

Profile and History of KB Marine Group

www.kb-marine.com



Initial Founder

Torsten Lieb

DOB 18.01.1964

1984 -1988 Apprenticeship Car Mechanic

1985 -1988 Evening classes, qualifying for university entrance

1988 - 1992 Poly-technical university

Diploma mechanical engineering

Working for US Military in Europe and USA

U.S. Merchant Marine Officer - Master up to 500 Gross Tons

2 Atlantic Crossings with Sailing Boats 9 and 12 Meter

100.000 NM with Motor Yachts

Quality Controller for Italian shipyards, Engineering Consultant

for shipyards in USA, Europe, Asia

Developing of new, innovating Systems and Hull designs

Project Manager for more than 10 Custom Build Yachts

and 24 Commercial Vessels

2009

- **till today**

Founding of **K.Boltze LLC**

as tribute to his Mother (Karin Boltze)

known as **KB Marine LLC**

this Company worked until 2013
with various cooperators in whole Europe
for trouble shooting and Warranty

2013

- **till today**

K. Boltze LLC cofounded (34 %)

Energy Naval GmbH

Vienna, Austria

this company developed and financed the building of

E43SUY

in Slovenia

total Investment until today 1.4 Million €

Holder of Brand Name:

Energy Yacht™

2017

Founding of

KB Marine Group d.o.o.

Slovenia

Director Matjaz Lascak 50% Share Holder

Prokurist Torsten Lieb 50% Share Holder

This company is now the base for " Know How " and Construction
of all new Projects

Here are the specialists (Key People) for Construction Service
and Maintenance employed.

The idea to keep the productions cost low, due to the 100%
capacity utilization in the service and maintenance section stands
for itself.

The old traditional Ship Yard in Izola Slovenia is equipped with
all necessary tools and equipment that enables us to build Vessels
in Steel or Aluminum up to 30 Meters

Know How / Inventions

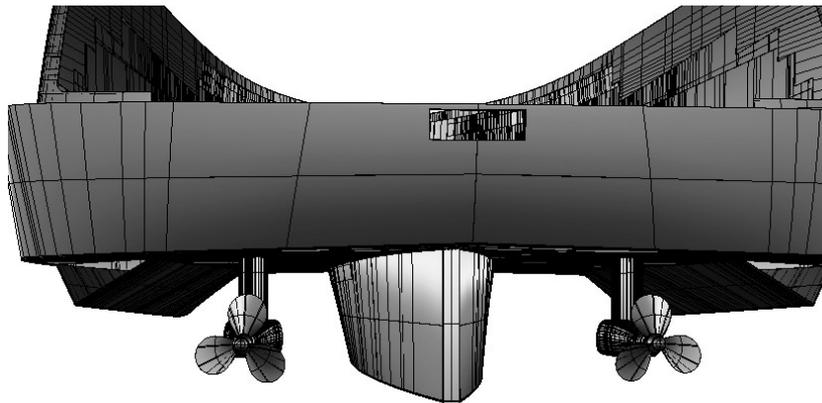
H L D

Hydro Lift Displacement Hull

Energy Saving 40%

Like a TRIMARAN with a Center Keel that carries all the weight and Side Bouncy Keels for Stability and Increasing the water flow towards the Propellers

Contrary to a displacement hull the displaced water is forced under the special shaped hull and likewise to a planning hull lifts the boat, but in opposite to a planning not only at the bow, but the total hull. That minimize the resistance and allows a higher speed with less power.



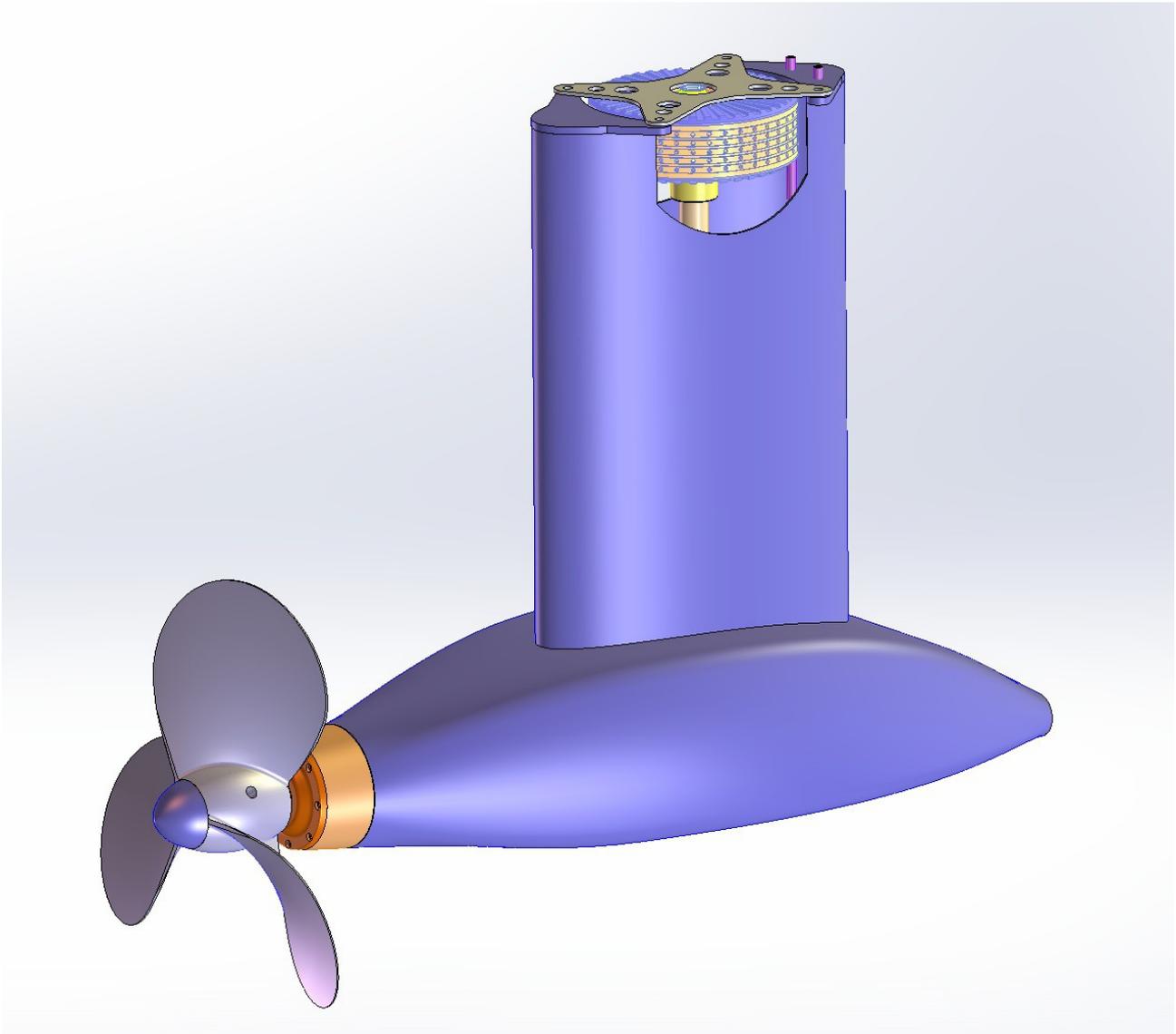
The first kind like that hull above was built 10 years ago and had been tested in the University of Vienna prior to construction.

Many test had been conducted.

Out of that information, we created this Hull. The first construction already accomplished its first test in the sea successfully.

Auto Trim POD

The Idea to build a hull that does not require additional Flaps to trim the boat for a better performance was the inspiration for this system. Without the need of moving parts just by its given form and the hydrodynamic principles made it possible to build a POD that lifts the aft of the boat when increasing the speed. Normally planning hulls and displacement hulls lifting the bow or lowering the aft when increasing the speed. The Water above the POD has a longer way than below. Likewise the Wing of an Aeroplane



The construction is in Aluminum

This model is made for an electric propulsion

Total weight of one (2 installed) including transmission, propeller, electric engine Shaft etc. for a 20 Ton boat = 120 Kg

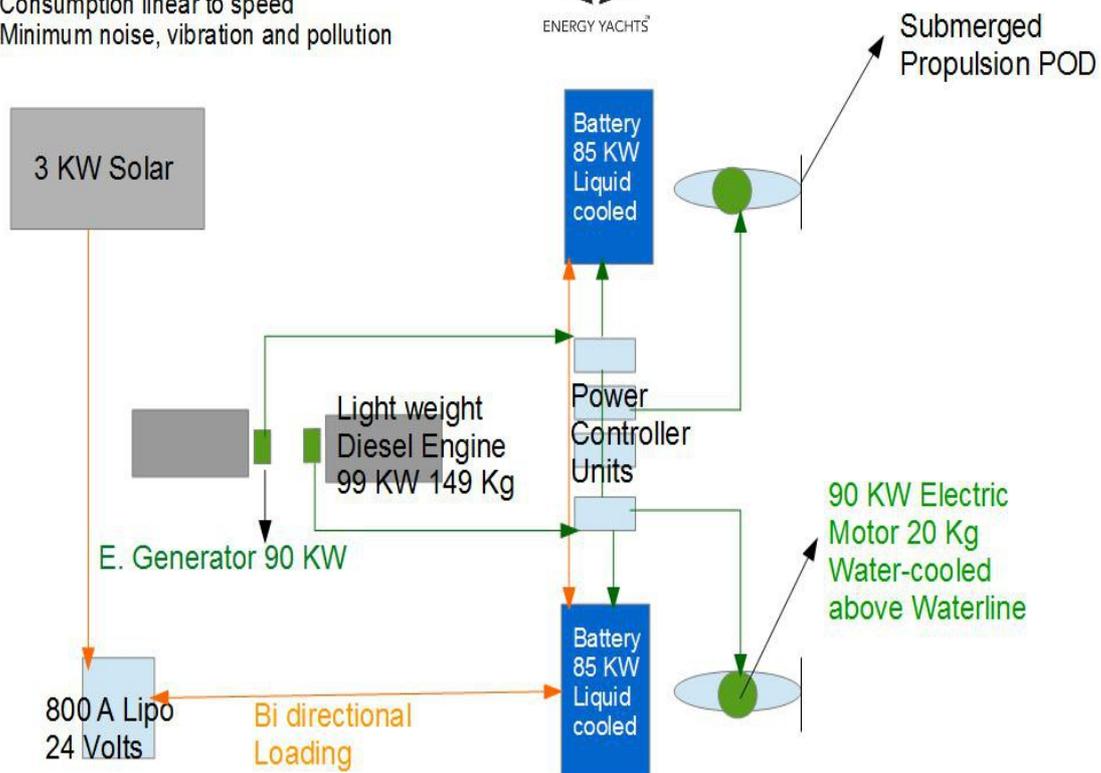
Parallel Hybrid

We haven't invented the Hybrid propulsion, but we are the first with a parallel hybrid system in that size. The idea of minimizing the Propulsion system of big cruise liners and commercial vessels and bring it to a system to install in new boats as well as replacing existing old diesel propulsions. The generating of power for that system can be done by various sources, so as fuel cells with hydrogen, micro gas turbines, solar panels or a combination of those.

The principle of a generator for a DC System is simply depending on the KW not on its torque. Therefore, much smaller environmental friendly engines can be used.

Another advantage is the independent space for installing the system. Weight can be calculated better and space can be used more efficient.

Independent use of each propulsion unit
4 Emergency use possibilities for highest safety
Consumption linear to speed
Minimum noise, vibration and pollution



The whole System is controlled by our own software and runs completely automatically.