

# Volvo V70

Featuring 2.4SE (140bhp)



**O**VER THE YEARS WE'VE TESTED umpteen versions of the Volvo 850, but this is only the second time we've looked at the model as a V70 or an S70 (estate car and saloon respectively). And it's probably the last, because the model is due for replacement early next year. The change in nomenclature took place in December 1996, although mechanically the car remained pretty much the same under the skin – even to the all-alloy engines.

These are all based on the original two-litre, 20-valve five-cylinder unit, later supplemented by a 2.5 litre with either 10 or 20 valves. The result led to a somewhat confusing choice. Now, however, things have been rationalised as far as the non-turbocharged petrol models are concerned, with just two new revised 2.4-litre 20-valve “fives”, both of which, Volvo claims, offer major benefits compared with their predecessors, including more torque at lower revs, less noise and reduced emissions.

There's a choice of power outputs: 140 or 170bhp – the latter recommended if you opt for automatic transmission or indulge in caravan towing. But unless you need the 170bhp's extra muscle, the less powerful engine performs admirably. Indeed, it gives spirited

acceleration without the significant dolefulness at lower engine speeds that often afflicts multi-valve motors. Even so, you can feel it pulling really strongly by 4000rpm, to the accompaniment of a melodic hum from under the bonnet, which becomes a glorious five-pot howl the faster it spins.

And rev it will – beautifully smoothly, too, to make even this sizeable estate more entertaining to drive than you might think, especially as the gearchange is a pleasure to use. (Only, however, once the oil is warm; before that, selecting first and reverse can take several attempts.) Those who prefer life at a gentler, more relaxed pace will appreciate the engine's affability at lower revs – it will pull without fuss from about 1200rpm – and cruise with unstressed amiability on main roads and motorways, thanks to its long-legged top gear and generally low wind noise.

The V70 rides well under these conditions, as well, absorbing bumps and cushioning passengers effectively. It's not so clever at completely smoothing out road faults at town speeds, and on broken-topped B-roads, progress tends to be too fidgety on the 195/60 V-rated tyres for our liking.

No complaints about the steering, though – it's smooth, positive and nicely weighted, with the bonus of a usefully

*Continued on page 3*

## PERFORMANCE

### Acceleration time in seconds

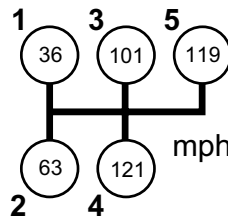
| mph                      | 30 | 40  | 50   | 60   | 70   |
|--------------------------|----|-----|------|------|------|
| <b>THROUGH THE GEARS</b> |    | 1.8 | 3.8  | 6.5  | 10.2 |
| <b>IN 5TH GEAR</b>       |    | 7.1 | 13.9 | 20.9 | 28.7 |
| <b>IN 4TH GEAR</b>       |    | 4.9 | 9.5  | 14.5 | 20.0 |

| 20 mph                      | 30 | 40        | 50       | 60       | 70       |
|-----------------------------|----|-----------|----------|----------|----------|
| <b>5TH/4TH SPEED RANGES</b> |    | 14.5/10.1 |          | 13.8/9.6 |          |
|                             |    |           | 13.9/9.5 |          | 14.8/10. |

### Maximum speeds

| REVS PER MINUTE | 1st | 2nd   | 3rd | 4th  | 5th  |
|-----------------|-----|-------|-----|------|------|
|                 |     | 6500* |     | 5650 | 4500 |

\* for best acceleration



## FUEL CONSUMPTION

|                                            |                     |
|--------------------------------------------|---------------------|
| Fuel grade                                 |                     |
| <b>Type of use - air conditioning off*</b> | <b>mpg</b>          |
| In the city - heavy traffic                | 17                  |
| In the country - quiet driving             | 38                  |
| <b>Typical mpg overall</b>                 | <b>29½</b>          |
| Realistic tank range†                      | 60 litres/390 miles |

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

## FOR THE TECHNICAL

### ENGINE

**Type** transverse five cylinder with alloy block and head; six main bearings

**Size** 83 x 90mm = 2435cc

**Power** 140bhp at 5700rpm

**Torque** 162 lb ft at 3750rpm

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

**Fuel/ignition** multi-point petrol injection integrated with fully programmed ignition via coil and distributor. 68-litre fuel tank with low-level warning lamp

### TRANSMISSION

**Type** five-speed manual (five-speed automatic optional); front-wheel drive

**Mph per 1000rpm** 26.5 in 5th, 21.4 in 4th

### CHASSIS

**Suspension** front: independent by MacPherson coil spring/damper struts and lower wishbones.

Rear: semi-independent by "Delta-link" torsion beam - interconnected trailing arms. Anti-roll bars and telescopic dampers front and rear

**Steering** rack and pinion with hydraulic power assistance. 3.3 turns between full locks. Turning circles average 10.5m between kerbs

**Wheels** 15in alloy with 195/60R15V tyres (Pirelli P6000 on test car). Space-saver spare

**Brakes** ventilated discs front, solid discs rear with vacuum servo. ABS anti-lock control standard

## SAFETY AND SECURITY FEATURES

Assessed on their effectiveness and convenience (the more black blobs the better)

### Seatbelts

front ●●●●○ rear ●●●●○

### Door locking

central locking? ☒

remote control? ☒

auto window closure? ☒

deadlocks? ☒

### Head restraints

front ●●●●● rear ●●●●○

### Interior

safety padding ●●●●○

driver's airbag? ☒

other airbags? (two front side impact) ☒

side impact protection ●●●●●

### Luggage

secure from interior/hidden from view ●●○○○

### Alarm

engine immobilised? ☒

### Fuel anti-spillage

●●●●○

☒ standard on test car ☐ factory fitted option ☒ not available

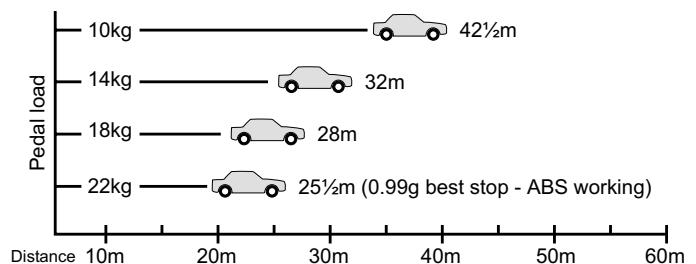
**Euro NCAP crash test results - not available**

## BRAKES

Pedal feel ●●●●○ Behaviour in an emergency ●●●●○ Handbrake ●●●○○

Dry road stopping distance from 50mph (with standard ABS)

A good-to-average best stop is about 26m at 15-20kg pedal load



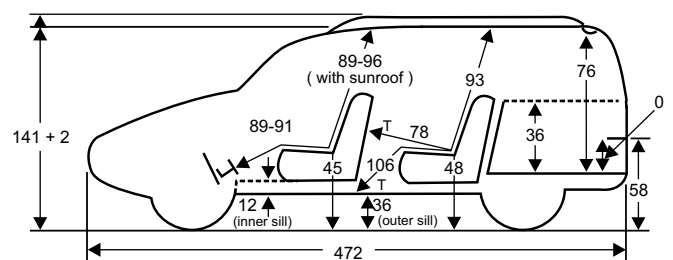
Fade test: pedal load required for a moderate (34m/.75g) stop:

14kg at start of test, 16kg at end of test (Ideal brakes show no change)

## MEASUREMENTS

Centimetres

Five-door estate



compact turning circle. The V70 handles in surprisingly nimble fashion, too; in fact, you can indulge in quite spirited cornering, with the tyres taking a tight toe-hold in the tarmac and body roll kept well in check. The brakes are reassuringly powerful and have a “just right” pedal feel.

Numerous steering wheel and seat adjustments (including those for height and lumbar support – also for the front passenger) mean that drivers of all shapes and sizes can be comfortably accommodated. Vision all round is excellent (you can see where the tail ends when reversing) and even better if the outer rear head restraints are flipped down. Some of the switches to either side of the steering column could be better placed, but the stalk controls work with pleasing precision and the instrumentation is clear and uncluttered.

Items in our car’s SE specification included cruise control, leather upholstery, wood trim and a handy six-function information centre. The radio/cassette is easy to operate, as well (no steering wheel controls, though), and has its antenna built into the rear side window glass. Also standard are an electric sunroof and climate control for the air conditioning. The latter is a set-and-forget system that works well to provide an equable atmosphere throughout the car, with the help of separate driver and passenger controls and rear floor level outlets. There are five option packs to choose from (or you can select individual items of equipment) to tailor your V70 just the way you want it; but be warned, the permutations are mind boggling.

Slippery leather apart, the back seat is as kind to passengers as it looks, with a well-angled, supportive backrest and comfortable thigh support. Legroom, kneeroom and space for feet are excellent, and a roof scoop provides good headroom. Pity the big front head restraints mar forward vision, though. Cleverly, the centre armrests unfolds to transform into a child safety seat, that you’ve always got with you.

This little party piece is only one aspect of a full complement of safety features for which Volvo is renowned. Apart from the now-familiar items, the V70 is equipped with a driver’s airbag, two side-impact airbags at the front (a front passenger’s airbag is a £200 option), SIPS side impact protection system and now, on the latest models, WHIPS – the company’s whiplash

protection system which partially collapses the front seatbacks to reduce injury if the car is struck from behind.

The back seat cushion and backrest are split 70/30 and will fold without the head restraints having to be removed or having the inbuilt seatbelts getting in the way. Although the seat catches aren’t lockable (not much point with just a flimsy vinyl load cover), the latching mechanisms show a red warning tag if they’re not latched correctly.

The carpeted rear cargo area is a regular shape and varies from generous to capacious (in fact it doubles in volume) when the back seat is folded. But there’s more: fold the front passenger’s seatback forward as well, and you can carry a roll of carpet or a similar long load. That said, when all the seats are occupied, luggage space beyond the high-lifting tailgate isn’t as massive as you might suppose because, despite the fact that a space-saver spare wheel is used, the load area is relatively shallow with the load cover pulled over.

Among the security measures are an alarm and immobiliser, remote-control central locking with deadlocks, and “home-safe” lighting that illuminates the way to your front door for half a minute.

## VERDICT

**Some swanky estate cars are simply fashion statements – plenty of grace but short on space; the V70, though, is the genuine article. True, its load space could be deeper to advantage, and the unladen low-speed ride more resilient, but in general it’s a load-lugger *par excellence*.**

**Drivers can’t fail to be beguiled by that peach of an engine and impressed by the finely engineered chassis, while passengers sit in spacious comfort, cocooned in one of the world’s safest cars, irrespective of price.**

**The 850 Estate/V70 has had a long and successful run, and although now in the twilight of its years, it carries its age well, thanks to its sound build quality and impeccable finish, not to mention the permutations of its option packs. Its updated and more stylish replacement, that’s waiting in the wings, will find it a tough act to follow.**

| <b>HOW THE V70 COMPARES</b>                              | Engine cap/power (cc/bhp) | Revs at 70mph (rpm) | 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) |
|----------------------------------------------------------|---------------------------|---------------------|------------------------------|---------------------------------|--------------------|--------------------------|------------------------------|----------------------------------|------------------------------|---------------------|
| <b>VOLVO V70 2.4 ESTATE</b>                              | 2435/140                  | 2650                | 10.2                         | 28.7/20.0                       | 29½                | 25½/22                   | 109                          | 106/78                           | 3.3/10.5                     | 472                 |
| <b>Audi A4 1.8 20v Avant</b>                             | 1781/125                  | 3330                | 10.3                         | 24.8/18.0                       | 35½                | 24/23                    | 109                          | 95/68                            | 2.8/10.7                     | 448                 |
| <b>Ford Mondeo 2.0i Estate †</b>                         | 1988/130                  | 2960                | 8.7                          | 26.0/16.8                       | 35                 | 27½/18                   | 109                          | 100/71                           | 3.0/10.4                     | 463                 |
| <b>Saab 9-5 2.0t Estate</b>                              | 1985/150                  | 2350                | 9.5                          | 30.7/16.3                       | 31½                | 25½/32                   | 110                          | 103/79                           | 2.9/11.0                     | 481                 |
| <b>Vauxhall Omega 2.5TD Est (diesel)</b>                 | 2498/130                  | 2350                | 14.0                         | Auto                            | 31½                | 24/18                    | 114                          | 95/70                            | 3.1/10.7                     | 482                 |
| <b>VW Passat 1.8S 20v Estate</b>                         | 1781/125                  | 3350                | 10.9                         | 26.2/19.1                       | 31                 | 26½/30                   | 112                          | 100/78                           | 2.8/10.9                     | 467                 |
| † performance and economy figures from saloon equivalent |                           |                     |                              |                                 |                    | * all with ABS           |                              | † all power assisted             |                              |                     |

*Continued overleaf*

## LIKES AND GRIPES

|                                                                              |     |                                                                                   |
|------------------------------------------------------------------------------|-----|-----------------------------------------------------------------------------------|
| Good all round vision for driver                                             | ... | but light coloured facia top reflects in screen                                   |
| Clearly marked, easy-to-read dials                                           | ... | but some switches and their tiny tell-tales hidden                                |
| Excellent seatbelts for all occupants                                        | ... | but reminder's flashing and ticking is irritating                                 |
| Rubber lined storage areas                                                   | ... | but dearth of drinks holders                                                      |
| Smooth, progressive clutch and throttle linkage for snatch-free town driving | ... | but interior mirror stiff to adjust and seat recline handwheel not ideally placed |
| Even the load area is beautifully trimmed and carpeted                       | ... | but flimsy pull-out load cover looks and feels cheap and cheerful                 |

