechanism works	Drawing from your experiences, explain how a piece of boatbuilding equipment, system or mechanism works and how you have used and/or applied these
B Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of	Explain how you contribute to one or more of the following activities	Provide an example of how you have used measurement, monitoring and assessment to identify the source of a problem, or identified an opportunity and proposed a solution to a problem
products, equipment, processes, systems or services		Provide examples when a boatbuilding work related piece of work did not go as planned and explain how you identified the problem, identified the causes and what solutions you considered and took to achieve the satisfactory outcome
B1 Identify problems and apply diagnostic methods to identify causes and achieve satisfactory solutions	Show an example of how you have used measurement, monitoring and assessment to identify the source of a problem or to identify an opportunity	Explain how you make decisions about what information, material, components, people or equipment to use and the areas considered relating to cost, quality, security and environmental impact and quality improvements Select a boatbuilding work task and explain how you identified all the different resources, how they were used to maximize efficiency and your effectiveness and the
B2 Identify, organize and use resources effectively to complete tasks, with consideration for cost, quality, safety and environmental impact	Illustrate how you make decisions about what material, component, people or plant to use or how to introduce a new method of working	factors considered for continuous improvements Provide an example of how you have contributed to best practice or continuous improvement, e.g. ISO9000, etc.

C Accept and exercise personal responsibility	Describe an experience or instance where you have had to accept personal responsibility for seeing a process through to completion within agreed targets	Describe an occasion where you have had to accept personal responsibility for seeing a process through to completion within agreed targets and explain how you identified and agreed what had to be done and to what standards and which codes of practice were adhered to, etc. Describe a work situation where you have had to overcome a number of obstacles to complete a task, what were the obstacles, how you overcame them, and the end results
C1 Work reliably and effectively without close supervision to the appropriate codes of practice C2 Accept responsibility for work of self and others	How you have personally identified and agreed with what had to be done and to what standards on a typical project Minutes of meetings, site notes and instructions,	Provide an example where you have actively sought opportunities to improve the quality of your work and explain the actions taken to achieve this Explain why it is important to set the right example for others at work and explain when you have done this and how you went about it
	variation orders, programmes of work, specifications, drawing and reports, appraisals. Activities not associated with your job can contribute to this evidence	Explain how you have accepted responsibility for undertaking your own work and also that of others
C3 Accept, allocate and supervise technical and other tasks	As above	
D Use effective	Show how you have	Explain how you have used the different forms of communication giving context of why
communication and	contributed to discussions,	the communication method was used and the reason for using it and the outcome
interpersonal skills	make a presentation, read and synthesise information, write different types of document	achieved from the communication Explain an occasion when you needed to persuade someone to do something in a
	unierent types of document	certain way and how you went about this

D1 Use oral, written and electronic methods for the communication in English or technical and other information D2 Work effectively with colleagues, clients, suppliers and the public	Letters, reports drawings, advice, minutes, including progress meetings, appraisals, work instructions, and other task planning and organizing documents certificated by colleagues, clients, customers or management. Examples of how this has occurred, and your role at the time	Describe your decision making process when you choose to communicate via the phone, email or face to face Describe your departmental/team role and provide examples of how you have worked effectively with a range of people, as stated in the criteria D2 Describe a situation when you have worked with one of the parties detailed in D2 and explain how their needs and concerns were considered and how you respected diversity and equality
E Make a personal commitment to an appropriate code of professional conduct, recognizing obligations to society, the profession and the environment	Demonstrate your understanding of the Institution's code of conduct	Demonstrate your understanding of the Institutes Code of Conduct and how your actions show commitment to the code Explain your understanding of ethics and sustainability in boatbuilding and provide an example of an ethical challenge you may have faced and what decisions and actions you made
E1 Comply with the code of conduct of their Licensed Institution of Professional Affiliate	Signed professional undertaking Review involving demonstration of and discussion of position on typical ethical challenges	Explain how you have applied current safety requirements, such a risk assessments and other examples of safe working practices, give specific examples to illustrate this including understanding of safety legislation and regulations and required training Explain giving examples how in relation to specific work projects you have methodically assessed risk and taken actions to minimise the risks to society or the environment
E2 Manage and apply safe systems of work	Evidence of applying current safety requirements such as example of good practice adopted in your work Evidence of a formal safety instruction relating to your	Explain given an example how you have promoted ethical practices and sustainability in your work Explain giving example of how you have actively kept up to date with regulations, nee standards, or techniques, etc., or made use of magazines, lectures/workshops, etc. to keep up to date and enhance your professional competence

E3 Understand engineering work in a way that contributes to sustainable development	workplace, such as a CSCS safety test or an update on statutory regulations such as COSHH requirements Examples of methodical assessment of risk in specific projects, actions take in minimize risk to H&S, society or the environment	Explain how you review your own development needs and set development objectives and actions you have taken to continue your development and expertise. Give examples of how you have undertaken your development reviews and outcomes/actions that resulted Explain giving examples where you have applied ethical principles as described in the Engineering Council's Statement of Ethical Principles
E4 Carry out continuous professional development, including opportunities offered by their institution, to ensure competence in areas and at the level of future intended practice	Evidence of keeping yourself up to date and current. E.g. studying new standards or techniques or reading trade magazines and opportunities to network and keep abreast of change	Explain where you have applied your organisation's ethical principles and how you have contributed towards the organisation's values

The information given above highlight the types of evidence that may be appropriate; please remember they are just that examples, you may think of other examples that you can give.

When considering how to evidence the different EngTech competencies, apprentices need to provide evidence that relates to their own work, select quality evidence that meets the accreditation criteria. The quality of the evidence – the detail of how actions have met the criteria that is important as opposed to just lists of actions taken. The evidence selected to reinforce achievement of the criteria can include a range of supported evidence, this can include evidence that you have already collected as part of the development record book, for example.



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