

# R3000H

Underground Mining Loader



## Engine

Engine Model	Cat® C15 ACERT™	
Gross Power – VR Engine – ISO 14396	297 kW	398 hp
Gross Power – Tier 3 Engine – ISO 14396	297 kW	398 hp

## Operating Specifications

Nominal Payload Capacity	20 000 kg	44,092 lb
Gross Machine Mass	80 410 kg	177,273 lb

## Bucket Capacities

Bucket Capacities	8.3-11.6 m <sup>3</sup>	10.9-15.2 yd <sup>3</sup>
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## R3000H 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.*

### 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.*

## Contents

Power Train – Engine .....	4
Power Train – Transmission .....	5
Hydraulics .....	6
Structures.....	7
Operator Comfort .....	8
Loader Bucket Systems .....	9
Serviceability .....	10
Customer Support.....	11
Safety .....	12
Specifications.....	13
Standard Equipment.....	16
Optional Equipment.....	17
Notes.....	18







**The R3000H underground loader is designed to meet the challenges of the most demanding 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.**

# Power Train – Engine

The Cat C15 engine with ACERT Technology.  
Innovative technologies optimize performance.



The Cat C15 ACERT engine provides unequalled lugging force while digging, tramping 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 cooled pistons increase heat dissipation and promote longer piston life. The crankshaft is forged and induction hardened for long-term durability.

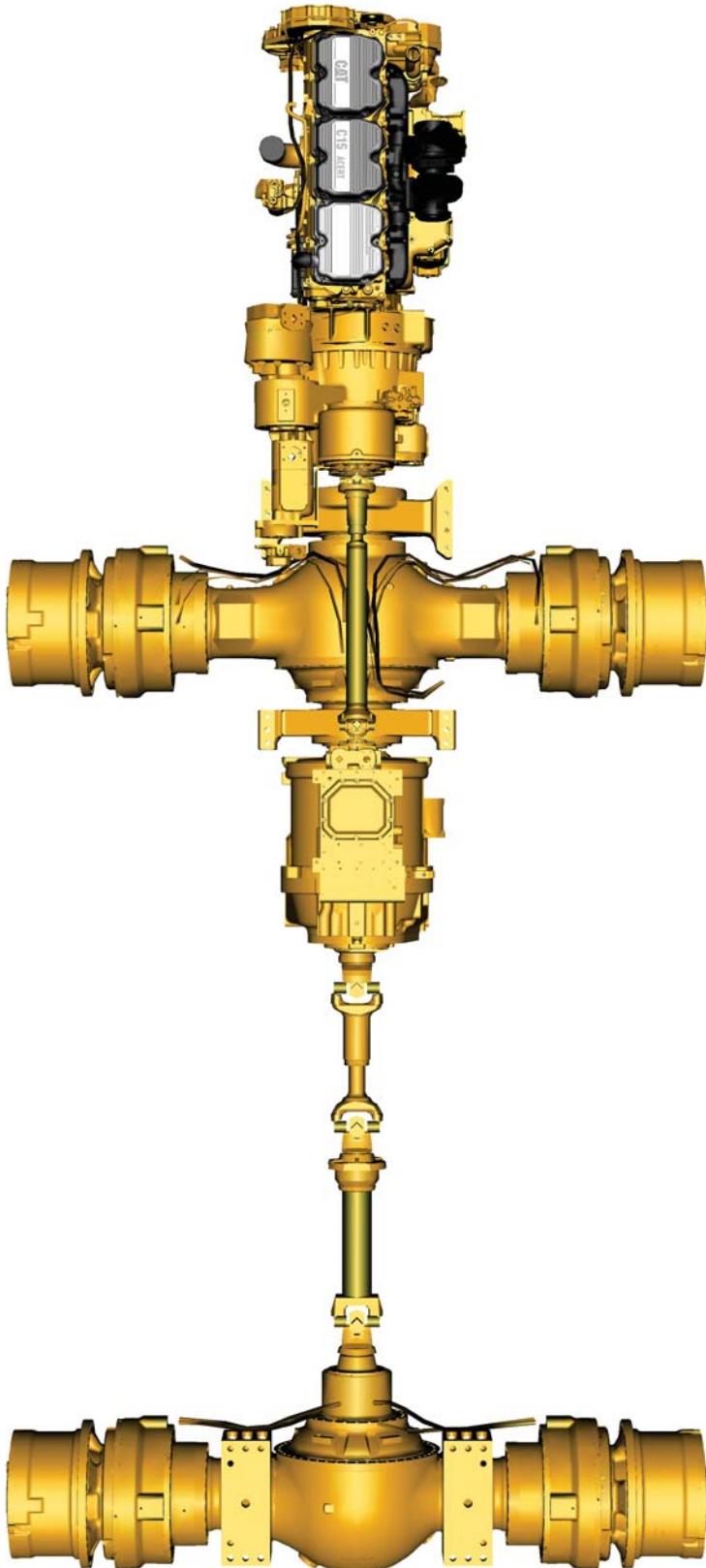
The Cat C15 engine features the optional Ventilation Reduction Package. The VR Package incorporates selective engine hardware and software to minimize diesel particulate matter in the engine exhaust. Engines equipped with the VR Package feature a significant ventilation rate reduction, a decrease in 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 reductions in particulate matter. 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 and grades.

## 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

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.

# 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. 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.

## Cat Hydraulic Hose

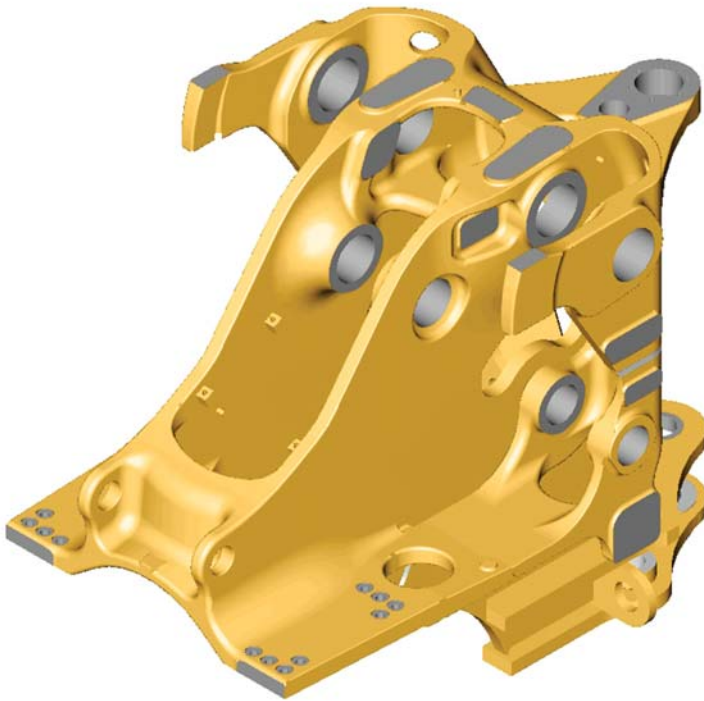
Field proven Cat high pressure XT™ hydraulic hoses are exceptionally strong and flexible for maximum system reliability and long life in the most demanding conditions. Reusable couplings with O-ring face seals provide superior, leak free performance.

## 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.

# Structures

Rugged Cat structures – the backbone of the R3000H'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

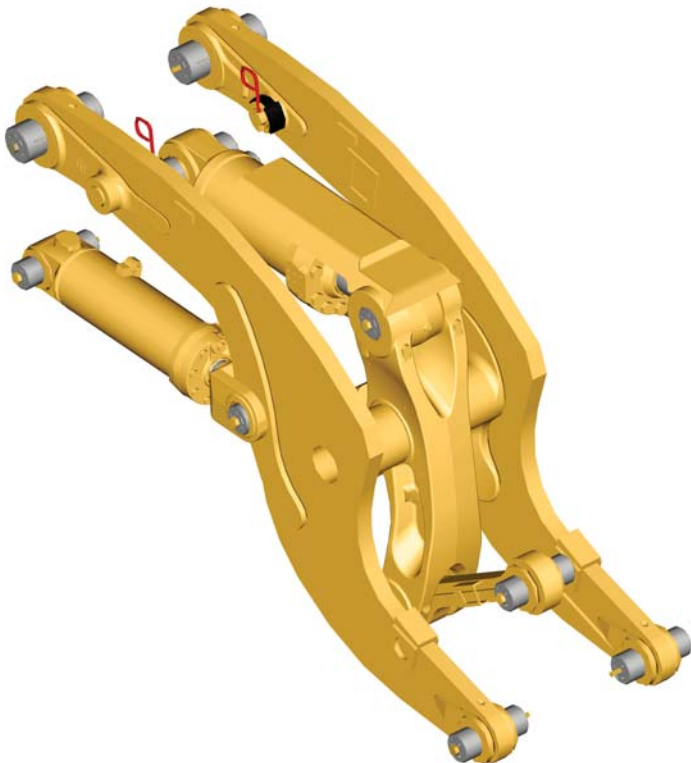
Spread hitch design widens the distance between upper and lower hitch plates to distribute forces and increase bearing life. Thicker hitch plates reduce deflection. The wide opening provides easy service access. Upper and lower hitch pins pivot on roller bearings to distribute horizontal and vertical 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 resiliently mounted Roll Over Protective Structure (ROPS) and the Falling Objects Protective Structure (FOPS), isolates 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. Air conditioning provides filtered, pressurized, temperature-controlled air 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.

## Monitoring System

Cat Electronic Monitoring System (Cat EMS) continuously provides critical machine data to keep the machine performing at top production levels.

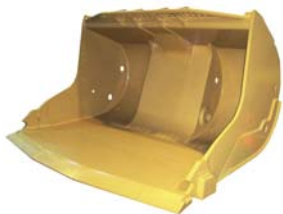






# Loader Bucket Systems

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

Our bucket design is also improved with the use of 2 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.

An additional weld on GET option is the Cat weld-on GET. 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 R3000H buckets to provide a non weld on option for hardware selection to better suit your application.

The MAS can be further protected with the installation of the Cat Mechanically Attached Wear Plates System (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, power train 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

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<sup>SM</sup> helps avoid minor repairs becoming major ones.







## 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.

# 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 break 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>.





# R3000H Underground Mining Loader Specifications

## Engine

Engine Model	Cat C15 ACERT	
Gross Power – VR Engine – ISO 14396	297 kW	398 hp
Gross Power – Tier 3 Engine – ISO 14396	297 kW	398 hp
Bore	137.2 mm	5.4 in
Stroke	171.5 mm	6.8 in
Displacement	15.2 L	927.6 in <sup>3</sup>

- Power ratings apply at a rated speed of 1,800 rpm when tested under the reference conditions for the specified standard.
- Ratings based on ISO 14396 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 Tier 3 Engine 3050 m (10,006 ft), VR Engine 3506 m (11,502 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

Gross Machine Mass	80 410 kg	177,273 lb
Static Tipping Load Straight Ahead Lift Arms Horizontal	47 264 kg	104,199 lb
Static Tipping Full Turn Ahead Lift Arms Horizontal	40 003 kg	88,191 lb
Breakout Force (SAE)	28 020 kg	61,773 lb

## Weights

Empty	56 055 kg	123,580 lb
Front Axle	23 634 kg	52,104 lb
Rear Axle	32 421 kg	71,475 lb
Loaded	76 055 kg	167,672 lb
Front Axle	55 671 kg	122,733 lb
Rear Axle	20 384 kg	44,938 lb

## Transmission

Forward 1	5.5 km/h	3.4 mph
Forward 2	9.7 km/h	6.0 mph
Forward 3	17.3 km/h	10.7 mph
Forward 4	31.6 km/h	19.6 mph
Reverse 1	6.7 km/h	4.1 mph
Reverse 2	12.3 km/h	7.6 mph
Reverse 3	21.6 km/h	13.4 mph
Reverse 4	33.8 km/h	21.0 mph

## Hydraulic Cycle Time

Raise	8.8 Seconds
Dump	1.85 Seconds
Lower, Empty, Float Down	3.54 Seconds
Total Cycle Time	14.2 Seconds

## Bucket Capacities

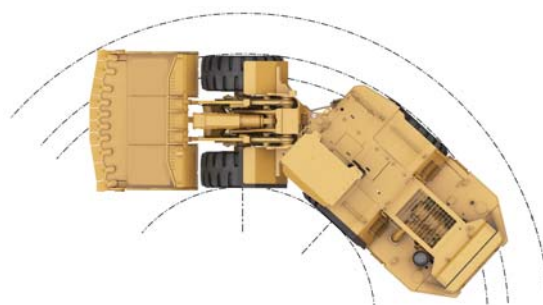
Dump Bucket – 1*	8.3 m <sup>3</sup>	10.9 yd <sup>3</sup>
Dump Bucket – 2*	8.9 m <sup>3</sup>	11.6 yd <sup>3</sup>
Dump Bucket – 3*	10.5 m <sup>3</sup>	13.7 yd <sup>3</sup>
Dump Bucket – 4	11.6 m <sup>3</sup>	15.2 yd <sup>3</sup>

\*High penetration bucket versions also available.

## Turning Dimensions

Outside Clearance Radius**	7536 mm	296.7 in
Inner Clearance Radius**	3247 mm	127.8 in
Axle Oscillation	8°	
Articulation Angle	42.5°	

\*\*Clearance dimensions are for reference only.



## Tires

Tire Size	35/65 R33 VSNT
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## 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	1539 L	406.5 gal

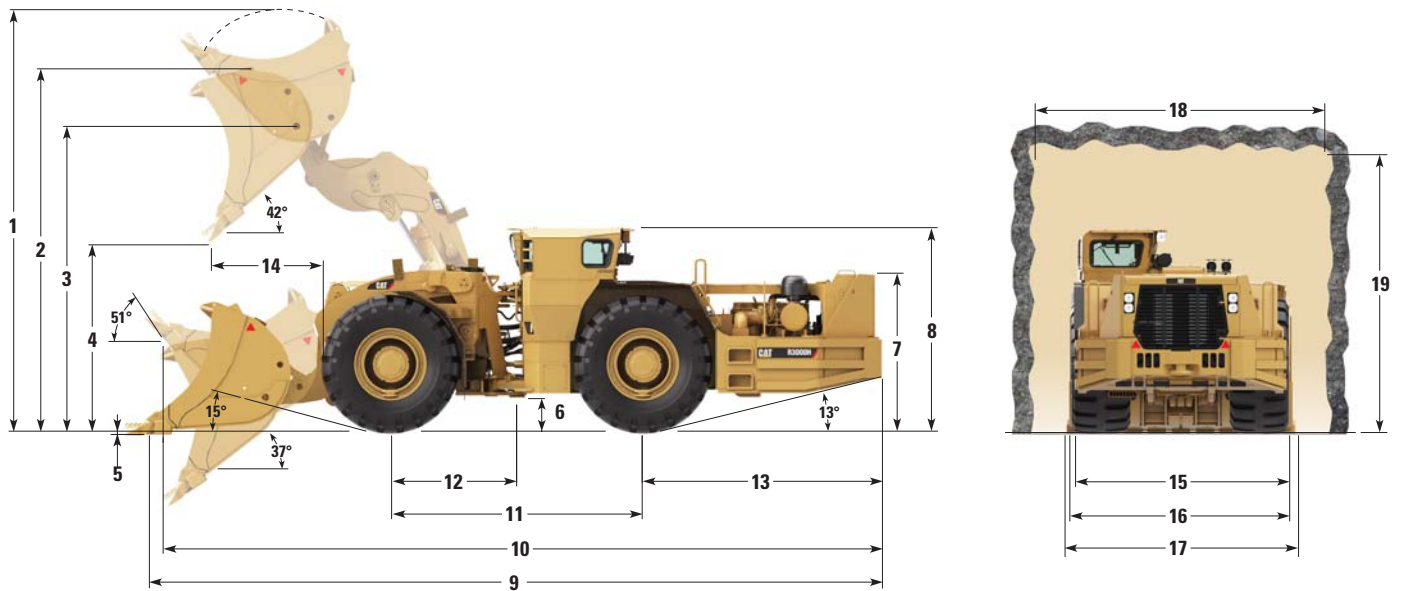
## Standards

Brakes	ISO 3450-2011, CAN-CSA 424.30-M90
Cab/FOPS	ISO 3449-2005 Level II
Cab/ROPS	ISO 3471-2008
Steering	ISO 5010-2007

# R3000H Underground Mining Loader Specifications

## Dimensions

All dimensions are approximate.



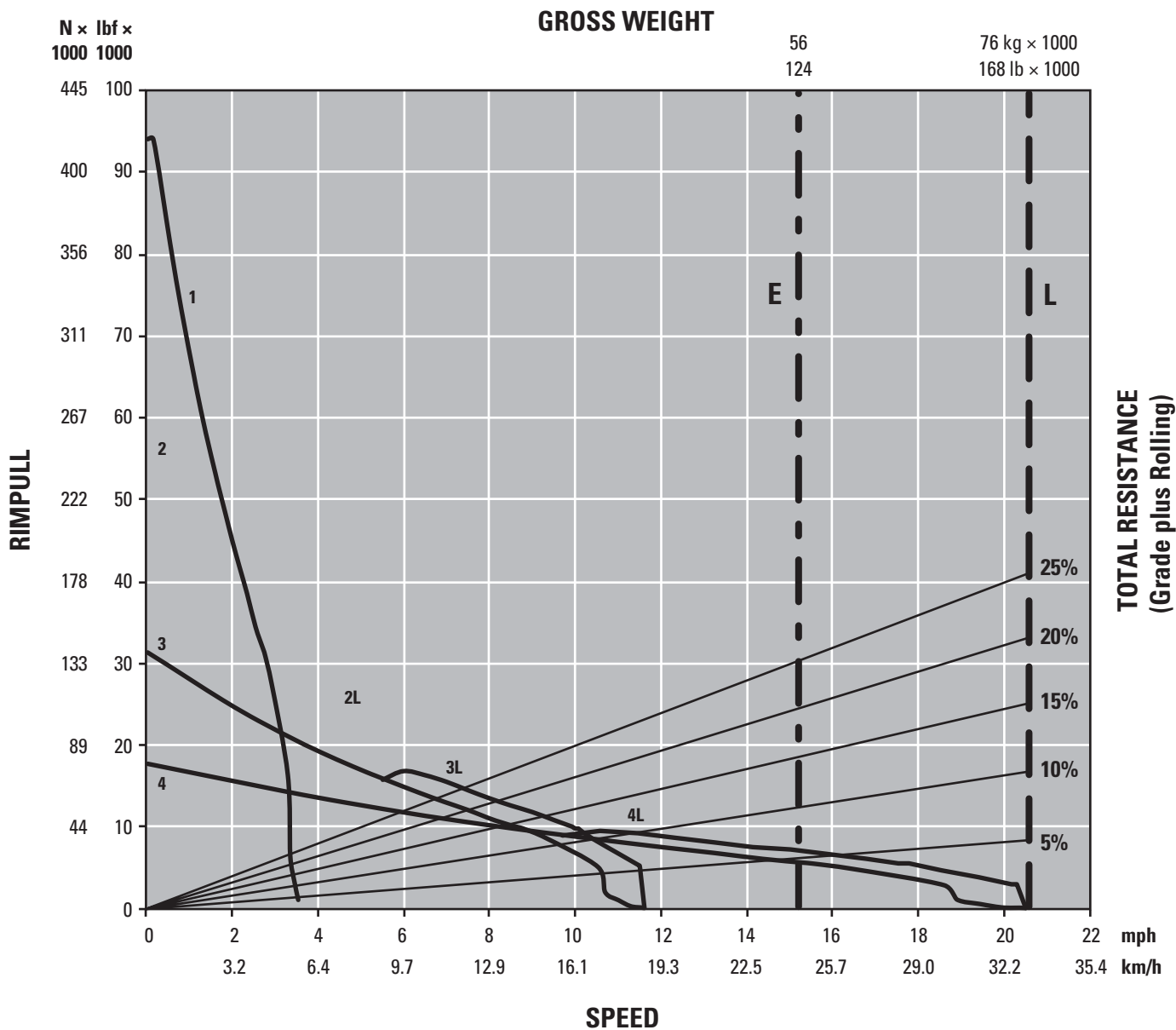
	370-2599		356-1320		372-1680		372-1695	
	Dump Bucket		Dump Bucket		Dump Bucket		Dump Bucket	
Bucket Capacity	8.3 m <sup>3</sup>	10.9 yd <sup>3</sup>	8.9 m <sup>3</sup>	11.6 yd <sup>3</sup>	10.5 m <sup>3</sup>	13.7 yd <sup>3</sup>	11.6 m <sup>3</sup>	15.2 yd <sup>3</sup>
	mm	in	mm	in	mm	in	mm	in
Bucket Width over Cutting Edge	3154	124.2	3354	132.0	3454	136.0	3754	147.8
<b>1</b> Height – Bucket Raised	6235	245.5	6283	247.4	6344	249.8	6344	249.8
<b>2</b> Height – Max Dump	5427	213.7	5408	212.9	5408	212.9	5429	213.7
<b>3</b> Height – Max Lift Bucket Pin	4553	179.3	4553	179.3	4553	179.3	4553	179.3
<b>4</b> Height – Dump Clearance at Max Lift	2751	108.3	2744	108.0	2553	100.3	2635	103.7
<b>5</b> Height – Digging Depth	48.5	1.9	48.4	1.9	178	7.0	178	7.0
<b>6</b> Height – Ground Clearance	476	18.7	476	18.7	476	18.7	476	18.7
<b>7</b> Height – Top of Hood	2388	94.0	2388	94.0	2388	94.0	2388	94.0
<b>8</b> Height – Top of ROPS	3002	118.2	3002	118.2	3002	118.2	3002	118.2
<b>9</b> Length – Overall (Digging)	11 476	451.8	11 493	452.5	11 632	458.0	11 500	452.8
<b>10</b> Length – Overall (Tramming)	11 142	438.7	11 150	439.0	11 341	446.5	11 260	443.3
<b>11</b> Length – Wheelbase	3780	148.8	3780	148.8	3780	148.8	3780	148.8
<b>12</b> Length – Front Axle to Hitch	1890	74.4	1890	74.4	1890	74.4	1890	74.4
<b>13</b> Length – Rear Axle to Bumper	3582	141.0	3582	141.0	3582	141.0	3582	141.0
<b>14</b> Length – Reach	1780	70.1	1789	70.4	1822	71.7	1719	67.7
<b>15</b> Width – Machine without Bucket	3200	126.0	3200	126.0	3200	126.0	3200	126.0
<b>16</b> Width – Overall Tire	3266	128.6	3266	128.6	3266	128.6	3266	128.6
<b>17</b> Width – Machine with Bucket	3254	128.1	3454	136.0	3554	139.9	3854	151.7
<b>18</b> Recommended Clearance Width	5000	196.9	5000	196.9	5000	196.9	5000	196.9
<b>19</b> Recommended Clearance Height	4500	177.2	4500	177.2	4500	177.2	4500	177.2



# R3000H Underground Mining Loader Specifications

## Gradeability/Speed/Rimpull

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.



# R3000H 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
- Corrosive Protection Spray
- Diagnostic Connector
- Electric Starting, 24-volt
- Engine Shutdown Switches
  - Rear Right Hand Side
- External Lighting System, Front, Rear, Halogen Work Lights
- Low Maintenance Batteries
- Reversing Alarm
- Starting and Charging System

### 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
- Operators Station, Enclosed ROPS/FOPS Structure
  - Air Conditioning
  - Cab Pressurizer and Filter
  - Dome Light
  - Heater
  - Radio Ready Compartment for Radio and Speakers
- 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

### POWER TRAIN

- Cat C15 ATAAC Diesel Engine, 6-Cylinder
- Brake Axle Cooling
- Electric Fuel Priming Pump
- Engine Air Intake Precleaner
- 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
- Transmission Filter Drain Tap

### 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, Light Weight Material (11.6 m<sup>3</sup>/15.2 yd<sup>3</sup>)
  - Bucket Standard Profile (8.3 m<sup>3</sup>/10.9 yd<sup>3</sup> to 11.6 m<sup>3</sup>/15.2 yd<sup>3</sup>)
  - Bucket High Penetration Profile (8.3 m<sup>3</sup>/10.9 yd<sup>3</sup> to 10.5 m<sup>3</sup>/13.7 yd<sup>3</sup>)
  - Bucket Spill Guard
- Bucket, Corners
  - Cast Corner, Shark Ready (8.3 m<sup>3</sup>/10.9 yd<sup>3</sup> to 10.5 m<sup>3</sup>/13.7 yd<sup>3</sup>)
  - Cast Corner (All Other Hardware) (8.3 m<sup>3</sup>/10.9 yd<sup>3</sup> to 11.6 m<sup>3</sup>/15.2 yd<sup>3</sup>)
- Bucket Hardware
  - Cutting Edge, Cat Weld On
  - Cutting Edge, Half Arrow, Flat
  - Heel Shrouds
  - Mechanical 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 (8.3 m<sup>3</sup>/10.9 yd<sup>3</sup> Bucket)
- Bucket Lip
  - Lip Fully Welded or Tack Welded
  - Lip Bare (No Hardware)
  - MAS Ready (Mechanical Attached Shroud)
- Camera, Color Rear Facing
- Cover, Anti Vandalism for Shipping
- Drawbar 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
- Fast Fill System
  - Coolant
  - Engine Oil
  - Fuel (Dual Tanks)
  - Hydraulic Oil
  - Transmission Oil
- Fire Suppression System
  - Foam, Water Based
- Fluids
  - Arctic Coolant
  - Arctic Fuel
- Front Light Protectors
- Fuel System
  - Fuel Lines Double Braided (Stainless Sleeving)
  - Fuel Lines Standard Braided (Double Braid Hydraulic Hose)
- Guard, Rear Side Quarter Window
- Handrails
  - Hand Hold (Access On/Off Top Deck)
  - Fold Down
- Hydraulic System
  - Alternate Implement/Pilot Control Configuration
- Lubrication System
  - Automatic
  - Centralized
- Operators Station
  - Strut, Cab Door
- Operator 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
  - Reference Parts Manual for Additional Tooling Available
- Switches
  - Additional Engine Shutdown, Mounted LHS
  - Idle Timer
- Technology
  - Command for Underground
  - Vital Information Management System (VIMS) Gen 3
  - Electronic Access Module (Required with Automation)
- Tire Arrangements
  - Tire, 35/65 R33 VSNT Bridgestone
  - Tire, 35/65 R33 VSDL Bridgestone
  - Tire, 875/65 R33 RL5K Goodyear
- 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.







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AEHQ6809-04 (11-2014)  
Replaces AEHQ6809-03

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