



Heavy machinery operated by the BahnBauGruppe

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FUM Komplex



SUZ



EM Sat



Dynamic tamping express

Building the best railway!

Dear reader,

The BahnBauGroup is a strong, high-performing partner for top-quality, innovative and customer-responsive engineering and fit-out works on the permanent way of the European railways. The BahnBauGroup combines the product offerings of five strong and experienced companies, DB Bahnbau GmbH (DBB), Deutsche Bahn Gleisbau GmbH (DBG), Deutsche Gleis- und Tiefbau GmbH (DGT), Mobile Oberbauschweißtechnik GmbH (MOS) and Ingenieur-, Brücken- und Tiefbau GmbH (Ibb).

The BahnBauGroup boasts one of the most advanced machine pools in Europe for performing major engineering works, laying and relaying track and switch systems, and erecting or refitting standard catenary systems. Over 100 machines, including heavy ballast-screening plant, track-laying equipment, measuring and tamping equipment, catenary installation vehicles and motive power units, facilitate the self-supporting provision of worksite logistics even at peak periods.

It is our aspiration to steadily raise our quality and productivity levels. Typical of our innovative, economical solutions are globally state-of-the-art, top-of-the-range systems such as the SUZ 500 UVR "rapid renewal train" for the laying, refitting and dismantling of track or what is referred to as the FUM Complex, the most advanced system for the refitting of catenary in Europe.

By employing our own heavy track plant and catenary installation vehicles and servicing them in our own workshops, we guarantee not only the requisite degree of technical know-how, market knowledge and commitment on the part of our staff but also the greatest possible efficiency and effectiveness in the execution of works. The BahnBauGroup also makes its machine pool available to customers throughout Germany seven days a week. Our contact staff will be only too pleased to help in the selection of machinery and deployment of resources.

The BahnBauGroup

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The BahnBauGroup disposes over the latest mechanical engineering systems for refitting track and switch systems in the rail network. The SUZ 500 UVR rapid renewal train allows track to be laid, refitted or dismantled in conveyor-belt style without having to block the adjacent track. It is possible in the process to incorporate all types of sleeper used on DB AG lines.

SUZ 500 UVR rapid renewal train

Quantity: 1 (DGT)

- rapid renewal train for laying, refitting or dismantling track in conveyor-belt style
- fitting and removal of all common concrete, steel, timber and Y-type sleepers
- rail replacement
- all sleeper wagons registered with DB AG can be used
- plannable average progress of 350 m/h
- engineering of the ballast formation
- platform tracks can be included in works end-to-end

KRC 810 T tracklaying and bridge-building crane

Quantity: 2 (DGT)

The KRC 810 T is a latest-generation tracklaying and bridge-building crane.

- particularly suitable for fitting switch systems incorporating concrete rail supports
- fully automated cant equalisation
- work on track with a cant of up to 160 mm possible without any ultimate load reduction

Besides the SUZ 500 UVR renewal machine, the BahnBauGroup also owns 2 further SUM-Q and PK 1-20 type renewal machines.

These are joined by the UWG renewal machine and a plethora of revolving railway cranes with load capacities of up to 125 tonnes.

The BahnBauGroup has at its disposal the latest tamping and measuring equipment currently obtainable. The scope of performance embraces both track-tamping and universal-tamping equipment.

CSM 09 3-x Dynamic tamping express

Quantity: 1 (DGT)

The tamping express performs continuous 3-sleeper tamping

Output:

- capital repairs: up to 1,200 m/h
- compaction tamping: 500 m/h
- stabilisation: 1st run up to 600 m/h; 2nd run up to 700 m/h

Unimat 09-16 4 S and 09-32 4 S universal tamping machines

Quantity: 4 (DGT: 3/DBG: 1)

Universal tamping machines allow capital repairs of the track to be carried out up to switch-system level. Capital repairs to switch systems involve 3-rail lifting and 4-rail tamping. The outer units can be extended on telescopic guide columns to facilitate packing of the fourth rail.

Output:

- capital repairs: up to 450 m/h
- capital repairs on switches: up to 10 switch units per shift

EM-Sat/EM-Sat 120 track survey car

Quantity: 3 (DGT: 1/DBG: 2)

The EM-Sat 120 carries out mechanised track surveys in preparation for capital repairs and the renewal of track. Measurements of the absolute track geometry are taken using fixed-point measuring devices. Track adjustment values can be forwarded in diskette form to the tamping equipment.

Output:

- given radii < 2,500 m: 1,600 m/h
- given radii 2,500-5,000 m: 2,100 m/h
- given radii > 5,000 m: 2,400 m/h

Overall, the BahnBauGroup has 21 tamping machines at its disposal, including 11 CSM 09-32 continuous-action tamping machines and diverse Unimat universal tamping machines. These are joined by the DGS 62 N dynamic track stabiliser.

Ballast cleaning equipment



Ballast cleaning machine

Ballast cleaning equipment offers the wherewithal for economical maintenance of the track. The high-output, road-rail and ballast-bed screening machines operated by the BahnBauGroup make for a homogeneous, uniformly elastic ballast bed, thus ensuring the wheel-on-rail system functions smoothly.

RM 801 cleaning machine

Quantity: 1 (DGT)

The railable cleaning machine has a cleaning output of 900 cu.m/h. Buffer-storage and distributor apparatus enables the amount of ballast cleaned to be controlled as required and treated with the compaction unit.

- monitoring and trace apparatus permits recordings to be made regarding depth of clearance, formation inclination and height data following cleaning
 - clearance width continuously variable
 - clearance depth 1,100 mm from top of rail
- Plannable output:
- standard excavation: 350 m/h
 - full excavation: 300 m/h

The BahnBauGroup additionally owns two RM 76 ballast cleaning machines and a WRM 202 B Wiegler road-rail ballast cleaning machine. In association with material conveyor and hopper units, these cleaning machines constitute an ideal cleaning complex.

Ballast profiling equipment



Ballast profiling machine

The BahnBauGroup's ballast profiling equipment allows the ballast section to be formed or re-established to the prescribed dimensions.

SSP 110 SW ballast profiling machine

Quantity: 21 (DGT: 17 / DBG: 4)

The SSP 110 SW is a ballast distributing and profiling machine with attached hopper for track and switch systems.

- centre and shoulder ploughs for forming the ballast section
- ploughs and sweeps in one operation
- fitted with a steep belt conveyor, ballast hopper and ballast distributor

Output:

- capital repairs: 800-1,500 m/h
- renewal works: up to 1,000 m/h

USP 2000 SWS ballast profiling machine

Quantity: 1 (DGT)

The USP 2000 SWS is likewise a ballast distributing and profiling machine with attached hopper for track and switch systems. However, it additionally features a split centre plough enabling it to be used on lines with track conductor cables.

- equipped with dust arresting atomiser unit inclusive of water tank
- adjustable sweeper units mean the system can be used in platform areas too

Output:

- capital repairs: 800-1,500 m/h
- renewal works: up to 1,000 m/h

The BahnBauGroup is an expert all-in supplier in this field. We are in a position, for instance, to offer ballast profiling equipment in conjunction with tamping and measuring machinery.

Catenary installation equipment



MTW

Installation and refitting, renewal, maintenance and general services in respect of standard OHL systems make up the BahnBauGroup's wide-ranging performance spectrum.

FUM 100.128 catenary renewal vehicle

Quantity: 1 (DBB)

The FUM is an advanced high-output machine for the speedy, accurate and economical fitting or replacement of contact wires and carrying cables. Contact wire and carrying cable are fitted in one operation at their final mechanical tension.

- swivel-arrangement winch units
- installation in requisite zigzag pattern
- off-board analysis system for recording parameters (mechanical tension)
- machine radio remote-controlled
- winch units loaded by means of on-board loading crane

Output:

- operating speed: 0-7 km/h
- speed under own power: 40 km/h
- contact-wire fitting height: 4,950-6,700 mm
- carrying-cable fitting height: 4,950-7,600 mm
- mechanical tension: 8-28 kN (carrying cables/contact wire individually adjustable)

MTW 100 motor tower wagon

Quantity: 6 (DBB)

The MTW is a four-axle track engineering vehicle with diesel-hydraulic drive that can be deployed in a great many ways, including in the FUM "complex".

- traction control
- universally deployable PA 120 type elevating work platform
- soot particle filters to reduce emissions of diesel soot when working in tunnels
- connections for electrical and pneumatic tools on the platform
- max. working height: 8.50 m
- platform slewing range: 180° to both sides
- contact-wire height measuring device

The BahnBauGroup additionally owns 12 contact-wire installation cars, 3 catenary installation cars, 1 catenary engineering car, 5 drum wagons and 6 track engineering vehicles.

Supply and disposal, processing systems



Rail machining train

Besides renewing track with its own machinery, the BahnBauGroup also joins forces with other parties to complete the necessary supply and disposal runs with motive power units. It is possible to convey large volumes of spoil directly to the point of disposal without any labour-intensive and costly interim storage by making use of equipment for the carriage of bulk goods.

SF 03 – FFS rail machining train

Quantity: 1 (DGT)

The rail machining train is the most advanced means of machining rails in the world with unprecedented machining speeds (0.1-20 m/min).

- 2 milling heads and 1 grinding head per rail
- Reprofile of entire rail head in one pass
- Material taken off: 0.3-5 mm
- No sparks during machining
- Newly developed integrated measuring system
- High surface quality leads to a considerable reduction in running noise and increase in ride comfort

MFS 40/BSG 60 material conveyor and hopper unit

Quantity: 36 x MFS 40 and 3 BSG 60 (DGT)

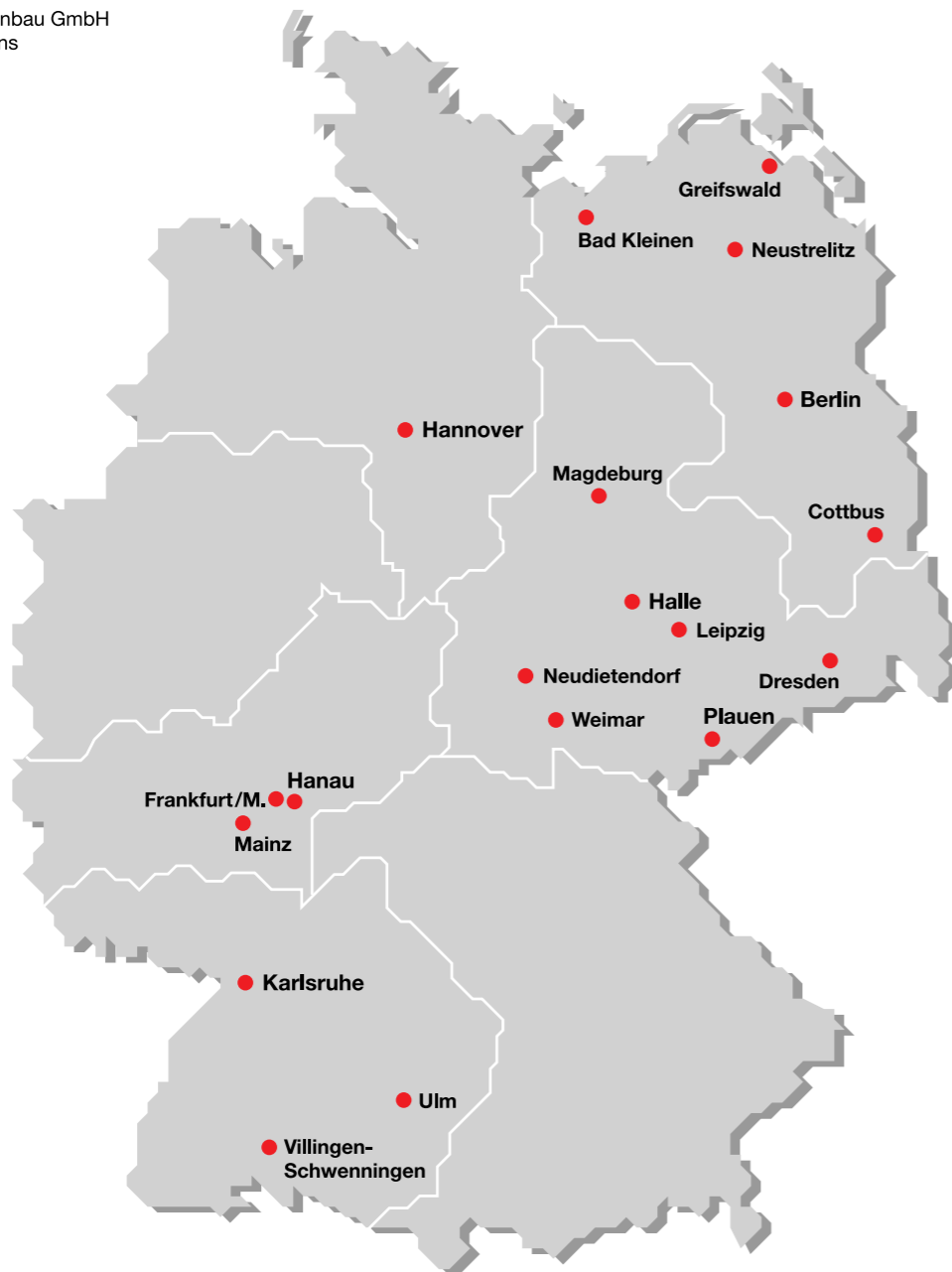
The six-axle material conveyor and hopper units can hold 40 cu.m (MFS 40) and 60 cu.m (BSG 60).

- complete mechanisation of loading, conveying and unloading processes
 - use in conjunction with ballast cleaning machines
- Output:
- conveying capacity: 0-360 cu.m/h
 - unloading time: approx. 5 min

The BahnBauGroup's machine pool includes a series of 203 and 293 Class motive power units.

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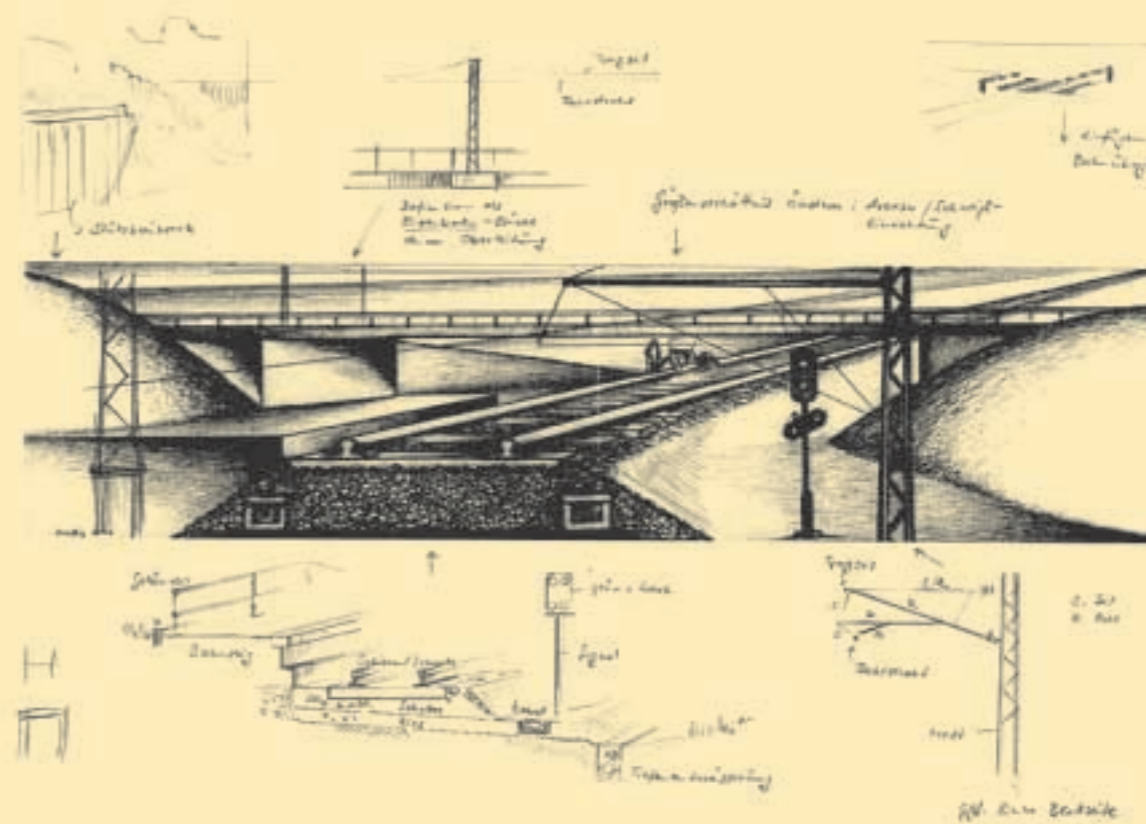
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Die Bahn 



We build the best railway track!

The Business Areas:

- Track superstructure
- Geo-technical engineering
- Power supply systems
- Track welding
- Command and control technology
- Catenary system
- Re-use of track materials
- Telecommunications
- Structural design
- Civil Engineering
- Training and education

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