

# PRODUCT SPECIFICATIONS FOR 815K

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## ENGINE

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<b>Engine Model</b>	Cat® C7.1: configured for two emissions options
<b>Net Power</b>	248.0 HP
<b>Bore</b>	4.1 in
<b>Stroke</b>	5.3 in
<b>Displacement</b>	427.8 in <sup>3</sup>
<b>Rated Power (SAE J1349) - Tier 3/Stage IIIA Equivalent</b>	249.0 HP
<b>Maximum Net Torque - 1,400 rpm - Tier 3/Stage IIIA Equivalent</b>	749.0 lb/ft
<b>Gross Power - ISO 14396 - Tier 4 Final/Stage IV</b>	274.0 HP
<b>Rated Power (SAE J1349) - Tier 4 Final/Stage IV</b>	248.0 HP
<b>Emissions</b>	Meets U.S. EPA Tier 4 Final/EU Stage IV emission standards or meets U.S. EPA Tier 3/EU Stage IIIA equivalent emission standards
<b>Rated Power (Net ISO 9249) - Tier 3/Stage IIIA equivalent</b>	249.0 HP
<b>High Idle Speed</b>	2270.0 r/min
<b>Gross Power - SAE J1995 - Tier 4 Final/Stage IV</b>	284.0 HP
<b>Gross Power - ISO 14396 - Tier 3/Stage IIIA Equivalent</b>	275.0 HP
<b>Low Idle Speed</b>	800.0 r/min
<b>Gross Power - SAE J1995 - Tier 3/Stage IIIA Equivalent</b>	286.0 HP
<b>Torque Rise - Tier 4 Final/Stage IV</b>	52%
<b>Maximum Net Torque - 1,400 rpm - Tier 4 Final/Stage IV</b>	899.0 lb/ft
<b>Rated Power (Net ISO 9249) - Tier 4 Final/Stage IV</b>	248.0 HP
<b>Maximum Altitude - Without Derating</b>	9842.52 ft

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<b>Torque Rise - Tier 3/Stage IIIA Equivalent</b>	26%
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#### WHEELS

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<b>Drum Width</b>	3.25 ft
<b>Drum Diameter</b>	3.38 ft
<b>Outside Diameter</b>	4.63 ft
<b>Tips per Wheel</b>	60
<b>Width - Over Drums</b>	10.64 ft
<b>Weight</b>	9720.0 lb

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#### AXLES

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<b>Front</b>	Planetary – Fixed
<b>Rear</b>	Planetary – Oscillating
<b>Oscillation Angle</b>	±10°

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#### BLADES

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<b>Maximum Depth of Cut</b>	0.73 ft
<b>Maximum Lift Above Ground</b>	2.63 ft
<b>Total Tilt Adjustment</b>	2.14 ft
<b>Width - Over End Bits</b>	12.34 ft
<b>Blade Tilt Adjustment - Left</b>	1.14 ft
<b>Width - Moldboard Length</b>	11.98 ft
<b>Blade Tilt Angle - Right - Hydraulic</b>	4.8°
<b>Blade Tilt Angle - Left - Hydraulic</b>	5.5°
<b>Height - Including Cutting Edge</b>	2.82 ft

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<b>Blade Tilt Adjustment - Right</b>	1.0 ft
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#### SERVICE REFILL CAPACITIES

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<b>Differential - Final Drives - Front</b>	17.2 gal (US)
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<b>Hydraulic Tank Only</b>	19.8 gal (US)
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<b>Cooling System - Tier 4 Final/Stage IV</b>	21.4 gal (US)
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<b>Fuel Tank</b>	132.1 gal (US)
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<b>Diesel Exhaust Fluid Tank (Tier 4 Final/Stage IV Only)</b>	4.2 gal (US)
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<b>Cooling System - Tier 3/Stage IIIA Equivalent</b>	19.3 gal (US)
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<b>Transmission</b>	14.8 gal (US)
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<b>Differential - Final Drives - Rear</b>	17.2 gal (US)
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<b>Engine Crankcase</b>	5.3 gal (US)
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<b>Note</b>	All non-road Tier 4 Final and Stage IV 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 for EPA and 10 ppm for EU (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.
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#### DIMENSIONS (APPROXIMATE)

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<b>Ground Clearance - Bumper</b>	2.18 ft
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<b>Ground Clearance</b>	1.23 ft
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<b>Turning Radius - Inside of Push Arms</b>	8.27 ft
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<b>Height - Top of Beacon</b>	12.95 ft
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<b>Height - Top of Hood</b>	8.42 ft
<b>Height - Top of Cab Roof</b>	11.98 ft
<b>Height - Top of Exhaust Pipe</b>	10.97 ft
<b>Wheel Base</b>	10.99 ft
<b>Width - Over Wheels</b>	10.64 ft
<b>Centerline of Rear Axle to Bumper</b>	6.53 ft
<b>Length - With Blade on Ground</b>	23.48 ft
<b>Hitch to Centerline of Front Axle</b>	5.5 ft

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#### HYDRAULIC SYSTEM

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<b>Tilt Cylinder, Double Acting - Bore and Stroke</b>	101.6 mm × 167 mm (4 in × 6.6 in)
<b>Pump Flow at 2,111 rpm</b>	23.5 gal/min
<b>Main Relief Pressure</b>	3190.0 psi
<b>Maximum Supply Pressure</b>	2930.0 psi
<b>Lift Cylinder, Double Acting - Bore and Stroke</b>	101.6 mm × 627 mm (4 in × 24.7 in)

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#### HYDRAULIC SYSTEM - STEERING

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<b>Vehicle Articulation Angle</b>	84 degrees
<b>Maximum System Flow</b>	147 L/min @ 2,111 rpm (38.8 gal/min @ 2,111 rpm)
<b>Steering Pressure Limited</b>	4003.0 psi
<b>Bore</b>	4.0 in
<b>Stroke</b>	23.5 in
<b>Steering System - Circuit</b>	Closed Center Load Sensing
<b>Steering System - Pump</b>	Piston – Variable Displacement

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#### OPERATING SPECIFICATIONS

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<b>Operating Weight</b>	49353.0 lb
<b>Maximum Operating Weight (Tier 3/Stage IIIA equivalent)</b>	48740.0 lb
<b>Maximum Operating Weight (Tier 4 Final/Stage IV)</b>	49353.0 lb

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#### TRANSMISSION

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<b>Travel Speeds - Forward - Third</b>	13.2 mile/h
<b>Travel Speeds - Reverse - Second</b>	8.5 mile/h
<b>Travel Speeds - Forward - Second</b>	7.5 mile/h
<b>Travel Speeds - Reverse - First</b>	4.8 mile/h
<b>Travel Speeds - Forward - First</b>	4.2 mile/h
<b>Travel Speeds - Reverse - Third</b>	15.0 mile/h
<b>Transmission Type</b>	Planetary – Powershift – ECPC

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#### CAB - SUPPRESSION

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<b>Machine Sound Level (ISO 6395) Tier 3/Stage IIIA Equivalent</b>	110.0 dB(A)
<b>Machine Sound Level (ISO 6395) Tier 4/Stage IV</b>	109.0 dB(A)
<b>Operator Sound Level - ISO 6396</b>	70.0 dB(A)

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#### CAB - STANDARD

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<b>Operator Sound Level - ISO 6396</b>	71.0 dB(A)
<b>Machine Sound Level (ISO 6395) Tier 3/Stage IIIA Equivalent</b>	112.0 dB(A)
<b>Machine Sound Level (ISO 6395) Tier 4/Stage IV</b>	111.0 dB(A)

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## BRAKES

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### **Parking Brake**

Drum and Shoe, Spring Applied, Hydraulic Released

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## 815K STANDARD EQUIPMENT

### POWER TRAIN

Advanced Productivity Electronic Control System (APECS)

Air to air aftercooler

Brakes, full hydraulic, enclosed, wet multiple disc service brakes

Cat clean emission module (Tier 4 Final/Stage IV only)

Electro-hydraulic parking brake

Electronic Clutch Pressure Control (ECPC)

Engine, Cat C7.1 (configured for two emissions options): – Tier 4 Final/Stage IV – Tier 3/Stage IIIA equivalent

Engine driven cooling fan – suction

Fuel priming pump (electric)

Fuel to air cooler

Ground level engine shutoff

Muffler (under hood) (Tier 3/Stage IIIA equivalent only)

Radiator, unit core

Starting aid (ether)

Throttle lock

Torque converter

Transmission, planetary, with 3F/3R speed range control

### ELECTRICAL

Alarm, back-up

Alternator, 150 amp

Batteries. maintenance-free

Electrical system, 24V

Ground level lockable master disconnect switch

Lights, directional (rear)

Light, warning switched (LED strobe)

Lighting system, (front and rear)

Starter, electric

Starting receptacle for emergency start

## OPERATOR ENVIRONMENT

12V power port for mobile phone or laptop connection

AccuGrade™ mapping (ready)

Air conditioner

Cab, sound-suppressed pressurized

Cab door, sliding window (LH)

Cat Compaction Control (ready)

Cat Detect: Object Detection (ready)

Coat and hard hat hooks

Finger tip shifting controls

Flip-up armrest

Heater and defroster

Horn, electric

Hydraulic controls – seat mounted

Implement hydraulic lockout

Instrumentation, gauges: – DEF fluid level (Tier 4 Final/Stage IV only) – 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

Light, (dome) cab

Lunch box and beverage holders

Mirror, internal (panoramic)

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 – Event indicator light on rear grill

Wet-arm wipers/washers (front and rear): – Intermittent wipers (front and rear)

#### TIRES, RIMS AND WHEELS

Wheels, tamping foot

#### GUARDS

Cleaner bars with teeth

Guards, crankcase and power train

Guard, driveshaft

#### FLUIDS

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

#### OTHER STANDARD EQUIPMENT

DEF tank fill gauge

Doors, service access (locking)

Ecology drains for engine, radiator, transmission, hydraulic tank

Engine, crankcase, 500 hour interval with CJ-4 oil

Emergency platform egress

Fire suppression ready

Fuel tank, 500 L (132.1 gal)



Hitch, drawbar with pin

Hoses, Cat XT™

Hydraulic, engine, and transmission oil coolers

Oil change system, high speed

Oil sampling valves

Steering, load sensing

Total hydraulic filtration system

Vandalism protection caplocks

Venturi stack

#### STANDARD ATTACHMENTS – HYDRAULICS

Hydraulics: – Standard or EU and Canada

#### STANDARD ATTACHMENTS – OPERATOR ENVIRONMENT

Glass (window): – Standard bonded or rubber-mounted glass

Precleaner – cab: – Standard or powered

Seat – cab: – Standard or heated and ventilated

Mirrors – cab: – Standard or heated

#### STANDARD ATTACHMENTS – POWER TRAIN

Axles: – Standard or non-spin rear

#### STANDARD ATTACHMENTS – SPECIAL ARRANGEMENTS

Engine Precleaners: – Turbine or dual stage

#### STANDARD ATTACHMENTS – ELECTRICAL

Lights: – Standard or LED

#### STANDARD ATTACHMENTS – FUEL SYSTEMS

Fuel tank: – Non-fast or fast fill

#### STANDARD ATTACHMENTS – TECHNOLOGY PRODUCTS

Product Link: – GSM, satellite

#### STANDARD ATTACHMENTS – CLEANER BARS

Cleaner bars: – Standard or abrasive

## STANDARD ATTACHMENTS – BLADES

Blades: – Straight or tilt-straight

# 815K OPTIONAL EQUIPMENT

## OPERATOR ENVIRONMENT

Camera, rear vision

Radio, AM/FM/AUX/USB/BLUETOOTH

Radio, CB (ready)

## TECHNOLOGY PRODUCTS

Compaction control, basic

## OTHER ATTACHMENTS

Sound suppression (required for Brazil)

## FLUIDS

Antifreeze, –50° C (–58° F)

## STARTING AIDS

Heater, engine coolant, 120V

Heater, engine coolant, 240V

## MISCELLANEOUS

Film (ANSI) (Tier 4 Final/Stage IV only)

EU certification (Tier 4 Final/Stage IV only)

Plate – year of manufacture (Tier 3/Stage IIIA equivalent only)