Allure of the Seas

Ship type Cruise

Shipowner Royal Caribbean International (RCI)
Shipyard STX Finland Oy - Turku Shipyard



Main Dimensions

 Dwt
 19,750 t

 GT
 225,282

 Capacity
 225,282 gt

 LOA
 362 m

 Beam
 47 m

 Draught
 9.2 m

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Project type Ship status Design scope Delivery year

Newbuild Delivered Concept, Basic, Detail 2010

Scope of Work for the Shipowner

- During the Pre-Shipbuilding Contract Phase, Deltamarin participated in the project development team, with
 responsibilities including weight calculations, maneuvering studies, specification development with special
 items and safety design guidelines, stability checks, platform optimization and subdivision, General
 Arrangement development for the lower part of the vessel, exploration of alternative hull forms, and propulsion
 and powering studies
- During the Shipbuilding Phase, in collaboration with Safety at Sea, Deltamarin's duties included third-party studies and reviews of weight, hull form, model tests, subdivision, and stability; development of maneuvering and vessel handling performance with extensive simulations; survivability analysis and model testing; participation in the alternative design team for prototype high-capacity lifeboats; fire safety assessment; wind and micro-climate studies using CFD; open deck passenger comfort analysis; safety level studies; redundancy verification of power production, propulsion, and selected comfort systems; and membership on the Safety Advisory Board, led by Prof. Dracos Vassalos of Safety at Sea

Scope of Work for the Shipyard

• Basic design including hull, machinery, HVAC, outfitting, and electrical systems for the middle sections (MFZ 3, 4, 5) and part of the interior design, including windows scheme, insulation plan, fire integrity, and any further possible revisions for the entire ship

- Basic design including 3D modeling of the navigation bridge, covering rules compliance, functionality, and ergonomics studies
- Hull detail design for the fore part, using Tribon modeling system for hull production documentation
- For the suppliers: detail design including HVAC and interior design for the promenade area, main stairs, and observation lounge, as well as electrical design for the main stairs and observation lounge. HVAC design was completed using 3D Cadmatic software.

Project Features

• Largest passenger vessel in the world at the time of the delivery

Additional Information

IMO number 9383948

Sister vessels Oasis of the Seas