

## Preface

*For many years, the author has been known as 'the mad 9000 enthusiast', due, some would say, to an irrational fondness for that model. Inevitably, NG900s, 9-3s and of course, 9-5s were to follow and hundreds of thousands of miles have been covered in a number of cars that will remain a closely guarded secret lest the men in white coats beat a path to my door.*

*This guide aims to cover the history of the 9-5 range from its introduction in 1998 through its evolutionary stages right up to date. By sharing experiences with a variety of petrol and diesel powered saloons and estate models, the author intends to point out the benefits and pitfalls of 9-5 ownership. It is hoped that the guide will assist buyers and potential buyers in making the correct decisions when choosing a car for themselves.*

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# The SAAB 9-5 Buying Guide

## 1.0: Introduction and origins

The last SAAB 9000 rolled off the production line in 1997, although a number of unsold models lingered at UK dealerships into the second half of 1998. Trollhattan's best efforts with the 9000 had resulted in a model that looked and felt rather different from the first models released to the public gaze in 1985 but despite all the improvements, a replacement was overdue.

Work had started in earnest on a successor to the 9000 series in the late 1980s. In an effort to reduce production and development costs by the use of shared components for the 9000 series, SAAB, Fiat, Alfa Romeo and Lancia had collaborated to build variants of a common base platform. The logic was sound enough but engineers from each company had very different ideas and disagreements led to just 4 components being shared! Undeterred, SAAB needed to reduce tooling up costs for production another way and ultimately, the solution lay in an alliance with General Motors that would give the Swedish maker cost-effective access to existing technology as well as pressings and castings like suspension and brake components.

Initial work on the project appeared promising but it became apparent that a bigger car than the 9000 was not going to appeal to a market that was becoming more interested in energy conservation and efficiency. Inevitably, the project was cancelled but in February 1993, the team for Project 640 met for the first time. Starting over was a big step and time was limited but the 7 man design team led by Tony Catignani rose to the challenge. The design brief was to build a car that was strong, aerodynamic, safe and appealing to customers but which carried over certain styling traits and characteristics inherited from the 9000 range. In the past, buyers have been less than enthusiastic when makers kick over the traces with a radical makeover, as Ford discovered when they introduced the Sierra range.

Ironically, SAAB had dropped the 9000 4 door saloon from the last year of production but the new replacement was to be offered in 4 door form only, in response to a shift in buying trends within the sector away from hatchback styling. Another change was the

announcement (later) of a 5 door estate version, which with the benefit of hindsight, was a very shrewd move in light of Ford's decision not to replace the Ford Granada Scorpio range with a new model.

### 1.1: Production history: 1998-2001

Production of the 9-5 (pronounced nine five rather than ninety five) began in 1997 and the first cars on sale in the UK reached dealers' showrooms in August. The range comprised an entry model that would appeal to fleet buyers and an SE variant with rather more equipment as standard. For the first time, all models within the range came with a turbo-charged engine, abs brakes, heat absorbing glass and climate control as standard. Initially, the 9-5 was available as a four door saloon only.

The body shape, although based on a mid size GM platform -in essence just the actual floor pressings- incorporated a number of instantly recognisable SAAB traits. A 'clam shell' style bonnet and curving C post helped the new car look right from the outset.



The SAAB 9-5 saloon looks good from any angle. This car is a 1999 2 litre SE with manual transmission.

Engine options offered to buyers in the first year of production may have appeared unexciting, with an air of 'business as usual' but this was not the case. Although the 4-cylinder engines retained the same displacement, there was no normally aspirated option and although the units looked near identical to the B204 and B234 engines that had powered the 9000 range, the new B205 and B235 were very different to

their predecessors. Those casting a casual glance over the newcomers might have noted that the colour of the direct ignition cassettes (in the middle of the cam box cover) had changed from red to black but this was symptomatic of a much more radical makeover to the engine management system. A new family of turbo chargers, in the form of the Garrett GT17 replaced the familiar T25 of old but for the first time, the turbo was hidden beneath a heat-shield. SAAB engineers had totally redesigned the engine mounting arrangement too, opting for the shear-off type at the rear, that had first been seen on the NG900 while at the side, the torsion arm that had been susceptible to worn bushes had been replaced by a much more convincing alloy yoke.

The real differences between the 9000 and 9-5 4-cylinder engines only became apparent to technicians and parts staff who would have spotted at once that pistons, connecting rods, timing case, cylinder head (with new valves and guides) together with new inlet and exhaust manifolds were all new, along with a breather system that was to cause endless trouble as the cars grew older.

Gearboxes, flywheels and clutches too were different. The 5-speed manual transmission was standard fitment in 4-cylinder 9-5 models, retaining hydraulic actuation for the clutch but with revised and improved pipe work in a bid to eliminate a weakness that had proved something of a problem on the 9000, as the cars had grown older. At last, the old ZF HP18 automatic transmission was replaced by a new 4-speed, electronically controlled Warner-Aisin unit (designation AF30). The new gearbox featured normal, sport and winter mode programs and direct mechanical drive in third and fourth ratios.

## **1.2: Safety: a SAAB forte**

Safety has always been high on the agenda at SAAB. Accordingly, much development time was expended on making the new model meet and exceed legislative requirements for any market in which the range was intended to be sold. Even so, SAAB have been collecting real accident data for many years because engineers appreciate that benchmark tests are contrived simulations that may not fully reflect actual accident scenarios in real life.

Predictably, the 9-5 bristles with safety features, the least obvious of which is probably the body shell itself, which, has been designed around the cabin as a safety cell. Impact beams reinforce the doors, while the front seat frames have SAAB Active Head Restraints, an innovative feature designed to restrain a passenger's head in the event of impact forces in a rear end collision exceeding a critical amount. Driver and passenger airbags within steering wheel and dashboard respectively are backed up with seat side bags, offering ample protection. Backrests in the rear of the 9-5 are specially reinforced to prevent shifting loads in the luggage boot from penetrating the cabin in the event of a crash and ALL rear seat passengers are provided with proper 3-point seat belt restraints.

In view of these efforts, readers will hardly be surprised to learn that the 9-5 acquitted itself very well in Euro NCAP crash performance tests.

## **1.3: Security**

The author has seen a number of 9000s that have come to premature ends due to the unwelcome attentions of society's less salubrious elements. Smash and grab merchants often prised door locks and smashed alloy steering columns to make their getaway and catching a stolen car with the performance potential of a 9000 turbo presented law enforcement agencies with a headache.

A 'double DIN' audio system was specified that simply would not fit ordinary cars but if the deterrent effect of the unusual appearance didn't work, engineers resolved to frustrate the crude tactics of thieves further by 'marrying' the head unit to individual cars. This negated the need for a radio code if for any reason the car's battery was to be disconnected but required a visit with the car to a dealer if the head unit was to be used in a different car so it could be 'divorced'. Ill informed dismantlers and breakers sometimes assume that 9-5 audio systems can be decoded by radio specialists but this is a fallacy! Only a dealer or independent specialist with an AD 400 Tech2 scan tool can divorce an audio system and only if it is still attached to the original car to which it was fitted - a unit on its own cannot be decoded or divorced and is useless.

In order to make life tougher for thieves trying to gain access to cars in the first place, engineers fitted a raft of measures under the umbrella of TWICE - an acronym for Theft Warning Integrated Central Electronics. Some of these features included anti-tilt, ultra sound and glass break sensors plus deadlocks to all doors. In addition, the door handles were, in effect, armoured so attempts to break the lock are futile - all that will result is the lock will spin uselessly in the housing.

Keys too were coded so that the chip transponders would operate on a system of rolling codes stop thieves in their tracks who tried the old tactic of smashing the ignition barrels. Similar measures have been adopted by other makers but if thefts of vehicles by those using brute force have fallen, owners need to be aware of so-called millennium thefts, whereby thieves using rods and wire poked through letter boxes to hook keys from inside properties have risen.

On the 9-5, the position of the ignition key reverted to what would be the transmission tunnel on more conventional cars. This wasn't so much paying lip-service to traditional SAAB practice or quirkiness, so much as a response to analysis of real life accident data which revealed a disturbingly high incidence of knee injuries. An advertisement of the time says it all: "We moved the ignition key so surgeons won't find it where they used to". If this is true, it surely begs the question why no other maker has followed suit.

#### **1.4: The V6 3 litre engine option appears**

The 24-valve 3.0 V6 unit appeared as an option in February 1998. It was not the same as the old unit fitted to the 9000. As pioneers of turbo-charging, SAAB engineers achieved a world first by introducing an asymmetrical turbo charger on a V6 engine configuration whereby the turbo is powered by 3 cylinders yet boosts all six. Those familiar with the NG900 V6 or the 9000 Griffin would be aware that somehow the old 3 litre unit never really delivered the expected punchy performance but turbo-charging the unit resulted in much more low-end power and more efficient combustion.

#### **1.5: The 9-5 Griffin**

The 9000 Griffin had been the range flagship and the new 9-5 Griffin followed in much the same style, with every conceivable option available including sunroof, SAAB Parking Assistance (SPA) and auto-dipping rear view mirror included as standard. Long spoke 16" wheels (ALU 27) unique to the model made the Griffin instantly recognisable on the road. Automatic transmission allied to the 3 litre V6 engine was the only choice available.

Inside the cabin the luxury theme continued with, somewhat predictably, the ventilated leather as standard but the special leather steering wheel with wood inserts that harked back to the 9000 Anniversary was unique to the Griffin. Owners of lesser 9-5s could purchase the steering wheel from the SAAB Accessories range... at a wallet-bending £337 +VAT!

Overall, the package was attractive and designers achieved their objective of building a refined and understated car capable of rapid progress with minimum fuss. The turbo-charged engine developed considerable low end torque but was best suited to long distance work, with which it coped with ease.

## 1.6: The SAAB 9-5 estate

The five door estate version of the 9-5 did not appear until November 1998 but was well received by family buyers and those who travel habitually with lots of goods. As with the saloon, there was a choice of 2 litre, 2.3 litre 4 cylinder or 3 litre V6 turbo-charged petrol engines. Four cylinder engined cars could be had with standard manual transmission or optional automatic but there was no manual 5 speed option on the V6, with a self-changing automatic gearbox being standard. Well designed, easy to load and with plenty of space even with the seats up or split 60/40, the estate certainly looked the part. With the seats folded, the 9-5 estate could more than hold its own with products from rival makers such as Audi, BMW, Mercedes-Benz and Volvo.



A 2.3 manual 9-5 SE estate catches the glint of a spring afternoon sun

**Above:** a 2.3SE manual estate catches the glint of a spring afternoon sun

A new body style spawned one or two useful new accessories, in the shape of cargo nets, a dog guard and even a sliding boot floor with alloy catches to which loads could be secured.

The roof rails also provided additional carrying capacity for those for whom the estate wasn't quite versatile enough. Those wishing to fit racks and adaptors to carry ski or snow board holders, bikes and kayaks or canoes or even the Thule type transport box were amply catered for by a good range of high quality fittings available from SAAB's accessories range.

## 1.7: The 9-5 Aero

Performance enthusiasts had to wait until 2000 before the Aero version finally appeared. With the B235R engine, owners benefited from an uprated 2.3 engine producing 230 bhp and 250 Nm of torque. With 60 bhp more than the standard turbo charged engine, performance was stirring. Traction control (TCS) was standard to prevent wheel spin and the package included bigger front brake calipers and discs to help handle the extra performance.



9-5 Aero: note the colour coded bodykit and 17" alloy wheels

Externally, the Aero could be distinguished by its lower stance, achieved by stiffer and lower springs, 17" 'hammer head' alloy wheels and colour coded body kit that comprised sill skirts and spoilers for both front and rear bumpers. The cabin featured leather seats as standard and a special, sports leather steering wheel with ventilated hand grips. As with the 9000 CS Aero, no wooden fascia was fitted but drivers did get a boost gauge instead.

On the road, the stiffer suspension and lower stance made for superb roadholding and handling. The bigger front brakes also reassured drivers exploiting all the extra power available. Unlike the 9000, there was no power penalty for choosing automatic transmission (manual 9000 Aero models were rated at 225bhp but the automatic Aero 9000 was fitted with the full pressure 200bhp engine).

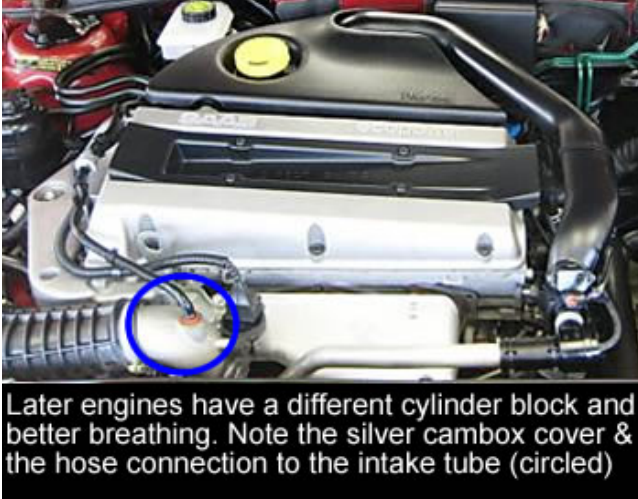
Subtle changes, ranging from those obvious even to the casual observer through to modifications to the running gear that might only be detected by technicians or parts staff, were carried out during the production run. Cars ordered with SE specification received leather upholstery as standard from late 1999 and a year or so later, the SE specification was further enhanced by the addition of Traction Control, an auto-dipping rear view mirror and leather door cards, which had, of course, been standard on the Griffin since the outset. Buyers who loved the purposeful look of the Aero but didn't need the power were catered for with the availability of a new trim level - the Airflow. This was basically a standard 9-5 equipped with 17" Aero 'hammer head' wheels and wearing the Aero bodykit of side skirts and bumper spoilers. At about this time, the SAAB emblem was simplified with the words SAAB-Scania being omitted on the new logo, which was a slightly larger Griffon's head.

## 2.0 9-5 Production history: 2001-2006 Second generation

The 2002 model year brought a raft of revisions starting with a sharper external appearance and new trim levels designated Linear, Arc and Vector, together with some new engine options. Across the board, automatic gearboxes gained an extra ratio (now 5 speed) but while the familiar 4 cylinder petrol engines continued much as before, diesel

engine options appeared for the first time. Meanwhile the former flagship Griffin was quietly dropped, ostensibly because too few cars had found buyers.

Although to the untutored eye, there appeared to be few changes on the surface, under the skin development continued. Specifications changed subtly so that Aero models gained Xenon headlamps, different front bumpers and heated front and rear seats as standard equipment and the occasional new colour appeared.



Later engines have a different cylinder block and better breathing. Note the silver cambox cover & the hose connection to the intake tube (circled)

More significantly, a long standing potential problem with the design of the engine's crankcase breather system was addressed for the 2004 model year, with the introduction of a revised cylinder block. These engines may be readily identified by their silver, rather than black cam box covers. A Vector Sport 2.3 model was also offered, which slotted in between the standard Vector and the Aero for those who felt the urge for a little more power but didn't need 'the whole hog'. At 220 bhp, this was a sensible compromise but the author believes that the model is a very rare bird

apparently made for one year after 2004 and has never owned one!

## 2.1 Linear, Arc and Vector in detail

All the new models featured subtle exterior changes and a smoother, better rounded look. At the front, changes to the nose centred on a new front bumper with integral 3 piece grille, as opposed to separate one piece, chrome grille. Indicator units changed in appearance but there was a switch from headlamps with glass lenses and separate wipers to plastic lenses with high pressure washers. At the rear, the separate panel beneath the rear lamps became integrated with the bumper cover and the lights themselves were new, as were boot lids and tailgates (on estate cars). The opportunity was also seized to offer some fresh alloy wheels designs across the range.

The Linear superseded the old entry model and gained cast alloy wheels as standard equipment. Inside the cabin, there was still no wooden fascia or leather seat facings as standard but somehow, the package seemed more complete than the old 9-5 base. Further up the pecking order, the Arc could be identified as being most similar to the out going SE, with leather trim, light wood fascia and new slim line (16") five spoke alloys while the Vector was, in essence, a high specification SE with the Aero body kit, Aero steering wheel and 17" alloy wheels but without the high performance engine, larger front brakes and stiff suspension. Many Aeros had been retro fitted with wood fascias by their owners and SAAB recognized the need for a new fascia trim, choosing a matt silver alloy instead of wood. This alloy effect fascia was also fitted to the Vector. The Aero continued as before but with the engine output uprated from 230 to 260bhp. The 2.3 B235 engine was uprated from 170 to 185 bhp and gained the boost gauge in the instrument pod that had previously only been fitted to Aero models. At the same time, the petrol 3.0 turbo petrol V6 was phased out for the UK market.

## 2.2 Diesel dawn: 2.2 and 3.0TiD variants in detail

Following the success of the 9-3 diesel, two diesel options appeared for the first time in the 9-5 range: the familiar GM 2.2 Turbo Diesel was offered together with an all new, turbo-charged 24 valve common rail high pressure V6. This new all alloy engine delivered a stream of torque at very low revs and a blend of sparkling performance and impressive frugality impressed motoring journalists no end at the time.



**Second generation 9-5: this is a 3.0 V6 Arc TiD**

In fact, the engine (SAAB designation D308L) was sourced from Isuzu (itself part of the GM empire) and was basically the same unit that also featured in the Renault Vel Satis and the Vauxhall Vectra. Curiously, SAAB never offered an automatic option for the 3.0 diesel engine – although both Renault and Vauxhall did!

Four cylinder Petrol SAAB 9-5s were fitted with the Garrett GT17 – except the Aero -which was fitted with a Mitsubishi TD04- but the

D308L came with a larger GT24 unit with an electronic boost control capsule. An Eberspacher heater appears to have been fitted as standard: this diesel fired unit allows the coolant to be heated prior to start up in winter. This can be set on a timer from the SID (SAAB Information Display) so that the heater starts up automatically at a given time set by the owner. The first time the author's brother took advantage of this feature in bitterly cold weather, a bemused neighbour informed him that while he'd been scraping ice from his own car, the SAAB had apparently 'started making a funny noise' and proceeded to defrost itself, whilst still locked up! The advantage of this is that not only is engine wear reduced but also on cold frosty mornings the car can be started easily and there is heat available to clear the screen and warm the cabin from the outset.

## 3.0: 9-5 Production history: 2006-2008 Third generation

The SAAB mantra 'Evolution, not revolution' works very well in so far as a continuous programme of product development results in a superior car that is the sum total of countless improvements but in a very competitive market in which rivals with bigger budgets release newer models, buyers sometimes seek something that looks different.

When the third generation 9-5 appeared (for model year 2006), reactions were mixed. Perhaps SAAB could have been forgiven for carrying out a quick, cosmetic makeover in view of the expectation of an entirely new 9-5 within a couple of years more but this was no quick fix so much as a major and radical revision. If the second generation cars were beginning to look a little dated, the 3rd generation cars were a shock to the system for diehard SAAB buyers and some critics dubbed the new car the 'Dame Edna' model. This rather unkind, negative view masked the inescapable conclusion reached by those who really knew their SAABs that this latest 9-5 was a very competent machine indeed.

Changes to the external appearance had incurred considerable expense: the last styling revision for 2002 model year cars used the same bonnet and front wings as the original 9-5 of 1998. Now, the new model had a new bumper cover design, grilles, all new lights, a new bonnet and different front wings, to say nothing of a new slam panel. At the rear, the boot lid changed, along with the back lights and bumper covers on both saloon and estate variants.

Inside the cabin, though, there had been a design revolution. SAAB dashboard and fascia layout traditionally emulates a flight deck, with all controls and instruments laid out in easy reach and the new dashboard continued in the same vein. A revised steering wheel and new seat fabrics and different leather options completed a transformation that was better received than the new external styling.

Engine and transmission options changed slightly too, with the 182 bhp V6 3.0 diesel being dropped along with the venerable 120 bhp 2.2 TiD. Both were replaced with a new 4 cylinder turbo charged and intercooled diesel 1.9 (1910cc) TiD rated at 150bhp (the same output as the petrol 2 litre but boasting more torque).

Later, a Biopower option became available in the UK but sales were slow, due to the lack of availability of the new fuel. Even so, the Biopower was able to run on conventional petrol, should the need arise. Although there was a cost penalty, those choosing the green option, were rewarded with a power gain (the 2.0 was rated at 180 bhp, rather than 150 for the standard fuel car) but it should be noted that cars returned slightly higher fuel consumption. In the event, this was irrelevant given the substantially lower cost of the fuel.

# The SAAB 9-5 Buying Guide

## PART2 : Choosing a 9-5

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Deciding which model to choose is anything but easy. With 2 body styles, 3 distinct generations and a variety of petrol or diesel engines and at least six trim levels, there should be a 9-5 for every taste and every pocket. What is clear, though, is that SAAB 9-5s offer far greater value for money than obvious rival products from BMW, Audi or Mercedes-Benz on the used car market.



Facelift 2nd generation cars can be excellent value. This 2002 model is a 2.3 Arc estate (185 bhp) 5 speed auto.

At the time of writing (April 2009), those hankering after a brand new 9-5 may find that the correct economic climate means many dealers have tempting offers on the very latest Special Edition models, which are the equivalent high value, top specification equivalent of the Anniversary edition 9000. Although pundits claim to have found used car bargains in late low mileage offerings, information from dealers suggests that this is the exception not the rule. With dwindling sales of new cars across the board,

there are less trade-ins and this makes life tough for traders who specialise in late, low mileage cars of all makes. Some of the suspiciously cheap offerings are from owners selling under duress - one local garage told the author that one of their regular customers had bought a 22,000 mile four year old Renault Clio only to find that it wasn't the bargain it appeared. Upon investigation, the car was found to have three broken road springs, two bald tyres and a dangerously worn swivel pin, presumably because its previous keeper couldn't afford to have it serviced.

Ultimately, the choice of 9-5 depends on your budget. SAAB Approved Used cars are invariably the pick of the crop and subject to very thorough vetting procedure but a perusal of used SAAB 9-5s available at <http://www.saab.co.uk/gb/en/start#/buy-own/saab-approved/search-used-cars/> in the UK revealed 93 candidate vehicles based on search criteria of price (£10-24,000), location (search national stock) and model (9-5 saloon). Interestingly, the most affordable car was a March 2006 33,000 mile Fusion Blue Aero with parchment leather trim... at my nearest dealership (Western SAAB, Newcastle). At less than half what this machine cost new, I'm almost tempted to jump into the chariot and have a closer look. For a few dollars more, I could have a 6 month old Turbo edition 1.9TiD auto with just 310 miles recorded, at the same dealership. Quite a saving on the cost new and on offer at £16,495. Of course, the search criteria could be customised further by selecting derivative, price, age, mileage, transmission, fuel and even colour details as well as specifying 'must haves' like climate, heated seats, xenon headlamps or satellite navigation. Overall, using the SAAB UK used car search engine was a stress free experience and

although only 10 minutes was allocated to the task, the author couldn't resist playing with the site for more than 40 minutes!

Not all of us have the luxury of a generous budget, having the exigencies of mortgage payments, family holidays school proms (WHO started this expensive nonsense?) and that new kitchen to cope with. If the sights have to be set lower than £10,000, a good place to look would be with independent SAAB specialists, who are likely to offer cars just too old or with too many miles to be eligible as SAAB Approved Used Cars. A quick trawl through the 'usual suspects' revealed that there was no shortage of cars in the £5-8,000 bracket. At this price point, it should be more than feasible to acquire a very presentable, high specification machine that would have cost its original owner more than 3 times the used car asking price.

At under 25% of the original price new, cars costing under £5,000 probably represent the best value - and the biggest risk. The golden rule here, is to find the car in the best possible condition, rather than the youngest and since the 9-5 does not really suffer from body rust (except when repairs have not been carried out properly), it makes much sense to buy one that has been subject to a strict regime of maintenance.

### Checking the bodywork & underframe



Clamshell bonnets are vulnerable to stone chips in the circled area

On the 9-5, rust should not be a concern and checking is simple. Avoid anything with really tatty bodywork: stone chips are a sign of honest work but rust spells neglect and possible poor quality body repair work after an accident. One common problem with most modern cars is that the nose (bonnet and colour coded front bumper) seem especially vulnerable to damage by flying stones.

Certainly, modern, water based paints are less durable than finishes of old but some of the blame must be placed firmly at the door of the designers, who will rely upon CAD techniques and wind tunnels to achieve a 'slippery' shape with a low drag coefficient. The 9-5 is no exception, with many cars requiring remedial

bodyshop attention around 100,000 miles or sooner. Extremities of the car should be checked for damage and this includes not only mirror cases and lenses but also the low slung bumper spoilers on Aero, Airflow and Vector models because these are especially prone to damage from high kerbs. Bear in mind that a mirror case is around £40 + VAT (and will need painting to suit) whereas a heated mirror lens is an unfunny £x + VAT. Cars needing a new front bumper spoiler incur a heavier repair cost, since the spoiler has a retail cost of x plus VAT and will need painting to match.



**Shark's fin aerials and fuel filler flaps can deteriorate**

Some cars are fitted with shark's fin roof aerials and these can deteriorate badly. Incidentally, the 9-5 picks up radio signals via elements in the rear window (saloon) and rear quarter fixed windows (estate), so the roof aerial comes into play for mobile telephones. There are two types of aerial: a non-functional 'dummy' and a live aerial with wiring. Neither is cheap to replace (even the dummy aerial

costs £45!) and fitting will involve disturbing the interior roof lining.

Lights and lamp clusters should be checked for cracks but the front fog lamps need special attention, as they are frequently shattered by flying road stones. Although the unit cost for a replacement is £90 or so each plus tax, a kit including both is available for around £100 plus VAT.

Still on the subject of lighting, bear in mind that the cost of replacing a Xenon bulb is a scary £140 but thankfully, most cars (except Aeros) don't have these fitted. First generation cars were fitted with headlamps with glass lenses that were prone to damage not only from stones but grime... so long as the headlamp wipers had been working. Headlamp wipers are often seen not in the parked position and many do not work at all. Second generation cars have headlamps with plastic lenses and washer jets, which have proved a better solution in service.

Always walk around a potential purchase several times. What you are looking for is evidence of mismatched paintwork and evidence of overspray inside door shuts. Of course, many cars will have suffered 'trolley rash' at supermarket car parks while others will have been scratched by everything from untamed undergrowth to fence posts. Don't be unduly concerned if the fuel flap door is rusty - this is quite common and not an indicator that the rest of the car is in poor order. Do check that the door gaps down the shut lines are consistent - in particular beware estate cars with tight gaps at the rear leading edge of the door, as these may have suffered a rear end shunt. The correct way to repair rear end damage often involves fitting a new boot floor but this is a costly operation, not least because a new floor is over £500. Probe deeper and check the boot floor beneath the load deck - if you find more ripples than in a strawberry whip, walk away!

### **Checking the Interior**

Being made from quality materials, a 9-5 cabin generally withstands even high mileage use quite well. Even so, front carpets can wear through near the heel board and the sun visor on the driver's side can become weak, flopping down to cause great annoyance. Another common problem is that careless occupants sometimes damage the felt trim covering the driver's A post (windscreen pillar) with cigarette burns.

Sit behind the steering wheel and check all the electrics work (especially heated seats, if fitted). Make sure that the windscreen is in good order, checking for chips and cracks - a

replacement is not cheap! The SAAB Information Display units are notorious for losing pixels from their digital displays.



This is an irritation because a defective or unreadable display deprives the driver of important information. Officially, the fix involves a new unit but there are a number of shops offering reconditioned units that have been fitted with new ribbon cables and bulbs, backed up with lifetime guarantees from around £40.

It is always worth checking that the heating and ventilation works properly but be advised that climate control won't work if the windows are open or on very cold days. What you should be checking for is that the split control for the passenger/driver heating works correctly, as the control shaft inside the main unit can snap. The

official repair for this malady (unable to change the current heat setting) is to remove the entire unit, which is a huge job entailing dashboard removal but a repair kit is available (from Scantech distributors & their agents) for around £85 and this avoids the need for major dismantling. Heater blower motors can fail and one SAAB technician known to the author believes that restricted airflow through blocked pollen filters, which sometimes don't get changed when cars fall out of the dealer servicing program are the culprit. More basic ventilation needs are, of course, met by the simple expedient of lowering windows but on some cars the central switch block can fail (£180 or so) and on other cars, it is not unknown for drop glasses to detach themselves from the runner. This latter problem is due to a worn green plastic - thankfully only £x to replace but an irritation, nonetheless.

If you are looking at a secondhand estate car, bear in mind that many will have led active lives transporting everything from antiques to dogs. In general, checking the roof lining for tears and rips will give the game away if very large objects have been carried, as will a perusal of the plastic bumper guard <photo>. Be advised that a missing folding boot shelf is very expensive to replace - used examples are keenly sought after and thus command high prices.

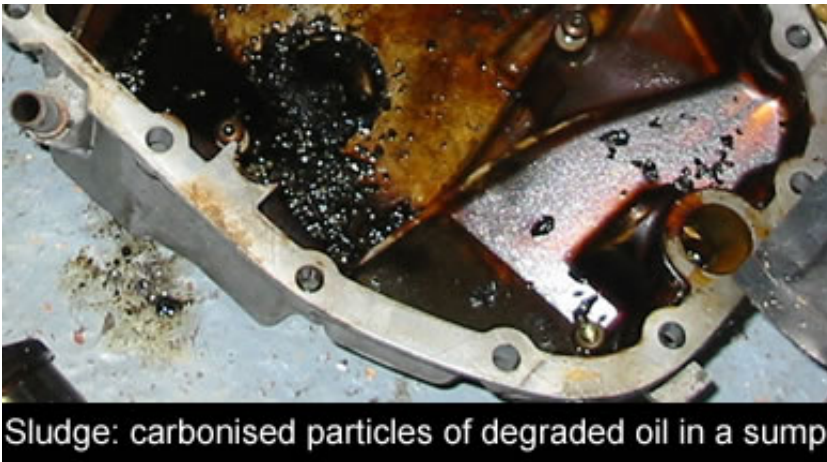
### **Checking the 4 cylinder petrol engines**

Running gear is robust and the author states quite unequivocally that SAAB 9-5 engines and transmissions give reliable service over vast distances... so long as the maintenance regime has been thorough. Neglecting oil changes and running excessive intervals between services serves up high bills and for this reason it is vital that buyers of used cars check the service histories and invoices in particular.

Experience has shown that the service interval of 10,000 miles is 'optimistic' for cars with 4 cylinder (2 and 2.3 litre) petrol engines. Unfortunately, some owners and operators have assumed that there is some latitude and far too many cars have been seen where oil changes have been as infrequent as 15 or 20,000 miles. The painful reality is that for that mileage, at least two but probably three oil changes have been missed!

Worse still, some garages have used semi-synthetic engine oil because their experiences with the 9000 led them to believe that this was OK, yet although the 9-5 engine LOOKS more or less the same as a 9000 it has major differences that mean it MUST be run on fully synthetic oil. Elsewhere on the site (read more) there is a full detailed explanation but for those in a hurry know this: the next two paragraphs contain information that could save a 9-5 owner thousands of pounds and untold grief!

The design of the breather system and different pistons to the 9000 makes the use of FULLY synthetic oil MANDATORY in 4 cylinder PETROL engined 9-5s! Semi-synthetic oil degrades, creating carbonised deposits that block the strainer, leading to oil starvation and subsequent damage to the crankshaft, the turbocharger, pistons and possibly the engine block itself.



Sludge: carbonised particles of degraded oil in a sump

Cars which might have been run just once on semi-synthetic oil should have the sumps dropped and the strainers cleaned/replaced WITHOUT DELAY. The BOTTOM LINE is that most 9-5 engine failures are entirely preventable with most being due to usage of semi-synthetic oil and or excessive mileage between oil changes.

During production, the design of the breather system was altered on three occasions, underscoring the importance of this sometimes neglected part of an engine. If the system fails, oil can be lost in large quantities from split pipes so act quickly should you smell oil fumes inside the car. There is a fix kit (around £33 +VAT) from dealers to address unmodified cars but another hose (part # 55560463 at £22 approx) is invariably needed. A completely redesigned cylinder block introduced during the course of 2003 has had positive effects but oil changes at regular intervals (ideally every 6,000 miles or 6 months are recommended).

Breather systems aside, be advised that oil leaks around the cam box gasket on 9-5s are fairly common. Replacement gaskets are inexpensive and easy to fit but experience has shown that it is a false economy to buy anything less than a genuine SAAB gasket.

The Garrett GT17 turbo can suffer if oil changes have been patchy and it is not unknown for these units to glow cherry red after spirited driving. Warning signs of failure include high oil consumption and wisps of blue smoke visible upon start up. Some specialists have formed the opinion that a 9-5 turbo charger failure means a new engine because the problem has probably occurred due to use of the wrong oil or excessive oil change intervals and that the crankshaft or its bearing shells will have suffered damage already. The author agrees with this so far as there is a likelihood of damage but is firmly of the opinion that if the sump is dropped and the strainer cleaned or replaced the risk is diminished. The risk virtually disappears if the bearing shells are inspected and renewed but renewing main bearing shells when the engine is in situ is very tricky and best left to a specialist. Even skilled fitters have balked at the prospect of this job and the author and

his brother have often ended up changing the two tricky front and rear bearings in professional workshops because technicians there stated the job was 'impossible'.

Just bear in mind that used engines in good order are very hard to source. Our advice is don't buy an engine without hearing it running and don't fit it without removing the sump and cleaning the strainer.

### **Checking the V6 petrol engine**

The turbo charged petrol 3 litre V6 was not a volume seller and was eventually phased out. Even so, it was a capable and refined unit that made light work of hauling caravans. The basic engine is pure Vauxhall/Opel but this helps when servicing, as garages used to V6 Omegas or Vectras will be familiar with the unit.

As a rule, the units are long-lived but can suffer from noisy hydraulic lifters if regular oil changes have not been carried out. Timing belts and tensioners need to be changed at <x miles> to avoid expensive and unnecessary damage to valve gear and piston crowns if the belt snaps.

Another important check is oil quality on the V6 - beware signs of oil in the water, for the oil cooler (sits in between the cylinder banks) can leak oil into the coolant. Renewing the cooler is a £225+ job (approx.).

Be very suspicious if the car you are looking at has the 'check engine' lamp illuminated. There is a known issue within the electronic control unit that can make the engine run richer than it should, affecting not only fuel consumption but also exhaust emissions to the extent that the car will fail the UK VOSA annual (MOT) test. The author has seen several cars where the DTC retrieved suggested that one of the oxygen sensors was faulty but in fact, the ecu was faulty and the sensor had been providing accurate information. Replacement control units are available - expect to pay £450 or so for the unit but you will still need the services of a SAAB dealer or independent specialist with a Tech 2 to configure it properly for you in the car.

### **Checking the 2.2 TiD diesel engine**

One Vauxhall specialist known to the author refers to this unit as 'old faithful' because although the engine design isn't especially exciting, it is durable and many engines in taxis have cleared 300,000 miles without incident. They can sound a bit clattery and agricultural at start-up but noise soon settles down and is never an issue inside the cabin.

One check worth performing - ensure your candidate vehicle is stone cold before starting it. Higher mileage examples can suffer from fuel drain back into the tank which means that starting can become tricky. Repair involves removing the camshaft and on average, will cost 'the man in the street' around £450 to cure.

Overall, the 2.2 TiD is a good choice if you are looking for a workhorse, especially in estate form and the Linear should be easiest to source and the most affordable version.

## Checking the 1.9 TiD diesel engine

Although purists snort at the idea of buying in engine designs, the motor industry has a long history of some very successful if unlikely alliances. Rover turned to Buick in the 1960's when they realised that time was up for the venerable overhead inlet, side exhaust 6 cylinder, whereas AC's choice of Ford power for the AC Cobra resulted in one of the most famous creations of all time.

A more adventurous choice than the 2.2 TiD, the 1.9 is actually of FIAT origin. With 30 bhp more than the old engine, performance is brisker and although the author has no direct experience with this engine (yet!) reports from specialists are favourable. As the mileages increase, performance can sometimes diminish and apparently, the first port of call should be the Exhaust Gas Recirculation (EGR) valve. Cleaning or replacement may be necessary.

Owners and potential owners should be aware that it is good practice to renew the water pump with the timing belt early (48,000 miles) because a number of premature pump failures have occurred that have resulted in serious engine damage.

## Checking the V6 diesel engine

The Isuzu V6 diesel 6DE1 engine delivers strong performance and impressive economy. As mentioned earlier, an automatic transmission was never offered by SAAB, even though the Renault Vel Satis and Vauxhall Vectras fitted with the same engine were offered with that option. Several cars with this engine have been part of the author's fleet over the last few years. Experiences have been mixed - when the engine is running properly, the cars are world class but this is a complex unit and incorrect maintenance can punish owners with savage bills.



The V6 TiD demands an intensive regime of regular maintenance. On the 6DE1 engine (tagged D308L by SAAB), cylinder liners can be a problem but it was discovered that in nearly all cases, the root cause of the failures was engine oil level dropping too low between services. The fix was ludicrously simple - increase the oil level and change the dipstick! Of course, over filling any diesel engine is courting disaster because diesel is heavy oil and the engine can run on the contents of the sump IF it is overfilled. If this happens, the engine will rev out of control even if the key is turned

off because the fuel supply from the sump is bypassing the key. The only way to stop an engine in this nightmare scenario is to stall it in gear. The moral of this cautionary tale is to check the oil when the car is on level ground and ONLY when it is cold.

Cylinder head gasket failures on the 3.0 TiD are more common and a huge and expensive job. A SAAB gasket set is quite reasonably priced but the bolts need renewing and are not

cheap but cost pales into insignificance compared to the time involved to carry out the repair. Check there is NO vibration through the clutch pedal, as the dual mass flywheel can fail, caused the engine to run out of balance. This occurs due to the high compression and the V configuration- and the main bearings can spin in their housings rendering the cylinder block scrap. Most important of all, if a clutch needs changing, the flywheel should be renewed as well.



SAAB's experience with the V6 TiD was not troublefree, with a steep learning curve for dealers - and some owners. Ironically, just after the bulk of the problems were sorted out (engines from 2004 were stronger) the V6 TiD was dropped from the SAAB range! Don't be too put off by this - the engine continues in production to this day, even though it is no longer part of the SAAB line up. With the benefit of hindsight, the author believes that insufficient R&D was carried out before releasing the engine to SAAB and early problems that arose marred the engine's reputation.

My advice when considering a V6 TiD is buy with extreme care. A good warranty is essential, as with any complex machine. Before buying, check the service history and especially the modifications plate on the front near-side inner wing - there should be a healthy number of what looks like figure eights scribed in the boxes. These show that the maintenance will have covered software updates to the management system and other essential modifications (like the dipstick).

### **Checking manual gearboxes**

Manual gearboxes sometimes prove troublesome – beware of difficulty in selecting reverse gear and general noise (all years). Sometimes this can be down to soft mountings but will most probably point to a gearbox rebuild. Specialists reckon that cars used a lot for stop-start work are more susceptible than those that are used for long distances, purely because they will have been taken in and out of reverse gear more. Cars with tired clutches are not cheap to fix because either the engine or the subframe has to be removed and the clutch slave cylinder is (inside the gearbox) should always be renewed at the same time.

### **Checking automatic gearboxes**

Automatic gearboxes come in three flavours: 4-speed (first gen cars), 5 speed (second gen cars) and finally 5 speed with paddle shift (latest models).

ALL seem reliable but as a result, few owners bother to change the transmission fluid and this is unwise! Changing the fluid every 75,000 miles definitely extends the life of the transmission. Four speed boxes use red Dexron 3 BUT be advised later 5 speed units use a synthetic oil which isn't red and does NOT show signs of contamination by water or coolant. With earlier cars, it was easy to detect the presence of coolant in the transmission because the red fluid turned a tell-tale white (a sure sign of an imminent full rebuild!).

## Driving a 9-5 (all models & variants)

Anyone who hasn't driven a 9-5 before and especially owners migrating from 9000s, should feel instantly 'at home' in the cabin. Everything is laid out carefully and the seats are supremely comfortable, with a good range of adjustment to suit drivers of all builds. There is a commanding view of the road, although, in keeping with many modern cars, it can be difficult to judge exactly where the extremities of the car are and even easier to misjudge the width. On latest cars, there are folding mirrors and some cars have SPA (SAAB Park Assist) which is a boon when reversing. On other cars, the author tends to fold mirrors back before going into single garages and always creeps into parking spaces where it might be difficult to judge how far forward it is safe to go.

## Finally

The 9-5 is one of the safest cars on the road but design concentrates on protecting the passengers. Many cars have been involved in minor skirmishes (OK) but some will have sustained major damage. For this reason it is almost essential to use a company like Experian or HPI or your motoring organisation (such as AA or RAC) to check that the vehicle is not listed on the VCAR (vehicle condition alert register) after a serious accident.

## Performance

Although the 2 litre cars with 150bhp are quite hefty (2060-2110Kg), they should be capable of 130 mph+ and 0-60 in around 9 seconds. Cars equipped with the 2.3 litre light pressure turbo engine are at least 10 mph faster with the 0-60 sprint being achieved around a second faster. The V6 petrol is quicker still but the 0-60 time is half a second slower. The Aero HOT is good for at least 150 mph and can reach 60 in around 6.5 seconds. Do bear in mind that if the Aero is not run on premium grade fuel, performance will suffer as the engine management system will retard the ignition timing!

## Colours

Type	SAAB name	Generic colour	Code
Solid	Black	Black	170
	Cirrus White	White	153
	Laser red	Red	278
Metallic	Cayenne	Copper	256
	Cosmic blue	Electric blue	264
	Green silver pearl	Light green	261
	Hazelnut	Mushroom	286
	Laser red	Bright red	278
	Merlot red	Ruby	284
	Midnight mica	Blue (dark)	257
	Morello red	Red (dark)	276
	Nocturne blue	Blue (dark)	290
	Scarabe green	British Racing Green	230
	Silver	Silver	268
	Steel grey	Mid grey	279
Sun green	Green	273	

Colour choice is terribly subjective but the author believes that earlier cars look best in silver green, sun green metallic or silver but second generation models really suit merlot red. Black is timeless but does require extra commitment in that it only looks good when polished to a fine lustre.

### Typical optional equipment

Alloys – various styles in 16 or 17”

Business pack - with DVD satellite navigation (later cars)

SSR (Sliding glass/metal sunroof) Power sunroof may/may not be fitted with a/c or CCS.

Various audio options: including AS2, AS3, cd auto changer, Harmon-Kardan speakers etc

### Parts prices

Some parts are quite pricey and the high cost of units like engines and gearboxes means that good used parts command high prices. Used autoboxes can be had for £300-450 depending on model year, whilst engines can fetch up to £850 for late cars. It pays to shop around! Timing chain replacement should be avoided at all cost, as the job at a dealer can cost up to £1500 because very often, the cylinder head needs to be removed.

Oil: use good quality FULLY synthetic 0-30 or 5-30 ONLY and change at 6,000 mile intervals or at least once a year, even if your annual mileage is 2,000 miles or less!

The table below shows *typical* prices (correct at going to press) for a four cylinder petrol 2.0 first generation 9-5 – do please bear in mind that individual vehicles vary from year to year and may not necessarily use the same parts. Although pattern parts are available, the author much prefers to use genuine parts wherever possible because experience has shown that although certain components -like brake pads and water pumps- are considerably more expensive they really DO last longer. Sometimes, however, be advised that certain components supplied by Scantech (Sweden) and labeled as such are actually OE parts! Elring also appear to be OE suppliers to SAAB when it comes to head gaskets.

Component	SAAB part number	SAAB retail price (ex VAT)	Specialist SAAB Parts outlet (inc VAT)
Air filter	55560911	£33	£23
Brake pads (front)	5062203	£58	£44
Fuel filter	4163853	£20.30	£15.47
Oil filter	93186554	£8.64	£4.49
Radiator	5329347	292.97	146.49
Shark's fin aerial (dummy)	12762122	£45.83	£45.00
Water pump	93166829	£125.82	£106.95

Ultimately, SAAB parts are really no dearer than from other prestige makes and the many specialists that advertise in the Owners Club Magazine provide both OE and good quality alternatives at reasonable prices. Do remember to factor in VAT and carriage charges (where applicable) so prices may be compared on a 'like for like' basis

## Insurance

Body panels are quite expensive, and pattern parts are not available. Coupled with the performance, drivers under 25 may encounter steep premiums when trying to insure 9-5s. As with all vehicles, it pays to shop around but for the majority of drivers over 35 years old, premiums should be moderate.

## Will it fit my garage? Will it tow a caravan? Can I fit a roof rack?

Before purchasing a car, it is worthwhile knowing whether it will fit within the family garage.

- Length: saloon 4820 mm or 15ft 10"
- Width: saloon 2032 mm or 6ft 10" (with mirrors in the normal position)
- Height: saloon 1447mm or 4ft 9" (the estate with roof rails stands 51mm or about 2" higher)

Luggage capacity is impressive, even with the rear seats up but in the case of the estate, without lowering the rear seats there is plenty of space available.

### Luggage capacity (cubic decimetres)

9-5 saloon	450
9-5 estate / seats raised	890
9-5 estate /seats lowered	2067

ALL 9-5 models should be able to tow a medium size caravan with ease. As stated earlier in the article, there is a comprehensive range of SAAB accessories to adapt cars so that canoes, kayaks, skis, bicycles etc can be carried and for trailers/boats and caravans to be towed.