



VOLVO S90 AND V90 SERIES

Volvo's flagship S90 and V90 series consists of two models for 1998: a sedan and wagon. Both models share drivetrains, suspensions, most essential equipment and dimensions. They also share the features that characterize Volvo's hallmark concern for occupant safety. All Volvo S90 and V90 models are equipped with both frontal and side-impact air bags for both the driver and front-seat passenger, three-point safety belts and head restraints at all five seating positions, and four-wheel disc anti-lock brakes.

Safety

In addition to the air bags installed in both front seats for side impact protection and air bags in the steering wheel and passenger's side of the dashboard, all Volvo S90 and V90s feature front seat belts with automatic, pyrotechnically actuated pretensioners to ensure the belts are snugged down in the event of a frontal impact.

Besides being restrained by three-point safety belts, all S90 and V90 occupants are protected by Volvo's Side Impact Protection System (SIPS) which channels impact energy around the vehicle's structure away from the car's occupants.

Wagon models also come equipped with an integrated child rear booster seat. This feature is optional on sedans.

All 1998 Volvo S90 and V90 models have daytime running lights, three-point seat belts with child seat locking; rear doors and tailgate with child safety locks, halogen headlamps, front fog lamps with wipers and washers, and a rear fog lamp.

Drivetrain

The S90 and V90 is the rear-wheel drive model in Volvo's line-up. Both the sedan and wagon come equipped with the same driveline.

For 1998, all S90 and V90s are powered by an in-line six-cylinder engine that produces 181 horsepower at 5200 rpm and 199 lb.ft. of torque at 4100 rpm. All models are equipped with a four-speed automatic transmission that features three driver-selectable operation modes: *Economy*, *Sport* and *Winter/Wet*.

By choosing the position on a center-console mounted switch, the driver of a S90 and V90 can select between transmission shifting programs that offer either optimum fuel efficiency or enhanced performance. In addition, by selecting the *Winter/Wet* setting, the driver can ensure optimum starting traction on slippery or wet roads. In the *Winter/Wet* setting, the transmission locks out First and Second gear and starts the car out in Third. For additional low speed traction, a locking rear differential is available as an option. This traction control system operates at speeds less than 25 mph.

For 1998, both sedan and station wagon have EPA fuel economy ratings of 18 mpg in the city and 26 mpg on the highway.

The engine is a naturally-aspirated, 2.9-liter with dual overhead camshafts and four valves per cylinder; the block and cylinder head are made of light alloy. The S90 and V90 engine features a Bosch Motronic 4.4 engine management system with fully electronic, distributorless ignition and electronic fuel injection. The Volvo S90 and V90s engine meets OBD-II requirements.

Chassis

Both the sedan and wagon have the same suspension system. The Volvo S90 and V90 has a MacPherson strut front suspension and Volvo's patented multilink rear suspension.

The front suspension features coil springs mounted asymmetrically over the struts' shock absorbers and a 23-mm diameter stabilizer bar.

The rear suspension is fully independent and features a transversely mounted single leaf spring made of a composite material as well as a rear stabilizer bar on the sedan which is 18 mm in diameter. The wagon's stabilizer bar is 16 mm. In addition, the wagon may be equipped with optional self leveling Nivomat rear shock absorbers.

All S90 and V90s have four-wheel disc brakes equipped with a Bosch anti-lock system (ABS). The front discs are vented and are 11.0 inches in diameter. The rear discs are solid and have a diameter of 11.06 inches. The parking brake is a mechanically operated drum brake system.

In addition, all models have power-assisted rack-and-pinion steering. The steering system's ratio is 16.9:1. It takes 3.5 turns of the steering wheel to get from lock to lock to achieve a turning radius of 31.8 feet.

The two S90 and V90 models have different tires. The sedan is equipped with 205/55 VR 16 Michelin XGT V4 all-season tires on 6.5x16-inch alloy wheels. The wagon rides on 195/65 HR 15 Michelin MXV4 all-seasons with 6.0x15-inch alloy wheels.

Comfort and Convenience Features

As Volvo's flagship, the S90 and V90 is highly equipped. Few additional options are required.

All S90 and V90 models feature electrically operated windows, heated outside mirrors and a sliding/tilting glass sunroof as well eight-way electrically adjustable front seats. The driver's seat has a three-position memory. Sedans and wagons both have leather seating surfaces. Seat heaters are available as part of a cold-weather package which includes an ambient-temperature gauge and a locking differential. The S90 and V90s dash is trimmed with burl walnut with matching simulated wood trim on the door panel inserts. The height-adjustable steering wheel is wrapped in leather.

The ozone-friendly, CFC-free air conditioning is integral with the car's automatic, electronically operated climate-control system. Cruise control is also standard. The audio system is a 100-watt electronically tuned AM/FM/cassette with anti-theft circuitry and

compact-disc changer compatibility. A rear-mounted six-disc changer is available as an accessory as is a single-disc AM/FM/cassette unit. Sedans and wagons have eight speakers and a power antenna; wagons have an antenna with an integral signal amplifier embedded in the rear-window glass. Wagons have D pillar mounted tweeters for enhanced audio delivery.

All models come with a two-step (driver's door/all doors, trunk or hatch and fuel door) keyless remote entry with a security system.

Wagons have color-keyed roof rails that can accommodate loads up to 220 pounds when properly loaded. Sedans and wagons have a towing capacity of 3,300 pounds.

Dimensions

While the S90 and V90 sedan and wagon are nearly identical in many ways, they do differ slightly in some of their dimensions.

Both ride on a 109.1-inch wheelbase and they share their 59.2-inch front track and 59.7-inch rear track. And all 590 and V90 models have an overall width of 68.9 inches.

The sedan has an overall length of 191.8 inches while the wagon is 191.4 inches long. The sedan is 56.6 inches tall; the wagon is 57.6 inches tall.

The sedan has a trunk capacity of 16.6 cubic feet. The wagon, with its rear seats up, can accommodate 39.3 cubic feet of cargo. When the rear seats are folded, 74.9 cubic feet of cargo capacity is available in the wagon.

The sedan's curb weight is 3461 pounds; its fully laden weight is 3521 pounds. The wagon has a curb weight of 3547 pounds and loaded weight of 3611 pounds.

VOLVO

S90 AND V90

1998 SPECIFICATIONS

Manufactured at: Torslanda-Sweden

ENGINE-B6384 S

Type In-Line 6-Cylinder	
HP (SAE NET)	181 @ 5,200 RPM
Torque	199 lb/ft @ 4,100 RPM
Cylinder Block	Light Alloy
Cylinder Head	Light Alloy
Bore & Stroke	83mm x 90mm
Displacement	2,922 cc
Compression Ratio	10.7:1
Fuel Requirements	87 Minimum 91 Optimum
Engine Management (OBD II)	Bosch Motronic 4.4
Main Bearings	7-Shell Type
Valve Train	DOHC, 24 valves
Valve Operations	Direct Acting
Battery/Alternator	600/120 AMP
Crankcase Capacity	6.0 US Qt's.
Fuel Tank Capacity	(77.0 L), 20.3 U.S. Gallons

DRIVETRAIN

Transmission:
Automatic AW 40 Electronically Controlled, 4-Speed
W/3 Gear Driver Option

Transmission Ratios 2.80:1, 1.53:1, 1.1:1, 0.71:1
Final Drive 3.73:1 Reverse 2.39:1
Changing Modes *Economy, Sport, and Winter/wet*

Chassis & Suspension:

Front; MacPherson Strut With Eccentrically Mounted Coil Springs and Stabilizer Bar (23 mm sedan & wagon)

Rear; Volvo Multi-link Independent Suspension With Aluminum Sub Frame Transverse Composite Leaf Spring, Hydraulic Shock Absorbers and Stabilizer Bar (18 mm sedan, 16 mm wagon)

Steering:

Power Assisted Rack and Pinion
Ratio: 16.9:1
Turns Lock To Lock 3.5
Turning Circle 31.8 ft

Brakes:

Four Wheel Disc With Vacuum Assist, Bosch ABS
Front-Vented Disc 11.0"
Rear-Solid Disc 11.0"
Drum Type Parking Brake Mechanical Operation

Wheels/Tires:

Wagon - 6.0" x 15" Alloy
195/65 HR 15 MXX 4 Michelin All-Season
Sedan - 6.5" x 16" Alloy
205/55 VR 16 XGT V4 Michelin All-Season

DIMENSIONS & CAPACITIES

	<u>Sedan</u>	<u>Wagon</u>
Wheel Base	109.1"	109.1"
Track Front	59.2"	59.2"
Track Rear	59.7"	59.7"
Overall Length	191.8"	191.4"
Overall Width	68.9"	68.9"
Overall Height	56.6"	57.6"
Curb Weight - Min.	3461 lbs	3547 lbs
Curb Weight - Max.	3521 lbs	3611 lbs
Ground Clearance	6.2"	6.2"
Weight Distribution F/R (%)	53/47	52/48
Coefficient of drag (Cd)	0.36	0.38
Towing Load (lbs.)	3,300	3,300

Interior Dimensions:

Head Room Front	37.4"	38.1"
Head Room Rear	36.9"	36.7"
Leg Room Front	41.0"	41.0"
Leg Room Rear	34.7"	34.7"
Shoulder Room Front & Rear	54.5"	54.7"
Hip Room Front & Rear	54.3"	54.7"

Cargo Capacity (Cu. Ft):

Seat Up	16.6	39.3
Seat Down	NA	74.9

EPA Size Class: Compact

Cu. Ft.	106.9	128.0
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EPA Fuel Economy:

Automatic	<u>City</u> 18	<u>Hwy.</u> 26
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STANDARD EQUIPMENT

Driver And Passenger Side SRS
Side Impact Protection System (SIPS)
Side Impact Air Bag (Driver and Passenger Front Seats)
Electronic Climate Control With CFC Free A/C
Daytime Running Light System
Cruise Control
ABS
P/Windows Drivers Auto Down/Central Locking Switch
Two-Step, Remote Entry With Alarm System
Leather Wrapped Tilt Steering Wheel
Power Glass Sunroof W/Tilt & Slide, W/Sunshade
Head Lamps Washer/Wipers
SC 813 Premium Sound System, AM/FM Stereo Cassette, Full Logic W/CD Compatibility and Anti-theft, 8-Speakers, 4x25 watt amp.
Simulated Wood Dash Panels, Center Console, and Door Accent Inserts
Power Antenna (*Sedan Only*)
Integrated Window Antenna (*Wagon Only*)
Power Outside Mirrors - Heated
Front Reclining Bucket Seats
8-Way Power Driver Seat W/3-Position Memory
8-Way Power Passenger Seat
Classic Leather Seating Surfaces
Front Fog Lamps and Rear Fog Light
Integral Child Booster Cushion (*Wagon Only*)
Roof Rails (*Wagon Only* color keyed)
Solid Or Metallic Paint
Alloy Wheels (16" sedan and wagon 15")

OPTIONAL EQUIPMENT

Cold Weather Package (Heated Seats, Ambient Temperature Gauge, Automatic Locking Differential)
SC 816 Stereo/Cassette/CD Player
Automatic Load Leveling (Wagon)
Remote Compact Disc Changer - Trunk Mounted - Dealer Installed Accessory
Equipment and specifications are subject to change. 2.25.97