

Royal Burgers and Emons Group reveal the technology behind the next generation of Double Deck

Hannover, Germany, 14 September 2026 - Royal Burgers and Emons Group are revealing more of the technology behind the next generation of Double Deck. Jointly developed by the two companies, the trailer is a further evolution of an already successful high-volume FTL concept. The established Double Deck operation carries 52 Euro pallets or 40 UK pallets with load heights between 130 and 180 centimetres. The existing concept is already strong; the next generation makes it even better.

The next generation of Double Deck combines a flexible hydraulic floor system, a new Smart Steering System and an architecture designed to maximise usable cargo space. Royal Burgers contributes its specialist engineering and manufacturing expertise, while Emons brings extensive operational and commercial experience from daily high-volume FTL transport. The partnership is an innovation, combining best of both worlds.

The loading process starts with the hydraulically adjustable floor in the central lowered section, or 'belly', of the trailer. The floor is first raised to the same height as the warehouse dock, allowing the first 18 pallets to be loaded directly. The complete floor, including the cargo, is then lowered into the belly position. Because the hydraulic drive components are integrated into the trailer walls, the mechanism does not reduce the usable loading width.

The short rear lift then makes controlled vertical movements between dock height and the upper deck. Through these repeated short movements, 28 pallets are transferred from the warehouse dock onto the upper deck. Once these pallets have been loaded, the lift returns to floor and dock height. The final 6 pallets are then loaded directly onto the rear floor section; the lift no longer moves during this final step. This creates a total loading configuration of $18 + 28 + 6 = 52$ pallets.

The central floor can also be repositioned to create a continuous internal loading height of up to 2.50 metres. In this configuration, the trailer provides space for up to 33 conventional pallet positions. This function is intended as a network optimiser for suitable return loads, helping operators reduce empty kilometres, lower transport costs and improve sustainability while retaining high-volume Double Deck transport as the trailer's primary application.

Another major development is the new electronic-hydraulic Adaptive Steering System. Conventional mechanical steering requires a relatively large and heavy linkage in the fifth-wheel plate to transmit steering forces to the rear axle. The new system instead uses yaw-rate and direction-dependent speed sensors to determine the articulation angle between the tractor and trailer and calculate the required rear-axle steering angle. Steering force is supplied by electro-hydraulic power packs. This transition saves approximately half a metric ton, primarily in the fifth-wheel plate, and enables a flatter fifth-wheel plate, which is a key requirement for Double Deck trailers. Mechanical decoupling reduces lateral forces and tyre wear on the tractor unit, indirectly supporting the emissions reductions required under Euro 7. At higher speeds, the rear axle is held in the straight-ahead position, improving the driving stability of the entire combination.

The result is more than a technical development. It is a trailer architecture designed to connect efficiently with real logistics processes, QHES and compliance requirements, loading docks and warehouse operations, while improving fleet utilisation and transport efficiency.

The next generation of Double Deck is designed for road, rail and short-sea transport. Through its integrated Inner Lift System, it can also be used in EcoCombi and Super-EcoCombi (EMS2) configurations, further extending its flexibility across different logistics networks.

Through this collaboration, Royal Burgers and Emons Group combine the best of two worlds: specialist trailer engineering and proven experience. The next generation advances an established Double Deck concept around one principle: building the trailer around the operation, rather than requiring the operation to adapt to the trailer.

Royal Burgers and Emons will present the next generation of Double Deck at IAA Transportation 2026 in Hannover, 15-20 September, at the Royal Burgers stand in Hall 27, stand F38, and Outdoor Area S33.

Next generation of Double Deck - key USPs

52 Euro pallets or 40 UK pallets

The proven high-volume FTL capacity for pallets between 130 and 180 cm in height.

Evolution of a successful Double Deck concept

The established concept is already strong; the next generation makes it even better.

Built around logistics processes

Designed around QHES requirements, compliance, efficient docking and seamless warehouse integration.

18 + 28 + 6 = 52 pallets

18 pallets are loaded on the adjustable belly floor, 28 via short movements of the rear lift and the final 6 directly at dock height, without further lift movement.

Hydraulic system integrated into the trailer walls

Maximising usable cargo space.

33-pallet network optimiser

Creates space for suitable return loads to reduce empty kilometres, lower costs and improve sustainability.

Road, rail and short-sea compatible

Designed for different transport operations and networks.

EcoCombi & Super EcoCombi (EMS2) compatible

Enabled through the integrated Inner Lift System.

Electronic-hydraulic Adaptive Steering System

Uses yaw-rate and direction-dependent speed sensors to calculate the required rear-axle steering angle.

The system saves approximately half a metric ton, enables a flatter fifth-wheel plate, reduces lateral forces and tyre wear, and holds the rear axle straight at higher speeds for greater driving stability.

About Royal Burgers

Royal Burgers B.V., based in Aalsmeer, has been developing and manufacturing innovative trailer and transport solutions since 1925. Over the past century, the company has become an international specialist in Double Deck technology, helping logistics operators increase transport capacity, improve efficiency and create more sustainable transport solutions. Working closely with customers and partners, Royal Burgers develops solutions designed around the needs of modern logistics operations.

About Emons Cargo Double Deck

Emons Cargo serves leading companies with a proven high-volume FTL concept for palletised goods between 130 and 180 centimetres in height. With a capacity of up to 54 Euro pallets or 40 UK pallets per trip, the 2WIN trailer enables businesses across Europe and the United Kingdom to deliver more with fewer transport movements, lower cost per pallet and reduced CO₂ impact per transported unit. As part of the family-owned Emons Group, this expertise builds on more than 80 years of innovation, long-term thinking and strong partnerships.