

Title: **Major New Development on Gearless Thrusters: More Power, Less Cost, Improved Maintainability**

Authors: Kimmo Kokkila and Jaakko Aho, *ABB Marine and Ports*

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 thruster series, Azipod D, which was launched in April 2015.

The new gearless thruster series still use the well proven main components, such as bearings and seals, but it introduces new system level solutions bringing several major improvements such as: more power (up to 7MW) and thrust, faster under water (UW) mounting and demounting, lower weight for lifting, better condition monitoring, lower investment cost and lower maintenance cost. This paper explains in detail these new major improvements on gearless thrusters and how they have been tested and verified.