

# The Sailing Barge Masters Qualification Board

Recommended Guidelines for Mates Seeking Award of a  
Sailing Barge Master's Certificate of Competence

Issued by the Association of Bargemen and Sailing Barge Associations

## 1 Boat Work

To be able to scull a boat and row with two oars. To be able to run away and recover kedge anchor, to run away lines and warps to buoy, ashore or to other vessel and the knowledge to cheat wind and tide. To know how to hoist and lower boat in davits, to secure boat when hoisted. To be aware of barge boat maximum carrying capacity.

## 2 Engineering

It is recommended that the candidate has attended a recognised Marine Engine course to satisfy knowledge in the following;

- Pre-start checks
- Starting procedure
- Fuel systems
- Cooling systems
- Electrical systems
- Basic fault finding
- Shut down procedures
- Bunkering procedures and safety measures

Candidates should have a sound knowledge of the mechanical pumping systems associated with the main engine and of the position, maintenance and use of all hand pumps aboard vessel.

Procedure for maintenance and use of mechanical salvage pump.

How to safely use and store fuel and bottled gas or other hazardous substances aboard vessel.

## 3 Lead Line

To be able to correctly use a lead line for accurate depth soundings.

## 4 Mooring

To demonstrate the ability to safely berth and leave an alongside mooring. To know the function of head and stern lines, breast ropes, springs and how to make fast. To correctly lay off moorings. To catch a turn quickly and to be able to check/surge ropes round cleats, bollards and bitts without damage. How to make a slip prior to getting underway. To be able to tie a bowline quickly and to make other basic knots. To be able to whip, make an eye splice and short joining splice, and to mouse a hook.

## 5 Spars

To know the name, position and function of all the spars and the parts thereof, including head, heel, hounds, trestle trees, cross trees, doubling, topmast pole, caps, gooseneck, jackstays, setting boom and fid etc.

## 6 Standing and Running Rigging

To know the name, position and function of all the standing and running rigging, including shrouds, forestay, backstays and runners etc. To have a thorough knowledge and to be able to safely raise and lower gear and to secure stayfall with a rope stopper. To know the procedure for sending up and striking the topmast. To be able to correctly set up the topmast forestay, the reeving and use of vang, rolling vang, bowsprit shrouds, bobstay, yard tackle, stayfall and stanliffs etc. To know the position and function of all halyards, sheets, clewlines, brails, tacks, topping lifts, downhauls, bowsprit traveller and outhaul, leeboard pennants and gaskets etc. To be able to top up and lower crosstrees. To know how to raise, lower and set up bowsprit.

## 7 Sails

To know the name, position and function of all sails, e.g., mainsail, topsail, foresail, jib, staysail, flying jib, mizzen and how to set and stow them To name and know the parts of a sail, including luff, leach, head, foot, peak, throat, tack, clew, bolt rope, cringle, reef points, tabling and cloths etc. To be able to reeve and tend the foresail bowline, jib and staysail sheets. To be able to correctly belay the mainsheet and vang falls and backstay falls. To know the procedure for gybing, particularly in heavy weather. To know how to trim the sails in relation to the direction of the wind.

## 8 Leeboards

To have a general knowledge of their function; the ability to raise and lower them safely; and tending leeboards in shoal water. The use of runners to raise the leeboard fan above rail level. Shifting leeboards by use of runners and vangs.

## 9 Anchors, Cables, Winches and Steering Gear

To know the function of the windlass and the winches and to be competent in their use and care, e.g., scrubbing welts. To name and know the parts of an anchor, including shank, crown, stock, ring, flukes, bill etc. To be able to let go and weigh the main anchor. The use of cable dogs, fleeting of chain, catting of anchor, clearing a foul anchor, dropping under foot (stock awash) to avoid damage to hull. To recognise signs of dragging. To know the length of one shackle of cable. Principles of "drudging". The use of a kedge anchor and warping drums with avoidance of riding turns. To have a sound knowledge of function and maintenance of steering gear and how to rig emergency steering.

## 10 Lamps

To know about the cleaning and care of oil and electric lamps, how to put up the riding light and the shipping of navigation lights and their use when sailing and under power.

## 11 Steering

To be able to steer a course both by compass and by reference to leading marks and fixed objects, taking into account tidal set and leeway. To steer to windward under sail. To steer to leeward under sail (without gybing). To give a barge a sheer to anchor cable. To secure the rudder with kicking chain.

## 12 Navigation

To have a sound general knowledge of navigation and be able to create a passage plan. To know the meaning of flood and ebb, set, drift and leeway and the effect of tidal sets at piers, quays and moorings. To be conversant with the use of tide tables, (including for secondary ports) and tidal differences, and able to calculate HW and LW for given locations. To know how to find tidal heights and depths from charts, the use of symbols e.g. wrecks, nature of bottom, contours, navigational marks, waypoints etc. To know how to calculate bottom clearance under maximum draft (leeboards fully lowered). To recognise and know the function of buoys, both lateral and cardinal systems. To recognise the characteristics of lights on buoys e.g. colour, flashing or occulting. To know the position, colour and arcs of visibility of lights and shapes shown by vessels. To have a good general knowledge of the rules of the road as applicable to sail and power, with particular reference to the avoidance of collision. To take a compass bearing and to be able to lay it off on a chart. To be able to work up an EP and course to steer. To know how to apply variation, deviation and leeway. To know signals made by siren, foghorn and bell. To have working knowledge of local byelaws, regulations, PLA General Directions and Code of Practice for Safe Mooring, and Permanent and current Notices to Mariners.

*Possible recommended course to cover this subject is the RYA Day Skipper*

## 13 Safety of life at sea

- a. Fire fighting. A sound knowledge of types and causes of fire, how to take appropriate action, the correct type and operation of fire fighting appliances.
- b. First Aid. To have a sound knowledge of First Aid, including resuscitation of drowning and treatment of hypothermia.

*Possible recommended RYA First aid course (1 day)*

- c. Life saving equipment. Understanding different types of life saving equipment, including lifejackets, and their care, maintenance and use. Procedure for deployment and use of life rafts. Knowledge of MOB procedure to include use of dan buoy, life rings etc. How to get the MOB/casualty back aboard. To be aware that sufficient life saving/emergency equipment should be carried and maintained to the quantity/standards required by the MCA code of practice.

*Possible recommended 1 day sea survival course*

- d. Emergency Response. To have detailed knowledge of relevant Coastguard and RNLI operating procedures and methods of contact. To have a working understanding of Major Incident and Port Emergency guidance.

## 14 Meteorology

To know the wind strengths and sea conditions associated with the Beaufort wind scale, to be able to recognise an approaching squall. To know the effect of weather in differing locations. To know the meaning of anticyclone and depression and the types of weather associated with each, including warm, cold and occluded fronts. To understand the combination of circumstances likely to give rise to tidal surges and the effect of excess land water. To be able to interpret official weather forecasts and weather maps and to draw from them the information required for the safe execution of a passage.

## 15 VHF

It is obligatory for all VHF users to hold a current VHF certificate, to include DSC as appropriate, and able to show detailed knowledge emergency radio procedures. The applicant should be able to demonstrate a detailed understanding of VTS (Vessel Traffic Services) procedures, stations frequencies and routine broadcasts, as well as Reporting Waypoints.

*1 Day course*

## 16 Electronics

The candidate should be able to demonstrate a detailed knowledge of the use of electronic navigational equipment in use on the barges on which they sail, which may include:-

- GPS
- Chart plotter
- Radar
- Echo sounder
- AIS
- GMDSS

Also detailed knowledge of various alarm systems, as appropriate, including:-

- Gas
- Smoke
- CO
- Bilge level

They should be fully conversant with the purpose, maintenance and limitations of these devices and the operation of them, where applicable.

## 17 General

The candidate will be expected to exhibit:-

- The ability and confidence to take charge.
- A full understanding of the requirement to ensure that crew and passengers are made aware of the location of and the procedures for the use of safety equipment, and are given guidance as to safe practices and behaviour, both aboard the barge and when using the barge's boat.

- A general knowledge of the construction of a wooden barge and how modified in a steel barge; how she is built to withstand the stresses of the sea and wind when sailing and when sitting in a drying berth.
- The ability to determine that the barge is in a fit and safe condition for the proposed voyage.
- The knowledge to recognise when rope or wire or other equipment is in need of renewal.
- The ability to send crew aloft in a bosuns chair or harness, ensuring that they are properly secured and safely tended on the halyard.
- The knowledge of how to shorten sail:-
  - With steadily increasing wind force.
  - In a sudden squall.
  - When bringing up.
- The ability to bring a barge to anchor under sail.
- The ability to get a barge underway from anchor, casting her head off on the desired tack, including from a lee shore.
- Detailed knowledge of the names and positions of the principal channels used by barges within the smooth water limits, to know the approximate directions in which they lie and the volume of shipping using them. The names and positions of the principal sandbanks bounding such channels. The names and characteristics of buoys and beacons marking such channels. Knowledge of tidal sets and eddies in river confines.
- Detailed knowledge of navigation and tidal implications within the Thames Barrier Control Zone.
- An understanding of the need to keep proper lookout when navigating, particularly under sail and in confined waters.
- Detailed knowledge of the principal quays, piers, hards and landing places; safe and prohibited anchorages.
- Working knowledge of mooring buoys, daymarks, leading lights and tide gauges.
- Recognition of the need to check that insurance has been effected and is in force at least sufficient to cover passenger liability and third party liability, to applicable limits.
- Detailed knowledge of the requirements of the “Standard of Safety for Thames Sailing Barges” (carrying up to 12 passengers) and of the requirements for barges that are passenger ships carrying more than 12 passengers and so licensed by the MCA.
- Recognition of the need to check that all required ships papers are kept in order.
- An awareness of the implications of Port Health requirements.

## References

The following publications are recommended reading for applicants:-

- A handbook of Sailing Barges – FS Cooper & John Chancellor
- Symbols & Abbreviations – Admiralty Charts: Published by Hydrographic Dept
- Reeds Nautical Almanac – Published by Thomas Reed
- General Directions for Navigation in the Port of London – Published by the PLA
- PLA River Thames Byelaws
- PLA Code of Practice for Safe Mooring
- The Rules in Practice – Published by Wiley Nautical
- Collision Regulations - Published by the Royal Yachting Association

NOTE: The PLA LKE (Local Knowledge Endorsement) syllabus and the necessary associated qualifying service are the same as those for the MCA Boat Master Licence as detailed in MGN 334(M) (See generally throughout and specifically Section 4.4 and Annex 3)