

# WINDSERVE FRONTIER – Jones Act-compliant CTV for the US East Coast



|                                                 |                            |
|-------------------------------------------------|----------------------------|
| Shipbuilder:                                    | <b>Senesco Marine</b>      |
| Designer:                                       | <b>BMT</b>                 |
| Vessel's name:                                  | <b>Windserve Frontier</b>  |
| Owner/Operator:                                 | <b>Windserve Marine</b>    |
| Country:                                        | <b>US</b>                  |
| Flag:                                           | <b>USCG – Subchapter L</b> |
| Total number of sister ships already completed: | <b>2</b>                   |
| Total number of sister ships still on order:    | <b>0</b>                   |
| Contract date:                                  | <b>2023</b>                |
| Delivery date:                                  | <b>August 2024</b>         |

The 29m *WindServe Frontier* is a crew transfer vessel (CTV) set to play a crucial role in supporting the expanding offshore wind energy sector in the US. Built by Senesco Marine for WindServe Marine, this vessel is tailored for demanding operations along the US East Coast, where the offshore wind industry is experiencing rapid growth. Additionally, *WindServe Frontier* is fully Jones Act-compliant, meeting US federal maritime regulations by being built in the US, owned by US citizens, registered under the US flag and crewed primarily by US personnel.

The aluminium catamaran, classed by the American Bureau of Shipping (ABS), is a variant of BMT's proven 27m design, incorporating increased cargo capacity and additional machinery space to be 'hybrid-ready'. In other words, this approach ensures that the vessel can be retrofitted with batteries and electric motors, allowing for future adoption of hybrid propulsion technology.

*WindServe Frontier* is powered by Volvo Penta D13 main engines coupled with Volvo Penta IPS 900 propulsion, delivering a service speed of 24.5knots and a top speed of 27knots. The vessel accommodates six crew members and up to 24 wind turbine technician passengers, facilitating the safe, efficient transfer of personnel between shore, offshore wind turbines and service operation vessels (SOVs).

A standout feature of *WindServe Frontier* is

BMT's patented Active Fender System (AFS), which enhances personnel safety by cushioning the impact between the vessel and turbine landing structures. "This technology ensures the vessel remains stable against turbines, reducing landing forces and enabling technician transfers in challenging sea conditions," BMT explains. Additionally, BMT's innovative Z-bow hull design optimises seakeeping performance and reduces resistance, to improve overall vessel efficiency.

The 252gt vessel is also equipped with the Reygar BAREFleet vessel monitoring system, which provides real-time performance data and operational insights. "This advanced technology supports predictive maintenance, reducing downtime and enhancing fleet efficiency," BMT adds.

*WindServe Frontier* is part of a growing portfolio of BMT-designed CTVs constructed by Senesco Marine, including the 29m *WindServe Spartan*, the 20m *WindServe Odyssey* and the 27m *WindServe Genesis*, *WindServe Journey*, and *WindServe Explorer*.

## TECHNICAL PARTICULARS

|                    |                        |
|--------------------|------------------------|
| Length, oa         | 29m                    |
| Length, bp         | 21.8m                  |
| Breadth, moulded   | 9m                     |
| Depth, moulded     | 4.8m                   |
| Gross tonnage      | 252                    |
| Displacement       | 150tonnes              |
| Design, draught    | 1.7m                   |
| Design, deadweight | 50tonnes               |
| Lightweight        | 100tonnes              |
| Deck space (total) | 65m <sup>2</sup>       |
| Deck capacity      | 2tonnes/m <sup>2</sup> |
| Service speed      | 24.5knots@85% MCR      |
| Max speed          | 27knots                |
| Bollard pull       | 17tonnes               |
| Range              | 3,000nm                |

## Propulsion

|                   |         |
|-------------------|---------|
| Main engine(s):   |         |
| Number of engines | 4       |
| Make              | Volvo   |
| Model             | D13 700 |

Output of each engine.....515kW

## Gearbox(es):

|                     |         |
|---------------------|---------|
| Number of gearboxes | 4       |
| Make                | Volvo   |
| Model               | IPS 900 |

## Propeller(s):

|                          |                                                          |
|--------------------------|----------------------------------------------------------|
| Number of propellers     | 4                                                        |
| Make                     | Volvo                                                    |
| Model                    | SK008-4xID13-PS900-Q2                                    |
| Diameter                 | 760mm                                                    |
| Material                 | Ni-Al-Bronze                                             |
| Number of blades         | 3-blade front<br>propeller and 4-blade<br>rear propeller |
| Speed                    | 13.5m/s                                                  |
| Fixed/controllable pitch | Fixed                                                    |
| Open/nozzled             | Open                                                     |

## Deck machinery and bridge electronics

### Crane(s):

|                  |            |
|------------------|------------|
| Number of cranes | 1          |
| Make             | TOMIL      |
| Model            | T-12500M/2 |
| Capacities/SWL   | 1,400kg    |

### Winch(es):

|                   |          |
|-------------------|----------|
| Number of winches | 1        |
| Make              | Hercules |
| Model             | AAW-150  |

### Onboard capacities:

|               |              |
|---------------|--------------|
| Fuel oil      | 36,770litres |
| Fresh water   | 3,000litres  |
| Sullage       | 2,154litres  |
| Ballast water | 13,260litres |
| Oily Water    | 900litres    |

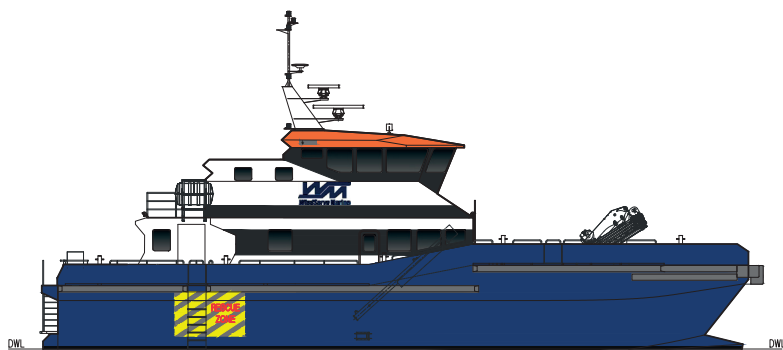
### Complement:

|                      |    |
|----------------------|----|
| Number of crew       | 6  |
| Number of passengers | 24 |
| Number of cabins     | 2  |

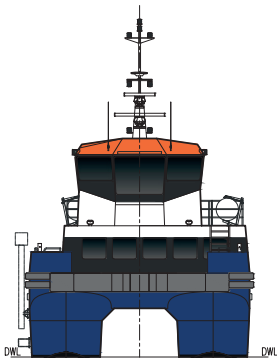
### Classification

|                        |                                                |
|------------------------|------------------------------------------------|
| Classification society | ABS                                            |
| Notations              | A1 HSC Coastal Craft @,<br>•AMS OE, Wind-SC(A) |

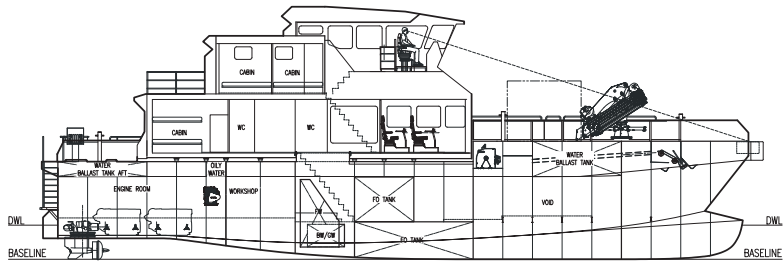
# WINDSERVE FRONTIER



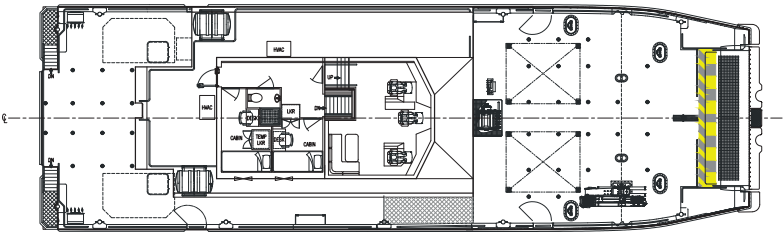
OUTBOARD PROFILE



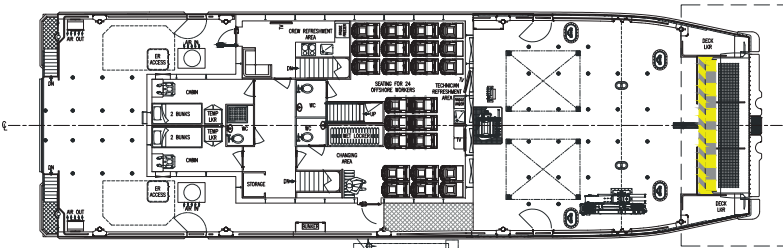
VIEW ON BOW



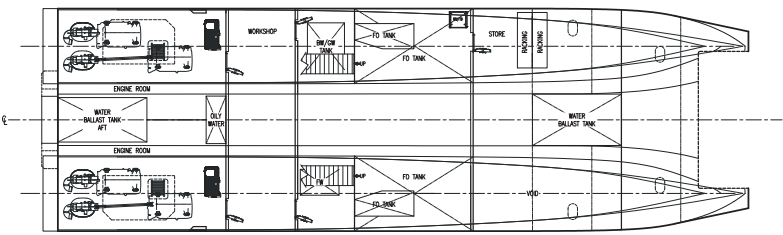
INBOARD PROFILE



PLAN VIEW ON BRIDGE DECK



PLAN VIEW ON MAIN DECK



PLAN VIEW ON HULL

BMT ACTIVE FENDER SYSTEM  
PROTECTED BY PATENT:  
No. GB2490252,  
No. GB2001923.5,  
No. GB2001920.4