



Customer : Petro-Canada
 Product group : Hydraulic Hoses and Accessories
 Market : (Petro)Chemicals and refineries
 Application : Hydraulic hose

ERIKS DEVELOPS HOSE WITH A WEAR-RESISTANT OUTER SLEEVE AND 300 BAR PRESSURE

Hydraulic hose pressed on sea bottom for Petro-Canada



CUSTOMER PROFILE

Petro-Canada is a producer of the world's purest base oils. The company's refinery is based in Ontario, Canada, and has an annual capacity of 900 million litres. Petro-Canada is also the world's largest producer of pharmaceutical white oils. The company produces over 350 premium quality lubricants, specialty fluids and greases for the business sector.

CHALLENGE

Petro-Canada has been working on the preliminaries of an unique project under the sea level in the North Sea. This involved adapting couplings and hydraulic hoses at the installation where oil is pumped from a well. The couplings and hoses serve a number of valves hydraulically. The installation is located at a depth of 30 metres and is filled with a special oil which causes no environmental pollution in the event of any unforeseen leaks. The hose they needed was no longer available. This was a special thermoplastic hose with an extra wear-resistant outer covering as a protection against sand on the sea floor. Another problem was that the hydraulic couplings could not be removed, whereby it was only possible to press the new hose couplings under the water.

SOLUTION

ERIKS assigned a manufacturer to develop a completely new hose. The result is a hydraulic hose complete with a wear-resistant outer covering: the Flexitube SAE 100 R8 non-conductive special cover DN 10; able to withstand pressures of up to 300 bar. It was also possible to supply the special RVS hose couplings that were needed. Both the hoses and the couplings underwent various pressure tests, and passed.

For the assembly of the hose on the sea floor, ERIKS approached Uniflex, a supplier of pressure equipment. They advised using their hand press in combination with an Enerpac hand pump. Both can be used underwater, as well as the press blocks, hose couplings, hand saw and measuring tools. The undersea operation was first tested in an aquarium. A diver entered the aquarium, where the press had been mounted onto a working bench. The pressing was carried out and measured thereafter with the slide gauge in order to check the press diameter. The hose assembly pressed underwater met all requirements. Some months later, this action was repeated with success in the North Sea at a depth of 30 metres. The couplings were also wrapped with Rescue tape underwater for extra protection against sand and seawater.

OTHER BENEFITS

- Engineering

FURTHER COMMENTS

This unique project was successfully realised thanks to ERIKS' combination of expertise, its own production facilities and good contacts with manufacturers.

know-how makes the difference

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