

# 815F Series 2

## Soil Compactor



### Engine

Engine Model	Cat® C9 ACERT™	
Gross Power	189 kW	253 hp
Net Power	173 kW	232 hp

### Weights

Operating Weight	20 755 kg	45,765 lb
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### Shipping Specifications

Weight	20 345 kg	44,853 lb
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## Engine

Engine Model	Cat® C9 ACERT™	
Gross Power	189 kW	253 hp
Net Power	173 kW	232 hp
ISO 3046-2	173 kW	232 hp
ISO 9249	175 kW	235 hp
SAE J1349	173 kW	232 hp
EEC 80/1269	175 kW	235 hp
Torque Rise	30%	
Bore	112 mm	4.4 in
Stroke	149 mm	5.9 in
Displacement	8.8 L	537 in <sup>3</sup>
Cylinders	6	

- Engine meets U.S. Environmental Protection Agency Tier 3 emissions regulations and Stage IIIA EU Directive/97/68/EC.
- Engine power ratings apply at 2,100 rpm when tested under the specific standard conditions for the specified standard.
- Power rating conditions based on standard air conditions of 25° C (77° F) and 100 kPa (29.8 Hg) dry barometer, using 25° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) [reference a fuel density of 828.9 g/L (7.001 lb/gal)].
- Torque rise at 1,200 rpm.

## Transmission

Forward 1	6.2 km/h	3.9 mph
Forward 2	10.7 km/h	6.7 mph
Forward 3	17.6 km/h	11 mph
Reverse 1	7 km/h	4.4 mph
Reverse 2	12.1 km/h	7.6 mph
Reverse 3	19.5 km/h	12.2 mph

## Steering

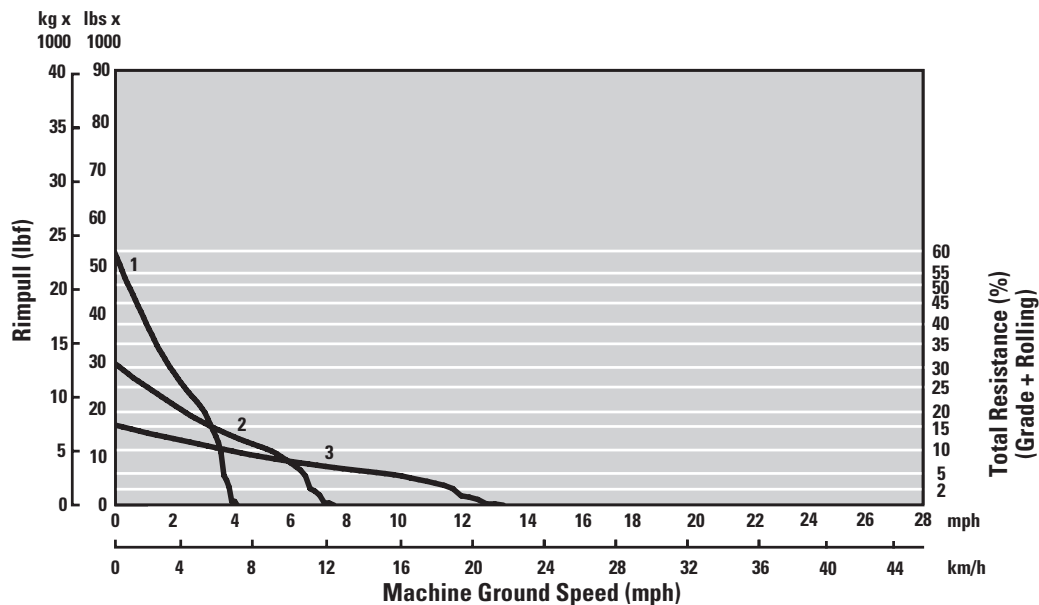
Steering Angle	±42°
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## Wheels

Drum Width	991 mm	3 ft 3 in
Drum Diameter	1029 mm	3 ft 5 in
Outside Diameter	1425 mm	4 ft 9 in
Tips per Wheel	60	
Tips per Row	12	

## Hydraulic System

Relief Valve Setting	15 550 kPa	2,255 psi
Lift Cylinder Bore × Stroke	101.6 mm × 627 mm	3.99 in × 24.68 in
Tilt Cylinder Bore × Stroke (option)	101.6 mm × 167 mm	3.99 in × 6.6 in



## Axles

Front	Fixed
Rear	Oscillating $\pm 12^\circ$

## Brakes

Standards	Meet OSHA regulations
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## Cab

ROPS/FOPS	Meet SAE and ISO standards
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- Cat cab and Rollover Protective Structure/Falling Object Protective Structure (ROPS/FOPS) are standard in North America, Europe and Japan.
- ROPS meets SAE J394, SAE 1040 APR88 and ISO 3471-1986 standards.
- FOPS meets SAE J231 JAN81 and ISO 3449-194 standards.

## Sound Performance

Standards	Meet required sound standards
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- The operator exposure Leq (equivalent sound pressure level) measured according to the work cycle procedures specified in ANSI/SAE J1166 OCT98 is 78 dB(A), for the cab offered by Caterpillar, when properly installed, maintained and tested with the doors and windows closed.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.
- The exterior sound pressure level for the standard machine measured at a distance of 15 m (49.2 ft) according to the test procedures specified in SAE J88 JUN86 mid-gear-moving operation is 80 dB(A).
- The sound power level is 111 dB(A) measured according to the dynamic test procedure and conditions specified in ISO 6395:1988/Amd. 1:1996 for a standard machine configuration.

## Blades

Moldboard Length	3652 mm	11 ft 12 in
Height, Including Cutting Edge	860 mm	2 ft 10 in
Maximum Depth of Cut	215 mm	9 in
Maximum Lift Above Ground	814 mm	2 ft 9 in
Blade Tip Angle – Total	59.2°	
Blade Tilt Angle – Right – Mechanical	6.5°	
Blade Tilt Angle – Left – Mechanical	5.4°	
Width Over End Bits	3761 mm	12 ft 4 in

## Weights

Operating Weight	20 755 kg	45,765 lb
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## Service Refill Capacities

Fuel Tank	446 L	117.8 gal
Cooling System	55 L	14.5 gal
Crankcase	34 L	9 gal
Transmission	50 L	13.2 gal
Differentials and Final Drives – Front	65 L	17.1 gal
Differentials and Final Drives – Rear	65 L	17.1 gal
Hydraulic Tank	88 L	23.2 gal

## Dimensions

Height to Bottom of Ladder	463 mm	1 ft 7 in
Width Over End Bits	3791 mm	12 ft 5 in
Width Over Drums	3243 mm	10 ft 8 in

## Operating Specifications

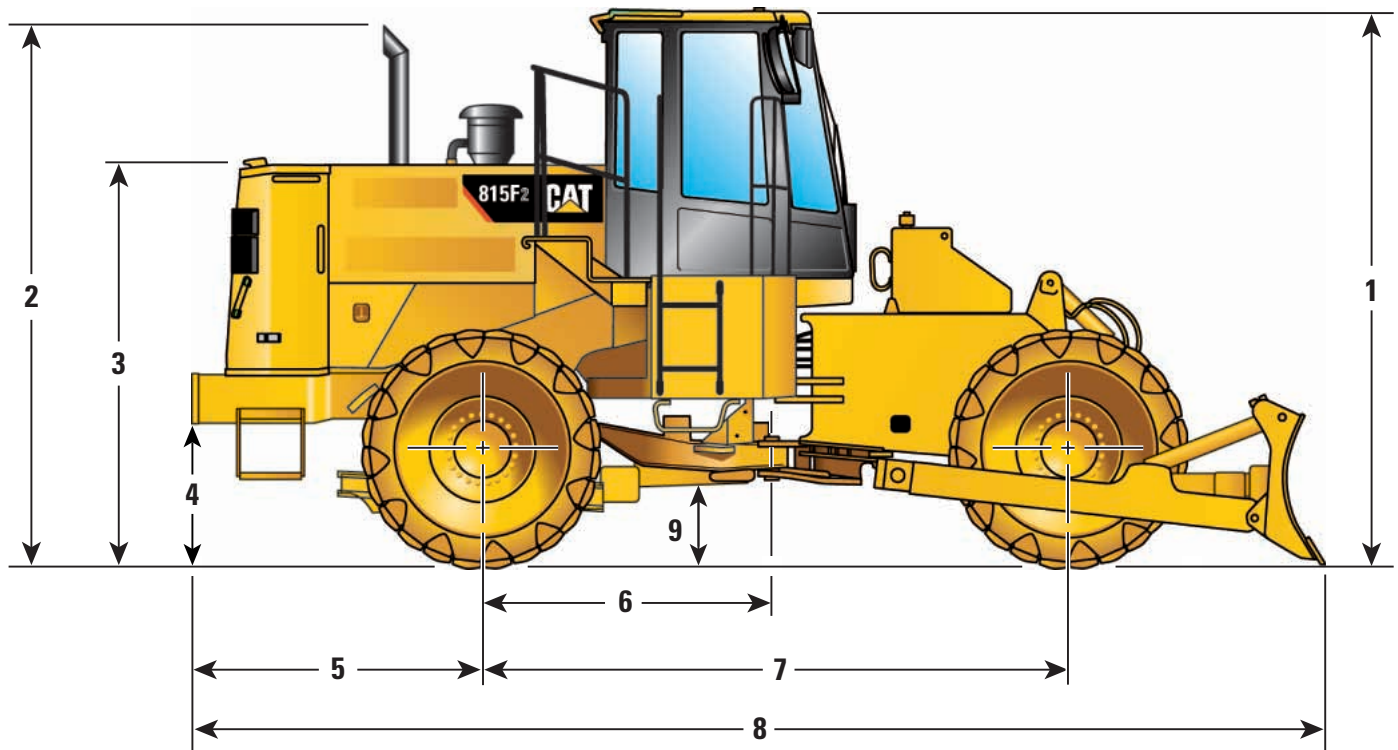
Turning Radius Blade – Outside	6452 mm	21 ft 3 in
Turning Radius Blade – Inside	2967 mm	9 ft 9 in

## Shipping Specifications

Weight	20 345 kg	44,853 lb
Height	3347 mm	11 ft
Width	3652 mm	11 ft 12 in
Depth	6845 mm	22 ft 6 in

## Dimensions

All dimensions are approximate.



1	Height to Top of Cab	3347 mm	10 ft 12 in
2	Height to Top of Exhaust Pipe	3225 mm	10 ft 7 in
3	Height to Top of Hood	2395 mm	7 ft 11 in
4	Height to Rear Bumper	770 mm	2 ft 7 in
5	Center Line of Rear Axle to Edge of Rear Bumper	1871 mm	6 ft 2 in

6	Center Line of Rear Axle to Hitch	1675 mm	5 ft 6 in
7	Wheelbase	3350 mm	10 ft 12 in
8	Length with Blade on Ground	6845 mm	22 ft 6 in
9	Ground Clearance	390 mm	1 ft 4 in

## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### ELECTRICAL

- Alarm, backup
- Alternator (80 amp)
- Batteries, maintenance-free (2)
- Diagnostic connectors
- Lighting system, halogen (front, rear and cab-mounted)
- Starting and charging system (24-volt)
- Starting receptacle for emergency starts

### OPERATOR ENVIRONMENT

- Blade control system locks
- Cab, pressurized and sound suppressed (ROPS/FOPS)
  - includes antenna, speakers and converter (12-volt, 10-15 amp)
- Coat hook
- Cigar lighter and ashtray
- Caterpillar Monitoring System
  - Instrumentation, Gauges
    - Engine coolant temperature
    - Fuel level
    - Hydraulic oil temperature
    - Speedometer/Tachometer
    - Transmission oil temperature
  - Instrumentation, Warning Indicators
    - Air inlet temperature
    - Brake oil pressure
    - Electrical system, low voltage
    - Engine oil pressure
    - Engine over-speed
    - Fuel filter status
    - Parking brake status
    - Steering oil pressure
    - Transmission filter status

- Dome light (cab)
- Fuses, blade style (in-cab)
- Heater and defroster
- Horn, electric (steering wheel mounted)
- Hydraulic steering
- Lunchbox and beverage holders
- Mirrors, rearview (interior mounted)
- Seat, mechanical suspension
- Seat belt, retractable, 76 mm (3 in) wide
- Steering column, adjustable
- Wet-arm wipers/washers (front and rear)
  - Intermittent front wiper

### POWER TRAIN

- Brakes, fully hydraulic, enclosed, wet-disc
- Engine, Cat® C9 ACERT™
- Fuel priming pump
- Muffler
- Radiator, Next Generation Modular (NGMR)
- Starting aid (ether)
- Torque converter
- Transmission, planetary (3 forward/3 reverse speeds)
  - Electronic Clutch Pressure Control

### OTHER STANDARD EQUIPMENT

- Cat O-ring face seals/couplings
- XT™ hoses
- Cleaner bars
- Guards
  - Crankcase
  - Power train
  - Parking brake
  - Radiator
  - Drive shaft
- Hood, metallic with lockable service doors
- Hitch, drawbar with pin
- Hydraulic oil cooler
- Oil sampling valves
- Trunnion
- Tamper wheels
- Vandalism protection caplocks

### BULLDOZERS

- Bulldozer blade, hydraulics and linkage are not included in standard equipment

### ANTIFREEZE

- Premixed 50 percent concentration of Extended Life Coolant with freeze protection to -34° C (-29° F)