

A WORLDWIDE PREMIERE: STEYR AND FPT INDUSTRIAL TOGETHER FOR THE NEW HYBRID TRACTOR CONCEPT

Turin, November 10th, 2019

Innovation and sustainability are the key elements of the newest “STEYR Konzept” which features FPT Industrial motors. At the Agritechnica trade fair in Hannover, Germany, FPT Industrial and STEYR, CNH Industrial brands, are presenting a new, jointly-developed hybrid tractor concept. This is the result of a project, which saw close collaboration between the two brands’ respective Innovation and Engineering teams.



PRESS RELEASE

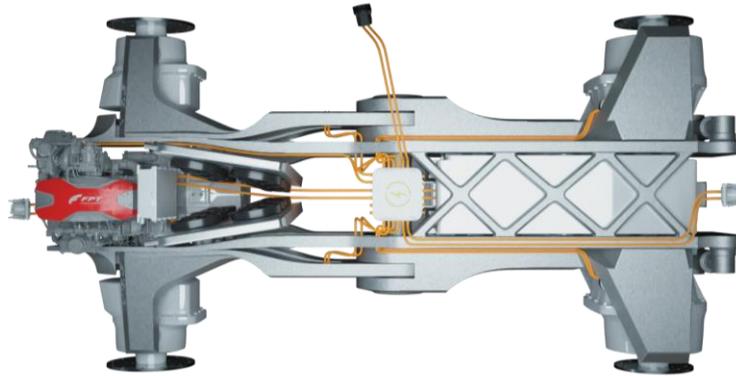


The new hybrid tractor concept

FPT Industrial took up the challenge to develop a wholly-new propulsion concept focused on efficiency, performance, productivity and sustainability, which meets customer requirements for a tractor guaranteeing high torque peaks during specific applications. With its involvement in the development of this STEYR Konzept, FPT Industrial underlines its role as a full system integrator, capable of managing, combining and controlling all the software and hardware elements of highly-complex powertrains.

The new concept features innovative architecture, with a serial hybrid approach whereby the diesel engine, a compact 4.5-liter 4-cylinder unit, instead of the 6-cylinder traditionally installed

on such a tractor range, works at optimal speed as an energy generator, charging batteries. The engine is disconnected from the wheels, and traction is provided by four independent electric motors directly installed in the wheel hubs.



The hybrid tractor architecture

The many benefits offered by this architecture include optimized efficiency and balanced mass distribution thanks to electric motors affixed to the wheel hubs. The downsizing of the combustion engine offers significant advantages in terms of fuel consumption and CO₂ reduction. A “pure electric” drive mode is possible for zero-emission and low-noise operations. This architecture also permits the integration of individual motors, incorporating a separate suspension and steering system, which results in four fully independent wheels electronically controlled, thereby improving safety, grip, handling and response.

Independent wheel hub motors allow superior traction control, enable energy recovery when braking, and reduce brake and tire wear. Electric boost improves dynamic behavior and gives the operator the instantaneous extra-torque needed in heavy tasks. The STEYR Konzept is equipped with a NEF45 engine, which delivers 150 kW peak power, while 250 kW peak power in hybrid boosting mode is guaranteed. The concept can reach 10% fuel saving compared with pure Diesel on some specific tractor missions.

Traditional tractor operation is ensured by electrically driven hydraulic systems and a mechanical PTO; an additional motor can be added to drive electrical implements for higher precision operation.

The battery pack is modular, which is a key feature to guarantee the appropriate pure-electric autonomy range in all missions, this will also play a central role in future electrification projects.

With the hybrid tractor concept, FPT Industrial has provided STEYR with innovative powertrain solutions that are both flexible and customizable, and represent state of the art of heavy-duty hybrids today. *“This concept is a new and important milestone for FPT Industrial, which continues its strategy of developing innovative and sustainable solutions for the market. The hybrid concept also underlines the Brand’s position as full system integrator, ensuring our clients benefit from the best solutions for each industrial mission and application. We, in FPT Industrial, are always striving for more, exploring new frontiers of the powertrain industry in the near future”*, states **Selin Tur**, Head of E-Powertrain.

***FPT Industrial** is a brand of CNH Industrial, dedicated to the design, production and sale of powertrains for on and off-road vehicles, marine and power generation applications. The company employs more than 8,000 people worldwide, in ten manufacturing plants and seven R&D Centres. The FPT Industrial sales network consists of 73 dealers and about 800 service centres in almost 100 countries. A wide product offering, including six engine ranges from 42 hp up to 1,006 hp, transmissions with maximum torque of 200 Nm up to 500 Nm, front and rear axles from 2 to 32 ton GAW (Gross Axle Weight). FPT Industrial offers the most complete Natural Gas engines line-up on the market for industrial applications, including engine ranges from 136 hp up to 460 hp. This extensive offer and a close focus on R&D activities make FPT Industrial a world leader in industrial powertrains. For further information, visit www.fptindustrial.com.*

Media Contacts

Emanuela Ciliberti
FPT Industrial Press Office
Tel.: +39 011 007 1798
E-mail: press@fptindustrial.com

Marina Tsutsumi
FPT Industrial Press Office
Tel.: +39 011 007 8662