

1ST DISTRICT NEWSLETTER

Volume 9, No. 3

March, 2008

PROVISIONAL 1ST DISTRICT REGATTA DATES

June 7-8	Marshall Brown Secretary's Cup (BH)	
June 21-22	Arms-White (Mid)	Focus
July 11-13	1 st District Champs. (CA)	Focus
July 26-27	Marblehead NOOD (BH)	Tri-Dist Qual, Focus
Aug. 2-3	Sunapee Open (Sun)	Tri-District Qualifier
Aug. 23-24	New England Masters' (BH)	
Sept. 13-14	Bedford Pitcher (CLIS)	Focus, Nash
Sept. 27-28	Nutmeg Regatta (Mid)	Nash
Oct. 11-12	Larchmont Columbus Day Regatta	Nash

CLASS MEETINGS DURING THE WORLD CHAMPIONSHIP

By Barbara Beigel Vosbury, Executive Director

The Class Management Committee and the International Governing Committee will meet at 0900 on Wednesday, April 9, 2008 at the Coral Reef Yacht Club.

The Annual General Meeting of the Star Class membership will take place at 1800 on Wednesday, April 9, 2008 at the Coral Reef Yacht Club.

We look forward to seeing everyone there.

THE DEVELOPMENT OF THE KEEL

In Star Boats
By David Bolles

When the Star was designed in November 1910 in the office of William Gardner, there was no thought given to the idea that the Star boat would outgrow its being used as a local New York / New England one-design racer. While the hull was built at various boatyards, Gardner's office was the designer and provider of the various fittings needed to complete the boat. Concerning this the original Gardner specifications read as follows:

FITTINGS.

All fittings, including fin keel, rigging, blocks, cleats, deck and spar fittings, rudder-post, tiller-jaw, and sails, to be furnished by William Gardner & Company, and put in place by Builder.

At the time the Star was designed it was natural for the Gardner office to turn to a cast iron keel for the fin keel. Iron castings were being used for everything from cast iron toys to household appliances such as sewing machines to steam engines to building façades and details, so going with a cast iron keel was a logical choice.

However, it should be remembered that castings made from cast iron is not an exact process. There is a certain amount of shrinkage which takes place as the cast iron cools, so the end result will be a keel which is smaller than the pattern which was used to make the mold. William Gardner undoubtedly knew the vagaries in the casting process, and perhaps that was why

originally the specifications required that the keel had to come from a pattern supplied by the Gardner office.

However, during the next few years two things happened. The Class began to expand to areas beyond New York and New England and World War I made resources scarce. Thus, in a letter dated March 19, 1917, to a prospective home-built boat builder in Ohio, Gardner wrote the following:

As regards the fittings - It would be foolish for you to make patterns of same, as the patterns alone would cost you three times as much as the fittings. If you wish, we can furnish you the fittings, which are the ones used on all the boats here. The prices two months ago were as follows - -

Bronze blocks and sheaves,	\$16.50
Iron keel,	50.00
Deck and spar fittings,	29.64
Sails,	70.00
Rigging,	25.00
Track, slides, etc.,	13.50

	\$204.64

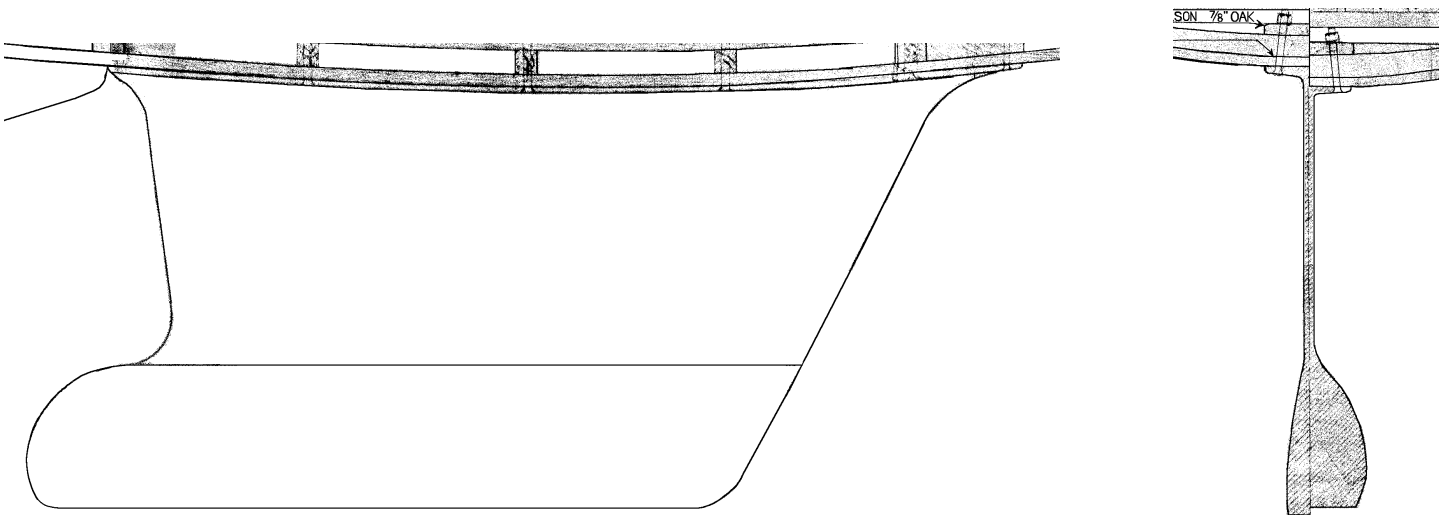
If you desire them, will get these prices verified, and they will probably not differ very much from the above figures.

As regards the fin - - You could probably do a great deal better by getting this from the Rocky River D. D. Co., as they, I understand have made a pattern for it, which is a very expensive thing and very difficult to make. When the freight is taken into consideration, they could probably furnish you the fin at a much lower price than the above. If, however, you wanted an absolutely correct fin and didn't mind the slight increased cost, it would be better to get it here, as the fin pattern was checked up very carefully by myself, so there in no question about its accuracy.

Since this was the war time era, perhaps the Gardner office had to back off the original stipulation as shown in the Gardner specifications.

Thus, while it appears that the original intent of the Gardner office was that Gardner & Co. was to be the only source of fittings for the Star, including the keel, because of various circumstances, including the distance from a central distribution point and war time restrictions, the Gardner office changed its policy with regard as to where Star fittings such as the keel could be manufactured. Almost certainly, if the Gardner office, and later the Star Class Association after it had acquired the rights to the Gardner plans, had continued the stipulation that the keel be provided by only one source, the Class would not have grown into being a worldwide Class at a time when shipping such items as keels was very prohibitive.

The Star keel, as shown on the Gardner plan of November, 1910, from all appearances looks like the keel of today.



The Star Keel as shown on the Gardner Plan of November, 1910

However, if one looks closely at the keels on boats from various periods there is a noticeable refinement in shape, especially that of the bulb. A couple of items of note in this plan are:

- 1) In the drawing of the cross section there was a gradual widening of the bulb with the widest part of the bulb being within a couple of inches of the bottom of the keel. This is in contrast to some bulbs of today which flair out very quickly near the top of the bulb.
- 2) There were no wood fairing strips around the flange of the keel to make a smooth transition between the hull's bottom and the keel. Fairing strips came some time later, and by the 1950's were in universal use.

After World War I the Star started to evolve. The first change was for the rig to change from a gaff rig to the short Marconi rig in the early 1920's. The Star's keel, along with the rest of the boat and rigging, also went through a process of evolution over the nearly 100 hundred years of the Star's existence.

Change in the Keel Position

One item that has long been played with is the fore and aft positioning of the keel. For two years running, 1922 and 1923, Bill Inslee of the Western Long Island Sound fleet was the Champion of the Star Class. Bill wrote an article about boat preparation for the April-May, 1924, issue of Starlights. This article is very illuminating in letting us see what a top skipper considered to be necessary to tune up his Star. Bill begins with a description of how to get the smoothest bottom. Then he deals with getting the proper balance in the helm when going to windward. He mentions the importance of the proper position of the keel, the placement of the mast, the rake of the mast, the position of the jib fairleads, and backstay tension as various components which went into getting a balanced boat. In the original design of the Star the keel was a little too far forward and it became quite common to move the keel as part of the process of getting the boat tuned up. Since the hull was sitting on top of the keel flange, as shown in the plan above, and there were no fairing strips, moving the keel aft was not an especially difficult project.

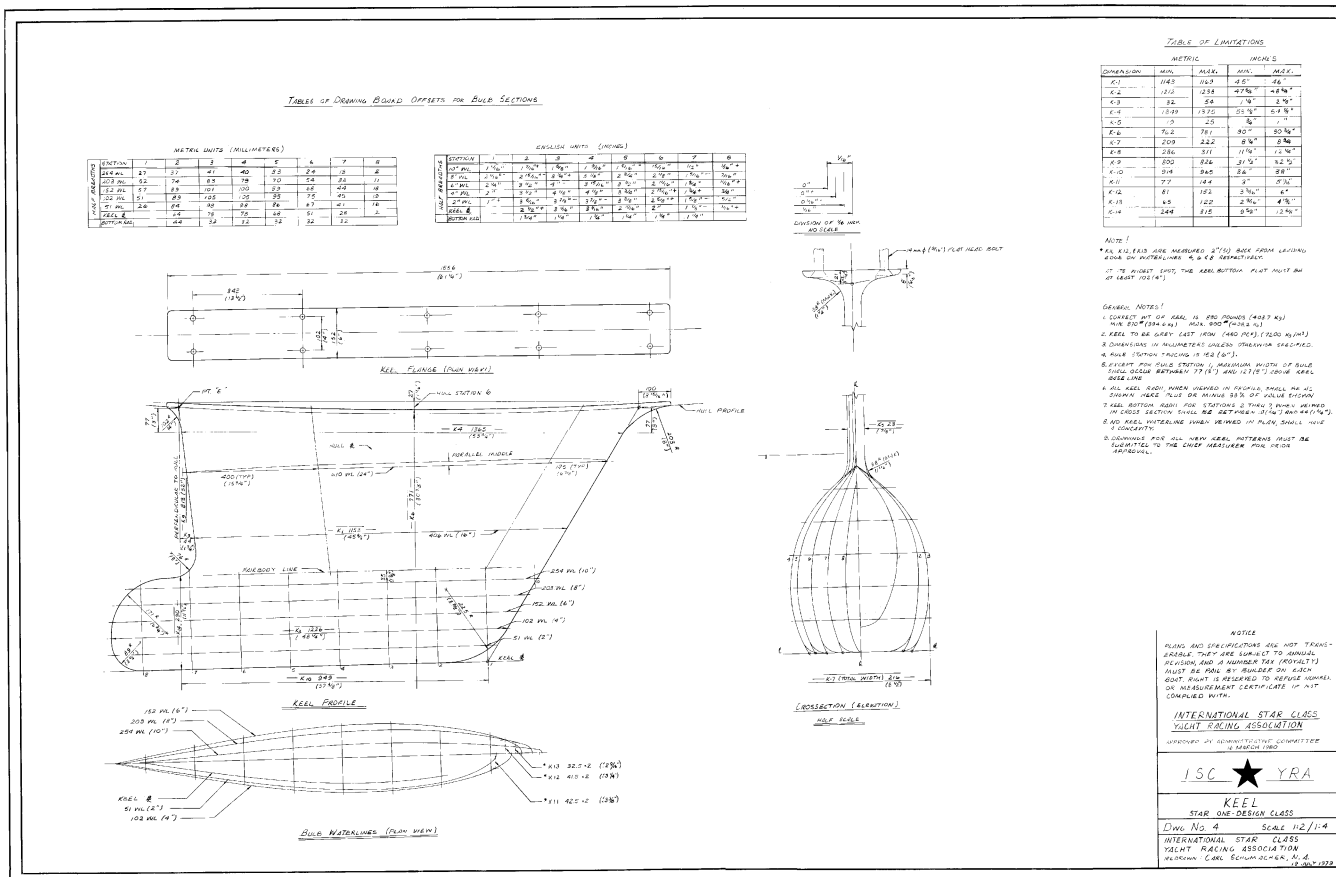
In the 1925 Log there is the first attempt at giving specifications for Star boats. As shown in this Log, it was allowed to move the keel "forward or aft 4 inches from position shown in blue print". In 1939 this was changed to allow 6" fore and 4" aft of the position as shown on the plan. At the present this allowance is much more restrictive, being 51 mm or about 2" fore or aft of the point known as dimension E.

In the 1925 Log there is also the earliest comment about keel shape: "Must be cast from a pattern approved and registered with the association." This wording was soon changed to read "Must be cast from a pattern recorded with and approved by the Measurement Committee." This second wording was used for a number of years until the 1945 Log when the wording was changed to read only "Must be cast as per plan..."

The first time keel dimensions are listed in the "Table of Limitations" was in the 1954 Log. Only three keel dimensions are given: the vertical distance from the bottom of the hull at Station 6 to the bottom of the keel, the thickness of the keel fin at the thickest point, and the thickness of the keel bulb at the thickest point.

The earliest known existing keel drawing which gives details on the various keel contours was made by Skip Etchells in July, 1946. This was the original Drawing No. 4. There is no "Table of Limitations" given on this drawing. It does however include a "Table of Drawing Board Offsets for Bulb Sections" plus numerous other dimensions.

In July, 1979, during the period when the Star Class was tightening up on hull tolerances, Drawing No. 4 was redrawn by Carl Schumacher, showing the same shape and dimensions given in the Etchells drawing but now including data in both English units and Metric units. Furthermore, a "Table of Limitations" for the keel was added to the plan. The number of measuring points on the "Table of Limitations" increased from 3 to 14. This is in addition to the various points (53 in number) given in the "Table of Drawing Board Offsets for Bulb Sections". Also added were various "General Notes". Some of the more pertinent ones to this article are as follows:



5. Except for bulb station 1, maximum width of bulb shall occur between 77 (3") and 127 (5") above keel base line.
6. All keel radii, when viewed in profile, shall be as shown here plus or minus 33% of value shown.
8. No keel waterline when viewed in plan, shall have a concavity.
9. Drawing for all new keel patterns must be submitted to the chief measurer for prior approval.

Position of the keel flange relative to the hull

One significant change made in the Schumacher drawing from the earlier plans of Gardner and Etchells is that rather than showing the hull profile sitting on top of the keel flange, the underside of the keel flange is now shown as being in line with the hull profile. This change in depiction was brought about by the fact that in wooden boat construction it was neither desirable nor by Class rules permissible to recess the keel flange into the keel plank. However, with fiberglass construction this was structurally feasible, and the Class allowed this construction technique in lieu of using fairing strips to fair in the keel flange. The July 1978 Starlights carries a note about this:

Clarification on Keel Fairings

The hulls of some Sune Carlsson boats are recessed only 6 mm. for the keel flange, so that the flange still protrudes below the boat bottom. The mold has been corrected to remove excess fairing forward of the keel, but fairing all around the flange within the control dimension is allowed.

On Buchan, Gerard, Lippincott, Mader and other hulls that have a complete recess in the hull for the flange, it is the opinion of the Measurement Committee that keels cannot have any "fairings" as discussed in Article V, section 7, of the Specifications. William V. Richards, Chairman

The 1979 "Table of Limitations" for the Keel

As stated previously, castings made from iron is not an exact process. There is a certain amount of shrinkage which takes place as the iron cools, so the end result will be a keel which is smaller than the pattern which was used to make the mold. By the 1970's it was recognized that there was a need to have a "Table of Limitations" giving an envelope into which the Star keel could fit.

Thus, during the 1970's efforts were made to tighten the hull's "Table of Limitations" and create the keel's "Table of Limitations" to bring construction of these two key components to the Star under tighter control. The hull's "Table of Limitations" underwent further tightening during the 1980's. This tightening was in part in response to the fact that during the last years of wooden boat construction as builders became more adept at carrying the hull lines to the extreme limits of the limitation envelope hull shapes which were obviously not the original intent of the Gardner lines became prevalent. A good example was the late Eichenlaub boats which had a very pronounced V bottom. There were many complaints about a continual "arms race" in which each builder tried to out-do the others in introducing innovative features in their boats. Boats were very distinctive from builder to builder and one could often

say at a glance who the builder was. Now with the present fairly restrictive "Table of Limitations" for the hull one now has to look elsewhere on the boat to have some idea which builder built the boat. Such things as deck construction and layout, and keel features, are tip-offs as to what company built the boat.

The Kimble Keel of the late 1970's

Starting with the July 1977 Starlights there began to be a series of notes about keel shapes. The first was in 1977's Resolution 5, which in its preamble stated the following: "Whereas certain new keel shapes have been seen which appear to differ in substantive degree from the keel plan, and whereas it seems appropriate that keel shapes be variable only to a reasonable degree and consistent with Class policy, therefore be it resolved that additional keel dimension tolerances be adopted as follows:" The resolution then went on to give specifics. This was followed up by a note in the November 1977 Starlights: "Resolution 5 ... was withdrawn by the sponsoring fleet because the Technical Committee had not yet reported on it. President Parks commented that the IGC is assigning the keel problem to the Measurement Committee because we are dealing with a tolerance problem, not a Specifications change. Regarding Kimble keels: New information available to the Measurement Committee suggests a stop order be issued on Kimble keels. The Measurement Committee will recommend new (i.e. additional) keel measurements immediately. Existing boats with these keels and with a measurement certificate will be grandfathered. This will be reviewed at the IGC meeting on Sept. 3, 1977 for final decision."

Further discussion on the topic of Kimble keels followed in the December 1977 issue: "A different shaped keel made an appearance in America. Although it meets all nine of our keel tolerances, it has a different appearance, and its continuation does not seem to be in the best interests of the Class. I am seeking the views of the IGC and of the Technical Committee members here before determining what action is appropriate. Fortunately it does not seem to be any faster than our most recent Buchan and Meier keels."

For the next year and a half Starlights was silent on what was happening with the keel issue, but then the May 1979 issue came out with interim guidelines introducing temporary limitations K-11, K-12 and K-13. These limitations were further refined and incorporated in the 1979 Drawing #4.

The significance of the Kimble keel is that it had a concavity longitudinally along the bulb. Jet fighter designers noticed an improved high-speed performance when the body of a jet fighter had an hourglass shape. This was called the "coke bottle effect", and it was decided that this should be tried out on Star keels. Thus the need for note 8 in Drawing #4: "No keel waterline when viewed in plan, shall have a concavity."

The final chapter in the Kimble keel episode was written up in the December 1979 Starlights:

1. Keels. Bill Gerard, Technical Committee Chairman, reviewed the new keel drawing. He noted that few keels had been built strictly according to plan over the last ten years. He said that the new plan is an attempt to narrow the tolerances and prevent extensive development.... President Burnham reminded the meeting that the last three major regattas. Kiel Week, Bacardi Cup, and the Western Hemisphere Spring Championship, were all won with the old keels.... Burnham added that ... the new keel drawing is being made up. In addition, a new K measurement has been added to try to ensure that no major keel development can occur in the future. The final official drawing will be available 1 January 1980.

2. Class keel pattern. Friedrich Krieger investigated costs and found that a master keel pattern would cost \$7,000 and moulds would cost \$200. Bill Gerard noted that a Class pattern would not solve the basic problem of tolerances because much work is done in finishing and putting the keels, which changes the shape of the bare casting. The Committee voted to postpone the introduction of a Class pattern.

Keel Cross Sections

In note 2 to the original Gardner plan above mention was made of the fact that the cross section of the bulb in these later plans is shown to widen out more abruptly at the top. Also the thickest part of the bulb was moved up to the middle of the bulb, in general giving the bulb more of a torpedo-like shape. In fact, the General Notes specify that the "maximum width of the bulb shall be between 77 (3") and 127 (5") above the keel base line."

To give some idea of the changes in bulb shape here are some keel cross sections:



1910 Keel



1946-1979 Keel Plan



3800 O.G. Keel



7700 Folli Keel



8100 Mader Keel



8200 Mader Keel

Relative to the original Gardner keel plan, some of the bulbs today flair out very quickly near the top of the bulb. On some bulbs, as for example on the 7700 series Follis, this feature is so abrupt that there is almost a flat shelf created on the top side of the bulb. These keels have been dubbed “beer can” keels because supposedly one could place a beer can on the shelf created by this abrupt flair.

Milled Keels

As stated in the comments about the 1979 Drawing No. 4, a Table of Limitations for keels was introduced in 1979. Recently, the milling of keels using a computer to determine the finished shape has become possible. The result of this is that it has become possible to pour over-sized keels and then mill off the excess to a desired shape. This allows the boat builder to take any point on the table of limitations to the maximum or minimum, depending on the desired keel shape, and produce a keel, which while falling within the bounds given in the Table of Limitations, still has a bulb shape which was not the original intent of the keel drawing.

Of course, the process of milling a keel adds significantly to the cost of building the boat. Builders charge anywhere between 3,000 € and 9,000 € for this extra service.

A Couple of Recent Developments

One of the most recent developments is the flat-sided bulb seen on some of the newer Maders. This is shown above in the last depiction of keel cross sections. One of the results of carrying this feature all the way to the trailing edge of the bulb is that the trailing edge is mostly vertical with almost equal radii at the top and the bottom of the trailing edge. While visually this is not the intent of Drawing No. 4, given General Note # 6 which states that “All keel radii ... shall be as shown here plus or minus 33% of value shown” and taking the upper and lower trailing edge radii to the 33% limits, then in fact the radii can be close to being the same at about 4 ½”.

Another recent development is what some have called a “drooping keel”, in which the aft end of the keel bulb is significantly lower, and conversely the forward end of the keel bulb is significantly higher, than what is shown on Drawing No. 4. This can be achieved by taking the forward keel measurement K-6 which is shown as 30 ¾” to its minimum which is 30” and taking the aft keel measurement K-9 which is shown as 32” to its maximum which is 32 ½”.

Keel Coatings and the problem of rusty keels

One of the more bizarre things to happen in the last ten years is the reduction of the amount of coating on the keel so that the overall density of the keel is as high as possible in order to obtain the maximum righting moment. Carrying this concept to the logical extreme, milled keels in which the keel is milled to the final shape so that no filler is necessary have become fashionable. As mentioned above, the process of producing milled keels is quite costly. While this concept is correct and all very well, it would seem that applying a coat of protective material which is so thin that water penetrates it and begins to cause rust after only a short time is carrying the concept too far. Surely, having the proper amount of a protective barrier coat applied on the keel cannot increase the overall volume of the keel significantly enough to affect the righting moment.

On keels receiving this treatment it is quite common for the original coating to bubble up and flake off the keel due to rust. This is an unfortunately common problem with boats built by one company in particular, and boats as new as only 4 years old have had to have their keels recoated, usually at a cost of between \$3,000 and \$5,000.

Leading Edge

One of the subjects not touch on in this article is that of leading edge in keels. While this may seem minor compared to what has been talked about above, in fact there is reason to believe that this factor has more to do with the keel’s performance than other factors such as bulb shape and orientation.

In the Spring 2001 issue of Starlights there appeared an article by Paul Bogataj which addresses this topic. In it he shows three different leading edge shapes and gives a graph showing the up-wind and down-wind performance for each of these leading edges. Briefly stated: A rounded leading edge has good lift for up-wind performance but high drag for down-wind performance. The opposite is true for a fairly narrow leading edge. He gives a third leading edge which he suggests is the best compromise between the two extremes. Although seldom talked about, for years top skippers have paid attention to this detail, and today practically all of the variations mentioned here can be found on Stars. The preference is related to what type of racing the skipper plans to do most, whether short course racing where high lift is needed, or traditional long Star course racing where speed is more important.

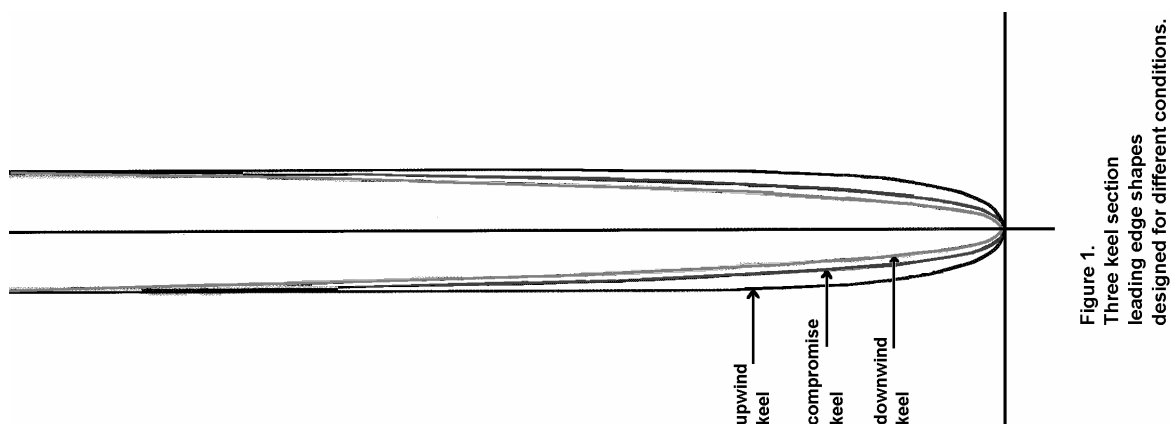


Figure 1.
Three keel section
leading edge shapes
designed for different conditions.

SOME FINAL THOUGHTS

There are two points brought up in the December 1979 Starlights comments about keels which deserve further consideration:

- 1) That few keels are built according to Drawing #4.
- 2) That there should be a Class keel pattern.

At the time when wooden boats were being built all over the world it was common sense to allow foundries local to where boats were being built to produce keels. During that period of the Class's development it not only made sense but it was necessary in order to accommodate home-built boats to have a fairly lenient "Table of Limitations". Once the Class switched to fiberglass boats then the idea of home-built boats was no longer feasible, and as a result the hull's "Table of Limitations" was tightened up during the 1970's and 1980's.

Added to this fact, at the present time there are in effect only three builders of Stars, all located in relative close proximity to each other. This fact makes it possible for there to be a single foundry which could provide keels to all three builders. Further, with the advancements in foundry practices it is now possible to pour keels with much greater precision, thus eliminating the need for the costly process of milling keels to a desired shape.

Taking these various factors into consideration, recently there was a renewed effort to reign in the variety of keel shapes and costs associated with milling to accomplish these shapes. During the correspondence concerning crafting a resolution which would attempt to solve these problems the observation was made that Drawing #4 was way out of date and does not reflect present-day keel shapes.

This being the case, it seems that an effort should be made to redraw Drawing #4 to reflect what the Star keel should be, and at the same time, given today's better casting techniques, the keel's "Table of Limitations" should be further tightened consistent with present-day foundry practices. Carrying this idea further, the Class should settle on a single keel shape and have a pattern built which would produce the desired keel.

Thus:

- 1) A study should be made to see what the best all-conditions keel shape is and Drawing #4 should be redrawn to reflect this ideal keel shape.
- 2) A pattern should be made which will produce keels which conform to this shape.
- 3) The leading edge of this keel should have a narrow entry, and builders and/or owners should be allowed to build up the leading edge according to what they believe is best for the type of sailing they are going to do.
- 4) The Class should stipulate that builders apply a protective coating to the keel which will last the lifetime of the boat.

I believe that it is time for the Star Class to return to the original principle concerning keel construction; that is that all keels come from a single pattern.

MASTERS' REGATTA

February 9-10, 2008
Coral Reef Yacht Club
by Harry Walker

Again Miami provided the "older skippers" and their assorted aged crews with great sailing conditions and winds to suit almost every taste during the 2 day Annual Masters regatta. The range was 8 to 20 knots! Originally the brainchild of the late Frank Zagarino of Coral Reef Yacht Club, this most fun of all winter events once more put 38 boats on the line, representing 8 nations, and a 40 year age spread among the skippers.

The NZ team of Olympic Medallist Rod Davis and Americas Cup big man Jamie Gale were fast when it was light and very fast when it blew in on Sunday. With three second place finishes they walked off as new Masters Champions.

Rolex Yachtsman of the Year Augie Diaz with Gold Star crew Phil Trinter up front were second with an eighth and two bullets. Again a crew who reveled in heavier air. Bahamian Steven Kelly with Billy Holowesko rounded out the top three places. Note that all are Rock Stars, but this did not deter the rest. They wiped up the 50 and up group.

The father and son prize went to Olympian John Dane and son with a fifth place finish.

In the Grand Masters Tommy Muller sailing with boat builder and Olympian Marc Pickel edged out the father and son duo of Brooks and Austin Sperry. Another German, Axel Hampe took third.

Exalted Grand Master Champions were the veteran duo of Harry [86] Walker and Mark [52] Reynolds. This team, which has been sailing together for more than ten years, beat out occasional Starboater John Sherwood and Bert Collins from the Chesapeake. The Londrigan team of Tom and former Worlds Champion Joe were third. That EGM division starts at age 70!

Venerable Emil Karlovsky, sailing at age 92, took the Super Stud prize even though he did not turn out for the windy Sunday race.

The CRYC Race Committee was excellent and a great outdoor dinner was enjoyed by the group Saturday night. LouAnn Zagarino, who certainly typifies the spirit, grace, and fun of her late husbands brainchild, was in attendance and spoke briefly.

For any of you who missed it, you lost, but come on next year!

FORM THE AUGUST, 1924 STARLIGHTS

A MINOR DETAIL - Geo. Waters is tuning up the "California". He started during (Larchmont) Race Week. On the first day while towing over to Larchmont he kept saying he had forgotten something. He checked up on his equipment but anchor, compass, life belts etc. all were there. Suddenly when half way over he remembered, "My God" he said "I forgot the boom."

MASTERS' REGATTA

February 9-10, 2008
Coral Reef Yacht Club
by Lynn Fitzpatrick:

New Zealand's Rod Davis (age 52) and crew Jamie Gale won Miami's Star ZAG Masters. Rod is an Olympic medalist and Jamie won the Star North Americans in 2000; both are America's Cup veterans. Although the minimum skipper age was 50, Coral Reef Yacht Club's Star ZAG Masters still had 38 boats competing with skippers from nine nations. All came with great credentials. In second place, was Miamian and Rolex Yachtsman of the Year Augie Diaz (age 53) sailing with Phil Trinter. Steven Kelly from the Bahamas took third with Bill Holowesko as crew. Germany's Thomas Muller was the top Grand Master (60 or older). His crew was Marc Pickel.

Six skippers were 70 years or older led by Harry Walker at 87 and 92 year old Emil Karlovsky. Harry and crew Mark Reynolds thrilled the spectator fleet when they finished 11th in Race 2. Harry won the top Exalted Grand Master award and

finished 18th overall. There were six teams were made up of father and son and this competition was won by John Dane III and his son John F. Dane.

Saturday had two races with wind coming from the south at 10-12 knots ending before the approach of a level 5 thunderstorm. John Dane III won Race 1 and Augie Diaz won Race 2. Augie also won Race 3 on Sunday with 14 knot winds from the NE building to 20 with gusts. It was a pre-Olympic moment during Race 2 when the US Olympic team of Dane and Sperry challenged each other at the finish line with Austin Sperry, sailing for his dad Brook, finishing 9th ahead of John Dane III and his son John.

This regatta is another lead up to the Star Worlds coming to Miami in April. Many of the Star World competitors who are already in Miami were either skippering, serving as crew or loaning their boats to the competitors for the ZAG Masters. The regatta was named after Frank Zagarino, one of Coral Reef's most successful Star sailors. The Star ZAG Masters just proves the long popularity of the Star class.

MASTERS' REGATTA

Pl.	No.	Skipper	Crew	Fleet	R1	R2	R3	Points
1	NZL 8320	Rod Davis	Jamie Gale	Isol	2	2	2	6
2	USA 8285	Augie Diaz	Phil Trinter	BisB	8	1	1	10
3	BAH 8265	Steven Kelly	Bill Holowesko	N	6	5	3	14
4	USA 8269	Jock Kolhaus	Ekiry Heinonen	BisB	5	4	6	15
5	USA 8230	John Dane III	John F Dane	MoB	1	10	7	18
6	USA 8250	Andy Macdonald	Brad Nichol	NH	3	7	9	19
7	GER 8213	Thomas Muller	Marc Pickel	Brm	4	3	15	22
8	GBR 7601	Michael Hicks	Patrick Hicks		7	13	11	31
9	USA 8333	Paul Erickson	Ingo Borkowski	WSFB	11	8	14	33
10	USA 8207	Brooks Sperry	Austin Sperry	WSFB	23	9	4	36
11	USA 8087	Kevin McNeil	Arnis Baltins	AN	9	25	5	39
12	ARG 8169	Alberto Zanetti	Gustavo Worburg	OL	18	16	8	42
13	CAN 8143	Brian Cramer	Rick Burgess	WLOC	16	12	16	44
14	GER 8311	Axel Hampe	Andreas Lohmann	ZuW	17	15	13	45
15	GER 823	Nils Springer	Klaus Meyer		13	17	17	47
16	USA 8245	Joe Zambella	Ed Morey	BH	15	29	10	54
17	USA 8012	Gregory Smith	TC Belco	GL	14	19	21	54
18	USA 8000	Harry Walker	Mark Reynolds	BisB	21	11	27	59
19	AUT 8226	Johann Fendt	Florian Fendt		10	24	26	60
20	USA 7715	William Swigart	Matt Semler	CLIS	25	21	18	64
21	GER 7865	Stefan Lehnert	Peter Menning	Brm	ocs	18	12	69
22	USA 8218	Nelson Stephenson	Terence Glackin	CLIS	29	22	19	70
23	SUI 8085	Lorenz Zimmerman	Beat Stegmeier	LUV	26	6	dnf	71
24	USA 8318	Jim Babel	Bill Hawk	GL	12	23	dnf	74
25	USA 8336	William Fields	Timothy Lidicis	SMB	dsq	14	22	75
26	USA 8063	John Sherwood	Bert Collins	AN	19	34	25	78
27	USA 8132	Thierry De La Villehuchet	Witold Gesing	Mid	22	20	dnf	81
28	USA 8222	Tony Hermann	Eric Hermann	WLM	30	32	20	82
29	GER 7816	John Helmsing	Marko Hasche	HF	27	27	30	84
30	USA 8077	Tom Londrigan	Joe Londrigan	LS	24	raf	23	86
31	USA 8084	Bob Teitge	Mark Dolan	DR	31	31	24	86
32	USA 8083	John Chiarella	Bob Carlson	Sun	32	26	28	86
33	USA 8264	Barbara Vosbury	Bruce Hatfield	AN	20	30	dns	89
34	USA 7934	Karl Von Schwarz	Rich Wharton	AN	28	28	dns	95
35	GER 7750	Jens Burmester	Markus Mehlen	ED	rdg	ocs	dnf	98
36	USA 7964	Charles Kohlerman III	Charles Kohlerman IV	NCB	33	33	dns	105
37	USA 7611	Scott Pirie	Rick Rundle	BisB	dns	dns	29	107
38	USA 7554	Emil Karlovsky	Chris Rogers	Mid	34	dns	dns	112

FOR SALE / WANTED

STAR CLASS MEMORABILIA: If you have anything which you think should be in the Star Class Archives at Mystic Seaport Museum please contact the editor (d.bolles@worldnet.att.net) (203 882 9428). Anything from a single photograph to a collection of correspondence, Starlights, Logs, program notes, or anything else related to the Star Class and its activities would be most welcomed.

7620 Mader (1992) Lightly sailed and in excellent condition. Good mast, sails, and trailer included. Excellent racing record, boat located in Boston. Call Ken Allen @ 603-219-4379 (11 / 06)

7741 Folli (1994) Two masts and one boom. Two sets of sails. Mast and boat covers. Double mainsheet and Lillia-style backstays. A good regatta boat in very good condition. Located in Milford, CT. \$14,000. Contact Rodrigo Meireles at 203 283 1884, 619 549 1126 / rodrigo@od.northsails.com

7830 Mader (1995) This boat is a cream puff. Campaigned by Paul Cayard, meticulously maintained, race ready. This boat is probably around \$16k give or take. In storage in Sunapee. Andy Ivey: andy@apiadv.com (1 / 07)

7982 Folli (1999) Ready to go sailing. The keel was completely refinished in November, 2005. The boat is in inside storage in Williams Bay, WI, on Lake Geneva, 85 miles northwest of Chicago, IL. All measurement documents are up-to-date and the boat was measured at three World's Championships. Valid titles for boat and trailer. Sparteck and Emmeti masts, Quantum sails. Photos available via email upon request. \$23,000. Call Jane Pegel at 262-245-6242 for details, email: sailing19@charter.net (4 / 07)

8112 Folli (2002) Sparteck mast; hyfield levers on uppers for downwind speed; double mainsheet; new Sparteck Boom; Spare mast and lots of sails; boat maintained annually by John MacCausland. Contact J. Joseph Bainton: Bainton@BaintonLaw.com (1 / 07)

Wanted: Boats, masts, etc. in various conditions. For the Milford Y.C. Sailing Foundation located at Milford Y.C., Milford CT. Contact Dick Hovey. Tel: 203 795 3008 / e-mail: rhovey@optonline.net (7-07)

Wanted: older masts, booms and sails: We have a growing fleet of older boats at Olympia, WA. We need D-section masts and booms as well as other stuff we can use on the old wood boats we are fixing up. If you have anything please contact Bill Brosius, billandcecilia@comcast.net

Wanted: F Section masts, even those broken at or below the mast band. David Bolles: 203 882 9428 / d.bolles@worldnet.att.net .

Wanted: D or F Section mast. Rob Reuter, 64 Haskell Ridge Road, Rochester, MA 02770 (508) 763-9533 or robreuterjr@aim.com

Models: white polyurethane 11 5 / 8" Star Class half models mounted on 6" x 15" back board for \$100 plus S&H Also Star Class half model plaques with the sails and spars for \$150 plus S&H.

Also, a 60" ¼ scale Star Class half-model for over the mantle as shown in photo for \$600. A true-to-scale rudder will be included although this photo does not show it.

Also available is a ¼ scale hull or even a ready-to-sail r / c equipped model. Ready--sail as an r / c boat for up to \$2900 depending on equipment. The \$2,900 is with authentic looking scaled miniature Harken hardware. A less expensive package can be provided without Harken miniatures.

Milton Thrasher: 941 966-9172

mthrasher@verizon.net / [www.angelfire.com / fl4 / mft](http://www.angelfire.com/fl4/mft)

**EARLY STARLIGHTS**

From December 1923 through January 1924

The earliest known Starlights, published on mimeographed sheets, are now available at:

http://www.mycstar.org/Stardust/starlights_back_issues.htm

2007 REGATTA SCHEDULE

Date	Org.	Event
Feb. 9-10	Dist. 20	Masters Regatta
Mar. 2-7	Dist. 20	Bacardi Cup
Mar. 21-31	Dist. 9	Ski-Yachting (Thun / Adelboden)
Apr. 4-18	ISCYRA	World Championship
Apr. 9-13	Dist. 14	Olympic Garda
Apr. 19	Dist. 9	Zürcher Frühlingspreis
Apr. 25-27	Dist. 6	Black Star Regatta
Apr. 26-27	Dist. 5	Dist. 5 Green Star
Apr. 26-27	Dist. 9	Bodensee Meisterschaft
May 1-Aug.28	Dist. 5	Starlights Thursday Nights
May 18-23	ISCYRA	W. H. Championship
May 21-25	Dist. 13	Breitling Regatta
May 24-25	Dist. 9	Jungfrau Trophy
May 24-25	Dist. 14	Coppa Tito Nordio
May 31-Jun. 1	Dist. 5	Rollins Bowl
Jun. 1-7	ISCYRA	Eastern Hemisphere Championship
Jun. 11-18	ISCYRA	European Championship