

## **HEALTH & SAFETY GUIDANCE NOTE No.2 General Guidance on Cruiser Storage Ashore**

### **Introduction**

This document expands on the Boat Park Storage Policy and is directed at Members who bring their cruisers (sail or motor) ashore during the Winter months and store them in the Club Boat Park. It contains general guidance on ensuring safe practice. It is the Member's responsibility to ensure their vessel is satisfactorily transported and stored in a manner that ensures its resistance to the ravages of adverse weather conditions.

Because vessels vary in shape and size to such an extent, their safe storage ashore is a complex task. The safest form of support is a cradle tailor-made to fit a particular vessel.

Obviously the cradles required to support motor boats differ considerably from those required to support deep keeled sailing yachts. Likewise a static cradle can be constructed from lighter materials than a cradle required for transportation of a vessel.

### **Vessel Storage/Site Preparation**

A little pre-planning and vessel preparation such as the items listed below will help in making a vessel more secure during the Winter layup and ensure compliance with the Club's Boat Park Storage Policy.

#### **Sails**

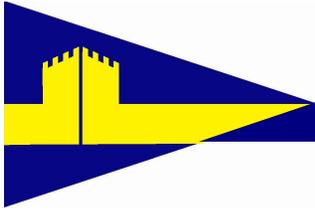
- All shall be removed including in-mast furling mainsails.

#### **Spray Hoods**

- Shall be removed or collapsed and/or folded and tied down in the event the mast is to remain stepped.

#### **Boat Covers**

- In the event the mast remains stepped, boats may only be covered by a boom tent. This must be in contact with the boom, with the boom in its normal position attached to the gooseneck fitting and approximately horizontal. Such a cover may extend beyond the boom no further than the transom but may not extend forward of the mast and must be secured by lashings passing under the boat. In all circumstances covers must not be secured to the cradle or any supporting leg or prop.



## Masts

- Ideally masts should be removed from the vessel when stored ashore.
- If to be lowered and stored on board masts must be securely stowed longitudinally on deck and delicate masthead fittings such as aerials and Windex should be removed.
- No trailer borne sailing vessel over 6 metres (20ft) in length shall be brought into the Boat Park with the mast stepped without the prior permission of the Bosun, Boat Handling Officer, or three Elected Officers of the Club.
- If masts remain stepped the Club will not accept responsibility for damage to masts, rigging and masthead fittings, in the event an owner does not, or inaccurately, advise the Boat Handling Officer of the overall height of their vessel.
- If masts remain stepped halyards are to be tied well clear of the mast and a line tied perpendicular to the forestay to secure it back to the gooseneck fitting at the foot of the mast. This to reduce harmonic vibration in high wind conditions.
- Masts may not be climbed whilst the vessel is in the Boat Park.
- Owners must confirm that their insurance cover allows for the boat to be stored ashore with its mast stepped.

## Storage Site

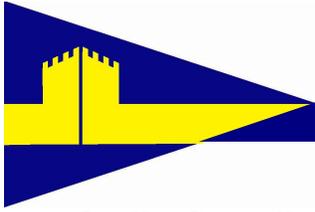
- The ground structure is an important part of secure Winter layup. Surfacing, drainage and ground softness should be checked and if appropriate reinforcement in the form of spreader boards etc be introduced where point loading may result in ground penetration.

## SAILING VESSELS

### Types of Support

#### Timber Props/Legs

- Many Boat Yards still support sailing yachts on timber props. The Club will not permit this practice because the Boat Park is not professionally manned and timber propping needs regular inspection and possibly readjustment, sometimes hourly, during adverse weather conditions.
- Fin keeled boats will not be permitted to be supported by legs alone. If legs are to be used prior agreement must be reached with the Bosun, Boat Handling Officer or three Elected Officers of the Club as to the additional support to be provided.



## **Cradles Generally**

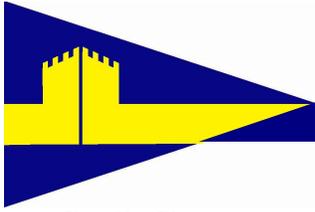
- Must be portable and removed from the Compound as soon as the boat is relaunched.
- Each cradle to be indelibly marked when the boat is in position to enable it to be quickly erected with the right settings the next time it is used.
- Cradles to be adequately maintained to ensure they can be erected/dismantled without unnecessary delay.
- The Bosun, SubLift Crew or three elected Officers of the Club will inspect each cradle prior to lifting the boat which is to be supported by it. If they consider the cradle is not fit for purpose the Club reserve the right to refuse to lift the boat until the cradle is judged to be suitable.
- When fitting a vessel to the cradle the keel should be carefully aligned fore and aft symmetrical to the cradle. The support legs should be carefully adjusted so that equal weight is taken on each support and the hull of the vessel is not deformed.
- The cradle should be constructed in such a way that the keel fits on the centre framework of the cradle. This pins the cradle to the ground and prevents movement in high winds, especially when the mast is stepped. Precautions also need to be taken to ensure the foot of a keel cannot move laterally during high wind conditions if the mast remains stepped.

## **Collapsible Steel Cradles**

- These are designed to be dismantled and folded down for ease of transport and storage. Care must be exercised to ensure they are correctly assembled, adjusted to fit the specific vessel and all fittings/fixtures securely tightened. These are normally of lighter construction than purpose-made cradles and tend not to be so secure. Particular attention must be paid when assembling on uneven ground to eliminate twisting of the cradle members.
- If a cradle is purchased secondhand then care should be taken to ensure it is of correct dimensions and has the structural strength to support the vessel for which it is to be used.

## **Custom Made Cradles**

- Custom made cradles tend to be of heavier construction and whilst they may have adjustable support legs they usually have close moulded hull supports and provide for keels to be located in a frame to prevent any movement. The bases are usually welded mild steel frames which are more difficult to transport and store. Substantial timber framed cradles with bolted connections are sometimes used.



## Cradle Sizes

- There are no recommended cradle dimensions for a specific size of vessel. However the following guidance may be of use :
  1. The length of the cradle should be no less than half of the vessel's hull length and ideally closer to two-thirds of the hull length. The width of the cradle should be no less than three-quarters of the vessel's beam. The old adage of "the bigger the better" is well applied in this instance.
  2. A minimum of two supports should be used to each side of the hull.
  3. Hull supports should be adjustable in height with swivel pads fitted so that they can be adjusted to the hull shape without causing uneven pressure points. The pads on the end of the supports should be minimum size of 225 x 225mm (9" x 9") with padding such as carpet or rubber fitted to them.

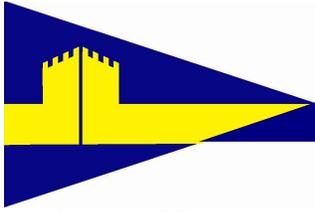
## Free-standing Sailing Vessels

- These generally comprise bilge or multi keeled vessels which can take the ground and remain upright unsupported. Normal practice is to rest the keels on timber blocks when the vessel is stored ashore other than for short periods.
- In addition to under keel blocks, all such vessels require securely propping fore and aft on their centreline to prohibit fore and aft rocking, due to trafficking on the deck and/or, in the case of the mast remaining stepped, to resist fore and aft movement in adverse weather conditions.
- When the mast remains stepped bilge or multi-keeled boats with a keel footprint appreciably narrower than the beam of the boat must be cradled or provided with secure additional supports to ensure lateral stability during adverse weather conditions.

## MOTOR BOATS

Motor boats are easier to support than deep keeled sailing vessels. By definition a motor boat has a flatter bottom and a long straight keel. Similar relevant precautions as those used in preparing a sailing vessel for Winter storage should be applied.

Motor boats are generally set down on a line of keel blocks with additional supports at the chines or bilges to prevent them from toppling over. A minimum of three sets of keel blocks should be used for smaller vessels with spacing between the blocks being no more than 3 metres (10ft). Closer in some cases where the structural integrity of the keel is suspect.



## Types of Support

### Keel Supports

- The use of timber keel blocks is a traditional method used to support motor boats. This is a well established system which rarely fails. Latterly proprietary galvanised welded mild steel supports have become available and are being increasingly used.

### Shores

- Timber shoring of chines and bilges is regularly used. These are much shorter than shores used for sailing craft and are less susceptible to movement as they can be placed more upright under the vessel.

### Oil Drums

- The Club will not permit the use of oil drums to support vessels as internal corrosion can lead to unpredictable collapse.

### Cradles Generally

- As for Sailing Vessels.

### Steel Cradles

- Steel cradles are used in some boat yards where boat movers are used and are usually made for a specific type of vessel. General purpose cradles will often have adjustable support pads similar to yacht cradles.

### Custom Made Cradles

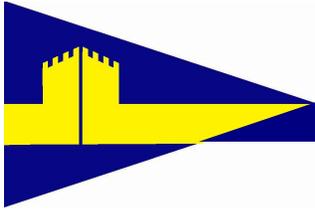
- As for Sailing Vessels

### Steel Stands

- Steel motor boat stands are now in common use with many designs currently on the market. They are adjustable in height and self-supporting. They are ideal for use under a vessel's chine rail and can also be used on round bilge vessels provided they are placed well under the body of the hull and not on the round bilge section.
- A minimum of three boat stands should be used on each side. These should be placed directly opposite each other and in line with each set of keel blocks. The larger the vessel the more stands are required.

## TRAILERS

- Trailers used for recovery of vessels at Portchester Sailing Club are in the main bespoke, heavily engineered, fabricated using I-Beam and channel sectioned mild steel, utilising former commercial vehicle front axles and have four wheel king pin and track rod steering which affords good manoeuvrability and stability.
- Turn table steering trailers inherently afford less stability when turning as the effective axle length (track) is reduced.



- A number of road and launching trailers of proprietary and purpose-made origin of differing configurations are also in use.
- Trailers in use are generally not braked which necessitates care being exercised in their use particularly on other than level surfaces.
- The design and maintenance of the trailer is the owner's responsibility. However, the Club is not able to permit the use of other than suitable well maintained trailers on their premises which, for the purposes of Health & Safety, are deemed to include the Slipway and Foreshore.
- To ensure acceptable standards of safety are maintained all trailers will be inspected twice annually (before boats are brought in for Winter storage and before they launch in the Spring) by an Inspector nominated by the Club.
- The Inspector will require that all trailer wheels are lifted clear of the ground to ensure wheel bearings, kingpins, steering swivels, track rod ends and drawbar fittings are in satisfactory condition. Chassis, uprights and braces will be visually inspected and any areas showing signs of inadequate design, corrosion, wear, distortion, fatigue etc will be investigated, possibly invasively, in the presence of and with the agreement of the owner. Any required remedial action will be agreed with the owner and re-inspection undertaken after it has been implemented.
- Only trailers which are considered satisfactory for purpose by the nominated Inspector, Bosun, Boat Handling Officer and Tractor Operator, all of whom must agree, will be allowed to be loaded and used on Club premises.
- In the event of a dispute regarding the suitability of a trailer for purpose an Independent Engineer will be instructed by the Club, at the trailer owner's expense, to mediate. The Independent Engineer will only confirm if the trailer is unsuitable for purpose. The cost of an independent inspection during 2010-2011 will be £25.
- Footnote : No formal written standards exist for the storage or transportation of boats or for cradle and trailer designs and sizes. The opinions expressed in this document are those accepted as reasonable by the Club and no responsibility or liability can be accepted by the Club for inaccuracies or opinions expressed within this document.