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Stadler launches new WINK product line – Arriva becomes first client

Arriva Netherlands has placed an order with Stadler for 18 two-car units of the new WINK model. The WINK is a two-car multiple unit train for secondary lines with lower passenger volumes. The WINK carries a central "PowerPack" containing components for energy generation, traction elements and auxiliary systems. The PowerPack can be fitted either with traditional components for energy generation and storage, or alternatively with elements that allow zero emissions operation. The WINK completes the Stadler portfolio of regional trains with a sustainable product.

The new trains for Arriva Netherlands are initially designed as bi-modal two-car multiple units. They are powered by a Deutz diesel engine fuelled with hydrogenated vegetable oil (HVO), and also have onboard batteries to store regenerated braking energy. Thanks to the energy stored in the batteries, the diesel engines can be switched off when the trains are at a standstill for longer periods in stations. The WINK for Arriva Netherlands will be deployed as part of the contract won by Arriva to operate rail services on the Leeuwarden-Groningen route and other lines in the provinces of Friesland and Groningen in the northern Netherlands from 2020. Following the partial electrification of the Leeuwarden-Groningen route – which is expected to be complete by 2025 – the vehicles will switch to zero emissions operation. The diesel engines will be replaced with batteries from this date. The trains will then run on 1.5 kV direct current and use the energy stored in the batteries on the non-electrified parts of the route.

The order from Arriva comprises the supply of 18 new bi-modal WINK trains, the future conversion of the vehicles for zero emissions operation, as well as the upgrade of Arriva's current 51 GTW units with a new passenger information system and battery packs for storing braking energy. The contract is valued at approx. 170 million euros in total.

The WINK trains for Arriva are 55.5 metres long, 2.82 metres wide and 4.12 metres high. The vehicles have three access doors on each side to enable passengers to board and alight rapidly – and an impressive capacity of 135 seats, or even as many as 151 taking folding seats into account. The trains can reach a maximum speed of 140 km/h with maximum traction of 1000 kW. Inside, the vehicles have everything passengers need for a comfortable journey on the regional transport network: a bright, welcoming interior with large windows, two quiet zones, toilets, storage space for bicycles, pushchairs and wheelchairs, a state-of-the-art passenger information system, sockets for recharging electronic devices, and WiFi. The 18 new vehicles are expected to be put into commercial service in the course of 2020.

A quick overview of the WINK

The WINK is designed for branch lines with lower passenger volumes. It can transport up to 275 people, with seats for around 150. This corresponds to the capacity of a three-unit GTW. As with the FLIRT, the WINK's end bogies are powered from the cab. The main difference compared to the FLIRT concerns the central PowerPack. In the WINK, this is not only equipped with components to generate energy, but also with traction elements and auxiliary systems. This has the advantage of offering an extremely flexible drive solution. The following can be envisaged: DMU with diesel, DMU with HVO, BMU as diesel with batteries or electric with a battery solution. With the WINK, Stadler is launching a regional train that is suitable for immediate zero emissions operation.

The WINK is available with a long or short body, and its length can be adjusted to suit requirements in increments of 1.8 metres. The vehicle can be fitted with two, three or four sets of doors. The clever configuration and aluminium composite construction give the WINK an axle weight of less than 18 tonnes. The WINK can reach maximum speeds of up to 160 km/h. As no engine room is required, additional seats can be placed behind the cab – the first client, Arriva Netherlands, will be making shrewd use of this space between the cab and the first doors to install quiet zones.

Rail operators who opt for the WINK can rely on tried-and-tested technology without having to compromise on sustainability. The modular structure of the WINK is based on that of the FLIRT train, which already has over 1,400 units in operation. It is a guarantee of short construction time and maximum operating availability. In addition, no investments need to be made in infrastructure.

Stadler identifies sales potential for the new WINK product line mainly in western and central Europe, as well as in Great Britain.

WINK is a German acronym which stands for convertible, innovative short train for local transport.

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About Stadler

Stadler has been building trains for 75 years. The system provider of rail vehicle construction solutions is headquartered in Bussnang in Eastern Switzerland, and has a workforce of over 7000 based in various production, service and engineering locations across Switzerland, Germany, Spain, Poland, Hungary, the Czech Republic, Belarus and the United States. Service locations are also being operated in countries including Algeria, Denmark, France, Italy, the Netherlands, Norway, Russia, Sweden and the UK. Stadler provides a comprehensive range of products in the heavy and urban transport segments: High-speed trains, intercity trains, regional and commuter rail trains, underground trains, tram trains and trams. Furthermore, Stadler also manufactures main-line locomotives, shunting locomotives and passenger carriages, including the most powerful diesel-electric locomotive in Europe. Stadler is the world's leading manufacturer in the rack-and-pinion rail vehicle industry.

More Stadler figures: The best-selling FLIRT (Fast Light Intercity- and Regional Train) vehicle has already sold over 1400 units in a total of 17 countries. The KISS (the name is an acronym of the German for Comfortable Innovative Speedy Suburban Train) is also very popular: It has sold 270 units in 10 countries. The most powerful diesel-electric locomotive in Europe, the EURO4000, has sold 140 units in 7 countries. Additionally, Stadler Service maintains vehicle fleets comprising over 680 vehicles that cover a combined annual distance of 120 million kilometers in 16 different countries.

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