



J.A. Becker & Söhne

JAB LIFTING TECHNOLOGY

# **J.A. Becker & Söhne**

## **Lifting systems for rail vehicles**



## Range of performance

- JAB offers ramps with capacities from 8.000 up to 40.000 kg per ram
- JAB units are available with multiple rams
- JAB manufactures plunger and telescopic rams
- JAB standard stroke is 1.900 mm, modification possible
- JAB uses hard chromium plated pistons only
- DURNI-coat safety bars are standard
- Engine, pump and valve block are installed inside the oil tank
- Individual valve blocks are directly installed to the cylinder
  - No hydraulic hoses or tubing outside the oil tank
  - Excellent, environmentally sound technology
- Brilliant life cycle costs



## Customer- oriented solutions

### Your train is the basis for our work!

- Whether your Depot is a new construction or a modernization of an existing Depot – we work out a solution maximizing the utility of the lifting system
- In knowledge of your vehicles lifting points we start to configure your lifting unit
- Upon request we're happy to outline different lifting solutions for you



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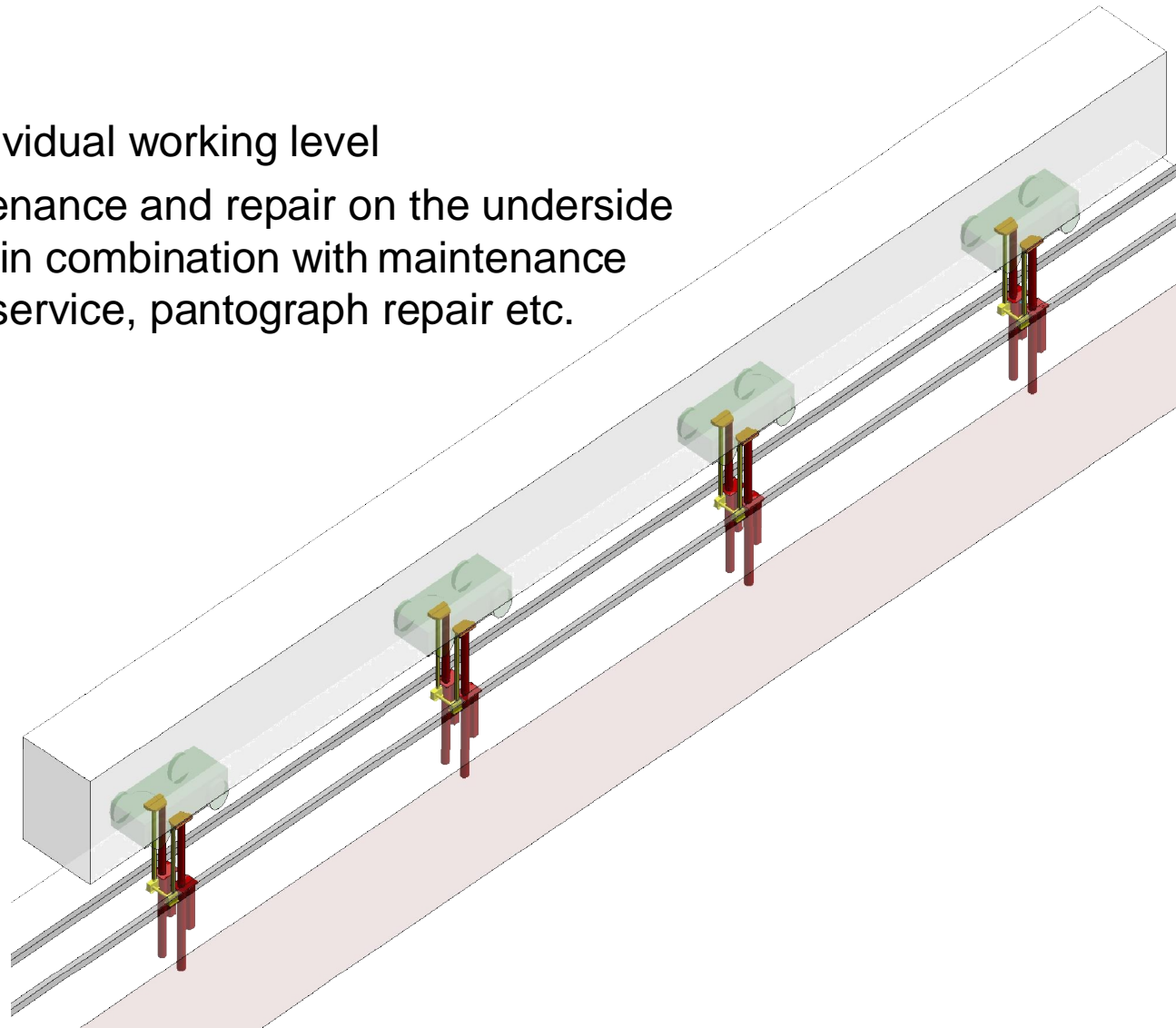
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## Product range Lifting units



## Option 1 – Lifting the train via the bogie

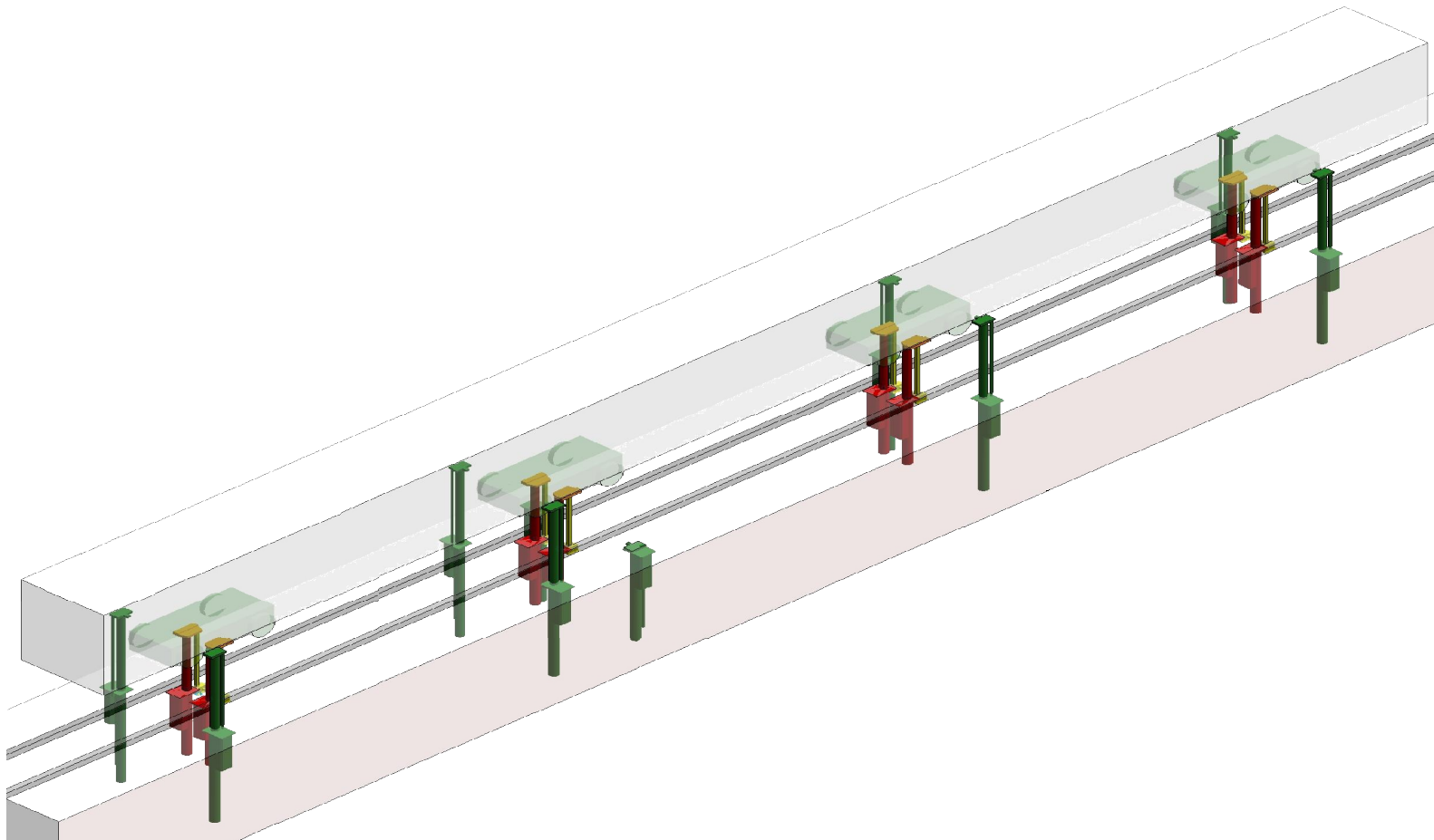
- Lifting at an individual working level
- Enabling maintenance and repair on the underside of vehicles and in combination with maintenance platforms, roof service, pantograph repair etc.





## Option 2- Lifting the train via the bogie, bogies changeover via side lifters possible

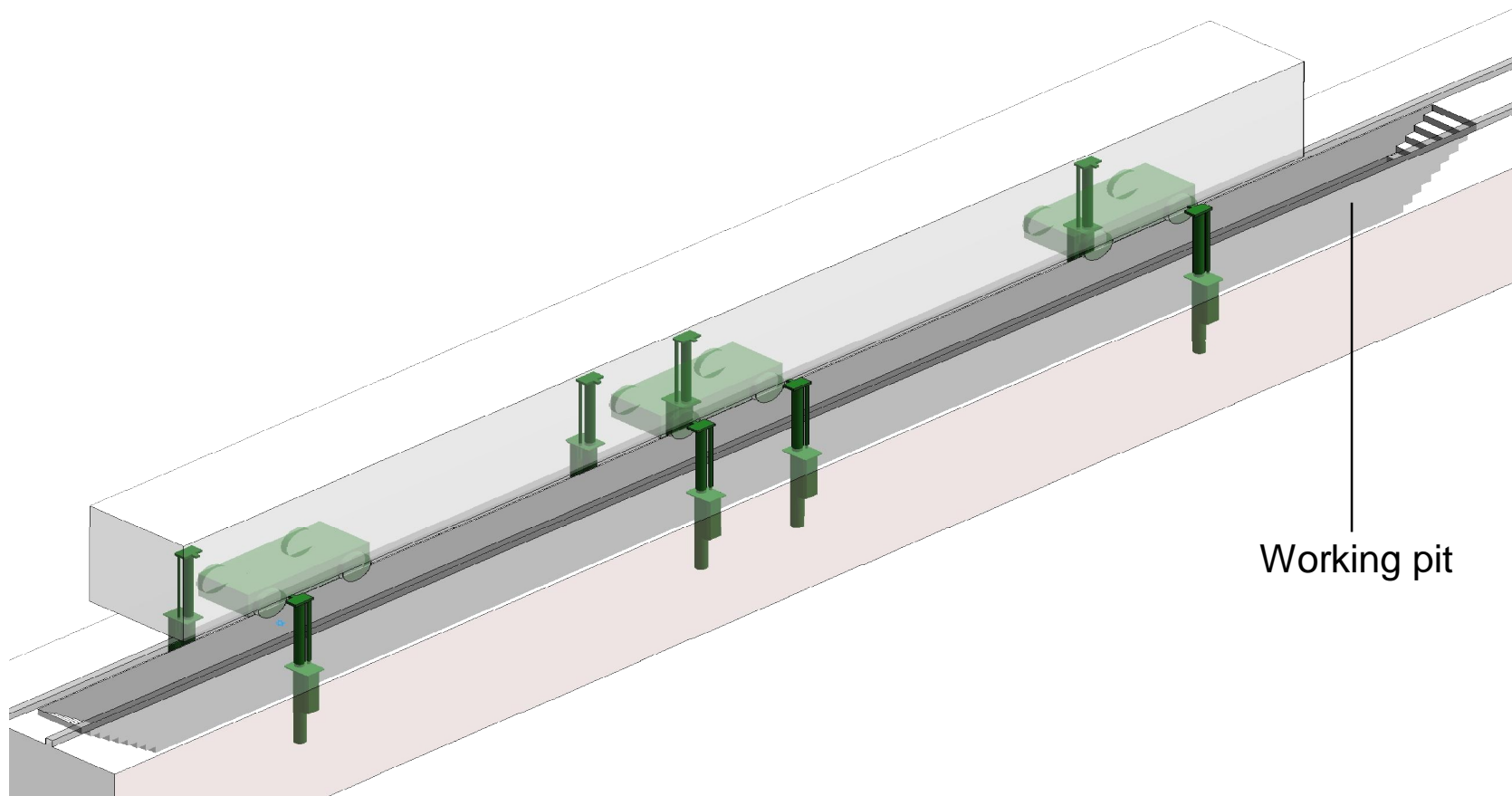
- In addition to Option 1 – Bogies changeover possible via side lifters





## Option 3- Lifting the train via side lifters

- Working in the working pit makes a boogies changeover possible



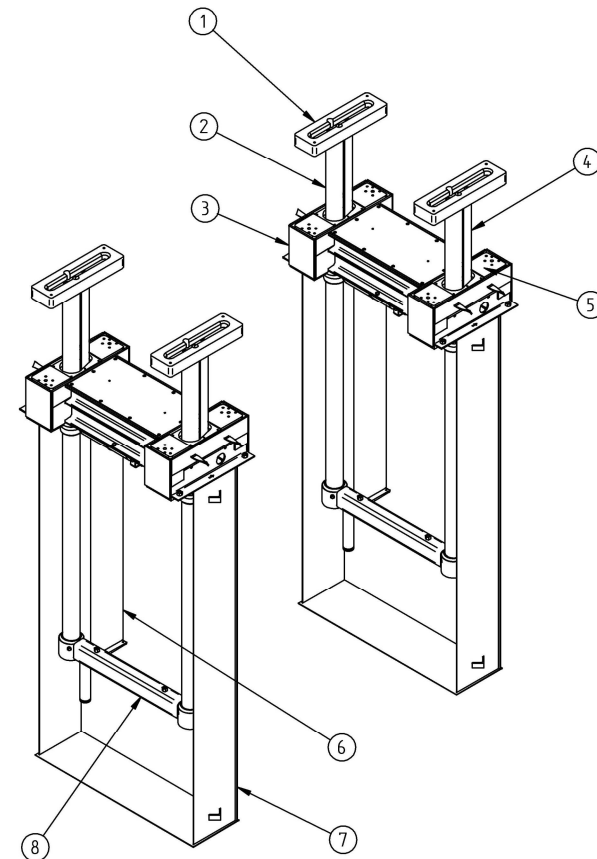


## Lifts for bogie repair and maintenance

Type: Quattro DG 60/960; DG 60/860

fully recessed with adjustable wheelbase, diagonal synchronization by means of a crossbar

- Lifting capacity: 6.000 kg
- Stroke: 1.880 mm
- Lifting time (appr.): 30 sec.
- Guide bars Ø: 4x 90 mm
- Hydraulic pistons Ø: 4x 40 mm
- Oil filling (appr.) : 2x 10 l
- Gauge exactness: 1.000 mm (900 mm)



Dokument No. 231078  
Edition: 01. 2010

Legend:

1- Load bearing capacity bar; 2- Guide bar; 3- Mounting frame; 4- Hydraulic cylinder; 5- Automatic floor leveler; 6- Control wire transducer (height of stroke measurement); 7- Foundation cassette; 8- Crossbar



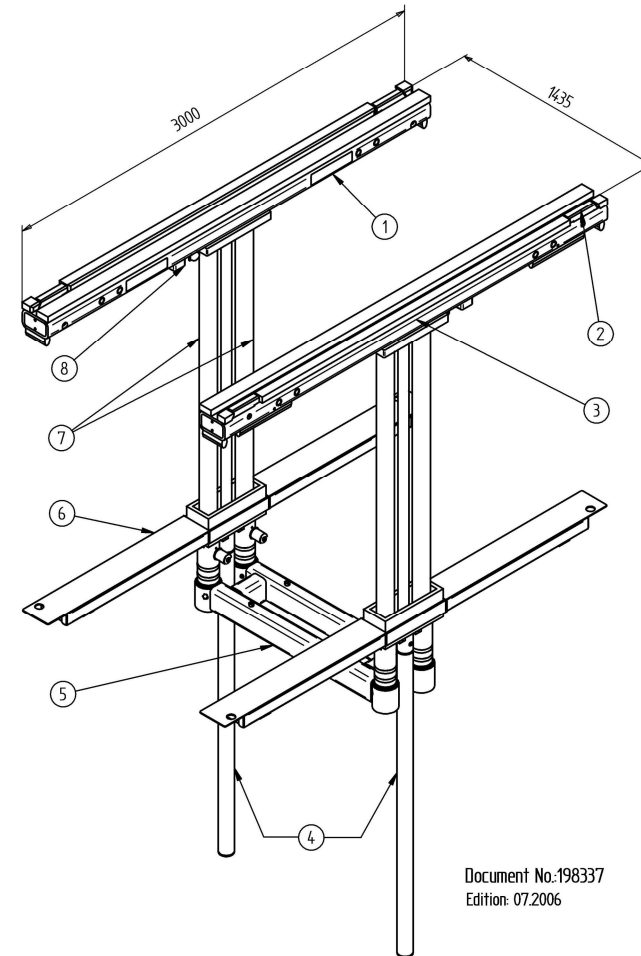


## Lifts for bogie repair and maintenance

Type: TwinRam DG 80

direct lifting of the bogie, synchronization via mechanical coupling of the guide bars

- Lifting capacity: 8.000 kg
  - Stroke: 1.800 mm
  - Lifting time (appr.): 120 sec.
  - Guide bars Ø: 4x100 mm
  - Hydraulic pistons Ø: 2x 60 mm
  - Length of rail: 3.000 mm
  - Wheel base (max.): 2.300 mm
- 
- During lifting operation the girder's notch opens and is directly closed by the moveable cover



Document No.:198337  
Edition: 07.2006

Legend:

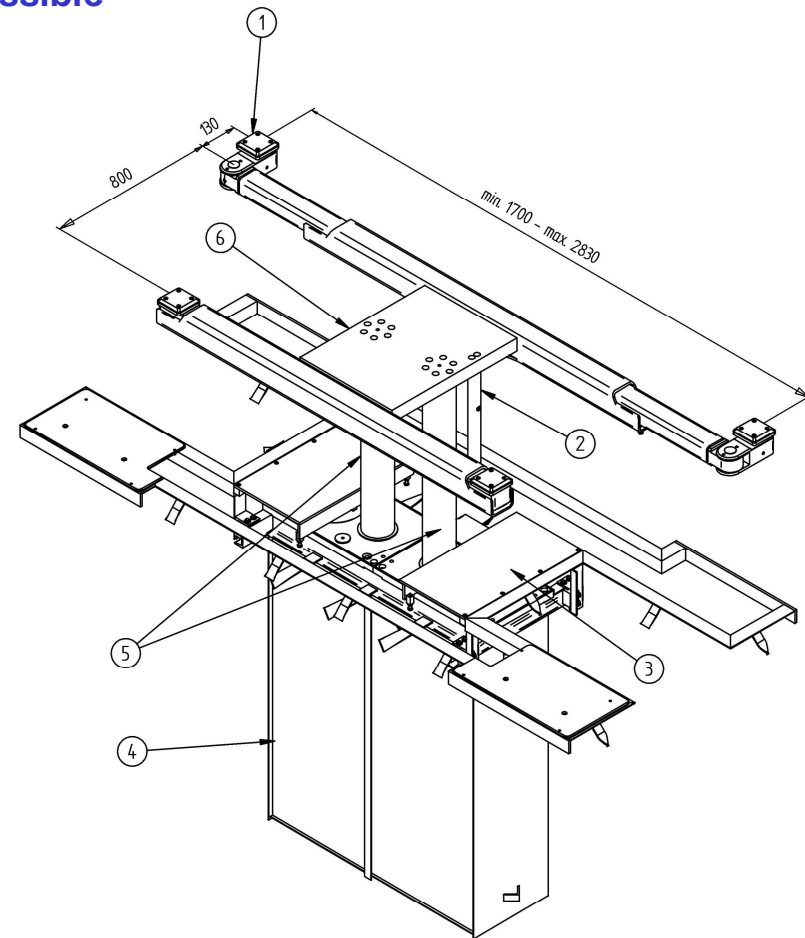
1- Illumination; 2- Roll off safety device with monitoring; 3- Drive- on rails; 4- Hydraulic cylinder; 5- Crossbar; 6- Floor leveler; 7- Guide bar; 8- Electrical socket



## Lifts for bogie repair and maintenance

Type: DG2-60.3 DG, HS 2-60 DC (MD 155/130), recessed  
wheel-free lifting on variable lifting points possible

- Lifting capacity: 6.000 kg
- Stroke: 1.500 mm
- Lifting time (appr.): 35 sec.
- Hydraulic pistons-  $\varnothing$ : 2x 155/130 mm
- Oil filling (appr.): 2x 68 l
  
- Recessed head plate with pluggable supports for different types of bogies



Legend:

1- Support cpl. 190° swiveling; 2- Position monitoring; 3- Cover; 4- Foundation cassette; 5- Hydraulic cylinder; 6- Head piece cpl.

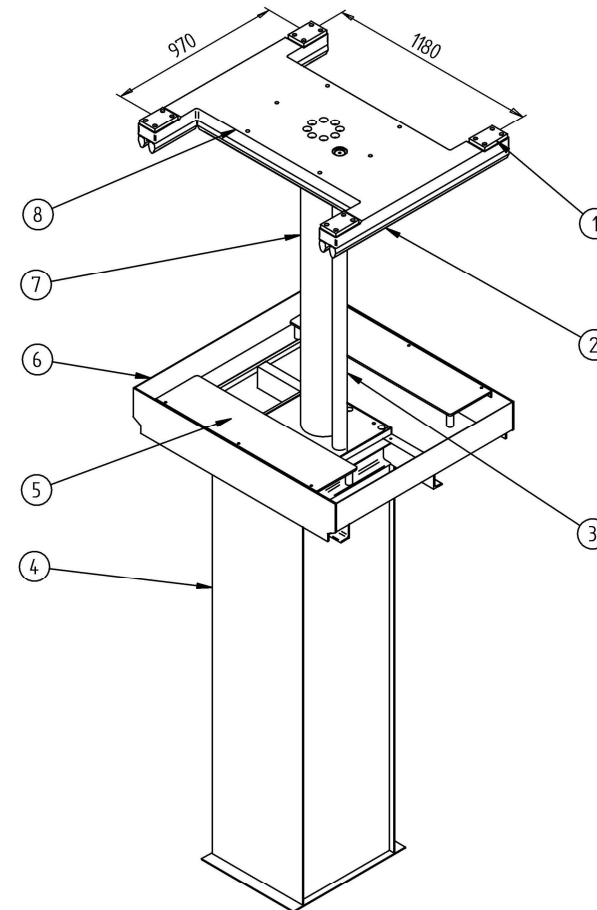
Document No.218229  
Edition: 01.2008



## Lifts for bogie repair and maintenance

Type: HS 1 -DG 50 (MD 214)

- Lifting capacity: 5.000 kg
- Stroke: 1.900 mm
- Lifting time (appr.): 52 sec.
- Hydraulic piston Ø: 214 mm
- Oil filling: 111 l



Legend:

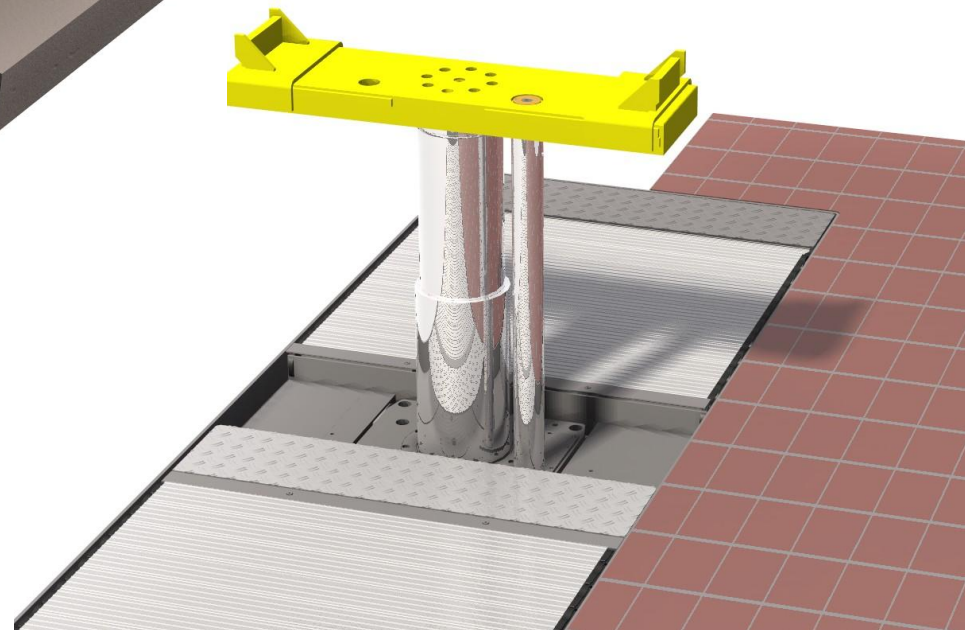
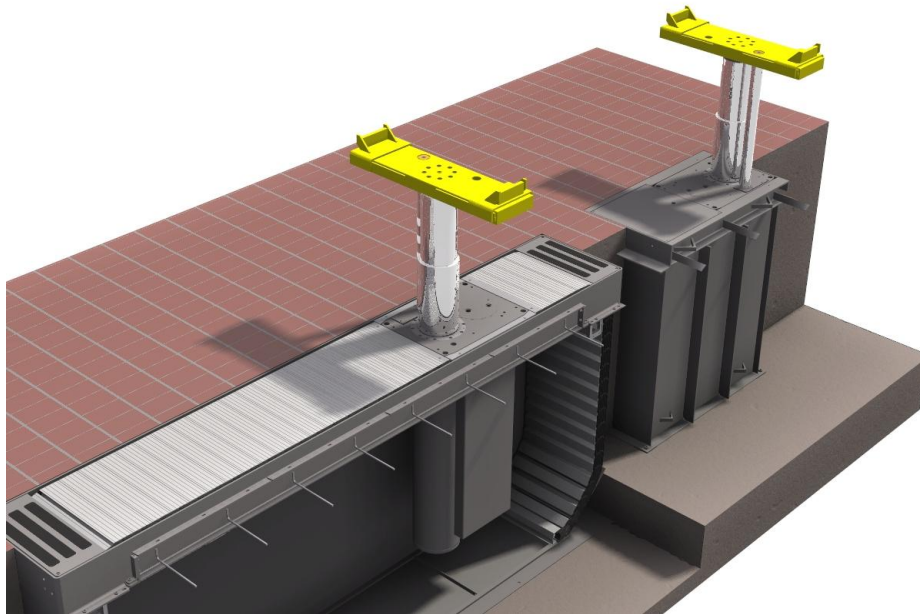
1- Rubber-coated plating; 2- Switch rail; 3- Safety bar; 4- Foundation cassette; 5- Cover; 6- Mounting frame; 7- Hydraulic cylinder; 8- Head piece cpl.

Document No.:239369

Edition: 08.1999



## Segment cover for side lifter





## Advantages of lifting units for bogie maintenance

- Excellent price- performance ratio
- Proven technology in million lift cycles
- Low maintenance costs
- Unbeatable life cycle costs





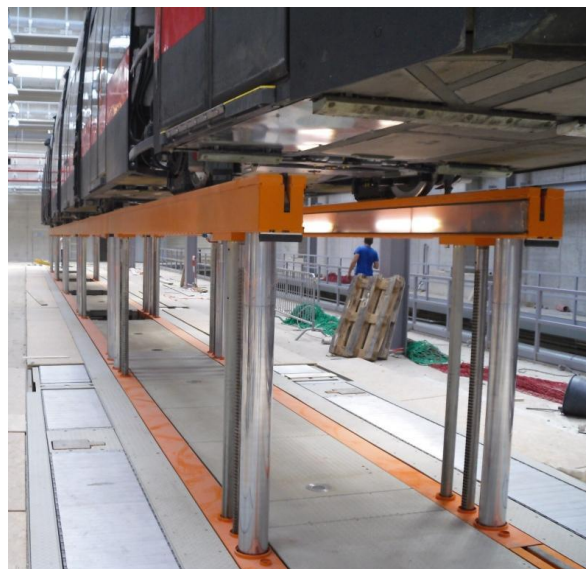
# Our customers...



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## Wiener Linien, Austria





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**Bremer Straßenbahn AG**



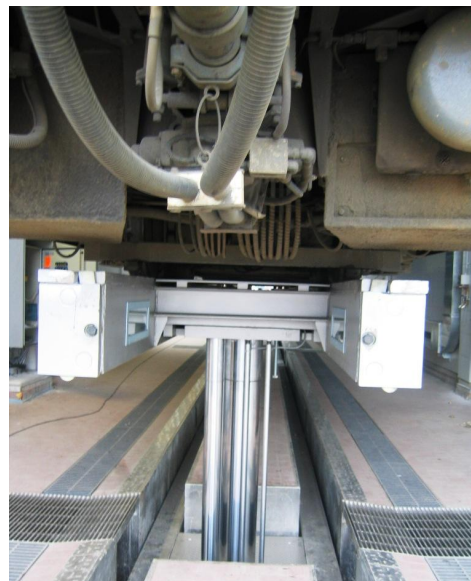




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## Bogestra AG, Germany

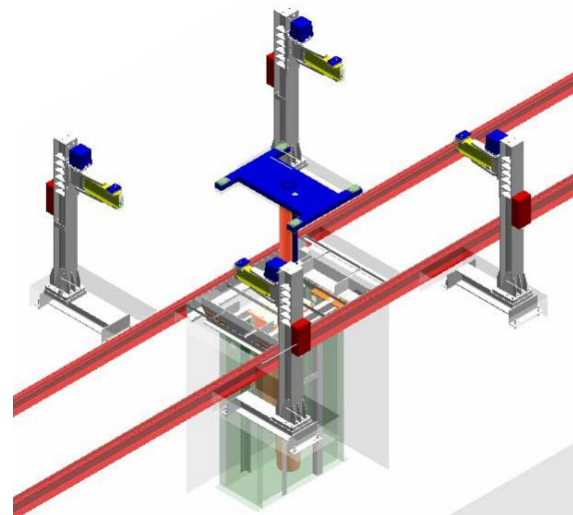




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## TAN Nantes, France





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## RET Rotterdam, Netherlands





**Many thanks for your attention!**

For further information, please feel  
free to contact us.

J.A. Becker & Söhne  
Postfach 1151  
D-74148 Neckarsulm

Tel.: +49-(0)7132-367-0  
Fax: +49-(0)7132-367-287  
[info@jab-becker.de](mailto:info@jab-becker.de)  
[www.jab-becker.de](http://www.jab-becker.de)