

COMMERCIAL TRAILER COMPONENTS

HIGHLIGHTS FOR THE CONSTRUCTION SECTOR



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AL-KO VEHICLE TECHNOLOGY QUALITY FOR LIFE



FROM THE VILLAGE FORGE TO A GLOBAL CORPORATION

Quality, innovation in product and process as well as reliability and sustainability in our internal and external customer relations. That is the basis of our pursuit of sustainable growth and quality leadership in our business fields. Since 2016 we have been making our contribution to the DexKo Group, the world's leading manufacturer of axles and chassis components in the lightweight segment.

We are proud to continue in successfully shaping this development together with DexKo and to convey our brand promise of quality, safety and comfort for our products and services to the world.

Member of



QUALITY FOR LIFE

We love quality. We live quality. And we have the right answer for virtually every transport requirement in our sector.

AL-KO Vehicle Technology is safety and quality in one: from the product to delivery. We want our customers to be satisfied and successful.

IN GOOD HANDS - WORLDWIDE



WE'RE RIGHT WHERE YOU NEED US

With over 30 production sites and sales offices as well as roughly 1,000 service stations around the world, our network guarantees constant presence and personal contact. Our sophisticated logistics network around the entire globe optimises our flow of goods and guarantees a global 'just-in-time' presence. AL-KO quality and service are assured everywhere. You can count on that!

AL-KO VEHICLE TECHNOLOGY AND ITS BRANDS



For decades, the name has been a constant on the market and fits perfectly into the AL-KO Vehicle Technology portfolio with its main focus on hitches, jockey wheels and fittings. The high Winterhoff quality is based on many years of experience, reliable employees, modern manufacture and perfect quality management, and guarantees exceptional value for money.



The Bradley brand stands for the highest levels of quality and safety, and thus slots seamlessly into the AL-KO brand promise. Outstanding constructions, extreme robustness, excellent durability. And more than 90 years of experience in towing hitches and coupling components.

TECHNICAL DEVELOPMENT

VARIANT CONSTRUCTION

At our technology centre, our design engineers develop components and complex assemblies up to production maturity, and implement your individual customer requirements.



RANGE OF TASKS

1. Variant construction

Construction + design of caravan chassis, product variant creation, installation space analysis, low-loaders + high-loaders, attachment/body advice

2. Advice

Technical advice on retrofitting chassis components and accessories, homologation advice for the AL-KO product range

3. Service

Provision of brake calculations and type reports for our customers, technical sales, service and product management support

TESTING

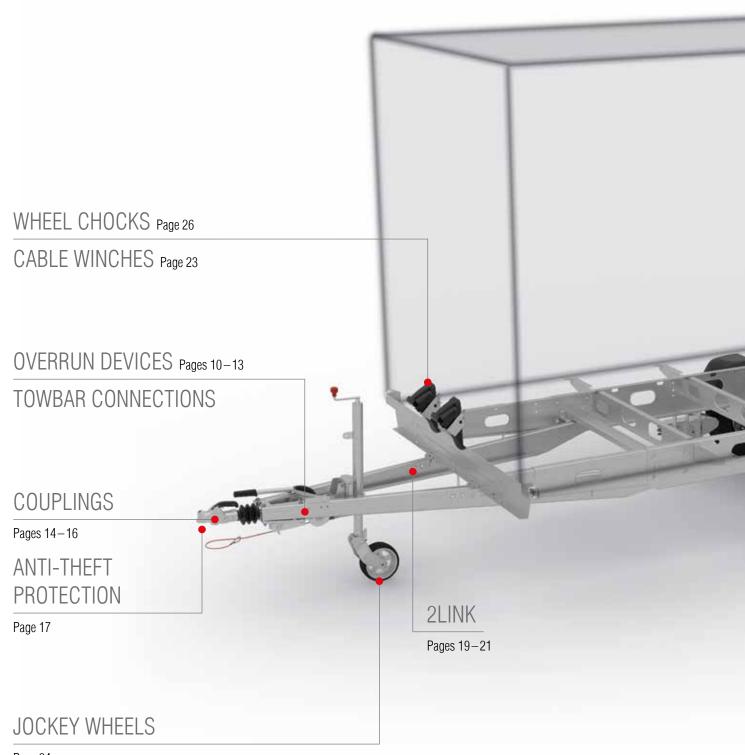
At AL-KO, research and development are firmly involved in the product creation process from the initial idea right through to production. The result: Innovative solutions that satisfy the most demanding requirements. In close coordination and collaboration with the state-of-the-art Testing Department, our engineers at the new Technology Centre push individual components, assemblies, and even finished products to the limit every day.

We are proud of our customised, state-of-the-art testing facilities that enable the most stringent endurance and wear tests under real operating conditions. In our market environment, they offer unique opportunities for the testing of individual components and entire vehicles. Only what is assessed as flawless receives our "Quality for Life" seal of approval at the end of the process!

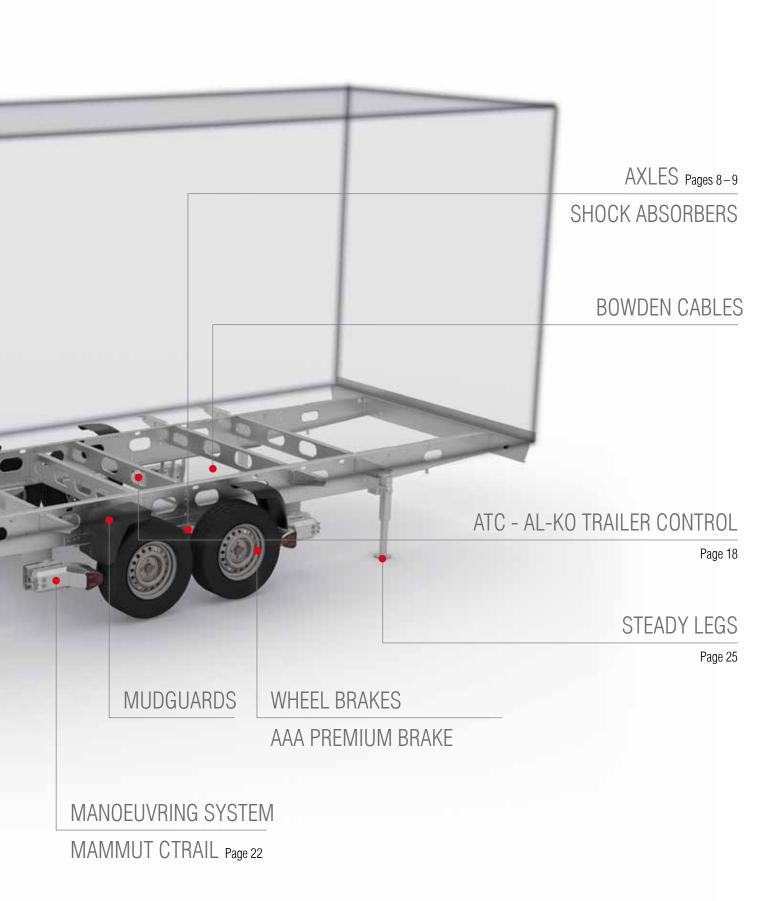


COMMERCIAL TRAILER COMPONENTS

YOUR RELIABLE COMPANION IN EVERY SITUATION



Page 24



TRAILER AXLES

GREATER DRIVING SAFETY AND COMFORT FOR EVERY NEED

Our trailer axles are the result of continuous development work. Processing and materials meet the needs of modern vehicle technology. We have a wide range of axles for a huge spectrum of requirements. Our components are designed to work together perfectly according to the application and weight range.

For durability and high operating performance, the various axle components are equipped with permanent corrosion protection. The axle bodies are hot-dip galvanised, and other components such as brake back plates are galvanised. The brake pads also offer high load capacities and corrosion resistance. In addition, for the pads we use asbestos-free materials exclusively.

Braked axles with hexagonal rubber suspension

With PROFI LONGLIFE axle Bowden cables as standard **Options:**

- I Watertight bearing
- I AAA automatic brake adjustment
- I Wheel brake flushing system

Range: EA 750/1,000/1,350/1,500/1,600/1,800/

2,000/2,500/3,000/3,500 kg

Driving comfort: $\star \star$ Driving safety: $\star \star$



Braked axles with drive shaft on one side

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

Application examples:

- I Gritter trailer
- I Trailer with cooling unit (rolling energy is converted into electricity by the drive shaft)



Square braked axles (SWING rubber suspension axles)

Range: EA 850/1,050/1,350/1,500/1,800/2,000/

2,500/3,000 kg Driving comfort: ★ Driving safety: ★



Braked axles with steel suspension (RONDO torsion bar axles)

Range: 1,050/1,350/1,500/1,800/2,100/2,500/3,000/3,500 kg

Driving comfort: $\star \star \star$ Driving safety: $\star \star \star$



Axles for trailers with pneumatic brakes

Brake drum with sensor wheel spline profile (to decrease the rotary motion), brake back plate with pressed-in bush (e.g. ABS sensor)

Range:

Hexagonal rubber suspension EA 1,800/3,000 kg, TA 3,500/5,000/6,000 kg, Tridem 4,300/5,400 kg Steel suspension EA 4,000 kg, TA 7,500 kg



Braked straight axles with leaf suspension

With PROFI LONGLIFE axle Bowden cables as standard **Options:**

- I Watertight bearing
- I AAA automatic brake adjustment
- I Wheel brake flushing system

Range: EA 1,500/1,800 kg Driving comfort: ★★ Driving safety: ★★



HEIGHT-ADJUSTABLE OVERRUN DEVICES

VB-2 OPTIMA FOR TRANSPORT TRAILERS IN PROFESSIONAL USE



MODERN, ROBUST TECHNOLOGY WITH STURDY RECTANGULAR SECTION

- I One-person height adjustment assisted by a gas spring
- I Two pairs of toothed lock washers reinforce the highly stressed adjustment range at the top and bottom
- I Easy-extending telescopic handbrake lever (AL-KO patent) without pushbutton, i.e. easily adjusted
- I The flat construction of the overrun device permits:
 - Minimum hitching height of approx. 280 mm
 - Low hitching under the truck loading platform
- I The spring pack for the handbrake lever and the brake rod is positioned protected in the drawbar section
- I Quick-change system drawbar eyes for almost all European country versions
- I Range: 1,600 kg, 2,700 kg, 3,500 kg
- I Surface treatment: hot-dip galvanised



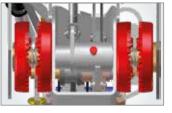
GAS SPRING

permits one-person height adjustment



ADJUSTMENT RANGE TOP

reinforced by two pairs of toothed lock washers



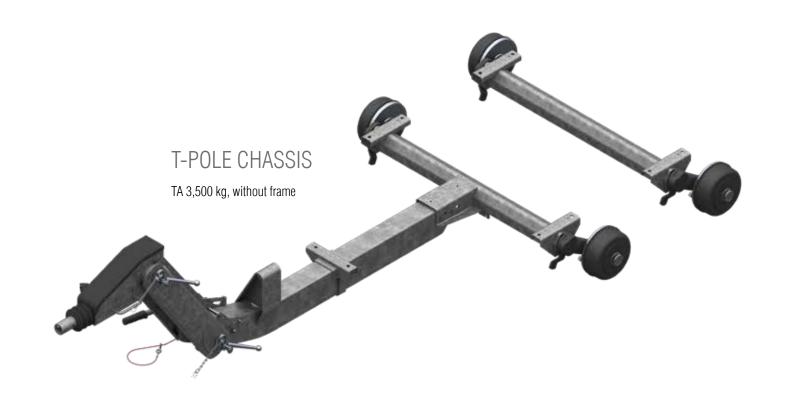
ADJUSTMENT RANGE BOTTOM

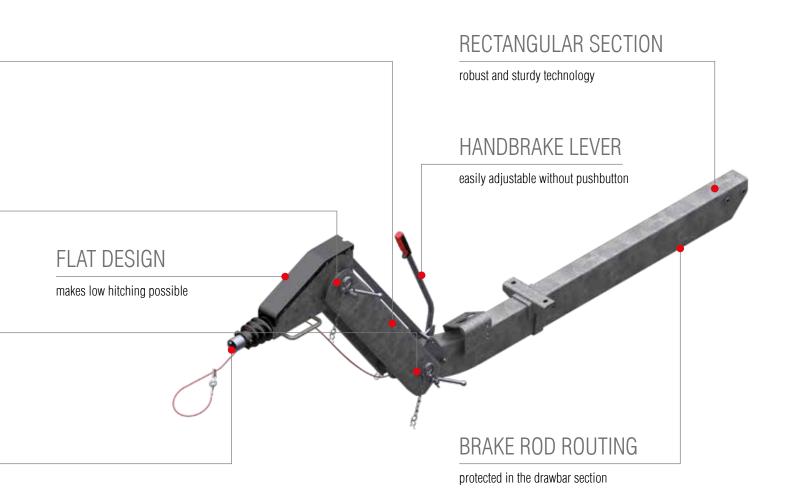
reinforced by two pairs of toothed lock washers



QUICK-CHANGE SYSTEM

for different hitches and eyes





OVERRUN DEVICE V 251 S and 251 G

1,500 to 3,000 kg

The drawbar struts can be installed at the top and bottom.



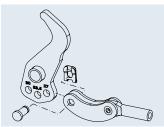




- I A cable guide is integrated in the skid bracket as standard so that the breakaway cable can activate the handbrake lever in an emergency.
- Skid bracket 100mm
- In bottom installation, the maximum permissible drawbar height is 100 mm.
- I The skid bracket integrated in the housing of the drawbar installation prevents any contact of the handbrake lever and the hitch/drawbar eye in an emergency.

Relay lever





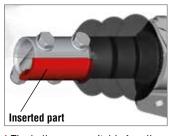
The relay lever can be simply changed over through existing holes as necessary.

190:27 = 1636G, 1637, 2051

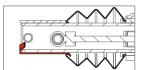
90:30 = 2361

190:33.5 = 3062,3081

Bellows

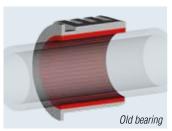


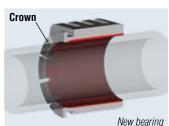
I The inserted part at the bottom of the drawbar secures the bellows against slipping backwards.



I The bellows are suitable for all coupling heads or drawbar eyes that can be used on this new overrun device.

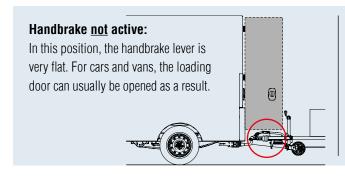
Drawbar tube bearing





I The optimised bearing bush geometry (crown in the front bearing bush with preload) and the modified machining process made it possible to reduce the bearing clearance.

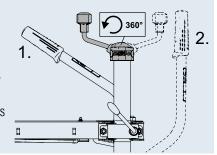
Parking brake/handbrake

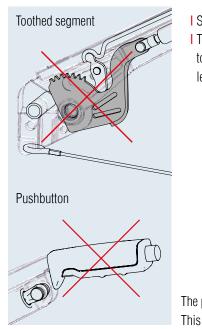


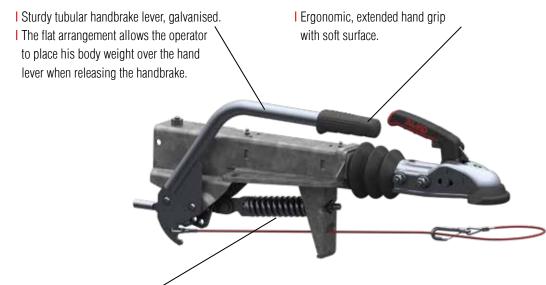
Handbrake active:

Despite the active handbrake, the jockey wheel crank can be moved freely.

- 1. Parking brake forwards
- 2. Parking brake backwards







The pressure spring dead-point mechanism eliminates the need for a toothed segment and pushbutton. This enables sensitive adjustment when coupling the trailer, e.g. on downhill gradients.

DRAWBAR EYES FOR OVERRUN DEVICES

Nose load 350 kg

Can be used with:

Overrun devices height-adjustable

Overrun devices ∨

Overrun devices □

Types 351 VB, 351 VB-2 Optima, 350 VB BASIC Type AE 3500 (cast-iron version), AE 2.8 VB/1-C (steel version) Type AE 2.8 VB/1-C (steel version)



















Important:

The drawbar eyes are only tested and approved for the overrun devices stated in the order overview.

No liability will be accepted for other uses.

STABILISERS

AK 161/AK 270 COUPLING HEAD – THE SAFEST OF ITS KIND



NFW: AL-KO SAFFTY

The new AL-KO Safety anti-theft device has been developed especially for the AK 161/AK 270 coupling head.



SOFT TOUCH GRIP

A soft and therefore adhesive plastic mixture is used in the red area of the hand grip. In addition, the projection on the end of the hand grip serves as an anti-slip protection.

SAFETY ADVANTAGE 2

Closed position

The vehicle's ball is fully inserted and has released the securing lever. Only now does the hand grip assume the horizontal position and indicate to the operator that a secure connection has been created.



Securing lever for flawless hitching

SAFETY ADVANTAGE 3

Indicator for correct hitching

In the closed position, the green safety indicator is additionally pushed out by the vehicle's coupling head, and is therefore visible. It once again indicates to the operator that the trailer is securely connected to the vehicle. This prevents unsuccessful locking. The journey may now start.

WEAR INDICATOR

As long as the marking is in the positive range, the tow hitch is OK.

SOFT-DOCK AS STANDARD

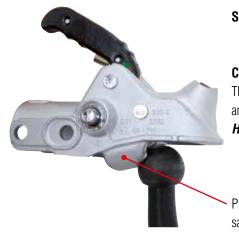
- I Protection against scratching
- I Shin protection

OPTIONAL LOCK ACCESSORY

Effective protection against rapid unauthorised access in the coupled and uncoupled state.

STABILISERS

PROFESSIONAL COUPLING HEAD - FOR TRAILERS UP TO 3,500 kg



SAFE HITCHING UP

Clear open position

The hand grip points diagonally upwards and indicates to the operator:

Hitch is not yet locked!

Protective cover for safe hitching



Wear indicator

Provides information about the status of your trailer's hitch as well as the towing hitch of your car.



Clear closed position

The car's towing hitch engages. Only at this point does the hand grip move to the horizontal position, and indicate to the user:

Hitch is locked!



Safety indicator

If the green cylinder is visible in hitched condition, you know that the hitch has been positioned correctly on your towing vehicle's ball.

MORE SAFETY - MORE PROTECTION



"Safety-Ball" option for when the trailer is stationary

- When the trailer is unhitched, simply insert the Safety-Ball into the hitch. The hitch handle automatically moves to the "Closed" position.
- 2. The hitch can now be secured with the key to prevent quick access.

(For details, see instructions for use).



"Anti-theft device" option for towing and when stationary

Insert key into lock barrel and secure it. (For details, see instructions for use).



"Soft-Dock" option

(Ramming protection) Protects the rear of the vehicle against damage.

STABILISERS

AKS™ 3004

FOUR FRICTION LININGS FOR BETTER LANE HANDLING

THE NUMBER 1 IN EUROPE!

Snaking or pitching movements of the trailer are effectively suppressed before they become serious

As the only anti-snaking coupling on the market, the AKS™ 3004 has four friction linings.

The coupling and stabilisation handles are separate from one another. This means the stabilisation function can be easily deactivated with a simple manual action when manoeuvring. The trailer remains safely coupled at all times.



IMPROVED ERGONOMICS

Closing the stabilisation handle presses the four friction linings against the car's towball from all sides. The four-fold increased friction suppresses snaking and pitching movements. This also means that the vehicle combination comes to rest significantly quicker even in an emergency situation.





VISIBLE CONTROL

- **1** Wear indicator for friction pads
- 2 When the green cylinder is visible the AKS™ 3004 is correctly placed
- 3 Wear indicator for coupling



WS 3000 – FRICTION-TYPE STABILISER

Specially developed friction elements are pressed axially under high spring pressure against the towball of the car, resulting in the enormous stability of the vehicle combination. As a result, the critical speed at which a vehicle combination becomes unstable and starts to yaw is permanently increased by up to 30 %. A safety advantage!

ANTI-THEFT PROTECTION

SAFETY LOCKS – THE EFFECTIVE DETERRENT AGAINST THEFT



NEW: AL-KO SAFETY FOR AK 161/AK 270

The new AL-KO Safety anti-theft protection for the AK 161/ AK 270 coupling head also meets the highest international safety requirements such as the criteria of "Sold Secure Gold" (Great Britain), "SBSC" (Sweden) and "SCM" (Netherlands). AL-KO Safety can be used both in stationary and driving modes, and is supplied with two keys.

Available starting Q3/2019



SAFETY PREMIUM

The Safety Premium also meets the safety requirements of "Sold Secure Gold" (Great Britain), "SBSC" (Sweden) and "SCM" (Netherlands). The sturdy steel construction with powder-coated housing and a solid galvanised bolt (free of chromium(VI)) is supplied with two keys.



SAFETY-BALL

The Safety Ball supplements the AL-KO anti-theft devices on the towbar in stationary use. The hard plastic safety catch drops into the coupling heads when uncoupled and prevents the spherical head engaging, thus also preventing unauthorised coupling.



SAFETY BOX

The Winterhoff Safety Box prevents the coupling and decoupling of the trailer, including when in motion. The Safety Box is supplied with a high-quality stainless steel Diskus padlock and is especially easy to use. It fits all standard coupling heads.

ATC - AL-KO TRAILER CONTROL

THE ANTI SNAKING SYSTEM FOR COMMERCIAL TRAILERS*

NEW: for commercial trailers up to 3,500 kg

SIMPLY CLEVER

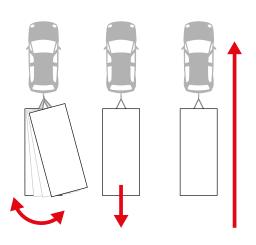
Avoidance manoeuvres or side winds can cause trailers to start swinging. AL-KO Trailer Control actively counteracts these forces. It detects the swinging motion directly at the axle and automatically brakes the trailer gently.

KEEP SAFELY IN THE TRAFFIC LANE

The emergency system reacts automatically when the swaying of the vehicle combination exceeds limit values.

- I Sensors react even to slight lateral accelerations.
- I The trailer immediately brakes automatically. The driver barely notices this correction.
- I Braking automatically puts the trailer back on track, i.e. there is little risk of a rear-end collision due to sudden, sharp braking, and an overtaking manoeuvre is not affected.





The driving behaviour of the trailer is permanently monitored by the ATC. Sensors detect dangerous lateral movements directly on the trailer axle, even before an ESP system for trailers installed in the car is able to sense the pendulum movement. The trailer will immediately — without any action on the part of the driver — brake gently and return to a stable driving condition.













2LINK CONNECTIVITY SYSTEM



NEW: GREATER SAFETY AND COMFORT DURING TRANSPORT

AL-KO 2LINK offers the option to monitor important safety functions on your smartphone while driving. The core element is the 2LINK box. Installed in the drawbar area, it processes the data from the sensors in the body and transmits these to the 2LINK app that you can download free of charge from the Apple App and Google Play stores.



THE 2LINK APP AT A GLANCE

- I ATC status display
- I TPMS status display
- I Levelling function
- I Service locator
- I Various operating manuals



ATC

The ATC status display warns the driver directly of system interventions and thus helps to detect dangerous driving situations and external influences earlier.



Spirit level

The integrated electronic spirit level makes it easy to manually level the trailer. The 2LINK box detects the current alignment of the trailer and shows the position directly on the smartphone display.



Tyre pressure

The TPMS status display allows the driver to check the tyre pressure at any time while driving and is immediately warned of any pressure drop.





NEW: AL-KO TPMS



THE TYRE PRESSURE ALWAYS IN YOUR SIGHTS

The optimum tyre pressure on your trailer has a significant influence on the cost-effectiveness, but more importantly also on the safety of your holiday trip. The new AL-KO tyre pressure monitoring sensor system in combination with the AL-KO 2LINK box enables you to check the tyre pressure on your smartphone at any time while driving and therefore to detect pressure loss in good time.

OPTIMUM TYRE PRESSURE FOR OPTIMUM DRIVING

Driving with the right tyre pressure at all times offers crucial benefits:

- I Shorter braking distance
- I Better driving and cornering responses
- I Lower fuel consumption
- I Reduced tyre wear

THE SIMPLE SOLUTION

The sensor of the AL-KO TPMS is installed directly on the wheel rim instead of a standard valve quickly and easily after removing the tyre. If a battery is required, installation can be carried out by AL-KO Service or an authorised trailer dealer.







For more information on 2LINK and on the APP, visit www.alko-tech.com/en/2link-for-trailers







NEW: AL-KO BPWS



MONITORING SYSTEM FOR THE WEAR STATUS OF BRAKE PADS

Additional safety tool for driver and trailer to permit optimal intervention in brake wear situations and to avoid consequential damage.

When the brake pads reach the wear limit, the sensor forwards the corresponding notification to the 2LINK system or the app on the smartphone.

- I Additional function for the AAA Premium Brake
- I For type 2051 brake pads
- I Simple and uncomplicated display via 2LINK app



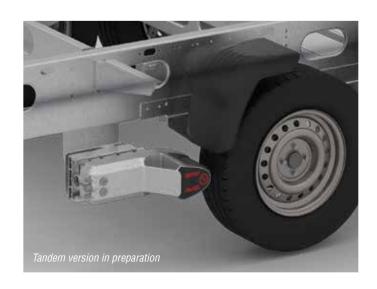


*Available soon 20 | 21

NEW: MAMMUT CTRAIL

THE MANOEUVRING SYSTEM FOR COMMERCIAL TRAILERS UP TO 2.5 t

The AL-KO MAMMUT CTRAIL manoeuvring system makes light work of positioning your trailer. Whether on rough ground or slopes, the system moves the vehicle easily and effectively. With just your thumb and without having anyone to help you.



OPTIMUM GRIP

Two motors are integrated into every drive unit: one for the positioning drive and one for the wheel drive. One push of the button on the remote control and the sturdy sandblasted drive rollers mounted in double bearings press against the wheels. The permanent electronic control of the contact pressure ensures optimum grip under all conditions.



The sturdy aluminium housing of the MAM-MUT CTRAIL is spray water-proof (IP65) and guarantees reliable function at all times even under adverse conditions.



Powerful, robust, compact: Powerful electric motors in each unit drive the trailer wheels.



FINGERTIP MANOEUVRING

Only the AL-KO MAMMUT CTRAIL offers a manoeuvring system with joystick control. Contrary to button operation, you can use one hand to easily steer, accelerate and brake.







360° turns



Soft start Soft stop



Obstacles up to 4 cm



Inclines up to 28% (single axle trailer)



Infinitely variable control

WINCHES FOR TRAILERS

STRONG HELPER FOR TOWING, PULLING AND LIFTING

For 35 years, AL-KO cable winches have proved to be effective helpers in the commercial and leisure sectors. Experience from over 2 million units sold speaks for itself.

The steel console-mounted winches with gear drive and plastic cover are robust and reliable. Smart details such as the load pressure brake, the automatic unwinder or the removable crank facilitate operation and protect the loads to be moved. The unusual design and high-quality corrosion protection guarantee convenient use, even in the long-term.

AL-KO cable winches meet the following requirements:

- I EC standard EN 13157
- I CF Directive
- I Machinery Directive

CABLE WINCHES BASIC

with automatic load pressure brake

- I Automatic load pressure brake
- I Automatic unwinder for rope or band (optional)
- I Removable crank (optional)
- I Plastic gear cover
- I Range: 450 and 900 kg
- I Surface treatment: Galvanised



CABLE WINCHES PLUS

with automatic load pressure brake

- I Modern design
- I High-quality corrosion protection
- I Automatic load pressure brake
- I Cable drum with plain bearing
- I Automatic unwinder for rope or band (optional)
- I Removable crank (optional)
- I Plastic gear cover
- I Range: 350 / 500 / 900 / 1,150 kg
- I Surface treatment: High-quality zinc-nickel coating



JOCKEY WHEELS

THE STABLE MANOEUVRING AID



PREMIUM JOCKEY WHEEL

- I Stationary nose load: max. 300 kg
- I Thanks to the integrated swing arm suspension, runs over uneven ground with suspension
- I Integrated wheel load indicator
- I The special spherical wheel allows easier manoeuvring on any surface
- The built-in thrust bearing under the crank facilitates operation
- I The high hot-dip galvanised coat thickness of up to 70 µm ensures high-quality corrosion protection. Abrasion of the zinc coat during height adjustment with the clamp is thus not critical. The structure of the zinc coating is uneven.



FULLY AUTOMATIC JOCKEY WHEEL

- I Stationary nose load: max. 800 kg
- I Ideal for truck and agricultural trailers
- I Stable design thanks to thick-walled steel tubes, rolled spindles, ball thrust bearings and wheels on plastic bearings
- I Function: When raising by turning, the inside tube with support shoe and wheel are guided into the outside tube by a spindle according to the adjustment stroke. The wheel with support shoe must now be hooked in by the operator.



FULLY AUTOMATIC JOCKEY WHEEL

- I Stationary nose load: max. 500 kg
- I Long version for greater adjustment stroke
- I Jockey wheel flange welded on low so there is greater swivel room for the support shoe when moving up
- I Wide and crowned wheel 230 x 80 mm with very good manoeuvring properties and a modern design, small contact surface on hard ground, large contact surface on soft ground

The right wheel for all applications

With our wide range of AL-KO and WINTERHOFF brand jockey wheels, we offer the perfect solution for every use!





STEADY LEGS

FOR GREATER STABILITY ON ANY SURFACE

SF 60 MODEL STEADY LEGS

- I Very stable steady legs with pivot and swivel functions
- I Static carrying capacity per support approx. 1,300 kg
- I Galvanised
- I Pivoting to save space

The following versions are available:

- I SF 60: Adapter with pin for pivot function, operated using hexagon or crank handle
- I SF 60-D: Integrated adapter with automatic pivot function, operated using hexagon, various adapter sizes available



SF 60 - Length 280 mm



SF 60 - Length 400 mm





SF 60-D - Length 280 mm

WHEEL CHOCKS

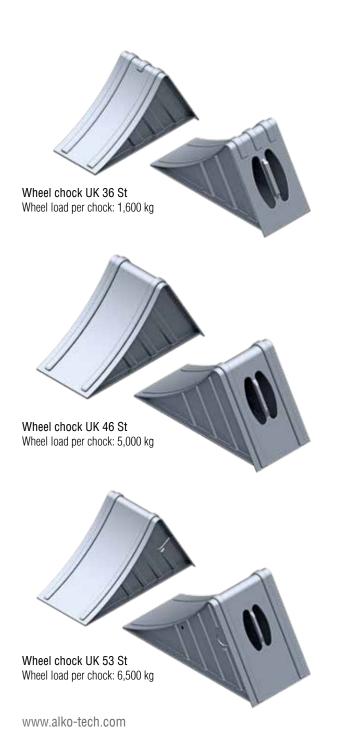
SAFE, LIGHT, STRIKINGLY ELEGANT

BASIC WHEEL CHOCKS

Wheel chocks from the BASIC product range are perfect for everyday use. Crafted from Sendzimer-galvanised steel plate, the chocks only offer limited resistance to all weather conditions.

PLUS WHEEL CHOCKS

The PLUS version is especially robust and is designed for high loads. These plastic wheel chocks have a low intrinsic weight, offer excellent weather-resistance and permanent corrosion protection.









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