

**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 well-matched 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 offer 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

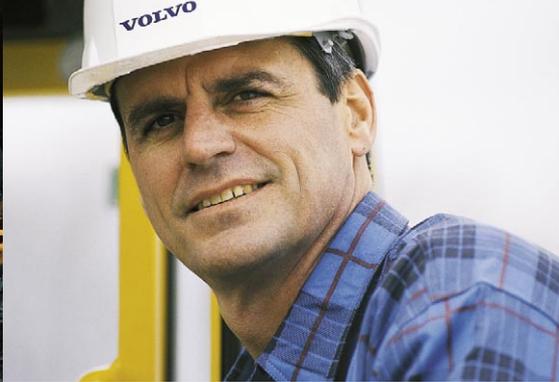


## Volvo optional equipment



## 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 <sup>3</sup> (3.3-4.3 yd <sup>3</sup> )
L120E	2,5-3,5 m <sup>3</sup> (3.3-4.6 yd <sup>3</sup> )
L150E	3,5-4,5 m <sup>3</sup> (4.6-5.9 yd <sup>3</sup> )
L180E	3,8-4,8 m <sup>3</sup> (5.0-6.3 yd <sup>3</sup> )
L220E	4,7-6,5 m <sup>3</sup> (6.1-8.5 yd <sup>3</sup> )
L330E	7,0-8,3 m <sup>3</sup> (9.2-10.9 yd <sup>3</sup> )

### • 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 <sup>3</sup> (3.9 yd <sup>3</sup> )
L120E	3,0-3,4 m <sup>3</sup> (3.9-4.4 yd <sup>3</sup> )
L150E	4,0-4,2 m <sup>3</sup> (5.2-5.5 yd <sup>3</sup> )

## Buckets for rock handling or other abrasive material

### • Straight edge rock bucket

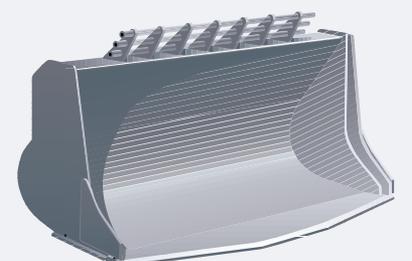
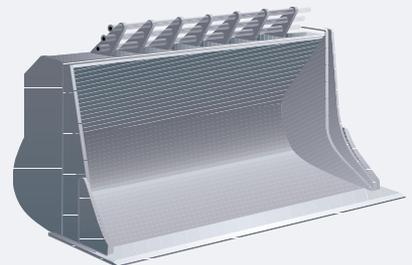
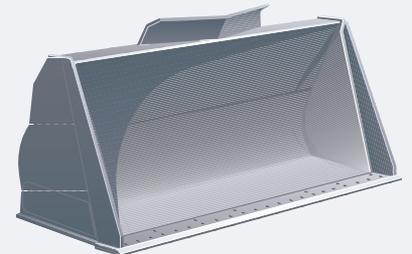
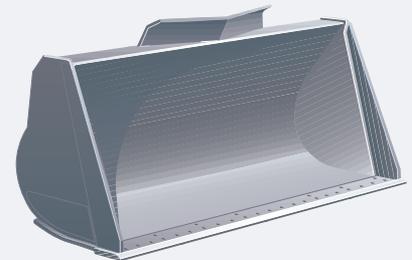
Straight edge rock buckets are good for removing easily broken material from banks that require higher penetration and break-out capacity. The straight edge gives better dump height and load retention than a spade nose bucket. It can be equipped with either bolt-on edge savers or teeth in combination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

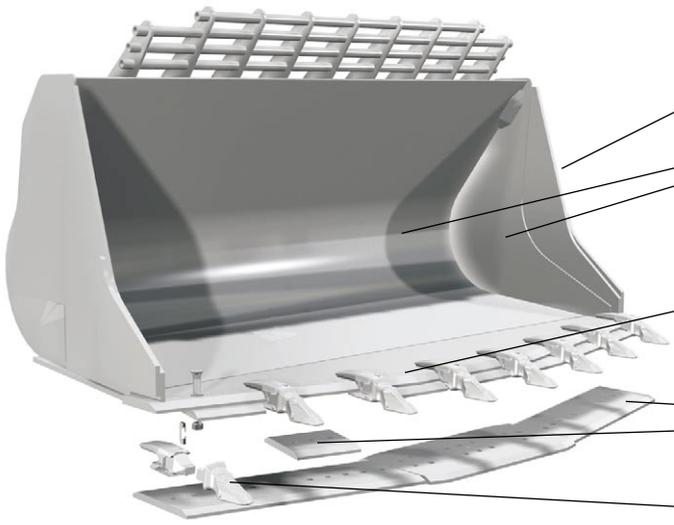
Volvo	Volume range
L110E	3,0 m <sup>3</sup> (3.9 yd <sup>3</sup> )
L120E	3,0 m <sup>3</sup> (3.9 yd <sup>3</sup> )
L150E	3,6-3,8 m <sup>3</sup> (4.7-5.0 yd <sup>3</sup> )
L180E	4,2-4,4 m <sup>3</sup> (5.5-5.8 yd <sup>3</sup> )
L220E	4,3-4,5 m <sup>3</sup> (5.6-5.9 yd <sup>3</sup> )
L330E	6,1-6,9 m <sup>3</sup> (8.0-9.0 yd <sup>3</sup> )

### • 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 <sup>3</sup> (3.4-3.8 yd <sup>3</sup> )
L120E	2,6-2,9 m <sup>3</sup> (3.4-3.8 yd <sup>3</sup> )
L150E	3,4-3,5 m <sup>3</sup> (4.4-4.6 yd <sup>3</sup> )
L180E	3,7-4,2 m <sup>3</sup> (4.8-5.5 yd <sup>3</sup> )
L220E	4,4-5,0 m <sup>3</sup> (5.8-6.5 yd <sup>3</sup> )
L330E	6,1-7,5 m <sup>3</sup> (8.0-9.8 yd <sup>3</sup> )





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 Contronic 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.

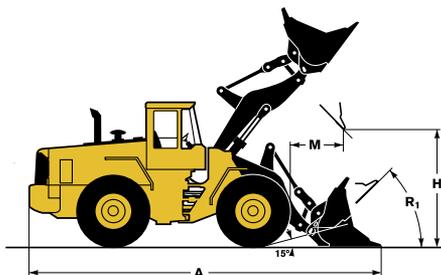
# SPECIFICATIONS

## 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 D7E LB E3	Long Boom	Standard Boom D7E LA E3	Long Boom	Standard Boom D12D LD E3	Long Boom	Standard Boom D12D LA E3	Long Boom	Standard Boom D12D LB E3	Long Boom
Engine											
SAEJ 1995 gross	kW hp	170 231		180 245		210 286		235 320		261 355	
ISO 9249, SAEJ 1349 net	kW hp	169 230		179 243		209 284		234 318		259 352	
Volume, heaped ISO/SAE	m <sup>3</sup> yd <sup>3</sup>	3,1 4.1		3,4 4.4	2,6 3.4	4,0 5.2	3,7 4.8	4,6 6.0	4,0 5.2	5,4 7.1	4,9 6.4
Static tipping load, straight	kg lb	12 970 28,600		13 970 30,800	11 750 25,900	17 060 37,610	13 770 30,360	20 730 45,700	17 400 38,360	23 420 51,630	20 700 45,640
at full turn	kg lb	11 140 24,560		11 190 24,670	9980 22,000	14 980 33,030	12 010 26,480	18 110 39,930	15 150 33,400	20 540 45,280	18 080 39,860
Breakout force	kN lbf	150,7 33,880		153,4 34,490	182,3 40,980	178,9 40,220	192,8 43,340	214,7 48,270	229,0 51,480	225,0 50,580	234,7 52,760
A Overall length	mm in	7910 25'11"		8080 26'6"	8380 27'6"	8640 28'4"	9110 29'11"	8790 28'10"	9190 30'2"	9090 29'10"	9360 30'9"
H Dump height at full lift and 45° discharge	mm in	2830 9'3"		2850 9'4"	3500 11'6"	2990 9'10"	3590 11'9"	3110 10'2"	3650 12'0"	3260 10'8"	3660 12'0"
M Reach att full lift and 45° discharge	mm in	1150 3'9"		1230 4'0"	1070 3'6"	1250 4'1"	1200 3'11"	1280 4'2"	1250 4'1"	1310 4'4"	1250 4'1"
R <sub>1</sub> SAE carry position	°	46		47	50	48	53	48	53	47	49
Operating weight	kg lb	18 240 40,210		19 110 42,130	19 100 42,110	23 000 50,710	23 230 51,210	26 390 58,180	26 290 57,960	30 880 68,080	31 000 68,340
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 D12D LA E3	Long Boom	Standard Boom D12D LB E3	Long Boom	Standard Boom D16B LA E2	Long Boom
Engine							
SAEJ 1995 gross	kW hp		235 320		261 355		370 503
ISO 9249, SAEJ 1349 net	kW hp		234 318		259 352		369 502
Volume, heaped ISO/SAE	m <sup>3</sup> yd <sup>3</sup>		4,2 5.5	4,2 5.5	5,0 6.5	5,0 6.5	7,5 9.8
Static tipping load, straight	kg lb	21 210 46,760	17 340 38,230	22 940 50,570	20 340 44,840	34 090 75,160	32 520 71,690
at full turn	kg lb	18 490 40,760	15 000 33,070	20 050 44,200	17 710 39,040	30 090 66,340	28 640 63,140
Breakout force	kN lbf	193,5 43,500	196,9 44,270	178,1 40,040	181,0 40,690	339,0 76,210	349,5 78,570
A Overall length	mm in	9150 30'0"	9620 31'7"	9700 31'10"	10 030 32'11"	11 030 36'2"	11 350 37'3"
H Dump height at full lift and 45° discharge	mm in	2890 9'6"	3390 11'1"	2930 9'7"	3280 10'9"	3180 10'5"	3590 1'9"
M Reach att full lift and 45° discharge	mm in	1550 5'1"	1570 5'2"	1810 5'11"	1760 5'9"	2300 7'7"	2340 7'8"
R <sub>1</sub> SAE carry position	°	48	53	46	48	51	51
Operating weight	kg lb	27 940 61,600	28 220 62,210	32 910 32'11"	33 100 72,970	50 960 112,350	51 980 114,600
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. The company's products are designed, built and supported in a different way. That difference comes from our 170-year engineering heritage. A heritage of thinking first about the people who actually use the machines. About how to make them 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**

## **Construction Equipment**

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