## R1300G Underground Mining Loader

<table>
<thead>
<tr>
<th>Engine</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>Cat® 3306B DITA</td>
</tr>
<tr>
<td>Gross Power – SAE J1995</td>
<td>123 kW 165 hp</td>
</tr>
</tbody>
</table>

## Operating Specifications

<table>
<thead>
<tr>
<th>Nominal Payload Capacity</th>
<th>6800 kg 14,991 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Machine Operating Weight</td>
<td>27 750 kg 61,178 lb</td>
</tr>
</tbody>
</table>

## Bucket Capacities

<table>
<thead>
<tr>
<th>Bucket Capacity – Std.</th>
<th>3.1 m³ 4.1 yd³</th>
</tr>
</thead>
</table>
Power Train – Engine
The Cat® 3306B engine delivers the reliability and durability necessary to perform in the most demanding underground mining applications. Designed for efficient operation, excellent fuel efficiency, low emissions and is MSHA certified. pg. 4

Serviceability
The R1300G is designed for quick and easy servicing. Simplified service and maintenance features reduce downtime, allowing the machine to spend less time being serviced and more time being productive. pg. 11

Power Train – Transmission
The Cat four-speed planetary power shift transmission features heavy duty components to handle the toughest jobs. Electronic controls allow smooth shifting for greater productivity, durability and longer component life. pg. 5

Customer Support
Caterpillar® dealers provide unmatched product support, anywhere in the world. With industry-best parts availability and a wide range of maintenance and service options, Cat dealers have what it takes to keep your loader working in the mines. pg. 12

Hydraulics
Powerful Cat hydraulics deliver excellent digging and lifting forces to move materials quickly. High volume pumps and large cylinders provide quick, powerful response and fast cycle times. Pilot operated joysticks provide low effort operation and smooth control. pg. 6

Performance and agility.
Compact design, high engine power, higher torque rise, stronger components and excellent maneuverability ensures the R1300G is a solid and agile performer.

Unmatched operator comfort.
World class operator station fitted with revolutionary electronics and hydraulic controls for low effort operation and increased productivity.
Safety
Caterpillar sets the standard when it comes to safety in the design and manufacturing of heavy equipment for the mining industry. Safety is not an afterthought at Caterpillar, but an integral part of all machine and systems design. pg. 13

Structures
Structural components are the backbone of the R1300G durability. The heavy duty loader frame is designed and built to absorb twisting, impact and high loading forces for maximum durability and reliability. Z-bar linkage generates powerful breakout forces and optimum loading angle. pg. 7

Operator Station
The ergonomic cab is designed for operator comfort and ease of operation to allow the operator to focus on production. Controls and gauges are positioned within easy reach for optimum efficiency and superior control all shift long. pg. 8

Buckets
Cat underground loader buckets are designed for optimal loadability and structural durability in tough mining conditions. A range of sizes and configurations are available to match material conditions and maximize productivity. pg. 10
Engine. The six cylinder, four-stroke, turbocharged Cat 3306B diesel engine is precisely engineered and stringently tested to maintain a tradition of quality. It does it all with profit-boosting performance, heavy duty durability and reliability, built-in serviceability, excellent fuel economy and low emission levels.

High Torque Rise. Provides unequalled lugging force while digging, tramming and traversing steep grades. Torque rise effectively matches transmission shift points for maximum efficiency and fast cycle times.

Radiator. Modular radiator with swing-out grill provides easy access for cleaning or repair. Built in sight gauge allows for quick, safe coolant level checks.

Pistons. Oil cooled pistons increase heat dissipation and promote longer piston life.

Full-length Water-cooler. Full-length water-cooled cylinder liners provide maximum heat transfer.

Turbocharged and Aftercooled. Jacket water aftercooling provides improved fuel economy by packing cooler, denser air into cylinders for more complete combustion of fuel and lower emissions. The turbocharger enhances performance and efficiency.

Fuel Injection. The high pressure direct injection fuel system provides excellent fuel atomization for unmatched reliability and durability.

Crankshaft. The crankshaft is forged and induction hardened for long-term durability.
Power Train – Transmission

*Designed for durability, the Cat power shift transmission delivers smooth, responsive performance and reliability in tough conditions.*

**Power Shift Transmission.** The Cat four-speed planetary power shift transmission is matched with the Cat 3306B diesel engine to deliver constant power over a wide range of operating speeds.

- Electronic controls allow smooth, on-the-go shifting for greater productivity.
- Hydraulic modulation cushions transmission shifts and reduces stress on components.
- Pump drive and output transfer use high contact gear ratios to reduce sound levels.
- Perimeter mounted, large diameter clutch packs control inertia for smooth shifting and increased component life.

**Robust Design.** Designed for rugged underground mining conditions, the proven planetary power shift transmission is built for long life between overhauls.

**Electronic Controls.** Electronic controls allow smooth, on-the-go shifting for greater productivity.

**Torque Converter.** High capacity torque converter delivers more power to the wheels for superior power train efficiency.

**Electronic Autoshift Transmission.** The electronic auto shift transmission increases operator efficiencies and optimizes machine performance. The operator can choose between manual or auto shift modes.

**Transmission Neutralizer.** Using the left brake pedal, the operator can engage the service brakes and neutralize the transmission, maintaining high engine rpm for full hydraulic flow, enhancing digging and loading functions.

**Final Drives.** Cat final drives work as a system with the planetary power shift transmission to deliver maximum power to the ground. Built to withstand the forces of high torque and impact loads, double reduction final drives provide high torque multiplication to further reduce drive train stress.

**Axles.** Heavy duty axles are built rugged for long-life in the most demanding environments.

**Oscillating Rear Axle.** Oscillating rear axle ensures four-wheel ground contact for maximum traction and stability at all times.

**Differential.** No spin rear differential reduces tire wear and maximizes traction in uneven terrain.

**Duo-Cone™ Seals.** Duo-Cone™ seals between the axle spindle and housings keep lubrication in and contaminants out.

**Brakes.** Fully enclosed oil immersed disc brakes incorporate independent service and parking brake pistons. Hydraulic actuated independent circuits provide improved performance and reliability.

**Cat Electronic Technician.** Cat ET service tool provides service technicians with easy access to stored diagnostic data through Cat Data Link to simplify problem diagnosis and increase availability.
Hydraulic System. Powerful Cat hydraulics deliver exceptional digging and lifting forces and fast cycle times.

Lift and Tilt System. High hydraulic flow rates provide fast hydraulic cylinder response and powerful lift forces. Large-bore tilt and lift cylinders deliver exceptional strength, performance and durability.

Pilot Controls. Low effort, pilot operated joystick implement control with simultaneous lift and tilt functions optimizes operating efficiency. Optional circuit controls enable ejector bucket to be controlled from a switch on the joystick.

Steering System. STIC™ control system integrates steering and transmission functions into a single controller for maximum responsiveness and smooth control.

Optional Ride Control. The optional ride control system uses a nitrogen filled oil accumulator in the hydraulic lift circuit to act as a shock absorber for the bucket and lift arms. The lift arm and bucket response to movement is dampened over rough ground, reducing fore and aft pitch, improving cycle times and load retention. A smoother, more comfortable ride gives operators the confidence to travel at speeds above 5 km/h (3 mph) during load and carry operations.

Cat Hydraulic Hose. Field proven Cat high pressure XT™ hydraulic hoses are exceptionally strong and flexible for maximum system reliability and long life in the most demanding conditions. Reusable couplings with O-ring face seals provide superior, leak free performance and prolong hose assembly life.

Hydraulics
Cat hydraulics deliver the power and control to keep material moving.
**Frame Design.** The frame features robust structural components for outstanding durability in the toughest loading conditions. Caterpillar integrates advanced processes in the design and manufacture of Cat frames and structures. Computer modeling and Finite Element Analysis (FEA) are used extensively throughout design.

**Steel Frame.** Strong steel frame structures are designed to resist twisting forces, torsional shock and stresses generated during the loading cycle while protecting drive line and hydraulic system components.

**Lift Arms.** Solid steel lift arms absorb high stresses generated during loading without sacrificing strength or durability. The linkage design offers excellent reach and dump clearance for better productivity. Lift arm support pins prevent lowering the lift arms during service and maintenance.

**Loader Tower.** The four plate loader tower provides a solid mount for lift arms, lift cylinders and Z-bar tilt linkage. The loader frame is designed and built to absorb twisting, impact and high loading forces.

**Cast-Steel Cross Tube.** The cast steel cross tube provides excellent resistance to torsion and impact loads, keeping pin bores well aligned and extending component service life.

**Z-Bar Loader Linkage.** Proven Z-Bar loader linkage geometry generates powerful breakout force and an increased rack back angle for better bucket loading and material retention.

**Sealed Pins.** Sealed colletted pins are fitted to all bucket and lift arm hinge points for longer pin and bushing life. This reduces maintenance costs and extends service intervals. The sealed joints retain lubrication and prevent contaminant entry.

**Hitch.** Spread hitch design widens the distance between upper and lower hitch plates to distribute forces and increase bearing life. Thicker hitch plates reduce deflection. The wide opening provides easy service access. Upper and lower hitch pins pivot on roller bearings to distribute horizontal and vertical loads over a greater surface area. Shim adjusted preload reduces maintenance time. An on-board steering frame lock pin is fitted to prevent articulation during maintenance and service.
Operator Station

Setting a new industry standard for comfort and efficiency.

**Ergonomic Layout.** The R1300G operator station is ergonomically designed for total machine control in a comfortable, productive and safe environment. All controls, levers switches and gauges are positioned to maximize productivity and minimize operator fatigue.

**Pilot Controls.** Low-effort pilot operated joystick controls integrate steering, transmission and implement functions for smoother, faster cycles with less operator fatigue.

**Electronic Autoshift.** Electronic Autoshift allows the operator to choose automatic or manual shifting. In auto mode, the operator uses a dash mounted switch to select the highest gear they wish the machine to shift to. In this mode, the transmission shifts at factory preset shift points so that each shift occurs at optimum torque and ground speed for maximum machine performance.

**Dual-Pedal Braking.** Dual brake pedals function as a brake and a transmission neutralizer so the operator can maintain high engine rpm for full hydraulic flow and fast cycle times.

**Protective Structure.** The operator station has integrated into its construction a ROPS – Roll-over protective structures and FOPS – Falling object protective structures. This structure is resiliently mounted to the frame, reducing vibration to the operator for a more comfortable ride.

**Suspension Seat.** Suspension seat provides optimal driving position and enhances operator comfort, all shift long.
**STIC™ Steering Control.** STIC™ combines directional selection, gear selection and steering into a single lever for maximum responsiveness. Simple side-to-side motion turns machine right or left. Transmission shifting (forward/neutral/reverse) is controlled using a three position rocker switch. The thumb operated upshift and downshift buttons control manual shifting.

**Optional Enclosed Cab.** Optional sound-suppressed ROPS cab provides a quiet, secure working environment. Large window openings offer excellent visibility in all directions. Enclosed design provides fresh, pressurized, temperature-controlled air circulation with air-conditioned comfort and a more comfortable working environment. The air conditioning system uses environmentally friendly R134a refrigerant.

**Optional Ride Control.** The system uses a nitrogen filled oil accumulator in the hydraulic lift circuit to act as a shock absorber for the bucket and lift arms. The lift arm and bucket response to movement is dampered over rough ground, reducing fore and aft pitch, improving cycle times and load retention. A smoother, more comfortable ride gives operators the confidence to travel at higher speeds during load and carry applications.

**Monitoring System.** Caterpillar® Electronic Monitoring System (CEMS) continuously provides critical machine data to keep the machine performing at top production levels. A warning system alerts the operator of immediate or impending problems with engine oil pressure, parking brake engagement, brake oil pressure, electrical system, low fuel, hydraulic oil temperature, coolant level/temperature, transmission oil temperature and impending brake application.

- **Digital Display.** “Normal” mode displays choice of hour meter, odometer or digital tachometer. “Service” mode displays operating parameters, diagnostic codes and out-of-range gauge readings.

- **Gauge Cluster.** Maintains a constant display of vital machine functions, including: engine coolant temperature, transmission oil temperature, hydraulic oil temperature, and fuel level.

- **Speedometer/Tachometer Module.** Monitors three systems: engine speed, ground speed and gear indicator.
Buckets
Cat buckets provide the flexibility to match the machine to the material and conditions.

Buckets. Aggressive Cat bucket designs deliver unmatched productivity in the most demanding applications. Underground mining buckets are designed for optimal loadability and structural reliability to help lower your cost-per-ton.

Bucket Capacities. Buckets are available in a range of sizes and capacities to suit most material types and densities.

Optional Wear Packages. Weld-on wear plates in high wear areas are standard. Additional wear packages, including sacrificial wear strips and Cat heel shrouds protect the edges from damage and reduce the need for costly bucket rebuilds.

Optional Cutting Edges. Cat half arrow, cast half arrow and weld on GET cutting edges extend bucket life in high wear applications.

Bucket Selection. Cat underground loader buckets are available in two styles to meet a range of loading, hauling and dumping conditions.

• Dump buckets
• Ejector buckets
Serviceability

Less time spent on maintenance means more time being productive.

**Service Access.** Easy access to daily service points simplifies servicing and reduces time spent on regular maintenance procedures.

**Ground-Level Access.** Allows convenient servicing to all tanks, filters, lubrication points and compartment drains.

**Air Filters.** Radial seal air filters are easy to change, reducing time required for air filter maintenance.

**Sight Gauges.** Fluid level checks are made easier with sight gauges.

**Diagnostics.** Cat Electronic Technician (Cat ET) service tool enables quick electronic diagnosis of machine performance and key diagnostic data for effective maintenance and repairs.

**Sealed Electrical Connectors.** Electrical connectors are sealed to lock out dust and moisture.
Commitment Makes the Difference. Cat dealers offer a wide range of solutions, services and products that help you lower costs, enhance productivity and manage your operation more efficiently. Support goes far beyond parts and service. From the time you select a piece of Cat equipment until the day you rebuild, trade or sell it, the support you get from your Cat dealer makes the difference that counts.

Dealer Capability. Cat dealers provide the level of support you need, on a global scale. Dealer expert technicians have the knowledge, experience, training and tooling necessary to handle your repair and maintenance needs, when and where you need them.

Product Support. Cat dealers believe superior products deserve superior support. When Cat products reach the field, they are supported by a worldwide network of parts distribution facilities, dealer service centers, and technical training facilities to keep your equipment up and running. Cat customers rely on prompt, dependable parts availability and expertise through our global dealer network, ready to meet your needs 24/7.

Service Support. Every piece of Cat equipment is designed and built to provide maximum productivity and operating economy throughout its working life. Cat dealers offer a wide range of service plans that will maximize uptime and return on your investment, including:

- Preventive Maintenance Programs
- Diagnostic Programs, such as Scheduled Oil Sampling and Technical Analysis
- Rebuild and Reman Options
- Customer Support Agreements

Technology Products. Cat dealers offer a range of advanced technology products designed to improve fleet efficiency, increase productivity and lower costs.


Operation. With today’s complex products, equipment operators must have a thorough understanding of machine systems and operating techniques to maximize efficiency and profitability. Your Cat dealer can arrange training programs to help operator’s improve productivity, decrease downtime, reduce operating costs, enhance safety, and improve return on the investment you make in Cat products.

Customer Support
Caterpillar dealers have what it takes to keep your underground mining loader productive.
Product Safety. Caterpillar has been and continues to be proactive in developing mining machines that meet or exceed safety standards. Safety is an integral part of all machine and systems designs.

Engine Shut Off Switch. A secondary engine shutoff switch is located at ground level.

Protective Structure. The operator station has integrated into its construction a ROPS – Roll-over protective structures and FOPS – Falling object protective structures. This structure is resiliently mounted to the frame, reducing vibration to the operator for a more comfortable ride.

Brake Systems. Four corner oil-cooled braking system provides excellent control. The service brake system is actuated by modulated hydraulic pressure, while the parking brake function is spring applied and hydraulic released. This system assures braking in the event of hydraulic failure.

Standard Safety Features.
- Anti-skid upper deck surfaces
- Ground level compartment sight gauges
- Increased visibility
- 3-point access to cab and machine
- Push out safety glass
- Suspension seat
- Inertia reel retractable seat belt
- Lift arm support pins
- Hot and cold side of engine
- Steering frame lock
- Hinged belly guards
### Engine

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>Cat® 3306B DITA</td>
</tr>
<tr>
<td>Rated Power</td>
<td>2,200 rpm</td>
</tr>
<tr>
<td>Gross Power – SAE J1995</td>
<td>123 kW 165 hp</td>
</tr>
<tr>
<td>Net Power – SAE J1349</td>
<td>105 kW 141 hp</td>
</tr>
<tr>
<td>Net Power – ISO 9249</td>
<td>105 kW 141 hp</td>
</tr>
<tr>
<td>Net Power – 80/1269/EEC</td>
<td>105 kW 141 hp</td>
</tr>
<tr>
<td>Bore</td>
<td>120.7 mm 4.75 in</td>
</tr>
<tr>
<td>Stroke</td>
<td>152.4 mm 6 in</td>
</tr>
<tr>
<td>Displacement</td>
<td>10.5 L 640.75 in³</td>
</tr>
</tbody>
</table>

- Power ratings apply at a rated speed of 2200 rpm when tested under the reference conditions for the specified standard.
- Ratings based on SAE J1995 standard air conditions of 25° C (77° F) and 100 kPa (29.61 Hg) barometer. Power based on fuel having API gravity of 35 at 16° C (60° F) and an LHV of 42,780 kJ/kg (18,390 BTU/lb) when engine used at 30° C (86° F)
- Engine derate will commence at an altitude of 4500 m (14,763.7 ft)

### Transmission

<table>
<thead>
<tr>
<th>Mode</th>
<th>Forward 1</th>
<th>Forward 2</th>
<th>Forward 3</th>
<th>Forward 4</th>
<th>Reverse 1</th>
<th>Reverse 2</th>
<th>Reverse 3</th>
<th>Reverse 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>5 km/h</td>
<td>9 km/h</td>
<td>17 km/h</td>
<td>24 km/h</td>
<td>5 km/h</td>
<td>8 km/h</td>
<td>15 km/h</td>
<td>23 km/h</td>
</tr>
<tr>
<td>Speed</td>
<td>3.1 mph</td>
<td>5.6 mph</td>
<td>10.6 mph</td>
<td>14.9 mph</td>
<td>3.1 mph</td>
<td>5 mph</td>
<td>9.3 mph</td>
<td>14.3 mph</td>
</tr>
</tbody>
</table>

### Hydraulic Cycle Time

<table>
<thead>
<tr>
<th>Operation</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise</td>
<td>5 Seconds</td>
</tr>
<tr>
<td>Dump</td>
<td>2 Seconds</td>
</tr>
<tr>
<td>Lower, empty, float down</td>
<td>2.3 Seconds</td>
</tr>
<tr>
<td>Total Cycle Time</td>
<td>9.3 Seconds</td>
</tr>
</tbody>
</table>

### Bucket Capacities

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Std.</td>
<td>3.1 m³</td>
</tr>
<tr>
<td>Optional (Ejector)</td>
<td>2.4 m³</td>
</tr>
<tr>
<td>Optional</td>
<td>2.8 m³</td>
</tr>
<tr>
<td>Optional</td>
<td>3.4 m³</td>
</tr>
<tr>
<td>Optional (Ejector)</td>
<td>2.4 m³</td>
</tr>
</tbody>
</table>

### Turning Dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside Clearance Radius</td>
<td>5741 mm 226 in</td>
</tr>
<tr>
<td>Inner Clearance Radius</td>
<td>2914 mm 114.7 in</td>
</tr>
<tr>
<td>Axle Oscillation</td>
<td>10°</td>
</tr>
<tr>
<td>Articulation Angle</td>
<td>42.5°</td>
</tr>
</tbody>
</table>
## Tires

| Tire Size       | 17.5 × 25 20 PLY L5S STMS |

## Service Refill Capacities

<table>
<thead>
<tr>
<th>Component</th>
<th>Capacity</th>
<th>Refill Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Crankcase with Filter</td>
<td>25 L</td>
<td>6.6 gal</td>
</tr>
<tr>
<td>Transmission</td>
<td>45 L</td>
<td>11.9 gal</td>
</tr>
<tr>
<td>Hydraulic Tank</td>
<td>88 L</td>
<td>23.2 gal</td>
</tr>
<tr>
<td>Cooling System</td>
<td>67 L</td>
<td>17.7 gal</td>
</tr>
<tr>
<td>Front Differential and Final Drives</td>
<td>38 L</td>
<td>10 gal</td>
</tr>
<tr>
<td>Rear Differential and Final Drives</td>
<td>42 L</td>
<td>11.1 gal</td>
</tr>
<tr>
<td>Fuel Tank</td>
<td>295 L</td>
<td>77.9 gal</td>
</tr>
</tbody>
</table>

## Standards

<table>
<thead>
<tr>
<th>Component</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brakes</td>
<td>ISO3450, AS2958.1, CAN-CSA424.30-M90</td>
</tr>
<tr>
<td>Cab/FOPS</td>
<td>ISO3449, SAEJ231, AS2294.3, EN13627</td>
</tr>
<tr>
<td>Cab/ROPS</td>
<td>ISO3471, SAEJ1040, AS2294.2, EN13510</td>
</tr>
</tbody>
</table>
**Dimensions**

All dimensions are approximate.

<table>
<thead>
<tr>
<th>243-5577</th>
<th>186-9278</th>
<th>243-6143</th>
<th>Standard Bucket</th>
<th>243-6224</th>
<th>Ejector Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bucket Capacity</strong></td>
<td>2.4 m³ (3.1 yd³)</td>
<td>2.8 m³ (3.7 yd³)</td>
<td>3.1 m³ (4.1 yd³)</td>
<td>3.4 m³ (4.4 yd³)</td>
<td>2.4 m³ (3.1 yd³)</td>
</tr>
<tr>
<td><strong>Bucket Width Over Cutting Edge</strong></td>
<td>1950 mm (6'5&quot;)</td>
<td>2010 mm (6'7&quot;)</td>
<td>2200 mm (7'2&quot;)</td>
<td>2400 mm (7'11&quot;)</td>
<td>2200 mm (7'2&quot;)</td>
</tr>
<tr>
<td><strong>Overall Height – Bucket Raised</strong></td>
<td>4232 mm (13'11&quot;)</td>
<td>4300 mm (14'1&quot;)</td>
<td>4302 mm (14'1&quot;)</td>
<td>4300 mm (14'1&quot;)</td>
<td>4300 mm (14'1&quot;)</td>
</tr>
<tr>
<td><strong>Max Dump Height</strong></td>
<td>3548 mm (11'8&quot;)</td>
<td>3529 mm (11'7&quot;)</td>
<td>3531 mm (11'7&quot;)</td>
<td>3529 mm (11'7&quot;)</td>
<td>3577 mm (11'9&quot;)</td>
</tr>
<tr>
<td><strong>Bucket Pin Height at Max Lift</strong></td>
<td>2918 mm (9'7&quot;)</td>
<td>2918 mm (9'7&quot;)</td>
<td>2918 mm (9'7&quot;)</td>
<td>2918 mm (9'7&quot;)</td>
<td>2918 mm (9'7&quot;)</td>
</tr>
<tr>
<td><strong>Dump Clearance at Max Lift</strong></td>
<td>1662 mm (5'5&quot;)</td>
<td>1558 mm (5'1&quot;)</td>
<td>1560 mm (5'1&quot;)</td>
<td>1561 mm (5'1&quot;)</td>
<td>1561 mm (5'1&quot;)</td>
</tr>
<tr>
<td><strong>Digging Depth</strong></td>
<td>26 mm (0'1&quot;)</td>
<td>36 mm (0'1&quot;)</td>
<td>34 mm (0'1&quot;)</td>
<td>36 mm (0'1&quot;)</td>
<td>36 mm (0'1&quot;)</td>
</tr>
<tr>
<td><strong>Dump Angle at Max Lift</strong></td>
<td>43°</td>
<td>43°</td>
<td>43°</td>
<td>43°</td>
<td>43°</td>
</tr>
<tr>
<td><strong>Reach</strong></td>
<td>1476 mm (4'10&quot;)</td>
<td>1588 mm (5'3&quot;)</td>
<td>1583 mm (5'2&quot;)</td>
<td>1584 mm (5'2&quot;)</td>
<td>1584 mm (5'2&quot;)</td>
</tr>
<tr>
<td><strong>Centerline of Front Axle to Centerline of Hitch</strong></td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
</tr>
<tr>
<td><strong>Overall Length (Digging)</strong></td>
<td>8943 mm (29'4&quot;)</td>
<td>9100 mm (29'10&quot;)</td>
<td>9107 mm (29'11&quot;)</td>
<td>9095 mm (29'10&quot;)</td>
<td>9095 mm (29'10&quot;)</td>
</tr>
<tr>
<td><strong>Overall Length (Tramming)</strong></td>
<td>8613 mm (28'3&quot;)</td>
<td>8707 mm (28'7&quot;)</td>
<td>8714 mm (28'7&quot;)</td>
<td>8704 mm (28'7&quot;)</td>
<td>8704 mm (28'7&quot;)</td>
</tr>
<tr>
<td><strong>Ground Clearance</strong></td>
<td>328 mm (1'1&quot;)</td>
<td>328 mm (1'1&quot;)</td>
<td>328 mm (1'1&quot;)</td>
<td>328 mm (1'1&quot;)</td>
<td>328 mm (1'1&quot;)</td>
</tr>
<tr>
<td><strong>Centerline of Back Axle to Centerline of Hitch</strong></td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
<td>1525 mm (5'0&quot;)</td>
</tr>
<tr>
<td><strong>Length – Rear Axle to Bumper</strong></td>
<td>2932 mm (9'7&quot;)</td>
<td>2932 mm (9'7&quot;)</td>
<td>2932 mm (9'7&quot;)</td>
<td>2932 mm (9'7&quot;)</td>
<td>2932 mm (9'7&quot;)</td>
</tr>
<tr>
<td><strong>Height to Top of Hood</strong></td>
<td>1628 mm (5'4&quot;)</td>
<td>1628 mm (5'4&quot;)</td>
<td>1628 mm (5'4&quot;)</td>
<td>1628 mm (5'4&quot;)</td>
<td>1628 mm (5'4&quot;)</td>
</tr>
<tr>
<td><strong>Height to Top of ROPS</strong></td>
<td>2120 mm (6'11&quot;)</td>
<td>2120 mm (6'11&quot;)</td>
<td>2120 mm (6'11&quot;)</td>
<td>2120 mm (6'11&quot;)</td>
<td>2120 mm (6'11&quot;)</td>
</tr>
<tr>
<td><strong>Tunnel Clearance Width</strong></td>
<td>3000 mm (9'10&quot;)</td>
<td>3000 mm (9'10&quot;)</td>
<td>3000 mm (9'10&quot;)</td>
<td>3000 mm (9'10&quot;)</td>
<td>3000 mm (9'10&quot;)</td>
</tr>
<tr>
<td><strong>Tunnel Clearance Height</strong></td>
<td>2800 mm (9'2&quot;)</td>
<td>2800 mm (9'2&quot;)</td>
<td>2800 mm (9'2&quot;)</td>
<td>2800 mm (9'2&quot;)</td>
<td>2800 mm (9'2&quot;)</td>
</tr>
<tr>
<td><strong>Overall Tire Width</strong></td>
<td>1900 mm (6'3&quot;)</td>
<td>1900 mm (6'3&quot;)</td>
<td>1900 mm (6'3&quot;)</td>
<td>1900 mm (6'3&quot;)</td>
<td>1900 mm (6'3&quot;)</td>
</tr>
<tr>
<td><strong>Overall Width Excluding Bucket</strong></td>
<td>2071 mm (6'10&quot;)</td>
<td>2071 mm (6'10&quot;)</td>
<td>2071 mm (6'10&quot;)</td>
<td>2071 mm (6'10&quot;)</td>
<td>2071 mm (6'10&quot;)</td>
</tr>
<tr>
<td><strong>Overall Width Including Bucket</strong></td>
<td>2155 mm (7'1&quot;)</td>
<td>2185 mm (7'2&quot;)</td>
<td>2318 mm (7'7&quot;)</td>
<td>2518 mm (8'3&quot;)</td>
<td>2318 mm (7'7&quot;)</td>
</tr>
<tr>
<td><strong>Wheelbase</strong></td>
<td>3050 mm (10'0&quot;)</td>
<td>3050 mm (10'0&quot;)</td>
<td>3050 mm (10'0&quot;)</td>
<td>3050 mm (10'0&quot;)</td>
<td>3050 mm (10'0&quot;)</td>
</tr>
</tbody>
</table>

* Clearance dimensions are for reference only.
To determine gradeability performance: Read from gross weight down to the percent of total resistance. Total resistance equals actual percent grade plus rolling resistance. As a general guide use 2% for rolling resistance in underground applications or refer to the Caterpillar Performance Handbook. From the total resistance point, read horizontally to the curve with the highest obtainable gear, then down to maximum speed. Usable rimpull will depend upon traction available and weight on drive wheels.

| Gradeability/Speed/Rimpull |

17.5x25 Tires

| Typical Field Empty Weight | Loaded Weight |

Rimpull $N \times 1000 \text{ (lb x 1000)}$

Gross Weight

Speed

E – Empty 20 950 kg (46,187 lb)
L – Loaded 27 750 kg (61,178 lb)
Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for details.

Electrical
- Alternator, 95-amp
- Battery Disconnect Switch, Ground Level
- Circuit Breaker, 80-amp
- Corrosive Protection Spray
- Diagnostic Connector
- Electric Starting, 24-volt
- Engine Shutdown Switch
- External Lighting System, Front, Rear
- Low Maintenance Batteries
- Reversing Alarm
- Starting and Charging System

Power Train
- Cat 3306B DITA Diesel Engine, 6-Cylinder
- Crossflow Radiator
- Engine Air Intake Precleaner
- Fuel Priming Aid
- Full Hydraulic Enclosed Wet Disc Brakes (SAFR™)
- Heat Shields
- Long Life Coolant
- Manual Fuel Shut Off Tap
- Planetary Powershift Transmission with Automatic Shift Control, 4 Speed Forward/4 Speed Reverse
- Torque Converter
- Transmission Neutralizer

Operator Environment
- Caterpillar Electronic Monitoring System (CEMS)
- Electric Horns
- Gauges
  - Engine Coolant Temperature
  - Fuel Level
  - Hydraulic Oil
  - Speedometer
  - Tachometer
  - Transmission
- Pilot Hydraulic Implement Controls, Single Joystick
- Removable ROPS/FOPS Structure
- STIC™ Steering
- Suspension Tee Seat with Retractable Seat Belt
- Reversing Alarm
- Starting and Charging System

Other Standard Equipment
- Catalytic Exhaust Purifier/Muffler Group
- Engine and Transmission Belly Guards
- Fenders, Front, Rear
- Firewall
- Hydraulic Oil Cooler, Swing Out
- Rear Frame Protection Wear Bars 100 × 50 mm (4 × 2 in)
- Rims, 5-Piece
- Semi Centralized Lubrication Points
- Swing Out Radiator Grill
- Tires, VSMS 17.5 × 25 20-Ply (L5S)
Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for details.

5 Spare Piece Rim
Alternative Tire Arrangements
Automatic Lube System
Auxiliary Start Receptacle
Brake Light
Brake Pressure Gauges
Brake Release Arrangements
Bucket
  Bucket (2.4 m³, 3.1 yd³)
  Bucket (2.8 m³, 3.7 yd³)
  Bucket (3.4 m³, 4.4 yd³)
  Ejector Bucket (2.4 m³, 3.1 yd³)
  Bucket Heel Shrouds
  Bucket Sacrificial Wear Strip Package
Bucket Positioner, Return to Dig
Cab Protection Bars
Centralized Lube System, Manual
Draw Bar Attachment, Bolt-on
Duo Cone Seal Guards
Ejector Bucket
Ejector Bucket Ready, Includes 3rd Valve with Pilot Lines Only
Electronic Access Module
Enclosed ROPS/FOPS Operator Station
  Air Conditioning
  Pressurizer
  Dome Light
  Radio Ready
Fast Fill System
  Coolant
  Engine
  Fuel
  Hydraulic
  Transmission
Fire Extinguisher
Fire Suppression System
Front Light Protectors
Heater, Cabin
Hydraulic Tank Guard Protection Bars
Oil Sample Adapters
Payload Control System (PCS)
Radiator Guard Protection Bars
Radiator Sand Blast Guards, Not Available with Air Con Cab
Remote Activated Fire System
Remote Control Systems
  Proportional
  Retrieval Attachment
Reversible Steering
Ride Control System
Seat Covers
Secondary Steering System
Service Tools
Auxiliary Start Receptacle
For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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