

Volvo XC90

ENGINES

Type
Configuration
Displacement, (cm ³)
Bore (mm)
Stroke (mm)
Engine cylinder block material
Cylinder head material
Compression ratio
Valves, no/cylinder
Camshafts
Engine management system
Ignition sequence
Engine idling speed, rpm
Fuel, rec. octane
Max output, kW (hp)/rpm
Max torque, Nm/rpm
Electrical motor max power (kW/rpm)
Electrical motor max power (hp/rpm)
Electrical motor max torque (Nm/rpm)

POWER AND TORQUE

Manual gearbox/final drive
Automatic gearbox/final drive

PERFORMANCE

Gearbox
Acceleration, 0–100 km/h (sec)
Top speed, km/h

FUEL CONSUMPTION (EU)

WLTP Low l/100 km / CO ₂ g/km
WLTP Medium l/100 km / CO ₂ g/km
WLTP High l/100 km / CO ₂ g/km
WLTP Extra High l/100 km / CO ₂ g/km
WLTP Combined l/100 km / CO ₂ g/km
Total Range, km

Battery type
Battery content, total amount of energy (kwh) (Nominal/Usable)
Battery charging time*, at 16A / 10A / 6A fuse (hours)(AC 3-PHASE CHARGING TIME ¹)
Electric Range (WLTP) (Km) (EAER, Combined)
System Power (kW)
System Torque (ft.lb)
Battery placement

¹ Charging time can vary depending on ambient- and battery temperature, vehicle climatization and other active electric loads in the vehicle. Maximum SOC achievable is dependent on station maximum voltage.

B5 AWD (B420T14)	
In-line 4-cyl. turbocharged	
Transverse, all wheel drive	
1969	
82.0	
93.2	
Aluminium	
Aluminium	
11.5:1	
4	
2	
Gasoline direct injection	
1 - 3 - 4 - 2	
800 ± 75	
95 - 98 RON	
184 (250) / 5400 - 5700	
360 / 2000 - 4500	
10 / 3300	
14 / 3300	
40 / 2250	
—	
AWF8G45	3.329
Automatic	
7.7	
180	
11.5 - 12.1 / 260 - 273	
7.8 - 8.9 / 176 - 202	
6.9 - 7.8 / 157 - 177	
8.6 - 9.7 / 195 - 220	
8.3 - 9.3 / 188 - 210	
—	

T8 AWD Longe-range PHEV (B420T16)	
In-line 4-cyl. turbocharged with e-boost	
Transverse, front wheel drive, rear electric motor	
1969	
82.0	
93.2	
Aluminium	
Aluminium	
11.5:1	
4	
2	
Gasoline direct injection	
1 - 3 - 4 - 2	
850 ± 50	
95 - 98 RON	
184 (250) / 5400 - 5700	
360 / 2000 - 4500	
130 / 4000 - 10 000	
177 / 4000 - 10 000	
309 / 0 - 3280	
—	
AW TG-81SD	3.329
Automatic	
5.2	
180	
—	
—	
—	
—	
	1.6 / 35
	1100
Lithium-ion battery	
41.2 / 37.9	
4.0 / 6.0 / 10.0	
164**	
339	
n/a	
Floor-mounted	
* Time pending on e.g. ambient temp	
** Only electric driving according to governmental regulations for PHEV	
*** In "Hybrid"-, "Power"- and "EL-AWD"-mode	

CHASSIS

Suspension	front	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar. Optional Air Suspension
	rear	Integral Axle with Transverse Composite Leaf Spring, Hydraulic Shock Absorbers, Stabilizer Bar Optional Air Suspension
Steering		Electric Power Assisted Rack and Pinion Steering
Turning circle, (curb to curb)		11.9 m - 12.1 m (depending on rim size)
Turning circle, (wall to wall)		12.3 m - 12.5 m (depending on rim size)
Braking system		Antilock Braking System (ABS) with Electronic Brake Distribution (EBD) and Electronic Brake Assistance (EBA)
Braking distance, 100–0 km/h		35 m
Brake disc diameter	front	345 mm / 366 mm ^(Breake 18" / 19")
	rear	320 mm / 340 mm / 360 mm ^(Breake 17" / 18" / 19")
Brake disc thickness	front	26 mm / 30 mm (B420T16 / B4204T11)
	rear	20 mm / 22 mm (B420T11 / B4204T16)

MEASUREMENTS AND VOLUMES

EXTERIOR MEASUREMENTS (CM)

Length (L103)	495.3
Width (body width) (W116)	192.3
Width (W103)	193.1 - 195.8
Width (incl mirrors folded) (W145)	201.3
Width (incl mirrors outer edge) (144)	214.0
Height (at curb weight) (H101)	177.2 - 177.6
Height (H101)	176.7 - 177.1
Wheelbase (L101)	298.4
Overhang (front) (L104)	89.0
Overhang (rear) (L105)	107.9
Track, front, (depending on rim size) (W101-1)	166.5 - 167.3
Track, rear, (depending on rim size) (W101-2)	166.7 - 167.5
Ground clearance* (at curb weight + 1 person) (H156)	20.5 - 21.6

*all measurements are done in running order conditions Curb + 1, excl. mudflaps

WEIGHTS/MISCELLANEOUS

Weight, kg (min-max, depending on setup) (Curb weight/ Mass in Running order)	2050-2391 / 2120-2461
Fuel tank, l (B420T16 / B4204T11)	68 / 71
Max. trailer weight, kg	2400
Max roof load, kg	100
Approach angle (degr.)	21.0
Breakover angle (degr.)	20.9
Departure angle (degr.)	23.1
Drag coefficient, Cd	0.33

* Depending on setup

INTERIOR MEASUREMENTS (CM)

Headroom maximum, without panoramic sunroof (front) (H62-1)	105.4
Headroom maximum, with panoramic sunroof (front) (all) (H62-1 SR)	103.5
Headroom without panoramic sunroof	
(front / rear / third row) (5*, 6 & 7 seat) (H61-1 / H61-2 / H61-3)	100.1 / 99.9*, 99.7 / 92.3
Headroom with panoramic sunroof	
(front / rear / third row) (all seat) (H61-1SR / H61-2SR / H61-3SR)	99.0 / 97.9 / 92.3
Passenger comp width at shoulder height	
(front / rear / third row) (all seat) (W3-1 / W3-2 / W3-3)	146.7 / 143.5 / 119.4
Hip room (front / second / third) (all seat) (W5-1 / W5-2 / W5-3)	142.4 / 143.5 / 112.3
Leg room (front/rear/third row) (all seat) (L34/L51-2/L51-3)	104.0 / 91.4 / 81.1
Largest Luggage volume - First (V214-1) (including under floor storage, V209) (Largest volume. Load height limited by the head lining. Front limited by vertical plane tangential to the rear side of the front seatback) (litre) (5 seat // 6 seat // 7 seat)	1921* / 1915** // 1985* / 1964** / 1950* / 1934**
Largest Luggage volume - Second (V214-2) (including under floor storage, V209) (Second seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the second seatback) (litre) (5 seat // 6 seat // 7 seat)	976* / 973** // 979* / 976** / 980* / 977**
Largest Luggage volume - Third (V214-3) (including under floor storage, V209) (Third seat up. Load height limited by the headlining. Front limited by vertical plane tangential to the rear side of the third seatback) (litre) (5 seat // 6 seat // 7 seat)	n/a* / n/a** // 301* / 298** / 301* / 298**
Open Luggage Compartment - First (V211-1) (including under floor storage, V209) (Second seat folded. Load height limited to upper edge of the front seatback or lower edge of the rear window) (litre) (5 seat // 6 seat // 7 seat)	1161* / 1155** // 1174* / 1153** / 1139* / 1123**
Open Luggage Compartment - Second (V211-2) (including under floor storage, V209) (Second seat up. Load height limited to the upper edge of the second seatback or second window) (litre) (5 seat // 6 seat // 7 seat)	626* / 623** // 652* / 649** / 653* / 650**
Open Luggage Compartment - Third (V211-3) (including under floor storage, V209) (Third seat up. Load height limited to the upper edge of the third seatback or second window) (litre) (5 seat // 6 seat // 7 seat)	n/a* / n/a** // 247* / 244** / 247* / 244**
Separate Storage Areas in Luggage Compartment (V209) (Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area) (All / B4204T56) (5 seat // 6 seat // 7 seat)	62* / 59** // 16* / 13** // 16* / 13**
Separate Storage Areas in Luggage Compartment (V209-L) (Closed storage areas located around the luggage compartments, behind wheel arches, under the floor, or any other area) (All / B4204T56) (5 seat // 6 seat // 7 seat)	99* / 96** // 32* / 29** // 32* / 29**
Cargo length from the first seatback to the tailgate measured at:	
-the height of the floor covering (L212-1)	203.9
-the top of the first seatback (L214-1)	185.8
Cargo length from the second seatback to the tailgate measured at: (5/6/7 seat)	
-the height of the floor covering (L212-2) (5 / 6 / 7 seat)	122.0/125.9/125.9
-the top of the second seatback (L214-2) (5 / 6 / 7 seat)	100.0/104.0/104.0
Cargo length from the third seatback to the tailgate measured at: (5 / 6 / 7 seat)	
-the height of the floor covering (L214-3)	n/a / 55.5 / 55.5
-the top of the third seatback (L214-3)	n/a / 32.9 / 32.9
Cargo floor height to ground (curb weight) (H253)	77.6
Rear opening height car center line (H202)	80.6
Cargo height rear wheel center and car center line (H201)	87.7
Cargo floor width, min. between wheel housings (W201)	113.0
Rear opening width	
upper, min. (W205)	94.1
at floor, min. (W207)	117.8

* B420T11 ** B420T16

TRANSMISSIONS

8-speed automatic gearbox

Ratio	AW TG-81SD	AWF8G45
First	5.250	5.057
Second	3.029	3.070
Third	1.950	2.050
Fourth	1.457	1.520
Fifth	1.221	1.262
Sixth	1.000	1.000
Seventh	0.809	0.792
Eighth	0.673	0.661
Reverse	4.015	3.992