

# PEM

Port Engineering Management



**DEME**

Dredging, Environmental  
& Marine Engineering

## New Vessels



The derrick lay vessel developed by Ulstein Sea of Solutions (USOS) combines double joint S-lay capabilities with a 4,200 t lifting capacity

over the stern in tie-back mode and 4,200 t at 28.96 m without tie-back. In full revolving mode the crane is able to lift 3,635 t with an outreach of 39.64 m.

The vessel features two fixed pitch shaft driven main propellers of 5,500 kW each which will allow for a cruising speed of 13 knots. To upgrade the vessel to DP2 five (5) retractable azimuth thrusters of 3,500 kW each are required.

### Order for engineering of a dredge-x150sp for HollandMT/FKAB

Italian-based civil contractor SOMIT s.r.l. has awarded a contract to HollandMT and FKAB for the engineering of a Dredge-X150SP. This is a self-propelled pontoon suitable for a Liebherr 984 excavator able to dredge on -18 m water depths.

The hull is designed according to Bureau Veritas rules as a heavy welded construction with a double hull, bottom, sides and a reinforced main deck to carry stones, rocks, etc. In the aft of the vessel an engine room is situated, comprising the main machinery.

The propulsion plant consists of a double shaft arrangement and each is driven by means of a Cummins engine (KTA19M3). A hydraulic powered bow thruster is fitted for easy manoeuvring and positioning on the job. Through a Power-take-off, one of main propulsion engines provides the onboard hydraulic power for the spud hoisting/lowering system, mooring, anchor-winch and bow thruster.

During dredging operations, the three spuds will allow the pontoon to lift up approximately 0.5 m, providing a stable platform for dredging as well as for loading barges.

On the aftdeck, accommodation is provided for 6 persons, including a galley and messroom. On top of the accommodation a wheelhouse

is positioned for transit voyage and as well as for monitoring dredge operations. With the acquisition of this vessel, SOMIT will further strengthen its position as a versatile maritime contractor along the coastal regions of Italy.

### Important new investments strengthen DEME's position in the world market

Even though the current investment programme 2008-2011, which amounts to €1bn, is still being implemented, the DEME Group is already commencing a new series of investments which will see 3 new units on the market by mid-2012. An amount of €260m has been allocated for these new investments. Including these new investments, a total of nine new, large units will be added to the DEME fleet by mid-2012.

The construction contract for these three vessels has now been signed with the IHC

Merwede shipyard. It encompasses the construction of a new trailing suction hopper dredger (TSHD) with a hopper capacity of 11,650 m<sup>3</sup>, an extremely powerful, self-propelled rock cutter dredger with a total installed output of 28,000 kW and a patented high-tech, flexible fall-pipe system that will enable accurate stone dumping at depths of up to 2,000 m.

The new trailing suction hopper dredger (TSHD) will be named *Breughel*. This new ship, with a hopper capacity of 11,650 m<sup>3</sup> and a carrying capacity of over 18,000 t, fits perfectly into DEME's trailing suction hopper dredger segment which incorporates the *Brabo* and *Breydel*, added to the fleet in 2007 and 2008 respectively. The ship will have a port side 1,200 mm suction pipe and will be able to dredge at depths of up to 43 m.

The *Breughel* was designed for dredging in both deep and shallow waters, enabling the ship to offer extensive flexibility. Even with a maximum load, it will only have a draught of 8.15 m on dredging mark. This also enables DEME to reconfirm that its fleet of dredging vessels offers the best carrying capacity/draught ratio in the dredging industry. This is an absolute trump card in terms of multi-use applications, from deployment for maintenance work in deltas to land reclamation projects with long distance transport.

The ship combines all of the latest developments in dredging technology and will be equipped with a pump-ashore installation for directly shore delivery (rainbowing). During the design of this trailing suction hopper dredger, a great deal of attention was paid to minimising CO<sub>2</sub> emissions and this will allow the ship to be labelled as having the best CO<sub>2</sub> emissions per m<sup>3</sup> in its class and, subsequently, to it being awarded a Green Certificate. The *Breughel* is scheduled to be commissioned in the second half of 2011.

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