

# L30G, L35G in detail

## Engine

Volvo 4-cylinder, common rail, diesel engine compliant to EU Stage V environmental regulations.  
 Maximum engine incline is 30 degrees in all directions.  
 Air cleaning:  
 1. Paper filter with indicator in cab  
 2. Safety filter  
 Exhaust after treatment system:  
 Cooled Exhaust Gas Recirculation (EGR), diesel oxidation catalyst (DOC) and diesel particulate filter (DPF).

		L30G	L35G
Engine	Volvo	D3.3H	D3.3H
Max power at	r/min	2 600	2 600
SAE J1995 gross	kW	55,4	55,4
	hp	75	75
Max. torque at	r/min	1 500	1 500
SAE J1995 gross	Nm	265	265
Economic working range	r/min	1 300 - 2 100	1 300 - 2 100
Displacement	l	3,3	3,3
Bore	mm	98	98
Stroke	mm	120	120

## Electrical system

Contronic electrical system with central warning light and buzzer, providing clear and easy to read information to the operator.  
 A keypad allows easy navigation on the central LCD display with main and sub information field.  
 Indicators and activation lights are available for various control and monitoring functions.  
 An audible warning alarm will sound and a central warning indicator 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.

		L30G	L35G
Voltage	V	12	12
Batteries	V	1	1
Battery capacity	Ah	100	100
Alternator rating	W/A	1 260 / 90	1 260 / 90
Starter motor output	kW	3	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.

		L30G	L35G
Angle of oscillation	± °	10	10
Oscillation at wheel, max.	mm	250	270
Track	mm	1 482	1 532

## Travel speed, forward/reverse

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

## Low-speed version

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

## High-speed version

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

## Tires

		L30G	L35G
Size		365 / 80 R20	405 / 70 R20

## 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.

		L30G	L35G
Linkage system		Z-bar	Z-bar
Lift cylinders		2	2
Tilt cylinders		1	1
Lift time (loaded)	s	6,5	5,5
Lowering time (empty)	s	3,5	3,5
Dump time	s	1,5	1,2

## Brake System

Service brake: an Inching-brake pedal provides hydrostatic wearless braking in the first stage for precise approach; if applied further the central disk brake takes over for final braking and machine immobilization.  
 Parking brake: Mechanically activated central drum brake, located on the rear axle dropbox and acting upon all four wheels.

## Steering System

Central articulating-oscillating joint with Elastic end-stops.  
 Hydrostatic steering powered via a dedicated 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.

		L30G	L35G
Steering cylinders		1	1
Working pressure	MPa	19	19
Maximum flow	l/min	33,5	33,5
Max articulation	± °	40	40

## Cab

The cab is tested and approved according to ROPS (ISO 3471, SAE J1040) and FOPS (ISO 3449).  
 The cab is compliant with ISO 6055 requirements regarding Operator overhead protection - Industrial trucks and SAE J386 regarding Operator Restraint System.  
 The operator's seat features an adjustable suspension and a retractable seatbelt.  
 Fresh air is filtered through a large elements prior entering, ensuring extremely clean air distribution in the cab.  
 Several air vents enables fast de-misting and defrosting.  
 The contronic monitoring system provides all important information in a central position and all machine controls are located in the operator's field of vision.

## Hydraulic system

Working hydraulic system with pilot operated control valves.  
 System supply: A gear pump provides flow to the working hydraulic.  
 System control: Double-acting 3-spools 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.  
 A fourth hydraulic functions is available as options to power hydraulic implements (Hi-Tip bucket, angle sweeper etc...)  
 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).

		L30G	L35G
Working pressure max	MPa	23	24
Flow	l/min	57	69
at engine speed	r/min	2 600	2 600

## Service Refill

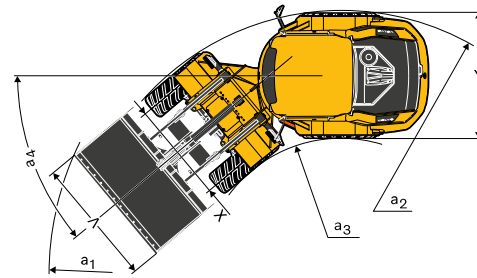
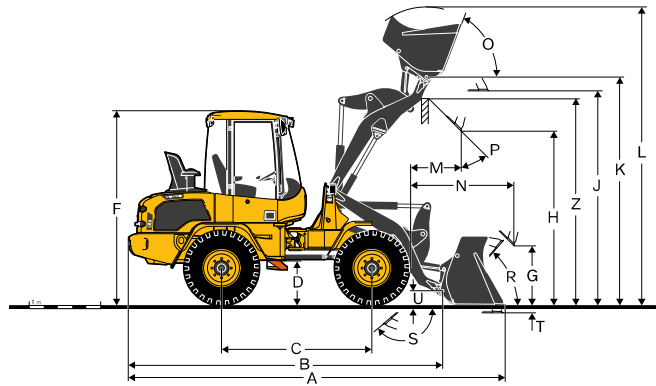
Ground level access, fuel filler and hydraulic oil filler well protected under the rear engine hood.

		L30G	L35G
Fuel tank	l	84	84
Engine oil	l	11,2	11,2
Engine coolant	l	11	11
Hydraulic tank	l	54	54
Front axle oil	l	12,2	12,2
Rear axle oil	l	13,5	13,5

## Sound Level

		L30G	L35G
Sound pressure level in cab according to ISO 6396:			
L <sub>pA</sub>	dB	75	75
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC			
L <sub>WA</sub>	dB	99	99

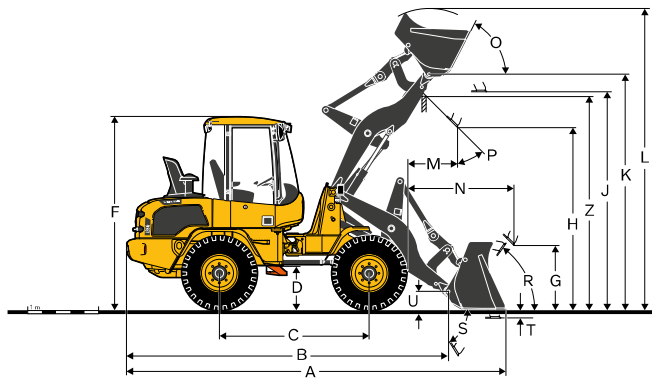
# Specifications



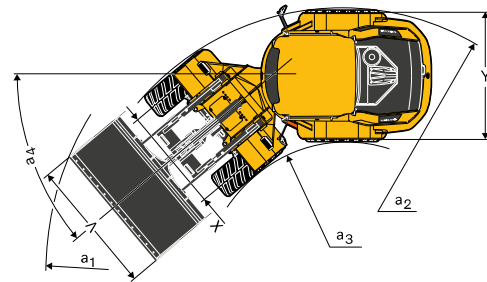
Description	Unit	L35G Z-BAR with 405/70 R20 tires	
B	mm	4 485	
C	mm	2 150	
D	mm	610	
F	mm	2 745	
G	mm	900	
J	mm	3 145	
K	mm	3 345	
O	°	66	
P	°	45	
R	°	50	
S	°	135	
U	mm	200	
X	mm	1 532	
Y	mm	1 932	
Z	mm	3 050	
a <sub>2</sub>	mm	3 960	
a <sub>3</sub>	mm	1 980	
a <sub>4</sub>	°	±40	

Description	Unit	L35G Z-BAR	
		FEM II	FEM III
<b>With Loading Fork</b> Centre of gravity 500mm			
Tipping load, full turn (ISO / DIS)	kg	3 340	3 300
Payload according to EN 474-3, 60/80%	kg	2 000 / 2 500	2 000 / 2 600
Payload 80%, transport position, 40 ° full turn	kg	2 500	2 800

Description	Unit	L35G Z-BAR		
		GENERAL PURPOSE	Light material bucket	4-in-1
<b>with 405/70 R20 tires</b>				
Capacity heaped	m <sup>3</sup>	1.2	1.5	1
Material density	kg/m <sup>3</sup>	1 800	1 200	1 900
Static tipping load, straight (ISO / DIS)	kg	4 950	4 650	4 450
Static tipping load, full turn 40° (ISO / DIS)	kg	4 350	4 050	3 950
Hydraulic lifting capacity, max.	kN	61.5	57.5	58.5
Breakout force	kN	60.5	43.5	52.5
A Total length	mm	5 420	5 690	5 520
L Lift height, max.	mm	4 320	4 500	4 260
V Bucket width	mm	2 100	2 000	2 000
a <sub>1</sub> Clearance circle	mm	8 760	8 825	8 740
T Digging depth	mm	95	95	100
H Dump height	mm	2 670	2 470	2 570
M Reach at max. height	mm	750	935	780
N Reach, max.	mm	1 570	1 755	1 600
Operating weight	kg	6 100	6 200	6 440



Description	Unit	L35G TPZ	L35G TPV
		L35G with TPZ-attachment carrier and 405/70 R20 tires	L35G with TPV-attachment carrier and 405/70 R20 tires
B	mm	4 595	4 595
C	mm	2 150	2 150
D	mm	580	580
F	mm	2 715	2 715
G	mm	900	850
J	mm	3 100	3 100
K	mm	3 350	3 350
O	°	63	63
P	°	45	45
R	°	50	50
S	°	58	58
U	mm	250	250
X	mm	1 532	1 532
Y	mm	1 932	1 932
Z	mm	3 020	3 100
a <sub>2</sub>	mm	3 960	3 960
a <sub>3</sub>	mm	1 980	1 980
a <sub>4</sub>	°	±40	±40



Description	Unit	L35G TPZ	L35G TPV
<b>With Loading Fork Centre of gravity 500mm</b>			
Tipping load, full turn (ISO / DIS)	kg	2 930	2 750
Payload according to EN 474-3, 60/80%	kg	1 750 / 2 300	1 650 / 2 200
Payload 80%, transport position, 40 ° full turn	kg	2 500	2 500

Description	Unit	L35G TPZ			L35G TPV		
		GENERAL PURPOSE	Light material bucket	4-in-1	GENERAL PURPOSE	Light material bucket	4-in-1
<b>L35G with TPZ-attachment carrier and 405/70 R20 tires</b>							
Capacity heaped	m <sup>3</sup>	1	1.2	0.9	1	1.2	0.9
Material density	kg/m <sup>3</sup>	1 800	1 500	1 900	1 800	1 400	1 800
Static tipping load, straight (ISO / DIS)	kg	4 200	4 150	3 900	3 950	3 900	3 750
Static tipping load, full turn 40° (ISO / DIS)	kg	3 700	3 650	3 450	3 500	3 450	3 300
Hydraulic lifting capacity, max.	kN	57	55.5	54	52	50.5	49
Breakout force	kN	62.5	54.5	59	54.5	48.5	51.5
A Total length	mm	5 420	5 520	5 460	5 520	5 620	5 555
L Lift height, max.	mm	4 290	4 330	4 200	4 250	4 390	4 260
V Bucket width	mm	2 000	2 000	2 000	2 000	2 000	2 000
a <sub>1</sub> Clearance circle	mm	8 670	8 730	8 700	8 730	8 800	8 760
T Digging depth	mm	90	90	90	85	85	85
H Dump height	mm	2 610	2 535	2 560	2 550	2 470	2 490
M Reach at max. height	mm	725	785	715	800	855	785
N Reach, max.	mm	1 545	1 605	1 535	1 620	1 678	1 600
Operating weight	kg	5 950	5 970	6 135	6 050	6 090	6 240