

THE NEW SERIES 10

A Revolution in Forestry Technology

K310/410/510

GH

S

e-X/e-H ⚡

H

X



A NEW BENCHMARK IN TOWER YARDERS

With a range of highly innovative concepts and features, the **Series 10 sets a new benchmark in the tower yarder sector**. These machines are unmatched not only in terms of performance but also in quality, durability, and ergonomics. **A complete, uncompromising package of functionality, ergonomics, and comfort ensures maximum efficiency and performance in professional, demanding forestry operations.**

FASTER, STRONGER, MORE PRODUCTIVE!

Thanks to the use of high-quality materials and components, the first-class quality and durability that you expect from Koller remain the top priority. Choose the Koller Series 10 Tower Yarder and benefit from

The Series 10 is available in a wide variety of configurations and equipment options, providing the right solution for every forestry application – with consistent traction, high winch performance, and maximum productivity. This means significantly higher returns for operators while using the same personnel and incurring the same fixed operating costs.

cutting-edge technology without sacrificing the reliability and robustness of previous models. Rely on the proven quality and innovation of Koller and take timber harvesting to the next level.

This new product line is designed to meet all the needs and applications of professional loggers.



Productivity advantage



Technology and innovation leadership



Reliability / operational safety



Robustness



Longevity



Value retention
(High resale value)



Low fuel consumption and operating costs
(up to 30 % savings)



Shortest setup times
(significantly reduced assembly time without boom bolts, etc.)



Low maintenance costs



Ergonomics and safety



Easy access and visibility to the drums



High service-friendliness

All machine variants also available as K310!



K410e-H – The groundbreaking innovation that combines sustainability and efficiency. This electric-hybrid yarder merges the benefits of electric and hybrid drive technologies to enable environmentally friendly and energy-efficient forestry operations.



K410-H / -X and K510-H / -X – Compactly built on a stable trailer frame or crawler chassis with proven hydrostatic drive technology, these Tower Yarders combine all the strengths of the new 10 Series with the flexibility of a trailer or the off-road capability of a crawler chassis.



K410-S – The extremely compact and versatile tower yarder on a 3-axle truck stands out for its exceptional maneuverability and high productivity. Its flexibility, combined with a harvester head mounted on an excavator, also allows for specialized operations in tight spaces or hard-to-reach locations.



K510-S – The powerful Tower Yarder, compactly built on a 3-axle truck, combines all the advantages of the K510-GH in terms of reach, traction, and efficiency. This versatile machine offers the performance of the K510 in a compact and flexible format, ideal for narrow forest roads and separate timber harvesting with a harvester head.



K410-GH – The all-rounder for thinning, pre-commercial thinning, and heavy timber extraction, built on a 3- or 4-axle truck. With its versatility and robust construction, this truck-mounted yarder is ideal for use in various forest areas and under all working conditions.



K510-GH – Our most powerful truck-mounted yarder for heavy timber extraction, built on a 4-axle truck. This truck-mounted yarder impresses with its outstanding performance and reliability, especially in demanding logging operations.



The new **Series 10** of our cable crane range sets new standards in forestry technology. With the new Koller Tower Yarders, we offer groundbreaking innovations, numerous new features, and state-of-the-art technology.



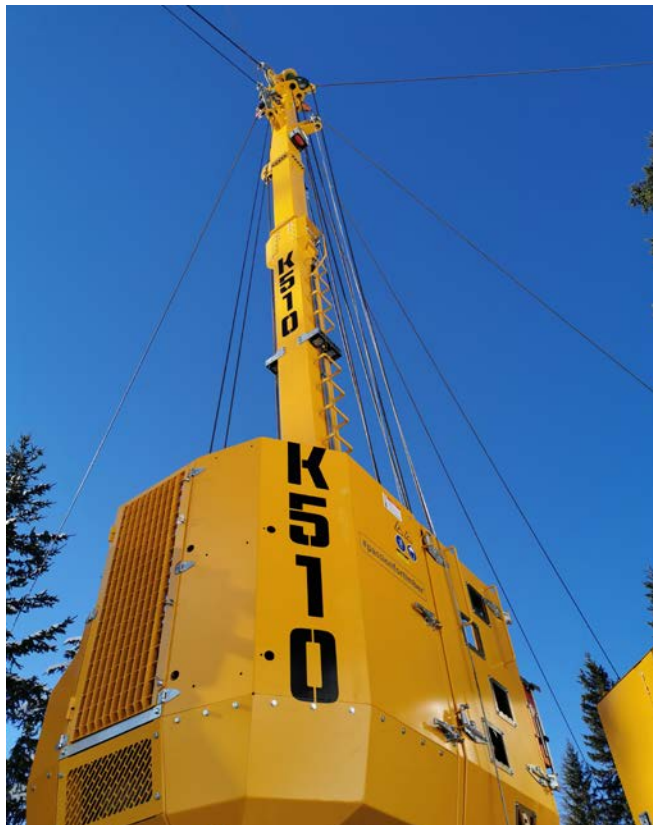
UNIQUE TOWER YARDER UNIT

The heart of the new Series 10 is the **hydraulically rotatable and tiltable winch and mast unit**. With the push of a button on the rigging remote control, this compact unit can be positioned quickly and safely with **350° rotation** and **±15° tilt**, creating clearly defined and ideal conditions in any setup situation. This makes **the setup of new routes exceptionally fast, safe, ergonomic, and without any compromise**.

On the side facing the cable route, the two large working winches are

stacked, delivering maximum performance with **up to 200 kW** and **consistently strong traction**. On the opposite side, **up to six guying winches** are arranged ergonomically, accessible from the platform at knee to chest height.

The combination of highly ergonomic design and intelligent assembly-assist functions in the control and radio system **enables unbeatable speed, energy-saving operation, and safe installation and dismantling** of the cable crane system.



GENERAL HIGHLIGHTS

- **Highest Performance and Extraction Capacity** with Low Fuel Consumption
- Available with **hydraulic or electric-hybrid high-performance drive**
- **Very low operating and maintenance costs** – up to 30% fuel savings compared to previous hydrostatic models
- **Modular design with machine class upgrade options**
- **Robust construction** with high-strength special steel
- Central, sturdy **hydraulically operated slewing ring with integrated leveling**
- Unit can be **aligned via assembly remote** with two-step operation
- **Central protected hose and cable routing** through the slewing ring without vulnerable rotary distributors or external hose bundles
- **Shortest machine setup times**
- **Service-friendly** – free access to winches, drives, hydraulics, and electrical components
- **No risk of rope crossovers** during assembly or operation
- **Carriage storage on the winch unit**, providing ideal accessibility
- **Shortest cable route assembly time** thanks to numerous assist functions

- **Rope Drum** for Bundling Line Cables
- **Simple and clean rope storage** in transport position via storage device
- **Durable with excellent value retention**
- **Highest-quality components and superior workmanship** for maximum operational safety



An innovative modular unit is available with various carrier vehicle and body configurations, as well as two different drive technologies. The modular design also offers a cost-effective option to upgrade the machine class in terms of traction and reach at a later stage.



Experience firsthand the impressive power and productivity of the machine! These key advantages deliver higher revenue and returns compared to similar equipment, all with the same personnel and fixed costs.



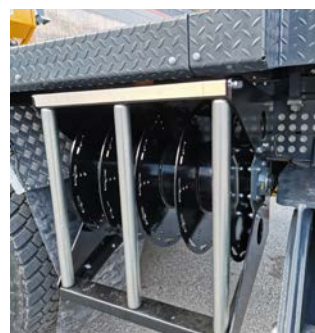
STANDARD EQUIPMENT

- **Driver's Cab Protection** – foldable guard for maximum protection of the truck cab against logs, stones, etc.
- Solid **hydraulically operated loading ramps** with heavy-duty anti-slip grid (for truck-mounted versions)
- **Workshop package:**
 - **Hose reel for compressed air supply**
 - **230 V power supply** with 2000 W and cable reel
 - Solid vise mounted on the **winch unit**
- Hydraulically radio-controlled **cross reel for bundling guying ropes** on the winch unit
- **Storage box** package for optimal space for accessories and materials
- **Snow chain storage trays**
- **Rope protection for truck cab** (roof guard and railing)
- **Anti-slip coating** on the entire platform for maximum safety
- **Spare radio components for highest operational reliability**
- **Premium steel construction** with perfect workmanship
- **Optimized hydraulic oil filtration** for maximum service life at low maintenance cost
- ...and more



OPTIONAL FEATURES

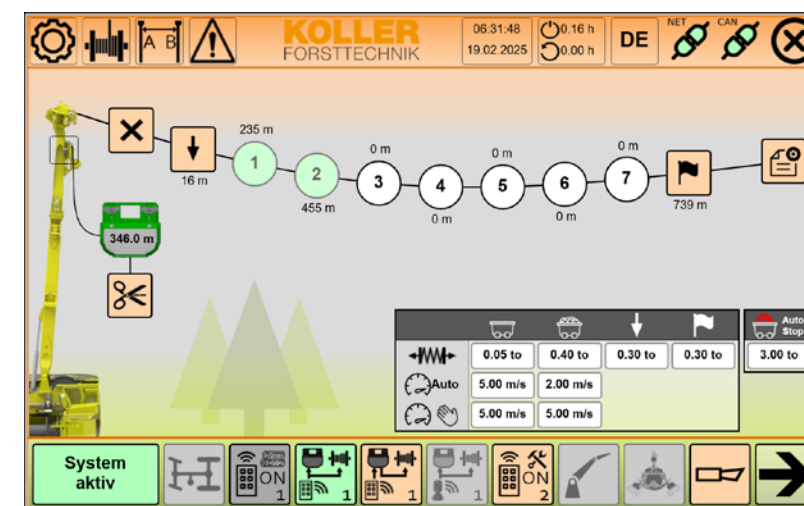
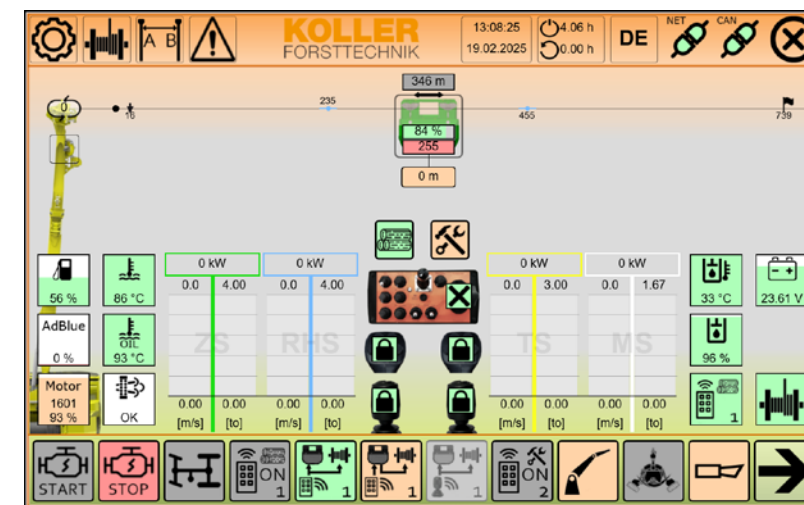
- **Additional diesel tank**
- High-performance **fuel pump for refueling**
- **Lighting package for optimal illumination of the machine:**
 - Platform lighting on the mast
 - Additional spotlights on crane boom
 - Reversing lights
- Mobile **display** for operation from a secondary machine
- **Mobile wireless** camera system for monitoring the machine surroundings or winches from a secondary machine
- **IoT 4.0 remote maintenance and web portal** with operational data
- **Mechanical freewheel** for the installation rope
- **Various rigging options**
- **Guying ropes made of synthetic fiber** for best ergonomics during setup
- **Grooved drum cores** for simple, time-saving, and perfect rope spooling on working winches
- **Biodegradable hydraulic oil**
- **Hydraulic oil filling pump**
- **Vacuum pump for hydraulic system** maintenance without oil spillage
- **ECO-Flow hydraulic system** for significant additional fuel savings
- **Radio-controlled rope storage drum** for storing guying ropes
- **Central auxiliary outrigger for crane** for even greater stability
- **Automatic central lubrication system for crane**
- **Electric compressor with hose reel** for air gun (on trailer versions)
- **Air conditioning for crane operator cabin**
- ...and more



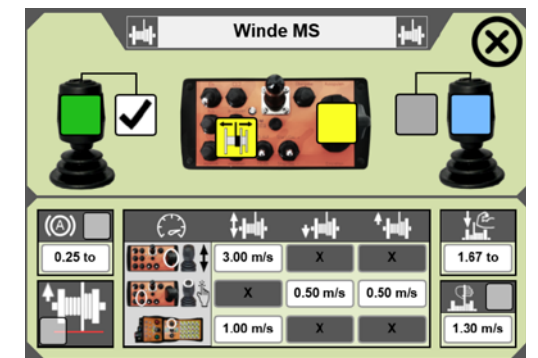
NEXT-GENERATION ERGONOMIC AND INNOVATIVE CONTROL SYSTEM

During the development of the Series 10, a completely new control system was deliberately designed from the ground up, incorporating the latest technology and numerous groundbreaking features. This sets a new benchmark in the industry. The system enables the operator to work simply, clearly, and safely. Intelligent functions save effort and time, improve ergonomics and efficiency, and increase safety.

- **Large, robust 12-inch touch display as an intuitive user interface**
- **Optimal usability and readability** in all weather conditions
- Visual content with **graphics and symbols/pictograms** for fast, easy operation **without language barriers**
- Optional additional **portable wireless display** for use on a secondary machine (e.g., excavator processor)

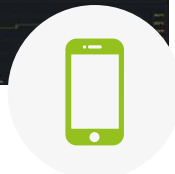
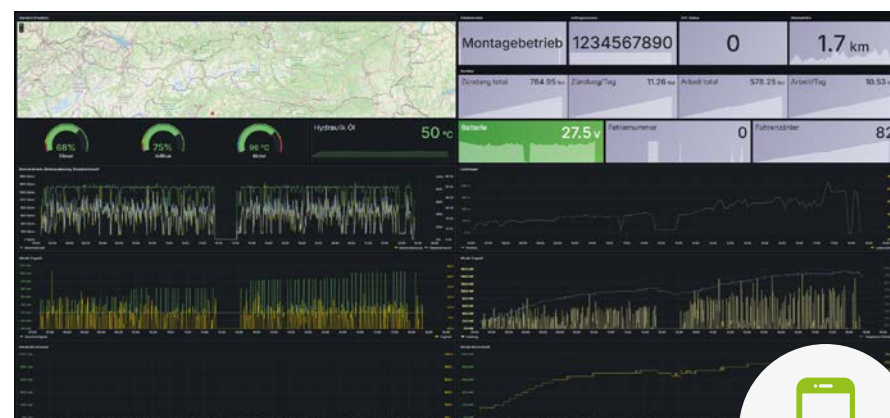
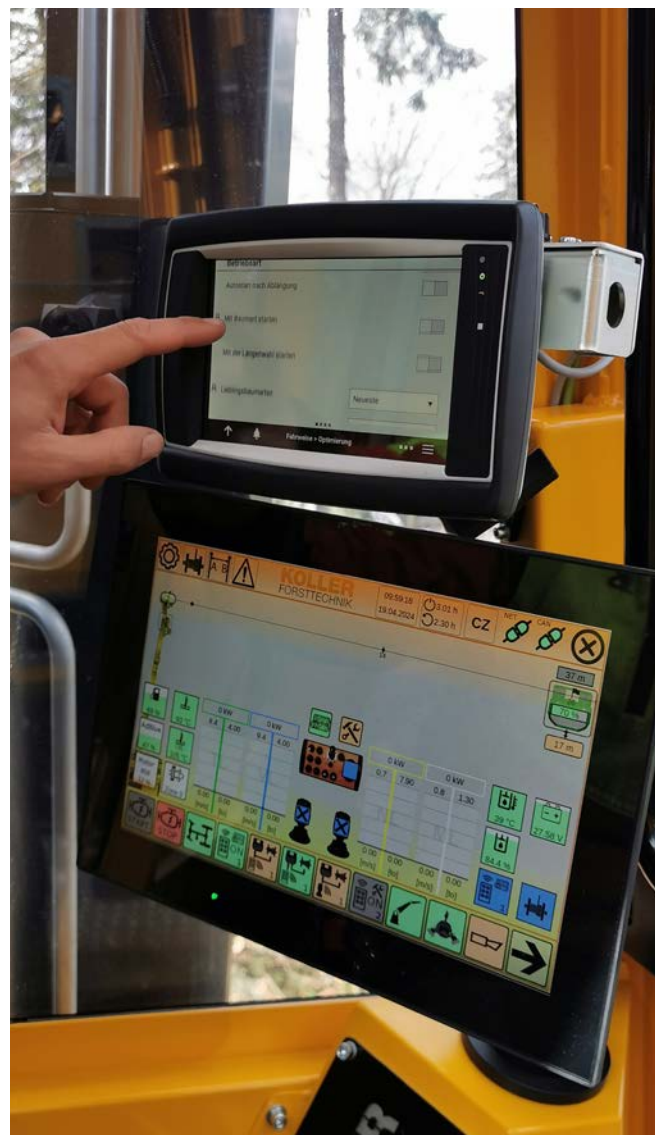


- **Clear input and output of all operational data** such as pulling force, speed, and distance in tons, meters per second, and meters
- Full **operation via display and joysticks in the cab or at the control station, and often via radio** without needing physical access to the display or control station
- **New, especially compact, lightweight, and ergonomic radio remote controls**
- Full **on-board diagnostics** for all controls, sensors, and system data
- Optional **IoT 4.0 connectivity for live operational data** in a web portal
- Optional **full remote maintenance access** for troubleshooting, support, and updates



ADDITIONAL HIGHLIGHTS

- Safe, **stepless operation of all winches via radio control** (one-handed operation)
- **Sensitive, smooth, and jerk-free winch movements**
- **Constant pulling force on working winches and rigging rope** for optimal cable utilization while maintaining necessary safety and achieving long cable life
- Slack rope prevention for all winches
- Independent and simultaneous operation of all **4 winches (WR, RR, ML, Rig)**
- **New three-rope control system for ideal synchronized movement of the two working ropes, ensuring maximum dynamics, efficiency, and speed** without cable oscillations
- **All-terrain rigging possible** – three-rope setups can be used without limitations on steep slopes or flat terrain, as full pulling force of both working winches is available in both travel directions
- **Display showing currently available rope length** on working winch drum
- Track automation easily and flexibly adjustable for track points, speeds, and rope pre-tensions, allowing faster and safer operation
- Automatic rope shortening function for track programming
- **Numerous assembly assistance functions:**
 - **Hold/brake function for all winches**, combinable with rope pulling
 - **Automatic manual deployment of the rigging rope**
 - **Automatic pulling of guy ropes** using the rigging rope
 - Simple speed and **pulling force limits for each winch**
- **Start/stop engine via radio control**
- And much more



RIGGING RADIO REMOTE CONTROL

The separate handheld radio transmitter allows clear, safe, and above all ergonomic and time-saving assembly and disassembly of the entire tower yarder unit, without accessing or switching at the operator's station or display.

- **Clear control of all setup functions** on the machine with **2-stage speed control** (adjustable at any time via display)
 - Supports
 - Loading ramps
 - Rotation and leveling of the tower unit
 - Raising, folding, and extending the mast
 - Guy rope winches with active in- and payout
 - Bundling winch for cable storage
 - Cable storage drum
- **Operation of all winches without the need to switch via display**
- **Engine start/stop**
- **Activation/deactivation of auxiliary functions:**
 - Automatic **hand payout** of the assembly cable
 - Energy-saving **tensioning of guying cables** via assembly cable
 - Automatic **holding/braking function** for each winch



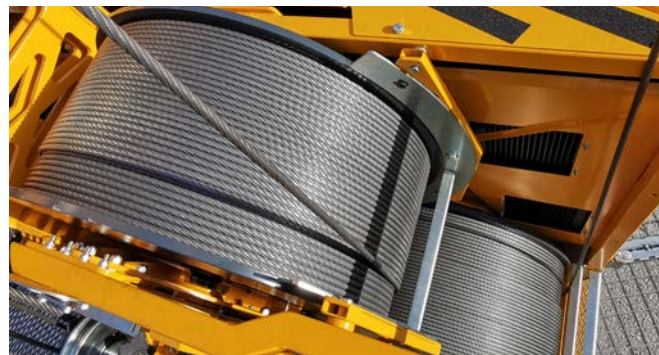
OPERATIONAL RADIO REMOTE CONTROL

- Highly **compact, lightweight, and ergonomic handheld radio transmitter**
- **Stepless control of all winches** for maximum ergonomics, safety, and efficiency
- Maximum safety **with protection against accidental operation**
- **Safe one-hand operation**
- **Remote start and shutdown** of tower yarder engine
- **Operation of travel functions** for trailer or crawler chassis
- **Numerous assembly helper functions** can be activated and controlled
- **Chest or hip carrying** possible
- Emergency functions for haul-back cable clamping and controlled lowering
- Fully **integrated antenna**
- **Reliable radio range** for all operational areas
- **Feedback on relevant operational statuses**
- **High-performance battery** for long workdays
- Spare transmitter and receiver included for **maximum operational safety**



WORKING WINCHES

- **High-performance planetary gearboxes** in large winch drums
- **Constant pull force** adjustable for optimal rope utilization while maintaining required safety and long rope life
- **Highest rope speeds on the market up to 11 m/s**
- **Extreme power up to 200 kW** on haul and return ropes
- **Advanced three-rope synchronization for maximum dynamism and smooth operation** in all terrains and conditions
- **Stepless operation for optimal ergonomics**
- **Always ideal rope spooling**, as drum axes remain horizontal during operation and **rope payout occurs on the load line**
- **Radio control** for all winches with slack rope safety
- **Adjustable pull force limit** for all winches
- **Automatic rope hold / brake function** for rope pulling
- **Effective slack rope safety** without noise
- **Automatic payout speed adjustment** to the payout carriage
- **Optimal accessibility for rope inspection and replacement**
- Optional **drum core grooving** for simplest, time-saving, and perfect rope laying on working winches
- **Gear oil cooling for maximum performance** and optimal service life



Easy maintenance thanks to well-accessible technology at ergonomic working height

MAIN ROPE WINCH

- **High baseline tension up to 150 kN / 15 t**
- **Exact tension display** in tons
- **Automated rope spooling device**
- **Automatic stop when selected baseline tension is reached**
- **Smooth, stepless operation** even under high load
- Extra-large rope guide with **capacity** for approx. 10 m in the bottom layer
- **Slack rope safety mechanism**
- **Automatic hold / braking function** during rope pulling
- **Simultaneous operation possible with assembly rope during support structure work** via radio
- **Adjustable maximum rope speed** for precise handling
- **Emergency functions for rope clamping** and controlled lowering



ASSEMBLY ROPE WINCH

- **Constant pulling force up to 17 kN / 1.7 t** adjustable for optimal rope utilization while maintaining required safety and long rope life
- **Safe, stepless radio control with precise, jerk-free operation**
- **Effective slack rope protection**
- **Very smooth automatic hand-pull function**
- **Adjustable maximum pulling force** for any operating situation
- **Maximum rope speed adjustable** for precise handling in every situation
- **Automatic hold/brake function** for rope pulling
- **Optional mechanical freewheel**
- Equipped with **weather protection**



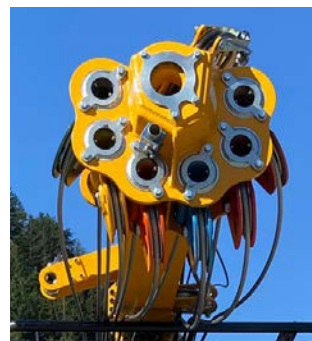
GUY ROPE WINCHES

- **Up to 6 units**
- **Accessible directly from the machine platform** – no climbing or fall hazard
- **Positioned at optimal height** for easy handling and time savings
- **Large rope capacity up to 85 m**
- **2-stage operation via assembly radio control in both directions** (active winding and unwinding)
- **Smooth rope pulling with assembly function**
- **High pretension force possible**
- **Optimal rope protection through entry groove** in the tension compartment
- **Optional synthetic fiber ropes**
- **Guiding device for safe handling**



MAST AND MAST HEAD

- **Robust steel construction** made of high-strength special steel
- **No bolting or screwing required during assembly** – enables extremely fast setup
- **Consistent conditions during setup** thanks to rotatable unit, ensuring no compromises
- Positioning of **hoist and return rope pulley directly above each other** on the mast, eliminating the risk of rope crossing and providing full freedom of rope departure
- **Rope feed and entry brake on the hoist rope** for consistently tensioned rope and optimal spooling
- **Optional telescopic mast** available for many configurations with **three working heights up to 14.7 m**, always **ensuring the ideal working height** for each condition:
 - 1st height: **11.5 m**
 - 2nd height: **13 m**
 - 3rd height: **14.7 m**
- **Guy rope can be positioned left or right** of the main rope as a **safety rope in the direction of the track**
- **Guy rope routing** completely separate from working and assembly ropes, **avoiding potential crossings**
- **Large sheave diameters to protect ropes**
- **Lubrication points on all moving parts for maximum** longevity and smooth operation
- Optional **lighting for the winch platform** on the mast



highest working position: 14.7 m



crossover-free rope routing



THE MOST ADVANCED CRANE CAB

The New Koller Crane Cab – **Maximum Safety and Comfort**

- **Spacious comfort cab with front and side access**
- **Air-sprung ergonomic operator seat**
- **Excellent legroom**
- **Generous standing height – no need to bend when entering or exiting**
- **Ergonomically arranged controls**
- **Flat, distortion-free windows for clear visibility**
- **Large tinted panoramic roof window** for an optimal view to the carriage
- **Excellent side view of the load landing area**
- **Cab positioned well away from the main rope for enhanced safety**
- **Optional tinted safety glass**
- **Ergonomic entry and exit** via large, wide-opening front and side doors
- **Opening side windows for ventilation** on hot days
- **High-intensity work area lighting** at the front and sides
- **Programmable auxiliary heater**
- **Optional air conditioning**
- **Certified protection** against falling or intruding objects (FOPS, OPS, chain shot)
- **Practical storage compartments**



PROCESSOR CRANE – PALFINGER EPSILON

- **High-Performance Crane** with very high **Lifting Moment of 229 kNm** and **Slewing Moment of 49.2 kNm**
- **High-speed operation**
- **Highly dynamic** thanks to precise control
- **Long reach: 9.4 m to crane tip (grapple reach up to 10.4 m)** combined with short rear overhang for unbeatable wood stacking capacity
- **High lift height**, ideal for wood storage and landing on steep downhill tracks
- **Lift and slew damping for improved ergonomics, comfort, and service life**
- Fully **operable even parallel to processor feed**
- Clear **side access to landed trees** and top view, with crane positioned approx. 4 m from the mast
- **Processor operation possible without mast raised**
- **Fuel-saving regenerative lift function**
- Large, **well-protected, and service-friendly additional piping** for the processor on the crane arm
- **Strong portal support with long outriggers** for optimal stability
- Optional **additional crane support foot**
- Optional automatic **central lubrication system**
- Optional additional **lighting on the crane arm**

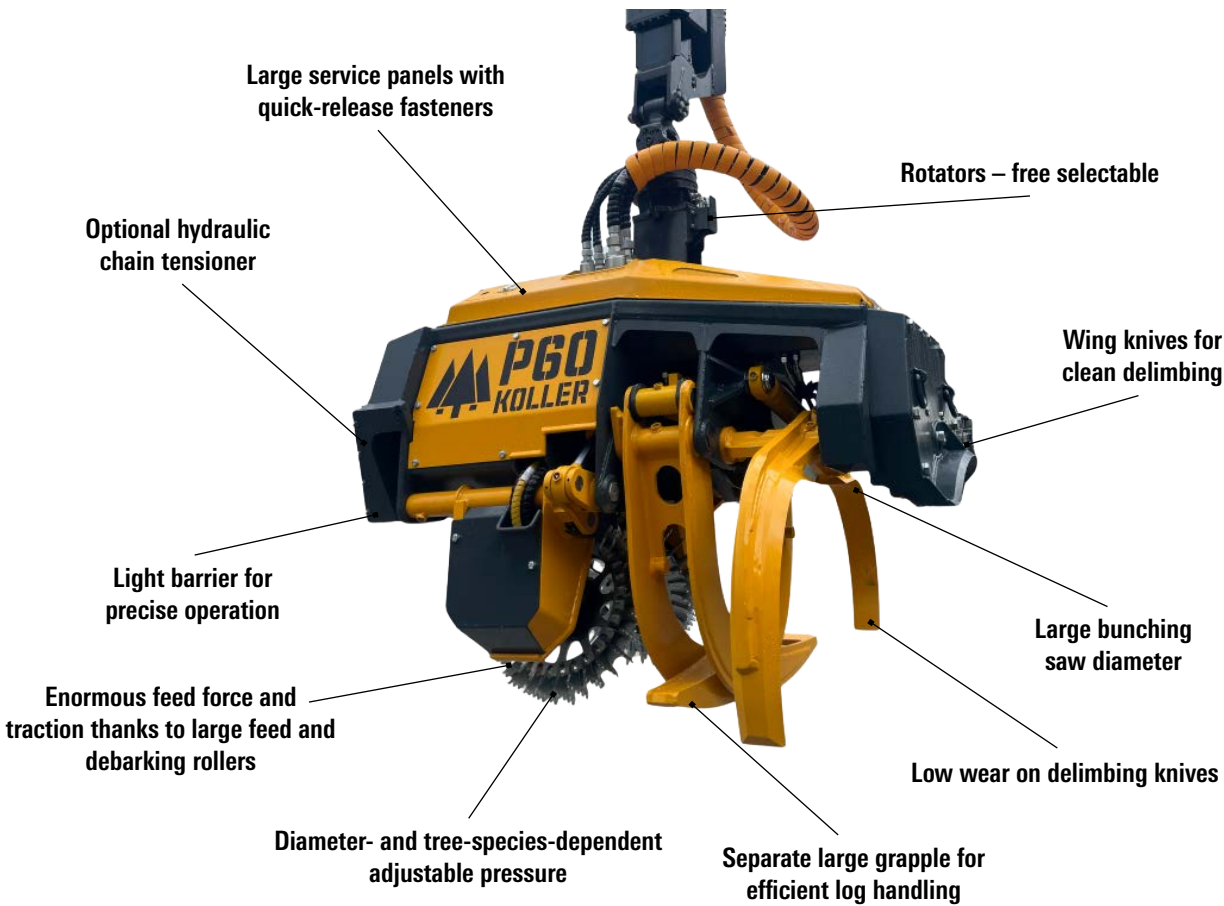
PROCESSOR / HARVESTER HEAD FEATURES – P60

- **Unique processor and harvester head with extremely high feed force** for heavy mountain timber
- **Strong rigid frame** made of high-strength special steel
- **Separate large grapple with parallel guidance** for sorting and repositioning logs (delimbing knives remain protected and optimally sharp – logs can be easily lifted individually from the pile)
- **Safe handling and pulling** of very large logs over edges, etc.
- Four **large feed rollers** for optimal traction and tree-friendly operation
- **Four movable and one fixed delimbing knives** for superior delimbing quality across all diameters
- **Steplessly adjustable pressure for knives and rollers** depending on log diameter and tree species
- **Excellent serviceability** – easy access to hydraulics and control via two large panels
- **Minimal flexible hoses** due to rigid frame design and thoughtful layout
- **Practically no restriction from hose routing**, allowing approx. 1.5 rotator rotations in either direction from zero position
- Established, **high-quality, high-performance DASA harvester control with Koller-specific functions** and touch display
- **Maximum flexibility with light barrier and large bunching saw diameter**
- **Optimized base machine** for best possible performance
- **Energy-efficient design** with reduced power loss in rotary passages and tight hydraulic channels
- **Optional hydraulic chain tensioner**

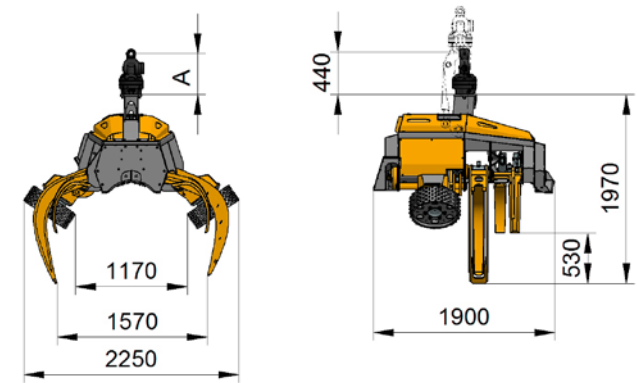
Grapple opening	1,570 mm
Grapple cross-section	0.7 m²
Felling diameter	700 mm
Bunching saw diameter	420 mm
Delimbing diameter	70 - 620 mm
Delimbing knives	1 x fixed, 4 x moveable
Feed rollers	4 pcs.
Maximum feed force	max. 50 kN
Maximum feed speed	max. 5 m/s
Weight (excluding rotator)	1,600 kg
Carrier vehicle power	ab 110 KW / 20 t
Optimal hydraulic supply	280 - 300 l/min 280 - 330 bar



FEATURES



P60 – DIMENSIONS



Dimension “A” depends on the selected rotator

Length difference between harvester bracket and processor bracket



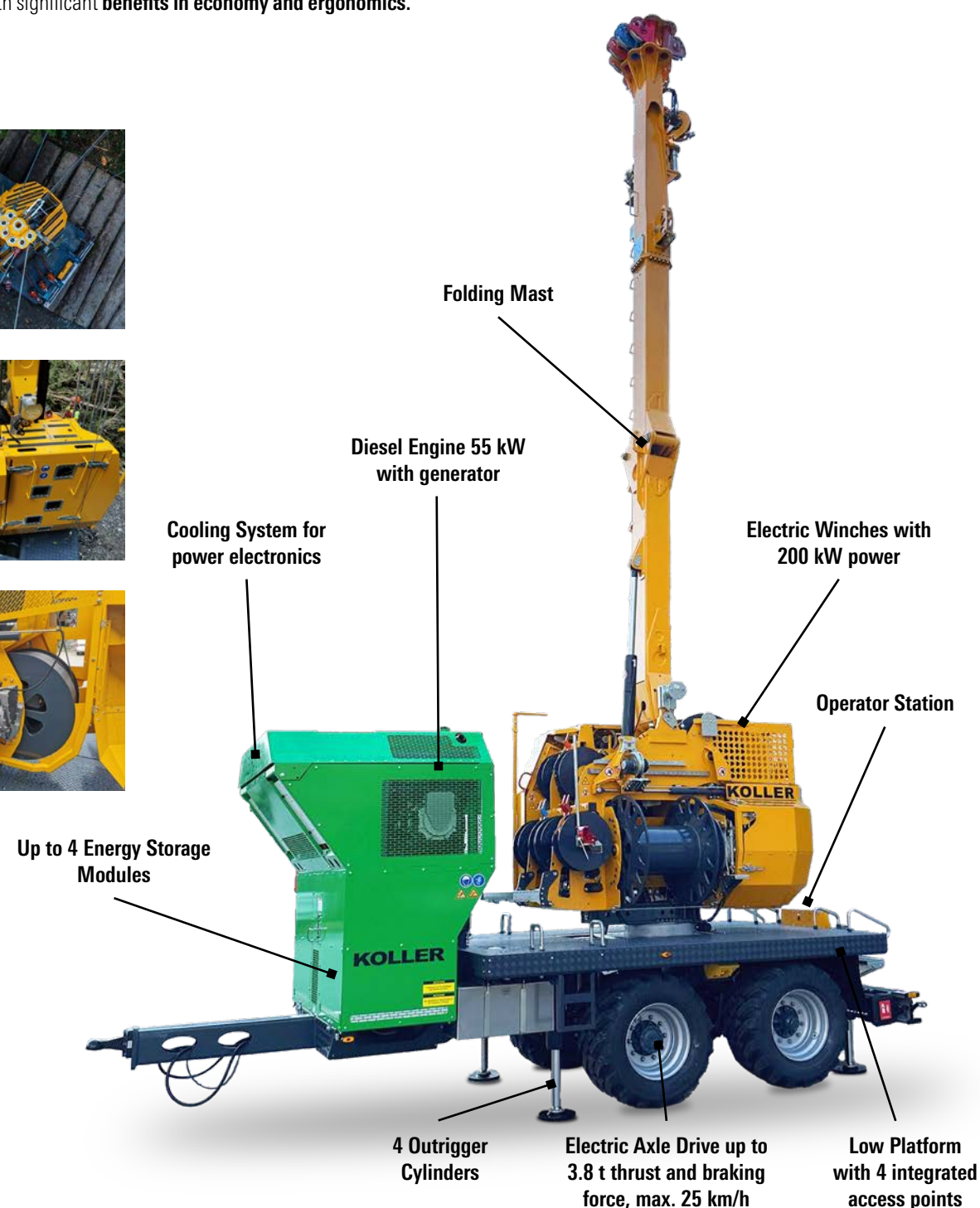
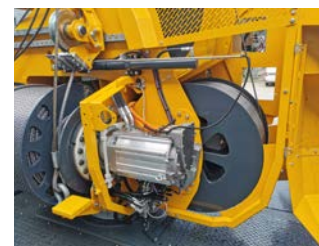
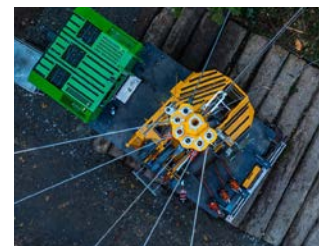
Also available as K310e-H
and as K310-X

K410e-H ELECTRIC-HYBRID TRAILER – SUITABLE FOR ALL ROPE TERRAINS (UPHILL / DOWNHILL / FLAT)

The K410e-H trailer with fully electric-hybrid drive sets an impressive new benchmark in tower yarder technology. Building on over 12 years of experience with this technology, the integration of the hybrid drive into the new tower yarder series has been achieved in a production machine with the same structural setup as conventional hydraulic drives. This allows **all the advantages of the new technology to be fully utilized while maintaining nearly identical external design of the winch unit compared to the hydraulic variant.**

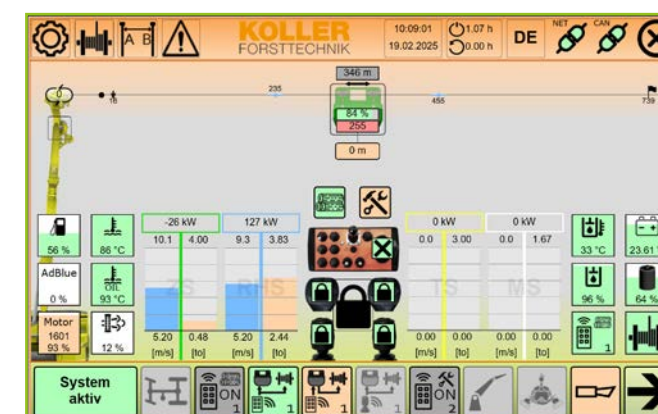
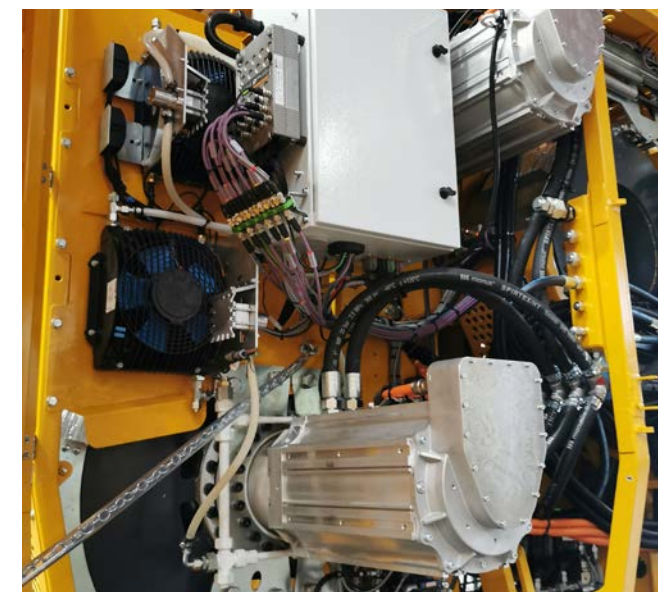
Most impressive is that there is **no compromise in performance or functionality**, making the machine a **fully equivalent alternative in productivity**, with significant **benefits in economy and ergonomics.**

The drive system is based on a compact **55 kW diesel engine coupled with a generator and an energy storage system. Six powerful water-cooled electric motors drive the winches, hydraulics, and axles**, drawing energy from the storage system and feeding back any braking energy. The diesel engine operates in start-stop mode and only charges the energy storage as needed, according to predictive energy management. This **minimizes engine runtime** while ensuring **all braking energy is available for the next cycle.**

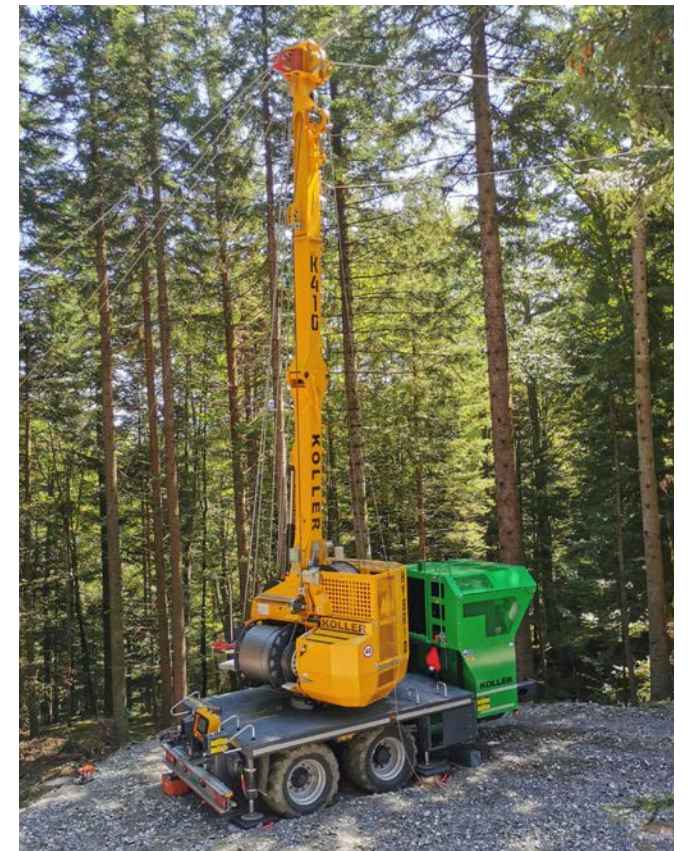


TECHNICAL HIGHLIGHTS

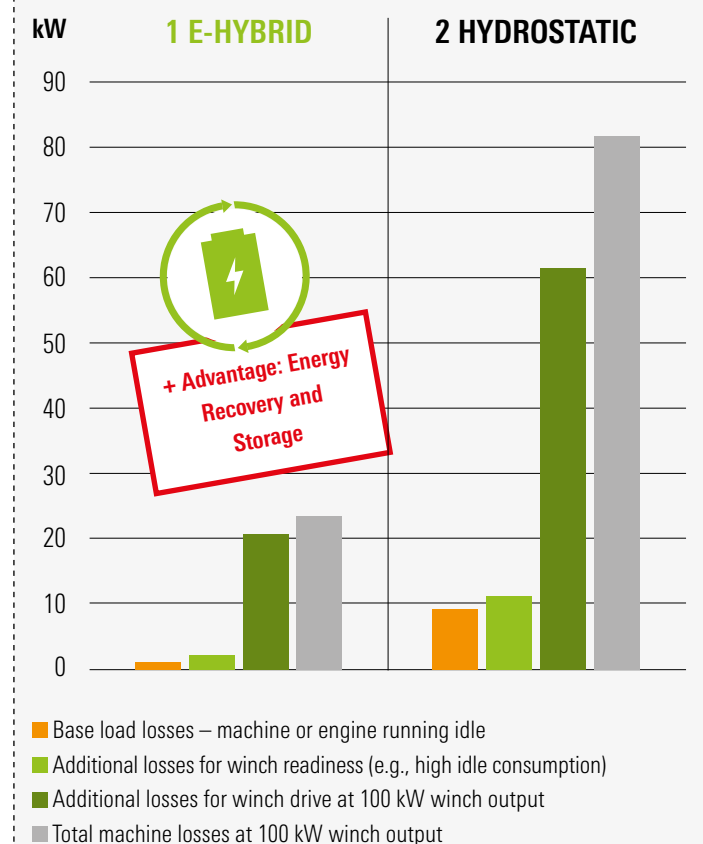
- **55 kW diesel engine without AdBlue**, featuring **start-stop generator operation**
- Energy storage via high-performance capacitors (wear-free and temperature-resistant unlike batteries)
- **Six powerful**, precisely controlled electric drives for all winches, hydraulics, and axle drive
- **Performance on par with hydraulic drive technology** (pull force, speed, winch power up to 200 kW, etc.)
- **Energy recovery during braking of each drive**
- **Significantly reduced operating and maintenance costs** compared to hydraulic systems
- **Safe and reliable high-voltage technology** compliant to the latest standards, with instant **safe-discharge capability**
- **Electric axle drive** with up to **3.8 t thrust and braking force**
- **Optional electrically operated grapple crane**
- **Hydraulically folding mast** for transport flexibility
- **Compact transport dimensions**



Example: Three-rope load run on a moderately steep track with a significant energy surplus of approx. 100 kW for charging the energy storage system



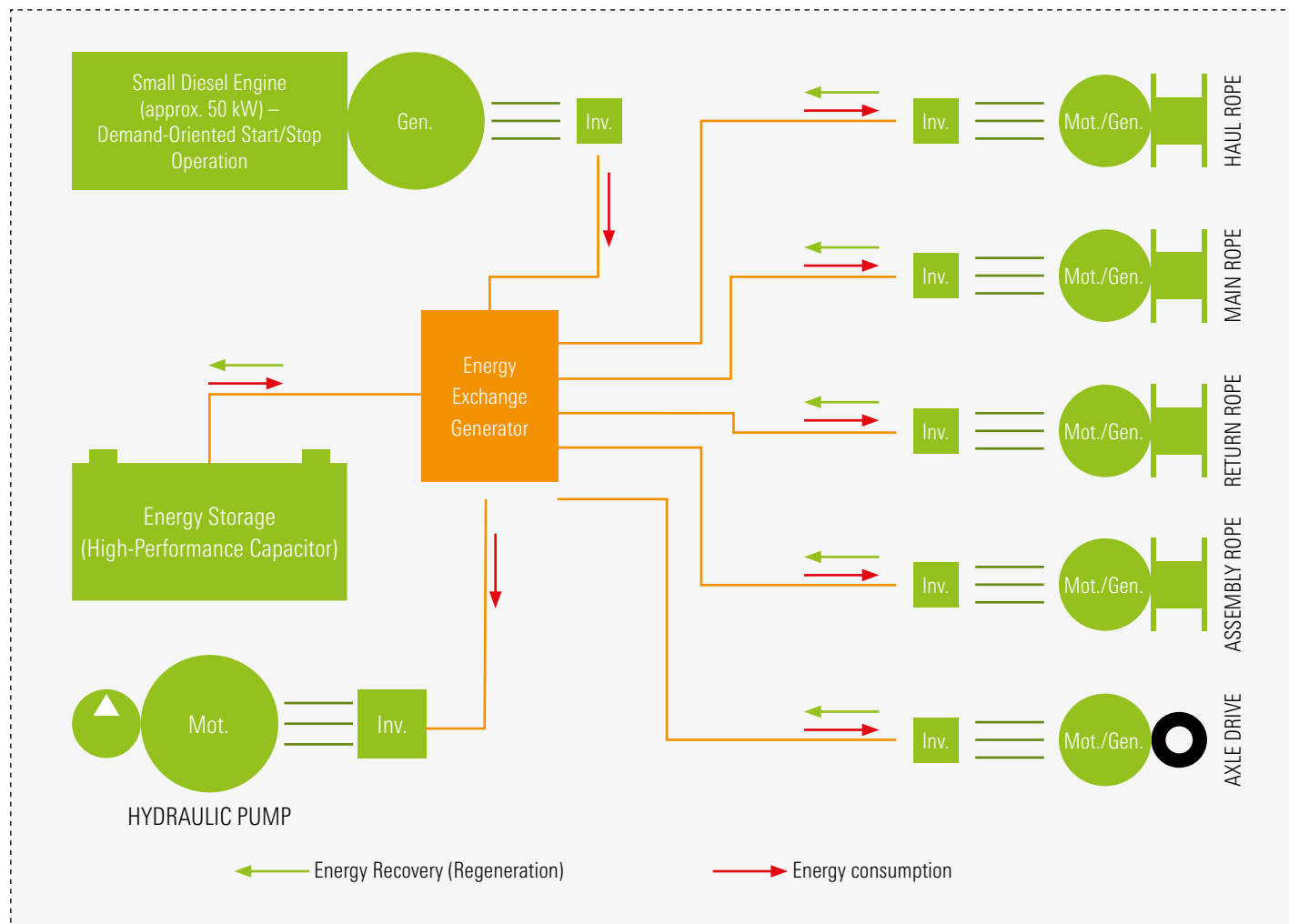
Example – Power Comparison (kW) for Base Load and Losses
Winch Operation at 100 kW – Comparison:



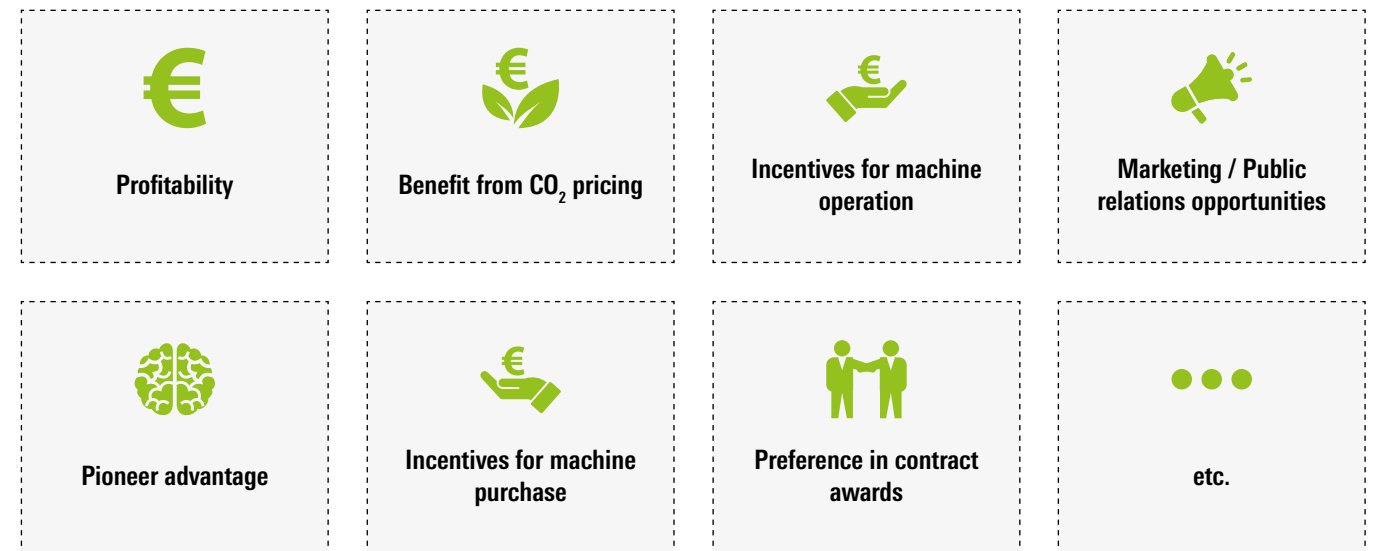
ADVANTAGES

- **Up to 80 % reduction in fuel consumption and CO₂ emissions thanks to:**
 - Savings Achieved Through:
 - Much **higher overall drivetrain efficiency**
 - **Energy recovery and storage during downhill runs and braking phases** (regeneration)
 - **Always optimal operating point for the diesel engine**
 - **Elimination of unnecessary continuous loads** (e.g., maintaining hydraulics at idle)
 - **Start-stop operation** of a very **small diesel engine**
 - Small engine with **low base consumption** and minimal idle losses
- **Significantly reduced noise** due to short diesel engine runtime in soundproofed design
- **Increased safety and ergonomics** during machine setup, often without engine noise thanks to energy storage
- **Full pulling power even during startup** and at low speeds
- Minimal maintenance effort and costs
- Diesel engine operates **only ~25 % of the time** during rope operation
 - **Small diesel engine** with correspondingly **low service costs**
 - **Minimal hydraulic oil stress** during operation
- **No AdBlue required**
- Shorter **warm-up phase in winter** compared to hydrostatic drives
- **Daily time savings due to reduced refueling and maintenance logistics Savings of approx. €30,000 in operating and maintenance costs per year** (based on ~1,700 operating hours)
- **First-mover advantage for operators** – with strong marketing potential for customers
- **Environmental protection and sustainability** across multiple areas

OVERVIEW OF ELECTRIC SYSTEM LAYOUT WITH ENERGY FLOWS



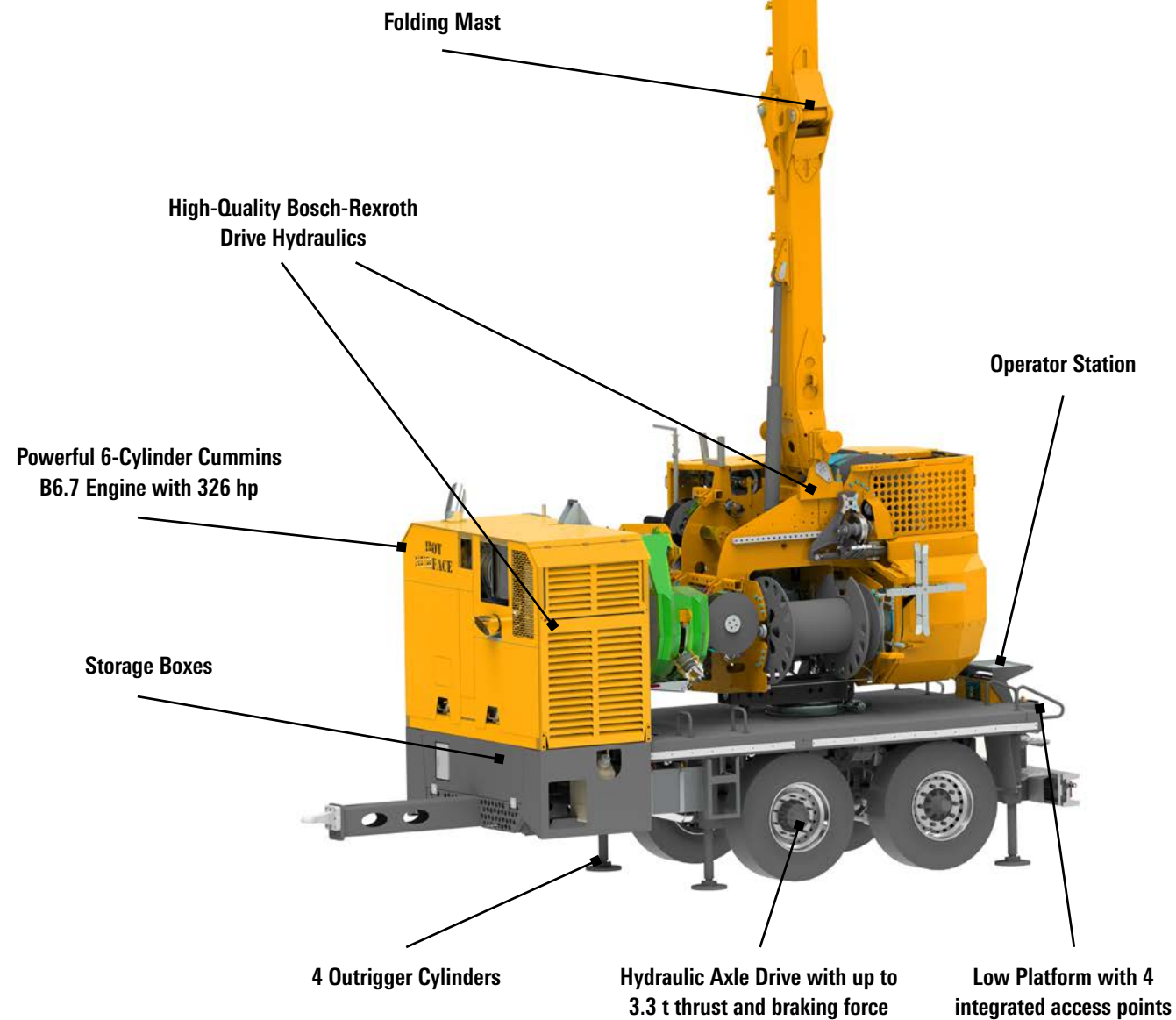
POTENTIAL ADDED VALUE FOR CUSTOMERS



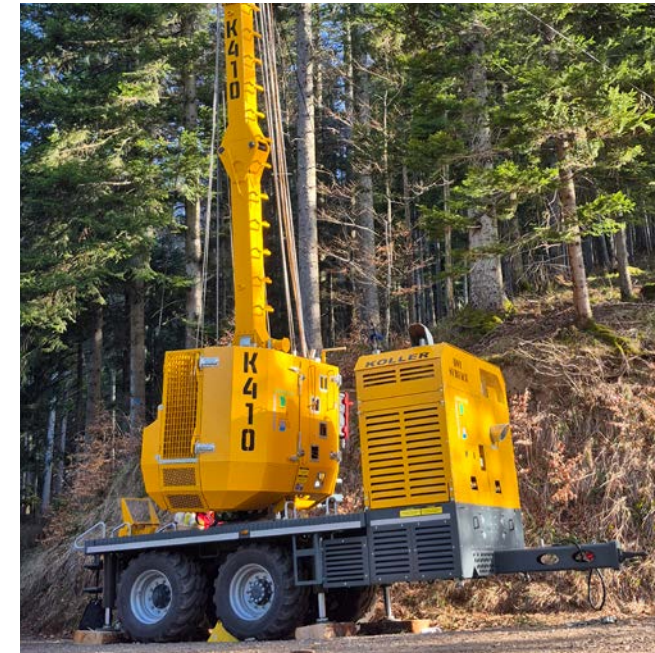
K410 / K510 ON TRAILER OR CRAWLER – SUITABLE FOR ALL ROPE TERRAINS (UPHILL / DOWNHILL / FLAT)

The K410-H /-X and K510-H /-X set a new benchmark in performance and productivity in trailer and crawler format, featuring a proven hydrostatic drive and impressive engine power of 326 hp.

- Trailer version: Robust **4-point outriggers** allow safe positioning **under almost any setup condition**.
- **Crawler version: Self-supporting** under operational loads, eliminating the need for separate outriggers.
- Rotatable and tiltable winch and mast unit for **perfect alignment, even on steep or challenging terrain**.
- Powerful regulated axle drive: On tandem-axle trailers, provides **excellent traction and braking** (up to 3.3 t), ensuring **maximum safety and high travel speed** during transfer operations.



IMPRESSIONS

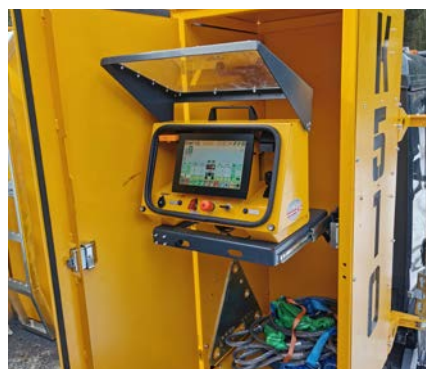
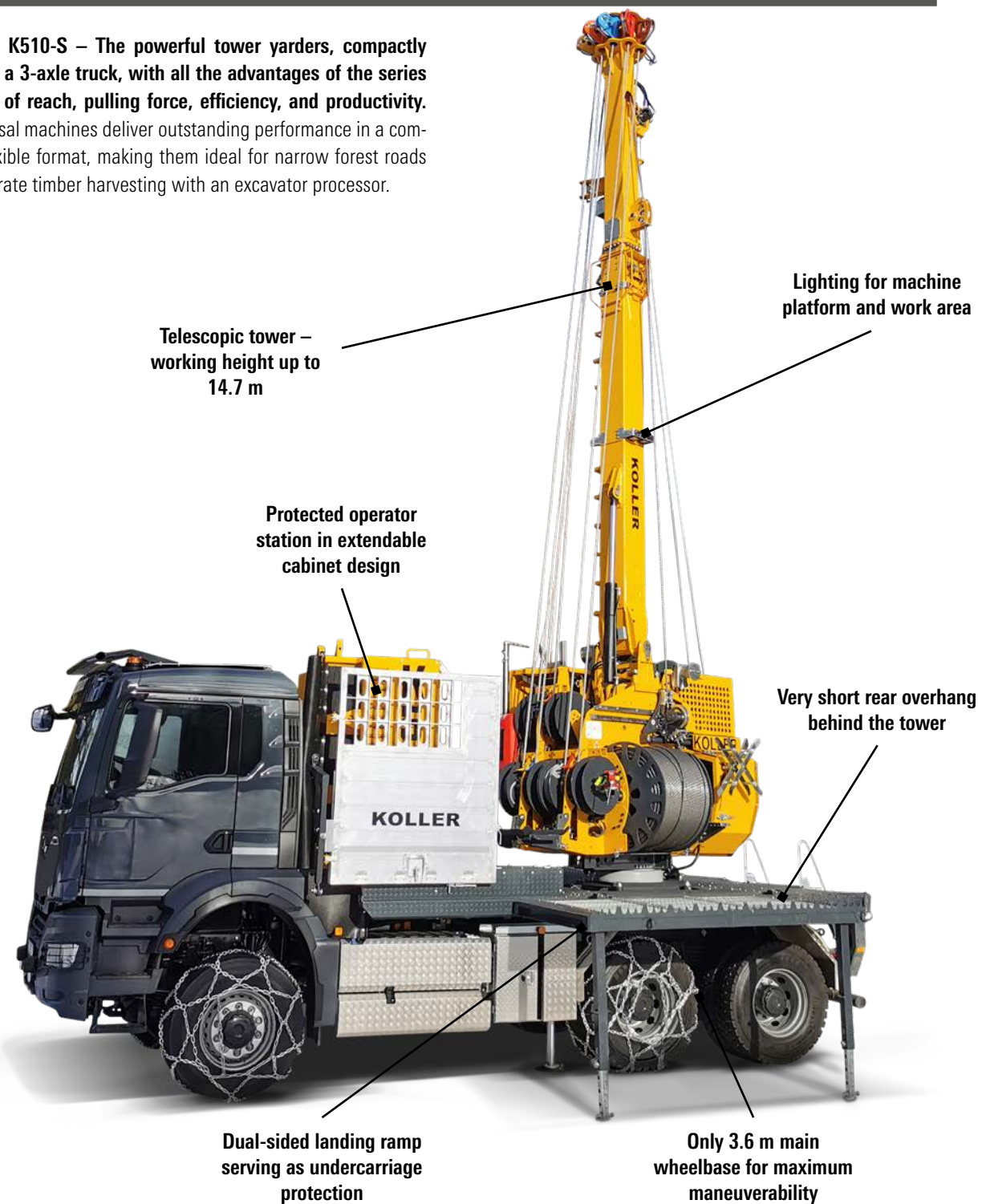


Stock Image

Also available as
K310-H /-X!

K410-S / K510-S TRUCK MOUNTED SOLO MACHINE FOR ALL ROPE TERRAINS (UPHILL / DOWNHILL / FLAT)

K410-S and K510-S – The powerful tower yarders, compactly mounted on a 3-axle truck, with all the advantages of the series 10 in terms of reach, pulling force, efficiency, and productivity. These universal machines deliver outstanding performance in a compact and flexible format, making them ideal for narrow forest roads and for separate timber harvesting with an excavator processor.



IMPRESSIONS

Also available as K310-S



K410-GH – TRUCK-MOUNTED TOWER YARDER FOR ALL ROPE TERRAINS (UPHILL / DOWNHILL / FLAT)

The K410-GH is a weight-optimized, high-performance truck-mounted tower yarder and a true all-rounder for thinning operations as well as heavy timber extraction. Thanks to its versatility and robust design, this machine is ideally suited for use in a variety of forest areas and under all operating conditions – whether performing uphill or downhill cable yarding, or working on flat terrain. Depending on the application and configuration, the K410-GH is available on a 3-axle or 4-axle carrier vehicle, providing maximum flexibility for different terrains and logging requirements.

Robust cab protection

Ample storage space
Additional diesel tank (optional)

Ergonomic crane cabin with extra-large field of view

Durable hydraulic landing ramps

Strong crane support



IMPRESSIONS



Also available on 4-axle truck with telescopic mast

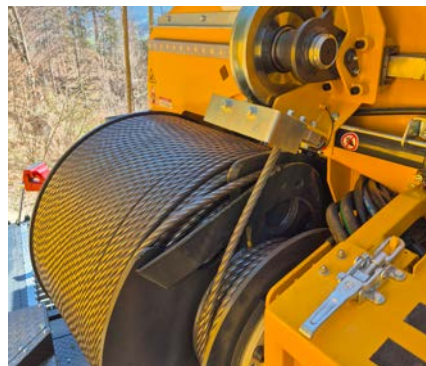
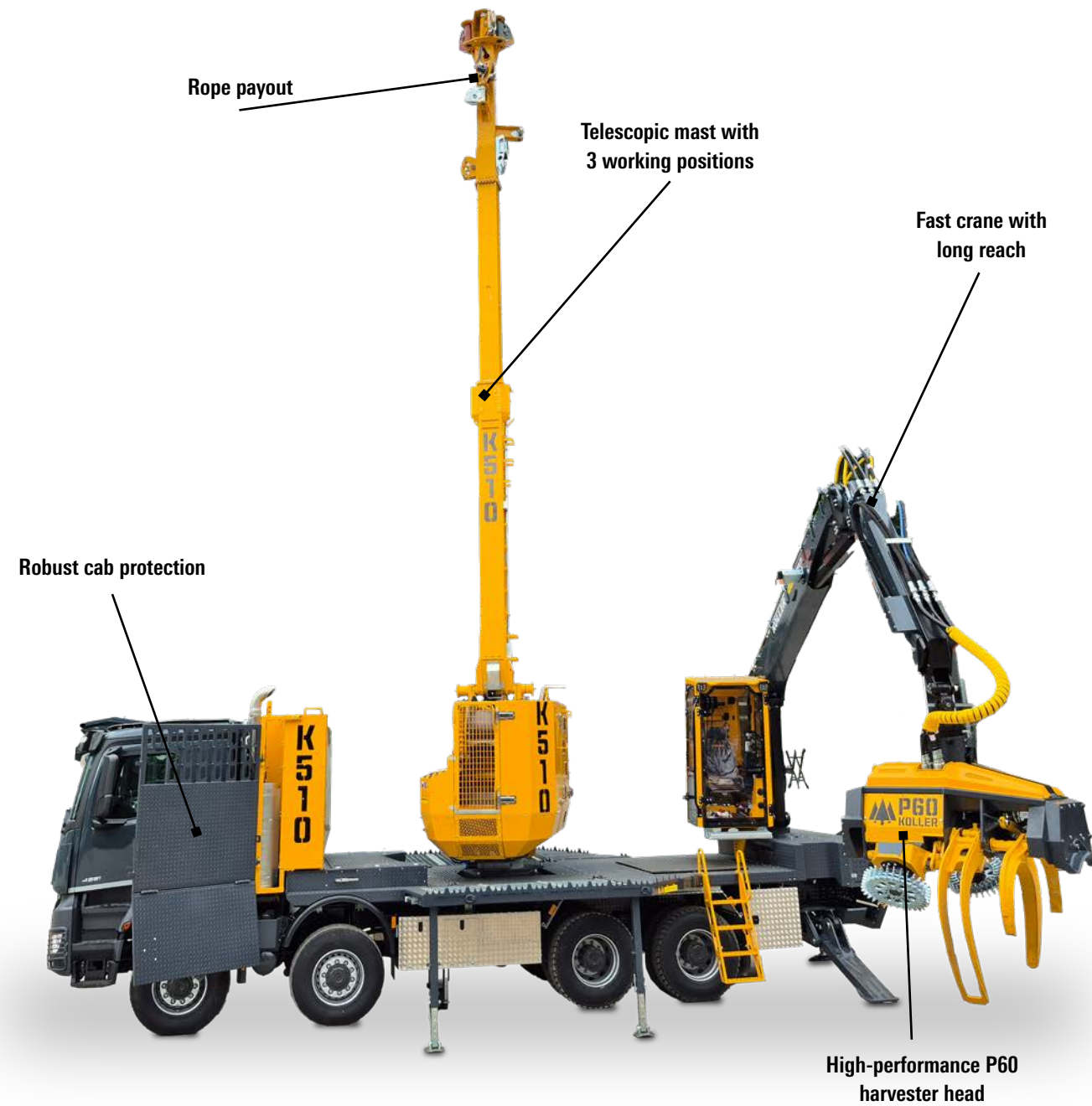


Also available as K310-GH

K510-GH TRUCK-MOUNTED TOWER YARDER FOR ALL ROPE TERRAINS (UPHILL / DOWNHILL / FLAT)

The K510-GH is our most powerful truck-mounted tower yarder for heavy timber extraction. This machine impresses with its **enormous performance and reliability**, especially in demanding logging operations.

With constant rope pulling force, reduced operating costs, increased productivity, and improved ergonomics for uphill and downhill cable yarding as well as flat terrain, the K510-GH is the ideal machine for both pre-harvest thinning and final logging operations.



IMPRESSIONS



Our Koller carriages perfectly complement the series 10 tower yarders and provide tailored solutions for different machines and operational needs. Depending on customer requirements, various models are available to ensure optimal performance and flexibility. These carriages are designed to maximize the efficiency and productivity of your cable yarding operations and integrate seamlessly with your existing equipment. Trust Koller Forestry Technology to op-

timize your forestry work with the best carriages for your individual requirements.

The key advantage of the Koller carriages is the unlimited working rope payout, offering maximum flexibility and reach in cable yarding operations.

	MSK 4	ECKO FLEX	ECKO BOOST	WSK-5
	Ø 18 – 32 mm	Ø 15 – 20 mm	Ø 18 – 32 mm	
	Ø 10 – 14 mm	Ø 9 – 11 mm	Ø 10 – 14 mm	
	approx. 780 kg	approx. 600 kg	approx. 980 kg	1.200 kg
	3,2 t*	3 t*	4 t*	5 t*

* Load capacity is for freely suspended load, as specified. Higher transport loads are possible when transported at head height. Static carriages – designed according to the maximum usable rope with a corresponding 3× safety factor. Load capacity is therefore reduced when using a rope with lower breaking strength, as it depends on the rope’s tensile capacity.



WSK-5

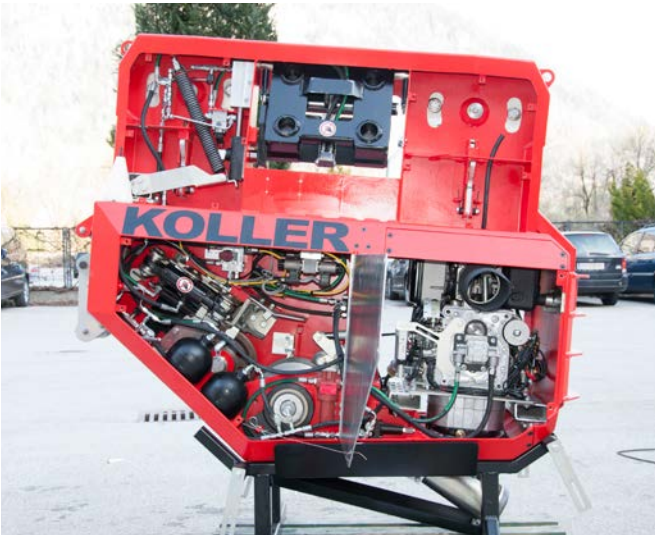
- **Robust winch drive** with planetary gearbox and multi-disc brake
- **Diesel engine** instead of highly flammable petrol
- **Clean rope winding** thanks to generous spacing between rope turns and a narrow drum
- **Powerful and secure support rope clamp** for emergency clamping and holding the carriage in position
- **Long wheelbase** on the four-roller carriage for optimal saddle traversal while maintaining compact transport dimensions
- **No risk of the carriage being lifted** off the track on low uphill cableway sections
- **Reliable rope derailment protection** with a star wheel on the carriages
- **High load attachment point** on the support rope
- **Pivoting hoisting rope pulley** positioned close to the support rope line, minimizing tilting when pulling sideways

- **Rope break protection** for both the pulling rope and the return rope
- **Foldable design** for optimal transport dimensions



MSK 4 FEATURES

- Carriage with **Haulback Rope Deployment** via Diesel Engine and Purely Mechanical Drive
- **Continuously improved and proven basic technology** for over 30 years (MSK 3)
- **Deployment force up to 6.2 kN (620 kg)**, suitable even for very long downhill rope operations
- **Unlimited rope payout length**, ideal for high lowering and pulling heights
- **Two payout speeds** (approx. 0.8 m/s and 1.2 m/s)
- Driven by robust **5.5 kW (7.5 hp) diesel engine**
- **Minimal diesel consumption and minimal maintenance** required
- **No limitations due to slope** when pulling loads
- **Haulback rope clamp can be released under load** without separate unloading by winch
- **Mechanical rope break safety device**
- **Secure main rope (MR) anti-spring protection**
- **Compatible with various main rope** saddle systems (Koller, Stuefer, Wyssen)
- **Secure clamping on the main rope** via side-swinging clamp
- **Anti-twist device for choker body** in load swing to protect the rope when loads rotate
- **Optimal safety for downhill rope operations**, as the haulback rope (HR) is only attached to the MSK 4 for travel movement



ECKO FLEX UND BOOST FEATURES

- **Electric payout device for all terrains** (uphill rope, downhill rope, and flat terrain) to deploy the haulback rope (HR)
- **Deployment force possible up to 12 kN (1,200 kg)**
- **Pre-lowering of load during travel with open main rope clamp (MR)** for optimal and directed landing of the load
- **Drive controls and moves the haulback rope (HR)** up to full payload **without a separate rope clamp**
- **Boost function to support winch pulling force** by 20% of payload (8 kN / 800 kg)
- **Energy storage is virtually wear- and aging-free**, shock- and temperature-resistant, and fire-safe (not a battery, but high-performance capacitor)
- Energy storage is **quickly charged during idle pull-in via haulback rope (HR)**
- **No regular charging of batteries** outside the carriage required
- **Large rope payout range of 125°** allows smooth operation even with very low main rope (MR), with haulback rope (HR) and main rope (MR) nearly parallel on the load side
- **Practically unlimited pulling distance**
- **No limitations due to slope** when pulling loads
- Compatible with **various main rope saddle systems** (Koller, Stuefer, Wyssen)
- **Secure clamping on the main rope (MR)** via side-swinging clamp
- **Significant time savings**, as no daily maintenance or refueling is required
- **Rope feed automation allows very fast rope insertion** into the carriage without manual threading
- **Automatic shutdown at the end of work** and activation via vibration detection
- **Anti-twist device for choker body** in load swing to protect the rope when loads rotate

With our modular winch platform of the series 10, we offer maximum variability in machine configuration. This allows the performance class and operational range of a machine to be easily and cost-effectively upgraded at a later date. Should the application requirements change, optimal usability is ensured through up-

grade options. This can also be a decisive advantage in the event of machine resale, as all common performance and range classes can be covered.

PRODUCT RANGE				
Truck Mounted Tower Yarder	GH	K310-GH	K410-GH	K510-GH
Tower Yarder on Truck Solo	S	K310-S	K410-S	K510-S
Trailer Hydrostatic	H	K310-H	K410-H	K510-H
Crawler Hydrostatic	X	K310-X	K410-X	K510-X
Trailer Electric-Hybrid	e-H	K310e-H	K410e-H	
Crawler Electric-Hybrid	e-X	K310e-X	K410e-X	



DETAIL / COMPONENT		K310		K410		K510
		standard (ST)	long range (LR)	standard (ST)	long range (LR)	
CARRIER ROPE WINCH						
Max. base tension	kN	120		140		150
Max. operating tension (depending on MBL rope)	kN	200		200		200
Rope capacity compressed	mm / m	18 / 1,000	18 / 1,500	20 / 800	20 / 1,150	22 / 1,000
Rope capacity highly compressed	mm / m	17 / 1,200	17 / 1,600	18.5 / 1,000	18.5 / 1,480	20.5 / 1,180
GUY ROPE WINCHES						
Quantity		4 - 6		5 - 6		6
Rope capacity	mm / m	16 / 100 - 17 / 95 - 18 / 85		18,5 / 85 - 20 / 75		18,5 / 85 - 20 / 75
Tension force	kN	8		8		8
HAULING ROPE WINCH						
Max. constant pull force	kN	33		40		47
Pulling capacity	kW	200		200		200
Speed empty / full	m/s	7-10.5	7-11	7-10.5	7-11	7-11
Rope capacity	mm / m	10 / 1,350	10 / 1,800	11 / 1,000	11 / 1,450	12 / 1,250
RETURN ROPE WINCH						
Max. constant pull force	kN	33		40		47
Pulling capacity	kW	200		200		200
Speed empty / full	m/s	7-10.5	7-11	7-10.5	7-11	7-11
Rope capacity	mm / m	10 / 2,000	10 / 2,400	11 / 1,600	11 / 2,000	11 / 2,000 12 / 1,600
ASSEMBLY ROPE WINCH						
Max. constant pull force	kN	17		17		17
Rope capacity synthetic fiber	mm / m	6 / 2,600 - 7 / 2,100		7 / 2,100		7 / 2,100
Compatible yarder		ECKO FLEX MSK 4		ECKO BOOST ECKO FLEX MSK 4 WSK-5		ECKO BOOST MSK 4 WSK-5
Later upgrade possibility to		K410 ST	K410 LR / K510	---	K510	---

Technical changes an printing errors excepted

TRUCK MOUNTED TOWER YARDER						
		K310-GH		K410-GH		K510-GH
Standard mast height	m	11.5		11.5		11.5
Telescopic mast height	m	11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7
Operating weight without accessories, depending on configuration*	kg	31,000	35,000	32,800	37,000	38,500
Transport dimensions L x W x H	m	12.3 x 2.5 x 3.9	12.8 x 2.5 x 3.9	12.3 x 2.5 x 3.9	12.8 x 2.5 x 3.9	12.8 x 2.5 x 3.9
Crane		EPSILON S280 L94				
Lifting moment	kNm	229		229		229
Slewing moment	kNm	49		49		49
Reach (grip reach up to)	m	9.4 (10.4)		9.4 (10.4)		9.4 (10.4)
Max. net lifting capacity at full reach (with 1,500 kg processor weight)	kg	ca. 1,000		ca. 1,000		ca. 1,000
Processor unit		KOLLER P60 (other types available on request after technical assessment)				
LKW		Mercedes-Benz Arocs 3348 / 4151 EURO 6E				
Drive type		6x4 / 6x6	8x6 / 8x8	6x4 / 6x6	8x6 / 8x8	8x6 / 8x8
Truck power	PS / kW	510 / 375		510 / 375		510 / 375
Tower yarder operation		hydrostatic				
Stabilization		4-point (2 support legs at front and crane support bridge), optional central crane outrigger				
TRUCK MOUNTED TOWER YARDER – SOLO TRUCK						
		K310-S		K410-S		K510-S
Standard mast height	m	11.5		11.5		11.5
Telescopic mast height	m	11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7
Operating weight without accessories, depending on configuration*	kg	26,000	26,500	27,800	28,500	28,500
Operating weight special version without route approval / compliant for Switzerland, etc.		under 26,000	under 26,000	under 26,000	under 26,000	under 26,000
Transport dimensions L x W x H	m	9,8 x 2,5 x 3,9				
Truck		Mercedes-Benz Arocs 3348 EURO 6E - MAN TGS 33,480 EURO 6E				
Drive type		6x4 / 6x6		6x4 / 6x6		6x4 / 6x6
Truck power	PS / kW	480 / 350		480 / 350		480 / 350
Tower yarder operation		hydrostatic				
Stabilization		4-point (2 front support legs and 2 rear support legs)				
TRAILER – HYDROSTATIC DRIVE						
		K310-H		K410-H		K510-H
Folding mast height	m	11.5		11.5		11.5
Operating weight without accessories, depending on configuration*	kg	17,200	17,700	19,000	19,700	19,700
Transport dimensions L x W x H	m	7.1 x 2.3 x 3.6				
Diesel engine		Cummins B6.7 6-Zylinder Stage V				
Engine power	PS / kW	326 / 243		326 / 243		326 / 243
Tower yarder operation		hydrostatic				
Carrier vehicle		2-axle tandem trailer				
Regulated axle drive with push and brake function		1 st axle hydrostatically driven by the tower yarder drive motor, switchable up to 25 km/h				
Max. push and brake force of axle drive	kN	33		33		33
Travel speed	km/h	40 (opt. 80)		40 (opt. 80)		40 (opt. 80)
Stabilization		4-point (2 front support legs and 2 rear support legs)				

TRAILER ELECTRO-HYBRID							
		K310e-H		K410e-H			
Mast height folding mast	m	11.5		11.5			
Operating weight without accessories, depending on equipment*	kg	16,700	18,200	18,500	20,200		
Transport dimensions L x W x H	m	7.1 x 2.2 x 3.6		7.1 x 2.2 x 3.6			
Diesel engine		Hatz 4H50 TICD 4-cylinder Stage V without AdBlue					
Diesel engine power	PS / kW	75 / 55		75 / 55			
Yarder operation		electric-hybrid with energy storage					
Carrier vehicle		2-axle tandem trailer					
Axle drive regulated with traction and braking mode		1 st axle electrically driven by the cable crane drive motor, engageable up to 25 km/h					
Max. traction / braking force of axle drive	kN	38		38			
Travel speed	km/h	40 (opt. 80)		40 (opt. 80)			
Stabilization		4-point outrigger system (2 front supports and 2 rear supports)					
Grapple boom as option		ja		ja			
CRAWLER HYDROSTATIC							
		K310-X		K410-X		K510-X	
Mast height folding mast	m	11.5		11.5		11.5	
Mast height telescopic mast	m	11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7	
Operating weight without accessories, depending on equipment*	kg	24,700	25,500	26,500	27,500	27,500	
Transport dimensions L x W x H (excl. telescopic extension)	m	6 x 2.3 x 3.6		6 x 2.3 x 3.6		6 x 2,3 x 3.6	
Diesel engine		Cummins B6.7 6-cylinder Stage V engine					
Diesel engine power	PS / kW	326 / 243		326 / 243		326 / 243	
Yarder operation		hydrostatic					
Carrier vehicle		Hydrostatically and radio-controlled tracked chassis with 500 mm track plates					
Travel speed	km/h	3.6		3.6		3.6	
Stabilization		Robust crawler undercarriage (no additional outriggers required)					
CRAWLER ELECTRO-HYBRID							
		K310e-X		K410e-X			
Mast height folding mast	m	11.5		11.5			
Mast height telescopic mast	m	11.5 / 13.0 / 14.7		11.5 / 13.0 / 14.7			
Operating weight without accessories, depending on equipment*	kg	25,200	26,000	27,000	28,000		
Transport dimensions L x W x H (excl. telescopic extension)	m	6 x 2.2 x 3.6		6 x 2.2 x 3.6			
Diesel engine		Hatz 4H50 TICD 4-cylinder Stage V without AdBlue					
Diesel engine power	PS / kW	75 / 55		75 / 55			
Yarder operation		Electric-hybrid with energy storage					
Carrier vehicle		Hydrostatically and radio-controlled tracked chassis with 500 mm track plates					
Travel speed	km/h	1.6		1.6			
Stabilization		Robust tracked chassis (no additional outriggers required)					

* Operating weights specified with maximum possible rope equipment according to the stated drum capacities, except for the K310.
Rope equipment for effective yarding range in three-rope operation is considered for the K310 as follows: standard (ST) with 700 m and long range (LR) with 1000 m.

KFS25



KFS20S



OUR IMPROVED MECHANICAL FELLING WEDGES FOR LARGE TIMBER AND SMALL TIMBER

- Optimal for operation with impact wrench
 - Additional ratchet drive
 - Easy handling
 - Spindle stop
- Vibration-free wedging
 - Very lightweight
 - 20 t to 25 t compressive force

	KFS25	KFS20S
Series	wide wedge	narrow wedge
Timber diameter	large timber	small timber
Weight in kg	3	2.5
Weight with ratchet in kg	3.5	3.1
Dimensions (L / W / H) in mm	300 / 95 / 90	300 / 65 / 90
Max. torque in Nm (impact wrench)	700	700
Max. lift in mm	35	35
Max. lifting force in t	25	20
		

AL120



AL40



With our rope pulley types AL40 and AL120, we offer very lightweight and durable pulleys for forestry applications. The smaller AL40 is used for all kinds of mounting purposes, while the AL120 is an excellent high-speed pulley with a strong, long-lasting bearing, primarily used in tower yarder systems for the return rope guidance and also for ground haul applications.

- Low weight
 - Cutouts in the side plates allow for easy and lighter carrying
 - Large clear opening for heavy round slings
- Suitable for use with synthetic ropes
 - Maintenance-free bearings
 - Optimal rope alignment thanks to large distance between pulley and suspension

	AL120 (ALU)	AL120 (STEEL)	AL40
Sheave	aluminum	steel	aluminum
Weight	6.3 kg	9.35 kg	0.85 kg
Max. rope pull force (ground haul) – 2x safety factor	60 kN / 6 t	60 kN / 6 t	20 kN / 2 t
Max. rope pull force (lifting) – 4x safety factor	30 kN / 3 t	30 kN / 3 t	10 kN / 1 t
Max. rope diameter	15 mm	15 mm	8 mm
Max. rope speed	12 m/s	12 m/s	2 m/s
			



BUY ACCESSORIES ONLINE NOW:
shop.kollergmbh.com



The quality of our products is the result of experience and continuous development since 1961. By using highly reliable, top-quality components and leveraging the expertise of our team, we can guarantee outstanding productivity and products with optimal long-term value.

Koller GmbH · Kufsteiner Wald 26 · 6334 Schwoich / Kufstein · T: +43 5372 63257



KollerForsttechnik



KollerForsttechnik



koller_forsttechnik

www.kollergmbh.com

...AND IT'S DONE!