

ClassNK approves NYK Line's 3D design drawings of multi-purpose container ship

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ClassNK has approved the basic design drawings of a multi-purpose container carrier developed by Nippon Yusen Kabushiki Kaisha (NYK Line) utilizing 3D models.

This milestone marks the world's first ocean-going ship to complete the basic design process, including class approval, solely through 3D drawings from the conceptual design to the basic structural design, during the initial stages of ship construction.

Traditionally, the sharing of design information among shipyards, ship owners, and class societies has relied on 2D drawings, necessitating the

conversion of shipyard-created 3D models into 2D drawings for approval processes.

This practice, along with the input of drawing data into the class society's ship structure design support system and the model modifications by designers, has posed challenges in terms of time and cost for both parties. Additionally, accurately interpreting complex 2D drawings requires extensive experience and expertise, resulting in the precision of information sharing among parties dependent on the individuals involved.

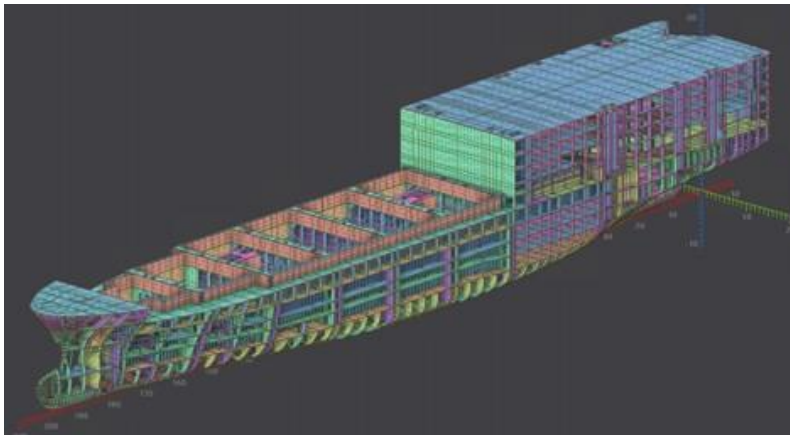


Image of 3D drawings /

Courtesy of NYK Line

Recognizing these challenges, NYK Line and ClassNK have been advancing a project to enhance the utilization of 3D models in new ship designs. The 3D model data created by NYK Line on its ship design 3D CAD system was processed with the interface system of ClassNK's PrimeShip-HULL, a ship structure design support system provided by ClassNK and ensures the use of consistent design data across different tools.

ClassNK has completed all plan approvals at the basic design stage without the need for the conversion to 2D drawings.

Moving forward, ClassNK will continue to work on standardizing the 3D plan approval scheme and strive to support digitalization and advanced initiatives in ship design.