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KRONE Cool Liner with ZF "Electrified Trailer System":

KRONE, in partnership with technology provider ZF Friedrichshafen AG, will showcase a KRONE Cool Liner equipped with the ZF "Electrified Trailer System" at the IAA Transportation 2024. This innovative technology allows semi-trailers pulled by diesel trucks to be hybridized, while also extending the range of fully electric combinations. The KRONE Cool Liner with ZF's innovative drive system will be presented in the outdoor area D68 by ZF Friedrichshafen AG.

The KRONE Cool Liner integrates ZF's AxTrax 2 electric axle drive along with a battery system box, including battery management. This configuration can recuperate braking energy, meaning that a smaller, weight-saving battery is sufficient. The recovered electrical energy can be used to assist traction and reduce the load on the trucks engine.

Through the recuperation of braking energy, the electrified trailer technology can reduce the fuel consumption and CO2 emissions of a diesel-powered tractor unit by up to 16 percent. With plug-in charging capability, this savings can be increased to as much as 40 percent. Fully electric trucks (BEV or fuel cell) also benefit from the KRONE and ZF eTrailer, as it extends their range.

The KRONE eTrailer equipped with the ZF Electrified Trailer System operates as a "stand-alone solution," independent of the truck's drive concept. Sensing is provided via ZF's trailer EBS and the eAxle control unit. The modular ZF "Electrified Trailer System" is designed as a "one-box solution", suitable for both 2- and 3-axle vehicles, and is positioned in front of the first trailer axle.

The AxTrax 2 drive axle, with up to 210 kW of power, generally allows for enhanced traction support and better acceleration. This "traction boost" can be utilized during overtaking maneuvers and merging onto motorways, providing a safety advantage. Additionally, the supplementary electric drive aids the semi-truck's performance during start-up and uphill driving.

The KRONE eTrailer, with the ZF Electrified Trailer System, recovers up to 60 percent of braking energy, which reduces brake wear and fine particulate emissions. Moreover, this technology can support electric auxiliary units, such as refrigeration units.

With the electrified KRONE Cool Liner, ZF and KRONE present a key technology in a pilot vehicle that enables fleet operators and vehicle manufacturers to prepare for upcoming decarbonization legislation. Markus Stegen, Managing Director for Product Management and New Markets at KRONE Trailer, explains: "At KRONE, we believe in the importance of electrification as part of the transformation of the transport sector and aim to position ourselves openly to technology with a differentiated portfolio in this market."

The "Electrified Trailer System" is an industrialized solution from ZF's family of electric drives and will also be applicable as a sustainable electrification technology in other KRONE trailer series in the future.

Visit us at the KRONE stand!

IAA Transportation 2024 | 17.09.-22.09.2024

Hanover Fair | Hall 27 | Stand C40 | Outdoor area N41, Q41, P43



If you have any questions, please do not hesitate to contact me.:

SIMON RICHENHAGEN

Phone [+49 5951 209-8216](tel:+4959512098216) · E-mail: simon.richenhagen@krone.de