



Peterborough Sailability

PERFORMANCE TRAINING MODULE

PTM 06: Deben Lugger Training



Requirement

There is a requirement to train new and existing volunteers who may be suitably qualified, but understandably little knowledge on how the Deben Lugger boat should be operated safely and in an acceptable manner. There is also a requirement to provide refresher training to previously trained volunteers to refresh and maintain their knowledge on an annual basis.

Aim

The aim of this procedure is to provide training, information & guidance to new and existing volunteers and a refresher course to those previously trained in all areas of sailing the Deben Lugger boat, including preparation, launching, rigging, sailing, recovering, de-rigging and storage.

Method

Everyone involved in sailing the Deben Lugger boat must be familiarized with the methodology by means of written and/or verbal instruction, observation, participation and assessment from seasoned members of the group. Common sense will prevail and by these methods the Helm and Helpers will be able to carry out the objectives safely and without endangering themselves, other crew members and without causing damage to the boats and/or equipment.

Introduction

Peterborough Sailability took delivery of a new Deben Lugger in June 2014 named Bluebird by The Princess Royal. The boat is used to take our Sailors on Gunwade Lake at Ferry Meadows.

The Deben Lugger is an 18ft traditionally styled day boat of lap-strake design built in GRP with 2 pack foam buoyancy and Iroko hardwood trim. The boat weighs 360kg and has a long shallow keel and a lead weighted lifting centre plate that gives the boat great stability for its size. The rig comprises balanced lug main and mizzen sails on lightweight un-stayed carbon-fibre masts. The boat is also equipped with an electric outboard motor set in a well

The Deben Lugger has a;

- CE Category C specification (Inshore waters) rating for 6 crew/passengers
- CE Category D specification (sheltered waters) rating for 8 crew/passengers

Qualifications & Training

The Lugger is a mono-hull and the helmsman must hold RYA Dinghy Level 2 qualification or equivalent. Those qualified only to sail Challenger Trimarans are not qualified to sail the Lugger without formal mono-hull training, including capsizing procedure. Training will be provided by our Senior and Assistant Instructors. The SI will finally approve and qualify the person to RYA Dinghy Level 2 standard.

Capacity Restrictions

The Lugger will be limited to a maximum of six persons comprising: helmsman, a carer or volunteer and up to four sailors. The ratio of carers to sailors may need to be higher in cases of high dependency. With disabled sailors on the boat there must be an able bodied person on board to manage the Sailors. This allows the helmsman to concentrate on sailing the boat.

Preparation of the Boat for Launching

This guide assumes that the boat has been left with the mast up and main sail still attached to the rigging. For guidance on rigging the boat from scratch (if the sails have been taken off for maintenance for example) liaise with SI or AI.

- Remove the boat cover, cover support pole and store these tidily near the boat.
- Locate the key and remove the hitch-lock; stow this with the cover.
- Check under the boat to ensure that the toe of the centre plate is not visible below the keel, if it is visible and the up-haul will not lift it further the lifting line might have come off the drum, report to SI or AI for assistance.
- Confirm that trailer tyres are adequately inflated.
- Mount electric engine in well and tie-off fixing screws, attach magnetic 'key', turn engine on and check operation.
- Mount mizzen mast and thread bumkin through hole in stern and secure in fixing block. If the mizzen sheet has been detached from boat thread it through small hole in stern and into its jamming cleat.
- Raise mizzen sail, tension downhaul and sheet very loosely. Check for any tangles and that it is rigged as follows:
 - a) The mizzen sail is on port side of the mast
 - b) The shorter edge of sail is facing forward
 - c) The downhaul is attached approx 30cm along the boom so that leading edge of sail is about parallel with mast.
- Ascertain the wind direction and ensure that fenders are mounted on correct side of boat for mooring alongside pontoon.

Launching

- Couple the boat trailer to tow vehicle, lift the jockey wheel & lock off, reverse the boat trailer down slipway until the rear rollers are just submerged. The launch crew is to act as banksman.
- Crew 1 takes aft mooring line to pontoon.
- Crew 2 winds the forward mooring line (painter) round the winch pillar and releases the tension on the winch strap until the load is taken by painter (boat may need a push). Uncouple the winch strap from the boat and allow the boat to roll off trailer keeping hold of the painter.
- Manoeuvre boat to the pontoon, location to suit wind direction and make fast.

Prepare for Sailing

- Lower centre plate and pump out any water in the bilges.
- Check safety equipment.
- Consult with helm and SI as to whether a reef is required. *Note: only the second reef should be used, the first reef has little effect and the third makes the boat difficult to sail in the conditions we experience.* If reef is required follow procedure as follows, otherwise:
- Raise the mainsail with black halyard, so that the head of the sail is approximately 60 cm below top of mast, make fast to horn cleat, this ensures that the mainsail will not fall should the jamming cleat be accidentally released.

Prepare for Sailing *Cont'd*

- Attach the fixed red-line around the mast under the boom, this keeps the main sail close to the mast.
- Tension downhaul, with the purple/orange line on the starboard side.
- Tension the lasso with the blue line on the port side (this holds the yard at the head of the sail close to the mast). When properly rigged the mainsail should be virtually flat and the boom clear of passengers heads; adjust as necessary.
- Scandalise mainsail by hauling on topping lift and assisting boom to raise by hand. This will provide additional headroom for boarding passengers.
- Check the outboard motor is working. (*using the kill cord when operating*)
- The boat is ready to sail.

Reefing

- Raise mainsail so that head of sail is approximately 2 metres below top of mast.
- Slip 1st reef tack loop around forward end of boom and tension 1st first reef outhaul.
- Slip 2nd reef tack loop around forward end of boom and tension 2nd reef outhaul.
- Raise main sail and tension downhaul so that boom is clear of deck.
- Tie first reefing point under boom and re-tension outhaul, tie in remaining reefing points around foot of sail (not the boom) starting at 2nd point and working towards the reef clew ensuring that foot of sail is tensioned and reefed portion of sail is folded tidily.
- Adjust height of boom if necessary and make off up-haul to horn cleat, tension downhaul and lasso.
- Scandalise mainsail by hauling on topping lift and assisting boom to raise by hand.

Departure and Return to pontoon

- At least one shore crew to assist boarding under direction of helm.
- Release mooring lines and cast off under direction of helm.
- As directed by shore master two shore crew to standby on pontoon and receive mooring lines. Make fast and assist with unloading boat.

Recovery

- Release topping lift, remove reef if set and lower mainsail on to starboard deck.
- Raise centre plate and make off. Pump out bilges.
- Reverse boat trailer down slipway with tow vehicle so that rear rollers just in water and maneuver boat on to trailer with mooring lines. Pay out winch strap and attach to boat. Winch boat on to trailer and tow to allotted space in Boat Park.
- Lower jockey wheel, detach trailer from tow vehicle and fit trailer lock.
- Remove mizzen bumkin and mast with sail and stow with mainsail.
- Remove engine and stow in shed, recharge if showing less than 90% charge.
- Stow fenders inside boat.
- Fit cover support and cover.

Setting Off

- A Helmsman crew and sailors will be allocated to the Lugger by the Shore-master, from this point the helmsman is in charge of the boat and is responsible for the safety of all passengers and the boat.
- Check that the boat is in a sea worthy condition and has been rigged correctly, in particular:
 - a) Mainsail halyard and downhaul made off on horn cleats for safety
 - b) Centre plate is fully lowered so that the line stopper is tight in the cleat
 - c) Electric motor is turned on (it will automatically turn off after a period of non-use) kill cord ready to be attached to helm
 - d) Life belt on line and fire extinguisher are in position
 - e) Removable seats are fitted if necessary
- Ensure that boom is raised to provide additional headroom for boarding even if there is an offshore wind. Check that mooring lines are tight to minimize movement of boat during boarding.
- Helm to direct passengers to seating positions taking boat balance and trim into account, sailors to be boarded and seated one at a time. Where possible place someone capable of managing the bow mooring line forward on the pontoon side of the boat.
- Let the sailors and crew know what the intended sailing plan is and that they must remain seated at all times unless instructed otherwise.
- Lower boom into sailing position and check that there is adequate head clearance.
- Release tiller restraining stop.
- Advise shore crew of intended means of departure from pontoon and direct casting off procedure. The engine should be used where it would assist a smooth and safe departure, kill cord to be attached to the helm. Mooring lines to be coiled and stowed ready for return to pontoon.

Sailing

- In training helm to experiment with sail setting and trim. Setting the mizzen sail will bring the centre of effort aft and push the boat up to windward. Consequently when tacking the mizzen may need to be eased when head to wind to allow the boat to bear away. The boat can be encouraged to complete a tack by pulling the boom to the new windward side.
- Most helms will prefer a little weather helm to give feel to the tiller and safety if the tiller is let go (the boat will round up into the wind). Adjustment is made by changing the position of the downhaul on both booms. Moving the downhaul forward will increase weather helm moving it aft will lead to lee helm. Also the main downhaul should be moved forward when a reef is set to preserve the weather helm.
- Helm to consider the degree of heel that would be comfortable for the sailors and should err on the conservative side. Heel can be controlled by sail setting (we are not in a race) and anticipation of gusts by watching the water surface. It may be helpful in light to moderate winds for the helm to sit to leeward where he will have a much better awareness of the actual heel.
- The boat will become unstable in stronger winds if the boom is allowed to project forward of the mast. It will be difficult to pull the boom back and if there is insufficient sea room to head up into the wind the boat could take on water. Do not let the boom out more than 90 degrees.
- Helm to inform passengers when undertaking a maneuver so that they will not be caught unawares by boom crossing and change in heel.
- The margins of the lake are quite shallow in places and as the Lugger draws 1.25 metres care should be taken, it is recommended to keep 10 metres off the shore.

Sailing Cont'd

- In the event of an emergency the helm is to contact the shore-master by radio and call for assistance as necessary.
- In the extremely unlikely event of a capsize the helm and crew must immediately account for all passengers and free any that might be under the sail, keep everyone calm and await rescue.
- In the event of a man overboard; helm to appoint person to clearly point to the casualty continuously; helm call for help, throw lifebelt to casualty, gybe boat and return to casualty, await rescue boat.
- When leaving and approaching the pontoon, maintain control of the main sheet, to ensure it does not catch on the pontoon cleats.

Return to Pontoon

- Return to pontoon when instructed by shore-master or earlier by agreement.
- Determine appropriate line of approach to pontoon and verify that two shore-crew are in attendance.
- Advise all sailors to keep hands inside boat when approaching pontoon.
- Approach pontoon at slow speed, have forward crew hand bow line to shore and helm likewise with aft line. Instruct shore crew on adjustments to mooring lines.
- Instruct all to stay seated until told otherwise.
- Secure tiller amidships with stop.
- Raise boom with topping lift (assist by pushing boom up by hand) and cleat line.
- Check that any wheelchairs or other necessary aids are in place before assisting with unloading sailors one by one.

Safety

Lugger training will include all normal boat handling skills including man overboard drill and managing the risk of capsize. The risk of capsize is minimal due to the design of the boat and particularly the keel and centre plate weight.

During sailing we need to keep our Sailors reasonably firmly in their seats, to achieve this the helmsman should prevent the boat from heeling as much as is reasonably possible taking account of the disposition of the sailors. The sails can be reefed according to conditions, particularly with a gusting wind. The duty Senior Instructor will determine when the weather conditions require a reef to be set or it is unsuitable for sailing.

To minimise the risk of grounding the helmsman should keep the boat a minimum of 10 meters away from the perimeter of the lake, as the Lugger draws 1.25 metres.

Whilst we are on the water with our boats we provide Safety Boat. In case of emergency the helmsman must immediately radio the Shore-master for the Safety Boat.

The Lugger has an electric powered outboard motor fitted, which can be used for example; when leaving and returning to the pontoon, during light winds to take sailors onto the lake, in stronger winds if the sails are not used and in an emergency. The kill cord must be used at all times when the electric motor is in use.

Finally ~ We all enjoy our sailing so let's do our best to convey our pleasure and enthusiasm to all our sailors