

GTW 2/6 low-floor, articulated, diesel-electric multiple unit for Usedomer Bäderbahn (UBB)



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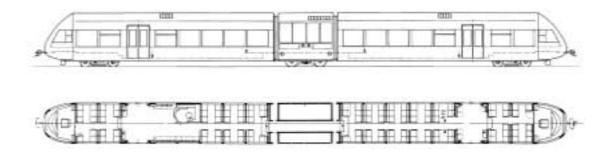
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Usedomer Bäderbahn – a wholly-owned subsidiary of DB Regio AG – began operating a fleet of 14 GTW 2/6 vehicles at the start of its summer timetable 2000 on the island of Usedom. The vehicles have spacious, bright passenger areas. With 2+3 seating, the vehicles provide seating for 126 passengers. An important feature in this tourist region is the large multi-purpose vestibule, which provides adequate space for the transport of luggage and bicycles. Easy access to the drive components in the central drive module means that routine servicing can be carried out in a very short time, which guarantees a high level of availability of the fleet.





Technical Features

- Modular design of passenger modules and dieselelectric drive module
- Lightweight construction of end cars in aluminium
- Designed to withstand a longitudinal impact of 1500 kN
- Concentration of drive equipment in one drive module
- Sources of noise and vibration are completely isolated from the passenger modules
- Powerful propulsion system consisting of a diesel engine with three-phase generator, a rectifier, watercooled IGBT power converters and two asynchronous traction motors
- Optimum acceleration by having drive equipment mounted directly on driven bogie
- Driven bogies fitted with self-steering, radiallyadjusted wheelsets and optimised distribution of the load on the axles
- Multiple-unit control due to the use of the MITRAC vehicle control system, with coupling of up to three vehicle units
- Bi-directional vehicle designed for one-man operation
- Platform level access points with no steps and wide doors; low-floor content 70 %
- Air-conditioned passenger areas and driving cabs
- Concealed toilet system handicapped/disabled proof
- Destination displays and passenger information system
- Ergonomically designed driving cab
- Equipped with diagnostics computer and EBULA display
- Entire central module can be replaced for maintenance purposes
- Additional investment in workshop facilities is virtually unnecessary

Vehicle Data

Designation BR 646.1 No. of vehicles 14 Entered service 1999/2000 Route operated Insel Usedom: Züssow – Wolgast – Ahlbeck Grenze; Zinnowitz – Peenemünde Gauge 1.435 mm Overall length 38.660 mm Vehicle width 3.000 mm Vehicle height 3.850 mm Floor height - Low floor - High floor 1.000 mm Door width 1.300 mm Longitudinal impact 1.500 kN Seating capacity 2nd Cl. 126 Standing capacity (4 Pers./m²) 91 Tara weight 54 t Axle arrangement 2' Bo 2' Bogie wheelbase - Power bogie - Power bogie 2.000 mm - Trailer bogie 2.000 mm Powered wheel diameter, new 860 mm Supply voltage Dieselmotor MTU 12V 183; 550 kW Max. speed 120 km/h Max. power at wheel rim 420 kW Starting effort 62 kN	Customer	Usedomer Bäderbahn
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Max. speed 120 km/h Max. acceleration 0.85 m/s² Max. power at wheel rim 420 kW	Supply voltage	Dieselmotor MTU
Max. acceleration 0.85 m/s ² Max. power at wheel rim 420 kW		12V 183; 550 kW
Max. power at wheel rim 420 kW	Max. speed	120 km/h
	Max. acceleration	0.85 m/s ²
Starting effort 62 kN	Max. power at wheel rim	420 kW
	Starting effort	62 kN

The vehicle concept for the GTW was developed by Stadler, with the following manufacturing companies involved in the production for DB AG, the client:

Electrical part Adtranz, DaimlerChrysler Rail

Systems (Switzerland) AG

Mechanical part Bombardier Transportation, Bautzen

Stadler Bussnang AG, Bussnang

Running gear Adtranz, DaimlerChrysler Rail

Systems (Switzerland) AG

