With the L110E, we’ve combined the optimal production loader with the flexible all-rounder. Whatever the job, the L110E will get it done quickly and efficiently at the lowest cost. This machine has all the well thought-out features and details to give the results you demand. Volvo L110E — the loader that gives you more, way more.

Volvo has developed and manufactured wheel loaders for over 50 years. The goal has always been to create the optimal machine for maximum performance and productivity, high operator comfort and unmatched flexibility. Now, the latest experiences and leading technology have resulted in the Volvo L110E. The high-performance, low-emission engine delivers close to maximum power already at low rpm. Furthermore, the powerful patented TP Linkage, combined with Volvo’s purpose-built range of attachments, provides the flexibility needed to handle a variety of tasks. Jobs at which the L110E excels include loading trucks, earthmoving, pallet handling and timber handling. Advanced technology helps to make this a swift, versatile and fuel-efficient production machine in any application.

Get more done
You’ll find the L110E a pleasure to operate. In this respect, competing loaders simply can’t compete. It’s powerful, agile and easy to maneuver. Sitting comfortably in an ergonomically designed seat, you have total control over the machine. Engine and hydraulics respond immediately to your commands. Visibility is panoramic and the air in the cab is always fresh. Both operator and machine get more done with a lot less haste.

A great deal for your investment
Proven reliability, excellent financing, extremely low fuel consumption and a high trade-in value provide the cornerstones of a safe investment. Add to that outstanding handling and productivity, a market-leading operator environment to protect the person in the machine, quick and simple daily maintenance and modest service requirements.

And what do you get? The most cost-efficient loader in its class, delivering unparalleled profitability — both now and in years to come.

With the L110E, everybody is a winner. Quite simply, a great deal for your money.

Specifications L110E
Engine: Volvo D7E LB E3 (Tier 3)
Max power at 28,3 r/s (1,700 rpm)
SAE J1995 gross 170 kW (231 hp)
ISO 9249, SAE J1349 net 169 kW (230 hp)
Breakout force: 156,3 kN* (35,140 lbf)
Static tipping load at full turn: 11 160 kg* (24,600 lb)
Buckets:
2,7 – 9,5 m³ (3.5–12.4 yd³)
Log grapple:
1,1 – 2,4 m² (11.8–25.8 ft²)
Operating weight:
18,0 – 20,0 t (39,680–44,090 lb)
Tires:
23.5 R25, 750/65 R25

* Bucket: 3,1 m³ (4.1 yd³) straight edge with bolt-on edges.
Load more tons per hour with the Volvo L110E. Its powerful engine and the Automatic Power Shift (APS) gear shifting system provide immediate response even in the toughest conditions. And Volvo axles are designed to ensure that the rimpull is there when needed. Torque Parallel Linkage (TP Linkage), load-sensing hydraulics, smooth steering and stable operation help make the L110E a precision performer.

**The only thing modest about this machine is its fuel consumption**
Even at low rpm, the 7-liter high performance engine delivers full power and maximum torque. The machine responds quickly and forcefully with excellent rimpull, full hydraulic power, low fuel consumption and low-emissions. And thanks to the low rpm performance, the service life of the engine is extended.

**Responds to your commands**
The Volvo fully automatic countershaft transmission provides smooth and effective gear shifting. All the operator has to do is select forward or reverse and APS automatically selects the right gear according to both engine rpm and ground speed. Volvo’s in-house engineered axles and drivetrain are well matched and designed for top dependability. And Volvo’s oil circulation-cooled wet disc brakes provide smooth, effective braking — and, of course, a long service life.

**Torque Parallel Linkage — a breakthrough in the industry**
The reliable TP Linkage, Volvo's patented lift-arm system, delivers high and even breakout torque throughout the entire lifting range. The system is exceedingly user-friendly. The operator can easily handle heavy materials and maintain full control in all positions.

**Hydraulics that make sense**
The Volvo L110E features an intelligent load-sensing system for both the main and steering hydraulics. Two variable piston pumps provide the exact flow and pressure required at any given moment, distributing power when and where it's needed. In addition to rapid response, this system facilitates smoother operation, lower fuel consumption and precise control, even at low rpm.

**Engine**
- Volvo D7E, a turbocharged, air-to-air intercooled low emission engine with electronically-controlled fuel injection delivers high torque even at low rpm.
- The electronically-controlled hydrostatic fan is only activated when necessary, thus saving fuel.

**Transmission**
- With Volvo's 3rd generation of APS, the operator can select between four different operating modes, including the new AUTO function, which adaptively chooses the most convenient shifting program for the job at hand, equally weighing the operator's driving habits together with the operating cycle.
- The 3rd generation APS now has fully automatic shifting 1-4, meaning all the operator has to do is choose forward or reverse.

**Axles/Brakes**
- The Volvo axles are fully integrated with the drivetrain, delivering superior rimpull.
- Oil circulation-cooled wet disc brakes ensure effective braking and a long service life.
- An electronic brake test in Contronic gives you instant access to the status of the brakes.
- A brake wear indicator on each wheel allows you to easily check the brake pad wear.

**Steering**
- Load-sensing steering only uses power when it's needed, thereby saving fuel.
- E-series loaders feature an accumulator system, providing stable, smooth steering and greater safety.

**Frame**
- Rugged frame design for secure mounting of components increases the service life of the machine.
- Volvo’s frame joint bearing design is a well-proven concept that’s easy to maintain and renowned for its long service life.
TP Linkage
- Unique patented lift-arm system, which provides two solutions in one: excellent breakout torque and parallel action throughout the entire lifting range.

Load-sensing hydraulics
- The load-sensing hydraulic system ensures that hydraulic oil is pumped around the system only when and where it’s needed. This means greater efficiency and lower fuel consumption.
- Pilot-operated hydraulics allow precise control of the attachments, making life easier, and safer, for the operator.
Volvo Care Cab with the Contronic monitoring system reinforces Volvo’s reputation as a leader in operator environments and cab comfort. We never forget the operator inside the machine. A comfortable, operator-friendly and safe environment makes the workday easier and more productive.

**A clean and comfortable workplace**
The right cab climate does wonders for efficiency, keeping operators sharp during long shifts. In fact, all incoming air is filtered in two stages, making this one of the cleanest cabs on the market. Even the recirculated air is filtered. Furthermore, Volvo’s state-of-the-art air-conditioning* provides a pleasant temperature year-round, regardless of outdoor conditions. So even after a long work shift, the air in the cab is still fresh and the operator’s mind is still clear.

**Comfort and productivity go hand-in-hand**
There is a range of comfortable seats, all of them with multiple adjustment functions for optimal individual comfort. All instruments are visible at a glance, and all important information is right in front of the operator. The forward, reverse and kick-down functions are situated both on the lever on the left-hand side of the steering wheel and on the hydraulic console to the right. And thanks to Comfort Drive Control (CDC)*, you can steer, change directions and kickdown to first gear with easy-to-use controls integrated into the left-hand armrest — an excellent way to combat fatigue and static muscle strain. Furthermore, to avoid monotonous arm movements, you can shift at any time from lever steering to using the steering wheel.

**Contronic keeps an eye on everything**
Contronic, the highly reliable control and monitoring system from Volvo, continuously monitors the machine’s operation and performance. The system is an electronic network made up of three computers. Operating at three levels, the system keeps an eye on the machine’s various functions in real-time. If a potential problem should occur, the system generates an immediate warning, making the operator aware of the condition. All operating data is saved and can be used to analyze how the machine performs and also to trace its history since the latest service. The machine’s functions can be updated for optimal adaptation to new and changing operating conditions via the Contronic service display tool. With VCADS Pro, it’s also possible to check and adjust the machine’s functions and performance characteristics.

**Low noise levels**
Thanks to its ingenious rubber mounting system and heavy-duty insulation, the Care Cab is one of quietest cabs on the market. By reducing tiresome earfuls and annoying vibrations, the operator will stay sharp throughout the shift. In short, it’s a great place to work.

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\* Optional equipment

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Care Cab
- Unrivalled operator environment with one of the market’s best cab filtration systems.
- Pleasant interior with superior finish makes it easy to maintain and keep clean.
- Adjustable seat, armrest, hydraulic lever console and steering wheel for optimal operator comfort and high production.
- Contronic, a superior control and monitoring system, designed to increase safety and productivity.
- All service platforms and entry ladders boast improved anti-slip surfaces. Sloped entry ladder for easy cab access.
- Large windshields, narrow pillars and a sloped engine hood ensure good panoramic visibility, thus further increasing safety.
- Powerful halogen lighting to the front and rear provides good visibility over the entire work area.
Quality, safety and care for the environment are Volvo’s core values. Indeed, we see our commitment as an integral part of our operation. Few machines have to work in tougher conditions. The ultimate goal is maximized productivity and efficiency for the lowest cost per hour, with minimized environmental impact. For instance, plants and manufacturing processes are certified in accordance with ISO 14001. This is but one example of our tangible commitments and high quality standards. And that’s why Volvo customers get one of the most environmentally considerate and dependable wheel loaders on the market.

A winner for years to come
Your Volvo L110E has to be a winner — both in day-to-day and long-term operations, always operating economically with maximum consideration of the environment. The machinery has to be trusted in all aspects. It must deliver the anticipations of productivity and economy. High-quality and easy maintenance are imperative for keeping up the work process. The high-performance, low-emission engine is both good for your business and for the environment.

Comfortable and quiet operator’s environment
The operator inside deserves a comfortable, reliable and safe machine to work with. A good environment helps to spare operator, equipment and nature for years to come. The Volvo L110E is a super competitive wheel loader that puts the operator right in the middle, literally speaking. Tedious vibrations and noise have been heavily reduced. If the operator feels comfortable and secure, it’s easier to stay attentive.

More than 95% recyclable
The L110E is almost completely recyclable. We see it as a natural step in our commitment. Components such as the engine, transmission and hydraulics are re-engineered and re-used in our Parts Exchange program. The equipment has to be as trustworthy, service-friendly, productive and as cost-effective as possible. Choose this wheel loader for maximum productivity and minimal impact on operator, machinery and environment. Feel free to feel secure in a Volvo L110E.

Quality
• The air is vented from all major components with easy to replace breather filters, used to prevent dirty air from entering the transmission, axles, fuel tank and hydraulic tank.
• All electrical wires are routed through sturdy conduits, protected from water, dust and abrasion with rubberized connectors and terminal caps.
• The L110E is designed from the beginning for easy service and maintenance. Easy-access to all components lays the foundation for shorter service and maintenance time and longer life.

Safety
• A dual-circuit service brake system that fulfills all requirements according to ISO 3450, electronic brake test in Contronic and easy to check brake wear indicators are all ways to ensure safe and effective braking.
• Volvo Care Cab is tested and approved according to ROPS ISO 3471 and FOPS ISO 3449 standards.
• Optimized panoramic visibility gives effective control over the entire work area.
• The L110E has steps and platforms that are equipped with anti-slip surfaces and well positioned hand rails.

Environment
• The low rpm, high-performance D7E engine meets all current emission requirements according to stage 3 legislation in Europe and the US.
• The L110E is manufactured in environmentally certified factories according to ISO 14001.
• The L110E is more than 95% recyclable according to material weight.
• Low external and internal sound levels.
VOLVO L110E IN DETAIL

Engine
7 liter, 6-cylinder straight turbocharged diesel engine with common rail fuel injection system and switchable Internal Exhaust Gas Recirculation (I-EGR). The engine has wet replaceable cylinder liners and replaceable valve guides and valve seats. The throttle application is transmitted electrically from the throttle pedal or the optional hand throttle. Air cleaning: three-stage. Cooling system: Air-to-air intercooler and hydrostatic, electronically-controlled fan.

Drivetrain
Torque converter: single-stage. Transmission: Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears between forward and reverse with Pulse Width Modulation (PWM) valve. Gearshifting system: Volvo Automatic Power Shift (APS) with fully automatic shifting 1-4 and mode selector with 4 different gearshifting programs, including AUTO. Axles: Volvo fully floating axle shafts with planetary hub reductions and cast steel axle housings. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle.

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. Either one circuit or the parking brake fulfills all safety requirements. Standard: The brake system complies with the requirements of ISO 3450.

Electrical system
Central warning system: Central warning light for the following functions (buzzer with gear engaged): Engine oil pressure, charge-air temperature, fuel temperature, transmission oil pressure, brake pressure, parking brake applied, hydraulic oil level, steering pressure, low coolant level, coolant temperature, transmission oil temperature, hydraulic oil temperature, overspeeding in engaged gear, brake charging, axle oil temperature.

Transmission
Volvo HTE 204

Maximum speed, forward/reverse
1  7,1 km/h (4.4 mph)
2 13,2 km/h (8.2 mph)
3 25,3 km/h (15.7 mph)
4 36,2 km/h (22.5 mph)

Measured with tires 235 R25 L2

Front axle/rear axle Volvo/AWB 31/30
Rear axle oscillation ±13°
Ground clearance at 13° osc. 460 mm (18.1 in)

Number of brake discs per wheel
front/rear 1/1

Power hp kW

Economic working range

Torque Nm lbf ft

800 1000 1200 1400 1600 1800 2000      r/min
15 20 25 30 35 r/s

Economic working range

Displacement
7,1 l (433 in³)

Engine
Volvo D7E LB E3
Max power at 28,3 r/s (1,700 rpm)
SAE J1995 gross 170 kW (231 hp)
SAE J1349 net 169 kW (230 hp)
Max torque at 25 r/s (1,500 rpm)
SAE J1995 gross 1065 Nm (786 lbf ft)
SAE J1349 net 1059 Nm (781 lbf ft)
Economic working range 800–1600 rpm
Displacement 7,1 l (433 in³)

Voltage 24 V
Batteries 2x12 V
Battery capacity 2x140 Ah
Cold cranking capacity, approx 1050 A
Reserve capacity, approx 270 min
Alternator rating 1540 W/55 A
Starter motor output 5,5 kW (7.5 hp)

Accumulators
3x1.0 l (3x0.26 US gal)
Accumulators for parking brake 1x1.0 l (1x0.26 US gal)
**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.

<table>
<thead>
<tr>
<th>Steering cylinders</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinder bore</td>
<td>80 mm (3.2 in)</td>
</tr>
<tr>
<td>Piston rod diameter</td>
<td>50 mm (2.0 in)</td>
</tr>
<tr>
<td>Stroke</td>
<td>486 mm (19.0 in)</td>
</tr>
<tr>
<td>Working pressure</td>
<td>21 MPa (3,046 psi)</td>
</tr>
<tr>
<td>Maximum flow</td>
<td>120 l/min (31.7 US gpm)</td>
</tr>
<tr>
<td>Maximum articulation</td>
<td>±40°</td>
</tr>
</tbody>
</table>

**Hydraulic system**

System supply: Two load-sensing axial piston pumps with variable displacement. The steering system always has priority. Valves: Double-acting 2-spool valve. The main valve is controlled by a 2-spool pilot valve. Lift function: The valve has four positions including lift, hold, lower and float. Inductive/magnetic automatic boom kick-out 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 20 micron (absolute) filter cartridge.

**Lift arm system**

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

| Lift cylinders | 2 |
| Cylinder bore  | 150 mm (5.9 in) |
| Piston rod diameter | 80 mm (3.1 in) |
| Stroke         | 676 mm (26.6 in) |
| Tilt cylinder  | 1 |
| Cylinder bore  | 220 mm (8.7 in) |
| Piston rod diameter | 110 mm (4.3 in) |
| Stroke         | 412 mm (16.2 in) |

**Cab**

Instrumentation: All important information is centrally located in the operator's field of view on the Contronic monitoring system's display unit. Heater and defroster: Heater coil with filtered fresh air and fan with four speeds. Defroster vents for all window areas. Operator seat: Ergonomic seat with adjustable suspension and retractable seat belt. The seat is mounted on a bracket, which is mounted on the rear cab wall. The forces from the retractable seat belt are absorbed by the seat rail. Standard: The cab structure is tested and approved according to ROPS (ISO 3471) and FOPS (ISO 3449). The cab meets all requirements according to ISO 6055 (Operator Overhead Protection - Industrial Trucks) and SAE J386 (Operator Restraint System).

| Emergency exits | 1 |
| Emergency sound level | 80 dB (A) |

**Service**

Service accessibility: Large, easy-to-open service doors with gas struts. Swing-out radiator grill and bottom-hinged coolers mounted on fixed radiator. Possibility to log and analyze data to facilitate troubleshooting.

<table>
<thead>
<tr>
<th>Refill capacities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank</td>
</tr>
<tr>
<td>Engine coolant</td>
</tr>
<tr>
<td>Hydraulic oil tank</td>
</tr>
<tr>
<td>Transmission oil</td>
</tr>
<tr>
<td>Engine oil</td>
</tr>
<tr>
<td>Axles front/rear</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lift arm system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle times</td>
</tr>
<tr>
<td>Raise*</td>
</tr>
<tr>
<td>Tilt*</td>
</tr>
<tr>
<td>Lower, empty</td>
</tr>
<tr>
<td>Total cycle time</td>
</tr>
</tbody>
</table>

* with load as per ISO 14397 and SAE J818
Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.

**SPECIFICATIONS**

**Tires: 23.5 R25 L3**

<table>
<thead>
<tr>
<th></th>
<th>Standard boom</th>
<th>Long boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 6440 mm</td>
<td>21'2&quot;</td>
<td>22'10&quot;</td>
</tr>
<tr>
<td>C 3200 mm</td>
<td>10'6&quot;</td>
<td></td>
</tr>
<tr>
<td>D 440 mm</td>
<td>1'5&quot;</td>
<td></td>
</tr>
<tr>
<td>F 3360 mm</td>
<td>11'0&quot;</td>
<td></td>
</tr>
<tr>
<td>G 2130 mm</td>
<td>7'0&quot;</td>
<td></td>
</tr>
<tr>
<td>J 3720 mm</td>
<td>12'2&quot;</td>
<td>13'11&quot;</td>
</tr>
<tr>
<td>K 4030 mm</td>
<td>13'3&quot;</td>
<td>14'11&quot;</td>
</tr>
<tr>
<td>O 55 °</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pmax 50 °</td>
<td>46 °</td>
<td></td>
</tr>
<tr>
<td>R 40 °</td>
<td>42 °</td>
<td></td>
</tr>
<tr>
<td>R1 45 °</td>
<td>49 °</td>
<td></td>
</tr>
<tr>
<td>S 66 °</td>
<td>64 °</td>
<td></td>
</tr>
<tr>
<td>T 80 mm</td>
<td>0°3&quot;</td>
<td>0°4&quot;</td>
</tr>
<tr>
<td>U 480 mm</td>
<td>1'7&quot;</td>
<td>2°0&quot;</td>
</tr>
<tr>
<td>V 2060 mm</td>
<td>6'9&quot;</td>
<td></td>
</tr>
<tr>
<td>Y 2680 mm</td>
<td>8'10&quot;</td>
<td></td>
</tr>
<tr>
<td>Z 3310 mm</td>
<td>10'10&quot;</td>
<td>12'6&quot;</td>
</tr>
<tr>
<td>a1 5730 mm</td>
<td>18'10&quot;</td>
<td></td>
</tr>
<tr>
<td>a2 3060 mm</td>
<td>10'0&quot;</td>
<td></td>
</tr>
<tr>
<td>a3 ±40 °</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Carry position SAE

**Tires: 750/65 R25**

<table>
<thead>
<tr>
<th></th>
<th>Standard boom</th>
<th>Long boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 2.4 m²</td>
<td>25.8 ft²</td>
<td></td>
</tr>
<tr>
<td>B 3480 mm</td>
<td>11'5&quot;</td>
<td></td>
</tr>
<tr>
<td>C 1850 mm</td>
<td>6'1&quot;</td>
<td></td>
</tr>
<tr>
<td>D 2660 mm</td>
<td>9'9&quot;</td>
<td></td>
</tr>
<tr>
<td>E 1460 mm</td>
<td>4'9&quot;</td>
<td></td>
</tr>
<tr>
<td>F 1530 mm</td>
<td>5'0&quot;</td>
<td></td>
</tr>
<tr>
<td>G 2790 mm</td>
<td>8'11&quot;</td>
<td></td>
</tr>
<tr>
<td>H 4600 mm</td>
<td>15'1&quot;</td>
<td></td>
</tr>
<tr>
<td>I 6640 mm</td>
<td>21'9&quot;</td>
<td></td>
</tr>
<tr>
<td>J 2790 mm</td>
<td>9'2&quot;</td>
<td></td>
</tr>
<tr>
<td>K 2990 mm</td>
<td>9'10&quot;</td>
<td></td>
</tr>
<tr>
<td>L 2050 mm</td>
<td>6'9&quot;</td>
<td></td>
</tr>
<tr>
<td>M 8720 mm</td>
<td>28'7&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Supplemental Operating Data**

<table>
<thead>
<tr>
<th></th>
<th>Standard boom</th>
<th>Long boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.5 R25 LS</td>
<td>750/65 R25 LS</td>
<td>750/65 R25</td>
</tr>
<tr>
<td>Width over tires mm</td>
<td>+40</td>
<td>+230</td>
</tr>
<tr>
<td>Ground clearance mm</td>
<td>+50</td>
<td>+20</td>
</tr>
<tr>
<td>Tipping load, full turn kg</td>
<td>+500</td>
<td>+430</td>
</tr>
<tr>
<td>Operating weight kg</td>
<td>+680</td>
<td>+560</td>
</tr>
</tbody>
</table>

Operating weight (incl. logging cw 680 kg (1,500 lb)): 19 780 kg (43,610 lb)
Operating load: 6400 kg (14,110 lb)
### 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 2,780 lb/yd³. Result: The 4.1 yd³ bucket carries 4.3 yd³. For optimal stability always consult the bucket selection chart.

<table>
<thead>
<tr>
<th>Material</th>
<th>Bucket fill, %</th>
<th>Material density, lb/yd³</th>
<th>ISO/SAE bucket volume, m³</th>
<th>Actual bucket volume, m³</th>
<th>Long Boom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth/Clay</td>
<td>~ 110</td>
<td>-1.80 – 3.035</td>
<td>2.9 – 3.2 – 4.2</td>
<td>3.1 – 3.4 – 3.7 – 4.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.70 – 2.865</td>
<td>3.1 – 4.1 – 4.5</td>
<td>3.4 – 4.5 – 3.7 – 4.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.50 – 2.530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sand/Gravel</td>
<td>~ 105</td>
<td>-1.75 – 2.950</td>
<td>2.9 – 3.0 – 3.9</td>
<td>3.1 – 3.3 – 3.6 – 4.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.65 – 2.780</td>
<td>3.1 – 4.1 – 4.3</td>
<td>3.4 – 3.5 – 3.6 – 4.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.50 – 2.530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggregate</td>
<td>~ 100</td>
<td>-1.90 – 3.200</td>
<td>2.9 – 3.2 – 3.8</td>
<td>3.1 – 3.4 – 3.7 – 4.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.70 – 2.865</td>
<td>3.1 – 4.1 – 4.1</td>
<td>3.4 – 3.5 – 3.4 – 4.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.50 – 2.530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock</td>
<td>~100 – 1.80</td>
<td>-3.035</td>
<td>2.7 – 3.5 – 2.7 – 3.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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### GENERAL PURPOSE

<table>
<thead>
<tr>
<th>Material</th>
<th>Bucket fill, %</th>
<th>Volume, heaped ISO/SAE m³</th>
<th>Fill factor</th>
<th>Material density (lb/yd³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>3.1 – 3.4 – 4.2</td>
<td>2.9 – 3.2 – 4.2</td>
<td>4.0 – 4.5 – 4.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.70 – 2.865</td>
<td>3.1 – 3.4 – 3.7 – 4.8</td>
<td>1.0 – 1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.50 – 2.530</td>
<td></td>
<td>1.2 – 1.4</td>
</tr>
</tbody>
</table>

### LIGHT MATERIAL

<table>
<thead>
<tr>
<th>Material</th>
<th>Bucket fill, %</th>
<th>Volume, heaped ISO/SAE m³</th>
<th>Fill factor</th>
<th>Material density (lb/yd³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2.9 – 3.2 – 3.6</td>
<td>2.9 – 3.1 – 3.4</td>
<td>4.1 – 4.5 – 4.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.70 – 2.865</td>
<td>3.1 – 3.4 – 3.7 – 4.8</td>
<td>1.0 – 1.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.50 – 2.530</td>
<td></td>
<td>1.2 – 1.4</td>
</tr>
</tbody>
</table>

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* Rated at Volvo's recommended maximum utilization for L110E.
* Measured at 45° dump angle. (Spade nose buckets at 42°.)
* 113° wide buckets not recommended for ’750/65 R25 tires.
STANDARD EQUIPMENT

Engine
Three-stage air cleaner with ejector and inner filter
Indicator glass for coolant level
Preheating of induction air
Fan air intake protection, extra close-meshed
Muffler, spark arresting
Fuel filter, extra large with water-trap
Oil trap
Exhaust heat insulation
Reversible cooling fan
Fuel fill strainer
Coolant filter

Electrical system
Language Kit 1
24 V, pre-wired for optional accessories
Alternator, 24 V/55 A
Air filter for alternator
Exchange battery
Battery boxes, steel
Battery disconnect switch
Fuel gauge
Horn locator
Electric horn
Reverse alarm, self-adjusting
Instrument panel with symbols
Lighting:
• Twin halogen front headlamps 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)
• Instrument lighting

Contronic monitoring system
ECU with log and analysis system
Contronic display
Fuel consumption
Ambient temperature
Engine
Shut-down to idle in case of malfunction indication:
• High engine coolant temperature
• Low engine oil pressure
• High transmission oil temperature
Start interlock when gear is engaged
Brake test
Text function for warning and indicator lights
Warning and indicator lights:
• Charging

Optional equipment

Toolbox, lockable
Tool kit
Automatic lubrication system
Automatic lubrication system, stainless steel
Automatic lubrication system incl. long boom
Automatic lubrication system for attachment bracket, cast
Automatic lubrication system for attachment bracket, welded
Automatic lubrication system, stainless steel, for attachment bracket, cast
Automatic lubrication system, stainless steel, for attachment bracket, welded
Refill pump for automatic lubrication system
Wheel nut wrench kit
Oil sampling valve

Engine equipment
Engine block heater
Engine oil capacity
Increased engine protection
Disabled engine protection
Air cleaner, oil-bath type
Air cleaner, turbo type, one-stage
Air cleaner, Sy-Klone type, one-stage
Air cleaner, Sy-Klone type, two-stage
Fuel filter with water trap and heating
Hand throttle control
Radiator, corrosion-protected
Reversible cooling fan and axle oil cooler

Electrical system
Alternator, 80 A
Battery disconnect switch, additional in cab
Work light, attachments
Work lights front, extra
Work lights rear, extra
Work lights front, on cab, dual
Work lights front, high intensity
License plate holder, lighting
Reverse lights, automatic
Shortened headlight support brackets
Warning beacon, rotating, collapsible
Warning beacon, flashing strobe light

Cab
Installation kit for radio, 11 A, 12 V, left and right in cab
Installation kit for radio, 20 A, 12 V
Radio with cassette player
Radio with CD-player
Sun blinds, front and rear windows
Sun blinds, side windows

• Oil pressure engine
• Oil pressure, transmission
• Brake pressure
• Parking brake
• Hydraulic oil level
• Axle oil temperature
• Primary steering
• Secondary steering
• High beams
• Turn signals
• Rotating beacon
• Preheating coil
• Differential lock
• Coolant temperature
• Transmission oil temperature
• Brake charging
• Level warnings:
  • Engine oil level
  • Coolant level
  • Transmission oil level
  • Hydraulic oil level
  • Washer fluid level

Drivetrain
Automatic Power Shift with operator-controlled dis-engagement function for transmission cut-out when braking and mode selector with AUTO function
Fully Automatic Powershift 1-4
PWM-control between different gear positions
Forward and reverse switch by lever console
Differential:
front: 100% hyd. diff. lock; rear: conventional

Tires
235 R 50 Q5

Brake system
Wet oil circulation-cooled disc brakes on all four wheels
Dial brake circuits
Dial brake service pedals
Secondary brake system
Parking brake, e-hydraulic
Brake wear indicator

Cab
ROPS (ISO 3471), FOPS (ISO 3449)
Lock kit, one combination
Acoustic inner lining
Ashtray
Cigarette lighter
Lockable door

Retractable lap-type belt, longer and wider than standard
Air-conditioning
Air-conditioning with corrosion protected condenser
Air-conditioning with automatic temp. control (ATC)
Air-conditioning with corrosion prot. condenser and automatic temp. control (ATC)
Ventilation air filter for work in asbestos environment
Cab air cleaner, Sy-Klone type
Operator’s seat with low backrest
Operator’s seat with wide backrest and electrical heating
Operator’s seat air-suspended with high backrest and electrical heating

External equipment
Noise and vibration dampening suspension of cab, engine and transmission
Lifting eyes
Easy-to-open side panels
Frame steering, joint lock
Vandalism lock prepared for batteries and engine compartment
Tow hitch
Basic fenders with wideners
Guards, on rear fenders

Protective equipment
Cover plates, rear frame
Other equipment
Decals, USA

Other equipment
Comfort Drive Control, CDC
Secondary steering
Sign, slow moving vehicle
Decals English/Spanish

Tires
750/65 R 05

Attachments
Bucket:
• Straight with/without teeth
• Spade nose with/without teeth
• High tipping
• Light materials
• Refuse tamper bucket

Bolt-on and weld-on bucket teeth
Cutting edge in three sections, bolt-on
Bucket spill guard
Fork equipment
Material handling arm
Log grapples
Boom Suspension System (BSS)*
BSS utilizes gas/oil accumulators connected to the lift cylinders to absorb shocks and smooth out rough roads for faster cycle times, less spillage and increased operator comfort.

Automatic Lubrication System*
Our factory fitted Automatic Lubrication System takes care of greasing while the machine is in operation. This means less downtime for scheduled maintenance and more time for productive work.

Comfort Drive Control (CDC)*
CDC significantly reduces repetitive and tiring steering wheel movements. The operator can shift and steer easily with the aid of controls integrated in the left armrest.

3rd and 4th hydraulic functions*
Volvo wheel loaders can be equipped with third and fourth hydraulic functions, which are operated with additional control levers. These functions are necessary when there’s a need to operate a third and fourth hydraulic function at the same time, such as when using a sweeper attachment or a timber grapple with hydraulic heel kick-out.

Genuine Volvo attachments
Genuine Volvo attachments and wear parts, including the new Volvo Tooth System, are designed as an integral part of the loader, making the L110E a swift and versatile machine in a wide range of applications.

Long boom*
A long boom gives the extra dump height and reach necessary for loading high trucks or feeders.

* Optional equipment
Volvo Construction Equipment is different. It's 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 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.**

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*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.*