

PRESS RELEASE

Garrett Presents its Next-generation of Turbochargers and e-Mobility Technologies at Auto Shanghai 2023

- Leading E-Turbo and Fuel Cell Electric Compressor technologies enable sustainable mobility
- Advanced turbochargers for hybrid and non-hybrid vehicles for enhanced performance and fuel economy



(Photo Caption: Garrett Motion at Auto Shanghai 2023)

SHANGHAI, **April 18**, **2023** – Garrett Motion Inc. (Nasdaq: GTX), a differentiated technology leader for the automotive industry, presents at Auto Shanghai 2023 (April 18-27) a portfolio of advanced technologies geared toward turbocharging, electrification and software connectivity.

"We look forward to showcasing Garrett Motion's engineering breakthroughs for the fastevolving and largest automotive market in the world. As a pioneer and leader in turbocharging technologies in China since the 1990s, we are continuing to introduce cuttingedge technologies for this new era of electrification. Our advanced solutions enable automakers to deliver the next generation of low and zero-emissions vehicle technologies," said Olivier Rabiller, CEO of Garrett Motion.

Jessica Zhang, global vice-president and general manager for Garrett China added: "Garrett Motion continues to invest in our state-of-the-art Shanghai and Wuhan manufacturing facilities. We've also expanded our China R&D center with nearly 200 top industry engineers to further cultivate our bespoke capabilities. These efforts are intended to offer automakers in China solutions across a broad spectrum of applications including the growing hydrogen fuel cell space, electric turbochargers for the hybrid powertrain industry, as well as connected vehicle software solutions."



Garrett Motion is backed by industry-leading, in-house R&D capabilities for high-speed turbo machinery, high-speed electric motors (e-motors), advanced power electronics and control software. The company is building upon a legacy of innovation to deliver the technology breakthroughs that automakers will need to further increase efficiencies and to accelerate the electrification of their vehicle portfolios. Among the passenger and commercial vehicle technologies to be featured are:

Garrett Solutions for ICE and Electrified Powertrains: enable the downsizing of engines and best-in-class fuel efficiency

Garrett's range of variable nozzle turbines (VNT), double-axle VNTs (DAVNT) and wastegate turbo technologies intensify power density and increase fuel economy for both gasoline and diesel applications of passenger and commercial vehicles.

VNT turbos for gasoline are suited for Miller-cycle engines that have higher boost requirements and can deliver 5 to 10 percent better fuel economy while lowering emissions. This is particularly useful for the growing plug-in hybrid vehicle (PHEVs) segment in China.

Garrett Motion's advanced turbochargers also serve H2-ICE vehicles fueled by hydrogen and powered by internal combustion engines. This technology is of interest in China where investments in hydrogen fueling infrastructure and green hydrogen point at growing support for large commercial vehicles (HICEVs).

Garrett's unique E-turbos boost power and fuel efficiency so that vehicles can deliver with increasingly smaller engines the performance of larger engines of the past. The cutting-edge high-speed e-motor, power electronics and control software yield motor systems capable of running at more than 200,000 rpm and operating at high-voltage levels to reach industry-leading power density metrics.

The industry-first 48-volt or 400-volt E-Turbo are effective emission reduction solutions for passenger vehicles, as well as for medium and heavy-duty commercial vehicles

Garrett Solutions for Zero Emission Vehicles: from fuel cell to next generation BEVs

Garrett's modular, high-performance hydrogen electric air compressor (Fuel Cell Compressor, FCC) boasts superior power density and energy efficiency by optimizing the electro-chemical reaction that generates electricity. A new turbine expander, designed to recuperate waste energy from the fuel cell stack's outlet, minimizes hydrogen consumption and increases vehicle range, thus lowering operating costs.

Garrett's FCC portfolio is configurable to fit the electric powertrains of both passenger and commercial vehicles, as well as those of industrial applications. The company's 400-volt and 800-volt E-Compressors feature advanced oil-less foil bearings which enable high speeds for exceptional performance through the avoidance of contamination.



To support the auto industry's transformation further, Garrett invests more than 50 percent of R&D resources into electrification, including technologies for battery electric vehicles (BEVs). Currently, Garrett is developing differentiated solutions for new electrified areas, such as a 3-in-1 E-axle technology that offers breakthrough performance and power density. It is now in pre-development with a global automaker.

Garrett Connected Vehicle Software Solutions: Provide advanced fleet health management tools and address China's evolving safety regulations.

Garrett's Al-based diagnostic software solution helps automakers and fleet owners analyze and troubleshoot vehicle health data during servicing, thus improving productivity, lowering costs, and reducing repair-time for complex after-sales issues by about 40 percent, according to industry data.

Garrett's cybersecurity offerings help automakers secure their vehicles and meet safety regulations. Features include the hardware-agnostic *Garrett Intrusion Detection System* (IDS), which reads data traffic via multiple communication protocols flagging anomalies and malicious messages. Also featured is *Garrett's Security Operation Center* (SOC) which monitors and manages fleet security events. to interpret the root cause of an onboard alert, saving time and reducing costs.

To discover more about these technologies, or for any other inquiries, please visit the company's display in Hall 1.2 1BF007 to speak with Garrett Motion's experts.

About Garrett Motion China

Garrett established its presence in China in 1994 and was among the first global companies to introduce turbocharging technology into the country. Headquartered in Shanghai, Garrett has two world-class, advanced manufacturing facilities in Shanghai and Wuhan, as well as an R&D center. The company employs more than 1,000 people, including a China R&D team of over 200 specialists with end-to-end engineering and service capabilities. Garrett boasts lasting partnerships with more than 40 global and Chinese automakers. It offers a comprehensive portfolio of turbocharging technology and intelligent connected software solutions for gasoline, diesel, natural gas and hybrid electric vehicles.

About Garrett Motion Inc.

Garrett Motion is a differentiated technology leader serving automotive customers worldwide for more than 65 years. The company's portfolio spans gasoline, diesel and hybrid turbo technologies; hydrogen fuel cell applications; and software solutions for passenger vehicles, as well as for on and off-highway commercial vehicles. Garrett's cutting-edge technologies enable vehicles to become cleaner, more efficient and connected. Our turbocharging, electric boosting and automotive software solutions empower the transportation industry to redefine and further advance motion. For more information, please visit www.garrettmotion.com.

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