F600 TIPS

Hello to all MTMBC members who have bought a F600 from the club. These tips are aimed at introducing the F600 and guiding you through some of the steps needed to get on the water and ready to race. They are based on the lessons learned building the prototype and from experience gained racing Club500s.
Although based on a SWAMBC design the F600 is different in many aspects and is a completely new class of race boat so it will take some time to iron out the bugs under racing conditions.
It is hoped this will give owners a good starting point and help them get the best from racing their boats. When all the boats are delivered the first meeting will be in the form of a workshop to give owners a chance to run boats in a non-competitive situation and to help tackle any problems they have encountered.
Above all racing is about having fun so come along and race your boat on our Saturday morning meetings.

Finishing the Boat

Boats are supplied in their manufactured form and probably not finished to the high level that owners require. They come in white only but owners are at liberty to paint/finish their boats as they wish. The only stipulation is that the race number must be clearly visible on a white background. Check out F600 Racing Rule 2 that deals specifically with this. The replacement drivers head (a cut down SLEC Ltd. 'Jet Style Pilot with Visor') is standard for the class. Once painted it should be refitted and sealed with a soft rubber washer or waterproof sealant around the bolt hole.

Radio Rx

There is no restriction on where you fit the Rx and aerial.

Batteries

The first few charges should be at a charge rate of 0.1 x the capacity of the batteries. After that they can be charged at 1 x capacity if needed. Charging at higher rates is possible, within limits, but it will shorten the life of the batteries and it is best to have an over temperature cut out on your charger to do this.
1 x capacity charge has proved to be satisfactory.

Buoyancy & Taping up

Make sure the boat dose not leak. It is strongly recommended that buoyancy aids are fitted to the hull and hatch cover. If the boat should fill with water it needs to remain afloat until it can be recovered. The hatch cover should float on its own. Inflatable air bags or pieces of Noodle swimming aid are ideal. With the boat ready to race test the self righting by inverting the boat in the water and checking that it rights without intervention. At the start of each race make sure the hatch cover is sealed all round with waterproof PVC tape.

Drive Line

It is advisable to 'run in' the prop shaft bearings. They are supplied lubricated with Silicone Grease, but make sure the shaft and bearings are well greased before running for 5 minutes at moderate revs to bed in the bearings. The prop shaft, bearings and tube should then be thoroughly cleaned to remove all traces of grease residue and any metal fragments. For normal running light synthetic PTFE based cycle grease applied to the shaft and light synthetic cycle oil applied to the bearing surfaces works well.
The motor bearings have already been oiled and the motor run for 3 minutes at moderate revs to bed in the bearings and brushes.

Rudder

Grease the rudder shaft and set the rudder dead straight with the servo at the centre of its travel. Set the rudder throw on your Tx to give + and - 20^{o} of rudder movement.

Water Cooling

Check that the cooling tubes are secure and flush though with plenty of clean water to ensure they are clear of any restrictions.

PTO

ESC & Safety Loop

The safety loop acts as a switch to connect and disconnect power to the boat. Before making the connection make sure the throttle on the Tx is off and the rudder stick is central. After making the connection, in a single motion, listen for the 0.5 second confirmation tone from the motor before proceeding.

Fine tuning

Any protrusion into the water increases drag and slows the boat. Make sure the cooling water pick up is flush to the surface of the hull. Carefully file or cut the aluminium tube with a sharp blade so it is level with the hulls surface.

Make sure there is a gap between the prop lock nut and the end of the prop tube where the thrust washer is located. This should be wide enough to allow all slack to be taken up and the thrust to be taken by the motor bearings without the thrust washer contacting the prop tube.

Cut off any flashing or irregularities on the Prop. Make sure the leading edge is sharp, but don't change its overall dimensions.

Ingress of water through the rudder post can be eliminated by fitting a plain washer and a small 'o' ring to the shaft to seal against the tube base where it exits the hull.

The leading edges of the rudder and turn fins can be chamfered to a sharp edge to reduce drag but the size and shape must not be altered.

Maintenance

Clean the prop shaft & tube after each race meeting. Water ingress up the prop shaft tube is always a problem so re-grease the shaft and oil the bearing surfaces on assembly before each race meeting.

Clean the boat and wax polish the hull & deck before each race meeting.

Lightly oil the motor bearings and re-grease the rudder shaft tube and 'o' ring 3 or 4 times in the season.

Do not over tighten the servo mounting screws. Just enough to compress the grommets is sufficient.

Racing/Tactics

If possible charge or re-peak the battery pack just before each race because the peak voltage drops off soon after charging is completed. Take advantage of the initial higher voltage of the pack to get to the first buoy in front and establish a lead. Higher than average pack voltage will be available for about 2 minutes.

When in front of a faster boat maintain the racing line, keep close to the buoys and make a positive effort not to turn too far past the line for the next buoy. Keep calm, the faster boat has to find a way round you, so don't make it easy for them. No deliberate weaving or blocking though.
Always be ready to throttle back to avoid trouble - be patient because all of the above is useless if you crash and can't finish. If following a boat over take on the outside if you are fast enough. If not follow them closely to keep the pressure on. They will soon succumb and make a mistake so you can nip past.

Reliability is vital so do your maintenance regularly, check the security of mechanical items, cooling tubes and test radio operation before each meeting.

Of necessity this list is short and explanations are brief but if you want to discuss anything further please contact one of us. Last but not least keep within the constraints laid down by the rules and have fun. We hope to see you lakeside.

Dave, Ian, Tony and Jon.