

Construction RV *Wim Wolff*



Progress report #14: March 2022

The RV *Wim Wolff* is a new shipbuilding project for the Dutch national research fleet. The fleet is owned and operated by the National Marine Facilities (NMF), a department of the Royal Netherlands Institute for Sea Research (NIOZ). The NMF fleet consists of three vessels capable of conducting research from the shallow coastal waters out into the open ocean.

The RV *Wim Wolff* is intended to replace the Wadden Sea research vessel RV *Navicula*, and with its shallow draught of 1 meter it is specifically designed for overnight voyages for research in the Wadden Sea, the Zeeland delta or the coastal zone.

With a permanent crew of four, the RV *Wim Wolff* will offer state-of-the-art facilities for a maximum of 12 passengers, and is equipped with onboard dry and wet lab facilities. The vessel also has room for two customised lab containers on the working deck.

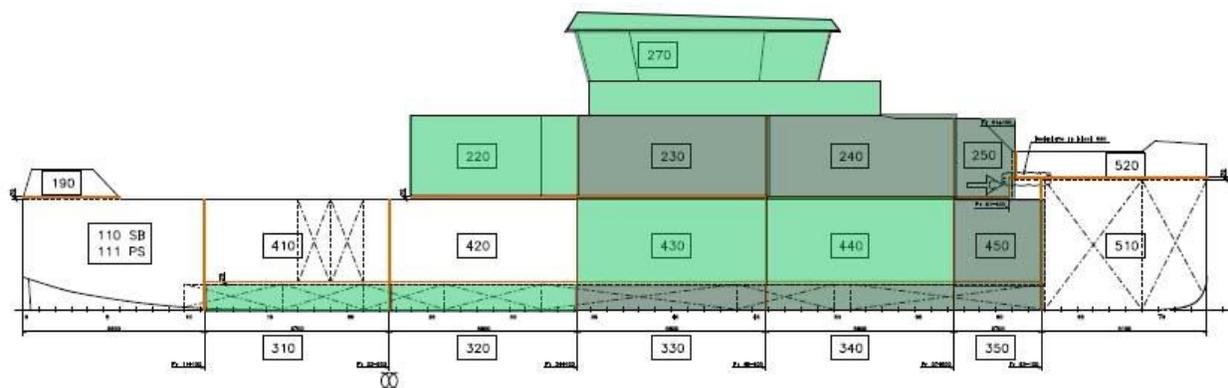
The RV *Wim Wolff* will be built by Thecla Bodewes Shipyards (TBSY) in Harlingen, and is scheduled for delivery in the 1st quarter of 2023.

Hull construction

The hull of the RV Wim Wolff is composed of several sections, which are being built at different locations by three Frisian shipbuilders. The individual sections will then be joined together by N. Dijkstra in Harlingen.

A total of 7 out of 20 sections are now complete, two are nearing completion, and work has started on another four. The builders will begin construction of the remaining seven sections in the near future.

The hull is scheduled to be delivered later this summer.



State of affairs in late March. The RV Wim Wolff's hull sections, with the completed sections shown in dark green and the sections still under construction in light green. ©FH

Workers have also begun joining the aluminium hull sections at a new production facility at N. Dijkstra. Several bottom sections (labelled '300' sections) have been joined to the top sections (the '400' sections) to form a ring structure. These 400 sections are still under construction.

The shipyard has also started welding the individual ring sections together, and the shape of the hull is starting to become clearly visible.



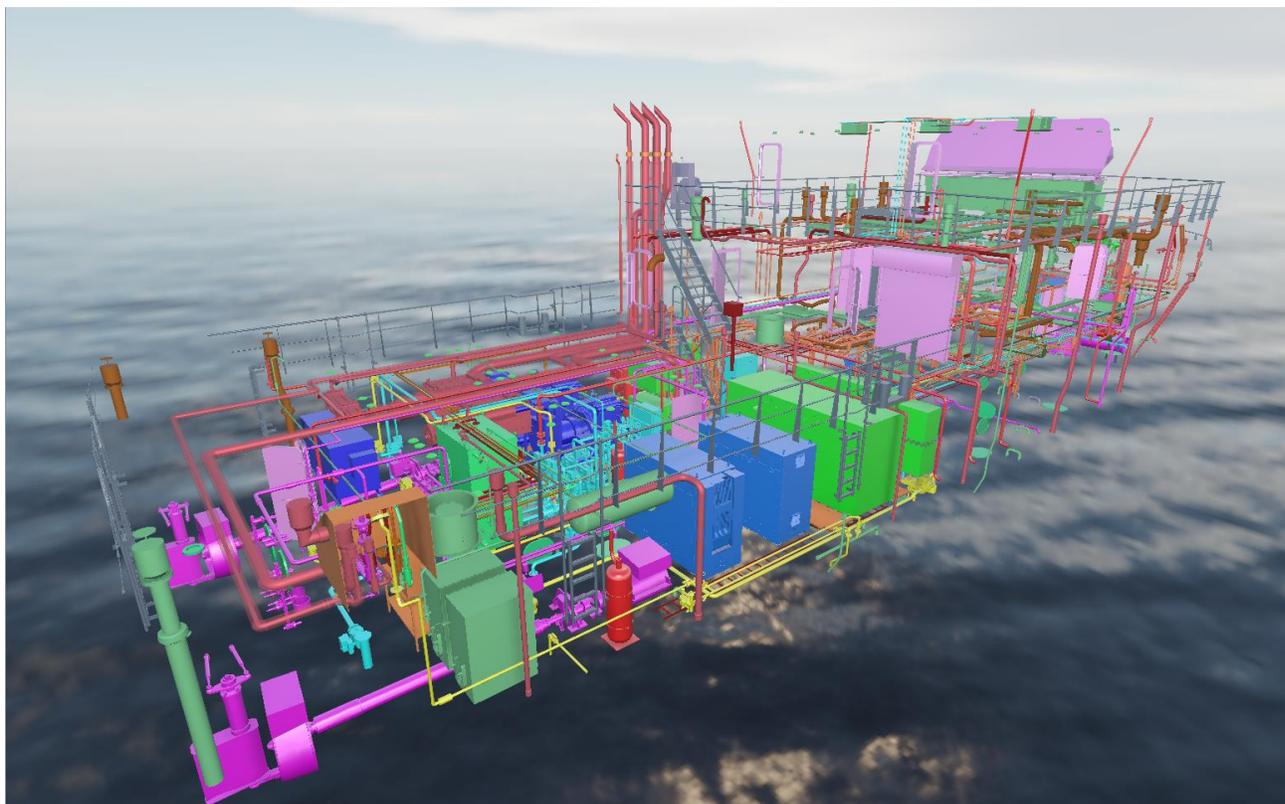
State of affairs in late March. The first bottom sections (400 and 300 sections) have been positioned together, and the first superstructure section (200 section) has been installed. ©PB

Construction could not begin immediately when the contract was signed, because TBSY had to draw up the functional specifications for the RV *Wim Wolff* within the hull dimensions, while maintaining functionality and maximum draught.

This 'puzzle' work also included deciding on the definitive positions of the tanks, bushings and pipelines inside the vessel. Once all of the functionalities had been added to the design, the final hull design was approved and the shipyards could start work on the sections.

It was important for the final design to be elaborated in detail, so that all of the aluminium work on the hull could be conducted simultaneously with the construction of the sections.

This task is usually performed using specialist computer programs today. The complexity of the task can be seen in the 3D overview of the pipelines aboard the RV *Wim Wolff* below.



Design of the RV Wim Wolff, with an overview of the pipelines, including fuel (pink), lubricant (dark red), bunker oil (orange), coolant (green), compressed air (light green), exhaust (red), ballast (blue), bilge (yellow), living seawater (dark green), ventilation (matte red), level (light green).

The various systems require a considerable length of pipe. The fuel system alone measures more than 135 meters.

Preparations have already begun for the remaining work, including drawing up a schedule, purchasing the last equipment items, and contracting with subcontractors.

For more information, please visit: www.NewResearchFleet.nl