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## FPT INDUSTRIAL RESEARCH TO FEATURE AT SAE BRAZIL 2013 CONGRESS

A study developed by FPT Industrial has been approved for the SAE BRAZIL 2013 Congress, taking place on 7-9 October at the Expo Center Norte in São Paulo.

Written inside the Product Engineering Department of FPT Industrial in Brazil, the article is among those being recognised at the SAE Congress. It will also be made available after the event to parties interested in continuous improvement processes in the development and maintenance in engines.

"We are pleased that the dedication of members of our team in the research and development of content has been recognised by a leading organisation in the field, such as SAE Brazil," FPT Industrial's Product Engineering Director, Helton Lage, noted.

The paper, "The Influence of Alumina Resulting Aluminium Oxidation in Thermal Barriers of the Cooling Galleries of a Diesel Cycle Engine", is based on a case study in which it was noted that the use of a coolant other than specified in the engine manual could lead to overheating, affecting performance.

The use of a non-compliant coolant led to a variation in pH levels, which would facilitate the oxidation of aluminium components present in the cooling circuit. Oxidation considerably reduces the ability of heat transfer between the walls, resulting in the possibility of the engine overheating. With this analysis, it is possible to advise customers about the need to use recommended coolant to avoid future problems.

Among the advantages of the discovery are the possibility of preventing failures related to the engine cooling circuit, a better understanding of the behaviour of engines subjected to severe usage and conditions, important data for the development of new products, and the improvement of the Project and Reliability, both inserted in Product Engineering.

Additionally, the use of modern diagnosis methods by FPT Industrial, namely Fourier Transform Infrared Spectroscopy (FTIR), and the possibility of sharing the experience acquired through this work with the automotive world could help prevent future failures in other applications.

## **FPT Industrial**

FPT Industrial is a company of CNH Industrial dedicated to the design, production and sale of powertrains for on/off-road vehicle, marine and power generation applications. The company employs approx. 8,000 persons worldwide, in 10 plants and 6 R&D Centres. The FPT Industrial's sales network consists of 100 dealers and over 1,300 service centres in about 100 countries.





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A wide range of products (5 engine ranges from 31 up to 740 kW, and transmissions with maximum torque from 300 up to 500 Nm) and a close focus on R&D activities, make FPT Industrial a world leader in industrial powertrains. For further information, visit www.fptindustrial.com.

## Press Release