

From the Star Class website, history section:

SKIP ETHELLES AND THE BIRTH OF THE MODERN STAR

based on conversations with Bill Buchan and Jane Lawrence

Skip Etchells played an important part in birth of the modern Star. In college he studied naval architecture and when World War II began he went to work in Seattle in the shipbuilding industry. Because of his naval architect training Skip realized that there were allowable tolerances in the Star specifications which would allow him to build a superior boat.

This knowledge was further reinforced by the work which Phil Spaulding and Harry Hofmann did in the 1930's for their master's thesis at University of Michigan in which they studied the effects on the Star hull design by taking the boat to its maximum and minimum tolerances at given stations. They built three models to tank test the question of what the effects on hull speed would be by so doing. Phil, who had set up a naval architect business in Seattle, became acquainted with Skip during the early war years and passed onto him the lines from the most efficient hull in their experiment. As Phil Spaulding noted in a recent interview, this hull was marked by a wider bow and a flatter contour than was normally built into the Stars of the time.

In 1942 Skip and his friend Bill Kelley built the first Etchells Stars, #2125, Shillalah and #2127, Hell's Angel, in which he applied these principles. They began construction on these boats first on Mercer Island in Seattle and later finished them off in the Madison Park garage where the Puget Sound Star Fleet housed their boats during the winter. It is perhaps appropriate here to take a look at the question of tolerances which were allowed in the building of a Star in the wooden hull era. The specifications as they came from Gardner's office in 1911 gave exact numbers. For example, the over-all length was given as 22' 7" and the beam as 5' 8". It was expected that there would be builder errors and in the beginning this was not an area of concern.

However, in the 1925 Log there appeared for the first time an attempt to limit what constitutes builder's errors. It is quite apparent that there was considerable sloppiness on the part of builders up until January 1923, when, according to the 1925 Log, these new limitations on dimensions were drawn up. For example, the length over-all in the revised specifications was given as: "22 feet, 7½ inches. A variation of one inch over, or four inches under, allowed in all boats built prior to January, 1923, and 1 inch under or 1 inch over allowed in all boats built after January, 1923."

Four inches under on pre-1923 Stars??? There must have been some pretty short Stars sailing around in those days!

In the 1930 Log a Table of Limitations governing variations in hull construction first appeared. These limitations were not altered for many years. In the 1941 Log the

following are the limitations which Skip Etchells had to work with when planning the construction of his boat.

TABLE OF LIMITATIONS, HULL

Allowed

	over	under
Length over all, from point A	1/2"	1/2"
Half breadths at deck and chine, at section 6 and 8	5/8"	5/8"
Half breadths at deck and chine, at section 3 and stern	1/2"	1/2"
Frames, position from correct center	1/2"	1/2"
Contour lengthwise of keel plank at each station	1"	1"
Contour athwartship at each station	1"	1"

Contour measured from base line, with the exception there must be no concave lines in the bottom anywhere.

What is most noticeable in these limitations is that the bottom contour of a boat can be 1" over or 1" under at any station. Obviously this gives 2" overall if one uses a moveable base line, making it possible to flatten out a boat by dropping the ends 2". Based on the information which Phil Spaulding passed onto him, the concepts which Skip used in building his boats were to make the bow as wide as possible under the rules, thus making the boat full in the ends, while at the same time flattening out the boat fore and aft.

It is worth mentioning that aside from making the boats constructed using this technique faster, especially off the wind, having full ends also made the boats much more stable. Bill Buchan remembers that at the 1954 North American's sailed in Rockport, MA, the competitors rafted their boats each evening because there was no haulout of boats. One day it happened that his boat was rafted outside #2125, sailed in that series by its new owners Daniel and Brian Catlin of the Great South Bay fleet. Bill had to hop from boat to boat to get to the dock, and when he landed on #2125 he knew there was something very different about the boat. It felt more like a battleship because it was so steady.

Of course it didn't take long for builders, professional and amateur alike, to realize that they were being left behind by Skip's innovative boats and to begin to try to imitate the boats which Skip was building. Bill, for example, built his own boats, starting with #2830 in 1949. Although he tried to incorporate Etchells' concepts in his boat, still even with his third boat # 3328, the first Frolic, he hadn't incorporated the wide bow at station 1 which the O.G. boats had. When he realized that he missed this point he did major surgery to Frolic in 1956 to correct the situation.

When the war was over Skip married Mary O'Toole and moved to Greenwich, CT. He took a job in New York City with the naval architect firm of Sparkman & Stephens. According to Jane Lawrence, Skip was not happy doing the daily commute into the city, so after two years of working at S&S he established the Old Greenwich Boat Company. To get him started John Hazen White invited Skip to use a small shed and carpentry tools on the White estate. White also owned Rocky Point Sailing Club and wanted Skip to build a fleet of Moths for the club. This got Skip started with a nice order. Later came an order from White for Lightnings. By 1948 word got around that Skip would build you one of those super Stars and orders started coming in. By 1956 O.G. Boat Co. had outgrown the White facilities and the operation was moved to Stamford, CT.

Skip was forever tinkering with the design of his Stars. O.G. Stars were designated by model letters. By the late 1950's the model designation was "D", or if chromed hardware and bleached deck were part of the deal, "Super D". The last boats to be built by O.G. in 1970 were designated as "G". In that year the rights to the hull design were transferred to Duplin Marine in Winthrop, MA, and Joe Duplin began to build fiberglass O.G.'s using an O.G. model "G" hull as the plug for his mold. About model differences Bill Buchan has the following observation:

“Joe Duplin once told me that Skip was really surprised that my boats, which were much wider than his at stations 2 and 3 on the chine and narrower than his at the deck at those same stations, were successful. He experimented with moving the volume of the boats nearer to the ends by deepening the keel profile at stations 2, 3 and 4 as well as 7, 8 and 9. There were some boats built with what I would call a "pumpkin" shape as compared with the more successful "V shape". I would think that he felt that the rounder athwartship section would be better in light winds as it should reflect lower wetted surface. Whether it worked out that way or not I can't say. I will say, though, that a model that was called the "F", one of which was sailed by Joe Burbeck in the summer of 1962 on Long Island Sound and later in the World's of that year in Cascais, was about the fastest shape that I ever saw Skip turn out.”

One of the hallmarks of the O.G.'s was the quality of workmanship which went into the boats. Top-grade red cedar was used throughout most of the boat. In the areas which took the most stress however, namely the keel plank, keelson, and the ribs which held the keel mahogany was used. Also unique at the time were the decks of O.G.'s. Unlike the other builders who used wide red cedar planks, usually 6" to 8" wide, the O.G. decks were constructed out of 1 5/8" wide red cedar planks which were shiplapped. On the topside of the plank there was an 1/8" gap between planks which was filled with Thiokol (black rubber). As a nice touch the center deck king plank was mahogany and mahogany was also used around the cockpit edge. The deck was bleached before the varnish was applied, giving the deck a straw-yellow color. All these extra details made the O.G.'s somewhat heavier than the Lippincotts and Eichenlaubs, but a quick glance through the recent Star Class Logs shows that there are more O.G.'s still in service from the wooden boat era than there are Lippincotts or Eichenlaubs.

As a recognition of the quality of the O.G.'s the Old Greenwich Boat Company's ad in the Logs would often carry the by-line "Built like a yacht", this as opposed to the Eichenlaub by-line which read "Fine light spars and hulls". The extra weight which an O.G. carried, which was really was only about 50 lbs., did not seem to make the boats any less competitive, and O.G.'s still won their share of races. One of the lightest Stars ever built was Tom Blackaller's Eichenlaub # 3938, which is reported to have weighed 1,340 lbs. In the October, 1965, Starlights the weight of each boat which competed in the 1965 World's is given. The winning boat was an O.G., # 4831, which weighed 1,423 lbs. Next was an Eichenlaub, # 4749, which weighed a surprisingly heavy 1,457 lbs. Third was a Buchan, # 4913, which weighed 1,383 lbs.

One of the big controversies during the 1960's was the question of V-bottomed boats. The Table of Limitations included the words, "Section of bottom to be true arc of circle." The Eichenlaubs got to the point where the V-bottom was carried right to the stern making it obvious that the thwart-ship bottom frames were not true arcs. The O.G.'s were much more subtle in this respect. The frames themselves were relatively true arcs, but the keel flange was faired by building up extra thickness fore and aft and on either side of the keel. The resulting effect was something approximating a V-bottom, at least in the area around the keel. At the height of the controversy about the bottoms of many Stars not being a true arc Skip Etchells proposed a toast at a Star dinner "To Noah, the builder of the only true Ark."

From time to time Skip would contribute comments to Starlights. One of the more amusing is about halyard locks aloft. Hard to imagine today, but there was quite some controversy over having halyard locks. Skip commented:

HERE WE GO AGAIN

by E.W. Etchells

(From page 3 of the July, 1953, Starlights)

Just had an excellent idea for a few of our brethren who can't stand halyard locks: get a screwdriver and take 'em off! Then please let the rest of us use ours in peace. We've had them for years and they work fine. That's all - except for the taker-offers who like a limber mast and have them pared down just about so. In these cases have a spare ready - a little fatter than before. And if we are all forced to remove our halyard locks, how about letting the proposers of this legislation guarantee to replace, at their expense, all the broken spars which result? Because there will be lots and lots of them.

Most everybody had heard that halyard locks reduce the column load due to halyards by one half. But unless the latch taker-offers want to run the downhaul end through an illegal hollow mast or a series of fairleads, they will have another problem, namely, eccentricity increase as the mast bends and makes like an archer's bow. The wire seeking the shorter straight line is not relieved as the sheave gets closer to the deck. The headboard drops and automatically maintains the bowstring tension.

Mast failure due to this difficulty is fun to watch - from another boat. It creeps up slowly at first, then faster, and ends with a bang. At least, so it was before halyard locks.

SKIP ETCHELLS

By Skip Allan

Skip and Mary Etchells were my childhood heroes. Even though I lived in California I got to know about them because I read everything about Stars I could get my hands on. I didn't get to meet them until 1959, when Skip and Mary came to Newport Beach to race in the 1959 World's, and I was their designated boatboy.

Over the years, I had two Etchells Stars. Number 3497 was an Etchells "C" model, and #4497 was an "E." Number 3497 literally landed at my feet transom first. Its previous owner and crew were short-tacking up the Newport Beach shoreline and a big wave carried it ashore stern first while I was standing there spectating from the beach. The transom was crushed, but our family bought the boat for salvage and Gerry Driscoll did a beautiful repair job.

By 1962 Mary Etchells had retired from crewing for Skip. He needed a crew and called me up. I was 16 at the time and weighed 125 pounds, 100 pounds less than Skip. I flew to Portugal and crewed in the 1962 World's in Cascais with Skip. We did well in the big breeze, despite my light weight, and came third in the World's. Dick Stearns and Lynn Williams won the Gold Star that year with their Etchells "D" model, and the Russian team came second in another Etchells boat.

The Russians had Skip Etchells incensed, as they were clearly using hiking aids, illegal at the time. Skip protested, and we had witnesses. But Class President Paul Smart disallowed the protest, partly to avoid an international "incident." I came away from the World's with a healthy respect for Skip Etchells' attention to detail, as every night he would tweak on his sails. He was also a good tactician, as was evidenced by the Gold Star on his sail.

Skip Etchells' starting techniques were rather unique. All Etchells Stars, beautiful in their own right, came with a mahogany drawer aft under the tiller. I finally got to see what this drawer was intended for when crewing for Skip at Cascais. He carried his stopwatch in that drawer, and as we approached the starting line, he would continually open and shut the drawer to check the time left on the stopwatch!

Old Greenwich Stars, built by Skip Etchells, were the most beautiful wooden Stars ever built. I sincerely hope someone has kept at least one of them.