

MANTSINEN 120 R and 120 ER **HybriLift**®

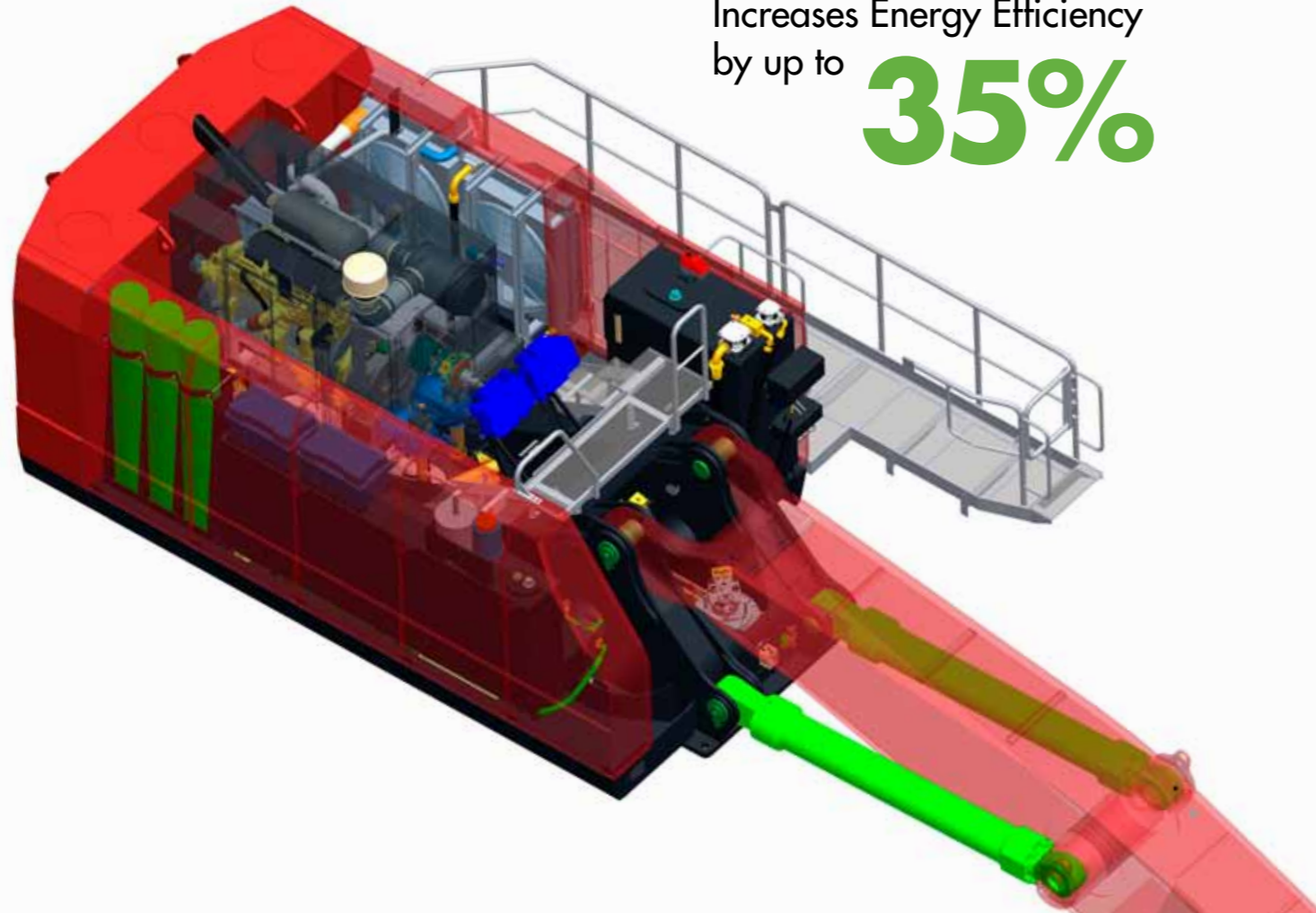


OUR **HYBRID** EVOLUTION IN ACTION

More load, less energy

MANTSINEN 120 R and 120 ER HybriLift®

Increases Energy Efficiency
by up to **35%**



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.

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

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

2006

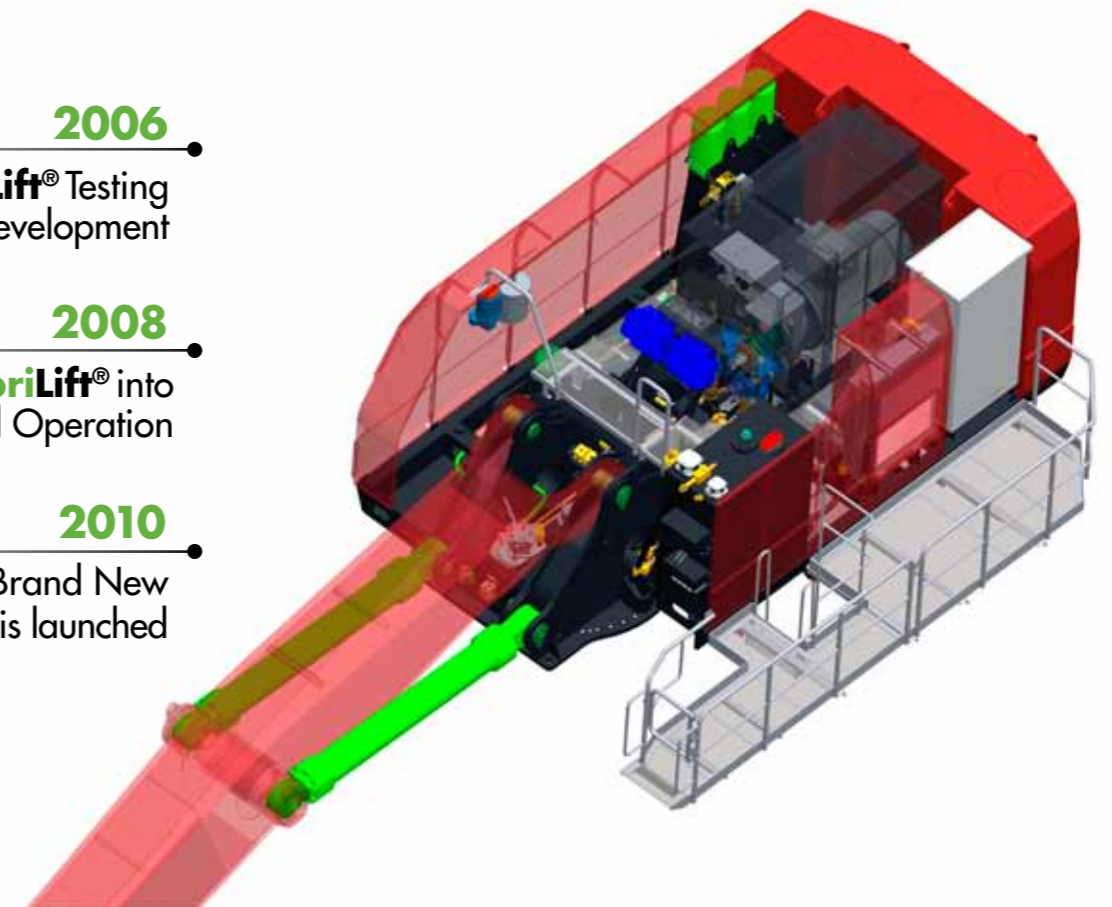
HybriLift® Testing and Development

2008

200 HybriLift® into Production and Operation

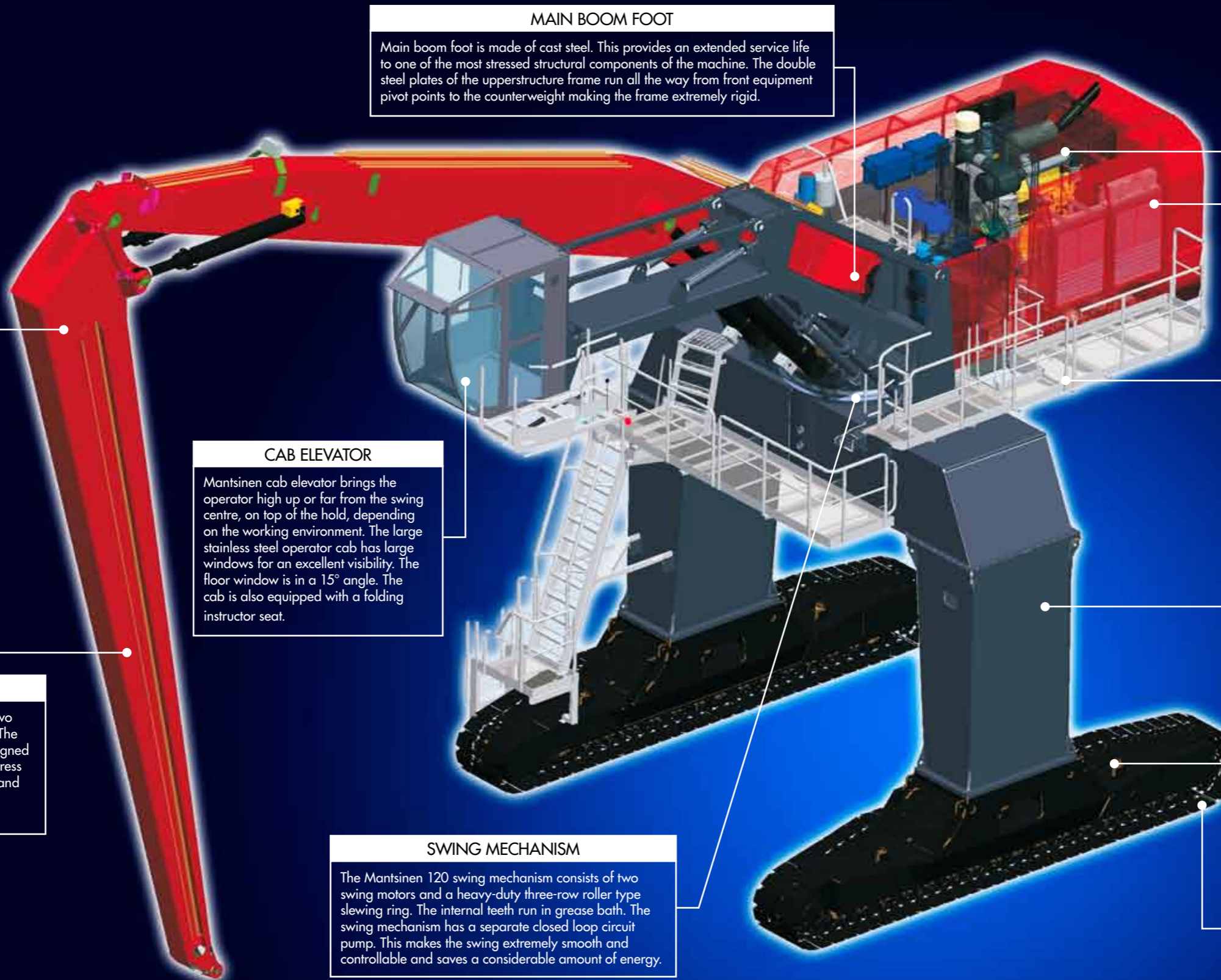
2010

Brand New 120 HybriLift® is launched



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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.

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.

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.

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.

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.

SERVICE WALKWAYS

The wide inside and outside service walkways provide an unprecedented access to all service points.

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.

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.

SWING MECHANISM

The Mantsinen 120 swing mechanism consists of two swing motors and a heavy-duty three-row roller type slewing ring. 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.

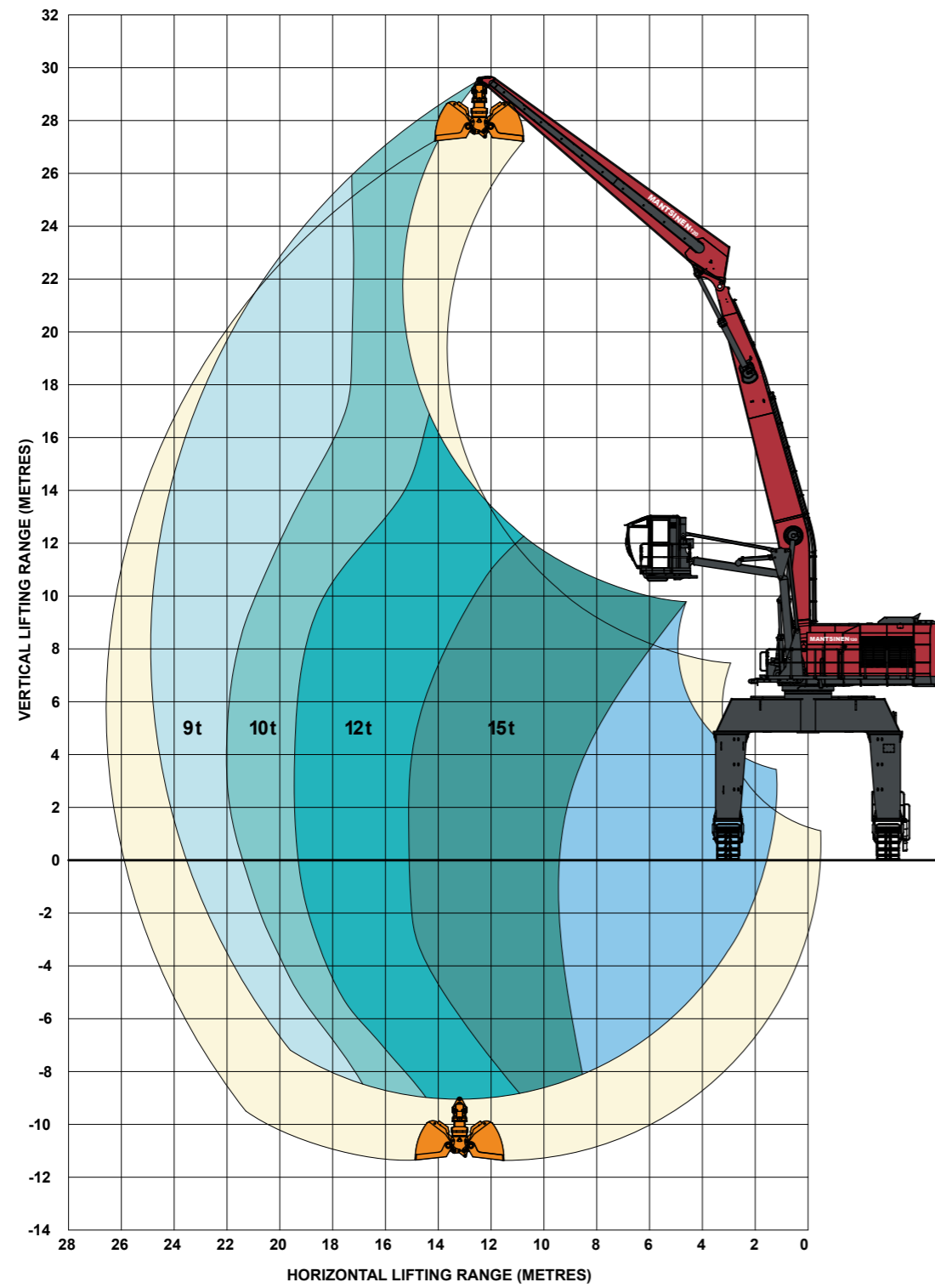
TRACKS

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 underground.

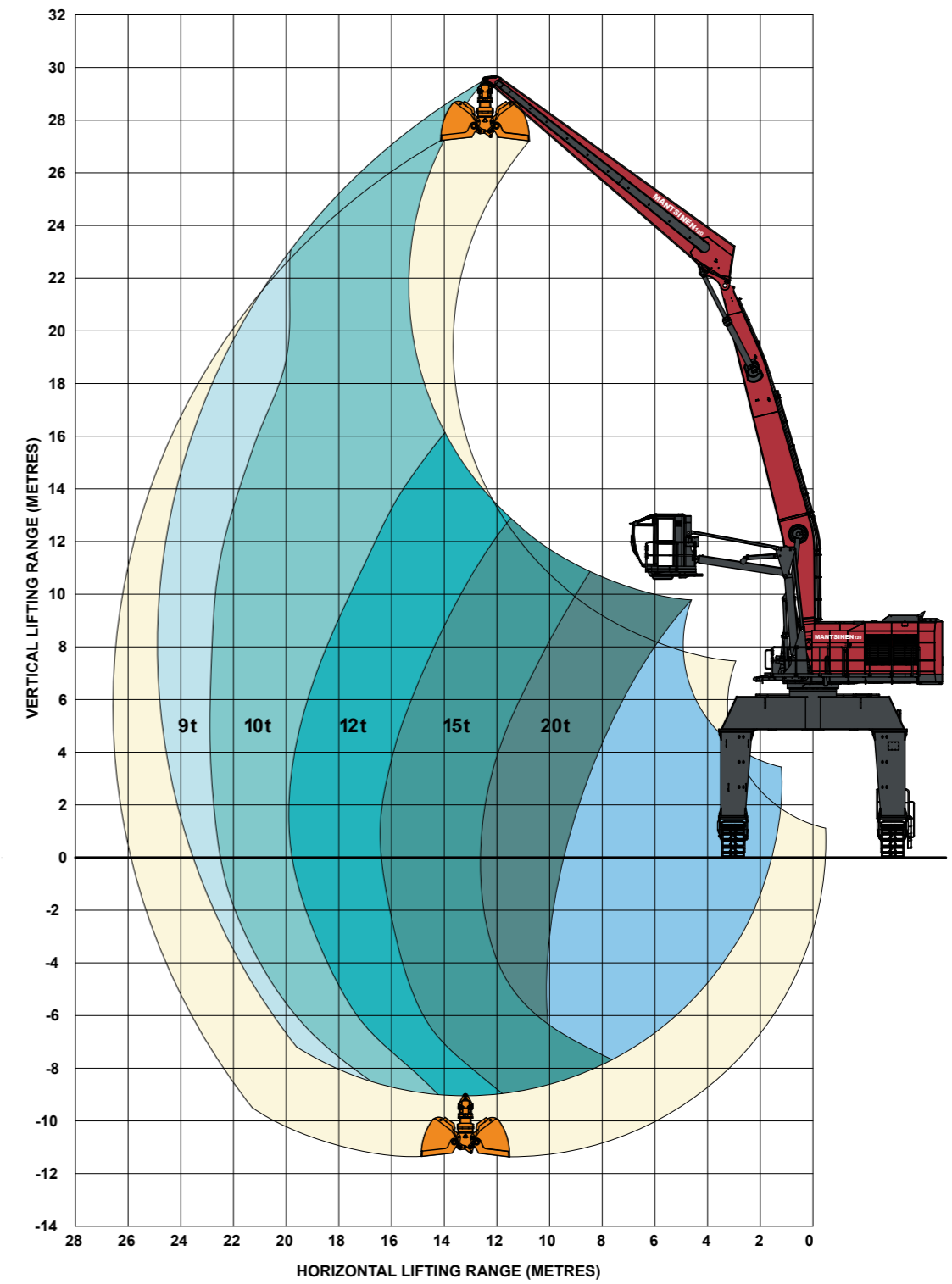
TRACK SHOES

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

Lifting capacity ranges



Lifting capacity ranges - Heavy lift



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MANTSINEN 120 R and 120 ER HybriLift® - Technical specifications

Front equipment	
Max. horizontal reach	Approximately 27 m
Lifting capacity (approx.)	11 t / 20 m
Lifting capacity Heavy Lift (approx.)	12,5 t / 20 m
Engine 120 R	
Type	Caterpillar C-13 ACERT
Power	328 kW / 1 800 rpm
Number of cylinders	6
Displacement	12,5 l
Electric motor 120 ER	
Power	250 kW / 1 500 rpm
Voltage	400 to 690 V
Hydraulic system	
Oil flow, equipment and drive	2 x 415 l/min
Oil flow, swing	385 l/min, closed loop circuit
Working pressures	Equipment 330 bar, Swing 300 bar, Drive 330 bar
Max. swing speed	4,8 rpm
Undercarriage	
Heights	2,5 m / 4 m / 5,5 m / 6,4 m* / 8 m*
Load carrying track length	6 820 mm
Track shoes	850 mm flat
Drive speed	0 - 2,2 km/h and 0 - 3,5 km/h
Cab elevator N2-5000	
Horizontal movement	Max. 8,5 m from swing centre
Vertical movement	Operator eye level max. 12 m (undercarriage height 6,4 m)
Weight without attachments	
Depending on configuration	Approx. 120 - 130 t
Refill capacities	
Hydraulic oil reservoir	1 000 l
Fuel tank	1 500 l
Additional fuel tank (option)	2 000 l

* 6,4 m and 8 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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Your dealer:

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