

V O L V O



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

L35

Volvo Construction Equipment



L35

Tackle a variety of jobs with speed and ease thanks to the powerful and comfortable L35, compact in size for efficient loading cycles in confined areas.



A compact loader with big potential

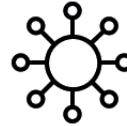
The versatile L35 operates reliably in tight spaces and uneven terrains. This compact wheel loader boasts fast simultaneous linkage movements and steering, as well as exceptional tractive, breakout and lifting forces, commonly found on larger machines. And the operator experience is second to none, with easy cab access, best-in-class visibility, intuitive controls and exclusive options. It all adds up to productive and more efficient loading cycles.

Fast and maneuverable



- Unique portal axles design: industry-leading ground clearance
- Unique electro-hydraulic flow sharing main control valve: fast simultaneous lifting/tilting and hydraulic attachment movements
- Independent hydraulic pumps: simultaneous lifting and steering
- Articulated & oscillating joint, 100% differential locks on both axles: outstanding traction

Versatile



- Compact design: easy operation in confined areas
- High lifting/breakout forces, superior roll-back/dump angles
- 100% parallel movements with forks
- Attachment brackets, with proportional 3rd hydraulic function as standard
- Range of regular & hydraulic attachments

Comfortable



- Easy cab access
- Best in class all-round visibility
- Adjustable suspension seat and right armrest
- Adjustable steering column
- Inch/brake pedal combination

Intuitive control



- Multi-function joystick with integrated 3rd function as standard, optional 4th function
- 5" display navigated via jog wheel
- Exclusive options: automatic lift & tilt with boundary limits, lift & tilt speed limiter...
- Multiple customizable settings

Designed for uptime



- Monitoring of machine conditions
- Long service intervals
- Ground-level access to service points
- Telematics-based services and solutions

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	Volvo	D3.3H
Max power at	r/min (r/s)	2,720 (43.3)
SAE J1995 gross	kW (hp)	55.4 (74)
Max. torque at	r/min (r/s)	1,500 (25)
SAE J1995 gross	Nm (ft lbf)	265 (195)
Economic working range	r/min (r/s)	1,300 - 2,100 (21.7 - 35)
Displacement	l (in ³)	3.3 (203)
Bore	mm (in)	94 (3.86)
Stroke	mm (in)	120 (7,323)

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

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 (10.6)
Track	mm (in)	1,532 (60.3)

Travel speed, forward/reverse

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

Low-speed version

1st gear	km/h (mi/h)	6 (3.7)
2nd gear	km/h (mi/h)	20 (12.4)

High-speed version

1st gear	km/h (mi/h)	8 (5)
2nd gear	km/h (mi/h)	30 (18.6)

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 (3)
Engine coolant	l (gal)	11 (2.9)
Hydraulic tank	l (gal)	54 (14.3)
Front axle oil	l (gal)	12.2 (3.2)
Rear axle oil	l (gal)	13.5 (3.6)



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 a 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.

Working pressure max	MPa (bar)	24 (240)
Flow	l/min (gal/min)	69 (18.2)

at engine speed	r/min (r/s)	2,720 (43.3)
Pilot working pressure	MPa (psi)	2.2 (319)

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 breakoutforce 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

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 (2,756)
Maximum flow	l/min (gal/min)	33 (8.85)
Max articulation	± °	40

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.

Wheels and tires

Size	405 / 70 R20
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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.

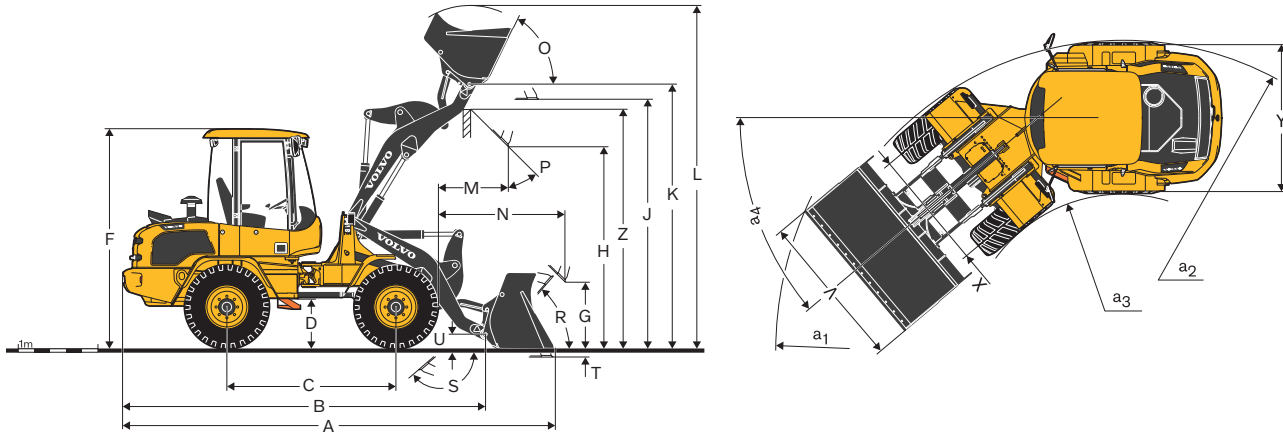
Heater and defroster: Engine coolant heated with filtered fresh air and fan with individually manual speed settings. Defroster vents for all window areas.

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

Specifications



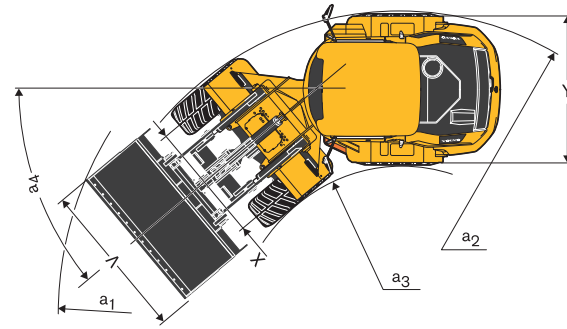
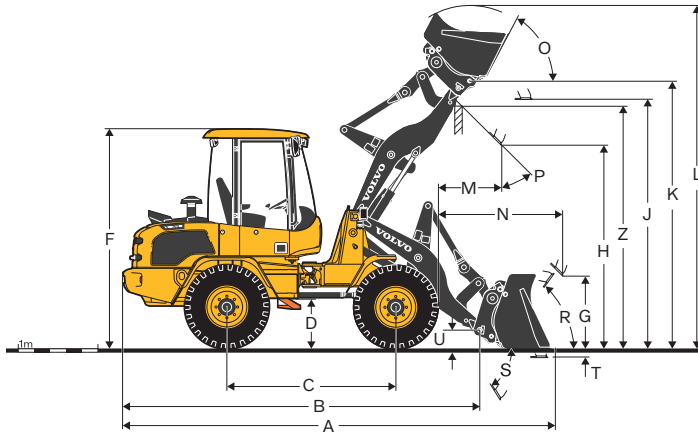
Description	Unit		L35H Z-BAR	
			with 405/70 R20 tires	
B	mm	ft in	4,625	15'2"
C	mm	ft in	2,150	7'1"
D	mm	ft in	500	1'8"
F (incl. antenna)	mm	ft in	2,820	9'3"
G	mm	ft in	935	3'1"
J	mm	ft in	3,150	10'4"
K	mm	ft in	3,350	11'0"
O			66	
P			45	
R			42	
S			136	
U	mm	ft in	200	0'8"
X	mm	ft in	1,532	5'0"
Y	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	

Description	Unit		L35H Z-BAR				
			ISO 2B		ISO 3B		
With Loading Fork Centre of gravity 500 mm / 20 in							
	Payload according to EN 474-3, 60/80%						kg

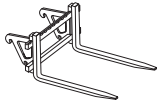
Description	Unit		L35H Z-BAR					
			GENERAL PURPOSE		Light material bucket		4-in-1	
L35H Z-BAR with 405/70 R20 tires, Z attachment bracket								
	Option number		CL11391117		CL11391112		CL11391232	
Capacity heaped	m ³	yd ³	1.2	1.6	1.5	2	1	1.3
Material density	kg/m ³	lb/yd ³	1,800	3,034	1,300	2,191	1,900	3,203
Static tipping load, straight (ISO / DIS)	kg	lb	4,900	10,803	4,600	10,141	4,450	9,811
Static tipping load, full turn 40° (ISO / DIS)	kg	lb	4,350	9,590	4,050	8,929	3,950	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"
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	6,150	13,558	6,200	13,669	6,350	13,999

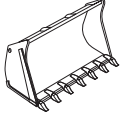
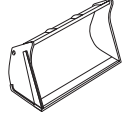



Specifications



Description	Unit		L35H TPV	
			L35H with 405/70 R20 tires	
B	mm	ft in	4,570	15'0"
C	mm	ft in	2,150	7'1"
D	mm	ft in	500	1'8"
F (incl. antenna)	mm	ft in	2,820	9'3"
G	mm	ft in	890	2'11"
J	mm	ft in	3,135	10'3"
K	mm	ft in	3,380	11'1"
O			63	
P			45	
R			45	
S			58	
U	mm	ft in	250	0'10"
X	mm	ft in	1,532	5'0"
Y	mm	ft in	1,939	6'4"
Z	mm	ft in	3,135	10'3"
a ₂	mm	ft in	4,050	13'3"
a ₃	mm	ft in	2,055	6'9"
a ₄			±40	

Description	Unit		L35H TPV	
With Loading Fork Centre of gravity 500 mm / 20 in				
	Payload according to EN 474-3, 60/80%	kg		

Description	Unit		L35H TPV					
			GENERAL PURPOSE		Light material bucket		4-in-1	
L35H with 405/70 R20 tires, TPV-attachment bracket								
	Option number		CL11391073		CL11391074		CL11391235	
	Capacity heaped	m ³	yd ³	1.0	1.3	1.2	1.6	0.9
Material density	kg/m ³	lb/yd ³	1,800	3,034	1,400	2,360	1,800	3,034
Static tipping load, straight (ISO / DIS)	kg	lb	4,200	9,259	4,100	9,039	3,950	8,708
Static tipping load, full turn 40° (ISO / DIS)	kg	lb	3,750	8,267	3,650	8,047	3,500	7,716
Hydraulic lifting capacity, max.	kN	lbf	64	14,388	63	14,163	60	13,489
Breakout force	kN	lbf	52.5	11,803	48	10,791	50.5	11,353
A Total length	mm	ft in	5,490	18'0"	5,590	18'4"	5,695	18'8"
L Lift height, max.	mm	ft in	4,385	14'5"	4,430	14'6"	4,350	14'3"
V Bucket width	mm	ft in	2,000	6'7"	2,000	6'7"	2,000	6'7"
a ₁ Clearance circle	mm	ft in	8,925	29'3"	8,985	29'6"	9,050	29'8"
T Digging depth	mm	ft in	55	0'2"	55	0'2"	55	0'2"
H Dump height	mm	ft in	2,590	8'6"	2,520	8'3"	2,455	8'1"
M Reach at max. height	mm	ft in	805	2'8"	885	2'11"	830	2'9"
N Reach, max.	mm	ft in	1,615	5'4"	1,680	5'6"	1,590	5'3"
Operating weight	kg	lb	6,450	14,220	6,475	14,275	6,650	14,661



Equipment

STANDARD EQUIPMENT

Engine

Diesel engine, water 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
 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 (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 couplings

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, orange
 Sunvisor
 Heater with air-filter and defroster (front/rear)
 Cab ventilation
 Lockable storage box in the cab

Working Equipment

Bucket & fork level indicator
 Hydraulic quick-change attachment carrier

Carriage Body

Steel fenders front/rear
 Lockable engine hood
 Towing device
 Lifting & fastening eyes

Service and maintenance

Tool kit
 Lockable steel toolbox right hand side

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)



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

Drivetrain

Hand inch valve
 Driveline shutoff via parking brake
 Driveline activated only with buckle on
 Engine overspeeding protection

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
 Rear hydraulics, double acting

Cab

Airconditioner
 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
 Emergency hammer

Operator assist function

Loading unit assist function
 Advanced tilt & lift limiter
 Advanced tilt & lift speed limiter

Wheel/Tires

405/70R18
 335/80R20
 340/80R20
 360/80R20
 365/80R20
 375/75R20
 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
 Audible reverse alarm (STD or „White noise“)
 Anti-theft system
 Daytime running headlight
 LED headlights
 LED working lights
 Socket 7 pin front (sweeper preparation)
 Socket 8 pin attachment control
 Socket 7 pin socket rear
 Power outlet 12V 20A

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

Other

SMV warning triangle
 Preparation for licence plate, 520x110 mm (1'8"x0'4")
 Preparation for multiline licence plate, 340x245 mm (1'1"x0'10")
 Trailer hitch bolt & ball joint with socket 13 pin
 Central Lubrication unit
 Wheel chock
 Sweeper preparation
 Salt sprayer preparation
 Safety brace

Attachments

General Purpose bucket
 Multi-Purpose bucket
 Grading bucket
 Light Material bucket
 High-Tip bucket
 Side-Tip bucket
 Clamp bucket
 Stone Sorting bucket
 Material Handling Arm
 Forks with tines, tine length 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
 Log Grapple
 Custom-Built Attachments

Not all products are 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.





V O L V O

