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ABACO 40



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OWNER'S COMMENTS

After owning sailboats for over 45 years my wife, Jeanne, and I decided to move to the dark side - to give up sailing and buy a powerboat. But what type?

OUR REQUIREMENTS

Our ideal powerboat is easily managed by one, comfortably accommodates two overnight (with room for an extra two under duress), is seaworthy enough to comfortably handle the Great Lakes and the Gulf Stream, and has a protected drive system to guard against rocks, shoals, fish traps etc. We also want quality of design, engineering and construction with simplicity of operation and maintenance when far away from a boat yard. In addition, we like an easily planing hull with a soft ride, and plenty of light and air. Lastly we were looking for great traditional aesthetics. We recognize that owning a boat is an emotional decision, not a rational one. Pride of ownership is important to us.

OUR OPTIONS

Few sane people will design and build a boat from scratch. Buying a proven boat makes much more sense. We looked at five boats that came close to meeting our functional and aesthetic needs. Traditional lobster boats are seaworthy and easy on the eye, but do not plane well. Hinckley builds strong and beautiful boats in various sizes. The Talaria 40 is a close fit being both seaworthy and beautiful. However, the house is not enclosed, a problem at night when the mosquitoes and bugs come out. The other draw back is the jet drive system. They provide shallow draft and great rock/fish trap protection, but can



be somewhat sloppy in a quartering or following sea. Finally, jets are not as fuel efficient as propeller systems, an issue for frugal ex-sailors. Both the MJM and Sabre 40 are built with a forward facing pod drive system which we find disconcerting, especially in the Bahamas. In addition, we find that engines placed in the aft end of the boat, provide a less comfortable ride in wavy conditions. Our final candidate, the Eastbay 39, is well constructed and pretty. However, it has exposed propellers and is heavy, which reduces fuel efficiency.

ELLIS AND BRUCKMANN

After 3 years of assessing the existing powerboat options, Jeanne and I decided to collaborate with Mark Ellis and Mark Bruckmann to build the boat which perfectly fits our needs. This is not the daunting task it first appears. We have known each other for 30 years. The Marks designed and built our last sailboat, a custom Bruckmann 47, an extremely pleasant and successful venture. Both

ABACO 40 SPECIFICATIONS

LOA	39' 3"
LWL	35'
BEAM	12' 9"
DRAFT 3'	11"
DISPLACEMENT	19,000 lbs.
ENGINE	Cummins 610hp.
FUEL CAPACITY	300 U.S. gallons
WATER CAPACITY	55 U.S. gallons
WASTE	30 U.S. gallons

Marks have a highly developed eye, are hands on, and understand the importance of seaworthiness. They are master craftsmen.

SIZE AND ACCOMMODATION

As mentioned earlier, we wanted a two person boat for day and overnight use as opposed to a cruiser or live aboard. This means enclosed sleeping accommodations for two plus an additional occasional two without having to collapse a dinette table. In this regards, a traditional express is ideal except for the ability to sleep the occasional two in the house and the bug issues with soft sided enclosures. Hence the Abaco 40 has an extended enclosed house, with maximum windows and a double aft door for openness and ventilation. Having moved from a generous two person sailboat, we prefer a large cockpit, with lounges and easy-access storage for a dingy and motor, life raft and the safety equipment necessary for a bluewater passage. We also like wide side decks for easy and safe passage to the anchor and windlass, as well as a combing, almost always on sailboats and seldom on powerboats, to keep the lounges in the cockpit dry.

HULL SHAPE

The waters we frequent are often rough. We do not enjoy pounding into seas. Instead we prefer a soft ride and the ability to stay on a plane at very low speeds; this

is more important to us than the ability to go extremely fast. We take comfort in knowing that the hull shape, rather than twin engines, provides directional stability. Conventional deep V hull shapes, made famous by Ray Hunt and used on many boats, including Ellis/Bruckmann's Bluestar series, Hinkley's Talaria, MJM, Sabre and Eastbay all perform well at high speeds but not as well at the low to moderate speeds dictated by heavier seas. Conversely, lobster hulls handle more easily at moderate speeds in heavier seas but do not plane easily. If one could only have the best of both hull shapes. Mark Ellis solved this problem in the mid 1990's with his wide chined deep V hull configuration. The wide chines drive the boat up onto a plane at low speeds (roughly 12 knots) and hold it there at even lower speeds. As the boat transitions from displacement to planing speeds, the hull stays almost level; the bow does not rise. I drove the original prototype when first launched and was amazed at its performance.

Our hull needs are somewhat different than those of Ellis' original wide chined design. We want soft planing in heavier seas but we also want higher speed in flat seas together with a longer cockpit. This led to a higher aspect ratio (length to beam ratio) and a sleeker hull form, as well as higher power to displacement ratio. The Abaco 40 is the sixth iteration of Ellis' highly successful wide chined deep V. The Abaco 40 is tooled to allow both single and twin engine configurations. These engine configurations require a slightly different hull form near the centerline in the aft portion of the boat. For twin engines the V runs all the way aft. For a single engine the aft section of a portion of the V is cut away near the centerline and replaced with a skeg. This cut away allows a centerline shaft and propeller to sit high while the



skeg provides added directional stability, protects the propeller and provides support to the rudder. This skeg system best fits our need for both bluewater seaworthiness and shallow water protection. Although the draft is slightly greater with the skeg, the margin of error we need between the hull and a rock is less.



DRIVE SYSTEM

The Abaco 40 prototype has a single engine – a relative large slow turning Cummins QSM model with 670 horsepower. This drive configuration is simple, easy to maintain in barnacle filled waters, provides a protected propeller and is fuel efficient. Larger single engines are more fuel efficient than twin engines of combined comparable power, all other drive considerations being equal. The engine, of course, is centered in the boat to provide the best ride upwind, a low shaft angle and to keep the center of gravity low.

MANEUVERABILITY

Most of the Abaco 40's competitors are offering twin drive water jet or pod systems controlled by joy sticks at low speeds. The Abaco 40 is capable of joy stick maneuverability if constructed with either twin pods or a single propeller. The single engine Abaco 40 without the joy stick will have almost equal maneuverability. This is achieved with oversized variable speed Sidepower bow and stern thrusters which can be operated for extended periods.

PERFORMANCE

Mark Ellis projects the first Abaco 40 will cruise in the low 20 knot range, with a top speed of close to 30 knots. Fuel efficiency is projected at better than our best competitor at low to moderate speeds and comparable at cruising speeds. The Abaco 40 with forward facing twin engine/twin pod configuration is projected to cruise in the low 30's and top out in the high 30's.

IN SUMMARY

Working with Mark Ellis and Mark Bruckmann on our sailboat and the Abaco 40 is one of the great joys of my life. In both instances I love the building experience so much I regret when the boat is finished.

Having said that, I cannot wait to see how the Abaco 40 performs. If it does as well as we expect, we have created something truly special.

*Steve Scotchmer
July 2012*

