



Peterborough Sailability

PERFORMANCE TRAINING MODULE

PTM 02: Challenger ~ Shore Crew Training



Requirement

There is a requirement to teach new and existing Helpers who may or may not have any prior knowledge of boats or sailing on how the Shore Crew (Challenger) should operate safely and in a satisfactory manner.

Aim

The aim of this procedure is to provide information and guidance to new and existing Helpers in the rigging, preparation, launching, recovering, de-rigging and storage of the Challenger Trimaran boats.

Objectives

The objective of this procedure is to set out a series of performance parameters which can be used to give the necessary guidance to a Helper so that they can achieve the following:

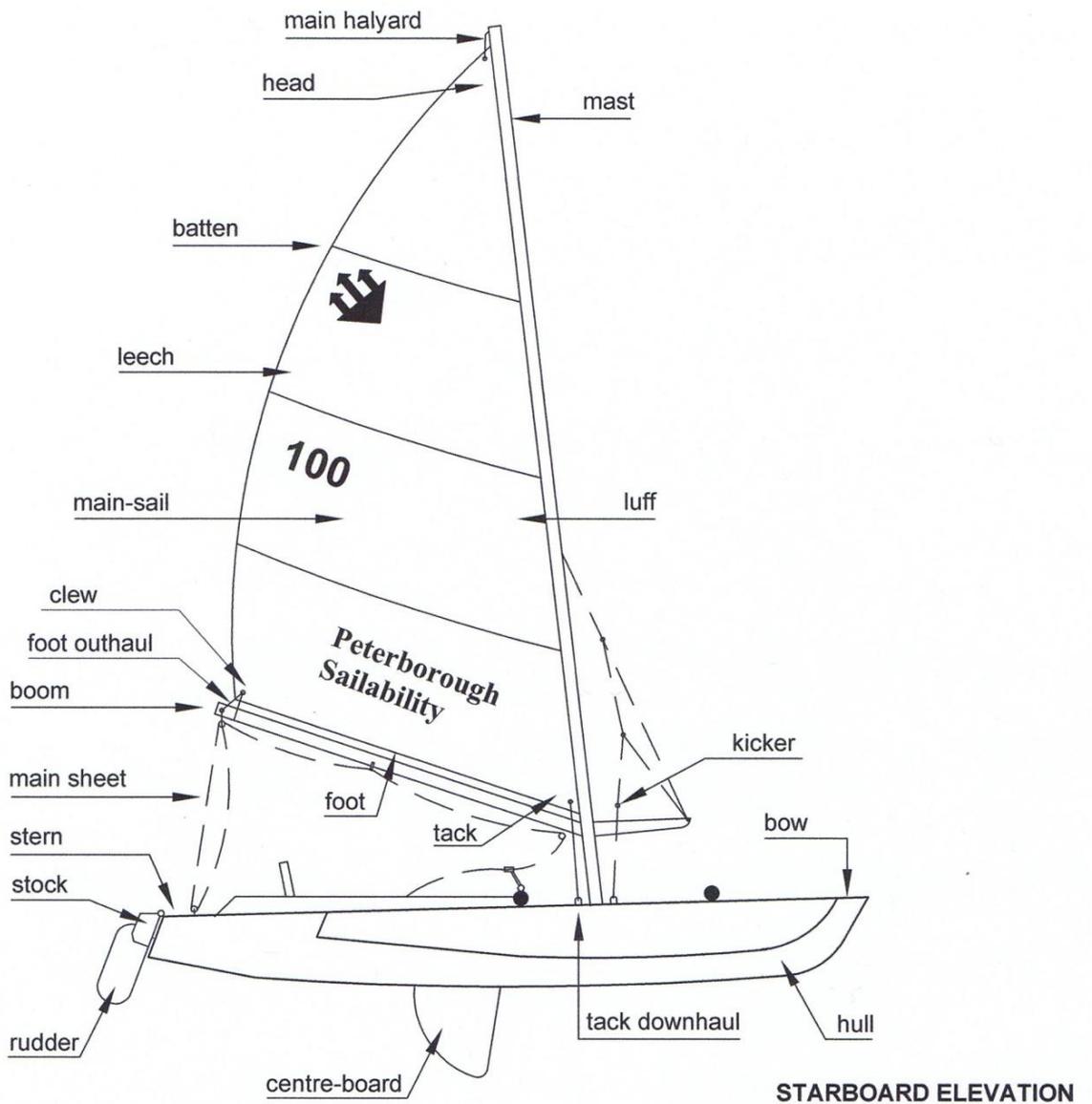
- a) To be able to rig and prepare a Challenger Trimaran multi hull boat satisfactorily prior to launching and when the boat is recovered, to de-rig it prior to storage.
- b) To be able to maneuver the trailer to the slipway, launch the boat fully-crewed and to apply the same techniques to the recovery procedures.

Method

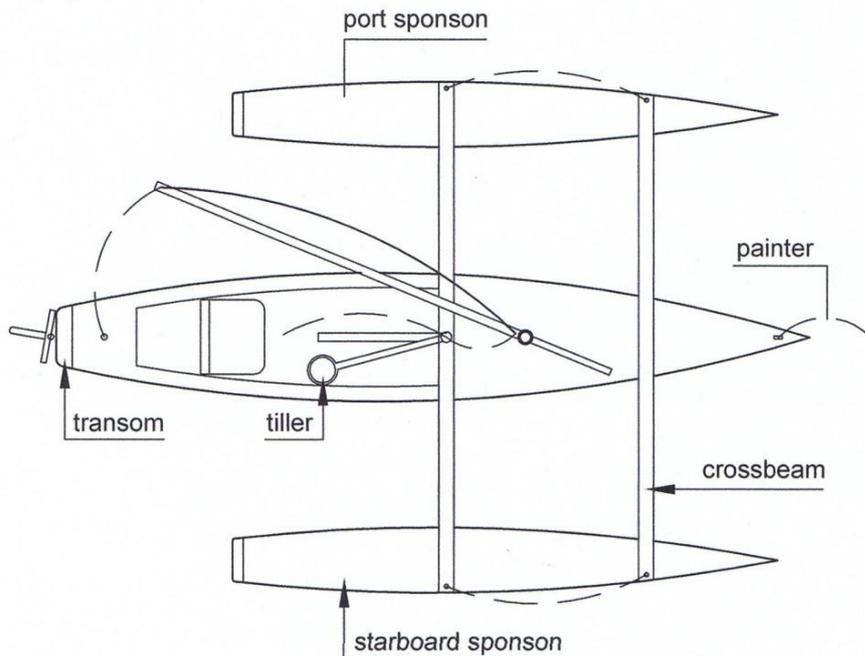
The method of the achieving the stated aim should be by either:

- a) Completion of a dedicated 'one to one' teaching work session or a series of these sessions, with a qualified Peterborough Sailability Senior or Assistant Instructor.
- Or
- b) Completion of 'on-the job-training'. In this case the Helper will be placed in the charge of an experienced member of the Shore Crew (Challenger) over a series of work sessions.
- Or
- c) Completion of a combination of a) and b) above.

The CHALLENGER TRIMARAN



STARBOARD ELEVATION



PLAN OF CHALLENGER TRIMARAN

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The CHALLENGER TRIMARAN ~ GLOSSARY OF SAILING TERMS

The Boat

- **Boom** Horizontal spar attached to the mast which controls the foot of the sail
- **Bow** Front of the boat
- **Centre-board** Prevents the boat sliding through the water when sailing
- **Crossbeams** Aluminum tubes that hold the hulls together
- **Falls of Rope** The part of the rope hanging between two points
- **Gybing Lines** Lines attached each side to the kicker boom to pull out the sail
- **Kicker** Other name, vang. Pulls the boom down to tension the sail leech
- **Main sheet** Rope from boom to hull that controls the position of the boom
- **Painter** Rope attached to the bow, used for towing or tying up the boat
- **Port** Left hand side of the boat when facing forward
- **Rig** The mast, boom, sail and control lines
- **Sponsons** Outer hulls of a Challenger Trimaran
- **Starboard** Right hand side of the boat when facing forward
- **Stern** Back of the boat
- **Stock** Plate assembly that is attached to the boat and holds the rudder
- **Tiller** A wood or metal pole the helmsman uses to control the rudder
- **Transom** Back surface of the boat's hull

The Sail

- **Battens** Flat flexible stiffeners in the sail which help give it shape
- **Clew** Rear lower corner of the sail closest to the end of the boom
- **Clew cringle** Eyelet in clew of sail for connecting to foot outhaul
- **Clew key** Metal slider that fits into boom track.
- **Cunningham** (or tack downhaul) control line to tighten the luff of the sail
- **Foot** Bottom edge of the sail
- **Head** Top corner of the sail
- **Leech** Back edge of the sail furthest from the mast
- **Luff** Front edge of sail (attached to mast)
- **Luff rope** Rope sewn in luff of sail that fits in the mast track to hold the sail up against the mast.
- **Halyard** A running rope used for hoisting the sail or rudder etc.
- **Outhaul** Rope from the cockpit to the foot outhaul clew via the mast end of the boom for tightening the foot of the sail.
- **Sheet** Rope that controls the boom and sail positions
- **Tack** Front lower corner of the sail at boom/mast junction
- **Tack downhaul** A rope from the cockpit to the tack cringle used to remove the creases from the luff of the sail
- **Tell-tales** Strips of material with one end attached to the sail to show the wind flow. If they all fly horizontally the wind is flowing smoothly across the sail

The Challenger Trimaran

Preparing and Rigging

Safety Notes:

A. Some parts of the Challenger Trimaran are boat specific. When fitting parts to the Trimaran ensure that any number written on the item matches the Sail Number of the Trimaran being rigged. This especially applies to the buddy seat rear cross members – failure to fit the correct cross member could result in the buddy seat collapsing and the Buddy going overboard.

B. The Trimaran should be checked for any damage/defects as the boat is being rigged. Any defects must be reported and entered into the Defect Book. ANY DOUBT THE BOAT DOES NOT GO OUT!

The following actions should be completed to prepare and rig the Challenger Trimaran boat:

- Untie the *sponsons* from the ground rings.
- Remove the boat cover (if fitted) and store it with the trestle.
- With assistance, lower the boat and trolley off the trestle.
- Secure the boat to the trolley by its *painter*.
- Check that the hull and *sponson* bungs and the hull hatch covers are screwed home.
- Connect the rudder to the pintles.
- Connect the rudder-up and rudder-down *halyards*.
- Connect the tiller to the rudder, and check the rudder and tiller are aligned. Ensure the tiller ropes are not too tight. Connect the rudder bungees, which prevent the *mainsheet* catching the rudder.
- Raise the rudder, and cleat the rudder-up line.
- Fit the *kicker* to the boom extension using the shackle. Ensure it is not twisted and the telltales are positioned at a suitable height.
- Turn the boat into wind.
- Slacken the mainsheet.
- Engage the head of the sail into the track and fit the main *halyard* shackle or bead.
- Hoist the sail to ensuring the *luff rope* remains in the mast track.
- Approximately 30cms before the sail reaches the mast-head, connect the *outhaul hook* to the *clew cringle*.
- Complete hoisting the sail to the mast top and then secure and stow the *halyard*.
- Fit the *downhaul* to the *tack cringle*, and attach the *tack strap* around the mast if one is fitted.
- Fit the buddy seat if necessary, ensuring that any lines run free.
- If the boat is to be left rigged in windy conditions, flatten the sail with the *outhaul*, tension the *kicker* and reduce the free play on the *mainsheet* to control sail flapping.

The Challenger Trimaran

Launching

The following actions should be completed to launch the Challenger Trimaran boat:

Safety Notes:

A. Double Check the hull and sponson bungs and the hull hatch covers are screwed down prior to launching. Failure to fit these correctly will result in the boat hull or sponsons filling with water and will cause the boat to sink.

B. Boats should not be sailed in wind speeds above a set limits as directed by the Shoremaster and Senior Instructor.

- At least two Shore Crew **wearing personal flotation devices** (correctly fitted) are required, in addition to the buddy.
- Boarding the sailor is the responsibility of the carer.
- Help the buddy in checking the boat is ready to launch.
- Carefully note the wind direction.
- When moving the boat into position ready for a reverse launch, turn the bow **through** the wind to avoid the boom rotating the mast through 360⁰.
- (Crew 1) Steer the trolley down the slipway, taking care to avoid the *sponsons* striking the side walls.
- (Crew 2) Hold on to *sponson* tube to control speed of descent.
- Allow the buddy (and carer, if appropriate) to board the boat.
- Control the boat and trolley until it reaches a suitable depth to allow the boat to float off.
- (Crew 1) Untie the boat, hand the *painter* to Crew 2, withdraw the trolley and park it.
- (Crew 2) Turn the boat into wind, allowing for the direction of the sail and *mainsheet*.
- Stow the *painter* along the bow deck to stop it falling over the side.
- Hold the boat by the *sponson* cords into wind - to allow the buddy to part-lower the *centre-board* and rudder.
- Check the rudder and *centre-board* are part-down, the *mainsheet* is untangled and clear of the rudder, the *painter* is stowed, and the boat and crew appear ready to release.
- Confirm with the buddy the direction of release. **On the buddy's command**, turn the boat and release.

Recovery

The following actions should be completed to recover the Challenger Trimaran boat:

- At least two Shore Crew are required, in addition to the Quad Bike Operator. **All are to wear personal flotation devices.**
- Position the trolley approximately in line with the approaching boat, submerged but visible to incoming buddy or helm - with the rear stanchions above the surface of the water.
- Catch the approaching boat, controlling its speed and direction onto the trolley. Some buddies and less experienced sailors will not attempt to sail onto the trolley but turn into wind in shallow water adjacent to the trolley. The Shore Crew should be ready for this manoeuvre.
- Guide the hull between the rollers until the bow engages the 'V' block.

The Challenger Trimaran

Recovery *Cont'd*

- Temporarily attach the hull to the trolley, using the *painter*. Allow time for the Buddy to stow the rudder and the *centerboard* in the fully up position.
- Manoeuvre the coupled hull and trolley into shallower water, ensuring the hull is central on the trolley - and the trolley supports are under the cross beams.
- The Buddy should get off as soon as the water is shallow enough.
- Secure the hull to the trolley with round turn to each side complete with a half hitch. This should be tight enough to prevent the hull slipping back off the trolley or later “bucking” as it is being launched.
- Loop the tow vehicle tow rope round the trolley handles through the steering arm (if fitted).
- Leaving the sailor aboard, the trolley and boat are then steered up the slipway being pulled by the tow vehicle with banksman in attendance or “muscle power”. Any carer aboard must be disembarked as soon as the boat reaches dry land, to avoid stressing the hull.
- Once on level ground, bring the boat through the wind sufficient to position the boom **over the buddy seat** - to allow safe disembarkation of the sailor on the opposite side.

De-rigging

The following actions should be completed to De-rig the Challenger Trimaran:

- Turn the boat into wind.
- Remove the buddy seat.
- Release the *kicker*, *outhaul*, *downhaul*, and *mainsheet* jamming cleats.
- Remove the *tack* strap if fitted.
- Remove the *outhaul hook* from the *clew cringle*.
- Release the sail *halyard*, and control the descent of the sail.
- Remove the sail *halyard* shackle or bead and secure the halyard, to prevent losing it up the mast.
- Remove the *kicker* if a cover is being fitted to the boat.
- Fold the sail along the second or middle *batten*, and roll it up from the *batten* to the *foot*.
- Stow the sail in its boat-numbered bag.
- Using the *downhaul* or similar, secure the *halyards* and *kicker* to the mast.
- Centre the boom with the *mainsheet*, and cleat it.
- Release the rudder-up *halyard* under control, and lower the rudder blade to the ground.
- Disconnect the rudder up-and-down ropes and the tiller ropes.
- Remove the rudder.
- Stow all the loose *halyards* in the hull.
- Unscrew the hull and *sponson* bungs to release any trapped water.
- Untie the *painter* from the trolley.
- Fit the boat cover.
- With assistance, raise the boat and trailer onto the trestle.
- Tie the *sponsons* to the ground rings.

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