

BUYING GUIDE

1991-1996

VOLVO 850/T-5R

Practical, comfy and – in turbo spec – very quick, the 850 ticks most boxes



The 850 marked the point at which Volvos became fun to drive. It may have looked much like the 740 and 760 models that it replaced, but it was all-new.

It was billed as 'a dynamic car with four world firsts' when it was launched – a transversely mounted five-cylinder engine, sophisticated new 'Delta-Link' rear suspension, self-adjusting front seat belts and Volvo's famous Side Impact Protection System (SIPS). Most are front-wheel-drive but a four-wheel-drive model followed later.

Which one?

Most of the 850s available are 2.0 and 2.5 petrol models – there aren't many of the Audi-engined five-cylinder diesels around because they weren't very popular and only introduced a year before 850

production ended. 2.0-litre cars aren't popular either because they're underpowered and thirsty. The 2.5-litre cars are better, but the turbocharged T5 offers genuine pace with decent economy. It was a mainstream production model so finding one today is reasonably easy but the rare and highly sought-after limited-run T5-R – just 200 saloons and estates were sold in the UK – is harder to track down. The T5-R proved to be such a success that Volvo turned it into a mainstream production model – the 850R – and offered a four-wheel-drive version. The all-wheel-drive system proved to be unreliable however and now seems to be pretty much extinct.

Bodywork

Start by checking the leading edge of the bonnet, which gets stone-chipped then begins to rust.

Face-lift

The original S70 and V70 were essentially mildly facelifted 850s with different headlights and indicators, so most 850 buying advice is applicable to them.



PRACTICAL CLASSIC? LIVING WITH A VOLVO 850

Few cars are as practical as a Volvo estate, but when it's packing a 225bhp turbo-charged engine it has performance to match.

We spent a week with a T5 and were

amazed at just how capable it is on so many fronts. It swallows huge loads with ease, cruises at speed in near-silence and feels remarkably comfortable for something that once

formed the basis of a British Touring Car.

Speaking of which, performance is colossal, so there's all of the overtaking muscle on tap that you could ever need, though the engine

offers plenty of scope for tuning.

Best of all though, all that power comes wrapped in a sober and discreet shape that, big alloy wheels aside, flits under most people's radar.

Production line

How the 850 changed Volvo's image

1991 The Volvo 850 makes its world debut at the Stockholm Globe Arena, replacing the preceding 740 and 760 ranges.

1992 The 850 saloon goes on sale and is offered with two petrol engines: a 2.5 and 20-valve 2.0. GLT is the only trim level available.

1993 Estate debuts in GLT form with 2.0 or 2.5 petrol engines. 850 Turbo launched with a 225bhp 2.3-litre engine. Becomes the T5 in 1994.



1994 850 2.0 and 2.5 are now available in SE and GLE forms as well as the existing GLT.



Dual fuel

Volvo offered a dual fuel 850, with a factory-fitted LPG tank. They're difficult to find because few were sold in the UK.

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45-year old male, postcode PE27, garaged, second car, club member, clean driving history. 1996 Volvo 850R valued at £4000. £150.14 or £167.14 including AV.



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The front wings corrode just ahead of and behind the wheelarches (replacement wings are £150 each) and the inner wings get holed where they meet the chassis rail. On estates check along the lower edge of the rear side windows; corrosion festers beneath the rubber trim and by the time you know there's a problem it's too late to do anything about it.

The rear wheelarches also rot along their leading edges from the inside out and examining the spare wheel well from underneath will probably reveal that it's holed. It doesn't help that the lacquer peels, weakening the paint and leading to corrosion.

What to look for: oily bits

There are two five-cylinder engine families; one petrol and one diesel. The all-aluminium petrol unit came in 2.0 and 2.5-litre guises with the smaller unit available as a 10-valve or 20-valve. There was also a 2.3 turbo in the T5, T5-R and 850R.

A common issue with the petrol engine is an oil leak from the main rear seal between the engine and gearbox. You can fix it yourself (though access is poor) but a specialist will charge £300-£500, despite the fact that the part itself costs just £10. The turbo return pipe seal also hardens, leading to



OUR SPECIALIST

Kevin Price founded the Volvo

Enthusiasts' Club in 1989 and has owned nine 850s over the years, including Rickard Rydell's Touring Car. He says: 'I have two T5-Rs to restore, plus various other Volvos. The 850 is superb – it's

comfortable and reliable and I've done a lot of miles in mine.'

SELECTED SPECIALISTS

- Brookhouse Volvo, Ipswich. 01473 218806, classicvolvoparts.co.uk
- Charlwood Automotive, Surrey. 01293 863535, charlwoodautomotive.com
- David Pengelly

Autocare, Notts. 0115 978 1117, dpanottingham.co.uk

► Formula Cars, Somerset. 01823 661200, formulacars.co.uk

► Independent Volvo Services, Herts. 01462 683200, independentvolvoservices.com

► PFS Parts, Northants. 0844 800 2742, partsforvolvosonline.com

the underside being coated in oil; replacements are just £2 and replacement is a straightforward job.

The Positive Crankcase Ventilation (PCV) system clogs up leading to a build up of pressure in the crankcase and blown seals. The set-up comprises a series of small vacuum lines which become brittle and break, leading to uneven running and a loss of power. The lines are hidden under the intake manifold but it's worth inspecting them every



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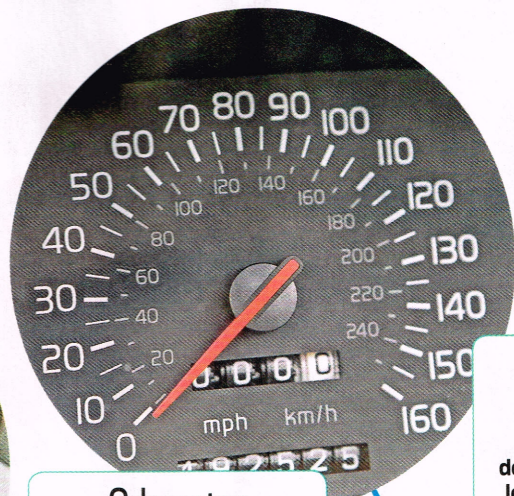


Spot the grot

...where the Swede suffers

Thermostat

Thermostats fail in the closed position leading to overheating. Fitting a new thermostat every few years is wise.

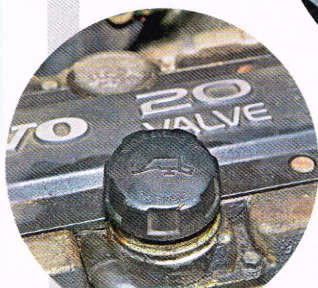
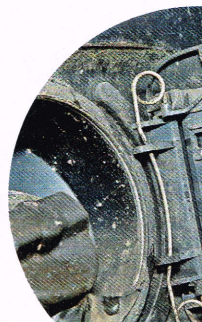


Odometer

Replacements for failed plastic gears in the odometer/tripmeter are available through specialists – but not Volvo.

Fuel filler flap

The fuel filler flap's plastic hinge deteriorates over time, leaving the door itself hanging off.



Oil seal

The oil filler cap seal hardens and oil then leaks into the spark plug recesses leading to misfires. Replace the seal every other oil change.



other service and replacing the hoses every 80,000 miles or so – a kit costs £100.

Mass Airflow Sensors fail on non-turbo models because the thermostat in the air filter housing gives up the ghost. This leads to hot air flowing through the MAF, which cooks it. A new MAF sensor costs £190 and is easy to fit.

If the engine is reluctant to start or rev the fuel pump relay has probably failed. A new one costs £29 and just slots in. Beware any 850 whose timing belt hasn't been replaced within the last 50,000 miles or five years – the engines are an interference fit so a snapped belt can destroy them. A new water pump with improved impellers should be fitted at

the same time; they're £130 each with tensioners, £35 without. The engine's top mount/stabiliser is a known weak point but the bushing can appear intact even when it isn't. The bottom engine mount can fail too, although this is rare. New top bushes are £16 and easy to replace.

All 850s were fitted with a catalytic converter – it doesn't generally give problems, but a full new exhaust system costs £300-£400 depending on which engine is fitted.

All 850s got a five-speed manual gearbox as standard with a four-speed automatic a popular option. The manuals will rack up enormous mileages before they start to wear and the clutches are



THE OWNER

The 850R pictured is one of four Volvos owned by Stuart Mills. He says: 'I bought it to tide me over while another car was off the road, it's now done 224,000 miles and is my favourite of the fleet. It's a joy to drive!'

Production line

How the 850 broadened its appeal

1994 The 850 2.0 and 2.5 are offered with SE and GLE trim levels from October.

1995 A 126bhp entry-level 10-valve 2.0 petrol engine is introduced in January.

1995 The 250bhp 850R saloon and estate are launched together with the first diesel 850 – the 140bhp 2.5 TDi.



1996 Facelifted 850 launched as the S70 (saloon) and the V70 (estate). 850 AWD debuts in estate form only with a 193bhp 2435cc engine.

Boot trim

The interior trim panel on the tailgate often comes loose, so the door doesn't close properly and the lock won't latch.

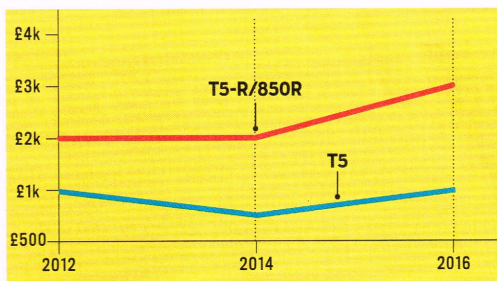
T-5's understated looks belie huge power.



THE VOLVO 850 MARKET

If you're buying one of the more mainstream editions, what you pay will be dictated more by the condition and mileage than the spec. Most 850s have covered plenty of miles because they were popular with business users; if you do find a mint, low-mileage 2.0 or 2.5 it's unlikely to fetch more than £1500. Expect to pay

anywhere between £2000 and £3000 for a good T5; an equivalent T5-R can be worth up to £5000. The model that everybody wants is a Gulf Yellow T5-R estate. Find a low-mileage one of these in superb condition and it could fetch as much as £10,000, but such cars are rare and don't come onto the market very often.



strong too. The automatic gearbox is also tough, although those fitted during the first two years of production weren't as durable as later versions. The ATE/Teves ABS module fitted after 1995 tends to fail – the warning light on the dashboard staying on when the engine is running is the biggest clue. It can be rebuilt for £145.

Make sure there's no play in the front wheel bearings because they can't be replaced on their own – you have to fit a new hub, complete with bearings, although it's an easy job. A set of bearings typically lasts 60,000 miles; replacements cost £145 per side. Groaning from the front at low speed as the wheels are turned

points to failed strut mounts. They have a rubber-encased upper spring seat and the rubber perishes, so open the bonnet and look for signs of the rubber cracking or pulling away from the centre sleeve.

Rattling from the front on bumpy roads suggests worn anti-roll bar links. Volvo changed the design after the first year of production so it's worth upgrading an early car's anti-roll bar to the later design. It's more expensive, but also more durable.

Cars built in 1993 have four-bolt wheels; five-bolt items were fitted from 1994. Although the five-bolt wheels share the same PCD as the older rear-wheel drive models, different offsets mean they can't be fitted to an 850.

Tailgate

The tailgate rusts behind and around the number plate, as well as in the seam below the rear window.



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TECH SPECS

Model	850 2.0 20-valve	850 2.5	850 T5	850 T5-R	850R
Engine	1984cc/5-cyl/DOHC	2435cc/5-cyl/DOHC	2319cc/5-cyl/OHC	2319cc/5-cyl/OHC	2319cc/5-cyl/OHC
Power	143bhp@6500rpm	170bhp@6200rpm	225bhp@5200rpm	240bhp@5600rpm	250bhp@5400rpm
Torque	130lb ft@3800rpm	162lb ft@3300rpm	221lb ft@2000rpm	221lb ft@2000rpm	258lb ft@2400rpm
Top speed	120mph	127mph	141mph	144mph	144mph
0-60mph	11sec	10.1sec	7sec	7.3sec	7.8sec
Economy	30mpg	28mpg	30mpg	25mpg	24mpg
Gearbox	5-spd man/4-spd auto	5-spd man/4-spd auto	5-spd man/4-spd auto	5-spd man/4-spd auto	5-spd man/4-spd auto
Length	15ft 3in (4.66m)	15ft 3in (4.66m)	15ft 3in (4.66m)	15ft 3in (4.66m)	15ft 3in (4.66m)
Width	5ft 9in (1.76m)	5ft 9in (1.76m)	5ft 9in (1.76m)	5ft 9in (1.76m)	5ft 9in (1.76m)
Height	4ft 7in (1.40m)	4ft 7in (1.40m)	4ft 7in (1.40m)	4ft 7in (1.40m)	4ft 7in (1.40m)
Weight	3256lb (1480kg)	3175lb (1443kg)	3197lb (1450kg)	3304lb (1500kg)	3399lb (1545kg)



Replacing a failed aircon evaporator is a dash-out job.

Trim and electrics

Most 850s have cloth trim but many got either full leather or leather with cloth or Alcantara. The latter looks great but isn't easy to clean – T5-Rs have it on the bolsters, lesser models have it in the middle.

Heated seats are fitted to most 850s, but it's worth checking that they're working because the heating elements can fail. Fitting a new one is fiddly, so most owners don't bother.

The 850 came with plenty of standard kit. Many buyers want air conditioning, but this was initially an option on the 850 so isn't fitted to all cars. However, it's not always reliable and repair costs can be high. The condenser sits in front of the radiator so it's vulnerable to puncture damage from flying stones and road debris. New ones are £138 and you'll have to get the system regassed too (another £50-£75). Later cars got a stone guard to protect against damage – check it's still fitted.

The aircon evaporator can also fail and replacing it involves taking the dashboard out. It doesn't help that only left-hand drive replacements are currently available. One other issue to look out for concerns the evaporator, which gets wet from condensation, soaks up dust sucked in from the heater fan and all-but guarantees corrosion. ■

FOR SALE

Volvo 850s from...

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1994 850SE

£650

2-litre automatic, 91,000 miles. Converted to run on LPG.



1994 850SE

£450

2.5-litre petrol engine, bodywork in great condition.

VOLVO 850 PROJECT BUYER

You won't find many people restoring a Volvo 850 yet; to most people an 850 project means either recommissioning a car that's been standing for ages or creating a fast road or track car, as there's a surprisingly large number of go-faster products available.

If you're in the former category, there isn't much to fear; most jobs are within the realms of the DIYer. Earlier cars tend to be easier to work on from an electronics point of view because it's easier to trace faults with the engine management system. However, an onboard diagnostic tester or Volvo Scan Tool aren't costly at around £50 and can be used to get the car to tell you what's wrong with it.

If you're buying an 850 to tune it then you'll be in good company; there's no shortage of enthusiasts peppering up T5s by boosting the engine and upgrading the brakes and suspension. It's easy to coax a reliable 350bhp from the T5 engine; 400bhp is possible but beyond that you run the risk of compromising reliability. It helps that the



Crash damage is rarely economic to repair.

gearboxes are strong enough to cope if the fluid is changed at least every couple of years.

WHAT TO PAY?

Project: £300-£1000
Runner: £1000-£3000
Good: £800-£5000

Estates are more desirable than saloons and command slightly higher prices.

THINK AGAIN IF...

- There's significant corrosion to any of the outer panels; the cost of repair or replacements will be too much relative to the car's eventual value, unless it's a T5-R.
- There's significant accident damage, especially if it extends to the chassis. You'll never recoup the cost of professional repairs, unless it's a T5-R or you have a donor car you can plunder for parts.



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