



# Kirklees Model Boat Club

## Club 500 Construction and Racing Rules

### Objective

1. To establish a one class fun racing boat at club level.
2. To ensure that all boats comply with a standard specification, with the intention of ensuring fair and close racing.

### Construction Rules

1. All standard kit parts must be used, except for the aerofoil and dummy motor, which are optional and all components must be assembled according to the kit instructions.
2. No modifications or additions are permissible to the outside of the lower hull, including trim tabs, spray rails, rubbing strakes etc..
3. The propeller tube bearings may only be replaced by the original replacement component available from the kit manufacturer. The bearings must not be altered in any way.
4. The propeller may only be replaced by the original 40mm M5 propeller, available from the kit manufacturer. The propeller may be cleaned up to remove any manufacturing rough edges. It must not be trimmed to make it a visibly smaller diameter. The use of any other propeller is strictly prohibited.
5. The battery box must be fitted in the position shown on the building instructions, either permanently or with Velcro tape. It is not permitted for the box to be lowered by cutting-down the plastic moulding. With the battery pack in place, the distance between the highest point of the battery pack and the top edge of the deck coaming shall be a maximum of 50mm.
6. The motor may only be replaced with one of the identical specification available from the kit manufacturer. Any other motors are not permitted for Club 500 racing.
7. A 7.2 volt sub C size Nicad or NiMH battery are the only permissible battery packs. The battery pack may be constructed from single cells or purchased as a ready-made pack. The battery pack must be constructed in a straight line, either side by side or in two sticks of three cells places together. Cells or packs that have been Performance Selected, designated as High Voltage, Matched or Voltage/Capacity Enhanced in any way, are PROHIBITED.
8. A BEC receiver may be powered from the main drive battery. Motor control can be either a servo/micro switch combination, or an electronic speed controller.
9. A self adhesive foam rubber strip of at least 3mm thick must be attached to the bow of the boat.
10. The decoration of the upper hull is entirely at the discretion of the competitor however the total weight of the boat in ready to race trim must not exceed 1.65 kg.



## Construction Tips, Guidelines and Recommendations

1. It is strongly recommended that the access hatch in the deck moulding, is cut out in such a way that it is made as a removable cover. This can then be taped down during a race to render the entire hull watertight. The water drain hole shown on the instructions is not required and is best left closed.
2. Internal reinforcement of the hull is recommended, particularly around the rudder tube and bow seams. This can be either by the addition of gusset plates made from scrap hull material or simply a buildup of glue.
3. The addition of silicon and plain washers to the rudderpost will make the tube/post assembly watertight and reduce the risk of water ingress.
4. The addition of metal thrust washers to the propeller shaft is permitted.
5. The propeller tube may have an oiling tube attached which will enable oiling of the shaft without having to remove the shaft and propeller assembly from the boat.
6. Some clubs recommend gluing or pinning the brass inserts into the universal coupling, this would make dismantling the coupling very difficult and, if the splines are in good condition is simply not necessary. Glue defeats the object of an easy to dismantle coupling and pinning significantly increases the risk of an out of balance drive.
7. The part of the motor mount in contact with the motor should be covered with strips of self-adhesive thin foam tape, such as wing seating tape used for model aircraft. This prevents motor slip. Thin cable ties are best used to secure the motor. They have adequate strength and are easy to remove.
8. Buoyancy should be added to the hull internals in the form of either airbags or foam to ensure the boat cannot sink in the event of damage or inverting.



## Racing Rules

1. All competitors may be asked to pass scrutineering before being allowed to race and, if asked, should present the boat to the scrutineer with an open hull and with all racing parts fitted and ready to race. The boats will be checked internally and externally to ensure that all the construction rules are met and that no parts are fitted that are not of the original manufacturers supply. Parts must be supplied by either Model Slipway , 77 Arundel Drive, Barnsley, S71 5LE or the current supplier, Club 500 Slipway.
2. If required when the boat has passed scrutineering the boat must be closed up and remain closed until after the race.
3. The competition is between paired competitors and their boats so boats may not be changed during the annual season. If a competitor changes the boat then the lap tally for the season will restart with the new boat. Repairs will be allowed to a boat between heats however the repaired boat may then have to pass through scrutineering again.
4. The race will be started by a loudspeaker countdown and ended by whistle and can be stopped at any time by a prolonged blow of the whistle. Each race will be over five minutes duration with the completed laps being counted by the marshalling team. Only full laps completed within the five minute race period will be counted. A lap is only counted when the end gate line is crossed, which is a line between buoy Number 5 perpendicular to the bank.
5. The course shall be laid out as per the diagram at the end of these instructions. On hearing the start the boats are to proceed from the start gate, pass anti-clockwise around buoy Number 2 then complete the lap around the remaining buoys. Subsequent laps will include buoy Number 1.
6. A maximum of 6 boats will normally compete in each heat however operational requirements may dictate that more boats might compete.
7. The marshals will count the laps and the number of missed buoys throughout the race and, on completion of the race, will pass the total number of missed buoys to the Head Marshall. The total number of laps will be recorded, minus the number of missed buoys, to give a total number of completed laps for the race. If more than one buoy is missed during a single lap a lap will be deducted for each missed buoy. A lap will only commence as the boat either leaves the start gate or passes through the end gate.
8. The circling of missed buoys is banned to minimise hazardous situations and potential damage to any of the other boats.
9. The final result of the race will only be determined when all marshals have declared the lap tally and penalties for each boat.
10. The Rescue Boat may be used during a race if boats are in danger of sinking. Colliding with the Rescue Boat means immediate disqualification from that race. If the rescue boat is required during a race the race will be stopped by a long continuous whistle and rerun.
11. Drivers of 'dead' boats must inform fellow competitors immediately of the position on the course where their boat has stopped, particularly if inverted or partially submerged using the words 'Dead boat, top left' etc.
12. Competitors can expect to have their boats scrutinised by the Head Marshall at any time during race meetings. The Head Marshall's decision is final.



## Kirklees Model Boat Club Club 500 Course

