

Cold water pull for Pella tug

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The Pella built PS-45 multifunction rescue tug being kitted out in the Leningrad shipyard (Russian Federation) has a very broad set of operations to cover, piling pressure on the towing kit which has to deal with high loads on the line – and ice on the deck.

Firstly, the 48m long by 13m beam tug is to be tasked with all kinds of towage operations, covering more than just 10 kts escort duties and assisting distressed vessels. Its 80 tonne bollard pull will be used for harbour tractor work, help to move offshore structures and lend a hand with subsea maintenance operations and, according to Francisco Oliver Rivera of Fluidmeconica, it will also be used for the towing of Russian Navy submarines.

More, this is to take place in both open water and ice conditions: the tug even has ice-breaking capability, being designed to get through 1m ice at somewhere between 2kt and 5kt speeds.

However, all this has an impact on the deck gear. Given the kinds of loads that could mount up on the line, the pair of big Fluidmeconica pulling pieces need to be extremely robust: both the fore windlass and aft winch are automatic escort winches, having line and pull monitoring plus automatic load adjustment: because of the conditions, Mr Rivera explained: "All equipment is heated, not only the gearboxes which have a heated bath, but also the hydraulic oil and control cabinet has their own heating devices." Alongside this is a GMH-type tow hook that comes with load monitoring screen and automatic release option: this will be used for extended towage operations, another useful feature being that it keeps the pull records.

Since the tug also has to cover search and rescue, evacuation and at the same time act as a supply boat for both specialised equipment and technical staff, the cargo crane is has a load capacity of 11 tonnes at 18.5m outreach with a multifunction operation. This allows easy loading of stores and containers and also comes with a specifically designed auxiliary winch that allows for emergency recovery of people from the water.

Fluidmeconica is also responsible for the 480kW hydraulic drive which underpins the deck equipment and also runs the 200kW bow thruster, a necessity given harbour and near-structure operations.

Classified by the Russian Maritime Register of Shipping there is pretty much no end to what is expected of this small but sturdy tug: it's going to be able to evacuate personnel and will also take on oil spills and firefighting operations on both land and marine structures, including being able to extinguish waterborne burning fuel oil.



The PS-45 multifunction rescue tug is being kitted out with Fluidmeconica towing gear