

**VOLVO COMPACT WHEEL LOADERS**

# **L40B, L45B**



**VOLVO**

# BUILT TO WORK.

Meet your most valuable performer: the Volvo L40B and L45B. Built to work all day, every day, each offers ideal size and a wide range of attachments for unmatched versatility. Loaded with power, yet efficient to operate, you're going to enjoy a new standard of productivity and profitability.

## Take control of your productivity

For optimum traction in difficult terrain, the Volvo Model L40B and L45B feature 100% operator selectable differential locks in the front and rear axles - helping all wheels turn with the same speed. The servo-controlled hydraulic control valve features a proven, double-acting design for smooth control of all movements. Independent hydraulic pumps with load-sensing control improve precision hydraulic control while extending the life of components and reducing fuel consumption. For effortless handling, the ergonomic joystick controls multiple functions: lift, lower, float, dig and dump, forward, neutral, reverse and differential locks.

## Giving you a needed lift

Experience the performance of Volvo's TP Linkage system for high breakout force, superior parallel fork loading action and safe visibility throughout the entire lift range. Loading operations are quick and efficient with optimum lifting height and fast cycle times. The counterweight is beveled on the lower side for ease of operation on extremely steep slopes or rough terrain.

## Productivity starts with efficiency

The low-emission Volvo engine is not only high on power and output, it's low on fuel consumption for economical operation that increases profitability. A fuel filter and water separator protects the fuel-injection system. For maximum power and speed, enjoy automatic drive facility from a hydrostatic transmission that features an axial piston drive motor. The system's high pressure allows maximum speed - without the need to shift and regardless of traction. Advantages include less wear and optimum performance in all drive modes.

## Loaded with versatility

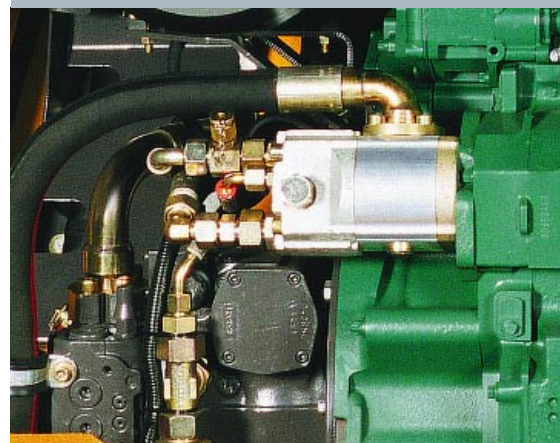
With a wide range of available Volvo attachments and a choice of two attachment carriers, the Volvo L40B and L45B deliver the versatility of an entire fleet of machines. Built of the finest quality and perfectly matched for your machine, genuine Volvo attachments help you take on any job. The quick-attach makes attachment hook-up quick and easy, right from the operator's seat. Standard hydraulic couplings on the carriers allow use of numerous hydraulic tools and attachments for even more productivity.



- Wide range of accessories available.



- Operator selectable differential locks provide optimal traction.



- Separate hydraulic pumps provide fast cycle times.





- Superb ground clearance, drive torque and traction.
- Patented Volvo loader linkage.





# TOUGH WHERE IT COUNTS.

You make money working, not down for repair. That's why the L40B and L45B are built strong and sturdy from the ground up - to match high Volvo standards. When it's time for service, Volvo makes it fast and easy to get you back out there. We give you maximum uptime so you get maximum profits.

## **Volvo keeps you protected**

Demand Volvo quality for the toughest of jobs. The L40B and L45B feature superior frame stability from a durable center articulating/oscillating joint. Navigate over difficult, uneven terrain with confidence, comfort and ease - with smooth steering, excellent power distribution and high ground contact. Special tires do not influence the steering angle or oscillation angle. For high-quality performance and long life, the oscillating joint features large, sealed hinge bushings and surface-hardened pins. A special shock absorber stabilizes oscillating movements for greater operator comfort. For maximum protection from damage, expensive downtime and repair, hydraulic hoses and electrical cables are routed through the central articulating/oscillating joint to the main control valve. The standard water separator prevents damage in injection pumps and injection nozzles for long life.

## **Your access to greater uptime**

Easy access makes service quick and simple. All important service points, such as the radiator, battery and all filters, are grouped within easy reach and fully protected under the lockable engine hood. Perform quick service checks with an engine oil dipstick and a hydraulic oil sight gauge. Standard, easy-access test ports on all hydraulic components make maintenance fast and easy.

There's excellent side engine access to the double filter element located in the hydraulic tank. The air filter is not only easy to access and maintain, there's also an indicator light in the cab.

## **More quality. Built in**

Look to the Volvo L40B and L45B for a compact wheel loader that stands up to today's jobsite conditions. The rugged, high-strength steel frame design offers secure mounting of components for durability and performance. Each machine is assembled using the latest, high-quality components - designed and built together from the ground up to guarantee the highest quality and reliability. From fabrication to finished product, every Volvo L40B and L45B must meet Volvo's demanding standards.



- Articulated frame for work in tight areas.

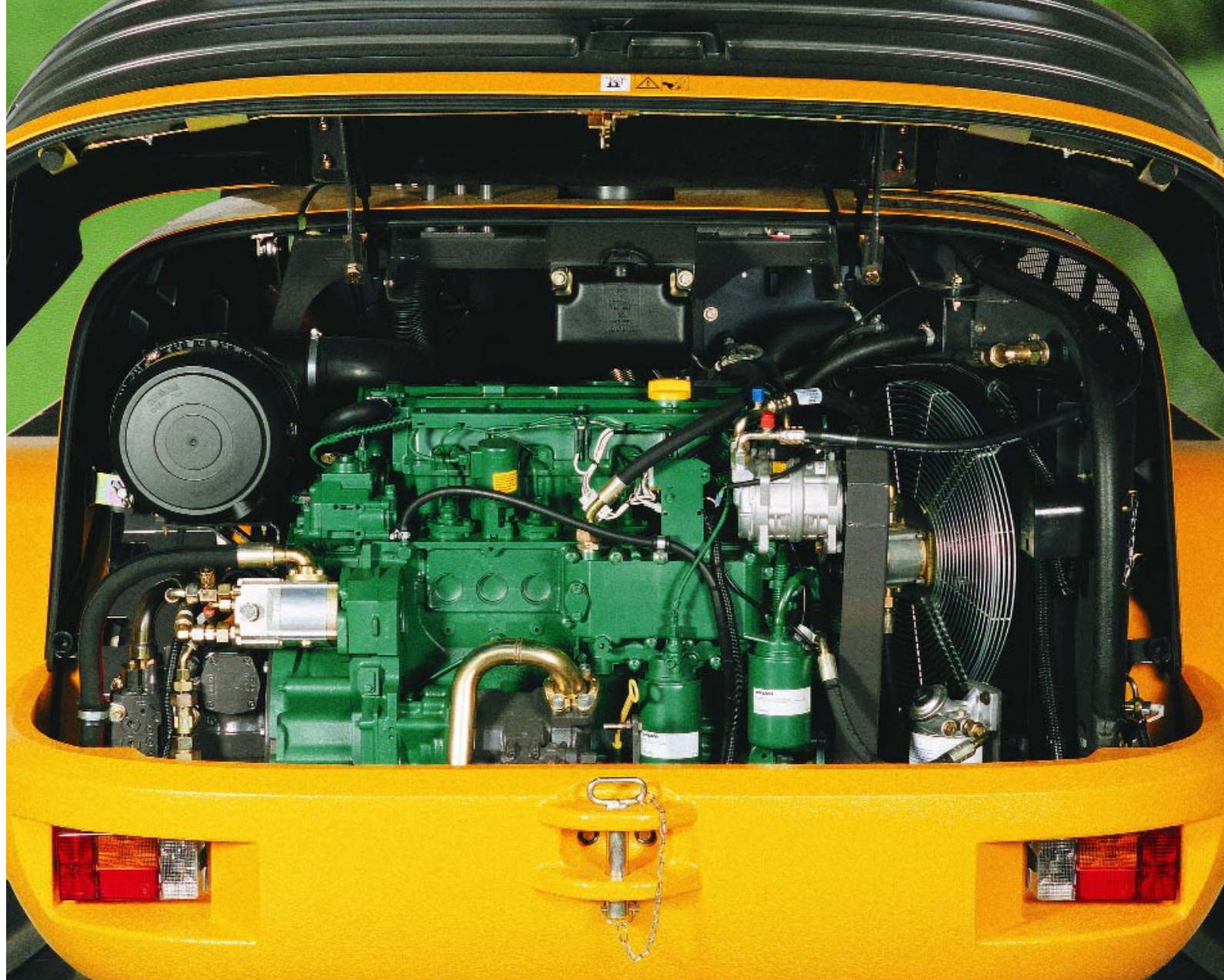


- Non-stop operation.





- Volvo durability.
- Easy service access to the engine compartment.



- Volvo quality and sturdiness.



# GET COMFORTABLE WITH VOLVO SAFETY.

For an operator, your cab is your office. In the Volvo L40B and L45B, you've got the best seat on the jobsite. You're surrounded in comfort: with plenty of room and everything right where you want it. You can also relax, knowing you've got Volvo safety. Now that's the smart way to work.

## Safe operation - for everyone

A safe jobsite starts with the operator. The L40B and L45B provide excellent visibility around the entire machine. Cab windows are large, offering a very large glazed surface area on all four sides. Excellent visibility improves safety for the operator, nearby objects and those working in the vicinity of the machine. The boom design with TP Linkage system and a quickcoupler provide improved visibility down to the attachment for a reduced risk of damage. The central electrical board, components, relays and fuses are located in a protected, safe location that's easy to check and access. The wiring harness is fixed to the chassis, housed in a protected, flexible conduit. This protects wiring against wear caused by vibrations, dust and heat. That means safer electronics, improved reliability and higher residual value.

## Work in comfort

The Volvo comfort cab offers the finest work environment. The operator station has plenty of comfortable features including one of the most spacious cabs in its category. Operators of all heights and sizes will feel at ease for fatigue-free operation and greater productivity. Enjoy efficient climate control with comfortable heating, demisting and defrosting. Air-conditioning and the high-capacity, three-phase heating fan allow year-round productivity. Seven well-placed adjustable fresh air blowers keep you comfortable with fresh, filtered outside air. There's plenty of floor space and storage space. A large, lockable storage compartment offers a safe location for personal items such as a cell phone or other valuables.

## You're safe with Volvo

Entering and exiting the cab is quick, safe and easy from both sides of the machine. You always have three points of contact, climbing the large anti-slip steps and gripping the wide, ergonomic handrails. All cabs are ROPS/FOPS certified for optimum safety against falling objects or in case of accidental roll-over. Quiet cab sound proofing meets cab sound regulations for a comfortable environment and fatigue-free operation. To protect against vandalism, all critical components, such as oil fills, batteries and maintenance points, are located under the lockable engine hood.



- ROPS/TOPS certified cab for safe operation.



- Ergonomic control for multiple functions.



- Optional protection package.





- Easy-view instrument panel.
- Spacious cab offers comfort and visibility.



# SPECIFICATIONS

## Engine

Volvo 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.

	L40B	L45B
Engine	D5DCAE2	D5DCBE2
Gross power @	35 r/s (2100 r/min)	35 r/s (2100 r/min)
SAE J1995	97 hp (71 kW)	102 hp (75 kW)
Net power @	2100 r/min	2100 r/min
SAE J1349 - DIN ISO 1585	94 hp (69 kW)	99 hp (73 kW)
Max. torque @	1400 r/min	1400 r/min
SAE J1349 net - DIN ISO 1585	277 lbf (375 Nm)	332 lbf (450 Nm)
Cubic capacity	1.26 US gal (4.76 l)	1.26 US gal (4.76 l)
Bore	4.25" (108 mm)	4.25" (108 mm)
Stroke	5.12" (130 mm)	5.12" (130 mm)

## Electrical system

	L40B	L45B
Rated voltage	24 V	24 V
Battery voltage	2 x 12 V	2 x 12 V
Battery capacity	2 x 74 Ah	2 x 74 Ah
Alternator rating	1540/55 W/A	1540/55 W/A
Starter motor output	4,0 kW	4,0 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 servo-control.

	L40B	L45B
Oscillation at wheel, max.	12.2" (310 mm)	12.2" (310 mm)
Track	69.3" (1760 mm)	69.3" (1760 mm)
Angle of oscillation	±10°	±10°
Tires: Size	15.5-25	15.5-25
Rim	12 x 25	12 x 25

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.

Speed, max. Standard

1st range forward/reverse	3.7 mph (6 km/h)	3.7 mph (6 km/h)
2nd range forward/reverse	12.4 mph (20 km/h)	12.4 mph (20 km/h)

Speed, max. High Speed

1st range forward/reverse	3.7 mph (6 km/h)	3.7 mph (6 km/h)
2nd range forward/reverse	8.1 mph (13 km/h)	21.7 mph (35 km/h)
3rd range forward/reverse	21.7 mph (35 km/h)	21.7 mph (35 km/h)

## Service fill capacities

	L40B	L45B
Engine	3.7 US gal (14.0 l)	3.7 US gal (14.0 l)
Fuel tank	34.3 US gal (130.0 l)	34.3 US gal (130.0 l)
Front axle, total	2 US gal (7.9 l)	2 US gal (7.9 l)
Rear axle, incl. drop-box	2.6 US gal (9.9 l)	2.6 US gal (9.9 l)
Hydraulic tank, incl.		
hydraulic system	31.7 US gal (120.0 l)	31.7 US gal (120.0 l)

## Braking system

Service brake: reliable, dual braking system, disc brake hydraulically actuated via pump accumulator, acting upon 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 and additional pedal both acting on the oil immersed multi-disc brake.

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.

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: axial piston pump.

Hydraulic pump:

	L40B	L45B
Flow	28 US gal/min (106 l/min)	28 US gal/min (106 l/min)
@ engine rpm	2100 r/min (35 r/s)	2100 r/min (35 r/s)
Relief valve pressure	3336 psi (23 MPa)	3616 psi (25 MPa)

## 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:

	L40B	L45B
Angle of articulation	±40°	±40°

Steering pump:

	L40B	L45B
Flow	11.5 US gal/min (43.5 l/min)	11.5 US gal/min (43.5 l/min)
Engine rpm	2100 r/min (35 r/s)	2100 r/min (35 r/s)
Relief valve pressure	2466 psi (17 MPa)	2466 psi (17 MPa)

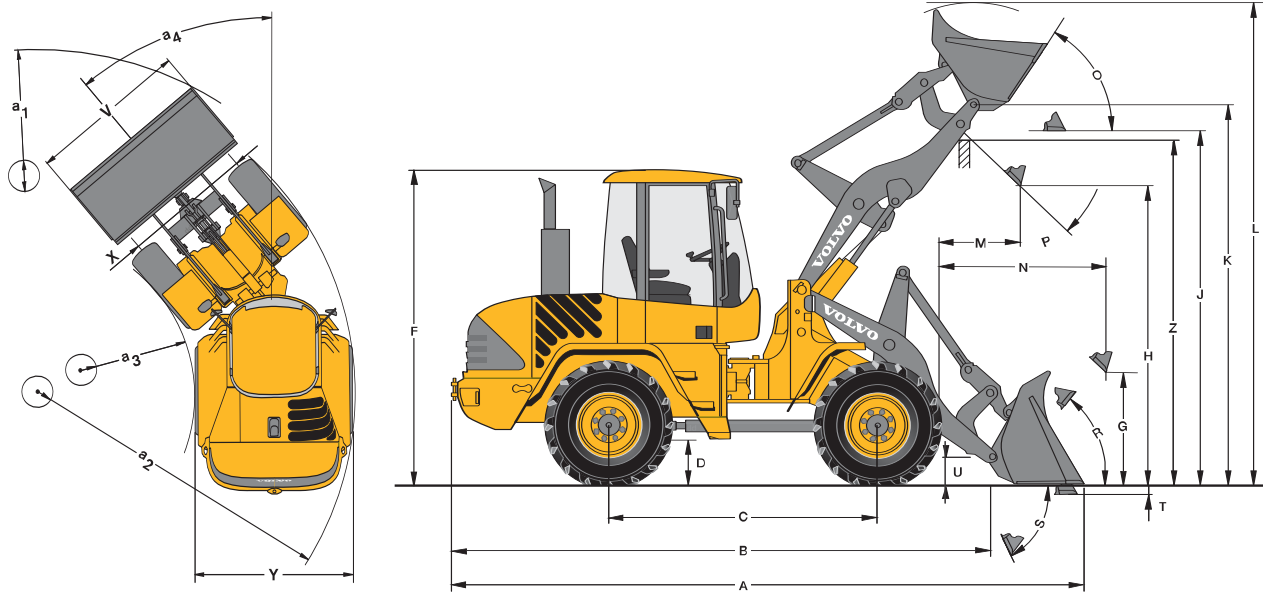
## Linkage

Linkage system: TP / Lift cylinders: 2 / Tilt cylinders: 1.

	L40B	L45B
Lift time (loaded)	6,0 s	6,0 s
Lowering time (empty)	5,0 s	5,0 s
Dump time	1,5 s	1,5 s
Crowd time	1,8 s	1,8 s



# SPECIFICATIONS - L40B



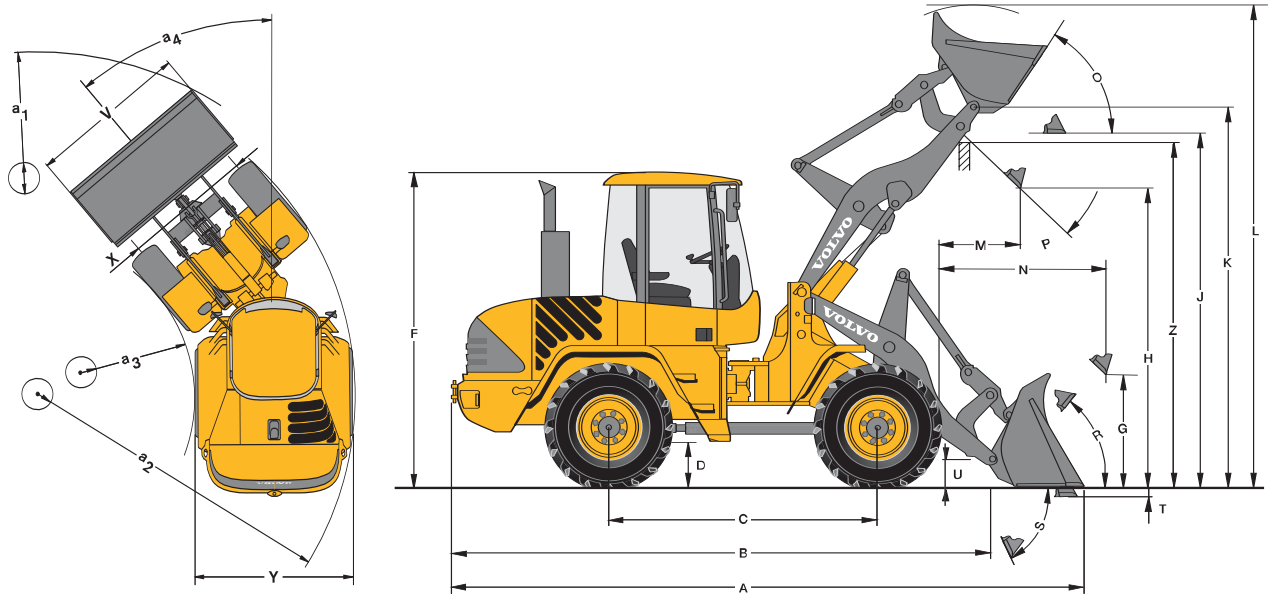
Data according to bucket type		Gen. Purpose		Light material	
L40B with TP Linkage and 15.5-25 tires					
Capacity heaped	yd³ (m³)	1.6 1.2	1.8 1.4	2.1 1.6	
Material density	lb/yd³ (kg/m³)	3203 1900	2697 1600	2360 1400	
Static tipping load, straight (ISO / DIS)	lb (kg)	11574 5250	11464 5200	11354 5150	
Static tipping load, full turn 40° (ISO / DIS)	lb (kg)	10252 4650	10141 4600	10031 4550	
Hydraulic lifting capacity, max.	lbf (kN)	14725 65,5	14500 64,5	14275 63,5	
Breakout force	lbf (kN)	13713 61	12589 56	11578 51,5	
A Total length	ft/ins (mm)	19'2" 5850	19'5" 5930	19'8" 6000	
L Lift height, max.	ft/ins (mm)	14'10" 4520	15'1" 4610	15'4" 4680	
V Bucket width	ft/ins (mm)	7'5" 2250	7'5" 2250	7'5" 2250	
a <sub>1</sub> Clearance circle	ft/ins (mm)	31'4" 9550	31'6" 9590	31'7" 9630	
T Digging depth	ft/ins (mm)	0'6" 160	0'6" 160	0'6" 160	
H Dump height 45°	ft/ins (mm)	9' 2740	8'8" 2680	8'7" 2620	
M Reach at max. height	ft/ins (mm)	2'9" 845	2'11" 890	3'1" 940	
N Reach, max.	ft/ins (mm)	5'3" 1605	6'5" 1650	5'7" 1700	
Operating weight	lb (kg)	17417 7900	17483 7930	17461 7920	

L40B with TP Linkage, quick attachment bracket (hook on) and 15.5-25 tires	
B	16'1" (4900 mm)
C	7'10" (2400 mm)
D	1'4" (415 mm)
F	9'7" (2930 mm)
G	3'4" (1020 mm)
J	10'10" (3300 mm)
K	11'8" (3555 mm)
O	57°
P	45°
R	50°
S	68°
U	0'10" (255 mm)
X	5'9" (1760 mm)
Y	7'1" (2160 mm)
Z	10'10" (3310 mm)
a <sub>2</sub>	14'7" (4440 mm)
a <sub>3</sub>	7'3" (2220 mm)
a <sub>4</sub>	±40°

Data with loading fork		
Center of gravity 1'8" (500 mm)		
Tipping load, full turn (ISO / DIS)	lb (kg)	8267 3750
Payload according to EN 474-3, 60/80%	lb (kg)	4960/6614 2250/3000
Payload 80%, transport position, 40° full turn	lb (kg)	8157 3700



# SPECIFICATIONS - L45B



Data according to bucket type		Gen. Purpose		Light material	
L45B with TP Linkage and 15.5-25 tires					
Capacity heaped	yd³ (m³)	1.8 1.4	2.1 1.6	2.6 2	
Material density	lb/yd³ (kg/m³)	3034 1800	2697 1600	2023 1200	
Static tipping load, straight (ISO / DIS)	lb (kg)	13007 5900	12787 5800	12456 5650	
Static tipping load, full turn 40° (ISO / DIS)	lb (kg)	11574 5250	11354 5150	11023 5000	
Hydraulic lifting capacity, max.	lbf (kN)	16321 72,6	16006 71,2	15624 69,5	
Breakout force	lbf (kN)	13938 62	12882 57,3	10813 48,1	
A Total length	ft/ins (mm)	19'11" 6060	20'1" 6130	20'5" 6320	
L Lift height, max.	ft/ins (mm)	15'5" 4700	15'8" 4770	16'1" 4900	
V Bucket width	ft/ins (mm)	7'5" 2250	7'5" 2250	7'5" 2250	
a <sub>1</sub> Clearance circle	ft/ins (mm)	2'10" 9770	32'3" 9820	32'7" 9940	
T Digging depth	ft/ins (mm)	0'8" 200	0'8" 200	0'8" 190	
H Dump height 45°	ft/ins (mm)	9'1" 2780	8'11" 2720	8'6" 2580	
M Reach at max. height	ft/ins (mm)	2'11" 895	3'1" 935	3'6" 1060	
N Reach, max.	ft/ins (mm)	5'7" 1710	5'9" 1750	6'2" 1875	
Operating weight	lb (kg)	18519 8400	18629 8450	18585 8430	

L45B with TP Linkage, quick attachment bracket (hook on) and 15.5-25 tires	
B	16'6" (5030 mm)
C	8' (2450 mm)
D	1'4" (410 mm)
F	9'7" (2930 mm)
G	3'2" (970 mm)
J	11'2" (3395 mm)
K	12' (3650 mm)
O	57°
P	45°
R	50°
S	68°
U	0'10" (255 mm)
X	5'9" (1760 mm)
Y	7'1" (2160 mm)
Z	12'2" (3400 mm)
a <sub>2</sub>	14'10" (4520 mm)
a <sub>3</sub>	7'5" (2270 mm)
a <sub>4</sub>	±40°

Data with loading fork	
Center of gravity 1'8" (500 mm)	
Tipping load, full turn (ISO / DIS)	lb (kg)
9645 4375	
Payload according to EN 474-3, 60/80%	lb (kg)
5787/7716 2625/3500	
Payload 80%, transport position, 40° full turn	lb (kg)
8818 4000	



## 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 right)  
Parking lights  
Rear lights  
Brake lights  
Direction indicators  
Hazard warning lights  
Reversing lights  
Cab lighting

### Instrumentation & controls

Multi-function lever (joystick)  
24 Volt accessories socket  
Horn  
Hazard warning switch  
Safety start

### Electronic Information System

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  
Ride control (BSS) (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  
Return filter

Touch pad with symbols and integrated LEDS for:

Parking lights  
Working lights (front/rear)  
Windshield wiper (rear)  
Rotating beacon (option)  
Ride control (BSS) on/off (option)  
Locking and activation of quick attach  
Activation of multi-function lever for directional change  
Digital LED display activated by dual function keys for:  
Entry and retrieval of operating information  
Anti-theft function control

### Drivetrain

Hydrostatic drive  
Operator-selected 100% differential locks  
Tyres 15.5-25

### Hydraulic System

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

### 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 rearview 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

### Working Equipment

Automatic bucket level indicator  
Hydraulic quick-attach

### Carriage Body

Fenders and mudguards, (front/rear)  
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 regulation: 2000/14/EC

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## OPTIONAL EQUIPMENT

### Engine Equipment

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

### Hydraulics

Hydraulic couplings for  
4th hydraulic circuit

### Cab

Handthrottle  
Hand control inch valve  
Air-conditioner  
Radio  
Air suspension operator's seat

### Working Equipment

Boom arm suspension system

### Environment

Biodegradable hydraulic oil  
Low-noise kit

### Safety

Anti-theft system  
Protective guards for:  
Main head lights  
Working lights  
Rear lights  
Rotating beacon  
Full waste guarding





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.**



*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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