

Volvo Wheel Loaders 50.0-56.3 t 540 hp

L350H



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.







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.

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.

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

Doubled service intervals

Both the engine service interval and axle oil change interval have been doubled, to 1000-hours and 4000-hours respectively. This reduces the corresponding service time, as well as cutting oil and filter requirements by half.

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 1000-hour engine service interval and 4000-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



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

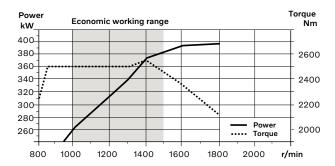


Volvo L350H in detail

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 | 1800 |
| ECE R120 net | kW | 397 |
| | hp | 540 |
| ISO 9249, SAE J1349 net | kW | 395 |
| | hp | 537 |
| 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 | 1000 - 1500 |
| Displacement | 1 | 16.1 |



Electrical System

Contronic electrical system with central warning light and buzzer for following functions: - Serious engine malfunction - Low steering system

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 crankcase pressure - Low transmission oil pressure - High crankcase pressure - Low transmission oil pressure - Foregone dealthing 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 | Α | 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 | 0 | 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 | I | 540 |
|--------------------|-----|-----|
| DEF/AdBlue® tank | I | 53 |
| Engine coolant | I | 73 |
| Hydraulic oil tank | - 1 | 365 |
| Transmission oil | I | 134 |
| Engine oil | - 1 | 55 |
| Axle oil front | 1 | 140 |
| Axle oil rear | I | 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 liftning 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 | 1800 |
| 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 | 1800 |
| Working pressure maximum, pump 3 for brake- and cooling fan system | MPa | 26 |
| Flow | l/min | 84 |
| at | MPa | 10 |
| engine speed | r/min | 1800 |
| 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 ISC | 0 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 2 6 4 |
| 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.

disengagement during braking can be preselected in Contronic. **Parking brake:** 3 calliper (dry) spring applied, electro hydraulically released via a swich 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 | 1 | 9 x 1.0 |
| Accumulators for parking brake | 1 | 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 | m³/min | 9 |
|------------------|--------|----|
| Heating capacity | kW | 16 |
| Air conditioning | kW | 8 |

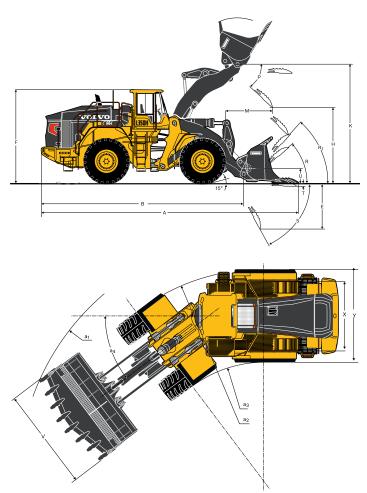
Sound Level

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

| L_{pA} | dB | 72 |
|--|------------------|-------|
| External sound level according to ISO 6395/S | SAE J2104 and EU | Noise |
| Directive 2000/14/EC | | |

 L_{WA} dB 111

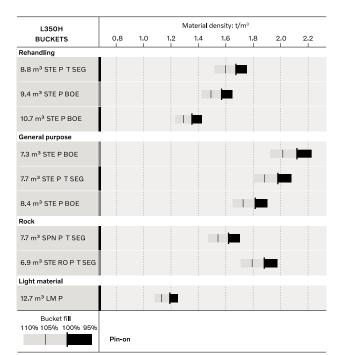
Specifications



| | | Standard boom | Long boom |
|------------------|------------|---------------|-----------|
| В | 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 |
| < | mm | 5 340 | 5 810 |
| 0 | o | 60 | 58 |
| P _{max} | o | 46 | 45 |
| R | o | 44 | 45 |
| R ₁ * | o | 48 | 50 |
| 5 | o | 66 | 72 |
| Г | mm | 130 | 130 |
| U | mm | 620 | 750 |
| × | mm | 3 200 | 3 200 |
| Y | mm | 4 100 | 4 100 |
| Z | mm | 4 470 | 4 890 |
| 32 | mm | 8 480 | 8 480 |
| 33 | mm | 4 380 | 4 380 |
| 34 | <u>+</u> ° | 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/m³ |
|----------|----------------|------------------------|
| 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 | | | | | | | | | |
|-------------------------------------|------------------|---------------------|------------------|--------------------------------|-----------|--|--|--|--|
| | NA/Edib access | Width area Craved | 0 | Static tipping load, full turn | | | | | |
| | Width over tires | Ground clearance | Operating weight | 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

| L35 | он | | | | | | | | | | |
|----------------|------------------------------------|----|-------------------------|------------------------|-------------------------------------|------------------------------|--------------------------|------------------------|--------------------------|-------------------------|--------------------------------|
| Standard boom | | | Rehandling ¹ | | | General purpose ² | | | Rock ² | | Light material ³ |
| | | | | | | | | | | | |
| | | | 8.8 m³ STE P BOE | 9.4 m³ STE P BOE | 10.7 m ³ STE P BOE | 7.3 m³ STE P BOE | 7.7 m³ STE P T SEG | 8.4 m³ STE P BOE | 6.9 m³ STE P T SEG | 7.7 m³ SPN PT SEG | 12.7 m ³ LM P |
| Vol | ume heaped ISO/SAE | m³ | 8.8 | 9.4 | 10.7 | 7.3 | 7.7 | 8.4 | 6.9 | 7.7 | 12.7 |
| Vol | ume at 110% fill factor | m³ | 9.7 | 10.3 | 11.8 | 8.0 | 8.5 | 9.2 | 7.6 | 8.5 | 14.0 |
| Sta | tic tipping load, straight machine | kg | 43 120 | 42 810 | 42 180 | 39 640 | 38 970 | 39 090 | 39 210 | 37 840 | 37 500 |
| Sta | tic tipping load at 35°. Turn | kg | 38 280 | 37 990 | 37 370 | 35 350 | 34 690 | 34 820 | 34 930 | 33 580 | 33 290 |
| Sta | tic tipping load at full turn | kg | 37 720 | 37 440 | 36 830 | 34 860 | 34 200 | 34 340 | 34 440 | 33 100 | 32 820 |
| Bre | eakout force | kN | 404 | 390 | 363 | 464 | 448 | 429 | 465 | 353 | 388 |
| Α | 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 | 1840 | 1590 | 1790 | 2 260 | 1780 |
| 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 | 1830 | 1880 | 1980 | 1650 | 1930 | 1 750 | 1880 | 2 280 | 1890 |
| 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 |
| ٧ | 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 |

53 220 53 370 53 690 51 060 51 500 51 350 51 420 52 190 51 420

Operating weight without load

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



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

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

 $^{^{\}rm 3}$ 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.

| ang boom | | _ | - | | | | | Rock ² | | material ¹ |
|---|----|------------------------|------------------------|-------------------------------------|------------------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|-----------------------------|
| Long boom | | | | | | | | | | |
| | | 8.8 m³ STE P BOE | 9.4 m³ STE P BOE | 10.7 m ³ STE P BOE | 7.3 m ³ STE P BOE | 7.7 m³ STE P T SEG | 8.4 m ³ STE P BOE | 6.9 m³ STE P T SEG | 7.7 m³ SPN P T SEG | 12.7 m ³ LM P |
| olume heaped ISO/SAE | m³ | 8.8 | 9.4 | 10.7 | 7.3 | 7.7 | 8.4 | 6.9 | 7.7 | 12.7 |
| olume at 110% fill factor | m³ | 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 |
| itatic 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 |
| Overall length | mm | 11 520 | 11 600 | 11 750 | 11 250 | 11 680 | 11 400 | 11 620 | 12 150 | 11 590 |
| Digging depth, max dump (S) | mm | 1780 | 1840 | 1980 | 1 530 | 1 910 | 1 650 | 1850 | 2 350 | 1850 |
| 1 ³ Dump clearance | mm | 4 160 | 4 110 | 4 000 | 4 350 | 4 060 | 4 250 | 4 100 | 3 750 | 4 120 |
| Overall operating height | mm | 7 770 | 7 850 | 8 010 | 7 590 | 7 650 | 7 760 | 7 780 | 7 880 | 8 140 |
| Л ³ Dump reach | mm | 1830 | 1880 | 1990 | 1 660 | 1940 | 1760 | 1890 | 2 290 | 1920 |
| 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 |
| Bucket width | mm | 3 970 | 3 970 | 3 970 | 3 970 | 3 970 | 3 970 | 3 970 | 4 110 | 4 500 |
| Outer clearance circle (diameter) | mm | 18 690 | 18 740 | 18 830 | 18 550 | 18 790 | 18 630 | 18 750 | 19 190 | 19 200 |
| perating 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

rake 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 $\ensuremath{\mathsf{CDC}}$

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



Fire Suppression System

Limited slip differentials



Fast fill fueling system



Long boom



Radar Detect System





V O L V O