

SBI VOL. 9 ISSUE 2 | 2015

# ShipBuilding

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GIVING TECHNOLOGY A HUMAN TOUCH

DE HOOP'S CARIBBEAN-BOUND PSV

# Delta Admiral

BUILT AT DE HOOP'S LOBITH YARD IN THE NETHERLANDS, THE DELTA ADMIRAL IS A DNV GL-CLASSIFIED DP2 PLATFORM SUPPLY VESSEL (PSV) WITH A FIFI 1 NOTATION. HER DESIGN stems from customer and shipbuilder collaboration. Regarding crew comfort, she represents a step forward in terms of luxury. But like the original KISS designs, De Hoop has not altered the location of the main generators – thus still achieving impressive cargo volumes for her size range and efficient access for maintenance.

Progress has always been a crucial factor in ship design – Shipyard De Hoop's last delivery to offshore support service provider Delta Logistics demonstrates how the yard has developed its established KISS-design of PSV. In other words, the Delta Admiral forms the next generation of De Hoop's PSVs. She is a 70m long PSV with deep water capabilities – her owners have put her to use in offshore supply tasks in the offshore fields surrounding Trinidad and Tobago in the Caribbean Sea.



Photo courtesy of Shipyard De Hoop

Delta admiral's bridge has 360° visibility.



Photo courtesy of Shipyard De Hoop

## Kiss Me Quick

Compared with earlier versions of the KISS design, Delta Admiral's hull form results in decreased power requirements, increased service speed combined with reduced fuel consumption. Capable of eleven knots astern and three knots sideways, the Delta Admiral's propulsion set up is arranged for dynamic positioning. Veth Propulsion's input will achieve precision station-keeping characteristics.

A key factor is that the generators are positioned in the first superstructure layer meaning that there is considerable space below decks for the vessel's cargo tanks – intended for dry bulk, brine, fuel oil, drilling water and liquid mud. The 600m<sup>2</sup> main deck, with its 5t per m<sup>2</sup> loading capacity is also suitable for cargo – pipes or drummed products in particular as well as four tiers of 160 containers.

The main deck is also home to the Delta Admiral's external fire-fighting unit. Classified FiFi1, the aft set up also consists of a self-protection deluge system. Further

safety features are six gravity-launched Viking life rafts, each capable of holding 20 persons. The Delta Admiral also boasts a water jet-propelled Palfinger FRSQ600 fast rescue craft that can be launched from its own davit.

## Redundancy is Key

PON Power supplied the Delta Admiral with its freshwater-cooled Caterpillar C32 units. Each with a 1,130kVA output, the four diesel alternators take care of the vessel's power generation. Inherently flexible, the alternators can be used in any combination and it is this characteristic that keeps fuel consumption to a minimum, while maintaining the power when required. To safeguard the system's redundancy required for DP2 certification, the power distribution set up is divided into two separate systems.

## All Round Vision

With the wheelhouse divided into what really can be seen as two bridges, De Hoop's design encompasses the importance of safe >>

## SPECS

Builder	Shipyard De Hoop, the Netherlands
Owner	Delta Logistics, Trinidad and Tobago
Length o.a.	70m
Beam	15.77m
Maximum service speed	13 knots
Accommodation	36 persons
Deck area	600m <sup>2</sup>
Fuel oil capacity	610m <sup>3</sup>
Fresh water capacity	230m <sup>3</sup>
Drill water capacity	1,080m <sup>3</sup>
Liquid mud capacity	675m <sup>3</sup>
Brine capacity	310m <sup>3</sup>
Dry bulk capacity	220m <sup>3</sup>



Photo courtesy of Shipyard De Hoop

One of four Caterpillar C32 gensets.



Photo courtesy of Shipyard De Hoop

One of two Veth Z-drive thrusters.



Photo courtesy of Shipyard De Hoop

and efficient DP operations. The bow facing bridge is used for 'A to B' sailing and the stern facing part is optimised for precise DP manoeuvres.

Alphatron Marine provided the navigation and communication equipment – all SOLAS and GMDSS compliant for sea area A3. The bridge design also focuses significantly on the Delta Admiral's captain and crew. All consoles are ergonomically designed and large windows offer impressive all round 360° vision – including nighttime operations that are aided by remote controlled searchlights.

### Caribbean Bound

Delta Logistics' new asset is home to a crew of 36 accommodated in air conditioned cabins ranging from single berths to four-man cabins each with access to the Internet and television, as is expected in a modern vessel. Furthermore, De Hoop's input during the interior design phase, regarding floors and ceilings in particular, has yielded significantly low sound and vibrations levels. After performing successful sea trials

towards the end of last year – which were followed closely by final delivery, the Delta Admiral made her way to the Caribbean Sea. She is now mobilised in supply services in the Trinidad and Tobago region.

Meanwhile, activity at De Hoop continues with the recent sea trials of the 68m Offshore Supply Vessel Prince Job I that will soon be delivered to owner Awaritise Nigeria Limited.

Another milestone was the February launch of yard number 470 – the 65m PSV for the Abu Dhabi National Oil Company, which is the first of ten PSVs for this client. That contract is progressing well – seen by the keel laying of the third vessel in the series in the same month.

**i. [www.dehoop.net](http://www.dehoop.net)**

## Power Providers

Veth Propulsion provided the Delta Admiral's propulsion system – comprising two azimuthing Z-drive stern thrusters and two bow thrusters. The VZ-1250 Z-drives, each providing 1150kW, use fixed pitch propellers, are powered by 1,150kW e-motors and can provide maximum thrust in all directions. Used mainly during DP operations, the two transverse bow tunnel thrusters, also fixed pitch, are powered by 550kW e-motors. The flexibility of the vessel's propulsion system is demonstrated by the fact that it can operate at variable speeds and is controlled by a variable frequency converter. Furthermore, the positioning of thrusters in the hull optimise propeller effectiveness by reducing interaction between the thruster and the hull. With an eye on simplifying future maintenance and service, the thrusters can be internally mounted.

"The Delta Admiral is a prime example of the cooperative relationship that we have with De Hoop," says Veth Propulsion Area Sales Manager Bianca Hiati. "This enabled us to efficiently install the vessel's propulsion system - making it quite a straightforward project for us."