

Volvo Wheel Loaders 12.3-15.1 t 156-174 hp

L60Gz, L90Gz



Welcome to our world

Welcome to a world of industry leading machinery. A world where imagination, hard work and technological innovation will lead the way towards developing a future which is cleaner, smarter, and more connected. A world supported by the enduring values of the Volvo Group. A world of stability, sustainability and innovation. A world which we put our customers at the heart of.

Welcome to the world of Volvo Construction Equipment – we think you're going to like it here.

Working harder, working smarter

For over 180 years Volvo has been a pioneer in the design and manufacture of machines which set the standard for efficiency, performance and uptime. Across our range of excavators, wheel loaders and haulers, our reputation for engineering excellence is unrivalled, which means whatever your operation or application, we can provide a total fleet solution to help you succeed.

Building on our proud history, the Volvo Concept Lab continues to create cutting-edge ideas and innovative concepts, to ensure we offer customers machines which work harder and smarter long into the future.



Solutions for you

Our industry leading machines are just the start of your relationship with Volvo. As your partner, we have developed an extensive range of additional solutions to help you improve uptime, boost productivity and reduce costs.

Designed for your business

Structured across nine blocks, our portfolio of products and services are designed to complement your machine's performance and boost your profitability. Simply put, we offer some of the best guarantees, warranties and technological solutions in the industry today.

There when you need us

Whether you're buying new or used, our global network of dealers and technicians offer around-the-clock support, including machine monitoring and world-class parts availability. It's the basis of everything offered by Volvo Services, so you can be confident we've got you covered right from the start.







Financial Services



Productivity

Uptime Services



Rental Services







BUILDING TOMORROW

Loaded with productivity

Volvo Construction Equipment began designing wheel loaders in 1954 and since then machine owners and operators have got to know the legendary reputation of these productive, fuel efficient machines. The new L60Gz and L90Gz provide the power, strength and reliability you need to maximize your productivity and profitability.

Volvo engine

Featuring advanced technology and built on decades of experience, the powerful Volvo engine delivers high torque at low rpm for superior performance and low fuel consumption.



Axles

Oil-cooled, wet disc brakes on both the front and rear axle deliver superior braking performance for smooth, safe control and long service life. For outstanding traction in slippery conditions, the front axle is equipped with 100% differential locks. Axle oil circulation allows the oil to flow and cool inside the axle – protecting components and increasing brake service



Fully Automatic Power Shift

Fully Automatic Power Shift ensures optimal operation by adjusting machine gears – from first to fourth – in line with parameters including engine and travel speed. This delivers smooth gear changes, fast cycle times and low fuel consumption.



Eco pedal

Volvo's unique eco pedal applies mechanical push-back force when the accelerator is used excessively and engine rpm is about to exceed the economic operating range. This encourages the operator to ease off the throttle, reducing fuel consumption.





POWERTRAIN

The ideally-matched, all-Volvo powertrain has been built to work together in perfect harmony. The Volvo design has been comprehensively tested to deliver optimized performance, high productivity, low fuel consumption and superior reliability.

Move more with Volvo

The new L60Gz and L90Gz feature proven, advanced technology. With load-sensing hydraulics and a powerful, durable Z-bar linkage, these machines will increase your productivity – even in the most demanding conditions. Load more and get the job done with Volvo.

Hydraulic controls

For ease of operation and increased comfort during long work shifts, the operator can precisely control the bucket and lifting unit via the hydraulic lever controls.



Load-sensing hydraulics

Volvo's load-sensing hydraulics and steering system supply power to the hydraulic functions only when needed, lowering fuel consumption. The powerful systems provide fast response for shorter cycle times while delivering smooth operation through superior control of the load, attachment and steering.



Bucket positioning

The automatic bucket leveler and boom kick-out functions quickly and accurately stop the bucket and linkage in adjustable, pre-selected positions. When activated, this easy-to-use feature increases productivity and shortens cycle times.



Double-sealing pins

The bucket pins are double sealed to keep grease inside the bearing and dirt out. This ensures long pin and bearing life.





LIFTING ARM SYSTEM

The Volvo designed Z-bar linkage provides high breakout force for strong, powerful digging and complete bucket fill even in the hardest materials. The durable system and quick hydraulic speeds deliver fast cycle times and high productivity.

The perfect match

Exceptional design and superior durability are at the center of Volvo attachments. The robust buckets are engineered to perform in perfect harmony with Volvo wheel loaders, in the specific environments and applications machine owners operate in. Whatever material you need to load, Volvo has the right bucket for the job.

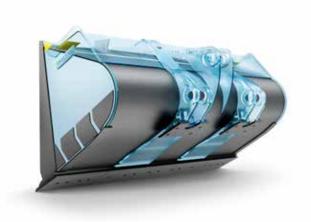
Volvo bucket design

No manufacturer is better at designing buckets for Volvo machines than Volvo. The purpose-built buckets have been developed as an integrated part of the wheel loader for which they're intended – with properties perfectly matched to machine parameters including lifting arm geometry and breakout, rim pull and lifting force.

Bucket type

The general purpose, standard-duty bucket can be used for a variety of jobs while the heavy-duty version provides ultimate durability and wear resistance for unmatched life span and value for money. The heavyduty rock bucket is optimized for loading shot rock. The light material bucket is a high capacity bucket, ideal for low density materials.





Durable protection

For superior performance and life span, Volvo buckets are constructed from high quality materials including wear-resistant steel in the most exposed areas. To support its durable, high-performance buckets, Volvo offers a selection of cost-effective, replaceable wear parts. With a range including bolt-on edge, teeth, adapters and segments, customers can tailor their wear protection to meet specific job demands.





NOTA

Volvo buckets and Volvo wheel loaders are perfectly matched to work together as one solid, reliable unit – delivering maximum productivity and long life. The entire range of high quality, durable buckets is designed for optimized performance.

Comfort delivers productivity

Comfort matters – especially in the cab where it has a direct impact on sustained productivity. That's why the industry-leading Volvo cab has been designed with the operator in focus. Step inside this spacious, comfortable environment and experience a space optimized for long, productive work shifts. Capitalize on comfort and increase your productivity with Volvo.

Visibility

All-around visibility from large expanses of glass and slim cab pillars helps to create a safe, productive and comfortable operating environment.



Cab air filter

The cab air intake is located high on the machine, where air is cleanest. The easy-to-replace pre-filter effectively separates coarser dust and particles before the air passes through the main filter and finally enters the cab. Volvo's industry-leading design allows 90% of the cab air to be recirculated through the main filter for continuous dust removal.



Easy access

Safely and easily access the cab via a three-point access ladder with anti-slip steps. Ideally positioned, sturdy handrails and a wide door frame with a 95° opening angle further increase operator safety and comfort.



Contronics

The Volvo Contronics system continuously monitors and records machine operation and performance in real-time. Contronics facilitates ease of operation by providing the operator with all the necessary information and diagnostics for optimal performance. Information including fuel levels and warning messages is relayed via the display in the cab.





VOLVO CAB

The spacious ROPS/FOPS cab includes a tiltable steering wheel, vibration damping and ergonomically placed controls. With a comfortable seat, ample storage space and a powerful climate control system fitted as standard, the operator will experience a productive work shift.

Uptime goes up with Volvo

At Volvo we know that service and maintenance checks need to be quick and easy to perform in order to achieve maximum machine uptime. With excellent access to the engine compartment and ground level filters you'll benefit from time saving features that allow you to get the most out of every day.

Radiator cleaning

Easily access and clean the radiator from ground level. The cooling fan's optional reversible functionality – which blows air in the opposite direction – allows for self-cleaning of the cooling units.



Maintenance-free rear axle cradles

The rear axle is supported on maintenance-free cradles and includes lubricated-for-life bearings and bushings — reducing overall service cost and increasing machine uptime. The Volvo design minimizes force on the axle ensuring long component life.



Breather filter

The transmission, hydraulic tank, front and rear axle and fuel tank are ventilated by a replaceable breather filter. This reduces the risk of contamination and increases service life.



Brake wear indicator

The unique Volvo brake wear indicator enables brake pad wear to be monitored quickly and easily. The system increases safety and reduces the risk of machine damage.





SERVICE ACCESS

Excellent access to the engine compartment provides safe and easy maintenance access. This allows regular checks to be done faster, increasing machine uptime.

Exceed your expectations

Contronics

The Volvo Contronics system facilitates ease of operation by providing the operator with all the necessary information and diagnostics via the display for optimal performance

Fully Automatic Power Shift

Fully Automatic Power Shift ensures optimal operation by adjusting the machine gears – from first to fourth – in line with parameters including engine and travel speed.

Lifting arm system

14

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Volvo buckets

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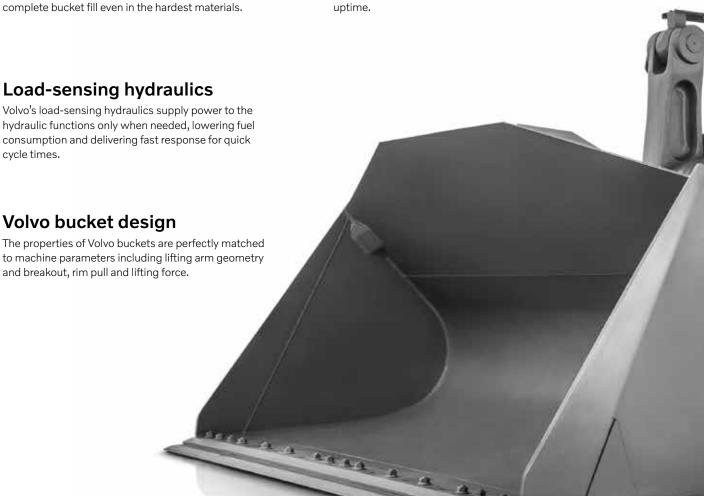
Volvo cab

Volvo's industry-leading ROPS/FOPS cab features all-around visibility, ergonomically placed controls, a powerful climate control system and ample storage space.

Excellent access to the engine compartment provides

safe and easy maintenance access, increasing machine

Service access



Powertrain

The ideally-matched, all-Volvo powertrain has been built to work together in perfect harmony. The powerful engine delivers the ultimate combination of high performance and low fuel consumption.

CareTrack*

CareTrack is the state-of-the-art Volvo telematics system that provides access to a wide range of machine monitoring information designed to save machine owners time and money.

Maintenance-free rear axle cradles

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Eco pedal

Volvo's unique eco pedal reduces fuel consumption by applying mechanical push-back force when the accelerator is used excessively and engine rpm is about to exceed the economic operating range.



Adding value to your business

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximising uptime.

Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening to your requirements, we can reduce your total cost of ownership and increase your revenue.



Genuine Volvo Parts

Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.



Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.





CUSTOMER SUPPORT AGREEMENTS

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

Volvo L60Gz, L90Gz in detail

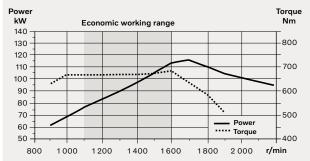
Engine

Volvo's V-ACT Tier 3 / Stage IIIA-approved, 6 liter, 6-cylinder straight turbocharged diesel engine with Common Rail fuel injection system and switchable internal Exhaust Gas Recirculation (I-EGR). The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. The throttle application is transmitted electrically from the throttle pedal or the optional hand throttle.

Air cleaning: Three-stage Cyclone/oil bath precleaner - primary filter - secondary filter.

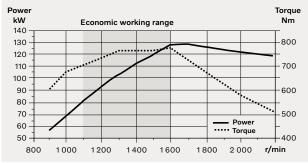
Cooling system: Airto- air intercooler and hydrostatic, electronically controlled fan

L60Gz



Engine	Volvo	D6E LCE3
Max. power at	r/min	1 700
SAE J1995 gross	kW	115
	hp	156
ISO 9249, SAE J1349 net	kW	114
	hp	155
Max. torque at	r/min	1600
SAE J1995 gross	Nm	680
ISO 9249, SAE J1349 net	Nm	648
Economic working range	r/min	1 100 - 1 600
Displacement	1	5.7

L90Gz



Engine	Volvo	D6E LCE3
Max. power at	r/min	1 700
SAE J1995 gross	kW	129
	hp	175
ISO 9249, SAE J1349 net	kW	128
	hp	174
Max. torque at	r/min	1600
SAE J1995 gross	Nm	770
ISO 9249, SAE J1349 net	Nm	736
Economic working range	r/min	1 100 - 1 600
Displacement	1	5.7

Electrical System		
L60Gz		
Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	2 x 110
Cold cranking capacity, approx	Α	690
Alternator rating	W/A	2 280/80
Starter motor output	kW	5.5
L90Gz		
Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	2 x 110
Cold cranking capacity, approx	Α	690
Alternator rating	W/A	2 280/80
Starter motor output	kW	5.5

Brake systen

Service brake: Volvo dual-circuit system with nitrogen charged accumulators. Outboard mounted hydraulically operated, wet disc brakes. The operator can select automatic declutch of the transmission when braking through Contronics.

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. One circuit or the parking brake fulfills all safety requirements

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

L60Gz

Number of brake discs per wheel front	1
Accumulators	$1 2 \times 0.5 + 1 \times 1$
L90Gz	
Number of brake discs per wheel front	1
Accumulators	$1 2 \times 0.5 + 1 \times 1$

Drivetrain

- Contronics electrical system with:

 Central warning light and buzzer for following functions: Serious engine fault, Low steering system pressure, Interruption in communication (computer fault)
- Central warning light and buzzer with the gear engaged for the following functions: Low engine oil pressure, High charge air temperature, Low coolant level, High coolant temperature, 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

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L60Gz		
Transmission	Volvo	HTE 110B
Maximum speed, forward/reverse		
1st gear	km/h	8
2nd gear	km/h	16
3rd gear	km/h	29
4th gear	km/h	46
Note: 4th gear limited by parameter		
Measured with tires		20.5R25
Front axle/rear axle		AWB 15/AWB 15
Rear axle oscillation	±°	13
Ground clearance	mm	455
at oscillation	0	13
_90Gz		
Transmission	Volvo	HTE 125
Maximum speed, forward/reverse		
1st gear	km/h	6.9
2nd gear	km/h	13.3
3rd gear	km/h	25.7
4th gear	km/h	44
Note: 4th gear limited by parameter		
Measured with tires		20.5R25
Front axle/rear axle		AWB 25/AWB 20
Rear axle oscillation	±°	13
Ground clearance	mm	455
at oscillation	0	13

Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronics 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 appropriate FOPS (ISO 3449).	oved according to RO	PS (ISO 3471,
L60Gz		
Emergency exit: Use emergency hami	mer to break window	
Ventilation	m³/min	9
Heating capacity	kW	14
Air conditioning (optional)	kW	4.8
L90Gz		
Emergency exit: Use emergency hami	mer to break window	
Ventilation	m³/min	9
Heating capacity	kW	14
Air conditioning (optional)	kW	4.8
Lift Arm System		
Z-bar linkage with high breakout force	for strong, powerful	digging.
L60Gz		
Lift cylinders		2
Cylinder bore	mm	110
Piston rod diameter	mm	70
Stroke	mm	680
Tilt cylinder		1
Cylinder bore	mm	130
Piston rod diameter	mm	90
Stroke	mm	462
L90Gz		
Lift cylinders		2
Cylinder bore	mm	120
Piston rod diameter	mm	70
Stroke	mm	733
Tilt cylinder		1
Cylinder bore	mm	140
Piston rod diameter	mm	90
Stroke	mm	504

Volvo L60Gz, L90Gz in detail

Hydraulic	system
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System supply: One load-sensing axial piston pump with variable displacement. The steering function 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 three positions; raise, hold and lower 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; 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.

L60Gz

Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa	27
Flow	l/min	153
at	MPa	10
engine speed	r/min	1900
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa	21
Flow	l/min	32
at	MPa	10
engine speed	r/min	1900
Pilot system, working pressure	MPa	3.5
Cycle times		
Lift	S	4.2
Tilt	s	2.9
Lower, empty	S	1.2
Total cycle time	s	8.3
L90Gz		

23042		
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa	31
Flow	l/min	171
at	MPa	10
engine speed	r/min	1900
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa	21
Flow	l/min	32
at	MPa	10
engine speed	r/min	1900
Pilot system, working pressure	MPa	3.5
Cycle times		
Lift	s	5.4
Tilt	s	3.1
Lower, empty	s	1.3
Total cycle time	s	9.8

Steering System

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

L60Gz

mm	70
mm	45
mm	386
MPa	21
l/min	60
±°	40
mm	80
mm	50
mm	345
MPa	21
l/min	60
±°	40
	mm MPa I/min ±° mm mm mm MPa I/min

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. Possibility to monitor, log and analyze data to facilitate troubleshooting.

L60Gz		
Fuel tank	1	219
Engine coolant	1	35
Hydraulic oil tank	1	90
Transmission oil	1	21
Engine oil	1	19
Axle oil front	1	25
Axle oil rear	1	25
L90Gz		
Fuel tank	1	219
Engine coolant	1	33
Hydraulic oil tank	1	90
Transmission oil	1	21
Engine oil	1	19
Axle oil front	1	35
Axle oil rear	1	27

Sound Level

L60Gz

LUUUZ		
Sound level in cab according to ISO 6396/5	SAE J2105	
L_pA	dB	74
External sound level according to ISO 6395	5/SAE J2104	
L_{WA}	dB	107
1 90Gz		

Sound level in cab according to ISO 6396/SAE J2105 External sound level according to ISO 6395/SAE J2104

74

108



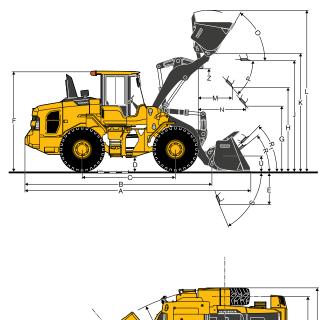


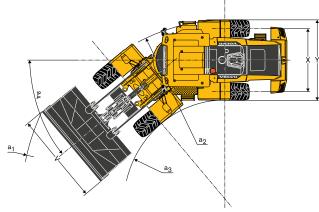
Specifications

Tires 20.5R25 VJ	T L3		
		L60Gz	L90Gz
		Standa	rd boom
В	mm	6 220	6 118
С	mm	3 000	3 050
D	mm	455	455
F	mm	3 279	3 279
G	mm	2 134	2 134
J	mm	3 518	3 599
K	mm	3 766	3 860
0	٥	57.6	60
Pmax	0	48.5	48.5
R	0	39.6	38.2
R ₁ *	0	45.2	42.7
S	٥	69.7	67.7
Т	mm	94	84
U	mm	446	414
X	mm	1904	1904
Υ	mm	2 424	2 424
Z	mm	3 257	3 357
a ₂	mm	5 402	5 402
a ₃	mm	2 978	2 978
a ₄	±°	40	40

^{*} Carry position SAE

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

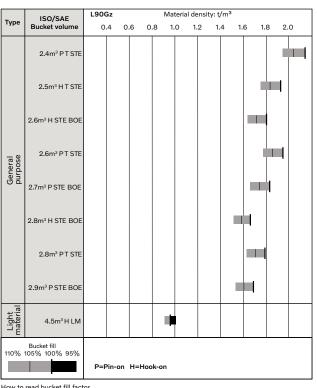




BUCKET SELECTION GUIDE

_	ISO/SAE	L60Gz	Gz Material density: t/m³								
Type	Bucket volume	0.4	0.	6 0	.8 1.	0 1.	2 1.	4 1.	6 1.	8 2	.0
	1.8m³ H STE BOE										-
	1.9m³ H STE BOE								-		
	2.2m³ P STE BOE							1			
General purpose	2.1m³ PT STE									1	
Gen	2.1m³ H STE BOE							٠			
	2.0m³ H T STE									1	
	2.4m³ P STE BOE							-			
	2.3m³ PT STE										
Light material	3.5m³ H LM				•						
110%	Bucket fill 110% 105% 100% 95% P=Pin-on H=Hook-on										
How to read bucket fill factor											

How to read bucket fill factor



How to read bucket fill factor

1.8 m3 1.9 m3 STE 2.2 m3 STEPT 2.1 m3 STEPT 2.2 m3 STEPT 2.3 m3 STEPT 2.4 m3 STE 2.3 m3 STEPT 2.4 m3 STE	L60Gz										
						GENERAL	PURPOSE				LM
Note	Tires 20.5R25 VJT L3		1	8			8				8
Volume at 110% fill factor m³ 2.0 2.1 2.4 2.3 2.3 2.2 2.6 2.5 3.9 Static tipping load, straight at 35° turn kg 8 610 8 490 8 900 9 070 8 440 8 560 8 850 9 020 8 030 at 53° turn kg 7 700 7 580 7 500 7 580 7 530 7 630 7 790 6 850 Breakout force kh 103.4 98.3 112.9 119.7 94.0 98.6 108.9 115.2 81.8 A mm 7 690 7 520 7 410 7 460 7 620 7 770 7 450 7 500 7 840 E mm 1310 1160 1040 1080 1230 1360 1070 1120 1420 H mm 2590 2 700 2 760 2 720 2 620 2 520 2 730 2 700 2 470 L mm 1370 1280 1500 1500 5010 <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th> <th>l</th> <th></th> <th></th> <th></th>				-				l			
Static tipping load, straight kg 8 610 8 490 8 900 9 070 8 440 8 560 8 850 9 020 8 030 at 35° turn kg 7 700 7 750 7 750 8 110 7 550 7 650 7 910 8 070 7 120 12	Volume, heaped ISO/SAE	m³	1.8	1.9	2.2	2.1	2.1	2.0	2.4	2.3	3.5
at 35° turn kg 7700 7580 7950 8110 7530 7650 7910 8070 7120 at full turn kg 7430 7320 7680 7830 7270 7380 7630 7790 6850 Breakout force kN 103.4 98.3 112.9 119.7 94.0 98.6 108.9 115.2 81.8 A mm 7690 7520 7410 7460 7620 7770 7450 7500 7840 E mm 1310 1160 1040 1080 1230 1360 1070 1120 1420 H mm 2590 2700 2760 2720 2620 2520 2730 2700 2470 L mm 4940 4940 5040 5040 5040 5010 5010 5090 5090 5380 M mm 1370 1280 1120 1150 1280 1380 1150 1180 1400 N mm 1740 1710 1590 1590 1660 1700 1600 1610 1680 V mm 2500 2500 2500 2500 2500 2500 2500 2	Volume at 110% fill factor	m³	2.0	2.1	2.4	2.3	2.3	2.2	2.6	2.5	3.9
Reakout force KN 103.4 98.3 112.9 119.7 94.0 96.6 108.9 115.2 81.8 A A mm 7.690 7.520 7.410 7.460 7.620 7.770 7.380 7.630 7.790 6.850 Reakout force KN 103.4 98.3 112.9 119.7 94.0 96.6 108.9 115.2 81.8 A A mm 7.690 7.520 7.410 7.460 7.620 7.770 7.450 7.500 7.840 E mm 1.310 1.160 1.040 1.080 1.230 1.360 1.070 1.120 1.420	Static tipping load, straight	kg	8 610	8 490	8 900	9 070	8 440	8 560	8 850	9 020	8 030
Breakout force	at 35° turn	kg	7 700	7 580	7 950	8 110	7 530	7 650	7 910	8 070	7 120
Ram	at full turn	kg	7 430	7 320	7 680	7 830	7 270	7 380	7 630	7 790	6 850
E	Breakout force	kN	103.4	98.3	112.9	119.7	94.0	98.6	108.9	115.2	81.8
H mm 2590 2700 2760 2760 2 620 2 520 2 730 2 700 2 470 L mm 4940 4940 5040 5040 5040 5010 5010 5090 5090 5380 M mm 1370 1280 1120 1150 1280 1380 1150 1180 1400 N mm 1740 1710 1590 1590 1660 1700 1600 1610 1680 V mm 2500 2500 2500 2500 2500 2500 2500 2	A	mm	7 690	7 520	7 410	7 460	7 620	7 770	7 450	7 500	7 840
L	E	mm	1 310	1160	1040	1080	1230	1360	1 070	1 120	1 420
M mm 1370 1280 1120 1150 1280 1380 1150 1180 1400 N mm 1740 1710 1590 1590 1660 1700 1600 1610 1680 V mm 2500 2500 2500 2500 2500 2500 2500 2	Н	mm	2 590	2 700	2 760	2 720	2 620	2 520	2 730	2 700	2 470
N mm 1740 1710 1590 1590 1660 1700 1600 1610 1680 V mm 2500 2500 2500 2500 2500 2500 2500 2	L	mm	4 940	4 940	5 040	5 040	5 010	5 010	5 090	5 090	5 380
V	M	mm	1 370	1280	1 120	1 150	1280	1380	1 150	1180	1400
A clearance circle mm 11 770 11 690 11 620 11 640 11 720 11 790 11 640 11 660 12 050 Operating weight kg 12 360 12 390 12 380 12 320 12 420 12 380 12 400 12 340 12 840 L90Gz Tires 20.5R25 VJT L3 Company of the company of th	N	mm	1 740	1 710	1 590	1590	1660	1700	1600	1 610	1680
Coperating weight Ng 12 360 12 390 12 380 12 320 12 420 12 380 12 400 12 340 12 340 12 840	V	mm	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 750
Section Property	a ₁ clearance circle	mm	11 770	11 690	11 620	11 640	11 720	11 790	11 640	11 660	12 050
Company Comp	Operating weight	kg	12 360	12 390	12 380	12 320	12 420	12 380	12 400	12 340	12 840
Volume, heaped ISO/SAE m³ 2.4 2.5 2.6 2.6 2.6 2.7 2.8 2.8 3 2.9 4.5 Volume at 110% fill factor m³ 2.6 2.8 2.9 2.9 3.0 3.1 3.1 3.2 5.0 Static tipping load, straight kg 12 140 11 430 11 150 11 990 11 730 11 080 11 880 11 620 10 800 at 35° turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1270 1430 1300 1300 1300 1300 1300 1300 1200 1300 1200 1500 L mm 5 220 5 230 5 230 5 290 5 290 5 280 5 340 5 340 5 670 MM mm 1270 1390 1290 1320 1190 1330 1360 1230 1410	L90Gz										
2.4 m³ 2.5 m³ STE 2.6 m³ 2.6 m³ STE 2.7 m³ STEP BOE				1	T	GENERAL	PURPOSE				LM
Volume, heaped ISO/SAE m³ 2.4 2.5 2.6 2.6 2.7 2.8 2.8 2.9 4.5 Volume at 110% fill factor m³ 2.6 2.8 2.9 2.9 3.0 3.1 3.1 3.2 5.0 Static tipping load, straight at 35° turn kg 12 140 11 430 11 150 11 990 11 730 11 080 11 880 11 620 10 800 at 35° turn kg 10 780 10 120 9 850 10 630 10 390 9 790 10 530 10 290 9 500 at full turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1270 1430 1300 </th <th>Tires 20.5R25 VJT L3</th> <th></th> <th>2.4 m³</th> <th>2 5 m³ STE</th> <th>€ € 6 m³</th> <th>2 6 m³ STE</th> <th>27 m³</th> <th>1 & m³</th> <th>28 m³</th> <th>2 9 m³</th> <th>€ 6 5 m³</th>	Tires 20.5R25 VJT L3		2.4 m ³	2 5 m ³ STE	€ € 6 m³	2 6 m ³ STE	27 m ³	1 & m ³	28 m³	2 9 m ³	€ 6 5 m³
Volume at 110% fill factor m³ 2.6 2.8 2.9 2.9 3.0 3.1 3.1 3.2 5.0 Static tipping load, straight at 35° turn kg 12 140 11 430 11 150 11 990 11 730 11 080 11 880 11 620 10 800 at 35° turn kg 10 780 10 120 9 850 10 630 10 390 9 790 10 530 10 290 9 500 at full turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 5 220 5 230 </th <th></th>											
Static tipping load, straight at 35° turn kg 12 140 11 430 11 150 11 990 11 730 11 080 11 880 11 620 10 800 at 35° turn kg 10 780 10 120 9 850 10 630 10 390 9 790 10 530 10 290 9 500 at full turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1270 1430 1300 1330 1170 1350 1380 1220 1500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230	Volume, heaped ISO/SAE	m³	2.4	2.5	2.6	2.6	2.7	2.8	2.8	2.9	4.5
at 35° turn kg 10 780 10 120 9 850 10 630 10 390 9 790 10 530 10 290 9 500 at full turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190	Volume at 110% fill factor	m³	2.6	2.8	2.9	2.9	3.0	3.1	3.1	3.2	5.0
at full turn kg 10 380 9 740 9 470 10 230 9 990 9 410 10 130 9 890 9 120 Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	Static tipping load, straight	kg	12 140	11 430	11 150	11 990	11 730	11 080	11 880	11 620	10 800
Breakout force kN 168.7 141.4 134.1 159.3 150.1 129.6 152.7 144.3 117.6 A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	at 35° turn	kg	10 780	10 120	9 850	10 630	10 390	9 790	10 530	10 290	9 500
A mm 7 680 7 870 7 730 7 750 7 580 7 780 7 810 7 630 7 960 E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	at full turn	kg	10 380	9 740	9 470	10 230	9 990	9 410	10 130	9 890	9 120
E mm 1 270 1 430 1 300 1 330 1 170 1 350 1 380 1 220 1 500 H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	Breakout force	kN	168.7	141.4	134.1	159.3	150.1	129.6	152.7	144.3	117.6
H mm 2 720 2 590 2 680 2 670 2 780 2 650 2 630 2 750 2 530 L mm 5 220 5 230 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	A	mm	7 680	7 870	7 730	7 750	7 580	7 780	7 810	7 630	7 960
L mm 5 220 5 230 5 230 5 290 5 290 5 280 5 340 5 340 5 670 M mm 1 270 1 390 1 290 1 320 1 190 1 330 1 360 1 230 1 410	E	mm	1 270	1430	1300	1330	1 170	1 350	1380	1220	1500
M mm 1270 1390 1290 1320 1190 1330 1360 1230 1410	Н	mm	2 720	2 590	2 680	2 670	2 780	2 650	2 630	2 750	2 530
	L	mm	5 220	5 230	5 230	5 290	5 290	5 280	5 340	5 340	5 670
N mm 1720 1760 1720 1740 1680 1730 1750 1700 1740	M	mm	1 270	1390	1290	1320	1 190	1330	1360	1230	1 410
	N	mm	1720	1760	1720	1740	1 680	1730	1750	1700	1740

Bucket Selection	Chart - L60GZ,	L90GZ

a₁ clearance circle

Operating weight

The volume handled varies with the bucket fill and is often greater than indicated by the bucket's ISO/SAE volume. The table shows optimum bucket choice with regard to the material density.

mm

mm

kg

2 750

12 040

14 500

2 750

12 130

14 690

2 750

12 060

14 810

2 750

12 080

14 580

2 750

11 990

14 690

2 750

12 080

14 860

Material	Bucket fill, %	Material density, t/m ³
Earth	110 - 115	1.4 - 1.6
Clay	110 - 120	1.4 - 1.6
Sand	100 - 110	1.6 - 1.9
Gravel	100 - 110	1.6 - 1.9
Rock	75 - 100	1.6 - 1.9

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

Supplemental Operating Data - L60GZ, L90GZ				
		Standard boom		
Tires 20.5R25 VJT L3		650/65 R25		
Width over tires	mm	200		
Ground clearance	mm	-20		
Tipping load, full turn	kg	436		
Operating weight	kg	600		

2 750

12 110

14 620

2 750

12 020

14 730

3 000

15 150

12 390

Equipment

STANDARD EQUIPMENT		
	L60Gz	L90Gz
Engine		
Air pre-cleaner, cyclone type	•	•
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	•	•
Crank case breather oil trap	•	•
Exhaust heat insulation	•	•
Tires		
17.5-25	•	-
20.5R25	•	•
Drivetrain		
Automatic Power Shift	•	•
Fully automatic gear shifting, 1-4	•	•
PWM-controlled gear shifting	•	•
Forward and reverse switch by hydraulic lever console	•	
Indicator glass for transmission oil level	•	•
Differentials: Front, 100% hydraulic diff lock. Rear, conventional	•	
Electrical System		
24 V, pre-wired for optional accessories	•	•
Alternator 24V/80A	•	•
Battery disconnect switch with removable key	•	•
Battery box, steel	•	•
Fuel gauge	•	•
Hour meter	•	•
Electric horn	•	•
Fuel level	•	•
Transmission temperature	•	•
Coolant temperature	•	•
Instrument 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		
	L60Gz	L90Gz
Contronics monitoring system		
Monitoring and logging of machine data	•	•
Contronics display	•	•
Fuel consumption	•	•
Ambient temperature	•	•
Clock	•	•
Test function for warning and indicator lights	•	•
Brake test	•	•
Battery charging	•	•
Parking brake	•	•
Engine coolant temperature	•	•
Charge air 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	•	•
Attachment lock open	•	•
Fuel level	•	•
Engine coolant level	•	•
Transmission oil level	•	•
Hydraulic oil level	•	•
High engine coolant temperature	•	•
Low engine oil pressure	•	•
High charge air temperature	•	•
High transmission oil temperature	•	•
Slip in transmission clutches	•	•
Key pad, background lit	•	•
Start interlock when gear is engaged	•	•
Hydraulic system		
Main valve, double acting 2-spool with hydraulic pilots	•	•
Working hydraulics, pilot hydraulics, steering system, brakes	•	•
Cooling fan, brakes	•	•
Hydraulic control levers	•	•
Mechanical level lock	•	•
Boom kick-out, automatic	•	•
Bucket positioner with position indicator, automatic	•	•
Double acting hydraulic cylinders	•	•
Indicator glass for hydraulic oil level	•	•
Hydraulic oil cooler	•	•

STANDARD EQUIPMENT		
	L60Gz	L90Gz
Brake system		
Dual brake circuits	•	•
Single brake pedal	•	•
Secondary brake system	•	•
Parking brake, electrical-hydraulic	•	•
Brake wear indicators	•	•
Wet disc brakes on all four wheels	•	•
Cab		
ROPS (ISO 3471), FOPS (ISO 3449)	•	•
Single key kit door/start	•	•
Acoustic inner lining	•	•
Ashtray	•	•
Cigarette lighter, 24 V power outlet	•	•
Lockable door	•	•
Cab heating with fresh air inlet and defroster	•	•
Air conditioner	•	•
Fresh air inlet with two filters	•	•
Manual heat control	•	•
Floor mat	•	•
Single interior lights	•	•
Single 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	•	•
Windshield wiper front	•	•
Interval function for front	•	•
Foot step, left side (toolbox lockable included)	•	•
Service and maintenance		
Engine oil remote drain and fill	•	•
Lubrication manifolds, ground accessible	•	•
Pressure test ports: transmission and hydraulic, quick connects	•	•
Service platforms with anti-slip surfaces	•	•
CareTrack, GSM	•	•
Toolbox, lockable	•	•

STANDARD EQUIPMENT		
	L60Gz	L90Gz
External equipment		
Basic fenders, front and rear	•	•
Viscous cab mounts	•	•
Rubber engine and transmission mounts	•	•
Frame, joint lock	•	•
Batteries	•	•
Engine compartment	•	•
Lifting eyes	•	•
Tie down eyes	•	•
Tow hitch	•	•

Equipment

OPTIONAL EQUIPMENT		
	L60Gz	L90Gz
Engine		
Air pre-cleaner, oil-bath type	•	•
Water Separator	•	•
Fuel filter extra	•	•
Engine auto shutdown	•	•
Engine block heater, 230V / 550W	•	•
Fuel heater	•	•
Fuel fill strainer	•	•
Max. fan speed, hot climate	•	•
Reversible cooling fan	•	•
High Altitude kit	•	•
Steering System		
Secondary steering	•	•
Hydraulic system		
Hydraulic 2 functions	•	•
Hydraulic 2 functions, Arctic (Servo system Std/ OptiShift, Arctic)	•	•
Hydraulic 3 functions (only for std boom)	•	•
Arctic kit for 3rd function (only for std boom)	•	•
Option without attachment lock (only diff.lock), std	•	•
Option without attachment lock (only diff.lock), std, arctic	•	•
Separate attachment locking, Std boom	•	•
Arctic kit, attachment locking (only for std boom)	•	•
Separate attachment locking, Long boom	•	•
Brackets for 3rd function and attachment lock		•
O-ring for normal climate	•	•
O-ring for cold climate		
Mineral hydraulic fluid, std	•	•
Mineral oil for cold climate		
Hydraulic fluid, for hot climate	•	•
Brake system		
Parking brake alarm, audible, for air susp. seats	•	•
Cab		
Windshield washer and wiper rear	•	•
Operator's seat, Volvo air susp, heavy-duty, high back, heat, headrest	•	•
Operator's seat, Volvo air susp, heavy-duty, high back, headrest	•	•
Operator's seat, Volvo air susp, heavy-duty, high back, heat, headrest, parking brake alarm		•
Operator's seat, ISRI, high back	•	•
Radio installation kit without radio		•
Radio with MP3	•	•
Rear view mirrors, std		•
Rear view mirrors, el.adjusted and heated		•
Rear view mirrors, long arm right		
Rear view mirrors, el.adjusted and heated, long arm right		•
Rear view mirrors, engine hood		
Universal door/ignition key USA	•	•
Universal door/ignition key, std		
Steering wheel knob	•	•
Foot step, right side		
Service and maintenance		
Lubrication System		
Tool kit	•	•
Wheel nut wrench kit	•	•

OPTIONAL EQUIPMENT		
	L60Gz	L90Gz
Electrical	,	
Headlights, assym. left	•	•
Rear view camera incl. Monitor, colour	•	•
Reverse alarm	•	•
Warning beacon, rotating	•	•
Working lights front, extra 2 halogen lamps	•	•
Protective equipment		
Anti-theft device	•	•
Footsteps, right-hand side	•	•
Cover plates rear frame	•	•
Guards for front head lights	•	•
Guards for tail lights	•	•
Other equipment		
CareTrack, GSM (Global)	•	•
3-year subscription CareTrack, GSM (Global)	•	•
CareTrack, GSM/Satellite	•	•
3-year subscription, CareTrack, GSM/Satellite (Global)	•	•
PIN PLATE for non-Russia	•	•
PIN PLATE for Russia	•	•
Plastic rear fender	•	•
Tires and Rims		
17.5-25	•	-
20.5-25	•	•
20.5R25	•	•
Rims 25-14.00/1.5 for 17.5-25	•	-
Rims 25-17.00/2.0 WP for 20.5R25	•	•
Rims 25-17.00/2.0 for 20.5-25	•	•
Rims 25-17.00/2.0 for 20.5R25	•	•
Attachments		
General purpose(Straight)	•	•
Rock spade nose	-	•
Light material	•	•
Bolt-on edge	•	•
Bolt-on or weld-on bucket teeth	•	•
Segments	-	٠
Fork equipment	•	•
Attachment Bracket	•	•

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Oil bath pre-cleaner



Fuel filter extra



Reversible fan



Rear view camera



Auto engine shutdown



Attachment bracket



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

V O L V O