

AirgoLift

Wheel Lifting Device for Wheel Balancers

Item No. 916 000 017

Item No. 916 000 021



Operating Instructions

(Translation of the Original Operating Instructions)

GEB 001 166

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Last updated: April 2022

Subject to technical modifications.

Version 3.0

Figures: HAWEKA AG / D-30938 Burgwedel

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1. General Safety Instructions



The AirgoLift has been designed and built after careful selection of applicable harmonised standards. Thus, it conforms to the current state-of-the-art technology and provides the highest degree of safety during operation.

Structural modifications to the wheel lifting device must only be carried out with previous written authorisation from the manufacturer!

Device safety can only be implemented during practical operation if all required applicable measures have been taken. The operator's duty of care includes planning such measures and checking their implementation.

In particular, the operator has to ensure that

- the device is only used for its intended purpose
- the device is only used in a fully functioning state and free from defects
- the complete operating instructions are permanently available in a readable condition at the operating location of the device
- the device is only operated by accordingly qualified and authorised personnel
- personnel are regularly instructed in all relevant health and safety issues and are familiar with the operating instructions, in particular with the safety instructions contained therein

1.1 Explanation of symbols

These operating instructions contain specific safety instructions. The following symbols are used for this purpose:



This symbol indicates potential danger to the device and material.



Warning if injuries

This symbol indicates potential danger to persons.



This symbol does not indicate a safety instruction; it labels information provided for a better understanding of work procedures.

2. Product Description

2.1 Authorised intended use

The AirgoLift has been

developed and constructed to easily and comfortably lift vehicle wheels that must be installed on a wheel balancer.

The AirgoLift is exclusively used

to raise and lower vehicle wheels in conjunction with a wheel balancer.

The AirgoLift must

only be used for wheels up to 70 kg and a max. diameter of 900 mm (36 inch).

When correctly used, the wheel lifting device AirgoLift enables a wheel to be correctly clamped on the shaft of the wheel balancer.

During the clamping procedure, there is no loading of the wheel on the shaft and no pretension occurs in the connection!

2.2 Transport weight and dimensions



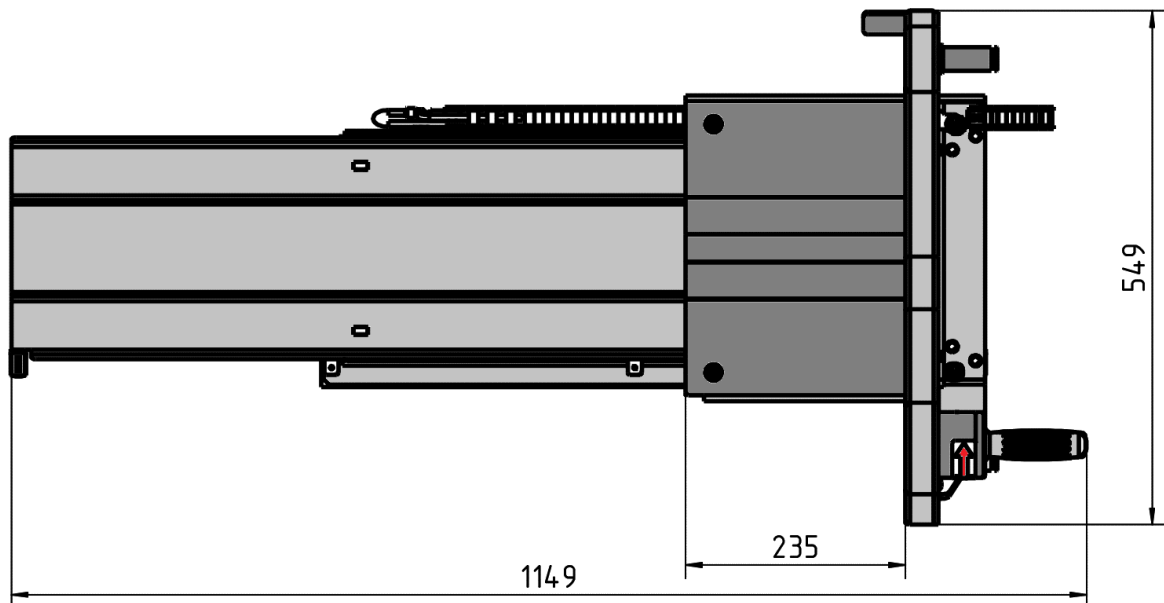
Transport weight: 40,5 kg

Carton Dimensions: (L x W x H) 115 x 60 x 33 cm

2.3 Technical Data

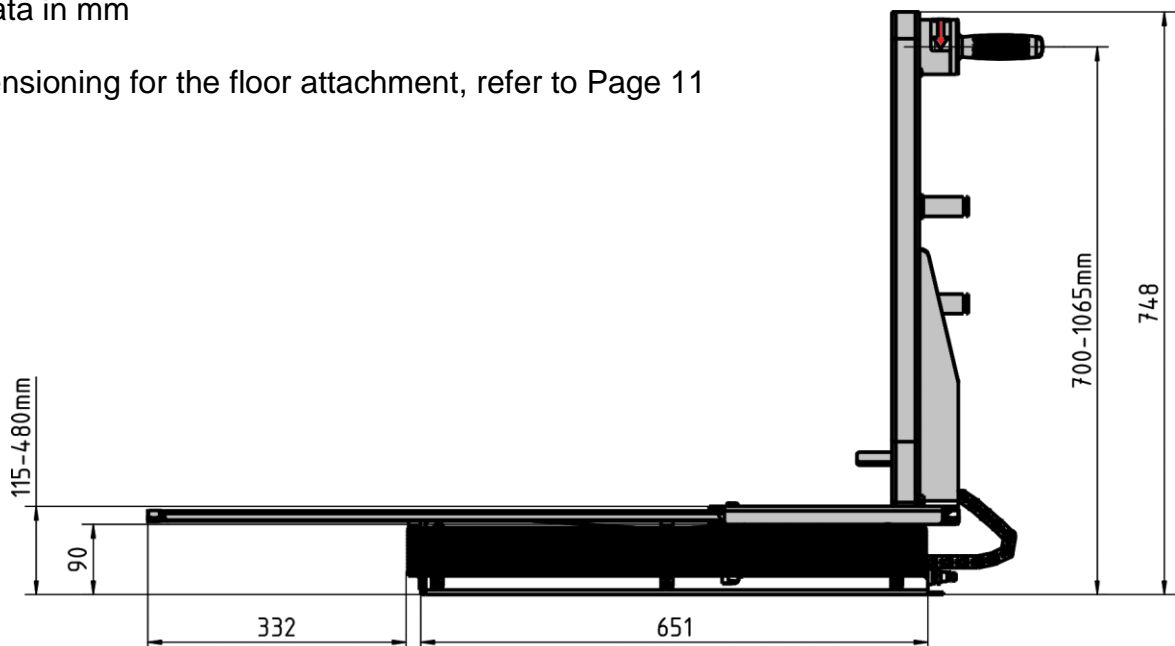
Compressed air supply	6 – 8 bar
Operating pressure	7 bar
Max. lifting height	480 mm
Max. horizontal travel	720 mm
Max. lifting weight	70 kg
Max. wheel diameter	36 inch
Weight:	35 kg (net)

2.4 Dimensions

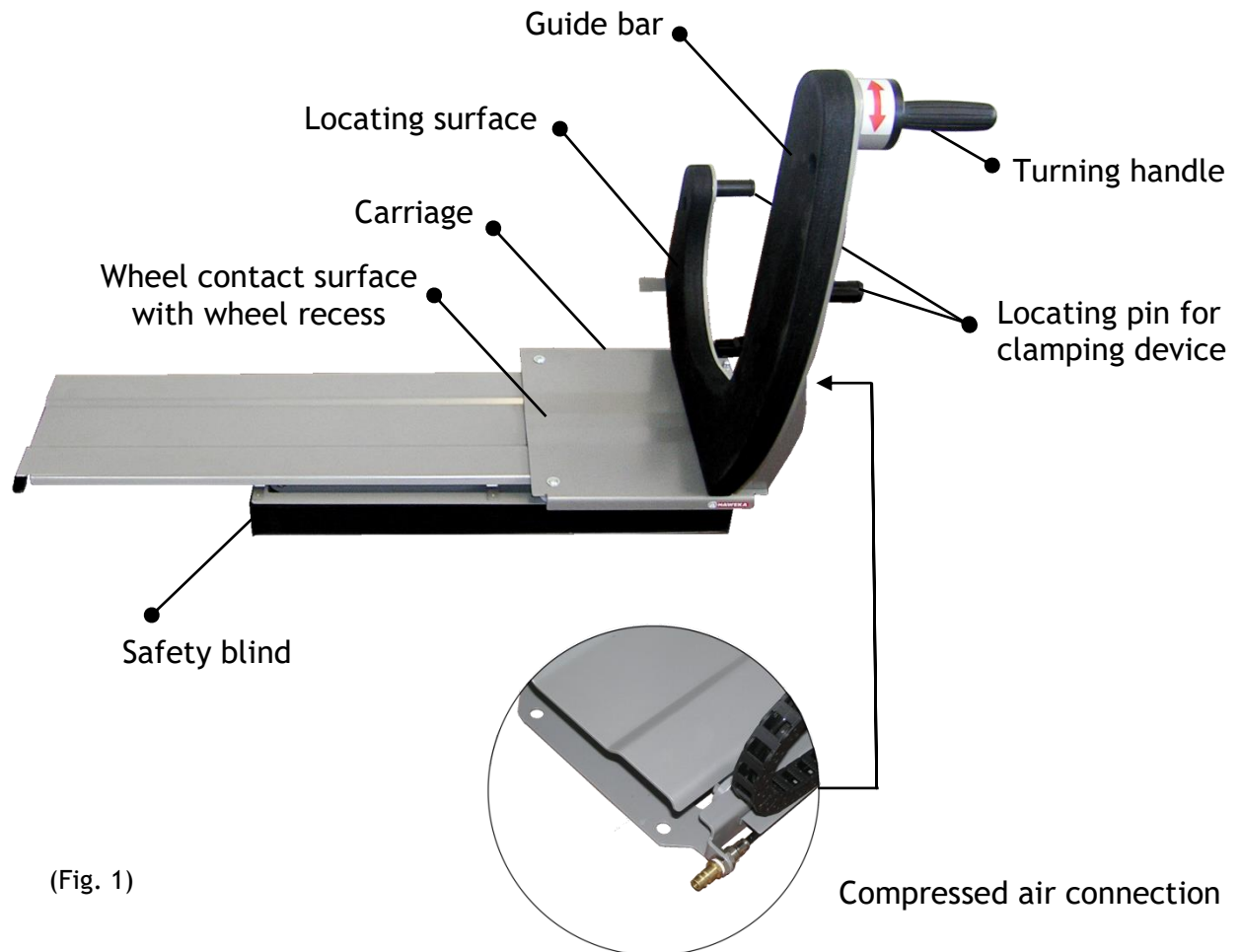


All data in mm

Dimensioning for the floor attachment, refer to Page 11



2.5 Description of device



(Fig. 1)

The AirgoLift comprises of a stable base frame that must be firmly attached to the floor by bolts (*refer to Point 3.3 Page 11*)

The lifting unit is raised and lowered using a pneumatic bellow cylinder. During the lifting procedure, the safety blind is also automatically raised. Control of the bellow cylinder is carried out using the manual turning handle. Depending on the direction of lift required, the turning handle must be rotated to the left or right.



The complete wheel lifting device only operates using air pressure. No electrical connection is required.

3. Installation and Commissioning



Note

- Before working with the device, carefully and completely read the User Instructions.
- Make sure that no damage has occurred to the device during transportation.



- Do not use the device in a moist environment.
- Generally, protect the device from the wet.



Attention

It is important to know and investigate which air pressure is available at the location of connection.

If the compressed air applied at the connection is > 8 bar, a pressure reducer must be installed upstream!

3.1 Assembly of the AirgoLifts

The AirgoLift is already preassembled so that only the guide bar must be installed.

For assembly, a commercial 10 mm open-ended or ring spanner is required.



Note

For easy and quick assembly, we recommend to first leave the AirgoLift in the packaging (Fig. 2) and to install the guide bar on the shifting plate. (Fig. 3)



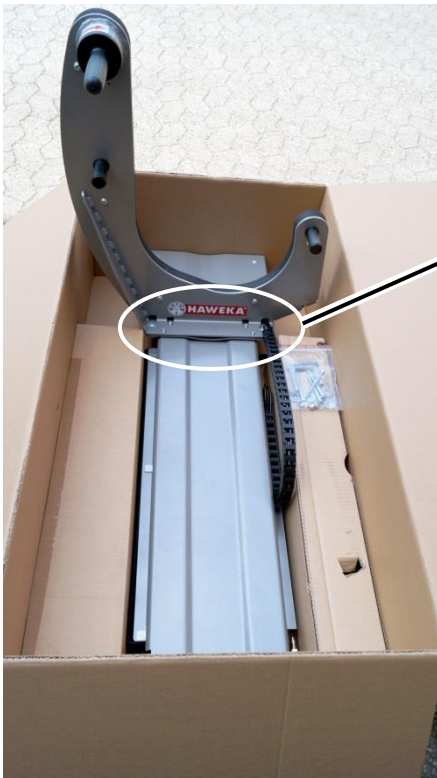
(Fig. 2)



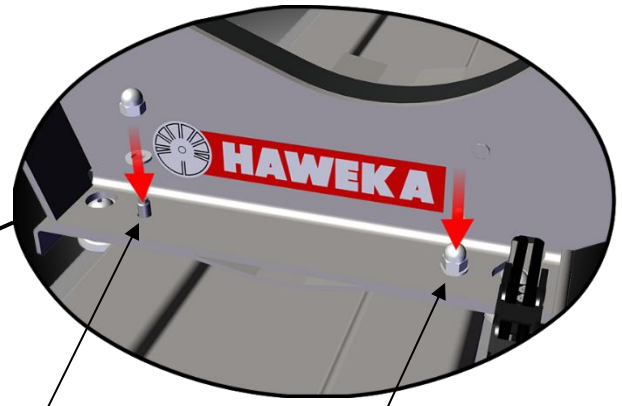
Note

The guide bar is already connected to the compressed air hoses and drag chain on the base frame. Thus, it cannot be lifted freely from the packaging.

- ◆ Align the guide bar and place on the 4 stud bolts on the carriage.
- ◆ Using 4 cap nuts and washers (in the scope of delivery) firmly attach the guide bar to the carriage. (Fig. 4)



(Fig. 3)



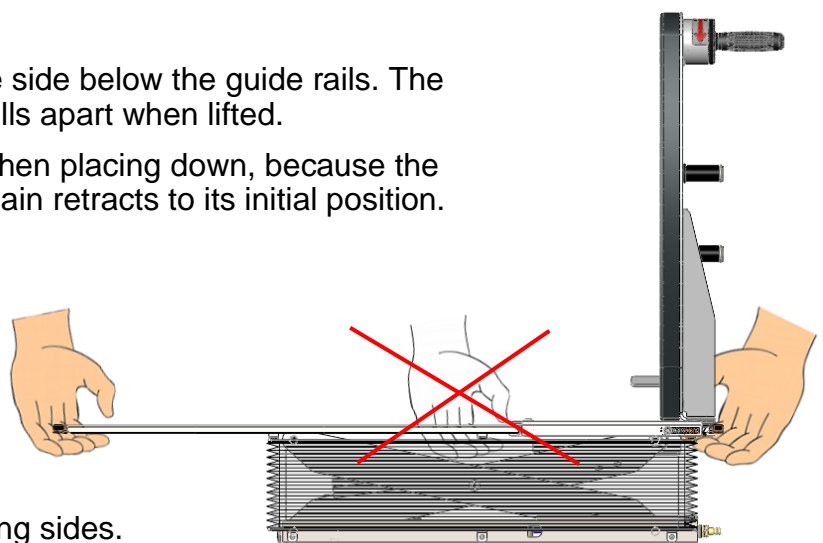
(Fig. 4)

2 x washer
2 x M8 cap nut



Do not lift out from the side below the guide rails. The wheel lifting device pulls apart when lifted.

Risk of entrapment. when placing down, because the wheel lifting device again retracts to its initial position.



Lift the wheel lifting device at the long sides.

(Fig. 5)

After the AirgoLift is completely assembled and stands on the floor, the compressed air supply can be connected using a commercial, standard coupling.



Attention

If an air pressure of more than 8 bar is present at the supply line, a pressure reducer must be installed upstream!



(Fig. 6)

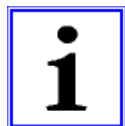
Compressed air
connection



If routing the compressed air hose on passageways, make sure that there are no areas of tripping on the ground!

3.2 Function check

At the initial function check, make sure that the lifting unit can freely move up and down.



Note

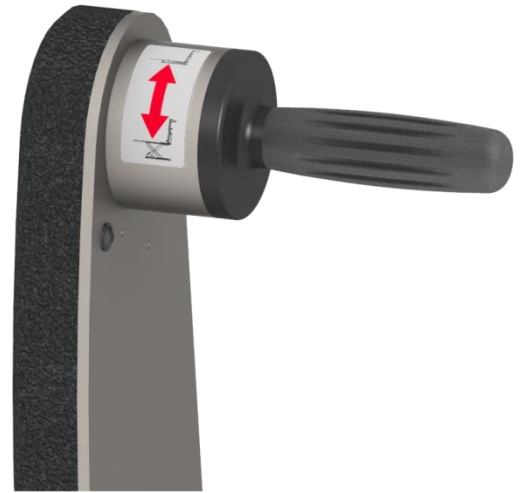
At initial commissioning, keep clear of the moving parts!

UPWARDS

Slowly rotate the turning handle downwards.
The contact raises for the duration of activation.

Pay attention to the scissors lifting scaffolding!
The AirgoLift must be able to be extended to the stop without malfunction.

- Displace the contact surface and make sure that the guides operate freely.
- Push the carriage back to the initial position.



(Fig. 7)

DOWNWARDS

Slowly rotate the turning handle in the opposite direction upwards.



Note

By selecting the lowering motion, the contact lowers to the bottom end position.

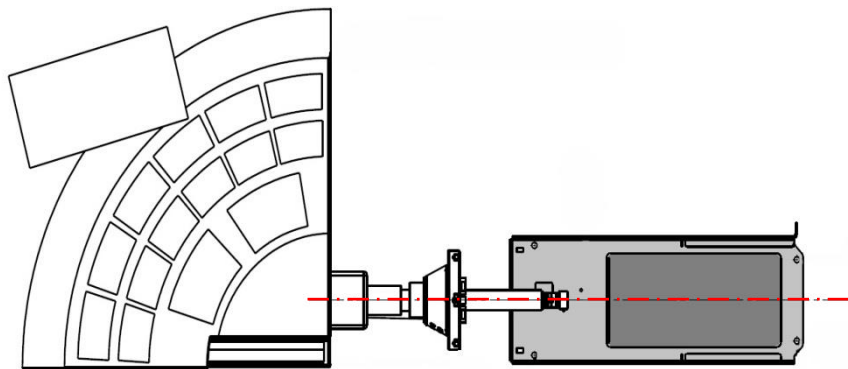


Note

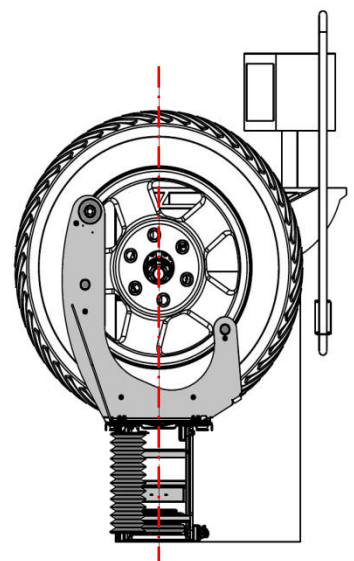
If changes regarding the lifting speed are required, refer to from Point 5, Maintenance and Care.

3.3 Position in front of the wheel balancer

The AirgoLift must be positioned so that the contact surface is central to the shaft of the wheel balancer. (Fig. 8 / 9)



(Fig. 8)

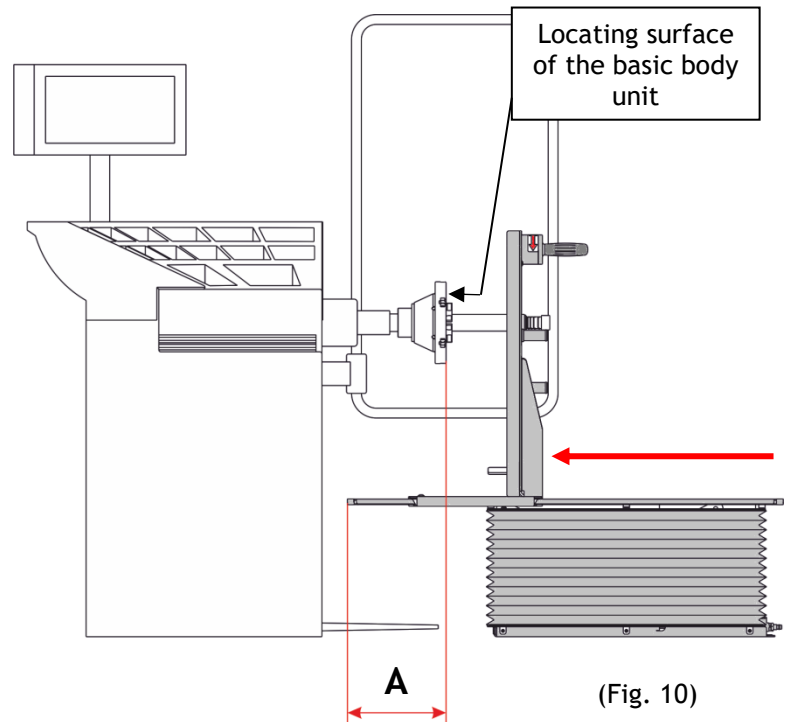


(Fig. 9)

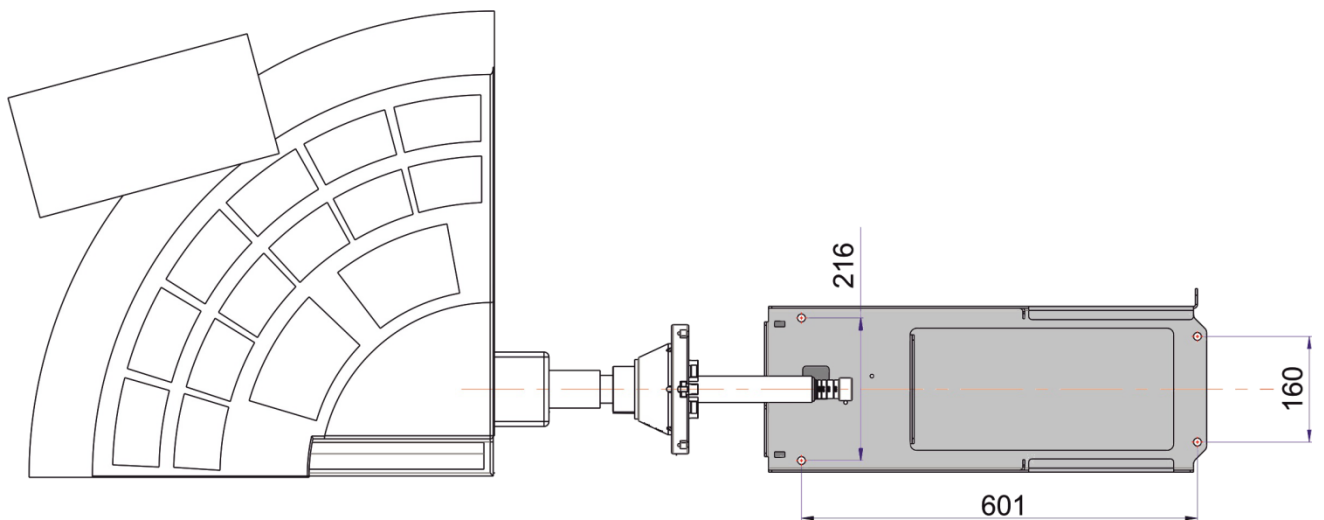
When the AirgoLift is centrally aligned, the carriage is pushed out to the stop.

The wheel contact surface of the carriage must reach to behind the basic body unit of the wheel balancer. (Fig. 10)

The clearance "A" depends on the respective construction of the wheel balancer and should be selected to **between 230 and 280 mm**.



When the AirgoLift is correctly positioned, it must be attached to the floor by bolts through the 4 holes in the base frame. (Fig. 11)



(Fig. 11)

In order to ensure stable attachment to the floor, bolts and dowels are included in the scope of delivery.

- 4 x Hexagon-headed bolts DIN571-Ø 8 x 60 galvanized
- 4 x Washers DIN 125-A8 galvanized
- 4 x Floor dowels plastic Ø 10 x 50

4. Application and Operation

Safety instructions during operation.



When the lifting equipment is lowered and returns to the floor position, there is a risk of entrapment.

During lowering, make sure that distance to the moving parts is maintained.

1. Lift the vehicle wheel to be balanced onto the carriage and hold with the hand in the recess to prevent falling over. Position the wheel on the locating surface of the carriage (Fig. 12)
1. Use the turning handle to start the lifting process.



(Fig. 12)

The wheel must be raised until the middle hole of the rim agree with the shaft of the wheel balancer.

1. When the correct height has been reached, the contact with the wheel is manually extended towards the shaft of the wheel balancer and the wheel attached to the shaft of the wheel balancer.



(Fig. 13)



Note

1. **Before lowering, make sure that the contact is pushed back!**
2. **Before balancing, the contact must be lowered!**

1. When the balancing process is complete, again place the contact in position so that light contact is made with the tyres.
1. The wheel can now be released from the wheel balancer and be gently pushed from the shaft.
2. Push the contact back into the initial position and lower the lifting device.

5. Maintenance and Care

5.1 General Care

- ◆ Use a slightly moistened cloth and clean the lifting device at regular intervals, depending on the degree of contamination of the device and remove contamination and sand.
- ◆ If the linear motion of the carriage is sluggish, clean the glide rails and spray using a suitable lubricant.
- ◆ Check the bellow cylinder for signs of cracks and porous locations.
- ◆ Never use solvent to clean the bellow cylinder!
- ◆ In particular check the lower running surfaces in the base frame. Remove any contamination and dust from it.

5.2 Setting the Lifting Speed

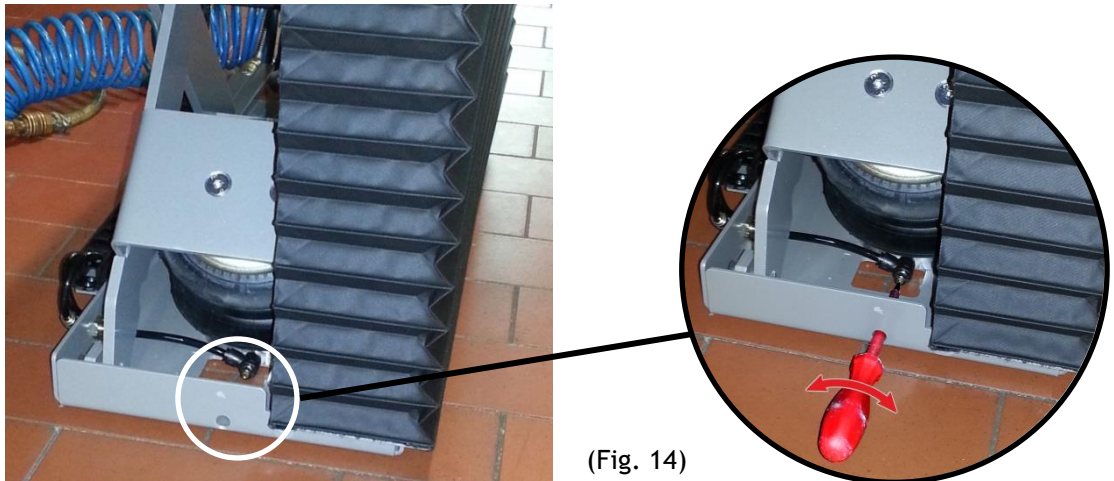
The lifting speed can only be adjusted for moving upwards.
The lowering speed cannot be changed.

The default setting for lifting speed is 0.1 ± 0.02 m/s at 8 bar in empty travel. The air regulating valve is sealed shut in this setting.



Please note that, according to the legal provision: DIN: EN 1570-1:2014-12, the maximum lifting speed of 0.15 m/s must not be exceeded.

An air regulating valve, at the bottom of the bellow cylinder, is provided to change the lifting speed.



(Fig. 14)

Use a screwdriver. Slowly rotate the screw in the valve.

Rotation:	clockwise:	<i>Slower lifting</i>
	Anticlockwise:	<i>Quicker lifting</i>

The lifting speed depends on the load to be raised. Different lifting speeds also result with different weights of wheels. They must never exceed 0.15 m/s in any case, also not with empty travel.



Note

Always inspect your set lifting speed by recording the time (in seconds) for an upwards movement (empty travel). Divide the lift = 0.365 m by your new evaluated time (in seconds) and you will get the lifting speed in m/s.

6. Troubleshooting and their Causes

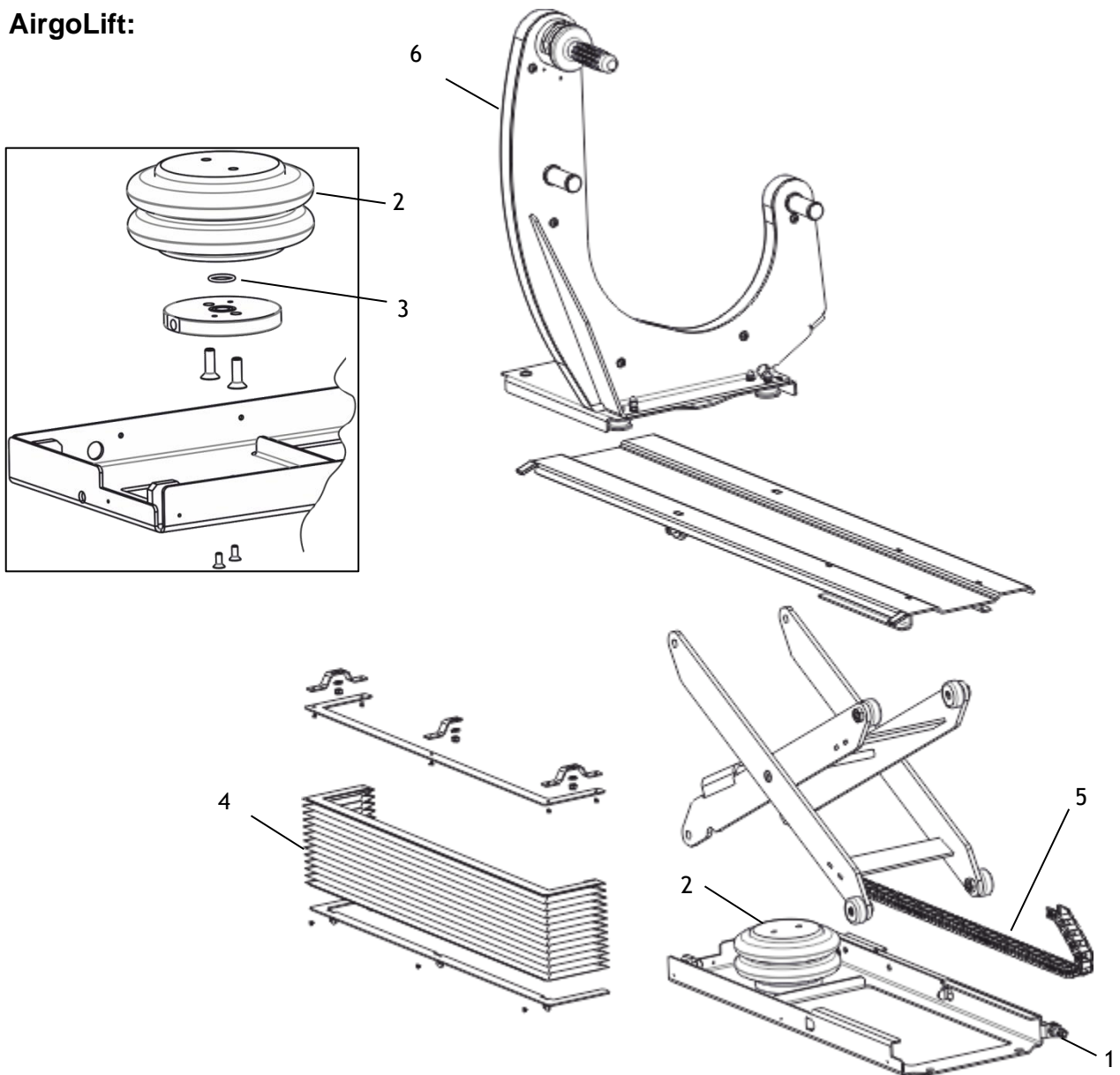


Operators may only redress errors that are clearly the result of operating or maintenance errors!

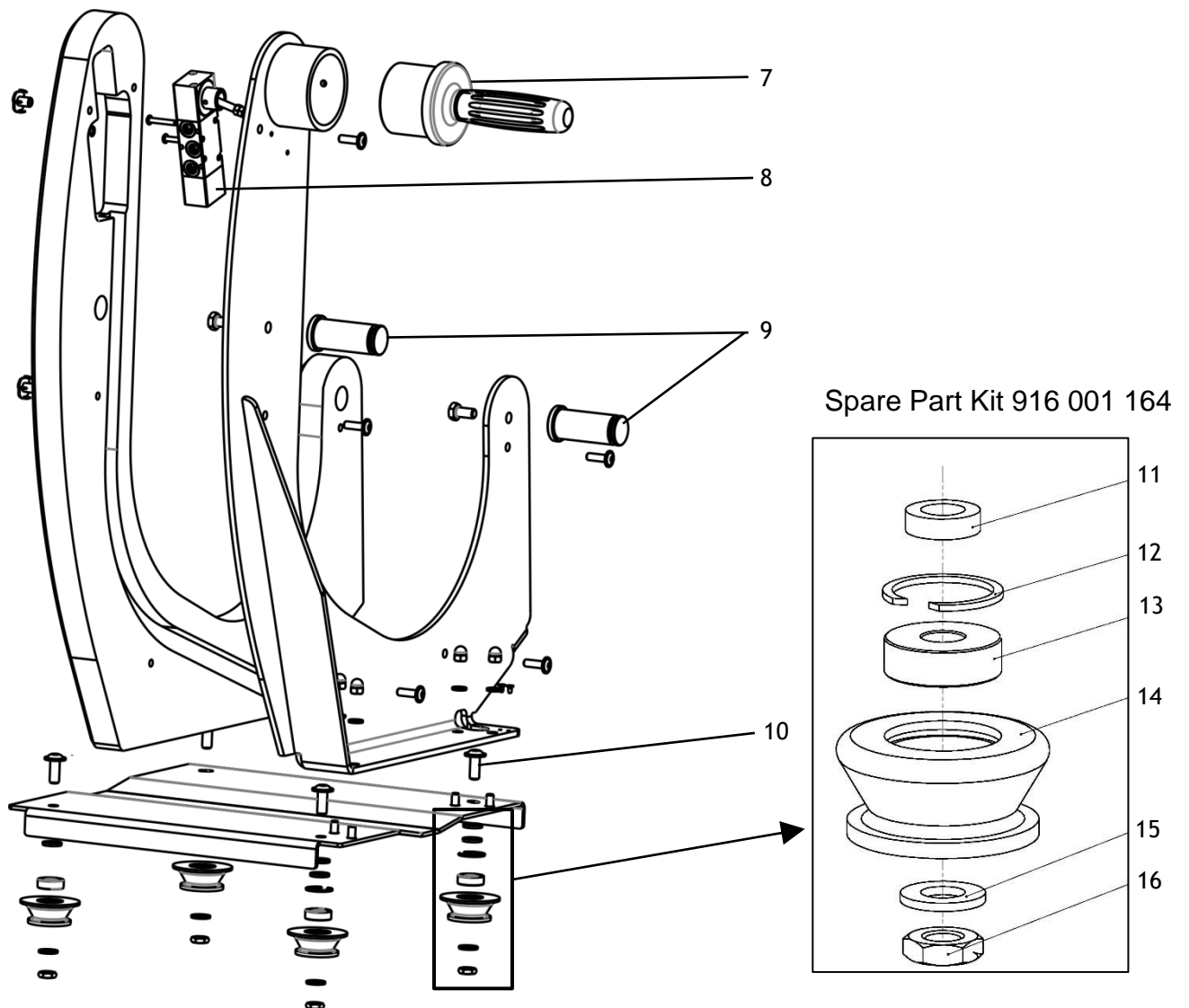
Error	Possible causes	Troubleshooting
Lifting equipment does not rise	No or insufficient compressed air in the system	Check the operating pressure of your system. (min. 6 bar)
	Compressed air hose incorrectly connected to the quick-release couplings	Check the hose connections
	Air supply hose to the bellows cylinder has become loose	Check the connections to the bellow cylinder
	Leakage at the bellow cylinder	Replace the bellow cylinder
	Malfunction in the manual turning handle	Replace the turning handle and / or control valve
	Contaminated guides in the base frame for the lifting support	Check or clean the running surfaces of all 4 lifting supports on the base frame
Lifting equipment does not lower	Malfunction in the manual turning handle	Replace the turning handle and / or control valve
Not possible to move the contact	Contaminated linear guides on the contact	Clean the linear guides

7. Spare Parts

AirgoLift:



Position.	Part No.	Description
1	DU VE10031	Compressed air connection
2	DU BA146074	Bellows cylinder
3	D03771 18025	Sealing ring rubber
4	916 001 094	Safety blind
5	916 001 120	Drag chain
6	916 001 093	Rubber tyre system on the transfer carriage

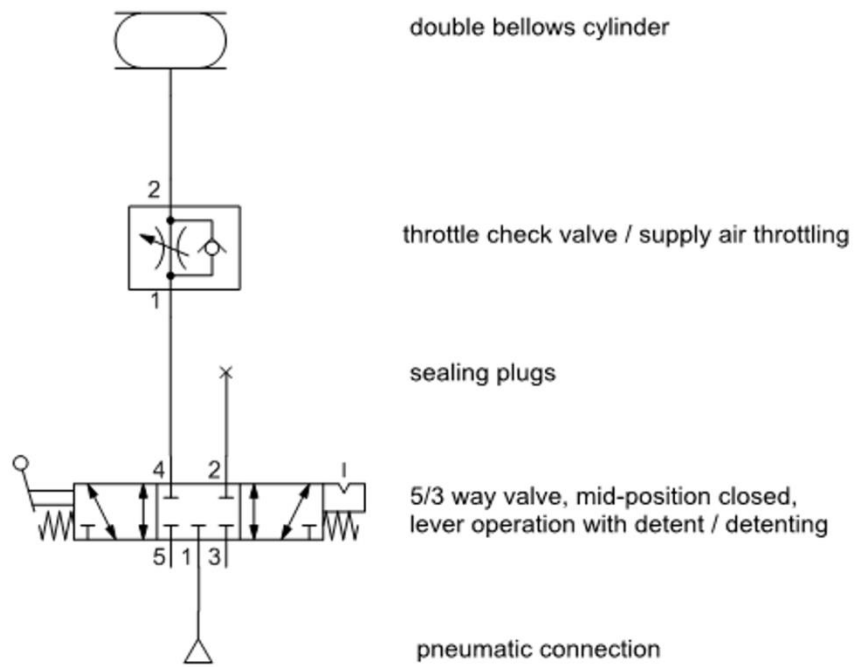
AirgoLift control unit:


Position.	Part No.	Description
7	916 001 119	Turning handle
8	DU VE110032	Control valve
9	900e008 363	1 piece locating pin for clamping device (2 x required)
10	D73802 08020	1 x oval-head screw
11	DU0000 00135	1 x Spacer (4 mm)
12	DUSP22012SB	1 x snap ring
13	D00625 608	1 x deep groove ball-bearing
14	916 001 092	1 x carriage roller
15	D00125 00008	1 x flat washer
16	D00439 00008	1 x Hex nut

8. Pneumatic Diagram

pneumatic circuit 916 000 017 (Airgolift II)

Haweka, 2015-06-23



- pneumatic connection is situated at 5/3-way valve to 1
- the 5/3-Wegeventil output 2 closed with plug
- control line is of 5/3-way valve output 4 to the throttle check valve to the double bellows cylinder

9. EC Declaration of Conformity

**HaweKa AG
Kokenhorststrasse 4
30938 Burgwedel
Germany**

herewith declare that the following device described conforms to the EC Directive in its design and construction, as well as in the design as introduced to the market.

Structural modifications which affect the technical data provided in the Operating Instructions and intended use invalidate this Declaration of Conformity.

Description of the device: AirgoLift

Type of device: Wheel lifting device

Applicable EC Directives: 2006/42/EC

National standards applied: VDI 4500 Sheet 1
DIN EN 1570-1:2014-12

Date / Signature: 03/07/2018



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