

Product Specifications For 309 CR VAB



Engine

Net Power	51.2 kW
Engine Model	Cat® C2.8 Turbo
Net Power - 2,400 rpm - ISO 9249, 80/1269/EEC	51.2 kW
Gross Power - ISO 14396	55.4 kW
Bore	90 mm
Stroke	110 mm
Displacement	2.8 l
Note	Meets U.S. EPA Tier 4 Final and EU Stage V emissions standards.
Note (1)	Advertised power is tested per the specified standard in effect at the time of manufacture.
Note (2)	Net power advertised is the power available at the flywheel when the engine is at the rated speed of 2,400 rpm and the engine is installed with the factory configured fan, air intake system, exhaust system and alternator with a minimum alternator load.

Weights

Operating Weight	10020 kg
Minimum Operating Weight with Standard Stick*	9190 kg
Maximum Operating Weight with Standard Stick**	10020 kg

Note (1)	*Minimum Weight is based on steel tracks, no counterweight, operator, full fuel tank, standard stick, blade, and no bucket.
Note (2)	**Maximum Weight is based on steel tracks with rubber pads, (500 kg/1,103 lb) counterweight, operator, full fuel tank, standard stick, blade, and no bucket.

Dimensions - VAB In

Dig Depth	3815 mm
Vertical Wall	2520 mm
Maximum Reach at Ground Level	6300 mm
Maximum Reach	6515 mm
Maximum Dig Height	5220 mm
Maximum Dump Clearance	3450 mm
Boom in Reach	3120 mm
Tail Swing with Counterweight	1585 mm
Tail Swing without Counterweight	1450 mm
Maximum Blade Height	408 mm
Maximum Blade Depth	484 mm
Cab Height	2541 mm
Swing Bearing Height	756 mm
Overall Undercarriage Length	3200 mm
Overall Shipping Length	6495 mm

Boom Swing Right	935 mm
Boom Swing Left	605 mm
Track Belt/Shoe Width	450 mm
Overall Track Width	2470 mm
Ground Clearance	356 mm
Stick Length	1820 mm

Dimensions - VAB Out

Dig Depth	3460 mm
Vertical Wall	3725 mm
Maximum Reach at Ground Level	7715 mm
Maximum Reach	7885 mm
Maximum Dig Height	8180 mm
Maximum Dump Clearance	6285 mm
Boom in Reach	2710 mm
Tail Swing with Counterweight	1585 mm
Tail Swing without Counterweight	1450 mm
Maximum Blade Height	408 mm
Maximum Blade Depth	484 mm
Cab Height	2541 mm

Swing Bearing Height	756 mm
Overall Undercarriage Length	3200 mm
Overall Shipping Length	6495 mm
Boom Swing Right	935 mm
Boom Swing Left	605 mm
Track Belt/Shoe Width	450 mm
Overall Track Width	2470 mm
Ground Clearance	356 mm
Stick Length	1820 mm

Weight Increase From Minimum Configuration

Counterweight	250 kg
Counterweight (extra)	500 kg
Standard Stick	35 kg
Steel Tracks with Pads	330 kg

Travel System

Travel Speed - High	4.7 km/h
Travel Speed - Low	2.6 km/h
Maximum Traction Force - High Speed	33 kN
Maximum Traction Force - Low Speed	84.8 kN
Ground Pressure - Minimum Weight	35.6 kPa

Ground Pressure - Maximum Weight	38.9 kPa
Gradeability - Maximum	30 degrees

Service Refill Capacities

Cooling System	10 l
Engine Oil	8.8 l
Fuel Tank	147 l
Hydraulic Tank	53 l
Hydraulic System	110 l

Hydraulic System

Type	Load Sensing Hydraulics with Variable Displacement Piston Pump
Pump Flow at 2,400 rpm	233 L/min
Operating Pressure - Equipment	285 bar
Operating Pressure - Travel	285 bar
Operating Pressure - Swing	250 bar
Maximum Auxiliary Circuit - Primary - Flow at Pump	140 L/min
Maximum Auxiliary Circuit - Primary - Pressure at Pump	285 bar
Maximum Auxiliary Circuit - Secondary - Flow at Pump	33 L/min
Maximum Auxiliary Circuit - Secondary - Pressure at Pump	285 bar

Digging Force - Stick - Standard	42.3 kN
Digging Force - Bucket	62 kN
Note	Flow and pressure are not combinable. Under load, as flow rises pressure goes down.

Swing System

Machine Swing Speed	10 r/min
Boom Swing - Left	60 degrees
Boom Swing - Right	50 degrees

Certification - Cab

Roll Over Protective Structure (ROPS)	ISO 12117-2:2008
Top Guard	ISO 10262:1998 (Level I)

Air Conditioning System

Air Conditioning	The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a or R1234yf (Europe) (Global Warming Potential = 1430). See label or instruction manual for gas refrigerant identification. The system contains 0.90 kg (1.98 lb) or 1 kg (2.20 lb) of refrigerant which has a CO2 equivalent of 1.430 metric tonnes (1.576 tons) for R134a and 0.001 tonnes (0.001 tons) for R1234yf (Europe).
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Sound

Operator Sound Pressure (ISO 6396:2008)	72 dB(A)
Average Exterior Sound Pressure (ISO 6395:2008)	99 dB(A)
Note	European Union Directive "2000/14/EC"

Sustainability

Recyclability	96%
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Specifications

Note

The 309 CR VAB specifications are based on a machine configured with a Long (L) Undercarriage.

Blade

Width - Standard	2470 mm
Width - Wide	2640 mm
Height	431 mm

309 CR VAB Standard Equipment

ENGINE

Cat C2.8 Turbo Diesel Engine (U.S. EPA Tier 4 Final/EU Stage V) - Electronic Engine, Turbo, Fit-For-Life Diesel Particulate Filter (DPF) and Diesel Oxidation Catalyst (DOC) Aftertreatment System

Automatic Engine Idle

Automatic Engine Shutdown

Automatic Swing Brake

Automatic Two Speed Travel

Fuel Water Separator with Indicator

Radial Seal – Double Element Air Filter

Extended Life Coolant, -37° C (-35° F)

HYDRAULICS

Smart Tech Electronic Pump

Electronic Variable Displacement Piston Pump

Load Sensing/Flow Sharing Hydraulics

Dedicated Auxiliary Hydraulic Pump

Power On Demand

Hydraulic Temperature Monitoring

Certified Accumulator

HYDO™ Advanced Hydraulic Oil

Ecology Drain

OPERATOR ENVIRONMENT

Top Guard ISO 10262:1998 (Level I)

ROPS ISO 12117-2:2008

Sealed and Pressurized Cab

Stick Steer Mode

Travel Cruise Control

Control Pattern Changer

Adjustable Wrist Rests

Molded Footrests

Removable, Washable Floor Mat
Travel Pedals and Hand Levers
Cat Key with Passcode Option
HVAC with Automatic Temperature Control
Hydraulic Lockout Controls
Integrated Lower Front Window
Assisted Front Window Overhead Storage
Rear Window Emergency Exit
Cab Mirrors (vary by region)
Fabric, High Back, Suspension Seat
Retractable Seat Belt (75 mm/3 in)
Coat Hook
Cup Holder
LED Interior Light
Literature Holder
Mounting Bosses for Top and Front Guards
12V Power Socket
Radio – Bluetooth, Auxiliary, Microphone, USB (charging only)
Skylight
Signaling/Warning Horn
Cab and (left side) Boom Work Lights
Utility Space for Mobile Phone
Next Generation Color LCD Monitor (IP66)
– Jog Dial Interface
– Fuel Level and Coolant Temperature Gauges
– Maintenance and Machine Monitoring
– Performance and Machine Adjustments
– Numeric Security Code
– Multiple Languages
– Camera Ready (IP68 & IP69K)
– Hour Meter with Wake Up Switch

UNDERCARRIAGE

Tie Down Eyes on Track Frame
Greased and Lubricated Track
Hydraulic Track Adjusters
Dozer Blade
Dozer Float
Bolt-on, Reversible Wear Edge

BOOM, STICK AND LINKAGES

Variable Angle Boom
Standard Stick (1820 mm/71.7 in)
Front Shovel Capable – Pin-on/Manual Coupler/Hydraulic Coupler (not available in all regions)
Thumb Ready (not available in all regions)

ELECTRICAL

12 Volt Electrical System
90 Ampere Alternator
Circuit Breaker
850 CCA Maintenance Free Battery
Lock Out/Tag Out Battery Disconnect
Ignition Key Stop Switch
Rear Camera

GUARDING

ROPS ISO 12117-2:2008
Top Guard ISO 10262:1998 (Level I)

OTHER

Locks on External Enclosure Doors
Lockable Fuel Cap
Beacon Socket
Rear Reflectors

309 CR VAB Optional Equipment

HYDRAULICS

Third Auxiliary

OPERATOR ENVIRONMENT

Push to Start with Bluetooth® Key
Air Suspension Heated Seat
Seat Belt Reminder System
Rain Visor
Next Generation Advanced Monitor (below are all included with Next Generation Advanced Monitor option)
– Touch Screen
– Site Reference System
– High Definition Camera Capable (IP68 & IP69K)
– Numeric Security Code

TECHNOLOGY

Ease of Use Indicate
Ease of Use E-Fence
Ease of Use Laser Catcher
Cat Grade Advanced 2D
Cat Grade 3D

UNDERCARRIAGE

Wide Dozer Blade
Steel Tracks (450 mm/17.7 in wide)

Wide Steel Tracks (600 mm/23.6 in)

Steel Track with Rubber Pads

Track Guides

BOOM, STICK AND LINKAGES

Boom Lowering Check Valve

Stick Lowering Check Valve

Attachments including Buckets, Augers and Hammers

2nd Auxiliary Hydraulic Lines

Boom Lowering Control Valve (Standard in Europe)

Stick Lowering Control Valve (Standard in Europe)

Certified Lifting Eye

ELECTRICAL

Travel Alarm

Rear and Side Camera

Rotating Beacon

GUARDING

Top Guard ISO 10262:1998 (Level II)

Front Guard (Mesh) ISO 10262:1998 (Level I)

Front Guard (Heavy Duty) ISO 10262:1998 (Level II)

Track Guards

OTHER

Counterweight (250 kg/551 lb)

Counterweight (500 kg/1103 lb)

Water Jacket Heater

Refueling Pump