

V O L V O



Volvo Wheel Loaders 50.0-56.3 t 540 hp

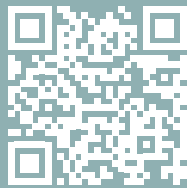
L350H

Volvo Construction Equipment



Evolution of excellence

With a proud history dating back to the L320 in 1985, Volvo has been developing and refining our wheel loader technology for decades. The new L350H continues this evolution, building on the success of its predecessor with a host of upgrades. The result is a heavy-duty wheel loader which delivers a lower total cost of ownership and more profitable performance.



▲
See the upgraded heavy-duty L350H in action.

1985

L320

1997

L330C

2000

L330D



10% faster, more productivity

Get ready for faster cycle times with a more responsive hydraulics system, featuring new lift and tilt cylinders, and an increased hydraulic working pressure.

Up to 15% more fuel efficient

The well-matched driveline features new Volvo axles, while the all-new Volvo transmission enables third-generation OptiShift – which boosts fuel efficiency by up to 15%* – to be equipped as standard. Tractive force is also increased by up to 22% depending on machine speed and engaged gear.

*depending on application, machine specification, bucket and operator behaviour

Even tougher

The tougher and stronger L350H features a more robust upper center hinge bearing and updated frames to accommodate the new axles and transmission.

Doubled service intervals

Both the engine service interval and axle oil change interval have been doubled, to 1 000-hours and 4 000-hours respectively. This reduces the corresponding service time, as well as cutting oil and filter requirements by half.

2002

L330E

2007

L350F

2014

L350F
Upgrade

2018

L350H

2022

L350H
Upgrade

Built for demanding jobs

Whatever application you are working in, the heavy-duty L350H is ready for action.

The proven Z-bar lifting arm with double sealing on each of the pins, and strong frame structure, is joined by a reinforced upper center hinge and new Volvo axles.

Combined with a wide range of purpose-built Volvo Attachments, the result is a machine built to take on the toughest of jobs.

Rock loader

The L350H is prepared for tire chains and is the perfect match with a 65t truck due to the long boom configuration. With a long floor and optimized radius, the Volvo Rock Bucket makes for easy filling, and a Side Dump variant is available for tunneling applications.



Rehandler

With an impressive 10.7m³ capacity, the Volvo Rehandling Bucket is easy to fill and minimizes spillage. Choose the Boom Suspension System, which automatically engages depending on the prevailing gear and speed, to enhance productivity and absorb shocks.



Block handler

For high lifting force and maximum stability in block handling applications, choose from the standard or heavy-duty kit variants and a range of robust Volvo Attachments, including block forks, breaker tine and clearing rakes. The optional Volvo Engine Brake provides a smoother operation when travelling downhill with heavy marble blocks.



Slag handler

Dealing with extremely high temperatures takes a special kind of engineering. From unique guarding to heat-resistant components, the slag handling package enables our Volvo Wheel Loaders to meet the unique challenges of this application.





LOG LOADER

With high lifting force and tilt out force, the L350H log loader is designed to withstand the long shifts and demanding environments common in the forestry industry.

Your profitability partner

Enhance the profitability of your operation in the upgraded L350H, featuring an all-new Volvo transmission. Established features and complementary services, such as the Load Assist suite of apps accessed from the in-cab 10" Volvo Co-Pilot display, further improve efficiency.

Optimize fuel use

Optimize fuel use with rimpull control, which adapts the tractive force to prevent wheel spin and facilitate bucket filling. Volvo Attachments are perfectly matched to your machine to deliver optimum productivity and efficiency. For even more efficiency gains, the Fuel Efficiency Report can help to identify areas for improvement.



Take control of your productivity

Make overloading, underloading, reweighing and waiting times a thing of the past with the On-Board Weighing app, providing real-time insight into the load of the bucket or grapple. The Productivity Report can help with taking the necessary steps to lower your cost per tonne. With support from Volvo Site Simulation, your Volvo dealer can recommend the best fleet configuration and site set-up.



Coach your performance

The Operator Coaching app helps operators understand how their actions influence machine productivity, fuel efficiency and wear. Features include interactive guidance, on-screen prompts and visualization of performance. With a range of available training initiatives, we are ready to support with operator development, helping them to unlock the full capability of their Volvo machine.



Faster cycle times

Benefit from faster cycle times and more productivity thanks to the new hydraulic system with increased hydraulic pressure and new lift/tilt cylinders, combined with new driveline.





UP TO 15% MORE FUEL EFFICIENT

Thanks to the new driveline, third generation OptiShift is now enabled on the L350H. The technology integrates the Reverse By Braking function and lock up function in transmission. Fuel efficiency is also enhanced by an optimized gear shifting ratio and the new converter, which delivers higher outputs resulting in up to 22% more tractive force depending on gear and speed.

For your comfort and safety

Step inside the best cab on the market, providing an unrivalled operator experience. The levels of comfort, convenience and safety in the L350H will help operators achieve optimum results – shift after shift.

Superb visibility

Outstanding visibility helps operators to work in comfort and confidence, aided by the optional electrically adjusted heated rearview mirrors. When installed, the rearview camera and radar detect system are fully integrated into the Volvo Co-Pilot and provide a visual and audible alert to the operator if any unseen objects are approaching.



Take control

Configure the machine according to the job and operator's preferred responsiveness, with a choice of three hydraulic modes. Customizable lockup further helps to adapt the machine to the task at hand, along with rimpull control which modifies tractive force to prevent wheel spin.



Bucket leveling function

The bucket leveling function automatically returns the bucket to level, from both dump and curl positions, helping to reduce operator fatigue.





OPERATOR IN FOCUS

Every element of operator comfort and convenience is considered in the L350H, with a remote controlled door opening, air-conditioning and secondary steering system all as standard. Choose from a range of seats, including the fully adjustable premium seat, available with a 3-point seatbelt. Count on a steering wheel to always be fitted, taking priority over the Comfort Drive Control lever steering.

More uptime, less service costs

Keep working for longer with reduced maintenance requirements and easy service access. Proactive tire monitoring and telematics connectivity keeps downtime to a minimum, getting you back to work without delay.

Extended service intervals

Maintenance is kept to a minimum with a 1 000-hour engine service interval and 4 000-hour axle oil change interval – made possible by the external axle oil cooler with filtration. The subsequent 50% reduction in related service time ensures your machine stays on site, working and earning, for longer – while also reducing oil and filters requirements.



Built to last

Minimize machine downtime and increase component life with features including heavy-duty axles with fully floating shafts, planetary hub reduction and maintenance-free rear axle trunnion bearings. Breather filters further help to increase component life and the reinforced upper bearing of the center hinge boasts a heavy-duty design to accommodate the new transmission and axles.



Tire Pressure Monitoring System

Extend tire life and save fuel with the support of the Tire Pressure Monitoring System, part of the Load Assist suite of apps accessed from the Volvo Co-Pilot display. The system enables the pressure and temperature of tires to be monitored from the comfort of the cab.



Get connected, boost uptime

Maximize machine uptime and reduce repair costs with CareTrack telematic system. Choose to keep track of your machine yourself or let us take care of it with ActiveCare, providing 24/7 monitoring and weekly reports. ActiveCare is part of a portfolio of Uptime Services, including maintenance and repair agreements, extended warranties, and more.





DESIGNED FOR EASY SERVICING

Keep uptime to a maximum with improved serviceability. Daily routine checks are made easy as a result of the engine side hood panels and easily accessed cooling package, while all other essential maintenance points can be safely accessed using the surrounding walkway.

Better, faster, stronger

Operator in focus

- Remote-controlled door opening
- Choice of seats available with a 3-point seatbelt
- Secondary steering system
- Comfort Drive Control lever steering
- Choice of three hydraulic modes
- Bucket leveling function
- Electrically adjusted heated rearview mirrors (Option)
- Rearview camera, radar detect system (Option)

Load Assist

Suite of apps accessed from the 10" Volvo Co-Pilot display

- On-Board Weighing
- Operator Coaching
- Tire Pressure Monitoring System

More uptime

- 1 000-hour engine service intervals
- 4 000-hour (or 18 months) axle oil change intervals, made possible by the external axle oil cooler with filtration
- Engine side hood panels, easily accessed cooling package
- Breather filters
- Maintenance-free rear axle trunnion bearings
- Automatic lubrication system (Option)

Volvo Services: boost your profits

- Productivity and Fuel Efficiency Reports
- ActiveCare
- Operator Training Program
- Volvo Site Simulation
- Maintenance and Repair agreements
- Genuine Volvo Parts



Faster and more fuel efficient

- Up to 10% more productive with new lift/tilt cylinders and increased hydraulic working pressure
- Up to 15% greater fuel efficiency thanks to 3rd generation OptiShift
- Increased tractive force up to 22%, depending on machine gear and engaged speed
- Optimized gear shifting ratio
- Rimpull control
- Compatible with HVO alternative fuel

Built for demanding jobs

- Reinforced upper center hinge bearing
- Updated frames to accommodate new Volvo transmission and axles
- Heavy-duty axles with fully floating shafts planetary hub reduction
- Proven Z-bar lifting arm with double sealing on each of the pins
- Range of Volvo Attachments

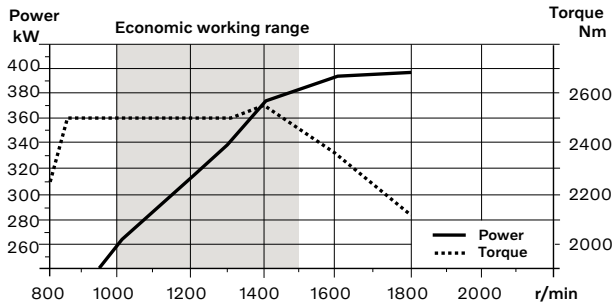


Volvo L350H in detail

Engine

V-ACT, 16 liter, 6-cylinder straight VGT (Variable Geometry Turbocharged) diesel engine with 4 valves per cylinder, overhead camshaft and electronically controlled unit injectors. The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. Cooled EGR (Exhaust Gas Recirculation) and exhaust after treatment with EATS-Muffler (Exhaust After Treatment System) including DOC (Diesel Oxidation Catalyst), DPF (Diesel Particulate Filter) and SCR (Selective Catalytic Reduction) with an electronically controlled UDS (Urea Dosing System). Stage V after treatment system features passive DPF regeneration with an AHI (After treatment Hydro carbon Injection) device.

Engine	Volvo	D16J
Max. power at	r/min	1700 -1800
ECE R120 net	kW	397
	hp	540
ISO 9249, SAE J1349 net	kW	395
	hp	537
Max. torque at	r/min	1 400
ECE R120 net	Nm	2 550
ISO 9249, SAE J1349 net	Nm	2 547
Economic working range	r/min	1 000 - 1 500
Displacement	l	161



Electrical System

Central warning system:

Contronic electrical system with central warning light and buzzer for following functions: - Serious engine malfunction - Low steering system pressure - Overspeed warning engine - Interruption in communication (computer error)
 Central warning light and buzzer with gear engaged for the following functions: - Low engine oil pressure - High engine oil temperature - High charge-air temperature - Low coolant level - High coolant temperature - High crankcase pressure - Low transmission oil pressure - High transmission oil temperature - Low brake pressure - Engaged parking brake - Brake charging failure - Low hydraulic oil level - High hydraulic oil temperature - Overspeeding in engaged gear - High brake cooling oil temperature front and rear axles.

Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	2 x 170
Cold cranking capacity, approx	A	1 000
Alternator rating	W/A	2 280/80
Starter motor output	kW	7

Drivetrain

Torque converter: 3-element ,1-stage, 2-phase torque converter with Lock-Up function. and free-wheel stator.

Transmission: Planetary Power Shift transmission with full modulated electronically controlled shifting of 4 gears forward and reverse. Volvo Automatic Power Shift (APS) gear shifting system with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO mode. Also equipped with Rimpull control to avoid wheel spin and optimize bucket filling.

Axles: Fully floating axle shafts with double planetary-type heavy duty hub reductions. Fixed front axle and oscillating rear axle.

Optional: Limited-slip differentials in front and rear axle.

Transmission	Volvo	HTL 500
Torque multiplication, stall ratio		2.45
Maximum speed, forward/reverse		
1st gear	km/h	6.9
2nd gear	km/h	12.2
3rd gear	km/h	21.9
4th gear	km/h	37.7
Measured with tires		35/65 R33 L4
Front axle/rear axle		Volvo AHW 91/ AHW 91
Rear axle oscillation	± °	12
Ground clearance	mm	550
at oscillation	°	12

Steering System

Steering system: Load-sensing hydrostatic articulated steering with an accumulator system and a non-pressurized tank.

System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement.

CDC: Speed dependent electro-hydraulic power steering system with closed center hydrostatic back-up and end-stroke damping.

Steering cylinders		2
Cylinder bore	mm	110
Rod diameter	mm	70
Stroke	mm	595
Working pressure	MPa	27
Maximum flow	l/min	370
Maximum articulation	± °	37

Service Refill

Service accessibility: Large, easy-to-open service doors with gas struts.

Swing-out radiator grille. Fluid filters and component breather filters promote long service intervals. A quick-fit adapter on the hydraulic tank provides faster hydraulic oil fill. Possibility to monitor, log, and analyze data to facilitate troubleshooting.

Fuel tank	l	540
DEF/AdBlue® tank	l	53
Engine coolant	l	73
Hydraulic oil tank	l	365
Transmission oil	l	134
Engine oil	l	55
Axle oil front	l	140
Axle oil rear	l	146

Hydraulic system

System supply: Two load-sensing axial piston pumps with variable displacement. The steering function always has priority from one of the pumps.
Valves: Double-acting 2-spool valve. The main valve is controlled by an electric pilot.
Lift function: The valve has three positions; raise, hold and lower. 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; rollback, hold, and dump. Inductive/magnetic automatic bucket positioner can be switched on and off.
Cylinders: Doubleacting cylinders for all functions.
Filter: Full-flow filtration through 10 micron (absolute) filter cartridge.
Hydraulic oil cooler: Air cooled oil cooler mounted on radiator.

Working pressure maximum, pump 1 for working hydraulic system	MPa	27
Flow	l/min	343
at	MPa	10
engine speed	r/min	1 800
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa	29
Flow	l/min	400
at	MPa	10
engine speed	r/min	1 800
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa	26
Flow	l/min	84
at	MPa	10
engine speed	r/min	1 800
Cycle times		
Lift	s	7.1
Tilt	s	1.9
Lower, empty	s	4.3
Total cycle time	s	13.3
Raise and tilt cycle times with load according to ISO 14397 and SAE J818		

Lift Arm System

Z-bar linkage system with high breakout forces. The lift arms are single plate construction with a high-strength steel cast cross tube. The single bell crank and bucket link are nodular iron castings.

Lift cylinders		2
Cylinder bore	mm	190
Piston rod diameter	mm	110
Stroke	mm	1 264
Tilt cylinder		1
Cylinder bore	mm	250
Piston rod diameter	mm	120
Stroke	mm	728

Brake system

Service brake: Service brakes are dual circuit all-hydraulic multidisc brakes with nitrogen-charged accumulators and automatic slack adjusters. Outboard-mounted oil-cooled, wet disc brakes at each wheel. Transmission disengagement during braking can be preselected in Contronic.
Parking brake: 3 calliper (dry) spring applied, electro hydraulically released via a switch on dash board. Applies automatically when the key is turned off.
Secondary brake: Dual circuit axle-by-axle system. Actuated by service brake pedal. Low pressure alarm. Dead engine braking capability provided by three nitrogen charged accumulators.
Standard: The brake system complies with the requirements of ISO 3450:1996.

Number of brake discs per wheel front/rear		10/10
Accumulators	l	9 x 1.0
Accumulators for parking brake	l	1 x 1.0

Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronic monitoring system.
Heater and defroster: Heater coil with filtered fresh air, fan with auto function and 11 manually selectable steps, defroster vents for all window areas.
Operator's seat: Operator's seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket on the rear wall and floor. The forces from the retractable seatbelt are absorbed by the seat rails.
Standard: The cab is tested and approved according to ROPS (ISO 3471, SAE J1040), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 ("Operator overhead protection - Industrial trucks") and SAE J386 ("Operator Restraint System"). Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO₂-eq

Emergency exit: Use emergency hammer to break window

Ventilation	m ³ /min	9
Heating capacity	kW	16
Air conditioning	kW	8

Sound Level

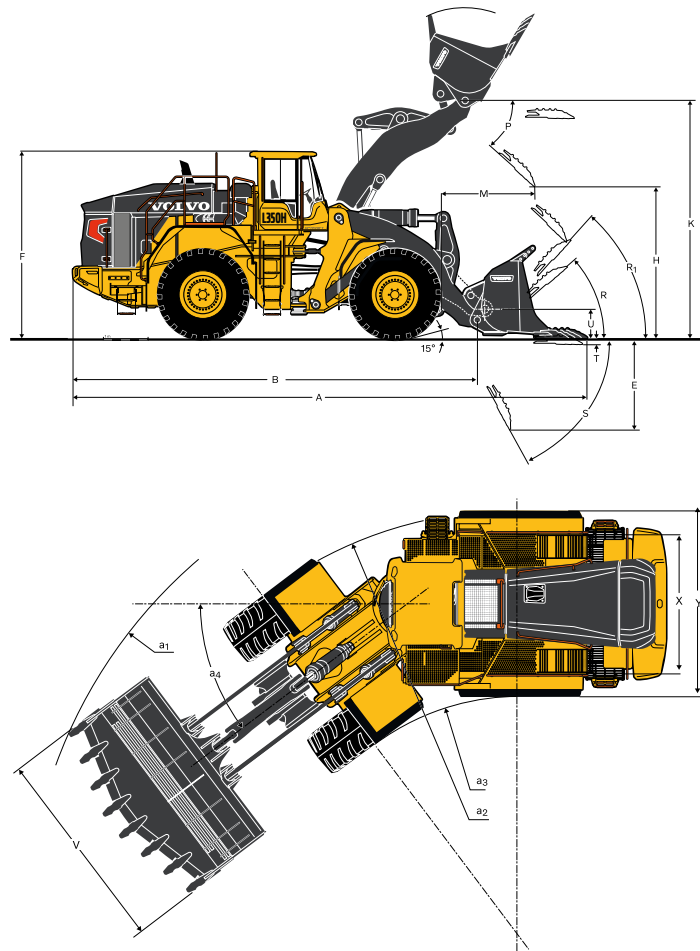
Sound pressure level in cab according to ISO 6396/SAE J2105 at fan speed pos 3

L _{pA}	dB	72
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External sound level according to ISO 6395/SAE J2104 and EU Noise Directive 2000/14/EC

L _{WA}	dB	111
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Specifications

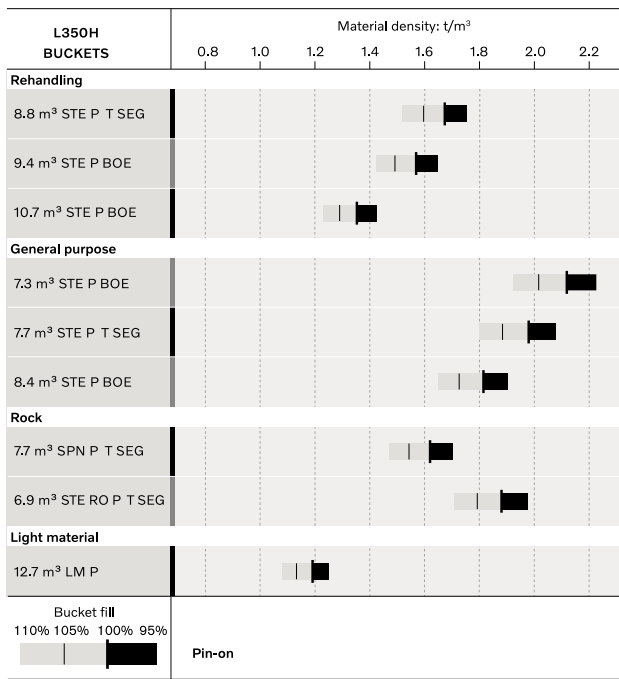


Tires: 875/65 R33 Goodyear RL-5K*** L5

		Standard boom	Long boom
B	mm	9 130	9 560
C	mm	4 300	4 300
D	mm	550	550
F	mm	4 180	4 180
F ₁	mm	4 000	4 000
F ₂	mm	3 460	3 460
G	mm	2 135	2 134
J	mm	4 920	5 390
K	mm	5 340	5 810
O	°	60	58
P _{max}	°	46	45
R	°	44	45
R ₁ *	°	48	50
S	°	66	72
T	mm	130	130
U	mm	620	750
X	mm	3 200	3 200
Y	mm	4 100	4 100
Z	mm	4 470	4 890
a ₂	mm	8 480	8 480
a ₃	mm	4 380	4 380
a ₄	±°	37	37

*Carry position SAE

Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.



How to read bucket fill factor

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 ³
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










The size of rock buckets is optimized for optimal penetration and filling capability rather than the density of the material.

Supplemental Operating Data

	Width over tires	Ground clearance	Operating weight	Static tipping load, full turn	
				Standard boom	Long boom
	mm	mm	kg	kg	kg
35/65 R33 Michelin XMine D2** L5	+20	-20	-220	-220	-200
35/65 R33 Bridgestone VSDL IDU** L5	-20	-10	-240	-220	-200
35/65 R33 Bridgestone VSNT** L4	0	-20	-800	-520	-470
36/65 R33 Michelin XTXL*** L4	0	-40	-1 350	-880	-790

Specifications

L350H

		Rehandling ¹			General purpose ²			Rock ²		Light material ³
										
Standard boom		8.8 m ³ STE P BOE	9.4 m ³ STE P BOE	10.7 m ³ STE P BOE	7.3 m ³ STE P BOE	7.7 m ³ STE P T SEG	8.4 m ³ STE P BOE	6.9 m ³ STE P T SEG	7.7 m ³ SPN P T SEG	12.7 m ³ LM P
Volume heaped ISO/SAE	m ³	8.8	9.4	10.7	7.3	7.7	8.4	6.9	7.7	12.7
Volume at 110% fill factor	m ³	9.7	10.3	11.8	8.0	8.5	9.2	7.6	8.5	14.0
Static tipping load, straight machine	kg	43 120	42 810	42 180	39 640	38 970	39 090	39 210	37 840	37 500
Static tipping load at 35°. Turn	kg	38 280	37 990	37 370	35 350	34 690	34 820	34 930	33 580	33 290
Static tipping load at full turn	kg	37 720	37 440	36 830	34 860	34 200	34 340	34 440	33 100	32 820
Breakout force	kN	404	390	363	464	448	429	465	353	388
A Overall length	mm	11 100	11 180	11 330	10 840	11 270	10 980	11 200	11 740	11 170
E Digging depth, max dump (S)	mm	1 710	1 770	1 910	1 470	1 840	1 590	1 790	2 260	1 780
H ⁴ Dump clearance	mm	3 690	3 640	3 530	3 880	3 590	3 780	3 630	3 270	3 630
L Overall operating height	mm	7 300	7 380	7 540	7 120	7 180	7 290	7 310	7 410	7 670
M ⁴ Dump reach	mm	1 830	1 880	1 980	1 650	1 930	1 750	1 880	2 280	1 890
N ⁴ Reach at 45° discharge, Pos. G	mm	2 700	2 740	2 810	2 580	2 770	2 650	2 740	3 010	2 700
V Bucket width	mm	3 970	3 970	3 970	3 970	3 970	3 970	3 970	4 110	4 500
a ₁ Outer clearance circle (diameter)	mm	18 350	18 390	18 480	18 210	18 450	18 290	18 400	18 830	18 860
Operating weight without load	kg	53 220	53 370	53 690	51 060	51 500	51 350	51 420	52 190	51 420

¹ Calculated with 875/65 R33 Bridgestone VSNT** L4 tires and Rehandling counterweight.

² Calculated with 875/65 R33 Goodyear RL-5K*** L5 tires.










³ Calculated with 875/65 R33 Bridgestone VSNT** L4 tires.

⁴ Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge.

Note: This only applies to genuine Volvo attachments. Measured at 45° dump angle. (Spade nose buckets at 42°.)



L350H

Long boom		Rehandling ¹			General purpose ²			Rock ²		Light material ¹
										
		8.8 m ³ STE P BOE	9.4 m ³ STE P BOE	10.7 m ³ STE P BOE	7.3 m ³ STE P BOE	7.7 m ³ STE P T SEG	8.4 m ³ STE P BOE	6.9 m ³ STE P T SEG	7.7 m ³ SPN P T SEG	12.7 m ³ LM P
Volume heaped ISO/SAE	m ³	8.8	9.4	10.7	7.3	7.7	8.4	6.9	7.7	12.7
Volume at 110% fill factor	m ³	9.7	10.3	11.8	8.0	8.5	9.2	7.6	8.5	14.0
Static tipping load, straight machine	kg	35 500	35 230	34 670	37 290	36 650	36 790	36 870	35 580	35 290
Static tipping load at 35°. Turn	kg	31 410	31 150	30 610	33 130	32 490	32 640	32 710	31 450	31 200
Static tipping load at full turn	kg	30 940	30 690	30 150	32 660	32 020	32 170	32 240	30 980	30 740
Breakout force	kN	367	354	330	421	407	390	422	321	352
A Overall length	mm	11 520	11 600	11 750	11 250	11 680	11 400	11 620	12 150	11 590
E Digging depth, max dump (S)	mm	1 780	1 840	1 980	1 530	1 910	1 650	1 850	2 350	1 850
H ³ Dump clearance	mm	4 160	4 110	4 000	4 350	4 060	4 250	4 100	3 750	4 120
L Overall operating height	mm	7 770	7 850	8 010	7 590	7 650	7 760	7 780	7 880	8 140
M ³ Dump reach	mm	1 830	1 880	1 990	1 660	1 940	1 760	1 890	2 290	1 920
N ³ Reach at 45° discharge, Pos. G	mm	3 060	3 090	3 160	2 930	3 130	3 000	3 100	3 380	3 050
V Bucket width	mm	3 970	3 970	3 970	3 970	3 970	3 970	3 970	4 110	4 500
a ₁ Outer clearance circle (diameter)	mm	18 690	18 740	18 830	18 550	18 790	18 630	18 750	19 190	19 200
Operating weight without load	kg	52 430	52 580	52 900	52 690	53 130	52 980	53 050	53 820	53 060

¹ Calculated with 875/65 R33 Bridgestone VSNT** L4 tires and Long Boom counterweight.

² Calculated with 875/65 R33 Goodyear RL-5K*** L5 tires and Long Boom counterweight.

³ Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge.

Note: This only applies to genuine Volvo attachments. Measured at 45° dump angle. (Spade nose buckets at 42°.)



Equipment

STANDARD EQUIPMENT

Engine

Three stage air cleaner, pre-cleaner, primary and secondary filter
 Indicator glass for coolant level
 Preheating of induction air
 Fuel pre-filter with water trap
 Fuel filter
 Crankcase breather oil trap

Drivetrain

Automatic Power Shift (APS) with operator controlled transmission disengagement when braking and mode selector with AUTO mode
 Fully automatic gear shifting, 1-4
 Pulse Width Modulation (PWM) controlled gear shifting
 Torque converter with Lock-Up
 Automatic Lock-Up shifting, 2-4 (gear selector in 4), 2 (gear selector in 2) and 1 (gear selector in 1)
 Forward and reverse switch by hydraulic lever console
 Rimpull control
 Axle oil cooler
 Indicator glass for transmission oil level

Electrical System

24 V, pre-wired for optional accessories
 Alternator 24V/ 80A
 Battery disconnect switch with removable key
 Fuel gauge
 Hour meter
 Electric horn
 Instrument cluster:
 Fuel level
 Transmission temperature
 Coolant temperature
 Instrument lighting
 Lighting:
 - Twin halogen front headlights with high and low beams
 - Parking lights
 - Double brake and tail lights
 - Turn signals with flashing hazard light function
 - Work lamp, front on cab, 2 Halogen lamps, std
 - Work lamp, rear in grille, 4 Halogen lamps, std

STANDARD EQUIPMENT

Contronic monitoring system

Monitoring and logging of machine data
 Contronic display
 Fuel consumption
 Ambient temperature
 Clock
 Brake test
 Test function for warning and indicator lights
 Warning and indicator lights:
 Battery charging
 Parking brake
 Warning and display message:
 - Engine coolant temperature
 - Charge-air temperature
 - Engine oil temperature
 - Engine oil pressure
 - Transmission oil temperature
 - Transmission oil pressure
 - Hydraulic oil temperature
 - Brake pressure
 - Parking brake applied
 - Parking brake NOT applied
 - Brake charging
 - Overspeed at direction change
 - Axle oil temperature
 - Steering pressure
 - Crankcase pressure
 Level warnings:
 - Low fuel level
 - Engine oil level
 - Engine coolant level
 - Transmission oil level
 - Hydraulic oil level
 - Washer fluid level
 Engine torque reduction in case of malfunction indication:
 - High engine coolant temperature
 - High engine oil temperature
 - Low engine oil pressure
 - High crankcase pressure
 - High charge-air temperature
 Engine shutdown to idle in case of malfunction indication:
 - High transmission oil temperature
 - Slip in transmission clutches
 Keypad, background lit
 Start interlock when gear is engaged

STANDARD EQUIPMENT

Hydraulic system

Main valve, double-acting 2-spool with electric pilots

Variable displacement axial piston pumps (3) for:

Steering system, working hydraulics

Secondary steering with automatic test function

Working hydraulics, brakes

Cooling fan, brakes

Electric-hydraulic servo control

Electric level lock

Boom kick-out, automatic, adjustable from cab

Return-to-dig, automatic, adjustable from cab

Bucket positioner, automatic, adjustable from cab

Double-acting hydraulic cylinders with end-damping

Indicator glass for hydraulic oil level

Hydraulic oil cooler

Brake system

Wet oil circulation-cooled disc brakes on all four wheels

Dual brake circuits

Dual brake pedals

Secondary brake system

Parking brake, electric-hydraulic

Brake wear indicators

Cab

ROPS (ISO 3471), FOPS (ISO 3449)

Acoustic inner lining

Cigarette lighter, 24 V power outlet

Lockable door

Cab heating with fresh air inlet and defroster

Fresh air inlet with two filters

Automatic climate control (ACC)

Floor mat

Interior light

Rear view mirror, interior

Dual exterior rear-view mirrors

Sliding window, right side

Tinted safety glass

Seat-mounted adjustable lever console, working hydraulics

Adjustable steering wheel

Storage compartment

Document pocket

Sun visor

Beverage holder

Windshield washer front and rear

Windshield wipers front and rear

Interval function for front and rear wipers

Service platforms with slip protected surfaces on front and rear fenders

Comfort Drive Control (CDC)

Remote door opener

STANDARD EQUIPMENT

Service and maintenance

Engine oil remote drain and fill

Transmission oil remote drain and fill

Grouped lubrication points, ground accessible

Pressure check connections: transmission and hydraulic, quick-connect, grouped on console for easy access

Quick-fit hydraulic oil fill

Tool box, lockable

Wheel nut wrench kit

External equipment

Fenders, front with rubber extensions

Viscous cab mounts

Rubber engine and transmission mounts

Lifting eyes

Easy-to-open side panels with gas struts

Frame, joint lock

Vandalism lock prepared for:

- Batteries

- Engine compartment

- Radiator

Tie-down eyes

Recovery eyes

Tow hitch

Equipment

OPTIONAL EQUIPMENT

Engine

Air pre-cleaner, oil-bath type
Air pre-cleaner, cyclone type
Cooling package: Radiator and charge air cooler, corrosion-protected
Engine block heater, 230 V
Engine block heater, 120V, USA
Engine auto shutdown
Volvo Engine Brake system - VEB
Hand throttle control
Fuel fill strainer
Fast fill fuel system
Fuel heater
Reversible cooling fan
Max. fan speed, hot climate

Drivetrain

Limited Slip, front and rear axle
Limited Slip, rear axle
Transmission oil heater
Speed limiter, 20 km/h
Speed limiter, 30 km/h

Electrical System

Travel lights:
Cab heater, power outlet 240V
Warning beacon LED
Warning beacon LED automatic
LED Economy package
LED Feature Package
LED Power Package
LED working lights, attachments
Halogen Economy package
Halogen Feature package
Halogen working lights, attachments
Warning beacon(flasher), LED
Reverse warning light, Strobe
Reverse alarm, audible, multi-frequency (white noise)
Reverse alarm, audible
Seatbelt indicator, external
Jump start connector, ISO type
Emergency stop
Electrical distribution unit 24 volt
Alternator 120 amp, heavy-duty
Anti-theft device
Max Boom height
Can Bus Interface
Delayed Engine Shutdown
Co Pilot available
Rearview camera in Co pilot
OnBoard Weighing
Tire Pressure Monitoring System
Connected Map

OPTIONAL EQUIPMENT

Hydraulic system

Boom suspension system with single-acting lift function
Arctic kit, pilot hoses, brake accumulators and hydraulic oil
Hydraulic 2 functions, Single lever control
Hydraulic 3 functions, Single lever control
3rd electro-hydraulic function
3rd electro-hydraulic function for long boom
Attachment bracket
Separate attachment locking
Biodegradable hydraulic fluid
Fire-resistant hydraulic fluid
Hot climate hydraulic fluid
Mineral oil for cold climate

Cab

Radio with Bluetooth/USB/AUX
DAB Radio
Radio installation kit incl. 11 A, 12 V outlet, left side
Radio installation kit incl. 11 A, 12 V outlet, right side
Rear-view camera incl. monitor, colour
Forward camera, colour
Rear-view mirrors, electrically adjustable and heated
Asbestos dust protection filter
Carbon filter
Automatic climate control panel, with Fahrenheit scale
Lunchbox holder
Universal key EU
Universal key US
Steering wheel knob
Sun blind, rear window
Sun blind, side windows
Timer cab heating
Window sliding, door
Operator's seat, Volvo air susp, heavy-duty, high back, heat, for CDC
Parking brake alarm, audible for air susp seats
Operator's seat, Premium Comfort
Operator's seat, Premium Comfort ISRI 3-point seat belt
Operator's seat, (air seat std) 3-point seat belt and CDC
Ashtray
Anchorage for Operator's manual
Forward view mirror

Service and maintenance

Tool kit
Automatic lubrication system
Automatic lubrication system for long boom
Refill pump for automatic lubrication system
Oil sampling valve

OPTIONAL EQUIPMENT

Protective equipment

- Guards for front headlights
- Tail light guards, heavy-duty
- Guards for tail lights, heavy-duty
- Guards for rear work lights
- Radiator grille guard
- Cab roof, heavy duty
- Windows, side and rear guards
- Windshield guard
- Belly guard, front
- Belly guard, rear
- Fire extinguisher
- Bracket for fire extinguisher

External equipment

- Long boom
- Fire suppression system

Other equipment

- Counterweight, re-handling
- Counterweight, signal painted, chevrons
- Logger version
- Block handler kit
- Block handler kit, heavy-duty
- CE-marking
- Decals, USA
- Sound decal, EU
- Cleaner kit, with air blow gun (Stage V)
- Reflecting stickers (stripes), machine contour Cab
- Option for machines without dinitrol
- CareTrack

OPTIONAL EQUIPMENT

Tires and Rims

- 35/65 R33 (875/65 R33):
 - L4
 - L5
- Rims, 33-28.00/3,5:
 - Five piece, heavy-duty

Attachments

- Buckets (pin-on):
 - Rock, straight edge
 - Rock, spade nose
 - Rock, side-dump, spade nose
 - General purpose, straight edge
 - Rehandling bucket, straight edge
 - Light material, straight edge
- Wear parts:
 - Adapters for teeth, weld-on
 - Teeth
 - Segments, bolt-on
 - Edge savers, bolt-on (reversible)
- Block handling equipment (hook-on):
 - Rock bucket, spade nose
 - Stone fork
 - Breaker tine
 - Rake

SELECTION OF VOLVO OPTIONAL EQUIPMENT**Boom Suspension System, gear or speed selected****Limited slip differentials****Long boom****Fire Suppression System****Fast fill fueling system****Radar Detect System**

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.

V O L V O