

RITTER

MASCHINEN

SKIDDER PROGRAM | 2022





SINCE 1924:
MADE BY RITTER
 IN THE BLACK FOREST

PROGRESS BY TRADITION
 FOR ALMOST 100 YEARS



HISTORY | The history of RITTER Maschinen started in 1924 with the master mechanic Albert Ritter. In his mechanical workshop in the Black Forest region in Germany, he focused on the production and the repair of industrial and agricultural machines. With the mechanization of the agricultural sector, RITTER started soon after the company's foundation with the production of hydro power plants, turbines, fruit presses, fruit mills, circular saws, cable winches and cableways used for transporting materials: product groups which still appear in the actual program of delivery. On our factory site in Zell am Harmersbach with more than 14,000m² and 90 employees, we plan and build innovative machines including accessories for agriculture and forestry.

In the third generation, we guarantee optimum systems for all requirements thanks to modern and high-quality manufacturing technologies. RITTER has established as a brand for excellent, high-quality, sophisticated, and practical products for the forestry industry – and all at a global level.

CONSULTING AND CUSTOMER SERVICE | We are connected with many of our customers for decades and therefore, we exactly understand their specific needs. Also, because we listen. And because we know all the work in forestry from our very own experience. This is how products are developed from real life, for real life. Our employees are experts for your fields of work, working hand in hand from planning and construction, sales, and consulting – from the first draft to the delivery of tailor-made machines.



DEVELOPMENT AND PRODUCTION

THOUGHT-OUT SOLUTIONS FROM A SINGLE SOURCE | Since our company foundation, we endeavor to continuously improve our products and to adapt to our customers' needs. With success. The secret: RITTER currently is and will be loyal to its location and manufactures everything, from winch, forest protection equipment to swivel seat with reverse-drive system, short distance cable cranes and logging cranes in own production. Thanks to this high production depth, a smooth and maintenance-friendly application is possible. We meticulously ensure consistent quality, e.g., the high-strength steels. They allow a compact construction, a low dead weight and above all, an extremely long service life. With the help of our intelligent modular system a combination of different winches and crane varieties is possible; special cable capacities respectively tractive powers are realizable in the shortest time.

EFFECTIVE SPARE PARTS MANAGEMENT | We do not leave you alone: We have all our self-manufactured products from the Black Forest and spare parts permanently available. Additionally, we hold spare parts from well-known manufacturers in agriculture and forestry industry, available at short notice.

Decisive for delivery are our Standard Terms and Conditions of Sale.

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CONTENTS

■ THE RITTER SKIDDER POWERFUL AT WORK, PROTECTING THE NATURE	6
■ THE R 170-4 WHEEL RITTER POWER: SMALL AND AGILE	8
AT A GLANCE	10
TECHNICAL DATA AND INFORMATION	12
■ THE R 185-4 WHEEL / R 185S-4 WHEEL RITTER-ACTION: TWO STRONG PERFORMERS	14
AT A GLANCE	16
TECHNICAL DATA AND INFORMATION R 185-4 WHEEL	18
TECHNICAL DATA AND INFORMATION R 185S-4 WHEEL	20
■ THE R 185S-6 WHEEL RITTER ALL-ROUNDER AT WORK	22
AT A GLANCE	24
TECHNICAL DATA AND INFORMATION	26
■ THE R 220-6 WHEEL RITTER POWER PACK ON EVERY SOIL	28
AT A GLANCE	30
TECHNICAL DATA AND INFORMATION	32
■ THE R 220-8 WHEEL RITTER GIANT FOR HIGHEST PRODUCTIVITY	34
AT A GLANCE	36
TECHNICAL DATA AND INFORMATION	38



R185-6



R170-4



R220-8



R220-6

RITTER
MASCHINEN



R185-4

RITTER SKIDDER: POWERFUL AT WORK, PROTECTING THE NATURE

STATE-OF-THE-ART TECHNOLOGY FOR MAXIMUM PERFORMANCE | Ritter Skidder are made for any work in forestry. The compact construction, the maneuverability, the powerful and innovative drive technology, and the impressive hydraulic system is what makes our forestry machines from Black Forest unique. Differential locks can be separately switched in the front and in the back, which allows safe working in challenging terrain. All Ritter forestry machines are protecting the valuable forest soil thanks to optimum weight distribution and good ground clearance. The Ritter S66 double winch with constant traction technology allows constant traction force in every cable position, combined with continuous cable speed. By request, we equip your Skidder upon your individual needs.

POWER THAT PAYS OFF | Economical engines, a high hydraulic power, an optimum oil management, and a robust, indestructible chassis guarantee high efficiency. The LED all-round illumination allows working even with poor lighting conditions. For the perfect service and maintenance access, the certified spacious cabins can be electrically tilted to both sides. The operator is connected with our service at any time via modem. RITTER forestry machines are characterized by extreme durability. Even when deciding to divest the Skidder, all machines have a high resale value.

ERGONOMICS IS OUR TOP PRIORITY | All Skidders have ROOS/FOPS certified safety cabins, which offer a perfect all-round visibility thanks to the endlessly rotating driver's seat. All functions are integrated in this ergonomically shaped seat and allow a sensitive handling even during heavy work. The entry is generously dimensioned, and the storage boxes offer sufficient space, e.g., for oil spill sets or tools.

ADVANTAGES AT A GLANCE

- Ergonomic workplace
- Extremely long service life
- Economical work
- Safety through certification
- Individual equipment
- Remote diagnosis via modem
- Simple repair and maintenance
- Soil conserving

RITTER POWER, SMALL AND AGILE: THE R 170-4 WHEEL

SWIFT AND AGILE ON ANY TERRAIN | A true power pack and ideal choice for tight and twisty terrain thanks to its compact frame construction. The strength of the R 170 is his maneuverability. Nevertheless, the operator does not need to compromise in regard to comfort: entry via generously dimensioned doors on the right and left, air-sprung seat, large sized cab. Thanks to the intelligent Flexair reversible fan and the powerful hydraulic system, the R 170 4 wheel is particularly efficient.



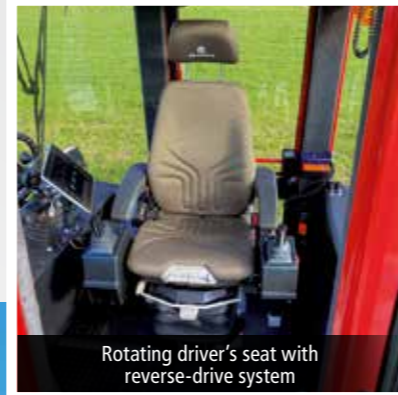
OUR SMALLEST: THE R 170-4 WHEEL



Foldable steering wheel with inclinable steering column for optimum use of space



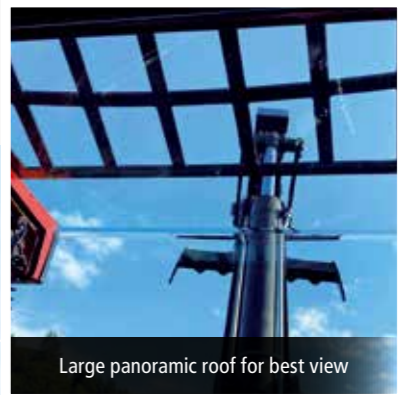
Innovative Flexair reversible fan with active and variable blade geometry



Rotating driver's seat with reverse-drive system



Large sized cabin with unique all-round visibility



Large panoramic roof for best view



Clamp bunk in quick-change system with 1,6m opening width



Front rumbling blade with integrated tool boxes (on both sides)



Touch Display for any drivers and machine information

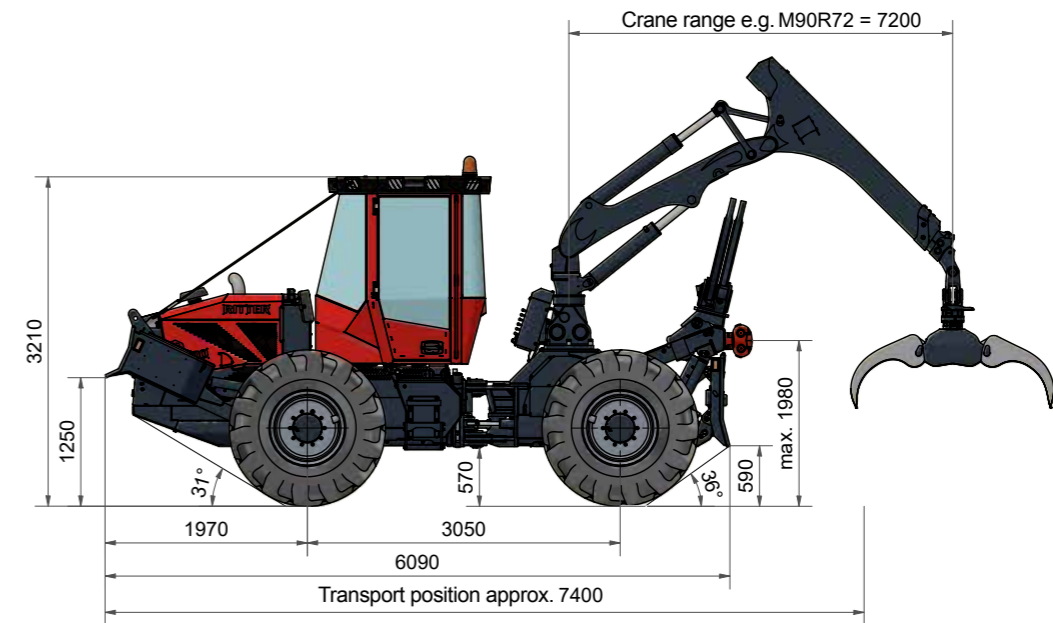


Cardanic central joint with active torsion lock

THE R 170-4 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	4-cylinder Iveco Common Rail Turbo diesel, direct injection stage 5, engine power 125 kW (170 HP) at 1700-2200 rpm, Torque 712Nm at 1500 rpm, cubic capacity 4,5 liter, reversible fan (with active and variable blade geometry)
Power transmission	Hydrostatic transmission, 1st gear 0 -16 km/h, 2nd gear 0-38 km/h
Axles	Planetary rigid axles, electrohydraulically connectable 100 % differential lock
Brakes	Two-circuit braking system, multiple-disc brake in oil bath, Spring parking brake
Tires	Tires 650/60-26,5 - Narrow (vehicle width 2,46m, 8cm distance from the frame), Tires 650/60-26,5 - Broad (vehicle width 2,71m, 20cm distance from the frame) + Tires 28L-26
Frame	Frame construction with central articulation, hydraulic torsion lock through hydraulic cylinders, torsion +/-20°, articulated frame steering +/- 45°, ground clearance 580 mm, maintenance holes supported by gas pressure absorbers
Diesel tank/AdBlue	Diesel 160l, AdBlue 27l, lockable
Electric system	90 A generator, 24 V system voltage
Hydraulic system	Load Sensing hydraulic pump with 232 l/min at 1600rpm und max. 350 bar, Hydraulic biological oil PANOLIN HLP Synth 46 with partial flow filter
Cabin	ROPS/FOPS/OPS certified safety cabin with panorama glazing, cabin electrically to both sides, special rubber bearing, sound-proof, Lexan windows, with sun protection roller blinds, double-sided driver's entrance, DAB radio with hands-free system, fire extinguisher, windscreen wipers and washer, magnetic rotating beacon, lighting in accordance with StVZO (German traffic regulations), working lights 12x LED Power Light at the top of the cabin
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (carmine red), chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium), special painting upon request
Winch	RITTER double drum winch - 2 x 80 kN - S66/D-8, Traction capacity max. 2x 80 kN, simultaneously (cable capacity Ø12mm x 130 m), hydrostatic drive, infinitely variable speed control via radio control
Steel cable	2 x 80 kN - cable capacity Ø12mm x 130m, optional 2 x 100kN (cable capacity Ø13mm x 110m), broad cable drum, cable capacity Ø12mm x 150m / Ø13mm x 130m x 150m / Ø13mm x 130m
Radio control	HBC radio control equipment 511 patrol TD EN, complete, for double drum winch, receiver, transmitter on the belt, continuous motor speed regulation, Motor-Start / Stop, prop. cable speed, 2 rechargeable batteries, battery charger 10-30V, optionally with driving functions
Skidding blade	With hydraulic lifting and impression cylinders, with pluggable trailer coupling, and floating position, cable roller rocker hydraulically height adjustable, with 2 cable insertion double roles
Front rumbling blade	With hydraulic lifting and pressure cylinder, with floating position, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Skidding crane Epsilon M90 R68, Epsilon M90 R72, Epsilon S110 R72
Grapple	Logging grapple FG 43S, Gripping width 1880 mm



ACCESSORIES/OPTIONS FOR R 170

Floating position crane	Part-turn gearbox and main crane arm
Tires	Tires 710/55-28,5 - Narrow (vehicle width 2,58m, 8cm distance from the frame), Tires 710/55-28,5 - Broad (vehicle width 2,71m, 14cm distance from the frame). Both widths are feasible with the same rim
Clamp bunk (in quick-change system)	Mounted to a cable roller rocker, height-adjustable, foldable and rotatable, opening width 1,6m, remote connector as an option
Remote connector DW	Double-acting, control via a control joystick, for trailer or clamp bunk
Compressed air brake system	2-line-compressed air brake system, additional coupler for e.g. tire inflator
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Constant traction technology Double drum winch	Constant traction system, Tractive force 70kN in every cable position, steel cable with minimum breaking force >= 140kN required, Ø11mm
Double drum winch - 2x 100 kN	Increase tractive force from 2x80kN to 2x100kN, steel cable with minimum breaking force >= 200kN required
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time
Comfort light	Working lights can be switched on/off from outside via radio / Key fob, Comfort light auto switch-off after 5 min
Comfort light	For motor, hydraulic and cabin warming.

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations), Light according to StVZO.

CRANES FOR R 170

	EPSILON	M 90 R 68	M 90 R 72	S 110 R 72
Gross lifting moment		104 kNm	104 kNm	126 kNm
Net lifting moment		82 kNm	82 kNm	102 kNm
Net swing torque		29 kNm	29 kNm	33 kNm
Outreach		6,8 m	7,2 m	7,2 m

RITTER-ACTION: TWO STRONG PERFORMERS THE R 185/185 S-4 WHEEL

SUPER-STRONG TRACTIVE POWER AND ERGONOMIC WORKING | Logging made easy: thanks to optimum weight distribution and strong skidding cranes, the Ritter R 185-4 Wheel is a reliable partner for the heaviest work - and maximum soil protection. A unique all-round visibility, an endlessly rotating driver's seat and an integrated, foldable clamp bunk allow an optimal functioning and ergonomic work. The Ritter R 185 4 Wheel machine is also available in a strengthened version (R 185 S) for the application with even more powerful cranes.



IN TWO VERSIONS:
THE R 185-4 WHEEL



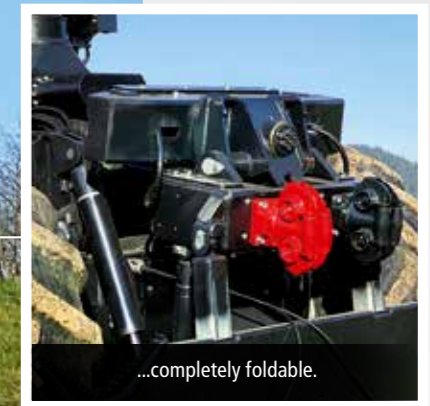
Endlessly rotating driver's seat with integrated pedals



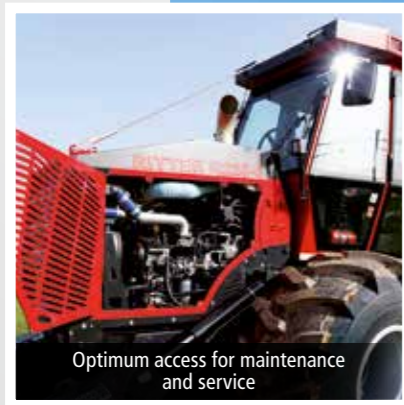
The clamp bunk of the Skidder...



...is hydraulically...



...completely foldable.



Optimum access for maintenance and service



Front rumbling blade with integrated tool boxes (on both sides)



Soft-Step climbing assistance (automatic retraction of the lowest steps) for max. ground clearance



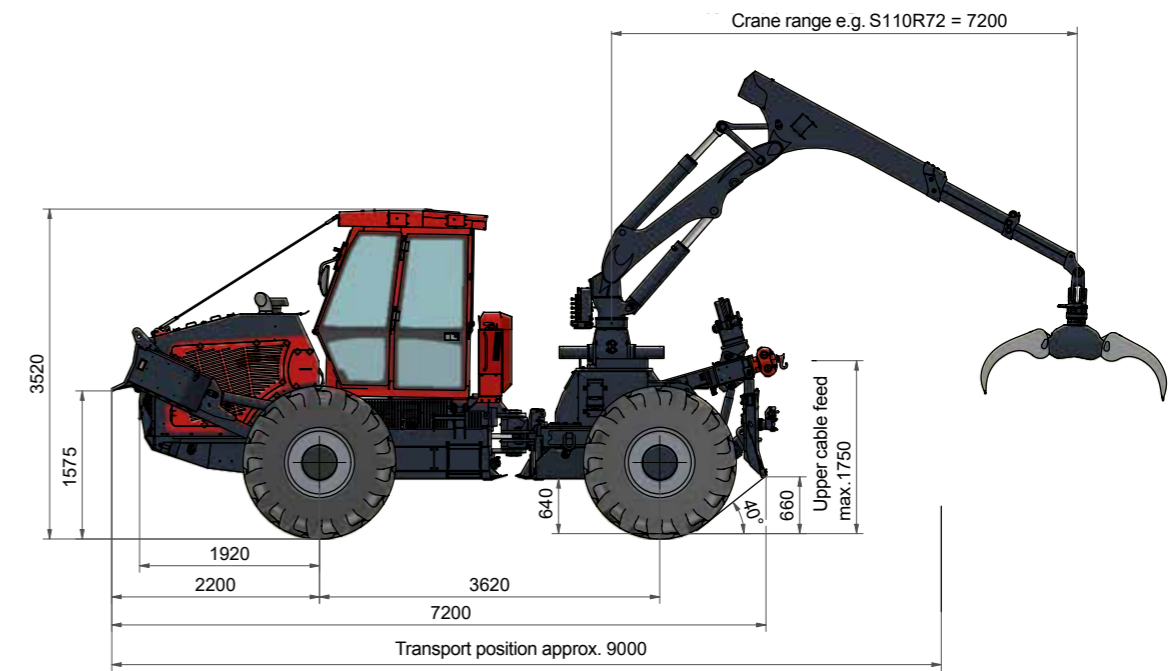
Central joint with hydraulic torsion lock



THE R 185-4 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	6-cylinder Iveco Common Rail Turbo diesel, Stage 5 direct injection, engine power 134 kW (182 HP), cubic capacity 6700 ccm. Maximum torque 851 Nm at 1500 rpm
Power transmission	Hydrostatic transmission, 1st gear 0-12 km/h, 2nd gear 0-32 km/h
Axles	Axles NAF planetary rigid axles, differential lock 100 % selectable by electrohydraulic device
Brakes	Brakes Two-circuit braking system, multiple-disc brake in oil bath, parking brake as spring mechanism brake
Tires	Tires 23.1-26 narrow gauge (vehicle width 2.55 m). Alternative: Tires 28L-26 (vehicle width 2.74 m)
Frame	Frame construction with central articulation, locking of twist through hydraulic cylinders, articulated frame steering +/- 45°, ground clearance approx. 600 mm
Diesel tank / AdBlue	Capacity diesel approx. 210 l AdBlue 27 l, lockable
Electric system	120 A generator, 24 V system voltage, lighting in conformity with StVZO, working lighting 8 x LED (standard), optional 12 x LED lighting on top of the cabin
Hydraulic system	Load sensing hydraulic pump with approx. 200 l/min und up to 350 bar, filling with biodegradable PANOLIN HLP Synth 46 oil with partial flow filter, optional approx. 300 l/min
Cabin	Spacious soundproof driver's cabin, ROPS/FOPS/OPS tested safety cabin with all-round glazing, cabin tilting to both sides, Special silent blocs, Lexan windows, air conditioning, re-extinguisher, audio system, windscreen wiper and washer, magnetic rotating beacon
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (crimson) chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium)
Winch	RITTER double drum winch - S66-D, Traction max. 2x 80 kN, simultaneously, (alternative 2x100kN), cable capacity Ø13 mm x 110 m steel cable, hydrostatic drive via axial-piston motors, continuously adjustable cable speed via radio, medium cable speed at max. traction approx. 0,6m/s (36m/min), maximum cable speed at reduced traction approx. 2,0 m/s (120m/min)
Steel cable	2 x 110 m steel cable Ø 13 mm, compacted, calculated breaking load >= 160 kN. Alternative: (required in the BG-regulations for 100 kN) 2 x 100 m steel cable Ø 14 mm, compacted, calculated breaking load >= 200 kN
Radio control	HBC radio control equipment, complete for double drum winch, receiver, transmitter on the belt, 2 rechargeable batteries, battery charger 10-30 V or 230 V, continuous motor speed regulation, Start / Stop, cable speed adjustment, optionally with driving functions
Skidding blade	With hydraulic lifting and pressure cylinder, incl. pulley rocker, additional versions feasible upon request
Front rumbling blade	With hydraulic lifting and pressure cylinder, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Epsilon S 110 R 72, Epsilon S 120 R 72
Grapple	Logging grapple FG 435, Gripping width 1880mm



ACCESSORIES/OPTIONS R 185-4

Floating position crane	Part-turn gearbox and main crane arm
Tires	NOKIAN 28-26 (vehicle width 2,80m), Standard equipment, NOKIAN 23.1-26 - Narrow (vehicle width min 2,60m) (export), NOKIAN 710/55-34 - Broad (vehicle width 2,85m)
Clamp bunk	Mounted to a cable roller rocker, height-adjustable, foldable and rotatable, opening width 1,6m
Remote connector DW	Double-acting, control via a control joystick, for trailer
Compressed air brake system	2-line-compressed air brake system, additional coupler for e.g. tire inflator
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Constant traction technology Double drum winch	Constant traction system, Tractive force 70kN in every cable position, steel cable with minimum breaking force >= 140kN required, Ø11mm
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings double drum winch	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time
Comfort light	Working lights can be switched on/off from outside via radio / Key fob, Comfort light auto switch-off after 5 min
Auxiliary heating	For motor, hydraulic and cabin warming

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations), Light according to StVZO.

CRANES FOR R 185-4

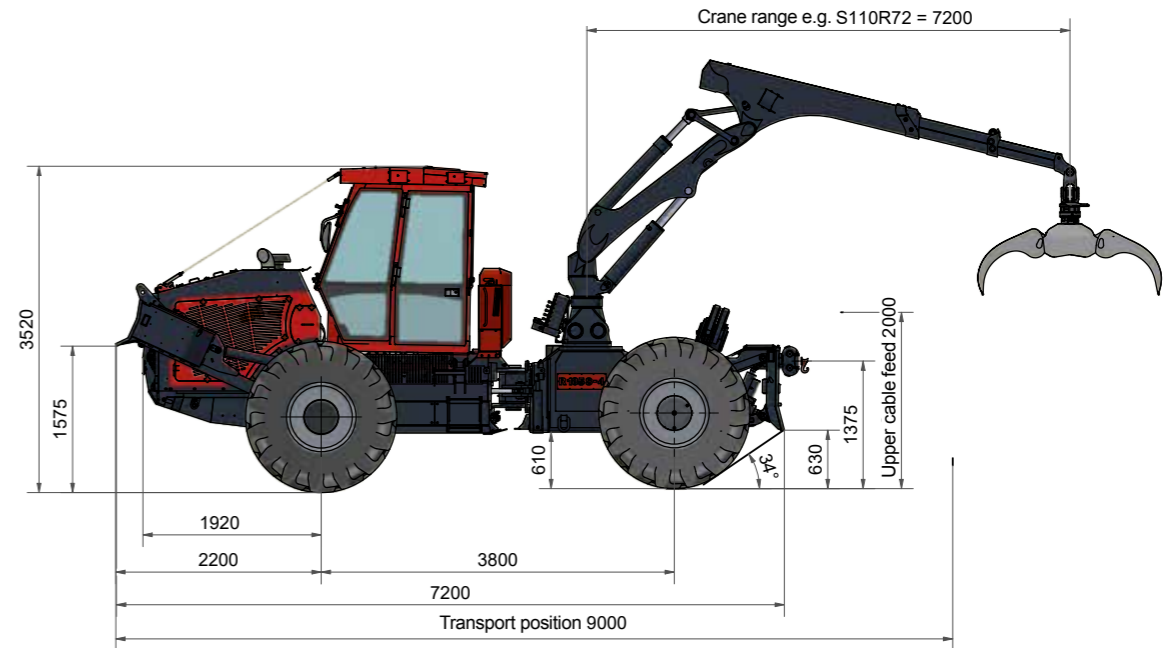
EPSILON	S 110 R 72	S 120 R 72
Gross lifting moment	126 kNm	139 kNm
Net lifting moment	102 kNm	114 kNm
Net swing torque	33 kNm	36 kNm
Outreach	7,2 m	7,2 m

Additional cranes upon request

THE R 185 S-4 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	6-cylinder Iveco Common Rail Turbo diesel, Stage 5 direct injection, engine power 142 kW (193 HP), cubic capacity 6700 ccm. Maximum torque 893 Nm at 1500 rpm
Power transmission	Hydrostatic transmission, 1st gear 0-16 km/h, 2nd gear 0-32 km/h
Axles	Axles NAF planetary rigid axles, differential lock 100 % selectable by electrohydraulic device
Brakes	Brakes Two-circuit braking system, multiple-disc brake in oil bath, parking brake as spring mechanism brake
Tires	Tires 23.1-26 narrow gauge (vehicle width 2.55 m). Alternative: Tires 28L-26 (vehicle width 2.74 m)
Frame	Frame construction with central articulation, locking of twist through hydraulic cylinders, articulated frame steering +/- 45°, ground clearance approx. 600 mm
Diesel tank / AdBlue	Capacity diesel approx. 210 l AdBlue 27 l, lockable
Electric system	90 A generator, 24 V system voltage, lighting in conformity with StVZO, working lighting 8 x LED (standard), optional 12 x LED lighting on top of the cabin
Hydraulic system	Load sensing hydraulic pump with approx. 300 l/min und up to 350 bar, filling with biodegradable PANOLIN HLP Synth 46 oil with partial flow filter
Cabin	Spacious soundproof driver's cabin, ROPS/FOPS/OPS tested safety cabin with all-round glazing, cabin tilting to both sides, Special silentbloks, Lexan windows, air conditioning, re-extinguisher, audio system, windscreen wiper and washer, magnetic rotating beacon
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (crimson) chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium)
Winch	RITTER double drum winch S 66-D, max. traction capacity 2 x 80 kN, simultaneously, Alternative: 2 x 100 kN, Cable capacity 110 m steel cable 13 mm, hydrostatic drive through axial piston motor cable speed continuously adjustable via radio control, average speed under maximum tractive force approx. 0.6m/s (36m/min), maximum speed under reduced tractive force approx. 2.0 m/s (120m/min)
Steel cable	2 x 110 m steel cable Ø 13 mm, compacted, calculated breaking load >= 160 kN. Alternative: (required in the BG-regulations for 100 kN) 2 x 100 m steel cable Ø 14 mm, compacted, calculated breaking load >= 200 kN
Radio control	HBC radio control equipment, complete for double drum winch, receiver, transmitter on the belt, 2 rechargeable batteries, battery charger 10-30 V or 230 V, continuous motor speed regulation, Start / Stop, cable speed adjustment, optionally with driving functions
Skidding blade	With hydraulic lifting and pressure cylinder, incl. pulley rocker, additional versions feasible upon request
Front rumbling blade	With hydraulic lifting and pressure cylinder, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Epsilon S 110 R 72, Epsilon S 120 R 72, Epsilon S 120 R 80
Grapple	Logging grapple FG 43S, Gripping width 1880mm



ACCESSORIES/OPTIONS FOR R 185 S-4

Floating position crane	Part-turn gearbox and main crane arm
Tires	NOKIAN 28-26 (vehicle width 2,80m, Standard equipment, NOKIAN 23.1-26 - Narrow (vehicle width min 2,60m) (export), NOKIAN 710/55-34 - Broad (vehicle width 2,85m)
Clamp bunk	Mounted to a cable roller rocker, height-adjustable, foldable and rotatable, opening width 1,75m, remote connector as an option
Remote connector DW	Double-acting, proportional and either/or control via joystick, for trailer or clamp bunk
Compressed air brake system	2-line-compressed air brake system, additional coupler for e.g. tire inflator
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Constant traction technology Double drum winch	Constant traction system, Tractive force 70kN in every cable position, steel cable with minimum breaking force >= 140kN required, Ø11mm
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings double drum winch	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time
Comfort light	Working lights can be switched on/off from outside via radio / Key fob, Comfort light auto switch-off after 5 min
Auxiliary heating	For motor, hydraulic and cabin warming

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations). Light according to StVZO.

CRANES FOR R 185 S-4

EPSILON	S 110 R 72	S 120 R 72	S 120 R 80
Gross lifting moment	126 kNm	139 kNm	139 kNm
Net lifting moment	102 kNm	114 kNm	108 kNm
Net swing torque	33 kNm	36 kNm	36 kNm
Outreach	7,2 m	7,2 m	8,0 m

Additional cranes upon request



RITTER ALL-ROUNDER AT WORK: THE R 185 S-6 WHEEL

THE TRUE ALL-ROUNDER FOR SHORT AND LONG TIMBER | This innovative Skidder is applicable as a combined machine for all kinds of timber. The modular constructed machine can be equipped or modified for different purposes in no time without leaving the cab. User-friendly highlights are the carrier frame with telescopic extension boom and the quick-change system for clamp bunk and segment stanchion basket. Additional equipment such as harvester head, branch shears and mulching head etc. can be easily added.



STRONG AND FLEXIBLE: THE R 185 S-6 WHEEL



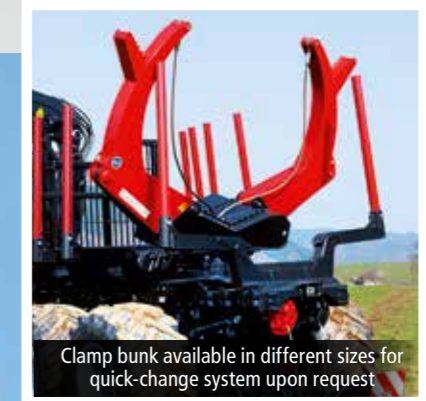
Optimum access for maintenance and repair



Continuously rotatable driver's seat, ergonomic armrests, integrated touch display



Segment stanchion basket – front gate with integrated pair of stanchions



Clamp bunk available in different sizes for quick-change system upon request



Optimum access of the machine thanks to lowerable maintenance hatches



Soft-Step climbing assistance (automatic retraction of the lowest steps) for max. ground clearance



Massiv middle hinge with central lubrication and pendulum lock

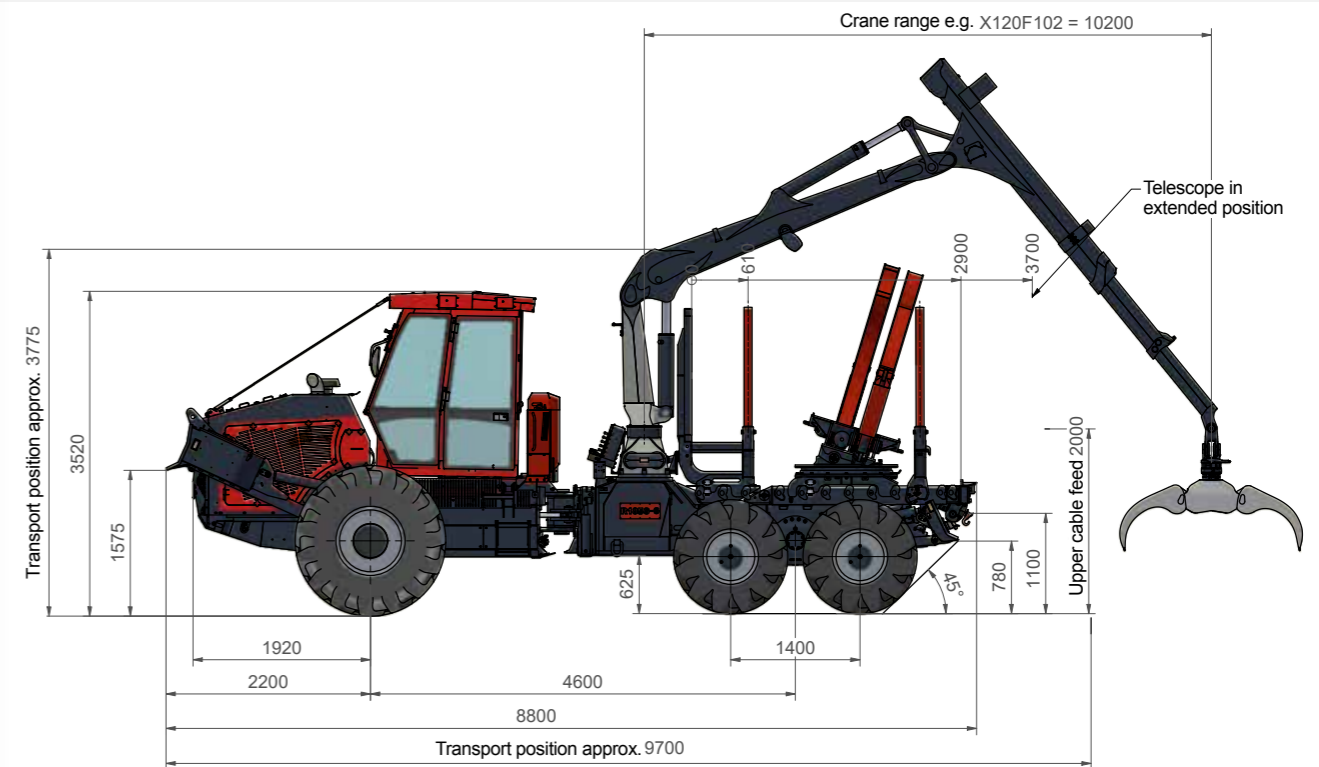


Telescopic stanchion basket

THE R 185 S-6 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	6-cylinder Iveco Common Rail Turbo diesel, Stage 5 direct injection, engine power 142 kW (193 HP), cubic capacity 6700 ccm. Maximum torque 893 Nm at 1500 rpm
Power transmission	Hydrostatic transmission, 1st gear 0-13 km/h, 2nd gear 0-32 km/h
Axles	Front: NAF planetary rigid axles, differential lock 100 % selectable by electrohydraulic device Rear: NAF planetary tandem axles, differential lock 100 % selectable by electrohydraulic device
Brakes	Brakes Two-circuit braking system, multiple-disc brake in oil bath, parking brake as spring mechanism brake
Tires	Front tires 710/55 R34, Rear tires 710/40-24,5 (vehicle width 2.74m)
Frame	Frame construction with central articulation, locking of twist through hydraulic cylinders, articulated frame steering +/- 45°, ground clearance approx. 550 mm
Diesel tank / AdBlue	Capacity diesel approx. 210 l AdBlue 27 l, lockable
Electric system	120 A generator, 24 V system voltage, lighting in conformity with StVZO, working lighting 8 x LED (standard), optional 12 x LED lighting on top of the cabin
Hydraulic system	Load sensing hydraulic pump with approx. 300 l/min und up to 350 bar, filling with biodegradable PANOLIN HLP Synth 46 oil with partial flow filter
Cabin	Spacious soundproof driver's cabin, ROPS/FOPS/OPS tested safety cabin with all-round glazing, cabin tilting to both sides, Special silentsbloks, Lexan windows, air conditioning, re-extinguisher, audio system, windscreen wiper and washer, magnetic rotating beacon
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (crimson) chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium)
Winch	RITTER double drum winch S 66-D, max. traction capacity 2 x 80 kN, simultaneously, Alternative: 2 x 100 kN, Cable capacity 110 m steel cable 13 mm, hydrostatic drivethrough axial piston motor cable speed continuously adjustable via radio control, average speed under maximum tractive force approx. 0.6m/s (36m/min), maximum speed under reduced tractive force approx. 2.0 m/s (120m/min)
Steel cable	2 x 110 m steel cable Ø 13 mm, compacted, calculated breaking load \geq 160 kN. Alternative: (required in the BG-regulations for 100 kN) 2 x 100 m steel cable Ø 14 mm, compacted, calculated breaking load \geq 200 kN
Radio control	HBC radio control equipment, complete for double drum winch, receiver, transmitter on the belt, 2 rechargeable batteries, battery charger 10-30 V or 230 V, continuous motor speed regulation, Start / Stop, cable speed adjustment, optionally with driving functions
Skidding blade	With hydraulic lifting and pressure cylinder, incl. pulley rocker, additional versions feasible upon request
Front rumbling blade	With hydraulic lifting and pressure cylinder, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Epsilon S 110 F 86, Epsilon S 110 F 101, Epsilon X 120 F 86, Epsilon X 120 F 102
Grapple	Logging grapple FG 43S, Gripping width 1880mm. Alternative: Logging grapple FG 57X, Gripping width 2010 mm, optional only for S100 crane types



ACCESSORIES/OPTIONS FOR R 185 S-6

Crane tilt	Hydraulic tilt adjustment (short crane column)
Crane changing system	1 base plate and 2 exchange plates for different attachments (GMT system)
Clamp bunk	Nominal surface 1,6m ² , at maximum opening approx. 3,0m ² , tilt angle +/- 22 degrees, swing brake, quick-change frame and multi-coupling (Burger system), with cable tension as an option
Segment stanchion basket (compact)	Front gate with integrated pair of stanchions, 2 pairs of stanchions in quick-change system
Swivel stanchion in the rear	With toothed strip for fixation, rotatable with mechanic locking
Flow regulating valve	The hydraulic volume flow is divided into a priority and a rest volume flow, required for the use of an harvester and other attachments
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Auxiliary heating	For motor, hydraulic and cabin warming
Reversible fan	For cleaning of cooler and intake section
Remote diagnosis	Via modem
Constant traction technology Double drum winch	Constant traction system, Tractive force 70kN in every cable position, steel cable with minimum breaking force \geq 140kN required, Ø11mm
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings double drum winch	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations). Light according to StVZO.

CRANES FOR R 185 S-6

EPSILON	S 110 F 86	S 110 F 101	X 120 F 86	X 120 F 102
Gross lifting moment	128 kNm	128 kNm	159 kNm	159 kNm
Net lifting moment	90 kNm	86 kNm	110 kNm	107 kNm
Net swing torque	33 kNm	33 kNm	40 kNm	40 kNm
Outreach	8,6 m	10,1 m	8,6 m	10,2 m

Additional cranes upon request



RITTER POWER PACK ON EVERY SOIL: THE R 220-6 WHEEL

COMPACT, STRONG AND VERSATILE | The Ritter R 220 - 6 wheel with a maximum capacity of 260 HP at reduced speed combines the advantages of a typical Skidder with the advantages of a Forwarder. Thanks to its compact construction with high additional load capacity and large steering and oscillating angle, the machine masters any terrain. The comfortable cabin with endlessly rotating driver's seat provides best all-round view and options like hydraulic management up to 410l per minute. The RITTER THS traction auxiliary winch allows an economical and rapid work.



PURE POWER: THE R 220-6 WHEEL



Continuously rotatable driver's seat, ergonomic armrests, integrated touch display



Segment stanchion basket – front gate with integrated pair of stanchions



Clamp bunk available in different sizes for quick-change system upon request



Telescopic stanchion basket



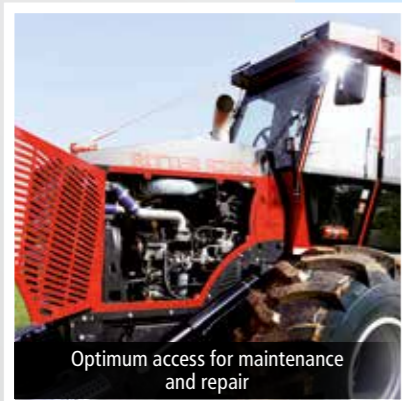
Massive middle hinge with central lubrication and pendulum lock



Soft-Step climbing assistance (automatic retraction of the lowest steps) for max. ground clearance



Front rumbling blade with integrated tool boxes



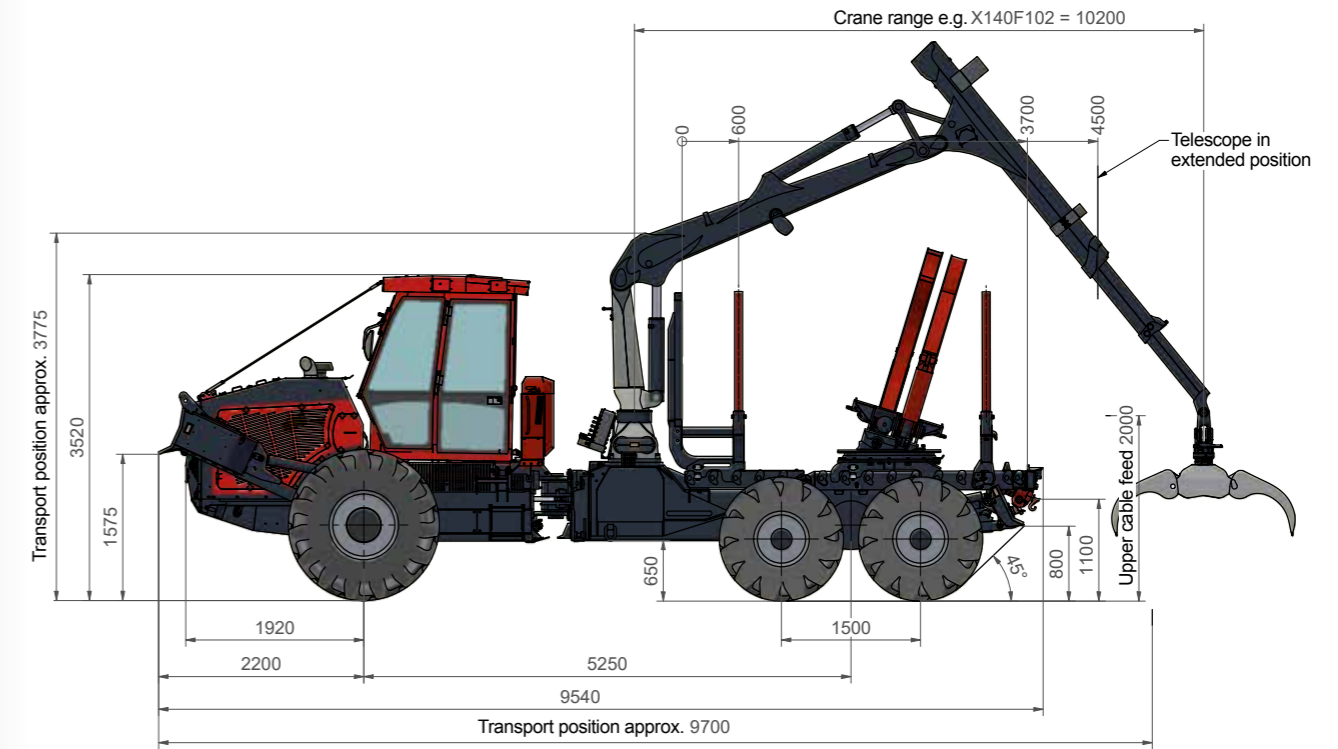
Optimum access for maintenance and repair



THE R 220-6 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	6-cylinder Iveco Common Rail Turbo diesel, Stage 5 direct injection, engine power 191 kW (260 HP), cubic capacity 6700 ccm, Maximum torque 1150 Nm at 1500 rpm
Power transmission	Hydrostatic transmission b, 1st gear 0-12 km/h, 2nd gear 0-32 km/h
Axles	Front: NAF planetary rigid axles, differential lock 100 % selectable by electrohydraulic device Rear: NAF planetary tandem axles, differential lock 100 % selectable by electrohydraulic device
Brakes	Brakes Two-circuit braking system, multiple-disc brake in oil bath, parking brake as spring mechanism brake
Tires	Front tires 23.1-26, Rear tires 600/50-22.5 (narrow gauge vehicle width 2.60 m) Alternative: Front tires 28L-26, Rear tires 710/45-26,5 (vehicle width 2.74 m)
Frame	Frame construction with central articulation, locking of twist through hydraulic cylinders, articulated frame steering +/- 45°, ground clearance approx. 600 mm
Diesel tank / AdBlue	Capacity diesel approx. 210 l AdBlue 27 l, lockable
Electric system	120 A generator, 24 V system voltage, lighting in conformity with StVZO, working lighting 8 x LED (standard), optional 12 x LED lighting on top of the cabin
Hydraulic system	Load sensing hydraulic pump with approx. 300 l/min and up to 350 bar, filling with biodegradable PANOLIN HLP Synth 46 oil with partial flow filter
Cabin	Spacious soundproof driver's cabin, ROPS/FOPS/OPS tested safety cabin with all-round glazing, cabin tilting to both sides, Special silentbloks, Lexan windows, air conditioning, re-extinguisher, audio system, windscreen wiper and washer, magnetic rotating beacon
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (crimson) chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium)
Winch	RITTER double drum winch S 66-D, maximum traction capacity 2 x 80 kN, simultaneously, Alternative: 2 x 100 kN, Cable capacity 110 m steel cable 13 mm, hydrostatic drive through axial piston motor, cable speed continuously adjustable via radio control, average speed under maximum tractive force approx. 0.6m/s (36m/min), maximum speed under reduced tractive force approx. 2.0 m/s (120m/min), control panel fivefold, 5m cable
Steel cable	2x 110 m steel cable Ø 13 mm, compacted, calculated breaking load >= 160 kN. Alternative: (required in the BG-regulations for 100 kN) 2 x 100 m steel cable Ø 14 mm, compacted, calculated breaking load >= 200 kN
Radio control	HBC radio control equipment, complete for double drum winch, receiver, transmitter on the belt, 2 rechargeable batteries, battery charger 10-30 V or 230 V, continuous motor speed regulation, Start / Stop, cable speed adjustment, optionally with driving functions
Skidding blade	With hydraulic lifting and pressure cylinder, additional versions feasible upon request
Front rumbling blade	With hydraulic lifting and pressure cylinder, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Epsilon X 120 F 86, Epsilon X 120 F 102, Epsilon X 140 F 86, Epsilon X 140 F 102
Grapple	Logging grapple FG 43S, Gripping width 1880mm. Alternative: Logging grapple FG 57X, Gripping width 2010 mm, optional only for S100 crane types



ACCESSORIES/OPTIONS FOR R 220-6

Crane tilt	Hydraulic tilt adjustment (short crane column, Ritter system)
Crane changing system	1 base plate and 2 exchange plates for different attachments (GMT system)
Clamp bunk, optionally with cable tension	Nominal surface 1,6m ² , at maximum opening approx. 3,0m ² , tilt angle +/- 22 degrees, swing brake, quick-change frame and multi-coupling (Burger system)
Segment stanchion basket (compact)	Front gate with integrated pair of stanchions, 3 pairs of stanchions in quick-change system
Swivel stanchion in the rear	With toothed strip for fixation, rotatable with mechanic locking
Flow regulating valve for harvester use	The hydraulic volume flow is divided into a priority and a rest volume flow, required for the use of an harvester and other attachments
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Auxiliary heating	For motor, hydraulic and cabin warming
Reversible fan	For cleaning of cooler and intake section
Remote diagnosis	Via modem
Constant traction technology Double drum winch	Constant traction system, Tractive force 70kN in every cable position, steel cable with minimum breaking force >= 140kN required, Ø11mm
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings double drum winch	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations). Light according to StVZO.

CRANES FOR R 220-6

	EPSILON	X 120 F 86	X 120 F 102	X 140 F 86	X 140 F 102
Gross lifting moment		159 kNm	159 kNm	173 kNm	173 kNm
Net lifting moment		110 kNm	107 kNm	122 kNm	119 kNm
Net swing torque		40 kNm	40 kNm	43 kNm	43 kNm
Outreach		8,6 m	10,2 m	8,6 m	10,2 m

Additional cranes upon request

RITTER GIANT FOR HIGHEST PRODUCTIVITY: THE R 220-8 WHEEL

EFFICIENT WORK WHILE GUARANTEEING MAXIMUM SAFETY | The R 220-8 Wheel with maximum power of 260 HP is up to the most exceptional tasks. With the highest loading capacity of all Ritter Skidder as well as Krantilt and Boogie-Lift, highest productivity can be achieved. High-volume tires protect the soil, and the use of belts reduces the service life to a minimum. The intelligent hydraulic management up to 410 liter per minute guarantees high hydraulic performance.



WORKING AT THE HIGHEST LEVEL: THE R 220-8 WHEEL



Optimum access for maintenance and repair



Continuously rotatable driver's seat, ergonomic armrests, integrated touch display



Segment stanchion basket - front gate with integrated pair of stanchions



Clamp bunk in quick-change system



Hydraulic Boogie-Lift-System for front axle



Hydraulic Boogie-Lift-System



Optimum access of the machine thanks to lowerable maintenance hatches

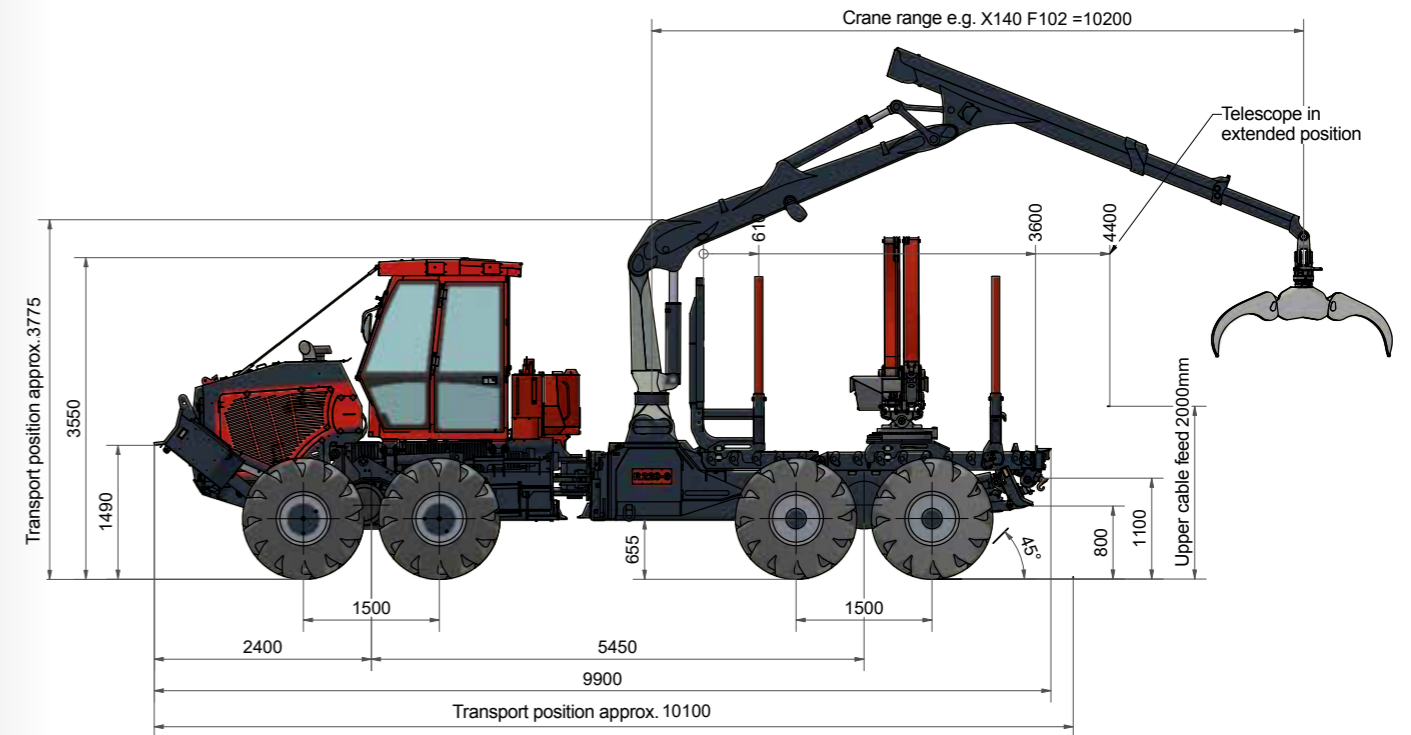


Changing system for pairs of stanchions

THE R 220-8 WHEEL

TECHNICAL DATA AND INFORMATION

Engine	6-cylinder Iveco Common Rail Turbo diesel, Stage 5 direct injection, engine power 191 kW (260 HP), cubic capacity 6700 ccm, Maximum torque 1150 Nm at 1500 rpm
Power transmission	Hydrostatic transmission b, 1st gear 0-12 km/h, 2nd gear 0-32 km/h
Axles	Front: NAF planetary tandem axles, differential lock 100 % selectable by electrohydraulic device Rear: NAF planetary tandem axles, differential lock 100 % selectable by electrohydraulic device
Brakes	Brakes Two-circuit braking system, multiple-disc brake in oil bath, parking brake as spring mechanism brake
Tires	Tires 600/55-26,5 (narrow gauge vehicle width 2,60m) Alternative: Tires 710/45-26,5 (vehicle width 2,74 m)
Frame	Frame construction with central articulation, locking of twist through hydraulic cylinders, articulated frame steering +/- 45°, ground clearance approx. 600 mm
Diesel tank / AdBlue	Capacity diesel approx. 210 l AdBlue 27 l, lockable
Electric system	120 A generator, 24 V system voltage, lighting in conformity with StVZO, working lighting 8 x LED (standard), optional 12 x LED lighting on top of the cabin
Hydraulic system	Load sensing hydraulic pump with approx. 300 l/min and up to 350 bar, filling with biodegradable PANOLIN HLP Synth 46 oil with partial flow filter
Cabin	Spacious soundproof driver's cabin, ROPS/FOPS/OPS tested safety cabin with all-round glazing, cabin tilting to both sides, Special silentbloks, Lexan windows, air conditioning, re-extinguisher, audio system, windscreen wiper and washer, magnetic rotating beacon
Driver's seat	Comfortable swivel seat with pneumatic cushioning, electric endless rotation, adjustable speed and torque, pedal platform for inch and gas pedal, alternatively brake and gas pedal, foldable. Reverse drive functions: forward and backward motion in the rear, electric driving functions in the armrest with integrated touch display
Colour	Engine bonnet, cabin and crane in RAL3002 (crimson) chassis and shell in RAL9011 (graphite black), rims in RAL9006 (white aluminium)
Winch	RITTER double drum winch S 66-D, maximum traction capacity 2 x 80 kN, simultaneously, Alternative: 2 x 100 kN, Cable capacity 110 m steel cable 13 mm, hydrostatic drive through axial piston motor, cable speed continuously adjustable via radio control, average speed under maximum tractive force approx. 0.6m/s (36m/min), maximum speed under reduced tractive force approx. 2.0 m/s (120m/min), control panel fivefold, 5m cable
Steel cable	2x 110 m steel cable Ø 13 mm, compacted, calculated breaking load \geq 160 kN. Alternative: (required in the BG-regulations for 100 kN) 2 x 100 m steel cable Ø 14 mm, compacted, calculated breaking load \geq 200 kN
Radio control	HBC radio control equipment, complete for double drum winch, receiver, transmitter on the belt, 2 rechargeable batteries, battery charger 10-30 V or 230 V, continuous motor speed regulation, Start / Stop, cable speed adjustment, optionally with driving functions
Skidding blade	With hydraulic lifting and pressure cylinder, additional versions feasible upon request
Front rumbling blade	With hydraulic lifting and pressure cylinder, integrated welded trailer coupling trough, integrated tool boxes on both sides
Crane	Epsilon X 120 F 86, Epsilon X 120 F 102, Epsilon X 140 F 86, Epsilon X 140 F 102
Grapple	Logging grapple FG 43S, Gripping width 1880mm. Alternative: Logging grapple FG 57X, Gripping width 2010 mm, optional only for S100 crane types



ACCESSORIES/OPTIONS FOR R 220-8

Boogie	Hydraulic lift axle in the front
Crane tilt	Hydraulic tilt adjustment (short crane column, Ritter system)
Crane changing system	1 base plate and 2 exchange plates for different attachments (GMT system)
Clamp bunk, optionally with cable tension	Nominal surface 1,6m ² , at maximum opening approx. 3,0m ² , tilt angle +/- 22 degrees, swing brake, quick-change frame and multi-coupling (Burger system)
Segment stanchion basket (compact)	Front gate with integrated pair of stanchions, 3 pairs of stanchions in quick-change system
Swivel stanchion in the rear	With toothed strip for fixation, rotatable with mechanic locking
Flow regulating valve for harvester use	The hydraulic volume flow is divided into a priority and a rest volume flow, required for the use of an harvester and other attachments
Radio Control	Drive forward/backward, steer left/right, Skidding blade up/down, cable roller rocker up/down
Auxiliary heating	For motor, hydraulic and cabin warming
Reversible fan	For cleaning of cooler and intake section
Remote diagnosis	Via modem
Constant traction technology	Constant traction device, Tractive force 70kN in every cable position, steel cable with minimum breaking force \geq 140kN required, Ø11mm
Double drum winch	
Proportional load lowering brake	In order to open the brake via radio carefully
Traction settings double drum winch	Traction setting via handwheel in order to reduce the maximum traction, not in combination with constant traction system
Cable ejector/ Cable intake brake combination	Automatic cable ejector, adjustable speed via radio, for the right speed at any time

Approval by TÜV (German Technical Inspection Agency) according to StVZO (German traffic regulations). Light according to StVZO.

CRANES FOR R 220-8

EPSILON	X 120 F 86	X 120 F 102	X 140 F 86	X 140 F 102
Gross lifting moment	159 kNm	159 kNm	173 kNm	173 kNm
Net lifting moment	110 kNm	107 kNm	122 kNm	119 kNm
Net swing torque	40 kNm	40 kNm	43 kNm	43 kNm
Outreach	8,6 m	10,2 m	8,6 m	10,2 m

Additional cranes upon request

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