

## PRESS RELEASE

# SOLUTIONS FOR STRANDED GAS

Vlaardingen – September 3<sup>rd</sup> 2007

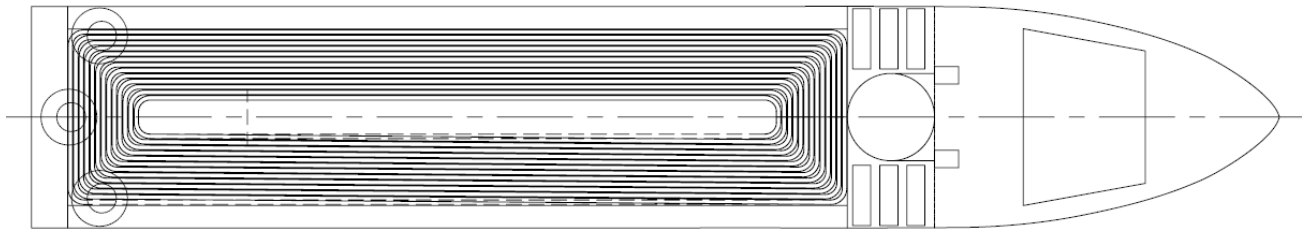
**Dutch specialist ship designer Sea of Solutions, partner in the Offshore Ship Designers Group (OSD), has developed a technically feasible and low cost concept to exploit stranded gas fields. Stranded gas is in fields too far from main pipeline routes to make them economically viable. Sea of Solutions has developed the concept of a long pipeline coiled inside a ship rather than laid out on the seabed; the continuous pipe CNG carrier.**

The gas comes out of the ground into a coiled pipeline in the ship and is delivered to the shore facility without need for expensive offshore or ship borne installations. The CNG carrier can cope with unprocessed gas direct from the well and the coiled pipe design avoids the need for large complex pressure vessels built into the ship.

Nick Wessels, Sales Engineer at Sea of Solutions, writes in the September edition of the OSD newsletter DESIGN Waves, "The advantage of this concept is that the investment is in the vessel itself and is not related to a specific offshore field. It is an attractive means to develop fields for which the production rate or total volume cannot be easily predicted."

Sea of Solutions has worked out the optimum vessel size, cargo pipeline size and temperature and pressure of the stored natural gas for a typical stranded gas field. Optimal storage conditions are met with a cargo pressure of around 130 bar and temperatures as low as possible without additional cooling equipment other than using seawater. With an overall length of 240 m the ship can carry a coiled pipeline of about 218 km length at speeds of 15 knots. Typically, one load would equate to 515 MMscf of saleable gas.

Top view on main deck



All parameters are open to change depending on position and size of fields to be exploited, but the concept is both simple, flexible and technically available today.

Also in the newsletter read about North Star Shipping's expansion plans, Svitzer's UOT order, an innovative pipelay vessel and a record heavy lift ship both to be built to a Sea of Solutions design.

Sea of Solutions develops projects for operators, contractors and ship owners in the exploration, construction and production market, as well as the maritime transport market. It is a private company providing products and services on an independent and confidential basis. Beside designs for newbuild vessels, the company is actively involved in upgrade and conversion projects for existing offshore vessels.

Sea of Solutions is partner in the Offshore Ship Designers Group (OSD), which is a global one-stop resource delivering naval architecture and marine engineering skills to the shipping and offshore energy industries. It draws on an experienced global workforce to provide high quality feasibility studies, conceptual and detailed designs for tugs and offshore support vessels of all types, deepwater drilling, installation, derrick and pipelay vessels, heavy lift vessels and innovative environmentally-friendly solutions for FPSOs and FSUs. OSD is based in IJmuiden, The Netherlands and has offices in Vlaardingén, Montrose, York and Shanghai.

***Come and visit Offshore Ship Designers and its partners IMT Marine, Sea of Solutions and WorldWide Marine at Offshore Europe, Aberdeen in the Dutch Pavilion, Stand 1045E***

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## END PRESS RELEASE

Note for the editor (not for publication):

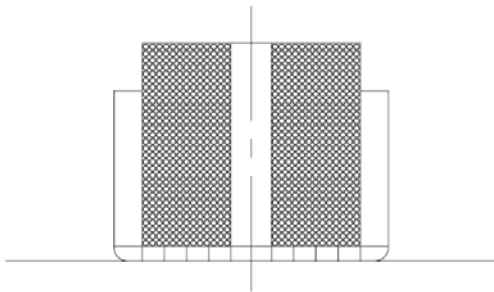
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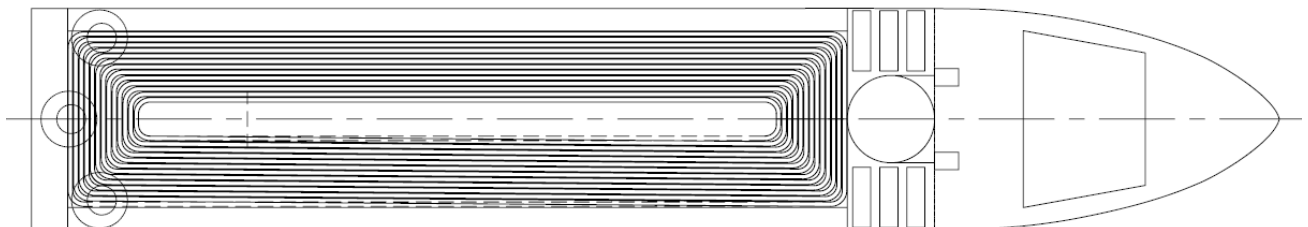
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Cross section



Top view on main deck



Side view

