

Certified as safe

Obtaining two DNV-GL type approvals is an important achievement for this supplier in confirming the safety of its electric solutions

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Transfluid believes it is the first company in the world to have obtained two DNV GL type approvals (TA) – one for its complete range of marine parallel hybrid modules and one for its LiFePO₄ battery banks. The TA of the batteries takes into account the Norwegian Maritime Authority (NMA) extension – a more strict list of requirements – certifying the company's battery banks as some of the safest worldwide.

The removal of carbon and graphite from these batteries prevents a thermal runaway from happening, which is one of the most difficult tests to pass under the DNV GL and NMA approvals.

Transfluid's parallel hybrid technology enables true redundancy on board, which is extremely desirable in numerous inland water and offshore applications. Propulsion is possible either by the internal combustion engine or the electric motor, with both connected to the same powertrain.

In an electrical blackout the ICE is still capable of operating the propulsion system, and in case of failure of the ICE, the electric motor will kick into operation. Thanks to this parallel technology, so-called booster mode



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1. Achieving type approval classification for its LiFePO₄ battery banks is said to be a milestone for Transfluid in its development

2. The Italian company aims to gain approval across its entire range to ensure marine operators can have confidence in their systems

makes it possible to combine the electric motor power with the ICE power to achieve a much better maneuverability in any scenario.

The electric machine – that is motor and generator combined – enables fast battery charge during ICE operating mode, eliminating the need for shore charging and thus overcoming one of the biggest barriers today in the electrification of vessels.

True innovation

The combination of Transfluid's hybrid transmissions and batteries in a plug-and-play supply is considered one of the safest and most reliable solutions to achieve green performance and safety.

With more 60 years' experience developing industrial applications, Transfluid has realized the perfect combination of traditional mechanical and hydraulic technology with its permanent magnet electric machine. Production of the system first began during the second decade of the 21st century.

Transfluid will continue to apply for type approval of its electric machines and other transmissions in 2020 and beyond. +



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