

# 814

## WHEEL DOZER



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<b>Engine Power</b>	205 kW (275 hp)
<b>Operating Weight</b>	22 011 kg (48,526 lb)

Meets U.S. EPA Tier 4 Final and EU Stage V or meets Brazil MAR-1 and China Nonroad Stage III emission standards, equivalent to U.S. EPA Tier 3/EU Stage IIIA.



The Cat® 814 is designed with durability built in, ensuring maximum availability through multiple life cycles. With optimized performance and simplified serviceability, the 814 allows you to support your jobsite efficiently and safely while lowering owning and operating costs.

# THE NEW CAT® 814

MOBILE. AGILE. VERSATILE.



## LOWERING YOUR COSTS WITH EFFICIENCY AND DURABILITY

The new Cat 814 Wheel Dozer delivers sustained efficiency, enhanced durability, and greater safety.

- + THE CAT C7.1 ENGINE, NEW HYDRAULIC SENSORS, AND ADVANCED IDLING CONTROLS INCREASE EFFICIENCY ON EVERY SITE
- + ADVANCED SAFETY FEATURES GIVE YOU PEACE OF MIND AND REDUCED RISK
- + DURABLE DESIGN ENSURES LONGER LIFE TO PROTECT YOUR INVESTMENT



**MORE POWER WITH  
LESS COST**

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## POWER TO DO MORE AT A LOWER COST

The Cat C7.1 engine delivers greater power density but is designed for maximum fuel efficiency.

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## UNMATCHED DURABILITY

Robust structures, from a full box-section frame to resilient dozer blades, ensure you'll get the most from your machine.

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## SAFER OPERATION

A rear-vision camera and other increased vision and visibility features come standard, keeping your operator fully aware and all workers safe.





**BUILT FOR**  
**SUSTAINABILITY**

## CONTINUING CONSCIOUSNESS

KEEPING  
OUR PLANET  
IN MIND



### DESIGNED FOR LOWER FUEL BURN AND REDUCED ENVIRONMENTAL IMPACT.

- + Agile maneuvering reduces cycle time.
- + Innovative engine design and advanced idling management reduce fuel burn and increase component life.
- + Maintenance-free batteries and high-speed oil changes reduce harmful waste.

# CAT LINK TECHNOLOGY

## TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

Cat Link telematics technology helps take the complexity out of managing your jobsites by gathering data generated by your equipment, materials, and people and serving it up to you in customizable formats.



### **PRODUCT LINK™**

Product Link collects data automatically and accurately from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.



### **VITAL INFORMATION MANAGEMENT SYSTEM (VIMS™)**

Proactively manage machine health and production. This user-friendly interface monitor is available in the cabin and allows operators to monitor real-time machine performance and operating data. Access diagnostics, prognostic trends, and production information such as payload, haul cycle times, segment times, and fuel usage.

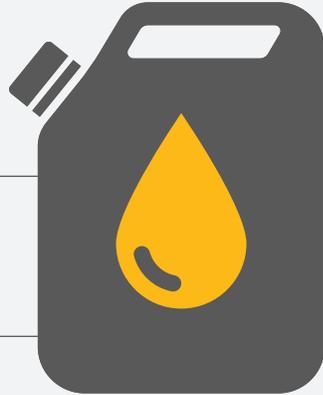


### **CAT TECHNOLOGIES**

Cat technologies give you the edge you need to improve machine and operator efficiency while working safer.

# ALL SYSTEMS GO

WORKING  
IN SYNC  
TO LOWER  
**FUEL  
CONSUMPTION**



SYSTEM INTEGRATION IS KEY  
TO PROMOTING EFFICIENCY

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## WHOLE-SYSTEM APPROACH

Deep system integration among engine and emissions, power train, hydraulic, and cooling systems results in lower fuel consumption on average compared to the previous model.

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## THE CAT C7.1 ENGINE

Innovative systems (including new electronics, fuel injection, and air management) effectively lower the average working engine speed and reduce overall heat loads for improved performance and fuel burn.

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## REDUCE IDLING

Engine Idle Shutdown and Auto Idle Kickdown control systems eliminate unnecessary idling, further reducing fuel burn.



MOVE MORE WITH LESS FUEL

**INCREASED EFFICIENCY**



DO MORE WITH  
**GREATER AGILITY**

The 814's design is agile, allowing shorter cycle times and greater efficiency and utility.

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## **POWERFUL PUMP BOOSTING**

New variable displacement load-sensing implement and steering pumps deliver on-demand hydraulic flow instead of increasing engine speed. This results in improved fuel efficiency.

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## **SMOOTHER CYCLES**

The 814's agile design and low-effort integrated controls result in smoother, faster cycles and less operator fatigue.

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## **APECS POWERSHIFT**

The best-in-class Cat planetary powershift transmission features Advanced Productivity Electronic Control Strategy (APECS) technology for greater momentum on grades. Carrying that momentum through the shift points increases fuel savings.

# STRONG STRUCTURES THAT PROTECT YOUR INVESTMENT

# ENHANCED DURABILITY



## ROBUST CONSTRUCTION

The 814's robust structures withstand the toughest conditions and multiple life cycles to improve your bottom line.



## RESILIENT FRAME

The full box-section rear frame resists torsional shock and twisting forces, and solid through-width push beam transfers and absorbs stresses. All this gives your machine a greater long-term value.



## TOUGHER COMPONENTS

The upper hitch pin, frame plate, and bearing are larger and more durable. Optimized axle mounting adds to the structural integrity, and tougher heavy-duty steering cylinder mounts efficiently transmit steering loads into the frame.



## DESIGNED FOR DOZING

The push beam preserves your frame and is designed to match the way you work. The 814's push beam is through-width, not merely attached to the side of the frame. When corner dozing, stresses are transferred and absorbed through a larger portion of the frame, increasing the machine's durability and protecting your investment.

HIGH AWARENESS TO KEEP YOUR TEAM SAFE

# SAFETY FEATURES



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## REARVIEW CAMERA

This standard feature gives the operator a direct rear view for safe backing.

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## HIGH-VISIBILITY MIRRORS

Mirror clusters are designed for maximum visibility, providing full awareness of the operating environment. Heated mirrors are available as an option.

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## SAFER CYCLES

Cab-mounted LED beacons provide a warning for others near the machine, and the 814 is Cat Object Detection ready.

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## SAFER ENTRY/EXIT

All platforms and ladders are designed so operators constantly have three points of contact with the machine, and all feature non-slip surfaces.

## STIC™ MAKES CONTROL EASY

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The Steering and Transmission Integrated Control (STIC) system combines directional selection, gear selection, and steering into a single lever, maximizing responsiveness and control while reducing operator fatigue.

## REDUCED VIBRATION

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Isolated cab mounts, seat-mounted implements, and a seat designed for maximum ride comfort all add up to less vibration and less operator fatigue.

## FRESH AIR SYSTEMS

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Automatic temperature controls and a pressurized cab ensure that even the air around the operator is as comfortable as possible.

## TOUCHSCREEN INTERFACE

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The touchscreen display gives operators critical information when they need it. An enhanced user interface allows for intuitive operation and easy navigation.

## REDUCED NOISE

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Interior sound levels are lower than on previous models, increasing safety and keeping operators comfortable throughout their entire shift.

## COMFORT SEATING

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The Cat Premium Plus seat improves operator comfort with power lumbar and back bolster adjustment, ride stiffness adjustment and dynamic dampening, forced air heating and cooling, and a leather finish.

## ERGONOMIC CONTROLS

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The ergonomic placement of controls and easy-to-operate finger-controlled gear selection offer additional comfort.



**ENHANCED COMFORT AND CONTROL**  
**DELIVERING COMFORT AND GREATER PRODUCTIVITY**

# SAVE ON MAINTENANCE

SAFE AND CONVENIENT SERVICING THAT SAVES TIME



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## INTUITIVE DESIGN

Daily service points are grouped for easy access from ground or the platform. The hydraulic oil cooler, air conditioner condenser, and fuel cooler are grouped together.

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## FLUID ACCESS

Sight gauges offer quick visual inspection of fluid levels to minimize contamination. Ecology drains prevent spills and allow for easier service.

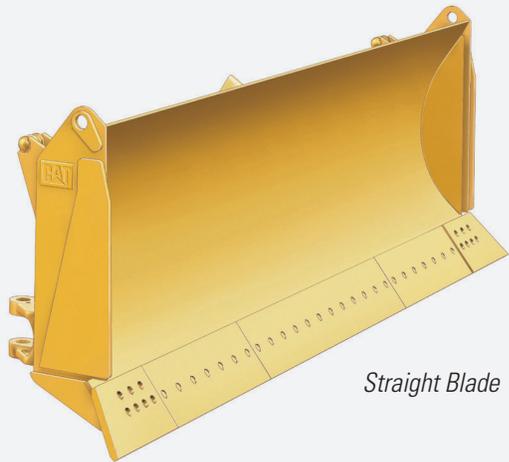
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## EASY-ACCESS DOORS

Swing-out doors on either side of the engine compartment provide easy access for daily service or component changes.

# BLADES TO MATCH YOUR DOZING REQUIREMENTS

# BLADES THAT LAST



*Straight Blade*



*Coal Blade*

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## DURABLE BLADES

Cat blades are resilient, durable, and designed with excellent dozing and rolling characteristics, and deliver long-lasting service.

- + Capacities and widths are set to achieve increased productivity.
- + Design makes it easier to spread cover material and allows for dozing of heavier loads.

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## STRAIGHT BLADE

The straight blade (2.8 m<sup>3</sup>/3.7 yd<sup>3</sup>) delivers excellent performance in production dozing in stockpile material and general earthmoving.

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## COAL BLADE

The coal blade (10.6 m<sup>3</sup>/13.8 yd<sup>3</sup>) allows precise and productive dozing while helping to retain load control with increased capacity for lighter materials. Wing angles help retain the load during all parts of the cycle. This blade is available from Cat Work Tool and Services (CWTS).

SPECIFICALLY ENGINEERED FOR WOOD CHIP APPLICATIONS

# PURPOSE-BUILT SPECIALTY MODELS

- + With Caterpillar's uniquely designed wood chip scoop, operators maximize production by both dozing and carrying a load with each pass.
- + A purpose-built hydraulic system, optimized for use with this work tool, maximizes machine productivity and efficiency. This includes a robust lift cylinder providing hydraulic lift capacity matched to the demands of this application.
- + Automatic reversing fan makes cleanout easy and prevents wood chip buildup. The fan can also be activated manually.
- + Pressurized engine compartment prevents wood chip ingestion through the hood openings.
- + The wood chip model features an extended top guard for increased capacity in the scoop.
- + Higher ground pressure decreases risk of fires and maximizes use of storage space.
- + Rubber tires do far less damage to wood chips than treaded dozers.
- + High ground speed (another feature of wheeled dozers) provides the ability to manage multiple piles.
- + The scoop's lift and tip-out design makes stockpiling operations easy.
- + Scoop tilt control is standard to maximize worksite efficiency.



# TECHNICAL SPECIFICATIONS

See [cat.com](http://cat.com) for complete specifications.

ENGINE		
Engine Model	Cat C7.1	
Emissions	<b>U.S. EPA Tier 4 Final/EU Stage V</b>	
Rated Speed	2,200 rpm	
Net Power (SAE J1349:2011)	186 kW	249 hp
Net Power (ISO 9249:2007)	186 kW	249 hp
Gross Power (SAE J1995:2014)	212 kW	284 hp
Engine Power (ISO 14396:2002)	205 kW	275 hp
Peak Torque @ 1,400 rpm	1223 N·m	902 lbf·ft
Torque Rise	52%	
Emissions	<b>Brazil MAR-1 and China Nonroad Stage III, equivalent to U.S. EPA Tier 3/EU Stage IIIA</b>	
Rated Speed	2,200 rpm	
Net Power (SAE J1349:2011)	186 kW	249 hp
Net Power (ISO 9249:2007)	186 kW	249 hp
Gross Power (SAE J1995:2014)	213 kW	286 hp
Engine Power (ISO 14396:2002)	205 kW	275 hp
Peak Torque @ 1,400 rpm	1016 N·m	749 lbf·ft
Torque Rise	26%	
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in <sup>3</sup>
High Idle Speed	2,270 rpm	
Low Idle Speed	800 rpm	
Maximum Altitude without Derating	3000 m	9842.5 ft

- 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.

OPERATING SPECIFICATIONS – WHEEL DOZER		
Operating Weight (Tier 4 Final/Stage V)	22 011 kg	48,526 lb
Operating Weight (Tier 3/Stage IIIA equivalent)	21 721 kg	47,887 lb

OPERATING SPECIFICATIONS – SCOOP		
Operating Weight (Tier 4 Final/Stage V)	23 714 kg	52,280 lb
Operating Weight (Tier 3/Stage IIIA equivalent)	23 423 kg	51,639 lb

TRANSMISSION		
Forward 1	5.9 km/h	3.7 mph
Forward 2	10.4 km/h	6.5 mph
Forward 3	18.1 km/h	11.2 mph
Forward 4	31.3 km/h	19.4 mph
Reverse 1	6.7 km/h	4.2 mph
Reverse 2	11.8 km/h	7.3 mph
Reverse 3	20.6 km/h	12.8 mph
Reverse 4	35.5 km/h	22.1 mph

HYDRAULIC SYSTEM LIFT/TILT – WHEEL DOZER		
Lift/Tilt System – Circuit	Pilot operated LS valve with EH	
Lift/Tilt System	Variable displacement piston	
Maximum Flow at 2,200 rpm	89 L/min	23.5 gal/min
Relief Valve Setting – Lift/Tilt	22 000 kPa	3,190 psi
Cylinders, Double Acting: Lift, Bore, Stroke	120 mm × 915 mm	4.7 in × 36.0 in
Cylinders, Double Acting: Left and Right Tilt, Bore, Stroke	101.6 mm × 234 mm	4.0 in × 9.2 in
Pilot System	Open center, fixed displacement gear	
Pilot Relief Valve Setting	21 000 kPa	3,046 psi

HYDRAULIC SYSTEM – STEERING		
Steering System – Circuit	Pilot, load sensing	
Steering System – Pump	Variable displacement piston	
Maximum Flow at 2,200 rpm	147 L/min	38.8 gal/min
Relief Valve Setting – Steering	27 600 kPa	4,003 psi
Total Steering Angle	72°	
Steering Cycle Time (high idle)	3.0 seconds	
Steering Cycle Time (low idle)	8.2 seconds	

AIR CONDITIONING SYSTEM
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.9 kg of refrigerant which has a CO <sub>2</sub> equivalent of 2.717 metric tonnes.

SOUND LEVELS		
	Standard	Suppression
Operator Sound Level (ISO 6396:2008)	70 dBA	
<b>Tier 4 Final/Stage V</b>		
Machine Sound Level (ISO 6395:2008)	111 dBA	109 dBA
<b>Brazil MAR-1 and China Nonroad Stage III, equivalent to Tier 3/ Stage IIIA</b>		
Machine Sound Level (ISO 6395:2008)	112 dBA	110 dBA

- The operator sound pressure level was measured according to the test procedures and conditions specified in ISO 6396:2008. The measurement was conducted at the maximum engine cooling fan speed.
- The operator sound pressure level uncertainty is ± 2 dB(A).
- 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.
- The machine sound power level was measured according to the test procedures and conditions specified in ISO 6395:2008. The measurement was conducted at the maximum engine cooling fan speed.

AXLES	
Front	Planetary – Fixed
Rear	Planetary – Oscillating
Oscillation Angle	±10°

# STANDARD & OPTIONAL EQUIPMENT

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

ELECTRICAL	STANDARD	OPTIONAL
Lights, directional (rear)	•	
Lighting system (front and rear)	•	
Lighting system, LED		•
Starter, electric	•	
OPERATOR ENVIRONMENT	STANDARD	OPTIONAL
Hydraulic controls, seat mounted	•	
Radio, AM/FM/AUX/USB/Bluetooth®		•
Radio ready for entertainment: antenna, speakers, converter (12V, 10-15 amp)	•	
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	•	
Rubber mounted, tinted glass	•	
POWER TRAIN	STANDARD	OPTIONAL
Advanced Productivity Electronic Control System (APECS)	•	
Brakes, full hydraulic, enclosed, wet single disc service brakes	•	
Engine driven cooling fan – suction	•	
Heater, engine coolant, 120V		•
Heater, engine coolant, 240V		•
No-spin rear axle		•
Radiator, unit core	•	
SAFETY	STANDARD	OPTIONAL
Alarm, back-up	•	
Camera, rear-vision	•	
Cat Detect: object detection ready	•	
Emergency platform egress	•	
Lights, warning switched (LED strobe)	•	
Mirror, internal (panoramic)	•	
Mirrors, rearview (externally mounted)	•	
Seat belt with minder, retractable, 76 mm (3 in) wide	•	
STIC control system with lockout	•	

SERVICE	STANDARD	OPTIONAL
Doors, service access (locking)	•	
Dual engine precleaner		•
Ecology drains for engine, radiator, transmission, hydraulic tank	•	
Engine, crankcase, 500-hour interval with CJ-4 oil	•	
Engine precleaner	•	
Fast fill fuel		•
Fire suppression ready	•	
Ground-level engine shutoff	•	
Ground-level lockable master disconnect switch	•	
Oil change system, high-speed	•	
Oil sampling valves	•	
Starting receptacle for emergency start	•	
Total hydraulic filtration system	•	
COLD WEATHER	STANDARD	OPTIONAL
Antifreeze, -50°C (-58°F)		•
Antifreeze, premixed 50% concentration extended life (-34°C/-29°F)	•	
Starting aid (ether)	•	
EFFICIENCY	STANDARD	OPTIONAL
Steering, load sensing	•	
Torque converter	•	
SOUND	STANDARD	OPTIONAL
Sound suppression		•
OTHER	STANDARD	OPTIONAL
Counterweight (front)		•
DEF tank fill gauge	•	
Sound suppression (required for Brazil)		•
OTHER OPTIONAL ARRANGEMENTS	STANDARD	OPTIONAL
Scoop arrangement		•



AEXQ3083-00  
Build Number: 11A  
(Global Excluding EU  
and Turkey)

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).

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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