Understanding The Tasar.

The Tasar has been around since 1976 and inevitably, despite its one design principle, has needed to evolve as minor faults have become apparent over its long life. One of the class challenges has been the longevity of hulls, which has meant people hang onto their boats resulting in relatively few newer boats coming onto the second hand market.

The low rig tension of the Tasar means the hulls have not been over stressed and when well maintained remain competitive over a very long period. A well restored and prepared boat from the 70’s and 80s, in the right hands, is still capable of performing well.

I hope this article helps you in the search for a competitive boat, at the price you wish to pay!

Builders and Sail Numbers

The Tasar has been built in the UK since 1976. Initially by Performance Sailcraft continuing until mid-1980. Sail numbers 250 to 1311.

There was a gap until JEP Marine (John Pollitt), based in Whitstable, started building in 1986. JEP Marine built for about two years. Sail numbers 2150 to 2167.

After JEP Marine stopped building, Peter and Mary Brewer of Signal Locker based at Queen Marys sailing club imported boats from Australia between 1988 and approximately 1990, the boats were built by Starboard Products, Frank Bethwaite's own company. Sail numbers 2305 to 2309, possibly more.

In around 1990/91 Tim Furness started building tasars. Sail numbers 2350 to 2361

In 1992 Rondar started building Tasars in the UK with sail numbers from number 2500 and built up to 2524 and 2625 onwards series of boats. The last being around 2640

In around 2005 Mandy Stock the new owner of Signal Locker based in Lymington started importing Bethwaite built boats from XSP in Batam, Singapore.
Boat numbers were a bit disjointed but as these boats are now highly sought after I have listed all imported boats up to October 2017:

2800-2805
2814-2816
2820
2831-2835
2875-2877
2908-2909
2933-2935
2955

Over the years a number of Australian built boats have found their way onto the UK market as a result of Australian and other competitors bringing them to world events and selling them onto UK sailors who were having difficulty obtaining new boats.

Builders and Hull weights

Hull weights have varied throughout the life of the Tasar. The early Performance Sailcraft boats started at around 130lb (60Kg) some exist that are around 58kg. It is believed factory records were kept for hull weights and could possibly explain the fascinating change in early build specifications that we are now struggling to recall and understand. Early production ran at around 13 boats a week which may have been the cause of some warrantee claims associated with faulty workmanship that gave rise to a problem with the deck to hull joint. Early Performance sailcraft boats included Kevlar in their construction but shouldn't be confused with yellowish resin seen in the slightly later construction period, some, particularly the first three or four had Kevlar in both the hull and decks whilst some Kevlar in the hulls only. The number of Kevlar boats made is currently uncertain. There is much Myth and legend surrounding these early boats and you are best to seek guidance from a class expert. Kevlar has a light stringy open woven and yellow in appearance and gave rise to boats that didn't exhibit star crazing. These early boats are highly prized and sought after, as when well maintained remain competitive for a very long time. By the time Performance sailcraft finished in 1980 average weights had risen to around 150lb (68Kg), mainly through additional strengthening.

Performance sailcraft failed financially in about 1985 and the class found a new builder JEP Marine, John Pollit, located in Whitstable. Frank Bethwaite personally visited the factory bringing Australian laminators to train the British builder.

In around 1990/91 Tim Furness started building tasars, they have distinctive deep down turned gunwale running the full length of the hull, unlike the tapering gunwale of the Performance sailcraft and the slightly shallower gunwale of most Rondar boats. They also have a very distinctive woven matt in the floor area of the hull with enlarged cockpit to side tank bonded flange joint. They were beautifully and strongly built, but with a weight penalty, with early Furniss boats weighing in as high as 82Kg. A class hull weight of 68Kg means these boats are always at a competitive disadvantage but for some their quality strength and durability make them an attractive option. The very last boats were slightly closer to the minimum weight.

Rondar started making boats in around 1992 and were around 140lb (63Kg). Because of the hull weight variations that now existed the class introduced a minimum hull weight in 1996 of 150lb (68 kg). Boats lighter than this are required to carry correctors to bring them up to the 150lb (68Kg) weight. Rondar boats were well built and when well maintained remain competitive.

In around 2005 Bethwaite Products started building Tasars at XSP Batam, Singapore, some of the early boats had problems with the deck gunwale to hull joint which were fixed under warrantee, a rigorous and standardised construction specification was introduced to prevent a reoccurrence and a constant hull weight with fittings of 68Kg. These boats have a flat recessed area for mounting the Ronstan RCB shroud pull backs and a supporting ledge moulded into the side tank for the thwart to bear onto. The strength of the thwart has been increased in comparison to other builders and deck layup slightly changed. They are finished to a high standard and proven to be well built and available from Mandy Stock at Signal Locker.

To weigh a boat, remove spars and other loose items, place padding on a solid surface, place bathroom scales with a one metre length piece of 4"x2" on the scales besides the

padding. With a minimum of two people lift the boat onto its transom using the padding to rotate the boat into the vertical. Then lift the boat onto the scales with the timber passing between the transom fittings. Balance the boat and take a reading. This is accurate enough to determine the weight of the boat when considering whether to purchase. Don't do this on a windy day!! The hull weight excludes all rope and loose pulley blocks which can add at least 2kg.

Hull condition

The deck moulding including side tanks and bulkheads are bonded to the hull moulding. Occasionally this bond fails between the hull and deck gunwales and the deck may lift away from the hull. Not serious if caught before structural damage occurs. Occasionally the C track mounting bolts have pulled through the gunwales and lifted the deck from the hull around the shroud area. Check that there is a long spreader bar under the gunwale and that the track hasn't been fitted with just bolts and small washers which don't spread the load adequately and cause of the pull through. A cheap and easy fix that may prevent a costly repair.

Although not stressed as at the gunwale, the floor to tank joints can debond and cause leaks into the buoyancy tanks

The hull floor moulding curves up to form part of the dagger board box and the thwart and dagger board box is fitted over this. Enthusiastic and misdirected forcing of the dagger board can occasionally damage the joint and lightly constructed box sides. An inspection of the internal dagger box will indicate whether this is a problem.

The hull is made from various methods of sandwich construction including a cork type material in early boats. Heavy use may see this delaminate in the deck area below the seating positions of the helm and crew, increased deflection of the deck in these areas will indicate such a problem.

Thwart and Mounting Of Mainsheet Block

The Mainsheet block is mounted on a spur jutting from the thwart which is tied to the thwart compression support strut lower mounting plate with either a turnbuckle or wire/ rope tie. The lower end of the strut is bolted through the hulls sandwich construction with 4 countersunk bolts. Incorrectly adjusted tie down tension can result in these bolts pulling through the skin.

The thwart was originally very lightly built with strategic ply stiffeners. They are prone to failure, Additional glass matt and replacement stiffeners may be required. Retro fitting thwarts is a skilled task. The Thwart is screwed to the front bulkhead and bolted to the side tanks, the bolts must be kept tight or the traveller loads will cause the thwart to deflect and fail, very occasionally the traveller track may fail if movement is significant due to bolt failure.

Traveller and Car

The traveller arrangement lasts well. The car has four wheels with roller bearings that do wear, regular washing and silicon spray will prolong life. Once the traveller car wheels start to “stick” the traveller track will rapidly wear resulting in the sticking of the arrangement during tacks. If the car “sticks” replace the traveller car immediately. Replace pins in the car with bolts.

Mast Foot Deck Plate

Early boats including some Rondars have a small diameter pin which can shear under load, deck plates now incorporate a 4mm diameter pin. The base plate came with a mixture of mounting hole positions. Retro fitting the plate may require structurally filling of the existing holes and drilling to suit the new mounting plate.

Mast and Boom

The mast is two piece with diamond wires on the lower section that adjust using threaded studs on the lower end of the wires and accessed via the mast foot. Regular washing and lubrication is required to prevent corrosion and seizing and consequent loss of rig adjustment. The diamonds commonly come undone from vibration during trailing and before stepping the mast should be checked for correct adjustment. Make sure the diamonds are secured to the diamond spreader strut with electrical tape.

The spanner hinge bracket is welded to a mounting plate riveted to the mast. The weld of the early spanner bracket commonly fails, check the size of weld and replace if lightly welded, it will fail. More recent spanners have been manufacture with improved tolerances and perform with more positivness.

The top mast must have stiffeners in place to comply with class rules.

The majority of masts have the halliard exiting from the front face, more recent sections have an improved pulley quality with side exiting halliard, starboard side UK , port side Australia!! The halliard lock is robust but check wear of halliard, originally wire. Nowadays people use dyneema which wears well and allows adjustment of the “lock” knot.

The mast is relatively fragile and will break in very strong winds if incorrectly set on the run. The mast must be rotated so that the spanner points down the centreline of the boat and boom locked with the spanner boom stop.

The original rectangular sectioned boom is almost bomb proof, main sheet and kicker becket straps on very old spars are known to fail. Rivets on old booms are also known to fail.

In 2006 the 29er boom was introduced with a significantly different cross section to the original boom. The new boom has proven to be strong, reliable and readily available.

The boom “stop”, which locks the spanner, came in many variations and originally plastic. Modern ones are alloy and have three locking positions, beating, reaching and running. Check fixing to boom.

Spanner De Rotation

Over the years the position of the dagger board box has slowly moved back in the boat. Early performance craft boats had a 15mm gap between the front tank bulkhead and the leading edge of the front face of the dagger box. In the most recent Bethwaite boats the position has moved rearwards by a total of approximately 100mm.

The 29er boom was introduced in around 2006, the gooseneck fitting in comparison to the original rectangular boom was shortened.

The net effect of the centre board box and consequently the traveller track moving backwards and the boom moving forward was the relative change of the position of the mainsheet attachment point on the boom to the traveller. The resulting modified geometry means under heavy mainsheet loads, required when beating, the boom is dragged backwards and de rotates the mast with the spanner popping out of rotation. A frustrating problem to the uninitiated. The position of the mainsheet becket on the boom is not a measurable item and the problem is easily solved by fitting a new boom becket bracket approximately 100mm rearwards on the boom. When replacing an old boom type with the new 29er boom the standard fitment of the mainsheet becket may give rise to this problem.

A de rotating spanner may also be caused by insufficient mainsheet tension, differing diamond tensions, bent top mast, or shrouds of different lengths. Don't be tempted to increase kicker loads to prevent the problem as you will unnecessarily de power the boat whilst masking the basic problem.

Shroud Sliders, Track and Pull Backs

All boats before the more recent Bethwaite boats have stainless C tracks with a slider that the shroud attaches to and a pullback system incorporating a single pulley and a slider stopper button, but no cleat. The original method of attaching the shroud to the slider is via a stainless eye that is held by two threaded studs tapped into the body of the slider. A common mod is to replace the stud with a countersunk bolt with nut uppermost to avoid the problem of studs pulling out or coming undone.

The slider should run smoothly with no rig tension, check the C track is not bent or worn. These items are now becoming difficult to source. It was common to lap the slider to the C track with valve grinding paste to reduce the effort to pull back the slider. Silicon spray greatly assists, but don't get it on the deck!

With the introduction of the Bethwaite boats in 2005 the original shroud C track and car pull back system was finally replaced with the modern Ronstan RCB fitting and micro floating cleat set into a horizontal recess within the gunwale. This once and for all solved the problem of pulling the shroud tension back on for the weaker crews. These RCBs can be retrofitted to earlier boats but must be Ronstan items to remain within class rules. They come with forty "Torlon" roller bearings that can be cheaply replaced. It is questionable whether they should be replaced with stainless balls as these will wear the track leading to an expensive maintenance bill.

Kicker Cleats

There are many variations available, cleats with rollers, cheek cleats, cleats mounted vertically on tapered blocks and more recently cleats with keeps. They all perform, and a personal choice of the crew, just make sure they hold the rope and tie the kicker tail to the shroud.

Transom Gudgeon Pins

Early boats had plastic gudgeon fittings as per the laser 1 and become brittle with age and fail. They are screwed into the transom which incorporates a vertical hard wood block bonded to the internal face of the transom. The block can become saturated if the boat is not regularly dried properly with the mounting screws pulling out. Most boats now have the Laser 2 stainless gudgeons and some people bolt these through the transom plate.

Foils, Dagger Board

Performance craft boats were supplied with heavy robust urethane foils with steel reinforcement close to the surface which can rust but with little apparent impact on structural integrity. Wooden foils were introduced in 1996 and are significantly lighter, better profiled and common with Rondar boats. These foils command a premium price if in good condition. However the speed difference is very low and one bad tack probably outweighs the weight difference. Replacement foils and Bethwaite built boats now have fibreglass foils all round. They weigh approximately the same as wooden foils. The current fibreglass foils are thicker than the wooden and urethane foils which means swapping between foil types requires a variation to dagger box padding.

Rudder Stock, Blade and Tiller

Originally a laser 2 item which suffers from the normal laser problems of rivets coming loose, this allows the blade to move giving rise to lack of control. The stock can easily be refurbished using stainless bolts to replace the rivets, careful trimming of the cheek spacer tubes will minimise blade movement restoring the helm response. More stock choice now exists and in 2012 Signal locker commissioned a high quality stock with 3.2mm cheeks, significantly more robust than the original. If considering a replacement we recommend contacting signal locker to discuss options.

The original tiller was also a laser 2 item with a bespoke aluminium head that fits into the stock head, sourcing this item is still possible. Second hand ones from an original laser will work. The stock head fit can be improved on old items with carful squeezing of the stock head.

Carbon tillers are now permitted and available from Signal Locker.

The blade is a Laser 2 item and can still be sourced. Lighter high quality fibre glass items are available from Signal Locker.

Sails

Dacron sails were replaced in 2005 with Mylar as part of updating the class image. At the same time a jib halliard was introduced with a full length battened jib which replaced the roller furled Dacron jib that had no halliard or forestay and lead to people dropping the mast after every sail. It is common for people to now keep the mast erected but extra care should be taken to tie the boat down in strong winds or more safely, remove the mast in stormy conditions.

The Mylar sails are more fragile than Dacron and need careful use in strong winds if the jib is not to be damaged. Always “hove too “to prevent “hinging” damage to the clew area of the jib.

Toe Straps

The original Performance craft toe strap supporting eyes were plastic bull’s eyes mounted by self-tapers screwed into a plastic backing star plates. The Bulls eyes wear and also become brittle with time and will fail. It’s unlikely that many boats still have this arrangement but replace with stainless deck eye and bolts. It will be necessary to remove the Harken handle grips to get access to the bolts use large stainless penny washers to spread the loads adequately. You may need a person with small hands to help do this task!! Padded toe straps are now the norm.

New Boats

New Bethwaite boats are available from Mandy Stock, Signal Locker. She normally brings them into the UK in batches of three or four:

TASARSAILING.com

Signal Locker - The Specialist Tasar Store

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