VOLVO EXCAVATOR ECR305CL

74,220 - 81,320 lb 192 hp





SEE HOW IT FITS YOUR WORK.

MORE SAFETY.

- Volvo Care Cab with operator protective structure.
- 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.

MORE PRODUCTIVITY.

- Class-leading stability for powerful lifting performance.
- Smooth combination boom/arm operation: even during travel.
- **Dependable lifting capacity:** handles the work of similar, conventional excavators.
- Fine, precise control: do it easily, do it quickly, do it right.
- Powerful Tier 3/Stage IIIA Volvo engine: dependable performance.
- **Volvo quick fit:** flexible compatibility and easy attachment change out.
- **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.
- Vibration dampening: reduced whole body vibration and fatigue.
- Adjustable consoles: easily find the right operating position.

MORE INNOVATION.

- Short swing radius: work in confined areas or one lane of traffic.
- Excellent center of gravity for balance: including on slopes.
- Advanced hydraulic system: efficient, smooth control.
- Industry-leading fuel efficiency.
- **Rounded cab shape:** roomy, optimized design stays inside the swing radius.

MORE UPTIME.

- Simplified, ground-level service access.
- Easy access, centralized lubrication points.
- **In-cab monitoring** through the easy-to-read, **color LCD monitor.**

MORE QUALITY.

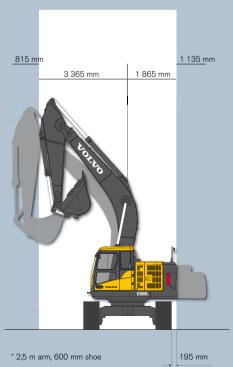
- Volvo durability built in: forged steel top rollers, strengthened track guard, greased/sealed track link.
- Strong undercarriage frame: endures daily abuse.
- Reinforced superstructure: double welded stress points.

A TURN FOR THE BETTER.

Confined areas now seem a lot less confining. That's because you are free to work in your Volvo ECR305CL. One lane of traffic. Next to buildings on busy streets. Between utility poles. You can go where the work is, and you can handle it all with the power, lift capacity and stability you demand. The Volvo ECR305CL is the short swing radius machine that 30-ton-excavator owners should turn to for commanding performance.

Short swing radius

- The performance of a 30-ton conventional excavator – with the flexibility of a short swing radius.
- Versatility for operation in one lane of traffic, confined jobsites or open areas.
- Counterweight swing radius extends over the track width by less than 10%.



Access the profits

- 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.
- Maximum digging reach increases capabilities; decreases machine repositioning.

Never short on performance

- A heavy counterweight and excellent center of gravity.
- The short swing radius machine with class-leading stability.
- A wide working range, powerful lifting capacity and dependable power.
- Advanced hydraulic system for efficient, smooth control.

Volvo Care Cab comfort

- Optimized cab space is roomy for the operator, yet designed to stay within the swing radius.
- High-capacity climate control system: operator comfort from cab floor to ceiling.











TURNING CONFIDENCE - INTO PROFIT.

At every turn – there's more to do. The Volvo ECR305CL is ready. Every full bucket, every swing, every load is executed with smoothness, precision and comfort. For those in civil engineering, piping, material handling and more, the Volvo ECR305CL will help you confidently turn the work that you perform into greater profit.

The stable one

- Optimum capacity and stability, comparable with conventional machines.
- Heavy counterweight and excellent center of gravity.
- Designed to offer comparable stability/balance as a conventional machine when swinging on slopes – and performing on flat terrain.

Working smooth and fast

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

It fits your work

- 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 power and capacity with 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.
- Industry/Waste handling: effective inside confined facilities.
- Site preparation: the capacity to handle the work and the size to get to it.
- Demolition: accessing areas conventional machines can not.











INTELLIGENT DESIGN. SMART CHOICE.

A quality product doesn't have to be a thing of the past. Volvo believes in it and it's in everything we do. That's why the Volvo ECR305CL is built for durability and reliability. It's not an option – it's standard. And with intelligent all-around access and ease of service, you too will believe that you made the smart choice with Volvo.

Quality you can see and feel

- Reinforced superstructure, forged steel top roller, strengthened track guard, greased/sealed track link.
- Heavy-duty design and strong components for durability.
- Powerful Tier 3/Stage IIIA Volvo engine.

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.





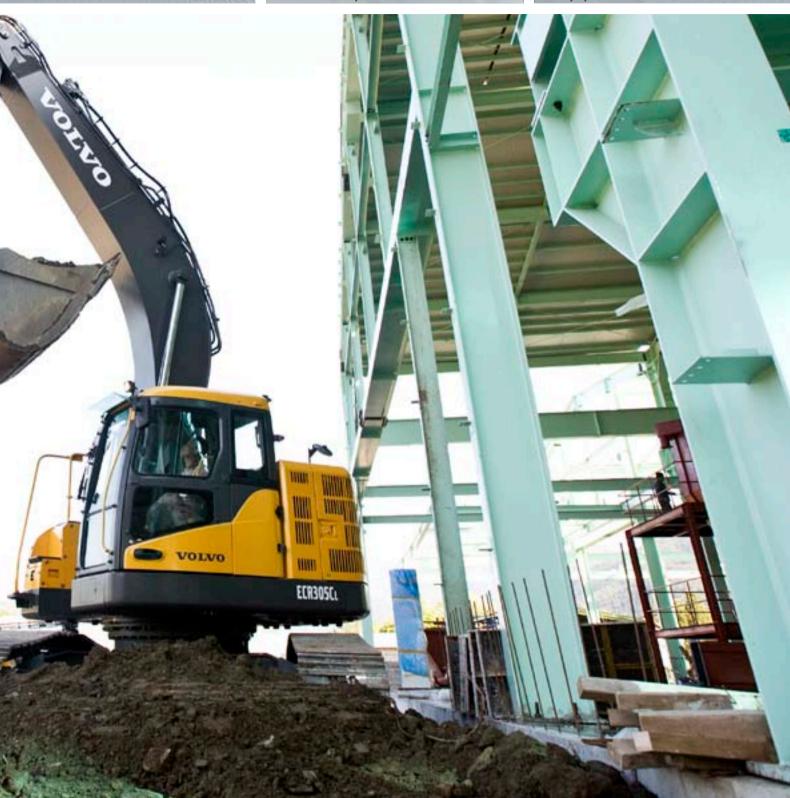




ease and safety.



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



RELAX. IT'S VOLVO.

Get comfortable with doing more. Less fatigue goes along way toward productivity. The Volvo ECR305CL is the way to do it. The seat of comfort and command. A quiet, safe space. Ease of operability. And with industry-leading fuel efficiency, Volvo helps you stay relaxed knowing that more of your profits are going into your pocket – not your fuel tank.

Work longer - in comfort

- · 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.

Operability

- Adjustable consoles make it easy to find the right operating position.
- · Simple and easy to operate.
- LCD color monitor is easy to read even in direct sunlight.
- 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.

Doing the job safely

- Anti-slip, punched steel steps and platforms offer superior grip and safety.
- Opening roof hatch offers an optimal view during high-reach applications.
- Volvo Care Cab with operator protective structure.
- Rear view camera: increased visibility and safety.

Environmental safety

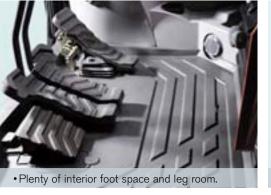
- Industry-leading fuel efficiency and low noise/emissions.
- Large windows provide excellent visibility to the front, right-hand side and rear.
- 95% recyclable materials used in the machine.
- Lead-free paint is in harmony with our environment.

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.



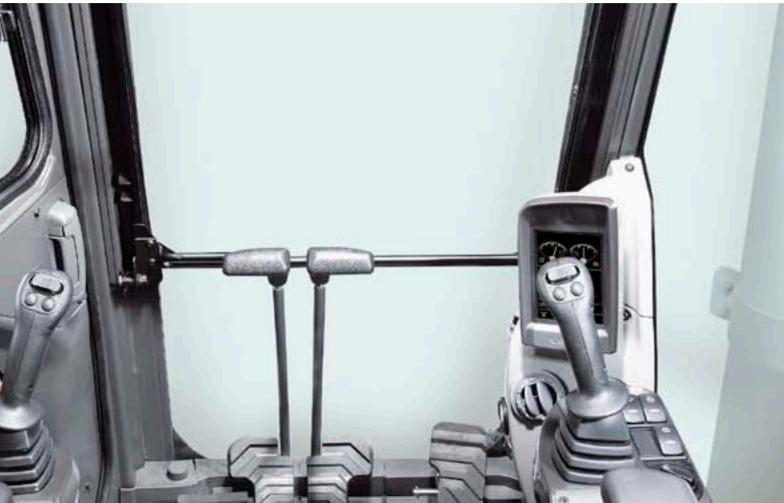








• Optional rear view camera increases safety.



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

As the world's second largest manufacturer of 9-to18-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.



SWING THINGS YOUR WAY.

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.

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.

Hydraulic kits

A wide variety of hydraulic kits is 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 (UQF29, S2) are available to fit new and existing customers' buckets/attachments.

Extra work lights

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

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-suspension models, provide excellent support and are individually adjustable to suit operator preferences.

Straight travel pedal

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

Extended greasing bushings

High quality sintered bushings used on work equipment (excluding bucket) helps 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 fit

Extra work lights

Wrist control joysticks proportional control Operator seats Straight travel pedal

Opening top hatch

Dozer blade

Extended greasing bushings

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 next-generation Volvo diesel engine uses Volvo Advanced Combustion Technology (V-ACT) to deliver lower emissions and maintain superior performance and fuel efficiency. The 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 D7D EAE3
Max. power, at	30 r/s 1,800 rpm
Net (ISO 9249, SAE J1349)	143 kW 192 hp
Gross (SAE J1995)	153 kW 205 hp
Max. torque at 1,350 rpm	965 Nm 723 lb.ft
No. of cylinders	6
Displacement	7.1 433 cu.in
Bore	108 mm 4.25"
Stroke	130 mm 5.12"

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	150 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	390 103 gal
Hydraulic system, total	370 98 gal
Hydraulic tank	150 40 gal
Engine oil	30 8 gal
Engine coolant	35 9 gal
Swing reduction unit	6.1 1.6 gal
Travel reduction unit	2 x 6.8 2 x 1.8 gal

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	10.8 rpm	
Max. swing torque	117,6 kNm 86,740 lbf-ft	

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	260 kN 58,430 lb	
Max. travel speed	3.0/4.5 km/h 1.9/2.8 mph	
Gradeability	35° 70%	

Undercarriage

Track pads

Link pitch

Top rollers

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

2 x 48

215.9 mm **8.5**"

Shoe width,	
triple grouser	600/700/800/850 mm
	24"/28"/31"/32"
Shoe width,	
double grouser	600 mm 24"
Bottom rollers	2 x 8

Hydraulic system

The hydraulic system, also known as the "Integrated work mode control" is esigned 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 263 l/min 2 x 69 gpm

Pilot pump:

Type: Gear pump Maximum flow: 1 x 18 l/min 1 x 4.8 gpm

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
	4,690/4,980 psi
Travel circuit · · · · · · · · · · · · · · · · · · ·	34.3 MPa 4,980 psi
Swing circuit · · · · · · · · · · · · · · · · · · ·	27.9 MPa 4,050 psi
Pilot circuit · · · · · · · · · · · · · · · · · · ·	3.9 MPa 570 psi

Hydraulic cylinders:

riyaraane eyimaers.
Mono boom····· 2
Bore x Stroke····· ø140 x 1,511 mm
ø5.5 x 59.5"
Arm · · · · · 1
Bore x Stroke····· ø150 x 1,745 mm
ø5.9 x 68.7"
Bucket · · · · 1
Bore x Stroke····· ø140 x 1,140 mm
ø5.5 x 44.9"
Dozer Blade · · · · · 2
Bore x Stroke····· ø165 x 385 mm
ø6.5 x 15.2"

Purpose-designed, rounded, short radius Volvo Care Cab with operator protective structure. Audio system with remote control. Cup holders, 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.

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	g to ISO 6396
	LpA 72 dB(A)
External sound level accordi	ng to ISO 6395
and EU Directive 2000/14	/EC
	LwA 103 dB(A)

Ground pressure

• ECR305CL with 6.2 m 20' 4" boom, 3.05 m, 10' 0" arm, 1,166 kg, 2,570 lb bucket, 8,250 kg, 18,190 lb counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm, 24"	33,665 kg, 74,230 lb	63.7 kPa, 9.2 psi	3,340 mm, 10' 11"
	700 mm, 28"	34,310 kg, 75,650 lb	54.9 kPa, 8.0 psi	3,440 mm, 11' 3"
	800 mm, 31"	34,705 kg, 76,520 lb	49.0 kPa, 7.1 psi	3,540 mm, 11' 7"
	850 mm, 36"	34,895 kg, 76,930 lb	46.1 kPa, 6.7 psi	3,590 mm, 11' 9"
Double grouser	600 mm, 24"	34,375 kg, 75,800 lb	64.7 kPa, 9.4 psi	3,340 mm, 10' 11"

\bullet ECR305CL with dozer blade, 6.2 m 20' 4" boom, 3.05 m, 10' 0" arm, 1,166 kg, 2,570 lb bucket, 8,250 kg, 18,190 lb counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm, 24"	36,175 kg, 79,770 lb	67.7 kPa, 9.8 psi	3,340 mm, 10' 11"
Double grouser	600 mm, 24"	36,885 kg, 81,330 lb	69.6 kPa, 10.1 psi	3,340 mm, 10' 11"

• ECR305CL with 6.2 m 20' 4" boom, 3.05 m, 10' 0" arm, 1,166 kg, 2,570 lb bucket, 8,700 kg, 19,180 lb counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm, 24"	34,115 kg, 75,220 lb	63.7 kPa, 9.2 psi	3,340 mm, 10' 11"
	700 mm, 28"	34,760 kg, 76,650 lb	55.9 kPa, 8.1 psi	3,440 mm, 11' 3"
	800 mm, 31"	35,155 kg, 77,520 lb	50.0 kPa, 7.3 psi	3,540 mm, 11' 7"
	850 mm, 36"	35,345 kg, 77,940 lb	47.1 kPa, 6.8 psi	3,590 mm, 11' 9"
Double grouser	600 mm, 24"	34,825 kg, 76,790 lb	65.7 kPa, 9.5 psi	3,340 mm, 10' 11"

• ECR305CL with dozer blade, 6.2 m 20' 4" boom, 3.05 m, 10' 0" arm, 1,166 kg, 2,570 lb bucket, 8,700 kg, 19,180 lb counterweight

Description	Shoe width	Operating weight	Ground pressure	Overall width
Triple grouser	600 mm, 24"	36,625 kg, 80,760 lb	68.6 kPa, 10.0 psi	3,340 mm, 10' 11"
Double grouser	600 mm, 24"	37,335 kg, 82,320 lb	70.6 kPa, 10.2 psi	3,340 mm, 10' 11"

- 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.

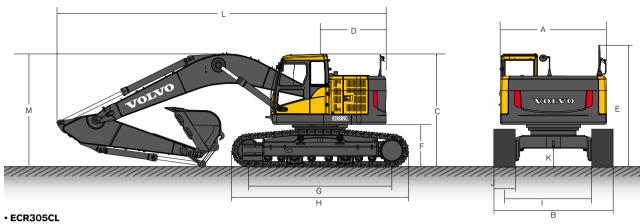
• ECR305CL with direct fit bucket, 8,250 kg, 19,180 lb counterweight

Description	Max. bucket		6.2 m, 20' 4" boom	
Description	volume / weight	2.55 m, 8' 4" arm	3.05 m, 10' 0" arm	3.7 m, 12' 2" arm
CD burdent 1 E 1/2-3 O E20 lb (v.)3	I / kg	1,950 / 1,650	1,775 / 1,500	1,575 / 1,325
GP bucket 1.5 t/m³, 2,530 lb/yd³	yd³ /lb	2.55 / 3,640	2.32 / 3,310	2.06 / 2,980
CD hard 1 0 1 / 2 2 0 20 lb / 2	I / kg	1,725 / 1,475	1,575 / 1,325	1,400 / 1,200
GP bucket 1.8 t/m³, 3,030 lb/yd³	yd³ /lb	2.26 / 3,250	2.06 / 2,920	1.83 / 2,650

• ECR305CL with quick fit bucket, 8,250 kg, 18,960 lb counterweight

Description	Max. bucket		6.2 m, 20' 4" boom	
Description	volume / weight	2.55 m, 8' 4" arm	3.05 m, 10' 0" arm	3.7 m, 12' 2" arm
CD 1 4 5 7 3 0 200 15 6 13	I / kg	1,825 / 1,550	1,650 / 1,400	1,475 / 1,250
GP bucket 1.5 t/m³, 2,530 lb/yd³	yd³ /lb	2.39 / 3,420	2.16 / 3,090	1.93 / 2,760
CD hard 1 0 1 / 2 2 0 20 lb / 2	I / kg	1,625 / 1,375	1,475 / 1,250	1,300 / 1,100
GP bucket 1.8 t/m³, 3,030 lb/yd³	yd³ /lb	2.13 / 3,030	1.93 / 2,760	1.70 / 2,430

Dimensions

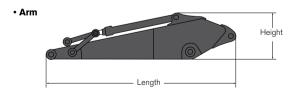


			6.2 m, 20' 4" boom	
Description	Unit	2.55 m, 8' 4" arm	3.05 m, 10' 0" arm	3.7 m, 12' 2" arm
A. Overall width of upper structure	mm, ft-in	2,990, 9'10"	2,990, 9' 10"	2,990, 9' 10"
B. Overall width	mm, ft-in	3,590, 11' 9"	3,590, 11' 9"	3,590, 11' 9"
C. Overall height of cab	mm, ft-in	3,180, 10'5"	3,180, 10' 5"	3,180, 10' 5"
D. Tail swing radius	mm, ft-in	1,865, 6'1"	1,865, 6' 1"	1,865, 6' 1"
E. Overall height	mm, ft-in	3,425, 11'3"	3,425, 11' 3"	3,425, 11' 3"
F. Counterweight clearance *	mm, ft-in	1,145, 3'9"	1,145, 3' 9"	1,145, 3' 9"
G. Tumbler length	mm, ft-in	4,020, 13'2"	4,020, 13' 2"	4,020, 13' 2"
H. Track length	mm, ft-in	4,946, 16'3"	4,946, 16' 3"	4,946, 16' 3"
I. Track gauge	mm, ft-in	2,740, 9'0''	2,740, 9' 0"	2,740, 9' 0''
J. Shoe width	mm, ft-in	850, 2'8"	850, 2' 8"	850, 2' 8"
K. Min. ground clearance *	mm, ft-in	500, 1'8"	500, 1' 8"	500, 1' 8"
L. Overall length	mm, ft-in	9,950, 32'8"	9,865, 32' 4"	9,890, 32' 5"
M. Overall height of boom	mm, ft-in	3,445, 11'4"	3,305, 10' 10"	3,550, 11'8"

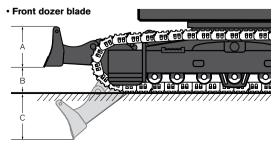
^{*} Without shoe grouser



Description	Unit	6.2 m, 20' 4"
Length	mm, ft-in	6,430, 21' 1"
Height	mm, ft-in	1,680, 5' 6"
Width	mm, ft-in	770, 2' 6"
Weight	kg, lb	2,480, 5,470



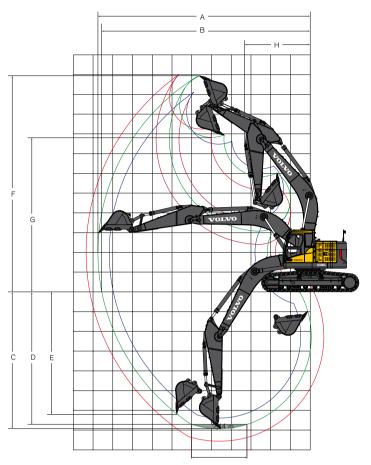
Description	Unit	2.55 m, 8' 4"	3.05 m, 10' 0"	3.7 m, 12' 2"
Length	mm, ft-in	3,710, 12' 2"	4,150, 13' 7"	4,900, 16' 1"
Height	mm, ft-in	1,010, 3' 4"	1,010, 3' 4"	1,050, 3' 5"
Width	mm, ft-in	545, 1' 9"	545, 1' 9"	545, 1' 9"
Weight	kg, lb	1,475, 3,250	1,540, 3,400	1,680, 3,700



Description	Unit	Measurement
A. Height	mm, ft-in	728, 2' 5"
Width	mm, ft-in	3,340, 10' 11"
Weight	kg, lb	1,496, 4' 11"
B. Lift height	mm, ft-in	820, 2' 8"
C. Digging depth	mm, ft-in	495, 1' 7"

^{*} Only available with 600mm width shoe

Working ranges & digging force



• ECR305CL

Maakina wikh nin an huakak	Unit		6.2 m, 20' 4" boom	
Machine with pin-on bucket	Onit	2.55 m, 8' 4" arm	3.05 m, 10' 0" arm	3.7 m, 12' 2" arm
A. Max. digging reach	mm, ft-in	10,110, 33' 2"	10,635, 34' 11"	11,240, 36' 11"
B. Max. digging reach on ground	mm, ft-in	9,905, 32' 6"	10,445, 34' 3"	11,065, 36' 4"
C. Max. digging depth	mm, ft-in	6,460, 21' 2"	6,960, 22' 10"	7,610, 25' 0"
D. Max. digging depth (8' level)	mm, ft-in	6,260, 20' 6"	6,795, 22' 4"	7,465, 24' 6"
E. Max. vertical wall digging depth	mm, ft-in	5,600, 18' 4"	6,130, 20' 1"	6,755, 22' 2"
F. Max. cutting height	mm, ft-in	10,455, 34' 4"	10,915, 35' 10"	11,285, 37' 0"
G. Max. dumping height	mm, ft-in	7,435, 24' 5"	7,855, 25' 9"	8,230, 27' 0"
H. Min. front swing radius	mm, ft-in	3,285, 10' 9"	3,365, 11' 0"	3,340, 10' 9''

Digging forces with direct	fit busket	Unit	6.2 m, 20¹ 4" boom										
Digging forces with direct	iii bucket	Oilit	2.55 m, 8' 4" arm	3.05 m, 10' 0" arm	3.7 m, 12' 2" arm								
Bucket radius		mm, ft-in	1,600, 5' 2''	1,600, 5' 2''	1,600, 5' 2''								
Breakout force - bucket	SAE J1179	kN Ib	163 / 173 36,580 / 38,810	163 / 173 36,580 / 38,810	163 / 173 36,580 / 38,810								
(Normal/Power boost)	ISO 6015	kN Ib	187 / 198 42,050 / 44,610	187 / 198 42,050 / 44,610	187 / 198 42,050 / 44,610								
Tearout force - arm (Normal/	SAE J1179	kN Ib	150 / 159 33,630 / 35,680	127 / 135 33,630 / 35,680	112 / 119 33,630 / 35,680								
Power boost)	ISO 6015	kN Ib	158 / 167 35,430 / 37,600	132 / 140 29,570 / 31,380	115 / 122 25,820 / 27,390								
Rotation angle, bucket		deg.	179	179	179								

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.

• ECR305CL

Acro und	er-	Lifting			1.5	m,	, 5'			3.0 m	ı, 1 0)'	4.5 m, 15'					6.0 m)'	7.5 m, 25'					9.0 m	, 30)'	Max. reach						
carria	ng	hook related ground		ı	<u>.</u>		Œ	-		<u>.</u>	Ċ	-	þ	4	Œ	-	Ē	İ,	Ü	j.	ľ	<u>.</u>	Ċ	1-		j.	Œ	 		į.	Ĉ	-	Ma	
und carria		level		t	ب ال		t	lb	t	ر ال	t	lb	t	ار اb	t	lb	t	ب اله	t	lb	t	ы Пр	t	lb	t	ь	t	lb	t	lь	t	lb	m /	
		9 m	30'																										*6.4	*14,460	*6.4	*14,460	5.62/	
om 6.2 m		7.5 m	25'														* 7.1	*15,720	*7.1	*15,720									*5.7	*12,700	*5.7	*12,700	7.13/2	
' 4"		6 m	20'														* 7.5	*16.380	*7.5	*16,380	*72	*15.850	6.1	13.080					*5.5	*12,080	5.3	11.910	8.08/	
m 3.05 m		4.5 m	15'						*14.8	*31,260	*14.8	*31.260	*10.3	*22,220	10.3	*22,220	*8.5	*18,470	8.4	18,190	*7.6	*16,590	6.0	12,820					*5.5	*12,020	4.7	10,370	8.68/	
' 0"		3 m	10'										*13.1	*28,230	123	26,620	19.8	*21.270	8.0	17,310	*82	*17.920	5.8	12.400					*5.6	*12,390	4.3	9.590	8.98	
e 850 mm	1	1.5 m	5'										15.3	*33,050	11.6	25,000	*11.0	*23,870	7.7	16,500	8.7	18,620	5.6	11,980	*6.4	*14,036	4.3	9,284	*6.0	*13,250	42	9.320	9.03	
.5"		0 m	0'										*162	*34,990	11.3	24,230	11.8	-	7.4	15,960	85	18,290	5.4	11.670		,		-, -	*6.7	*14,710	4.3	9,510	8.82	
unterweight	t	-1.5 m	-5'						*10.6	*24,080	*10.6	*24,080	15.9	*34,460	11.2	24,060	11.8	25,350	7.3	15,740	8.4	18,150	5.4	11,550					7.2	16,010	4.6	10,260	8.34	
50 kg		-3 m							17.6	*39,980	17.6		*14.7	*31,750	11.3	24,270	11.1	*23,920	7.3	15.820	*83	,	5.4	.,					*82	*18,190	5.4	11.970	7.53	
190 lb		-4.5 m							*162	*34,860	*162		121	*25,940		, .	*88	*18,560	7.6	16,360									*82	*18,030	7.1	16,030	626	
		9 m	30'						102	0.,000		0.,000	-12/1	20,010		_ ,,000	16.3	*12,970	*63	*12,970									*5.0	*11,120	*5.0	*11.120	6.56	
00		7.5 m	25'														5.0	,575	0.0	,0.0	*57	*11.480	*5.7	*11.480					*4.5	*10.010	*45	*10.010	7.89	
om 6.2 m ' 4"		6 m	20'														*6.7	*14.690	*6.7	*14.690	*6.6	*14,460	6.3	13,470					*4.3	*9,570	4.3	*9.570	8.76	
		4.5 m	15'										*9.0	*19.500	*9.0	*19.500	*7.8	*16,910	*7.8	*16,910	*7.1	*15,480	6.1	13,150	*5.7	*11.190	4.6	9.750	4.3	*9,530	4.3	9,470	9.31	
n 3.7 m		3 m	10'										11.9	*25,690	11.9	*25.690	192	*19.920	82	17,770	*7.8	*17.030	5.9	12,700	6.8	14,900	4.4	9,560	*4.4	*9,790	4.0	8,830	9.60	
_		1.5 m	5'										145	*31,380	120	25,740	10.6	-,	7.8	16.890	*8.6	*18,660	5.7	12,700	6.7	14,340	4.3	9,330	*4.7	*10.360	3.9	8,590	9.64	
oe 850 mm . 5"	1	0 m	0'						*6.3	*14.310	*63	*14.310	16.0	*34,560	11.5	24,660	11.6	,	7.5	16,240	8.6	18,470	5.5	11,850	6.6	14,150	4.2	9,150	*52	*11,370	4.0	8,720	9.45	
.5		-1.5 m	-5'	*6.3	*14.0	00	63	*14.000		*22,720	*10.0	*22,720	162	*35.150	11.3	24,000	11.9	25,510	7.4	15,890	85	18,240	5.4	11,640	'60	13,090	4.2	9,196	*5.9	*13,060	4.0	9,290	9.00	
unterweight	t	-3 m	-10'	105	,-			,		*34.270		*34.270		*33,490		24,230		-,		-,	85	18,240		,	uu	13,030	4.2	3,130		*16,100	4.8	10,540	826	
50 kg , 190 lb		-3 m		LUD	*23,5	20	10.5	*23,520	15.1 18.8	*40.600	*15.1 *18.8	-, -	*15.5 *13.6	*29,190	11.3	24,270	11.6	-,	7.3 7.5	15,840	δD.	18,240	5.4	11,640					*7.2 *7.9	*17.450	6.0	13,240	7.12	
,									10.0	40,000	10.0	40,000		25,150	11.5	24,000	*10.2	21,730	1.0	16,110										,		-, -		
		-6 m											*9.5																*8.1	*17,730	'8.1 '6.4	*17,730 *14,460	5.15	
om 6.2 m		9 m	30'														17.4	45700		45.700									*64	*14,460		,		
		7.5 m	25'														*7.1	*15720	*7.1	*15,720	.70	45.050	00	40 500					*5.7	*12,700	*5.7	*12,700	7.13	
n 3.05 m		6 m	20'														*7.5	*16380	*7.5	*16,380		-,	6.3	13,590					*5.5	*12,080	*5.5	*12,080	8.08	
· ·		4.5 m	15'						*14.8	*31,260	14.8	*31,260		, .	10.3	, .	*8.5	*18470	*8.5	*18,470	*7.6	*16,590	62	13,330					*5.5	*12,020	4.9	10,800	8.68	
ne 600 mm	1	3 m	10'										*13.1	*28,230	128	27,630	*9.8	*21270	8.3	17,980	*82	*17,920	6.0	12,910					*5.6	*12,390	4.5	10,000	8.98	
		1.5 m	5'										15.3	*33,050	121	26,010	*11.0	*23870	8.0	17,170	*8.9	*19,280	5.8	12,490	* 6.4	*14,040	4.4	9,770	*60	*13,250	4.4	9,730	9.03	
unterweight		0 m	0'										162		11.7	25,240	*11.8		7.7	16,630	*9.3	*20,140	5.7	12,180					*6.7	*14,710	4.5	9,930	8.82	
50 kg ,190 lb		-1.5 m	-5'						*10.6	*24,080	*10.6		15.9	*34,460	11.7	25,060	*11.8		7.6	16,410	*9.3	*20,010	5.6	12,060					*7.8	*17,270	4.9	10,710	8.34	
		-3 m							*17.6	*39,980	*17.6		*14.7		11.8	25,270	11.1	*23920	7.7	16,500	*8.3		5.7						*82	*18,190	5.6	12,480	7.53	
zer blade		-4.5 m	-15'						*162	*34,860	*162	*34,860	*12.1	*25,940	12.0	25,900	*8.8	*18560	7.9	17,030									*82	*18,030	7.4	16,690	626	
om 6.2 m		9 m	30'														' 6.3	*12970	*6.3	*12,970									*5.0	*11,120	*5.0	*11,120	6.56	
4"		7.5 m	25'																		*5.7	*11,480	*5.7	*11,480					*4.5	*10,010	*4.5	*10,010	7.89	
1 3.7 m		6 m	20'														' 6.7	*14690	*6.7	*14,690	*6.6	*14,460	6.5	13,980					*4.3	*9,570	*4.3	*9,570	8.76	
1 3.7 m		4.5 m	15'										*9.0	*19,500	*9.0	*19,500	*7.8	*16910	7.8	*16,910	7.1	*15,480	6.3	13,660	*5.7	*11,190	4.7	10,160	*4.3	*9,530	*4.3	*9,530	9.31	
		3 m	10'										11.9	*25,690	11.9	*25,690	92	*19920	8.6	18,440	*7.8	*17,030	6.1	13,200	*7.0	*14,400	4.6	9,970	*4.4	*9,790	42	9,210	9.60	
e 600 mm	1	1.5 m	5'										*14.5	*31,380	124	26,750	*10.6	*22910	8.1	17,560	*8.6	*18,660	5.9	12,730	7.4	15,860	4.5	9,740	*4.7	*10,360	4.1	8,970	9.64	
		0 m	0'						*6.3	*14,310	*63	*14,310	*16.0	*34,560	11.9	25,670	*11.6	*25040	7.8	16,910	*92	*19,890	5.7	12,360	7.3	15,660	4.4	9,550	*52	*11,370	4.1	9,110	9.45	
interweight 50 kg	t	-1.5 m	-5'	*6.3	*14,0	00	63	*14,000	*10.0	*22,720	*10.0	*22,720	162	*35,150	11.7	25,250	11.9	*25850	7.7	16,560	9.4	20,160	5.6	12,140	*6.0	13,090	4.4	9,680	* 5.9	*13,060	4.4	9,700	9.00	
,190 lb		-3 m	-10'	*10.5	*23,5	20 '	10.5	*23,520	15.1	*34,270	*15.1	*34,270	*15.5	*33,490	11.8	25,280	*11.6	*25030	7.7	16,510	*9.0	*19,310	5.6	12,150					*7.2	*16,100	5.0	11,000	826	
zor blade		-4.5 m	-15'						*188	*40,600	*18.8	*40,600	*13.6	*29,190	11.9	25,680	10.2	*21730	7.8	16,790									*7.9	*17,450	62	13,800	7.12	
zer blade		-6 m	-20'										*9.5	*20,990	*9.5	*29,990													*8.1	*17,730	*8.1	*17,730	5	

Notes:

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

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.

• ECR305CL

Across under-	Lifting hook			1.5 r	n, 5	•		3.0 m	, 1 C)'		4.5 m	ı, 1 5	5'		6.0 m	20)'	7.5 m, 25'					9.0 m)'	Max. reach							
Carriage Along under-	related ground level		Ē	Ļ	Ċ	1	Ē	<u>.</u>	C	-	ď	ď	Ć5	 -	Ę	Ļ	Ċ	-	ŧ	<u>‡</u>	Ç	-		ė.	Ċ	-	[<u>.</u>	C	-	Max. m / ft		
Carriage	icvei		t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	t	lb	111 / 11		
	9 m	30'																									*6.4	*14,460	*6.4	*14,460	5.62/17.80		
Boom 6.2 m	7.5 m	25'													*7.1	*15,720	*7.1	*15,720									*5.7	*12,700	*5.7	*12,700	7.13/23.00		
20' 4" +	6 m	20'													*7.5	*16,380	*7.5	*16,380	*7.2	*15,850	6.3	13,460					*5.5	*12,080	*5.5	*12,080	8.08/ 26.40		
Arm 3.05 m	4.5 m						*14.8	*31,260	*14.8	*31,260	*10.3	*22,220	*10.3	*22,220	*85	*18,470	*8.5	*18,470	*7.6	*16,590	6.1	13,200					*5.5	*12,020	4.8	10,700	8.68/28.40		
10' 0" +	3 m	10'									*13.1	*28,230	12.7	27,380	*9.8	*21,270	8.3	17,820	*82	*17,920	6.0	12,780					*5.6	*12,390	4.5	9,900	8.98/29.50		
Shoe 850 mm	1.5 m	5'									*15.3	*33,050	12.0	25,760	*11.0	*23,870	7.9	17,010	8.9	19,110	5.7	12,360	' 6.4	14,036	4.4	9,658	*6.0	*13,250	4.4	9,630	9.03/29.70		
33.5"	0 m	0'									*162	*34,990	11.6	24,990	*11.8	*25,460	7.6	16,470	8.7	18,780	5.6	12,060					*6.7	*14,710	4.5	9,830	8.82/29.00		
Counterweight	-1.5 m	-5'					*10.6	*24,080	*10.6	*24,080	159	*34,460	11.5	24,820	*11.8	*25,620	7.5	16,240	8.7	18,640	5.5	11,940					7.4	16,440	4.8	10,600	834/27.40		
8,700 kg 19,180 lb	-3 m	-10'					*17.6	*39,980	*17.6	*39,980	*14.7	*31,750	11.6	25,030	11.1	*23,920	7.6	16,330	*83		5.6						*82	*18,190	5.6	12,360	7.53/ 24.60		
13,100 15	-4.5 m	-15'					162	*34,860	*162	*34,860	12.1	*25,940	11.9	25,650	*88	*18,560	7.8	16,870									*82	*18,030	7.4	16,530	626/20.30		
	9 m	30'													*63	*12,970	' 6.3	*12,970									*5.0	*11,120	*5.0	*11,120	6.56/21.00		
Boom 6.2 m	7.5 m	25'																	*5.7	*11,480	*5.7	*11,480					*4.5	*10,010	*4.5	*10,010	7.89/25.60		
20' 4"	6 m	20'													*6.7	*14,690	*6.7	*14,690	*66	*14,460	6.4	13,850					*4.3	*9,570	*4.3	*9,570	876/28.60		
+ Arm 3.7 m	4.5 m	15'									*9.0	*19,500	*9.0	*19,500	*7.8	*16,910	*7.8	*16,910	*7.1	*15,480	6.3	13,530	*5.7	*11,190	4.7	10,060	*4.3	*9,530	*4.3	*9,530	9.31/30.50		
12' 2"	3 m	10'									119	*25,690	119	*25,690	' 92	*19,920	8.5	18,280	* 7.8	*17,030	6.1	13,080	7.0	*14,400	4.6	9,870	*4.4	*9,790	4.1	9,120	9.60/31.50		
+ Shoe 850 mm	1.5 m	5'									14.5	*31,380	123	26,500	*10.6	*22,910	8.1	17,400	*86	*18,660	5.9	12,610	6.8	14,730	4.5	9,640	*4.7	*10,360	4.0	8,880	9.64/31.70		
33.5"	0 m	0'					' 6.3	*14,310	*6.3	*14,310	16.0	*34,560	11.8	25,420	*11.6	*25,040	7.8	16,740	8.8	18,960	5.7	12,230	6.7	14,530	4.4	9,450	*5.2	*11,370	4.1	9,020	9.45/31.00		
+	-1.5 m	-5'	' 6.3	*14,000	*6.3	*14,000	10.0	*22,720	*10.0	*22,720	162	*35,150	11.6	25,000	12.0	*25,850	7.6	16,400	8.7	18,730	5.6	12,020	*6.0		4.4		*5.9	*13,060	4.4	9,600	9.00/29.50		
Counterweight 8,700 kg	-3 m	-10'	*10.5	*23,520	*10.5	*23,520	15.0	*34,270	*15.0	*34,270	15.5	*33,490	11.6	25,030	*11.6	*25,030	7.6	16,340	8.7	18,730	5.6	12,020					*7.2	*16,100	4.9	10,890	826/27.00		
19,180 lb	-4.5 m	-15'					*18.8	*40,600	*18.8	*40,600	13.6	*29,190	11.8	25,440	*10.2	*21,730	7.7	16,620									*7.9	*17,450	6.1	13,660	7.12/23.20		
	-6 m	-20'									*9.5		*9.5														*8.1		*81		5.15/16.90		

Notes:

Machine in "Fine Mode-F" (Power Boost) for lifting capacities.
 The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.
 Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
 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 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

- Frame-mounted 1

Travel alarm Batteries, 2 x 12 V / 150 Ah

Start motor, 24 V / 5.5 kW

Hydraulic system

Automatic sensing hydraulic system:

- Summation system
- Boom priority
- Arm priority
- Swing priority

Cab adjustment of auxiliary hydraulic pressure and flow

Hydraulic piping:

- Hammer & shear (X1): 2 pump flow
- Quick quick fit piping
- Oil leak (drain) line, Base

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

Standard hydraulic oil, ISO VG 46

Superstructure

Access way with handrail

Full height counterweight 8,250 kg, 18,190 lb

Tool storage area

Service walkway with anti-slip grating

Undercover (4.5 mm, **0.18"**)

Cab and interior

Fabric seat with heater

2 button control for hammer/shear auxiliary

hydraulics

Control joysticks with 4 switches each

Travel pedals with hand levers

Pilot control pattern change

Heater & air-conditioner, automatic

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 suppression, includes:

- Cup holders
- Door locks
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt, 3-inch retractable
- Safety glass, light tinted
- Sun screen, front, roof, rear
- Windshield wiper with washer and

intermittent feature

Anti-vandalism kit assembly preparation

Master key

Opening top hatch

Straight travel pedal

Rear view mirror

Undercarriage

Hydraulic track adjusters Greased and sealed track link

Track guard

Undercover (4.5 mm, **0.18"**)

Track shoes

Track shoes 850 mm, 33.5", with triple grousers

Digging equipment

Boom: 6.2 m, 20' 4"

Arm: 3.05 m, 10' heavy duty wihtout wear strips

Centralized lubrication

Service

Tool kit, daily maintenance

Caretrack

OPTIONAL EQUIPMENT

Engine

Block heater: 120V

Diesel coolant heater, programmable

Water separator with heater

Reversible cooling fan

Full filler pump: 50 l/min, **13.2 gpm** with

automatic shut-off.

Electric

Extra lights:

- Cab-mounted 2
- Upper structure-mounted 1

Extra lights (cab front only)

- Cab-mounted 1

Anti-theft system Rotating warning beacon

Hydraulic system

Hose rupture valve: boom, arm Overload warning device

Hydraulic piping:

- Slope & rotator (X3)
- Oil leak (drain) line, Boom

Volvo hydraulic quick fit (S2, UQF 29) Standard hydraulic oil, ISO VG 32 Standard hydraulic oil, ISO VG 68 Hydraulic oil, biodegradable 32 Hydraulic oil, biodegradable 46 Long life hydraulic oil, ISO VG 32 Long life hydraulic oil, ISO VG 46 Long life hydraulic oil, ISO VG 68 Boom float function

Superstructure

Full height counterweight, 8,700 kg, 19,180 lb

Cab and interior

Fabric seat

Fabric seat with heater and air suspension Control joystick with proportional control Cab-mounted falling object guard (FOG) Cab-mounted falling object protective structure (FOPS)

Protective screen for front window

Rain shield, front Anti-vandalism kit

Rear view camera Smoker kit (ashtray and lighter)

Undercarriage

Full track guard

Dozer blade, 3,340 mm, 11' width for 600mm, 24" shoe
Undercover (heavy-duty 10 mm, 0.39")

Track shoes

Track shoes 600/700/800/900 mm, **24"/28"/32"/36"** with triple grousers Double grouser 600 mm, **24"**

Digging equipment

Arm: 3.05 m, 10' 5" GP without wear strips 3.05 m, 10' 5" GP with wear strips 3.05 m, 10' 5" HD with wear strips 3.7 m, 10' 5" GP without wear strips 3.7 m, 10' 5" GP with wear strips

Extended greasing bushing Linkage with lifting eye

Buckets

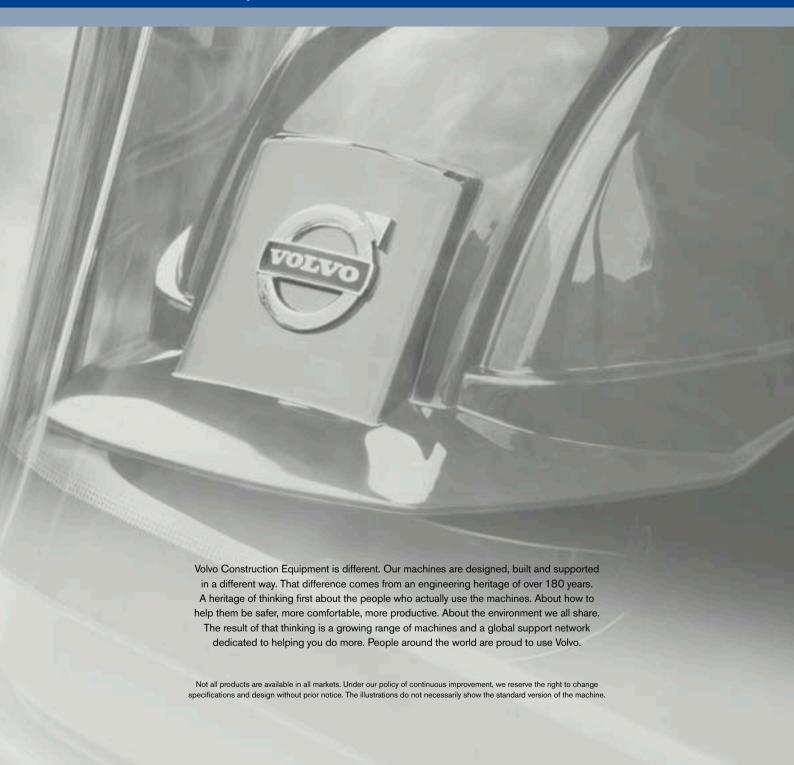
XP UQF **30"** 1.02 Cu Yd XP UQF **48"** 1.89 Cu Yd S2 SQF **30"** 1.02 Cu Yd S2 SQF **48"** 1.89 Cu Yd

Service

Tool kit

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

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