### ADVANTAGES OF HABER FAMILY YACHTS

HABER yachts have many unique properties and we would like to present the most important of them here:

**HABER yachts** are exceptionally comfortable, you can sail them on lakes, canals, coastal waters and the open sea confident in their **seaworthiness and safety** in almost all weather conditions.

All HABER yachts have **spacious and light cabins with standing height**, comfortable galleys, toilets and plenty of space for sleeping and stowage. Depending on type, size and equipment, the yachts are built in **C**, **B** and **A** design categories, which make all the places in the world accessible. It is also important that the yachts up to 8 metres long are **easy to transport**.

Depending on whether they are sailing yachts, motor yachts, fast driving or recreational there are displacement and semi planing versions with inboard or outboard engines .

### **HULL AND DECK**

- > The hulls and decks of HABERs are very durable and fully osmosis resistant. High quality of the laminate is achieved by:
  - > Structures of hulls and decks fulfill all requirements of classification associations
  - All laminates, gelcoats and resins are hand laid.
  - ➤ In the shop where laminate parts are made the temperature and humidity is computer controlled by a system which is unique in the world.
  - ➤ All HABER hulls spend at least 4 days in the mould and are maintained at a temperature not lower than 18°C for 30 days. This process ensures a high level of stability of the chemical bonds in the structural resins and has crucial influence on the quality, stability and resistance against osmosis of the laminate.
- > Trim, watertightness, stability, engine function, water and heating systems of every yacht are tested at the factory in our **test tank.**
- ➤ HABER superstructures and decks are built of "sandwich" construction which apart from ensuring strength, prevents condensation and provides thermal protection.
- ➤ Stainless steel hardware mounted on HABERs and rigging elements are produced directly in the shipyard, so we can fulfill customers' requests in full and control their quality.

# **INTERIOR**

- ➤ HABER yachts are distinguished by exceptional **interior comfort**, and you can not compare its spaciousness and functionality to the size of the interior of other yachts with similar length of the hull.
- $\triangleright$  Even the smallest yachts from HABER family (HABER 20 mini Reporter 6,12 m, HABER 660 6,60 m) after lowering the table in the cabin ensure 4 5 places for sleeping.
- ➤ High and glazed superstructure pilothouse type ensures **standing height** in all HABERs and **plenty of daylight** inside the yachts.
- All yachts produced by us have **separate toilet compartment** with the option of fitting a shower
- Comfortable galley with fresh water, spirit cooker or refrigerator (optional) ensure independence and comfort during the trips.
- ➤ Hand made **wooden elements** in the shipyard (teak, oak, cherry, mahogany are used) are distinguished by high quality of finish.

# STABILITY, DIRECTIONAL STABILITY AND MANOEUVRABILITY

➤ All HABERs have minimal draught and are self righting at the same time, have inside ballast and high superstructure, which makes them self righting from every position (even from 180° heel) – even if they are completely inverted.

➤ HABER yachts are well balanced and equipped with profiled centerboards and rudders or long shallow keels, which give **perfect directional stability with very good manoeuvrability.** HABER sailing yachts can be equipped with a system of additional centerboards – C4, which enables the yacht to **self steer** on all points of sail and in all weather conditions.

➤ The houseboats (HABER 33 Reporter and HABER 20 mini Reporter) have no inside ballast, nevertheless they are very stable and easy to manoeuvre in weather conditions up to force 8. HABER 20 mini Reporter in flat bottom version has two leeboards, stabilizing boards, which enables perfect manoeuvrability in harbour. Two additional aft centreboards ensure directional stability while moving forward.

#### HUARI GAFF RIGGING SYSTEM USED ON SAILING HABER YACHTS

> Huari gaff rigging is very practical and gives great flexibility in choosing the area of the sails. It consists of firm sails: big gaff mainsail, foresail and genoa for light winds (in cutter type rigging) and optionally triangle storm mainsail (without gaff) and storm jib for very strong winds.

 $\triangleright$  The mainsail is very easy to use – it is raised by one halyard. To lessen the weight of the elements raised by halyard (mainsail and gaff) it is possible to make the gaff from carbon fibre.

The whole rig is stronger **and more durable**: low mast, fewer ropes, stays, there are no spreaders, which are the weakest element of the very common Bermudan rig.

Low mast without spreaders **gives less resistance** to the wind, especially in storm conditions. The slim gaff also gives less resistance than a thicker mast.

Low mast is **easy to lower** (every sailing HABER yacht is equipped with system of lowering the mast). **One person** is able to lower or raise the mast within 10 minutes without having to disassemble anything and the lowered mast protrudes only slightly beyond the yacht's stern – it is very practical in locks, canals and during transport.

The yacht can be equipped with baby forestay and baby stays to give additional support to the mast and allow the flying of the storm jib.

Sails in **Huari type gaff rigging** are characterized by better aerodynamics (compared to a Bermudan rig):

- the angle between gaff and leech of the mainsail is greater
- in strong winds the gaff bends and makes the mainsail flatten itself

#### **SAFETY**

➤ HABER yachts have **closed and sheltered cockpits** which is very important when sailing with small children and during difficult weather conditions.

The elongated superstructure roof and side shields give perfect **protection from the wind,** rain and spray. Even during heavy rain the interior of the yacht stays dry.

➤ Thanks to the high superstructure one can **safely move on the deck**, with strong stainless steel handrails on the coach roof always close at hand.

- There is an option to fit an **inside steering position** on all HABERs and the glazed superstructure guarantees ideal visibility in all directions.
- The C4 **self steering** system has a fundamental influence on the comfort and safety of sailing. It works effectively at all wind speeds (even when electrical and wind systems of self steering does not work) and it is **reliable** thanks to it simplicity. You can find more information at our website:

http://www.yacht-service.com.pl/14\_haber\_800\_C\_kuter.htm

 $\gt$  HABER yachts have exceptionally **shallow draught** (20 – 65cm). Flat bottom and adequate shape of the front part of the bow enable to come directly to the shore or settling on the ground after low tide.

Looking on HABER yachts one needs to assume totally different judgment criteria. These are small "big" yachts and not only in terms of the size of interior. All hardware, rigging details, hulls and decks are made to handle the toughest weather conditions which can meet yachts on the sea. Some HABER owners have wondered if the massiveness of such elements as the mast base, mast truck, bow and stern counters, steering devices and others are not exaggerated, however, they all unanimously agree that if they were in a storm in the middle of the Atlantic Ocean they would not change these solutions and these yachts for any other. You can cruise around the world with a HABER yacht, sail to Paris by canal, follow the River Danube to the Black Sea or load the boat on the trailer and put it in your garden for the winter. Do you need anything more to be happy? We leave the answer to you!