

Volvo L120H Specifications

L120H

	REHANDLING*		GENERAL PURPOSE						ROCK**	LIGHT MATERIAL		LONG BOOM***
	WLA86739	WLA86738	WLA86323	WLA86307	WLA86325	WLA86308	WLA93890	WLA92689	WLA92684	WLA86739		
Tires 23.5R25 XHA2 L3												
	3.8 m ³ 5.0 yd ³ STE P BOE	3.8 m ³ 5.0 yd ³ STE H BOE	3.3 m ³ 4.3 yd ³ STE PT	3.3 m ³ 4.3 yd ³ STE HT	3.6 m ³ 4.7 yd ³ STE P BOE	3.6 m ³ 4.7 yd ³ STE H BOE	3.0 m ³ 3.9 yd ³ SPN PT SEG	5.5 m ³ 7.2 yd ³ LM H	9.5 m ³ 12.4 yd ³ LM H	3.3 m ³ 4.3 yd ³ STE HT		
Volume, heaped ISO/SAE	m ³ yd ³	3.8 5.0	3.8 5.0	3.3 4.3	3.3 4.3	3.6 4.7	3.6 4.7	3.0 3.9	5.5 7.2	9.5 12.4	3.3 4.3	
Volume at 110% fill factor	m ³ yd ³	4.2 5.5	4.2 5.5	3.6 4.7	3.6 4.7	4.0 5.2	4.0 5.2	3.3 4.3	6.1 7.9	10.5 13.7	3.6 4.7	
Static tipping load, straight	kg lb	15 660 34,530	14 960 32,980	14 800 32,630	14 450 31,870	14 810 32,660	14 080 31,040	14 860 32,760	13 010 28,690	13 120 28,940	-2 680 -5,896	
at 35° turn	kg lb	13 870 30,570	13 210 29,140	13 120 28,940	12 790 28,210	13 110 28,920	12 430 27,410	13 160 29,020	11 440 25,230	11 510 25,390	-2 440 -5,368	
at full turn	kg lb	13 340 29,400	12 700 28,000	12 630 27,850	12 300 27,120	12 610 27,810	11 950 26,340	12 660 27,920	10 980 24,200	11 040 24,340	-2 370 -5,214	
Breakout force	kN lb	162.4 36,510	151.8 34,120	189.2 42,530	173.5 39,010	172.9 38,870	159.6 35,880	150.6 33,870	121.6 27,340	106.0 23,840	0 0	
A	mm ft in	8 170 26'10"	8 320 27'3"	8 230 27'0"	8 340 27'4"	8 050 26'5"	8 160 26'9"	8 390 27'6"	8 610 28'3"	8 910 29'3"	+460 +1'6"	
E	mm ft in	1 250 4'1"	1 400 4'7"	1 380 4'6"	1 480 4'10"	1 230 4'0"	1 330 4'4"	1 520 5'0"	1 730 5'8"	1 990 6'6"	-20 -8'10"	
H	mm ft in	2 890 9'6"	2 770 9'1"	2 780 9'1"	2 700 8'10"	2 900 9'6"	2 830 9'3"	2 690 8'10"	2 480 8'2"	2 270 7'6"	+560 +1'10"	
L	mm ft in	5 750 18'10"	5 780 18'11"	5 700 18'8"	5 760 18'11"	5 750 18'10"	5 820 19'1"	5 690 18'8"	5 900 19'4"	6 070 19'11"	+520 +1'9"	
M	mm ft in	1 250 4'1"	1 330 4'4"	1 310 4'3"	1 390 4'7"	1 190 3'11"	1 280 4'2"	1 440 4'9"	1 560 5'1"	1 760 5'9"	-50 -0'2"	
N	mm ft in	1 850 6'1"	1 860 6'1"	1 840 6'0"	1 880 6'2"	1 800 5'11"	1 840 6'0"	1 930 6'4"	1 890 6'2"	1 910 6'3"	+450 +1'6"	
V	mm ft in	3 000 118"	3 000 118"	3 000 118"	3 000 118"	3 000 118"	3 000 118"	2 880 113"	3 000 118"	3 400 133"	0 0	
a ₁ clearance circle	mm ft in	13 040 42'9"	13 090 42'11"	12 890 42'3"	12 950 42'6"	12 800 42'0"	12 850 42'2"	12 890 42'3"	13 130 43'1"	13 660 44'10"	+410 +1'4"	
Operating weight	kg lb	20 110 44,350	20 330 44,820	19 280 42,510	19 460 42,900	19 420 42,830	19 640 43,300	20 260 44,680	19 900 43,880	20 120 44,360	+240 +528	

* Measured with additional rehandling counterweight | ** With MICHELIN 23,5R25 XMINE D2 L5 Tire | *** Based on 3,3 m³ / 4.3 yd³ STE HT bucket

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/m³ (2,700 lb/yd³).
Result: The 3.4 m³ (4.5 yd³) bucket carries 3.6 m³ (4.7 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density*		ISO/SAE bucket volume		Actual volum ^e		
		t/m ³	lb/yd ³	m ³	yd ³	m ³	yd ³	
Earth/Clay	~ 110		1.8	3,030	3.3	4.3	3.6	4.7
			1.6	2,700	3.6	4.7	3.9	5.1
Sand/Gravel	~ 105		1.8	3,030	3.3	4.3	3.5	4.6
			1.6	2,700	3.6	4.7	3.8	5.0
Aggregate	~ 100		1.8	3,030	3.8	5.0	3.8	5.0
			1.6	2,700				
Rock	≤100		1.7	2,866	3.0	3.9	3.0	3.9

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 ³ (lb/yd ³)						
			0.8 (1,349)	1.0 (1,686)	1.2 (2,024)	1.4 (2,361)	1.6 (2,698)	1.8 (3,035)	2.0 (3,373)
Standard boom	Rehandling	P 3.8 m ³ (5.0 yd ³)					4.0 (5.2)	3.3 (5.0)	
		H 3.8 m ³ (5.0 yd ³)					4.0 (5.2)	3.8 (5.0)	
	General purpose	P 3.3 m ³ (4.3 yd ³)						3.6 (4.7)	3.3 (4.3)
		H 3.3 m ³ (4.3 yd ³)						3.6 (4.7)	3.3 (4.3)
	Rock	P 3.6 m ³ (4.7 yd ³)						4.0 (5.2)	3.6 (4.7)
		H 3.6 m ³ (4.7 yd ³)					4.0 (5.2)	3.6 (4.7)	2.8 (3.7)
Long boom	Light material	H 5.5 m ³ (7.2 yd ³)	10.0 (13.0)	5.8 (7.6)	5.5 (7.2)				
		H 9.5 m ³ (12.4 yd ³)		9.5 (12.4)					
	Rehandling	P 3.8 m ³ (5.0 yd ³)					4.0 (5.2)	3.8 (5.0)	
		General purpose	P 3.3 m ³ (4.3 yd ³)					3.6 (4.7)	3.3 (4.3)
P 3.6 m ³ (4.7 yd ³)						4.0 (5.2)	3.6 (4.7)		
Rock	P 3.0 m ³ (3.9 yd ³)						3.1 (4.1)	3.0 (3.9)	
	Light material	H 5.5 m ³ (7.2 yd ³)	5.3 (7.6)	5.5 (7.2)					

How to read bucket fill factor

Supplemental Operating Data

		Standard boom				Long boom			
Tires 23.5 R25 L3		23.5 R25 L5		750/65 R25		750/65 R25			
Width over tires	mm in	+30	+1.2	+200	+7.9	+200	+7.9		
Ground clearance	mm in	+50	+2	0	0	0	0		
Tipping load, full turn	kg lb	+450	+990	+380	+836	+330	+726		
Operating weight	kg lb	+670	+1,474	+640	+1,408	+640	+1,408		