2019 Volvo S90 Specifications

	S90 T4 (190 hp) aut	S90 T5 (250 hp) aut	S90 T6 AWD (310 hp) aut	S90 T8 AWD (390 hp) aut	S90 D3 (150 hp) man/aut	S90 D4 (190 hp) aut	S90 D5 AWD (235 hp) aut
Engine							
Engines	B4204T41	B4204T26	B4204T29	B4204T34	D4204T16	D4204T14	D4204T23
Type	In-line, 4 cyl, turbocharged	In-line, 4 cyl, turbocharged	In-line, 4 cyl, supercharged and turbocharged	In-line, 4 cyl, supercharged and turbocharged	In-line 4 cyl, turbo diesel	In-line 4 cyl, twin turbo diesel	In-line 4 cyl, twin turbo diesel
Configuration	FWD	FWD	AWD	AWD	FWD	FWD	AWD
Displacement	1969 cm³	1969 cm³	1969 cm³	1969 cm³	1969 cm³	1969 cm³	1969 cm³
Bore	82.0 mm	82.0 mm	82.0 mm	82.0 mm	82.0 mm	82.0 mm	82.0 mm
Stroke	93.2 mm	93.2 mm	93.2 mm	93.2 mm	93.2 mm	93.2 mm	93.2 mm
Compression ratio	10.8:1	10.8:1	10.3:1	10.3:1	16.0:1	15.8:1	15.8:1
Valves, no/cylinder	4 ea.	4 ea.	4 ea.	4 ea.	4 ea.	4 ea.	4 ea.
DOHC / SOHC	DOHC	DOHC	DOHC	DOHC	DOHC	DOHC	DOHC
Engine management system	Gasoline direct injection	Gasoline direct injection	Gasoline direct injection	Gasoline direct injection	i-Art common rail direct injection	i-Art common rail direct injection	i-Art common rail direct injection
Ignition sequence	1 - 3 - 4 - 2	1 - 3 - 4 - 2	1 - 3 - 4 - 2	1 - 3 - 4 - 2	1 - 3 - 4 - 2	1 - 3 - 4 - 2	1 - 3 - 4 - 2
Engine idling speed	875 ± 50 rpm	875 ± 50 rpm	875 ± 50 rpm	875 ± 50 rpm	825 ± 150 rpm	825 ± 150 rpm	825 ± 150 rpm
Fuel, rec. Octane	95–98 RON	95–98 RON	95–98 RON	95–98 RON	Diesel [1]	Diesel [1]	Diesel [1]
Max engine speed	6000 rpm	6000 rpm	6000 rpm	6000 rpm	4500 rpm	5000 rpm	5000 rpm
Max output	140 kW (190 hp) / 5500 rpm	184 kW (250 hp) / 5500 rpm	228 kW (310 hp) / 5700 rpm	223 kW (303 hp) / 6000 rpm	110 kW (150 hp) / 3750 rpm	140 kW (190 hp) / 4250 rpm	173 kW (235 hp) / 4000 rpm
Max torque	300 / 27 – 67 Nm / rpm	350 / 30 - 80 Nm / rpm	400 / 37 – 85 Nm / rpm	400 / 37 - 80 Nm / rpm	320 / 29 - 50 Nm / rpm	400 / 29 - 42 Nm / rpm	480 / 29 - 37 Nm / rpm
Battery type	-	-	-	Lithium-ion battery	-	-	-
Battery content, total amount of energy (kWh)	-	-	-	10.4	-	-	-
Battery charging time[2], at 16A / 10A (16A fuse (hours) [2]	-	-	-	3.0 / 4.0 / 7.0	-	-	-
Battery placement	-	-	-	Centrally in the tunnel of the car	-	-	-
Electrical motor max power (kW)	-	-	-	65 kW	-	-	-
Electrical motor max torque (Nm)	-	-	-	240 Nm	-	-	-
Drivetrain max power (kW)	-	-	-	65 kW + 223 kW[3]	-	-	-
Drivetrain max torque (Nm)	-	-	-	240 Nm + 400 Nm[3]	-	-	-

[1] According to EN590 Maximum biodiesel (FAME) content 7%

[2] ***) Up to

[3] ***) Up to

Transmissions

Transmissions	AW TG-81SC	AW TG-81SC	-	-	M66F / AW TG-81SC	AW TG-81SC	-
First Gear	5.250	5.250	-	-	3.583 / 5.250	5.250	-
Second Gear	3.029	3.029	-	-	2.050 / 3.029	3.029	-
Third Gear	1.950	1.950	-	-	1.267 / 1.950	1.950	-
Fourth Gear	1.457	1.457	-	-	0.838 / 1.457	1.457	-
Fifth Gear	1.221	1.221	-	-	0.617 / 1.221	1.221	-
Sixth Gear	1.000	1.000	-	-	0.510 / 1.000	1.000	-
Seventh Gear	0.809	0.809	-	-	- / 0.809	0.809	-
Eighth Gear	0.673	0.673	-	-	- / 0.673	0.673	-
Reverse Gear	4.015	4.015	-	-	2.833 / 4.015	4.015	-
Manual Gearbox/final drive	-	-	-	-	4.000 (gear 1-6) / 4.941 (gear R)	-	-
Automatic Gearbox/final drive	3.075	3.075	-	-	2.955	2.955	-
Transmissions (AWD)	-	-	AW TG-81SC	AW TG-81SC	-	-	AW TG-81SC
First Gear (AWD)	-	-	5.250	5.250	-	-	5.250
Second Gear (AWD)	-	-	3.029	3.029	-	-	3.029
Third Gear (AWD)	-	-	1.950	1.950	-	-	1.950
Fourth Gear (AWD)	-	-	1.457	1.457	-	-	1.457
Fifth Gear (AWD)	-	-	1.221	1.457	-	-	1.221
Sixth Gear (AWD)	-	-	1.000	1.000	-	-	1.000
Seventh Gear (AWD)	-	-	0.809	0.809	-	-	0.809
Eighth Gear (AWD)	-	-	0.673	0.673	-	-	0.673
Reverse Gear (AWD)	-	-	4.015	4.015	-	-	4.015
Automatic Gearbox / final drive (AWD)	-	-	3.200	3.200	-	-	3.075

Performance

Performance	Automatic	Automatic	Automatic	Automatic	Manual / Automatic	Automatic	Automatic
Gearbox	AW TG-81SC	AW TG-81SC	AW TG-81SC	AW TG-81SC	M66F / AW TF-71SC	AW TG-81SC	AW TG-81SC
Acceleration, 0-100 km/h	8.7 sec	6.8 sec	5.9 sec	5.1 sec	9.9 sec / 9.9 sec	8.2 sec	7.0 sec
Top speed	210 km/h	230 km/h	250 km/h	250 km/h	205 km/h / 205 km/h	230 km/h	240 km/h
Tyre class B Combined, NEDC*, 2100 km / CO² g/km *	6.7 l/100 km / 157 g/km	6.6 l/100 km / 154 g/km	7.6 l/100 km / 177 g/km	2.0 l/100 km / 46 g/km	4.8 l/100 km / 122 g/km / 4.8 l/100 km / 127 g/km	4.6 l/100 km / 121 g/km	5.4 l/100 km / 142 g/km
Tyre class C Combined, NEDC*, 2100 km / CO² g/km *	6.8 l/100 km / 157 g/km	6.7 l/100 km / 156 g/km	7.7 l/100 km / 179 g/km	2.2 l/100 km / 49 g/km	4.8 l/100 km / 125 g/km / 4.9 l/100 km / 129 g/km	4.7 l/100 km / 123 g/km	5.5 l/100 km / 144 g/km
Combined, WLTP (low high)	7.4 - 8.4 / 169 - 192	7.5 - 8.4 / 171 - 193	8.7 - 9.4 / 198 - 216	- / -	- / -	5.6 - 6.5 / 147 - 171	6.4 - 7.2 / 169 - 189

[1] * NEDC figures correlated from WLTP based testing

Measurements and Volumes

Length	4963 mm	4963 mm	4963 mm	4963 mm	4963 mm	4963 mm	4963 mm
Width (Body width)	1879 mm	1879 mm	1879 mm	1879 mm	1879 mm	1879 mm	1879 mm
Width (door mouldings)	1890 mm	1890 mm	1890 mm	1890 mm	1890 mm	1890 mm	1890 mm
Width (including mirrors, folded)	1895 mm	1895 mm	1895 mm	1895 mm	1895 mm	1895 mm	1895 mm
Width (including mirrors, outer edge)	2019 mm	2019 mm	2019 mm	2019 mm	2019 mm	2019 mm	2019 mm
Height (including shark fin antenna)	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm	1443 mm
Wheelbase	2941 mm	2941 mm	2941 mm	2941 mm	2941 mm	2941 mm	2941 mm
Track, front (Rim size 17" / 18" / 19"/20"/21")	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm	1628 mm / 1618 mm / 1617 mm / 1623 mm
Track, rear (Rim size 17" / 18" / 19"/20"/21")	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm	1629 mm / 1619 mm / 1618 mm / 1624 mm
Ground clearance	152 mm	152 mm	152 mm	152 mm	152 mm	152 mm	152 mm
Wading capability depth at curb weight (at walking speed)	250 mm	250 mm	250 mm	Up to a depth approximately level with the floor at walking speed	250 mm	250 mm	250 mm

Weight/Miscellaneous

Weight (Depending on type of engine, gearbox etc.)	1693 kg - 2031 kg	1693 kg - 2031 kg	1693 kg - 2031 kg	1693 kg - 2031 kg	1693 kg - 2031 kg	1693 kg - 2031 kg	1693 kg - 2031 kg
Total Weight (Depending on type of engine, gearbox etc.)	2230 kg - 2590 kg	2230 kg - 2590 kg	2230 kg - 2590 kg	2230 kg - 2590 kg	2230 kg - 2590 kg	2230 kg - 2590 kg	2230 kg - 2590 kg
Max trailer weight, Unbraked (Mkg)	750 kg	750 kg	750 kg	750 kg	750 kg	750 kg	750 kg
Max trailer weight, Braked (Mbr)	1800 kg	1800 kg	2200* kg [1]	2100* kg [1]	1800 kg / 1800 kg	1800 kg	2200* kg [1]
Fuel tank, Petrol	55 l	55 l	60 l	60 l	-	-	-
Fuel tank, Diesel	-	-	-	-	55 l	55 l	60 l
Aerodynamics, (Cd)	0.26 - 0.29	0.26 - 0.29	0.26 - 0.29	0.26 - 0.29	0.26 - 0.29	0.26 - 0.29	0.26 - 0.29
Aerodynamics, (Frontal area)	2.29 m²	2.29 m²	2.29 m²	2.29 m²	2.29 m²	2.29 m²	2.29 m²
Max roof load	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg	100 kg
SCR tank [2]	-	-	-	-	11.5	11.5	11.5

[1] * 100KIT required, otherwise 1800 kg

[2] * Market dates: D4DEH7.16, 10, 14, 15, 16 40 / D4DHT14, 15, 16, 15, 16, 40, 45 / D4DHF23, 12, 14, 15, 16, 41, 46

Interior Measurements

Headroom with sunroof (frontmaar)	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm	950 mm / 960 mm
Headroom without sunroof (frontmaar)	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm	984 mm / 961 mm
Headroom maximum, with sunroof (front)	990 mm	990 mm	990 mm	990 mm	990 mm	990 mm	990 mm	990 mm
Headroom maximum, without sunroof (front)	1027 mm	1027 mm	1027 mm	1027 mm	1027 mm	1027 mm	1027 mm	1027 mm
Luggage compartment width at shoulder height (frontmaar)	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm	1460 mm / 1420 mm
Leg room (frontmaar)	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm	1071 mm / 911 mm
Hip room (frontmaar)	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm	1432 mm / 1416 mm
Cargo length at floor from the back of the front seatback (GCIE L212-1)	1978 mm	1978 mm	1978 mm	1978 mm	1978 mm	1978 mm	1978 mm	1978 mm
Cargo length at floor from the back of the rear seat seatback (GCIE L212-2)	1149 mm	1149 mm	1149 mm	1149 mm	1149 mm	1149 mm	1149 mm	1149 mm
Lift over height (GCIE H196)	672 mm	672 mm	672 mm	672 mm	672 mm	672 mm	672 mm	672 mm
Rear opening height (GCIE H202)	363 mm	363 mm	363 mm	363 mm	363 mm	363 mm	363 mm	363 mm
Loading height between cargo floor and parcel shelf (H212)	373 mm	373 mm	373 mm	373 mm	373 mm	373 mm	373 mm	373 mm
Luggage floor, height to ground (GCIE H253)	515 mm	515 mm	515 mm	515 mm	515 mm	515 mm	515 mm	515 mm
Cargo floor width, min. (GCIE W202) (between wheel housings)	1024 mm	1024 mm	1024 mm	1024 mm	1024 mm	1024 mm	1024 mm	1024 mm
Rear opening width at floor, min. (GCIE W207)	1014 mm	1014 mm	1014 mm	1014 mm	1014 mm	1014 mm	1014 mm	1014 mm
Cargo volume (V210-2)	500 l	500 l	500 l	500 l	500 l	500 l	500 l	500 l
Cargo volume (V208) (under floor volume, included in V210-2)	37 l	37 l	37 l	37 l	37 l	37 l	37 l	37 l

Chassis

Suspension front	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar	Double Wishbone Suspension, Coil Springs, Hydraulic Shock Absorbers, Stabilizer Bar
Suspension rear	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension	Integral Axle with Transverse Composite Leaf Springs, Hydraulic Shock Absorbers, Stabilizer Bar, Optional Air Suspension
Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering	Electric Power Assisted Rack and Pinion Steering
Steering ratio (single/angle)	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
Turning circle (Curb to curb)	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m	11.4 m / 11.8 m
Turning circle (Wall to wall)	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m	11.8 m / 12.2 m
Turns of steering wheel end to end	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0	2.9 / 3.0
Braking system	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance	Antilock Braking System (ABS) with Electronic Brake Assistance (EBA) and Electronic Brake Assistance
Brake disc diameter (front) (16" / 17" / 18")	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm	296 mm / 322 mm / 345 mm
Brake disc diameter (rear) (16" / 17")	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm	302 mm / 320 mm
Brake disc thickness (front) (16" / 17")	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm	28 mm / 30 mm
Brake disc thickness (rear) (16" / 17")	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm	12 mm / 20 mm
Braking distance 100-0 km/h	35 m	35 m	35 m	35 m	35 m	35 m	35 m	35 m