**R2900G**

Underground Mining Loader

**Engine**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Engine Model</th>
<th>Cat(^6) C15 ACERT(^{TM})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Power – Tier 3 Engine – SAE J1995</td>
<td>305 kW 409 hp</td>
<td></td>
</tr>
</tbody>
</table>

**Operating Specifications**

<table>
<thead>
<tr>
<th></th>
<th>17 200 kg</th>
<th>37,926 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Payload Capacity</td>
<td>305 kW</td>
<td>409 hp</td>
</tr>
<tr>
<td>Gross Machine Mass</td>
<td>70 350 kg</td>
<td>155,095 lb</td>
</tr>
</tbody>
</table>

**Bucket Capacities**

<table>
<thead>
<tr>
<th>Bucket Capacities</th>
<th>6.3-8.9 m³</th>
<th>8.2-11.6 yd³</th>
</tr>
</thead>
</table>
R2900G Features

One Supplier
Caterpillar designed and manufactured major power and drive train components for reliability and performance.

Reliable and Durable Engine
The Cat C15 engine offers the perfect balance between power, robust design and economy.

Power Shift Transmission
Reliable and rugged design to deliver power and efficiency for peak power train performance.

Hydraulics
Perfect balance between low effort controls and powerful hydraulics for smooth and fast cycle time.

Durable Structures
The heavy duty frame is designed and built to absorb twisting, impact and high loading forces for maximum durability and reliability.

Comfortable Cab
Ergonomically designed for all-day comfort, control and productivity.

Enhanced Serviceability
Designed with improved service points and grouped service locations to simplify maintenance and repair.

Built in Safety
Safety is not an after thought, but an integral part of all machine and system design.

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Hydraulics ............................................................6
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The R2900G underground loader is designed for high production, low cost-per-ton loading and tramming in underground mining applications. Compact design with agile performance, rugged construction and simplified maintenance ensures excellent productivity, long life and low operating costs.

Engineered for performance, designed for comfort, built to last.
The Cat C15 ACERT engine 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. Mechanically Actuated, Electronic Unit Injection (MEUI™) high-pressure, direct injection fuel system electronically monitors operator demands and sensor inputs to optimize engine performance. Air-to-air aftercooling provides improved fuel economy by packing cooler, denser air into cylinders for more complete combustion of fuel and lower emissions. Oil coiled pistons increase heat dissipation and promote longer piston life. The crankshaft is forged and induction hardened for long-term durability.

The Cat C15 engine features the optional Ventilation Reduction Package. The VR Package incorporates selective engine hardware and software to minimize diesel particulate matter in the engine exhaust. Engines equipped with the VR Package feature a significant ventilation rate reduction, a decrease in fuel consumption, and maintained or improved product performance. VR Package availability is subject to regional regulatory compliance. Optional U.S. EPA Tier 3 and EU Stage III compliant engine is also available.

A Cat Diesel Particulate Filter can be used with the VR engine package. The filter compliments the VR engine by further reducing particulate matter in the exhaust. Requires the use of 15 PPM ultra low sulfur diesel and CJ-4 low ash engine oil.
Power Train – Transmission
More power to the ground for greater productivity.

**Power Shift Transmission**
The Cat four-speed planetary power shift transmission is matched with the Cat C15 diesel engine to deliver constant power over a wide range of operating speeds.

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

**Torque Converter Lockup Clutch**
Combines maximum rimpull while in torque converter drive with the efficiency and performance of direct drive when the lockup clutch is engaged. The lockup clutch delivers more power to the wheels for superior power train efficiency.

**Electronic Auto Shift 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.

**Engine Over Speed Protection**
The engine over speed control system will control the engine to a pre-set RPM to prevent an engine over speed event from occurring. It achieves this by modulating the service brakes to slow the machine down therefore reducing the engine RPM.

**Differential**
No spin rear differential reduces tire wear and maximizes traction in uneven terrain.
Hydraulics
Cat hydraulics deliver the power and control to keep material moving.

Hydraulic System
Powerful Cat hydraulics deliver exceptional digging and lifting forces for fast cycle times.

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

Pilot Controls
Low effort, pilot operated joystick implement control with simultaneous lift and tilt functions optimizes operating efficiency.

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.
Structures
Rugged Cat structures – the backbone of the R2900G’s durability.

Frame Design
The frame is engineered to withstand extreme forces generated during loading and tramming cycles. Precision manufacturing process ensures all structures are consistently built to high quality. Deep penetration and consistent welds throughout the frame ensures structures are solidly fused to provide sturdy platform for the linkage and the axles. The design and manufacturing quality of Cat LHD frames have been proven by our customers, many of whom reuse frames during machine rebuilds to get 2nd and 3rd lives out of their LHD’s.

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.

Sealed Pins
Sealed colleted pins are fitted to all major 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.

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. Heavy duty steel lift arms with cast steel cross tube ensures extreme loads encountered during loading and tramming are efficiently dissipated for long service life.
Operator Comfort
Ergonomically designed for all-day comfort, control and productivity.

The 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.

Protective Structure
 Integral to the cab and frame, the Rollover Protective Structure (ROPS) and the Falling Objects Protective Structure (FOPS), are resiliently mounted to the frame to isolate the operator from vibration for a more comfortable ride.

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 condition for a more comfortable working environment.

STIC™ Steering and Transmission Integrated Control
 STIC provides effortless control of the machine by a single controller. Simple side-to-side motion articulates the machine. Directional shifting (forward/neutral/reverse) is controlled using a three position rocker switch. The thumb operated buttons control gear selection.

Pilot Controls
 Low-effort pilot operated joystick controls integrate steering, transmission and implement functions for smoother, faster cycles with less operator fatigue. The added function of a transmission neutralizer over ride switch on the joystick provides the operator the ability to inch toward a truck when loading without having to remove their foot completely from the pedal enabling greater control of the machine.
Loader Bucket Systems
Rugged performance and reliability in tough underground mining applications.

Buckets
Cat LHD buckets deliver unmatched productivity and structural reliability to help lower your cost-per-ton.

Our bucket design is also improved with the use of two types of cast corners to help strengthen the side plate to bucket lip joint as well as allowing for various cutting edges.

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 and cast half arrow cutting edges extend bucket life in high wear applications.

Available weld-on GET offers more wear material to maximize system wear life and bucket protection. Downtime is also reduced by an even wear rate between corners and edge segments, allowing both to be replaced at the same time.

Cat Mechanically Attached Shrouds (MAS) are also available on the R2900G buckets to provide non weld-on option for hardware selection to better suit application.

The MAS can be further protected with the installation of the Cat Mechanically Attached Wear Plates (MAWPS) to protect the bucket base and cutting edge.
Serviceability
More time for production.

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. Electric fuel priming. Engine oil and fuel filters installed on cold side of engine.

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
Caterpillar 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. Harnesses are covered for protection. Wires are color and number coded for easy diagnosis and repair.

Scheduled Oil Sampling
S-O-S™ helps avoid minor repairs becoming major ones. Sample point adapters fitted standard to machine.
Customer Support
Cat dealer services keep underground mining equipment productive.

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

Product Support
When Cat products reach the field, they are supported 24/7 by a worldwide network of reliable and prompt parts distribution facilities, dealer service centers, and technical training facilities to keep your equipment up and running.

Service Support
Cat equipment is designed and built to provide maximum productivity and operating economy throughout its working life. Cat dealers will be with you every step of the way with its unsurpassed worldwide parts support, trained technicians and customer support agreements.

Technology Products
Cat dealers offer a range of advanced technology products designed to improve efficiency, productivity and lower costs. VIMS™ Gen 3 and Command for Underground options available from factory.

Replacement
Repair or rebuild? Your Cat dealer can help you evaluate the costs so you can make the right choice.

www.cat.com
For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com.
Safety
Cat mining machines and systems are designed with safety as their first priority.

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.

Integral ROPS Cab
Integral to the cab and frame, the ROPS is resiliently mounted to the frame to isolate the operator from vibration 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 loss of hydraulic failure.

Standard Safety Features
Anti-skid upper deck surfaces, lower cab light, ground level compartment sight glasses, increased visibility, 3-point access to cab and machine, push out safety glass, suspension seat, inertia reel retractable seat belt, bucket control group safety pins, hot and cold side of engine, articulation lock, hinged belly guards.

SAFETY.CAT.COM™
For more complete information on safety, please visit http://safety.cat.com.
**Engine**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>Cat C15 ACERT</td>
</tr>
<tr>
<td>Rated Power</td>
<td>1,800 rpm</td>
</tr>
<tr>
<td>Gross Power – Tier 3 Engine – SAE J1995</td>
<td>305 kW 409 hp</td>
</tr>
<tr>
<td>Bore</td>
<td>137.2 mm 5.4 in</td>
</tr>
<tr>
<td>Stroke</td>
<td>171.5 mm 6.8 in</td>
</tr>
<tr>
<td>Displacement</td>
<td>15.2 L 927.9 in³</td>
</tr>
</tbody>
</table>

- Power ratings apply at a rated speed of 1,800 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).
- No engine derating required up to 591 m (1,938 ft) altitude.
- Optional Ventilation Reduction Package available.
- Optional Tier 3 engine package is compliant with U.S. EPA Tier 3 and EU Stage III emission standards.

**Operating Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Machine Mass</td>
<td>70 350 kg 155,095 lb</td>
</tr>
<tr>
<td>Static Tipping Load Straight Ahead</td>
<td>39 923 kg 88,015 lb</td>
</tr>
<tr>
<td>Lift Arms Horizontal</td>
<td></td>
</tr>
<tr>
<td>Static Tipping Load Full Turn Lift</td>
<td>34 069 kg 75,109 lb</td>
</tr>
<tr>
<td>Arms Horizontal</td>
<td></td>
</tr>
<tr>
<td>Breakout Force (SAE)</td>
<td>27 346 kg 60,298 lb</td>
</tr>
</tbody>
</table>

**Weights**

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty*</td>
<td>50 209 kg 110,692 lb</td>
</tr>
<tr>
<td>Front Axle</td>
<td>23 057 kg 50,832 lb</td>
</tr>
<tr>
<td>Rear Axle</td>
<td>27 152 kg 59,860 lb</td>
</tr>
<tr>
<td>Loaded*</td>
<td>67 409 kg 148,611 lb</td>
</tr>
<tr>
<td>Front Axle</td>
<td>50 220 kg 110,716 lb</td>
</tr>
<tr>
<td>Rear Axle</td>
<td>17 189 kg 37,895 lb</td>
</tr>
</tbody>
</table>

*Calculated Weight.

**Transmission**

<table>
<thead>
<tr>
<th>Gear Type</th>
<th>Speed (km/h)</th>
<th>Speed (mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward 1</td>
<td>5.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Forward 2</td>
<td>9.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Forward 3</td>
<td>17.3</td>
<td>10.7</td>
</tr>
<tr>
<td>Forward 4</td>
<td>29.8</td>
<td>18.5</td>
</tr>
<tr>
<td>Reverse 1</td>
<td>6.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Reverse 2</td>
<td>11.8</td>
<td>7.3</td>
</tr>
<tr>
<td>Reverse 3</td>
<td>21.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Reverse 4</td>
<td>35.5</td>
<td>22.0</td>
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</tbody>
</table>

**Hydraulic Cycle Time**

<table>
<thead>
<tr>
<th>Cycle Type</th>
<th>Time (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise</td>
<td>9.2</td>
</tr>
<tr>
<td>Dump</td>
<td>3.4</td>
</tr>
<tr>
<td>Lower, empty, float down</td>
<td>3.1</td>
</tr>
<tr>
<td>Total Cycle Time</td>
<td>15.7</td>
</tr>
</tbody>
</table>

**Bucket Capacities**

<table>
<thead>
<tr>
<th>Bucket Type</th>
<th>Capacity (m³)</th>
<th>Capacity (yd³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dump 1</td>
<td>6.3</td>
<td>8.2</td>
</tr>
<tr>
<td>Dump 2</td>
<td>7.2</td>
<td>9.4</td>
</tr>
<tr>
<td>Dump 3</td>
<td>8.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Dump 4</td>
<td>8.9</td>
<td>11.6</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>7323 mm 288.3 in</td>
</tr>
<tr>
<td>Inner Clearance Radius</td>
<td>3383 mm 133.2 in</td>
</tr>
<tr>
<td>Axle Oscillation</td>
<td>8°</td>
</tr>
<tr>
<td>Articulation Angle</td>
<td>42.5°</td>
</tr>
<tr>
<td>Tires</td>
<td>29.5 × 29 34 PLY VSMS</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Standards</td>
<td></td>
</tr>
<tr>
<td>Brakes</td>
<td>ISO 3450, AS2958.1, CAN-CSA424.30-M90</td>
</tr>
<tr>
<td>Cab/FOPS</td>
<td>ISO 3449, SAE J231, AS2294.3, EN13627</td>
</tr>
<tr>
<td>Cab/ROPS</td>
<td>ISO 3471, SAE J1040, AS2294.2, EN13510</td>
</tr>
</tbody>
</table>

| Service Refill Capacities | |
|---|---|---|
| Engine Crankcase | 34 L | 9 gal |
| Transmission | 62 L | 16.4 gal |
| Hydraulic Tank | 140 L | 37 gal |
| Cooling System | 75 L | 19.8 gal |
| Front Differential and Final Drives | 119 L | 31.4 gal |
| Rear Differential and Final Drives | 127 L | 33.5 gal |
| Front Differential and Final Drives (with Axle Oil Cooling System) | 159 L | 42 gal |
| Rear Differential and Final Drives (with Axle Oil Cooling System) | 167 L | 44.1 gal |
| Fuel Tank (Dual) | 1425 L | 376.4 gal |
## Dimensions

All dimensions are approximate.

<table>
<thead>
<tr>
<th>Bucket Capacity</th>
<th>3038806</th>
<th>2494899</th>
<th>2494892</th>
<th>2494893</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>in</td>
<td>mm</td>
<td>in</td>
<td>mm</td>
</tr>
<tr>
<td>Bucket Width over Cutting Edge</td>
<td>3054</td>
<td>120.2</td>
<td>3054</td>
<td>120.2</td>
</tr>
<tr>
<td>Height – Bucket Raised</td>
<td>6014</td>
<td>236.8</td>
<td>6179</td>
<td>243.3</td>
</tr>
<tr>
<td>Height – Max Dump</td>
<td>5427</td>
<td>213.7</td>
<td>5427</td>
<td>213.7</td>
</tr>
<tr>
<td>Height – Max Lift Bucket Pin</td>
<td>4539</td>
<td>178.7</td>
<td>4539</td>
<td>178.7</td>
</tr>
<tr>
<td>Height – Dump Clearance at Max Lift</td>
<td>2868</td>
<td>112.9</td>
<td>2868</td>
<td>112.9</td>
</tr>
<tr>
<td>Height – Digging Depth</td>
<td>52</td>
<td>2.0</td>
<td>52</td>
<td>2.0</td>
</tr>
<tr>
<td>Height – Ground Clearance</td>
<td>465</td>
<td>18.3</td>
<td>465</td>
<td>18.3</td>
</tr>
<tr>
<td>Height – Top of Hood</td>
<td>2371</td>
<td>93.3</td>
<td>2371</td>
<td>93.3</td>
</tr>
<tr>
<td>Height – Top of ROPS</td>
<td>2886</td>
<td>113.6</td>
<td>2886</td>
<td>113.6</td>
</tr>
<tr>
<td>Length – Overall (Digging)</td>
<td>11302</td>
<td>445.0</td>
<td>11302</td>
<td>445.0</td>
</tr>
<tr>
<td>Length – Overall (Tramming)</td>
<td>10949</td>
<td>431.1</td>
<td>10949</td>
<td>431.1</td>
</tr>
<tr>
<td>Length – Wheelbase</td>
<td>3780</td>
<td>148.8</td>
<td>3780</td>
<td>148.8</td>
</tr>
<tr>
<td>Length – Front Axle to Hitch</td>
<td>1890</td>
<td>74.4</td>
<td>1890</td>
<td>74.4</td>
</tr>
<tr>
<td>Length – Rear Axle to Bumper</td>
<td>3572</td>
<td>140.6</td>
<td>3572</td>
<td>140.6</td>
</tr>
<tr>
<td>Length – Reach</td>
<td>1656</td>
<td>65.2</td>
<td>1656</td>
<td>65.2</td>
</tr>
<tr>
<td>Width – Overall Tire</td>
<td>2898</td>
<td>114.1</td>
<td>2898</td>
<td>114.1</td>
</tr>
<tr>
<td>Width – Machine without Bucket</td>
<td>3010</td>
<td>118.5</td>
<td>3010</td>
<td>118.5</td>
</tr>
<tr>
<td>Width – Machine with Bucket</td>
<td>3176</td>
<td>125.0</td>
<td>3176</td>
<td>125.0</td>
</tr>
<tr>
<td>Recommended Clearance Width</td>
<td>4500</td>
<td>177.2</td>
<td>4500</td>
<td>177.2</td>
</tr>
<tr>
<td>Recommended Clearance Height</td>
<td>4500</td>
<td>177.2</td>
<td>4500</td>
<td>177.2</td>
</tr>
</tbody>
</table>
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.
R2900G Standard Equipment

Standard Equipment

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

**ELECTRICAL**
- 12V Power Supply in Cab
- Alternator, 95-amp
- Auxiliary Start Receptacle
- Battery Disconnect Switch, Ground Level
- Circuit Breaker, 80-amp
- Corrosion Protection Spray
- Diagnostic Connector
- Electric Starting, 24-volt
- Engine Shutdown Switches
  - Rear Left Hand Side
  - Rear Right Hand Side
- External Lighting System, Front, Rear, Halogen Work Lights
- Low Maintenance Batteries
- Reversing Alarm
- Starting and Charging System

**POWER TRAIN**
- Cat C15 ATAAC Diesel Engine, 6-Cylinder
- Brake Axle Cooling
- Electric Fuel Priming Pump
- Engine Air Intake Pre Cleaner
- Engine Oil Filter, Remote Mounted
- Heat Shields
- Long Life Coolant
- Planetary Powershift Transmission with Automatic Shift Control, 4 Speed Forward/4 Speed Reverse
- Radiator, Cross Flow
- Radiator Cap Manual Release
- Rims, 5-Piece, Tubeless
- SAFR™ Full Hydraulic Enclosed Wet Multiple-Disc Brakes
- Torque Converter with Automatic Lockup Clutch
- Transmission Neutralizer With Override Switch
- Transmission Filter Drain Tap

**OPERATOR ENVIRONMENT**
- Cat Electronic Monitoring System (Cat EMS)
- Electric Horns
- Gauges
  - Engine Coolant Temperature
  - Transmission Coolant Temperature
  - Hydraulic Oil Temperature
  - Fuel Level
  - Speedometer
  - Tachometer
- Indicator Lights
  - Alert Warning Light
  - Residual Brake Pressure
- Low Hydraulic Level Warning
- Open Operator Station ROPS/FOPS Structure
- Operator Presence System (Auto Park Brake)
- Pilot Hydraulic Implement Controls, Single Joystick
- Push Button Panel for Lights
- Suspension Seat with Retractable Seat Belt
- STIC Steering

**OTHER STANDARD EQUIPMENT**
- Brake Light
- Bucket, Dump
- Bucket Lip, Hardox 450 Bucket
- Bucket Positioner, Return To Dig
- Catalytic Exhaust Purifier/Muffler Group
- Decals, International Picto Graphics
- Fuel System
  - Dual Fuel Tanks
  - Fuel System Manual Shut Off Taps
- Engine and Transmission Belly Guards
- Fenders, Front, Rear
- Firewall
- Hand Hold (Access On/Off Top Deck)
- Operator and Maintenance Manual, English
- Protection Wear Bars 100 × 50 mm (4 × 2 in)
- Rims, 5-Piece, Tubeless
- Semi Centralized Lubrication Points
- S·O·S port
  - Coolant
  - Engine Oil
  - Hydraulic Oil
  - Transmission Oil
- Swing Out Radiator Grill
- Tires and Rims: A tire must be selected from the mandatory attachments section of the machine price list. Base machine price includes a standard tubeless rim allowance only.
Optional Equipment

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

• Battery and Engine Shutdown Switches
  – Ground Level Isolation, In Cab Isolation Switch
  – Ground Level Isolation, Engine Shutdown Switch
  – Ground Level Isolation, In Cab Isolation, Engine Shutdown Switch

• Brake Pressure Gauges

• Brake Release Arrangements,
  – Recovery Hook
  – Recovery Bar

• Buckets
  – Bucket Profile Standard or High Penetration
  – Various Sizes, Dump (6.3 m³/8.2 yd³ to 8.9 m³/11.6 yd³)
  – Bucket Spill Guard

• Bucket, Corners
  – Cast Corner, Shark Ready
  – Cast Corner, (All Other Hardware)

• Bucket Hardware
  – Cutting Edge, Cat Weld-on
  – Cutting Edge, Half Arrow, Flat
  – Heel Shrouds
  – Mechanically Attached Shroud (MAS)
  – Mechanically Attached Wear Plate System, Cutting Edge Protection (MAWPS)
  – Mechanically Attached Wear Plate System, Bottom Protection (MAWPS)
  – Protector Pads (Bottom of Bucket)
  – Wear Bars
  – Wear Liner (7.2 m³/9.4 yd³ and 8.3 m³/10.9 yd³ Buckets)

• Bucket Lip
  – Lip Fully Welded or Tack Welded
  – Lip Bare (No Hardware)
  – MAS Ready (Mechanical Attached Shroud)

• Camera, Color Rear Facing

• Chain Ready Front Fenders
  (chains not included)

• Cover, Anti Vandalism for Shipping

• Draw Bar Attachment, Bolt-On

• Engine Options
  – Diesel Particulate Filter (for use with VR Engine only)
  – Engine, Ventilation Reduction (VR)
  – Engine, Tier 3

• Lighting
  – External Lighting System, Front, Rear, LED Work Lights
  – High/Low Beam Function
  – Truck Loading Light, Lower Front Frame

• Fast Fill System
  – Coolant
  – Engine Oil
  – Fuel (Dual Tanks)
  – Hydraulic Oil
  – Transmission Oil

• Fire Suppression System
  – Ansul, Dry Powder
  – Foam, Water Based

• Fluids
  – Arctic Coolant
  – Arctic Fuel

• Front Light Protectors
  – Arctic Coolant

• Fuel System
  – Fuel Lines Double Braided (Stainless Sleevings)
  – Fuel Lines Standard Braided (Double Braid Hydraulic Hose)

• Guard, Rear Side Quarter Window

• Handrails
  – Hand Hold (Access On/Off Top Deck)
  – Fold Down Onto Top Deck

• Hydraulic System
  – Alternate Implement/Pilot Control Configuration

• Lubrication System
  – Automatic
  – Centralized

• Mine Transfer Ready Rear Frame (Tack Welded)

• Operators Station ROPS/FOPS Enclosed

• Operators and Maintenance Manual
  – Chinese
  – French
  – Indonesian
  – Portuguese
  – Russian
  – Spanish

• Park Brake Switch Engagement
  – Push to Apply
  – Pull to Apply

• Payload Control System
  – Payload Control System (PCS)
  – Loadrite L2180

• Remote Control Interface
  (excludes Transmitter and Receiver)
  – RCT

• Reversible Steering

• Reflective Tape

• Ride Control System

• Rim
  – Rim Identification Numbering
  – Spare (Tubeless)

• Seats
  – Seat Covers, Tee, Air and Standard
  – Suspension Seat Tee, Vinyl
  – Suspension Seat Air, Vinyl

• Secondary Steering System

• Service Tools
  – Brake Wear Gauge
  – Collet Jacking Bolts
  – Diagnostics Box
  – Recovery Bar (for use with Brake Release, Recovery Bar System)

• Socket Extension, Wheel Nut

• Technology
  – Command for Underground
  – Vital Information Management System (VIMS) Gen 3

• Tire Arrangements
  – Tire, 29.5 × R29 VSMS 2 Bridgestone
  – Tire, 29.5 × R29 VSDL L5 Bridgestone
  – Tire, 29.5 × R29 XMine D2 Michelin
  – Tire, 29.5 × R29 XSM2 L5S Michelin

• Wear Protection Bars
  – Cab/ROPS
  – Hydraulic Tank
  – Radiator

• Windows
  – Single Pane
  – Dual Pane

• NOTE: Not all features are available in all regions. See your Cat dealer for more information.