

IFAT 2022

## Silent and emission-free power take-off for electric trucks

ZF announced that it has joined forces with Mercedes-Benz Trucks to equip its electric trucks with Eworx, ZF's electrified power take-off (PTO) system. Demonstration vehicles were unveiled at Munich's Ifat 2022 global trade fair on May 30.



ZF is expanding its e-mobility portfolio with Mercedes-Benz Trucks and Palfinger (Source: ZF, Palfinger)

The Eworx all-in-one solution offers vehicle body manufacturers a known mechanical interface to drive work equipment. It acts as a gateway between the vehicle and its on-board equipment, with communication via a connection to the vehicle's CAN network. The connection to CAN also allows Eworx solutions to be integrated into the vehicle's battery and energy management. ZF and Mercedes-Benz are also closely collaborating with Palfinger, producer of crane and lifting solutions, to equip a Mercedes-Benz Eactros demonstration truck with a skip loader. Additionally, ZF has applied Eworx to an Eactros equipped with a hook loader from Meiller, provider of tipping trailers, hook lifts, and skip handlers. Both demonstration vehicles were unveiled at the Ifat 2022 trade fair on May 30 in Munich.

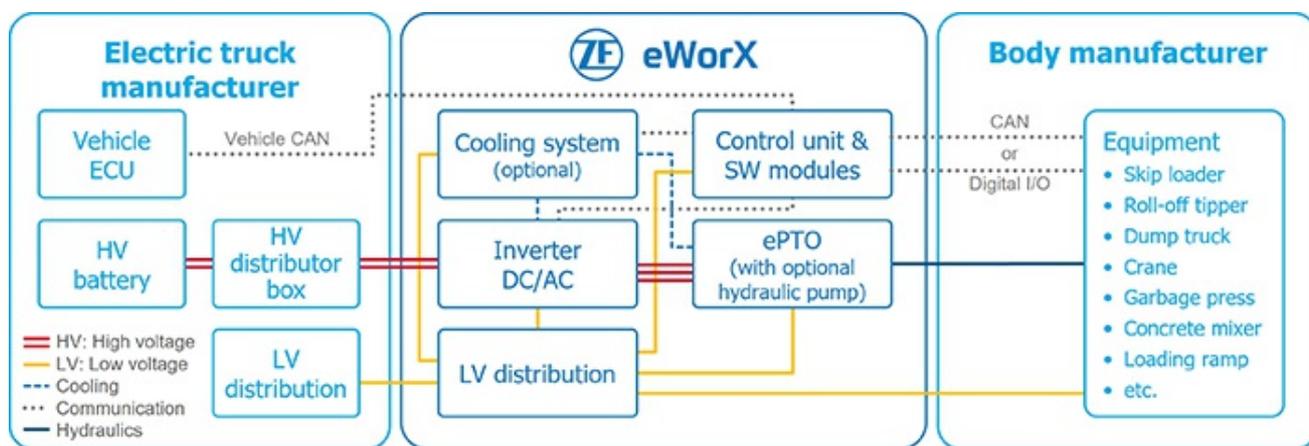
### Transforming on-board equipment

As an integrated system, Eworx offers value for vehicle and body manufacturers as a system that combines all the functions required for the electrification of on-board equipment in a single unit, explained the company. According to them, the solution delivers zero local emissions and significantly reduces noise levels which facilitates operation in cities and residential areas.

The system installed in the demonstration vehicles features an electric motor with nominal power of 50 kW, an inverter, and a control unit with application-specific software as well as a cooling system and a hydraulic pump. Eworx communicates via a connection to the vehicle's CAN network. The system operates independently from the driving system and so can be used with electric axle drives and central drives. The traction battery of the Eactros provides electrical energy to the Eworx system. With this, the electric motor in turn drives the hydraulic pump for the tipper. A mechanical connection to the traction motor is therefore not required.



ZF's Eworx system featuring a control unit, power electronics, and electric motor with optional hydraulic pump (Source: ZF, Palfinger)



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Eworx connects vehicle and body through CAN interface to ensure bi-directional communication (Source: ZF, Palfinger)

"In close partnership with Mercedes-Benz Trucks, this further expansion of our Emobility portfolio represents another proof point for the group's next generation mobility strategy", said Wilhelm Rehm, member of the ZF Board of Management with responsibility for ZF's Commercial Vehicle Solutions division. "Eworx is supporting the electric transformation of the commercial vehicle industry for a more sustainable future. As the number one global supplier to the commercial vehicle industry, ZF has a deep systems knowledge of the complete vehicle. With Eworx, our electrification portfolio goes beyond the driveline," added Rehm.

