

834K

Wheel Dozer



Engine

Engine Model	Cat® C18 ACERT™	
Emissions	U.S. EPA Tier 4 Final/EU Stage IV Technology, Tier 3 Equivalent, Tier 2 Equivalent	
Gross – SAE J1349	419 kW	562 hp
Net – SAE J1349	370 kW	496 hp

Blades

Blade Capacities	7.9-22.2 m ³	10.3-29.0 yd ³
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Operating Specifications

Operating Weight	47 750 kg	105,271 lb
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Purpose
design and
built for long
life and low
owning and
operating
costs.

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Cat Wheel Dozers are designed with durability built in, ensuring maximum availability through multiple life cycles. With optimized performance and simplified serviceability, our machines allow you to support your job site efficiently and safely while lowering owning and operating costs.

Introduced in the mid-1960's, the 834 has been the industry leader for almost 50 years. Focused on helping our customers succeed, we have continued to build upon each new series. The 834K continues our legacy of reliability, performance, safety, operator comfort, serviceability, and efficiency.

Efficiency

Delivering fuel efficiency you demand through integrated machine systems.



Improved Hydraulic Efficiency

- New flow sharing implement and steering variable displacement load sensing piston pumps.
- Hydraulic flow now on demand, for improved fuel efficiency.

Cat C18 ACERT Engine

The Cat C18 ACERT engine is built and tested to meet your most demanding applications. Three C18 ACERT engine options are available in this machine: A U.S. EPA Tier 4 Final/EU Stage IV Technology with aftertreatment, Tier 3 equivalent ACERT engine without aftertreatment, or a Tier 2 equivalent ACERT engine without aftertreatment.

- Fully integrated electronic engine controls works in concert with the entire machine to make your fuel go farther.
- Use less fuel idling with Engine Idle Shutdown.
- Maximized durability with Delayed Engine Shutdown.



Cat Planetary Powershift Transmission

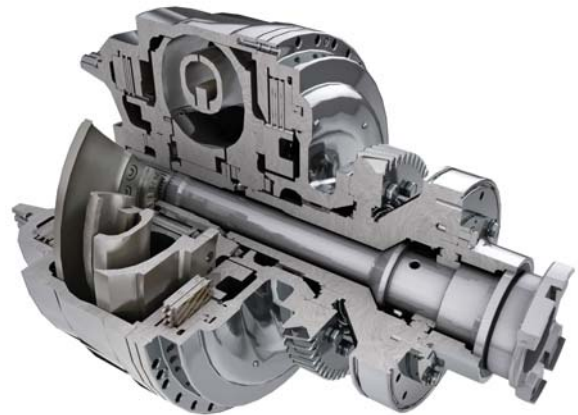
Featuring all new Advanced Productivity Electronic Control Shifting (APECS) transmission controls provides greater momentum on grades and fuel savings by carrying that momentum through the shift points.



Impeller Clutch Torque Converter (ICTC)

Enable your operators to maximize efficiency by varying machine rimpull while putting more horsepower to hydraulics.

- Reduced tire wear
- Enables full throttle shifts for faster cycle times
- Provides smooth approach to the dump target for less spillage and faster cycle times.



Cat Torque Converter with Lock-up Clutch

- Eliminates TC losses while lowering system heat
- Improves travel speeds
- Reduces cycle times in load and carry operations



Structures

Best built for the toughest conditions.

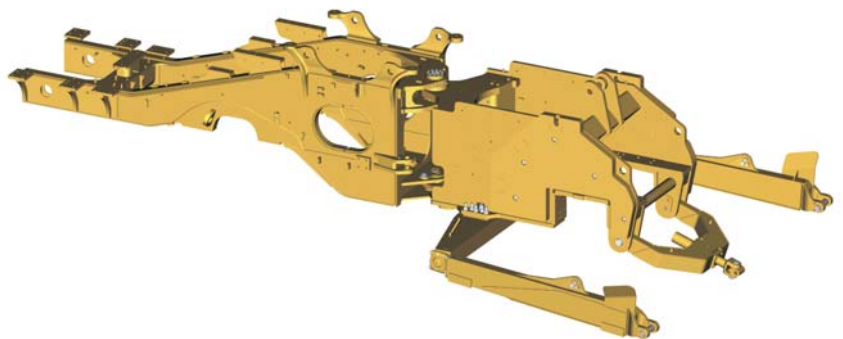




Robust Structures

Your bottom line is improved by highly durable structures that achieve multiple life cycles and withstand the toughest conditions.

- Full box-section rear frame resists torsional shock and twisting forces.
- Heavy-duty steering cylinder mounts efficiently transmit steering loads into the frame.
- Axle mounting has been optimized for increased structural integrity.
- Lower hitch pin, frame plate, and bearing size have been increased for longer life.



Robust Structures Design

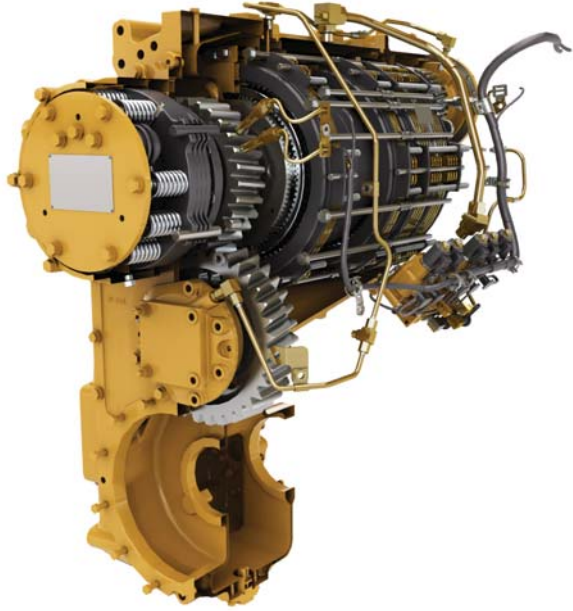
- Push beams are through-width, not merely attached to side of frame.
- In corner dozing, stresses are transferred and absorbed through a larger portion of the frame.



Steering and Transmission Integrated Control System (STIC™)

Experience maximum responsiveness and control with STIC that combines directional selection, gear selection and steering into a single lever.

- Simple side-to-side motion turns machine right or left, minimizing operator movements.
- Easy to operate finger controlled gear selection.
- Smoother, faster cycles and less operator fatigue through the use of low effort integrated controls.



Cat Planetary Powershift Transmission

Building your success begins with a best-in-class transmission designed specifically for mining applications.

- Consistent, smooth shifting and efficiency through integrated electronic controls that utilize Advanced Productivity Electronic Control Strategy (APECS).
- Long life and reliability through heat treat gear and metallurgy.
- Four forward and three reverse speeds to match your application.

Cat C18 ACERT Engine

Durability and efficiency at the heart of your 834K comes from the Cat C18 ACERT Engine. Optimum performance is built in through the use of a 6 cylinder, four-stroke design.

- Optimized performance and quick engine response with an electronic control module.
- Reliable efficiency with complete control over injection timing, duration and pressure with Mechanically Actuated Electronic Unit Injection (MEUI™).
- Extended engine life and improved fuel efficiency with reduced rated speed.
- Designed to meet U.S. EPA Tier 4 Final/EU Stage IV Technology, Tier 3 Equivalent, Tier 2 Equivalent emission standards.



Power Train

Move material more efficiently with improved power and control.



Impeller Clutch Torque Converter (ICTC) and Rimpull Control System (RCS)

Lower your operating costs utilizing advanced ICTC and RCS for modulated rimpull.

- Reduce tire slippage and wear by modulating rimpull from 100 to 25 percent while depressing left pedal. After 25 percent rimpull is achieved the left pedal applies the brake.
- Reduce the potential for wheel slippage without reducing hydraulic efficiency with RCS.
- Improve fuel efficiency in certain applications with our lock-up clutch torque converter providing direct drive.



Your operators can work more efficiently and stay comfortable with our customer-inspired cab features.

Entry and Exit

Enter and exit the cab easily and safely with these newly designed, ergonomic features.

- Fold up STIC steer/armrest.
- Reduced access stairway angles.
- Standard stairway lighting.

Cat Comfort Series III Seat

Enhance comfort and reduce operator fatigue with Cat Comfort Series III seat.

- Mid back design and extra thick, contoured cushions.
- Air suspension system.
- Easy-to-reach seat levers and controls for six way adjustments.
- Seat-mounted implement pod and STIC steer that moves with the seat.
- 76 mm (3 in) wide retractable seat belt.



Control Panel

Ergonomic placement of switches and Information display keep your operators comfortable all day every day.

- Large backlit membrane switches feature LED activation indicators.
- Switches feature ISO symbols for quick function identification.
- Two position rocker switch activates the electro hydraulic park brake.

Environment

Your operator's productivity is enhanced with our clean, comfortable cab environment.

- Experience reduced vibrations from isolation cab mounts and seat air suspension.
- Maintain desired cab temperature with automatic temperature controls.
- Pressurized cab with filtered air.
- Sound level reduced to a quiet 71 dB(A).
- Convenient floor storage tray/lunch box.



Operator Station

Best-in-class operator comfort and ergonomics.





Technology Solutions

Greater productivity through
Integrated Electronic Systems.

The 834K electronic systems have been completely integrated to function as one machine. This integration creates a smart machine and more informed operator, maximizing the productivity of both.

Cat Product Link™

Cat Product link allows remote monitoring of equipment to improve overall fleet management effectiveness. Events and diagnostic codes, as well as hours, fuel, idle time and other information are transmitted to a secure web based application, VisionLink™. VisionLink includes powerful tools to convey information to users and dealers, including mapping, working and idle time, fuel level and more.

VIMS™ 3G

We have worked hard to help our customers and operators perform at their best through our Vital Information Management System (VIMS 3G).

- Easy-to-view graphical information display features a large touch screen interface.
- Intuitive operation and easy navigation with our enhanced user interface.
- Decrease service time by keeping operators informed about machine system malfunction or operation.

Serviceability

Enabling high uptime by reducing your service time.

We can help you succeed by ensuring your 834K has design features to reduce your downtime.

- Safe and convenient service with ground level or platform access and grouped service points.
- Swing-out doors on both sides of the engine compartment provide easy access to important daily service checks.
- Ecology drains for ease of service and prevention of spilling potential environmental contaminants.
- Reduce downtime with VIMS system notifications so your operators and technicians can resolve any problems before failure.
- Ground level access to transmission control valves.



Customer Support

Your Cat dealers know how to keep your machines productive.



Legendary Cat Dealer Support

A valued partner, your Cat dealer is available whenever you need them.

- Preventive maintenance programs and guaranteed maintenance contracts.
- Best-in-class parts availability.
- Improve your efficiency with operator training.
- Genuine Cat Remanufactured parts.

Safety

Making your safety our priority.



We are constantly improving our products in an effort to provide a safe work environment for the operator and those who work on your job site.

Machine Access

- Left and right hand stairs with 45 degree angle enhance safety for operators getting on and off the 834K.
- Continuous walkway with non-skid surfaces are designed into the service areas.
- Maintain three points of contact at all times through ground level or platform accessible service areas.



Visibility

- Optional heated mirrors ensure enhanced visibility for safe operation.
- Standard Cat Vision or optional Cat Detect with radar increase operator awareness around the machine.
- Optional HID or LED lights provide excellent workspace visibility.
- Optional cab mounted LED warning beacons.

Operator Environment

- Reduced vibrations to the operator with isolated cab mounts and seat mounted implement and steering controls.
- Low interior sound levels.
- Pressurized cab with filtered air.
- Standard 76 mm (3 in) seat belts on the operator seat.

Sustainability

Stewards of the environment.



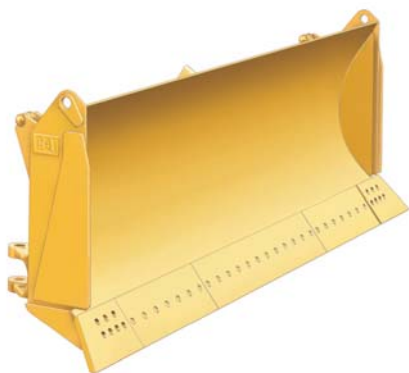
Protecting the Environment

Environmental responsibility is designed and built into our 834K's features.

- Engine Idle Shutdown and Auto Idle Kickdown can help you save fuel by avoiding unnecessary idling.
- Reduce waste to the environment with our maintenance free batteries.
- The 834K is built for multiple lives. To assist with maximizing machine life, Caterpillar provides a number of sustainable options such as our Reman and Certified Rebuild programs. In these programs, reused or remanufactured components can deliver cost savings of 40 to 70 percent, which lowers operating cost while benefiting the environment.
- Caterpillar offers retrofit packages to bring new features to older machines, maximizing your resource. And, when you go through the Cat Certified Rebuild program, these retrofit kits are part of the rebuild process.

Blades

Cat blades to match your customers dozing requirements.



Straight Blade

Cat Blades

Cat blades are resilient, durable and designed with excellent dozing and rolling characteristics.

- Capacities and widths are set to achieve increased productivity.
- Spreading design allows for spreading of cover material, as well as dozing of heavier loads.



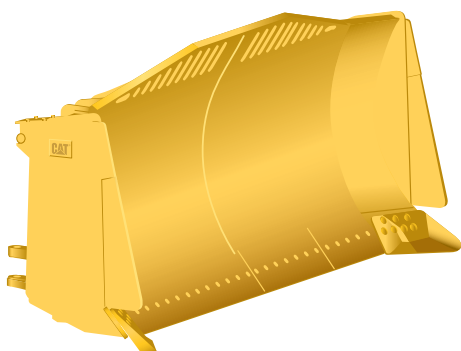
Universal Blade

Straight Blade

The straight blade ($7.9 \text{ m}^3/10.3 \text{ yd}^3$) is designed for production dozing in stockpile material and general earthmoving.

Universal Blade

The universal blade ($11.1 \text{ m}^3/14.7 \text{ yd}^3$) is designed to move large loads over long distances in mining applications.



Semi-Universal Blade

Semi-Universal Blade

The characteristics of the straight and universal blades are combined into the semi-universal blade ($10.1 \text{ m}^3/13.3 \text{ yd}^3$). It provides increased capacity with the addition of short wings which include only the dozer end bits without sacrificing spreading characteristics of straight blades.

Coal Blade

The coal blade ($22.2 \text{ m}^3/29 \text{ yd}^3$) is designed for precise and productive dozing while helping to retain load control with increased capacity for lighter materials. Wing angles help retain the load while dozing. This blade is available from Cat Work Tool and Services (CWTS).

Assemblies

The straight, semi-universal and universal blades consists of the blade, push arms, hydraulic lift, tip and tilt cylinders, trunnion mounting, stabilizer and hydraulic line guards.

Other Available Options

See your Cat dealer for blade options such as coal and wood scoop from CWTS and Custom Products.



Coal Blade

Operating Costs

Save time and money by working smart.



The 834K has several features to achieve greater fuel efficiency:

- **Positive Flow Control Hydraulics** – Provides only the hydraulic flow required by the implement and steering systems for improved fuel efficiency and greater rimpull.
- **ACERT Engine** – Advanced engine controls maximizes power and efficiency.
- **Engine Idle Shutdown** – Automatic engine and electrical system shutdown conserves fuel.
- **Lock-up Torque Converter** – Transfers more power to the ground and optimizes fuel efficiency in all applications.
- **Advanced Productivity Electronic Control Strategy (APECS)** – All new APECS transmission controls provides greater momentum on grades and fuel savings by carrying that momentum through the shift points.

Machine configuration, operator technique, and job site layout can impact fuel consumption.

- **Machine Configuration** – Select the correct work tool and tire type based on machine application. Ensure proper inflation pressures.
- **Idle** – Set the parking brake to engage Engine Idle Management System.

834K Wheel Dozer Specifications

Engine

Engine Model	Cat C18 ACERT	
Emissions	U.S. EPA Tier 4 Final/ EU Stage IV Technology, Tier 3 Equivalent, Tier 2 Equivalent	
Rated Speed	1,900 rpm	
Peak Power Speed	1,500 rpm	
Gross – SAE J1349	419 kW	562 hp
Net – SAE J1349	370 kW	496 hp
Bore	145 mm	5.7 in
Stroke	183 mm	7.2 in
Displacement	18.1 L	1,105 in ³
Peak Torque @ 1,300 rpm	2836 N·m	2,092 lbf-ft
Torque Rise	52%	

Operating Specifications

Operating Weight	47 750 kg	105,271 lb
Blade Capacities	7.9-22.2 m ³	10.3-29.0 yd ³

Transmission

Transmission Type	Cat planetary power shift	
Forward 1	6.8 km/h	4.2 mph
Forward 2	11.6 km/h	7.2 mph
Forward 3	20.3 km/h	12.6 mph
Forward 4	35.4 km/h	22.0 mph
Reverse 1	6.8 km/h	4.2 mph
Reverse 2	12.2 km/h	7.6 mph
Reverse 3	21.4 km/h	13.3 mph
Direct Drive Forward 1	Lock-up disabled	
Direct Drive Forward 2	12.4 km/h	7.7 mph
Direct Drive Forward 3	22.1 km/h	13.7 mph
Direct Drive Forward 4	38.5 km/h	23.9 mph
Direct Drive Reverse 1	7.2 km/h	4.5 mph
Direct Drive Reverse 2	13.0 km/h	8.1 mph
Direct Drive Reverse 3	23.0 km/h	14.3 mph

• Travel speeds based on 35/65-R33 tire.

Hydraulic System – Lift/Tilt

Lift/Tilt System – Circuit	Pilot operated LS valve with EH	
Lift/Tilt System	Variable displacement piston	
Maximum Flow at 1,900 rpm	582 L/min	153 gal/min
Relief Valve Setting – Lift/Tilt	32 000 kPa	4,641 psi
Cylinders, Double Acting: Lift, Bore and Stroke	139.75 mm × 1021 mm	5.5 in × 40.2 in
Cylinders, Double Acting: Left and Right Tilt, Bore and Stroke	140 mm × 230 mm	5.5 in × 9.1 in
Pilot System	Variable displacement piston	
Pilot Maximum Flow	52 L/min	13.7 gal/min
Pilot Relief Valve Setting	4000 kPa	580 psi

Hydraulic System – Steering

Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Piston, variable displacement	
Maximum Flow	250 L/min	65.8 gal/min
Relief Valve Setting – Steering	24 100 kPa	3,495 psi
Total Steering Angle	86°	
Steering Cycle Time (high idle)	3.1 sec	
Steering Cycle Time (low idle)	5.7 sec	

834K Wheel Dozer Specifications

Service Refill Capacities

Fuel Tank	793 L	209.5 gal
Cooling System	120 L	31.7 gal
Crankcase	60 L	15.9 gal
Diesel Exhaust Fluid Tank	33 L	8.7 gal
Transmission	120 L	31.7 gal
Differentials and Final Drives – Front	186 L	49.1 gal
Differentials and Final Drives – Rear	186 L	49.1 gal
Hydraulic System Factory Fill	240 L	63.4 gal
Hydraulic System (tank only)	140 L	37.0 gal

- All non-road Tier 4 Final/Stage IV Technology diesel engines are required to use:
 - Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less. Biodiesel blends up to B20 are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD and when the biodiesel feedstock meets ASTM D7467 specifications.
 - Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specifications are required.

Axles

Front	Fixed
Rear	Trunnion
Oscillation Angle	±13°

Brakes

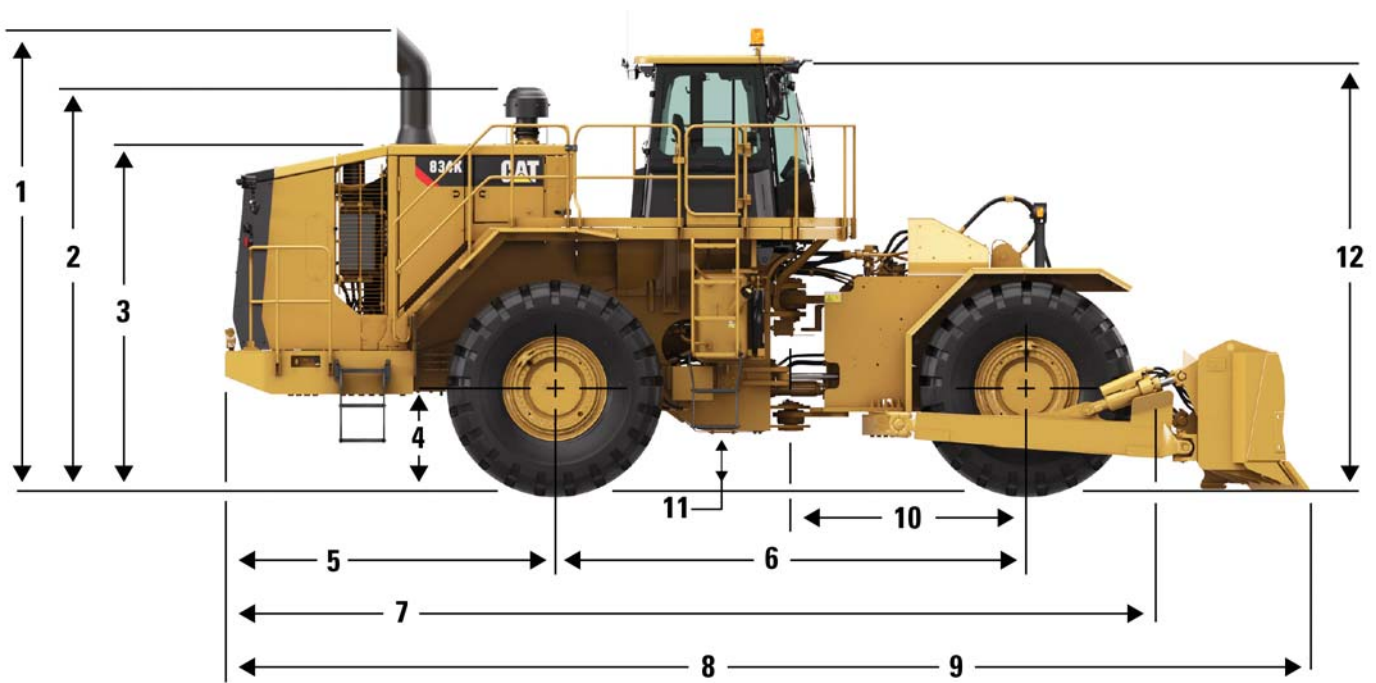
Brakes	ISO 3450:2011
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Sound Performance

	Standard	Suppression
Interior Sound Level	72 dB(A)	71 dB(A)
Exterior Sound Level	111 dB(A)	109 dB(A)

Dimensions

All dimensions are approximate.



1	Height to Top of Exhaust Stack	4835 mm	15.9 ft
2	Height to Top of Air Cleaner	3895 mm	12.8 ft
3	Height to Top of Hood	3334 mm	10.9 ft
4	Ground Clearance to Bumper	933 mm	3.1 ft
5	Centerline of Rear Axle to Edge of Bumper	3187 mm	10.5 ft
6	Wheelbase	4550 mm	14.9 ft
7	Length to Front Tire	8715 mm	28.4 ft
8	Length of Straight Blade on Ground	9927 mm	32.6 ft
9	Length of Universal Blade on Ground	10 470 mm	34.4 ft
10	Centerline of Front Axle to Hitch	2275 mm	7.5 ft
11	Ground Clearance	531 mm	1.7 ft
12	Height to Top of Cab	4184 mm	13.7 ft

834K Wheel Dozer Specifications

Blade Specifications

Blade Type	Capacity	Overall Width	Height	Digging Depth	Ground Clearance	Maximum Tilt	Weight	Total Operating Weight
Straight Blade	7.9 m ³ 10.3 yd ³	5074 mm 199.8 in	1537 mm 60.5 in	557 mm 21 in	1324 mm 52.1 in	1270 mm 50.0 in	3296 kg 7,267 lb	47 206 kg 104,069 lb
Universal Blade	11.1 m ³ 14.5 yd ³	5151 mm 202.8 in	1537 mm 60.5 in	527 mm 20.7 in	1338 mm 52.7 in	1270 mm 50.0 in	4654 kg 10,262 lb	48 564 kg 107,064 lb
Coal Blade	22.2 m ³ 29.0 yd ³	5677 mm 223.5 in	2032 mm 80.0 in	465 mm 18.3 in	1178 mm 46.4 in	1482 mm 58.3 in	4390 kg 9,670 lb	48 295 kg 106,472 lb
Semi-Universal	10.1 m ³ 13.2 yd ³	4688 mm 184.6 in	1855 mm 73.0 in	507 mm 20.0 in	1352 mm 53.2 in	1270 mm 50.0 in	3638 kg 8,020 lb	47 548 kg 104,825 lb

Standard Equipment

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

ELECTRICAL

- Alarm, back-up
- Alternator (100 amp)
- Batteries, maintenance-free
- Deutsch terminal connectors
- Electrical system (24V)
- Lighting system, halogen (front and rear), access stairway
- Starter, electric (heavy-duty)
- Starting receptacle for emergency starts

OPERATOR ENVIRONMENT

- Air conditioner
- Cab, sound suppressed and pressurized
- Internal four-post rollover protective structure (ROPS/FOPS), radio ready (entertainment) includes antenna, speakers and converter (12V, 15 amp), 12V power port, tinted glass
- Cigar lighter (12V, 15 amp) and ashtray
- Coat hook
- Electro-Hydraulic tilt, tip controls
- Heater and defroster
- Horn, electric
- Light, cab (dome)
- Lock-up clutch disable switch
- Lunchbox and beverage holders
- Monitoring system (VIMS 3G)
- Action alert system, three category
- Instrumentation, gauges:
 - Engine coolant temperature
 - Fuel level
 - Hydraulic oil temperature
 - Speedometer/tachometer
 - Transmission oil temperature
 - Instrumentation, warning indicators
 - Axle/brake oil temperature (front/rear)
 - Brake oil pressure
 - Electrical system, low voltage
 - Engine intake/combustion air temperature
 - Engine oil pressure
 - Engine overspeed
 - Fuel pressure
 - Hydraulic oil filter status
 - Parking brake status
 - Transmission filter status
 - Cat Vision (rear vision camera)

- Mirrors, rearview (externally mounted)
- Rimpull select switch
- Seat, Comfort Series (cloth), air suspension
- Seat belt, retractable, 76 mm (3 in) wide
- STIC control system with steering lock
- Tilt and lift control system lock
- Transmission gear indicator
- Wet-arm wipers/washers (front and rear)
- Intermittent front wiper

POWER TRAIN

- Brakes, full hydraulic, enclosed, wet-disc
- Multiple disc service brakes
- Case drain filters
- Demand fan
- Engine, Cat C18 MEUI with ACERT Technology, ATAAC, ADEM™ IV controller
- Fuel priming pump (electric)
- Parking brake
- Precleaner, engine air intake
- Radiator, Next Generation Modular
- Radiator (NGMR)
- Separated cooling system
- Starting aid (ether) automatic
- Throttle lock
- Torque converter, impeller clutch with lock-up control system and rimpull control system (switch and dial in cab)
- Transmission, planetary, autoshift (4F/3R)

OTHER STANDARD EQUIPMENT

- Doors, service access (locking)
- Engine, crankcase, 500 hour interval with CH-4 oil
- Grouped Electronic Clutch Pressure
- Control, remote mounted pressure taps
- Hitch, drawbar with pin
- Hood, metallic with lockable service doors
- Hydraulic oil cooler
- Muffler (under hood)
- Oil sampling valves
- Stairway, left side (rear access)
- Steering, load sensing
- Vandalism protection caplocks
- Venturi stack

TIRES, RIMS AND WHEELS

- A tire must be selected from the mandatory attachments section – base machine price includes a tire allowance

ANTIFREEZE

- Premixed 50 percent concentration of Extended Life Coolant with freeze protection to –34° C (–29° F)

834K Optional Equipment

Optional Equipment

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

POWER TRAIN

- -50° C (-58° F) antifreeze
- Engine oil change system, high speed, Wiggins
- Engine block heater 120V or 240V
- Engine compression brake
- Automatic retarding control (with engine compression brake)
- Axle oil cooler
- Second starter
- Jacket water heater
- Crankcase guards

OPERATOR ENVIRONMENT

- Cab precleaner
- AM/FM/CD/MP3 radio
- Satellite Sirius radio with Bluetooth
- LED warning strobe
- CB radio ready
- Window pull down visor
- Sound suppression
- Visor group – cab pull-down shade
- Cat Detect (rear object detection)

MISCELLANEOUS ATTACHMENTS

- Front and rear roading fenders
- Fast fill fuel system (Shaw-Aero)
- Cat Detect
- Halogen and HID lights

Mandatory Attachments

Select one from each group. Mandatory and optional equipment may vary. Consult your Cat dealer for specifics.

ELECTRICAL

- No Product Link
- Product Link (Satellite)
- Product Link (Cellular)

STEERING

- Standard steering
- Secondary steering

POWER TRAIN

- Axle oil cooler
- Standard axles
- Standard fuel lines
- Heated fuel lines
- Standard axle
- No spin axle
- Extreme temperature axle
- Standard engine air turbine precleaner
- Dual stage precleaner
- No engine brake
- Engine brake

LIGHTING

- Standard lighting
- HID lighting
- LED lighting

OPERATOR ENVIRONMENT

- No suppression arrangement
- Sound suppression
- Standard seat
- Heated seat
- Standard seat belt
- Seat belt minder
- Standard cab glass
- Rubber mounted cab glass
- Fixed glass door, standard
- Sliding glass door
- Standard cab air cleaner
- RESPA cab air cleaner
- Standard mirror
- Heated mirror
- Vision Display
- Cat Detect (Object Detection)
- FUEL SYSTEM
- Conventional fuel arrangement
- Cold weather starting

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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Featured machines in photos may include additional equipment.
See your Cat dealer for available options.

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