



MINIMA YACHT CLUB

LAUNCH OPERATION MANUAL

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Bosuns should become familiar with this manual.

BASIC DUTIES OF DUTY BOSUNS

1. The duties of Bosuns are:
 - ferrying club members to and from the dinghy park
 - assisting the Race Officer
 - provide support to club members on the water
 - emergency assistance to other river users
2. The Sailing Committee has appointed the Race Officer to be in charge of the Race. This includes the operation of Club launches and boats.

PREPARATION FOR RACING

1. Arrive to commence duties at least one hour before racing starts; to retrieve the launch from the moorings, to make preliminary checks on the launch, to receive directions from the Race Office on marks to be laid for the course and set the marks, and ferry sailors across the river.
2. Obtain directions from the Race Officer.
3. Be familiar with the locations of marks as set out in the Sailing Instructions.
4. Take on board buoys to act as marks: to suit the Race Officer's course instructions.
5. When laying marks, leave ample room for dinghies to pass between the riverbank and the marks
6. Port. (course signals marked red) means left or leave mark to left.
7. Starboard (course signals marked green) means right or leave mark to right.
8. During racing the Race Officer's directions as to the location of the launch should be followed.
9. Subject to the Race Officer's instructions, if two crewmembers are not manning the launch, then the launch should be located where additional crew may join the launch.
10. Launch crews may be required to provide communication between Race Officers and Sailors on such matters of course changes, shorten course or altered finish line.
11. Check communication where this has been arranged. Two radios are kept in the race box alternatively mobile phones may be used. Exchange phone numbers with the Race Officer.
12. On long distance races the Launch crew should report on changes to weather conditions on remote parts of the course, such as increasing or falling wind.

PRELIMINARY CHECKS ON THE LAUNCH

1. Check equipment on board;
2. Ladder, normally kept against the forward bulkhead
3. Floating line;

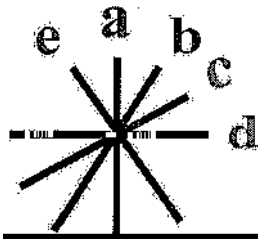
4. Boat hook;
5. Space blankets, Minima XI – kept under stern deck. Minima X, kept under starboard aft side bench;
6. Knife – under port aft side bench (by yellow stripe);
7. Sufficient number of buoys to act as marks according to the Race Officer's instruction;
8. Check that lights are working.

ENGINE OPERATING PROCEDURES

MINIMA X (wheel steering) and XI (tiller steering) - engine operating procedure (Diesel Engine);

Starting the engine

Key switch functions:



- a: Switched off (position before insertion of key and removal of key)
- b: Warning and instrument lights are alight
- c: Thermo-start
- d: Start.

Note: In order to reach positions "d" and "e" the key body must be depressed by means of the key.

The key should not be left in position "e" because of the heavy consumption of current by the stop solenoid. The alarm functions are tested in position "e"

Starting in normal weather (not cold)

1. Pull throttle out towards the port side to disengage the propeller and push forward half way.
2. Push in key and turn fully clockwise to position "d" (engine should start to turn over). Hold in this position to keep engine turning over until it fully starts (it should be going "born born born" rapidly)
3. If it does not start after 10 to 15 seconds, wait for one minute then repeat the procedure as from 2 above (**Do not use starter for more than 15 seconds. If further operation is necessary, wait at least half a minute**);
4. When firing smoothly, reduce throttle to ~1500 rpm.
5. Look over the stern to confirm that engine cooling water is being ejected.

Never speed up a cold engine. Let it warm up first at about 1500 r.p.m

Cold weather

Before commencing the above procedure:

1. Turn key to position "c" and hold for 30 seconds and wait 20 seconds before

pushing in to start position "d" (instruments should show negative).

2. This operates the pre-heater Then proceed as for normal weather

Manoeuvring

1. With the control lever in central position the engine is idling and it is in neutral.
2. **Only engage >Ahead< or >Astern< when engine is idling**
3. Increase the load gradually from idling in the course of the first 5-10 minutes shortly after starting the engine.

Stopping the Engine Minima XI

1. Depress the STOP button located in the centre section of the instrument panel until the engine has stopped. Remove ignition key.

Stopping the Engine Minima X

1. Turn key fully anti-clockwise and hold until engine has stopped. The key must not be left in this position due to the large current consumption of the stop solenoid. In this position the acoustic alarm will function after the engine has stopped.

BOAT HANDLING (PRACTICAL INSTRUCTION)

Instruction to include the following:

1. Engine starting and stopping. Engine not to be left running when launch not in use;
2. Effect of loading on handling & performance;
3. Effect of balance and trim;
4. Keeping a lookout — keeping aware of other water users, including the effect of wash;
5. Ensure that passengers do not obscure your line of vision. Insist that they sit down;
6. Steering controls: effect of wind and stream, handling ahead and astern, carrying way in neutral gear;
7. Coming alongside facing upstream and downstream without hitting jetty;
8. Manoeuvring launch in a confined area, effect of wind and stream on bow;
9. Changing gear between foreword and reverse and vice versa gently and at low engine speed. Speed not to be controlled by continuously using forward and reverse. Gearbox delay;
10. Practicing controlling the launch travelling in reverse between two buoys;
11. Practicing on both sides of river;
12. Judging stopping distance without using reverse (noting the effect of heavily laden launch and depth of propeller in the water);
13. Making fast alongside (aim to come in parallel to the shore/ jetty but 25 cm off);
14. Mooring with bow or stern into the stream / wind;

15. Laying marks safely;
16. Securing mooring lines, using round turn & two half hitches (if boat is not left unattended use clove hitches);
17. Mooring lines being left slightly slack to prevent snubbing (jerking) and allow for variations in water level that occurs in strong streams and when high tides slow the flow of water over the weir at Teddington Lock;
18. Taking care not to leave ropes in the water because they may foul the propeller.

Anchoring

1. The anchor is located under the thwart on the starboard side of the engine (Minima XI, port side bow bulkhead Minima X). It is composed of a folding grapple, chain and warp;
2. Check that the other end of anchor line is attached to the launch!
3. Consider the effect of wind and stream on launch when anchor is in place. Avoid anchor line fouling propeller;
4. Note the depth of water when first holding anchor over side of launch and allow a length of anchor line to extend at least three times depth of water;
5. Check that the anchor is holding;
6. To weigh anchor: haul in anchor line until line is vertical over anchor. The anchor should then come free of being embedded in the riverbed;
7. If anchoring from the stern, consider placing a float on the line at about 3m to keep it clear of the propeller.

RULES OF NAVIGATION

Speed

1. There is a speed limit of eight kilometres (five miles per hour) on the river, only to be exceeded in emergency;
2. Launches should generally proceed at a safe speed having regard to wash from the launch and its effect on other river users.

Avoidance of collisions

1. Be aware of "avoidance of collisions" regulations:
2. Power gives way to sail;
3. Give way to boats that cannot manoeuvre, especially to the public service river cruisers and other commercial vessels;
4. Boats crossing the river give way;
5. Overtaking boat gives way;
6. Boats meeting head on turn to starboard;
7. Travel at safe speed;
8. Stop if necessary;

- Remember that during and after dusk extra caution is required owing to lights on other craft (rowing boats and river cruisers) being difficult to see due to the intensity of lights on shore and on Kingston Bridge.

SOUND SIGNALS BY POWER DRIVEN VESSELS

(Environmental Agency)

The prescribed sound signals to be given by power driven vessels are:

- 1 blast - going to starboard;
- 2 blasts - going to port;
- 3 blasts - my engines are going astern;
- 4 blasts (pause) 1 blast - turning right round to starboard;
- 4 blasts (pause) 2 blasts - turning right round to port;
- 1 long 2 short blasts - unable to manoeuvre.

Lights

The lights on the launch must be switched on at sunset or earlier if daylight starts to fail.

FERRYING PASSENGERS ACROSS THE RIVER

- There is an absolute maximum of **10 persons** who may be carried in the launch;
- This number should be reduced if loads are also being carried;
- Minors (persons under the age of sixteen) must wear a PFD (personal flotation device).
- The person in charge of the launch has control. If you are of small stature and you cannot see due to tall passengers, tell them to sit or crouch!

SAFETY GUIDANCE

- The person acting as bosun must be constantly in attendance at the launch and keep alert to take notice of emergencies;
- It is strongly recommended that there is a second person in the launch whenever sailors may be in difficulties;
- It is extremely difficult, if not impossible, for one person to lift an adult out of the water on board;
- Two crewmembers should be on board whenever the compulsory buoyancy flag is flying (Flag Y- yellow & red diagonal stripes) or when the launch is to be stationed beyond the proximity of an additional crewmember;
- A short delay whilst an extra crewmember is taken on board is, in general, the safer option when carrying out rescue operations.

Take command –someone must be in charge of a rescue

Priorities in order

- First:** Safety of crews being rescued; prioritise junior members and older / frail competitors;
- Second:** Safety of other crews;
- Third:** Recovery of boats.

In the event of capsize

1. Keep alert for dinghies that have capsized and for "launch required" (arm waving) signals from other crews;
2. Multiple capsizes shall be attended on the basis of apparent danger to the crew giving priority to junior members, but also consider elderly sailors who may be more frail;
3. Approach the capsized dinghy but stop a safe distance (about two boat lengths) from the casualty. Enquire if assistance is required. Note that dinghies that accept assistance will be disqualified from that race;
4. Ensure that the sailors from the capsized dinghy are all visible, particularly in the case of dinghies that normally have more than one crew;
5. A dinghy sailor may be trapped under the boat. In that case it is essential to free that sailor by righting the dinghy as quickly as possible;
6. Stand by a capsized dinghy not requiring assistance until it is righted, unless other dinghies require assistance;
7. Remember whilst paying attention to a capsized dinghy, maintain awareness of other dinghies that may need help and may justify higher priority due to injuries or crew being minors.

Recovering a sailor from the water

1. Bring the launch alongside crew to be recovered **and switch off** the engine. Do not just put the engine in neutral – **it must be switched off**;
2. Put the ladder over the side of the launch halfway along the boat;
3. If the dinghy crew requires to be taken out of the water, lift on-board facing launch. Avoid pressure on chest;
4. Keep rescued crew warm, using space blanket if necessary. A black bin bag will also be effective, with a cut for the head hole;
5. Apply resuscitation only if you are competent and it is essential;
6. **Remember - the launch propeller is a grave danger to those in the water. Switch off the engine immediately once someone in the water has been grasped or has floated past the bow!**
7. *You have authority to insist on a helm or crewmember being rescued if you consider that they are in danger or at a serious risk of harm e.g. from hypothermia;*
8. Hypothermia symptoms are: severe shivering, confusion, breathing rate drops, convulsions and unconsciousness;

9. Treatment for Hypothermia: Remove casualty from source of cold — i.e. keep casualty low in the launch out of the wind; keep casualty still and wrap in space blanket; do not remove casualties wet clothing while in launch. Get medical assistance as soon as possible.

Righting a capsized dinghy

1. Approach capsized dinghy at right angle to the forestay, avoiding any ropes in the water that may foul your propeller;
2. In strong winds or strong stream, a more controlled approach will be achieved by heading towards wind or stream;
3. Catch hold of forestay and very gently pull the dinghy head to wind. The mast may be stuck in the river bed, in which case the mast should be first extracted by pulling the dinghy in the opposite direction in line with the mast;
4. Then walk your hands up the forestay and the dinghy will gradually right itself;
5. If conditions allow, it is best to right the dinghy with the crew on board launch, and return them to the dinghy afterwards;
6. A dinghy may have to be abandoned in favour of rescuing persons from that dinghy or others that are apparently in danger. If the dinghy has not been collected afterwards the Lock Keeper at Teddington Lock should be notified.

Man-overboard (from launch)

1. Immediately instruct someone to keep pointing towards person in water;
2. Circulate to gently approach with bow towards person in water;
3. Immediately switch off engine once person in water has been grasped by launch crew or has drifted alongside past the bow of the launch;
4. Recovery of man overboard: put ladder in position halfway along launch, launch crew may have to enter water to assist.

What to do in an emergency

1. Normally rescued persons should be returned to the Clubhouse jetty or the Dinghy Park jetty if they are obviously no longer in need of support;
2. If an emergency arises due to a person being possibly at risk due to hypothermia, or injury (such as head injury) or illness, then the patient should be returned to the Clubhouse jetty as fast as possible;
3. The emergency services should be called — 999;
4. If the location is remote from the Clubhouse remember that usually there are many people on the riverbank who may have a mobile phone and should be asked to call up an ambulance to a convenient location;

TOWING DINGHIES

1. Secure dinghies to the launch by one of two methods:
 - i. Dinghies towed in one line or two parallel lines using painters secured to posts on transom of launch; and

- ii. A single dinghy may be secured alongside launch with two lines (forward and aft) so that the centre of the dinghy is forward of the centre of the launch;
2. Keep towline to first dinghy fairly short to keep it clear of propeller or rig a yoke using the aft port towline and then pass the dinghy's painter through this and return to the dinghy. The yoke should be tied so that it is just clear of the waterline, this will ensure warps are kept clear of the propellers;
3. Avoid damage to dinghies by securing painter of following dinghy to a suitable strong point in the leading dinghy such as the foot of the mast, but not the transom;
4. Centreboards of towed dinghies should be set about a quarter down;
5. Controlling dinghies under tow: Slow down gently to avoid dinghies shunting in to one another. When dinghies are towed in line, a dinghy helm should remain in the rear dinghy to use the rudder as a control to stabilise the tow and to apply a break with a paddle when slowing down.
6. The launch helm should maintain regular visual contact with the dinghy helm (in rear dinghy), who should be kept informed by hand signals of impending acceleration or slowing down or changes in course. The dinghy helm will have to use a paddle to slow dinghies that would otherwise overtake the launch when the launch slows down;
7. Passage through locks: Water levels in locks change rapidly and dinghies may be thrust about by water flow. Avoid contact between dinghies and masonry dock walls.

AFTER RACING

1. Priority should be given to ferrying competitors back to the clubhouse jetty;
2. Collect buoys;
3. Moor and secure the launch;
4. Report any faults or shortages of fuel or equipment to the Race Officer.
5. During or after dusk, one person should not be left alone to moor the launch.

COMMON SENSE

The recommendations in these course notes are intended to make launch crews and others aware of what is expected of them. This does not override the necessity to apply common sense as appropriate in particular circumstances.