

These operating instructions are for use on the construction site !

Caution

Please respect and refer to the operating instructions and safety regulations prior to operation!



Fig. 1: Mobile Aluminium Crane with trolley LF

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1. Definitions

Danger
Caution

indicates a dangerous situation. If it is not avoided, it will cause death or major injuries.
indicates a dangerous situation. If it is not avoided, it can cause light or minor injuries or material damage. It also indicates incorrect use.

2. Safety Regulations

2.1 Utilisation As Directed

- The crane may only be used on even and solid ground.
- The crane may only be used to lift freely moveable loads.
- **Do not carry out** any alterations or modifications.
- The crane may only be equipped with a manual hoist.

Danger The following must be respected:

- **Do not transport people or animals, extremely hazardous!**
- **No personnel are allowed to remain under the load or within the danger area, extremely hazardous!**
- The aluminium crane may only be operated by a qualified crane operator.
- **Do never exceed** the admissible maximum load of the crane or the hoist.
- **Do not pull** load to one side and do not drag load along the ground. Load must always be suspended in the true vertical position.
- **Do not allow** the load to break free, be pulled or dragged.
- Sudden movements and swinging of the load are not allowed.

2.2 Utilisation In Line With Safety Regulations

Although the WIMAG mobile aluminium crane AKF is technologically advanced in its construction, however, misuse or use against manufacturer's instructions may prove hazardous.

Danger The following must be respected:

- Prior to operation of the equipment the operator must read in full and understand both the operating instructions and the safety instructions, (as well as the operating and maintenance instructions of the hoist). These measures are necessary to guarantee human safety and safety within the working area. Only personnel who have been fully trained in its use can operate the equipment.
- Follow "Duties Of The Crane Operator".
- Always work with safety in mind and avoid risks.
- Report damages and defects of the crane to the relevant person immediately. Do not use the equipment until the damage has been repaired.
- **Never use** the equipment, if there are any defects which may affect the safety of the crane and the hoist. No opportunity should arise whereby it is possible to use the equipment prior to repair.
- **Do not remove** any nameplates from the crane. Replace illegible or damaged plates.
- The individual protective clothing must comply with safety regulations: safety clothes, safety helmet, protective gloves and shoes.

- An untidy work area increases safety hazards.
- **Do not allow** unauthorised people, particularly children, to remain within the working area.

2.3 Safety Measures

Caution The following must be respected:

- Only personnel who have been fully trained or instructed in its use can operate the equipment. Respect legal minimum age!
- At regular intervals, check that work is being carried out safely.
- Store the operating instructions within easy reach of where the equipment is used.

2.4 General Instructions

- Safety Instructions and the Regulation, e.g. BGV D6.
- National requirements.
- Regulations listed in the EC Declaration of Conformity.

2.5 Assembly And Initial Operation

Assembly, initial operation, maintenance and repairs may only be carried out by qualified personnel.

- The company will accept no liability, unless original spare parts are used.
- **Do not carry out** any alterations or modifications.
- Additional structures must not affect the safety.
- When operating outdoors, do not allow the crane and the hoist to get wet.

2.6 Liability

The company will accept no liability, unless assembly, operation, inspection and maintenance are carried out according to these operating instructions.

2.7 Regular Inspections

Cranes must be examined by an expert at least once a year (BGG 905, Paragraph 3.2). All inspections must be initiated by the contractor.

2.8 After-Sales Service

For the safety of the crane it is recommended that all regular inspections and repairs are carried out by the manufacturer.

3. Specification

The aluminium crane is a mobile crane designed for lifting and transporting loads on even and solid ground for indoor and outside use. It is equipped with a manual hoist and can be equipped with a manual material handling lifting equipment (with load hook). All elements are joined by bolts or screws allowing a fast assembly and dismantling.

The crane is equipped with four wheels, which can be locked, and can easily be erected by two people.

B 535 Translation of the original instructions Mobile Aluminium Crane AKF-HV

Specification

Order No.	Model	Safe Working Load	Clearance Height LH	Total Height GH	Clearance Width LB max.	Weight
535 150	AKF-HV 1000	1,000 kg	2,000 / 2,800 mm	2,400 / 3,200 mm	3,800 mm	130 kg
535 200	AKF-3000	3,000 kg	2,000 / 2,800 mm	2,400 / 3,200 mm	3,800 mm	315 kg

We also manufacture cranes according to customer’s specification.

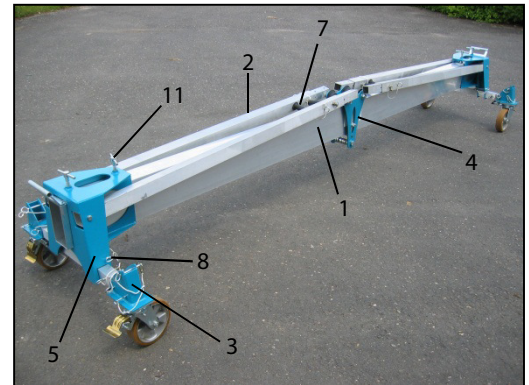
4. Transport Of The Aluminium Crane

The aluminium crane is delivered folded for transport and can be easily moved by means of the wheels. Please ensure that all parts, specially the supports and the trolley, are sufficiently safeguarded during transport.

The unit consists of the following parts:

- | | |
|----------------------------------|-------------------------|
| 1 Beam (1) | 2 Articulated heads (5) |
| 4 Supports (2) | 4 Carrying handles (7) |
| 2 Undercarriages with wheels (3) | 4 Bolts (8) |
| 1 Trolley (4) | 1 Hoist, if ordered |

Fig. 2



5. Erection Of The Aluminium Crane

The erection may only be carried out in the following order:

- 5.1 The contractor must ensure that the crane is only erected on even and solid ground.
- 5.2 Remove packing material. Secure trolley (4) to prevent moving. Release wheel and swivel head brakes.
- 5.3 Remove bolts (10) and lift beam (1) using the handle (9): pull both parts of the undercarriage (3) out of the the articulated head. Now reassemble undercarriage. Then pull out undercarriage at the other side of the crane and reassemble.

Fig. 3

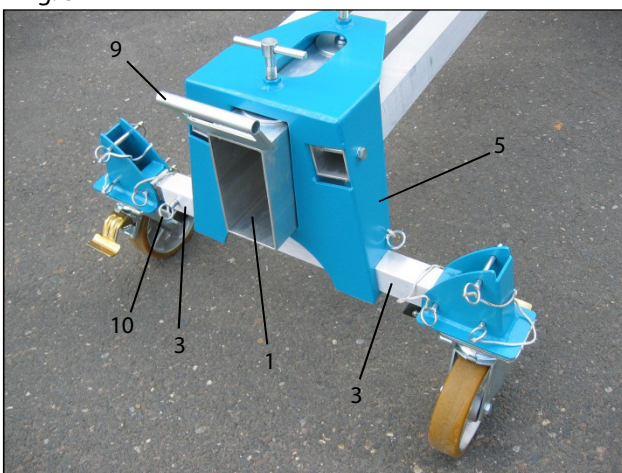
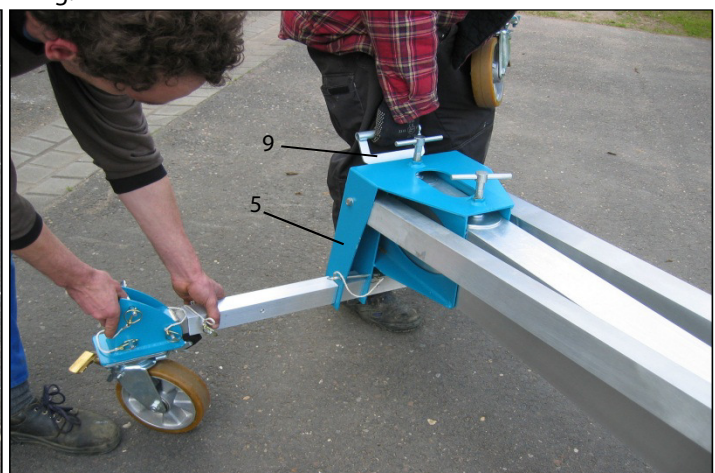


Fig. 4



5.4 Caution Danger of crushing injury and danger of overturning!

Dismantle at one side of crane both carrying handles (7) and both bolts (8). Lift crane using the handle (9), move both supports up to the limit stop and replace and secure bolts (8). Now erect the other side.

5.5 Caution Danger of overturning during crane height adjustment procedure!

Only start height adjustment after adjustment of span (see para. 5.6):

Remove bolts (10) in the undercarriage, adjust telescopic supports to the height requested and fit in undercarriage (3). Secure supports and undercarriage with bolts and carrying handle.

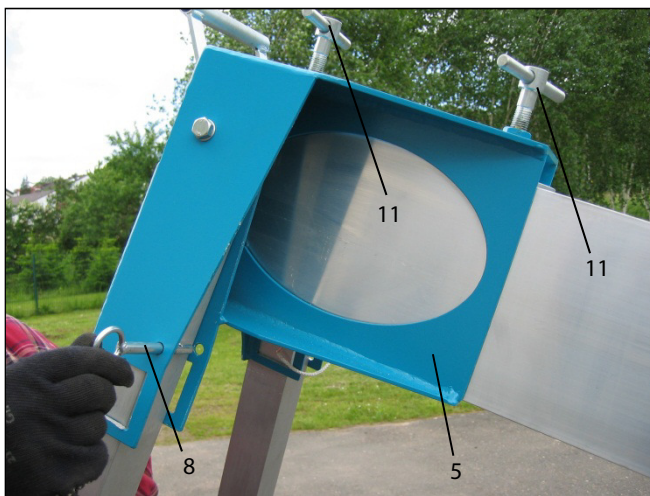


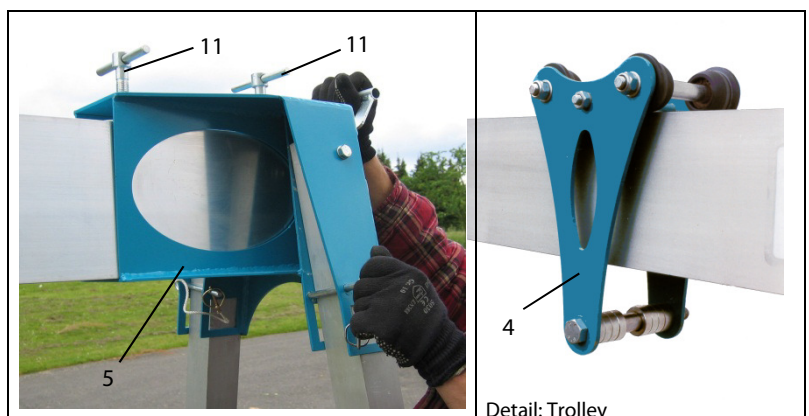
Fig. 5



Fig. 6 / Dismantling

5.6 If necessary, readjust span: release both tommy screws (11), move articulated head (5) and relock tommy screws (11).

5.7 Release brake of the trolley (4) and fit in manual hoist. Read operating instructions of the hoist. Now the crane is ready for operation.



6. Initial Operation And Control

6.1 Initial Operation

Prior to initial operation tighten all bolt and screw connections! engage wheel and swivel head brakes.

6.2 Duties Of The Crane Operator (BGV D6, §30)

Caution

- The operator must ensure that
 - the load is safely attached,
 - no personnel remain within the hazardous area of the load.
- The operator must be able to see the entire working area, if not, seek assistance.
- During stormy weather engage wheel and swivel head brakes. Suitable measures must be used to ensure that the crane will not tilt.

6.3 Control

- After the erection according to Paragraph 5 and the final inspection of the crane and the hoist by a crane expert, the crane is ready for operation.
- The hoist is manually operated.
- Do not pull load to one side and do not drag load along the ground. Load must be always suspended in the true vertical position.
- Lifting: prior to any lifting operation the four crane wheels must be blocked by means of the brakes. **Do not overload and do not swing the load!**
- Crane travel: do not use the crane to handle loads exceeding 500 kg. **Crane may only be moved on even and solid ground!**
- Trolley travelling: hand push trolley type. **Do not swing the load!**
- Secure crane to prevent moving after operation: engage wheel brake

7. Maintenance

- **Follow the maintenance instructions of the hoist!**
- Protect the crane and the hoist from humidity.

Daily maintenance:

- Prior to operation, the functioning and the working condition of the crane, the material handling lifting equipment and the load handling equipment must be examined. Should there be any defects which may affect the safety of the equipment, the crane must only be used following repair!

Quarterly maintenance:

- Retighten screw and bolt connections.
- Examine complete unit (e.g. replace missing screws, bolt, nuts ...).
- Examine unit for distortions (beam, supports ...).
- Check surface finish and paint over, if necessary.

Maintenance work may only be carried out by qualified personnel. Any modifications may only be carried out by the manufacturer. Only use original spare parts for repairs.

8. Repair

- Repairs may only be carried out by qualified personnel who have been fully trained and instructed.
- Only original spare parts may be used, otherwise the warranty will become invalid.

9. Dismantling

The dismantling is carried out in the following order:

- Remove hoist and fix trolley (4) in the centre of the beam to prevent moving.
- Adjust span as great as possible.
- Remove both undercarriages (3).
- Completely slide in both supports and secure with bolts.

Caution Danger of crushing injury and danger of overturning!

- Remove both bolts (8) at one side of the crane. Lift crane using the handle (9), move both supports above the beam (1) and secure with carrying handles (7). Remount bolts (8). Now dismantle the other side.
- Push both parts of the undercarriage (3) into the articulated head (5) and secure with bolts (10). Do the same on the other side.
- Now the crane can be moved simply.

10. Legal Requirements

The UVV-BGV D6 "Cranes", the operating instructions and the maintenance manual must be available and adhered to.

Extract from the Regulations for the Prevention of Accidents:

Responsibility for the independent operation (crane operator) and maintenance (crane maintenance) may only be given to the following personnel:

1. must be at least 18 years old,
2. suitable personnel, both physically and mentally,
3. personnel who have been instructed in the operation and maintenance of the crane and whose qualification has been fully proven to the authorized personnel.

Inspections

Manually-driven cranes must be examined by an expert prior to initial operation and after essential alterations prior to further operation.

Regular Inspections

Depending on operating and company conditions, cranes must be examined by an expert as required, however, at least once a year.

It is recommended that all regular inspections and repairs are carried out by the manufacturer.

11. Warranty And Liability

The warranty and the liability are no longer valid, if the equipment has not been assembled, installed, operated, checked and maintained according to these instructions.

Any doubts about instructions should be raised with the manufacturer prior to use.

Prior to every 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 loads are suitable to be handled.

Failures are to be reported in writing to the supplier immediately, at the latest 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 the costs.

According to the manufacturer's general contract conditions the equipment is under warranty for a period of six 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.

It is within the responsibility of the client to check prior to operation 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 take responsibility for any additional claims, for instance, the right to compensation for damage not caused to the equipment itself.

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EC Declaration Of Conformity As Defined By Machinery Directive 2006/42/EC

We hereby declare that the design and the construction of the equipment mentioned hereafter complies with the following Directive. This declaration will become invalid, if a modification of the equipment is carried out which has not been agreed with us as manufacturer.

The validity will also expire, if the equipment is not used as directed in accordance with manufacturer's relevant operating instructions and/or all regular inspections are not carried out according to BGV D6.

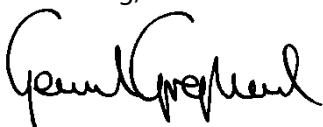
Description:	WIMAG Mobile Aluminium Crane AKF-HV 1000 WIMAG Mobile Aluminium Crane AKF-3000
Directives:	EC Machinery Directive 2006/42/EC of 17 May 2006
Harmonised Standards:	DIN EN 292 Part 1 and Part 2 "Safety Of Machines" DIN EN 13 155 "Cranes – Non-fixed load lifting attachments"
National Standards:	BGV D6 "Cranes" DIN 18 800 Part 1 "Steel Structures" DIN 15 018 "Cranes"

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

- Operating instruction
- Production drawings
- Production plans
- Static verification
- Certification of welding

The CE symbol is marked on the equipment.

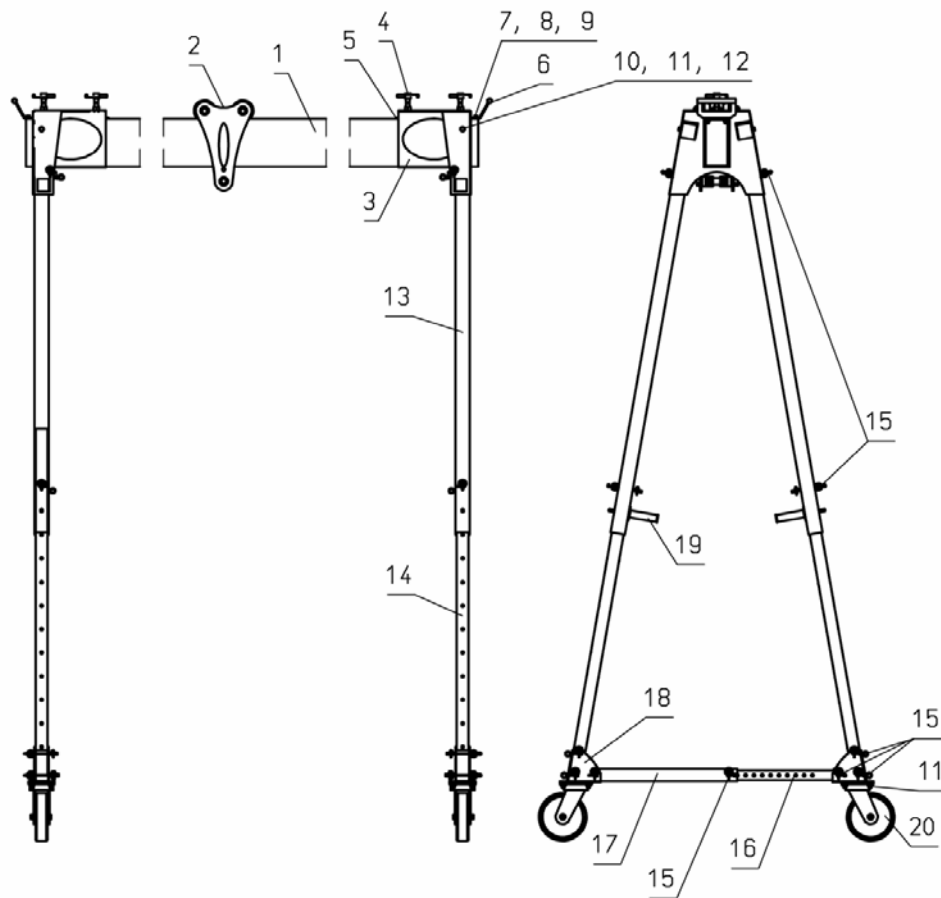
Obernburg, October 10th 2011



Gerhard Gressbach
(Dipl. Ing.)

E 535 SPARE PARTS LIST

Mobile Aluminium Crane AKF-HV 1000



Item No.	Description	AKF-HV-1000 535 150		
		Unit	Order No.	Price €/Unit
1	Beam	1	047 341	
2	Trolley	1	047 340	
3	Beam linkage head	2	048 601	
4	Tommy screw	4	050 429	
5	Pressure plate	4	047 273	
6	Handle	2	047 035	
7	Hexagonal head cap screw	4	050 239	
8	Hexagonal nut	4	051 101	
9	Washer	8	051 503	
10	Hexagonal head cap screw	4	050 024	
11	Hexagonal nut	20	051 102	
12	Washer	8	051 504	
13	Square section LO	4	048 616	
14	Square section LU mobile	4	048 615	
15	Bolt	22	047 055	
16	Inner transverse beam	2	048 621	
17	Outer transverse beam	2	048 622	
18	Foot	4	048 485	
19	Carrying handle	4	048 623	
20	Wheel	4	053 923	

Heavy duty outdoor wheels, if any.

18	Foot	4	048 617	
20	Heavy duty outdoor wheel	4	048 669	
21	Hexagonal head cap screw	16	050 188	
22	Hexagonal nut	16	051 008	
23	Spring washer	16	051 708	