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The Lionheart, The Power Of J-Class Racing

Your first look at the Lionheart and you can tell she was built for racing. She is a fractional cutter rigged sloop with a 17meter overhand and a design straight from the America's Cup's history books. Mike Vanderbilt commissioned four designs each from two designers and two designs created jointly for a J-class yacht to defend the 1937 America's Cup challenge. The America's Cup defender, Ranger, was built from one of the combined plans. Decades later, the Lionheart was build from one of the alternate plans with a few modifications to fit the rules of the new J- Class Association.

J-Class Yachts- True Thoroughbreds

The J-Class yachts of the 1930s were the most advanced and most powerful thoroughbred sailing yachts of their day. They were also considered the most beautiful. If you are not currently aware of the J-Class, you will start to notice them mentioned more in the near future. The America's Cup challenge, starting in 2017, will also include a J-Class regatta. Other world class renown regattas are also inviting the J-Class yachts to participate.

In the late 1920s, yachts making challenges for the America's Cup were getting larger each year. A new set of rules, called the "Universal Rules", were drawn up. These rules used a formula of length and sail sizes to create competitive classes. "J" signified yachts with a waterline length of between 75 to 87 feet. The rules were approved in 1928 with an implementation date in 1930. In 1929, Royal Ulster Yacht Club member Sir Thomas Lipton, you may have heard of his tea, issued his fifth challenge for the America's Cup. He built the Shamrock V, the first yacht purpose built for the J-Class. The United States built four J-Class racers. The yacht Enterprise won the right to defend the cup and in a close competition won over the Shamrock. While the Enterprise may have won that race, in the long run Shamrock V can be said to have won as she is still racing today. In 1934 and again in 1937, Sir T.O.M. Sopwith of Aviation fame, made his challenges for the cup. In both cases he was meet and defeated by yachts owned by Mike Vanderbilt. The start of the war in Europe saw the end of the J-Class racers and a 21 years absence of America's Cup challenges. The J-Class was considered the most beautiful class of racers ever built, even though only ten were built. Of the ten, only three are still sailing.

The owners of the three remaining J-Class yachts met and formed an association. The J-Class Association objective is to protect the interests of the Class, and to provide a future for it. Class Rules were created for the construction of replica's from original plans. While certain modifications can be made to comply with modern safety requirements and some modern materials, the new replica's must use design plans from the original J-Class purpose built yachts.







Lionheart Replica

The owners of the Lionheart relied on the Hoek Design Firm to bring their desire for a new J-Class yacht to fruition. While a classic design was needed, Hoek Design went high tech to select which historical lines were to be used. They developed a computer program specifically for J-Class yachts to predict the velocity of different designs. The program was calibrated with a 6 meter model in a water tank and in wind tunnel test. Hoek design then tested the designs of each of the ten J-Class yachts built in the 1930s, as well as ten designs that were created but not built. The top five designs were analyses with a Computational Fluid Dynamics software. This program was able to generate data based on different wind and tack conditions. Ranger F was one of the plans not selected for the 1937 America's cup defender, but it performed better on all the testing. This plan was used to create the Lionheart. The Lionheart is not the first J-Class replica to be built. She is, however, the first to use an unused plan and the first in aluminum. She is also the first to include the standards necessary to be used as a charter vessel.

Racing And Cruising

The new J-Class rules have been refined from the original 1930s rules to allow more luxury cruising features. The remaining three original J-Class yachts have had upgrades taking them from the unitary racing role to one that included luxurious cruising. The Lionheart has an overall 43.4 meter length with an overhang from her Length on Design waterline of 26.52 meters. This striking silhouette is further enhanced by her 52.5 meter mast. Her sail plan has been designed for both racing and cruising needs. A below decks furler for the head sail will be used both for cruising and for racing. A removable inner forestay with a manual furler for the staysail will enable easy cruising with a Yankee staysail configuration. The cruising sails are carbon spectra from North Sails, the racing sails will be 3DL carbon. The cockpit have also been designed to allow optimum

performance when racing, and being easily converted to provide a luxury cruising ambiance. When configured for racing, there is a control center between the center cockpit and aft deckhouse. The helmsman, tactician, main and Genoa trimmers are side by side and can control the yacht without having to shout.

The main sail traveller is hydraulically operated below decks and can be tweaked from the main sheet winch positions. Tailors and trimmers will be in the aft cockpit were the runners are handled. The aft cockpit provides additional protection for the crew.

When configured for racing, the tables in the cockpits will be removed and the center cockpit is used as a store area for Genoas and spinnakers

Interior

The interior styling is classic, protecting the privacy of the owner, but not over detailed. The owner's suite connects to the aft owner's deckhouse and cockpit. There are three additional guest cabins and a main saloon for formal dining and luxurious lounging. The interior is done primarily in teak, recreating the atmosphere found on the original J-classes. Forward of the mast, separated by a watertight door, is the galley, crew mess and four crew cabins.

Future Races.

The J-class currently has seven yachts with two more due in 2015. Of the current seven, six of them frequently race. The J-Class Association has announced the J-Class Falmouth Regatta from 22 -27 June 2015. Three of the J-Class yachts,Lionheart, Ranger and Velsheda are all expected to be a part of the Regatta. The Royal Cornwall Yacht Club will host the event providing a challenging course around Falmouth's deep water bay.

The yachts are expected to arrive for the J Class Falmouth Regatta on 20 June with an opportunity for race enthusiasts to see the yachts. The Regatta will open on Monday 22 June, with racing from Tuesday 23 June until Saturday 27 June 2015, inclusive. Ⓢ





