

VOLVO EXCAVATOR

ECR145CL

14.8 – 15.9 t, 94 metric hp



MORE CARE. BUILT IN.



VOLVO SHORT SWING: TAKE IT FOR A SPIN.

MORE SAFETY.

- **Anti-slip, punched steel steps/platforms:** superior grip and safety.
- **Low engine emission levels and low noise.**
- **Lead-free exterior paint** is in harmony with the environment.
- **Cab door slides neatly along the cab,** staying within the track width.
- **Optional rear-view camera:** increased visibility and safety.

MORE PRODUCTIVITY.

- **Powerful Stage IIIA Volvo engine:** performance, durability and industry-leading fuel efficiency.
- **Class-leading stability** for powerful lifting performance.
- **Smooth combination boom/arm operation -** even during travel.
- The combination of **brute power and fine, precision control.**
- **Volvo quick fit:** easy attachment change out for greater versatility.
- **Optional dozer blade:** high blade departure angle allows for steep slope climbing.





MORE COMFORT.

- **Volvo Care Cab:** comfort you expect.
- **High-capacity climate control system.**
- **Spring applied, viscous cab mounting:** reduced whole body vibration.
- **Adjustable consoles** make it easy to find the right operating position.

MORE INNOVATION.

- **Short swing radius:** work in confined areas where space is limited.
- **Excellent center of gravity for smooth balance** when swinging on slopes.
- **New, rounded cab shape:** roomy, yet compact design stays inside the counterweight swing radius.

MORE UPTIME.

- **Large service openings** for easy access/inspection.
- **Centralized lubrication points and ground-level filter access.**
- **In-cab monitoring** through the easy-to-read, **color LCD monitor.**

MORE QUALITY.

- **Volvo durability built in:** forged steel top rollers, strengthened track guard, greased/sealed track link.
- **Strong undercarriage frame:** endures daily abuse.
- **Reinforced superstructure:** double welded stress points.

GET IN & OUT WITH MORE PROFITS.

A growing problem for many equipment owners is the struggle between “give me maximum capacity and heavier muscle” and “make it safer – with the ability to work in confined areas.” Volvo continues to listen, and the Volvo ECR145CL expands our growing, comprehensive offering of equipment solutions. It’s the short swing radius excavator that you’ve been waiting for from Volvo.

Short swing radius

- The performance of a conventional excavator – with the flexibility you want from a short swing radius.
- Used in open areas and confined jobsites for greater versatility.
- Counterweight swing radius extends over the track width by less than 10%.

Work where the profits are

- Operate in or next to streets with minimal traffic disruption.
- More safety next to buildings, people or other site obstructions: less risk of machine damage.
- Fewer restrictions/permits: more job opportunities.

Never short on performance

- A heavy counterweight and excellent center of gravity.
- The short swing radius machine with class-leading stability.

Volvo Care Cab comfort

- Rounded cab shape is roomy for the operator, yet designed to compactly stay inside the counterweight swing radius.
- High-capacity climate control system: operator comfort from cab floor to ceiling.





• Operate safely in a single lane of traffic.



• Rounded design with a compact swing radius.



• Volvo: the name you can trust for quality.



IT'S YOUR TURN TO DO MORE.

It's all about performance. And with the Volvo ECR145CL, you can expect to take your productivity even further. In open or confined areas – and in jobs of all sizes – the Volvo ECR145CL is built to perform.

A stable performer

- Optimum capacity and stability, comparable with conventional machines.
- With a heavier counterweight and excellent center of gravity, the Volvo ECR145CL was designed to offer comparable stability/balance as a conventional machine when swinging on slopes – and performing on flat terrain.

Smooth, fast work

- Machine's computer balances maximum available horsepower to hydraulic output.
- Class-leading short swing radius lifting capability, swing torque, weight distribution and tractive effort.
- Smooth combination boom/arm operation.

The right fit for the job

- Works in one lane of traffic: avoiding costly permits or night-only work mandates.
- Volvo quick fit compatibility: easy attachment change out for greater versatility.

Precision control

- The combination of brute power and fine, precision control.
- Volvo-matched hydraulics deliver optimum productivity, command and less operator fatigue.
- Optional dozer blade features a high blade departure angle that allows steeper slope climbing. Provides extra bracing stability when digging.

Application versatility

- **City/public works:** pipe and cable laying, sewer and drainage work.
- **Road works:** road construction, piping and utilities.
- **Waste handling:** effective inside confined facilities.
- **Demolition:** accessing areas conventional machines can not.
- **Forestry:** channel work, forestry thinning, light logging, road construction.
- **Mining:** work in narrow/low ceiling mines and tunnels.





ENGINEERED TO KEEP WORKING.

Uptime is the answer and quality is the solution. The Volvo ECR145CL is built for reliability, long life and ease of service along the way.

Volvo quality runs through and through

- Powerful EU Stage IIIA / EPA Tier 3 Volvo engine.
- Performance and durability, along with industry-leading fuel efficiency and low noise/emissions.
- Reinforced superstructure, forged steel top roller, strengthened track guard, greased/sealed track link.

Access to serviceability

- Large service openings for easy access/inspection.
- Long hydraulic oil service intervals: standard at 5,000 hours.
- All daily service checks are accessible at ground level – and viewable from the cab monitor.
- Centralized lubrication points and ground-level filter access.
- Approximately 80% commonality of components with Volvo conventional machines: reduced costs and greater availability.

Your Volvo dealer has the support you need:

CareTrack helps track your machine

- Optional GPS monitoring and diagnostics program.
- Remotely track machine location, usage, productivity, fuel consumption and more.
- Maximize uptime through important service reminders.

MATRIS gives you a full report

- Detailed operating history analysis, utilization and efficiency.
- Turns the data captured inside the machine's computer into easy-to-use graphs and reports.
- Check operating techniques, reduce maintenance costs and increase service life.





• Ground level air filter access.



• 3-point, multi-purpose access with hand rail for ease and safety.



• Wide open, ground level service area provides easy hydraulic valve access.



DEMANDING JOBS DEMAND VOLVO COMFORT & SAFETY.

Whenever a Volvo Construction Equipment machine goes to work around the world, another operator gains a greater understanding of what Volvo comfort and safety is all about. Experience these legendary Volvo benefits and enjoy the profits of so much more.

Comfort increases productivity

- High-capacity climate control system.
- Class-leading cab leg room and space, along with a wide shoulder position.
- Spring applied, viscous cab mounting: reduced whole body vibration.
- Low internal and external noise: less fatigue.

Perfect for every operator

- Adjustable consoles make it easy to find the right operating position.
- Full suspension seat – with numerous adjustments to suit all operators.
- LCD color monitor is easy to read – even in direct sunlight. Content viewable in over 20 languages.
- Easy-lift front windshield – stows securely under the roof line – for plenty of headroom.
- Lower front glass is removable and stores safely inside the cab.

Safe on the jobsite

- Anti-slip, punched steel steps and platforms offer superior grip and safety.
- Opening roof hatch offers an optimal view during high-reach applications.
- Cab door slides neatly along the cab, staying within the track width for easy access in confined surroundings.
- Optional rear-view camera: increased visibility and safety.

A concern for our surroundings

- Excellent visibility to the front, right-hand side and rear due to narrow cab pillars and large windows.
- 95% recyclable materials used in the machine.
- Lead-free paint is in harmony with our environment.

Volvo: your global, local partner

- Complete solutions since 1927.
- Built on the core values of quality, safety and environmental care.
- Construction equipment, commercial transport, buses, trucks and more.
- Global expertise: development of engines with leading fuel efficiency.





• Plenty of interior foot space and leg room.



• LCD color monitor is bright and easy to read.



• Optional rear view camera increases safety.

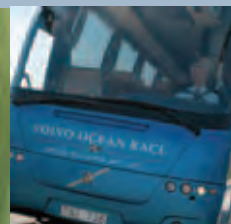
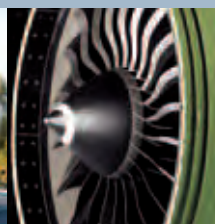


VOLVO'S ENGINE LEADERSHIP SPANS LAND, SEA, SKY AND SPACE

As the world's largest manufacturer of 9-to-18-liter diesel engines, Volvo has unmatched expertise designing power systems that move the world. Volvo engines for Volvo Construction Equipment, Volvo

Aero, Volvo Buses, Volvo Penta and Volvo Trucks define productivity and fuel economy. Our performance has been honed on land, over the sea, across the sky and into space. Leading research and development keeps

all Volvo Group products at the forefront of productivity. So when we say Volvo engines are tested — and proven — you can believe it. Trust in it. It's the real advantage of Volvo Power.



JUST WHAT YOU NEED TO MAKE MORE PROFIT.

Your options are open. Make your Volvo Excavator just right for you and your work. To customize your excavator with other optional equipment features to suit your application, contact your local Volvo dealer.

Hydraulic kits

A wide variety of hydraulic kits are available for various boom and arm combinations. Each kit maximizes performance according to the machine's boom and arm length/shape. Get the most out of rotating/tilting attachments, crushers and hammers. Choose between 1 or 2 pump flow for best performance.

Hydraulic quick fit

A Volvo hydraulic quick fit makes changing attachments quick and easy – all from the comfort and safety of the cab. Two different Volvo quick fit types (universal, S6) are available to fit new and existing customer's buckets/attachments, making it very user friendly.

Extra work lights

Extra work lights provide increased visibility, safety and precision, while extending the workday in low light conditions. Features one light in the front of the machine, one light in the rear area of the cab and one light mounted on the upper structure.

Wrist control joysticks - proportional control

Low-effort, wrist control joysticks provide smooth, precision control for increased comfort, efficiency and production. Wrist control joysticks with proportional control switches are also available.

Operator seats

Volvo offers a wide variety of ergonomic operator seats designed specifically for comfort and protection. All seats, from various adjustable models to the most advanced air-suspended models, provide excellent support and are individually adjustable to suit operator preferences.

Straight travel pedal

A pedal located by the left foot rest operates two travel motors at the same time, providing convenience when traveling and efficient work control in applications such as pipe laying.

Rear view camera

For improved safety on the jobsite, the manually-operated camera provides a clear rear view when reverse travel is selected or to the right hand side of the superstructure when the swing function is activated. A clear display is visible on the wide screen, color LCD of the IECU (Instrument Electronic Control Unit). The protected camera can be switched manually, using a selection switch on the keypad, to show either rear or side view.

Dozer blade

A front-end dozer blade increases machine versatility in job applications such as backfilling trenches and site clean up. It can also be used to level the excavator when working on slopes.

CareTrack

GPS monitoring program that works with the machine's diagnostic system. Allows the owner and dealer to remotely track usage, productivity, fuel consumption and more. Maximizes uptime through important service reminders. Also monitors geographic machine location and can even prevent unauthorized use.

Extended greasing bushings

High quality bushings used on all important work equipment to lengthen greasing intervals to 500 hours. Extends life, reduces wear on the pins/bushings and reduces maintenance costs.



VOLVO OPTIONAL EQUIPMENT



Hydraulic kits

Hydraulic quick fits

Extra work lights

Wrist control joysticks - proportional control

Operator seats

Straight travel pedal

Rear view camera

Dozer blade

CareTrack

NOTE: Some features listed as optional equipment are standard equipment in some markets. Some equipment features listed are not available in all markets. Not a complete list of available optional equipment features. See included specification sheet for a complete listing.

SPECIFICATIONS

Engine

The Volvo diesel engine delivers lower emissions, along with superior performance and fuel efficiency. The EU Stage IIIA / EPA Tier 3 compliant engine uses precise, high-pressure fuel injectors, turbo charger and air to air intercooler and electronic engine controls to optimize machine performance.

Engine	Volvo D4E EAE3
Max. power, at	33 r/s (2,000 rpm)
Net (ISO 9249, SAE J1349)	69 kW (94 hp)
Gross (SAE J1995)	80 kW (109 hp)
Max. torque at 1,600 rpm	472 Nm
No. of cylinders	4
Displacement	4.0 l
Bore	101 mm
Stroke	126 mm

Electrical system

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. The master switch is standard.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	100 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	220 l
Hydraulic system, total	210 l
Hydraulic tank	85 l
Engine oil	15.5 l
Engine coolant	21.3 l
Swing reduction unit	3.8 l
Travel reduction unit	2 x 3.5 l

Swing system

The swing system uses an axial piston motor, driving a planetary gearbox for maximum torque. An automatic holding brake and anti-rebound valve are standard.

Max. swing speed	11.6 rpm
Max. swing torque	41.9 kNm

Drive

Each track is powered by an automatic two-speed shift travel motor. Track brakes are multi-disc, spring-applied and hydraulically released. The travel motor, brake and planetary gears are well protected within the track frame.

Max. drawbar pull	119 kN
Max. travel speed	3.0/5.5 km/h
Gradeability	35°

Undercarriage

The undercarriage has a robust X-shaped frame. Greased and sealed track chains are standard.

Track pads	2 x 46
Link pitch	171.5 mm
Shoe width, triple grouser	500/600/700/750 mm
Shoe width, rubber pad	500 mm
Bottom rollers	2 x 7
Top rollers	2 x 1

Hydraulic system

The hydraulic system, also known as the "Integrated work mode control" is designed for high-productivity, high-digging capacity, high-maneuvering precision and excellent fuel economy. The summation system, boom, arm and swing priority along with boom, arm and bucket regeneration provides optimum performance.

The following important functions are included in the system:

Summation system: Combines the flow of both hydraulic pumps to ensure quick cycle times and high productivity.

Boom priority: Gives priority to the boom operation for faster raising when loading or performing deep excavations.

Arm priority: Gives priority to the arm operation for faster cycle times in leveling and for increased bucket filling when digging.

Swing priority: Gives priority to swing functions for faster simultaneous operations.

Regeneration system: Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.

Power boost: All digging and lifting forces are increased.

Holding valves: Boom and arm holding valves prevent the digging equipment from creeping.

Main pump:

Type: 2 x variable displacement axial piston pumps
Maximum flow: 2 x 118 l/min

Pilot pump:

Type: Gear pump
Maximum flow: 1 x 20 l/min

Hydraulic motors:

Travel: Variable displacement axial piston motor with mechanical brake
Swing: Fixed displacement piston motor with mechanical brake

Relief valve setting:

Implement 32.4/34.3 MPa
Travel circuit 34.3 MPa
Swing circuit 26.5 MPa
Pilot circuit 3.9 MPa

Hydraulic cylinders:

Mono boom 2
Bore x Stroke ø105 x 1,055 mm
Arm 1
Bore x Stroke ø120 x 1,045 mm
Bucket 1
Bore x Stroke ø100 x 865 mm
Dozer Blade 2
Bore x Stroke ø130 x 270 mm

Cab

Purpose-designed, rounded, short radius Volvo Care Cab with no sacrifice to operator comfort. Audio system with remote control. Cup holders. 3 high-capacity outlets. Independently adjustable joystick consoles.

Excellent all around-visibility provided through maximum cab glass, transparent roof hatch and 2-piece sliding door window.

The lift-up front windshield can easily be secured at the ceiling and the removable lower front glass can be stored inside the cab. Interior lighting consists of one reading light and one cab light with timer.

The pressurized and filtered cab air is supplied by an 8-vent climate-control system, providing fast defrosting and high cooling and heating performance. Viscous/spring-mounted suspension cushions operator from vibrations.

Deluxe seat with adjustable height, tilt, recline, forward-back settings, retractable seat belt and selectable horizontal suspension for reduced whole body vibration.

Adjustable easy-to-read 16.3 cm (6.4") LCD color monitor provides real time information of machine functions, important diagnostic information and a wide variety of work tool settings. LCD monitor is switchable to rear-view camera monitor (option).

Sound Level:

Sound level in cab according to ISO 6396
..... LpA 72 dB(A)
External sound level according to ISO 6396 and EU Directive 2000/14/EC
..... LwA 100 dB(A)

Ground pressure

- **ECR145CL** with 4.6 m boom, 2.5 m arm, 419 kg bucket, 3,350 kg counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	14,800 kg	44.1 kPa	2,490 mm
	600 mm	15,000 kg	37.3 kPa	2,590 mm
	700 mm	15,190 kg	32.4 kPa	2,690 mm
	750 mm	15,390 kg	30.4 kPa	2,740 mm
Rubber Shoe	500 mm	14,860 kg	44.1 kPa	2,490 mm

- **ECR145CL** with **dozer blade**, 4.6 m boom, 2.5 m arm, 419 kg bucket, 3,100 kg counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	500 mm	15,460 kg	46.1 kPa	2,490 mm
	600 mm	15,660 kg	39.2 kPa	2,590 mm
	700 mm	15,860 kg	33.3 kPa	2,690 mm
Rubber Shoe	500 mm	15,510 kg	46.1 kPa	2,490 mm

Max. permitted buckets

- Note: 1. Bucket size based on ISO 7451, heaped material with a 1:1 angle of repose.
 2. "Max. permitted sizes" are for reference only and are not necessarily available from the factory.
 3. Bucket widths are less than bucket's tip radius.

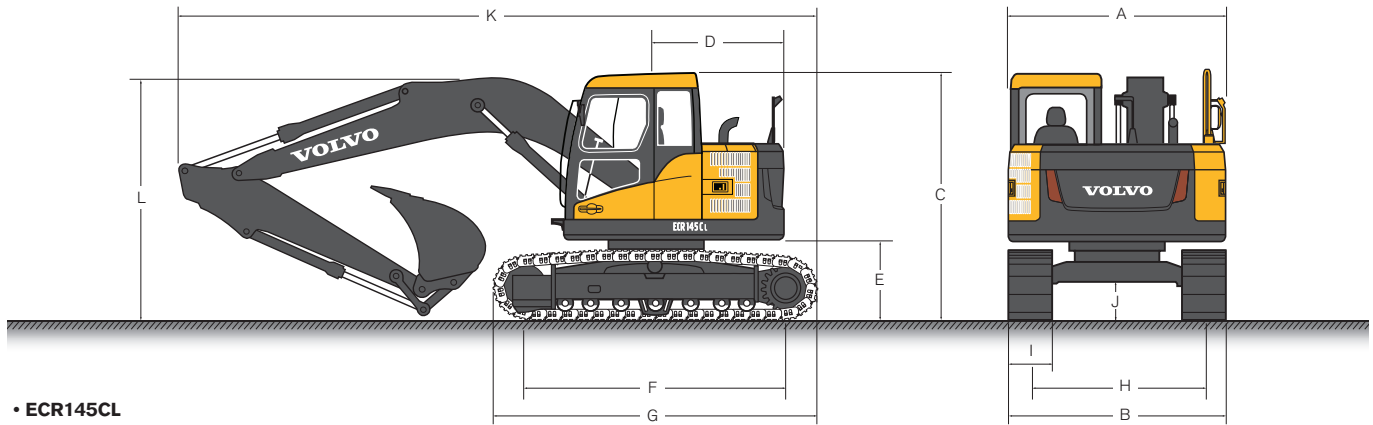
- **ECR145CL** with **direct fit bucket**, 3,350 kg counterweight

Description	Max. bucket volume / weight	4.6 m boom		
		2.1 m arm	2.5 m arm	3.0 m arm
GP bucket 1.5 t/m ³	l / kg	875 / 750	775 / 650	675 / 550
GP bucket 1.8 t/m ³	l / kg	775 / 650	675 / 550	600 / 500

- **ECR145CL** with **quick fit bucket**, 3,350 kg counterweight

Description	Max. bucket volume / weight	4.6 m boom		
		2.1 m arm	2.5 m arm	3.0 m arm
GP bucket 1.5 t/m ³	l / kg	800 / 650	700 / 600	600 / 500
GP bucket 1.8 t/m ³	l / kg	700 / 600	625 / 500	525 / 450

Dimensions

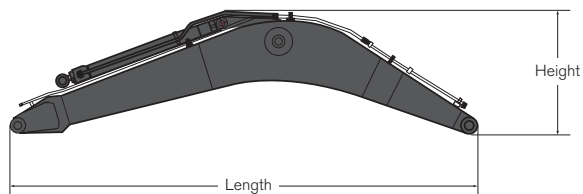


• ECR145CL

Description	Unit	4.6 boom		
		2.1 m arm	2.5 m arm	3.0 m arm
A. Overall width of upper structure	mm	2,490	2,490	2,490
B. Overall width	mm	2,690	2,690	2,690
C. Overall height of cab	mm	2,855	2,855	2,855
D. Tail swing radius	mm	1,475	1,475	1,475
E. Counterweight clearance *	mm	900	900	900
F. Tumbler length	mm	3,040	3,040	3,040
G. Track length	mm	3,750	3,750	3,750
H. Track gauge	mm	1,990	1,990	1,990
I. Shoe width	mm	700	700	700
J. Min. ground clearance *	mm	430	430	430
K. Overall length	mm	7,400	7,405	7,345
L. Overall height of boom	mm	2,745	2,865	3,270

* Without shoe grouser

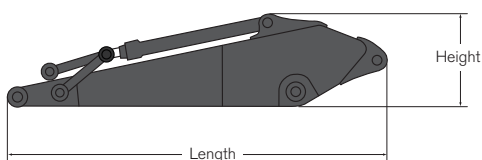
• Boom



Description	Unit	4.6 m
Length	mm	4,770
Height	mm	1,370
Width	mm	545
Weight	kg	1,127

* Includes arm cylinder, piping and pin

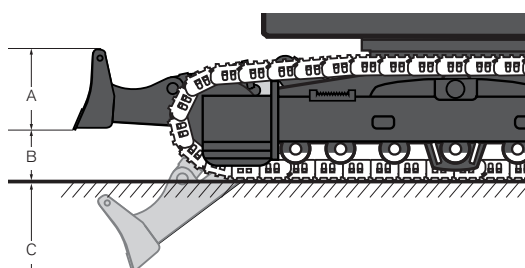
• Arm



Description	Unit	2.1 m	2.5 m	3.0 m
Length	mm	2,790	3,195	3,690
Height	mm	680	675	750
Width	mm	275	275	275
Weight	kg	560	620	680

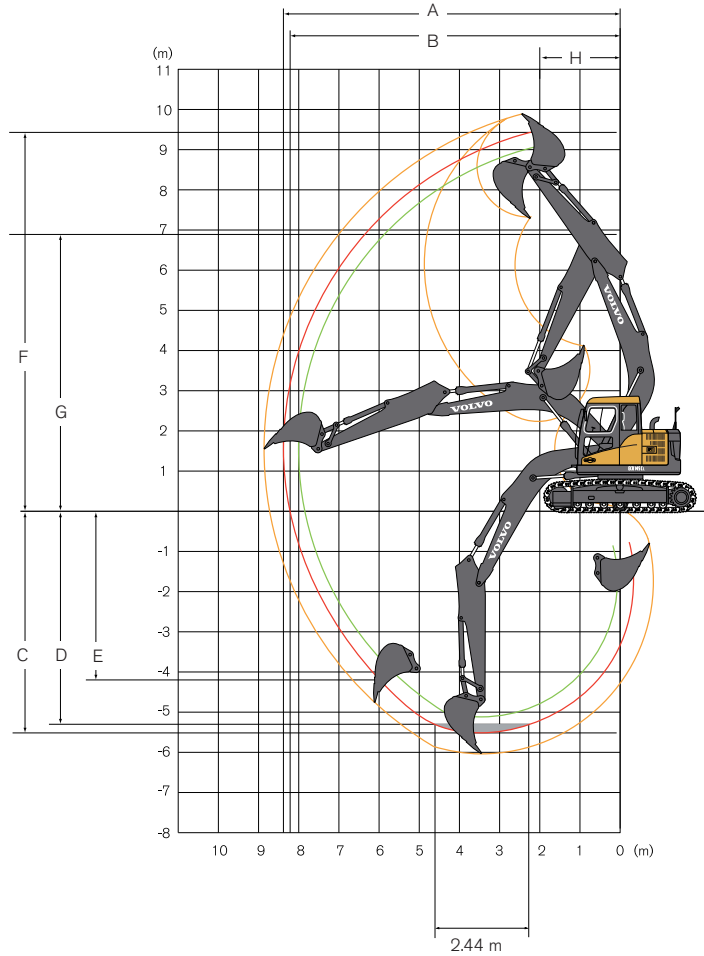
* Includes bucket cylinder, linkage and pin

• Front dozer blade



Description	Unit	Measurement
A. Height	mm	580
Width	mm	2,490
Weight	kg	900
B. Lift height	mm	590
C. Digging depth	mm	570

Working ranges & digging force



• ECR145CL

Machine with pin-on bucket	Unit	4.6 m boom		
		2.1 m arm	2.5 m arm	3.0 m arm
A. Max. digging reach	mm	7,990	8,360	8,850
B. Max. digging reach on ground	mm	7,840	8,215	8,715
C. Max. digging depth	mm	5,140	5,540	6,040
D. Max. digging depth (2.44 m level)	mm	4,890	5,325	5,860
E. Max. vertical wall digging depth	mm	3,855	4,225	4,775
F. Max. cutting height	mm	9,080	9,400	9,845
G. Max. dumping height	mm	6,540	6,865	7,300
H. Min. front swing radius	mm	1,800	1,980	2,335















Digging forces with direct fit bucket		Unit	4.6 m boom		
			2.1 m arm	2.5 m arm	3.0 m arm
Bucket radius		mm	1,270	1,270	1,270
Breakout force - bucket (Normal/Power boost)	SAE J1179	kN	80.8 / 85.7	80.8 / 85.7	80.8 / 85.7
	ISO 6015	kN	91.0 / 96.5	91.0 / 96.5	91.0 / 96.5
Tearout force - arm (Normal/Power boost)	SAE J1179	kN	69.7 / 73.9	62.2 / 65.9	55.3 / 58.7
	ISO 6015	kN	71.4 / 75.7	63.5 / 67.4	56.3 / 59.7
Rotation angle, bucket		deg.	175	175	175

Lifting capacity

At the arm end without bucket.

For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

• ECR145CL

 Across under-carriage  Along under-carriage	Lifting hook related to ground level	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		Max. reach			
														Max. m	
Boom 4.6 m + Arm 2.1 m + Shoe 700 mm + Counterweight 3,350 kg	7.5 m kg												*5,400	*5,400	2.80
	6.0 m kg				*4,360	*4,360	*4,190	3,920					*4,040	3,350	4.94
	4.5 m kg				*5,200	*5,200	*4,350	3,860	*3,760	2,450			*3,740	2,440	6.00
	3.0 m kg				*7,530	6,800	*5,080	3,680	4,000	2,400			3,490	2,090	6.55
	1.5 m kg						*5,850	3,470	3,910	2,320			3,310	1,970	6.71
	0.0 m kg				*5,240	*5,240	5,890	3,340	3,840	2,260			3,410	2,010	6.52
	-1.5 m kg	*4,920	*4,920		*8,150	6,080	*5,680	3,310					3,880	2,280	5.95
	-3.0 m kg				*6,070	*6,070	*4,170	3,380					3,620	3,060	4.85
-4.5 m kg															
Boom 4.6 m + Arm 2.5 m + Shoe 700 mm + Counterweight 3,350 kg	7.5 m kg				*4,400	*4,400							*4,100	*4,100	3.62
	6.0 m kg						*3,750	*3,750					*3,290	2,830	5.44
	4.5 m kg				*4,220	*4,220	*3,990	3,810	*3,710	2,410			*3,080	2,150	6.41
	3.0 m kg				*6,740	*6,740	*4,760	3,620	3,740	2,340			2,980	1,860	6.92
	1.5 m kg				*6,100	*6,100	*5,620	3,390	3,640	2,250			2,830	1,750	7.08
	0.0 m kg				*5,850	5,850	5,470	3,230	3,550	2,170			2,900	1,780	6.90
	-1.5 m kg	*4,520	*4,520		*8,610	5,830	5,410	3,170	3,520	2,140			3,240	1,980	6.37
	-3.0 m kg	*8,770	*8,770		*6,810	5,930	*4,700	3,220					3,570	2,550	5.36
-4.5 m kg															
Boom 4.6 m + Arm 3.0 m + Shoe 700 mm + Counterweight 3,350 kg	7.5 m kg						*3,280	*3,280					*3,230	*3,230	4.52
	6.0 m kg						*3,220	*3,220	*2,880	2,420			*2,720	2,370	6.06
	4.5 m kg						*3,510	*3,510	*3,350	2,410			*2,550	1,860	6.95
	3.0 m kg				*5,430	*5,430	*4,300	3,650	*3,650	2,330			*2,560	1,630	7.42
	1.5 m kg				*8,310	6,200	*5,250	3,380	3,610	2,220	2,570	1,570	2,530	1,540	7.57
	0.0 m kg				*6,260	5,780	5,430	3,180	3,500	2,120			2,570	1,560	7.40
	-1.5 m kg	*3,910	*3,910		*8,500	5,680	5,320	3,090	3,450	2,070			2,830	1,710	6.91
	-3.0 m kg	*7,180	*7,180		*7,510	5,740	*5,110	3,100					3,340	2,100	5.99
-4.5 m kg				*4,620	*4,620							*2,850	*2,850	4.40	
Boom 4.6 m + Arm 2.1 m + Shoe 700 mm + Counterweight 3,100 kg + Dozer blade	7.5 m kg						*3,280	*3,280					*3,230	*3,230	4.52
	6.0 m kg						*3,220	*3,220	*2,880	2,490			*2,720	2,440	6.06
	4.5 m kg						*3,510	*3,510	*3,350	2,490			*2,550	1,930	6.95
	3.0 m kg				*5,430	*5,430	*4,300	3,760	*3,650	2,410			*2,560	1,690	7.42
	1.5 m kg				*8,310	6,390	*5,250	3,490	3,900	2,290	2,780	1,630	*2,680	1,600	7.57
	0.0 m kg				*6,260	5,970	5,870	3,290	3,800	2,190			2,800	1,620	7.40
	-1.5 m kg	*3,910	*3,910		*8,500	5,870	5,760	3,200	3,740	2,140			3,070	1,770	6.91
	-3.0 m kg	*7,180	*7,180		*7,510	5,940	*5,110	3,210					3,340	2,180	5.99
-4.5 m kg				*4,620	*4,620							*2,850	*2,850	4.40	
Boom 4.6 m + Arm 2.5 m + Shoe 700 mm + Counterweight 3,100 kg + Dozer blade	7.5 m kg				*4,400	*4,400							*4,100	*4,100	3.62
	6.0 m kg						*3,750	*3,750					*3,290	2,900	5.44
	4.5 m kg				*4,220	*4,220	*3,990	3,900	*3,710	2,470			*3,080	2,210	6.41
	3.0 m kg				*6,740	*6,740	*4,760	3,710	*3,950	2,400			*3,090	1,910	6.92
	1.5 m kg				*6,100	*6,100	*5,620	3,480	3,900	2,310			3,050	1,810	7.08
	0.0 m kg				*5,850	*5,850	5,870	3,320	3,820	2,230			3,120	1,840	6.90
	-1.5 m kg	*4,520	*4,520		*8,610	6,000	5,810	3,270	3,790	2,210			3,490	2,040	6.37
	-3.0 m kg	*8,770	*8,770		*6,810	6,100	*4,700	3,310					3,570	2,620	5.36
-4.5 m kg															
Boom 4.6 m + Arm 3.0 m + Shoe 700 mm + Counterweight 3,100 kg + Dozer blade	7.5 m kg						*3,280	*3,280					*3,230	*3,230	4.52
	6.0 m kg						*3,220	*3,220	*2,880	2,490			*2,720	2,440	6.06
	4.5 m kg						*3,510	*3,510	*3,350	2,490			*2,550	1,930	6.95
	3.0 m kg				*5,430	*5,430	*4,300	3,760	*3,650	2,410			*2,560	1,690	7.42
	1.5 m kg				*8,310	6,390	*5,250	3,490	3,890	2,290	2,780	1,630	*2,680	1,600	7.57
	0.0 m kg				*6,260	5,970	5,850	3,290	3,790	2,190			2,790	1,620	7.40
	-1.5 m kg	*3,910	*3,910		*8,500	5,870	5,740	3,200	3,730	2,140			3,060	1,770	6.91
	-3.0 m kg	*7,180	*7,180		*7,510	5,940	*5,110	3,210					3,340	2,180	5.99
-4.5 m kg				*4,620	*4,620							*2,850	*2,850	4.40	

- Notes:
1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities.
 2. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
 3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
 4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

STANDARD EQUIPMENT

Engine

Turbocharged, 4-stroke diesel engine with water cooling, direct injection and charged air cooler that meets EU Stage IIIA / EPA Tier 3 requirements
Air filter with indicator
Air intake heater
Electric engine shut-off
Fuel filter and water separator
Alternator, 80 A

Electric/Electronic control system

Contronics:
– Advanced mode control system
– Self-diagnostic system
Machine status indication
Engine speed sensing power control
Automatic idling system
One-touch power boost
Safety stop/start function
Adjustable LCD color monitor
Master electrical disconnect switch
Engine restart prevention circuit
High-capacity halogen lights:
– Frame-mounted 1
– Boom-mounted 2
Batteries, 2 x 12 V / 100 Ah
Start motor, 24 V / 5.5 kW

Hydraulic system

Automatic sensing hydraulic system:
– Summation system
– Boom priority
– Arm priority
– Swing priority
Boom and arm regeneration valves
Swing anti-rebound valves
Boom and arm holding valves
Multi-stage filtering system
Boom cylinders
Cylinder cushioning
Cylinder contamination seals
Auxiliary hydraulic valve
Automatic two-speed travel motors

Superstructure

Access way with handrail
Tool storage area
Service walkway with anti-slip grating

Cab and interior

Travel pedals with hand levers
Hydraulic dampening cab mounts
Adjustable operator seat and joystick control console

AM/FM stereo with CD player and MP3 input:
includes antenna in glass
Hydraulic safety lock lever

Cab, all-weather sound suppressed, includes:

- Cup holder
- Door locks
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt
- Safety glass, light tinted
- Rain shield
- Sun shield, front, roof, rear
- Windshield wiper with washer and intermittent feature

Anti-vandalism kit assembly preparation

Master key

Opening top hatch

Undercarriage

Hydraulic track adjusters
Greased and sealed track link
Track guard
Standard roller guard

OPTIONAL EQUIPMENT

Engine

Block heater: 120V, 240V
Diesel coolant heater, 5 kW, programmable
Water separator with heater
Fuel filler pump: 35 l/min, with automatic shut-off
Reversible cooling fan

Electric

Extra lamps:
– Cab-mounted 2
– Upper structure-mounted 1
Extra lamps (Cab front only):
– Cab-mounted 1
Anti-theft system
Rotating warning beacon
Travel alarm

Hydraulic system

Hose rupture valve: boom, arm
Overload warning device
Hydraulic piping:
– Hammer & shear: 1 & 2 pump flow
– Slope & rotator
– Quick coupler piping
– Oil leak (drain) line, Base
– Oil leak (drain) line, Boom
– Grapple

Volvo hydraulic quick fit, S6, U size
Long life hydraulic oil, ISO VG 32
Long life hydraulic oil, ISO VG 46
Long life hydraulic oil, ISO VG 68
Hydraulic oil, biodegradable 32
Hydraulic oil, biodegradable 46
Hydraulic oil, mineral 32
Hydraulic oil, mineral 46
Hydraulic oil, mineral 68
Boom float function
Pilot control pattern change

Superstructure

Full height counterweight 3,100, 3,350 kg
Undercover (2.3 mm)

Cab and interior

Fabric seat
Fabric seat with heater
Fabric seat with heater and air suspension
Control joystick with proportional control
Control joysticks with 4 switches each
Heater & air-conditioner, automatic
Falling object guard (FOG)
– Cab-mounted
Cab-mounted falling object protective structure (FOPS)

Protective screen for front window

Anti-vandalism kit

Specific key

Rear view camera

Straight travel pedal

Rear view mirror

Smoker kit

Undercarriage

Undercover (4.5 mm)

Dozer blade

Track shoes

Track shoes 500 / 600 / 700 / 750 mm,
triple grousers
Rubber shoes, 500 mm

Digging equipment

Boom: 4.6 m

Arm: 2.1 m

2.5 m

3.0 m

Extended greasing bushing

Linkage with lifting eye

Service

CareTrack

Tool kit

Tool kit, daily maintenance

Standard and optional equipment may vary by market. Please consult your local Volvo dealer for details.



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