

## MEDIA RELEASE

### **100 percent emission-free performance on the open sea: Proton Motor supplies Fincantieri with new fuel cell system "HyShip 72"**

- | Innovative 142 kW fuel cell solution powers emission-free ZEUS ship type. |
- | After technical acceptance and official approval, high-tech product is delivered. |
- | Maritime references confirm Proton Motor as an internationally recognised partner. |

***Puchheim near Munich, January 26, 2022*** – Maritime mobility of the future navigates with emission-free hydrogen fuel cell drive on board: The Bavarian hydrogen fuel cell specialist "Proton Motor Fuel Cell GmbH" ([www.proton-motor.de](http://www.proton-motor.de)) is now successfully delivering its high-tech innovation "HyShip 72". For the largest European shipbuilding group "Fincantieri S.p.A.", based in Trieste, two fully redundant "HyShip 72" product designs were primarily adapted for the power supply of the electric powertrain and other consumers of the "ZEUS" ship (Zero Emission Ultimate Ship). The hydrogen-powered propulsion solution is equipped with Proton Motor fuel cells, a battery system as well as a metal hydride hydrogen storage system. This eco-friendly H<sub>2</sub> hybrid arrangement is the main power supply for the zero-emission navigation. The multiple "HyShip 72" applications provide power supply for recreational, passenger, cargo, working, military ships and submarines. The waste heat can also be used thermally, as intended for ZEUS, to extract the hydrogen from the metal hydrate.

#### ***Two Proton Motor stack modules "PM 400-120" are the core of the new "HyShip" system***

In mid-December 2021, the technical acceptance and official release of the first "HyShip" product by Fincantieri and the classification society "RINA" took place for delivery to the customer. The core of a singular "HyShip 72" are two integrated Proton Motor stack modules "PM 400-120". Both "HyShip" systems work redundant to each other. They will be supplemented with a battery system and the hydrogen storage system based on metal hydride to an emission-free electric drive train. "The entire Proton Motor team is very proud of our high-performance product portfolio for emission-free mobility. With high-tech innovations based on hydrogen fuel cells, we are making a decisive contribution to the success of a sustainable and green maritime energy transition and in the general transport sector", Proton Motor Sales Manager Alexander Adrian comments on the pioneering 142 kW drive component.

Hereby an entity has been successfully formed by combining fuel cell technology with a battery and hydrogen storage that produces 100 percent emission-free power on the open sea.

***Proton Motor established with maritime references since 2008 as partner for zero-emission navigation***

It is planned that in February the Fincantieri order will be finalised. In addition, follow-up orders in the field of green shipping respectively existing ones are currently being produced. This includes, for example, the collaboration in the project "Ma-Hy-Hy" (Marine-Hydrogen-Hybrid), which is being realised together with "Torqeedo GmbH" for the development of a marine high-voltage hybrid drive system with a battery and a hydrogen fuel cell. In 2021, the UK company "ACUA Ocean" was supplied with a fuel cell "Made in Germany" for the world's first CO<sub>2</sub>-free unmanned vessel for marine monitoring and protection. At EU level, Proton Motor is also an internationally recognised technology partner in the "e-SHYIPS" project. The goal is to define guidelines on the effective introduction of hydrogen in maritime passenger transport for a clean and sustainable environment. Already in 2008, Proton Motor – a member of the German "Association for Shipbuilding and Marine Technology" – was able to project for "ATG Alster-Touristik GmbH" the "Zemships"-funded (Zero Emission Ships) fuel cell passenger ferry "Alsterwasser" with an alternative drive solution, which was in regular ferry operation until 2014.

**About Proton Motor Fuel Cell GmbH ([www.proton-motor.de](http://www.proton-motor.de)):**

For 25 years, Proton Motor has been Europe's specialist in climate-neutral energy generation with cleantech innovations and in this field, it has specialised in emission-free hydrogen fuel cells developed and manufactured in-house. The corporate focus is on stationary applications such as emergency power for critical infrastructures and mobile solutions such as back-to-base applications. In addition, the customised or standard hybrid systems are used in the automotive, maritime and rail sectors. The new automated series production plant was put into operation in September 2019.

In addition to CO<sub>2</sub>-neutral fuel cell solutions, the internationally active technology market leader from Bavaria also offers battery-powered uninterruptible power supply (UPS) via its "SPower" product line. The company, which currently employs more than 100 people under the CEO management of Dr Faiz Nahab, is a wholly owned operating subsidiary of "Proton Motor Power Systems plc", based in Newcastle upon Tyne, England. Since October 2006, the parent company's "green energy" share has been listed on the London Stock Exchange with simultaneous trading in Frankfurt/Main (ticker symbol: "PPS" / WKN: A0LC22 / ISIN: GB00B140Y116).

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