Rolling Bearings for the Wheelsets of the TALENT 2 Electric Multiple Unit

FAG

Examples of Application Engineering

RFB 3-2 GB-D

The *TALENT 2* multiple unit

Image: Bombardier

Deutsche Bahn AG has concluded a framework agreement with Bombardier Transportation for delivery of up to 321 electric multiple units of the second generation of the TALENT vehicle concept.
The first trains are scheduled to run in various networks in regional and suburban transport as of 2010.
Thanks to its modular design, the Bombardier* TALENT* 2 train can be configured variably to create two-car trains or trains with as many as six cars.

The drive power is also variable and can be selected depending on the number of driven axles. Additionally, the vehicle can be configured for operation on different voltage systems (15 or 25 kilovolts alternating current or 3 kilovolts direct current) in crossborder traffic. The train can be reconfigured at any time to meet different operating requirements.
The TALENT 2 train is optionally equipped for regional and suburban transport requiring stops at short intervals with its high level of acceleration and up to two folding-sliding doors on each side of the car.
The TALENT 2 train is already fully compliant with every aspect of the future European standard TSI.

Schaeffler Group Industrial has developed the rolling bearings for the train wheelsets in an engineering partnership with Deutsche Bahn and system manufacturer Bombardier.

* Trademark(s) of Bombardier Inc. or its subsidiaries.

SCHAEFFLER GROUP
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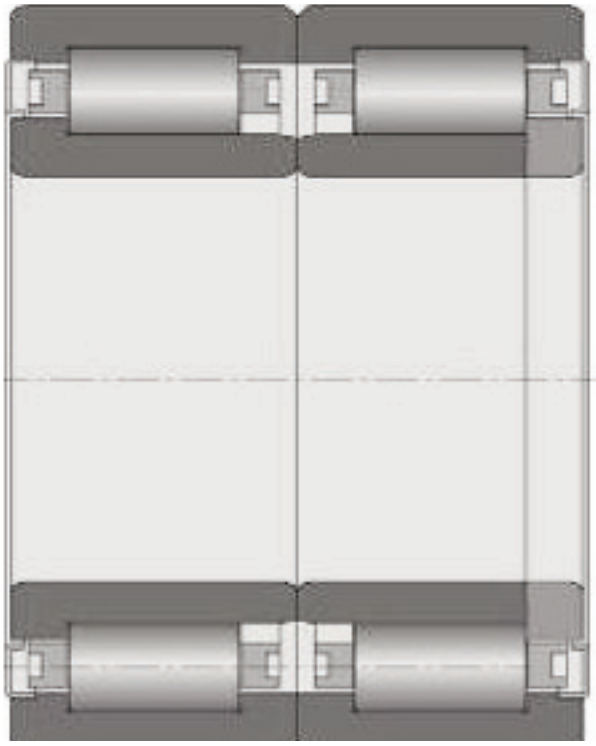
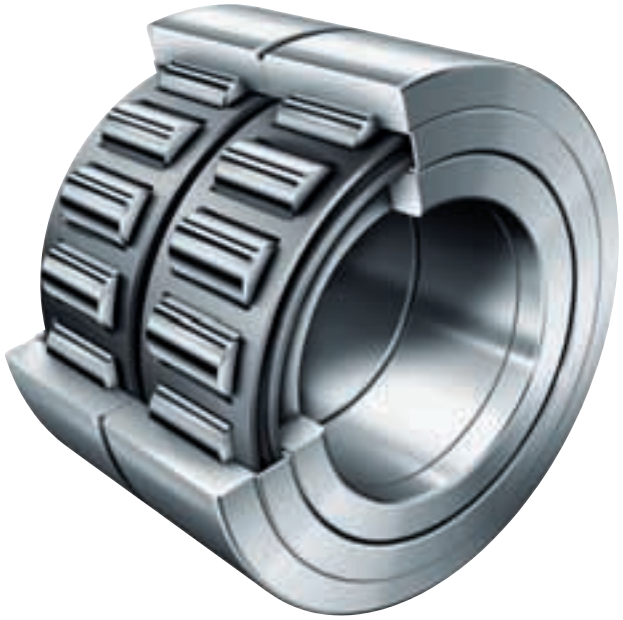
Technical Data of TALENT 2
(1st release ordner)

Maximum speed:	160 km/h
Axle load:	19.5 t
Kilometers per year:	250 000 km/year



Axlebox bearings

All motor bogies and trailer bogies are equipped with high-precision cylindrical roller bearing units with dimensions d 130 mm x D 240 mm x B 160 mm.
The bearing units, a completely new development compared with those used in the first generation of TALENT trains, are supplied with adjusted clearance, greased and sealed, and thus ready-to-fit.
The performance tests according to EN 12082 and UIC 515-5 are carried out on Schaeffler test stands in cooperation with vehicle manufacturer Bombardier. Thanks to the use of high-precision components, the test run as well as the operating time until maintenance will reach 1.2 million kilometers.



Cyllindrical roller bearing unit

Lubrication and sealing

The bearing unit is filled with high-quality FAG Arcanol L224, which also complies with the conventional standards for trains according to EN 12081 and UIC 814 without any problems.

The bearing is supplied with sealing shields. Together with the outer seals in the adjacent bogie components, they ensure a friction-free and economical sealing system. This sealing concept significantly contributes to achieving long maintenance intervals.

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