The Azipod® Dynamic Optimizer (ADO) is a software-based system for optimizing the toe angle of two Azipod units. ADO calculates the optimal toe angle in real time for all prevailing conditions. Determination of the optimal angle is based on a pre-calculated model considering the vessel's speed through water. ADO outputs the optimal toe angle for use by the steering system. At all times, full control of steering within safe parameters remains with the steering system. The system is fully automatic and doesn’t require any user interaction during normal operation. All data collected will be stored for further analysis.

Benefits
− Is designed to improve fuel- and energy-efficiency through real-time optimization of the Azipod toe angle
− Is designed to improve sailing economy by means of automated dynamic optimization without user interaction
− Is designed to ensure more efficient use of Azipods in all weather and operation conditions

Example of an optimized Azipod toe-angle
Operational attributes
- ADO is available in the cruise and transit mode in main autopilot steering.
- The toe-angle optimization is designed on the fail-to-safe principle for added engineering.
- ADO continuously collects data from multiple sources, such as installed attitude sensors and the vessel’s automation and navigation systems, to enable dynamic optimization of the Azipod toe angle.
- The bridge panel indicates system state and is equipped with an on/off switch.

Worldwide presence

Availability
The Azipod Dynamic Optimizer is available for ships equipped with two or three Azipod units.

Azipod® propulsion
An Azipod unit is a podded electric propulsion unit where the variable speed electric motor driving the fixed pitch propeller is in a submerged pod outside the ship hull, and the pod can be rotated around its vertical axis to give the propulsion thrust freely to any direction. Thus the ship does not need rudders, stern transversal thrusters or long shaftlines inside the ship hull.

For more information please contact your nearest Service Center:

www.abb.com-marine

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