

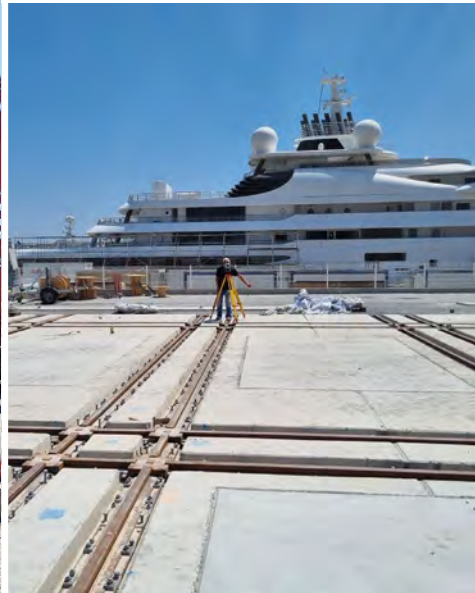


50 YEARS OF WORLDWIDE EXPERTISE IN RAIL- AND SHUNTING SYSTEMS

TWO DEPARTEMENTS



RAIL TECHNOLOGY



SHUNTING TECHNOLOGY



THE BEMO TEAM



TOGETHER WE ARE:

Specialized in the field of Crane Rail and Shunting Systems for 50 years;

- A team of competent workers among which:
 - Draughtsmen
 - Project managers & sales
 - Production workers
 - Assembly workers
 - Maintenance workers



OUR CUSTOMERS



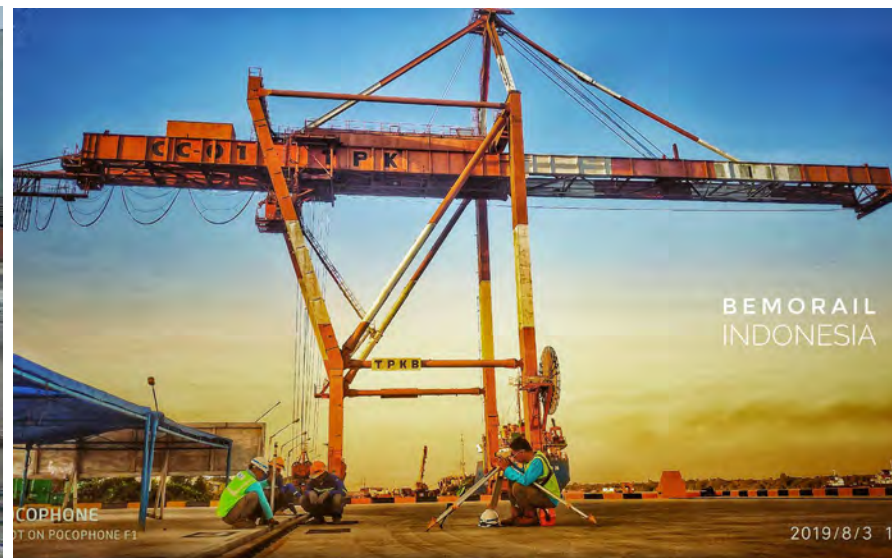
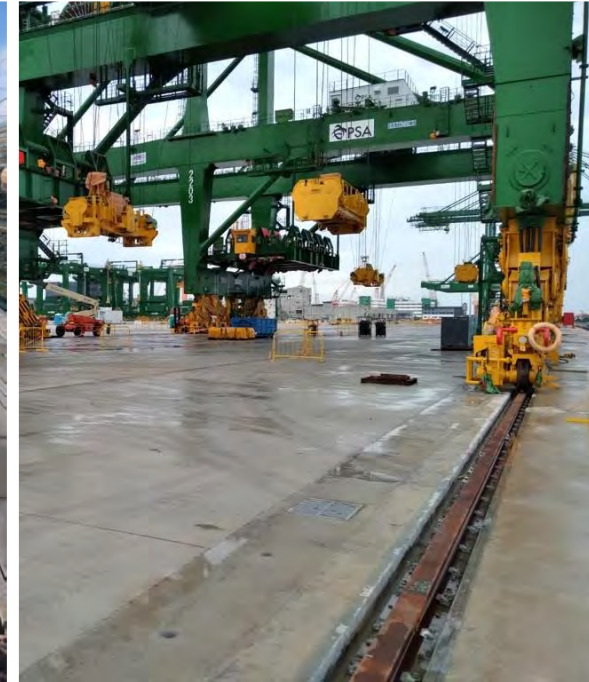
OUR CUSTOMERS



CONTAINER TERMINALS



- DP World Antwerpen 1905m AS86 rail
- APMT Tanger MED2 14600m MRS87A & 2400m A150
- ADP Khalifa Ports 17000m AS86 stack renovation
- ECT Euromax Rotterdam 18000m MRS87A rail
- Peel Ports Liverpool 1950m MRS87A, 1386m AS86 rail
- EECV, Rotterdam 7650m UIC54A rail
- BASF, Ludwigshafen an Rhein 1010m AS86 rail
- PSA Singapore, TUAS phase I 28000m CR73 Material supply
- Indonesia Makassar New Port 3840m CR73 rail
- Indonesia Kijing Port Kalimantan 1500m A150 rail



OUR CUSTOMERS



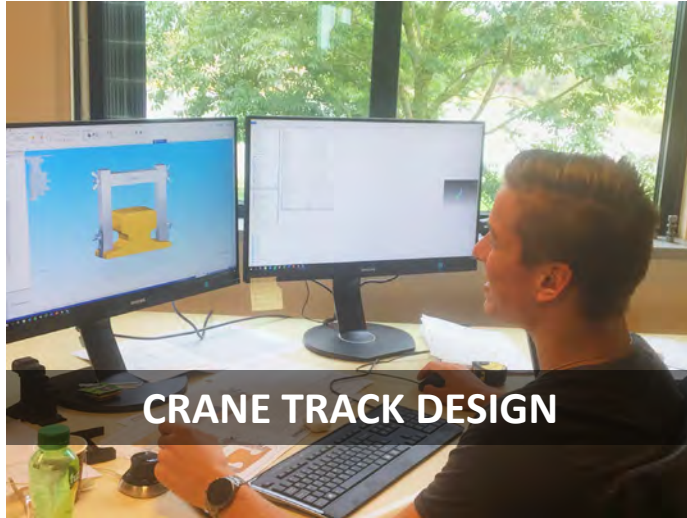
SHIPYARDS



- La Ciotat Shipyards 5,6 km of A75 rail
- Changi Naval Base Singapore 2,5 km of A75 rail
- Karachi Shipyards Pakistan 17 km of QU70 rail
- Türkmenbashi Int. Seaport 11 km of A100 rail
- Sima Shipyard Callao Peru 5 km of A65 rail
- LDPL India
- L&T India
- Volkswerft Stralsund Germany
- Weserwind Bremerhaven Germany



RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION

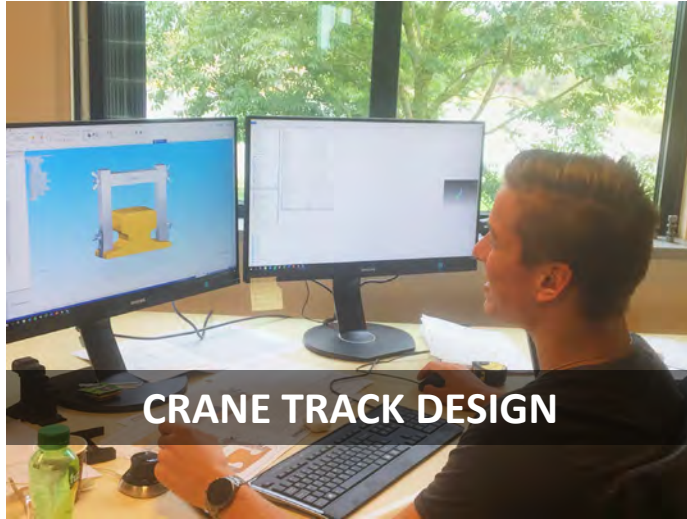


WELDING AND GRINDING



BEMO SPECIALS

RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION

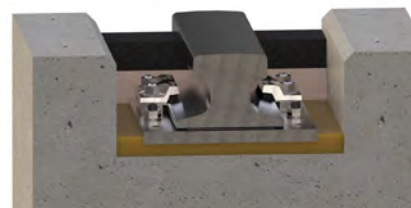
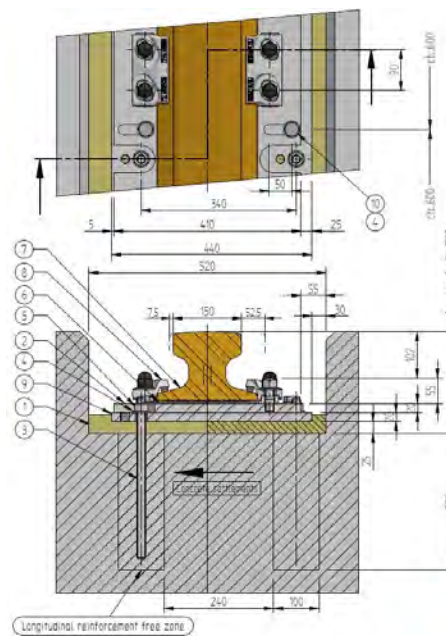
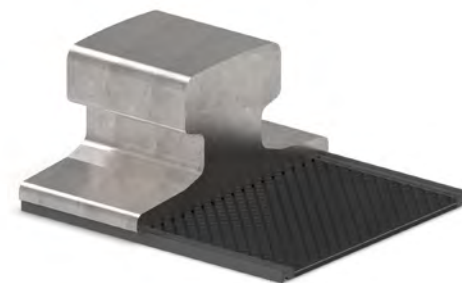
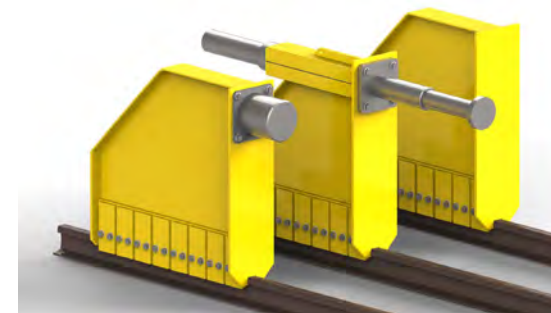
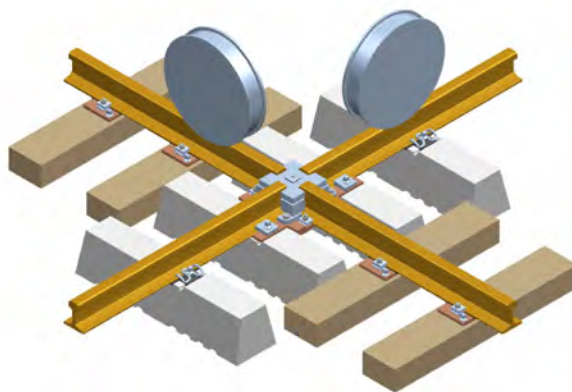


WELDING AND GRINDING



BEMO SPECIALS

CRANE TRACK DESIGN



Adjustment possibility = 60mm

DETAIL

NO	Description	Material	Type / Diameter	Notes	Comments
10	Wagon head bar	S 6 HGG	INCOLO	Ø16 V01	
9	Common steel rail plate	SA50 HGG			
8	Bottom double rollerbase rail clamp 'L'	SA50 L X06	Ø40x10 XL		Adjustable +/- 60mm
7	Crane rail	21 R0	HGG	Ø16 S011	V5 S40 (Ø16x1)
6	Crane plate with steel plate	Reinforced	Ø16 T7		
5	Wagon rail	S 6 HGG	Ø107	Ø16 V01	
4	Roller wheel	21 HGG	HGG	Ø16 G4	
3	Wheelpat	S 6 HGG	INCOLO	Ø16 V01	
2	Common steel adjust plate	SA50 HGG			
1	Base	Concrete			

High: 1000
Width: 2500

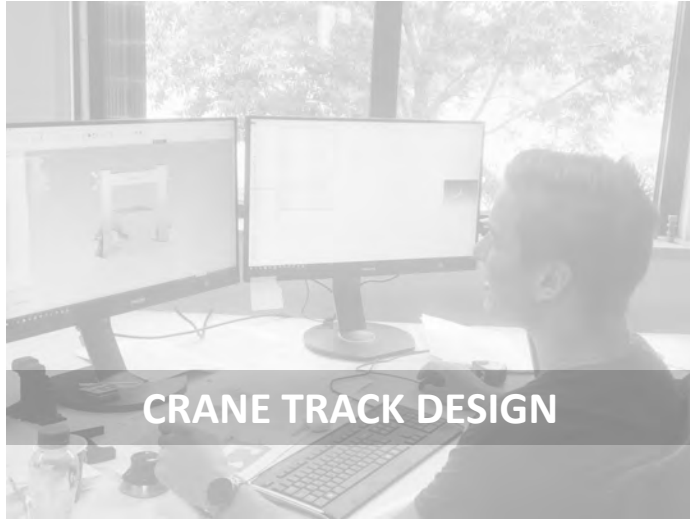
The Delta crane track waterbase 4150 / 50x100
Continuous support

Rev: 01
Date: 28.02.2017
Drawn: M. J. J. J.
Checked: M. J. J. J.
Approved: M. J. J. J.

BemoRail Technische Dienstleistungen
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RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION



WELDING AND GRINDING

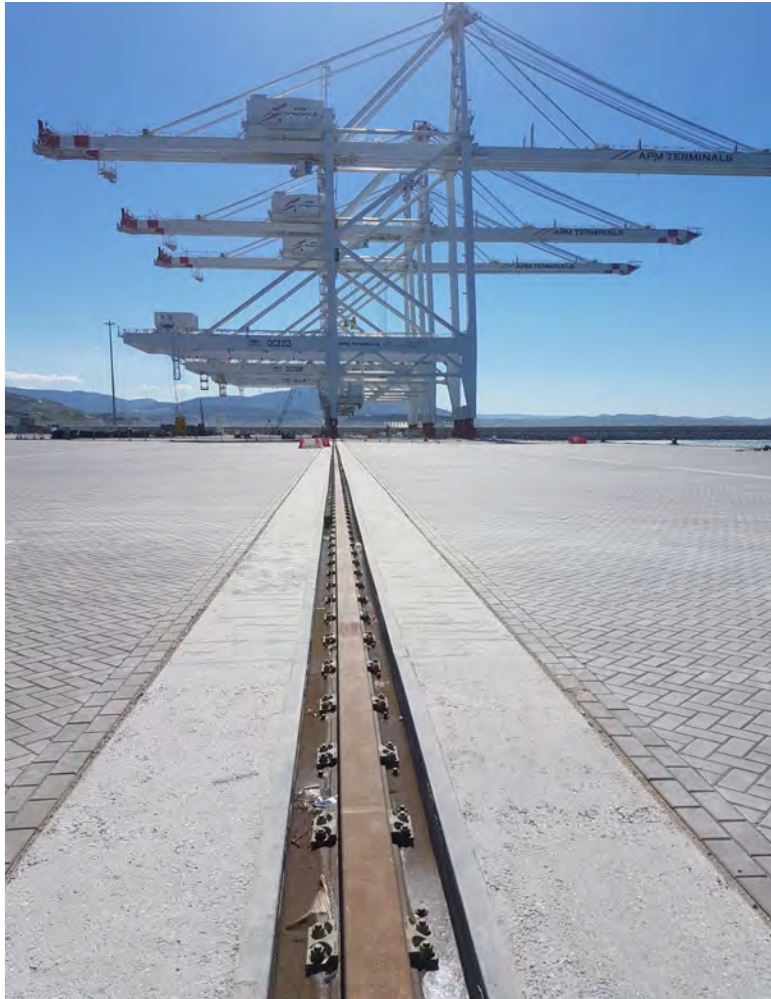


BEMO SPECIALS

CRANE TRACK INSTALLATION



CONTINUOUSLY AND DISCONTINUOUSLY SUPPORTED CRANE TRACK



CRANE TRACK INSTALLATION



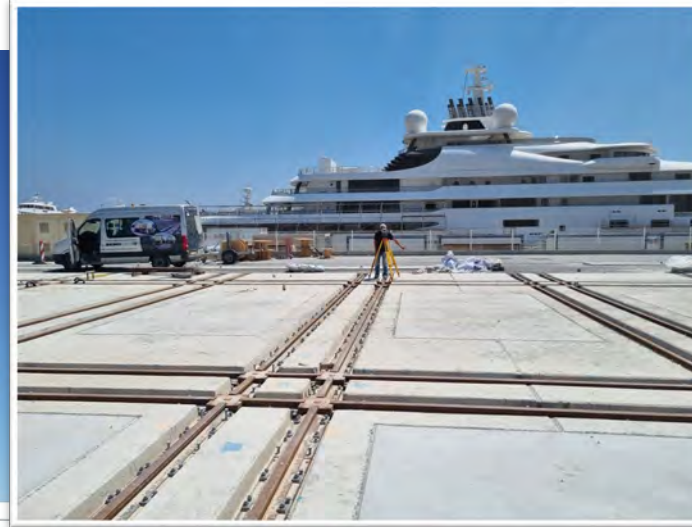
BALLAST BED CRANE TRACK



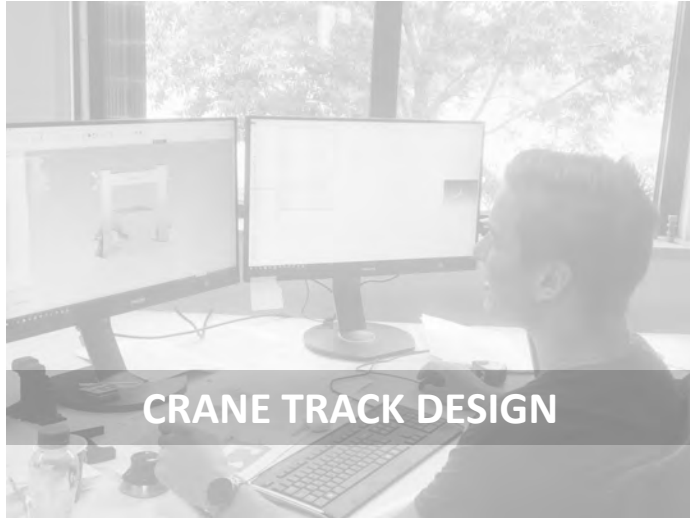
CRANE TRACK INSTALLATION



SHIPYARDS



RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION



WELDING AND GRINDING



BEMO SPECIALS

COMPONENT SUPPLY



COMPONENT SUPPLY



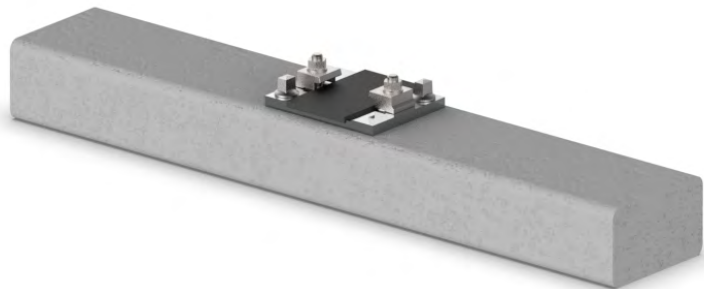
COMPONENT SUPPLY



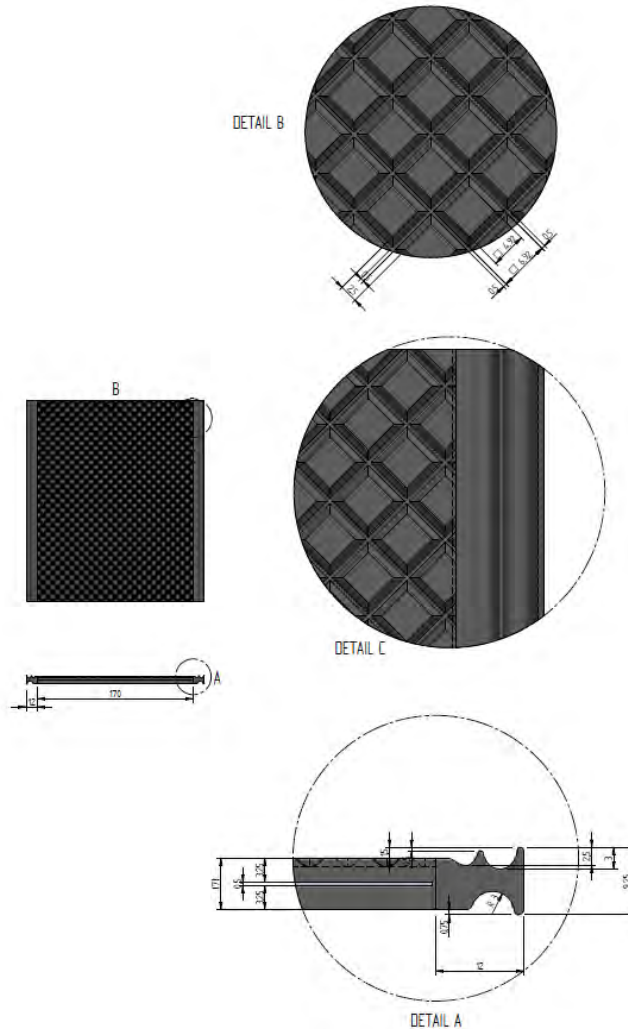
NEW PRODUCTS



SYNTHETIC SLEEPERS



ELASTIC STEEL REINFORCED PAD MK10

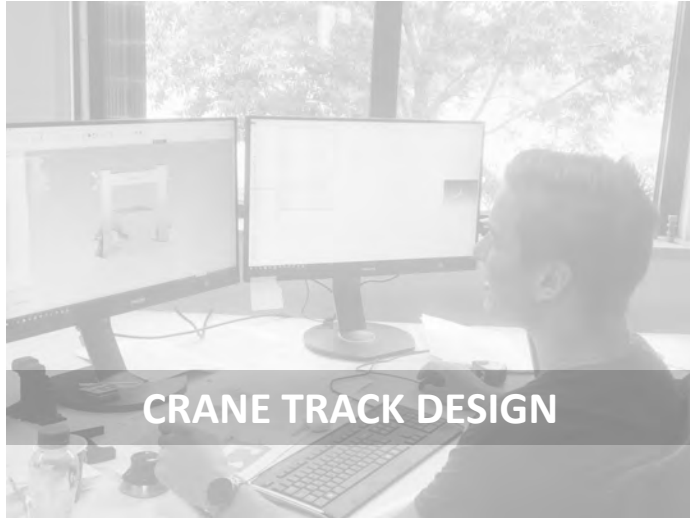


BEMO FLEX BELT



SDS20DR RAIL CLIPS

RAIL TECHNOLOGY



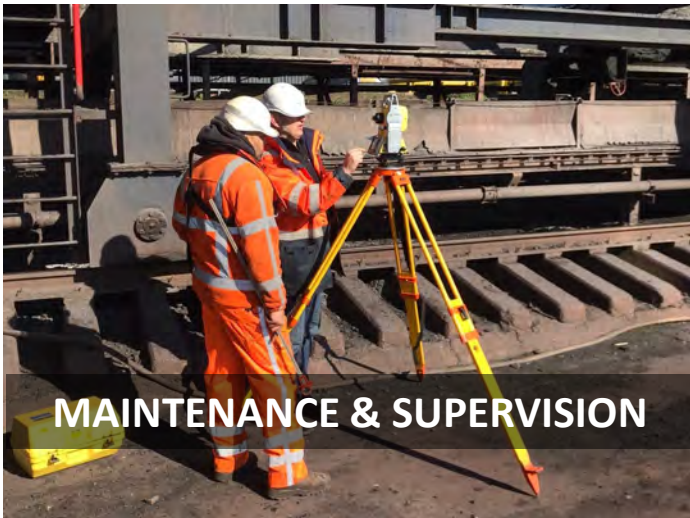
CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION

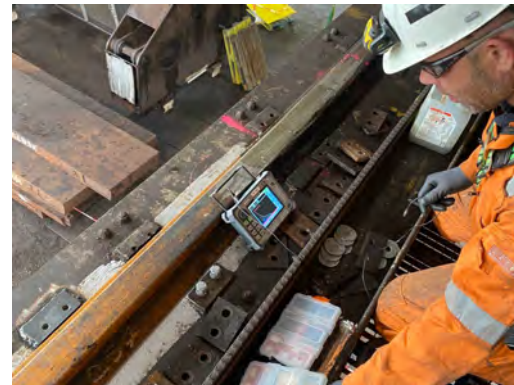
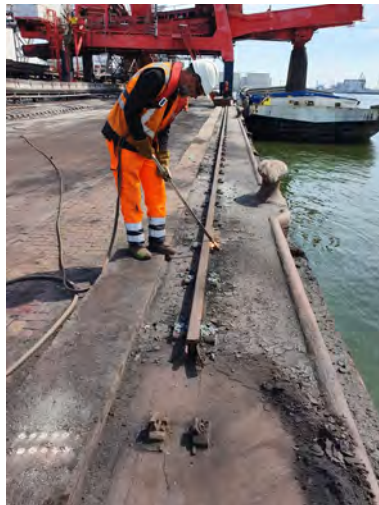
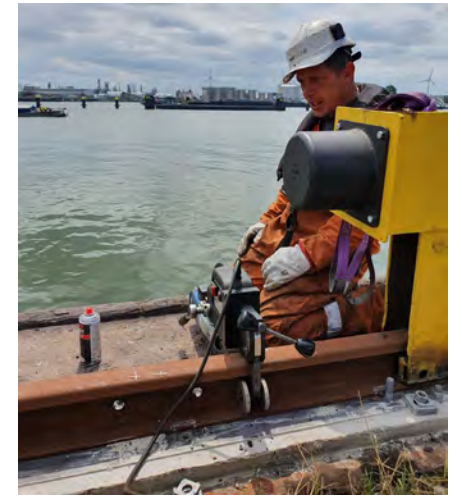


WELDING AND GRINDING



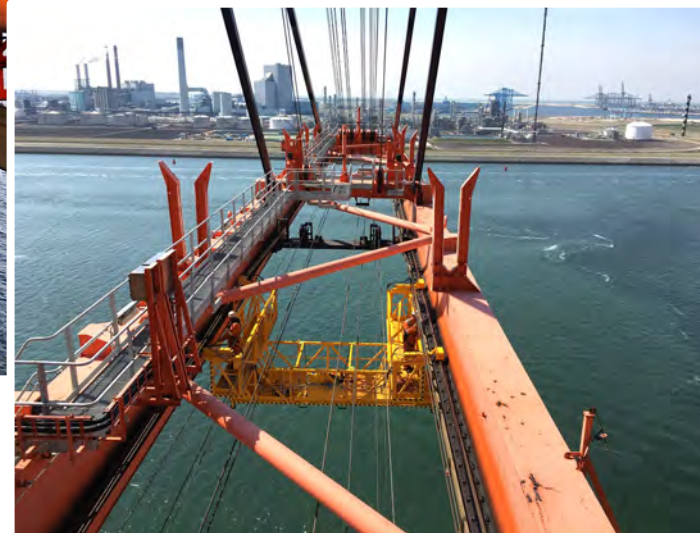
BEMO SPECIALS

MAINTENANCE & SUPERVISION



STS MAINTENANCE PLATFORM

- No scaffolding
- Operational within 3 hours
- To hoist with maintenance crane in M-house
- Worldwide delivery in a 40ft container

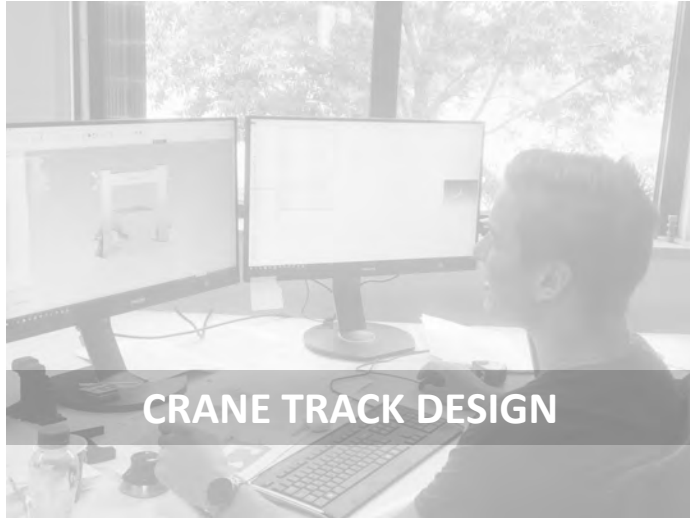




Watch video here:
Bemo Rail Maintenance Platform - Euromax NL



RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION



WELDING AND GRINDING



BEMO SPECIALS

WELDING & GRINDING



PUDDLE ARC WELDING AND THERMITE WELDING

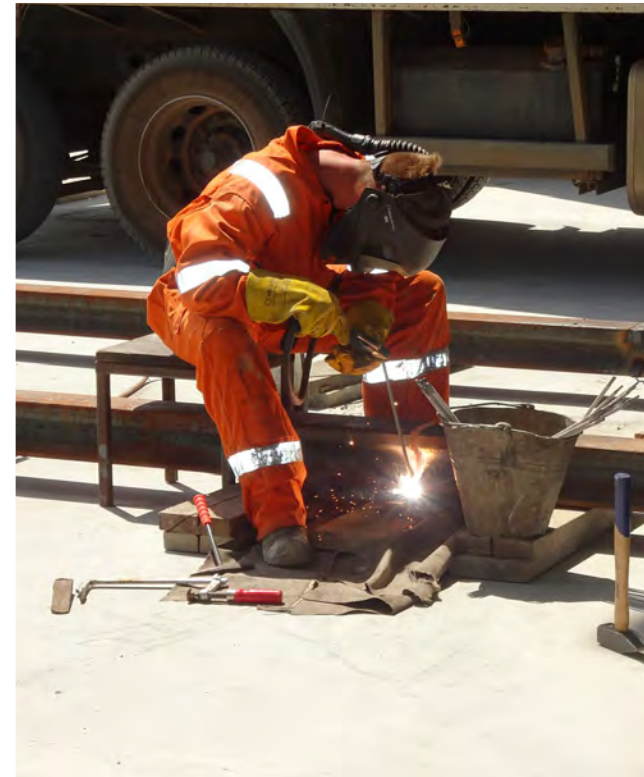
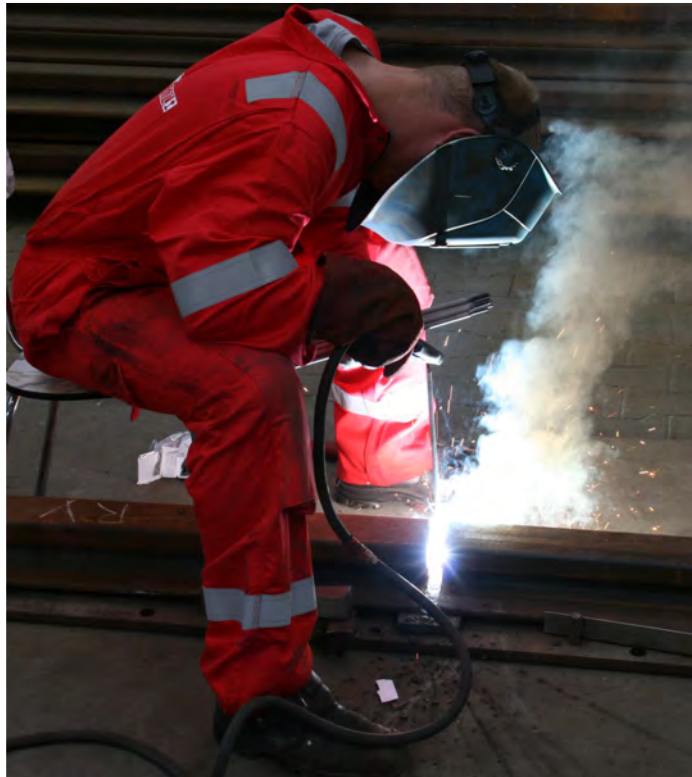
Bemo Rail has been certified for the most elaborate welding level: ISO 3834-2

Test Puddle Arc Welding:

<https://youtu.be/ggcsp81PxPQ>

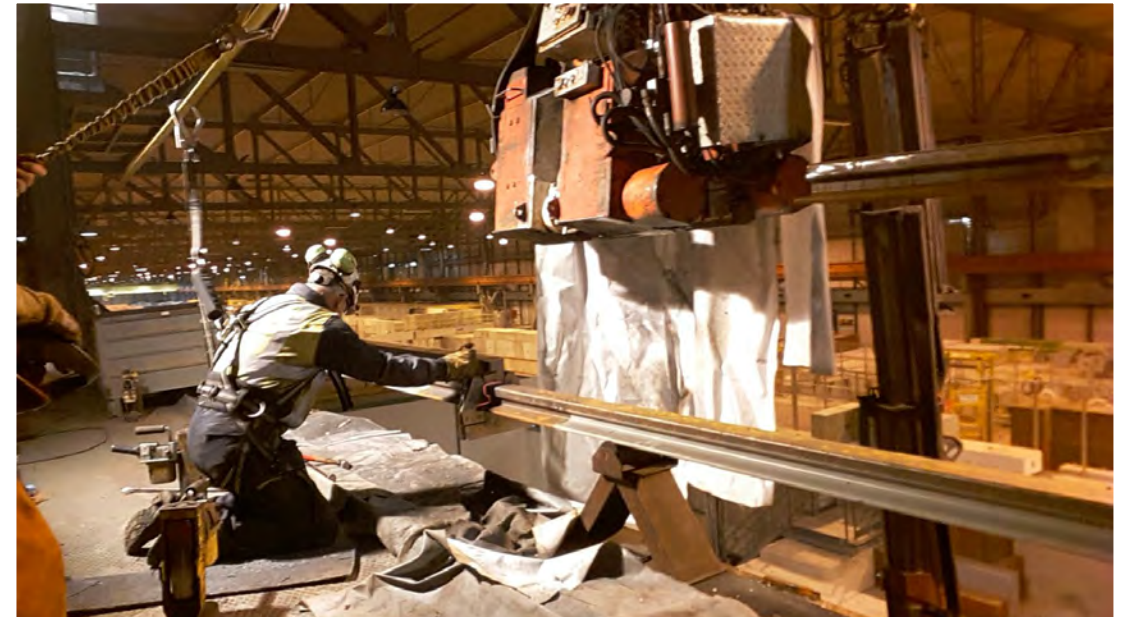
Test Thermite Welding:

<https://youtu.be/TEHRTse7WTA>



ELECTRIC FLASH BUTT WELDING

- Build time reduction of 40%
- Strength of FB joint is almost equal to parent rail.
- Very low failure rate
- Excellent Quality of Weld

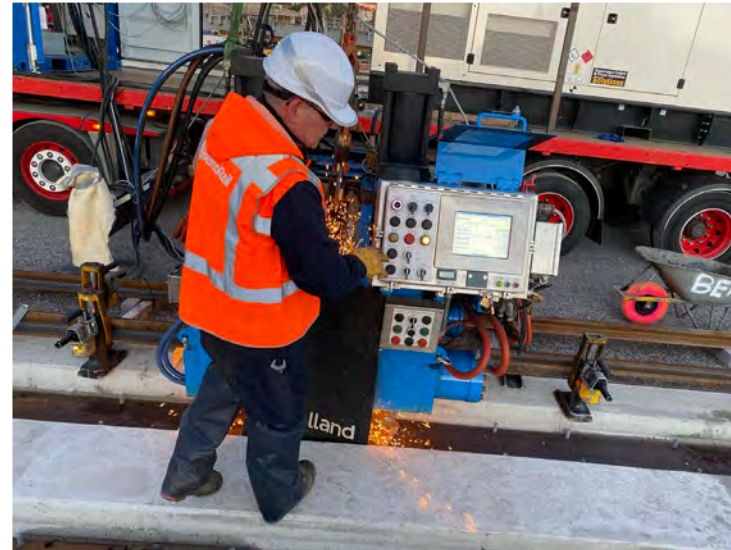


RAIL WELDING



FLASH BUTT WELDING

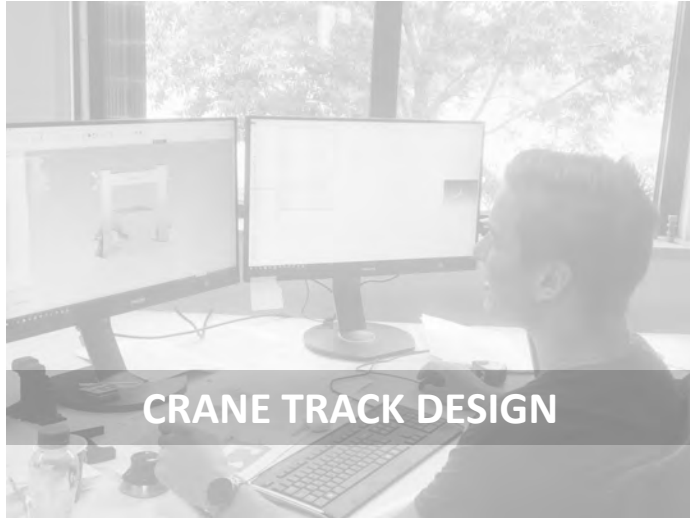
- 'The best rail weld'
- Very suitable for large numbers of welds
- 100% result (no weld added material)
- Economical for large numbers of rail joints
- Suitable for both ground and crane tracks at height
- No NDT required, 100% connection guaranteed



AFBRANDSTUIJKLASSEN / STOMPLASSEN



RAIL TECHNOLOGY



CRANE TRACK DESIGN



CRANE TRACK INSTALLATION



COMPONENT SUPPLY



MAINTENANCE & SUPERVISION

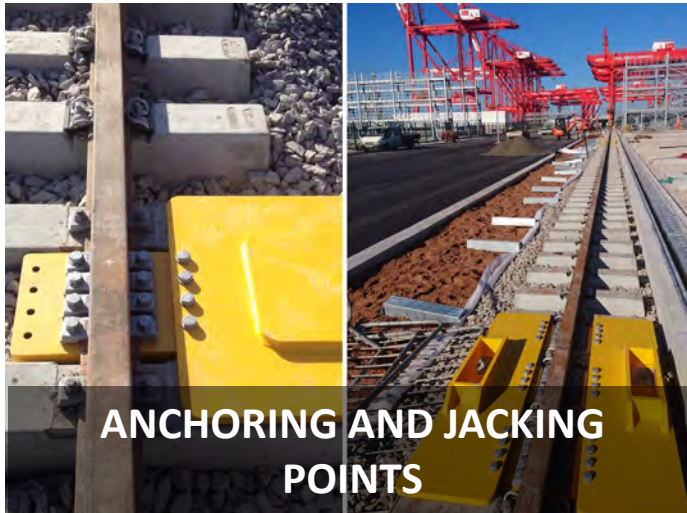
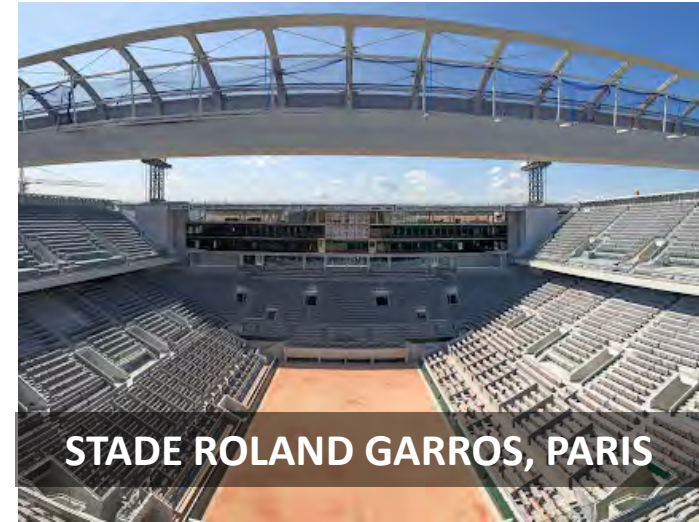


WELDING AND GRINDING



BEMO SPECIALS

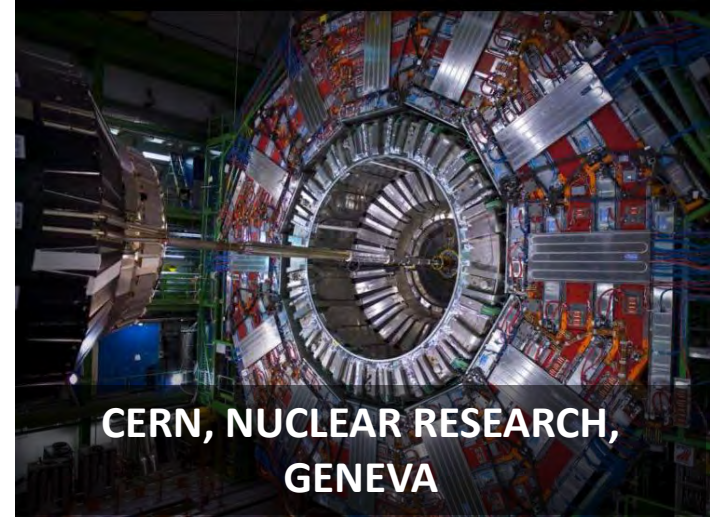
BEMO SPECIALS



BEMO SPECIALS



THE NIGHT WATCH REMBRANDT



**CERN, NUCLEAR RESEARCH,
GENEVA**

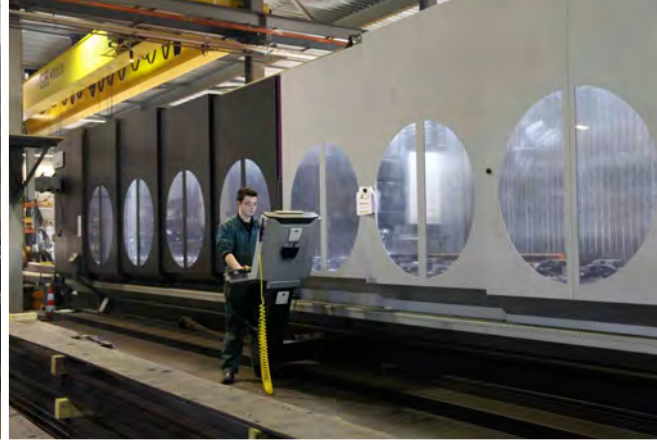
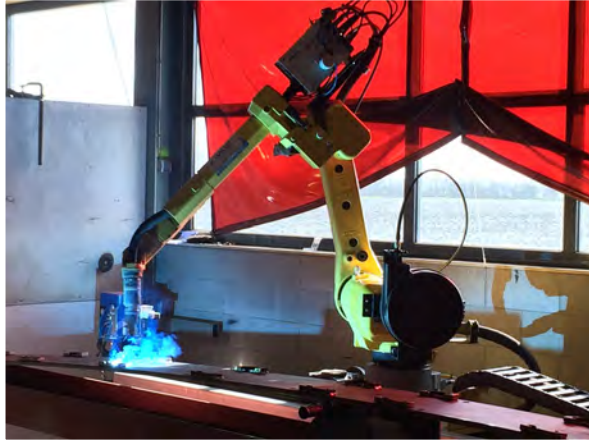


**EUROPEAN SPACE AGENCY,
FRENCH GUIANA**



HEARTBEAT, PURMEREND

BEMO RAIL WORKSHOP



SHUNTING TECHNOLOGY



NEW LOCOMOTIVES



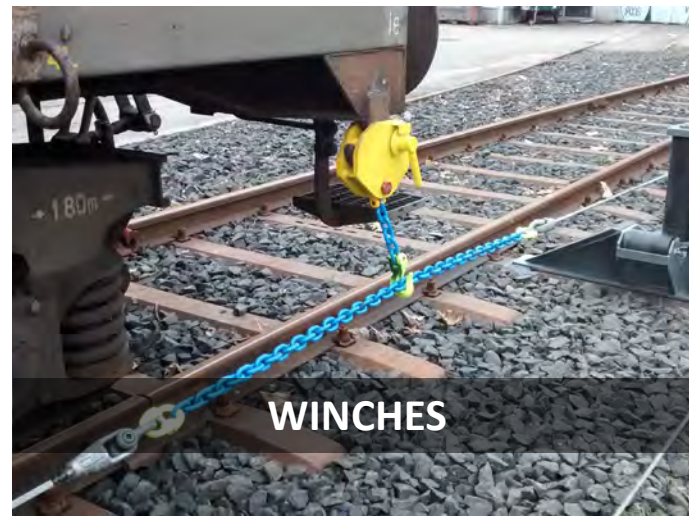
REBUILD LOCOMOTIVES



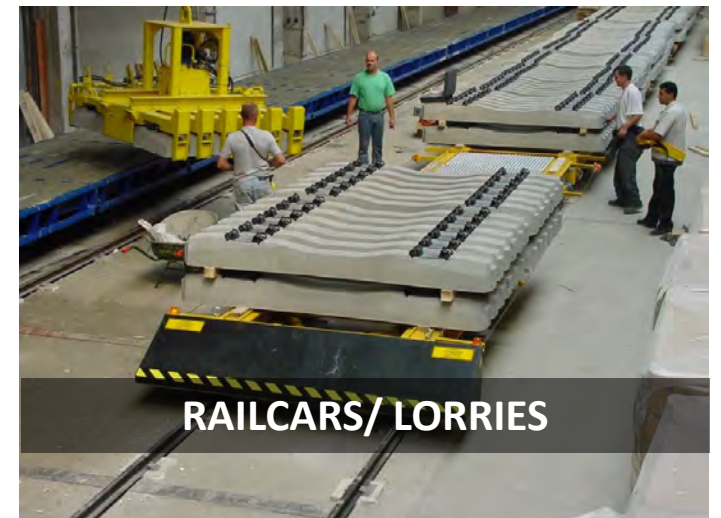
TRAIN TRAVERSE



BATTERY ELECTRIC LOCOMOTIVES



WINCHES



RAILCARS/ LORRIES

SHUNTING LOCOMOTIVES



BEMO design and manufacturing

The Bemo shunting locomotive, also called a railshunter, is mainly used by companies that move wagons at **shunting yards, steel factories, refineries, Bulk terminals** as well as **metro/commuter depot workshops**.

Our locomotives are applied worldwide and suitable for use in heavy-duty and extreme conditions.

- Diesel locomotive
- Electric locomotive
- Hybrid locomotive
- Fuel Cell technology



LOCOMOTIVE RANGE



For example, you can choose from various drive options such as

Diesel hydrostatic

Diesel hydrodynamic

Diesel electric

Battery electric

Hybrid electric

Soon the battery electric drive with **Fuel Cell** technology will be available!

Capacity:

10 kN to 300 kN on the hook,

Traction weight **5 - 130 metric tons**,

Motor power **20 - 1000kW**,

Trailing load **50 - 5100 metric tons**.

Locomotive range		0 ‰ 	2 ‰ 	F 
KRE 15 KRE 30		200 ton 500 ton	150 ton 400 ton	15 kN 30 kN
KRD 50 KRE 50		800 ton	600 ton	50 kN
BRD 80 BRE 80		1200 ton	900 ton	80 kN
BRD 100 BRE 100		1600 ton	1200 ton	100 kN
BRD 150 BRE 150		2400 ton	1800 ton	150 kN
BRD 150		2400 ton	1800 ton	150 kN
BRD 200		3200 ton	2400 ton	200 kN
BRD 300		4800 ton	3600 ton	300 kN

HYBRID LOCOMOTIVES



This safe, modern and **environment friendly locomotive** can be manufactured in many versions.

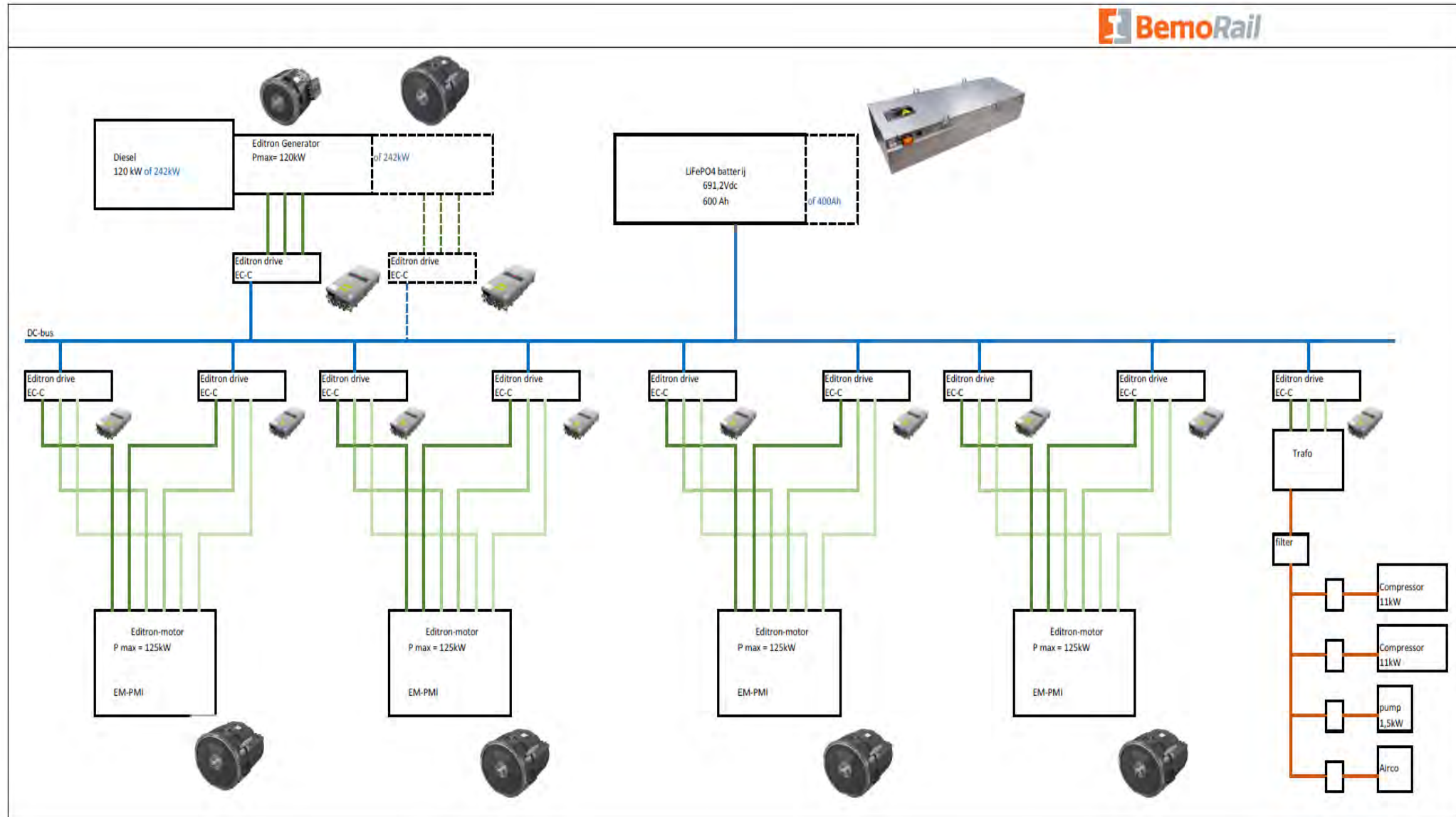
The **battery electric** or **hybrid locomotive** for example, is used on routes where **low noise** or **exhaust emissions** are required. Imagine a locomotive running through a **tunnel**, or at **night**, or running through a **residential area**.

Besides reducing **emissions** other main objective is **saving on energy** (fuel) costs as well as **saving on maintenance**. Important to know is the actual power consumption is required over the day. This determines the diesel generator and/or battery pack. More and more we apply **sturdy and fire proof Li-FePO₄ battery packs**.

In the near future we will have the model ready with **fuel cell technology**, not yet but design **available soon!**



HYBRID LOCOMOTIVES SCHEMATIC

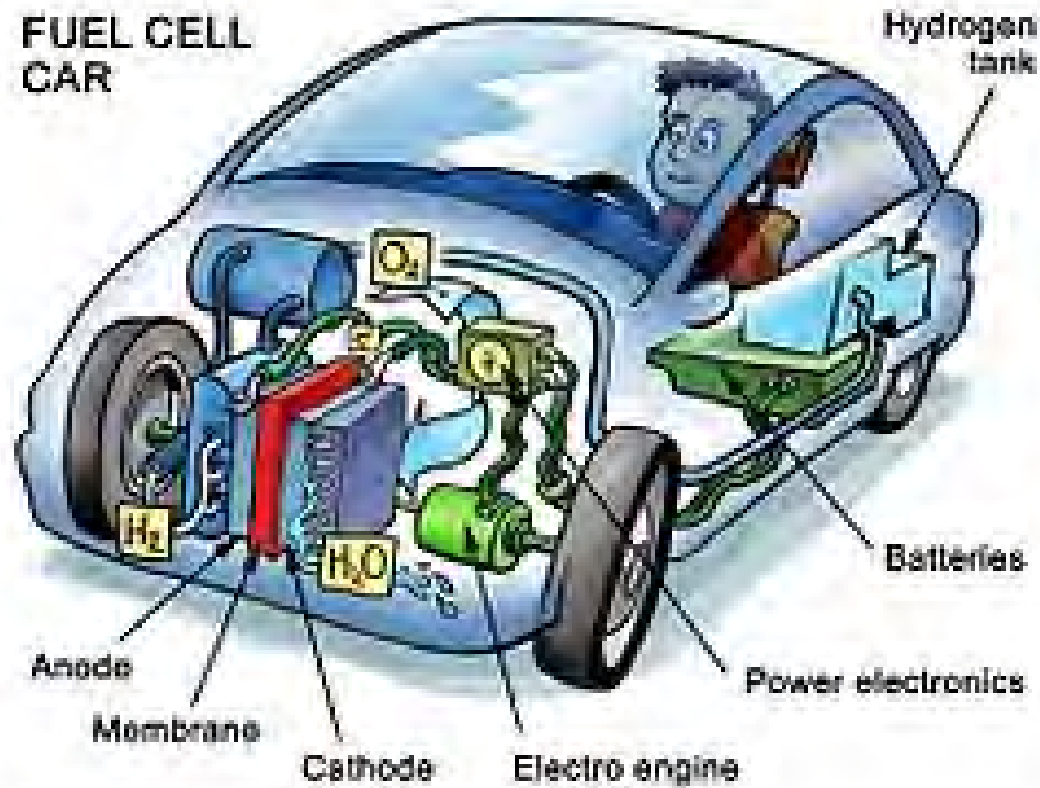


4-axle BoBo LOCOMOTIVES



FUEL CELL POWERED

We all know the fuel cell car already,
in locomotives not yet but available soon!



ROAD-RAIL VEHICLES

A **road-rail vehicle**, also called a **two-way vehicle**, is a shunting locomotive that can switch between driving on rails and driving on the road. Often applied Metro/commuter depot workshop



ROAD-RAIL VEHICLES

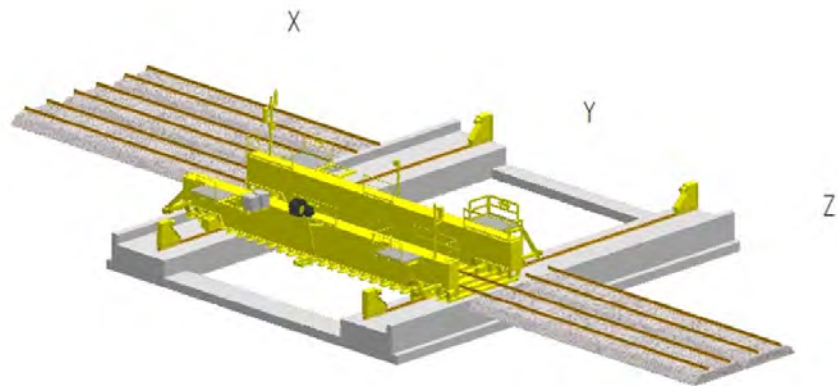
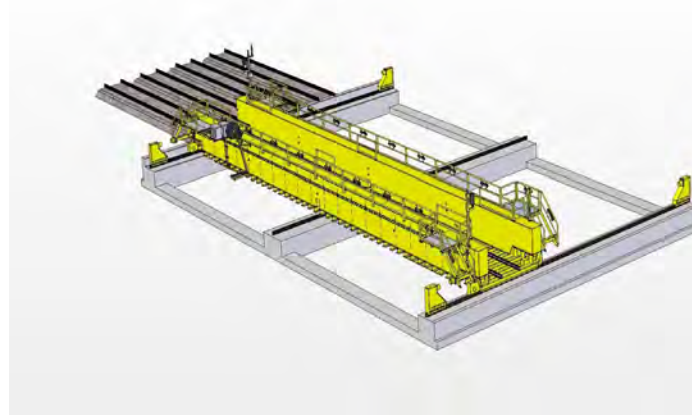


<https://youtu.be/NrvP7NEiGoI>

TRAIN TRAVERSERS

With a train traverser, a locomotive and/or wagon can easily be moved in parallel from one track to one of the adjacent or opposite tracks.

Applicable worldwide.



RAILCARS / LORRIES



SHUNTING SYSTEMS



Obviously we will provide after sales and maintenance services.

For this we make use of local partners which are well trained and can perform these activities on-site

Included will be a strategic spare parts philosophy, which will help creating the great up time of the equipment.



BEMO RAIL 50 YEARS ON TRACK

