

Press Release

IAA Transportation | Hanover

September 2024

On the Road with tomorrow's Technology

JOST unveils cutting-edge Product Lineup and Technology Partnerships at IAA Transportation.

JOST, a world-leading producer and supplier of safety-critical systems for the commercial vehicle industry, is set to reveal how its latest technology investment in products and partnerships addresses challenges in the field of autonomous driving, electrification, and the reduction of CO₂ emissions.

"We are excited for this year's IAA Transportation. For us it is an ideal opportunity to showcase our innovations as well as our high-quality and proven products. We are proud to contribute to solving the commercial vehicle industry's challenges such as driver shortages and emissions reductions," said Joachim Dürr, CEO at JOST Werke SE. "Our mission is to support technological change towards better connected, environmentally friendly and intelligent commercial vehicles – **on the road with tomorrow's technology**. To achieve this technological change, we have developed many products, but also established strategic partnerships to advance highly automated and autonomous logistics solutions as well as electrification and sustainable resource management in the commercial vehicle industry. This is our commitment to promote innovation, CO₂ reduction and efficiency in the industry."

Strategic partnerships with future

JOST invests in Aitonmi and Trailer Dynamics, two start-ups with innovative transport solutions in the areas of autonomous driving and electrification. JOST is also entering into a development partnership with BET Motors to jointly develop innovative vehicle architectures for electric drives.

The combination of solid experience in the field of systems and components for the commercial vehicle industry, along with innovative solution approaches, forms the basis for joint research and development efforts. These efforts focus on the increasing need for automation and related solutions to address the driver shortage, reducing CO₂ emissions from commercial vehicles, and accelerating the transition to e-Trailer technology.

On September 19, 2024, JOST will be offering exclusive TECH TALKS with all technology partners at the JOST stand at 9:15 a.m. and 1:45 p.m.

JOST focuses its products on the technological change towards connected, environmentally friendly and intelligent commercial vehicles

The industry trends assistance systems (#jostassist), sustainability (#jostgreen) and digitalization (#jostdigital) will guide the international audience through JOST's stand D34 in hall 26. Furthermore, the stand will feature the premiere of the JOST Truck Stop Corner. In daily sessions visitors can experience practical animations that illustrate the importance of maintenance and technical knowledge of JOST products.

Live demonstrations of the innovative automatic coupling system KKS with the new camera guidance system King Pin Finder on the outdoor area M63 are also part of the company's presentation.

#jostassist

JOST develops smart systems that seamlessly combine safety technology and driver safety in one. Real-time monitoring and user guidance throughout the entire coupling process are combined with ergonomic design features to protect the health of truck drivers. The intelligent design of the JOST products guarantees and maximises the synergy between functionality and efficiency.

#jostgreen

JOST contributes to making the commercial vehicles more environmentally friendly by providing technologies supporting electric or hybrid engines as well as developing light-weight materials to improve fuel efficiency and reduce emissions. Additionally, JOST ensures advanced recycling solutions for end-of-life components. These innovations aim to minimize environmental impact, decrease carbon footprint, and promote sustainability within the transportation sector.

#jostdigital

JOST ensures a seamless connected product experience by providing real-time information and services across multiple channels.

About JOST:

JOST is a world-leading producer and supplier of safety-critical systems for the commercial vehicle industry. Under the umbrella brand of JOST, the comprehensive range of products is broken down into systems for the transport as well as agriculture and construction industries:

The JOST brand includes fifth wheel couplings, landing gears, ball bearing turntables, king pins and container locks as well as components for alternating systems. Truck and trailer axles are also sold under the JOST brand. The tradition-steeped ROCKINGER brand comprises the core components of towing hitches, drawbar eyes and drawbars for transporters and trucks. TRIDEC offers steering systems and axle suspensions for trailers.

Products of the ROCKINGER brand are also used in agricultural applications and equip agricultural vehicles from hitches to three-point linkages.

The Quicke brand specialises in agricultural front loaders and equipment. This additionally includes products for the mining, construction and forestry machinery industries.

JOST currently employs over 4,500 staff worldwide and has sales and production sites in 27 countries and on six continents. JOST has been listed on the Frankfurt Stock Exchange. Further information on JOST can be found here: www.jost-world.com

Press contact:

Christin Zindritsch, Manager Marketing Communications, christin.zindritsch@jost-world.com

JOST World stand: Hall 26 / stand D34, and M63 outside

Press event: Monday 16 September 2024 at 5.10 p.m. to 5.30 p.m. at the JOST stand

TECH TALKS: Thursday, 19 September 2024, from 9:15 am to 10:00 am and from 1:45 pm to 2:30 pm at the JOST stand

Landing page: jost-iaa-2024.com

Technology partnerships

Aitonomi: Founded in 2014, the scale-up is focused on developing autopilot software for the autonomous outdoor navigation of commercial vehicles with payloads of up to 55 tons. The company's product portfolio includes autonomous electric towing vehicles with smart semitrailers, and autonomous delivery robots. JOST is already actively developing ways to integrate the Aitonomi AutoPilot system into its automatic coupling system (KKS) for semitrailers and its steering and axle systems. The results are autonomous transport solutions for industrial premises and port terminals that have already proven their reliability in real-world settings. One notable example is provided by Coca-Cola EuroPacific Partners, where Aitonomi's solutions have been automating intralogistics tasks since 2018.

Trailer Dynamics: Founded in 2018, the start-up Trailer Dynamics has developed a smart electric powertrain located in the trailer itself, achieving an average reduction of 40% in both CO2 emissions and diesel consumption. Additionally, its pairing with a battery-operated electric tractor significantly increases the vehicle's all-electric range. This partnership facilitates decarbonisation and enhanced efficiency within the transport sector, and advances the development of plug-and-play systems for zero-emission logistics. JOST's investment in the partnership represents more than just financial backing for a cutting-edge start-up in an emerging market segment. It is also an investment in a rapidly maturing venture that positions JOST as a supplier and distribution and strategic industrialisation partner for Dynamic Trailer's plug-and-play electrification kit.

Bet Motors: This start-up, founded in 2023, is focused on developing the next generation of electric trucks. Their novel vehicle architecture specifically designed for electric powertrains gives rise to a chassis platform that optimises both range and payload. As co-innovating partner, JOST is working on the new vehicle architecture with the goal of achieving a more efficient and weight-optimised integration of fifth wheel couplings and axle systems in tractors and transport vehicles.

Product overview



#jostassist: JOST develops smart systems combining safety technology and driver safety.

Automatic coupling system KKS and KKS-U Connector: faster, safer, more efficient

The KKS enables drivers to couple and uncouple semi-trailers via remote control without leaving the driver's cabin, automatically, safely and quickly. The driver is guided through the entire coupling process, with sensor technology providing live information on the KKS remote control throughout every step of the process. For example, the support plate sensor indicates that the trailer plate is touching and the position of the king pin is also monitored by sensors. Climbing out of the cabin to manually open the fifth wheel, cranking down the landing gear and manually connecting the spiral cable, air and brake connections are all a thing of the past for drivers. Time, comfort and safety gains are made possible with just one product. With the KKS JOST aims to set new benchmarks for performance and reliability in the transportation industry.

The KKS also stands for the future of logistics and is a key component of autonomous driving. Together with JOST's partner Aitonomi Group, a Swiss-based AI start-up for AutoPilot and intelligent self-driving logistics solutions, the company is already working on the integration of the KKS as well as steering and axle systems with Aitonomi's AutoPilot system. The partnership aims to develop fully autonomous transport solutions for depots and port terminals which are already proving themselves in use successfully.

Alongside the KKS exhibit at the stand, there will also be live demonstrations at the IAA Transportation: Visitors can see the automatic coupling process for themselves every day on the outdoor area at stand M63.

At the trade show JOST will present further developments of the KKS – the KKS-U Connector and the KKS-Cool: The KKS-U Connector is retrofittable to existing trailers that are already on the roads of this world. This means that existing trailers can be equipped with a KKS system with little effort. The KKS-U connector controls all the mechanical, electrical, and pneumatic connections between the truck and trailer, eliminating the need for vulnerable air, electrics and ABS/EBS spiral lines. The KKS-Cool is for refrigerated trailers, which have another special body for temperature-controlled transport, and even more safety requirements.

JOST King Pin Finder: new assistance system – visibly great

As an innovation, JOST will be presenting the King Pin Finder in Hanover, a camera integrated in the fifth wheel coupling that supports the coupling process by sending optimum images to the dashboard in the driver's cabin. Securely integrated into the fifth wheel coupling, the JOST King Pin Finder provides assistance during coupling, thereby enhancing both safety and convenience. This latest assistance system allows the driver to find the ideal coupling height and to manoeuvre the truck perfectly, even when approaching at an angle. The King Pin Finder assists by displaying a live camera image in the driver's cabin when driving backwards, making the coupling process considerably easier. On top of this, the system's intuitive handling assists drivers when changing trailers – thereby preventing accidents and damage to the fifth wheel coupling and king pin, as well as the truck and trailer. The JOST solution specifically addresses the driver shortage not only by safety enhancement, but it also reduces the departure control time.

ROCKINGER Drawbar Finder: safe coupling with the right technology

ROCKINGER will exhibit a further innovation in Hanover in the form of the Drawbar Finder. Here, a camera sits in a central and protected position above the towing hitch, functioning as an extra set of eyes and preventing misalignment of the drawbar eye. By providing both horizontal and vertical guidance, it enables precise coupling, which in turn raises efficiency and helps prevent accidents. The driver no longer needs to get out of the truck to check that the drawbar eye is aligned correctly. It is therefore a practical tool for coupling processes, which is a particular advantage when using central axle trailers. At the IAA the Drawbar Finder can be discovered at the towing hitch RO40.

Modul E-Drive: the electric landing gear for increased comfort and safety

With the electric landing gear Modul E-Drive, JOST sets new standards in convenience, workplace safety and efficiency. With the Modul E-Drive manual cranking is now a thing of the past and coupling and decoupling of the trailer is even easier. Modul E-Drive is particularly useful when access to the landing gear is restricted and when the trailer needs to be coupled or decoupled frequently. The operation is super simple with a single push of a button. The drive shuts down automatically in the event of ground contact. Even though the operation works electronically, manual operation is still possible. Potential differences in height between the truck and the trailer can be compensated using the vehicle's pneumatic suspension or manual cranking in the low gear. The landing gear is suitable for outside temperatures up to -20°C. The landing gear is based on the proven, highly reliable and robust Modul B series and is available in various mounting heights with an especially large lift. This program is complemented by a comprehensive range of cranks and connection shafts, and easily mountable and replaceable foot system.

The drive is on the inside and maintenance-free. Thanks to the long-term lubrication applied in the factory, re-lubrication is only necessary after three years, and due to the maintenance free design lifecycle costs are low. The Modul E-Drive is also a component of the automatic coupling system KKS.



#jostgreen: JOST contributes to making commercial vehicles more environmentally friendly

Stay stable with more than just a standard landing gear: the JOST Modul landing gears

JOST landing gears are extremely versatile and have proven themselves time and again in daily use. Their flexible, modular design makes it easy to adapt to all important customer requirements, from standard implementations to specialised applications. JOST will present several highlights from its Modul family of landing gears at the IAA Transportation such as the OPTIMA, a weight-optimised landing gear for long-distance transport. For those who particularly value low weight, JOST will also present Modul CA, an especially light aluminium landing gear with new Sfoot, which impresses with a weight saving of 41 kg compared to Modul B, as well as the newest and lightest member of the landing gear family, the powerful aluminium drop leg FA027, with a total weight of just 37 kg per set.

New LubeTronic 1Point: refillable cartridge

At the IAA Transportation JOST introduces the second generation of the LubeTronic 1Point. Not only have the outstanding lubricating properties been improved by filling with biodegradable JOST high-performance lubricant, similar to the LubeTronic 5Point. With the practical click-in holder and screw cap for tool-free maintenance and the durable unit, JOST has optimised the product design in terms of sustainability and user-friendliness, as with all its products. Additionally, the cartridge is exchangeable which is not only a cost-effective solution but also reduces the amount of waste during the product life cycle.

JOST high-performance organic lubricant for fifth wheel couplings

Conventional connections between truck and trailer are made of steel and need to be lubricated regularly to avoid wear and damage. JOST was the first manufacturer to introduce a completely biodegradable high-performance lubricant for its fifth wheel couplings and has been able to further develop the mixture over the last few years to meet customer-specific requirements. The lubricant JHS 2020 B is suited for the manual lubrication of all fifth wheel couplings, king pins and ball bearing turntables. The key features of the lubricant are its complete biodegradability, minimal application requirements, temperature resistance, high adhesion on metal surfaces and minimal water absorption.

DCA WEIGHTMASTER PLUS: new weight-optimised axle

Reducing emissions, protecting resources and maximising efficiency were the key aims when developing the lightest axle in its class. The optimised structure of the entire axle reduces the weight by 51 kg. In combination with the optional Weight Optimiser 27, the air bellows support with a

lightweight aluminium tail end structure, further weight savings of 27 kg are possible in the trio. The highlight of DCA WEIGHTMASTER *PLUS* is its wheel head with optimised weight, wear properties and performance. This includes the new DCA X7 brake, the lightest brake in its segment. The aim during its development was to achieve ideal interplay between the brake disc and lining, thereby reducing emissions while maximising the payload and performance.

The *PLUS* series of DCA axles offers benefits for all trailer applications. That is why it is not limited to the WEIGHTMASTER series. The new features will also be available for DCA AIRMASTER, DCA STEERMASTER, DCA PAVEMASTER, DCA MEGAMASTER and DCA RAILMASTER.

E-Axle: Save while driving

With the e-axle, JOST offers a cost-efficient and modular system that can be used flexibly for battery-electric trucks as well as for vehicles with conventional combustion engines in a resource-saving manner. Thanks to its lightweight and compact design, the e-axle enables flexible use in a variety of applications: from light distribution transport and short-haul routes to long-haul operations with the requirement for a long range to heavy-duty transport for traction support during start-up maneuvers. The e-axle can be modularly adapted to different application requirements and offers a cost-effective way to make transport fleets more sustainable. The emission-free drive ensures a reduction in CO₂ emissions in conventional diesel vehicles and increases the range of the vehicle combination, regardless of the type of drive. In field testing, over 20% was achieved.

The modular low-voltage system of the JOST E-Axis with an operating voltage of 48 V and a basic output of 90 kW offers a safe and maintenance-friendly product. Regenerative braking put less strain on mechanical brakes, which reduces the need for servicing the brakes.

The system can be operated with conventional trailer tires.

JOST CSA and TRIDEC EF-S: Command Steer Axle with electronic steering system

Tight depots, narrow city streets and a 16.5-meter-long trailer that needs to be steered safely – all challenges that push conventional axle systems to their limits and demand a command steer axle. Following the successful market launch of the CSA with the 9-tonne version, a 10-tonne axle has been added to the portfolio last year. Like the 9T, the CSA 10T can also be used in all conventional steering systems whether mechanical, hydraulic or electronic. It impresses with outstanding performance characteristics and in particular the lowest roll radius. This has a positive effect on the actuation force, which is up to 70 per cent lower than that of comparable axles as a result. Additional batteries are rendered obsolete and there is greater flexibility when designing steering systems. The low space requirement of the CSA is unparalleled, enabling smaller mud guard designs and thus wholly new vehicle designs, even when space is tight.

The JOST CSA is perfectly tailored to TRIDEC-brand steering systems: the TF mechanical system, the HF and HF-E hydraulic systems and the EF-S electronic steering system, with which the CSA can be seen at IAA 2024. Up to three JOST CSA axles can be used. The steering angle can be easily adapted to the available space for installation and the required maneuverability.

DCA-L7-2 disc brake: weight-optimized brake caliber design

JOST has once again optimised the weight of its tried-and-tested DCA-L7, allowing the user to pull 3 kilos more payload per axle. The JOST DCA-L7-2 impresses in terms of reliability, ease of servicing and weight. Both trailer manufacturers and hauliers benefit from the lower weight, higher payload, optimised ease of servicing and maximum quality and reliability.

TP-O Low: swivel axle suspension

The brand TRIDEC will present its swivel axle suspension TP-O Low, opening up a new market for independent trailer manufacturers. The TP-O Low especially fits the high volume low-bed market in Europe. With suspension travel of 600 mm, the TP-O Low offers the lowest ride height with 12 tonnes per axle line, combined with a greater steering angle than any other suspension solution.

**#jostdigital: JOST ensures a seamless connected product experience****Stay safe with JOST: JOST Truck Stop Corner**

At the JOST stand in hall 26 the company will shine a spotlight at the importance of preventive maintenance in the JOST Truck Stop Corner. The JOST customer service offers training workshops and practical trainings across multiple channels, for example on YouTube. The JOST Truck Stop video series on YouTube provides useful tutorials, all geared towards enhancing maintenance practices. By embedding this philosophy into the stand with daily animations showcasing the replacement and mounting of parts on JOST products, the company aims to underscore the value of proactive maintenance. Preventive maintenance is not just about avoiding breakdowns; it is a strategic labor advantage that cuts costs by minimizing the number of parts replaced and reducing unexpected downtime for vehicles.

BusLink

JOST is now transferring its know-how to the bus industry. In 2023 the company introduced the new articulation pusher bus system BusLink for the first time at busworld in Brussels. The innovative system BusLink optimises the driving stability of an articulated bus with rear-wheel drive and ensures particularly smooth movement. By transferring the thrust force to the front of the vehicle in a controlled manner, BusLink prevents the rear of the vehicle from lurching or breaking away. The articulated control unit (ACU) is a core element of the system. It controls two hydraulic proportional damper cylinders and prevents the vehicle from buckling and swerving uncontrollably under any imaginable road conditions. The special feature of the JOST articulated turntable controller is the individual parameterisation of the input and output variables according to the requirements of the bus manufacturer. The articulated front bearings, which cushion the pitching and rolling movements of the bus chassis, can also be individually adapted to the requirements of the driving dynamics. As a system supplier, JOST BusLink offers a customised product for every customer requirement for electric and hydrogen buses as well as for classically powered articulated buses.

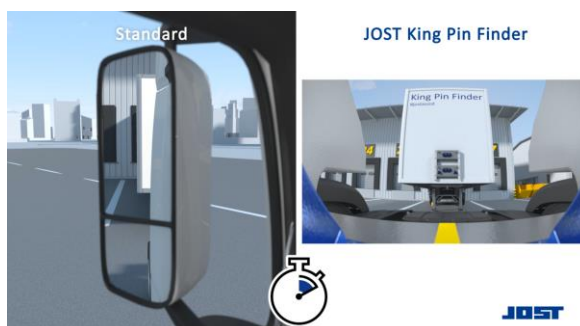
In developing the articulated swivel joint, JOST drew on decades of experience in welded constructions in the commercial vehicle industry. The weight-optimised welded design of the articulation system significantly increases the payload of the bus. It also enables individual adaptation to every customer requirement. The articulation also includes the tried-and-tested JOST ball bearing turntable, with which the JOST success story began in 1952. The bellows is also a reliable and customised product. The design of BusLink ensures easy installation as well as maximum ease of maintenance and service. The associated repair solution is typically JOST with minimum effort, resulting in maximum customer benefit. Passengers also benefit as end users from more comfort and an increased sense of safety thanks to the “gap free” solution of the inner bellows.

Image material

Automatic coupling system KKS and KKS U-Connector:



King Pin Finder assistance system:



ROCKINGER Drawbar Finder upgrade kit:



Electric landing gear Modul E-Drive:



Aluminium drop leg FA027:



New LubeTronic 1Point with refillable cartridge:



JOST high-performance organic lubricant:



Weight-optimised axle DCA WEIGHTMASTER PLUS:



JOST E-Axle



Command Steer Axle JOST CSA with electronic steering system TRIDEC EF-S:



DCA-L7-2 disc brake:



TRIDEC TP-O Low:



Articulation pusher bus system BusLink:

