

Celebrity Solstice

Ship type	Cruise
Shipowner	Royal Caribbean International (RCI)
Shipyard	Meyer-Werft GmbH & Co. KG



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Main Dimensions

Dwt	9,500 t
GT	121,878
Capacity	121,878 gt
LOA	317.19 m
Beam	36.9 m
Draught	8.7 m

Project type	Ship status	Design scope	Delivery year
Newbuild	Delivered	Concept	2008

Scope of Work for the Shipowner

- Development of Risk-Based Design specifications and platform optimization in accordance with new probabilistic rules for damage stability (SOLAS 2009), making it the world's first ship built to these standards
- Hull form design and optimization for resistance and propulsion, utilizing advanced CFD tools alongside physical model testing
- Establishment of energy efficiency specifications, target setting for the yard, and energy balance assessments for the vessel
- Creation of 3D digital mock-ups for safety-critical areas
- Conducting risk assessments for selected installations and systems during normal operations and emergencies
- Performing survivability assessments through advanced time-domain flooding simulations
- Conducting passenger comfort studies on open deck areas using CFD tools
- Analyzing swimming pool dynamics
- Evaluating noise comfort levels on open deck areas in collaboration with BAE Systems

Project Features

Customer benefits developed in collaboration with the yard included:

- A compact and efficient overall configuration that adheres to new probabilistic damage stability regulations
 - Enhanced hull and propulsion performance, leading to the lowest fuel consumption per tonnage or displacement
 - Verification of design features to ensure compliance with operational targets
 - Development of an innovative lifeboat position and configuration
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Additional Information

IMO number	9362530
Sister vessels	Celebrity Equinox