PRODUCT REVIEW – SEAWIND READYSET VERSION

By Mike Eades, Secretary, SeaWind COA

The SeaWind Class has gone through a long period of uncertainty since it became apparent in early 2012 that Kyosho Japan's production of the SeaWind yacht kits and parts had been disrupted by the effects of the Tsunami and subsequent nuclear disaster in 2011. Very little information was forthcoming from Japan as to the future plans for the SeaWind product line until in mid 2013 it was announced that no more SeaWind kit production could be expected but a new Readyset (RTR) version, produced in China, would be the next offering and a flyer with some photos and a brief description was circulated and posted on the KyoshoAmerica web site. After some delays, in early February 2014 I received the good news that a small shipment of SeaWind Readysets had arrived. Through the good offices of Efrain Manzano, Manager Customer Service, KyoshoAmerica, I was able to obtain one of the first shipment for evaluation. In evaluating this new product offering I have tried to look at it both from the point of view of a prospective new skipper and also from the standpoint of an RC sailor used to RC sailboats from other classes or already a SeaWind owner.

After opening the plain shipping carton the new box is quite impressive with a lot of information in English and Japanese on the outside and good illustrations (Figure 1). The contents are well packed and secure as Figures 2 & 3 illustrate. The contents of the box are as shown in Figure 4. As described, all but final assembly of the components is done and only 12 AA batteries are required to complete the boat.

The Instruction Manual, completely re-written for the Ready set version is, as usual with Kyosho products, comprehensive and generally easy to follow. The hull (Figures 5 & 6 show top and bottom views) is nicely finished and painted with a distinctive blue and white color scheme with a number of decorative decals added and all hull fittings are installed even including the sheet lines and main sheet fairlead bridle. There are distinct edges where the blue and white paint areas abut which many skippers will want to carefully smooth and polish. The keel trunk insert (Part C1) is in place and beautifully finished (Figure 7) a task that many skippers found trying with the kit! The lazarette cover fits snugly as does the hatch however the hatch includes the same old sponge seal that came with the kit which is totally dysfunctional. The rudder retaining screw is new with a knurled metal head which is a big improvement over the old set screw and the later plastic headed screw. To install the rudder simply loosen the screw, insert the rudder post with flat towards the stern and re-tighten the retaining screw (Use pliers to ensure a secure grip!). Grease and install the lazarette cover.

The fin and bulb present the most significant change as it is a steel bulb instead of lead (due I believe to environmental regulations in Japan) and is longer and larger in circumference than the previous bulb even with the optional vinyl bulb cover installed (Figure 8).The bulb and fin (3 lbs 3.6 oz) are approximately the same weight as the original lead painted bulb and fin while slightly lighter (3.4 oz) than the lead bulb and fin with vinyl bulb cover. The hole in the base of the bulb where the securing nut is located is left open (Figure 9). Class Rules allow this to be filled and faired if desired. Inserting the fin into the base of the hull and securing with the retaining nut completes fin and bulb installation. The hull is ready to set on its stand for inspection of the electronics. Interior hull fittings are standard as for the kit version.

The electronics package is all new and has Kyosho label radio transmitter, receiver and servos. Very little information regarding specifications of any item has been forthcoming until recently when some specification

details are now published on the Kyosho America web site on the SeaWind page. The Perfex KT-21 radio transmitter is a single model 2.4 GHZ Direct Sequence Spread Spectrum, 4-channel unit with manual trims , channel reversing switches and a Dual Rate switch (100% or 70%) on the rudder control (Figure 10). The unit requires 8-AA cells and there is a charge port (500mA) but no charger supplied! One disturbing feature is the stated Max range for ground operation of 150 Meters. Unless this is conservatively stated it may cause range problems at some ponds! The Tx is ready bound to its Perfex KR21-BV receiver but a bind plug is supplied. The light weight end-plug receiver with a single 5" wire antenna comes enclosed in a plastic bag secured by a cable clip which prevents access to the plugs. Not sure what purpose is served by this bag as the receiver is supposed to be waterproof so I removed it. Receiver and servos are powered by a standard 4-AA cell battery holder (Figure 11). The RX fits standard Futaba or Hitec servo connectors and operates these servos without problems. The KS202W Waterproof rudder servo is a standard servo apparently equivalent to Futaba S3003 or Hitec HS 311. It has orange, red, black wires to a Hitec type connector. The KS501SW waterproof sail winch appears to be modeled on the extinct Futaba S3801 which was originally specified for the SeaWind but later withdrawn by Futaba. However in operation it sounds like a coffee grinder, very noisy, perhaps due to new metal gears, hopefully they might wear in and become quieter? The sail winch arm appears a direct copy of the Futaba sail arm. The sail winch has white, red, black wires to a Futaba connector. According to the stated servo specifications the sail winch has more power than either the Futaba S3801 or the Hitec 765HB but operates at slightly slower speed while the rudder servo has slightly lower power and speed compared with Futaba or Hitec standard servos but should be adequate for the duty. The sail winch is 1.13 oz heavier than either of the commonly used servos probably due to its metal gear construction.

The jib and main sheet control lines are installed complete with attachment clips ready to attach to the rig. However the same old stiff line supplied in the kit is used which is unsatisfactory for running rigging like sheet control lines especially in light air (see below).

I was interested to see how the sail rig had been handled. It comes fully completed according to the old kit specifications, which is both good and bad news! For packing, the main sail halyard is loosened and the mast separated into two pieces at the joint with the sail in place (Figure 12) and the rig folded in two. Re-joining the mast however is a job for three hands and needs to be done with great care maintaining tension on the head of the sail while easing the two mast pieces together (Figure 13) so as to avoid snagging and tearing the sail on the sharp corners of the mast ends. The good news, especially for new skippers, is that the complex task of assembling the rigging and tying all the knots has been done. The bad news comes in two parts, the design faults inherent in the kit rigging have been perpetuated instead of being eliminated (see below) and the workmanship shows signs of being done by someone with no knowledge of the requirements especially in the way the halyards are attached to the sail heads and while all knots are glued, over liberal use of CA glue results in lines being glued to sail corners and stiff glued line extending some distance away from the knots. Even a raw rookie skipper will need to do some work to modify the rig as received in order to avoid dissatisfaction with the boat's performance.

Here I will address the defects and what I did to overcome them in two sections," must do's" and optional upgrades to improve operation , tuning adjustments etc. The first item that must be addressed is the halyard attachments on jib and main. Figure 14 show the main sail head as it arrived showing the line attached to the eyelet in a tight loop at the edge of the sail. If installed as is it will distort the head of the sail under tension. Also

the halyard should simply be led through the inner hole on the mast crane to allow rotation of the head of the sail. Corrected attachment is shown in Figure 15. Similarly the jib halyard is also incorrectly attached (Figure 16). I corrected this fault and modified the jib head attachments as described later. The jib pivot connection line was too short to allow proper rotation and also almost completely stiffened with glue (Figure 7. I replaced this line and also the hook for attachment to the deck with an optional alternative design hook (Figure 18 and see below).

The inherent design faults that need correction concern the outhaul attachments for both jib and main sails. First, the outhaul lines are attached to cleats located on the side of each boom (Figures 17 & 19) which routinely snag the sheet control lines and second, use of a single outhaul line provides no control of sail camber, especially with the jib where adjustment of the single line simply results in lowering the jib boom and loosening jib forestay tension. Alternative ways of rigging the outhauls that are both effective and class legal are described in an article on page 10 of Issue #169 of Model Yachting, the quarterly magazine of the American Model Yachting Association (AMYA). For this boat I used Ken Bauser's method replacing the cleats by spare eyes (Part #B2, jib and #B1 main) and attaching the inhaul and outhaul lines to the two eyes with adjustment bowsies as shown (Figure 18 Jib) and (Figure 20 Main). On the main sail I used an optional alternative attachment method for the outhauls at the clew using a simple hook instead of tying each outhaul line to the eyelet which allows for ease of removal of the sail for travel or replacement. I trimmed the corner of the sail with scissors for ease of movement of the hook around the sail corner.

Other optional modifications I chose to install on this boat are the main sail tack attachment and the jib forestay and halyard attachments. The main sail tack (Cunningham) attachment employed is a simple fixed loop of line through the tack eyelet and through the hole in the gooseneck post (Figure 21). I modified this by adding a very small screw eyelet located in the front of the black plastic part of the gooseneck bearing with a single line running from the tack eyelet through the screw eye and secured at a cleat located on top of the boom (Figure 22). This allows for easy adjustment of main sail luff tension and ease of removal of the sail for travel. The design jib halyard is attached to a bowsie which slides along the forestay which is a single line running through the mast eye and secured at a cleat on the mast. While this arrangement works, if the jib forestay is not properly secured at the cleat it may come undone and lose the whole rig. Also fore and aft adjustment of mast rake is a key tuning component and precise adjustment is difficult using a cleat. I removed the mast cleat and modified the whole forestay and halyard attachment using separate lines with bowsie adjusters each leading to the ring of a swivel and locking clip (Figure 23). This allows simple adjustment of forestay tension and mast rake and independent adjustment of halyard tension as well as easy removal of the whole jib assembly for travel.

The modified rig was attached to the hull at jib pivot, shrouds (carefully setting upper shroud to the forward eyelet in the chain plate) and backstay and adjusted to ensure the mast was perpendicular to the deck and the mast rake Jib attachment eye to tip of bow set at 51 & 9/16" with shrouds just taut and backstay barely taut. I attached the jib and main sheets and checked the operation of the rudder and sail winches. The rudder could only be centered using full left trim so I re-checked the seating of the rudder post flat against the retaining screw and found it was slightly off. Once corrected the rudder was perfectly centered. With the sail control trim at center the jib and main sheet lines were adjusted at close-hauled position to put the main boom pointing to the aft transom corner and the jib boom pointing to the shrouds. At fully open position the main boom was not quite back far enough to touch the shrouds. I found that if I set the close-hauled control line lengths using full

inward trim (trim lever down) and switched to full outward trim (trim lever up) for downwind sailing the main boom was able to get full extension to the shrouds. This was how I used to operate using AM or FM transmitters. We forget how simple travel adjustments on Spektrum DX6 and 6i transmitters have made our lives!

The fully assembled SeaWind Readyset is pleasing to the eye with the customary Kyosho quality of fittings and components. The all-up weight ready to sail, with 4 AA cell alkaline batteries installed, is high at 7 lbs 2.6 oz compared with Class Rules minimum of 6 lbs 8.0 oz although my competitive SeaWind with sliding hatch and 5-AA NiMH battery pack weighs in at 6 lbs 14.2 oz.

I was able to conduct some sea trials including informal racing against a fleet of 10 other SeaWinds and handed the Transmitter to others to try. Our agreed conclusion is that the Readyset behaves very much as the original SeaWind and there was no discernable disadvantage from the new bulb. Conditions were very light, shifty winds and after about 3 hours total sailing time a couple of issues were evident.

1. Using the supplied stiff sheet line was a distinct disadvantage in the light air as it was obvious that it took a stronger puff of wind to get the sails to open compared with other SeaWinds with lighter and more flexible sheet lines. Replacing the line with, for example, 200 lb test Spectra fiber line from winch arm to the joining knot and 50 lb test Spectra line for jib and main sheet line from knot to the booms is recommended.
2. During the last two races another skipper and I both found the sail winch appearing to be unresponsive when at some distance from shore. Luckily the rudder was still working and when the boat came close to shore sail winch operation resumed although quite sluggish in its response. I replaced the 4-AA alkaline cell battery pack with a 5-AA rechargeable NiMH battery pack and restored proper operation. The alkaline cells still had approximately 80% of charge with just under 5.6 volts. I conclude that the sail winch is extremely sensitive to voltage and operation with a 4-AA alkaline cell pack is **not** recommended.

   Futaba S3801 and Hitec 765HB sail winches operate satisfactorily down to 4.8 volts. More testing will be carried out to determine if the power consumption of this servo is excessive and if it can be operated for longer periods with a good 6v re-chargeable battery pack which tends to retain the initial voltage over a greater extent of cell life.

The demands of mass production inevitably require some compromises and the SeaWind Readyset is no exception as was the original kit. However in the field of Hobby Store RTR RC sailboats the SeaWind Readyset is far above most of its competitors. For the new recreational skipper, with a little care in assembly and some minor remedial work on some of the rigging knots, the boat will provide fun entertainment and reliable performance. For the serious RC sailor, after some minor modifications as described, the SeaWind Readyset can produce an excellent competitive fleet racing machine with performance to satisfy even the most discriminating skipper. In summary, the SeaWind Readyset version is a very welcome addition to the SeaWind fleet.