

## **SPECIAL CATALOGUE**

SPECIAL APPLICATIONS FOR TRAILER MANUFACTURERS



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## Restriction of Hazardous Substances Directive:

The braked axles in this vehicle technology catalogue comply with the Restriction of Hazardous Substances Directive Article 47 (2) number 3 (asbestos-free brake pads).

## EC Directive:

The overrun hitches and wheel brakes correspond to ECE R 13 with all supplements.

## Germany 100 km/h:

All listed vehicle components are designed for at least 100 km/h (see German Motor Vehicle Construction and Use Regulation StVZO 15. Amendment regulation Article 30a paragraph 2).

## Europe 140 km/h:

All listed vehicle components are designed for at least 140 km/h.

## Ordering instructions:

- 1.) Please always quote the purchase order number in your orders.
- 2.) Parts with **purchase order numbers printed in red** have a delivery time of 2 days, those with purchase order numbers printed in black have a delivery time of 10 or 20 days. Please request the delivery time for quantities of more than 10 units.
- 3.) Subject to technical modifications in response to progress and further development.



**Net weight**



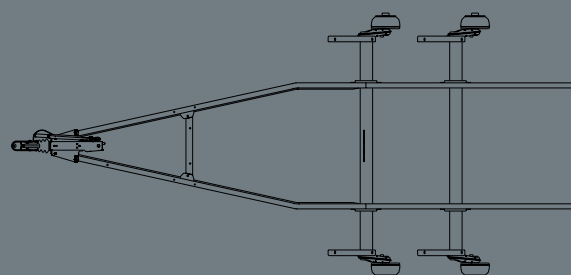
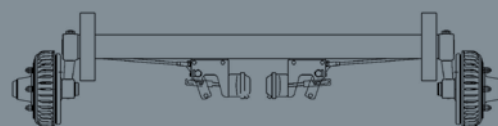
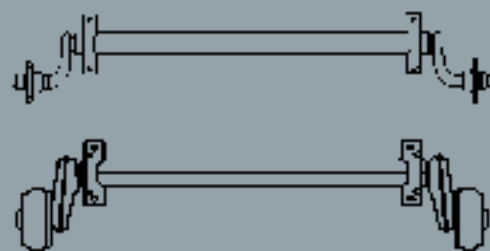
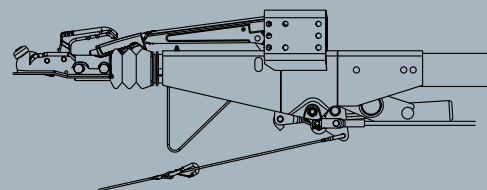
**Small packaging**



**Large packaging**



**Delivery time in working days**



|                                                                                  |                |                                  |
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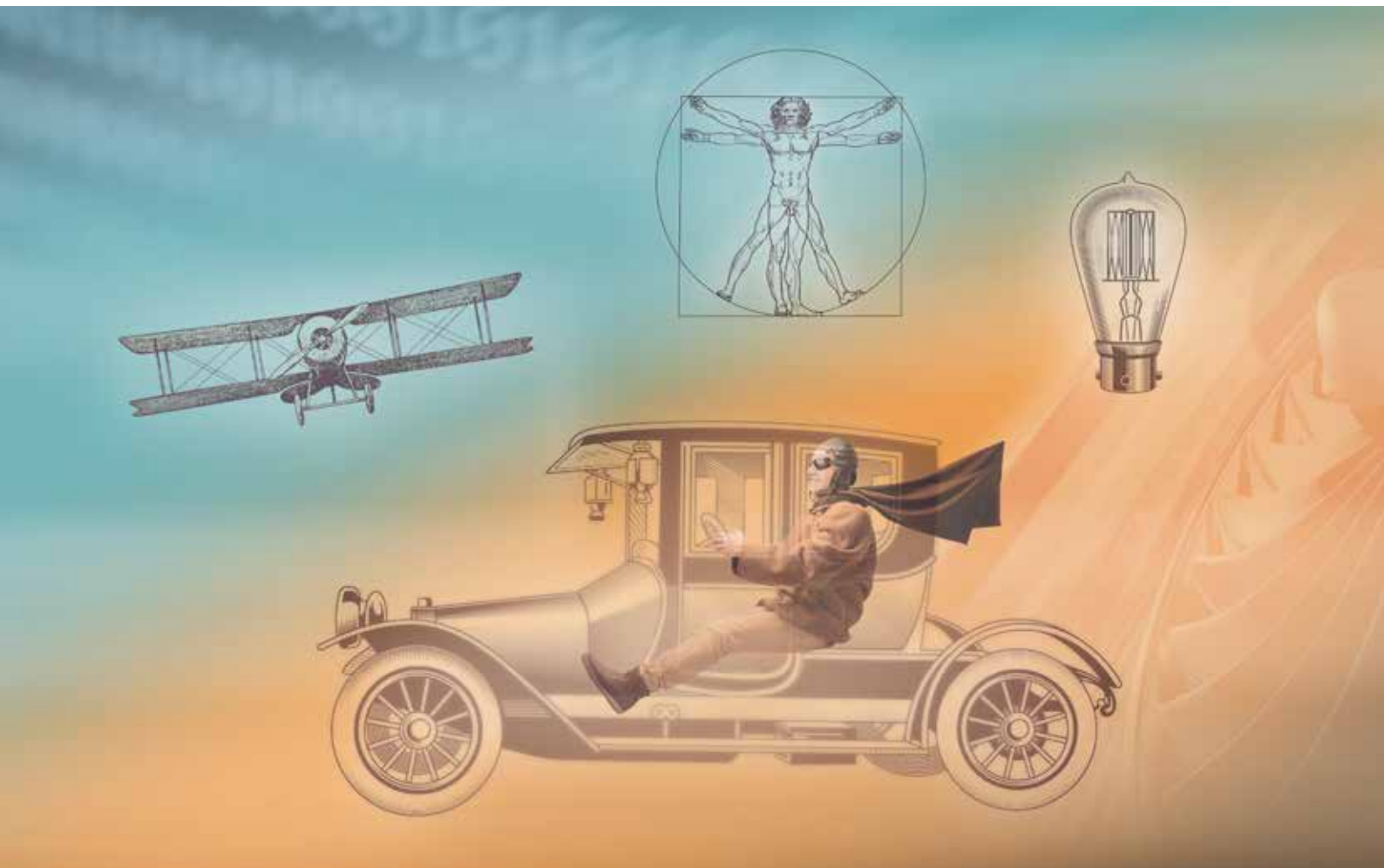
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# INNOVATION



## CUSTOMERS AND AL-KO ARE SHAPING THE FUTURE TOGETHER

### **Our ideas workshop relies on creative cooperation during the development of new products**

"Anyone can have good ideas" – that is the motto of the AL-KO ideas workshop. On the online platform at [www.al-ko.com/ideenwerkstatt](http://www.al-ko.com/ideenwerkstatt), customers themselves can become product developers and provide ideas.

The concept of the AL-KO ideas workshop: The customer is actively involved in the product development process at AL-KO, and can experience directly how existing products are improved and new ones created. Everything is possible, from the question of what could make particular products better, through to development of specific ideas and submitting concepts that have already been worked out – creative heads develop innovative ideas.

The ideas that are submitted regarding improvements and innovations directly benefit drivers of mobile homes or caravans, or commercial customers from the commercial vehicle and commercial vehicle trailer industries. In the product development area, AL-KO is thus the first company of its kind to open itself up to the end user and develop the future of vehicle technology together – for greater safety, comfort and pleasure as well as an extra helping of quality of life.

For more information, visit  
**[www.al-ko.com/ideenwerkstatt](http://www.al-ko.com/ideenwerkstatt)**



## VEHICLE TECHNOLOGY

Our vehicle technology products for motor homes, caravans, commercial vehicles and commercial trailers guarantee the greatest safety and convenience. In any situation. With our premium solutions for vehicles in commercial use, we are meeting the most exacting customer requirements in terms of ergonomics. For leisure vehicles we pave the way for a

positive start to your holidays and a relaxed return home. We are always your reliable companion – for more enjoyment on the road.



## THE AL-KO COMPANY AND BRAND

---

Safety, convenience and joy are important factors of life and the aims of our work. Our identity, which is visible both in the AL-KO brand and our products, is reflected in this. It applies to all AL-KO divisions: Automotive Technology, Garden + Hobby and Air Technology.

We live for quality! After all, we are completely committed to a central message: Our constant focus is the improvement of our customers' quality of life. That's how we understand Quality for Life.

# AL-KO

# QUALITY FOR LIFE



## GARDEN + HOBBY

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We develop and design innovative garden tools. Our products feature impressive technology and functionality and set the standard in terms of design – thus meeting the highest demands.

**We increase the enthusiasm for your garden.**



## AIR TECHNOLOGY

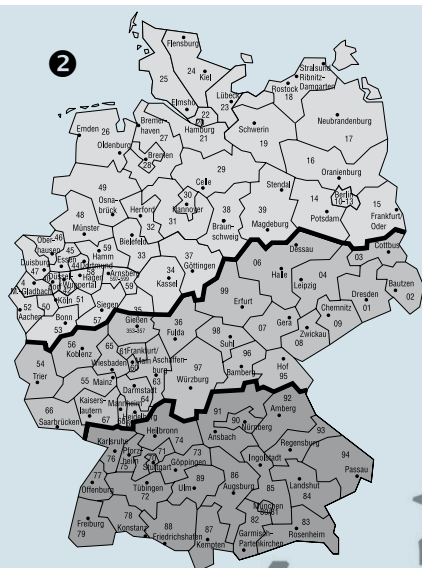
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Our ventilation and air conditioning units and extraction systems come with our guarantee of the best energy efficiency, perfect hygiene and maximum ease of use in which we excel.

**We fill your living space with healthy air and ensure the perfect climate.**

# OUR SERVICE FOR YOU

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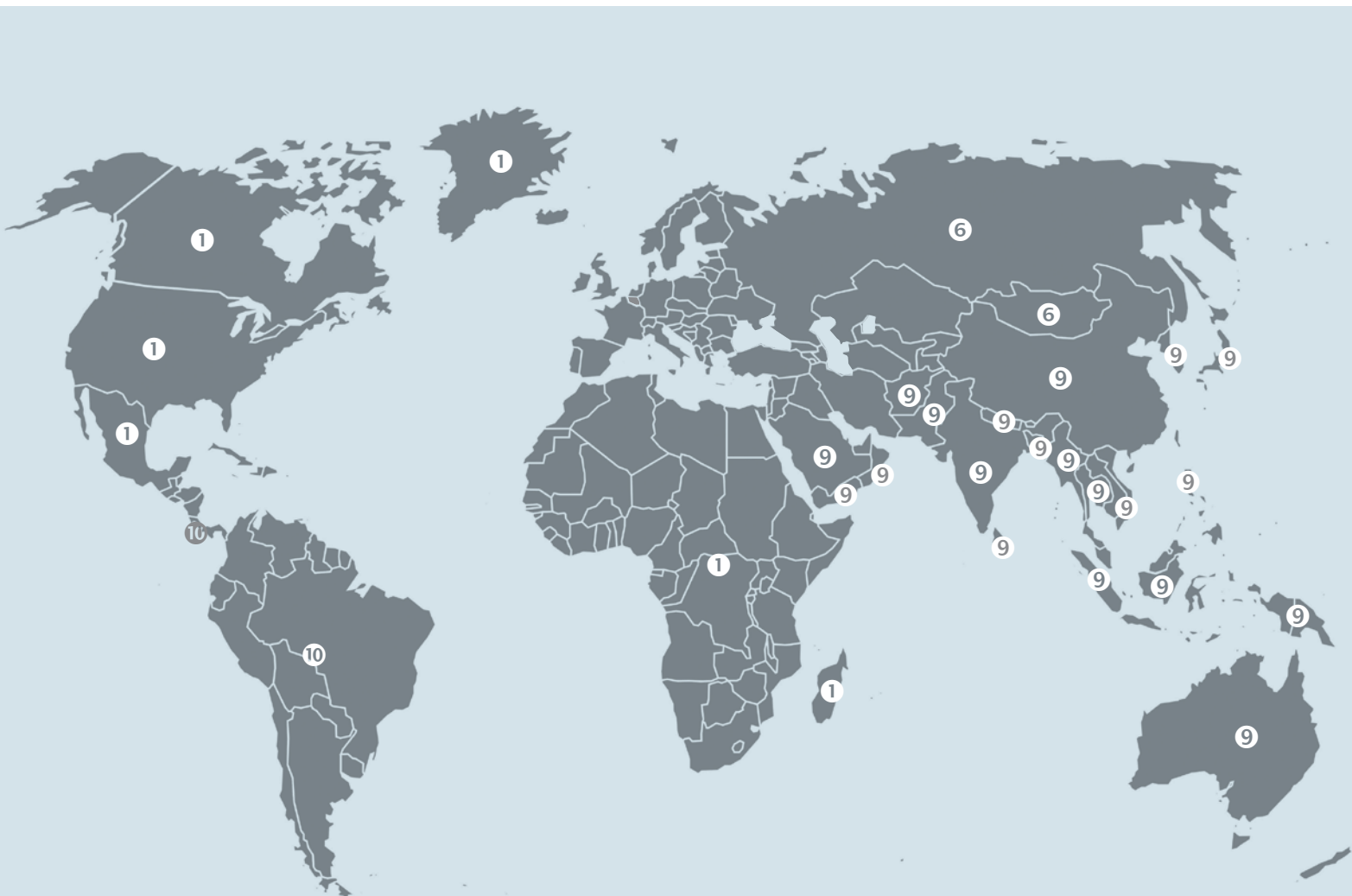
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Our worldwide network guarantees **personal contact with customers and suppliers** in all countries.

Our international agencies ensure we maintain a continuous presence on the ground. In this way, direct points of contact communicate our **reliable AL-KO quality** and **expert service** to the world.

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# SQUARE OVERRUN HITCH

## Sideways swivelling

### YOUR ADVANTAGE

#### Pays for itself twice

Parking space is expensive. For example, sales vehicles are charged according to the amount of space they occupy in the market. With the new AL-KO pivoting drawbar, not only can you reduce the trailer size by about 1.20 m, you can also save money on your market stall fees or when transporting new vehicles.



### OPERATION OF THE PIVOTING DRAWBAR

**Step 1:** Move the vehicle to a safe standing position using the four corner supports and raise the jockey wheel by turning.

**Step 2:** Open the pivot lock and pull out the plug. Pivot the drawbar either to the right or left.

#### Incredibly easy to operate

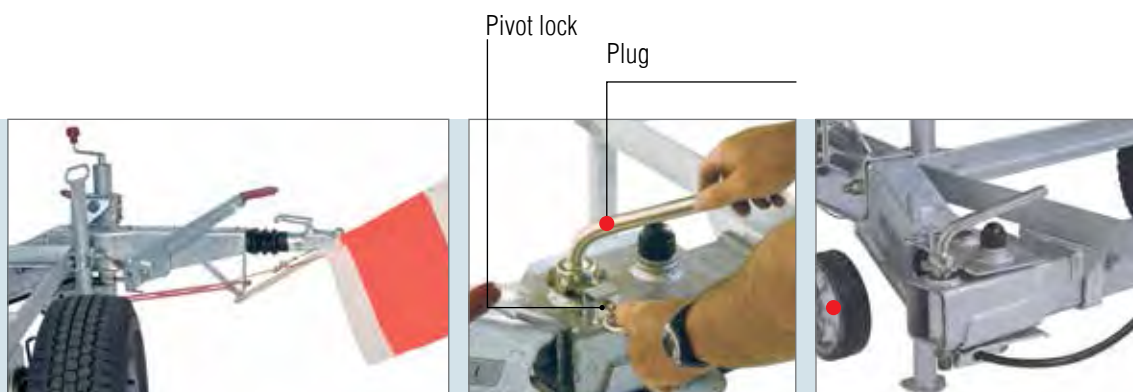
One person can pivot the drawbar without requiring significant effort.

**Step 3:** Insert the plug again and secure the drawbar to prevent it from pivoting back inadvertently.

**Note:** If the drawbar projects beyond the width of the trailer when pivoted, the projection will have to be marked (e.g. with a red flag).

### SURFACE TREATMENT

hot-dip galvanised



# AL-KO TELESCOPIC HANDBRAKE LEVER

With lowering function for the weight range 2700 to 3500 kg

## THE AL-KO TELESCOPIC HANDBRAKE LEVER



### I Flat version

For greater clearance between the lever and tailgate of a car

### I Precisely adjustable

A toothed segment with pushbutton has been dispensed with to make the handbrake easier to adjust. On a slope, this means the trailer can be braked with precise adjustment using the handbrake, as well as manoeuvring it

### I Minimum hand force

The maximum possible lever length (140 mm) is available for releasing the handbrake, i.e. reduced hand force

### I Short version

When released, the handbrake lever is very short, giving greater clearance between the car and trailer

### I Ergonomic

The lever position, particularly when parked forwards, is highly ergonomic, i.e. the user can apply his or her bodyweight to the lever, and releasing the handbrake is given noticeable additional support



Handbrake lever opened (driving)



Handbrake lever closed (position with trailer on down-slope)



Handbrake lever closed (position with trailer on incline)

Overrun hitches

## THE LOWERING FUNCTION

### I Lowering handbrake lever

After the handbrake has been applied, the lever can be lowered

### IMPORTANT!

The lowered handbrake position could result in the incorrect conclusion that the handbrake has already been released.

For this reason, the End User will have to be specifically informed about this function on handover of the trailer.



Handbrake lever opened = brake linkage not clamped



Handbrake lever applied = brake linkage clamped  
Press the locking lever ① and lower the handbrake lever ② at the same time



Handbrake lever applied = brake linkage clamped, handbrake lever lowered

# SQUARE OVERRUN HITCH

Pivoting sideways from 950 to 1600 kg

## Technology

### Type 161S - K26-S

GA 950 - 1600 kg

perm. nose load 100 kg

Changeover relay lever: Yes

## ECE test report number

Drawbar installation: E1 55R-01 0267

Overrun hitch: 361-0047-97

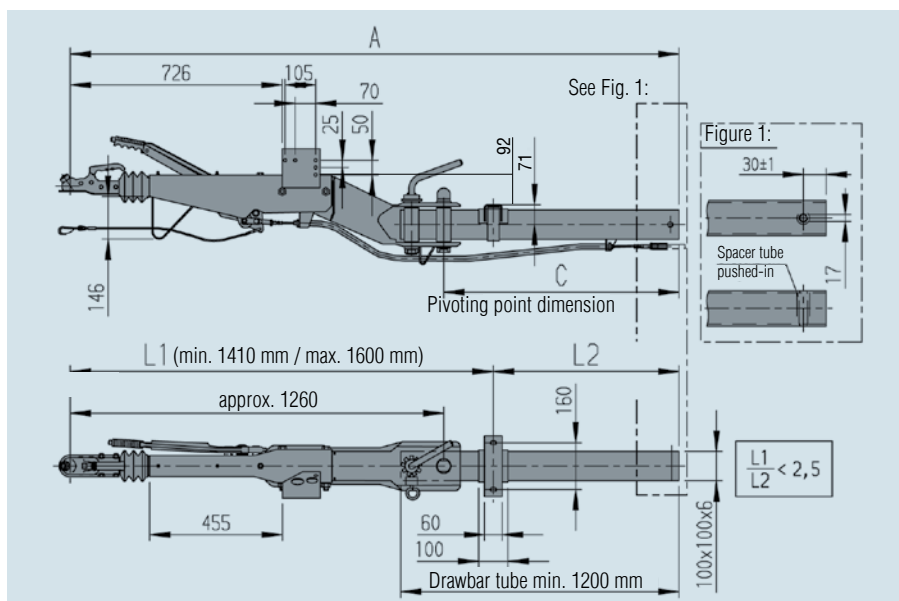
Drawbar: E1 55R-01 1551

max. free drawbar length: 1600 mm

## Scope of delivery

I Overrun hitch cpl. see diagram

I Operating instructions



## Ordering overview

| with ball hitch AK 160 for wheel brake 2051 (90/27) |      |             |      |    |    |
|-----------------------------------------------------|------|-------------|------|----|----|
| Dimensions in mm                                    |      | Part Number |      |    |    |
| C                                                   | A    |             |      |    |    |
| 1150                                                | 2410 | 200 554 01  | 59.0 | 20 | 10 |
| 1230                                                | 2490 | 200 554 02  | 60.4 | 20 | 10 |
| 1310                                                | 2570 | 200 554 03  | 61.8 | 20 | 10 |
| 1390                                                | 2650 | 200 554 04  | 63.2 | 20 | 10 |
| 1470                                                | 2730 | 200 554 05  | 64.6 | 20 | 10 |
| 1550                                                | 2810 | 200 554 06  | 66.0 | 20 | 10 |
| 1630                                                | 2890 | 200 554 07  | 67.4 | 20 | 10 |
| 1710                                                | 2970 | 200 554 08  | 68.8 | 20 | 10 |
| 1790                                                | 3050 | 1 222 006   | 70.2 | 20 | 10 |
| 1870                                                | 3130 | 200 554 09  | 71.6 | 20 | 10 |
| 1950                                                | 3210 | 200 554 10  | 73.0 | 20 | 10 |
| 2030                                                | 3290 | 200 554 11  | 74.4 | 20 | 10 |
| 2110                                                | 3370 | 200 554 12  | 75.8 | 20 | 10 |
| 2190                                                | 3450 | 200 554 13  | 77.2 | 20 | 10 |
| 2270                                                | 3530 | 200 554 14  | 78.6 | 20 | 10 |
| 2350                                                | 3610 | 200 554 15  | 80.0 | 20 | 10 |
| 2430                                                | 3690 | 200 554 16  | 81.4 | 20 | 10 |
| 2510                                                | 3770 | 200 554 17  | 82.8 | 20 | 10 |
| 2590                                                | 3850 | 200 554 18  | 84.2 | 20 | 10 |
| 2670                                                | 3930 | 200 554 19  | 85.6 | 20 | 10 |
| 2750                                                | 4010 | 1 222 007   | 87.0 | 20 | 10 |

| with ball hitch AK 160 wheel brake 2361 (90/30) |      |             |      |    |    |
|-------------------------------------------------|------|-------------|------|----|----|
| Dimensions in mm                                |      | Part Number |      |    |    |
| C                                               | A    |             |      |    |    |
| 1150                                            | 2410 | 200 554 20  | 59.0 | 20 | 10 |
| 1230                                            | 2490 | 200 554 21  | 60.4 | 20 | 10 |
| 1310                                            | 2570 | 200 554 22  | 61.8 | 20 | 10 |
| 1390                                            | 2650 | 200 554 23  | 63.2 | 20 | 10 |
| 1470                                            | 2730 | 200 554 24  | 64.6 | 20 | 10 |
| 1550                                            | 2810 | 200 554 25  | 66.0 | 20 | 10 |
| 1630                                            | 2890 | 200 554 26  | 67.4 | 20 | 10 |
| 1710                                            | 2970 | 200 554 27  | 68.8 | 20 | 10 |
| 1790                                            | 3050 | 200 554 28  | 70.2 | 20 | 10 |
| 1870                                            | 3130 | 200 554 29  | 71.6 | 20 | 10 |
| 1950                                            | 3210 | 200 554 30  | 73.0 | 20 | 10 |
| 2030                                            | 3290 | 200 554 31  | 74.4 | 20 | 10 |
| 2110                                            | 3370 | 200 554 32  | 75.8 | 20 | 10 |
| 2190                                            | 3450 | 200 554 33  | 77.2 | 20 | 10 |
| 2270                                            | 3530 | 200 554 34  | 78.6 | 20 | 10 |
| 2350                                            | 3610 | 200 554 35  | 80.0 | 20 | 10 |
| 2430                                            | 3690 | 200 554 36  | 81.4 | 20 | 10 |
| 2510                                            | 3770 | 200 554 37  | 82.8 | 20 | 10 |
| 2590                                            | 3850 | 200 554 38  | 84.2 | 20 | 10 |
| 2670                                            | 3930 | 200 554 39  | 85.6 | 20 | 10 |
| 2750                                            | 4010 | 200 554 40  | 87.0 | 20 | 10 |

| with DIN drawbar eye Ø 40 for wheel brake 2051 (90/27) |
|--------------------------------------------------------|
| On request                                             |

| with DIN drawbar eye Ø 40 for wheel brake 2361 (90/30) |
|--------------------------------------------------------|
| On request                                             |

# SQUARE OVERRUN HITCH

Pivoting sideways from 1500 to 2600 kg

## Technology

### Type 251S - K26-S

GA 1500 - 2600 kg

perm. nose load 100 kg

Changeover relay lever: Yes

## ECE test report number

Drawbar installation: E1 55R-01 0268

Overrun hitch: 361-0044-97

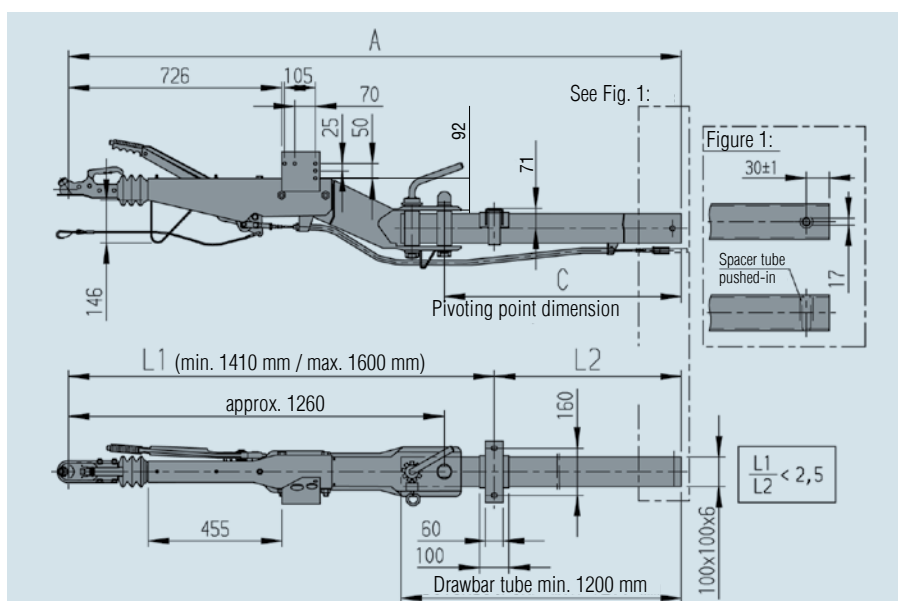
Drawbar: E1 55R-01 1551

max. free drawbar length: 1600 mm

## Scope of delivery

I Overrun hitch cpl. see diagram

I Operating instructions



## Ordering overview

| with ball hitch AK 300 for wheel brake 2051 (90/27) |             |            |      |    |    |
|-----------------------------------------------------|-------------|------------|------|----|----|
| Dimensions in mm                                    | Part Number |            |      |    |    |
| C                                                   | A           |            |      |    |    |
| 1150                                                | 2410        | 200 555 01 | 64.0 | 20 | 10 |
| 1230                                                | 2490        | 200 555 02 | 65.4 | 20 | 10 |
| 1310                                                | 2570        | 200 555 03 | 66.8 | 20 | 10 |
| 1390                                                | 2650        | 200 555 04 | 68.2 | 20 | 10 |
| 1470                                                | 2730        | 200 555 05 | 69.6 | 20 | 10 |
| 1550                                                | 2810        | 200 555 06 | 71.0 | 20 | 10 |
| 1630                                                | 2890        | 200 555 07 | 72.4 | 20 | 10 |
| 1710                                                | 2970        | 200 555 08 | 73.8 | 20 | 10 |
| 1790                                                | 3050        | 1 221 857  | 75.2 | 20 | 10 |
| 1870                                                | 3130        | 200 555 09 | 76.6 | 20 | 10 |
| 1950                                                | 3210        | 200 555 10 | 78.0 | 20 | 10 |
| 2030                                                | 3290        | 200 555 11 | 79.4 | 20 | 10 |
| 2110                                                | 3370        | 200 555 12 | 80.8 | 20 | 10 |
| 2190                                                | 3450        | 200 555 13 | 82.2 | 20 | 10 |
| 2270                                                | 3530        | 200 555 14 | 83.6 | 20 | 10 |
| 2350                                                | 3610        | 200 555 15 | 85.0 | 20 | 10 |
| 2430                                                | 3690        | 200 555 16 | 86.4 | 20 | 10 |
| 2510                                                | 3770        | 200 555 17 | 87.4 | 20 | 10 |
| 2590                                                | 3850        | 200 555 18 | 89.2 | 20 | 10 |
| 2670                                                | 3930        | 200 555 19 | 90.6 | 20 | 10 |
| 2750                                                | 4010        | 1 221 980  | 92.0 | 20 | 10 |

| with ball hitch AK 300 wheel brake 2361 (90/30) |             |            |      |    |    |
|-------------------------------------------------|-------------|------------|------|----|----|
| Dimensions in mm                                | Part Number |            |      |    |    |
| C                                               | A           |            |      |    |    |
| 1150                                            | 2410        | 200 555 20 | 64.0 | 20 | 10 |
| 1230                                            | 2490        | 200 555 21 | 65.4 | 20 | 10 |
| 1310                                            | 2570        | 200 555 22 | 66.8 | 20 | 10 |
| 1390                                            | 2650        | 200 555 23 | 68.2 | 20 | 10 |
| 1470                                            | 2730        | 200 555 24 | 69.6 | 20 | 10 |
| 1550                                            | 2810        | 200 555 25 | 71.0 | 20 | 10 |
| 1630                                            | 2890        | 200 555 26 | 72.4 | 20 | 10 |
| 1710                                            | 2970        | 200 555 27 | 73.8 | 20 | 10 |
| 1790                                            | 3050        | 200 555 28 | 75.2 | 20 | 10 |
| 1870                                            | 3130        | 200 555 29 | 76.6 | 20 | 10 |
| 1950                                            | 3210        | 200 555 30 | 78.0 | 20 | 10 |
| 2030                                            | 3290        | 200 555 31 | 79.4 | 20 | 10 |
| 2110                                            | 3370        | 200 555 32 | 80.8 | 20 | 10 |
| 2190                                            | 3450        | 200 555 33 | 82.2 | 20 | 10 |
| 2270                                            | 3530        | 200 555 34 | 83.6 | 20 | 10 |
| 2350                                            | 3610        | 200 555 35 | 85.0 | 20 | 10 |
| 2430                                            | 3690        | 200 555 36 | 86.4 | 20 | 10 |
| 2510                                            | 3770        | 200 555 37 | 87.4 | 20 | 10 |
| 2590                                            | 3850        | 200 555 38 | 89.2 | 20 | 10 |
| 2670                                            | 3930        | 200 555 39 | 90.6 | 20 | 10 |
| 2750                                            | 4010        | 200 555 40 | 92.0 | 20 | 10 |

| with DIN drawbar eye Ø 40 for wheel brake 2051 (90/27) |
|--------------------------------------------------------|
| On request                                             |

| with DIN drawbar eye Ø 40 for wheel brake 2361 (90/30) |
|--------------------------------------------------------|
| On request                                             |

# SQUARE OVERRUN HITCH

Pivoting sideways from 2500 to 3500 kg

## Technology

### Type 2.8 VB/1-C - K35-S

GA 2500 - 3500 kg

perm. nose load 150 kg

Changeover relay lever: No

## ECE test report number

Drawbar installation: E1 55R-01 0378

Overrun hitch: 361-0045-97

Drawbar: E1 55R-01 2415

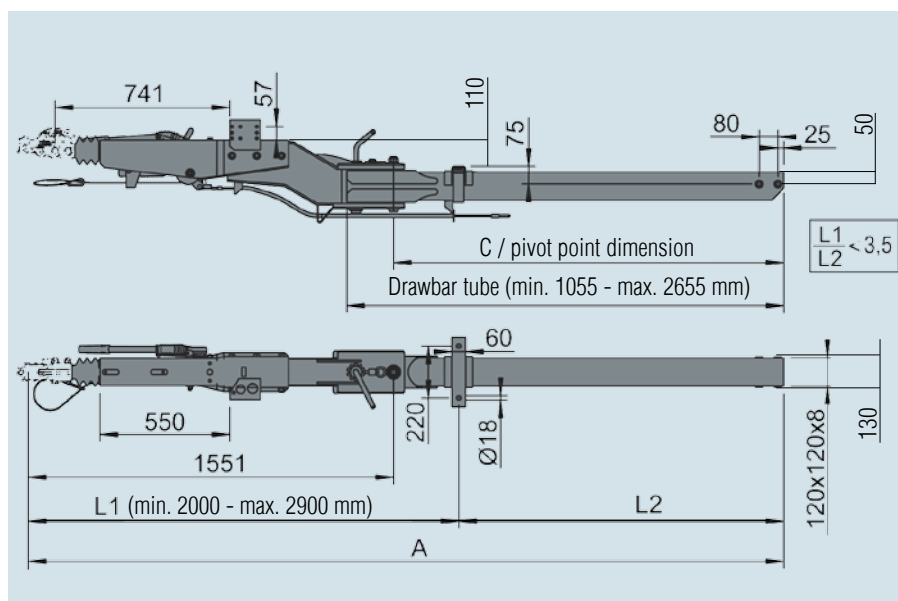
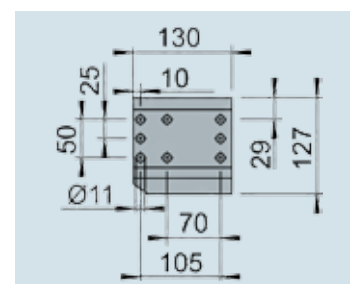
max. free drawbar length

with GA 3500 kg: 2000 mm

## Scope of delivery

I Overrun hitch cpl. see diagram

I Operating instructions



## Ordering overview

| without hitch component |             | for wheel brakes 2051 (90/30) | wheel brakes 2361 (90/32) | wheel brakes 3062/3081 (90/35.5) |     |    |    |
|-------------------------|-------------|-------------------------------|---------------------------|----------------------------------|-----|----|----|
| Dimensions in mm        | Part Number | Part Number                   | Part Number               |                                  |     |    |    |
| C                       | A           |                               |                           |                                  |     |    |    |
| 857                     | 2410        | 200 573 22                    | 200 573 01                | 200 573 43                       | 118 | 20 | 10 |
| 937                     | 2490        | 200 573 23                    | 200 573 02                | 200 573 44                       | 120 | 20 | 10 |
| 1017                    | 2570        | 200 573 24                    | 200 573 03                | 200 573 45                       | 122 | 20 | 10 |
| 1097                    | 2650        | 200 573 25                    | 200 573 04                | 200 573 46                       | 125 | 20 | 10 |
| 1177                    | 2730        | 200 573 26                    | 200 573 05                | 200 573 47                       | 127 | 20 | 10 |
| 1257                    | 2810        | 200 573 27                    | 200 573 06                | 200 573 48                       | 129 | 20 | 10 |
| 1337                    | 2890        | 200 573 28                    | 200 573 07                | 200 573 49                       | 131 | 20 | 10 |
| 1417                    | 2970        | 200 573 29                    | 200 573 08                | 200 573 50                       | 133 | 20 | 10 |
| 1497                    | 3050        | 200 573 30                    | 200 573 09                | 200 573 51                       | 136 | 20 | 10 |
| 1577                    | 3130        | 200 573 31                    | 200 573 10                | 200 573 52                       | 138 | 20 | 10 |
| 1657                    | 3210        | 200 573 32                    | 200 573 11                | 200 573 53                       | 140 | 20 | 10 |
| 1737                    | 3290        | 200 573 33                    | 200 573 12                | 200 573 54                       | 142 | 20 | 10 |
| 1817                    | 3370        | 200 573 34                    | 200 573 13                | 200 573 55                       | 144 | 20 | 10 |
| 1897                    | 3450        | 200 573 35                    | 200 573 14                | 200 573 56                       | 147 | 20 | 10 |
| 1977                    | 3530        | 200 573 36                    | 200 573 15                | 200 573 57                       | 149 | 20 | 10 |
| 2057                    | 3610        | 200 573 37                    | 200 573 16                | 200 573 58                       | 151 | 20 | 10 |
| 2137                    | 3690        | 200 573 38                    | 200 573 17                | 200 573 59                       | 153 | 20 | 10 |
| 2217                    | 3770        | 200 573 39                    | 200 573 18                | 200 573 60                       | 155 | 20 | 10 |
| 2297                    | 3850        | 200 573 40                    | 200 573 19                | 200 573 61                       | 158 | 20 | 10 |
| 2377                    | 3930        | 200 573 41                    | 200 573 20                | 200 573 62                       | 160 | 20 | 10 |
| 2457                    | 4010        | 200 573 42                    | 200 573 21                | 200 573 63                       | 162 | 20 | 10 |

See comprehensive catalogue for matching hitches and drawbar eyes

# SQUARE OVERRUN HITCH

With removable drawbar section



## YOUR ADVANTAGE

Sales vehicles are charged according to the space they take up. By removing the overrun hitch, the trailer length can be reduced by up to 1.20 m.

**You save space in the market and reduce you stall fees.**

## OPERATION

### Step 1

Move the vehicle to a safe standing position using the four corner Prop stands and raise the jockey wheel by turning.



### Step 2 (2 people required)

Remove the safety plug and release the t-bar. The bearing screw can now be knocked out by one person, while the second person secures the overrun hitch to prevent it from falling down.



### Step 3

The overrun hitch can now be pivoted sideways under the vehicle.



# SQUARE OVERRUN HITCH

With removable drawbar section from 950 to 1600 kg

## Technology

### Type 161S - ZE 252R

GA 950-1600 kg

permitted nose load 100 kg

Changeover relay lever: Yes

### EC test report number:

Drawbar installation 161K: e1 00-0267

Overrun hitch: 361 284 83

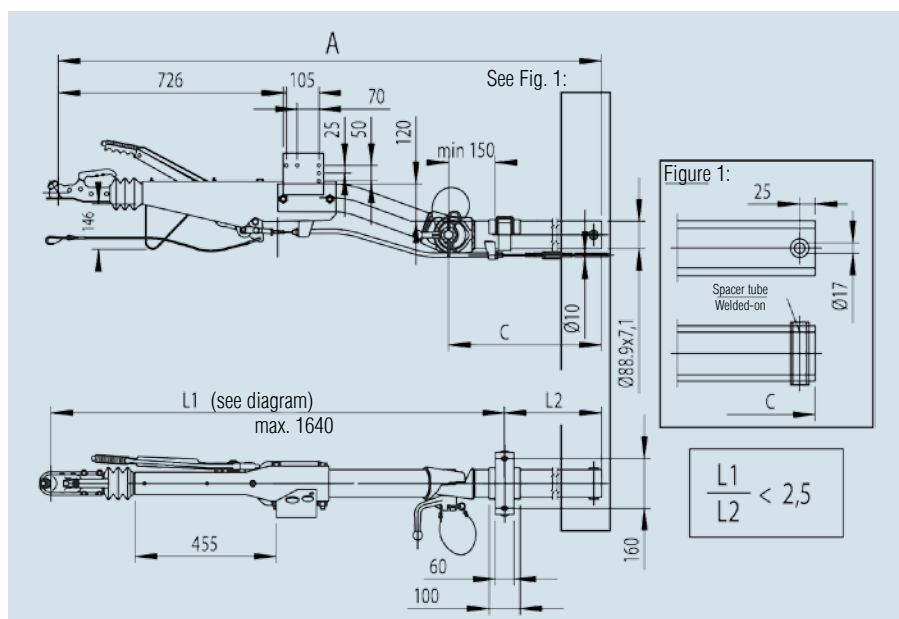
Drawbar installation 252R: e1 00-0536

max. free drawbar length

with GA 1600 kg: 1640 mm

## Surface treatment

hot-dip galvanised



## Ordering overview

| C in mm | A in mm | with ball hitch AK 160 for wheel brake 1637/2051 (90/27) | with ball hitch AK 160 for wheel brake 2361 (90/30) | with DIN drawbar eye Ø 40 for wheel brake 1637/2051 (90/27) | with DIN drawbar eye Ø 40 for wheel brake 2361 (90/30) |  |  |  |
|---------|---------|----------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|         |         | Part Number                                              | Part Number                                         | Part Number                                                 | Part Number                                            |                                                                                       |                                                                                       |                                                                                       |
| 820     | 2155    | 200 564 01                                               | 200 564 11                                          | 200 564 22                                                  | 200 564 33                                             | 49.9                                                                                  | 20                                                                                    | 20                                                                                    |
| 980     | 2315    | 200 564 02                                               | 200 564 12                                          | 200 564 23                                                  | 200 564 34                                             | 52.2                                                                                  | 20                                                                                    | 20                                                                                    |
| 1140    | 2475    | 200 564 03                                               | 200 564 13                                          | 200 564 24                                                  | 200 564 35                                             | 54.5                                                                                  | 20                                                                                    | 20                                                                                    |
| 1300    | 2635    | 200 564 04                                               | 200 564 14                                          | 200 564 25                                                  | 200 564 36                                             | 56.8                                                                                  | 20                                                                                    | 20                                                                                    |
| 1460    | 2795    | 200 564 05                                               | 200 564 15                                          | 200 564 26                                                  | 200 564 37                                             | 59.1                                                                                  | 20                                                                                    | 20                                                                                    |
| 1620    | 2955    | 200 564 06                                               | 200 564 16                                          | 200 564 27                                                  | 200 564 38                                             | 61.4                                                                                  | 20                                                                                    | 20                                                                                    |
| 1780    | 3115    | 200 564 07                                               | 200 564 17                                          | 200 564 28                                                  | 200 564 39                                             | 63.7                                                                                  | 20                                                                                    | 20                                                                                    |
| 1940    | 3275    | 1 224 594                                                | 200 564 18                                          | 200 564 29                                                  | 200 564 40                                             | 66.0                                                                                  | 20                                                                                    | 20                                                                                    |
| 2100    | 3435    | 200 564 08                                               | 200 564 19                                          | 200 564 30                                                  | 200 564 41                                             | 68.3                                                                                  | 20                                                                                    | 20                                                                                    |
| 2260    | 3595    | 200 564 09                                               | 200 564 20                                          | 200 564 31                                                  | 200 564 42                                             | 70.6                                                                                  | 20                                                                                    | 20                                                                                    |
| 2420    | 3755    | 200 564 10                                               | 200 564 21                                          | 200 564 32                                                  | 200 564 43                                             | 72.9                                                                                  | 20                                                                                    | 20                                                                                    |

# SQUARE OVERRUN HITCH

With removable drawbar section from 1500 to 2600 kg

 **Technology**

**Type 251S - ZE 252R**

GA 1500-2600 kg

permitted nose load 100 kg

Changeover relay lever: Yes

**EC test report number:**

Drawbar installation 251K: e1 00-0268

Overrun hitch: 361 303 83

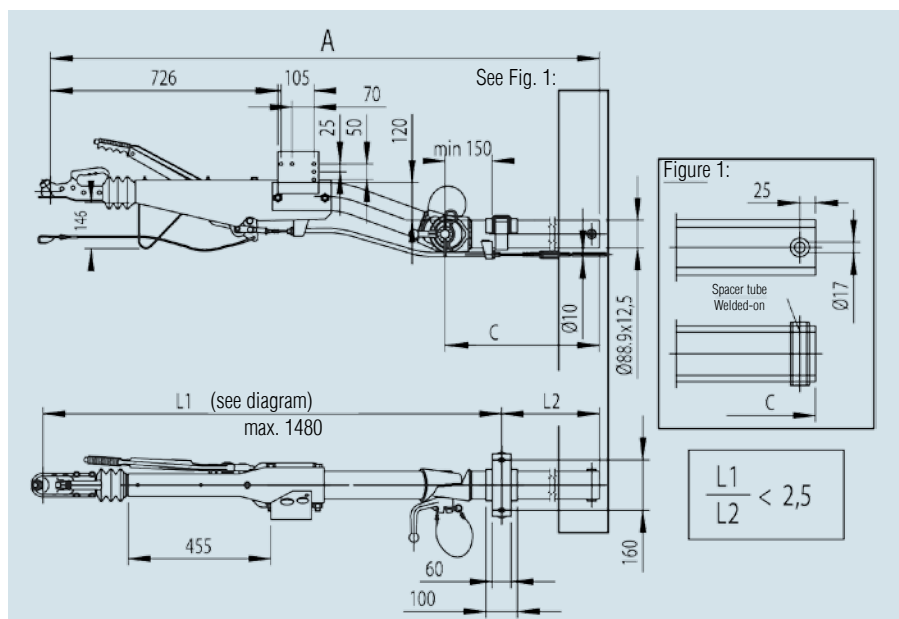
Drawbar installation 252R: e1 00-0536

Free drawbar length            min. 1440 mm

with GA 2600 kg: max. 1480 mm

## Surface treatment

hot-dip galvanised



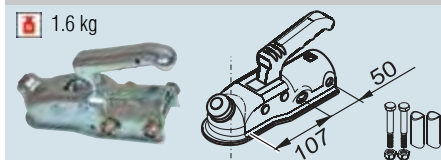
## Ordering overview

|         |         | with ball hitch AK 300<br>for wheel brake 2051 (90/27) | with ball hitch AK 300<br>for wheel brake 2361 (90/30) | with DIN drawbar eye Ø 40<br>for wheel brake 2051 (90/27) | with DIN drawbar eye Ø 40<br>for wheel brake 2361 (90/30) |  |  |  |
|---------|---------|--------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| C in mm | A in mm | Part Number                                            | Part Number                                            | Part Number                                               | Part Number                                               |                                                                                       |                                                                                       |                                                                                       |
| 820     | 2165    | 200 565 01                                             | 200 565 11                                             | 200 565 22                                                | 200 565 33                                                | 65.4                                                                                  | 20                                                                                    | 20                                                                                    |
| 980     | 2325    | 200 565 02                                             | 200 565 12                                             | 200 565 23                                                | 200 565 34                                                | 69.2                                                                                  | 20                                                                                    | 20                                                                                    |
| 1140    | 2485    | 200 565 03                                             | 200 565 13                                             | 200 565 24                                                | 200 565 35                                                | 73.0                                                                                  | 20                                                                                    | 20                                                                                    |
| 1300    | 2645    | 200 565 04                                             | 200 565 14                                             | 200 565 25                                                | 200 565 36                                                | 76.8                                                                                  | 20                                                                                    | 20                                                                                    |
| 1460    | 2805    | 200 565 05                                             | 200 565 15                                             | 200 565 26                                                | 200 565 37                                                | 80.6                                                                                  | 20                                                                                    | 20                                                                                    |
| 1620    | 2965    | 200 565 06                                             | 200 565 16                                             | 200 565 27                                                | 200 565 38                                                | 84.4                                                                                  | 20                                                                                    | 20                                                                                    |
| 1780    | 3125    | 200 565 07                                             | 200 565 17                                             | 200 565 28                                                | 200 565 39                                                | 88.2                                                                                  | 20                                                                                    | 20                                                                                    |
| 1940    | 3285    | 1 224 607                                              | 200 565 18                                             | 200 565 29                                                | 200 565 40                                                | 92.0                                                                                  | 20                                                                                    | 20                                                                                    |
| 2100    | 3445    | 200 565 08                                             | 200 565 19                                             | 200 565 30                                                | 200 565 41                                                | 95.8                                                                                  | 20                                                                                    | 20                                                                                    |
| 2260    | 3605    | 200 565 09                                             | 200 565 20                                             | 200 565 31                                                | 200 565 42                                                | 99.6                                                                                  | 20                                                                                    | 20                                                                                    |
| 2420    | 3765    | 200 565 10                                             | 200 565 21                                             | 200 565 32                                                | 200 565 43                                                | 103.4                                                                                 | 20                                                                                    | 20                                                                                    |

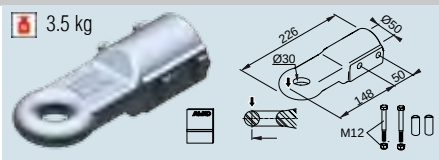
# HEIGHT-ADJUSTABLE OVERRUN HITCH WITH SQUARE

From 850 to 2700 kg

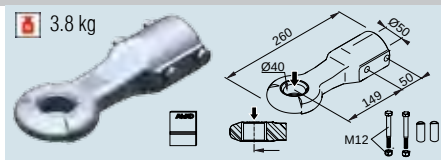
Drawing 1: Hitch components – 161 VB / 251 VB



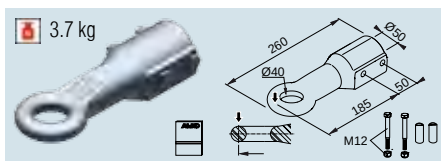
Ball hitch AK 160 - Ø 50 Part Number 249 277



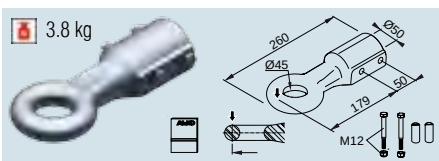
Drawbar eye UK E30/A Part Number 1 224 106



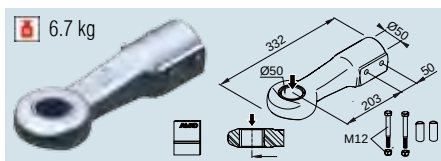
Drawbar eye DIN D40/F Part Number 1 213 350



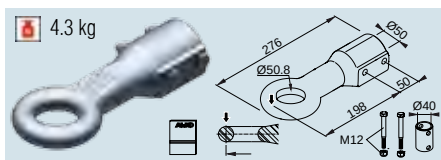
Drawbar eye UK E40/A Part Number 1 224 107



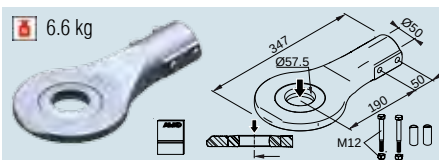
Drawbar eye Italy I45/F Part Number 1 224 108



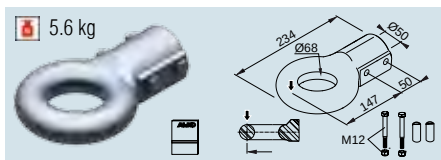
Drawbar eye DIN D50 **NEW** Part Number 1 730 612



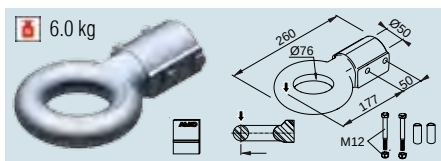
Drawbar eye UK E50/A Part Number 1 224 109



Drawbar eye Sweden VBG 57.5 Part Number 1 225 076



Drawbar eye France F68/E Part Number 1 224 110



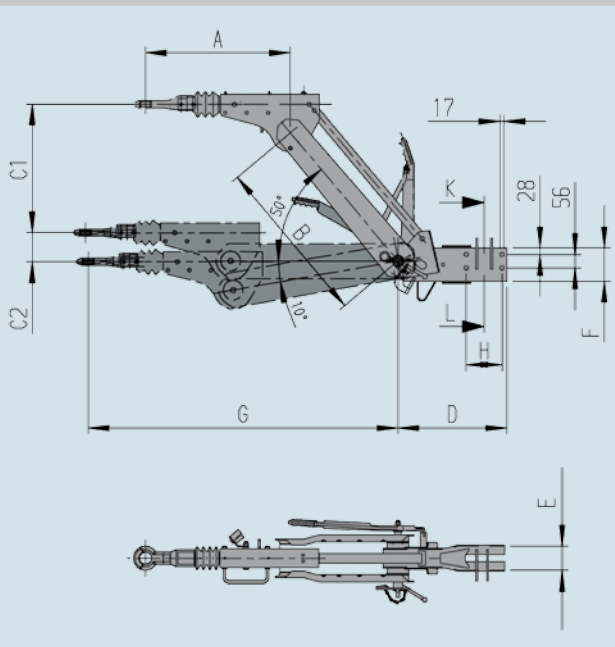
Drawbar eye NATO N76/E Part Number 1 224 111

## Ordering overview

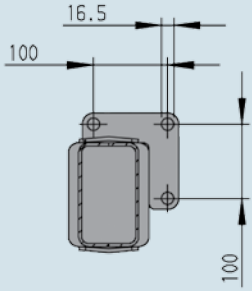
| for overrun hitch cpl. with V-adapter (see drawing 2) |                 |         |                  |                                  |               |       |              |                                   |                        |
|-------------------------------------------------------|-----------------|---------|------------------|----------------------------------|---------------|-------|--------------|-----------------------------------|------------------------|
| Part Number                                           | Overrun hitch   |         |                  | Drawbar installation (V-adapter) |               |       | Nose load kg | combinable with AL-KO wheel brake | A (DIN drawbar eye) mm |
|                                                       | Total weight kg | Type    | EC no.           | Type                             | EC test no.   | Vers. |              |                                   |                        |
| 1 220 834                                             | 850 - 1600      | 161VB-2 | 361-0002-01-FBKV | 162VB-2                          | e1 94/20-1157 | A     | 100          | 1637 / 2051                       | 606                    |
| 1 220 314                                             | 850 - 1600      | 161VB-2 | 361-0002-91-FBKV | 162VB-2                          | e1 94/20-1157 | C     | 100          | 1637 / 2051                       | 606                    |
| 1 222 809                                             | 850 - 1600      | 161VB-2 | 361-0002-01-FBKV | 162VB-2                          | e1 94/20-1157 | A     | 100          | 2361                              | 606                    |
| 1 222 810                                             | 850 - 1600      | 161VB-2 | 361-0002-91-FBKV | 162VB-2                          | e1 94/20-1157 | C     | 100          | 2361                              | 606                    |
| 1 222 811                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | A     | 120          | 1637 / 2051                       | 606                    |
| 1 222 812                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | C     | 120          | 1637 / 2051                       | 606                    |
| 1 212 872                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | A     | 120          | 1637 / 2061                       | 606                    |
| 1 220 835                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | C     | 120          | 1637 / 2061                       | 606                    |
| 1 222 813                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | A     | 120          | 3062                              | 606                    |
| 1 222 814                                             | 1425 - 2700     | 251VB-2 | 361-0003-01-FBKV | 252VB-2                          | e1 94/20-1158 | C     | 120          | 3062                              | 606                    |

# ADAPTER

Drawing 2: Overrun hitch with drawbar installation (V-adapter)



Section K-L



## Your advantage

- Extremely sturdy, robust design
- Technical advantages of height-adjustable overrun hitch, see comprehensive catalogue

## Scope of supply

### ! Hitch components

see drawing 1.

Content: Hitch component with fastening screws

### ! Overrun hitch complete

See drawing 2. Content:

- Overrun hitch
- Intermediate piece left, right
- Transmission device (cable)
- Handbrake lever (gas spring-supported)
- Breakaway cable

### ! Operating instructions

## Surface treatment

hot-dip galvanised; drawbar eyes, hitches galvanised

## Technology

- The hitch components must be replaced by a specialist workshop.
- The maximum free drawbar lengths depend on the drawbar tube used.

### Recommended connecting screws

| Type              | 162VB-2   | 252VB-2        |
|-------------------|-----------|----------------|
| Connecting screw  | M16 - 8.8 | M16x1,5 - 10.9 |
| Tightening torque | 170Nm     | 250Nm          |

### for overrun hitch cpl. with V-adapter (see drawing 2)

| B<br>Intermediate<br>piece<br>mm | C1<br>at +50°<br>mm | C2<br>at -10°<br>mm | D<br>mm | E<br>(Internal<br>dimension)<br>mm | F<br>mm | G (with DIN)<br>at +50°<br>mm | at 0°<br>mm | H<br>mm |  |
|----------------------------------|---------------------|---------------------|---------|------------------------------------|---------|-------------------------------|-------------|---------|---------------------------------------------------------------------------------------|
| 400                              | 306                 | 70                  | 455     | 101                                | 140     | 863                           | 1006        | 150     | 45                                                                                    |
| 700                              | 536                 | 122                 | 555     | 101                                | 140     | 1056                          | 1306        | 250     | 50                                                                                    |
| 400                              | 306                 | 122                 | 455     | 101                                | 140     | 863                           | 1006        | 150     | 45                                                                                    |
| 700                              | 536                 | 122                 | 555     | 101                                | 140     | 1056                          | 1306        | 250     | 50                                                                                    |
| 400                              | 306                 | 70                  | 465     | 101                                | 172     | 863                           | 1006        | 150     | 55                                                                                    |
| 700                              | 536                 | 122                 | 565     | 101                                | 172     | 1056                          | 1306        | 250     | 60                                                                                    |
| 400                              | 306                 | 70                  | 465     | 101                                | 172     | 863                           | 1006        | 150     | 55                                                                                    |
| 700                              | 536                 | 122                 | 565     | 101                                | 172     | 1056                          | 1306        | 250     | 60                                                                                    |
| 400                              | 306                 | 70                  | 465     | 101                                | 172     | 863                           | 1006        | 150     | 55                                                                                    |
| 700                              | 536                 | 122                 | 565     | 101                                | 172     | 1056                          | 1306        | 250     | 60                                                                                    |

# OVERRUN HITCH V STEEL

with short, flat spring accumulator lever 950 to 2700 kg

## Ordering overview

| Overrun hitch V with AK 160 |       |                    |                 |                              |                        |                                        |               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------|-------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Part Number                 | Type  | Total weight in kg | Nose load in kg | Version drawbar installation | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 249 775                     | 161 S | 950 - 1600         | 100             | top                          | No                     | 1637 / 2051                            | AK 160        | 17                                                                                  | -                                                                                   | 15                                                                                  | 20                                                                                  |

## Scope of delivery

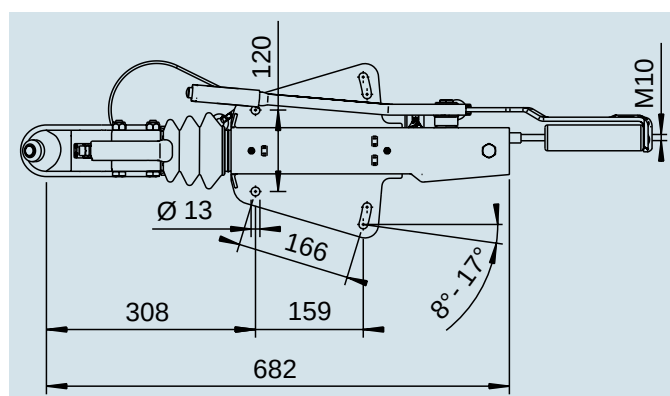
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

### EC / ECE test report no.

Overrun hitch EC: 361-284-83  
ECE: 361-0047-97

### EC / ECE type approval no.

Drawbar installation EC: 00-0229  
ECE: E1 55R-01 0229



## Ordering overview

| Overrun hitch V with AK 160 |       |                    |                 |                              |                        |                                        |               |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-----------------------------|-------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Part Number                 | Type  | Total weight in kg | Nose load in kg | Drawbar installation version | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 1 250 147                   | 251 S | 1500 - 2700        | 120             | top                          | No                     | 1637 / 2051                            | AK 300        | 19                                                                                    | -                                                                                     | 15                                                                                    | 20                                                                                    |

## Scope of delivery

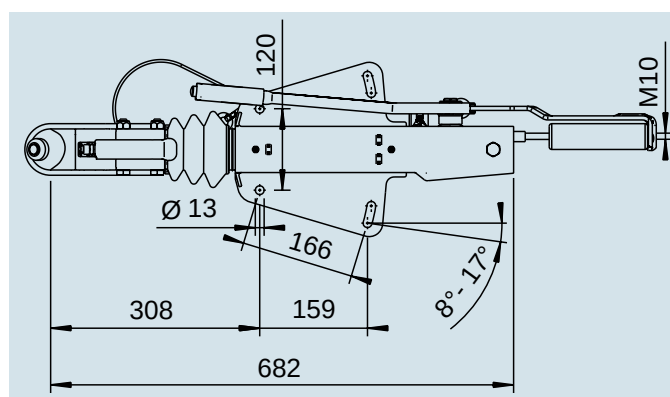
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

### EC / ECE test report no.

Overrun hitch EC: 361-303-83  
ECE: 361-0044-97

### EC / ECE type approval no.

Drawbar installation EC: 00-0227  
ECE: E1 55R-01 0227



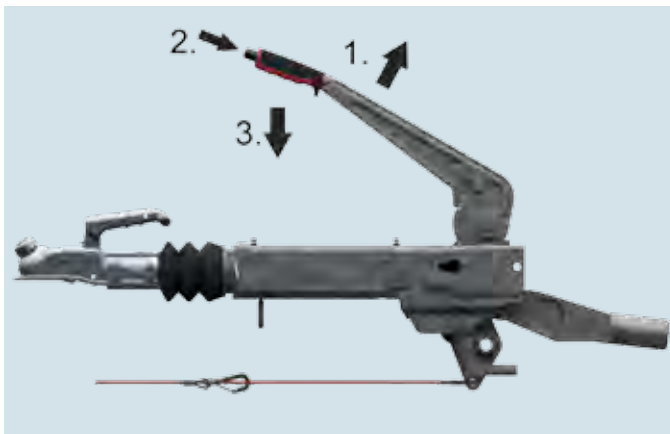
# OVERRUN HITCH V AND SQUARE

With lowering handbrake lever 950 to 3500 kg

## YOUR ADVANTAGE

After the handbrake has been applied, the handbrake lever can be lowered. The space created above the overrun hitch is now free and can be used.

**Important:** This handbrake lever position could lead to the mistaken assumption that the handbrake has already been released. For this reason the dealer should inform the user about this special function.



## SAMPLE APPLICATIONS

Trailers in which the area above the overrun hitch must be free.

## OPERATION OVERRUN HITCHES STEEL

### Brake the trailer when stationary.

Pull the handbrake lever (1) up = parking brake is active and the brake linkage is clamped.

### Lower handbrake lever

Press the pushbutton (2) on the handbrake lever and, at the same time, lower the handbrake lever (3) slowly and carefully towards the overrun hitch.

**Important:** Perform the lowering carefully once there is little room left in this position between your hand and the overrun hitch.

### Release the parking brake on the trailer again

Press the pushbutton (2) on the handbrake lever and, at the same time, pull the handbrake lever (1) upwards.

Let out the pushbutton (2) and then press the handbrake (3) down, thereby releasing the parking brake again.

## OPERATION OVERRUN HITCHES CAST-IRON

### Brake the trailer when stationary.

Pull the handbrake lever (1) up = parking brake is active and the brake linkage is clamped.

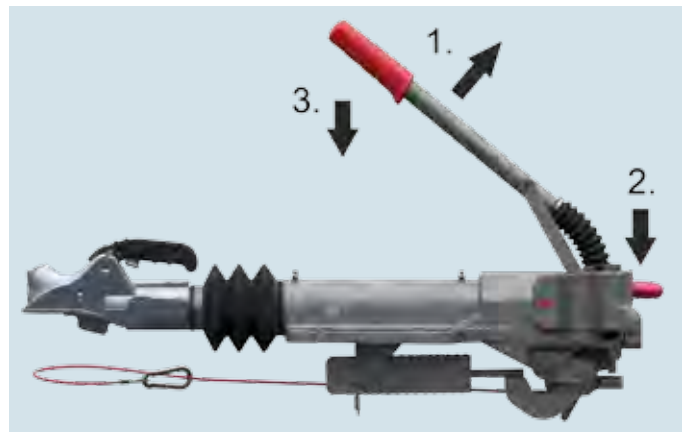
### Lower handbrake lever

Press the small locking lever (2) on the bottom of the handbrake lever and, at the same time, slowly and carefully lower the handbrake lever (3) downwards towards the overrun hitch.

**Important:** Perform the lowering carefully once there is little room left in this position between your hand and the overrun hitch.

### Release the parking brake on the trailer again

Press the small locking lever (2) on the bottom of the handbrake lever and, at the same time, pull the handbrake lever (1) back up. Let out the small locking lever (2) and then push the handbrake (3) back down. The parking brake is released again.



# OVERRUN HITCH V AND SQUARE STEEL

With lowering handbrake lever 950 to 3000 kg

## Ordering overview

| Overrun hitch square 161 S with AK 160 |       |                    |                 |                              |                        |                                        |               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|----------------------------------------|-------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Part Number                            | Type  | Total weight in kg | Nose load in kg | Drawbar installation version | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 1 211 246                              | 161 S | 950 - 1600         | 100             | Square 70                    | yes                    | 2051 / 2361                            | AK 160        | 17                                                                                  | -                                                                                   | 15                                                                                  | 20                                                                                  |

## Scope of delivery

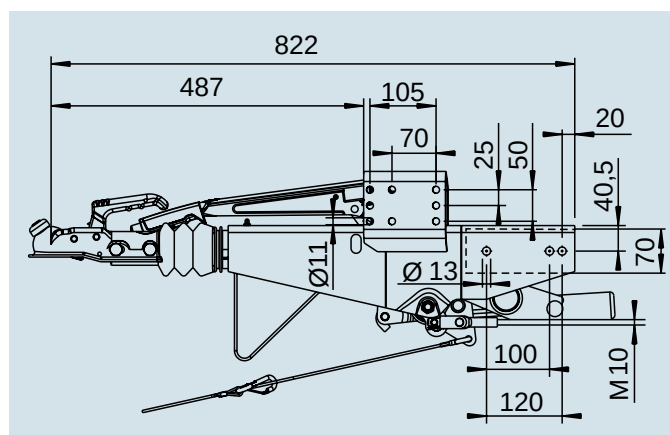
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

### EC / ECE test report no.

Overrun hitch EC: 361-284-83  
ECE: 361-0047-97

### EC / ECE type approval no.

Drawbar installation EC: 00-0229  
ECE: E1 55R-01 0267



## Ordering overview

| Overrun hitch V 161 S with AK 160 and 251 G with AK 300 |       |                    |                 |                              |                        |                                        |               |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------------------------------------|-------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Part Number                                             | Type  | Total weight in kg | Nose load in kg | Drawbar installation version | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 249 630                                                 | 161 S | 950 - 1600         | 100             | top                          | yes                    | 2051 / 2361                            | AK 160        | 14                                                                                    | -                                                                                     | 15                                                                                    | 20                                                                                    |
| 1 251 297                                               | 251 G | 1500 - 3000        | 120             | top                          | yes                    | 3062 / 3081                            | AK 300        | 19                                                                                    | -                                                                                     | 15                                                                                    | 20                                                                                    |

## Scope of delivery

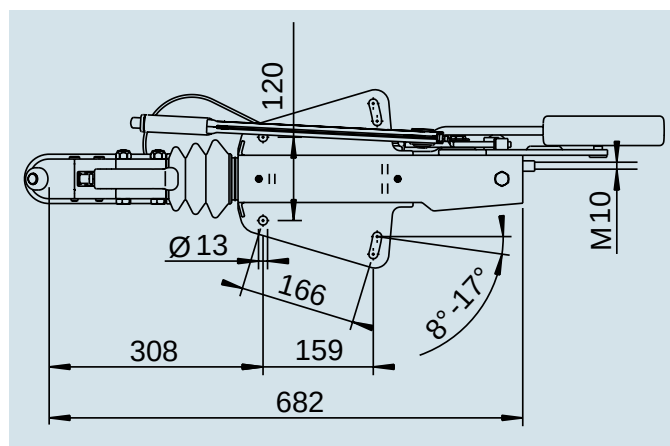
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

### EC / ECE test report no.

Overrun hitch EC: 361-284-83  
ECE: 361-0047-97

### EC / ECE type approval no.

Drawbar installation EC: 00-0227  
ECE: E1 55R-01 0227



# OVERRUN HITCH V CAST-IRON

With lowering handbrake lever 1600 to 3500 kg

## Ordering overview

| Overrun hitch Profi V with AK 301 |         |                    |                 |                              |                        |                                        |               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|---------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Part Number                       | Type    | Total weight in kg | Nose load in kg | Drawbar installation version | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 1 224 654                         | AE 3000 | 1600 - 3000        | 150             | top + bottom                 | No                     | 3062 / 3081                            | AK 301        | 23                                                                                  | -                                                                                   | 15                                                                                  | 20                                                                                  |
| 1 251 464                         | AE 3000 | 1600 - 3000        | 150             | top + bottom                 | No                     | 2361                                   | AK 301        | 23                                                                                  | -                                                                                   | 15                                                                                  | 20                                                                                  |
| 1 251 465                         | AE 3000 | 1600 - 3000        | 150             | top + bottom                 | No                     | 2051                                   | AK 301        | 23                                                                                  | -                                                                                   | 15                                                                                  | 20                                                                                  |

### Scope of delivery

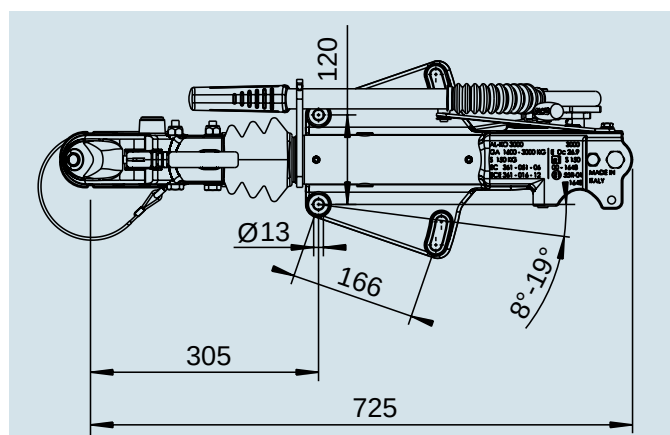
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

#### EC / ECE test report no.

Overrun hitch EC: 361-051-06  
ECE: 361-016-12

#### EC / ECE type approval no.

Drawbar installation EC: 00-1648  
ECE: E1 55R-01 1648



## Ordering overview

| Overrun hitch Profi V with AK 351 |         |                    |                 |                              |                        |                                        |               |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|-----------------------------------|---------|--------------------|-----------------|------------------------------|------------------------|----------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Part Number.                      | Type    | Total weight in kg | Nose load in kg | Drawbar installation version | Changeover relay lever | Can be combined with AL-KO wheel brake | Hitch mounted |  |  |  |  |
| 1 224 995                         | AE 3500 | 2000 - 3500        | 150             | top + bottom                 | No                     | 2361                                   | AK 351        | 29                                                                                    | -                                                                                     | 15                                                                                    | 20                                                                                    |
| 1 224 996                         | AE 3500 | 2000 - 3500        | 150             | top + bottom                 | No                     | 3062 / 3081                            | AK 351        | 29                                                                                    | -                                                                                     | 15                                                                                    | 20                                                                                    |

### Scope of delivery

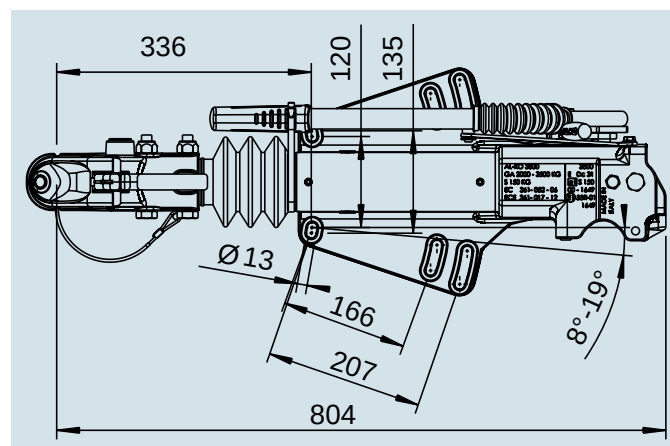
- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)

#### EC / ECE test report no.

Overrun hitch EC: 361-051-06  
ECE: 361-016-12

#### EC / ECE type approval no.

Drawbar installation EC: 00-1649  
ECE: E1 55R-01 1649



# OVERRUN HITCH V AND SQUARE

## With Hydraulic Brake Transmission

### Your advantage

- | Soft, comfortable overrun procedure, no overrun shock.
- | Minimum transmission losses = better braking values.

### Sample applications

- | Lifting platform trailer
- | Transport trailer for sensitive goods (electronics, glass, etc.)
- | Animal trailers, especially for horses



Figure 1

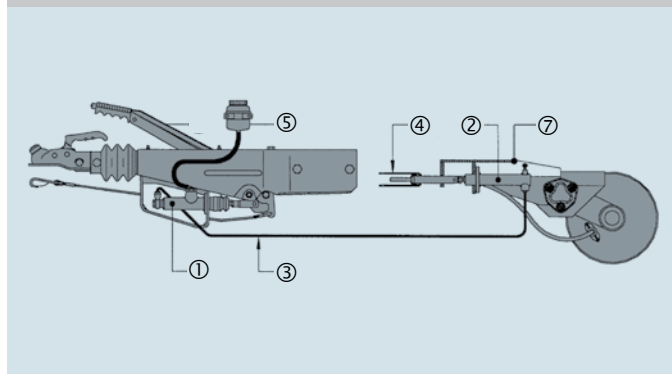
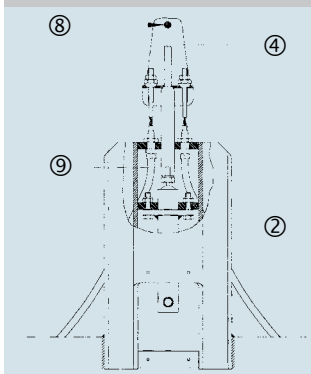


Figure 2



- 1 = main brake cylinder
- 2 = slave cylinder
- 3 = hydraulic lines
- 4 = compensation profile
- 5 = expansion tank
- 6 = handbrake lever
- 7 = bracket
- 8 = connection for parking brake
- 9 = Bowden cable

### Service brake / emergency brake

On the service brake, the drawbar tube pushes the overrun hitch via the relay lever onto the main brake cylinder (Fig. 1 ①). In the emergency brake, the same thing happens via the handbrake lever operated by the breakaway cable.

Hydraulic lines (or hoses Fig. 1 ③) transfer the pressure to the slave cylinder (Fig. 1 ②) on the axle. The slave cylinder (Fig. 1 ②) pulls on the Bowden cable and the expansion joint lock via the compensation profile (Fig. 1 ④). This expands the brake shoes and the trailer is braked.

### Handbrake / parking brake

Installation situation **Slave cylinder is mounted in the direction of travel in front of the axle:**

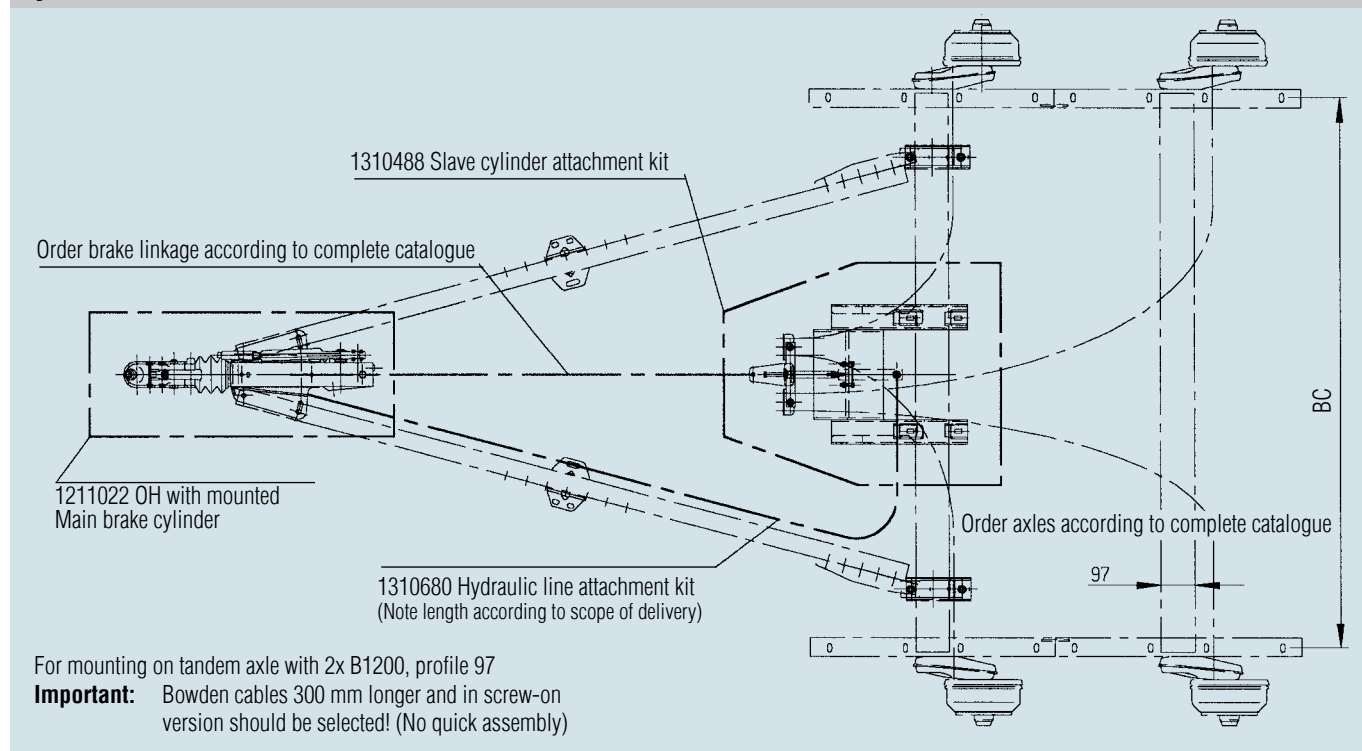
In V overrun hitches, the attachment kit for the slave cylinder is mounted in front of the axle in the driving direction. The handbrake in the hydraulic overrun hitch can thus brake the vehicle via the linkage (see Fig. 3):

Installation situation **Slave cylinder is mounted in the direction of travel behind the axle:** If the slave cylinder is mounted behind the axle, the handbrake of the overrun hitch can no longer be used. In this installation case, an additional handbrake / parking brake will have to be mounted at a suitable point on the vehicle (see Fig. 4).

## Range

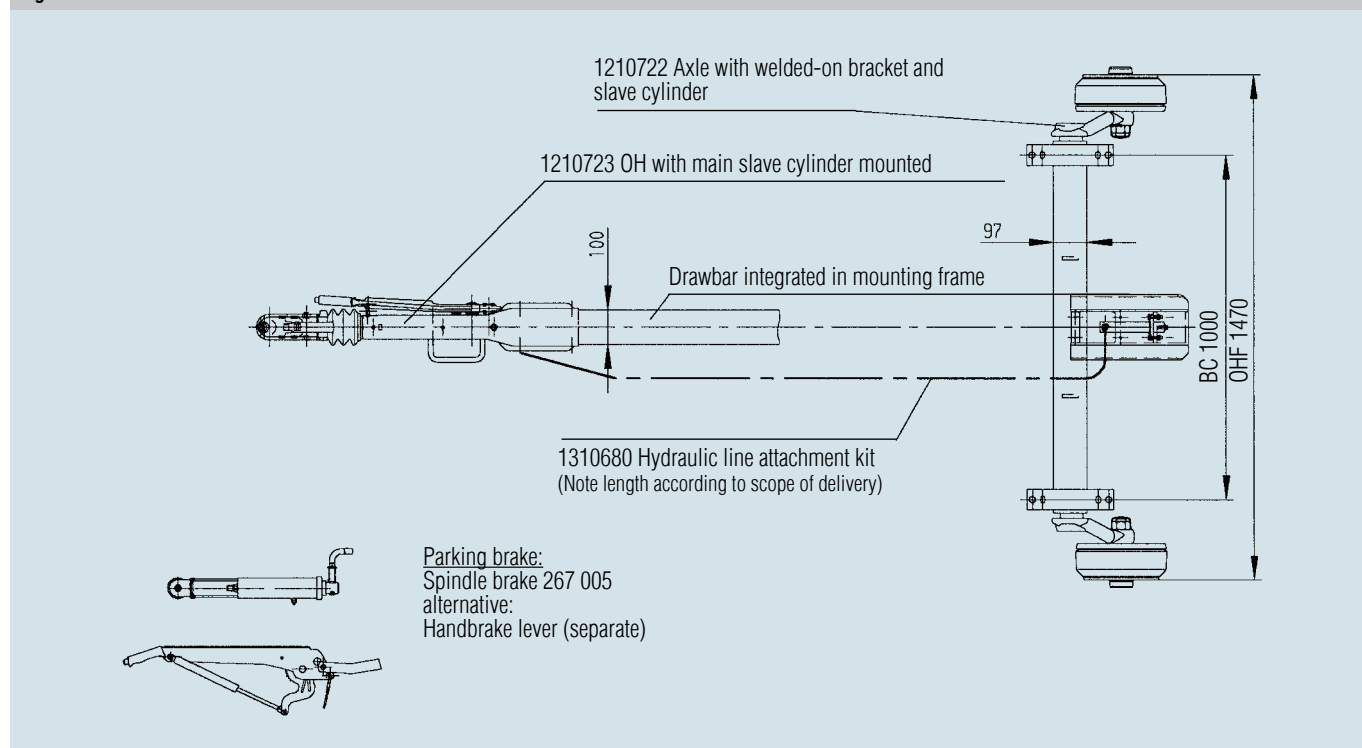
**example:** Trailer with V drawbar, tandem, max. 2600 kg permitted total weight

Figure 3



**Example:** Trailer with square OH, single axle, max. 1600 kg permitted total weight (special variant)

Figure 4



# OVERRUN HITCH V AND SQUARE

## With Hydraulic Brake Transmission

### Mounting

The following are required for mounting the hydraulic brake transmission:

- ! Bleeding unit (with adapter for expansion tank)
- ! Flaring unit for brake line (with pin 4 x 7.5)

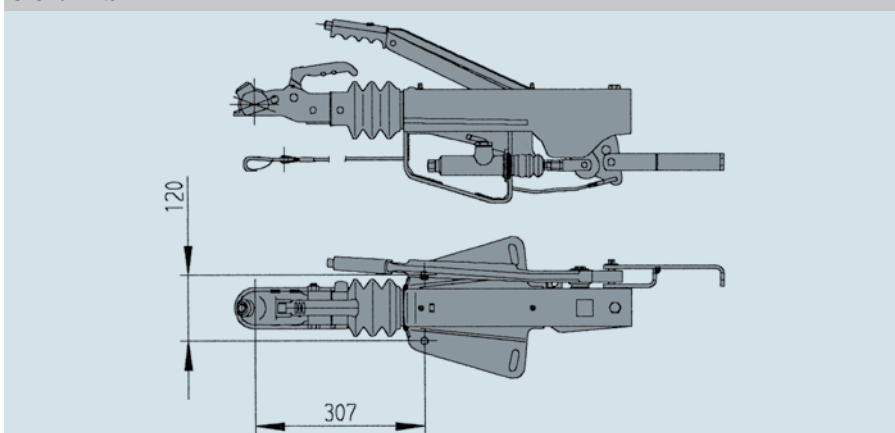
After mounting the chassis, fill and bleed the brake system.

**Important!** The braking effect will not be sufficient if the brake system has not been bled or only bled insufficiently! **Risk of accidents!**

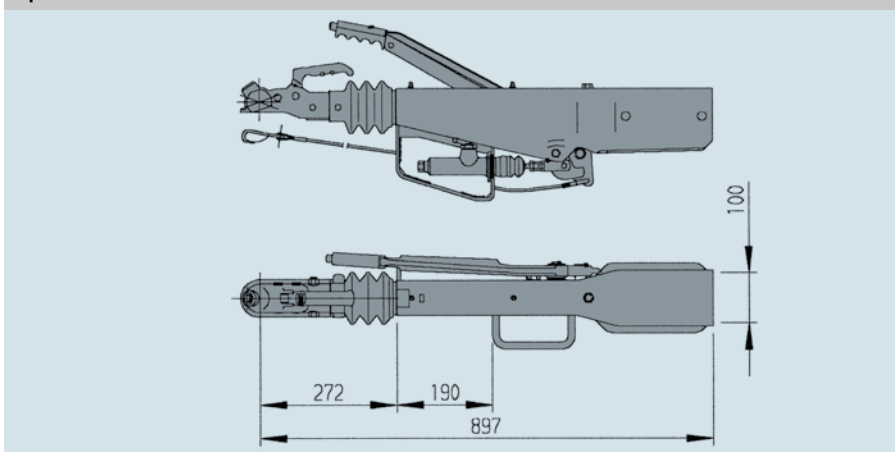
For trailers with a Hydraulic Brake Transmission, a mechanical, independent parking brake is prescribed.

The axles offered cannot be connected centrally with a central tube drawbar. A central tube drawbar must be integrated in the mounting frame or, alternatively, the offered axles connected using a V drawbar.

Overrun hitch -V-



Square overrun hitch



### Ordering overview

| 1. Overrun hitch |              |                    |                 |              |                                        |                         |                  |                      |                       |                                   |  |
|------------------|--------------|--------------------|-----------------|--------------|----------------------------------------|-------------------------|------------------|----------------------|-----------------------|-----------------------------------|--|
| Part Number      | Type         | Total weight<br>kg | Nose load<br>kg | Installation | Can be combined with AL-KO wheel brake | Change-over relay lever | Hand-brake lever | EC test report no.   |                       | Ball hitch mounted type / version |  |
|                  |              |                    |                 |              |                                        |                         |                  | Drawbar installation | Overrun hitch         |                                   |  |
| 1 211 022        | -V-251 S     | 1500-2600          | 100             | Top          | 2051                                   | yes<br>2361/3081        | Gas spring       | e1 00-0277<br>251 S  | 361-303-83<br>251 S/A | AK 300                            |  |
| 1 211 677        | -V-2.8 VB    | 2500-3500          | 150             | Top          | 2361                                   | No                      | Gas spring       | -                    | 361-0045-97           | AK 351                            |  |
| 1 210 723        | Square 161 S | 950-1600           | 100             | ☑100         | 2051                                   | yes<br>2361/3081        | Gas spring       | e1 00-267<br>161 K   | 361-284-83<br>161 S/A | AK 160                            |  |
| 1 210 971        | Square 251 S | 1500-2600          | 100             | ☑100         | 2051                                   | yes<br>2361/3081        | Gas spring       | e1 00-268<br>251 K   | 361-303-83<br>251 S/A | AK 300                            |  |

### 2. Hydraulic lines attachment kit

| Part Number | Designation / content                                        |
|-------------|--------------------------------------------------------------|
| 1 310 680   | Brake line 2 x 2000 mm + small parts (see scope of delivery) |

### 3. Slave cylinder attachment kit for tandem axle A-frame chassis

| Part Number | Designation / content                                                  | for axle beam Ø mm             |
|-------------|------------------------------------------------------------------------|--------------------------------|
| 1 310 488   | Screw-on bracket, slave cylinder + small parts (see technical drawing) | 97 (= max. GA tandem 2600 kg)  |
| 1 310 907   | Screw-on bracket, slave cylinder + small parts (see technical drawing) | 110 (= max. GA tandem 3500 kg) |

## Scope of supply

### 1. Overrun hitch

complete with main brake cylinder, plug holder, operating instructions, ring for breakaway cable guidance (251 S-V-), cover plate for bottom installation (251 S -V-)

### 2. Hydraulic lines attachment kit:

Expansion tank, hose 500 mm, hose clip (2x), banjo bolt, ring connector, sealing ring (4x), brake line nipple (4x), line union, clip (6x), brake line 2000 mm (2x)

### 3. Slave cylinder attachment kit for tandem axle A-frame chassis:

see technical drawing

### 4. Axle with slave cylinder attachment kit cpl.

for (special variant):

Bracket welded-on, slave cylinder, Bowden cables, compensation profile, ball-head wheel bolts, small parts, operating instructions

Overrun hitch



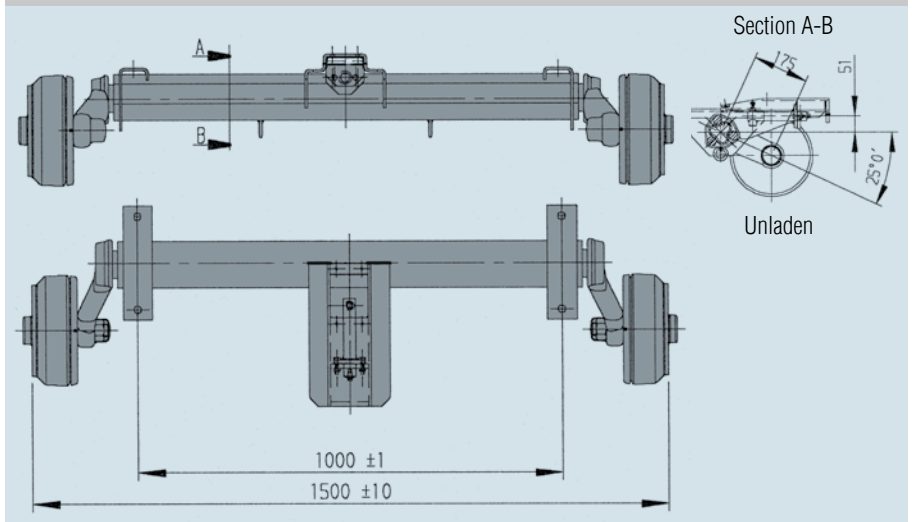
Hydraulic lines attachment kit



Slave cylinder attachment kit



Axle with slave cylinder attachment kit cpl. (special variant) B 1800



| 4. Axle with slave cylinder attachment kit (special variant) B 1800 |           |                 |                  |                  |          |           |                |                                                                                       |           |            |
|---------------------------------------------------------------------|-----------|-----------------|------------------|------------------|----------|-----------|----------------|---------------------------------------------------------------------------------------|-----------|------------|
| Part Number                                                         | Axle type | Axle load<br>kg | Wheel brake type | Wheel connection | BC<br>mm | OHF<br>mm | Axle beam<br>Ø |  | Rec. rims | Rec. tyres |
| 1 211 952                                                           | B 1600    | 1600            | 2361             | 112x5            | 1000     | 1470      | 97             | 72                                                                                    | 6 J 14    | 185 R 14 C |
| 1 210 973                                                           | B 1800    | 1800            | 2361             | 112x5            | 1000     | 1500      | 110            | 76                                                                                    | 6 J 14    | 185 R 14 C |
| 1 210 877                                                           | B 2500    | 2500            | 3081 A           | 205x6            | 1000     | 1530      | 120            | 133                                                                                   | 6.00G-16  | 7.00 R 16  |

# OVERRUN HITCH V

2500 to 6000 kg – up to 40 km/h

## Ordering overview

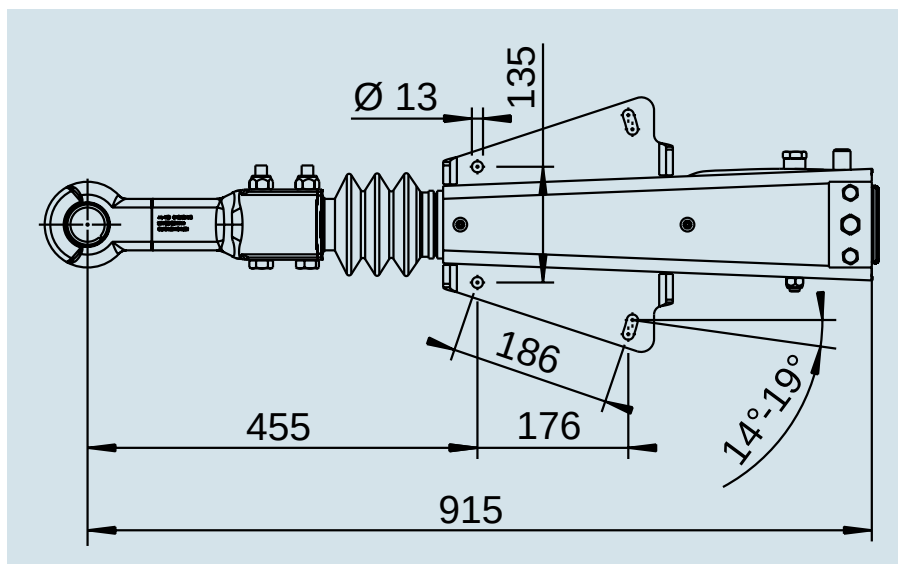
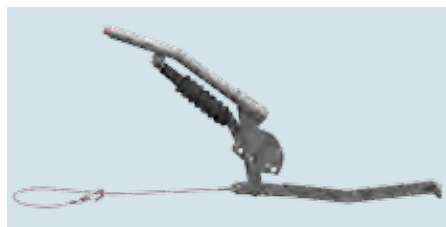
| Overrun hitch 44 V and 45 ZA with DIN drawbar eye Ø 40 |                                |                |       |                       |                       |                        |                                |                                         |                              |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  |
|--------------------------------------------------------|--------------------------------|----------------|-------|-----------------------|-----------------------|------------------------|--------------------------------|-----------------------------------------|------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|
| Central<br>axle trailer                                | Pivoting<br>drawbar<br>trailer | Part<br>Number | Type  | Total weight<br>in kg | Nose<br>load<br>in kg | Installation           | Change-<br>over relay<br>lever | Combinable<br>with AL-KO<br>wheel brake | DIN-<br>Draw-<br>bar<br>eyes |  |  |  |  |  |
| X                                                      |                                | 1 251 725      | 44 V  | 2500-4400             | 300                   | Top<br>Bottom from 16° | No                             | 2051 / 2361                             | Ø 40                         | 32                                                                                  | -                                                                                   | 10                                                                                  | 25                                                                                  |  |
| X                                                      |                                | 1 251 724      | 44 V  | 2500-4400             | 300                   | Top<br>Bottom from 16° | No                             | 3062 / 3081                             | Ø 40                         | 32                                                                                  | -                                                                                   | 10                                                                                  | 25                                                                                  |  |
|                                                        | X                              | 1 251 745      | 45 ZA | 3500-4500             | -                     | Top<br>Bottom from 16° | No                             | 3062 / 3081                             | Ø 40                         | 32                                                                                  | -                                                                                   | 10                                                                                  | 25                                                                                  |  |

### Scope of delivery

- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)
- I handbrake lever (loose)

### EC / ECE test report number

with individual acceptance



## Ordering overview

| Overrun hitch 50 V and 60 ZA with DIN drawbar eye Ø 40 |                          |             |       |                       |                 |              |                         |                                   |                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|--------------------------------------------------------|--------------------------|-------------|-------|-----------------------|-----------------|--------------|-------------------------|-----------------------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Central axle trailer                                   | Pivoting drawbar trailer | Part Number | Type  | Total weight<br>in kg | Nose load in kg | Installation | Change-over relay lever | Combinable with AL-KO wheel brake | DIN-Drawbar eyes |  |  |  |  |
| X                                                      |                          | 1 730 502   | 50 V  | 4400-5000             | 300             | Top          | No                      | 2361 / 3062 / 3081                | Ø 40             | 38                                                                                  | -                                                                                   | 10                                                                                  | 30                                                                                  |
|                                                        | X                        | 1 225 966*  | 60 ZA | 4700-6000             | -               | Top          | No                      | 2361 / 3062 / 3081                | Ø 40             | 38                                                                                  | -                                                                                   | 10                                                                                  | 30                                                                                  |

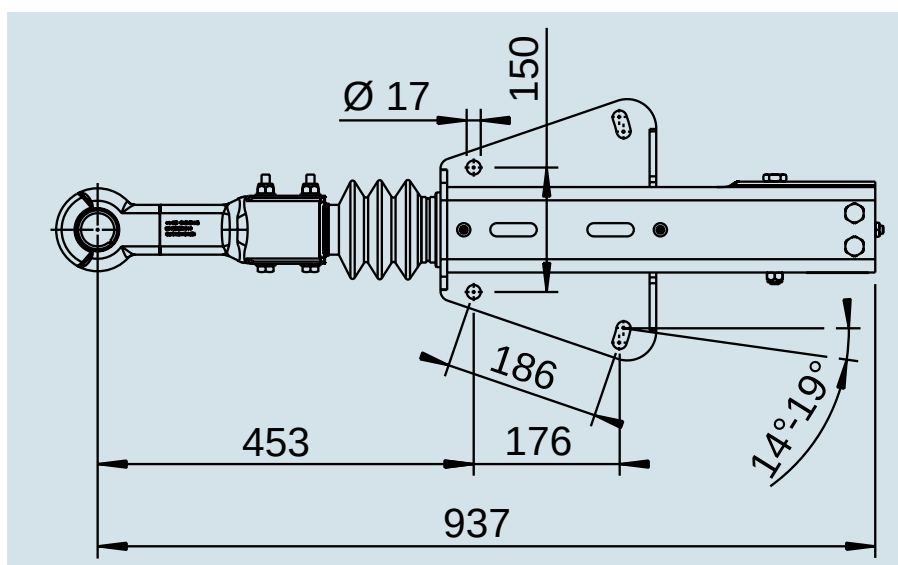
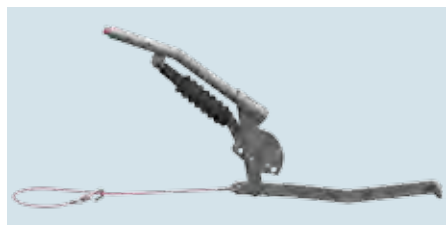
\*Available from 2016

### Scope of delivery

- I Overrun hitch (see fig.)
- I Plug holder (loose)
- I Instructions for use (loose)
- I handbrake lever (loose)

### EC / ECE test report number

with individual acceptance

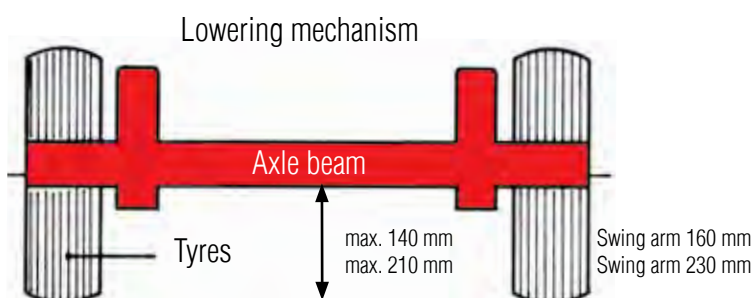


# LOWERING AXLES DOWN TO 140 MM, 190 MM, 210 MM

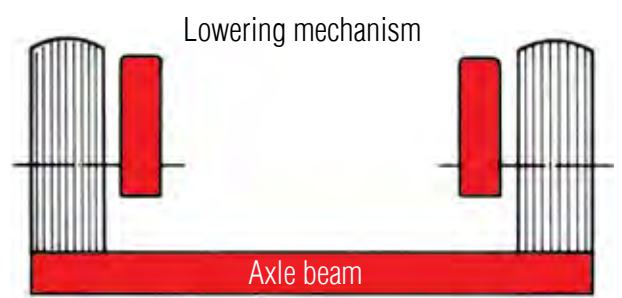
## ✓ Your advantage

- | Lowering down to 140 mm in axle types BRA 1600 with swing arm length 160 mm
- | Lowering down to 190 mm in axle types BRA 2500 / 3000 / 3500 with swing arm length 200 mm
- | Lowering down to 210 mm in axle types BRA 1800 / 2500 / 3000 / 3500 with swing arm length 230 mm

## Driving condition



## Lowered condition (axle beam close to ground in 210 mm solution)



## Sample applications

### Car transporter trailer

The lower-cost solution "inclined or partial lowering down to 140 mm" usually meets the requirements of this target group.

### Sales trailer / commercial trailer

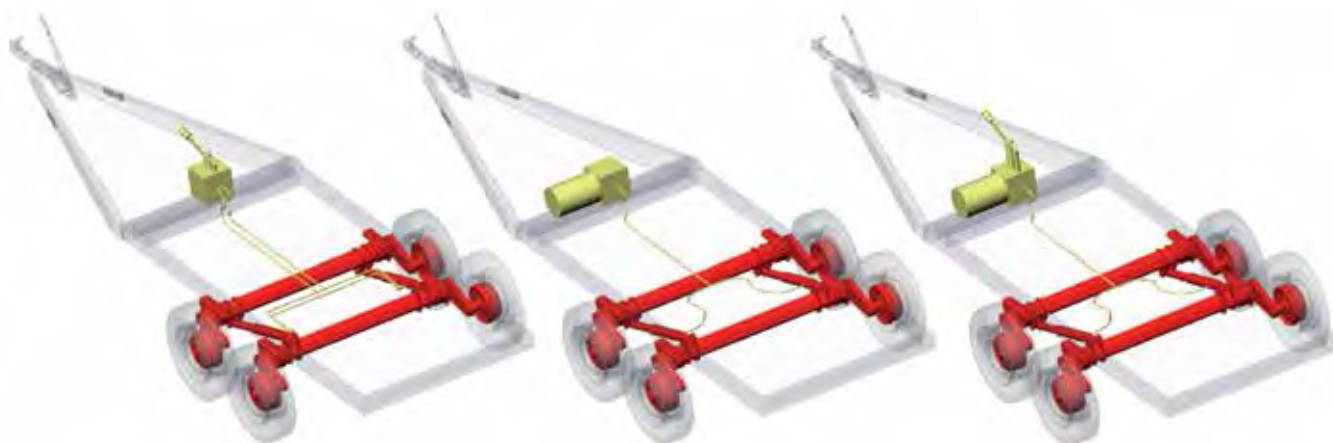
Lowering flat down to the ground is called for here. With 210 mm lowering, the trailer will usually make contact with the road. This means loading is possible quickly and safely with very simple means.

- | Simple and low-cost loading and unloading

- | Contact with customers takes place at eye level



## Variants / weight ranges



### Variant 1 Mechanical hydraulic pump

|              |                                                      |
|--------------|------------------------------------------------------|
| Single axles | 1350 / 1500 / 1600 / 1800 /<br>2500 / 3000 / 3500 kg |
| Tandem       | 2000 / 2700 / 3000 / 3500 kg                         |

### Variant 2 Electrical hydraulic pump without emergency operation

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Single axles | 1350 / 1500 / 1600 / 1800 /<br>2000 / 2500 / 3000 / 3500 kg |
| Tandem       | 2000 / 2700 / 3000 / 3500 kg                                |

### Variant 3 Electrical hydraulic pump with emergency operation

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Single axles | 1350 / 1500 / 1600 / 1800 /<br>2000 / 2500 / 3000 / 3500 kg |
| Tandem       | 2000 / 2700 / 3000 / 3500 kg                                |

## Scope of supply

### AL-KO (highlighted in red)

Axles with loose hydraulic cylinder

### Hydraulic supplier (highlighted in yellow)

Pump unit with hoses and valves.

Hydraulic components are not supplied by AL-KO.

AL-KO recommends the following hydraulic specialists for Germany:

Stiefel GmbH  
Dr. Carl-Schwenk-Straße 16  
89233 Neu-Ulm, Burlafingen  
Tel. 0731 / 7173-0  
Fax 0731 / 7173-41  
E-mail: [Info@stiefel.de](mailto:Info@stiefel.de)



Lowered position Driving position



Driving position

# LOWERING AXLES DOWN TO 140 MM, 190 MM, 210 MM

## Single axles function

Two hydraulic cylinders are mounted between the axle beam and trailer frame. The axle support blocks are mounted on the axle beam so they can rotate. The axle beam can be lowered or raised with the body by means of a hydraulic pump. The suspension is not impaired during driving.



## Tandem axles function

Two hydraulic cylinders are mounted between the front and rear axle beams. The axle support blocks are mounted on both axle beams so they can rotate. Both axle beams and the body can be lowered or lifted using a hydraulic pump. The suspension is not impaired during driving.



The arrangement of hydraulic cylinders in tandem axles also carries out the function of equalising the load between the front and rear axles. Instead of the compensation linkage, the two hydraulic cylinders act when driving, thereby ensuring an even load distribution between both axles.

## Operation

### Lowering single / tandem axles

Open valves on the hydraulic pump. The cylinder retracts and the axle beam with body is lowered on both sides jointly by the vehicle's own weight.

### Lifting single / tandem axles

Operate the hydraulic pump (electric pump / hand pump). The cylinder extends and the axle beam with body is raised on both sides jointly.

## Mounting

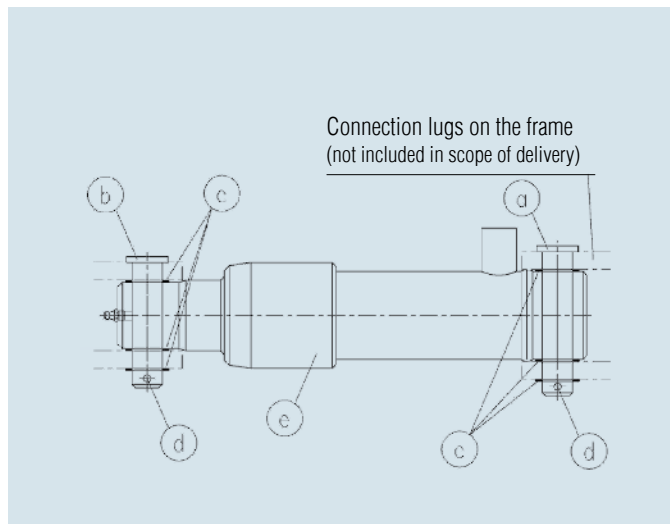
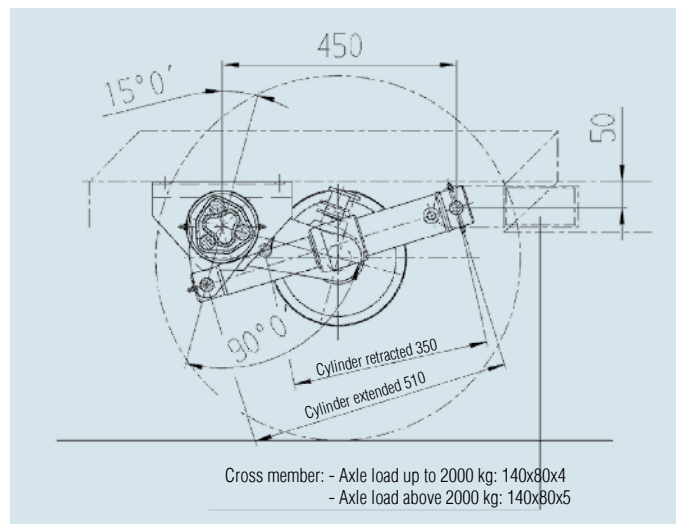
I Axle brackets in rotating mounting.



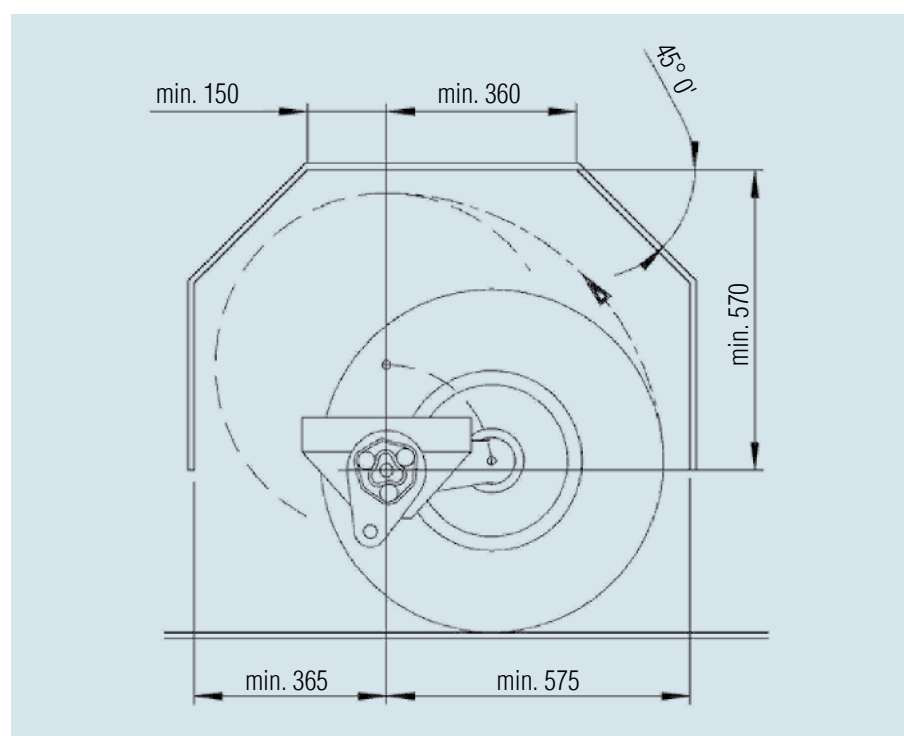
I Bowden cable outlet 90° (no kinking during lowering procedure). Bowden cable guide welded-on.



## Mounting the cylinder in the single-axle trailer



| Supplied with the axle |          |                    |
|------------------------|----------|--------------------|
| Item                   | Quantity | Designation        |
| a                      | 2        | Bolt               |
| b                      | 2        | Bolt               |
| c                      | 12       | Disc               |
| d                      | 4        | Split pin          |
| e                      | 2        | Hydraulic cylinder |



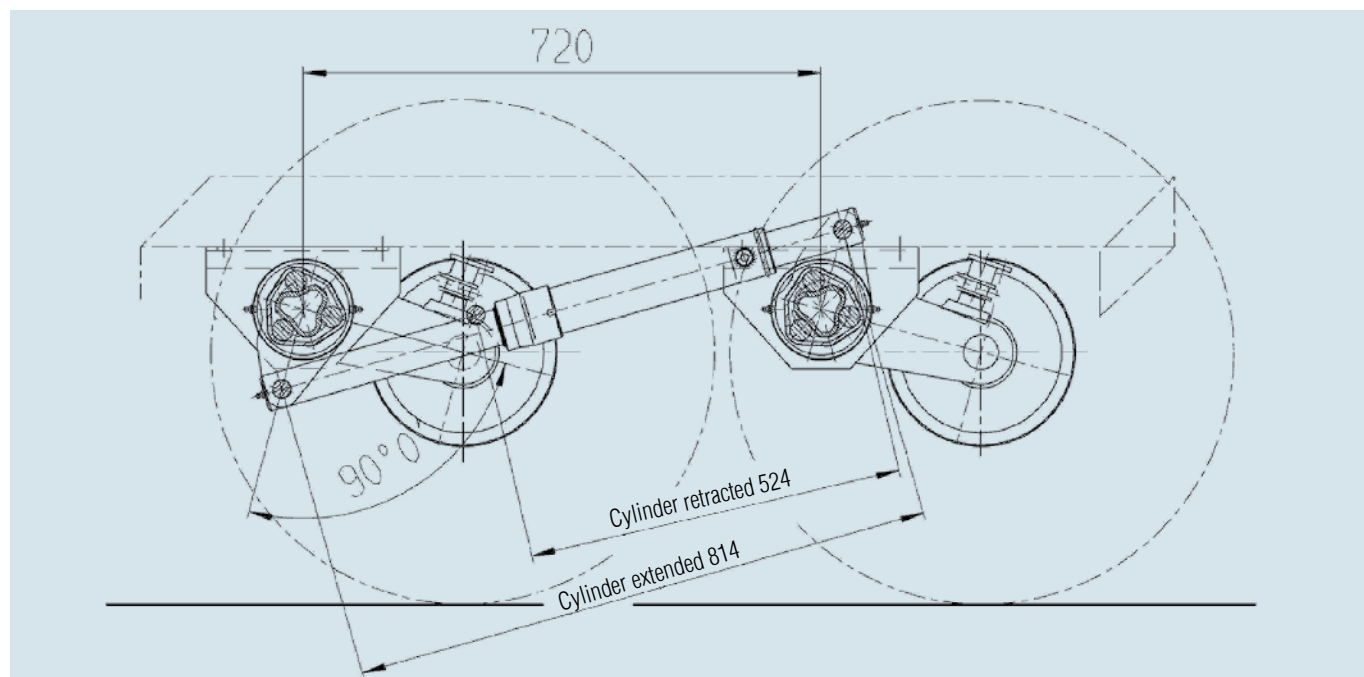
### Note the wheel housing clearances

The wheel housing must be configured accordingly with other tyres (see diagram). Particular attention must be paid to the swivelling ranges (see diagram).

The specified dimensions apply to 215 R 14 C tyres!

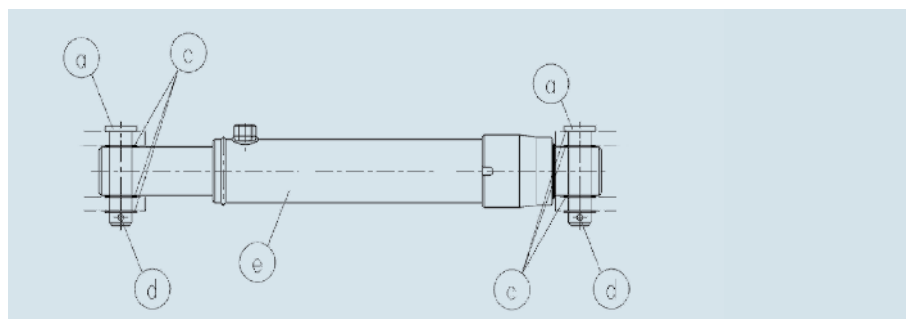
# LOWERING AXLES DOWN TO 140 MM, 190 MM, 210 MM

## Mounting of the cylinder with tandem



## Mounting Jockey wheel

- In the lowered condition, the lowest point is the bottom edge of the frame. As a result, the jockey wheel must be mounted as high up as possible.
- The jockey wheel is involved in the lowering procedure. As a result, a very stable version should be used.



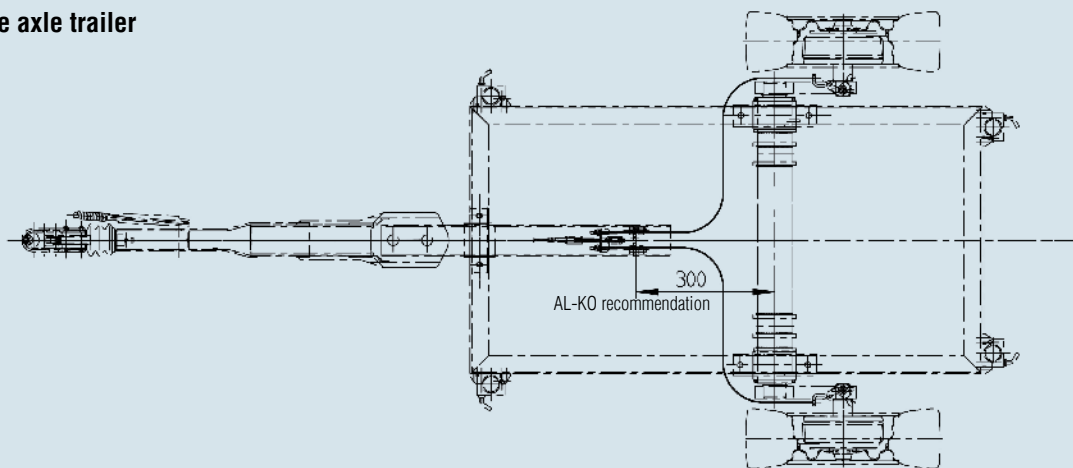
## Mounting Axles

- In tandem axles, the axle distance (front-rear axles) of  $720 \pm 1$  mm must be maintained without fail.
- The tyre radius is not allowed to be less than R stat. 300 mm.
- In catalogue axles, the frame width or body width is not allowed to project more than 30 / 40 mm beyond the support centre on either side. Larger body widths on request.
- The cylinder spacing must be observed without fail (especially in tandem axles if the frame is offset to the inside away from the support centre). Other spacings on request.
- AL-KO axles have a toe-in, which means they must be installed trailing.

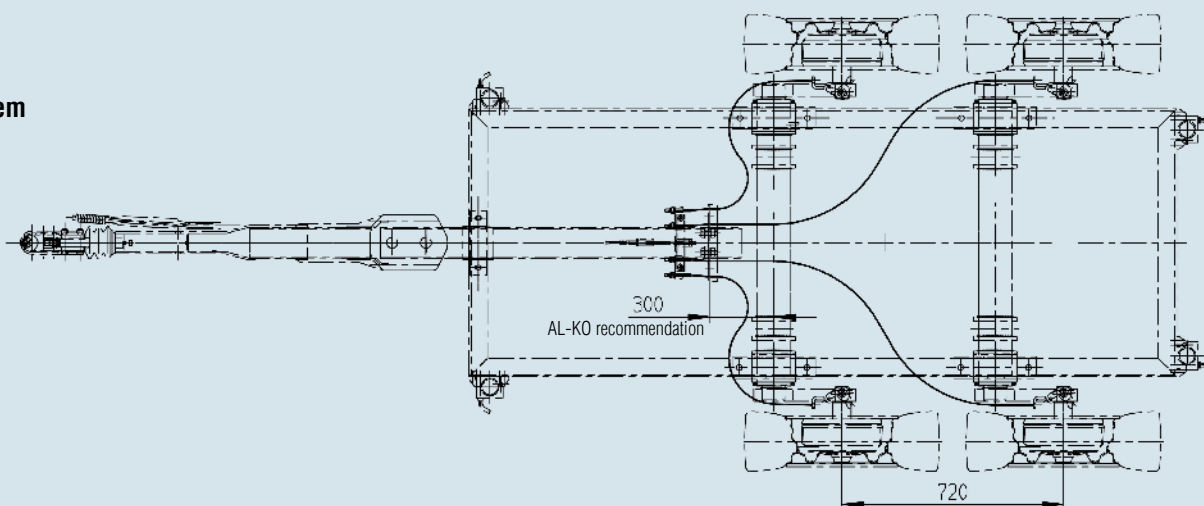
| Supplied with the axle |          |                    |
|------------------------|----------|--------------------|
| Item                   | Quantity | Designation        |
| a                      | 4        | Bolt               |
| c                      | 12       | Disc               |
| d                      | 4        | Split pin          |
| e                      | 2        | Hydraulic cylinder |

## Mounting Axle Bowden cables

### Single axle trailer



### Tandem



## Bowden cable allocation: NEW – Longlife with hook-in eye

### for single-axle trailers

| System<br>from / to<br>(mm) | Wheel brake 2051/2361       |                |               | Wheel brake 3062/3081       |                |               |
|-----------------------------|-----------------------------|----------------|---------------|-----------------------------|----------------|---------------|
|                             | Part Number<br>Bowden cable | Sleeve<br>(mm) | Cable<br>(mm) | Part Number<br>Bowden cable | Sleeve<br>(mm) | Cable<br>(mm) |
| up to 1650                  | 247 285                     | 1020           | 1216          | 278 196 04 03               | 1040           | 1300          |
| 1650-2050                   | 247 287                     | 1320           | 1516          | 278 196 04 05               | 1340           | 1600          |
| 2050-2450                   | 247 288                     | 1430           | 1626          | 224 609                     | 1760           | 2020          |

### for tandem trailers

| System<br>from / to<br>(mm) | Wheel brake 2051/2361       |                |               | Wheel brake 3062/3081       |                |               |
|-----------------------------|-----------------------------|----------------|---------------|-----------------------------|----------------|---------------|
|                             | Part Number<br>Bowden cable | Sleeve<br>(mm) | Cable<br>(mm) | Part Number<br>Bowden cable | Sleeve<br>(mm) | Cable<br>(mm) |
| up to 1650                  | 247 285                     | 1020           | 1216          | 247 289                     | 1620           | 1816          |
| 1650-2050                   | 247 287                     | 1320           | 1516          | 247 290                     | 1790           | 1986          |
| 2050-2450                   | 247 288                     | 1430           | 1626          | 1 224 570                   | 2170           | 2366          |

- ! Bowden cables are supplied with the axles.
- ! Avoid excessively tight bends or kinks when routing Bowden cables!
- ! Appropriately large radii must be maintained!
- ! The Bowden cables must be mounted or guided so as to avoid chafing on the Bowden cables.

# LOWERING AXLES DOWN TO 140 MM, 190 MM, 210 MM

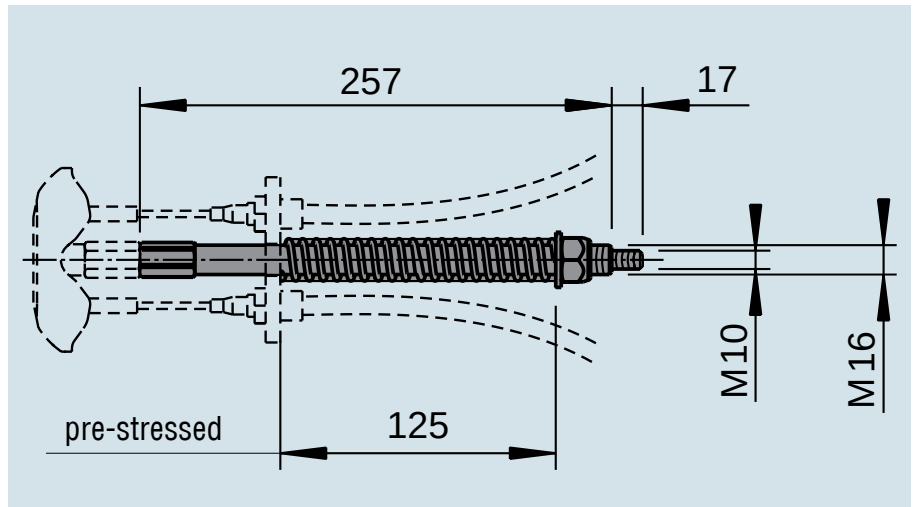
## Mounting Recovery device

Recovery device

Order no. 288 675 up to 2500 kg (M10)

Order no. 288 676 above 2500 kg (M12)

The recovery device is supplied with the axles.



## Safety and maintenance

Safety notes:

! Affix a warning notice on all sides of the trailer.

For example:

**“Important: Trailer Body Lowers!”**

! Work on the hydraulic system is only permitted when the trailer is lowered or the frame has been supported (risk of accidents due to lowering)

! The valve lever on the pump must be in the middle position when driving (risk of lowering)

! The hand lever on the pump is not allowed to be connected to the pump when driving (danger of misuse)

## Maintenance notes:

! It is recommended for the body to be lowered after driving, because this allows the scrapers to clean the piston rods of the cylinders by removing salt, dust and moisture

! Grease the grease nipple at the axle brackets at least once a year

! Grease the grease nipple at the hydraulic cylinders at least once a year

! Grease the grease nipple on the Bowden cable deflection on the swing arm at least twice a year

## Hydraulic system

The hydraulic components are not supplied by AL-KO. This means order handling, delivery, settlement and service are carried out by the hydraulic supplier in question for reasons of cost.

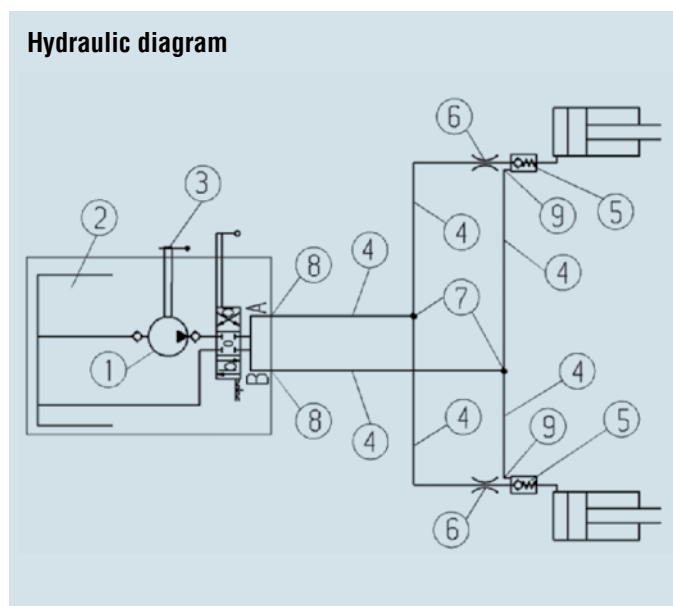
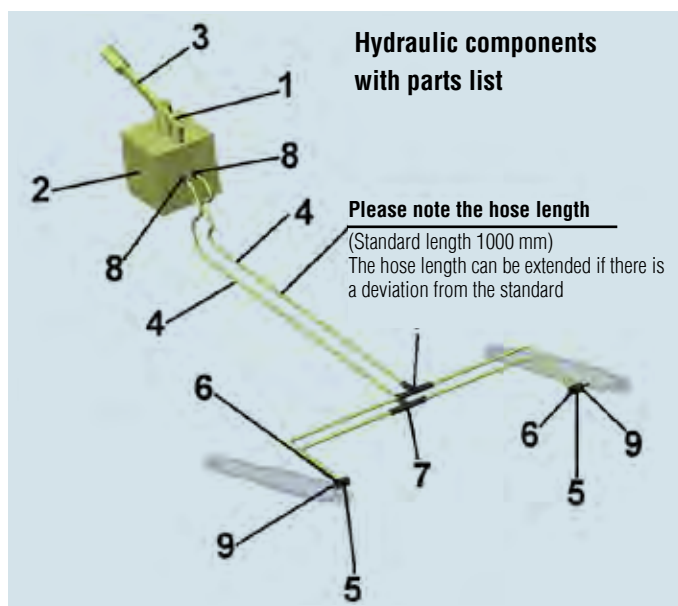
The information on the following pages is intended to help you to select the hydraulic system that is suitable for you quickly and cost-effectively.

If you have further questions about the hydraulic system, the hydraulic supplier in question will be pleased to assist you (see page 33).

**Scope of supply**  
**Delivery range from Stiefel**



Hydraulic component set  
 Hand pump



**Ordering overview**

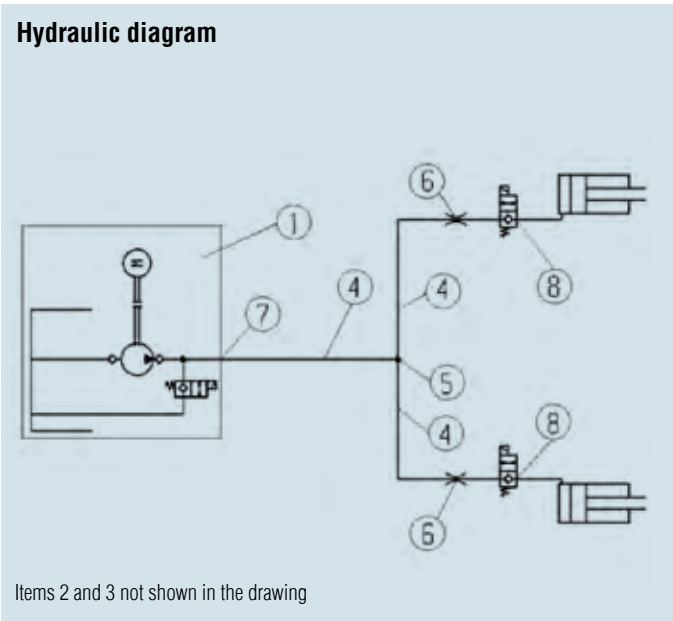
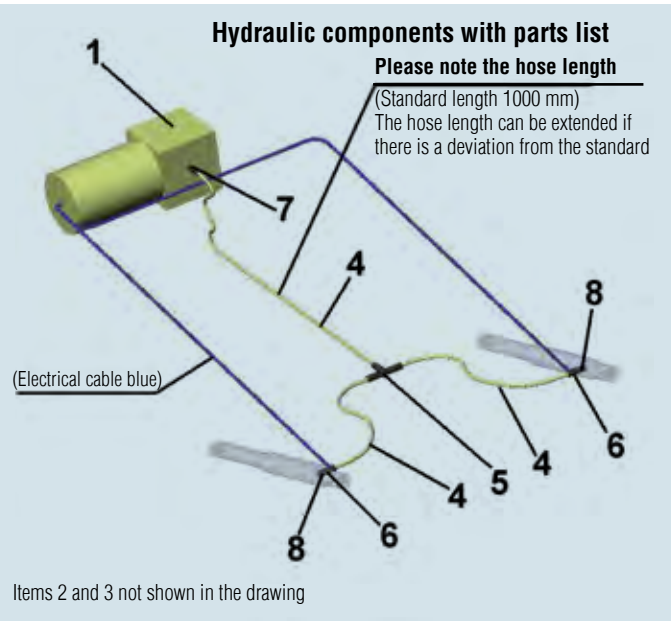
| Item | Qty. | Designation                               | Stiefel no. | AL-KO no. |
|------|------|-------------------------------------------|-------------|-----------|
|      | 1    | Complete set with all items listed below  | 100 187 528 | 1 222 213 |
| 1    | 1    | Double-action hand pump                   |             |           |
| 2    | 1    | 2 l tank                                  |             |           |
| 3    | 1    | Hand lever                                |             |           |
| 4    | 6    | HP hose 1000lg.DKOL 12 / DKOL 1290 size   |             |           |
| 5    | 2    | unlockable Check valve                    |             |           |
| 6    | 2    | Straight screw-in L 12/ 3/8" with orifice |             |           |
| 7    | 2    | T piece 12 L                              |             |           |
| 8    | 2    | Straight screw-in L 12/ 3/8"              |             |           |
| 9    | 2    | Straight screw-in L 12/ 1/4"              |             |           |

# LOWERING AXLES DOWN TO 140 MM, 190 MM, 210 MM

 **Scope of supply**  
**Delivery range from Stiefel**



Hydraulic component set  
Electrical unit without emergency hand pump



## Ordering overview

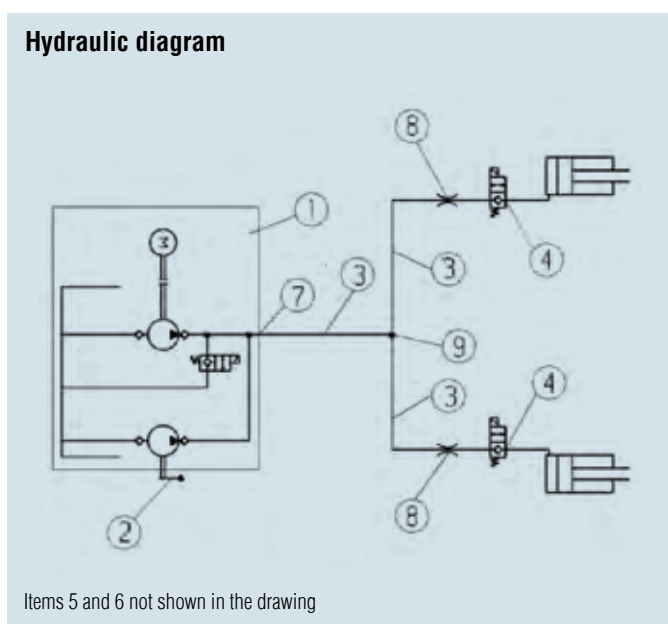
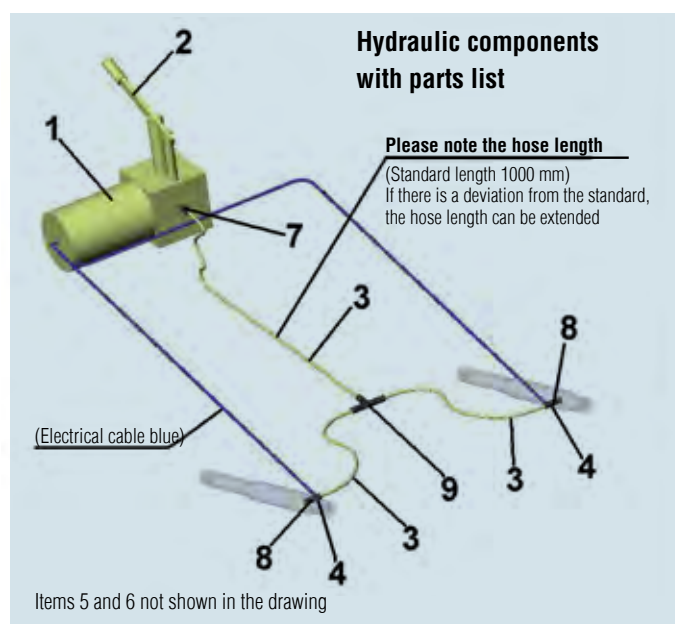
| Item | Qty. | Designation                               | Stiefel no. | AL-KO no. |
|------|------|-------------------------------------------|-------------|-----------|
|      | 1    | Complete set with all items listed below  | 100 187 675 | 1 222 214 |
| 1    | 1    | DC unit 12VDC with 2/2-way poppet valve   |             |           |
| 2    | 1    | Cable set with 7-pin plug                 |             |           |
| 3    | 1    | Switch box                                |             |           |
| 4    | 3    | HP hose 1000lg.DKOL 12 / DKOL 1290 size   |             |           |
| 5    | 1    | T piece 12 L                              |             |           |
| 6    | 2    | Straight screw-in L 12/ 3/8" with orifice |             |           |
| 7    | 1    | Straight screw-in L 12/ 1/4"              |             |           |
| 8    | 2    | 2/2-way poppet valve with banjo bolt      |             |           |

**Scope of supply**  
**Delivery range from Stiefel**

Hydraulic component set  
 Electrical unit with emergency hand pump (not illustrated)

**Important notes about the emergency hand pump!**

The emergency hand pump can only be used for lifting the trailer (not lowering) if the electrical unit has failed.



**Ordering overview**

| Item | Qty. | Designation                               | Stiefel no. | AL-KO no. |
|------|------|-------------------------------------------|-------------|-----------|
|      | 1    | Complete set with all items listed below  | 100 219 872 | 1 222 318 |
| 1    | 1    | Emergency unit                            |             |           |
| 2    | 1    | Hand lever                                |             |           |
| 3    | 3    | Hose                                      |             |           |
| 4    | 2    | 2/2-way poppet valve with banjo bolt      |             |           |
| 5    | 1    | Switch box                                |             |           |
| 6    | 1    | Socket                                    |             |           |
| 7    | 1    | Straight screw-in L 12/ 1/4"              |             |           |
| 8    | 2    | Straight screw-in L 12/ 3/8" with orifice |             |           |
| 9    | 1    | T-piece                                   |             |           |

# LOWERING AXLES DOWN TO 140 MM

Single axle 1350 kg to 1500 kg

## Technology

Model: Standard  
 Axle type: BRA 1600-05  
 BRA 1600-3  
 Axle load SA: 1350 kg / 1500 kg  
 Wheel brake: 2051Ab  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

## Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinder with mounting components  
 Adapter bracket single axle loose  
 Recovery device  
 Compensation profile  
 Bowden cables loose  
 Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake galvanised and additionally yellow chromated

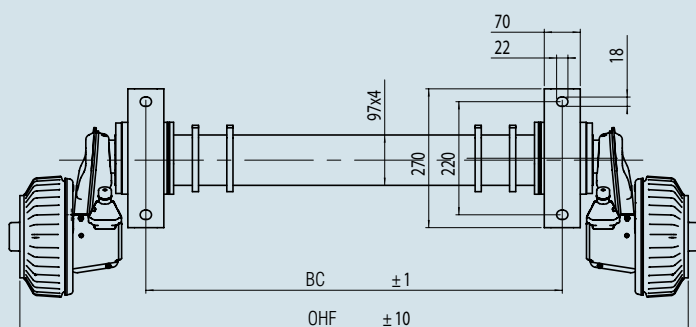
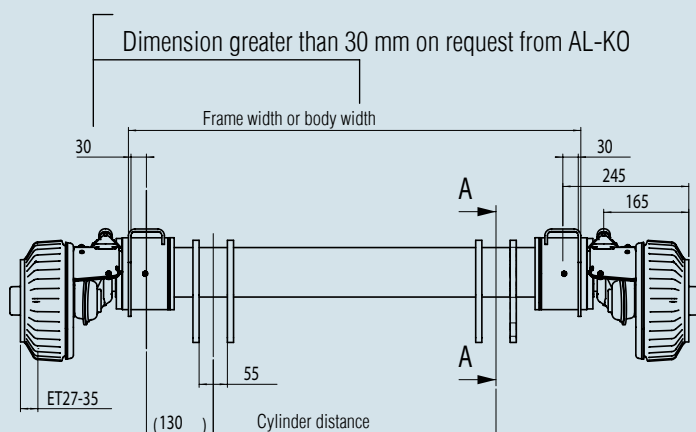
## Ordering overview

| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 200 572 01  | BRA 1600-05 | 1350            | 1100     | 1590      | 840                        | 88                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 02  | BRA 1600-05 | 1350            | 1200     | 1690      | 940                        | 89                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 03  | BRA 1600-05 | 1350            | 1300     | 1790      | 1040                       | 90                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 04  | BRA 1600-05 | 1350            | 1400     | 1890      | 1140                       | 91                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 05  | BRA 1600-05 | 1350            | 1500     | 1990      | 1240                       | 92                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 06  | BRA 1600-05 | 1350            | 1600     | 2090      | 1340                       | 93                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 07  | BRA 1600-05 | 1350            | 1700     | 2190      | 1440                       | 94                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 08  | BRA 1600-05 | 1350            | 1800     | 2290      | 1540                       | 95                                                                                  | 20                                                                                  | 20                                                                                  |
| 200 572 09  | BRA 1600-05 | 1350            | 1900     | 2390      | 1640                       | 96                                                                                  | 20                                                                                  | 20                                                                                  |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 200 572 10  | BRA 1600-3 | 1500            | 1100     | 1590      | 840                        | 88                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 11  | BRA 1600-3 | 1500            | 1200     | 1690      | 940                        | 89                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 12  | BRA 1600-3 | 1500            | 1300     | 1790      | 1040                       | 90                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 13  | BRA 1600-3 | 1500            | 1400     | 1890      | 1140                       | 91                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 14  | BRA 1600-3 | 1500            | 1500     | 1990      | 1240                       | 92                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 15  | BRA 1600-3 | 1500            | 1600     | 2090      | 1340                       | 93                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 16  | BRA 1600-3 | 1500            | 1700     | 2190      | 1440                       | 94                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 17  | BRA 1600-3 | 1500            | 1800     | 2290      | 1540                       | 95                                                                                    | 20                                                                                    | 20                                                                                    |
| 200 572 18  | BRA 1600-3 | 1500            | 1900     | 2390      | 1640                       | 96                                                                                    | 20                                                                                    | 20                                                                                    |

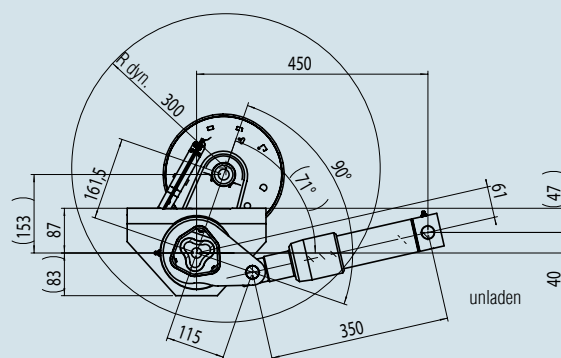
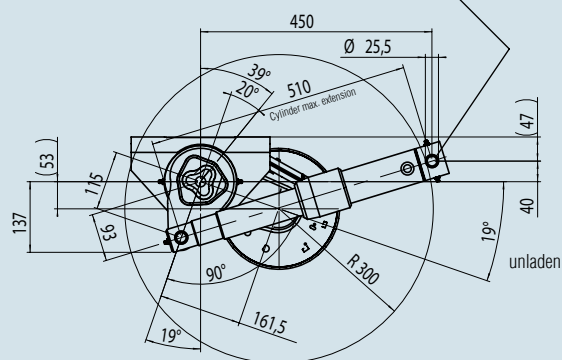
**Only comply with this note if the body width and frame form a perpendicular plane!**

**If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!**



### In driving position!

Articulation point on the frame of the vehicle manufacturer



### Permitted tyre size min. R stat. 270 mm

The tyre radius is not allowed to be less than R stat. 270 mm!

### Max. lowering travel approx. 140 mm

Spring travel approx. 50 mm at 1 x GA

# LOWERING AXLES DOWN TO 210 MM

Single axle 1350 kg to 1500 kg

## Technology

Model: Standard  
 Axle type: BRA 1800-01  
 BRA 1800-3  
 Axle load SA: 1350 kg / 1500 kg  
 Wheel brake: 2051Ab  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

## Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinder with mounting components  
 Adapter bracket single axle loose  
 Recovery device  
 Compensation profile  
 Bowden cables loose  
 Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake black powder-coated

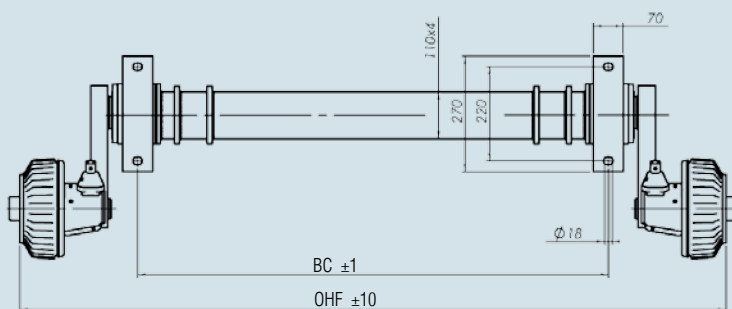
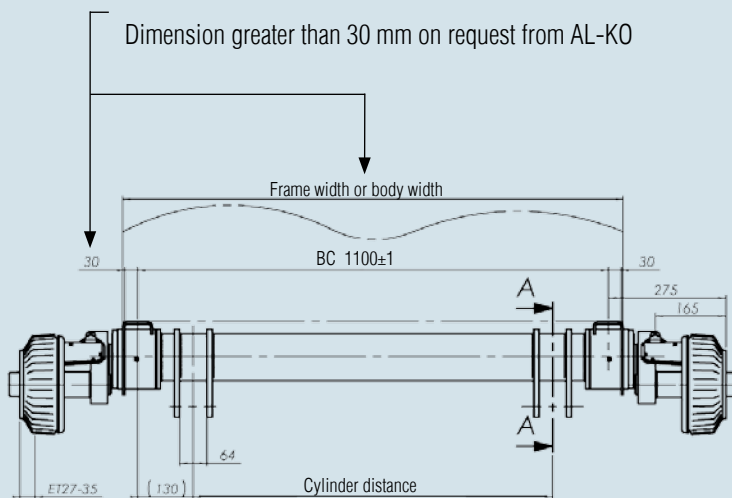
## Ordering overview

| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 251   | BRA 1800-01 | 1350            | 1100     | 1650      | 840                        | 108                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 01  | BRA 1800-01 | 1350            | 1200     | 1750      | 940                        | 109                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 02  | BRA 1800-01 | 1350            | 1300     | 1850      | 1040                       | 110                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 03  | BRA 1800-01 | 1350            | 1400     | 1950      | 1140                       | 111                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 04  | BRA 1800-01 | 1350            | 1500     | 2050      | 1240                       | 112                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 05  | BRA 1800-01 | 1350            | 1600     | 2150      | 1340                       | 113                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 06  | BRA 1800-01 | 1350            | 1700     | 2250      | 1440                       | 114                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 07  | BRA 1800-01 | 1350            | 1800     | 2350      | 1540                       | 115                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 08  | BRA 1800-01 | 1350            | 1900     | 2450      | 1640                       | 116                                                                                 | 20                                                                                  | 20                                                                                  |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 252   | BRA 1800-3 | 1500            | 1100     | 1650      | 840                        | 108                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 09  | BRA 1800-3 | 1500            | 1200     | 1750      | 940                        | 109                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 10  | BRA 1800-3 | 1500            | 1300     | 1850      | 1040                       | 110                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 11  | BRA 1800-3 | 1500            | 1400     | 1950      | 1140                       | 111                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 12  | BRA 1800-3 | 1500            | 1500     | 2050      | 1240                       | 112                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 13  | BRA 1800-3 | 1500            | 1600     | 2150      | 1340                       | 113                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 14  | BRA 1800-3 | 1500            | 1700     | 2250      | 1440                       | 114                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 15  | BRA 1800-3 | 1500            | 1800     | 2350      | 1540                       | 115                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 16  | BRA 1800-3 | 1500            | 1900     | 2450      | 1640                       | 116                                                                                   | 20                                                                                    | 20                                                                                    |

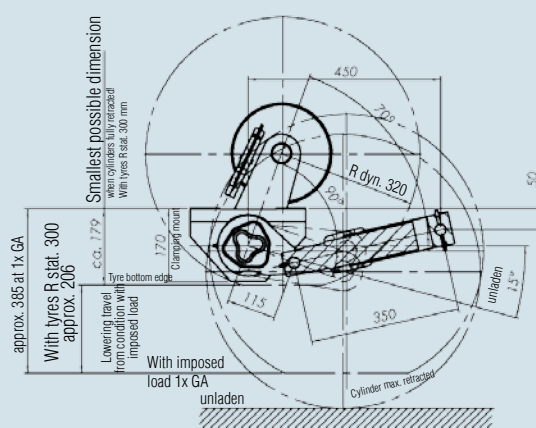
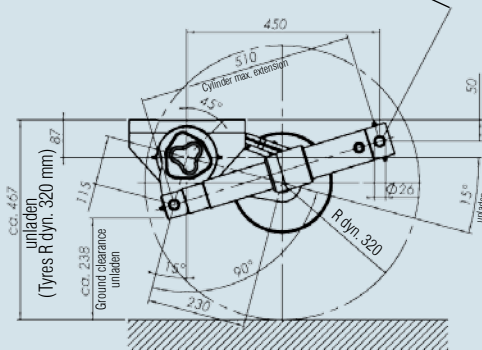
Only comply with this note if the body width and frame form a perpendicular plane!

If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!



### In driving position!

Articulation point on the frame of the vehicle manufacturer



### Permitted tyre size min. R stat. 300 mm

The tyre radius is not allowed to be less than R stat. 300 mm!

### Max. lowering travel approx. 210 mm

Spring travel approx. 50 mm at 1 x GA

# LOWERING AXLES DOWN TO 210 MM

Single axle 1600 kg to 1800 kg

## Technology

Model: Standard  
 Axle type: BRA 1800-5  
 BRA 1800-9  
 Axle load SA: 1600 kg / 1800 kg  
 Wheel brake: 2361  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

## Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinder with mounting components  
 Adapter bracket single axle loose  
 Recovery device  
 Compensation profile  
 Bowden cables loose  
 Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake black powder-coated

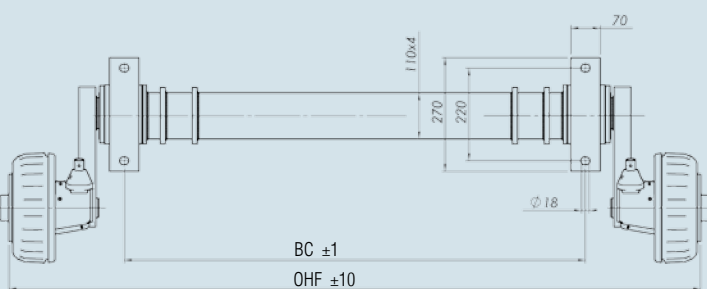
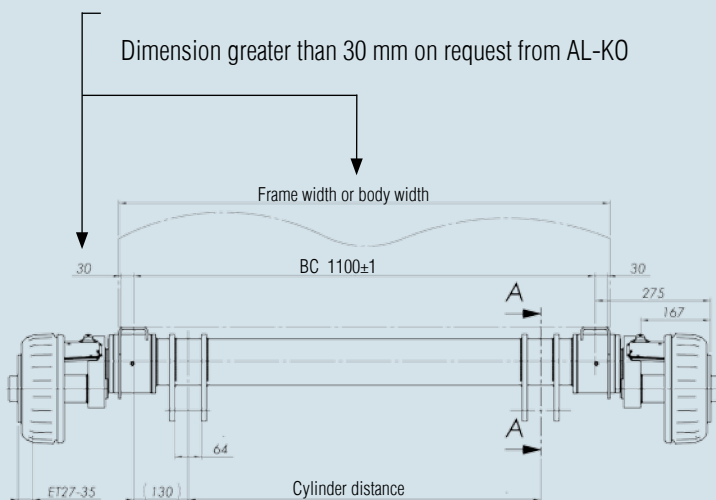
## Ordering overview

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 253   | BRA 1800-5 | 1600            | 1100     | 1650      | 840                        | 110                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 17  | BRA 1800-5 | 1600            | 1200     | 1750      | 940                        | 111                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 18  | BRA 1800-5 | 1600            | 1300     | 1850      | 1040                       | 112                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 19  | BRA 1800-5 | 1600            | 1400     | 1950      | 1140                       | 113                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 20  | BRA 1800-5 | 1600            | 1500     | 2050      | 1240                       | 114                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 21  | BRA 1800-5 | 1600            | 1600     | 2150      | 1340                       | 115                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 22  | BRA 1800-5 | 1600            | 1700     | 2250      | 1440                       | 116                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 23  | BRA 1800-5 | 1600            | 1800     | 2350      | 1540                       | 117                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 24  | BRA 1800-5 | 1600            | 1900     | 2450      | 1640                       | 118                                                                                 | 20                                                                                  | 20                                                                                  |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 254   | BRA 1800-9 | 1800            | 1100     | 1650      | 840                        | 110                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 25  | BRA 1800-9 | 1800            | 1200     | 1750      | 940                        | 111                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 26  | BRA 1800-9 | 1800            | 1300     | 1850      | 1040                       | 112                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 27  | BRA 1800-9 | 1800            | 1400     | 1950      | 1140                       | 113                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 28  | BRA 1800-9 | 1800            | 1500     | 2050      | 1240                       | 114                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 29  | BRA 1800-9 | 1800            | 1600     | 2150      | 1340                       | 115                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 30  | BRA 1800-9 | 1800            | 1700     | 2250      | 1440                       | 116                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 31  | BRA 1800-9 | 1800            | 1800     | 2350      | 1540                       | 117                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 32  | BRA 1800-9 | 1800            | 1900     | 2450      | 1640                       | 118                                                                                   | 20                                                                                    | 20                                                                                    |

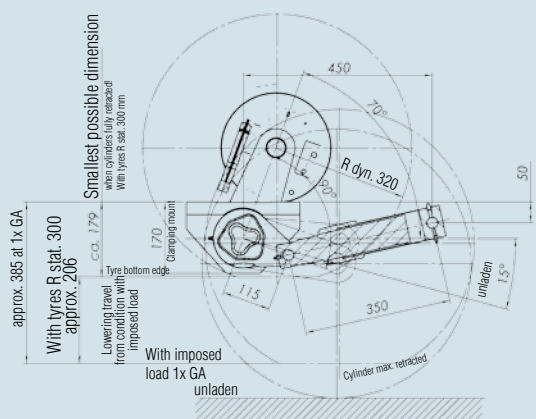
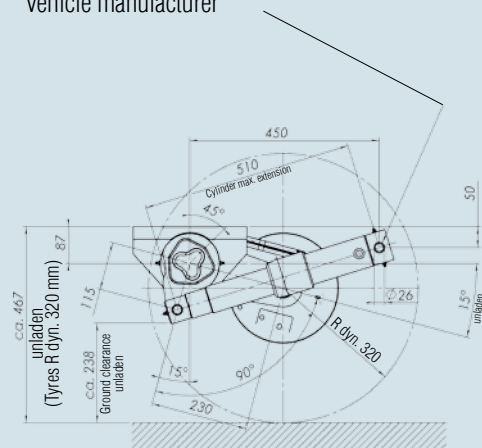
**Only comply with this note if the body width and frame form a perpendicular plane!**

**If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!**



### In driving position!

Articulation point on the frame of the vehicle manufacturer



### Permitted tyre size min. R stat. 300 mm

The tyre radius is not allowed to be less than R stat. 300 mm!

### Max. lowering travel approx. 210 mm

Spring travel approx. 50 mm at 1 x GA

# LOWERING AXLES DOWN TO 190 MM

Single axle 2000 kg to 3000 kg

## Technology

Model: Standard  
 Axle type: BRA 2500-3  
 BRA 2500-8  
 BRA 3000-2  
 Axle load SA: 2000 kg / 2500 kg /  
 3000 kg  
 Wheel brake: 3062  
 Wheel connection: 205x6  
 Wheel bolts: M18x1.5 ball

## Scope of delivery

Included in the scope of delivery:  
 I Hydraulic cylinder with mounting components  
 I Adapter bracket single axle loose  
 I Recovery device  
 I Compensation profile  
 I Hexagon nut M10  
 I Ball nut M10  
 I Bowden cables loose  
 I Wheel nuts loose

## Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake black primed

## Ordering overview

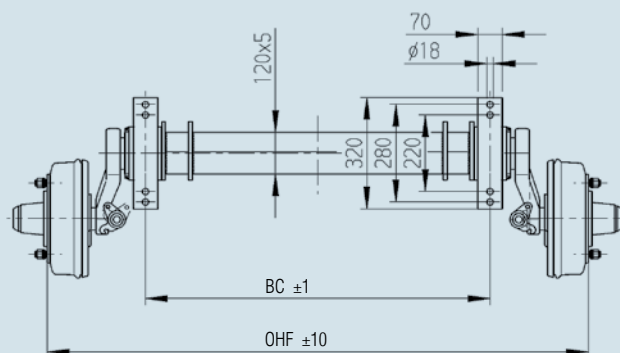
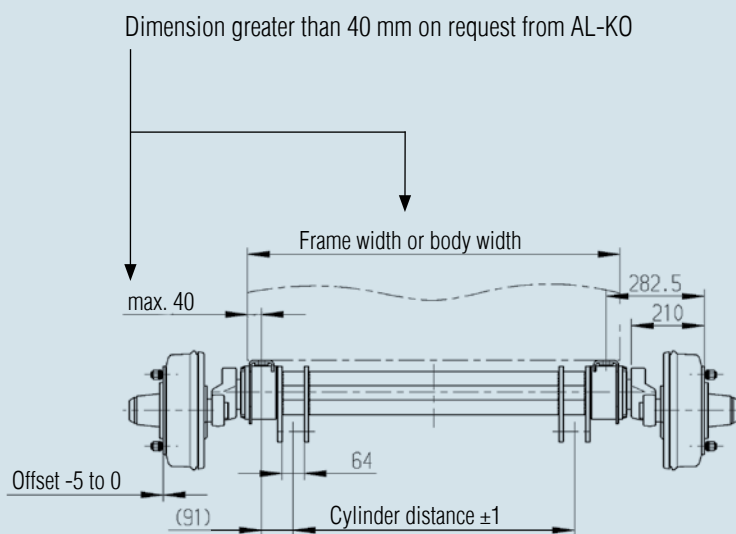
| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 255   | BRA 2500-3 | 2000            | 1100     | 1665      | 918                     | 162                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 33  | BRA 2500-3 | 2000            | 1200     | 1765      | 1018                    | 163                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 34  | BRA 2500-3 | 2000            | 1300     | 1865      | 1118                    | 164                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 35  | BRA 2500-3 | 2000            | 1400     | 1965      | 1218                    | 165                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 36  | BRA 2500-3 | 2000            | 1500     | 2065      | 1318                    | 166                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 37  | BRA 2500-3 | 2000            | 1600     | 2165      | 1418                    | 167                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 38  | BRA 2500-3 | 2000            | 1700     | 2265      | 1518                    | 168                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 39  | BRA 2500-3 | 2000            | 1800     | 2365      | 1618                    | 169                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 40  | BRA 2500-3 | 2000            | 1900     | 2465      | 1718                    | 170                                                                                 | 10                                                                                  | 20                                                                                  |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 256   | BRA 2500-8 | 2500            | 1100     | 1665      | 918                     | 162                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 41  | BRA 2500-8 | 2500            | 1200     | 1765      | 1018                    | 163                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 42  | BRA 2500-8 | 2500            | 1300     | 1865      | 1118                    | 164                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 43  | BRA 2500-8 | 2500            | 1400     | 1965      | 1218                    | 165                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 44  | BRA 2500-8 | 2500            | 1500     | 2065      | 1318                    | 166                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 45  | BRA 2500-8 | 2500            | 1600     | 2165      | 1418                    | 167                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 46  | BRA 2500-8 | 2500            | 1700     | 2265      | 1518                    | 168                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 47  | BRA 2500-8 | 2500            | 1800     | 2365      | 1618                    | 169                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 48  | BRA 2500-8 | 2500            | 1900     | 2465      | 1718                    | 170                                                                                   | 10                                                                                    | 20                                                                                    |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 257   | BRA 3000-2 | 3000            | 1100     | 1665      | 918                     | 162                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 49  | BRA 3000-2 | 3000            | 1200     | 1765      | 1018                    | 163                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 50  | BRA 3000-2 | 3000            | 1300     | 1865      | 1118                    | 164                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 51  | BRA 3000-2 | 3000            | 1400     | 1965      | 1218                    | 165                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 52  | BRA 3000-2 | 3000            | 1500     | 2065      | 1318                    | 166                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 53  | BRA 3000-2 | 3000            | 1600     | 2165      | 1418                    | 167                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 54  | BRA 3000-2 | 3000            | 1700     | 2265      | 1518                    | 168                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 55  | BRA 3000-2 | 3000            | 1800     | 2365      | 1618                    | 169                                                                                   | 10                                                                                    | 20                                                                                    |
| 200 556 56  | BRA 3000-2 | 3000            | 1900     | 2465      | 1718                    | 170                                                                                   | 10                                                                                    | 20                                                                                    |

**Only comply with this note if the body width and frame form a perpendicular plane!**

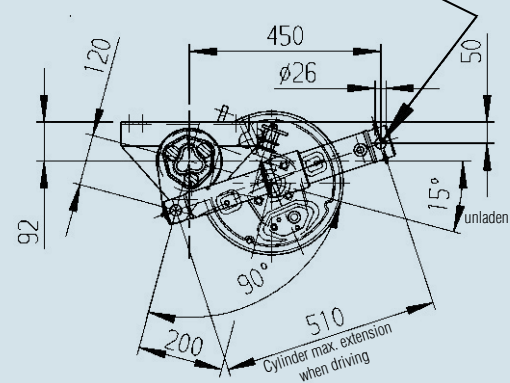
**If the body is mounted over the wheels, the maximum dimension of 40 mm for the frame must be maintained!**



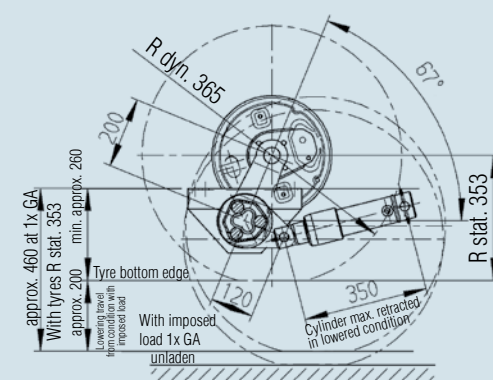
### In driving position!

(in unladen condition)

Articulation point on the frame of the vehicle manufacturer



### In lowered position!



### Permitted tyre size min. R stat. 300 mm

The tyre radius is not allowed to be less than R stat. 300 mm!

Configure wheel housings according to the tyre size! (Note swivelling range)

### Lowering travel approx. 200 mm

# LOWERING AXLES DOWN TO 190 MM

## Single-axle trailer 3500 kg

### Technology

Model: Standard -  
Torsion bar suspension  
Axle type: BT 3500  
Axle load SA: 3500 kg  
Wheel brake: 3081 B  
Wheel connection: 205x6  
Wheel bolts: M18x1.5 ball

### Scope of delivery

Included in the scope of delivery:  
I Hydraulic cylinder with mounting components  
I Adapter bracket single axle loose  
I Recovery device  
I Compensation profile  
I Hexagon nut M10  
I Ball nut M10  
I Bowden cables loose  
I Wheel nuts loose

### Surface treatment

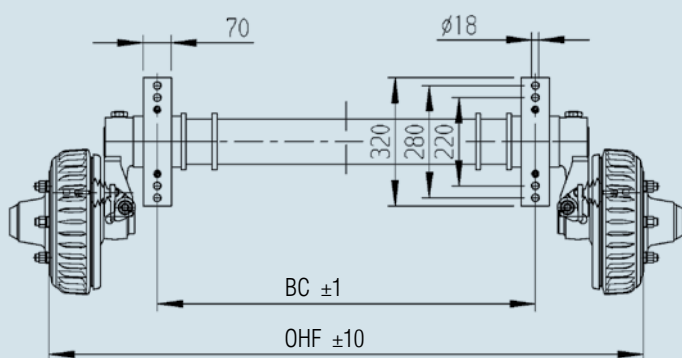
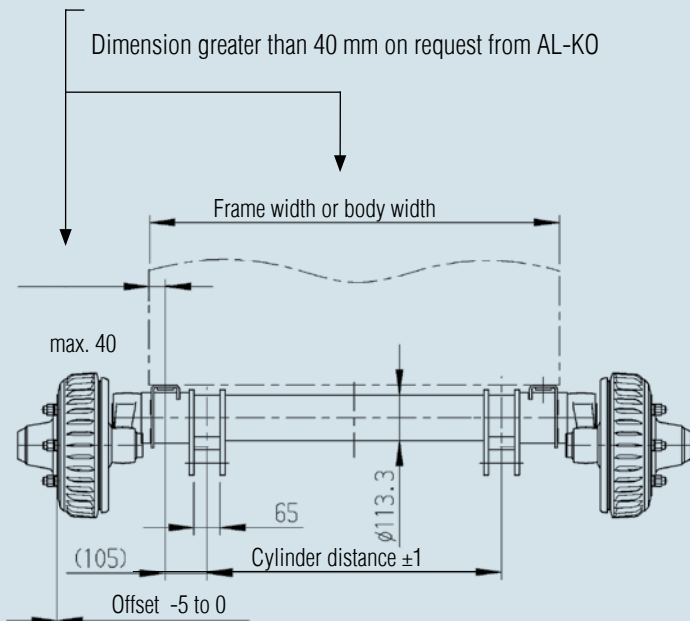
Axle beam hot-dip galvanised  
Wheel brake black primed

### Ordering overview

| Part Number | Type     | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|----------|-----------------|----------|-----------|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 258   | BRA 3500 | 3500            | 1100     | 1640      | 891                        | 214                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 57  | BRA 3500 | 3500            | 1200     | 1740      | 991                        | 215                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 58  | BRA 3500 | 3500            | 1300     | 1840      | 1091                       | 216                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 59  | BRA 3500 | 3500            | 1400     | 1940      | 1191                       | 217                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 60  | BRA 3500 | 3500            | 1500     | 2040      | 1291                       | 218                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 61  | BRA 3500 | 3500            | 1600     | 2140      | 1391                       | 219                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 62  | BRA 3500 | 3500            | 1700     | 2240      | 1491                       | 220                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 63  | BRA 3500 | 3500            | 1800     | 2340      | 1591                       | 221                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 64  | BRA 3500 | 3500            | 1900     | 2440      | 1691                       | 222                                                                                 | 10                                                                                  | 20                                                                                  |

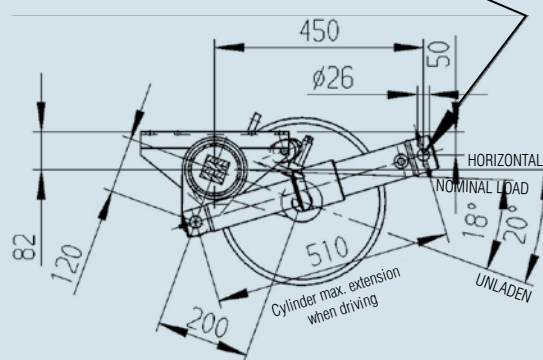
**Only comply with this note if the body width and frame form a perpendicular plane!**

**If the body is mounted over the wheels, the maximum dimension of 40 mm for the frame must be maintained!**

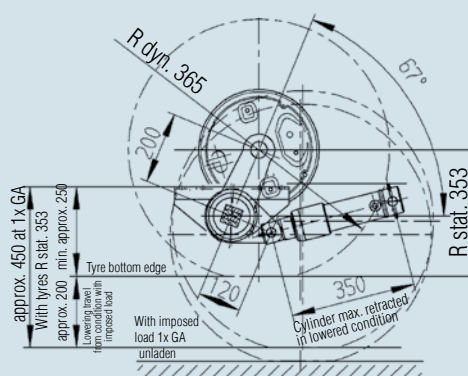


### In driving position!

(in unladen condition)  
Articulation point on the frame of the vehicle manufacturer



### In lowered position!



### Permitted tyre size min. R stat. 300 mm

The tyre radius is not allowed to be less than R stat. 300 mm!

Configure wheel housings according to the tyre size! (Note swivelling range)

**Lowering travel approx. 200 mm**

# LOWERING AXLES DOWN TO 140 MM

## Tandem 2000 kg to 3000 kg

### Technology

Model: Standard  
 Axle type: BRA 1600-12  
 BRA 1600-05  
 BRA 1600-3  
 Axle load TA: 2000 kg / 2700 kg /  
 3000 kg  
 Wheel brake: 2051Ab  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

### Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinders with mounting components  
 Adapter bracket tandem loose  
 Recovery device  
 Compensation profile  
 Bowden cables loose  
 Wheel bolts loose

### Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake galvanised and additionally yellow  
 chromated

### Ordering overview

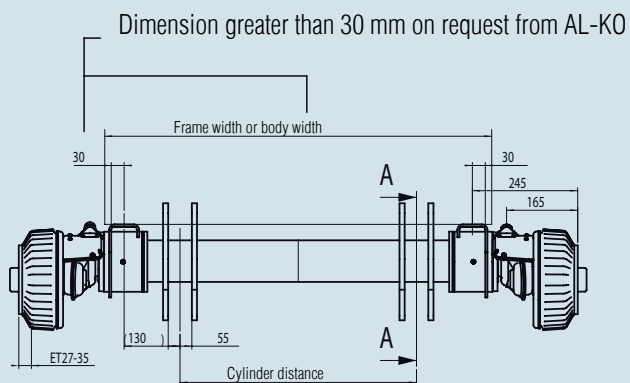
| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 200 572 19  | BRA 1600-12 | 2000            | 1100     | 1590      | 840                  | 152                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 20  | BRA 1600-12 | 2000            | 1200     | 1690      | 940                  | 154                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 21  | BRA 1600-12 | 2000            | 1300     | 1790      | 1040                 | 156                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 22  | BRA 1600-12 | 2000            | 1400     | 1890      | 1140                 | 158                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 23  | BRA 1600-12 | 2000            | 1500     | 1990      | 1240                 | 160                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 24  | BRA 1600-12 | 2000            | 1600     | 2090      | 1340                 | 162                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 25  | BRA 1600-12 | 2000            | 1700     | 2190      | 1440                 | 164                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 26  | BRA 1600-12 | 2000            | 1800     | 2290      | 1540                 | 166                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 572 27  | BRA 1600-12 | 2000            | 1900     | 2390      | 1640                 | 168                                                                                 | 20                                                                                  | 20                                                                                  |

| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 200 572 28  | BRA 1600-05 | 2700            | 1100     | 1590      | 840                  | 152                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 29  | BRA 1600-05 | 2700            | 1200     | 1690      | 940                  | 154                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 30  | BRA 1600-05 | 2700            | 1300     | 1790      | 1040                 | 156                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 31  | BRA 1600-05 | 2700            | 1400     | 1890      | 1140                 | 158                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 32  | BRA 1600-05 | 2700            | 1500     | 1990      | 1240                 | 160                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 33  | BRA 1600-05 | 2700            | 1600     | 2090      | 1340                 | 162                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 34  | BRA 1600-05 | 2700            | 1700     | 2190      | 1440                 | 164                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 35  | BRA 1600-05 | 2700            | 1800     | 2290      | 1540                 | 166                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 36  | BRA 1600-05 | 2700            | 1900     | 2390      | 1640                 | 168                                                                                   | 20                                                                                    | 20                                                                                    |

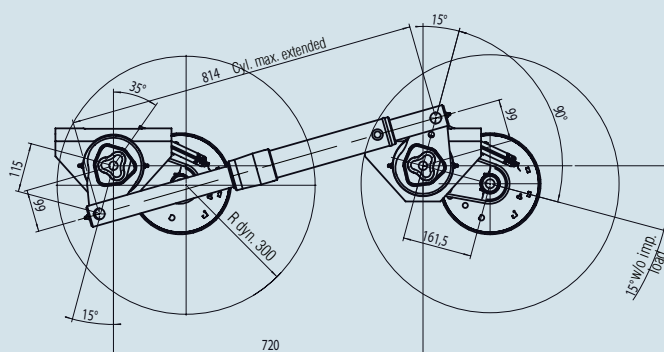
| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 200 572 37  | BRA 1600-3 | 3000            | 1100     | 1590      | 840                  | 152                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 38  | BRA 1600-3 | 3000            | 1200     | 1690      | 940                  | 154                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 39  | BRA 1600-3 | 3000            | 1300     | 1790      | 1040                 | 156                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 40  | BRA 1600-3 | 3000            | 1400     | 1890      | 1140                 | 158                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 41  | BRA 1600-3 | 3000            | 1500     | 1990      | 1240                 | 160                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 42  | BRA 1600-3 | 3000            | 1600     | 2090      | 1340                 | 162                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 43  | BRA 1600-3 | 3000            | 1700     | 2190      | 1440                 | 164                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 44  | BRA 1600-3 | 3000            | 1800     | 2290      | 1540                 | 166                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 572 45  | BRA 1600-3 | 3000            | 1900     | 2390      | 1640                 | 168                                                                                   | 20                                                                                    | 20                                                                                    |

**Only comply with this note if the body width and frame form a perpendicular plane!**

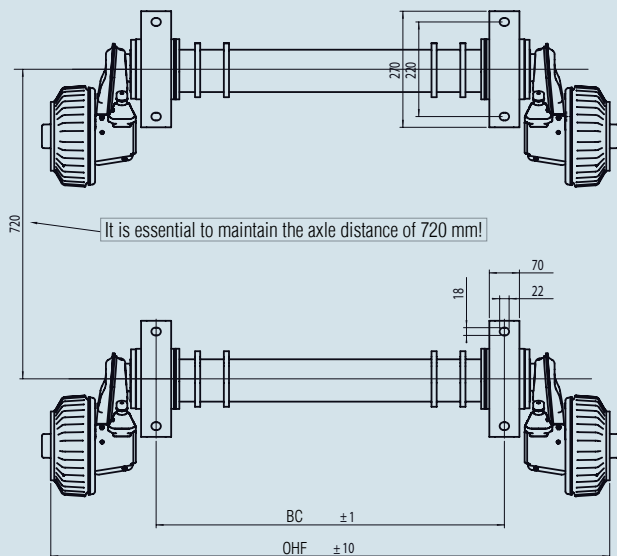
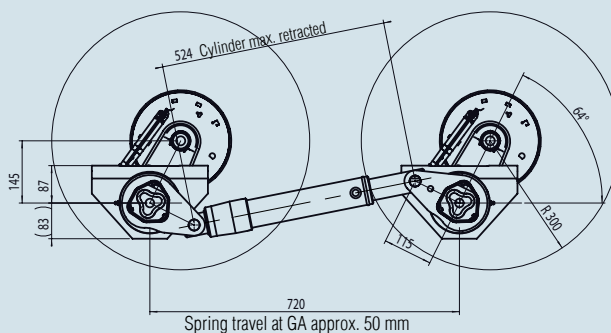
**If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!**



**In driving position!**



**In lowered position!**



**Permitted tyre size min. R stat. 270 mm**

The tyre radius is not allowed to be less than R stat. 270 mm.

**Max. lowering travel approx. 140 mm**

Spring travel approx. 50 mm at 1x GA

# LOWERING AXLES DOWN TO 210 MM

## Tandem 2000 kg to 3000 kg

### Technology

Model: Standard  
 Axle type: BRA 1800-07  
 BRA 1800-01  
 BRA 1800-3  
 Axle load TA: 2000 kg / 2600 kg /  
 3000 kg  
 Wheel brake: 2051Ab  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

### Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinders with mounting components  
 Adapter bracket tandem loose  
 Recovery device  
 Compensation profile  
 Hexagon nut M8  
 Ball nut M8  
 Bowden cables loose  
 Wheel bolts loose

### Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake black powder-coated

### Ordering overview

| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 259   | BRA 1800-07 | 2000            | 1100     | 1650      | 840                     | 192                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 65  | BRA 1800-07 | 2000            | 1200     | 1750      | 940                     | 194                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 66  | BRA 1800-07 | 2000            | 1300     | 1850      | 1040                    | 196                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 67  | BRA 1800-07 | 2000            | 1400     | 1950      | 1140                    | 198                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 68  | BRA 1800-07 | 2000            | 1500     | 2050      | 1240                    | 200                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 69  | BRA 1800-07 | 2000            | 1600     | 2150      | 1340                    | 202                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 70  | BRA 1800-07 | 2000            | 1700     | 2250      | 1440                    | 204                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 71  | BRA 1800-07 | 2000            | 1800     | 2350      | 1540                    | 206                                                                                 | 20                                                                                  | 20                                                                                  |
| 200 556 72  | BRA 1800-07 | 2000            | 1900     | 2450      | 1640                    | 208                                                                                 | 20                                                                                  | 20                                                                                  |

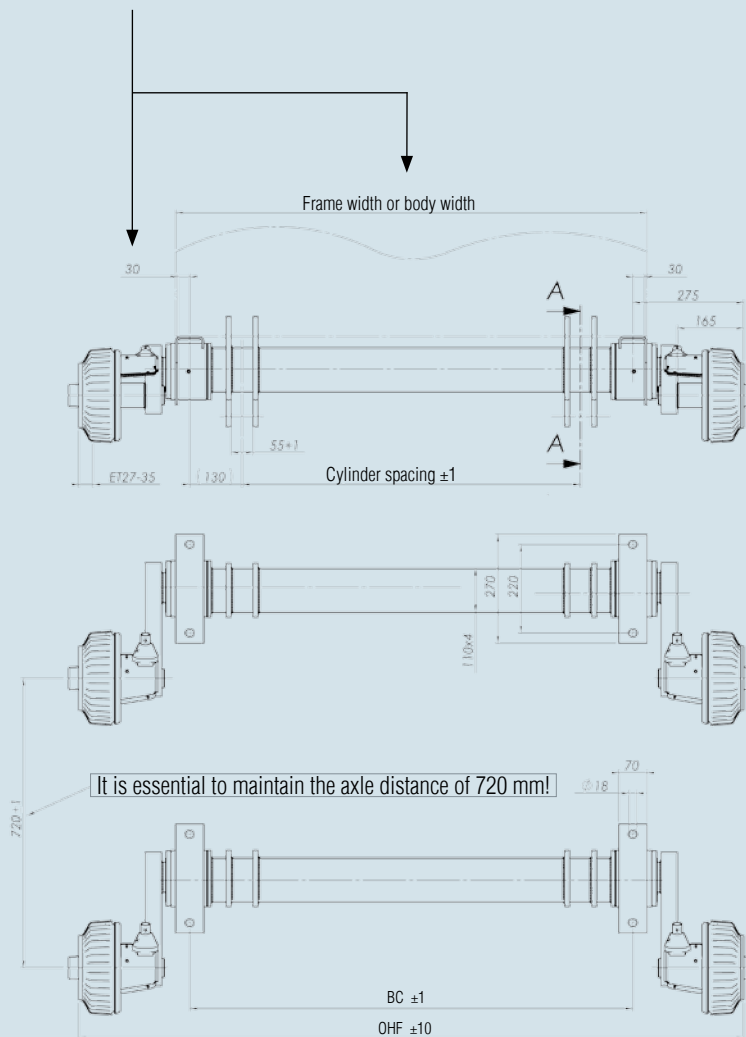
| Part Number | Type        | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|-------------|-----------------|----------|-----------|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 260   | BRA 1800-01 | 2600            | 1100     | 1650      | 840                     | 192                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 73  | BRA 1800-01 | 2600            | 1200     | 1750      | 940                     | 194                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 74  | BRA 1800-01 | 2600            | 1300     | 1850      | 1040                    | 196                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 75  | BRA 1800-01 | 2600            | 1400     | 1950      | 1140                    | 198                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 76  | BRA 1800-01 | 2600            | 1500     | 2050      | 1240                    | 200                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 77  | BRA 1800-01 | 2600            | 1600     | 2150      | 1340                    | 202                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 78  | BRA 1800-01 | 2600            | 1700     | 2250      | 1440                    | 204                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 79  | BRA 1800-01 | 2600            | 1800     | 2350      | 1540                    | 206                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 80  | BRA 1800-01 | 2600            | 1900     | 2450      | 1640                    | 208                                                                                   | 20                                                                                    | 20                                                                                    |

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 222 261   | BRA 1800-3 | 3000            | 1100     | 1650      | 840                     | 192                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 81  | BRA 1800-3 | 3000            | 1200     | 1750      | 940                     | 194                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 82  | BRA 1800-3 | 3000            | 1300     | 1850      | 1040                    | 196                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 83  | BRA 1800-3 | 3000            | 1400     | 1950      | 1140                    | 198                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 84  | BRA 1800-3 | 3000            | 1500     | 2050      | 1240                    | 200                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 85  | BRA 1800-3 | 3000            | 1600     | 2150      | 1340                    | 202                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 86  | BRA 1800-3 | 3000            | 1700     | 2250      | 1440                    | 204                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 87  | BRA 1800-3 | 3000            | 1800     | 2350      | 1540                    | 206                                                                                   | 20                                                                                    | 20                                                                                    |
| 200 556 88  | BRA 1800-3 | 3000            | 1900     | 2450      | 1640                    | 208                                                                                   | 20                                                                                    | 20                                                                                    |

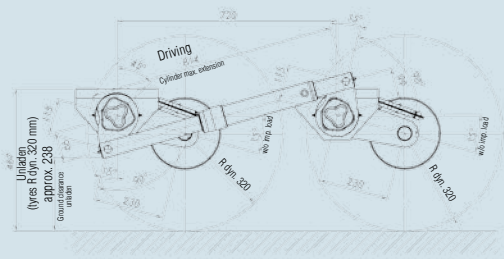
**Only comply with this note if the body width and frame form a perpendicular plane!**

**If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!**

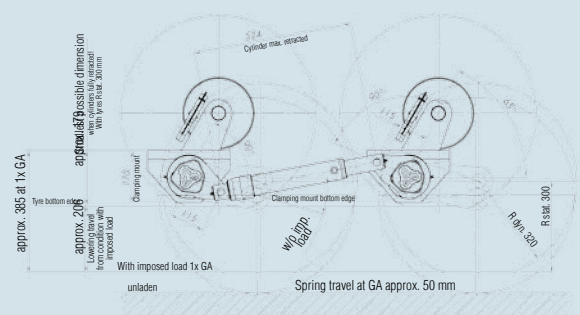
Dimension greater than 30 mm on request from AL-KO



**In driving position!**



**In lowered position!**



**Permitted tyre size min. R stat. 300 mm**

The tyre radius is not allowed to be less than R stat. 300 mm!

Configure wheel housings according to the tyre size! (Note swivelling range)

**Lowering travel approx. 210 mm**

# LOWERING AXLES DOWN TO 210 MM

## Tandem 3500 kg

### Technology

Model: Standard  
 Axle type: BRA 1800-9  
 Axle load TA: 3500 kg  
 Wheel brake: 2361  
 Wheel connection: 112x5  
 Wheel bolts: M12x1.5 ball

### Scope of delivery

Included in the scope of delivery:  
 Hydraulic cylinders with mounting components  
 Adapter bracket tandem loose  
 Recovery device  
 Compensation profile  
 Hexagon nut M8  
 Ball nut M8  
 Bowden cables loose  
 Wheel bolts loose

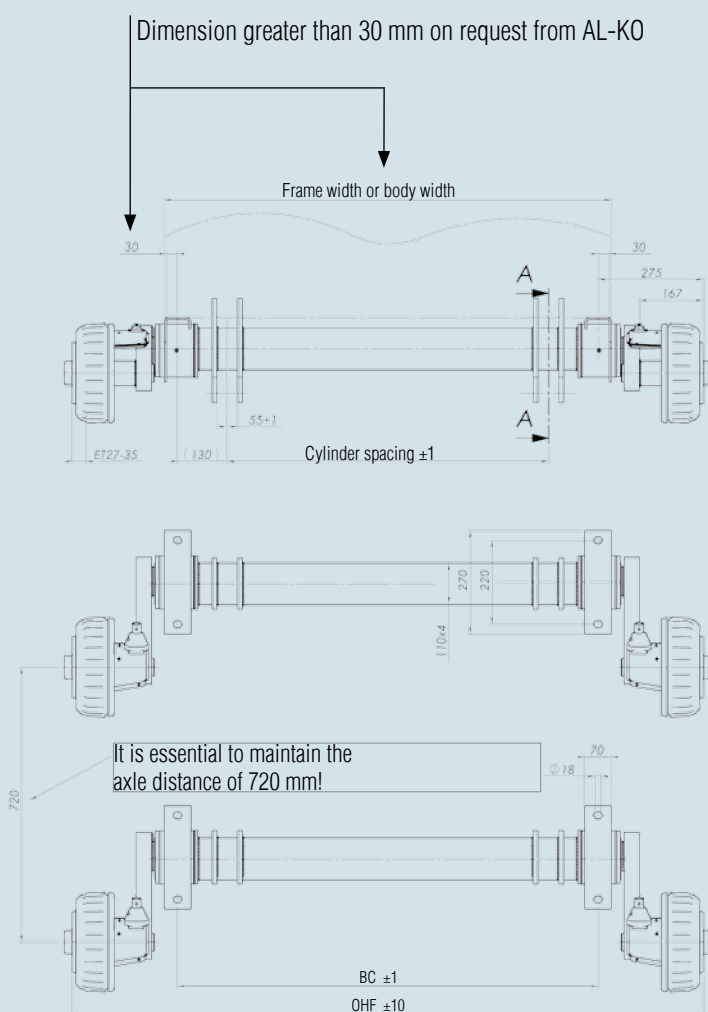
### Surface treatment

Axle beam hot-dip galvanised  
 Wheel brake black powder-coated

### Ordering overview

| Part Number | Type       | Axle load<br>kg | BC<br>mm | OHF<br>mm | Cylinder<br>distance<br>mm |  |  |  |
|-------------|------------|-----------------|----------|-----------|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1 222 262   | BRA 1800-9 | 3500            | 1100     | 1650      | 840                        | 196                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 89  | BRA 1800-9 | 3500            | 1200     | 1750      | 940                        | 198                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 90  | BRA 1800-9 | 3500            | 1300     | 1850      | 1040                       | 200                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 91  | BRA 1800-9 | 3500            | 1400     | 1950      | 1140                       | 202                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 92  | BRA 1800-9 | 3500            | 1500     | 2050      | 1240                       | 204                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 93  | BRA 1800-9 | 3500            | 1600     | 2150      | 1340                       | 206                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 94  | BRA 1800-9 | 3500            | 1700     | 2250      | 1440                       | 208                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 95  | BRA 1800-9 | 3500            | 1800     | 2350      | 1540                       | 210                                                                                 | 10                                                                                  | 20                                                                                  |
| 200 556 96  | BRA 1800-9 | 3500            | 1900     | 2450      | 1640                       | 212                                                                                 | 10                                                                                  | 20                                                                                  |

**If the body is mounted over the wheels, the maximum dimension of 30 mm for the frame must be maintained!**



Technical drawing of a 2-link mechanism in two positions. The left position is labeled "Driving" and shows "Slider max extension". The right position is labeled "R.p.m. 320". Dimensions include a 230mm distance between centers, 140mm link lengths, and 40mm/60mm offsets. A table on the left lists dimensions: I (40 mm), h (30 mm), a (230 mm), and b (60 mm).

[illegible]

**Lowering travel approx. 210 mm**

# LOWERING AXLES DOWN TO 270 MM

Single-axle trailers up to 1800 kg, tandem up to 3500 kg

## ✓ Your advantage

### Lowering level with the ground down to 270 mm from the bottom edge of the frame to the ground

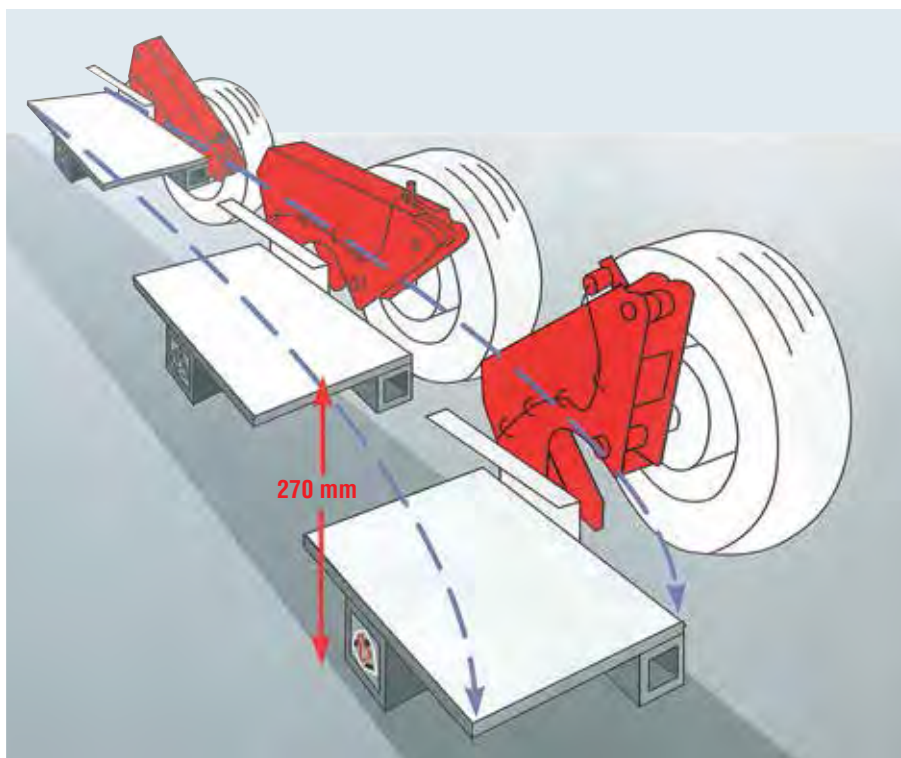
The effective entry height (drive-on height) in the lowered condition is identical to the frame height of the trailer (it is essential to comply with installation guidelines).

### Optional lifting on one or both sides

The trailer can be lifted either on one or both sides.

#### Example:

A sales trailer should be parked partially on the footpath and partially on the road: The trailer is completely lowered and is in contact with the footpath. Due to the height difference between the footpath and the road surface, the trailer is at an angle. By lifting on one side at the road surface side, the trailer can be returned to the horizontal.



### Variable body widths available from stock

By using half axles screwed into the trailer frame, it is possible to produce variable bodies with one axle. (Comply with installation notes)

We stock these half axles using our warehouse system.

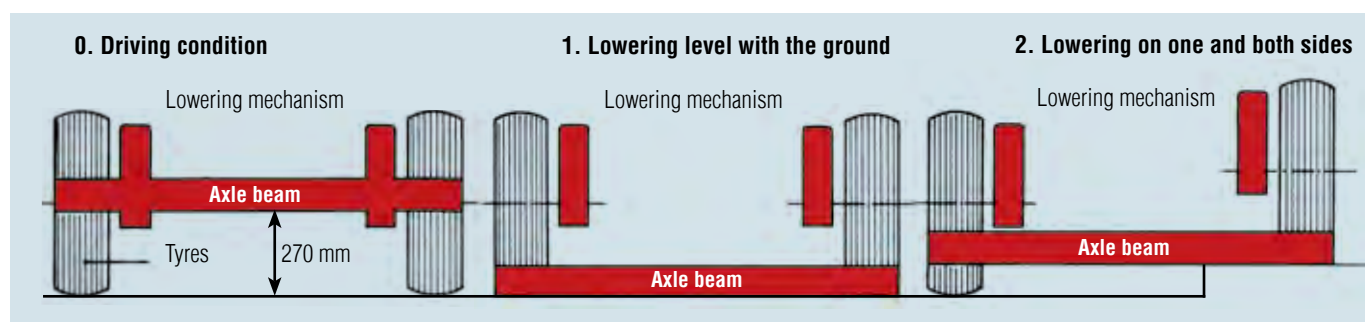
### The Bowden cable outlet at the wheel brake is deflected by 90° to the front using a relay lever. This means the Bowden cable cannot be damaged when lifting and lowering.

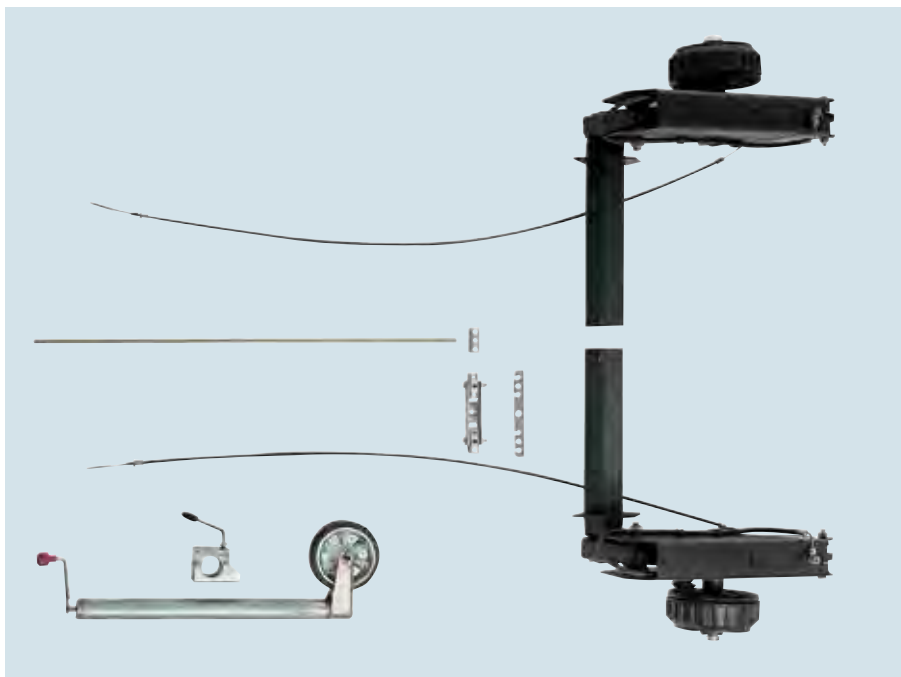
## Function

A special lowering mechanism with integrated hydraulic cylinder operate between the wheel and axle beam.

Using a special pump unit with remote control, the wheels can be activated as follows:

- Lowering together, i.e. all wheels at once
- Lifting together or alternatively with right wheels separate from left wheels





## Sample applications

Your customers want space-saving,  
cost-effective and practical solutions

! Simple and low-cost loading and unloading

! Contact with customers takes place at eye level

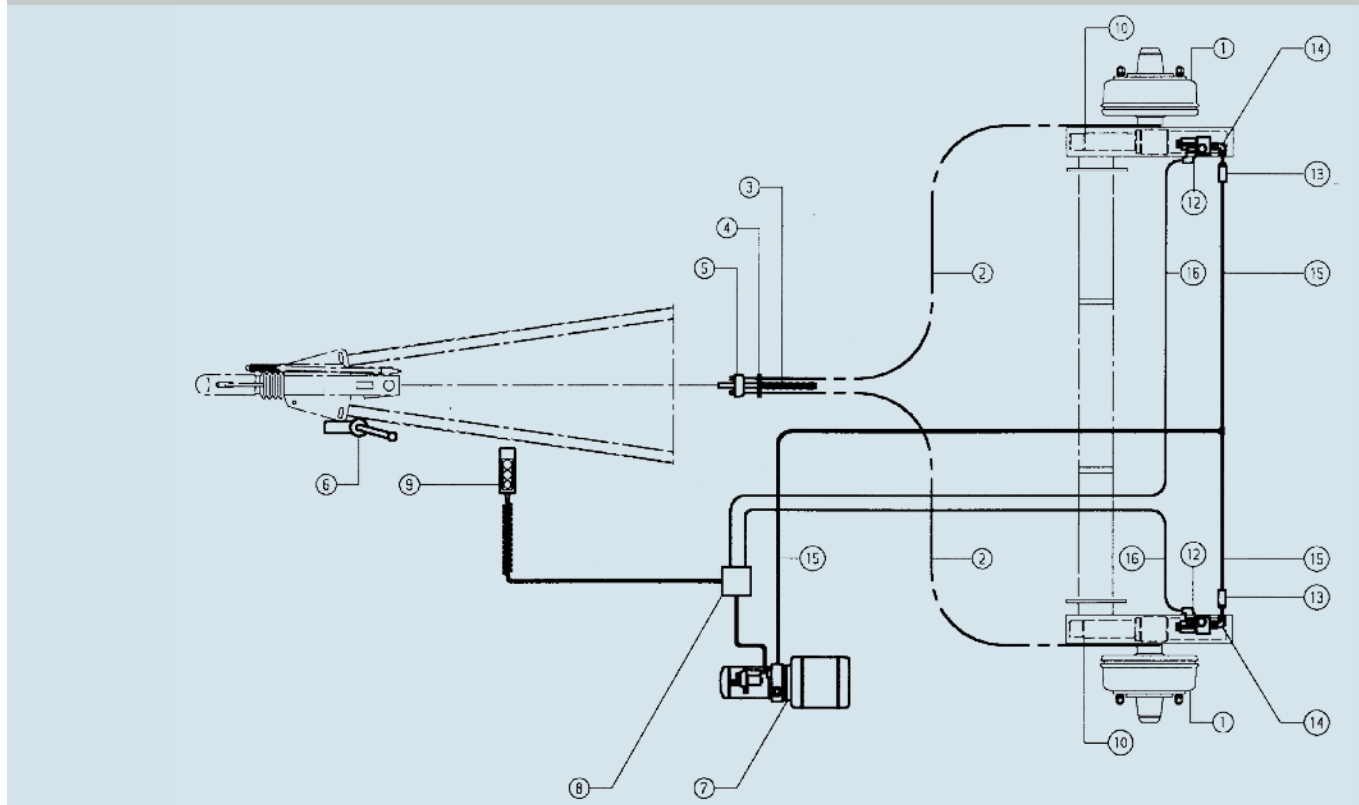


# LOWERING AXLES DOWN TO 270 MM

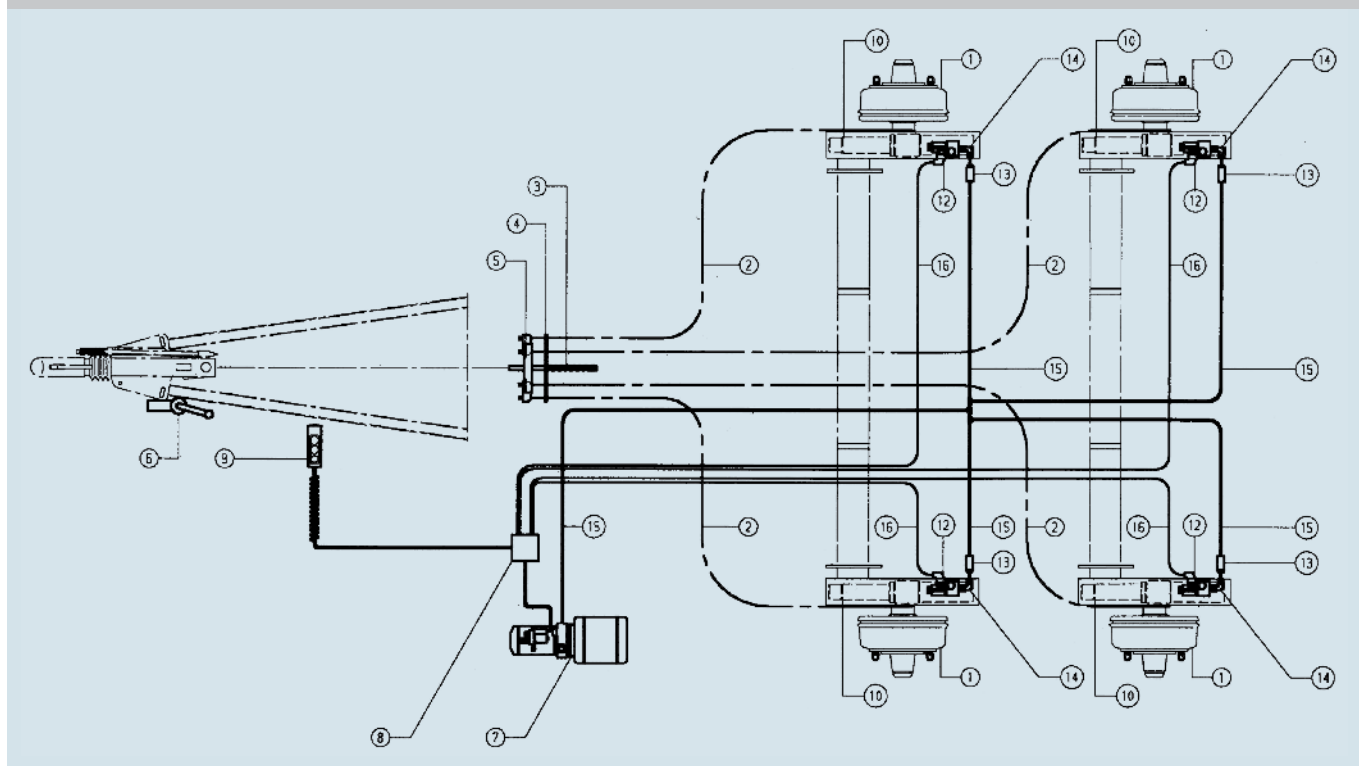
Single-axle trailers up to 1800 kg, tandem up to 3500 kg

## Type overview / purchase order items

### Single axle trailer



### Tandem



## Mounting

### 1. Hydraulic unit with remote control

The pump unit must be protected against misuse by a lockable housing.

We recommend using the hydraulic components that we propose. These components have been tested by us, found to be good and approved.

### 2. Axles

AL-KO axles have a toe-in, which means they must be installed trailing.

Please comply with our installation notes without fail (wheel housing clearances, screw connection to the frame, mounting options for the axle profile, etc.)

The half axles are screwed into the customer's own frame. The vehicle builder fills the hydraulic system with hydraulic oil and bleeds it.

### 3. Jockey wheel mounting

In lowered condition, the lowest point is the bottom edge of the frame. Please note this in your jockey wheel mounting (as high as possible).

The jockey wheel or the support fixture is included in the lowering procedure, so a particularly stable version should be used here.

#### We recommend for this:

Jockey wheel

Part No 243 888 – 500 kg

with clamping clip 60 Ø

Part No 249 859 – 500 kg

(stat. carrying force.)

#### Important!

If the lowering axle is configured as a half axle, the toe-in and camber values must be considered in particular during installation!

The following values must be complied with:

Toe-in:  $+ 20' \pm 10'$

Camber:  $+ 1^\circ 10' \pm 10'$

Measured unladen!

A warning notice must be attached on all sides of the trailer. For example:

**"Important:  
Trailer Body Lowers!"**

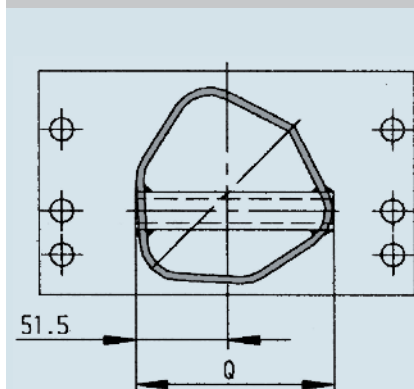
#### Mounting recommendation for the axle profile

Transverse screw connection with one bolt M12 - 8.8. Flange plate with four bolts (optionally six) M12 - 8.8 (Tightening torque for bolt M12 = 80 to 85 Nm).

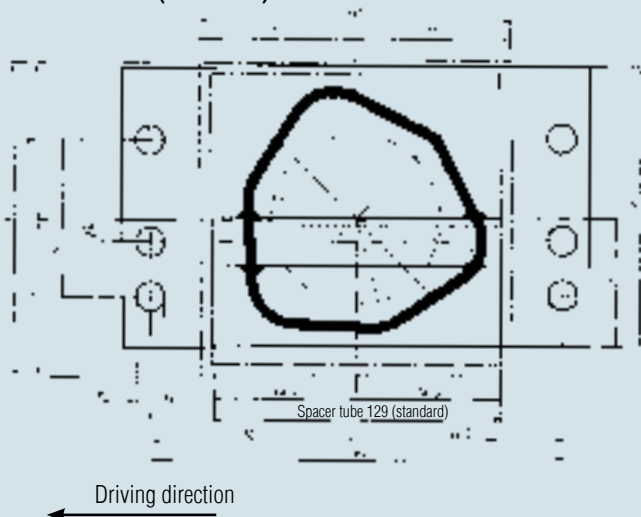
#### Important!

Provide spacer sleeves if using hollow sections as the frame.

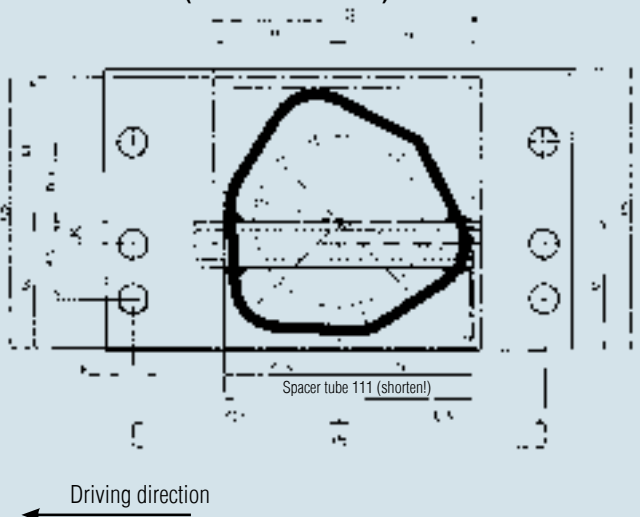
Cross section 120x120x4 – shorten distance



140 x 140 x 5 (standard)

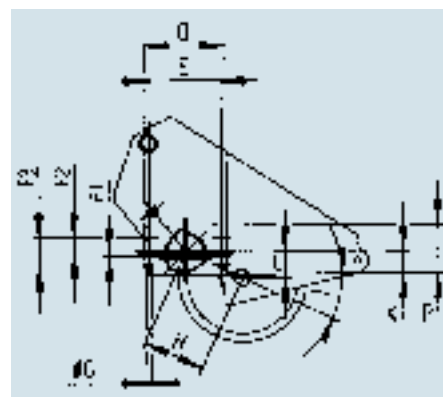
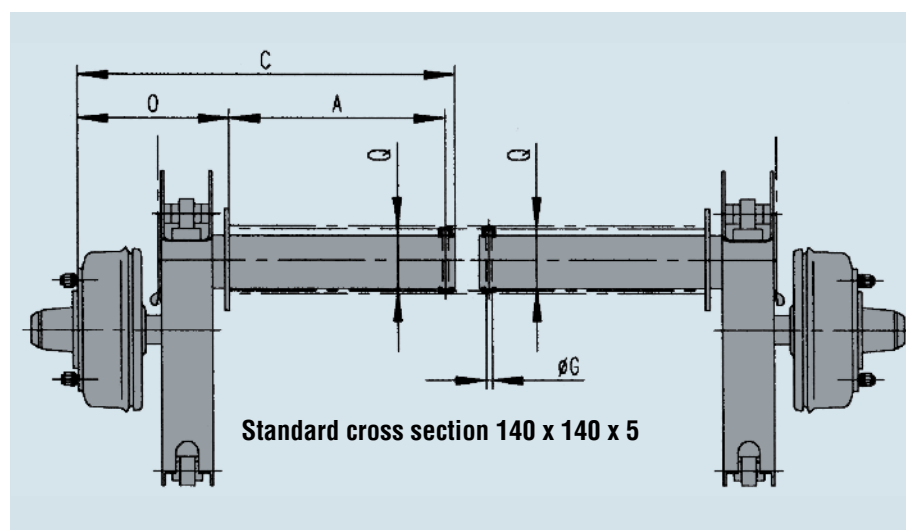


□120 x 120 x 4 (shorten distance!)



# LOWERING AXLES DOWN TO 270 MM

Single-axle trailers up to 1800 kg, tandem up to 3500 kg



## Surface treatment

Synthetic resin dip-priming black

## Supplier of hydraulic and control components:

- Hydro-compact unit ⑦
- Control box ⑧
- Remote control ⑨
- Quantity controller ⑬

## Order directly from:

Stiefel GmbH  
Dr. Carl-Schwenk-Straße 16  
89233 Neu-Ulm, Burlafingen  
Tel. 0731 / 7173-0  
Fax 0731 / 7173-41  
E-mail: Info@stiefel.de

## Stiefel purchase order number:

100 196 635

(of the complete set with contained items ⑦  
⑧ ⑨ ⑬)

If further hydraulic hoses are required, these  
can be ordered from Stiefel in addition.

## Ordering overview

| Type overview - lowering axle ① |         |                     |                      |          |                     |               |                     |                |                  |              |                  |           |             |
|---------------------------------|---------|---------------------|----------------------|----------|---------------------|---------------|---------------------|----------------|------------------|--------------|------------------|-----------|-------------|
| Part No                         | Type    | Permitted axle load | Axle dimensions (mm) |          |                     |               |                     | Rims and tyres |                  |              |                  |           |             |
|                                 |         | kg                  | BC<br>A              | OHF<br>C | Clamping mount<br>M | Cylinder<br>N | Mounting Plate<br>O | Wheel brake    | Wheel connection | Wheel bolt   | Offset from / to | Rec. rims | Rec. tyres  |
| 249 419                         | ASB1800 | SA=1800<br>TA=3500  | 449                  | 785      | -                   | -             | 316                 | 2361           | 112x5            | M12x1.5 ball | 30 mm            | 6J x 14   | 205 R 14 C* |

\* Note tyre size, maximum tyre width 215 mm.

| Type overview - accessories |                                                          |                |                 |                                            |                |                 |                                        |
|-----------------------------|----------------------------------------------------------|----------------|-----------------|--------------------------------------------|----------------|-----------------|----------------------------------------|
| Type                        | Longlife Bowden cables - single axle / tandem front axle |                |                 | Longlife- Bowden cables - tandem rear axle |                |                 | Recovery device                        |
|                             | Part No                                                  | Sleeve mm<br>H | Cable mm<br>S ② | Part No                                    | Sleeve mm<br>H | Cable mm<br>S ② | Part No ③                              |
| ASB1800                     | 247 290                                                  | 1729           | 1985            | 1 231 585                                  | 2800           | 3005            | 288 675 (for M10)<br>288 676 (for M12) |

| Type and supplier overview hydraulic system |                    |             |                            |             |                             |             |                           |         |                                     |
|---------------------------------------------|--------------------|-------------|----------------------------|-------------|-----------------------------|-------------|---------------------------|---------|-------------------------------------|
| For axle                                    | Hydro-compact unit |             | Control box (diode module) |             | Switch box (remote control) |             | Hydraulic cylinder        |         | Mounting components                 |
| Type                                        | Supplier           | Part No     | Supplier                   | Part No     | Supplier                    | Part No     | Supplier                  | Part No | Hydraulic cylinder (per cylinder) ⑩ |
| ASB1800 half axle                           | ⑦<br>Stiefel       | 100 196 636 | ⑧<br>Stiefel               | 100 196 637 | ⑨<br>Stiefel                | 100 196 638 | ⑩<br>in scope of delivery |         | ⑪<br>in scope of delivery           |

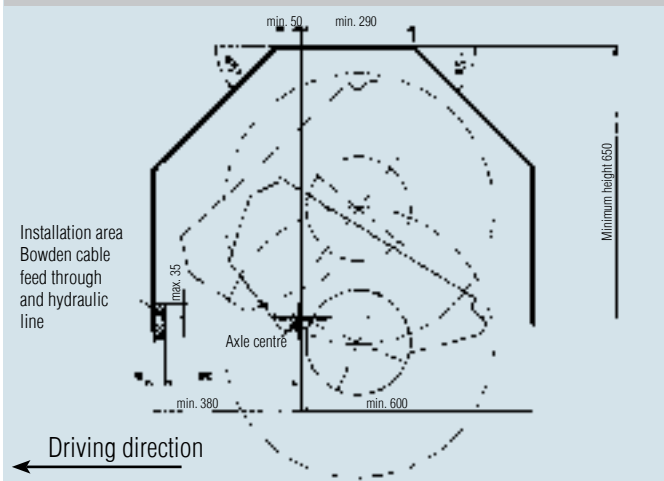
## Scope of delivery

(see type overview please order)

- ① Half axle ASB 1800 can be used both as single axle or as tandem mounted hydraulic cylinder see no. 10, incl. electrically unlocking solenoid valve see no. 12, incl. angled screw connection see no. 14, incl. hydraulic hose see no. 15.
- ② Bowden cables for this single axle or tandem
- ③ Recovery device single axle or tandem
- ④ Adapter bracket for this single axle or tandem
- ⑤ Compensation profile for this single axle or tandem
- ⑥ Jockey wheel
- ⑦ Hydro-compact unit (not supplied by AL-KO)
- ⑧ Control box (not supplied by AL-KO)
- ⑨ Switch box (not supplied by AL-KO)
- ⑩+⑪ Hydraulic cylinder
- ⑫ Solenoid valve
- ⑬ Quantity controller (not supplied by AL-KO)
- ⑭ Angled screw connection
- ⑮ Hydraulic hose
- ⑯ Control cable (not supplied by AL-KO)

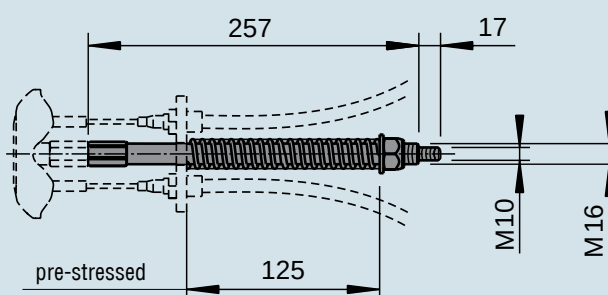
| Req. order quantity |    |
|---------------------|----|
| SA                  | TA |
| 1x                  | 2x |
| 2x                  | 4x |
| 1x                  | 1x |
| 1x                  | 1x |
| 1x                  | 1x |
| 1x                  | 1x |
| 1x                  | 1x |
| 1x                  | 1x |
| 1x                  | 1x |
| 2x                  | 4x |
| -                   | -  |
| -                   | -  |
| 2x                  | 4x |
| -                   | -  |
| -                   | -  |
| 2x                  | 2x |

## Wheel housing clearances



## Recovery device

Part No 288 675 (M10) up to 2500 kg      Part No 288 676 (M12) up to 3500 kg



## Type overview - lowering axle ①

| Clamping mount / connection plate (mm) |     |    |      |    |     |    |     | Spacer bush (mm) | Swing arm (mm) |     |    | Axle profile (mm) | Minimum axle dimensions (min. mm) |     |
|----------------------------------------|-----|----|------|----|-----|----|-----|------------------|----------------|-----|----|-------------------|-----------------------------------|-----|
| D                                      | E   | F1 | F2   | F3 | Ø G | K  | P   | Q                | H              | I   | L  |                   |                                   |     |
| 210                                    | 185 | 10 | 35.5 | 70 | 16  | 57 | 125 | 129**            | 160            | 25° | 68 | 110               | -                                 | 145 |

\*\* With standard cross section 140x140x5. For cross section 120x120x4 shorten to 111mm.

## Type overview - accessories

| Bowden cable adapter bracket |               | Compensation profile |          | Jockey wheel + clamping clip |  | Ø tube | Clamping clip | Carrying force. (kg) ⑥ |
|------------------------------|---------------|----------------------|----------|------------------------------|--|--------|---------------|------------------------|
| Part No                      |               | Part No              |          | Part No                      |  |        |               |                        |
| Single axle                  | Tandem ④      | Single axle          | Tandem ⑤ |                              |  |        |               |                        |
| 208 193 01 03                | 208 889 00 03 | 1 730 379            | 238 576  | 243 888                      |  | 60     | 249 859       | 550                    |

## Type and supplier overview hydraulic system

| Electrically unlockable solenoid valve |         | Quantity controller |             | Angled screw connection |         | Hydraulic hose       |         | Control cable                              |
|----------------------------------------|---------|---------------------|-------------|-------------------------|---------|----------------------|---------|--------------------------------------------|
| Supplier ⑫                             | Part No | Supplier ⑬          | Part No     | Supplier ⑭              | Part No | Supplier ⑮           | Part No | ⑯                                          |
| in scope of delivery                   |         | Stiefel             | 100 196 639 | in scope of delivery    |         | in scope of delivery |         | 2x1 mm² obtained from independent retailer |

# RIGID UNBRAKED AXLE PLUS

750 kg, 1500 kg and 1800 kg with leaf suspension





☑ **Your advantage**

- | Modular system, i.e. you can choose between:
  - A) Complete axle (supplied unmounted)
  - B) Individual axle components
- | The leaf springs and axle shock absorbers are clamped onto the axle beam
- | The axle tube is a sturdy, commercially available square tube
- | Wheel hub with stub either:
  - A) For Bolting in = AL-KO concept  
(simple to exchange for service)
  - B) Or for welding in = produced by customer
- | Thanks to the Bolting in system, the axle tube and fastening plates can be hot-dip galvanised
- | Wheel hub as standard with compact bearing
- | Wheel hub optionally in waterproof version

# RIGID UNBRAKED AXLE PLUS

750 kg, 98x4 and 100x4

## Technology

**Model:** RIGID UBR PLUS

Axle type: LS 750

Axle load: SA 750 kg

Wheel connection: 98x4 / 100x4

## Scope of supply

Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised

## Accessories

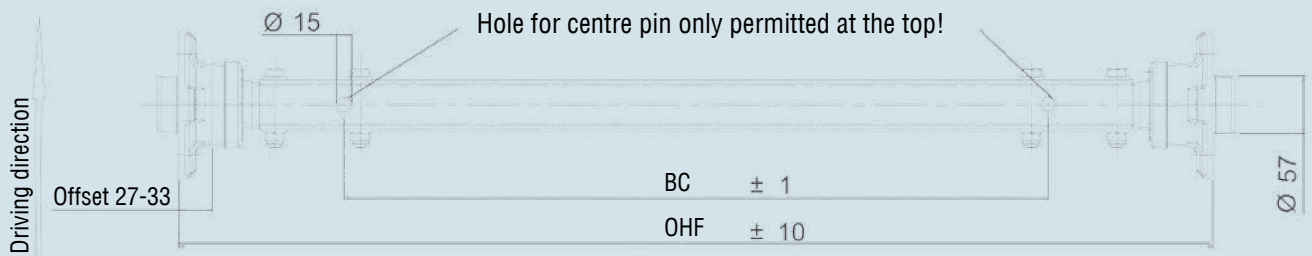
See following pages

Comply with installation guidelines!

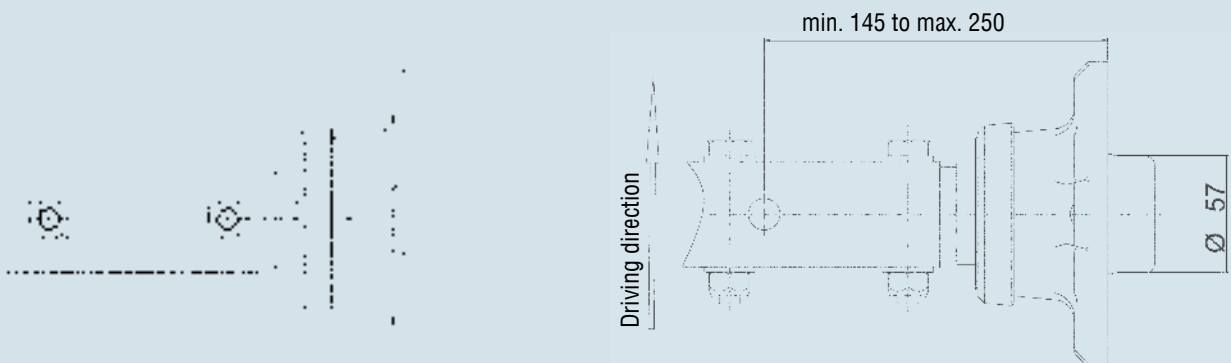
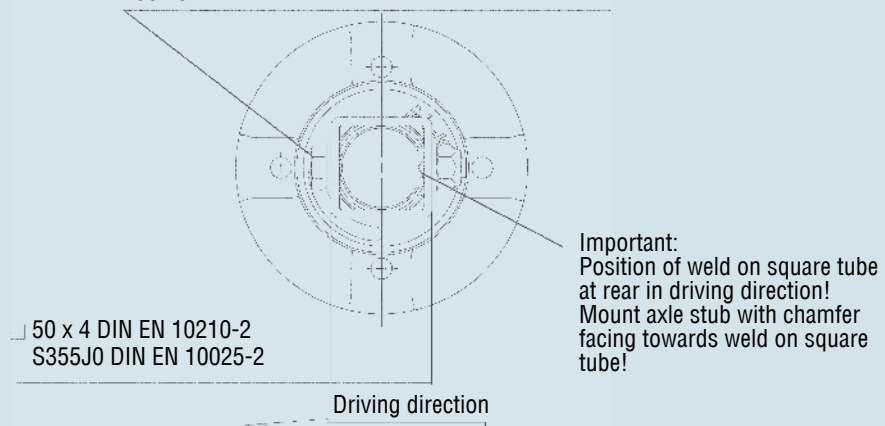


## Ordering overview

|              |             | Single axle with wheel connection 98x4<br>RIGID UBR PLUS LS 750 | Single axle with wheel connection 100x4<br>RIGID UBR PLUS LS 750 |      |   |    |    |
|--------------|-------------|-----------------------------------------------------------------|------------------------------------------------------------------|------|---|----|----|
|              |             | Wheel bolts<br>Taper<br>M 12x1.5                                | Wheel bolts<br>Taper<br>12x1.5                                   |      |   |    |    |
| OHF in<br>mm | BC in<br>mm | Axle cpl.                                                       | Axle cpl.                                                        |      |   |    |    |
| 1130         | 700         | 200 571 01                                                      | 200 571 49                                                       | 15.0 | - | 50 | 15 |
| 1180         | 750         | 200 571 02                                                      | 200 571 50                                                       | 15.5 | - | 50 | 15 |
| 1230         | 800         | 200 571 03                                                      | 200 571 51                                                       | 15.5 | - | 50 | 15 |
| 1280         | 850         | 200 571 04                                                      | 200 571 52                                                       | 16.0 | - | 50 | 15 |
| 1330         | 900         | 200 571 05                                                      | 200 571 53                                                       | 16.0 | - | 50 | 15 |
| 1380         | 950         | 200 571 06                                                      | 200 571 54                                                       | 16.5 | - | 50 | 15 |
| 1430         | 1000        | 142 155 9                                                       | 142 152 1                                                        | 17.0 | - | 50 | 15 |
| 1480         | 1050        | 200 571 07                                                      | 200 571 55                                                       | 17.0 | - | 50 | 15 |
| 1530         | 1100        | 200 571 08                                                      | 200 571 56                                                       | 17.5 | - | 50 | 15 |
| 1580         | 1150        | 200 571 09                                                      | 200 571 57                                                       | 17.5 | - | 50 | 15 |
| 1630         | 1200        | 200 571 10                                                      | 200 571 58                                                       | 18.0 | - | 50 | 15 |
| 1680         | 1250        | 200 571 11                                                      | 200 571 59                                                       | 18.0 | - | 50 | 15 |
| 1730         | 1300        | 200 571 12                                                      | 200 571 60                                                       | 18.5 | - | 50 | 15 |
| 1780         | 1350        | 200 571 13                                                      | 200 571 61                                                       | 19.0 | - | 50 | 15 |
| 1830         | 1400        | 200 571 14                                                      | 200 571 62                                                       | 19.0 | - | 50 | 15 |
| 1880         | 1450        | 200 571 15                                                      | 200 571 63                                                       | 19.5 | - | 50 | 15 |
| 1930         | 1500        | 200 571 16                                                      | 200 571 64                                                       | 20.0 | - | 50 | 15 |
| 1980         | 1550        | 200 571 17                                                      | 200 571 65                                                       | 20.0 | - | 50 | 15 |
| 2030         | 1600        | 200 571 18                                                      | 200 571 66                                                       | 20.5 | - | 50 | 15 |
| 2080         | 1650        | 200 571 19                                                      | 200 571 67                                                       | 20.5 | - | 50 | 15 |
| 2130         | 1700        | 200 571 20                                                      | 200 571 68                                                       | 21.0 | - | 50 | 15 |
| 2180         | 1750        | 200 571 21                                                      | 200 571 69                                                       | 21.0 | - | 50 | 15 |
| 2230         | 1800        | 200 571 22                                                      | 200 571 70                                                       | 21.5 | - | 50 | 15 |
| 2280         | 1850        | 200 571 23                                                      | 200 571 71                                                       | 22.0 | - | 50 | 15 |
| 2330         | 1900        | 200 571 24                                                      | 201 571 72                                                       | 22.0 | - | 50 | 15 |



Tightening torque of the bolt M12X1.25X70-10.9  
DIN 931:  
150 ± 5 Nm



# RIGID UNBRAKED AXLE PLUS

1500 kg, 112x5

## Technology

**Model:** RIGID UBR PLUS

Axle type: LS 1500

Axle load: SA 1500 kg

Wheel connection: 112x5 - M12x1.5

## Scope of supply

Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised

## Accessories

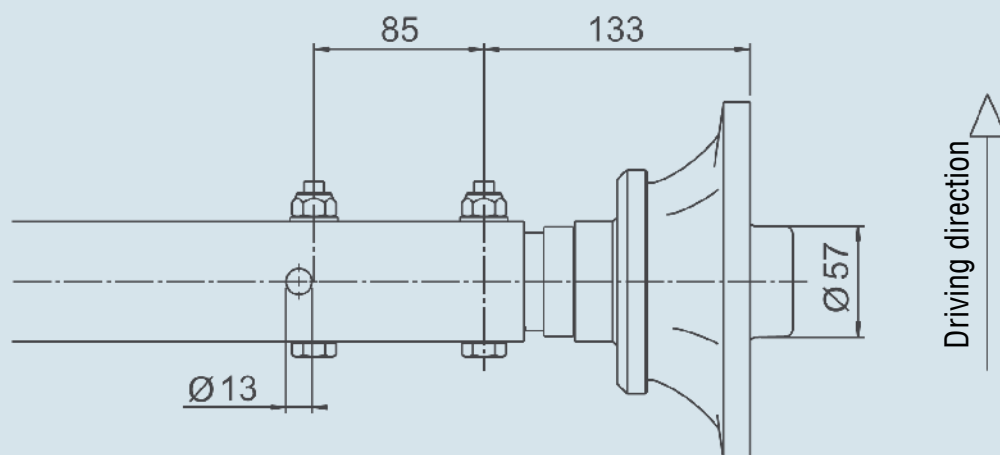
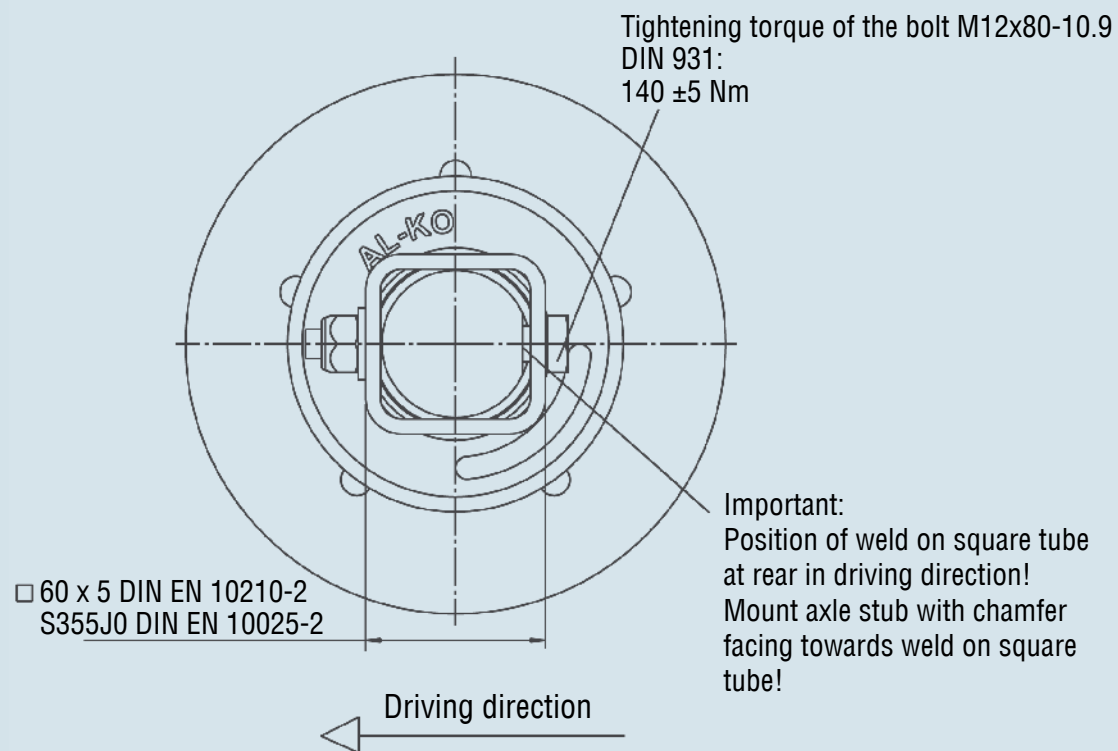
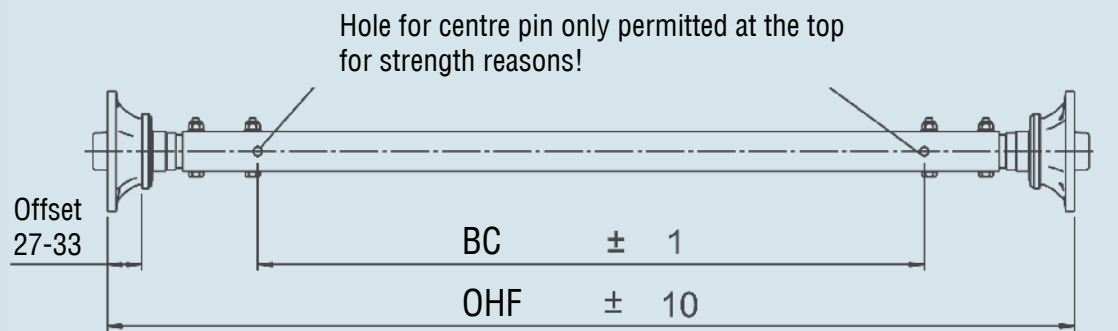
See following pages

Comply with installation guidelines!



## Ordering overview

|              |             | Single axle with wheel connection 112x5<br>RIGID UBR PLUS LS 1500 | Single axle with wheel connection 112x5 watertight<br>RIGID UBR PLUS LS 1500 WD |      |   |    |    |
|--------------|-------------|-------------------------------------------------------------------|---------------------------------------------------------------------------------|------|---|----|----|
| OHF in<br>mm | BC in<br>mm | Wheel bolts                                                       | Wheel bolts                                                                     |      |   |    |    |
|              |             | Ball<br>M12x1.5                                                   | Ball<br>M12x1.5                                                                 |      |   |    |    |
|              |             | Axle cpl.                                                         | Axle cpl.                                                                       |      |   |    |    |
| 1150         | 700         | 200 578 01                                                        | 200 579 01                                                                      | 24   | - | 50 | 15 |
| 1200         | 750         | 200 578 02                                                        | 200 579 02                                                                      | 24.5 | - | 50 | 15 |
| 1250         | 800         | 200 578 03                                                        | 200 579 03                                                                      | 24.9 | - | 50 | 15 |
| 1300         | 850         | 200 578 04                                                        | 200 579 04                                                                      | 25.3 | - | 50 | 15 |
| 1350         | 900         | 200 578 05                                                        | 200 579 05                                                                      | 25.7 | - | 50 | 15 |
| 1400         | 950         | 200 578 06                                                        | 200 579 06                                                                      | 26.2 | - | 50 | 15 |
| 1450         | 1000        | 1 422 441                                                         | 200 579 07                                                                      | 26.6 | - | 50 | 15 |
| 1500         | 1050        | 200 578 07                                                        | 200 579 08                                                                      | 27   | - | 50 | 15 |
| 1550         | 1100        | 200 578 08                                                        | 200 579 09                                                                      | 27.5 | - | 50 | 15 |
| 1600         | 1150        | 200 578 09                                                        | 200 579 10                                                                      | 27.9 | - | 50 | 15 |
| 1650         | 1200        | 200 578 10                                                        | 200 579 11                                                                      | 28.3 | - | 50 | 15 |
| 1700         | 1250        | 200 578 11                                                        | 200 579 12                                                                      | 28.7 | - | 50 | 15 |
| 1750         | 1300        | 200 578 12                                                        | 200 579 13                                                                      | 29.2 | - | 50 | 15 |
| 1800         | 1350        | 200 578 13                                                        | 200 579 14                                                                      | 29.6 | - | 50 | 15 |
| 1850         | 1400        | 200 578 14                                                        | 200 579 15                                                                      | 30   | - | 50 | 15 |
| 1900         | 1450        | 200 578 15                                                        | 200 579 16                                                                      | 30.4 | - | 50 | 15 |
| 1950         | 1500        | 200 578 16                                                        | 200 579 17                                                                      | 30.9 | - | 50 | 15 |
| 2000         | 1550        | 200 578 17                                                        | 200 579 18                                                                      | 31.3 | - | 50 | 15 |
| 2050         | 1600        | 200 578 18                                                        | 200 579 19                                                                      | 31.7 | - | 50 | 15 |
| 2100         | 1650        | 200 578 19                                                        | 200 579 20                                                                      | 32.2 | - | 50 | 15 |
| 2150         | 1700        | 200 578 20                                                        | 200 579 21                                                                      | 32.6 | - | 50 | 15 |
| 2200         | 1750        | 200 578 21                                                        | 200 579 22                                                                      | 33   | - | 50 | 15 |
| 2250         | 1800        | 200 578 22                                                        | 200 579 23                                                                      | 33.4 | - | 50 | 15 |
| 2300         | 1850        | 200 578 23                                                        | 200 579 24                                                                      | 33.9 | - | 50 | 15 |
| 2350         | 1900        | 200 578 24                                                        | 200 579 25                                                                      | 34.3 | - | 50 | 15 |



# RIGID UNBRAKED AXLE PLUS

1800 kg, 112x5

## Technology

**Model:** RIGID UBR PLUS

Axle type: BS 1800

Axle load: SA 1800 kg

Wheel connection: 112x5 - M12x1.5

## Scope of supply

Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised

## Accessories

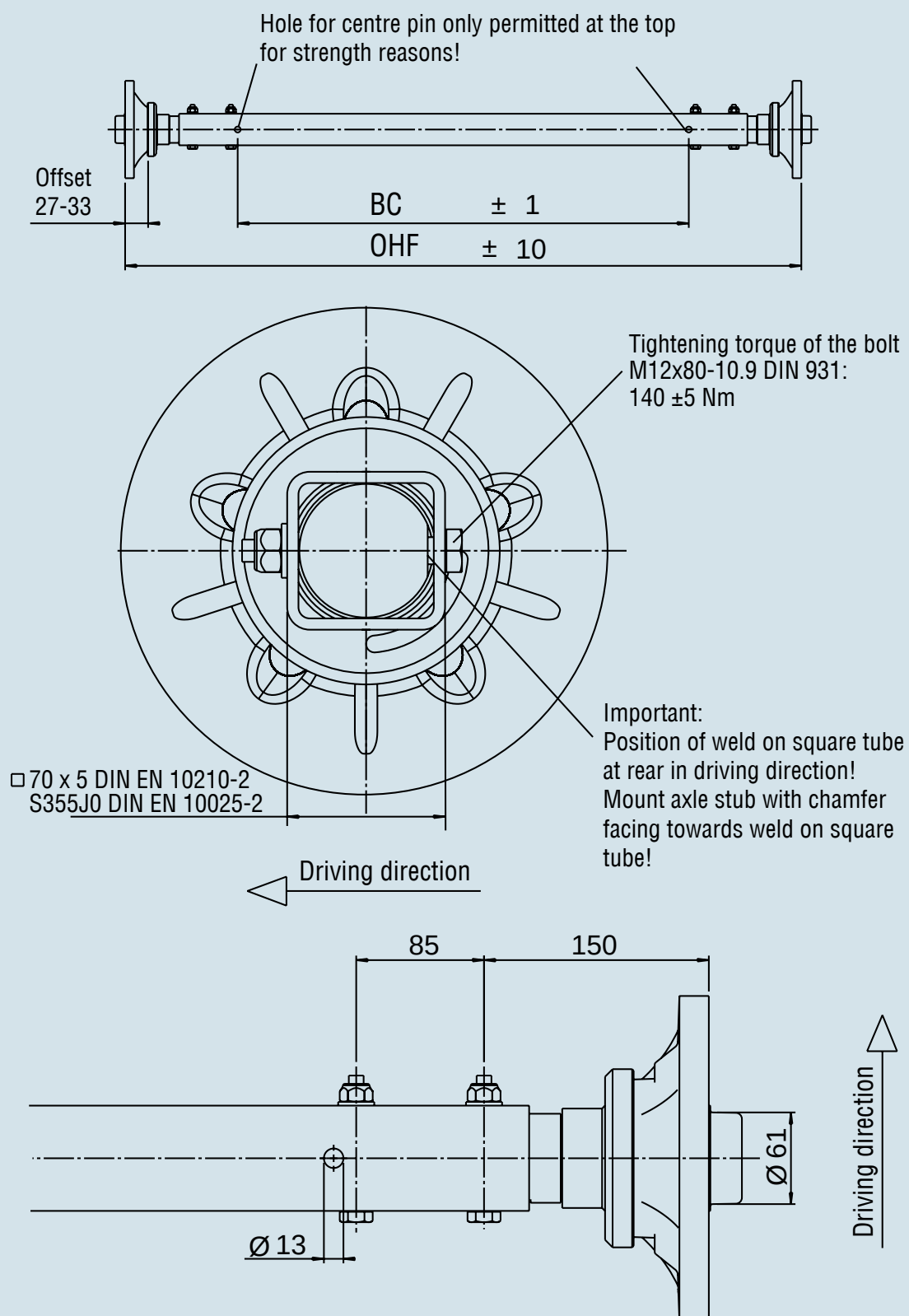
See following pages

Comply with installation guidelines!



## Ordering overview

|           |          | Single axle with wheel connection 112x5<br>RIGID UBR PLUS BS 1800 |      |   |    |    |
|-----------|----------|-------------------------------------------------------------------|------|---|----|----|
|           |          | Wheel bolts                                                       |      |   |    |    |
|           |          | Ball                                                              |      |   |    |    |
|           |          | M12x1.5                                                           |      |   |    |    |
| OHF in mm | BC in mm | Axle cpl.                                                         |      |   |    |    |
| 1200      | 700      | 200 580 01                                                        | 34.3 | - | 50 | 15 |
| 1250      | 750      | 200 580 02                                                        | 34.8 | - | 50 | 15 |
| 1300      | 800      | 200 580 03                                                        | 35.3 | - | 50 | 15 |
| 1350      | 850      | 200 580 04                                                        | 35.8 | - | 50 | 15 |
| 1400      | 900      | 200 580 05                                                        | 36.4 | - | 50 | 15 |
| 1450      | 950      | 200 580 06                                                        | 36.9 | - | 50 | 15 |
| 1500      | 1000     | 1 422 437                                                         | 37.4 | - | 50 | 15 |
| 1550      | 1050     | 200 580 07                                                        | 37.9 | - | 50 | 15 |
| 1600      | 1100     | 200 580 08                                                        | 38.4 | - | 50 | 15 |
| 1650      | 1150     | 200 580 09                                                        | 39   | - | 50 | 15 |
| 1700      | 1200     | 200 580 10                                                        | 39.5 | - | 50 | 15 |
| 1750      | 1250     | 200 580 11                                                        | 40   | - | 50 | 15 |
| 1800      | 1300     | 200 580 12                                                        | 40.5 | - | 50 | 15 |
| 1850      | 1350     | 200 580 13                                                        | 41   | - | 50 | 15 |
| 1900      | 1400     | 200 580 14                                                        | 41.6 | - | 50 | 15 |
| 1950      | 1450     | 200 580 15                                                        | 42.1 | - | 50 | 15 |
| 2000      | 1500     | 200 580 16                                                        | 42.6 | - | 50 | 15 |
| 2050      | 1550     | 200 580 17                                                        | 43.1 | - | 50 | 15 |
| 2100      | 1600     | 200 580 18                                                        | 43.6 | - | 50 | 15 |
| 2150      | 1650     | 200 580 19                                                        | 44.1 | - | 50 | 15 |
| 2200      | 1700     | 200 580 20                                                        | 44.7 | - | 50 | 15 |
| 2250      | 1750     | 200 580 21                                                        | 45.2 | - | 50 | 15 |
| 2300      | 1800     | 200 580 22                                                        | 45.7 | - | 50 | 15 |
| 2350      | 1850     | 200 580 23                                                        | 46.2 | - | 50 | 15 |
| 2400      | 1900     | 200 580 24                                                        | 46.7 | - | 50 | 15 |



# HUB AND STUB AXLE SETS FOR WHEEL LOAD

## 375 kg Bolting in with Compact Bearing

### Important

According to EC Directive ECE R 13, only unbraked trailers with a permitted total weight up to 750 kg are allowed to be registered. Specific country regulations must be observed!

### Scope of supply

- ! (see order overview)
- ! Wheel bolts not supplied! Please order separately (see comprehensive catalogue)

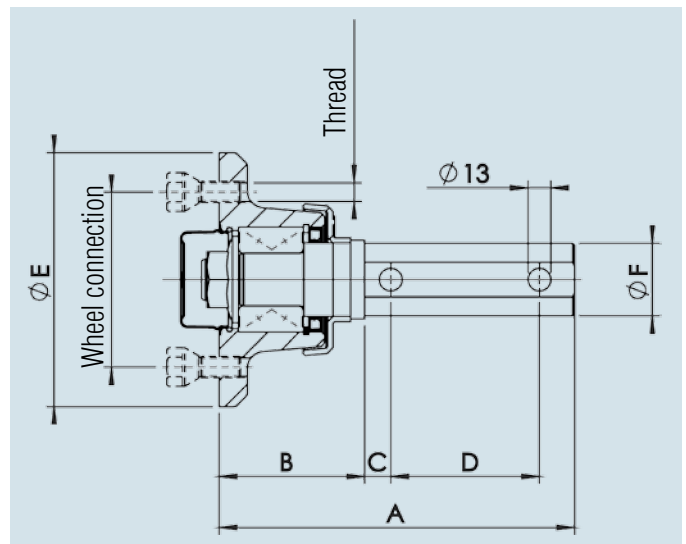
### Surface treatment

- ! Synthetic resin dip-coating black

### Possible wheel connections

- ! On request
- ! Suitable for rims with centre hole min. 57 mm

### PLUS hub for Bolting in



### Ordering overview

| PLUS hub watertight with stub for Bolting in |                             |                            |                   |              |            |         |         |         |         |         |                 |     |   |     |    |
|----------------------------------------------|-----------------------------|----------------------------|-------------------|--------------|------------|---------|---------|---------|---------|---------|-----------------|-----|---|-----|----|
| Part No                                      | Wheel load<br>per hub<br>kg | Wheel connection           |                   | Offset<br>mm | Dimensions |         |         |         |         |         | Bearing<br>type |     |   |     |    |
|                                              |                             | Con-<br>nec-<br>tion<br>mm | Thread<br>mm x mm |              | A<br>mm    | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm |                 |     |   |     |    |
| 1 225 331                                    | 375                         | 100x4                      | M12 x 1.5         | 27-33        | 203.5      | 83.5    | 15      | 85      | 145     | 41.4    | Compact         | 5.0 | - | 150 | 10 |
| 1 225 333                                    | 375                         | 98x4                       | M12 x 1.5         | 27-33        | 203.5      | 83.5    | 15      | 85      | 145     | 41.4    | Compact         | 5.0 | - | 150 | 10 |

| PLUS hub watertight with stub for Bolting in |                             |                            |                   |              |            |         |         |         |         |         |                 |     |   |     |    |
|----------------------------------------------|-----------------------------|----------------------------|-------------------|--------------|------------|---------|---------|---------|---------|---------|-----------------|-----|---|-----|----|
| Part No                                      | Wheel load<br>per hub<br>kg | Wheel connection           |                   | Offset<br>mm | Dimensions |         |         |         |         |         | Bearing<br>type |     |   |     |    |
|                                              |                             | Con-<br>nec-<br>tion<br>mm | Thread<br>mm x mm |              | A<br>mm    | B<br>mm | C<br>mm | D<br>mm | E<br>mm | F<br>mm |                 |     |   |     |    |
| 1 225 328                                    | 375                         | 100x4                      | M12 x 1.5         | 27-33        | 200        | 80      | 15      | 85      | 145     | 41.4    | Compact         | 4.9 | - | 150 | 10 |
| 1 225 332                                    | 375                         | 98x4                       | M12 x 1.5         | 27-33        | 200        | 80      | 15      | 85      | 145     | 41.4    | Compact         | 4.9 | - | 150 | 10 |

# HUB AND STUB AXLE SETS FOR WHEEL LOAD

## 750 kg Bolting in with Compact Bearing

### Important

According to EC Directive ECE R 13, only unbraked trailers with a permitted total weight up to 750 kg are allowed to be registered. Specific country regulations must be observed!

### Scope of supply

- ! (see order overview)
- ! Wheel bolts not supplied! Please order separately (see comprehensive catalogue)

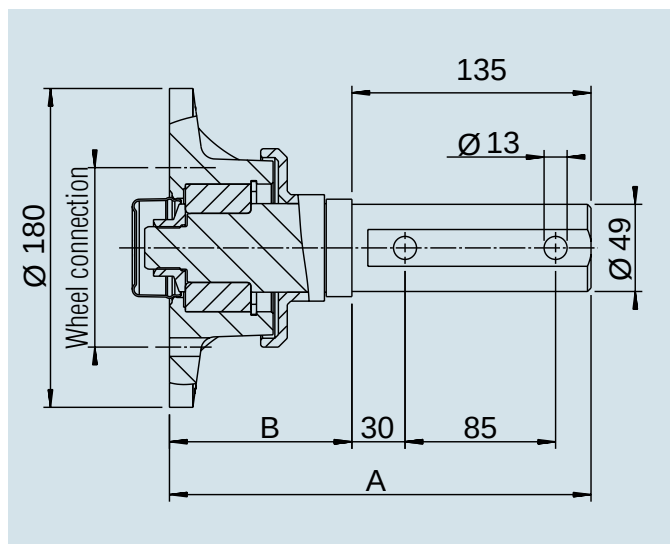
### Surface treatment

- ! Synthetic resin dip-coating black

### Possible wheel connections

- ! On request
- ! Suitable for rims with centre hole min. 57 mm

### Comply with installation guidelines!



### Ordering overview

| PLUS hub watertight with stub for Bolting in |            |                  |           |        |            |     |              |     |   |        |
|----------------------------------------------|------------|------------------|-----------|--------|------------|-----|--------------|-----|---|--------|
| Part No                                      | Wheel load | Wheel connection |           | Offset | Dimensions |     | Bearing type |     |   |        |
|                                              | per hub    | Connection       | Thread    |        | A          | B   |              |     |   |        |
|                                              | kg         | mm               | mm x mm   | mm     | mm         | mm  |              |     |   |        |
| 1 225 708                                    | 750        | 112x5            | M12 x 1.5 | 27-33  | 241        | 106 | Compact      | 7.8 | - | 150 10 |

| PLUS hub watertight with stub for Bolting in |            |                  |           |        |            |     |              |     |   |        |
|----------------------------------------------|------------|------------------|-----------|--------|------------|-----|--------------|-----|---|--------|
| Part No                                      | Wheel load | Wheel connection |           | Offset | Dimensions |     | Bearing type |     |   |        |
|                                              | per hub    | Connection       | Thread    |        | A          | B   |              |     |   |        |
|                                              | kg         | mm               | mm x mm   | mm     | mm         | mm  |              |     |   |        |
| 1 225 703                                    | 750        | 112x5            | M12 x 1.5 | 27-33  | 238        | 103 | Compact      | 7.6 | - | 150 10 |

# HUB AND STUB AXLE SETS FOR WHEEL LOAD

## 900 kg Bolting in with Compact Bearing

### Important

According to EC Directive ECE R 13, only unbraked trailers with a permitted total weight up to 750 kg are allowed to be registered. Specific country regulations must be observed!

### Scope of supply

- (see order overview)
- Wheel bolts not supplied! Please order separately (see comprehensive catalogue)

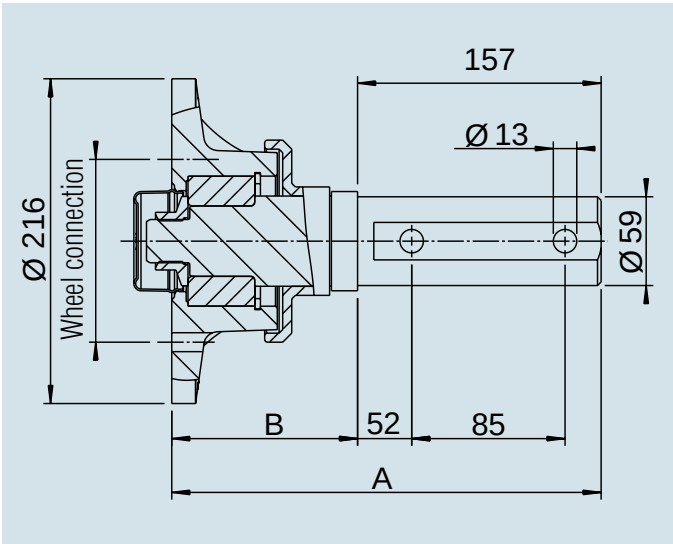
### Surface treatment

- Synthetic resin dip-coating black

### Possible wheel connections

- On request
- Suitable for rims with centre hole min. 57 mm

Comply with installation guidelines!



### Ordering overview

| PLUS hub watertight with stub for screwing in |                    |                  |           |           |            |      |              |    |       |    |
|-----------------------------------------------|--------------------|------------------|-----------|-----------|------------|------|--------------|----|-------|----|
| Part No                                       | Wheel load per hub | Wheel connection |           | Offset mm | Dimensions |      | Bearing type |    |       |    |
|                                               | kg                 | Connection       | Thread    |           | A          | B    |              |    |       |    |
|                                               |                    | mm               | mm x mm   |           | mm         | mm   |              |    |       |    |
| 1 225 702                                     | 900                | 112x5            | M12 x 1.5 | 27-33     | 254.5      | 97.5 | Compact      | 12 | - 150 | 10 |

# BRAKED RIGID AXLE PLUS

1500 kg and 1800 kg with leaf suspension



Axles

## Your advantage

- Modular system, i.e. you can choose between:
  - A) Axle complete (supplied unmounted)
  - B) Individual axle components
- The leaf springs and axle shock absorbers are clamped onto the axle beam
- wheel brake with stub either:
  - A) For Bolting in = AL-KO concept (simple to exchange in service)
  - B) Or for welding in = produced by customer
- The axle tube is a sturdy, commercially available square tube
- Thanks to the Bolting in system, the axle tube and fastening plates can be hot-dip galvanised
- Wheel brake as standard with compact bearing
- Wheel brake optional in watertight version

# RIGID BRAKED AXLE PLUS

1500 kg, 112x5

## Technology

**Model:** RIGID GBR PLUS

Axle type: BS 1500

Axle load: SA 1500 kg

Wheel connection: 112x5 - M12x1.5

## Surface treatment

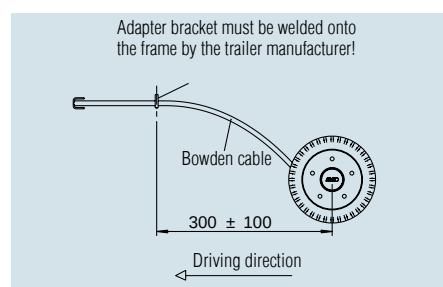
! Axle beam hot-dip galvanised

## Accessories

! See following pages

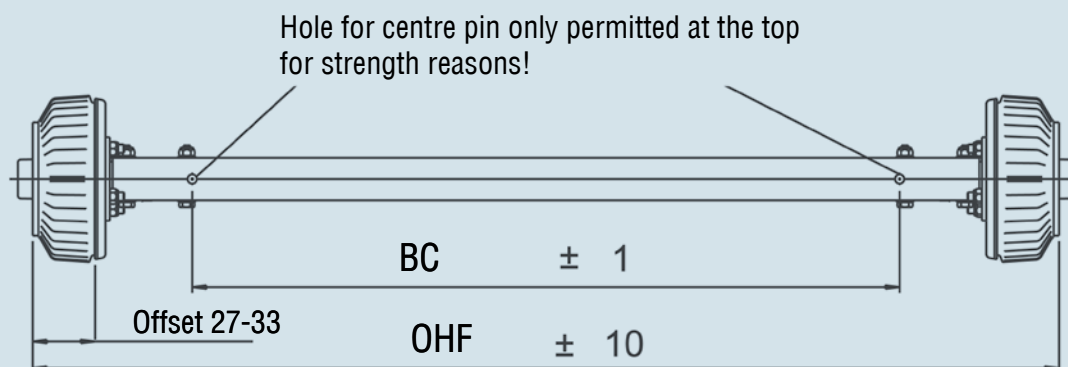
## Scope of delivery

|                              | SA  | TA  |
|------------------------------|-----|-----|
| ! Wheel bolts loose          | yes | yes |
| ! Adapter bracket loose      | yes | yes |
| ! Axle Bowden cables loose   | yes | yes |
| ! Compensation profile loose | yes | no* |



## Ordering overview

| Single axle with wheel connection 112x5<br>RIGID GBR PLUS BS 1500 |             |            | Tandem axle |             | Single axle with wheel connection 112x5 watertight<br>RIGID GBR PLUS BS 1500 WD |      |   |       |
|-------------------------------------------------------------------|-------------|------------|-------------|-------------|---------------------------------------------------------------------------------|------|---|-------|
|                                                                   |             |            | Front axle  | Rear axle   |                                                                                 |      |   |       |
|                                                                   |             |            | Wheel bolts | Wheel bolts | Wheel bolts                                                                     |      |   |       |
|                                                                   |             |            | Ball        | Ball        | Ball                                                                            |      |   |       |
|                                                                   |             |            | M12x1.5     | M12x1.5     | M12x1.5                                                                         |      |   |       |
|                                                                   |             |            | Axle cpl.   | Axle cpl.   | Axle cpl.                                                                       |      |   |       |
| OHF in<br>mm                                                      | BC in<br>mm |            |             |             |                                                                                 |      |   |       |
| 1150                                                              | 700         | 200 581 01 | 200 581 25  | 200 581 50  | 200 582 01                                                                      | 38   | - | 50 15 |
| 1200                                                              | 750         | 200 581 02 | 200 581 26  | 200 581 51  | 200 582 02                                                                      | 38.5 | - | 50 15 |
| 1250                                                              | 800         | 200 581 03 | 200 581 27  | 200 581 52  | 200 582 03                                                                      | 38.9 | - | 50 15 |
| 1300                                                              | 850         | 200 581 04 | 200 581 28  | 200 581 53  | 200 582 04                                                                      | 39.3 | - | 50 15 |
| 1350                                                              | 900         | 200 581 05 | 200 581 29  | 200 581 54  | 200 582 05                                                                      | 39.7 | - | 50 15 |
| 1400                                                              | 950         | 200 581 06 | 200 581 30  | 200 581 55  | 200 582 06                                                                      | 40.2 | - | 50 15 |
| 1450                                                              | 1000        | 1 421 796  | 200 581 31  | 200 581 56  | 200 582 07                                                                      | 40.6 | - | 50 15 |
| 1500                                                              | 1050        | 200 581 07 | 200 581 32  | 200 581 57  | 200 582 08                                                                      | 41   | - | 50 15 |
| 1550                                                              | 1100        | 200 581 08 | 200 581 33  | 200 581 58  | 200 582 09                                                                      | 41.5 | - | 50 15 |
| 1600                                                              | 1150        | 200 581 09 | 200 581 34  | 200 581 59  | 200 582 10                                                                      | 41.9 | - | 50 15 |
| 1650                                                              | 1200        | 200 581 10 | 200 581 35  | 200 581 60  | 200 582 11                                                                      | 42.3 | - | 50 15 |
| 1700                                                              | 1250        | 200 581 11 | 200 581 36  | 200 581 61  | 200 582 12                                                                      | 42.7 | - | 50 15 |
| 1750                                                              | 1300        | 200 581 12 | 200 581 37  | 200 581 62  | 200 582 13                                                                      | 43.2 | - | 50 15 |
| 1800                                                              | 1350        | 200 581 13 | 200 581 38  | 200 581 63  | 200 582 14                                                                      | 43.6 | - | 50 15 |
| 1850                                                              | 1400        | 200 581 14 | 200 581 39  | 200 581 64  | 200 582 15                                                                      | 44   | - | 50 15 |
| 1900                                                              | 1450        | 200 581 15 | 200 581 40  | 200 581 65  | 200 582 16                                                                      | 44.4 | - | 50 15 |
| 1950                                                              | 1500        | 200 581 16 | 200 581 41  | 200 581 66  | 200 582 17                                                                      | 44.9 | - | 50 15 |
| 2000                                                              | 1550        | 200 581 17 | 200 581 42  | 200 581 67  | 200 582 18                                                                      | 45.3 | - | 50 15 |
| 2050                                                              | 1600        | 200 581 18 | 200 581 43  | 200 581 68  | 200 582 19                                                                      | 45.7 | - | 50 15 |
| 2100                                                              | 1650        | 200 581 19 | 200 581 44  | 200 581 69  | 200 582 20                                                                      | 46.2 | - | 50 15 |
| 2150                                                              | 1700        | 200 581 20 | 200 581 45  | 200 581 70  | 200 582 21                                                                      | 46.6 | - | 50 15 |
| 2200                                                              | 1750        | 200 581 21 | 200 581 46  | 200 581 71  | 200 582 22                                                                      | 47   | - | 50 15 |
| 2250                                                              | 1800        | 200 581 22 | 200 581 47  | 200 581 72  | 200 582 23                                                                      | 47.4 | - | 50 15 |
| 2300                                                              | 1850        | 200 581 23 | 200 581 48  | 200 581 73  | 200 582 24                                                                      | 47.9 | - | 50 15 |
| 2350                                                              | 1900        | 200 581 24 | 200 581 49  | 200 581 74  | 200 582 25                                                                      | 48.3 | - | 50 15 |

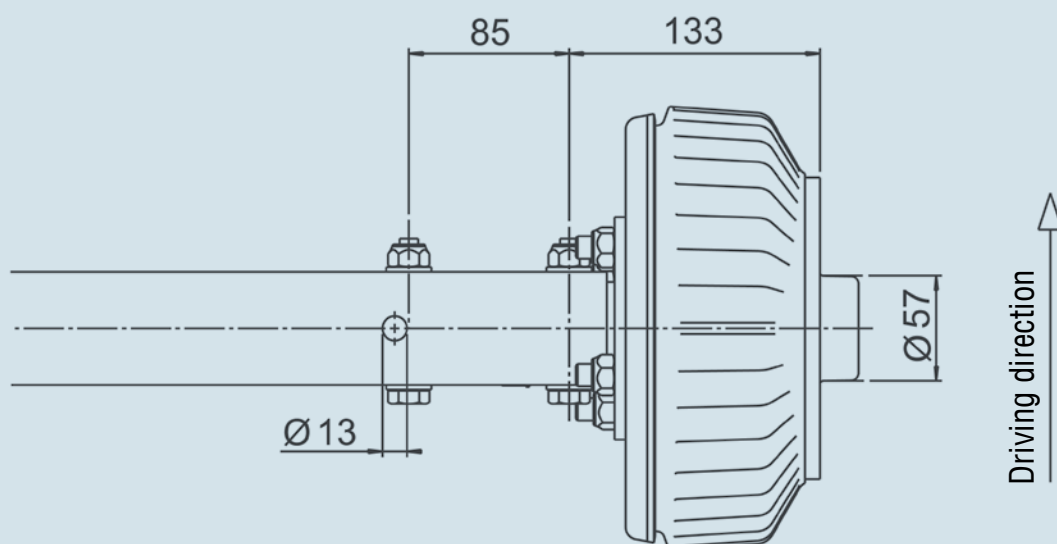


Tightening torque of bolt  
M12x80-10.9 DIN 931:140  $\pm 5$  Nm

Important:  
Position of weld on square tube  
at rear in driving direction!  
Mount axle stub with chamfer  
facing towards weld on square  
tube!

□ 60 x 5 DIN EN 10210-2  
S355J0 DIN EN 10025-2

Driving direction



# RIGID BRAKED AXLE PLUS

1800 kg, 112x5

## Technology

**Model:** RIGID GBR PLUS

Axle type: BS 1800

Axle load: SA 1800 kg

Wheel connection: 112x5 - M12x1.5

## Surface treatment

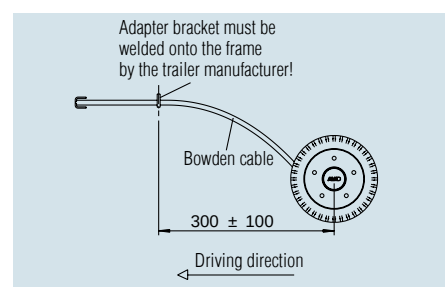
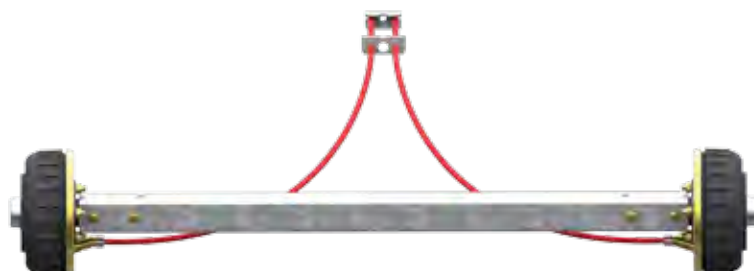
! Axle beam hot-dip galvanised

## Accessories

! See following pages

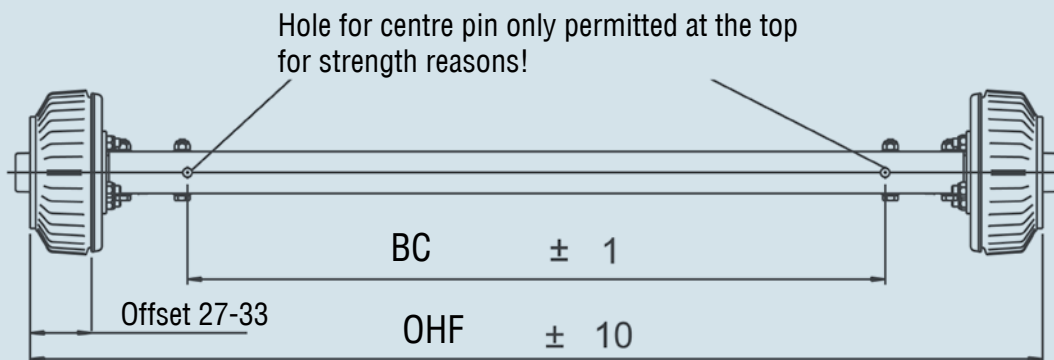
## Scope of delivery

|                              | SA  | TA  |
|------------------------------|-----|-----|
| ! Wheel bolts loose          | yes | yes |
| ! Adapter bracket loose      | yes | yes |
| ! Axle Bowden cables loose   | yes | yes |
| ! Compensation profile loose | yes | no* |



## Ordering overview

| Single axle with wheel connection 112x5<br>RIGID GBR PLUS BS 1800 |             |                 | Tandem axle |             | Single axle with wheel connection 112x5 watertight<br>RIGID GBR PLUS BS 1800 WD |      |   |    |    |
|-------------------------------------------------------------------|-------------|-----------------|-------------|-------------|---------------------------------------------------------------------------------|------|---|----|----|
| OHF in<br>mm                                                      | BC in<br>mm | Wheel bolts     | Wheel bolts | Wheel bolts | Wheel bolts                                                                     |      |   |    |    |
|                                                                   |             | Ball<br>M12x1.5 |             |             |                                                                                 |      |   |    |    |
|                                                                   |             | Axle cpl.       | Axle cpl.   | Axle cpl.   | Axle cpl.                                                                       |      |   |    |    |
| 1200                                                              | 700         | 200 583 01      | 200 583 25  | 200 583 50  | 200 584 01                                                                      | 56.7 | - | 50 | 15 |
| 1250                                                              | 750         | 200 583 02      | 200 583 26  | 200 583 51  | 200 584 02                                                                      | 57.2 | - | 50 | 15 |
| 1300                                                              | 800         | 200 583 03      | 200 583 27  | 200 583 52  | 200 584 03                                                                      | 57.7 | - | 50 | 15 |
| 1350                                                              | 850         | 200 583 04      | 200 583 28  | 200 583 53  | 200 584 04                                                                      | 58.2 | - | 50 | 15 |
| 1400                                                              | 900         | 200 583 05      | 200 583 29  | 200 583 54  | 200 584 05                                                                      | 58.8 | - | 50 | 15 |
| 1450                                                              | 950         | 200 583 06      | 200 583 30  | 200 583 55  | 200 584 06                                                                      | 59.3 | - | 50 | 15 |
| 1500                                                              | 1000        | 1 421 881       | 200 583 31  | 200 583 56  | 200 584 07                                                                      | 59.8 | - | 50 | 15 |
| 1550                                                              | 1050        | 200 583 07      | 200 583 32  | 200 583 57  | 200 584 08                                                                      | 60.3 | - | 50 | 15 |
| 1600                                                              | 1100        | 200 583 08      | 200 583 33  | 200 583 58  | 200 584 09                                                                      | 60.8 | - | 50 | 15 |
| 1650                                                              | 1150        | 200 583 09      | 200 583 34  | 200 583 59  | 200 584 10                                                                      | 61.4 | - | 50 | 15 |
| 1700                                                              | 1200        | 200 583 10      | 200 583 35  | 200 583 60  | 200 584 11                                                                      | 61.9 | - | 50 | 15 |
| 1750                                                              | 1250        | 200 583 11      | 200 583 36  | 200 583 61  | 200 584 12                                                                      | 62.4 | - | 50 | 15 |
| 1800                                                              | 1300        | 200 583 12      | 200 583 37  | 200 583 62  | 200 584 13                                                                      | 62.9 | - | 50 | 15 |
| 1850                                                              | 1350        | 200 583 13      | 200 583 38  | 200 583 63  | 200 584 14                                                                      | 63.4 | - | 50 | 15 |
| 1900                                                              | 1400        | 200 583 14      | 200 583 39  | 200 583 64  | 200 584 15                                                                      | 64   | - | 50 | 15 |
| 1950                                                              | 1450        | 200 583 15      | 200 583 40  | 200 583 65  | 200 584 16                                                                      | 64.5 | - | 50 | 15 |
| 2000                                                              | 1500        | 200 583 16      | 200 583 41  | 200 583 66  | 200 584 17                                                                      | 65   | - | 50 | 15 |
| 2050                                                              | 1550        | 200 583 17      | 200 583 42  | 200 583 67  | 200 584 18                                                                      | 65.5 | - | 50 | 15 |
| 2100                                                              | 1600        | 200 583 18      | 200 583 43  | 200 583 68  | 200 584 19                                                                      | 66   | - | 50 | 15 |
| 2150                                                              | 1650        | 200 583 19      | 200 583 44  | 200 583 69  | 200 584 20                                                                      | 66.5 | - | 50 | 15 |
| 2200                                                              | 1700        | 200 583 20      | 200 583 45  | 200 583 70  | 200 584 21                                                                      | 67.1 | - | 50 | 15 |
| 2250                                                              | 1750        | 200 583 21      | 200 583 46  | 200 583 71  | 200 584 22                                                                      | 67.6 | - | 50 | 15 |
| 2300                                                              | 1800        | 200 583 22      | 200 583 47  | 200 583 72  | 200 584 23                                                                      | 68.1 | - | 50 | 15 |
| 2350                                                              | 1850        | 200 583 23      | 200 583 48  | 200 583 73  | 200 584 24                                                                      | 68.6 | - | 50 | 15 |
| 2400                                                              | 1900        | 200 583 24      | 200 583 49  | 200 583 74  | 200 584 25                                                                      | 69.1 | - | 50 | 15 |

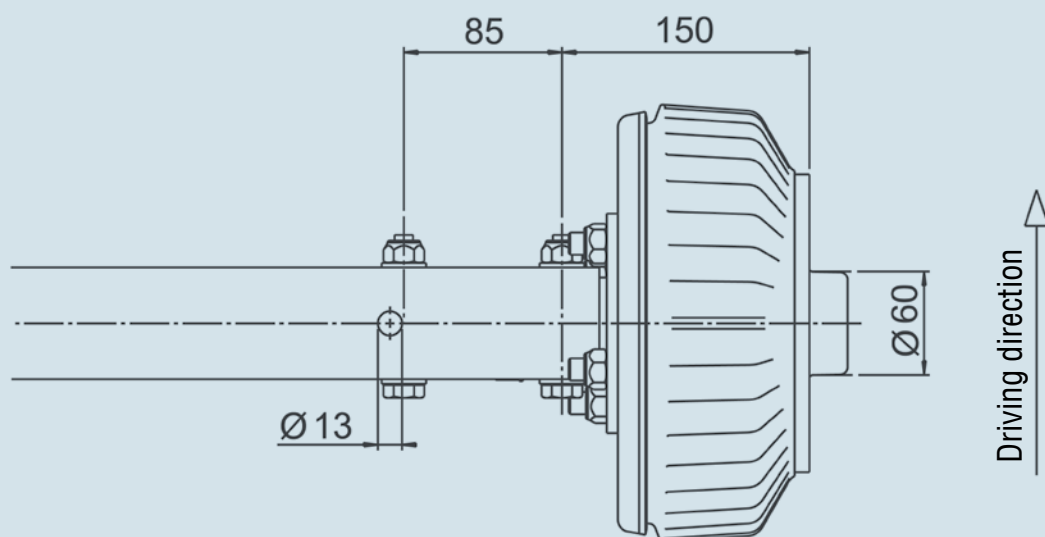


Tightening torque of bolt  
M12x80-10.9 DIN 931:140  $\pm 5$  Nm

Important:  
Position of weld on square tube  
at rear in driving direction!  
Mount axle stub with chamfer  
facing towards weld on square  
tube!

□ 70 x 5 DIN EN 10210-2  
S355J0 DIN EN 10025-2

Driving direction



# WHEEL BRAKE 2051 PAIR

## 1500 kg with stub

### Technology

All AL-KO wheel brakes are ECE-tested (official characteristic value) and can be connected to the corresponding AL-KO overrun hitches (allocation calculation).  
 Install wheel brakes with the correct direction of rotation!  
 The brake linings used in the wheel brakes are asbestos-free!

### Scope of supply

- (see order overview)
- Wheel bolts and axle Bowden cables not supplied!  
 Please order separately (see comprehensive catalogue)

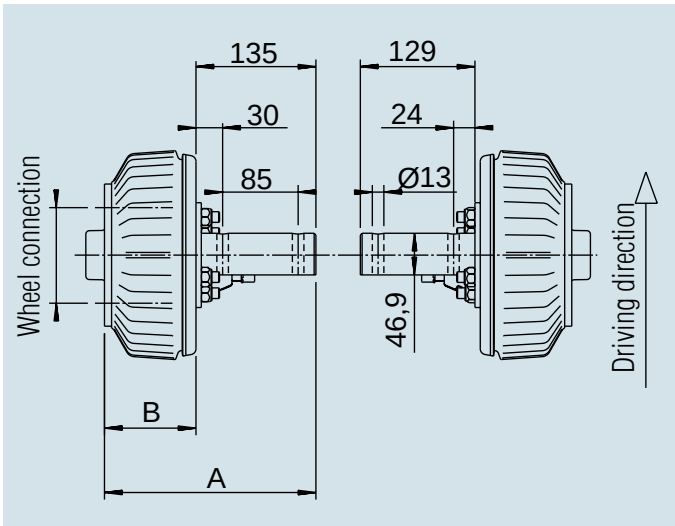
### Surface treatment

- Synthetic resin dip-coating black

### Possible wheel connections

- On request
- Suitable for rims with centre hole min. 57 mm

Comply with installation guidelines!



### Ordering overview

| Wheel brake 2051AB PLUS pair 1500 kg with stub for screwing in |                       |                  |           |        |            |     |              |      |   |     |    |
|----------------------------------------------------------------|-----------------------|------------------|-----------|--------|------------|-----|--------------|------|---|-----|----|
| Part No                                                        | Wheel load<br>per hub | Wheel connection |           | Offset | Dimensions |     | Bearing type |      |   |     |    |
|                                                                | kg                    | Connection       | Thread    |        | A          | B   |              |      |   |     |    |
|                                                                |                       | mm               | mm x mm   | mm     | mm         | mm  |              |      |   |     |    |
| 1 225 472                                                      | 750                   | 112x5            | M12 x 1.5 | 27-33  | 238        | 103 | Compact      | 29.5 | - | 150 | 10 |

| Wheel brake 2051AB PLUS pair 1500 kg watertight with stub for screwing in |                       |                  |           |        |            |     |              |      |   |     |    |
|---------------------------------------------------------------------------|-----------------------|------------------|-----------|--------|------------|-----|--------------|------|---|-----|----|
| Part No                                                                   | Wheel load<br>per hub | Wheel connection |           | Offset | Dimensions |     | Bearing type |      |   |     |    |
|                                                                           | kg                    | Connection       | Thread    |        | A          | B   |              |      |   |     |    |
|                                                                           |                       | mm               | mm x mm   | mm     | mm         | mm  |              |      |   |     |    |
| 1 225 699                                                                 | 750                   | 112x5            | M12 x 1.5 | 27-33  | 238        | 103 | Compact      | 29.7 | - | 150 | 10 |

# WHEEL BRAKE 2361 PAIR

## 1800 kg with stub

### Technology

All AL-KO wheel brakes are ECE-tested (official characteristic value) and can be connected to the corresponding AL-KO overrun hitches (allocation calculation). Install wheel brakes with the correct direction of rotation!

The brake linings used in the wheel brakes are asbestos-free!

### Scope of supply

- (see order overview)
- Wheel bolts and axle Bowden cables not supplied!
- Please order separately (see comprehensive catalogue)

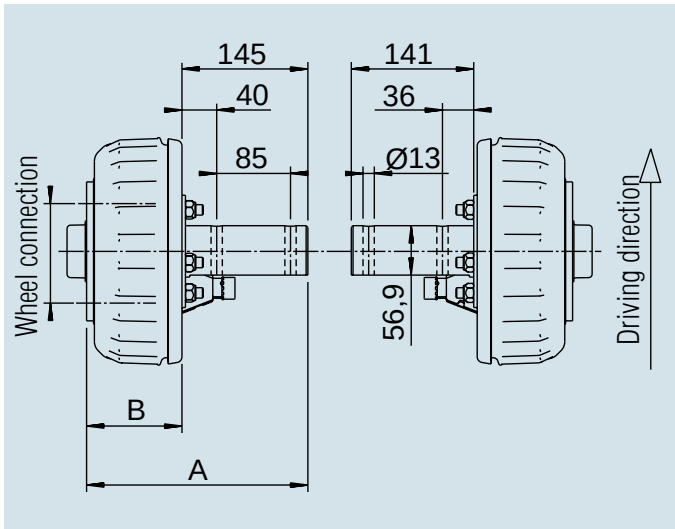
### Surface treatment

- Synthetic resin dip-coating black

### Possible wheel connections

- On request
- Suitable for rims with centre hole min. 57 mm

Comply with installation guidelines!



### Ordering overview

| Wheel brake 2361AB PLUS pair 1800 kg with stub for screwing in |            |                  |           |        |            |     |              |      |   |     |    |
|----------------------------------------------------------------|------------|------------------|-----------|--------|------------|-----|--------------|------|---|-----|----|
| Part No                                                        | Wheel load | Wheel connection |           | Offset | Dimensions |     | Bearing type |      |   |     |    |
|                                                                | per hub    | Conn-            | Thread    |        | A          | B   |              |      |   |     |    |
|                                                                | kg         | ection           | mm x mm   | mm     | mm         | mm  |              |      |   |     |    |
|                                                                |            | mm               |           |        |            |     |              |      |   |     |    |
| 1 225 474                                                      | 900        | 112x5            | M12 x 1.5 | 27-33  | 255        | 114 | Compact      | 43.7 | - | 150 | 10 |

| Wheel brake 2361AB PLUS pair 1800 kg watertight with stub for screwing in |            |                  |           |        |            |     |              |      |   |     |    |
|---------------------------------------------------------------------------|------------|------------------|-----------|--------|------------|-----|--------------|------|---|-----|----|
| Part No                                                                   | Wheel load | Wheel connection |           | Offset | Dimensions |     | Bearing type |      |   |     |    |
|                                                                           | per hub    | Conn-            | Thread    |        | A          | B   |              |      |   |     |    |
|                                                                           | kg         | ection           | mm x mm   | mm     | mm         | mm  |              |      |   |     |    |
|                                                                           |            | mm               |           |        |            |     |              |      |   |     |    |
| 1 225 700                                                                 | 900        | 112x5            | M12 x 1.5 | 27-33  | 258        | 117 | Compact      | 46.2 | - | 150 | 10 |

# WHEEL BRAKE 1637 PAIR

## 1000 kg

### Technology

All AL-KO wheel brakes are ECE-tested and can be connected to the corresponding AL-KO overrun hitches (allocation calculation).  
Install wheel brakes with the correct direction of rotation!  
The brake linings used are asbestos-free!

### Scope of supply

- (see order overview)
- Wheel bolts and axle Bowden cables not supplied!  
Please order separately (see comprehensive catalogue)

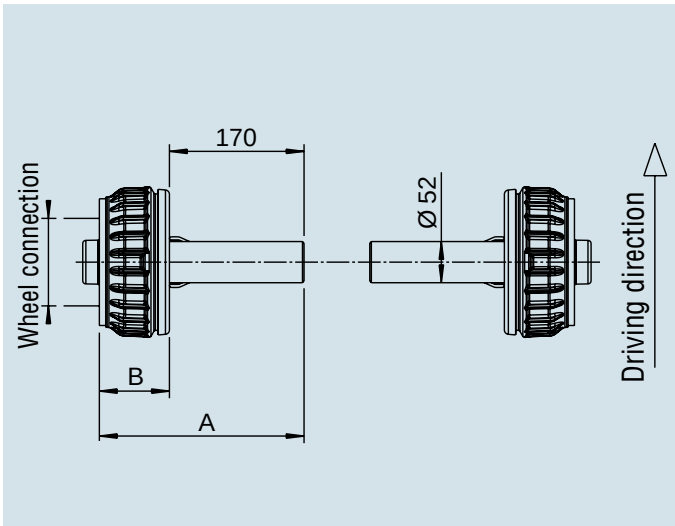
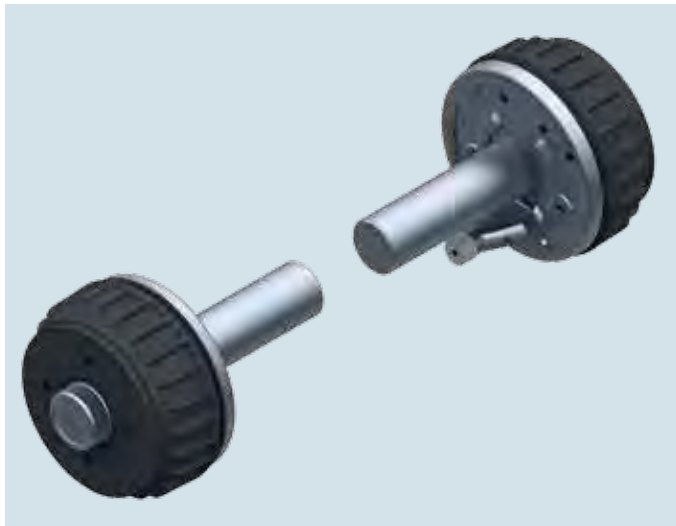
### Surface treatment

- Synthetic resin dip-coating black

### Possible wheel connections

- On request
- Suitable for rims with centre hole min. 57 mm

Comply with installation guidelines!



### Ordering overview

| Wheel brake 1637 EURO Pair 1000 kg |                       |                       |                   |        |            |         |              |    |   |   |    |
|------------------------------------|-----------------------|-----------------------|-------------------|--------|------------|---------|--------------|----|---|---|----|
| Part No                            | Wheel load<br>per hub | Wheel connection      |                   | Offset | Dimensions |         | Bearing type |    |   |   |    |
|                                    | kg                    | Conn-<br>ection<br>mm | Thread<br>mm x mm |        | A<br>mm    | B<br>mm |              |    |   |   |    |
| 1 225 204                          | 500                   | 100x4                 | M12 x 1.5         | 27-33  | 258        | 88      | Compact      | 23 | - | - | 20 |

| Wheel brake 1637 EURO Pair 1000 kg watertight |                       |                       |                   |        |            |         |              |    |   |   |    |
|-----------------------------------------------|-----------------------|-----------------------|-------------------|--------|------------|---------|--------------|----|---|---|----|
| Part No                                       | Wheel load<br>per hub | Wheel connection      |                   | Offset | Dimensions |         | Bearing type |    |   |   |    |
|                                               | kg                    | Conn-<br>ection<br>mm | Thread<br>mm x mm |        | A<br>mm    | B<br>mm |              |    |   |   |    |
| 1 730 615                                     | 500                   | 100x4                 | M12 x 1.5         | 27-33  | 258        | 88      | Compact      | 23 | - | - | 20 |

# WHEEL BRAKE 3081 A PAIR

## 2500 kg

### Technology

All AL-KO wheel brakes are ECE-tested and can be connected to the corresponding AL-KO overrun hitches (allocation calculation).  
Install wheel brakes with the correct direction of rotation!  
The brake linings used are asbestos-free!

### Scope of supply

- (see order overview)
  - Wheel bolts and wheel nuts are supplied!
  - Axle Bowden cables not supplied!
- Please order separately  
(see comprehensive catalogue)

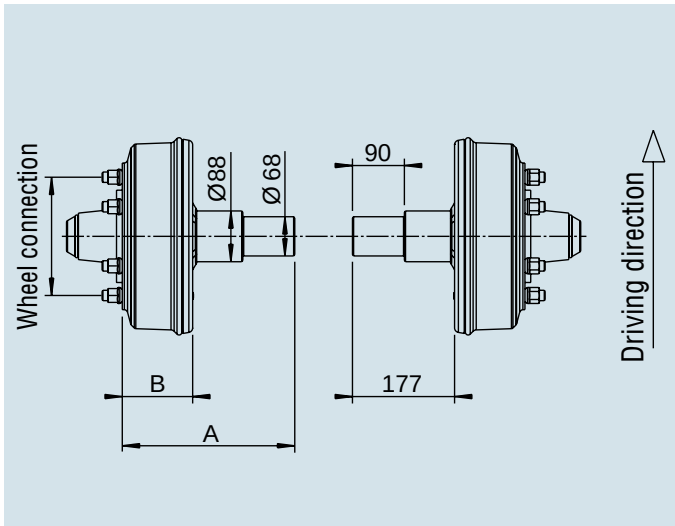
### Surface treatment

- Synthetic resin dip-coating black

### Possible wheel connections

- On request
- Suitable for rims with centre hole min. 161 mm

Comply with installation guidelines!



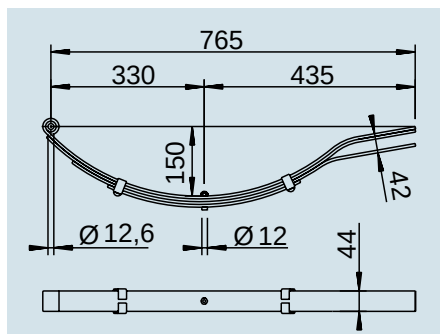
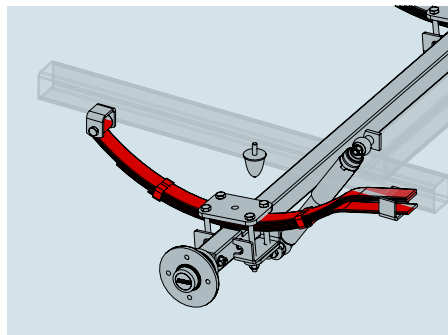
### Ordering overview

| Wheel brake 3081 A Pair 2500 kg |            |                  |           |        |            |     |              |    |   |      |
|---------------------------------|------------|------------------|-----------|--------|------------|-----|--------------|----|---|------|
| Part No                         | Wheel load | Wheel connection |           | Offset | Dimensions |     | Bearing type |    |   |      |
|                                 | per hub    | Conn-<br>ection  | Thread    |        | A          | B   |              |    |   |      |
|                                 | kg         | mm               | mm x mm   | mm     | mm         | mm  |              |    |   |      |
| 1 210 552                       | 1250       | 205x6            | M18 x 1.5 | 0      | 299        | 122 | Cone         | 79 | - | - 20 |

# ACCESSORIES FOR RIGID UNBRAKED AND BRAKED AXLES

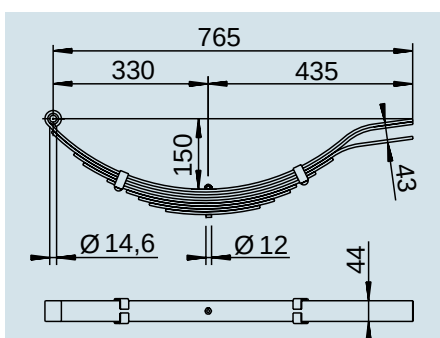
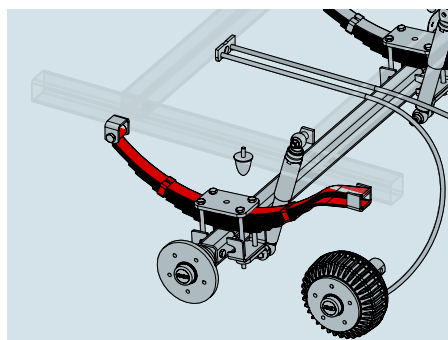
## Single axle and tandem axle

### Leaf springs for 750 / 1500 / 1800 kg

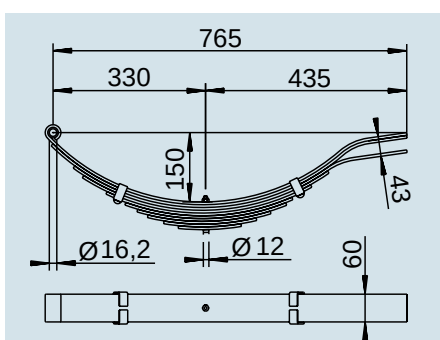
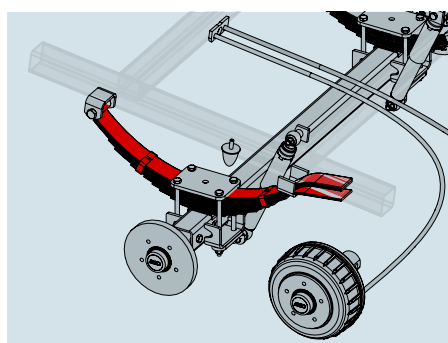


### Ordering overview

| Leaf spring for rigid axle 750 kg |           |
|-----------------------------------|-----------|
| Part No                           | 1 368 092 |
| Surface treatment                 | primed    |
|                                   | 6.2 kg    |
|                                   | -         |
|                                   | 135 units |

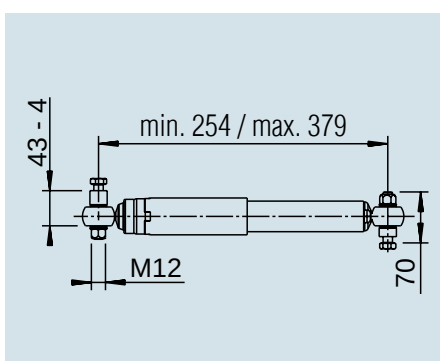
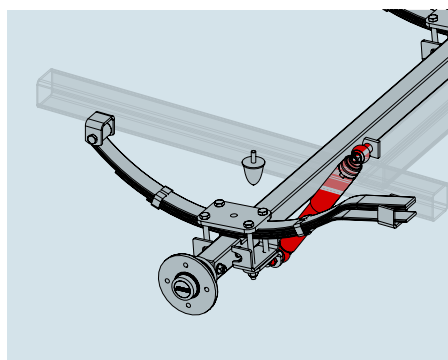


| Leaf spring for rigid axle 1500 kg |           |
|------------------------------------|-----------|
| Part No                            | 1 368 110 |
| Surface treatment                  | primed    |
|                                    | 9.8 kg    |
|                                    | -         |
|                                    | 135 units |



| Leaf spring for rigid axle 1800 kg |           |
|------------------------------------|-----------|
| Part No                            | 1 369 701 |
| Surface treatment                  | primed    |
|                                    | 13.8 kg   |
|                                    | -         |
|                                    | 135 units |

### Shock absorber for 750 / 1500 / 1800 kg and tandem 3000 / 3500 kg



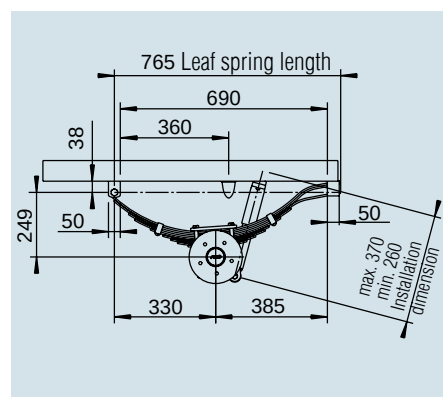
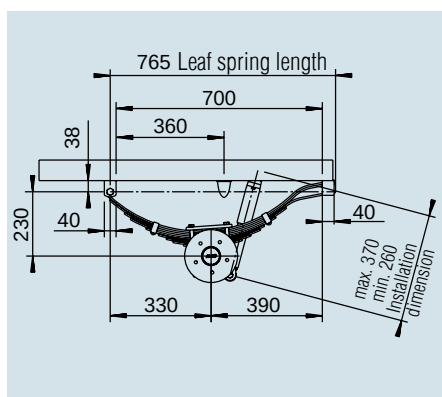
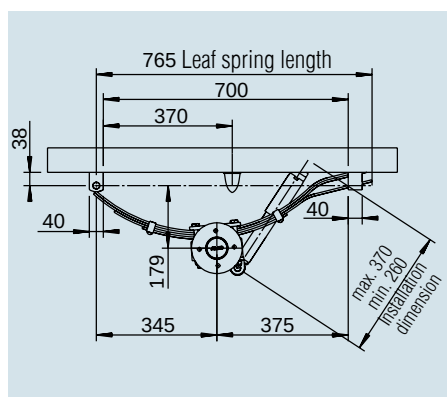
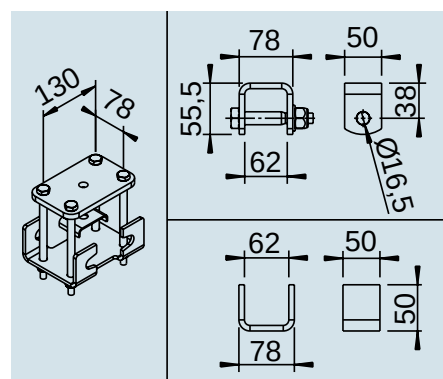
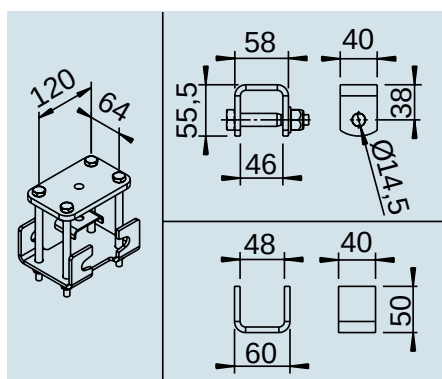
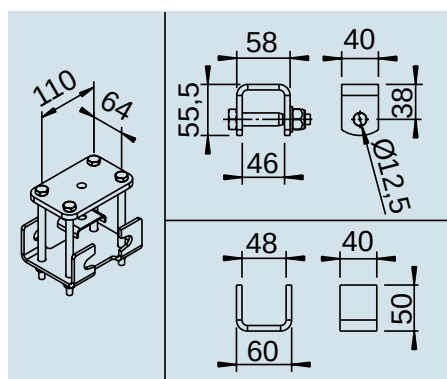
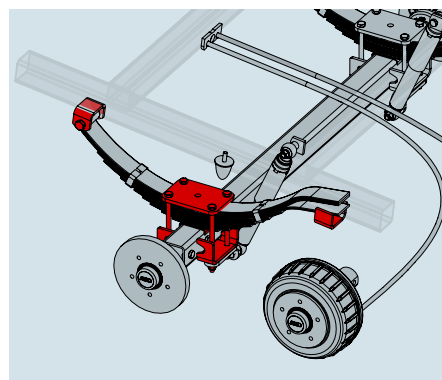
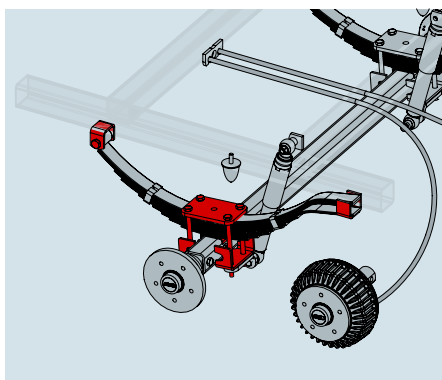
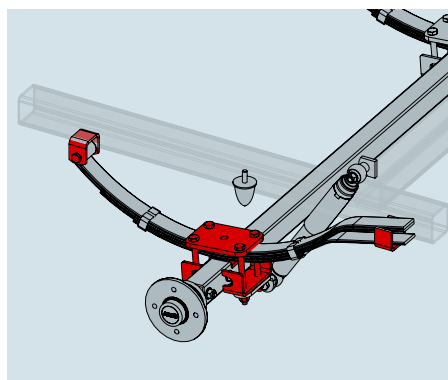
| Shock absorber for rigid axle 750 / 1500 / 1800 kg   Tandem 3000 / 3500 kg |           |
|----------------------------------------------------------------------------|-----------|
| Part No                                                                    | 283 722   |
| Surface treatment                                                          | primed    |
|                                                                            | 1.3 kg    |
|                                                                            | -         |
|                                                                            | 350 units |

## Order overview Mounting material for leaf springs 750 / 1500 / 1800 kg

| Mounting material for leaf spring 750 kg                                          |            |
|-----------------------------------------------------------------------------------|------------|
| Part No                                                                           | 1 225 345  |
| Surface treatment                                                                 | galvanised |
|  | 3.5 kg     |
|  | 50 units   |
|  | -          |

| Mounting material for leaf spring 1500 kg                                         |            |
|-----------------------------------------------------------------------------------|------------|
| Part No                                                                           | 1 225 243  |
| Surface treatment                                                                 | galvanised |
|  | 3.7 kg     |
|  | 50 units   |
|  | -          |

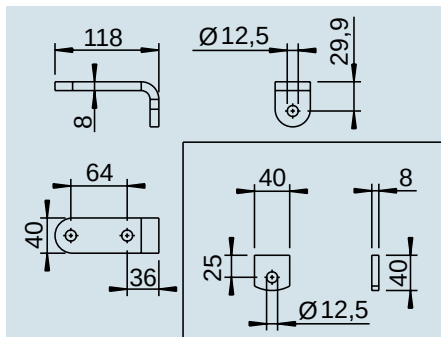
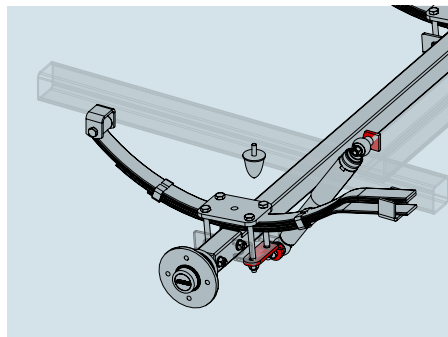
| Mounting material for leaf spring 1800 kg                                           |            |
|-------------------------------------------------------------------------------------|------------|
| Part No                                                                             | 1 225 600  |
| Surface treatment                                                                   | galvanised |
|  | 5.2 kg     |
|  | 50 units   |
|  | -          |



# ACCESSORIES FOR RIGID UNBRAKED AND BRAKED AXLES

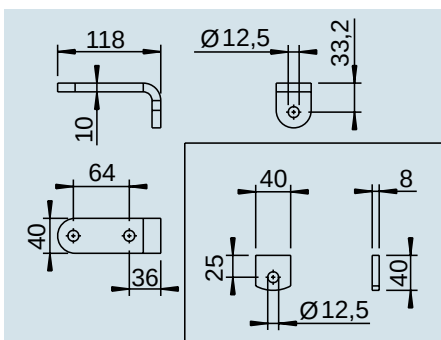
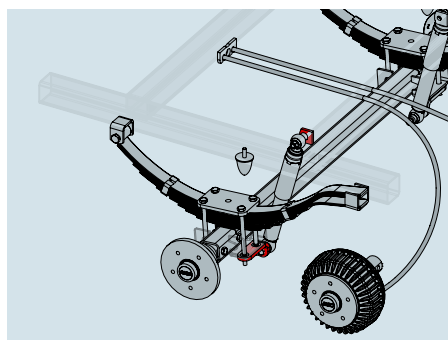
## Single axle and tandem axle

### Mounting material for shock absorber 750 / 1500 / 1800 kg

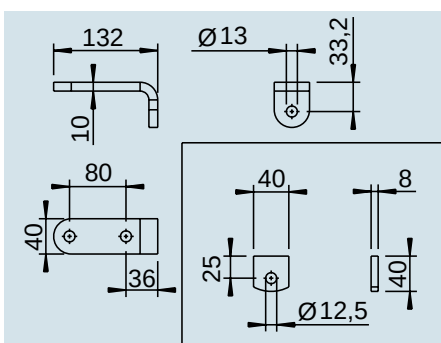
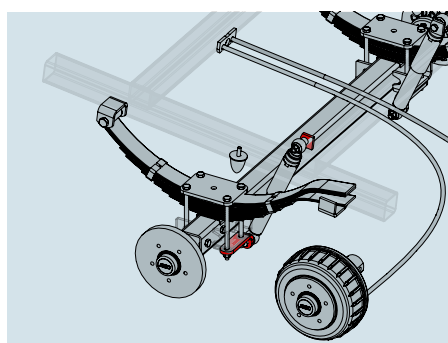


### Ordering overview

| Mounting material for shock absorber 750 kg                                         |            |
|-------------------------------------------------------------------------------------|------------|
| Part No                                                                             | 1 225 210  |
| Surface treatment                                                                   | galvanised |
|  | 0.5 kg     |
|  | 50 units   |
|  | -          |

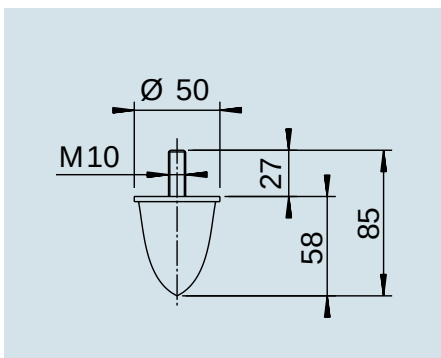
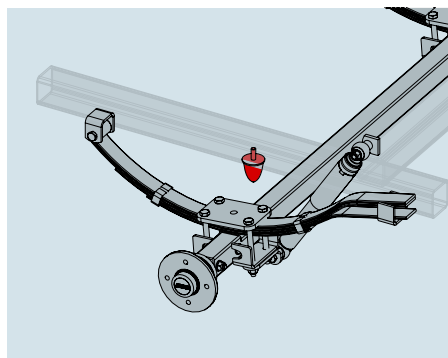


| Mounting material for shock absorber 1500 kg                                          |            |
|---------------------------------------------------------------------------------------|------------|
| Part No                                                                               | 1 225 244  |
| Surface treatment                                                                     | galvanised |
|  | 0.5 kg     |
|  | 50 units   |
|  | -          |



| Mounting material for shock absorber 1800 kg                                          |            |
|---------------------------------------------------------------------------------------|------------|
| Part No                                                                               | 1 225 248  |
| Surface treatment                                                                     | galvanised |
|  | 0.6 kg     |
|  | 50 units   |
|  | -          |

### Rubber buffer for 750 / 1500 / 1800 kg and tandem 3000 / 3500 kg



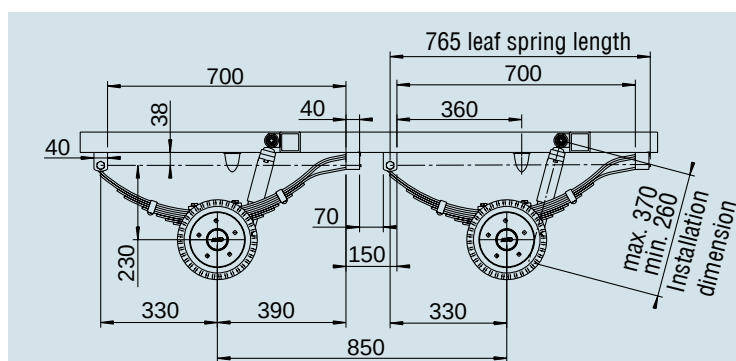
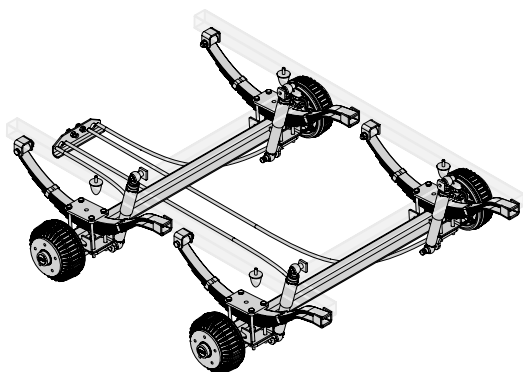
| Rubber buffer for rigid axle 750 / 1500 / 1800 kg   tandem 3000 / 3500 kg             |          |
|---------------------------------------------------------------------------------------|----------|
| Part No                                                                               | 691 393  |
| Surface treatment                                                                     |          |
|  | 0.2 kg   |
|  | 50 units |
|  | -        |

# COMBINED KITS

## for tandem axles and accessories

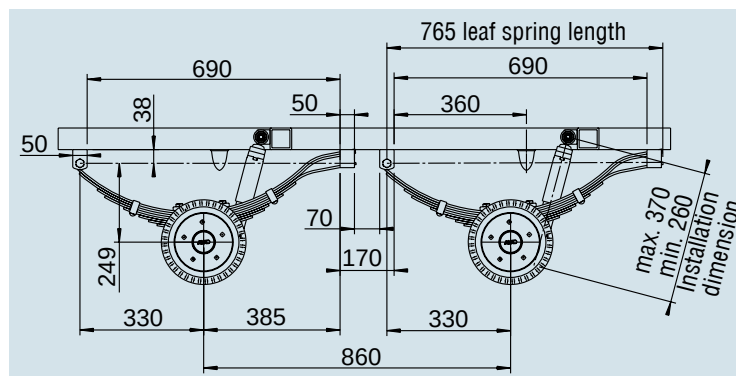
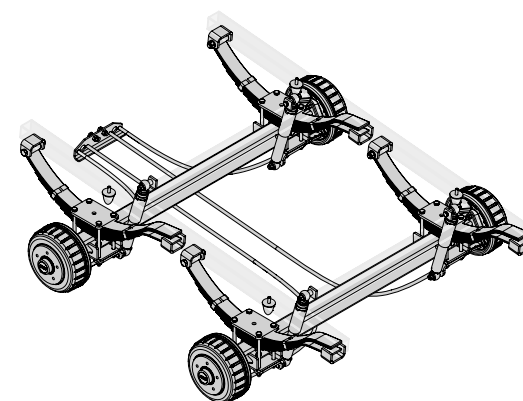
### Order overview tandem 3000 kg

|                                  | Part No                   | Quantity                      | Illustration                                                                      | Dimension drawings        |
|----------------------------------|---------------------------|-------------------------------|-----------------------------------------------------------------------------------|---------------------------|
| Leaf spring                      | 1 368 110                 | 4                             |  | see single axle           |
| Mounting material leaf spring    | 1 225 243                 | 4                             |  | see single axle           |
| Shock absorber                   | 283 722                   | 4                             |  | see single axle           |
| Mounting material shock absorber | 1 225 244                 | 4                             |  | see single axle           |
| Rubber buffer                    | 691 393                   | 4                             |  | see single axle           |
| Rigid braked axle                | see axles<br>rigid braked | 1x front axle<br>1x rear axle |  | see axles<br>rigid braked |



### Order overview tandem 3500 kg

|                                  | Part No                   | Quantity                      | Illustration                                                                        | Dimension drawings        |
|----------------------------------|---------------------------|-------------------------------|-------------------------------------------------------------------------------------|---------------------------|
| Leaf spring                      | 1 369 701                 | 4                             |  | see single axle           |
| Mounting material leaf spring    | 1 225 600                 | 4                             |  | see single axle           |
| Shock absorber                   | 283 722                   | 4                             |  | see single axle           |
| Mounting material shock absorber | 1 225 248                 | 4                             |  | see single axle           |
| Rubber buffer                    | 691 393                   | 4                             |  | see single axle           |
| Rigid braked axle                | see axles<br>rigid braked | 1x front axle<br>1x rear axle |  | see axles<br>rigid braked |



# BRAKED AXLES

With waterproof bearings 750 to 1800 kg

## Your advantage

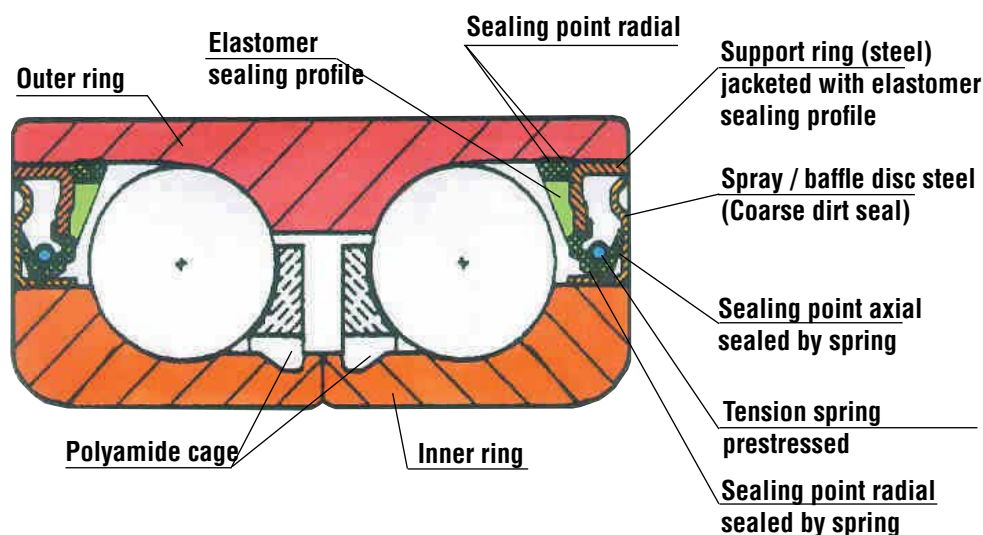
- | Compact bearing waterproof with special seals and special grease
- | Proven from the automotive sector
- | Maintenance-free (fill-for-life lubrication)
- | Bearing setting or readjustment during service is no longer required
- | The bearing is pressed into the bearing seat of the brake drum with high precision

## Important:

- | Wheel brakes on the boat trailer must be allowed to cool before driving into the water!
- | Regularly rinse the wheel brakes with clean water after driving into water (especially salt water) and comply with maintenance intervals!



**Waterproof compact bearings for running axles 800 – 1300 kg  
for braked axles 750 – 1800 kg**



Visual recognition mark  
**AL-KO WATERPROOF**



| braked    |                 |                                 |             |                                                   |                               |                                       |                   |
|-----------|-----------------|---------------------------------|-------------|---------------------------------------------------|-------------------------------|---------------------------------------|-------------------|
| Axle type | Axle load<br>kg | possible<br>BC dimensions<br>mm | Wheel brake | Bearing Ø<br>Inner / outer<br>bearing width<br>mm | Possible wheel<br>connections | Swing arm<br>version and<br>length mm | Axle beam<br>Ø mm |
| B 850-5   | 750- 900        | 750-1900                        | 1637        | 30 / 60 / 37                                      | see wheel brakes              | Stabilform 160                        | 80                |
| B 850     | 750-1000        | 750-1900                        | 2051 Aa     | 34 / 64 / 37                                      | see wheel brakes              | Stabilform 158                        | 80                |
| B 1200    | 1000-1350       | 750-1900                        | 2051 Aa     | 34 / 64 / 37                                      | see wheel brakes              | Stabilform 161.5 / 175                | 97                |
| B 1600    | 1350-1500       | 800-1900                        | 2051 From   | 39 / 72 / 37                                      | see wheel brakes              | Stabilform 161.5                      | 97                |
| B 1600    | 1500-1600       | 850-1850                        | 2361        | 42 / 72 / 45                                      | see wheel brakes              | Forged 160                            | 97                |
| B 1800    | 1600-1800       | 900-1850                        | 2361        | 42 / 78 / 45                                      | see wheel brakes              | Forged 175                            | 110               |

# BRAKED AXLES WITH DRIVE SYSTEM

Single axle up to 1800 kg, tandem up to 3500 kg

## Your advantage

- | Trailer independent from towing vehicle (no PTO connection required on towing vehicle)
- | Wheel brake left cpl. prepared with drive shaft (spline profile according to DIN ISO 14 - 6 x 21 x 25)

## Scope of delivery

- | Axle cpl. (see technical drawing)
- | Single axle adapter bracket welded onto top hat profile SA and TA adapter bracket
- | Compensation profile single axle
- | Bowden cables loose
- | Wheel bolts loose (standard M12 x 1.5 ball)
- | Operating instructions

## Surface treatment

- | Axle beam hot-dip galvanised
- | Axle link with topcoat
- | Brake backing plate powder-coated
- | Drive shaft briefly gas-nitrided



## Sample applications

- | Gritter trailer
- | Trailer with cooling unit (rolling energy is converted into electricity by the driveshaft)

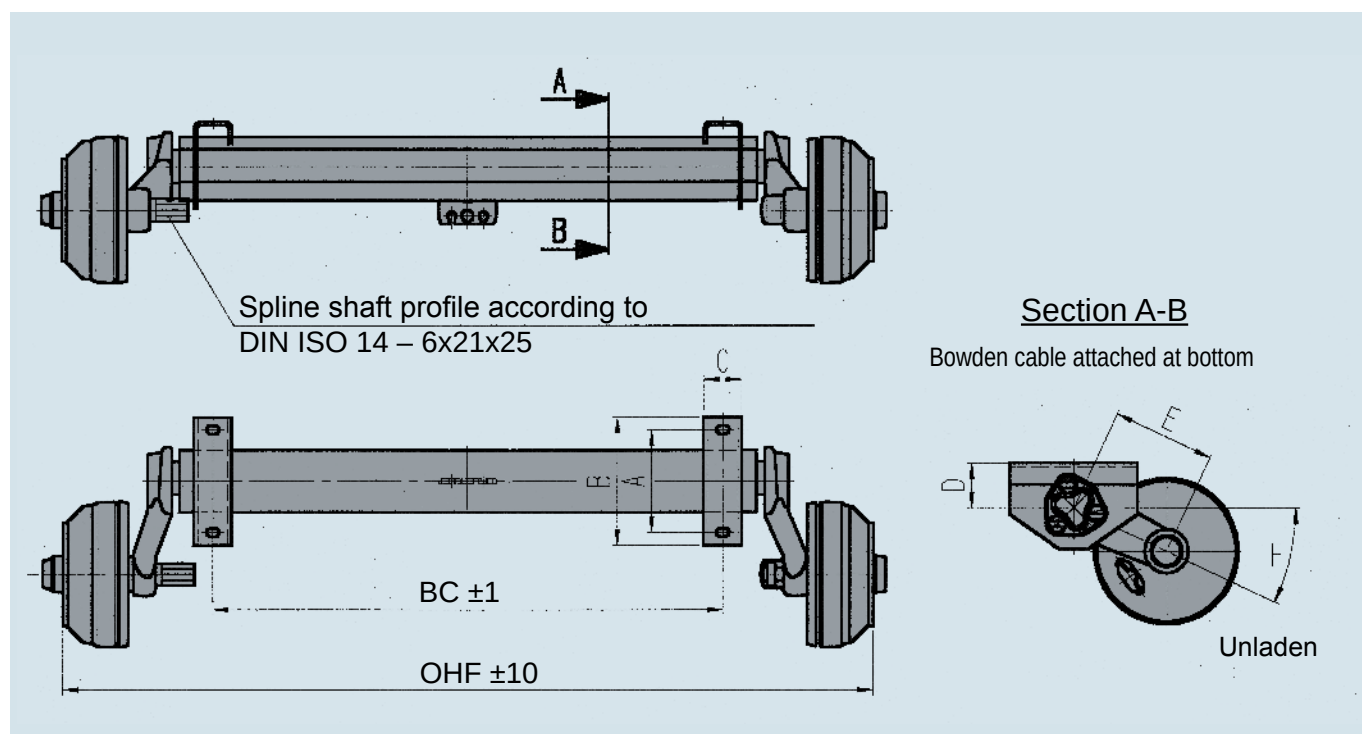


## Ordering overview

| Range              | Single axle trailer |         |         |         | Tandem  |         |         |         |
|--------------------|---------------------|---------|---------|---------|---------|---------|---------|---------|
| Axle load          | 1300 kg             | 1600 kg | 1800 kg | 2000 kg | 2600 kg | 3200 kg | 3500 kg | 3500 kg |
| Axle profile       | 97x4                | 110x4   | 110x4   | 120x5   | 97x4    | 110x4   | 110x4   | 120x5   |
| Wheel brake        | 2051                | 2361    | 2361    | 2361    | 2051    | 2361    | 2361    | 2361    |
| Axle distance rec. | -----               | -----   | -----   | -----   | 650 mm  | 650 mm  | 650 mm  | 650 mm  |

# BRAKED AXLES WITH DRIVE SYSTEM

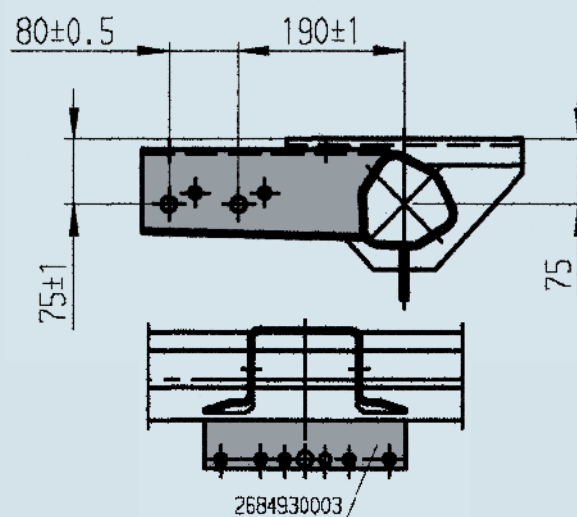
Single axle up to 2000 kg, tandem up to 3500 kg



## Order note:

Axles according to order overview optionally available with top hat profile and / or tandem adapter bracket as standard welded on at the AL-KO factory.

## Optionally with top hat profile welded on



## Ordering overview

| Axle type | Axle load SA (kg) | Axle load TA (kg) | Wheel brake | Wheel connection | BC (mm)  | OHF (mm)  | Dimension A (mm) | Dimension B (mm) | Dimension C (mm) | Dimension D (mm) | Dimension E (mm) | Dimension F (mm) | Axle beam |
|-----------|-------------------|-------------------|-------------|------------------|----------|-----------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|
| B 1200-5  | 1300              | 2600              | 2051        | 112x5            | 800-1800 | 1290-2290 | 160              | 200              | 60               | 65               | 160              | 25°              | 97x4      |
| B 1800-5  | 1600              | 3200              | 2361        | 112x5            | 800-1800 | 1300-2320 | 220              | 267              | 70               | 75               | 175              | 25°              | 110x4     |
| B 1800-9  | 1800              | 3500              | 2361        | 112x5            | 800-1800 | 1300-2320 | 220              | 267              | 70               | 75               | 175              | 25°              | 110x4     |
| B 2000-4  | 2000              | 3500              | 2361        | 112x5            | 845-1800 | 1345-2345 | 220 / 280        | 320              | 70               | 75               | 175              | 25°              | 120x5     |

\*In tandem axle, the left axle link on the rear axle is equipped with the drive shaft

# UNBRAKED HALF AXLES

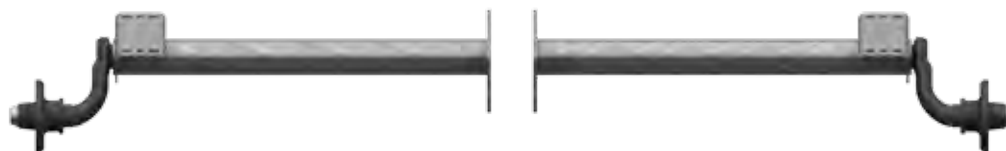
750 kg, 112x5 and 1000 kg, 100x4

## Scope of delivery

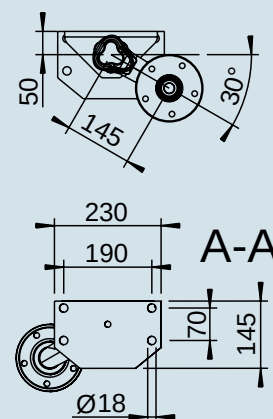
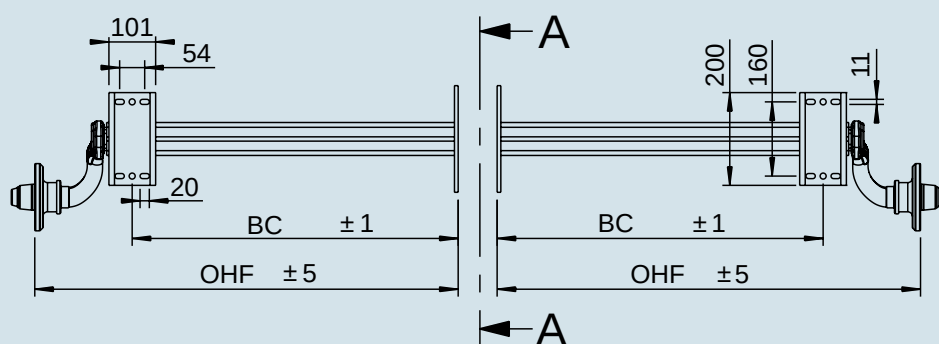
- Wheel bolts loose
- Operating instructions

## Surface treatment

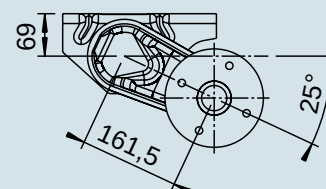
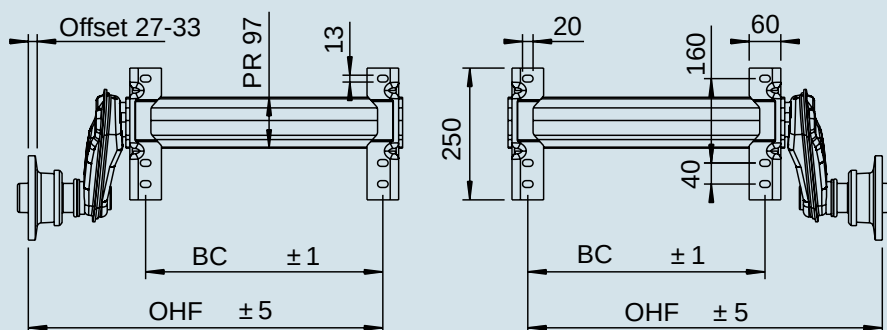
- Axle beam hot-dip galvanised



Part No  
1 424 702



Part No  
1 421391



## Ordering overview

| Part No   | Axle load<br>per pair<br>kg | Type   | Wheel brake | Wheel<br>connection | BC<br>mm | OHF<br>mm |  |  |  |  |
|-----------|-----------------------------|--------|-------------|---------------------|----------|-----------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 424 702 | 750                         | 750-5  | No          | 112x5               | 703      | 913       | 33                                                                                    | -                                                                                     | 30                                                                                    | 10                                                                                    |
| 1 421 391 | 1000                        | 1000-3 | No          | 100x4               | 450      | 673       | 37                                                                                    | -                                                                                     | 30                                                                                    | 10                                                                                    |

# BRAKED HALF AXLES

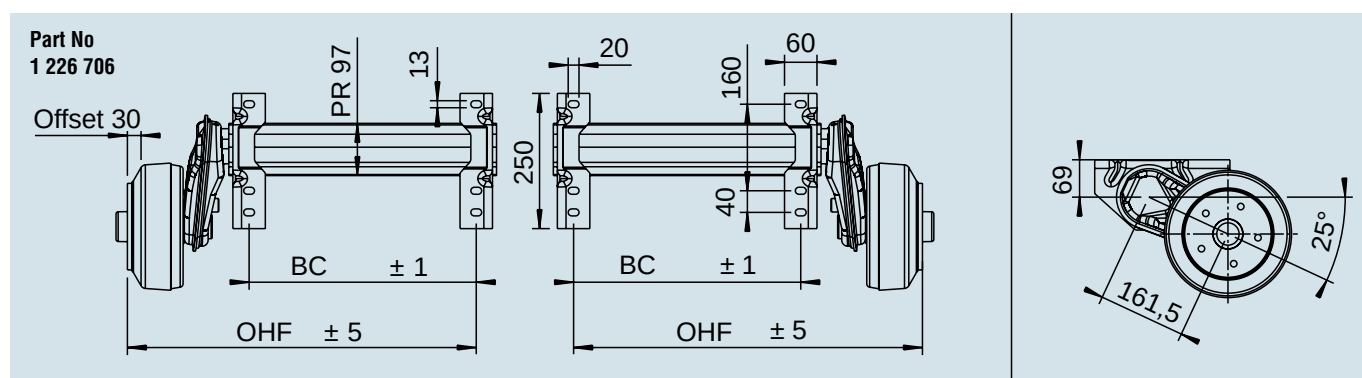
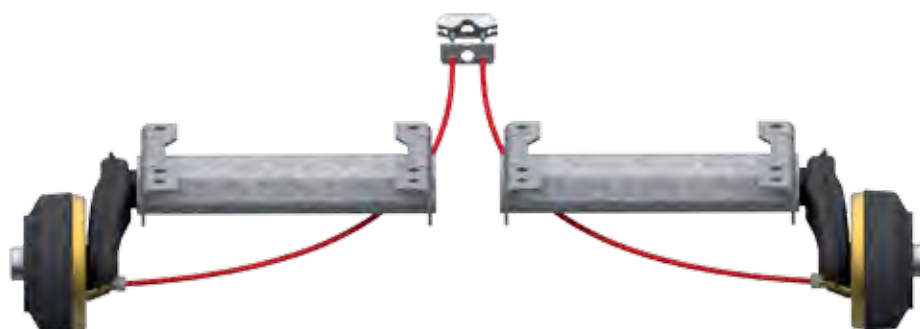
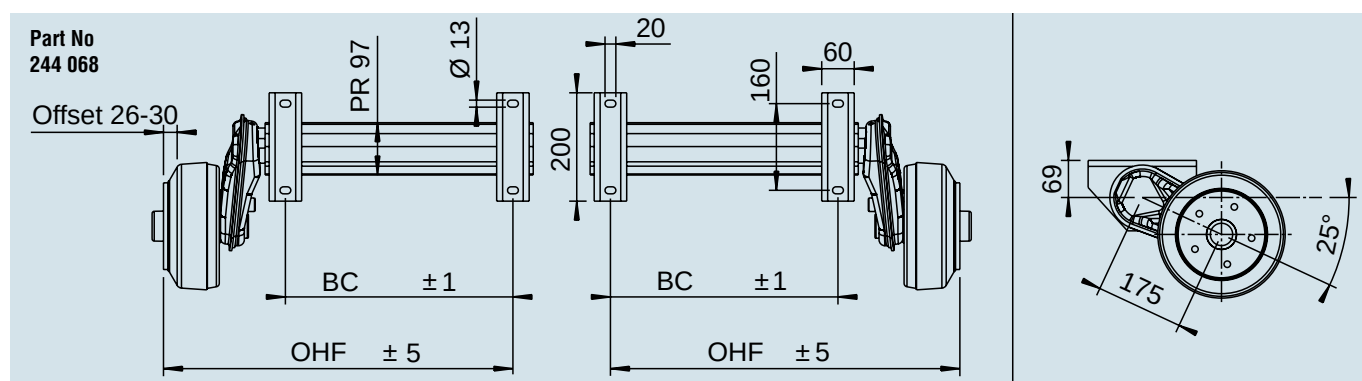
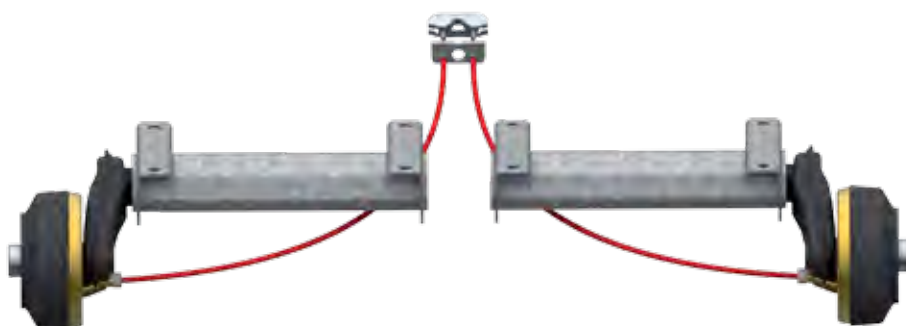
1300 kg, 112x5 and 1500 kg, 112x5

## Scope of delivery

- Adapter bracket single axle loose
- Compensation profile single axle loose
- Bowden cables loose
- Wheel bolts loose

## Surface treatment

- Axle beam hot-dip galvanised



## Ordering overview

| Part No   | Axle load per pair kg | Type     | Wheel brake  | Wheel connection | BC mm | OHF mm |    |   |    |    |
|-----------|-----------------------|----------|--------------|------------------|-------|--------|----|---|----|----|
| 244 068   | 1300                  | B 1200-5 | 2051 vers. A | 112x5            | 420   | 700    | 51 | - | 30 | 10 |
| 1 226 706 | 1500                  | B 1200-5 | 2051 vers. A | 112x5            | 420   | 645    | 49 | - | 30 | 10 |

# BRAKED HALF AXLES

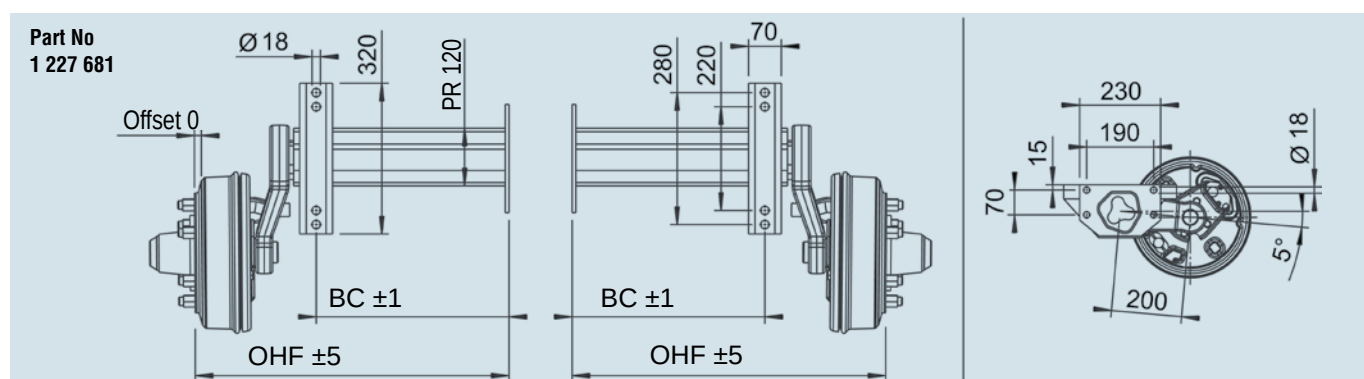
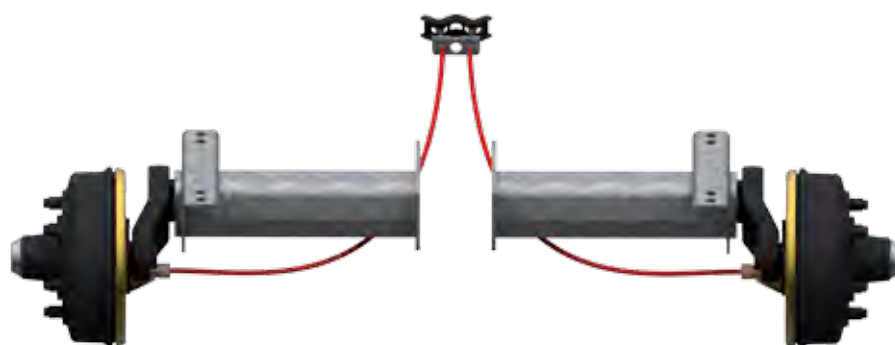
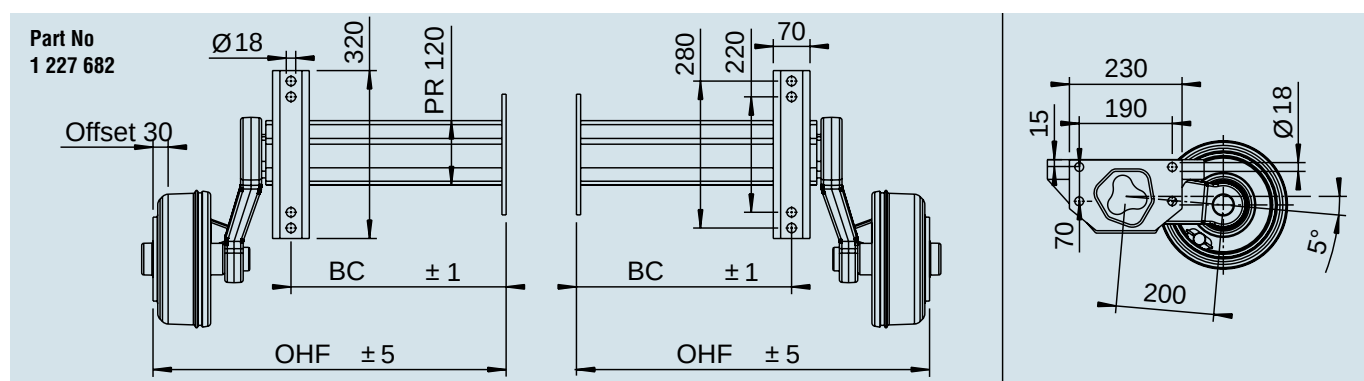
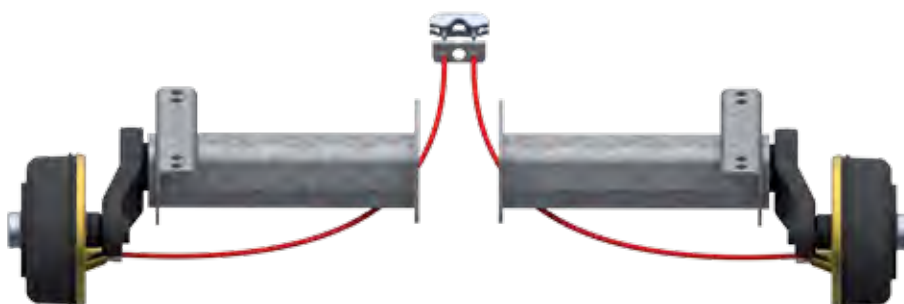
1800 kg, 112x5 and 2500 kg, 205x6

## Scope of delivery

- Adapter bracket single axle loose
- Compensation profile single axle loose
- Bowden cables loose
- Wheel bolts loose

## Surface treatment

- Axle beam hot-dip galvanised



## Ordering overview

| Part No   | Axle load per pair kg | Type     | Wheel brake | Wheel connection | BC mm | OHF mm |  |  |  |  |
|-----------|-----------------------|----------|-------------|------------------|-------|--------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 227 682 | 1800                  | B 2000-0 | 2361        | 112x5            | 410   | 673    | 92                                                                                    | -                                                                                     | 30                                                                                    | 10                                                                                    |
| 1 227 681 | 2500                  | B 2500-8 | 3062        | 205x6            | 410   | 668    | 108                                                                                   | -                                                                                     | 30                                                                                    | 10                                                                                    |

# COMPACT-BRAKED TRI-AXLES

3500 kg

## Technology

Model: COMPACT  
 Axle type: B1600-3  
 Axle load: SA 1500 kg  
 TRI 3500 kg  
 Wheel brake: 2051  
 Suspension: Hexagonal rubber suspension  
 Swing arm: 161.5 mm  
 Wheel connection: 112x5  
 Wheel bearing: Compact bearing  
 Centre hole rim: min. 57 mm

## Scope of delivery

- ! Adapter bracket welded-on
- ! Compensation profile single axle and tandem
- ! Bowden cables loose
- ! Wheel bolts loose

## Surface treatment

Axle beam hot-dip galvanised.  
 Wheel brake galvanised and additionally yellow chromated.

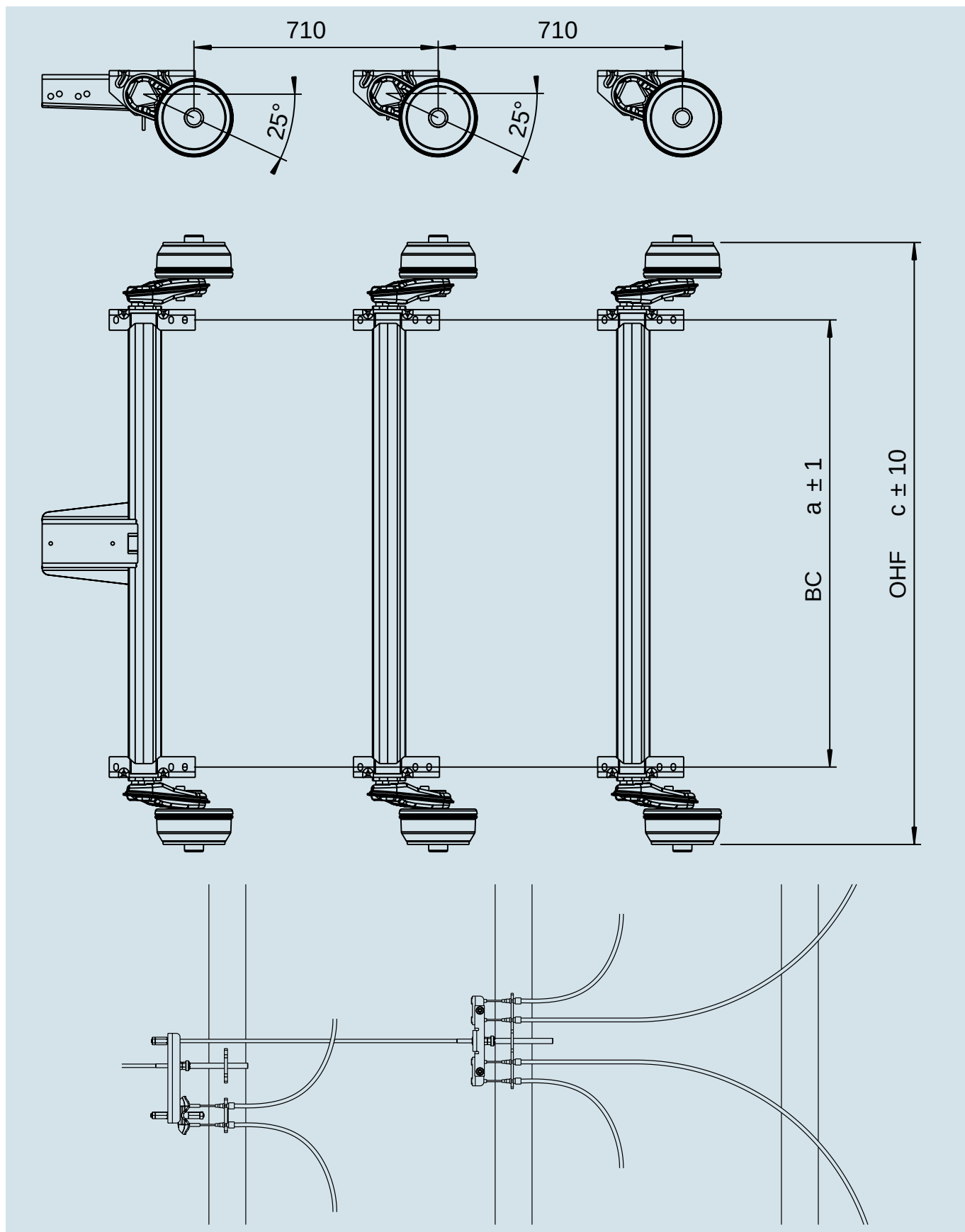
## Accessories

(please order separately):  
 Axle shock absorber and shock absorber holder  
 (see comprehensive catalogue)



## Ordering overview

| BC<br>a<br>mm | OHF<br>c<br>mm | Wheel bolts  | Part No<br>without AAA | Part No<br>with AAA |  |   |  |
|---------------|----------------|--------------|------------------------|---------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1300          | 1750           | Ball M12x1.5 | 1 422 276              | -                   | 159                                                                                   | - 25                                                                                                                                                                        | 10                                                                                    |



# CHASSIS WITH HEIGHT-ADJUSTABLE DRAWBAR

## For Trailers with Hydraulics Brakes

### Your advantage

#### **180 kg More Payload**

| In comparison to straight axles with leaf springs you save up to 180kg of net weight at a total carrying weight of 5 tons. That means more payload for your customers.

#### **Height-Adjustable Drawbars**

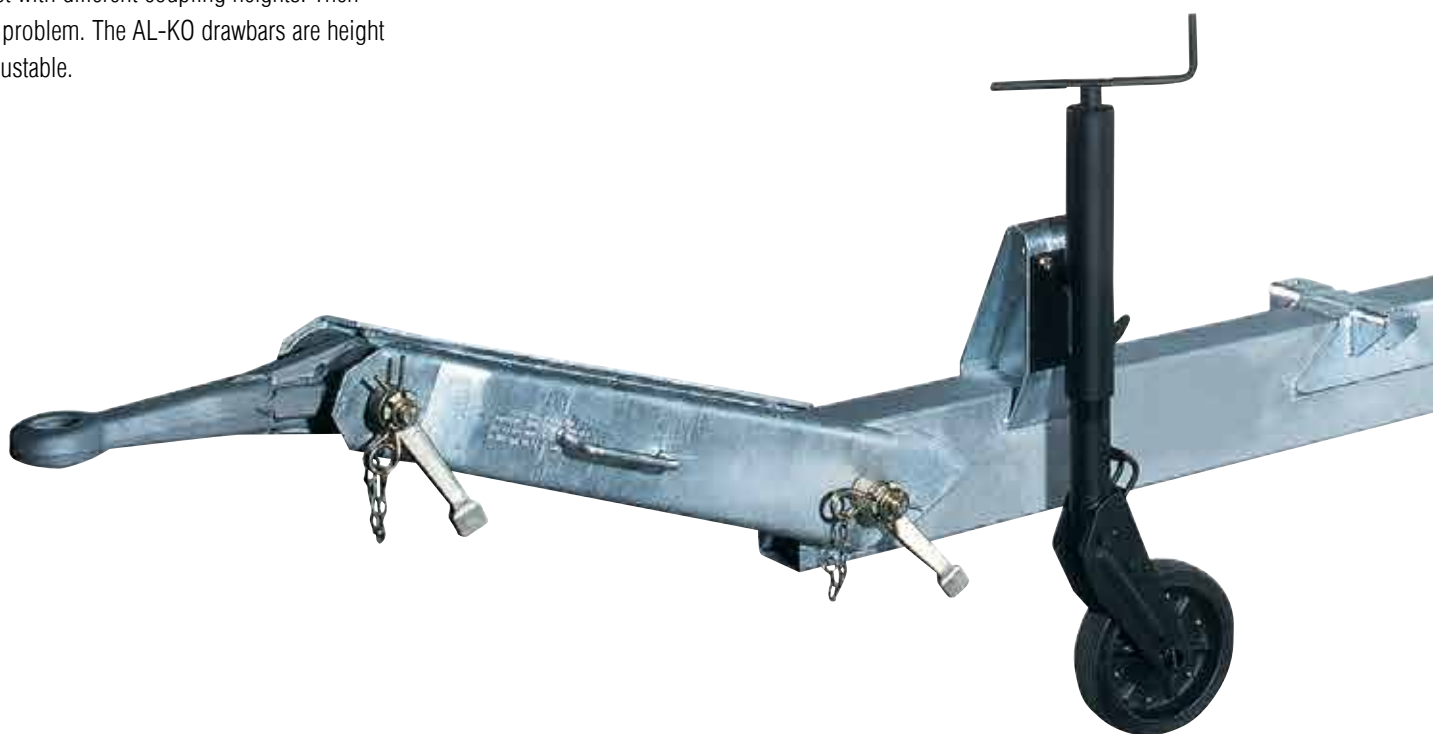
| If you have different towing vehicles in your fleet with different coupling heights. Then no problem. The AL-KO drawbars are height adjustable.

#### **No counterweight necessary up to 6500 kg**

| When using the combination of the AL-KO height-adjustable drawbar with AL-KO tandem axles, no weight compensation is required (TÜV report can be requested if required).

#### **Robust**

| High articulation stability in the toothed discs due to doubling of teeth.  
| Robust box section.



### **Standard**

- | Automatic adjustment of the brake linings (Directive 71/320/EEC dated 1.10.1994).
- | Manoeuvring handle welded onto intermediate section.
- | Holder for replacement coupling welded onto intermediate section.
- | Exchangeable hitch components (DIN eye / NATO eye).

### **ALB preparation**

AL-KO axles are prepared for fitting of an automatic anti-lock brake (ALB) according to EC Directive 98/12.  
For this purpose, the brake drum is provided with a sensor wheel spline profile, and the brake disc with a pressed-in bush.  
In tandem axles, only the rear axle is used

for controlling the ALB, i.e. the holes for the sensor are only in place on the rear axle in the brake backing plate for this reason. The sensors are not supplied by AL-KO (Wabco / Knorr / Haldex etc.).

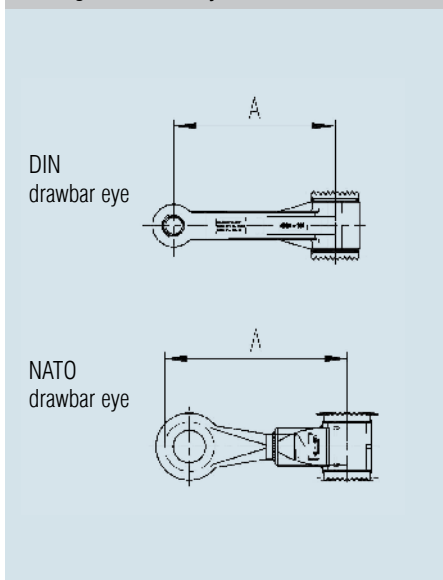


### Application examples

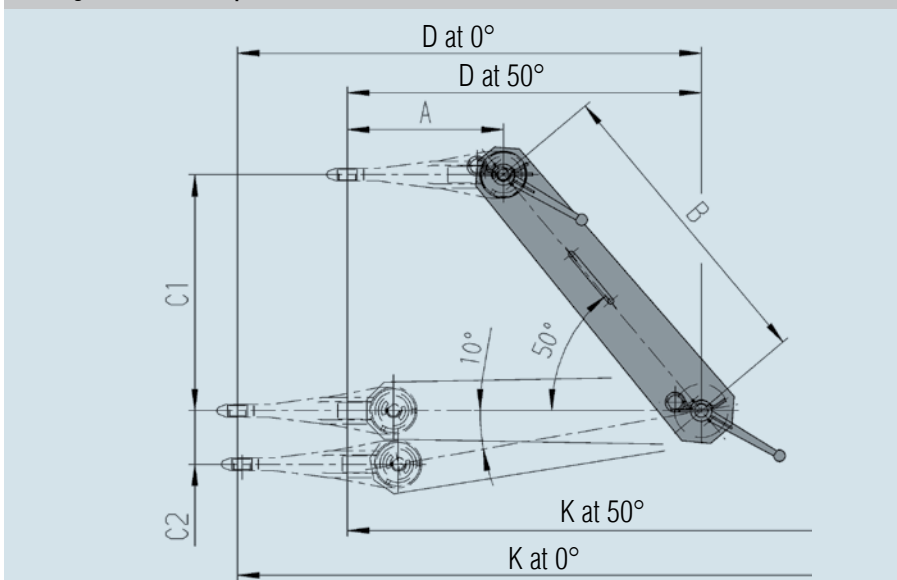


# HEIGHT-ADJUSTABLE DRAWBAR FOR TRAILERS WITH 3500 to 6500 kg

**Drawing 1 - Drawbar eye**



**Drawing 2 - Intermediate piece**



## Scope of delivery

- | Drawbar eyes see (Drawing 1)
- | Intermediate piece in two parts incl. bearing screws, locking toggle, chains, spring cotter pin (see Drawing 2)
- | Drawbar section without clamping mount, without jockey wheel flange (see Drawing 3)
- | Accessories (see type overview)

## Surface treatment

- | Synthetic resin dip priming black
- | Locking toggle and various small parts galvanised

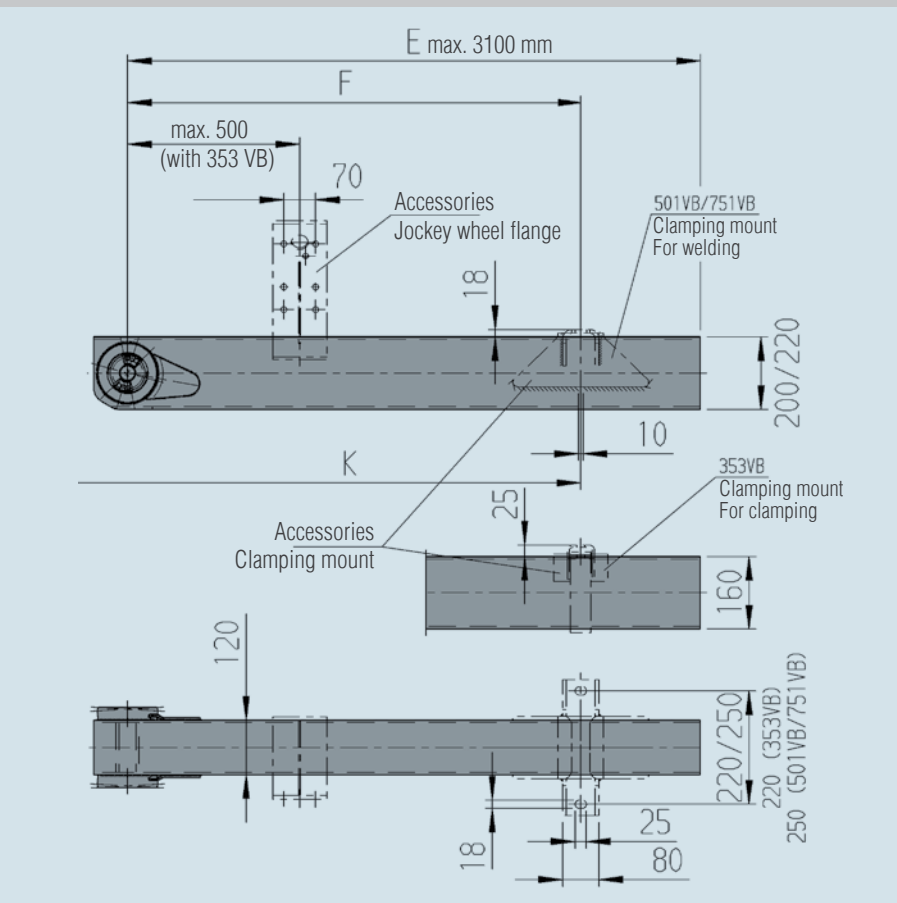
## Ordering overview

| Drawbar eyes (Drawing 1) |                    |           |             |                                                                                       |
|--------------------------|--------------------|-----------|-------------|---------------------------------------------------------------------------------------|
| Part no                  | Perm. total weight | Type      | Dimension A |  |
| 246 998                  | 6500 kg            | DIN Ø 40  | 380 mm      | 21                                                                                    |
| 246 999                  | 6500 kg            | DIN Ø 50  | 380 mm      | 21                                                                                    |
| 1 313 948                | 6500 kg            | NATO Ø 76 | 380 mm      | 23                                                                                    |

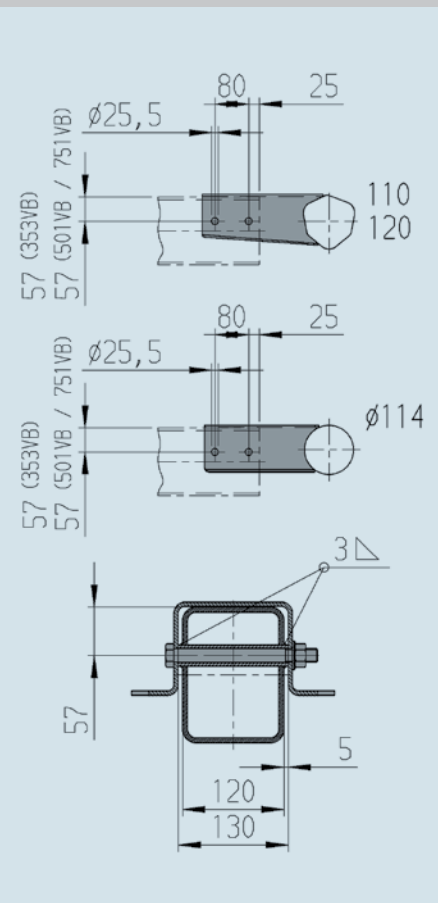
| Intermediate piece (Drawing 2) |                    |        |               |           |       |      |               |               |                        |                                                                                       |
|--------------------------------|--------------------|--------|---------------|-----------|-------|------|---------------|---------------|------------------------|---------------------------------------------------------------------------------------|
| Part no                        | perm. total weight | Type   | EC test no.   | Nose load | Vers. | W mm | C2 at -10° mm | C1 at +50° mm | D with DIN eye +50° mm |  |
| 1 336 752                      | 3500 kg            | 353 VB | el*94/20*0239 | 150       | G     | 750  | 130           | 865           | 1130                   | 41                                                                                    |
| 610 513                        | 5000 kg            | 501 VB | el*94/20*0883 | 500       | A2    | 750  | 130           | 865           | 1130                   | 41                                                                                    |
| 622 643                        | 6500 kg            | 751 VB | el*94/20*0259 | 650       | A1    | 600  | 104           | 765           | 980                    | 41                                                                                    |

# HYDRAULIC BRAKES

Drawing 3 - Drawbar section



Drawing 4 - Axle connection



## Ordering overview

| Drawbar section (Drawing 3) |                    |        |      |            |            |          |           |                                   |                                                                                       |
|-----------------------------|--------------------|--------|------|------------|------------|----------|-----------|-----------------------------------|---------------------------------------------------------------------------------------|
| Part no                     | perm. total weight | Type   | E mm | F* min. mm | F* max. mm | K max.   |           | Drawbar section width x height mm |  |
|                             |                    |        |      |            |            | at 0° mm | at 50° mm |                                   |                                                                                       |
| 1 336 750                   | 3500 kg            | 353 VB | 875  | 300        | 1078       | 2200     | 1940      | 120 x 160                         | 26                                                                                    |
| 1 336 751                   | 3500 kg            | 353 VB | 2875 | 300        | 1078       | 2200     | 1940      | 120 x 160                         | 71                                                                                    |
| 610 387                     | 5000 kg            | 501 VB | 875  | 300        | 970        | 2100     | 1835      | 120 x 200                         | 41                                                                                    |
| 610 512                     | 5000 kg            | 501 VB | 2875 | 300        | 970        | 2100     | 1835      | 120 x 200                         | 115                                                                                   |
| 623 022                     | 6500 kg            | 751 VB | 950  | 400        | 1185       | 2165     | 1950      | 120 x 220                         | 50                                                                                    |
| 622 646                     | 6500 kg            | 751 VB | 2950 | 400        | 1185       | 2165     | 1950      | 120 x 220                         | 146                                                                                   |

F\* = Middle of clamping mount acc. to report

| Accessories (Drawing 4)         |                  |                            |                       |                                 |                                           |                                                    |                          |  |
|---------------------------------|------------------|----------------------------|-----------------------|---------------------------------|-------------------------------------------|----------------------------------------------------|--------------------------|--|
| Permitted total weight up to kg | for axle beam mm | Top hat profile with bolts | 2 pieces spacer tubes | Jockey wheel flange for welding | Matching jockey wheel Solid rubber 260x65 | Matching clamping mount for welding on or clamping | Matching adjustment help |  |
|                                 |                  | Part no                    | Part no               | Part no                         | Part no                                   | Part no                                            | Part no                  |  |
| SA 1800 / TA 3500               | 110 mm           | 243 105                    | 372 879 per pc.       | 387 363                         | 1 250 408 800 kg                          | 1 211 106 (clamped)                                | 1 310 602                |  |
| SA 3500                         | 114 mm Ø         | 240 134                    | 372 879 per pc.       | 387 363                         | 1 250 408 800 kg                          | 1 211 106 (clamped)                                | 623 090                  |  |
| SA 3000 / TA 6000               | 120 mm           | 240 133                    | 372 879 per pc.       | 387 363                         | 1 250 408 800 kg                          | 622 637 (welded)                                   | 623 090                  |  |
| SA 4000 / TA 7500               | 114 mm Ø         | 240 134                    | 372 879 per pc.       | 387 363                         | 1 250 408 800 kg                          | 622 637 (welded)                                   | 623 090                  |  |

# AXLES WITH RUBBER SUSPENSION FOR TRAILERS WITH

## Single axle 1800 kg, tandem 3500 kg, Tri-Axles 5400 kg

### Your advantage

- ! Above a total weight of 3500 kg, an anti-lock brake (ALB) is prescribed in law.
- ! In Tri-Axles above GA 3500 kg, the rearmost axle in the set has been prepared for installation of ALB.
- ! If the axles are combined with our height-adjustable drawbars, it is possible to dispense with weight compensation.

### Accessories

- See order overview (please order separately)
- ! Parking brake
- ! Shock absorber without bolted fasteners (Please only use the specially adapted AL-KO genuine axle shock absorbers)
- ! The hydraulic brake system as well as parts of the automatic anti-lock brake (ALB) should be ordered directly from the suppliers listed below:  
Wabco / Haldex / Knorr

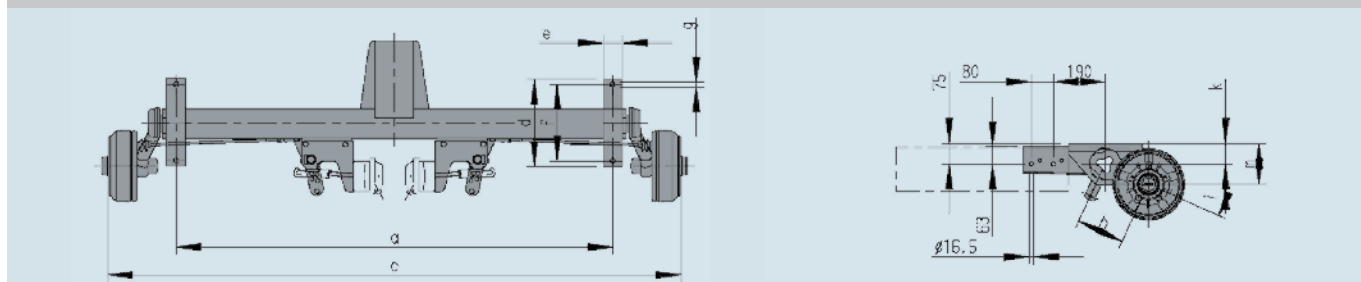
### Scope of delivery

- ! Automatic adjustment of the brake linings
- ! Shock absorber holder
- ! Brackets for brake cylinder
- ! Top hat profile welded-on
- ! Wheel nuts or wheel bolts
- ! Linkage with brake lever
- ! Operating instructions

### Surface treatment

- Hot-dip galvanised

Single axle 1800 kg axle load



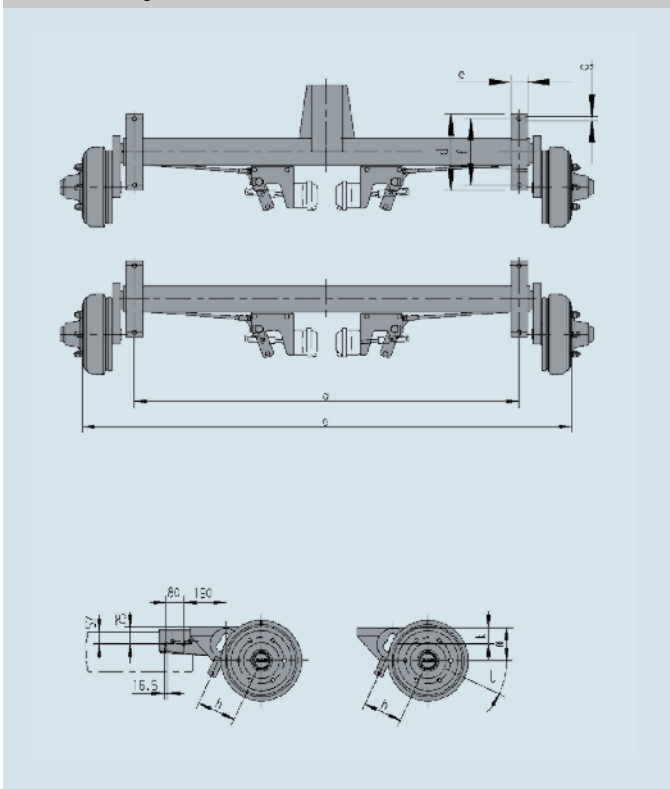
### Ordering overview

| Part No   | SA<br>TA<br>TRI | Type    | Single<br>axle,<br>axle<br>load kg | Tandem<br>axle,<br>axle<br>load kg | Tridem<br>axle<br>load kg | BC<br>a mm | OHF<br>c mm | OHF<br>c min.<br>mm | Axle<br>beam | Wheel<br>brake<br>type | Wheel<br>connec-<br>tion | Wheel<br>bolt<br>ball | Offset<br>mm | d<br>mm | e<br>mm | f<br>mm |
|-----------|-----------------|---------|------------------------------------|------------------------------------|---------------------------|------------|-------------|---------------------|--------------|------------------------|--------------------------|-----------------------|--------------|---------|---------|---------|
| 1 220 493 | SA              | BL 1800 | 1800                               |                                    |                           | 1400       | 1900        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 790 | SA              | BL 1800 | 1800                               |                                    |                           | 1500       | 2000        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 822 | SA              | BL 1800 | 1800                               |                                    |                           | 1600       | 2100        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 823 | SA              | BL 1800 | 1800                               |                                    |                           | 1700       | 2200        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 824 | SA              | BL 1800 | 1800                               |                                    |                           | 1800       | 2300        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 213 646 | TA              | BL 1800 |                                    | 3500                               |                           | 1400       | 1900        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 213 647 | TA              | BL 1800 |                                    | 3500                               |                           | 1500       | 2000        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 213 648 | TA              | BL 1800 |                                    | 3500                               |                           | 1600       | 2100        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 213 649 | TA              | BL 1800 |                                    | 3500                               |                           | 1700       | 2200        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 213 650 | TA              | BL 1800 |                                    | 3500                               |                           | 1800       | 2300        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 825 | TRI             | BL 1800 |                                    |                                    | 4300                      | 1400       | 1900        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 826 | TRI             | BL 1800 |                                    |                                    | 4300                      | 1500       | 2000        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 827 | TRI             | BL 1800 |                                    |                                    | 4300                      | 1600       | 2100        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 828 | TRI             | BL 1800 |                                    |                                    | 4300                      | 1700       | 2200        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 716 | TRI             | BL 1800 |                                    |                                    | 4300                      | 1800       | 2300        | 1800*               | 110          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 270     | 70      | 220     |
| 1 220 829 | TRI             | BL 2000 |                                    |                                    | 5400                      | 1400       | 1900        | 1800*               | 120          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 320     | 70      | 280     |
| 1 220 830 | TRI             | BL 2000 |                                    |                                    | 5400                      | 1500       | 2000        | 1800*               | 120          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 320     | 70      | 280     |
| 1 220 122 | TRI             | BL 2000 |                                    |                                    | 5400                      | 1600       | 2100        | 1800*               | 120          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 320     | 70      | 280     |
| 1 220 831 | TRI             | BL 2000 |                                    |                                    | 5400                      | 1700       | 2200        | 1800*               | 120          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 320     | 70      | 280     |
| 1 220 832 | TRI             | BL 2000 |                                    |                                    | 5400                      | 1800       | 2300        | 1800*               | 120          | 2361AR                 | 112x5                    | M12x1.5               | 30           | 320     | 70      | 280     |

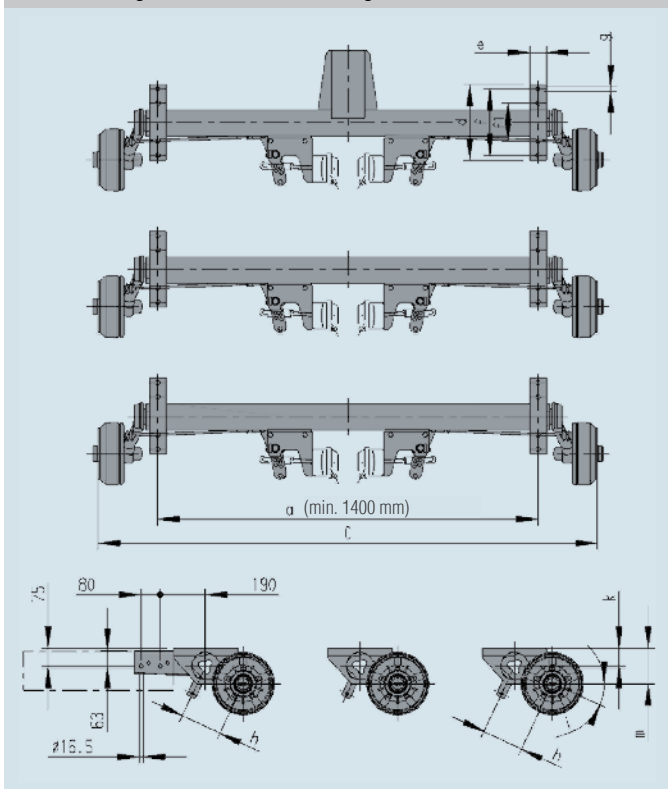
\* Standard version: Distance between the brackets 300 mm, welded on at normal height, 25° swing arm position

# HYDRAULIC BRAKES

**Tandem 3500 kg axle load**



**Tridem 4300 kg axle load, tridem 5400 kg axle load**



| f1<br>mm | g<br>mm<br>Ø | h<br>mm | l<br>Base<br>pos.<br>unlad. | k<br>mm | m<br>mm | Vers. SC =<br>Forged<br>lever |  | Axle shock absorber<br>per pc. w/o bolted<br>fasteners | Parking brake without<br>Bowden cable or<br>brake cable | Prestressed Brake cyl. Type: 9<br>Wabco, Knorr, Haldex<br>Part No (not included in AL-KO scope<br>of supply) |
|----------|--------------|---------|-----------------------------|---------|---------|-------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 18       | 175          | 25°     | 75                          | 149     | SC      | 83                            |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 84                            |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 85                            |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 86                            |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 87                            |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 166                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 168                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 170                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 172                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 174                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 249                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 252                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 255                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 258                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 18       | 175          | 25°     | 75                          | 149     | SC      | 261                           |  | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 149     | SC                            | 264                                                                                 | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 149     | SC                            | 267                                                                                 | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 149     | SC                            | 270                                                                                 | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 149     | SC                            | 273                                                                                 | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 149     | SC                            | 276                                                                                 | 244 086                                                | 267 005                                                 | see page 108                                                                                                 |

# AXLES WITH RUBBER SUSPENSION FOR TRAILERS WITH

## Single axle 3000 kg, tandem 6000 kg

### Your advantage

- | Above a total weight of 3500 kg, an anti-lock brake (ALB) is prescribed in law.
- | In tandem axles, the rearmost axle is prepared for installation of ALB.
- | If the axles are combined with our height-adjustable drawbars, it is possible to dispense with weight compensation.
- | Automatic adjustment of the brake linings.

### Accessories

- See order overview (Please order separately)
- | Parking brake
- | Shock absorber without bolted fasteners (Please only the specially adapted AL-KO genuine axle shock absorbers)
- | The hydraulic brake system as well as parts of the automatic anti-lock brake (ALB) should be ordered directly from the suppliers listed below:  
Wabco / Haldex / Knorr

### Scope of delivery

- | Shock absorber holder
- | Brackets for brake cylinder
- | Top hat profile welded-on
- | Wheel nuts
- | Linkage with brake lever
- | Operating instructions

### Surface treatment

hot-dip galvanised

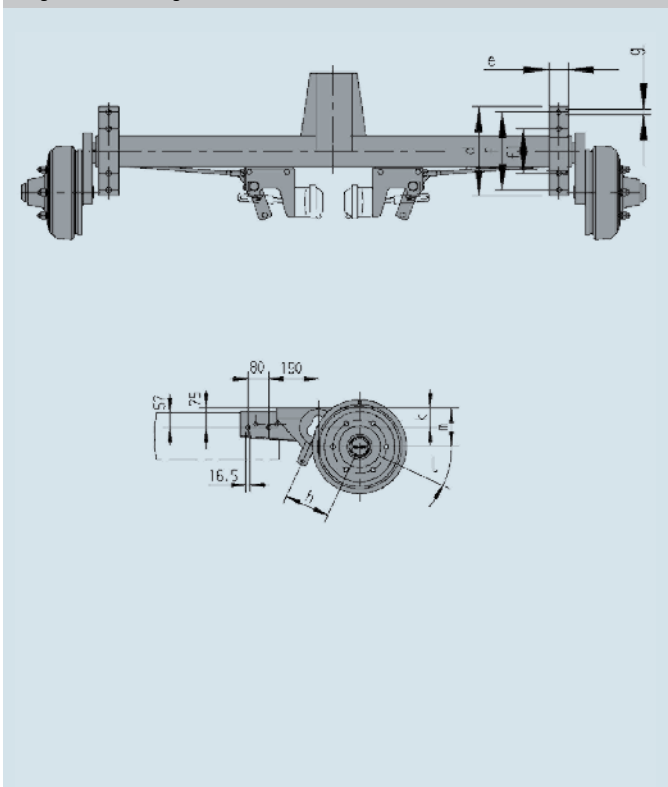
### Ordering overview

| Part No   | SA<br>TA | Type    | Single<br>axle,<br>axle<br>load kg | Tandem<br>axle,<br>axle<br>load kg | BC<br>a mm | OHF<br>c mm | OHF<br>c min.<br>mm | Axle<br>beam | Wheel<br>brake<br>type | Wheel<br>connec-<br>tion | Wheel<br>nut<br>ball | Offset<br>mm | d<br>mm | e<br>mm | f<br>mm |
|-----------|----------|---------|------------------------------------|------------------------------------|------------|-------------|---------------------|--------------|------------------------|--------------------------|----------------------|--------------|---------|---------|---------|
| 1 220 816 | SA       | BL 3000 | 3000                               |                                    | 1330       | 1800        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 220 817 | SA       | BL 3000 | 3000                               |                                    | 1430       | 1900        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 220 818 | SA       | BL 3000 | 3000                               |                                    | 1530       | 2000        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 220 819 | SA       | BL 3000 | 3000                               |                                    | 1630       | 2100        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 220 820 | SA       | BL 3000 | 3000                               |                                    | 1730       | 2200        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 220 821 | SA       | BL 3000 | 3000                               |                                    | 1830       | 2300        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 651 | TA       | BL 2700 |                                    | 5000                               | 1330       | 1800        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 652 | TA       | BL 2700 |                                    | 5000                               | 1430       | 1900        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 653 | TA       | BL 2700 |                                    | 5000                               | 1530       | 2000        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 654 | TA       | BL 2700 |                                    | 5000                               | 1630       | 2100        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 655 | TA       | BL 2700 |                                    | 5000                               | 1730       | 2200        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 656 | TA       | BL 2700 |                                    | 5000                               | 1830       | 2300        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 657 | TA       | BL 3000 |                                    | 6000                               | 1330       | 1800        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 658 | TA       | BL 3000 |                                    | 6000                               | 1430       | 1900        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 659 | TA       | BL 3000 |                                    | 6000                               | 1530       | 2000        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 660 | TA       | BL 3000 |                                    | 6000                               | 1630       | 2100        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 661 | TA       | BL 3000 |                                    | 6000                               | 1730       | 2200        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |
| 1 213 662 | TA       | BL 3000 |                                    | 6000                               | 1830       | 2300        | 1750*               | 120          | 3062AR                 | 205x6                    | M18x1.5              | 0            | 320     | 70      | 280     |

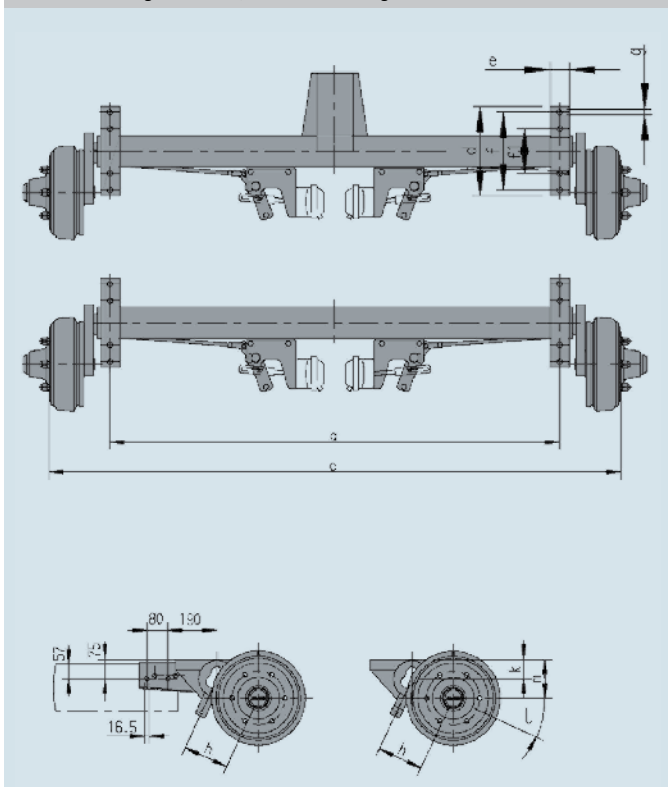
\* Standard version: Distance between the brackets 300 mm, welded on at normal height, 25° swing arm position

# HYDRAULIC BRAKES

Single axle 3000 kg axle load



Tandem 5000 kg axle load, tandem 6000 kg axle load



| f1<br>mm | g<br>mm<br>Ø | h<br>mm | l<br>Base<br>pos.<br>unlad. | k<br>mm | m<br>mm | Vers. SC =<br>Forged<br>lever |  | Axle shock absorber<br>per pc. w/o bolted<br>fasteners | Parking brake without<br>Bowden cable or<br>brake cable | Prestressed Brake cyl. Type: 9<br>Wabco, Knorr, Haldex<br>Part No (not included in AL-KO scope<br>of supply) |
|----------|--------------|---------|-----------------------------|---------|---------|-------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 133                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 134                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 135                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 136                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 137                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 138                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 266                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 268                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 270                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 272                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 274                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 276                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 280                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 282                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 285                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 289                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 294                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |
| 220      | 18           | 175     | 25°                         | 75      | 143     | SC                            | 299                                                                                 | 244 087                                                | 267 005                                                 | see page 108                                                                                                 |

# AXLES WITH STEEL SUSPENSION FOR TRAILERS WITH

## Single axle 4000 kg, tandem 7500 kg

### Your advantage

- ! Above a total weight of 3500 kg, an anti-lock brake (ALB) is prescribed in law.
- ! In single axle or tandem axles, the rearmost axle in each case is prepared for installation of ALB.
- ! If the axles are combined with our height-adjustable drawbars, it is possible to dispense with weight compensation.
- ! Automatic adjustment of the brake linings.

### Accessories

- See order overview (Please order separately)
- ! Parking brake
  - ! Shock absorber without bolted fasteners (Please only use the specially adapted AL-KO genuine axle shock absorbers)
- Important: Axles with steel suspension must be equipped with axle shock absorbers
- ! The hydraulic brake system as well as parts of the automatic anti-lock brake (ALB) should be ordered directly from the suppliers listed below:  
Wabco / Haldex / Knorr

### Scope of delivery

- ! Shock absorber holder
- ! Brackets for brake cylinders
- ! Top hat profile welded-on
- ! Wheel nuts
- ! Linkage with brake lever
- ! Operating instructions

### Surface treatment

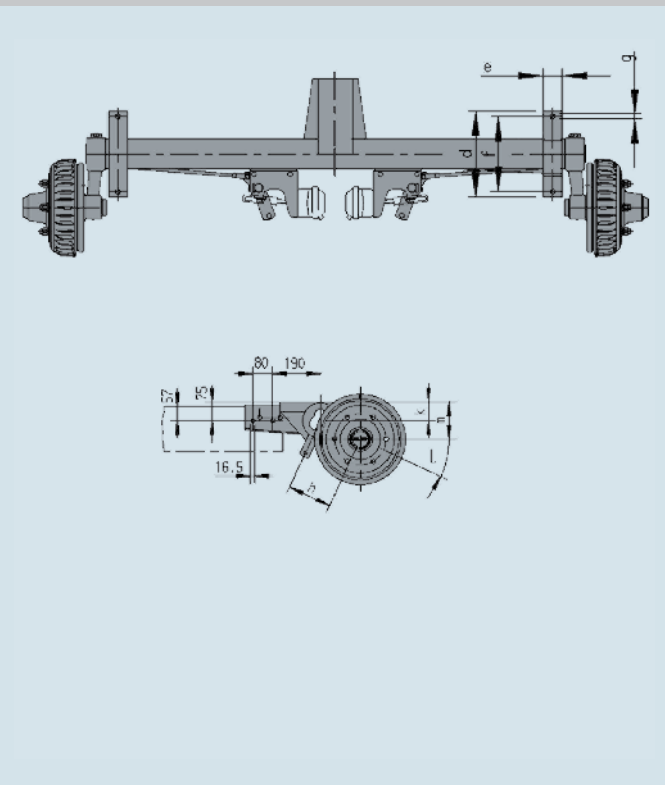
Synthetic resin dip-priming black  
(Axles with steel suspension cannot be hot-dip galvanised)

### Ordering overview

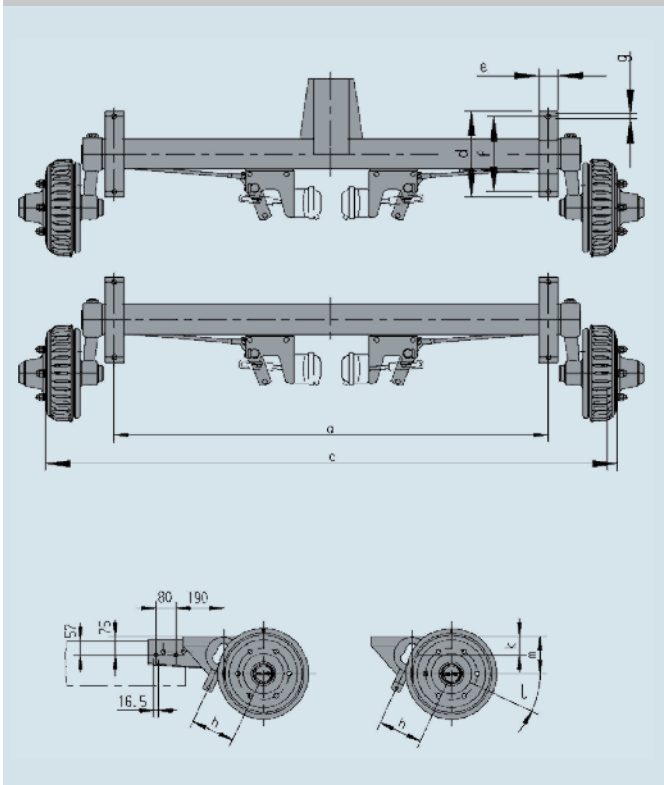
| Part No   | Single axle<br>SA<br>Tandem<br>TA | Axle type | Single axle<br>load kg | Tandem axle<br>load kg | BC<br>a mm | OHF<br>c mm | OHF<br>c min.<br>mm | Axle beam | Wheel<br>brake type | Wheel<br>connec-<br>tion | Wheel<br>nut ball | Offset<br>mm | d<br>mm | e<br>mm | f<br>mm |
|-----------|-----------------------------------|-----------|------------------------|------------------------|------------|-------------|---------------------|-----------|---------------------|--------------------------|-------------------|--------------|---------|---------|---------|
| 1 211 875 | SA                                | BT 4000   | 4000                   |                        | 1260       | 1800        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 876 | SA                                | BT 4000   | 4000                   |                        | 1360       | 1900        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 877 | SA                                | BT 4000   | 4000                   |                        | 1460       | 2000        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 878 | SA                                | BT 4000   | 4000                   |                        | 1560       | 2100        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 879 | SA                                | BT 4000   | 4000                   |                        | 1660       | 2200        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 220 833 | SA                                | BT 4000   | 4000                   |                        | 1760       | 2300        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 886 | TA                                | BT 4000   |                        | 7500                   | 1260       | 1800        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 887 | TA                                | BT 4000   |                        | 7500                   | 1360       | 1900        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 888 | TA                                | BT 4000   |                        | 7500                   | 1460       | 2000        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 889 | TA                                | BT 4000   |                        | 7500                   | 1560       | 2100        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 890 | TA                                | BT 4000   |                        | 7500                   | 1660       | 2200        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |
| 1 211 891 | TA                                | BT 4000   |                        | 7500                   | 1760       | 2300        | 1750                | 114x6     | 3081AR/B            | 205x6                    | M18x1.5           | 0            | 320     | 70      | 280     |

# HYDRAULIC BRAKES

**Single axle 4000 kg axle load**



**Tandem 7500 kg axle load**



**Important:**

The screw connection of the axle bracket onto the frame must exclusively be made using dimension f.

| f1<br>mm | g<br>mm<br>Ø | h<br>mm | l<br>Base<br>pos.<br>unlad. | k<br>mm | m<br>mm | Vers. SC =<br>Forged<br>lever |  | Axle shock absorber<br>per pc. w/o bolted<br>fasteners | Parking brake without<br>Bowden cable or<br>brake cable | prestressed Brake cyl. Type: 9<br>Wabco, Knorr, Haldex<br>Part No<br><small>(not included in AL-KO scope of supply)</small> |
|----------|--------------|---------|-----------------------------|---------|---------|-------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 185                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 187                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 189                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 191                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 193                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 195                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 370                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 374                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 378                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 382                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 386                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |
| 220      | 18           | 200     | 20°                         | 75      | 143     | SC                            | 390                                                                                   | 244 087                                                | 267 005                                                 | see page 108                                                                                                                |

# SPECIFICATIONS FOR TRAILERS WITH HYDRAULIC BRAKES

## for axles with rubber suspension

### Technology

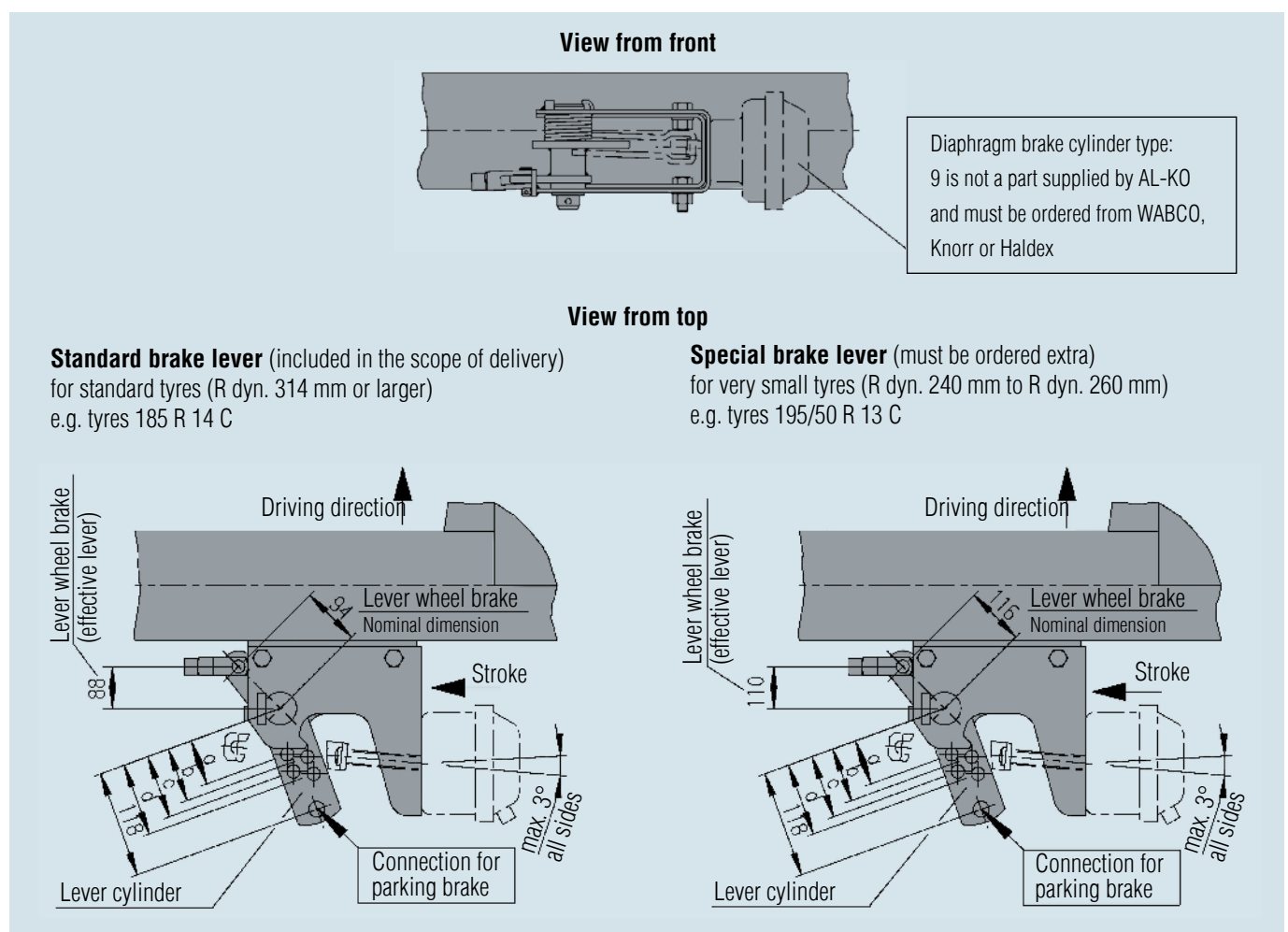
#### Assembly of brake cylinders in axles with rubber suspension

single axle 1800 kg wheel brake 2361 AR

Tandem 3500 kg wheel brake 2361 AR

Tri-Axles 4300 kg wheel brake 2361 AR

Tri-Axles 5400 kg wheel brake 2361 AR



### Ordering overview

|                     |            | Lever cylinder | Lever wheel brake Nominal dimension | eff. Lever (for brake calc.) |
|---------------------|------------|----------------|-------------------------------------|------------------------------|
| Single axle trailer | GA 1800 kg | a = 50 mm      | 94 mm                               | 88 mm                        |
| Tandem axle         | GA 3500 kg | a = 50 mm      | 94 mm                               | 88 mm                        |
| Tri-Axles           | GA 4300 kg | a = 50 mm      | 94 mm                               | 88 mm                        |
| Tri-Axles           | GA 5400 kg | a = 50 mm      | 94 mm                               | 88 mm                        |

|                     |            | Lever cylinder | Lever wheel brake Nominal dimension | eff. Lever (for brake calc.) |
|---------------------|------------|----------------|-------------------------------------|------------------------------|
| Single axle trailer | GA 1800 kg | a = 50 mm      | 116 mm                              | 110 mm                       |
| Tandem axle         | GA 3500 kg | a = 50 mm      | 116 mm                              | 110 mm                       |
| Tri-Axles           | GA 4300 kg | a = 50 mm      | 116 mm                              | 110 mm                       |
| Tri-Axles           | GA 5400 kg | a = 50 mm      | 116 mm                              | 110 mm                       |

## for axles with rubber and steel suspension

### Technology

#### Assembly of brake cylinder in axles with rubber suspension

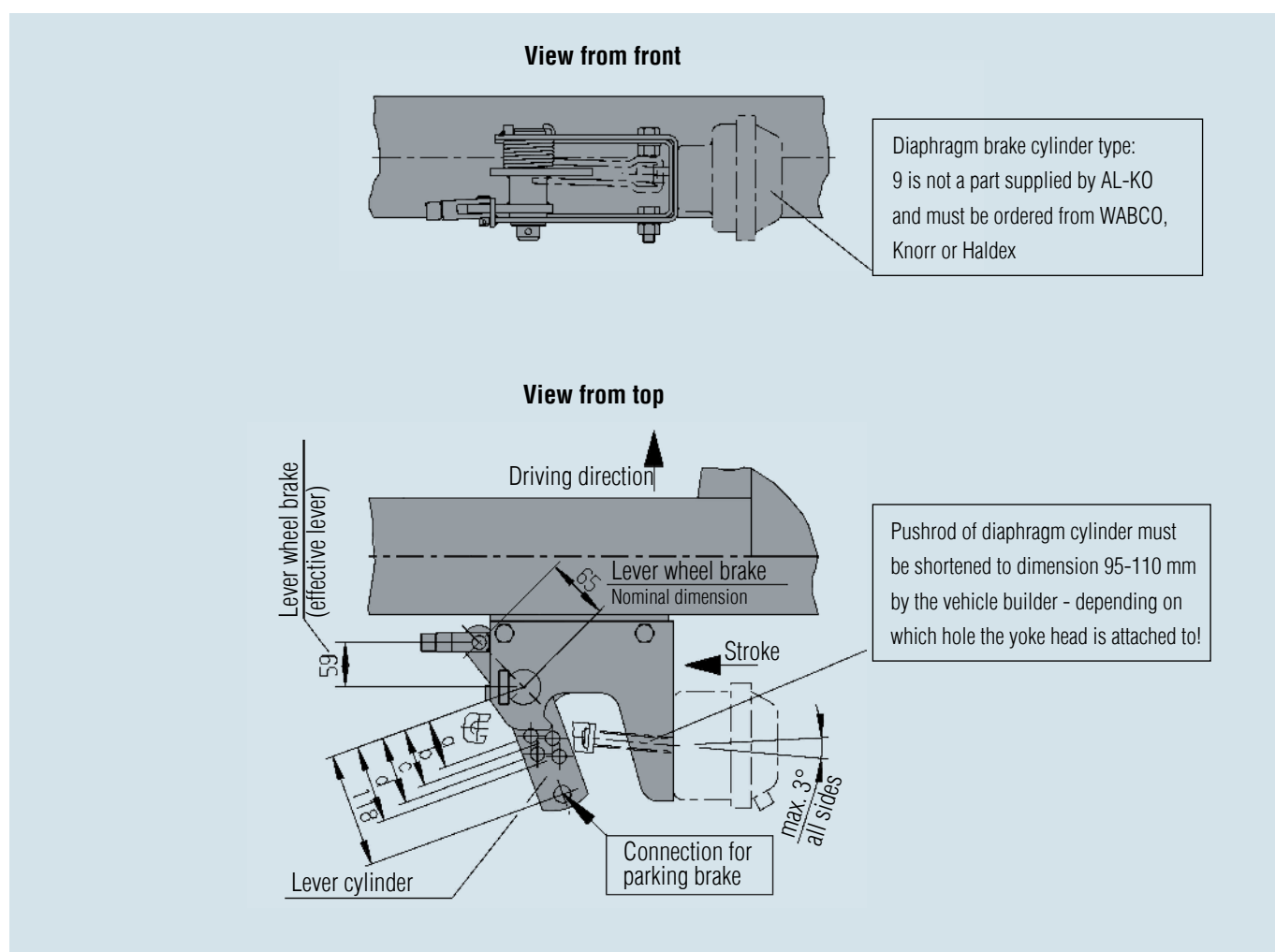
single axle 3000 kg wheel brake 3062 AR

Single axle 4000 kg wheel brake 3081 AR/B

Tandem 5000 kg wheel brake 3062 AR

Tandem 6000 kg wheel brake 3062 AR

Tandem 7500 kg wheel brake 3081 AR/B



|                     |                                                  | Lever cylinder | Lever wheel brake Nominal dimension | eff. Lever (for brake calc.) |
|---------------------|--------------------------------------------------|----------------|-------------------------------------|------------------------------|
| Single axle trailer | GA 3000 kg - axle type BL 3000 rubber suspension | c = 70 mm      | 65 mm                               | 59 mm                        |
| Single axle trailer | GA 4000 kg - axle type BT 4000 steel suspension  | d = 80 mm      | 65 mm                               | 59 mm                        |
| Tandem axle         | GA 5000 kg - axle type BL 2700 rubber suspension | a = 50 mm      | 65 mm                               | 59 mm                        |
| Tandem axle         | GA 6500 kg - axle type BL 3000 rubber suspension | b = 60 mm      | 65 mm                               | 59 mm                        |
| Tandem axle         | GA 7500 kg - axle type BT 4000 steel suspension  | c = 70 mm      | 65 mm                               | 59 mm                        |

# SPECIFICATIONS FOR TRAILERS WITH HYDRAULIC BRAKES

## for axles with rubber and steel suspension

### Technology

- | AL-KO axles have a toe-in, which means they must be installed trailing.
- | According to EC Directive 71/320/EEC, the brake system of trailers with more than 3.5 t permitted total weight must be equipped with an automatic anti-lock brake (ALB)!
- | AL-KO axles above (GA) 3.5 t are prepared for installation of ALB.
- | In tandem or tri-axes, only the rear axle is prepared for installation of the sensors on the brake backing plate for controlling the automatic anti-lock brake.
- | The sensors are not supplied. Suppliers: WABCO, Knorr, Haldex.

### The following information is required for the brake calculation:

- | Permitted total weight of the trailer
- | Intended imposed load on the coupling point
- | Unladen weight of the trailer
- | Single axle, tandem, tridem or semitrailer
- | Wheel brake AL-KO 2361AR or wheel brake AL-KO 3062AR or wheel brake AL-KO 3081AR vers. A or vers. B

- | Diaphragm cylinder: Type 9  
WABCO no. 423 102 900 0  
Knorr No. K010241  
Haldex No. 120 311 101
- | Specify brake lever ratio (see technical notes on page 114/115)
- | Copies of wheel brake EC test report (provided by AL-KO on request)

WABCO  
Sensor Part No: 441 032 905 0  
Clamping bush Part No: 899 759 815 4

KNORR  
Sensor Part No: 0 486 001 032 100  
Clamping bush Part No: TT16774

HALDEX  
Sensor Part No.: 364 208 001  
Clamping bush Part No: 059 5123 09

- | Please request the brake calculation from Wabco, Knorr or Haldex (manufacturers of the pneumatic system).

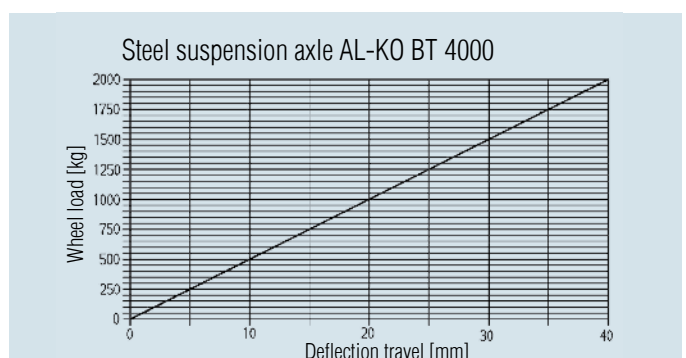
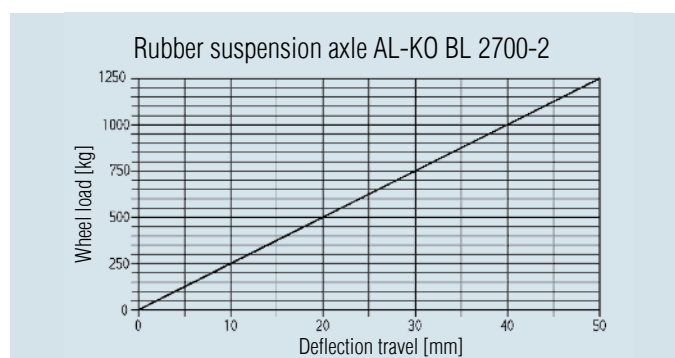
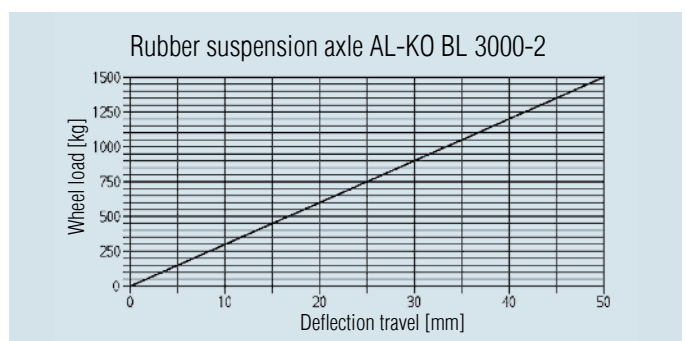
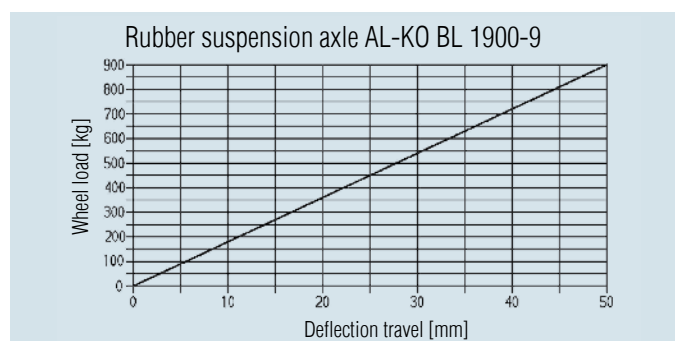
### Brake diagram recommendation

WABCO  
Single axle no.: 841 601 101 0  
Tandem no.: 841 601 174 0  
Tri-axes no.: 841 601 251 0

KNORR  
Single axle no.: BC1A2P-AGK  
Tandem no.: BC2A2P-AGK  
Tri-axes no.: BC3A2P-AGK

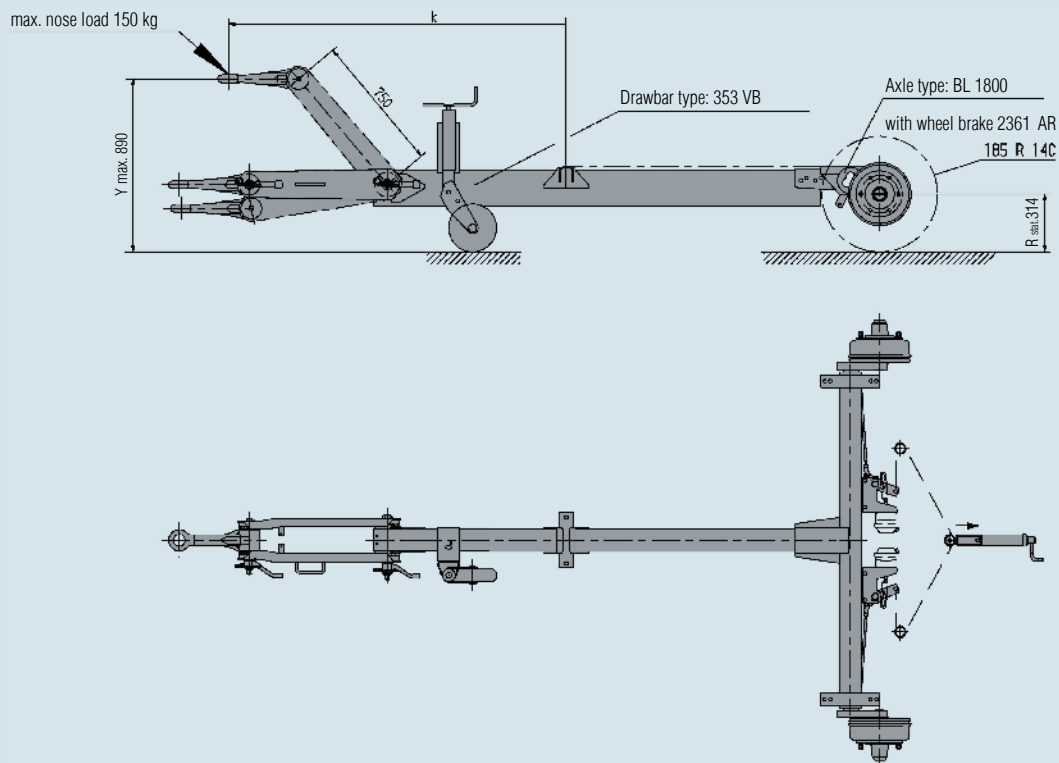
HALDEX  
Single axle no.: 380 098 190  
Tandem no.: 380 095 320  
Tri-axes no.: 380 095 330

### Deflection diagrams (for setting the ALB controller )

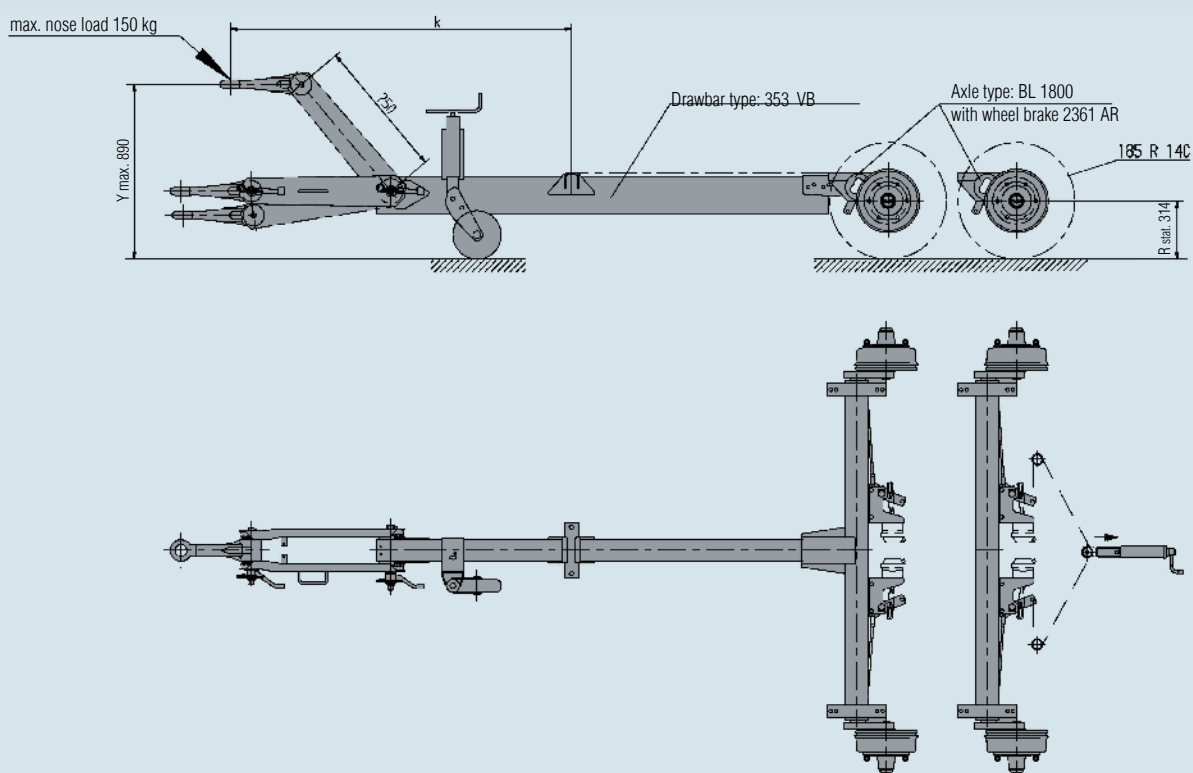


# Installation notes

## Installation suggestion up to GA 1.8 t (with single axle with rubber suspension max. axle load 1.8 t)

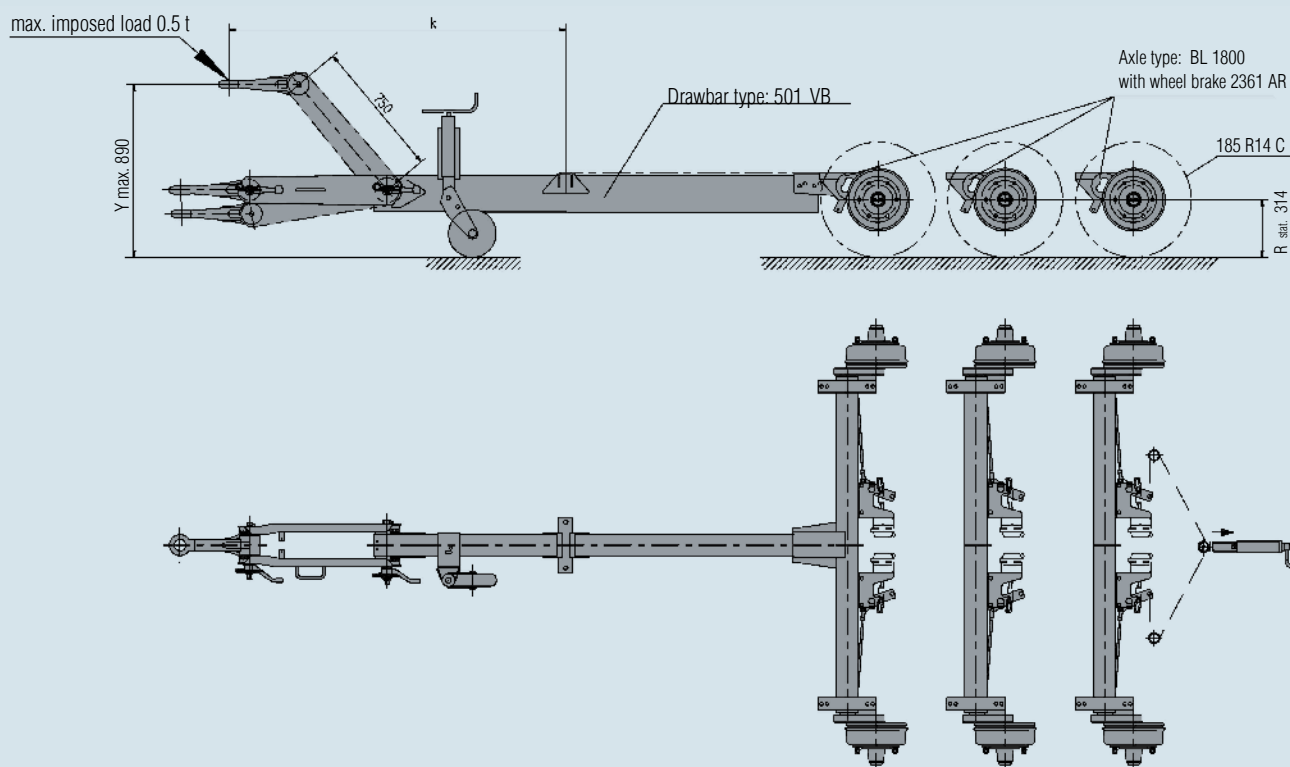


## Installation suggestion up to GA 3.5 t (with tandem axle with rubber suspension max. axle load 3.5 t)

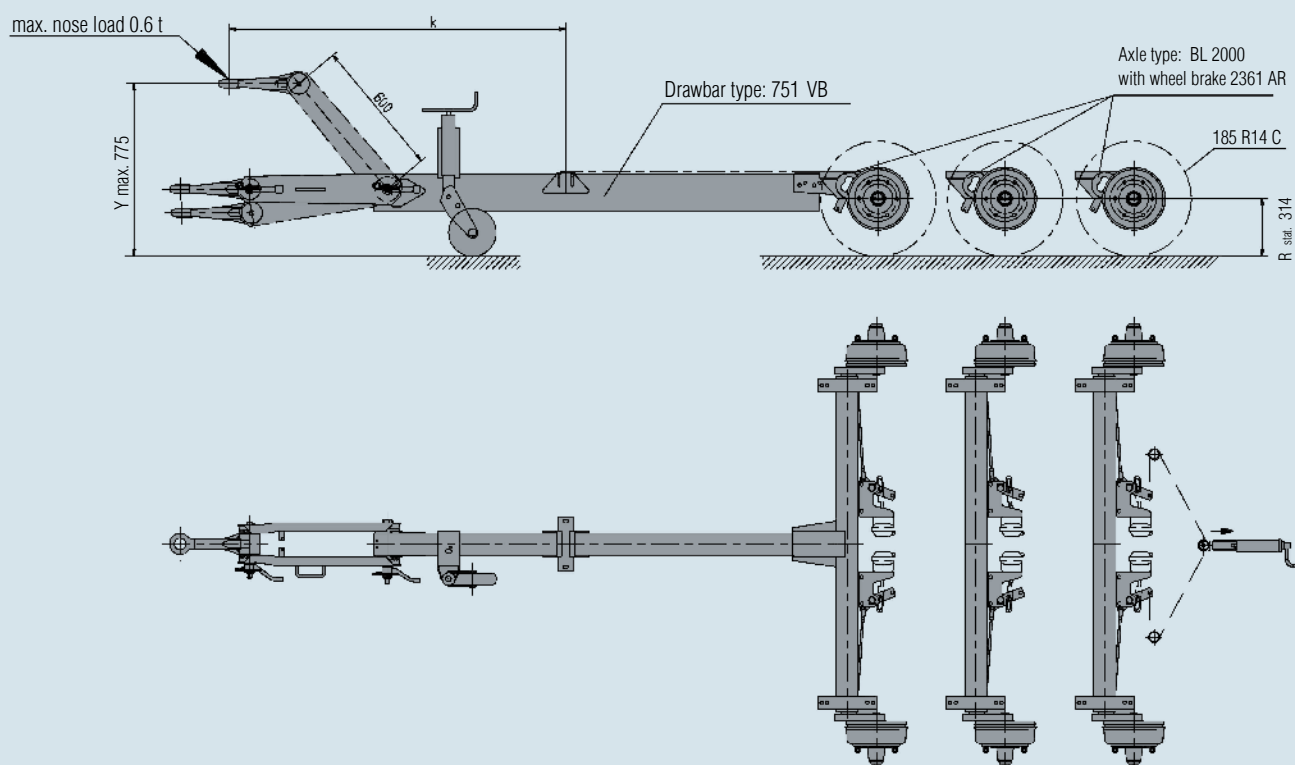


# INSTALLATION NOTES

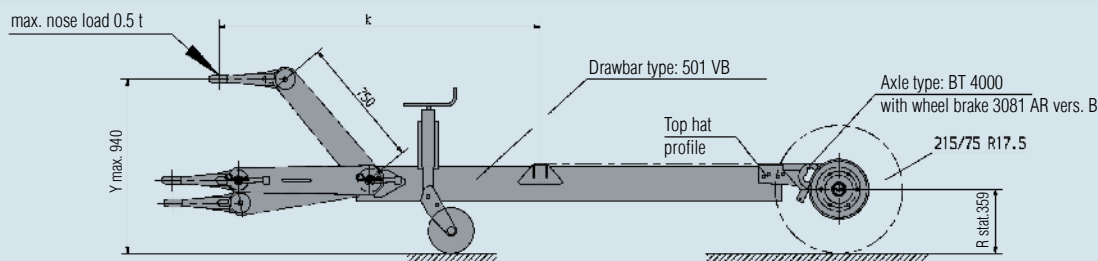
## Installation suggestion up to GA 4.8 t (with tri-axes with rubber suspension max. axle load 4.3 t)



## Installation suggestion up to GA 6.0 t (with tri-axes with rubber suspension max. axle load 5.4 t)

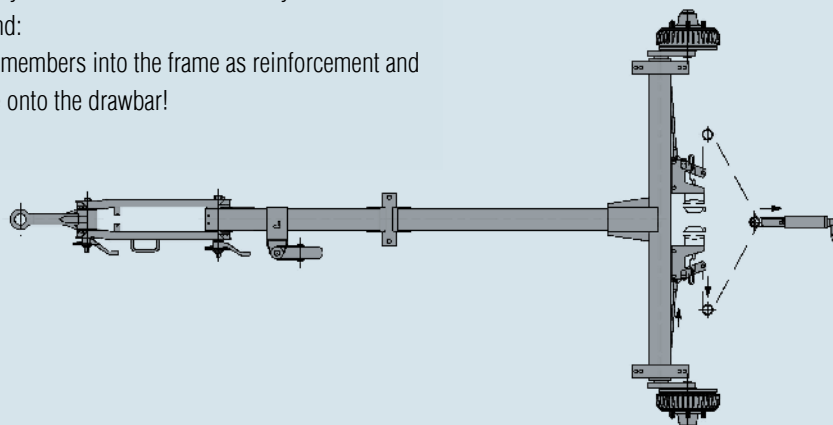


# Installation suggestion up to GA 4.5 t (with single axle with steel suspension axle max. axle load 4.0 t)

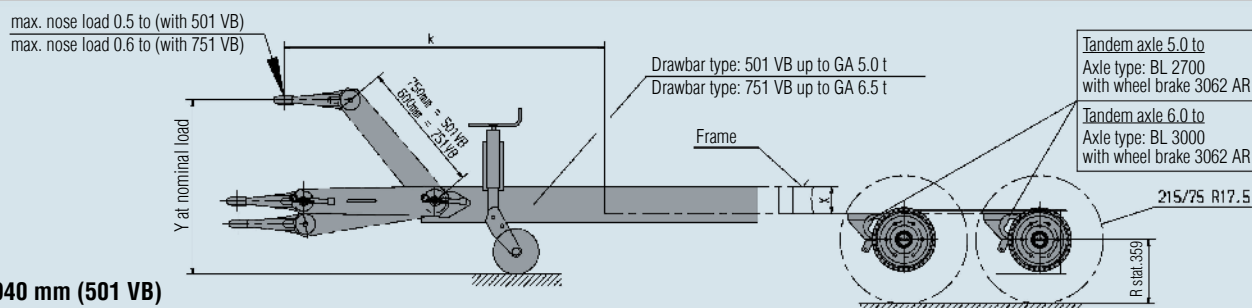


If the drawbar is bolted directly onto axles above GA 5.0 t by means of a top hat profile, we recommend:

- Welding additional cross members into the frame as reinforcement and
- Additionally bolting these onto the drawbar!



# Installation suggestion up to GA 5.0 t / GA 6.5 t (with tandem with rubber suspension max. axle load 5.0 t or 6.0 t)



**Y = 940 mm (501 VB)**

Attachment of the drawbar directly to the axle by means of a top hat profile (see figure above)

**Y = 825 mm (751 VB)**

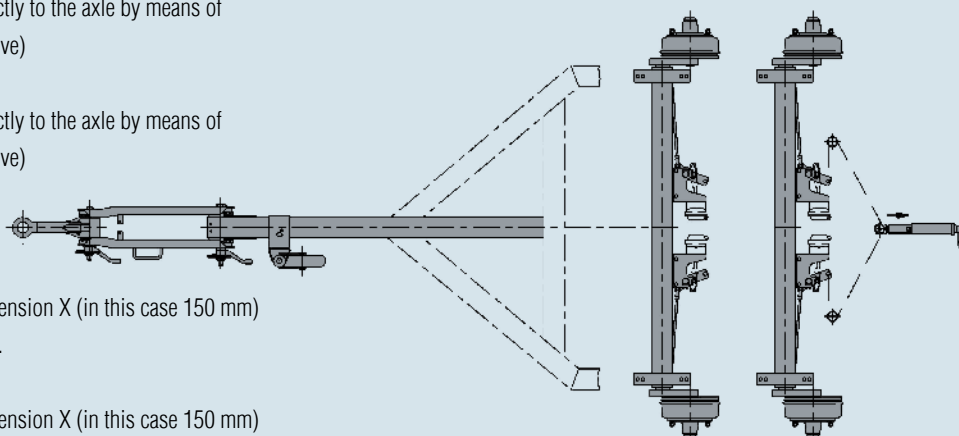
Attachment of the drawbar directly to the axle by means of a top hat profile (see figure above)

**Y = 1090 mm (501 VB)**

If the drawbar is moved by dimension X (in this case 150 mm) upwards in the customer frame.

**Y = 875 mm (751 VB)**

If the drawbar is moved by dimension X (in this case 150 mm) upwards in the customer frame.



# STEERING AXLES WITH CHASSIS

Up to 7200 kg for transporting people

## Sample applications

Funfairs

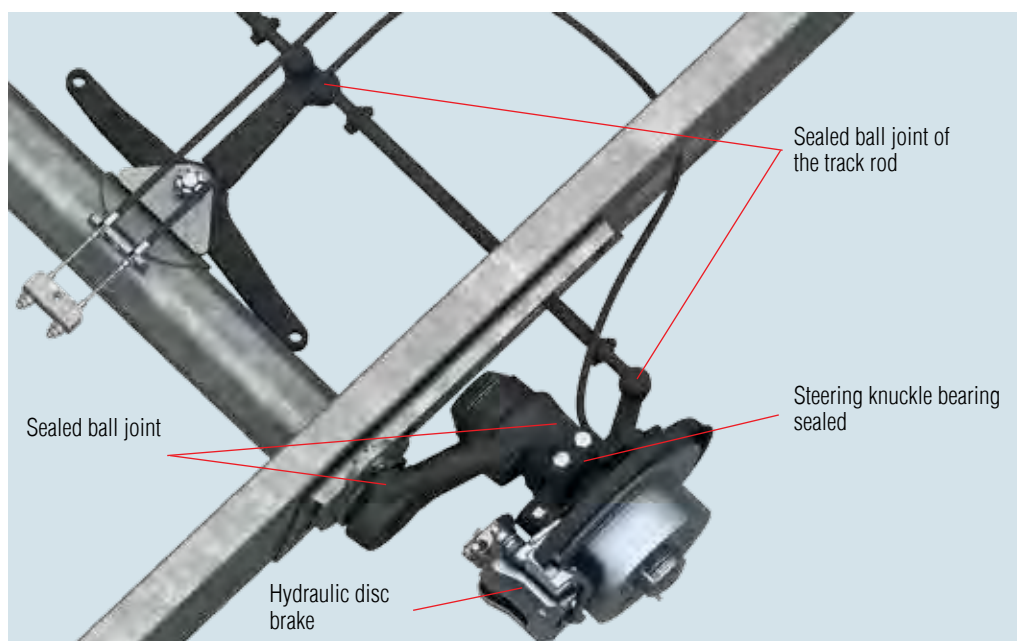


## ✓ Your Advantage

The trailers run on an almost true course behind the tractor vehicle.

## 📦 Scope of delivery

Complete axles with frame without tyres and rims.



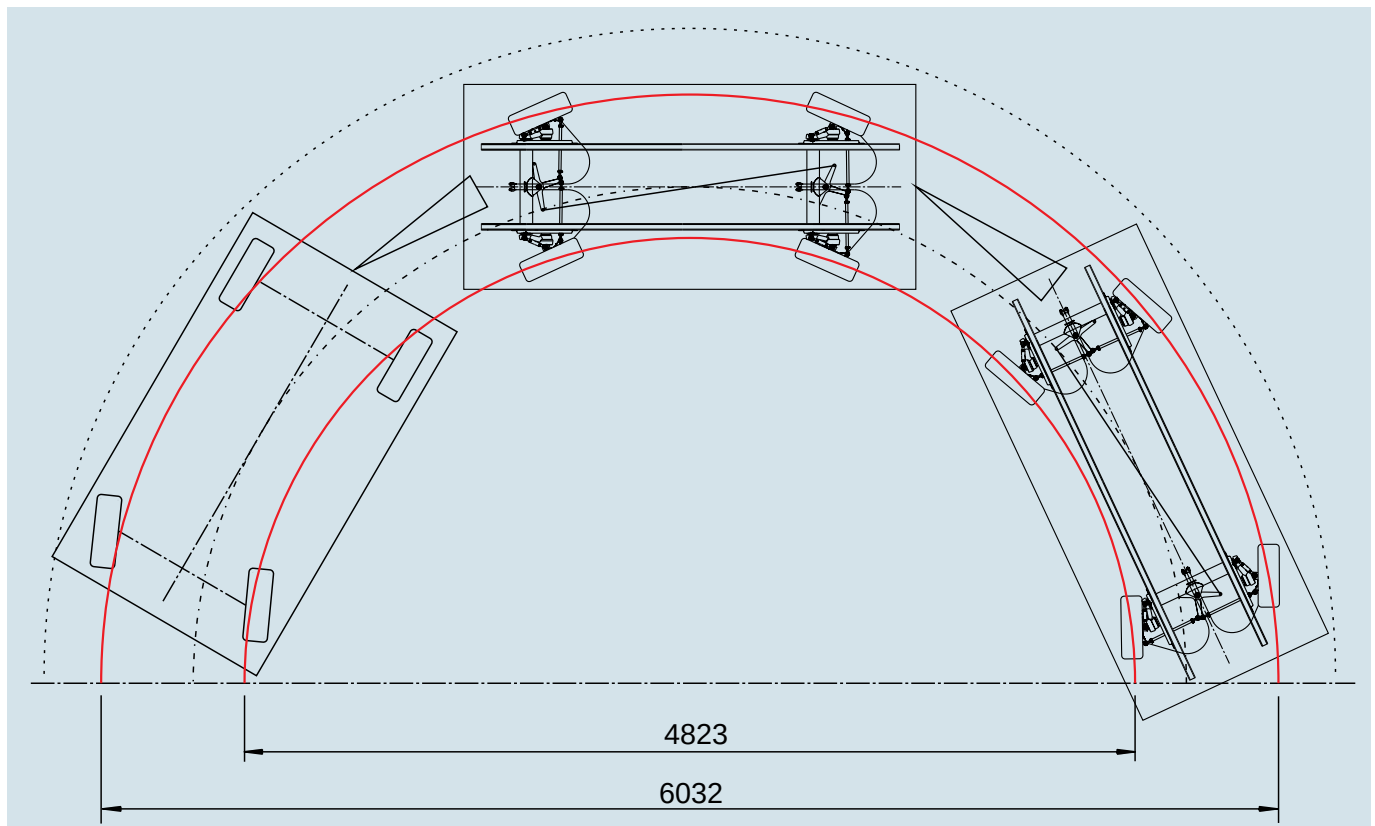


Illustration with 2 axles

### Technology

#### Service brake:

Hydraulic actuation of the wheel brake cylinders

#### Parking brake:

Mechanical actuation via Bowden cables

For building these special trailers, refer to our body instructions no. 1 312 133 as a guide.

The trailer must be serviced regularly (see operating instructions no. 1 311 308).

**Wheelbase and frame length are variable.**

**The installation guidelines must be complied with however!**

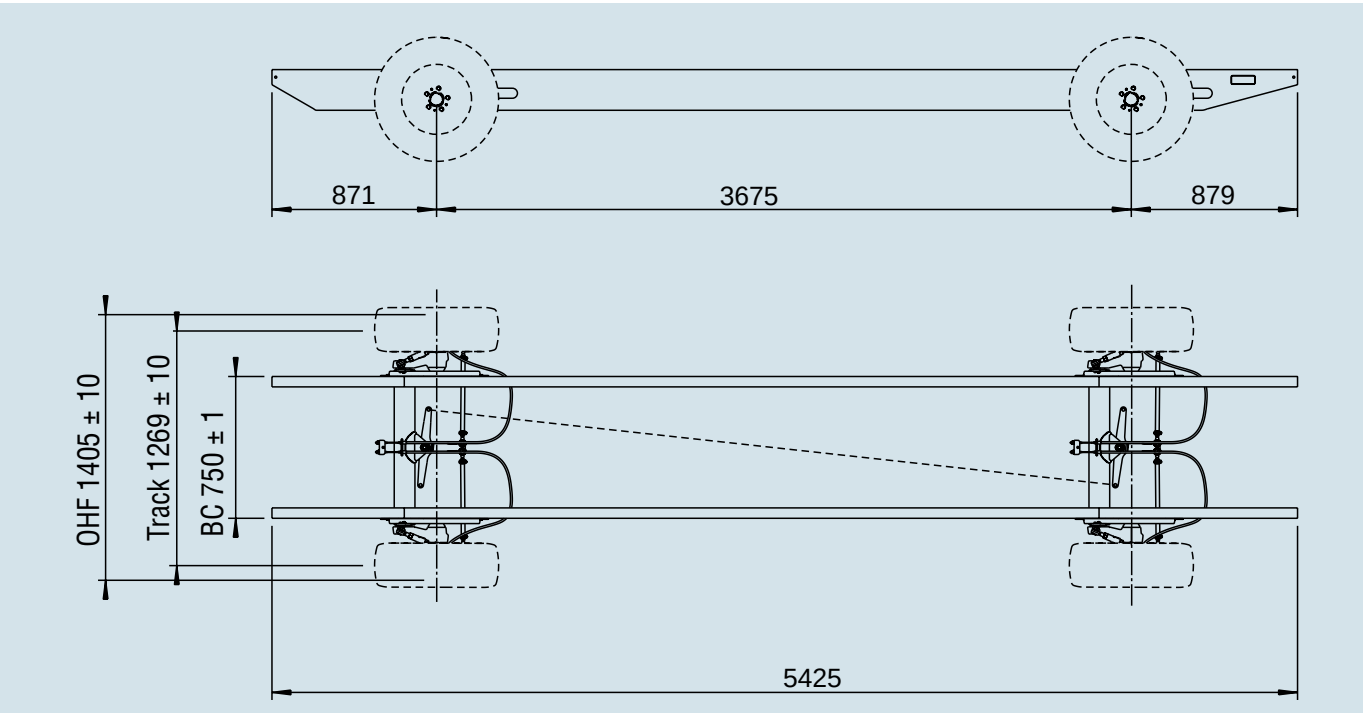
|                                |                                      |                    |
|--------------------------------|--------------------------------------|--------------------|
| <b>Number of trailers</b>      | A maximum of 4 trailers are possible |                    |
| <b>Wheels / tyres</b>          | Wheel connection                     | Ø 118x5            |
|                                | Tyres                                | 185/45 R15         |
|                                | Rims                                 | 6J x 15            |
|                                | Taper-head wheel bolts               | M14x1.5 x 43 17 mm |
|                                | Offset                               | 68                 |
| <b>Permitted maximum speed</b> | <b>Number of trailers:</b>           |                    |
|                                | 2 trailers                           |                    |
|                                | 3 trailers                           |                    |
|                                | 4 trailers                           |                    |
|                                | 2 trailers                           |                    |

# STEERING AXLES WITH CHASSIS

Up to 3500 kg for transporting people

 **Scope of delivery**

Complete axles with frame without tyres and rims.



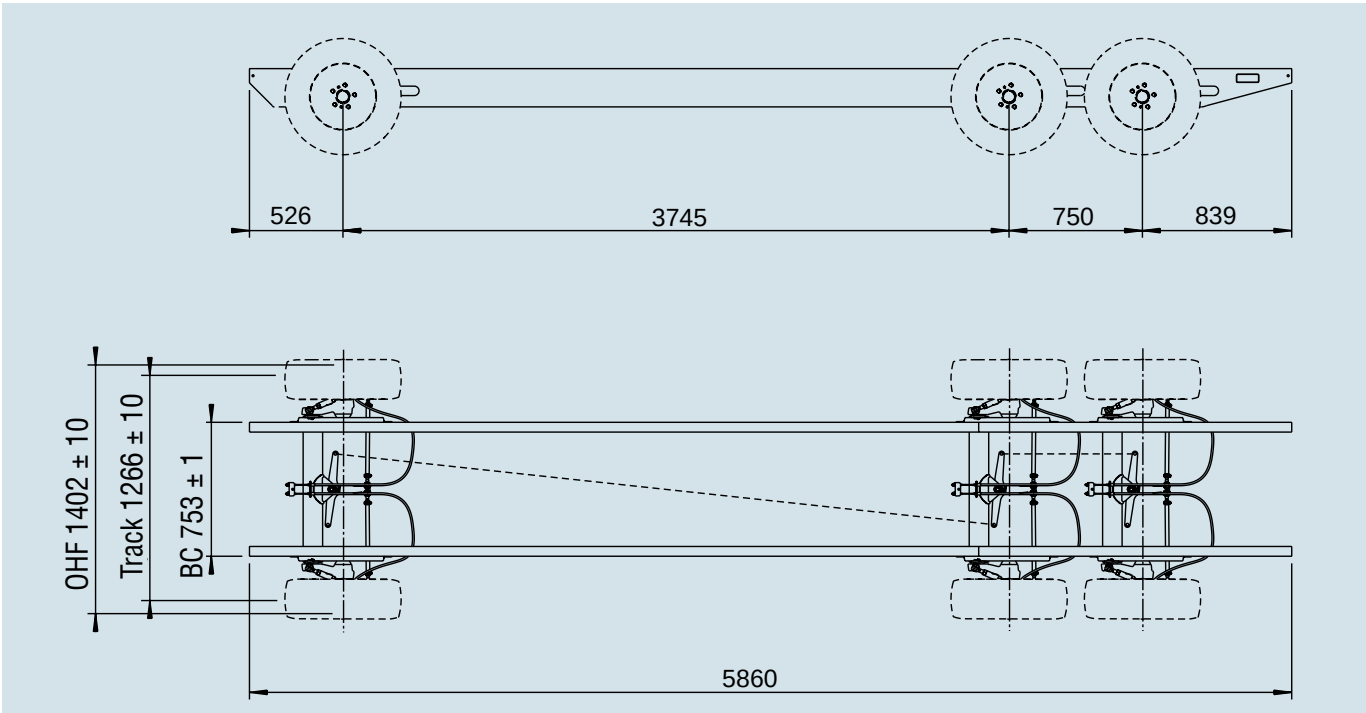
**Ordering overview**

| Part No   | Type    | Total weight in kg |  |  |  |  |
|-----------|---------|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 730 195 | 2 axles | 3500               | 300                                                                                 | -                                                                                     | -                                                                                     | On request                                                                            |

# STEERING AXLES WITH CHASSIS

Up to 5400 kg for transporting people

 **Scope of delivery**  
Complete axles with frame without tyres and rims.



## Ordering overview

| Part No   | Type    | Total weight in kg |  |  |  |  |
|-----------|---------|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 730 730 | 3 axles | 5400               | 400                                                                                 | -                                                                                     | -                                                                                     | On request                                                                            |

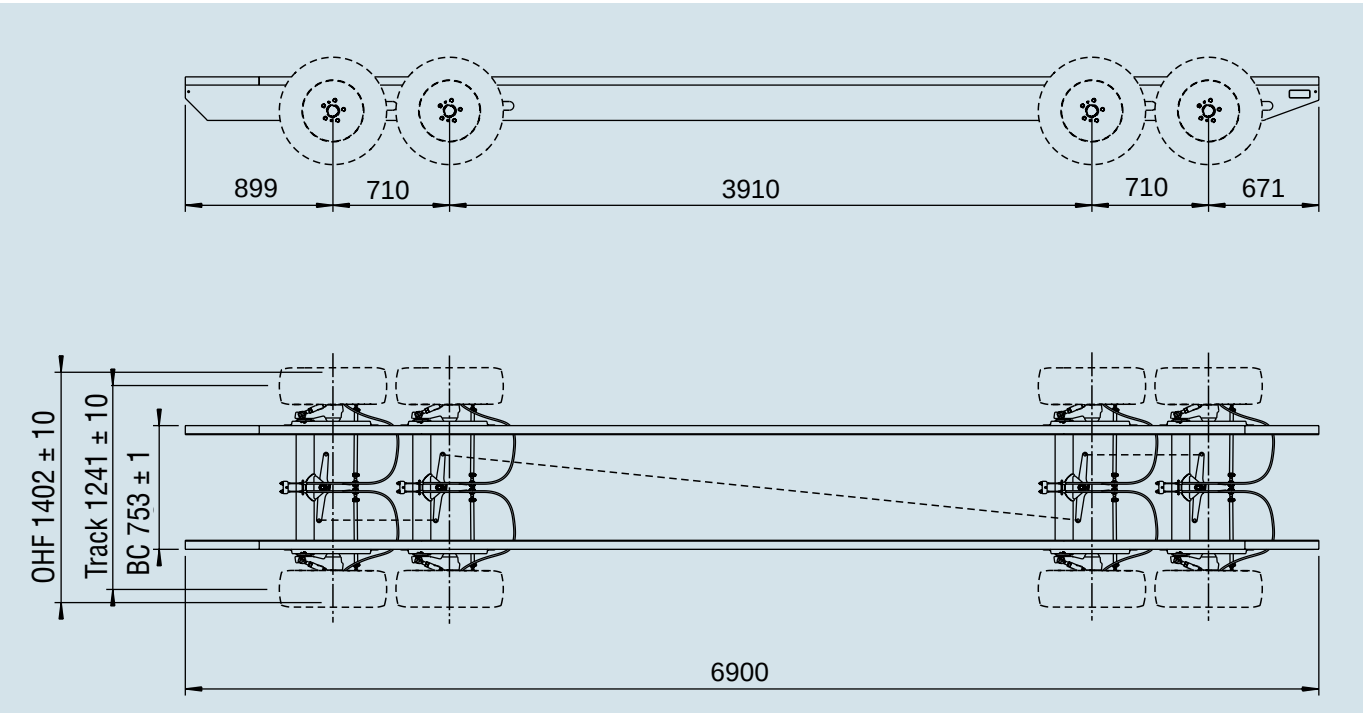
Chassis with and without frame

# STEERING AXLES WITH CHASSIS

Up to 7200 kg for transporting people

 **Scope of delivery**

Complete axles with frame without tyres and rims.



**Ordering overview**

| Part No   | Type    | Total weight in kg |  |  |  |  |
|-----------|---------|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 730 731 | 4 axles | 7200               | 500                                                                                 | -                                                                                     | -                                                                                     | On request                                                                            |

# STEERING AXLES WITH CHASSIS

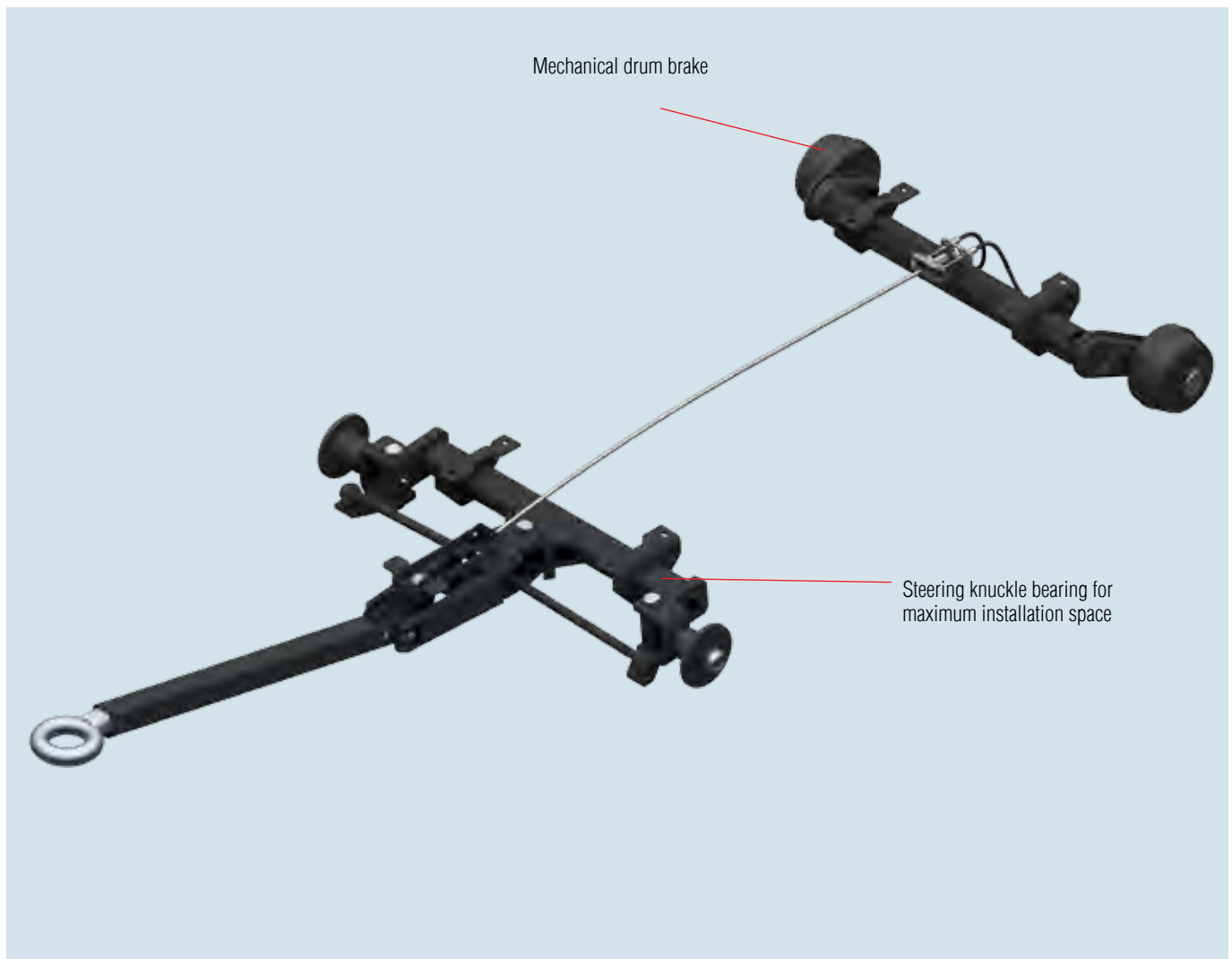
up to 6000 kg for transporting goods

## Sample applications

Transport within companies

## Scope of delivery

Complete axles without tyres and rims.



Permitted maximum speed



# STEERING AXLES WITH CHASSIS

with automatic parking brake 1200 kg with rubber suspension

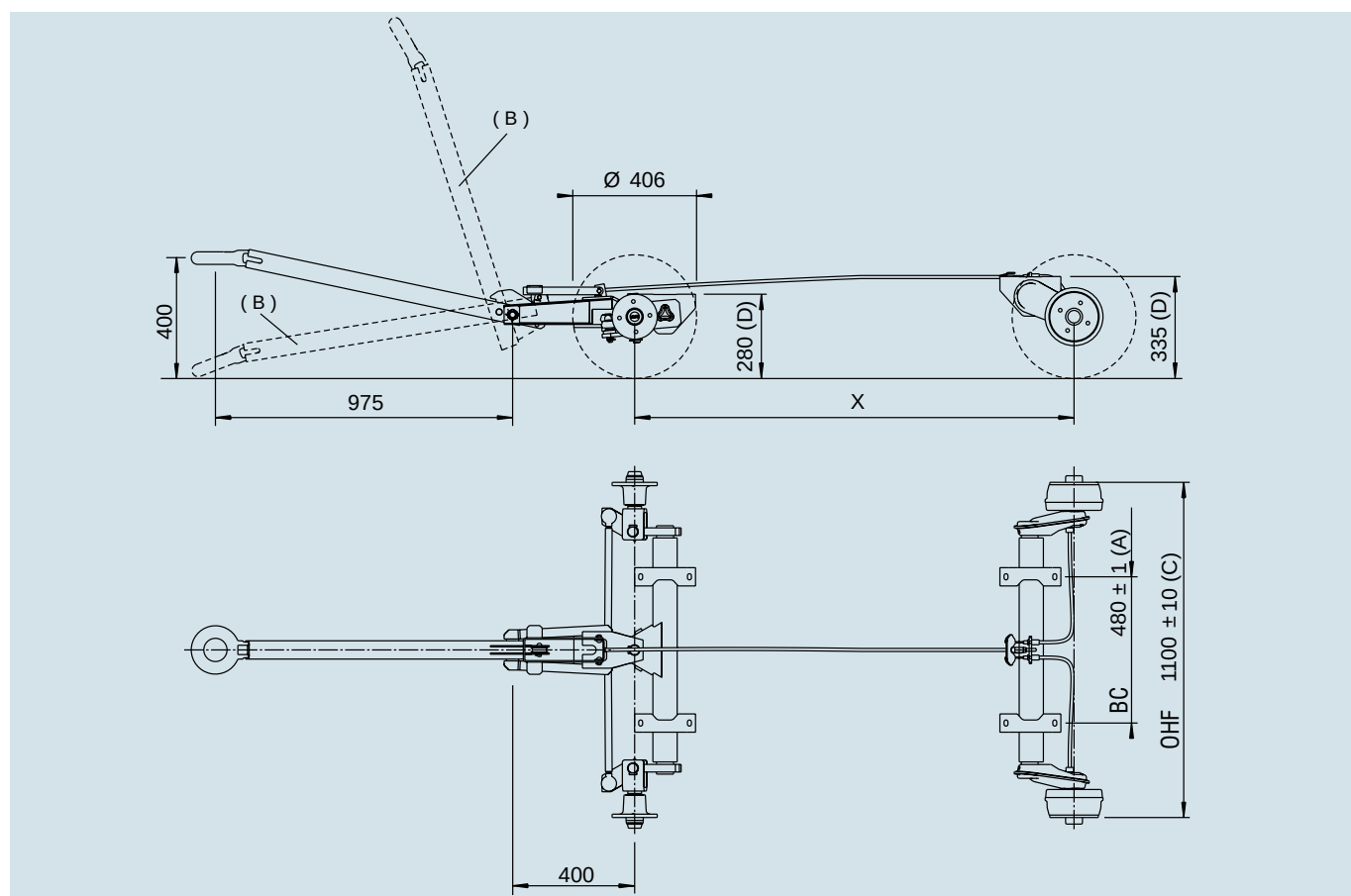
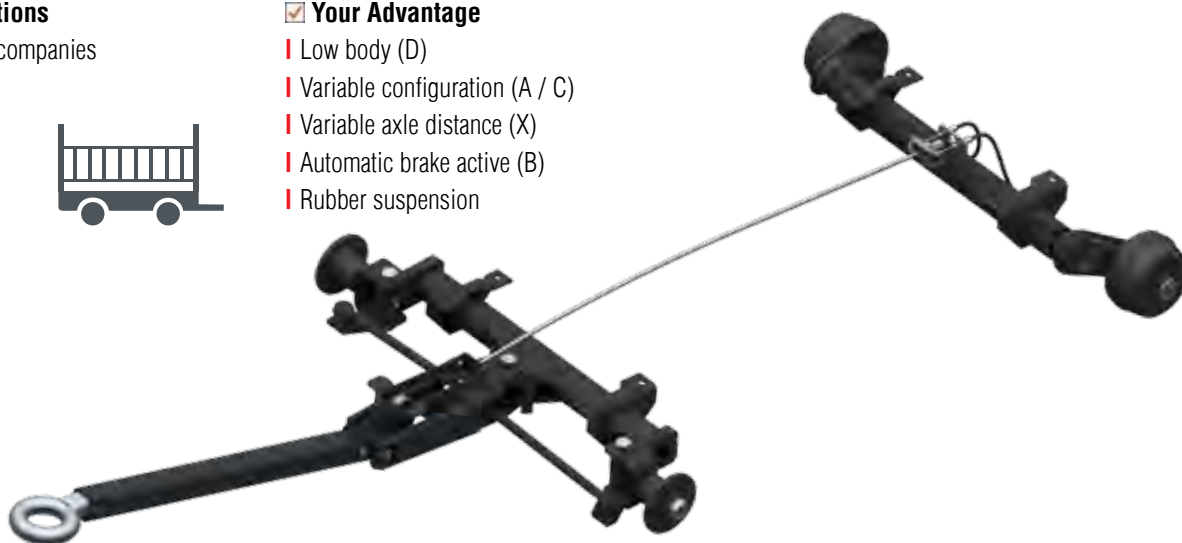
## Sample applications

Transport within companies



## ✓ Your Advantage

- Low body (D)
- Variable configuration (A / C)
- Variable axle distance (X)
- Automatic brake active (B)
- Rubber suspension



## Ordering overview

| Part No   | Total weight<br>in kg |    |   |   |            |
|-----------|-----------------------|----|---|---|------------|
| 1 226 367 | 1200                  | 82 | - | - | On request |

# STEERING AXLES WITH CHASSIS

with automatic parking brake 1800 kg without suspension

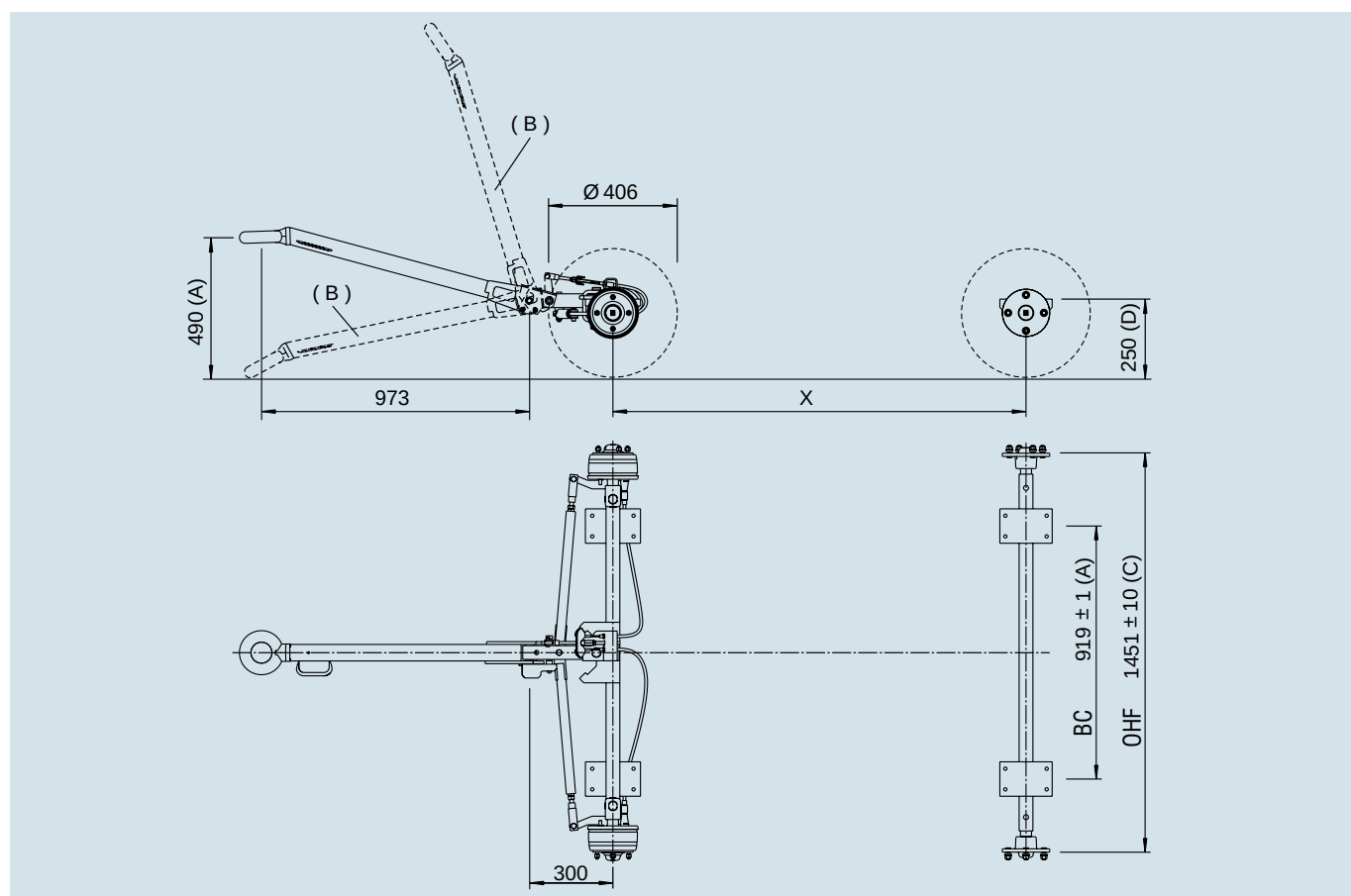
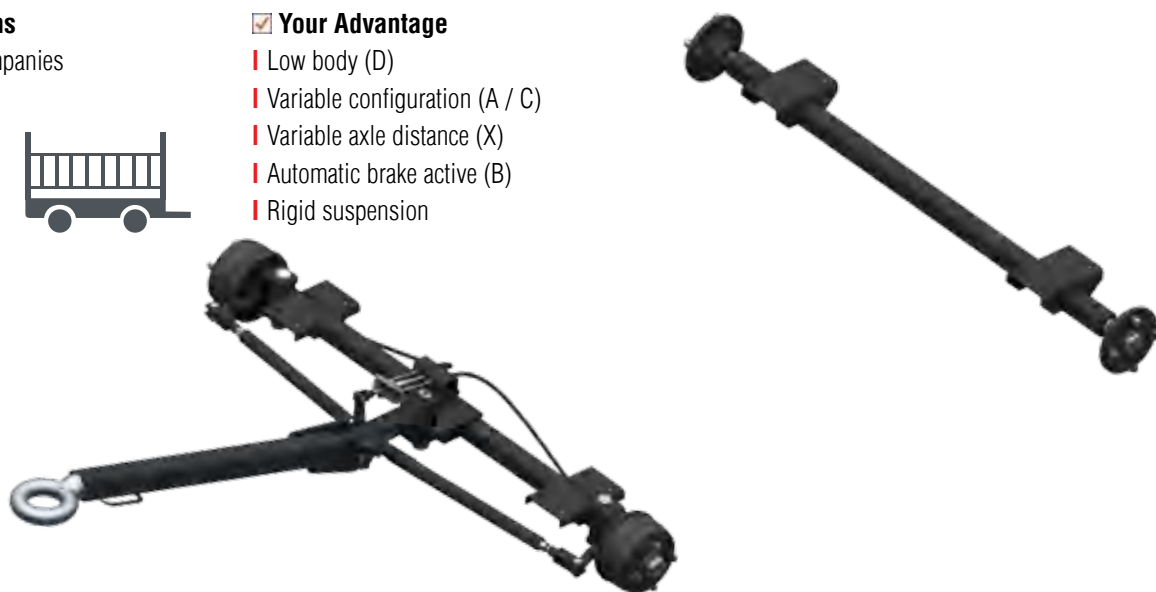
## Sample applications

Transport within companies



## ✓ Your Advantage

- Low body (D)
- Variable configuration (A / C)
- Variable axle distance (X)
- Automatic brake active (B)
- Rigid suspension



## Ordering overview

| Part No                                     | Total weight in kg |  |  |  |  |
|---------------------------------------------|--------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 378 025 (steered front axle with drawbar) | 900                | 35                                                                                  | -                                                                                     | -                                                                                     | On request                                                                            |
| 1 378 026 (rigid rear axle)                 | 900                | 17                                                                                  | -                                                                                     | -                                                                                     | On request                                                                            |

# STEERING AXLES WITH CHASSIS

with automatic parking brake 6000 kg with rubber suspension

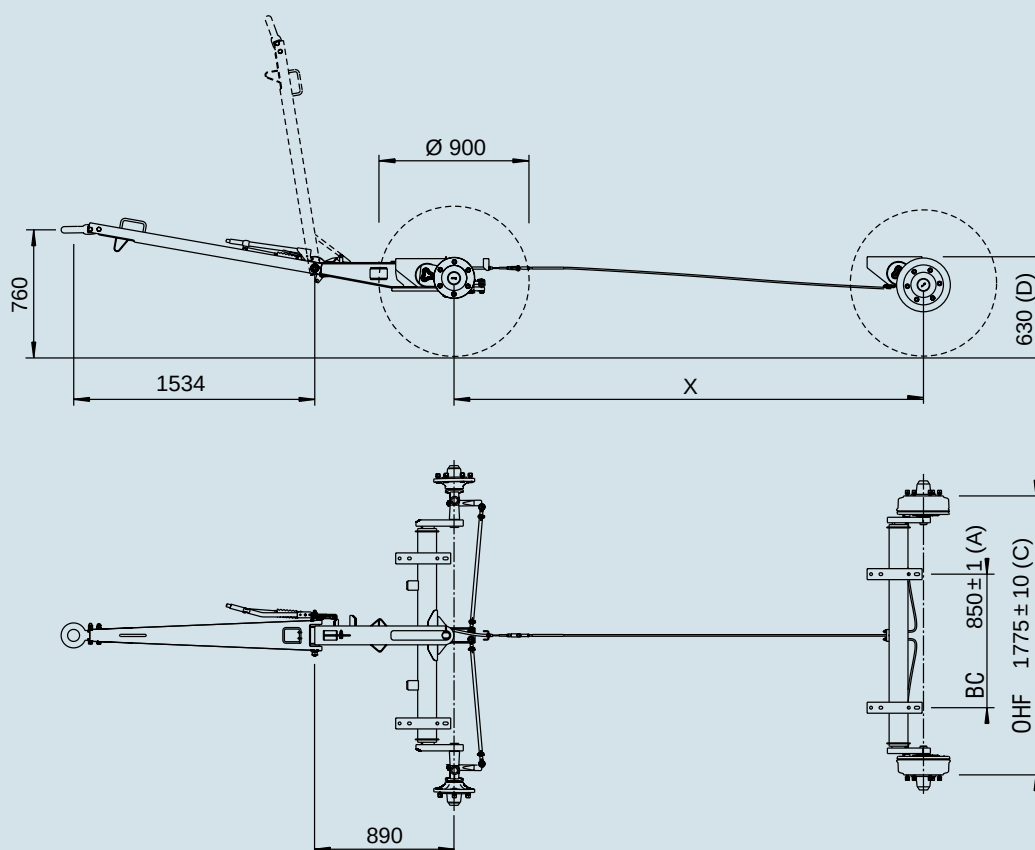
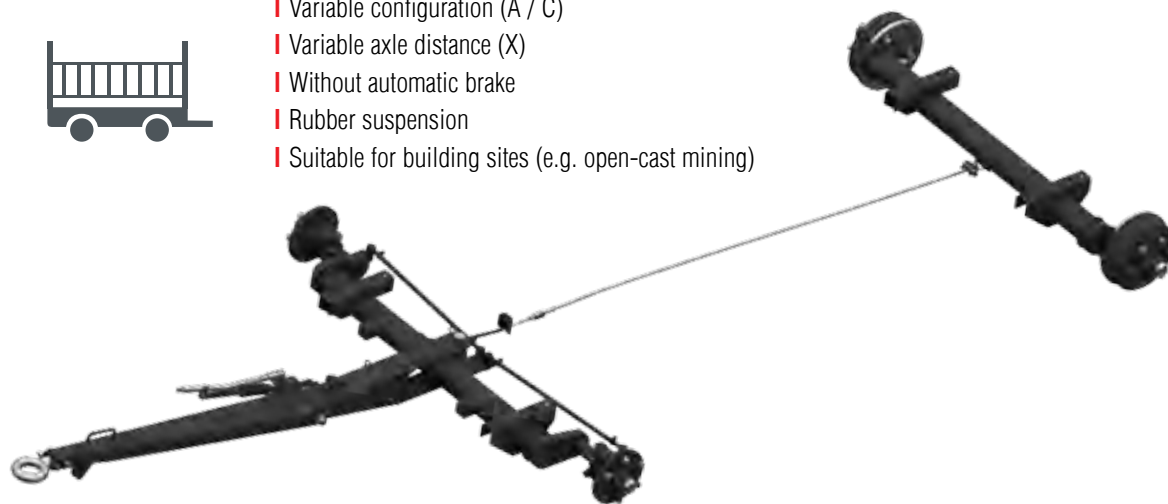
## Sample applications

Transport within companies



## ✓ Your Advantage

- Low body (D)
- Variable configuration (A / C)
- Variable axle distance (X)
- Without automatic brake
- Rubber suspension
- Suitable for building sites (e.g. open-cast mining)



## Ordering overview

| Part No                                     | Total weight<br>in kg |  |  |  |  |
|---------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 208 420 (steered front axle with drawbar) | 3000                  | 270                                                                                 | -                                                                                     | -                                                                                     | On request                                                                            |
| 1 424 164 (rear axle)                       | 3000                  | 125                                                                                 | -                                                                                     | -                                                                                     |                                                                                       |

# AL-KO CHASSIS

## with and without lightweight system frame

### YOUR ADVANTAGE

AL-KO is a leader in developing and producing high-quality chassis components for privately and commercially used trailers in the weight range up to 3500 kg permitted total weight.

The following pages present chassis variants for various applications. In general, it should be noted that the configuration of the chassis frame should be undertaken in close consultation with the vehicle manufacturer.

The body type (e.g. panel / dropside), the floor construction and frame must be matched with one another. Only in this way can a trailer be achieved with optimised weight and cost.

Please contact us so that we can adapt the frame to your specific application in terms of weight and cost.

### AL-KO bolted lightweight system frame "System advantages"

- Greater payload for the trailer owner because of the overall body design optimised for weight.
- Lower short and long-term costs (less use of material, low galvanisation weight).

### Batch sizes / prices for frame chassis

We achieve a good price / performance ratio and delivery deadline with a minimum order quantity of 5 items per article number.

As a result, we recommend that you do not order less than this minimum production batch size.



The various frame components are bolted together using a special bolting process ("pot bolting"). This technology guarantees you a reliable positive-locking and safe connection between the various frame components throughout the entire life cycle of your trailer.

The bolting system enables you to renew individual frame components during servicing.



Certain frame components are provided with holes for reducing weight, i.e. we save weight in non-critical areas of the frame (neutral zone). During this production step, the lightweight holes are deep-drawn, i.e. the edge areas are shaped to ensure as little loss of stability as possible.

We process lightweight, high-quality fine-grained steel with high strength and a high yield point. The surface is hot-dip galvanised.

# ENQUIRY FOR HIGH AND LOW-LOADER CHASSIS

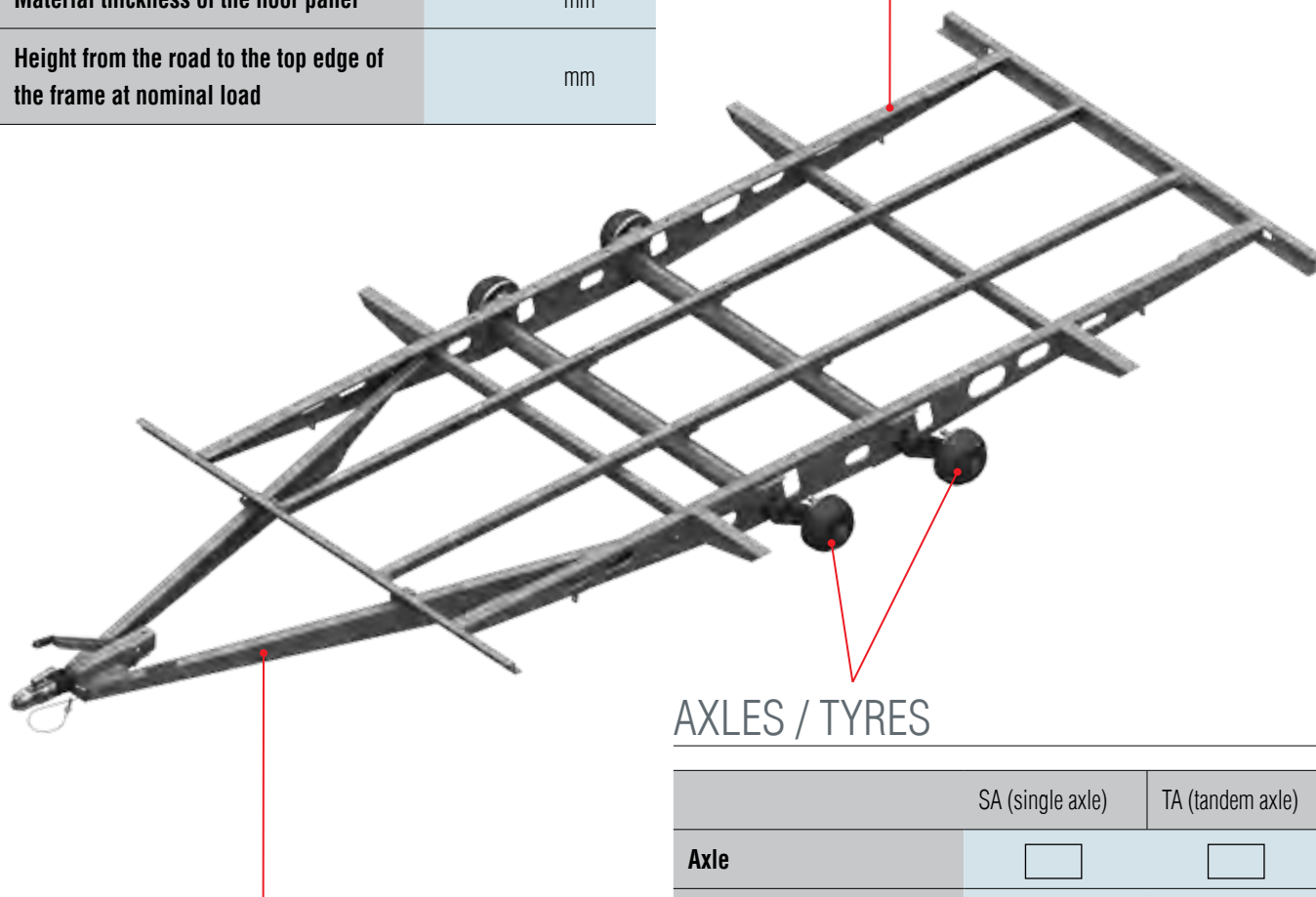
## IMPORTANT!

The chassis illustrated below are standard versions. We will be happy to deal with your individual enquiry. Please use this enquiry form.

Please send the filled in questionnaire to your point of contact in Sales. You will receive an offer from them.

## FLOOR

|                                                                   |    |
|-------------------------------------------------------------------|----|
| Floor length and width                                            | mm |
| Number and spacing of cross members                               | mm |
| Material thickness of the floor panel                             | mm |
| Height from the road to the top edge of the frame at nominal load | mm |



## AXLES / TYRES

|                  | SA (single axle)                                               | TA (tandem axle)         |
|------------------|----------------------------------------------------------------|--------------------------|
| Axle             | <input type="checkbox"/>                                       | <input type="checkbox"/> |
| BC / OHF / track | mm                                                             |                          |
| Tyre size        | mm                                                             |                          |
| Wheel connection |                                                                |                          |
| Rim offset       | mm                                                             |                          |
| Wheel bolts      | Ball <input type="checkbox"/><br>Cone <input type="checkbox"/> |                          |

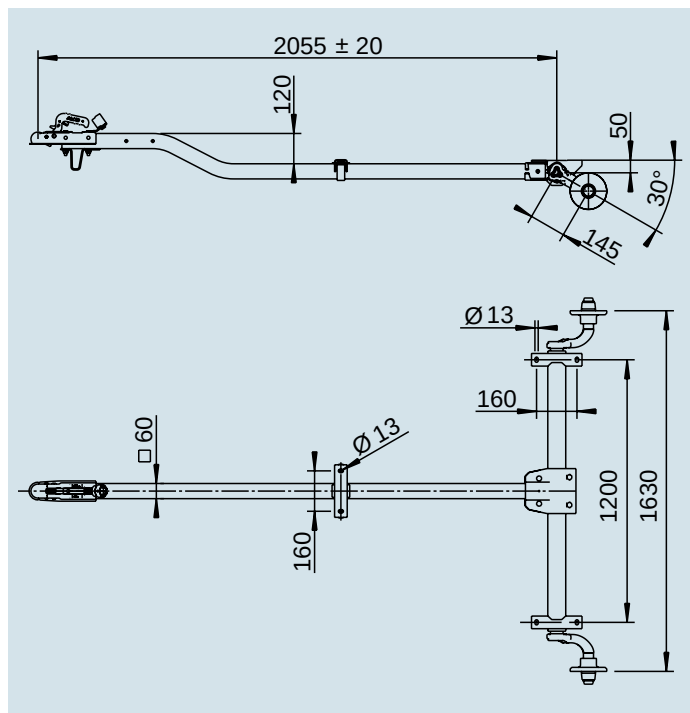
## GENERAL INFORMATION

|                             | Panel                    | Dropside                 |
|-----------------------------|--------------------------|--------------------------|
| Body                        | <input type="checkbox"/> | <input type="checkbox"/> |
| Permitted total weight (GA) | kg                       |                          |
| Free drawbar length         | mm                       |                          |

# T-CHASSIS

SA 750 kg, without frame

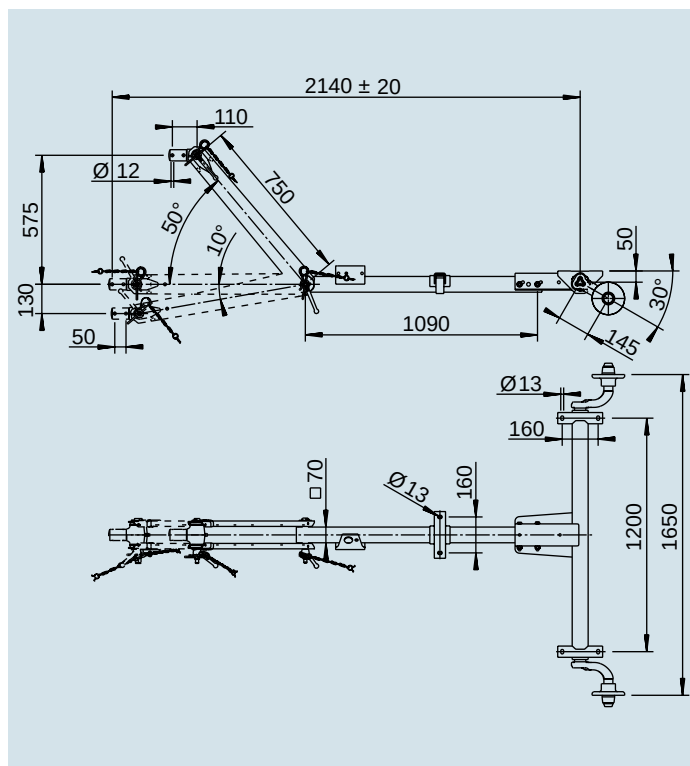
| T-chassis, 750 kg unbraked*                                                       |           |
|-----------------------------------------------------------------------------------|-----------|
| Part No                                                                           | 1 422 807 |
| Total weight                                                                      | 750 kg    |
|  | 40        |



| T-chassis, 750 kg, height adjustable, unbraked*                                     |           |
|-------------------------------------------------------------------------------------|-----------|
| Part No                                                                             | 1 422 808 |
| Total weight                                                                        | 750 kg    |
|  | 48        |



See comprehensive catalogue for matching drawbar eyes.



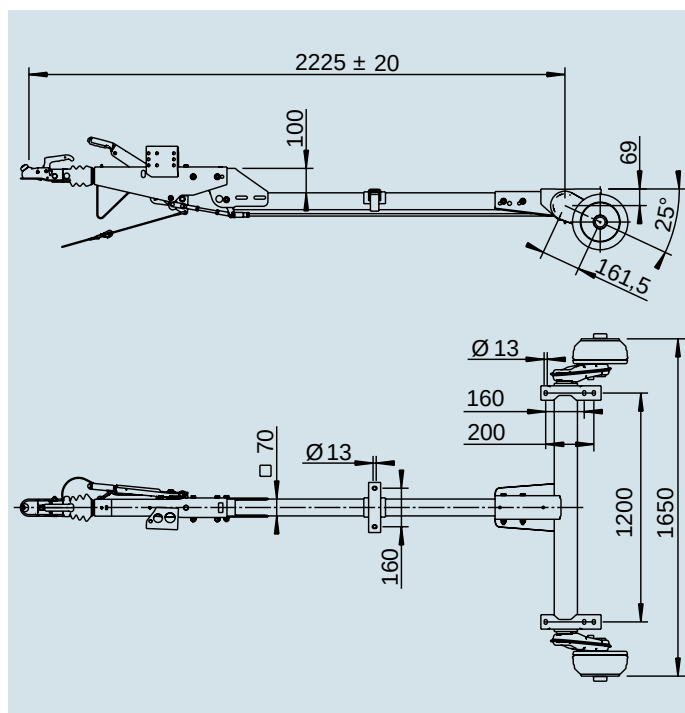
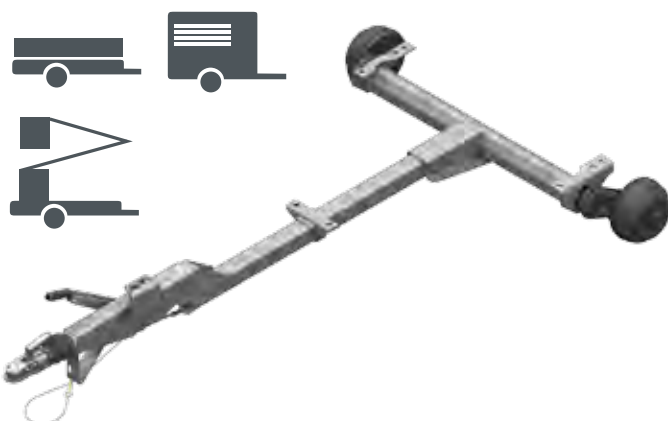
\* For the common dimensions of axle width and drawbar length, please refer to our comprehensive catalogue.

# T-CHASSIS

SA 1000 kg, without frame

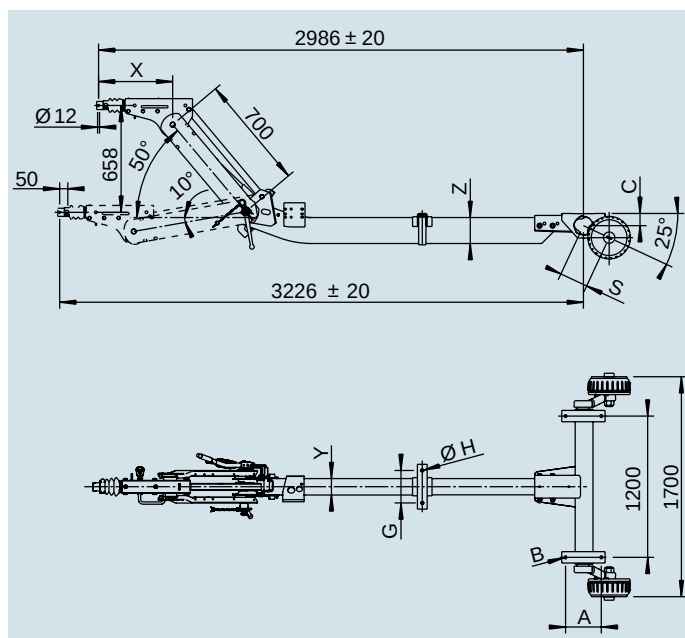
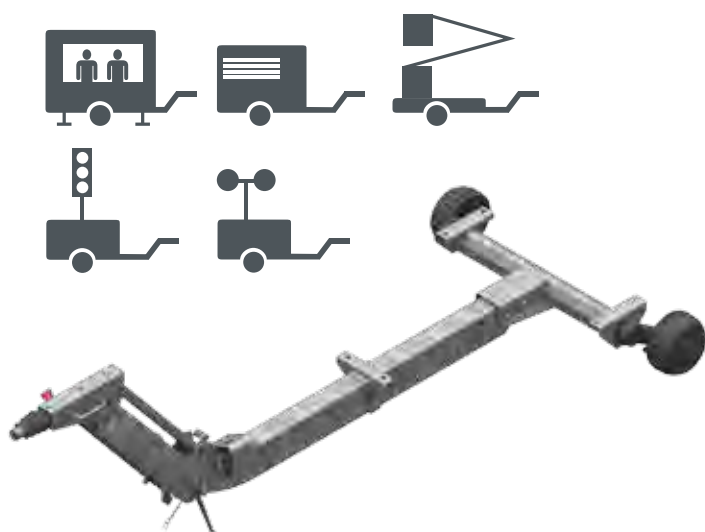
## T-chassis, braked\*

|                                                                                   |           |
|-----------------------------------------------------------------------------------|-----------|
| Part No                                                                           | 1 422 809 |
| Total weight                                                                      | 1000 kg   |
|  | 76        |
| Part No                                                                           | 1 422 810 |
| Total weight                                                                      | 1350 kg   |
|  | 84        |



## T-chassis, height-adjustable, braked\*

|                                                                                     |           |
|-------------------------------------------------------------------------------------|-----------|
| Part No                                                                             | 1 422 811 |
| Total weight                                                                        | 1000 kg   |
|  | 132       |
| Part No                                                                             | 1 422 812 |
| Total weight                                                                        | 1500 kg   |
|  | 138       |
| Part No                                                                             | 1 422 813 |
| Total weight                                                                        | 1800 kg   |
|  | 179       |



See comprehensive catalogue for matching drawbar eyes.

| Type     | X   | Y   | Z   | A   | B     | C  | G   | H  | S     |
|----------|-----|-----|-----|-----|-------|----|-----|----|-------|
| 101 VB   | 253 | 70  | 140 | 160 | 13x20 | 69 | 160 | 13 | 161.5 |
| 161 VB-2 | 457 | 80  | 140 | 160 | 13x20 | 69 | 160 | 13 | 161.5 |
| 251 VB-2 | 457 | 100 | 160 | 220 | Ø 18  | 75 | 200 | 18 | 175   |

\* For the common dimensions of axle width and drawbar length, please refer to our comprehensive catalogue.

# T-CHASSIS

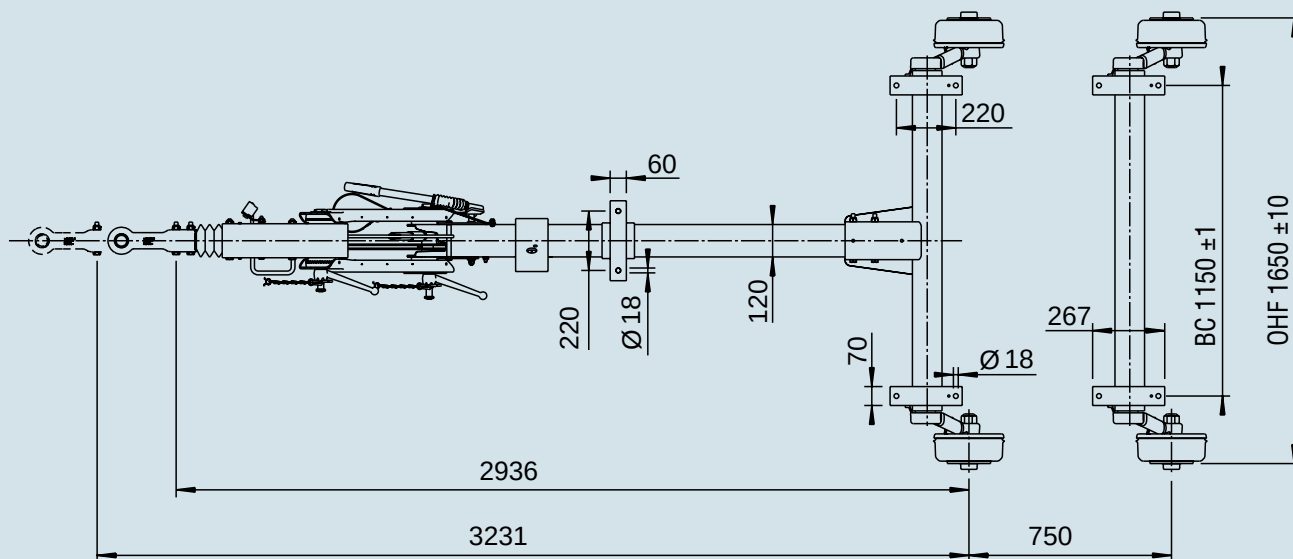
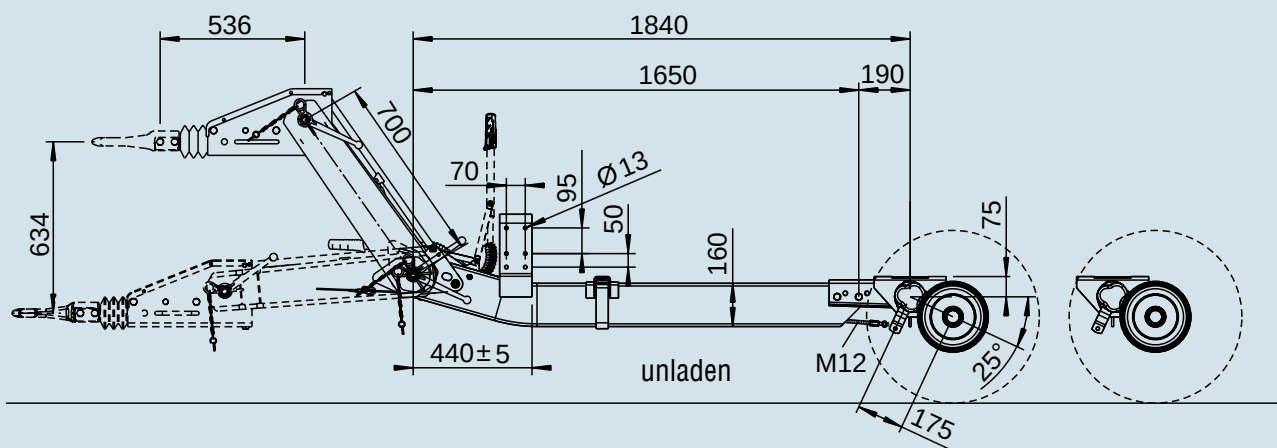
TA 3500 kg, without frame

**T-chassis,  
Height-adjustable, braked\***

Part No 1 730 763

Total weight 3500 kg

 216



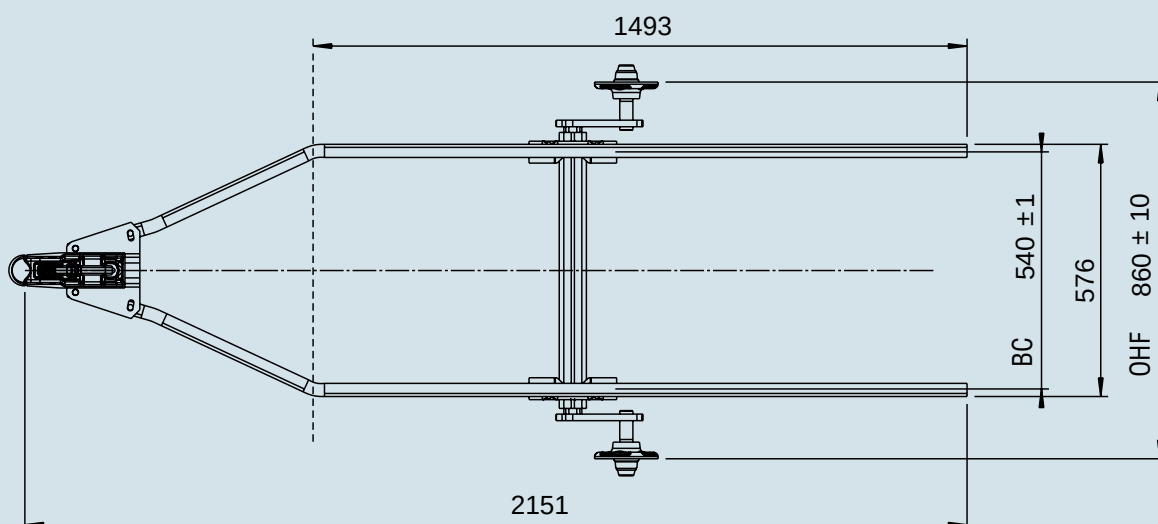
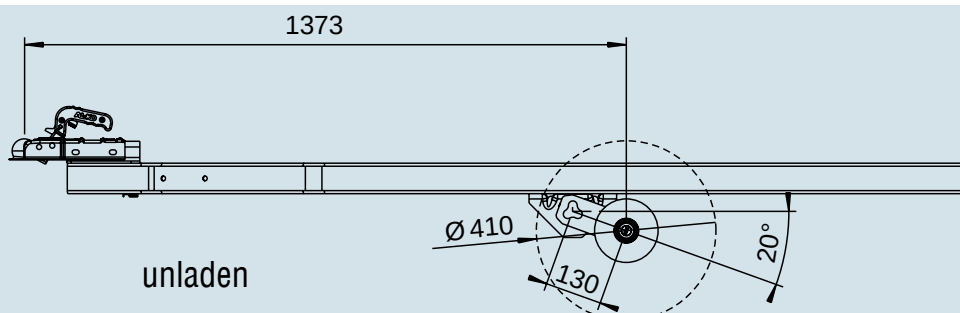
\* For the common dimensions of axle width and drawbar length, please refer to our comprehensive catalogue.

Chassis with and without frame

# LOW-LOADER CHASSIS

SA 500 kg, with frame

| Chassis for unbraked trailers |                 |                                                                                   |
|-------------------------------|-----------------|-----------------------------------------------------------------------------------|
| Part No                       | Total weight kg |  |
| 1 227 255                     | 500             | 31                                                                                |



# LOW-LOADER CHASSIS

SA 750 kg, with frame

Chassis e.g. for polyester bodies / motorcycle transports

Part No

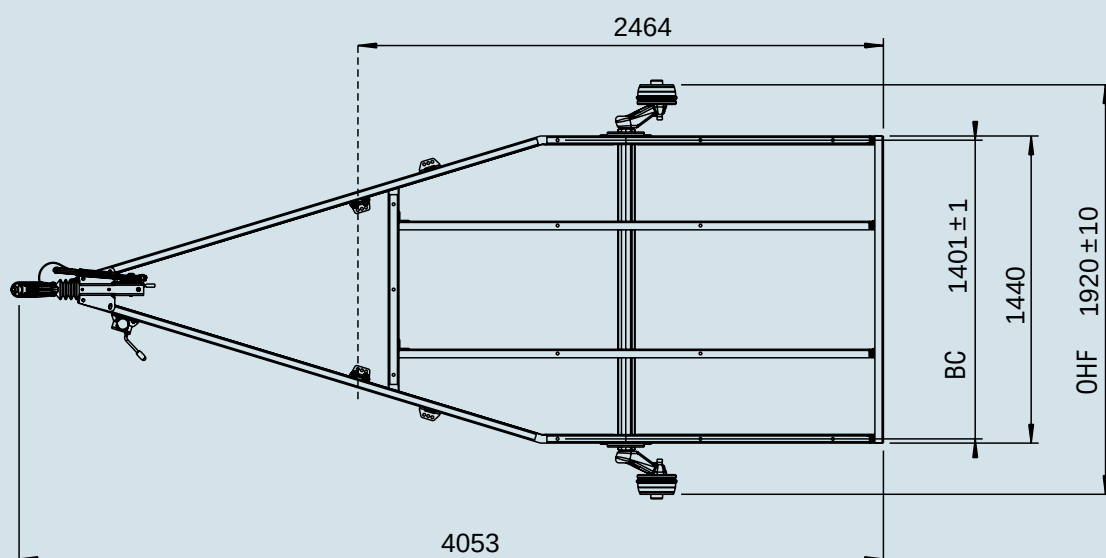
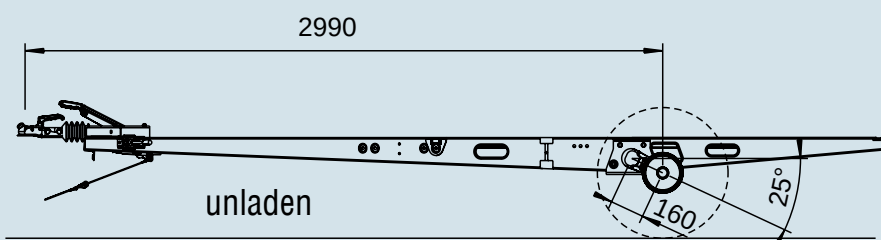
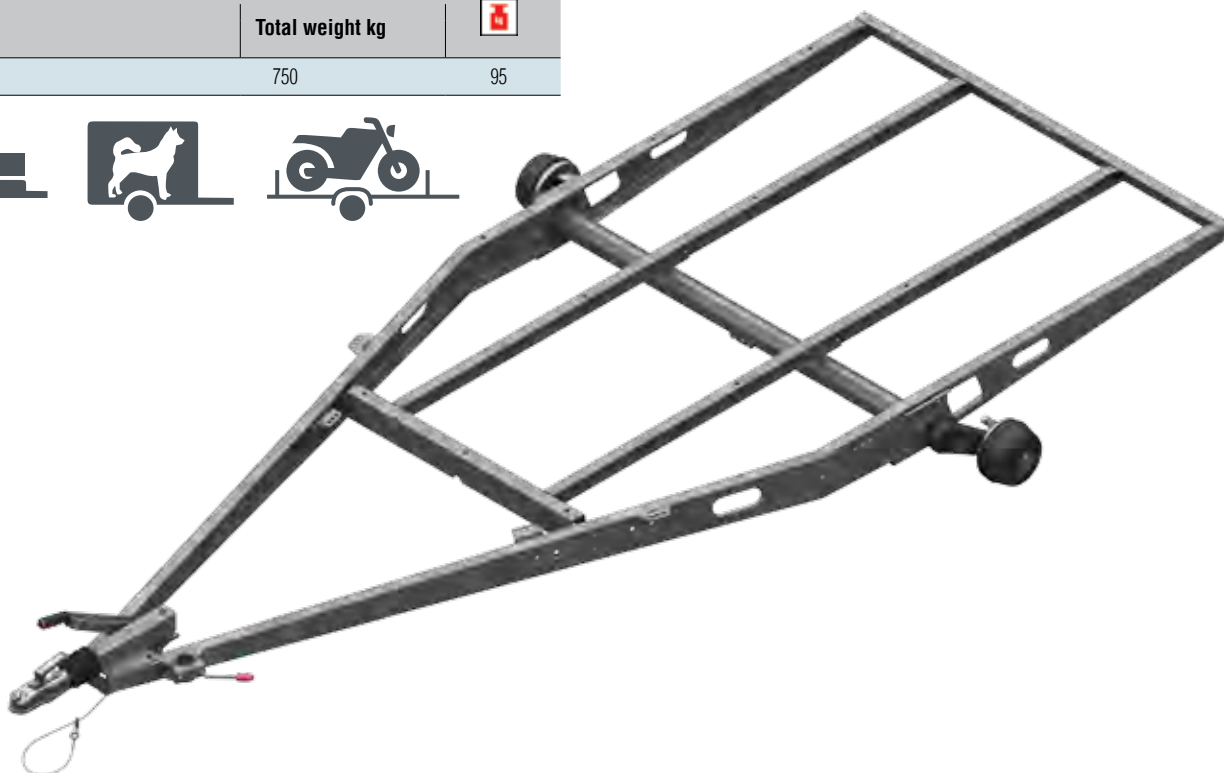
Total weight kg



1 422 968

750

95



Chassis with and without frame

# LOW-LOADER CHASSIS

SA 1500 kg, with frame

Chassis e.g. for polyester bodies / motorcycle transports

Part No

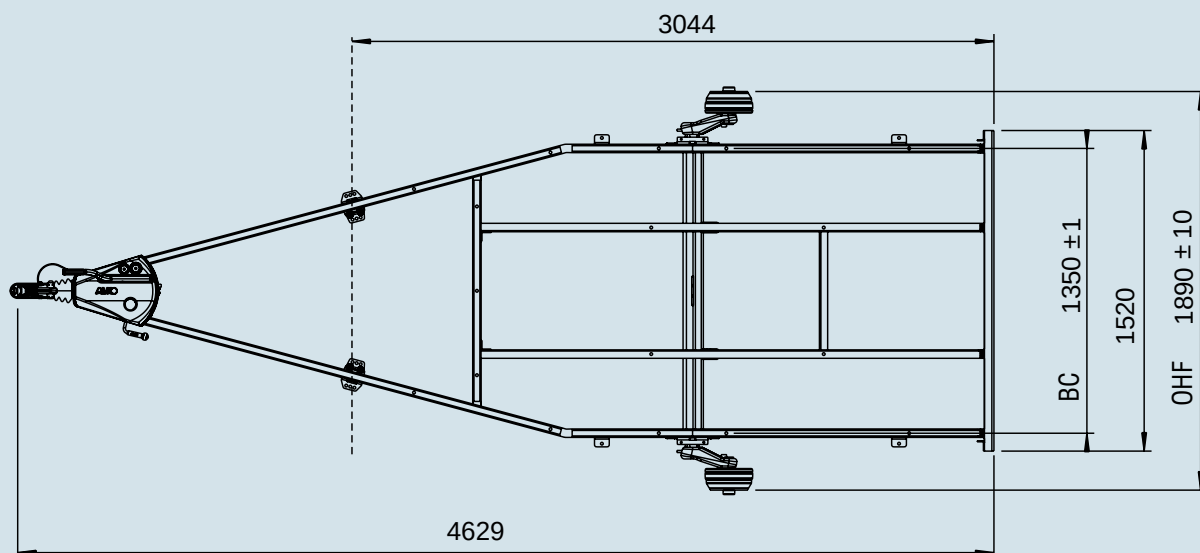
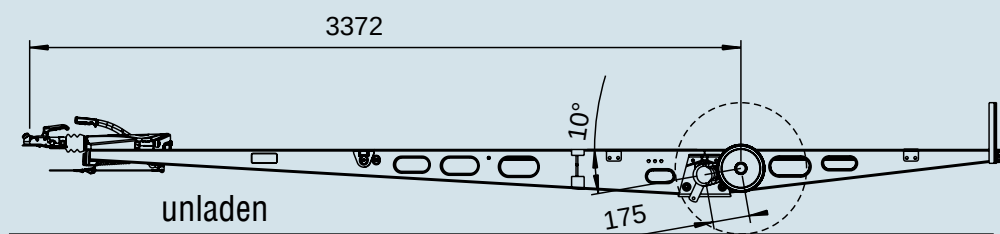
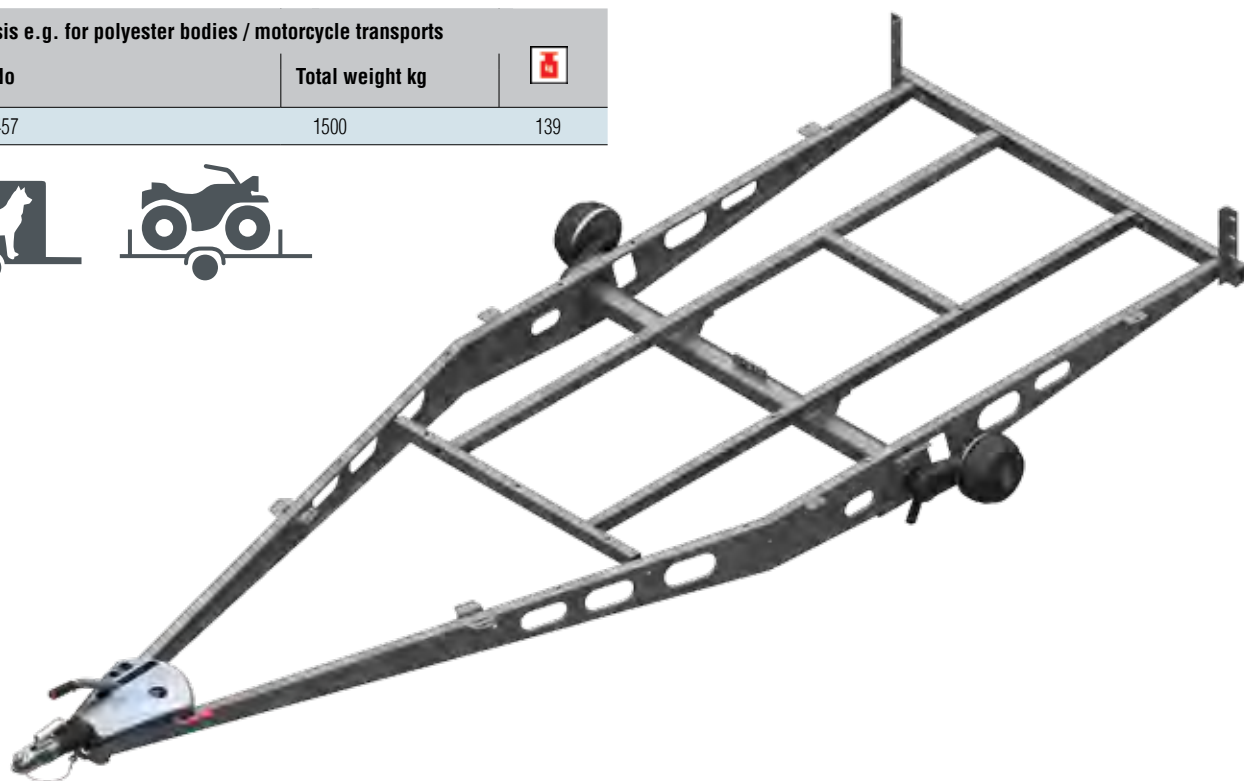
Total weight kg



1 422 457

1500

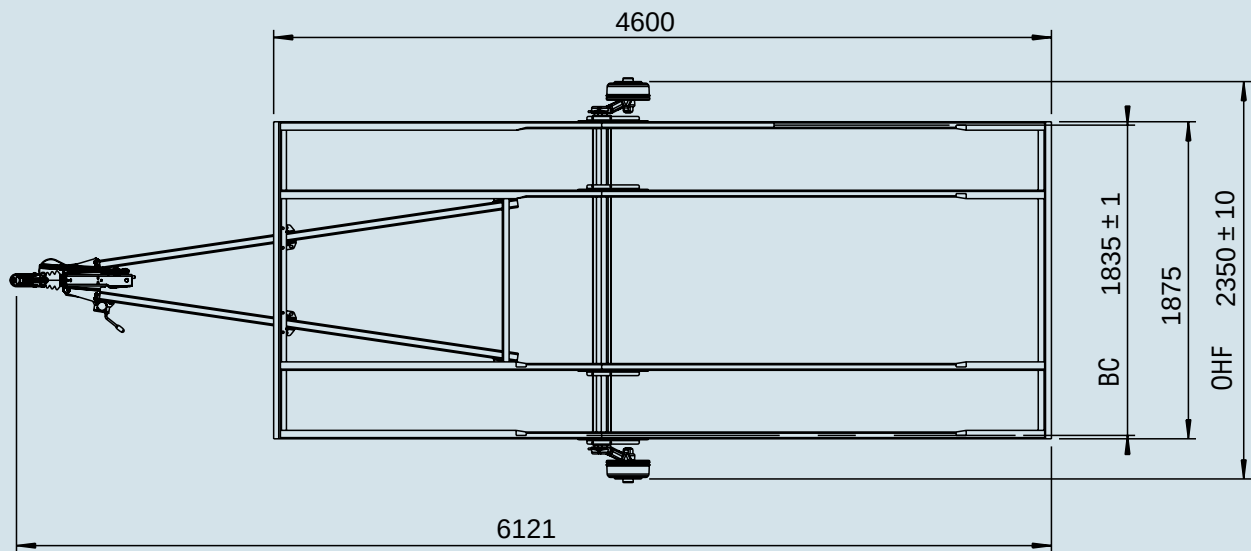
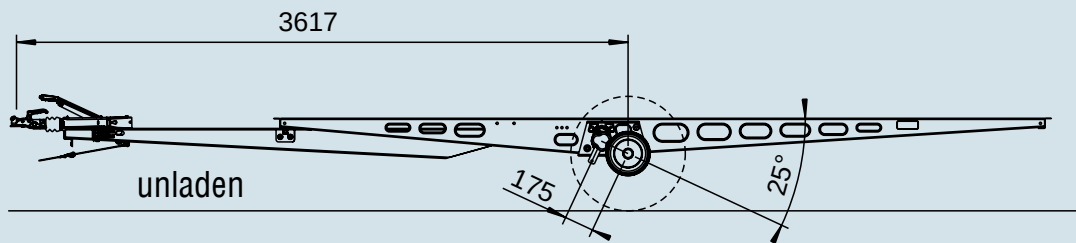
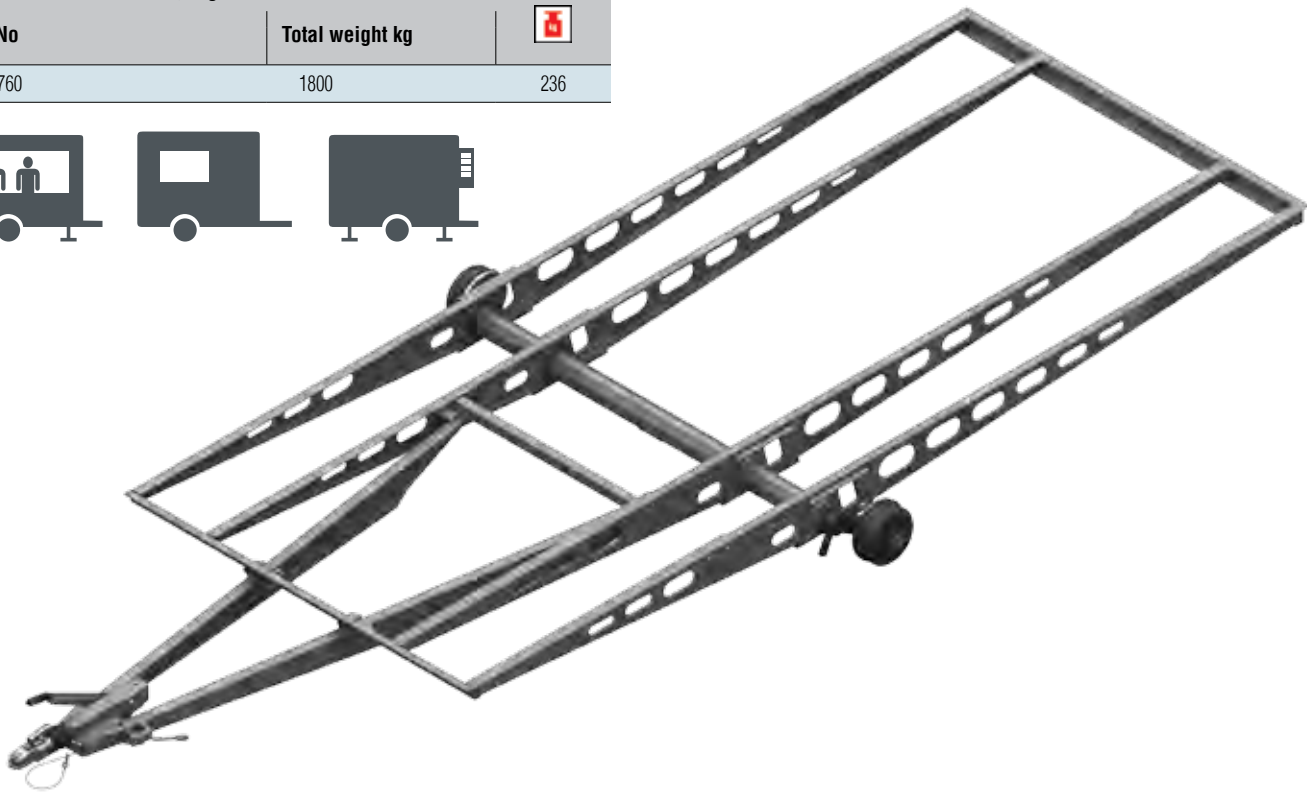
139



# LOW-LOADER CHASSIS

SA 1800 kg, with frame

| Chassis for closed bodies, e.g. sales trailers |                 |                                                                                   |
|------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|
| Part No                                        | Total weight kg |  |
| 1 422 760                                      | 1800            | 236                                                                               |



Chassis with and without frame

# LOW-LOADER CHASSIS

TA 2000 kg, with frame

Chassis for closed bodies, e.g. sales trailers

Part No

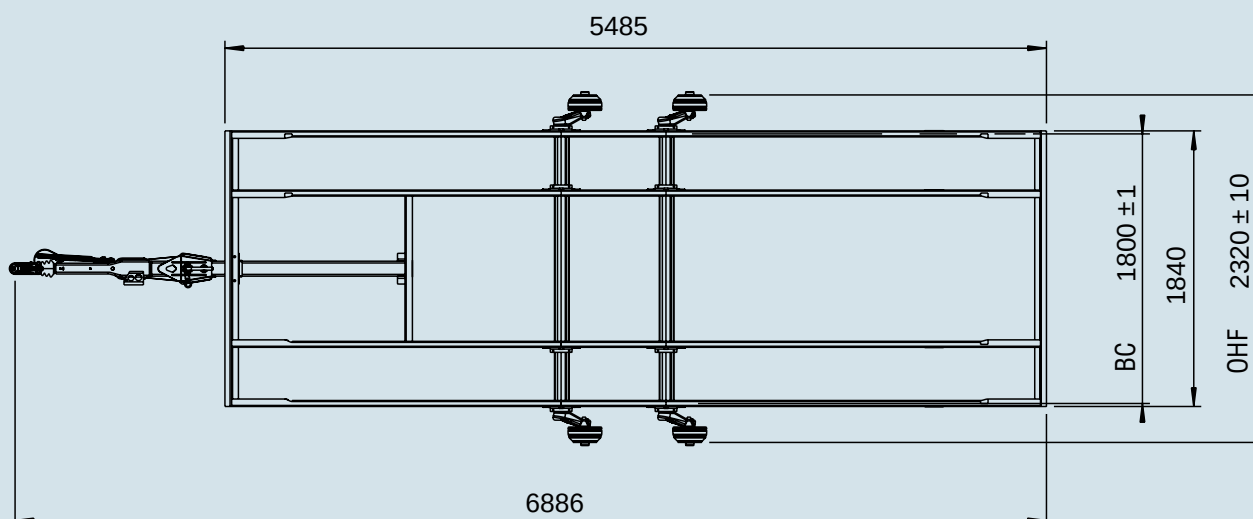
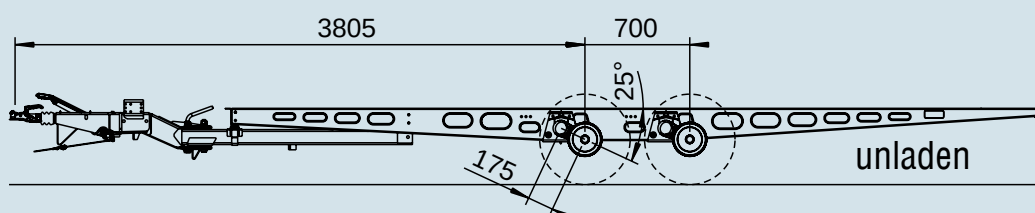
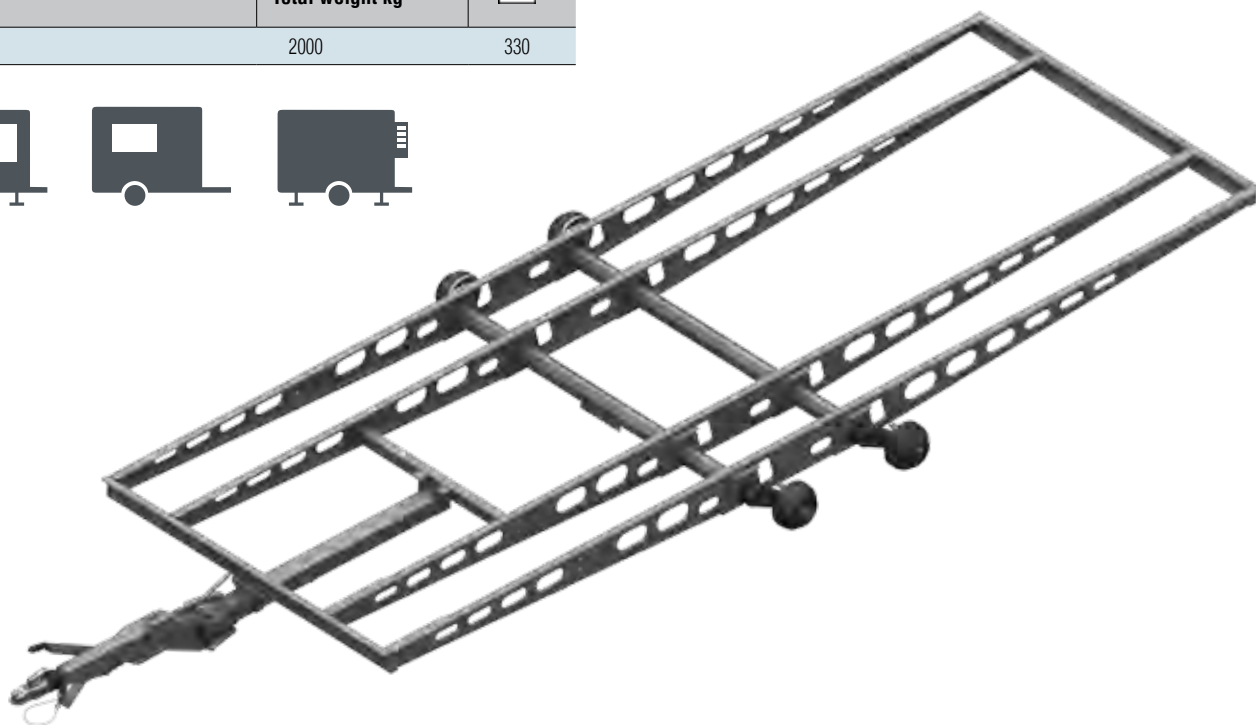
Total weight kg



1 422 130

2000

330



# LOW-LOADER CHASSIS

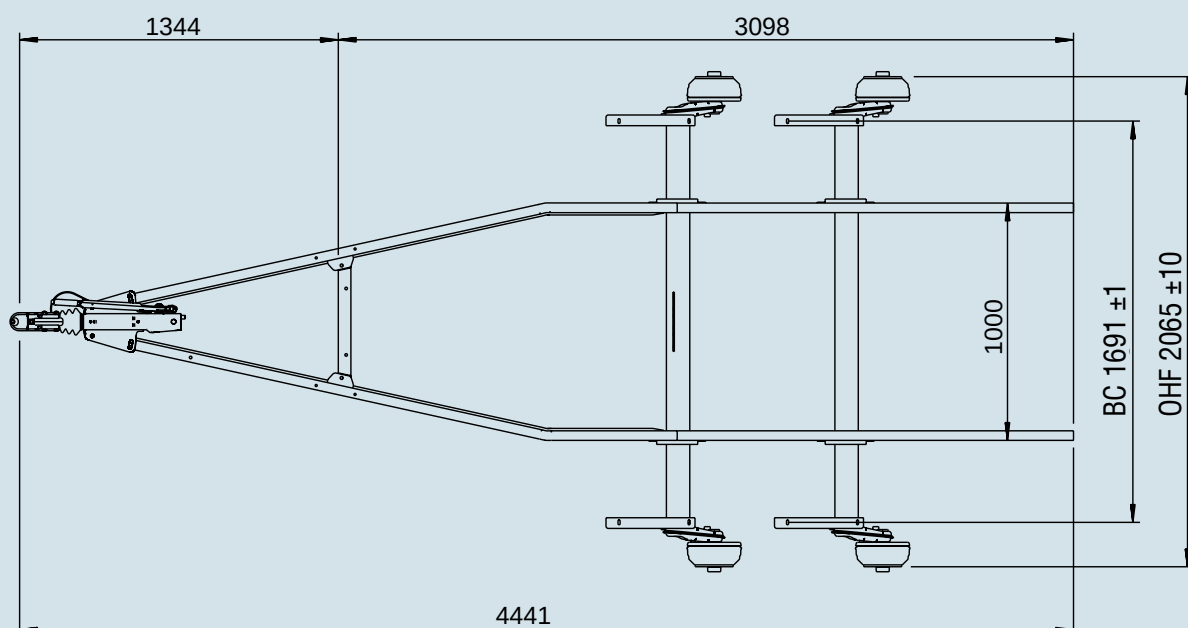
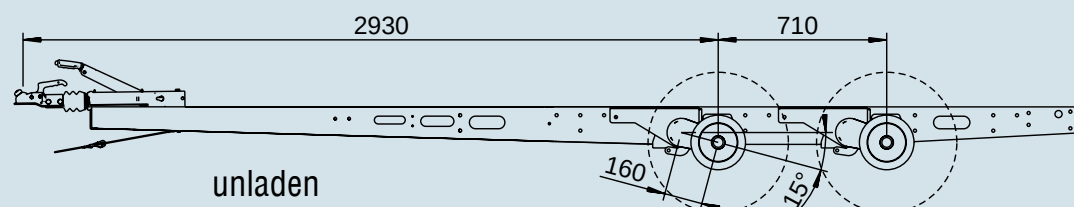
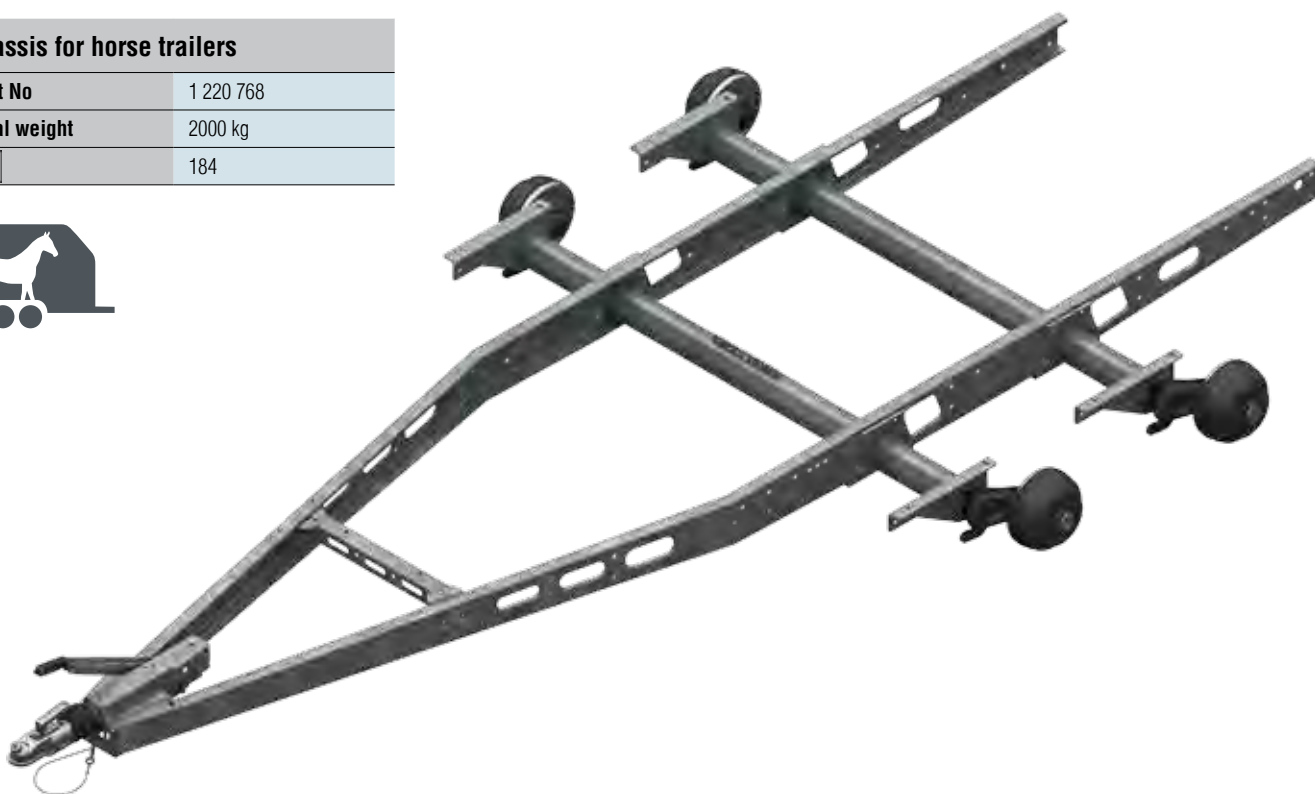
TA 2000 kg, without frame

## Chassis for horse trailers

Part No 1 220 768

Total weight 2000 kg

 184



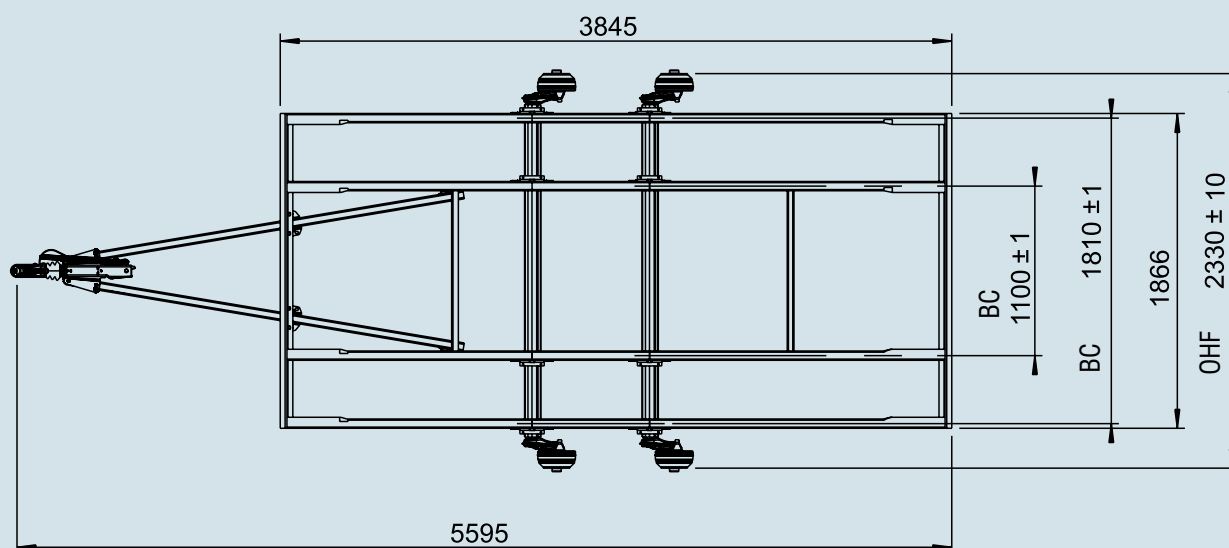
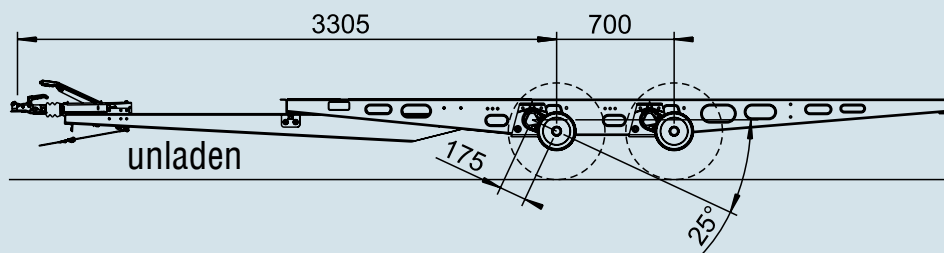
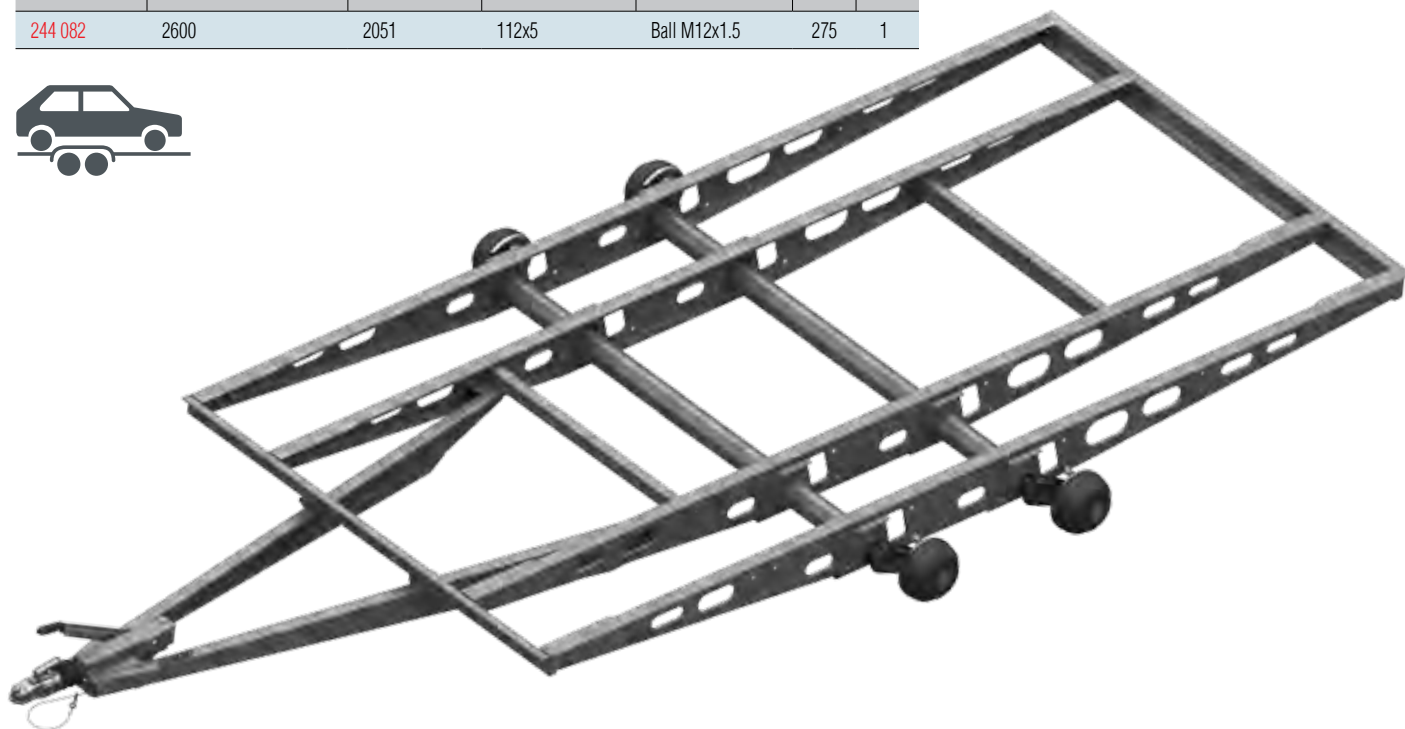
Chassis with and without frame

# LOW-LOADER CHASSIS

TA 2600 kg, with frame

Chassis for car transporters with straight rear

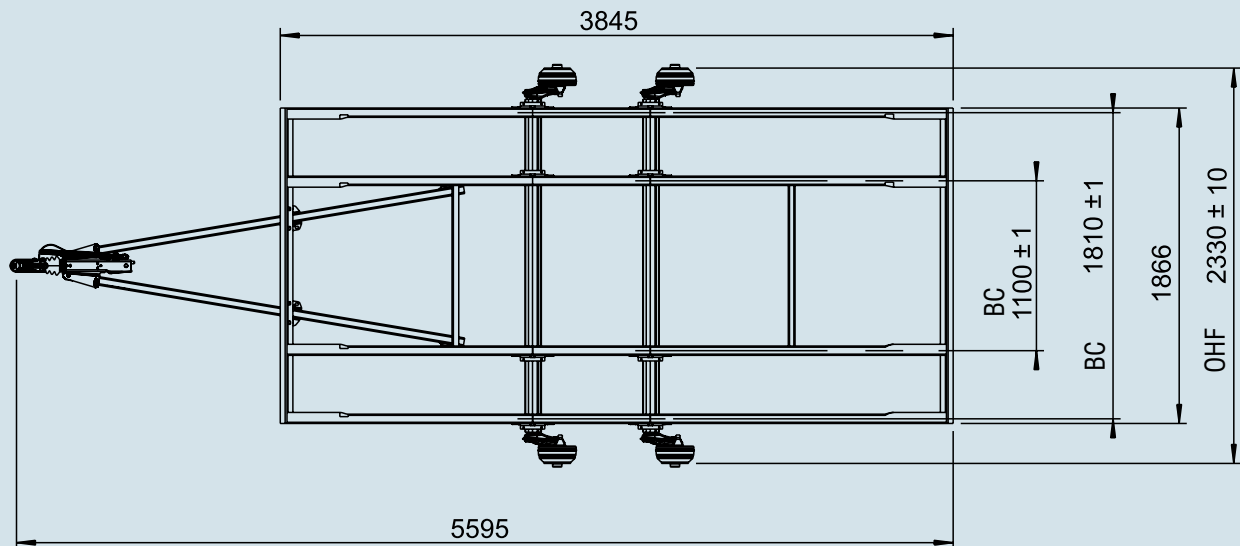
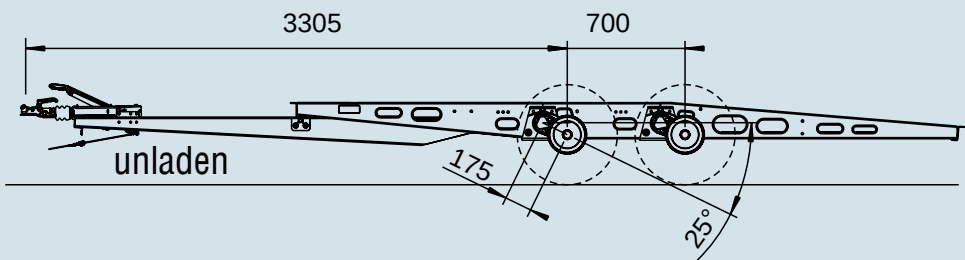
| Part No | Total weight kg | Wheel brake | Wheel connection | Wheel bolts  |  |  |
|---------|-----------------|-------------|------------------|--------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 244 082 | 2600            | 2051        | 112x5            | Ball M12x1.5 | 275                                                                               | 1                                                                                  |



# LOW-LOADER CHASSIS

TA 2600 kg, with frame

| Chassis for car transporters with sloping rear |                 |             |                  |              |                                                                                   |                                                                                    |
|------------------------------------------------|-----------------|-------------|------------------|--------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Part No                                        | Total weight kg | Wheel brake | Wheel connection | Wheel bolts  |  |  |
| 244 081                                        | 2600            | 2051        | 112x5            | Ball M12x1.5 | 275                                                                               | 1                                                                                  |



Chassis with and without frame

# LOW-LOADER CHASSIS

TA 2700 kg, with frame

Chassis for closed bodies, e.g. sales trailers

Part No

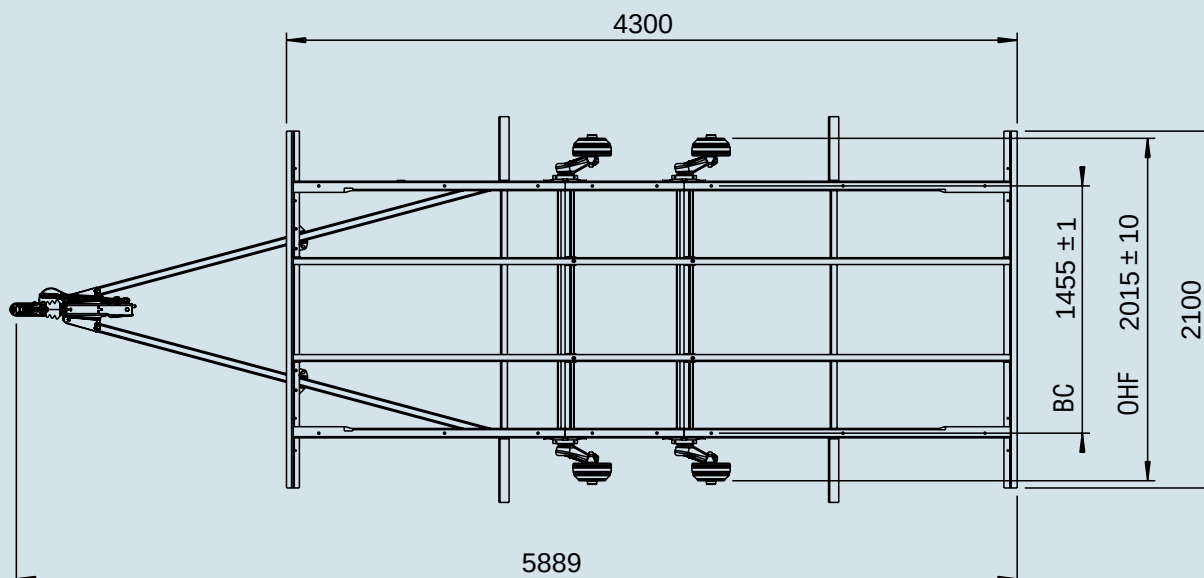
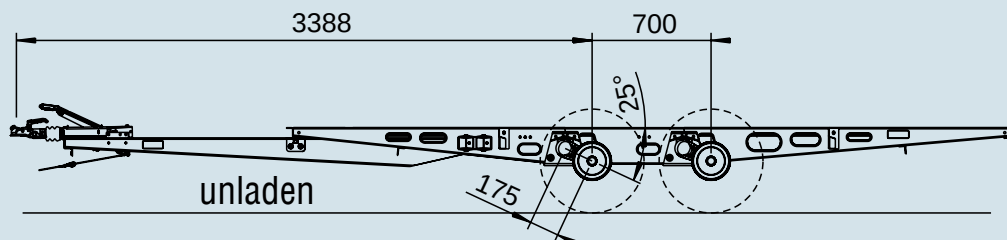
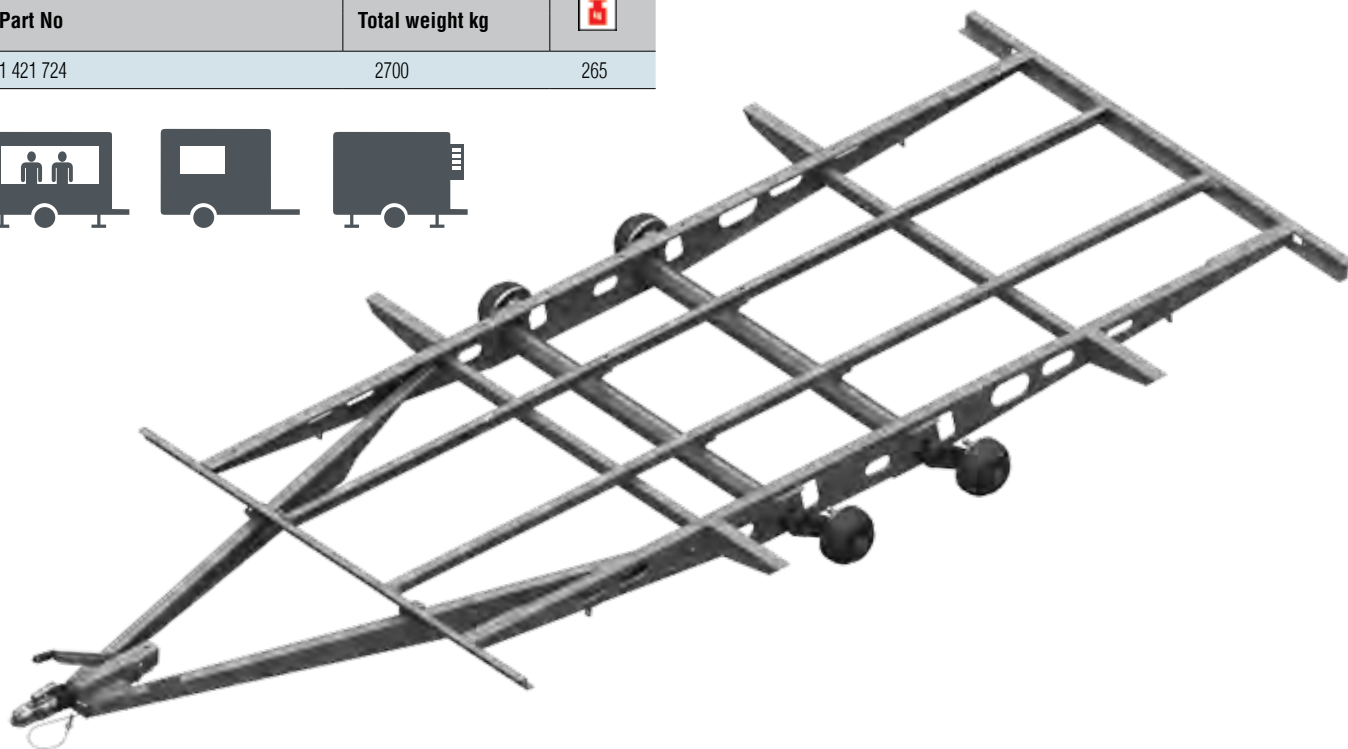
Total weight kg



1 421 724

2700

265



# LOW-LOADER CHASSIS

TA 3000 kg, with frame

Chassis for closed bodies, e.g. sales trailers

Part No

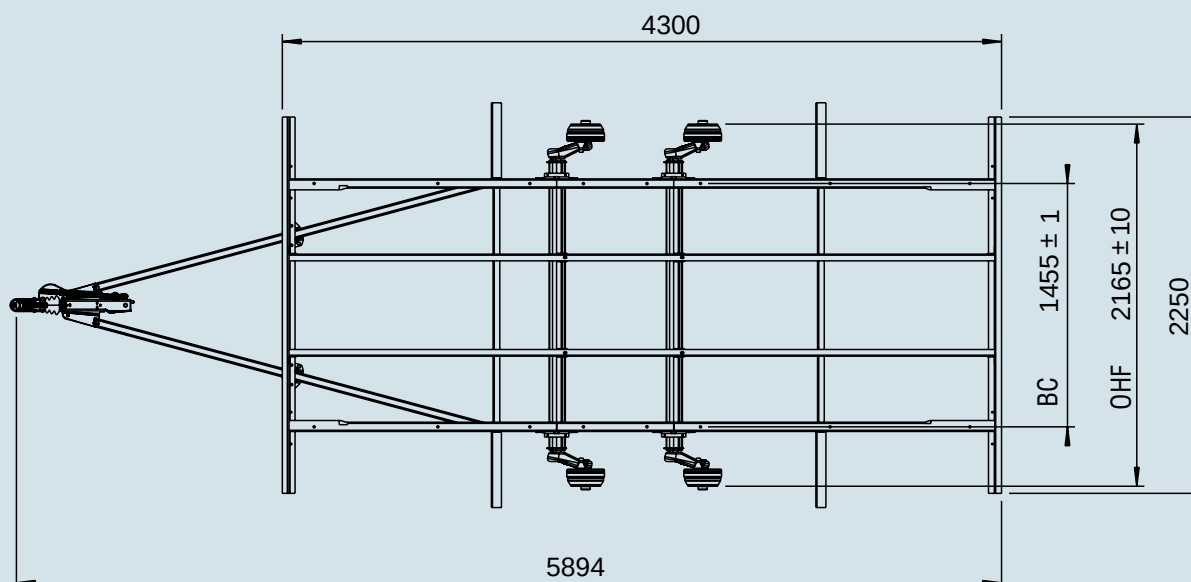
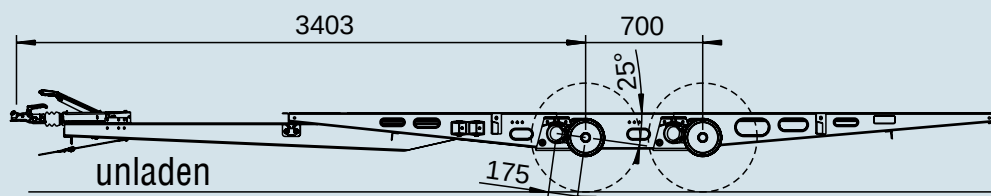
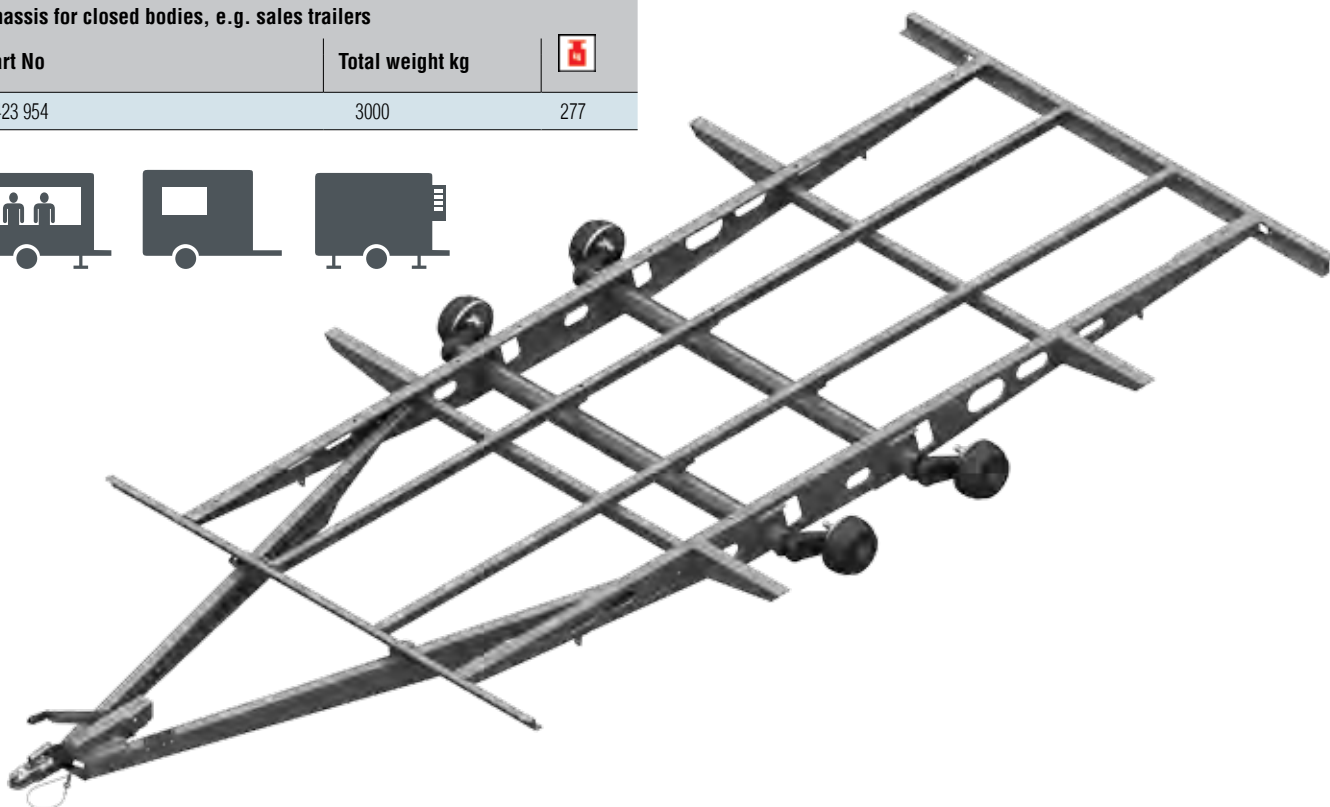
1 423 954

Total weight kg

3000



277



Chassis with and without frame

# LOW-LOADER CHASSIS

TA 3500 kg, with frame

Chassis for closed bodies, e.g. sales trailers

Part No

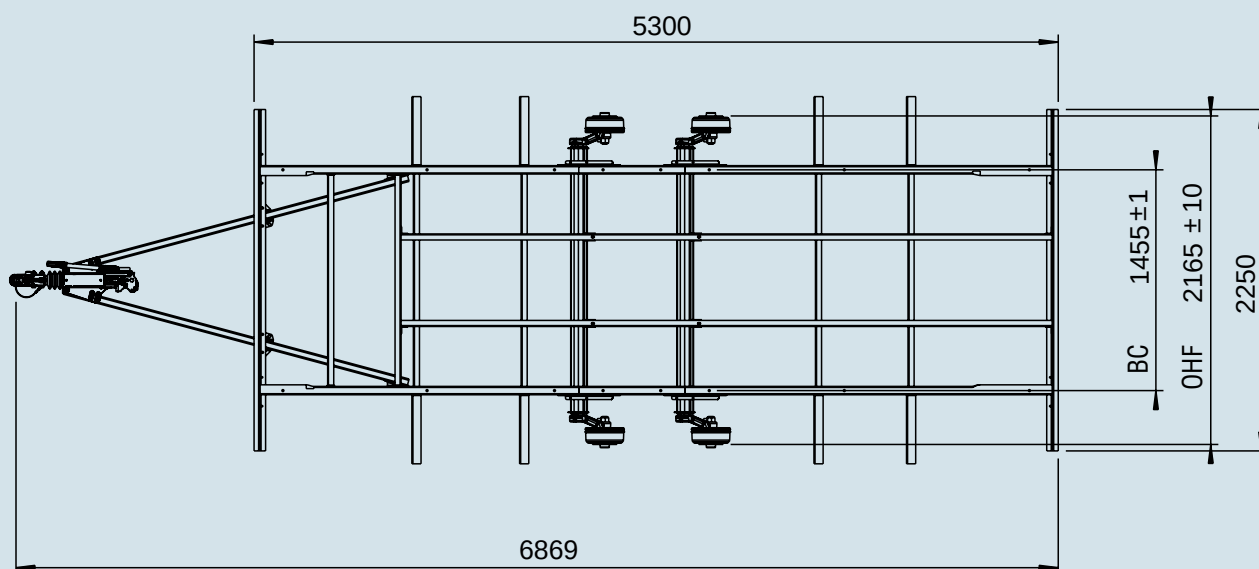
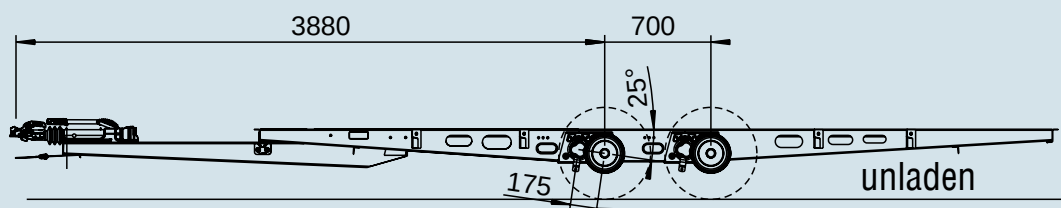
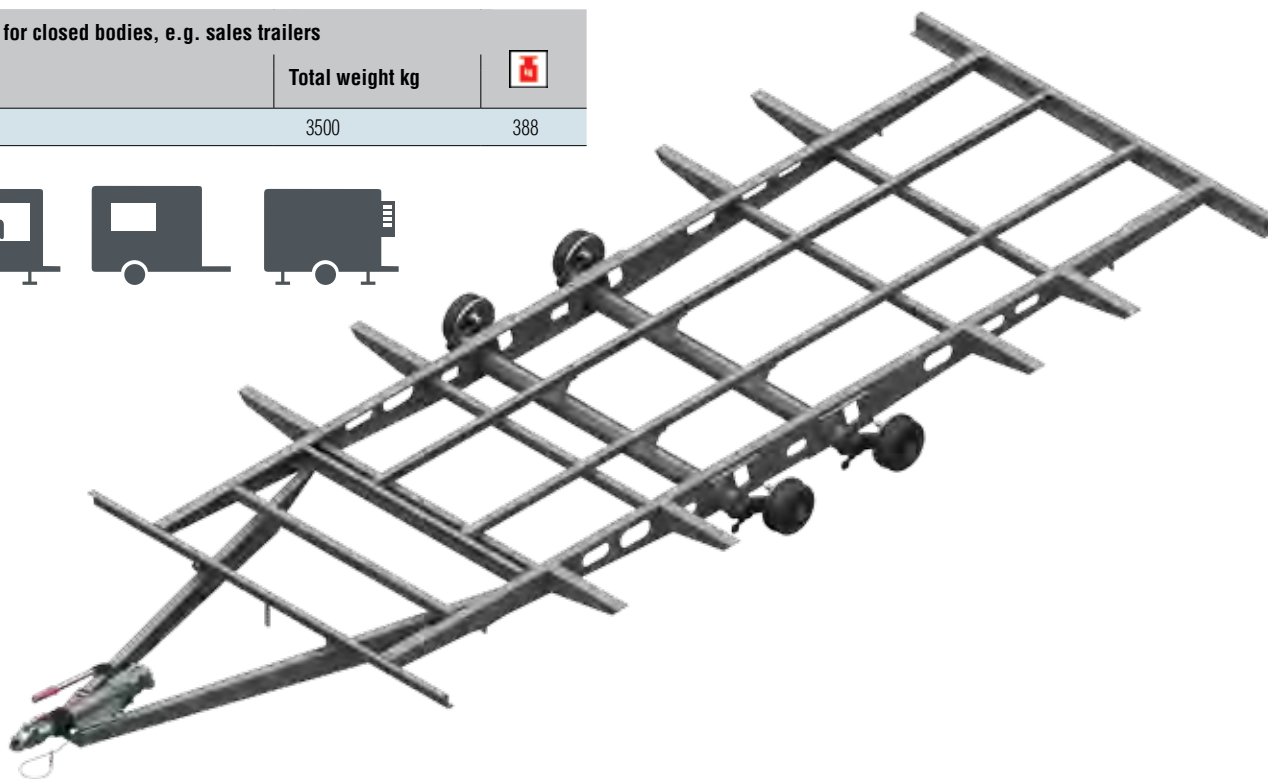
Total weight kg



1 423 918

3500

388



# HIGH-LOADER CHASSIS

SA 1300 kg, with frame

Chassis for transport trailer

Part No

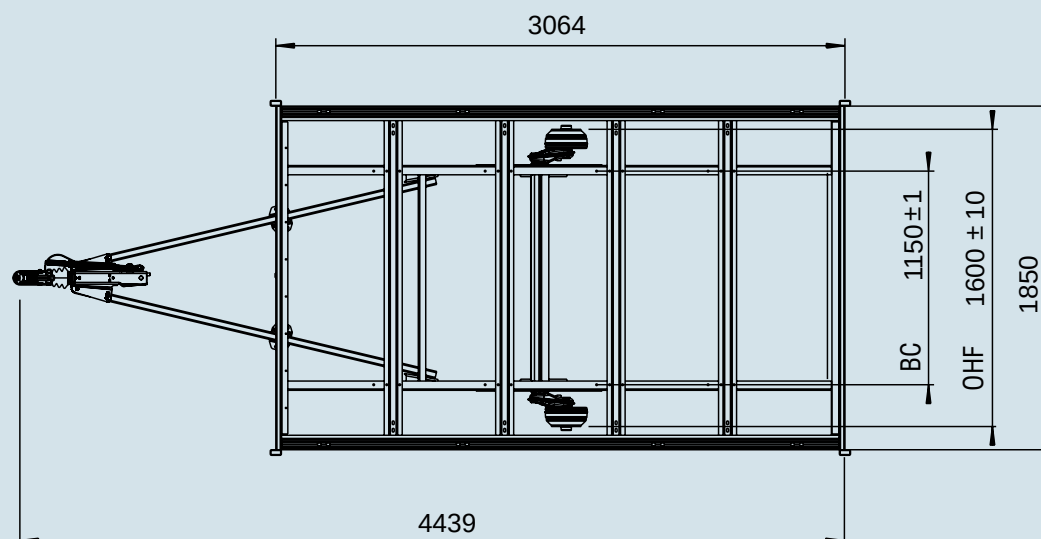
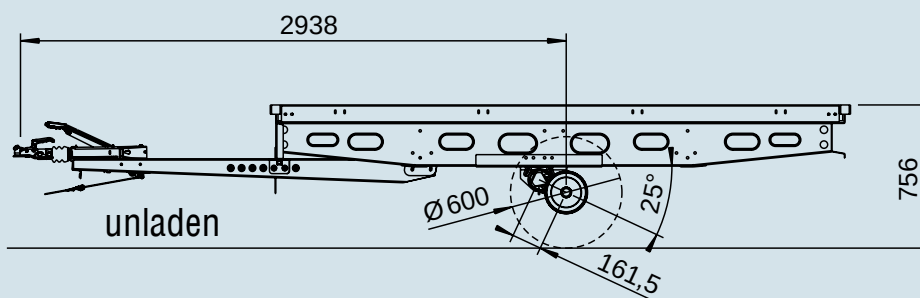
Total weight kg



1 227 571

1300

255



Chassis with and without frame

# HIGH-LOADER CHASSIS

SA 1500 kg, with frame

Chassis for transport trailer

Part No

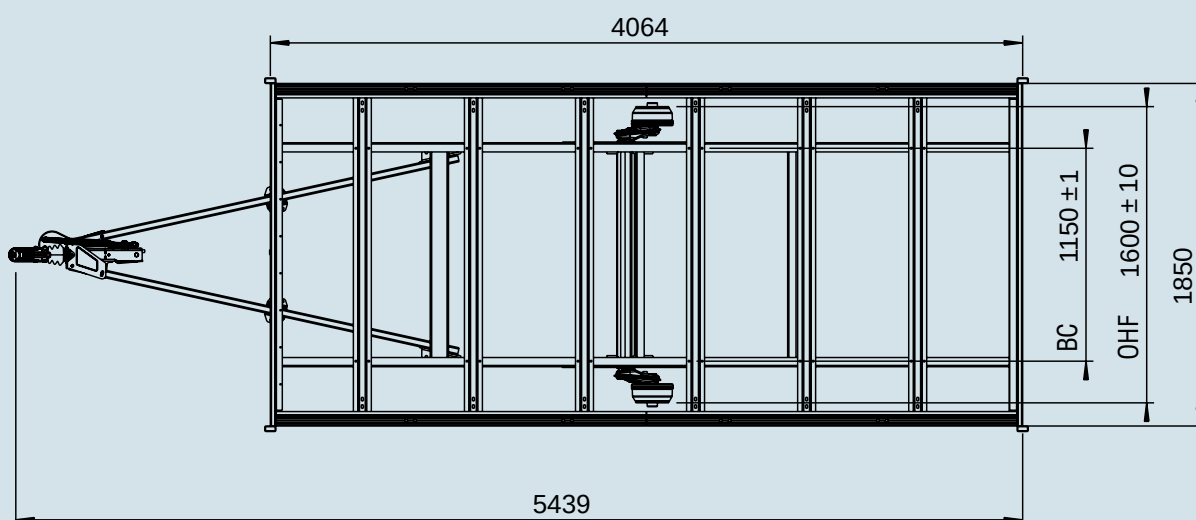
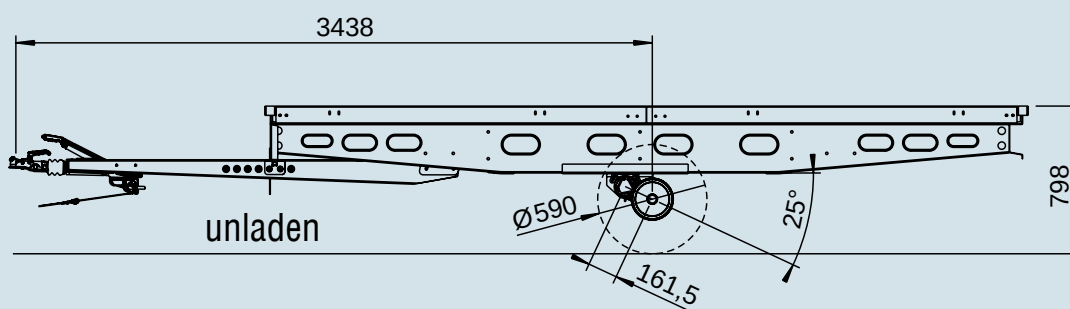
Total weight kg



1 227 392

1500

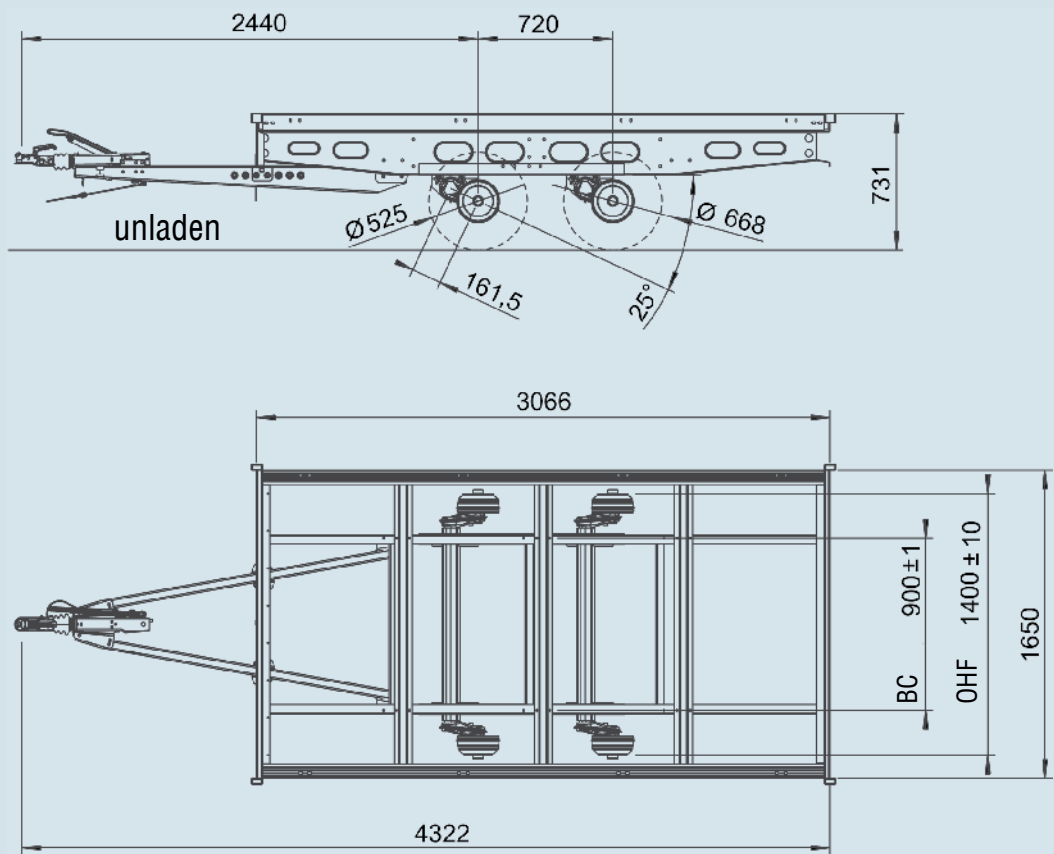
311



# HIGH-LOADER CHASSIS

TA 2000 kg, 2600 kg, with frame

| Chassis for transport trailer |                 |                                                                                   |
|-------------------------------|-----------------|-----------------------------------------------------------------------------------|
| Part No                       | Total weight kg |  |
| 1 227 570                     | 2000 kg         | 296                                                                               |
| 1 227 133                     | 2600 kg         | 296                                                                               |



Chassis with and without frame

# HIGH-LOADER CHASSIS

TA 3500 kg, with frame

Chassis for transport trailer

Part No

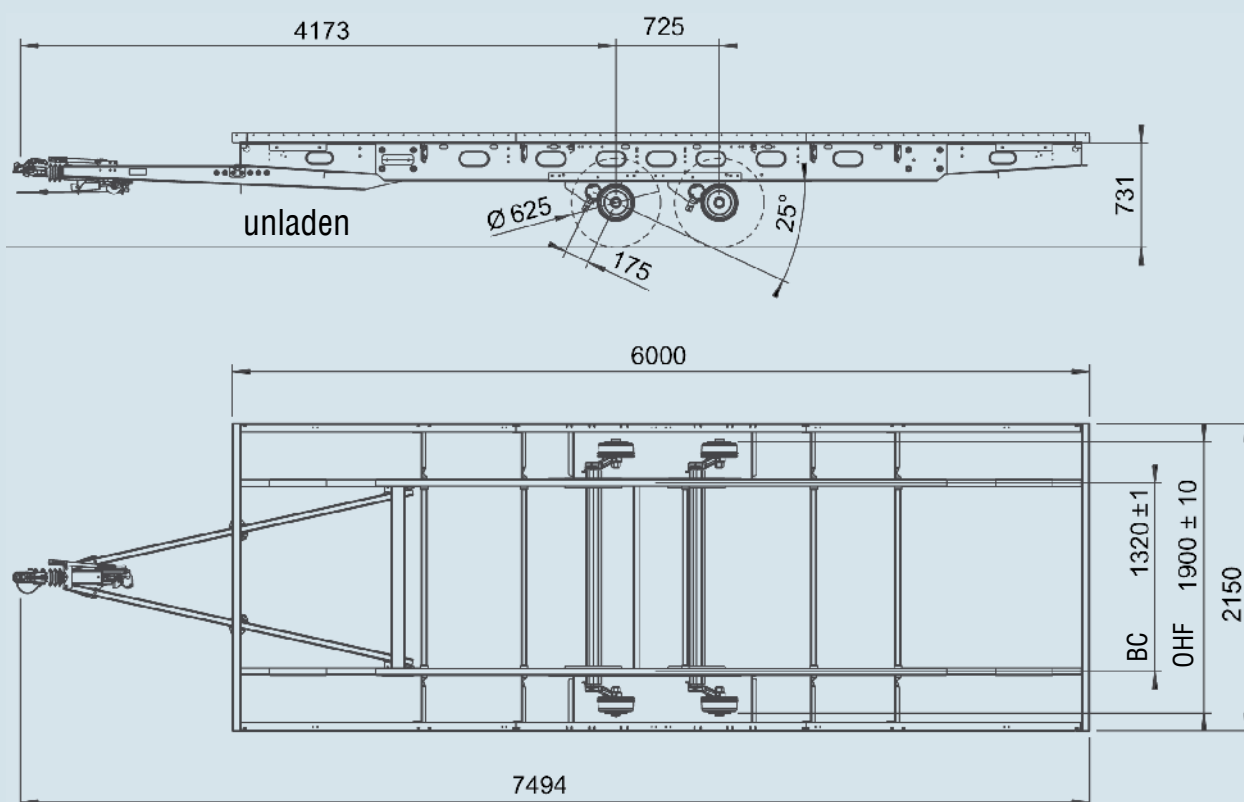
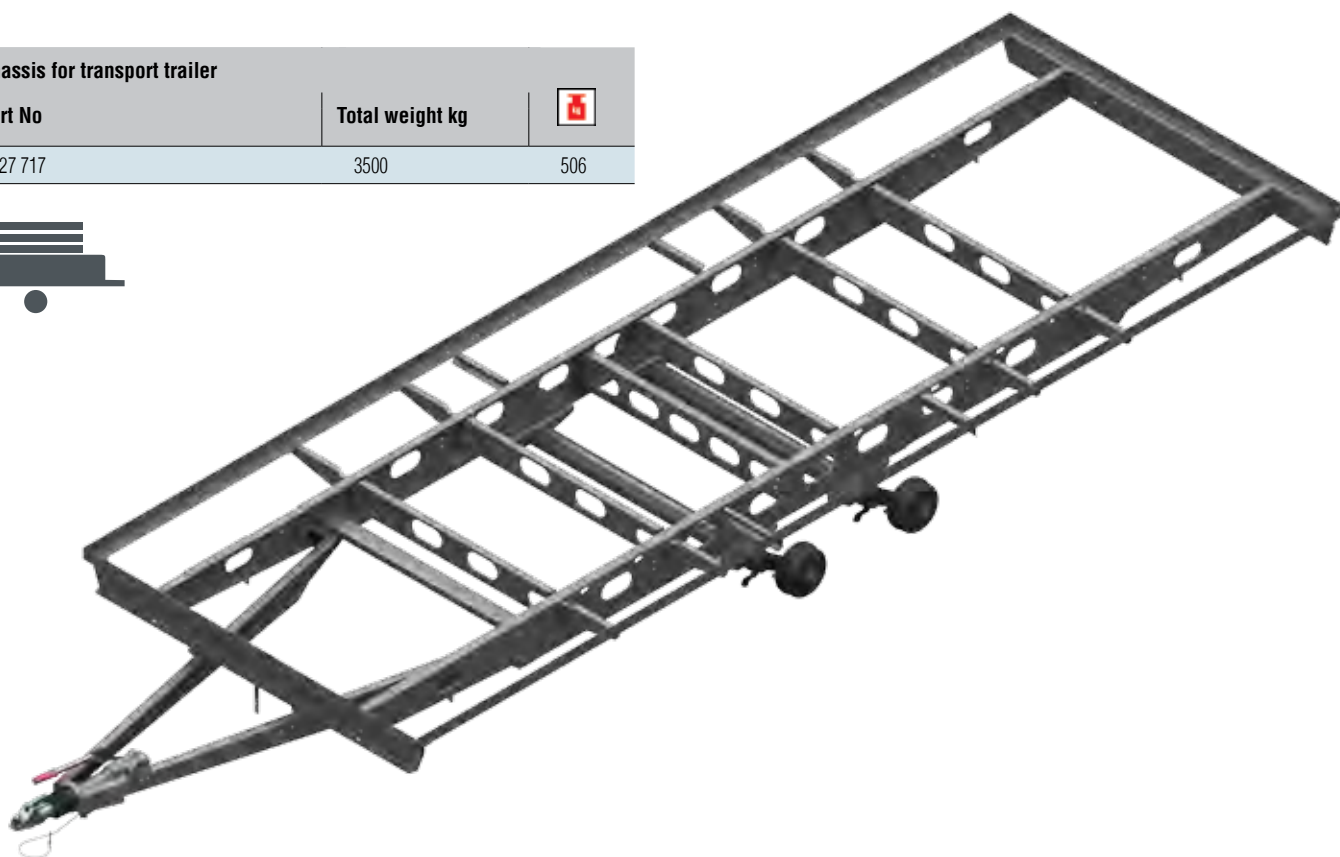
Total weight kg



1 227 717

3500

506



# TYRE AND RIM TABLE

| Permitted<br>total weight<br>of Trailer<br><br>(Tyre table for permitted maximum speed 80 km/h) | AL-KO axle type<br><br>B = Rubber suspension axle with mechanical brakes<br>BL = Rubber suspension axle with pneumatic brakes<br>BRA = Rubber suspension lowering axle to 210 mm<br>ASB = Rubber suspension lowering axle to 270 mm<br>BT = Steel suspension axle (lowering or with pneumatic brakes) | Recommended tyres     |                  |                 |     |               |      | Recommended rims |                     |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|-----------------|-----|---------------|------|------------------|---------------------|
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | Tyre size             | R<br>stat.<br>mm | R<br>dyn.<br>mm | PR* | Load capacity |      | Size             | Wheel<br>connection |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       |                       |                  |                 |     | kg            | bar  |                  |                     |
| Single axle up<br>to max. 1800 kg                                                               | B 1800 / BRA 1800 / ASB 1800 /<br>BL 1800                                                                                                                                                                                                                                                             | 185 R 14 C            | 300              | 320             | 8   | 900           | 4.5  | 5.5J x 14        | 112 x 5             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 195 R 14 C            | 302              | 321             | 8   | 900           |      | 6.5J x 14        | 112 x 5             |
| Single axle up<br>to max. 2500 kg                                                               | B 2500 / BRA 2500 / BL 2700                                                                                                                                                                                                                                                                           | 215 R 14 C (Bridgest) | 310              | 331             | 8   | 1250          |      | 6J x 14          | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 7.00 R 16 C           | 361              | 377             | 12  | 1285          | 6.00 | 6.00G-16         | 205 x 6             |
| Single axle up<br>to max. 3000 kg                                                               | BRA 3000 / BL 3000                                                                                                                                                                                                                                                                                    | 7.50 R 16 C           | 371              | 389             | 12  | 1500          | 6.75 | 6.00G-16         | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 225/75 R 16 C         | 338              | 358             |     | 1575          | 6.75 | 6J x 16H2        | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 215/75 R 17.5         | 359              | 371             |     | 1600          | 7.00 | 17.5 x 4.00      | 205 x 6             |
| Single axle up<br>to max. 3500 kg                                                               | BT 3500 (lowering)                                                                                                                                                                                                                                                                                    | 235/75 R 17.5         | 363              | 387             |     | 2 725         | 9.00 | 17.5 x 6.75      | 205 x 6             |
| Single axle up<br>to max. 4000 kg                                                               | BT 4000 (compressed air-braked)                                                                                                                                                                                                                                                                       | 235/75 R 17.5         | 363              | 387             |     | 2725          | 9.00 | 17.5 x 6.75      | 205 x 6             |
| Tandem up to<br>max. 3500 kg                                                                    | 2 x BRA 1800 / 2 x BL 1800                                                                                                                                                                                                                                                                            | 185 R 14 C            | 300              | 320             | 8   | 900           | 4.50 | 5.5J x 14        | 112 x 5             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 195 R 14 C            | 320              | 321             | 8   | 900           |      | 5.5J x 14        | 112 x 5             |
| Tandem up to<br>max. 5000 kg                                                                    | 2 x BL 2700                                                                                                                                                                                                                                                                                           | 215 R 14 C (Bridgest) | 310              | 331             | 8   | 1250          |      | 6J x 14          | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 7.00 R 16 C           | 361              | 377             | 12  | 1285          | 6.0  | 6.00G-16         | 205 x 6             |
| Tandem up to<br>max. 6500 kg                                                                    | 2 x BL 3000                                                                                                                                                                                                                                                                                           | 7.50 R 16             | 371              | 389             | 12  | 1500          | 6.75 | 6.00G-16         | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 225/75 R 16           | 338              | 358             |     | 1575          | 6.75 | 6J x 16H2        | 205 x 6             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 215/75 R 17.5         | 371              | 371             |     | 1600          | 7.00 | 17.5 x 6.00      | 205 x 6             |
| Tandem up to<br>max. 7500 kg                                                                    | 2 x BT 4000 (compressed air-braked)                                                                                                                                                                                                                                                                   | 235/75 R 17.5         | 363              | 387             |     | 2725          | 9.00 | 17.5 x 6.75      | 205 x 6             |
| Tri-axle up to<br>max. 4300 kg                                                                  | 3 x BL 1800                                                                                                                                                                                                                                                                                           | 195/50 R 13 C         | 240              | 255             | 8   | 900           | 6.25 | 5.5J x 13        | 112 x 5             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 185 R 14 C            | 300              | 320             | 8   | 900           | 4.50 | 5.5J x 14        | 112 x 5             |
| Tri-axle up to<br>max. 5400 kg                                                                  | 3 x BL 2000                                                                                                                                                                                                                                                                                           | 195/50 R 13 C         | 240              | 255             | 8   | 900           | 6.25 | 5.5J x 13        | 112 x 5             |
|                                                                                                 |                                                                                                                                                                                                                                                                                                       | 185 R 14 C            | 300              | 320             | 8   | 900           | 4.50 | 5.5J x 14        | 112 x 5             |

\* = Ply rating = number of layers in carcass

All tyre and rim information is subject to correction. Contact the dealer or manufacturer to confirm the load rating of tyres and rims.

The tyres and rims specified in the table are only excerpts from tyre and rim handbooks. If you have further detailed questions about tyres and rims, please contact your tyre and rim dealer or your tyre and rim manufacturer.

The vehicle manufacturer must coordinate the tyres and rims with the axle. AL-KO's warranty does not apply. Tyres and rims are not included in the AL-KO delivery range.

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Order no.: 499 205

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# NOTES

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