R1600G
Underground Mining Loader

**Engine**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Engine Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Power</td>
<td>SAE J1995 (1st gear/2-4th gear)</td>
</tr>
<tr>
<td>Net Power</td>
<td>SAE J1349 (1st gear/2-4th gear)</td>
</tr>
<tr>
<td>Gross Power –</td>
<td>Cat® 3176C EUI ATAAC</td>
</tr>
<tr>
<td>SAE J1995 (1st</td>
<td>185/200 kW 248/268 hp</td>
</tr>
<tr>
<td>gear/2-4th gear)</td>
<td></td>
</tr>
<tr>
<td>Net Power –</td>
<td>165/180 kW 221/241 hp</td>
</tr>
</tbody>
</table>

**Operating Specifications**

<table>
<thead>
<tr>
<th>Nominal Payload Capacity</th>
<th>10 200 kg</th>
<th>22,487 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Machine Operating Weight</td>
<td>40 000 kg</td>
<td>88,185 lb</td>
</tr>
</tbody>
</table>

**Bucket Capacities**

| Bucket Capacities | 4.2-5.9 m³ | 5.5-7.7 yd³ |
The R1600G 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.

R1600G Features

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

Reliable and Durable Engine
The Cat® 3176C EUI ATAAC diesel engine delivers 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.

Powerful Hydraulics
Perfect balance between low effort controls and powerful forces 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.

Aggressive Bucket Design
Engineered for optimal loadability and life in tough mining application. Various sizes and configurations available to match material and mine conditions.

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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Customer Support.............................................10
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Power Train – Engine
The Cat® 3176C engine is built for power, reliability and efficiency.

**Engine**
The Cat® 3176C is a proven engine that delivers reliability and durability. The efficient and powerful engine delivers maximum loading and trampling performance in most demanding mining applications. Complete system integration of the engine and transmission ensures fuel efficiency and smooth operation.

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

**Turbocharged and Aftercooled**
Air-to-air aftercooling provides improved fuel economy by packing cooler, denser air into cylinders for more complete combustion of fuel and lower emissions.

**Electronic Unit Injection**
The electronically controlled unit injection fuel system senses operating conditions and regulates fuel delivery for optimum fuel efficiency. The proven high-pressure fuel system provides improved response times and more efficient fuel burn with lower emissions and less smoke.

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

**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.
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 3176C 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**
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.

**Brakes**
Fully enclosed oil immersed disc brakes incorporate independent service and parking brake pistons. Hydraulic actuated independent circuits provide improved performance and reliability.
Hydraulics
Cat hydraulics deliver the power and control to keep material moving.

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 hydraulic controls enable an ejector bucket to be controlled from a switch on the bucket control joystick.

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

Optional Ride Control
Automatic Ride Control enhances machine ride and performance at speeds above 5 km/h (3 mph).

Cat Hydraulic Hose
Field proven Cat high pressure XT™ hydraulic hose is 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 R1600G’s durability.

Frame Design
The frame is engineered to withstand extreme forces generated during loading and tramming cycles. A precision manufacturing process ensures every structure is consistently built to high quality. Deep penetration and consistent welds throughout the frame ensures structures are solidly fused to provide a sturdy platform for the linkage and the axles. The bores and the surfaces are precisely machined for perfect alignments for the pins and precision mating surfaces for major components resulting in durable frames that allow complete machine rebuild for 2nd or 3rd 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. 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.

Sealed Pins
Sealed colleted 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 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 complete mobility of the machine by 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.

**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.

**Monitoring System**

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

- **Message Center.** Three-category warning system alerts operator of abnormal machine health conditions.
- **Gauge Cluster.** Maintains a constant display of vital machine functions.
- **Speedometer/Tachometer Module.** Monitors three systems: engine speed, ground speed and gear indicator.

**Pilot Controls**

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

**Suspension Seat**

Ergonomic, fully adjustable suspension seat provides optimal operator comfort. Thick cushions reduce pressure on lower back and thighs. Wide, retractable seat belts provide a secure, comfortable restraint.
Loader Bucket Systems
Rugged performance and reliability in tough underground mining applications.

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

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

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

S·O·S<sup>SM</sup>
S·O·S<sup>SM</sup> helps avoid minor repairs becoming major ones.
Cat dealers offer solutions, services and products that help lower costs, enhance productivity and manage your operation efficiently. From the selection 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 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 offer a wide range of service plans that will maximize return on your investment, including:

- Preventive Maintenance Programs
- Diagnostic Programs, such as S·O·S™ and Technical Analysis
- Rebuild and Reman Options
- Customer Support Agreements

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

**Operator Training**
Today’s complex products require operators have a thorough understanding of machine systems and operating techniques to maximize efficiency and profitability. Your Cat dealer can arrange training to improve productivity, decrease downtime, reduce operating costs, enhance safety, and improve your return on investment.

**Application Awareness**
Application and site-specific factors, such as: material density, loading position, grades, speeds, and haul road design influence operating and maintenance costs. Your Cat dealer can provide you with the understanding to optimize productivity and the total cost of ownership.

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
Designed with safety as the 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 pressure.

**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.

**SAFETY.CAT.COM™**
For more complete information on safety, please visit http://safety.cat.com.
R1600G Underground Mining Loader Specifications

**Engine**

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Cat® 3176C EUI ATAAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Power</td>
<td>2,100 rpm</td>
</tr>
<tr>
<td>Gross Power</td>
<td>185/200 kW 248/268 hp (SAE J1995)</td>
</tr>
<tr>
<td>Net Power –</td>
<td>165/180 kW 221/241 hp (SAE J1349)</td>
</tr>
<tr>
<td>Bore</td>
<td>125 mm 4.9 in</td>
</tr>
<tr>
<td>Stroke</td>
<td>140 mm 5.5 in</td>
</tr>
<tr>
<td>Displacement</td>
<td>10.3 L 629.4 in³</td>
</tr>
</tbody>
</table>

- Power ratings apply at a rated speed of 2,100 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 3000 m (9,842.5 ft).
- Compliant with U.S. Environmental Protection Agency Tier 2 emissions standards.

**Nominal Payload**

| Capacity   | 10 200 kg 22,487 lb |
| Gross Machine | 40 000 kg 88,185 lb |
| Static Tipping Load | 28 100 kg 61,950 lb |

**Turning Dimensions**

| Radius*     | 6638 mm 261.3 in |
| Inner Clearance | 3291 mm 129.6 in |
| Axle Oscillation | 10° |
| Articulation Angle | 42.5° |

* Clearance dimensions are for reference only.

**Weights**

| Empty   | 29 800 kg 65,698 lb |
| Front Axle | 12 516 kg 27,593 lb |
| Rear Axle | 17 284 kg 38,105 lb |
| Loaded  | 40 000 kg 88,183 lb |
| Front Axle | 28 000 kg 61,729 lb |
| Rear Axle | 12 000 kg 26,456 lb |

**Transmission**

| Forward 1 | 5 km/h 3.1 mph |
| Forward 2 | 8.7 km/h 5.4 mph |
| Forward 3 | 15.2 km/h 9.5 mph |
| Forward 4 | 22.1 km/h 13.7 mph |
| Reverse 1 | 5.7 km/h 3.5 mph |
| Reverse 2 | 9.9 km/h 6.2 mph |
| Reverse 3 | 17.2 km/h 10.7 mph |
| Reverse 4 | 23.8 km/h 14.8 mph |

**Hydraulic Cycle Time**

| Raise          | 7.6 Seconds |
| Dump           | 1.6 Seconds |
| Lower, empty, float down | 2 Seconds |
| Total Cycle Time | 11.2 Seconds |

**Bucket Capacities**

| Dump Bucket – 1 | 4.8 m³ 6.3 yd³ |
| Dump Bucket – 2 | 4.2 m³ 5.5 yd³ |
| Dump Bucket – 3 | 5.6 m³ 7.3 yd³ |
| Dump Bucket – 4 | 5.9 m³ 7.7 yd³ |
| Ejector Bucket  | 4.8 m³ 6.3 yd³ |

**Tires**

| Tire Size | 18.00 × 25 – 28 PLY STMS L5S |

**Service Refill Capacities**

| Engine Crankcase with Filter | 36.1 L 9.5 gal |
| Transmission                | 47 L 12.4 gal |
| Hydraulic Tank              | 125 L 33 gal |
| Cooling System              | 53 L 14 gal |
| Front Differential and Final Drives | 70 L 18.5 gal |
| Rear Differential and Final Drives | 70 L 18.5 gal |
| Front Differential and Final Drives (with Axle Oil Cooler) | 80 L 21.1 gal |
| Rear Differential and Final Drives (with Axle Oil Cooler) | 80 L 21.1 gal |
| Fuel Tank                   | 400 L 105.7 gal |
| Secondary Fuel Tank (If Equipped) | 330 L 87.2 gal |

**Standards**

| Brakes          | ISO 3450, AS2958.1, CAN-CSA424.30-M90 |
| Cab/FOPS        | BS EN ISO 3449, SAE J231, AS2294.3 |
| Cab/ROPS        | ISO 3471, SAE J1040, AS2294.2, EN13510 |
**Dimensions**

All dimensions are approximate.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>227-4702 Dump Bucket</th>
<th>203-1792 Dump Bucket</th>
<th>227-4704 Dump Bucket</th>
<th>227-4703 Dump Bucket</th>
<th>229-1676 Ejector Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket Capacity</td>
<td>4.2 m³ 5.5 yd³</td>
<td>4.8 m³ 6.3 yd³</td>
<td>5.6 m³ 7.3 yd³</td>
<td>5.9 m³ 7.7 yd³</td>
<td>4.8 m³ 6.3 yd³</td>
</tr>
<tr>
<td>Bucket Width over Cutting Edge</td>
<td>mm in</td>
<td>mm in</td>
<td>mm in</td>
<td>mm in</td>
<td>mm in</td>
</tr>
<tr>
<td>1 Height – Bucket Raised</td>
<td>2600 102.4</td>
<td>2600 102.4</td>
<td>2600 102.4</td>
<td>2900 114.2</td>
<td>2600 102.4</td>
</tr>
<tr>
<td>2 Height – Max Dump</td>
<td>4497 177.0</td>
<td>4497 177.0</td>
<td>4497 177.0</td>
<td>4497 177.0</td>
<td>4565 179.7</td>
</tr>
<tr>
<td>3 Height – Max Lift Bucket Pin</td>
<td>3752 147.7</td>
<td>3752 147.7</td>
<td>3752 147.7</td>
<td>3752 147.7</td>
<td>3752 147.7</td>
</tr>
<tr>
<td>4 Height – Dump Clearance at Max Lift</td>
<td>2311 91.0</td>
<td>2207 86.9</td>
<td>2042 80.4</td>
<td>2114 83.2</td>
<td>2120 83.5</td>
</tr>
<tr>
<td>5 Height – Digging Depth</td>
<td>28 1.1</td>
<td>39 1.5</td>
<td>54 2.1</td>
<td>45 1.8</td>
<td>47 1.9</td>
</tr>
<tr>
<td>6 Height – Ground Clearance</td>
<td>344 13.5</td>
<td>344 13.5</td>
<td>344 13.5</td>
<td>344 13.5</td>
<td>344 13.5</td>
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<tr>
<td>7 Height – Top of Hood</td>
<td>1895 74.6</td>
<td>1895 74.6</td>
<td>1895 74.6</td>
<td>1895 74.6</td>
<td>1895 74.6</td>
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<tr>
<td>8 Height – Top of ROPS</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
</tr>
<tr>
<td>9 Length – Overall (Digging)</td>
<td>9955 391.9</td>
<td>10 107 397.9</td>
<td>10 347 407.4</td>
<td>10 243 403.3</td>
<td>10 233 402.9</td>
</tr>
<tr>
<td>10 Length – Overall (Tramming)</td>
<td>9619 378.7</td>
<td>9711 382.3</td>
<td>9853 387.9</td>
<td>9790 385.4</td>
<td>9948 391.7</td>
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<tr>
<td>11 Length – Wheelbase</td>
<td>3536 139.2</td>
<td>3536 139.2</td>
<td>3536 139.2</td>
<td>3536 139.2</td>
<td>3536 139.2</td>
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<tr>
<td>12 Length – Front Axle to Hitch</td>
<td>1768 69.6</td>
<td>1768 69.6</td>
<td>1768 69.6</td>
<td>1768 69.6</td>
<td>1768 69.6</td>
</tr>
<tr>
<td>13 Length – Rear Axle to Bumper</td>
<td>3055 120.3</td>
<td>3055 120.3</td>
<td>3055 120.3</td>
<td>3055 120.3</td>
<td>3055 120.3</td>
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<tr>
<td>14 Length – Reach</td>
<td>1304 51.3</td>
<td>1408 55.4</td>
<td>1573 61.9</td>
<td>1504 59.2</td>
<td>1495 58.9</td>
</tr>
<tr>
<td>15 Width – Overall Tire</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
<td>2400 94.5</td>
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<tr>
<td>16 Width – Machine with Bucket</td>
<td>2723 107.2</td>
<td>2723 107.2</td>
<td>2723 107.2</td>
<td>3018 118.8</td>
<td>2723 107.2</td>
</tr>
<tr>
<td>17 Width – Machine without Bucket</td>
<td>2564 100.9</td>
<td>2564 100.9</td>
<td>2564 100.9</td>
<td>2564 100.9</td>
<td>2564 100.9</td>
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<tr>
<td>18 Recommended Clearance Width</td>
<td>3500 137.8</td>
<td>3500 137.8</td>
<td>3500 137.8</td>
<td>3500 137.8</td>
<td>3500 137.8</td>
</tr>
<tr>
<td>19 Recommended Clearance Height</td>
<td>3000 118.1</td>
<td>3000 118.1</td>
<td>3000 118.1</td>
<td>3000 118.1</td>
<td>3000 118.1</td>
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</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 application 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.

**18x25 Tires**

**Gross Weight**

- **E** – Empty 29 800 kg (65,698 lb)
- **L** – Loaded 40 000 kg (88,185 lb)
R1600G Standard Equipment

Standard equipment may vary. Consult your Cat 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 3176C EUI ATAAC Diesel Engine
- Engine Air Intake Precleaner
- Technology, 6-Cylinder
- Long Life Coolant
- SAFR™ Full Hydraulic Enclosed Wet
- Multiple-Disc Brakes
- Heat Shields
- Planetary Powershift Transmission
  with Automatic Shift Control,
  4 Speed Forward/4 Speed Reverse
- Torque Converter with Automatic
  Lockup Clutch
- Transmission Neutralizer

**OPERATOR ENVIRONMENT**
- Cat Electronic Monitoring System (Cat EMS)
- Electric Horns
- Gauges
  - Engine Coolant Temperature
  - Fuel Level
  - Hydraulic Oil
  - Speedometer
  - Tachometer
- Pilot Hydraulic Implement Controls,
  Single Joystick
- ROPS/FOPS Structure
- Suspension Seat with Retractable Seat Belt
- STIC™ Steering

**OTHER STANDARD EQUIPMENT**
- Brake Axle Cooling
- Bucket Positioner, Return To Dig
- 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)
- Swing Out Radiator Grill
- Tires, 18.00 × 25 – 28 PLY STMS L5S

R1600G Optional Equipment

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

- Alternative Tire Arrangements
- Automatic Lube System
- Auxiliary Start Receptacle
- Brake Light
- Brake Pressure Gauges
- Brake Release Arrangements
- Bucket Heel Shrouds
- Bucket Sacrificial Wear Strip Package
- Centralized Lube System, Manual
- Draw Bar Attachment, Bolt-on
- Dual Fuel Tanks
- Ejector Bucket Ready
- Electronic Access Module
- Fast Fill System
  - Coolant
  - Engine
  - Fuel
  - Hydraulic
  - Transmission
- Fire Extinguishers
- Fire Suppression System
- Front Light Protectors
- Heater, Air Conditioning
- Idle Timer
- Oil Sample Adapters
- Operators Station
  - Air Conditioning
  - Pressurizer
  - Dome Light
  - Radio Ready
- Payload Control System (PCS)
- Remote Control Interface Kit
- Residual Brake Pressure Light,
  Dash Mounted
- Reversible Steering, Wheel Steer
- Ride Control System
- Seat Covers
- Secondary Steering System
- Service Tools
- Starting Receptacle
- Tee Seat