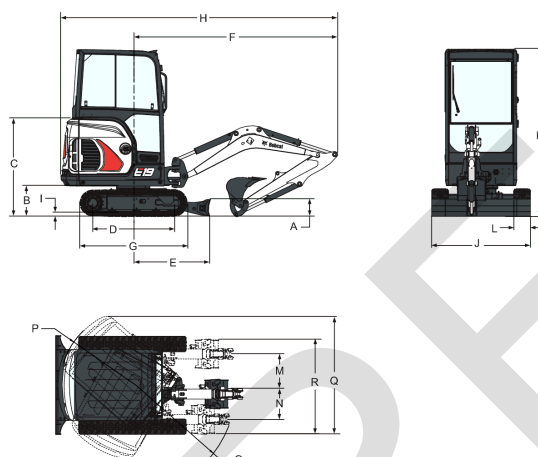
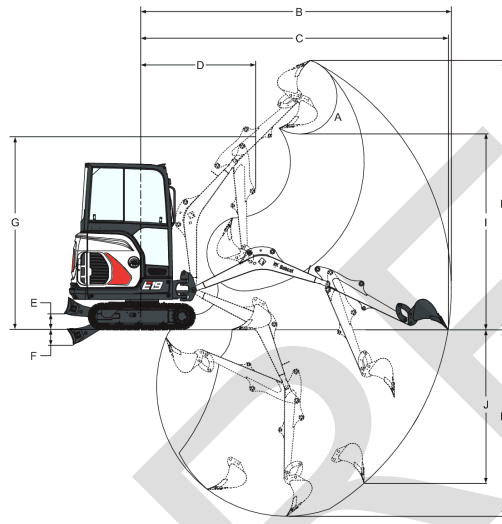


## Dimensions



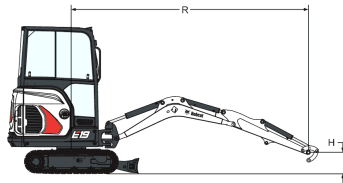
(A) Blade height	235.0 mm
(B) Clearance, upper structure to ground line	419.0 mm
(C) Ground line to top of engine cover	1340.0 mm
(D) Length of track on ground	1114.0 mm
(E) Machine centre line to blade	1045.0 mm
(F) Minimum radius in travel position	2832.0 mm
(F*) Minimum radius in travel position, long dipperstick	2812.0 mm
(G) Overall length of track assembly	1476.0 mm
(H) Overall length in travel position	3831.0 mm
(H*) Overall length in travel position, long dipperstick	3812.0 mm
(I) Track lug height	25.0 mm
(J) Blade width	980.0 mm
(J*) Blade width (extensions extended)	1360.0 mm
(K) Height	2299.0 mm
(L) Track width	230.0 mm
(M) Machine centre line to working equipment centre line, left-hand rotation	433.0 mm
(N) Machine centre line to working equipment centre line, right-hand rotation	589.0 mm
(O) Minimum turning radius	1154.0 mm
(P) Swing clearance, rear	1009.0 mm
(Q) Working width at maximum right-hand rotation	1801.0 mm
(R) Working width at maximum left-hand rotation	1645.0 mm
<i>(Values with a "*" are for the long dipperstick)</i>	

## Working Range



(A) Bucket pivot angle	196°
(B) Maximum reach of working equipment	4084.0 mm
(B*) Maximum reach of working equipment, long dipperstick	4257.0 mm
(C) Maximum reach at ground level	4039.0 mm
(C*) Maximum reach at ground level, long dipperstick	4214.0 mm
(D) Maximum working equipment radius with boom at maximum height and dipperstick fully retracted	1542.0 mm
(D*) Maximum working equipment radius with boom at maximum height and dipperstick fully retracted, long dipperstick	1561.0 mm
(E) Maximum blade height	220.0 mm
(F) Maximum blade depth	204.0 mm
(G) Maximum height of working equipment with dipperstick retracted	2564.0 mm
(H) Maximum bucket tooth height	3573.0 mm
(H*) Maximum bucket tooth height, long dipperstick	3701.0 mm
(I) Maximum dump height	2566.0 mm
(I*) Maximum dump height, long dipperstick	2693.0 mm
(J) Maximum depth of vertical wall which can be excavated	1948.0 mm
(J*) Maximum depth of vertical wall which can be excavated, long dipperstick	2115.0 mm
(K) Maximum digging depth	2385.0 mm
(K*) Maximum digging depth, long dipperstick	2565.0 mm

*(Values with a "\*" are for the long dipperstick)*

**Lift Capacity (Standard dipperstick - Object handling applications excluded)**

**Rated lift capacity over blade, blade down**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3175	422*	-	394*
1000	3533	402*	660*	459*
Ground	3515	380*	896*	497*
-1000	3112	368*	739*	409*

\* Rated hydraulic lift capacity

**Rated lift capacity over blade, blade up**

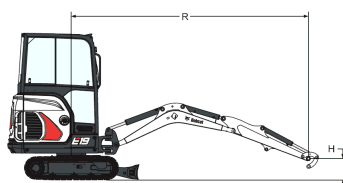
Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3175	244	-	277
1000	3533	198	487	261
Ground	3515	193	439	244
-1000	3112	222	401	235

\* Rated hydraulic lift capacity

**Rated lift capacity over side, blade up**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3175	293	-	309
1000	3533	237	543	312
Ground	3515	232	504	294
-1000	3112	270	478	272

\* Rated hydraulic lift capacity

**Lift capacity (Long dipperstick, additional counterweight - Object handling applications excluded)**


**Rated lift capacity over blade, blade down**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3372	380*	-	340*
1000	3708	372*	496*	412*
Ground	3691	364*	854*	465*
-1000	3315	351*	735*	405*

\* Rated hydraulic lift capacity

**Rated lift capacity over blade, blade up**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3372	260	-	340*
1000	3708	217	496*	294
Ground	3691	212	495	279
-1000	3315	240	464	273

\* Rated hydraulic lift capacity

**Rated lift capacity over side, blade up**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius
2000	3372	306	-	340*
1000	3708	254	496*	346
Ground	3691	248	560	329
-1000	3315	285	541	310

\* Rated hydraulic lift capacity

**Performance**

Digging force, dipperstick (ISO 6015)	10371 N
Digging force, long dipperstick (ISO 6015)	9279 N
Digging force, bucket (ISO 6015)	20835 N
Drawbar pull	19380 N
Ground pressure with rubber tracks	32.40 kPa

**Cycle Times**

Boom raise time	4.4 s
Boom lower time	3.8 s
Bucket curl time	2.0 s
Bucket dump time	1.2 s
Dipperstick retract time	2.4 s
Dipperstick extend time	2.0 s
Boom swing left time	2.9 s
Boom swing right time	3.6 s
Blade raise time	2.6 s
Blade lower time	2.6 s
Slew rate	8.4 RPM
Undercarriage expand time	4.1 s
Undercarriage retract time	3.5 s

## Weights

Operating weight with ROPS canopy	1781 kg
Additional weight for cab with heating	96 kg
Additional weight for long dipperstick	6 kg
Additional weight for counter weight	50 kg

## Engine

Make / model	Kubota / D722-E2B-BCZ-7
Fuel	Diesel
Cooling	Liquid
Maximum NET power (ISO 9249)	9.9 kW
High idle speed	2630.0-2670.0 RPM
Low idle speed	1150.0-1250.0 RPM
Maximum NET torque (ISO 9249)	42.3 Nm
Number of cylinders	3
Displacement	0.72 L
Bore	67.0 mm
Stroke	68.0 mm
Air filter	Dual dry replaceable paper cartridge
Ignition	Diesel compression
Fuel filter	
Glow plug resistance	

## Electrical

Alternator	12 V — 40 A — open frame with internal regulator
Battery	12 V — 530 A cold cranking current — 75 min reserve capacity
Starter	12 V - 1.4 kW - positive shift drive

## Hydraulic System

Pump type	Dual piston pump with gear pump
Pump capacity	41.30 L/min
Pump 1 capacity at 2500 RPM	11.30 L/min
Pump 2 and 3 capacity at 2500 RPM	15.00 L/min
System relief pressure for slew circuits	137.0 bar
Auxiliary relief	180.0 bar
Dipperstick port relief base and rod end	250.00 bar
Boom port relief base and rod end	210.0 - 250.0 bar
Main hydraulic filter bypass	3.40 bar
Control valve	Nine-spool parallel type, open centre
Auxiliary flow	30.00 L/min

## Hydraulic Cylinders

Boom cylinder	Cushion up
Boom cylinder bore	69.9 mm
Boom cylinder rod	41.3 mm
Boom cylinder stroke	445.0 mm
Dipperstick cylinder	Cushion
Dipperstick cylinder bore	60.3 mm
Dipperstick cylinder rod	38.1 mm

Dipperstick cylinder stroke	424.9 mm
Bucket cylinder	No cushion
Bucket cylinder bore	57.2 mm
Bucket cylinder rod	38.1 mm
Bucket cylinder stroke	385.0 mm
Boom swing cylinder	Cushion
Boom swing cylinder bore	60.3 mm
Boom swing cylinder rod	31.8 mm
Boom swing cylinder stroke	411.2 mm
Blade cylinder	No cushion
Blade cylinder bore	63.5 mm
Blade cylinder rod	34.9 mm
Blade cylinder stroke	107.9 mm
Undercarriage cylinder	No cushion
Undercarriage cylinder bore	44.5 mm
Undercarriage cylinder rod	25.4 mm
Undercarriage cylinder stroke	385.0 mm

### Buckets

Width (mm)	Weight (kg)	Struck capacity (m <sup>3</sup> )	Rated capacity (m <sup>3</sup> )
150	26.3	-	0.011
230	30.4	-	0.017
300	34.5	-	0.025
400	41.7	-	0.036
450	44.8	-	0.041
500	47.7	-	0.047
600	55.2	-	0.058
800	62	-	0.051
1000	74	-	0.065

### Slew System

Boom swing, left	80°
Boom swing, right	60°
Slew circle	Single row shear-type ball bearings with internal gear
Slew drive	Orbit motor

### Drive System

Travel motor	Each track is driven by a hydraulic axial piston motor
Drive reduction	Two-stage planetary gear reduction 30.36:1

### Traction

Track width	230.0 mm
Track adjusters	Grease type with shock absorbing recoil springs
Track type, standard	Half-pitch, rubber
Travel speed, low range	2.5 km/h
Travel speed, high range	4.0 km/h
Undercarriage	Sealed track rollers with box section track roller frame
Number of track rollers per side	3
Gradeability	30°

## Brakes

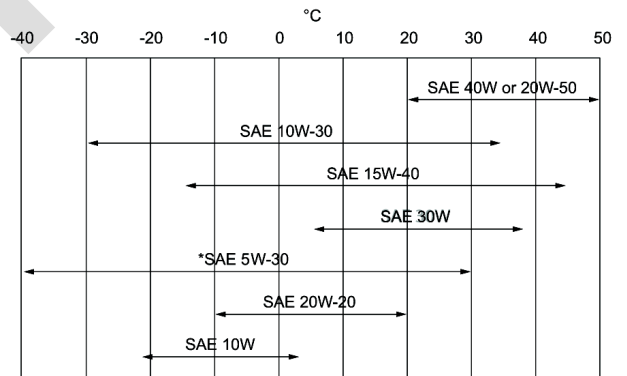
Parking brake	Hydraulic lock on motor
Slew brake	Spring applied, pressure released
Travel brake	Hydraulic lock on motor

## Fluid Capacities

Cooling system	3.30 L
Engine lubrication plus oil filter	3.30 L
Fuel reservoir	19.00 L
Hydraulic reservoir	14.30 L
Hydraulic system	19.00 L
Final drive case (each)	0.40 L

## Fluid Specifications

Engine coolant	Propylene glycol/water mix (53% - 47%) with freeze protection to -37°C 5 L can - 6904844A, 25 L container - 6904844B, 209 L drum - 6904844C, 1000 L tank - 6904844D
Engine oil	Oil must meet API Service Classification of CD, CE, CF4, CG4, or better. Recommended SAE viscosity number for anticipated temperature range.



Hydraulic fluid

\* Can be used only when available with appropriate diesel rating. For synthetic oil use the recommendation from the oil manufacturer.

Bobcat Superior SH, 5 L can - 6904842A, 25 L container - 6904842B, 209 L drum - 6904842C, 1000 L tank - 6904842D

Bobcat Bio Hydraulic, 5 L can - 6904843A, 25 L container - 6904843B, 209 L drum - 6904843C, 1000 L tank - 6904843D

Motor oil is not an acceptable alternative fluid.

## Controls

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Engine	Hand lever on right hand side
Starting	Key-type starter switch and shutdown
Blade	Right hand lever
Boom swing	Right hand foot pedal or electric switch in left joystick (optional)
Hydraulics	Two joysticks control boom, bucket, dipperstick and upper structure slew
Auxiliary hydraulics	Left hand foot pedal or electric switch in right joystick with 3 aux flow modes (optional)
Upper structure slew lock for holding and service	Hydraulic lock on motor
Holding brake for upper structure slew	Spring applied, pressure released
Steering	Direction and speed controlled by two hand levers or foot pedals

## Instrumentation

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- LCD display
  - Hour meter
  - Job clock
  - Engine RPM
  - Battery voltage
  - Service reminder
  - Service codes
  - Engine pre-heat and countdown for glow plugs (time depends on engine coolant temperature)
  - Auxiliary mode indicator (H, 3, 2, 1, Off) (optional)
- Gauges
  - Fuel level
  - Engine coolant temperature
- Indicators
  - High travel speed indicator
  - Seat belt
  - Left console lockout
- Warning lights
  - General warning
  - Engine malfunction
  - Hydraulic system malfunction
- Buttons
  - Lights
  - Auxiliary (1 LED - Aux active, both LED's - detent active)
  - Information
- Left hand console
  - Windshield wiper/washer switch (optional)
  - Retractable undercarriage switch
  - Beacon / strobe switch (optional)
  - Overload warning device switch (optional)

## Serviceability

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- Fuel filter is external and has key lock for vandal proofing  
Access is available to the following through the rear tailgate or side access hood:
- Air cleaner with indicator
  - Battery



- Cooling system (engine oil and hydraulic oil coolers) for cleaning
- Engine oil and fuel filters
- Engine oil level
- Fuel filler
- Starter
- Sight gauges for hydraulic level
- Sight gauge for fuel level

Central grease point for swing bearing, swing pinion, and offset cylinder

Tailgate and access cover have locks for vandal-proofing.

Easy access to all grease points.

### Standard Features

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- TOPS/ROPS/FOPS canopy <sup>1</sup>
- 980 mm dozer blade with two 190 mm blade extensions
- Exposed counterweight with 4 mm steel tailgate
- 230 mm rubber track
- Double acting auxiliary hydraulics with quick couplers
- Control console locks
- Horn
- Hydraulic joystick controls
- Retractable seat belt
- Two-speed travel
- Full fuel warning alarm
- Battery kill switch
- Cupholders
- Foldable and ergonomic pedals
- Hydraulically retractable undercarriage from 1360 mm to 980 mm
- Upper structure four point tie down
- Work light
- Engine with auto shutdown
- Hydraulic and travel control lockout
- Warranty: 12 months, 2000 hours (whichever occurs first)

### Options

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- TOPS/ROPS cab with heater
- Keyless start
- Travel motion alarm
- Cab enclosure, vinyl
- Cab/canopy light kit
- Catalytic exhaust purifier kit
- Special applications kit
- Long dipperstick
- Long dozer blade
- AM/FM MP3 stereo radio
- 2nd Auxiliary hydraulics
- Auxiliary hydraulic line on arm
- Boom load holding valve
- Hydraulic clamp
- Comfort package (Superior seat for canopy or cloth suspension seat for cab, Autospeed shift, Aux and Off-set pilot control)

1. Roll Over Protective Structure (ROPS) – Meets requirements of ISO 3471. Tip Over Protective Structure (TOPS) – Meets requirements of ISO 12117. Falling Object Protective Structure (FOPS) - Meets requirements of ISO 3449.

- Klac and Lehnhoff couplers
- Object handling certification
- Additional counterweight
- Left and right mirror kit

## Attachments

- Augers
- Breakers
- Clayspade Buckets, Klac
- Clayspade Buckets, Lehnhoff
- Clayspade Buckets, Pin-on
- Digging Buckets, Klac
- Digging Buckets, Lehnhoff
- Digging Buckets, Pin-on
- Grading Buckets, Klac
- Grading Buckets, Lehnhoff
- Grading Buckets, Pin-on
- Hydraulic Clamps
- Klac™ reversible adaptor
- Laser Equipment
- Skeleton Bucket, Klac
- Skeleton Bucket, Lehnhoff
- Skeleton Bucket, Pin-On
- Tilt Buckets, Klac
- Tilt Buckets, Lehnhoff
- Tilt Buckets, Pin-on

## Environmental

Noise level LpA(EU Directive 2006/42/EC)	79 dB(A)
Noise level LWA(EU Directive 2000/14/EC)	93 dB(A)
Whole body vibration (ISO 2631-1)	0.74 ms <sup>-2</sup>
Hand-arm vibration (ISO 5349-1)	1.42 ms <sup>-2</sup>
Hand-arm vibration (ISO 5349-1) Uncertainty	0.37 ms <sup>-2</sup>

## Safety

Retractable seat belt, standard	Should always be worn when operating the excavator
Operator cab, standard	A four-post canopy or optional closed cab. Meets SAE J1040 for Roll Over Protection Structure (ROPS) and ISO 12117 for Tip Over Protective Structure (TOPS). An optional top Falling Object Guard Structure (FOGS) meeting ISO 10262 Level 1 * is available.
Grab handles, standard	Should always be used when entering/exiting excavator.
Safety tread, standard	Slip resistant tread on canopy threshold to be used when entering/exiting excavator.
Front working lights, standard	Use for indoor and low light operation.
Control lockout, standard	Operator console locks out work group and travel functions when in the upright position.
Upper carriage slew lock, standard	An automatic disk brake locks the upper structure to the undercarriage for transport.
Pedal lock, standard	Prevents activation of the boom swing function.
Travel motion alarm, optional	For use when required
Special applications kit, optional	Restricts objects and material from entering cab openings.
Operator's handbook, standard	