Klaas

Power of Aluminium

Mobile cranes

Power of Aluminium

09/2022

klaas.com

Distinctively Klaas -
more than just height

Klaas
Power of Aluminium

Since its foundation in 1933, the Klaas family company has developed into one of the leading manufacturers of mobile cranes with aluminium booms. „Klaas" stands for innovative, high-performance and high-quality products that are geared to the requirements and daily tasks of our customers. The focus is not only on heights and ranges of our equipment, but also on its quality, reliability and safety. Experienced employees with a lot of product know-how form the basis for this as well as ultra-modern production facilities and machines.
Klaas aluminium cranes help to make heavy work easier and offer efficient solutions for a wide range of applications. Over 5,000 cranes delivered speak for themselves and make Klaas the world's no. 1.

Boom system – 100 % aluminium

The most striking trademark of a Klaas crane is its boom. Its special feature: All boom elements are made of 100% high-strength aluminium and are manufactured as box sections u sing the friction stir welding process. This low-temperature method ensures particularly high strength „as if milled from solid material". Even in the joints, the stability is comparable to the original solid material. Attachments are mainly milled from the solid material and then fastened with locking ring bolts. The mast elements have precisely calculated recesses in the area of the upper and lower chords, which are machined by Klaas. This gives the mast its Klaas-typical hole pattern and offers smaller wind-exposed areas and a lower dead weight.
The base mast is erected and supported by two stable luffing cylinders. They stabilise it against lateral forces and, as a strong double, guarantee particularly smooth mast movements and a maximum of safety.

Fly jib

Klaas builds cranes for practical use: with an extremely strong fly jib. Because much more decisive than the maximum load capacity of a crane are its reach and performance values that it achieves in daily work. The fly jib is connected to the base mast via sturdy aluminium articulated plates. Two protected folding jib cylinders together with the Klaas kinematics ensure a radius of movement of the folding jib from 0° to 165°. The electronic monitoring in the folding point cylinders guarantees optimum load absorption in every angle position. Our large mobile cranes work with a double hydraulic telescopic fly jib. The first two elements can be extended and retracted by remote control using Klaas rope technology, extension 3 extends by its own weight.

The advantages of the folding jib:

- By extending the folding jib, the maximum hook height is significantly increased. This means that roof areas at the rear can also be reached if structural conditions or scaffolding prevent the main mast from being extended further.
- Twin luffing cylinders ensure high stability and quiet working even in windy conditions.
- By extending the hydraulically telescopic folding jib „in the air", the cranes can be set up and used even on particularly narrow construction sites. And this even with a mounted working platform.
- Thanks to simultaneous extension of both folding jib elements, the load weight is optimally distributed.

Telescoping technology

The heart of the telescoping process is the patented Klaas rope technology: A telescoping winch with two retraction and extension cables each ensures that the mast elements are extended evenly and safely - even at a flat angle and under load. Slack rope formation is not possible thanks to the single-layer winding. The individual mast elements are moved in telescopic operation over rollers and sliding strips made of high-strength plastic. This means: smooth gliding with low wear and tear and extremely low-maintenance operation. As the rope technology is very easily accessible, the material and working time costs are significantly lower than with many other systems when the rope is replaced due to wear.
An integrated electronic length measurement system permanently records the extended length of the mast and calculates the maximum possible load from this.

Superstructure

As the central element between the substructure with the support and the boom system, the so-called superstructure is decisive for the stability of the entire crane unit in all movements. The complete superstructure is made of steel in a stable edge or truss construction. The basis for the mobility is a high-quality slewing ring from German brand manufacture. A well thought-out and proven rotary joint enables all Klaas truck-mounted cranes to turn endlessly in both directions.
In a service-friendly way, the upper carriage accommodates the Kubota diesel engine as well as all control units important for crane operation. Its stability in combination with Klaas electronics ensures that the upper carriage can be turned precisely via radio remote control even under load. The crane operator is supported in his work by gentle stopping and starting. Helpful features such as memory functions and adjustable turning range limits ensure fast and safe working.

Support system

Electronic set-up automatic

All Klaas crane models have a user-friendly and flexible support system. The pairs of supports are designed as V- or H-outriggers and guarantee very good stability in every direction. The crane is completely set up via remote control. After an acoustic signal is sounded, all outriggers have the same pressure and the crane is optimally set up.

Variable support

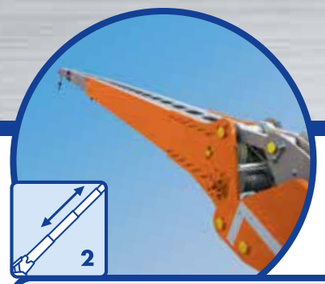
All Klaas cranes are equipped with massive support beams that can be extended variably in pairs or single. There is no predetermined grid that restricts the operator, so that the available floor space can be used optimally. Long vertical supports allow a consistently large support surface even on uneven terrain and thus high performance values.

Permanent support monitoring

The automatic levelling of the supports at the push of a button guarantees sufficient pressure in all four support cylinders. Via the ASC control system, the pressure is permanently monitored during erection as well as during crane operation and displayed via remote control. In this way, it ensures even pressure distribution at all times and reacts to changing external conditions. All crane functions are only activated when all four outriggers have the same high pressure. If the pressure of the supports is insufficient, a safety shutdown occurs automatically.

The Klaas advantages at a glance

Klaas
Power of Aluminium



2-fold hydraulic telescopic fly jib

- Continous extension of the fly jib via remote control enbables fast crane set up even in narrow construction sites.
- The fly jib can also be hydraulically extended during working platform operation.

Klaas boom system

- All elements are made of 100 % aluminium.
- Extremely solid special aluminium alloy with low (tare) weight
- No loss of strength in the weld seam due to innovative friction stir welding process (FSW): as a result, the weld is as strong as the solid material.

Working platform

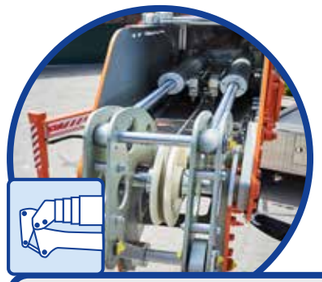
- The crane can be converted to a fully-fledged working platform in less than 5 minutes.
- The working platform can be swivelled 45° degrees to each side, rotating platform 225°.

Double derricking cylinders

- Double derricking cylinders provide double safety.
- Lateral force guides can be absorbed better. That makes the boom much more stable and resistant to vibration.
- Two derricking cylinders ensure a very low rate of twist when rasing the boom.

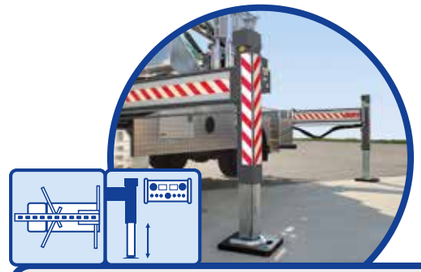
Full panelling

- Spacious, lockable storage compartments
- Safe storage of tools and accessories
- Large storage space on the crane
- The aluminium chequer plate design gives the crane a high-quality and clean look.



Folding jib joint/Twin luffing cylinders

- The newly designed hinge plate is „made from the solid" and can therefore dispense with steel connecting elements. This saves weight and increases stability.
- The redesigned folding jib joint allows higher loads on the integrated extensions.
- Twin luffing cylinders ensure even more safety and protection against lateral forces.



Automatic levelling

- Simplified set up of the crane via remote control
- Automatic levelling ensures optimum stability.
- Fully hydraulic support in conjunction with the ASC-support monitoring enables infinitely variable support widths, also concerning the extension.

Klaas²

- Double derricking cylinders
- Twin luffing fly jib cylinders

Twin luffing cylinders provide added stability and enable comfortable and safe operation. Load movements during slewing or under wind load are absorbed significantly better. This enables controlled and precise operation even in difficult conditions.

Crane control system

- Modern safety PLC for crane operation
- CAN-BUS control block allows especially sensitive and precise working.
- Radio remote control with LCD display enables the crane operation from different positions.
- In case of radio interference or working in sensitive areas the radio remote control can also be operated wirelessly with cable.
- The memory function enables the control to store two target points. Through this function, the crane moves automatically, in the safe hold-to-run operation mode, to the stored target point.

Telescoping winch

- The rope technology allows rapid telescoping under load.
- The low deadweight of the ropes benefits jib length and load capacity.
- Rope technology is low-maintenance and very accessible.
- The integrated electronic length-measurement continously records the current extension length from the mast and calculates the maximum possible load.

Drive concept

K950, K1003 and K1100 are standard equipped with hybrid drives, all others with a separate diesel engine. Here you can order the hybrid package optionally.

Seperate diesel engine

- In power, performance and consumption optimally adjusted for crane operation
- Economical and powerful
- Protects the truck engine

Hybrid drive

- Equipped with 400 volt electric motor (400 V, 32 Amp.) and separate Diesel engine
- Quiet operation without polluting exhaust gases with electric motor
- Use of the separate diesel engine on construction sites without power access

Accessory fix system

- Thanks to the Klaas accessory fix system, your accessories are immediately within reach.
- No annoying fasten
- Due to accurately fitting brackets, road safety is guaranteed!

Personal safety mode

- Klaas mobile cranes are equipped or prepared for personal safety mode in accordance with BG guidelines.

Mounting-/glass hook

- Every Klaas mobile crane can be equipped with an optional mountinghook function.
- The mounting hook enables extremelyprecise material transport. Area of usee. g. glass mounting with a vacuum lifter.

Tradition **and progress**

Klaas
Power of Aluminium

Back in 1933 Theodor Klaas founded what is now the medium-sized family-run company from Ascheberg in Westphalia. Working firstly as a building contractor, he used all his inventiveness after the Second World War to develop the first inclined lift, which makes work on building sites much easier.

His son Ludger, a trained electrician and master locksmith, joined the firm in 1969. He recognised the tremendous benefits of aluminium as a lightweight material and used it to make the first aluminium crane in 1993, which soon also made its breakthrough internationally. This innovation proved to be a milestone in the company's history and the basis for developing other special machinery, for example in the field of firefighting technology.

Today, firefighters all over the world work with the Klaas Alufiver, a multifunctional device for extinguishing fires and rescuing people. The two elevating work platforms „Theo" and „Rudi" also benefit from our many years of experience in the development of outriggers with work platform function: They convince with high performance values and easy handling.

To ensure that our products keep what we promise, most of the components are produced in the Ascheberg factory itself and only a few components are purchased in addition. This enables us to continuously ensure the quality and condition of our equipment. On the one hand, an effective quality management system certified according to DIN EN ISO 9001, which covers all areas of the company from development to production and distribution of our products, helps us to do this. On the other hand, it is also the meanwhile more than 280 employees at our headquarters in Ascheberg and the nine service stations throughout Germany who are committed to the company with a lot of knowledge and experience. And so Klaas is now in its third generation of powerful and reliable partners for many craftsmen's businesses.

Ausstattung	K700	K760	K850	K900	K950	K1003	K1100
Klaas Boom system	●	●	●	●	●	●	●
H-Outriggers	●	●					
V-Outriggers			●	●	●	●	●
Automatic levelling	●	●	●	●	●	●	●
2-fold hydraulic telescoping fly jib	●	●		●	●	●	●
Twin luffing cylinders	●	●	●	●	●	●	●
Double derricking cylinders	●	●	●	●	●	●	●
Telescoping winch	●	●	●	●	●	●	●
Continuous rotation	●	●	●	●	●	●	●
Crane control system	●	●	●	●	●	●	●
Radio remote control	●	●	●				
XL Radio remote control	○	○	○	●	●	●	●
separate diesel engine	●	●	●	●			
Hybrid drive	○	○	○	○	●	●	●
Extendable counterweight					●	●	●
Full panelling	●	●	●	●	●	●	●
Working platform	○	○	○	○	○	○	○
Accessory fix system	○	○	○	○	○	○	○
Personal safety mode	●	●	○	●	●	●	●
Mounting-/ glass hook	○	○	○	○	○	○	○

○ optional equipment
● standard equipment

Tech. specifications	K700	K760	K850	K900	K950	K1003	K1100
Hook load (stand./opt.)	1.6/3.0 t	2.0/4.0 t	3.0/5.0 t	3.0/5.0 t	3.0/5.0 t	3.0/6.0 t	3.0/6.0 t
Hook height	34.50 m	37.50 m	36.90 m	38.40 m	43.50 m	52.25 m	60.00 m
Boom length	36.50 m	39.00 m	37.60 m	39.00 m	45.00 m	54.00 m	61.00 m
Outrigger width min.-max.	3.03 m - 5.29 m	3.03 m - 5.29 m	3.10 m - 5.49 m	3.04 m - 5.48 m	3.04 m - 5.48 m	3.04 m - 5.94 m	3.04 m - 5.93 m
Winch capacity	1,600 kg	2,000 kg	3,000 kg	3,000 kg	3,000 kg	3,000 kg	3,000 kg
Length of folding jib	3 Auszüge 13.90 m	3 Auszüge 13.65 m	2 Auszüge 12.20 m	3 Auszüge 13.78 m	3 Auszüge 13.78 m	3 Auszüge 18.39 m	3 Auszüge 18.39 m
Truck Total weight*	≥ 7.49 t	≥ 7.49 t	≥ 13.49 t	≥ 16.00 t	≥ 16.00 t	≥ 22.00 t	≥ 26.00 t

*dependent on truck type

Throughout Germany - **Service and rental**

Service and rental stations

Service & rental station Hamburg
Gottlieb-Daimler-Straße 2
21629 Neu Wulmstorf
Telephone: 00 49 40/41 92 00 44
E-mail: hamburg@klaas.com

Service & rental station Hanover
Im Achternfeld 6
31542 Bad Nenndorf
Telephone: 00 49 5723/9 80 01 06
E-mail: hannover@klaas.com

Service & rental station Wittenberg
Am Heideberg 24
06886 Lutherstadt Wittenberg
Telephone: 00 49 3491/6 57 90
E-mail: wittenberg@klaas.com

Service & rental station Gera
An der Marktbrücke 2
07554 Korbußen
Telephone: 00 49 36602/9 30 67
E-mail: gera@klaas.com

Service & rental station Rhineland
Otto-Hahn-Straße 13
41515 Grevenbroich
Telephone: +49 (0) 21 81/704 86 79
E-mail: grevenbroich@klaas.com

Service & rental station Rhine-Main/Rhine-Neckar
Kaiserstraße 14
67292 Kirchheimbolanden
Telephone: 00 49 63 52/7 06 36 86
E-mail: kibo@klaas.com

Service & rental station Tübingen
Alte Landstraße 46
72072 Tübingen
Telephone: 00 49 7071/7 70 42 52
E-mail: tuebingen@klaas.com

Service & rental station Nuremberg
Gewerbegebiet Ost 26
91085 Weisendorf
Telephone: 00 49 9135/7 27 76 27
E-mail: nuernberg@klaas.com

Service & rental station Munich
Eichenstraße 22
82291 Mammendorf
Telephone: 00 49 8145/9 97 95 76
E-mail: muenchen@klaas.com

Service and rental Ascheberg

Service Ascheberg
Haselburger Damm 25
59387 Ascheberg
Telefon: +49 (0)25 93/95 92 5000
E-Mail: service@klaas.com

Vermietung Ascheberg
Haselburger Damm 25
59387 Ascheberg
Telefon: +49 (0)25 93/95 92 5001
E-Mail: vermietung@klaas.com

Reference partner Sales

Aluminium crane: North-west region
Roland Stockhausen
Cell: 00 49 172 - 560 08 99
E-mail: roland.stockhausen@klaas.com

Aluminium crane: West region
Philipp Wagner
Cell: 00 49 151 - 46 13 21 10
E-mail: philipp.wagner@klaas.com

Aluminium crane: West region
Daniel Jaron
Cell: 00 49 170 - 794 18 86
E-mail: daniel.jaron@klaas.com

Aluminium crane: North-east region
Jens Queißner
Cell: 00 49 151 - 14 84 59 52
E-mail: jens.queissner@klaas.com

Aluminium crane: Central region
Tobias Heiting
Cell: 00 49 175 - 183 63 57
E-mail: tobias.heiting@klaas.com

Aluminium crane: South-west region
Olaf Dörr
Cell: 00 49 172 - 995 47 79
E-mail: olaf.doerr@klaas.com

Aluminium crane: South-east region
Claus-Steffen Neubert
Cell: 00 49 172 - 598 44 15
E-mail: steffen.neubert@klaas.com

Aluminium crane: South region
Felix Müller
Cell: 00 49160 - 90 84 00 83
E-mail: felix.mueller@klaas.com

Used cranes: north region
Michael Hartwig
Mobil: +49 (0) 160 - 581 95 96
E-Mail: klaas24@klaas.com

Used cranes: south region
Thomas Wißmann
Mobil: +49 (0) 175 - 430 65 01
E-Mail: klaas24@klaas.com

klaas24.com
Online portal for used and rental machines and new parts accessories