

**VOLVO WHEEL LOADER**

# **L330E**



**VOLVO**

# L330E - HARNESS THE POWER OF 500 HORSES

Profitability is about moving as much material as possible – with speed and without downtime. A production loader has to work efficiently, hour after hour, shift after shift, with minimum impact on machine, operator and the environment. This is precisely what the Volvo L330E is designed for. You're looking at an extremely powerful 50-ton production machine ready for even the toughest challenges.

The Volvo L330E responds immediately with its 502 hp, electronically controlled low-emission engine, which delivers full power even at low rpm. What's more, the tried and tested Z-bar linkage, load sensing hydraulics and a full range of buckets make the L330E a robust and productive loader. Indeed, it's ideal for loading shot rock, carrying blocks, handling timber, working in foundries or feeding cargo vessels.

## A factory on wheels

The bigger the machine, the tougher the demands are on reliability. In fact, a big loader is a bit like a factory on wheels and therefore, requires a businesslike approach where revenues far outweigh costs. In light of this, you'll be glad to know that in most applications, the L330E is more fuel-efficient than most other machines in its size class. Throw in reliability and you're looking at outstanding economy and productivity. The result? A significant increase in profitability.

## Strongest in its class

Handling shot rock and other heavy materials efficiently requires more than high breakout force. The L330E's

rapid engine response, coupled with the superior agility of its load-sensing hydraulics, help to make the L330E a quick and efficient tool. In short, the L330E is one of the leanest and most powerful production machines on the market.

## Maximum productivity 24 hours a day, every day

With big loaders, availability is everything. If the machine stops, work stops. That is why the L330E is designed to run around the clock. Thanks to the electronic monitoring system, the operator can keep a close eye on fluid levels, fuel consumption and running time. This keeps downtime to a minimum. Large service panels with readily accessible filters, highly trained service personnel and the rapid distribution of spare parts provide maximum availability. Add customized service contracts and spare parts warranties, and it's not hard to see why the L330E is the most productive and reliable machine in the business. Shift after shift, year after year.



## Specifications L330E

Engine:	Volvo D16B LA E2
Max power at	30,0 r/s (1800 r/min)
SAE J1995 gross:	370 kW (503 hp)
ISO 9249, SAE J1349 net:	369 kW (502 hp)
Breakout force:	453,6 kN*
Static tipping load at full turn:	31 490 kg*
Buckets:	6,1-13,5 m <sup>3</sup>
Log grapples:	5,5 - 6,3 m <sup>2</sup>
Operating weight:	50,0 - 53,0 t
Tires:	35/65 R33 875/65 R33

\* Rock bucket: 6,9 m<sup>3</sup> straight edge with teeth and segments, Tires: 35/65 R33, Standard boom



# THE ART OF MOVING MOUNTAINS AS CHEAPLY AND QUICKLY AS POSSIBLE

Load more tons per hour with the Volvo L330E. Its powerful engine and the fully Automatic Power Shift (APS) gear shifting system provide immediate response even in the toughest conditions. And the rugged axles are designed to ensure that the rimpull is there when needed. The result is high productivity and unparalleled economy.

## **Rapid response for high productivity and low operating costs**

Even when idling, the 16-liter high performance engine delivers maximum torque. The machine responds quickly and forcefully with excellent rimpull, full hydraulic power, low fuel consumption and low emissions. And thanks to the low rpm performance, the service life of the engine is extended. With the L330E, you've got an unbeatable combination of high productivity and low operating costs – both now and in the years ahead.

## **Engine rpm and ground speed dependent automatic shifting**

The automatic countershaft transmission provides smooth and effective gear shifting in all gears. All the operator has to do is select forward, reverse or kickdown and APS automatically selects the right gear according to both engine rpm and ground speed, regardless of application.

## **Volvo axles keep you on the ground**

Volvo's tried and tested axles and drivetrain are well matched and designed for top dependability. The rear axle is located in a cast iron cradle, while the front and rear limited slip differentials help improve traction in even the toughest terrain.

## **Give yourself a brake**

The L330E features oil circulation cooled wet disc brakes, designed for smooth, effective braking and, of course, a long service life. The external axle oil cooler\* provides additional cooling for tough applications, and furthermore the axle oil is filtered, which greatly increases the life cycle of the oil.

## **Engine**

- Volvo D16B, a turbocharged, air-to-air intercooled low emission engine with electronically controlled fuel injection, delivers high torque even at low rpm.
- To optimize performance, the engine's computer communicates with all other systems, ensuring quicker response, lower fuel consumption, and faster work cycles.
- The electronically controlled hydrostatic fan is only activated when necessary, thus saving fuel.

## **Transmission**

- The rugged, enhanced countershaft transmission features intelligent automatic gearshifting for smoother, faster gear changes.
- With APS, the operator can select one of four modes for optimum performance and minimum fuel consumption.

## **Axles**

- A two-stage axle oil temperature alert provides effective protection of components and a longer service life.
- Standard limited slip differentials on both axles for easy operation, even in tough underfoot conditions.

## **Brakes**

- Oil circulation cooled wet disc brakes ensure effective braking and a long service life.
- An electronic brake test in Contronic gives you instant access to the status of the brakes.
- A brake wear indicator on each wheel allows you to easily check the brake pad wear.

\* Optional equipment



# A SMART MACHINE DOESN'T WEAR OUT QUICKLY

A powerful loading unit, load-sensing hydraulics, smooth steering and stable operation help make the L330E a precision performer. No unnecessary energy is wasted pumping excess oil around the hydraulic system, which ultimately means you can load more material per unit of fuel with a L330E than any competing machine in its class.

## **Z-bar linkage - tried and tested in mines and quarries**

Z-bar linkage delivers high breakout torque at ground level, allowing the operator to handle heavy material with no loss of power at any point in the loading cycle. This helps make the L330E an exceptionally efficient production machine.

## **Hydraulics that make sense**

The L330E features an intelligent load-sensing hydraulic system. Two variable piston pumps provide the exact flow and pressure required at any given moment, distributing power when and where it's needed. When the hydraulic system isn't being used, the entire engine output is transferred to the drivetrain. In addition to rapid response, the system facilitates smoother operation, lower fuel consumption, and precise control, even at low rpm.

## **Precision steering makes it easy to maneuver**

Steering is easy, yet precise, even at low rpm. The load-sensing hydrostatic steering system is only activated when the wheel is turned, which means that neither fuel nor power is wasted.

## **Smooth on rough surfaces**

With a long wheelbase, the L330E is smooth and stable even on rough surfaces. Volvo's Boom Suspension System (BSS)\* features gas/oil accumulators to help absorb shocks and smooth out rough roads.

## **Z-bar linkage**

- Well proven lift arm system with high breakout force and optimum lifting power throughout the work cycle.
- Compact geometry keeps the bucket close to the machine, providing stable load and carry work.

## **Load-sensing hydraulics**

- The load-sensing hydraulic system ensures that hydraulic oil is pumped around the system only when and where it's needed. This guarantees greater efficiency and lower fuel consumption.
- Pilot-operated hydraulics allow precise control of the attachments, making life easier and safer for the operator.

## **Steering**

- Load-sensing steering only uses power when it's needed, thereby saving fuel.
- E-series loaders feature an accumulator system, providing stable, smooth steering and greater safety.

## **Frame**

- Rugged frame design for secure mounting of components reduces vibrations and increases service life.
- Longer wheelbase increases stability for faster and more comfortable cycles.
- Volvo's frame joint bearing design is a well-proven concept that's easy to maintain and renowned for its long service life.

\* Optional equipment



# AN ALERT OPERATOR IS A PRODUCTIVE OPERATOR

Volvo Care Cab reinforces Volvo's reputation as a leader in operator environments and cab comfort. We never forget the operator inside the machine. A comfortable, operator-friendly and safe environment makes the workday easier and more productive.

## **A clean and comfortable workplace**

The right cab climate does wonders for efficiency, keeping operators sharp during long shifts. In fact, all incoming air is filtered in two stages, making this one of the cleanest cabs on the market. Even the recirculated air is filtered. Furthermore, Volvo's state-of-the-art air-conditioning\* provides a pleasant temperature year-round, regardless of outdoor conditions. So even after a long work shift, the air in the cab is still fresh and the operator's mind is still clear.

## **Comfort and productivity go hand-in-hand**

There is a range of comfortable seats, all of them with multiple adjustment functions for optimal individual comfort. All instruments are visible at a glance, and all important information is right in front of the operator. The forward, reverse and kick-down functions are situated

both on the lever on the left-hand side of the steering wheel and on the hydraulic console to the right. And thanks to Comfort Drive Control (CDC)\*, you can steer, change directions and kickdown to first gear with easy-to-use controls integrated into the left-hand armrest – an excellent way to combat fatigue and static muscle strain. Furthermore, to avoid monotonous arm movements, you can shift at any time from lever steering to using the steering wheel.

## **Low noise levels**

Thanks to the ingenious cab mounts and heavy-duty insulation, the Care Cab is one of the quietest cabs on the market. By reducing tiresome earfuls and annoying vibrations, the operator will stay sharp throughout the shift. In short, it's a great place to work.



## **Care Cab**

- Unrivalled operator environment with one of the market's best cab filtration systems.
- Pleasant interior with superior finish makes it easy to maintain and keep clean.
- Adjustable seat, armrest, hydraulic lever console and steering wheel\* for optimal operator comfort and high production.
- All service platforms and entry ladders boast improved anti-slip surfaces. Sloped entry ladder for easy cab access.
- Large windscreens, narrow pillars and a sloped engine hood ensure good panoramic visibility, thus further increasing safety.
- Powerful halogen lighting to the front and rear provides good visibility over the entire work area.

\* Optional equipment



# RAPID SERVICE FOR MAXIMUM AVAILABILITY

Few machines have to work in tougher environments than a wheel loader. And the machine has to keep running day in, day out – without downtime. Naturally, in the event that something occurs, we offer a wide range of service solutions specially adapted to the conditions you work in - the toughest imaginable. Our focus is to deliver what you expect - maximum productivity, year after year.

## More time for productive work

Now that you can check your fluid levels electronically, daily maintenance is that much easier. Filters and service points are readily accessible from ground level. The service doors are large, easy-to-open and well supported with gas struts. The radiator grille and fan swing out for easy cleaning and the pressure check ports and quick connect fittings are grouped together for quick and easy checks.

## Contronic keeps an eye on everything

The machine's operation and performance are controlled and monitored by Volvo Contronic, a built-in electronic network made up of three computers. The system works on three levels.

**Level 1:** The system keeps an eye on the machine's functions in real-time. Should a potential problem occur, Contronic alerts the operator instantly. A service technician can then connect his Contronic service tool to the system and trace the fault on the spot.

**Level 2:** All operational data is stored and can be used to analyze the machine's performance and trace its history since the latest service. This information is then presented in the Machine Tracking Information System (MATRIS), providing valuable information for fault tracing and service measures.

**Level 3:** This allows the machine's functions to be optimized according to a change in working conditions via the Contronic service display. Thanks to the VCADS Pro analysis and programming tool, the machine's functions and performance can be monitored and adapted to changing conditions.



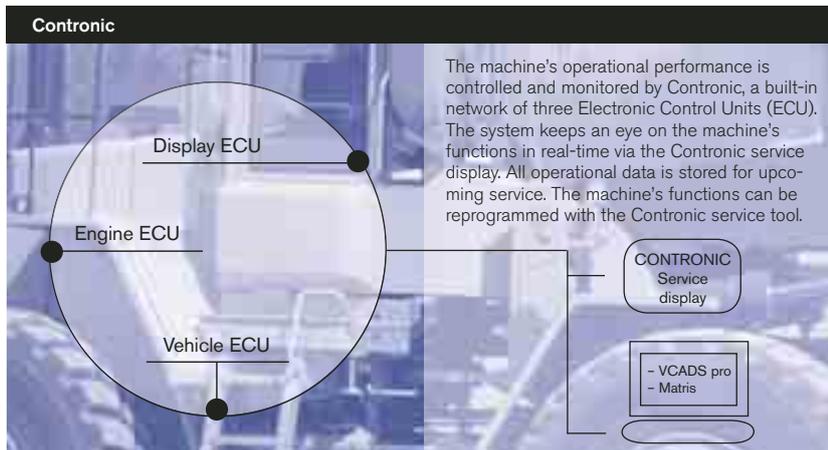
**MATRIS (MACHINE TRacking Information System) stores operational data regarding the machine's performance. This is valuable information for troubleshooting and service.**

## Contronic electronic monitoring system

- Engine and machine data are coordinated for optimum performance and safety.
- Display information in three categories: operational data, warning messages and error messages.
- Available in 13 languages and monitors fuel consumption data, cycle times, and service intervals.
- Electronic level checks of key fluids make it easy for the operator to conduct daily checks from the comfort of his seat.
- Shutdown-to-idle safety function is automatically activated when a major problem occurs.

## Maintenance and availability

- Electronic monitoring of fluid levels reduces time for daily checks.
- Long lubrication intervals allow more time for productive work.
- Well-designed platforms and well-positioned hand rails make daily maintenance and service safe and comfortable.





- Besides factory warranties, Volvo also offers extended warranties up to 8,000 hours. This Component Assurance Program (CAP) can be tailored to meet your needs.
- Readily accessible panels and service points simplify service.

# VOLVO'S COMMITMENT TO NATURE AND MANKIND

Quality, safety, and care for the environment are Volvo's core values. Indeed, we see our commitment as an integral part of our operation. Few machines have to work in tougher conditions. The ultimate goal is maximized productivity and efficiency for the lowest cost per hour, with minimized environmental impact. For instance, plants and manufacturing processes are certified in accordance with ISO 14001. This is but one example of our tangible commitments and high quality standards. And that's why Volvo customers get one of the most environmentally considerate and dependable wheel loaders on the market.

## **A winner for years to come**

Your Volvo L330E has to be a winner – both in day-to-day and long-term operations, always operating economically with maximum consideration of the environment. The machinery has to be trusted in all aspects. It must deliver the anticipations of productivity and economy. High quality and easy maintenance are imperative for keeping up the work process. The high performance low emission engine is both good for your business and for the environment.

## **Comfortable and quiet operator's environment**

The operator inside deserves a comfortable, reliable and safe machine to work with. A good environment helps to spare operator, equipment and nature for years to come. The Volvo L330E is a super competitive wheel loader that puts the operator right in the middle, literally speaking. Tedious vibrations and noise have been heavily reduced. If the operator feels comfortable and secure, it's easier to stay attentive.

## **More than 95% recyclable**

The L330E is almost completely recyclable. We see it as a natural step in our commitment. Components such as the engine, transmission and hydraulics are re-engineered and re-used in our Parts Exchange program. The equipment has to be as trustworthy, service-friendly, productive and as cost-effective as possible. Choose this wheel loader for maximum productivity and minimal impact on operator, machinery and environment. Feel free to feel secure in a Volvo L330E.

## **Quality**

- The air is vented from all major components with easy to replace breather filters, used to prevent dirty air from entering the transmission, axles, fuel tank, and hydraulic tank.
- All electrical wires are routed through sturdy conduits, protected from water, dust, and abrasion with rubberized connectors and terminal caps.
- The L330E is designed from the beginning for easy service and maintenance. Easy access to all components lays the foundation for shorter service and maintenance time and longer life.

## **Safety**

- A dual-circuit service brake system that fulfills all requirements according to ISO 3450, electronic brake test in Contronic and easy to check brake wear indicators are all ways to ensure safe and effective braking.
- Volvo Care Cab is tested and approved according to ROPS ISO 3471 and FOPS ISO 3449 standards.
- Optimized panoramic visibility gives effective control over the entire work area.
- The L330E has steps and platforms that are equipped with anti-slip surfaces and well positioned hand rails.

## **Environment**

- The low rpm, high performance D16B engine meets all current emission requirements according to Tier 2/Stage 2 legislation in the US and Europe.
- The L330E is manufactured in environmentally certified factories according to ISO 14001.
- The L330E is more than 95% recyclable according to material weight.
- Low external and internal sound levels.



# VOLVO L330E IN DETAIL

## Engine

16 liter, 6-cylinder straight turbocharged diesel engine with electronically controlled unit pumps and conventional injectors. The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. The throttle application is transmitted electrically from the throttle pedal or the optional hand throttle. Air cleaning: three-stage. Cooling system: Air-to-air intercooler and hydrostatic, electronically controlled fan.

<b>Engine</b>	Volvo D16B LA E2
<b>Max power at</b>	30,0 r/s (1800 r/min)
<b>SAE J1995 gross</b>	370 kW (503 hp)
<b>ISO 9249, SAE J1349</b>	369 kW (502 hp)
<b>Max torque at</b>	16,7 r/s (1000 r/min)
<b>SAE J1995 gross</b>	2370 Nm
<b>ISO 9249, SAE J1349</b>	2355 Nm
<b>Economic working range</b>	1100-1600 r/min
<b>Displacement</b>	16,12 l

## Drivetrain

Torque converter: single-stage. Transmission: Volvo countershaft transmission with single lever control. Fast and smooth gear shifting due to electronically controlled shifting and overlapping gearshifts. Gear shifting system: Volvo Automatic Power Shift (APS) with mode selector and 4 different gear shifting programs. Axles: Fully floating axle shafts with planetary hub reductions and cast steel axle housings. Differential: Limited slip differentials on both front and rear axles.

<b>Transmission</b>	8421H-21
<b>Torque multiplication</b>	2,29:1
<b>Maximum speed, forward/reverse</b>	
<b>1</b>	6,5 km/h
<b>2</b>	11,3 km/h
<b>3</b>	19,0 km/h
<b>4</b>	31,8 km/h
<b>Measured with tires</b>	35/65 R33 XLDD1
<b>Front axle/rear axle</b>	53R312
<b>Rear axle oscillation</b>	±12°
<b>Ground clearance at 12° osc.</b>	564 mm

## Electrical system

Central warning system: Central warning light for the following functions, (buzzer with gear engaged): Engine oil pressure, charge air temperature, transmission oil pressure, brake pressure, parking brake applied, hydraulic oil level, steering pressure, low coolant level, coolant temperature, transmission oil temperature, hydraulic oil temperature, overspeeding in engaged gear, brake charging, brake cooling oil temperature, expansion tank fluid level.

<b>Voltage</b>	24 V
<b>Batteries</b>	4x12 V
<b>Battery capacity</b>	238 Ah
<b>Cold cranking capacity, approx</b>	1250 A
<b>Reserve capacity, approx</b>	320 min
<b>Alternator rating</b>	2280 W/80 A
<b>Starter motor output</b>	7,0 kW (9,5 hp)

## Brake system

Service brake: Volvo dual-circuit system with nitrogen charged accumulators. Outboard mounted hydraulically operated, fully sealed oil circulation cooled wet disc brakes. The operator can select automatic declutch of the transmission when braking with a switch on the instrument panel. Parking brake: Dry disc brake mounted on the front axle input shaft. Applied by spring force and electro-hydraulically released with a switch on the instrument panel. Secondary brake: Dual brake circuits with rechargeable accumulators. Either one circuit or the parking brake fulfills all safety requirements. Standard: The brake system complies with the requirements of ISO 3450.

<b>Number of brake discs per wheel front/rear</b>	6
<b>Accumulators</b>	2x4,0 l, 1x1,0 l
<b>Accumulators for parking brake</b>	1x1,0 l

## Cab

Instrumentation: All important information is centrally located in the operator's field of view on the Contronic monitoring system's display unit. Heater and defroster: Heater coil with filtered fresh air and fan with four speeds. Defroster vents for all window areas. Operator seat: Ergonomic seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket, which is mounted on the rear cab wall. The forces from the retractable seat belt are absorbed by the seat rail. Standard: The cab structure is tested and approved according to ROPS (ISO 3471) and FOPS (ISO 3449). The cab meets all requirements according to ISO 6055 (Operator Overhead Protection - Industrial Trucks) and SAE J386 (Operator Restraint System).

<b>Emergency exits</b>	1
<b>Sound level in cab according to ISO 6396</b>	LpA 74 dB (A)
<b>External sound level according to ISO 6395 (Directive 2000/14/EC)</b>	LwA 112 dB (A)
<b>Ventilation</b>	9 m <sup>3</sup> /min
<b>Heating capacity</b>	11 kW
<b>Air conditioning (optional)</b>	8 kW

## Lift arm system

Z-bar linkage system with high breakout forces. Well-suited for tough operations in mines and rock quarries.

<b>Lift cylinders</b>	2
<b>Cylinder bore</b>	200 mm
<b>Piston rod diameter</b>	110 mm
<b>Stroke</b>	1169 mm
<b>Tilt cylinder</b>	2
<b>Cylinder bore</b>	170 mm
<b>Piston rod diameter</b>	90 mm
<b>Stroke</b>	808 mm

## Hydraulic system

System supply: Two load-sensing axial piston pumps with variable displacement. The steering system always has priority. Valves: Double-acting 2-spool valve. The main valve is controlled by a 2-spool pilot valve. Lift function: The valve has four positions including raise, hold, lower and float. Inductive/magnetic automatic boom kickout can be switched on and off and is adjustable to any position between maximum reach and full lifting height. Tilt function: The valve has three functions including rollback, hold and dump. Inductive/magnetic automatic tilt can be adjusted to the desired bucket angle. Cylinders: Double-acting cylinders for all functions. Filter: Full flow filtration through 20 micron (absolute) filter cartridge.

<b>Working pressure maximum, pump 1</b>	26,0 MPa
<b>Flow at 10 MPa and engine speed</b>	342 l/min 30 r/s (1800 r/min)
<b>Working pressure, pump 2</b>	26,0 MPa
<b>Flow at 10 MPa and engine speed</b>	252 l/min 30 r/s (1800 r/min)
<b>Pilot system Working pressure</b>	3,5 MPa
<b>Cycle times</b>	
<b>Raise*</b>	8,3 s
<b>Tilt*</b>	1,9 s
<b>Lower, empty</b>	4,4 s
<b>Total cycle time</b>	14,6 s

\* with load as per ISO 14397 and SAE J818

## Steering system

Steering system: Load-sensing hydrostatic articulated steering. System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement. Steering cylinders: Two double-acting cylinders.

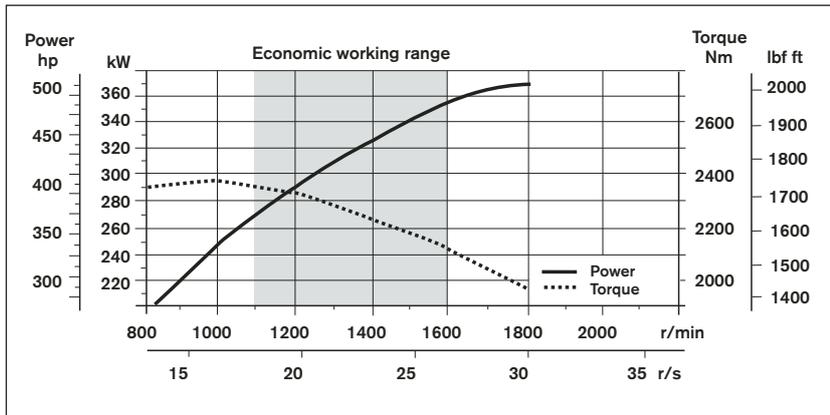
<b>Steering cylinders</b>	2
<b>Cylinder bore</b>	125 mm
<b>Piston rod diameter</b>	70 mm
<b>Stroke</b>	493 mm
<b>Working pressure</b>	21 MPa
<b>Maximum flow</b>	336 l/min
<b>Maximum articulation</b>	±35°

## Service

Service accessibility: Large, easy-to-open service doors with gas struts. Swing-out radiator grille and cooling fan. Possibility to log and analyze data to facilitate troubleshooting.

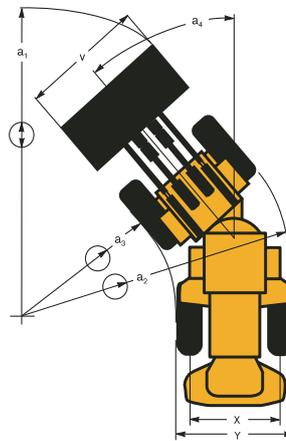
<b>Refill capacities</b>	
<b>Fuel tank</b>	680 l
<b>Engine coolant</b>	66 l
<b>Hydraulic oil tank</b>	326 l
<b>Transmission oil</b>	63 l
<b>Engine oil</b>	49 l
<b>Axles front/rear</b>	106 l

# SPECIFICATIONS

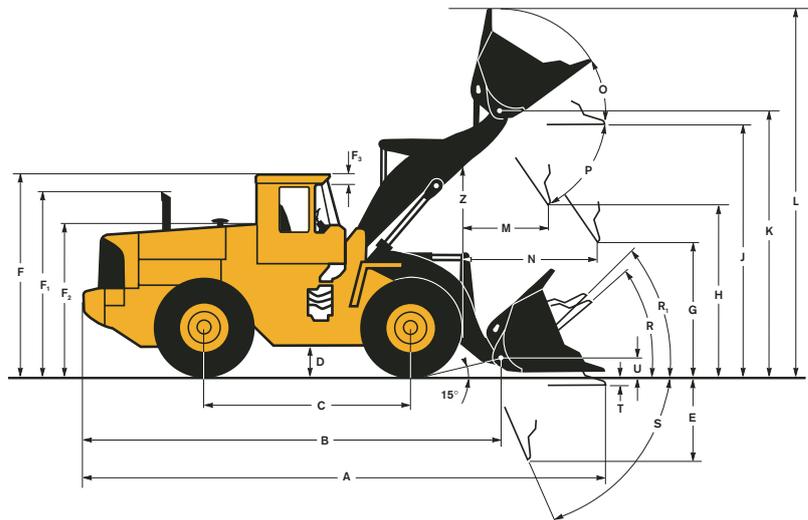


Tires: 35/65 R33 RL5K L5 Goodyear

	Standard boom	Long boom
B	8510 mm	7750 mm
C	4060 mm	—
D	570 mm	—
F	4200 mm	—
F <sub>1</sub>	3850 mm	—
F <sub>2</sub>	3160 mm	—
F <sub>3</sub>	40 mm	—
G	2130 mm	—
J	4780 mm	5090 mm
K	5060 mm	5440 mm
O	66 °	—
P <sub>max</sub>	49 °	47 °
R	46 °	47 °
R <sub>1</sub> *	51 °	—
S	57 °	52 °
T	30 mm	97 mm
U	670 mm	770 mm
V	3970 mm	—
X	2710 mm	—
Y	3610 mm	—
Z	4150 mm	—
a <sub>2</sub>	8240 mm	—
a <sub>3</sub>	4630 mm	—
a <sub>4</sub>	±35 °	—



Where applicable, specifications and dimensions are in accordance with ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.



\* Carry position SAE

## Supplemental Operating Data

	Operating weight (kg)		Static tipping load, straight (kg)		Static tipping load, full turn (kg)		Ground clearance (mm)		Width over tires (mm)	
	Standard boom	Long boom	Standard boom	Long boom	Standard boom	Long boom	Standard boom	Long boom	Standard boom	Long boom
ROPS Canopy (removal)	-760	-760								
35/65-33/42 SRG L4 Firestone	+80	+80	0	0	0	0	0	0	-23	-23
35/65 R33 XLD D1 L4 Michelin	-1010	-1010	-700	-650	-630	-560	-10	-10	0	0
35/65 R33 XLD D2 L5 Michelin	-365	-365	-260	-230	-230	-210	-10	-10	0	0

STANDARD BOOM		ROCK							GENERAL PURPOSE	LIGHT MATERIAL	
											
Tires 35/65 R33 RL5K L5 GY Pin-on buckets		Teeth	Teeth & Segments	Bolt-on edges	Teeth	Teeth & Segments	Bolt-on edges	Teeth & Segments	Bolt-on edges	Bolt-on edges	Bolt-on edges
Volume, heaped ISO/SAE	m <sup>3</sup>	6,6	6,9	6,9	6,6	6,7	6,7	7,5	7,5	8,3	13,5
Static tipping load, straight	kg	36 510	35 570	35 790	35 440	34 890	35 320	33 940	34 380	35 450	35 290
at 35° full turn	kg	32 410	31 490	31 720	31 340	30 790	31 220	29 900	30 350	31 410	31 120
Breakout force	kN	500,1	453,6	464,4	387,9	362,1	369,4	337,6	344,0	417,5	354,8
A	mm	10 250	10 530	10 230	10 900	10 930	10 620	11 080	10 770	10 410	10 700
E	mm	1280	1520	1280	1810	1840	1600	1960	1710	1420	1660
H*)	mm	3710	3500	3710	3270	3240	3450	3140	3350	3590	3340
L	mm	7320	7320	7320	7200	7200	7200	7350	7350	7190	7770
M*)	mm	1820	1900	1700	2230	2200	2010	2300	2110	1820	2000
N*)	mm	2590	2610	2460	2870	2830	2700	2890	2770	2560	2660
V	mm	3970	3970	3970	3970	3970	3970	3970	3970	3970	4500
a, clearance circle	mm	17 960	18 050	17 920	18 230	18 230	18 100	18 300	18 160	17 990	18 630
Operating weight	kg	49 650	50 160	49 990	50 380	50 710	50 600	51 020	50 910	49 910	51 070

\*) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge.  
Measured at 45° dump angle. (Spade nose buckets at 42°.)

Note: This only applies to Volvo original attachments.

LONG BOOM		ROCK								LIGHT MATERIAL
										
Tires 35/65 R33 RL5K L5 GY Pin-on buckets		Teeth	Teeth & Segments	Bolt-on edges	Teeth	Teeth & Segments	Bolt-on edges	Teeth & Segments	Bolt-on edges	Bolt-on edges
Volume, heaped ISO/SAE	m <sup>3</sup>	6,1	6,4	6,4	6,1	6,2	6,2	6,9	6,9	12,7
Static tipping load, straight	kg	35 310	34 600	34 820	33 260	32 730	33 130	32 410	32 820	32 410
at 35° full turn	kg	31 280	30 590	30 810	29 330	28 810	29 220	28 500	28 910	28 500
Breakout force	kN	549,4	502,1	514,0	389,4	364,5	371,2	348,6	354,8	356,3
A	mm	10 720	10 750	10 450	11 270	11 300	11 000	11 390	11 090	11 080
E	mm	1300	1330	1100	1710	1730	1510	1800	1580	1570
H*)	mm	4010	3980	4190	3650	3620	3820	3560	3760	3740
L	mm	7550	7550	7550	7600	7590	7600	7690	7690	7810
M*)	mm	1900	1870	1680	2300	2280	2080	2340	2140	2100
N*)	mm	2880	2850	2690	3190	3150	3020	3190	3060	2980
V	mm	3970	3970	3970	3970	3970	3970	3970	3970	4500
a, clearance circle	mm	18 280	18 280	18 150	18 550	18 550	18 410	18 600	18 450	18 930
Operating weight	kg	50 820	51 150	50 990	51 530	51 860	51 750	52 040	51 940	51 980

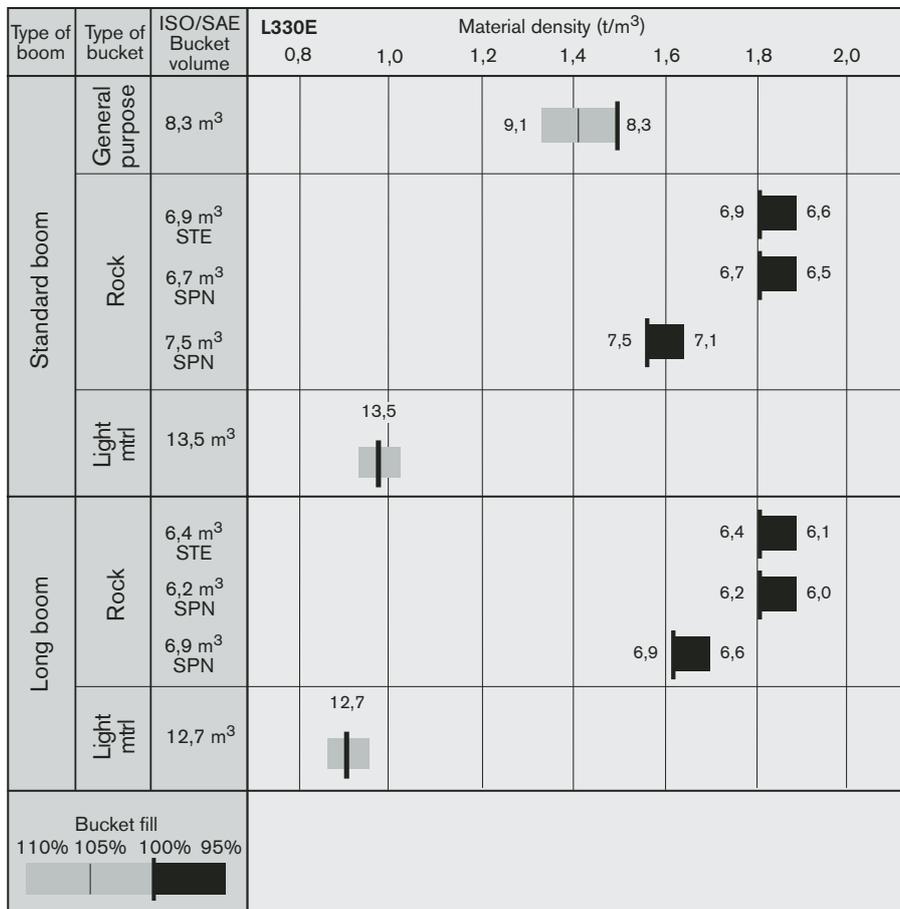
\*) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge.  
Measured at 45° dump angle. (Spade nose buckets at 42°.)

Note: This only applies to Volvo original attachments.

### Bucket Selection Chart

The volume handled varies with the bucket fill and is often greater than indicated by the bucket's ISO/SAE volume. The table shows optimum bucket choice with regard to the material density.

Material	Bucket fill, %	Material density, t/m <sup>3</sup>
Earth	110 - 115	1,4 - 1,6
Clay	110 - 120	1,4 - 1,6
Sand	100 - 110	1,6 - 1,9
Gravel	100 - 110	1,7 - 1,9
Rock	75 - 100	1,5 - 1,9



## STANDARD EQUIPMENT

### Service and maintenance

Engine oil remote drain and fill  
Lubrication manifolds, ground accessible  
Radiator remote drain and fill  
Transmission remote drain and fill  
Pressure test ports: transmission and hydraulic, quick connect, grouped on console for easy access  
Fan, hydraulic driven, swing out  
Grille, rear, swing out  
Wheel nut wrench kit

### Engine

Three stage air cleaner with ejector and inner filter  
Indicator glass for coolant level  
Preheating of induction air  
Coolant filter  
Exhaust rain protection  
Flat-round radiator  
Fuel filter  
Fuel filter extra with water trap  
Oil trap

### Electrical system

24 V, prewired for optional accessories  
Alternator, 24 V/80 A  
Air filter for alternator  
Battery disconnect switch  
Fuel gauge  
Hour meter  
Electric horn  
Instrument panel with symbols  
Lighting:  
• Parking lights  
• Double brake and tail lights  
• Turn signals with flashing hazard light function  
• Working lights (70 W)  
• Working lights extra, front  
• Halogen working lights (6 front and 4 rear)  
• Instrument lighting  
Reverse alarm

### Contronic monitoring system

ECU with log and analysis system  
Contronic display  
Fuel consumption  
Outdoor temperature

Engine shutdown to idle in case of malfunction indication:

- High engine coolant temperature
  - Low engine oil pressure
  - High transmission oil temperature
- Start interlock when gear is engaged

Brake test

Test function for warning and indicator lights

Warning and indicator lights:

- Charging
  - Oil pressure engine
  - Oil pressure, transmission
  - Brake pressure
  - Parking brake
  - Hydraulic oil level
  - Brake cooling oil temperature
  - Primary steering
  - Secondary steering
  - High beams
  - Turn signals
  - Rotating beacon
  - Preheating coil
  - Coolant temperature
  - Transmission oil temperature
  - Brake charging
- Level warnings:
- Engine oil level
  - Coolant level
  - Transmission oil level
  - Hydraulic oil level
  - Washer fluid level

### Drivetrain

Automatic Power Shift with operator-controlled declutch function for transmission cut-out when braking  
Differentials: Limited slip front and rear

### Brake system

Parking brake, el-hydraulic  
Wet oil circulation cooled disc brakes on all four wheels  
Dual service brake pedals

### Cab

ROPS Canopy (ROPS SAE J1040CC, ISO 3471), FOPS (SAE J231, ISO 3449)  
Single key kit door/start  
Acoustic inner lining  
Ashtray  
Cigarette lighter

Lockable door  
Air conditioning  
Cab ventilation with recirculation, heat and defroster  
Fresh-air inlet with two filters  
Floor mat  
Interior lights  
Interior rear-view mirror  
2 exterior rear-view mirrors  
Openable window right-hand side  
Sliding window, right  
Sliding window, door  
Tinted safety glass  
Hip retractable seatbelt (SAE J386)  
Adjustable lever console  
Operator seat air suspended with high back and electrical heating  
Adjustable steering wheel  
Storage compartment  
Sun visor  
Windshield washers front and rear  
Windshield wipers front and rear  
Interval function for front and rear windshield wipers  
Cab access steps, hand rails  
Service platforms with anti-slip surfaces on front and rear fenders

### Hydraulic system

Main valve, 2-spool  
Pilot valve, 2-spool  
Variable displacement axial piston pumps (3) for:  
• working hydraulics  
• steering system, pilot hydraulics and brakes  
• fan motor  
Boom lowering system  
Bucket positioner, automatic with position indicator, adjustable  
Control lever safety latch  
Hydraulic pressure test ports, quick connect  
Hydraulic fluid level sight gauge  
Hydraulic oil cooler

### External equipment

Fenders, front  
Lifting lugs  
Tie-down locations  
Easy-to-open side panels and engine hood  
Frame steering, joint lock  
Towing hitch

## OPTIONAL EQUIPMENT

(Standard on certain markets)

### Service and maintenance

Tool box, lockable  
Tool kit  
Automatic lubrication system  
Automatic lubrication system for long boom  
Refill pump for auto lub system  
Oil sampling valve

### Engine

Engine block heater, 230 V  
Radiator, charge air cooler and AC-condenser, corrosion protected  
Air pre-cleaner, oil bath type  
Air pre-cleaner, Sy-Klone type  
Hand throttle control  
Fuel fill strainer  
Fast fuel fill system  
Reversible cooling fan

### Electrical system

Alternator, 100 A  
Battery, high capacity  
Extra working lights rear  
Working lights front, high intensity  
Warning beacon, rotating, collapsible

### Cab

Radio with tape recorder  
Radio with CD-player  
Installation kit for radio  
Sunblinds, front and rear windows  
Retractable hipbelt, longer and wider than standard  
Ventilation air filter for work in asbestos environment  
Instructor's seat

Armrest (left) for ISRI operator seat

Lunchbox holder  
Steering wheel knob  
Single key kit door/start  
Noise reduction kit  
Rear view camera incl. monitor  
Rear view mirrors, el. heated  
Automatic temp control (ATC)

### Drivetrain

Speed limiter 20 km  
Speed limiter 30 km

### Brake system

Hydraulic oil cooler for front and rear axles

### Hydraulic system

Single lever control  
Single lever control for 3rd hydraulic function  
3rd hydraulic function  
3rd hydraulic function for long boom  
Boom Suspension System  
Biodegradable hydraulic fluid  
Hydraulic attachment bracket, welded  
Hydraulic oil cooler, corrosion protected  
Hydraulic oil cooler, extra  
Arctic kit, pilot hoses and brake accumulators inclusive hydraulic oil  
Separate attachment locking, standard boom  
Separate attachment locking, long boom

### External equipment

Long boom  
Mudguards, fixed front and swing out rear  
Sealed bucket bearing cartridge  
Return-to-dig

### Protective equipment

Guards for front headlights  
Guards for taillights  
Guards for working lights rear  
Guards for side windows and rear window  
Guards for radiator grille, logger version  
Windshield guard  
Bellyguard front  
Bellyguard rear  
Bellyguard front and rear  
Hose protection for boom cylinder hoses

### Other equipment

Comfort Drive Control, CDC  
Secondary steering  
Logger version  
Block handler kit  
Block handler, heavy-duty  
CE-marking  
Sound decal, EU

### Tires

35/65 R33  
875/65 R33  
35/65-33

### Attachments

Buckets:  
• Straight with/without teeth  
• Spade nose with/without teeth  
• General purpose  
• Light materials  
Equipment for block handling

**Boom Suspension System (BSS)\***

BSS utilizes gas/oil accumulators connected to the lift cylinders to absorb shocks and smooth out rough roads for faster cycle times, less spillage and increased operator comfort.



**Volvo's Genuine Attachments**

Volvo's Genuine Attachments are designed to match Z-bar Linkage, making the L330E quick and efficient in a wide range of applications.



**Automatic Lubrication System\***

Our factory fitted Automatic Lubrication System takes care of greasing while the machine is in operation. This means less downtime for scheduled maintenance and more time for productive work.



**Mudguards\***

Swing out rear mudguards.



**Rearview camera system\***

Rearview camera system reduces blind spots when reversing.



**Comfort Drive Control (CDC)\***

CDC significantly reduces repetitive and tiring steering wheel movements. The operator can shift and steer easily with the aid of controls integrated in the left armrest.



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 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 – **More care. Built in.**



*All products are not 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**

**Construction Equipment**  
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