

PRESS INFORMATION

Bosch Rexroth and PETRONAS Lubricants International partner to develop bio-based hydraulic and UTTO fluids

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Further step in sustainable fluids strategy of Bosch Rexroth

- Goal of the cooperation: more sustainable fluid solutions for off-highway and agricultural vehicle industry where energy efficiency and emission reduction play a key role
- Bosch Rexroth responsible for definition of fluid requirements, testing and qualifying for the specific target applications
- PETRONAS Lubricants International responsible for fluid development, production and distribution



Signing ceremony in Turin, Italy: Khalil Muri (6th from left), Managing Director and Group CEO at PETRONAS Lubricants International, and Dr. Steffen Haack (7th from left), CEO Bosch Rexroth AG

Bosch Rexroth and PETRONAS Lubricants International (PLI) have signed an agreement to accelerate the adoption of more sustainable fluid solutions in the off-highway and agricultural vehicle industry in Turin, Italy, on September 22, 2025. With an emphasis on sustainability and energy efficiency, the collaboration will focus on the technical development, qualification, and possible future market introduction of bio-based and re-refined alternatives to existing mineral hydraulic fluids and Universal Tractor Transmission Oils (UTTO) according to the high requirements of the Rexroth Fluid Rating.

The first-of-its-kind addition to PLI's portfolio is to see a biodegradable, bio-based ester formulation for UTTO fluids – mainly used in hydraulic systems, gears and wet brakes – that delivers greater energy efficiency while retaining performance comparable to the mineral oils that currently dominate the industry.

“This partnership with PETRONAS Lubricants International shows our broad understanding of responsibility as a leading hydraulics technology specialist and marks another step in driving the development towards sustainability also in the field of hydraulic fluids. Our goal is to expand our support for customers through more sustainable alternatives to mineral oil-based hydraulic and UTTO fluids”, said Dr. Steffen Haack, CEO of Bosch Rexroth.

“The development of bio-based hydraulic and UTTO fluids is a step forward for PETRONAS Lubricants International's growth strategy to diversify and expand our portfolio in the industrial segment. Through the combined strengths and expertise of both companies, we will develop advanced solutions that address the increasing need for energy efficiency and low carbon footprint, not only for the agricultural and construction machine applications, but also for stationary hydraulic systems. This is also part of PLI's efforts to accelerate adoption for sustainable energy and contribute to the larger shared goal of a cleaner energy future,” said Khalil Muri, Managing Director and Group CEO at PETRONAS Lubricants International.

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In the partnership, Bosch Rexroth will define fluid requirements and take responsibility for the testing and qualifying stage, while PLI will be responsible for fluid development, production and distribution.

Beyond the five-year scope, the partnership is positioned to evolve with a joint development of a business model for sustainable fluids, built on the foundations established over the course of the technical collaboration.

Caption: At the signing ceremony in Turin, Italy: Khalil Muri (sixth from left), Managing Director and Group CEO at PETRONAS Lubricants International, and Dr. Steffen Haack (seventh from left), CEO Bosch Rexroth AG, with Domenico Ciaglia (fifth from left), Chief Strategy & Transformation Officer at PETRONAS Lubricants, and Dr. Mark Krieg (eighth from left), Vice President Development Industrial Hydraulics, Bosch Rexroth, and their teams. (Image source: PETRONAS Lubricants International, Italy)

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 32,600 associates generated sales revenue of 6.5 billion euros in 2024.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 490 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 87,000 associates in research and development.

About PETRONAS Lubricants International

PETRONAS Lubricants International (PLI) is the global lubricants manufacturing and marketing arm of PETRONAS, Malaysia's dynamic global energy group. Established in 2008, PLI manufactures and markets a full range of high-quality automotive and industrial lubricant products in over 100 markets internationally. Headquartered in Kuala Lumpur, PLI also has offices around the world including Turin, Belo Horizonte, Beijing, and Chicago. PLI is the technical resource behind PETRONAS' partnership with the Mercedes-AMG PETRONAS Formula One Team, responsible for the design, development and delivery of the Fluid Technology Solutions™, which includes customised lubricants, fuels and transmission fluids to power the Silver Arrows.

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We are a progressive energy and solutions partner, enriching lives for a sustainable future. Our commitment remains to conduct and grow our business in ways that contribute positively to society and the environment.

PLI is driving an aggressive business growth agenda as one of the leading global lubricants companies at the forefront of the industry, providing custom-made solutions for every need. For more information, please visit www.pli-petronas.com.

(text provided by PETRONAS Lubricants International)

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