

V O L V O



Volvo Compact Wheel Loaders 6.1 t 75 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 L35H in detail

Engine

Volvo 4-cylinder, common rail, diesel engine compliant to EU Stage V 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	2 720
SAE J1995 gross	kW	55.4
	hp	75
Max. torque at	r/min	1 500
SAE J1995 gross	Nm	265
Economic working range	r/min	1 300 - 2 100
Displacement	l	3.3
Bore	mm	94
Stroke	mm	120

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	260
Track	mm	1 532

Travel speed, forward/reverse

1st gear	km/h	6 / 8
2nd gear	km/h	20 / 30

Low-speed version

1st gear	km/h	6
2nd gear	km/h	20

High-speed version

1st gear	km/h	8
2nd gear	km/h	30

Service Refill

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

Fuel tank	l	84
Engine oil	l	11.2
Engine coolant	l	11
Hydraulic tank	l	54
Front axle oil	l	12.2
Rear axle oil	l	13.5

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.

Working pressure max	MPa	24
Flow	l/min	69
at engine speed	r/min	2 720
Pilot working pressure	MPa	2.2

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

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	18.5
Maximum flow	l/min	33
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
------	--------------

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.

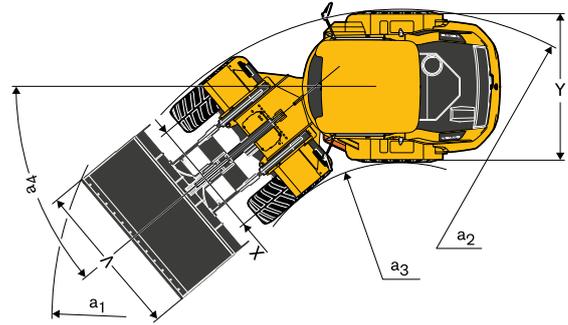
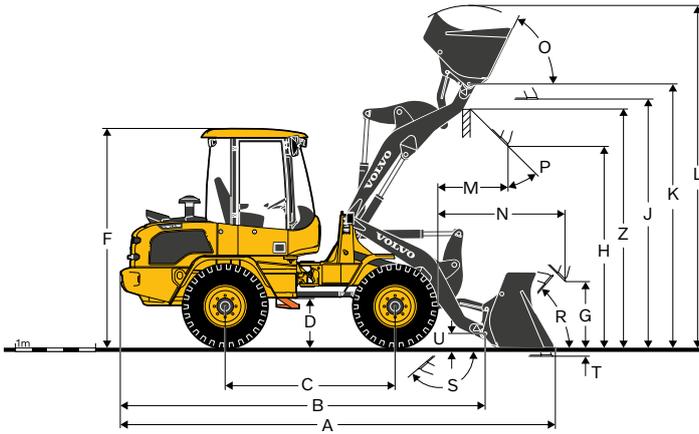
Heater and defroster: Engine coolant heated with filtered fresh air and fan with individually manual speed settings. Defroster vents for all window areas.

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

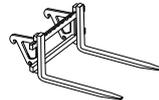
Sound Level

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



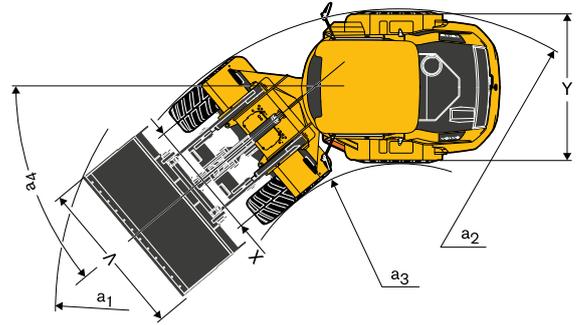
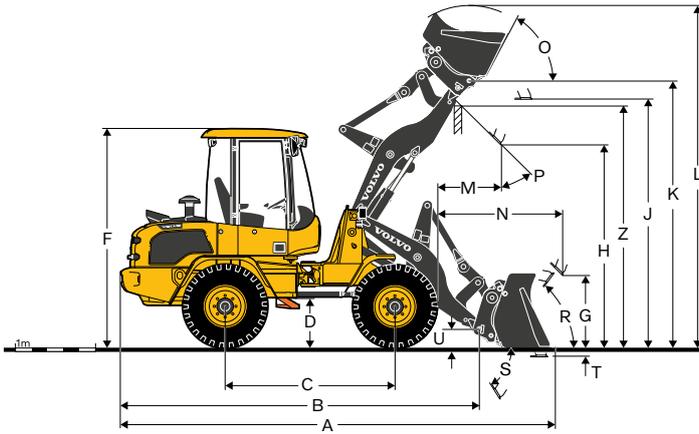
Description	Unit	L35H Z-BAR	
		with 405/70 R20 tires	
B	mm	4 625	
C	mm	2 150	
D	mm	500	
F (incl. antenna)	mm	2 820	
G	mm	935	
J	mm	3 150	
K	mm	3 350	
O	°	66	
P	°	45	
R	°	42	
S	°	136	
U	mm	200	
X	mm	1 532	
Y	mm	1 939	
Z	mm	3 050	
a ₂	mm	4 050	
a ₃	mm	2 055	
a ₄	°	±40	

Description	Unit	L35H Z-BAR	
		ISO 2B	ISO 3B
With Loading Fork Centre of gravity 500 mm			
		1 950 / 2 500	1 950 / 2 600
Payload according to EN 474-3, 60/80%	kg	1 950 / 2 500	1 950 / 2 600

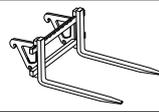
Description	Unit	L35H Z-BAR		
		GENERAL PURPOSE	Light material bucket	4-in-1
L35H Z-BAR with 405/70 R20 tires, Z attachment bracket				
Option number		CL11391117	CL11391112	CL11391232
Capacity heaped	m ³	1.2	1.5	1
Material density	kg/m ³	1 800	1 300	1 900
Static tipping load, straight (ISO / DIS)	kg	4 900	4 600	4 450
Static tipping load, full turn 40° (ISO / DIS)	kg	4 350	4 050	3 950
Hydraulic lifting capacity, max.	kN	62	58	59
Breakout force	kN	61	43	53
A Total length	mm	5 420	5 690	5 685
L Lift height, max.	mm	4 325	4 510	4 295
V Bucket width	mm	2 100	2 000	2 000
a ₁ Clearance circle	mm	8 990	9 060	9 060
T Digging depth	mm	90	90	90
H Dump height	mm	2 670	2 490	2 495
M Reach at max. height	mm	745	945	820
N Reach, max.	mm	1 565	1 740	1 595
Operating weight	kg	6 150	6 200	6 350

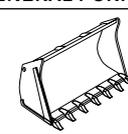
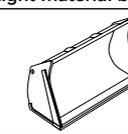
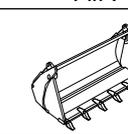


Specifications



Description	Unit	L35H TPV	
		L35H with 405/70 R20 tires	
B	mm	4 570	
C	mm	2 150	
D	mm	500	
F (incl. antenna)	mm	2 820	
G	mm	890	
J	mm	3 135	
K	mm	3 380	
O	°	63	
P	°	45	
R	°	45	
S	°	58	
U	mm	250	
X	mm	1 532	
Y	mm	1 939	
Z	mm	3 135	
a ₂	mm	4 050	
a ₃	mm	2 055	
a ₄	°	±40	

Description	Unit	L35H TPV
With Loading Fork Centre of gravity 500 mm		
Payload according to EN 474-3, 60/80%	kg	1 725 / 2 300

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	1.0	1.2	0.9
Material density	kg/m ³	1 800	1 400	1 800
Static tipping load, straight (ISO / DIS)	kg	4 200	4 100	3 950
Static tipping load, full turn 40° (ISO / DIS)	kg	3 750	3 650	3 500
Hydraulic lifting capacity, max.	kN	64	63	60
Breakout force	kN	52.5	48	50.5
A Total length	mm	5 490	5 590	5 695
L Lift height, max.	mm	4 385	4 430	4 350
V Bucket width	mm	2 000	2 000	2 000
a ₁ Clearance circle	mm	8 925	8 985	9 050
T Digging depth	mm	55	55	55
H Dump height	mm	2 590	2 520	2 455
M Reach at max. height	mm	805	885	830
N Reach, max.	mm	1 615	1 680	1 590
Operating weight	kg	6 450	6 475	6 650



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 & tie-down 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, 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
Preparation for multiline licence plate, 340x245 mm
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 up to 1 600 mm
Forks with hydraulic tines positioning, with 50 mm cranked tines
Forks with hydraulic tines positioning & side shift, with 50 mm cranked tines
Log Grapple
Custom-Built Attachments

V O L V O