Mercedes-Benz W126 300/420/560 S-Class (1986-92)

Style, safety, presence and quality, the 1986 W126 S-class facelift had it all. Today, it's a matter of looking past the legend and sorting those that need to go to the tip from the ones worth keeping on the road

The unleaded update of the second generation S-class stood alone on the Australian market as a safe, long life trans-Australian cruiser. Joe Kenwright finds it is now a budget buyer's best chance of enjoying top shelf Mercedes-Benz luxury and prestige.

HISTORY
At the close of 1981, the year when the second-generation S-class Mercedes-Benz arrived, Wheels agonized over awarding such an expensive new model its annual Car of the Year Award. Wheels did give it the gong and immediately provoked the ire of readers who couldn't afford one. In hindsight, it was one of Wheels' best decisions as the W126 S-class defined today's bottom line in crash safety, appointments and aero body detailing a quarter century ahead of its time.

No one who wanted to stay in the car business could afford to ignore it.

Virtually every car since 1981 has been influenced in some way by this model which is why it doesn't look 25 years old. It also had its first and only upgrade at a point when normal cars are on their third or fourth facelift. An exceptional unleaded example from the 1986-92 facelift series must rank as a potential special interest model, if it isn't already. When old prestige sedans end up in the scrap yard just like any other car, a top late model W126 example kept in top order may always be worth something to someone. This drives healthy resale.

In 1995, a nice 300SE retailed for just over $40,000. In mid-2005, a good one will still fetch up to $20,000 although astute buyers might do even better. A 1995 VS Holden Calais that cost around the same new is now worth about $6000 less. Although the maintenance costs for a used Mercedes-Benz would have been higher over the last 10 years, the S-class owner was travelling first class with safety levels in another league.

The W126's big achievement was its unprecedented crash safety levels wrapped in a stylish aero body in steel which delivered a full size cabin and all luxury appointments with an all-up weight of only 1560 kg in later years. This was about the same as a late 1960s Ford Fairmont V8 auto which was also smaller. The W126 not only employed new weight reduction measures but it was the first mainstream sedan to offer standard ABS. From 1989, all models had a standard airbag after it was the first to introduce it as an option. Its moulded bumpers and deep side protection panels, another first, maintained its appearance which also helps used values.

For many Australians, this S-class is the last Mercedes-Benz that looked like a Mercedes-Benz, a marque that now stands accused of producing models, apart from the A-class, that look like everything else. Mercedes-Benz has since struggled to produce a premium model with the same impact and universal appeal as the W126. Could Mercedes-Benz ever deliver another S-class that didn't require a single sheet metal change in 11 years?

Despite the advances, the first W126 was not perfect, especially the earlier 280SE which weighed in at 1700kg with only 125kW from its ageing twin cam six. The all alloy 380 V8 was a better proposition. This all changed when important advances from the mid-size W124 (later called the E-class) were held over to April 1986 to update the bigger S-class for Australia's switch to unleaded fuel.

The 300E's efficient and simpler single cam engine boosted power in the revised 300SE to 135 kW with huge gains in fuel economy over the old 280. This M103 engine was a development of the M102 four seen in the 230E. Although it

cut weight by over 40kg, Mercedes Benz resisted a switch to a rubber timing belt. To match Australia's low octane 91 RON unleaded fuel, the KAm version of this engine was fitted to official Australian deliveries. Private imports often feature the RUF spec which will run on unleaded providing it is a high octane fuel. This was a problem in 1986 but not anymore with Australia's latest range of 95-98 RON premium fuels.

The V8 was upgraded from the 380SE to the 420 SEL, initially as a long wheelbase only. Power went from 145 to 155kW with an increase in torque. It featured a larger bore, new pistons, more efficient manifolds, bigger valves and revised combustion chambers. The block is not interchangeable with the previous 380SE engine, an important consideration for reasons that will soon be apparent.

Although a handful of 560 SEL examples with the earlier body detailing came to Australia as private imports, the 560 SEL was only officially introduced to Australians in April 1986 as part of the unleaded upgrade. It had a larger bore and stroke over the 420 and was developed from a 5-litre V8 not seen in Australia. All upgraded W126 models came with a new dual program auto.

Because of the way the auto is set up, all W126 models can feel a little lazy off the line. Once on the move, these upgrade models are much brisker than expected.

Mercedes-Benz also used this upgrade to replace the small earlier 14-inch wheels with the W124's new 15 inch wheel choices which included steel wheels with the latest aero style wheel covers or flush alloys. The major exterior change, apart from the wheels and some fresh new W124 colours, was the switch from grey ribbed plastic protection panels to smooth colour-coded items. All W126 facelift models had the later more compliant rubber bushes between the rear suspension and body.

Before buying any older S-class, there is an important consideration. They were usually purchased by wealthy first owners who needed to cover big distances quickly and safely. Where a typical prestige car might cover half the average annual distance, it was not unusual for an S-class from this era to double the national average. Because the cars showed hardly any age-related wear, it was too tempting for some to lose the service books and claim a lower speedo reading. Falsifying service records was not uncommon to cover a private import or high mileages so it is really important to independently verify any records supplied with the car.

Their round the clock usage also dictated frequent visits to automated car washes which at the time did expensive damage by dulling all paint surfaces and exterior fittings. The model also attracted a high proportion of heavy-smoking owners who spent long periods in their car. I remember checking some used examples that were virtually unsellable when they were only four years old with heater cores and trim soaked with nicotine and exteriors that looked like they were sand-blasted.

This model also coincided with Australia's long lasting airline pilot strike. Business people were forced to rush between capital cities in their cars. Because Jaguars and BMWs at the time were neither as reliable nor long-lived, Australia's major interstate highways soon became Mercedes-Benz processions. As a result, there is no shortage of 1986-92 W126 examples that have traveled way beyond their original design life. Today's faults are more often generated by sheer wear and tear, not any design or quality shortfalls. Identifying and eliminating these marathon 500,000 km examples is critical if you are to enjoy Mercedes-Benz motoring at its best.

There is a plus in the W126's local popularity. Because there are a lot of them still on the road, there are plenty of secondhand parts sources, specialist mechanics who know and love the model and parts suppliers who source factory quality parts direct from the original component manufacturers in Germany. In Australia, there is no excuse for sourcing dreadful imitation parts from elsewhere or skipping services. Anyone who is silly enough to destroy their investment in this way needs to be given a wide berth.

KEY 1986-92 W126 CHANGES:

- **Apr 1986:** Unleaded facelift introduces new model range including 300SE,420SEL, 560SEL and 560SEC Coupe.

- **Mar 1987:** Long wheelbase 300SEL introduced.
- **Jan 1989:** Apart from carryover 1988 stock, all 1989 models came with a driver's airbag and leather trim as standard.
- **Jul 1990:** Standard wheelbase 420SE introduced.
- **Mar 1992:** Replaced by larger W140 series. All final examples built in 1991.

KEY W126 CHECK POINTS:

Running Gear
Identify exactly what you are looking at through compliance and ID plates as examples flooded in from South Africa, Hong Kong, Japan, UK and other RHD markets. These imports may have different fuel requirements, different trim or exterior colours and may be hiding mechanical or structural problems not seen in locally delivered cars. They can still be good buying but check with Mercedes-Benz Australia if in doubt.

Early unleaded M-B engines suffered from the combination of Aussie heat and the extra thermal loads of new unleaded requirements just like any other engine. As rubber seals and hoses harden and perish, engine and transmission oil leaks appear. Broken manifold studs and failed exhaust joins are not unknown. Power steering pumps wear out, hoses and seals can also harden and leak. Extra heat in the exhaust extends muffler life over previous model.

Mercedes-Benz was a little too clever in the use of plastic underbonnet parts. Early plastic thermostat housings failed and could lead to a cooked engine. The hose neck in the plastic radiator header tank could collapse for a terminal loss of coolant. The fix was a metal reinforcement collar. All hoses and belts may now require pre-emptive replacement. Old thermostats lose their wax pellets then lock in the closed position which prevents coolant circulation with predictable results. Starting with fresh coolant. new thermostat and metal housing is good insurance.

Ageing ignition parts including coil, distributor cap, rotor button and leads can cause intermittent starting and hot running problems. Check operation of all fuel injection parts including cold start device, leaky injectors, noisy fuel pumps. Black exhaust smoke indicates excessive fuel usage and fuel injection problems. Fuel pump is considered a routine replacement item every 100,000km to avoid being stranded.

Engine oil and filter must meet factory standards and be kept clean. In-line six has repairable cast iron block. All aluminium V8 has integrated Nikasil cylinder liners which rely on high silicone content in engine casting. Each bore is acid etched to expose hard silicone for pistons to run in for outstanding engine life but this process cannot be repeated in Australia if a rebore is required. This is less of a problem now when secondhand engines are easier to source. Any hint of white smoke dictates a full compression test.

Both six cylinder and V8 engines run long life timing chains except the chain in the V8 has to cover more than twice the distance. Normal wear generates twice the stretch hence earlier timing chain replacement for the V8.

Auto transmission is long lived with routine servicing but needs specialist repairs when it finally wears out. It works harder in the six. A secondhand auto might be an option for less valuable examples.

Suspension & Brakes
Bigger 15-inch wheels allow upgraded brakes which last longer than most German designs. Allow for new rotors after every six pad sets hence 100,000-150,000km examples may now need new rotors.

Original dampers were high quality gas/oil Bilstein units and are critical to S-class handling and ride. Replace them with long life Bilstein or Koni items if the car is worth it. Check that rear self-levelling still works and is not leaking. Check driveshaft joints.

Suspension tuning was crisper than most big sedans hence good driver feel with higher road noise than expected. Choice of tyre is critical to avoid excessive roar on coarse sealed surfaces. Make sure tyres are V-rated as per ADR tyre placard.

Recirculating ball steering can develop slop in the straight ahead position which can be adjusted out but may require steering box replacement if this has already been done. All steering parts have to work too hard if the driver constantly steers with the front wheels stationary.

Semi-trailing arm independent rear suspension is similar in principle to early Commodore IRS but the devil is in the detail when it doesn't produce the local car's sharp breakaway characteristics. Check for odd tyre wear and tail happy handling if bushes are worn.

Body
Certain metallic colours may already be dull and require an expensive respray if the top clear coat is damaged. Watch out for damaged bumper corners, poorly matched plastics and leaking front and rear screen seals. Cheap sub-standard body parts are a real problem including rough panels and nasty lights which can leak and fade, or even catch fire if they melt.

High initial purchase price usually meant that cars with massive crash damage were put back on the road.

Pick the long wheelbase model by its longer rear door and body colour infill in the rear quarter window pillar.

Grille is vulnerable to touch parkers. Buckled centre spine destroys appearance.

Alloy wheel coating can start to peel. Watch out for the cheap fix which is a pressure pack silver respray. Best fix is to strip them and start again. Not all alloys are genuine.

Pre-R134a air-con may require updating. On good cars, consider a modern low drag compressor if you intend to keep it.

Old ignition keys can snap off inside ignition switch which then requires serious butchery of steering column and surrounding parts to fix. Don't tempt fate. As soon as the key or lock behaves strangely get it checked out before it's too late.

Thick leather is high quality but requires conditioning at least every six months to keep supple which few get. If it's not too far gone, there are specialists who can refinish the leather and condition it. Check all cabin fittings for heat or sun damage or broken by children climbing between front and rear seats.

The electrics, while complex and comprehensive, belong to the era where they can be dismantled and repaired by several specialists who know them inside and out. Check the operation of every accessory, especially the climate control air-conditioning and everything involving electric servo motors which includes sunroof and electric rear seat adjustment on some models.

Get your chosen purchase checked out by a Mercedes-Benz specialist who can provide an estimate of repairs before you hand over the money, not after.

Thanks to Mercedes-Benz experts 3 Point Motors, tel (03) 9489 7233