

**Title:**           **Extending the Limits of Underwater Mountable DP Thrusters: New Unique Advantages of Gearless Azipod DZ**

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**Abstract**

The long-term operation experience in drilling rigs since 2004 with ABB’s gearless Azipod CZ thrusters was discussed in detail on Dynamic Positioning Conference (DPC) papers in 2011 [1] and 2014 [2]. This successful experience with extended maintenance interval was the base for the development of a new gearless thruster series, Azipod DZ, which was launched in April 2015 and was presented in subsequent DPC paper in Oct 2015 [3].

This paper will discuss in more detail three new unique advantages of Azipod DZ thrusters: (i) Extended thrust range up to 130 tonnes, presenting the hydrodynamic benefits of the design, (ii) new faster and (iii) ABB’s new patented early warning bearing health monitoring system showing the significant development in bearing monitoring algorithms.