

FSA

Volvo Construction Equipment
Building Tomorrow



L60H, L70H, L90H 2.0

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Volvo Wheel Loaders 11.0-17.3 t / 24,250-38,140 lb 164-184 hp



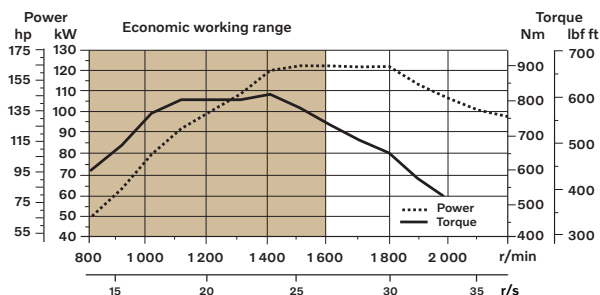
Volvo L60H, L70H, L90H in detail

Engine

6-cylinder, 6 liters inline turbocharged diesel engine with an advanced fuel injection system with the common rail. Fuel is distributed under high pressure from a high-pressure accumulator, the rail. One belt driven high pressure pump deliver the fuel to the rail and then further on via high-pressure pipes to the electronically operated fuel injectors. Engine meets Tier 4f / Stage IV emission legislation.

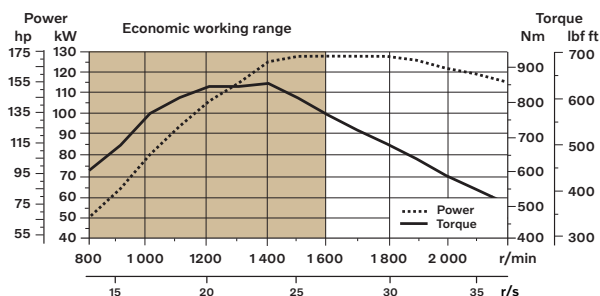
L60H

Engine	Volvo	D6J
Max. power at	r/min (r/s)	1,500 - 1,800 (25 - 30)
SAE J1995 gross	kW (hp)	122 (164)
ISO 9249, SAE J1349 net	kW (hp)	122 (164)
Max. torque at	r/min (r/s)	1,400 (23)
SAE J1995 gross	Nm (ft lbf)	820 (605)
ISO 9249, SAE J1349 net	Nm (ft lbf)	820 (605)
Economic working range	r/min (r/s)	800 - 1,600 (13.3 - 26.7)
Displacement	l (in ³)	5.7 (348)



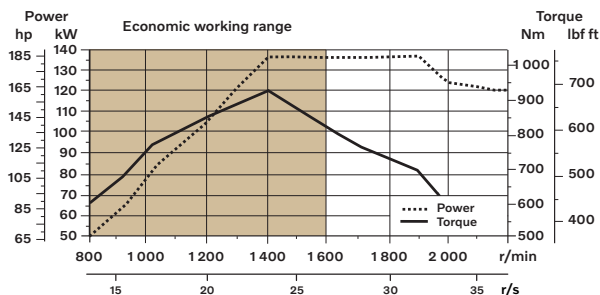
L70H

Engine	Volvo	D6J
Max. power at	r/min (r/s)	1,500 - 1,800 (23.3 - 28.3)
SAE J1995 gross	kW (hp)	127 (170)
ISO 9249, SAE J1349 net	kW (hp)	127 (170)
Max. torque at	r/min (r/s)	1,400 (23.3)
SAE J1995 gross	Nm (ft lbf)	853 (629)
ISO 9249, SAE J1349 net	Nm (ft lbf)	853 (629)
Economic working range	r/min (r/s)	800 - 1,600 (13.3 - 26.8)
Displacement	l (in ³)	5.7 (348)



L90H

Engine	Volvo	D6J
Max. power at	r/min (r/s)	1,400 - 1,900 (23.3 - 31.7)
SAE J1995 gross	kW (hp)	137 (184)
ISO 9249, SAE J1349 net	kW (hp)	137 (184)
Max. torque at	r/min (r/s)	1,400 (23.3)
SAE J1995 gross	Nm (ft lbf)	934 (689)
ISO 9249, SAE J1349 net	Nm (ft lbf)	934 (689)
Economic working range	r/min (r/s)	800 - 1,600 (13.3 - 26.7)
Displacement	l (in ³)	5.7 (348)



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.

Transmission: 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: Volvo fully floating axle shafts with planetary hub reductions and cast steel axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle.

L60H

Transmission	Volvo	HTE 125C
Torque multiplication, stall ratio		2.5:1
Maximum speed		
1st gear	km/h (mi/h)	Converter 7.5 (Converter 4.6)
2nd gear	km/h (mi/h)	Converter 15 (Converter 9.3)
3rd gear	km/h (mi/h)	Converter 28 (Converter 17.4)
4th gear	km/h (mi/h)	Converter 46 (Converter 28.5)
4th gear: Shown in speedometer and limited by ECU		
Measured with tires		20.5R25
Front axle/rear axle		AWB 15/AWB 15
Rear axle oscillation	± °	13
Ground clearance	mm (in)	470 (18.5)
at oscillation	°	13

L70H

Transmission	Volvo	HTE 125C Non Lock-up / HTE 125 Lock-up
Torque multiplication, stall ratio		2.5:1 Non Lock-up / 2.59:1 Lock-up
Maximum speed		
1st gear	km/h (mi/h)	Converter 7.5 / Lock-up 7.5 (Converter 4.6 / Lock-up 4.6)
2nd gear	km/h (mi/h)	Converter 15 / Lock-up 15 (Converter 9.3 / Lock-up 9.3)
3rd gear	km/h (mi/h)	Converter 29 / Lock-up 30 (Converter 17.4 / Lock-up 18.0)
4th gear	km/h (mi/h)	Converter 46 / Lock-up 50 (Converter 28.5 / Lock-up 31.1)
4th gear: Shown in speedometer and limited by ECU		
Measured with tires		20.5R25
Front axle/rear axle		AWB 25/AWB 20
Rear axle oscillation	± °	13
Ground clearance	mm (in)	470 (18.5)
at oscillation	°	13

L90H

Transmission	Volvo	HTE 125C Non Lock-up / HTE 125 Lock-up
Torque multiplication, stall ratio		2.5:1 Non Lock-up / 2.59:1 Lock-up
Maximum speed		
1st gear	km/h (mi/h)	Converter 6.5 / Lock-up 6.5 (Converter 4.0 / Lock-up 4.0)
2nd gear	km/h (mi/h)	Converter 14 / Lock-up 14 (Converter 8.6 / Lock-up 8.6)
3rd gear	km/h (mi/h)	Converter 26 / Lock-up 27 (Converter 16.2 / Lock-up 16.8)
4th gear	km/h (mi/h)	Converter 46 / Lock-up 50 (Converter 28.5 / Lock-up 31.1)
4th gear: Shown in speedometer and limited by ECU		
Measured with tires		20.5R25
Front axle/rear axle		AWB 25/AWB 20
Rear axle oscillation	± °	13
Ground clearance	mm (in)	470 (18.5)
at oscillation	°	13

Electrical 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, etc.

		L60H	L70H	L90H
Batteries	V	2 x 12	2 x 12	2 x 12
Battery capacity	Ah	2 x 110	2 x 110	2 x 110
Cold cranking capacity, approx	A	1,000	1,000	1,000
Alternator rating	W/A	3 135/80	3 135/80	3 135/80
Starter motor output	kW	5.5	5.5	5.5

Brake system

Service brake: Volvo dual-circuit system with outboard mounted, hydraulically operated, fully sealed and circulating oil cooled wet disc brakes. Four operator selectable transmission disengagement settings while braking.

Parking brake: Dry disc brake mounted on the transmission output shaft. Applied by spring force, electro-hydraulically released with a switch on the instrument panel.

Secondary brake: Dual brake circuits with rechargeable accumulators. Standard: The brake system complies with the requirements of ISO 3450, 71/320/EEC

		L60H	L70H	L90H
Number of brake discs per wheel		1	1	1
Accumulators	l (gal)	3 x 0.5 (3 x 0.13)	2 x 0.5+1 x 1.0 (2 x 0.13 + 1 x 0.26)	2 x 0.5+1 x 1.0 (2 x 0.13 + 1 x 0.26)
Accumulators for parking brake	l (gal)	1 x 0.5 (1 x 0.13)	1 x 1.0 (1 x 0.26)	1 x 1.0 (1 x 0.26)

Volvo L60H, L70H, L90H in detail

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 manual speed settings. Defroster vents for all window areas. Operator's seat: Operator's seat with adjustable air suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall and floor. The forces from the retractable seatbelt are absorbed by the seat rails. Standards: The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 (Operator Restraint System).

		L60H	L70H	L90H
Emergency exit: Use emergency hammer to break window				
Ventilation	m ³ /min (yd ³ /min)	9 (11.8)	9 (11.8)	9 (11.8)
Heating capacity	kW	16	16	16

Sound Level

		L60H	L70H	L90H
Sound pressure level in cab according to ISO 6396				
L _{pA}	dB	68	68	68
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC				
L _{WA}	dB	104	105	105

Lift Arm System

Torque parallel linkage (TP-linkage) with high breakout torque and parallel lift-arm action.

		L60H	L70H	L90H
Lift cylinders		2	2	2
Cylinder bore	mm (in)	110 (4.3)	110 (4.3)	120 (4.7)
Piston rod diameter	mm (in)	70 (2.8)	70 (2.8)	70 (2.8)
Stroke	mm (in)	665 (26.2)	756 (29.8)	744 (28.9)
Tilt cylinder		1	1	1
Cylinder bore	mm (in)	150 (5.9)	160 (6.3)	180 (7.1)
Piston rod diameter	mm (in)	80 (3.1)	90 (3.5)	90 (3.5)
Stroke	mm (in)	444 (17.5)	432 (17)	430 (16.9)

Steering System

System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement. Steering cylinders: Two double-acting cylinders.

		L60H	L70H	L90H
Steering cylinders		2	2	2
Cylinder bore	mm (in)	70 (2.8)	70 (2.8)	80 (3.1)
Rod diameter	mm (in)	45 (1.8)	45 (1.8)	50 (2)
Stroke	mm (in)	386 (15.2)	386 (15.2)	345 (13.6)
Working pressure	MPa (bar)	21 (210)	21 (210)	21 (210)
Maximum flow	l/min (gal/min)	60 (15.9)	60 (15.9)	60 (15.9)
Maximum articulation	± °	40	40	40

Hydraulic system

Closed center load sensing hydraulic system with non pressurised hydraulic tank and pilot operated control valves. System supply: Variable displacement axial piston pump supply the hydraulic system. Valves: The central valve distributes pressure and flow out to the cooling fan, steering, brake, pilot and hydraulic system. Steering system gets priority over others. Lift function: The valve has four positions; raise, hold, lower and float position. Automatic boom kickout position can be set to any position between maximum reach and full lifting height. Tilt function: The valve has three functions; rollback, hold and dump. Automatic tilt out/tilt in 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.

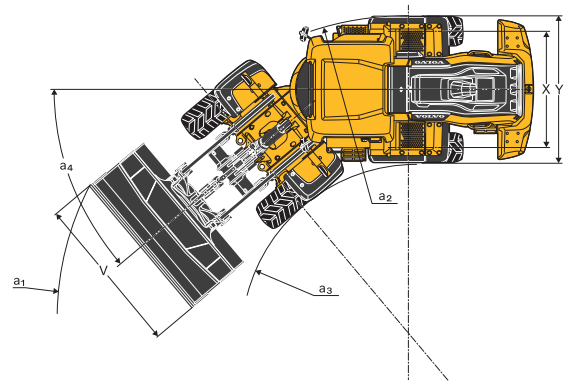
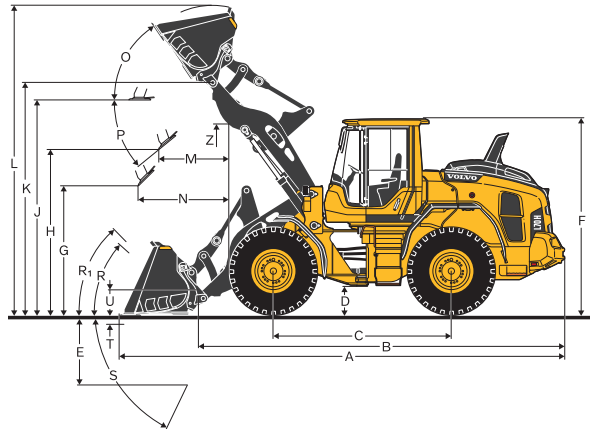
		L60H	L70H	L90H
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa (bar)	26 (260)	26 (260)	31 (310)
Flow	l/min (gal/min)	145 (38.3)	154 (40.7)	171 (45.2)
at	MPa (bar)	10 (100)	10 (100)	10 (100)
engine speed	r/min (r/s)	1,900 (31.7)	1,900 (31.7)	1,900 (31.7)
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa (bar)	21 (210)	21 (210)	21 (210)
Flow	l/min (gal/min)	33 (8.7)	33 (8.7)	33 (8.7)
at	MPa (bar)	10 (100)	10 (100)	10 (100)
engine speed	r/min (r/s)	1,900 (31.7)	1,900 (31.7)	1,900 (31.7)
Pilot system, working pressure	MPa (bar)	3.5 (35)	3.5 (35)	3.5 (35)
Cycle times				
Lift	s	5.4	5.5	5.7
Tilt	s	1.9	2.1	2.3
Lower, empty	s	2.7	2.9	4
Total cycle time	s	10	10.5	12

Service Refill

Service accessibility: Large, electrically operated easy-to-open hood covering whole engine compartment. Fluid filters and component breather air filters are located from ground level access and promote long service intervals. Machine contronics have possibility to monitor, log and analyze data to facilitate troubleshooting. A quick-fit adapter on the hydraulic tank provides faster hydraulic oil fill.

		L60H	L70H	L90H
Fuel tank	l (gal)	222 (58.6)	222 (58.6)	222 (58.6)
DEF/AdBlue® tank	l (gal)	20 (5.3)	20 (5.3)	20 (5.3)
Engine coolant	l (gal)	30 (7.9)	30 (7.9)	30 (7.9)
Hydraulic oil tank	l (gal)	90 (23.8)	90 (23.8)	90 (23.8)
Transmission oil (non lock-up)	l (gal)	21 (5.5)	21 (5.5)	21 (5.5)
Transmission oil (lock-up)	l (gal)	22 (5.8)	22 (5.8)	22 (5.8)
Engine oil	l (gal)	20 (5.2)	20 (5.2)	20 (5.2)
Axle oil front	l (gal)	25 (6.6)	35 (9.2)	35 (9.2)
Axle oil rear	l (gal)	25 (6.6)	27 (7.1)	27 (7.1)

Specifications



Tires 20.5 R25 L3

			L60H		L70H		L90H		L60H		L70H		L90H	
			Standard boom						Long boom					
B	mm	ft in	6,010	19'9"	6,080	19'11"	6,170	20'3"	6,520	21'5"	6,560	21'6"	6,600	21'8"
C	mm	ft in	3,000	9'10"	3,000	9'10"	3,050	10'0"	3,000	9'10"	3,000	9'10"	3,050	10'0"
D	mm	ft in	440	1'5"	450	1'6"	450	1'6"	430	1'5"	450	1'6"	440	1'5"
F	mm	ft in	3,270	10'9"	3,280	10'9"	3,280	10'9"	3,270	10'9"	3,280	10'9"	3,280	10'9"
G	mm	ft in	2,133	7'0"	2,134	7'0"	2,132	7'0"	2,134	7'0"	2,134	7'0"	2,132	7'0"
J	mm	ft in	3,550	11'8"	3,580	11'9"	3,730	12'3"	4,080	13'5"	4,050	13'3"	4,140	13'7"
K	mm	ft in	3,870	12'8"	3,870	12'8"	4,040	13'3"	4,380	14'4"	4,350	14'3"	4,460	14'8"
O	°		56		56		57		56		52		58	
Pmax	°		45		46		45		42		45		44	
R	°		43		43		44		45		44		47	
R1*	°		46		48		49		50		49		53	
S	°		79		68		67		79		73		65	
T	mm	ft in	123	0'5"	106	0'4"	112	0'4"	150	0'6"	112	0'4"	123	0'5"
U	mm	ft in	410	1'4"	450	1'6"	480	1'7"	590	1'11"	500	1'8"	570	1'10"
X	mm	ft in	1,900	6'3"	1,930	6'4"	1,960	6'5"	1,900	6'3"	1,930	6'4"	1,960	6'5"
Y	mm	ft in	2,430	7'12"	2,460	8'1"	2,490	8'2"	2,430	7'12"	2,460	8'1"	2,490	8'2"
Z	mm	ft in	3,210	10'6"	3,160	10'4"	3,460	11'4"	3,590	11'9"	3,500	11'6"	3,910	12'10"
a2	mm	ft in	5,340	17'6"	5,350	17'7"	5,430	17'10"	5,340	17'6"	5,350	17'7"	5,430	17'10"
a3	mm	ft in	2,900	9'6"	2,890	9'6"	2,940	9'8"	2,900	9'6"	2,890	9'6"	2,940	9'8"
a4	±°		40		40		40		40		40		40	

* Carry position SAE

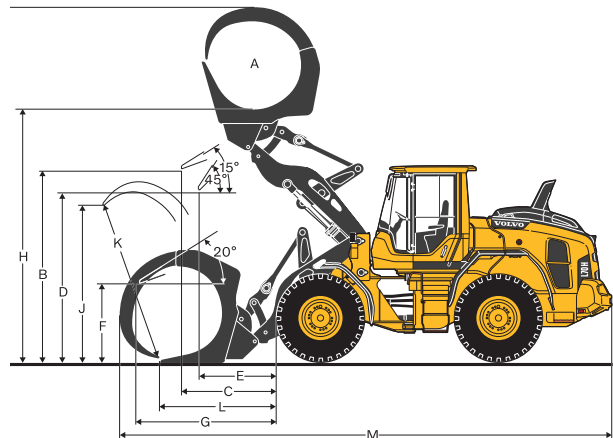
Calculated with additional protective guarding

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











Tires: 20.5R25 L3

			L60H		L70H		L90H	
SAE-Load	kg	lb	3,450	7,606	3,990	8,796	4,600	10,141
Operating weight without load*	kg	lb	12,883	28,402	14,585	32,154	16,645	36,696
Grapple sales code			WLA82194		WLA80153		WLA80832	
A	m ²	yd ²	1.3	1.6	1.5	1.8	2.4	2.9
B	mm	ft in	3,412	11'2"	3,380	11'1"	3,487	11'5"
C	mm	ft in	1,483	4'10"	1,594	5'3"	1,703	5'7"
D	mm	ft in	2,929	9'7"	2,870	9'5"	2,865	9'5"
E	mm	ft in	1,175	3'10"	1,265	4'2"	1,319	4'4"
F	mm	ft in	1,532	5'0"	1,502	4'11"	1,441	4'9"
G	mm	ft in	2,350	7'9"	2,442	8'0"	2,740	8'12"
H	mm	ft in	4,333	14'3"	4,378	14'4"	4,613	15'2"
I	mm	ft in	5,878	19'3"	6,027	19'9"	6,664	21'10"
J	mm	ft in	1,997	6'7"	2,141	7'0"	2,786	9'2"
K	mm	ft in	2,080	6'10"	2,365	7'9"	2,990	9'10"
L	mm	ft in	1,709	5'7"	1,800	5'11"	2,131	6'12"
M	mm	ft in	7,861	25'9"	7,996	26'3"	8,469	27'9"

* Calculated with additional protective guarding



Volvo L60H specifications

L60H* MICH 20.5R25 XHA2 L3			General purpose										Grading		Light material			LongBoom**				
																						
			WLA86398	WLA86423	WLA86401	WLA86405	WLA86410	WLA86411	WLA92476	WLA92564	WLA92565	WLA86410										
			1.9 m³ (2.5 yd³) HD STE H BOE	2.0 m³ (2.6 yd³) STE H T	2.1 m³ (2.7 yd³) HD STE H BOE	2.3 m³ (3.0 yd³) HD STE H BOE	2.1 m³ (2.7 yd³) HD STE P BOE	2.3 m³ (3.0 yd³) HD STE P BOE	1.7 m³ (2.2 yd³) GRB H BOE	3.1 m³ (4.1 yd³) LM H BOE	5 m³ (6.5 yd³) LM H BOE	2.1 m³ (2.7 yd³) HD STE P BOE										
Volume, heaped ISO/SAE	m3	yd3	1.9	2.5	2.0	2.6	2.1	2.7	2.3	3.0	2.1	2.7	2.3	3.0	1.7	2.2	3.1	4.1	5.0	6.5	2.1	2.7
Volume at 110% fill factor	m3	yd3	2.0	2.7	2.2	2.9	2.3	3.0	2.5	3.3	2.3	3.0	2.5	3.3	1.9	2.4	3.4	4.5	5.5	7.2	2.3	3.0
Static tipping load, straight	kg	lb	8,940	19,710	9,028	19,910	8,831	19,470	8,770	19,330	9,310	20,520	9,230	20,340	7,740	17,060	8,450	18,640	8,450	18,640	-1,640	-3,600
at 35° turn	kg	lb	7,996	17,630	8,079	17,810	7,887	17,390	7,830	17,260	8,340	18,400	8,270	18,230	6,920	15,260	7,540	16,630	7,510	16,570	-1,500	-3,320
at full turn	kg	lb	7,718	17,020	7,800	17,200	7,609	16,780	7,550	16,650	8,060	17,770	7,990	17,610	6,680	14,730	7,280	16,040	7,240	15,960	-1,470	-3,230
Breakout force	kN	lbf	81.8	18,400	82.8	18,610	80.4	18,090	75.0	16,870	84.8	19,060	80.9	18,190	60.1	13,500	61.7	13,870	53.7	12,080	8.8	1,980
A	mm	ft in	7,316	24'	7,520	24' 8"	7,338	24' 1"	7,430	24' 5"	7,270	23' 10"	7,330	24' 1"	7,650	25' 1"	7,680	25' 2"	7,900	25' 11"	520	1' 9"
E	mm	ft in	1,116	3' 8"	1,302	4' 3"	1,136	3' 9"	1,220	4'	1,070	3' 6"	1,130	3' 8"	1,400	4' 7"	1,470	4' 10"	1,700	5' 7"	40	2"
H	mm	ft in	2,836	9' 4"	2,705	8' 10"	2,811	9' 3"	2,760	9' 1"	2,850	9' 4"	2,810	9' 3"	2,520	8' 3"	2,580	8' 6"	2,440	8' 0"	530	1' 9"
L	mm	ft in	5,032	16' 6"	5,084	16' 8"	5,069	16' 8"	5,180	17' 0"	5,060	16' 7"	5,120	16' 10"	4,530	14' 10"	5,290	17' 4"	5,490	18' 0"	510	1' 8"
M	mm	ft in	1,054	3' 5"	1,192	3' 11"	1,056	3' 6"	1,130	3' 9"	1,000	3' 3"	1,040	3' 5"	1,130	3' 8"	1,320	4' 4"	1,500	4' 11"	10	0'
N	mm	ft in	1,578	5' 2"	1,632	5' 4"	1,584	5' 2"	1,610	5' 3"	1,560	5' 2"	1,580	5' 2"	1,490	4' 11"	1,630	5' 4"	1,670	5' 6"	450	1' 5"
V	mm	in	2,500	98"	2,500	98"	2,650	104"	2,500	98"	2,500	98"	2,500	98"	2,500	98"	2,550	100"	2,650	104"	2,500	98
a1 clearance circle	mm	ft in	11,569	37' 11"	11,665	38' 3"	11,719	38' 5"	11,620	38' 2"	11,580	38'	11,600	38' 1"	11,970	39' 3"	11,840	38' 10"	12,060	39' 7"	430	1' 5"
Operating weight	kg	lb	12,299	27,120	12,270	27,060	12,388	27,320	12,400	27,350	12,070	26,620	12,110	26,700	12,250	27,000	12,440	27,420	12,720	28,060	340	750

*Calculated with additional protective guarding. (WL86009,WL86010)

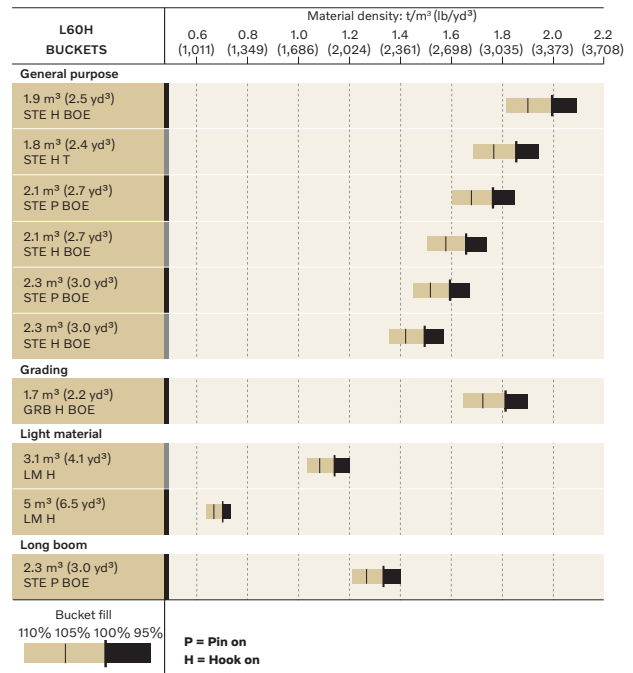
**Calculated with logging counterweight.

Note: This only applies to genuine Volvo attachments.

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 1.5 t/m³ (2,530 lb/yd³). Result: The 2.1 m³ (2.8 yd³) bucket carries 2.2 m³ (2.9 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density		ISO/SAE bucket volume		Actual volume	
		t/m³	lb/yd³	m³	yd³	m³	yd³
Earth/Clay	~ 110	~ 1.55	~ 2,610	1.9	2.5	2.1	2.8
		~ 1.40	~ 2,360	2.1	2.8	2.3	3.0
		~ 1.30	~ 2,190	2.3	3.0	2.5	3.3
Sand/Gravel	~ 105	~ 1.65	~ 2,780	1.9	2.5	2.0	2.6
		~ 1.50	~ 2,530	2.1	2.8	2.2	2.9
		~ 1.35	~ 2,280	2.3	3.0	2.1	2.8
Aggregate	~ 100	~ 1.75	~ 2,950	1.9	2.5	1.9	2.5
		~ 1.55	~ 2,610	2.1	2.8	2.1	2.8
		~ 1.55	~ 2,610	2.3	3.0	2.3	3.0
Rock	≤100	~ 1.70	~ 2,870	1.7	2.2	1.7	2.2



How to read bucket fill factor

Supplemental Operating Data

Tires 20.5 R25 L3			Standard boom						Long boom	
			17.5 R25 L2		20.5 R25 L2		600/65 R25 L3		600/65 R25 L3	
Width over tires	mm	in	-130	-5.1	+8	+0.3	+96	+3.8	+96	+3.8
Ground clearance	mm	in	-68	-2.7	-10	-0.4	-30	-1.2	-22	-0.9
Tipping load, full turn	kg	lb	-337	-743	-166	-366	-72	-159	0	0
Operating weight	kg	lb	-544	-1,199	-112	-247	+8	+18	+3	+7
Calculated with 2.3 m³ (3.0 yd³) STE P BOE, additional protective guarding										

Equipment

STANDARD EQUIPMENT			
	L60H	L70H	L90H
Engine			
Exhaust after-treatment system	•	•	•
3-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	•	•	•
Crank case breather oil trap	•	•	•
Exhaust heat ventilation	•	•	•
Delayed engine shutdown	•	•	•
Tires			
20.5R25	•	•	•
Drivetrain			
Automatic Power Shift	•	•	•
Fully automatic gear shifting, 1-4	•	•	•
PWM-controlled gear shifting	•	•	•
Forward and reverse switch by hydraulic lever console	•	•	•
Rimpull control	•	•	•
Indicator glass for transmission oil level	•	•	•
Differentials: Front, 100% hydraulic diff lock. Rear, conventional	•	•	•
Electrical system			
24 V, pre-wired for optional accessories	•	•	•
Alternator 80A/3135W	•	•	•
Battery disconnect switch	•	•	•
Maintenance-free batteries	•	•	•
Battery box, steel	•	•	•
Fuel gauge	•	•	•
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)	•	•	•
CoPilot	•	•	•
Rearview camera in CoPilot	•	•	•
Max Boom Height	•	•	•

STANDARD EQUIPMENT			
	L60H	L70H	L90H
Contronic monitoring system			
Contronic display	•	•	•
Fuel consumption	•	•	•
Diesel Exhaust Fluid/AdBlue consumption	•	•	•
Ambient temperature	•	•	•
Clock	•	•	•
Test function for warning and indicator lights	•	•	•
Brake test	•	•	•
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	•	•	•
Crank case pressure	•	•	•
Attachment lock open	•	•	•
Level warnings:			
Fuel level	•	•	•
Diesel Exhaust Fluid/AdBlue 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 crank case pressure	•	•	•
High charge air temperature	•	•	•
Engine shutdown to idle in case of malfunction indication:			
High transmission oil temperature	•	•	•
Slip in transmission clutches	•	•	•
Key pad, background lit	•	•	•
Start interlock when gear is engaged	•	•	•
Hydraulic system			
Boom suspension system	•	•	•
Main valve, double acting 2-spool with hydraulic pilots	•	•	•
Variable displacement axial piston pumps (2) for:			
Working hydraulics, pilot hydraulics, steering system, brakes	•	•	•
Cooling fan, brakes	•	•	•
Hydraulic control levers	•	•	•
Hydraulic lever lock	•	•	•
Automatic boom kick-out	•	•	•
Automatic bucket positioner	•	•	•
Double acting hydraulic cylinders	•	•	•
Indicator glass for hydraulic oil level	•	•	•
Hydraulic oil cooler	•	•	•

STANDARD EQUIPMENT			
	L60H	L70H	L90H
Brake system			
Dual brake circuits	•	•	•
Dual brake pedals	•	•	•
Secondary brake system	•	•	•
Parking brake, electrical-hydraulic	•	•	•
Brake wear indicators	•	•	•
Outboard mounted circulating oil cooled wet disc brakes on all four wheels	•	•	•
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 rearview mirrors	•	•	•
Dual exterior rearview mirrors	•	•	•
Sliding window, right side	•	•	•
Tinted safety 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	•	•	•
Foot step, left side (toolbox lockable included)	•	•	•
Service and maintenance			
Engine oil remote drain and fill	•	•	•
Transmission oil remote drain and fill	•	•	•
Sliding hydraulic oil cooler and AC-condenser	•	•	•
Lubrication manifolds, ground accessible	•	•	•
Pressure test ports: transmission and hydraulic, quick connects	•	•	•
Service platforms with anti-slip surfaces	•	•	•
Quick-fit hydraulic oil fill	•	•	•
CareTrack	•	•	•
Telematics, 6 -year subscription	•	•	•
Toolbox, lockable	•	•	•
External equipment			
Basic fenders, front and rear	•	•	•
Viscous cab mounts	•	•	•
Rubber engine and transmission mounts	•	•	•
Engine hood, electronically openable	•	•	•
Frame, joint lock	•	•	•
Vandalism lock for engine compartment	•	•	•
Lifting eyes	•	•	•
Tie down eyes	•	•	•
Tow hitch	•	•	•
Counterweight, pre-drilled for optional guards	•	•	•

OPTIONAL EQUIPMENT			
	L60H	L70H	L90H
Engine			
Air pre-cleaner, cyclone type	•	•	•
Air pre-cleaner, oil-bath type	•	•	•
Air pre-cleaner, turbo type	•	•	•
Engine auto shut down	•	•	•
Engine block heater, 120V / 230V	•	•	•
Fuel heater	•	•	•
Fuel fill strainer	•	•	•
Hand throttle control	•	•	•
Max. fan speed, hot climate	•	•	•
Reversible cooling fan	•	•	•
Drivetrain			
Lock-up torque converter	•	•	•
Rear axle with limited slip	•	•	•
Speed limiter, 20 km/h	•	•	•
Speed limiter, 30 km/h	•	•	•
Speed limiter, 40 km/h	•	•	•
Hydraulic system			
Arctic kit: Attachment locking, pilot hoses and hydraulic oil	•	•	•
Attachment bracket, cast, visibility-optimized	•	•	•
Attachment bracket, side-tilting	•	•	•
Separate attachment locking, long boom	•	•	•
Separate attachment locking, standard boom	•	•	•
Single acting lifting function	•	•	•
HD load-sensing hydraulics, pump kit included	—	•	—
Hydraulic fluid, biodegradable, Volvo	•	•	•
Hydraulic fluid, fire resistant	•	•	•
Hydraulic fluid, for hot climate	•	•	•
Hydraulic, 3 functions, standard/long boom	•	•	•
Hydraulic, 4 functions, standard/long boom	•	•	•
Detent for 3rd hydraulic function	•	•	•
Adjustable flow for 3rd hydraulic function	•	•	•
Single lever control, 2 functions	•	•	•
Single lever control, 3 functions	•	•	•
Hydraulic, 2 functions Electro-servo, std/long boom	•	•	•
Hydraulic, 3 functions Electro-servo, std/long boom	•	•	•
Hydraulic, 4 functions Electro-servo, std/long boom	•	•	•
Single lever control, 2 funct Electro-servo, std/long boom	•	•	•
Single lever control, 3 funct Electro-servo, std/long boom	•	•	•
Single lever control, 4 funct Electro-servo, std/long boom	•	•	•
Brake system			
Stainless steel, brake lines	—	•	•
Axle oil cooler	—	•	•
Parking brake alarm, audible	•	•	•

Equipment

OPTIONAL EQUIPMENT			
	L60H	L70H	L90H
Cab			
ACC control panel, with Fahrenheit scale	•	•	•
Anchorage for Operator's manual	•	•	•
Asbestos dust protection filter	•	•	•
Automatic Climate Control, ACC	•	•	•
Automatic Climate Control, ACC, corrosion protection condenser	•	•	•
Cab air pre-cleaner, cyclone type	•	•	•
Carbon filter - cab	•	•	•
Remote door opener	•	•	•
Lunch box holder	•	•	•
Operator's seat, Volvo air-suspended, heavy-duty, high back, heated	•	•	•
Operator's seat, Volvo air-susp, 3-point seatbelt	•	•	•
Operator's seat, Premium Comfort ISRI	•	•	•
Operator's seat, Premium Comfort ISRI 3-point seat belt	•	•	•
Armrest, operator's seat, ISRI, left only	•	•	•
Armrest, operator's seat, Volvo, left	•	•	•
Safety belt, 3" (75mm) width	•	•	•
Safety belt warning	•	•	•
Radio installation kit including 12 volt outlet, left-side	•	•	•
Radio installation kit including 12 volt outlet, right-side	•	•	•
Radio installation kit, 12V, for USA	•	•	•
Radio with AUX, Bluetooth and USB connection	•	•	•
DAB Radio	•	•	•
Subwoofer	•	•	•
Forward view mirror	•	•	•
Rear view mirrors, el.adjusted and heated	•	•	•
Rear view mirrors, long arm right	•	•	•
Rear view mirrors, el.adjusted and heated, long arm right	•	•	•
Steering wheel knob	•	•	•
Sun blinds, rear windows	•	•	•
Sun blinds, side windows	•	•	•
Timer cab heating	•	•	•
Universal door/ignition key	•	•	•
Window, sliding, door	•	•	•
Cab, Hot applications. Roof, steel	•	•	•
Fire extinguisher cab	•	•	•
Outside steel protection cab	•	•	•
Rear view mirrors long arm, cab	•	•	•
Reinforced windshield, flat	•	•	•
Service and maintenance			
Automatic lubrication system	•	•	•
Automatic lubrication system for long boom	•	•	•
Oil sampling valve	•	•	•
Refill pump for automatic lubrication system	•	•	•
Tool kit	•	•	•
Wheel nut wrench kit	•	•	•
Electrical			
Battery disconnect switch, additional in cab	•	•	•
Anti-theft device	•	•	•
Headlights, assym. left	•	•	•
Headlights, assym. right LED	•	•	•
Headlights, assym. left LED	•	•	•

OPTIONAL EQUIPMENT			
	L60H	L70H	L90H
Emergency stop	•	•	•
License plate holder, lighting	•	•	•
Reduced function working lights when reverse gear activated	•	•	•
Side marker lamps	•	•	•
Forward camera, colour	•	•	•
Rear view camera including monitor, colour	•	•	•
Rear view mirrors, long arm, right side	•	•	•
Rearview mirrors, adjustable, el. heated	•	•	•
Reverse alarm	•	•	•
Reverse lights	•	•	•
Reversing warning light	•	•	•
Reverse warning light, strobe lightning	•	•	•
Warning beacon (flasher), LED automatic	•	•	•
Warning beacon (flasher), LED	•	•	•
Seatbelt indicator, external	•	•	•
Working lights, attachments, 1 LED	•	•	•
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	•	•	•
Can Bus Interface	•	•	•
Protective Equipment			
Anti-theft device	•	•	•
Bellyguard front	•	•	•
Bellyguard rear	•	•	•
Boom cylinder hose and tube guards	•	•	•
Cab roof, heavy duty	•	•	•
Center hinge and rear frame guard	•	•	•
Corrosion protection, painting of machine	•	•	•
Cover plate front frame, heavy-duty	•	•	•
Cover plate, under cab	•	•	•
Cover plates rear frame	•	•	•
Guards for front headlights	•	•	•
Grease nipple guards	—	•	•
Guards for radiator grill	•	•	•
Guards for tail lights, heavy-duty	•	•	•
Wheel/axle seal guards	•	•	•
Window guards, side and rear	•	•	•
Windshield guard	•	•	•
Other Equipment			
CareTrack, GSM/Satellite	•	•	•
CE-marking	•	•	•
Comfort Drive Control (CDC)	•	•	•
Comfort Drive Control (CDC) Electro-servo	•	•	•
Secondary steering	•	•	•
Counterweight, logging	•	•	•
Counterweight, signal painted, chevrons	•	•	•
Noise reduction kit, EU excluding decal	•	•	•
Sign, 50 km/h	•	•	•
Sign, slow moving vehicle	•	•	•

OPTIONAL EQUIPMENT			
	L60H	L70H	L90H
External equipment			
Deleted front mudguards	•	•	•
Bracket for fire extinguisher	•	•	•
Fire suppression system	•	•	•
Mudguards, full cover, rear for 80-series tires	•	•	•
Mudflap kit for mudguards, full cover for 80-series tires	•	•	•
Mudguards, full cover, rear and front/rear for 65-series tires	•	•	•
Mudflap kit for mudguards, full cover for 65-series tires	•	•	•
Footsteps front frame	•	•	•
Footsteps, right-hand side	•	•	•
Flexible rear step	•	•	•
Cab ladder, rubber suspended	•	•	•
Tires and Rims			
20.5R25	•	•	•
600/65R25	•	•	•
650/65R25	—	—	•
620/75R26 Agriculture application only	•	•	•
750/65R26 Agriculture application only	•	•	•

OPTIONAL EQUIPMENT			
	L60H	L70H	L90H
Attachments			
Buckets:			
Straight	•	•	•
Spade nose	•	•	•
High tipping	•	•	•
Light material	•	•	•
Grading	•	•	•
Wear parts:			
Bolt-on edge	•	•	•
Bolt-on or weld-on bucket teeth	•	•	•
Segments	•	•	•
Log grapples	•	•	•
Fork equipment	•	•	•
Material handling arm	•	•	•
Snow blade	•	•	•
Broom	•	•	•
Sand spreading bucket	•	•	•
Bale clamp	•	•	•
Drum rotator	•	•	•

SELECTION OF VOLVO OPTIONAL EQUIPMENT

External axle cooling (L70H, L90H)



Reversing camera with radar detect CoPilot



Premium seat



Comfort Drive Control



Light packages



Lock-up converter (L70H, L90H)



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.



Volvo Construction Equipment
volvoce.com

Description	Article
Volvo L60H, Wheel Loader	L60H
20.5R25* Bridgestone VJT	WL20011
4-Rims (3pc) for 20.5 or 600 tires	WL21004
Engine D6J (Tier 4F) US	WL32017
Fuel fill strainer	WL30007
Delayed Engine Shutdown	WL30024
Reversible cooling fan	WL37001
Volvo Airsusp, Heated, 2pt, 3" belt	WL41010
Air conditioning with ACC (automatic climate control)	WL42001
Steering knob	WL45001
Sliding window in door	WL45003
ACC Fahrenheit decal only	WL45004
Universal key	WL45005
Rear view camera color, LCD monitor	WL45016
Lunch box holder	WL45023
Anchorage manual	WL45027
LOTO, Lock out tag out	WL53009
Back up alarm	WL54001
Footsteps front frame	WL71005
Footstep, right side	WL71009
Boom Suspension System (" Ride Control" . Includes	WL80001
Decals, English/Spanish	WL83004
Cover plates, rear frame	WL86013
Frame, life time warranty	WL86041
CareTrack Connectivity 4 yr Subscription	WL88010
CareTrack, GSM/Satellite	WL88018
De-activate SAT	WL88020
98" 2.9 yd hook-on HD GP bucket	WLA86405
98" 3-piece bolt-on edge kit, straight-edge bucket (BOE	WLA80134



Volvo Construction Equipment North America
Warranty – Disclaimers – Limitations
Limited Warranty for Governmental / Municipalities

Volvo Construction Equipment North America (“Volvo CE”) hereby extends to its authorized dealers (“Dealer”) and the Dealer’s Governmental / Municipalities customers (“Customer”, and both Dealer and Customer are referred to herein as a “Buyer”), who purchase a new Volvo construction equipment machine (“Machine”) or new Volvo part (“Part”, both of which are referred to herein as a “Product”) from Volvo, the following limited warranty:

Subject to the exceptions and limitations set forth below, Volvo CE or Dealer will repair or replace any part of a new Machine or new Part which proves to be defective in material or workmanship during the following periods (the “Warranty Period”):

- Volvo wheel loaders: 12 months/2500 hours, whichever first occurs
- Volvo articulated haulers: 12 months/2500 hours, whichever first occurs
- Volvo hydraulic excavators: 12 months/2500 hours, whichever first occurs
- Volvo motor graders: 12 months/2500 hours, whichever first occurs
- Volvo compactors: 12 months/1500 hours, whichever first occurs
24 months unlimited hours on DD90 and larger compactors
- Volvo pavers: 12 months/1500 hours, whichever first occurs
24 months unlimited hours on 6000 / 7000 series pavers
- Volvo milling: 12 months/1500 hours, whichever first occurs
- Volvo compact wheel loaders (up to 100 net hp.): 12 months/unlimited hours
- Volvo skid steer loaders: 12 months/unlimited hours; Lifetime arm for one-sided
- Volvo compact hydraulic excavators (less than 11 metric tons): 12 months/unlimited hours
- Volvo backhoe loaders: 12 months/unlimited hours
- Volvo engines: 12 months/2500 hours, whichever first occurs
- Volvo parts: 6 months/1500 hours, whichever first occurs
- Volvo remanufactured components: 12 months/2500 hours, whichever first occurs
- Volvo Attachments: 12 months

The Warranty Period commences immediately following the delivery of said Product to the Buyer who first puts said Product into use. The foregoing limited warranty shall include the labor cost to accomplish the repair or replacement of the defective part provided that the repair or replacement was performed by a Dealer.

The foregoing warranty does not cover: (i) any Product found to have been damaged by abuse, accident, other casualty or a failure to maintain or use the warranted Product in accordance with the applicable manuals or instructions (Buyer is required to use only original equipment manufacturer filters during the Warranty Period); (ii) the labor costs to repair or replace defective Parts after the expiration of the Warranty Period of the Machine in which such Part is located; (iii) overtime labor premiums; (iv) costs and expenses associated with the transportation of Dealer’s service personnel to and from the location of the warranted Product; (v) any parts, components, attachments or accessories for which Buyer receives a separate warranty by the manufacturer or producer thereof (in specified cases said warranty may be administered by Volvo CE); (vi) maintenance items or ground engaging parts that have achieved their normal service life.

DISCLAIMER OF IMPLIED WARRANTIES AND LIMITATION OF REMEDIES

THE FOREGOING WARRANTY TO BUYER IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

REMEDIES AVAILABLE TO BUYER ARE LIMITED TO MAKING A CLAIM UNDER THE FOREGOING WARRANTY AND ARE EXCLUSIVE AND EXPRESSLY LIMITED TO OBTAINING THE PARTS AND LABOR IN ACCORDANCE WITH THE TERMS OF SAID WARRANTY.

Warranty – Disclaimers – Limitations

LIMITATIONS OF LIABILITY AND DAMAGES

Regardless of whether a claim against Volvo CE or Dealer is based on the foregoing warranty or is an action in contract, tort (negligence or strict liability) or otherwise, their respective liability for losses, damages or expenses of any kind arising from the design, manufacture, repair or sale of the Products is limited, unless otherwise prohibited by law, to an amount not exceeding the cost performing the obligations contained in the foregoing warranty, and in no event shall their respective or joint liability exceed the value of the Product or part thereof giving rise to such liability.

CONSEQUENTIAL AND SIMILAR DAMAGES NOT RECOVERABLE

Except for performing the obligations of the foregoing warranty in accordance with its terms, Volvo CE and Dealer shall have no liability for loss, damage, or expense, directly or indirectly, attributable to a loss of use of a Product, loss or damage to property other than the Product, loss or damage to the Product or any part thereof or any other economic or commercial loss, including, without limitation, lost profits or special or consequential damages (except liability for any type of consequential damages which by law may not be disclaimed). The parties intend that this prohibition against consequential and similar damages will survive and be effective even if the limitation of remedies in the foregoing sections is found to fail of its essential purpose under section 2-719 of the Uniform Commercial Code.

ALLOCATION OF RISK

The foregoing warranty disclaimers, limitations of liability and limitation of remedies are bargained allocations of risks among (i) the Customer who purchased the Product; (ii) the Dealer who sold the Product, and (iii) Volvo CE, which is a third party beneficiary of the contract of sale between the Customer and the Dealer. The Buyer of the Product accepts the foregoing warranty and the other bargained for allocations of risk as part of the agreed price for the purchase of the Product to which the foregoing warranty applies. Volvo CE is prepared to offer different warranties and other allocations of risk for other prices. However, any such change in the warranty or the allocation of risks must be confirmed in writing by Volvo CE.

STATUTE OF LIMITATIONS

Any action by a Buyer of a Product for breach of contract, for breach of warranty arising under, or for a cause of action arising out of the sale of a Product, whether based on contract, tort (negligence or strict liability) or otherwise, shall be commenced within one (1) year after the cause of action has accrued. Any such cause of action shall be deemed to have accrued at the earlier of (i) the discovery of the defect or breach, or (ii) the expiration of the applicable Warranty Period.