



Cat[®] 815

Soil Compactor

Cat[®] four wheel drive soil compactors maximize soil density through a tamping wheel tip design, machine weight impact, and higher speeds for greater penetration. The 815 is a rugged, powerful machine built for heavy-duty compaction and dozing operations, designed with durability built in, ensuring maximum availability through multiple life cycles.

Easy, Comfortable Operator Environment

- Improved ingress/egress with an improved cab with flip up armrest.
- Keep your operators informed about machine conditions and operation with VIMS[™] 3G machine monitoring system.
- Safety and visibility enhanced with standard rearview camera.
- Preferred temperature settings maintained with automatic climate control.
- Premium plus seat with leather finish containing forced air heating and cooling, two-way thigh adjustment, power lumbar and back bolster adjustment, and dynamic end dampening.
- Improved comfort with low operator sound levels.
- Improved spectator sound levels and optional low sound packages.

Serviceability

- Easier access and in a controlled environment; electronics bay is located inside the cab.
- Focused on safety with ground level or platform access to most major components.
- Ground level: emergency shutdown, battery disconnect, and jump start.
- Quick visual inspection and minimize fluid contamination with sight gauges for coolant, transmission, and hydraulic oil.
- Electronic air inlet restriction indicator.
- Designed for ease of service and inspection.
 - Hydraulic oil cooler, fuel cooler, and condenser grouped together
 - Centralized grease points
- Operators and technicians can resolve any problems before failure using Vital Information Management System (VIMS).

Productivity and Efficiency

- Powerful, responsive Cat[®] 7.1 engine is designed for maximum fuel economy and increased power density.
- Reliable performance and low emissions.
- High productivity with optional four-way tilting blade.
- Two engine options available that meet U.S. EPA Tier 4 Final and EU Stage V emission standards or U.S. EPA Tier 3 and EU Stage IIIA equivalent.
- For the Tier 4 Final and Stage V option, the Cat Clean Emissions Module contains a diesel oxidation catalyst, diesel particulate filter, and Cat Regeneration System, utilizing SCR technology.
- Regeneration is completely automatic and does not interrupt the machine's work cycle.
- Experience maximum responsiveness and control with Steering and Transmission Integrated Control System (STIC[™]).
- Conserve more fuel with the automatic engine and electrical system shutdown.
- Achieve greater momentum on grades and fuel savings by carrying that momentum through the shift points with the all new Advanced Productivity Electronic Control System (APECS) transmission controls.
- Operators experience less fatigue with throttle lock to maintain engine speed and reduce fuel burn.

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Technology That Gets Work Done

- Optional Cat Compact 3D mapping technology combines advanced compaction measurement, in-cab guidance, and reporting capabilities to help you consistently meet compaction targets fast, uniformly, and in fewer passes – saving on fuel and the cost of unnecessary rework.
- Cat Compaction Control with Machine Drive Power (MDP) is an energy-based measurement system that correlates compaction with rolling resistance to provide an indication of soil stiffness.
- Link technology (standard) provides access to machine location, hours, fuel consumption, idle time, events, and diagnostic codes through the online VisionLink® interface.

Tamping Wheels and Tips

- Chevron tamping tip design provides greater ground pressure, more compaction, excellent traction, and a smooth ride.
- Symmetrical tamping tip pattern results in equal compaction in forward or reverse. Tips are full perimeter and replaceable. The tip is welded to a base assembly, then welded directly to the drum.
- Each wheel has two cleaner bars to keep the drums free of carryover dirt, regardless of rolling direction so efficiency is maximized.
- The adjustable cleaner bar tips (standard or abrasive type) are heat-treated and direct-hardened cutting edge steel to increase wear life, which translates into lower operating costs.

Standard and Optional Equipment

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

	Standard	Optional		Standard	Optional
POWER TRAIN			OPERATOR ENVIRONMENT (CONTINUED)		
Advanced Productivity Electronic Control System (APECS)	✓		Seat (cab) – heated and ventilated	✓	
Axles – standard or non-spin rear		✓	Seat, Cat Comfort (cloth), air suspension	✓	
Brakes, full hydraulic, enclosed, wet multiple disc service brakes	✓		STIC control system with lockout	✓	
Cat clean emission module (Tier 4 Final/Stage V only)	✓		Vital Information Management System (VIMS): graphical information display, external data port, customizable operator profiles, event indicator light on rear grill	✓	
Electro hydraulic parking brake	✓		TIRES, RIMS AND WHEELS		
Electronic Clutch Pressure Control (ECPC)	✓		Wheels, tamping foot	✓	
Engine, Cat C7.1 configured for two emissions options: Tier 4 Final/Stage V or Tier 3/Stage IIIA equivalent	✓		GUARDS		
Engine driven cooling fan – suction	✓		Cleaner bars with teeth	✓	
Fuel priming pump (electric)	✓		Guards, crankcase and power train	✓	
Fuel-to-air cooler	✓		Guard, driveshaft	✓	
Ground level engine shutoff	✓		FLUIDS		
Heater, engine coolant, 120V		✓	Antifreeze, -50° C (-58° F)		✓
Heater, engine coolant, 240V		✓	Antifreeze, premixed 50% concentration extended life (-34° C/-29° F)	✓	
Throttle lock	✓		OTHER STANDARD EQUIPMENT		
Torque converter	✓		DEF tank fill gauge	✓	
Transmission, planetary, with 3F/3R speed range control	✓		Ecology drains for engine, radiator, transmission, hydraulic tank	✓	
ELECTRICAL			Engine, crankcase, 500 hour interval with CJ-4 oil	✓	
Alarm, back-up	✓		Fire suppression ready	✓	
Alternator, 150 amp	✓		Fuel tank, 500 L (132.1 gal)	✓	
Batteries, maintenance-free	✓		Hitch, drawbar with pin	✓	
Electrical system, 24V	✓		Hydraulic, engine, and transmission oil coolers	✓	
Ground level lockable master disconnect switch	✓		Oil change system, high speed	✓	
Lighting system (front and rear)	✓		Oil sampling valves	✓	
Lights – standard or LED		✓	Steering, load sensing	✓	
Starting receptacle for emergency start	✓		Total hydraulic filtration system	✓	
OPERATOR ENVIRONMENT			Vandalism protection caplocks	✓	
AccuGrade™ mapping (ready)	✓		TECHNOLOGY PRODUCTS		
Air conditioner	✓		Compaction control, basic		✓
Cab, sound-suppressed pressurized	✓		Product Link™ – GSM, satellite		✓
Camera, rear vision	✓		HYDRAULICS		
Cat Compaction Control (ready)	✓		Hydraulics: Standard or EU and Canada	✓	
Fingertip shifting controls	✓		SPECIAL ARRANGEMENTS		
Flip-up armrest	✓		Engine precleaners – turbine or dual stage		✓
Glass (window) – rubber-mounted glass	✓		FUEL SYSTEMS		
Horn, electric	✓		Fuel tank – non-fast or fast fill		✓
Hydraulic controls – seat mounted	✓		CLEANER BARS		
Implement hydraulic lockout	✓		Standard or abrasive		✓
Lunchbox and beverage holders	✓		BLADES		
Mirrors (cab) – standard or heated		✓	Straight or tilt-straight		✓
Precleaner (cab) – powered	✓				
Radio, AM/FM/Aux/USB/Bluetooth		✓			
Radio ready for entertainment: antenna, speakers, converter (12V, 10-15 amp)	✓				

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Technical Specifications

Engine

Engine Model	Cat C7.1	
Tier 4 Final/Stage V		
Rated Speed	2,200 rpm	
Net Power (SAE J1349:2011)	186 kW	249 hp
Net Power (Net 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
Maximum Net Torque @ 1,400 rpm	1223 N•m	902 lbf-ft
Torque Rise	52%	
<ul style="list-style-type: none"> • Net power available at the flywheel when the engine is equipped with fan, air cleaner, aftertreatment, and alternator with engine speed at 2,200 rpm. 		

Brazil MAR-1 and China Nonroad Stage III, equivalent to Tier 3/Stage IIIA

Rated Speed	2,200 rpm	
Net Power (SAE J1349:2011)	186 kW	249 hp
Net Power (Net 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
Maximum Net Torque @ 1,400 rpm	1016 N•m	749 lbf-ft
Torque Rise	26%	
<ul style="list-style-type: none"> • Net power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator with engine speed at 2,200 rpm. 		

Operating Specifications

Operating Weight (Tier 4 Final/Stage V)	22 522 kg	49,652 lb
Operating Weight (Tier 3/Stage IIIA equivalent)	22 232 kg	49,013 lb

Transmission

Transmission Type	Cat Planetary Power Shift			
	Forward*		Reverse*	
First	6.3 km/h	3.9 mph	7.2 km/h	4.5 mph
Second	10.8 km/h	6.7 mph	12.4 km/h	7.7 mph
Third	18.2 km/h	11.3 mph	18.4 km/h	11.4 mph

*Speeds assume hard packed, semi-cohesive/cohesive soil with 9.5% rolling resistance.

Service Refill Capacities

Fuel Tank	500 L	132.1 gal
Diesel Exhaust Fluid Tank	16 L	4.2 gal

- All nonroad Tier 4 Final and Stage V diesel engines are required to use:
 - Ultra Low Sulfur Diesel (ULSD) fuels containing 15 ppm for EPA and 10 ppm for EU (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 22241-1:2006.

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 CO₂ equivalent of 2.717 metric tonnes.

Sound Performance

	Standard	Suppression	Suppression EU
Operator Sound Level (ISO 6396:2008)		70 dBA	
Tier 4 Final/Stage V			
Machine Sound Level (ISO 6395:2008)	111 dBA	109 dBA	–
Machine Sound Level (ISO 6393:2008)	–	–	107 dBA
Brazil MAR-1 and China Nonroad Stage III, equivalent to Tier 3/Stage IIIA			
Machine Sound Level (ISO 6395:2008)	112 dBA	110 dBA	–
<ul style="list-style-type: none"> • 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. • The machine sound power level was measured according to the test procedures and conditions specified in ISO 6393:2008. The measurement was conducted at the rated engine cooling fan speed. 			

Blades

Straight Blade		
Capacity	2.06 m ³	2.69 yd ³
Overall Width	3761 mm	12.3 ft
Height	860 mm	2.8 ft
Digging Depth	222 mm	0.7 ft
Ground Clearance	802 mm	2.6 ft
Maximum Tilt	346 mm	1.1 ft
Turning Radius - Outside Corner of Blade	6437 mm	21.1 ft
Turning Radius - Inside Face of Pusharm	2520 mm	8.3 ft
Weight	800 kg	1,764 lb
Total Operating Weight	22 522 kg	49,652 lb

Wheels

Tamping Foot		
Weight (Group)	4409 kg	9,720 lb
Outside Diameter	1412 mm	55.6 in
Drum Diameter	1029 mm	40.5 in
Drum Width	991 mm	39.0 in
Feet per Row	12	
Feet per Wheel	60	
Replaceable	Weld On	
Width Over Drums	3243 mm	127.7 in
Width Between Drums	1261 mm	49.6 in
Tip Height	192 mm	7.5 in



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