

VOLVO WHEEL LOADERS

AGGREGATE AND QUARRY LOADING



VOLVO

MOVING MOUNTAINS JUST GOT A LOT EASIER

With a Volvo wheel loader on the job, moving material quickly and efficiently with minimum impact on the machine, operator, and environment is easily done. That's because Volvo wheel loaders are designed and built from the beginning for maximum productivity and efficiency, high operator comfort and safety, and easy access for daily maintenance and service.

With the L330E at the top of the range, Volvo wheel loaders have the power, force, and durability required in quarries and hard banks. High penetration capacity and excellent rimpull is the result of wellmatched components working together in perfect harmony.

When properly equipped with original attachments and extra equipment, Volvo wheel loaders can effectively challenge much larger wheel loaders thanks to their

superior speed, maneuverability, operator comfort, and overall operating economy. Together with a well established service and support network, Volvo Wheel Loaders offers the complete package solution for your business needs.

So whether your face loading shot rock, rehandling processed materials, or working in an underground mine, you'll be hard pressed to find a more dependable or durable wheel loader than a Volvo.

Volvo standard features



Volvo genuine attachments

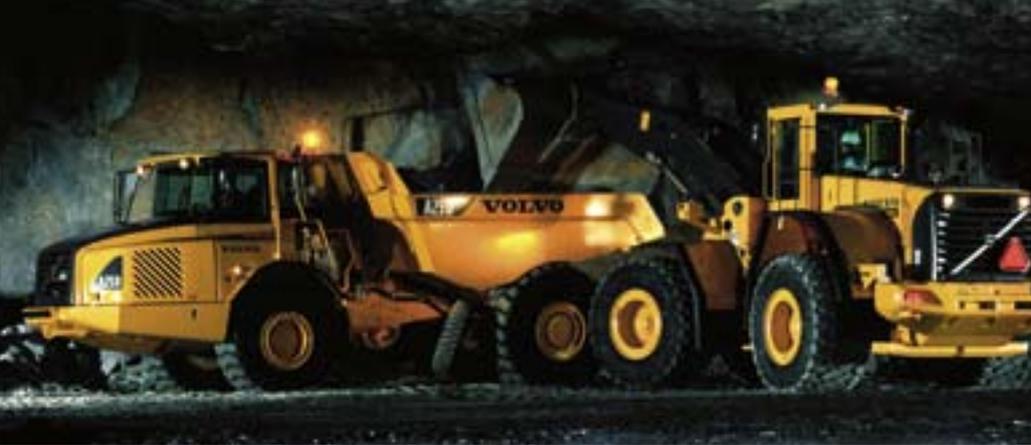


Volvo optional equipment



Volvo customer support





CREATED FOR THE TOUGHEST ENVIRONMENTS PURPOSE-BUILT FOR DEMANDING CUSTOMERS - VOLVO STANDARD FEATURES

Building on 50 years in the industry, Volvo wheel loaders are no strangers to aggregate and quarry loading. Many standard features on the Volvo E-series wheel loaders are specifically developed to withstand the abuse encountered in tough environments like loading blasted rock.



Get more done

- All systems and components are perfectly matched for operator efficiency, quality and reliability, and higher productivity.
- Load sensing working hydraulics are smooth and responsive, easy to operate, and designed for all operators.
- Volvo's linkage systems feature excellent rollback angles at carry position for good load retention and less spillage.

Operating economy

- Volvo's high performance low emission engines, Volvo developed drivetrains, and efficient hydraulics result in extremely low fuel consumption and higher availability.
- Air entering the engine first passes through a 3-stage cleaning system, helping to increase service life. Also, the air is ventilated from all major components with easy to replace breather filters, used to prevent impurities from entering the transmission, axles, fuel tank and hydraulic tank.

Work more comfortably

- The ergonomic design of the operator's workstation with adjustable controls and well-placed instruments means less fatigue and increased Operator efficiency during long shifts.

- Volvo's Care Cab is vibration-isolated and sound insulated for extremely low internal sound levels.
- The cab filtration system not only cleans the incoming air, but also the re-circulated air inside the cab, making it one of the cleanest cabs on the market.

Keep it running

- Contronic electronic monitoring system continuously controls, monitors, informs, and warns the operator of the machine's status. Other features include monitoring of oil and fluid levels, fuel consumption data, and service intervals.
- Extended service intervals, up to 500 hours for engine oil and filter and 4000 hours for hydraulic oil, mean less downtime for maintenance.

Safe and environmentally friendly operation

- Angled ladders, anti-slip walkways, and a large door opening provide easy and safe access to the machine.
- Electronic brake test in Contronic, easy-to-check brake wear indicators and an automatically activated parking brake are all ways to ensure safe and effective braking.
- Low exhaust emissions and low fuel consumption for minimal environmental impact.





WORKING TOGETHER

- VOLVO GENUINE ATTACHMENTS

Volvo genuine buckets and wear parts are built to the same quality standard as our wheel loaders. As a machine manufacturer, we have both the knowledge and information to design our attachments as an integral part of the loader. Machines and attachments that are made for each other obviously work best together.

Buckets for bank loading and loading from stockpiles

• General purpose straight edge bucket

The general purpose bucket has an angled floor for good penetration and excellent fill factors. It can be equipped with either bolt on edge savers or teeth, enabling it to be used in many different applications or materials. Recommended for loading sand, gravel or other materials from banks or stockpiles.

Volvo	Volume range
L110E	2,5-3,3 m ³
L120E	2,5-3,5 m ³
L150E	3,5-4,5 m ³
L180E	3,8-4,8 m ³
L220E	4,7-6,5 m ³
L330E	7,0-8,3 m ³

• Flat floor straight edge bucket

Flat floor buckets have a smooth, flat floor, which is good for maintaining a clean and level work area. This type of bucket can be fitted with bolt on edge savers or teeth and is recommended for loading trucks from banks or stockpiles.

Volvo	Volume range
L110E	3,0 m ³
L120E	3,0-3,4 m ³
L150E	4,0-4,2 m ³

Buckets for rock handling or other abrasive material

• Straight edge rock bucket

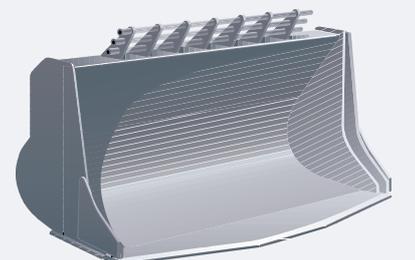
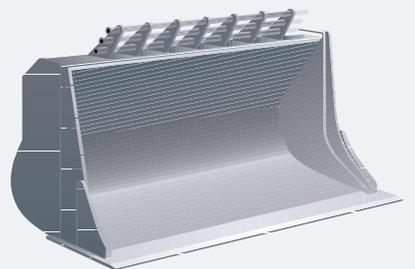
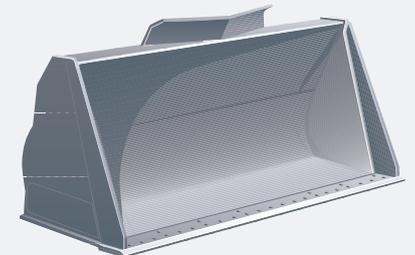
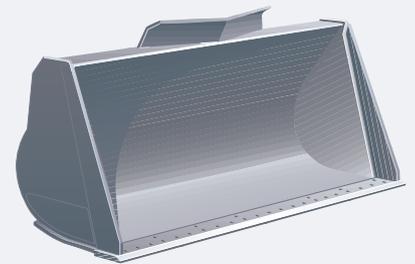
Straight edge rock buckets are good for removing easily broken material from banks that require higher penetration and break-out capacity. The straight edge gives better dump height and load retention than a spade nose bucket. It can be equipped with either bolt on edge savers or teeth in combination with segments.

Volvo	Volume range
L110E	3,0 m ³
L120E	3,0 m ³
L150E	3,6-3,8 m ³
L180E	4,2-4,4 m ³
L220E	4,3-4,5 m ³
L330E	6,1-6,9 m ³

• Spade nose rock bucket

The spade nose rock bucket is the best choice for breaking out hard and stony material or blasted rock. It is most commonly fitted with teeth and segments, but when loading gravel, crushed rock or ore, it can be fitted with bolt on edge savers.

Volvo	Volume range
L110E	2,6-2,9 m ³
L120E	2,6-2,9 m ³
L150E	3,4-3,5 m ³
L180E	3,7-4,2 m ³
L220E	4,4-5,0 m ³
L330E	6,1-7,5 m ³





Side cutters with extra hardened and tempered steel wear plates provide high abrasion resistance (up to 500 Brinell)

Bucket shell and side plates (up to 400 Brinell)

Reinforced load transition structures reduce wear and increase useful life

Base cutting edge manufactured from abrasion resistant steel (500 Brinell)

Replacable bolt-on bottom wear plates (500 Brinell)

Bolt on edge savers and segments help protect the cutting edge from excessive wear (500 Brinell)

Volvo Tooth System with bolt on or weld on adapters for excellent penetration and reduced bucket wear (up to 515 Brinell)



Bolt on edge savers and segments

Bolt on edge savers and segments are available for either straight edge or spade nose buckets. They are easy to fit and are both reversible and movable, resulting in a more even wear pattern, longer service life, and lower maintenance costs. Segments between teeth provide a smooth clean floor while at the same time increasing useful wear life for both the base cutting edge and adapters. Segment kits are not to be used in combination with flush mounted adapters.

Volvo Tooth System

Volvo's unique tooth system is designed for excellent break-out penetration and long life. The wide range of adapters and teeth encompasses all applications, from handling easily broken bank materials to hard and rocky materials, such as blasted rock. Adapters are available in both weld on and bolt on versions, including flush mounted, 1 1/2 leg and 2 leg strap designs. Teeth are available in four different types and vary in abrasion resistance according to the material being loaded.



WHATEVER THE JOB, WE HAVE THE TOOLS TO GET IT DONE - VOLVO OPTIONAL EQUIPMENT

Volvo offers a full range of equipment that has been specifically designed for your business. You pick the options that are right for you and your application. The following equipment is recommended in aggregate and quarry loading to help increase productivity, economy, comfort, serviceability, and safety.

Highly recommended

• Boom Suspension System (BSS)

BSS effectively absorbs shocks and reduces the bouncing and rocking that often occurs when operating on rough ground. Volvo's Boom Suspension System offers two different operating modes for faster cycle times, higher productivity and improved operator comfort in all types of extraction applications.

• Return-to-dig

Return-to-dig is an electrically controlled hydraulic function that automatically lowers the boom to a preset dig position.

Movement is dampened until the boom comes to a smooth stop at the preset position. Return-to-dig simplifies bucket handling for increased productivity and higher operator comfort, especially during short cycle loading operations.

• Long boom

A long boom gives the extra dump height and reach necessary for loading high trucks or feeders. The additional reach also gives added protection when loading the bucket by keeping the machine further away from the material. (L120E-L330E)

Boom Suspension System (BSS)



Comfort Drive Control (CDC)



Automatic Lubrication System



Rearview camera with color monitor





Recommended

• Comfort Drive Control (CDC)

When operating with CDC, there is a significant reduction of repetitive and tiring steering wheel movements. Comfort Drive Control provides comfortable operation of steering and shifting with user-friendly controls integrated in the left armrest. CDC is especially effective in short cycle loading applications, where continuous operation with the steering wheel can cause fatigue and static muscle strain.

• Automatic lubrication system

Volvo's factory mounted central lubrication system automatically lubricates service points on the machine so you don't have to. Uniform application of lubricant ensures that the lubrication points always have the correct amount of grease. It cuts maintenance costs and downtime, which means higher productivity and reduced operating costs.

• Rearview camera with color monitor

Engine hood mounted camera eliminates blind spots when reversing. The color monitor located inside the cab shows the operator what's happening to the rear. This is especially useful when working in tight areas or where there is a lot of traffic and people working around the machine.

• Operator seats

Volvo offers a wide variety of ergonomic operator seats that are designed with the operator's comfort and protection in mind.

All seats provide excellent support and are individually adjustable to suit all sizes and types of operators. From the simplest to the most advanced air-suspended model, these seats are made to absorb the severe stresses encountered in tough applications so you don't have to.

• Differential options

An automatic limited slip differential on the rear axle can be combined with the 100% differential lock on the front axle for maximum traction in all types of conditions. Furthermore, a limited slip option on both axles exists for the L220E (std on L330E).

• External axle oil cooling

Axle oil coolers provide effective cooling of the axle oil and brakes in applications where heavy loads, frequent braking and long transport distances are common.

• Engine air pre-cleaners

Sy-Klone and Turbo II branded pre-cleaners, as well as Volvo's own oil bath pre-cleaner, are available for increased purification of the engine induction air. In addition to increased cleaning capacity, these air pre-cleaners lengthen service intervals, therefore reducing maintenance time.

• Flexible cab access ladders

Flexible rubber side members have been extended to support two steps of the cab access ladders. In addition to being flexible, they have also been brought closer to the machine, making it difficult to damage or destroy the access ladders in extreme conditions. (L150E-L220E)

Tires

L-3: Recommended where traction and self-cleaning are required. Cut resistance is not as important due to nature of the material being handled. Typical applications include sand and gravel loading, rehandling processed materials or load and carry operations on good roads. Wide base (65-series) L-3 tires are recommended in applications where extra stability and floatation are required, e.g. soft underfoot conditions such as sand.

L-4: Recommended in applications where abrasive material is being handled and extra protection against cut resistance is necessary. Examples include rock loading, aggregate loading or loading material with poor underfoot conditions. L-4 tires can even be used in L-5 type applications where better heat resistance is required, e.g. long load and carry operations.

L-5: These tires are necessary in aggressive environments where tire damage is common. Extra deep tread increases useful life and provides protection when loading material like blasted rock.

Note: For a complete list of available options, please consult each machine's respective product brochure

SUPPORT YOU CAN DEPEND ON - VOLVO CUSTOMER SUPPORT

The foundation of success for all Volvo Construction Equipment products is your local Volvo Dealer. When you're backed by Volvo, your wheel loader is backed by thousands of skilled parts and service people all over the world.



Genuine Volvo parts are manufactured to the most stringent specifications, guaranteeing compatibility, superior performance and a long service life. Factory remanufactured components give you the same performance, service life and warranty as a new component with minimum downtime for replacement. Volvo's PC-based MACHine TRacking Information System (MATRIS) provides a comprehensive report on your Volvo wheel loader's working history. Using Contrinsic to download key performance data, MATRIS analyzes the data and provides you with a detailed report outlining the machine's operating history. With this information, you can maximize control of your machine's operation to increase profitability, efficiency and uptime. Volvo also offers a wide range of customer support agreements individually tailored to ensure that your equipment and fleet continuously deliver the high productivity and availability you expect from Volvo.

Your local Volvo Dealer is fully equipped and trained to support every aspect of our products and your business with parts support, service assistance and training. When you select Volvo, you select a global organization that knows your machine. Our support network has the parts, equipment and knowledge to keep your operation running day after day.

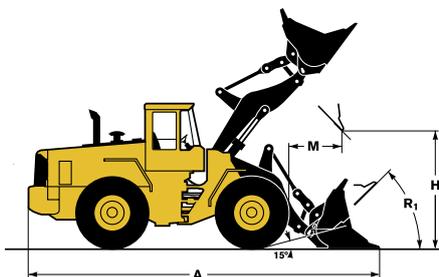
SPECIFICATIONS

Rehandling (example)

		Volvo L110E STE P BOE		Volvo L120E STE P BOE		Volvo L150E STE P BOE		Volvo L180E STE P BOE		Volvo L220E STE P BOE	
		Standard Boom	Long Boom	Standard Boom	Long Boom	Standard Boom	Long Boom	Standard Boom	Long Boom	Standard Boom	Long Boom
Engine		D7D LB E2		D7D LA E2		D9A LB E2		D12C LC E2		D12C LB E2	
SAEJ 1995 gross	kW (hp)	155 (210)	165 (224)	211 (287)	223 (303)	259 (352)					
ISO 9249, SAEJ 1349 net	kW (hp)	154 (209)	164 (223)	210 (284)	221 (300)	258 (351)					
Volume, heaped ISO/SAE	m ³	3,1	3,4 2,6	4,0 3,7	4,6 4,0	5,4 4,9					
Static tipping load, straight	kg	12 970	13 970 11 750	17 060 13 770	20 730 17 400	23 420 20 700					
at full turn	kg	11 140	11 190 9980	14 980 12 010	18 110 15 150	20 540 18 080					
Breakout force	kN	150,7	153,4 182,3	178,9 192,8	214,7 229,0	225,0 234,7					
A Overall length	mm	7910	8080 8380	8640 9110	8790 9190	9090 9360					
H Dump height at full lift and 45° discharge	mm	2830	2850 3500	2990 3590	3110 3650	3260 3660					
M Reach att full lift and 45° discharge	mm	1150	1230 1070	1250 1200	1280 1250	1310 1250					
R, SAE carry position	°	46	47 50	48 53	48 53	47 49					
Operating weight	kg	18 240	19 110 19 100	23 000 23 230	26 390 26 290	30 880 31 000					
Tire size		23.5 R25 L3	23.5 R25 L3	26.5 R25 L3	26.5 R25 L3	29.5 R25 L4					

Rock handling (example) Long Boom recommended

		Volvo L180E SPN P T SEG		Volvo L220E SPN P T SEG		Volvo L330E SPN P T SEG	
		Standard Boom	Long Boom	Standard Boom	Long Boom	Standard Boom	Long Boom
Engine		D12C LC E2		D12C LB E2		D16B LA E2	
SAEJ 1995 gross	kW (hp)	223 (303)		259 (352)		370 (503)	
ISO 9249, SAEJ 1349 net	kW (hp)	221 (300)		258 (351)		369 (502)	
Volume, heaped ISO/SAE	m ³	4,2	4,2	5,0 5,0	7,5 6,9		
Static tipping load, straight	kg	21 210	17 340	22 940 20 340	34 090 32 520		
at full turn	kg	18 490	15 000	20 050 17 710	30 090 28 640		
Breakout force	kN	193,5	196,9	178,1 181,0	339,0 349,5		
A Overall length	mm	9150	9620	9700 10 030	11 030 11 350		
H Dump height at full lift and 45° discharge	mm	2890	3390	2930 3280	3180 3590		
M Reach att full lift and 45° discharge	mm	1550	1570	1810 1760	2300 2340		
R, SAE carry position	°	48	53	46 48	51 51		
Operating weight	kg	27 940	28 220	32 910 33 100	50 960 51 980		
Tire size		26.5 R25 L5		29.5 R25 L5		875/65 R33" L5	



Notes:
Dimensions only apply to Volvo original attachments.
For additional dimensions, see standard machine specification brochure.
For optimum stability always consult the bucket selection chart (see attachment catalogue).



Volvo Construction Equipment is different. It's designed, built and supported in a different way. That difference comes from an engineering heritage of over 170 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 – **More care. Built in.**



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

VOLVO

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