

# 824K

## Wheel Dozer



### Lower your operating cost with industry leading efficiency.

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.

The 824K continues our legacy of reliability, performance, safety, operator comfort, serviceability, and efficiency.

#### Engine

Engine Model	Cat C15 ACERT™	
Emissions	U.S. EPA Tier 4 Final/ EU Stage IV Final or U.S. EPA Tier 3/ EU Stage IIIA equivalent	
Rated Power (Net SAE J1349)	302 kW	405 hp
Rated Power (Net ISO 9249)	302 kW	405 hp
Gross Power	324 kW	435 hp
Net Power		
Direct Drive – Gross Power	307 kW	412 hp
Direct Drive – Torque Rise	33%	
Converter Drive – Gross Power	324 kW	435 hp
Converter Drive – Torque Rise	8.5%	
Maximum Net Torque @ 1,300 rpm	2005 N·m	1,478.8 lbf·ft
Maximum Altitude without Derating (Tier 4 Final/Stage IV equivalent)	2834 m	9,298 ft
Maximum Altitude without Derating (Tier 3 Final/Stage IIIA equivalent)	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 <sup>3</sup>
High Idle Speed	2,300 rpm	
Low Idle Speed	800 rpm	

#### Operating Specifications

Maximum Operating Weight – Multiple Blade		
Straight Blade (Tier 4 Final/Stage IV equivalent)	34 004 kg	74,966 lb
Straight Blade (Tier 3 Final/Stage IIIA equivalent)	33 558 kg	73,983 lb

#### Transmission

Transmission Type	Planetary – Powershift – ECPC	
Travel Speeds		
Forward 1	6.2 km/h	3.9 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	7.1 km/h	4.4 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



# 824K Wheel Dozer Specifications

## Hydraulic System

Pump Flow at 1,800 rpm	117 L/min	30.9 gal/min
Main Relief Pressure	24 100 kPa	3,495 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

## 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 Tank (Tier 4 Final/Stage IV equivalent)	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

- All non-road U.S. EPA Tier 4 Final, EU Stage IV, and Japan 2014 (Tier 4 Final) 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.
  - Diesel Exhaust Fluid (DEF) that meets all requirements defined in ISO 22241-1.

## Axles

Front	Planetary – Fixed
Rear	Planetary – Oscillating
Oscillation Angle	±11°

## Brakes

Parking Brake	Drum and Shoe, Spring Applied, Hydraulic Released
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## Cab

	Standard	Suppression
Operator Sound Level (ISO 6396)	73 dB(A)	72 dB(A)
Machine Sound Level (ISO 6395)	113 dB(A)	110 dB(A)

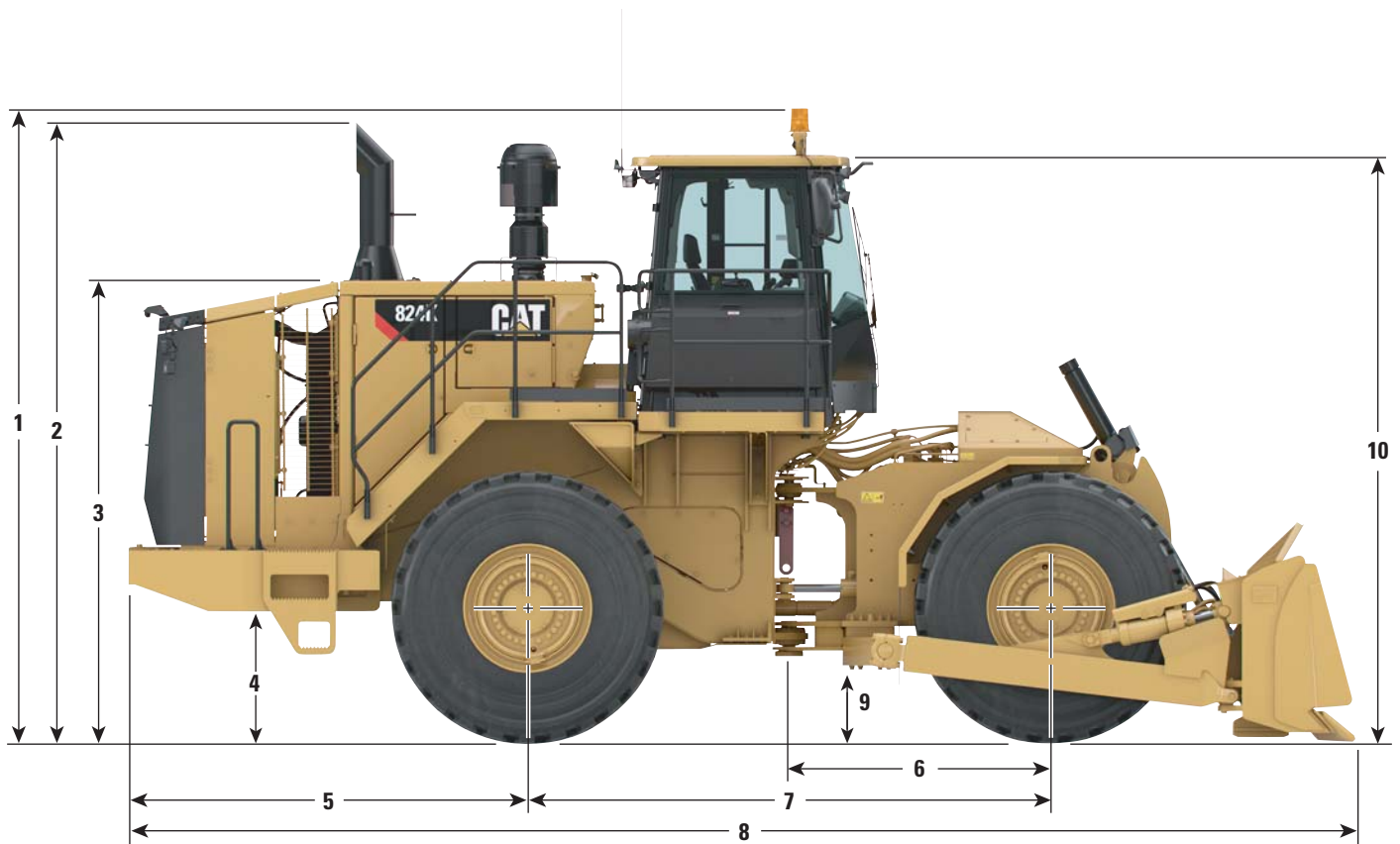
## Hydraulic System – Steering

Steering System – Circuit	Double Acting – End Mounted	
Bore	114.3 mm	4.5 in
Stroke	576 mm	22.7 in
Steering System – Pump	Piston – Variable Displacement	
Maximum System Flow	170 L/min @ 1,800 rpm	44.9 gal/min @ 1,800 rpm
Steering Pressure Limited	24 000 kPa	3,481 psi
Vehicle Articulation Angle	86 degrees	

# 824K Wheel Dozer Specifications

## Dimensions

All dimensions are approximate.



<b>1</b> Height to Top of Beacon	4422 mm	14 ft 6.1 in
<b>2</b> Height to Top of Exhaust Stack	4332 mm	14 ft 2.6 in
<b>3</b> Height to Top of Hood	3204 mm	10 ft 6.1 in
<b>4</b> Ground Clearance to Bumper	852 mm	2 ft 9.5 in
<b>5</b> Center Line of Rear Axle to Edge of Bumper	2830 mm	9 ft 3.4 in
<b>6</b> Center Line of Front Axle to Hitch	1850 mm	6 ft 0.8 in
<b>7</b> Wheelbase	3700 mm	12 ft 2 in
<b>8</b> Length with Blade on Ground (straight blade)	8422 mm	27 ft 7.6 in
<b>9</b> Ground Clearance	441.4 mm	1 ft 5.4 in
<b>10</b> Height to Top of Cab	4100 mm	13 ft 5.4 in
Width Over Wheels	3365 mm	11 ft 0.5 in

# 824K Wheel Dozer Specifications

## Blade Selection

	<b>Capacity</b>	<b>Width Over End Bits</b>	<b>Height</b>	<b>Dig Depth</b>	<b>Ground Clearance</b>	<b>Maximum Tilt</b>	<b>Turning Radius – Outside Corner of Blade</b>	<b>Turning Radius – Inside Corner of Blade</b>
Straight	5.0 m <sup>3</sup> (6.6 yd <sup>3</sup> )	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)	6002 mm (19 ft 8.3 in)	1892 mm (6 ft 2.5 in)
Straight Push Plate	5.0 m <sup>3</sup> (6.6 yd <sup>3</sup> )	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)	6002 mm (19 ft 8.3 in)	1892 mm (6 ft 2.5 in)
Semi-Universal	7.7 m <sup>3</sup> (10.0 yd <sup>3</sup> )	4421 mm (174.1 in)	1551 mm (61.1 in)	477 mm (18.8 in)	1068 mm (42 in)	1120 mm (44.1 in)	6051 mm (19 ft 10.2 in)	1777 mm (5 ft 10 in)
Universal	7.7 m <sup>3</sup> (10.0 yd <sup>3</sup> )	4352 mm (171.3 in)	1350 mm (53.1 in)	461 mm (18.1 in)	1051 mm (41.4 in)	1132 mm (44.6 in)	6104 mm (20 ft 0.3 in)	1828 mm (6 ft 0 in)
Coal	16.2 m <sup>3</sup> (21.2 yd <sup>3</sup> )	4798 mm (189 in)	1745 mm (68.7 in)	472 mm (18.6 in)	1072 mm (42.2 in)	1242 mm (48.9 in)	6408 mm (21 ft 0.3 in)	1819 mm (15 ft 11.6 in)
Extended Wear	8.1 m <sup>3</sup> (10.6 yd <sup>3</sup> )	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)	6104 mm (20 ft 0.3 in)	1638 mm (5 ft 5 in)

## Standard Equipment

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

### POWER TRAIN

- Air to air aftercooler
- Auto shift
- Brakes, full hydraulic, enclosed, wet multiple disc service brakes
- Cat clean emission module (Tier 4 Final/Stage IV equivalent)
- Electro-hydraulic parking brake
- Electronic Clutch Pressure Control (ECPC)
- Engine, Cat C15 with ACERT Technology
  - U.S. EPA Tier 4 Final/EU Stage IV equivalent
  - U.S. EPA Tier 3/EU Stage IIIA equivalent
- Fuel priming pump (electric)
- Fuel to air cooler
- Ground level engine shutoff
- Hydraulically driven demand fan
- Integrated braking system
- Muffler (under hood) (Tier 3/Stage IIIA equivalent)
- Radiator, Aluminum Modular (AMR)
- Separated cooling system
- Single Clutch Speed Shifting (SCSS)
- Starting aid (ether) automatic
- Throttle lock
- Torque converter with Lock Up Clutch (LUC)
- Transmission, planetary, with 4F/4R speed range control

### ELECTRICAL

- Alarm, back-up
- Alternator, 150 amp
- Batteries, maintenance-free (4 – 1,000 CCA)
- Electrical system, 24V
- Ground level lockable master disconnect switch
- Light, warning switched (LED strobe)
- Lighting, access stairway
- Lighting system, halogen (front and rear)
- Lights, directional (rear)
- Starter, electric (heavy duty)
- Starting receptacle for emergency start

### OPERATOR ENVIRONMENT

- 12V power port for mobile phone or laptop connection
- Air conditioner
- Cab, sound-suppressed pressurized
- Cab door, sliding window (LH)
- Cab Integrated Object Detection System (CIODS) ready
- Coat and hard hat hooks
- Electro-hydraulic tilt and lift controls
- Finger tip shifting controls
- Flip-up armrest
- Heater and defroster
- Horn, electric
- Implement hydraulic lockout
- Instrumentation, gauges
  - DEF fluid level (Tier 4 Final/Stage IV)
  - 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
- Laminated glass
- Light, (dome) cab
- Lunch box and beverage holders
- Internal four-post rollover protective structure (ROPS/FOPS)
- Mirror, internal (panoramic)
- Mirrors, heated ready
- Mirrors, rearview (externally mounted)
- Radio ready for entertainment
  - Antenna
  - Speakers
  - Converter (12V, 10-15 amp)
- Seat, Cat Comfort (cloth) air suspension
- Seat belt with minder, retractable, 76 mm (3 in) wide
- STIC control system with lockout
- Sun visor, front

- Tinted glass
- 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)

### GUARDS

- Guard, driveshaft
- Guards, crankcase and power train

### FLUIDS

- Antifreeze, premixed 50% concentration extended life (–34° C/–29° F)

### OTHER STANDARD EQUIPMENT

- Doors, service access (locking)
- Ecology drains for engine, radiator, transmission, hydraulic tank
- Emergency platform egress
- Engine, crankcase, 500 hour interval with CJ-4 oil
- Engine idle management features
  - Auto idle kickdown
  - Delayed engine shutdown
  - Engine idle shutdown
- Fire suppression ready
- Fold down exhaust stack for shipping
- Fuel tank, 782 L (207 gal)
- Hitch, drawbar with pin
- Hoses, Cat XT
- Hydraulic, engine, and transmission oil coolers
- Oil change system, high speed
- Oil sampling valves
- Product Link
- Secondary steering
- Stairway, left and right rear access
- Steering, load sensing
- Toe kicks
- Total hydraulic filtration system
- Vandalism protection caplocks
- Venturi stack

# 824K Wheel Dozer Standard Attachments

## Standard Attachments

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

### FUEL SYSTEMS

- Fuel Tank
  - Standard or fast fill

### HYDRAULICS

- Hydraulics
  - Standard or EU and Canada

### OPERATOR ENVIRONMENT

- Glass (window)
  - Standard bonded or rubber-mounted glass
- Precleaner – cab
  - Standard or powered

### POWER TRAIN

- Axles
  - Standard front and rear or standard front/no-spin rear

### SPECIAL ARRANGEMENTS

- Engine
  - Sound suppression
- Engine Precleaners
  - Turbine or dual stage

### TECHNOLOGY PRODUCTS

- Product Link
  - Cellular, satellite

### TIRES, RIMS, AND WHEELS

- Tires
  - Michelin, Bridgestone, rims only

### OTHER ATTACHMENTS

- Fenders
  - Standard or roading
- Bulldozer Assemblies
  - Standard or extended wear
- Fluids – Hydraulic Oil
  - Standard or arctic

# 824K Wheel Dozer Optional Equipment

## Optional Equipment

Optional equipment may vary. Some options may be included/excluded in arrangement packages. Consult your Cat dealer for details.

### OPERATOR ENVIRONMENT

- Camera, rear vision
- Radio, AM/FM/AUX/USB/BLUETOOTH
- Radio, CB (ready)

### STARTING AIDS

- Heater, engine coolant, 120V
- Heater, engine coolant, 240V

### BLADES

- Blade, Straight
- Blade, Straight with Push Plate
- Blade, Semi-U
- Blade, U
- Blade, Extended Wear U
- Blade, Coal U

### FLUIDS

- Antifreeze,  $-50^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$ )

### OTHER ATTACHMENTS

- Counterweight, Front
- Tire Pressure Monitoring System

### MISCELLANEOUS

- Film (ANSI)  
(Tier 4 Final/Stage IV equivalent)
- EU certification  
(Tier 4 Final/Stage IV equivalent)
- Plate – year of manufacture  
(Tier 3/Stage IIIA equivalent)

# 824K Wheel Dozer

Materials and specifications are subject to change without notice.

AEHQ7306

Featured machines in photos may include additional equipment.

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For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com).

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