 Operating capacities, weights and dimensions

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket capacity*</td>
<td>9.0 m³</td>
</tr>
<tr>
<td></td>
<td>11.8 yd³</td>
</tr>
<tr>
<td>Static tipping loads</td>
<td>48.2 kN</td>
</tr>
<tr>
<td></td>
<td>106,350 lb</td>
</tr>
<tr>
<td>Breakout force (tilt)</td>
<td>350 kN</td>
</tr>
<tr>
<td></td>
<td>78,000 lb</td>
</tr>
<tr>
<td>Operating weight</td>
<td>58,968 kg</td>
</tr>
<tr>
<td></td>
<td>130,000 lb</td>
</tr>
</tbody>
</table>

*Standard rock bucket based on a material density of 2,500 kg/m³ (4,213 lb/yd³).

Note: Indicative illustration only, machine design may vary.

Working ranges

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine rated power</td>
<td>320 kW</td>
</tr>
<tr>
<td></td>
<td>429 hp</td>
</tr>
<tr>
<td>Production</td>
<td>380 kW</td>
</tr>
<tr>
<td></td>
<td>509 hp</td>
</tr>
<tr>
<td>Development</td>
<td>410 kW</td>
</tr>
<tr>
<td></td>
<td>550 hp</td>
</tr>
<tr>
<td>Hybrid Power**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Payload</td>
<td>22,000 kg</td>
</tr>
<tr>
<td></td>
<td>48,500 lbs</td>
</tr>
</tbody>
</table>

Bucket capacity: 10.0 m³/13.1 yd³ and 11.0 m³/14.4 yd³ bucket options available

**Hybrid power available for acceleration events.
Power module

Diesel power options
US Tier IV final/EU stage IV
Series 1100, 10.6 litre
Six cylinders
Four-cylinder turbo charged
Rated engine power
300 kW (402 hp) @ 1680 rpm
380 kW (509 hp) @ 1680 rpm

Note: The 300 kW engine option is most suitable for production level operations such as block/panel caving, where fuel efficiency and emission output are highly critical. The 380 kW engine option is most suitable for multipurpose applications where the machine is required to work on declines or steep grades.

The independent power module mounting system, consisting of the engine coupled to the SR generator, is cradled within the rear frame by a three-point isolation system.

Radiator/oil cooler module
- Replaceable tube type, over-under split flow
- Thermostatically controlled, variable speed hydraulic motor-driven, radiator-mounted fan

Exhaust system
US Tier IV final exhaust after treatment catalyst box

Control system-LINCS II

CAN Based Vehicle Control Unit incorporating high speed monitoring and advanced diagnostics including integrated data logging and storage.

LINCS II uses a dash mounted full color touch screen display as the operator interface. Out of range conditions will cause an audible alarm along with a message screen that is color coded to indicate severity.

In addition, the touch screen display provides repair technicians with operational data and fault messages.

LINCS II load weigh

Displays real-time load data, cycle times, production rates and operational profile.
- Memory capable of retaining months of production information
- JoySmart remote monitoring connectivity available for additional diagnostics and productivity analysis
- Capable of interfacing with radio dispatch systems for on-site real-time monitoring

Steering and hoisting system

Steering

Steering function is controlled by a single joystick. Constant engine rpm assures full hydraulic steering response.

Articulation angle
46°

Turning radius
Outside 7.53 m
Inside 3.21 m

Hoist and bucket control

Hoist and bucket control functions are incorporated into a single joystick control. The electropneumatic hydraulic actuated hoist and bucket system is independent of the steering system.

Standard/High lift cycle times:

Hoist 8.4 sec
Dump 2.0 sec
Float 4.0 sec
Total 14.4 sec

Operator’s cabin

Features
- ISO ROPS/FOPS design, rubber mounted for comfort
- Foot box for improved operator ergonomics
- Refrigerated climate control system
- Door interlocking sets park brakes, blocks steering movement once the machine is stationary and bucket and boom functions immediately
- Door movement damper to control door movement
- Adjustable air seat suspension with four (4) point harness

Electrical propulsion system

Switched Reluctance (SR) (Traction motors)

Electrical Propulsion System
- Digital microprocessor controlled traction drive
- Switched Reluctance (SR) drive advantages include:
  - No commutator, brushes or rotor windings on SR motors or generator
  - SR KESS - Kinetic Energy Storage System
  - Parts commonality - power control modules identical for motor, generator and SR KESS

Travel speed

Forward and reverse 0.27 km/h (0.167 mph)

Generator

- Switched Reluctance Generator
- Switched Reluctance (SR)

Planetary gearing

Model 29A
- In-line gear train mounted within the rim of the tire, transmitting power from the traction motor through the tire rim assembly
- A four-stage planetary drive unit in each position
- Total reduction: 92.63:1

Hydraulic system

Pumps (Maximum flow rate at 1800 rpm)
- Bucket and hoist: Piston 468 L/min 124 gpm
- Fast hoist: Piston 171 L/min 45 gpm
- Accessory: Piston 171 L/min 45 gpm
- Steering: Piston 171 L/min 45 gpm
- Accessory: Piston 171 L/min 45 gpm

Valves

Main (two)
- Pump pressure 27,580 kPa 4,000 psi

Steering
- Pump pressure 27,580 kPa 4,000 psi

Cylinders

Double acting, single-stage (diameter and stroke), (standard and high lift) 24

- Bucket 230 mm x 1220 mm 9.0 in x 52 in
- Steering 140 mm x 630 mm 5.5 in x 24 in

Braking system

Primary brake system

Electro-pneumatic braking system is controlled from the accelerator pedal and can bring the loader to a full stop without application of mechanical brakes.

Secondary brake system

Air modulated traction motor speed disc brakes
- Single disc and caliper on each traction motor (4)
- Emergency fall safe brakes are spring applied in the event of hydraulic pressure loss

Parking brake system

Spring applied, hydraulic release traction motor speed disc brakes

24V electrical system

150 amp alternator
- Modular IP67 wiring system
- Lockable, dual isolation switch system
- Separate, fully isolated auxiliary power supply for fire suppression and radio systems
- 16 x 50 watt LED driving and work lights

Overall dimensions

<table>
<thead>
<tr>
<th>(9.0 m³ bkt)</th>
<th>(11.0 m³ bkt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Height over cabin</td>
<td>2.9 m</td>
</tr>
<tr>
<td>B Height over power unit</td>
<td>2.5 m</td>
</tr>
<tr>
<td>C Vehicle width across tires</td>
<td>2.8 m</td>
</tr>
<tr>
<td>D Width across bucket</td>
<td>3.2 m</td>
</tr>
<tr>
<td>E Max. rear frame width</td>
<td>2.8 m</td>
</tr>
<tr>
<td>F1 Vehicle length digging (GET)</td>
<td>11.7 m</td>
</tr>
<tr>
<td>F2 Vehicle length digging (No GET)</td>
<td>11.5 m</td>
</tr>
<tr>
<td>G1 Vehicle length haul (GET)</td>
<td>11.3 m</td>
</tr>
<tr>
<td>G2 Vehicle length haul (No GET)</td>
<td>11.1 m</td>
</tr>
<tr>
<td>H Wheelbase</td>
<td>4.1 m</td>
</tr>
<tr>
<td>I Ground clearance</td>
<td>0.5 m</td>
</tr>
<tr>
<td>J Bucket height fully raised</td>
<td>6.9 m</td>
</tr>
<tr>
<td>K Hinge pin height</td>
<td>5.0 m</td>
</tr>
<tr>
<td>L Roll back angle</td>
<td>4°</td>
</tr>
<tr>
<td>M Dump angle</td>
<td>45°</td>
</tr>
<tr>
<td>N Wheel center to bucket - carry (GET)</td>
<td>3.9 m</td>
</tr>
<tr>
<td>O Wheel center to bucket - carry (No GET)</td>
<td>3.7 m</td>
</tr>
<tr>
<td>P1 Tire to bucket - dump (GET)</td>
<td>1.9 m</td>
</tr>
<tr>
<td>P2 Tire to bucket - dump (No GET)</td>
<td>1.5 m</td>
</tr>
<tr>
<td>Q1 Dump height</td>
<td>3.2 m</td>
</tr>
<tr>
<td>Q2 Wheel center to rear bumper</td>
<td>3.3 m</td>
</tr>
<tr>
<td>T Departure angle</td>
<td>15°</td>
</tr>
</tbody>
</table>

Air filtration

Primary
- Dual safety filters for engine air intake with 5µm Klockner® Dome preclassifier.

Fluid capacities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>797 L 200 gal</td>
</tr>
<tr>
<td>Hydraulic</td>
<td>473 L 125 gal</td>
</tr>
<tr>
<td>SR converter cooling system</td>
<td>18.9 L 5 gal</td>
</tr>
<tr>
<td>Engine cooling system</td>
<td>75.7 L 20 gal</td>
</tr>
<tr>
<td>Engine oil</td>
<td>147.6 L 39 gal</td>
</tr>
<tr>
<td>Planets (each)</td>
<td>7.6 L 2 gal</td>
</tr>
</tbody>
</table>

Structural

Frames are fabricated from high strength, low-alloy steel with excellent weld characteristics and extreme low temperature properties. The front axle is an integral, fixed part of the front frame. The rear axle center oscillates eight degrees. Unique forged bolt and socket joints are utilized in multiple pivot locations (lift arms, rear frame, articulation, hoist cylinders). These joints are superior in absorbing and distributing multi-directional stresses. Features easily replaceable brass liners for long life and easy maintenance.

High-strength castings are used in key areas of fabricated structures to reduce stress and improve structural life.
Standard features

<table>
<thead>
<tr>
<th>Tires/rims</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tires</td>
<td>35/65 R33</td>
</tr>
<tr>
<td>Rims</td>
<td>33 x 28</td>
</tr>
</tbody>
</table>

Standard equipment

- Air conditioning/heater-defroster (filtered and pressurized)
- Air tank bleed system
- Adjustable automatic lift height cut off
- Automatic bucket leveling control
- Back-up alarm, audible
- Battery disconnect switch
- Lift arm and articulation locks
- Brake lights
- Central service with fast fuel
- Data analysis and viewing software
- Data logging - downloadable production and maintenance logs
- Door interlock on operators cabin
- Drawbar with tow points
- Electric horn
- Emergency stop buttons (cab and remote mounted)
- Fire extinguisher, manual, 20 lb (9.07 kg)
- FOPS - Falling Object Protection System
- Idle timer
- Interior lights
- Isolation monitor
- Joystick hoist and bucket control
- Joystick steering control
- Jump start
- Emergency steering
- LED working lights
- LINCS II alarms
- LINCS II load weigh and monitoring
- Operator seat (11-way adjustable)
- Overspeed alarm
- Parking brake
- Retractable four point over shoulder harness
- ROPS - Rollover Protection Structure
- Selectable throttle switch
- Starter disconnect switch
- Safety glass throughout
- Turn signals
- Twelve (12) volt power supply in cab
- Twelve (12) volt power port (2)
- Windshield washer reservoir 2.6 gal (9.8 L)
- Windshield wiper and washer (all cab glass)
- Automatic lubrication system
- Manuals: operators, parts (Link One), maintenance and service
- Kinetic Energy Storage System (KESS)
- Removable planetary middle pinion (x4)
- Integrated underside protection system
- Color coded and labelled lifting points

Optional features

- Beacon light kit
- Bucket GET options available
- Hood mounted hand rail kit
- Diesel particulate filter
- Fast fuel
- Fire detection and suppression system (manual)
- Fire suppression system (manual)
- Fluid sampling kit
- Lift arms - high lift
- PreVail remote health monitoring system
- Ride control system
- Video camera (360 degree)
- Tire pressure monitoring system

Buckets

- 9.0 m³, 10.0 m³, 11.0 m³

Bucket hardware options

- Joy GET system
- Skid plates (replaceable)
- Lip wear protection

For actual bucket configuration and sizing, consult your local representative.

Remote control/automation system

- RCT Control Master - Remote, teleremote and operator assist system for line of sight or remote operation of the machine
- CAN interface between remote hardware and machine control
- Safety system/fail safe system inter-connectivity hard wired to RCT module (emergency stop, fire system, park brake)
- Functional safety to ISO 62001