Product Specifications For 854

Engine

Engine Model	Cat C32B
Emissions (U.S. EPA Tier 4 Final): Net Power ISO - 9249	607 kW
Emissions (U.S. EPA Tier 4 Final): Gross Power - SAE J1995	671 kW
Gross Power	676 kW
Emissions (Tier 2 Equivalent): Gross Power - SAE J1995	676 kW
Emissions (Tier 2 Equivalent): Net Power ISO - 9249	614 kW
Rated Speed	1750 r/min
Bore	145 mm
Stroke	162 mm
Displacement	32.1 l
Peak Torque - 1,200 rpm	4242 N·m
Torque Rise	30 %
Note (1)	Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
Note (2)	Net torque rise meets SAE J139.
Note (3)	No engine derating required up to 3050 m (10,000 ft) altitude.

Weights

Operating Weight	101 898 kg

Transmission

Transmission Type	Cat Planetary Power Shift
Converter Drive - Forward 1	7.1 km/h
Converter Drive - Forward 2	12.4 km/h
Converter Drive - Forward 3	21.2 km/h
Converter Drive - Reverse 1	7.7 km/h
Converter Drive - Reverse 2	13.5 km/h
Converter Drive - Reverse 3	23.5 km/h
Direct Drive - Forward 1	Lock-up disabled
Direct Drive - Forward 2	13 km/h
Direct Drive - Forward 3	22.8 km/h
Direct Drive - Reverse 1	8 km/h
Direct Drive - Reverse 2	14.3 km/h
Direct Drive - Reverse 3	25.1 km/h
Note	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
Cylinders, 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)

Service Refill Capacities

Fuel Tank - Standard	1562 l
Cooling System	200 l
Crankcase	120 l
Transmission	169 l
Differential - Final Drives - Front	369 l
Differential - Final Drives - Rear	342 l
Hydraulic System - Steering and Engine Cooling Fan - Tank Only	290 l
Note (1)	- 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 Sulfer Diesel (ULSD) fuels containing 15 ppm (mg/kg) sulfer or less. Biodiesel blends up to B20 (20% blend by volume) are acceptable when blended with 15 ppm (mg/kg) sulfer 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/cda/files/3244668/7/SEBU6250-19.pdf

Axles

Front	Fixed
Rear	Trunnion

Brakes

Brakes	Meets ISO 3540:2011

Blades

Blade Capacities	30.5 to 44.8 m3 (40 to 58.6 yd3)

Dimensions (Approximate)

Height - Top of ROPS	5590 mm
Height - Top of Exhaust Pipe	5234 mm
Height - Top of Hood	3984 mm
Ground Clearance	691 mm
Centerline of Front Axle to Hitch	2945 mm
Centerline of Rear Axle to Edge of Bumper	4195 mm
Wheel Base	5890 mm
Length - With Blade on Ground	13405 mm

Hydraulic System - Steering

Steering System - Pump	Piston, variable displacement
Minimum Turning Radius - Over Blade	9550 mm
Steering System - Circuit	Pilot, load sensing
Relief Valve Setting	34500 kPa
Total Steering Angle	86 degrees

Operating Specifications

Operating Weight	101898 kg

Sound Performance Levels

Sound Performance	• 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.

Air Conditioning System

Air Conditioning	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). See the label or instruction manual for identification of the gas. If equipped with 1234yf (Global Warming Potential = 0.501), the system contains 2.1 kg of refrigerant, which has a CO_2 equivalent of 0.001 metric tonnes (2.2 lbs). If equipped with 134a (Global Warming Potential = 1430), the system contains 1.8 kg (4.6 lb) of refrigerant, which has a CO_2 equivalent of 3.003 metric tonnes (3.31 tons).

Cab

ROPS/FOPS	ISO 3471:2008 and ISO 3449:2005 Level II Standards

854 Standard Equipment

ELECTRICAL AND LIGHTING

Alternator, 150 amp
Batteries, maintenance free (4 – 1,400 CCA)
Battery disconnect and jump start receptacle, bumper
Deutsch terminal connectors
Electrical system, 24V
Electronic transmission control
Lighting system, halogen (front and rear) lighting, access stairway, engine compartment
Starter lockout in bumper
Starting and charging system, 24V
Transmission lockout in bumper

POWERTRAIN

Brakes, oil cooled, multi-disc, service/secondary
Engine brake
Engine, Cat C32B
Fuel priming pump (electric)
Ground level engine shutoff
Axle oil coolers (front and rear)
Pre-cleaner, engine air intake (above hood)
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)

OPERATOR ENVIRONMENT

Advisor display, displays real time operating information, performs calibrations and customizes operator setting
Air conditioner and heater with automatic temperature control
Air pre-cleaner, powered
Cab, sound-suppressed pressurized, separate external rollover protective structure (ROPS/FOPS)
Cigar lighter and ashtray
Coat hook
Converter (12V, 10-15 amp) and power port
Digital display on center console: gear, ground speed, machine hours
Electro-hydraulic blade controls, joystick
Heater and defroster
Horn, electric
Instrumentation, gauges: engine coolant temperature, fuel level, hydraulic oil temperature, powertrain oi temperature, tachometer
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
Light, cab, dome
Lunchbox and beverage holders
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
Radio, AM/FM with Bluetooth®, USB Port, 3.5 mm (0.14 in) auxiliary (AUX) input
Tinted glass
Wet-arm wipers/washers (front, rear, and corner) – intermittent front wiper

SAFETY

Alarm, back-up
Camera, rear vision
Emergency platform egress
Implement lock out switch
LED warning strobe
Mirrors, rearview (externally mounted)
Seat belt, retractable, 76 mm (3 in) wide
Separate external protective structure (ROPS/FOPS)
Stairway, left and right rear access
Steering and transmission lock lever, cab
Steering, secondary
Seat, trainer with lap belt,
76 mm (3 in) wide

Toe kicks

SERVICE

Automatic Lubrication System greases the hitch, steering, and axle trunnion bearings
Axle ecology drains
Battery disconnect and jump start receptacle, bumper
Case drain filters
Coupling, Cat O-ring face seals
Engine, crankcase, 500 hour interval with CH4
Front walkway around cab
Guards, crankcase and power train
Ground-level fast fill fuel system
Ground-level service center with Electronic Technician (ET) port, fast fill fluid ports, ecology drains
Grouped/Labeled lube points
Hitch, drawbar with pin
Hoses, Cat XT™
Oil sampling valves
Starter and Transmission lockouts in bumper
Sight gauges for steering, implement and transmission oil
Vital Information Management System (VIMS™) 3G with graphical information display: external data port, customizable operator profiles

COOLING

Standard ambient package (recommended for site conditions that do not exceed 43° C [110° F])

COLD WEATHER

Heated Seat

EFFICIENCY

Economy mode with on-demand throttle
Positive Flow Control implement system
Impeller Clutch Torque Converter (ICTC) with lock-up clutch
Load-sensing steering
Soft detent controls
Engine idle management features: auto idle kickdown, delayed engine shutdown, engine idle shutdown

TRAMMING

Front Fenders

854 Optional Equipment

ELECTRICAL AND LIGHTING

Lights, HID
Lights, LED
Product Link (Cellular)

Product Link (Satellite)

POWERTRAIN

Driveline parking brake
No spin rear axle
Pre-cleaner, raised

OPERATOR ENVIRONMENT

Radio, Sirius XM/AM/FM radio with Bluetooth technology, USB Port, 3.5 mm (0.14 in) AUX input
Rubber mounted cab glass
Window sun screen

SAFETY

Egress, powered rear access
Object detection (radar)
Wheel Chocks

SERVICE

High pressure hydraulic oil screen
Product Link™
Tire pressure monitoring

BLADES

Semi-U, 30.5 m3 (40 yd3) HD Semi-U, 30.5 m3 (40 yd3) Coal, 44.8 m3 (58.6 yd3)
Paint, black blade rear

COOLING

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)

COLD WEATHER

Antifreeze, –50° C (–58° F)
120V or 240V coolant heating elements (recommended in conditions from –18° C to –30° C [0° F to –22° F]
Fuel heater (heated by recirculation using engine heat and a heat exchanger) (recommended in condition from –18° C to –30° C [0° F to –22° F])
–40° C (–40° F) Hydraulic Oil, Arctic
Heater Mirrors

MACHINE CONTROL AND GUIDANCE

Cat Terrain ready

TIRES AND RIMS

Tires 45/65R45
Tires 45/65-45

Rims only

TRAMMING

Fender extensions, roading, front and rear

SOUND SUPPRESSION

Sound-suppression package