

VOLVO EXCAVATORS

ECR25D

2.49 t / 0 lb 20.9 hp



SMALL SIZE. BIG POWER.

The ECR25D has been designed with mobility and performance in mind. Featuring a range of innovations engineered for effortless transportation, you'll benefit from an ideal transport weight and an integrated bucket transport system. This powerful, short radius excavator boasts strong lifting capabilities as well as breakout and tear out forces that are comparable to larger machines.



Short radius

With a maximum overhang of 75 mm (3"), it ensures safe and easy operation within confined spaces and when loading and unloading the machine. This compact excavator can be used on more jobsites, with a reduced risk of damage, for increased versatility and durability.

Performance

With 754 kN/8,439 lbf combined breakout & tear out force, the ECR25D boasts industry-leading performance for its size. Handle heavy loads effectively thanks to a large lifting capacity and experience superior control and balance.



Volvo hydraulic breakers

Our breakers offer consistent impact frequency and power to ensure productivity on any job site. Optimal power and performance is delivered with every strike of the breaker, maximizing your performance.

Bucket transport

Volvo's simple and effective bucket transportation system enables a ditching bucket to safely carry general purpose buckets. Transportation hooks help to secure attachments against the blade at the end of the working day.



Transport configuration

Inexpensively transport this highly mobile machine with up to three buckets and a hydraulic breaker on a small trailer and benefit from a total transport weight of less than 3.5 t. Safe transportation is enabled by four, easily accessible, tie-down points.

WORK EFFICIENTLY IN COMFORT.



Operator environment

The spacious and safe cab/canopy feature an adjustable seat, superior vibration and noise insulation, ergonomic armrests and an efficient heating system (cab only). There is no gap or raised edge between the single piece, floor and the door - ensuring quick and easy cleaning.

Step inside the spacious ECR25D and experience the benefits of the comfortable and intuitive Volvo operator environment. The modern styling delivers superior all-around visibility from large expanses of glass as well as innovative, ergonomic features including ideally placed controls and switches and a large floor - with no auxiliary pedals - for increased foot space.

Slew and offset movements

Slew and offset movements are controlled simultaneously for easy and fast positioning of the machine. Proportional fingertip control enables precise, smooth and effortless command of the boom offset.

Adjustable flows

Easily adjust the auxiliary hydraulic flows from inside the cab/canopy via the joystick controls and benefit from the correct speed and power for optimal attachment operation. Flows can be independently adjusted in each direction.



Travel pedals

Hydraulically controlled, large travel pedals enable easy and accurate track control. This leaves the operator's hands free to control the joysticks - particularly advantageous when working in confined spaces or loading and unloading the machine.

Automatic travel speed

For optimized work modes the operator can switch on travel mode, when additional traction is required the systems automatically compensates, ie when dozing. If operators wants to restrict travel speed, he can select work mode, min speed max traction

INVEST IN UPTIME.

Taking care of your excavator shouldn't be complicated - and with a range of built-in service features Volvo makes regular maintenance easy. With innovative technology including the Volvo patented hydraulic oil filter and grouped service points designed to sustain your uptime, we'll help you decrease your total cost of ownership. Get more from your investment with Volvo.

Auto-idle

Engine speed is reduced to idle when the controls are inactive for more than five seconds or when the left-hand console is raised - reducing fuel consumption and noise. The engine instantly returns to the pre-selected speed when the operator activates any control.



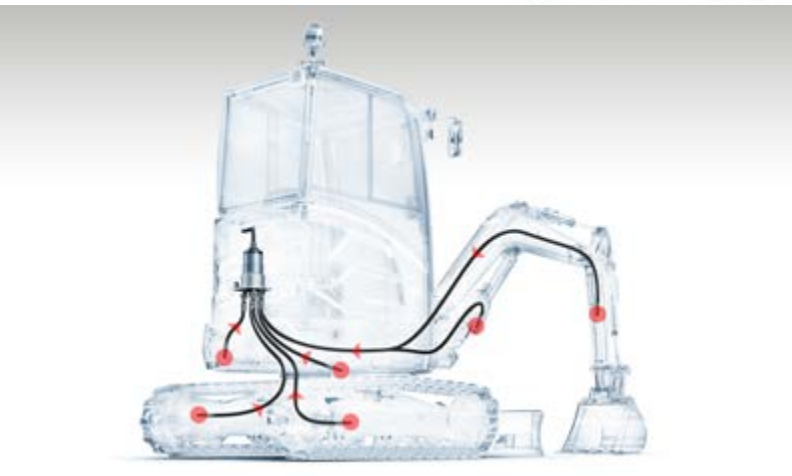
Greasing interval

Grease points are easily accessible from one side of the machine. The greasing interval is 50 hours. Longer greasing intervals increase uptime, lower operating costs and provide longevity for all pivot points.



Flat glass

The flat, toughened glass used on the four sides of the cab ensures that replacements can be fitted simply, quickly and inexpensively if damage occurs.



Patented hydraulic filter

With Volvo's patented, multifunctional hydraulic oil filter, filtration occurs when the tank is filled or topped up and before the oil returns back via the drain lines. The transparent bowl enables easy oil level checks and ensures preventative maintenance is carried out before damage occurs.



Service access

Daily service points are logically grouped under the wide-opening lockable engine hood to ensure maintenance is straightforward and uptime is maximized. Quick checks encourage this essential work to be carried out - increasing machine lifetime.

THE VOLVO EXPERIENCE.



Cab/canopy

Ergonomic, spacious and safe Volvo cab/canopy feature all-around visibility, intuitive controls and built-in comfort.

Auto-idle

Engine speed is reduced to idle when the controls are inactive for more than five seconds - reducing fuel consumption and noise.

Volvo engine

Powerful Volvo Tier 4 diesel engine built with proven, advanced technology for high performance and low fuel consumption.



Service access

Daily service points are grouped under the engine hood and are easily accessible for straightforward maintenance.



CareTrack

Volvo's telematics system remotely guides machine owners towards high uptime by tracking operating hours, location and providing service reminders.



Transport configuration

Inexpensively transport the highly mobile ECR25D with up to three buckets and a hydraulic breaker on a small trailer.

Automatic travel speed

Two modes, travel and work allow automatic shifting depending on the application

Travel mode: max speed for travelling, downshifts to work mode

Work mode: limits travel speed, ie when dozing, allows operator to do fine finish work





Customer Solutions

Volvo provides the right solutions throughout the entire life cycle of your machine to lower total cost of ownership.

Hydraulic pump

Variable displacement piston pump adapts the hydraulic power on demand - providing reduced fuel consumption and high performance.

Adjustable flows

Adjust the auxiliary hydraulic flows from inside the cab/canopy via the joystick controls for optimal attachment operation.

Greasing interval

The greasing interval is 50 hours.

Attachments

Volvo offers a wide range of attachments. Attachment carrier, buckets, breakers and other implements are available from factory or loose.

Slew and offset movements

Slew and offset movements are controlled simultaneously for easy and fast positioning of the machine.

Tie-down points

Quick and safe machine transportation is enabled by four, easily accessible, tie-down points.

ADDING VALUE TO YOUR BUSINESS.

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximizing uptime.



Customer Support Agreements

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number

of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.



Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.



Service Network

In order to respond to your needs faster, a Volvo expert is on the way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.



Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.

VOLVO ECR25D IN DETAILS.

Engine			
Engine Tier4	Volvo	D1.1A	
Rated speed	r/s / r/min	40	2,400
Maximum Gross power, ISO 14396/SAE J1995	kW / hp	15.6	20.9
Max torque at	Nm @ r/min / lb-ft @ r/min	72.2/1 600	53.2/1,600
No. of cylinders		3	
Displacement	l / in ³	1 123	68.5
Bore	mm / in	78	3.07
Stroke	mm / in	78.4	3.08
Compression ratio		24	
Electrical system			
Rated voltage	V	12	
Batteries	V	1 x 12	
Battery capacity	Ah	64	
Alternator	V / Ah	12 / 40	
Hydraulic system			
Maximum system flow	l/min / gpm	67	17.7
Maximum flow for accessories	l/min / gpm	45	11.9
Maximum flow for 2nd accessory circuit (option)	l/min / gpm	23	6
Maximum operating pressure	Mpa / bar / PSI	25/250/3 626	
Digging performances			
Standard bucket width (blade, W/O side cutter)	mm / in	500	20
Standard bucket mass	kg / lb	59	130
Standard bucket rated capacity	m ³ / yd ³	0.074	0.097
Bucket rotation	deg	205	
Bucket breakout force	daN / lbf	2 026	4,554
Short arm (1,050 mm/41.3") tearout force	daN / lbf	1 728	3,885
Long arm (1,350 mm/53.1") tearout force	daN / lbf	1 464	3,291
Swing system			
Max. slew speed	r/min	9.4	
Max. slew torque	daNm / lb-ft	485	3,577
Undercarriage			
Bottom/top rollers per side		3/1	
Track tension		by grease piston	
Blade (width x height)	mm / in	1 550 x 322	61 x 12.7

Lifting capacity ECR25D

These capacities are given for a machine equipped with a cabin, 250 mm/9.8" rubber tracks and without a bucket or quick-coupler.

The above values are in compliance with ISO standard 10567. They do not exceed 75% of the tipping load or 87% of the hydraulic limit with the machine on firm level ground.

Loads marked with an asterisk (*) are limited by machine's hydraulic lifting capacity rather than tipping load.

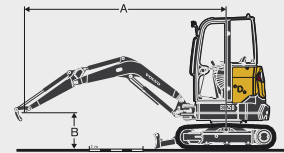
Caution: In accordance with standard EN 474-5, the machine must be equipped to carry out handling operations.

It is the operator's obligation to know and follow the applicable national and local safety regulations.

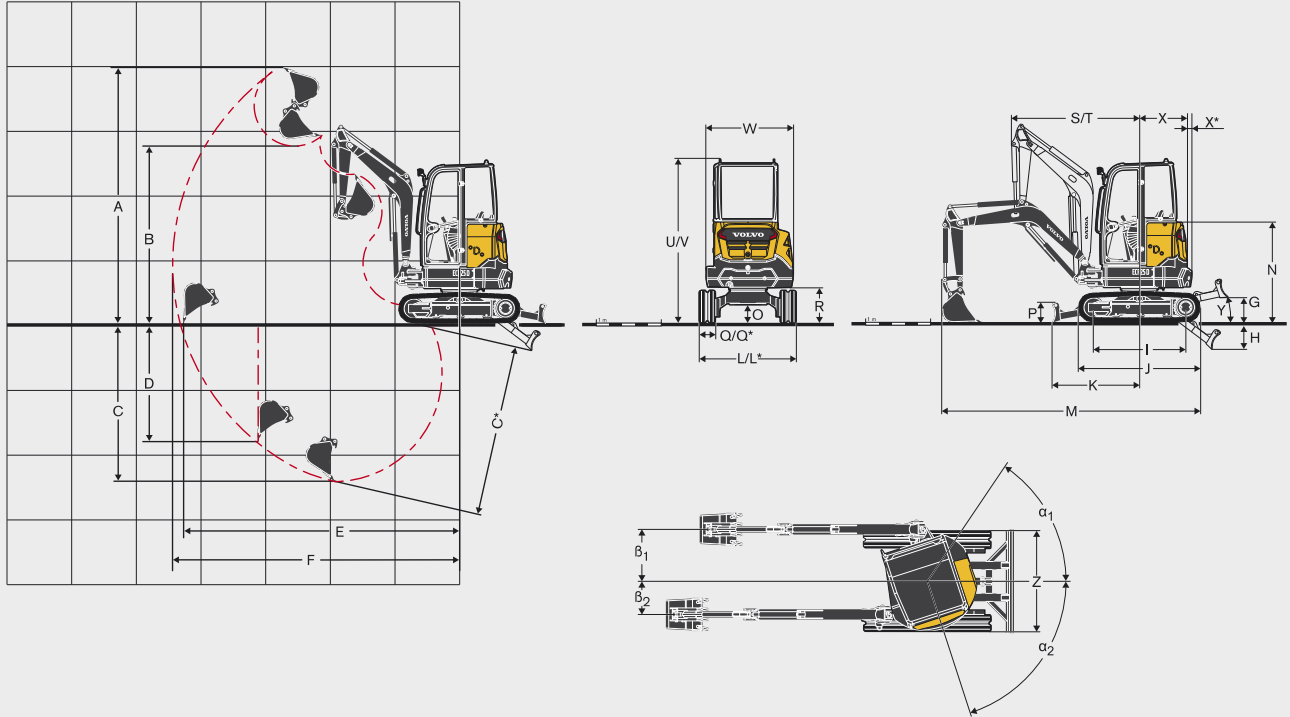
	Lifting point height	Lifting point radius (A)														
		2.0 m/78.7"				3.0 m/118.1"				Max. reach				Max.		
		kg		lb		kg		lb		kg		lb		m	in	
Arm: 1 050 mm/41.3" + Dozer blade up	3	118.1	-	-	-	-	440	970	420	926	427	941	408	899	3 048	120
	2	78.7	-	-	-	-	433	954	414	913	313	690	300	661	3 667	144.4
	1	39.4	-	-	-	-	409	902	390	860	282	622	270	595	3 858	151.9
	0	0	718	1,583	673	1,484	393	866	374	824	294	648	281	619	3 706	145.9
	-1	-39.4	728	1,605	683	1,506	396	873	377	831	372	820	355	782	3 144	123.8
Arm: 1 350 mm/53.1" + Additional counterweight + Dozer blade up	3	118.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	78.7	-	-	-	-	470	1,036	448	987	297	655	284	626	3 971	156.3
	1	39.4	816	1,799	765	1,686	443	976	421	928	272	600	259	571	4 142	163
	0	0	768	1,693	719	1,585	421	928	400	882	281	619	268	591	4 002	157.6
	-1	-39.4	771	1,699	721	1,589	417	919	396	873	339	747	323	712	3 502	137.9
Arm: 1 050 mm/41.3" Dozer blade down	3	118.1	-	-	-	-	566*	1,248*	420	926	577*	1,272*	408	899	3 048	120
	2	78.7	-	-	-	-	599*	1,320*	414	913	601*	1,325*	300	661	3 667	144.4
	1	39.4	-	-	-	-	795*	1,752*	390	860	642*	1,415*	270	595	3 858	151.9
	0	0	1 602*	3,532*	673	1,484	933*	2,057*	374	824	699*	1,541*	281	619	3 706	145.9
	-1	-39.4	1 543*	3,402*	683	1,506	849*	1,872*	377	831	771*	1,699*	355	782	3 144	123.8
Arm: 1 350 mm/53.1" + Additional counterweight + Dozer blade down	3	118.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	78.7	-	-	-	-	500*	1,102*	448	987	532*	1,172*	284	626	3 971	156.3
	1	39.4	1 334*	2,941*	765	1,686	715*	1,576*	421	928	571*	1,258*	259	571	4 142	163
	0	0	1 608*	3,545*	719	1,585	897*	1,977*	400	882	623*	1,373*	268	591	4 002	157.6
	-1	-39.4	1 659*	3,657*	721	1,589	902*	1,988*	396	873	692*	1,525*	323	712	3 502	137.9

*hydraulic limit

Drive			
Max. drawbar pull	daN / lbf	1 984	4,460
Max. travel speed (low/high)	km/h / mph	2.5/4.5	1.55/2.8
Gradeability	°	30	
Service refill capacities			
Fuel tank	l / gal	28	7.4
Hydraulic system, total	l / gal	33	8.7
Hydraulic tank	l / gal	15	4
Engine oil	l / gal	5.1	1.35
Engine coolant	l / gal	4	1.06
Travel reduction unit	l / gal	0.6	0.16
Sound Level			
Interior sound level according to ISO 6396 (LpA)	dB(A)	78	
External sound level according to ISO 6395 and EU Noise Directive (2000/14/EC) and 474-1:2006+A1:2009 (LwA)	dB(A)	93	
Weight and ground pressure			
Operating weight according to ISO 6016 (according to most usual configuration and including 75 kg/165 lb operator)	kg / lb	2 490	5,489.5
Ground pressure cab	kg/cm ² / PSI (kPa)	0.31 (30.5)	4.5
Ground pressure canopy	kg/cm ² / PSI (kPa)	0.30 (29.5)	4.4
Transport weight (Heated cab, 250 mm/9.8" rubber tracks, short arm, 1,050 mm/20" direct-fit bucket, full fuel tank)	kg / lb	2 415	5,325
With canopy	kg / lb	-90	-198.4
With extra counterweight	kg / lb	+100	+220.5
With long arm and additional counterweight	kg / lb	+112	+247
With 300 mm/11.8" rubber tracks	kg / lb	+78	+172



SPECIFICATIONS.



Description	Unit	Short Arm 1 050 mm/41.3"		Long arm 1,350 mm/53.1"	
A Maximum cutting height	mm / in	4 010	157.9	4 183	164.7
B Maximum dump height	mm / in	2 784	109.6	2 957	116.4
C Digging depth	mm / in	2 461	96.9	2 761	108.7
C* Maximum digging depth	mm / in	2 672	105.2	2 965	116.7
D Maximum vertical wall digging depth	mm / in	1 832	72.1	2 119	83.4
E Maximum digging reach at ground level	mm / in	4 313	169.8	4 602	181.2
F Maximum digging reach	mm / in	4 484	176.5	4 768	187.7
G Highest position dozer blade	mm / in			401/15.8	
H Lowest position dozer blade	mm / in			422/16.6	
I Tumbler length	mm / in			1 440/56.7	
J Track length	mm / in			1 906/75	
K Dozer blade, maximum reach at ground level	mm / in			1 364/53.7	
L Overall width with 250 mm/9.8" shoe	mm / in			1 500/59	
L* Overall width with 300 mm/11.8" shoe	mm / in			1 550/61	
M Overall length	mm / in	3 924	154.5	4 045	159.3
N Overall height of engine hood	mm / in			1 564/61.6	
O Minimum ground clearance	mm / in			290/11.4	
P Dozer blade height	mm / in			317/12.5	
Q Shoe width	mm / in			250/9.8	
Q* Shoe width	mm / in			300/11.8	
R Ground clearance to superstructure	mm / in			554/21.8	
S Front slew radius	mm / in			2 002/78.8	
T Front slew radius with maximum offset	mm / in			1 555/61.2	
U Overall height (canopy)	mm / in			2 505/98.6	
V Overall height (cab)	mm / in			2 537/99.9	
W Overall width of superstructure	mm / in			1 340/52.8	
X Tail slew radius	mm / in	750	29.5	825	32.5
X* Additional counterweight overhang	mm / in	75	3	(incl.)	
Y Angle of approach	deg			31	
Z Dozer blade width	mm / in			1 550/61	
α ₁ Maximum swinging angle to the right	deg			56/2.2	
β ₂ Maximum boom offset to the left	mm / in			496/19.5	
α ₁ Maximum swinging angle to the right	deg			72	
β ₂ Maximum boom offset to the left	mm / in			784/30.9	

* blade lowered

EQUIPMENT.

STANDARD EQUIPMENT

Engine

Low emission, water-cooled, Volvo 3-cylinder diesel engine, meeting EPA Tier 4 environmental regulations.
Starter motor protected against ignition when engine is already running.
Dry-type single element air filter.
Water separator.
Translucent fuel filter.

Electric/Electronic control system

Maintenance free battery.
IP67 protected electrical system and high quality connectors.
Removable breaker switch.
Two working lights on cab version.
Working light on the canopy frame.
12V power socket in cab / canopy.

Hydraulic system

Variable displacement, load-sensing piston pump.
Closed centre flow-sharing main control valve.
Boom cylinder cushioning at end stroke (up)
Patented filtering and filling element.
Large tiltable oil cooler.
Double-acting hydraulic circuit for accessories up to arm end.
Hammer / shear valve.
Plastic tank with drain plug.

Swing system

Radial piston hydraulic motor with direct engagement on the ball internal crown wheel (no reduction gears).
Integrated shockless valve.
Automatic multi-disc slew brake.
Centralized and remote lubrication of crown wheel & ball bearing.

Drivetrain

Axial piston hydraulic motors equipped with an epicyclic reduction gears.
Automatic two speed travel
Inner flange bottom rollers lubricated for life.
Grease tensioning wheel lubricated for life.

Undercarriage and dozer blade

"X" shape, box welded fabricated frame with sloping side members.
4 Integrated tie-down points.
2 Integrated lifting points.
Sturdy removable protecting covers for track motors and slew system.
400HB weld-on edge on dozer blade

Digging Equipment

Monobloc box welded fabricated boom with integrated lifting eye.
Boom cylinder protection.
Monobloc box welded arms with casted ends.
Long-life steel bushings.
Hardened, pre-lubricated and corrosion resistant pins.
50 hours greasing intervals

Canopy

FOPS level 1 (Falling Objects Protective Structure).
TOPS (Tip-Over Protective Structure).
ROPS (Roll-Over Protective Structure).
Cushioned operator station
Toolbox with Integrated storage for operator's manual and lockable door.
Large and roomy uncluttered floor
Left hand-rail access.
Seat-belt with warning indicator.
Right rear-view mirror

Cab

FOPS level 1 (Falling Objects Protective Structure).
TOPS (Tip-Over Protective Structure).
ROPS (Roll-Over Protective Structure).
OPG1 (Operator Protective Guard).
Cushioned operator station
Large door access.
Large and roomy uncluttered floor
Flat toughened glass.
Gas-strut assisted front window opening.
Front windscreen wiper and washer nozzle.
Right hand side sliding window.
Heating systems with in-cab adjustment of temperature and air flow level.
Multiple adjustable air vents.
Filtered air inlet.
Provision for a radio (antenna and electric wiring already fitted).
Cab inside light.
Toolbox with Integrated storage for operator's manual and lockable door.
Seat-belt with warning indicator.
Right rear-view mirror

Machine controls

Proportional finger tip control for boom offset.
Proportional finger tip control for auxiliary circuit with flow adjustment
Breaker toggle switch on right joystick
Automatic locking device for pilot controls and travel levers when the left console is raised.
Engine starting safety device : the left console must be raised to operate the starter.
Pressure accumulator to lower the equipment on the ground if the engine is switched off.
Two speed travel switch on the dozer blade lever.
Large travel pedals

Instrumentation and monitoring

Permanent digital hour meter.
Warning lights for hydraulic filter and air filter restriction.
Water temperature and fuel level gauges.
Several warning lights, coupled to an audible signal, in the event of malfunction (overheating, drop in oil pressure, low battery voltage.)

Official approval

Machine conforming to European directive 2006/42/EC.
Noise emissions in the environment conforming to directive 2000/14/EC.
Hand Arm Vibrations - Whole Body Vibrations compliant with directive 2002/44/EC.
Electromagnetic compatibility (EMC) conforming to European directive 2004/108/EC and its amendments.
Object handling device conforming to EN 474-1 and EN 474-5 standards.
FOPS 1 conforming to ISO 3449 standard.
ROPS conforming to ISO 3471-1 and / SAE J1040 standards.
TOPS conforming to ISO 12117 and EN 13531 standards.
OPG 1 conforming to ISO 10262 standard (when equipped).

ECR25D CONFIGURATIONS

- = Standard
- = Option
- = Not available

	Comfort	Deluxe
Operator environment		
Canopy	◦	◦
Heated cab	◦	◦
Vinyl seat w/ mech. suspension, extended-back seat and 2" retractable seat belt	◦	◦
Vinyl seat w/ mech. suspension, extended-back seat and 3" retractable seat belt	◦	◦
Fabric seat w/ mech. suspension, extended-back seat and 2" retractable seat belt	◦	◦
Fabric seat w/ mech. suspension, extended-back seat and 3" retractable seat belt	◦	◦
ISO / SAE control pattern change + travel alarm	◦	◦
Radio, CD, MP3	◦	◦
Anti-theft device	◦	◦
Machine exterior		
Left rearview mirror	◦	•
Protected work light on the boom	•	•
Rear work light	◦	•
Rotating beacon	◦	-
Rotating beacon + rear work light	◦	•
Additional counterweight	◦	◦
Several level of customization (RAL specifications) to match with your corporate identity	◦	◦
Digging equipment		
Short arm	◦	◦
Long arm + additional counterweight	◦	◦
Undercarriage equipment		
250 mm/9.8" rubber tracks	◦	-
300 mm/11.8" rubber tracks	◦	•
Hydraulic equipment		
Proportional finger tip control for boom offset	•	•
Proportional finger tip control for accessories	•	•
Maximum accessory flow adjustment	•	•
Relief valve for auxiliaries	•	•
Hydraulic drain for accessories	◦	-
Breaker and clamshell auxiliaries	◦	◦
Second accessory circuit	◦	•
Kit 2 flat face hydraulic couplings	◦	◦
Kit 4 flat face hydraulic quick couplings	◦	◦
Single acting circuit for quick couplers	◦	◦
Double acting circuit for quick couplers	◦	•
Boom & arm safety lifting valves with overload indicator	◦	◦
Safety valve certification	◦	◦
Mineral hydraulic oil VG46	◦	◦
Bio hydraulic oil VG46 (PANOLIN®)	◦	◦
Mineral hydraulic oil VG68	◦	◦
Mineral hydraulic oil VG32	◦	◦
Bio hydraulic oil VG32 (PANOLIN®)	◦	◦
Engine		
Dual stage air filter	◦	◦
Engine Auto idling	◦	•
Service and maintenance		
Tool kit	◦	•
Telematics	◦	◦
Care Track	◦	◦
Attachments		
Volvo quick coupler mechanical (pin-on)	◦	◦
Lehnhoff® Quick Coupler Mechanical (MS03)	◦	◦
S-type hydraulic quick coupler (S40)	◦	◦
General purpose buckets	◦	◦
Fix ditching buckets	◦	◦
Tilttable ditching buckets	◦	◦
Breaker	◦	◦

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Rotating beacon



Anti-theft



Wide tracks



Additional counterweight



Volvo style quick coupler



Volvo genuine attachments



VOLVO CONSTRUCTION EQUIPMENT

Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 180 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different.

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

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