

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**

The axle oil interval has been doubled to 4 000-hours, reducing 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 4 000-hour axle oil change interval — made possible by the external axle oil cooler with filtration. The subsequent 50% reduction in related service time ensures your machine stays on site, working and earning, for longer — while also reducing oil and filters requirements.



## **Built to last**

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



## **Tire Pressure Monitoring System**

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



## Get connected, boost uptime

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





## DESIGNED FOR EASY SERVICING

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

# Better, faster, stronger

## **Operator in focus**

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

## **Load Assist**

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

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



## 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



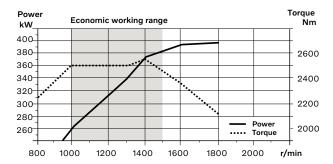
## Volvo L350H in detail

## **Engine**

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	1700 -1800
ECE R120 net	kW	397
	hp	540
ISO 9249, SAE J1349 net	kW	395
	hp	537
Max. torque at	r/min	1 400
ECE R120 net	Nm	2 550
ISO 9249, SAE J1349 net	Nm	2 547
Economic working range	r/min	1000 - 1500
Displacement	1	161



## **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	1000
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	۰	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 110 Cylinder bore mm Rod diameter mm 70 595 mm Working pressure MPa 27 l/min 370

±°

37

## Maximum articulation 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	1	540
Engine coolant	1	73
Hydraulic oil tank	1	365
Transmission oil	1	134
Engine oil	1	55
Axle oil front	1	140
Axle oil rear	1	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	o 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.

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

### Brake system

Service brake: Service brakes are dual circuit all-hydraulic multidisc brakes with nitrogen-charged accumulators and automatic slack adjusters. Outboard-mounted oil-cooled, wet disc brakes at each wheel. Transmission

disengagement during braking can be preselected in Contronic. **Parking brake:** 3 calliper (dry) spring applied, electro hydraulically released via a 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. 

Emergency exit: Use emergency hammer to break window

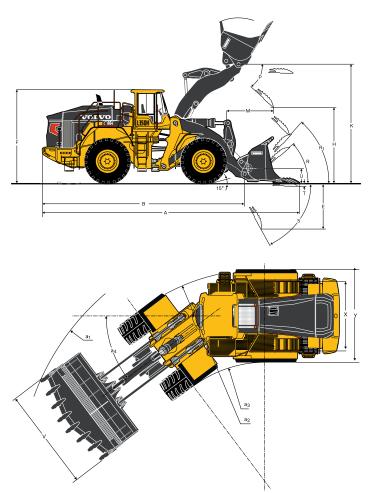
3 7 7		
Ventilation	m³/min	9
Heating capacity	kW	16
Air conditioning	kW	8

## Sound Level

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

∟pA	uБ	12
External sound level according to ISO 6395/SAE J	12104	
$L_{WA}$	dB	111

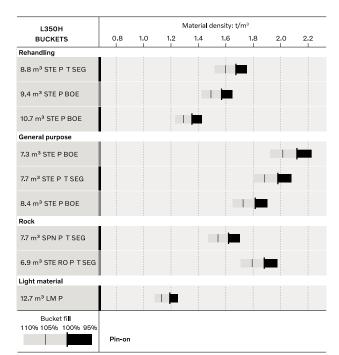
## **Specifications**



		Standard boom	Long boom
В	mm	9 130	9 560
С	mm	4 300	4 300
D	mm	550	550
F	mm	4 180	4 180
F <sub>1</sub>	mm	4 000	4 000
F <sub>2</sub>	mm	3 460	3 460
G	mm	2 135	2 134
J	mm	4 920	5 390
К	mm	5 340	5 810
0	۰	60	58
P <sub>max</sub>	0	46	45
R	۰	44	45
R <sub>1</sub> *	0	48	50
S	۰	66	72
Т	mm	130	130
U	mm	620	750
X	mm	3 200	3 200
Υ	mm	4 100	4 100
Z	mm	4 470	4 890
a <sub>2</sub>	mm	8 480	8 480
a <sub>3</sub>	mm	4 380	4 380
a <sub>4</sub>	±°	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 <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					
	NAC della consu	C	Operating weight	Static tipping load, full turn	
	Width over tires	Ground clearance		Standard boom	Long boom
	mm	mm	kg	kg	kg
35/65 R33 Michelin XMine D2** L5	+20	-20	-220	-220	-200
35/65 R33 Bridgestone VSDL IDU** L5	-20	-10	-240	-220	-200
35/65 R33 Bridgestone VSNT** L4	0	-20	-800	-520	-470
36/65 R33 Michelin XTXL*** L4	0	-40	-1 350	-880	-790

## **Specifications**

L350H											
Standard boom			Rehandling <sup>1</sup>			General purpose <sup>2</sup>			Rock <sup>2</sup>		Light material <sup>3</sup>
			8.8 m³ STE P BOE	9.4 m³ STE P BOE	10.7 m <sup>3</sup> STE P BOE	7.3 m <sup>3</sup> STE P BOE	7.7 m³ STE P T SEG	8.4 m <sup>3</sup> STE P BOE	6.9 m³ STE P T SEG	7.7 m³ SPN P T SEG	12.7 m <sup>3</sup> LM P
Volume heaped ISO/SAE		m³	8.8	9.4	10.7	7.3	7.7	8.4	6.9	7.7	12.7
Volume 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	43 120	42 810	42 180	39 640	38 970	39 090	39 210	37 840	37 500
Static tipping load at 35°. Turn		kg	38 280	37 990	37 370	35 350	34 690	34 820	34 930	33 580	33 290
Static tipping load at full turn		kg	37 720	37 440	36 830	34 860	34 200	34 340	34 440	33 100	32 820
Breakout force		kN	404	390	363	464	448	429	465	353	388
Α	Overall length	mm	11 100	11 180	11 330	10 840	11 270	10 980	11 200	11 740	11 170
Ε	Digging depth, max dump (S)	mm	1 710	1 770	1 910	1 470	1840	1590	1790	2 260	1780
H <sup>4</sup>	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

1880

2 740

3 970

18 390

53 370

1980

2 810

3 970

18 480

53 690

1650

2 580

3 970

18 210

51 060

1930

2 770

3 970

18 450

51 500

1750

2 650

3 970

18 290

1880

2 740

3 970

18 400

51 420

2 280

3 010

4 110

18 830

1890

2 700

4 500

18 860

51 420

M<sup>4</sup> Dump reach

Bucket width

N<sup>4</sup> Reach at 45° discharge, Pos. G

a<sub>1</sub> Outer clearance circle (diameter)

Operating weight without load

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

mm

mm

mm

mm

kg

1830

2 700

3 970

18 350

53 220



 $<sup>^1</sup>$  Calculated with 875/65 R33 Bridgestone VSNT\*\* L4 tires and Rehandling counterweight.

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

 $<sup>^{3}</sup>$  Calculated with 875/65 R33 Bridgestone VSNT\*\* L4 tires.

<sup>&</sup>lt;sup>4</sup> Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge.

Long boom			Rehandling <sup>1</sup>			General purpose <sup>2</sup>			Rock <sup>2</sup>	
			9.4 m³ STE P BOE	10.7 m <sup>3</sup> STE P BOE	7.3 m <sup>3</sup> STE P BOE	7.7 m <sup>3</sup> STE P T SEG	8.4 m³ STE P BOE	6.9 m³ STE P T SEG	7.7 m³ SPN P T SEG	12.7 m <sup>3</sup> LM P
Volume heaped ISO/SAE	m³	8.8	9.4	10.7	7.3	7.7	8.4	6.9	7.7	12.7
Volume at 110% fill factor		9.7	10.3	11.8	8.0	8.5	9.2	7.6	8.5	14.0
Static tipping load, straight machine		35 500	35 230	34 670	37 290	36 650	36 790	36 870	35 580	35 290
Static tipping load at 35°. Turn		31 410	31 150	30 610	33 130	32 490	32 640	32 710	31 450	31 200
Static tipping load at full turn		30 940	30 690	30 150	32 660	32 020	32 170	32 240	30 980	30 740
Breakout force		367	354	330	421	407	390	422	321	352
A Overall length	mm	11 520	11 600	11 750	11 250	11 680	11 400	11 620	12 150	11 590
E Digging depth, max dump (S)	mm	1780	1840	1980	1 530	1 910	1 650	1850	2 350	1850
H <sup>3</sup> Dump clearance	mm	4 160	4 110	4 000	4 350	4 060	4 250	4 100	3 750	4 120
L Overall operating height	mm	7 770	7 850	8 010	7 590	7 650	7 760	7 780	7 880	8 140
M³ Dump reach	mm	1830	1880	1990	1 660	1940	1760	1890	2 290	1920
N³ Reach at 45° discharge, Pos. G	mm	3 060	3 090	3 160	2 930	3 130	3 000	3 100	3 380	3 050
V Bucket width	mm	3 970	3 970	3 970	3 970	3 970	3 970	3 970	4 110	4 500
a <sub>1</sub> Outer clearance circle (diameter)	mm	18 690	18 740	18 830	18 550	18 790	18 630	18 750	19 190	19 200
Operating weight without load kg		52 430	52 580	52 900	52 690	53 130	52 980	53 050	53 820	53 060

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

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

<sup>3</sup> 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):

- L5

Rims, 33-28.00/3,5:

- Five piece, heavy-duty

## Attachments

## Buckets (pin-on):

- Rock, straight edge
- Rock, spade nose
- Rock, side-dump, spade nose
- General purpose, straight edge
- Rehandling bucket, straight edge
- Light material, straight edge

## Wear parts:

- Adapters for teeth, weld-on
- Teeth
- Segments, bolt-on
- Edge savers, bolt-on (reversible)

## Block handling equipment (hook-on):

- Rock bucket, spade nose
- Stone fork
- Breaker tine
- Rake

## **SELECTION OF VOLVO OPTIONAL EQUIPMENT**

## Boom Suspension System, gear or speed selected



Limited slip differentials



Long boom



Fire Suppression System



Fast fill fueling system



Radar Detect System



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

## V O L V O