

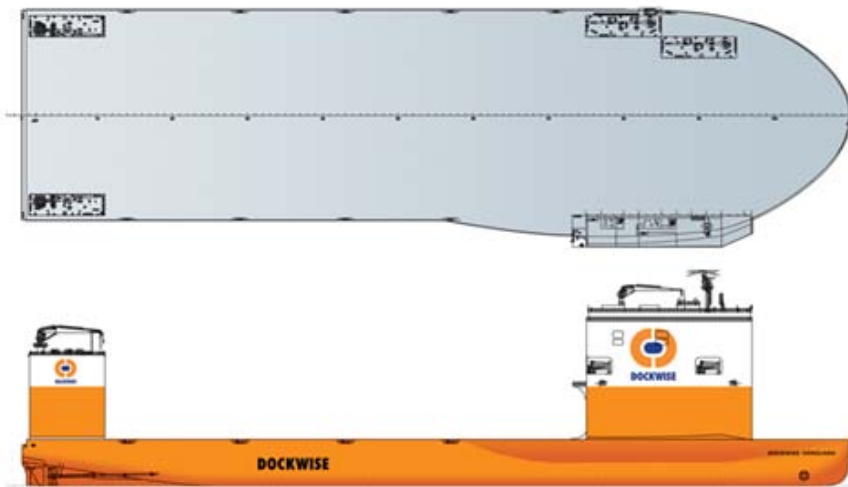


SPECIAL * COLLECTION OF MARITIME PRESS CLIPPINGS *** REPORT**

By : Piet Sinke



DOCKWISE VANVANGUARD is a semi-submersible heavy transport vessel (SSHTV) and is built at the **Hyundai Heavy Industries (HHI)** shipyard in Ulsan for the Dutch shipping company **DOCKWISE**. Upon its delivery, **DOCKWISE VANGUARD** will become the largest heavy lift vessel in the world.



In February 2011, **HHI** was contracted to build a new ultra-large transport vessel for **Dockwise**, and today (November 30th) was the naming / christening ceremony in Ulsan, with the vessel scheduled to enter commercial service after completing sea trials. By the end of 2012, the vessel will transport the **Jack & St. Malo platform** hull from Korea to the US Gulf of Mexico as part of its first contract. **DOCKWISE VANGUARD** is also contracted to

transport the **Goliat FPSO** to northern Norway and the **Aasta Hansteen** spar platform to the Norwegian Sea.

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The first steel was cut for the **DOCKWISE VANGUARD** in September 2011. The keel laying ceremony took place in December 2011.

Large pieces of steel were manufactured at the factory and shaped, before being transported to different construction yards for assembly into blocks. The blocks were then shipped to the building dock. The ship is

being built from 241 blocks and 558 sub-blocks. The first block was placed in the dry-dock at the **HHI yard** in February 2012. About 50 blocks were placed by March 2012. Winches were supplied by **Kraaijeveld**



"The **DOCKWISE VANGUARD** has been awarded the **Spotlight on New Technology Award** by the **Offshore Technology Conference (OTC)**." The design allows the flow of water along the entire deck, but prevents the entry of water into the enclosures of the vessel. The ship will be equipped with movable casing. A bulwark is also incorporated into the design to ensure the safety of the crew. Machinery exhausts will be based on the towers at the port and starboard sides at the stern.



DOCKWISE VANGUARD has an overall length of 275m, moulded breadth of 70m, depth of 15.5m and a submerged draft of 31.5m. The deadweight of the vessel is 117,000t. The ship is provided with a free deck space of 275 x 70m. The loading deck extends the entire length of the vessel. The ship was classified with a heavy lift vessel notation and categorised as a '**Type O**' vessel. The semi-submersible heavy lift ship can be ballasted down to allow the cargo to be

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floated aboard. The ballast tanks are then de-ballasted to raise the deck over the water surface for lifting its cargo. **DOCKWISE VANGUARD** can transport large FPSO vessels, drilling rigs or heavy platforms.

DOCKWISE VANGUARD features a bow-less design developed by **Dockwise** and **Delta Marine**. The crew accommodation, including the lifeboats section, is on the starboard side of the vessel.



DOCKWISE VANGUARD is powered by four **Wartsila** main engines driving two controllable pitch propellers (CPP). The propulsion system includes two retractable thrusters and one bow thruster for high maneuverability.

The vessel is equipped with a reduction gear system. Shipboard power is supplied by one **Wartsila 6L20** auxiliary engine. The propulsion system will provide a maximum speed of 14kt.

The vessel cost is around \$240m which is paid through installments. The project was financed by **Dockwise** through a rights offering and debt facility. Funding was secured from **ABN AMRO**, **Royal Bank of Scotland (RBS)** and the **Deutsche Bank**.



See the animation of the **DOCKWISE VANGUARD** at :

http://www.youtube.com/watch?v=IEtJOKDvUfY&feature=player_embedded

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Due to the lay-out and size of the vessel, the **DOCKWISE VANGUARD** is the first heavy transport vessel which is capable of carrying full size FPSO's and integrated structures. In the past, one FSO has been transported, destined for the **MOHO BILONDO** field, which stretched the capabilities of the transportation vessel **BLUE MARLIN** with respect



to the support length.

The capacity to transport FPSO's on board the **DOCKWISE VANGUARD** is governed by the deadweight capacity of the vessel, the width of the FPSO and the length of the FPSO. Both deck load requirements as well stability are not considered critical in view of FPSO transportations. The deadweight capacity of the **DOCKWISE VANGUARD**, results in a payload of over 110.000 tons. Depending on the position of the center of gravity of cargo, the maximum payload could be carried as ballast water is only required for weight offset compensation in case

of F(P)SO transportations. The allowable width for the FPSO to be transported is governed by the available width between the fixed accommodation block and the flexible positioned buoyancy casings. Having the casings positioned in the designated position, this width is restricted to about 52 meter. In the outer positions, this width could be increased to 65 meter. The support length that could be provided for supporting the FPSO is 275 meter. Depending on the structural capacity of the FPSO hull girder, a certain extend of overhang can be allowed, which results in the ability of the **DOCKWISE VANGUARD** to accommodate FPSO's having lengths in excess of 300 meter.

Next to the transport of the F(P)SO from the construction or conversion location into the production location, the opportunities for repair and maintenance near site are often limited.



In case of outer hull repairs, this would require the F(P)SO to be taken off site and dry docked or alternatively repaired by means of underwater techniques. Especially in West Africa and South America, availability of dry docks are constraint due to non-existence and occupation by new building projects respectively. Since the number of F(P)SO's in these areas is significant, providing a dry dock at the production site or nearby the production site could provide an attractive alternative to avoid long transits to dry docking facilities in, for example, Europe.



The introduction of the **DOCKWISE VANGUARD** will bring a new concept of semi-submersible vessel to the heavy transport market. The focus on optimum cargo flexibility has resulted in a vessel which has been designed with focus on flexible cargo carrying capacity and contingent systems for both ballast- and propulsion systems.



The bowless design allows the transport of significantly longer cargo's, such as SPAR's and F(P)SO's, without the need for a vessel having excessive length and altered main particular ratio's. Especially for the F(P)SO market, the ability to transport full size assets will offer potential for design improvements of these units, especially when benign operating conditions are considered.

An improvement could be achieved with respect to fuel consumption and emissions when considering dry transport over wet tow solutions.



In addition to transportation of F(P)SO's, dry docking units in the South Atlantic basin could prove to be an interesting alternative compared to dry docking in established dry docks in for example Europe or Asia. A thorough preparation of such an offshore dry docking is essential to mitigate the risks associated with such an operation. Today (**30-11-2012**) this mighty vessel was named, the invited guests arrived at

the guesthouse of **Hyundai Heavy Industries** at the gigantic shipyard in Ulsan, for a excellent lunch hosted by **Hyundai Heavy Industries**, during the lunch a Korean lady pianist played popular Dutch folk songs like "*Tulpen uit Amsterdam*" and "*Geef mij maar Amsterdam*"

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Upon completion of the lunch and speeches by **Mr J.D. Kim** EVP & COO of Offshore & Engineering Division of **HHI**, and **Mr Andre Goedee**, the CEO of **Dockwise Shipping B.V.** the guests were shown around at the Guesthouse before proceeding to the **VANGUARD**



Left seen **Mr Billy Varnado** project manager for the 1st cargo for the **Vanguard**, the **Jack & St Malo** Hull together with his wife **Mrs Dale Varnado** who acted as the ships sponsor as can be seen below.



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The naming ceremony was going together with fire works and a release of many orange balloons, whilst the surrounding ships blow their ships whistles, after the naming

the vessel was christened by **Mrs Dale Varnado** by throwing a bottle of champagne against the ships hull.



Ships sponsor **Mrs Dale Varnado** together with VIP guests during the naming ceremony.



At present the **DOCKWISE VANGUARD** is getting close to completion, looking for yard trials during December and delivery very soon after the trials, on the left seen the technicians working in the engine control room to finalize the settings.

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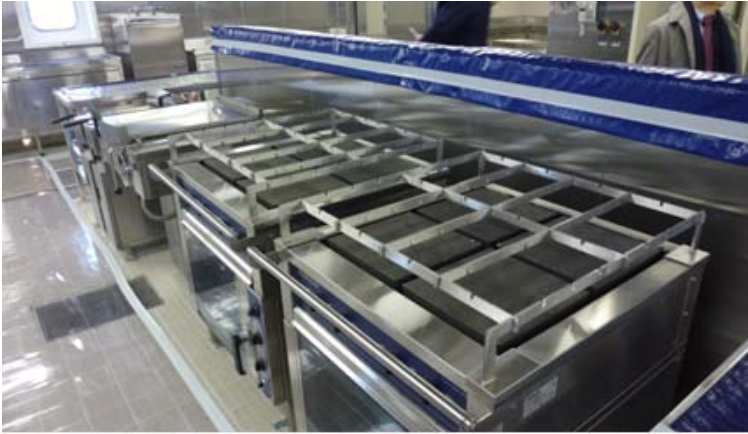


The ultra modern Ballast panel with all large (27 ") touch screens in the ballast control room



The accommodation is located SB side forward as can be seen at the photos, in total there is accommodation for 40 persons which are getting their food from a modern large galley as seen on the photos below.

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On the top : The Capt of the **DOCKWISE VANGUARD** (middle) shows the galley to the lady sponsor **Mrs Dale Varnado**, her husband **Billy Varnado** and **Mrs Els Goedee**, spouse of **Andre Goedee**, CEO of **Dockwise**

Left seen the messroom for the crew



**DOCKWISE
VANGUARD**
117,000 dwt offshore
dry-docking capacity

REALIZING THE INCONCEIVABLE www.dockwise.com

DOCKWISE



The water breaker on the bow, which is not shown on the earlier animations and drawings, can be removed if cargo's exceeding the maximum deck length require this.



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Last year **Dockwise** held an in-house contest under the employees about the name for the newbuilding, about 280 persons participated in this and came up with a name for the vessel, **Anthony van Ginkel** (Senior Structural Engineer) at the photo on the right and Senior Sales Manager Projects **Gerry Sarlis** came up with the name **DOCKWISE VANGUARD** which was finally chosen as name for the vessel.



Mr J.D. Kim EVP & COO of Offshore & Engineering Division of **HHI** was a happy man as can be seen at the photo after the ceremony when saying goodbye to all the guests.



The newbuilding team plus a part of the shipscrew with the thumbs up, for an excellent new building project and for a safe loading of the first load, the **Jack & ST Malo** hull which will be loaded in January 2013 for transportation from Busan (Korea) to Ingleside (Texas) by the **DOCKWISE VANGUARD**



Sunset over **Hyundai Heavy Industries** shipyard in Ulsan with the **DOCKWISE VANGUARD** fitting out.

Length o.a. 275.00 meters
Length b.p. 270.00 meters
Breadth moulded / max. 70.00 meters
Deck Space (L X B)* 275.00 x 70.00 meters
Depth 15.50 meters
Draft submerged at FPP / APP 31.50 / 31.50 meters
Maximum draft 10.99 meters
Water-depth above main deck FPP / APP 16.00 meters
Deadweight 117,000 metric tons
Speed 14.5 knots
* Equipped with movable casings



<http://www.dockwise.com/page/homepage.html>

Herewith I would like to thank **Dockwise** for the invitation and hospitality , as well **Hyundai Heavy Industries** for the hospitality, and giving me the opportunity to participate in this event and giving me also the possibility to make photos for this special **DOCKWISE VANGUARD** report

Piet Sinke – Editor Shippingnewsclippings