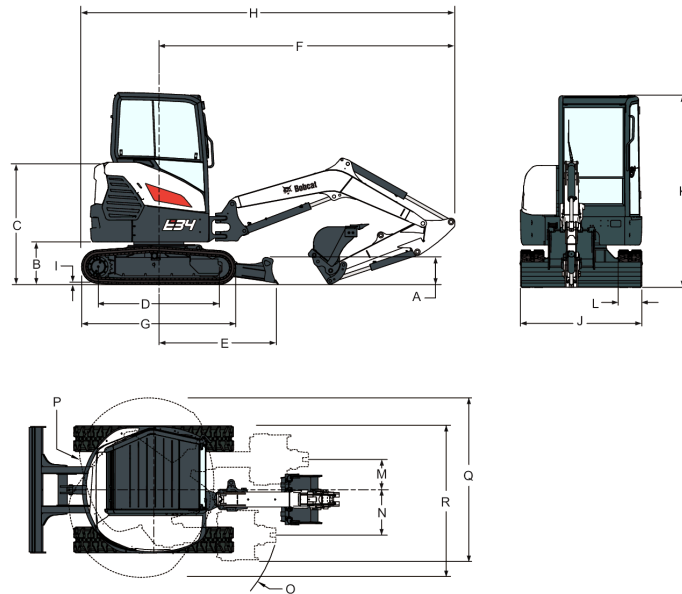
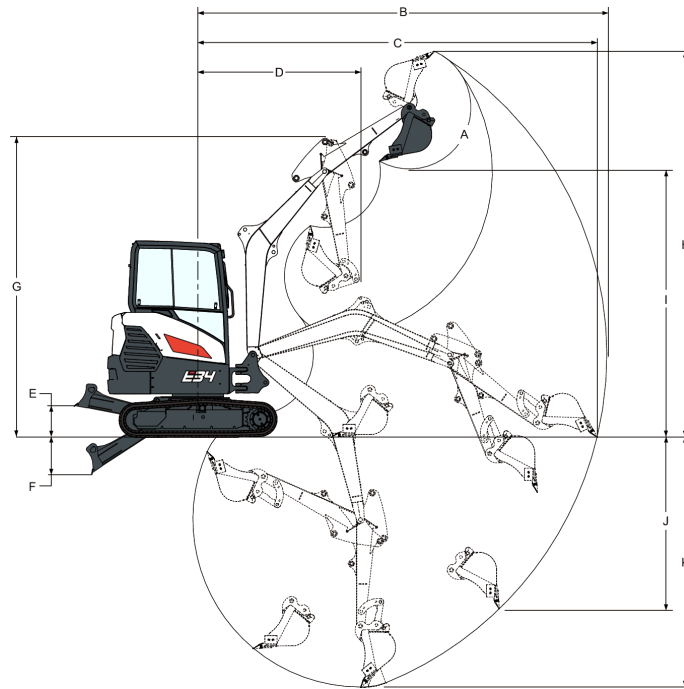


## Dimensions



(A) Blade height	322.0 mm
(B) Clearance, upper structure to ground line	540.0 mm
(C) Ground line to top of engine cover	1557.0 mm
(D) Length of track on ground	1542.0 mm
(E) Machine centre line to blade	1528.0 mm
(F) Minimum radius in travel position	3787.0 mm
(G) Overall length of track assembly	1970.0 mm
(H) Overall length in travel position	4661.0 mm
(H*) Overall length in travel position, long dipperstick	4761.0 mm
(I) Track lug height	25.0 mm
(J) Blade width	1550.0 mm
(K) Height	2468.0 mm
(L) Track width	300.0 mm
(M) Machine centre line to working equipment centre line, left-hand rotation	371.0 mm
(N) Machine centre line to working equipment centre line, right-hand rotation	554.0 mm
(O) Minimum turning radius	1623.0 mm
(P) Swing clearance, rear	1125.0 mm
(P*) Swing clearance, rear (zero tail swing), long dipperstick	1215.0 mm
(Q) Working width at maximum right-hand rotation	1982.0 mm
(R) Working width at maximum left-hand rotation	1855.0 mm
(•) Boom length (boom pivot to arm pivot)	2450.0 mm
(•) Standard arm length (arm pivot to bucket pivot)	1325.0 mm
(•) Optional arm length (arm pivot to bucket pivot)	1625.0 mm
<i>(Values with a "*" are for the long dipperstick)</i>	

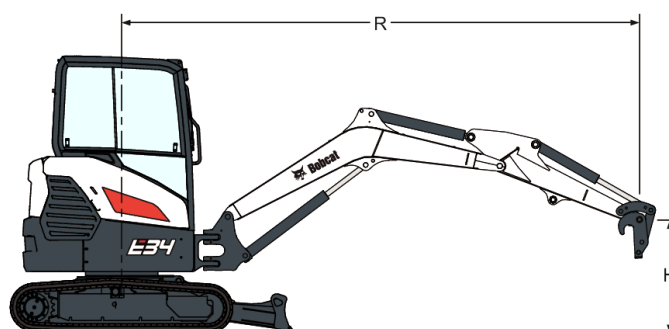
## Working Range



(A) Bucket pivot angle	185.0°
(B) Maximum reach of working equipment	5101.0 mm
(B) Maximum reach of working equipment, long dipperstick	5383.0 mm
(C) Maximum reach at ground level	4980.0 mm
(C*) Maximum reach at ground level, long dipperstick	5270.0 mm
(D) Maximum working equipment radius with boom at maximum height and dipperstick fully retracted	2017.0 mm
(D*) Maximum working equipment radius with boom at maximum height and dipperstick fully retracted, long dipperstick	2077.0 mm
(E) Maximum blade height	382.0 mm
(F) Maximum blade depth	456.0 mm
(G) Maximum height of working equipment with dipperstick retracted	3708.0 mm
(G) Maximum height of working equipment with dipperstick retracted, long dipperstick	3708.0 mm
(H) Maximum bucket tooth height	4804.0 mm
(H*) Maximum bucket tooth height, long dipperstick	4985.0 mm
(I) Maximum dump height	3340.0 mm
(I*) Maximum dump height, long dipperstick	3521.0 mm
(J) Maximum depth of vertical wall which can be excavated	2136.0 mm
(J) Maximum depth of vertical wall which can be excavated, long dipperstick	2414.0 mm
(K) Maximum digging depth	3117.0 mm
(K*) Maximum digging depth, long dipperstick	3417.0 mm

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

## Lift Capacity - Standard arm and standard counterweight



### 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	Lift at 4000 mm radius
4000	2690	565*			
3000	3680	716*			
2000	4180	764*		819*	757*
1000	4300	842*		1111*	857*
Ground	4150	872*	2193*	1303*	930*
-1000	3740	959*	1987*	1273*	
* 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	Lift at 4000 mm radius
4000	2690	299			
3000	3680	540			
2000	4180	360		613	392
1000	4300	341		592	390
Ground	4150	366	1044	572	387
-1000	3740	453	1151	599	
* 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	Lift at 4000 mm radius
4000	2690	332			
3000	3680	385			
2000	4180	319		517	339
1000	4300	299		498	332
Ground	4150	310	843	491	327
-1000	3740	362	842	490	
* Rated hydraulic lift capacity					

**Lift Capacity - Standard arm and heavy counterweight**
**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	Lift at 4000 mm radius
4000	2690	565*			
3000	3680	716*			
2000	4180	764*		819*	757*
1000	4300	842*		1111*	857*
Ground	4150	872*	2193*	1303*	930*
-1000	3740	959*	1987*	1273*	
* Rated hydraulic lift capacity					

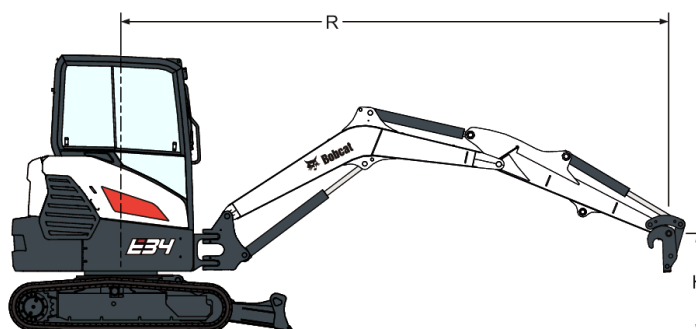
**RATED LIFT CAPACITY OVER BLADE, BLADE UP**

Lift point height [H] (mm)	Maximum radius [R] (mm)	Lift at max. radius (kg)	Lift at 2000 mm radius	Lift at 3000 mm radius	Lift at 4000 mm radius
4000	2690	525			
3000	3680	690			
2000	4180	470		781	508
1000	4300	447		760	506
Ground	4150	447	1347	740	503
-1000	3740	579	1456	768	
* 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	Lift at 4000 mm radius
4000	2690	543			
3000	3680	507			
2000	4180	424		675	450
1000	4300	401		656	442
Ground	4150	416	1117	649	438
-1000	3740	482	1116	648	
* Rated hydraulic lift capacity					

## Lift Capacity - Long arm and standard counterweight



### 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	Lift at 4000 mm radius
4000	3210	664*	-	-	-
3000	4050	682*	-	-	662*
2000	4490	712*	-	746*	699*
1000	4620	755*	-	1057*	941*
Ground	4440	846*	2287*	1288*	915*
-1000	4050	885*	2193*	1378*	891*

\* 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	Lift at 4000 mm radius
4000	3210	664*	-	-	-
3000	4050	505	-	-	515
2000	4490	423	-	746*	506
1000	4620	400	-	756	498
Ground	4440	414	1324	722	484
-1000	4050	475	1414	726	498

\* 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	Lift at 4000 mm radius
4000	3210	643	-	-	-
3000	4050	455	-	-	457
2000	4490	379	-	688	448
1000	4620	353	-	652	431
Ground	4440	363	1082	617	419
-1000	4050	423	1110	619	435

\* Rated hydraulic lift capacity

**Lift Capacity - Long arm and heavy counterweight**
**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	Lift at 4000 mm radius
4000	3210	664*	-	-	-
3000	4050	682*	-	-	662*
2000	4490	712*	-	746*	699*
1000	4620	755*	-	1057*	941*
Ground	4440	846*	2287*	1288*	915*
-1000	4050	885*	2193*	1378*	891*

\* 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	Lift at 4000 mm radius
4000	3210	664*	-	-	-
3000	4050	619	-	-	644
2000	4490	533	-	746*	629
1000	4620	508	-	935	624
Ground	4440	530	1668	902	611
-1000	4050	619	1696	953	624

\* 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	Lift at 4000 mm radius
4000	3210	664*	-	-	-
3000	4050	556	-	-	566
2000	4490	447	-	746*	565
1000	4620	452	-	808	548
Ground	4440	467	1365	779	538
-1000	4050	538	1395	796	550

\* Rated hydraulic lift capacity

## Performance

Digging force, dipperstick (ISO 6015)	20790 N
Digging force, long dipperstick (ISO 6015)	18010 N
Digging force, bucket (ISO 6015)	33430 N
Drawbar pull	34132 N
Ground pressure with rubber tracks	33.60 kPa
Ground pressure with steel tracks	34.53 kPa
Ground pressure with long dipperstick and rubber tracks	33.72 kPa
Ground pressure with long dipperstick and steel tracks	34.65 kPa

## Cycle Times

Boom raise time	4.4 s
Boom lower time	5.1 s
Bucket curl time	2.7 s
Bucket dump time	1.9 s
Dipperstick retract time	2.9 s
Dipperstick extend time	2.4 s
Boom swing left time	7.0 s
Boom swing right time	7.2 s
Blade raise time	3.6 s
Blade lower time	4.0 s
Slew rate	8.6 RPM

## Weights

Operating weight with cab and bucket (ISO 6016)	3476 kg
Weight reduction with canopy	-118 kg
Additional weight for cab with HVAC	19 kg
Additional weight for steel tracks	94 kg
Transport mass (no attachment)	3312 kg
Additional weight for long dipperstick	12 kg
Additional weight for heavy counterweight	291 kg

## Engine

Make / model	Kubota / D1703-E4B (Stage V)
Fuel	Diesel
Cooling	Liquid, forced circulation
Maximum power @ 2200 rpm (ISO 14396)	18.2 kW
Maximum governed speed	2200.0 RPM
Maximum torque (SAE)	97.4 Nm
Number of cylinders	3
Displacement	1642 cm <sup>3</sup>
Bore	87.0 mm
Stroke	92.4 mm
Air filter	Dry, dual element, replaceable paper cartridge with safety. Element and restriction indicator
Ignition	Diesel-compression
Starting aid	Intake air heater

## Electrical

Alternator	12 V — 90 A — open frame with internal regulator
Battery	12 V — 500 A cold cranking at -18°C — 90 min reserve capacity at 25 A
Starter	12 V — gear reduction type — 2.0 kW

## Hydraulic System

Pump type	Single outlet variable displacement, load sensing torque pump with gear pumps
Total hydraulic capacity	101.20 L/min
Gear pump capacity	8.80 L/min
Swing lock release pressure	216.00 bar
Port relief pressure for boom rod end, bucket, dipperstick and blade base	270.00 bar
Port relief pressure for boom base	290.00 bar
Control valve	9-spool, closed centre, individually compensated
Hydraulic filter	Full-flow replaceable — 3 µm synthetic media element
Fluid lines	SAE standard tubelines, hoses, and fittings
Auxiliary (AUX1) flow	64.00 L/min
Auxiliary (AUX2) flow	20.00 L/min
Auxiliary (AUX1) relief	206.00 bar
Auxiliary (AUX2) relief	179.00 bar

## Hydraulic Cylinders

Boom cylinder	Cushion up
Boom cylinder bore	76.2 mm
Boom cylinder rod	44.5 mm
Boom cylinder stroke	670.1 mm
Dipperstick cylinder	Cushion up & cushion retract
Dipperstick cylinder bore	76.2 mm
Dipperstick cylinder rod	44.5 mm
Dipperstick cylinder stroke	607.1 mm
Bucket cylinder	No cushion
Bucket cylinder bore	69.9 mm
Bucket cylinder rod	44.5 mm
Bucket cylinder stroke	466.3 mm
Boom swing cylinder	Cushion left and right
Boom swing cylinder bore	82.6 mm
Boom swing cylinder rod	44.5 mm
Boom swing cylinder stroke	459.9 mm
Blade cylinder	No cushion
Blade cylinder bore	88.9 mm
Blade cylinder rod	44.5 mm
Blade cylinder stroke	184.0 mm



## Buckets

Width	Weight (kg)	Rated capacity (L)
STD 23 cm	55.8	28
STD 30 cm	58.7	41
STD 40 cm	69.5	60
STD 45 cm	74	70
STD 50 cm	78.5	80
STD 60 cm	89.2	100
STD 70 cm	99.9	120
STD 75 cm	104.4	131
STD 80 cm	108.9	140
STD 90 cm	119.6	162
HD 30 cm	68.9	41
HD 60 cm	101.5	100
HD 70 cm	121	120

## Slew System

Boom swing, left	75.0°
Boom swing, right	55.0°
Slew circle	Single row shear-type ball bearings with internal gear
Slew drive	Axial piston connected to a planetary drive

## Drive System

Travel motor	Each track is driven by a hydraulic axial piston motor
Drive reduction	Two-stage planetary gear reduction 48.6:1

## Traction

Track width	300.0 mm
Track adjusters	Grease type with shock absorbing recoil springs
Track type, standard	Half-pitch, rubber (directional type)
Track type, optional	Steel, triple grouser shoe
Travel speed, low range	2.6 km/h
Travel speed, high range	4.7 km/h
Undercarriage	Crawler X-frame design with reinforced box section track roller frame and sealed track rollers
Number of track rollers per side	1 top, 4 bottom
Gradeability	30.0°

## Brakes

Parking brake	Spring applied, hydraulically released, multi-disk brake
Slew brake	Spring applied, hydraulically released
Travel brake	Hydraulic brake on motor

## Fluid Capacities

Fuel reservoir	52.00 L
Hydraulic reservoir	8.30 L
Final drive case (each)	0.50 L

## Fluid Specifications

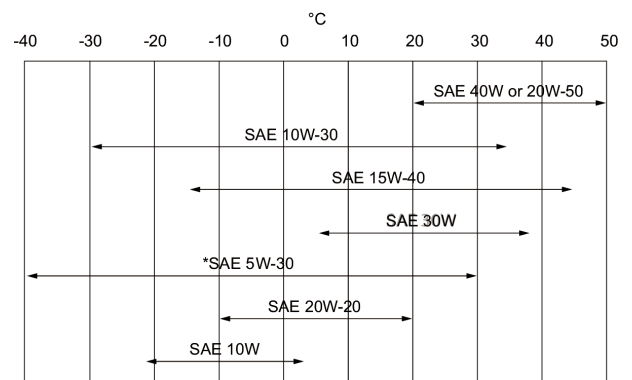
Engine coolant

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

Engine

Hand dial on right hand side. Electronically controlled. Auto idle system to reduce fuel consumption.

Starting

Key type starter and shutdown switch

Blade

Right hand lever

Boom swing

Electric switch in left joystick

Hydraulics

Two joysticks control boom, bucket, dipperstick and upper structure slew

Auxiliary hydraulics

Electric switch in right joystick (left joystick for second auxiliary)

Upper structure slew lock for holding and service

Hydraulic lock on motor

Steering

Direction and speed controlled by two pilot-operated hand levers or two foot pedals

## Instrumentation

- A/C control switches
- Auto idle switch
- Battery disconnecter

- Engine throttle dial
- Fuel gauge
- High travel speed indicator
- Hour meter
- Hour meter, resettable
- Hydraulic system indicator
- Tachometer
- Windshield wiper/washer switch
- Work light indicator
- Work light switch

### Serviceability

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Fuel filler 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
- Control valve
- Engine oil and fuel filters
- Engine oil level
- Fuel filler
- Hydraulic valve bank
- Starter
- Sight gauges for hydraulic 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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- 1550 mm dozer blade
- 300 mm rubber tracks
- Adjustable double acting auxiliary hydraulic (AUX1) with Quick Couplers
- Battery disconnect switch
- Blade float feature
- Clamp ready
- Control console locks
- Cupholder
- Dual Direction Detent
- Engine/hydraulic monitor with shutdown
- Foldable and ergonomic pedals
- Full fuel warning alarm
- Horn
- Hydraulic joystick controls
- Machine IQ (telematic)
- Proportional fingertip auxiliary and boom swing offset hydraulic control
- Retractable seat belt
- Suspension seat with high back
- Storage compartment
- TOPS/ROPS/FOPS canopy \* 1
- Two-speed travel with Auto shift
- Upper structure four-point tie down
- Water separator

- Work light (boom)
- Warranty: 24 months, 2000 hours (whichever occurs first)

## Options

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- Comfort package cab (Cloth susp. seat & Dlx displ.)
- A-SAC package (Tilt coupler lines, Dlx displ.)
- Object handling package (Valves, OWD, Lifteye)
- TOPS/ROPS/FOPS cab
- Long dipperstick
- Heavy counterweight
- Steel tracks
- AUX1 direct return to tank
- AUX2 hydraulics
- AUX1/AUX2/Drain on arm
- Bucket valves (AUX3) kit
- Hydr. coupler lines (AUX5)
- Case drain line
- Auto idle
- Keyless ignition
- Travel motion alarm
- AM/FM MP3 radio
- Additional halogen lights
- LED lights set
- Beacon
- Special Application kit
- L/R mirrors
- Clamp w/ AUX1 valve
- Klac D and MS03 coupler
- Bobcat hydr. pin grabber

## Attachments

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- |                                   |                           |
|-----------------------------------|---------------------------|
| • Auger Accessories               | • Grading Buckets, Klac   |
| • Augers                          | • Grading Buckets, Pin-on |
| • Breaker Accessories             | • Hydraulic Clamps        |
| • Breakers                        | • Klac                    |
| • Clayspade Buckets, Klac         | • Laser Equipment         |
| • Clayspade Buckets, Pin-on       | • Rotary Grinders         |
| • Clayspade Buckets, SW           | • Skeleton Bucket, Klac   |
| • Digging Buckets, German Profile | • Skeleton Bucket, Pin-On |
| • Digging Buckets, Klac           | • Skeleton Bucket, SW     |
| • Digging Buckets, Pin-on         | • Tilt Buckets, Klac      |
| • Flail Mowers                    | • Tilt Buckets, Pin-on    |
| • Grading Buckets, German Type    | • Tilt Buckets, SW        |

## Environmental

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Noise level LpA(EU Directive 2006/42/EC)	77 dB(A)
Noise level LWA(EU Directive 2000/14/EC)	94 dB(A)
Whole body vibration (ISO 2631-1)	0.11 ms <sup>-2</sup>
Hand-arm vibration (ISO 5349-1)	0.34 ms <sup>-2</sup>

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.

## Safety

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Retractable seat belt, standard  
Operator cab, standard

Should always be worn when operating the excavator  
A four-post canopy or optional closed cab. Roll OverProtective 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.

Grab handles, standard  
Safety tread, standard

Should always be used when entering/exiting excavator.  
Slip resistant tread on canopy threshold to be used when entering/exiting excavator.

Front working lights, standard  
Control lockout, standard

Use for indoor and low light operation.

Upper carriage slew lock, standard

Operator console locks out work group and travel functions when in the upright position.

Pedal lock, standard  
Travel motion alarm, optional  
Special applications kit, optional  
Operator's handbook, standard

An automatic disk brake locks the upper structure to the undercarriage for transport.

Prevents activation of the boom swing function.

For use when required

Restricts objects and material from entering cab openings.

Weather-resistant operator handbook attached to the inside of the cab, providing operational instructions and warnings decals with pictorials and international symbols.