

V O L V O



Volvo Compact Wheel Loaders 6.1 t/ 13,448 lb 74 hp

L35

Volvo Construction Equipment

L35

Count on the proven L35 to deliver superb performance, outstanding reliability, excellent flexibility and short, efficient work cycles.



Flexibility. Speed. Ease of operation.

The L35 was first launched in 1998 and over the best part of two decades has firmly established itself as a proven favourite for customers throughout the world, with a reputation for class-leading ground clearance, powerful performance and the best cab in the industry. The L35 boasts excellent flexibility, attachment versatility and compact dimensions, and this latest generation builds on this proud legacy with a host of upgrades to present a Compact Wheel Loader ready to succeed when it comes to working in tight spaces and on uneven terrain. All combined with superb uptime and the visibility, comfort and control operators need to achieve optimum results.



Built to perform

- Best ground clearance in its class
- Compact dimensions for tight spaces
- Maximum traction with articulated and oscillating joint which secures tires-to-ground contact
- Differential locks can be engaged to ensure that 100% power is distributed to every wheel, reducing tire slippage and wear
- Powerful linkage
- Superior rollback/dump
- Tractive, breakout and lifting forces more commonly found on larger loaders



Responsive controls

- Electro-hydraulic main control valve with flow share function
- Two independent hydraulic pumps
- Smooth, simultaneous boom, steering and attachment movements
- Proportional third/fourth functions for quick attachment connection



Uptime that lasts

- Long service intervals
- Easy in-cab machine monitoring
- Easy service access; easy to service
- Strong, stable machine; robust frame and components
- Prepared for additional hydraulic and electrical options



Industry leading operator environment

- Best-in-class visibility
- Comfortable, modern working environment
- Easy to access, low-noise cab
- 5" screen display
- Intuitive controls

Industry-leading operator environment

- The L35 is designed for operator comfort, starting with its easy cab access, ergonomic arrangement of controls and unrivalled view over the jobsite
- Functions are easily set from the 5" display, including individual flow settings for 3rd and 4th functions, the automatic lift and tilt with boundary limits, and the lift and tilt speed limiter, which are unique options in this size class.

Work in comfort

- The safe, comfortable and ergonomic L35 cab combines large doors for easy access, low in-cab noise, excellent all-around visibility and intuitive controls together in a comfortable, modern environment
- Complete with a host of modern conveniences including comprehensive storage options and cupholder
- With key functions set from the in-cab display, operators can work with greater confidence, precision and less fatigue throughout the day

Best in class visibility

- Due to the portal axle, the L35 cab and operator seat is positioned higher than competitor machines
- Thanks to this elevated driving position, all-round visibility is significantly improved, and forward visibility is far superior
- When truck loading, visibility is less obstructed by the boom, making it much easier to see where the load is being placed



Designed for uptime

- Long service intervals, easy in-cab machine monitoring, improved serviceability and connected services
- The L35 is built to help minimize maintenance requirements and maximize uptime
- Key machine conditions, including coolant and hydraulic temperatures, engine speed and fan speed, can be checked directly from the in-cab display
- Telematics-based solutions help reduce the risk of unplanned downtime

Highest ground clearance in its class

- Best ground clearance in its class, coming from Volvo's unique portal axles design
- The L35 is especially suited to uneven ground conditions



Volvo L35 in detail

Engine

Volvo 4-cylinder, common rail, diesel engine compliant to Tier4f environmental regulations.

Air cleaning:

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

Exhaust after treatment system:

Cooled Exhaust Gas Recirculation (EGR), diesel oxidation catalyst (DOC) and diesel particulate filter (DPF).

Engine	Brand	D3.3H
Max power at	rpm (rps)	2 720 (45.3)
SAE J1995 gross	kW (hp)	54.6 (73.2)
	hp (net)	74.2
Max. torque at	rpm (rps)	1,500 (25)
SAE J1995 gross	Nm (ft lbf)	265 (195)
Economic working range	rpm (rps)	1 300 - 2 100 (21.7 - 35)
Displacement	l (in³)	3.3 (201)
Bore	mm (in)	94 (3.7)
Stroke	mm (in)	120 (4.72)

Electrical System

Contronic electrical system with central warning information and buzzer, providing clear and an easy-to-read information on the 5" TFT display mounted on the A-pillar. The jog wheel allows easy and self-explaining navigation on the display with main, sub information field, multiple settings, and customized adjustments. Indicators and activation lights are available for various control and monitoring functions. An audible warning alarm will sound, and a central warning symbol will flash if abnormal operating values or error messages arise. Gauges are available for coolant temperature and fuel level. A fuse test port is available in the fuse box, allowing operators to perform initial investigations, reducing diagnostic time.

Voltage	V	12
Battery capacity	Ah	100
Alternator rating	W/A	1 260 / 90
Starter motor output	kW	3

Linkage

Z-bar linkage providing high breakout force to the bucket and also parallel movement to the fork frame thanks to Volvo's specific kinematics. Torque parallel (TP) linkage also available as an option to provide greater breakout force throughout the entire tilt angle.

Linkage system	Z-bar / TP-linkage	
Lift cylinders		2
Tilt cylinders		1
Lift time (loaded)	s	5.5
Lowering time (empty)	s	3.5
Dump time	s	1.2

Brake System

Service brake: an Inching-brake pedal provides hydrostatic wear less braking in the first stage for precise approach; if applied further the central disc brake on the front axle takes over for final braking acting upon all four wheels and machine immobilization.

Parking brake: Mechanically activated central drum brake, located on the rear axle dropbox acting upon all four wheels.

Hydraulic System

Working hydraulic system with electro-hydraulic operated control valve.

System supply: A gear pump provides flow to the working hydraulic.

System control: Double-acting 3-spools electro- hydraulic main control valve.

The lift function has four positions: lift, hold (neutral), lower and float position.

The tilt function has three positions: rollback, hold (neutral) and dump.

The third hydraulic function has three positions: unlock attachment, neutral and lock attachment. It can power a hydraulic attachment such as sweeper, 4-in-1 bucket. Individually flow adjustments are made via jog wheel.

An optional independent fourth hydraulic function is available to power hydraulic implements (adjustable snow plow, angle sweeper etc...). Individually flow adjustments are made via jog wheel.

Filtration: Full-flow filtration through 10 micron (absolute) filter cartridge in a combined suction-return-filter.

Cooling: Thermostatically controlled oil flow to oil cooler (fast warm-up, optimized cooling). Electronically temperature controlled hydraulic driven cooling fan with fan speed monitoring.

Flow	l/min (gal/min)	69 (18.2)
Working pressure max	MPa (bar)	24 (240)
at engine speed	rpm (rps)	2,720 (45.3)
Pilot working pressure	MPa (psi)	2.2 (319)

Drivetrain

The hydrostatic transmission allows for speed range change without any tractive power interruption.

Maximum tractive power is available in all speed ranges, regardless of the driving direction.

Single "Inch/brake pedal" for variable machine speed control and easy power transfer to the wheels at constant engine rpm.

Transmissions forward, neutral, reverse and differential locks buttons are all easy to reach on the multifunctional right joystick. This allows excellent ergonomics and greater efficiency in all applications thanks to the single-handed operation of the machine.

Two rigid portal axles provides long durability and best in class ground clearance. The central articulating-oscillating joint and all wheel drive allows excellent mobility in all ground conditions.

The 100% differential lock on both axles enable low tire wear on hard ground while maximizing traction force in soft terrain.

Angle of oscillation	±°	10
Oscillation at wheel, max.	mm (in)	260 (10.2)
Track	mm (in)	1,532 (60.3)

Travel speed, forward/reverse

1st gear	km/h (mph)	6 / 8 (3.7 / 4.97)
2nd gear	km/h (mph)	20 / 30 (12.4 / 18.6)

High-speed version

1st gear	km/h (mph)	8 (4.97)
2nd gear	km/h (mph)	30 (18.6)

Steering System

Central articulating-oscillating joint with elastic end-stops.

Hydrostatic steering powered via a gear pump allowing precise operation even at low engine revolutions. Steering the machine does not influence the working hydraulic speed e. g. when lifting loads.

Steering pressure is monitored by a dedicated sensor.

Steering cylinders		1
Working pressure	MPa (psi)	18.5 (2,683)
Maximum flow	l/min (gal/min)	33 (8.72)
Max articulation	±°	40

Service Refill

Ground level access, fuel filler and hydraulic oil filler well protected under the rear engine hood.

Fuel tank	l (gal.)	84 (22.2)
Engine oil	l (gal.)	11.2 (2.96)
Engine coolant	l (gal.)	11 (2.9)
Hydraulic tank	l (gal.)	54 (14.3)
Front axle oil	l (gal.)	12.2 (3.22)
Rear axle oil	l (gal.)	13.5 (3.57)

Cab

The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449, Level 2) and ISO 6683 regarding Operator Restraint System. The operator's seat features an adjustable suspension with multiple setting options and a retractable orange seatbelt.

Instrumentation: All important information is shown in the 5" TFT display located in the operator's field of vision mounted on the right A-pillar. The jog wheel allows quick access to all main machine function, individually setting option and readout of machine data.

Heater and defroster: Engine coolant heated with filtered fresh air and fan with individually manual speed settings. Defroster vents for all window areas.

Fresh air is filtered through a large elements prior entering, ensuring extremely clean air distribution in the cab.

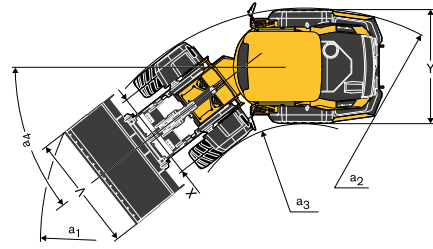
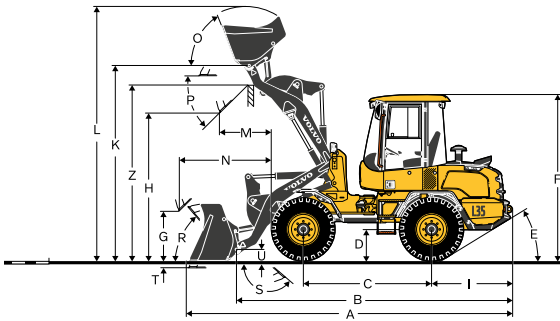
Sound Level

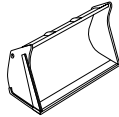
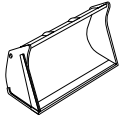
Sound pressure level at operator's position according to ISO 6396		
L _{pA}	dB	75
External sound power level according to ISO 6395 and EU Noise Directive 2000/14/EC		
L _{WA}	dB	101

Wheels and Tires

Size	405 / 70 R20
------	--------------

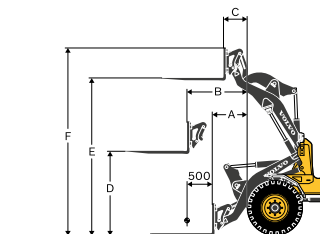
Specifications



Description	Unit		L35 Z-BAR							
L35 Z-BAR with 405/70 R20 tires, Z attachment bracket			GENERAL PURPOSE		Light material bucket		4-in-1			
										
Option number			CL11391117		CL11391112		CL11391232			
Capacity heaped	m ³	yd ³	1.2	1.6	1.5	2	1	1.3		
Material density	kg/m ³	lb/yd ³	1,800	3,034	1,300	2,191	1,900	3,203		
Static tipping load, straight (calculated values acc. to ISO 14397-1)	kg	lb	4,900	10,803	4,600	10,141	4,450	9,811		
Static tipping load, full turn 40° (calculated values acc. to ISO 14397-1)	kg	lb	4,320	9,590	3,900	8,929	3,800	8,708		
Hydraulic lifting capacity, max.	kN	lbf	62	13,938	58	13,039	59	13,264		
Breakout force	kN	lbf	61	13,713	43	9,667	53	11,915		
A Total length	mm	ft in	5,420	17'9"	5,690	18'8"	5,685	18'8"		
G Dump height at max. reach	mm	ft in	935	3'1"	755	2'6"	870	2'10"		
L Lift height, max.	mm	ft in	4,325	14'2"	4,510	14'10"	4,295	14'1"		
V Bucket width	mm	ft in	2,100	6'11"	2,000	6'7"	2,000	6'7"		
a ₁ Clearance circle	mm	ft in	8,990	29'6"	9,060	29'9"	9,060	29'9"		
T Digging depth	mm	ft in	90	0'4"	90	0'4"	90	0'4"		
H Dump height	mm	ft in	2,670	8'9"	2,490	8'2"	2,495	8'2"		
M Reach at max. height	mm	ft in	745	2'5"	945	3'1"	820	2'8"		
N Reach, max.	mm	ft in	1,565	5'2"	1,740	5'9"	1,595	5'3"		
Operating weight	kg	lb	6,075	13,393	6,125	13,503	6,300	13,999		

Description	Unit	L35 Z-BAR with 405/70 R20 tires	
B	mm ft in	4,655	15'2"
C	mm ft in	2,150	7'1"
D	mm ft in	500	1'8"
E	°	31	
F (incl. antenna)	mm ft in	2,820	9'3"
I	mm ft in	1,355	4'5"
K	mm ft in	3,350	11'0"
O	°	66	
P	°	45	
R	°	42	
X	mm ft in	1,532	5'0"
Y	mm ft in	1,939	6'4"
Z	mm ft in	3,050	10'0"
a ₂	mm ft in	4,050	13'3"
a ₃	mm ft in	2,055	6'9"
a ₄	°	±40	

L35 Z-kinematic, Z-attachment bracket and 405/70 R20 tyres						
Description	Unit		L35 Z-Kinematic			
With Loading Fork Centre of gravity 500 mm / 20 in			ISO 2B Fork frame 1,345 mm (4'5") width (2812454) Tine length 1,000 mm (3'3") (2890382)		ISO 3B Fork frame 1,450 mm (4'9") width (11390572) Tine length 1,000 mm (3'3") (2891236)	
Static tipping load, full turn (calculated values acc. to ISO 14397-1)	kg	lb	3,250	7,165	3,250	7,165
Payload according to EN 474-3, 60/80%	kg	lb	1,950 / 2,500	3,965 / 5,290	1,950 / 2,600	4,299 / 5,732
A	mm	ft in	825	2'8"	825	2'8"
B	mm	ft in	1,290	4'3"	1,290	4'3"
C	mm	ft in	470	1'7"	470	1'7"
D	mm	ft in	1,415	4'8"	1,415	4'8"
E	mm	ft in	3,155	10'4"	3,155	10'4"
F	mm	ft in	3,730	12'3"	3,890	12'9"



Equipment

STANDARD EQUIPMENT

Engine

Diesel engine, liquid cooled
 Engine with diesel oxidation catalyst (DOC) and diesel particulate filter (DPF)
 Extra fuel filter
 Cold start aid
 Dry-type air filter with secondary filter

Drivetrain

Hydrostatic drive
 Driveline shut off via parking brake
 Operator-selected 100% differential locks for both axles
 Tires 405/70 R20

Electrical system

Alternator 90 A, 1.26 kW
 Main head lights (halogen)
 full/dipped/asymmetrical
 Working lights, halogen mounted on cab roof (2 front/ 2 rear)
 Parking lights, front halogen/ rear LED
 Rear lights, LED
 Brake lights, LED
 Direction indicators, front halogen/ rear LED
 Hazard warning lights
 Reversing lights, LED
 Cab lighting, LED

Hydraulic System

Dedicated working hydraulic gear-type pump
 Electro-hydraulic controlled main valve three-spool system with flow share function
 Proportional 3rd hydraulic circuit with flow control including hydraulic couplings

STANDARD EQUIPMENT

Instrumentation & controls

Multi-function single lever electro-hydraulic control with integrated 3rd function
 Cruise control
 Engine speed locking
 12 Volt accessories socket
 Horn

Hazard warning switch

Digital 5" display for:

Fuel level
 Engine temperature
 Engine speed
 Vehicle speed

Colour-coded symbols for:

Direction (forward/reverse)
 1st/2nd gear
 Indicators (left/right)
 Pre-heater
 Main beam
 Differential locks
 Activated machine functions

Symbols (red) in 5" display with acoustic signal for:

Parking brake
 Air filter restriction
 Engine temperature
 Engine oil pressure
 Battery charging
 Return hydraulic filter
 Hydraulic oil temperature
 Steering pressure monitoring

Jog wheel for navigation within machine menus for:

Work modes with flow settings, Anti-theft function control, operator assist functions, machine data

including illuminated key pad for:

Cruise control
 Cab heater (not in use)
 Working lights (front/rear)
 ESC button for navigation within machine menus
 Menu button for direct access

STANDARD EQUIPMENT
Cab, Exterior
ROPS/FOPS-cab with flexible mountings
Walk-through cab
Lockable doors
All-round tinted safety glass
Windscreen wiper (front/ rear)
Windscreen washer (front/ rear)
Sliding window in the left door
Door stops/locks
Orange handrails
External rear view mirrors (right/ left)
Cab, interior
4-way adjustable operator's seat
Mounting brackets for additional equipment on A- and B-pillar right hand side
Adjustable steering column
Seat belt 3", orange
Sunvisor
Heater with air-filter and defroster (front/ rear)
Cab ventilation with multiple vents
Lockable storage box in the cab

STANDARD EQUIPMENT
Loading equipment
Bucket & fork level indicator
Hydraulic quick-change attachment carrier
Carriage Body
Lockable engine hood
Towing device
Lifting & fastening eyes
Service and Maintenance
Tool kit
Official approval
Quality: DIN/ISO 9001
Environment: DIN/ISO 14001
Safety: CE compliant acc. Machine Directive 2006/42/EC and EN474-series
Electromagnetic compatibility (EMC) conforming to European directive 2014/30/EC
Noise emissions: Directive 2000/14/EC
Tipping load / payload: ISO 14397-1
ROPS conforming to ISO 3471
FOPS conforming to ISO 3449 (Level 2)

Equipment

OPTIONAL EQUIPMENT
Engine
Engine block heater*
Fuel pre-heater
Pre cleaner air filter (Turbo II)
Auto Engine Shutdown*
Reversible cooling fan*
Tropical cooling
Engine start only with buckle on*
Engine overspeeding protection & Regeneration support
Drivetrain
Hand inch valve
Driveline activated only with buckle on*
Distance plates for axles, 28 mm
Hydraulic System
4th independent hydraulic circuit with flow control*
Hyd oil mineral VG46 HV
Hyd oil mineral VG32 HV
Hyd oil mineral VG68 HV
Hyd oil bio synthetic VG46
Boom suspension system*
Safety valves lift and tilt cylinders, electrically controlled
Combination boom suspension system & safety valves
Auxiliary hydraulic's return line (direct to tank or via filter)
Additional pump 42 l/min (11.1 gpm), single acting, total max. flow 110 l/min (29.06 gpm)
Rear hydraulics, double acting, T-split

OPTIONAL EQUIPMENT
Cab
Canopy
Air conditioning system
Rear view camera incl. rear view mirror inside cab*
Radio DAB preparation
Radio DAB, FM/AM, AUX/USB/Bluetooth
Air suspended/heated operator's seat
Cab pre-filter EU2 & EU6
Rearview mirrors inside cab
Enhanced rearview mirrors outside cab
Heated rearview mirrors*
Auxiliary cab heater
Door with sliding window, right hand side
Windshield laminated
Emergency hammer
Operator assist function
Loading unit assist function*
Lift & tilt speed limiter*
Wheel/Tires
405/70R18
335/80R20
340/80R20
360/80R20
365/80R20
400/70R20
405/70R20
455/70R20
500/45-22.5
420/65R24

OPTIONAL EQUIPMENT
Electrical
Preparation for magnetic rotating beacon
Magnetic rotating beacon LED
Foldable rotating beacon LED
Reverse alarm audible "STD", 107 dB(A), switchable or non-switchable
Reverse alarm audible "White noise", 92 dB(A), switchable or non-switchable
Reverse alarm visual
Anti-theft system*
Simplified HMI*
Daytime running headlight
Full LED light package
LED headlights
LED working lights
Elevated headlights
Socket 7 pin rear, (sweeper preparation)*
Socket attachment control 8 pin*
Socket 7 pin rear*
Socket 13 pin rear*
Power outlet 12 V / 20 A (below engine hood)
Protective equipment
Windshield guard, front
Windshield guard, rear
Belly guards, front/rear
Engine hood protection
Front mudflaps
Protective guards for:
Main head lights
Working lights
Rear lights

OPTIONAL EQUIPMENT
Other
SMV warning triangle
Preparation for licence plate front/ rear, 520x110 mm (20.5x4.33 in), LED
Preparation for multiline licence plate rear, 340x245 mm (13.4x9.65 in), LED
Shunting hitch
Trailer hitch 50 mm (1.97 in) ball joint*
Trailer hitch 40 mm (1.57 in) bolt joint fixed mounted*
Trailer hitch 40 mm (1.57 in) bolt joint height adjustable*
Central Lubrication unit
Wheel chock
Lockable steel toolbox right hand side
Safety brace for boom
Attachments
General Purpose bucket with/ without lifting hook
Multi-Purpose bucket with/ without lifting hook
Grading bucket
Light Material bucket
High-Tip bucket
Side-Tip bucket
Clamp bucket
Stone Sorting bucket
Material Handling Arm
Forks frame (1,345 mm (4'5"), 1,450 mm (4'9"), 1,720 mm (5'8") width) with tines, tine lenght from 1,000 mm (3'3") up to 1,600 mm (5'3")
Forks with hydraulic tines positioning, with 50 mm (1.97 in) cranked tines
Forks with hydraulic tines positioning & side shift, with 50 mm (1.97 in) cranked tines
Hay / manure fork
Custom-Built Attachments

*Aftermarket option (AMO) including installation instructiion available

V O L V O