

R9902 January 1999

Volvo S80

Featuring 2.9SE Automatic -



What finally shaken off the last remnants of its conservative image. This latest and largest Volvo means the end of the sturdy and reliable rear-drive, sharp-edged S and V90 (better known as the 940 and 960). The company insists, however, that the newcomer will be purely a saloon – there will be no estate car version. Cries of "Shame!" from antiques dealers throughout the land.

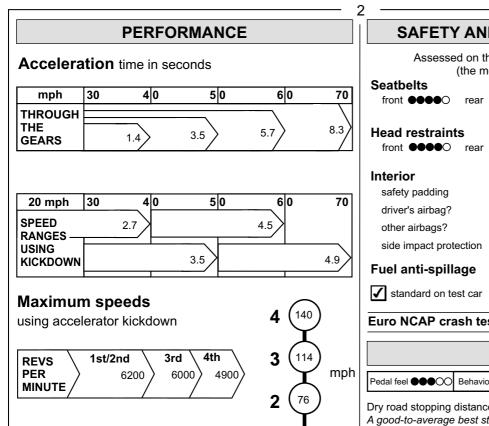
It's the first time that the biggest Volvo has had a front-drive power train, and for a start there will be just two (straight six) engine options : a 2.9 litre (204bhp) as tested here in automatic form and, for the top T6, a 2.8 litre with twin turbos (272bhp).

Big sixes don't come any smoother and are rarely quieter than this one. Performance is impressive, too. Acceleration in this case isn't quite in the sports saloon category – that's the T6's province – but, despite the S80's weight and its power-sapping torque converter, 30-70mph is dispatched in a shade over 8sec and the car will sweep on to a flying 140mph flat out. Equally important, though, is the engine's broad spread of torque, its eagerness throughout the rev range and the absence of steering tug, even on full-bore acceleration.

The transmission plays an important role in all this. The superb auto-shifts add to the engine's flexibility and willing nature, and it's all done with only four ratios (there's not enough room to fit a five-speed automatic in sideways and end-on). The GM-sourced 'box adapts its shifts to your driving style and slips silkily from gear to gear with just a dip in the engine note to give the game away. Cleverly judged part-throttle downshifts occur almost imperceptibly, and if you don't want the flurry of revs that accompany a kickdown gearchange, a flick on the selector lever fusslessly steps you down a ratio. Mind you, if you're keen to do it yourself, it's even more fun with the T6's Geartronic sequential shift.

The S80 is tautly sprung and has a firmness of ride that probably isn't helped by the stiff-walled 55-Series tyres – tenaciously grippy though they are; so much so that you have to behave like a hooligan to invoke the traction control system. Nevertheless, while the car rides with impressive authority at speed on main road and motorway, it becomes thumpy and fidgety on the sort of patchy B-roads that a BMW 5-Series soaks up with hardly a second thought.

No complaints about the S80's stable handling and well-controlled cornering roll, however, or the fluidity of the beautifully weighted steering – even though it doesn't have much true feel. The brakes, on the other hand, are too strongly servoed for our liking – just a touch on the wide pedal has passengers' heads nodding. That



FUEL CONSUMPTION

Fuel grade: unleaded Premium, 95 octane	
Type of use - air conditioning off*	mpg
In the city - heavy traffic	17
In the country - quiet driving	32
Typical mpg overall	24
Realistic tank range†	70litres/370 miles
† based on fuel gauge/warning lamp and filling nominal tank capacity	station experience - not

*with air conditioning switched on, consumption will increase by 2-4% in winter and 4-8% in summer

FOR THE TECHNICAL

ENGINE

Type transverse six cylinders in line with alloy block and head; five main bearings

Size 83 x 90mm = 2922cc

Power 204bhp at 6000rpm

Torque 207 lb ft at 4200rpm

Valves belt-driven double overhead camshafts (with variable valve timing) actuating four valves per cylinder via hydraulic tappets

Fuel/Ignition electronic multi-point petrol injection; integrated programmed ignition and three-way catalyser. 80-litre fuel tank with low-level warning lamp

TRANSMISSION

Type five speed manual standard. Optional four-speed automatic fitted to test car. Front-wheel drive incorporating stability and traction control (STC)

Mph per 1000rpm manual: 26.0 in top gear (5th); automatic: 28.0 in top gear (4th)

CHASSIS

Suspension front: independent MacPherson coil spring/damper struts; anti-roll bar. Rear: independent coil-sprung multi links with telescopic dampers; anti-roll bar

Centimetres

1

Steering rack and pinion with hydraulic power assistance; 3.0 turns between full locks. Turning circles average 11.6m between kerbs, with 16.9m circle for one turn of the wheel

Wheels 6J x 16in steel (alloy on SE) with 215/55ZR16 tyres (Michelin Pilot HX on test car). Full-size steel spare

Brakes ventilated discs front, solid discs rear with vacuum servo. Standard electronic four-channel anti-lock control (ABS) and electronic braking distriubtion (EBD)

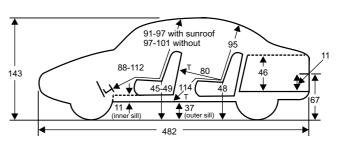


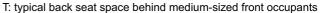
Assessed on their effectiveness and convenience						
(the more black	blobs the better)					
front OOOO rear OOO O	Door locking					
	central locking?					
Head restraints	remote control?					
front OOO rear OOO	auto window closure?					
	deadlocks?					
Interior	. –					
safety padding	Luggage					
driver's airbag?	secure from interior/hidden					
other airbags? (4)						
side impact protection	Alarm •••••					
Euclanti anillaga	engine immobilised?					
Fuel anti-spillage						
standard on test car 0 facto	ry fitted option 🗶 not available					
Euro NCAP crash test results - not available						
BRA	KES					
Pedal feel	ergency					
Dry road stopping distance from 50r	nph (with standard ABS)					
A good-to-average best stop is about						
	39m					
— 7kg — 🦳 🔽	0 00					
	0 33½m					
	0 33½m					
pe 10kg 0 10kg 0 0 10kg 0 0 10kg 0 0 10kg 0 0	0 33½m n					
pe 10kg 0 10kg 0 0 10kg 0 0 10kg 0 0 10kg 0 0	0 33½m					
$\frac{10 \text{kg}}{10 \text{kg}} = 10 \text{kg} = 27 \text{m}$	0 33½m n m (1.0g - best stop ABS working)					
pe 10kg 0 10kg 0 0 10kg 0 0 10kg 0 0 10kg 0 0	0 33½m n m (1.0g - best stop ABS working) 					

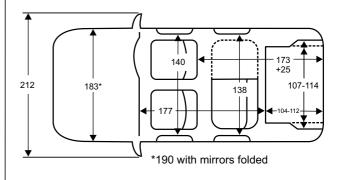
10kg at start of test, 12kg at end of test (Ideal brakes show no change)

MEASUREMENTS

Five-door saloon







said, the all-disc system, complete with ABS and EBD (electronic braking distribution), gives tremendous reassurance when used in earnest, with no fear of skidding, of course, no matter how hard you press.

Driver contentment is assured by generous headroom and, in fact, lots of room all round, but mostly by an exceptionally comfortable seat which, if you opt for the two Winter and Premium packs, is heated (as is the front passenger's) and electrically adjusted. Also included are headlamp wash and wipe and electric folding door mirrors. The steering wheel is adjustable for reach and rake and carries convenient buttons for the superb eight-speaker sound system, cruise control (on the SE) and the £2500-extra satnav guidance system.

All this may sound horrendously complex, but isn't. Overall, the cabin design is clean and functional and everything feels solid and carefully crafted – just listen to the way the doors "thunk" shut. The instruments and controls are models of clarity and, for the most part, sound ergonomics, but the pale grey facia top and the demister vents reflect badly in the windscreen.

Even with the standard trim you get a lot of the usual executive trappings, and with the SE there's also leather trim, a multi-function information centre and full climate control for the air conditioning. This set-and-forget system works particularly well to provide an equable atmosphere throughout the car, with help from separate driver and passenger controls, centre door-pillar vents and floor-level outlets for rear passengers' comfort.

There are five option packs to choose from (or you can select individual items of equipment), to tailor your S80 just the way you want it. The permutations are mind-boggling and would fill a slim volume on their own.

Back seat passengers are spoilt for spaciousness in all directions. There's more legroom and kneeroom here than in any of the Volvo's rivals, with only the E-Class Merc coming close. What's more, the seat is as comfortable and supportive as it looks. There's no shortage of storage boxes, side pockets, drinks holders and seatback pouches, either. The S80's secondary safety features are exemplary and include side airbags, a driver's airbag and an inflatable "curtain" that offers additional head and neck protection. There's also a two-stage seat movement that partially collapses the front seatbacks to help reduce whiplash if the car is struck from behind.

Among the security measures are a sophisticated alarm and immobiliser, laminated side windows and optional "approach lighting" : press a button on the remote control and the car's lamps and downlighters in the door mirrors bathe the car in light.

The long, wide boot is easy to load over the well protected back bumper, while lashing eyes and a neat, spring-loaded luggage securing band keep things firmly in place. The rear seatbacks – complete with a ski-flap – are divided 60/40 and are released by thiefproof triggers in the boot. They drop forward to reveal a huge load space almost 200cm (that's 6ft 6in) long. But there's more. Release a couple of catches and fold the front passenger seatback forward and you can carry a roll of carpet.

VERDICT

The S80 is Volvo's most sophisticated and refined model to date, and makes the old S and V90 feel positively medieval. It doesn't set new standards in the way of suspension (in fact, the often fretful ride is disappointing), neither does it have quite the same indefinable feeling of superb insularity that a BMW 5-Series possesses. It does, however, feel like a car built without compromise.

Indeed, it proves a really creditable alternative to the Teutonic trio of Audi, BMW and Mercedes that are its close rivals, thanks to its mechanical refinement (the power train is just superb), spacious club-class interior and splendid build quality – not to mention all those option packs. In addition, it's arguably the car that will best prevent you from having an accident, or will protect you from serious injury if you do.

LIKES AND GRIPES						
Wipers work well and have six-jet washers Excellent all-round vision Difficult to judge tail when parking Seatbelts comfortable and convenient "Bouncy castle" airbag protection Superb interior/courtesy lighting throughout car	 	but they whirr away noisily but windscreen shade band oppressive but a reversing sensor is available but you're "beeped" at until you put them on but you pay £200 for a front passenger airbag but dial dimmer and headlamp trimmer confusingly close				

HOW THE VOLVO S80 COMPARES	Engine cap/power (cyl/cc/bhp)		30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes† best stop (m/kg)	Maximum legroom - front (cm)	Typical leg/ kneeroom - rear (cm)	Steering turns/ circle (m)	Overall length (cm)
VOLVO S80 2.9 SE (AUTO)	6/2922/204	2500	8.3	Auto	24	251/2/20	112	114/80	3.0/11.6	482
Audi A6 2.4 SE	V6/2393/165	3100	8.8	21.6/15.2	301/2	23/19	109	100/74	2.8/11.15	480
BMW 523i SE	6/2494/170	2980	8.1	24.1/16.9	30	231/2/18	116	103/76	3.0/11.0	478
Mercedes Benz E240 (Auto)	V6/2398/170	2950	9.7	Auto	261/2	26/16	120	112/79	3.2/10.6	479
Saab 9-5 2.0t	4/1985/150	2350	9.5	30.7/16.3	311/2	251/2/32	110	103/79	2.9/11.0	482
Toyota Camry V6 (Auto)	V6/2995/188	2600	8.8	Auto	241/2	26/18	107	109/79	3.1/11.6	476
						† all with	ABS			