Our Chairman,Terry Sprake, aboard *Morning's End*

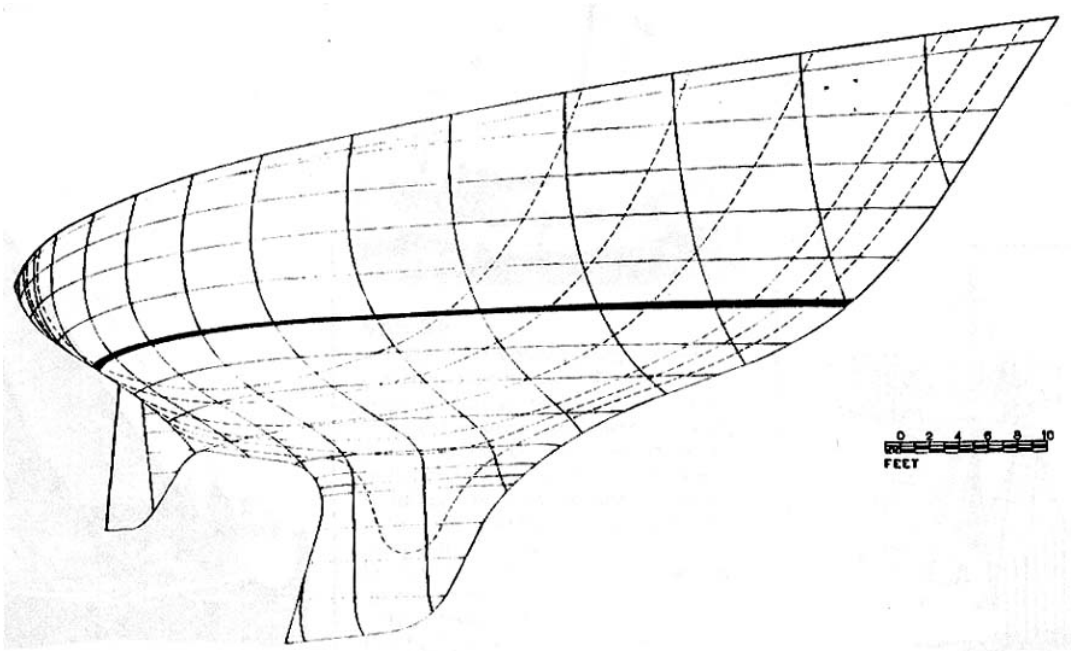
The S&S 34 – A Classic Ocean Racer/Cruiser/Voyager

Sparkman & Stephens Design No. 1959

LOA 33'6'', LWL 24'2'', Beam 10'1'', Draught 5'10'', Sail Area 462 Sq.Ft., Displacement 13,000 lbs. Displacement ratio 49%.. SA/D ratio 315. Sail area 483 sq.ft.

I have chosen design 1959 for the cover of the 10th Anniversary edition of the Yearbook for three reasons:
1. It is in a sense our flagship yacht as it is the vessel sailed by our Commodore or Chairman, Terry Sprake – and how he sails her!
2. The S & S 34 must rank as one of the all time classics from Olin's board, one of the first designs to be conceived for the new IOR rule, built in large numbers and successful both as a racer and later as a voyager beyond anyone's wildest hopes. At the time Olin said of her "We hope and believe that the S & S 34 will make a good all-round boat, so as to demonstrate in a fairly small package that a good boat for offshore racing will also be a good boat for cruising". In fact over 30 years old the design is still hard to beat to windward in 10 knots or more of wind.
3. The design is so successful and so much loved that 34 years after conception the design is once again being built to order in Australia.

The S&S 34 is, thus, perhaps the most celebrated and successful of all of the S&S production designs. Drawn in 1968 and later made famous by Sir Edward Heath, the first owner of *Morning Cloud*, the design was produced in huge numbers by yards both in the United Kingdom and Australia (where a large fleet races regularly) as well as elsewhere. The boat was conceived as an out and out RORC racer and captured an astonishing number of victories around the world (overall or prize winner in every Sydney-Hobart race from 1969 to 1974 for instance). The boat was built in fibre glass in series



Mk ! keel and skeg isometric drawing

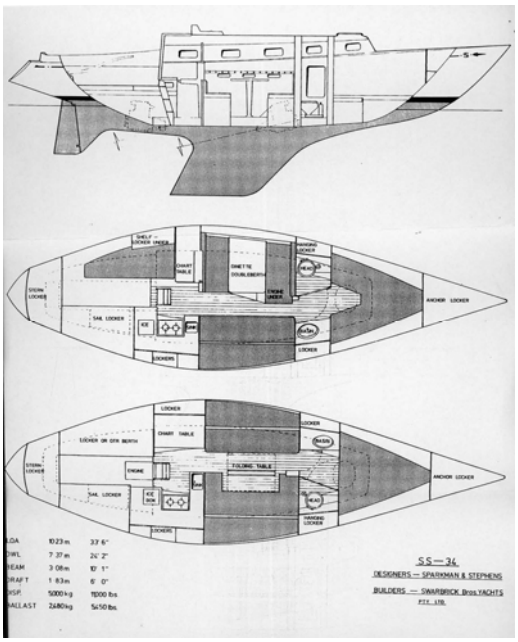
and the sail plan shows a modern mast head rig with the mast set well back into the boat and a short, tall, narrow mainsail cleated to the bridge deck traveller. The rig is extremely simple without runners allowing for a huge 160% overlap on the genoa jib which was then fashionable under the rule. Smaller overlaps are now the norm and are certainly closer winded. An inner forestay allows for the setting of a small, narrow blade shaped spinnaker staysail. Boats were offered in the UK with the option of a 'tall rig'. Whereas the lengthened 'foil' was more efficient to windward with a shortened boom to improve rating, the boats suffered slightly off the wind. With the advent of IMS and PHRF many boats have had their booms lengthened to the original dimension.

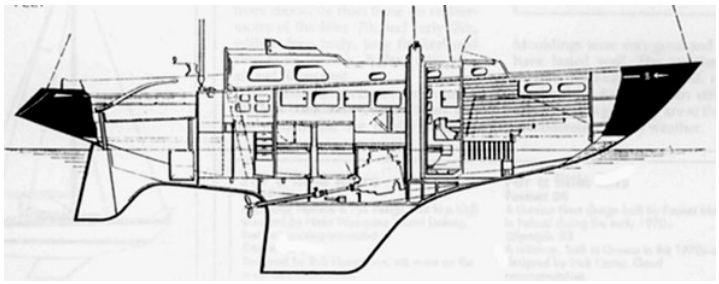
The line plans show a canoe body with the modern snubbed bow, balanced ends and a tight tucked up well drawn out counter. The fore body is shallow. The boat conformed to the new characteristics of late 60s designs which spelled the death of the full keel ocean racer boat. The short aero dynamic keel almost entirely made of lead ballast is positioned at the centre of the vessel and is totally detached from the bustle and profile skeg hung rudder at the extreme aft end of the lifted run of the water line allowing for a reduction of wetted area and displacement in the after sections, and increased control of the boat when sailing hard pressed down wind under spinnaker. In this the design followed closely on a smaller contemporary design, the Olle Enderlein Rassy-Mistral 33. But Olin's genius once again shows in the placement of the engine deep in the hull amidships where the weight is most beneficial. Nevertheless, the hull still belongs to a generation when boats can be termed 'attractive' rather than brutal, with her moderate freeboard and sheer and tumblehome. Yet the influence of IOR, which was later to become excessive, can be seen in her 'lozenge' shape pinched in stern

The sections are entirely different to S&S ocean racers up to the early 60s *Corsaro, Stella Polaris or Inverness* or the earlier racers such as the New York 32) in a dramatic departure from the slack bilged mid profiles of earlier vessels, the S&S 34 is a true wine glass shape thus perfecting and improving on a shape which had been much favoured by Scandinavian designers from the 1940s onwards and by some British designers. The beam of 10'1'' on a 24 ' waterline is enormous by earlier standards and freeboard relatively high while there is prononounced tumblehome so that it could be said that the man in the pilot berth was actually further outboard than the crew sitting out on the rail above!. In some ways the design was said to be a scaled down but improved and updated version of the Swan 36, in itself a boat which still performs particularly well to windward so that many younger boats can be left in her wake. Ballast ratio in the keel is almost 50% of the displacement allowing for a stiff vessel. The shape of the ends of the boat follow the RORC rating rule rather than the American rule in that the stern and counter are narrow, the fullest beam is carried well aft of amidships and the forward deck profile is long and narrow. 34s were intended

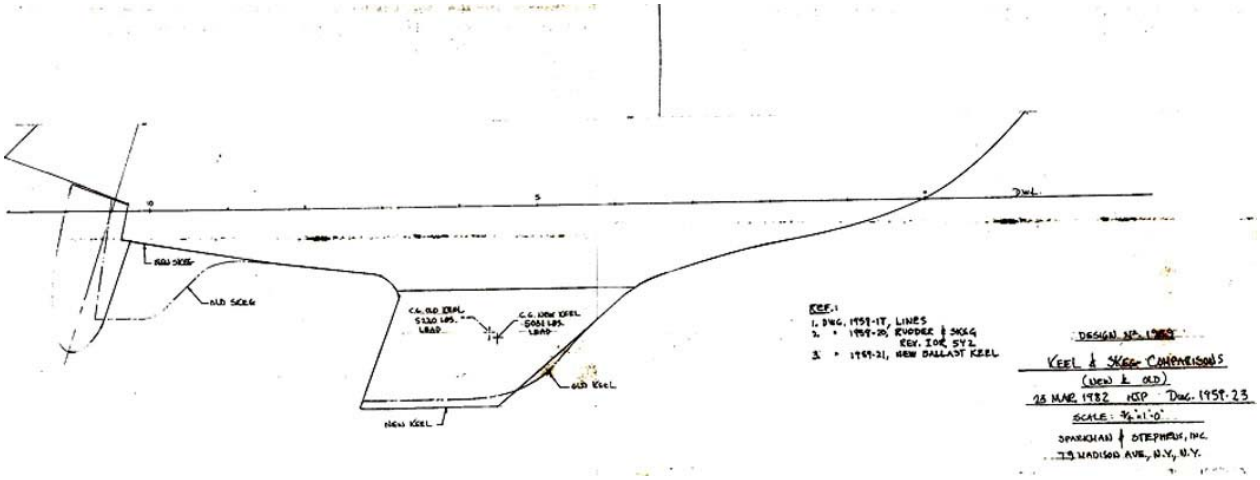
to achieve ratings between 24 and 25 feet but in fact carried ratings from 25.1 to about 23.7feet. Although rather 'wet' boats renowned for flinging water about they have legendary windward performance which even today is hard to rival. In 1989 *Deerstalker* won the North Sea Race, in 1991 a class win in the Fastnet, overall victory in the 1992 Round Britain and Ireland Race, second to a J35 in the Round Ireland Race. Racing owners of 34s will attest that these are thoroughbred boats which require constant attention to tune and sail shaping. Attention to the main sheet position and jib trimming is essential for lightness of helm.

48 boats were built in the first year! The hull mouldings are of the highest quality and were finished with a triple gel coat. Building was done by Michael Winfield and Acquafibre in the UK. Many boats' interiors were finished elsewhere so there can be a wide disparity in the luxury of the final product. As with all S and S yachts of this era the scantlings and keel fastenings were truly engineered and were not skimped. Rod rigging was often specified to achieve the highest tune.



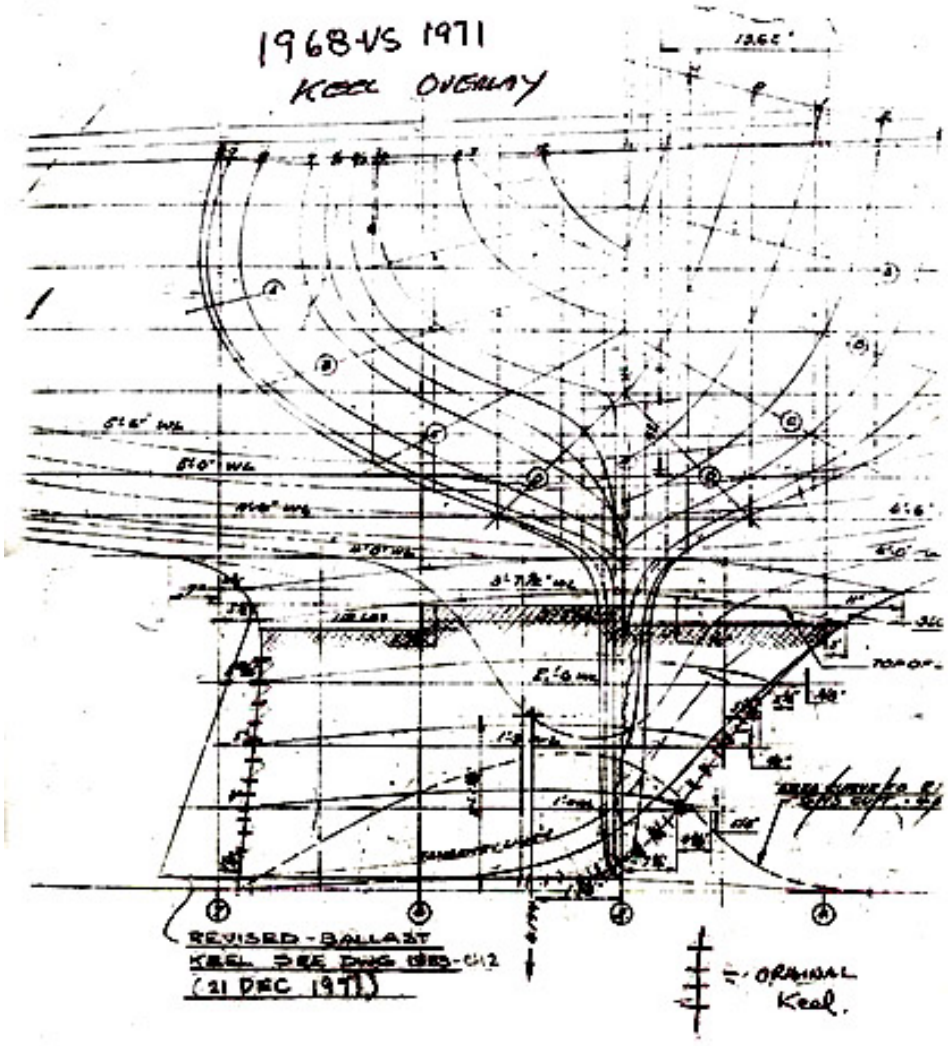


Mk I profile



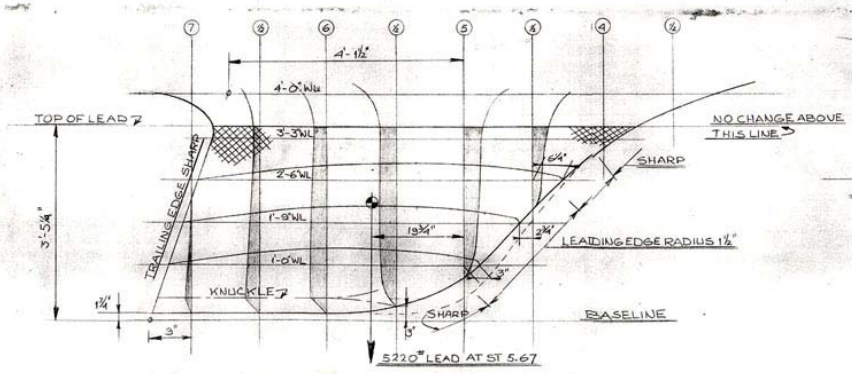
Drawings showing the differences between Mk I and Mk II keel profiles

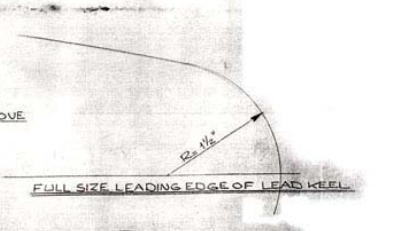
*[*I am indebted to Mitch and Jennifer of S and S Inc. for permission to publish these drawings]



STATIONS	4	½	5	½	6	½	7	½ BREADTH
3'-3" WL	0-0-5	0-2-4"	0-3-5	0-3-3"	0-2-4	0-1-1"	–	
2'-6" WL	–	0-1-7	0-3-3	0-3-5	0-3-1	0-1-6	–	
1'-8" WL	–	–	0-2-7	0-3-5"	0-3-3	0-2-2	0-0-2	
1'-0" WL	–	–	0-1-5"	0-3-3	0-3-5	0-2-5"	0-0-7	
KNUCKLE	–	–	–	–	0-3-1	0-3-4"	0-1-3	

BEFORE CASTING WEIGHT & CENTRE OF GRAVITY
NEED TO BE CHECKED





FULL SIZE LEADING EDGE OF LEAD KEEL

DESIGN 1959 - C1
LEAD BALLAST KEEL REVISION
OF
24'-2" DWL AUX SLOOP
S & S 34
SCALE ¾" = 1'-0"

SPARKMAN & STEPHENS INC
79 MADISON AVE N.Y. 10016

THESE FOR ALL 1959 DESIGNS DEC 21 1971 JOHAN DWG 1959-C-1-12

Cottesloe Yachts in Australia recently acquired the moulds and will build to order with custom interiors though the standard layout will be to the plans illustrated here. The Australian boats all had the straight house roof which to my eye is prettier than the UK version with a doghouse. There are two keel and rudder options. The drawing we show shows the Mk I 'sharkesfin' keel and skeg hung rudder. Although this was more pronounced than earlier S and S designs subsequent research during the '70s showed that a deeper foil with a straighter vertical leading edge had better hydrodynamic lift qualities so the Mk II version to be built now provides for a slightly more rounded high aspect keel and an oblong spade rudder hung from a reduced faired skeg which should improve downwind performance. New build yachts will, I am informed, also benefit from a new GRP modular internal fit-out.

David Dicks passing the Falklands in *Seafkight*

In more recent years the 34s have been used as war horses for single-handers from Australia vying to make new records. The first was Jon Sanders who in 1981 in *Perie Banou* circumnavigated 50000 miles in 420 days. Not satisfied he re-circumnavigated the 'wrong 'way round and then double circumnavigated non-stop single-handed. In 1996 David Dicks aged only 17 set out in *Seaflight* and circumnavigated in 264 days. In 1999 Jesse Martin circumnavigated aged 19 in a 34, single-handed non-stop. More recently there have been plans for a single handed **race** round the world. Well, Olin, that is some cruiser-racer you designed….."We hope….it will also be a good boat for cruising"! Posterity has already given its judgement….