



# Faster and lighter vessels for transporting crew and cargo

Compared to all other vessel type markets worldwide, the Crew Transport Vessel (CTV) is developing the fastest. According to MHO&Co A/S, the perfect CTV has yet to be built and as soon as the next generation is launched, there will be new requirements from a forever developing business. PES was intrigued and went to find out more from, Mik Henriksen, CEO and Dan Knudsen, COO.

It is really interesting to see all the variations that are being built and the different philosophies used by various designers and builders. We have been involved in vessel design for more than 20 years, and it is fantastic to work on transfers to wind farms, where every month new turbines and concepts are being developed.

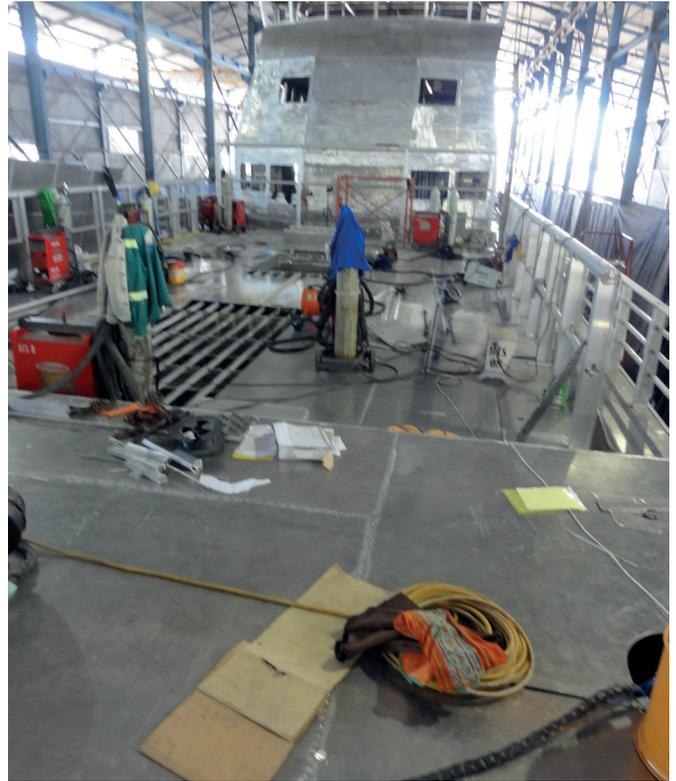
There are many factors that a client needs to consider when choosing a CTV for a project: safety, operation limitations,

comfort, fuel economy, cargo carrying capacity, speed and the day rate, amongst others.

The CTV market has had a few hard years, following on from a some really good years, we are hopeful that the lessons learned during the hard years, will make all involved a bit more careful.

MHO&Co A/S, has chosen to focus on larger CTVs, as wind farms are being

placed further and further from shore, we are convinced that larger CTV's will be needed to operate efficiently, in the conditions found far out at sea. We have been in dialogue with most of the major operators and developers to get input for the design of our new vessels. The design phase has taken about 2 years, but it has been worth it because following on from the consultation we now feel that we know where we can make a difference in the offshore industry.



The first set of vessels are 38,6m long and 10m wide, when we started the project they were only 29m, but more and more things had to be fitted on board. This means the craft are bigger than current CTVs. We have decided to call them FSC39, Fast Supply Catamaran 39m.

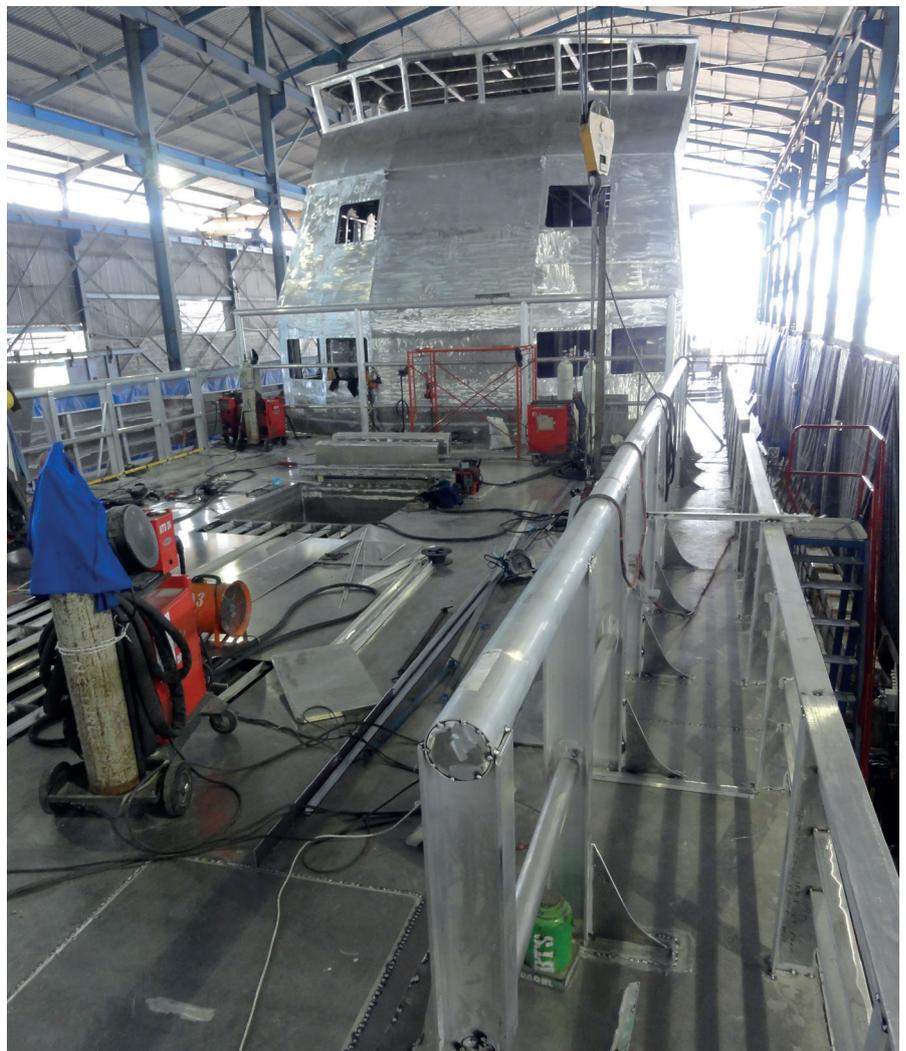
We have been working together with Ørsted on the design of these vessels, and the main requirements from that side was to get vessels that can stay offshore for longer periods of time, without taking on fuel from other vessels, and which can operate in the difficult sea conditions, when working so much further offshore.

There has also been a focus on low maintenance, which has resulted in a very high spec propulsion packet, with Cummins KTA38 main engines, which can produce up to 1,500 hp, but in the continuous rating decided on by MHO&Co A/S, they are only attaining 1,000hp. This gives more than twice as many hours between services as the Intermittent rated, or D-rated main engines used in most crew boats. A definite plus.

The requirement to carry more cargo, and to do so safely, can be seen on the vessels, including such features as guard rails all around the cargo deck, to landing cargo safely on the deck.

Due to the much longer water line, the comfort on board is also much better than on traditional CTVs this is very important when transporting personnel that have to do a full day's work and more, after they have been transferred to the work location.

In today market not many CTV's can carry





more than 15 tons of fuel and pay load. The FSC39 can carry 62t of fuel and cargo. The tanks can hold 60.000l of fuel, and there are 2 different size export pumps for normal or fast transfer of fuel.

There are 3 different designs in the FSC39 series ready to be built, subject on the main requirements from the operator: high speed, good fuel economy, the ability to stay offshore for long periods of time, cargo capacity or other focal points.

The next FSCs from MHO&Co will be either 2 more FSC39, slightly different than the first 2, or 2 x FSC44. Currently the company are in contact with potential clients to decide which version to build.

The FSC44 has got cabins for 12 technicians as well as 10 crew members. Obviously compared to the FSC39 it has got more of

everything. The cargo capacity is 90t and it is better suited for B2W (Bring to Work) system than the FSC39. Our prediction is that it will operate in 2.5m significant sea state, but it is still light enough for landing and transferring personnel, via a bow fender and a boat landing. The FSC44 also comes in 3 different variations depending what is most important for the client.

Already at this point one potential client is looking at chartering a FSC44

MHO&Co are working on tomorrow's solutions for logistic services for the offshore wind farms. All suggestions from clients are welcome. There is a real sense of enjoyment in making these ideas and wishes come through in the design of the next generation FSC.

[www.mho-co.dk](http://www.mho-co.dk)

### MHO&Co A/S

Founded in 2015 by Mik Henriksen.

Mik Henriksen has been involved in developing and building fast catamarans for 20+ years.

Designing, building and operating FSCs that optimise work on offshore wind farms is the main objective.

First 2 vessels StratCat 26, Vivace and Presto, launched 2016

### New vessels

Developed by MHO and Ørsted, with input from Siemens, Vattenfall and E-on.

FSC (Fast Supply Catamaran)

39m long

10.5m wide

Capacity: 60t of cargo or 60.000l fuel  
2 x 40' containers on fore deck  
Optional LIFTRA crane and 2 gearboxes on fore deck

### Services:

Provision of modern, crewed, high speed vessels for;

- Personnel
- Equipment
- Transfer of fuel
- Transfer of cargo and equipment with vessels' own cranes
- Use as a dive platform
- Hydrographic survey
- Subsea equipment deployment

### Types of industry

- Offshore wind farm construction
- Wind farm cable laying operations
- Wind turbine operation and maintenance
- Offshore energy installation, operation and maintenance