

Enerpac TP Levelling and Fixation Systems for Saint-Nazaire Offshore Wind Project

Enerpac hydraulic levelling and fixation systems are being used by Smulders and T&I contractor DEME Offshore for installation of 80 GE Haliade 150-6MW turbines at the Saint-Nazaire Offshore Wind Project in the Loire-Atlantique region in coastal France. The Enerpac system allows accurate levelling and fixation of the transition pieces on the monopile foundation.

Grouted connections are widely used in offshore wind turbine construction to transfer multiple loads from the transition piece (TP) fitted on top of the monopile foundation (MP). The transition piece is first lowered onto the monopile and levelled. It is then grouted into position to fix the transition piece to the monopile. Levelling is important to ensure the turbine will generate maximum yield.

The levelling uses twelve pre-installed Enerpac 150 Ton aluminium hydraulic cylinders inside the TP such that the cylinders rest on the MP. By adjusting the spring return cylinders precise levelling of the TP is achieved, even if the MP was not completely level in the first place. Once levelled, the 25 Ton steel fixation cylinders positioned subsea at the bottom of the TP are activated to hold the TP in position during completion of the grouting process.

Both sets of cylinders are optimised regarding capacity and stroke needed for TP levelling and fixation. In addition, the subsea fixation cylinders feature a reinforced return spring that eliminates the risk of point load and contact corrosion with the monopile.

“Enerpac cylinders are a robust and proven solution for the levelling and fixation of TPs,” says Patrick Frencken, Key Account Manager North West Europe, Enerpac. “We delivered the cylinders and hoses to Smulders in Belgium where the TPs were being assembled in all TP’s ready for installation. DEME Offshore then transported the TPs by barge to the project site in France. A great example of a well managed collaborative project.”

For more information on Enerpac hydraulic levelling and fixation systems for offshore wind, visit www.enerpac.com.



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