

## IMPALA

LOA 56'10", LWL 40', Beam 12'6", Draft 7'8", Displacement 52,000 lbs

Designer: Sparkman and Stephens

Built 1954 by Abeking and Rasmussen



In 1954, when the CCA rating rule, the Sparkman and Stephens design firm, and the Abeking and Rasmussen building yard were all in their ascendancy, they came together to create *Impala*. Even then, when most all sailboats were beautiful, she was considered a particular beauty. This year *Impala* is fifty.

S & S designed *Impala* in the tradition of *Stormy Weather* and their long line of full keel ocean racers. *Impala* is a bit beamier, and wider aft, than many of her sisters. Her draft of 7'8" is a bit less than the customary 8' to 8 1/2'. She is flush decked with a small house aft. Her interior is reminiscent of an Alden--off center companionway, owner's cabin aft, and galley forward. A & R built her to a high standard in double-planked mahogany.

*Impala* was purchased by her present owner in 1986. She was 32 years old and had had seven owners, not all of whom were good to her. She was in fairly good shape, but she had suffered some abuse, and she was suffering a little from age. Much of the present owner's experience with *Impala* has come from her repair and refurbishment, which was accomplished over the course of the 15 years prior to her departure for Europe, in 2001. No piece of her was left untouched, at least to clean, and some pieces were touched more than once. This is what was wrong with *Impala* when he got her, and what he did about it:

1. Her bottom planking was damaged by electrolysis. A naive owner bonded her bronze diagonal strapping to her keel and then put an excessive number of zincs on her bottom. Electrolytic currents ran from the fastenings of the strapping out to the water. The current created cones of electrolyzed wood about an inch in diameter, emanating from the points of the screws fastening the strapping. Electrolyzed wood has the strength characteristics of fur, so it was as though some one had taken a hole saw and drilled a series of holes diagonally across her bottom. Brooklin Boatyard of Brooklin, ME repaired her by replacing most of her exterior layer of bottom planking. It was a big job, and well done.

2. In 1989, *Impala* was 35 years old and her teak decks had worn down about 3/8" so that the bungs were coming off the fastenings. The decks were strong, but they were becoming liable to deterioration through water infiltration. Brooklin Boatyard repaired this by adding a new layer of teak decking over the old. When this new layer eventually wears down the process can be repeated.

3. *Impala* had leakage through her hull/deck joint. This was manifested both by water leaking inside and brown stains seeping out onto her topsides. The bronze drift pins that fasten the bulwarks, working under the strain of the genoa tracks, allowed water to seep into the structure so that her bulwarks, covering board (the outermost deck plank) and sheer plank were rotting. Brooklin Boatyard repaired her by replacing these pieces. The cause of the problem is inadequate engineering and there does not seem to be a good way of fastening this kind of bulwark. She was repaired in the same manner as she was built, and the problem may eventually recur.

4. *Impala's* mast step area was not adequate. This is a heavily loaded area and the structure failed (it was not built according to the S&S drawings.) In 1991 Generation Three Boatyard of Cambridge, MD repaired the structure by adding bronze floors on the inside of the hull and laminating two layers of 1/8" mahogany veneers on the outside. This was the owner's first experience using cold molding to repair a conventionally built hull.

5. Finally, by 1997, *Impala* had been sailed enough to know that she was getting generally weaker in her hull. She had broken frames, she was flexible and she leaked. But the cold mold repair of the mast step area had held up well. So to rejuvenate her, Pease Boat Works of Chatham, MA, laminated two layers of 1/8" veneer over her entire bottom (and over the earlier mast step area laminations). This stopped the leaking and generally strengthened her. Today, when she hits a wave at sea, it no longer sounds like the CRASH-BANG of slamming a jalopy door, but rather the deep THUMP of shutting the door of a new Mercedes. The owner believes cold molding over a conventional plank hull is a good technique. It is easy to do, unobtrusive, and greatly increases strength of a hull with broken frames or weak fastenings. The limits of its life are unknown.

So *Impala* had many of the problems of old boats: abuse, imperfect engineering, construction mistakes and wear and tear. And gradually they were fixed.



During this time *Impala* was cruising in Atlantic Canada, the Caribbean, and the Bahamas, and racing in the Bermuda races (both Newport and Marion), the Halifax race and, of course, the Opera House Cup which is sailed in her home waters of Nantucket Sound. The owner was developing her equipment and learning how to sail her with amateur crew--his children, friends, and friends' children. He found it takes two competent sailors to handle her--one on the helm and one tending the rig.

He found that to keep the ship happy the systems had to be easy to understand and they had to work. His rule was to eliminate the inessential and to make the essential simple and robust. He found in some cases that the original equipment of *Impala* was as effective as the contemporary devices we are more familiar with today.

The most important discovery was *Impala's* double headsail rig, which makes her easy to sail and always manageable. *Impala* has two headsails, a 270 ft<sup>2</sup> staysail and a 450 ft<sup>2</sup> yankee (her genoa is 900 ft<sup>2</sup>). They are light enough to raise by hand and the winches are used only to tighten the halyards when up. Rigged with bronze piston hanks the sails drop instantly when the halyards are let go. They cannot go overboard because the "LP" is too short and they furl on the lifelines. When the wind pipes up the yankee is dropped and the foretriangle is under storm canvas. The sheet tails are also short (4 to 8 feet vs. the genoa tails of 25 ft.) and it's not even necessary to crank the winches when tacking in moderate air. The headsails are always under control.



The sails are raised, lowered and reefed at the mast; the headsails are furled on the foredeck. Deck boxes at the mast hold the winch handles, sail stops and other gear used to work the sails. The decks have been kept uncluttered to make moving and working forward easy. All unnecessary equipment has been removed, including the anchor windlass.

*Impala* carries three anchors, a 45 lb plow, a 66 lb Bruce and a 105 lb plow. Short lengths of chain are attached to nylon rodes, all stowed in the forepeak. When cruising, either the 45 or the 66 is made up and stowed on the bow, and the other on deck, aft of the mast. The big anchor, which is rarely used, lives in the forepeak. It is not possible to pull a boat as big as *Impala* up to her anchor by hand, so they power or sail up to it. They can lift the anchor and its chain off the bottom, and to be easy two people are usually used to do it; anchor weighing is the only two-man job on the boat. If the anchor is stuck, which is rare, or the boat is aground, the rode is led to one of the big sheet winches which can generate about 4,000 lbs of pull.

*Impala* was built with a single coffee grinder on her fantail, but in 1966 the grinder was replaced by four Barient sheet winches, two of them 35's. These beauties manhandle the small headsails even in heavy air. Altogether *Impala* has 13 Barient winches, six sheet winches and six halyard winches and a reefing winch. Only the reef winch is self tailing.



View of the foredeck with headsails furling to the lifelines



Sailing in Newfoundland. Note the integral deck boxes and tall Dorade ventilators.



Main cabin looking forward.

Down below, *Impala* was built as a luxury (1950's style) cruiser. She has a beautiful owner's cabin aft with a double and a single berth, chart table and head at the companion, a main saloon with outboard pilot berths amidships, and her galley forward. The fo'castle has a good bunk and extra storage for sails and the galley. The forepeak holds the anchors and rodes.

Yet today, *Impala* is unusual more for what she does not have, rather than for what she does have. She has no water maker. Rather she carries 300 gallons in copper tanks. Foot pumps distribute fresh water in the head and fresh and salt to the galley sink. The galley stove is under the on-deck propane tanks and the gas shut off is a hand-operated valve over the cook's head. *Impala* has no refrigeration, but instead has an icebox that keeps ice 10 days in the tropics. Thus the engine is not needed to keep the food from spoiling. She has a low electrical load, basically lights and radios, so it is rarely necessary to turn the engine on to charge the battery.

The engine is a 35 HP Yanmar, which pushes her along at 5 to 6 knots cruising and 7 knots maximum. It is physically smaller than the original Perkins and fits in the engine room with extra space to facilitate maintenance. The engine charges two 8D batteries and drives a feathering propeller. *Impala* has no 120-volt electricity.

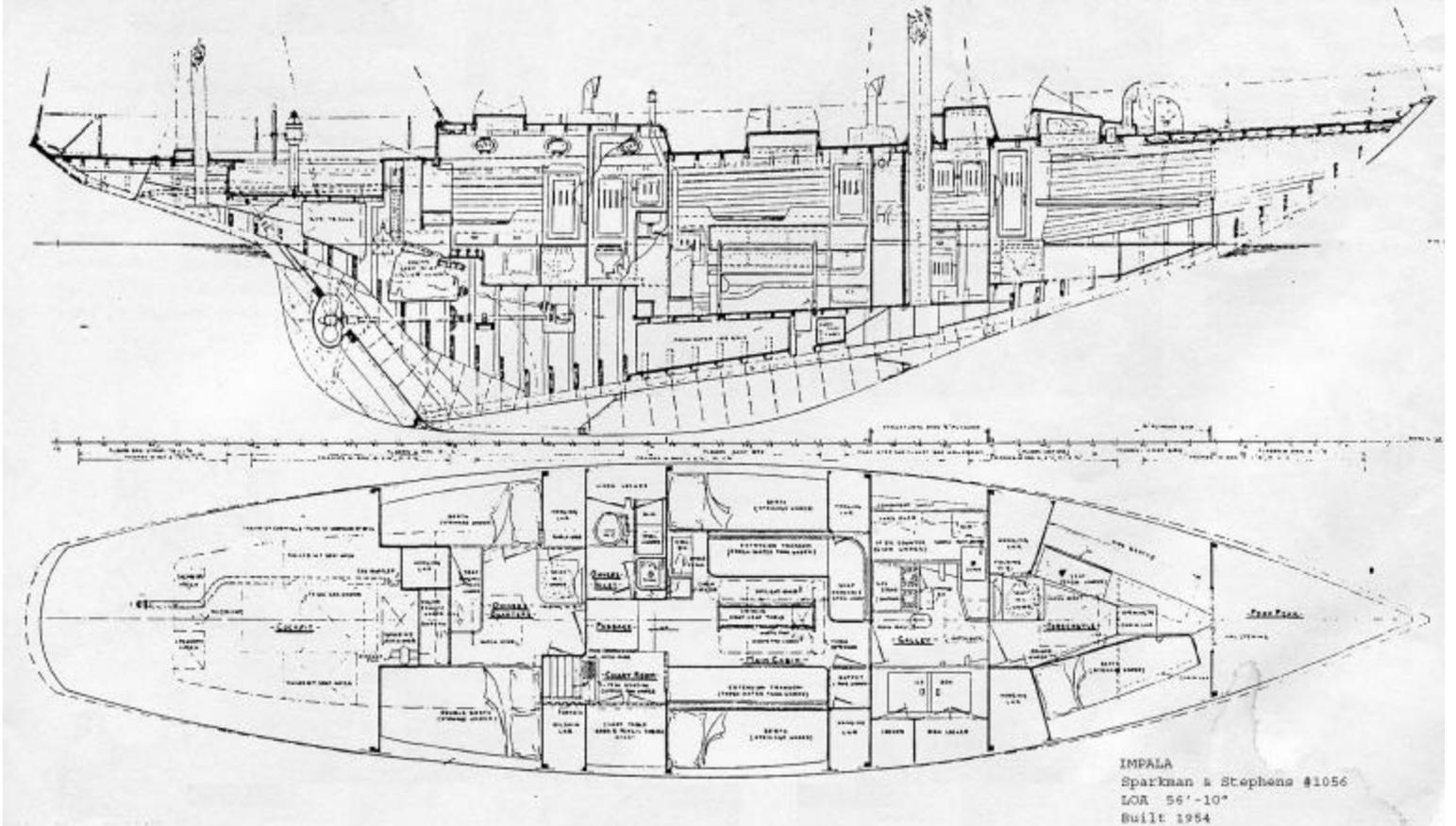
*Impala* has a big navigation table in her companionway. The electronics and the main electrical panel are over the chart table. Her electronics include a B&G Hydra instrument system, GPS, LORAN, VHF and a single-sideband radio. Under the chart table are two chart drawers and a set of drawers holding her tool kit. As is typical of boats cruising far from home, a large number of charts are usually on board.

*Impala* has a gravity feed, diesel fired, Refleks cabin heater that requires no electricity. It vents through a charley noble on the deckhouse. The pipe goes through the head compartment, heating it as well as the saloon. This heater replaces the original A & R coal stove which was more difficult to use and to get fuel for.

*Impala* is a tribute to the CCA rule and its traditions. She is a seaworthy and comfortable ocean cruiser. In aggressive hands she can win races. She is easy to sail, fast, and everything works. And she brings joy to people who like looking at pretty boats.



*Impala* has cruised extensively in the Baltic. Here she is anchored near Mariehamn, Åland Islands.



IMPALA

Sparkman & Stephens #1056

LOA 56'-10"

Built 1954

