

V O L V O



Volvo Wheel Loaders 50.0-56.3 t / 110,230-124,120 lb 532 hp

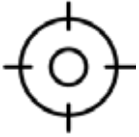
L350H

Volvo Construction Equipment

L350H



Better, faster, stronger



Built for demanding jobs

- Reinforced upper center hinge bearing
- Updated frames to accommodate new Volvo transmission and axles
- Lifetime warranty on the front and rear frames, articulation joint and loader arm assembly
- 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



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



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

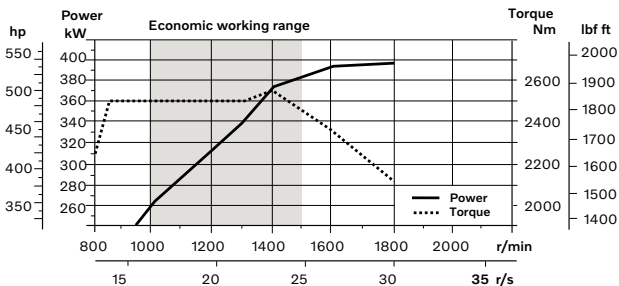
- ActiveCare Direct
- Operator Training Program
- Volvo Site Simulation
- Maintenance and Repair agreements
- Genuine Volvo Parts

Volvo L350H in detail

Engine

V-ACT, 16 liters, 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 IV/T4f after treatment system features passive DPF regeneration with an AHI (After treatment Hydro carbon Injection) device.

Engine	Volvo	D16J
Max. power at	r/min (r/s)	1,700 - 1,800 (28.3 - 30)
ECE R120 net	kW (hp)	397 (532)
ISO 9249, SAE J1349 net	kW (hp)	395 (530)
Max. torque at	r/min (r/s)	1,400 (23.3)
ECE R120 net	Nm (ft lbf)	2,550 (1,881)
ISO 9249, SAE J1349 net	Nm (ft lbf)	2,547 (1,879)
Economic working range	r/min (r/s)	1,000 - 1,500 (16.7 - 25)
Displacement	l (in ³)	16.1 (982)



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.

Transmission: Volvo countershaft transmission with Electronic Controlled Modulation (ECM) for fast and smooth 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 (mi/h)	6.9 (4.3)
2nd gear	km/h (mi/h)	12.2 (7.6)
3rd gear	km/h (mi/h)	21.9 (13.6)
4th gear	km/h (mi/h)	37.7 (23.4)
Measured with tires		35/65 R33 L4
Front axle/rear axle		Volvo AHW 91/AHW 91
Rear axle oscillation	± °	12
Ground clearance	mm (in)	550 (21.7)
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 (in)	110 (4.3)
Rod diameter	mm (in)	70 (2.8)
Stroke	mm (in)	595 (23.4)
Working pressure	MPa (bar)	27 (270)
Maximum flow	l/min (gal/min)	370 (97.7)
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. 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 (gal)	540 (142.7)
DEF/AdBlue® tank	l (gal)	53 (14.0)
Engine coolant	l (gal)	73 (19.3)
Hydraulic oil tank	l (gal)	365 (96.4)
Transmission oil	l (gal)	134 (35.4)
Engine oil	l (gal)	55 (14.5)
Axle oil front	l (gal)	140 (37.0)
Axle oil rear	l (gal)	146 (38.6)

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 (bar)	27 (270)
Flow	l/min (gal/min)	343 (90.6)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,800 (30)
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa (bar)	29 (290)
Flow	l/min (gal/min)	400 (105.7)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,800 (30)
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa (bar)	26 (260)
Flow	l/min (gal/min)	84 (22.2)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,800 (30)

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 (in)	190 (7.5)
Piston rod diameter	mm (in)	110 (4.3)
Stroke	mm (in)	1,264 (49.8)
Tilt cylinder		1
Cylinder bore	mm (in)	250 (9.8)
Piston rod diameter	mm (in)	120 (4.7)
Stroke	mm (in)	728 (28.7)

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 (gal)	9 x 1.0 (9 x 0.26)
Accumulators for parking brake	l (gal)	1 x 1.0 (1 x 0.26)

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 and fan with auto and manual settings (11 speeds). Defroster vents for all window areas.
Operator's seat: Operator's seat with adjustable air suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall and floor. The forces from the retractable seatbelt are absorbed by the seat rails.
Standards: The cab is tested and approved according to ROPS (ISO 3471, SAE J1040), FOPS (ISO 3449). The cab meets with requirements according to 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

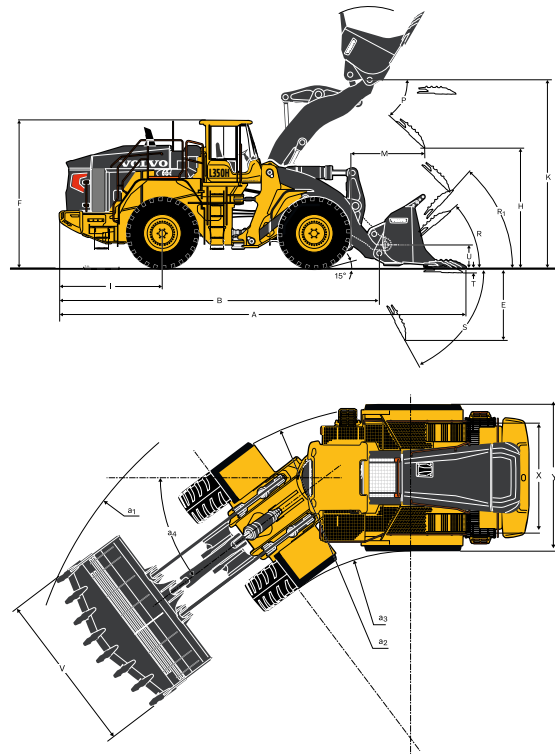
Ventilation	m ³ /min (yd ³ /min)	9 (11.8)
Heating capacity	kW	16
Air conditioning	kW	8

Sound Level

Sound level in cab according to ISO 6396

L _{pA}	dB	72
External sound level according to ISO 6395		
L _{WA}	dB	111

Specifications

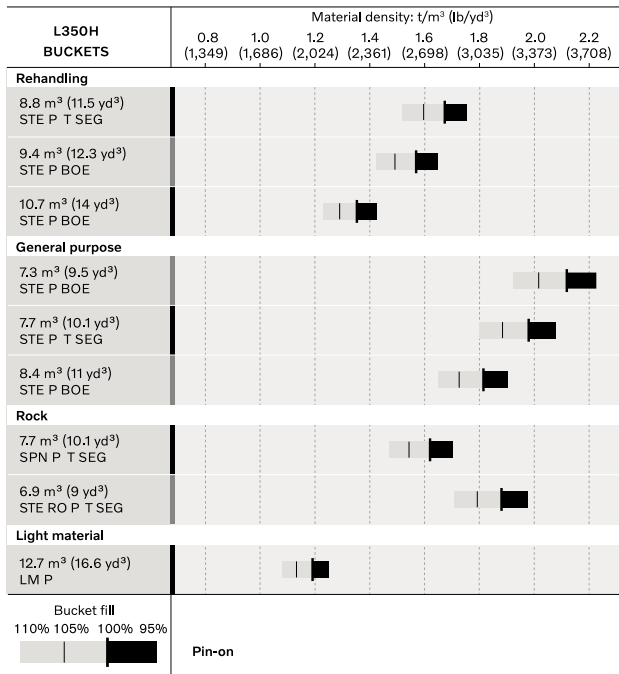


Tires: 875/65 R33 Goodyear RL-5K*** L5

			Standard boom		Long boom	
B	mm	ft in	9,130	30' 0"	9,560	31' 4"
C	mm	ft in	4,300	14' 1"	4,300	14' 1"
D	mm	ft in	550	1' 10"	550	1' 10"
F	mm	ft in	4,180	13' 9"	4,180	13' 9"
F ₁	mm	ft in	4,000	13' 1"	4,000	13' 1"
F ₂	mm	ft in	3,460	11' 4"	3,460	11' 4"
G	mm	ft in	2,135	7' 0"	2,134	7' 0"
I	mm	ft in	2,910	9' 7"	3,110	10' 2"
J	mm	ft in	4,920	16' 2"	5,390	17' 8"
K	mm	ft in	5,340	17' 6"	5,810	19' 1"
O	°		60		58	
P _{max}	°		46		45	
R	°		44		45	
R ₁ *	°		48		50	
S	°		66		72	
T	mm	ft in	130	0' 5"	130	0' 5"
U	mm	ft in	620	2' 0"	750	2' 6"
X	mm	ft in	2,720	8' 11"	2,720	8' 11"
Y	mm	ft in	3,630	11' 11"	3,630	11' 11"
Z	mm	ft in	4,470	14' 8"	4,890	16' 1"
a ₂	mm	ft in	8,480	27' 10"	8,480	27' 10"
a ₃	mm	ft in	4,610	15' 1"	4,610	15' 1"
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	lb/yd ³
Earth	110-115	1.4-1.6	2,360 - 2,697
Clay	110-120	1.4-1.6	2,360 - 2,697
Sand	100-110	1.6-1.9	2,360 - 2,697
Gravel	100-110	1.7-1.9	2,697 - 3,203
Rock	75-100	1.5-1.9	2,528 - 3,203

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	in	mm	in	kg	lb	kg	lb	kg	lb
35/65 R33 Michelin XMine D2** L5	+20	+0.8	-20	-0.8	-220	-485	-220	-485	-200	-440
35/65 R33 Bridgestone VSDL IDU** L5	-20	-0.8	-10	-0.4	-240	-530	-220	-485	-200	-440
35/65 R33 Bridgestone VSNT** L4	0	0	-20	-0.8	-800	-1,765	-520	-1,145	-470	-1,035
36/65 R33 Michelin XTXL*** L4	0	0	-40	-1.6	-1 350	-2,975	-880	-1,940	-790	-1,740

Specifications

L350H													
Standard boom		REHANDLING ⁽¹⁾						GENERAL PURPOSE ⁽²⁾					
													
		WLA86884		WLA86885		WLA86896		WLA87151		WLA87152		WLA87153	
		8.8 m ³ (11.5 yd ³) STE P BOE		9.4 m ³ (12.3 yd ³) STE P BOE		10.7 m ³ (14.0 yd ³) STE P BOE		7.3 m ³ (9.5 yd ³) STE P BOE		7.7 m ³ (10.1 yd ³) STE P T SEG		8.4 m ³ (11.0 yd ³) STE P BOE	
Volume, heaped ISO/SAE	m ³ yd ³	8.8	11.5	9.4	12.3	10.7	14.0	7.3	9.5	7.7	10.1	8.4	11.0
Volume at 110% fill factor	m ³ yd ³	9.7	12.7	10.3	13.5	11.8	15.4	8.0	10.5	8.5	11.1	9.2	12.1
Static tipping load, straight	kg lb	43,190	95,240	42,840	94,450	42,250	93,170	39,720	87,580	39,290	86,640	39,170	86,370
at 35° turn	kg lb	38,350	84,550	38,000	83,790	37,440	82,560	35,420	78,110	35,000	77,180	34,890	76,940
at full turn	kg lb	37,790	83,330	37,450	82,570	36,890	81,350	34,930	77,030	34,510	76,100	34,410	75,870
Breakout force	kN lbf	404	90,920	391	87,820	363	81,650	464	104,300	439	98,700	429	96,530
A Overall length	mm ft in	11,100	36' 5"	11,170	36' 8"	11,330	37' 2"	10,840	35' 7"	11,220	36' 10"	10,980	36' 0"
E Digging depth, max dump (S)	mm ft in	1,710	5' 7"	1,760	5' 9"	1,910	6' 3"	1,470	4' 10"	1,800	5' 11"	1,590	5' 3"
H ⁽⁴⁾ Dump clearance	mm ft in	3,690	12' 1"	3,650	12' 0"	3,530	11' 7"	3,880	12' 9"	3,620	11' 10"	3,780	12' 5"
L Overall operating height	mm ft in	7,300	23' 11"	7,390	24' 3"	7,540	24' 9"	7,120	23' 4"	7,180	23' 7"	7,290	23' 11"
M ⁽⁴⁾ Dump reach	mm ft in	1,830	6' 0"	1,880	6' 2"	1,980	6' 6"	1,650	5' 5"	1,890	6' 3"	1,750	5' 9"
N ⁽⁴⁾ Reach at 45° discharge, pos. G	mm ft in	2,700	8' 10"	2,740	9' 0"	2,810	9' 3"	2,580	8' 6"	2,750	9' 0"	2,650	8' 8"
V Bucket width	mm ft in	3,970	156"	3,970	156"	3,970	156"	3,970	156"	3,970	156"	3,970	156"
a ₁ Outer clearance circle (diameter)	mm ft in	18,350	60' 2"	18,390	60' 4"	18,480	60' 7"	18,210	59' 9"	18,420	60' 5"	18,290	60' 0"
Operating weight without load	kg lb	53,320	117,570	53,470	117,910	53,790	118,610	51,160	112,800	51,420	113,390	51,450	113,450

(1) Calculated with 35/65 R33 Bridgestone VSNT L4 tires and Rehandling counterweight.

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

(3) Calculated with 35/65 R33 Bridgestone VSNT L4 tires, and Long Boom counterweight,

(4) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle.

Note: This only applies to genuine Volvo attachments.

L350H									
Standard boom		ROCK ⁽²⁾				LIGHT MATERIAL ⁽³⁾			
									
		WLA87493		WLA87491		WLA83019			
		6.9 m ³ (9.0 yd ³) STE P T SEG		7.7 m ³ (10.1 yd ³) SPN P T SEG		12.7 m ³ (16.6 yd ³) LM P BOE			
Volume, heaped ISO/SAE	m ³ yd ³	6.9	9.0	7.7	10.1	12.7	16.6		
Volume at 110% fill factor	m ³ yd ³	7.6	9.9	8.5	11.1	14.0	18.3		
Static tipping load, straight	kg lb	39,530	87,160	38,160	84,150	37,570	82,850		
at 35° turn	kg lb	35,240	77,710	33,910	74,760	33,360	73,570		
at full turn	kg lb	34,750	76,630	33,420	73,690	32,890	72,510		
Breakout force	kN lbf	454	102,180	347	78,120	388	87,120		
A Overall length	mm ft in	11,150	36' 7"	11,690	38' 4"	11,170	36' 8"		
E Digging depth, max dump (S)	mm ft in	1,740	5' 9"	2,210	7' 3"	1,780	5' 10"		
H ⁽⁴⁾ Dump clearance	mm ft in	3,660	12' 0"	3,310	10' 10"	3,630	11' 11"		
L Overall operating height	mm ft in	7,310	24' 0"	7,410	24' 4"	7,670	25' 2"		
M ⁽⁴⁾ Dump reach	mm ft in	1,850	6' 1"	2,250	7' 5"	1,890	6' 3"		
N ⁽⁴⁾ Reach at 45° discharge, pos. G	mm ft in	2,720	8' 11"	2,990	9' 10"	2,700	8' 10"		
V Bucket width	mm ft in	3,970	156"	4,110	161"	4,500	177"		
a ₁ Outer clearance circle (diameter)	mm ft in	18,380	60' 3"	18,800	61' 8"	18,860	61' 11"		
Operating weight without load	kg lb	51,350	113,220	52,120	114,910	51,520	113,610		

(1) Calculated with 35/65 R33 Bridgestone VSNT L4 tires and Rehandling counterweight.

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

(3) Calculated with 35/65 R33 Bridgestone VSNT L4 tires, and Long Boom counterweight,

(4) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle.

Note: This only applies to genuine Volvo attachments.

L350H

Long boom			REHANDLING ⁽¹⁾						GENERAL PURPOSE ⁽²⁾					
														
			WLA86884		WLA86885		WLA86896		WLA87151		WLA87152		WLA87153	
			8.8 m³ (11.5 yd³) STE P BOE		9.4 m³ (12.3 yd³) STE P BOE		10.7 m³ (14.0 yd³) STE P BOE		7.3 m³ (9.5 yd³) STE P BOE		7.7 m³ (10.1 yd³) STE P T SEG		8.4 m³ (11.0 yd³) STE P BOE	
Volume, heaped ISO/SAE	m³	yd³	8.8	11.5	9.4	12.3	10.7	14.0	7.3	9.5	7.7	10.1	8.4	11.0
Volume at 110% fill factor	m³	yd³	9.7	12.7	10.3	13.5	11.8	15.4	8.0	10.5	8.5	11.1	9.2	12.1
Static tipping load, straight	kg	lb	37,640	82,990	37,370	82,390	36,800	81,130	37,360	82,390	36,960	81,500	36,860	81,270
at 35° turn	kg	lb	33,300	73,430	33,040	72,850	32,490	71,630	33,190	73,190	32,790	72,310	32,700	72,110
at full turn	kg	lb	32,810	72,340	32,550	71,760	32,000	70,550	32,720	72,140	32,320	71,260	32,230	71,060
Breakout force	kN	lbf	367	82,580	354	79,650	330	74,220	421	94,610	399	89,670	390	87,590
A Overall length	mm	ft in	11,520	37' 10"	11,590	38' 0"	11,750	38' 7"	11,250	36' 11"	11,630	38' 2"	11,400	37' 5"
E Digging depth, max dump (S)	mm	ft in	1,770	5' 10"	1,840	6' 1"	1,980	6' 6"	1,530	5' 0"	1,870	6' 1"	1,650	5' 5"
H ⁽⁴⁾ Dump clearance	mm	ft in	4,160	13' 8"	4,110	13' 6"	4,000	13' 2"	4,350	14' 3"	4,090	13' 5"	4,250	13' 11"
L Overall operating height	mm	ft in	7,770	25' 6"	7,850	25' 9"	8,010	26' 3"	7,590	24' 11"	7,650	25' 1"	7,760	25' 5"
M ⁽⁴⁾ Dump reach	mm	ft in	1,830	6' 0"	1,880	6' 2"	1,990	6' 6"	1,660	5' 5"	1,900	6' 3"	1,760	5' 9"
N ⁽⁴⁾ Reach at 45° discharge, pos. G	mm	ft in	3,060	10' 0"	3,090	10' 2"	3,160	10' 5"	2,930	9' 7"	3,110	10' 2"	3,000	9' 10"
V Bucket width	mm	ft in	3,970	156"	3,970	156"	3,970	156"	3,970	156"	3,970	156"	3,970	156"
a Outer clearance circle (diameter)	mm	ft in	18,690	61' 4"	18,740	61' 6"	18,830	61' 9"	18,550	60' 10"	18,770	61' 7"	18,630	61' 1"
Operating weight without load	kg	lb	53,560	118,110	53,720	118,440	54,040	119,150	52,790	116,400	53,060	116,990	53,080	117,050

(1) Calculated with 35/65 R33 Bridgestone VSNT L4 tires and Rehandling counterweight.

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

(3) Calculated with 35/65 R33 Bridgestone VSNT L4 tires, and Long Boom counterweight.

(4) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle.

Note: This only applies to genuine Volvo attachments.

L350H

Long boom			ROCK ⁽²⁾				LIGHT MATERIAL ⁽³⁾	
								
			WLA87493		WLA87491		WLA83019	
			6.9 m ³ (9.0 yd ³) STE PT SEG		7.7 m ³ (10.1 yd ³) SPN PT SEG		12.7 m ³ (16.6 yd ³) LM P BOE	
Volume, heaped ISO/SAE	m ³	yd ³	6.9	9.0	7.7	10.1	12.7	16.6
Volume at 110% fill factor	m ³	yd ³	7.6	9.9	8.5	11.1	14.0	18.3
Static tipping load, straight	kg	lb	37,180	81,970	35,900	79,150	35,360	77,970
at 35° turn	kg	lb	33,010	72,790	31,760	70,020	31,260	68,940
at full turn	kg	lb	32,540	71,750	31,280	68,980	30,800	67,910
Breakout force	kN	lbf	413	92,810	316	70,990	352	79,030
A Overall length	mm	ft in	11,570	37' 11"	12,110	39' 9"	11,590	38' 0"
E Digging depth, max dump (S)	mm	ft in	1,810	5' 11"	2,300	7' 7"	1,850	6' 1"
H ⁽⁴⁾ Dump clearance	mm	ft in	4,130	13' 7"	3,780	12' 5"	4,120	13' 6"
L Overall operating height	mm	ft in	7,780	25' 6"	7,880	25' 10"	8,140	26' 8"
M ⁽⁴⁾ Dump reach	mm	ft in	1,860	6' 1"	2,260	7' 5"	1,920	6' 4"
N ⁽⁴⁾ Reach at 45° discharge, pos. G	mm	ft in	3,070	10' 1"	3,360	11' 0"	3,050	10' 0"
V Bucket width	mm	ft in	3,970	156"	4,110	161"	4,500	177"
a ₁ Outer clearance circle (diameter)	mm	ft in	18,720	61' 5"	19,160	62' 10"	19,200	63' 0"
Operating weight without load	kg	lb	52,980	116,820	53,750	118,520	53,160	117,210

(1) Calculated with 35/65 R33 Bridgestone VSNT L4 tires and Rehandling counterweight.

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

(3) Calculated with 35/65 R33 Bridgestone VSNT L4 tires, and Long Boom counterweight.

(4) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle.

Note: This only applies to genuine Volvo attachments.

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 (12.4 mph)
Speed limiter, 30 km/h (18.6 mph)

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 (Tier4f)
Reflecting stickers (stripes), machine contour Cab
Option for machines without dinitrol
CareTrack
Tires and Rims
35/65 R33 (875/65 R33):
- L4
- L5
Rims, 33-28.00/3,5:
- Five piece, heavy-duty

OPTIONAL EQUIPMENT
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





V O L V O