



## J.A. Becker & Söhne







**Innovative lifting technology** 

for trucks, buses, special-, rail- and industrial vehicles

## J.A. Becker & Söhne

# Going up safely

... instead of cramped into the pit



safe working conditions

flexible application

variations for every demand

tried and tested in many workshops

The pit belongs to the past, the future belongs to JAB!

# **Variations**

#### Individual quality variations that show the way to the future

#### Rams

Number of lifting rams choiseable from 2 to 7. Generally one of these lifting rams is installed fixed. The others are moveable. Depending on axle spacing of the vehicles to be lifted, all rams can be installed moveable as well.

#### Lifting capacity

Lifting capacity per ram from 5.000 kg, 8.000 kg, 16.000 kg up to 22.000 kg. On demand even up to 40.000 kg.

#### **Supports**

Exchangeable sliding supports are most frequently used. Whether you prefer universal supports or special customized lifting pads for specific vehicles – we solve every problem to your entire satisfaction.

### Technical data

You will find an overview of the technical data in the enclosed specification sheet. This, as well as detailed product files with technical drawings, can be obtained from our sales and distribution department.

#### Telescopic vs. plunger rams

In new buildings or where the floor conditions present no difficulty, the single-stage-ram is the best and most economical solution. With a constructional depth of 1.450 mm only, the telescopic ram is the ideal version for installing into pits or in water preservation areas with high ground water levels. Preassembled JAB lifting units in self-contained foundation cassettes are ideal for retroactive installation in existing workshops or pits, where they can be integrated with no trouble.

#### Foundation and cover plates

In a new workshop a concrete foundation is especially suitable. For retroactive installation a steel foundation cassette is recommended. Both executions are equipped with corossion free aluminium segment roller covering which covers the complete pit area.

#### Fully recessed execution HE.



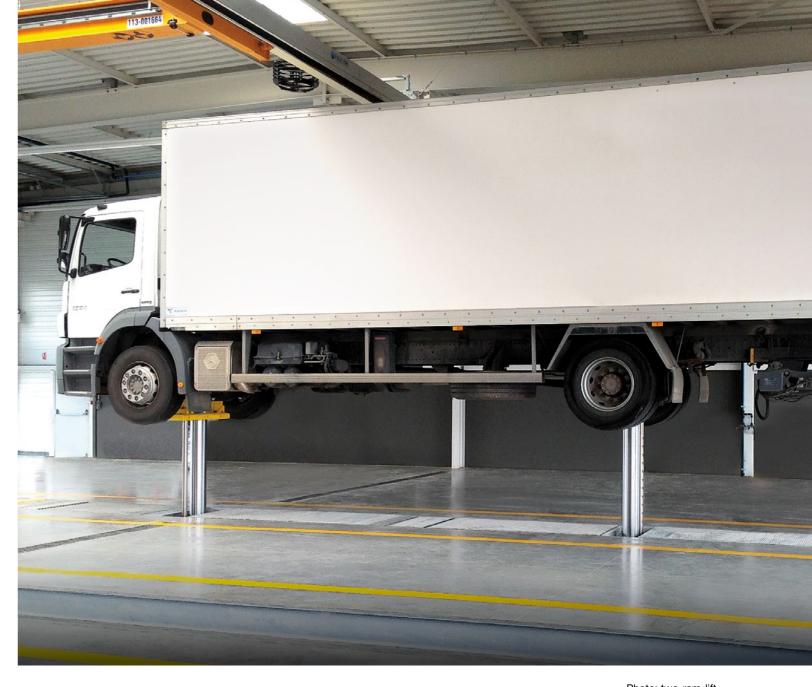


Photo: two-ram-lift Lifting capacity 16.000 kg per lifting ram.

### For your safety:

### **Hydraulics in perfection**

For the application sectors where allhydraulic vehicle lifts are involved JAB has developed the hydraulics in many decades into a near perfect system. The flange-mounted hydraulic pump – needing no pipework – is only an example for

the especially high JAB-quality-standard. You too can benefit from the superior performance, extensive safety and long service life which are achieved with a minimum of maintenance.



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### The classic solution

Supplementary to the inspection pits which have been in use up till now, more and more utility vehicle workshops are enjoying the advantages of modern multi-ram-lifts. And the extremely low ground clearance of present-day buses leaves no other option than to lift the vehicles up.

But even in the case of trucks, which are more easily accessible, a JAB lift will prove to be a real advantage by effecting perceptible rationalization and a working environment at an ergonomically adapter working height.

The two-ram-lift has become very popular because its performance is adequate for most utility vehicles. The position of one of the rams is electromotively moveable to ensure that vehicles with different wheel bases can be lifted.

Both rams have their own drive unit and can be driven synchronously or individually. The synchronisation of the rams remains unaffected by varying load distribution.

This lift is suitable for trucks, semi-trailer towing vehicles and standard buses with one front axle and up to three rear axles.

Exchangeable sliding supports allow to lift all types of vehicle of the appropriate weight category with a maximum of safety.

Additionally mechanical safety supports with automatically functioning notches are available. For this reason all JAB-lifts conform to EN 1493:2010.







#### JAB-ADVANTAGES

suitable for low platform floor buses

noticeably easier working conditions

for vehicles with diverse wheelbases

exchangeable support system





### Consultation is indispensable

The combination of the diverse variations (rams, supports, wheelbase flexibility, types of foundations, cover plates ...) allows for an individual configuration for your specific application environment.

As an experienced workshop supplier it is for us a matter of course to support you in your decisions. Benefit from the wide range of JAB-Know-how and include us in your planning as soon as possible.

Our authorized dealers and representatives who are working closely together with our engineer are the ideal contact persons to advise you in a competent way.



Exchangeable support system for lifting of diverse vehicle types.



Benefit from the wide range of JAB-Know-how







### **The Allrounder**

# The three-ram-lift manages almost everything!

The three-ram-lift manages almost every type of vehicle. Generally it is used for lifting articulated buses and complete road trains. The middle lifting ram is normally a fixed installation whereas the two other rams are moveable to allow different wheel bases.

The individual selection of the lifting units and the easy approach on the vehicle through pressure switches confirm the versatility of the lift. The three ram lift can also be used as a two ram lift.

### ALL ADVANTAGES OF THE TWO-RAM-LIFT, PLUS

safe lifting of articulated buses and tractor trailers

also applicable as a two-ram-lift



### **Installation possibilities**

# Retroactive installation? No problem!

#### 1. Plunger rams

The standard plunger rams are the obvious choice for new buildings where the bearing plate is included in construction planing. The installation depth plays a secondary role only, since – in most cases – inspection pits will have to be built anyway. The ground conditions are however decisive for the basic version. However, the respective ground conditions must be taken in account only.

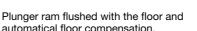
#### 2. Telescopic rams

The shallow installation depth (only approx. 1.450 mm) allows to fit this version into existing pits. Lifts in this version are ideal for use in water preservation regions or where the ground water level is exeptionally high.

#### 3. Telescopic rams in foundation cassettes

The retrocactive installation in existing halls can be accomplished most easily using this variation. The lift is delivered as a preassembly in integral steel cassettes and can be very easily installed in the prepared foundation.

As an option the foundation cassettes can be delivered with an acceptance certificate according to the Federal Water Act (WHG), because JAB is a specialist supplier conforming to WHG. This version can also be installed without problems into existing pits, if they have a minimum depth of 1.450 mm.









### **The Handyman**

The four-ram-lift allows the lifting of double articulated buses or long tractor trailers. Not only can it be used as a four-ram-lift, but it is also possible to employ it as a three- or two-ram-lift.

Whether it has two axles, if it is a tractor trailor or an articulated bus – no problem what ever. The electric control unit with integrated electronic synchronization always ensures ease of operation.

### ALL ADVANTAGES OF THE TWO- AND THREE-RAM-LIFT, PLUS

safe lifting of double articulated buses and tractor trailers

can be used as three-ram-lift also

also usable as 2 two-ram-lifts





Four-ram-lift HVV, which is used as 2 two-ram-lifts HVZ.

# Technical features of all JAB heavy duty lifts

Piston stroke 1.900 mm.

**Lifting capacity per ram** choiseable 5, 8, 16, 22 or 40 tons.

**Safety locking device** (conform EN 1493:2010) mechanical fastening and hydraulic release.

Pistons are hard-chromium plated.

Hot galvanized frame work and wheel pans.

High bending moment rating.

Anti-twist device for the cylinders.

**Electric sliding drive**, optional with AWBP (automatic wheel base positioning), for storing the ram positions.

Pit cover plates allow max. 5 tons single wheel pressure with pneumatic tyres (3 tons for rubber typres). The pit in the entire position adjustment range is automatically covered.

Emergency descent by way of simple access through assembly plate of hydraulic cylinder, outside the contours of the vehicle.

Easy servicing, pump units and seals are freely accessible.

Lift slide supports are externally adjust-able to specific vehciles (with special tools).

### **Options**

For all JAB-lifts a quantity of useful additional equipment is available:

Electronic sliding drive unit (AWBP) automatic wheel base positioning. For automatic ram positioning for vehicles with specific wheelbases.

**Power supply** (suspended control element see p. 15).

#### Radio remote control

Radio remote control can be used instead of control panel.

R-Position indicator with red/ greed signal lamp shows whether all head-plates are in the bottom resting position – ideal for vehicles with small ground clereance (low-platform buses).

Biodegradable hydraulic oils All JAB lifts can be operated with biodegradable hydraulic oils upon request.

#### Recessed execution

The rams can be installed in recessed version (Parking position) with or without bottom levelling device.

**Fully recessed execution** 

Upon request the JAB lifts are available in fully recessed execution as well. With this execution, the movable rams can be moved in totally lowered position. Optimal for vehicles with low bottom clearance (low platform buses).

**Display (standard from HVV)**Indication display for
visualization of unit status and
programming of automatic wheel

Additional lifting unit moveable for higher flexibility.

base preselection (AWBP).

**Cable retractor** for safe keeping and guiding of indicator board (tableau) cable.

Wash-proof version for wet environments

Paint booth execution with piston oiler and supporting cylinder, specially for operation in paint booth.

#### **Ex-Proof Execution**

Upon request JAB-lifts can be designed according ATEX-regulation 94/9/EG.

Multiple ram units with drive-on platforms upon request.



# JAB -

## for rail- and tracked vehicles and industrial trucks

# Going up – even the heaviest load!

Whether rail-, tracked vehicles or industrial trucks – JAB can fully show its expertise with these heavyweights and cater to their respective demands.

You can recognize the competence of experts especially in our systems for lifting and supporting of vehicles bodies of tramways, combined with lifting systems for changing the bogies.

Our focus is on fully hydraulic lifting systems with precise electronic synchronisation of the rams.

With our innovative engineering you realize a maximum of efficiency and work safety.

The realisation of individual solutions with reliable and maintenance friendly technology is our focus.



#### **JAB-INNOVATION**

especially precise synchronization for entire tramways



**Expertise of lift experts.** 



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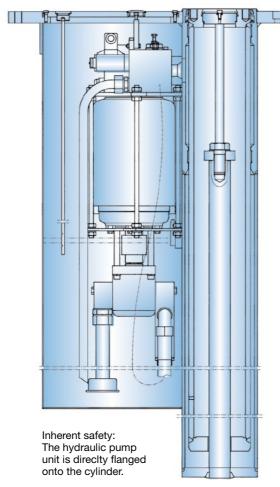
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## JAB drive unit, control unit and safety

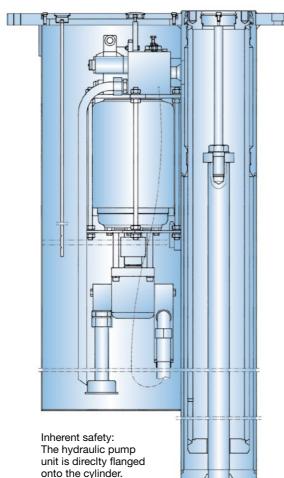
All commercial vehicle lifts of JAB have the following safety features:

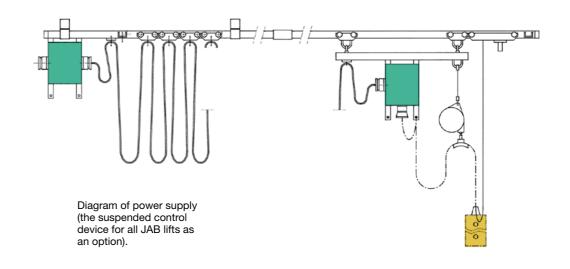
A locking block automatically interrupts every movement when the drive mechanism is switched off or fails. Because the hydraulic pump unit is directly flanged, a burst pipe is impossible. That translates into inherent safety upon which you can rely.

During lowering the motor runs in reverse direction thus working as a brake on the lowering movement. In case of a defect the lowering speed is additionally braked by a nozzle which reduces the flow in the hydraulic pipes.



**JAB:** inherent safety is standard







## Comfortable control unit work is fun with JAB

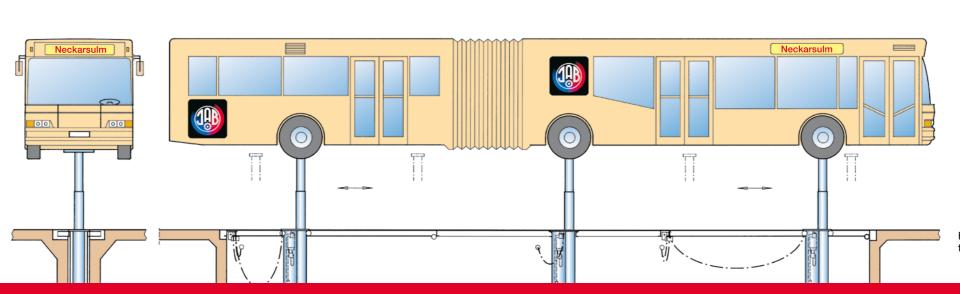
The JAB-Engineers have devised a multitude of useful features for facilitating daily work in the workshop.

The suspended control device parallel to the lift allows for a comfortable carrying along of the controls and thus enlarges the action radius of the operator. Also from the point of safety this is a great plus point.

Via the AWBP-storage system the axle points can be stored in the control unit. This electronic helper makes possible a considerably faster and more fluid work process in daily practice.

A radio remote control unit can be used instead of control panel.







Display (as option)

HVD-three-ram-lift with telescopic cylinder.

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#### **JAB Lifts**

Hydraulic universal and special lifts with a lifting capacity of up to 140.000 kg for cars, trucks, busses and for tracked and tramway vehicles. The JAB Product program includes all elements of 1-, 2-, 3-, 4- and multiple ram inground lifts.

### **JAB Special Equipment**

Hydraulic lifting systems for plant engineering, production facilities and installation devices.

### **JAB Compressors**

Low-, medium- and high-pressure compressors for workshops, garages, industrial facilities and the energy industry, ranging from 10 to 350 bar; special filling equipment for breathing apparatus for professional use, pressure tanks up to 200 bar, compressed air cold driers, oil and water separation.



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