Abstract

The principal steps in the design, analysis and construction of Swath ships are illustrated on the example of a Pilot Transfer Vessel for the North Sea. The procedure for Swath ships differs from that for conventional ships because comparatively little experience exists for Swath ships. Most quantities, like stability, resistance, propulsion and behavior in a seaway have to be calculated from first principles rather than extrapolated from a database of existing vessels.

The presentation starts with the design drawings of the Swath ship. Next some results of comparisons of hydrodynamic model tests and computed wave patterns are shown. An example of structural FEA results is presented, and finally the construction phase and shipyard practice is covered.