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Self – steering yacht of the year.

HABER 800C4 is the one of the most interesting and safest boats built in history of sailing. Why I did name it self – steering? Because it has been designed this way, it can sail without helmsman and electronics!

When HABER 800C4 is on the water in the marina, it looks modest. Low mast, cutter gaff rig, long bowsprit, high superstructure – it does not remind present sailing yachts, which thousands of them you can see in summer time in Mazury or Croatian marinas. Just a bulky yacht for an original man. Inside there is everything you need, two to four people can comfortably live there. Deep, comfortable cockpit low over the water. Only when you look closer at the HABER, and especially its name, the mysterious C4 starts to activate your interest. Short conversation with the designer and all ... is “clear”, you would like to say, but not! C4 means that this HABER has four boards! One board is the trouble already and here we have four! One small in front, one main centerboard and two small ones, close to each other aft of the boat. Halyards are run to the cockpit to raise and lower them easily. Boards are not heavy and can be operated by adult man with no problems. But how to operate these boards and what for? Those readers who made their “homework” about the theory of sailing, know already – boards on HABER 800C4 are to change the position of center of lateral resistance! They make HABERs sail themselves!

Why to change the center of lateral resistance? Wouldn't be better to set it right once and for all? This would be perfect. But on the yachts which we know it can not be set universally for all conditions. As we do remember from theory of sailing, the sailing yacht sails the best, when center of effort of sails is positioned in front of the center of lateral resistance. This position is defined as the percentage of length of the water line and according to the character of the yacht it is from 7% to 20%.

When center of sails is moved forward the yacht becomes leeward – after letting the rudder free the yacht falls off. When center of sails is moved backward (e.g. sailing with the mainsail only) or center of lateral resistance is moved forward the yacht becomes windward – luffs up. The yacht becomes windward also when it heels. In each of these situations, to keep the yacht on course we must counter with the rudder, and it hinders the yacht and needs permanent attention. Yacht designers can set the sails, centerboard (keel) and rudder in relation to each other that in certain weather conditions, let's say light winds 0-4B, to achieve directional stability so the yacht sails itself after letting the rudder free. When the strong wind comes the yacht heels and starts to luff up strongly. Reefing of the sails is very helpful then – bigger reduction of the area of the mainsail and smaller of the foresail will move the center of effort of sails forward. When the wind is very strong, over 9B, it is possible to sail with the one sail only, which one? If we sail with the small mainsail the yacht will luff up and we do not sail far. If we sail with the small foresail it will be easier to sail with no chance for tacking – the yacht falls off. If in addition to this the high and short sea wave comes, it can be dramatic, unless that to the used sails... position of the boards will be adjusted. It means that we adjust the position of center of lateral resistance to center of effort of sails. Concept of HABER 800C4 is based on it. By operating the boards we are able to move the center of lateral resistance of this yacht to ensure directional stability, independently from the used sails, independently from the point of sail and weather!

We sailed on the HABER 800 in autumn time in Slovenian Isola on its four boards version together with its designer and constructor, Janusz Konkol. At the beginning inventor of this idea sailed with the yacht at chosen point of sail without touching the tiller. After short training and watching Janusz I started to play with it. I used the word “play” in purpose, because despite of strong wind 6-7B and unpleasant wave, experimenting with boards seemed absolutely safe. After one hour of trials and getting used to not typical solutions, I sailed with HABER myself, it means... not touching anything! The boat sailed itself when under the supervision of constructor I set the sails and boards properly. From time to time I was slightly correcting the position of one of the boards, but it was rather cosmetic interspersing long tacks. The most important is the fact that making all of these corrections I was not using the rudder at all so I did not implement any additional brake. I was very impressed with running downwind. After setting the mainsail and foresail on “butterfly”, raising the front and main boards (two aft boards lowered) the boat sailed absolutely itself, despite high wave with almost ideal rectilinear course. Crosswise to the wave, it means broad reach point of sail, the most difficult point of sail on wavy sea, after proper boards’ set up HABER sailed like on the track. On every point of sail sailing with this yacht brings a lot of pleasure, with minimal effort, focus and attention.

Boards are not the only advantages of this yacht.

Important feature of the hull is its positive righting moment in full scope of the heel. This is unreachable parameter in modern keel yachts! In case of HABER, after passing 90 degree of the heel, the big superstructure begins to act as a buoy – it is difficult to submerge it, the boat “wants” to recover ! When the boat is upside down, with the bottom up, it recovers immediately. In modern yachts with flat and wide hulls, upside down position becomes stable and it is very difficult to change this position after capsizing.

More of the advantages of HABER: very shallow draught, great seaworthiness, high superstructure with shields protecting sailors in cockpit, low height of the floor of the cockpit over the water (sailors sway on the short radius and do not feel sea sick so much). About the HABER, safe yacht, seaworthy and self-steering yacht with four boards, designed both for shallow inshore waters and for open sea, we could write the thick book. We send you to manufacturer’s website www.haber-yachts.com for more interesting information!