

ShipBuilding

industry

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TRACKING OFFSHORE
& HIGH-SPEC VESSELS



Built for Brazil
DAMEN PSV 3300

DP Gezina

Comfort Conversion

First to the Field
Fast Support & Intervention

DP Gezina



Owner || Chevalier Floatels
Builder (conversion) || Holland Shipyards



For the North Sea's growing offshore support market, Chevalier Floatels developed two unique Service Support Vessels to complement its fleet. Following extensive conversion at Holland Shipyards, flagship DP Gezina and her sister DP Galyna (under construction) are designed with guest comfort in mind. >>

WORDS BY JOHN GAULDIE



“
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In offshore wind, wind turbine technicians, executives and other guests are often more used to working onshore, so the industry demands high comfort and equipment standards to maximise productivity when working at sea. Faced with the rough weather conditions found at many North Sea wind farms, the vessels must provide stability at low speeds or holding station, not to mention facilities to help wind technicians keep on working. Holland Shipyards has risen to the challenge with a cost-effective conversion. Now in operation, DP Gezina is a floating office, maintenance workshop, spare parts store, hospital, mess and hotel for the offshore industry.

Conversion for Comfort

Following the six-month conversion, Chevalier Floatels named DP Gezina in May 2013 at Holland Shipyards' premises in Hardinxveld – Giessendam. The naming honour went to Gezina Roelofs, the mother of Chevalier Floatels' owner Marcel Roelofs. The vessel had already secured its first charter with Van Oord Offshore Wind projects, and Mr Roelofs reported a positive response from the market.

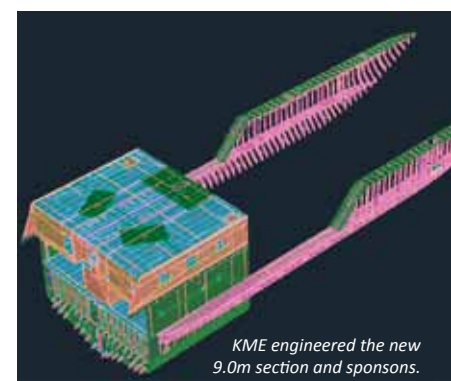
Originally built at Poland's Remontowa Shipbuilding for Norwegian owner Eitzen Group in 2007, the vessel was a passenger shuttle ferry for 386 passengers until she was acquired by Chevalier Floatels. During the conversion, Holland

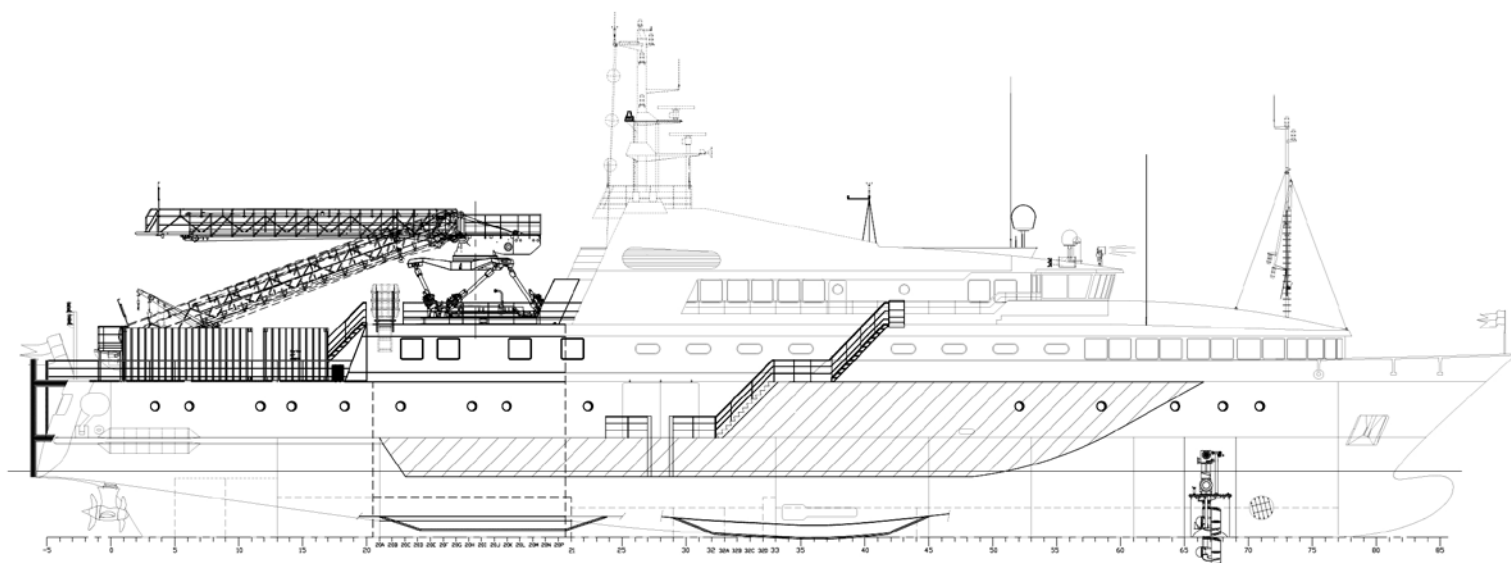
Shipyards lengthened the vessel by 9 m. The yard also added sponsons to improve seakeeping and make the vessels more comfortable for those on board. The project also included engineering and equipment for a DP system, retractable thruster, walk-to-work system and crane. The vessel's interior is completely transformed – instead of seating for hundreds of passengers, she accommodates 60 to 90 technicians with full facilities for working comfortably at sea. ASD Ship Design provided the basic design calculations, KME engineered the construction, while Hoek Naval Engineering took care of the system drawings.

Engineering Strength

The task of engineering the new 9.0m section for extending the vessel went to KME, who also engineered the sponsons. The section, aft of the existing engine room and in front of the stern deck, included an additional engine room, stores, workshop and accommodation. The top deck of the section is the foundation for an Ampelmann walk-to-work system. KME integrated the support construction for the Ampelmann foundation in the new part of the vessel. The dynamic loads according to Ampelmann are taken into account for the foundation.

Using ShipConstructor software, KME made the structural model for the 3,000 steel parts >>





required for this conversion. All in all, the engineering team of KME team completed the project in just six weeks – from design to steel-cutting and start of construction at Holland Shipyards. KME, which is currently working on a new project for Holland Shipyards and a project for offshore cargo handling specialist CargoFlexX, is also well known for its superyacht naval architecture.

Wet & Wild Works

The Ampelmann walk-to-work system significantly improves operational time and scope compared to more conventional transfer methods. Where other systems are limited to around 1.5 m significant wave height, the Ampelmann can work in wave heights up to 3 m significant, thus greatly increasing productivity in the field. Ampelmann has registered more than 300,000 safe transfers on its systems. Dutch specialist welding and construction company Abuco fabricated all the necessary parts for the DP Gezina's system, part of a framework contract signed earlier this year with Ampelmann.

Alongside the walk-to-work system, the vessel has a large changing room to accommodate technicians returning from the wet and wild conditions outside. Pronomar provided the drying systems for workwear, survival suits, boots etc.

Main Suppliers & Subcontractors

Alfa-Laval Boxcoolers | **Ampelmann** HPUI | **ASD engineering** Design, calculations | **Breman Shipping Installation** Sanitary, HVAC, Freezers | **Caterpillar** Generators | **Cornet Services** Preservation | **Droste Electro** Electricity, DP 2, Radio Installation | **Eide** Watermaker | **Euro offshore** RIB | **Hoek Naval Engineering** Detail Engineering | **Hoogendoorn Betimmeringen** Carpentry | **Hydroster** Watertight Sliding Doors | **KME** Detail Engineering | **Legendijk** Cranes | **Lloyd's Register** Classification | **Praxis** Mega Guard Dynamic Positions System | **Reikon** Pumps | **Trinox** Windows, Doors | **Uson marine** Compactor | **Veth Propulsion** Thruster | **Qau-Vac** Sewage plant

Powering Stability

The additional machinery room in the new section houses generators for the Ampelmann system and two additional Caterpillar power plants required to meet the increased demand from the Praxis Mega-Guard DP2 system loads and additional equipment. The Mega-Guard system Auto Track mode allows the ship to move along a pre-defined track at low speed as defined by the operator. The DP2 conversion also included a new retractable Veth Propulsion bow thruster.

On the 120m² aft deck, Legendijk Equipment provided a heave compensated work crane with capacity of 1 t @ 20 m outreach for servicing offshore installations. The vessel has been equipped with the facility to accept a multibeam sonar, allowing for works such as cable inspections.

As Holland Shipyards works on identical sister ship DP Galyna, DP Gezina is already proving herself at sea. For Van Oord, she is supporting Vattenfall's DanTysk wind farm construction – almost 100 km from the German coast.

i. www.cfbv.com

i. www.holland-shipyards.nl

SPECS

Principal Particulars

Length o.a.	70.10 m
Beam moulded	13.40 m
Operating draught	3.10 m
Air draught	17.20 m (foldable mast).
Gross tonnage	1,930 t
Speed	13.50 knots
Class:	LR +100A1, +LMC, UMS, DP (AA), SPS, *IWS

Power & Propulsion

Main Diesel Generators	5 x 600 kW Caterpillar
Emergency Generator	1 x 220 kW
Stabilisers	2 x Rolls Royce Retractable Fin Stabilizers
Main propulsion	2 x 630kW 360° Azimuthing
Bow thrusters	1 x 300kW Tunnel thruster 1 x 400kW retractable 360° Azimuthing