

# Multi-purpose tug breaks the ice in northern Russia.

The Leningrad Shipyard Pella, located on the River Neva, just north of St Petersburg, delivered Alexander Zryachev in October 2012, a 34.4m x 12.1m escort tug with a maximum draft of 4.4m, to the Shipbuilding Centre Zvyozdochka, a leading Russian shipbuilding facility specialising in repair and refitting of submarines, surface ships and ships of any type and purpose. This facility is located in the Arkhangelsk region of northern Russia.

The new tug, of Pella's Project PE-45 design, will be used for the towing of vessels and floating objects in both harbour areas and in the open sea, the performance of escort operations at speeds up to 10 knots, fire-fighting operations, oil spill removal and rescue and salvage operations. The vessel is also designed to break up ice of 800mm thick at speeds up to 5 knots.

Powered by a pair of Caterpillar 3516B diesels, each developing 1,864kW at 1,600 rev/min, driving Rolls-Royce type US 255 FP Z-drives, the tug achieves a bollard pull of 63 tonnes and a free-running speed of 13.5 knots.

For external fire-fighting operations the vessel is equipped with a system engineered by FFS AS with a capacity of 1,500m<sup>3</sup>/hr, including two water/foam monitors, and a self-drenching water curtain system.

Accommodation aboard the standard PE-45 caters for a total complement of eight persons - all except the captain have cabins below main deck with the chief engineer having a single en suite unit alongside three twin cabins. The captain has a spacious en suite cabin on the starboard side of main deck opposite an all-in-one galley and mess arrangement which can seat more than the full ship's complement. Also on this level is a communal sanitary space and a changing/locker room with quick and easy access to the aft and starboard side decks.

For some years now Pella has standardised on Fluidmeccanica deck machinery and this vessel follows the pattern. At the bow is a 20-ton double-drum anchor towing and mooring electro-hydraulic winch. Aft is a 20-ton stem electro-hydraulic towing winch - a 650kN towing hook with quick release device. Also aft is a Fluidmeccanica cargo crane having the capacity of 20kN at the extended boom of 13.5m.



**OWNER**  
Shipbuilding Centre Zvyozdochka, Russia

**BUILDER**  
Pella Shipyard, Russia

**DESIGNER**  
Pella Shipyard, Russia

**DIMENSIONS**  
Length overall 34.40m  
Moulded breadth 12.10m

**PERFORMANCE**  
Bollard pull 63 tonnes  
Free-running speed 13.5 knots

**MAIN ENGINES**  
Two pair of Caterpillar 3516B diesels, each developing 1,864kW at 1,600 rev/min

**PROPULSION**  
Rolls-Royce type US 255 FP Z-drives

**EQUIPMENT**  
FFS AS fire-fighting system, Fluidmeccanica cargo crane