

V O L V O



Volvo Wheel Loaders 27.0-28.4 t / 59,525-62,610 lb 335 hp

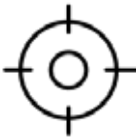
# L180H

Volvo Construction Equipment

# L180H



# Strong and smart machines



## Up to 15% greater fuel efficiency

- Rimpull control
- New generation OptiShift
- Reverse By Braking
- Eco pedal
- Dry P-brake



## Boost your productivity by up to 10%

- New load sensing hydraulics
- New transmission and gear ratio
- Bucket leveling function
- Load Assist, powered by Volvo Co-Pilot
- Choice of single or multi levers



## Built with the operator in mind

- Adjustable seat
- Choice of three hydraulic modes
- Comfort Drive Control (option)
- Radar detect system (option)
- Remote-control door opener (option)
- Collision Mitigation System (option)



## Fully loaded

- Unique Torque Parallel linkage
- Block handling
- Slag handling
- Log handling
- Rehandling – up to 5% greater productivity



## Here to support you

- Genuine Volvo Parts
- Operator training
- ActiveCare



## Maximize your uptime

- Lifetime Frame and Structure Warranty
- 1,000hr engine oil change interval
- Quicker hydraulic oil fill thanks to new mounted nipple
- Tilting cab, electronically-operated engine hood
- Brake wear indicators
- Outboard mounted brakes
- Replaceable breather filters

# Volvo L180H in detail

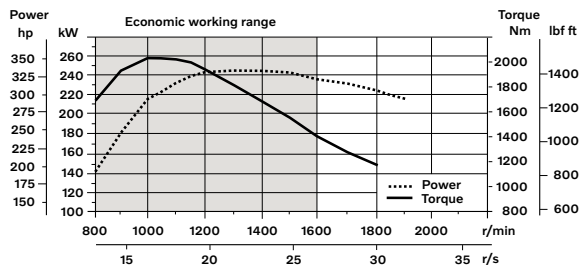
## Engine

V-ACT Stage IV/Tier 4F 13 liter, 6-cylinder straight 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. The throttle applications is transmitted electrically from the throttle pedal or the optional hand throttle.

**Air Cleaning:** 2 stages.

**Cooling system:** Hydrostatic, electronically controlled fan and intercooler of the air-to-air type.

Engine	Volvo	D13J
Max. power at	r/min (r/s)	1,300 - 1,400 (21.7 - 23.3)
ECE R120 net	kW (hp)	251 (337)
ISO 9249, SAE J1349 net	kW (hp)	250 (335)
Max. torque at	r/min (r/s)	1,000 (167)
ECE R120 net	Nm (ft lbf)	2,071 (1,527)
ISO 9249, SAE J1349 net	Nm (ft lbf)	2,065 (1,523)
Economic working range	r/min (r/s)	800 - 1,600 (13.3 - 26.7)
Displacement	l (in <sup>3</sup> )	128 (781)



## Drivetrain

**Torque converter:** Single-stage.

**Transmission:** Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears with Pulse Width Modulation (PWM) valve. Torque converter with lockup.

**Transmission:** Volvo Automatic Power Shift (APS) with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO. Also equipped with Rimpull control to avoid wheel spin and optimize bucket filling.

**Axles:** Volvo fully floating drive shafts with planetary hub reductions and nodular iron axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle. Optional: Limslip rear.

Transmission	Volvo	HTL 223
Torque multiplication, stall ratio		2.09:1
<b>Maximum speed, forward/reverse</b>		
1st gear	km/h (mi/h)	6.1 (3.8)
2nd gear	km/h (mi/h)	12.6 (7.8)
3rd gear	km/h (mi/h)	23.5 (14.6)
4th gear	km/h (mi/h)	38 (23.6)
Measured with tires		26.5 R25 L3
Front axle/rear axle		Volvo/AWB 40B/40B
Rear axle oscillation	± °	15
Ground clearance	mm (in)	610 (24)
at oscillation	°	15

## Electrical system

**Central warning system:** Contronic electrical system with central warning light and buzzer for following functions: - Serious engine fault - Low steering system pressure - Over speed warning engine - Interruption in communication (computer fault) Central warning light and buzzer with the 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 crank case pressure - Low transmission oil pressure - High transmission oil temperature - Low brake pressure - Engaged parking brake - Fault on brake charging - 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

## Brake system

**Service brake:** Volvo dual-circuit system with nitrogen charged accumulators. Outboard mounted hydraulically operated, fully sealed oil circulation-cooled wet disc brakes. The operator can select automatic disengagement of the transmission when braking using Contronic.

**Parking brake:** Dry disc brake. Applied by spring force, electro-hydraulic release with a switch on the instrument panel.

**Secondary brake:** Dual brake circuits with rechargeable accumulators. One circuit or the parking brake fulfills all safety requirements.

**Standard:** The brake system complies with the requirements of ISO 3450.

Number of brake discs per wheel front/rear		1/1
Accumulators	l (gal)	2 x 1.0 + 1 x 0.5 (2 x 0.26 + 1 x 0.13)

## 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 11 speeds. 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 cab 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), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 ("Operator Restraint System").

Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO<sub>2</sub>-eq

**Emergency exit:** Use emergency hammer to break window

Ventilation	m <sup>3</sup> /min (yd <sup>3</sup> /min)	9 (118)
Heating capacity	kW	16
Air conditioning (optional)	kW	75

## Sound Level

Sound pressure level in cab according to ISO 6396

L <sub>pA</sub>	dB	70
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L <sub>WA</sub>	dB	108

## Hydraulic system

**System supply:** Two load-sensing axial piston pumps with variable displacement. The steering function always has priority.

**Valves:** Double-acting 2-spool valve. The main valve is electro operated.

**Lift function:** The valve has four positions; raise, hold, lower and floating position. Inductive/magnetic automatic boom kickout can be switched on and off and is adjustable to any position between maximum reach and full lifting height.

**Tilt function:** The valve has three functions including rollback, hold and dump. Inductive/magnetic automatic tilt can be adjusted to the desired bucket angle.

**Cylinders:** Double-acting cylinders for all functions.

**Filter:** Full flow filtration through 10 micron (absolute) filter cartridge.

Working pressure maximum, pump 1 for working hydraulic system	MPa (bar)	29 (290)
Flow	l/min (gal/min)	217 (573)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (317)
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa (bar)	31 (310)
Flow	l/min (gal/min)	202 (534)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (317)
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa (bar)	25 (250)
Flow	l/min (gal/min)	83 (219)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (317)
Pilot system, working pressure	MPa (bar)	3.5 (35)
<b>Cycle times</b>		
Lift	s	64
Tilt	s	18
Lower, empty	s	33
Total cycle time	s	115

## Steering System

**Steering system:** Load-sensing hydrostatic articulated steering.

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

**Steering cylinders:** Two double-acting cylinders.

Steering cylinders		2
Cylinder bore	mm (in)	100 (39)
Rod diameter	mm (in)	60 (24)
Stroke	mm (in)	525 (207)
Working pressure	MPa (bar)	21 (210)
Maximum flow	l/min (gal/min)	202 (534)
Maximum articulation	± °	37

## Service Refill

**Service accessibility:** Large, easy-to-open hood covering whole engine department, electrically operated. Fluid filters and component breather air 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.

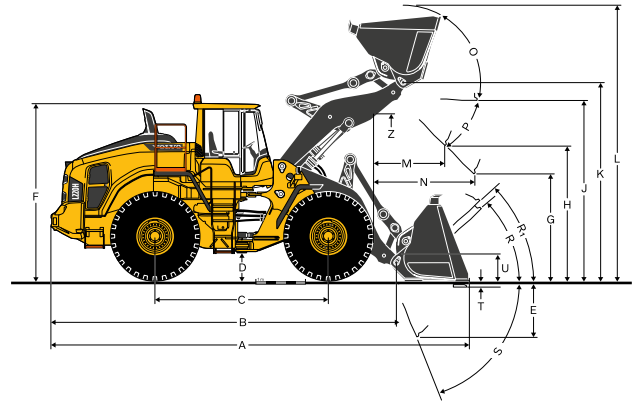
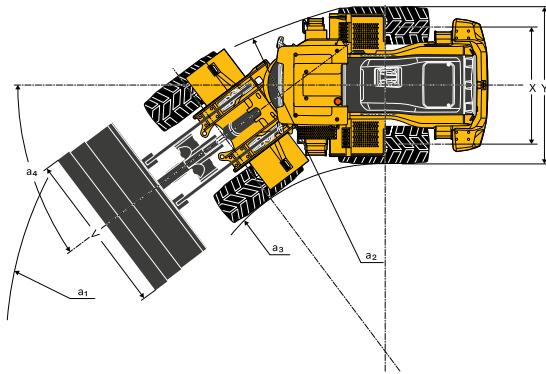
Fuel tank	l (gal)	366 (967)
DEF/AdBlue® tank	l (gal)	31 (82)
Engine coolant	l (gal)	55 (145)
Hydraulic oil tank	l (gal)	156 (412)
Transmission oil	l (gal)	48 (127)
Engine oil	l (gal)	50 (132)
Axle oil front	l (gal)	46 (122)
Axle oil rear	l (gal)	55 (145)

## Lift Arm System

Torque Parallel linkage (TP-linkage) with high breakout torque and parallel action throughout the entire lifting range.

Lift cylinders		2
Cylinder bore	mm (in)	180 (71)
Piston rod diameter	mm (in)	90 (35)
Stroke	mm (in)	788 (31)
Tilt cylinder		1
Cylinder bore	mm (in)	240 (94)
Piston rod diameter	mm (in)	120 (47)
Stroke	mm (in)	480 (189)

# Specifications



## DIMENSIONS

Tires: 26.5 R25 L3			L180H			
			Standard boom		Long boom	
B	mm	ft in	7,190	23'7"	7,620	25'0"
C	mm	ft in	3,550	11'8"	3,550	11'8"
D	mm	ft in	480	1'7"	490	1'7"
F	mm	ft in	3,580	11'9"	3,590	11'9"
G	mm	ft in	2,134	7'0"	2,133	7'0"
J	mm	ft in	4,060	13'4"	4,560	14'11"
K	mm	ft in	4,470	14'8"	4,970	16'4"
O		°		57		55
P <sub>max</sub>		°		49		49
R		°		45		48
R <sub>1</sub> *		°		48		53
S		°		71		63
T	mm	ft in	131	0'5.1"	207	0'8.2"
U	mm	ft in	570	1'10"	660	2'2"
X	mm	ft in	2,280	7'6"	2,280	7'6"
Y	mm	ft in	2,960	9'9"	2,960	9'9"
Z	mm	ft in	3,810	12'6"	4,180	13'8"
a <sub>2</sub>	mm	ft in	6,790	22'3"	6,790	22'3"
a <sub>3</sub>	mm	ft in	3,820	12'7"	3,820	12'7"
a <sub>4</sub>		±°		37		37

\* Carry position SAE

Bucket: 4.6 m<sup>3</sup> (6.0 yd<sup>3</sup>) GP STE P T SEG

Sales code: WLA80027

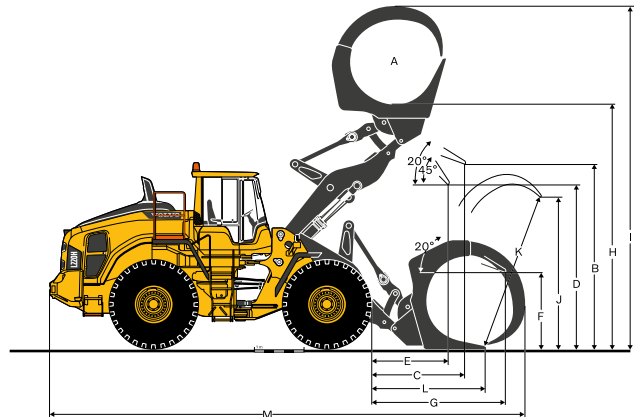
Operating weight (incl. logging cw 1,140 kg (2,513 lb)): 28,470 kg (62,766 lb)

Operating load: 8,710 kg (19,202 lb)













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

## DIMENSIONS

Tires : 775/65 R29 L3			L180H	
A	m <sup>2</sup>	yd <sup>2</sup>	3.5	4.2
B	mm	in	3,870	152.4
C	mm	in	2,150	84.6
D	mm	in	3,150	124.0
E	mm	in	1,720	67.7
F	mm	in	1,700	66.9
G	mm	in	3,040	119.7
H	mm	in	5,170	203.5
I	mm	in	7,610	299.6
J	mm	in	3,370	132.7
K	mm	in	3,710	146.1
L	mm	in	2,410	94.9
M	mm	in	9,980	392.9







**L180H**

		REHANDLING								GENERAL PURPOSE						ROCK***		LIGHT MATERIAL		LONG BOOM*	
																					
		4.8 m <sup>3</sup> (6.3 yd <sup>3</sup> ) STE P BOE	5.2 m <sup>3</sup> (6.8 yd <sup>3</sup> ) STE P BOE	5.5 m <sup>3</sup> (7.2 yd <sup>3</sup> ) STE P BOE	5.8 m <sup>3</sup> (7.6 yd <sup>3</sup> ) STE P BOE	4.4 m <sup>3</sup> (5.8 yd <sup>3</sup> ) STE P T SEG	4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> ) STE P T SEG	4.8 m <sup>3</sup> (6.3 yd <sup>3</sup> ) STE P T SEG	4.2 m <sup>3</sup> (5.5 yd <sup>3</sup> ) SPN P T SEG	7.8 m <sup>3</sup> (10.2 yd <sup>3</sup> ) LM P	4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> ) STE P T SEG										
Volume, heaped ISO/SAE	m <sup>3</sup> yd <sup>3</sup>	4.8 6.3	5.2 6.8	5.5 7.2	5.8 7.6	4.4 5.8	4.6 6	4.8 6.3	4.2 5.5	7.8 10.2	4.6 6.0										
Volume at 110% fill factor	m <sup>3</sup> yd <sup>3</sup>	5.3 6.9	5.7 7.5	6.1 7.9	6.4 8.3	4.8 6.3	5.1 6.6	5.3 6.9	4.6 6	8.6 11.2	5.1 6.7										
Static tipping load, straight	kg lb	23,670 52,190	23,520 51,860	23,350 51,480	23,210 51,180	21,540 47,500	21,560 47,540	21,360 47,090	22,250 49,060	20,430 45,040	-3,820 -8,420										
at 35° turn	kg lb	21,010 46,330	20,860 46,000	20,700 45,630	20,570 45,350	19,140 42,200	19,150 42,230	18,960 41,810	19,750 43,560	18,070 39,850	-3,480 -7,680										
at full turn	kg lb	18,900 41,665	20,560 45,330	20,390 44,970	20,260 44,680	18,860 41,600	18,880 41,620	18,690 41,200	19,470 42,930	17,800 39,260	-3,450 -7,590										
Breakout force	kN lbf	236 53,050	224.2 50,420	216.2 48,600	210.0 47,230	236.0 53,060	236.0 53,060	226.4 50,910	212.6 47,790	173.5 39,000	+3.9 +8.70										
A	mm ft in	8,890 29'2"	8,890 29'2"	8,960 29'5"	9,010 29'7"	9,000 29'6"	9,000 29'6"	9,070 29'9"	9,140 30'0"	9,360 30'8"	+4.70 +1.6"										
E	mm ft in	1,430 4'8"	1,430 4'8"	1,490 4'11"	1,540 5'1"	1,530 5'0"	1,530 5'0"	1,590 5'3"	1,650 5'5"	1,860 6'1"	+2.0 +0.6"										
H**) )	mm ft in	3,060 10'0"	3,050 10'0"	3,010 9'11"	2,970 9'9"	2,990 9'10"	2,990 9'10"	2,940 9'8"	2,910 9'7"	2,690 8'10"	+5.00 +1.7"										
L	mm ft in	6,010 19'9"	6,010 19'9"	6,040 19'10"	6,110 20'0"	6,130 20'1"	6,170 20'3"	6,180 20'3"	6,320 20'9"	6,300 20'8"	+5.00 +1.7"										
M**) )	mm ft in	1,330 4'4"	1,330 4'4"	1,370 4'6"	1,410 4'8"	1,420 4'8"	1,420 4'8"	1,460 4'10"	1,520 5'0"	1,610 5'3"	+2.0 +0.6"										
N**) )	mm ft in	1,960 6'5"	1,960 6'5"	1,990 6'6"	2,000 6'7"	2,020 6'7"	2,020 6'7"	2,040 6'8"	2,080 6'10"	2,050 6'9"	+4.10 +1.4"										
V	mm in	3,200 125"	3,400 133"	3,400 133"	3,400 133"	3,200 125"	3,200 125"	3,200 125"	3,230 127"	3,400 133"	0 0										
a <sub>1</sub> clearance circle	mm ft in	14,800 48'7"	14,990 49'2"	15,010 49'3"	15,040 49'4"	14,850 48'9"	14,850 48'9"	14,880 48'10"	14,960 49'1"	15,220 49'11"	+3.50 +1.2"										
Operating weight	kg lb	28,070 61,890	28,190 62,160	28,290 62,380	28,360 62,540	27,020 59,590	27,060 59,670	27,120 59,800	28,440 62,700	27,470 60,570	+2.70 +5.90										

\*) Measured with 4.6 m<sup>3</sup> (6.0 yd<sup>3</sup>) GP bucket Note: This only applies to genuine Volvo attachments. \*\*) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge measured at 45° dump angle. (Spade nose buckets at 42°) \*\*\*) Measured with L5 tires

**Bucket Selection Chart**

The chosen bucket is determined by the density of the material and the expected bucket fill factor. The actual bucket volume is often larger than the rated capacity, due to the features of the TP linkage, including an open bucket design, good rollback angles in all positions and good bucket filling performance. The example represents a standard boom configuration. Example: Sand and gravel. Fill factor ~ 105%. Density 1.6 t/m<sup>3</sup>. Result: The 4.6 m<sup>3</sup> bucket carries 4.8 m<sup>3</sup>. For optimum stability always consult the bucket selection chart

Material	Bucket fill, %	Material density	ISO/SAE bucket volume		Actual volume			
			t/m <sup>3</sup>	lb/yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>
Earth/Clay	~ 110		~ 1.7	~ 2,867	4.9	6.4	~ 4.8	~ 6.3
			~ 1.6	~ 2,698	5.2	6.8	~ 5.1	~ 6.7
			~ 1.5	~ 2,530	5.4	7.1	~ 5.3	~ 6.9
Sand/Gravel	~ 105		~ 1.7	~ 2,867	4.4	5.8	~ 4.6	~ 6.0
			~ 1.6	~ 2,698	4.6	6.0	~ 4.8	~ 6.3
			~ 1.5	~ 2,530	4.8	6.3	~ 5.1	~ 6.7
Aggregate	~ 100		~ 1.8	~ 3,035	5.2	6.8	~ 5.2	~ 6.8
			~ 1.7	~ 2,867	5.5	7.2	~ 5.5	~ 7.2
			~ 1.6	~ 2,698	5.8	7.6	~ 5.8	~ 7.6
Rock	≤ 100		~ 1.7	~ 2,867	4.3	5.6	~ 4.3	~ 5.6

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

Type of boom	Type of bucket	ISO/SAE Bucket volume	Material density: t/m <sup>3</sup> (lb/yd <sup>3</sup> )					
			0.8 (1349)	1.0 (1686)	1.2 (2024)	1.4 (2361)	1.6 (2698)	1.8 (3035)
Standard boom	Rehandling*	5.2 m <sup>3</sup> (6.8 yd <sup>3</sup> )					5.5 (7.2)	5.2 (6.8)
		5.5 m <sup>3</sup> (7.2 yd <sup>3</sup> )					5.8 (7.6)	5.5 (7.2)
		5.8 m <sup>3</sup> (7.6 yd <sup>3</sup> )			6.1 (8.0)		5.8 (7.6)	
	General purpose	4.4 m <sup>3</sup> (5.8 yd <sup>3</sup> )					4.8 (6.3)	4.4 (5.8)
4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> )						5.1 (6.7)	4.6 (6.0)	
4.8 m <sup>3</sup> (6.3 yd <sup>3</sup> )						5.3 (6.9)	4.8 (6.3)	
Long boom	Rehandling*	4.8 m <sup>3</sup> (6.3 yd <sup>3</sup> )					5.0 (6.5)	4.8 (6.3)
		5.2 m <sup>3</sup> (6.8 yd <sup>3</sup> )					5.5 (7.2)	5.2 (6.8)
		5.5 m <sup>3</sup> (7.2 yd <sup>3</sup> )					5.8 (7.6)	5.5 (7.2)
	General purpose	4.4 m <sup>3</sup> (5.8 yd <sup>3</sup> )					4.8 (6.3)	4.4 (5.8)
4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> )						5.1 (6.7)	4.6 (6.0)	
4.8 m <sup>3</sup> (6.3 yd <sup>3</sup> )						5.3 (6.9)	4.8 (6.3)	
Rock	Rock	4.2 m <sup>3</sup> (5.5 yd <sup>3</sup> )					4.2 (5.5)	4.0 (5.2)
		4.6 m <sup>3</sup> (6.0 yd <sup>3</sup> )					5.1 (6.7)	4.6 (6.0)
Light material	Light material	7.8 m <sup>3</sup> (10.0 yd <sup>3</sup> )	7.8 (10.0)					
		4.2 m <sup>3</sup> (5.5 yd <sup>3</sup> )					4.2 (5.5)	4.0 (5.2)

How to read bucket fill factor \* Including counterweight

**Supplemental Operating Data**

Tires 26.5 R25 L3			Standard boom						Long boom					
			26.5 R25 L4		26.5 R25 L5		775/65 R29 L3		26.5 R25 L4		26.5 R25 L5		775/65 R29 L3	
Width over tires	mm in		+5 +0.2	+30 +1.2	+130 +5.1	+5 +0.2	+30 +1.2	+130 +5.1	+5 +0.2	+30 +1.2	+130 +5.1			
Ground clearance	mm in		+18 +0.7	+40 +1.6	+10 +0.4	+18 +0.7	+40 +1.6	+10 +0.4	+18 +0.7	+40 +1.6	+10 +0.4			
Tipping load, full turn	kg lb		+280 +617	+770 +30.3	+600 +23.6	+250 +551	+760 +29.9	+530 +20.9	+280 +617	+770 +30.3	+600 +23.6			
Operating weight	kg lb		+400 +882	+1,050 +2,315	+920 +36.2	+400 +882	+1,050 +2,315	+920 +36.2	+400 +882	+1,050 +2,315	+920 +36.2			

# Equipment

## STANDARD EQUIPMENT

### Engine

- Exhaust after-treatment system
- Two stage air cleaner, pre-cleaner, primary and secondary filter
- Preheating of induction air
- Fuel pre-filter with water trap
- Fuel filter
- Crankcase breather oil trap
- Exterior radiator air intake protection

### Drivetrain

- Automatic Power Shift
- Fully automatic gearshifting, 1-4
- PWM-controlled gearshifting
- Forward and reverse switch by hydraulic lever console
- Rimpull control
- Indicator glass for transmission oil level
- Differentials: Front, 100% hydraulic diff lock. Rear, conventional.
- Optishift with Lock-up, RBB
- Lock-up first gear

### Electrical System

- 24 V, pre-wired for optional accessories
- Alternator 24V/80A/2280W
- Battery disconnect switch
- Fuel gauge
- Hour meter
- Electric horn
- Instrument cluster:
  - Fuel level
  - Diesel Exhaust Fluid/AdBlue 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
- Halogen work lights (2 front and 2 rear)

## STANDARD EQUIPMENT

### Contronic monitoring system

- Monitoring and logging of machine data
- Contronic display
- Fuel consumption
- Diesel Exhaust Fluid/AdBlue consumption
- Ambient temperature
- Clock
- Test function for warning and indicator lights
- Brake test
- Test function, sound level at max fan speed
- Warning and indicator lights:
  - Battery charging
  - Parking brake
- Warning and display message:
  - Regeneration
  - 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
  - Brake charging
  - Overspeed at direction change
  - Axle oil temperature
  - Steering pressure
  - Crankcase pressure
  - Attachment lock open
  - Safety Belt Warning
- Level warnings:
  - Fuel level
  - Diesel Exhaust Fluid/AdBlue level
  - Engine oil level
  - Engine coolant level
  - Transmission oil level
  - Hydraulic oil level
  - Washer fluid level
- Engine torque reduction in case of malfunction indication:
  - High engine coolant temperature
  - High engine oil temperature
  - Low engine oil pressure
  - High crankcase pressure
  - High charge-air temperature
- Engine shutdown to idle in case of malfunction indication:
  - High transmission oil temperature
  - Slip in transmission clutches
- Keypad, background lit
- Start interlock when gear is engaged



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**STANDARD EQUIPMENT**

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**Hydraulic system**

Main valve, double acting 2-spool with hydraulic pilots

Variable displacement axial piston pumps (3) for:

- 1 Working hydraulics, Pilot hydraulics and Brake system
- 2 Working hydraulics, Pilot hydraulics, Steering and Brake system
- 3 Cooling fan and Brake system

Electro-hydraulic servo controls

Electronic hydraulic lever lock

Automatic boom kick-out

Automatic bucket positioner

Double-acting hydraulic cylinders

Indicator glass for hydraulic oil level

Hydraulic oil cooler

**Brake system**

Dual brake circuits

Dual brake pedals

Secondary brake system

Parking brake, electro-hydraulic

Brake wear indicators

**Cab**

ROPS (ISO 3471), FOPS (ISO 3449)

Single key kit door/start

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 heat control

Floor mat

Dual interior lights

Interior rear-view mirrors

Dual exterior rear-view mirrors

Sliding window, right side

Tinted windshield glass

Retractable seatbelt (SAE J386)

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

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**STANDARD EQUIPMENT**

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**Service and maintenance**

Engine oil remote drain and fill

Transmission oil remote drain and fill

Lubrication manifolds, ground accessible

Pressure check connections: transmission and hydraulic, quick-connects

Quick-fit hydraulic oil fill

Tool box, lockable

**External equipment**

Orange hand rails

Fenders, front and rear

Viscous cab mounts

Rubber engine and transmission mounts

Frame, joint lock

Vandalism lock prepared for

Engine compartment

Radiator grille

Lifting eyes

Tie-down eyes

Fabricated counterweight

Counterweight, pre-drilled for optional guards

# Equipment

## OPTIONAL EQUIPMENT

### Engine

Air pre-cleaner, cyclone type  
 Air pre-cleaner, oil-bath type  
 Air pre-cleaner, turbo type  
 Engine auto shutdown  
 Engine delayed shutdown  
 Engine block heater 230V/110V  
 Fuel fill strainer  
 Fuel heater  
 Hand throttle control  
 Max. fan speed, hot climate  
 Radiator, corrosion-protected  
 Reversible cooling fan  
 Reversible cooling fan and axle oil cooler

### Wheels and tires

26.5 R25  
 775/65 R29

### Drivetrain

Diff lock front 100%, Limited Slip rear  
 Speed limiter  
 Wheel/axle seal guards

### Electrical System

Anti-theft device  
 Emergency stop  
 Locking device, Tag out Lock out  
 Headlights, assym. left  
 License plate holder, lighting  
 Rear vision system, colour LCD monitor in the cab  
 Rear view mirrors, Long arm  
 Rear view mirrors, adjustable, el.heated, Long arm  
 Reduced function working lights, reverse gear activated  
 Reverse alarm, audible  
 Reverse alarm, white noise  
 Reverse warning light, strobe lighting  
 Seatbelt indicator, external  
 Shortened headlight support brackets  
 Side marker lamps  
 Warning beacon LED  
 Warning beacon LED automatic  
 LED Head Light  
 LED tail light  
 LED working lights, attachments  
 LED working lights on cab, front and rear  
 LED working lights on cab, front, 2 alt. 4 LED lamps  
 LED working lights on cab, rear, 2 alt. 4 LED lamps  
 LED working lights, rear in grille, 2 LED lamps  
 LED working lights, front above head lamps, 2 LED lamps  
 LED work lights, side on cab, 4 LED lamps  
 LED light packages  
 Working lights halogen, attachments  
 Working lights on cab halogen, front and rear  
 Working lights on cab halogen, rear  
 Electrical distribution unit 24 volt  
 Alternator 120 amp, heavy-duty  
 Radar detect system  
 Forward camera, colour  
 Parking brake alarm, audible for air susp seats  
 Jump start connector, NATO-Type  
 Max Boom height  
 Can Bus Interface  
 Delayed Engine Shutdown  
 Co Pilot available  
 Rearview camera in Co pilot  
 OnBoard Weighing  
 Tire pressure monitoring  
 MAP

## OPTIONAL EQUIPMENT

### Hydraulic system

Boom suspension system  
 Separate attachment locking  
 Arctic kit, for 3rd function  
 Boom cylinder hose and tube guards  
 Hydraulic fluid, biodegradable, Volvo  
 Hydraulic fluid, fire-resistant  
 Hydraulic fluid, for hot climate  
 Hydraulic 3rd function  
 hydraulic 3rd-4th function  
 Single lever control, hydraulics 2 functions  
 Single lever control, hydraulics 3 functions  
 Single lever control, hydraulics 4 functions

### Brake system

Oil cooler and filter front & rear axle  
 Stainless steel, brake lines

### Cab

Anchorage for Operator's manual  
 Automatic Climate Control, ACC  
 ACC control panel, with Fahrenheit scale  
 Asbestos dust protection filter  
 Ashtray  
 Cab air pre-cleaner, cyclone type  
 Carbon filter  
 Cover plate, under cab  
 Lunch box holder  
 Volvo Armrest, operator's seat, left  
 Operator's seat, Volvo air susp, heavy-duty, high back, heated  
 Operator's seat, (air seat std) 2-point seat belt  
 Operator's seat, (air seat std) 3-point seat belt  
 Operator's seat, Premium Comfort ISRI  
 Operator's seat, Premium Comfort ISRI 3-point seat belt  
 Radio installation kit incl. 12 volt outlet, left side  
 Radio installation kit incl. 12 volt outlet, right side  
 Radio (with AUX, Bluetooth and USB connection)  
 DAB Radio  
 Subwoofer  
 Steering wheel knob  
 Sun blinds, rear windows  
 Sun blinds, side windows  
 Timer cab heating  
 Window, sliding, door  
 Universal door/ignition key  
 Remote door opener  
 Forward view mirror  
 Cab heater power outlet 240V  
 Cab, Hot applications. Roof, steel  
 Fire extinguisher cab  
 Outside steel protection cab  
 Rear view mirrors long arm, cab  
 Reinforced windshield, flat

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**OPTIONAL EQUIPMENT**

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**Service and maintenance**

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Automatic lubrication system  
Automatic lubrication system for long boom  
Grease nipple guards  
Oil sampling valve  
Quick engine oil change  
Refill pump for grease to lube system  
Tool kit  
Wheel nut wrench kit  
CareTrack, GSM, GSM/Satellite  
Telematics, Subscription  
Belly guard front  
Belly guard rear  
Cover plate, heavy-duty, front frame  
Cover plate, rear frame  
Cab roof, heavy-duty  
Guards for front headlights  
Guards for radiator grill  
Guards for tail lights  
Windows, side and rear guards  
Windshield guard  
Corrosion protection, painting of machine  
Corrosion protection, painting of attachment bracket  
Option for machines without dinitrol  
Bucket Teeth protection

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**External equipment**

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Cab ladder, rubber-suspended  
Escape Ladder, left fender  
Handles on counterweight  
Deleted front mudguards  
Fire suppression system  
Mudguards, full cover, front and rear for 80-series tires  
Mudguards, full cover, front and rear for 65-series tires  
Long boom  
Tow hitch

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**Other equipment**

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CE-marking  
Comfort Drive Control (CDC)  
Counterweight, logging  
Counterweight, signal painted, chevrons  
Secondary steering with automatic test function  
Sound decal, EU  
Sound decal, USA  
Reflecting stickers (decals), machine contour  
Reflecting stickers (stripes), machine contour Cab  
Noise reduction kit, exterior

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**Attachments**

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Buckets:  
Rock straight or spade nose  
General purpose  
Re-handling  
Side-dump  
Light material  
Wear parts:  
Bolt-on and weld-on bucket teeth  
Segments  
Cutting edge in three sections, bolt-on  
Fork equipment  
Material handling arm  
Log grapples

**V O L V O**