VOLVO EXCAVATOR

EC700B LC



VOLVO

YOUR 70-TON PERFORMANCE EDGE

Aggressive. Rugged. Stout. Powerful. Balanced. Impressive credentials for any excavator. But what does it really mean on a demanding job site, where pure steel muscle meets unflinching earth? Just ask a Volvo EC700B operator. He'll sum it up in three words: "bring it on."

Meet the new gold standard in production digging. Built on extensive customer input and exhaustive research, the Volvo EC700B excavator has a commanding performance profile. Think you've seen production? Just watch.

Big machine, bigger performance

From the boom to the counterweight, this excavator's advantage comes from simply being built better. The six-cylinder Volvo engine leads its class in horsepower and is perfectly harmonized with the hydraulic system for smooth, responsive digging and lifting.

Key components are higher capacity and heavier gauge than you'd expect on a 70-ton machine. The main pump, slew motor and bearing and track rollers are from the 80-ton machine class, so you can count on durability and long machine life. The extra-duty undercarriage provides solid footing, enhanced by a wide track gauge and an extra-heavy counterweight.

The EC700B is perfectly matched for loading the Volvo A40D articulated hauler. With buckets and digging equipment that can be customized for the application, the EC700B will fill the 40-ton truck in four to six passes. Quick cycles mean more tons moved on every shift.

Contractors always look for an edge to make jobs more efficient and profitable. The EC700B is that performance edge. With the power and mettle to lead on any job site, the EC700B has earned the right to bear the name that means excavator performance — Volvo.





MOVE MORE MATERIAL — THEN MOVE ON

In the battle between big iron and terra firma, the Volvo EC700B excavator is built to win. Conditions in the field are tough: production trenching, mass excavation, quarry loading, rock-face stripping. The EC700B is tougher — made to humble the most punishing material. With world-class Volvo power and advanced hydraulics, the EC700B powers through its cuts, then moves quickly and smoothly to load or dump.

With the EC700B, you'll move more material, move it faster, then move on.

Perfectly matched to Volvo A40D hauler

Success at earthmoving relies on how efficiently an excavator loads haul trucks. The size, power and work flow of the EC700B make it an ideal partner for the industry-leading Volvo A40D articulated truck. Pass matching is critical to hold down cost per ton, and improve profit.

What makes such a good match for loadand-haul work? Start with stability from the wide-gauge track and heavy-duty counterweight. No bouncing or rocking that can slow cycles. High breakout forces, crowding forces and slew speed ensure the EC700B goes from trench to truck quickly and efficiently. The Volvo engine and hydraulics are well-matched for responsive control and high torque even at low RPMs. The result? The EC700B fills the A40D in four to six passes — an impressive Volvo team effort.

Adapts to job conditions

The EC700B is as flexible as it is powerful. It can be equipped with work tools that match an array of ground conditions and different applications. For general excavation, the EC700B comes with a general-purpose boom and arm. For mass-excavation jobs, it is outfitted with a short boom and short arm. Where jobs demand more reach and depth, a long arm is available. A standard boom and short arm is the configuration for mining or quarry work.

To enhance the EC700B's solid footing, three types of double grouser shoes are available to deliver the best grip and traction in varying ground conditions.





THE EC700B IS A FORCE TO CONTEND WITH

Earth, start quaking. Quarry rock — time to flinch. Overburden, buckle up. Heavy clay, be afraid. You may have seen excavators before — but not like this. Nothing like the Volvo EC700B. You're looking at 70 tons of steely resolve with an 80-ton resume and plenty of attitude. It moves material with power and purpose. It sips the fuel while cutting the trench and loading the bench. It wears like iron. And it won't back down. For the earthmover and rock-hauler, this is a true arsenal. The world of production digging may never be the same.

Stingy on fuel, high on performance

The heart of this excavator is the contractor's biggest advantage. The Volvo D16 engine sets the industry standard for low fuel consumption. High-pressure fuel injectors and electronic engine controls squeeze the most power from each drop of diesel. The savings are noticeable, and bankable. To complete the package, Volvo Advanced Combustion Technology (V-ACT) keeps engine emissions low and exceeds environmental standards.

In the trenches, the EC700B is all about force. Digging force, arm crowding force and breakout force. It delivers plenty of all three, from the first cut through the stroke to the breakout and load. High forces mean quicker cycle times, more tons loaded and faster job completion.

The EC700B's wide and stable stance helps the excavator make most use of the power. Long, wide-gauge tracks, an extra-duty undercarriage and heavy counterweight help the machine hug the ground and anchor the dig.

High-capacity components help give the EC700B its aggressive performance profile and robust features. Look at the tracks, the robotically welded frame, the slew system and main pump. The name says 70-ton, but the rating says 80-ton. Larger-capacity components give the EC700B a critical edge in durability and performance.

It's a tightly integrated excavator, designed to cut, dig and load in extreme conditions. And it just gave production excavation a new name: Volvo.

means full loads

Digging: Superior breakthrough and breakout

Loading: Built to load haul trucks in fewer passes



Lifting: Power and control for lift-and-set jobs



Trenching: Aggressive performance for long-run trenching





FORGET DOWNTIME. LET'S TALK OVERTIME.

The daily job plan for high-demand earthmoving and material-loading jobs doesn't include downtime. An excavator can't take a break, or the whole job stops. Artics don't roll, material stays put and profitability goes south. The answer? The Volvo EC700B, forged from Volvo's long heritage building high-performance, reliable construction machines. With the EC700B, forget about down time. Let's talk overtime.

Rely on long-term performance

When the operator climbs into the cab each day, he needs to know the excavator will get it done — no matter the task or site conditions. The machine owner wants even more: low-cost operation, predictable uptime and long life. With the EC700B, they can both bank on it.

Stocked with proven, extra-duty components, the EC700B is rock-solid. The main pump and slew motor are high grade with extra capacity. The slew bearing has a larger-diameter ball. A reinforced under-cover protects the high-tensile-strength steel undercarriage and the superstructure. The boom and arm are robotically welded and engineered for extreme stress.

Volvo's fluid and air filtration systems remove even the smallest particles. Micro-particle filtration keeps the engine, hydraulics and electronic components free from contaminants, enhancing performance — and uptime.

Volvo is the world's largest manufacturer of heavy-duty diesel engines in the 9-18 L class. That experience shows in the D16 engine, a fuel-stingy power plant with the highest capacity of any engine in its class. The added engine capacity and harmonized hydraulics ensure the excavator doesn't hesitate or bog down when the digging gets tough. That means components wear longer.

Based on the L330 wheel loader engine and specifically designed for the demands of excavation, the D16 is field-proven in off- and on-highway applications. The Volvo nameplate on engine means performance, fuel economy, durability and long, reliable life.







BUILT FOR WORK. FEELS LIKE HOME.

The cab is like an operator's second home, so it better be comfortable. Everything within easy reach. A great seat. Climate air. Well-placed controls. Expansive view. Quiet. Whatever it takes. To design the best cab, you go to the experts – the operators. So it's no coincidence the Volvo EC700B is so operator-friendly or that its cab, controls and features all say "comfort." Put a comfortable operator in command of a stout and powerful machine like the EC700B, and it's a whole new game.

Making work easier

Digging in hot, dusty, desert conditions? Working overtime shifts on a long-run trenching job? Loading artics in a quick-run circuit? Or excavating frost-locked clay in frigid temperatures? No problem. The EC700B cab makes you forget the conditions, so you can focus on the work.

The nine-way adjustable seat will put any size operator in the comfort zone. Ergonomic controls and levers put all machine functions within easy reach. Low-effort controls lessen fatigue and make excavator functions seem like an extension of the operator's hands. The instrument electronic-control unit (I-ECU) provides diagnostic information and the status of excavator functions from a convenient monitor.

With 13 directional vents (eight on the ceiling, one in the middle and four at the bottom), the high-capacity climate control system keeps the cab comfortable, no matter the weather. Fine-particle air filtration keeps dust out of the cab and away from the operator and electronic components.

Easy controls, great view

Smooth, harmonized hydraulics, an extraheavy counterweight and wide, long tracks, keep the excavator stable even in tough digging conditions. No rocking or pounding. Robust cab suspension mounts dampen vibration and suppress in-cab noise.

Whether loading articulated hauler on a wide-open job site or cutting in more crowded quarters, visibility from the cab is crucial to productivity and safety. Expansive glass and a thin front-window crossbar provide clear all-around view.

Wide access steps make cab entry and exit easier. The punched-plate, anti-slip walkway along the superstructure makes routine machine checks easier. And a ladder behind the cab gives quick access to the top of the excavator.

Visibility: Ample glass and thin pillars delivers commanding views



Controls: Smart layout of the low-effort, ergonomic controls



Convenience: Generous storage space behind the seat



Access: Wide steps and anti-slip side walkway ease cab entry and exit





KEEPING YOU PRIMED FOR WORK

Keeping a 70-ton production excavator finely tuned and primed for work is crucial to success on the job site. Forget the little things that keep a machine healthy and you could have trouble when you can least afford it. Volvo built the EC700B for easy serviceability and maintenance. After all, the faster routine checks, filter changes and greasing get done, the faster the machine gets back where it belongs — working.

Quick, convenient access

If access points are hard to reach, service won't get done. The EC700's design makes getting to components safe and easy. Rugged steps on the track frame give firm footing for initial access to the machine. Wide, anti-slip gangways and sturdy hand rails run the length of the machine on both sides for safe entry and egress.

An access ladder behind the cab, and wide steps on the machine's right side, provide easy entry to the top of the superstructure. Punched-plate panels on top of the superstructure help ensure solid footing. A rugged step below the fuel port helps anchor the technician for refueling.

Filters and components are conveniently located. The EC700B's layout allows quick replacement of remote air, oil and fuel filters. There is ample space and access to major components such as the main pump or hydraulic cylinders.

Monitoring and diagnosis

The operator has constant information on critical machine functions from the I-ECU (instrument electronic control unit). This system allows for easier diagnosis of problems, quick fault notification and increased operator confidence. Excavator operations are optimized by electronic control systems, so available engine and hydraulic power is balanced to match the conditions. This ensures efficient operation and enhances uptime.

Computerized service tools such as VCADS, MATRIS and Service Contronic make problem diagnosis quick and accurate, helping get the excavator back on the job faster.







GETTING IT DONE — THE VOLVO WAY

Sunset. The waning light pierces the last dust of the day as it settles back on the job site. The rumble goes quiet. The operator climbs down from his excavator and walks to his truck. A knowing glance back reveals the Volvo EC700B, now looming in the shadows. It has been a good day. The iron will rest reluctantly until tomorrow. Then it will be time to fire it up once more and rejoin the fight.

It's tough to describe the satisfaction that comes from moving the earth. Or that extra edge an excavator operator feels, knowing he's armed with the best construction machine to crawl the landscape. Understand that and you'll know a whole lot about the EC700B. You'll see beyond the muscle, the guts and the steel. Down deep, into what really sets a machine apart.

There's a name for that feeling, and it calls from the sides of every EC700B excavator: Volvo.

A contractor who runs Volvo walks the job site with extra purpose and grit. He doesn't cower at tough digging, nasty weather or tight deadlines. The work is built on his iron determination, and finished with his determined iron — from Volvo.

At the end of the day, his work crews know what really brings them home — on time, on budget, on demand. Hardworking excavators like the EC700B, wrought from nearly 175 years of heritage and the sheer will to win. It's about the machines — and more. It's about getting it done — the Volvo way.

Sunrise. Light again returns to the land. The only earth that moves is clouding under the operator's steel-toe boots as he strides to his EC700B. One boot on the track, a gloved hand on the cab. Up and in. Hands on the sticks. Back to work. It's game-on.

That's the feeling. That's why it's called a Volvo.





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 Stage IIIA compliant engine uses precise, high-pressure fuel injectors, internal recirculation of engine exhaust and electronic engine controls to optimize machine performance.

Engine	VOLVO D16E EAE3
Power out at	30 r/s (1 800 rpm)
Gross (SAE J1995)	346 kW (470 ps/464 hp)
Net (ISO 9249,	
DIN 6271)	316 kW (430 ps/424 hp)
Max. torque	
at 1 350 rpm	2 250 N.m
No. of cylinders	6
Displacement	16,1
Bore	144 mm
Stroke	165 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.

Contronics provides advanced monitoring of machine functions and important diagnostic information.

Voltage	24 V
Batteries	2 x 12 V
Battery capacity	225 Ah
Alternator	28 V / 80 A

Service refill capacities

Fuel tank	840 I
Hydraulic system, total	655 I
Hydraulic tank	350 I
Engine oil	42
Engine coolant	65 I
Slew reduction unit	2 x 6 l
Travel reduction unit	2 x 12 l

Slew system

The slew system uses 2 axial piston motors, driving 2 planetary gearboxes for maximum torque. An automatic holding brake and anti-rebound valves are standard.

Max. sle	w speed	6,7 rpm
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Drive

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

Max. drawbar pull	453 kN		
Max. travel speed	3,0/4,6 km/h		
Gradeability	35°		

Undercarriage

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

Track pads	2 x 48
Link pitch	260,4 mm
Shoe width,	
double grouser	650/750/900 mm
Bottom rollers	2 x 8
Top rollers	2 x 3

Hydraulic system

The hydraulic system, also known as the "Automatic Sensing Work Mode," is designed for high-productivity, high-digging capacity, high-maneuvering precision and excellent fuel economy. The summation system, boom, arm and slew priority along with boom and arm 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.

Slew priority: Gives priority to slew 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: $2 \times \text{variable displacement axial piston pumps}$ Maximum flow: $2 \times 436 \text{ l/min}$

Pilot pump:

Type: Gear pump Maximum flow: 27,4 l/min

Hydraulic motors:

Travel: Variable displacement axial piston motor with mechanical brake

Slew: Fixed displacement axial piston motor with mechanical brake

Relief valve setting:

Implement 31,4/34,3 Mpa
Travel circuit · · · · · · · 34,3 Mpa
Slew circuit · · · · · · · 25,5 Mpa
Pilot circuit 3.9 Mpa

Hydraulic cylinders:

Boom2
Bore x Stroke ø190 x 1 790 mm
Arm 1
Bore x Stroke 0215 x 2 070 mm
Bucket · · · · · 1
Bore x Stroke · · · · · · ø190 x 1 450 mm
ME Bucket · · · · · 1
Bore x Stroke · · · · · · ø200 x 1 450 mm

Cab

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored in the side door.

Integrated air-conditioning and heating system: The pressurized and filtered cab air is supplied by an automatically-controlled fan. The air is distributed throughout the cab from 13 vents. Ergonomic operator's seat: The adjustable seat and joystick console move independently to accommodate the operator. The seat has nine different adjustments plus a seat belt for the operator's comfort and safety.

Sound Level:

Sound level in cab according to				
ISO 6396 · · · · · · · · · · · · · · · · · · ·	· LpA 74 dB(A)			
External sound level according to				
ISO 6395 and EU Directive				
2000/14/EC · · · · · · · · · ·	LwA 108 dB(A)			

Ground pressure

6,6 m boom, 2,9 m arm, 3 730 kg bucket, 11 300 kg counterweight	Shoe width	Operating weight	Ground pressure	Overall undercarriage width
Double grouser	650 mm	68 800 kg	100,1 kPa	4 095 mm
	750 mm	69 500 kg	87,6 kPa	4 100 mm
	900 mm	70 600 kg	74,2 kPa	4 250 mm

7,7 m boom, 3,55 m arm, 2 800 kg bucket, 11 300 kg counterweight	Shoe width	Operating weight	Ground pressure	Overall undercarriage width
Double grouser	650 mm	68 300 kg	99,3 kPa	4 095 mm
	750 mm	69 000 kg	87,0 kPa	4 100 mm
	900 mm	70 000 kg	73,5 kPa	4 250 mm

Max. permitted buckets

Max. permitted sizes for direct fit buckets

650 mm shoe,			6,6 m Boom		7,7 m Boom	
11 300 kg coun	terweight		2,9 m Arm	2,9 m Arm 3,55 m Arm 4,2 m Arm		4,2 m Arm
LU bucket	1,2 t/m³	I / kg	6 600 / 4 250	5 300 / 3 400	4 925 / 3 200	4 450 / 2 850
LO bucket	1,5 t/m³	I / kg	5 675 / 3 650	4 550 / 2 950	4 225 / 2 700	3 825 / 2 450
	1,3 t/m³	I / kg	5 675 / 5 150	4 550 / 3 850	4 225 / 3 600	3 825 / 3 250
GP bucket	1,5 t/m³	I / kg	5 200 / 4 400	4 175 / 3 500	3 875 / 3 250	3 500 / 2 950
	1,8 t/m³	I / kg	4 600 / 3 900	3 700 / 3 100	3 425 / 2 900	3 100 / 2 600
HD bucket	1,8 t/m³	I / kg	4 350 / 4 350	3 500 / 3 500	3 250 / 3 250	2 925 / 2 900
TID bucket	2,0 t/m³	I / kg	4 075 / 4 050	3 275 / 3 250	3 025 / 3 000	2 725 / 2 700
RL bucket	1,8 t/m³	I / kg	3 925 / 5 100	3 150 / 4 050	2 925 / 3 800	2 650 / 3 400
	2,0 t/m³	I / kg	3 700 / 4 800	2 975 / 3 850	2 750 / 3 550	2 475 / 3 200
Max. permitted be	ucket width	mm	2 100	2 000	2 000	2 000

900 mm shoe,				7,7 m Boom	
11 300 kg cou	nterweight		2,9 m Arm	3,55 m Arm	4,2 m Arm
LU bucket	1,2 t/m³	I / kg	5 875 / 3 050	5 450 / 2 950	4 900 / 2 600
LO BUCKET	1,5 t/m³	I / kg	5 050 / 2 550	4 675 / 2 450	4 225 / 2 150
	1,3 t/m³	I / kg	5 050 / 3 550	4 675 / 3 400	4 225 / 3 000
GP bucket	1,5 t/m³	I / kg	4 625 / 3 200	4 275 / 3 050	3 875 / 2 650
	1,8 t/m³	I / kg	4 100 / 2 750	3 800 / 2 650	3 425 / 2 300
HD bucket	1,8 t/m³	I / kg	3 875 / 3 150	3 600 / 3 000	3 250 / 2 600
TID bucket	2,0 t/m³	I / kg	3 625 / 2 850	3 350 / 2 750	3 025 / 2 400
RL bucket	1,8 t/m³	I / kg	3 500 / 3 800	3 250 / 3 600	2 925 / 3 200
TIL DUCKET	2,0 t/m³	I / kg	3 275 / 3 550	3 050 / 3 350	2 750 / 2 950
Max. permitted bucket width		mm	2 000	2 000	2 000

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.

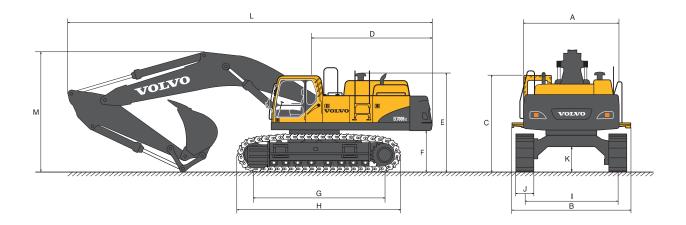
3. LU: Light Utility

4. GP: General Purpose, Excavation, Trenching

5. HD: Heavy Duty, Heavy Excavation, Heavy Trenching

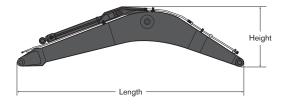
6. RL: Rock Loading

Dimensions



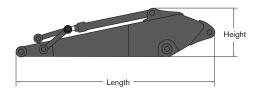
650 mm shoe,		6,6 m Boom	7,7 m Boom		
11 300 kg counterweight		2,9 m Arm	2,9 m Arm	3,55 m Arm	4,2 m Arm
A. Overall width of superstructure	mm	3 420	3 420	3 420	3 420
B. Overall width	mm	4 286	4 286	4 286	4 286
C. Overall height of cab	mm	3 510	3 510	3 510	3 510
D. Tail slew radius	mm	4 090	4 090	4 090	4 090
E. Overall height of precleaner	mm	3 590	3 590	3 590	3 590
F. Counterweight clearance *	mm	1 507	1 507	1 507	1 507
G. Tumbler length	mm	4 750	4 750	4 750	4 750
H. Track length	mm	5 990	5 990	5 990	5 990
I. Track gauge (extended)	mm	3 350	3 350	3 350	3 350
Track gauge (retracted)	mm	2 750	2 750	2 750	2 750
J. Shoe width	mm	650	650	650	650
K. Min. ground clearance *	mm	858	858	858	858
L. Overall length	mm	12 200	13 320	13 220	13 170
M. Overall height of boom	mm	4 855	4 660	4 600	4 950

*With shoe grouser



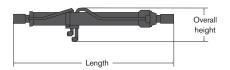
Boom	6,6 m	7,7 m
Length	6 890 mm	8 020 mm
Height	2 530 mm	1 970 mm
Width	1 110 mm	1 110 mm
Weight	6 550 kg	6 900 kg

 $^{^{\}star}$ Includes cylinder, pin and piping

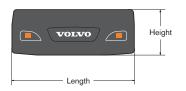


Arm	2,9 m	3,55 m	4,2 m
Length	4 260 mm	4 940 mm	5 590 mm
Height	Height 1 530 mm 1 390 mm		1 390 mm
Width	740 mm	740 mm	740 mm
Weight	Weight 3 510 kg		3 900 kg

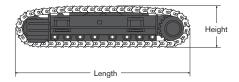
^{*} Includes cylinder, piping and linkage



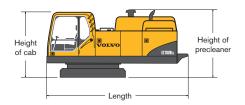
Length	Overall height	Width	Weight
2 765 mm	560 mm	370 mm	540 kg x 2 set = 1 080 kg



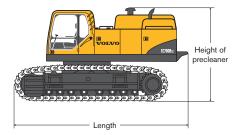
Leng	Length Height		Width	Weight	
3 420	3 420 mm		800 mm	11 400 kg	



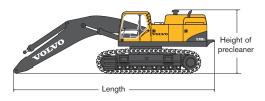
Shoe width	e width Length Height		Overall width	Weight / unit	
650 mm	5 990 mm	1 375 mm	700 mm	10 400 kg	
750 mm	5 990 mm	1 375 mm	750 mm	10 750 kg	
900 mm	5 990 mm	1 375 mm	900 mm	11 250 kg	



Length	Length Height of cab		Width	Weight	
5 500 mm	2 655 mm	2 735 mm	3 430 mm	21 700 kg	

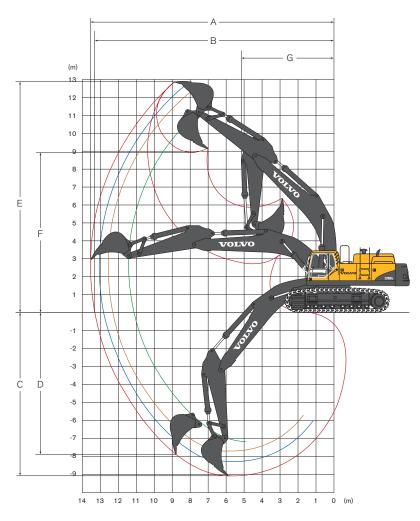


Shoe width	Length	Height of precleaner	ŭ	
650 mm	6 730 mm	3 590 mm	3 495 mm	44 000 kg
750 mm	6 730 mm	3 590 mm	3 595 mm	44 700 kg
900 mm	6 730 mm	3 590 mm	3 745 mm	45 700 kg



Boom	Shoe width	Length	Height of precleaner	Overall width (retracted)	Weight
	650 mm	10 140 mm	3 590 mm	3 495 mm	50 550 kg
6,6 m	750 mm	10 140 mm	3 590 mm	3 595 mm	51 250 kg
	900 mm	10 140 mm	3 590 mm	3 745 mm	52 250 kg
	650 mm	11 280 mm	3 590 mm	3 495 mm	50 900 kg
7,7 m	750 mm	11 280 mm	3 590 mm	3 595 mm	51 600 kg
	900 mm	11 280 mm	3 590 mm	3 745 mm	52 600 kg

Working ranges & digging forces



Machine with direct fit bucket		6,6 m Boom		7,7 m Boom	
		2,9 m Arm	2,9 m Arm	3,55 m Arm	4,2 m Arm
A. Max. digging reach	mm	11 500	12 600	13 170	13 780
B. Max. digging reach on ground	mm	11 200	12 335	12 910	13 540
C. Max. digging depth	mm	7 250	7 755	8 400	9 055
D. Max. vertical wall digging depth	mm	5 065	6 780	7 250	7 855
E. Max. cutting height	mm	10 980	12 490	12 620	12 940
F. Max. dumping height	mm	6 960	8 410	8 610	8 930
G. Min. front slew radius	mm	5 160	5 480	5 410	5 160

Digging forces with direct fit bucket			6,6 m Boom		7,7 m Boom	
			2,9 m Arm	2,9 m Arm	3,55 m Arm	4,2 m Arm
Bucket radius		mm	2 215	2 150	2 150	2 150
Breakout force – bucket (Normal / Power boost)	ISO	kN	342/374	326/356	326/356	326/356
Tearout force – arm (Normal / Power boost)	ISO	kN	298/326	303/332	265/290	236/258
Rotation angle, bucket		deg	172°	173°	173°	173°

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.

Across undercarriage	Lifting hook related	4,5 m		6,0 m		7,5 m		9,0 m		10,5 m		Max. reach		
Along undercarriage	to ground level	Ė	Œ	Ė	Œ	Ġ.	Œ	Ġ.	□	Ė	—	Ė	(3	Max. mm
Boom 6,6 m + Arm 2,9 m + Shoe 650 mm + Counterweight 11 300 kg	7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*20 050 *22 620 *24 970 *26 290 *26 250 *24 630 *20 770	*20 050 *22 620 23 650 22 780 22 360 22 350 *20 770	*15 990 *17 290 *18 790 *20 030 *20 790 *20 700 *19 200	*15 990 *17 290 17 700 17 010 16 500 16 210 16 230	*12 660 *15 660 *16 390 *17 020 *17 230	*12 660 13 910 13 470 13 060 12 760			*10 530 *10 490 *10 760 *11 340 *12 340 *13 940 *16 630 *16 990 *17 500	*10 530 *10 490 *10 760 *11 340 11 560 11 840 12 740 14 650 *17 500	8 520 9 230 9 660 9 850 9 800 9 510 8 970 8 110 6 830
Boom 6,6 m + Arm 2,9 m + Shoe 750 mm + Counterweight 11 300 kg	7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*20 050 *22 620 *24 970 *26 290 *26 250 *24 630 *20 770	*20 050 *22 620 23 880 23 010 22 590 22 580 *20 770	*15 990 *17 290 *18 790 *20 030 *20 790 *20 700 *19 200	*15 990 *17 290 17 860 17 180 16 660 16 380 16 400	*12 660 *15 660 *16 390 *17 020 *17 230	*12 660 14 040 13 600 13 190 12 890			*10 530 *10 490 *10 760 *11 340 *12 340 *13 940 *16 630 *16 990 *17 500	*10 530 *10 490 *10 760 *11 340 11 680 11 970 12 870 14 800 *17 500	8 520 9 230 9 660 9 850 9 800 9 510 8 970 8 110 6 830
Boom 6,6 m + Arm 2,9 m + Shoe 900 mm + Counterweight 11 300 kg	7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*30 370 *19 100 *33 060 *34 700 *31 800 *26 720	*20 050 *22 620 *24 970 *26 290 *26 250 *24 630 *20 770	*20 050 *22 620 24 200 23 330 22 910 22 900 *20 770	*15 990 *17 290 *18 790 *20 030 *20 790 *20 700 *19 200	*15 990 *17 290 18 100 17 420 16 900 16 620 16 640	*12 660 *15 660 *16 390 *17 020 *17 230	*12 660 14 230 13 790 13 380 13 080			*10 530 *10 490 *10 760 *11 340 *12 340 *13 940 *16 630 *16 990 *17 500	*10 530 *10 490 *10 760 *11 340 11 850 12 140 13 060 15 020 *17 500	8 520 9 230 9 660 9 850 9 800 9 510 8 970 8 110 6 830
Boom 7,7 m + Arm 2,9 m + Shoe 650 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg -1,5 m kg -3,0 m kg -4,5 m kg -6,0 m kg	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*20 870 *23 350 *25 060 *25 450 *24 670 *22 860 *19 800 *14 580	*20 870 23 230 21 970 21 320 21 130 21 230 *19 800 *14 580	*16 020 *17 280 *18 560 *19 590 *20 070 *19 780 *18 550 *15 940	*16 020 *17 280 16 780 16 050 15 540 15 300 15 310 15 600	*13 940 *14 380 *15 080 *15 800 *16 330 *16 530 *16 160 *14 810	*13 940 13 830 13 320 12 800 12 380 12 060 11 910 11 980	*13 620 *13 900 *14 070 *13 870	10 470 10 180 9 930 9 780	*11 750 *11 460 *11 490 *11 780 *12 370 *13 280 *13 680 *13 740 *13 720 *13 670 *12 740	*11 750 *11 460 10 950 10 080 9 610 9 470 9 650 10 230 11 410 *13 670 *12 740	8 800 9 730 10 360 10 740 10 910 10 860 10 610 10 120 9 370 8 290 6 710
Boom 7,7 m + Arm 2,9 m + Shoe 750 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg -1,5 m kg -3,0 m kg -4,5 m kg -6,0 m kg	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*20 870 *23 350 *25 060 *25 450 *24 670 *22 860 *19 800 *14 580	*20 870 *23 350 22 200 21 550 21 350 21 460 *19 800 *14 580	*16 020 *17 280 *18 560 *19 590 *20 070 *19 780 *18 550 *15 940	*16 020 *17 280 16 950 16 210 15 710 15 470 15 480 15 770	*13 940 *14 380 *15 080 *15 800 *16 330 *16 530 *16 160 *14 810	*13 940 13 970 13 450 12 930 12 510 12 200 12 040 12 110	*13 620 *13 900 *14 070 *13 870	10 580 10 290 10 040 9 890	11 750 11 460 11 490 11 780 12 370 13 280 13 680 13 740 13 720 13 670 12 740	*11 750 *11 460 11 060 10 190 9 720 9 570 9 760 10 350 11 530 *13 670 *12 740	8 800 9 730 10 360 10 740 10 910 10 860 10 610 10 120 9 370 8 290 6 710
Boom 7,7 m + Arm 2,9 m + Shoe 900 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*19 690 *15 300 *15 210 *27 470 *23 490 *17 300	*20 870 *23 350 *25 060 *25 450 *24 670 *22 860 *19 800 *14 580	*20 870 *23 350 22 520 21 870 21 680 21 780 *19 800 *14 580	*16 020 *17 280 *18 560 *19 590 *20 070 *19 780 *18 550 *15 940	*16 020 *17 280 17 190 16 450 15 950 15 700 15 710 *15 940	*13 940 *14 380 *15 080 *15 800 *16 330 *16 530 *16 160 *14 810	*13 940 14 150 13 640 13 120 12 700 12 380 12 230 12 300	*13 620 *13 900 *14 070 *13 870	10 730 10 450 10 200 10 040	*11 750 *11 460 *11 490 *11 780 *12 370 *13 280 *13 680 *13 740 *13 720 *13 670 *12 740	*11 750 *11 460 11 220 10 340 9 870 9 720 9 910 10 510 11 710 *13 670 *12 740	8 800 9 730 10 360 10 740 10 910 10 860 10 610 10 120 9 370 8 290 6 710

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.

Across undercarriage	Lifting hook related	4,5 m		6,0 m		7,5 m		9,0 m		10,5 m		Max. reach		
Along undercarriage	to ground level	Ė	C#	Ė	CH-	Ė	Œ	Ů	G	Ė	CH-	Ė	CH-	Max. mm
Boom 7,7 m + Arm 3,55 m + Shoe 650 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*19 630 *22 290 *24 430 *25 430 *25 210 *23 910 *21 430 *17 260	*19 630 *22 290 22 480 21 600 21 200 21 160 21 410 *17 260	*15 130 *16 470 *17 890 *19 150 *19 920 *19 980 *19 190 *17 270 *13 320	*15 130 *16 470 17 120 16 310 15 710 15 360 15 260 15 410 *13 320	*11 940 *13 130 *13 680 *14 490 *15 300 *16 000 *16 430 *16 370 *15 570	*11 940 *13 130 *13 680 13 520 12 990 12 520 12 140 11 910 11 860	*12 300 *13 120 *13 540 *13 870 *13 930 *13 460	10 880 10 590 10 260 9 960 9 740 9 650	*9 710 *9 510 *9 540 *9 780 *10 250 *10 990 *12 100 *13 150 *13 330 *13 520 *13 310	*9 710 *9 510 *9 540 9 440 9 020 8 870 9 000 9 470 10 410 12 170 *13 310	9 420 10 290 10 890 11 260 11 410 11 370 11 120 10 660 9 960 8 940 7 500
Boom 7,7 m + Arm 3,55 m + Shoe 750 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*19 630 *22 290 *24 430 *25 430 *25 210 *23 910 *21 430 *17 260	*19 630 *22 290 22 710 21 820 21 430 21 390 *21 430 *17 260	*15 130 *16 470 *17 890 *19 150 *19 920 *19 980 *19 190 *17 270 *13 320	*15 130 *16 470 17 290 16 480 15 880 15 530 15 430 15 580 *13 320	*11 940 *13 130 *13 680 *14 490 *15 300 *16 000 *16 430 *16 370 *15 570	*11 940 *13 130 *13 680 13 650 13 120 12 650 12 280 12 040 11 990	*12 300 *13 120 *13 540 *13 870 *13 930 *13 460	10 990 10 700 10 370 10 070 9 850 9 760	*9 710 *9 510 *9 540 *9 780 *10 250 *10 990 *12 110 *13 150 *13 330 *13 520 *13 310	*9 710 *9 510 *9 540 9 540 9 110 8 970 9 100 9 570 10 520 12 300 *13 310	9 420 10 290 10 890 11 260 11 410 11 370 11 120 10 660 9 960 8 940 7 500
Boom 7,7 m + Arm 3,55 m + Shoe 900 mm + Counterweight 11 300 kg	9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg -1,5 m kg -3,0 m kg -4,5 m kg -6,0 m kg	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*20 980 *14 850 *13 780 *13 700 *20 080 *30 060 *26 380 *20 940	*19 630 *22 290 *24 430 *25 430 *25 210 *23 910 *21 430 *17 260	*19 630 *22 290 23 030 22 150 21 750 21 710 *21 430 *17 260	*15 130 *16 470 *17 890 *19 150 *19 920 *19 980 *19 190 *17 270 *13 320	*15 130 *16 470 17 520 16 720 16 110 15 760 15 660 15 820 *13 320	*11 940 *13 130 *13 680 *14 490 *15 300 *16 000 *16 430 *16 370 *15 570	*11 940 *13 130 *13 680 13 840 13 310 12 840 12 460 12 230 12 180	*12 300 *13 120 *13 540 *13 870 *13 930 *13 460	11 140 10 860 10 530 10 230 10 010 9 920	*9 710 *9 510 *9 540 *9 780 *10 250 *10 990 *12 110 *13 150 *13 330 *13 520 *13 310	*9 710 *9 510 *9 540 9 690 9 260 9 110 9 250 9 730 10 690 12 490 *13 310	9 420 10 290 10 890 11 260 11 410 11 370 11 120 10 660 9 960 8 940 7 500
Boom 7,7 m + Arm 4,2 m + Shoe 650 mm + Counterweight 11 300 kg	10,5 m kg 9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg -1,5 m kg -3,0 m kg -4,5 m kg -6,0 m kg	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*20 750 *23 210 *24 700 *25 030 *24 250 *22 340 *18 990	*20 750 22 690 21 560 20 950 20 750 20 870 *18 990	*15 310 *16 830 *18 260 *19 280 *19 670 *19 260 *17 890 *15 050	*15 310 *16 830 16 330 15 610 15 140 14 930 14 970 *15 050	*8 780 *12 070 *12 700 *13 580 *14 470 *15 300 *15 910 *16 100 *15 680 *14 300	*8 780 *12 070 *12 700 13 560 12 980 12 450 11 990 11 680 11 540 11 620	*10 300 *11 880 *12 340 *12 870 *13 330 *13 580 *13 470 *12 660	*10 300 10 900 10 560 10 180 9 820 9 550 9 380 9 360	*8 530 *8 090 *7 910 *7 900 *8 060 *8 380 *8 890 *9 680 *10 870 *12 240 *12 490 *12 560	*8 530 *8 090 *7 910 *7 900 *8 060 8 150 8 000 8 090 8 440 9 170 10 490 *12 560	9 050 10 180 10 990 11 550 11 900 12 050 12 010 11 770 11 340 10 680 9 740 8 440
Boom 7,7 m + Arm 4,2 m + Shoe 750 mm + Counterweight 11 300 kg	10,5 m kg 9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg -1,5 m kg -3,0 m kg -4,5 m kg -6,0 m kg	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*20 750 *23 210 *24 700 *25 030 *24 250 *22 340 *18 990	*20 750 22 920 21 780 21 180 20 980 21 100 *18 990	*15 310 *16 830 *18 260 *19 280 *19 670 *19 260 *17 890 *15 050	*15 310 *16 830 16 500 15 770 15 310 15 100 15 140 *15 050	*8 780 *12 070 *12 700 *13 580 *14 470 *15 300 *15 910 *16 100 *15 680 *14 300	*8 780 *12 070 *12 700 *13 580 13 120 12 580 12 130 11 810 11 670 11 750	*10 300 *11 880 *12 340 *12 870 *13 330 *13 580 *13 470 *12 660	*10 300 11 010 10 670 10 290 9 930 9 660 9 490 9 470	*8 530 *8 090 *7 910 *7 900 *8 060 *8 380 *9 680 *10 870 *12 240 *12 490 *12 560	*8 530 *8 090 *7 910 *7 900 *8 060 8 240 8 100 8 190 8 540 9 280 10 610 *12 560	9 050 10 180 10 990 11 550 11 900 12 050 12 010 11 770 11 340 10 680 9 740 8 440
Boom 7,7 m + Arm 4,2 m + Shoe 900 mm + Counterweight 11 300 kg	10,5 m kg 9,0 m kg 7,5 m kg 6,0 m kg 4,5 m kg 3,0 m kg 1,5 m kg 0 m kg -1,5 m kg -3,0 m kg -4,5 m kg	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*16 640 *14 340 *13 880 *21 040 *28 880 *28 320 *23 610	*20 750 *23 210 *24 700 *25 030 *24 250 *22 340 *18 990	*20 750 *23 210 22 110 21 500 21 300 21 420 *18 990	*15 310 *16 830 *18 260 *19 280 *19 670 *19 260 *17 890 *15 050	*15 310 *16 830 16 740 16 010 15 540 15 340 15 380 *15 050	*8 780 *12 070 *12 700 *13 580 *14 470 *15 300 *15 910 *16 100 *15 680 *14 300	*8 780 *12 070 *12 700 *13 580 13 300 12 770 12 320 12 000 11 860 11 940	*10 300 *11 880 *12 340 *12 870 *13 330 *13 580 *13 470 *12 660	*10 300 11 170 10 830 10 440 10 080 9 820 9 650 9 630	*8 530 *8 090 *7 910 *7 900 *8 060 *8 380 *8 890 *9 680 *10 870 *12 240 *12 490 *12 560	*8 530 *8 090 *7 910 *7 900 *8 060 8 370 8 230 8 320 8 690 9 430 10 780 *12 560	9 050 10 180 10 990 11 550 11 900 12 050 12 010 11 770 11 340 10 680 9 740 8 440

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 requirements

3-stage air filter with indicator and precleaner

Air intake heater Electric engine shut-off Fuel filter and water separator

Fuel filler pump: 100 l/min, with automatic shut-off

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 monitor

Master switch

Engine restart prevention circuit High-capacity halogen lights:

- Frame-mounted 3
- Boom-mounted 4

Batteries, 2 x 12 V / 225 Ah Start motor, 28 V / 6,6 kW

Hydraulic system

Hose rupture valve: boom Overload warning device Automatic hydraulic system

- Summation system
- Boom priority

- Arm priority
- Slew priority

Boom and arm regeneration valves

Slew anti-rebound valves

Boom and arm holding valves

Boom float function

Pump flow control for hammer & shear

Multi-stage filtering system

Cylinder cushioning

Cylinder contamination seals

Auxiliary hydraulic valve

Automatic two-speed travel motors

Hydraulic oil, ISO VG 46

Superstructure

Access way with handrail Full height counterweight:

11 300 kg

Tool storage area

Punched metal anti-slip plates Undercover (heavy-duty 4,5 mm)

Side walk-way

Cab and interior

Fabric seat with heater and air suspension Pilot-operated wrist control joysticks with

3 switches each

Heater & air-conditioner, automatic Hydraulic dampening cab mounts Adjustable operator seat and joystick

control console

Flexible antenna

Hydraulic safety lock lever

Cab, all-weather sound suppressed, includes:

- Ashtray
- Cup holder
- Lighter

- Door locks
- Tinted glass
- Floor mat
- Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt
- Safety glass
- Sun shield, front, roof, rear
- Rain shield, front
- Windshield wiper with intermittent feature
- Stereo cassette radio

Anti-vandalism kit assembly preparation

Master ignition key

Undercarriage

Hydraulic track adjusters Greased and sealed track chain

Track guards

Undercover (heavy-duty 10 mm)

Mechanically retractable track gauge

Track shoes

Track shoes 650 mm with double grousers

Digging equipment

Boom: ME 6.6 m Arm: 2,9 m

Centralized lubrication

Service

Special tool for retractable frame

OPTIONAL EQUIPMENT

Engine

Block heater: 120 V, 240 V Dual stage precleaner Diesel coolant heater Water separator with heater Low noise kit

Electric

Extra lamps:

- Cab-mounted 1
- Counterweight-mounted 1

Travel alarm Slew alarm

Anti-theft system Rotating warning beacon

Hydraulic system

Hose rupture valve: arm Boom float funtion Hammer & shear:

- one and two pump flow
- Additional return filter
- 1 switch control

- 2 switch control

- Pedal switch control Hydraulic oil, ISO VG 32

Hydraulic oil, ISO VG 68 Hydraulic oil, biodegradable 32

Hydraulic oil, biodegradable 46

Cab and interior

Fabric seat

Fabric seat with heater

Control joystick with semi-long levers Control joystick with 5 switches each

- Falling object guard (FOG) - Frame-mounted (356 kg)
- Cab-mounted (153 kg)

Cab-mounted falling object protective structures (FOPS: 80 kg) Sunlight protection, roof (steel)

Foot support bar

Safety screen for front window

Lower wiper Anti-vandalism kit

Undercarriage

Full track guards (190 kg / unit)

Track shoes

750 mm, 900 mm track shoes with double grousers

Digging equipment

Boom: 7,7 m

Arm: 3,55 m/4,2 m

Service

Electric grease gun Hand lamp Spare parts Tool kit, full scale





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