

Cat® 824
Wheel Dozer

Technical Specifications

Configurations and features may vary by region. Please consult your Cat® dealer for availability in your area.

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824 Wheel Dozer Specifications

Engine

Engine Model	Cat® C15	
Rated Speed	1,800 rpm	
Net Power (SAE J1349:2011)	302 kW	405 hp
Net Power (ISO 9249:2007)	302 kW	405 hp
Engine Power (ISO 14396:2002)	318 kW	426 hp
Gross Power (SAE J1995:2014)	324 kW	434 hp
Peak Net Torque (1,300 rpm)	2005 N·m	1,479 lbf-ft
Torque Rise	33%	
Maximum Altitude without Derating (U.S. EPA Tier 4 Final/EU Stage V)	2834 m	9,298 ft
Maximum Altitude without Derating (U.S. EPA Tier 3/EU Stage IIIA)	2773 m	9,098 ft
Bore	137.2 mm	5.4 in
Stroke	171.4 mm	6.7 in
Displacement	15.2 L	927.6 in^3
High Idle Speed	2,300 rpm	
Low Idle Speed	800 rpm	

- Net power advertised is the power available at the engine flywheel when the engine is equipped with a fan, air cleaner, clean emissions module and alternator.
- Two engine emission configurations are available. One meets U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V, and Japan 2014 emissions standards. The other meets Brazil MAR-1 emission standards, emitting equivalent to U.S. EPA Tier 3 and EU Stage IIIA.

Operating Specifications

Operating Weight – Straight Blade (Tier 4 Final/Stage V)	34 004 kg	74,966 lb
Blade Capacity Range	5.1-16.2 m^3	6.6-21.2 yd^3

Transmission

Transmission Type	Cat planetary powershift – ECPC	
Forward 1	6.1 km/h	3.8 mph
Forward 2	11.1 km/h	6.9 mph
Forward 3	19.6 km/h	12.2 mph
Forward 4	34.8 km/h	21.6 mph
Reverse 1	7.0 km/h	4.3 mph
Reverse 2	12.6 km/h	7.8 mph
Reverse 3	22.4 km/h	13.9 mph
Reverse 4	39.7 km/h	24.7 mph

Hydraulic System – Lift/Tilt

Pump Flow at 1,800 rpm	117 L/min	30.9 gal/min
Main Relief Pressure	26 000 kPa	3,771 psi
Maximum Supply Pressure	24 100 kPa	3,495 psi
Cylinder, Double-acting: Lift, Bore and Stroke	120 mm × 1070 mm	4.7 in × 42.1 in
Cylinder, Double-acting: Tilt and Tip, Bore and Stroke	140 mm × 230 mm	5.5 in × 9.1 in

Hydraulic System – Steering

Steering System – Circuit	Pilot operated, load sensing	
Bore	114.3 mm	4.5 in
Stroke	576 mm	22.7 in
Steering System – Pump	Variable displacement piston	
Max Flow at 1,800 rpm	170 L/min	44.9 gal/min
Relief Valve Setting – Steering	24 000 kPa	3,481 psi
Vehicle Articulation Angle	86°	

Service Refill Capacities

Cooling System	116 L	30.6 gal
Engine Crankcase	34 L	9.0 gal
Transmission	66 L	17.4 gal
Fuel Tank	782 L	206.6 gal
Diesel Exhaust Fluid (DEF) Tank (Tier 4 Final/Stage V)	32 L	8.5 gal
Differentials and Final Drives – Front	100 L	26.4 gal
Differentials and Final Drives – Rear	110 L	29.1 gal
Hydraulic Tank Only	134 L	35.4 gal
Hydraulic System – Implement/Steering	214 L	56.5 gal

- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) and are compatible* with ULSD blended with the following lower-carbon intensity fuels** up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester) ***
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

** While Caterpillar engines are compatible with these alternative fuels, some regions may not allow their use.*

*** Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

**** Engines with no aftertreatment devices are compatible with higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. See the label or instruction manual for identification of the gas.
- If equipped with R134a (Global Warming Potential = 1430), the system contains 2.0 kg of refrigerant which has a CO_2 equivalent of 2.86 metric tonnes (3.15 tons).

Axles

Front	Planetary – fixed
Rear	Planetary – oscillating
Oscillation Angle	±11°

Brakes

Parking Brake	Drum and shoe, spring applied, hydraulic released
Brakes	Multi-disc wet (enclosed) 4 WHL

Sound Performance

Tier 4 Final/Stage V	
Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Machine Sound Power Level (ISO 6395:2008)	113 dB(A)
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)*
Machine Sound Power Level (ISO 6395:2008)	110 dB(A)**
Tier 3/Stage IIIA	
Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Machine Sound Power Level (ISO 6395:2008)	113 dB(A)
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)*
Machine Sound Power Level (ISO 6395:2008)	110 dB(A)**

* For machines in European Union countries and in countries that adopt the "EU Directives" and "UK Directives"

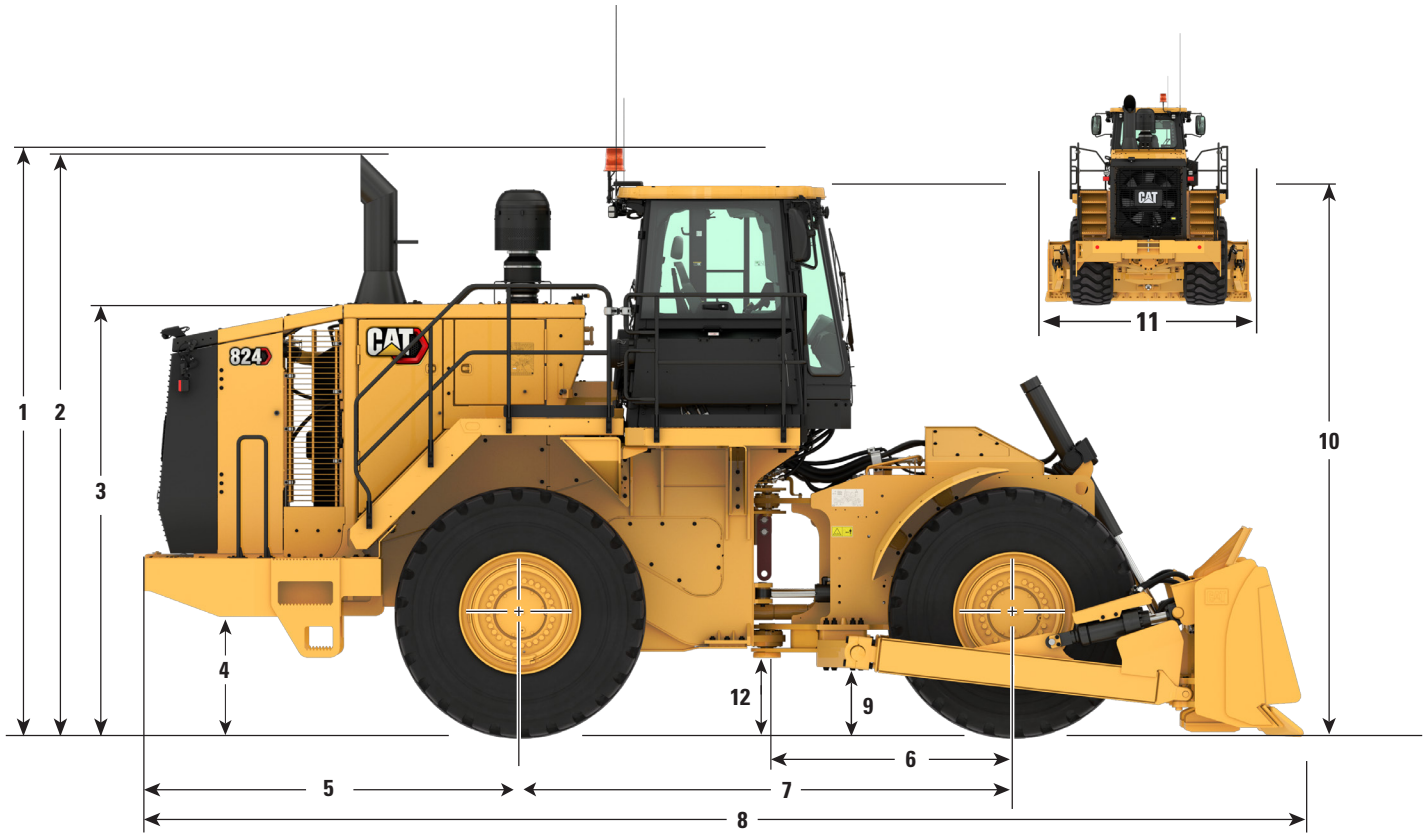
** European Union Directive "2000/14/EC" and UK Noise Regulation 2001 No. 1701

- The machine sound power level was measured according to ISO 6395:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
- The operator sound pressure level was measured according to ISO 6396:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.

824 Wheel Dozer Specifications

Dimensions

All dimensions are approximate.



1	Height to Top of Beacon	4422 mm	14 ft 6 in
2	Height to Top of Exhaust Stack	4332 mm	14 ft 2.6 in
3	Height to Top of Hood	3204 mm	10 ft 6.1 in
4	Ground Clearance to Bumper	852 mm	2 ft 9.5 in
5	Centerline of Rear Axle to Edge of Bumper	2830 mm	9 ft 3.4 in
6	Centerline of Front Axle to Hitch	1850 mm	6 ft 0.8 in
7	Wheelbase	3700 mm	12 ft 2 in
8	Length with Blade on Ground (straight blade)	8422 mm	27 ft 7.6 in
9	Ground Clearance to Trunnion	441.4 mm	1 ft 5.4 in
10	Height to Top of Cab	4100 mm	13 ft 5.4 in
11	Width Over Guardrails	3336 mm	10 ft 11.3 in
12	Ground Clearance	534.4 mm	1 ft 9 in

Blade Specifications

Blade Type	Capacity	Width Over End Bits	Height	Dig Depth	Ground Clearance	Maximum Tilt	Turning Radius – Outside Corner of Blade	Turning Radius – Inside Corner of Blade
Straight	5.0 m^3 (6.6 yd^3)	4507 mm (177.4 in)	1230 mm (48.4 in)	448 mm (17.6 in)	1057 mm (41.6 in)	1167 mm (45.9 in)	7227 mm (23 ft 8.5 in)	3093 mm (10 ft 1.8 in)
Straight Push Plate	5.0 m^3 (6.6 yd^3)	4507 mm (177.4 in)	1230 mm (48.4 in)	448 mm (17.6 in)	1057 mm (41.6 in)	1167 mm (45.9 in)	7099 mm (23 ft 3.5 in)	3120 mm (10 ft 2.8 in)
Semi-Universal	7.7 m^3 (10.0 yd^3)	4421 mm (174.1 in)	1551 mm (61.1 in)	477 mm (18.8 in)	1068 mm (42.0 in)	1120 mm (44.1 in)	7260 mm (23 ft 9.8 in)	3313 mm (10 ft 10.4 in)
Extended Wear	8.1 m^3 (10.6 yd^3)	4357 mm (171.6 in)	1350 mm (53.1 in)	461 mm (18.1 in)	1051 mm (41.4 in)	1132 mm (44.6 in)	7296 mm (23 ft 11.2 in)	3475 mm (11 ft 4.8 in)

824 Wheel Dozer Standard and Optional Equipment

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat® dealer for details.

	Standard	Optional
ELECTRICAL		
Alternator, 150 amp	✓	
Batteries, maintenance free (4 – 1,000 CCA)	✓	
Electrical system, 24V	✓	
Lighting system, LED (front and rear)	✓	
Lights, directional (rear)	✓	
Starter, electric (heavy duty)	✓	
OPERATOR ENVIRONMENT		
Air conditioner	✓	
Cab, sound-suppressed pressurized, internal four-post rollover protective structure/ falling objects protective structure (ROPS/ FOPS), radio ready for entertainment includes antenna, speakers, converter (12-volt 10/15-amp), and power port	✓	
Cab door, sliding window (LH)	✓	
Cab precleaner, powered	✓	
Coat and hard hat hooks	✓	
Electro-hydraulic tilt and tip controls	✓	
Fingertip shifting controls	✓	
Flip-up armrest	✓	
Heater and defroster	✓	
Horn, electric	✓	
Implement hydraulic lockout	✓	
Instrumentation, gauges: diesel exhaust fluid (DEF) level (U.S. EPA Tier 4 Final/ EU Stage V), engine coolant temperature, fuel level, hydraulic oil temperature, speedometer/tachometer, torque converter temperature	✓	
Instrumentation, warning indicators: action alert system – three categories, brake oil pressure, electrical system – low voltage, engine failure malfunction alert and action lamp, parking brake status	✓	
Light, cab, dome	✓	
Lunchbox and beverage holders	✓	
Power port (12V) for mobile phone or laptop connection	✓	
Radio, AM/FM/AUX/USB/Bluetooth®		✓
Radio, CB ready	✓	
Rubber mounted, laminated, tinted glass	✓	
Seat, premium plus containing forced air heating and cooling, two-way thigh adjustment, power lumbar and back bolster adjustment, ride stiffness adjustment, dynamic end dampening, and leather finish	✓	

	Standard	Optional
OPERATOR ENVIRONMENT (CONTINUED)		
Slope Indicate	✓	
Sun visor, front	✓	
Transmission gear (indicator)	✓	
Vital Information Management System (VIMS™): graphical information display, external data port, customizable operator profiles	✓	
Wet-arm wipers/washers (front and rear): intermittent wipers (front and rear)	✓	
POWERTRAIN		
Air-to-air aftercooler	✓	
Auto shift	✓	
Brakes, full hydraulic, enclosed, wet multiple disc service brakes	✓	
Cat Clean Emissions Module (Tier 4 Final/ Stage V)	✓	
Electro-hydraulic parking brake	✓	
Electronic Clutch Pressure Control (ECPC)	✓	
Engine, Cat C15 emitting equivalent to U.S. EPA Tier 3/EU Stage IIIA or meets Tier 4 Final/Stage V emission standards	✓	
Fuel priming pump (electric)	✓	
Fuel-to-air cooler	✓	
Integrated braking system	✓	
Muffler (under hood) (Tier 3/Stage IIIA)	✓	
No-spin rear axle		✓
Radiator, Aluminum Modular (AMR)	✓	
Separated cooling system	✓	
Single Clutch Speed Shifting (SCSS)	✓	
Steering, secondary	✓	
Throttle lock	✓	
Torque converter with lock-up clutch	✓	
Transmission, planetary powershift (4F/4R) speed range control	✓	
EFFICIENCY		
Demand fan – hydraulically driven	✓	

(continued on next page)

Standard and Optional Equipment (continued)

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

	Standard	Optional
COLD WEATHER		
Antifreeze, -50°C (-58°F)		✓
Antifreeze, premixed 50% concentration extended life (-34°C/-29°F)	✓	
Arctic hydraulic oil		✓
Heater, engine coolant (120V)		✓
Heater, engine coolant (240V)		✓
Mirrors, heated	✓	
Starting aid (ether), automatic	✓	
SAFETY		
Alarm, back-up	✓	
Cat Detect: object detection (ready)	✓	
Camera, rear vision	✓	
Emergency platform egress	✓	
Light, warning switched (LED strobe)	✓	
Lighting, access stairway	✓	
Mirror, internal (panoramic)	✓	
Mirrors, rearview (externally mounted)	✓	
Seat belt with minder, retractable, 76 mm (3 in) wide	✓	
Stairway, left and right rear access	✓	
Steering and Transmission Integrated Control (STIC™) system with lockout	✓	
Toe kicks	✓	
SERVICE		
Auxiliary start receptacle	✓	
Doors, service access (locking)	✓	
Dual stage engine precleaner		✓
Ecology drains for engine, radiator, transmission, hydraulic tank	✓	

	Standard	Optional
SERVICE (CONTINUED)		
Engine, crankcase 500-hour interval with CJ-4 oil	✓	
Engine precleaner	✓	
Fast fill fuel tank		✓
Fire suppression ready	✓	
Ground-level engine shutdown switch	✓	
Ground-level lockable master disconnect switch	✓	
Lighting, underhood	✓	
Oil change system, high speed	✓	
Oil sampling valves	✓	
Product Link™	✓	
Tire presssure monitoring system		✓
Total hydraulic filtration system	✓	
SOUND		
Sound suppression		✓
OTHER		
Counterweight, front		✓
DEF injector phase change tank	✓	
Fold down exhaust stack for shipping	✓	
Fuel tank, 782 L (207 gal)	✓	
Fenders, standard	✓	
Fenders, roading		✓
Guard, driveshaft	✓	
Guards, crankcase and powertrain	✓	
Hitch, drawbar with pin	✓	
Hoses, Cat XT™	✓	
Hydraulic, engine, and transmission oil coolers	✓	
Vandalism protection caplocks	✓	
Venturi stack	✓	

824 Environmental Declaration

The following information applies to the machine at the time of final manufacture as configured for sale in the regions covered in this document. The content of this declaration is valid as of the date issued; however, content related to machine features and specifications are subject to change without notice. For additional information, please see the machine's Operation and Maintenance Manual.

For more information on sustainability in action and our progress, please visit https://www.caterpillar.com/en/company/sustainability.

Engine

- The Cat® C15 engine is available in two engine emission configurations. One meets U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V, and Japan 2014 emissions standards. The other meets Brazil MAR-1 emission standards, emitting equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Cat U.S. EPA Tier 4 Final, EU Stage V, Korea Stage V, and Japan 2014 diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) and are compatible* with ULSD blended with the following lower-carbon intensity fuels** up to:
  - ✓ 20% biodiesel FAME (fatty acid methyl ester)***
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels
- Cat engines meeting Brazil MAR-1 emission standards, emitting equivalent to U.S. EPA Tier 3 and EU Stage IIIA, are compatible with diesel fuel blended with the following lower-carbon intensity fuels up to:
  - ✓ 100% biodiesel FAME (fatty acid methyl ester)****
  - ✓ 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels

  Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

** While Caterpillar engines are compatible with these alternative fuels, some regions may not allow their use.*

*** Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.*

**** Engines with no aftertreatment devices are compatible with higher blends, up to 100% biodiesel.*

***** For use of blends higher than 20% biodiesel, consult your Cat dealer.*

Air Conditioning System

- The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf. See the label or instruction manual for identification of the gas.
- If equipped with R134a (Global Warming Potential = 1430), the system contains 2.0 kg of refrigerant which has a CO_2 equivalent of 2.86 metric tonnes (3.15 tons).

Paint

- Based on best available knowledge, the maximum allowable concentrations, measured in parts per million (PPM), of the following "heavy metals" measured by U.S. Environmental Protection Agency's (EPA) Toxicity Characterization Leaching Procedure, DFR 40, Part 261, Appendix 2, Method 1311 (TCLP), are as follows:
  - – Barium < 100 PPM
  - – Cadmium < 1 PPM
  - – Chromium < 5 PPM
  - – Lead < 5 PPM

Sound Performance

Tier 4 Final/Stage V	
Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Machine Sound Power Level (ISO 6395:2008)	113 dB(A)
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)*
Machine Sound Power Level (ISO 6395:2008)	110 dB(A)**
Tier 3/Stage IIIA	
Operator Sound Pressure Level (ISO 6396:2008)	73 dB(A)
Machine Sound Power Level (ISO 6395:2008)	113 dB(A)
Operator Sound Pressure Level (ISO 6396:2008)	72 dB(A)*
Machine Sound Power Level (ISO 6395:2008)	110 dB(A)**

* For machines in European Union countries and in countries that adopt the "EU Directives" and "UK Directives"

** European Union Directive "2000/14/EC" and UK Noise Regulation 2001 No. 1701

- The machine sound power level was measured according to ISO 6395:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
- The operator sound pressure level was measured according to ISO 6396:2008. The measurement was conducted at 70% of the maximum engine cooling fan speed.
- Hearing protection may be needed when the machine is operated with a cab that is not properly maintained or when the doors or windows are open for extended periods or in a noisy environment.

Oils and Fluids

- Caterpillar factory fills with ethylene glycol coolants. Cat Diesel Engine Antifreeze/Coolant (DEAC) and Cat Extended Life Coolant (ELC) can be recycled. Consult your Cat dealer for more information.
- Additional fluids are likely to be present, please consult the Operations and Maintenance Manual or the Application and Installation guide for complete fluid recommendations and maintenance intervals.

Features and Technology

- The following features and technology may contribute to fuel savings and/or carbon reduction. Features may vary. Consult your Cat dealer for details.
  - – Engine idle management system and auto engine idle shutdown reduce idle rpm and maximize fuel efficiency
  - – Autoshift mode to automatically upshift or downshift based on machine speed, optimizing performance, and conserving fuel
  - – Load sensing hydraulic steering system enables precise machine control for easier loading
  - – Extended maintenance intervals reduce fluid and filter consumption
  - – Cat torque converter with lock-up clutch improves travel speeds, optimizes fuel efficiency, and eliminates torque converter losses, while lowering system heat



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AEXQ4736-00 (08-2026)
Build Number: 11B
(Global)

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com.**

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Cat dealer for available options.

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