

Thinking in your Visions





► **PRODUCTION OF RAIL VEHICLES**

An innovative answer to every requirement.



► **MODERNISATION OF RAIL VEHICLES**

Functional, safe and economical adaptation to changing tasks.



► **MAINTENANCE OF RAIL VEHICLES**

Solving complex tasks with expert knowledge and modern equipment.



► **SERVICE FOR RAIL VEHICLES**

Mobile service solutions with high benefits for the customer.

Rail vehicles

Manufacturing · Modernization · Maintenance · Service



At Gleisbaumechnik Brandenburg/ H. GmbH (GBM), the production, modernisation and maintenance of rail vehicles as well as the 7/24/52 on-site service are based on many years of experience and high technical competence.

Kirchmöser is a traditional location for rail vehicle technology.

GBM is a company of the **Spezialtechnik-Gruppe Dresden**. It is headed by **Spezialtechnik Dresden GmbH**. The Spezialtechnik – Gruppe Dresden has been closely associated with the US high-tech company **General Atomics** since 1992.

We have a service fleet operating around the clock. They also carry out maintenance services at the place where your vehicles are used, thus ensuring a high degree of flexibility and rapid re-availability of your vehicles.

Our employees are our most important capital. Every employee bears a high degree of personal responsibility for quality and adherence to delivery dates. With a healthy mixture of experienced specialists and young flexible employees, GBM is a reliable and efficient partner for you.

We are a specialist workshop for rail vehicles **with all certificates of suitability**.

GBM customers worldwide appreciate the excellent quality of our products and the flexibility of our services in the field of special rail-bound work vehicles.

Our customers from the railway traffic and rail machining sectors receive support from us in all questions of vehicle technology through to the development of special technical solutions.

We have very good infrastructural and logistical conditions for the regular and need-based maintenance of your vehicles. You will receive a full service package from us including the rental of storage space.

- Certified according to **DIN EN ISO 9001:2015**
- Certified for maintenance performance and maintenance development according to **EU No. 445/2011**
- Certified according to **SNCF rules and regulations** Wheelset machining IS2-IS3
- Certified as **Q1 Supplier for the Deutsche Bahn AG**
- Certified according to **DIN EN 15085-2** Welding of rail vehicles and parts

Production

An innovative answer to every requirement.

We have extensive know-how in the development, design, manufacture and approval of special rail vehicles as a complete package. These include:

- Track maintenance vehicles for general overhead and contact line maintenance
- Special trailers
- Special vehicles such as rail milling machines and measuring vehicles

Together with our customers, we prepare development concepts, special solutions and designs as well as system integrations of working components - specifically tailored to customer requirements.

REFERENCES

Maintenance vehicle for overhead line systems BR 711G

(Fig. 1 und 3)

A joint project of GBM and a Chinese partner.

The prefabrication of components took place in China and the final assembly in the GBM. The driving and braking tests of the BR 711G were carried out in accordance with European standards and for the approval in China.

Ultrasonic and Eddy Current Measuring Train UST 02 (Fig. 2)

For detection and quantitative analysis of rail defects the UST 02 is designed for a maximum speed of 120 km/h, has 2 drive units and reaches a measuring speed of up to 100 km/h.

Rail milling train SFU 04 (Fig. 4)

Mainly for use in metros such as London Underground Line for rough and fine milling of rail profiles.

DEVELOPMENT, DESIGN AND MANUFACTURE OF TRACK MAINTENANCE VEHICLES FOR SUPERSTRUCTURE AND OVERHEAD LINE MAINTENANCE AS WELL AS RAIL MACHINING AND MEASURING VEHICLES



Fig. 1



Fig. 2



Fig. 3



Fig. 4

Production

An innovative answer to every requirement.



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Rotational Planer

D-HOB 2500 (I-IV) (Fig. 5)

The D-HOB works in combination with control vehicle, rail car and chip container. The rails are machined by planing and subsequent belt grinding.



Fig. 5

Special Trailer (Fig. 6 & Page 11 Fig. 11, 12)

Development and production of a special trailer for the local public transport to transport materials.



Fig. 6

High Speed Rail Milling

Machine HSM (Fig. 7)

3-part milling train for transport speeds up to 100 km/h.

- High performance and accuracy in milling
- No sparks and dust emissions
- Working speed of up to 3000 m/h



Fig. 7

Next page:

Basic measuring rail car (Fig. 10)

Can be equipped with various measuring equipment.

NEW DEVELOPMENT

GAFeco (Fig. 9)

The GAF eco is a diesel-electrically driven track maintenance vehicle which complies in every aspect with current legal and environmental regulations.

This concept offers the operator low maintenance, long service life of important drive components, low wear part and operating material requirements with regard to the LCC.



Fig. 8

Production

An innovative answer to every requirement.

DEVELOPMENT, DESIGN AND MANUFACTURE OF TRACK MAINTENANCE VEHICLES
FOR SUPERSTRUCTURE AND OVERHEAD LINE MAINTENANCE
AS WELL AS RAIL MACHINING AND MEASURING VEHICLES



Fig. 9

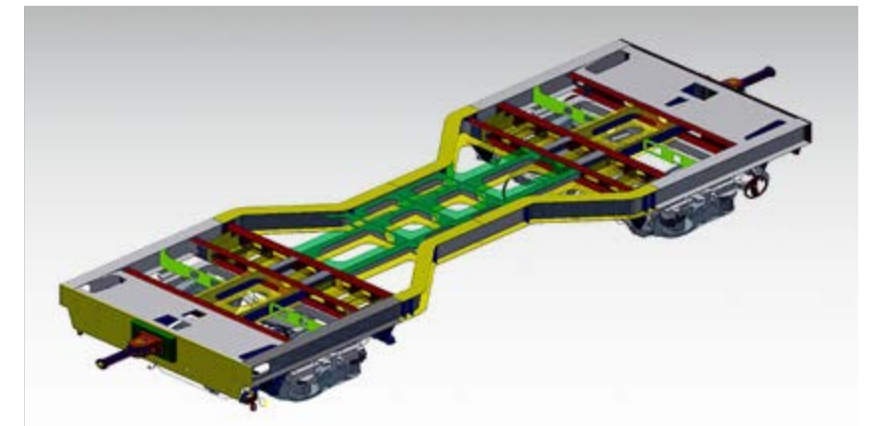


Fig. 10



Fig. 11



Fig. 12

Modernization

Functional, safe and economical adaptation to changing tasks.

With our solution concepts tailored precisely to customer requirements, you are always on the safe side and at the cutting edge of technology.

GBM offers a wide range of services for the modernisation of your vehicles. The use of our in-house design and approval experience in the development of special vehicles also guarantees customer-specific solutions for vehicle modernisation that meet all future requirements in operation.

A focus of our range of services is the rebuilding and modernisation of GAF 100 series track maintenance vehicles. For this purpose, a new loading crane will be installed, the hydrostatic work travel drive and soot particle filter will be retrofitted.

As a result, pollutant and noise emissions are reduced, energy efficiency as well as performance is improved.

The retrofitting of safety and fire protection systems and the improvement of working conditions, including the retrofitting of air conditioning systems and the reconstruction of the work rooms, are further service packages.

A number of other options, such as additional power supply or user expansions through the installation of additional components that are closely linked to the intended

use, through to the new vehicle outfit, round off the service package.

REFERENCES

Track maintenance vehicle GAF 200 Refit (Fig. 1)

- Modernisation of the existing PKR 160 loading crane
- Soot particulate filter retrofitting
- Retrofitting of a rail loading device
- Conversion to LED technology
- Retrofitting with EBUa
- Substitution of the E-gas system

CUSTOMIZED SOLUTIONS

KNOW-HOW AND EXPERIENCE IN THE DEVELOPMENT OF SPECIAL VEHICLES



Fig. 1

Modernization

Functional, safe and economical adaptation to changing tasks.

CUSTOMIZED SOLUTIONS

KNOW-HOW AND EXPERIENCE IN THE DEVELOPMENT OF SPECIAL VEHICLES

Modernization trailer type H 27

(Fig. 2)

This can be achieved, for example, by retrofitting a rail loading device and retrofitting track field lighting.

Track maintenance vehicle

GAF 200 Refit (Fig. 3 and 5)

See previous page.

Modernization KS Railcar

(Fig. 4)

By manufacturing and mounting short coupling adapters and constructing of a container turning device the adaptation to the respective application conditions takes place.



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Next page:

Reconstruction and modernisation of GAF 100 series track maintenance vehicles

(Fig. 7-12)

Modernization

Functional, safe and economical adaptation to changing tasks.

CUSTOMIZED SOLUTIONS
KNOW-HOW AND EXPERIENCE IN THE DEVELOPMENT OF SPECIAL VEHICLES



Fig. 7



Fig. 8



Fig. 9



Fig. 11



Fig. 10



Fig. 12

Maintenance

Solving complex tasks with expert knowledge and modern equipment.

SAFETY AND MAXIMUM OPERATIONAL READINESS
REGULARITY AND RELIABILITY AS WELL AS EXPANSION OF USE

GBM offers its customers a complete range of maintenance services with qualified specialists and the know-how from development and construction of special vehicles. These are mainly revisions and maintenance measures:

- Track maintenance vehicles
- Maintenance vehicles for overhead contact lines
- Rail machining machines
- Measuring vehicles
- Track laying machinery

Repairs as required, scheduled preventive inspections, preventive and predictive maintenance work and accident repairs including measurements and non-destructive testing through to acceptance are carried out according to customer-specific wishes and deadlines.

We are authorised to carry out all work requiring approval on rail vehicles, lifting equipment, slings, propane and gas installations, pipelines, steam and pressure boilers and load-bearing steel structures.

In addition to our qualified and specialized personnel, our customers have access to modern technical requirements such as surface treatment, production halls with track lengths of more than 120 m and many more. This naturally includes technical test-



Maintenance and inspection works



Maintenance

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REGULARITY AND RELIABILITY AS WELL AS EXPANSION OF USE

ing requirements with regard to safety-relevant aspects (e.g. a test track for checking the stability in the event of track superelevation).

SPECIAL RAIL VEHICLES

- Rail grinding trains
- Rail milling
- Heavy-duty railcars
- Ballast cleaning machines
- Tamping machines
- Ballast ploughs
- Material transportation railcars

CUSTOMER ADVANTAGES

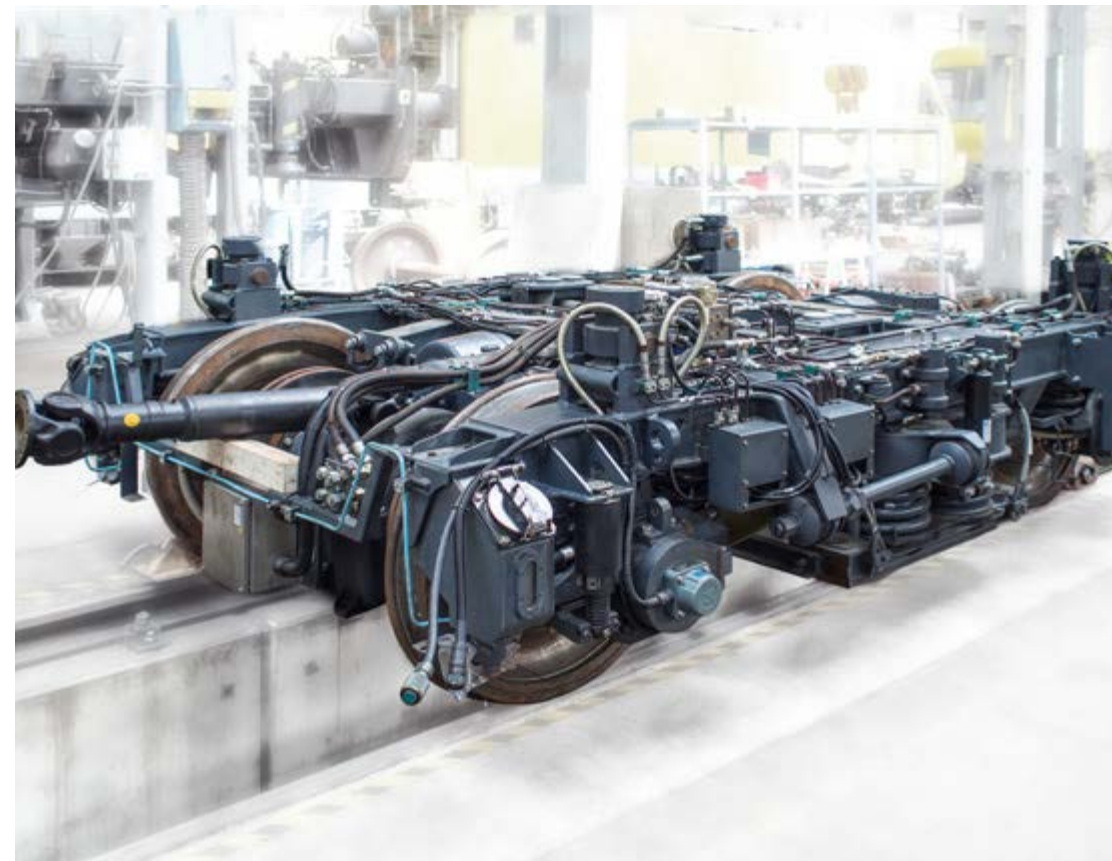
- Safety
- Maximum operational readiness
- Environmental protection
- Regularity, prevention
- Extending usage
- Reliability

WHEELSET RECONDITIONING

The machining of the wheelsets requires special attention and appropriately trained and skilled personnel. GBM can prove the necessary competencies for this through the many years of experience of its employees.

RANGE OF SERVICES:

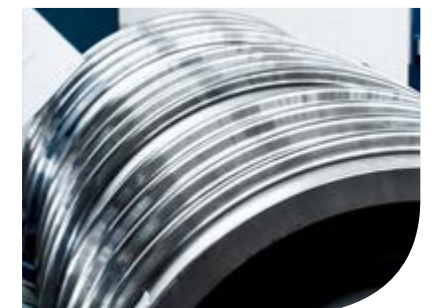
- Professional support for all questions regarding wheelset maintenance
- Developing specialized technical solutions
- High flexibility and thus fast reavailability of wheelsets and wheelset components
- Machining of wheelsets with running circle diameters 360 ... 1100 mm
- Cleaning of wheelsets and wheelset components
- Disassembly and assembly of the wheelset bearing (inductive or hydraulic pressing)
- Measuring/Testing/ZfP (MT and UT) of all wheelset components
- Welding on wheelset bearing housings
- Mechanical machining of wheelset shafts, wheel hubs, wheel tyres and wheel rims
- Profiling
- Pressing wheel and brake discs on and off
- Thermal disassembly and assembly of wheel tyres
- Colouration



Bogie reconditioning



Wheelset reconditioning



Maintenance

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SAFETY AND MAXIMUM OPERATIONAL READINESS
REGULARITY AND RELIABILITY AS WELL AS EXPANSION OF USE



Maintenance and repair works



Service

7/24/52 Mobile service solutions with high benefits for our customer.

GBM offers your customers the excellent prerequisites for high operational safety and fast reavailability of your vehicles. Specially qualified service technicians and a fleet of service vehicles are available around the clock for on-site maintenance, troubleshooting and emergencies.

YOUR ADVANTAGES

- Competent assembly and servicing for diesel particulate filter systems executed by trained personnel
- Servicing safety-related technology
- Spare parts availability for BR711, 703 auxiliary vehicles within the shortest possible time
- Faster availability of assemblies and spare parts through close cooperation with system suppliers
- 24 hour availability

CUSTOMER SERVICE

- Troubleshooting after disasters
- Deadline-compliant inspections
- Scheduled on-site servicing and preventive maintenance work
- Reducing transfer costs
- Reducing your material stock levels
- Maintenance and approval processes for lifting devices

MOBILE SERVICE SOLUTIONS

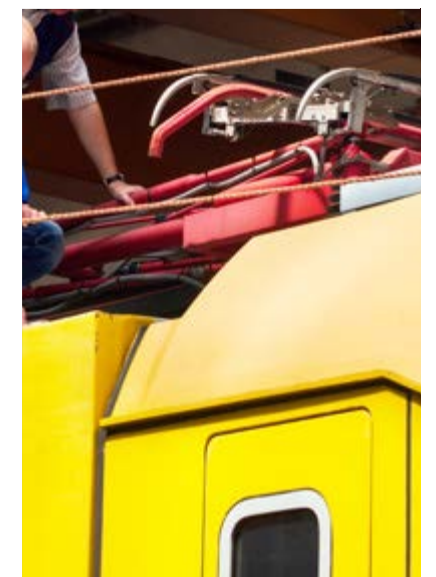
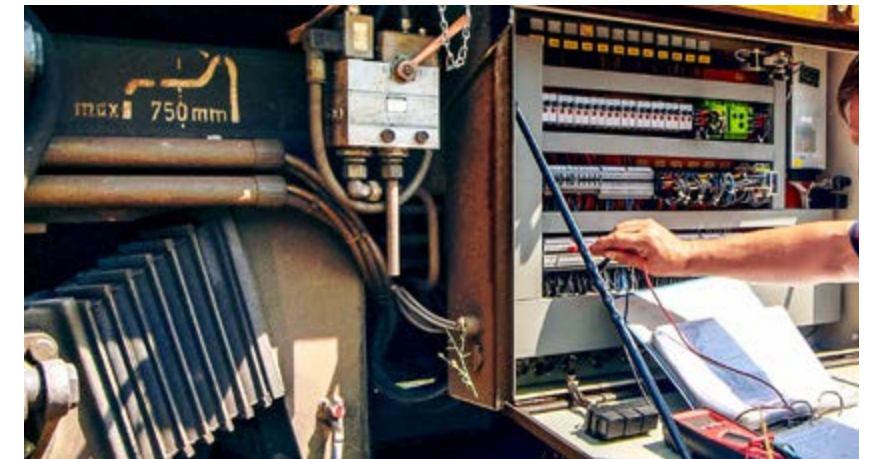
Equipping employees with the latest computer technology and the resulting advantages:

- Networking of indoor service and field service
- Short response times
- Optimal availability
- Cost reduction by implementing efficient route planning
- Prompt transmission of order changes, work content and technical documents as well as rapid availability of fitter reports after completion of the work
- Prompt documentation



SERVICE - Everyday life

GUARANTEE OF HIGH AVAILABILITY AND OPERATIONAL SAFETY
FLEET OF SERVICE VEHICLES FOR ON-SITE MAINTENANCE,
TROUBLESHOOTING AND EMERGENCY ASSISTANCE



Service

7/24/52 Mobile service solutions with high benefits for our customer.

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SERVICE vehicles of GBM



FACTS

Railway tracks 10 km
Holding tracks 1000 m
2 Portal cranes each 12.5 t
100 t crane track
Washing plant
track scales
Test track stability
Zero-level track with working pit
Profile gauge
15 tracks in halls up to 150 m

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Publisher

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Map

OpenRailwayMap

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September 2018