

## Collaboration on Ice Load Measurements onboard Le Commandant Charcot

*Helsinki, Finland - January 17th, 2025 - Aker Arctic, Ponant and ABB Marine Collaborate on Ice Load Measurements During Record-Breaking Trans-Arctic Crossing*

Last September, Ponant's icebreaking cruise ship, Le Commandant Charcot, completed a historic trans-Arctic voyage from Nome to Longyearbyen. During this journey the ship passed both the geographic and magnetic North Poles and becoming the first ship to reach the legendary Pole of Inaccessibility.

Recognizing the truly unique nature of the vessel and this voyage, Ponant, Aker Arctic and ABB Marine agreed to cooperate on measuring the ice loads on the vessel's hull and propulsion system. The intention of the cooperation being to support Ponant's operations and decision making, while using the Le Commandant Charcot as a unique platform for ice loads research.

In February Aker Arctic installed a version of its ice load monitoring system, ARC ILMS, on Le Commandant Charcot while the ship was in Brest, France. The ARC ILMS uses a series of strain gauges mounted to the internal hull structure to measure the structure's response to ice loads, both when operating ahead and when operating astern in "double acting" mode. Ice load data from the trans-Arctic voyage is now being analysed by Aker Arctic and ABB Marine, with the initial results already presented to Le Commandant Charcot's senior officers when the ship called in to Helsinki, Finland in December. At the same time ABB Marine presented findings from their instrumentation of the Azipod system.

"This is the first time that ice loads on the hull and podded propulsion units have been measured simultaneously," comments Rob Hindley, Head of Consultancy and Technology Development at Aker Arctic. The cooperation continues, with ice load data being gathered continuously as Le Commandant Charcot undertakes her scheduled voyages in the Polar regions. Aker Arctic and ABB Marine are working together on a combined review of the data. "With Le Commandant Charcot's unique operational profile in various ice conditions, the data we continue to collect enhances our understanding of loads on ships operating stern-first in ice, giving us further confidence in utilizing this technology and the double acting concept," Hindley notes.

For more information:

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Photo: Le Commandant Charcot enroute to the North Pole

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