

# PRODUCT SPECIFICATIONS FOR 309 CR

## SPECIFICATIONS

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

## ENGINE

<b>Engine Model</b>	Cat C3.3B Cat C3.3B
<b>Displacement</b>	203 in <sup>3</sup> 3.33 l
<b>Bore</b>	3.7 in 94 mm
<b>Stroke</b>	4.7 in 120 mm
<b>Gross Power - SAE J1995</b>	74.3 HP 55.4 kW
<b>Rated Net Power - 2,200 rpm - U.S. EPA Tier 4 Final/EU Stage V - ISO 9249/EEC 80/1269</b>	69.5 HP 51.8 kW

## WEIGHTS

**Operating Weight** 21091 lb 9565 kg

**Maximum Operating Weight with Cab\*\*** 21091 lb 9565 kg

**Note (1)** \*Minimum Weight is based on steel tracks, no counterweight, operator, full fuel tank, standard stick, blade and no bucket. \*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, counterweight, operator, full fuel tank, long stick, blade and no bucket. \*\*Maximum Weight is based on steel tracks with rubber pads, counterweight, operator, full fuel tank, long stick, blade and no bucket.

**Minimum  
Operating  
Weight with  
Cab\***

19735 lb 8950 kg

**WEIGHT INCREASE FROM MINIMUM CONFIGURATION****Steel Tracks with Pads**

728 lb 330 kg

**Long Stick**

146 lb 66 kg

**Counterweight**

552 lb 250 kg

**TRAVEL SYSTEM****Gradeability - Maximum**

30 degrees 30 degrees

**Ground Pressure - Minimum Weight**

5 psi 34.7 kPa

**Ground Pressure - Maximum Weight**

5.4 psi 37.1 kPa

**Travel Speed - High**

3.1 mile/h 4.9 km/h

**Travel Speed - Low**

1.6 mile/h 2.6 km/h

**Maximum Traction Force - High Speed**

6497 lb 28.9 kN

**Maximum Traction Force - Low Speed**

19064 lb 84.8 kN

**SERVICE REFILL CAPACITIES****Engine Oil**

3 gal (US) 11.2 l

<b>Fuel Tank</b>	39 gal (US) 147 l
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<b>Hydraulic System</b>	29 gal (US) 110 l
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<b>Cooling System</b>	2.6 gal (US) 10 l
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<b>Hydraulic Tank</b>	14 gal (US) 53 l
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## HYDRAULIC SYSTEM

<b>Type</b>	Load Sensing Hydraulics with Variable Displacement Piston Pump Load Sensing Hydraulics with Variable Displacement Piston Pump
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<b>Operating Pressure - Swing</b>	3626 psi 250 bar
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<b>Digging Force - Stick - Standard</b>	9500 lb 42.3 kN
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<b>Digging Force - Stick - Long</b>	8023 lb 35.7 kN
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<b>Operating Pressure - Travel</b>	4134 psi 285 bar
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<b>Pump Flow at 2,400 rpm</b>	62 gal/min 233 l/min
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<b>Digging Force - Bucket</b>	13943 lb 62 kN
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<b>Operating Pressure - Equipment</b>	4134 psi 285 bar
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<b>Note</b>	Flow and pressure are not combinable. Under load, as flow rises pressure goes down. Flow and pressure are not combinable. Under load, as flow rises pressure goes down.
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<b>Maximum Auxiliary Circuit - Secondary - Flow at Pump</b>	9 gal/min 33 l/min
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<b>Maximum Auxiliary Circuit - Primary - Pressure at Pump</b>	4134 psi 285 bar
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<b>Maximum Auxiliary Circuit - Primary - Flow at Pump</b>	35 gal/min 131 l/min
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<b>Maximum Auxiliary Circuit - Secondary - Pressure at Pump</b>	4134 psi 285 bar
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<b>Maximum Auxiliary Circuit - High Flow - Pressure at Pump</b>	4134 lbf/in 285 bar
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<b>Maximum Auxiliary Circuit - High Flow - Flow at Pump</b>	37 gal/min 140 l/min
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## SWING SYSTEM

<b>Machine Swing Speed</b>	10.6 r/min 10.6 r/min
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<b>Boom Swing - Right</b>	50 degrees 50 degrees
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<b>Boom Swing - Left</b>	60 degrees 60 degrees
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## BLADE

<b>Height</b>	17 in 431 mm
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<b>Width - Wide</b>	104 in 2640 mm
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<b>Width - Standard</b>	97 in 2470 mm
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## CERTIFICATION - CAB

<b>Roll Over Protective Structure (ROPS)</b>	ISO 12117-2:2008 ISO 12117-2:2008
<b>Top Guard</b>	ISO 10262:1998 (Level I) ISO 10262:1998 (Level I)
<b>Tip Over Protective Structure (TOPS)</b>	ISO 12117:1997 ISO 12117:1997

## SOUND

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

## DIMENSIONS - STANDARD STICK

<b>Boom Swing - Right</b>	36.8 in 935 mm
<b>Maximum Dump Clearance</b>	187.4 in 4760 mm
<b>Tail Swing without Counterweight</b>	57.1 in 1450 mm
<b>Maximum Reach - Ground Level</b>	273.6 in 6949 mm
<b>O/A Undercarriage Length</b>	126 in 3200 mm

<b>Cab Height</b>	100 in 2541 mm
<b>Swing Bearing - Height</b>	29.7 in 756 mm
<b>Maximum Dig Height</b>	265.2 in 6736 mm
<b>Track Belt/Shoe Width</b>	17.7 in 450 mm
<b>O/A Track Width</b>	97.2 in 2470 mm
<b>Ground Clearance</b>	14 in 356 mm
<b>Maximum Reach</b>	281.1 in 7141 mm
<b>Tail Swing with Counterweight</b>	62.4 in 1585 mm
<b>Boom In Reach</b>	120.4 in 3059 mm
<b>Vertical Wall</b>	117.8 in 2991 mm
<b>Dig Depth</b>	161.7 in 4108 mm
<b>Stick Length</b>	71.8 in 1820 mm
<b>Boom Swing - Left</b>	23.8 in 604 mm
<b>Maximum Blade Height</b>	16.1 in 408 mm
<b>Maximum Blade Depth</b>	26 in 671 mm

**Note** \*Boom Height when stick is pinned in transport position with no attachments. \*Boom Height when stick is pinned in transport position with no attachments.

**Overall Shipping Length - without Counterweight** 266.7 in 6774 mm

**Overall Shipping Length - with Counterweight** 266.7 in 6774 mm

**Note (2)** \*\*\*With blade positioned at the rear of the machine. \*\*\*With blade positioned at the rear of the machine.

**Note (1)** \*\*Boom Height when stick is pinned in working position with attachments Standard Stick offers only one pin position. \*\*Boom Height when stick is pinned in working position with attachments Standard Stick offers only one pin position.

**Height - Boom Transport - No Tools\*** 95.7 in 2430 mm

**Height - Boom Working - With Tools\*\*** 104.7 in 2660 mm

## DIMENSIONS - LONG STICK

**Dig Depth** 182.8 in 4642 mm

**Maximum Dump Clearance** 199.7 in 5072 mm

**Boom In Reach** 126.6 in 3215 mm

**Vertical Wall** 134 in 3404 mm

**Maximum Blade Depth** 26 in 671 mm

**O/A Undercarriage Length** 126 in 3200 mm

**O/A Track Width** 97.2 in 2470 mm

**Stick Length** 92.8 in 2358 mm

**Maximum Blade Height** 16.1 in 408 mm

**Maximum Dig Height** 277.1 in 7039 mm

**Tail Swing with Counterweight** 62.4 in 1585 mm

**Maximum Reach** 300.7 in 7637 mm

**Cab Height** 100 in 2541 mm

**Ground Clearance** 14 in 356 mm

**Swing Bearing - Height** 29.7 in 756 mm

**Track Belt/Shoe Width** 17.7 in 450 mm

**Boom Swing - Left** 23.8 in 604 mm

**Boom Swing - Right** 36.8 in 935 mm



**Tail Swing  
without  
Counterweight** 57.1 in 1450 mm

**Maximum  
Reach - Ground  
Level** 293.7 in 7460 mm

**Note** \*Boom Height when stick is pinned in transport position with no attachments. \*Boom Height when stick is pinned in transport position with no attachments.

**Note (2)** \*\*\*With blade positioned at the rear of the machine. \*\*\*With blade positioned at the rear of the machine.

**Note (1)** \*\*Boom Height when stick is pinned in working position with attachments Standard Stick offers only one pin position. \*\*Boom Height when stick is pinned in working position with attachments Standard Stick offers only one pin position.

**Height - Boom  
Transport - No  
Tools\*** 89 in 2260 mm

**Overall  
Shipping  
Length - with  
Counterweight** 7052 mm (277.6 in)\*\*\* 7052 mm (277.6 in)\*\*\*

**Height - Boom  
Working - With  
Tools\*\*** 120.1 in 3050 mm

**Overall  
Shipping  
Length - without  
Counterweight** 7052 mm (277.6 in)\*\*\* 7052 mm (277.6 in)\*\*\*

## AIR CONDITIONING SYSTEM

**Air Conditioning** The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1 kg of refrigerant which has a CO2 equivalent of 1.430 metric tonnes. The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1 kg of refrigerant which has a CO2 equivalent of 1.430 metric tonnes.

## **309 CR STANDARD EQUIPMENT ENGINE**

Cat C3.3B Diesel Engine (U.S. EPA Tier 4 Final/EU Stage V) – Electronic Engine, Turbo, Diesel Particulate Filter (DPF)

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**

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

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

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)

## **UNDERCARRIAGE**

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

## **BOOM, STICK AND LINKAGES**

One Piece Boom (3400 mm/133.9 in)  
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  
60 Ampere Alternator  
Circuit Breaker  
900 CCA Maintenance Free Battery  
Battery Disconnect  
Ignition Key Stop Switch  
Travel Alarm

## **OTHER**

Locks on External Enclosure Doors  
Lockable Fuel Cap  
Beacon Socket

Rear Reflectors

## **309 CR OPTIONAL EQUIPMENT**

### **OPERATOR ENVIRONMENT**

Push to Start with Bluetooth® Key

Air Suspension Heated Seat

Rain Visor

Next Generation Advanced Monitor (below are all included with Next Generation Advanced Monitor option)

### **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**

Long Stick (2360 mm/92.9 in)

Attachments including Buckets, Augers and Hammers

2nd Auxiliary Hydraulic Lines with Case Drain

Boom Lowering Check Valve

Stick Lowering Check Valve

Certified Lifting Eye

### **ELECTRICAL**

Product Link™ Elite (regulations apply)

Rearview Camera

Rotating Beacon

### **GUARDING**

Mesh Front Guard ISO 10262 1998 Level I

Heavy Duty Front Guard ISO 10262 1998 Level II

Top Guard ISO 10262 1998 Level II

Polycarbonate Front Window EN356 P5A (Cab Only)

Track Guards

### **OTHER**

Additional Counterweight

Water Jacket Heater

Refueling Pump

Variable Angle Boom (refer to 309 CR VAB brochure for VAB specs and additional information)