



G 1700 BB

Four-axle diesel-hydraulic locomotive
for main line and heavy shunting service

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G 1700 BB diesel locomotives

The G 1700 BB has been developed on the basis of the successful class G 1206 BB, with a more powerful diesel engine and a line gear. Thus this locomotive is suitable for main line service, while still allowing the operators to take advantages of the benefits of the central driver's cab for shunting services.

The standard, modular design of its predecessor has been extended and the ease of maintenance, high reliability and low life cycle costs have been ensured.

This locomotive is available in a range of engine power ratings coupled with appropriate turbo gears. The improved adaptability to the varying traction requirements of different operating modes accompanied by use of the same equipment provides the ideal solution while maintaining standardization for operation and maintenance.

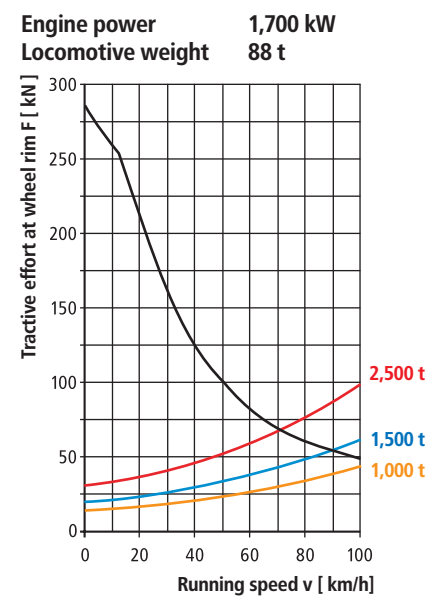
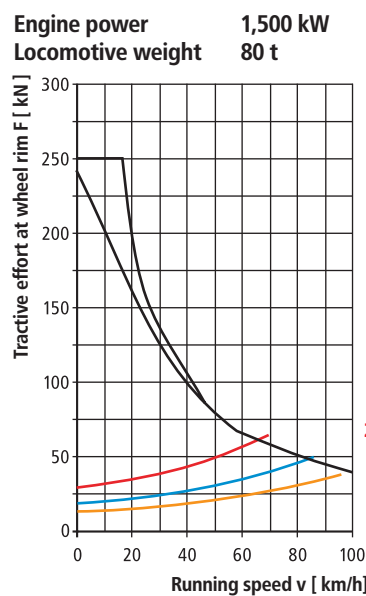
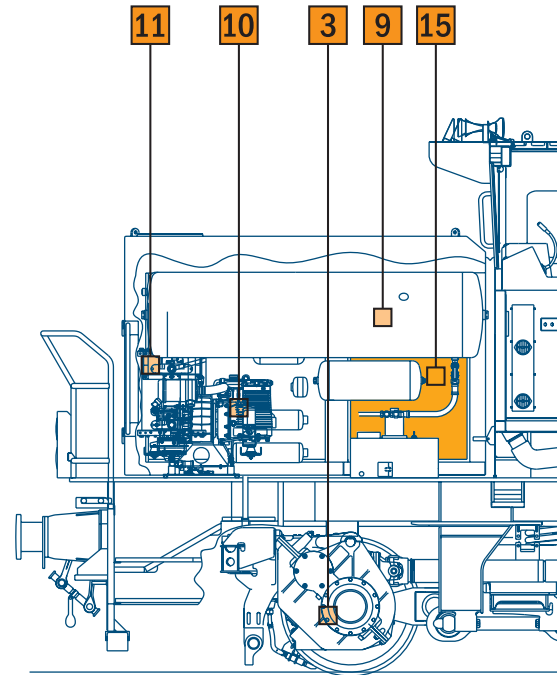
The design philosophy of the standard diesel locomotives

The standard range is modular, making it highly flexible in terms of operating mode, area of application, performance and equipment.

Basic features are:

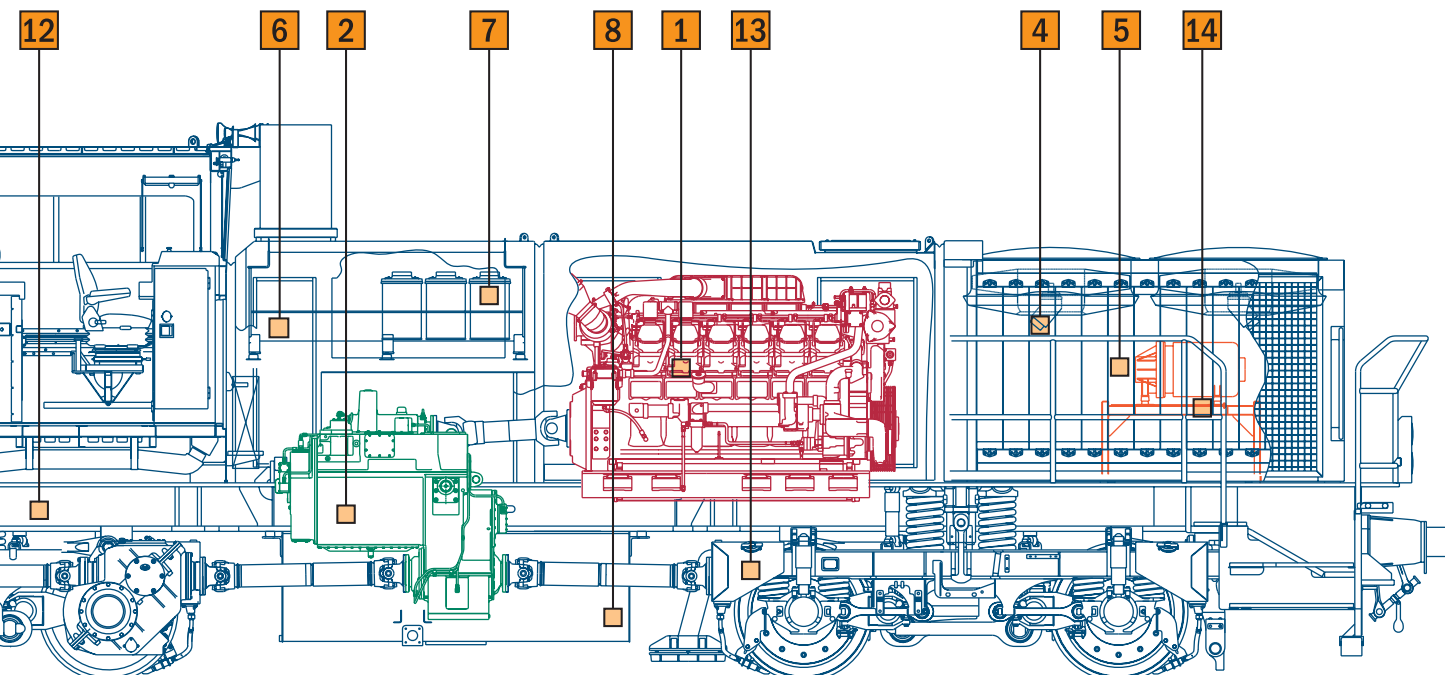
- Electronic vehicle control and management system with integrated wheel slide and slip protection and diagnostics
- High-speed diesel engines
- Different types of turbo gears available
- Transmission via cardan shafts
- Standardized bogies for all diesel engine power ratings, with much potential regarding axle load and speed
- Hinge joint to the bogies by deep push-pull rods

- Support between bogies and locomotive body without sliding blocks, system Vossloh Locomotives
- Disc brakes for all wheels and a modular brake panel
- Cooling fan, air compressor and auxiliary generator with a regulated hydrostatic drive system
- The central driver's cab extends over the entire width of the locomotive and is equipped with diagonally arranged front side doors, which can be reached safely by operating personnel via the lateral walkways, and wide, comfortably large shunting steps, without having to leave the clearance gauge of the locomotive.



Starting tractive effort acc. to Curtius and Kniffler, train resistance on level track calculated using formula for complete trains.

- | | | | |
|--------------------|---------------------------|----------------------|------------------------|
| 1 Diesel engine | 5 Radiator block sections | 9 Main air reservoir | 13 Sandbox |
| 2 Turbo gear | 6 Exhaust silencer | 10 Compressor | 14 Auxiliary generator |
| 3 Final drive unit | 7 Combustion air filters | 11 Brake panel | 15 Electronics module |
| 4 Cooling fan | 8 Fuel tank | 12 Battery | |



OPTIONAL EQUIPMENT

- | | | |
|--|--|--|
| - Broad gauge bogies | - Central data logging | - Design for left-hand and right-hand rail traffic |
| - Hydrodynamic brake | - Diagnostic software | - Heated front windows |
| - Crash energy absorbers | - Remote data transmission | - Compact air conditioning unit |
| - Tired wheels | - Constant speed control | - Cooling box |
| - Exhaust gas particle filter | - Shunting coupler | - Independent driver's cab heating |
| - Pressure refueling | - Multiple traction | - ETCS |
| - Fuel gauge in driver's cab | - Shunting/train radio system | |
| - Multi frequency horn | - Radio remote control | |
| - Warning bells | - Up to three country packages simultaneously for cross-border operation, consisting of national train safety systems, radio systems and other special equipment | |
| - Extended diagnosis system | | |
| - Display at driver's desk | | |
| - Electronic speed recorder (tachograph) | | |

Technical features

Technical Data		
Diesel engine rating	1,500 kW	1,700 kW
Diesel engine	CAT 3512	
Diesel engine speed	1,800 rpm	
Axle arrangement	B'B'	
Track gauge	1,435 mm and broad gauge	
Weight	80-90 t	
Length over buffers	15,200 mm	
Height	approx. 4,220 mm	
Width	3,080 mm	
Wheel diameter new/worn	1,000/920 mm	
Maximum speed	100 km/h	
Turbo hydraulic gear	Voith L5r4zseU2	Voith L620
Max. starting tractive effort with 22.5 t axle load	291 kN	
Min. radius of curve	80 m	
Diesel tank capacity	4,400 l	

References

Aceralia	Arcelor, Spain
ATC	Angel Trains Cargo NV/SA, Belgium
BLS	BLS Lötschbergbahn AG, Switzerland
GKB	Graz-Köflacher Bahn- und Busbetrieb GmbH, Austria
HGK	Häfen und Güterverkehr Köln AG, Germany
LTE	Logistik- und Transport- GmbH, Austria
MWB	Mittelweserbahn GmbH, Germany
MKB	Mindener Kreisbahn GmbH, Germany
SBB	Swiss Federal Railways, Switzerland
SERSA	Group, Switzerland

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