

MANTSINEN 200 R and 200 ER HybriLift®



OUR HYBRID EVOLUTION IN ACTION

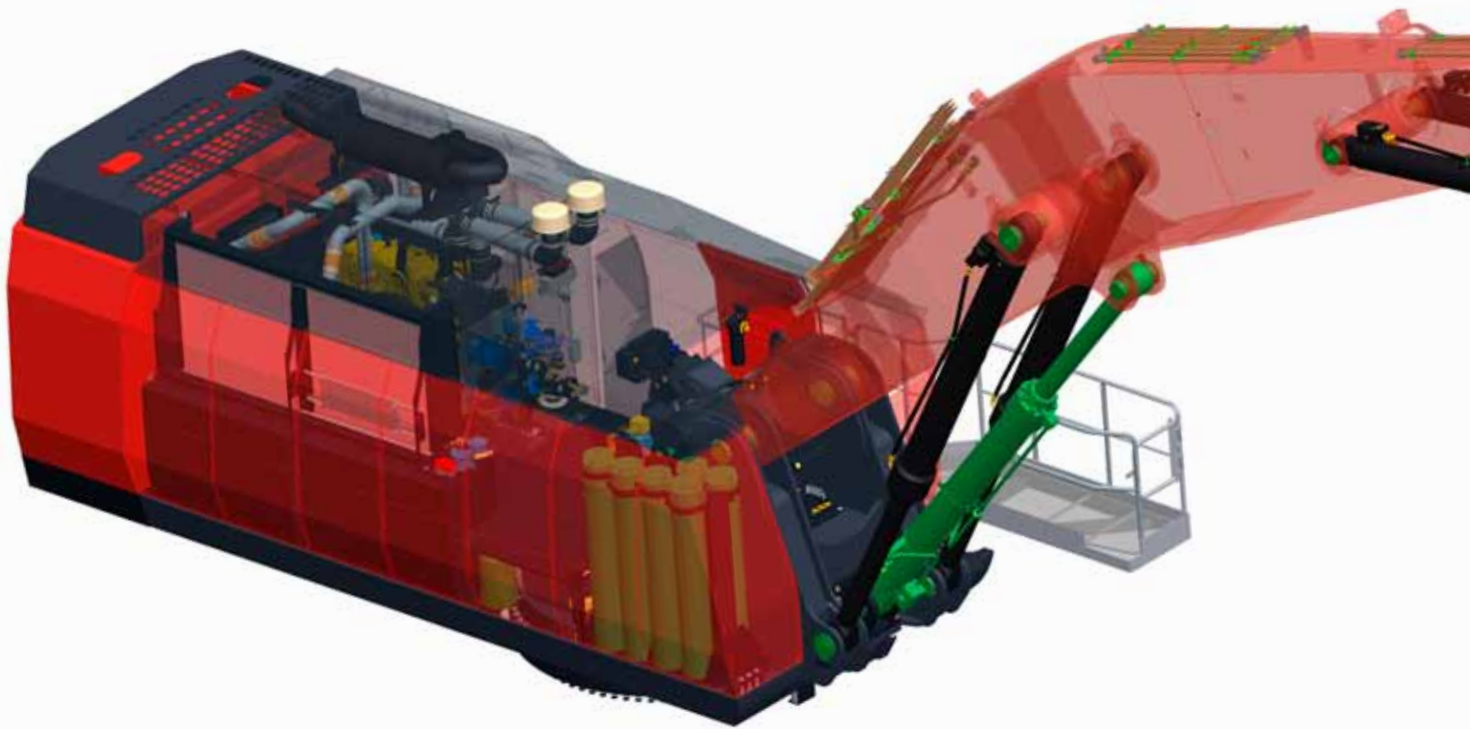
More load, less energy

MANTSINEN 200 R and 200 ER HybriLift®

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Increases Energy Efficiency
by up to

35%



**More load,
less energy**

lift your efficiency to the next level with hydraulic precision

2006

HybriLift® Testing
and Development

The unique HybriLift® energy storage and redelivery system increases energy efficiency by recycling up to 35 % of the energy used to lift the main boom.

Mantsinen HybriLift® cranes use smaller diesel engines or electric motors for better fuel economy and lower emissions.

2008

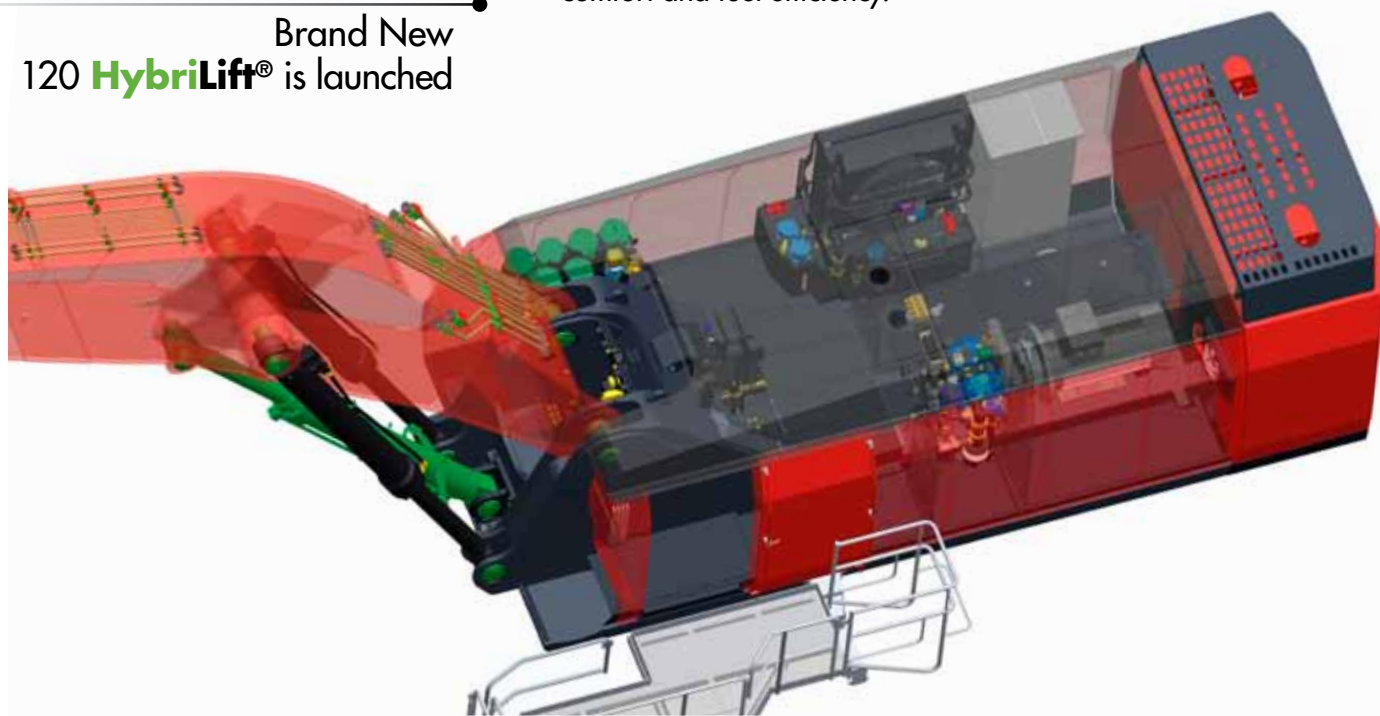
200 **HybriLift®** into
Production and Operation

Specially designed for bulk material and general cargo handling, with a wide range of attachments.

2010

Brand New
120 **HybriLift®** is launched

Swing system with closed loop circuit and two swing motors – another feature to improve operator comfort and fuel efficiency.



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MANTSINEN 200 R and 200 ER Hybrilift®

MANTSINEN 200 R Hybrilift®

STICK FOOT & TIP

Stick foot and tip are made of high-tensile cast steel. The extensive use of cast structures in the front equipment is the backbone of its durability.

MAIN BOOM BOSSES

Also the bosses at the main boom are made of high-tensile cast steel. The optimized design ensures evenly distributed stresses on the boom box.

STICK BOX

The box of the stick is made of two C-profiles using fine-grain steel. The design allows the stick to be designed with no welding seams in high stress areas, making it extremely light and durable. Hydraulic lines are well protected on sides of the stick.

CAB ELEVATOR

Mantsinen cab elevator brings the operator high up or far from the swing centre, on top of the hold, depending on the working environment. The large stainless steel operator cab has large windows for an excellent visibility. The floor window is in a 15° angle. The cab is also equipped with a folding instructor seat.

SWING MECHANISM

The Mantsinen 200 swing mechanism consists of two swing motors and a heavy-duty three-row type slewing ring with 3 m diameter. The internal teeth run in grease bath. The swing mechanism has a separate closed loop circuit pump. This makes the swing extremely smooth and controllable and saves a considerable amount of energy.

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MAIN BOOM FOOT

Main boom foot is made of cast steel. This provides an extended service life to one of the most stressed structural components of the machine. The double steel plates of the upperstructure frame run all the way from front equipment pivot points to the counterweight making the frame extremely rigid.

RADIATOR

Side by side mounted radiator and hydraulic oil cooler provide easy access and cleaning. Fan reversing function helps to keep the coolers clean also in dusty environments.

ENGINE

The longitudinally mounted engine is accessible from both sides. The sound insulated compartment keeps engine noise at a minimum. Hydraulic pumps are insulated from the engine by a firewall.

SERVICE WALKWAYS

The wide inside and outside service walkways provide an unprecedented access to all service points. Wide doorway into the main service points located inside.

UNDERCARRIAGE

The gantry type undercarriage allows trucks or wagons to pass through. It is available in different heights. One or two additional fuel tanks are available as an option.

TRACKS

The tracks are long and wide apart. The machine has an excellent stability and rated loads can always be swung 360° on firm and even ground.

TRACK SHOES

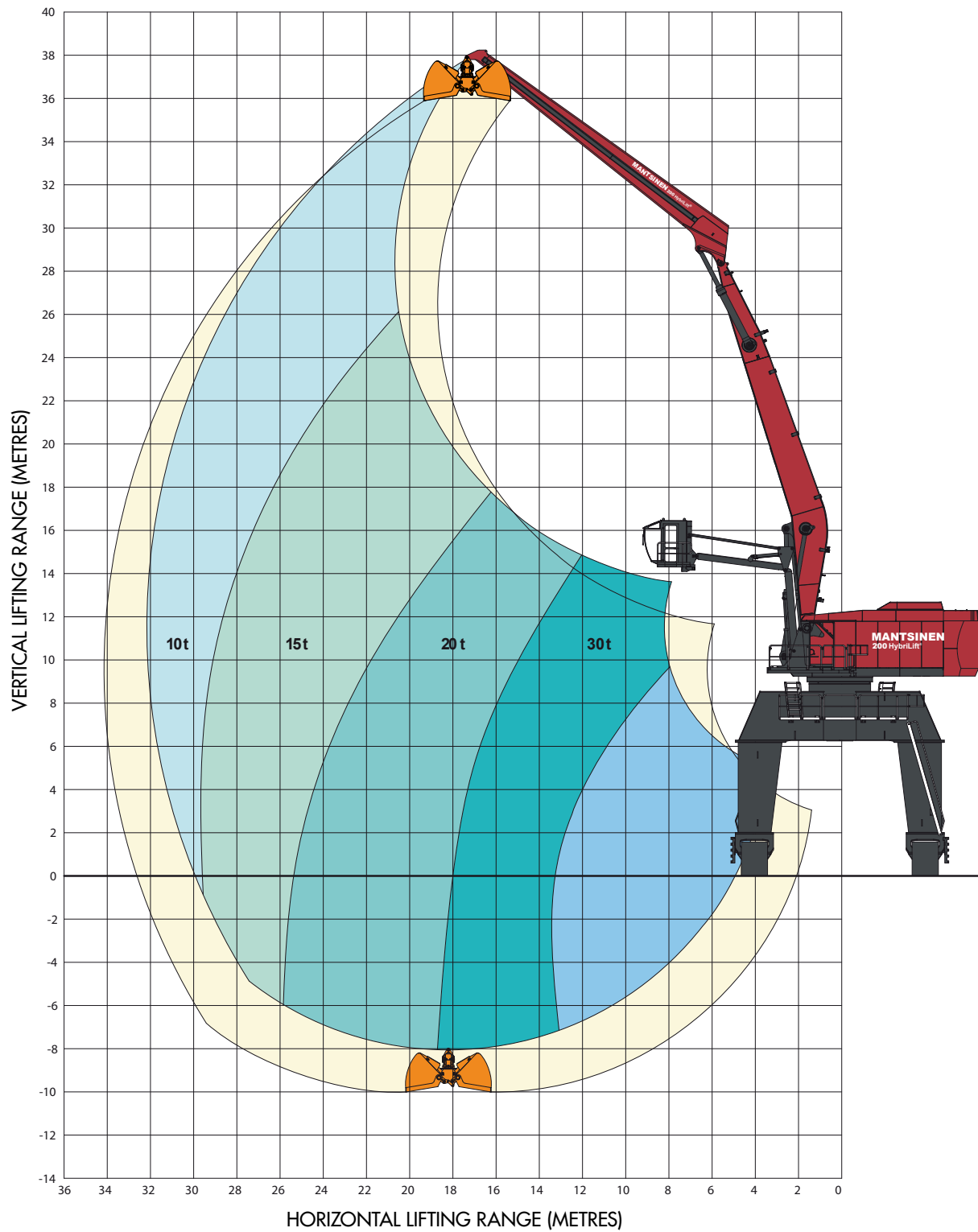
The Mantsinen designed flat cast steel track shoes run smoothly on gravel, asphalt and concrete ground.

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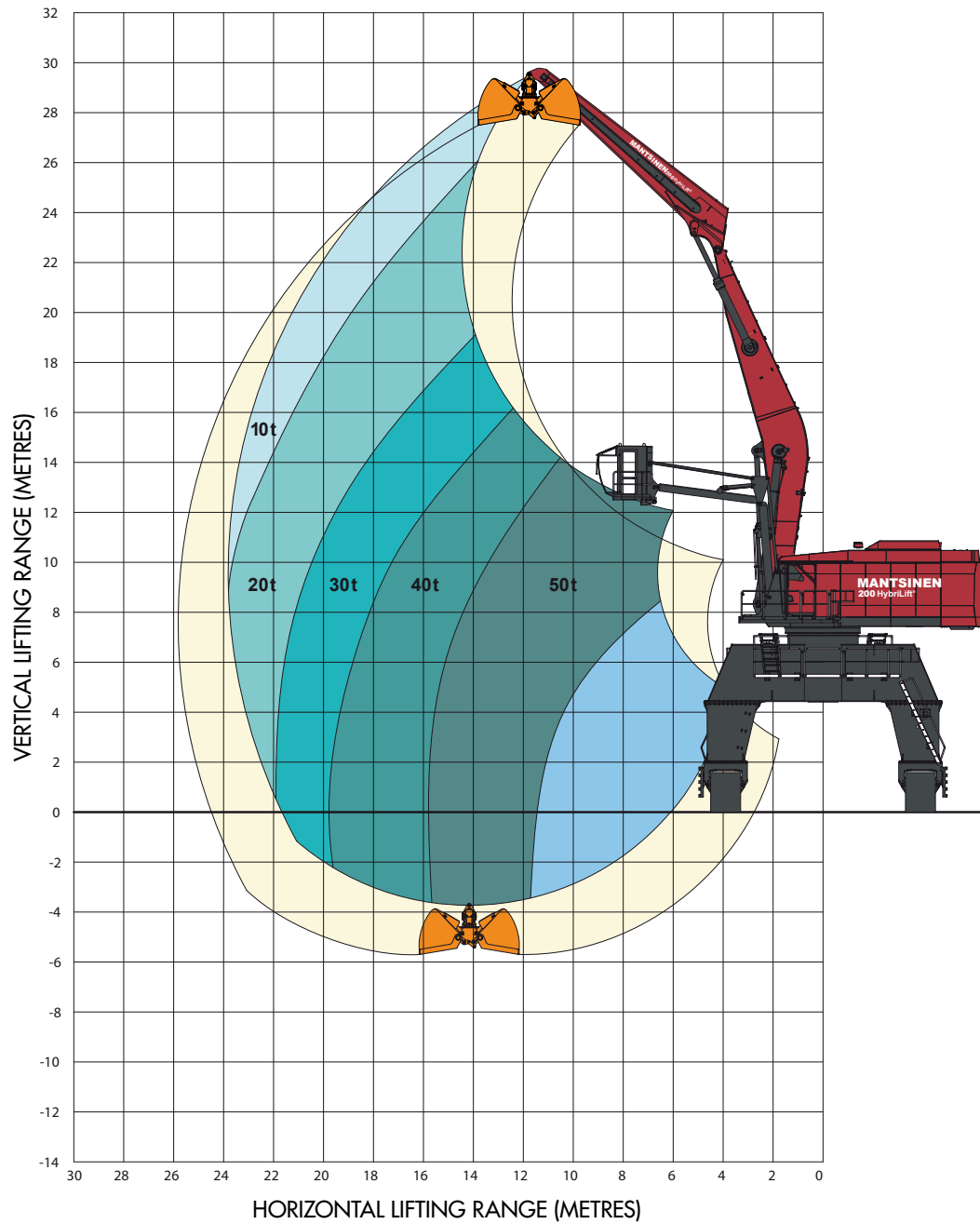
Lifting capacity ranges – horizontal reach 32 m



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Lifting capacity ranges - Heavy lift (option) – horizontal reach 24 m



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MANTSINEN 200 R and 200 ER HybriLift® - Technical specifications

Front equipment	
Max. horizontal reach	Approximately 37 m
Lifting capacity (approx.)	25 t / 20 m (max. horizontal reach 32 m)
Lifting capacity Heavy Lift (approx.)	40 t / 18 m (max. horizontal reach 24 m)
Engine 200 R	
Type	Caterpillar C-18 ACERT
Power	571 kW / 1 800 r/min
Number of cylinders	6
Displacement	18,1 l
Electric motor 200 ER	
Power	355 kW / 1 500 r/min
Voltage	400 to 690 V
Hydraulic system	
Oil flow, equipment and drive	2 x 760 l/min
Oil flow, swing	500 l/min, closed loop circuit
Working pressures	Equipment 330 bar, Swing 300 bar, Drive 330 bar
Max. swing speed	4 r/min
Undercarriage	
Heights	3,5 m / 5,5 m / 7,8 m* / 9 m* / 11 m*
Load carrying track length	8 100 mm
Track shoes	1.050 mm flat
Drive speed	0 - 2,2 km/h and 0 - 3,5 km/h
Cab elevator N2-6000	
Horizontal movement	Max. 11 m from swing centre
Vertical movement	Operator eye level max. 15 m (undercarriage height 9 m)
Weight without attachments	
Depending on configuration	Approx. 220 - 250 t
Refill capacities	
Hydraulic oil reservoir	1 800 l
Fuel tank	2 000 l
Additional fuel tank (option)	3 000 l

* 7,8 m, 9 m and 11 m undercarriages allow trucks and railroad wagons to pass through
 Illustrated machines can have optional equipment. Specifications subject to change without prior notice.

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