

ABB introduces Azipod D

ABB's newest marine electric propulsion system, the Azipod D, boosts efficiency while delivering reliability and flexibility vessel owners expect from a thruster family with more than 11 million operating hours

The Azipod D requires up to 25 percent less installed power through refinements including its dual cooling system.

ABB's Azipod D electric marine propulsion system, the latest in the Azipod line of thrusters, is an advance in gearless thruster technology that will maximize flexibility of a wide range of vessels such as offshore support vessels, increasing charter opportunities while lowering maintenance costs and cutting fuel consumption for a variety of missions.

Vessel owners will profit from the Azipod D's long maintenance interval compared with mechanical gear-driven thrusters. This new thruster will bolster the versatility of the next-generation of offshore support vessels, demanded by owners navigating volatile fuel prices and multiple demands.

They're seeking ships whose propulsion systems and hull designs perform well regardless of whether they are transporting supplies to remote offshore platforms, doing anchor-handling or holding precise position in heavy weather alongside deep-water energy installations where safety and reliability are a must. This is the mission of the Azipod D.



Focus on flexibility

Since its development by ABB in 1987, the Azipod electrical propulsion system – where the motor is mounted inside a streamlined pod beneath the ship, with the propeller connected directly to the motor shaft - has become the industry standard for the world's largest cruise ships, icebreaking and ice-going vessels and offshore support vessels.

The entire installed Azipod unit base has accumulated more than 11 million operating hours, helping ship owners save up to 20 percent on fuel.

With its introduction, the Azipod D will complement the Azipod C, which was introduced more than a decade ago and has been since been installed successfully on a wide range of high tech ships, such as offshore supply vessels, ferries, yachts and accommodation vessels.

Further offshore



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Today, oil and gas exploration and production – off the coasts of Africa, Asia and South America – are moving further offshore to remote, deep water sites with the most-promising discoveries. As a result, owners are seeking larger diesel-electric vessels with dynamic positioning capabilities whose fuel efficiency and versatility help ensure charter contracts - even when energy prices are volatile.

To satisfy these demands, ABB's Azipod D thruster, to provide power ranging from 1.6 megawatts to 7 megawatts, offers higher propulsion efficiency during dynamic positioning where varying power is needed to accommodate fluctuating wind, weather and duties.

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And with the Azipod D's high-efficiency electric motor located within the pod - not below deck where space is at a premium - the ship's design flexibility is enhanced. Another plus for ship designers: The thruster can be adapted to fit varying hull shapes and accommodate proper propeller size.

Reliability, availability

Azipod D offers reliability, environmental benefits and availability advantages for ship owners, with few parts to change and just six liters of lubricating oil, compared with 1,000 liters for traditional mechanical thrusters. Maintenance intervals can be extended significantly.

Case in point: Viking Avant, an offshore support vessel owned by Eidesvik Offshore, a supply, subsea, seismic and cable-laying shipping company, was outfitted in 2004 with a pair of 3 megawatt Compact Azipod C electric thrusters capable of speeding the ship through the waves at 16 knots.

For the first time since it was built, the ship been brought into dry dock for a major overhaul this year.

'Very good operational experience'

"We've had very good operational experience with this Azipod," said Eidesvik Chief Operating Officer Jan Lodden. "We've had it in service for 12 years without any major overhaul. That is also unique when you see these type of propulsion units."

The Azipod D incorporates a new air and water cooling system, helping reduce the thruster's weight and direct more power toward propulsion of the ship, not cooling requirements.

The result: Shipowners can get more performance from smaller thrusters, increasing their utility for a broader range of vessels ranging from offshore supply vessels, drilling rigs and ferries.

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