These operating instructions are for use on the c o n s t r u c t i o n s i t e !
Please read and follow the operating instructions prior to operation!

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1 Identification

WiMAG Beta-Levator

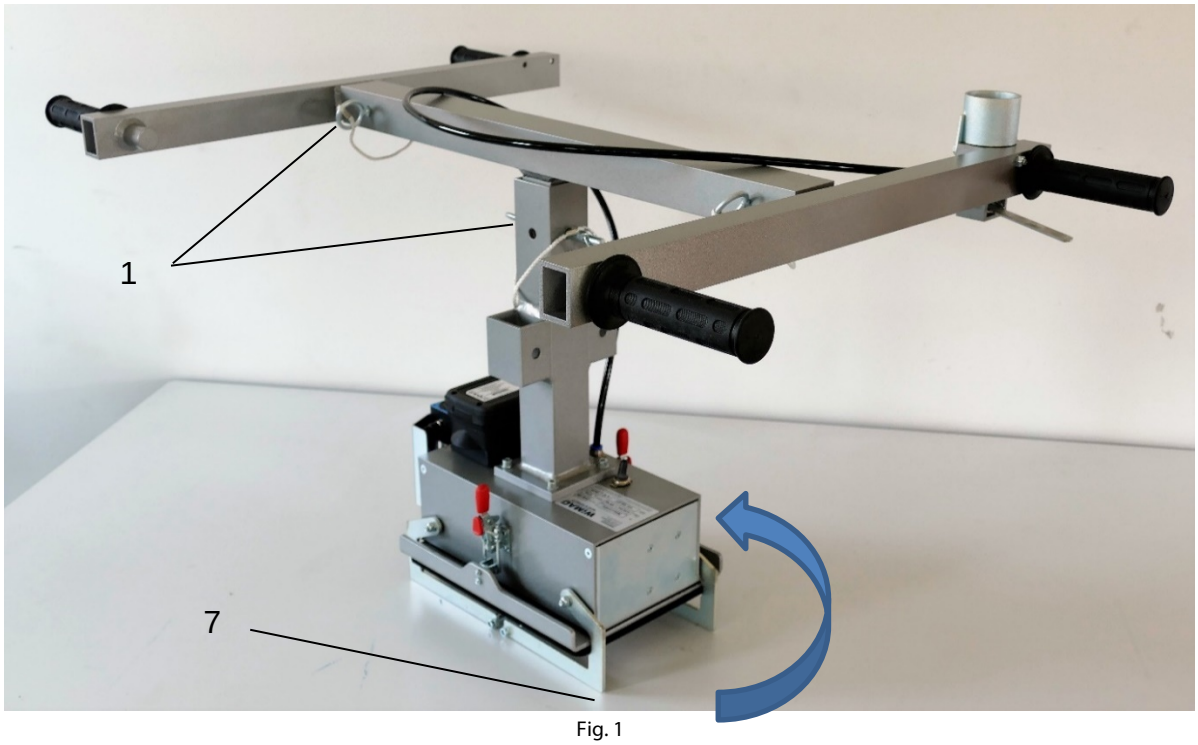


Fig. 1

2 Product description, specification

The WIMAG Beta-Levator is a vacuum lifter for the safe transport of **even, air-tight and horizontally positioned plates close to the ground**. The Beta-Levator is a handling device to be operated by two people.

Order No.	Model	Carrying Capacity kg	Width x Length mm	Weight kg
816 200-1	Beta-Levator a with two men lifter and 2 rechargeable batteries	100*	160 x 275	12.0
049 735	Charger 220 V / 12 V			0,.6
049 736	Rechargeable battery			0.3
816 400-1	Suction plate 260 x 460 mm with adapter	150*	275 x 460	2.0

* Maximum carrying capacity with optimal surface and at a low pressure of at least -0.65 bar. If the surface is rough or porous, the carrying capacity is reduced or will be at zero.

3 Essential safety advice

	**CAUTION/DANGER** General warning sign, e.g. warning of damage to property and the environment.
	ATTENTION Indicates a medium risk hazard that, if not avoided, could cause minor or moderate injury.
	**RISK** General prohibition sign which indicates a dangerous situation that, if not avoided, will cause death or serious injury.

3.1 Utilisation according to regulations

	**DANGER** ▪ Current safety regulations and the Accident Prevention Regulations must be followed. ▪ Only lift air-tight plates. ▪ Do not lift very rough or uneven plates as these surfaces do not allow vacuum lifting. ▪ The plates must be physically strong enough to withstand the lifting force. ▪ Only use the equipment to lift plates in a horizontal position. ▪ Only use the equipment close to the ground.
	**RISK** ▪ Do not exceed the admissible carrying capacity of the equipment! ▪ Do not use the equipment for machine hoisting operation! ▪ Do not transport more than one plate at a time! ▪ Do not transport wet, oily, dirty or icy plates! ▪ It is forbidden to transport people or animals. ▪ It is forbidden for people to remain under the load or within the danger area!

	▪ It is forbidden to pick up load off-centre. ▪ It is forbidden to move the load suddenly or to swing the load. ▪ It is forbidden to rotate the plate away from the horizontal position.
	▪ It is forbidden to pull the load diagonally. ▪ It is forbidden to break free, to pull or drag the load.
	▪ It is forbidden to remain under the suspended load: Danger to life!

3.2 Safety-conscious working

The Beta-Levator is manufactured according to the rules of technology, however, improper use or use which does not follow the regulations could be dangerous.

	**DANGER** ▪ The contractor must only allow people who have been fully trained to operate the equipment. ▪ Prior to operation of the equipment, the operator must read and understand both the operating instructions and the safety regulations. ▪ Always work with safety in mind and avoid risks. ▪ Should there be any defects which may affect the safety of the equipment, it is forbidden to use the equipment until repairs have been fully completed. The contractor must ensure that all measures are taken to prevent unauthorised use in these circumstances. ▪ Do not remove the name plate from the equipment. Replace illegible or damaged plates. ▪ The individual protective equipment must comply with safety regulations: safety clothes, helmet, protective gloves and shoes.

3.3 Organisational safety measures

	**CAUTION** ▪ Only personnel who have been fully trained or instructed in its use can use the equipment. ▪ At regular intervals, check that work is being carried out safely. ▪ Store the operating instructions within easy reach of where the equipment is used. ▪ Handle seal with care! ▪ Do not allow the equipment to become dirty. ▪ Always position equipment on its resting feet.

3.4 Terms for inspections

- Inspection prior to initial operation
  The contractor must ensure that the equipment is only operated once it has been checked by an expert for functioning and condition and only if all defects have been repaired (⇨ see DGUV 100-500 Chapter 2.8).

- Regular inspections
  The contractor must ensure that the equipment is checked by an expert at least once a year.

- Special inspections
  The contractor must ensure that the equipment is subjected to a special inspection by an expert following damage or particular incidents which may have affected the safe working load as well as following repairs.

- Recording

The contractor must ensure all inspections are recorded (⇨ see 12). We recommend that all regular inspections and repairs are carried out by the manufacturer.

4 Preparing the equipment for operation

4.1 Transport and storage

- The equipment is fully assembled and delivered on a pallet.
- Upon receipt, check the condition of the packaging and the completeness of the delivery.
- If packaging is no longer needed, dispose of it properly.
- Store the equipment in a dry and dust-free room. Ensure the equipment is placed on its resting feet so that the seal is preserved and retains its designed shape.

4.2 Safety measures prior to operation

	**CAUTION** ▪ Prior to operation, it is vital to check the functioning and working condition of the material handling equipment. ▪ Should there be any defects which may affect the safety of the equipment, it is forbidden to use the equipment until repairs have been fully completed. The contractor must ensure that all measures are taken to prevent unauthorised use in these circumstances. ▪ Regularly check seal. Immediately replace seal, if damaged! ▪ The plate which is to be lifted must be of sufficiently stable construction to withstand the force during transport.
	**RISK** ▪ Under no circumstances must the equipment be used if cracks, distortions or other defects are found with the equipment! ▪ Do not exceed the safe working load of the equipment!

4.3 Initial operation

- The Beta-Levator is delivered fully assembled
- Prior to operation, the Beta-Levator must be examined for its completeness and correct functioning!
- Height and width can be adjusted via bolts (1). Secure bolts (Fig. 1).

4.4 Charging of the battery

Prior to operation it is vital to check the charge of the battery. Please note that prior to a planned operation of the equipment, the charging time for an empty battery is approx. 2 hours.

- Press locking device (2) of the rechargeable battery (3) and push the rechargeable battery (3) out of the holding device (4) (Fig. 2).
- Connect charger (5) to the 220 V mains supply and push in the rechargeable battery (3) (Fi.g 3).

- The charging process takes approx. 2 hours maximum. During the charging process the lamp (6) will flash (Fig. 3).
- Once the lamp (6) flashes continuously, the charging process has finished.
- Press locking device (2) of the rechargeable battery (3) and push rechargeable battery upwards out of the charger (5).

Fig. 2

Fig. 3

4.5 Assembly of the suction plate

- The Beta-Levator can be operated using various suction plates. The name plate on the suction plate indicates the carrying capacity.
- Swing resting feet (7) upwards (Fig. 1).
- To change the suction plate press safety lock (8) on both sides and at the same time swing lever (9) downwards (Fig. 4).
- Place Beta-Levator in the centre of the new suction plate and close both toggle clamps (10) (Fig. 5).
- Check that the suction plate is firmly positioned. The safety locks (8) must be engaged (Fig. 4)!

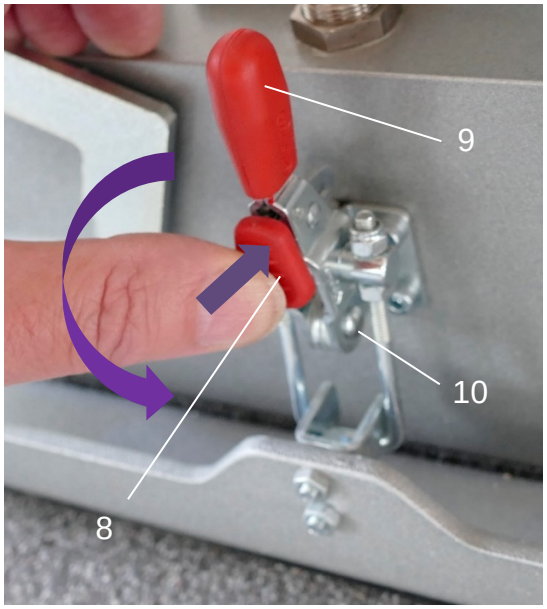


Fig. 4

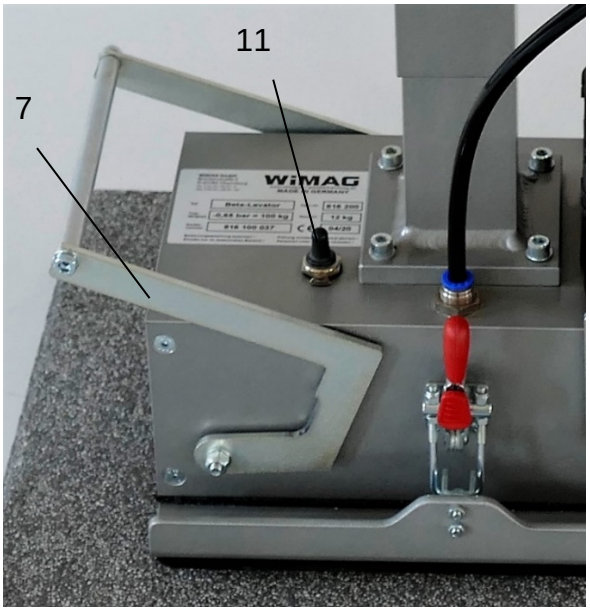


Fig. 5

5 Operation

- Swing resting feet (7) upwards and place the Levator in the centre of the plate to be lifted by two people (Fig. 5).
- Turn on equipment (11). The pump is running (Fig. 5).
- If the indicator (12) of the pressure gauge (13) is within the green zone (greater than -0.65 bar), the plate can be lifted and transported (Fig. 6).

	**ATTENTION** Danger during lifting with insufficient low pressure. **Falling hazard, danger of accidental load release.** ⇨Only lift the plate when the indicator (12) of the pressure gauge (13) is withing the green zone. ⇨Never open valve during lifting process (14)! **Danger of crushing feet!**

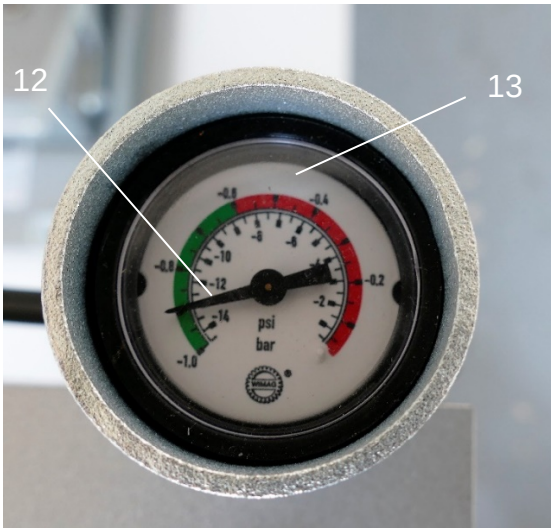


Fig. 6

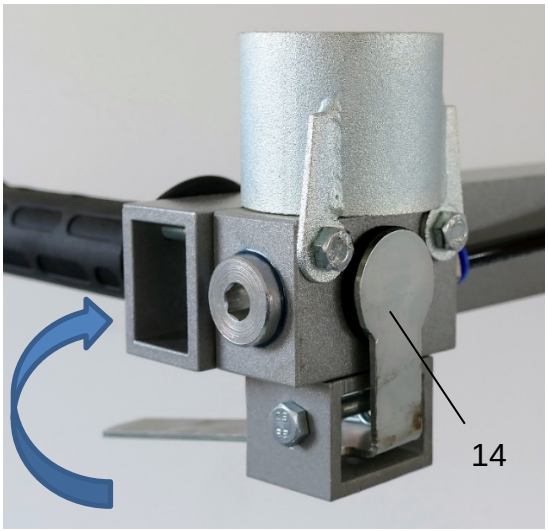


Fig. 7

- Set down plate after transport, open valve (14) and take off Levator (Fig. 7).
- Once the equipment is no longer needed, switch it off (11).
- Swing resting feet (7) downwards to protect the seals.
- Recharge battery for the next operation

6 Servicing

Maintenance work may only be carried out by an expert.

To guarantee flawless functioning and operational safety, the following maintenance must be regularly carried out prior to operation:

After delivery:	Inspection of completeness of the equipment
Prior to every operation:	Visual and function inspection: - Check condition of seal. - Check output of rechargeable batteries. - Check equipment for distortions and damage. - Drain off water in water trap (15) by turning the screw (16). Close screw again (16) (Fig. 8). - Clean coarse filter (17) with a brush (Fig. 9).

Monthly:	- Disassemble suction plate and clean air filter (18) (Fig. 10). - Check seals and hose connections.
Annually:	- Replace illegible identification plates. - Reapply coat of varnish.
After delivery:	Inspection of completeness of the equipment
Prior to every operation:	Visual and function inspection: - Check condition of seal. - Check output of rechargeable batteries. - Check equipment for distortions and damage. - Drain off water in water trap (15) by turning the screw (16). Close screw (16) again (Fig. 8). - Clean coarse filter (17) with a brush (Fig. 9).

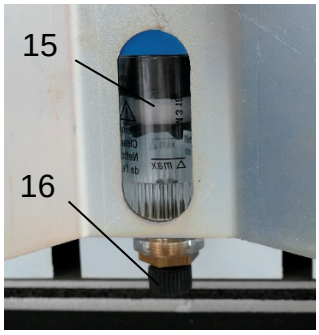


Fig. 8

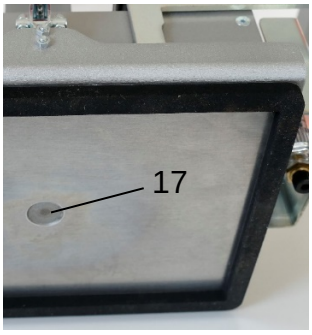


Fig. 9

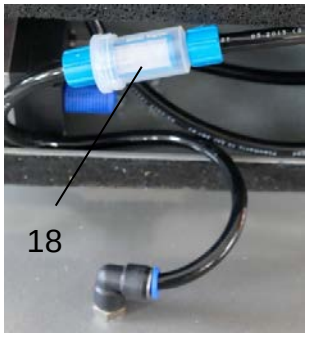


Fig. 10

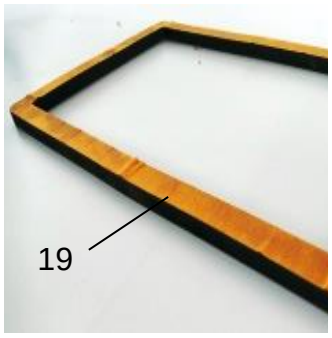


Fig. 11

Exchange of seal

- Remove defective seal, clean and degrease base plate.
- The seal can be purchased from the manufacturer. Remove protective strip (19) and apply new seal (Fig. 11). Check adhesion. If necessary, stick with adhesive.

Avoid prolonged pressure loads, otherwise the seal will lose elasticity. Also avoid mechanical damage to the seal: this increases its working life!

- The entire equipment must be protected from humidity and water.
- Only original spare parts may be used.
- It is recommended to arrange for the equipment to be examined at least once a year by the manufacturer.

7 Troubleshooting

In case of equipment failure, please firstly consult the following checklist to establish whether the failure can be rectified easily. If not, please contact the manufacturer.

Problem	Solution
Vacuum pump does not work.	- Turn switch on (11) (Fig. 5). - Charge rechargeable battery. - Check cable connections.
Vacuum pump has little power.	- Check valve (14) (Fig. 7). - Charge rechargeable battery. - Clean water trap (15) (Fig. 8). - Clean coarse filter (17) (Fig. 9). - Clean fine filter (18) (Fig. 10). - Check cable connections for breakages and leaks.

	- Pump is dirty. Contact manufacturer.
Pump works, but vacuum has not been created.	- Press suction plate onto the plate to be lifted. - Seal does not cover the entire surface. - Valve (14) is not completely closed. - Clean coarse filter, air filter and water trap. - Material to be lifted is not suitable for vacuum lifters (rough surface, too porous, etc.). - Seal is damaged. - Contact manufacturer.

8 Repair

- Repairs must only be carried out by experts or by the manufacturer.
- The company will accept no liability, unless original spare parts have been used.
- Do not carry out any alterations or modifications.
- A special inspection must be carried out by an expert or by a qualified person before the equipment can be operated again.

9 Disposal

- When changing the battery, used battery must be disposed of properly.
- If the equipment is beyond repair, it must be disposed of properly

10 Warranty and liability

If the equipment has not been used, operated, checked and maintained according to these operating instructions, then the warranty and liability are no longer valid.

Any queries regarding instructions should be raised with the manufacturer prior to use.

Prior to operation, the user must ensure that
- the equipment is suitable for the intended operation,
- the functioning and the working condition of the equipment is examined,
- the plates to be lifted are suitable for vacuum lifting.

Failures are to be reported in writing to the supplier immediately, no later than two weeks following delivery. It is unacceptable for the client to repair failures or have them repaired by a third party, and then request to be reimbursed for costs.

According to the manufacturer's general contract conditions, the equipment is under warranty for a period of 12 months from the invoice date. Wearing parts are not covered by the warranty.
The manufacturer is not responsible for any damage occurring in the event of an installation error or insufficient training by a third party, negligence, misuse or excessive stress of the equipment.

Prior to operation, it is the responsibility of the client to check the functional condition of the equipment, the suitability of the load to be handled as well as any damage to the load before and after transport/installation. The manufacturer does not accept responsibility for any additional claims, for instance, the right to compensation for damage not caused to the equipment itself.

WIMAG GmbH
Brückenstraße 5 - D - 63785 Obernburg
FON 06022 / 68 47 0 - FAX 06022 / 68 47 50
www.wimag.de - gressbach@wimag.de

11 Data sheet

Model	**Beta-Levator**
Serial Number	
Year of construction	
Contractor	
Date of first operation	

Inspection of the load handling equipment is carried out by an expert according to DGUV 100-500 Chapter 2.8 "Operating load handling equipment in hoist operation"

Inspection And Maintenance According To DGUV 100-500 Chapter 2.8

Inspection prior to initial operation according to 3.15.1:	Date Signature of expert
Special inspection according to 3.15.3:	Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert
Regular inspection according to 3.15.2:	Result: Date Signature of expert

13 EC Declaration of Conformity as defined by Machinery Directive 2006/42/EC

We hereby declare that the design and construction of the equipment mentioned hereafter complies with the following Directive.

This declaration will become invalid if modification of the equipment is carried out which has not been agreed with us as the manufacturer.

The validity will also expire if the equipment is not used as directed in accordance with the manufacturer's relevant operating instructions and/or all regular inspections are not carried out according to DGUV 100-500 Chapter 2.8.

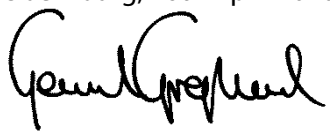
Order-No./Serial No.	**WIMAG Beta-Levator**
Directives	EC Machinery Directive 2006/42/EC
Harmonised Standards 0	DIN EN 13 155 –"Cranes – Non-Fixed Load Handling Equipment"
National Standards	DGUV 100-500 Chapter 2.8 "Operating load handling equipment in hoist operation"

As stipulated in Annex VII of the EC Machinery Directive, the following documents are available for inspection:

- Operating instructions
- Hazard assessment
- Production drawings
- Production plans
- Static verification
- Certification of welding EN 1090-2 EXC3

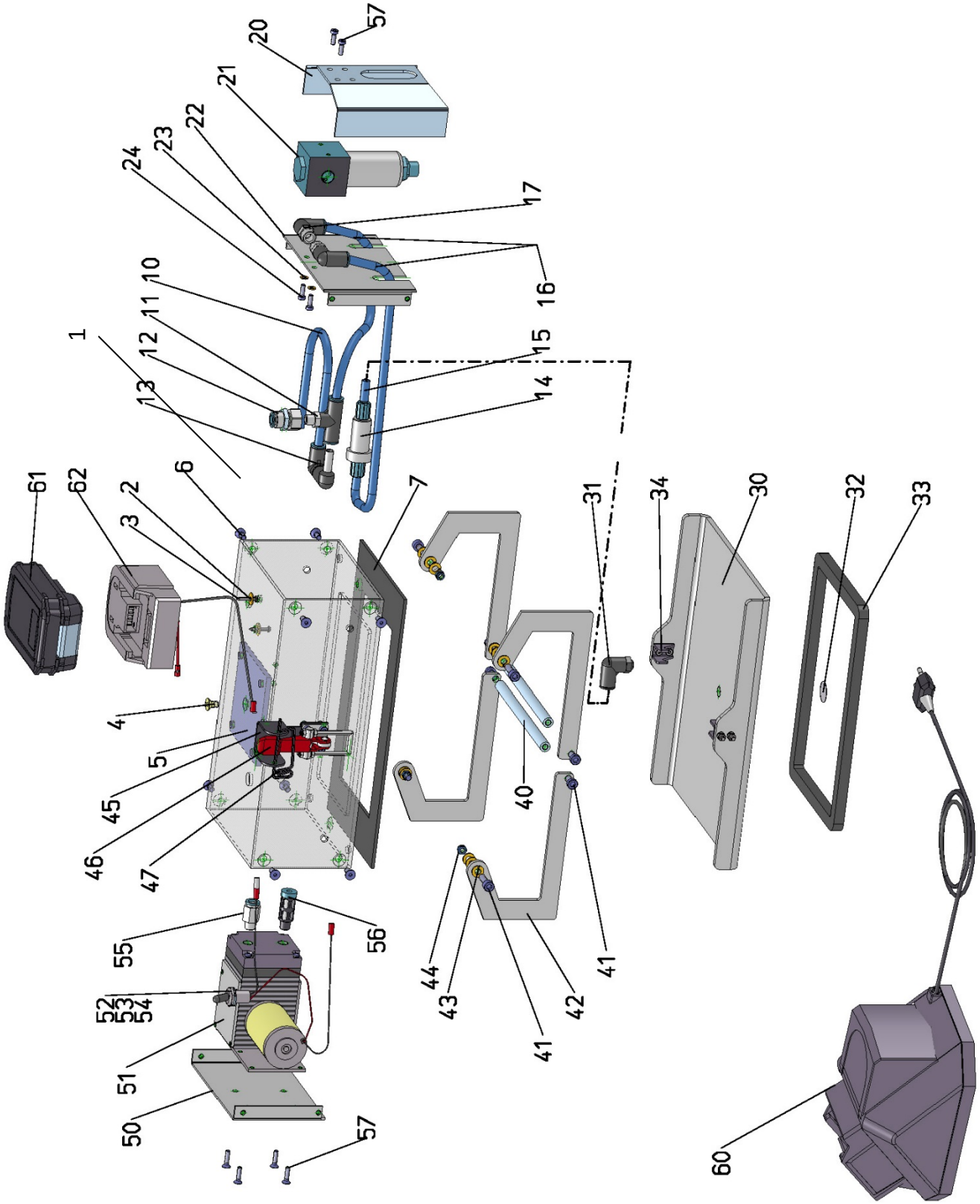
The CE symbol is marked on the equipment.

Obernburg, 16th April 2020



Gerhard Greßbach
(Dipl. Ing.)

WIMAG GmbH
Brückenstraße 5
D-63785 Obernburg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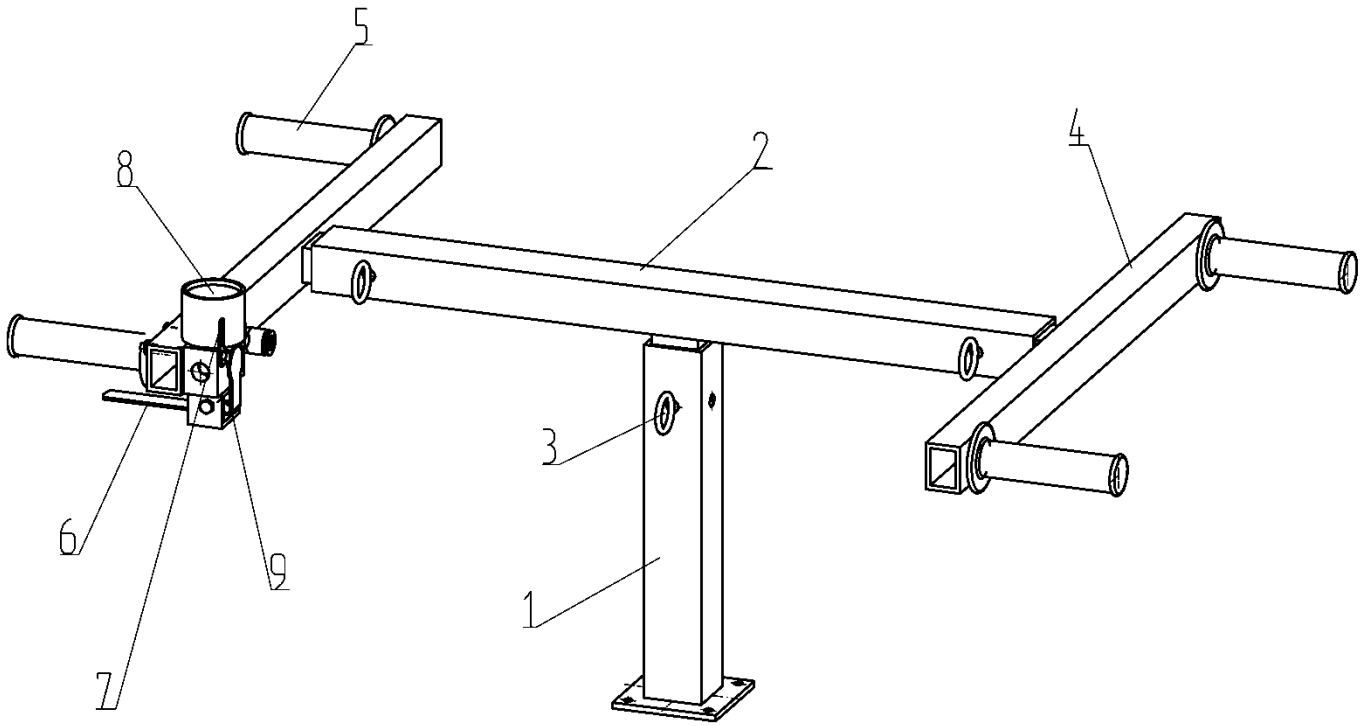
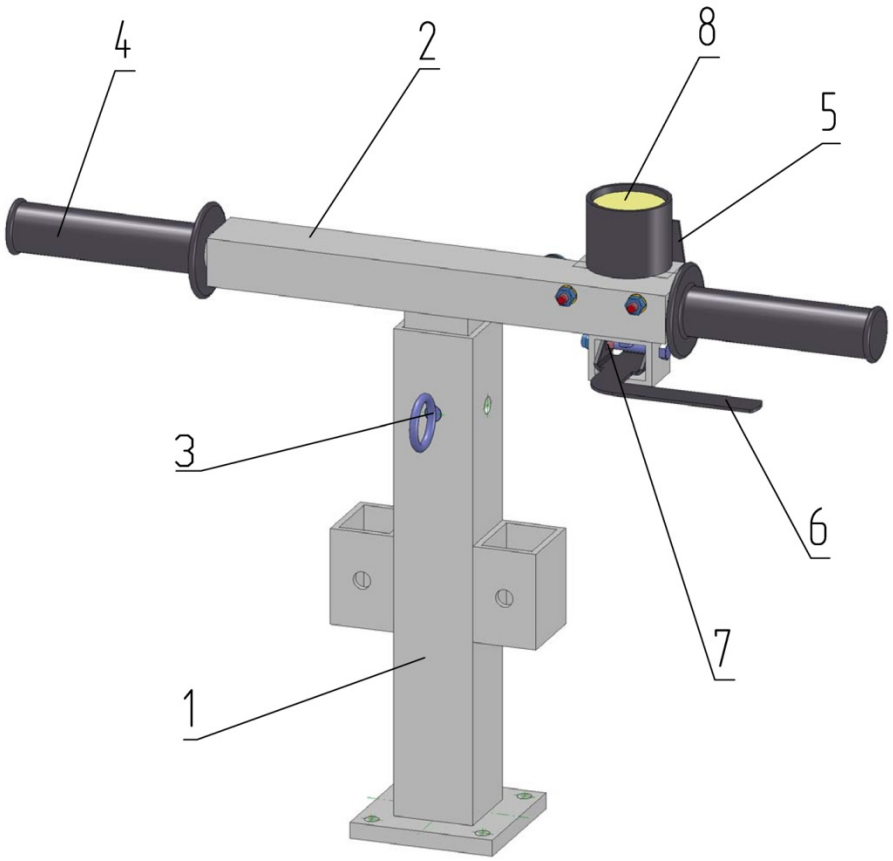
Item No.	Description	Beta-Levator 816 200		
		Unit	Order No.	Price €/Unit.
1	Housing Beta-Levator	1	049 734	
2	Washer Ø 4.3 x 1 – 12 DIN 9021	2	046 102	
3	Sheet metal screw Ø 2.9 x 22	2	046 099	
4	Countersunk head screw M 6 x 10 DIN 7991	3	042 693	
5	Metal sheet 5 x 90 x 90	1	041 892	
6	Countersunk head screw M 5 x 10 DIN 7991	8	050 435	
7	Slip-resistant coating	2	043 860	
10	Plastic hose PUN 8 x 1.25 – 200 mm	1	043 494	
11	T-connector QST-1/8-8	1	043 862	
12	Bulkhead connector QSSF-1/8-8	1	043 864	
13	Plug connector QSL-8H	2	043 873	
14	Vacuum filter VAF-PK6	1	043 485	
15	Plastic hose PUN 8 x 1.25 – 50 mm	1	043 494	
16	Plastic hose PUN 8 x 1.25 – 500 mm	2	043 494	
17	L-connector 1/4-8	2	043 490	
20	Guard plate for water separator	1	046 264	
21	Water separator filter/blue IG 1/4	1	046 266	
22	Housing cover for water separator	1	046 267	
23	Spring washer B4 DIN 127	2	051 701	
24	Hexagonal socket head cap screw M 4 x 12 DIN 912	2	049 408	
30	Suction plate Beta-Levator	1	046 342	
31	L-connector 1/8-8	1	043 481	
32	Sieve Ø 18	1	046 861	
33	Rubber sealing 10 x 200 x 275 EPDM black	1	046 349	
34	Fastener brace incl. screws	2	042 694	
40	Distance rod Ø 10 x 153 – M6	2	043 875	
41	Hexagonal socket head cap screw M 6 x 16 DIN 912	8	050 402	
42	Rotatable resting lever	4	043 178	
43	Washer Ø 6.4 DIN 125	12	051 536	
44	Nut M 6 DIN 985	4	051 100	
45	Locking plate	2	049 491	
46	Fastener complete with screws	2	049 460	
47	Safety pin	2	049 492	
50	Housing cover for vacuum pump	1	046 427	
51	Vacuum pump KN N-815	1	041 756	
52	Switch	1	047 618	
53	Sealing for switch	1	047 619	
54	On/off label for switch	1	047 620	
55	Plug connector QS-1/8-8	1	043 486	
56	Silencer U-1/8	1	043 333	
57	Countersunk head screw M 4 x 10 DIN 7991	6	041 890	
60	Battery charging station for Li-Ion battery pack	1	049 735	
61	Li-Ion battery pack	1	049 736	
62	Battery pack adaptor	1	049 740	



Item No.	Description	Aluminum Two Men Lifter 818 200		
		Unit	Order No.	Price €/Unit
1	Square tube lower part	1	047 983	
2	Square tube upper part	1	047 988	
3	Bolt	3	041 254	
4	Handle piece	2	047 989	
5	Rubber sleeve	2	056 021	
6	Ventilation lever	1	048 051	
7	Mounting for pressure gauge	1	048 052	
8	Pressure gauge	1	043 313	
9	Spring	1	052 203	



Item No.	Description	Aluminum One Man Lifter 816 350		
		Unit	Order No.	Price €/Unit
1	Square tube lower part	1	047 983	
2	Square tube upper part	1	048 379	
3	Bolt	1	041 254	
4	Rubber sleeve	2	056 021	
5	Mounting for pressure gauge	1	048 052	
6	Ventilation lever	1	048 057	
7	Spring	1	052 203	
8	Pressure gauge	1	043 313	