

VOLVO COMPACT WHEEL LOADER

L20B



VOLVO

Designed for Many Hours of Efficient Work

Spacious and Comfortable



Comfortable Access

Getting into and out of this loader is safe and comfortable: Two solid grabs grant a firm hold when climbing the single step taking you to the cab. You pass the wide doorway, and you are entering a working place made to measure any operator.

Spacious Cabin

In spite of the compact exterior dimensions of the machine, the interior of the cabin is roomy and spacious. Enough head room and a multiple adjustable operator's seat ensure that even tall operators will immediately feel at home.

Sufficient Storage Room

A practical holder at the back of the operator's seat keeps machine documents, beverage and mobile phone well at hand, while personal things can be stored in the lockable compartment incorporated into the arm rest.

Efficient Heating System

An efficient three stage heating and ventilation system with filter and well positioned air distribution provides a pleasant working climate in any section of the cab.

Some business is apparently a question of space. This is why Volvo is offering you a new product family of compact wheel loaders: L20B and L25B, both extremely compact in dimensions, robust and equipped with an efficient parallel loader linkage. Come and discover these innovative, small size loaders opening up new dimensions in operator comfort and performance.

New Dashboard Position

You will soon find out the benefits of the new corner position of the dash-board: It combines the advantage of an undisturbed front view with an optimized position of the cab ventilation outlets. At the same time it allows an easy monitoring of the main machine functions as it is still within the operator's main field of view.

Purpose Designed Dashboard

The layout of the dashboard and controls is simple and functional. A clearly arranged combination of analogue indicator elements and electrically controlled warning lights provides all the information the operator requires.

Easy to Operate

All pedals, levers and controls are laid out for ease of operation: Control of direction and of the hydraulic functions including the 100% differential lock are effected via multi-function lever. The inch brake pedal allows permanent speed adjustment and safe braking without changing to another pedal.

Safe Operation

Great attention has been attached to safety: The machine offers good stability thanks to the rear wrap-around counterweight; its cab is designed according to ROPS/ FOPS safety standards. The rounded rear end of the machine and the large glazed surface areas surrounding the cab provide an excellent allround visibility improving safety at work.



Customer's Benefits:

● **Increased Operator Comfort:**
Extremely wide door opening and spacious, comfortable cab for safe and fatigue-free operation

● **Maximum Safety:**
Wrap-around counterweight for good stability. Large panoramic screens with excellent allround view provide maximum safety at work.



Small in Size - Great in Performance

Extremely Mobile

Compactness at its Best

What is unique about the compactness of an L20B is the possibility of managing passages with a vertical clearance as low as 2,5 m. And if you need it even lower: Only half an hour is required for unmounting and fitting again the removable cab, and you can go on with your work, for example within the interior of buildings.

Unbeatable on Difficult Terrain

Like every Volvo Compact wheel loader, the L20B, too, is an expert in mobility. Thanks to the well-positioned wrap around counterweight and the articulating oscillating joint it is extremely stable even on rough terrain.

100% Differential Lock

The 100 % operator selectable differential lock, which is standard on both axles, allows the machine to be perfectly adjusted to the respective ground conditions. The result is optimum traction on difficult ground, and low ground pressure on even or delicate surfaces.



A Real Allrounder

Quick Change of Attachments

More than 60 different attachments are available and can be fitted to the machine within a few seconds and

Working on narrow sites calls for limitations in size, not in productivity. With regards to this, the L20B leaves nothing to be desired: They are reliable and stable, and are made for demonstrating their extraordinary performance in areas which are not accessible with other machines.

without the driver having to leave the comfort of the operator's cabin. The Volvo L20B is equipped with an hydraulic attachment bracket for ease of switching between attachments without interrupting the job in hand.

First Class Performance

1,8 Tons Lifting Power

With regard to performance this small machine is a real surprise: It boasts an outstanding lifting capacity of 1,8 tons - just the right power for efficient handling of the standard Euro pallets.

Top Lift Height

The same is true for the lift height. The linkage reaches important lifting positions allowing even the loading of four axle trucks.

Unrivalled Reach

The design of the parallel loader

linkage also provides an excellent reach.

Superior Technology

Powerful Components

State of the art technology gives you the best possible output. A powerful Volvo engine at the core of the system supplies the power. The efficient parallel loader linkage makes the machine especially suitable for pallet work, as it gives full parallelity of the load in any lifting position.

Smooth Working Cycles

The dual circuit hydraulic system with separate pumps for working and steering hydraulics ensures total independence of movements, which contributes to the smoothness of working cycles.



Customer's Benefits:

- **Compact Machine Design:**
Low overall height (under 2,5 m)
- **Utmost Versatility**
Hydraulic quick change coupler for perfect allround versatility in many

applications

- **Outstanding Performance**
Excellent operating data and superior machine quality are the guarantee for a profitable operation



Easy Maintenance and Top Economy

Service Friendly



Good Accessibility

Great attention has been drawn to the fact of making the L20B as service friendly as possible. All main components and service checkpoints are located under the large, fold-away engine hood and are transverse mounted for easy access. Filters and batteries are easily exchangeable. The tank's filler is wide enough to make replenishment possible directly from the fuel can. Good accessible lubrication points on the articulating oscillating joint make greasing a simple task.

Simplified Checking

Daily service checks can be executed within a very short time. The dipstick for the engine oil level is easily to reach; sight glasses advise on hydraulic oil levels at a glance; hydraulic pressure and engine status can be monitored by warning lights on the dashboard.

Modular Board Electricity

For easy checking of safety fuses and relays a complete modular electric board is centrally mounted and accessed by opening a separate lid on the right side of the machine.

High Quality Components

All efforts have been taken to supply you with a machine to serve you many hard working hours throughout a long, reliable service life. You can be sure that only high quality materials and components of well known manufacturers have been used in the production process.

Long Service Life

Large dimensioned sealed bearings on linkage and articulating oscillating joint ensure minimized wear. A standard water separator in

Like all Volvo machines, the L20B has been designed with full knowledge of the daily requirements on site. In this respect simple servicing is one of the major points, just as from the economical point of view: Simple service is the best guarantee for regular maintenance, which is an absolute must for maintaining an optimum machine function and a maximum residual value for the future.

the fuel system ensures a long service life of the high pressure elements in the engine.

Large Scale Service Intervals

Good news for the service personnel: They will appreciate that the service intervals for long term service have been considerably prolonged on the L20B, which saves time and money.

A Profitable Investment

More for Your Money

A Volvo Compact Wheel Loader is a sound investment - for several reasons. The major one is surely its good price/ performance ratio. You will hardly find a machine in this size class offering a comparable performance.

Versatility for Maximum Economy

Another economical plus is the fact that a Volvo compact wheel loader encompasses several machines in



one. With use of its interchangeable and numerous attachments you can convert it to your needs, keeping downtime to a minimum. No matter what the task may be, there will always be a job for your L20B.

Competent Supplier Support

What you are getting in addition, when purchasing a Volvo construction machine, are the advantages of the wide spread Volvo dealer network in the background. Their concern is to give you every support you need to do a good job. They can offer you a comprehensive range of construction related equipment and are always ready to help you with advice on applications, technical support, and after sales service. Ask your local dealer about the comprehensive Volvo financial service or about special offers suitable for you.

Genuine Volvo Parts Service

Moreover, you can also count on Volvo in case of emergency. An elaborated system will help to supply you with the genuine parts you require, delivered as quickly as possible to keep your downtimes as short as possible.

Customer's Benefits:

● Easy Maintenance:

Easy service and maintenance due to perfect access to main components and service check points

● Optimum Return on Your Investment

Higher profits due to outstanding price-performance ratio and long machine service life



The L20B in detail

Engine

Volvo in-line 4-cylinder, 4 stroke, direct injection diesel engine, oil/air cooled.

Air cleaning:

1. Paper filter with indicator in cab
2. Safety filter

Engine	Volvo D3D-C-A-E1
Gross power @	2300 r/min
SAE J1995	.41 kW
SAE J1995	.56 hp
Net power @	2300 r/min
SAE J1349 - DIN ISO 1585	.40 kW
SAE J1349 - DIN ISO 1585	.54 hp
Max torque @	1700 r/min
SAE J1995 netto	.180 Nm
DIN ISO 1585	.180 Nm
Cubic capacity	.3,10 l
Bore	.94 mm
Stroke	.112 mm

Electrical system

Rated voltage	.12 V
Battery voltage	.12 V
Battery capacity	.88 Ah
Alternator rating	.1120/80 W/A
Starter motor output	.2,2 kW

Drivetrain

Transmission: hydrostatic transmission, full power shift under load, both when changing direction (forward and reverse) and between ranges. Maximum drawbar force can be achieved in all ranges.
«Inch/brake pedal» for variable machine speed control and power transfer to bucket hydraulics at constant engine rpm. Multi-function lever for change of direction, differential lock and use of the hydraulic-control.

Axles: all-wheel drive by two rigid mounted planetary axles

Differential locks: hydraulically actuated 100% differential locks in both axles.

Frame: solid front and rear frame, robot-welded. Articulating oscillating joint for optimum manoeuvrability and traction.

Oscillation at wheel, max.	.226 mm
Track	.1300 mm
Angle of oscillation	±10°
Tires: Size	.12.0-18
Rim	.11 x 18

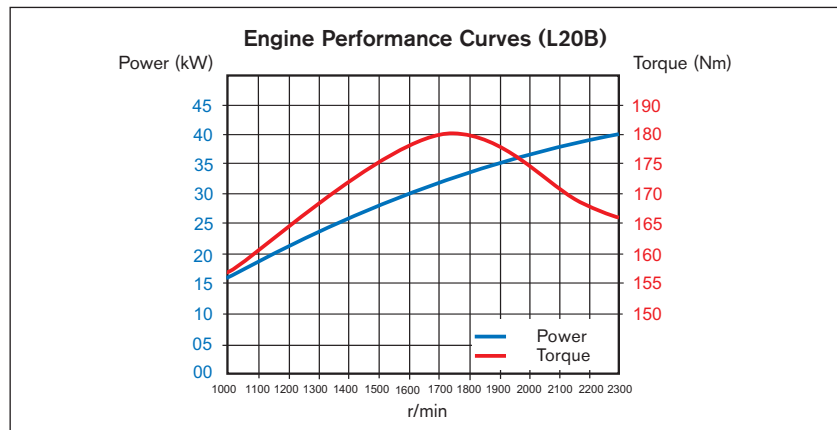
Maximum speed

1st range forward/reverse	.4,5 km/h
2nd range forward/reverse	.20,0 km/h

Brake system

Service brake: reliable dual braking system, acting upon all four wheels.

1. Wear-free, hydrostatic inching brake
2. Central friction brake, actuated via «inch/brake pedal». First stage of pedal application actuates the inching facility, the last third of pedal application applies the central friction brake.



Parking brake: central drum brake, acting upon all four wheels.

Steering system

Hydrostatic steering. Central articulating-oscillating joint.

Steering pump: gear-type pump

Steering cylinder: 1 double-acting steering cylinder

Steering

Angle of articulation	±38°
Steering pump	
Flow	.25 l/min
@ engine rpm	.2300 r/min
Relief valve pressure	.18,5 MPa

Cab

Instrumentation: All important information is located in the operator's field of vision.

Hydraulic system

Thermostatically controlled oil circuit with integrated cooling system.

Hydraulic control valve: double acting control valve with three spool system, with primary and secondary pressure valves.

1. Lifting function
2. Tilting function
3. Additional function for hydraulic QC
Unlock, neutral, lock. Preparation for operating hydraulic attachments with this function is available as an option.

Hydraulic oil filter: Combined suction and return-filtration cartridge with a 10 µm filter. The filter can be replaced without emptying the hydraulic oil tank.

Hydraulic pump: gear type-pump

Hydraulic pump

Flow	.52 l/min
@ engine rpm	.2300 r/min
Relief valve pressure	.20 MPa

Linkage

Parallel linkage with high breakout force and exact parallel lift-arm action.

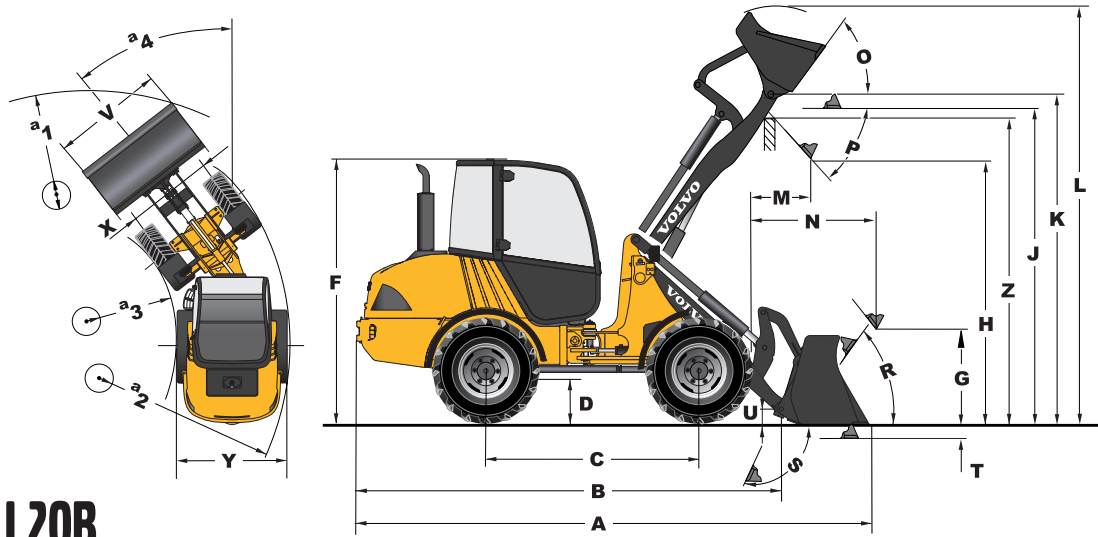
Lift cylinders	.1
Tilt cylinders	.1

Lift time (loaded)	.6,0 s
Lowering time (empty)	.4,0 s
Dump time	.2,0 s
Crowd time	.1,5 s

Service fill Capacities

Engine	.10,5 l
Fuel tank	.60,0 l
Front axle, total	.4,1 l
Rear axle,	
incl. drop-box	.5,8 l
Hydraulic tank, incl. hydraulic system	.60,0 l

Specifications



L20B

L20B with parallel-linkage,
Z-attachment carrier
and 12.0-18 tires

B	4275	mm
C	2050	mm
D	300	mm
F	2450	mm
G	875	mm
J	2980	mm
K	3125	mm
O	56	°
P	45	°
R	56	°
S	65	°
U	145	mm
X	1300	mm
Y	1625	mm
Z	2885	mm
a ₂	3830	mm
a ₃	2160	mm
a ₄	±38	°

Data according to bucket type		General Purpose		Light Material		4-in-1	High-Tip
L20B with parallel-linkage, Z-attachment carrier and 12.0-18 tires							
Capacity heaped	m ³	0,7	0,85	1,0	1,2	0,65	1,1
Material density	kg/m ³	1900	1600	1400	1100	1900	1000
Static tipping load, straight (ISO / DIS)	kg	3250	3200	3150	3100	3000	2500
Static tipping load, full turn 38° (ISO / DIS)	kg	2900	2850	2800	2750	2650	2250
Hydraulic lifting capacity, max.	kN	35,0	34,0	33,5	32,0	32,5	28,0
Breakout force	kN	35,0	30,5	28,0	25,0	36,5	-
A Total length	mm	5035	5135	5195	5295	5005	5510
L Lift height, max.	mm	4060	4140	4190	4285	4070	4890
V Bucket width	mm	1650	1650	1800	1800	1650	1800
a ₁ Clearance circle	mm	8210	8260	8430	8490	8220	8620
T Digging depth	mm	120	120	120	120	160	120
H Dump height	mm	2510	2435	2395	2320	2480	3540
M Reach at max. height	mm	660	720	765	830	575	1005
N Reach, max.	mm	1475	1535	1580	1645	1390	2140
Operating weight	kg	4300	4330	4340	4390	4460	4670

Data with loading fork		
Centre of gravity 500 mm		
Tipping load, full turn (ISO / DIS)	kg	2290
Payload according to EN 474-3, 60/80%	kg	1350/1800
Payload 80%, transport position, 38° full turn	kg	2200

L20B - Possible machine variations	
Linkage/attach. carrier	Standard
Parallel / Z	●

STANDARD EQUIPMENT

Engine

Diesel engine, direct fuel injection
Extra fuel filter
Cold start aid
Dry-type air filter

Electrical system

Alternator 80 A

Lighting:

Main head lights (halogen)
full/dipped/asymmetrical
Working light (rear right)
Parking lights
Rear lights
Brake lights
Direction indicators
Hazard warning lights
Reversing lights
Cab lighting

Instrumentation & controls:

Multi-function lever
12 Volt accessories socket
Horn
Hazard warning switch
Safety start

Analogue information for:

Fuel level
Operating hours

Illuminated symbols

(colour-coded) for:
Differential locks
Battery charging
Indicators (left/right)
Main beam
Pre-heater
Direction (forward/reverse)
Travel (quick, slow)
Fuel level
Reserve fuel indicator

Illuminated symbols with acoustic signal

(with ignition on) for:

Engine temperature
Engine oil pressure
Hydraulic oil temperature
Hydraulic oil filter
Air filter restriction
Parking brake

Drivetrain

Hydrostatic drive
Operator-selected 100%
differential locks

Tires 12.0-18

Cab Exterior

Removable ROPS/FOPS-cab with flexible
mountings
Lockable door
All-round tinted safety glass
Windscreen wiper (front/rear)
Windscreen washer (front/rear)
Openable window on the right
side of the machine
Door stops
External rear view mirrors
(right/left)

Cab Interior

4-way adjustable operator's seat
Seat belt
Sunvisor
Heater with air-filter and
defroster (front/rear)
Cab ventilation
Lockable storage box in the cab

Hydraulic system

Gear-type pump
Control valve three-spool
system
3rd hydraulic circuit

Working Equipment

Bucket level indicator
Hydraulic quick-change attachment carrier

Carriage Body

Fenders and mudguards,
(front/rear)
Lockable engine hood
Vertical exhaust
Towing device
Lifting eyes

Service and maintenance

Tool kit
Wheel nut wrench

International Standards for Machines and

Production

Quality:

DIN/ISO 9001

Safety:

CE - Criteron

Machine guide-lines 98/37/EC

ROPS ISO 3471

FOPS ISO 3449

Operating weight

ISO 7131

Tipping load / Payload:

ISO / DIS 14397-1

EMV (Electromagnetic

Compatibility)

89/336/EEC plus supplement

Environment:

DIN/ISO 14001

Sound regulation:

2000/14/EC

German environmental seal

«low noise» RAL - UZ 53

OPTIONAL EQUIPMENT

(Standard on certain markets)

Engine equipment

Pre-heater
Pre cleaner air filter (Turbo II)
Oilbath air filter
Exhaust particle filter

Cab

Handthrottle
Hand control inch valve
Airconditioner
Radio
Working lights (2 front/1 rear left)
Air suspension operator's seat

Hydraulic system

Additional hydraulics for
3rd hydraulic circuit
4th hydraulic circuit
Additional pump

Environment

Initial filling of biodegradable
hydraulic oil

Safety

Anti-theft system
Protective guards for:
Main head lights
Working lights
Rear lights
Rotating beacon
Audible reverse alarm

ATTACHMENTS

A small selection of the most popular attachments:

Loading Fork
4-in-1 Bucket
Material Handling Arm
Sweeper
TreeTransplanting Bucket
Side-Tip Bucket
High-Tip Bucket
Hay/Manure Fork
Snow Plow

Further buckets and attachments available on
request.





Technology on Human Terms

Volvo Construction Equipment is one of the world's leading manufacturers of construction machines, with a product range encompassing wheel loaders, excavators, articulated haulers, motor graders and more.

The tasks they face vary considerably, but they all share one vital feature: technology which helps man to perform better: safely, efficiently and with care of the environment. We refer to it as Technology on Human Terms.

The sheer width of the product range means it is always possible to choose exactly the right machine and attachment for the job. Each machine also comes with the quality, continuity and security which is represented by the Volvo name. The strength of the service and parts organisation;

the security of always having immediate access to leading-edge research and technical development are part of the Volvo name. A machine from Volvo meets the very highest demands in all kinds of jobs, under all conditions the world over.

Volvo Construction Equipment develops, manufactures and markets construction equipment. We are a Volvo company with production facilities on four continents and a market presence in over 100 countries.

For more information please visit our web site:
www.volvo.com

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

VOLVO

Construction Equipment

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