#### ${f v}$ o ${f L}$ ${f v}$ o



Volvo Wheel Loaders 19-21.6 t / 41,890-47,620 lb 275 hp

# L120H

# L120H

With high breakout force, ultimate parallel movement and easy bucket filling, this medium sized 20-tonne wheel loader is ready to tackle a range of applications.



# Made to move

The second generation of Volvo L120H Wheel Loader is as versatile, fuel efficient and reliable as its forerunner but it comes with a batch of improvements that increase availability. A new Volvo engine and power strategy, plus a host of maintenance-friendly features trigger benefits for the operators, service technicians and machine owners.

#### **Fuel efficiency**



- Second generation OptiShift with lockup
- Reverse By Braking
- Rimpull control
- Eco pedal
- Dry P-brake

## $\ll$

#### Loaded for versatility

- Unique Torque Parallel linkage
- Range of matched Volvo Attachments
- Custom built attachments
- Tailored application packages

#### Operator comfort

- Removed main switch, ignition key activates and powers the machine
- Choice of single or multi levers
- Choice of three hydraulic response modes
- Auto bucket leveling function
- Comfort Drive Control (option)
- Premium seat (option)



## Load Assist, powered by Volvo Co-Pilot

- On-Board Weighing
- Operator Coaching
- Tire Pressure Monitoring System (option)
- Collision Mitigation System integrated into the Volvo Co-Pilot display



#### **Uptime**

- Auto engine regeneration while working
- 1,000 hr engine service interval
- Removed main switch = no risk of flat battery because left on
- Delayed engine shutdown reduces wear
- Lifetime Frame and Structure warranty



#### Serviceability

- Electric fuel priming pump
- Lockout-tagout (LOTO) on service switch
- Electrically-operated engine hood with large opening
- Slidable cooler installation
- Drain/fill connector for hydraulic oil
- Brake wear indicators

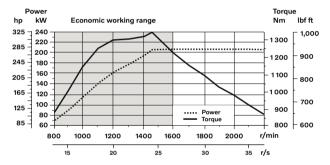
### Volvo L120H in detail

#### Engine

8 liters, 6-cylinder in-line turbocharged diesel engine with an advanced common rail fuel injection system. Fuel is distributed under high pressure from a high-pressure accumulator. One camshaft-driven high pressure pump delivers the fuel to the rail and then to the electronically operated fuel injectors via high pressure pipes.

The engine meets all emission requirements and comply with Tier 4 final / EU StageV emission legislation by the help of the exhaust after treatment system (EATS) which contains the diesel oxy-catalyst (DOC) and diesel particulate filter (DPF) for regeneration, urea injector, mixing chamber,SCR and slipcat for reduction of NOx. The reduction of NOx is assisted by the use of cooled exhaust gas recirculation (EGR) as well.

Engine	Volvo	D8M
Max. power at	r/min (r/s)	1,500 - 2,240 (25 - 37.3)
ISO 14396 gross	kW (hp)	205 (275)
ISO 9249, SAE J1349 net	kW (hp)	205 (275)
Max. torque at	r/min (r/s)	1,450 (24.2)
ISO 14396 gross	Nm (ft lbf)	1 345 (992)
ISO 9249, SAE J1349 net	Nm (ft lbf)	1,345 (992)
Economic working range	r/min (r/s)	800 - 1,600 (13.3 - 26.7)
Displacement	l (in³)	78 (475)



#### 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) 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. OptiShift transmission is also available as an option (HTL 206E).

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. Optional: Limslip rear.

Transmission	Volvo	HTE 206F
Torque multiplication, stall ratio		2.47:1
Maximum speed, forward/reverse		
1st gear	km/h (mi/h)	7.2 (4.5)
2nd gear	km/h (mi/h)	13.6 (8.5)
3rd gear	km/h (mi/h)	28.1 (17.5)
4th gear	km/h (mi/h)	40 (24.9)
Note: 4th gear limited by ECU		
Measured with tires		750/65R25
Front axle/rear axle		AWB 31/AWB 30
Rear axle oscillation	±°	13
Ground clearance	mm (in)	460 (18.1)
at oscillation	0	13

#### 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	Α	1,000
Alternator rating	W/A	3,479/130
Starter motor output	kW	5.5

#### Brake system

**Service brake:** Volvo dual-circuit system with nitrogen charged acculmulators. Outboard mounted hydraulically operated, fully sealed oil circulation cooled wet disc brakes. The operator can select automatic declutch of the transmission when braking by selecting the setting in the contronics.

Parking brake: Fully sealed, wet multi-disc brake built into the transmission. Applied by spring force and disengaged by external hydraulic pressure. The parking brake is activated and diactivated through a switch in the dashboard.

**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		1
Accumulators	l (gal)	3 x 1.0 (3 x 0.26)
Accumulators for parking brake	l (gal)	1 x 1.0 (1 x 0.26)

#### 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 manual settings (11 speeds). 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, SAE J1040), FOPS (ISO 3449). The cab meets with requirements according to 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	m³/min (yd³/min)	9 (11.8)
Heating capacity	kW	16
Air conditioning (optional)	kW	7.5

#### Lift Arm System

Lift cylinders

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

Life Cylinders		_
Cylinder bore	mm (in)	150 (5.9)
Piston rod diameter	mm (in)	80 (3.1)
Stroke	mm (in)	676 (26.6)
Tilt cylinder		1
Cylinder bore	mm (in)	210 (8.3)
Piston rod diameter	mm (in)	110 (4.3)
Stroke	mm (in)	412 (16.2)

#### Hydraulic system

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

Valves: Double-acting 2-spool valve. The main valve is controlled by a 2-spool pilot valve.

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)	29.0 ± 0.5 (290 ± 5)
Flow	l/min (gal/min)	128 (33.8)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (31.7)
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa (bar)	31.0 ± 0.5 (310 ± 5)
Flow	l/min (gal/min)	128 (33.8)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (31.7)
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa (bar)	21.0 ± 0.5 (210 ± 5)
Flow	l/min (gal/min)	33 (8.7)
at	MPa (bar)	10 (100)
engine speed	r/min (r/s)	1,900 (31.7)
Pilot system, working pressure	MPa (bar)	3.5 ± 0.5 (35)
Cycle times		
Lift	S	5.4
Tilt	s	2.1
Lower, empty	s	2.5
Total cycle time	s	10

Raise and tilt cycle times with load according to ISO 14397

#### 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)	75 (3)
Rod diameter	mm (in)	50 (2)
Stroke	mm (in)	486 (19.1)
Working pressure	MPa (bar)	26.5 (265)
Maximum flow	l/min (gal/min)	128 (31.7)
Maximum articulation	±°	40

#### Service Refill

Service accessibility: Electrically openable engine hood with large opening angle giving excellent access to the engine compartment. 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.

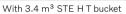
Fuel tank	l (gal)	270 (71.3)
DEF/AdBlue® tank	l (gal)	31 (8.2)
Engine coolant	l (gal)	38 (10)
Hydraulic oil tank	l (gal)	140 (3.7)
Transmission oil	l (gal)	37 (9.8)
Engine oil	l (gal)	30 (7.9)
Axle oil front	l (gal)	36 (9.5)
Axle oil rear	l (gal)	41 (10.8)

#### Sound Level

Sound pressure level in cab according to ISO 639	6	
L <sub>pA</sub>	dB	68
External sound level according to ISO 6395		
L <sub>WA</sub>	dB	106

## **Specifications**

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	DIMENSIONS						
B         mm         ft in         6,660         21'10"         7,140         23'5'           C         mm         ft in         3,200         10'6"         3,200         10'6'           D         mm         ft in         430         1'5"         430         1'5"           F         mm         ft in         3,380         11'1"         3,380         11'1"           G         mm         ft in         2,132         7'0"         2,132         7'0"           I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54           P <sub>max</sub> °         50         50           R         °         42         43           R <sub>1</sub> *         °         45         48           S         68         64           T         mm         ft in         108         0'4"         157         0'6"           U <th colspan="5">L120H</th> <th></th>	L120H						
C         mm         ft in         3,200         10'6"         3,200         10'6"           D         mm         ft in         430         1'5"         430         1'5"           F         mm         ft in         3,380         11'1"         3,380         11'1"           G         mm         ft in         2,132         7'0"         2,132         7'0"           I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         54           Pmax         °         50         50         50           R         °         42         43         48           S         °         68         64         4           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	Tires 23.5 K2	25 L3		Standa	rd boom	Long	boom
D         mm         ft in         430         1'5"         430         1'5"           F         mm         ft in         3,380         11'1"         3,380         11'1"           G         mm         ft in         2,132         7'0"         2,132         7'0"           I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         54           Pmax         °         50         50         50           R         °         42         43         48           S         °         68         64         44           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	В	mm	ft in	6,660	21'10"	7,140	23'5"
F         mm         ft in         3,380         11'1"         3,380         11'1"           G         mm         ft in         2,132         7'0"         2,132         7'0"           I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         54           P <sub>max</sub> °         50         50         50           R         °         42         43         43           R <sub>1</sub> *         °         45         48         54           S         °         68         64         54           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	С	mm	ft in	3,200	10'6"	3,200	10'6"
G         mm         ft in         2,132         7'0"         2,132         7'0"           I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         50         50           R         °         42         43         8           R <sub>1</sub> *         °         45         48         8           S         68         64         7         66"           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	D	mm	ft in	430	1'5"	430	1'5"
I         mm         ft in         2,120         6'11"         2,120         6'11"           J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         54           P <sub>max</sub> °         50         50         50           R         °         42         43         43           R <sub>1</sub> *         °         45         48         8           S         °         68         64         7           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	F	mm	ft in	3,380	11'1"	3,380	11'1"
J         mm         ft in         3,770         12'4"         4,280         14'1"           K         mm         ft in         4,100         13'5"         4,610         15'1"           O         °         54         54         54           P <sub>max</sub> °         50         50         50           R         °         42         43         43           R <sub>1</sub> *         °         45         48         5           S         °         68         64         5           T         mm         ft in         108         0'4"         157         0'6"           U         mm         ft in         450         1'6"         580         1'11"	G	mm	ft in	2,132	7'0"	2,132	7'0"
K     mm     ft in     4,100     13'5"     4,610     15'1"       O     °     54     54       P <sub>max</sub> °     50     50       R     °     42     43       R <sub>1</sub> *     °     45     48       S     °     68     64       T     mm     ft in     108     0'4"     157     0'6"       U     mm     ft in     450     1'6"     580     1'11"	1	mm	ft in	2,120	6'11"	2,120	6'11"
O     °     54     54       P <sub>max</sub> °     50     50       R     °     42     43       R <sub>1</sub> *     °     45     48       S     °     68     64       T     mm     ft in     108     0'4"     157     0'6"       U     mm     ft in     450     1'6"     580     1'11"	J	mm	ft in	3,770	12'4"	4,280	14'1"
P <sub>max</sub> ° 50 50 50 R ° 42 43 R <sub>1</sub> * ° 45 48 S ° 68 64 T mm ft in 108 0'4" 157 0'6" U mm ft in 450 1'6" 580 1'11"	K	mm	ft in	4,100	13'5"	4,610	15'1"
R <sub>1</sub> * ° 42 43 R <sub>1</sub> * ° 45 48 S ° 68 64 T mm ft in 108 0'4" 157 0'6" U mm ft in 450 1'6" 580 1'11"	0	0		5	54	5	4
R <sub>1</sub> * ° 42 43 R <sub>1</sub> * ° 45 48 S ° 68 64 T mm ft in 108 0'4" 157 0'6" U mm ft in 450 1'6" 580 1'11"	P <sub>max</sub>	0		5	0	5	0
S ° 68 64 T mm ft in 108 0'4" 157 0'6" U mm ft in 450 1'6" 580 1'11"	R	0		42		4	3
T mm ft in 108 0'4" 157 0'6" U mm ft in 450 1'6" 580 1'11"	R <sub>1</sub> *	o		45		4	8
U mm ft in 450 1'6" 580 1'11"	S	0		6	8	64	
	T	mm	ft in	108	0'4"	157	0'6"
V mm ft in 2,070 6'0" 2,070 6'0"	U	mm	ft in	450	1'6"	580	1'11"
A IIIII 11 2,070 69 2,070 69	Χ	mm	ft in	2,070	6'9"	2,070	6'9"
Y mm ft in 2,670 8'9" 2,670 8'9"	Υ	mm	ft in	2,670	8'9"	2,670	8'9"
Z mm ft in 3,330 10'11" 3,330 10'11	Z	mm	ft in	3,330	10'11"	3,330	10'11"
a <sub>2</sub> mm ft in 5,730 18'10" 5,730 18'10	a <sub>2</sub>	mm	ft in	5,730	18'10"	5,730	18'10"
a <sub>3</sub> mm ft in 3,060 10'0" 3,060 10'0'	a <sub>3</sub>	mm	ft in	3,060	10'0"	3,060	10'0"
a <sub>4</sub> ±° 40 40	a <sub>4</sub>	±°	0	4	-0	4	0



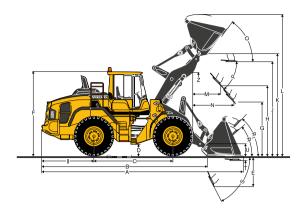
Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.

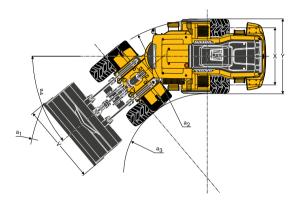
#### L120H Log Loader

Grapple: WLA80832

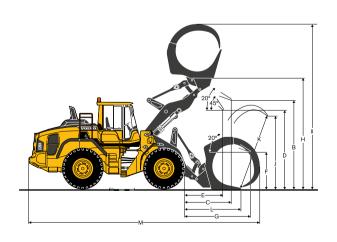
Operating weight

(incl. logging cw 685 kg / 1,510 lb): 20,840 kg / 45,940 lb Operating load: 7,050 kg / 15,540 lb





		L12	0H
		Tires: 750	0/65 R25
m²	ft²	2.4	25.8
mm	ft in	3,550	11'8"
mm	ft in	1,890	6'2"
mm	ft in	2,920	9'7"
mm	ft in	1,500	4'11"
mm	ft in	1,530	5'0"
mm	ft in	2,790	9'2"
mm	ft in	4,660	15'3"
mm	ft in	6,690	21'11"
mm	ft in	2,790	9'2"
mm	ft in	2,990	9'10"
mm	ft in	2,150	7'1"
mm	ft in	8,930	29'4"
	mm mm mm mm mm mm mm mm	mm ft in	Tires: 750  m² ft² 2.4  mm ft in 3,550  mm ft in 1,890  mm ft in 1,500  mm ft in 1,530  mm ft in 2,790  mm ft in 4,660  mm ft in 6,690  mm ft in 2,790  mm ft in 2,150



<sup>\*</sup> Carry position SAE

L120H																						
Tires 23.5R25 XHA2 L3			REHANDLING*				GENERAL PURPOSE						ROCK**		LIG	LIGHT MATERIAL		LONG BOOM***				
									Î		I		PÉ				P.E		PÉ		PÉ	
			ST	m <sup>3</sup> / yd <sup>3</sup> E P OE	ST	m <sup>3</sup> / yd <sup>3</sup> E H DE	3.4 4.4 STE			m³ / yd³ : H T	ST	m <sup>3</sup> / yd <sup>3</sup> E P DE	ST	m <sup>3</sup> / yd <sup>3</sup> E H DE	3.9 SPN	m³/ yd³ IPT EG	7.2	m³ / yd³ 1 H		m³ / - yd³ 1 H	4.4	m³ / yd³ H T
Volume, heaped ISO/SAE	m³	yd <sup>3</sup>	3.8	5.0	3.8	5.0	3.4	4.4	3.4	4.4	3.6	4.7	3.6	4.7	3.0	3.9	5.5	7.2	9.5	12.4	3.4	4.4
Volume at 110% fill factor	m³	yd <sup>3</sup>	4.2	5.5	4.2	5.5	3.7	4.8	3.7	4.8	4.0	5.2	4.0	5.2	3.3	4.3	6.1	8.0	10.5	13.7	3.7	4.8
Static tipping load, straight	kg	lb	15,640	34,490	14,780	32,590	14,590	32,170	13,910	30,670	14,540	32,060	13,870	30,580	14,900	32,850	13,050	28,780	13,160	29,020	-2,580	-5,690
at 35° turn	kg	lb	13,860	30,560	13,060	28,800	12,940	28,530	12,310	27,140	12,900	28,440	12,270	27,060	13,220	29,150	11,490	25,340	11,560	25,490	-2,350	-5,190
at full turn	kg	lb	13,330	29,390	12,550	27,670	12,460	27,470	11,840	26,110	12,410	27,360	11,800	26,020	12,720	28,050	11,030	24,320	11,090	24,450	-2,290	-5,050
Breakout force	kN	lbf	163.7	36,810	151.9	34,150	173.7	39,050	160.3	36,040	168.8	37,950	156.1	35,100	150.5	33,840	121.6	27,340	106.1	23,860	+5	+1,130
Α	mm	ft in	8,210	26'11"	8,310	27'3"	8,240	27'0"	8,350	27'5"	8,160	26'9"	8,270	27'2"	8,470	27'9"	8,690	28'6"	8,980	29'6"	+500	+1'8"
Е	mm	ft in	1,300	4'3"	1,400	4'7"	1,330	4'4"	1,430	4'8"	1,260	4'2"	1,360	4'6"	1,520	5'0"	1,730	5'8"	2,000	6'7"	+20	+0'1"
Н	mm	ft in	2,840	9'4"	2,700	8'10"	2,820	9'3"	2,750	9'0"	2,870	9'5"	2,800	9'2"	2,690	8'10"	2,470	8'1"	2,270	7'5"	+510	+1'8"
L	mm	ft in	5,710	18'9"	5,770	18'11"	5,520	18'1"	5,590	18'4"	5,570	18'3"	5,640	18'6"	5,690	18'8"	5,900	19'4"	6,070	19'11"	+510	+1'8"
M	mm	ft in	1,250	4'1"	1,230	4'0"	1,270	4'2"	1,350	4'5"	1,220	4'0"	1,300	4'3"	1,450	4'9"	1,560	5'1"	1,760	5'9"	-30	-1'11"
N	mm	ft in	1,820	6'0"	1,710	5'7"	1,830	6'0"	1,870	6'2"	1,810	5'11"	1,850	6'1"	1,930	6'4"	1,890	6'2"	1,910	6'3"	+450	+1'6"
V	mm	ft in	3,000	9'10"	3,000	9'10"	3,000	9'10"	3,000	9'10"	3,000	9'10"	3,000	9'10"	2,880	9'5"	3,000	9'10"	3,400	11'2"	0	0
a <sub>1</sub> clearance circle	mm	ft in	13,040	42'9"	13,090	42'11"	13,060	42'10"	13,110	43'0"	13,010	42'8"	13,060	42'10"	13,100	43'0"	13,330	43'9"	13,880	45'6"	+480	+1'7"
Operating weight	kg	lb	20,210	44,555	20,510	45,217	19,390	42,748	19,610	43,232	19,410	42,792	19,630	43,277	20,390	44,952	20,030	44,159	20,250	44,644	+280	+1,130

### \* Measured with additional rehandling counterweight | \*\* With MICHELIN 23,5R25 XMINE D2 Pro L5 Tire | \*\*\* Compared to GP 3.4 m³ / 4.4 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  $\sim 105\%$ . 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	t fill, %		terial nsity	ISO/ bud volu	ket	Actual volume		
			t/m³	lb/yd³	m³	yd <sup>3</sup>	m³	yd <sup>3</sup>	
Earth/Clay	~ 110		1.8 1.6	3,030 2,700	3.3 3.6	4.3 4.7	3.6 3.9	4.7 5.1	
Sand/ Gravel	~ 105	$\bigcirc$	1.8 1.6	3,030 2,700	3.3 3.6	4.3 4.7	3.5 3.8	4.6 5.0	
Aggregate	~ 100	$\bigcirc$	1.8 1.6	3,030 2,700	3.8	5.0	3.8	5.0	
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		ISO/SAE Bucket					t/m³ (lb/yo		.8 2	.0			
boom	bucket	volume	(1,3	49) (1,6					.o 2 035) (3,3	373)			
Standard boom	Rehandling	P 3.8 m³ (5.0 yd³)					4.0 (5	.2) 3.	8 (5.0)				
	Rehai	3.8 m³ H (5.0 yd³)					4.0 (5.2)	3.8 (5	.0)				
	<b>–</b> a	P (4.3 yd³)						3.6 (4.7)		3.3 (4.			
	General purpose	H (4.3 yd³)						3.6 (4.7)	3	.3 (4.3			
	Ge	P (4.7 yd³)					4.0 (	5.2)	3.6 (4.	7)			
Star		H <sup>3.6 m³</sup> (4.7 yd³)					4.0 (5.2)	3	6 (4.7)	2.8			
	Rock	P (3.9 yd³)							3.0 (3.9)	(3.7			
	Light material	(7.2 yd³)	(13.0)	5.8 (	7.6)	5.5 (7.2)							
		H <sub>(12.4 yd³)</sub>	(1010)	9.5 (12.4	)								
	Rehandling	P 3.8 m³ (5.0 yd³)				4.0 (5.2)	3.8 (5	.0)					
E	eral	P (4.3 yd³)				3.6	(4.7)	3.3 (4	.3)				
Long boom	General purpose	P 3.6 m³ (4.7 yd³)			4	.0 (5.2)	3.6	(4.7)					
Š	Rock	P (3.9 yd³)					3.1 (4	.1)	3.0 (3.9)				
	Light material	H <sup>5.5 m³</sup> (7.2 yd³)	5.	B (7.6)	5.5 (7.2)								
110% 1	Bucket fill 110% 105% 100% 95%												
11076		70 76 95 76	P=Pin-on H=Hook-on										

How to read bucket fill factor

Supplemental Operating Data								
Tires 23.5 R25 L3				Standa	Long boom			
Tires 23.5 R25 L3			23.5	R25 L5	750/6	5 R25	750/6	5 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

## **Equipment**

#### STANDARD EQUIPMENT

#### Engine

Exhaust after-treatment system

Three stage air cleaner, pre-cleaner, primary and secondary filter

Indicator for coolant level

Preheating of induction air

Fuel pre-filter with water trap

Fuel filter

Electric fuel prime pump

Crankcase breather oil trap

Exterior radiator air intake protection

Delayed Engine Shutdown

Fuel fill strainer

Reversible cooling fan

#### 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 transmission with Lock-up RBB

#### Electrical system

24 V, pre-wired for optional accessories

Alternator 24 V / 130 A / 3,479 W

Battery disconnect (service) 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)

Co-Pilot available

Rearview camera in Co-Pilot

Rear view camera, monitor

**Operator Coaching Start** 

Locking device, Tag out Lock out

Load Assist

Max Boom height

OnBoard Weighing

Operator Coaching Advanced

#### 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

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

#### STANDARD EQUIPMENT

#### 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

Secondary steering with automatic test function

Quick hydraulic oil fill

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

Boom suspension system

#### 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)

Harness Anchor Points

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

Anchorage for Operator's manual

Automatic Climate Control, ACC

Operator's seat, Comfort ISRI, 2pt seat belt

#### STANDARD EQUIPMENT

#### 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 II

Air pre-cleaner, turbo type III

Engine auto shutdown

Engine block heater

Fuel heater

Hand throttle control

Max. fan speed, hot climate

Radiator, corrosion-protected

Reversible cooling fan and axle oil cooler

#### Wheels and tires

23.5 R25

750/65 R25

#### Drivetrain

Oil cooler and filter front & rear axle

Diff lock front 100%, Limited Slip rear

Agri power-shift / lock-up 1-4

Speed limiter

Stainless steel, brake lines

#### **OPTIONAL EQUIPMENT**

#### Electrical system

Anti-theft device

Halogen Economy package

Halogen Feature package

Halogen Power package

Headlights, assymetric left, halogen

Working lights, attachments, halogen

Working lights, attachments, LED

LED Economy package

LED Feature package

LED Power package

LED Intense package

Alarm kit, anti-theft function in WECU

Battery disconnect switch, additional in cab

Emergency stop

License plate holder, lighting

Rear view mirrors, el.adjusted and heated

Rear view mirrors, long arm right

Rear view mirrors, el.adjusted and heated, long arm right

Reduced function working lights, reverse gear activated

Reverse alarm, audible

Reverse alarm, white noise

Dual LED reversing strobe lights

Seatbelt indicator, external

Shortened headlight support brackets

Side marker lamps

Warning beacon LED

Warning beacon LED automatic

Electrical distribution unit 24 volt

Radar detect system

Collision Mitigation System

Forward camera

Dual forward cameras

Parking brake alarm, audible for air susp seats

Jump start connector, ISO-Type

Can Bus Interface

OnBoard Weighing Task Mode

Tire pressure monitoring system

Connected Map

#### Hydraulic system

Separate attachment locking

Arctic kit, attachment locking hoses

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

Hydraulic constant flow control with detent for 3rd function

Single lever control, hydraulics 2 functions

Single lever control, hydraulics 3 functions

Single lever control, hydraulics 4 functions

#### **OPTIONAL EQUIPMENT**

#### Cab

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

Operator's seat, Comfort ISRI, 3pt seat belt

Operator's seat, Premium ISRI, 2pt seat belt

Operator's seat, Premium ISRI, 3pt 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 mirrors

Cab heater power outlet 240 V

Cab, Hot applications. Roof, steel

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

Grease nipple guards

Oil sampling valve

Refill pump for grease to lube system

Tool kit

Wheel nut wrench kit

CareTrack, GSM, GSM/Satellite

Telematics, Subscription

#### **OPTIONAL EQUIPMENT**

#### Protective equipment

Belly guard front

Belly guard rear

Cover plate, heavy-duty, front frame

Cover plate, rear frame

Cover plate, front/rear axle

Cab roof, heavy-duty

Guards for front headlights

Guards for radiator grill

Guards for tail lights

Windows, side and rear guards

Windshield guard

Wheel/axle seal guards

Corrosion protection, painting of machine

Corrosion protection, painting of attachment bracket

**Bucket Teeth protection** 

#### External equipment

Cab ladder, rubber-suspended

Deleted front mudguards & wideners rear

Handles on counterweight

Fire suppression system

Mudguards, full cover, rear for 80-series tires

Mudguards, full cover, rear for 65-series tires

Long boom

Tow hitch

#### Other equipment

CE-marking

Comfort Drive Control (CDC)

Counterweight, logging

Counterweight, signal painted, chevrons

Sound decal, EU

Sound decal, USA

Reflecting stickers (decals), machine contour

Reflecting stickers (stripes), machine contour Cab

Option for machines without dinitrol

Noise reduction kit, exterior

Sign, slow moving vehicle

Sign, 50 km/h

Agriculture package

Log Loader package

Rehandling package

Scrap Handler package

Scrap Handler package
Waste Handler package

Attachments

Buckets:

Rock straight or spade nose

General purpose

Rehandling

Light material

High tip Grading

Wear parts:

Bolt-on and weld-on bucket teeth

Segments

Cutting edge in three sections, bolt-on

Fork equipment

Material handling arm

Log grapples

Snow plows

Spreading bucket

Sweepers

### V O L V O