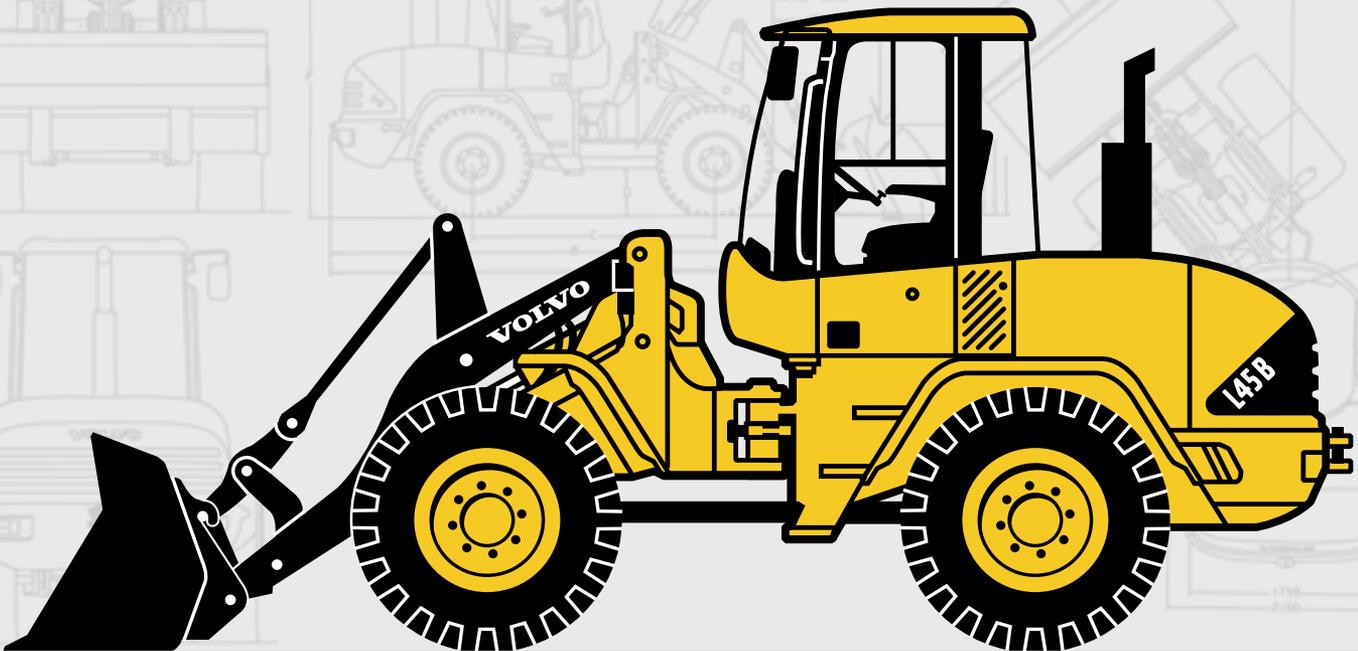


VOLVO COMPACT WHEEL LOADER

L45B



- **Gross Power:**
SAE J1995 81/110 kW/hp
Net Power:
SAE J1349 73/100 kW/hp
- **Operating Weight:**
8.3 - 8.5 t
18,298 - 18,739 lb
- **Bucket Capacities:**
1.4 - 2.5 m³
1.8 - 3.3 yd³
- **High-performance, low environmental impact diesel engine:** quiet, low emissions, economical fuel consumption.
- **Hydrostatic drive with significant advantages:**
 - Easy to operate due to automatic drive facility.
 - Maintains high drawbar pull even when working hydraulics are engaged.
 - Advantageous hydrostatic brakes, wear-free and safe.
- **Strong TP-loader linkage, perfect for loading fork applications:** high breakout and lift forces combine with optimum parallel lift of the attachment.
- **Operator-selected 100% differential lock** on both axles to give optimum traction.
- **Standard hydraulic quick change attachment bracket:** Various tried-and-tested attachments for a wide range of applications.
- **Cab designed for comfort:**
 - Electronic Service and Information System (ESIS).
 - Multi-function lever.

VOLVO



ENGINE

Engine: Deutz in-line 4-cylinder, 4 stroke, direct injection diesel engine with turbocharging, water cooled.

Air cleaning:

1. Pre cleaner with ejector
2. Paper filter with indicator in cab
3. Safety filter

Engine	BF4M 1013E	
Gross power @	2,100 r/min	35 r/s
SAE J1995	81 kW	110 hp
SAE J1995	110 hp	110 hp
Net power @	2,100 r/min	35 r/s
SAE J1349 - DIN ISO 1585.....	73 kW	100 hp
SAE J1349 - DIN ISO 1585.....	100 hp	100 hp
Max. torque @	1,400 r/min	23 r/s
SAE J1349 netto.....	420 Nm	310 lbf ft
DIN ISO 1585.....	420 Nm	310 lbf ft
Cubic capacity	4.76 l	290.5 in³
Bore.....	108 mm	4.25 in
Stroke.....	130 mm	5.1 in



ELECTRICAL SYSTEM

Rated voltage	24 V	
Battery voltage.....	2 x 12 V	
Battery capacity.....	2 x 74 Ah	
Alternator rating.....	1,540/55 W/A	
Starter motor output.....	4.0 kW	5.4 hp



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 working hydraulics at constant engine rpm. Multi-function lever for change of direction, differential lock and use of the servo-control.

Axles: all-wheel drive by two rigid 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 maneuverability and traction.

Oscillation at wheel, max.	310 mm	1'0" ft
Track	1,760 mm	5'9" ft in
Angle of oscillation.....	±10°	
Tires: Size.....	15.5-25	
Rim	12 x 25	

Speed:	Standard	Optional High Speed
1st range forward/reverse.....	0-6 km/h 0-4 mph	0-6 km/h 0-4 mph
2nd range forward/reverse	0-20 km/h 0-12.5 mph	0-17 km/h 0-10.5 mph
3rd range forward/reverse		0-35 km/h 0-22 mph



SERVICE FILL CAPACITIES

Engine.....	14.0 l	3.7 US gal
Fuel tank	130.0 l	34.3 US gal
Front axle, total.....	7.9 l	2.1 US gal
Rear axle, incl. drop-box	9.9 l	2.6 US gal
Hydraulic tank, incl. hydrostatic system	120.0 l	31.7 US gal



BRAKING SYSTEM

Service brake: reliable, dual braking system, disc brake hydraulically actuated via pump accumulator, acting on all four wheels.

1. Wear-free, hydrostatic inching brake
2. Central disc brake, actuated via "inch/brake pedal."
First stage of pedal application actuates the inching facility, the last third of pedal application applies the central disc brake.
3. High speed version:
Inch/brake pedal plus additional pedal both acting on the oil-immersed multi-disk brake on the rear axle.

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



HYDRAULIC SYSTEM

Load Sensing hydraulic system with self-controlling power distribution. Thermostatically controlled oil circuit with integrated cooling system.

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

Single lever control for

1. Lifting function
2. Tilting function

Additional lever for

1. Hydraulic attachment bracket
Unlock, neutral, lock (unlock via solenoid for safety)
2. 3rd function hydraulics.

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: axial piston pump

Hydraulic pump		
Flow	106 l/min	28 US gpm
@ engine rpm.....	2,100 r/min	35 r/s
Relief valve pressure	25 MPa	3,626 psi



STEERING

Load Sensing hydrostatic steering. Central articulating-oscillating joint with damping effect.

Steering pump: gear-type pump controlled by priority valve.

Steering cylinder: 2 double-acting steering cylinders

Steering		
Angle of articulation	±40°	
Steering pump		
Flow	43.5 l/min	11.5 US gpm
@ engine rpm	2,100 r/min	35 r/s
Relief valve pressure.....	17 MPa	2,466 psi



LINKAGE

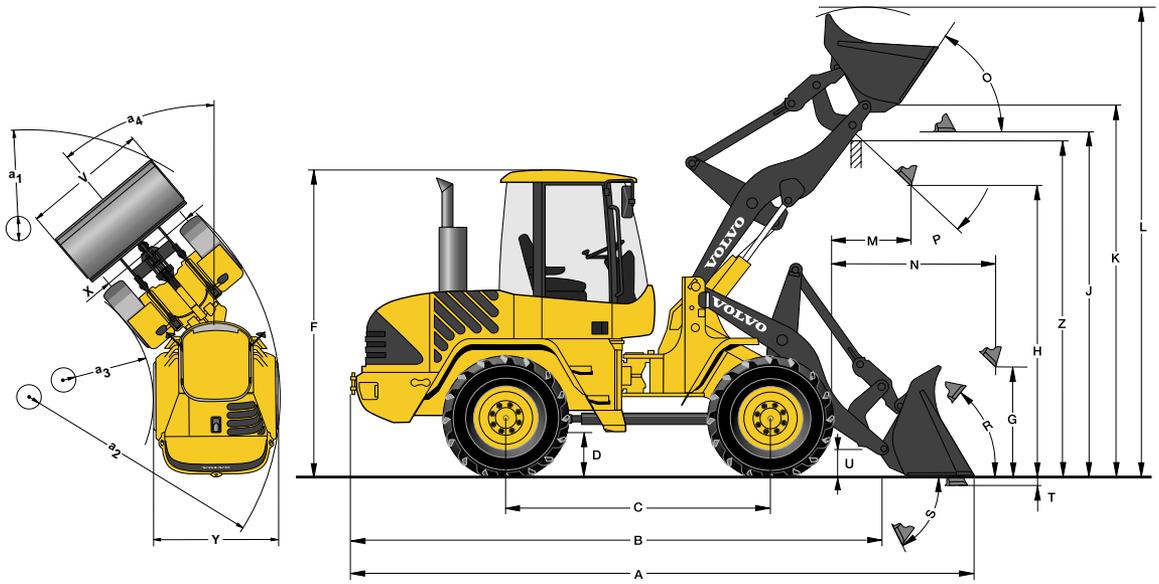
Lifting frame:	TP
Lift cylinders.....	2
Tilt cylinder.....	1

Lift time (loaded)	6.0 s
Lowering time (empty).....	5.0 s
Dump time	1.5 s
Crowd time.....	1.8 s

DIMENSIONS • TP LINKAGE

L45B with TP Linkage,
Volvo quick attachment
bracket & 15.5-25 tires

B	5,000 mm	16' 5"
C	2,450 mm	8' 0"
D	410 mm	1' 4"
F	2,930 mm	9' 7"
G	970 mm	3' 2"
J	3,395 mm	11' 2"
K	3,650 mm	12' 0"
O	57 °	
P	45 °	
R	50 °	
S	68 °	
U	255 mm	10"
X	1,760 mm	5' 9"
Y	2,160 mm	7' 1"
Z	3,400 mm	11' 2"
a ₂	4,520 mm	14' 10"
a ₃	2,270 mm	7' 5"
a ₄	±40 °	



OPERATING DATA • TP LINKAGE

Data according to bucket type		General Purpose				Light Material		4-in-1	High-Tip
		 Hook on	 Pin on	 Hook on	 Pin on	 Hook on	 Hook on	 Hook on	 Hook on
L45B with TP Linkage, Volvo quick attachment bracket (hook on) and 15.5-25 tires Data for other bucket types and sizes on request.									
Capacity heaped	m ³ yd ³	1.4 1.8	1.4 1.8	1.6 2.1	1.6 2.1	2.0 2.6	2.5 3.3	1.2 1.6	2.3 3.0
Material density	kg/m ³ lb/yd ³	1,800 3,033	1,900 3,202	1,600 2,696	1,600 2,696	1,200 2,022	900 1,517	1,900 3,202	900 1,517
Static tipping load, straight (ISO / DIS)	kg lb	5,900 13,007	6,250 13,779	5,800 12,787	6,100 13,448	5,650 12,456	5,500 12,125	5,500 12,125	4,900 10,803
Static tipping load, full turn 40° (ISO / DIS)	kg lb	5,250 11,574	5,500 12,125	5,150 11,354	5,400 11,905	5,000 11,023	4,850 10,692	4,850 10,692	4,350 9,590
Hydraulic lifting capacity, max.	kN lbf	72.6 16,321	77 17,310	71.2 16,006	75.5 16,973	69.5 15,624	67.5 15,175	67.5 15,175	60.0 13,489
Breakout force	kN lbf	62.0 13,938	69.0 15,512	57.3 12,882	63.0 14,163	48.1 10,813	42.8 9,622	53.5 12,027	-
A Total length	mm ft in	6,030 19'9"	5,935 19'6"	6,100 20'0"	6,010 19'9"	6,290 20'8"	6,440 21'2"	6,180 20'3"	6,630 21'9"
L Lift height, max.	mm ft in	4,700 15'5"	4,645 15'3"	4,770 15'8"	4,725 15'6"	4,900 16'1"	5,110 16'9"	4,620 15'2"	6,170 20'3"
V Bucket width	mm ft in	2,250 7'5"	2,250 7'5"	2,250 7'5"	2,250 7'5"	2,250 7'5"	2,250 7'5"	2,250 7'5"	2,250 7'5"
a ₁ Clearance circle	mm ft in	9,770 32'1"	9,720 31'11"	9,820 32'3"	9,760 32'0"	9,940 32'7"	10,040 32'11"	9,860 32'4"	10,100 33'2"
T Digging depth	mm ft in	200 0'8"	200 0'8"	200 0'8"	200 0'8"	190 0'7"	190 0'7"	195 0'8"	210 0'8"
H Dump height	mm ft in	2,780 9'1"	2,840 9'4"	2,720 8'11"	2,780 9'1"	2,580 8'6"	2,470 8'1"	2,640 8'8"	4,190 13'9"
M Reach at max. height	mm ft in	895 2'11"	820 2'8"	935 3'1"	860 2'10"	1,060 3'6"	1,160 3'10"	940 3'1"	1,430 4'8"
N Reach, max.	mm ft in	1,710 5'7"	1,635 5'4"	1,750 5'9"	1,675 5'6"	1,875 6'2"	1,975 6'6"	1,760 5'9"	2,620 8'7"
Operating weight	kg lb	8,400 18,519	8,310 18,320	8,450 18,629	8,360 18,430	8,430 18,585	8,520 18,783	8,620 19,004	8,910 19,643

Data with hook on loading fork		
Center of gravity 500 mm 20"		
Tipping load, full turn (ISO / DIS)	kg lb	4,375 9,645
Payload according to EN 474-3, 60/80%	kg lb	2,625/3,500 5,790/7,715
Payload 80%, transport position, 40° full turn	kg lb	4,000 8,820

L45B - Possible machine variations		
Linkage/attach. bracket	Standard	Hi-speed vers.
TP / Hook on	●	●
TP / Pin on	●	●

STANDARD EQUIPMENT

Engine

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

Electrical System

Alternator 55 A

Lighting:

Main head lights (halogen)
full/dipped/asymmetrical
Working lights (2 front/2 rear)
Parking lights
Rear lights
Brake lights
Direction indicators
Hazard warning lights
Reversing lights
Cab lighting

Instrumentation & controls:

Multi-function lever
12 Volt power socket
Horn
Audible reverse alarm
Hazard warning switch
Safety start

Electronic Service and Information-System (ESIS):

Analog LED-information for:
Fuel level
Engine temperature
Drive system oil temperature
LED-illuminated symbols (color-coded) for:
Direction (forward/reverse)

Indicators (left/right)
Pre-heater
Main beam
Differential locks
Boom arm suspension system (option)
Loading fork operation (option)
LED-illuminated symbols (red) with acoustic signal for:

Parking brake
Air filter restriction
Drive system oil temperature
Engine temperature
Engine oil pressure
Battery charging
Hydraulic return filter
Touch pad with symbols and integrated LEDs for:
Parking lights
Working lights (front/rear)
Windshield wiper (rear)
Rotating beacon (option)
Boom arm suspension system on/off (option)
Locking and activation of Volvo attachment bracket disconnect
Activation of multi-function lever for directional change
Digital LED display activated by dual function keys for:
Entry and retrieval of operating and service information
Anti-theft function control

Drivetrain

Hydrostatic drive
Operator-selected 100%

differential locks
Tires 15.5-25

Hydraulic System

Load Sensing Hydraulics
Axial piston pump
Control valve three-spool system
3rd hydraulic circuit including 2 quick couplings

Service and Maintenance

Tool kit
Wheel nut wrench

Cab, Exterior

ROPS/FOPS-cab with flexible mountings
Walk-through cab
Lockable doors
All-round tinted safety glass
Windshield wiper (front/rear)
Windshield washer (front/rear)
Sliding window in the left door
Door stops
External rear view mirrors (right/left)

Cab, Interior

4-way adjustable operator's seat
Adjustable steering column
Seat belt
Sun visor
Heater with air-filter and defroster (front/rear)
Cab ventilation
Preparation for an optional air conditioner
Storage box in the cab

Rubber floor mat

Working Equipment

Automatic bucket leveller with on/off switch
Hydraulic quick-change attachment bracket

Carriage Body

Fenders (front/rear)
Mudflaps, (front)
Lockable engine hood
Lockable fuel-tank cap
Vertical exhaust
Towing device
Lifting eyes

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 insulation:
86/622/EEC II, amendment
95/27/EC

OPTIONAL EQUIPMENT

Engine

Pre-heater

Hydraulics

Optional 3rd hydraulics can be incorporated into joystick lever
4th hydraulic circuit

Cab

Hand throttle
Hand control inch valve
Air conditioner
Radio
Interior mirror

Working Equipment

Boom arm suspension system

Environment

Initial filling of biodegradable hydraulic oil
Low-noise kit

Canopy version

ROPS FOPS Canopy
Vandal protection kit
Weatherproof seat

Additional drainage mat

Safety

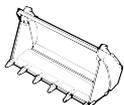
Anti-theft system
Protective guards for:
Main headlights,
Working lights, Rear lights
Rotating beacon
Visual reverse alarm

ATTACHMENTS

A small selection of the most popular attachments. Other buckets and attachments available on request.



Loading Fork



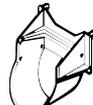
4-in-1 Bucket



Hook and Tackle



Sweeper



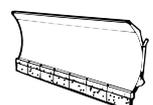
Tree Transplanting Bucket



Side-Tip Bucket



Hay/Manure Fork



Snow Plow

Under our policy of continuous product 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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