



Volvo Construction Equipment

# L350H

Volvo Wheel Loaders 50.0-56.3 t 540 hp



**THE BEST JUST GOT  
EVEN BETTER**



Smarter, faster and tougher than the L350F, the L350H has been built on the success of its forerunner, first introduced to the market in 2007. Upgraded with the latest innovative technology, the L350H is ready to tackle a range of applications, from mining and quarrying to heavy infrastructure.

#### Lowering your total cost of ownership

As your trusted partner in production, Volvo is here to support you with the best equipment for the job. Boasting a comprehensive portfolio of attachments designed to complement your machines performance, as well as a range of services to boost your profitability, we'll help you tailor the perfect package to suit your business needs.

#### L350F across the world

A machine that's always in demand, over 700 L350F wheel loaders are being put to work in 50 countries across the world, and have so far accumulated 6 369 606 operating hours – ranging from 290 to 48 000.



“ ”

#### L350F in action

*“We like their speed, their uptime and their fuel efficiency.”*

*Dan Johnson, Vice president of equipment for William Charles Purchasing Inc (USA)*

*At a large quarry in Germany, an L350F was instrumental in producing and transporting 1.2 million tons of limestone a year. The L350F loaded a 60-ton hauler in only five passes, ensuring a highly profitable rate of production.*



# BOOST YOUR PRODUCTIVITY BY UP TO 5%

Increase your productivity by up to 5%. Next generation load sensing hydraulics have been designed to enhance the responsiveness of the attachment and reduce cycle times, by improving the lifting and lowering speed of the boom.



# Stronger and smarter

Primed for productivity, the intelligent L350H combines the latest Volvo technology with power and comfort. To achieve ultimate performance, select from a range of tailor-made Volvo attachments.

## Easy operation

Customize your machine with a choice of three hydraulic modes to suit your preferred responsiveness – soft, normal or active. To reduce operator fatigue and improve productivity, Comfort Drive Control gives you the opportunity to steer the machine from a small lever – particularly effective for fast-paced truck loading operations.



## Matched and attached

Get the most out of your L350H with our range of purpose-built attachments, perfect for applications such as block handling, logging and slag handling. Form one solid and reliable unit with attachments that are ideally matched by size and design to your machine's parameters – including link-arm geometry, and breakout and lifting forces.



## Designed to perform

Achieve unrivalled performance thanks to the drivetrain, specially developed by Volvo, to work in harmony with the hydraulic system on a range of demanding applications. Offering the perfect combination of power and control, the L350H has been designed to boost productivity.



# Power up, fuel down

Engineered for efficiency, the L350H is fitted with a powerful Volvo engine and new generation hydraulics. Decrease cycle times and fuel consumption with intelligent machine monitoring and available operator training.

## Eco pedal

Save on machine wear and increase fuel efficiency with the eco pedal. Uniquely designed by Volvo, the eco pedal encourages economical operation, by applying a mechanical push-back force in response to excess use of the accelerator.



## Train for efficiency

Increase productivity and reduce fuel consumption by learning how to operate your wheel loader in the most efficient way. Volvo offers operator training, which encompasses the best practices in the industry.



## Machine monitoring made easy

Keep on top of unscheduled downtime and check that your machine is being operated efficiently with CareTrack – Volvo's state-of-the-art telematics system. Stay informed and receive reports including fuel status, machine location and hours, so you can optimize your productivity and save money.



## Fuel Report

Identify any inefficiency with Fuel Report, designed to help you reduce the industry's number one operational cost factor. With detailed machine data, Fuel Report supports in taking corrective actions to reverse machine issues and improve fuel efficiency.



# UP TO 20% GREATER FUEL EFFICIENCY

Do more with less fuel, thanks to redesigned buckets, which are easier to fill. Save hydraulic pump power for other functions, by reducing fluid flow during lowering and dumping operations. Powered by a D16 engine, delivering high torque at low rpm, the L350H can also be fitted with the option of auto engine shut down, which turns off the machine during prolonged periods of idle.



## ***L350F in action***

*A quarry in the UK used a Volvo L350F to load more than 500,000 tons of blasted limestone a year. The L350F replaced two older machines and was chosen for its excellent fuel economy and an outstanding performance.*

# BUILT FOR THE JOB

Unlock the full potential of your machine and take on demanding applications, with tailor-made attachments. You can even have your attachment custom built to suit your needs - just talk to your local dealer!



## ***L350F in action***

*Working at one of the biggest wood production sites in Finland, L350F wheel loaders were used to help process over 100 trailers of timber a day. Featuring log grapple attachments for quick and easy log handling, these machines worked 24 hours a day in temperatures that often plummeted to -30°C.*

# For extreme production environments

Working around the clock, the L350H has been put to the test in extreme environments, carrying out operations such as face loading, heavy-duty block handling and log handling. The L350H can be fitted with a range of Volvo attachments, to ensure high reliability and safe operation.

## Face-loading and tunneling

For easier filling and up to 15% more productivity, the new Volvo Rock bucket\* boasts a longer floor and optimized radius. For tunneling applications, the L350H can also be equipped with a Side Dump Rock bucket. To increase your productivity, the long boom configuration enables the loading of a 65 tonne truck in no more than six passes.



## Rehandling

Experience up to 5% greater productivity with the new 10.7 m<sup>3</sup> Volvo Rehandling bucket. The redesigned bucket is easier to fill and minimizes spillage, thanks to new convex sides and the improved spill guard. To enhance productivity and absorb shocks, opt for the Boom Suspension System, which automatically engages depending on gear and speed.



## L350H in block handling

For high lifting force and maximum stability in block handling applications, choose from two kit variants – standard or heavy duty – and a range of robust Volvo attachments, including block forks, breaker tine and clearing rakes.



# Made to move

## MAINTENANCE MADE EASIER

- Maintenance-free rear axle trunnion
- Redesigned engine side hood panels
- Surrounding walkways

## BOOST YOUR PRODUCTIVITY BY UP TO 5%

- Next generation load sensing hydraulics
- Comfort Drive Control
- Three hydraulic mode options
- Matched Volvo attachments

## BUILT FOR THE JOB

- Redesigned Rock bucket – boost your productivity by 15%
- New Rehandling bucket – up to 5% more productivity
- Block handling attachments
- Custom built attachments

## DURABLE BY DESIGN

- Z-bar lifting arm with double sealing on each pin
- Strong frame and central hinge

## VOLVO SERVICES

- Genuine Volvo Parts
- CareTrack
- Proactive Monitoring
- Fuel Report



## THE OPERATOR'S CHOICE

- Easy cab access
- Remote-control door opener
- New adjustable seat
- Upgraded Human Machine Interface

## UP TO 20% GREATER FUEL EFFICIENCY

- Easier to fill redesigned buckets
- Saved hydraulic pump power
- Powerful D16 engine, with optional auto shut down
- Eco pedal

## SAFE AND SOUND

- Orange handrails and steps
- New rear view mirrors
- Rear-view camera



# DURABLE BY DESIGN

Designed with durability in mind, the L350H is built with robust components and a strong frame structure. The central hinge offers strength in demanding applications, and the specially designed Z-bar lifting arm has double sealing on each of the pins, for sustained uptime and increased machine life.



## ***L350F in action***

*As part of a fleet of 34 Volvo machines working at a marble mine in Turkey, an L350F proved that its durable components and easy serviceability made it the perfect addition to the team. The owner relied on the L350F to operate under high stress levels and in tough conditions, producing 170,000 tons of marble a year.*

# Full proof performance

Offering strength in demanding applications, the L350H is built to last. Maintain the life of your machine with simple serviceability and proactive dealer support, as well as flexible maintenance and repair plans.

## Minimize downtime

Minimize machine downtime and increase components life thanks to heavy-duty axles with fully floating shafts, planetary hub reduction and maintenance-free rear axle trunnion bearings.



## Maintenance made easier

Keep your machine up and running with improved serviceability. Daily routine checks are made easier thanks to engine side hood panels, while essential maintenance points are safely accessed using the surrounding walkway.



## Proactive Monitoring

Keep your machine moving with Proactive Monitoring. Volvo monitors machine health remotely, from our very own Uptime Center, helping to predict potential failures before they occur. This gives you more time to focus on your operation, helping to reduce unplanned downtime and minimize repair costs.



## Here to support you

Maintain productivity and machine uptime with our range of readily available Genuine Volvo Parts – all backed by Volvo warranty. We're here to help you stay on track, offering flexible maintenance and repair plans.



# Setting the standard

Built with the customer, for the customer, the L350H boasts a range of features to enhance your operating experience. As your partner in production, we'll help to make your business more profitable, whether it's through reducing fuel emissions or supporting you with our range of products and services.

## Safe and sound

To enhance visibility, the L350H Volvo cab has a rear-view camera and new rear view mirrors. Orange handrails and steps have also been placed on the machine, intended to stand out to the operators and maintenance staff.



## Committed to the environment

Reduce your carbon footprint and fuel emissions between 30% to 90%, by switching to renewable fuels. Confirming its commitment to the environment, Volvo has designed its latest wheel loader to be compatible with HVO alternative fuel.



## Volvo Services

To ensure your business runs smoothly, Volvo invests in the intelligent engineering of all our machines – but we don't stop there. As your partner, we support you in how you use the equipment, maintain it, pay for it and even how you sell it. Our portfolio of products and services is designed to complement your machine's performance and boost your profitability.



# THE OPERATOR'S CHOICE

Operate in comfort from the best cab on the market. The Volvo cab is equipped with a new adjustable seat and upgraded Human Machine Interface, which comes as standard across all H-series Volvo wheel loaders. Access the cab safely and effortlessly using the steps, and open the door with ease thanks to the remote-control opener.



*"Basically, I move rock for 10 hours each day so I like the comfort of the Volvo wheel loader. My back doesn't hurt and it is easy to steer with the joystick controls. I really enjoy running it. We are picking up blocks weighing more than 50,000 pounds and the power is still there."*

**David Porter, loader operator, Colorado Stone Quarries (USA)**

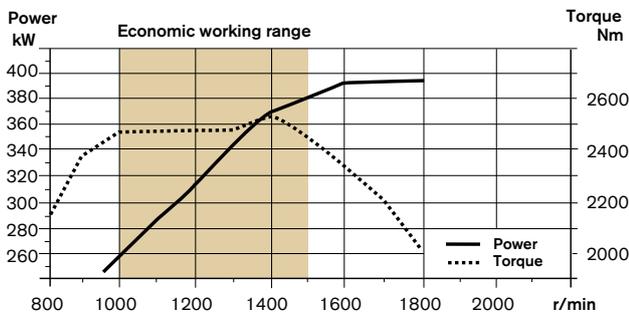
# Volvo L350H in detail

## Engine

Engine: V-ACT Stage III A/Tier 3, 16 liter, 6-cylinder in-line turbocharged, air-to-air intercooler diesel engine with double rockers and Internal Exhaust Gas Recirculation (I-EGR). One-piece cylinder head with four valves per cylinder and one overhead camshaft. The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. Mechanically actuated electronically controlled unit injectors. The throttle application is transmitted electrically from the throttle pedal.

Air cleaning: Three stage cyclone pre-cleaner - primary filter - secondary filter.  
Cooling system: Hydrostatic, electronically controlled fan and intercooler of the air-to-air type.

Engine	Volvo	D16E
Max. power at	r/min	1 700
SAE J1995 gross	kW	397
	hp	540
ISO 9249, SAE J1349 net	kW	394
	hp	536
Max. torque at	r/min	1 400
SAE J1995 gross	Nm	2 550
ISO 9249, SAE J1349 net	Nm	2 532
Economic working range	r/min	1 000 - 1 500
Displacement	l	16.1



## 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, 1-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 (Lock-Up in 3-4) and mode selector with 4 different gear shifting programs, including AUTO mode.  
Axles: Fully floating axle shafts with planetary-type heavy-duty hub reductions. Fixed front axle and oscillating rear axle.  
Optional: Limited Slip differentials in front and rear axle

Transmission	Volvo	HTE 400
Torque multiplication, stall ratio		2.65
Maximum speed, forward/reverse		
1st gear	km/h	6.8/7.5
2nd gear	km/h	12.1 / 13.2
3rd gear	km/h	21 / 22.9
4th gear	km/h	35.7 / 38.2
Measured with tires		35/65 R33 L4
Front axle/rear axle		Volvo AHW 90/ AHW 90
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 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	586
Working pressure	MPa	26
Maximum flow	l/min	340
Maximum articulation	± °	37

## Service Refill

Service accessibility: Large, easy-to-open service doors with gas struts. Swing-out radiator grill. Fluid filters and component breather filters promote long service intervals. Possibility to monitor, log, and analyze data to facilitate troubleshooting.

Fuel tank	l	581
Engine coolant	l	68
Hydraulic oil tank	l	365
Transmission oil	l	79
Engine oil	l	55
Axle oil front	l	155
Axle oil rear	l	155

## 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 four positions; lift, hold, lower, and float position. 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 20 micron (absolute) filter cartridge. Hydraulic oil cooler: Aircooled oil cooler mounted on radiator.

Working pressure maximum, pump 1 for working hydraulic system	MPa	25
Flow	l/min	256
at	MPa	10
engine speed	r/min	1 800
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa	26
Flow	l/min	354
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
<b>Cycle times</b>		
Lift	s	8
Tilt	s	1.9
Lower, empty	s	4.7
Total cycle time	s	14.6
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	200
Piston rod diameter	mm	110
Stroke	mm	1 264
Tilt cylinder		1
Cylinder bore	mm	260
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: Wet multi-disc type in transmission housing. Spring-applied, electro-hydraulically released with a switch on instrument panel. 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 nitrogencharged accumulators. Standard: The brake system complies with the requirements of ISO 3450:1996.

Number of brake discs per wheel front/rear		11/11
Accumulators	l	8x1
Accumulators for parking brake	l	1 x 0,5

## 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 CO<sub>2</sub>-eq

Emergency exit: Use emergency hammer to break window

Ventilation	m <sup>3</sup> /min	9
Heating capacity	kW	13
Air conditioning	kW	8

## Sound Level

Sound level in cab according to ISO 6396/SAE J2105		
LpA	dB(A)	72
External sound level according to ISO 6395/SAE J2104		
LwA	dB(A)	111

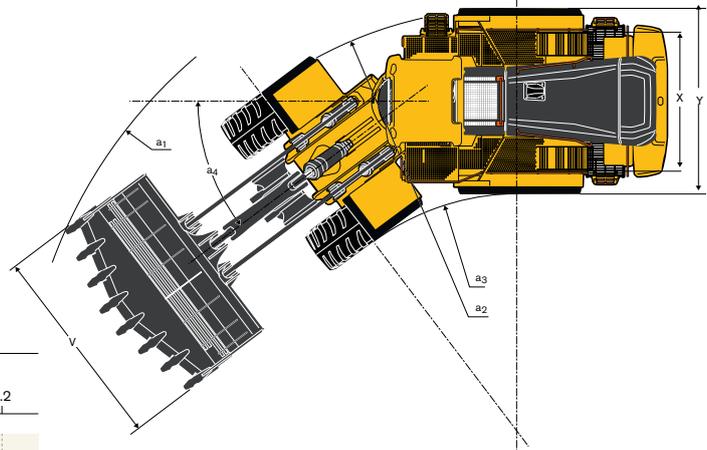
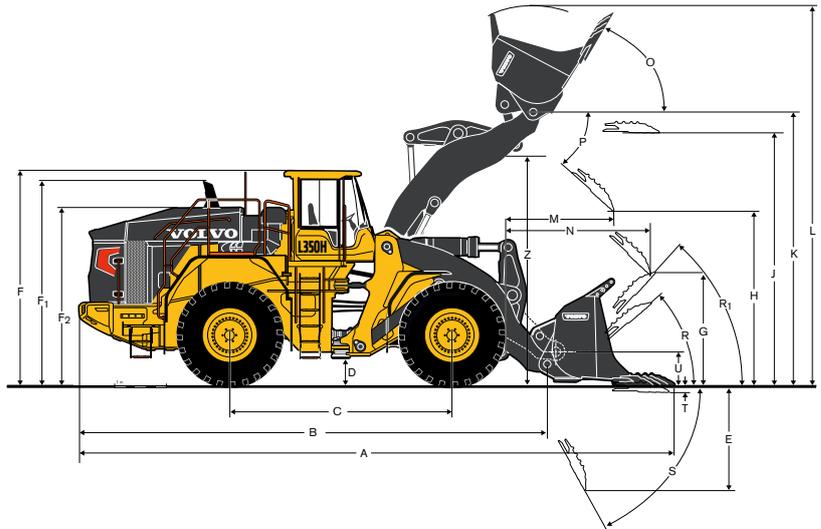
# Specifications

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

		Standard boom	Long boom
B	mm	9 130	9 556
C	mm	4 300	-
D	mm	540	-
F	mm	4 170	-
F <sub>1</sub>	mm	3 990	-
F <sub>2</sub>	mm	3 450	-
G	mm	2 134	-
J	mm	4 910	5 382
K	mm	5 330	5 798
O	°	60	58
P	°	45	-
P <sub>max</sub>	°	45	-
R	°	44	45
R1*	°	48	50
S	°	66	72
T	mm	138	143
U	mm	614	739
V	mm	3 970	-
X	mm	2 720	-
Y	mm	3 625	-
Z	mm	4 462	4 880
a <sub>2</sub>	mm	8 238	-
a <sub>3</sub>	mm	4 613	-
a <sub>4</sub>	±°	37	-

\*Carry position SAE

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



L350H BUCKETS	Material density: t/m <sup>3</sup>							
	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2
<b>Rehandling</b>								
8.8 m <sup>3</sup> STE P T SEG					■	■		
9.4 m <sup>3</sup> STE P BOE				■	■	■		
10.7 m <sup>3</sup> STE P BOE			■	■	■			
<b>General purpose</b>								
7.3 m <sup>3</sup> STE P BOE							■	■
7.7 m <sup>3</sup> STE P T SEG							■	■
8.4 m <sup>3</sup> STE P BOE						■	■	
<b>Rock</b>								
7.7 m <sup>3</sup> SPN P T SEG					■	■		
6.9 m <sup>3</sup> STE RO P T SEG							■	■
<b>Light material</b>								
12.7 m <sup>3</sup> LM P		■	■					
Bucket fill 110% 105% 100% 95% ■ ■ ■ ■ Pin-on								

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 <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

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
36/65 R33 XTXL L4 Michelin	10	-20	-1 140	-1 030	-910
35/65 R33 XLD D2 L5 Michelin	10	-20	-440	-580	-510
35/65 R33 X-Mine D2 L5 Michelin	20	-20	260	-50	-40

**L350H**

Standard boom		Rehandling			General purpose			Rock		Light material
Tires 875/65 R33 RL5K L5 Pin-on buckets										
		8.8 m³ STE P BOE	9.4 m³ STE P BOE	10.7 m³ STE P BOE	7.3 m³ STE P BOE	7.7 m³ STE P T SEG	8.4 m³ STE P BOE	7.7 m³ SPN P T SEG	6.9 m³ STE P T SEG	12.7 m³ LM P
Volume heaped ISO/SAE	m3	8.8	9.4	10.7	7.3	7.7	8.4	7.7	6.9	12.7
Volume at 110% fill factor	m3	9.7	10.3	11.8	8.0	8.5	9.2	8.5	7.6	14.0
m <sub>T1</sub> Static tipping load, straight machine	kg	37 380	37 390	36 790	39 060	38 570	38 520	37 470	38 830	37 500
m <sub>T2</sub> Static tipping load at 35°. Turn	kg	33 180	33 200	32 620	34 820	34 340	34 300	33 270	34 600	33 290
m <sub>T3</sub> Static tipping load at full turn	kg	32 700	32 720	32 140	34 340	33 860	33 820	32 790	34 120	32 820
F <sub>Br</sub> Breakout force	kN	391	378	352	449	434	416	342	450	376
A Overall length	mm	11 430	11 180	11 330	10 850	11 220	10 990	11 700	11 160	11 170
E Digging depth, max dump (S)	mm	1 980	1 770	1 900	1 490	1 810	1 610	2 220	1 750	1 770
H*) Dump clearance	mm	3 470	3 640	3 540	3 860	3 610	3 770	3 300	3 650	3 630
L Overall operating height	mm	7 300	7 380	7 540	7 110	7 170	7 270	7 400	7 300	7 680
M*) Dump reach	mm	2 030	1 870	1 980	1 650	1 890	1 750	2 250	1 850	1 880
N*) Reach at 45deg discharge, Pos. G	mm	2 840	2 740	2 810	2 570	2 740	2 650	2 990	2 720	2 700
V Bucket width	mm	3 970	3 970	3 970	3 970	3 970	3 970	4 110	3 970	4 500
a1 Outer clearance circle (diameter)	mm	18 530	18 390	18 480	18 210	18 420	18 290	18 800	18 370	18 860
Operating weight without load	kg	51 460	51 410	51 730	50 720	51 040	51 010	51 690	50 930	51 890

\*) 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			General purpose			Rock		Light material
Tires 875/65 R33 RL5K L5 Pin-on buckets										
		8.8 m³ STE P BOE	9.4 m³ STE P BOE	10.7 m³ STE P BOE	7.3 m³ STE P BOE	7.7 m³ STE P T SEG	8.4 m³ STE P BOE	7.7 m³ SPN P T SEG	6.9 m³ STE P T SEG	12.7 m³ LM P
Volume heaped ISO/SAE	m3	8.8	9.4	10.7	7.3	7.7	8.4	7.7	6.9	12.7
Volume at 110% fill factor	m3	9.7	10.3	11.8	8.0	8.5	9.2	8.5	7.6	14.0
m <sub>T1</sub> Static tipping load, straight machine	kg	35 250	35 270	34 710	36 790	36 320	36 290	35 280	36 560	37 500
m <sub>T2</sub> Static tipping load at 35°. Turn	kg	31 160	31 190	30 650	32 670	32 210	32 190	31 200	32 450	33 290
m <sub>T3</sub> Static tipping load at full turn	kg	30 700	30 730	30 190	32 200	31 740	31 720	30 740	31 980	32 820
F <sub>Br</sub> Breakout force	kN	355	344	320	408	395	377	311	409	376
A Overall length	mm	11 840	11 590	11 740	11 260	11 630	11 400	12 110	11 570	11 170
E Digging depth, max dump (S)	mm	2 060	1 830	1 970	1 540	1 870	1 670	2 310	1 820	1 770
H*) Dump clearance	mm	3 950	4 120	4 010	4 340	4 080	4 240	3 770	4 120	3 630
L Overall operating height	mm	7 780	7 850	8 020	7 580	7 640	7 750	7 870	7 770	7 680
M*) Dump reach	mm	2 040	1 880	1 980	1 660	1 900	1 750	2 250	1 860	1 880
N*) Reach at 45deg discharge, Pos. G	mm	3 200	3 090	3 170	2 930	3 100	3 000	3 350	3 070	2 700
V Bucket width	mm	3 970	3 970	3 970	3 970	3 970	3 970	4 110	3 970	4 500
a1 Outer clearance circle (diameter)	mm	18 880	18 730	18 820	18 550	18 760	18 630	19 160	18 720	18 860
Operating weight without load	kg	53 100	53 040	53 360	52 350	52 670	52 640	53 330	52 560	51 890

\*) 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, 3-4 (gear selector in 4) and 2 (gear selector in 2)  
 Forward and reverse switch by hydraulic lever console  
 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

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**STANDARD EQUIPMENT**

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**Hydraulic system**

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

Variable displacement axial piston pumps (3) for:

Steering system, working hydraulics

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

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**STANDARD EQUIPMENT**

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**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

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
Hand throttle control
Fuel fill strainer
Fast fill fuel system
Fuel heater
Reversible cooling fan
Max. fan speed, hot climate

### Drivetrain

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

### Electrical system

Cab heater, power outlet 240V
Travel lights:
- Headlights, assym. left
- Headlights, assym. right LED
- Headlights, assym. left LED
Tail lights, LED
Work lights, Halogen:
- Work lamp, rear on cab, 2 Halogen lamps
- Work lamp, front, on cab, dual, 4 Halogen lamps
- Work lamp, rear on cab, dual, 4 Halogen lamps
- Work lamp, front above head lamps, 2 Halogen lamps
Work lights, LED:
- Work lamp, front above headlamps, 2 LED lamps
- Work lamp, front on cab, 2 LED lamps
- Work lamp, front on cab, 4 LED lamps
- Work lamp, rear on cab, 2 LED lamps
- Work lamp, rear on cab, 4 LED lamps
- Work lamp, side on cab, 4 LED lamps
- Work lamp, side on cab, 1 LED lamp
- Work lamp, rear in grille, 4 LED lamps
- LED Light packages
Warning beacon(flasher), LED
Reverse warning light, Strobe
Reverse alarm, audible, multi-frequency (white noise)
Reverse alarm, audible
Jump start connector NATO
Emergency stop
Electrical distribution unit 24 volt
Alternator 120 amp, heavy-duty
Anti-theft device

## 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

### Brake system

Oil coolers for front and rear axles
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### Cab

Radio with Bluetooth/USB/AUX
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, remote door open
Universal key US, remote door open
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, (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

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**OPTIONAL EQUIPMENT**

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**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

**Other equipment**

- Secondary steering with automatic test function
- Counterweight, re-handling
- 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/Tier4f)
- Reflecting stickers (stripes), machine contour Cab
- CareTrack

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**OPTIONAL EQUIPMENT**

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**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

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**SELECTION OF VOLVO OPTIONAL EQUIPMENT**

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**Boom suspension system****Long boom****Limited slip differentials****Axle oil cooler****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.



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