

OCCUPATIONAL QUALIFICATION STANDARD

Boatbuilder (Metal Boat), EstQF Level 4

An occupational qualification standard is a document which describes the set of skills, knowledge and attitudes, i.e. competence requirements, needed to successfully accomplish duties. Occupational qualification standards are used for compiling curricula and awarding qualifications.

Occupational title	Level of Estonian Qualifications Framework (EstQF)
Boatbuilder (Metal Boat), EstQF Level 4	4

Part A DESCRIPTION OF WORK

A.1 Description of work
<p>Boatbuilder (Metal Boat), Level 4 builds and assembles metal construction elements (hulls, decks and other constructions on decks) for boats, yachts, cutters and other small boats.</p> <p>Work assignments involve assembling welded products, parts and constructions using assembler skills: measurement, marking, treating, fitting and assembling assemblies.</p> <p>A metal boat builder may work independently or in a team.</p>
A.2 Tasks
<p>A.2.1 Organisation of work</p> <ol style="list-style-type: none"> 1. Finding information and planning work 2. Gathering work equipment and devices 3. Choosing and preparing materials <p>A.2.2 Adhering to safety requirements</p> <ol style="list-style-type: none"> 1. Meeting safety requirements in the work process 2. Organising a safe workplace 3. Using safety and personal protective equipment <p>A.2.3 Inspection and maintenance</p> <ol style="list-style-type: none"> 1. Checking the standards compliance of completed work 2. Identifying and fixing defects 3. Maintenance work 4. Final inspection and documentation <p>A.2.4. Producing and assembling hull and deck construction parts</p> <ol style="list-style-type: none"> 1. Producing parts 2. Sorting and visually inspecting parts 3. Preparing machine-cut parts 4. Assembling boat hull and deck constructions <p>A.2.5. Producing sub-assemblies</p> <ol style="list-style-type: none"> 1. Producing sub-assemblies from parts 2. Checking the correctness of measurements <p>A.2.6. Building boats</p> <ol style="list-style-type: none"> 1. Connecting parts and sub-assemblies 2. Checking the correctness of work results 3. Treating assembly surfaces

A.3 Work environment and specific nature of work
The work is seasonal and some periods are busy and intensive. Workers must be prepared to work overtime, on weekends and during holidays. Occasionally work must be done in outdoor environments or at heights, requiring physical and mental strength. Extreme weather, vibration, noise and dust must be taken into account. Contact with chemicals that may trigger allergic reactions is possible. Safety and personal protective equipment is mandatory for avoiding trauma and environmental pollution.
A.4 Tools
Bending machines, profile bending machines and welding machines. Handheld, pneumatic, hydraulic and electrical tools (guillotine shears, finishing and cutting tools); measurement devices, information and communication devices with software.
A.5 Personal qualities required for work: abilities and characteristics
The work requires precision and the ability to take responsibility, learn and adapt. Important traits are technical intelligence, ability to focus, manual dexterity and physical stamina.
A.6 Professional preparation
Professional skills are acquired from vocational education or through work and training courses.
A.7 Most common occupational titles
Boatbuilder, small ship builder, assembler.
A.8 Regulations governing profession
Work safety regulations and workers' rights and responsibilities in creating and maintaining a safe work environment are regulated by the Occupational Health and Safety Act.

Part B COMPETENCY REQUIREMENTS

B.1 Structure of occupation
Competences B.2.1-B.2.7 must be certified when applying for the qualification of Boatbuilder (Metal Boat).

B.2 Competences

MANDATORY COMPETENCES

B.2.1 Organisation of work	EstQF Level 4
Performance indicators: 1. Can find the necessary information for completing work tasks from project blueprints, manuals and other technical documentation using appropriate application software; 2. Determines the order of project stages and workplace risk factors according to the available information; 3. Assembles work equipment and devices according to the job task, instructional materials and the technology used, while also considering their compatibility and suitability; 4. Ensures the work equipment's compliance with standards; 5. Decides the amount of material to use according to technical documentation and the markings on the materials; 6. Assembles the necessary materials and requisites; 7. Stores materials according to requirements and documents the removal of materials from storage.	
B.2.2 Adhering to safety requirements	EstQF Level 4
Performance indicators: 1. Adheres to electricity and fire safety requirements at every stage of work in order to avoid work accidents; 2. Uses safe work methods in order to avoid accidents and the risk of pollution; 3. Secures and prepares a safe work space for the given work processes and keeps it in order; 4. Meets the occupational safety requirements that apply to the work place;	

5. Follows work environment safety rules and collects waste according to procedural rules and supervision policies; 6. Correctly uses the prescribed safety and personal protective equipment; 7. Uses the necessary safety and personal protection equipment as intended in order to avoid accidents and health risks; 8. Ensures that safety and personal protection equipment is in order.	
B.2.3 Inspection and maintenance	EstQF Level 4
Performance indicators: 1. Checks the compliance of welding joints and seams to norms and quality standards through visual inspection and using appropriate measurement tools; 2. Records work results according to established procedures; 3. Identifies defects or flaws found in the product and their causes and informs the responsible worker of the non-compliance; 4. Eliminates temporary welding seam defects found upon inspection within the limits of their competence, following all relevant instructions; 5. Post-processes temporary welding seams using the appropriate method and tools while maintaining the required strength of the welding seam and the surface quality needed for the next stage of work; 6. Does regular maintenance work according to maintenance manuals; 7. Creates maintenance protocols and documents changes made in the digital system; 8. Does a final inspection of eliminated defects; 9. Documents work results and changes made and saves them digitally according to the established procedure.	
B.2.4 Producing and assembling hull and deck construction parts	EstQF Level 4
Performance indicators: 1. Makes the necessary markings on metal using the appropriate measurement and marking tools; 2. Prepares parts using the appropriate technology (cutting, bending, drilling, threading, etc.) for the task; 3. Chooses sub-assembly parts by sorting the parts according to their markings and labels; 4. Visually inspects detail compliance with instructions; 5. Cleans and phases edges using the appropriate devices or tools; 6. Assembles hull and deck constructions from parts with temporary welding seams, using the appropriate jigs where necessary.	
B.2.5 Producing sub-assemblies	EstQF Level 4
Performance indicators: 1. Assembles sub-assemblies (bows, stringers, etc.) from parts according to instructions and using the appropriate jigs or fixtures; 2. Uses temporary welding seams to join parts together in assemblies, using welding tools; 3. Checks the compliance of sub-assembly measurements to the manual, using measurement devices.	
B.2.6 Building boats	EstQF Level 4
Performance indicators: 1. Assembles boat hulls from parts and sub-assemblies (bows, stringers, etc.) using the appropriate jigs or fixtures; 2. Uses temporary welding seams to join parts and subassemblies together in an assembly, using welding tools; 3. Checks the compliance of boat measurements to the manual, using measurement devices; 4. Protects and covers unpainted surfaces 5. Mechanically processes surfaces: roughens and softens edges and cleans surfaces according to the material and function of the surface being finished and the manual. 6. Treats surfaces with a coating such as paint, chemicals or nanotechnology methods according to the function of the surface being finished and the manual.	

RECURRING COMPETENCES

B.2.7 Recurring competences of Boatbuilder (Metal Boat), Level 4	EstQF Level 4
Performance indicators: 1. Is goal-oriented and responsible, adhering to the legal requirements of the occupation. 2. Reads blueprints, instructions and other technical documentation.	

3. Communicates politely and properly with colleagues and clients and relays information in a clear and intelligible way.
4. Adapts to the team, works responsibly and reacts promptly to changes in the work process, where required.
5. Uses professional ICT hardware and application software, following the data protection requirements and rules of the enterprise;
6. Makes the most of opportunities for self-development and is up to date on technological advances in the field.
7. Uses a computer at the Basic user level for safety and content creation and at the Independent user level for problem-solving, information-processing and communication (see Annex 1 – Scale of self-assessment in digital competence).
8. Uses English at least at the B1 level to obtain specialised information, work with instruction materials and for professional communication (see Annex 2 – Language skills level descriptions).
Knowledge: 1) Specialist terminology: vocabulary used in instructions, manuals and work orders; 2) The basics of boat building (including electrical engineering and mechanics); 3) Technologies used in production with metal (welding, sheet metal cutting and bending and profile bending); 4) Types, properties and uses of materials; (various alloys and heat treated metals); 5) Technical drawing; 6) Studs and splicing.
Assessment method(s): Recurring competences are evaluated as part of the assessment of the other competences listed in the occupational qualification standard.

Part C

GENERAL INFORMATION AND ANNEXES

C.1 Information concerning compilation and certification of occupational qualification standard and reference to classification of occupations	
1. ID of occupational qualification standard in register of occupational qualifications	24-03122019-2.1.2/1k
2. Occupational qualification standard compiled by:	Mark Muru, OÜ Alunaut Peeter Sääsk, Saare Yachts OÜ Andres Meisterson, Kuressaare Ametikool Andres Kõnd, Veeteede Amet Raivo Lepik, Baltic Workboats Ltd Andres Toom, Luksusjaht
3. Occupational qualification standard approved by:	Engineering, Manufacturing and Processing
4. No. of decision of Sectoral Council	13
5. Date of decision of Sectoral Council	03.12.2019
6. Occupational qualification standard valid until	05.11.2024
7. Occupational qualification standard version no.	1
8. Reference to International Standard Classification of Occupations (ISCO 08)	7222 Toolmakers and Related Workers
9. Reference to European Qualifications Framework (EQF)	4
C.2 Occupational title in foreign language	
English:	Boatbuilder (Metal Boat), EstQF Level 4
C.3 Annexes	
Lisa 1 Language skills level descriptions	

Lisa 2 [Scale of self-assessment in digital competence](#)