



FREIGHT TRANSPORT

DB Cargo at InnoTrans

More goods moved by rail thanks to modular m² freight wagons

Products change. This wagon too – whether in length, width or height: the basic construction is a backbone of steel, wheels and brakes.

Modular freight wagons that can be adapted for different types of cargo will soon ensure that more freight travels by climate-friendly rail. DB Cargo and VTG have developed the modular m² wagon as part of a joint research project. DB Cargo has now been given the green light for series production.



The new m² wagons are significantly more economical than before because they can be assembled in modules – depending on what the customer requires. The length and structure of the wagon are flexible, as well as its intended use, for which a length of between 10.8 and 22.6 metres can be selected. The wagon can be quickly converted and reconfigured.

Until now, wagon approvals have been linked to a specific type of cargo, such as timber or scrap metal, and could not be subsequently changed. This restriction no longer applies with the m² wagon, because it is approved for a variety of cargoes, as well as container transports thanks to exchangeable container units. The m² can also be used without restriction in economically important single wagonload transport.

Digital automatic coupling – a steel revolution

The game changer: automatic and digital couplings speed up handling, turnaround cycles and rail operations - and ultimately, freight moves faster.

Digital automatic coupling (DAC) will in future enable freight wagons to be coupled automatically without the need for manual work. This speeds up shunting and increases the capacity of transshipment stations by up to 40%. In this way, DAC also makes a significant contribution to meeting the European climate targets.





DAC also means an enormous reduction in workload for the shunting personnel. Until now, DB Cargo employees alone have had to manually lift heavy coupling links to shoulder height as many as 75,000 times a day, working in confined spaces between freight wagons.

In the meantime, DAC has been put through its paces at around 15 marshalling yards in Germany, Switzerland and Austria, and more than 500 shunting operations have been carried out. The coupling also works reliably in ice and snow. In readiness for DAC, freight wagons are being equipped with end-to-end power and data lines for the first time.

Dual-mode locomotives – unparalleled universality

One unit for every job: goes anywhere, hauls anything - with or without an overhead line. But it also makes a changeover between shunting and main-line locomotives unnecessary.

In the medium term, DB Cargo will replace all diesel locomotives with modern dual-mode locomotives. These new locomotives can switch between diesel and electric power. This means that they can be used in a variety of ways: both on electrified tracks and for shunting movements at container terminals or in factory and port areas where no overhead line is available. This is not only climate-friendly, but will also save many time-consuming shunting operations in future.



DB Cargo has ordered 150 dual-mode locomotives from Siemens, with an option to extend this to 400 units. The first vehicles will be delivered in 2024, before which a number of tests still have to be completed. Those who are interested can catch a first glimpse of the new locomotive now - at the InnoTrans rail industry trade fair.

DB Cargo also relies on hybrid shunting locomotives, in which the diesel traction system is supported by an electric motor.

Ordering rail transports - as easy as online shopping

Digital services at DB Cargo are called "link2rail". These are e-services for ordering wagons, booking transport, invoicing and the best tracking of rail transport.



Digitalisation in rail freight transport creates a new dimension in the supply chain. All DB Cargo wagons are now interconnected with GPS technology and sensors. This means that real-time data on the vehicle, cargo and journey can be passed on directly to customers. These new standards on the railways facilitate far more efficient production control in the industry, ultimately saving a great deal of time and energy.



That is why DB Cargo is investing in digital innovations. To do this, four areas must be digitalised: customer access, train formation, train movements and the intelligent control of the entire system. In this way, DB Cargo becomes an even stronger part of its customers' value chains and can demonstrate logistics solutions that are green, fast and flexible.

It is important to have a digital interface to customers, as is the case with the link2rail digital platform. This makes rail freight bookings as easy as online shopping: with link2rail, customers are informed about booking, transport monitoring and invoicing, and have access to precise tracking for their rail transports.

And DB Cargo, as an operator, knows how the freight wagon is doing: any malfunctions are noticed before they can cause any damage - this also directly benefits customers.

Photos:

m² wagon: Deutsche Bahn AG / Pablo Castagnola

DAC: Deutsche Bahn AG / Oliver Lang

Dual-mode locomotive: Deutsche Bahn AG / Oliver Lang