GreenCat 50 Electric Workboat

A game changer in the electric future!
**GREENCAT 50 EL ... The future of workboats**
The new fully electric workboat inaugurates a new concept in catamaran workboats. The green wave is entering the aquaculture industry. The boat is both practical planned and environmentally friendly, giving the crew and surroundings better working environment and well-being.

**THE SECRET IS IN THE HULL DESIGN ...**
The clue for success is to have a hull design with the lowest possible resistance profile, to achieve the benefits of an even fully electric or hybrid configuration. This gives an energy efficient and economical operational profile, and, the maintenance costs are reduced to a low state, during the years of use. The hydrodynamics in the ship hull form has been through extensive CFD analysis and is well tested on slightly larger boats.

By using this modern state of the art hull design we cannot just predict, we give reasonable spot on figures when calculating the energy consumption for the operational profiles we assist the end user to create, for speed and endurance. This makes the boat a profitable investment with no surprises for the end customer.

**GREAT SPEED POTENTIAL ...**
There is no practical difference between GREEN CAT 50 EL and a traditional diesel work boat. It’s when it comes to speed, consumption and working environment, it stands out positively from the others in the market. The speed potential is up to 17-18 knots for light ship condition as hybrid.

**ENERGY CONSUMPTION ...**
Energy consumption is low, and less than other comparable boats in the market. The savings compared to diesel engines are estimated to be between 4 - 50 000 EUR year. The service and maintenance costs of the propulsion engines are extremely low in such a concept. The overall value of the investment of a boat like this will last longer than a conventional diesel driven one, due to the durability of the electric drivetrain. Depending on the operational profile, normally the consumption of electricity is estimated at 5 - 6 000 EUR/Year, in another hand, down to approximately 1/10 of the fuel cost of a similar diesel boat. By trying to look a little further into the future, it’s not inconceivable that the aquaculture industry will be required to pay more for the pollution of fossil fuel use.

**SAVE MONEY BY BEING ENVIRONMENTALLY FRIENDLY ...**
A investment in an environmentally friendly workboat is higher, compared to a similar with diesel engines, much due to the price of the battery packages. In the boat’s lifetime, the fact is that it has much lower operational costs and means that calculated OPEX sets the boat as an economical winner.

Comparing a diesel and an electric boat, the electric will be about 4 - 600 000 EUR cheaper to operate within 10 a period of years. Even as mentioned above, with a higher investment cost, After 10 years you are left with a boat that not need replacement, as the electrical system will be fully operational much longer.
A GREENER FUTURE ...

The 2 electric propulsion lines are provided by PM (Permanent Magnet) electric motors adapted to the concept. The propellers are 1000mm in diameter with high thrust and an exceptional high efficiency, which minimizes the energy take out for the propulsion. The HPU (hydraulic system) is electric driven. All lights are LED, and a heat pump is mounted in the wheelhouse. With 400 V shore-connection, batteries can be charged within few hours. With used more power than the battery bank can provide, there’s an automatic genset to provide the “take me home” function, and the necessary power to charge. The battery strings are scalable in size and have to be chosen to ensure the best operational profile for the end customer at location.

DECK EQUIPMENT ...

36 metric ton displacement provides good loading capacity. Cranes, Winches and other equipment are chosen by the customer. The boat is built in offshore grade aluminium. The working deck of almost 100 sqm provides space for work and cargo. Working with the hydraulic deck equipment, the electric motor in the HPU connects only when needed, gives quiet operations and less energy take out. Combined with cover and floodlights it ensures a good working environment for the crew.

In the wheelhouse, besides the necessary equipment for navigation and control, there is a small galley with dining area for 4 persons. Toilet, shower and workshop are accommodated in the compact superstructure. The boat can be delivered in a version with cabins as desired.

General Specifications:
- Length 14.95 m
- Width 10.00 m
- Height to deck 2.53 m
- Depth from water line 1.32 m
- Engines 2x100 kw
- Battery & Electro package ABB 396 kWh battery pack
- Propeller and gearbox
- Generator

You choose deck equipment based on your own preferences:
- Cranes in different capacities
- Capstans
- Chain lock
- Towing Pins with Sharkjaw Winch

Pilothouse
- Standard navigation package + self-chosen options.

A WORKBOAT OF THE FUTURE

Green Ship Design’s vision is to be a front running partner of developing green vessel solutions.

With our staff close to the best expertise in the segment, we believe that this boat will receive great attention and good reception in the market. We do already have agreements on several boats for delivery the next 6 years.

Let the GREEN CAT 50 EL become your next work boat!
"We make new solutions for you!"

So, Why chose our solutions? ...

Green Ship Design AS has well experienced designers and professionals, have presented the work boat Green Cat 50 el. We are proud of the result so far and are confident that this will be a good and a game changer concept for the aquaculture industry.

Green Ship Design AS takes the responsibility with design, drawing, approval, bidding process, and possibly negotiations with shipyards until contracting. We ensure close monitoring during construction to maintain that everything is delivered as planned.

The boats can be built by recognized yards either in Norway or any other country.

Please contact us for more information. We are happy to visit you and to tell more about the GREEN CAT 50 EL, and to hear what’s needed in your projects in near future.

We do also arrange for the design of larger boats with similar state of the art hull on request.

Dag Robert Jakobsen is our sales representative.
Together with him and in collaboration with our designers, we find good solutions.
Call him on phone +47 971 89 337 and book an appointment.
Dag Robert is a practical man with education in aquaculture. He has worked at fish farms and their boats, built workboats, is a technical draftsman, and has worked with sales for many years. He does have all the prerequisites to understand your working days, your challenges, and what’s the right solution.

Let’s have the opportunity to offer you a non-binding offer on your next Workboat.

Contact Green Ship Design AS

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