



# RMWL-308E

UNDERGROUND WHEEL LOADER





# Built for heavy loading, engineered for precision

This Rhino RMWL-308E Underground Wheel Loader is engineered with advanced features that maximize productivity, increase uptime, and reduce operating costs in demanding mining environments. A high-performance hydraulic system, optimized load-sensing technology, and operator-focused controls deliver faster cycle times and exceptional material handling efficiency.



1. Level climate-control system with automotive-style adjustable louvers helps keep the glass clear and the cab comfortable.
2. Advanced LCD monitor provides intuitive access to a wealth of operational and drilling data and functions.
3. Ergonomically correct short-throw pilot levers provide smooth, predictable fingertip control with less movement or effort.

## POWERTRAIN AND ELECTRICAL SYSTEM

Engine model	Battery-electric RHINO RMWL 700E (PMSM)
Emissions standard	Zero emissions (electric)
Propulsion type	Battery-electric (PMSM)
Traction motor (PMSM) – Rated torque/ power/speed	700 N·m / 160 kW / 2,200 rpm
Traction motor (PMSM) – Peak torque/ power/speed	1,700 N·m / 240 kW / 3,300 rpm
Auxiliary motor (PMSM) – Rated torque/ power/speed	300 N·m / 72 kW / 2,300 rpm
Auxiliary motor (PMSM) – Peak torque/ power/speed	560 N·m / 130 kW / 2,800 rpm
Electrical system	High-voltage system 715 V (battery), 350 A (rated DC); 24V auxiliaries: reverse alarm, LED lights, 24V battery disconnect, integrated intelligent thermal management monitoring
Battery type	Lithium-ion (LFP / NMC)
Battery capacity	340 kWh
Component ratings	IP67, IP69K
Battery charging time	1 hour (dual fast-charge)
Operational autonomy	6 to 7 hours of continuous operation
CO <sub>2</sub> emission reduction	More than 80 tonnes/year per unit

## CAPACITIES AND PERFORMANCE

Rated payload kg (lb)	7,000 (15,432)
Standard bucket capacity m <sup>3</sup> (yd <sup>3</sup> )	3.5 (4.58)
Ejector bucket (option) m <sup>3</sup> (yd <sup>3</sup> )	3.3 (4.3)
Breakout force kN (lbf)	175.9 (39,524)
Maximum tractive force kN (lbf)	160–200 (35,970–44,963)
Static tipping load, straight kg (lb)	49,203 (108,500)
Hydraulic cycle time (s)	9.2 s (Raise 5.0 / Dump 2.0 / Lower 2.2)

## TRANSMISSION, AXLES AND WHEELS

Torque converter	Electric; direct drive – no torque converter
Front and rear axles	Drive axles integrated with electric drive system (Dana, Kessler)
Front differential	Limited Slip Differential (LSD)
Drive	4x4 (four-wheel drive)
Tyres (spec and ply rating)	17.5x25 (or 18.00x25), L-5 rating, 20–22 PR (high rock resistance)

## TRAMMING SPEEDS

Maximum tramping speed km/h (mph)	18.0 (11.2)
Gradeability	14° (25%)
Ramp speed at 14% grade km/h (mph)	4.5 (2.8) laden

## HYDRAULIC SYSTEM

System pressure	Main work system pressure 34,000 kPa (340 bar / 4,932 psi)
Bucket / lift pump flow L/min (gpm)	Maximum lift/tilt pump flow 297 L/min (78.5 gpm)
Reservoir capacity L (gal)	240 (63.4)
Hydraulic control	Fully hydraulic centre-articulated steering
Return-line filtration	Hydraulic oil filtration system (return + high-pressure); return filter + high-pressure filter – standard

## BRAKES AND SAFETY

Brake system	Spring-applied hydraulic-release (SAHR) brakes, fully sealed, multi-disc oil-bath; service, parking and emergency brakes integrated
Braking characteristics	Combined service, parking and emergency braking in a single system; regenerative braking
Automatic brake test	Automatic Brake Application (ABA) – standard; residual brake warning – standard
Traction control	4x4 traction with independent PMSM motors
Fire suppression	Ansul/Fogmaker wet system (standard) or fire bulkhead (standard)
Lighting	LED lights (standard)



## CABIN & ERGONOMICS

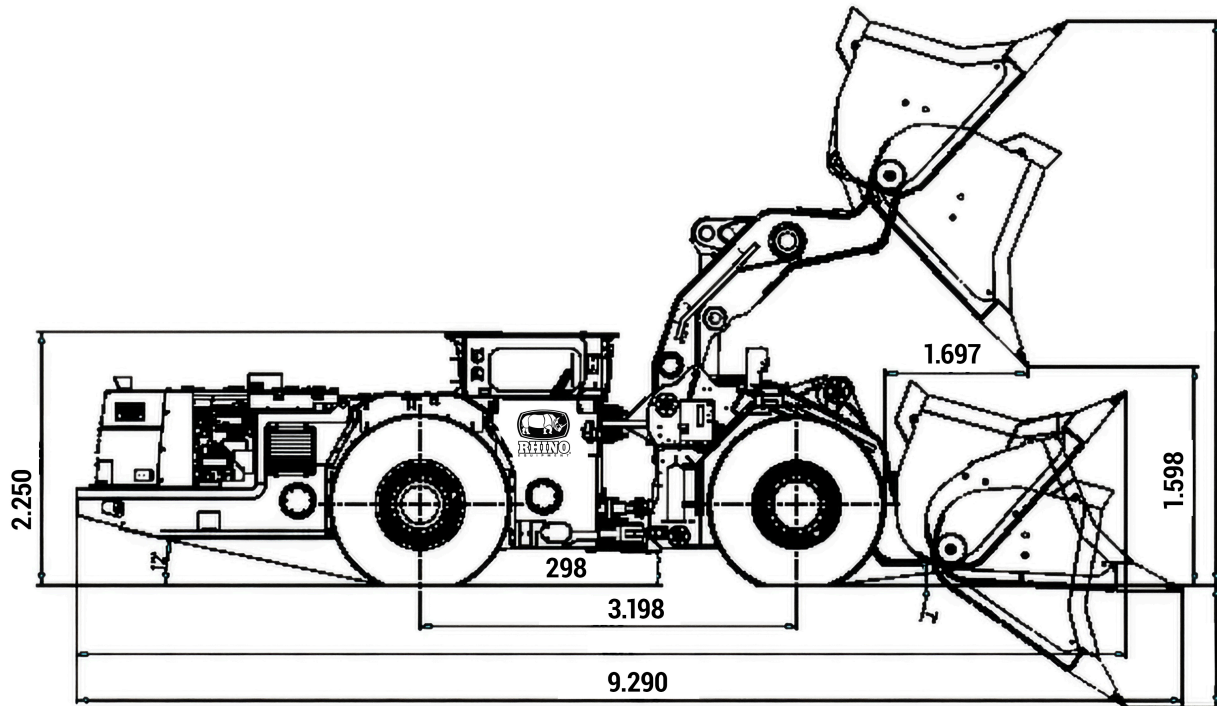
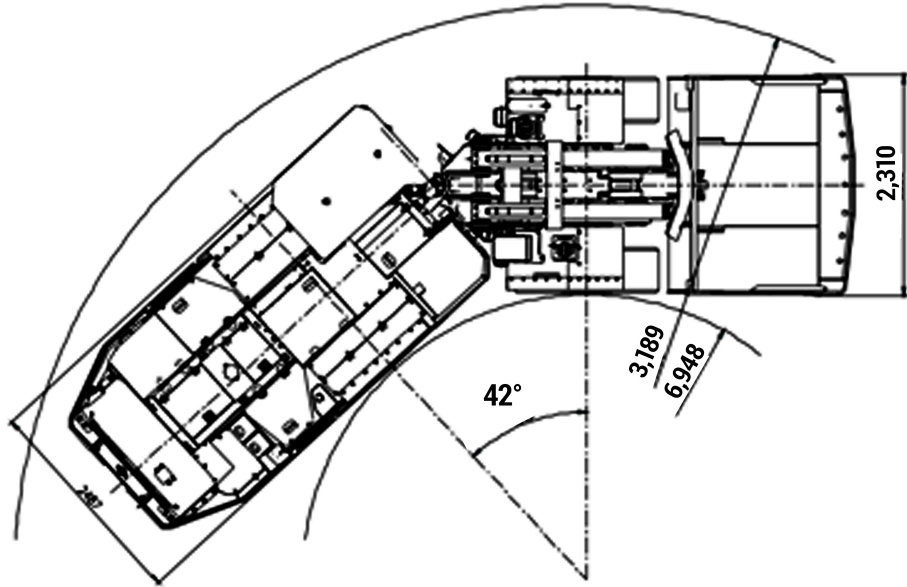
Cab certification	ROPS / FOPS (ISO)
Air conditioning	Enclosed ROPS/FOPS cab; optional A/C with cab pressuriser and cabin filter
Noise level	In-cab sound pressure level $71 \pm 2.5$ dB(A); machine sound power level $104 \pm 2.5$ dB(A)
Operator seat	Seat with standard pneumatic suspension, retractable seat belt; T-seat options available
Door interlock	Yes: applies brakes and locks steering and bucket/boom movement when door is opened
Visibility cameras	Audiovisual reverse alarm – standard

## AUTOMATION AND ELECTRONICS

Control system	Multi-purpose CMPD display (brake gauges, hydraulic temp., battery/motor temp., diagnostics, residual brake)
Payload control	Intelligent thermal management system
Autodig (auto-fill)	Autodig available as option
Tele-remote / Autonomous	Factory-ready for integrated remote control and autonomous tramming operation
Monitoring / Telemetry	Real-time data monitoring system
Electronic diagnostics	Diagnostic connector (standard); integrated electronic control system with integrated CAN bus diagnostics – standard

## STEERING AND ARTICULATION

Steering structure	Centre-articulated with oscillating link on slew bearing
Articulation angle °	42°
Outer turning radius mm (ft)	6,948 (22.79)
Inner turning radius mm (ft)	3,189 (10.46)
Minimum working area m x m	4.1 x 4.1



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## DIMENSIONS AND WEIGHTS

Operating weight – empty kg (lb)	22,000 (48,502)
Gross vehicle weight – laden kg (lb)	29,000 (63,934)
Overall length mm (ft)	9,290 (30.60)
Overall width mm (ft)	2,310 (7.69)
Overall height (ROPS) mm (ft)	2,250 (7.46)
Wheelbase mm (ft)	3,198 (10.49)
Ground clearance mm (in)	298 (12.13)
Maximum dumping height mm (ft)	1,598 (5.37)
Maximum dump reach mm (ft)	1,697 (5.61)

## MAINTAINABILITY

Service access points	All daily maintenance can be performed from ground level; key components easily accessible
Centralised lubrication	Automatic lubrication available as option
Oil change interval (h)	Traction and auxiliary electric motors: service interval 12,000–13,000 h. Hydraulic oil: 2,000–4,000 h
Emergency start	Conventional emergency start not applicable; 24V battery isolation switches; emergency electrical recovery procedure