

FPT INDUSTRIAL MAIN PARTNER OF THE 57TH GENERAL MEETING OF THE EMPA, THE EUROPEAN MARITIME PILOTS' ASSOCIATION

Turin, Italy, May 5th, 2023

FPT Industrial, world leader in the production of low-environmental impact drivetrains and solutions, was Main Partner of the **57th General Meeting of the EMPA, European Maritime Pilots' Association**, held in Rome on 27 and 28 April 2023. Founded in Antwerp (Belgium) in 1963, the EMPA is a non-profit professional organization which represents around **4,500 maritime pilots** from eighteen EU countries as well as Georgia, Montenegro, Norway, the UK, Turkey and Ukraine. There are also delegations of pilots from the United States, Brazil and Morocco.

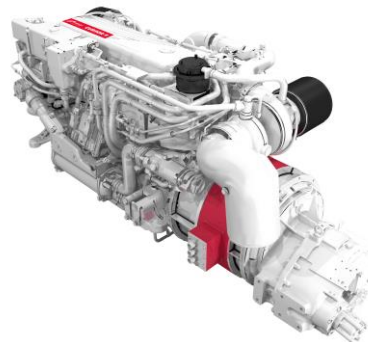
Its main goals are **promoting the professionalism, training and safety of maritime pilots**, and working with all parties interested in the correct and sustainable performance of port activities.

The event, which is returning to Italy after 20 years, and whose theme is **"Pilotage - The Value of Human Capital"**, is being put on in partnership with **Fedepiloti**, the Italian Federation of Port Pilots, with the participation of the IMPA (International Maritime Pilots' Associations) and the **Italian Coast Guard**. FPT Industrial was also **Main Partner of the gala evening** held on 28 April in the splendid setting of Palazzo Brancaccio, an historic residence on Rome's Oppian Hill.



In this prestigious location, the Brand showed off its **C90 650 EVO Hybrid marine engine**, unveiled at the Cannes Yachting Festival in September. The **propulsion parallel electric hybrid system**, whose electric motor is coaxial to the diesel propulsion system, fruit of the company's partnership with **Vulkan**, a leading player in the sector, has been designed with the goal of **lower emissions and exceptional comfort as well as a reduction in costs**, in addition to the ability to cruise in 100% electric mode, and is therefore also of great interest for **pilot boats in service in European ports**.

The solution on show to European professional maritime pilots features a C90 650 EVO diesel engine, clutch for engaging and disengaging the engine, an axial flow synchronous three-phase permanent magnet e-machine, frequency converter, marine inverter, mechanical interface and Vulkan sound/vibration isolation system. The engine can be fuelled with biofuels such as hydrotreated vegetable oil (HVO), which allows for reductions in CO₂ emissions of up to 90% compared to traditional diesel oil.



Like all FPT Industrial marine powerpacks, the C90 650 EVO Hybrid is also equipped with intelligent systems which allow **remote monitoring of the motor's performance**, allowing for preventive fault detection and, on request, **monitoring of the use of the vessel, providing precise, real-time information** on its position, fuel consumption, engine load and hours of use.

*"We have completed and refined the development of our N67 and C90 marine engines in partnership with port pilots," says **Guglielmo Tummarello**, Head of Dealer Sales Europe at FPT Industrial. "We have indeed carried out specific product validation tests and accumulated thousands of hours of testing of our engines installed in pilots' vessels to be sure of releasing a high-performance product which meets their actual performance and use case requirements, and to meet the highest standards of quality and reliability."*

MAIN COMPONENTS OF THE FPT INDUSTRIAL C90 650 EVO HYBRID PROPULSION SYSTEM

Inline six-cylinder, 8.7 liter diesel engine

Maximum power: 478 kW at 2,530 rpm

Clutch

The system uses an electromagnetic clutch for engaging and disengaging the diesel engine, managed by a dedicated control unit located between the engine and the e-machine.

E-machine

The e-machine is an axial flow synchronous three-phase permanent magnet type (200 kW at 2,000 rpm, with just 170 mm of axial length). The result is a powerful and extremely compact hybrid module.

Mechanical interface and sound/vibration isolation

Two Vulkan flexible couplings – one between the engine flywheel and the clutch, the other between the e-machine and the inverter - ensure optimum vibrotorsional isolation for the entire system; the joints and the clutch are installed in specifically designed housings, ensuring the necessary rigidity and compactness of the entire hybrid transmission.

FPT Industrial è la società di Iveco Group (IVG: MI) dedicata alla progettazione, produzione e vendita di sistemi di propulsione e soluzioni per applicazioni on-road e off-road, marine e di power generation. Più di 8.000 persone in 11 stabilimenti e 11 Centri di Ricerca & Sviluppo lavorano per FPT Industrial in tutto il mondo. La rete globale di vendita e il Customer Service di FPT Industrial, attivi in circa 100 Paesi, supportano tutti i clienti del Brand. L'ampia gamma di prodotti include sei famiglie di motori con una potenza da 42 a oltre 1.000 cavalli, trasmissioni con coppia fino a 500 Nm, assali anteriori e posteriori da 2,45 a 32 tonnellate. FPT Industrial vanta inoltre la più completa gamma oggi presente sul mercato di motori a gas naturale per applicazioni industriali, con una potenza variabile da 50 a 520 cavalli. Attraverso la sua divisione ePowertrain dedicata ai sistemi di propulsione elettrici, l'azienda sta accelerando verso una mobilità a zero emissioni nette di carbonio, con trasmissioni elettriche, pacchi batteria e sistemi di gestione delle batterie. Questa offerta, unita alla grande attenzione a Ricerca & Sviluppo, rende FPT Industrial uno dei principali protagonisti a livello mondiale nel settore dei sistemi di propulsione e delle soluzioni per uso industriale. Per ulteriori informazioni, visitare il sito www.fptindustrial.com.

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