

The Boat Builders of Ontario

Book Four: New Boats, New Ideas

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Chapter 20: The Next Generation 1945-1970 Thompson and Supertest, Ayling and Ramage, Cliffe Craft

Two Families, Many Sisters, Part 1: The Wilson's and the Miss Canada series

People tend to forget that even in the 1930's, most businesses were still operating and most still had paying work. People needed food and clothing and cars and knives and forks and nuts and bolts; commerce went on, there was just less of it. There were fewer employees at the factory, but they were still busy. Companies that were unburdened with debt were still viable, those with debt, such as Ditchburn usually had to be financially restructured, but in many cases, operations continued, and staff went in and out of the main gate; the managers and owners changed. There was still spending on entertainment and leisure, movie attendance was actually up, bettors went to the track, baseball filled stadiums in the summer and hockey filled arenas in the winter; spectators continued to gather at the water's edge to watch canoe, sailing and sometimes motorboat races. Attention began to shift away from 1,000 hp Gold Cup monstrosities to small zippy speeders, resulting in the formation of the 225 and 135 racing classes. The hulls were light and small, between 15-18 feet long, and could be made cheaply out of cedar and plywood. Plywood as we know it was around since the mid 1800's, but it took off as a consumer product after appearing in the familiar 4 by 8-foot sheets in 1928. In 1930, the use of phenolic resins created waterproof (ish) plywood for marine and other wet environment use. In 1932 Ford came out with the first version of the flathead V-8, at 221 cubic inch displacement, putting out roughly 85 hp. You could go to the local scrapyard and buy a wreck, pull out the engine and steering wheel and add a steel shaft, propellor and rudder and with a little artifice and effort, have a viable racing boat.

Earnest Albert Wilson was a businessman who owned Ingersoll Machine and Tool Co. Ltd and John Morrow Screw and Nut Limited. He was born in England and moved to Canada as a toddler, growing up in Montreal and living in Michigan, then St. Catharines before moving to Ingersoll, Ontario to set up a machine tooling and fastener businesses. Born in 1911 Harold was the only boy of three children and in accordance with the attitudes of the time, would eventually inherit the businesses and the family name. Daughters only very rarely ascended to the executive of the family business, and only if there were no sons, or the sons were not up to the job, and only if they showed an exceptional talent for the work. More often, the father would bless a marriage to a capable fiancé who would be invited into the company to eventually take

the helm. Ingersoll was only a short train trip to heavy industry centers like Brantford, which was good for this business, but in terms of recreation, this was waterless, viewless, pancake-flat farm country, and the Wilson's purchased a cottage in Muskoka. A boat was a necessity, and a launch was purchased from the Ditchburn works that became Miss Canada. This was not a racing boat, just for cruising. Wilson was part of the cottager-business community in the area, and over 1929-30 was approached by colleagues with the idea of setting up a high output boat manufacturing concern that would appeal to the mid-range of the market and focus on planing hull runabouts, which were replacing the long-deck displacement launches. Wilson became both an investor and director of the new Rainbow Craft, which opened in grand style in the spring of 1931 and after a short production burst, closed in the fall that same year. The operation was more or less idle for two years, while Tom Greavette managed what little there was to manage and try to move the still unsold inventory. In 1933, the operation was reconfigured as "Greavette Boats Limited", but this time only as a custom builder. Wilson became the President, with Greavette as the key man. I think Wilson's duties were relatively limited, he was still running the Ingersoll businesses, Greavette and Gravenhurst were several hours away by train (more by car) and the company, in the middle 1930's was about the same size as its Bracebridge competitor, Minett-Shields; probably not much more than a five- or six-man team working on one boat in one corner of the otherwise empty production building.

Harold started racing "25 hp" outboards (viz. class D Elto Quad/Johnson VR series 4 cylinder racing engines) in 1928 when he was 17 and graduated to inboards in 1932. The first Little Miss Canada was a one of the Dart licensed Rainbow Craft models, one of many unsold hulls in the at the plant. His second boat, Little Miss Canada II was built at the Rainbow-Greavette plant, based on a Hacker design, but with a more substantial engine. It was built in the "gentleman's runabout" style, with the driver's cockpit at the rear and a second passenger cockpit forward of the engine. At least it provided some work for a few local workmen who had such high hopes for the company when it rolled out in spring 1931, only to close a few months later. It had a much more powerful engine and won some local races, but with the inauguration of the 225 class in 1932, the father and son decided to build a dedicated racer. It was good for both, Greavette would have a project and if it turned out to be a winner, a great advertisement to help rebuild the company. Indeed the power came from a marinized Ford Flathead. The first class "world" championship was held at the CNE in 1934. The term really meant North America only, perhaps there was hope that European countries would "cross the pond" to enter, but this never happened, the 225 and later 135 classes remained a North American phenomenon. The battle came down to Little Canada III v. the American entry Emancipator, with Little Canada III, not the fastest but the most consistent, eventually taking the trophy on points. Little Miss

Canada III was succeeded by Little Miss Canada IV. This was to be a showcase for Greavette's boat craftsmanship, with its cigar shape and mahogany finish. I had mentioned that the small 135 and 225 classes could accept every type of boat, whether made of the cheapest or finest woods and finishes; those with the means, such as business owners could afford something more refined. Some of the 225 racers were works of art, notably Little Miss Canada's III and IV, Delta and the later 1937 Miss Shepherd; all intended both to won races and advertise the builder and designer. Emancipator, owned by Mortimer Auerbach, a department store heir, was a little simpler in design, with white painted straight sides but still sporting as stylish curving mahogany planked deck. Wilson ordered Little Miss Canada IV and repeated the win at the 1935 event.

What engine was actually in Little MC IV? We know III had a Ford Flathead and the iconic and much reproduced photo (below) of IV at cruising speed shows an engine cover that looks like a breadbox with plumbing pipes sticking out (it has the circular air vents so common on the late 1920's Ditchburn's). The flathead in racing trim had two downdraft Carter carbs mounted on top of the engine, giving it a high profile which I assume is the reason for covering and the air pipe set up. It works for the photo because it balances the visual weighting of Wilson and Reid in the back of the craft.



Harold Wilson and his fiancé, Lorna Reid take Little Miss Canada IV for a run Archives of Ontario photo



Again, but with the engine hatch cover off

The second shot is less used due to the effect of cutting off the bow and stern of Little MC IV, but the engine bay cover is off. The engine is obviously not a Ford, but my understanding is that the Wilson's moved to using a straight 8 FB model Lycoming and the engine in the shot is clearly a straight something, with the carbs and mounted on the side. The mid-30's FB is actually 250 cubic inch, (later models were 280). How were they able to sneak an extra 25 cubes into the 225 Class I do not know, not every engine builder made engines that conformed neatly to the class displacement limits, perhaps there was a little leeway on each side.

Little Miss Canada V was unsuccessful as a racer, but Wilson simply moved on, admittedly it would have been difficult to hold the builder to account, given his father's position! VI was

more successful, but speeds seemed stuck at 65 mph, the engine had reached its limit. In 1939 Harold teamed up with Charlie Volker and designed an ultralight high-powered engine that turned up to 6,000 rpm. The plan was to have the family business, which had extensive fabrication capacity, build a limited run of these engines and sell them to the racing community. The prototype was completed and tested in late summer 1939, boosting speed to 78 mph, but the war put a hold on the production plans, and after hostilities ended and racing began to pick up again, the dual overhead cam design of the Wilson-Volcker was outlawed. This setup allows four valves per cylinder, two intake, two exhaust, more breathing and higher performance, one would think this is exactly what the race community would want (the stock Ford Flathead, so common in 225 Class, is valve in block, two valves per cylinder). Politics runs deep in every aspect of life; competitive racing is no exception. My best guess is that the Wilson-Volcker would be too expensive for most average racers and build an elitist vibe into what was intended to be a more accessible pastime. VI was the last of the Little Miss Canada series.

In the late 1930's the Wilson's began eyeing the unlimited racing class and the Gold and President's Cup events. All the boats up to 1936 were Hacker designs. Although John Hacker had a "contract" with Minett-Shields at the time, he remained open to anyone requesting his services and provided the hull design for Canada II. Like most Hacker racing hulls, this had a step design, the standard for all racing boats at the time, and now with the reversal of the APBA's rather silly ban on stepped hulls from 1923, they were now back on the unlimited class course. The engine was a 732 cubic inch Miller. Harry Miller had been the definitive name in high performance auto and boat racing engines in the late 1920's. The cars and engines were very expensive, up to \$10-12,000 each but they won races. The original Miller engine line was an inline 4 cylinder and 8 cylinder, including a mad concoction of a W-24, three 8 cylinders stuck together using an elaborate system of gears to drive common crankcase. Miller expanded into performance boats with a V-16, most notably 620 and later 732 cubic inches. With its blower, the 732 could put out a maximum of 650-1000 hp. Some research mentions a V-12, but available information does not indicate that Miller made a V-12, only the V-16. The 732 went into Miss Canadas II and III. Father and son team E. A. and Harold started off with Canada II in the 1936 President's Cup, but the engine quit on the third heat. This was just to get a feel for competition. The serious challenge was for the 1937 Gold Cup, but the rudder shaft bent under the stresses and that ended the challenge. There were other problems. The hull bottom was made with cross laminate strips, glued together. After racing the bottom began to spring multiple little leaks and it became an effort to track the leaks and plug them. Rather than fiddle with Canada II, the Wilsons had Greavette's new star designer Doug Van Patten create Miss Canada III and relocated the Miller into this new craft. Although there was mention that Miller

himself built the engine in 1935, the design was actually from 1927 and was most likely built at that time and was purchased used by the Wilsons. Miller had sold his company to Cord in 1929, but not yet ready to retire, had used the funds from the sale to start a new race engineering firm in 1930, bringing along his loyal team, including master mechanic Fred Offenhauser. But Miller's magic touch, so prevalent in the 1920's, departed in the 1930's and the new firm went under, and Offenhauser bought the assets of the company and became the new source (and brand) for racing engines. After that, Miller stumbled from one failed project to another, nearly broke at the end, finally passing in 1943.

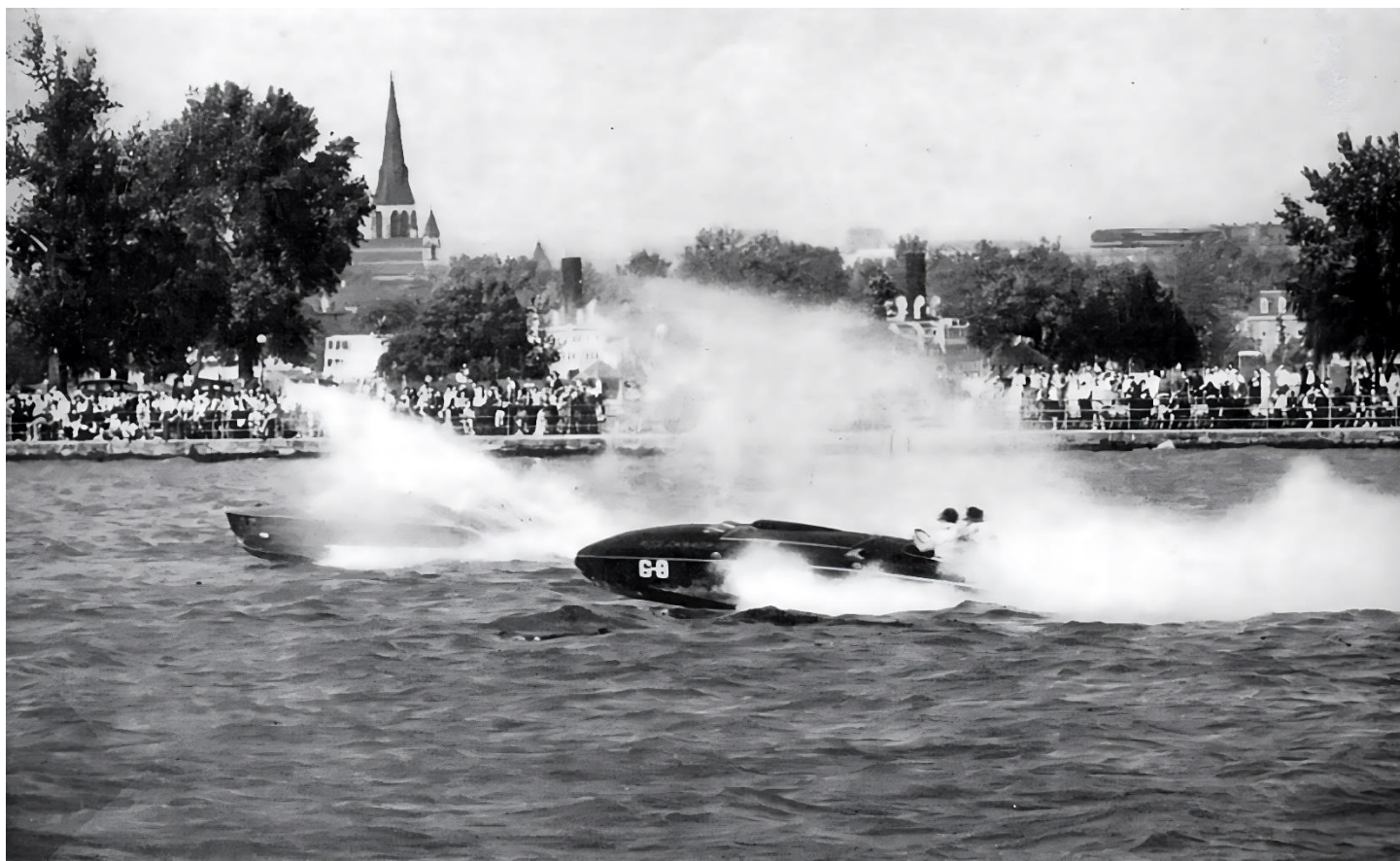


The Miller 732 12 cylinder

Wilson won the first heat of the 1938 Gold Cup with Canada III, and then the oil pump broke down. There was no such thing as Fedex in those days and it was not possible to effect repairs

in time. The Wilsons took their best shot at the 1939 President's Cup on September 24-25 weekend. At the time the Wehrmacht was cleaning up the remains of Poland, and Canada was technically at war, but the Allies were still in a wait and see mode and the wartime restrictions would not come into play until 1941. Two earlier contenders, *My Sin*, owned by Zalmon Simmons, tuned up by the legendary Zumbach's custom shop in New York City, and *Why Worry*, a project of outboard racer turned Gold Cup driver Bill Cantrell, both hit logs and were out of contention. In the first heat, *Miss Canada III* came in second after *Notre Dame*. Both had the same time of 14 minutes 31 seconds but *Notre Dame* had 400 points to *Canada II*'s 300, so *Notre Dame* won. I don't understand the points system, but it was moot when *Miss Canada* took the second and third heats. It was the first major motorboat racing trophy Canadians won and the first big one since the sailing sloop, also *Canada* won the *Canada's Cup* (the Great Lakes equivalent of the *America's Cup*) in 1896. As noted in Book II, Harry Greening had won the 1924 Cup with *Rainbow IV*, at least he finished with the fastest time, but the competition whined up a storm about the elongated lapstrake hull configuration, claiming that this qualified the craft as a hydroplane, or had the equivalent effect. The decision was that Greening and *Rainbow* had violated the spirit of the law, if not actually the letter. Even to a non-engineer such as the author, that sounds pretty far-fetched, but that was the end of Greening as a Gold Cup contender; after that he stayed in local competitions, building six more racing *Rainbows*.

Harold Wilson picked up the President's Cup from Franklin Roosevelt in person, FDR magnanimously noting that there were no hard feelings, "My dear friend, Canada is not a foreign country. It is a brother country of the United States. Take the trophy home, Mr. Wilson." The Wilson's put the *Miss Canadas* in storage after the 1939 season.



G-8, Miss Canada III

Powerboat racing did not get back on the water until 1946; the war only ended in August of the previous year, and it was too late to organize anything so late in the summer. More engine breakdowns occurred, and even then, the appearance of the war surplus Allison it was clear that the Miller era, like the late Miller himself, was truly over. The Miller, at best, would put out 1,000 hp, while the final production Allison in 1944 would give over 1,600 hp. The Merlin put in the Lancaster would put out something similar, 1,600 hp and now these engines were also in surplus availability. The Wilsons purchased one and put it in Canada III. This did not start out well, as in the Silver Cup races in 1947, Canada III kept falling behind Notre Dame and its relic Duesenberg engine, dating from the Miller era of the 1920's. It reached a Gold Cup class speed record of 119 mph in June 1948, but the Gold Cup that year was another blowout, the wind was high and the water was so rough several boats were damaged including Canada III, with a long lateral hull split. The boat and driver turned in a solid performance, but it was outclassed by Such Crust (sponsored by a bread company) and Tempo VI, driven by Guy Lombardo. I'm not being mean by ignoring good Canadian Guy Lombardo, but his game changing cup-winning racers Tempo's VI and VII were American built, the first by Apel's Ventnor Boats in New Jersey

and the second by Les Staudacher's shop in Michigan. Miss Canada III's time had come, and it was time for a new boat.



Miss Canada III, a new restoration ca, mid 1980's Author Photo

The Wilson's now began to plan a boat for the Harmsworth Trophy. The Harmsworth was the ultimate international speedboat race (the Gold Cup was strictly North American and entry was on a team basis, location and country didn't matter). It began in 1903, sponsored by Alfred Harmsworth, creator of "red-top" trash rags Daily Mail and the Daily Mirror. It was intended primarily to showcase superior British technology, which it did for a while until the Dixies 1-IV over 1909-12 and then the long reign of Gar Wood's Miss America series all through the 1920's and 1930's. Wood had vanquished all comers and when he pulled out in 1933, the event simply ended; the times made it difficult to spare the hundreds of thousands of dollars needed. As well, Miss America X seemed to have reached the speed limit of these style of boats at 124 mph. More money and new technology was needed, this would have to wait. By 1949, there was a new economy and new business wealth, boosted by wartime spending and new machinery, boosted by wartime ingenuity.

The Harmsworth was country-determinant; it was U.S.A. versus Canada versus Britain or anyone who had the means to mount a challenger. The owner, driver and builders all had to be from that country. This worked for the Wilson's, the builder Greavette Boats, but Douglas Van Patten. Born, educated and beginning his career in Detroit, he only moved to Canada in 1937 when he joined Greavette on a full time basis as their house designer. Technically this would make him a permanent resident, but not a citizen, but the Wilson's were able to obtain a waiver from Harmsworth, rather than hope for the best and get ruled out on a technicality in the future when somebody didn't like them winning. Patten's hull design was a sort of triple step, very shallow rises; the three point system was already almost the standard, this seemed, literally a step backward; Patten was convinced it would be competitive, and much less dangerous than the unpredictable hydroplanes, where everything would be going great until...whoop over you go and that is it. The Merlin was out, the more powerful Rolls Griffon was in. With a supercharger the horsepower would be in to the 2000's. I'd given the Allison some shade for its supercharger issues during the war relative to the more efficient Rolls Royce's, but now it was the Griffon's supercharger that wouldn't perform and they bailed on the Gold Cup, and failed them again in the Harmsworth itself, it would push the engine up to 1,700 rpm when they needed close to 3,000 to be competitive. Finally, they made progress in setting a round the course speed record of 138 mph.



Miss Canada IV

The Wilson's took one more shot at the Harmsworth in 1950, but a hard hit on the water bent the steering apparatus and the resultant wild porpoising damaged the hull and Canada IV was out. The hull was repaired and they tried for a world water speed record, hoping to match and best the very green Donald Campbell (who inherited the speed record business from his late father, Malcom) and Stanley Sayres. A new propellor gets the credit for what happened next, but some context is in order. The propellor was made by Rotol (a joint venture between Rolls-Royce and Bristol Aerospace) and was stainless steel, rather than the bronze more commonly used. But this is where things get a little fuzzy. A propellor alone won't get more speed, particularly with the same boat and engine so there has to be a major change somewhere else. The various histories don't explain it all, but my best guess (feel free to tell me otherwise) is that there were major changes to the gearbox. Leo Villa, the mechanical mastermind behind the Campbell Bluebird cars and boats, had a special gearbox built for the Bluebird boat after the war, to convert the engine's shaft output of 3,000 rpm by 4 up to a searing 12,000 rpm at the

prop. This would in Villa's words be "to eliminate torque" presumably from the wide pitch of a normal racing prop of the time to a much flatter pitch with much higher revs. This may have been the trick, Canada IV reached 183 mph on the first measured mile. Speed records are essentially drag contests, you go as fast as possible with your foot to the floor for the said mile and then have no more than ten minutes to turn around and reset for the second mile back. Your time per mile is the average on that mile and the record is the average of the two miles there and back. A high speed of 190 mph was attained on the return when the gearbox exploded sending shrapnel right through the hull, the forces on it were just too much. Campbell Sr. had been too ill after the war to make much of the upgraded Bluebird, although he did try once, and in 1949 the piston engine was pulled and replaced with a jet engine out of a Goblin fighter and Donald was still practicing before a formal speed attempt.

It turned out that the Griffon was not actually purchased by the Wilson's but was a loaner from Rolls-Royce, and the rental arrangement was up and the engine was to be returned. At any rate, E. A. and Harold Wilson were done with boat racing. In 1951 the Wilson's interests had shifted to road rally, and the boats Miss Canada III and IV and boat engines, including several war-surplus Merlin's to Thompson (the 732 V-12 Miller and the prototype Wilson-Volcker 225 ended up in a museum). Both Miss Canada III and IV were runabouts, and used a series of steps in the hull, following a race boat standard dating from 1911, but by the 1950's, this was old hat. The three point hydroplane would rise out of the water, supported only by the very bottom tips of the two forward sponsons and the propellor. The three-point system had been drawn up by French designer Paul Bonnemaïson in 1911, but the huge but weak engines of the time made any practical application impossible (even the aero engines of the time were lucky to reach 40 hp). It was Adolph and Arno Apel of Ventnor Boat Works that built the first workable model in 1935. It is the standard of performance boat racing up to today, although some of the mid-range classes have returned to runabout hulls as they are easier and safer on the turn. It should be noted the term 'hydroplane' covers any sort of faster motorboat and not just the three-pointer, the term was used even in the 1920's and turns up in Fitzgerald's novel *The Great Gatsby*, as one of Jay Gatsby's many indulgences. Miss Canada IV was moved along to Thompson Racing.

The Thompson's and the Miss Supertest series



If you are of a certain age...

John Gordon Thompson went into the petroleum distribution business in the early 1920's building Supertest Petroleum into one of the most recognizable brands in Canada. Supertest was one of the big eight postwar gas station franchises (and the only Canadian owned, at the time), along with BA (British American), BP (British Petroleum), Fina (Petrofina SA), Esso (Imperial Oil), Golden Eagle (Ultramar plc), Shell (Royal Dutch Shell) and Sunoco (Sun Oil Co).

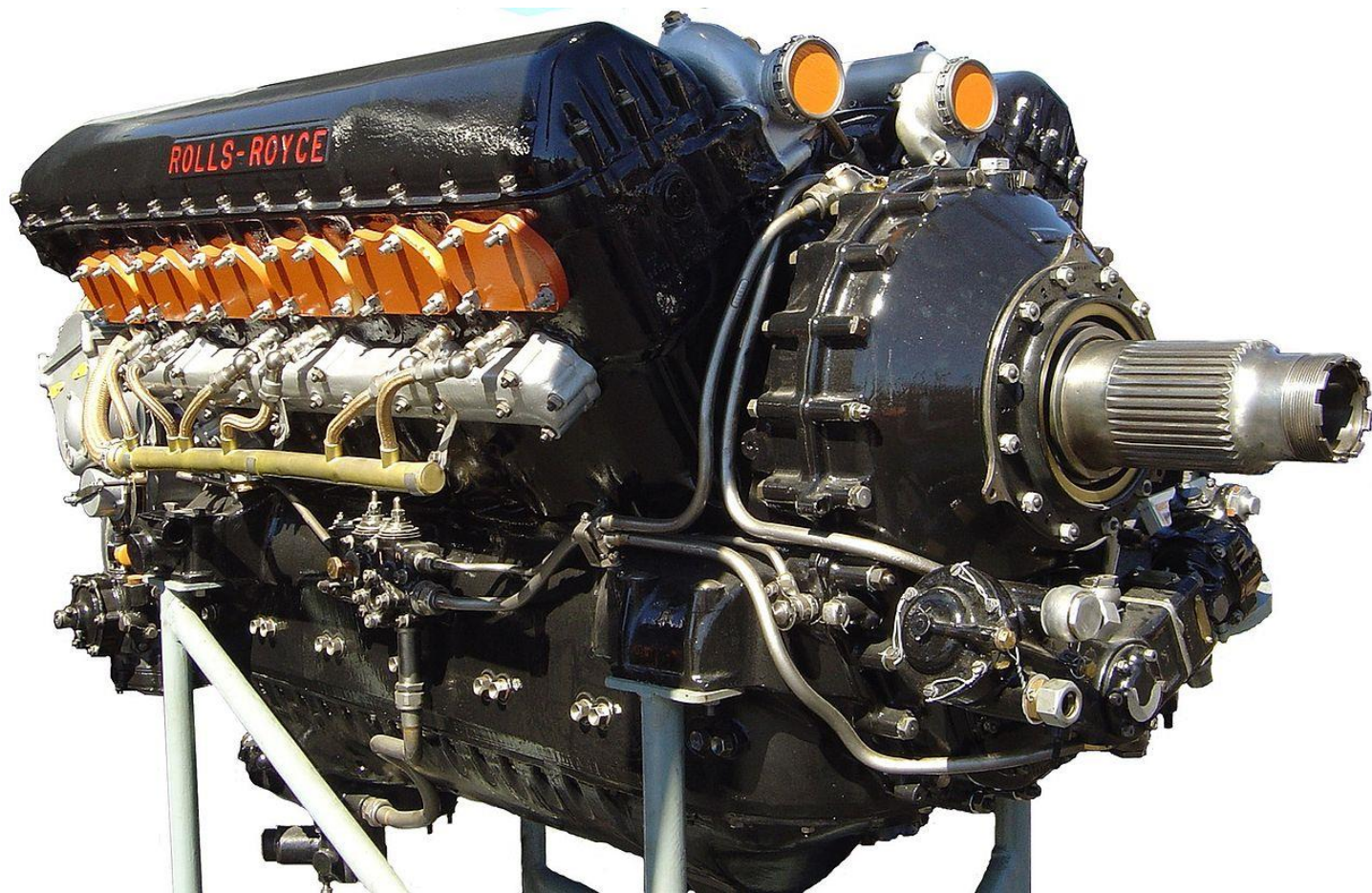
Thompson senior was an active sportsman, a golfer and supporter of sports venues; Thompson junior set his eyes on boat racing, informing his father he wanted to go after the Harmsworth Trophy. This was an ambitious goal, particularly for a Canadian facing Americans with their high-risk, bet the ranch, money-is-no-object approach to sports. The Canada won the Canada Cup in 1899, no more cups would be won by Canadians until sailing sloop Inishfree in 1957. Harold Wilson won an international 225 cu in competition at the CNE in 1934 and 1935 with the Greavette built Little Miss Canada IV. He ordered two serious unlimited contenders, Miss Canada III and Miss Canada IV and won the Silver Cup with III in 1948. Both III and IV were built at the Greavette works in Gravenhurst; both powered by the Rolls Royce Merlin. Rolls-Royce had two principal aircraft engines in the war, the Merlin and the Griffon. The Merlin was the go-to engine for many Second World War Allied aircraft, it powered the Spitfire, the Hurricane, and the Lancaster. The Griffon was larger and supposedly more powerful, but the early versions underperformed relative to the smaller Merlin, and it went through several re-works and began to appear in planes late in 1941, unnerving pilots used to the Merlin as the engine turned in the other direction. 9,000 Griffons were built compared to 150,000 Merlin's; it

never achieved the star power of its predecessor. The American engine was the Allison V-12 1710, which struggled with a poor supercharger that did not perform at altitude, the 1939 P-40 Warhawk used a Merlin licensed to Packard, even the great P-51 Mustang which came on stream in 1944 was still using a later-era license-built Merlin. All these engines were cheap war surplus, they were already mostly obsolete by 1946 with the coming of the jet. All of them were used in unlimited hydro's, at least altitude wasn't an issue, there were no races up in the mountain lakes of Peru.

The Thompson's renamed Miss Canada IV as Miss Supertest (I), purchased a Griffon and put it back in the boat and campaigned it with little success in 1952; although this was probably more of a learning process than a disappointment. Still, the engine suffered repeated mechanical breakdowns, possibly the effort of pushing all the wetted surface of a big runabout, even with the multi-step hull configuration was too much for what was an aircraft and not a tugboat engine. They realized the only way forward was to build a three pointer. Thompson had taken two years of engineering at U of Toronto, so he had some idea of engineering design and draftsmanship; he had been studying race boat designs for several years. Unlike the racing sailboat hulls eighty years earlier, which sailed wherever they needed to go, hydroplanes were shipped to their races on a transport truck pulling a flatbed trailer. The boat was too wide to go down the road so it was set up on angled rack, it was easy to see how the bottom of the hull was designed and to see how the interior was designed, all you had to do was walk around the other side of the trailer. Still, given the hypersensitivity at high speed it didn't take much to screw up, an inch too much this way or too little that way and you had a big dog or a wild animal on your hands, the only consolation was that hydro's were cheap to build, you laid the keel, put on a few stringers and then sheeted the boat with mahogany plywood, the hull was flexible enough to withstand multiple reshaping to get the performance just so, as was the case with the engine. By now the two aerial bridesmaids of World War II, the Allison and Griffon had been fitted with superior superchargers and could now put out 2,500 to 3,000 hp. The output was way over their rating, but the juice was only needed for maybe twenty total minutes of in water test and race time per event. As with most modern race engines, they were usually taken apart and rebuilt between each competition. But rather than take a shot at building the boat themselves, in 1954 they contracted Les Staudacher, America's Mr. Hydroplane, to do the job. Staudacher had started his carpentry career building church pews, then pivoted to race boats, putting out a series of winners such as Miss Pepsi, Maverick, and most famously Guy Lombardo's Tempo VII. As noted, under Harmsworth rules, the challenging boat had to be built in the challenging country. The nationality of the builders was not an issue, but Thompson wanted winners, and so Staudacher and his team would drive from their works in Kawkalin, Michigan all the way to the

Mac-Craft plant in Sarnia, a two-and-a-half-hour drive. Mac-Craft had been founded in 1938 to build small mahogany runabouts, this was cut short in 1941 when it was re-routed to military production and despite its small size it went on to produce several Fairmiles for the navy. In 1946 it returned to boat building, but in 1947 it was taken over by General Products Manufacturing of London, Ontario. General Products, as the name suggested, had multiple product lines and decided to retool the boat making operations from plank mahogany runabouts to plywood outboards, under the trade name “Macrolite”. About eight Mac-Craft runabouts survived and are in running condition today; as for Macrolite boats, no such craft exist that I can find, suffice to say that General Products most likely lost interest in the complex manufacturing/high competition world of boat building and quickly phased out this aspect of the business. But the equipment and materials (and some of the original Mac-Craft employees) were still around, making it the most logical place (also straddling the U.S./Canada border) to do the work.

The new boat, christened Miss Supertest II was completed in Canada, by Americans, which was acceptable under the rules. Miss Supertest II was 31 feet long and 12 feet wide, weighing three tons, one of which was the Griffon engine. The first driver hired was Bill Braden, a nephew of 1920’s Muskoka racing star Harry Greening. Braden was already a successful racing driver and Thompson hired him to pilot the boat in the 1956 Harmsworth Trophy. Braden won the first heat, then he passed out while driving in the second one, the official cause was a buildup of exhaust fumes, but given that the cockpit was completely open and fresh air was blasting into his face at 100 mph, I can’t see how this could be an issue; however it is still possible that there was a fracture in the engine exhaust manifold as he was behind the engine, but again given the huge amount of airflow, it’s hard to say. He was helped ashore to recover, he lost the remaining heats and the Harmsworth trophy stayed in the U.S. Braden left Thompson Racing and was replaced by up and comer Art Asbury. Asbury was well known in Ottawa, racing outboards at Mooney’s Bay in the early fifties, his trick was to turn up the power just as he came alongside the bridge and drench the gathered row of spectators with a watery rooster tail.



The Rolls-Royce Merlin, 150,000 were made. Power source to Miss Canada IV/Miss Supertest I Photo by JAW of English Wikipedia



The Rolls-Royce Griffon, powering Miss Supertest's II and III Photo Nimbus 227



The all-American Allison V-12 1710 had its good days, and some bad days. Photo by Peripetus



Asbury sets off in Miss Supertest II.

Asbury started off with a big moment, reached a straight speed record of 184 mph in Miss Supertest II, the fastest speed reached by a propellor driven boat, although the record only held for a few weeks. The world water speed record at the time was in the mid 200's, held by Donald Campbell in the fastest and last of the Bluebirds, K7. But K7 was powered by a jet engine, a Vickers Beryl and simply used exhaust for thrust, not a propellor. According to his biographer Dave Cunnington, Asbury had reservations about II as a competition boat; it was a fact the boat did not perform well in choppy water, and water tends to get very choppy in a boat race. But he had way more concerns about the new project, Miss Supertest III. Even as mechanics Bob Hayward and Vic Leghorn were trying to firm up the performance of II, Thompson was on his next and most important build, the boat that would become Miss Supertest III. III was purpose built to compete for the Harmsworth, although on the surface it didn't seem all that different

from II, same engine, a tuned-up Griffon, a thousand pounds lighter than II, same look and shape. Thompson and his team did the build themselves this time, at least they had II as a model to go on. If Asbury had some concerns about the professional Staudacher team build of II, he had a laundry list of concerns about the home-built III and sent several memo-letters to Thompson about what he felt were necessary changes to the just-finished boat. Thompson did not take the criticism well and Asbury left in 1957 to pursue his own racing career, finding multiple wins with his Grand Prix boat Miss Canadiana, his spot at Thompson Racing was filled by Hayward.

There is some confusion in the storylines of Bob Hayward, which tend to make him into an out-of-nowhere prodigy who simply climbed into a hydroplane and started winning races; in fact he was already a very experienced amateur when he joined the Thompson team in 1957. His family was originally in the egg business, on a small scale. The father died when the boys were relatively young, and he helped run the farm along with his mother and older brother. His brother was the entrepreneur in the family and built up a trucking business; Hayward, a self-taught mechanic did the vehicle service work. Hayward built himself an outboard hydro and competed for several years and then moved into cars. In the days after the end of the war, the stock car movement had not yet come to Canada, local racers were more of the rat-rod variety, basically making race cars of bits and pieces scavenged from the local wrecking yard. One of his stick-together cars reached 132 mph on the local drag strip, clearly he already had the knowledge and a growing reputation. He was hired by Thompson principally as a mechanic, and secondarily as a backup driver to Asbury. Hayward had already run a few races and had impressed Thompson so when Asbury left, Hayward moved into the job. Still there were problems with II right off, a piece of the hull burst while Hayward was driving, putting a hole in the bottom.



Miss Supertest III

The human factor was high speed on the turn. In Hayward's own words:

"We turn the rudder hard a couple of hundred feet before the curve, at the same time slowing down. I try to hit about 120 where the curve begins. By the time I'm into the turn, the boat is skidding, broad sliding. At the end of the oval, if things are going right, I'm down to about 80. Then I accelerate again, still in a sort of controlled slide. I should be going about 110 as I hit the straightaway."

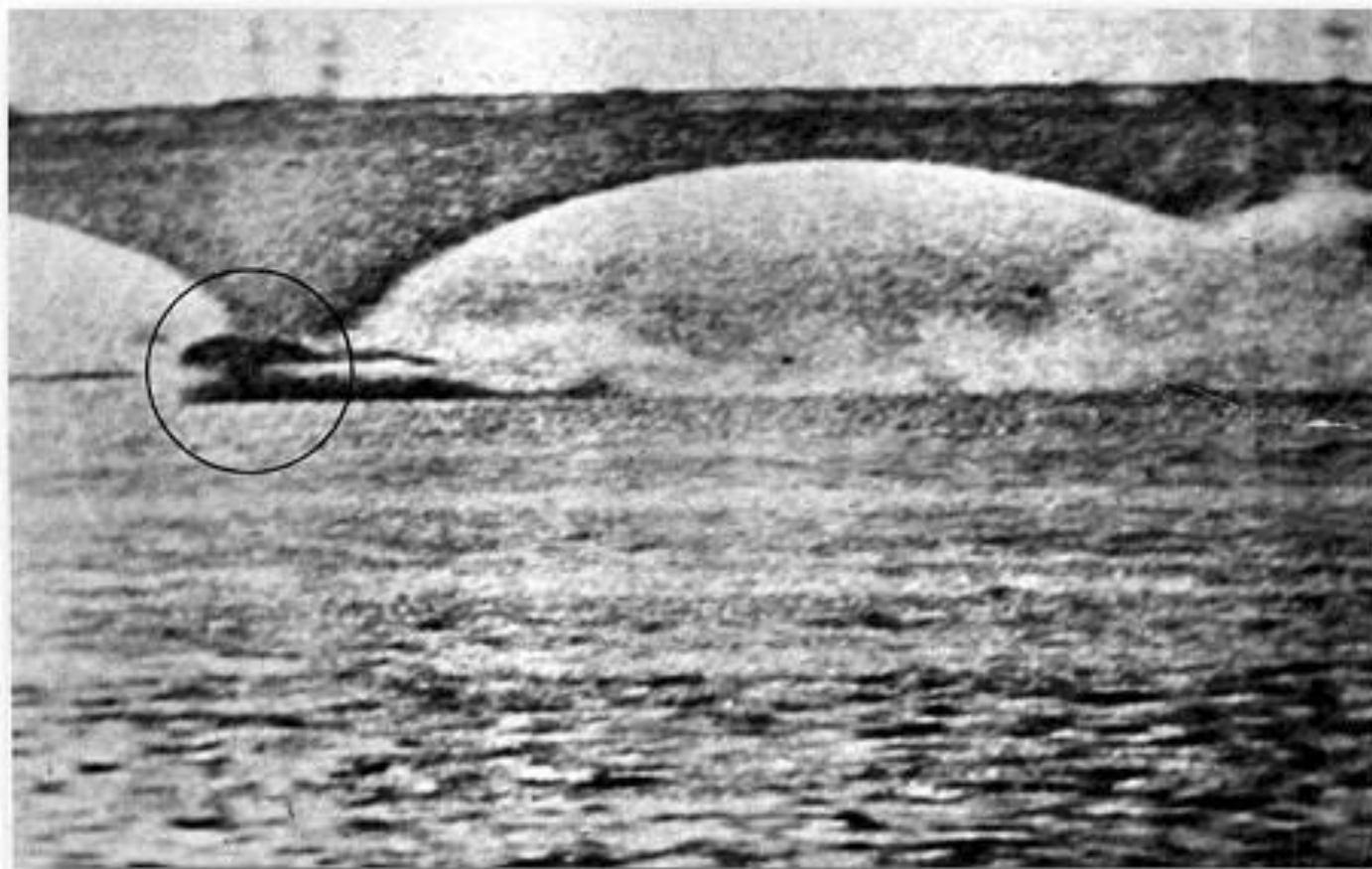
Hayward had to work on this, in his first Harmsworth in 1959. The American was Maverick, as noted a Staudacher boat with the upgraded Allison 1710, driven by Bill Stead and owned by W. T. Waggoner, a Texas oilman. Hayward was careful on the turns on the first heat, slowing increasing his speeds, but not enough to overtake Stead until the Allison supercharger broke down. Stead and Maverick won the second day but bogged down with more engine problems in the third and finally lost out in a quarter spin and Supertest went on to win the day, best two out of three and take home the trophy. Some of it was luck due to mechanical issues with the Allison, but engine problems are simply part of the deal; Hayward and Leghorn were fanatically fussy with keeping the boat and engine to as close as foolproof as they could. The 1960

Harmsworth saw an old problem resurface; there was not one American challenger this year but three. This issue had already been brought up in international competition for the America's Cup race of 1859 where the defending Americans put several schooners into the race against the solitary British entry, even going so far as replacing a damaged boat with yet another boat, like a relief pitcher in baseball; the British lost and filed a complaint. The American Yachtsmen's Association had to agree with the British and thenceforth in international competitions each country was permitted only one boat, and no substitutions. This had been the standard rule for a century, then all of a sudden the American Power Boat Association, (the motorboat racing version of the Yachtsmen's Association) simply waived the rule for the 1960 year only, as if that was somehow fairer. Even though the Canadian's held the right as the previous year's winner, they did not raise any objection. The main American competitor was Gale V, driven by "Wild Bill" Cantrell, a talented but very uneven driver who tended to spin out of control on the curve; finding himself in some strange places, including once getting hung up on a ship anchor chain and later running up a beach and into a flower garden (after this his fellow drivers would wind him up by referring to him as "Wild Roses"). The other two boats were Nitrogen I and Nitrogen II, driven respectively by Norm Evans and Ron Musson; Gale was owned by Lee Schoenith, an electrical contractor but the Nitrogens were both owned by Samuel W. DuPont of the DuPont chemical fortune, so I guess that was where the money was talking. Our most famous general, Arthur Currie once said; "Thorough Preparation is the Key to Success", the Mischief team put a truly obsessive amount of work into readying their sailboat against the Atalanta in the 1883 challenge as did Gar Wood with his long uninterrupted stretch of winnings from 1916 to 1933. But the Americans were surprisingly poorly prepared this time, Gale's engine quit on the first day, Nitrogen II on the second, Nitrogen I simply didn't have enough puff to catch Supertest. It wasn't the fault of the drivers but once again the notoriously buggy Allison. Only Gale had an improved supercharger, Nitrogens I & II had out of the box stock engines. The Allisons were very thirsty compared with the Griffon, Gale's engine used a methanol mix and guzzled it so quickly it had to take 500 extra pounds of fuel. None of the Americans had any real time to test and deal with problems, Du Pont and Schoenith had bid for the Harmsworth, but the APBA had hemmed and hawed over the multiple entrant request and only made the decision three weeks before the race. Cantrell and the Nitrogen crews had to drop all their other planned races and head straight to Picton, they only had a couple of days and then only were able to go for only one test run. Cantrell was not impressed and sent a letter to the suggesting they stick with the original one-boat, one-country format. This did not help the following year when Chuck Thompson (no relation to the Supertest guys) arrived, again with little preparation and his Miss Detroit conked out with engine trouble in both the first and second race days, letting the Canadians keep the trophy for another year. After this humiliation he applied himself to getting

Detroit's engine up to snuff for the forthcoming Silver Cup races now just three weeks away. Hayward and the Canadian Thompson's intended to compete in the Silver Cup as well, but for reasons that were never clear, decided to park Supertest III and campaign Supertest II.

Today, all hydroplanes are much more safety oriented, the driver wears a helmet and a fireproof racing suit and is enclosed in a cockpit designed for an F-16 Fighter jet. In the event the aircraft breaks up due to accident or enemy action, the cockpit unit will stay intact and protect the pilot long enough to eject; so in the case of a crash of the boat will go to pieces but the capsule will remain intact and shield the driver from the force of the water or parts of the boat (or someone else's boat). But at the time the cockpit was fully open, the driver had a crash helmet and that was it, which offered little protection when the worst did happen, which it invariably did at speeds over 100 mph. The accident came about with Hayward doing what he did best, high acceleration on the turn. He had a disqualification on the first heat due to hitting a marker buoy and was already way behind in points and needed to put on an extra effort to catch up to his main rivals, Chuck Thompson driving a much-improved Miss Detroit and Bill Muncy driving Miss Thriftway. The marker buoy issue was strange, apparently Hayward was sure he hit it (illegal) and confessed this to the judges; apparently they didn't see it until Hayward mentioned it. It's easy to appreciate this move as a sign of superior character; I have to appreciate Hayward's honesty, but I think just about every other racer in any sport would just have sat on it and wait and see. Perhaps he felt the need to overcompensate in the second heat. Thriftway and Detroit were both on the port side around the turn, Hayward tried to wedge his boat between the two at close to 140 mph, 30 mph faster than his preferred maximum speed. He began to rock side by side on the combined wake of his rivals, his left sponson dug in hard and Miss Supertest flipped and landed upside down, and with no protection, Hayward took the full force of the water on his head, breaking his neck.





Miss Supertest II, 1961 Silver Cup

Hydroplane History <<http://www.lesliefield.com>>

Video clip taken from television news footage of the moment of the crash, showing under side of Miss Supertest II as it goes over.

In fact Hayward corkscrewed Supertest II, it turned over and the force of the water upside down actually bounced the whole craft right back again, but the very brief second upside down meant Hayward hit the water. The boat continued on for a few hundred feet, until the fatally injured Hayward's foot came off the accelerator and the engine went down to idle.

Hayward was such a revered figure in the sport that Miss Supertest II sometimes gets the blame for the crash. It was true that the boat tended to bounce from sponson to sponson in rough water, but the real culprit in the tragedy was Hayward himself. He was a great driver, but he simply messed up. He knew just how fast he needed to go in the turn and exceeded it anyway. The racing community was devastated, but the higher speeds meant more risk: Braden had already died in a flip in 1958, killed by a propellor he had loaned to one of the other entrants, Ron Musson died during what was known as the "Black Sunday" President's Cup race on the

Potomac River in 1966. Musson flipped Miss Bardahl in the second heat, two more drivers collided and died in the third. Chuck Thompson died a few weeks later in a crash. Bill Stead died, not on the water but in a midget racing plane accident in Texas earlier that year. Muncey's fatal turn was in 1981, in Acapulco. According to outboard racer Bill Tenney, Muncey was suffering from a loss of vision at that point and was still hard at it when he should have called it years earlier. Norm Evans survived racing, but was murdered in 1997, the official police reported motive was disputed by the family. Of all the 1959-61 Harmsworth drivers, only "Wild Bill" Cantrell lived to a comfortable old age, passing at 87 in 1996.

James Thompson and his father ended their involvement with boat racing altogether after Hayward's death. Miss Supertest II was recovered from the water; ironically it had suffered little damage in the crash but was parked and several years later it was destroyed in a fire. Miss Canada IV, (Miss Supertest I) and Miss Supertest III have since been restored.

Plywood Kings: Ayling & Ramage, Cliffe Craft

In 1928, the Johnson Motor Company launched a joint venture matching their engines with plywood hull boats. The hulls were built with a process Johnson called Sealite, which was a sandwich of crisscrossed strips of mahogany glued together. This was the first-time plywood boats were mass marketed in Canada. Neither the boats nor the program was a success, although that was due to economics, not build quality; Johnson's matched unit program would ultimately drag the company into receivership. The product key was to find a glue that would completely fill the spaces between the laminates, repel water seepage and be strong enough to hold the wood together in the kind of rough usages most boats experienced, and this was particularly true of outboard boats, which were either run constantly by fishermen or banged around by kids. WWII brought out plastic glues such as phenol formaldehyde and dry rot mold repellent washes. Plywood became the building wood of choice after the war, including the regular store-bought stuff as the much more expensive marine grade plywood, designed for superior strength as well as water resistance. The most famous plywood builder was Higgins Boat Corporation, which was the dominant name in low-cost plywood hulls, and had already passed into fame as the principal designer and builder of the "Higgins Boat", the landing craft that ferried Allied soldiers onto the beaches of Normandy. Higgins made millions out of its wartime and peacetime products and then blew the whole pile on a side venture to manufacture wood floors for offices, just as the industry was switching to wall-to-wall carpet.

The benefits of building a boat out of plywood are obvious. It's quicker; a Plywood board can

take the place of several planks. It doesn't need to soak up, except where the side planks meet the stern board (and that's usually where the rot starts). The boat is lighter and cheaper to build. The key is properly gluing up the seams where the edges of the sheets meet. That was both the source of success and the ultimate downfall of the plywood boat era. The gluing made these boats very successful and trouble free for about ten years. After that the glues began to deteriorate and water soaked in, and nothing rotted as vigorously and as completely as a plywood board. Even today plywood boats of the 50's are rarer than mahogany boats of the 20's and 30's. Yet there was a time when this looked like the future and many boatbuilders had successful businesses with plywood boats. The two most notable were Cliffe Craft and Ayling and Ramage.

Ayling & Ramage

Peter Ayling had always been interested in boats, having started building model boats as a teenager, eventually winning the Diploma of Merit at the Model Engineering Exhibit for a replica of a 50' Thornycroft cruiser. Even then it was clear that Peter had the craftsman's touch, that intangible ability that is so necessary and so unequally distributed among those who work with their hands. Still there wasn't much work to be had with boats, especially in England in the mid 1930's. Peter worked as a shoe salesman and kept on applying to various yards. His break came in 1936 when he finally landed a position with British Power Boat Company, then under the direction of the famous boat designer and racing driver Hubert Scott-Paine. In spite of the easygoing presence he had before the newsreel cameras, in the factory Scott-Paine was a short-tempered perfectionist who would yank a piece of wood out of a workmen's hands and throw it across the shop floor if he saw something he didn't like. You either learned properly or you left, willingly or not.

One of the firm's projects was the development of the MTB or motor torpedo boat, a fast deep V hulled seagoing air-sea rescue boat. When the war broke out, Scott-Paine sent Peter and several other BPBC employees to Canada to set a factory in Montreal. The firm, which became Canadian Power Boat Company, eventually employed 1,200 workers engaged in turning out the MTB's. However the need for the craft had been overestimated, so the plant turned to the production of plywood airframes and fuselages for, among others, the twin engine Mosquito bomber. Peter continued on in the aircraft industry when the war ended and there he met Bill Ramage, who already had a long career in boats and shipbuilding. Ramage's early experience was in the Royal Navy, and he was part of the surface rescue operation during the bungled recovery of the Royal Navy submarine Thetis in June 1939. Neither man had any great desire to

build planes, and they began to explore a new business. Together they put together a 20-foot outboard runabout to serve as a freight carrier for fur trappers in northern Ontario. This led to a contract to build 16 canoes for a boy's camp. They quit their jobs and set up a boatbuilding enterprise in the town Arnprior.



Versatility and Comfort

The range of use is unlimited. "The Arnprior 16" accelerates quickly, stops smoothly and turns on a dime at all speeds.

Lots of leg-room in both cockpits for a 6 ft. person and room to spare for duffle, gear and picnic baskets.

For cruising, fishing, swimming, tender and commuting duty she is ideal.

Economical to operate — her fuel and oil expense is even less than that of the larger outboards.

The specifications, materials and finish are those of a custom-built boat.

\$1778 (Sales Tax Included.)

(Prices and specifications subject to change without notice.)

See Your Dealer or

Write direct to the Builders—

AYLING & RAMAGE

ARNPRIOR, ONTARIO
CANADA

SPECIFICATIONS—

Hull Length — 16 ft. 0 ins.

Beam — 5 ft. 0 ins.

Power — Kermath Sea Cub 25 H.P.

Speed — 20 M.P.H.

Fuel Capacity — 10 gallons.

Hull — Marine Grade Mahogany Plywood.

Deck — Mahogany plywood, white lines.

Keel and Stem — Oak.

Chines — Oak or Sitka Spruce.

Framing — Oak or Sitka Spruce.

Fastenings — Bronze or Brass throughout.

Propeller Shaft — 1" dia. Stainless Steel.

Underwater Gear — Bronze Strut with Aqualog self-lubricating bearing. Self aligning shaft log.

Rudder — Balanced bronze.

Automatic Bailer.

Chrome finish navigation light, cleats, chocks and strips.

Upholstery Kapok filled fabrikoid, choice of Red, Blue or Green.

Finish — Stained and Varnished outside, white enamel inside. Gas and oil resisting paint in bilges.

The move to Arnprior was made because they were able to lease inexpensive plant space, actually an old horse barn. In 1947 they were able to land a few more canoe and rowboat contracts and also built sailboats, outboard runabouts, and a 19-foot inboard day cruiser powered by a 25 hp Kermath. The marketing plan was simple enough: a customer told them how much he had to spend, and Peter told him what he could get for it. The orders, however, kept coming, and after a well-received display at the Ottawa Sportsman's Show in 1948 they were building several types of power craft, from a kayak up to a 22-foot mahogany runabout with a Ford V8 marine conversion.

The partner's timing was fortuitous; wartime austerity was ending and there was renewed interest in boating. Although most veterans were still too strapped in 1948 to shell out for luxuries like boats, there were still plenty of established businessmen such as Fred Runge (The Runge Press Inc. one of Ottawa's largest commercial printers) and T.H.G. Kenyon who wanted, and could pay for, a new runabout. Also, many prewar builders such as Nichol, Dowsett, Malette, the Dey family of Ottawa, the Knapp's of Kingston and the St Lawrence Engine company had either passed on or had turned to marina service businesses. Myles Jeffrey of Athens was still active, but he only built mahogany inboard runabouts, and then only in either 19- or 22-foot lengths. Ayling and Ramage, along with their basic line of 16-, 18- and 20-foot runabouts would build racing canoes, runabouts, tenders, outboards, and flat-bottomed racing sailboat known as a "Y" flyer (the Y-Flyer craze lasted about five years before fizzling, but it helped put another pioneer plywood guy named George Hinterhoeller on the sailing industry map; more on him later). A big break came in 1951 when Ayling and Ramage won a contract with the Royal Canadian Navy 16 16-foot motor tenders built with mahogany lapstrake construction and powered by Graymarine engines. They had up to nine employees working on this contract.



Y-Flyer flat hull scow racing sail dinghies, shown here on White Lake, Michigan. Y-Flyers were the Lazer of their day, a craze that originated in Quebec and then crossed North American waters. Both George Hinterhoeller and Ayling and Ramage built these boats, until the movement passed. Bigger sailboats were on the way.

18-ft Y FLYER

ONE-DESIGN RACING SAILBOAT

BUILT BY

AYLING & RAMAGE

ARNPRIOR, ONTARIO

PRICE LIST FOR "Y" HULLS and ACCESSORIES

- | | |
|---|---------------|
| (1) Hull, completely finished according to specifications with bright varnished mahogany trim, painted canvassed deck, racing enamel finish on sides and bottom in choice of colours. Complete with floorboards and hardware as shown on drawings | 790.00 |
| (2) Hull, as above but without hardware | 695.00 |
| (3) Hull, complete with deck laid, filled, sanded and primed. Inside white under deck. No coamings or trim, ready for canvas. Hull treated with wood preservative | 570.00 |
| (4) Mast. Sitka Spruce, hollow, grooved for bolt rope of mainsail, varnished, with tangs and pivot. | 75.00 |
| (5) Boom. Sitka Spruce, with track. No gooseneck. | 12.00 |
| Hollow, with groove for sail | 20.00 |
| (6) Rudder. Fixed alum. blade with tiller and pintles | 25.00 |
| Kick up blade with tiller and pintles | 30.00 |
| (7) Standing Rigging, stainless with swaged fittings | 39.50 |
| Galv. with swaged fittings | 28.50 |
| Galv. with spliced thimbles | 23.50 |
| (8) Running Rigging, set consists of Manilla main and jib halyards, cotton mainsheet and jib sheets, shackles and blocks | 35.00 |
| (9) Sails. Ratsey & Lapthorn, England | 166.00 |
| Cranfield & Carter, No. 8 cloth | 150.00 |
| Tom Taylor, 4 3-4 oz. cloth | 195.00 |
| 3 3-4 oz. cloth | 157.50 |

The cute little racing dinghy was not cheap! All in, hulls, sails, fittings, you were looking at factory total bill of over \$1300. It would be more if you bought it at a dealer. Don't forget federal manufacturer's sales tax of 18% and Ontario Provincial Sales Tax of 6% either!

For the builder it meant having to sell the product and find a way to accommodate the buyer's wishes without having the costs go out of control. Receiving payment for a boat or boat repairs was not always guaranteed either, or although most of Ayling & Ramage's customers were honorable in paying their bills, there was still the occasional adventure. Once, a fellow who had repairs made to his boat came into Peter's office and indicated that he had no cash but would pay his bill with an ancient industrial sewing machine. What else was there to do? Peter accepted the sewing machine and later turned to his advantage by using it to sew upholstery on boat seats. In any kind of business, these risks had to be met, and most of the time they could be managed.



The top of the line of Ayling and Ramage, a 25-foot cruiser with a 100 hp Ford Interceptor engine. Peter Ayling is on the right, at the controls.

However, fire was a different matter. In March of 1953, Ramage was stripping paint off a boat hull. He spied a nail head coming through the wood sheet and picked up a hammer and nit the nail, shooting off a spark. The spark ignited the liquefying oil paint and the boat hull ignited. Ramage ran to get something to extinguish the blaze but by the time he returned the flames were already in the ancient dry ceiling timbers of the old barn.

The fire levelled the building and several boats still under construction were charred beyond recovery. Peter and Bill Ramage were left with \$18,000.00 in debt, were insured for \$9,000. Only a last-minute deal worked out with their suppliers and a loan arranged by an understanding bank manager saved the situation and allowed them to begin to rebuild.

The latter part of the 1950's were the most prosperous years for the partnership and saw the increasing popularity of outboards, both in runabout and cruiser form. Canoes and rowboats had been dropped from the line, although they continued to build Y-Flyers for customers such as Harold Crain (printing) and R.W. Southam (Southam Newspaper Group). They also built a "Canada One" inboard racer for Tom Sullivan of Sullivan Construction Limited. All the craft were built of plywood, a material both partners were well acquainted with from their days building aircraft. Plywood was a durable and less expensive material to work with than mahogany planks, although Peter was never completely satisfied by the adhesives in use at the time. Few builders were and most plywood boats of the time suffered some amount of transom rot. It wasn't until the arrival of the modern polysulfide rubberized caulking, such as 3M 5200, that the problem was solved to some degree. However, these caulks can be even more dangerous than old style sealers if used improperly, as the caulk would be laid in when the wood planking was dry (as required) but once the boat was in the water, the wood began to swell and once the rubber reached its compressive limit the plank would eventually be forced to separate from the frame, often tearing out the screws or breaking them.



Ayling and Ramage craft offered a modest and affordable boat than say, a Jeffrey, a plywood hulled 18 foot, 25 hp craft.

Nonetheless, the product looked good and worked well and kept building costs manageable at a time when the price of specialty woods was steadily going up. 1957 was the best year for the firm, which saw 23 boats built and sold. Almost all of these were 16 foot or larger inboards and outboards both in cruiser and runabout styles. Bill Ramage passed on 1958 of a heart attack and Peter carried on by himself. Again it was the more modest boats that were the best sellers, in this case the 16-foot runabout with a 35 hp Fageol inboard (a marinized Crosley car engine) or the same boat in outboard configuration, with a 36 hp Evinrude Lark or Johnson Javelin for power. The largest were a pair of 25-foot inboard cruisers as well as a contract for four 15-foot cod jigging boats and two 22-foot fishing boats for the Department of Fisheries. 23 boats were built in 1959. Production slid in 1960 to 16, then alarmingly to 7 in 1961, a brief recovery to 9 in 1962 and finally just 6 in 1963. In 1960 Ayling moved from Arnprior to the town of Merrickville and bought the old Percival Plough works adjacent to the foundry and built a marina. Percival Plough had taken over the location from the Merrick family interests. Merrickville in the 1960's was a tired, dusty mill village, the main business in town was human alcohol processing, and it was not uncommon, even on a weekday afternoon, to see two or more middle-aged men wandering up and down the middle of the main street, stumbling in the way of the almost nonexistent car traffic. In the late 70's some hippie entrepreneurs formed a crafts cooperative and moved into one of the stone buildings on the main street. The Feige's, both CBC employees purchased the foundry and set up a successful custom casting operation. Little by little Merrickville began to revive and eventually turned into a tourist boomtown over the 1980's and 1990's.

THE ARNPRIOR 16

. A Trim, Comfortable, Inboard Power Boat

Outstanding Performance----

You will be surprised at the quiet smooth running of the ARNPRIOR 16. Her strong, stiff, well designed hull is powered with the famous Kermath 25 H.P. Sea Cub Marine Engine.



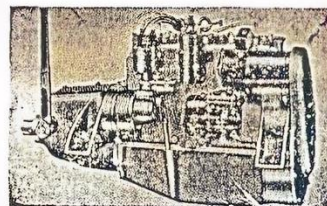
Safe, Steady, Seaworthy---

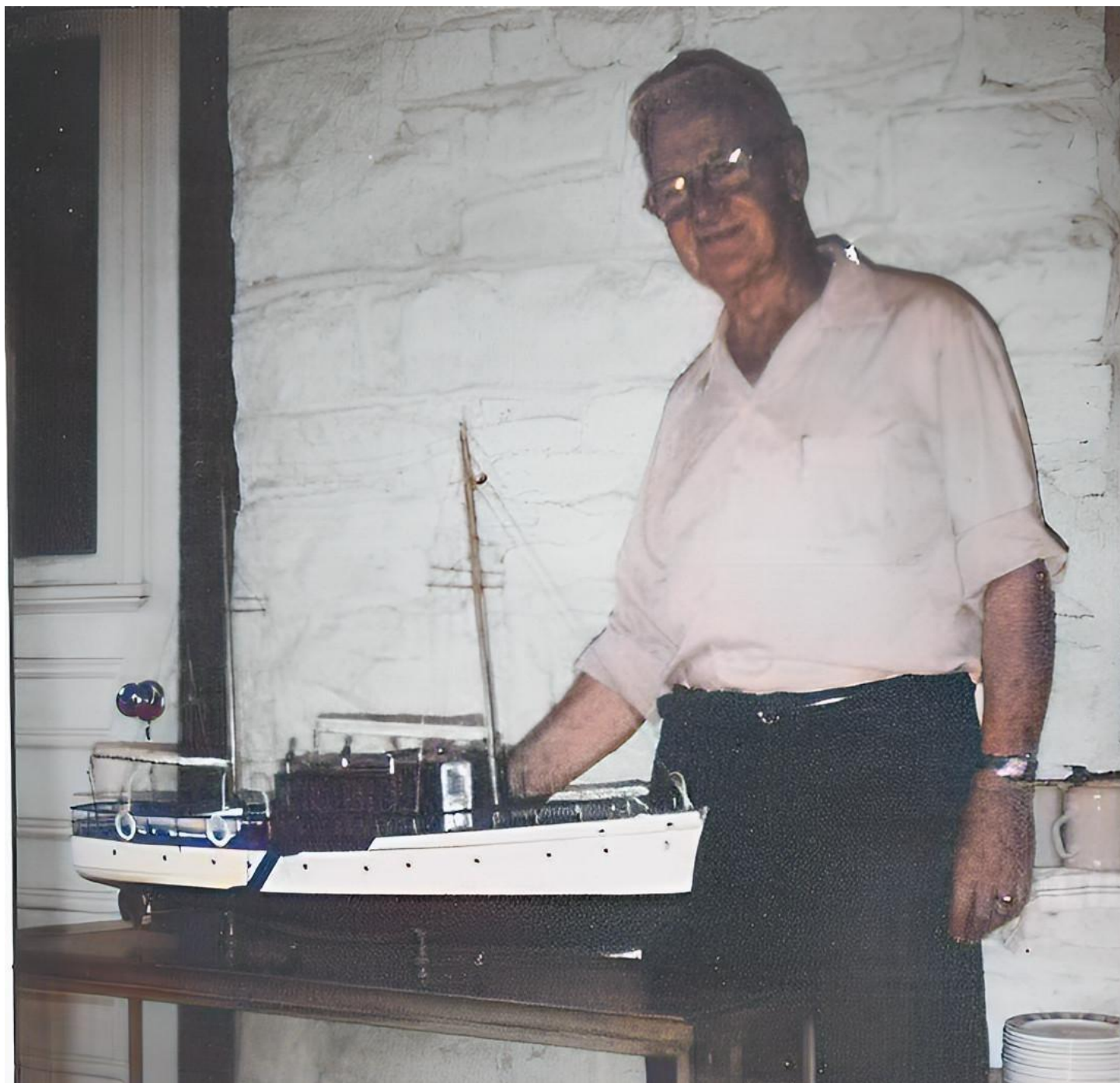
Flaring bow, spray deflecting chines, splash rails cause her to ride over the waves — not through them.

Experience in building and operating High Speed Torpedo Boats and Rescue Launches is profited from in this boat. More speed, more stability, more safety.

For reliability and ease of handling the ARNPRIOR 16 is hard to beat.

KERMATH





In the 1990's Peter Ayling poses with the model he built as a teenager in England. It won in a local craft competition and secured his first job with British Power Boat, under Hubert Scott-Paine.

As the boat building operation wound down, Ayling rebuilt the old plough works into a full-service marina. Cruising was becoming popular and wood cruisers were becoming a common sight. (Both Shepherd and Chris Craft focused their attention on the high margin cruiser

business rather than the highly competitive ski and runabout market where the fiberglass boats were replacing woodies). But the cruisers kept coming to rent dock space, fill up with gas, be lifted out in the fall and launched in the spring and as always, needing repairs, repairs, and more repairs. Cruisers props hit rocks and hull ran into docks. Engine oil would turn a funny cream colour and reverse gears wouldn't reverse. And eventually the hulls would start to leak, and the most popular trouble spot was where the side planks joined the stern planks. There was always business to be had.

Cliffe Craft Boats Ltd.



Cliffe Craft runabout under the Thousand Islands bridge.

Link Boats continued turning out hundreds of its cedar strip outboard boats and canoes in the 1950's. By the end of the decade, management realized that the small wood boats could not compete with aluminum boats being turned out and decided to start making school desks and cabinets for television sets. It seemed like a good idea, given the television boom and baby boom, but they were relative latecomers to intensely competitive industries. Even more problematic, schools were moving to pressed metal desks with Formica tops and the television industry was moving to plastic, plywood and veneer and fiberboard cabinets. As with Higgins' disastrous pivot into wood flooring, the companies that made finished consumer wood products were finding that there was no business to move into, the material itself was going out of fashion, and after a short time, so did they. Fortunately, Canada was still behind in embracing fiberglass boats, and there was still a short window to produce something made of wood that floated on water.

In the early 1960's they closed the operation down and sold the Gananoque plant to Charlie Cliffe, for as he put it " a very reasonable sum." Cliffe also purchased the Link company boat molds for making the outboard boats. Using the molds, he started with the cedar strip outboards at this house in Wilstead. There was still a market for cedar strip outboards, and there always would be, although it was still shrinking. Once he had established enough of a business, he moved the operation back into the downtown plant. In the mid 1960's he built a 16-foot inboard outboard boat out of plywood. The boat was based, to some degree, on both the Lyman hulls of the late 1950's and the Chris-Craft Sea Skiff. Mason Boats built the same type of boat in their plant on Tancook Island in Nova Scotia and then shipped them to buyers in the Rideau system.

SKIPPER

Specifications: Centerline length 18'9"; Beam 82"; Freeboard forward 31"; Freeboard aft 25"; approx. weight 1250 lbs. O.B. or, 2000 lbs. I.O. (165 h.p.); $\frac{3}{4}$ V Hull design. Built for high speed performance, the Skipper handles and manoeuvres with finger tip control. The perfect boat for skiing. Available with sleeper or bench style seats.



For complete information regarding standard and optional equipment, prices and delivery write

Cliffe Craft LTD.

1 Mill St.

Gananoque, Ontario

All boats are on display and open for inspection.

P. O. Box 591

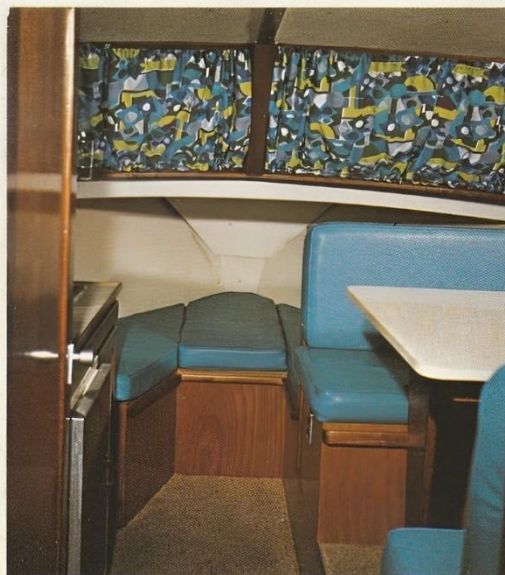
Cliffe Craft

Gananoque, Ontario



ISLANDER

Specifications: Centerline length 16'2"; Beam 78"; Freeboard forward 27"; Freeboard aft 23"; approx. weight 875 lbs. O.B.; modified V Hull design.



The smaller of the Cliffe Craft line, the Skipper and Islander The Cliffe Craft line, mid 1960's. From a brochure supplied to the author in 1995 by Charlie Cliffe.

Cliffe felt that the other lapstrakes tended to skimp on the glue and other sealants. He made sure that his boats were well glued and sealed particularly in the decks, sides and in the transom area. However he had to agree that Lyman was wiser to use British Columbia fir as a plywood material which was stronger and more rot resistant than the mahogany boards he used. He used Philippine mahogany plywood (lauan) which was not as rot resistant as the darker so-called true Honduras or African mahoganies. Philippine Mahogany is really more of a marketing than scientific term, the correct name is Toona Calantas, which grows in Southeast Asia. It is more yellow gold in colour and has a much coarser grain than the true mahoganies; the current marketing name is “Meranti”. It was also cheaper than mahogany, which is why Myles Jeffrey used it in his early runabout boats, in the 1930’s when cost issues were paramount. Chris-Craft used it, often in bottoms which would be painted, and then the visible wood above the waterline would be African mahogany. In Jeffrey’s case, he simply used the wood throughout and then applied a deep brown mahogany stain to cover it up. I’m not sure how much Chris-Craft used them topside, most of the boat’s I’ve seen are restored and only use African mahogany, which sure looks better, but is it original? The Chris-Craft used in The Great Gatsby movie (the 1973 Sam Waterston – Robert Redford version) supposedly was made of a “light mahogany” as was noted in a long out of print Time/Life book “The Classic Boat”. It is hard to tell from the little photograph, is the deck wood the Asian wood? The usage of Asian “mahoganies” topside is something the Chris-Craft community seems very evasive about, and I won’t weigh in here. However, it is less of an issue with Cliffe, the exterior of the boat was painted white, and the interior was open to the sunshine, the late 1950’s and 1960’s boat design was bright and warm, not the dark and grand heavy-furniture style of the previous decades. It is possible to adjust wood colors, this is hardly news, even dark African mahogany can be given a shimmering gold tint through bleaching (not Javex, like the author tried once, a special formula you can buy online). But you can’t fix grain, it comes with the tree.



25' RUNABOUT

Specifications: Centerline length 25'; Beam 122"; Freeboard forward 46"; Freeboard aft 39"; approx. weight (225 h.p. I.O.) 3800 lbs.; $\frac{3}{4}$ V Hull design. This is our big roomy open runabout. A boat that is really in demand. She is a full 10' in the beam and with optional sleeper side seats and pull-out stern seat sleeps six very comfortably. Equipped with head and bunks under front deck as standard equipment.



Pub. by William Austin Photography,
R.R. #3, Manotick, Ontario

The Cliffe Craft line, mid 1960's. From a brochure supplied to the author in 1995 by Charlie Cliffe.

The lapstrake method was one of the oldest styles but not well known in eastern Ontario where almost all boats were sooth or carvel planked. Lapstrake construction required that each plank lap over the plank beneath it. Like the Viking longship the planks had to be tied together at the overlap, and the planks had to be glued first then bronze machine threaded bolts were set in drilled holes and bolts were tightened down to pull the planks together tight. Lyman had been the prime mover in this style of boat.

Cliffe developed a line of boats, starting from the 16-foot outboard Islander and the 18 foot I/O skipper which could handle up to a 165 hp engine. The next two were the 20-foot Commander and 22-foot Overnighter. which had a sleeping area under the deck known as cuddy cabin. The cuddy cabin was simply an on-board room to crash when staying at a marina on a weekend trip. There was no on-board facilities so if you wanted to eat, clean up , or felt the call of nature you had to leave the boat and look for relief. The biggest boats in the fleet were the 25 Foot Runabout, which also had a cuddy cabin, a head (toilet) and pull-out beds in the aft cockpit for additional sleeping space (children or guests). All of the boat up to the Commander used the 165 hp engine but he bigger and heavier runabout and Cruiser had 225 hp engines. These were big boats and had a ten-foot beam and a 25–26-foot length. The Runabout cost \$12,000 and the Cruiser cost \$14,000 but it had all the amenities, as the brochure said, “ dinette lounge, head, galley with stainless steel sinks, icebox, clothes locker, and ample storage space.

The decks were finished in Nautalex vinyl, a poly vinyl chloride sheet glued to the plywood deck. The Nautalex had a sort of faux hull planking press printed onto the surface of the vinyl sheet. It looked rather cheesy a couple of decades ago, but lots of luck finding this product today. It's almost unobtainable.

OVERNIGHTER

Specifications: Centerline length 22'6"; Beam 96"; Freeboard forward 37"; Freeboard aft 31"; approx. weight 2000 lbs. O.B. or 2700 lbs. I.O. (165 h.p.); max. horsepower 225; modified V Hull design; sleeps 4. This is our overnigher, fast or slow she is comfortable and stable with quick response to helm.



COMMANDER

Specifications: Centerline length 20'6"; Beam 96"; Freeboard forward 37"; freeboard aft 31"; approx. weight 1500 lbs. O.B. or 2200 lbs. I.O. (165 h.p.); modified V Hull design.



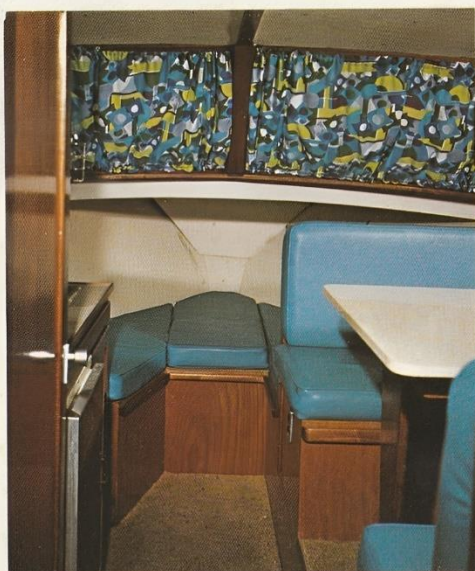
The Cliffe Craft line, mid 1960's. From a brochure supplied to the author in 1995 by Charlie Cliffe.

Cliffe Craft maintained a fleet of standard models at the plant for customers to look at and also to serve as models for new boats to be built. About 40-55 boats were built a year, usually based on dealer's orders. Cliffe Craft boats were heavy deep V-hulls designed for the rough waters of the St Lawrence and Lake Ontario. He had dealers in Kingston and Chatham Ontario and even the little Douras Marine in Prescott (just past the Prescott -USA Bridge) as well as the St Lawrence Engine Co. Ltd, by now a full-fledged marina operation with boat repair, storage as well as the original machine shop facilities.



ISLANDER

Specifications: Centerline length 16'2"; Beam 78"; Freeboard forward 27"; Freeboard aft 23"; approx. weight 875 lbs. O.B.; modified V Hull design.



CRUISER

10' beam allows for comfortable and spacious living in our cruiser. V-berth area, dinette lounge, head, galley with stainless steel sinks, icebox, clothes locker and ample storage space. Sleeps six if equipped with pull out stern seat.

Specifications: Centerline length 26'; Beam 122"; Freeboard forward 46"; Freeboard aft 39"; Cabin headroom 74"; approx. weight (225 H.P. I.O.) 4500 lbs.; $\frac{3}{4}$ V Hull design.

The Cliffe Craft line, mid 1960's. From a brochure supplied to the author in 1995 by Charlie Cliffe.

Working well into the 1970's Cliffe Craft made somewhere between 1000-1500 boats in total. There was a limit even for the plywood lapstrake and orders for it began to peter out in the late 1970's. Cliffe tried to switch to building fiberglass hulls, but his workers had trouble with molds and fumes from the curing glues. It was almost impossible to compete with the big plants and their high-powered assembly lines. Fortuitously, the wood boat restoration hobby commenced just as Cliffe Craft's new boat customers were disappearing and they found themselves picking up more and more repairs and rebuilding work for both their old boats as well the ubiquitous Lyman's, so the business was saved. The last boat was built in 1985. Cliffe maintained the shop up to the 1990's as a specialist in postwar lapstrake boat restoration. He also built new skiffs modeled on Ray Andress's of decades earlier. It used cedar sides and oak ribs and cherry for trim and retailed (at the time, 1995) at just under \$6k. Cliffe passed away in 2017 at age 86.

Chapter 21 --- White Hulls, High Hopes I: All Together Now 1958-1971 **Canadian Sailcraft, Grampian Marine, C & C Yachts begin, J. J. Taylor pivots**

Everybody who has ever had to pick up pieces of broken glass always seems to do this barehanded and no matter how careful you are you always manage to jab your fingers with a tiny needle-like shard. The shard does not bend. But at a certain point of thinness, much thinner than a human hair, glass will bend. It is also very strong and when woven into a cloth and set in polyester resin, it produces a solid and very durable sheet. It is important to understand what a fiberglass-reinforced plastic boat hull is and is not, and what it can and cannot do. It is water resistant, not water repellent. The hull material will absorb water; originally the industry claim was that it was no more than 5%, tests showed that after a summer in the water, the take up was more than 20%. The fiberglass boat is basically two parts, the hull, and the deck, which are cast separately and then put together. Fiberglass hulls still use wood for structural strength and wood still rots (the industry has since moved to foam styrene as a structure material). Fiberglass hulls are durable, they are not indestructible, they will eventually fail. If you pound a fiberglass sheet on a hard surface long enough, such as big waves at speeds over 45 mph, it will eventually buckle. If you punch a hole in a wood boat, you can replace the plank. If you do the same thing to a fiberglass boat above the waterline, you can repair the damage, it will not be cheap. If the damage is below the waterline, I would recommend taking it to the landfill; it will save a lot of bother. Wood will bleach when exposed to sunlight, gelcoat will go dull, develop cracks, and eventually completely come apart. Plywood, even marine plywood, is very prone to rot,

particularly in a sealed off space such a resin compartment. A favorite access point is the hole for the hull drain plug in the stern, which is usually drilled through the gel coatings and plywood. The water sneaks around the metal fixture and when it does, it's all downhill from there; once the rot spores get a foothold, away from oxygen they spread like the plague. I remember one fellow who thought he got a deal on an older 25-foot cruiser, only to have a leak from this very place. He thought there was only a small amount of trouble that could be fixed with a tube of hardware store epoxy. After poking around with a hard wire, he realized that the entire stern section was compromised. Once at the marina shop, he learned that all the structure wood in the boat was done for. The marina bought the remains for the value of the engine, which wasn't much either, given its age.

A 1951 22' Shepherd, made from Mahogany and powered by a 115 HP Chrysler engine weighs about 4,000 pounds and can carry about 5 people, maybe 6 if someone doesn't mind sitting on the engine box. A 2023 Glastron GX 215 open deck runabout made of fiberglass has a 300 HP engine and weighs about 4,000 pounds and can carry 10 people. The Shepherd cost about \$5,000 new, the Glastron MSRP is \$52,894. A senior engineer made about \$4,500 a year in 1951, today such a professional makes about \$95,000. Progress is relative.

A man named Ray Keene, a chemist at Owens-Corning, was able to obtain a sufficient supply of liquid polyester resin and built a small sailboat in 1942, just before the wartime essential-production acts put an end to pleasure boat building. Carl Beetle, a grandson of the boatbuilder famous for the Beetle Cat sailboat, started the first production line of fiberglass boats in 1947. In 1956 Bob Hammond and three partners formed Standard Glass Products, we now know it as Glastron. In ten years the Americans, with their heavy industry, big bucks, and hard entrepreneurial drive, had taken over the Canadian motor boating industry. The Peterborough plant closed in 1963, as did Ayling and Ramage in Arnprior. Peter Ayling did poke at the idea of fiberglass, but with the death of Bill Ramage he decided to move and go into the marina and boat repair business. Charlie Cliffe experimented with fiberglass production, the cost of building a proper production line was too much (and he recounted he didn't care for the nasty chemical smell or the stickiness of the resin) and he also turned his hand to repair, as did the Andress Works in Rockport. New fiberglass hulls commandeered the dealership showroom. Sometimes you could wander out into the back lot and there would be a woodie which you could buy cheaply. You would take it home and slather paint on the grubby and stained brightwork and tease the 1956 Johnson 18 HP on for a few more summers.

Canadian motorboat building was supposedly protected by tariffs, but by 1965, there was

almost no industry to protect (save Grew, Crestliner and the small-scale such as Larson Courtaulds) and the demand for the new hulls was so intense, people just paid the extra price, most of the time. The 1960's collapse affected the wood outboard and motorboat manufacturers. It was harder to assess the impact on the sailboat building community.

It's worth noting that there are two boating cultures in Ontario, village inland and city lakeshore. If you go to a marina on a small inland lake, it will be almost exclusively motorboats. If you go to a city marina it will be almost exclusively sail boats. All the sailboats have motor power in some form, the smaller ones a 9.9 outboard, some of the larger ones maybe a 25 HP Yanmar diesel, but the plan, once the motor has taken you out of the harbor you can put up the sails. As far as the Great Lakes bordering Ontario, Ontario, Erie, and Huron, you can't really go swimming, it's too cold, you can't really go waterskiing, it's too rough. In the 1950's, industrial and farm runoff pollution levels had become so serious, particularly in Lake Erie, that while you could catch fish near the shore, they weren't safe to eat, and the commercial fisherman had to go some miles out on the water to be on the safe side. Why sailing? Why not? The city mouse spends mornings and evenings in rush hour, roaring down the Don Valley Parkway with all the other crazies, cutting and slicing in and out of traffic and then repeating the whole process to head back home to the house on Lawrence Ave East. The mass of people in the city centre, the constant go, go, go atmosphere at the office, the courtroom, or the hospital. Then more racing to pick the kids up from daycare before you get hit with the after-hours late charges. Would you rather get on a loud motorboat and blast out into the open water at full speed or spend a nice quiet weekend afternoon on the water under the sun with only the wind for power. For most city mice, it's the latter. Look at any marina at the city waterfront. There are hundreds of masts. Was it always like this, what happened in the old days?



City of Toronto Archives, Fonds 1244, Item 590

Mooring basin Toronto 1913

The first photo was taken in 1913, at the foot of York Street in Toronto shows what a mooring basin looked like at the time. There is a mix of fast launches and sail craft, all moored out in the water, tied to mooring ropes from the bow and stern. The launches are most likely Schofield Holden/Marine Construction powered; J. J. Taylor built speed hulls. The sailboats are most likely Aykroyd built cats, most look the same style, single mast, no bowsprit, one sail only. The centre sailboat is a big cat, likely not Aykroyd, although who built it we do not know. The big single sail cat would make a comeback, many years later in the mid 1970's under George Hinterhoeller's Nonsuch series; more on that later.



Mooring basin Toronto 1963

Now look at the second photo, taken of a mooring basin fifty years later. It still isn't really a marina, as we know it today. It's a bay off, possibly Lake Ontario, if so, I would guess near Toronto, just outside the city itself. That time I would estimate is the late 1950's or very early 1960's, given the relatively new Lundy fence. It's late afternoon, or early evening, the sun is setting and given that, probably late September, just a few weeks left in the season. There is a dock but, no slips, save for the large white hull cruiser at the left, all the craft are moored out in the water. The yard owner would provide a small fleet of dinghies, 8-9 feet long, and charge the boat owner a dollar or two to row it out to his boat for the day. Aside from the changes to the motorboat hulls and engines, it isn't really all that much different from the 1913 shot. There are several sailboats and motorboats, a three small day cruisers at the centre of the shot, the large white hulled motor cruiser at the far left, clearly built in the 1920's given the hull portholes and the single raised aft cabin. Just in front of the old cruiser is a green schooner, (technically a ketch, with the shorter stern mast) likely of the same vintage. There are three other masts visible

behind it, from boats pulled up on the land. One owner (in the small sailboat the centre of the shot) appears to be finishing for the day, taking down the sail and buttoning up before using the dinghy to row back to shore. Two more sailboats can be seen in the distance, likely heading into the little bay. All the boats are wood, some appear to be plywood, possibly kit boats or homebuilt projects out of an issue of Popular Mechanics or Canadian Yachting and Sailing. The green schooner is likely a boat shop build as is the white schooner at the mid-right, they would have been too big and too much for a weekend warrior sawing away in his backyard shed. Having said that, some still found a way, my boyhood friend's dad built a 30-foot sloop in his suburban basement and then had to knock a hole in the cinderblock wall when it was time to move it out and prep for launching. The small sailboats were most likely a mix of DIY's and products possibly from Aykroyd's, which had closed for good during the war. The beached catboat on the far sand spit certainly looks like an Aykroyd. At the foreground is a plain, if sturdy fishing boat, probably commercial at some point, now just for pleasure, it's seen more than a few years and looks it. What is interesting from the photo is that sailing was a sport for almost anybody, the rich and the workingman alike.

You could keep your wooden sailing boat alive as long as you were willing to constantly repair it. By the 1960's, most of the original wood boat building shops were long gone, a few of the larger marinas might have a boat carpenter on hand, always a bent up old guy with white hair and skinny forearms and big hands; your boat would go in and then sit and sit and sit while all while the carpenter was busied with more lucrative projects; it was always going to be a few more weeks and then he would get at it for sure. Or you could do it yourself, either way was usually bad news, the cracked and softening plank at the stem needed to come out, one you pulled it off, you realized the stem was shot and needed to be replaced, there were also soft areas on the king plank as well, the keel probably needed to be replaced, as well as several frames nearby. The carpenter knew fully well what was lurking under the paint and was putting off the diagnosis; it would be bad, two thousand, maybe three in 1961 dollars, almost the price of a new car, to fix the mess. Most of the time the boat was put back outside in the yard, covered by a tarp, until, well, a miracle might come, perhaps your old aunt would die, and you could spend some of the inheritance. For the little cats and sloops, it usually meant one last pull onto land, and strip it of hardware and sails, and burn it. The green hulled schooner in the latter picture might be in great shape but given historical reality it was probably on it's last days, moored close to shore in case it went down.

By the early 1960's the market for sailboats was still there, wood hull builders no longer existed except for J. J. Taylor, but their boats were only for the very well off. Plywood was an option,

and companies such as Ayling and Ramage had made some sailing boats, most notably the Y-Flyer speed catboat series, out of plywood. This industry due for disruption from fibreglass. Surprisingly, the Americans dropped the ball on this initially. Once again, it may have been a city mouse, country mouse effect. Many of the big fibreglass builders were directed by small town kids, such as Glastron's founder Hammond, who hailed from Okmulgee, Oklahoma, with a shrinking population of just 15,000. The small towns and their local rivers and lakes were strictly motorboat country, the boats often trailered, usually with substantial outboard or inboard power on the stern. I don't think Hammond got sailboats because he had so little firsthand experience of them. But there were many Canadians who did.

Stirrings: Cuthbertson and Cassian

His last name was Cuthbertson, possibly some distant clan but no direct family relation to Alexander Cuthbert, but in many ways he became a descendant in spirit. He was born in Brantford in 1929, the son of a carpet factory executive. His father died in 1943, and the family moved to Toronto, occupying a rental property they owned at 4 Olympus Ave. He had no sailing background, the only water in Brantford is the Grand River, which is about a forefinger deep in most places, fun for kayaking but not much else. 4 Olympus is at the northeast edge of High Park, a short half mile hike down to Sunnyside Beach, busy with all kinds of beachgoers and sailboats. He took a summer job at J. J. Taylor in 1943, working on the military boats, which lasted exactly one day before his mother redirected him into doing gardening. The gardening career did not catch, and still obsessed with sailing, at sixteen he wrote to the L. Francis Herreshoff firm and asked them for advice "for as long as I can remember I wanted to be a yacht designer." Herreshoff wrote back and recommended he start work in a boat shop to learn the trade hands-on, however, his mother, I suspect, made his direction clear, get a real education (university) first, then you can select a career (other than that of tradesman, which was considered a step down at the time, they made half or less of what a professional made, also they use *those* words). George's mother was still well off enough to fund his engineering studies at the University of Toronto, as well as a membership in the Royal Canadian Yacht Club, who seemed to have gotten over their last run-in with a similarly named sailing prodigy. After graduation he had a short internship with SKF Canada but left after a year to go into the specialty plastics fabrication business. He rented shop space at 214 Front Street East and went into partnership with another R.C.Y.C. member named Peter Davidson.

Fiberglass, as noted was already a known boat building product, Carl Beetle was one of the first, in 1946 and pictures of him taking shots at a Beetle Cat Hull with a .38 police revolver had

already appeared in Life magazine. The first fiberglass boat in Canada was built in 1948 at Davidson Manufacturing in Vancouver, BC (no relation to Cuthbertson's partner). An employee named Chuck Hourston first built a wood laminate catboat and then, aware of Beetle's experiments, ordered the fiberglass sheet and plastic resin mix from Owens Corning and made a dingy out of fiberglass (probably using the wood laminate hull as a base to make the mold. Apparently Davidson's wasn't interested in this product, so Hourston left and set up his own shop as Hourston Glascraft, to mass produce the little 8-foot fiberglass sailing dinghies. It wasn't pretty and was sold as it came out of the mold, as gelcoat was not available the material was rough and unpainted and was translucent, which must have given the sailor the odd visual effect of sailing without a boat. But the boats sold, and Hourston had proved that there was a market for boats, at least small boats made out of this wonder material. Fiberglass didn't leak (or appear to) didn't have to swell up after a spring launch, it could be carried on top of a car, it was way lighter than wood (although not so light as aluminum, and it seemed likely aluminum would eventually come out ahead in the small boat race, which it ultimately did, although never as a sailboat material, for some reason. Still Hourston's success meant Cuthbertson could do the same thing in Toronto. Dean was gone and Aykroyd was a tiny afterthought in the J. J. Taylor product line, but the small sailboat market was still there.

In 1951 Cuthbertson and Peter Davidson set up Cuthbertson & Associates which initially offered vague services in plastic products and applications; the plan to design yachts was in the pipeline, but this was a startup in an office at 214 Front Street, both were seasoned sailors, but neither had any experience in design or in boatbuilding. Like Hourston, it would be best to start small and build up from there, so the first design, like Beetle and Hourston, was a little 8-foot catboat which was to be called the Water Rat. A second company called Canadian Northern Co. was set up to handle the manufacturing end. They must have quickly realized how nasty fiberglass boatbuilding was; glass hairs would come loose and embed in your skin, the resin was disgustingly sticky and had a lingering chemical odor, the cost in gloves alone would be huge and you would literally to wear a gasmask to avoid passing out from the fumes. One of the few ads for Canadian Northern mentions a location in Port Credit so I suspect they had to relocate the boatbuilding work out of the cramped Front Street office location to one more amenable to industrial manufacturing. The first Water Rat was completed in 1953, 79 more would be built over the next two years, about one a week. There were customers, but with all small, low-price consumer products, you have to turn out huge numbers because small products mean small margins and they would need a big factory with hundreds of staff to make it pay (spoiler alert, this is what Tanzer Boats did with the Lazer racing catboat a few decades later). Cuthbertson & Associates offered yacht design services, but other than the Water Rat they had

no reputation or brand to speak of.

The best way to cure this problem was with a PR move, and the perfect opportunity came up in the form of an international racing challenge. After having been banned from competing in the America's Cup, the Great Lake yacht clubs set up their own cup and prize in 1896, this time known as the Canada's Cup. The first winner was Canadian, the yacht fittingly called the "Canada", sponsored by the R.C.Y.C. The Cup itself looks like an actual trophy, a silver bowl atop a sculpture of the American eagle and the British lion; there is no sign of a beaver, I guess the lion ate it. The Royals won again in 1901 with the sloop *Invader*, but after that the cup remained firmly in the hands of their perennial rival, the Rochester Yacht Club. The last challenge to date had been in 1934, which saw another Rochester win on their boat the *Conewago*. After that the pressure of the Depression and then the shutdown of the war ended any further matches until 1954. Once again the Royal and Rochester would go head-to-head, the Royal Club needed an 8-meter boat. The term 8 meter (12 was used for the America's Cup) is simple formula where the boat's vital stats, representing length, sail area, girth (the hull's waistline, so to speak, the distance around the hull) and the freeboard. We need not go in too deep in the math here, the purpose was standardization, so competitors wouldn't bring super-size freaks (such as the noted 1903 America's Cup winner *Reliance*) to the show. The boat was built in 1938 in the Britt Brothers yard in Saugus, Massachusetts. It was built as an 8-meter racer from the start, designed by Arthur Shuman, Jr. and purchased by Washington D.C. real estate heiress Nancy Leiter. She won several races with it, and by 1954 had moved on to other interests and sold the boat to Norman Walsh, a member of the Royal. Walsh hired Cuthbertson to make "design alterations" although I don't know what alterations could be made; Cuthbertson mentioned his alteration work was primarily on the rigging. *Venture* (now *Venture II*) was already a proven winner and would have raced under the third iteration of the "meter" formula that was put into place in 1933. After viewing the 8mm home movie of the race, it is hard to see any real difference in the two boats; aside from the paint colour, the hulls and sail sizes seemed identical. Each crew seemed capable, unlike the fumbling *Atalanta* eighty years earlier. The Rochester Club boat *Iskareen* won the first race, *Venture II* the next three, there were no breakdowns, no accidents, most of the time the competitors were bow to bow. The Cuthbertson bios mention that he and Davidson were on the *Venture*, but it needs to be clarified that they were two out of a crew of five. The skipper was David Howard, who would go on to represent Canada in the 1956 Melbourne Olympics. Cuthbertson was involved in the *Venture II*, but he was not the driving force behind it, and there is no mention of what upgrade gave the boat an edge; it was already the work of an established designer. I suspect his job was to make sure that the boat followed the required 8-meter specifications, that was likely all.

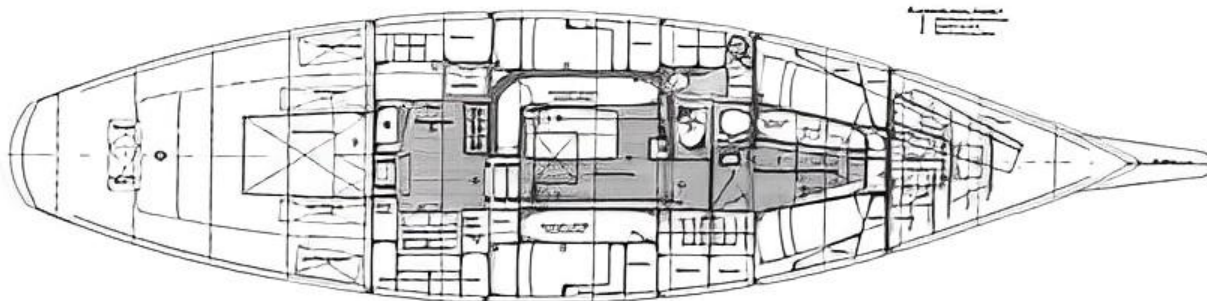
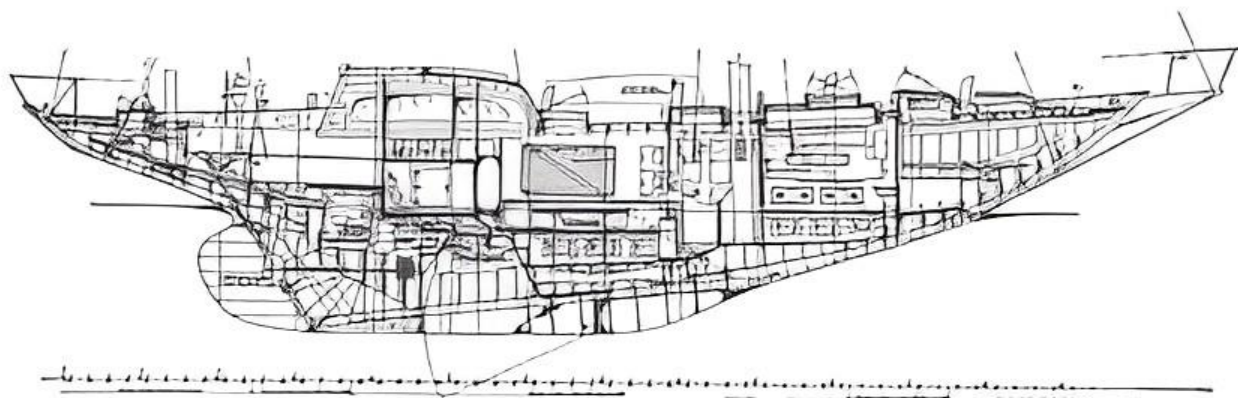
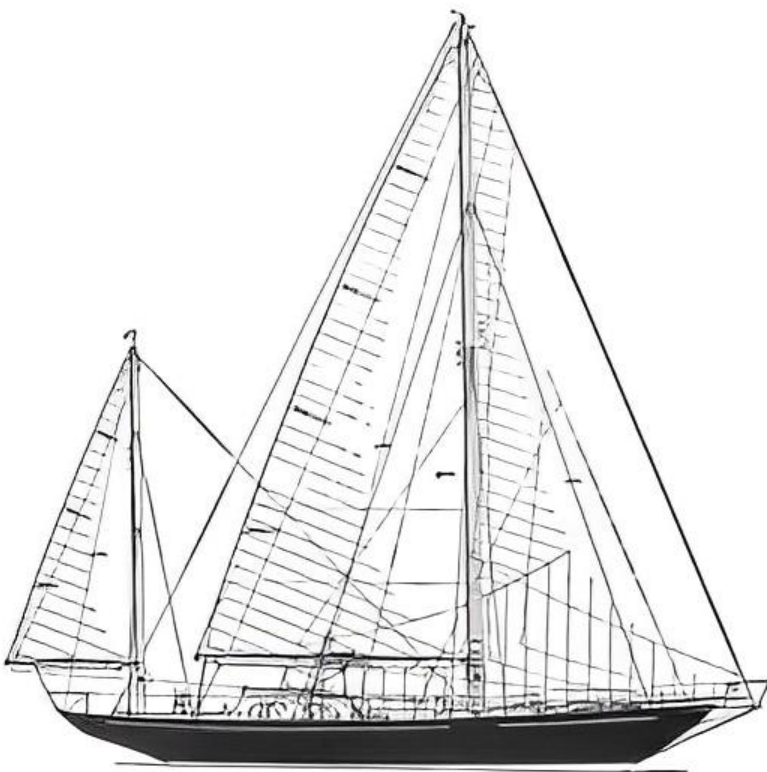
The last Water Rat went out in 1954. By contrast, Hourston Glascraft was successful and produced larger and more profitable boats, it is in business to this day. For the Cutbertson-Davidson partnership the real game was in the brokerage. In 1953 they began to delve into importing steel hulled boats from the Kurt Beister boatyard in Norderney, Germany. Beister and Erich Bruckmann were both Dusseldorf boys who had left for open waters; perhaps this was a recommendation? Norderney is a small fishing village on Norderney Island off the coast near Bremen, therefore it was spared the impact of the invading Allies. Still, Beister was probably glad to get any business, given the utterly wrecked German economy. Beister had expertise in steel hulls, and Cuthbertson and Davidson were interested in exploring new boat materials, other than high-maintenance wood. Beister, being German, had to do everything in the most laborious and craftsman-like way possible, each steel plate fitted to the hull was shaped in a continuous compound curve, unlike a clever and lower cost approach developed years later by designer Ted Brewer, where only one level of hull plates were shaped, and the rest were flat and straight; that was not Beister's way. But neither the Water Rat nor the brokerage were very lucrative and Davidson called it quits in 1955 and left to go to work for a sailmaker in the United States. Cuthbertson was still living at his mother's house at 4 Olympus, listing himself as an "engineer"; there was no mention of Canadian Northern Co. Still, Cuthbertson never gave up on his dream of becoming a great designer, and finally his connections at the R.C.Y.C. paid off. Norman Walsh, one of the backers of the Venture II project called on Cuthbertson in 1957 to design a new boat, to be called the Inishfree.

"INISHFREE," A CANADIAN OCEAN RACER

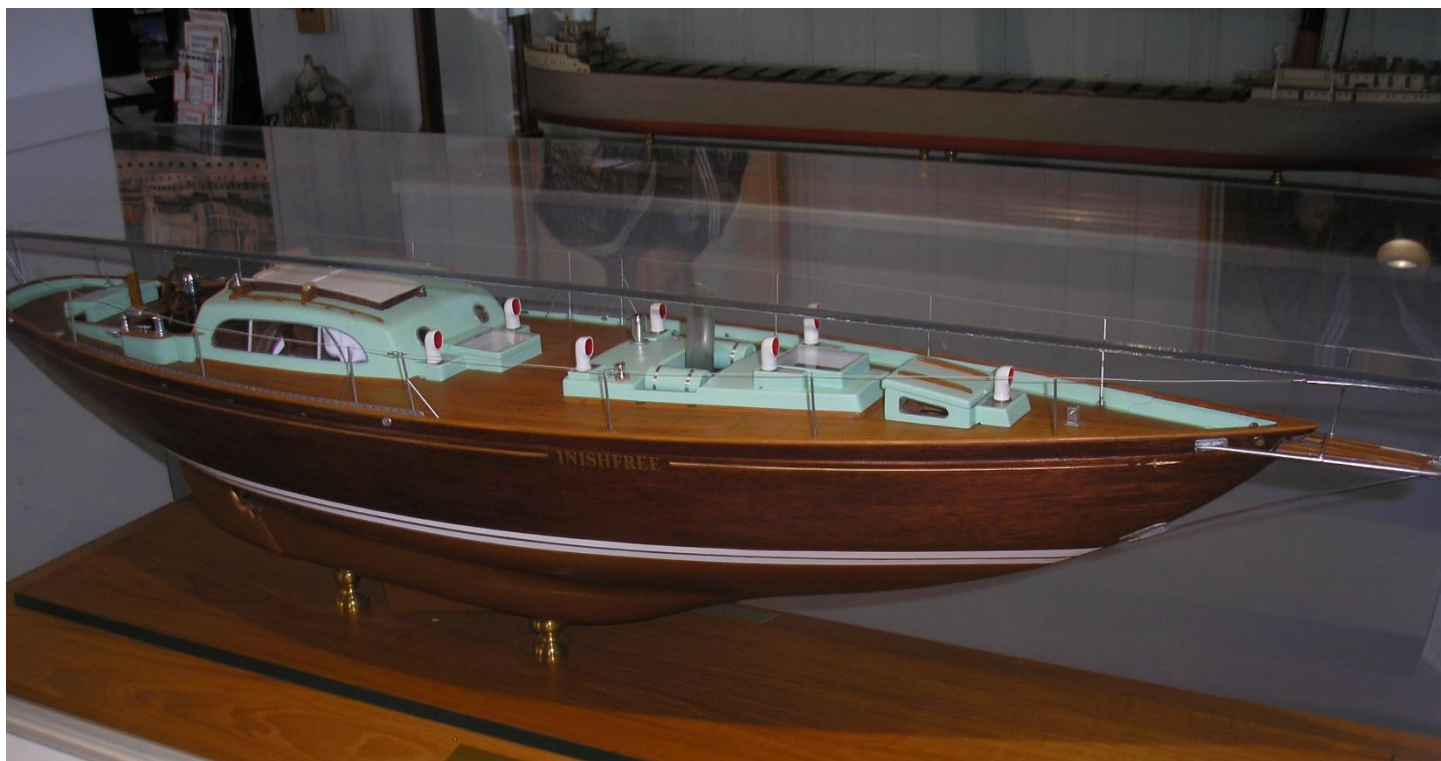
Loa, 57'	LoaL, 35'
Beam, 15'	Drift, 5'10"
S.A., 1200 ft.	
Power, Standard "Comet" 60 hp.	
Died	

NORMAN WALSH, in old time of victa rating whose successful challenge for the Canada's Cup in 1934 returned this trophy to the Royal Canadian YC after 52 years to the St. Lawrence is the owner of this powerful yacht. She was designed by the Canadian Northern Co. and built by the C.B.S. Richardson Boat Works, Montreal, Ont. She is scheduled for launching in the spring of 1938 and is an expected entry in the Bermuda Race. Her stem, keel and deadwood are mahogany, her frames are hewn-out white oak and the planking is 3" Honduras mahogany over 1/2" Philippine. Decks are teak over plywood and trim is mahogany. Paintwork is Everdur and Mural. Her interior is an elegant construction produced by Alton, fabricated in Toronto. Sails are by Roney & Lapierre, except spinnakers which are by Hard Sails and Norman Watts.

If further particulars are wanted please address Canadian Northern Company, Box 10, Port Credit, Ont., Canada.



Inishfree line plan.





Inishfree models at Marine Museum of the Great Lakes Author photos

Inishfree was a serious attempt to build (not just adapt, as with Venture II) a world-class racer, the overall length was 53 feet, the waterline a mere 35, which even without pictures should give an idea of the curve of the hull. The hull itself was constructed of mahogany planks over white oak frames with teak decking, although there were some savings to be made by reusing wood spars off Venture II. The main mast was aluminum, which would eventually replace all wood spars and masts in sailboats (almost, the dissenter was Vic Carpenter, who preferred wood masts). The aluminum was lighter and was less prone to sudden breakages, particularly in the high stress of competition. The sail area was 1,296 square feet, impressive, but small in comparison to Atalanta's 5,000 or Countess of Dufferin's insane 20,000 square feet worth of canvas; it shows how much sloop design had advanced to get much more out of much less. Inishfree was built by Cliff Richardson Boat Works in Meaford, on Georgian Bay. Richardson is still very much in business and still owned by the Richardson family. Now they provide an extensive list of repair, maintenance, and storage services, but from 1933 up until the 1960s, they also built boats, mostly cruisers. Inishfree won a pile of races and announced to the world that Canada was truly back in the racing sailboat business, not just in competition but design and construction as well. Venture II is still alive and well, alas, Inishfree was lost in the 1970's, grounding out on the infamous Frying Pan Shoals off the aptly named Cape Fear in North Carolina. The boat began to leak and headed toward the Shoals' well known "Texas Tower" a four-post metal structure with a light beacon on top to warn ships away (there is picture on Wikipedia, along with a lightship). The owner decided to tie up to one of the tower posts to buy time and try to plug the hole, and in doing so hit something even harder. Inishfree was able to ride out the night and in the morning a U. S. Coast Guard chopper lowered down two water pumps and later that day, a cutter arrived and began to tow the boat hopefully into port. The stress of water against the hull made the leak steadily worse, and finally it overcame the pump's capacity and Inishfree sank, joining many other colleagues in what is known as the "Graveyard of the Atlantic."



The Inishfree in better times.

Cuthbertson was afloat, although even after the Inishfree's victory run still just treading water. Design contracts came in to his new Oakville office, but sporadically; the boat brokerage paid the rent. George Cassian, an aircraft engineer and sailing enthusiast stopped by after being laid off from the cancelled Avro Arrow project and asked if there was any work. Cuthbertson brought in Cassian for a two-week trial run, he stayed for a year, then tried his luck in the dog-eat-dog world of Big Three auto design in Detroit and after a year, gave up and returned to Toronto and asked for a buy-in to Cuthbertson Design Inc. Cuthbertson was unsure whether he needed a partner, but he was in debt and definitely needed money; Cassian bought 25% of what became Cuthbertson & Cassian Design Ltd. The abilities separated into Cuthbertson designing the hull to make the boat go fast, and Cassian designing the interior so people could live on it, thus forming the theme for the future C & C Yachts, the racer-cruiser. The firm designed a number of boats, most notably the 31-foot Corvette for Ian Morch of Belleville Marine Yard; it was one of the first big fiberglass yachts, and a bona fit hit with customers, several hundred were built. It's worth pointing out that the romantic era of designer-builders, such as Alexander Cuthbert, was over, these had separated into two distinct careers. Boat designing was a mathematical science, one that required at least a university undergraduate degree in engineering or naval architecture, which was a mix of engineering and design study. The study of water flow was highly complex, and having personally known several engineering grads, second- and third-year Principles of Fluid Dynamics was the Frying Pan Shoals of your studies; it grounded out a lot of prospective careers. Cuthbertson and Cassian were mechanical engineering graduates, as was Ian Morch. Steve Killing's degree was civil engineering. Rob Ball and Rob Mazza had a degree in Naval Architecture. On the other hand, building boats required years of hands-on training in working with wood and other materials; George Hinterhoeller, Erich Bruckmann and Gordon Brimsmead learned as apprentice carpenters. Cuthbertson spent two years slathering resin on the little Water Rat, he stayed out of the shop after that. Even fifty years earlier Fred, Irving and Merrill Gilbert relied on their father Nelson to do the design work. Will Dowsett relied on rule of thumb (and copying Gilbert) to build displacement hulls, but when it came time to build modern hard-chine runabouts Flambeau and Sea Eye he called on Douglas Van Patten to do the hull shape, as did Bert Minett, Herbert Ditchburn on Bert Hawker, Shepherd on Earl Barnes, and Tom Greavette on Van Patten.

Morch's father had been in the prospecting and mining business in the 1930's and his company had found a viable gold deposit in Northern Ontario and worked it until 1939. After that with what money he had made from the gold venture he set up an aircraft component manufacturing company and bought a share in a planned multi-service boatyard. Mr. Morch later sold his

interest in the yard, his two sons John and Ian, the latter after progressive turns as a naval officer in the war, engineering studies and one of the first graduates of a new business degree known as an MBA, bought back into it in 1953. The aircraft business grew and eventually became a key vendor to Avro for the Arrow project. When the Arrow was cancelled, the company, known as Morch Manufacturing, pivoted to boatbuilding, doing the finish work on the Kurt Beister built steel hulls imported by Cuthbertson. The first local build was the North Star in 1964, the Corvette 31 in 1966, of which 171 were built and then the 40-foot Crusader in 1968. By the mid 1960's there was a real community of boatbuilders arising on the Lake Ontario shores.

The Corvette was designed by Cuthbertson and Cassian in 1965. C & C Designs were designing for many of the still-small builders in Ontario, giving Cuthbertson invaluable customers, as well as industry connections.



Ian Morch's Corvette 31, built at his factory in Belleville Designed by Cuthbertson & Cassian Adam Hunt Photo

Erich Bruckmann was born in Germany in 1930 and George Hinterhoeller was born in Austria in 1928, which was absorbed into Germany by Hitler in 1938. Bruckmann's hometown of Dusseldorf is located on the Rhine; even in the 1930's the great river was basically a discharge culvert for industrial waste, a problem that would only get worse after the war, so there was little exposure to pleasure boating. By contrast Hinterhoeller grew up in a resort and tourist town on the Mondsee, one of several mountain lakes in the area and he was already sailing by the age of 8. Neither said much about growing up; it should be assumed that their experiences were pretty much that of every young man under the Nazi regime and enduring the subsequent war. After the war Mondsee was under the American occupation zone, better off than the Soviet zone, but still an occupied state with a barely functioning economy. Hinterhoeller had apprenticed in a boat building shop in town but after 1945, there was little money for leisure activity in Austria, or anywhere in Europe at that time; North America, particularly Canada was the best bet. A colleague had already emigrated and was working for Shepherd Boats and set Hinterhoeller up with a job on the production line in 1952. Shepherd had actually built one, possibly two sailboats, but these were custom one-offs, everything else had an engine. Uninterested in motorboats, he began to build Y-Flyer flat-hulled racing scows in his garage at home. He built 40 of these little boats before the Y-Flyer craze fizzled out a few years later. By 1958 it was now or never, he designed his own sloop, a speedy 22-footer with a fin keel he called Teeter-Totter. There are some names that sound sporty and fun in German but just don't land right in English (the VW Golf, for one) and naming a sailboat after a child's play structure didn't work, particularly one that goes up and down. Hinterhoeller stretched Teeter-Totter out to 24 feet and renamed it Shark, indeed the boat hull did look strikingly like a shark swimming upside down. In many ways it was a scaled-up version of the little afternoon boats he had sailed back in his childhood. The early versions were plywood, Hinterhoeller was not quite ready for the fiberglass thing quite yet. Orders poured in for the Shark, he and another work colleague named Gordon Brimsmead said goodbye to Shepherd (now under new owner James Hahn) and went into partnership as Hinterhoeller Limited.

Bruckmann followed in 1956 after learning the cabinetmaking trade, again with a box of tools and no English, and went to work for Metro Marine in Oakville. Metro Marine was a side investment of shoe manufacturer and sailing enthusiast Harry Greb. Back when I was a kid, just about every non-running shoe seemed to be a Greb, the shoe salesman would come over with a Greb box in one hand and the aluminum foot caliper in the other. Greb was also a member of the R.C.Y.C., which turned out to be invaluable to Cuthbertson for business connections. In 1953 Greb sent Peter Davidson over to England to search for a used yacht. Davidson bought a

71 foot ketch Mir built in England and he and Cuthbertson was given the job of sailing it across the Atlantic and into Lake Ontario. Greb bought the Oakville Yacht Company to serve as a mooring location for Mir. He had a second project, a schooner named Herron and he purchased the Northern Shipbuilding and Repair in Bronte, Ontario and renamed it Metro Marine.

Metro Marine hired Dell Ives and Dick Telford to manage this enterprise. Telford came up with the bright idea of inside out boatbuilding. This was reversal of the accepted method of building the hull first and then finishing the interior. The bulkheads and cabinetry would be done first, then attached to the frames and finally the planking would go on. The benefit here is that the workmen could work comfortably standing up rather than crouching and jamming themselves into the curved, cramped spaces of the hull. Another problem solved was the time spent simply getting into and out of the hull. Once a hull was completed, the workmen had to climb up a ladder, usually with an armful of wood and a power tool. Up and in and then back down to get something else and then back up again. George Hinterhoeller dealt with the issue by building a work floor flush with the boat deck. A second innovation was the use of bead and cove joinery for the wood, rather than simply butting the ends together. Bead and cove was more work, but it had greater solidity when finished.

Metro contracted with Cuthbertson and Davidson for a few early designs, but they weren't lucrative or numerous enough for the firm to go full time into pure design work, they stuck with brokerage to pay the rent. Ives hired Bruckmann in 1956 and he quickly became the key production man. Metro remained strictly a wood builder, providing smaller and more affordable sailing craft than the plush and pricier products at the J. J. Taylor shop. As noted, Bruckmann had no sailing history, the position at Metro was a job that coincidentally involved boats, the career found the man. This was in the future, as Bruckmann had more confidence in getting into the cabinet making trade, which at the time generally meant kitchens. But by the late 1950's kitchens were no longer custom creations so much as prefabricated packages built by factories and sold through homebuilders and hardware stores and picked out by customers looking through a catalogue. There was no real progress in the kitchen cabinet business, but he had several contracts for sailing yachts since leaving Metro in 1962, when in 1964 he landed the contract for a racing yacht. Telford died relatively young in 1975; Metro had never transitioned into fibreglass, it eventually faded from the boatbuilding scene. Peter Davidson worked in the US for some time afterward, and then returned to set up a sailmaking shop in Toronto, passing away a few years later only in his mid 40's.



Red Jacket awaits launching in Kingston. Sorry, I can't identify the women, I assume wives/mothers of the project principals.

The idea for a game changing racer came from Perry Connolly, who owned a construction company that was making its mark in the small to medium sized hotel and motel business; it would win the contract to build most of Holiday Inns and later the Best Western hotels in Ontario. He was also a member of the Royal and an experienced sailing racer. He contacted Cuthbertson and Cassian to design what he termed the “meanest, hungriest 40-footer afloat” and awarded the construction contract to Bruckmann. This, to say the least, was a pretty tall order given the take-no-prisoners, spare-no-expense world of yacht racing. Alexander Cuthbert thought he could overcome American resources with sheer sail expanse, he couldn't. His clansman Cuthbertson would have to come up with completely new ideas, brute force and wishful thinking wouldn't cut it. A new steering system would be in order. For the typical sailboat, and racer at the time, most of the bottom of the hull eventually extended into a keel, at the stern the rudder was integrated into the keel shape.



The mind, the means, and the money. Part of the team behind Red Jacket: George Cassian, George Cuthbertson and Perry Connolly.

Cuthbertson decided to shave off the full keel and go with a fin keel, a shorter trapezoidal shape, rather like the fin on a shark or any kind of fish, and a separate spade rudder, the type used on all motorboats, so named as it was a flat plate on the end of metal rod. This dramatically cuts down on the wetted surface area, that is the amount of the hull pushing through the water. There was enough money in the pot to take a model down to the Stevens Institute of Technology in Hoboken, New Jersey to be tested in their test tank, a sort of swimming pool designed to mimic water currents and waves in the same way a wind tunnel is used to test airplanes. The hull performed well, but the rudder shape was changed over and over until it resembled less of a spade than a sort of flat ended kitchen knife.



Bruckmann's shop building Red Jacket. Balsa wood is glued to the inner hull. Channels have been cut for strapping for additional support. Unlike later production boats, the final gelcoat would be sprayed on to the hull and hand rubbed to achieve a shiny finish.

The second issue was to lighten the overall weight of the boat, and the lightbulb moment came with balsa cored hulls. People were still getting used to the idea of a boat made of glue and glass, now they were bringing wood back, and of all wood, balsa. Most men with the means had played with balsa wood model airplanes when they were younger and were well aware of how flimsy and breakable the little pieces could be. But the balsa was there to provide the lightness, the strength was in the outer fiberglass sheets and resin. The idea was not new, wood boats are composite materials, solid adhesives known as paint and varnish on the outside, wood inside, the difference was that the strength was in the outer adhesive, not the wood. It was not a C & C

invention, but came about from the Kohn family, who had fled the Nazi conquest of their native France and immigrated eventually to Ecuador where they re-started the family wood business, specializing in uses for balsa lumber. The company, known as Baltek, provided balsa for use in wood composites for Mosquito fighter-bombers. After the war, Baltek, needing new markets and new products, convinced a boatbuilder named Abner Crosby to use a balsa fiberglass sandwich for the pioneering 1955 Crosby Hydrodyne runabout. It sold, but the public wasn't ready for the revolution, not just yet. Also Crosby's boats were rounded with bright colouring and looked a little too much like bathtub toys. Baltek tried again and finally made a deal with Hatteras Yachts in 1959, and the balsa sandwich was incorporated, but into a motor yacht, not a sailboat. The sailboat industry was still getting a handle on the idea of fiberglass, recalling that the 1958 Inishfree was still made entirely of wood. Chris-Craft's infamous Lake 'n' Sea series was an attempt to break into the fibreglass boat market. The boats were very handsome to look at, with a nice baby blue and gloss white colouring. The design was to build a plywood hull and then coat the wood hull piece with fibreglass sheeting. Of course water would seep into the hull structure, and once inside, without air to bother it, mold rot would run rampant and utterly destroy the plywood core and the water would start to creep in from the weakened structure; the line became known derisively as Leak 'n' Sink. Chris-Craft sold the boat moulds and shifted away from runabouts and concentrated on cruisers.

Still, Bruckmann was willing to give the sandwich concept a go. There was no room in his small shop for a project of this size, space was rented in a building at a Burlington lumber yard. He also had to hire a temporary staff for the project. He did not go with what would be the production style (in fairness, he never was a production guy, that would be Hinterhoeller's thing), with spraying a mould with gelcoat and then laying in the fibreglass, but (as near as I can tell) actually used the plug, the internal boat shape the mould is made of, as a frame and laid the fibreglass sheets over that. Then he put on the balsa core, as can be seen in the photograph. The balsa panels at the time were cut longitudinally, basically taking the balsa board and feeding through a resawing machine, creating thin sheets that appear to be roughly 8" X 8", and then glued onto the interior fibreglass sheets. Interestingly, a decision was made (it is still not clear whether this was the George's or Bruckmann himself), to cut channels in the balsa for solid fibreglass strapping for additional support, as the boat would be subject to serious stresses in the races where it would ultimately be campaigned. More layers of fibreglass sheeting would go over the straps and balsa, and finally the gelcoat would be sprayed on and given a gloss finish. Designer Rob Mazza, many years later, would admit in a magazine article he took a dim view of the sort of craftsmanship, "too much hand-rubbing..." he put it, as indulgent and a waste of time.

The resulting boat, named Red Jacket, after Seneca chief and negotiator Sagoyewatha, swept the American competitors aside, this time not in the Great Lakes but out on the big bad Atlantic, where Alexander Cuthbert had been banned eighty years earlier. At 40 feet, Red Jacket was too small for an America's Cup challenge, but it qualified for the second most important race, the Southern Offshore Racing Conference (SORC), which held various competitions off the Florida coast. The victory in the 1968 SORC challenge was the first big open water success for Canada, finally settling the open-ocean score for Cuthbert's Atalanta and Countess of Dufferin. Cuthbertson and Cassian were the men of the hour, design contracts poured in, and they were finally making some real money. Bruckmann was now the go-to custom yacht builder in Ontario.



Grampian Begins

Every time there is a boom, after a while everyone's in on it. The boom was in the homebuilding trade and Toronto was the place to be, turning open flat farmland and one-stop villages like Don Mills into a vast suburban sprawl. Jim Bisiker's family roots were in the Grampian mountain region of central Scotland; his personal journey led to the dreary flatlands of County Peel in Ontario. Like many budding entrepreneurs with no particular plan, he went first into sales, entry was easy, success exceptionally hard. His first job was in the grimmest level of the brokerage firm McLeod Young Weir, where he sent out investment pitches to potential clients and put them in an envelope, essentially an early form of junk mail. It must have become clear that this was not a road to riches, but he stuck at it from 1953 through 1954, after which he left to try his hand at running his own business. He partnered with two other postwar immigrants John Burn, who was born in Richmond, Surrey in the U.K., and Dirk (Dick) Kneulman from Amsterdam. Like Bisiker, Burn had no boating background and was just looking for any sort of opportunity; his home town was on the poky and narrow section of the Thames before it flowed into London. Kneulman had trained as a boat carpenter in his native country and shortly after arriving in Canada, Kneulman began to build boats once again, starting off with a little Snipe styled sailing dinghy. At the time wood sailboats were still slow sellers and he turned to home construction. Still, Kneulman kept an eye on industry developments and became aware of the potential of fibreglass.

Up until fibreglass, sailboats were made primarily of wood. There was a brief period after the war in using sheet steel, as exemplified by the Kurt Beister works in northern Germany, but wood was still the material of choice. It was not easy. Large 40-foot-plus boats were a little easier, as the length made wood easier to bend, small catboats such as those made by Aykroyd used super-thin and relatively pliable 3/16 strip planking, but medium sized day sailers of 20-35 feet were hard labour; even with steam bending the planking still required hours of back breaking force to be set in place. The benefits of fibreglass reinforced resin were obvious, you could make any sort of shape you liked, and the result would be simple and watertight, it was tough and wouldn't leak. It was terribly sticky and smelled, and you had to wear a gasmask during the application, but it was much faster, easier, and cheaper than carpentry. William (Bill) Dyer had been initially in the cotton brokerage business before setting up a small-boat workshop in the seaside town of Warren, Rhode Island. Dyer had come across the potential of fibreglass in the late 1940's, along with Carl Beetle and Vancouver's Chuck Hourston and began turning out a small fibreglass craft known as the Dyer Dhow. In addition he made some

extra money providing a one-week course in how to build boats with fibreglass. In 1954 Burn, Kneulman and Bisiker took a week off work and took the course. Back home, they built a second small building in the back of their yard in Oakville and began making fibreglass boats. The first was a cute 14-foot sloop known as the Flying Tern, designed by E. G. (Ericus) Van de Stadt, a yacht designer in Holland. (His nephew Hubert Vandestadt would emigrate to Canada and found trailer-sailboat maker Vandestadt & McGruer). The Tern had a fibreglass hull, but the mast and spars and all other fittings were wood.

By 1958 the partnership came under pressure with the increasingly crowded world of home contracting. Every job was a bidding war and everyone was undercutting everyone else; it was becoming increasingly difficult to make a living, let alone a profit without cutting corners, and Burn, Kneulman and Bisiker decided to go their separate ways. Burn went to work as a yacht broker with Cuthbertson and Cassian Ltd. also providing some back ground in fiberglass, although he probably knew as much as Cuthbertson, who had already had a turn with the material building the Water Rats. In 1969 he left and started his own successful yacht brokerage firm. Kneulman started his own fiberglass sailboat manufacturing business to be known as Ontario Yachts, in 1961.

According to Might's Bisiker returned briefly to the salesman game, but that wasn't much better than homebuilding and in 1960 he formed Grampian Marine, and like Kneulman, to take another shot at the fiberglass sailboat business, setting up in the industrial sticks at Woody Road in Oakville. Grampian began to add another small single-person boat to the Flying Tern, the FJ International, each 13 footers (and all, I suspect, probably coming from the same one-size fits all plug), with slight variations in the finishing process. Grampian also imported the Shearwater racing catamaran from England, although this was not a huge seller and catamarans would never really catch on in Canadian inland sailing. But the manufactured boats were selling and Grampian was getting attention, including from over the border. Bisiker was approached in 1960 by Charles Angle of a new company across the lake in Syracuse, New York, Triangle Yachts. All of the sailboat builders started off building small 10-13 dinghies, but the real growth did not come until they moved into building larger day sailers, capable of holding 3-5 persons aboard, basically a family boat. Fibreglass sailboats were starting slow in the U.S. Triangle looked to Canada for production expertise. The deal was that Grampian would be strictly a manufacturer; Triangle would be the contractor and designer and U. S. Yachts would act as the marketer. This resulted in the first big boats for Grampian, the Triangle 20 and 32. The 20 was made only until 1963, Grampian came out with its own house models, the Classic 22 and Classic 31, and later the largest of the line, the US 41, over 1962-64. These models, with the

large, molded keel, fashionable at the time were phased out later in the decade were phased out in favour of the fin keel style that Cuthbertson and Cassian had popularized on Red Jacket. The Woody Road plant was expanded substantially. By 1964 Grampian had grown to the point where George O'Day suggested a merger and IPO with his company and several other U. S. builders, Bisiker demurred, although he later admitted this was a mistake. The IPO went through and the new company was almost immediately inhaled into Bangor Punta, a former railroad company that like Brunswick and AMF had decided to become a leisure products conglomerate. Regrets perhaps, but Grampian was still growing and new models were coming out every year, and in 1969 Grampian was large enough and prosperous enough to hire Alex McGruer, from a long boating heritage in England, to be its house designer. Bisiker had many other business ventures in his mind and wanted to build a reliable management and senior staff for Grampian, such that it would run itself with his daily oversight. Bisiker had a lot more personal comfort zone in hiring fellow immigrants, this would prove a boon in early days, not so much as time went on.

C & C Yachts tends to get most of the attention in this story, but it is really Grampian that led the way.

C & C Yachts You guys need money; here's how you get some

The boat market was growing. 1966 seemed to be the turning point when the ploddingly slow build-and- then-out-the-door to start on the next seemed to shift to a progressively higher gear. Aggregate sales of Hinterhoeller/Belleville/Bruckmann that year were \$1 million, then \$1.5m in 1967, \$2m in 1968 and projected to be close to \$3m in 1969. Growth required capital, and the scratchy profits from the boat business were not enough. Bank credit lines would only go so far. The biggest stress was that boatbuilding was a year-round effort, but sales were seasonal, the big rush coming in the spring. Completed boats would have to be put out in the yard, slowly accumulating, and taking up more and more space. Mid-winter boat shows were critical and there were customer sales, but this was not enough, and the company had to find a way to finance operations until the snow melted, and the water became soft, or at least, given Lake Ontario, less cold and grey and ugly. At this point Cuthbertson was well aware of the financing problem his yacht design customers were going through and happened to bring it up with a friend (and owner of a C & C designed yacht) named Robert Sale, who responded "That's because you guys have no money!" Sale was a vice-president of the investment banking house of Walwyn Stodgell & Co. and proposed the obvious if unprecedented solution: why not merge all four enterprises and go public with an initial stock offering?



Bruckmann's Redline 25, introduced in 1968, just before C & C Yachts. The model was rolled into the overall production program *Photo Adam Hunt*

O'Day Yachts had gone public in 1964, but as mentioned this was very short lived before it was bought out. No such financing solution had ever come up in the Canadian boatbuilding industry.

The idea of a publicly traded corporation with hard driving executives, a head office, a modern factory with assembly lines, aggressive salesmen and gleaming showrooms did not jive with the public's image of a boatbuilding shop. These were almost always small family-owned enterprises operating out of a drafty, one- or two-story wooden building down at the water's edge. Sawdust was everywhere. Inside there were several boats, all in a jumble with craftsmen sawing and hammering away in no particular order. The company lasted for several years, or even decades, then it changed hands. All work slowed during a recession or ramped up during a boom. Sometimes the business expanded, other times it burned down or just closed mysteriously. It was disorganized and artisanal although the workmen and owners insisted there was a method to it all or just shrugged and replied: "you don't know the industry". Financing was sometimes through the bank, but more often private investment capital from rich customers who thought they could make an investment out of their favorite hobby.

Sale's plan had four steps. The first was to meet with all the business owners and secure a written agreement to proceed. The second was to establish a valuation of the four contributing businesses. Cuthbertson & Cassian was comprised of the two George's, Rob Ball and a rotating collection of apprentices, office supplies and drafting equipment; it's income came from a mix of design consulting and boat brokerage services. The hard assets came from the boat plants, with a total fabrication floorspace of 47,500 square feet. Bruckmann Manufacturing Ltd. had 20 employees and a small shop of about 3,000 square feet, capable of one boat at a time, maybe two at the most. Belleville Marine Yards Limited included the marina, and a 13,000 square foot shop and around 50 employees. Hinterhoeller was the largest operation, with 34,000 square feet of plant space and 60 employees. The total workforce was 145, and we have to include another 20 or so support staff. The combined valuation of the enterprises was calculated at \$2,888,830, split into the net book value of assets (land buildings, equipment, accounts receivable, cash (if any)), other left side balance sheet odds and ends), of \$395,388 and the remainder \$2,492,992, painfully described in the financial statements as "EXCESS OF COST OF SHARES IN SUBSIDIARY COMPANIES OVER NET BOOK VALUE AT DATE OF ACQUISITION". If you stick a pin (or more appropriately, a wood screw) in this it deflates into the term "goodwill". Goodwill is a calculated estimate of the future possible income earning potential of a given business, projected ten years into the future and expressed as a current value. Basically, if you want to buy my company, you will have to compensate me right now for all the profits I could potentially make in the future, otherwise why should I take the deal. As a former corporate tax auditor, I have seen a great many business sales and as asset valuing goes, a 6 to 1 ratio of hopes and dreams over hard assets is pretty ambitious. It's not uncommon in low-asset high labour-driven industries, but very lopsided for an asset-heavy manufacturing enterprise.

Still, the plan was that each corporate input would receive the same shares and value, in this case 148,992 shares at \$599,992 paid up value, basically \$4.00 a share. On top of the shares of C & C received in exchange, the shareholders were also awarded a further balance of notes payable of \$488,412. The basis for this is not mentioned, I except it was to balance out the differing valuations of the four enterprises; obviously Hinterhoeller Boats with its land and plant and 60-80 employees would have a higher value than the Cuthbertson & Cassian enterprise with no significant assets and only six employees. The fourth and final leg was the public offering of 350,000 shares at \$4.50 a share, giving the shareholder directors a nice value little bump of \$0.50 a share without having to lift a finger. Walwyn Stodgell charged them \$110k for the public stock sale, leaving funds of \$1,464,000 to the company. C & C Yachts was not large enough to be formally listed on the TSE, its shares, when traded, were through the over-the-counter market, what used to be a library card sized corner in the business section of the paper, with the title “unlisted”. This applied, however, only to the IPO shares, the 600,000 owned by the director/officers (this included Cassian as well, even though he was neither a director nor officer, nor would he ever hold such a post). The officer/director shares could only be sold with prior written permission of the Ontario Securities Commission, a standard move for all companies to provide some level of credibility and avoid the sort of schemes that were so common, say on the Vancouver Exchange. But as soon as the funds were received, the \$488,412 due to the shareholders was paid off, which meant that a third of the publicly raised funds had already been used to cover, what was, in reality, a dividend to the director/shareholder group. The purpose of the funds was clearly intended and was presented as necessary to purchase new production assets and finance working capital needs to drive growth. It’s not illegal, as long as it received director approval, but it doesn’t look good, particularly at such an early stage of the company’s development, and given the company’s financial situation, inappropriate and it would have ramifications down the road. The first phase of the expansion was to increase plant space and production facilities by adding 45,000 square feet, 6,500 at Bruckmann’s shop, and the remainder, most likely at Niagara on the Lake. The only problem, as noted in the 1971 Annual Report...

“These increased facilities required cash outlays from the public financing. These were not, however, sufficient...”

If they had left the \$488k in the corporate account, this might not have been an issue. In addition, the company had to cover a working capital hole of a further \$98k from the predecessor entities. That year’s net profits were \$96k, not enough to fund the intended expansion program. Still, the market was hot and seemed literally to be pulling boats out of the

production shops as fast as they could be made; that kind of success breeds a lot of patience from bank managers. The key to that success was fiberglass, which had already completely conquered the motorboat market, wood was dead, aluminum was for small fishing boats but not much more and steel was not happening. Indeed Kurt Beister had stuck with steel as the material of choice, now his boat sales were falling out as other northern European builders changed to fiberglass; he closed his yard in 1981. By contrast, all C & C products were all made of fiberglass. C & C Yachts did not have to develop a product line at the beginning, this came along with the incorporated shops; Hinterhoeller with the bestselling Shark and Morch with the Corvette and Crusader. Before the merger Hinterhoeller had already been planning to move into the bigger models and had already engaged Cuthbertson and Cassian to design what would become the model Redwing 35, already selling when it was merged into the C & C product line. The second in 1970 was the 27. Both were exceptionally stable boats, an important consideration given how many customers probably had fairly little actual sailing experience under their belt. It's interesting to note that while the balsa core system was used on the deck, the hull walls were solid fiberglass, unlike Red Jacket. While the method had worked for the big race boat, it was clear there was only so far they were willing to go with this innovation. I suspect they realized customers could live with the idea of balsa core deck but might make an I-don't-know face at the thought of a balsa core hull, again noting the men who had built model airplanes in their youth, and it was better to be on the safe side when it came to marketing. At any rate there was still concern about water wicking into the long balsa boards, which although technically a "hardwood", has very large open pores and soaks fluid up quickly. The ultimate solution would be perpendicular cuts to the balsa log, rather like making pie plates, so that the grain in the little sheets wouldn't line up and transmit water so easily. Red Jacket has survived to this day and still undergoes regular inspection to see if there is any water damage to the core material. Sixty some years later, so far, so good, which is a complement to the level of care and craftsmanship of Bruckmann's shop. The 27 sold over 1,000 units and the 35, as the more expensive craft, sold 351 units over their long respective production runs, from 1969 up to 1987.

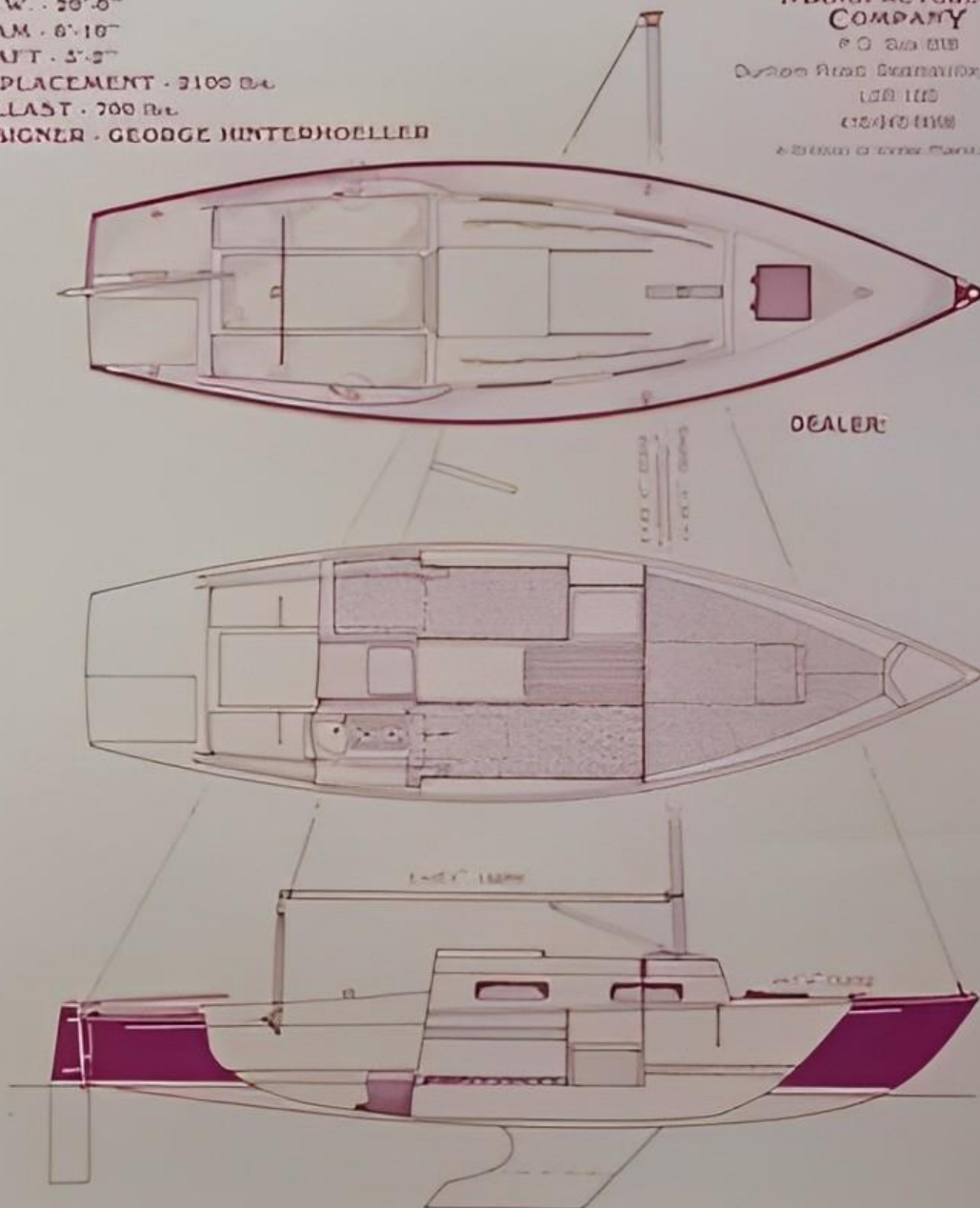
Shark 24



LOA - 24'-0"
LO W. - 20'-0"
BEAM - 6'-10"
DRAFT - 3'-2"
DISPLACEMENT - 3100 lbs.
BALLAST - 700 lbs.
DESIGNER - GEORGE HINTERHOELLER

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A Division of Halman Industries



CANADA'S MOST POPULAR "ONE-DESIGN" KEELBOAT



The ever popular 24-foot Shark, designed by George Hinterhoeller in 1959 shortly after he left Shepherd Boats was rolled into the overall C & C product line upon the corporate formation in 1969. 2500 were made up to the late 1980's. It became a one-design racer, known as "Shark Class". Photo Adam Hunt

The market was growing quickly, and C & C had to expand, and quickly. In 1971, Morch hired an outside consulting firm to develop a business plan. The results may not have been what he expected or may have wanted to hear. Basically, the consultant's recommendation was to close Morch's Belleville shop and move all mass production to Hinterhoeller's plant in Niagara on the Lake. This was in the Morch's own words, as President, in the 1971 Annual Report:

"An analysis of the operations indicated that the production allocated to the Belleville Division, consisting for the most part of older designs which employed much less production tooling [i.e. assembly line mechanization], would not produce the same return as the newer models using a higher degree of tooling under an environment designed for the purposes.

Furthermore, the study showed that in terms of quantity production the Belleville plant could not be economically converted, nor could it be used effectively for specific production as the balance between molding and assembly floor space could not be met; coupled with these factors was a waning demand for the older designs."

Therefore:

"Management concluded that a maximum plant expansion at Niagara of approximately 40,000 square feet will produce the desired operating results and improved earnings. This addition will double the capacity of Niagara from \$3 to \$6 million, which results in a net gain of \$1% million after allowing for the closing of the Belleville Division.

All production will therefore be under one roof, and when combined with the potential output of the Oakville Custom Boat Division, C & C Yachts' capacity is approximately \$7.5 million, depending on product mix."

Basically, this meant Morch's baby was going out with the bathwater, and Hinterhoeller's would grow up to be big and strong. I think Morch realized how necessary this was, but he also recommended that the individual corporate production subsidiaries (Hinterhoeller and Bruckmann) be wound up into a single entity, to be simply named C & C Manufacturing. There would be some cost saving from not having individual corporate reporting to deal with, but mostly it would avoid the uneasy appearance of Hinterhoeller winning and Morch losing, needless to say, Hinterhoeller didn't like the idea much and coldly refused. Morch advocated for the amalgamation, although he never actually confronted Hinterhoeller directly about his concerns and began to push Cuthbertson to intercede. On a couple's night out, Cuthbertson brought the issue up once more with Hinterhoeller, with predictably uncomfortable results. Yet

the very next day Hinterhoeller suddenly turned around and agreed to the restructuring. The Bruckmann and Hinterhoeller entities would be wound up into C & C Manufacturing, whereas Belleville would exit boatbuilding and transition to C & C Yacht Sales Ltd. operating as a retail and showroom. This resolved nothing on the interpersonal level: relationships between Morch and the other principals, particularly Hinterhoeller, became ever more difficult and Morch finally threw in the towel in 1972. Morch sold his shares and left the enterprise entirely; as part of the deal he was able to repurchase Belleville Marine Yards and would run it, but now as a marina.

With Morch and Belleville Marine out of the picture, who would take charge? Bruckmann's shop was a marquee business, vital for the corporate brand in terms of racing successes and certainly high value, high margin projects, but it would always be small in terms of volume and revenue. In many respects, Hinterhoeller was the big man in C & C, the mass production mastermind that drove sales and ultimately profits. Now he was in charge of everything and hated it. The hands-on part of company president was shaking other people's hands and endlessly shuffling and signing papers. He spent ten months as CEO before demoting himself back to his old job as VP of manufacturing.



The classic C & C 35 Redwing, Cuthbertson's personal favorite Photo Adam Hunt

Now with Hinterhoeller out, someone had to be CEO. No one wanted to. Cuthbertson didn't want it, Bruckmann, as noted was not familiar with volume factory production. At any rate, Bruckmann had certain anti-managerial eccentricities. According to Cuthbertson:

He's a European trained, old-school craftsman. But he gave us fits as a manager...as he runs rampant, trying to find better ways to build boats.

I think, that in a production environment, this refers to building something that works well enough, only to have the master builder declare he was unsatisfied and then rip the completed work out and trash it so he can start over on what he thinks is his new and better idea. Bert Minett had the same tendency and needed a more stable influence such as Bryson Shields to tell him to leave it be and move on to the next project.

Cassian certainly wasn't the man for the job either, as Cuthbertson noted in an interview with Dan Spurr:

People wondered why I didn't turn [the design shop] over to George Cassian, and that's a fair question. The answer is that Cassian was an excellent designer and draftsman and a god-awful manager. He was a good guy. A charming fellow. Very sociable chap. Pleasant, easy-going... There was no way I could put him in charge of administering an office of half a dozen people.

Cuthbertson had also been absent, burned out from, as he put it, 22 years of trying to make it in the yachting business and had retired to his farm to recharge. He had put the design shop under Robert Ball. An Ottawa boy, Ball had taken his degree in naval architecture at the University of Michigan, joined Cuthbertson & Cassian in 1966 and had proven himself to the point that he became VP of Design at the age of only 30. Although Cassian was very much the senior in terms of experience, he had no managerial ambitions, at least according to Cuthbertson, or at least did not register any resentment at being passed over for the job, also according to Cuthbertson.

In the absence of any succession plan, Cuthbertson returned to take the top job, as he put it, on an interim basis until a professional manager could be found. This did not happen, and any professional manager would be insane to take a position like this. You would be supervising people who were both directors and officers who owned a controlling share of the company and

who could potentially veto any real business changes you wanted, or force to you pursue ventures you didn't agree with; essentially you would have all the dirty jobs and no real power. As the new top boss, Cuthbertson was not afraid of making decisions, which is a good thing for a CEO, but once a decision was made, there was no going back, even when the evidence was against it. The most important decision now was expanding production, and where and how that would take place. In the early seventies, business journalism was all about the multinational, an enterprise with a worldwide footprint. There was political concern about this, as people became aware of just how many of the country's businesses were headquartered and controlled by persons living abroad. But Maclean's magazine decided to allay fears of missing out, and in an issue in the early 1970's noted that, indeed, as the cover article pointed out "Yes, there are Canadian Multinationals". C & C Yachts was about to become one.



C & C 27 Mark III version updated in 1974 Photo Adam Hunt

J. J. Taylor: Changing Course? 1960-1993

By the mid 1960's, most of the old-line wooden boat shops had closed or were, as ER staff might put it when describing a hopeless patient, circling the drain. Some, such as Gilbert and Ayling, had been wise enough to expand into the marina business, offering easy access slips where boats could be lined up like cars in a parking lot; all were moving away from the open mooring system. Slips were more orderly, the boats were easier to control in heavy weather, and you could charge for space, usually around five dollars a foot for the season. You could also sell services, such as gas, engine repair, lifting in and out and land storage for winter. J. J. Taylor & Sons was still in business and it still a marina service and an enviable location on the Toronto waterfront. Most of the remaining projects (mostly cruisers) were still made of wood, but the company had made at least an early test foray into fibreglass. George O'Day was already a racing star when he decided to parlay his reputation into boat building with O'Day Corp. in 1958, setting up in Fall River, Massachusetts. O'Day had plans to expand into Canada and hired a sales agent named David Morris. O'Day thought the future of boatbuilding was fibreglass and bought nearby Marscot Boat company to do the fibreglass work. The boat was a 24-foot sloop known as the Dolphin, of which a test run of 12 were produced. All but one hull was completed and finished by O'Day, that one was shipped to Toronto in two parts, the bare hull and deck. The plan was that J.J. Taylor would buy the bare fibreglass components and then finish the boat at their shop. O'Day would get it's cut from producing the pieces and paying duty only on the shipped value of the goods, Taylor would get it's cut from finishing the boat for final sale. The two parts were displayed at the 1960 Toronto Boat and Sportsmen's Show so the attendees could see what went into this new type of boat construction. Then the O'Day investors flipped the Marscot plastics operation to a truck body manufacturer, and O'Day himself went off to represent the United States in 5-meter class at the 1960 Summer Olympics in Rome. When O'Day returned, he tried to set up a new production contract with Lunn Laminates of GM's Corvette autobody fame, but the Canadian end of the deal got lost in the shuffle. Taylor completed the solitary Dolphin and Morris bought the boat and presented it to his wife as a wedding present.



Failed fibreglass demo O'Day-Taylor Dolphin sloop eventually became Lezah, for David and Hazel Morris

Taylor let it's fibreglass boat program slide. The sons (and daughter) were eyeing retirement and near the end of the decade began putting out feelers for a sale. Jack Martin, president of Challenge Industries Ltd., a manufacturer of school and office supplies, began looking for a new venture, particularly in the marine industry. He hired an industry up and comer, Allan Nye Scott, to scope out what was for sale, on the plan that he would buy the business, and Nye, who already had plastic manufacturing experience, would run it. The deal closed in 1969.

CS Yachts: Entrepreneur meets Business

16-year-old George Cuthbertson wrote in a letter to L. Francis Herreshoff saying, "All he ever wanted to do was to be a yacht designer." Paul Tennyson only wanted to own his own business and like many aspiring entrepreneurs he cycled through a few dead ends before finding his product. In 1955, just out of school, he started off as car salesman in Toronto, this lasted less than a year and he decided to go independent. Many up and comers in Toronto advertised services as "manufacturer's agents" i.e. travelling salesman, moving from house to house or business address to the next business address, arriving at the front desk and asking the secretary if he could just have a "few moments of the owner's time to demonstrate this new..." There were all kinds of manufacturers eager to engage with equally eager franchisors; Tennyson's first was Criterion Distributors, to sell fine dinnerware china. In 1958 he set up in a tiny office space at 719 Yonge. But most people who had money to buy china already had a collection as a result of china registries, a neat system set up by big department stores where wedding guests would pay for a portion of an agreed china collection as a gift, so there was little leverage for newcomers. This fizzled and his next venture was to be sucked into the flexible marketing hose of Kirby Vacuums. Even then a Kirby was a very expensive machine, the top of the line in the vacuum business and the commission for Kirby's was one of the highest per dollar in the sales industry, but Kirby had a habit of granting franchises to pretty much anyone who wanted one and it quickly became oversold. In the 1962 *Might's Directory* Tennyson referred to himself as "Vice-President" of Cyclo-Vac Industries, headquartered in a grim one-story windowless warehouse mall on Canmotor Ave in Etobicoke. Cyclo-Vac lasted a year.

In 1963 a sailboat company appeared in the directory known as Polynesian Sailcraft, a side venture of George Beange, who ran G & C Cartage with his brother (George died relatively young a decade later, it was his wife Edna who became a formidable figure in the community of East York, serving as the then city's mayor before amalgamation. She died at 98 in 2018, but there was no mention in her obituary of any interest in sailing as a pastime for her or her late

husband; the driving force in Polynesian Sailcraft does not appear to be a pastime turned business, but purely an investment). George was partnering with a Helmut Julino in the venture, we know nothing of Mr. Julino, he was not living in Toronto, then or later. There had been a big marketing campaign to sell the latest iteration of *Mutiny on the Bounty*, with Marlon Brando, the images of the *Bounty* itself at full sail and the little native outriggers stuck in the public imagination (the movie poster showing Brando with the future Mrs. Brando wearing only a grass skirt didn't hurt either). The movie was a very expensive flop; however, it was good promotion for Tahiti as a tourist destination and helped sell the romance of sailing. By 1966 Polynesian Sailcraft had been moved along to Ben and Marion Morencz, whose main business was Edmor Industries, a window and blind installation firm. The name Polynesian was dropped, the sailboat company was now known as South Wind Sailcraft Ltd. The company's solitary product was a small 12-foot catamaran, a fast sailer, but perhaps a little too much for 1966 Toronto, then the least exotic city on the planet Earth.

In the 1964 *Might's* (the year of the *Directory* is always a year ahead of the data) Paul Tennyson was on his fourth career, selling reinforced fibreglass products, once again, the "VP" of Terraplast Industries Ltd. Terraplast Industries was located at 3 Parnell Ave., like Cyclo-Vac, in yet another grim one-story almost windowless strip warehouse way out in Scarborough (Toronto, East York, Etobicoke, North and East York were all independent municipalities at the time). Joe and Maria Stelter were listed as President and Secretary of Terraplast but neither ever lived in Toronto; I suspect they were running a distributorship in some other city and Tennyson, in spite of his title was once again just a sales agent with a small room with a desk, a phone and product samples (the main non-marine consumer application of fibreglass at the time was ribbed translucent privacy fencing, for backyard pools and such; it discolored quickly in sunlight and was a natural dust magnet, and the product vanished after the wood-fence renaissance of the mid 1970's). The VP thing was probably not Tennyson's idea, it was just part of the overall franchisee pitch, an ego boost to make the salesmen push themselves harder and hopefully impress clients.

A couple of George Cuthbertson's Water Rat sailing dinghy's are still around, I've never been able to find any examples of Polynesian/South Wind's product, the little catamaran known as the Scamper; did it even sell? Under the Morencz's South Wind relocated from 74 Tycos Drive in North York to 100 Penn Drive. At the time Terraplast was located at 5300 Yonge Street, also at that point in North York. There is no question that Tennyson was aware of South Wind, I'm sure he knocked on every door of every business with any remote interest in fibreglass products. He took over the company in 1967 and the name left the warm winds of Polynesia and returned

to colder waters, in it's final incarnation as Canadian Sailcraft Ltd. He discontinued the Scamper and engaged Cuthbertson & Cassian to design a 15-foot day sailer named the Caprice. The Caprice was a success and in 1971 CS engaged English naval architect John Butler (Cuthbertson was in the middle of forming the C & C combine and now was a dominant competitor) came out with a trailerable boat called the CS 22. It had a cuddy cabin and was CS's real entry into the sailboat big leagues. It was a hit and 500 were built. Unlike the Scamper and the Caprice, you could take this out onto big Lake Ontario, or any body of water. CS was on it's way. In 1973 Tennyson moved from the cramped space at 5300 Yonge out to a 20,000 square foot plant in Brampton. His financing may have been the bank, there may have been an investor; a Matthew Stirling was mentioned as a "co-founder" of Canadian Sailcraft, but I have been unable to find any information about such a person; there is no Matthew Stirling listed in Toronto from 1950-75, no such person is mentioned in the considerable online databases of Canadian sailing.

J.J. Taylor: New Owner needs New Vision

With the success of CS Yachts and Grampian, and the recent amalgamation of several builders under C & C Yachts, Alan Nye Scott realized Taylor was in an adapt or die moment. Rather than go up against the styled racer-cruisers of C & C, Nye decided to concentrate on Taylor's specialty (and brand reputation) of pure cruising. Rather than hiring a designer, he decided to license a known quantity, in this case the Contessa 26. The Contessa was based a design known as a "folk boat" a one-design style brought about from a design contest in Sweden in 1942. Sweden was neutral in the Second World War, and it seems strange to imagine a country in Europe calmly sailing away while the rest of the continent was busily blasting itself to pieces. Nonetheless, the folk boat was very popular, 4,000 were made and the style was eventually developed for fibreglass in 1966 by British boatbuilders Jeremy Rogers and David Sadler. Rogers and Sadler agreed to the license agreement and built several moulds and had them shipped to the Taylor shop. The Contessa was heavily built and did away with the access hatch to the cabin. Generally most sailboat cabins were accessed by a combination door and roof hatch, the Contessa did away with the roof hatch in favour of a full rear door, and extended a sort of bubble over the roof so one could walk in to the cabin without going in on bended knees, the change strengthened the cabin so it could handle rough open ocean waters, although one would wonder just how daring most Lake Ontario sailors would be; one would doubt they would be taking any serious chances. The lake waves can get up to 10 feet out in the middle of the water, supposedly 20-foot waves have been recorded, but these are extremely rare and only under hurricane like weather events; (this is not the case on Superior, where 20 foot plus waves

are fairly common, known as the “Witch of November” - The Edmund Fitzgerald’s fatal wave was 23 feet). Needless to say, open ocean waves can be considerably larger, forbidding even to a container ship, let alone a little sailboat. In 1984, a New York City property developer named Ernst Aebi took his underage bar-punk daughter Tania on a year long sailing voyage from England across the Atlantic and down into the Caribbean.



Taylor Contessa 26 Photo Adam Hunt

Once back home in New York City she demanded that Pops buy a boat just for her so she could sail it around the world. She was 17 and the idea sounded over the top, although in the 1970's National Geographic made a sailing star out of a photogenic teenager named Robin Lee Graham, who set off around the globe in a Lapworth 24 sloop in 1965 and returned home five years later. Mr. Aebi decided that this journey was safer for his daughter than New York nightlife and bought her a Taylor made Contessa 26. There was certainly inspiring precedence in Graham, there was also the cautionary spectre of Donald Crowhurst and his boat the Teignmouth Electron. Crowhurst entered an around the world race with not much more knowledge of sailing than with Graham or Aebi, but he only made it as far as Argentina before he ran out of effort even though he had been sending out messages of splendid success for some time after and eventually did himself in rather than face the music. But it turned out that Aebi's Contessa, unlike Crowhurst's custom trimaran had the goods and she returned in one piece and into the record books as the youngest female to make the journey. It's the sort of story parents love to hear, the problem child transformed by challenge, all the while side-eyeing their own sullen and underperforming offspring. But Aebi had a surface attitude over the core of a superstar, the sort of person who would always rise to the top one way or the other, in Aebi's case, on a sailboat. If only for a time machine though! Aebi's adventure only began in 1985, long after Taylor had produced several hundred Contessa's including their follow-up the Taylor 26, so the public relations harvest came a little too late to be of much use.

Chapter 22 - Press and Play: The Aluminum Boat and an Original Idea **Crestliner, Naden, Bazooo**

Smelting iron is hard. Smelting aluminum is really, really hard. It involves crushing aluminum ore to the consistency of powder and then mixing in a substance called cryolite and performing some sort of electrolysis to extract the element itself. The process involves a lot of electrical power to make it happen, so it wouldn't happen until a sufficient amount of power generating infrastructure had been built, which didn't happen until the 1880's. The metal's utility was obvious, it was very strong but also much lighter than steel. But in it's pure form it was also brittle, and while aluminum sheets could be made, they were only useful in non-stressful applications. Aluminum casting was tricky and prone to voids. A car restorer once told me how some of the pre 1914 aluminum engine parts would show a crack, only later they would find out the holes were full of a mixture of crankcase oil and casting sand. Ferro outboards used a one piece all aluminum muffler in 1915; it didn't take long before they ended up at the bottom of the lake. Ferro switched to a more archaic multipart brass version in 1916. Spinaway tried a more modern style of twin cylinder outboard in 1923 with cast pure aluminum components; it

literally fell apart in the showroom (I had one once, or at least the pieces). I have several early inboard engines with aluminum crankcases, almost all have multiple bronze or steel plates with little screws holding the patch in place over the fracture line.

The change came in the First World War, with the development of what are referred to as the 000 series, 1000 for pure aluminum with special heat treatments, 2000 for copper-aluminium usually 2% or so copper to 98% aluminum, along with heat treatments, and 3000 for manganese aluminum, or Lynite. Lynite was the decider, it was easy to cast and enabled the production of robust almost all-aluminum outboards like the Johnson A and Elto twin in 1922 and 1921 respectively. Later alloys such as 5000 series, magnesium-aluminum and 6000 series magnesium-silicon aluminum became the marine standard after the war; being both strong and corrosion resistant (the prewar alloys could corrode very badly in a moist environment, I used auto-body filler once to fill the pits in one engine). The 5000-6000 series made aluminum boats possible.

Metal boats were around already. In the 1890's Edward Mullins was out fishing when he felt a bite and stood up in his skiff and went right through the bottom. He decided to explore other ways of building boats that didn't rely so heavily on wood. He built a boat hull using galvanized steel sheets. He set up Mullins Manufacturing in Salem, Ohio and became the largest production (at least in terms of number of boats sold. Still, people still mostly bought wood boats. The galvanized steel sheets were very easy to dent, and after a few years of ordinary usage, your boat, even if it was completely seaworthy, began to look very rough and there was no such thing as auto body filler at the time (other than lead, which was heavy and required special skills to apply) to smooth the surface. The sheet steel was of very high quality and the galvanizing was very thick, even today a Mullins found in a yard usually shows little if any rust. An experimental boat made with a brass sheet hull was tried in 1947, no further models were made, although if it were still around, how nicely it would polish up, though!

Strangely enough, though Clarence Kemp and Harry Greening cofounded galvanized steel empire General Steel Wares (GSW) it never seemed to occur to either to put money into metal boats, they were strictly wood aficionados. Grew's pivot into fibreglass came decades after Kemp sold his interest in the company. Mullins dropped the boat lines after the mid 1930's and focused on metal kitchenware, appliances, and cabinetry. During the war, many factories were contracted to build aircraft components, and developed considerable expertise in aluminum forming, only to find themselves out of the plane business after the war ended. Grumman Aircraft sensed this and even in 1944 began to set up a business making pressed aluminum boat

hulls. W. Douglas Knight already had experience in the metal recycling business and using subcontract know-how from aircraft manufacturers set up a company to produce outboard hulls. The product line was known as Feathercraft, even now a very collectable boat for the antique outboard crowd, known for its curving stern tumblehome that would impress even Earl Barnes. Similarly with Alumacraft, which set up in 1946, it's early models were outfitted with sturdy sheet and particularly cast aluminum components; a level of attention to detail and quality you don't see in today's boats; even the hull gauge metal is considerably thinner. Admittedly the engineering and design has proceeded to a point where this is no issue in terms of performance; it's just that the 1950 boats have a comfortable solidity and can even seem to be overbuilt. The Feathercrafts have multiple flanges and bulkheads, perhaps more than necessary, but you never feel unsafe blasting through heavy surf, you know nothing can hurt these boats, short of shellfire. Another new entrant on the scene was Larson Watercraft, later to be known as Crestliner.

As always, Canada, irrespective of its vast waterway network was always well behind the Americans in adopting new boating ideas, and when it did it came from a very unusual source. The company was Canada Barrel and Keg Limited, a wholly owned subsidiary of The Seagram Company, makers of fine whiskies. Canada Barrel and Keg made the barrels for aging the spirits; one would think that if they wanted to get into the boat business, they would make use of their considerable wood forming knowledge and go head-to-head with Peterborough or Shepherd. Indeed it was bizarre as to why they would get into the business at all. Sam Bronfman, the corporate and family patriarch, hated boats. According to the biographer Peter C. Newman, Mr. Sam's only boat ride ended up running into a wild storm out on the water. Bronfman covered himself completely with a raincoat and proceed to get blind drunk on the company product. And yet, it was the time of diversification. The flavoured booze market had stagnated. Seagram had dropped the ball getting into the growing clear spirits (gin & vodka) market. Many companies were getting into all sorts of business far away from their core, why not Seagram's?

The history of Crestliner is so convoluted it might need some of Seagram product just to get through it, yet this is a critical element of the Ontario boatbuilding world. In the 1960's and 70's Crestliner and Larson products were ubiquitous, it seemed every second 12-foot fishing skiff had the orange, black and silver Crestliner badge at the stern. To at least make things somewhat understandable, there are two foundational companies from the same Swedish immigrant clan, Larson Boat Works, and Larson Watercraft Ltd. Both came from the indefatigable entrepreneurial mind of Paul Larson. Larson started off building boats in his parent's house in

Little Falls, Minnesota in 1905 and went into the business full time in 1915. Larson concentrated on small fishing boats, but also ventured into more exotic designs, most notably the Larson Falls Flyer, a curving black and white creation that appeared to be inspired by an a high-style wingtip dancing shoe. The Flyer has since become a prized collectible by the outboard boat crowd. After the war, Larson, who was into curving shapes, met up with a local named Bob Wold, who had worked in the wartime aircraft production industry. Wold teamed up with Larson in finding a way to shape sheet aluminum into a boat hull. Aircraft of the period were riveted together, so were the early boats. Larson was still uneasy about the prospects of aluminum in a market so dominated with wood, therefore he set up a new company called Larson Watercraft. Watercraft was strictly aluminum, whereas the original company Boat Works stuck to tried and tested wood construction. If the aluminum project fell flat, at least he had the wood division as a separate entity with a successful known market.

*nineteen
hundred
fifty-eight*

Crestliner

aluminum watercraft

*Hydra-Tonic designed for
style leadership... Performance leadership*

The aluminum boat making process was extremely simple. The hull was made in two halves and then joined together. This is a normal process in the autobody business, and in the early days most car bodies were squares and simple curves, but by the late 1920's and 30's, cars began to have compound curves and by the 1940's regular consumer vehicles were almost all

compound curves. One would think that pressing a complete boat hull out of a single sheet was the way to go, but this was fraught with difficulty, much later Grampian Yachts went down this seemingly simple path only to find how difficult it was to pull the completed hull free of the mould, often gouging and cracking it in the process. The two-part approach extended the life of the mould tenfold.

The trick is to “shrink” the metal. As with any boat, other than a square pram, which is a relatively easy build, the boat hull starts out as a basic u-shape at the stern, formed around a flat sheet with a wood mount for the outboard motor to rest on and be clamped to. But as you proceed towards the bow, past the centre line, the metal has a compound curve (three dimensional) joining the straight keel at the bottom while following the curving gunwale at the top, bulging out just enough to provide space for a passenger in the front seat, some storage space and room to put the exterior gas tank. Granted one could make a bulge in a sheet of metal just by hitting it with a hammer, or an 800-ton press. Manually you would pinch the edge of the metal sheet and then hammer the pleats out, the bulge would stay to some degree, so you would continue the process, making more pleats and then hammering them out while the curve bulge would progressively grow until you finally had the shape you wanted.

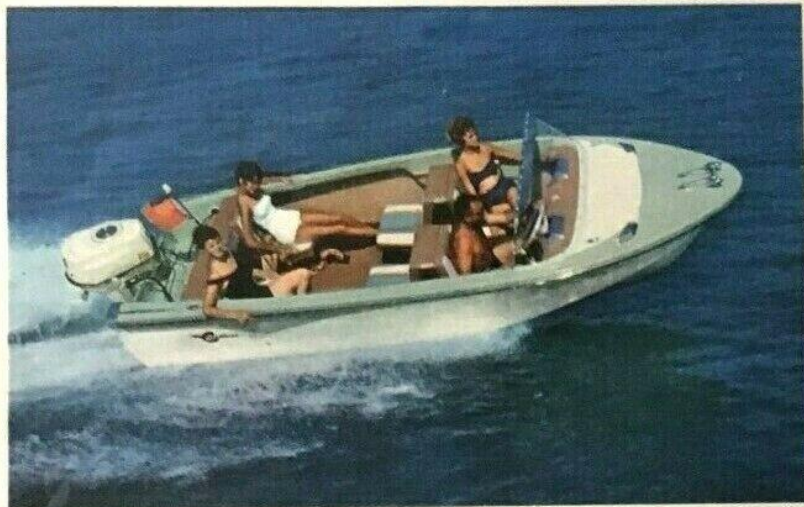
Once the shaping process was through, the rest was fairly simple. The two halves were rivetted together, in the case of our family Crestliner, this simply done by overlapping the hull sheets. After that the boat needed some sort of frame. The early aluminum boats were held together with a series of aluminum H-frames, many such as Feathercraft were overbuilt, but they were definitely not going to fail out in choppy water. Feathercraft did use a lighter gauge aluminum, Larson Watercraft used a heavier gauge sheet but less in the way of framing; the seats were actually part of the load bearing support. By the 1950's Larson Watercraft had a single model in it's line with the name Crestliner. In 1951 Larson had sold a majority ownership to Loiel Ryan, who installed his son as CEO (Bob Wold, the pioneering sheet-metal forming engineer, was shown the door). Ryan Jr. decided that Crestliner was a more marketable brand name, and the company became Crestliner Boats Ltd.



The modern boat plant, no frills, no style. But it did have something the old-line shops didn't, namely space, heat and air conditioning. The new Canbar Marine works in Breslau, Ontario.

When the now renamed Crestliner decided to plant its models in Canada, it followed the sister company's program and went the licensing route, which is where Canada Barrel and Keg came in. The company shortened its name to Canbar Industries Ltd. and set up a subsidiary named Canbar Marine Division to manufacture the Crestliner Canada brand. Canbar had started strictly with small aluminum outboards, particularly the iconic Commander. The Commander was a very optimistic name, 12 feet long and max rated for a 12 hp engine (the only such creature was the 1957 Canadian Elto) and it was the smallest and least commanding motorboat on the lake, lost amid the I/O's, go-fasts and vast cruisers and hundreds and hundreds of horsepower, and competing to rule the 2-foot waves of Big Rideau Lake.

Safe family fun in '61



IMPERIAL DEL RIO



in a

Crestliner

Designed for safe pleasure afloat, Crestliner offers the most luxuriously appointed outboard pleasure craft in Canada. Crestliner offers unsurpassed performance and high-fashion styling in all 29 models in the most complete line of fiberglass and aluminum boats for '61.

Colour-harmonized interiors and rich, hard-wearing upholstery fabrics, together with deluxe tops are all yours in Crestliner.

The toughest production control ensures your safety in every Crestliner model from the 12-foot cartop model to the 17-foot cabin cruiser.

FUN CRAFTED for seafaring folks. If you want fast planing, tight turning and smooth riding for all water sports with an impact strength that surpasses any other outboard... you can have it in a Crestliner.

SPORTS CRAFTED for active outdoorsmen. Here is where Crestliner started. Many built-in safety features, stability, ease of handling, high freeboards, along with generous storage space and ample leg room make Crestliner the sportsman's choice.

**ENJOY FUN AFLOAT IN '61 IN
YOUR OWN CRESTLINER**

DEALER ENQUIRIES INVITED

WESTERN DISTRIBUTORS:
MARR'S MARINE LIMITED
KENORA, ONTARIO

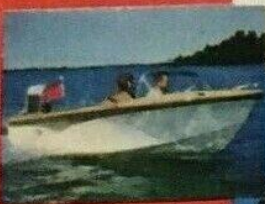
TREADGOLD SPORTING GOODS
KELOWNA, BRITISH COLUMBIA



FALCON



IMPERIAL ARABIAN



IMPERIAL CHIEFTAIN



Crestliner

FIBERGLASS AND ALUMINUM BOATS
MADE IN CANADA BY
CANBAR MARINE COMPANY
WATERLOO - ONTARIO

The Commander was as basic as it gets, three seats made of plywood and covered by Mactac, (no cushioning, you had to add that yourself). The Mactac, a plastic adhesive sheeting had a red oak wood grain printed on it. It was remarkably durable and lasted 20 some years in the hot sun and cold rain before finally beginning to crack and tear. The seats were accented with red oak strips, and the stern motor mount was also oak. There was an exterior shield of genuine marine plywood sheet at the outside of the stern to rest the motor mounting brackets against. And that was pretty much it. The original hull was two sheets rivetted together, there were about 6 rivets per inch, so these boats were very strongly built. There are three formed V-strips along the bottom, one forming a keel and the two alongside, handy for when the boat is hauled up land. The riveting was very time consuming and labour intensive, the hulls began to be welded in the U.S. plants in 1963, typically the hulls were still being rivetted at Canbar up into the early 1970's. But the little 12-foot Commander was a huge success and became the literal fisherman's go-to boat. By the early 1970's it was everywhere. The Commander came painted white with a green bilge; there were less expensive models which were unpainted aluminum. At the time (1967) we paid \$300 for the boat (the white and green one) and another \$300 for the 6 hp Evinrude. Mom was fairly athletic, but there was only so much engine she could handle and went to Martin's Marine and tested the outboards until she found one she could pull over. I've never seen a welded Canbar Crestliner, it seems they stuck with the riveting process. Our has been in more or less continuous and regular use since 1967, the hull has been to leak at speed, but that is almost 60 years now; how many other boats can you say have lasted that long?



The 1957 Crestliner ad, I couldn't clarify the writing

Starting in the 1960's the Larson empire went through a chaotic series of ownership changes. Paul Larson decided to retire and sold Larson Boat Works to Brunswick Corporation, which like American Machine and Foundry, was diversifying outside its original business (bowling equipment) into recreational boating, purchasing Kiekhaefer Mercury Inc. (the plant, the IP and Carl himself). It was a wise move, as Brunswick had made a ton of money selling automated pin setting and ball return mechanisms and also provided financing for the alleys that purchased them. Bowling boomed in the 1950's and then the craze faded, sales slowed, many alleys went under, and Brunswick nearly went with them, only the boat and engine company profits staved off a near bankruptcy. Carl Kiekhaefer agreed to a share for share sale just before the collapse, his one million \$30 Brunswick common cratered to \$1.50 by 1963. Sadly, Larson had taken the same deal as Kiekhaefer a year earlier, selling Boat works for the peak price of \$3.7 million, or \$60 a share. Brunswick was saved by an aggressive bean counter who ran after the defaulting alleys, grabbing whatever assets he could or just writing off the dead contracts and letting the company eat the losses rather than pretend everything was fine; Brunswick and its share price recovered slowly over the next several years. Brunswick Boats Group, which now also included Owens (cruisers) and its subsidiary Cutter Boats (outboard) began to rationalize the production

process by concentrating production into two factories. Larson Boats became the also ran, quality suffered, sales slowed to almost nothing and in 1963 Brunswick gave up and sold the dying product line back to Paul Larson and a consortium of investors for \$160,000 or the equivalent of the now much-reduced share price. In the meantime, Larson, and the Ryan's sold Crestliner to a carpet manufacturer named Bigelow-Sanford for \$2.3 million. Bigelow Sanford gave up on the boat business a few years later and the company was sold for \$2 million to Molded Fibre Glass Company based in Ashtabula, Ohio. MFG sold Crestliner in 1970 to another ambitious conglomerator American Rockwell Corporation, which made Hatteras Yachts and the Whitehouse houseboat line. American Rockwell moved Crestliner along once more to Brunswick's archrival AMF in 1974. In the early 1980's AMF began to rationalize its out-of-control product empire and sold Crestliner to some of its employees, who renamed the line Nordic.

After the original re-purchase of Larson Boats, Larson Industries decided to do the conglomerate thing itself, going into snowmobiles (they made but two) snow skis, and all kinds of water sport equipment, along with pool tables, hockey sticks and travel trailers. The travel-trailer business Rolite was too much, and Larson began to falter, bringing in sports equipment maker Wilson as a shareholder, which sold out to General Boats Partnership in 1972. Finally, 1975 the General Boats-Larson Industries empire collapsed and Crestliner or what was left of it was sold to Genmar Holdings, Inc. which scooped up Aquasport, Carver Yachts, Champion Boats, Crestliner (renamed from Nordic), Larson Boats, Trojan, Hatteras Yachts, Scarab, Lowe and Wellcraft. Genmar was the creation of Minneapolis based entrepreneur Irwin (Irv the Liquidator) Jacobs, known for buying up bankrupt boat manufacturers and adding them to his collection. Genmar was successful for three decades, but Irv the Liquidator's empire was itself liquidated in 2009, finally going bust as a result of the sharp recession after the 2008 financial crisis. The names Larson and Crestliner are still around, Crestliner under Brunswick, and Larson under Polaris Industries, they are now just names on the side of a boat.

Canbar Marine lasted into the 1970's. It was productive, but never a physically large production space. In 1973 the plant was moved to a new location in Breslau (just a few kilometers away on the other side of Kitchener) at a cost of \$125,000. Canbar is still around, producing wood waterflow piping and leather tanning equipment. There is one extant photograph of the Breslau plant finishing area. It is wrongly credited as from 1960. There is a 15-foot fibreglass boat in the picture foreground, being worked on by two men and a woman wearing a bandanna to protect her hair from the dust. The standing man's hair is a dead giveaway to early 1970's. Of the ten boats visible, two have work teams, there is about fifteen workers in the shot. It seems to be a

throwback to the classic British craftsmanship approach, rather than hard Henry-Ford style assembly line system, it was an extended camera exposure, and you can see blurring where the workers hands are moving, using hand screwdrivers to attach the metal components. It's hard to say whether this is a good or bad system, the work is more varied and interesting than performing the same task day in and day out, there definitely aren't enough staff for a true assembly line. These are all fibreglass boats in the shot, there is no sign of any aluminum construction, it appears they were focusing on higher profit margin runabouts. One way or the other, it just wasn't enough. Production lasted two more years before the boat production was closed.

Naden & Bazooo; Navigating the North



Ready to ship Naden Boats website

In the 1930's Naden Electric Scoreboard Company was set up to manufacture electric sports scoreboards in Webster, Ohio. You've seen them; they're still around, a box set up above the play area to deliver scoring information on any sports game, outside or inside. This way everyone could always keep track of how badly your team was getting pummeled. The original ones used a roll of numerical flip cards, the later ones went to electric marquee lights. Naden stopped making these in 2005 as they have been mostly replaced by LCD screens which have become progressively cheaper and larger. But even while the scoreboard business was booming the company founder, William (Bill) Naden became interested in branching out into other ventures, in this case, outboard powered fishing boats. His plant was in mostly bone-dry central Iowa, he spent much of his vacation time fishing in Northern Michigan and after the war became attracted to the booming small outboard boat industry. As with Howard Lund and Paul Larson, the ease and common sense of building a small boat out of sheets of aluminum seemed to be a natural business opportunity, even if it took a long time (almost twenty years) before the industry finally shifted away from the laborious wood crafting process. But unlike Lund and Larson/Crestliner, Naden never grew at the same rate. It's most successful dealership was Wilderness Enterprises Ltd. located in Vermillion Bay, Northern Ontario, near the town of Dryden.



Naden's smallest, the Light Fisherman Naden Boats website

Very sparsely populated, the principal industries in the region were logging, mining, and particularly fishing resorts. In the 1950-70's Cottages and cabins in Northern Ontario were rare; in many cases, access roads to lakes did not exist; some resorts were only accessible via floatplane or barge. The consumer ATV was just coming onto the market in 1971 with a six wheeled square plastic bucket called a Bazooo Amphicat, all Canadian made.

Let's go bazooo-ing!

STANDARD EQUIPMENT FEATURES

Glass fibre body reinforced with wicker weaving.
Heavy Duty steel frame for solid support to running gear.
Positive Forward, Neutral, Reverse transmission.
Two four inch sealed-beam headlights.
Rugged tow bar.
Extra high seat back for maximum comfort—3" foam on seat, 2" foam on back.
Clear glass-fibre fuel tank for easy visual level check.
Compact Tool Kit.

OPTIONAL EQUIPMENT

Fold-down windshield assembly with convertible top, zippered side and back curtains.
Outboard motor bracket.
Custom rain cover.
On-tuxe trailer for highway transportation.
Lightweight Tracks for maximum deep snow mobility.

All specifications subject to change without notice or bonus.

SPECIFICATIONS

ENGINE—Canadian Curtis Wright 12.5 horsepower, 222 c.c. electric start, air cooled. (Manual start available.)

Option—C.C.W. 21.0 horsepower electric start, 280 c.c.

VARIABLE —SPEED —CLUTCH—Salisbury automatic torque converter.

STEERING CLUTCHES—Exclusive Otaco heavy duty disc type.

TIRES—B.F. Goodrich 11.5x20 (29.2x50.8 cm) bonded to rim 1.5 in. dia. (38.1 mm) circumference.

AXLES—Sae all driving 1 1/2" (22.25 mm) diam.

BRAKES—Disc brakes on clutch.

TRANSMISSION—Heavy Duty 220 c.c. reduction, Forward, Neutral, Reverse.

TOTAL WEIGHT—350 pounds (158.5 kg).

CAPACITY—500 pounds (226.75 kg).

LENGTH—86" (2.184 m) **WIDTH**—52" (1.316 m)

HEIGHT—(To top of body)—32" (81.3 cm)

HEIGHT—(To top of seat back)—41" (1.041 m)

GROUND CLEARANCE—7" (17.78 cm)

SPEED—Land 35 m.p.h. (290 c.c. engine) 1.56 km p.h.

SPEED—Water 2 m.p.h. (3.2 km) —This speed can be increased with addition of lateral outboard motor on stern.

FREE BOARD—Fully loaded—15" (38.1 cm)

FUEL CAPACITY—1 Imperial Gallons (1.3 U.S. gallons) 18.18 litres

YOUR **bazooo** DEALER

Manufactured by

OTACO LIMITED

(Leisure Products Division)

Orillia, Ontario, Canada

(705) 325-6121

Telex 0687-5588

Produced by Canadian Boating Magazine

6x6World.com

The Bazooo brochure. from 6X6World.com

It was a re-think of the pioneer ATV, also invented by a Canadian called the Jiger, also originating the low-slung 6-wheel drive configuration. The Pengor Penguin, built in Ottawa in the early 1960's returned to the four-wheel mode and actually maintains a DNA connection to the modern ATV, except the Penguin was amphibious. It lasted only a few years. The Bazooo sported a Kubota 12.5, later 14 hp 2-cylinder diesel snowblower engine and like the original Jiger was six-wheel drive (front, centre and back) and like a tank, there were port and starboard levers to lock whichever side wheels to turn the craft. As the name suggested it was amphibious, and once in the water the tires continued to spin, using a paddlewheel effect from the thick farm tractor like treads on the tires to provide forward momentum (in reality it provided mostly foaming churn). Movement on the water was extremely slow, with the front tire thrust being undone by the rear and centre tires.



Bazooo, with two steering control handles at center of console Photo Owen1983

The Bazooo was a neat idea, but the engine was just too weak to traverse rough back country terrain, there was no suspension, the axles were simply stuck right through the body and the steering setup too tiring after a few hours of use. It was replaced by the notorious three-wheel Honda ATC, which itself was banned after 300,000 injuries and 1,000 fatalities, including a friend of our next-door neighbor's son. With the coming of the four-wheel ATV, the sensible design was in place, but as for truly amphibious vehicles, they are still a work in progress. I have included the Bazooo here as it has the intention, if not truly the ability to be a powered boat, and it was built by Otaco Limited in Orillia. With the six spinning wheels, it was really kind of update of the Polson-Knapp Roller Boat; with enough circular motion thrust would be achieved. With a proper power unit and better steering, it could have been more of a game changer, but the money was not there. Strangely enough the engineering was already there courtesy of Ferdinand Porsche and the VW Schwimmwagen, designed for German Wehrmacht Motor Corps to ford rivers and cross flooded territory; couldn't we have brought back a few after the war and copied them? I don't know.



Naden Laker, simplicity itself *Naden Boats website*

Wilderness Enterprises was run by a Boyd Gordon. In 1971 he was contacted by Bill Naden's son Gardner with the plan to sell the boat manufacturing division to the Wilderness Group. Gordon set up Naden Boats Ltd. keeping the family and brand name. Two more investors bought in; Al Adolfson, a resort camp owner, and later Ed Gawley, a retired Ontario Hydro executive. Equally important was the support of Rainy River MP John M. Reid, who helped finagle a \$67,000 grant from DREE. At the time, the Liberal government of Pierre Trudeau was energetically supporting business investment outside the Central Canada Windsor-to-Quebec City corridor, and DREE, or the Department of Regional Economic Expansion was a sort of Federal Government bank slash Santa Claus that handed out money to any credible sounding business pitch, with predictably uneven results. Some were disasters, but others, such as Naden were resounding small scale success stories. The DREE funding provided for a 14,000 square foot building to be put up just north of the Trans-Canada Highway on route 105. It's still there

as of 2018, it shows up on Google Maps Street View, with blue metal sheeting and Naden Boats Ltd. still visible from the road. Over the years it provided steady employment for about 18-20 production staff, making about 1,000 boats a year on four assembly lines. A career boat manufacturer was brought into manage the plant. The lineup never varied from six basic models, as follows:

model	Name	LOA	beam	weight (lbs)	weight capacity	maximum horsepower (outboard motor)
N-112S	Laker	11'11"	62"	150	670	10
N-114S	Light Fisherman	13'6"	62"	160	770	15
N-14S	Fisherman	14'3"	65"	240	900	25
N-14CL	Canadian Laker	14'3"	72"	265	1235	35
N16S	Big Fish	16'0"	68"	288	1300	35
N-16CBL	Canadian Big Laker	16'0"	75"	310	1609	40

These were all aluminum, the shapes never varied, they were timeless, like the canoe. There was a soft V to a semi-displacement for the smaller 12–13-footer, a deep V for the larger 14–16-footers. The company made and sold the same model lineup, year after year from 1974 through to the 2010's. The hull colours were red and dark blue. The company's operations spanned the last moon landing, the Trudeau years, the fall of Communism, MTV, the coming of the internet, 9/11 and the invasion of Iraq. Gawley took over the company in later years; in 1985 he was listed as "Executive Manager" with "a staff of 15", this is code for the company owner and his

employees. (The Gawley family still own Little Beaver Lodge near Ear Falls, on route 105 just up from the plant site.) Naden Boats ran and ran and produced basically the same line of boats year after year. Nothing seemed to change, the Naden boat was a sort of eternal product, it had reached a plateau of design and applicability; nothing seemed to need to change. But change always happens, eventually.



Top, or at least the largest of the Naden line Naden Boats website

The reasons for the decline of Naden Vermillion Bay operation were not clear. By 2011, there were 13 employees working at the little blue factory. The stated problem was the apparent inability to get new staff; they were lured away by higher salaries in the mining industry. The Canadian dollar was way up against the US\$, making imports cheaper but exports much harder, but it seems that most of Naden sales were in Canada. The sheer durability of the product is a

more likely problem, absent an accident aluminum boats are virtually indestructible, they may get dirty and scratched and need a coat of paint, but it is rare that one would disintegrate in the elements. As so often happens with boatbuilding, at a certain point everyone who wants a boat has one, and it does not need to be replaced. There was some turnover at the various resorts, after a while boats get scratched and banged up, and even though they remain seaworthy, price conscious customers can get cranky when things aren't perfect, particularly in today's instant feedback mechanism, such as Tripadvisor; the sport fishing fleet had to be upgraded on a regular basis.

But a much larger transformation was taking place; the small aluminum boat market (the 12 and 14 footers) was dying. Interest rates were under 4% for most of the 2000's, it was cheaper to finance a bigger boat, such as low-profile bass boat. Bigger boats were heavier, they were more stable, they had telescopic seats, flat floors you could stand on; it was easier to pull your catch in over the gunwale. They had capacity for bigger outboards, often up over 150 hp, the biggest Naden was rated for 40 hp at most.

In 2011, it was time to move Naden Boats once more. The buyer was Andre Lamothe, owner of Temagami Marine, who wanted year-round work for his staff. Once again, government development funding came to the rescue; DREE was long gone, but there were several new provincial government development agencies each of which contributed to the addition of a new 6,000 square foot fabrication facility. The equipment was trucked from Vermillion Bay to Temagami and production was to resume in 2012. Two workers came from the old plant to teach the manufacturing process to the new team and for a while it seemed to be a successful reboot, and plans were made to return production to the 1,000-boat annual output of Naden's early years. Lamothe hired two salespersons to expand the existing (mostly Ontario) 25-35 dealership network to 75 across the country. The company seemed to be a success, and in September 2014 the driving force Andre Lamothe died in a car accident. There are 2015 model year Naden boats mentioned in the company literature, and referred to online, I suspect that the models were actually made in 2014, using the same type of model/year lag as the auto industry. No more model years came after that, and although Temagami Marine is still in operation, there is no evidence of any further manufacture of boats.

**Chapter 23 --- White Hulls, High Hopes: Part Two Grow, Grow,
Grow Your Boat Canadian Sailcraft, Hinterhoeller II, Ouyang,
Grampian, C & C Yachts**



The Grampian 420, in racing trim Photo Adam Hunt

How does one build a fibreglass sailboat or any fibreglass boat for that matter? Basically, a wood boat is built from the inside out, while a fibreglass boat is built from the outside in. When building a new model boat, a wood boat hull and deck base are made out of wood, any wood will do, the model is solely to build the mould. This model is referred to as the “plug”, essentially it is a boat shape to make a mould that will make an actual boat. The plug is critical to the business and needs to be properly maintained and stored as it will be used again and again; moulds degrade over multiple uses and eventually need to be replaced. The mould itself would also be made of fiberglass, and also coated with a gelcoat finish, polished to a very high level as this will form the basis for the sheen on the outer gelcoat surface of the boat hull which it used to make. The magic, if it can be called that, is in the separating solution between the surfaces, known as a parting wax, and a release film. The parting wax is applied first by cloth or an applicator pad, much like waxing your car, assuming there is anyone out there who still does this, other than those who own collector vehicles. Then the wax is buffed with an electric buffing wheel to a high sheen and the release film is sprayed over the parting wax; usually three coats is sufficient. You can buy the modern products online today; they are all purpose made for the job. The mould is built around the plug and attached to a wood girder system for keeping the mould rigid and make it easier to pickup and be moved around. Once the mould is cured the plug can be released and it's boat building time. You apply the parting wax and release film to the mould surface and then spray gelcoat onto the mould surface and then start laying down the fibreglass sheets and apply the resin. For the smaller boats, the hull thickness would be about ½ inch, in the larger yachts it could be up to and over 1 inch. The public has always been told that the hulls are made of successive sheets of fibreglass and resin, and in the early days that was undoubtedly true and the industry standard, and I assume that the Ontario built yachts described here were all made in this fashion. It was not always true of boats made elsewhere. I remember at a boat show one of the wooden racing runabouts had come in a little too hot and had taken a sheer and rammed it's very solid wood and metal stem into a glass cruiser at the nearby public dock. The cruiser had a nice foot wide punch hole in its hull, fortunately above the waterline. Embarrassing, to say the least for race boat driver. But also, for the cruiser builder. The cruiser was moved out of the firing line, and I went over to it's new location to gawk at the damage. Usually with a properly built hull, the damage is torn and ruptured glass sheets, but this was one exterior sheet and what appeared to be shattered chunks of fibreglass substance, hanging by tendrils from the jagged edge of the rupture. What had happened was that the boat hull had a gelcoat applied and then a single sheet of glass, and after that a glop of loose glass strands mixed in the resin, most likely shot out of a hose at the factory to save time and money, and this

was a big boat in the \$200K plus class. It looked good and imposing and luxurious on the outside, but how many potential buyers would poke around on the inside, looking to see exactly their intended purchase was actually built or even know what they are looking for if they did. This is an unfortunate side of capitalism, Good Guy Yachts builds a super solid craft at a high price that could safely carry someone like Tania Aebi around the globe, while Sketchy Yachts builds the same boat with poor quality for a significantly lower price, assuming, probably rightly assuming the older couple that buys it won't take it out onto the sort of rough waters that might cause a hull failure. Over time Sketchy Yachts wins and Good Guy Yachts finally goes under or adopts Sketchy's shoddy practices just to stay alive. When the lawsuits start coming, the bad guys simply declare bankruptcy and start over somewhere else with the same approach. One of the benefits of social media and interest group forums is that there is a network of commentary that puts a lot more critical pressure on problem companies so getting away with murder isn't as easy as it used to be. That is to say, we know a lot more now than we did fifty years ago, when the new technology required trial and error to find out the best practice as noted in a Q & A between Grampian owners and the former plant manager Gil Bibby:

“You mould the boat up – three days maximum – next mould – one day to spray the paint, one day to lay the fibreglass skin, one day to join the two moulds – and then the fourth day you can pull it out. On the fourth day you had to go in there with wood wedges and water. Drive wedges around the hull, stick in a hose and fill it with water. The water picks up the boat and pops it out.”

It would also be a handy quality control tool to test for leaks.

“When we made the first 30 mould we had a one-piece mould. We picked the worst shape out of any of our boats to make a one-piece mould. If you look at the 30', beautiful bow, nice fat body, reverse transom which meant that when you pulled the boat out of the mould, you had to lift the bow to slide the transom forwards and get it through the gap. The first mould lasted for 29 boats. Number 30 came out and the company scrapped it. We were gradually destroying the mould each time we pulled the hull out. We split the mould, we made a new mould for number 30, put the hull in the new mould - a two-piece mould –split all the way round - there was only one way to make them. We got another 300 boats out of that one mould”.

In other words, the moulding process seemed to be a reverse of common sense. In theory the ideal would be use a single mould for the entire hull, but once complete, it was a forceful

process to get the hull out. The stern as Bibby noted was reversed, meaning it slanted forward towards the bow and the hull had to be pulled out upward bow first. The effort was time consuming, and all the yanking and prying destroyed the mould after 30 production runs. It was actually a great deal easier to use the two-piece mould and then glue each side of the hull together. The two-part moulds lasted 10 times longer than the single mould. Gil Bibby continued:

“The 46’ – beautiful boat, full keelboat – it was a different can of worms all-together. To work that hull the men were standing 16 feet in the air. The 46’ was an old-style hull with a walkway around the outside. When you stand on that walkway it was 14 feet down into the bottom of the keel. One time we were working on a boat, we would open up the two halves of the mould, just like a walnut, spray it and lay up the fibreglass. The sheer and the deck edge were laid full thickness, as you get to the waterline it is tapered to nothing to just above the keel. Once that dries, pull the two halves together, join the flash line, then lay up from the waterline – that’s how all your boats are built. In the keel, the 26’ was almost 1 inch thick. The 46’ had 2 centreboards, which was one of the other strange things about the 46’. A full centreboard and you had a trim board in front of the rudder.”

What he meant was that for each hull side the fiberglass wall nearest the keel was very thin, so that the fibreglass sheet joining the sides would match the overall hull thickness, if you have ever put up a drywall sheet, you will notice there is an indentation at the edge, so that the tape and plaster can be put on the joint, so the surface is flat, it was the same concept with fibreglass yachts. Once the two sides had been joined, the deck, which was also made separately, could be attached.

“The 30 was built where you had an empty hull, the deck was joined to the hull. The way we built the interiors – the interior was put in, the deck was trimmed, the joints were glassed and riveted – when everything fit – the fibreglass was laid on the flange all the way round. The decks were dropped on and then they were screw riveted. The toe-rail was added and through bolted. C & C, Ontario Yachts all had a rubber seal between hull and the deck. One of our features is that the deck and the hull are structurally one piece when we finished. The C & Cs., I’m not knocking them – it’s their way of doing it, but their deck and hull joints are not structural.

The 46’ is a Bill Tripp design – a totally different design, for the few that I was involved with, we had this hull mould set up in the shop and we put the two halves together - the two halves were laid with glass. Both halves of the hull at the same time slid out upside down ...What happens is when you let your fiber glass cure at a slower. After 4 days a new hull

in the mould could be floated out – if you left that hull in for a week or two weeks – it would shrink and release and it falls out – put the two halves back into the mould, clamp them in place and join the hulls together.

But given the production push, it is unlikely that Grampian was willing to wait the full week so the extraction would be easier, as soon as it was set up and sufficiently cured to be solid, it was pushed out by the water pressure method.

If you look inside the boat, as you walk through into the forward cabin, you've got a beautiful head knocker - inside that is an oak beam. That oak beam should have been laid up into the actual deck structure. The liner in most of the boats is a pure sanitary finish – easy to clean – that's all it is.

On the exterior of the boat, under the aluminum mast step, there is a raised section. In that raised section is probably two layers of plywood. There's no balsa-core under there. Anywhere in Grampian boats where something was normally bolted through the fibreglass, we never put balsa-core under there...

CS Yachts: The human factor

Therefore, all metal attachments on the boats would be attached to wood, usually a laminated plywood beam to provide something solid for the bolts and screw nails to attach to. Once the hull and deck had been fitted together, then it was the masts and rigging, which were straightforward affairs of drill and bolt. Now you have a boat that can sail, the last part is about the people who are on the boat, and how are they to interact with it, both out sailing, and cruising. CS Yachts, known as Canadian Sailcraft took special attention to what are now referred to as “human factors”.



CS 22 I'm guessing Lac DesChenes, Ottawa Gatineau Photo Adam Hunt

CS Yachts had, so far as I could see, no grand ambitions to dominate the global sailboat industry; they seemed happy to be a successful small manufacturing business. They didn't aspire to become racing superstars. As noted, Paul Tennyson did not see much future in the existing product, a small catamaran called the Scamper and went to Cuthbertson and Cassian and had them design an ultralight 14-foot 250 lb racing cat named the Caprice. Tennyson remains a mysterious person in the industry, he had no personal sailing interests that we know of, he grew up in dreary old landlocked Brampton, a small city north of Toronto, a half hour drive to Lake Ontario. He never was a member of a club, nor is there any history of him hanging out with the other Toronto yachties or crewing a racer. His interest in CS Yachts was simply running a company making a quality product. He wasn't invited to join the C & C project, in spite of his background in fibreglass fabrication and success in building and selling the Caprice model, although he was still pretty small potatoes in 1969. Although C & C came on a dominating competitor to CS, CS simply went on as if nothing had happened, bringing out the CS 22 in 1971 and CS 27 in 1975, both models sold around 500 units each over their respective lifespans.



Paul Tennyson (right) and his VP of Marketing attend a champagne launch of a CS 36. The boat will still need work on stepping the masts and setting up the rigging. The boats were built in Brampton, so they had to be trucked to the waterside and put in the water before all the work could be completed.

The designer Steve Killing (another C & C design team emeritus), on the CS philosophy:

CS builds safe, comfortable cruising boats that perform well. No weird IOR or MORC [offshore racing] stuff. If you take the present CS line of boats in one hand and Tony Castro's various designs in the other and clap your hands, you get the new 30. Castro's for CS and added substantially to the available space aft. The cabin house has a family resemblance to the 33 and the 36 but, as the designer puts it, is "a little more streamlined." Everyone involved with the project is excited about the cockpit. Lots of angles and slopes and nice round corners for snoozing in. If you find all the salesmen asleep in the cockpit at the next boat show, you'll know it worked. When I examine a new boat, I never worry about stating the obvious- like "Look at

the size of that berth!" The quarter berth is more than generous. Unfortunately, I don't have access to the view that really tells the story. How much room is there under the cockpit sole for your feet, what with steering sheaves and all? No one at the shop could give me a dimension, but they say it is just fine. I guess I can't argue with that. The head is identical in layout to the 33. You begin to wonder, since so much of the layout is the same as the 33, how they have managed to squeeze it all in. Much credit goes to Castro and the production team.

It is apparent that the magic selling point for CS Yachts, was as much on the inside as the outside, they had an innate understanding of, and desire to focus on what later became known as ergonomics, or the capacity of a certain object or space to work with the shape and movement of a human body as noted in this critique of the CS 36, brought out in 1979:

The aim of the design was pretty standard: 36-ft cruiser/racer with good accommodations. How many dozens of yachts claim to fill that bill? Yet, as [designer Ray] Wall said, "This is a category everyone wants to fill, but surprisingly there aren't many around with really good accommodations."

A capsule description of the interior _ teak joinery, fibreglass modules, teak-and-holly sole _ doesn't do it justice. As one would expect, it's the designer's particular talent that turns an ordinary concept into something deserving close attention. There is nothing unusual about the layout.



The CS 27 Photo Adam Hunt

A glance at the interior plan will show that Wall has followed fairly standard practice here. But a walk through the cabin demonstrates the importance of first-class design and attention to human proportions. It's not so much the way the interior looks as the way everything, including hand-holds and elbow room, seems to be just in the right spot. This is a cabin that can be lived in even though it has only the basic elements of a standard interior for a 36-footer.

Extra details it does have. For example, the forward cabin is usually considered adequate if it has some drawers under the bunks. Here Wall has designed a set of drawers with cupboard and mirror that will serve the crew well when all five or six are cleaning up for dinner. There's nothing complicated or awkward about it; it just fits right in.

The same attitude is evident in the head. Only a few yachts have a teak sole grating, but there is nothing better for the shower stall. Instead of draining water into the bilge as has been done on some recent designs, the shower sump has its own electric pump. A handhold is well-placed near the head, and this head is one of the few with enough knee room to be used underway with the door closed.

The large navigation table is comfortable to use, the shelf space above it is big enough to accommodate radio, Loran, and several volumes of reference books. Plenty of natural light reaches the table, probably reflected from the white-fiberglass cabin side.



The CS 36 Photo Adam Hunt

CS would go on to sell 400 of the 36-model introduced in 1978, and 450 of the 33-model brought out the next year. Sometimes slow and comfy wins the race. CS remained private, boats left the yard on a flatbed to be launched at a marina, but how many, and how profitable was this enterprise. No one but the company and the government knew, and they could not tell. On the other hand, C & C was quite literally an open book, and it was clear that this was a fast-growing industry, and a product that naturally lent itself to high-speed, high-volume production. CS and C & C began to attract competitors; North American Fibreglass Mouldings, Goman Boat Ltd., Hullmaster, Skene Boats, Ouyang Boat Works, Sirocco Boatworks and Fibreglass and Bayfield Boat Works. After giving J. J. Taylor a new lease on business life with the Contessa, Allen Nye Scott left in 1975 to start his own boatbuilding enterprise, moving into the empty fabrication shop of the former Belleville Marine Yard Ltd. Morch himself had bought back the family marina from C & C Yachts in 1973 and ran it until 2007, when he sold the property to the Province of Ontario. It is now the site of Crate Marine. Jack Martin lost interest in finding a replacement manager and sold J. J. Taylor to Hens Gaastra, the grandson of Douwe Gaastra, a famed sailmaker from the Netherlands. Gaastra had shown interest in branching out from sailmaking to boatbuilding, but his passion for this project faded and by 1979 he sold it to its next, and ultimately last owner, Gary Bannister. Bannister sold the iconic (and by now, given exorbitant property taxes and City of Toronto's eternal plan to "revitalize" the downtown waterfront, no longer practical) location and moved the business to the landlocked, but more reasonably priced industrial suburbs of Rexdale.



CS 36 Winter storage Photo Adam Hunt

Ouyang Boat Works; Such a long Journey, indeed



The Albacore, loved (and manufactured) by one and all; what's in a name? Photo Adam Hunt

Another new entry was Ouyang Boat Works, which set up in Whitby in 1971. Born in 1910 Ti Ouyang grew up in China during the chaos of the warlord era of the 1920's and later the Japanese invasion in the 1930's to the 1940's. Ti kept his head down and stayed out of trouble, all the while learning the woodworking trade. He bounced around various Asian boatyards and finally settled in Calcutta, where he founded a successful commercial boat building and repair business (there was no such thing as “yachting” in the region, as there was no real middle class to support it). At it's peak he employed 100 at the yard and exported most of the product, a not atypical success story in the post communist Chinese diaspora. In 1963 and 1968 India and China went to war over a disputed border in the mountainous region of Sikkim. Prime Minister Indira Ghandi, with her characteristic capacity for overreaction, ordered the bank accounts of all Chinese nationals frozen and virtually prevented them from any travel. Ti's business collapsed.

Through a religious society, (Ti was an active Seventh Day Adventist Christian, another trait that was not popular in Hindu majority India) he was able to be sponsored to emigrate to Canada, on the understanding he, his wife and their three children, Mao, Maokang and Stanley leave India with only \$9 each. He arrived in Oshawa and started over, going to work for the Whitby Boat Works of Kurt and Doris Hansen. He was put to work on one of Whitby's best sellers, the 16-foot Albatross. To keep busy on evenings and weekends, he started building copies of the Albatross in his garage. Kurt Hansen found out about this and fired him. Ironically, Whitby had taken some legal heat from Fairey Marine Ltd. that the Albatross was a straight up copy of their own popular Albacore model. Grampian had already paid a licencing fee to build the model in Canada while it seems as if Whitby was helping themselves to a freebie, certainly neither Whitby nor Ouyang seemed interested in any licencing arrangement, was the look of a boat truly even patentable; the name could be trademarked, but not a hull shape. At any rate, Ti decided it was time to go back into business for himself, but the first iteration of Ouyang Boat Works, or at least the first North American version did not prosper, and for all the trouble it caused, his little Albacore/Albatross knock off, which he christened the Cormorant 16, did not sell. A year later, down to his last few dollars, he was able to get his old job back at Whitby. Talented and motivated employees can be problems, but they are also vital for any business, and most likely the Hansen's assumed he had learned his lesson and would behave himself. This lasted for another year before Ti left again over some trivial production dispute over the teak trim on the boat hull. He always had plans to reboot his own business, and rather than copy an existing design, he hired a naval architect named Robert Tucker for what became his first two successes, the Matilda 20 and 23 came out in 1971 The Cormorant brand was bad luck and had been dropped, both in name and boat; no more 16 footers were built, the Matilda owner's website lists a "Matilda 16" but the official list does not mention it, I suspect this is actually the Cormorant.



Ouyang's Aloha 28 Photo Adam Hunt

Ti pushed his children to pursue a university education, particularly in medicine and public health. He also expected at least one of his sons to join him in the boat business. This apparently contradictory but determined desire resulted in the eldest boy, MaoKang, attending Loma Linda University in California for its health program and flying back home during study breaks to work in the shop. MaoKang seemed much more interested in the boat business than working on his Master's degree, brimming with ideas and energy. He convinced his father to rename the brand the Aloha line. The story was that MaoKang had gotten the inspiration from a Hawaiian girl he dated while at school, but in the late 1960's and early seventies, Hawaii and the Hawaiian experience loomed large in the public imagination as an exotic and exciting travel destination where people still spoke English and there was some semblance of law and order. Shows like Hawaiian Eye and particularly Hawaii 5-0 were hit TV shows and constant ads

showing smiling if somewhat underdressed brown skinned women putting a flower garland over the neck of doughy tourists as they got off the plane helped sell the image. Aloha, which means hello and goodbye in the Indigenous language was about sun and warmth and wind and escape, much more appealing than Matilda, named for a poky and under gunned World War II tank, something waltzing in Australia, or the flat, charmless township adjacent to Green Bay, famous for farming and quarries and settled by crabby Scottish people in the 1820's. Never underestimate the power of a brand name. The first Aloha was the 28-footer, added to the line in 1972. The Aloha was a success, but just designing and building these boats was a considerable strain on the small business and no new model sizes were added in the first few years. Worse news was that the heir apparent Mao Kang fell ill with hepatoma, a form of inherited liver cancer in 1976 and passed away in 1977 at the age of 29. At that point Ti, now in his late sixties called the other two boys Mao and Mao Sang (Stanley) after Mao Kang's funeral and explained that he needed them to get involved or else he would close the little factory and retire. Both dropped their career plans and returned to form a true family business. Mao went straight from the hospital where he had been working as an X-Ray technician to the Ouyang shop floor. He had never built a boat in his life.



Ouyang's Aloha 27, from 1979 Photo Adam Hunt

C & C Yachts goes private, DS goes small, Vandestadt and McGruer goes down the road, Grampian goes under



C & C's real mega, the 67-foot custom schooner built for Michael Davies, publisher of the Kingston Whig-Standard. Photo Ken Heaton

Big, Bigger, Biggest. C & C Yachts started at \$25,000 and could go as high as \$150,000, particularly for one of the 61-foot luxury seagoing beasts that came out of Bruckmann's custom shop. The biggest of them all was a 67-footer ordered by Michael Davies, owner, and publisher of the Kingston Whig-Standard. It required six months of design work and then fourteen more months of work in the custom shop and the final bill is not known, it would certainly be in the early six figures, in 1980 dollars. But even the lower end of the C & C line was a stretch for the average middle-class boater. \$25,000 was a lot of money in the 1970's, at the beginning, it was half the cost of a small house. Who would serve the smaller and less expensive end of the market, something that the average income earner could actually afford? Granted there were many wood sailboats around that you could buy on the cheap and imagine yourself rebuilding in the cramped back yard of your house. But wood boat restoration was still in it's very early stages, and most such owners could only stuff planks with window putty and scrape out rotten areas and fill the hole with Red Hand filler, a stiff, horrible smelling epoxy mixture that dried out into a hard plastic-like substance that didn't adhere that well to wood and had a habit of falling off while underway. Wood sailboats weren't hard to find, you just had to find a big city marina and there would be several, all up on blocks and with visibly wonky looking planks at the stem and stern. I think even more than wood motorboats; the sight of these crumbling monsters was off-putting even to the most delusional hobbyist. It was easier to build a project catboat out of plywood using the plans in a magazine, or by the mid seventies, just buy one and get right out on the water. Enter DS Yachts and Vandestadt and McGruer.



Hit the water, DS Diller Schwill 16, the smallest cuddy cabin sailboat built. Photo Adam Hunt

Schwill Yachts Ltd. started in business in 1970 with the DS-16, a cute, small, and light boat known as a pocket cruiser that weighed a mere 650 lbs displacement and could be trailered behind almost any car, even a VW Beetle (It had a tow capacity of 1,200 lbs, at least that's what the manual said). It even had a cuddy cabin, 5 feet long and 3 feet high, perfect for the flexible and durable young persons who were the most common customers; it was a perfect entry-level craft for someone wanting to get into sailing but didn't have much in the way of money or wheels. You could crawl under the cabin to get out of the rain, that seems to have been all it is good for, there is no real bunk or any sort of accommodations, it is truly a day sailor, drop in at the launch ramp, out for the day, then back on the trailer and home again. Schwill Yachts sold 1,080 of them over it's business lifespan from 1971 into 1992.



Hit the road. DS 16 ready for transport. Photo Adam Hunt

Vandestadt and McGruer started off with catboat dinghies, a 13-footer named the Spindrift in 1965, a 11-footer in 1969 known as the Skunk and the 10-foot Shrimp. The first two were instant bestsellers, the Shrimp somewhat less so as it may have been less necessary with the Skunk. Still all three sold 2,340 units over the company's life, they never went out of style and never needed to be replaced by another model, they were a perfect introduction for sailing for children and adolescents, and for sailing schools to teach the basics of boat handling. But the superstar was the Siren 17, V & M's answer to the Schwill DS-16 the ultimate entry level trailer sailer, with a keel that could be folded up when pulled out of the water, as with the DS-16, even though slightly heavier at 750 lbs displacement, it still could be pulled by almost any car. It remains the most popular sailboat ever built in Canada with 3200 sold. In comparison with

Schwill's modest factory, really more of a shop, the V & M had a very long single-story metal building with a distinctive red roof.



Vandestadt and McGruer's answer to the DS-16, the trailerable Siren 17 Photo Adam Hunt

Grampian Marine: Going south, literally

As C & C began to build up it's foreign operations, Grampian was already having problems with it's own. Bisiker had always considered Grampian to be an investment and he was having less to do with the day-to-day operations and was spending his time trying to revitalize his construction business and also explore opportunities in the booming oil and gas services industry. In addition, he had to spend time tending to his ailing father's businesses as well and as for Grampian, he commented that he "didn't spend much time there but spent a lot of dollars." The family interests were in England and Bisiker found himself shuttling between Toronto and overseas. He did have contacts in England and had already scouted managers to come over to Canada to run the boat plant. In spite of a common language and production skills, British, American, and Canadian business managers had often very differing cultural personality traits, with the British being the worst, unusually arrogant, meanspirited, contemptuous, not above slapping staff or grabbing some piece of work an employee had been fussing over and breaking it in their face; this was an unpleasant discipline a young Peter Ayling had experienced while working under Hubert Scott-Paine. This was the inevitable result of the class system, a higher-class person was privileged because they were born better than those beneath them, the manager was smart, and the workers were hopelessly stupid and slow and needed to be constantly told how to do their jobs. The first time, however, it worked. Bisiker hired a Don Wilkinson who had worked in fibreglass or to use the across the pond term, GRP, or glass-reinforced plastic for various commercial applications, none of which involved boats. He admitted to Bibby he was not a boat person, but:

'Well,' he said, 'I know fiberglass, I do not know boats but all I know about a boat is pointed at one end and flat at the other. All I want from you is to see the points going through the door.' He said. 'Until we get one a day through that door,' he said 'I'm going to chase you.' And that's how he started.

Bibby restructured part of the shop so the boats under construction could be moved around in accordance with what materials were available and what stage they were at:

"Now when it comes time to move something, which you have got to – if you know boat building, it's a manual trade – it's not mechanical. So you've got all these hulls sitting in this one workshop. You have to get the one that's in number one bay out the door, the one that's

coming into the first bay, the empty hull out of the fiberglass shop, has got to come in that other door. Seven pieces of fiberglass, depending on the size of the boat and the weight, so one of the questions we asked any foreman that we took on 'Can you play chess? If you can't play chess, you can't do this job.' And it was the case that every morning we would get every employee from the assembly shop to play chess – every boat had to move one spot.

One boat went outside, that left one space to work with. Every boat was rotated up one notch to get them through. That took us from 8 'til about 10.30 every morning. And then we settled down and started building. Through '72/73 we were building at least 4 possibly 5 26's a week. Now it appeared one a day went out the shop – it took two weeks to build a 26' boat - one a day left the shop."

In other words, it meant adopting a more assembly line system of manufacture, rather than working on whatever boat happened to suit the work team's fancy; Bibby had mentioned a significant part of the shop had been filled with five boats being worked on "at the same time". The old craftsman system was out, an orderly hard push was in.



Grampian 26 Photo Adam Hunt

The second hire was not so propitious. In 1973 much of Grampian output was being sold in the United States. Grampian bought its fibreglass from the US, its resin from the US, its gelcoat from the U.S. and its sails and fittings from the U.S. all for assembly at the Oakville plant, it only made sense to set up a plant in the US and avoid all the transport, duty, and border headaches. The purchased a vacant factory space in the small (and very dry) town of Edenton, North Carolina, on Albemarle Sound, just a few miles southwest of the big naval yards at Norfolk-Newport News. In theory it was an ideal location, right in the middle of the U.S. Atlantic coast, where boats could be shipped to various oceanside marinas in either direction, particularly to the booming sailboat markets of Florida, where frequent boat-wrecking hurricanes seemed to guarantee a lot of repeat future business. Initially Bibby was charged with bringing the Edenton plant online, which turned out to be a very slow process due to the quality of the local employees. Grampian's boss went and hired another fellow Englishman, this one had experience in boat building and brought him over to shadow the work done at the Oakville plant so he could apply their methods at the Edenton plant. Rather than listening and watching and learning, after a short tour, he began lecturing Bibby and the Oakville shop foremen on what they were doing wrong and made it clear he was going to take a very different approach at the Edenton plant and do things his way, which turned out to be high speed and sloppy. After eighteen months, the troubles had begun to manifest. Mistakes were made in the hulls; quality was such a serious issue that many of the U.S. dealers told Grampian that they would no longer buy product from the Edenton plant but only the Oakville plant. The problem reached a critical point in 1977, and Edenton was increasingly unable to pay its bills and the drain on the Oakville plant was no longer sustainable. The problematic manager was fired, and production was wound down until there was only one large project left, a 46-footer for a customer named Robos. Mr. Robos had already plunked down a substantial progress payment for a hull that was out of the mould, and nothing more had been done. Bibby petitioned for a bankruptcy for the Edenton plant, just to stanch the cash bleed until some sort of plan could be worked out through a court, which was the way such affairs were handled in Canada. But in the US, such bankruptcy petitions were handled under the sheriff legal system, where the sheriff, a bonded municipal official seized the assets and held them under the auspices of his office until they could be sold (as with the Countess of Dufferin in 1876) and the proceeds distributed to the creditors. Unfortunately, the creditor at the very bottom on the line was Mr. Robos, who stood to lose both his unfinished boat and the payment he had already made and was threatening legal action against Grampian. Bisiker gave Bibby the job of sorting the mess out and he went down to North Carolina and met personally with Mr. Robos and convinced him to pony up more money to complete the project, irrespective of the plant's legal circumstances. Robos was not

happy with this, but it was the only possible way to get his boat, and the promise was that the agreed contract price would be respected. It was, largely by stripping the factory of every tool and asset that wasn't necessary for the project and selling it. Eventually, Mr. Robos got his boat, but when the other creditors found out that the lowest level claimant had jumped the queue and to such an extent that there was nothing left, they went ballistic, and an arrest warrant was issued for Bibby. Fortunately, he had been tipped off in time and loaded his family in the car and drove for eighteen straight hours until he safely crossed the border back into Canada. He made it back just in time to find there was a padlock on the Oakville plant as well, the entire Grampian enterprise had collapsed. Bibby and the other more senior employees made enquiries about possibly buying the enterprise themselves, nothing came of this. C & C Yachts quickly leased the plant for a project of their own.



The Grampian 46 Optimistra, on it's first voyage Tim Nye January 3, 2007, article, grampianowners.com



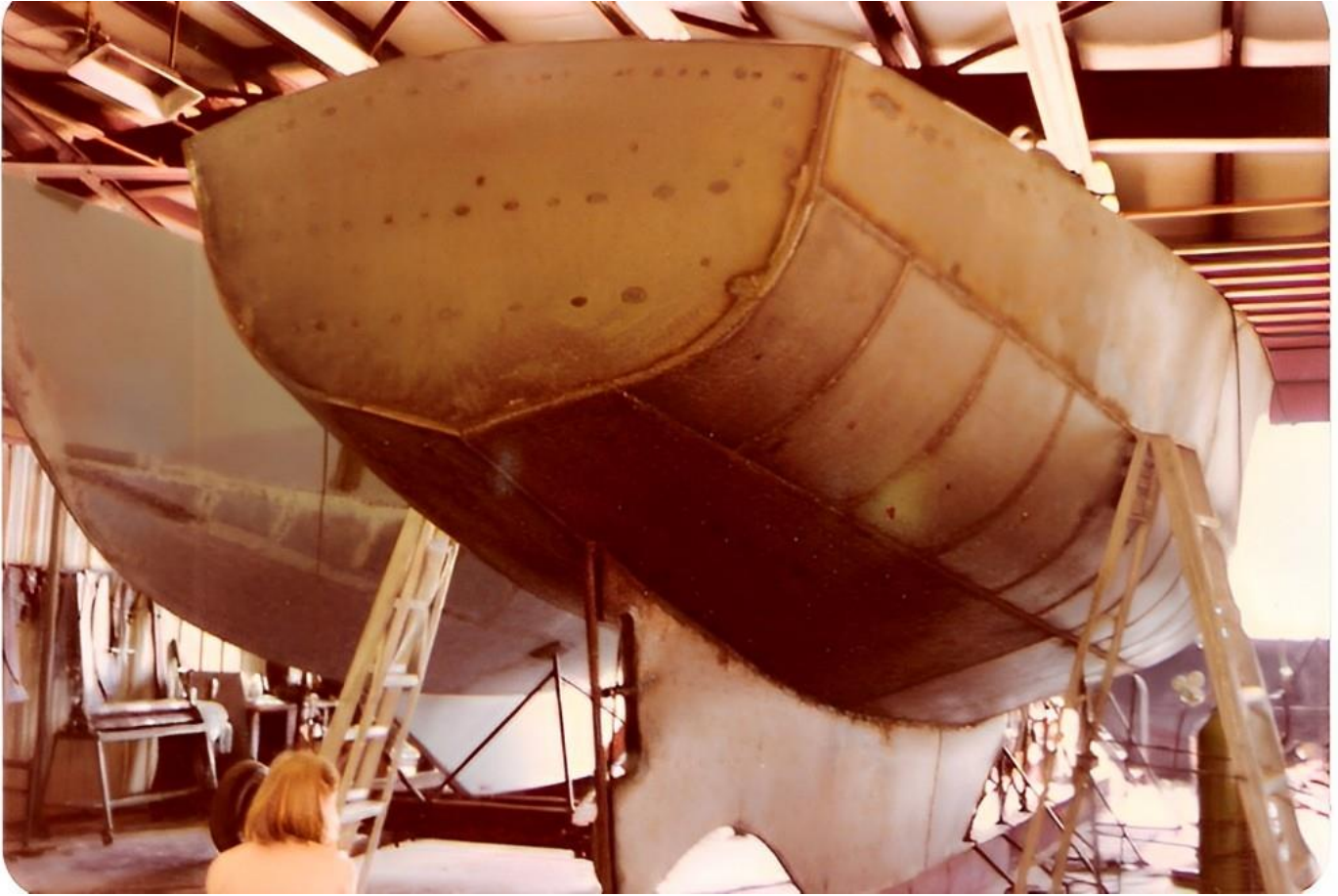
Genesis of the Grampian 46: The Grampian U.S. 41 (top) mould was stretched out with a new stern and bow section added to create a new and longer mould (bottom) for the Grampian 46 (middle) ultimately the last boat to come out of the Edenton N.C. plant. Tim Nye January 3, 2007, article, grampianowners.com

Bibby moved to Hamilton and set up his own boat building and repair shop, working more in wood than fibreglass, building boats for a variety of purposes, even one which was to be destroyed by a film crew making a movie. In later years he focused more and more on mostly wood boat restorations, as well as marine survey work. Bisiker wrote off the loss and began to focus on new ventures, particularly in providing oil service equipment in the Texas Gulf coast. He had no more involvement with boats.

C & C Yachts: Across the border, across the pond

C & C Yachts was beginning to feel the pressure and demands of having overseas operations. In 1973 Cuthbertson had taken the top job and Hinterhoeller had stepped back down into his old post as VP of Manufacturing. A plan to have boats built in Europe was tabled and then put on hold in favour of a stop-gap manufacturing contract with Baltic Yachts Oy Ab Ltd in Jakobstad, on the Baltic coast of Finland; the better plan was to build a dealer network first before making the jump to an owned facility. In the 1974 annual report Cuthbertson noted that sales were “booming”, but were they really? The great inflation of the 1970’s was gearing up, given a push by the OPEC oil embargo, both good and bad news for C&C. The good news was that the skyrocketing cost of fuel shifted boaters away from thirsty motor cruisers and towards natural energy craft such as sailboats (even though most sailboat owners tended to use the onboard motor a lot more than they liked to admit) but the bad news was the inflation was distorting metrics of success. Between 1972 and 1975 the CPI had jumped 34% (remember you have to factor in last year’s inflation in the current year as well, in other words, this year is not just 11% of the base year, but all the compounding inflationary bumps since then). In 1972 3.15 million pounds of raw material went into the plant for sales of almost \$7 million. In 1975 3.4 million pounds were used against sales of almost \$13 million. Granted there were issues of inventory and improvements to wastage, but it still shows how much inflation distorted what otherwise looked like a big revenue jump, in other words, sales were increasing somewhat but not booming. Further the main Niagara plant had reached it’s productive capacity, and Cuthbertson had made the decision to focus on international production, which meant building plants in Kiel, Germany and Middletown, Massachusetts, USA. Although the Kiel plant business would be done in Hinterhoeller’s native tongue, once again he would be on the phone to solve problems, rather than simply get out of his office and see firsthand what was going on; it was too much like being the President again, not to mention the necessity of being on an airplane on a regular basis to visit the other shops. He called it quits in the summer of 1975.

While Grampian was exiting the industry, more builders were popping up. A company called Huromic Metal Industries contact Ted Brewer to design a 35-footer to be built out of steel rather than fibreglass. Brewer explained his recommendations for bending the steel sheets:



The Huromic 35, made of steel sheet, Ted Brewer did both the design as well as the manufacturing engineering. Note how only the bilge plates are shaped, the top and bottom plates are straight, a big cost saving in metalwork. Photo Ted Brewer Designs Ltd.

“Then I considered plating the topsides and bottom with regular sheet metal, leaving only the bilge area to be 'planked'. Essentially, it would be a single chine, vee bottom hull with a large radius shape inserted in place of the hard chine. And, once I discarded that, also because of the weld problems, my fevered brain came up with the idea of rolling a sheet of metal to a large radius, cutting it off in sections, and welding those between the flatter sheet metal topsides and bottom. And that was it; to the best of my knowledge the very first "radius bilge" metal hull ever! Or "radius chine" as some term it; same thing!”

Basically, the hull would be composed of three rows of metal sheets, the above water sides would be straight, the bottom plates would be straight, therefore the only curving and shaping work would be done to the row of bilge plates; only one out of three plates would be formed. In theory it would save a pile of time and effort custom bending each sheet, although as a general metal shaping business, this would be relatively easy for Huromic to do. If you Google up a

picture of one of Kurt Beister's yachts, each hull plate is formed; you can see the hull is a continuous curve, very artistic, but also expensive, and probably part of the issue for the Beister's yard's decline in the 1970's. The metal yacht building business ran with low output for several years before the business closed. One of the last boats, known as the Goderich 35's to go out was made out of aluminum. Generally, the boats were well received by the sailing community, but never effected a change in how boats were built. Fibreglass was king and remained so. But just building a boat out of fibreglass was not enough to guarantee success either, like certain movies, critical acclaim does not always equal box office, and this was certainly the issue with the Douglas 32. An aspiring builder named Douglas Badgeley commissioned a design from Ted Brewer. His company, Douglas Marine Craft started producing the hulls in 1967 as the Douglas 31. The cost of this program was too much, and Douglas Marine collapsed in 1970. The Douglas molds were purchased by North American Fibreglass Mouldings at auction in 1972 and the boat came out as the Douglas 32. North American Fibreglass Mouldings went into receivership in 1974. The owner Jeffrey White was able to reach a deal with the receivers and recommence operations as Command Yachts and the boat was relaunched once more as the Douglas 32, Mark II. The yacht floated; the business sank. Command was purchased in a distress sale in 1976 by De Leuw Cather Canada, who wanted only the staff and equipment, the boat business was shut down. De Leuw Cather sold the molds to Bruce Peninsula Yachts, which made some alterations but still called the boat the Douglas 32 Mark II (although it was really the Mark III). This was Bruce Peninsula Yachts only yacht, it's anyone's guess as to whether they even produced one at all. Two of the other Douglas 31 moulds from the original 1972 auction went to Hullmaster Boats, which produced it as the Hullmaster 31 until that company's bankruptcy in 1979. A builder named Doug Smith bought the moulds from the Hullmaster trustees in 1980, intending to sell the unfinished hulls as kit boat projects; this went south and the moulds were passed on to J & C Fibrecraft, of which I can find no information at all; like Bruce Peninsula, there is simply no business story to speak of, again the Douglas is the only boat attributed to this company. In the space of just over a decade, the lovely Douglas 32 sailing cruiser had taken down seven separate businesses. The surviving moulds finally ended up in the hands of George Hinterhoeller.



White hull, red ink. The Douglas 32 seemed to take down every company that tried to build and sell it. The boat was fine, it just seemed to have a dark financial cloud over it all the time. Photo Adam Hunt

Hinterhoeller II: Big Cat King

George Hinterhoeller left C & C in 1976 and sold his shares. He essentially restarted Hinterhoeller Yachts with a new 62,000 square foot factory in St. Catharines and brought along a number of his old staff from the C & C shop to start up production.

Hinterhoeller Yachts

The Company

It is impossible to see the name of Hinterhoeller Yachts and not to think of the fine and sturdy boats we build.

The materials, the workmanship, the handling, the finish and the price of our boats are always there to be seen and felt.

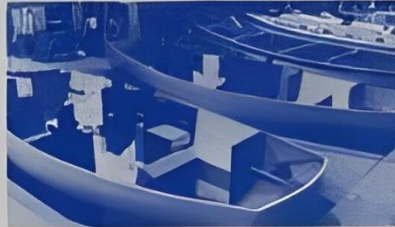
As you know, we have been in business for over 40 years. Our reputation is our strength. We have built many boats and have many happy customers.

Since 1977, Hinterhoeller Yachts has been the leader in the industry in Canada. We have built over 1000 boats and have a reputation for quality and service.

No corners are cut A Hinterhoeller Yacht is a boat that is built to last. We use the best materials and the best workmanship to build our boats.



Hinterhoeller Yachts is a family business. We have been in business for over 40 years and we are proud of our reputation. We have built many boats and have many happy customers.



The design and construction of our boats are always the best. We use the best materials and the best workmanship to build our boats.

Our boats are built to last. We use the best materials and the best workmanship to build our boats.

For safety's sake

You will only feel safe when you are in a Hinterhoeller Yacht. We have built many boats and have many happy customers.

Our boats are built to last. We use the best materials and the best workmanship to build our boats.

Our boats are built to last. We use the best materials and the best workmanship to build our boats.

Our boats are built to last. We use the best materials and the best workmanship to build our boats.

Constantly upgrading

We are constantly upgrading our boats. We use the best materials and the best workmanship to build our boats.

Our boats are built to last. We use the best materials and the best workmanship to build our boats.



For more information call from 1-800-556-7701

8 Keefer Road, St. Catharines, Ontario, Canada L2M 7N9 (416) 937-4410

For more information call from 1-800-556-7701

Back in business, Hinterhoeller Yachts ad from late 1970's. The building at 8 Keefer Street in St. Catharines is now occupied by another (motor) yacht builder Neptunus Yachts. Sorry I couldn't clarify the text.

Hinterhoeller had no ambitions at going public or building a worldwide empire, simply having his own single shop where he could walk down onto the production floor was sufficient. Mark Ellis, who had gone through a brief six months turn at C & C, left, and set up his own business, and now became Hinterhoeller's go-to designer.



Hinterhoeller Nonsuch 22. Hinterhoeller brought out a big catboat as cruiser. Photo Adam Hunt

C & C Yachts: Mega problems

As C & C's top man George Cuthbertson was no longer in charge of the design division, that did not stop from involving himself in the design process. Like any technical artist, which is what a designer is, no matter how mathematically skilled, has to have an intuitive sense of what both looks good and works well. Like every artist, he had his good works and great works and other works that get shuffled aside and are not talked about. Schwill Yachts in Odessa and Vandestad & McGruer in Owen Sound were making small trailerable sailboats; why couldn't C & C produce a large one? The genesis for the idea came from Peter Barrett, whose employer North Sails Ltd. provided much of the rigging used on the C & C fleet. A trailer-sailer would have the same bottom dimensions of a trailerable motorboat, in that it would sit low enough on the trailer enough to float free when backed into the water and could be launched by the owner at any launch ramp and taken out just as easily when the sailing was done. The keel was referred to as folding, but it was in fact a drop-down centerboard system where it could be wound up into the hull with a crank. Barrett sold this as a potential game changer for C & C, one which would not be limited to marinas only on the Great Lakes, or big lakes like Simcoe, but one which could be taken anywhere. This approach was completely doable as noted with the DS-16. But C & C was planning to do this with a 30-footer. Although Cuthbertson was up to his eyeballs in CEO duty, he put his hand in the design process as well along with Barrett, who was described in some articles as a "lawyer by training". This underestimates the man, he was a lawyer, but also a mechanical engineer, and had a degree in naval architecture. Sailing in the Finn (dingy) class for the United States, he had won a silver medal in the Tokyo Olympics in 1964 and gold in Mexico City in 1968. The design brain and entrepreneur behind North Sails was another Olympian named Lowell North. There is no question that Barrett had the lived experience and the educational background, but his hands on work for the Mega was less clear; he is credited with 6 boat designs, interestingly the Mega is not mentioned. But it is clear that he saw a large sized trailerable sailboat as potentially transformational.

One of Cuthbertson's demands was no more crouching, cabin was to be standing room with a 6-foot height (Cuthbertson himself and his protégé David Gee were both 6'2", Cassian at 6 feet even would just fit) but this demand meant a much taller cabin and much higher freeboard. The displacement weight was a surprisingly light 4,500 pounds, by comparison consider the similarly sized model 29, with displacement weight of 7,500 lbs. The keel had a torpedo like bulb at the bottom, the keel would retract up to the bulb which would remain outside the hull while being trailered. Because of the wide load hauling restrictions, the hull, although unusually

high, the beam was the road legal max width of 8 feet in comparison to the 29's more comfortable 10-foot beam.



The C & C Mega, underway Photo Adam Hunt

Because of the higher freeboard, it sat higher out of the water and had more surface for waves to whack into. One of the design staff, Rob Gerrard came up with the idea of naming the boat Mega, and the name was emblazoned on the boat side, in skinny slant lettering, a graphical font that was popular in the 1970's but hasn't been seen since. Rob Mazza and Gerrard were charged with realizing the vision of his boss and Mr. Barrett. Mazza recalled how the problems escalated.

“The Mega was a good example of Cuthbertson's will. [] He solicited comments on the boat, then wouldn't take them. The dealers were skeptical. It was Barrett and Cuthbertson against the rest.”

Cuthbertson ordered the tooling for the Mega for both the Kiel and Rhode Island plants and the rented space in the now empty Grampian plant exclusively for Mega production in Canada. It was supposed to sell 200 a year at \$20,000 per unit, but less than 100 were produced and the model was discontinued the following year. After that, Cuthbertson agreed to a committee consensus product consideration approach, which became the company standard; everyone had to agree before proceeding. With unsold inventory lined up in the yard, the Mega became a kind of grim joke around C & C, per Doug Hunter, one of the design team.



The infamous C & C Mega Photo Adam Hunt

“Less than 100 were ever built, and trailerability was probably the single criterion that led the concept awry. The demoralized design office held its own “what to do with a Mega contest” - one entry suggested sinking them to make break walls. Custom shop head Erich Bruckmann made the best of a bad thing by converting a Mega hull into a cruising powerboat. Mega Putt Putt is still tooling around at eight knots.”

Trailerling was the big problem, and the bigness of the boat was the problem. Trailerling a boat becomes exponentially more difficult the longer it is. Most trailered boats these days are about 18 to 21 feet at most. When you start getting up to size over 25 feet it is a challenge for the average boater and 30 feet, particularly with a big mast requires expert transport-driver level skill. You have to back it up to launch and guide the boat into the trailer when you pull it out,

you have to guide it into place. Launch ramps come in all shapes and sizes and conditions. Most likely the average boater would need to hire towing specialists to do the job, and most likely once or twice a season if that. Plus, you would need a truck, something most average suburbanites did not have at the time, and as a result of the emission standards and expensive gas in the late 1970's, car engines were becoming too small to pull anything larger than an aluminum fishing boat (the 1978 Cadillac did have 180 hp 7.0 litre engine, but it also had a notoriously squishy suspension that made boat trailering problematic). Trailering the Mega was just too much in the eyes of the average customer, and they took a look, shook their heads, and passed it by. It wasn't as bad looking a boat as its designers and critics said, but it did seem a little clumsy looking relative to the rest of C & C fleet and the dumb name on the side didn't help either, more appropriate for an offshore powerboat than a sailing craft. Don Aronow was not immune to dumb names either, naming his first performance model Cigarette at a time when anti-smoking activism was reaching its peak.

The failure of the Mega was one headache in a long four-year performance migraine for C & C. A quick glance at sales from 1976 to 1979 certainly looks impressive, from \$17 million to \$26.2 million, but once you factor that good old 1970's inflation of 8-9% each year, the adjusted 1979 sales are only \$20.4 million in 1976 dollars, four-year increase of just \$3m and change. The actual pounds of input went from 4.5m in 1976 to 5.6 million in 1979, so more raw materials were being used relative to sales. Still, 1976 at least seemed to be a promising point to start C & C's next phase. Cuthbertson and the executives and directors had big expansion plans but where would they get the money? Cash generated over 1970-1976 had been used to finance working capital and plant expansion, and lest we forget that \$489,000 founder "loan" repayment. The good news was that America and Germany were ready to provide support. Rhode Island sold development bonds of \$1.548m to buy the land and build the plant in Middletown, C & C entered into a lease-to-own arrangement with a right to buy the property for \$1 after 20 years. In 1976 they took out a further \$500k to finance the Middletown operations set up and a further \$1,102,000 to purchase land and build a plant in Kiel. The good burghers of Kiel kicked in another \$230 and 253k in 1977 and 1978 respectively. And then the whole thing went splat.

From the President's Report, 1978 Year:

During the year C&C 24 and Mega 30 were introduced into production, in addition to C&C 30E which has been ongoing for the past year. Although employment peaked at 80 hourly employees during the year, manufacturing has now been cut back to produce on an order basis only. Product supplied primarily from our Canadian plant will ensure a complete line to

European dealers.

In an interview with sailing writer Dan Spurr many years later, Cuthbertson elaborated on what he thought the real issue with Kiel was.

“Mind you, we were also selling a lot in Europe, to the extent we eventually put in a plant in Kiel, Germany. We thought seriously about Ireland and Belgium and ended up settling on Germany. That only lasted a few years; we really got on the wrong side of the exchange! When we put in the plan the deutsche mark was worth about 36 cents Canadian. Within a month the deutsche mark skyrocketed to about 65 cents. That was just too out of reach. We could handle a premium of a few percent on the U.S. dollar, but we couldn’t handle that. The Kiel plant was a mistake.

What actually happened? The DM did indeed rise significantly against the Canadian dollar. At the time the plan was floated in late 1975 the DM was trading at \$0.35 of the CAD. But the Kiel plant loan was at \$0.453 CAD, and things progressed as planned. By the time plant operations started the DM was at \$0.50 CAD and then stabilized at about \$0.52 over October 1977 to July 1978, when operations began to wind down. Understandably the loan balance and interest would rise also, this is why one buys currency hedges. The issue of financing operating losses is understandable also, but how much money was Kiel actually losing? The 1979 Annual Report shows the comparative 1978 year as restated to remove Kiel results (this is the accounting equivalent of cutting out the face of your ex from your old photographs) and if you put it side by side with the original 1978 Annual Report and compute the difference, the numbers aren’t that bad. Kiel sales are a respectable \$3.5m CAD. The cost of sales \$3.116m CAD, or 87% of sales, which is way over the expected 80%, but that affected the company as a whole. The operating loss for the 1978 fiscal is \$399,000, not at all an excessive or unreasonable amount, particularly for a first-year operation. The rise of the DM to the \$0.63 might add a \$100k or so, but that certainly wasn’t unbearable for a mid sized operation like C & C, and certainly preferable to the alternative. There is also an upside, that when the operation is profitable, there is a significant bump on translation back into CAD. Was there a problem with sales? There was no evidence of a buildup of inventory, although there were problems with the Mega, which was one of the three boats being built at Kiel, but the Mega was also built at the Niagara and Middletown plants as well. There was also the issue of the \$500k of grant money ponied up by the city of Kiel, how would they react to the plant being shut down and the 80 workers back out on the street? My best guess is that Cuthbertson panicked (he admitted this, more or less) when he saw the exchange rates and instead of seeking advice from the other directors, or his bank, or

calling in some financial analyst, or just wait and see what would actually happen he arbitrarily decided Kiel was doomed and with his one and done style of decision making, there was no going back. The loss burned C & C's books for \$1.326m, which it could not afford. A second stock offering was made in July 1979, this time as a private sale in July 1979 at a price of \$3.15 per share for 350,000 shares, for \$1,100,000 in cash. The founders and the IPO investors, in spite of the company's overall success in production and sales had actually seen their 950,000 shares go down in value, from \$4.375 million to just under \$3 million. But the bottom line over the four-year period between 1976 and 1980 amounted to a cumulative net loss of \$286,000. The Kiel closure and the lifeline share issue in 1979 were gravely concerning; was this company going to survive or were they staring down a receivership? It was made even worse by the shock death of George Cassian who had a fatal heart attack after a game of squash, now only two of the originals were now left, Bruckmann and Cuthbertson. 1980 was profitable, but not by much, pretax profit was \$771k only on sales of \$30.5 million. Poor planning at the Rhode Island plant resulted in a shortage of raw materials in the last quarter, work stopped, and the workers were twiddling their thumbs with nothing to build. The plant manager was fired, but the damage had been done, and there was a time lost write-off of \$485,000. The very public image of potential weighed against struggle was bound to attract the attention of those who thought they could do better.



Hinterhoeller's empire; The plant complex at 526 Regent Street, Niagara on the Lake, 1979 Photo niagaranow.com

Income Statement for C & C Yachts Limited
Fiscal Years 1978 through 1981

	<u>30-Sep-81</u>	<u>30-Sep-80</u>	<u>30-Sep-79</u>	<u>30-Sep-78</u>
Sales	39,652,000.00	30,504,000.00	26,214,000.00	23,468,000.00
Cost of Sales	31,713,000.00	25,878,000.00	21,451,000.00	19,796,000.00
Gross Profit	7,939,000.00	4,626,000.00	4,763,000.00	3,672,000.00

Selling & Administrative Expenses

Executive Salary & Bonus	257,000.00	260,000.00
Consulting fees to Director	61,000.00	44,000.00
Depreciation		-
Translation Gains		151,000.00
Other Expenses	2,576,000.00	2,759,000.00

4,532,000.00	3,200,000.00	2,833,000.00	2,868,000.00
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Interest Expense

Short Term Debt	13,000.00	242,000.00	373,000.00	288,000.00
Long Term Debt	372,000.00	381,000.00	405,000.00	399,000.00
	-			
FX Translation loss	143,000.00	32,000.00	63,000.00	
Loss from discontinued operations			338,000.00	

Earnings before Income Taxes	3,165,000.00	771,000.00	751,000.00	117,000.00
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Income Taxes	Current	1,316,000.00	94,000.00	372,000.00	-
	Deferred	180,000.00	289,000.00		50,000.00

Earnings before extraordinary items	1,669,000.00	388,000.00	379,000.00	167,000.00
			-	
Extraordinary Items Provision for Kiel			875,000.00	

Net earnings for the Year	1,669,000.00	388,000.00	-	496,000.00	167,000.00
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The operating bottom line profit even by fiscal 1980 was a grim 2% of sales. Fiscal 1978 and 1979 are even worse. Fiscal 1981 saw the sale of the company and Cuthbertson stepping aside for David Gee.

Jim Plaxton, a hard-driving do-everything entrepreneur had begun his business career in the small regional airline business. He and partners purchased the ailing Great Lakes Airlines in 1975 and revived the business and then merged it with another carrier, Austin Airways, owned by Stanley DeLuce. The new company was to be known as Air Ontario, or as some waggish customers termed it, “Scare Ontario” for it’s often hard landings. Apparently on a roll, he was

looking for another potential turnaround target and found it in C & C. Already a well-regarded competitive sailor who had participated in several offshore races, he had both owned and raced C & C boats. C & C made great boats, it was one the biggest players in a growing industry, and yet it couldn't seem to make money. Through Air Ontario, he made bid for C & C's shares at the original IPO price of \$4.50. The board turned this down but realized that changes needed to be made now that the company was in play. Cuthbertson, who never wanted to be CEO anyway, kicked himself upstairs to the Chairman position and elevated his protégé David Gee to the presidency. Gee proved his worth and I suspect the ultimate success of the 1981 year recording annual revenue of \$39.4 million and a record profit of \$1,669,000 was his steady leadership and his capacity to plan ahead properly and avoid the disastrous goof-ups such as the inventory issues at the Rhode Island plant the previous year. Plaxton came back from his previous bid and made a second offer at \$5.25 a share, and the C & C board agreed to it, along with a special deal for the shares held by the directors and officers, who would exchange their 404,000 common voting shares for non-voting preferred shares redeemable at \$6.00 a share. There was no "hostile takeover" as some have suggested, it was simply a matter of the offering buyer and pondering seller agreeing on a price, which they did. For a total purchase price of \$7.4 million, C & C Yachts was now a wholly owned subsidiary of Air Ontario.

Chapter 24 Fibreglass Motor Boats: Survive and Thrive **Courtaulds, Auld Hydros, Grew, Rossiter**

Paul Larson's plan in setting up Larson Watercraft was for it to be dedicated exclusively to the new aluminum boat production; if this didn't work out, at least it would not impact the original company Larson Boat Works which maintained a traditional wood construction program. In 1948 Boat Works produced 1,400 wood outboard boats, but Watercraft (soon to be Crestliner) produced 700 aluminum boats and he realized he was onto something potentially big. Needing capital, Larson sold 51% of Watercraft to businessmen Loiel Ryan but kept control over Boat Works for a few more years. The rapid growth of Watercraft inferred that maybe the era of small wood boat building was over. He transitioned Boat Works into fibreglass very early on, in 1956, to produce a non-wood version of the iconic Falls Flyer. He began to expand into more U.S. plant locations and approached chemical giant Courtaulds Canada to produce Larson fibreglass boats in Canada. A British company that rode the wave of the inorganic chemistry revolution of the 19th Century, Courtaulds had it's main plant on the waterfront of Cornwall, Ontario, on the St. Lawrence river, just corner to Quebec. It's a park now (of course) but at one point this and Domtar were the lifeblood of the city, employing thousands of workers (and also giving many cancer, if you lived downwind of the towering smokestacks).

Larson had two options to set up in Canada. The first was to secure factory space, local workers and managers, and a formal incorporation. Assuming Canada was a high growth location, after a break in period (learning time = operating losses) the entity would presumably break even. And then there was the risk of trying out a very new boat material concept (fibreglass) in a foreign country with very conservative recreational tastes; we were big boat buyers (and builders) but we were also wary of new things. The safer bet was licensing. Courtaulds signed onto the licensing agreement and set up a manufacturing area in the plant complex and began to build the boats under the subsidiary Courtaulds Moldings Canada Ltd. The boats built in Cornwall would bear a rounded ID badge on the steering wheel as follows: (More or less, I don't have the correct font in this version of Word)

Larson

By

Courtaulds

Courtaulds paid Larson Boat Works a royalty for every boat sold. Courtaulds was already knowledgeable about fibreglass, or GRP or glass-reinforced plastic, as they refer to it across the pond so it simply a matter of sending the designs, or a least a copy of the wooden plug boat mould, to get the operation rolling.

Canbar Marine Division and Courtaulds Moulded Products Ltd. were operating independently of the chaotic ownership chain of the licensors in the U.S. and simply send off a cheque with each boat built and sold. Courtaulds was making fibreglass Larson's in the early 1960's, now Canbar, following the fibreglass lines in Crestliner US now started venturing into the fibreglass boat market; Paul Larson had originally envisioned Larson Watercraft/Crestliner as the aluminum boat specialist and Larson Boat Works dedicated to fibreglass, now the two companies were separate and going head-to-head as competitors; the Canadian licensors followed suit. Canbar began to offer fibreglass Crestliner models (these were larger runabouts 16-18 feet) by the end of the 1960's.



Wrongly credited to 1961, this is the Crestliner plant circa 1975, check out the guy's hairstyles. Woman worker sitting in boat is more sensible hiding her hair from dust and glue. At this point Crestliner Canbar had gone full to fibreglass.

Both Courtaulds and Canbar and pretty much every other fibreglass boat builder would come to benefit greatly from a dangerous weapon called the Rand Chopper or what the author refers to as a goop gun. Paul Larson came to know a Canadian engineer named David F. Anderson, who was working for Ingersoll-Rand Canada Ltd. in Montreal. Ingersoll-Rand specializes in industrial equipment manufacturing with a particular focus on fluid transfer technologies, (pumps, piping, and spraying). Anderson developed a two-product coating gun that would spray a mixture of atomized resin and pieces of fiberglass string. The idea was that the two items would mix in the air and land on the required surface where needed. It would replace the old craftsmanship system of laying woven fibreglass sheets and then using paint rollers to mush in the resin. The main stated purpose of the goop gun was to “build up” the hull. YouTube videos show the workmen spraying the mould and then laying in sheets of fiberglass, the roving. How

many sheet layers go into an actual hull? That depends on the builder. The more sheets are laid, the more robust the hull, the pure goop mixture is hard in and of itself but does not have the strength of the resin impregnated sheet. I had mentioned elsewhere in this book that I had seen the aftermath of an accident between a solid mahogany Raceboat prow and an upmarket fibreglass cruiser; the resultant hole in the cruiser topside did indicate any real strength, it looked as if the hull was simply sprayed on without any sheeting to reinforce it. I recently watched a video on YouTube of a very large multimillion dollar cruising yacht that had lost control in the Miami canal. It drifted onto a bridge pier that was protected by a sharp wedge guard designed to deflect head on collisions. The boat was only drifting with the incoming tide, only going a couple of miles an hour, if even that and bumped into the steel wedge guard, leaving a vertical row of five neat square punch holes in the hull side. There was no tearing of fibreglass sheets, the only way this damage could have been done was because either there was only one sheet or none at all, the side was simply sprayed goop. If this is the sort of quality put into a \$20 million boat, can you wonder what goes into a \$50,000 deck runabout. I assume the purpose of the goop gun, as envisioned by old-school guys like David Anderson and Paul Larson, was to replace the paint roller approach, not to serve as a construction process in and of itself.



Crestliner ad, 1960's



Crestliner is a name of today

...the most popular name in the boat business today. Crestliner boats are built with the finest materials and the most advanced techniques. They are built to last and to give you the most pleasure and comfort on the water. Crestliner boats are available in a wide variety of sizes and styles to meet your needs. Whether you want a small runabout or a large cabin cruiser, Crestliner has the boat for you. Visit our website today to learn more about Crestliner boats and the many features and options available. Crestliner is the name of today and the name of tomorrow.

Crestliner

Crestliner ad, late 1960s' or early 1970's.

Larson Courtaulds was short lived. The plant kickoff began with the gift of a 16-foot Larson All-American to Prince Philip during the Royal Visit to Canada in 1959. The Prince, a naval officer during the war was a motorboat enthusiast, although the gift was gratefully accepted, did it go the way of most royal gifts, collecting dust in some warehouse in some London suburb? The Prince's favorite motorboat was an all aluminum 1956 Albatross Mk III Super Sports Runabout, built by Archie Peace's Albatross Marine Ltd. of Yarmouth in 1953. That was the boat that was put on the Royal Yacht Britannia and that was his boat of choice. The Britannia was decommissioned in 1997. The Albatross, still in perfect original condition was sold recently for 69,000 pounds, at auction. I have not been able to find any mention of the fate of the Royal Larson All-American Canadian.

The boat itself is a snappy runabout, rated for the 50 hp Evinrude Starflite, with striking red and cream white hull coloring. There is a curved windshield and a basic dash with a 1960's automotive steering wheel. A Larson brochure from 1960 is as follows:

PAUL LARSON PRESENTS . . . the ALL-AMERICAN 142, 160, 162 & 165, SEA LION 170, 175 & 178, 14' PLAYBOY, 14' PLAYMATE, 19' 4" SURFMASTER 198 CRUISER, 19' 4" SURFMASTER 195 CONVERTIBLE, 25' CRUISEMASTER, 14' MARINER 114 & 214, 15' 2" Falls Flyer, and More. Larson Boat Works Inc. Little Falls, Minn., MEDford 2-5481 Larson Boats of Georgia Nashville, GA., Phone 3301 , ect.... Courtaulds Moulded Products of Canada, Limited Cornwall, Ontario.

The two biggest were the day cruisers Surfmaster and Cruisemaster. The Cruisemaster was the biggest at 25 feet long. This is a big boat and needed twin outboards to push it, the brochure photo appears to show two 40 hp Royal Scott's, and they are still straining to get the craft up on plane. It looked impressive, but like many top-of-the-line products, it seemed more for PR or wishful marketing than production reality (according to Lee Wangstad, 25 Cruisemasters were planned, 2 were actually built, one of which ended up as the model in the brochure). In theory, the license for Courtaulds should have included the entire product line, that is what the brochure promised, but the reality, in the absence of evidence to the contrary, is that Courtaulds only ever built the small to mid-size boats and that most of its product was most likely the Playboy and Playmate models.

The very few surviving Larson Courtaulds are dated from the early 1960's. If you have a Larson with a gas gauge on the dash, it is 1965 and after; the only restored such boat has a gas gauge, so the plant was still in operation at that time. There is no evidence of any boats being produced at the Courtaulds plant after 1970, the plant complex, built at the turn of the century

had been partly shuttered in 1959 as a result of ending cotton production, the boat operation was an attempt to diversify and utilize the empty plant space. The remaining Courtaulds operation, which made rayon, closed in 1969; all remaining employees were let go, I presume that also included what was left of the boat plant.

Grew Boats: We're here and everywhere

Grew Boats always seemed to be a cat with the proverbial nine lives; The Henry Gidley era from 1895 to 1911, then the Hugh Warnock era from 1911 to 1932, which included the purchase of Walter Dean. Arthur Grew the apprentice at Aykroyd's until 1907, then his own shop in Jackson's Point, then the Clarence Kemp era from 1932 to 1950, the short-lived Bonnie Boats from 1950 until the early 1960's, the Col. Phillips era from 1950 to his passing in 1964. There were a few more lives left to live. One of the keys to growth had been to specialize; Grew manufactures boats, it relied on others to do the designing and the selling. The designing work was to be licences from US manufacturers with already successful model lines that sold well in the US but were not competitive in Canada due to manufacturing import tariffs. In the early 1960's this had been Cruisers, Inc. The modern market was no longer a boat shop set up on a large well populated lake or water system and hope for local word of mouth and magazine ads. Now the selling would be done through a distributor, in this case Algonquin Marine Ltd. Algonquin built up a Canada wide dealer network, mostly in marine showrooms. Size was no object, if the business could fit a Grew into the showroom, they became a dealer. Martin's Marine, a modest dealer and boat and engine service shop near our cottage, had one single Grew in it's low-slung showroom, the boat was on a trailer and the windshield was almost at the ceiling, you couldn't stand up in it, you had to bend over. That was not a problem for our family, boats like that were for the well off on the lake. Not that I cared, even at that young age I was already a wooden boat snob and turned my very uninformed nose up at all fibreglass boats as some sort of curse. There was always a Grew racing by our point, often pulling a waterskiing yahoo who had to see how close the shoreline he could go with grounding out in the rocks, no one ever did, which was amazing, given how often they tried this and how drunk they probably were when they did. Ah, the 1970's. The all white Grew with its wedge windshield seemed be the boat of choice at the time, every third boathouse or dock seemed to have one. White Grew in the showroom, white Grew's all over the lake, where did they all come from?

SS-151 A new kind of experience

For many, this is the model which will introduce Grew boating. The SS151 allows you to custom select your new Grew. Follow the specifications and enjoy!

SPECIFICATIONS:

Centre Line	14'3"
Gunwale	15'3"
Beam	68"
Forward Depth	34"
Weight (approx.)	675 lbs.
Modified V Hull Configuration	
Cockpit Length	77"
Maximum Horsepower	65 h.p.

COLOUR OPTIONS:

Red Hull and white deck with red interior trim and white seats.
OR
Blue Hull and white deck with blue interior trim and white seats.

SEATING:

Forward bucket seats and rear seat
OR
sleeper seats.

STANDARD EQUIPMENT:

Black windshield; carpet floor and side panels with vinyl keepers;
two stainless steel transom lifting eyes; stainless bow eye; transom
drain; mechanical steering; teak step plates; navigational lights.

ADDITIONAL FEATURES:

This boat is A.B.C. certified and has a 3 year Hull warranty.



As the license with Cruisers, Inc. was winding down in the early 1960's along with sales of the lapstrake wood hulls Grew was building, a major decision was made to switch to fiberglass. Again, Grew sensibly maintained its focus on boat building as opposed to the cost and risk of designing, and obtained a licence from Slickcraft Boat in the U.S. Leon Slikkers had moved from the family farm to career in carpentry and then on to a job working on the Chris-Craft production line in the late 1940's. In the late 1950's as his old employer was starting to stumble with it's problem plagued fiberglass-plywood combo designs, he decided to strike out on his own and formed Slickcraft, which would produce a line of all fibreglass hulls. He did not have capital to build a plant in Canada, but the second-best deal would be earning money from the Grew arrangement.

SS-160 The fun seeker

Just the right size for a family runabout with opportunity to customize through colour and seating options to your taste.

SPECIFICATIONS:

Centre Line	15'7"
Gunwale	16'9"
Beam	79"
Forward Depth	33"
Weight (approx.)	1000 lbs.
Modified V Hull Configuration	
Cockpit Length	84"
Maximum Horsepower	110 h.p.

COLOUR OPTIONS:

White hull and deck with blue interior trim and white seats
OR
Yellow hull and white deck with yellow interior trim and white seats

SEATING:

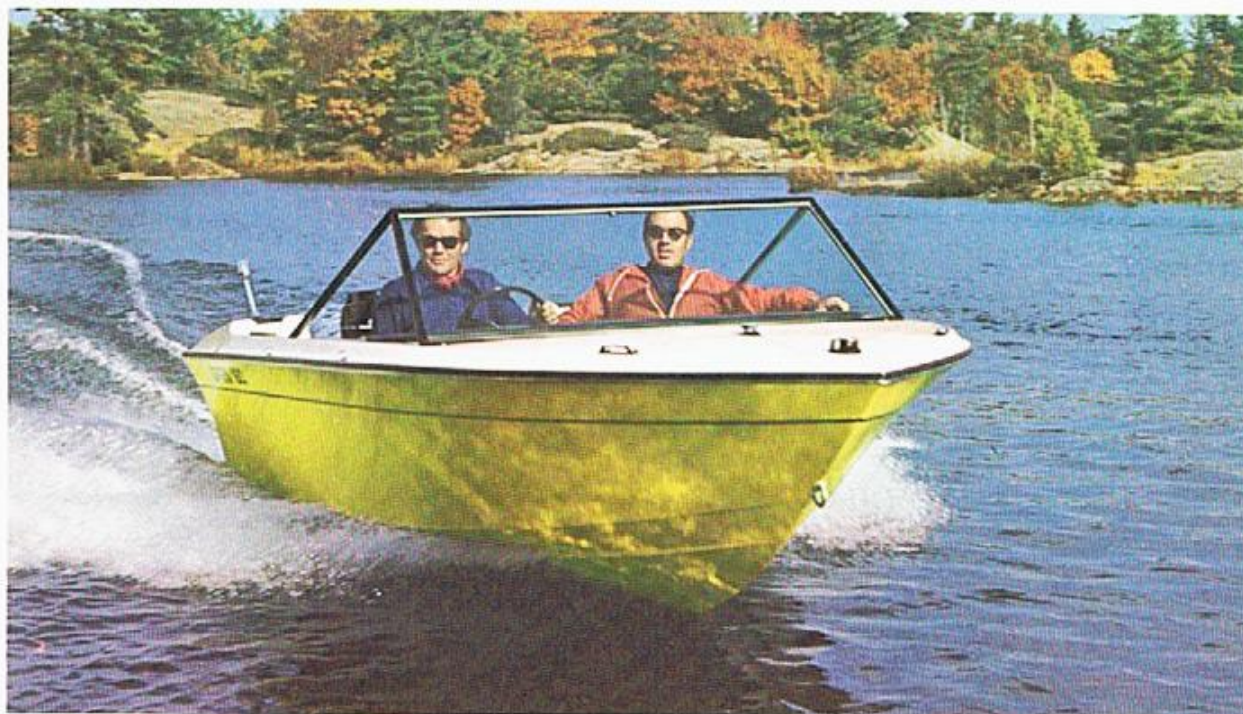
Forward bucket seats and rear seat
OR
sleeper seats.

STANDARD EQUIPMENT:

Black windshield; carpeted floor and side panels; bow curtain; two stainless steel transom lifting eyes; stainless bow eye; transom drain; mechanical steering; navigational lights; teak step plates.

ADDITIONAL FEATURES:

New style, forward bucket seats with full rear seat.
This boat is A.B.C. certified and has a 3 year warranty.



The Grew-Slickcraft license was divided into the outboard line, from 14-19 feet and the inboard-outboard line from 20-25 feet. The inboard-outboard drive system was a big improvement over the old pure inboard of fixed propellor and shaft being deflected against a rudder system. In this case an inboard engine was connected through the stern to an outboard mechanism that provides both steering and shifting. The benefit is that the steering is done with direct propellor thrust, allowing for a car like handling, as opposed to the slow reactive effect of the rudder system. It allows for sharp high speed turns on the water, and most importantly allows for relatively easy docking action, something important for the inexperienced or the chronically uncoordinated. Some primitive designs had been tried out on the late 1920's, by Johnson Motor Company and Ludington Boats, more as test-of-concept than a breakthrough innovation. The set up was simply a direct drive off the inboard engine to a outboard gear, then a 90 degree shaft to the familiar outboard gear foot and propellor; the unit was steered with a rod and pinion system but had no reverse or neutral mode, there was only forward. Both ideas were put aside in the Depression and wartime years, but the idea began to make a comeback in the late 1940's. The first of these was the Kermath Screwball, where the engine was mounted vertically, and the output shaft would extend through a plate on the keel to an outboard drive mounted below. But they had a lot of trouble making the engineering work, particularly in making a several hundred-pound engine sit upright on its crankshaft, and they did so without the design brilliance of the company namesake, James Kermath, who had been pushed out in 1918 and had gone to work for General Motors and in his mid seventies, was still working full time in the Fisher Body division. The few boats with this set up came back quickly, and the idea was dropped. Lou Fageol, the unlimited hydro racer came up with a similar idea while recovering from a crash, to mount the very light Crosley car engine in the same vertical configuration as the Screwball, except that the entire engine swivelled. The little 44 cube Crosley weighed (engine only) a mere 133 lbs and had produced 26.5 hp in the automotive version, racer Fageol boosted the output to 34 hp and sold it in both inboard and outboard configurations. The problem was putting out a huge amount of power through a right-angle gearing set up, which put a huge amount of stress on the gears, bearings, and the bracket to hold the mechanism together. Two engineers at Kiekhaefer Mercury, Charlie Strang and Jim Wynne came up with a proper outdrive system in 1949, Carl Kiekhaefer put the idea aside, convinced that outboards were the future. Wynne left the company and went to work for Volvo to produce an outdrive for Penta, which was introduced at the 1959 New York Boat Show. By 1960, Kiekhaefer realized that outboards were only get so big, 100 hp seemed to be the maximum, and the outdrive was matched to an inboard that became the Mercruiser. Carl Kiekhaefer was wrong about this, outboards would continue to grow in size and output, you can get a single 600 horsepower unit today. He was wrong about a lot of things. In the 1960's he was convinced that

gearshifts were unnecessary and set up a system where when you went into reverse, the engine would shut off and then the electric starter would start the engine the other way; it was not a very nimble process, and the engine became known as the “dock basher”. But he was right more often than he was wrong. He chose a single piston and cylinder size and simply added more pistons for more power, up to the Mark 75 with six inline pistons, ultimately this became the “Tower of Power” for the 100 hp Merc 1000 series; the approach kept things simple, and costs low as opposed to the varying piston sizes used by OMC. The early engines were rated under their actual output, so it seemed the customer was getting more power than they had purchased. He brought the professional racing team approach to his sponsor stock car program, at a time when NASCAR was still a bunch of locals who stuck together a car and then drove it hundreds of miles to whatever (dirt) track the race was happening. His aggressive Germanic efficiency did not sit well with NASCAR’s southern good old boy culture, and in spite of his transformative success, he and his cars are not spoken much of today. Kiekhaefer made sure the outboards were solidly built and mechanically robust. The Martin’s were light and low cost but not very durable and wore out quickly. He was right, at least in 1961, that higher power boat engines would be stern I/O drives, and this became the industry standard, but he and Volvo were not the only models. The 1920’s patent had long since run out, and by the mid 1960’s there were sixteen outdrive manufacturers. Steering was now done with a hydraulic system fed by the engine. The Penta outdrive was modest and rather small, the American machines were big and bulky. Suffice to say the early outdrives worked very well until they didn’t, several seasons of fun on the water and then a growling sound and no thrust and flag down another boat for a tow to the marina or the launch ramp. The mechanism was complex, and the components were expensive and “outdrive repair” usually meant a jaw-dropping bill, even in the 1970’s of several hundred up to two thousand dollars.

The Slickcraft-Grew design was a return to the hard chine deep-v hull of the Jolly Giant era. Like the Giant, there was plenty of room in the deck area, there were a pair of double seats, facing forward and back, and in the inboard models two seats beside the engine hatch, so there were six real seats in total. The engine hatch was padded, so someone could sit on it, if necessary. The outboard usually just had the four-forward seat arrangement only. The Penetang plant had been expanded from 55 to 100,000 square feet back in the early 1950’s, now it employed 80-90 full time staff. A few of the old-time wood craftsman probably quit at the switchover to fibreglass, but there were plenty of younger workers looking for work in a small town, other than catering to the summer tourist trade. With it’s national dealer network managed by Algonquin Marine, and the wood runabout fleet having reached the end of its usefulness and repairability, tariffs keeping out some (not all) American makes, by the 1960’s Grew entered

into a golden age where boats were being ordered as fast as the plant could make them. Gas prices went up in the 1970's but so did the price of everything else, and as a net oil exporter, Canada never had any fuel shortage issue, unlike the United States. Rideau Lake was a boating zoo in the mid 1970's and on sunny Saturday afternoon there were probably 3-400 boats going full throttle somewhere on the water, and this all bottlenecked at the Rideau Ferry bridge crossing. The original route over was a wooden bridge with a swing section that could be used to allow traffic through. It was in place since the 1920's, getting weaker over the decades and in 1966 a transport driver went over it (illegally) and went through, dumping his load of caustic soda right into the drink. A new concrete bridge was installed in 1968, high enough even for the biggest cruiser mast, and it was game on; you could go through as fast or slow as you like. There always seemed to be a large white, or yellow hull aimed right at you, from every direction, at maximum warp. It was not unusual to see Joe Hothead at the helm, beer bottle held high in the air as he passed by. It was your responsibility to get out of the way of a larger boat if you were a smaller boat. Most of the speedy boats were Grew's and they came in all sizes. Here they are, at what was the company's high point, in 1975:

The Outboard Runabouts:

ST-155 Something new under the sun

A happy alternative for those who wish extra interior space, good stability and excellent visibility.

SPECIFICATIONS:

Centre Line	15'
Gunwale	17'2"
Beam	70"
Forward Depth	27"
Weight (approx.)	820 lbs.
Tri-Hull Configuration	
Cockpit Length	75"
Maximum Horsepower	70 h.p.

COLOUR:

Red Hull and white deck with red interior trim and white seats.

STANDARD EQUIPMENT:

Black walk-through windshield; carpeted floor and side panels with vinyl keepers; teak step plates; two stainless steel transom lifting eyes; stainless bow eye; transom drain; mechanical steering; navigational lights; bow rail.

ADDITIONAL FEATURES:

Bow cushions with side bolsters.

This boat is A.B.C. certified and has a 3 year Hull warranty.



SS-143 An all new Grew

The ideal introduction to the Grew family of boating. The SS143 has all the careful craftsmanship and design found throughout every Grew boat.

SPECIFICATIONS:

Centre Line	14'3"
Gunwale Length	15'3"
Beam	68"
Forward Depth	34"
Weight (approx.)	655 lbs.
Modified V Hull Configuration	
Cockpit Length	77"
Maximum Horsepower	65 h.p.

COLOUR:

White hull and deck with beige interior and beige seats.

STANDARD EQUIPMENT:

Anodized aluminum windshield; vinyl floor; vinyl side panels and keepers; two stainless steel transom lifting eyes; stainless bow eye; transom drain; mechanical steering; teak step plates; navigational lights.

ADDITIONAL FEATURES:

Sun lounger sleeper seats.

This boat is A.B.C. certified and has a 3 year hull warranty.



The outboard line were simply sold as boats, the outboard was up to the customer, usually the showroom model was whatever line the dealer carried, at the time OMC-Evinrude OMC-Johnson, Brunswick-Kiekhaefer Mercury, and Chrysler. Grew exclusively made fast boats, they left the small outboard market to the pressed aluminum manufacturers such as Crestliner. In 1975 the top end Mercury's were the 85, 115 and 150 hp. For Johnson / Evinrude line they were the 75 hp, 85, 115 and 135. For Chrysler, it was a 75 hp, 85, 120, 135, although they did offer a 150 hp, but only as a racer and with open stacks, so Mercury still had the lead with the highest power offering. Chrysler was very much the weakest of the four; the company's inboard and outboard divisions were sold to the Bayliner Group as part of the corporate restructuring under Lee Iacocca in the early 1980's, the outboard line eventually returning successfully as the Force brand. Later in the year, Evinrude and Mercury brought their most powerful models to date, Evinrude's 200 hp and Mercury's 175, setting the stage for the superpower units of today, reaching 600 hp on some models. There was little else in the way of competition, Scott-Atwater had closed out just after it's 60 HP Royal Scott in 1958, the West Bend outboard line, including the 80 hp Tiger Shark had been the genesis of Chrysler program after it's sale in 1965. None of these engines were portable and weighed at the very least 220+ lbs a unit; even with several men there was nothing to grab on to. All installations were done with a block and tackle.

For Grew the boat model number reflected the length from stern to prow. The 143 was 14 feet, three inches, the 150, fifteen feet and so on. The 143, 150 and 155 were the entry level series, coming in white, red, blue, and yellow hulls (decks were usually white). There were four seats only, recommended horsepower was 65-70. The 160 came in white or yellow with white deck and interior and was rated for 110 horsepower. The passenger seats folded flat to form a sort of mattress like structure, good for your girlfriend to lie on and get a tan, although not really much else, although the ad referred to "sleeping arrangements"; you would have to be fairly young and durable to use it as bed.

SS-151 A new kind of experience

For many, this is the model which will introduce Grew boating. The SS151 allows you to custom select your new Grew. Follow the specifications and enjoy!

SPECIFICATIONS:

Centre Line	14'3"
Gunwale	15'3"
Beam	68"
Forward Depth	34"
Weight (approx.)	675 lbs.
Modified V Hull Configuration	
Cockpit Length	77"
Maximum Horsepower	65 h.p.

COLOUR OPTIONS:

Red Hull and white deck with red interior trim and white seats.
OR
Blue Hull and white deck with blue interior trim and white seats.

SEATING:

Forward bucket seats and rear seat
OR
sleeper seats.

STANDARD EQUIPMENT:

Black windshield; carpet floor and side panels with vinyl keepers;
two stainless steel transom lifting eyes; stainless bow eye; transom
drain; mechanical steering; teak step plates; navigational lights.

ADDITIONAL FEATURES:

This boat is A.B.C. certified and has a 3 year Hull warranty.



Outboard or Inboard Runabouts

The 170 and the 175 were the same basic hull, and length overall, but the 170 was outboard rated for 100 hp and the 175 the i/o version with a 140 hp engine installed. The 143 through 160 were all deep v style hulls, but the 170-175 had a sort of tri-hull design, a sort of modified cross between a deep v and catamaran. This allowed for the foredeck to be used for seats, presaging the modern deck boat style that pretty much all modern runabouts have. This was still a fairly small boat, and the foredeck seating would probably be better for children or a lighter person, for obvious reasons.



ST-170 Rugged, reliable...even racy

For stability and secure riding at high speeds, the tri-hull is unsurpassed. A fun boat that's perfect for small children.

SPECIFICATIONS:

Centre Line	15'6"
Gunwale Length	17'11"
Beam	78"
Forward Depth	34"
Weight (approx.)	1025 lbs.
Tri-Hull Configuration	
Cockpit Length	74"
Maximum Horsepower	100 h.p.

COLOUR:

Blue Hull and white deck with blue interior trim and white seats.

STANDARD EQUIPMENT:

Black walk-through windshield; carpeted floor and side panels; teak step plates; two stainless steel transom lifting eyes; stainless bow eye; transom drain; mechanical steering; navigational lights; bow rail.

ADDITIONAL FEATURES:

Bow cushions with side bolsters.

This boat is A.B.C. certified and has a 3 year Hull warranty.



Plenty of room and convenience



ST170 — a stable performer

Inboard runabouts



Boat as illustrated includes compass as optional extra

SS-194 Young and alive

A fast, responsive, beautifully balanced hull. Ideal for active people on the move.

SPECIFICATIONS:

Centre Line	17'6"
Gunwale Length	18'7"
Beam	84"
Forward Depth	39"
Weight (approx.)	2200 lbs.
Deep V Hull Configuration	
Cockpit Length	115"
Fuel Capacity	25 gallons

POWER:

Standard	165 h.p.
Options	170 — 190 h.p.

COLOUR OPTIONS:

Yellow hull and white deck with yellow interior trim and white seats
OR
White hull and deck with brown interior.

STANDARD EQUIPMENT:

Convertible top; black walk-through windshield; carpeting; custom wheel; windshield wiper; bilge pump; bilge blower; International lighting; 25 gallon fuel tank with electric fuel gauge; speedometer; tachometer; ampmeter; temperature and oil gauges; single lever control; teak step plates; folding console; bow rail; stern swim ladder; side bolster; fire extinguisher; 12 V electrical circuits with back-lighted switch panel; jump seats.

ADDITIONAL FEATURES:

Centre folding console for drink holding or storage; additional storage under sleeper seats or in the side panels.
This boat is A.B.C. certified with a 3 year Hull warranty.



SS194 built for speed



Easy access to deck, walk-thru windshield

The 194 was a return to the deep v hull, with a standard 160 hp engine and upgrade power options to 180 hp. It had only seating for four and the deep v configuration did not allow for room for foredeck seating. It had a 91 inch, nearly 6-foot beam which meant there was seating at the back on either side of the engine box. The 204 was probably the most popular, it had the same set up as the 194, engine power from 165 to 225 hp. Whenever someone says “Grew”, this is the picture that comes to mind, used for cruising, speeding, crashing through heavy waves, and pulling water-skiers. The 206 was the same length but had a cuddy cabin with a v-berth in it, again, something for those with more durable and lightweight bodies. I won’t call it a day cruiser, as there are no onboard facilities, after a certain point of drinking beer while boating, one must eventually return to land to seek relief, unless it is strictly a boy’s day out, in which case over the side we can go. The 214 is the biggest of the pure runabouts, also popular with the more monied purchasers, although the engine range was similar to the 194, ranging from 165 hp to 225 hp.



Boat as illustrated includes horn and compass as optional extras

SS-204 A getaway machine

Truly a boat that will please both the young and the young at heart. Plenty of power for skiing or pleasurable cruising.

SPECIFICATIONS:

Centre Line	19'6"
Gunwale Length	20'7"
Beam	91"
Forward Depth	43"
Weight (approx.)	2700 lbs.
Deep V Hull Configuration	
Cockpit Length	123"
Fuel Capacity	30 gallons

POWER:

Standard	165 h.p.
Options	170 — 225 h.p.

COLOUR OPTIONS:

Blue hull and white deck with blue interior trim and white seats
OR
White hull and deck with blue or brown interior.

STANDARD EQUIPMENT:

Convertible top; black walk-through windshield; custom wheel, teak bow walkway, folding console box for storage and drink holder; windshield wiper; bilge pump; bilge blower; international lighting; 30 gallon fuel tank with electric fuel gauge; speedometer; tachometer; ammeter; temperature and oil gauges; single lever control; teak step plates; stern swim ladder with integrated taft rail; side bolsters; fire extinguisher; 12 V electrical circuits with back-lighted switch panel; engine box cushion; jump seats; bow rail.

ADDITIONAL FEATURES:

Centre folding console for drink holding or storage, additional storage under sleeper seats, in the side panels and in the bow area. This boat is A.B.C. certified with a 3 year Hull warranty.



Functional console



Handsome interior



Boating pleasure at its best



Boat as illustrated includes mini galley and ski tow eye as optional extras

SS-206 A skipper's delight

A skim across the water proves it's exceptional riding quality. An extremely versatile craft for families and sportsmen alike.

SPECIFICATIONS:

Centre Line	19'6"
Gunwale Length	20'7"
Beam	91"
Forward Depth	43"
Cabin Head Room	32"
Weight (approx.)	2920 lbs.
Deep V Hull Configuration	
Cockpit Length	114"
Fuel Capacity	30 gallons
POWER:	
Standard	165 h.p.
Options	170 — 225 h.p.

COLOUR OPTIONS:

White hull and deck with brown or yellow interior.

STANDARD EQUIPMENT:

Convertible top; black windshield; custom wheel; carpeted cabin; bunk cushions; deck hatch; horn; two windshield wipers; bilge pump; bilge blower; international lighting; 30 gallon fuel tank with electric fuel gauge; speedometer; tachometer; ampmeter; temperature and oil gauges; single lever control; teak step plates; teak drink holder; stern swim ladder; side bolsters; fire extinguisher; 12 V electrical circuits with back lighted switch panel; engine box cushion and jump seats; bow rail and teak taft rail.

ADDITIONAL FEATURES:

Storage under sleeper seats and in the side panels.
This boat is A.B.C. certified with a 3 year Hull warranty.



Relaxing V-berth area



Optional galley with cooler and alcohol stove



Instrument console and optional compass

The iconic Grew 204 and 206, what comes to mind with the name

Day Cruiser/ Inboard Runabout

SS-245 The sun seeker

Take your friends for an unforgettable day on the water — skiing, cruising, fun and good food. What a way to entertain!

SPECIFICATIONS:

Centre Line	22'10"
Gunwale Length	23'8"
Beam	96"
Forward Depth	52"
Cabin Head Room	51"
Weight (approx.)	3400 lbs.
Deep V Hull Configuration	
Cockpit Length	132"
Fuel Capacity	40 gallons

POWER:

Standard	188 or 190 h.p.
Options	225 — 233 h.p.
	Dual 140 h.p. to 170 h.p.

COLOUR OPTIONS:

White hull and deck with brown or beige seating.

STANDARD EQUIPMENT:

Convertible top; black windshield; stainless destroyer wheel; carpeted cabin; two forward 6'8" bunks with cushions; louvered teak cabin door and companion hatch; plexiglass deck hatch; molded fibreglass floor; dual trumpet horn; two windshield wipers; tinted safety glass windshield; anodized aluminum rub rail; two stainless steel transom lifting eyes; stainless bow eye; teak side panels; bilge pump; bilge blower; international lighting; 40 gallon fuel tank with electric fuel gauge; speedometer; tachometer; ammeter; temperature and oil gauges; teak step plates; bow rail and teak taffrail; teak drink holder; stern swim ladder; side bolsters; engine box cushion; jump seats which swing up to lounge area; fire extinguisher; 12 V electrical circuits with back lighted switch panel; non skid decks and floor.

ADDITIONAL FEATURES:

Storage under sleeper seats, in the teak side panels and forward under the bunks. Solid teak trim and louvered teak door.
This boat is A.B.C. certified with a 3 year Hull warranty.





Optional bright and spacious galley



Optional dinette for your dining pleasure



Handsome, completely functional console



Convenient and private head



Optional hard top with sliding side glass

SS-250 For the family that wants to go places

All new to the Grew line, this luxurious overnighter provides the perfect companion for carefree exploring.

SPECIFICATIONS:

Length Overall	24'0"
Beam	96"
Draft	18"
Transom Height	55"
Weight (approx.)	3900 lbs.
Fuel Capacity	75 gallons

POWER:

Standard	188 or 190 h.p.
Options	225 — 233 h.p.
	Dual 140 h.p. to 170 h.p.

COLOUR:

White hull and deck with brown interior.

STANDARD EQUIPMENT:

Black vented windshield with tinted safety glass; plexiglass deck hatch; ampmeter; speedometer; tachometer; fuel, oil pressure and water temperature gauges; 12 V electrical circuits with back lighted switch panel; convertible top, stainless steel steering wheel; teak cabin door and companion hatch; stainless steel bow and transom eyes; locking glove box; jump seats which swing up for lounge area; solid aluminum rub rails; insulated fibreglass motor box; bow rail and taffrail; fibreglass floor; a galley with 2 burner stove, sink, and ice box; a private head with holding tank; sink and vanity and tinted sliding glass cabin windows with screens; stowable table in cabin; recessed galley overhead light; locking radio box; cabin lights; non-skid decks and floor; fire extinguisher; electric bilge pump and blower; horn; anti-glare instrument panel; navigational lights; engine box cushion.

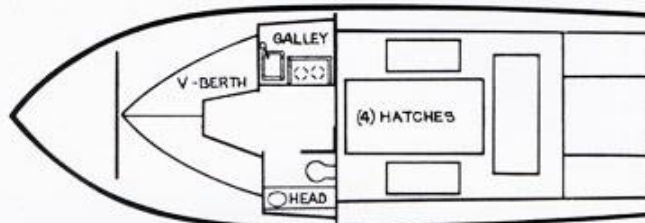
ADDITIONAL FEATURES:

Storage under seats, in the side panels and forward under bunks. Solid teak trim and louvered teak doors.

This boat is A.B.C. certified with a 3 year Hull warranty.



SS250 trailers with ease



Radio storage box



Private head



Stand-up galley area

The 245 and 250 had the same hull, the 245 was the largest runabout, you could actually move around comfortably in the cabin, the 250 was the day cruiser, equipped with a head, basically a toilet and tiny airplane hand sink as well as a galley, with a little stove and mini-kitchen sink, and a fold out two-person dining area. I don't remember ever seeing the day cruiser model on the lake at the time, most persons who could afford a cruiser went with real ones, with the real onboard space, the Chris Crafts, Owens, Trojans, and early Sea-Rays.

Gold is forever, golden ages, unfortunately not so much. In 1969 Leon Slikkers sold Slickcraft to American Machine and Foundry, which was turning itself into a conglomerate, acquiring a huge line of recreational equipment manufacturing enterprises, so many that the product offerings went completely out of control; their most infamous purchase was Harley-Davidson motorcycles, which they basically ran into the ground before it was resold and recovered under a new and visionary management. Slikkers bought Slickcraft back and over the years it ultimately became Tiara Yachts Corp. At the time of this writing Slikkers is 95, still alert and active, a revered elder statesmen of American boatbuilding and one of the few remaining workers from the mahogany runabout era.

Grew terminated their license with AMF-Slickcraft in 1975. But there were no more licensing arrangements for Grew, it would be on it's own, as far as design was concerned. Grew was in for some rationalization of its own and the product line for 1976 was cut down dramatically to twelve to eight models, four outboards, two inboard runabouts and the day cruiser line, the 245 and 250. I'm not sure how to classify the 245, there is a stove and sink in the open stern area, but no head facilities, so you can cook and eat, just not do the other thing that follows cooking and eating; the theory is, I suppose that the 245 would be a marina boat, you would be out on the water for the day and then come back and eat at the dock, and make use of the marina washrooms. The 250 is a legitimate cruiser with both head and kitchen set ups in the cabin. In 1977 Algonquin sold Grew to a new group of investors, and Peter Francis, the former president of Trojan Boats Canada became part owner and general manager. Trojan Canada had recently closed its Canadian operations, centered in the old Shepherd plant in Niagara on the Lake, and Francis was looking for a new venture. It would not pay off.

Auld Hydros: Above maximum warp

In 1996 I contacted the grandson of the owner of Smalley, Fred Gilbert's first performance boat built in 1908 hoping he had some memorabilia or photos. No luck, but that wasn't surprising as the grandfather had owned Smalley for only two years before selling it for a larger, faster

model. “If you want to know something about speed boats.” they suggested I talk to their son Jamie, who was in the hydroplane building business. Where was he. “Right in Brockville, just up Highway 29.

Jamie Auld started in boat racing as a 16 year, racing a Class A outboard hydro with a KG-4H Mercury in 1967-68 along with Rideau racers like Bev Hall and the McManus brothers. Interest in outboard racing had peaked in the 1950’s and 1960’s and by the 1970’s had begun to decline. He did this for two years and then switched to snowmobile racing, once meeting Mercury legend Carl Kiekhaefer at an event. He stuck with this for 10 years and then lost interest and returned to boat racing in 1976, this time up gunning to a 15-foot fiberglass hydro with a racing Merc 1500 (150hp) and began to race in FJ class. Inboard race boat classes had been reconfigured in the 1970’s on the metric system, out went 135-225 cu inch and the new classes were 2.5, 5-liter, 7-liter and unlimited. The 5 liter encompassed a variety of hull styles and included engines using both carburetors and fuel injection. These boats, in spite of the name of the class used engines from 305 cu in to 368 cu in. The popular engine of the time was the Small Block Chev, the so-called mouse motor of the postwar V-8’s. In the early 1970’s GM built some high-performance versions of the 306 cu in (equivalent to 5 liters) which were marinized by OMC and sold to the hot boat crowd. In stock format, they put out around 250+ hp. The 7-liter class used, among other engines, the Big Block GM V-8, which powered the GM pickup and land yachts such as the Pontiac Parisienne and Cadillac. The Big Block, which ran over 400 cu inches in various models could produce 400-500 hp. Your car generally ran at about 2000 rpm and by the time you reached 4500 rpm you were getting close to the red line. Most of these performance boats routinely reached 6000 rpm+.

The plywood hydro era was also over. Plywood was the building material of choice for hydro’s long after it had faded from the family boat scene. It was easy to build, easy to modify and you could build almost any shape and most importantly, anyone with a decent woodworking knowledge could build one. By the mid 1970’s most hydroplanes were now built with fiberglass. It was just as flexible and the same weight and much stronger and less likely to come apart in rough water.

This, as with most racers was a hobby and Auld supported himself with work in the marine contracting business (dock and jetty repair and building in Brockville). In 1979 he contacted an inboard hydro builder named John Gibbs and ordered a 5-liter hydro. Gibbs had his shop in California and was primarily known as a racing prop guy, although he also built boats. He had worked with Ron Jones, who had taken over the Atlas Van Lines unlimited projects shortly after

the death of Bill Muncey. Gibbs had built Muncey's last boat which crashed in 1984, although this was more an issue of pilot, rather than builder error. Muncey had been one of the legends of postwar racing in the 1960's, but even late career comeback couldn't resolve his fading eyesight, which likely caused his final fatal accident.

Gibbs promised Auld that the boat would be completed by the following January, however, he became caught up with other urgent projects and when Auld finally went out to see what was going on, the boat was still in pieces. Auld didn't want to take the 3000-mile drive back empty handed, so he simply stayed on at Gibb's shop and decided to finish the project himself. Auld already had some boat repair experience from his work as a marine contractor, so the learning wasn't too much of a stretch. With help from Gibbs he found his calling. He raced the completed boat in Canada, San Diego, Long Beach, Dayton for one-year and reached the level of North American Champion in the 5-liter class.

After that year Auld built a new 5 liter and once again built it in John Gibb's shop. However, the money was running low at this point. There was some money to be made racing boats in the US, but not much (unlike F1 and NASCAR, boat racing has never been able to attract big dollar sponsorship money and remains the poor cousin of the engine powered racing world-the only exception are unlimited class boats such as Miss Budweiser). To earn a little more cash, he agreed to race a Grand Prix outboard boat and compete at the Picton race regatta held in September. There was a wind, and it was a rough day., nonetheless, the show went on. The boat seemed to be handling well enough, the engine was running fine and pulling speeds up to 150 mph on the straight. In third place, going into the curve the boat had begun to hop. This was due to the type of propellor used, which provided way too much lift and the boat kept trying to fly. The only way to correct this was to speed up or slow down and Auld tried to shake it off by speeding up. Unbeknownst to him, a big piece had come out of the forward sponson and when he accelerated the water caught the hole in the sponson and flipped the boat. Auld was thrown right out of the cockpit and then came down under the airborne hull as both boat and rider hit the water. He suffered a collection of bone breaks, the most serious was a broken vertebra. This is the kind of injury that can paralyze or leave a person with constant back pain, and in the worst case, a combination of both. It took him two years to recover.

Auld returned to Brockville and opened up a small boat repair shop. He built a few small glass outboard tunnel hulls and then in 1984 landed a contract to build a Grand Prix 7-liter hydro, ironically out of plywood this time. This had a 430-cu inch Chev with a supercharger that could put out 1100 hp. This is little more than your car could manage. Auld was developing a solid

reputation in the industry and the following year he got a job offer from Ron Brown, the Crew Chief of the Budweiser Corp sponsored unlimited hydro project. This boat to be named Miss Budweiser, was the first unlimited to be built out of fiberglass and they needed someone with both racing experience and a knowledge of composite material construction. Building racing boats and pleasure boats require two very different skill sets. Production glass hulls rely on getting a solid durable hull out as fast as possible. Race boat building is all custom work and in the case of the Miss Budweiser project, they were operating in a no-expense spared environment. Rather than fiberglass, they were going to use Kevlar and carbon fiber, but exponentially tougher materials than fiberglass, then very expensive and difficult to get a hold of. Carbon fiber was a strategic technology and most of the product was being used to develop Lockheed Martin's next generation stealth bombers.



Auld was on the build team for the 1987 version of Miss Bud, this was the school for new boat building concepts to be put into practice

Miss Bud was made out of a sandwich of epoxy and a carbon fiber/Kevlar fabric skin over a sheet of aluminum honeycomb. The right mix of aluminum honeycomb and carbon fiber skin had to be found. The thicker the honeycomb sheet the stiffer the panel is, but progressively less hard. The finished Miss Bud cost \$1m and arrived at each race with a crew along with 8 spare engines and 10 propellers. It was virtually unbeatable and remains the gold standard for unlimited hydroplanes to this day. Auld became restless and left the project in 1987 to return to

Brockville- he wanted “to be near the river” as he said. He stopped briefly in Detroit to build a composite material Grand Prix for a man named Jimmy King, a boat he designed in 1985 while with the Miss Bud project.

More jobs began to come in and he was able to set up a full-time racer fabrication shop. Auld Hydros was a modern incarnation of the old-style craftsmanship-driven boat building shop. No production line existed. Boats are built here and there in the rooms of the shop on order and orders are always coming in. A completed hull is being fitted out in one room and in another, sponsons are being made using the vacuum bag process. The vacuum bag was a relatively new construction process at the time, where the hull molds are put together and then put in a sealed plastic bag. The air is continually drawn out, pulling the epoxy mixture in, and filling the spaces in the fiberglass sheets and forms much more completely than the old slop and brush method. Completed hulls sit outside in the parking lot awaiting shipment to customers around the world. These are all custom boats. No two are alike. Racing is a competitive field and there are changes in the design of each hull always reaching for better speed or turning. He was planning on buying a CAD-CAM system to allow him to design boats on screen, rather than on paper.



An Auld project, one of the Dynastie series, for Jean-Pierre Lessard Ben Lemay Hydroplane photos

There is no resting in this line of work as there are other builders, some big, some small shops like Auld's and some inspired do-it-yourself types who are constantly experimenting and trying to beat you. When somebody else's boat goes faster than yours, you are history. 90 years earlier

Fred Gilbert lasted just four years building race boats, before he was blown off by planing hull runabouts. At least Gilbert's could rest on its reputation and use it to sell family launches. There's not much chance of that with high performance hydroplanes. But Auld is a modern-day version of the old school self-taught engineer, a breed that hardly exists anymore. You couldn't get a job designing boats today at any of the big builders without a pile of university degrees. Boat racing is still sufficiently small that you can still learn from the ground up. The fact is most professionals do anyway. University is so structured to understand that it tends to ignore the doing aspect of the job, which as most graduates are crestfallen to learn, is what the job really is all about. Some people simply have that ability to see how things operate in the real world, unencumbered by should, and ought and must be that way and the book says so. It can't be taught, only learned and some are simply better than others.



1994 Auld 2.5 Litre racer with F-16 safety cockpit built into the design GR Auto Gallery, Detroit

Auld set up a shop up in an industrial park north of Brockville and began to build racing boats. The breakthrough project was a Grand Prix boat named Orange Crush, which won 7 out of 9

races at Valleyfield, the Quebec equivalent of the Picton Race regatta. As interest in boat racing had declined in Ontario it caught fire in Quebec and now the great racers in Canada are almost all francophone Quebecois.



Auld Hydro's breakthrough racer, Orange Crush

Boat racing is a big deal in Quebec. After a two-year lull, Auld built *Dynastie/Danash* and then “Export A” sponsored by MacDonald Tobacco. Auld built hydroplanes for Jean Theoret and Jean-Pierre Lessard both well-known names in the Quebec and North American circuit. Theoret eventually became the most successful Grand Prix driver ever, so much so some thought his dominance would eventually kill the class, as potential competitors would simply lose interest. By 1994, Auld had several projects on the go and his name was becoming known worldwide as a master race boat builder. Even racers as far away as New Zealand, such as Peter Knight simply ordered the fabricated boat parts and decided to assemble the boat himself.



Would Be, Auld was both owner and driver Ben Lemay Hydroplane photos

Much of this was researched and written in the late 1990's. The Brockville shop closed in the early 2000's. Grand Prix, once so utterly dominated by Jean Theoret, has since been replaced by a new race class known as "Unlimited Light" which is basically Grand Prix under a new name. Auld is no longer working in Brockville, but it is still building racers; like so many in the industry, he goes where the work is. His latest project, somewhat delayed by the Covid 19 lockdowns, is a genuine unlimited race boat.

Rossiter: Old style, New Customers

Rossiter boats are distinctive on how much they do not look like the well-curved deck runabouts of modern times but seem to draw their style from the deep V era of the mid-late 1960's. George Rossiter started building boats in 1974, but it should be noted that this was not the starts of Rossiter Boats as it is known today. By that time the commercial small wooden boat era was over for about 10 years, but there were many in his generation who were in essence, rebelling against the revolution by going back to building small wooden boats. There

was a growing market for artisanal wood products such as canoes, outboard and rowing boats, children's toys, furniture makers and home décor carpenters, who were starting to replace broadloom with wood flooring. It would never become a big business again, but it gave rise to many successful small-shop enterprises with a select, usually monied urban professional clientele. Rossiter, as he noted in the company video began building wood rowboats and then obtained a marine architect diploma from a school in Maine. He moved on to making small outboard runabouts, still primarily working as a small shop with himself and couple of staff. The transition to fibreglass is not clear, the written bio mentions 1980's and Rossiter himself says that the move to expand into a full-fledged fibreglass production plant only came about in 2003 but as a result of a serious illness he sold his interest in the business. He retired for a while and then returned to Rossiter as a consultant. His first design was a 14-foot outboard, actually a mini-deck boat with a side console and a window, good for up to 40 hp. This became the foundation for the small Rossiter lineup, with the familiar dark blue hull and classic red bottom. There were two 17 footers, one with a closed foredeck and one with a center console, a 20-foot day boat and finally the 23-foot 10 passenger Picnic Day Boat. It's worth noting the construction techniques, as they had changed from the traditional fibreglass approach:

“Another exclusive Rossiter feature is our hull, grid stringer system and liner-deck construction. There is great value in using the latest and most technologically advanced materials available, and we do. But there is also value in building a boat the traditional way – one at a time, by hand, each and every day. Tooling, 3-D modeling, hi-tech composite materials from Kevlar to closed cell structural engineered foam, optimizing the strength-to-weight ratio, using stitched mat fabrics rather than woven roving for lighter, stronger hulls, barrier coating to greatly enhance the life and vibrancy of the custom gelcoat and to reduce osmotic blistering, higher pigmentation levels in our gel coat, etc. All these details make for a longer lasting and more beautiful vessel, even in the harshest marine environments. That, coupled with our attention to balancing fixed and variable weights all contribute to the renowned smooth, quiet, and efficient ride that comes with every Rossiter boat.”

It's worth trying to understand what this means, as they say, a picture is worth a thousand words, but sometimes a hundred simple words can have the same effect. Bilge stringers used to be a block of plywood with a fibreglass coating. Now the stringers are made of polyethylene foam encapsulated with fibreglass, except this time the fibreglass is thick enough to provide the structural strength. In the older system once water penetrated the fibreglass coat, the mould rot would spread quickly in the comfortably airless compartment and pulverise the plywood; now there is nothing organic to chew on and destroy. The older boats also used a woven fibreglass

sheet. This is a bit of misnomer as the substance, while sheet like and flexible, was not bonded together in the way, say a sweater or any kind of clothing, but simply a loose weave that you can pull apart by hand. The new material is actually stitched together and provides a considerable improvement in strength and can resist pulling and twisting in multiple directions. Another feature was to use a better gelcoat that reduces a problem known as blistering or colloquially referred to in the industry as chicken pox. Water can and will penetrate the gelcoat (water can penetrate pretty much any substance, given time) and will react to loose materials in the coating substance, travelling to a small space in the material and over time building up. Sometime the sunlight will heat the boat hull surface and the water boils, and the water vapour cannot escape, building up pressure in the void sometimes up to 700 psi, with the inevitable result. Usually the blistering is simply an unsightly bump but sometimes it can be as big as bullet exit hole from a machine gun. The problem usually arises to bad adhesion between the gelcoat and the first wet laminate layer. The key is to spray the gelcoat exterior in the mould, and then wait until it is partly dry, sticky but the colour doesn't come off on your finger and then lay the first laminate. According to the theory, the wet laminate will slightly re-liquify the back of the gelcoat layer and the two will mix to form a more perfect union. Therefore the fix is really more of a protocol than a chemical solution, the key is not to let the gelcoat dry completely or if you do, you should probably pull the sheet out and garbage it. I would assume the reverse is true if you are doing a repair to a glass hull or a complete restoration, the gelcoat should go on just before the resin laminate is completely dry. The moral of the story is that if you intend to stay in business, you have to be ahead of the times.

Chapter 25 --- White Hulls, High Hopes III: What Goes Up... 1983-2011 C & C Yachts, CS Yachts, Ouyang, Hinterhoeller, The End of Grew.

C & C Yachts; what was really going on?



The C & C 62 ketch, first boat of the new era, designed by Rob Ball, and built in the Bruckmann custom shop in 1981. Photo Ken Heaton

When round bottom displacement launches were used for racing, they could also be throttled down and turned into a Sunday afternoon excursion boat. Initially planing hulls were strictly for racing, they were too wild and fast for regular consumers, but designers like John Hacker tamed the beast and re-configured it as family friendly, it is our boat to this day. But the three-point hydroplanes of Jamie Auld were a jump too far, they could not be tamed and made safe and there is no expectation they ever will be. So there is a diversion in the motorboat world between racing and cruising, they have separate paths.

But the success of C & C Yachts was said to be built, in part on the concept of the racer-cruiser, a hybrid boat that could do both. Even as a non-sailboat person, I never really bought the idea of racing as a key success for C & C. The idea of the racer-cruiser seemed to exist more in the minds of sailboat builders and sailing journalists than reality, I suspect most of the customers were really only interested in cruising and only the most hardcore and dedicated of the membership were into the racing side. But C & C would now face the reality of racing versus cruising that had re-shaped motorboats, you could be one or the other, the hybrid era was passing. But not everyone was willing to let that go.

As of 1982, C & C Yachts was now a private company, no one could peek into their financial affairs other than the company directors, the banks, and National Revenue. A 1985 article by Roger Vaughan, on the look of the company management, he had the following to say:

Work is a suit and tie environment, with ties firmly in place. An air of formality pervades the subdued, well-ordered offices that are painted dark colors and trimmed in natural wood. Desks are clean. No personality cults are tolerated. The boats coming off the assembly lines in the building across the street, at a rate of three per day, are referred to by the Committee as product, corporate boats.

C & C claimed to have a 14% share of the \$390m North American yacht market, which would set their annual sales at around \$55 million by the year the article was published (16 years since 1969) so this would be 1985. This level of sales make some sense, if we extend the growth curve from 1981, taking into consideration that this was a mature company in a maturing industry. The product decisions were made by the “committee”, which had evolved into a much more collegial process than under the old system, where Cuthbertson swept aside all questioners. With the designing George’s gone, Robert Ball evinced what he thought was a more businesslike approach.

There is nothing magic about boat building. Too much is excused in the name of craft in this business. All the hand rubbing costs too much. We believe in doing it well, but also efficiently.

I get what he was trying to emphasize, it just doesn't play well. Ball was a talented designer, not a PR specialist; I don't think he meant to suggest he had low opinion of care and craftsmanship, but that's how it comes across. The sausage companies have ads about "handcrafted" products, everybody knows they're made in a factory with a lot of cold stainless-steel machinery, but the wording makes people feel good and think about eating a sausage. I suppose Ball thought he was pushing an image of corporate maturity, having started off with the charismatic entrepreneurs guiding the company through a stage of wild growth, and then being replaced by a commonsense business manager, who will listen and think clearly rather than forging ahead through a forest of raised doubts and blow a ton of money on some idea that won't work. Was that the case with all the players? The owner, Jim Plaxton was described as hands-off in terms of day-to-day management but were still willing to provide positive ideas for the company's growth, particularly in terms of the racing successes which were considered to be vital to the racer/cruiser brand. The article had a front picture of three company principals, Ball at the left, Gee at the centre and the sales manager Wes Dalby (in jeans and missing the apparently required tie, posing over a modern yacht's chrome wheel, and shot from below to give the impression of command and competence.

"C & C's emphasis, the Committee said, is product oriented. Their slogan is evolution, not revolution. Theirs, they say is a family image of boats. For sixteen years, while other production builders have come and gone, C & C Yachts continues to make it work."

The name of the article is "The Committee and the Corporate Boat" and gives the impression of a successful, well- managed enterprise charting a course into a prosperous and orderly future when in fact it was pure moonshine. I am surprised as to the extent to which all the interviewees were able to maintain an air of mature calm at a time when C & C was busily swirling down the toilet. What went wrong? The article makes the following comment on Plaxton's relationship with C & C:

The prospective buyer [of the company] was Jim Plaxton, a man who had done well in the airline business and was looking for a new investment. Plaxton owned a C & C 36 and was eager to go grand prix racing and had fond memories of the national pride Red Jacket had generated as the first Canadian boat ever to win at SORC. Plaxton was eager to beef up the

performance end of the product. His eventual takeover (in partnership with Austin Airlines) was endemically troublesome.

My eyebrows raised at the phrase “endemically troublesome”. That’s a pretty forward thing to drop on the owner of a company the author is supposedly trying to print nice things about. The phrase does mean that something happened in the past that resulted in serious problems which manifest to this current day. What about the takeover and subsequent relationship was/still is “endemically troublesome”? Vaughan doesn’t elaborate; I suspect the magazine editor may have zapped part of the text to avoid conflict with a potential advertiser. Suddenly the article is sidetracking:

Plaxton is an idea man, Gee said of his boss. He generates a receptive atmosphere, calls for ideas and has definite input as a director. But he leaves running the company to me.” Plaxton would rather be sailing. He has campaigned a series of Silver Shadows, C & C production boat prototypes.

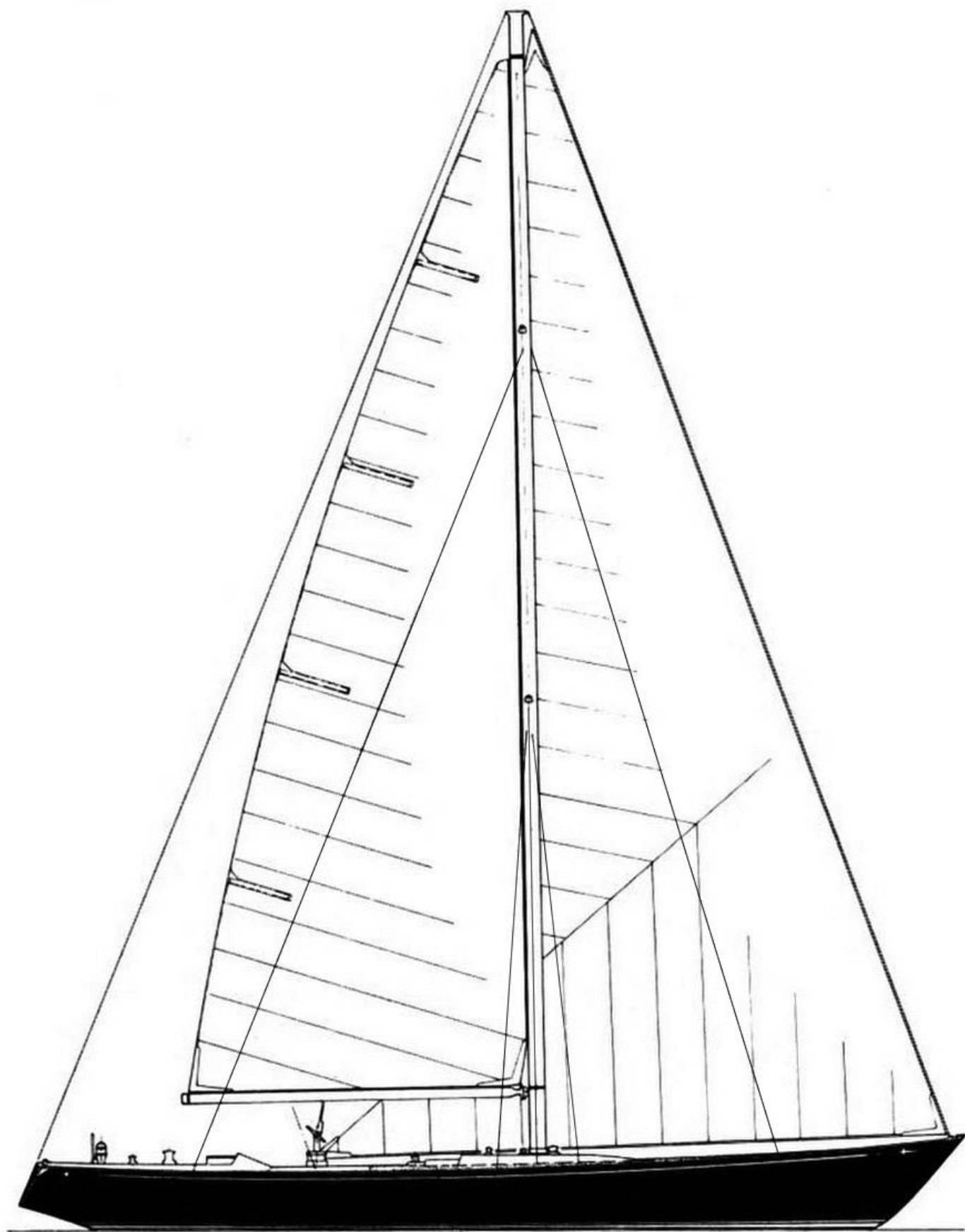
Translated into English, this means that Plaxton had very specific ideas about what he wanted C & C to do and be and how this was to happen. He visualized a return to the good old days where the company boats won races, and impressed customers bought the boats because they were superior at both cruising and winning races. However, since Red Jacket and the 35, offshore sail racing rules under IOR system (International Offshore Rule) had changed and the predominant racing hull was shorter and wider and much less stable, in other words racing was becoming exclusive to true racing yachts, and less amenable to the concept the racer-cruiser; the lack of stability was a no-go for something sold as family friendly. Plaxton thought he could force the market to go back to yearning for the bigger and faster. In order to make the R & D happen, C & C expanded its design office, now there were 10 full time designers under Rob Ball. By 1984 the cost of the racing program would add up to \$1,000,000 to the annual administrative burden. According to one writer:

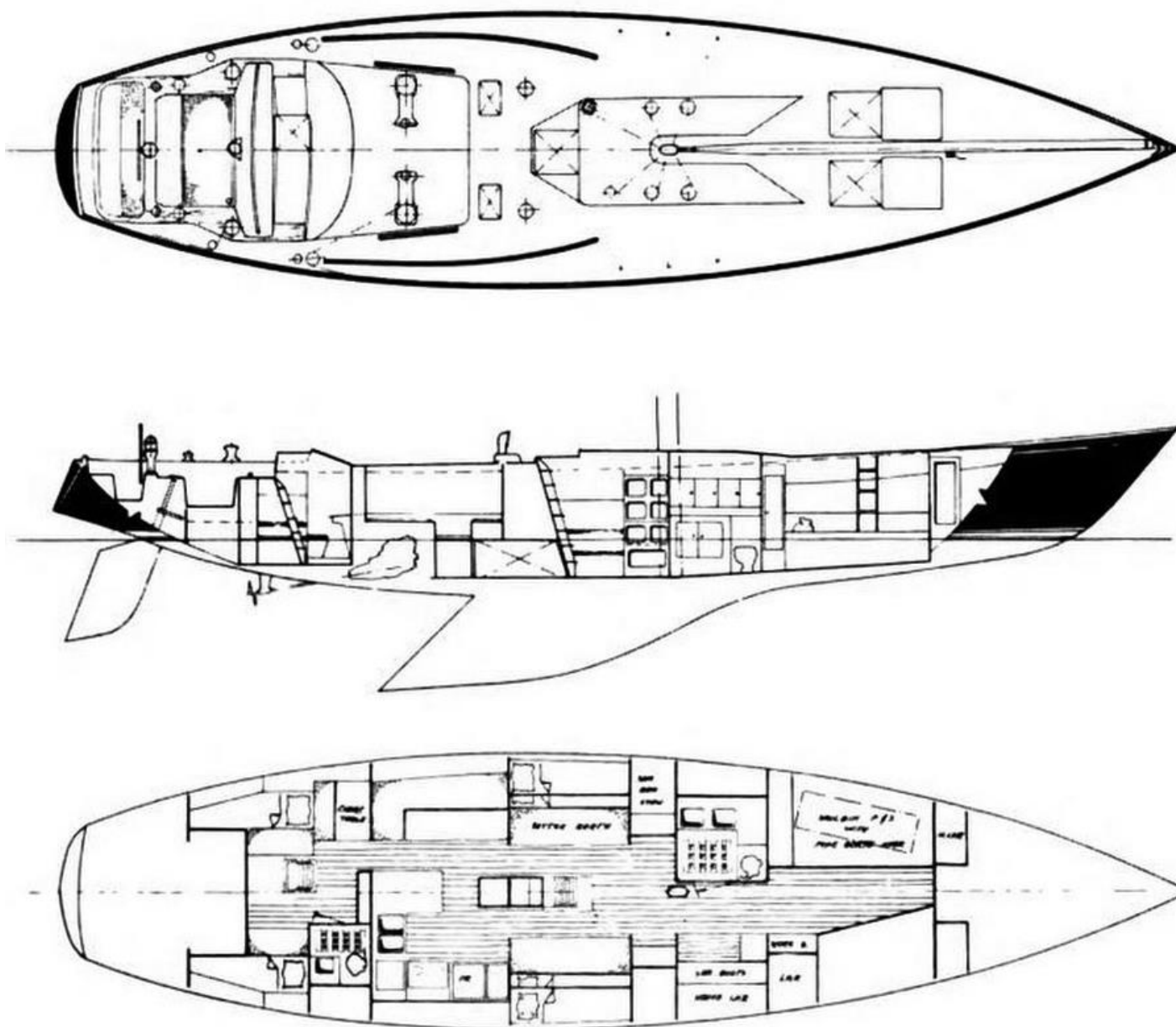
Once, Jim was in control, George Cuthbertson was out, and C&C began to design larger and faster boats. Unfortunately, as the economy turned in 1982, people started to hang onto their boats longer as they were not holding their value as in the past. To encourage new boat buyers, C&C changed products almost yearly, making sure no boat design was over 4 years old.

This makes sense, given Plaxton’s stated intentions; however model upgrades and reboots were the norm. C & C had been adding to, updating, and changing its product line continuously

since 1969, on average there were 3-4 model changes and additions each year up to 1981. For the four-year Plaxton era there were 12 model changes, or 3 a year (1977 had seen a total of six). The 44-footer had been brought out in 1985, but there were plenty of 40's, 43's during the Cuthbertson era, even a 61, one of which had been ordered by Herbert von Karajan, conductor of the Berlin Philharmonic and principal shareholder of Deutsche Grammophon, the mega-selling classical music press.

The article also mentioned that the boats were coming out of the Regent St. plant at a rate of "3 a day". There are 52 weeks in year, 5 days a week, eight hours a day for the unionized production staff. At this point (the article was published in 1985) Bruckmann's custom shop had been consolidated with the main shop and the Rhode Island plant had been or was in the process of being closed. The price ranges for C & C production (not custom) yachts was around \$25-40,000 per boat-that was a lot of money for any sort of pleasure craft in the mid 1980's. The plant would be closed on weekends, so that is 250 operational days in a year, and cut a further 10 days for statutory holidays. Therefore 240 days times three boats a day times an average factory price of \$32,500 and you would be looking at \$23-24,000,000 in sales each year, not the hinted at \$55,000,000. This makes sense when you consider the sales slide to \$15 million in 1987-88 from the \$45 million high in 1982.





Lines of the C & C 61. This was a custom order boat only, made in the Bruckmann shop.



The maestro himself, Herbert von Karajan at the helm of his C & C 61 The boat is Helisara, but there were a total of 7 so named yachts owned by von Karajan over the years. Photo karajan.co.uk

C & C made big boats as a matter of course, they ran on wind, there was no fuel crisis to push towards smaller craft. But if the price of gas wasn't the problem, then the recession was. The G7 countries had mutually agreed to increase prime interest rates into the sky, by 1980 they were up to a staggering 20%, good for granny who liked her Canada Savings Bonds, but a nightmare for anyone with variable rate debt. The cash tap for expensive toys began to run very dry. The racing was an issue, very real and costly: the boats were prototypes that did not convert easily into products, if at all, the only benefit was publicity and that only worked if you won races and that wasn't easy anymore. C & C Yachts did well at various races in 1982 and 1983, they tanked in 1985 with the revised and updated 44, although this appeared to be less the boat's fault than the crew – shades of the Atalanta. The 44 was still a solid enough seller.

From 1982-88 C & C had twenty known Ontario-based competitors, almost all of them stuck it out to the bitter end, slowly eroding C & C's commanding market share. There is a claim that there was competition from the French Groupe Beneteau, and particularly Jeanneau both of which produced boats with a more radically modern appearance than C & C, whose designs were mostly fibreglass copies of wooden hull styles (Jeanneau and Beneteau have since merged). By 1983 Beneteau/Jeanneau were using more up-to-date construction, with foam

cores and more reliance on Kevlar and the new wonder material, carbon fiber. But carbon fiber is extremely expensive, even today it costs *30 times* as much as an equivalent amount of fibreglass. Let's compare two boats, the C & C 38-3, which came out in 1985, and the Beneteau 1 Ton, which came out two years earlier, in 1983, so presumably the C & C would have the benefit of incorporating new ideas. The 38-3 is 37 and a half feet, with 729 square feet of sail; the 1 Ton is 39.4 feet overall with 829 square feet of sail. Both are sloops with a spade rudder and a fin keel. Displacement for the 38-3 is 14,275 lbs and for the 1 Ton, 12,125 lbs (the term "ton" is a classification rule based on the carrying capacity of the boat's hold, the calculated amount is strictly for the mathematics crowd). The lightness of the 1-Ton should be from the foam core carbon fiber Kevlar, but it was also designed as a racer with the barest minimum of accommodations in the cabin; the 38-3 was simple fibreglass with viable cruising appliances.



The C & C 38-3 Photo Ken Heaton

But even with 100 sq ft less sail area and a ton more displacement weight, the 38-3, according to Sailboatdata.com had a rated speed of 7.6 knots, as opposed to the I Ton's 7.34 knots. Any imported luxury good always costs more, often much more expensive than a domestic one of the same characteristics. I don't know how much the Beneteau 1 Ton would have cost new, only 12 were made, I think it would be safe to say that the 38-3 probably cost in the region of \$50,000 and the 1 Ton, given the import costs, duties, and the high-priced construction materials, would have gone into \$100,000 plus, for a boat with limited comfort and convenience. There is always the ego market, where a buyer buys a dramatically higher price item just to show how much money they have, and that is what you have here, a dramatically more expensive boat for no appreciable gain in performance. A Beneteau would likely have been out of the range of C & C's typical customer, usually a senior level professional doctor/lawyer/engineer/consultant so I doubt it had much competitive leverage, except maybe at the very top end.

A fourth and not mentioned issue was the financing of the privatized company. Plaxton was a mid-level tycoon, and the \$7 million he paid for C & C was a lot of money in 1982, his wealth at the time was fractional ownership of a regional airline. In order to help float the C & C deal, he had to sell some interest in Air Ontario to the point where, although he remained CEO, he was now a minority shareholder with Stanley DeLuce holding majority ownership.

Timing, however, is more of a problem and the early 80's were not the best time to borrow money. The prime rate at the final November 1981 buyout was 17%, and assuming a generous prime + 1 on say debt financing, this could be very onerous indeed. Even if the debt load was \$4 million, to pick a number, the interest alone would be \$700,000 a year. The high sales were about \$44 million in 1982 and a grim \$15 million by 1988 so if we factor in the slide in sales, the cost of the racing program, the administrative burden, and any possible leverage interest costs, a picture appears of profit in 1982, a small loss in 1983 and dramatically accelerating losses by 1984 and 1985. Gee left in 1985, shortly after the puff piece article he was replaced by Bill DeLuce, Stanley's son. Dramatic measures were taken to cut costs, the most difficult was to close the Middletown plant and move production to Niagara. Bruckmann quit in 1984, probably sensing, correctly that the days of the custom shop as a separate operation were numbered, he was correct. The Bruckmann shop, from the early days after Metro Marine and into the C & C era, had built over 200 boats, but custom builds were becoming increasingly scarce. But plant closings are not cheap, Kiel cost \$1.3 million, Middletown and Oakville would have likely eaten another \$2 million and possibly more. The DeLuce's sold most of their interest in Air Ontario to Air Canada and secondarily planned to dispose of C & C, which they put into

receivership with the intent of restructuring it's financial affairs. C & C was sold for \$9 million, a surprisingly high price given its accelerating problems, and giving Plaxton and Air Ontario a \$2m gain on their original investment. Plaxton moved on to other projects, including sailing. Stanley Deluce retired; his son Bill would become involved in an aviation history non-profit; another son Robert would go on to found Porter Air. A partnership, led by a Brian Rose of North South Yacht Charters Inc. backed by Mutual Trust would take over C & C. The plan was that Rose would lead C & C, and the principal partner would be Mutual. Even in the go-go economy of the late 80's sales continued to slide and there was little Rose could do to effect a turnaround. Mutual launched an internal audit to find out what was going on and what could be done. What was going on was that 1988 sales had fallen to \$15 million, and there was no bottom in sight.

If you took a drive down Highway 2 along the Lake Ontario shoreline in the summer of 1981, making pit stops in all the small port towns on the way, you would see marina after marina, increasingly filled with white hull sailboats, a signal sign of success of the industry. But success is always about the past, the question is what comes next. Were the marinas truly growing, and would they keep growing indefinitely, or were they actually filling up, and if so, would they reach a point where every buyer who wanted a boat would have one. Cars were built on the concept of hard use and steady wear until replacement was necessary, usually this point was reached at about 125,000 miles, or 179,000 kilometers. Fibreglass boat hulls were durable, their engines less so, and after 1200-1500 hours (usually less), they needed to be replaced or undergo a complete rebuild, usually a complete boat replacement was more economical. But a fibreglass sailboat was extremely durable, as long as the hull was kept up with UV protectant polish it would last for decades. You also had to scrub the crud and zebra mussels off the hull when it was taken out, but this was really just an October Saturday of labour and then you were all ready for next spring launching. The Dacron sails would only be exposed to water and sun when they were up, at the end of the day, they were taken down. Granted their engines needed maintenance, my old boss at work had a 9.9 Honda outboard that seemed to need almost constant repairs, but this was a small annoyance relative to the bank account-burning costs of a malfunctioning I/O drive. At the time there were 22 or more active sailboat factories operating in Ontario alone, in addition to the big three of CS, C&C Yachts and Hinterhoeller. There was still an active market, but was anybody actually making money, or enough money to justify the risk?

Ouyang-Aloha Yachts: Trouble ahead?

Ouyang Boat Works certainly thought so. Initially they had a sensible line of 20-, 23-, 28- and 34-foot yachts. The Aloha 28 came out in 1972, the boat that set Ouyang's fortunes. But it was superseded by the Aloha 27 in 1976, a virtually identical craft. After Maokang's passing, the surviving brothers Mao and Stanley seemed to be bringing out more and more versions of the same basic models. In 1979 they brought out another Aloha 26 and a 32 even though they already had just brought out the large 34 in 1975. Then out came another 34 in 1981 and yet another 26-footer, the 271 in 1983. A new 28 appeared to update the original 28 from 10 years earlier, that at least seemed a reasonable stretch of time for new model year. But as of 1983 they had no less than four different iterations of the 26-footer, the 26, 27, 271 and the 8.2, based on the published specs, all sloops, all fibreglass, all with the same basic configuration, length, beam weight, ballast, and sail size and all apparently being made at the same time.



The Aloha 8.5 Metre, too many similar sized models? Photo Adam Hunt

Sailboat fans may be able to tell the difference, the author certainly can't, and I can't see the justification for the extra expense, particularly engaging a new design each time from either Ted Brewer or Robert Perry. The motorboat companies had a sensible escalating line of product, starting perhaps with an entry level 14-footer with a small engine, then a 16-footer with a larger engine and more seating room, a nineteen-footer with a big engine and plenty of seats, and so on. They might have a special high-speed or waterski or fishing version of a standard model. But for Ouyang the lack of apparent coherence in the product line may have been a harbinger of problems, Ouyang was in financial trouble by 1984. They agreed to a significant buy in from their distributor Canadian Yacht Charters. Disputes arose between Yacht Charters, who were now the majority owners and the Ouyang family who now held a minority interest, and I suspect that one of the issues was to straighten out the product line. The Yacht Charters management fired Mao and Stanley and after a bitter corporate divorce, the Ouyang's agreed to a buy out of \$100,000. The family decided to use some of the buyout money to speculate in the Toronto housing market and in 1986, Ti, gripped by some desire to save face and settle the score with his old company, took one last shot at rebuilding his marine empire, with Odyssey Yachts. He hired away some of his old colleagues at Whitby almost three decades earlier, as well as Vietnamese refugees who looking for any sort of job. Odyssey's sole boat was the Odyssey 30, a direct rival to the Aloha 30. Canadian Yacht Charters had never been able to turnaround the boat building business and the challenge from Odyssey was just the final straw and they closed the Aloha line down in 1988. But the Odyssey was not selling either and the Ouyang's, with a failing startup and overextended house investments hit the wall as well, and Ti had to declare personal bankruptcy. He died in 1994.



The Aloha 30, it couldn't save Aloha/Ouyang, and caused a battle with the former owners Photo Adam Hunt

Hinterhoeller: Same company, new cats*Hinterhoeller Nonsuch 26 steering station Photo Adam Hunt*

By the early 1980's Hinterhoeller began to feel the pressure to bring out a new model line. The original boats, including the bread-and-butter Nonsuch 30, were still selling. Ultimately 1,080 would roll off the line, but there was a generally agreed four-year period between model changes and by 1983 the company was already overdue. The Nonsuch 26 came out in 1981, and was well received, with one reviewer stating

"...the Nonsuch 26 is much easier to sail short-handed than the average sailboat, and that it probably has as much interior room as many 30 footers"



Hinterhoeller Nonsuch 26 at the marina slip Photo Adam Hunt

Which meant that it probably began to chew into Nonsuch 30 sales, rather than building a new market. A model known as the Niagara 35 Encore appeared in 1984, it was identical in every respect to the earlier Niagara 35 from 1978, including Mark Ellis once again as the designer. It appeared that Ellis simply re-ran his old blueprints. An even bigger Nonsuch, the 36, came out in 1983, along with the biggest of all, the Niagara 42, at 22,000 pounds displacement the same weight as the Grand Slam earthquake bomb from the Second World War. On the opposite end was the Nonsuch 22 at 5,000 lbs displacement, which might have been the only potentially trailerable boat Hinterhoeller would build, but for the fact the keel did not retract. The original 1970's line of Nonsuch 30 and Niagara's 26, 31 and 35 had sold over 1600 units, the 1980's line of Nonsuch 22, 26 and 36 and Niagara 42 would go on to sell 200 units at most.

Hinterhoeller admitted the market was changing and in 1986 transferred the production of most of the models to Halman Manufacturing in Beamsville, although he retained the trademark and the brand. He did keep some limited manufacturing capacity, and his last stand was the Nonsuch 33, the last (almost) of the Nonsuch big catboat line. The Nonsuch 33 came out in 1988, and 67 units would ultimately be built, but not with George Hinterhoeller. He sold his interest in the company and retired in 1988. Hinterhoeller Yachts continued to rattle around, going from one owner to another and eventually shrinking until almost nothing was left.

CS Yachts: Full sail ahead



Paul Tennyson in the new expanded Brampton facility, the finishing and fitting out section of the plant. All CS boats had the front facing hatch on the deck.

But not all were convinced the end was near. As the yacht market appeared to be faltering in the mid-1980's and many builders were in a reflective mood, CS Yachts was thinking big. Canadian

Sailcraft was always the quiet one in the world of yacht building; no dramatics, no foreign factories, no racing victories or losses, no larger-than-life characters, no wild rides to the Canadian border to escape the Sheriff of Edenton, as with Gil Bibby and Grampian Boats. It had a modest line of just seven models up to 1985 compared to C & C's crazy sprawl of over 60.



Mid- 1980's CS 36 Merlin followed by CS 30 "Kelsea" on Lac DesChenes, Ottawa/Gatineau Photos Adam Hunt

For this program, CS hired a big gun in the boat design world named Tony Castro. Antonio de Mello e Castro was actually a Portuguese nobleman, a *conde* and *visconde* in his birth country, but his vocation led him to recreational boats. He was already well known on the industry, working out a design shop in Hamble le Rice in the United Kingdom. He provided the next generation of designs for the mid-late 80's CS line, the 30, 34, 36 Merlin, 40, and 44.

The CS 30 had been brought out in 1984, it was a hit and would sell 500 units. CS Yachts had it's highest production ever in 1986, with 175 boats going out the door and Paul Tennyson was convinced the market would only grow and moved CS operations to much larger 100,000 square foot facility. Along with this he commissioned a new line of big boats, the CS 44, of which only one was built in 1985, the more successful CS 36 Merlin, introduced in 1986, of which 100 were sold, the CS 40 which appeared in 1987 and was discontinued in 1988 and the biggest of all, the CS 50 designed, this time by German Frers, another star designer from Argentina. Sailboatdata.com says one was built, another blog claims 4 were built, there is one photograph of a stunning yacht at a dock, it certainly looks long enough and appears to be consistent in appearance with line drawing available, but this, even if it is for real, is the only photograph I could ever find. There is also one online photo of the CS 40 for sale on a website, but there is no date. For all the costs of engaging outside superstar designers like Castro and Frers, building the plugs and the moulds, and then only ever building one or possibly 2 boats, one gets the impression of determined vision to reach a luxury market that simply would not show up. There was talk of a substantial deal with a Danish yacht distributor but either the deal didn't happen, or the sales simply weren't there, most likely the latter, the oversupply of fibreglass sailboats was a worldwide problem. Middle classes were being rapidly built up in Asia, but most of the time the luxury purchase was a car, often for the first time in the family history. It may have been too much, CS apparently had trouble paying the general contractor of the new plant, Bird Construction, one of the largest commercial builders in Canada.

**Indexed As: Bird Construction Co. v. C.S. Yachts Ltd. and
Tennyson**

Ontario Court of Appeal
Goodman, Grange and Finlayson, JJ.A.
April 2, 1990.

Summary:

By ex parte order, Dunlap, J., declared that the plaintiff's claim for lien had expired and ordered it discharged. Dunlap, J., further ordered that the plaintiff's certificate of action be vacated and the entire action dismissed. The plaintiff applied to set aside the ex parte order.

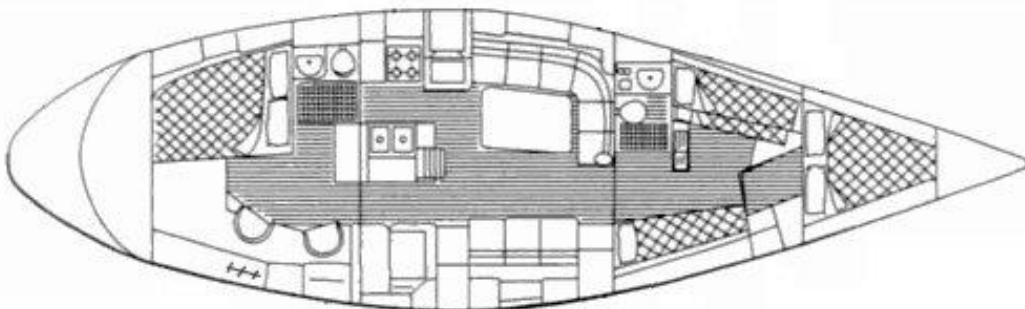
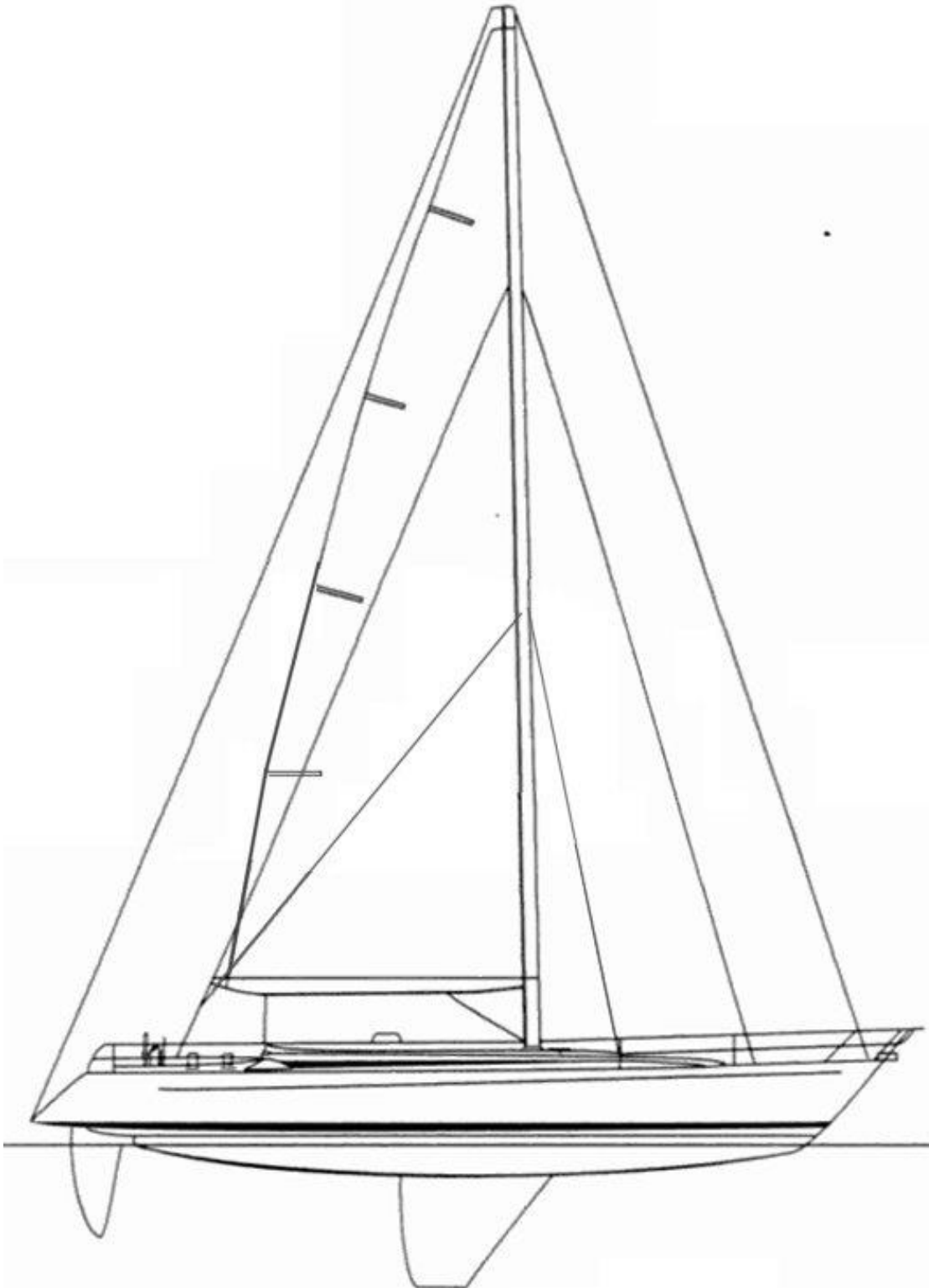
West, J., dismissed the application and purported to confirm Dunlap, J.'s, order. The plaintiff appealed to the Court of Appeal.

The Ontario Court of Appeal held that it lacked jurisdiction and ordered that the appeal be transferred to the Divisional Court.

Courts - Topic 7504

Provincial courts - Ontario - Supreme Court - Divisional Court - Jurisdiction - Respecting appeals from final orders - By ex parte order, Dunlap, J., decided that the plaintiff's lien had expired and ordered it discharged and the action dismissed - On appeal, West, J., dismissed the plaintiff's motion to set aside the order and purported to confirm it - Both orders finally disposed of the plaintiff's action without a trial having occurred - The Ontario Court of Appeal held that West, J.'s, order constituted a "judgment" under s. 73(1) of the Construction Lien Act, which was appealable to the Divisional Court rather than to the Court of Appeal - See paragraphs 4 to 11.

Bird had put a lien on the plant but hemmed and hawed and waited too long to do anything with it and in 1990, the Ontario Court of Appeal dismissed the request as time for such action had run out. If you have payment issue with another party, you can attach a lien to the asset for which you have billed for services, but you have to actively pursue some finalizing action, such as forcing a property sale to recover the funds, or some other way of satisfying monies owed to you; it doesn't last forever. It was a win for CS, but the inference was one of decline and trouble, and in 1992, Tennyson finally called it and wound up the company. Of the original "big three" only C & C was still around, although whether it was actually functioning at all, particularly in 1992, was on an open question.



The CS 50 line plan sailboatdata.com



The only photograph of a CS 50, or is it? Not to be confused with Contest Yachts own “CS 50” model CS West owners association

Production Sailboats: Fall has to arrive eventually

By the late 1980's the used yacht market was growing way faster than the new yacht industry. The only place that had and continues to have yacht turnover is Florida the southern Atlantic coastline; in this case the turnover is literal as hurricane after hurricane picks up both small and large boats alike, flips and then smashes them on the shore, or on jetties, or rocks, or even a passing car. In Miami, disposing of weather trashed boats is a career. Once the hull is compromised, even above the waterline, it's a write-off. Even though the harsh interest rates had cooled inflation the Canadian economy remained in the doldrums throughout the decade, commodity prices remained low, oil exploration had stopped, the East Coast fishing industry was in trouble with declining fish stocks. Hundreds of factories in Ontario existed only because of tariffs. The kids who had come of age in the 50's to the 70's were doing well, the 80's kids, (the author's generation), who might have provided a new cohort of boat buyers, couldn't even find a job internship; in Ottawa as a young person your employment choices were security guard or restaurant waiter. The government cancelled the manufacturers sales tax and dropped

(almost) all border tariffs. The result was the Goods and Services Tax and Free Trade; the effect was the Progressive Conservative electoral meltdown to two seats in the 1993 election. The tariff factories, most of which were located near the St. Lawrence River or the Great Lakes where the sailboat marinas were mostly located, closed down.

Dan Spurr had noted that the failure of the industry was due to a lack of “obsolescence” built into the boats. I think the issue was more of a lack of innovation. There’s only so much you can with the sails themselves, you are dealing with a technology perfected by the Phoenicians two thousand years ago. Granted, some of the modern super-catamarans with their rigid sail systems and use of hydrofoil blades can reach crazy speeds of close to 30-40 knots (the fastest of all is the Sailrocket, a bizarre craft with the sail on the outrigger and the hull equipped with a hydrofoil that in 2016 reached a face-burning 65 knots). But this is hot-rodding for wind enthusiasts, the real business is down to earth, or in this case down to water cruising, and that is where failure lies. I don’t think any of the builders ever did a serious assessment of what sailboat owners actually do with their boat once they buy it. Many use it as a summer cottage or more accurately a waterborne RV, a place on the water where they can relax, cook lunch over a barbeque, entertain friends or just lie out in the sun. Many use the engine to get out on the water and then shut it off and float around with no effort to put up the sails and when evening approaches, start the engine once again and head back into the marina. Why the obsession with the little Yanmar, farting out black diesel smoke, or the 2 cycle outboards of the time, farting out blue oil-gas smoke. Why not a relatively cleaner 4-stroke? The 4 stroke 9.9 Honda solved some of there problems, but it was as heavy as a St. Bernard and no easy task to hoist off the awkwardly stern situated bracket when there was a problem, which there frequently was when you had a small aluminum boat engine pushing a six-ton displacement hull through the water. Why not consider a marine electric motor, modern versions of which were just coming into use in the early 90’s, certainly something a little more congruent with the green ethos of sail power.

Hinterhoeller, Morch and Bruckmann were all from Northern Europe, where sailing culture is tied to Viking mythography, hard men joyfully facing deep waves, bitter cold and icy spray. Cuthbertson and Cassian came from the genteel world of Great Lakes sailing clubs, obsessing over arcane rules and expectations, the gentleman member coming down to the club on Sunday, going on the water for the afternoon and then back in again, fold the sails, secure the hull and then to the clubhouse for a brandy or scotch on the rocks. The average North American likes a challenge, but they also like their creature comforts, something often missing in cruising sailing craft. The singer Gordon Lightfoot, a sailing enthusiast, bought a fiberglass sailboat and was driven nuts by the sound of metal rigging endlessly banging against the hollow aluminum mast.

My old boss at work me that he and his wife went for a weekend cruise in mid-May and were so chilled they couldn't sleep. But May is deceptive, often with summer-like hot days followed by wintry nights. Wouldn't some insulation in the cabin area be a good idea, some foam sprayed between the hull and interior wall and floor structure. But what about heat? Would some sort of onboard heating system not be such a bad idea; it would certainly extend the onboard vacation cruising period from May and possibly as far as early October. Most modern motor cruisers have onboard air conditioning, one has to consider the flip side, in July and August when the nights are hot and muggy. At best you can open up the deck hatch a little, otherwise there was no real airflow system, the window at best is a porthole, the bunks are usually no more than foam mattresses, acceptable for hard twenty- and thirty-year-olds, not so much for the less flexible and durable bodies of the forty and fifty-year-olds who actually have the money to buy the boat. And in the even the weather turns wet, there's often no protection for the skipper, who has to stand at the wheel in the open (the CS 50 noted above has a sort of plastic tent for the skipper when things get rainy). Basically, if they wanted to keep their business they should have focused on a triad of equal importance, sailing, cruising, and comfort. But I suspect that they brought too much of their idealism to the work, sailing was to remain a pure communion of sailor, wind and boat, everything else was secondary. Did they really understand what their customers wanted, or were they selling both themselves and the buyers an idea of something they should want? I don't want to seem too critical (more than usual) but I suggest next time you are in town near the water, particularly on a warm and sunny July Saturday in the early afternoon, head down to the local marina and see just how many boats are still in the slip. My guess is that there will be a hundred slips, there will be eighty boats still tied up, maybe nine or ten with anyone actually on board, often reading or scrolling or chatting with friends. If you look out onto the water, say Lake Ontario from Toronto Harbourfront, you will see maybe 11 or 12 boats at full sail, they are probably from several marinas. There will be another twenty-five or thirty boats on land, still with last winter's shrink wrap on, or perhaps from the winter before last, or even before that. But the idea of changing the formula or altering it was brushed aside; the yacht builders kept building the same boat, over and over and over again until the market finally gagged, put up its hands and said, no more.

After the decline, came the fall. The final phase of the story after 1987 was a depressing series of purchases, sales, shuffles, shutdowns, bankruptcies, and disasters. The casualty list was impressive. Over 1987 to 1989, Bayfield Boat Yard, Huromic Metal Industries and Vandestad and McGruer, Nye Yachts, Ouyang Boat Works, and Sirocco Boatworks and Fibreglass. By 1992, there was another fatal wave. After CS, trailer-sailer specialists Diller & Schwill went next; They had brought out a 24-foot cruiser model, the largest of the line 1988, but it did not

stave off the inevitable. The factory shop is still there, at the end of Factory Street in Odessa. Two different time views from Google Street View show a solitary car parked in front of the building, but there was no sign of habitation when I drove past this spring. Then it was the turn of EXE Fibercraft, Halman Manufacturing, Hughes/North Star/Aura Yachts, Skene, the only builder in Ottawa and finally, J. J. Taylor itself, having been in business for almost 90 continuous years, had long since sold its iconic waterfront location in and moved to an industrial park in Rexdale. Bannister tried to branch out into other fibreglass work and landed a contract to build a series of comic fan sculptures at a baseball game; it is now on display at Rogers Centre. But there were no further contracts for boats, public art, or anything else, and J. J. Taylor closed for good in 1993. Allan Nye Scott, the man who had revived Taylor back in the early 1970's had seen the end coming and had relocated to a cheaper spot north of Belleville and by 1988 had transitioned out of building to repair and restorations. He sold the company, and the new owner kept it going for a few more years before it closed in 1992.

A number of rich enthusiasts tried to keep at least some of the larger and more storied businesses alive, like children trying to fix broken toys with bits and pieces from other toys. They merged companies, took over management, financed new models and then sold them to other true believers when their plans went bust. By the early 90's though, there wasn't much left.

C & C Yachts: Life support

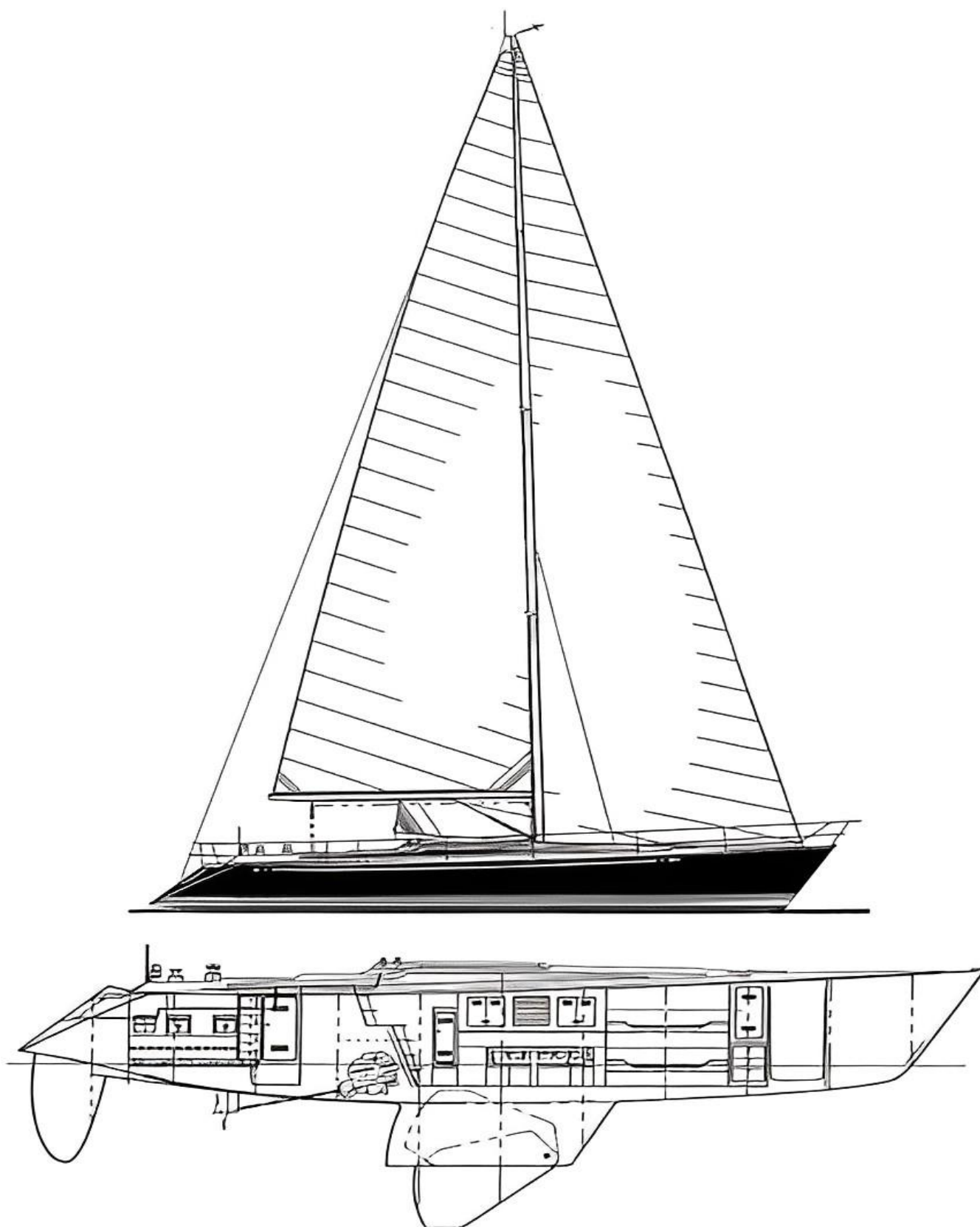


Dolce Vita The C & C 37/40 was a mainstay product during the decline years of the late 1980's Photo Ken Heaton

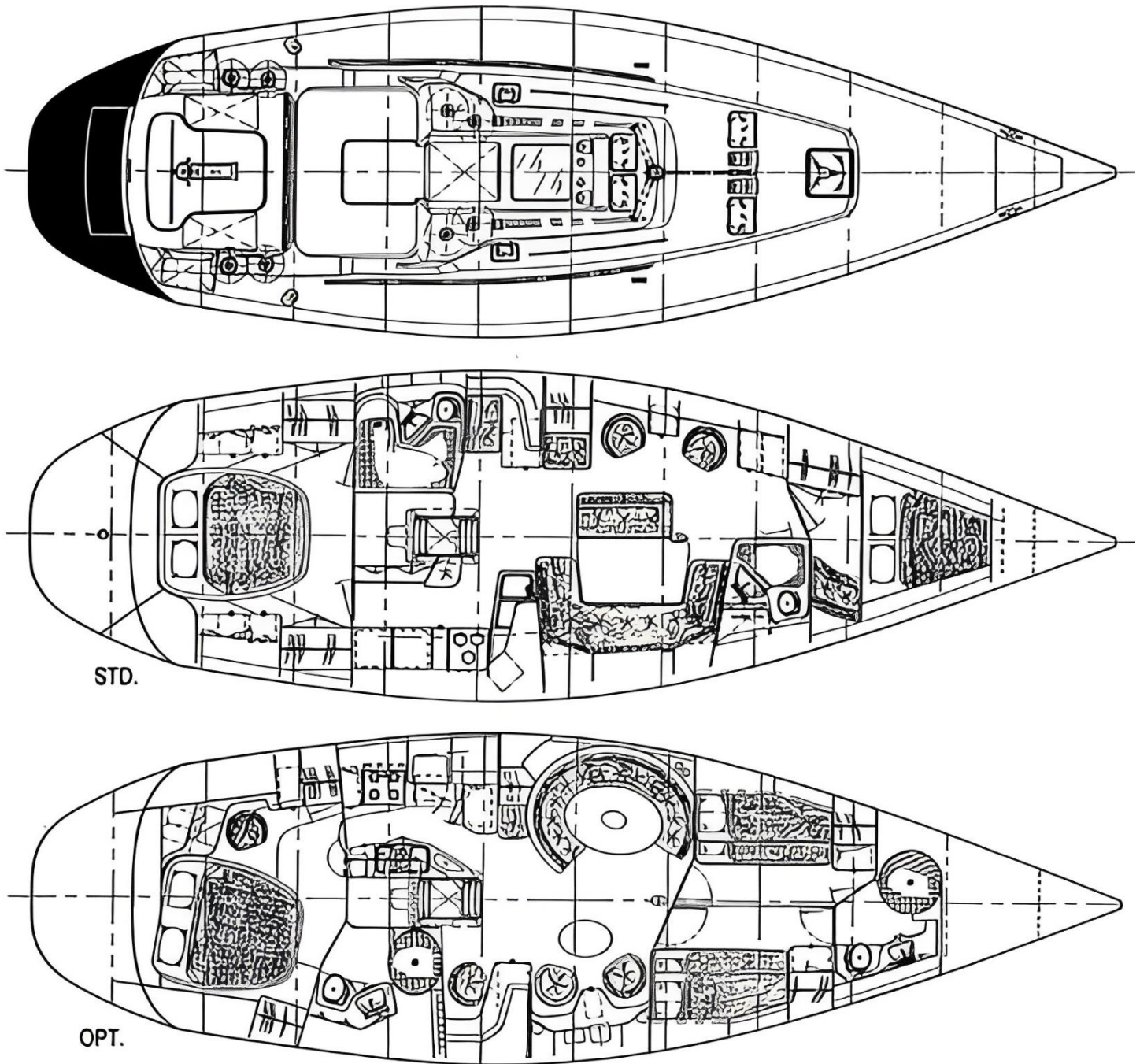
The plan to get C & C back on track had not gone well. With both the Middletown plant and the custom shop gone, the company's sole manufacturing hub was the Niagara plant and even with that sales were falling dramatically. After an internal audit, Rose was replaced by Mutual Trust vice-president Robert Steubing. I don't think Steubing had any illusions about being a sailboat industry expert, I think his principal ambition was to correct the financial and internal control problems and put the company into some degree of order. Order there may have been, but losses continued to mount to the point where C & C missed the 1990 Toronto International Boat Show, for the first time since its founding in 1969. C & C had been piling up more and more debt over the years, it already had \$4.4 million in loans from the Royal Bank upon which interest was being paid, and \$2.5 million in loans from its principal investor Mutual Trust, on which interest was not being paid. A further \$2.5 million was advanced by Mutual backed by a note from the Bank of Montreal. Effectively C & C had \$10m of debt at prime + 1 which at the time had hit a high of 13.75% plus that 1% or more, given the risk, so interest rates at the time would have been \$1,500,000 a year, contrast that with 1981 when they were \$335,000 a year, with considerably higher sales. At that point sales were now under \$15m annually. It was impossible to go on, and the company was placed in receivership once again in September of that year, with sales and production steadily shrinking, while the receivers tried to find a buyer and after two more years of this living corporate death, they were ready to hand it over anyone with any sort of vision. 1990-1 were the years of the big bust, the collapse of the commercial property boom, followed by the collapse of the residential property boom, and with it a ton of high paying jobs in Toronto, the very people who tended to buy expensive yachts were now struggling to pay their house and car loans.

An angel investor came from an unlikely source. In 1992 Hong Kong based Frank Chao, whose father had built the Wa Kwong Shipping line into the fifth largest in the world, decided he needed a project other than buying and sending giant container carriers around the globe and decided to use a small part of the family fortune to revive a little Canadian boatbuilder. C & C Yachts Limited was liquidated and its assets were sold to a new entity called C & C Yachts International Ltd. By March 1994, the factory was, as has been noted on the Wikipedia page “running at full capacity”, but was it? In 1993, the company had the 37/40 series, the SR series, and the 51, introduced in 1993. Based on a hull number search database (part uncredited, partly the author) here is the known production over 1989-1994:

Build Year	37R (37/40 R)	37+ (37/40+ & 37/40 XL)	51	SR	Total
1989	10	39			49
1990	7	30			37
1991	0	5			5
1992	0	0			0
1993	1	8	5	22	36
1994	0	3	3	2	8



Line plan of the C & C 51 Custom, with its retractable keel inside a fixed keel. Photo detail Sailboatdata.com



C & C 51 The standard and optional interior, the latter more asymmetric Photo detail Sailboatdata.com

The 51 was the big boat, custom meant that there were two interior configurations available the customer could pick from. The 37/40 series was launched in 1988, with some production success in 1989 and 1990. The numbers speak for themselves, the receivership in 1990 was followed by a complete production shutdown and plant idling in early 1991, only coming back as a much smaller operation in 1993. Full capacity depends on how much space, raw materials,

staff, and production you are employing; the term is pretty relative. I suspect most of the production staff were laid off in 1991, while the receivers were casting about for new ownership, so 1993 was at best an honest attempt to get the business back up and moving again. The 51 was not much of a seller, 5 were built, 3 more were in progress over 1993-4. 8 37/40's were built in 1993, but the best seller, so to speak were the racing sloops, the SR 21's, of which 22 were built. Overall, as near I can calculate, there were a total of 36 boats built in 1993. It was not a renaissance, or anything close to the "full capacity" the C & C plant had once known, but at least a sign of life and possibly an improving market given the overall gloom in the industry.

It did not last, there was a fire at the plant in the early hours of April 21, 1994. According to Toronto Star reporting, the loss was estimated at \$2 million, with limited insurance coverage. Most of C & C molds were destroyed, along with three model 51's, but those were the only boat casualties mentioned at a time which should have been a full throttle production run-up to the spring customer rush. There is mention of a model 45 in the loss, but this is a mistake as this boat was designed as the IMS 45, and in the year 2000 and a C & C Yacht in name only. Fires in businesses are always under suspicion, even often when they shouldn't be, most often the issue is simple carelessness rather than felony; at any rate there's no point under-insuring yourself and then burning the place down on purpose. It's easy to see how fires start in a wood boat shop, but there is a hazard in fibreglass shops that isn't widely known. The epoxy resin for fibreglass construction is shipped in two parts, when they are mixed, there is a chemical reaction, and the reaction causes heat, and epoxy, as is the case with all petroleum-based derivatives, is very flammable. I burned the tips of my fingers on a little plastic cup I had used to mix resin in once, so this is no myth. As Gil Bibby, the former Grampian plant manager put it:

"One of the jobs that the foremen had, and I myself, every night after the workers left, we all waited around for about 30 minutes and it was our job to walk through the factory, through every building looking for bombs. A bomb is fibreglass resin in a tub left to dry. If you have ever watched one of these things go, a worker quite innocently is working on fibreglass, he's got a tub of resin, curing resin, and he's laminating on a boat doing the job he should. The bell goes and he cleans up. He leaves it sitting there and they literally burst into flame if left long enough. That's how come you lose a lot of fibreglass factories."

As of the date of the fire, C & C Yachts was effectively finished. There was still magic in the name, and trademarks and brand name were sold to Fairport Yachts of Ohio, where a new line of yachts were designed by the company's house designer Tim Jackett as "C & C Yachts", but it

was now an American product and no longer had any connection with Canada in manufacture or design. The C & C design shop had been more or less broken up in 1991, with Robert Ball leaving (or most likely being laid off) as there was nothing more to design. The age of the production sailboat was almost over, but there was still a business in custom work. Ironically as C & C was falling apart, Bruckmann Yachts came back to life under Erich Bruckmann's son Mark.

Most of the builders were able to accept the fate of their businesses and the inevitability of change. When it was over, they left or retired or scaled down their activity to busywork. In interviews with Dan Spurr, shortly before their passing, George Hinterhoeller and George Cuthbertson reiterated how proud they were to have been part of the C & C adventure and had no regrets. Even Ti Ouyang declared his satisfaction with his life, the extraordinary journey from a brutal civil war of his youth to business success and raising a family and a new life in Canada. Erich Bruckmann was able to watch his son start a custom yacht business of his own. Paul Tennyson and Herman Schwill opened their shops when there were boats to build and closed them when there were no more. Some like Ian Morch moved to focus on running their marinas. Jim Bisiker of Grampian moved on to other business ventures, his main man Gil Bibby went into small scale restoration and building projects. Sad to say, not all were willing to accept closure with such grace.

The End of Grew



Sign over the Grew Boats display at the 2011 Toronto International Boat Show Author Photo

Grew Boats was the boatbuilding cat with the proverbial nine lives; by the 2000's it was on its final one. The glory days of the 1960-1970's, where every white runabout on the water was likely a Grew 190 had passed into the more difficult 1980's. Manufacturing was adrift, many plants were shutting down as production shifted to lower wage operations in the United States and Asia. The boom, to the extent one existed, was in commercial real estate and financial services. Canada maintained a high dollar, relative to the United States, and government think

tanks had recommended removing the tariffs that supported many Canada-based factories. The Canadian economy was stagnant, and the productivity jumps from computers was still too recent to make an impact. As so often happens, the rush of new fibreglass boats had resulted in everyone who wanted such a boat and could afford one had already bought one, and the market was saturated. The owners of Grew Boats of Penetanguishene announced the plant closure in the mid 1980's, it was saved briefly by an employee led buyout. The problem with employee buyouts is that they usually won't make the hard choices of layoffs or short-term wage cuts; obviously they won't vote against their own interests, even when such actions are actually in their interests in the long term. Grew Boats went into receivership in 1988, and the plant assets were put up for sale.

In 1989 the assets were sold to a David Cameron and the Penetang operation was closed down, and all the equipment was moved to Owen Sound. Cameron had worked numerous jobs in the recreational boating industry over the years and had decided to try his hand running a boat building company. The Vandestadt and McGruer operation had closed the previous year, so there was a ready and available workforce with fiberglass boat building experience, not to mention the necessary production equipment. One of those employees was Donovan Vandestadt, the son of Hubert Vandestadt, who went to work for the new company as it's sales manager. The original V & M plant was not available, it was converted into a multi-unit commercial building so Grew moved into another plant south of the town, on Highway 6. The name Grew was dropped as an identifiable brand and did not appear on the boat hull, except for the builder's tag, as required by law. Grew Manufacturing was the entity which produced two model lines, Profisher and Cutter. There were two numbered corporations:

2045227 Ontario Ltd. held the IP for the Profisher brand. Profisher was oriented towards customers primarily interested in fishing and featured accessories such as an onboard live well, bait well, and lockable containers for rods and a lockable cabinet with a built in tacklebox. The 1996 brochure shows the 160, 170, and 180 with outboard power from 80 to 110 hp. The 195 and 202 were available for either outboard power up to 140 or inboard/outboard configuration for 180 hp. But what was Profisher's edge? Twelve years earlier, in 1984, Bass Cat Boats Corporation, started by Ron and Jan Pierce of Mountain Home, Arkansas came out with an inexpensive, beamy, flat decked 19-foot speeder with telescopic seats and sporting a 225 hp outboard for power called the Pantera Pro; thus was born the bass boat as we know it today. It is literally the standard for any serious fisherman. Any boat not capable of the high speeds of these boats and the ease of movement around the deck could not compete. Perhaps they were steadier on the water, but I've seen bass boats easily handle some fairly big waves. Lund also had high

freeboard hulls, but they were made of pressed aluminum and were considerably less expensive than the bass boat style, which over time has become fairly expensive.

PROFISHER 160

Length: 15' 11" 4.6m
 Beam: 6' 8" 2.0m
 Weight: 635 lbs 379.5 kg

Fuel Capacity: 20 gal 80L
 Maximum Horsepower: 85 O/B

Our lowest priced Profisher, comes standard with live well, bait well, livewell socket, side sleeper, full coloured top available in 3 great colours: teal, blue or burgundy.



PROFISHER 180

Length: 17' 7" 5.41m
 Beam: 7' 6" 2.33m
 Weight: 1250 lbs 568 kg

Fuel Capacity: 20 gal 80L
 Maximum Horsepower: 90 O/B

This boat covers all bases: hardtop, caddy, sportboat, family cruiser or great family runabout. However it is aimed at the fisherman with its 2 wells, full felt, away rear bench, orange canvas, tackle box, oil steering wheel and full fiberglass hull liner.





PROFISHER 170

Length: 16' 2" 4.97m
 Beam: 7' 0" 2.13m
 Weight: 1150 lbs 522.7 kg

Fuel Capacity: 20 gal 80L
 Maximum Horsepower: 110 O/B

Our best selling Profisher, available in closed deck or casting deck with pedestal seat, live well, bait well, ice box, lockable rod storage and tackle box standard. Full high convertible top colour matched to graphics and upholstery.

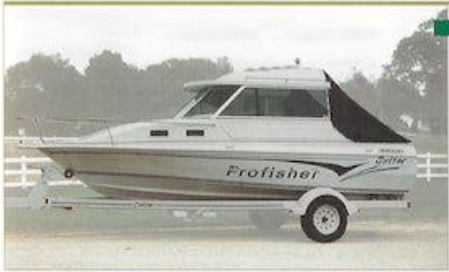


PROFISHER 202

Length: 20' 2" 6.20m
 Beam: 7' 8" 2.35m
 Weight: 2750 lbs 1247 kg

Fuel Capacity: 30 gal 136L
 Maximum Horsepower: 180 I/O 150 O/B

Our best selling hardtop, truly is the most for the least. Full stand up mid cabin, large caddy, standard pumpout head, available in outboard or inboard, soft top or optional hardtop. Large live well under passenger sleeper seat, tackle box and storage under driver seat. Available in teal, blue, burgundy.






PROFISHER 195

Length: 19' 10" 5.79m
 Beam: 7' 8" 2.35m
 Weight: 2350 lbs 1066 kg

Fuel Capacity: 30 gal 136L
 Maximum Horsepower: 180 I/O 150 O/B

This is our largest runabout available in closed deck or bow deck with inboard or outboard power. Live well, lockable rod storage, tackle box, to mention only a few of the great standard features.




1673747 Ontario Inc. operated as Grew Manufacturing, the IP for the Cutter brand. The genesis of the Cutter brand name is vague, at best. Owens Yachts had a fibreglass runabout line called Cutter back in the early 1960's, after Owens was picked up by Brunswick Corporation in 1962, the Cutter line was dropped. Where the brand name went after that is not known, but the similar name appeared under the Cameron Grew era; I can only surmise that a designer with the brand name sold a license to Grew, under the stipulation that the Cutter name appear on the boats, as opposed to Grew. Cutter represented the continuation of the cruising craft line from the predecessor Grew entity and had multiple seats, plenty of room to move about on the deck, and cooking and living areas on the larger models. There was the XLE Cutter line, the 173, the two 175 specialty waterski boats and the 180, all outboard powered up to 180 hp. One of the 175 was the "regular" ski boat, the other 175 the "Pro Ski" model, was a separate seat for the spotter (ideally there are a minimum of three persons during a waterski run, the driver, the skier, and the spotter, who will tap the driver's shoulder when the skier takes a dive. Wouldn't the standard

back-to-back seating arrangement work just as easily, the idea is that the spotter should be able to reach around and tip off the driver at arm's length. In 1996 they came out with an outboard version of their mainstay model the XLE 180. Apparently, they were expanding into what they said were "larger family runabouts" in the XLE 190 and XLE 200, although Grew already had a very long history in the 20 foot plus runabout class, going back to the postwar Jolly Giant. The day cruiser line included the 200, which had a mini-stove and sink, and toilet which was not enclosed, so when one needed to use the facilities, they had to lock the cabin door, the 240 had an enclosed head. The largest was the 280, there is a photo in the brochure, but it is incorrectly page-sized, so the boat looks tall and short. The gap between the 240 and 280 would be filled by the 260, which apparently did not exist as there was only a rather crude crayon rendering of the boat, it was obviously still not in existence. Overall, the quality of the 1996 brochure was not good, the colours were dull green and white, the composition poor, the aspect ratios of the photographs were often compressed incorrectly, making some of the boats look taller and shorter than they actually were, the noted crayon drawing of a high-level product such as the 260, seems to indicate either poor selling skills or a very limited marketing budget.

XLE 173

Length: 16'7" 5.09'
Beam: 5'10" 1.58m
Weight: 900 lbs 408 kg

Fuel Capacity: 10 gal
Maximum Horsepower: 80hp O/B

Our newest luxury sport outboard at great entry level pricing. Available in four accent colours (blue, burgundy, teal and jade). Full instruments, cloth colour top, premium AM/UM Stereo, Buge Dings, Stainless fittings and four jump seats set this boat apart from all its competitors.



XLE 175

Length: 16'9" 5.1m
Beam: 7'3" 2.2m
Weight: 1245 lbs 564 kg

Fuel Capacity: 20 gal 85L
Maximum Horsepower: 120 O/B

For those seeking the ultimate ski boat but with the additional family sport boat function, this is it. A pure ski boat but with bowrider and full cloth coloured convertible top.



Pro Ski XL 175

Length: 16'9" 5.1m
Beam: 7'3" 2.2m
Weight: 1245 lbs 564 kg

Fuel Capacity: 20 gal 85L
Maximum Horsepower: 120hp O/B

This is it, a well priced boat, to allow everyone the luxury of professional water-skiing - reverse seat for the observer, dual speedos, standard forward bow gas tank for nose down running. Only available in XLX graphic colours, canvas cover is standard.



XLE 180 O/B

Length: 17'4" 5.28m
Beam: 7'2" 2.18m
Weight: 1750 lbs 796kg

Fuel Capacity: 20 gal 89 L
Maximum Horsepower: 115 O/B

Our newest family runabout like no other. Buckets or sleeper seats standard, full rear bench standard. Choice of four colours with full coloured cloth top, tilt steering wheel, deck 2 tone gel, graphics and ice box.



XLE 180 I/O

Length: 17'4" 5.28m
Beam: 7'2" 2.18m
Weight: 1750 lbs 796kg

Fuel Capacity: 20 gal 89 L
Maximum Horsepower: 135 I/O

This has been our best selling model for the past two years. It has all the features of larger boats but at a great entry level price. Portabase better than any other boat on the water, full coloured cloth top, tilt steering wheel, ice box, ski locker, choice of five colours and canvas cover. All other manufacturers, it is available in a cloth deck model if requested. Buckets seats, rear sun lounge optional.



XLE 190

Length: 18'2" 5.54m
Beam: 7'7" 2.31m
Weight: 1550 lbs 699kg

Fuel Capacity: 25 gal 113.5 L
Maximum Horsepower: 180 I/O

As we move into larger family runabouts, Cutter moves further ahead. The 190 will plane faster, turn quicker, run better, than any of the others and do this equally as well with 4 cylinder power or V6 power. Standard coloured gel in the deck, choice of four colours (burgundy, blue, teal or jade) with colour co-ordinated full tops, tilt steering, two ice boxes, ski locker, all stainless steel hardware and fixtures. (Buckets seats, rear sun lounge optional)



XLE 200

Length: 19'9" 6.02m
Beam: 7'8" 2.34m
Weight: 2250 lbs 1020 kg

Fuel Capacity: 33 gal 150 L
Maximum Horsepower: 205 I/O

This is our ultimate sized family bowrider with all the great Cutter standard features. Her age is to beat the competition with small horsepower or decrease with larger power. Everything is standard, tilt steering, premium gauges, coloured cloth top, choice of four colours. Buckets seats and rear sun lounge optional.



Grew's Cutter runabout models

Cutler Proflisher
Cutler Proflisher
Cutler Proflisher
Cutler Proflisher

Cutler Proflisher
Cutler Proflisher
Cutler Proflisher
Cutler Proflisher

XLE 205

Length: 19' 9" 6.03m
 Beam: 7' 8" 2.34m
 Weight: 2400 lbs. 1089 kg

Fuel Capacity: 40 gal. 152 L
 Maximum Horsepower: 205 HP

This is the cuddy that has set all standards. Performs better with a 4 cylinder than the competitors does with a V-6. Full cloth coloured top, pumpout head, cuddy fold down seat, bow port and starboard, sink with own water supply, High stainless bow rail, bow hatch with screen. Choice of four colours with two-tone colour deck.





XLE 260

Length: 26' 7.93m
 Beam: 8' 6" 2.59m
 Weight: 5200 lbs. 2358.7 kg

Fuel Capacity: 75 gal. 284 L
 Maximum Horsepower: 260 HP
 Alt Cabin: 7' 4" 2.24m

Fresh Water Capacity: 24 gal. 109L
 Cabin Height: 6' 2" 1.88m
 Grey Water Capacity: 24 gal. 91L

This boat will set the industry on its heels. It is a smaller sister to the 280 but priced to match everyone else's large cuddies. Yes, this is a full aft table with full enclosed head and shower. Everywhere you look you'll find storage and quality plus all the other options are standard on our new 260 aft. Choice of four colours (burgundy, blue, teal or jade). Like our other Cutters, our boats are better, with faster running hulls and this new 26' works well with the new V-6 power, once again setting it apart.



XLE 240

Length: 24' 0" 7.31m
 Beam: 8' 2" 2.49m
 Weight: VB-3800 lbs. 1727 kg

Fuel Capacity: 54 gal. 206L
 Maximum Horsepower: 230 HP

The ultimate cuddy, full walk-in enclosed head, has its own galley with sink and ice box. Drydock stove, full stand up coloured top, large full rear bench, sleeper (extra wide) for passengers. Ample storage. Tilt steering and the largest cuddy in the industry, makes this boat the ultimate in its class.





XLE 280

Length: 30' 10" 9.39m
 Beam: 9' 10" 3.05m
 Weight: VB-7307 lbs. VB-3314 kg

Fuel Capacity: 104 gal. 475L
 Maximum Horsepower: 350 HP
 Alt Cabin: 8' 0" 2.5m

Fresh Water Capacity: 24 gal. 109L
 Cabin Height: 6' 4" 1.9m
 Grey Water Capacity: 24 gal. 109L

Our largest family cruiser in a wide body, designed like its smaller sister the XLE-260. Unlike all the competition at this size of boat, all larger Cutters have foam injected hulls for safety and strength.






The Grew Cutter day cruiser line. The coloured pencil version of your most expensive model, the XLE 260, is not a good look.

1970's era Grew boats had a reputation for being overbuilt, to the point that what seemed to be grime streaked basket cases left outdoors were found to still be structurally solid, so many layers of fiberglass had been laid over the internal plywood beams the wood was still in perfect shape. Less positive comments came out about the 1989 and after Grew models; they had quality issues, not terminal, but annoying to anyone who just paid top dollar for a brand-new boat, such as this email, sent to Grew in 2003 by a new boat purchaser and recollected on iboats.com by a user Joe, who calls himself "Steam Mill".

"I purchased a brand-new Cutter 171 with a 90 Merc Classic on August 1 this year. I am very happy with the boat. It is of very good quality. My disappointment came when I went to put the top back up at the end of the weekend and a couple the snap on clips were missing around the windshield. Luckily, I found one of them in the water at the dock. I emailed Grew Mfg and received no response and was a little concerned. Well, within 8 days of sending the email, I received 6 replacements clips via snail mail with a

handwritten note. It is nice to see that some companies still do care about their customers. I was very happy with the boat now I'm really happy with the boat. Thank-you Gail!"

It appears that Grew employee Gail had taken matters into her own hand and sent along the replacement pieces, it was interesting that she chose to hand write the note and not reply by email. Steam Mill Joe was impressed with this sort of customer concern, even if it was clear that it may not have represented company policy. Others were not so impressed by quality issues and complained to Cameron directly, as recounted, again on iboats, by user Boatin' Bob;

"Joe...this was the e-mail reply I received from the president of Grew MFG when I e-mailed him about my problems.....He basically says "you get what you pay for";

"Good afternoon

We are in a very difficult business. Everyone wants a deal and my employee's only want to work 8 hour days 5 days a week. Boatland [Canada, a large boat dealer near Newcastle, Ontario] the same. Both Boatland and I don't charge enough for our products hence sometimes things get overlooked. I am sorry, we should both try and change the way we do business and concentrate on giving better service to fewer people at a higher price. I do build a great boat. Not sure what happened to the top. Did Royal charge you to fix it or was it warranty? The other problems should not happen but they did and you dealt with them. Please enjoy the rest of the summer. I don't make enough money to have one of my boats but I work 7 days a week anyway.

Thank you,

David Cameron, President"

This unfortunate and disturbing reply seems to be the writing of a man under very heavy stress, and not managing it well at all, lashing out at the apparently unreasonable expectations of Boatin' Bob for wanting a perfect craft, wailing about the hard work he does, dealing with unhelpful employees and not getting paid much or even earning even a small profit. The bitter, barely veiled sarcasm of his words *"I am sorry, we should both try and change the way we do business and concentrate on giving better service to fewer people at a higher price."* is embarrassing and a deeply inappropriate thing to say to a customer, basically we have quality problems because we want to provide you with a lower price as if this was somehow their fault. It is from someone who is barely holding it together even as far back as 2003, but somehow Grew did manage to hold it together, even through the financial crisis of 2008 and the

subsequent recession of 2009. This was not the case for long and by 2010 Cameron's world was starting to unwind. His wife had died in October that year and Grew Manufacturing was careening towards insolvency. Vendors were not being paid and had begun to take legal action. Grew fired back and countersued one of its suppliers. Grew's unpaid bills had ballooned to \$2 million, involving over 100 different creditors. Still, Grew set up at the 2011 Toronto and Hamilton boat shows like nothing was amiss and Cameron and his staff calmly took product downpayment cheques from interested customers.

On Monday Feb 21, 2011, after the Central Ontario Boat Show (Hamilton), the three employees manning the Grew display loaded up the promotional material and boats and returned to the shop later that evening at 8:00 PM. The ensuing events and the motives and actions are extremely unclear, and deeply strange. Some reports (unconfirmed, from neighbors) was that Cameron came out of the office into the parking lot and began pointing a rifle at a child of a female employee of Grew, who immediately began freaking out and calling for her mother. The presence of a rifle at a business office was not clear, I expect that was intended as a safeguard in the event an angry creditor showed up at the plant and tried to get rough. Whatever was going on, it was clear that Cameron had completely snapped. Don Vandestadt (misspelled as Vanderstadt in the police report), who had been working for Grew since the reopening, came out to see what was going on. Vandestadt grabbed Cameron and the woman and ran off into the next lot and hid (the released police reports don't mention any child). Regardless, it was now a tussle between Vandestadt and Cameron. Vandestadt then tried to pull the rifle away from Cameron; it discharged and Vandestadt was hit. Cameron himself ran off. Although injured, Vandestadt was able to make it back into office and call the O.P.P. When the police did arrive, they were unable to find Cameron until he pulled out of the yard in his truck and drove away up Highway 6. A chase ensued, but Cameron was able to escape, still armed. A major manhunt was called in, and the police set up roadblocks in the area. Cameron had headed north on Highway 1 and dodged the main road for a side road near the village of Kemble, but there was a block there as well. Police waved Cameron to stop, but when it was clear he wouldn't they rolled out a spike strip and punctured the truck's tires. Cameron's truck finally came to rest near a wooded area and as the police pulled up, he began shooting back. The shooting stopped and the police advanced on the truck only to find Cameron was gone and it was impossible to do any more searching in the dark. His body was found in the wooded area the following day. At 61 he was apparently unable to face losing his business and had concluded this was the only way out. Don Vandestadt eventually recovered, Grew was finished, and no buyers came forward and ultimately the land, building and facilities were auctioned off to at least repay some of the creditor claims, which included back pay for the staff. Vandestadt himself was awarded the Governor General's medal

for bravery in 2014, for his actions to save his fellow employee. Still, the location itself seemed to be under a permanent hex. According to further research by YouTuber and boat enthusiast and mechanic UOttawa Scotty, the building itself was finally sold to a plumbing company contractor, only to burn to the ground in 2014; the company principal had a near fatal heart attack when he arrived in the scene. Even the remaining boat moulds that had been left outside were destroyed in a grass fire in 2020. It seems as if the gods themselves wanted Grew off the face of the earth, even today I haven't seen a single example of the classic white Grew runabout from the 1970's, not at a boat show or even on the water.

Ironically the company most responsible for crushing Grew was itself crushed a few years earlier. Genmar Holdings had been very profitable in the mid 1980's and 1990's, becoming the second largest boat builder in the world, but was badly in decline in the 2000's. The financial crash of 2008-9 took it down, the model lines read like all boats that have passed you on the water in the last 20 years: Aquasport, Carver Yachts, Champion Boats, Crestliner, Glastron, Hatteras Yachts, Larson Boats, Lowe Boats, Scarab Boats, Trojan Yachts, and, Wellcraft. The pieces were put on the block and parceled out to new owners. Irv Jacobs, the mastermind behind Genmar, survived the loss of Genmar and still had a number of businesses, but they were all relatively small and Genmar was the crown jewel in his empire. He put his own mansion up for sale in 2017, but there were no takers. In 2019, apparently distraught over his wife's failing health, so the story goes, shot her to death and then killed himself.