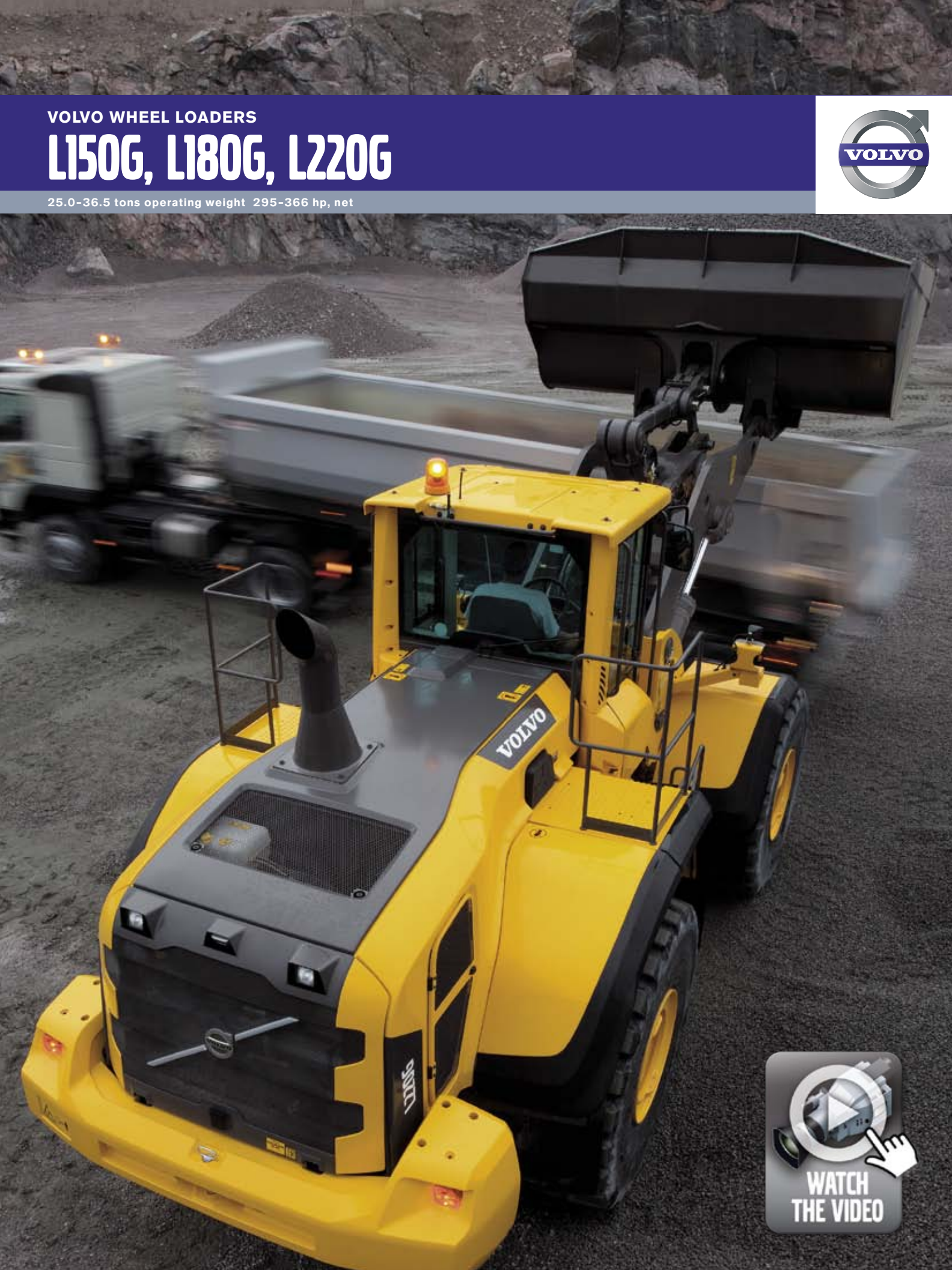
VOLVO WHEEL LOADERS

L150G, L180G, L220G

25.0–36.5 tons operating weight 295–366 hp, net



A PASSION FOR PERFORMANCE.

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for industry experts. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.

Helping you to do more

Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

Designed to fit your needs

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.

You learn a lot in 175 years

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

We're on your side

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.

We have a passion for performance.

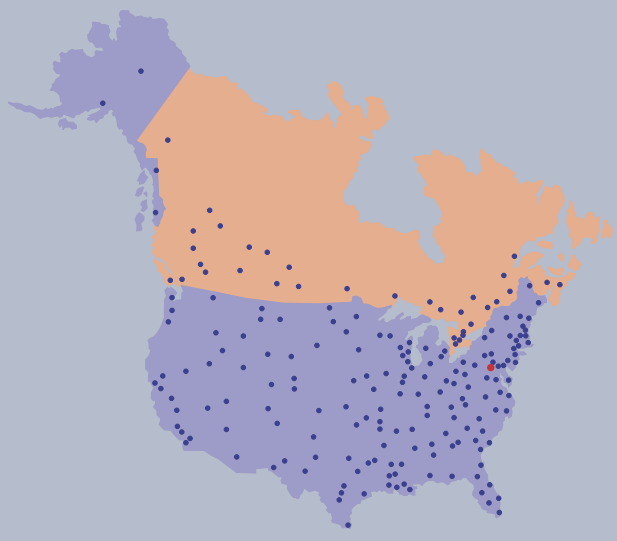
A strong, dedicated, capable dealer network.

Our dealers are strategically located throughout North America to provide the equipment you need and the parts and service support you demand for a productive and profitable operation.

The strength of our dealer network is enhanced with extensive individualized product and product support training at our state-of-the-art Technical Training Center in Asheville and through hands-on training. At our nearby 80-acre Product Demonstration Center, visitors operate equipment from our entire product line under a variety of simulated working conditions. Both facilities are in year-round use by our dealers and customers – more than 2,000 visit each year. **Building the best starts right here.**

The products designed and manufactured by Volvo Construction Equipment have their beginnings at the most advanced Research & Design centers in the industry. Volvo CE machines are designed in 11 R&D centers and produced in 15 manufacturing facilities across the world.

The major R&D center and manufacturing plant in the Americas is located in Shippensburg, Pennsylvania. This facility has been in operation for over 30 years and – with its recently added 200,000 sq ft expansion – now covers 570,000 sq ft on an 80 acre campus. Dedicated work teams and highly advanced technologies and techniques using the Volvo Production System ensure continuous quality improvements, labor savings and cost control to reach the high quality that our customers have come to expect from Volvo.




Mack Trucks


Volvo Construction Equipment


Volvo Penta


Volvo Trucks


Renault Trucks

UD Trucks


Volvo Buses

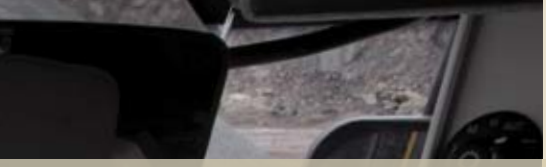

Volvo Aero


Volvo Financial Services

LIFT YOUR PROFITS IN COMFORT.

Enter the cab to see and feel what makes the Volvo Care Cab a legend in comfort. Visibility is excellent to the rear and to the bucket edge. Operator controls are in ergonomically positions. Breathe and work at ease in clean, quiet comfort. It's loaded with features to keep your extended focus on profit-enhancing productivity.

Volvo Care Cab
The Volvo Care Cab provides the industry standard for operator comfort and safety. It's spacious, with plenty of foot, leg and personal space. The Volvo Care Cab applies to ROPS/FOPS standards.



Air Filter

Breathe easier with the best cab air climate in the industry. The well placed cab air intake is placed high up to stay away from dusty air from the tires. The easy-to-replace pre-filter separates out course particles. Then 90% of the cab air is circulated through the main filter, resulting in very clean air.

Excellent visibility

See it all and do it all in your Volvo wheel loader. Wide windows and narrow cab columns put you in command with clear, all-around visibility. Very good view to the attachment/corners. Improves comfort and jobsite safety, for greater productivity.

Noise reduction

Noise and vibration dampening make for a low interior cab sound level.

Electro hydraulic servo controls

The servo controls are mounted on the operator seat, for consistent positioning in relation to seat movements and jostles. The high quality servo controls includes for the operator easy individual settings by push button features like return to dig, boom & tilt detent and end dampening from inside the cab. Relaxed operation and comfort.

Climate control comfort

Volvo's high sufficient climate control allows the operator to have nice cab temperature no matter the weather conditions. Select between the standard Automatic Heat Control (AHC) or optional Air Conditioning (AC). A comfortable operator is a more productive operator.

INTELLIGENT HYDRAULICS. SAVE FUEL THE VOLVO WAY.

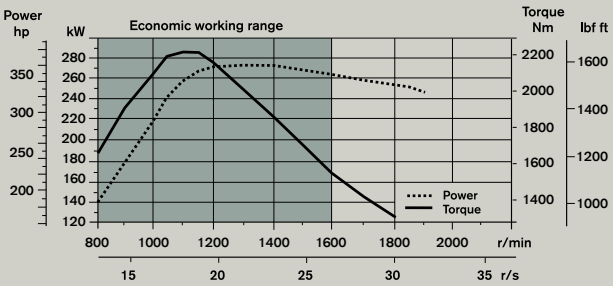
Volvo gives you all the power you need. But the true Volvo edge comes from the combination of power with efficiency, durability throughout and, above all, profitability. That's how Volvo wheel loaders help you do more every day.

Automatic Power Shift

Automatic Power Shift (APS) operates in the ideal gear by sensing engine/ travel speed, kick down, engine braking and more. Select FAPS (fully automatic) to eliminate need for manual 1st gear kick down shifting. Results in more efficient work cycles with less wear and lower fuel consumption.

Durable TP linkage

Volvo's patented Torque Parallel linkage delivers high breakout torque throughout the entire range, including the highest lift position. Ideal for log handling. Also provides very good parallel movement. The standard double sealed pins and bushings are designed to withstand the toughest working environments for demanding customers.



Engine performance

The new 13 liter 6 cylinder high performance, low fuel consumption turbocharged diesel engine equipped with the cooled exhaust recirculation particle filter makes the Volvo engine very reliable thanks to high torque at low engine speeds.

Load-sensing hydraulics

Uses variable-flow, axial piston pumps for superior control of the load and attachments. High breakout force. Faster lift and tilt functions for shorter cycle times. High capacity pumps deliver reliability, high performance/productivity and low fuel consumption.

DESIGNED FOR PERFORMANCE.

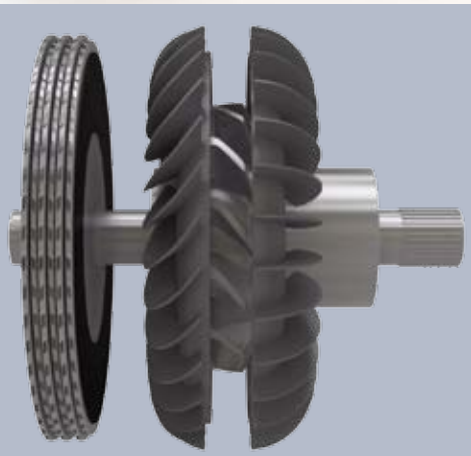
They only judge you on what you get done. That's why Volvo L150G, L180G and L220G loaders are built to help you do more. It's where heavy-duty design meets nimble efficiency, better response and faster cycles. Meet and exceed demand in demanding conditions – day after day, year after year.

Drive line lock-up

To prevent power loss in the torque converter, the pump rotor and turbine rotor on the torque converter lock together through a direct drive clutch. Improves drive response, rimpull performance and fuel efficiency. Better incline climbing performance and faster cycles in load & carry operations.

Heavy duty axles

Volvo axles are the heavy-duty, axle wet brake type. The axle housings absorb all the machine/load weight distribution, allowing the axle shafts to only transmit torque to the planetary hub reductions. Reduced working stresses for longer service life.



Reverse By Brake/OptiShift

The unique Volvo-patented Reverse By Brake (RBB) applies the standard service brake instead of the torque converter. Less loading stress on the torque converter and transmission. More fuel efficiency and deceleration comfort. Ideal for short cycle or truck loading.

OptiShift includes the torque converter with Lock-Up and Reverse By Brake. Improves loading cycles, incline climbing performance, fuel efficiency and comfort, including during deceleration.

Volvo purpose-built drivetrain

Volvo delivers a perfectly optimized, purpose-built drivetrain – built by Volvo to work together. Includes Volvo engine, transmission and axles, well matched to the hydraulic and steering system. This harmony delivers lower fuel consumption and better engine response, even at lower RPM.

SPEND LESS TIME SERVICING. SPEND MORE TIME IN

Variable Geometry Turbocharger

Volvo´s new VGT features the engine coolant continuously cooling the turbocharger bearing housing. Heat reduction is a proactive way to ensure good oil quality, long turbo life and minimum downtime. The VGT is designed to continually vary the airflow into the engine contributing to excellent engine response across the entire engine speed range.

Contronics

Volvo Contronics is a computerized machine electronics and monitoring system. Continuously monitors the machine, operation and performance in real time. Provides diagnostic functions and information needed for optimal operation. Fast, easy electronic level checks. More uptime each day.

Axle cradles

Maintenance-free, casted axle cradles. Rear-axle bridge connects the axle to the frame. Includes two, grease-lubricated-for-life roller bearings. Front bridge includes two oil bath, pre-filled-for-life bushings. Minimizes forces on the axle. Helps to maintain a low center of gravity.

Battery disconnect switch

The battery disconnect switch is safely and conveniently located directly under the battery box located at the left hand side cab ladder. Quick and easy power disconnect. Saves time, money and safety concerns when service is needed or to prevent battery discharge during long shutdown periods.

THE PILE

The faster you can get working each day, the more you'll do and the more you'll earn. That's why Volvo wheel loaders are built with quick and easy service access, advanced monitoring and more safety. With more maintenance-free parts and components you get more worry-free reliability.

Engine hood design

Newly-designed engine hood can be electronically opened backwards. Easy opening and closing with a wide open position angle. Quick side-access doors for fast and easy service/cleaning. Provides improved ventilation of the engine compartment.

PASSION FOR PERFORMANCE.

Care Cab

ROPS/FOPS tested roomy cab with ideally placed controls and excellent operator visibility.

Contronics

Computerized, real-time machine diagnostics and monitoring system.

Engine hood access

New electronically-opening design for ideal access and ventilation.

Load-sensing hydraulics

Variable-flow, axial piston pumps for superior control and fast hydraulic speed at low revs.

Eco-friendly

Low fuel consumption and Tier 4 Interim/ Stage IIIB-compliant emissions.

Volvo Power

13 liter 6 cylinder water cooled turbo engine for low fuel consumption. Dependable power with high torque at low RPM, cooled exhaust recirculation and active regeneration.

Servo controls

Mounted on the operator seat for comfortable operation and control.

CareTrack

CareTrack is the Volvo telematics system. It is equipped as standard on this machine and is designed to provide information to help improve productivity and efficiency.

Eco pedal

Mechanical counter pressure encourages fuel-saving ease with the accelerator pedal.

TP linkage

Excellent link geometry for high breakout torque along with very good parallel movement.

OptiShift

Includes the torque converter with Lock-Up and Reverse By Brake. Lowering fuel consumption up to 15% in most applications.

Heavy-duty axles

Absorb the weight for optimal torque, reduced stresses and longer life.

HARD AT WORK, NOT ON THE PLANET.

A lean, green machine

The environmentally-friendly Volvo engine delivers a low noise level, for more comfort inside and outside the machine. Electronic fuel injection achieves optimized power, yet low fuel consumption.

Looking out for the environment is everyone's concern. It is a core value of Volvo and built into every one of our machines. This commitment helps you work hard, but not at the expense of our planet. Lower emissions, noise and fuel usage. That's Volvo.

Accelerator eco pedal

The accelerator pedal applies an appropriate amount of mechanical counter pressure (push back) to encourage the operator to engage the pedal with ease. This economical pedal feature helps avoid unnecessarily excessive fuel use. Provides lower fuel consumption.

Diesel Particulate Filter with regeneration

The active-type Diesel Particulate Filter (DPF) includes a Diesel Oxidation Catalyst function and regeneration burner. The system temporarily holds the exhaust and then incinerates it, further reducing hydrocarbon/ carbon emissions. Process results in no loss of operation or performance..

Volvo V-ACT engine

The Volvo V-ACT engine is environmentally responsible with low emission levels that meet Tier 4 Interim/Stage IIIB requirements. More peace of mind when working in sensitive environments. Provides the ability to derive high torque performance while working more efficiently at low engine speeds.

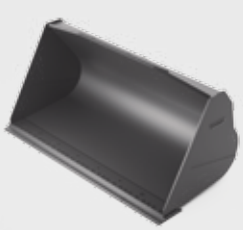
CONNECT AND GO.

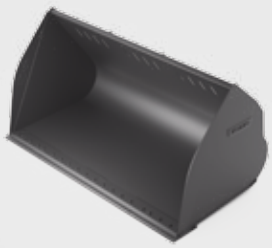
All genuine Volvo attachments are purpose-built with the same quality as the rest of the machine. They're designed as an integrated part of the wheel loader for which they were intended, their functions and properties perfectly matched to parameters such as link-arm geometry and breakout, rim pull and lifting force. That's why the machine and attachment work in perfect harmony, forming a dependable cohesive unit to get the job done – safely and efficiently.

Rehandling buckets increase fuel efficiency:

Volvo Tooth system

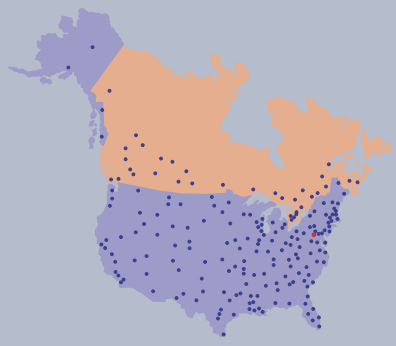
The Volvo patented vertical locking device makes mounting and removing fast and easy. For Volvo buckets there are a also wide selection of cutting edges and segments in high strength steel 500 HB to protect the bucket from wear.



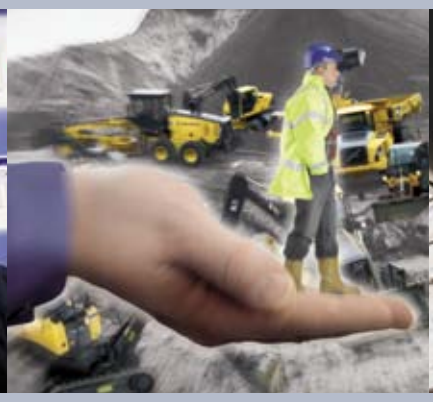


STRENGTH TO SUPPORT YOU AND YOUR BUSINESS.

The day you receive your new Volvo Wheel Loader is just the start of your working relationship with Volvo. From service and maintenance to our CareTrack telematics system – Volvo has a comprehensive and sophisticated aftermarket portfolio to continuously add value to your business.

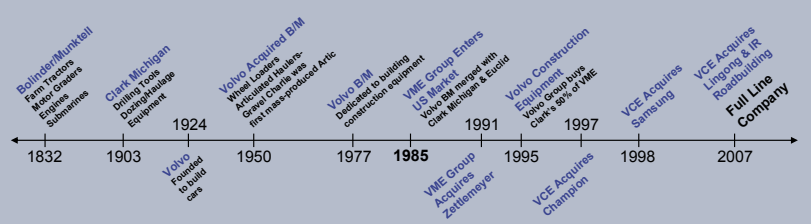


CareTrack - Volvo's telematics system works with our exclusive machine tracking info system, MATRIS, using guided diagnostics to track and analyze machines remotely - minimizing costs and maximizing uptime.



Customer Support Agreements - Gives you peace of mind by reducing total ownership costs, maximizing uptime, and distributing maintenance and major repair costs.

Attachments - Providing customers with a wide variety of attachments keep your machine working and open up new job opportunities.



Volvo designed and built your machines, so no-one knows how to keep them working in top condition more than us. When it comes to your machine, our Volvo trained technicians are the experts.

Our technicians work with industry leading diagnostic tools and techniques, using only Genuine Volvo Parts to deliver the highest levels of quality and service. Talk to your Volvo dealer about how genuine Volvo services can best provide the service and maintenance plan that is the right fit for you and your business.

State-of-the-art machines require state-of-the-art support and your Volvo dealer can provide a catalogue of services designed to get the most out of your machine, helping you maximise uptime, productivity and residual value. Your Volvo dealer can provide a number of sophisticated support offers, including:

Service plans ranging from routine wear inspections, through to comprehensive maintenance and repair agreements.

Analysis and diagnostics to help you understand how your machine is running, highlight potential maintenance issues and identify where performance can be improved.

Eco Operator training courses can help your operators work towards a safer, more productive and fuel efficient performance.

CareTrack

Each Volvo Articulated Hauler comes standard equipped with CareTrack, the Volvo telematics system. CareTrack provides information for better planning and smarter working; including fuel consumption reports, location reports and service reminders. Save fuel. Reduce costs. Maximise profitability. You can with CareTrack.

VOLVO L150G, L180G, L220G IN DETAIL.

Engine

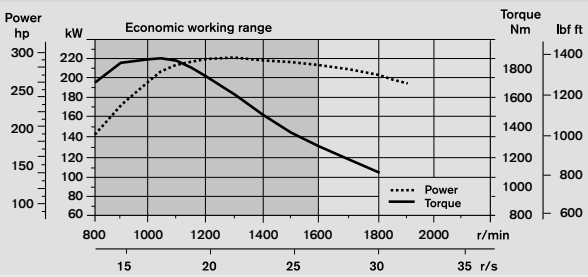
13 liter, 6-cylinder straight turbocharged diesel engine with 4 valves per cylinder, overhead camshaft and electronically controlled unit injectors. The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. The throttle applications is transmitted electrically from the throttle pedal or the optional hand throttle. **Air cleaning:** Three-stage Cyclone pre-cleaner - primary filter - secondary filter. **Cooling system:** Hydrostatic, electronically controlled fan and intercooler of the air-to-air type.

L150G		
Engine		D13H-E (Tier 4i)
Max power at	r/s (r/min)	21,7 (1300)
SAE J1995 gross	kW / hp	220 / 295
ISO 9249, SAE J1349 net	kW / hp	220 / 295
Max torque at	r/s (r/min)	17,5 (1050)
SAE J1995 gross	Nm / lbf-ft	1871 / 1380
ISO 9249, SAE J1349	Nm / lbf-ft	1869 / 1379
Economic working range	r/s (r/min)	13,3-26,6 (800–1600)
Displacement	l / in³	12,8 / 781

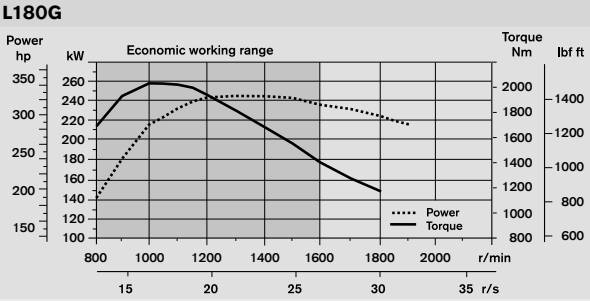
L180G		
Engine		D13H-E (Tier 4i)
Max power at	r/s (r/min)	21,7-23,3 (1300–1400)
SAE J1995 gross	kW / hp	246 / 330
ISO 9249, SAE J1349 net	kW / hp	245 / 328
Max torque at	r/s (r/min)	16,7 (1000)
SAE J1995 gross	Nm / lbf-ft	2030 / 1497
ISO 9249, SAE J1349 net	Nm / lbf-ft	2024 / 1493
Economic working range	r/s (r/min)	13,3-26,6 (800–1600)
Displacement	l / in³	12,8 / 781

L220G		
Engine		D13H-E (Tier 4i)
Max power at	r/s (r/min)	21,7-23,3 (1300-1400)
SAE J1995 gross	kW / hp	274 / 367
ISO 9249, SAE J1349 net	kW / hp	273 / 366
Max torque at	r/s (r/min)	18,3 (1100)
SAE J1995 gross	Nm / lbf-ft	2231 / 1646
ISO 9249, SAE J1349 net	Nm / lbf-ft	2220 / 1637
Economic working range	r/s (r/min)	13,3-26,6 (800–1600)
Displacement	l / in³	12,8 / 781

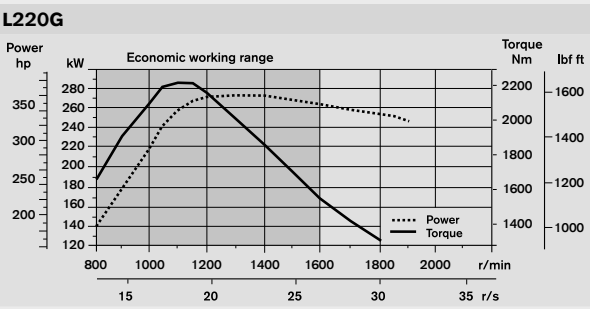
L150G



L180G



L220G



Drivetrain

Torque converter: Lock-up clutch converter and free wheel stator.
Transmission: Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears with Pulse Width Modulation (PWM) valve. Torque converter with lockup.
Transmission: Volvo Automatic Power Shift (APS) with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO.
Axles: Volvo fully floating axle shafts with planetary hub reductions and nodular iron axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle. Optional: Limslip rear

L150G			
Transmission			Volvo HTL 221
Torque multiplication			1,856:1
Maximum speed, forward/reverse	1st gear	km/h(mph)	6,5 (4.0)
	2nd gear	km/h(mph)	12,5 (7.8)
	3rd gear	km/h(mph)	26,0 (16.2)
	4th gear*	km/h(mph)	38,0 (23.6)
Measured with tires			26.5 R25 L3
Front axle/rear axle			Volvo/AWB 40B/40C/40B (limslip)
Rear axle oscillation ±		°	15
Ground clearance at 15° osc.		mm (in)	610 (24)

L180G			
Transmission			Volvo HTL 221
Torque multiplication			1,856:1
Maximum speed, forward/reverse	1st gear	km/h(mph)	6,5 (4.0)
	2nd gear	km/h(mph)	12,5 (7.8)
	3rd gear	km/h(mph)	26,0 (16.2)
	4th gear*	km/h(mph)	38,0 (23.6)
Measured with tires			26.5 R25 L3
Front axle/rear axle			Volvo/AWB 40B/40B
Rear axle oscillation ±		°	15
Ground clearance at 15° osc.		mm (in)	610 (24)

L220G			
Transmission			Volvo HTL 306
Torque multiplication			2,094:1
Maximum speed, forward/reverse	1st gear	km/h(mph)	7,0 (4.3)
	2nd gear	km/h(mph)	12,5 (7.8)
	3rd gear	km/h(mph)	25 (15.5)
	4th gear*	km/h(mph)	38,0 (23.6)
Measured with tires			29.5 R25 L4
Front axle/rear axle			Volvo/AWB 50/41
Rear axle oscillation ±		°	15
Ground clearance at 15° osc.		mm (in)	600 (23.6)

*) limited by ECU

Electrical system

Central warning system: Contronic electrical system with central warning light and buzzer. Best in class on-board diagnostics with fault codes.

L150G, L180G, L220G		
Voltage	V	24
Batteries	V	2 x 12
Battery capacity	Ah	2 x 170
Cold cranking capacity, approx.	A	1000
Batteries		connected to postiv terminal
Alternator rating	W/A	2280/80
Starter motor output	kW (hp)	7,0 (9.4)

Brake system

Service brake: Volvo dual-circuit system with nitrogen charged accumulators. Outboard mounted hydraulically operated, fully sealed oil circulation-cooled wet disc brakes. The operator can select automatic disengagement of the transmission when braking using Contronic.
Parking brake: Fully sealed, wet multi-disc brake built into the transmission. Applied by spring force and 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.

VOLVO L150G, L180G, L220G 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 speeds. Defroster vents for all window areas.
Operator's seat: Operator's seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall and floor. The forces from the retractable seatbelt are absorbed by the seat rails.
Standard: The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 ("Operator Restraint System").

		L150G
Emergency exit: Use emergency hammer to break window		
Sound level in cab according to ISO 6396/SAE J2105		
LpA	dB(A)	69
External sound level according to ISO 6395/SAE J2104		
LwA	dB(A)	108
Ventilation	m^3 (ft^3/min)	9 (318)
Heating capacity	kW (hp)	16 (214)
Air conditioning (optional)	kW (hp)	7,5 (10.1)

		L180G
Emergency exit: Use emergency hammer to break window		
Sound level in cab according to ISO 6396/SAE J2105		
LpA	dB(A)	70
External sound level according to ISO 6395/SAE J2104		
LwA	dB(A)	108
Ventilation	m^3 (ft^3/min)	9 (318)
Heating capacity	kW (hp)	16 (214)
Air conditioning (optional)	kW (hp)	7,5 (10.1)

		L220G
Emergency exit: Use emergency hammer to break window		
Sound level in cab according to ISO 6396/SAE J2105		
LpA	dB(A)	70
External sound level according to ISO 6395/SAE J2104		
LwA	dB(A)	109
Ventilation	m^3 (ft^3/min)	9 (318)
Heating capacity	kW (hp)	16 (214)
Air conditioning (optional)	kW (hp)	7,5 (10.1)

Lift arm system

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

		L150G
Lift cylinders		2
Cylinder bore	mm (in)	160 (6.3)
Piston rod diameter	mm (in)	90 (3.5)
Stroke	mm (in)	784 (30.9)
Tilt cylinder		1
Cylinder bore	mm (in)	220 (8.7)
Piston rod diameter	mm (in)	110 (4.3)
Stroke	mm (in)	452 (17.8)

		L180G
Lift cylinders		2
Cylinder bore	mm (in)	180 (7.1)
Piston rod diameter	mm (in)	90 (3.5)
Stroke	mm (in)	788 (31.0)
Tilt cylinder		1
Cylinder bore	mm (in)	240 (9.4)
Piston rod diameter	mm (in)	120 (4.7)
Stroke	mm (in)	480 (18.9)

		L220G
Lift cylinders		2
Cylinder bore	mm (in)	190 (7.5)
Piston rod diameter	mm (in)	90 (3.5)
Stroke	mm (in)	768 (30.2)
Tilt cylinder		1
Cylinder bore	mm (in)	250 (9.8)
Piston rod diameter	mm (in)	120 (4.7)
Stroke	mm (in)	455 (17.9)

Hydraulic system

System supply: Two load-sensing axial piston pumps with variable displacement. The steering function always has priority.
Valves: Double-acting 2-spool valve. The main valve is controlled by pilot pressure and electric servo (L150G) i.e. by a 2-spool pilot valve (L180G/L220G).
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 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.

		L150G	L180G	L220G
Working pressure maximum, pump 1	MPa (bar)	29 (290)	29 (290)	29 (290)
Flow	l (gal)/min	180 (47.5)	217 (57.3)	253 (66.8)
at	MPa (bar)	10 (100)	10 (100)	10 (100)
engine speed	r/s (r/min)	32 (1900)	32 (1900)	32 (1900)
Working pressure maximum, pump 2	MPa (bar)	31 (310)	31 (310)	31 (310)
Flow	l (gal)/min	202 (53.4)	202 (53.4)	202 (53.4)
at	MPa (bar)	10 (100)	10 (100)	10 (100)
engine speed	r/s (r/min)	32 (1900)	32 (1900)	32 (1900)
Working pressure maximum, pump 3	MPa (bar)	25 (250)	25 (250)	25 (250)
Flow	l (gal)/min	77 (20.3)	77 (20.3)	77 (20.3)
at	MPa (bar)	10 (100)	10 (100)	10 (100)
engine speed	r/s (r/min)	32 (1900)	32 (1900)	32 (1900)
Pilot system, working pressure	MPa (bar)	3,5 (35)	3,5 (35)	3,5 (35)
Cycle times				
Tilt*	s	2,0	1,8	1,6
Lower, empty	s	3,7	3,3	3,2
Total cycle time	s	11,6	11,5	10,6

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.

		L150G	L180G	L220G
Steering cylinders		2	2	2
Cylinder bore	mm (in)	100 (3.9)	100 (3.9)	100 (3.9)
Rod diameter	mm (in)	60 (2.4)	60 (2.4)	60 (2.4)
Stroke	mm (in)	390 (15.4)	525 (20.7)	525 (20.7)
Working pressure	MPa (bar)	21 (210)	21 (210)	21 (210)
Maximum flow	l (gal)/min	188 (49.7)	188 (49.7)	191 (50.5)
Maximum articulation	± °	37	37	37

Service

Service accessibility: Large, easy-to-open hood covering whole engine compartment, electrically operated. Fluid filters and component breather air filters promote long service intervals. Possibility to monitor, log and analyze data to facilitate troubleshooting.

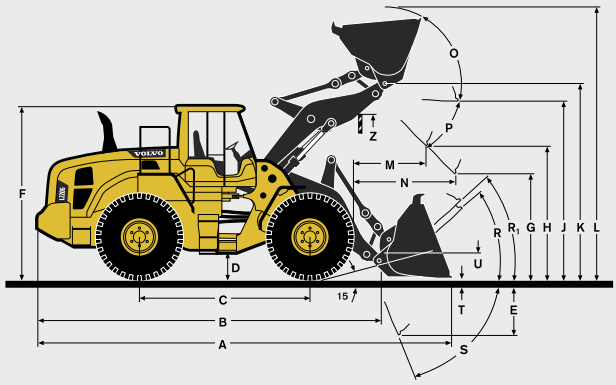
		L150G	L180G	L220G
Fuel Tank	l (gal)	335 (88.5)	335 (88.5)	335 (88.5)
Engine coolant	l (gal)	46 (12.2)	46 (12.2)	46 (12.2)
Hydraulic oil tank	l (gal)	156 (41.2)	156 (41.2)	226 (41.2)
Transmission oil	l (gal)	48 (12.7)	48 (12.7)	48 (12.7)
Engine oil	l (gal)	50 (13.2)	50 (13.2)	50 (13.2)
Axle oil front/rear	l (gal)	45/55 (11.8/14.5)	45/55 (11.8/14.5)	77/71 (20.3/18.8)

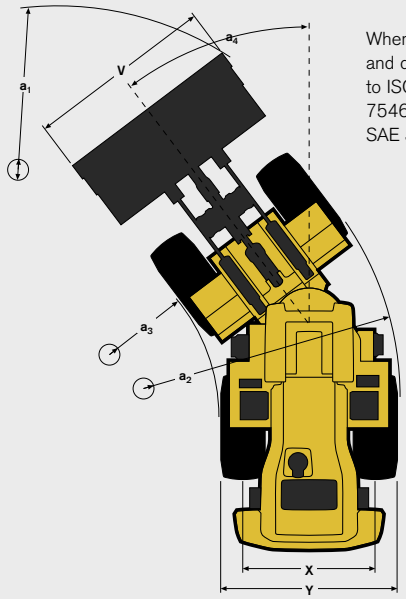
SPECIFICATIONS.

Tires L150G, L180G: 26.5 R25 L3. Tires L220G: 29.5 R25 L4

		Standard boom			Long boom		
		L150G	L180G	L220G	L150G	L180G	L220G
B	mm (in)	7070 (278.3)	7190 (283.1)	7480 (294.5)	7570 (298.0)	7620 (300.0)	7800 (307.1)
C	mm (in)	3550 (139.8)	3550 (139.8)	3700 (145.7)	3550 (139.8)	3550 (139.8)	3700 (145.7)
D	mm (in)	470 (18.5)	480 (18.9)	540 (21.3)	460 (18.1)	480 (18.9)	540 (21.3)
F	mm (in)	3570 (140.6)	3580 (140.9)	3740 (147.2)	3560 (140.2)	3580 (140.9)	3740 (147.2)
G	mm (in)	2134 (84.0)	2134 (84.0)	2131 (83.9)	2134 (84.0)	2133 (84.0)	2133 (84.0)
J	mm (in)	3910 (153.9)	4050 (159.4)	4240 (166.9)	4480 (176.4)	4540 (178.7)	4600 (181.1)
K	mm (in)	4320 (170.1)	4470 (176.0)	4670 (183.9)	4890 (192.5)	4960 (195.3)	5030 (198.0)
O	°	58	57	56	59	55	56
P_{max}	°	50	49	48	49	49	48
R	°	45	45	43	48	49	44
R_1*	°	48	48	47	53	53	49
S	°	66	71	65	61	63	63
T	mm (in)	106 (4.2)	140 (5.5)	111 (4.4)	161 (6.3)	223 (8.8)	117 (4.6)
U	mm (in)	510 (20.1)	550 (21.7)	590 (23.2)	630 (24.8)	650 (25.6)	670 (26.4)
X	mm (in)	2280 (89.8)	2280 (89.8)	2400 (94.5)	2280 (89.8)	2280 (89.8)	2400 (94.5)
Y	mm (in)	2960 (116.5)	2960 (116.5)	3170 (124.8)	2960 (116.5)	2960 (116.5)	3170 (124.8)
Z	mm (in)	3490 (137.4)	3810 (150.0)	4060 (159.8)	3950 (155.5)	4170 (164.2)	4390 (172.8)
a_2	mm (in)	6780 (266.9)	6780 (266.9)	7110 (279.9)	6780 (266.9)	6780 (266.9)	7110 (279.9)
a_3	mm (in)	3830 (150.8)	3830 (150.8)	3940 (155.1)	3830 (150.8)	3830 (150.8)	3940 (155.1)
a_4	±°	37	37	37	37	37	37

* Carry position SAE





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

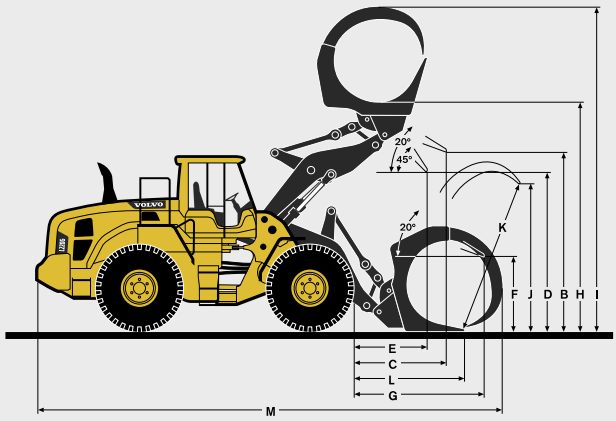
L150G Sales code: WLA80713
Operating weight (incl. logging cw 1 140 kg (2,513 lb)): 25 660 kg (56,571 lb)
Operating load: 7 700 kg (16,976 lb)

L180G Sales code: WLA80027
Operating weight (incl. logging cw 1 140 kg (2 513 lb)): 28 470 kg (62,766 lb)
Operating load: 8 710 kg (19,202 lb)

L220G Sales code: WLA80852
Operating weight (incl. logging cw 800 kg (1 764 lb)): 32 810 kg (72 334 lb)
Operating load: 10 080 kg (22 223 lb)

Tires L150G, L180G: 775/65 R29 L3
Tires L220G: 875/65 R29 L4

		L150G	L180G	L220G
A	m^2 (yd^2)	3,1 (3.7)	3,5 (4.2)	4,0 (4.8)
B	mm (in)	3 660 (144.1)	3 870 (152.4)	3 920 (154.3)
C	mm (in)	2 110 (83.1)	2 150 (84.6)	2 270 (89.4)
D	mm (in)	2 960 (116.5)	3 150 (124.0)	3 160 (124.4)
E	mm (in)	1 650 (65.0)	1 720 (67.7)	1 780 (70.1)
F	mm (in)	1 630 (64.2)	1 700 (66.9)	1 640 (64.6)
G	mm (in)	2 930 (115.4)	3 040 (119.7)	3 230 (127.2)
H	mm (in)	4 990 (196.5)	5 170 (203.5)	5 350 (210.6)
I	mm (in)	7 270 (286.2)	7 610 (299.6)	7 730 (304.3)
J	mm (in)	3 080 (121.3)	3 370 (132.7)	3 620 (142.5)
K	mm (in)	3 340 (131.5)	3 710 (146.1)	3 940 (155.1)
L	mm (in)	2 290 (90.2)	2 410 (94.9)	2 630 (103.5)
M	mm (in)	9 680 (381.1)	9 980 (392.9)	10 380 (408.7)



L150G

Tires 26.5 R25 L3		REHANDLING				GENERAL PURPOSE			ROCK*	LIGHT MATERIAL	LONG BOOM
		5.2 yd³ STE P BOE	5.6 yd³ STE P BOE	6.3 yd³ STE P BOE	6.8 yd³ STE P BOE	5.2 yd³ STE P T SEG	5.8 yd³ STE P T SEG	5.9 yd³ STE P T SEG	4.6 yd³ SPN P T SEG	8.9 yd³ LM P	
Volume, heaped ISO/SAE	m³ (yd³)	4,0 (5.2)	4,4 (5.8)	4,8 (6.3)	5,2 (6.8)	4,0 (5.2)	4,4 (5.8)	4,5 (5.9)	3,5 (4.6)	6,8 (8.9)	-
Volume at 110% fill factor	m³ (yd³)	4,4 (5.8)	4,8 (6.3)	5,3 (6.9)	5,7 (7.5)	4,4 (5.8)	4,8 (6.3)	5,0 (6.5)	3,9 (5.1)	7,5 (9.8)	-
Static tipping load, straight	kg (lb)	19850 (43762)	19590 (43189)	19310 (42571)	19160 (42241)	17610 (38823)	17230 (37986)	17620 (38845)	18300 (40345)	16550 (36487)	-3490 (-7694)
at 35° turn	kg (lb)	17700 (39022)	17440 (38449)	17170 (37853)	17020 (37523)	15710 (34635)	15330 (33797)	15710 (34635)	16320 (35979)	14710 (32430)	-3210 (-7077)
at full turn	kg (lb)	17460 (38493)	17200 (37920)	16920 (37302)	16780 (36994)	15500 (34172)	15110 (33312)	15490 (34150)	16090 (35472)	14500 (31967)	-3180 (-7011)
Breakout force	kN (lbf)	201,1 (45209)	191,5 (43051)	183,2 (41185)	182,6 (41050)	202,0 (45411)	192,7 (43321)	190,5 (42826)	187,9 (42242)	146,6 (32957)	9 (2023)
A	mm (in)	8590 (338.2)	8670 (341.3)	8740 (344.1)	8750 (344.5)	8800 (326.5)	8880 (349.6)	8890 (350.0)	8850 (348.4)	9140 (359.8)	510 (20.1)
E	mm (in)	1230 (48.4)	1300 (51.2)	1360 (53.5)	1370 (53.9)	1410 (55.5)	1480 (58.3)	1500 (59.1)	1450 (57.1)	1710 (67.3)	10 (0.4)
H)**	mm (in)	3030 (119.3)	2970 (116.9)	2920 (115.0)	2920 (115.0)	2880 (113.4)	2830 (111.4)	2820 (111.0)	2870 (113.0)	2620 (103.1)	570 (22.4)
L	mm (in)	5730 (225.6)	5780 (227.6)	5880 (231.5)	5870 (231.1)	5870 (231.1)	5980 (235.4)	5890 (231.9)	5980 (235.4)	6090 (239.8)	560 (22.0)
M)**	mm (in)	1220 (48.0)	1270 (50.0)	1320 (52.0)	1320 (52.0)	1350 (53.1)	1400 (55.1)	1410 (55.5)	1420 (55.9)	1560 (61.4)	-20 (-0.8)
N)**	mm (in)	1800 (70.9)	1830 (72.0)	1860 (73.2)	1860 (73.2)	1870 (73.6)	1890 (74.4)	1900 (74.8)	1930 (76.0)	1940 (76.4)	450 (17.7)
V	mm (in)	3200 (126.0)	3200 (126.0)	3200 (126.0)	3400 (133.9)	3230 (127.2)	3230 (127.2)	3000 (118.1)	3230 (127.2)	3200 (126.0)	-
a1 clearance circle	mm (in)	14640 (576.4)	14670 (577.6)	14700 (578.7)	14890 (586.2)	14750 (580.7)	14790 (582.3)	14580 (572.0)	14800 (582.7)	14900 (586,6)	-
Operating weight	kg (lb)	24490 (53991)	24700 (54454)	24890 (54873)	25020 (55160)	23680 (55205)	24020 (52955)	23780 (52426)	24930 (54961)	23990 (52889)	410 (904)

*) With L5 tires

**) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge. Measured at 45° dump angle. (Spade nose buckets at 42°.)

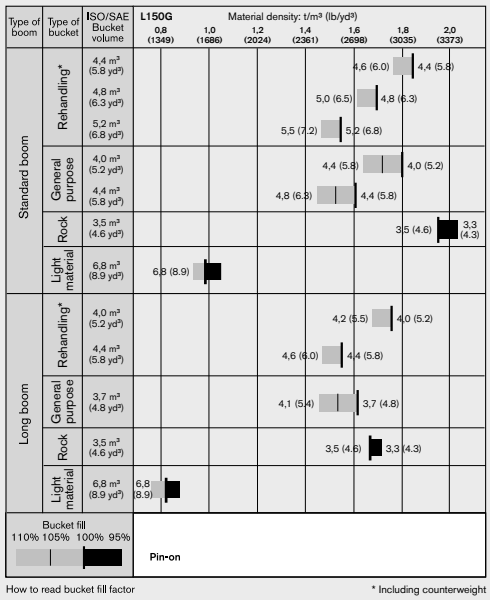
Note: This only applies to genuine Volvo attachments.

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 1,6 t/m³ (2,700 lb/yd³). Result: The 4,0 m³ (5.2 yd³) bucket carries 4,2 m³ (5.5 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density, t/m³ (lb/yd³)	ISO/SAE bucket volume, m³ (yd³)	Actual volume, m³ (yd³)
Earth/Clay	~ 110	~ 1,6 (2698) ~ 1,5 (2530)	4,0 (5.2) 4,4 (5.8)	~ 4,4 (5.8) ~ 4,8 (6.3)
Sand/Gravel	~ 105	~ 1,6 (2698) ~ 1,5 (2530)	4,0 (5.2) 4,4 (5.8)	~ 4,2 (5.5) ~ 4,6 (6.0)
Aggregate	~ 100	~ 1,8 (3035) ~ 1,7 (2867) ~ 1,5 (2530)	4,4 (5.8) 4,8 (6.3) 5,2 (6.8)	~ 4,4 (5.8) ~ 4,8 (6.3) ~ 5,2 (6.8)
Rock	≤100	~ 1,7 (2867)	3,5 (4.6)	~ 3,5 (4.6)

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



How to read bucket fill factor

* Including counterweight

Supplemental Operating Data

		Standard boom		Long boom	
Tires 26.5 R25 L3		**26.5 R25 L5**	**775/65 R29 L3**	**26.5 R25 L5**	**775/65 R29 L3**
Width over tires	mm (in)	+30 (+1.2)	+180 (+7.1)	+30 (+1.2)	+180 (+7.1)
Ground clearance	mm (in)	+30 (+1.2)	+10 (+0.4)	+30 (+1.2)	+10 (+0.4)
Tipping load, full turn	kg (lb)	+760 (+1676)	+590 (+1300)	+640 (+1411)	+500 (+1102)
Operating weight	kg (lb)	+1060 (+2337)	+760 (+1676)	+1050 (+2315)	+750 (+1653)

SPECIFICATIONS.

L180G

Tires 26.5 R25 L3		REHANDLING				GENERAL PURPOSE			ROCK*	LIGHT MATERIAL	LONG BOOM
		6.3 yd³ STE P BOE	6.8 yd³ STE P BOE	7.2 yd³ STE P BOE	7.6 yd³ STE P BOE	5.8 yd³ STE P T SEG	6.0 yd³ STE P T SEG	6.3 yd³ STE P T SEG	5.5 yd³ SPN P T SEG	10.0 yd³ LM P	
Volume, heaped ISO/SAE	m³ (yd³)	4,8 (6.3)	5,2 (6.8)	5,5 (7.2)	5,8 (7.6)	4,4 (5.8)	4,6 (6.0)	4,8 (6.3)	4,2 (5.5)	7,8 (10.0)	-
Volume at 110% fill factor	m³ (yd³)	5,3 (6.9)	5,7 (7.5)	6,1 (8.0)	6,4 (8.4)	4,8 (6.3)	5,1 (6.7)	5,3 (6.9)	4,6 (6.0)	8,6 (11.0)	-
Static tipping load, straight	kg (lb)	22930 (50552)	22780 (50221)	22610 (49847)	22480 (49560)	21080 (46473)	21100 (46518)	20900 (46077)	21650 (47730)	19710 (43453)	-3760 (-8289)
at 35° turn	kg (lb)	20310 (44776)	20160 (44445)	20000 (44092)	19870 (43806)	18700 (41226)	18710 (41248)	18520 (40830)	19190 (42307)	17390 (38338)	-3430 (-7562)
at full turn	kg (lb)	20010 (44114)	19870 (43806)	19700 (43431)	19580 (43167)	18420 (40609)	18440 (40653)	18250 (40234)	18910 (41689)	17130 (37765)	-3390 (-7474)
Breakout force	kN (lbf)	224,8 (50537)	224,2 (50402)	216,2 (48604)	209,9 (47187)	236,3 (53122)	236,3 (53122)	226,7 (50964)	212,6 (47794)	173,4 (38981)	4 (899)
A	mm (in)	8890 (350.0)	8890 (350.0)	8960 (352.8)	9010 (354.7)	9010 (354.7)	9010 (354.7)	9080 (357.5)	9140 (359.8)	9360 (368.5)	470 (18.5)
E	mm (in)	1420 (55.9)	1430 (56.3)	1490 (58.7)	1540 (60.6)	1540 (60.6)	1540 (60.6)	1600 (63.0)	1650 (65.0)	1860 (73.2)	20 (0.8)
H)**	mm (in)	3060 (120.5)	3060 (120.5)	3010 (118.5)	2980 (117.3)	2970 (116.9)	2970 (116.9)	2930 (115.4)	2910 (114.6)	2700 (106.3)	500 (19.7)
L	mm (in)	6020 (237.0)	6010 (236.6)	6040 (237.8)	6110 (240.6)	6120 (240.9)	6170 (242.9)	6170 (242.9)	6320 (248.8)	6300 (248.0)	490 (19.3)
M)**	mm (in)	1330 (52.4)	1340 (52.8)	1380 (53.3)	1410 (55.5)	1410 (55.5)	1410 (55.5)	1460 (57.5)	1520 (59.9)	1610 (63.4)	20 (0.8)
N)**	mm (in)	1960 (77.2)	1970 (77.6)	1990 (78.4)	2010 (79.1)	2000 (78.7)	2000 (78.7)	2030 (79.9)	2080 (81.9)	2060 (81.1)	420 (16.5)
V	mm (in)	3200 (126.0)	3400 (133.9)	3400 (133.9)	3400 (133.9)	3230 (127.2)	3230 (127.2)	3230 (127.2)	3230 (127.2)	3400 (133.9)	-
a1 clearance circle	mm (in)	14800 (582.7)	14990 (590.2)	15010 (590.9)	15040 (592.1)	14880 (585.8)	14880 (585.8)	14910 (587.0)	14960 (589.0)	15220 (599.2)	-
Operating weight	kg (lb)	27340 (60274)	27460 (60539)	27560 (60759)	27630 (60914)	26460 (58334)	26500 (58422)	26560 (58555)	27720 (61112)	26740 (58952)	310 (683)

*) With L5 tires

**) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge. Measured at 45° dump angle. (Spade nose buckets at 42°.)

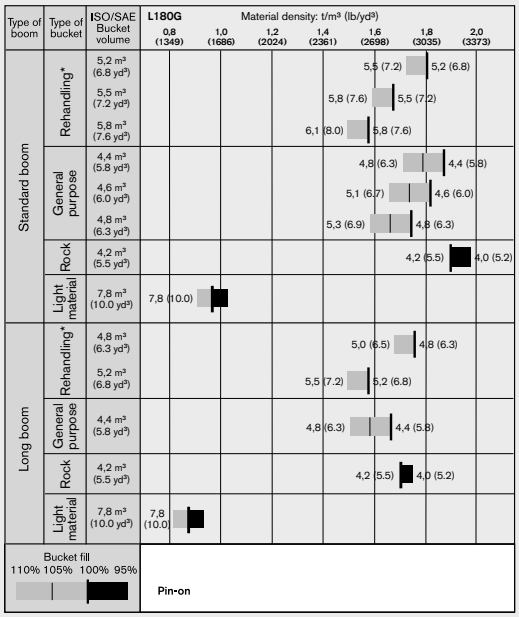
Note: This only applies to genuine Volvo attachments.

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 1,6 t/m³ (2,700 lb/yd³). Result: The 4,6 m³ (6.0 yd³) bucket carries 4,8 m³ (6.3 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density, t/m³ (lb/yd³)	ISO/SAE bucket volume, m³ (yd³)	Actual volume, m³ (yd³)
Earth/Clay	~ 110	~ 1,7 (2867) ~ 1,6 (2698) ~ 1,5 (2530)	4,4 (5.8) 4,6 (6.0) 4,8 (6.3)	~ 4,8 (6.3) ~ 5,1 (6.7) ~ 5,3 (6.9)
Sand/Gravel	~ 105	~ 1,7 (2867) ~ 1,6 (2698) ~ 1,5 (2530)	4,4 (5.8) 4,6 (6.0) 4,8 (6.3)	~ 4,6 (6.0) ~ 4,8 (6.3) ~ 5,1 (6.7)
Aggregate	~ 100	~ 1,8 (3035) ~ 1,7 (2867) ~ 1,6 (2698)	5,2 (6.8) 5,5 (7.2) 5,8 (7.6)	~ 5,2 (6.8) ~ 5,5 (7.2) ~ 5,8 (7.6)
Rock	≤100	~ 1,7 (2867)	4,3 (5.6)	~ 4,3 (5.6)

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



How to read bucket fill factor

* Including counterweight

Supplemental Operating Data

Tires 26.5 R25 L3		Standard boom 26.5 R25 L5	Standard boom 775/65 R29 L3	Long boom 26.5 R25 L5	Long boom 775/65 R29 L3
Width over tires	mm (in)	+30 (+1.2)	+130 (+5.1)	+30 (+1.2)	+130 (+5.1)
Ground clearance	mm (in)	+40 (+1.6)	+10 (+0.4)	+40 (+1.6)	+10 (+0.4)
Tipping load, full turn	kg (lb)	+770 (+30.3)	+600 (+23.6)	+760 (+29.9)	+530 (+20.9)
Operating weight	kg (lb)	+1050 (+2315)	+920 (+36.2)	+1050 (+2315)	+1120 (+44.1)

L220G

Tires 29.5 R25 L4		REHANDLING			GENERAL PURPOSE			ROCK*		LIGHT MATERIAL	LONG BOOM
											
Additional machine specification		**7.3 yd³ STE P BOE**	**7.7 yd³ STE P BOE**	**8.2 yd³ STE P BOE**	**6.4 yd³ STE P T SEG**	**6.8 yd³ STE P T SEG**	**7.3 yd³ STE P T SEG**	**5.9 yd³ SPN P T SEG**	**6.5 yd³ SPN P T SEG**	**10.7 yd³ LM P**	
Volume, heaped ISO/SAE	m³ (yd³)	5,6 (7.3)	5,9 (7.7)	6,3 (8.2)	4,9 (6.4)	5,2 (6.8)	5,6 (7.3)	4,5 (5.9)	5,0 (6.5)	8,2 (10.7)	-
Volume at 110% fill factor	m³ (yd³)	6,2 (8.1)	6,5 (8.5)	6,9 (9.0)	5,4 (7.1)	5,7 (7.5)	6,2 (8.1)	5,0 (6.5)	5,5 (7.2)	9,0 (11.7)	-
Static tipping load, straight	kg (lb)	24850 (54785)	24720 (54498)	24540 (54101)	23660 (52161)	23520 (51853)	23250 (51257)	24000 (52911)	23170 (51081)	22520 (49648)	-2870 (-6327)
at 35° turn	kg (lb)	22080 (48768)	21950 (48391)	21780 (48017)	21040 (46385)	20900 (46077)	20650 (45525)	21340 (47047)	20580 (45371)	19950 (43982)	-2640 (-5820)
at full turn	kg (lb)	21760 (47973)	21640 (47708)	21470 (47333)	20740 (45724)	20600 (45415)	20350 (44864)	21040 (46385)	20280 (44710)	19660 (43343)	-2610 (-5754)
Breakout force	kN (lbf)	228,2 (51301)	222,5 (50020)	214,4 (48199)	255,2 (57371)	248,1 (55775)	231,9 (52133)	212,0 (47659)	196,6 (44197)	190,3 (42781)	4 (899)
A	mm (in)	9240 (363.8)	9290 (365.7)	9360 (368.5)	9290 (365.7)	9340 (367.7)	9440 (371.7)	9580 (377.2)	9730 (383.1)	9560 (376.4)	310 (12.2)
E	mm (in)	1440 (56.7)	1480 (58.3)	1550 (61.0)	1480 (58.3)	1520 (59.8)	1620 (63.8)	1730 (68.1)	1860 (73.2)	1730 (68.1)	-20 (-0.8)
H)**	mm (in)	3190 (125.6)	3160 (124.4)	3110 (122.4)	3160 (124.4)	3120 (122.8)	3060 (120.5)	3030 (119.3)	2930 (115.4)	2940 (115.7)	360 (14.2)
L	mm (in)	6290 (247.6)	6310 (248.4)	6400 (252.0)	6390 (251.6)	6450 (253.9)	6460 (254.3)	6420 (252.8)	6500 (255.9)	6480 (2551)	370 (14.6)
M)**	mm (in)	1380 (54.3)	1410 (55.5)	1460 (57.5)	1410 (55.5)	1440 (56.7)	1520 (59.8)	1690 (66.5)	1800 (70.9)	1580 (62.2)	-30 (-1.2)
N)**	mm (in)	2090 (82.3)	2110 (83.1)	2140 (84.3)	2100 (82.7)	2120 (83.5)	2180 (85.8)	2250 (88.6)	2300 (90.6)	2170 (85.4)	270 (10.6)
V	mm (in)	3400 (133.9)	3400 (133.9)	3400 (133.9)	3430 (135.0)	3430 (135.0)	3430 (135.0)	3430 (135.0)	3430 (135.0)	3700 (145.7)	-
a1 clearance circle	mm (in)	15560 (612.6)	15580 (613.4)	15620 (615.0)	15610 (614.6)	15630 (615.4)	15690 (617.7)	15770 (620.9)	15850 (624.0)	16010 (630.3)	-
Operating weight	kg (lb)	32280 (71165)	32360 (71342)	32470 (71584)	31550 (69556)	31640 (69754)	31680 (69842)	32990 (72731)	33160 (73105)	32040 (70636)	390 (860)

*) With L5 tires

**) Measured to the tip of the bucket teeth or bolt-on edge. Dump height to bucket edge. Measured at 45° dump angle. (Spade nose buckets at 42°.)

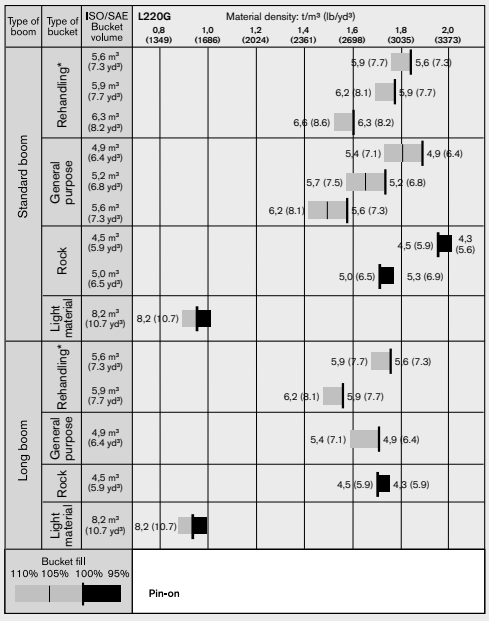
Note: This only applies to genuine Volvo attachments.

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 1,6 t/m³ (2,700 lb/yd³). Result: The 5,2 m³ (6.8 yd³) bucket carries 5,5 m³ (7.2 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density, t/m³ (lb/yd³)	ISO/SAE bucket volume, m³ (yd³)	Actual volume, m³ (yd³)
Earth/Clay	~ 110	~ 1,6 (2698) ~ 1,5 (2530) ~ 1,4 (2361)	4,9 (6.4) 5,2 (6.8) 5,4 (7.1)	~ 5,4 (7.1) ~ 5,7 (7.5) ~ 5,9 (7.7)
Sand/Gravel	~ 105	~ 1,7 (2867) ~ 1,6 (2698) ~ 1,5 (2530)	4,9 (6.4) 5,2 (6.8) 5,4 (7.1)	~ 5,1 (6.7) ~ 5,5 (7.2) ~ 5,7 (7.5)
Aggregate	~ 100	~ 1,8 (3035) ~ 1,7 (2867) ~ 1,6 (2698)	5,6 (7.3) 5,9 (7.7) 6,3 (8.2)	~ 5,6 (7.3) ~ 5,9 (7.7) ~ 6,3 (8.2)
Rock	≤100	~ 1,7 (2867)	4,5 (5.9)	~ 4,5 (5.9)

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



How to read bucket fill factor

* Including counterweight

Supplemental Operating Data

		Standard boom			Long boom		
Tires 29.5 R25 L4		**29.5 R25 L3**	**29.5 R25 L5**	**875/65 R29 L4**	**29.5 R25 L3**	**29.5 R25 L5**	**875/65 R29 L4**
Width over tires	mm (in)	-20 (-0.8)	+35 (+1.4)	+95 (+3.7)	-20 (-0.8)	+35 (+1.4)	+95 (+3.7)
Ground clearance	mm (in)	±0	+40 (+1.6)	-10 (-0.4)	±0	+40 (+1.6)	-20 (-0.8)
Tipping load, full turn	kg (lb)	-100 (-3.9)	+1010 (+39.8)	+180 (+7.1)	-90 (-3.5)	+930 (+36.6)	+180 (+7.1)
Operating weight	kg (lb)	-80 (-3.2)	+1490 (+58.7)	+650 (+25.6)	-80 (3.2)	+1500 (+59.1)	+650 (+25.6)

EQUIPMENT.

STANDARD EQUIPMENT

	L150G	L180G	L220G
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	•	•	•
Tool box, lockable	•	•	•
CareTrack	•	•	•
Telematics, 3-Year Subscription	•	•	•
Engine			
Exhaust after-treatment system	•	•	•
Three 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	•	•	•
Crankcase breather oil trap	•	•	•
Exhaust heat insulation	•	•	•
Exterior radiator air intake protection	•	•	•
Reversible cooling fan	•	•	•
Electrical system			
24 V, pre-wired for optional accessories	•	•	•
Alternator 24V/ 80A	•	•	•
Battery disconnect switch with removable key	•	•	•
Fuel gauge	•	•	•
Hour meter	•	•	•
Electric horn	•	•	•
Instrument cluster: • Fuel 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)	•	•	•
Rear view camera incl. monitor, color	•	•	•
Reverse alarm	•	•	•
Contronic monitoring system			
Monitoring and logging of machine data	•	•	•
Contronic display	•	•	•
Fuel consumption	•	•	•
Ambient temperature	•	•	•
Clock	•	•	•
Test function for warning and indicator lights	•	•	•
Brake test	•	•	•
Test function, sound level at max fan speed	•	•	•
Warning and indicator lights: • Battery charging • Parking brake	•	•	•
Warning and display message: • Regeneration • Engine coolant temperature • Charge-air temperature • Engine oil temperature • Engine oil pressure • Transmission oil temperature • Transmission oil pressure • Hydraulic oil temperature • Brake pressure • Parking brake applied • Brake charging • Overspeed at direction change • Axle oil temperature • Steering pressure • Crankcase pressure • Attachment lock open	•	•	•
Level warnings: • Fuel 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	•	•	•
Drivetrain			
Automatic Power Shift	•	•	•
Fully automatic gearshifting, 1-4	•	•	•
PWM-controlled gearshifting	•	•	•
Forward and reverse switch by hydraulic lever console	•	•	•
Indicator glass for transmission oil level	•	•	•
Differentials: Front, 100% hydraulic diff. lock. Rear, conventional.	•	•	•
OptiShift	•	•	•
Brake system			
Dual brake circuits	•	•	•
Dual brake pedals	•	•	•
Secondary brake system	•	•	•
Parking brake, electrical-hydraulic	•	•	•
Brake wear indicators	•	•	•
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	•	•	•
Fresh air inlet with two filters	•	•	•
Automatic heat control	•	•	•
Floor mat	•	•	•
Dual interior lights	•	•	•
Dual interior rear-view mirrors	•	•	•
Dual exterior rear-view 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	•	•	•
Hydraulic system			
Main valve, double acting 2-spool with hydraulic pilots	•	•	•
Variable displacement axial piston pumps (3) for: 1 Working hydraulic system 2 Working hydraulic system, Steering- and Brake system 3 Cooling fan and Brake system	•	•	•
Electro-hydraulic servo controls	•	•	•
Electric level lock	•	•	•
Boom kick-out, automatic	•	•	•
Bucket positioner, automatic	•	•	•
Double-acting hydraulic cylinders	•	•	•
Indicator glass for hydraulic oil level	•	•	•
Hydraulic oil cooler	•	•	•
External equipment			
Fenders, front and rear	•	•	•
Viscous cab mounts	•	•	•
Rubber engine and transmission mounts	•	•	•
Easy-to-open side panels	•	•	•
Frame, joint lock	•	•	•
Vandalism lock prepared for • Batteries • Engine compartment • Radiator grille	•	•	•
Lifting eyes	•	•	•
Tie-down eyes	•	•	•
Tow hitch	•	•	•
Counterweight, pre-drilled for optional guards	•	•	•

OPTIONAL EQUIPMENT

	L150G	L180G	L220G
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	•	•	•
Engine			
Air pre-cleaner, cyclone type	•	•	•
Air pre-cleaner, cyclone type, two-stage	•	•	•
Air pre-cleaner, oil-bath type	•	•	•
Air pre-cleaner, turbo type	•	•	•
Radiator corrosion protection	•	•	•
Engine auto shutdown	•	•	•
Engine block heater 230V/110V	•	•	•
ESW, Disabled engine protection	•	•	•
Air intake protection (for grill in waste)	•	•	•
Fuel fill strainer	•	•	•
Fuel heater	•	•	•
Hand throttle control	•	•	•
Max. fan speed, hot climate	•	•	•
Radiator, corrosion-protected	•	•	•
Reversible cooling fan and axle oil cooler	•	•	•
Fuel filter, extra	•	•	•
Electrical system			
Alternator, 80 A with air filter	•	•	•
Anti-theft device	•	•	•
Headlights, assym. left	•	•	•
License plate holder, lighting	•	•	•
Rear-view mirrors, adjustable, el.heated	•	•	•
Rear view mirrors, Long arm	•	•	•
Rear view mirrors, adjustable, el.heated, Long arm	•	•	•
Reduced function working lights, reverse gear activated	•	•	•
Reverse warning light, strobe lighting	•	•	•
Shortened headlight support brackets	•	•	•
Side marker lamps	•	•	
Rotating beacon	•	•	•
Working lights, attachments	•	•	•
Working lights front, high intensity discharge (HID)	•	•	•
Working lights front, on cab, dual	•	•	•
Working lights front, extra	•	•	•
Working lights rear, on cab	•	•	•
Working lights rear, on cab, dual	•	•	•
Cab			
Anchorage for Operator's manual	•	•	•
Automatic Climate Control, ACC	•	•	•
ACC control panel, with Fahrenheit scale	•	•	•
Asbestos dust protection filter	•	•	•
Cab air pre-cleaner, cyclone type	•	•	•
Carbon filter	•	•	•
Cab roof, heavy-duty	•	•	•
Cover plate, under cab	•	•	•
Lunch box holder	•	•	•
Armrest, operator's seat, ISRI, left only	•	•	•
Operator's seat, KAB, air susp, heavy-duty, for CDC and/or elservo	•	•	•
Operator's seat, ISRI, air susp, heat, high back	•	•	•
Radio installation kit incl. 11 amp 12 volt outlet, left side	•	•	•
Radio installation kit incl. 11 amp 12 volt outlet, right side	•	•	•
Radio installation kit incl. 20 amp 12 volt outlet	•	•	•
Radio with CD-player	•	•	•
Seatbelt, 3", (width 75 mm)	•	•	•
Steering wheel knob	•	•	•
Sun blinds, rear windows	•	•	•
Sun blinds, side windows	•	•	•
Timer cab heating	•	•	•
Window, sliding, door	•	•	•
Universal door/ignition key	•	•	•
Front view mirror	•	•	•

Drivetrain			
Diff. lock front 100%, Limited Slip rear	•	•	•
Speed limiter, 20 km/h (12 mph)	•	•	•
Speed limiter, 30 km/h (19 mph)	•	•	•
Speed limiter, 40 km/h (25 mph)	•		
Wheel/axle seal guards	•	•	•
Brake system			
Oil cooler and filter front & rear axle	•	•	•
Stainless steel, brake lines	•	•	
Hydraulic system			
Attachment bracket, welded	•	•	•
Boom suspension system	•	•	•
Separate attachment locking, standard boom	•	•	•
Separate attachment locking, long boom	•	•	•
Arctic kit, attachment locking hoses and 3rd hydr. function	•	•	•
Arctic kit, pilot hoses and brake accum. incl. hydr. oil	•	•	•
Boom cylinder hose and tube guards	•	•	•
Boom cylinder hose and tube guards for long boom	•	•	•
Hydraulic fluid, biodegradable, Volvo	•	•	•
Hydraulic fluid, fire-resistant	•	•	•
Hydraulic fluid, for hot climate	•	•	•
Electro-hydraulic function, 3rd	•	•	•
Electro-hydraulic function, 3rd for long boom	•	•	•
Electro-hydraulic function, 3rd-4th	•	•	•
Electro-hydraulic function, 3rd-4th for long boom	•	•	•
Electro-hydraulic servo controls for long boom	•	•	•
External equipment			
Cab ladder, rubber-suspended	•	•	•
Deleted front mudguards	•	•	•
Mudguard widener, front/rear for 80-series tires	•	•	•
Mudguard widener, front/rear for 65-series tires	•	•	•
Fire suppression system	•	•	•
Mudguards, full cover, rear for 80-series tires	•	•	•
Mudguards, full cover, rear for 65-series tires	•	•	•
Long boom	•	•	•
Long boom for electro-hydraulic	•	•	•
Protective equipment			
Belly guard front	•	•	•
Belly guard rear	•	•	•
Belly guard rear, oil pan	•	•	•
Cover plate, heavy-duty, front frame	•	•	•
Cab roof heavy duty	•	•	•
Guards for front headlights	•	•	•
Guards for radiator grill	•	•	•
Guards for tail lights	•	•	•
Windows, side and rear guards	•	•	•
Windshield guard	•	•	•
Corrosion protection, painting of machine	•	•	•
Corrosion protection, painting of attachment bracket	•	•	
Bucket Teeth protection	•	•	
Other equipment			
Comfort Drive Control (CDC)	•	•	•
Counterweight, logging	•	•	•
Counter weight, block handling			•
Counterweight, re-handling	•	•	•
Counterweight, signal painted, chevrons	•	•	•
Log pusher	•	•	•
Secondary steering with automatic test function	•	•	•
Sound decal, EU	•	•	•
Noise reduction kit, exterior	•	•	•
Sign, slow moving vehicle	•	•	
Tires			
26.5 R25	•	•	
29.5 R25			•
775/65 R29	•	•	
875/65 R29			•

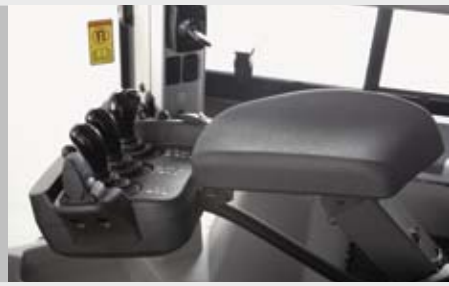
EQUIPMENT.

OPTIONAL EQUIPMENT

	L150G	L180G	L220G
Attachments			
Buckets:			
• Rock straight or spade nose	•	•	•
• General purpose	•	•	•
• Re-handling	•	•	•
• Side-dump			•
• Light material	•	•	•
Wear parts:			
• Bolt-on and weld-on bucket teeth	•	•	•
• Segments	•	•	•
• Cutting edge in three sections, bolt-on	•	•	•
Fork equipment	•	•	•
Material handling arm	•	•	•
Log grapples	•	•	•

Comfort Drive Control (CDC)

Electro-hydraulic 3rd-4th function



Rear-view camera
(Standard)

Boom Suspension System

Fire Suppression System

Automatic Lubrication System


VOLVO
ALLIS

VOLVO CONSTRUCTION EQUIPMENT

Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different.

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