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## Overview

This standard identifies the competences you need to apply surface finishes to yacht or boat wooden assemblies or installations by hand methods, in accordance with approved procedures. You will be required to select the appropriate equipment to use, based on the materials to be applied and the surface area to be covered. You will be expected to use the specified or appropriate techniques to seal, prime, colour, varnish, stain, wax, or polish the various parts, using brushes, rollers, pads or cloths, as applicable to the task.

Your responsibilities will require you to comply with organisational policy and procedures for the surface finishing activities undertaken and to report any problems with the treatment activities, components or equipment that you cannot personally resolve, or are outside your permitted authority, to the relevant people. You will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for your own actions and the quality and accuracy of the work that you carry out.

Your underpinning knowledge will be sufficient to provide a sound basis for your work and will provide an informed approach to applying hand surface finishing techniques and procedures to yacht or boat woodwork assemblies or installations. You will have an understanding of the surface finishing procedures used and their application and will know about the surface finishing techniques, paints or coatings and equipment used in adequate depth to provide a sound basis for carrying out the activities and ensuring the work is carried out to the required quality.

You will understand the safety precautions required when carrying out the surface finishing operations. You will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to yourself and others in the workplace, both ashore and afloat.

## Performance criteria

*You must be able to:*

- P1 work safely at all times, complying with health and safety legislation, regulations, directives and other relevant guidelines
- P2 prepare the work surfaces in readiness to receive the appropriate surface finish
- P3 prepare the required finishing materials for use
- P4 apply the finishes to the surfaces using appropriate techniques and procedures
- P5 check the finished surface achieves the required characteristics and meets the finishing specification
- P6 deal promptly and effectively with problems within your control and seek help and guidance from the relevant people when you have problems you cannot resolve
- P7 dispose of waste material safely and correctly in line with organisational procedures
- P8 leave the work area in a safe condition on completion of the finishing activities

## Knowledge and understanding

*You need to know and understand:*

- K1 the specific health and safety precautions which must be taken when preparing surfaces and applying surface treatments to yacht or boat wooden assemblies or installations (such as wearing protective clothing and protective equipment, using fume and dust extraction equipment)
- K2 the health and safety requirements of the work area in which you are carrying out the surface treatment activity, and the responsibility they place on you
- K3 the hazards associated with preparing surfaces and applying surface treatments in a boat building environment (such as using chemicals for cleaning activities, dust and fume inhalation; including the information to be found in manufacturers' data sheets) and how they can be minimised
- K4 what personal protective equipment (PPE) should be used during the surface treatment activity, how to obtain it and check that it is in a safe and usable condition (such as eye protection, overalls, face masks, breathing equipment)
- K5 the requirements for working in confined spaces and safe systems of work (including safe evacuation, closing down compartments, permits to work, Required Air Quantities (RAQs) and local exhaust ventilation (LEV)) to maintain safe conditions; the provision of adequate and safe lighting and avoidance of sources of ignition)
- K6 how to obtain the necessary job instructions required for the work being carried out
- K7 the surface preparation methods and techniques to be undertaken prior to applying the treatments (such as carrying out repairs to the surface or making good any damaged or defective surfaces; filling and flattening down; masking surfaces to prevent overspill/spray)
- K8 the specific surface treatments to be used (such as paints, polyurethane varnish, lacquer, stain, wax polish)
- K9 the preparation methods and techniques for mixing paints, varnishes, lacquers, stains and polishes
- K10 the various methods of applying the required treatments using brushes, rollers, paint pads, cloths and sprays
- K11 the time intervals that are required between coats and why these must be adhered to
- K12 cleaning and maintenance procedures for the tools and equipment that are used (such as brushes, rollers, containers, spray guns)
- K13 the procedures for dealing with used consumables and surplus finishing materials safely and correctly
- K14 how to check and assess the finished work (such as for appearance, colour, coating, thickness, coverage)
- K15 recognition of surface defects (such as bubbles, contamination, runs, dust and orange peel)

- K16 the standards to be attained and the company/customer quality control procedures
- K17 the extent of your own responsibility and whom you should report to if you have problems that you cannot resolve

## Additional Information

### Scope/range related to performance criteria

- You must be able to:*
1. Carry out **all** of the following during the surface finishing of the yacht or boat wooden assemblies or installations:
    - 1.1 obtain and follow the relevant job instructions and surface treatment specifications
    - 1.2 adhere to procedures or systems in place for risk assessment, COSHH, personal protective equipment and other relevant safety regulations
    - 1.3 prepare the tools and materials in readiness for the surface treatment operations
    - 1.4 wear suitable protective clothing and where appropriate, breathing apparatus
    - 1.5 clean and return all tools and equipment to the correct location on completion of the surface treatment activities
    - 1.6 leave the work area in a safe and tidy condition
  
  2. Apply surface finishes to **four** of the following yacht or boat wooden furniture/outfitting units:
    - 2.1 bulkheads
    - 2.2 mouldings (such as door frame)
    - 2.3 top boxes
    - 2.4 bulwarks
    - 2.5 ladders
    - 2.6 helm consoles
    - 2.7 bunks
    - 2.8 steps
    - 2.9 decks
    - 2.10 furniture units
    - 2.11 masts and spars
    - 2.12 navigational consoles
    - 2.13 doors and door frames
    - 2.14 structural components
    - 2.15 other specific items
  
  3. Prepare to carry out the surface finishing operations by carrying out **three** of the following activities:
    - 3.1 cleaning
    - 3.2 masking
    - 3.3 mixing of colour

- 3.4 stripping old finishes
  - 3.5 flattening down
  - 3.6 pre-surface treatments
  - 3.7 mixing primers
  - 3.8 re-activating treatments
  - 3.9 sealing
4. Apply **four** types of the following finishing materials, using appropriate hand tools and techniques:
- 4.1 sanding sealer
  - 4.2 polyurethane varnish
  - 4.3 french polish
  - 4.4 water based paints
  - 4.5 lacquer
  - 4.6 temporary protective coatings
  - 4.7 oil/alkyd based paints
  - 4.8 stain
  - 4.9 synthetic paints
  - 4.10 wax
  - 4.11 other specific special finishes
5. Apply surface finishes to a range of surfaces, to include **three** of the following:
- 5.1 flat
  - 5.2 horizontal
  - 5.3 vertical
  - 5.4 overhead
  - 5.5 curved or cylindrical
6. Use **three** of the following consumables:
- 6.1 masking medium/tape
  - 6.2 rubbing paper
  - 6.3 abrasive pads
  - 6.4 cleaning materials
7. Apply surface finishes to yacht or boat wooden assemblies or installations which comply with **all** of the following:
- 7.1 the final finish is in line with specification or job requirements
  - 7.2 the final finish achieves acceptable colour match and where applicable, gloss levels
  - 7.3 the finished surface is free from surface defects (such as runs, drips, dust or brush marks)
  - 7.4 the finished surface meets customer/company requirements

## SEMME2121 (SQA Unit Code – HF1K 04)

### Applying surface finishes to yacht and boat wooden assemblies

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|---------------------------------|----------------------------------------------------------------------------------------------|
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