



854

Wheel Dozer

Technical Specifications

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

Table of Contents

Specifications	2
Engine	2
Operating Specifications	2
Transmission	2
Hydraulic System – Lift/Tilt	2
Hydraulic System – Steering	2
Service Refill Capacities	3
Air Conditioning System	3
Axles	3
Brakes	3
Sound Performance	3
Cab	3
Dimensions	4
Blade Specifications	5
Standard and Optional Equipment	6
854 Environmental Declaration	8

854 Wheel Dozer Specifications

Engine

Engine Model	Cat® C32B	
Rated Speed	1,750 rpm	
Emissions	U.S. EPA Tier 4 Final	
Gross Power – SAE J1995:2014	671 kW	900 hp
Net Power ISO – 9249:2007	607 kW	814 hp
Emissions	Tier 2 Equivalent	
Gross Power – SAE J1995:2014	676 kW	907 hp
Net Power ISO – 9249:2007	614 kW	823 hp
Bore	145 mm	5.7 in
Stroke	162 mm	6.4 in
Displacement	32.1 L	1,958 in ³
Peak Torque @ 1,200 rpm	4242 N·m	3,139 lbf-ft
Torque Rise	30%	

- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Net torque rise meets SAE J139.
- No engine derating required up to 3050 m (10,000 ft) altitude.

Operating Specifications

Operating Weight	101 898 kg	224,647 lb
Blade Capacities	30.5 to 44.8 m ³ 40 to 58.6 yd ³	

Transmission

Transmission Type	Cat planetary power shift	
Converter Drive Forward 1	7.1 km/h	4.4 mph
Converter Drive Forward 2	12.4 km/h	7.7 mph
Converter Drive Forward 3	21.2 km/h	13.2 mph
Converter Drive Reverse 1	7.7 km/h	4.8 mph
Converter Drive Reverse 2	13.5 km/h	8.4 mph
Converter Drive Reverse 3	23.5 km/h	14.6 mph
Direct Drive Forward 1	Lock-up disabled	
Direct Drive Forward 2	13.0 km/h	8.1 mph
Direct Drive Forward 3	22.8 km/h	14.2 mph
Direct Drive Reverse 1	8.0 km/h	5.0 mph
Direct Drive Reverse 2	14.3 km/h	8.9 mph
Direct Drive Reverse 3	25.1 km/h	15.6 mph

- Travel speeds based on 45/65-45 L-5 46 ply tires.

Hydraulic System – Lift/Tilt

Output at 1,850 rpm and 6900 kPa (1,000 psi)	610 L/min	161 gal/min
Cylinder, Double-acting: Lift, Bore and Stroke	177 mm × 1760 mm	0.58 ft × 5.8 ft
Cylinder, Double-acting: Tilt and Tip, Bore and Stroke	267 mm × 286 mm	0.88 ft × 0.94 ft
Relief Valve Setting – Bulldozer (Large Pump)	22 675 kPa	3,289 psi
Relief Valve Setting – Tilt Cylinders (Small Pump)	24 560 kPa	3,560 psi

Hydraulic System – Steering

Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Piston, variable displacement	
Minimum Turning Radius (over blade)	9550 mm	31 ft
Total Steering Angle	86 degrees	
Maximum Flow		
Relief Valve Setting	34 500 kPa	5,004 psi

Service Refill Capacities

Fuel Tank – Standard	1562 L	413 gal
Cooling System	200 L	53 gal
Crankcase	120 L	32 gal
Transmission	169 L	45 gal
Differentials and Final Drives – Front	369 L	98 gal
Differentials and Final Drives – Rear	342 L	90 gal
Hydraulic System – Implement and Brakes (tank only)	261 L	68.9 gal
Hydraulic System – Steering and Engine Cooling Fan (tank only)	290 L	77 gal

- All nonroad U.S. EPA Tier 4, European Union (EU) Stage IIIB and V, and Japan (MLIT) Step 4 diesel engines are required to use only Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfur or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfur or less ULSD. B20 should meet ASTM D7467 specification (biodiesel blend stock should meet Cat biodiesel spec, ASTM D6751 or EN 14214. Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. For further fluid specifications and guidelines, visit: <http://parts.cat.com/cdal/files/3244668/7/SEBU6250-19.pdf>.

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg of refrigerant which has a CO₂ equivalent of 2.574 metric tonnes.

Axles

Front	Fixed
Rear	Trunnion
Oscillation Angle	±10 degrees

Brakes

Brakes	Meets ISO 3540:2011
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Sound Performance

	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	71 dB(A)	70 dB(A)
Machine Sound Level (ISO 6395:2008)	116 dB(A)	113 dB(A)

- The machine sound power level was measured according to ISO 6395:2008. The measurement was conducted at 70 percent 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 percent 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.

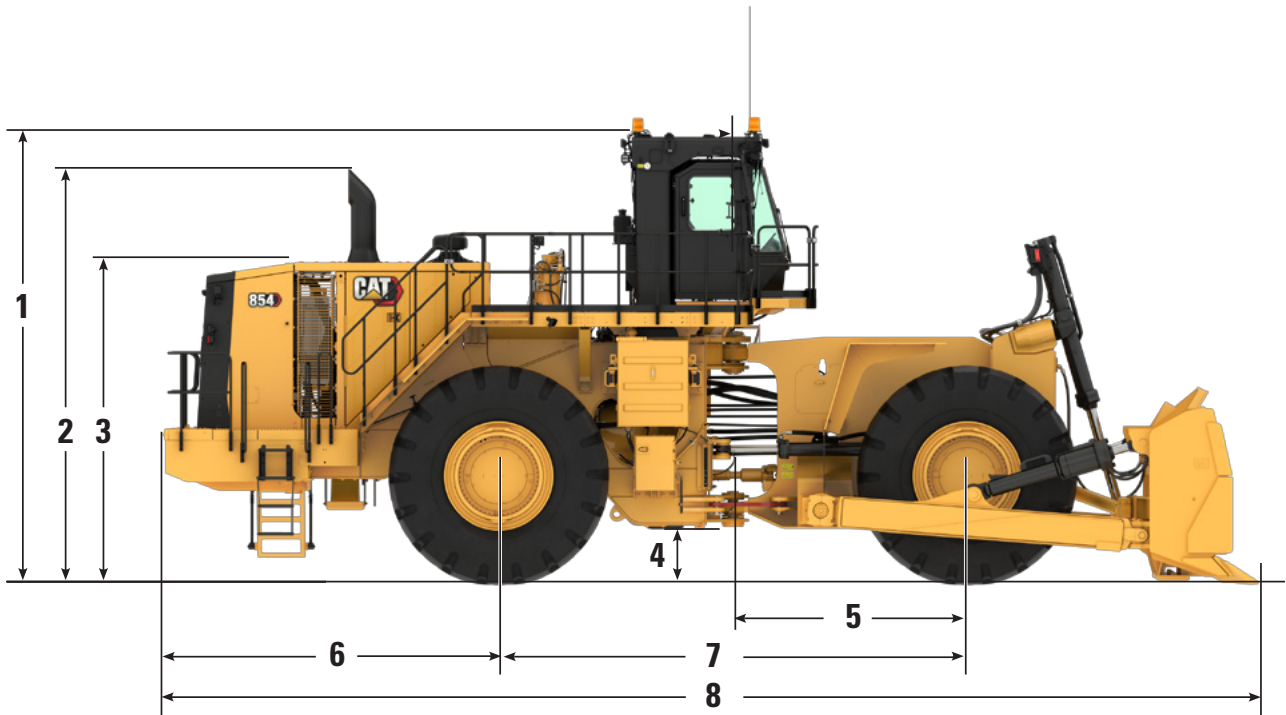
Cab

Rollover Protective Structure (ROPS)/ Falling Object Protective Structure (FOPS)	ISO 3471:2008 and ISO 3449:2005 Level II Standards
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854 Wheel Dozer Specifications

Dimensions

All dimensions are approximate.



1	Height to Top of ROPS	5590 mm	18 ft 3 in
2	Height to Top of Exhaust Pipe	5234 mm	17 ft 2 in
3	Height to Top of Hood	3984 mm	13 ft 0 in
4	Ground Clearance	691 mm	27 in
5	Center Line of Front Axle to Hitch	2945 mm	9 ft 8 in
6	Center Line of Rear Axle to Edge of Bumper	4195 mm	13 ft 9 in
7	Wheelbase	5890 mm	19 ft 3 in
8	Length with Blade on Ground	13 405 mm	44 ft 0 in

854 Wheel Dozer Specifications

Blade Specifications

Blade Type	Capacity	Overall Width	Height	Digging Depth	Ground Clearance	Maximum Tilt	Weight	Total Operating Weight
Semi-U	30.5 m ³ 40 yd ³	6321 mm 20.7 ft	2179 mm 7.1 ft	398 mm 1.3 ft	1540 mm 5.1 ft	1165 mm 3.8 ft	10 161 kg 22,400 lb	101 720 kg 224,239 lb
Heavy-duty Semi-U	30.5 m ³ 40 yd ³	6321 mm 20.7 ft	2179 mm 7.1 ft	398 mm 1.3 ft	1540 mm 5.1 ft	1165 mm 3.8 ft	10 750 kg 23,698 lb	102 309 kg 225,538 lb
Coal	44.8 m ³ 58.6 yd ³	7200 mm 23.6 ft	2500 mm 8.2 ft	398 mm 1.3 ft	1540 mm 5.1 ft	1706 mm 5.6 ft	10 333 kg 13,830 lb	101 892 kg 224,619 lb

854 Wheel Dozer Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
ELECTRICAL AND LIGHTING			OPERATOR ENVIRONMENT		
Alternator, 150 amp	✓		Advisor display, displays real time operating information, performs calibrations and customizes operator setting	✓	
Batteries, maintenance free (4 – 1,400 CCA)	✓		Air conditioner and heater with automatic temperature control	✓	
Battery disconnect and jump start receptacle, bumper	✓		Air precleaner, powered	✓	
Deutsch terminal connectors	✓		Cab, sound-suppressed pressurized, separate external rollover protective structure (ROPS/FOPS)	✓	
Electrical system, 24V	✓		Cigar lighter and ashtray	✓	
Electronic transmission control	✓		Coat hook	✓	
Lighting system, halogen (front and rear) lighting, access stairway, engine compartment	✓		Converter (12V, 10-15 amp) and power port	✓	
Lights, HID		✓	Digital display on center console: gear, ground speed, machine hours	✓	
Lights, LED		✓	Electro-hydraulic blade controls, joystick	✓	
Product Link (Cellular)		✓	Heater and defroster	✓	
Product Link (Satellite)		✓	Horn, electric	✓	
Starter lockout in bumper	✓		Instrumentation, gauges: engine coolant temperature, fuel level, hydraulic oil temperature, powertrain oil temperature, tachometer	✓	
Starting and charging system, 24V	✓		Instrumentation, warning indicators: action alert system – three categories, automatic transmission model enable status, brake malfunction, bucket float status, delayed engine shutdown status, engine idle shutdown status, engine malfunction, fuel economy mode enable status, hydraulic lockout, lockup clutch enable status, low fuel level, parking brake status, rimpull control enable status, seat belt warning, secondary steering (if equipped), throttle lock status, transmission gear	✓	
Transmission lockout in bumper	✓		Light, cab, dome	✓	
POWERTRAIN			Lunchbox and beverage holders	✓	
Brakes, oil cooled, multi-disc, service/secondary	✓		Premium seat with heated and actively cooled leather, adjustable lumbar support, air adjustable bolsters on the seat and backrest, seat cushion tilt adjustment, and adjustable-length seat cushion	✓	
Driveline parking brake	✓		Radio, AM/FM with Bluetooth®, USB Port, 3.5 mm (0.14 in) auxiliary (AUX) input	✓	
Engine brake		✓	Radio, Sirius XM/AM/FM radio with Bluetooth technology, USB Port, 3.5 mm (0.14 in) AUX input		✓
Engine, Cat C32B	✓		Rubber mounted cab glass		✓
Fuel priming pump (electric)	✓		Tinted glass	✓	
Ground level engine shutoff	✓		Wet-arm wipers/washers (front, rear, and corner) – intermittent front wiper	✓	
No spin rear axle		✓	Window sun screen		✓
Axle oil coolers (front and rear)	✓				
Pre-cleaner, engine air intake (above hood)	✓				
Pre-cleaner, raised		✓			
Radiator, Aluminum Modular (AMR)	✓				
Starting aid, (ether) automatic	✓				
Throttle lock electronic	✓				
Torque converter, impeller clutch with lock-up clutch (ICTC) and rimpull control system	✓				
Transmission, 534 mm (21 in) planetary power shift (electronic) (3F/3R)	✓				

854 Wheel Dozer Standard and Optional Equipment

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
SAFETY			BLADES		
Alarm, back-up	✓		Semi-U, 30.5 m ³ (40 yd ³)		✓
Camera, rear vision	✓		HD Semi-U, 30.5 m ³ (40 yd ³)		
Egress, powered rear access		✓	Coal, 44.8 m ³ (58.6 yd ³)		
Emergency platform egress	✓		Paint, black blade rear		✓
Implement lock out switch	✓		COOLING		
LED warning strobe	✓		Standard ambient package (recommended for site conditions that do not exceed 43° C [110° F])	✓	
Mirrors, rearview (externally mounted)	✓		High ambient cooling system (recommended for ambient temperatures up to 50° C [122° F] for EPA Tier 4 Final emissions certified machines and 55 C [131 F] for EPA Tier 2 equivalent machines)		✓
Object detection (radar)		✓	COLD WEATHER		
Seat belt, retractable, 76 mm (3 in) wide	✓		Antifreeze, -50° C (-58° F)		✓
Separate external protective structure (ROPS/FOPS)	✓		120V or 240V coolant heating elements (recommended in conditions from -18° C to -30° C [0° F to -22° F])		✓
Stairway, left and right rear access	✓		Fuel heater (heated by recirculation using engine heat and a heat exchanger) (recommended in conditions from -18° C to -30° C [0° F to -22° F])		✓
Steering and transmission lock lever, cab	✓		-40° C (-40° F) Hydraulic Oil, Arctic		✓
Steering, secondary	✓		Heater Mirrors		✓
Seat, trainer with lap belt, 76 mm (3 in) wide	✓		Heated Seat	✓	
Toe kicks	✓		EFFICIENCY		
Wheel Chocks		✓	Economy mode with on-demand throttle	✓	
SERVICE			Positive Flow Control implement system	✓	
Automatic Lubrication System greases the hitch, steering, and axle trunnion bearings	✓		Impeller Clutch Torque Converter (ICTC) with lock-up clutch	✓	
Axle ecology drains	✓		Load-sensing steering	✓	
Battery disconnect and jump start receptacle, bumper	✓		Soft detent controls	✓	
Case drain filters	✓		Engine idle management features: auto idle kickdown, delayed engine shutdown, engine idle shutdown	✓	
Coupling, Cat O-ring face seals	✓		MACHINE CONTROL AND GUIDANCE		
Engine, crankcase, 500 hour interval with CH4	✓		Cat Terrain ready		✓
Front walkway around cab	✓		TIRES AND RIMS		
Guards, crankcase and power train	✓		Tires 45/65R45		✓
Ground-level fast fill fuel system	✓		Tires 45/65-45		✓
Ground-level service center with Electronic Technician (ET) port, fast fill fluid ports, ecology drains	✓		Rims only		✓
Grouped/Labeled lube points	✓		TRAMMING		
High pressure hydraulic oil screen		✓	Front Fenders	✓	
Hitch, drawbar with pin	✓		Fender extensions, roading, front and rear		✓
Hoses, Cat XT™	✓		SOUND SUPPRESSION		
Oil sampling valves	✓		Sound-suppression package		✓
Product Link™		✓			
Starter and Transmission lockouts in bumper	✓				
Sight gauges for steering, implement and transmission oil	✓				
Tire pressure monitoring		✓			
Vital Information Management System (VIMST™) 3G with graphical information display: external data port, customizable operator profiles	✓				

854 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.html>.

Engine

- The Cat® C32B engine is available in configurations that meet U.S. EPA Tier 4 Final emission standards or equivalent to U.S. EPA Tier 2.
- Cat U.S. EPA Tier 4 Final diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or 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 equivalent to U.S. EPA Tier 2, 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.

* Engines with no aftertreatment devices can use higher blends, up to 35% biodiesel where mandated.

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

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

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.8 kg (3.9 lb) of refrigerant, which has a CO₂ equivalent of 2.574 metric tonnes (2.837 tons).

Paint

- Based on best available knowledge, the maximum allowable concentration, measured in parts per million (PPM), of the following heavy metals in paint are:
 - Barium < 0.01%
 - Cadmium < 0.01%
 - Chromium < 0.01%
 - Lead < 0.01%

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.
- Cat Bio HYDO™ Advanced is an EU Ecolabel approved biodegradable hydraulic oil.
- 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 reduces 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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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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