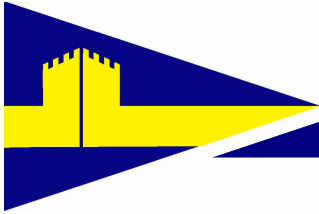


**METHOD STATEMENT**

**TO MOVE BOATS BETWEEN**  
**THE YARD AND THE WATER**  
**USING A SUB LIFT 12T**

<b>Version Number</b>	<b>Author</b>	<b>Date</b>	<b>Approved By</b>	<b>Date</b>
One	Jim Watson	27.07.09	Exec Committee	
Two	Jim Watson	01/10/09	Exec Committee	
Three	Jim Watson	03/10/09	Exec Committee	13.10.09
Four	Jim Watson	27/11/09	Marine Committee	27.11.09



## REFERENCES

1. Club Boat Handling Officer's terms of reference.
2. General and safety notes for moving boats into and out of the yard. (Issued to all Cruiser members before every movement as part of the club's responsibilities for Health and Safety training)
3. Boat Movement Operation Risk Assessment. (Issued to all craning members before each boat movement as part of the club's responsibilities for Health and Safety training)
4. Craning Method Statement (this document)
5. Boat Movement Process Chart, showing areas of activity, responsibility, risk and ownership.

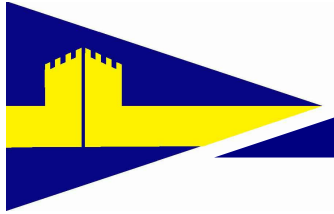
**Whilst the use of a Sub Lift is not strictly controlled by LOLER, it is the view of the author that we should comply where it is prudent to do so. This document has been written for those involved in the use of the Wave Sever Sub Lift equipment and provides compliance to H&SE guidelines. It is not fully comprehensive and readers should refer to the manufacturer's operating manual in respect to the operation of the Sub Lift and to H.S.E. publications to ensure that they have the latest information and details of the requirements for this particular lifting operation.**

## EQUIPMENT

- ◆ One Sub Lift 12T Boat Hoist
- ◆ Power washer with power supply and hose pipe, for strop cleaning and hosing down Sub Lift down after use.
- ◆ Hoe for scraping barnacles and mud off boats prior to going on slings of the Sub Lift.
- ◆ Two temporary safety notices to be placed on public footpath at plant crossing point.
- ◆ Each boat owner to supply a ladder long enough to climb onto his boat when it is mounted on the ground or on onto a cradle.
- ◆ Each Boat owner to fit Bow & Stern lines where necessary for a wet lift
- ◆ Hard hats for Banksmen, Sub Lift Operator, Boat Handling Crew and Yard Safety Officers.
- ◆ Hi Viz Jackets for Banksmen, Sub Lift Operator, Boat Handling Crew and Yard Safety Officers
- ◆ Four radios for Boat Handling Marshall communications between slip and yard and the slip and club patrol boats.
- ◆ One club patrol boats, (for wet lifts) each with one crew – Banksman/marshal to secure strops and boats taken from or to the Sub Lift.
- ◆ Two Life Jackets for Club Patrol Boat Crew

## CLUB PERSONNEL

Boat Handling Officer.  
Club Bosun or his nominated representative.  
Sub Lift Operator.  
One qualified Banksmen/Marshal or Sub Lift Operator (the club Boat Movement Marshals).  
One Site Safety Officers  
One Crew for club patrol boats – if a wet lift operation is undertaken.



## DUTIES

### **1. Boat Handling Officer**

To plan and organise the whole Boat Movement Operation in accordance with his terms of reference and to act as the LOLER "Appointed person".

To be conversant with all current instructions and procedures adopted by the Club.

Undertake Risk Assessment and circulate documentation to all involved.

Review Method Statement and copy to all concerned.

Review and issue guidance notes to Boat Owners

Check Sub Lifter certification prior to operation.

Check Banksman certification prior to start.

To report any incidents to MANCOM.

### **2. Bosun**

To decide, in conjunction with the Boat Handling Officer, the list of boats that may be placed on the Yard Boat Movement List.

To be conversant with all current instructions and procedures adopted by the Club

To take charge of boat location operations in the yard in consultation with the Boat Handling Officer. This involves a main duty of deciding where boats are to be placed in the yard, and to keep the Sub Lift Operator informed of the requirements. (SEE NOTE 1) (Practice has shown that the lifting operation may run more efficiently if the Sub Lift Operators position boats themselves).

### **3. Sub Lift Operator**

The Sub Lift Operator must be competent having both experience and training.

To ensure the Sub Lifter is fit for task, properly maintained, fuelled and that the Manoeuvre box is fully charged.

The Sub Lift Operator is to operate the Sub Lift in accordance with the manufacturer's guidelines.

Two members of the maintenance committee are appointed to lead on the Sub Lifter maintenance.

To be conversant with all current instructions and procedures adopted by the Club (To be provided with a copy of the Risk Register, Process Diagram and Method Statement.)

To set up the public footpath notices before starting operations and to return them on completion.

To ensure that the two Safety Officers are in place prior to movement.

To ensure that the Sub Lift load is secure prior to moving.

Sub Lift Operator is not to leave the unit unattended with engine running.

Sub Lift Operator is to take the control unit with them when they leave the unit.

Sub Lift Operator is not to move off until all Crew are well clear.

### **4. Boat Movement Marshals/Banksmen**

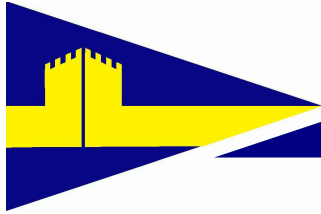
One Marshal to draught a Marshals' roster for each movement operation, to ensure continuity.

One Marshal to accompany and assist the Sub Lift Operator.

To be conversant with all current instructions and procedures adopted by the Club

To direct the boat handling operation of allocated boats.

To ensure the Sub Lift is hosed off on completion.



To ensure the club's hosepipe/power washer equipment is set up at the start, and cleaned and returned to store on completion.

To ensure the Site Safety Officers are available at the start and alert during the operation.

The Boat Movement Marshal is responsible to act as the 'Eyes and Ears' of the Sub Lift Operator, liaise regarding boat selection and placement and enforce H & S Policy.

To report any causes of time delay, any damage or incident to the Boat Handling Officer on completion.

To ensure that all personnel, within the vicinity of the operation, are wearing a hard hat and a high visibility jacket.

To ensure that all Deck Crew & Safety Officers are wearing a hard hat and a high visibility jacket.

To ensure that the Deck Crew and Sub Lift Operator communicate regarding the correct positioning of the Sub Lift Strops and Arms and that they are fitted correctly.

Advise Crew regarding moving heavy equipment –blocks.

Advise Deck Crew when safe to insert/remove blocks.

Advise and check that ladders are secured prior to use.

To remind Deck Crew to secure all loose deck equipment.

## **5. Site Safety Officers**

Two Site Safety Officers appointed to ensure that :-

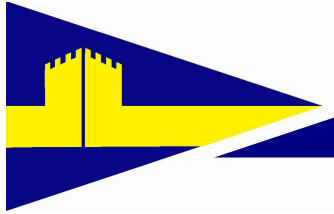
- ◆ The Emergency services are called if necessary
- ◆ Co-ordinate evacuation of all staff and members
- ◆ Co-ordinate immediate fire control without placing staff at risk.
- ◆ Vehicles are removed from the yard.
- ◆ Ensure that no unauthorised personnel are allowed in the vicinity of the Boat Movement Operation.
- ◆ Ensure that all those within the operating areas of risk are wearing high visibility jackets and hard hats.
- ◆ To be conversant with all current instructions and procedures adopted by the Club
- ◆ One Site Safety Officers at the top of the slipway - appointed to ensure that :-
  - i. The path of the Sub Lift and load are not placing the public at risk
  - ii. Warn members of the public that heavy plant is crossing and draw their attention to the signage.
  - iii. Alert the Sub Lift Operator if the Public are placed at risk
- ◆ One Site Safety Officers in the Yard - appointed to ensure that :-
  - i. The route of the Sub Lift and load are not placing members or the public at risk
  - ii. Exclude members from the operating area and draw their attention to the signage.
  - iii. Alert the Sub Lift Operator if persons are placed at risk

## **6. Club Patrol Boat Crew**

Two Crew (for each patrol boat) will be responsible for securing boats floated off or onto the Sub Lift. When wet lifting operations require this resource.

Each Crew will be responsible for launching and operating their Patrol Boat in accordance with Club standing instructions.

Each patrol boat will stand off as the Sub Lift enters the water and wait until the Sub Lift has come to a stand still.



The Patrol boats will then move in and take or secure fore and aft lines to the Boat on the Sub Lift.

Once secured, the Sub Lift will lower the strops until the boat floats free.

The Patrol boats will manoeuvre the boat to a predetermined location where they will secure the boat.

## **METHOD – MOVING FROM YARD TO WATER**

The Club will use a Sub Lift boat handler to move boats out of the yard.

The Sub Lift boat handling system is a radio-controlled, diesel-engined launching and landing vehicle for boats or other loads. The Sub Lift enables boats to be positioned very securely and manoeuvred easily in confined areas, for example near to trees. The boat is suspended in the lifting straps to ensure that it is kept safe throughout the handling operation.

The vehicle is designed in the form of an open U, which means that the boat can be positioned safely and easily on the supports, cradle, etc. with the lifting straps remaining in place until the boat is stable and secure. The four lifting cylinders, which operate in pairs, allow the boat to be held horizontally throughout the handling operation, irrespective of the angle of the ground.

The Boat Handling Officer, in conjunction with the Sub Lift Operator, decides the order in which boats are to be lifted.

The Boat Owner, or his nominated representative, must wear a high visibility jacket and hard hat. They are responsible for liaising with the Sub Lift Operator to ensure that the strops are correctly positioned on their hull and later ensure they are free of obstruction whilst the slack is taken up.

The boat owner is to ensure that all loose gear on the deck is fully secured.

The Boat Handling Marshal assists the Sub Lift into the appropriate position and controls personnel in the vicinity.

The Sub Lift Operator ensures that all appropriate side arms are properly secured and that the load is properly secured before moving off to the slipway.

The Sub Lift Operator must take special care to ensure that the centre of gravity of the load remains within the equipment tolerances.

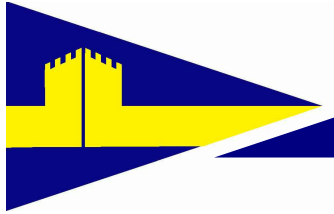
Special care is to be taken during movement through the yard and at the public footpath crossing.

Safety Officers ensure that unauthorised persons remain away from the areas of risk around the Boat Movement Operation and warn members of the public at risk from Sub Lift movements.

The Safety Officers will alert the Sub Lift Operator to stop the Sub Lift from moving until it is safe to proceed. The Safety Officers will also act as Fire Pickets in the event of Fire.

Upon arrival at the Slipway, the Sub Lift Operator will liaise with the Boat Handling Officer as to the method of placement of the boat. Two options present themselves:-

1. Position the boat onto the dry slipway out of the water.
2. Take the Sub Lift down the slipway into the water and allow the boat to float off when sufficient draft is achieved.



Depending upon tide and circumstance the options available will be apparent. If the boat is to be positioned on the slipway out of the water then once the Sub Lift has lowered the boat onto the ground and withdrawn, the boat will become the responsibility of the owner or his representative.

If the boat is to be 'floated off' then the owner will ensure that securing lines fore and aft have been set on the boat. The Club Patrol Boats will then stand by to take the securing lines once the Sub Lift has come to a stand still in the water. Once the lines have been taken the Sub Lift will lower strops and arms to allow the boat to float off. The Club Patrol Boats will then manoeuvre the boat to a pre determined position and secure it.

### **METHOD – MOVING FROM WATER TO YARD**

The Club will use a Sub Lift boat handler to move boats out of the water into the yard.

The Sub Lift boat handling system is a radio-controlled, diesel-engine launching and landing vehicle for boats or other loads. The Sub Lift enables boats to be positioned very securely and manoeuvred easily in confined areas, for example near to trees. The boat is suspended in the lifting straps to ensure that it is kept safe throughout the handling operation.

The vehicle is designed in the form of an open U, which means that the boat can be positioned safely and easily on the supports, cradle, etc. with the lifting straps remaining in place until the boat is stable and secure. The four lifting cylinders, which operate in pairs, allow the boat to be held horizontally throughout the handling operation, irrespective of the angle of the ground.

The Boat Handling Officer, in conjunction with the Boat Handling Officer, decides the order in which boats are to be lifted.

The Boat Owner will be responsible for positioning and securing his boat to a predetermined position along the centreline of the slipway.

The Boat Owner is to ensure that all loose gear on the deck is fully secured

The Boat Owner, or his nominated representative, must wear a high visibility jacket and hard hat.

The Boat Handling Marshal assists the Sub Lift into the appropriate position and controls personnel in the vicinity.

The Sub Lift Operator will manoeuvre the Sub Lift into a position around the boat and secure the boat. Owners are responsible for liaising with the Sub Lift Operator to ensure that the strops are correctly positioned on their hull and later ensure they are free of obstruction whilst the slack is taken up.

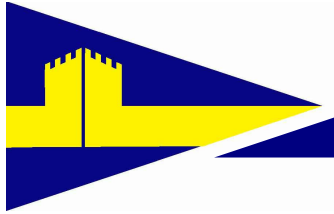
Should the Sub Lift take on a floating boat, the Club Patrol Boat will be used to manoeuvre the Boat into the Sub Lift.

The Sub Lift Operator ensures that all appropriate side arms are properly secured and that the load is properly secured before raising strops and moving back up the slipway.

The Sub Lift Operator must take special care to ensure that the centre of gravity of the load remains within the equipment tolerances.

Special care is to be taken during movement through the yard and at the public footpath crossing.

Safety Officers ensure that unauthorised persons remain away from the areas of risk around the Boat Movement Operation and warn members of the public at risk from Sub Lift movements.



The Safety Officers will stop the Sub Lift from moving if necessary until it is safe to proceed. The Safety Officers will also act as Fire Pickets in the event of Fire.

Upon arrival in the Yard, the Sub Lift Operator will liaise with the Boat handling Officer as to the method of placement of the boat. Two options present themselves:-

- 1 Position bilge keel boats onto the blocks on the ground.
- 2 Position fin keel boats onto cradles or with legs on the ground.

Depending upon the keel configuration the options available will be apparent. If the boat is to be positioned on blocks, then once the Sub Lift has manoeuvred the boat into the desired location it will come to a stand still. The owner will then place blocks upon which the boat will stand under the keels. The Sub Lift will then lower the boat onto the blocks and release the strops and withdraw. The boat will become the responsibility of the owner or his representative.

If the boat has a fin keel, then once the Sub Lift has manoeuvred the boat into the desired location it will come to a stand still. The owner will then place blocks under the keels and/or cradles and legs upon which the boat will stand onto his boat. The Sub Lift will then lower the boat onto the blocks or cradle and release the strops and withdraw. The boat will become the responsibility of the owner or his representative.

### **MAINTENANCE**

#### **Daily maintenance**

##### 1. Before use

- Check the fuel, engine oil, and coolant levels.
- Check the hydraulic oil level with the cylinders in the lowered position.
- Check that there are no oil or coolant leaks underneath the Sublift.
- Check the tyre pressures and look for any tyre damage.
- Check the cover seals and fastenings.
- Check the lifting straps for damage, and ensure that the protective sleeves and ropes are fitted.
- Start the vehicle and check all the functions:
  - Start and stop functions.
  - Braking function can be activated when the dead man's handle is released.
  - Coolant level warning.
  - Battery status on manoeuvre box.

##### 2. In use

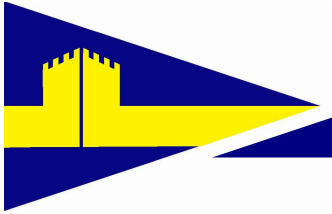
When driving on land, stop the vehicle if a warning light comes on and check:

- Engine oil
- Charge
- Coolant level

During underwater operation, the vehicle should immediately be driven out of the water if any warning light comes on.

##### 3. After use

- Fill with fuel. *NOTE! Switch off the engine.*
- Clean the vehicle and check for any damage.
- Shut off the main switch.



- Wash the vehicle with clean water and check that the radiator is clean.
- Charge the manoeuvre box.

**NOTE 1**

***Factors to be considered by the BOSUN/Boat Movement Officer when deciding the order in which boats are to be moved/lifted from the slipway.***

- 1 Some owners get angry when their boats are not lifted early in the operation, as they do not like to be kept hanging about all day waiting for their turn. These are usually the people who do not help, and wish to go home early. The BOSUN and Boat Movement Officer must use their discretion in trying to accommodate any owner with genuine reasons for wanting an out-of-turn lift.
- 2 Boat displacement, size, keel configuration – can the Sub Lift get close enough on the slipway to collect on a wet lift? Owners will be told to secure their boats onto the slip; but often may not position their boat in a safe location to be ‘collected’ by the Sub Lift. In such cases the boat will not be lifted.
- 3 Minimisation of Sub Lift movements. It takes some time to get the arms positioned, strops adjusted, etc. Positioning of boats along the centre line of the slipway will aid all involved.
- 4 Crew – if the boat owner or his representative is not present at the desired time of lift, (as frequently occurs) the boat cannot be lifted and drops down the order. If owners are not going to be present at their appointed lifting time, they are required to nominate a representative who will take responsibility for them, and inform the Boat Handling Officer before the operation.