

Apprenticeship Standard for: Maritime Fabricator

The following standard reflects employers' requirements for the skills, knowledge and behaviours expected from someone to be competent in the job role.

Occupational Profile

The Maritime Fabricator role involves the fabrication, construction and repair of structures for defence and commercial vessels. This is achieved by working from engineering drawings, data and documentation. It requires knowledge and expertise in the use of machine and hand tools involved in preparing and cutting materials, this can include hot working processes such as welding, thermal cutting and grinding. A variety of measuring equipment, diagnostic techniques and processes are used to ensure individual components and assemblies meet the required specification. The Fabricator must comply with statutory regulations and organisational safety requirements and will be expected to work both individually and as part of a team. They will be able to work with minimum supervision, taking responsibility for the quality and accuracy of the work they undertake and will be proactive in finding solutions to problems and identifying areas to improve business processes.

Essential Occupation Requirements (all in a Maritime context) - Knowledge

1. An understanding of mathematical techniques, formula and calculation applied in maritime structures.
2. An understanding of engineering terminology and principles applied in the design, build, operation and repair of maritime vessels.
3. How to select the correct hot working process and tools / equipment.
4. Safe use of hand and mechanical tools, jigs and test equipment used in the Maritime Industry.
5. Understanding how the improvement of processes and procedures used by a Fabricator in the Maritime Industry can be more efficient and effective to workmanship standards.
6. An understanding of materials and processes used in the fabrication and construction area of the Maritime Industry.
7. An understanding of quality, safety, health and environment as applied working in the Maritime Industry.

Essential Occupation Requirements (all in a Maritime context) - Skills

1. Comply with quality, safety, health and environmental regulations related to the Maritime Industry.
2. Read, analyse and interpret engineering data, drawings and documentation used in the design, build, operation and repair of maritime vessels.
3. Carry out fabrication and construction processes through precision measuring and marking out.
4. Use hand tools / machinery to cut, drill, shape and finish components to the required engineering tolerances.
5. Assembly, removal and overhaul of components in a maritime environment.
6. Apply assembly and installation methods and techniques (such as mechanical fasteners, use of seals, gaskets, and jointing materials) on maritime vessels.
7. Undertake planned and corrective repair activities on structures, components and equipment.
8. Consider sustainability and environmental impacts when making safety, quality and cost decisions.

Employee Behaviours

Modern Engineering organisations require their employees to have a set of behaviours that will ensure success both in their role and in the overall company objectives. The required behaviours are:

- **Health, Safety and Environment:** committed to their own and their colleagues wellbeing at work and the wider environment
- **strong work ethic:** motivated; proactive; committed

- **dependability and responsibility:** punctual; reliable
- **positive attitude:** constructive thinking; optimism; motivated to succeed
- **team player:** able to work and interact effectively within a team and committed to equality & diversity
- **effective communication:** spoken; listening; body language; presentation; written
- **adaptability:** able to adjust to change
- **honesty and integrity:** truthful; sincere and ethical
- **self-motivation:** self-starter; able to make independent decisions & lead own professional development
- **personal commitment:** prepared to make a personal commitment to the industry.

Entry

Individual employers will set the selection criteria for their apprenticeships. In order to optimise success candidates will typically have 4 GCSEs at Grade C or equivalent, including Mathematics, English and a Science.

Duration of Apprenticeship

Typically 42 to 48 months, (timescales may reduce if an apprentice has prior relevant experience/ qualifications on entry).

Qualifications and Development

Apprentices without level 2 English and Mathematics will need to achieve this level prior to completion of the apprenticeship.

After a period of foundation skills and technical knowledge development all apprentices will be required to achieve the following qualifications (**working titles - currently in development**)

- Level 2 Maritime Fabrication (Foundation Competence)
- Level 2 Maritime Fabrication (Foundation Technical Knowledge)

After a further period of skills and technical knowledge development all apprentices will be required to achieve the following qualifications (**working titles - currently in development**)

- Level 3 Maritime Fabrication (Development Competence)
- Level 3 Maritime Fabrication (Development Technical Knowledge)

All the qualification requirements in the foundation and development phases are mandatory outcomes for the completion and final certification of the apprenticeship. Each qualification has a core and options approach and employers will select the most applicable pathway and unit options to meet their business requirements. Further detail can be found in the Employer Occupational Brief which is an annex to the Assessment Plan.

There will be an assessment at the end of the development phase where the apprentice will need to demonstrate full competence against outcomes for knowledge, skills and behaviours set out in the standard and Employer Occupational Brief. On successful completion of the employer endorsement phase (sign off) apprentices will be then be put forward to be awarded their apprenticeship completion certificate by a recognised industry endorsed third party.

Link to Professional registration - This apprenticeship is recognised by the Institution of Engineering & Technology (IET) and the Institute of Mechanical Engineers (IMechE) at 'Engineering Technician' Level.

Level - This apprenticeship standard is at Level 3.

Review date - This apprenticeship standard will be reviewed after 3 years to ensure it remains relevant and continues to meet employers' requirements and provides the basis for progression to higher qualifications and or job roles.