



CHARTWELL MARINE

CHARTWELL COURAGEOUS

THE NEXT GENERATION OF OFFSHORE ENERGY SUPPORT



INTRODUCING CHARTWELL COURAGEOUS

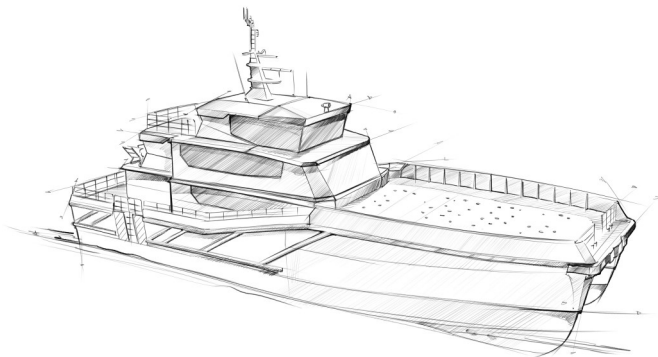
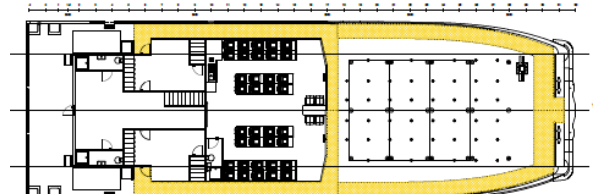
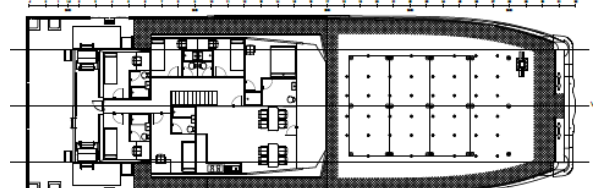
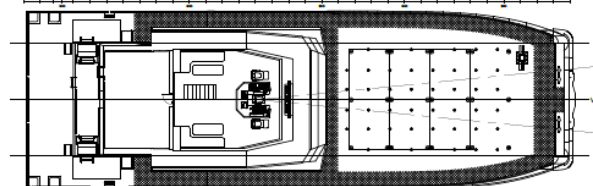
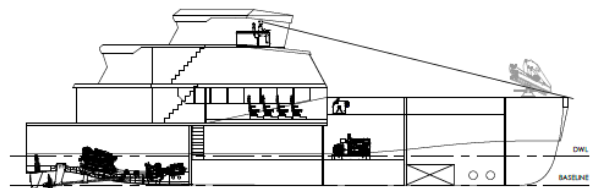
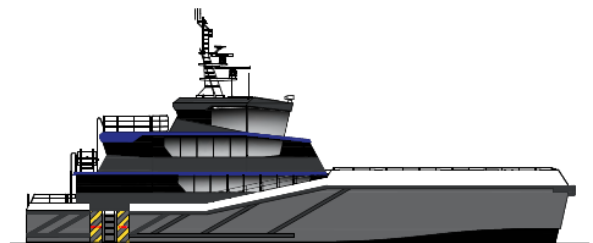
The Chartwell COURAGEOUS is a pioneering crew transfer vessel (CTV) design that further refines the formula for offshore wind support.

Developed off the back of ten years of data and experience in offshore wind vessel design, alongside extensive dialogue and collaboration with CTV operators, wind farm owners and turbine manufacturers, the Chartwell COURAGEOUS responds directly to the needs of the end user.

The vessel is sized to be capable and effective in the challenging conditions in the ever growing offshore wind market. Surpassing the capability that has been achieved by the most effective vessels currently operating in the offshore wind market. It builds on lessons learnt supporting European projects throughout construction and operation, while also meeting new requirements emerging in markets such as the USA and Taiwan.

The vessel can be delivered in a range of configurations to suit specific operators requirements including hybrid zero emission.

LENGTH	34.0M (112FT)
BEAM	12.0M (39.4FT)
MAX SPEED	25kts
e-SPEED	8kts
PROPLSION	CPP/FPP/IPS/WJ
NO. OF TECHS	36



FEATURES

BUILT FOR PURPOSE

The Chartwell COURAGEOUS, available as a hybrid ZE (zero emission) vessel, has been developed in collaboration with a pool of highly respected vessel operators and their end clients. Its design has been optimised to directly meet the operational demands of servicing offshore wind farms.

SAFETY & WELFARE

Total control and complete visibility for skippers with unique wheelhouse configuration

No steps or trip hazards

Designated walkways, handrails and safety sliding rails positioned for safe, repeatable crew transfers

Class-leading IMO HSC code compliant reclining seats, local power points for maximum technician comfort

High levels of operational familiarity for crews and technicians

Twin large wetrooms for crew and technician changing

Large onboard crewing facility including onboard sleeping facilities

AVAILABILITY & PERFORMANCE

Perfectly proportioned. Sized to handle the growing demands of offshore wind

Class leading wetdeck clearance and bow fender height

Accommodates up to 36 industrial personnel and 6 onboard crew

Large foredeck space provision for 20ft and 10ft containers

Displacement vs. installed power provides excellent transit performance, high bollard push and resultant friction holding force

Available in multiple propulsion and energy storage configurations.

EPA Tier 4 & IMO Tier 3 compliant, with diesel and hybrid propulsion options



TESTING

VALIDATED PERFORMANCE

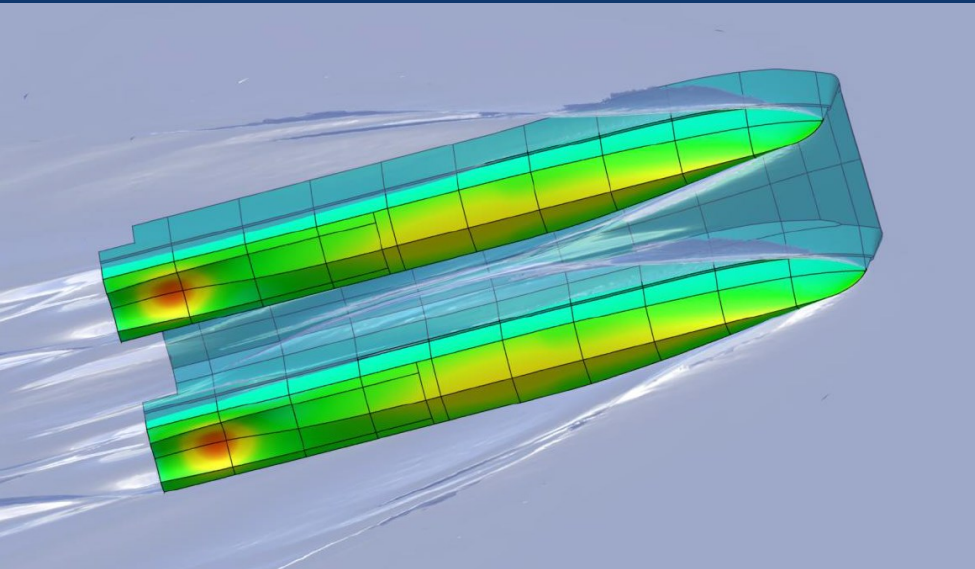
The Chartwell CTV hull design has been independently validated using the latest computational fluid dynamics (CFD) modelling methods, coupled with thorough 1:12 scale free running model tank testing. Combined, these processes constitute the most rigorous and scientific testing approach for any offshore wind CTV design to date.

Conducted by Seaspeed Marine Consulting, these tests have confirmed the seakeeping performance, stability and maneuverability of the vessel design.



Scale model seakeeping tests have demonstrated the performance and maneuverability of the vessel in a range of different sea states.

SOURCE: SEASPEED MARINE CONSULTING



Independent CFD testing has provided validation of the Chartwell hydrodynamic and aerodynamic resistance throughout the speed range.

SOURCE: SEASPEED MARINE CONSULTING

“During model testing, the Chartwell hull exhibited high standards of seakeeping and maneuverability throughout a wide range of simulated sea states. Importantly, the freeboard and motion of the vessel were such that no wet-deck slamming was noted within the range of tests undertaken. This is a significant operational advantage when compared to other craft with lower freeboard, which would be limited by slamming occurrence.

STEPHEN PHILLIPS

MANAGING DIRECTOR

SEASPEED MARINE CONSULTING

NEXT-GENERATION ENGINEERED FOR TOMORROW

The Chartwell COURAGEOUS eCTV is a pioneering crew transfer vessel that refines the formula for offshore wind support. Offering zero emission operations and significant reductions in total fuel consumption.

Silent (no engine noise) when operating electric only.

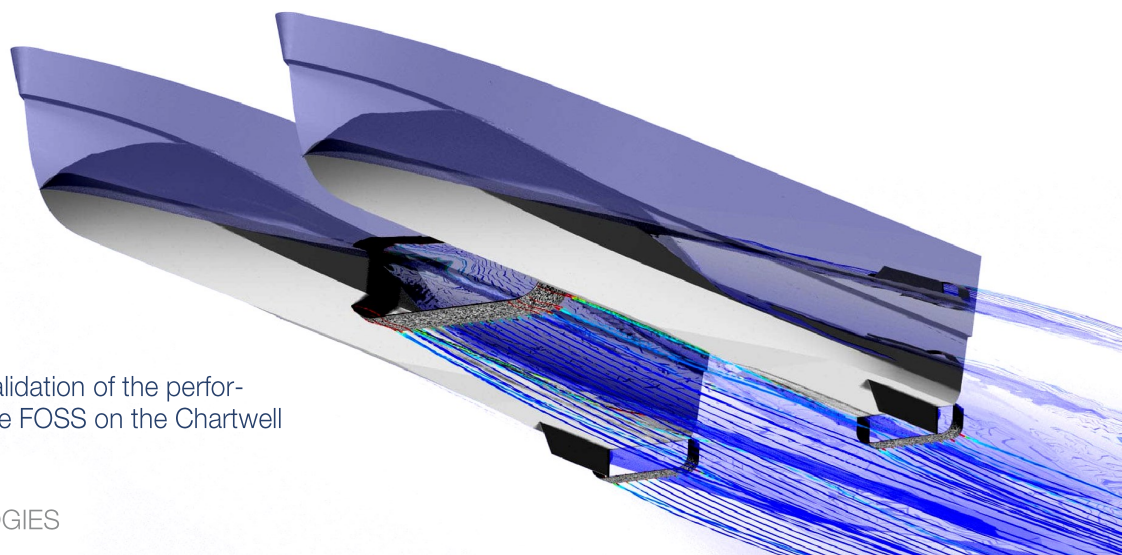
- Zero emission when operating electric only
- Up to 1000L fuel burn reduction over 12 hours operation
- Up to 2.9T CO₂ reduction over 12 hours operation
- Up to 87% reduction in Nox emissions over 12 hours operation (Tier 3)
- Up to an 8-hour reduction in engine use over 12 hours operation



CHARTWELL COURAGEOUS eCTV—UPTO 3000kg LESS Co₂ EMITTED

The Foil Optimisation and Stability System (FOSS) developed in partnership with BAR technologies combines the latest in hydrofoil design, simulation and optimisation technology with sophisticated AI driven control algorithms. Achieving significant fuel saving and superior sea keeping.

The result is an advanced active hydrofoils system which is automatically tuned to minimise resistance and maximise efficiency, as well as responding to sea states to actively dampen vessel acceleration resulting in increased ride comfort by as much as 70% and offering fuel savings of up to 20%.



CFD testing has provided validation of the performance gains provided by the FOSS on the Chartwell CTV hull form.

SOURCE: BAR TECHNOLOGIES

ABOUT

CHARTWELL MARINE

Chartwell Marine is a pioneer in next-generation vessel design. A reputed naval architect with an industry-leading track record designing award-winning high-speed vessels, Chartwell Marine supports ambitious boat builders and vessel operators around the world with specialist, independent design and consultancy services.

CONTACT US

To find out more about Chartwell Marine, please visit:

<http://www.chartwellmarine.com>

