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MERCEDES PERFORMANCE

THE WORLD'S HOTTEST STARS

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COVER IMAGE
CRAIG PUSEY



Welcome to *Mercedes Performance*, a new, one-off publication dedicated to the fastest and most spectacular cars wearing a three-pointed star badge. Over 100 pages, you'll find epic supercar shootouts, head-to-heads between sporting icons of the last few decades, upgrade ideas for the most popular AMGs, in-depth ownership insight, and market tips to help get you into something special of your own.

Covering everything from the latest tuned stars to modified classics from the 1960s, *Mercedes Performance* magazine is fuelled by a passion for power and speed. With over 130 years of cars to choose from, including an enormous back catalogue of racers, we were spoilt for choice when deciding which stars would make this special edition title. In the end, we've tried to provide something for everyone – those with the keys to a 204-series C63 or first-generation A45 should get as much enjoyment from this magazine as lovers of W111 Cabriolets and big-powered Benz engines from the modern classic era.

During the process of creating *Mercedes Performance*, it struck me just how much the engine game has moved on – even during the last 10 years. With the latest cars from Affalterbach employing electrically assisted turbochargers derived from those seen in Formula 1, we really are in whole new territory and a world away from Mercedes' old guard, which relied on massive cubic capacities to generate near rocket ship levels of propulsion. If I had to choose a sweet spot, I think it occurred some time around 2010, give or take a few years, when big, naturally aspirated engines were still king and Mercedes had really upped its game in the chassis department.

One of my favourite features in *Mercedes Performance* is dedicated to the biggest Merc tuners in the world. Starting from page 54, our Super Tuners section highlights just how mad some cars can get, and how the aftermarket landscape has evolved since the 1970s. It's a fascinating story. Happy reading!

Kyle Molyneux, Editor



If I had to choose a sweet spot, I think it occurred some time around 2010, give or take





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C111 - The Mercedes supercar that never was

There's a world of parts and products out there for your Mercedes - here we highlight some of the best for your performance-oriented Benz

WORDS Simon Holmes

TOP

d:CLASS AUTOMOTIVE CUSTOM INTERIORS FOR MERCEDES

The UK-based interior trimmer expert d:class automotive is a household name in the classic Mercedes restoration market. However, the company also serves the custom and modified market, with a recent rise in full interior requests for vehicles such as the G-Class. Pictured here is one recent example of a re-trim in luxurious orange leather, with a full nine hides of the finest quality calf nappa used to complete this bright onslaught. The seats were trimmed to perfection with the addition of perforated and

quilted panels using d:class's CNC machine, which explains the factory spec Brabus embroidered logos. No stone was left unturned, with the headlining also boasting a quilted centre section and all interior plastics were re-coloured to match the luxury Mandarin leather. If you have a custom project in mind, feel free to contact the guys at d:class for a bespoke quotation.

PRICE POA

CONTACT

www.dclass.co.uk



GTECHNIQ BUG REMOVAL SPRAY

Gtechniq, a UK formulator of ceramic surface coatings, is launching an all-new version of its Bug Remover, for sale online and through all good independent detailing stockists. Removing bugs from paintwork can often involve a significant amount of scrubbing and agitation, but Gtechniq has now made this a thing of the past.

Now you can simply spray the product onto the paintwork and allow it to dwell for a short time, before using a pressure washer to hose off the residue, watching as the marks fall away. As well as enhancing the cleaning chemistry within the product, Gtechniq has also increased the amount of time the product can be left to dwell.

This means even the most stubborn bug splatter is a breeze to remove. Bug Remover Version 2 is coating safe and compatible with all Gtechniq products.

PRICE £4.95

CONTACT www.gtechniq.com

MSL PERFORMANCE MYGENIUS BESPOKE REMAP SERVICE

The MyGenius portable mapping device allows a bespoke, custom engine map to be uploaded to your car via the guys as Birmingham-based MSL Performance, but you also keep the ECU flasher with your stock map on file for future use - handy if you ever want to remove the remap when the car is sold on or goes back to a dealer for servicing. It will show you the steps to follow during the reading and writing of the ECU, with detailed instructions and is easy to use. It suits a range of AMG models, with outputs increased to over 700bhp in some applications. Prices depend on the application, with the 204-series C63 AMG model starting at £750 and extending to £1,150 for the newer 213-series AMG E63 models. The kit is available from MSL Performance with next day delivery.

PRICE From £750

CONTACT www.mslperformance.co.uk



WESITEC ENGINEERING VTA ADAPTER FOR M177

The Weistec Engineering M177 VTA (vent to atmosphere) adapter is designed and manufactured in the USA as a complete and simple bolt-on solution for attaining the dump valve/blow-off sound on turbocharged vehicles. As standard, AMG's M177 V8 comes equipped with electronically actuated bypass valves in the intercoolers. These recirculate air straight back into the turbo's compressor inlet with near silent operation. However, with these VTA adapters fitted in place between the original locations, you can achieve that great 'whoosh' sound without triggering an engine light on the dash as the factory valves are still in place, and no tuning or ECU calibration is required. The adapters are CNC machined from aluminium and have a high-quality anodised finish. Fitting takes around 30 minutes and they are suitable for all models with the M177 V8, such as the G63, E63, S63 and GT63.

PRICE £207 **CONTACT** www.weistec.com

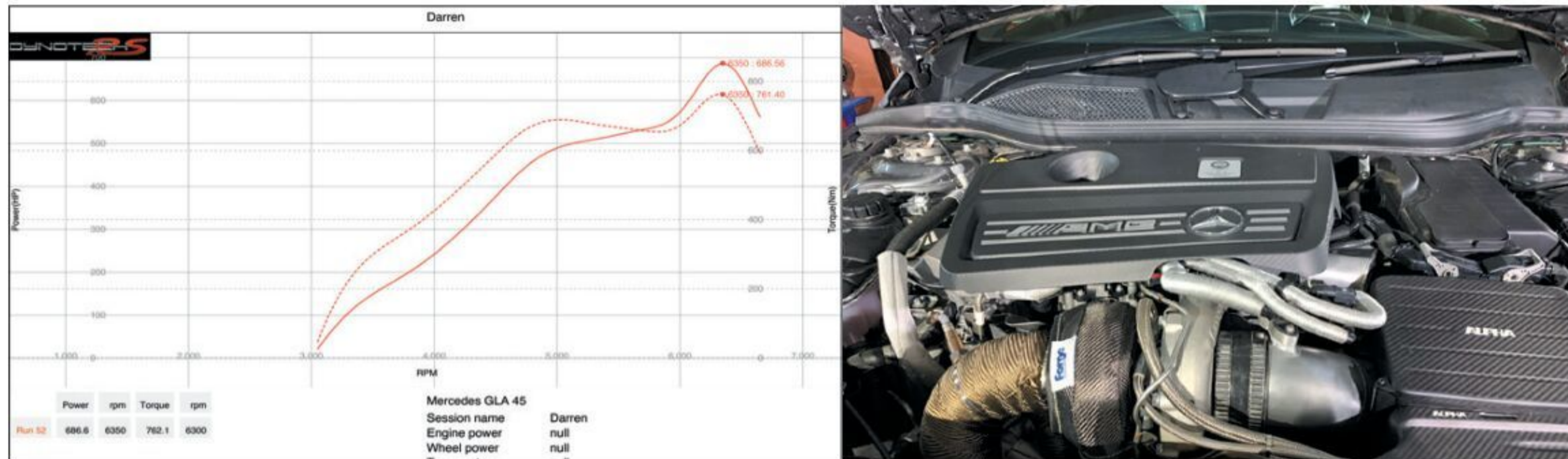


PRODUCTS

DYNOTECH RS STAGE 5 600+BHP PACKAGE FOR AMG A45

DynoTech RS is now offering a range of drive-in, drive-out tuning packages. Freshly developed is its Stage 5 kit for the A45, which is proven to produce over 600bhp and 590lb ft of torque. The kit includes a Garrett GTX3076R turbo with external wastegate on a custom exhaust manifold and downpipe, a custom air intake and chargecooler set up, an uprated high pressure fuel pump, a gear based boost controller with three different boost pressure settings, upgraded auxiliary and central heat exchangers, high performance ignition coils and all ECU and TCU tuning to match. If you want more, there's also the option to add a billet crankshaft, forged rods and pistons and lighter valvetrain to enable the engine to rev higher, increasing output to over 750bhp!

PRICE POA CONTACT dynotechrs.co.uk



PFS PARTS' POWERFLEX BUSHES

Suspension bush guru Powerflex recently launched its Heritage Collection of uprated bushes, covering older Mercedes models. All bushes are a direct replacement for factory parts, and are available in a choice of stiffer grades to further increase rigidity. What's more, UK-based Powerflex also sells a range of uprated engine mounts. PFS Parts in Wellingborough keeps many Powerflex bushes in stock.

PRICE POA CONTACT www.partsformercedes.com



FORGE MOTORSPORT DUMP VALVE FOR A45 AMG

Forge Motorsport's blow-off valve is an easy upgrade designed to fit the four-cylinder M133 engine found in the A45 AMG up to the 2015 facelift. In standard form, the engine has a port for a dump valve fitting located on the side of the turbo, but it is blanked off. Forge's valve bolts straight to the turbo fitting and is supplied with everything needed to operate correctly. The valve itself features a serviceable aluminium piston for longevity, which can also be teamed with harder springs to suit any level of power.

PRICE £164 CONTACT www.forgemotorsport.co.uk



LINNTEC INVISIBLE GLASS CLEANER

Linntec's Invisible Glass cleaner is said to clean windscreens, windows and mirrors so well that you'll think they're invisible. Most glass cleaners use water and foamy surfactants, or soaps. These inexpensive ingredients remove basic dirt but leave residues that are often difficult to remove. Invisible Glass cleans with a powerful, non-streaking, non-abrasive formula that 100 per cent evaporates to leave no residue. The product is ideal where visibility is of the upmost importance, such as for professional drivers, racers, and motoring enthusiasts. It also removes dust, dirt, bugs, sap, oil, grease, fingerprints, and more from glass. It's also ideal if you are a demanding auto detailer, a finicky car collector or show-car exhibitor.

PRICE £7.95 CONTACT www.linntec.com



ROADHERO SPACE SAVER SPARE WHEEL

For many years, Mercedes-Benz cars have come with tyre foam rather than a spare tyre to combat a puncture. But many owners prefer a proper replacement wheel and the RoadHero space saver kits from Wheel Power are available to suit a range of specific models. Each kit includes a direct replacement alloy wheel and a breakdown fitting kit which includes a jack, wheel brace, torch, kneeling mat, warning



triangle and a high visibility jacket and gloves. The whole kit comes in a self-contained storage bag that will fit neatly in the boot or spare wheel well and gives piece of mind you can get home after a flat tyre.

PRICE POA CONTACT www.wheel-power.co.uk



THE ART OF MORE

WORDS Ian Kuah
IMAGES Craig Pusey

From the moment the first Black Series badged AMG arrived in 2006, they have captivated drivers with their ferocious looks and tyre-shredding performance. Here we test the CLK63, C63 and SLS versions back-to-back on track and remind ourselves what makes these cars so special

“

Every few years
AMG's performance
studio takes the
best handling car
from its range and
creates an even
more focused,
track-biased version
under the 'black
series' label

”



AMG'S

Performance Studio and Black Series line were launched with great fanfare at the company's Affalterbach headquarters in May 2006. In the automotive world, the colour black carries connotations of power, elegance and formality, so it is no surprise that Mercedes-AMG chose 'Black Series' as the label for its most exclusive and powerful line of limited edition cars.

Every few years AMG's Performance Studio takes the best handling car from its range and creates an even more focused, track-biased version under the Black Series label. So far there have been six such cars: SLK55, CLK63, SL65, C63, SLS and GT - the latter machine revealed to the world in July 2020.

In Black Series tune, with 395bhp and 383lb ft of torque, the SLK55 AMG Black Series was the swansong for the naturally aspirated variant of the 5.4-litre, M113 AMG V8 motor. Continuing on only in supercharged form in the G55 AMG, the M113 was succeeded by Affalterbach's first ever in-house designed and built engine.

The M156, and its M159 derivative used in the SLS AMG, is the V8 heart that beats strongly under the bonnets of the three cars in this group test, its rumbustious character always playing centre stage. A DOHC, 90-degree V8 with four valves per cylinder, this motor has a swept capacity of 6,208cc from a bore and stroke of 102.2x94.6mm. AMG admits to using poetic licence in badging it as a 6.3 to draw a connection with the old 300SEL 6.3 built in the late 1960s to early 70s.

The complete motor is very light at 220kg, but it is also very wide. We asked one of the AMG engineers why the exhaust manifolds are so short, and were told that there is simply no room for longer headers in the engine bay of some models, particularly the CLK, which was close to the end of its model cycle at the time and therefore never designed with this engine in mind.

Finding another gear

Going in chronological order, the CLK63 AMG was the first Black Series model to enter the arena with the M156 motor, and 700 cars were made. When it was launched in May 2007, I was astonished at how much its handling and grip had advanced over the basic CLK63 AMG. Speaking to AMG chief Tobias Moers, who was head of development at the time, it was clear that AMG had really pushed the boat out with the Black Series cars. The company's aim was to satisfy hard core enthusiasts tired of being outgunned by Ferraris and Porsches on track days.

Thus, the CLK63 Black Series had substantially uprated underpinnings that go far beyond the increase in engine power from 474bhp to 500bhp, accompanied by the same 465lb ft of torque as the standard CLK63 AMG Coupe. With uprated water and oil cooling systems, a six per cent shorter final drive, and more traction courtesy of the Drexler limited-slip differential, the CLK63 Black Series took 4.3 seconds to sprint to 62mph and had an electronically limited top speed of 186mph.

Compared to the CLK63 AMG on which this car is based, the Black Series starts off with a 6mm lower ride height. New front and rear suspension arms were cast to give the car a wider, more stable track. These changes extended the width of the Black Series by 80mm in front and 25mm at the rear. Front and rear suspension tower strut braces help to keep the suspension working at its optimum geometry under load, while two steel underbody braces from the CLK Cabriolet further improve structural rigidity.

Where the CLK DTM AMG of 2004 had a fixed ride height with Bilstein supplied, non-adjustable suspension, the Black Series features KW suspension with racing-style height adjustable spring pans and dampers adjustable for both bounce and rebound control, with remote fluid reservoirs. The anti-roll bars are non-adjustable. The main reason for the external fluid reservoirs is packaging since more space is required in the dampers for the adjustable valves. The suspension top



Above Less focused feel inside CLK63; autobox old hat.

Left Strut brace sits above rip-snorting 6.2L, 500bhp V8.



Just The Facts

Mercedes-Benz CLK63 AMG Black Series (C209)

ENGINE M156 6,208cc V8
POWER 500bhp@6,800rpm
TORQUE 465lb ft@5,250rpm
TRANSMISSION 7-speed auto, RWD
WEIGHT 1,760kg
0-62MPH 4.3sec
TOP SPEED 186mph
FUEL CONSUMPTION 18.5mpg
YEARS PRODUCED 2007-2009

Mercedes-Benz C63 AMG Coupe Black Series (C204)

ENGINE M156 6,208cc V8
POWER 510bhp@6,800rpm
TORQUE 457lb ft@5,200rpm
TRANSMISSION 7-speed auto, RWD
WEIGHT 1,710kg
0-62MPH 4.2sec
TOP SPEED 186mph
FUEL CONSUMPTION 23.2mpg
YEAR PRODUCED 2012

Mercedes-Benz SLS AMG Coupe Black Series (C197)

ENGINE M159 6,208cc V8
POWER 622bhp@7,400rpm
TORQUE 468lb ft@5,500rpm
TRANSMISSION 7-speed auto, RWD
WEIGHT 1,550kg
0-62MPH 3.6sec
TOP SPEED 196mph
FUEL CONSUMPTION 20.6mpg
YEARS PRODUCED 2013-2014

FIGURES FOR CARS AS PICTURED; FUEL CONSUMPTION ACCORDING TO NEDC COMBINED; TOP SPEEDS OF CLK63 AND C63 ARE ELECTRONICALLY LIMITED

“The CLK63 AMG was the first black series model to enter the arena with the M156 motor.”



mounts are standard CLK63 AMG, but uniball mounts can be fitted if you are keen. The front axle has new steering knuckles to get the centre point geometry correct and enhance steering and grip. The steering ratio is the same 11.5:1 as the CLK DTM AMG.

The car sits on 9.0Jx19 front and 9.5Jx19 rear forged alloys, made by Alcoa in the USA, weighing 11kg and 11.5kg respectively. AMG's rubber of choice is the Pirelli P Zero Corsa, a track day-biased tyre with just enough tread to clear water on a road. Sizes are 265/30ZR19 in front and 285/30ZR19 at the rear. "I like to develop cars that are fast and pointy on track, but also user friendly and progressive so a good driver can play around the limit without any nasty surprises," said Arnd Meyer, Head of the CLK63 AMG Black Series project. In slow and medium turns, the sticky Pirellis allow you to lay down the big V8's power, and the limited-slip diff can be felt doing its work to keep the torque from lifting and spinning an inside wheel.

steer from the rear

Slow turns produce understeer if you try to use too much throttle too early, so the trick is to get the entry line right and not be too greedy with the throttle. In faster bends, the AMG has tremendous grip and outstanding brakes going in, and it is then that you value the heavier than normal steering for its outstanding feedback and stability. You can also back the car into corners with a slight lift to overcome the initial understeer, and then balance things out on the throttle. Either way, this is a playful and responsive chassis and it is a joy to drift the car on the way out from bends, the LSD helping to make this a progressive and rewarding experience. At the time, AMG engineers proudly told ➤



About Us

MSL PERFORMANCE, LEADERS IN HIGH END & SPECIALIST ENGINE TUNING. MSL are Independent Mercedes specialists who are responsible for creating some of the fastest Mercedes in the UK.

We have been involved in performance tuning for over 20 years now and have built up a wealth of experience since then creating a strong reputation as the leading Tuning Specialists in the Midlands.

We work hard to ensure we achieve the best out of each vehicle we tune, rather than the most and believe it is our individual customer orientated approach to each customer we deal with that has enabled us to build a professional and quality brand.



MSL Performance

is proud to announce that we now have portable mapping devices! What does this mean to you? Well you will now have the capabilities of having a full custom remap on your car in the convenience of your own home, and you keep the flasher with your stock file for future use! MyGenius is also very easy to use. It will show you the steps to follow during the reading and writing of the ECU, with detailed instructions. No more sending in your ECU before visiting the dealer for routine service!



My Genius Prices

- C63 W204 510 BHP + £750
- C63 W205 580 + BHP £950
- E63s W213 700 + BHP £1150
- GLE63s/GLC63s 580 + BHP £950
- A45/CLA45/GLA45 410 + BHP £750
- M157 5.5 Bi turbo's 660 + BHP £850

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- Decat Downpipe fitted
- Piper cross Induction Kit fitted
- AEM Meth Kit (fitted)

Other:

Uprated Fuel Pump and Intercooler (AMS Performance) Full custom Wrap in Teck wrap Kelly Green (MSL Customs)

A45 AMG 360 BHP Stock
482 BHP & 566 Ft Lbs Torque
¼ mile time: 11.38s
0 - 60 3.43 seconds



Main Dealer Servicing

Did you know if you get your vehicle serviced at MSL Performance it is actually the exact equivalent of a main dealer service (minus the hefty price tag) and is updated on the Daimler portal thus maintaining your dealer service history/warranty

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“The C63's slide is well telegraphed, progressive and easily collected or sustained - you can feel the aero package working in faster turns”

➤ us that the CLK63 Black Series was actually quicker than the CLK DTMAMG around Hockenheim, the latter itself faster than the Mercedes-Benz SLR McLaren supercar. Wow!

In 2008, AMG released the sensational looking SL65 Black Series. The big front spoiler and muscular wheelarches make it the only model in the facelifted R230 range to be visually comfortable with the squared off nose and big grille. As with the SLK55 Black Series, the SL65 loses its folding metal roof in favour of a fixed CFRP top. With the bonnet, front wings, front bumper/spoiler and bootlid made from this material too, a total of 250kg was saved.

crowd pleaser

Unfortunately, the 661bhp and 737lb ft torque of the six-litre V12 biturbo (M275) engine wrote cheques the chassis could not cash. Despite race-style, fully adjustable

KW coil-overs in place of the Active Body Control suspension, the handling and ride were not up to the usual AMG standards. I subsequently found out that AMG was not given enough time to perfect the chassis settings, and that just swapping the fixed-ratio Drexler limited-slip differential for a variable ratio unit transforms the handling.

For all that, where sales of the SLK55 Black Series struggled, the much more expensive SL65 Black Series sold out very quickly, underlining the cachet of a flagship model that pulls the crowds whether you are in Dallas or Dubai.

The fourth car to wear the Black Series badge, the C63 AMG Coupe, looks suitably tough, its more muscular stance and meaner visage coming from tracks widened by 40mm in front and 79mm at the rear using E-Class suspension arms. The 9.0Jx19 front and 9.5Jx19 rear wheels, shod with 255/35ZR19 and 285/30ZR19 Continental



Above Just 600 C63 Blacks were built; 66 for UK.

Left M156 V8 with 59bhp/15lb ft more than base C63's.

SportContact 5 tyres, are covered by wider front and rear wheelarches.

A standard C63 AMG has 451bhp, with around 30bhp more on top of this figure with the Performance Package Plus. While 480bhp and 442lb ft of torque is already pretty epic for a compact 'family' car, the dial on the M156 AMG motor is turned up to 510bhp and 457lb ft for the C63 Coupe Black Series, which was only produced between January and May 2012.

Internally, the eight-cylinder motor uses the forged pistons, connecting rods and crankshaft from the M159 motor, and its SLS-based oil cooling system has a 50 per cent greater capacity than the standard C63 AMG to ensure durability in hard track use. AMG claims a 0-62mph time of 4.2 seconds, which compares favourably with the 4.4-second time of the Performance Package

Plus C63. However, an engineer told me that four seconds flat is possible with track day rubber on a high grip surface. Like the CLK, the C63's top speed is pegged at 186mph.

The spring and damper hardware is an all new, height adjustable coil-over system made by KW, and has a +5 to -10mm adjustment range. Unlike a full blown racing system, however, this design uses linear rate coil springs with no helper springs. "The unique Drexler limited-slip differential we use here has a 60 per cent locking action under acceleration and 50 per cent on the overrun," explained AMG boss Moers. "It is more like a competition diff than anything else we offer, and requires a very precise suspension set up to work properly."

The Brembo brakes are straight from the 212-series E63 AMG, and use 390mm and 360mm vented, cross drilled and slotted discs front and rear with six-pot calipers in front and four-pots at the rear. ➤

➤ The Black Series specific Jurid pads are noise free in normal use, and have really impressive stopping power on track. Speaking of which, the optional Track Package included the Dunlop SP Sport Race tyres, and rear differential oil cooler to keep the lubricant temperature down when you are working the car hard on track.

As you would expect, the mighty AMG V8 is capable of easily overwhelming grip in the lower gears, and even the sticky Dunlop SP Sport Race rubber does not stand a chance if you input too much throttle coming out of a bend. However, the resulting slide is well telegraphed, progressive and easily collected or sustained. You can feel the aero package working in the faster turns, but when you brake really hard from really high speeds towards a slow bend the significant weight transfer unloads the back end, making it vital that you brake in a straight line. The C63 responds very well to trail braking, and front end grip is impressive on turn-in. Unless you come in too hot, the wider front track and sticky tyres do their stuff to keep the front tyres keyed into the tarmac.

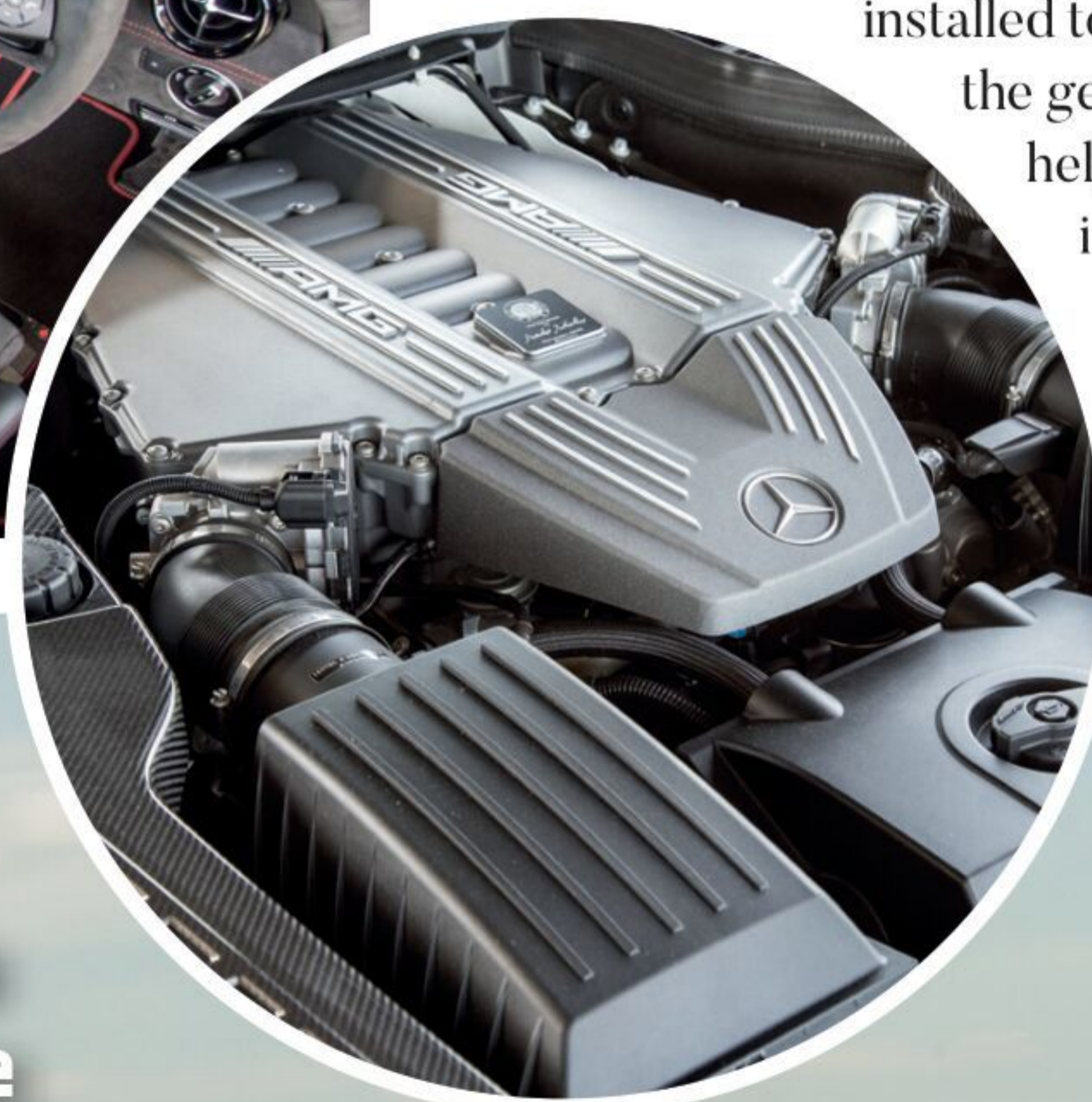
The final fling

I know it will sound like heresy to fans of AMG's gullwing wonder, but I didn't really warm to the SLS AMG until I drove the Black Series at Paul Ricard in November 2013, and then it all snapped into focus. My epiphany came at the first corner. More power, better turn-in, more grip and best of all, whereas I thought the standard SLS was a 'close but no cigar' driving experience, the Black Series instantly forged a direct connection to my brain's pleasure centre. This was the car the standard SLS should have been all along, and the fact that it looked and sounded angry was also a good thing.



Above Great seats in the SLS; steering is incredibly direct.

Right Sensational M159 has an extra 59bhp in SLS Black.



The other black series

SLK55 AMG Black Series (2006-2008)

5,439cc V8, 395bhp/383lb ft, 4.5sec 0-62mph, 174mph vmax



SL65 AMG Black Series (2008-2011)

5,980cc V12 biturbo, 661bhp, 737lb ft, 3.8sec 0-62mph, 199mph vmax



AMG GT Black Series (2020-on)

3,982cc V8 biturbo 720bhp, 590lb ft, 3.2sec 0-62mph, 202mph vmax



As I remarked at the time, if the plain vanilla SLS is dynamite, then the Black Series is a suitcase nuke. This is not one of those dubious marketing exercises with a few bits of carbon fibre and 20bhp extra, where you struggle to feel any real differences. Start with 59bhp more and 70kg less. Think 622bhp at 7,400rpm and 468lb ft of torque at 5,500rpm, blasting 1,550kg of alloy, carbon fibre and steel to 62mph in 3.6 seconds and on to 196mph. This is deep in real supercar territory.

The weight loss programme for this aluminium space framed and bodied car embraces lots of carbon fibre, which is used structurally for parts like the rear bulkhead, and strategically for the underbody diagonal braces, torque tube, the bonnet, and the lightweight race seats in the cabin. The small torsional dampers AMG installed to limit movement of the motor in front and the gearbox at the rear under lateral loadings, help to keep the car nicely trimmed from turn in to the exit of a bend. All this works very well with the Michelin Cup tyres to eke out more mechanical grip and lateral acceleration than the standard or GT spec SLS models.

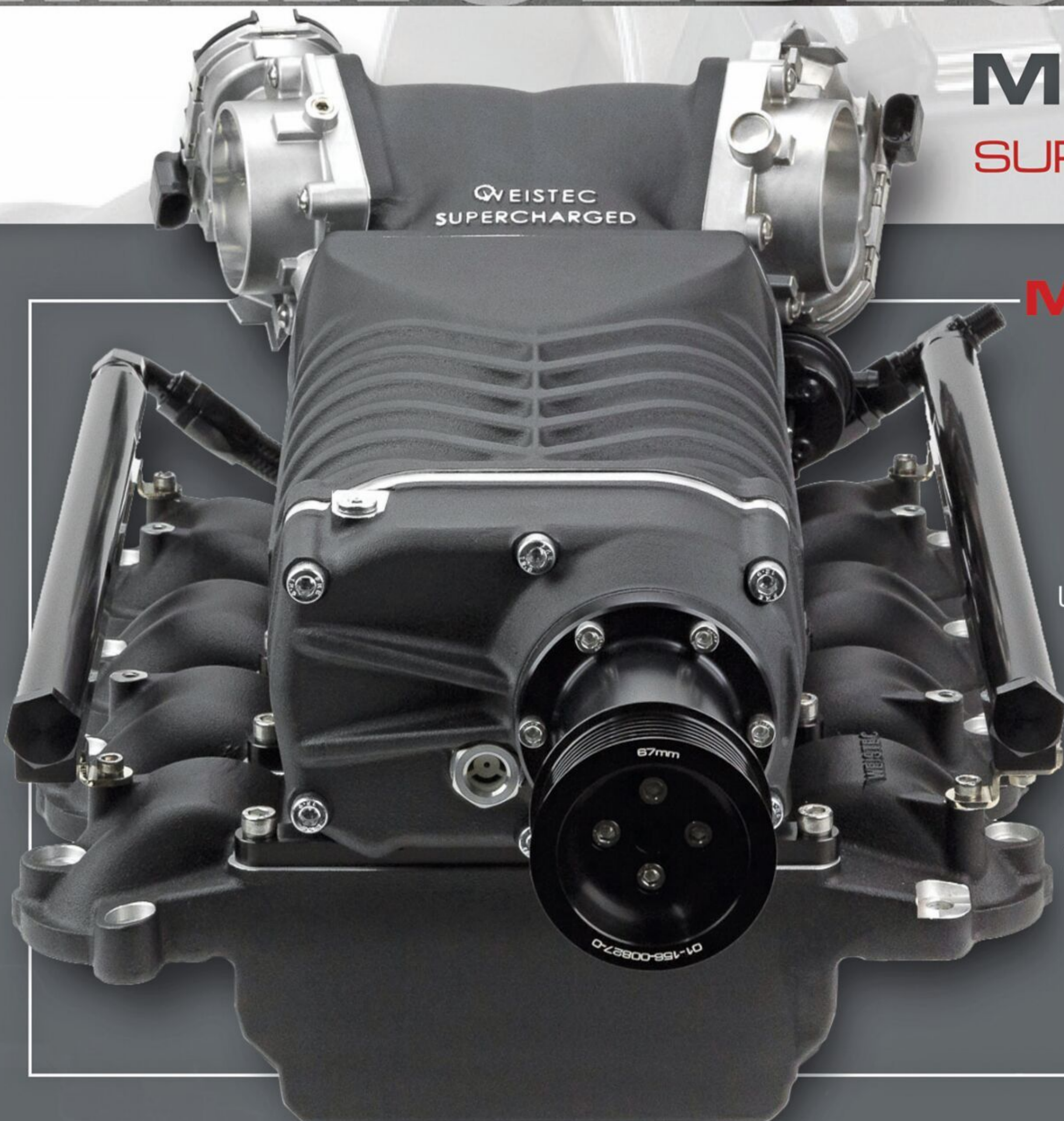
“ If the plain vanilla SLS is dynamite, then the black series version is a suitcase nuke ”



WEISTEC ENGINEERING

MERCEDES-BENZ

**M156 STAGE 3
SUPERCHARGER SYSTEM**

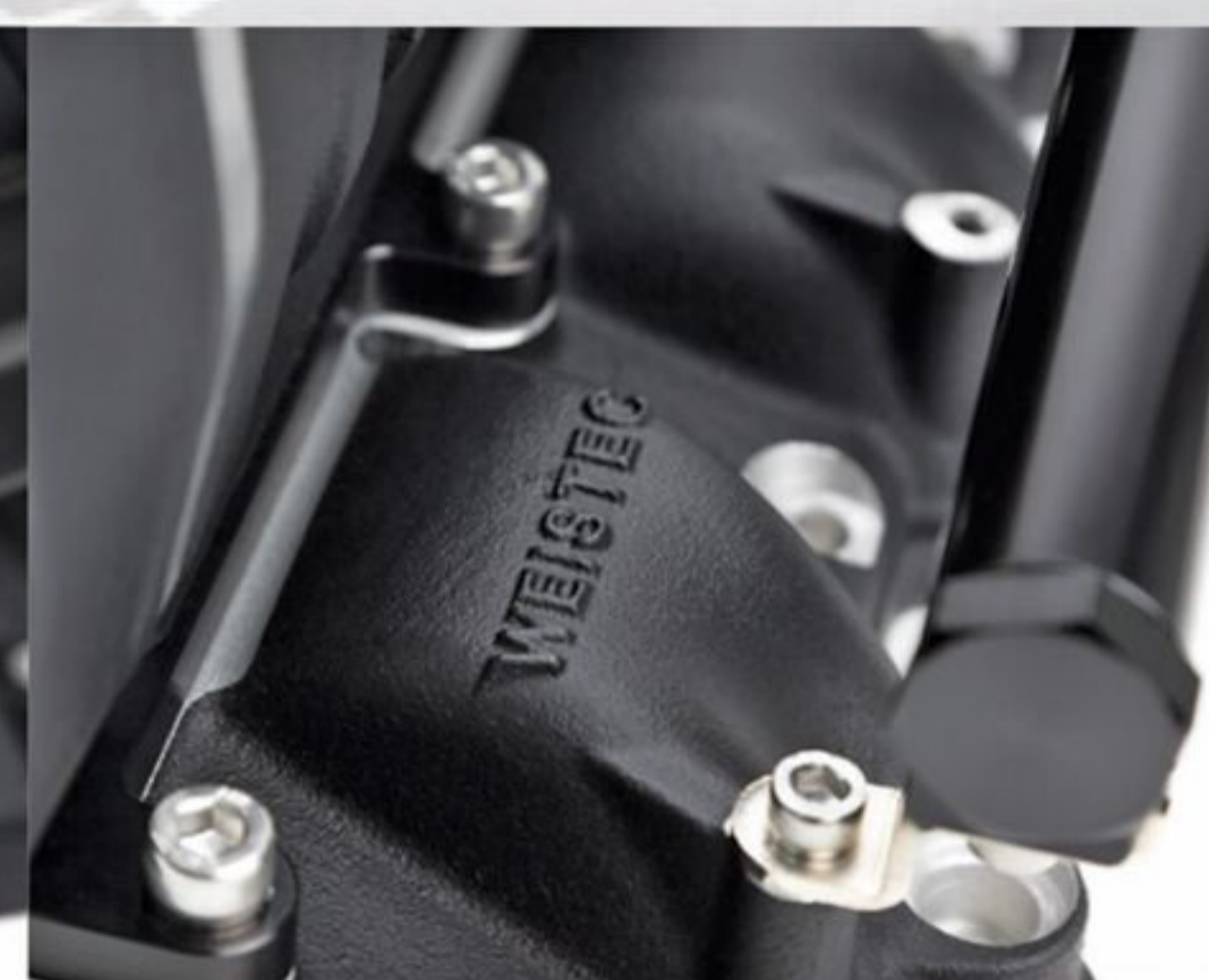


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TORQUE GAIN
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YEAR	MAKE	MODEL	TRIM
2008 - 2011	MERCEDES-BENZ	SL63 AMG	R230
2007	MERCEDES-BENZ	R63 AMG	W251
2007 - 2011	MERCEDES-BENZ	ML63 AMG	W164
2007 - 2010	MERCEDES-BENZ	CLS63 AMG	W219
2007 - 2010	MERCEDES-BENZ	CL63 AMG	W216

YEAR	MAKE	MODEL	TRIM
2007 - 2010	MERCEDES-BENZ	CLK63 AMG	W209
2007 - 2010	MERCEDES-BENZ	S63 AMG	W221
2007 - 2011	MERCEDES-BENZ	E63 AMG	W212
2008 - 2014	MERCEDES-BENZ	C63 AMG	W204

See our website for more info

Contact Us: 1-877-WEISTEC Sales@weistec.com www.weistec.com

➤ Another trick to help the Black Series turn in and tackle bends better than its siblings is the expensive, in-house designed, electronically controlled limited-slip differential that allows a variable degree of locking from zero to 60 per cent. This means more precise apportioning of torque to each of the driven wheels, better traction, and more progressive handling at the limit.

Action heroes

To get everything to gel, you need to be aggressive but smooth, trail braking into the bends and rolling progressively onto the throttle. Then the front grips with the nicely damped rear axle following in perfect union. At least that is how it appears initially. In fact, it is the stability of the rear axle that sets the stage for the chassis, and you have to alter your driving to make the

of this trio,
our clear
favourites were
the CLK63 for its
transparent and
playful handling,
and the SLS for
being just plain
awesome

front end behave in the way described above. As the SLS Black Series is like a race car in this respect, you have to think like a race driver to get the best from it. What the stopwatch cannot tell you though is what

“

a huge hoot this car is to drive. Apart from the latest AMG GT R models (and the as yet undriven Black Series version), which take a lot of their suspension technology from the SLS Black Series, I think this is by far the best drivers' car AMG has made, and is a thundering, extrovert steer of truly heroic proportions.

All Black Series models use motorsport technology distilled from AMG's racers, which helps to make them so impressive on track. Of this Black Series trio, our clear favourites were the CLK63 for its transparent and playful handling, and the SLS for being just plain awesome.

When the AMG GT R arrived in 2017, I asked Tobias Moers if there was room for a Black Series version of the AMG GT. Over the years, I learned that when AMG's former chief stays silent and just smiles, the answer is invariably 'yes'. And so it proved with the car's reveal in July 2020. I can't wait to get behind the wheel...

MP

”



stateside SL65

US-based Black Series connoisseur Philip Richter reveals what it's like owning Affalterbach's V12-powered brute

WORDS Reed Hitchcock

Philip Richter is the owner of Turtle Garage, which is not only a popular blog among US motoring enthusiasts, but also serves as home to a collection including a number of rare motorbikes and pristine youngtimer classics including a 190E 2.5-16, a 500E, an E30 M3, a 928GTS and more. Philip owns

two Black Series Mercedes: a CLK and this fantastic SL65.

"I met my first SL65 Black Series in spring 2009. It was a silver car with a 'Sold' sign on it, displayed at the former Park Avenue Mercedes-Benz dealer in New York City. It reminded me of seeing my first Porsche 959 and was an 'a-ha' moment for me. I had to have that car!" He finally purchased this sub 2,000-mile example in 2015. He continues, "The SL65 is not an easy car to drive. It has zero ground clearance and is hard to control until the tyres get hot. I drive it sparingly but that doesn't mean I don't enjoy it! It is even

wonderful to be around while tinkering at Turtle Garage."

Philip and his friend, classic Mercedes guru Dean Laumbach, put the car through its paces on some great twisty country roads in north-western Connecticut. "The SL just devoured the miles. It was comfortable, fast, and nimble." He plans to keep the car for life - or as long as fate allows. "It's historic and is among the lowest production volumes of any post-war street legal Benz - fewer were produced than even the iconic Gullwing."

More Information:

www.turtlegarage.com

Right Philip owns an SL65 and CLK63 Black Series - nice!



CHAPMAN CURVE

A45 AMG

Looking to upgrade your first-generation A45 AMG? Here are some of our favourite products to make your super-hatchback stand out from the crowd

WORDS Kyle Molyneux & Simon Holmes

AERO STYLING

CKS Performance

The look of the A45 AMG, both front and back can be enhanced with an additional splitter, spoiler and diffuser option. These not only increase the aggressive styling look of Merc's hatchback but should also create a modicum of downforce to improve the car's stability at high speed.

PRICE POA

CONTACT www.ckperformance.com

REMAP

GCAP Performance

For a simple solution to improving engine performance, a remap will increase the turbocharger's boost pressure and adjust the fuelling to suit, which gives a significant rise in both power and torque. It's a good entry level modification that's quick, easy and reliable on a healthy car.

PRICE POA

CONTACT www.gcapperformance.co.uk

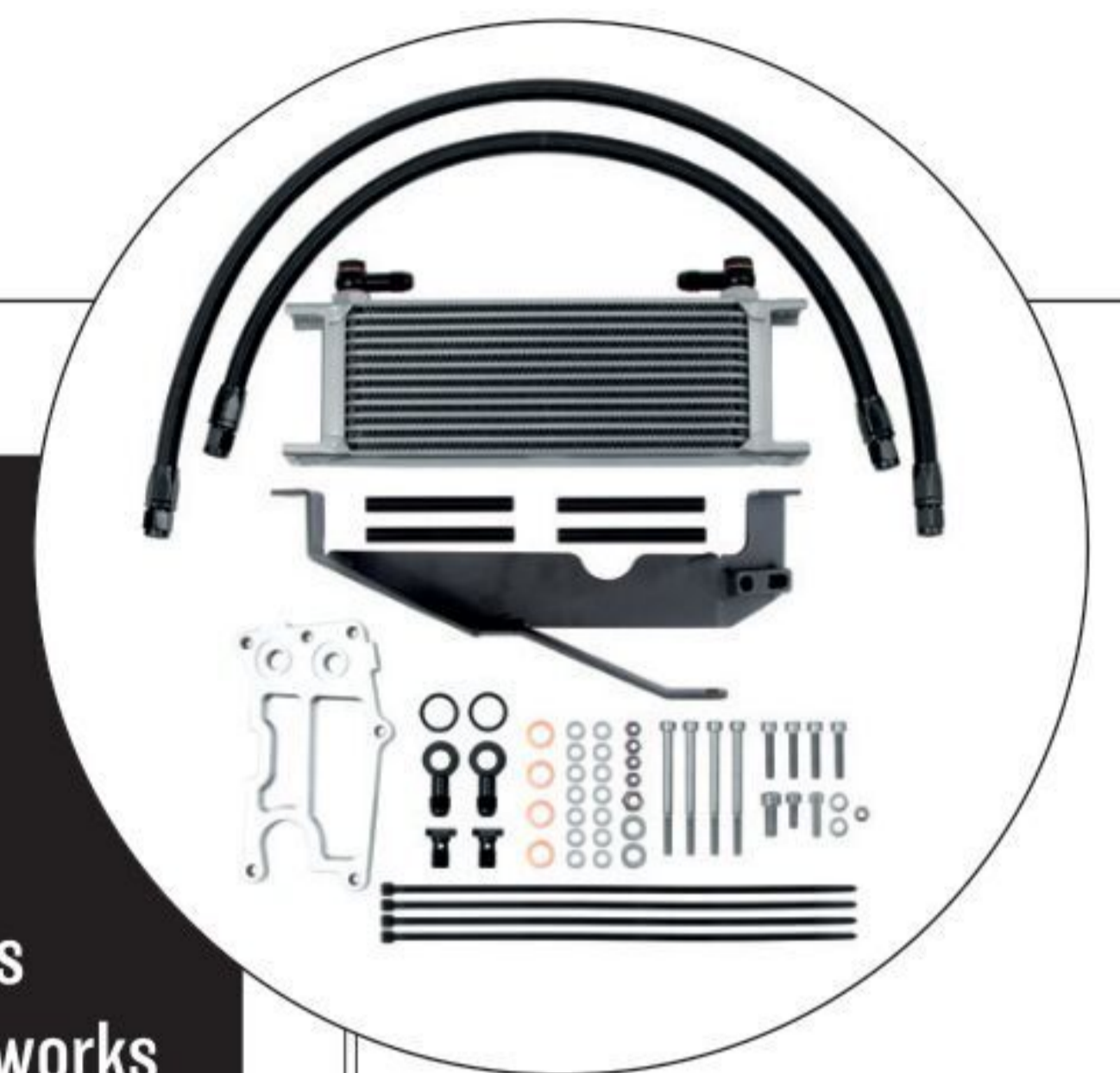
GEARBOX OIL COOLER

Forge Motorsport

The seven-speed DCT transmission fitted to the A45 is a clever and complex unit that works well. However, under heavy and frequent use, such as track or fast road use, internal oil temperatures can rise, which is why it's a good idea to keep everything in check.

PRICE £524

CONTACT www.forgemotorsport.co.uk



CATBACK EXHAUST

Milltek

By changing the exhaust from the standard catalyst-converter back, then you can be sure the car will still meet all emissions standards but power, performance and noise will improve thanks to a freer-flowing and larger exhaust system.

PRICE £1,031

CONTACT www.millteksport.com



DOWNPIPE

Scorpion

One of the most restrictive parts of the standard exhaust system is the downpipe, which is the part that follows directly after the turbocharger. By improving the design and flow can reap big gains to power, torque and performance, whilst improving your A45's overall sound.

PRICE £616

CONTACT www.scorpion-exhausts.com

LOWERING SPRINGS

H&R

Simply lowering the car's centre of gravity will vastly improve its agility and ability. By keeping the standard dampers and just replacing the springs, it's not an expensive option either, but ideally you should do more to ensure the car's geometry is within tolerance.

PRICE £189

CONTACT www.ckperformance.com

COIL-OVER SUSPENSION

KW Clubsport 2

If you're looking to improve your A45's stability on track, then coil-overs replace the standard strut and spring set up with a single adjustable item. These allow height and therefore corner weight to be finely tuned to improve handling performance.

PRICE £2,163

CONTACT www.kwsuspensions.co.uk

OWN A 204-SERIES C63? Turn to page 66 for more tuning inspiration

Launched in 2013, the first-generation A45 AMG made headlines with its staggering, 355bhp turbo engine. That output, teamed with a 4Matic four-wheel drive system and seven-speed dual-clutch gearbox, allowed the A45 to crack 62mph in 4.6 seconds.

Such performance earned this two-litre four-pot the nickname 'The beast' among AMG engineers, and things only got more bonkers when the model was facelifted in 2015. Power rose to 376bhp with 350lb ft torque, shaving four tenths from the 0-62mph time. The A45 also received sharper styling and Dynamic Select driving modes including Race function.

Affalterbach's debut in the compact class simply destroys back roads, carving up apex after apex with the clinical precision of a

veteran assassin. Some may argue the A45 is a little too composed, flattering rather than challenging the driver, but even supercars need working hard to get away from this A-Class.

Costing just shy of £40,000 when new in 2013, the A45 – despite that high price – appealed to a whole new generation of performance-mad buyers, and with used values now under £20,000, the AMG has broadened its fanbase further still. This situation goes towards explaining why the A45 is so popular on the typically youthful tuning scene, with companies queuing up to make your baby AMG even faster.

On these pages you'll find our favourite upgrades for the W176 A45 AMG from a range of aftermarket parts specialists in the UK, mainland Europe and the United States.

AIR FILTER
K&N

A replacement K&N air filter fitted inside the A45 AMG's original airbox can give a mild increase in performance and has the added benefit of lasting 50,000 miles between cleans. The K&N filter itself is warrantied for 10 years or a million miles, plus it won't void the car's warranty.

PRICE £55

CONTACT www.knfilters.co.uk

BLOW-OFF VALVE

Turbosmart

In standard form, the A45 features a port for a blow-off, or dump valve, on the turbo side that is unused. When increasing boost pressure by a remap, introducing an aftermarket blow-off valve, or BOV, will improve low down response and increase turbo life.

PRICE £207

CONTACT www.gcaperformance.co.uk



TOE-LINK KIT
RennTech

Once a car is lowered and the suspension geometry has been altered, it's important to introduce adjustable components in order to allow a finely tuned set up to match. With an adjustable toe-link kit fitted, tracking can be tuned to further enhance handling.

PRICE £485

CONTACT www.renntechmercedes.com



WHEELS

AC Supremo

Decreasing unsprung weight (any mass positioned after the suspension) brings several advantages including increased agility, and one of the easiest ways of achieving this is to replace the standard wheel set up with much lighter items that are also easier on the eye.

PRICE POA

CONTACT www.wheel-power.co.uk



CARBON STRUT BRACE

RennTech

To increase front-end rigidity by reducing the amount of flex between the front suspension turrets, this strut brace made from alloy and carbon fibre will strengthen the car's chassis, improving its handling, especially at higher speeds.

PRICE £799

CONTACT www.renntechmercedes.com



“In the 1980s,
building a
hatchback
wasn't high on
Mercedes'
agenda,
if at all”

Before its launch in 1984, there had never been a Mercedes quite like the 190E 2.3-16 - and the same could also be said of the first generation A45 AMG in 2013. So how do these pocket rockets compare?

BOSS BABIES

WORDS Wilhelm Lutjeharms
IMAGES Danie Nel



“In true Mercedes-Benz fashion, the 2.3-16’s suspension displays perfect composure as it deals with the road’s surface”



How the world of fast four-door cars has changed over the past three decades – especially for Mercedes-Benz. Back in the 1980s, when the German car manufacturer launched its W201 190, the car quickly became known as the ‘baby Benz’. The C-Classes that followed, starting with the 202-series in 1993, have proved Mercedes’ volume sellers, although the A-Class – particularly in third-generation form – has given them a run for their money. In the 1980s, building a hatchback wasn’t high on Mercedes’ agenda, if at all. Now, however, such cars are critical to the success of mainstream automotive manufacturers.

So, what do these two cars pictured have in common? The first generation (W176) A45 AMG was Mercedes’ most expensive first step on the ladder, a position held by the 190E 2.3-16 from 1984 to 1988. As was the case with the A45 and the regular A-Class range, Mercedes-Benz didn’t wait too long after the launch of the 190 to entice the buying public with a new performance model. In December 1982 the 190/190E range was presented to the world’s media, and by September the following year, at the Frankfurt motor show, the 2.3-16 appeared – but its reputation as a fast, compact saloon preceded it.

In August 1983, at the Nardò test facility in southern Italy, the 2.3-16 set no less than three world records and nine class records. These included, to name a few, 25,000km, 25,000-mile, 50,000km, six-, 12- and 24-hour records.

The A45 AMG can’t lay claim to any record-breaking endurance runs, but it has other impressive stats to its name. Developing 355bhp, it had by far the most powerful, series production, four-cylinder engine in the world at the time. The two-litre M133 motor also found its way into the CLA and GLA, and formed the basis of a four-litre turbocharged V8 in the 205-series AMG C-Class.



Firing into the history books

Compared to the A45, the 190E 2.3-16 looks and feels like something from a different planet. Open its solid door and the interior continues along the same 1980s theme. The dashboard and centre console form a perfect T-shape. The small, glossy Momo steering wheel might look out of place to some, but this wheel was actually available from Mercedes-Benz at the time. As well as looking the part, the

ornate steering wheel achieves something else, which I will get to shortly.

The 190E’s short bonnet features two creases running from the top corners of the grille. The A45 AMG has a similar design, but the creases are much further apart and continue into the A-pillars. The strong and angular lines of the 190E are even more pronounced and visible on the 16-valve model. The front bumper, side sills, rear bumper and small rear wing look like those on the racing version, which went airborne over kerbs on race circuits in and around Germany during the mid to late 1980s.

Just the facts

	Mercedes-Benz 190E 2.3-16 (W201)	Mercedes-Benz A45 AMG 4Matic (W176)
ENGINE	M102 2,299cc 4-cyl	M133 1,991cc 4-cyl turbocharged
POWER	175bhp@5,800rpm	355bhp@6,000rpm
TORQUE	170lb ft@4,750rpm	332lb ft@2,250-5,000rpm
TRANSMISSION	5-speed manual, RWD	7-speed auto, 4WD
WEIGHT	1,260kg	1,555kg
0-62MPH	8.2sec	4.6sec
TOP SPEED	140mph	155mph
FUEL CONSUMPTION	23.3mpg	40.9mpg
YEARS PRODUCED	1984-1988	2013-2015

FIGURES FOR A 1986 2.3-16 WITHOUT A CATALYST AND A PRE-FACELIFT A45 AMG; FUEL CONSUMPTION FOR THE 2.3-16 ACCORDING TO EEC URBAN AND FOR THE A45 ACCORDING TO NEDC COMBINED; A45’S TOP SPEED ELECTRONICALLY LIMITED



Above This 190E is well used and still feels strong.



Above Dog leg ‘box takes some getting used to.



Right Wood M-B wheel breaks up the blackness...



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Road Hero

Road Hero is a space saver wheel kit, designed to eliminate the danger of being stranded and to get you home safely! Vehicles manufactured after 2012 are no longer required to provide a spare wheel, due to regulation changes. The kit features a space saver wheel, tyre, jack, brace, warning triangle, hi-vis, head torch, kneeling mat, gloves & rain poncho all packaged in simple and tidy bags.



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➤ This 1986 2.3-16 has been with its current owner for seven years, and was comprehensively restored because the previous owner drove it on farm roads, somewhere the car has stayed well clear of since the work. Details such as the Mercedes-Benz Classic Center numberplate holder, and the brochures and owner's manual in the luggage compartment illustrate the fastidious manner in which this collector keeps his three-pointed stars.

There are few theatrics as the 16-valve engine starts, but it definitely sounds better than the smaller capacity motors in other 190s. The engine was redeveloped by Cosworth engineers and features a light alloy cylinder head with twin overhead camshafts and four valves per cylinder. Together with Bosch KE-Jetronic fuel injection, hydraulically damped engine mounts and an oil cooler, the engine develops 41bhp (figure for a 1986, non catalyst car as pictured) more than the single-overhead-camshaft, 134bhp engine in the regular 190E 2.3.

Digital versus analogue

As you engage – with very little effort – the dog leg manual's first gear, you realise you are driving something special. The road flows alongside green cornfields and the joy of using this gearbox is immediately apparent. It doesn't want to be rushed, but there is great pleasure to be had in the way the gear lever simply clacks straight down from second to third, and then across the gate from third to fourth.

In true Mercedes-Benz fashion, the 2.3-16's suspension displays perfect composure as it deals with the road's surface. Although this is

“The A45 feels extremely nimble and is very easy to place on the road”

a sporting saloon, the ride is comfort-oriented but taut enough to minimise body roll when you push through corners, partly due to the trick, hydro-pneumatic struts at the rear. The compact steering wheel fits perfectly into my hands, while the quick rack ratio – and the throttle response, for that matter – overshadow those of its Mercedes contemporaries.

This 190's owner agrees. “It is one of my favourite cars to drive in my collection. There is a fantastic balance between the sports suspension and comfort.” The 190E 2.3-16 feels far lighter and more compact than Mercedes' other models available at the time, but then it does tip the scales at just 1,260kg - a full 90kg less than the most basic, new A-Class.

The A45 AMG, on the other hand, weighs in at 1,555kg, so it is not exactly lightweight. There are several reasons for this, including the addition of multiple airbags, luxury items like the Comand Online infotainment system, plus a generally more comfortable cabin, a strong body shell and chassis, and of course, a four-wheel drive system.

This specific car is quite possibly one of the lower-specification A45 AMGs I have seen. Cars in most of Mercedes' publicity material featured the optional Edition 1 package (not available in the UK), which gives the A45 a more aggressive – and perhaps slightly yobbish – road stance.

The AMG interior is a notch above that found in regular A-Classes – the part leather/part Alcantara AMG steering wheel and embossed gear lever are probably the most obvious additions. Next up are the AMG sports seats and the AMG dials, including the 320km/h speedometer, which informs you of the serious intent of this little machine.

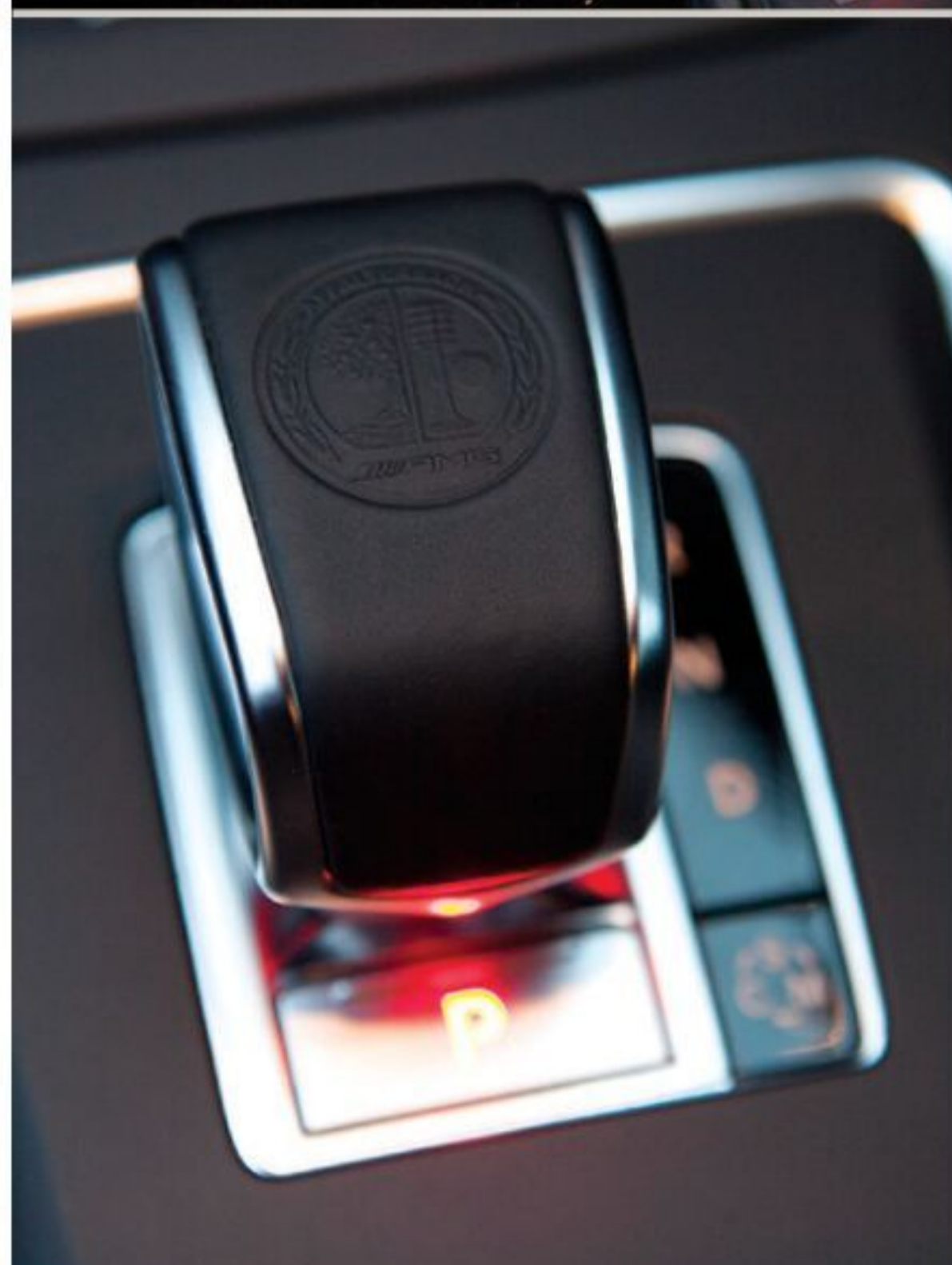
The two-litre turbocharged engine is connected to an AMG dual-clutch automatic called Speedshift DCT, and power is sent to the front wheels most of the ➤



Left Red details mark out this A as a full fat AMG.

Below left Badge of AMG on the gear lever.

Below You don't need to rev the A45 to enjoy it.





“driving the 190E 2.3-16 and A45 AMG back-to-back illustrates how the automotive world has changed”

➤ time. During enthusiastic standing starts and cornering, power is spread to the rear axle as well. The AMG powertrain makes this hatchback nothing short of ballistic. Off the line, there is no wheelspin or drama usually associated with rear-wheel drive AMGs. Second and third gears don't feel a lot slower than first, although the former ratios really give you the time to appreciate the torque as the engine runs to 6,000rpm where the full 355bhp waits.

The A45 feels extremely nimble and is very easy to place on the road thanks to its diminutive dimensions and good visibility. Unlike on the 2.3-16, however, there is no upright three-pointed star at the end of the bonnet to guide you along the road. But there is a large emblem embedded in the grille, itself flanked by curvaceous headlamps with daytime running LEDs, contrasting with the 190E's more traditional grille and headlamp designs.

punching above their weight

The A45 will hassle most other sports cars on twisty roads, and even some supercars might struggle to keep ahead of this rather conventional looking A-Class. It is supremely confidence inspiring, behaving well under braking, and when you press the throttle too early it will – like most cars today – slip into controlled understeer. However, press the ESP button once and the electronics loosen their grasp. Thus

liberated, the rear of the car won't step out as much as the 2.3-16's, but you can certainly enjoy the car more and really feel the four-wheel drive system working. After entering a corner in the A45, you can get back on the throttle far earlier than you can in any rear-wheel drive AMG, and of course, the 2.3-16.

Driving the 190 Cosworth and first generation A45 back-to-back illustrates how the automotive world has changed. Premium marques have entered new water with their compact ranges, while technology has improved across the board, making cars safer, more refined and in the case of the A45, capable of troubling sports cars that are twice the price thanks to the clever use of turbocharging.

In terms of its design, heritage and driving experience, the 190E 2.3-16 was closer to other Mercedes that filled the showroom floor during its reign than the A45 was, although it still carried an air of serious sporting intent. Its 7,000rpm redline and dog leg gearbox are a world away from the A45's motor and transmission, but both cars exemplify Mercedes' relentless pursuit of headline grabbing performance for its smaller three-pointed stars.

MP

Right Massive turbo ahead of A45's M133 unit.

Far right Cosworth cylinder head with 16 valves.

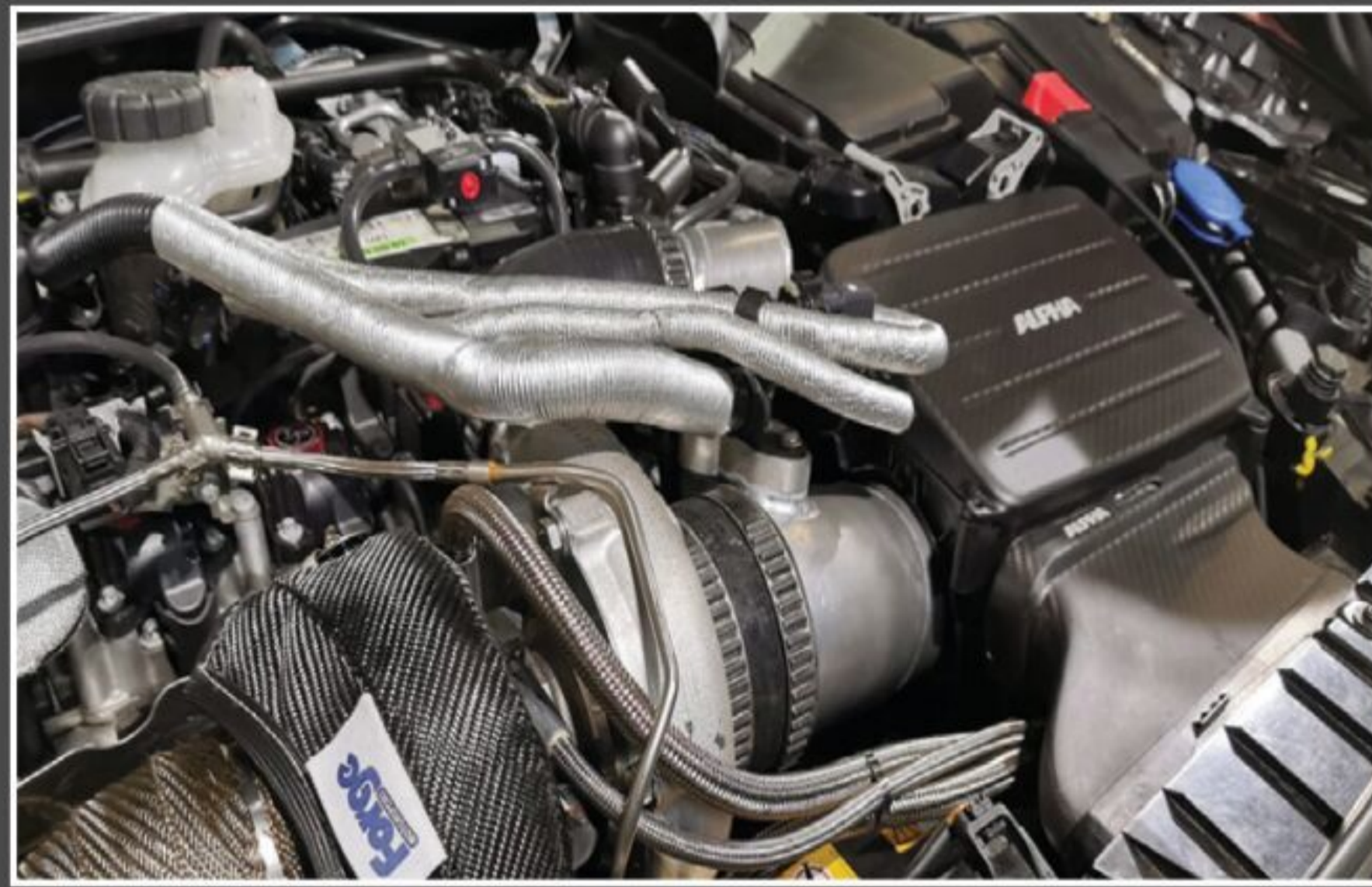


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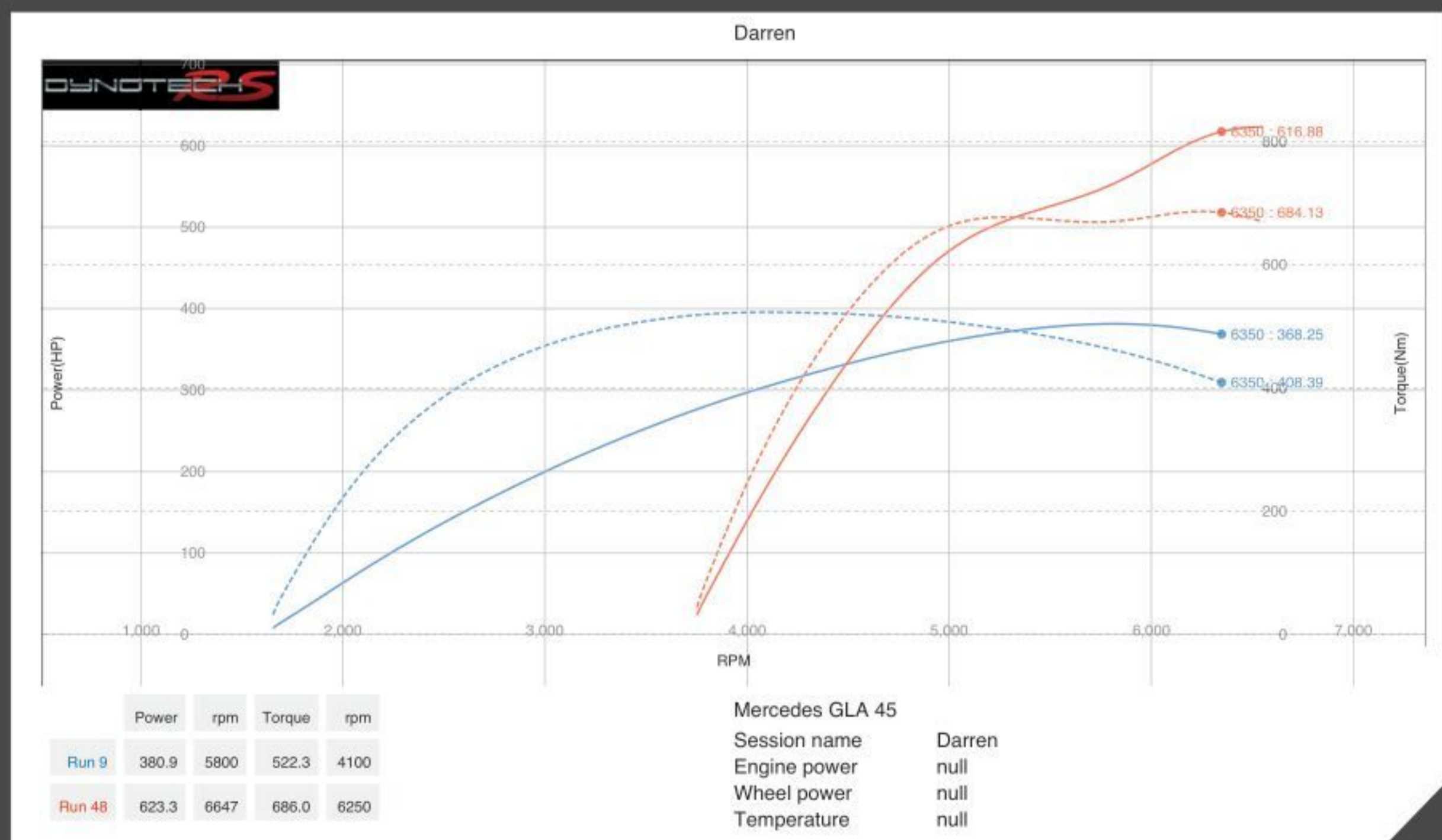
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GO FAST FOR LESS

WORDS
David Sutherland
IMAGES
Terry Osborne,
Dan Trent &
Daimler AG

Don't let a tight budget get in the way of driving enjoyment - here are 10 great Mercedes guaranteed to entertain keen drivers

Mercedes-Benz has almost always produced some fast motorcars, but it was the early 1990s that saw the car maker, spurred on by compatriot rival BMW, begin to really work at it. That decade kicked off with the hottest 124-series so far, the 500E, and within 10 years a wide range of AMGs were on offer.

Here, we pick our top 10 high performance Benzes from the last 30 years, from as little as £3,000, which gets you a sweet, 209-series CLK V6, up to £40,000 for a mint condition R129 SL60 AMG (though a £70,000 spend secures a near unused example of the 500E/E500 'Supercab'). And no selection of this kind would be complete without the first generation A45 AMG, the rocketship hot hatch now promisingly affordable. Talking of money, as always we say buy the best you can afford, as the cheapest often turns out to be anything but.



500E/E500 (W124)

In its time, the early 1990s, the 124-series 500E/E500 was called 'Supercab'; but for the slightly flared wheelarches and it not being in taxi yellow, it was the Mercedes 124 saloon you stepped into at any mainland European airport or station. But it could hardly have been more different, with its five-litre V8, uprated suspension and brakes, bespoke body panels, and part-assembly by Porsche. The result is a car that retains all of the comfort, refinement and understated style of the model it was built on, the E320, but with a silken wallop of torque. In five years 10,479 were made (badged E500 from 1993), but just 29 were delivered in the UK - the near £60,000 price in a recession hit car market and left-hand drive only curtailed the BMW M5 chaser's prospects.

These you see for sale are usually European or Japanese imports, and there are two prices: £15,000 to £25,000 for average to good condition, and £50,000 or more for the pristine examples seen at international auctions.



KEY DETAILS

ENGINE M119 4,973cc V8
POWER/TORQUE 322bhp/347lb ft (post October 1992, 316bhp)
TRANSMISSION 4-speed auto, RWD
0-62MPH 6.1sec
TOP SPEED 155mph
BUILT 1991-1995
PRICES £15,000-£25,000 (average), £60,000-£70,000 (pristine)

SUM UP Before AMGs came on stream, this was the Mercedes-Benz performance saloon of choice and it's still a treat to drive with its super-strong V8 motor

190E 2.5-16 (W201)

The 190E 2.3-16 unveiled in 1983 was (the then deeply conservative) Mercedes-Benz's first car with a go-faster body kit and extra dials on the dashboard. This 'homologation special' for a forthcoming production race car was not particularly quick and its Cosworth tuned engine not especially refined, and it was very expensive. It received an enthusiastic reception and that may partially account for why it, and the succeeding 190E 2.5-16 of 1988, became very cheap to buy considering their motorsport pedigree.

They (and we don't include the 1990 Evolution and Evo II that are now in an inflated price bubble of their own) have now risen in value, but only to their new price of three decades ago, so at under £30,000 for even the best ones are still accessible outside collectors circles. They ooze character, that traditional Benz feel but with a vibrant, un-Mercedes like powertrain, and at this stage that's more important than performance against the stopwatch.



KEY DETAILS

ENGINE M102 2,498cc 4-cyl
POWER/TORQUE 192bhp/173lb ft
TRANSMISSION 5-speed manual/4-speed auto, RWD
0-62MPH 7.5/7.8sec
TOP SPEED 146/143mph
BUILT 1988-1993
PRICES £10,000-£30,000

SUM UP A still usable young classic that's an acquired taste but engaging and with great period charm





SL60 AMG (R129)

Aside from the extremely rare, V12-engined 7.3-litre SL73 AMG, the SL60 AMG is the pick of the R129 SL generation. The six-litre V8 roadster was in the first wave of 'official' AMG models to appear in Mercedes-Benz showrooms in 1993 and was delivered in small numbers until 1998, when it was replaced by the smaller-engined SL55 AMG. The SL60 looks almost identical to the five-litre SL500, and feels only very subtly different. The 32-valve engine has a slightly sharper, quite thrilling note at higher revs; Mercedes stated its output at 376bhp but it was rumoured at the time that the true figure was over 400bhp.

We sense that SL60 AMG values are talked up higher than they actually are. Certainly, an exceptionally clean example can break £40,000, but with R129s still only on the fringes of collectability you'll find one for under £30,000. But as fewer than 60 are thought to have been sold in the UK, you won't have a wide choice.

KEY DETAILS

ENGINE M119 5,956cc V8

POWER/TORQUE 376bhp/428lb ft

TRANSMISSION 4-speed auto, RWD

0-62MPH 5.8sec

TOP SPEED 155mph

BUILT 1993-1998

PRICES £25,000-£50,000

SUM UP A beautifully subtle AMG treatment of the R129, with a gorgeous V8 and sharper but not brutalised handling



E55 AMG saloon/estate (W210/S210)

Due to its bad rust problem, the 210-series E-Class is not a fondly remembered model, but there was one highlight, the E55 AMG, built for five years from 1997 and which established the format for the middleweight Mercedes performance saloon (and estate) that continues over two decades on. It was among the first Benzes using the smooth, hugely torquey and immensely durable M113 5.4-litre V8, and was everything you needed in a family car. And the Estate, while not everyone's idea of a handsome wagon, has a vast carrying capacity.

When production of the 210-series E-Class ended in 2002 used values fell away to almost nothing, threatening the E55 with extinction. But of late they have been rehabilitated as a modern classic, and values, although still low, are now rising. There was a facelift in mid 1999 but the changes were slight, so with an unchanged engine specification throughout and little variance in equipment, this is a modern Mercedes-Benz you should buy on condition, not year.



KEY DETAILS

ENGINE M113 5,439cc V8

POWER/TORQUE 349bhp/391lb ft

TRANSMISSION 5-speed auto, RWD

0-62MPH 5.7/5.9sec (Saloon/Estate)

TOP SPEED 155mph

BUILT 1997-2002

PRICES £5,000-£25,000

SUM UP As wonderful crossing continents as cruising on the school run, the E55 is a car for all reasons - and a future classic





SL500 (R230)

When the R230 appeared in 2002 it was state-of-the-art engineering: active suspension, much aluminium in the construction, loads of sophisticated electronics, and the still astonishing three-piece folding metal roof from the SLK, all wrapped up in a stunningly sleek body. Nearly two decades on, these early R230s are the cheapest SLs you can buy, priced from as low as £3,500 and ranging up to around £15,000 for the last models prior to the 2008 facelift provided you don't expect an AMG model. While the preceding R129 has a classic nature, the R230 feels high tech, the Active Body Control chassis and rack and pinion steering (the first SL without recirculating ball) delivering handling precision in the Porsche league. We'd say go for the SL500 rather than the SL350, good though the V6 car is.

The later you buy, the better the mechanical spec: September 2003 saw the 7G-Tronic seven-speed automatic gearbox fitted, while in March 2006 the four-valve M273 5.5-litre V8 replaced the three-valve M113 five-litre.



KEY DETAILS

ENGINE M273 5.461cc V8

POWER/TORQUE 383bhp/391lb ft

TRANSMISSION 7-speed auto, RWD

0-62MPH 5.4sec

TOP SPEED 155mph

BUILT 2001-2012

PRICES £3,500-£16,000

SUM UP The first SL to combine Mercedes luxury with sports car handling, and now in the value sweet spot



KEY DETAILS

ENGINE M113 5.439cc V8

POWER/TORQUE 355bhp/376lb ft

TRANSMISSION 7-speed auto, RWD

0-62MPH 4.9sec

TOP SPEED 155mph

BUILT 2004-2010

PRICES £12,000-£20,000

SUM UP They called the early SLKs a hairdresser's car - when this model arrived the laughing stopped

SLK55 AMG (R171)

The AMG M113 V8 went into many model series, even the second generation (R171) SLK, so diminutive you might wonder how it fitted under the bonnet. Perhaps sensibly, it was never supercharged for this application, the atmospheric 355bhp deemed enough for a car tipping the scales at little more than 1,500kg and resulting in a power-to-weight ratio not much lower than that of the Kompressor-engined SL55 AMG. The SLK55 unsurprisingly feels a torque fest to drive, the seven-speed auto smoothly transferring the power and torque to the rear wheels. The F1-esque nosed roadster is even more pumped up if it has the optional AMG Driver's Package (speed limiter removed) and/or the AMG Performance Package bringing 'floating' brake discs and firmer still springing.

For a two-seat roadster, it's ultra-practical, thanks to its marvellous folding metal roof. It's now heading into affordability, with £15,000 allowing a choice, although that wouldn't get the super rare SLK55 AMG Black Series with its extra power, carbon body panels and fixed roof.





CLK350 Coupe/ Cabriolet (C209/A209)

The C-Class-based CLK of 2002 was an elegant two-door that needed sorting in terms of engines and spec. By 2006 that had happened, with a revised interior offering better controls including Bluetooth compatibility, and the availability of the sweet-revving M272 3.5-litre V6 petrol engine, mated to the seven-speed auto, for the CLK350. It's a good alternative to the V8 CLK500, offering sparkling performance and not bad fuel consumption for a six-cylinder. Taut handling complements the willing powertrain. One of the joys of the C209 is its pillarless body which not only looks sublime when all four windows are dropped, but – thanks to good aerodynamics – allows a turbulence-free ride. The CLK350 was also built as the A209 Cabriolet and judging by what's for sale it was a popular choice. Most CLK Coupes and Cabriolets came in the more firmly sprung Sport trim, but some were the more compliant Avantgarde. Tin or soft top, this is great value performance, £8,000 getting you the best examples out there.

KEY DETAILS

ENGINE M272 3,498cc V6

POWER/TORQUE 268bhp/258lb ft

TRANSMISSION 7-speed auto, RWD

0-62MPH 6.4/6.7sec

TOP SPEED 155mph

BUILT 2005-2009

PRICES £3,000-£8,000

SUM UP Fantastic value for money and still young enough to be in good shape for everyday driving should you wish



C63 AMG Saloon/ Estate (W204/S204)

For all its aggressively bulging bodywork and exhaustively developed sports suspension, the 204-series C63 AMG, built from 2007 until 2014 (with a facelift in 2011), is defined by one aspect alone: its engine. The M156, a snarly, revvy 6.2-litre V8 producing 451bhp was Affalterbach's first wholly designed engine and the biggest ever in a C-Class. It is entirely different in character to the M113 5.4, which it replaced as AMG's staple V8, and it helps make the C63 a magnificent modern sports car, with massive, fairly peaky performance yet still great docility, allowing the Saloon, or the Estate, to serve as totally practical transport, although with low teens fuel consumption.

Despite its £50,000-plus price when new, lots were delivered in the UK, including a run of the DR520 in 2010 with 62bhp extra (F1 driver Jenson Button owned one). A £20,000 spend gets a good example, perhaps with the AMG Performance Package that added goodies like composite front brakes and further uprated suspension.



KEY DETAILS

ENGINE M156 6,208cc V8

POWER/TORQUE 451bhp/442lb ft

TRANSMISSION 7-speed auto, RWD

0-62MPH 4.5/4.6sec (Saloon/Estate)

TOP SPEED 155mph

BUILT 2007-2014

PRICES £13,000-£30,000

SUM UP A magnificent modern sports car that is supremely practical, and now also temptingly affordable



E500 Coupe (C207)

An AMG version of the 207-series E-Class Coupe was never offered, perhaps lowering expectations of the model that re-introduced the pillarless, mid-sized Benz coupe after a decade's absence. Most C207s delivered in the UK were diesels, but tucked away in the price list was the E500 using the super sweet, normally aspirated, 5.5-litre petrol V8 giving an unexceptional sounding but perfectly adequate 382bhp, enabling a 5.2-second 0-62mph time. Fuel consumption is creditable for a big V8, with mpg in the high 20s possible.

But on this car, bereft of AMG bodywork and wheels, forget the specs and just enjoy the quiet whoosh of the V8, the super responsive seven-speed auto and the comfort, the luxury equipment, and the quality of the cabin fittings which marked a return to form for the E-Class interior. Built during a period of diesel dominance, the E500, discontinued in 2011, is a rare sight in the classifieds, but they do come up and £15,000 gets a good one, almost certainly in Sport trim.



KEY DETAILS

ENGINE M273 5,461cc V8

POWER/TORQUE 382bhp/391lb ft

TRANSMISSION 7-speed auto, RWD

0-62MPH 5.2sec

TOP SPEED 155mph

BUILT 2009-2011

PRICES £10,000-£15,000

SUM UP A below-the-radar model, but the perfect combination of performance, refinement and an understated appearance



KEY DETAILS

ENGINE M133 1,991cc 4-cyl turbocharged

POWER/TORQUE 355bhp/332lb ft

TRANSMISSION 7-speed auto, 4WD

0-62MPH 4.6sec

TOP SPEED 155mph

BUILT 2013-2019

PRICES £15,000-£30,000

SUM UP If you want a compact hatchback that's outrageously quick and looks the part too, the first-gen A45 will more than scratch the itch

A45 AMG 4Matic (W176)

Some might say a small family hatchback with a turbocharged engine making 355bhp and a 4.6-second 0-62mph time available to its driver is probably madness. And that equipping it with the optional Aerodynamic Package that added big wings and larger wheels confirms it. But for its 2013 hot hatchback, Mercedes-AMG wanted to lead, not follow the pack.

Don't confuse this model with the lukewarm by comparison A200/250 AMG Sport and A250 'Engineered by AMG' – the A45 AMG was the full-fat Affalterbach A-Class reworking, with specialist kit including a cooling system from the SLS. Performance is scorching (although like many four-cylinder turbos it lacks a sexy soundtrack), and the four-wheel drive chassis ensures it isn't overpowered. Thanks to easy-payment PCP, the A45's nearly £38,000 price didn't prevent plentiful sales and early ones go for as little as £15,000, but could be a rebuilt insurance write-off. A 2015-on facelifted AMG A45 model – power up to 376bhp – starts at £25,000.



MONEY NO OBJECT

THE CARS WE'D BUY WITH A LOTTERY WIN

WORDS Kyle Molyneux

190E 2.5-16 EVOLUTION II

why? Incredible racing-inspired bodywork · 232bhp four-cylinder engine with 7,700rpm redline · Only 501 made, all in 1990 · Race version gave Mercedes-Benz its first German touring car title with driver Klaus Ludwig.

price Number 256 of the 500 sold to the public swapped hands for €434,000 (£333,300) in Gooding & Company's 2020 Scottsdale auction, the car's optional AMG Power Pack and low mileage (4,700) no doubt boosting its appeal.



CLK-GTR COUPE

why? Road-going version of FIA GT Championship racer capable of 199mph · 6.9-litre M120 AMG V12 makes 604bhp · Just 25 built (20 Coupes, 5 Roadsters), all in 1998 · Race car won 1997 GT title with Bernd Schneider.

price Chassis 9 of 25 found a new home during RM Sotheby's Monterey auction in August 2018. With under 1,500km (930 miles) showing on the digital odometer, this racer for the road fetched a cool \$4.5m (£3.4m).



Patrick Ermen 2018 Courtesy of RM Sotheby's

E50 AMG Limited

why? Immensely rare, Porsche-built AMG W124 is even rarer when based on the special E500 Limited · Executive looks hide enormous six-litre performance · 376bhp from quad-cam M119 V8 · Eye-catching geometric interior pattern and 17-inch Evo II wheels of 'Limited' spec.

price One of 12 ever made, the stunning 1995 example offered for sale by Motor Classic in Hungary carried a sticker price of €279,500 (£236,500) at the time of writing.



Brabus CLS Rocket

why? 720bhp SV12 S engine helped the CLS to 227.2mph - a record for road legal saloons in 2006 · Special crank, larger bore and bigger forged pistons increased capacity to 6.3 litres · Ceramic brake discs grabbed by 12-piston calipers up front.

price When new in 2006, the CLS-based Brabus Rocket cost an eye-watering €348,000. Yorkshire-based Motorhub proclaimed its 2007 SV12 R model (750bhp) the world's only right-hand drive CLS Rocket, and advertised it for £79,995.



SLR STIRLING MOSS

why? Built in honour of racing ace Sir Stirling Moss and his legendary 300SLR racer of 1955 · Supercharged V8 makes 641bhp · Stunning speedster looks · Limited to 75 cars and capable of 217mph · Carbon fibre composite bodywork · Based on the SLR McLaren supercar.

price Costing £660,000 when new in 2009, values have more than tripled since. Just one was available at the time of writing. Mechatronik's 964km (599-mile) car yours for £2.1m.

MP



STUTTGART **VS** AFFALTERBACH

Two writers go head-to-head and argue the case for their E-Class weapon of choice - but will the W124 E500 Limited or E63 AMG S come out on top?

WORDS Kyle Molyneux & Ian Kuah IMAGES Craig Pusey





PERFORMANCE
only makes up
part of the
story, even
when the cars
in question are
crafted to
deliver that in
spades



Separated by more than 260bhp and over two decades of development, you would think this head-to-head would be a one-sided contest, with the E63 AMG S Estate mercilessly beating the W124 E500 to within an inch of its life.

However, comparing two generations of Mercedes-Benz is never straightforward, and performance only makes up part of the story, even when the cars in question are crafted to deliver that in spades. With Ian Kuah firmly in the E500's camp, Kyle Molyneux flying the flag for the E63 AMG wagon, and Craig Pusey focused behind the camera, it's time for us all to convince you, one way or the other...

styling and engineering E500

The W124 is a classic Bruno Sacco design that looks perfectly proportioned and detailed from every angle. Whether you prefer the original incarnation, or the first or second facelift versions is down to personal taste. The 500E/E500 appeared in 1991, and thus only existed in the two facelifted versions of the breed, its extended wheelarches and wider 16-inch alloy wheels giving it a more purposeful stance.

I was on the original 500E launch in 1991, and was amazed by the car's power, ride and handling. However, it was the day I spent with an E500 Limited in Stuttgart in 1994 that finally sealed the deal for me. The elegant Sapphire Black metallic paint, 17x8.25J, diamond cut finish Evolution II wheels, and the bespoke leather interior with black bird's eye maple wood inserts made me take out my cheque book.

A joint venture with Porsche, which co-engineered and co-built the car with Mercedes-Benz, the 500E was a far cry from the AMG Hammer, which was essentially a hand built, late 1980s tuner car with all the connotations that implies. In contrast, the 500E was thoroughly engineered from stem to stern. With a total of 1,100 new or modified parts compared to the base 300E, including bespoke inner wings to accommodate the wider V8 motor, it also featured Mercedes' then new ASR (automatic slip control) system.

The 500E used the R129 SL's rear suspension and its four-pot caliper front brakes. The 1993-on facelifted E500 had the even larger brakes from the SL600, but in truth even these were not a strong point of the car when driven in anger. The best aftermarket brakes were the Brabus/Alcon upgrade, as used on the tuner's 444bhp 6.5-litre conversion.

E63 AMG

Granted, any Sacco-designed car is hard to compete against in the looks department, but what the 212-series E63 AMG lacks in finesse, it more than makes up with sheer visual impact, and thus better distinguishes itself from regular E-Classes than the W124 E500. The sleek LED headlights, single-louvre grille and 'A-wing' front apron look super aggressive, and are complemented by V8 biturbo badges on the flanks, 18-inch AMG alloys with red brake calipers lurking behind, plus a quad-pipe exhaust system out back.

While the E500 makes do with a paltry one suspension setting and two gearbox modes, the E63 boasts three modes for its AMG tuned, multi-link suspension, and four modes for its seven-speed, multi-clutch AMG gearbox, including a Manual option for making use of the paddleshifters attached to its sporty sized helm, and granting a level of driver involvement arguably missing in its predecessor. The E500's cabin may be leather clad and spacious, but its steering wheel is more taxi than performance car, and although the E500's interior appears made from solid stone, the E63 totally overshadows it in terms of fit, finish and technology. The AMG sports seats offer more range of adjustment and many sitters would reckon them to be more comfortable and supportive than the E500's, too.



Top Limited spec explains the cabin's geometric pattern.

Above Alcantara meets leather in the spacey E63 Estate.



The fact that the **E500's M119 V8 had four valves per cylinder and variable valve timing on the intake camshaft** was significant



Left Sophisticated V8 in the E500 has torque in spades.

Below left Switch to turbocharging ideal for large E63.

The torque of the big V8 belied its stopwatch numbers. While the E500's 0-62mph time of 6.1 seconds was a tad slower than that of the 3.8-litre, six-cylinder BMW M5, superior torque combined with the kickdown of the four-speed auto enabled the E500 to haul away from the M5 in middling gear acceleration. It would do the same to the non-Turbo Porsche 911s of its era, and is the archetypal Q-car par excellence.

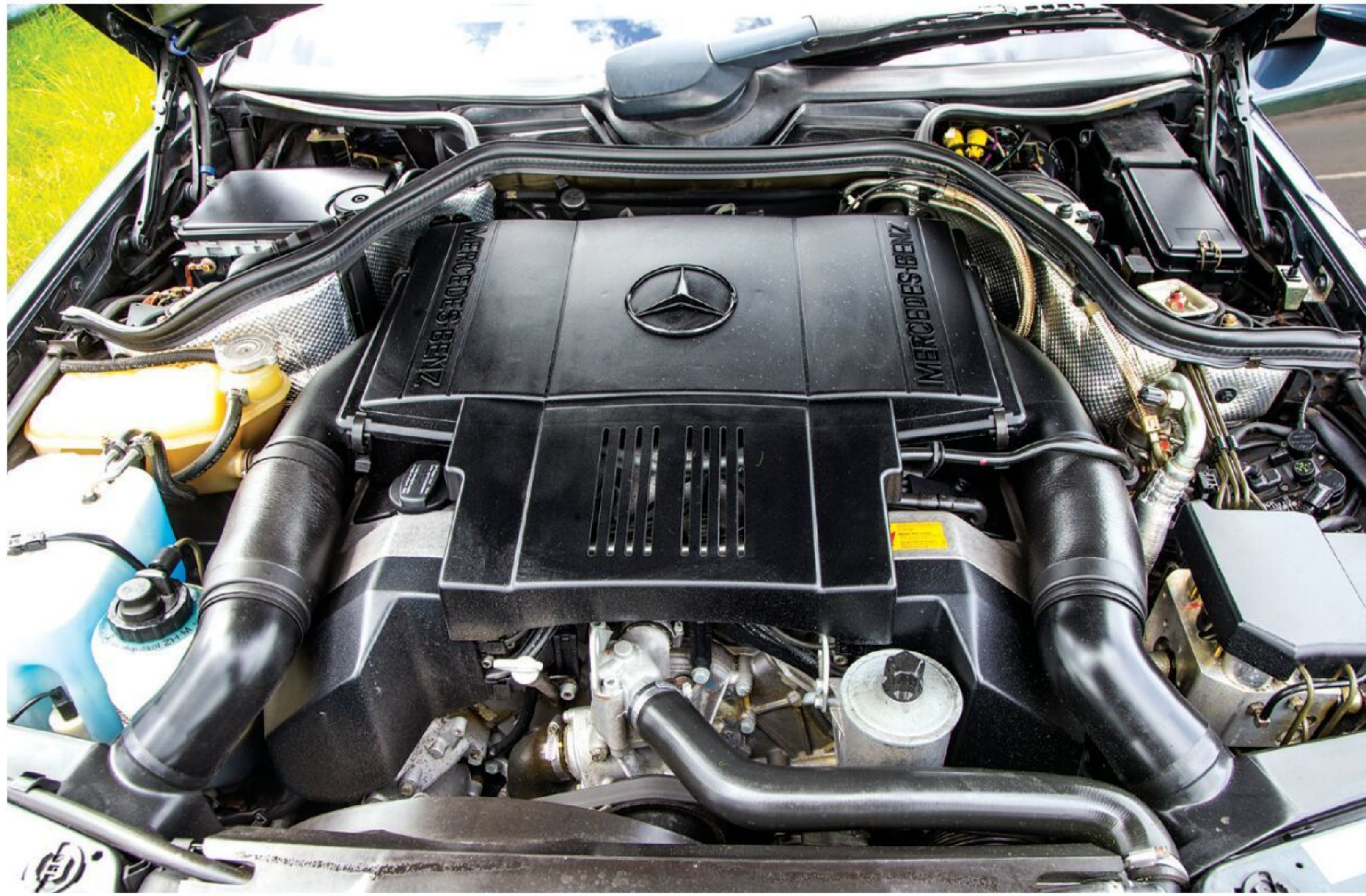
The difference in ride quality between the standard 16-inch wheels and the 17-inch Evo II alloys on this E500 Limited is quite apparent. The latter, shod with Michelin rubber, has an edge to its ride, but the extra grip is most welcome. The wider tracks, R129 suspension and ASR make a huge difference to the car's handling and grip compared to a 300E or E320.

There is no doubt that the 500E/E500 would have benefited from a limited-slip differential, but it is otherwise the most capable super saloon of its era.

E63 AMG

Planted. That is the word which sums up how the E63 feels on the road, at least with the ESP fully engaged. The front suspension is 48mm wider than a normal E-Class's, and boasts independent wheel carriers, steering knuckles, wishbones, tension strut bearings and head bearings, plus more negative camber. At the rear you'll find new tie rods, tension struts and a more rigid subframe carrier for the rear axle.

All of which means increased stability and agility over a run-of-the-mill E-Class, making the E63 not just immensely practical, but also a real back road destroyer, cradling you in the palm of a velvet glove while punching you through the air with a deep and forceful bellow. You almost take for granted how little throttle is required to travel at speed.



➤ AMG branding is everywhere on the E63 – in the engine bay, on the headrests, on the dials – so there is no doubting what you are driving, even when the V8 biturbo motor is fast asleep. Less can be said for the E500 which, unusual seat pattern aside (part of the 'Limited' spec built late in production), offers a very formal and straight cut environment with little hint of the performance available on tap.

Power and Handling

E500

Employing Bosch LH-Jetronic injection, the 4,973cc, four-cam M119 V8 produced 322bhp with 354ft lb of torque in the original 500E, but from October 1992 tightening emissions controls resulted in a loss of 6bhp and 7lb ft, although the difference (due to removal of the full throttle enrichment control) is not really noticeable on the road.

The fact that the M119 had four valves per cylinder and variable valve timing on the intake camshaft was significant, and while in theory the later 302bhp, three valves per cylinder M113 V8 had a better overall torque curve, the M119's VVT system delivers lustier low-down response.

Right The E500 employs Merc's auto slip control.

Far right Limited-slip diff on the E63 a real necessity.





E500 engages and rewards the committed.

The E63 is a fantastic way to cover big miles.



Being the more powerful and expensive S model, this 577bhp/590lb ft torque wagon comes with a limited-slip differential as standard. And that's a good job given how easily rear grip can be overcome with the ESP system set to 'Sport handling mode', or disengaged completely – another example of adjustability that you won't find in the 124-series V8.

While the E500's motor was derived from something a little less spectacular, the E63's 5.5-litre M157 V8 twin-turbo is all AMG. EU6 compliant and with 1bar of boost in S form, the M157 weighs just 204kg dry and features direct petrol injection, an aluminium crankcase, four-valve tech with camshaft adjustment, and even an Eco Start/Stop function to save fuel when at a standstill. Put that in your pipe and smoke it, E500!

OWNING E500

Like all classic cars, the value of any 500E/E500 is more dependent on condition and service history than mileage. Generally, owners love their cars so much that they have restored them, or better still, never allowed

JUST THE FACTS

	Mercedes-Benz E500 (W124)	Mercedes-Benz E63 AMG S Estate (S212)
ENGINE	M119 4,973cc V8	M157 5,461cc V8 biturbo
POWER	316bhp@5,600rpm	577bhp@5,500rpm
TORQUE	347lb ft@3,900rpm	590lb ft@2,000-4,500rpm
TRANSMISSION	4-speed auto, RWD	7-speed auto, RWD
WEIGHT	1,730kg	1,955kg
0-62MPH	6.1sec	4.1sec
TOP SPEED	155mph	155mph
FUEL CONSUMPTION	16.7mpg	28.5mpg
CO2 EMISSIONS	Na	232g/km
YEARS PRODUCED	1991-1995	2013-2016

FIGURES FOR A MARCH 1994-ON E500 AS PICTURED, AND A STANDARD E63 AMG S ESTATE; FUEL CONSUMPTION FOR THE E500 ACCORDING TO EEC URBAN, AND NEDC COMBINED FOR THE E63; TOP SPEEDS ELECTRONICALLY LIMITED

them to fall into disrepair in the first place.

Values of early 500Es are from £10,000 for a high mileage example, and remain at around £25,000 for a pristine E500 Limited. The very rare, six-litre E60 AMG version is worth much more, especially as a Limited, but its true value is a matter for the buyer and seller to agree upon!

As the 500E/E500 is really a Mercedes parts bin car, spares are available from official dealers and the usual trusted aftermarket suppliers. If you have an early car

that requires an ECU, make sure that you get the same model year replacement as a later unit will lose you that 6bhp!

Shoehorning a big V8 into an engine bay never designed for it means that workspace around the motor is at a premium. Changing a headlamp bulb for instance – an easy task on a normal W124 – suddenly becomes a challenge even for a contortionist.

These cars suffer the same bio-degradable wiring harness failures as other Mercedes of this era, so if you are in the market for a 500E/E500, it is useful to know that the upgrade has already been done.

The 1.7-tonne kerb weight of the 500E/E500 puts a lot of

➤ stress on the brakes, and front disc and pad wear is high if you drive hard. Luckily, these parts are relatively inexpensive to replace, and generally last 60,000 miles.

Some 1992 cars were fitted with Brembo aluminium calipers that caused a resonance when the pad level reached a certain point. Later 1992 and 1993 cars used heavier ATE iron calipers, which eliminated this problem. The facelifted 1993-on cars used the problem-free brakes from the SL600.

E63 AMG

Starting at £74,725 in Saloon form and just shy of £76,515 as an Estate when new, for the price of an E63 AMG you could've bought a handful of W124 V8s – and perhaps one more with the 10 grand needed for the more powerful E63 AMG S derivative.

Are they worth that much more than their spiritual predecessor? There are many people who would argue otherwise, but solace can be found online where 2013-on facelifted (non S) E63 Saloons start at £19,950 with 83,000 miles, and Estates kick off at £22,500 with 75,000 miles. If you're looking for a sub 40,000-mile E63 S then you will need to fork out at least £32,000 for a Saloon and another five thousand for an Estate. When you think about it, that's an extraordinarily reasonable amount of money for what is effectively a plain-clothes supercar.

The E63 S's road tax is on the high side at £555 per year. However, the E63's – in our book, acceptable – 30mpg fuel economy over long distances should take the sting out of ownership. You would be lucky to see 20mpg around town, however...



Far left Four gears and two modes for the W124 V8 car.

Left There's almost too much choice of modes in the E63!

verdict

A great number of you will be in no doubt of the E500's appeal and pin your flag to its mast without hesitation, while others will look no further than its modern day equivalent, which is undeniably faster and more capable on any road you care to name.

However, on this day, it was the E500 Limited that we wanted to spend most time driving, its rudimentary controls keeping you in close contact with the action as it unfolds, with every nuggety bump and tingling vibration – totally absent in the highly polished E63 – informing and rewarding in equal measure. And as good as the impressively efficient AMG looks, the E500's 'less is more' brutality gets another big tick from us.

They are both destined to be classics, but one of these E-Classes is even more deserving of that title than the other.

MP



As good as the AMG looks, the E500's 'less is more' brutality gets another big tick from us



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WORDS Matt Robinson
IMAGES Craig Pusey

Merc's baby roadster is no more, so we look back on the hot AMG variants and owners give their take on the last model: the SLC43 V6 biturbo

THE END OF AN ERA



A

nd so, in less than 25 years, the Mercedes SLK/SLC line is coming to an end. Production of the SLC, the 'rebranded' 2016 name for the facelifted R172 third-generation SLK, ceased in April 2020 and the compact two-seater roadster with the folding metal hardtop will be no more.

Sadly, and rather obviously, that also means an end to the fabulous AMG variants of the SLK and SLC. And the Affalterbach-fettled version of the latter is a bit of standout from its predecessors, too. Not only is it called the Mercedes-AMG SLC instead of Mercedes-Benz SLK AMG, but it's the only one of this quartet to be turbocharged; the others all relied on either massive capacity V8s or the linear shove of a supercharger to get their impressive power.

So we thought we would gather all four AMG SLK and SLC models together, to look at this high-performance dynasty, and to try and ascertain two things: one, does the SLC43 feel like a neat continuation of the Mercedes performance roadster >>

“would any of our SLK owners think about swapping their cars for an example of downsizing?”





SLK32 AMG



Left Aubergine leather a break from the norm.

Right 3.2-litre supercharged V6 very underrated.

Below left AMG alloys and stiffer sports springs.



“The number of gears helps with the SLK’s fuel economy and the ride is excellent. I think the steering is good, nice and direct, and I like the design of the wheel, although the brightwork did distract me while driving. It’s a very nice car, especially at low and medium speeds, but I wouldn’t get rid of my SLK32 for it.”

➤ heritage? And two, would any of our SLK owners think about swapping their cars for an example of downsizing?

After all, that’s what the SLC43 represents. Gone is the incredible, 5.5-litre M152 V8 of the R172 SLK55 AMG, replaced by the smallest capacity engine yet seen in a hot version of the compact roadster. It’s the familiar three-litre M276 biturbo, which is spreading to all kinds of Mercedes-AMG models, as well as seeing service in 400 badged models but with less power. Take one look at the eco stats of all four cars assembled here and you’ll understand why Mercedes has taken this decision, as the SLC’s is the least thirsty and polluting motor of the group.

Where it’s less clearly ahead of its ancestors is in the performance stakes. Stacked up against the other V6 AMG, the SLK32, the SLC43 has gained 13bhp and 51lb ft, and half a second on the 0-62mph sprint – hardly huge progress for a decade and more’s worth of development. It looks even less impressive when the two V8 SLKs rumble into view, as it’s barely nosing ahead of the R171 model, and it’s considerably in debt to the pre facelift R172: down to the tune of 53bhp, 15lb ft and a tenth of a second on the benchmark sprint. Not to mention a whole 2.5 litres and a pair of cylinders. Clearly, it’s got its work cut out in this company.

With the range-topping supercharged V6 model to hand, it’s worth

Nick Wilcock

2003 SLK32 AMG



re-evaluating just how much of a game-changer the original SLK was. When it appeared in concept form at the Paris motor show in 1994, its trick folding metal ‘vario-roof’ was the eye-catching detail; other car makers might have dallied with the idea decades previously, but no one had genuinely made the technology work prior to Mercedes-Benz – cue many copying the company in the SLK’s aftermath.

Originally launched two years after that jaw-dropping French debut, it was not until 2001 that AMG debuted its SLK32 version, with 4,333 subsequently built. Even today, 20 years after it first appeared, it’s clear that the R170 was a strikingly pretty roadster and it’s part of the reason Nick Wilcock, from Oxfordshire, wanted the SLK32 AMG. That and the

Just The Facts

Mercedes-Benz

SLK32 AMG (R170)

ENGINE M112 3,199cc V6 supercharged

POWER 349bhp@6,100rpm

TORQUE 332lb ft@4,400rpm

TRANSMISSION 5-speed auto, RWD

WEIGHT 1,495kg

0-62MPH 5.2sec

TOP SPEED 155mph

FUEL CONSUMPTION 25.2mpg

CO2 EMISSIONS 257g/km

YEARS PRODUCED 2001-2004

Mercedes-Benz

SLK55 AMG (R171)

ENGINE M113 5,439cc V8

POWER 355bhp@5,750rpm

TORQUE 376lb ft@4,000rpm

TRANSMISSION 7-speed auto, RWD

WEIGHT 1,540kg

0-62MPH 4.9sec

TOP SPEED 155mph

FUEL CONSUMPTION 23.5mpg

CO2 EMISSIONS 288g/km

YEARS PRODUCED 2004-2011

Mercedes-Benz

SLK55 AMG (R172)

ENGINE M152 5,461cc V8

POWER 415bhp@6,800rpm

TORQUE 398lb ft@4,500rpm

TRANSMISSION 7-speed auto, RWD

WEIGHT 1,690kg

0-62MPH 4.6sec

TOP SPEED 155mph

FUEL CONSUMPTION 33.6mpg

CO2 EMISSIONS 195g/km

YEARS PRODUCED 2012-2016

Mercedes-AMG SLC43 (R172)

ENGINE M276 2,996cc V6 biturbo

POWER 362bhp@5,500-6,000rpm

TORQUE 383lb ft@2,000-4,200rpm

TRANSMISSION 9-speed auto, RWD

WEIGHT 1,595kg

0-62MPH 4.7sec

TOP SPEED 155mph

FUEL CONSUMPTION 36.2mpg

CO2 EMISSIONS 178g/km

YEARS PRODUCED 2016-2020

FIGURES FOR A 2003 SLK32, A 2007 (R171) SLK55, AND A 2013 (R172) SLK55 AS PICTURED; FUEL CONSUMPTION ACCORDING TO NEDC COMBINED; TOP SPEEDS ELECTRONICALLY LIMITED



Left Masterful 5.4-litre AMG V8 sounds superb.

Top left R171 AMG the first SLK with four pipes.

Above Optional Airscarf fantastic; build quality good.



SLK55 AMG

“I’m impressed with it, but I wouldn’t switch mine for the SLC - I’ve got a V8, after all! The SLC pushes you back in the seat a little bit and then releases you under hard acceleration, whereas my car just keeps you pinned back in the chair. The 43 felt quite light in its responses too, especially over crests, and I don’t like the fact the brake pedal is higher than the accelerator. The SLC is very good for a V6, but it’s not for me.”

Russell Hodges
2007 SLK55 AMG



rarity factor, as he says: “Only 270 right-hand drive models were built, and just 29 were sold in the UK in 2003.”

His car is one of them. It’s finished in silver, a classic SLK colour, with a designo Bordeaux red leather interior, and it still looks fantastic, those crisp triangular rear lights and the lack of fussy detailing serving the car well. It sits on 17-inch wheels with 225/45 front, 245/50 rear tyres and, unlike the other models assembled here, it doesn’t have quad exhaust pipes, instead making do with a neat pairing to the left of the rear valance.

Clambering aboard, the dash architecture is much more dated than the 03 plate might have you believe, but it’s all neatly laid out and the silver-white AMG dials are a nice touch. The steering wheel is a little plain, a four-spoke affair that looks like it would be equally at home in a C180, but by way of compensation you sit in a proper sports car’s driving position: way back, perched over the rear axle with the 32’s twin-straked nose stretching away in front of you. The cabin is more intimate than any of the other, larger cars here, yet for Nick there’s a practical consideration when choosing the R170: “With the roof up, it has the largest boot of any of the cars here.”

The performance data remains impressive now and when the SLK32 gets going, it definitely means business. The V6 has a gruffer, louder roar

to it than the creamy powerplant in the SLC43 and there’s more of an old fashioned surge of acceleration at high revs, rather than the modern trend towards a flat mid-range torque plateau, but there’s no doubting this SLK is astonishingly rapid. The suspension feels softer than any other car here, although Nick felt differently about it when he first bought the car over a decade ago. “I thought the suspension box ticked was ‘brutal’ as the ride was very poor,” he recalls. “As it’s my daily driver, I’ve got used to it now but on rougher road surfaces it can be an issue.”

All told, the SLK32 AMG is an appreciating modern classic: rare, an originator of its species and yet still competitively quick in 2020. The two V8s, though, kick really hard and it’s only the multitude of ratios in the gearbox plus its wide torque band that allow the SLC43 to keep pace with the 5.5-litre SLKs. Russell Hodges, a Nottingham resident, owns the Northern Irish-registered R171 and – like all the other owners here – this is his first AMG. Indeed, along with Ian Checkley, this is his first Mercedes; quite a way into marque ownership.

“I went to look at a Porsche Boxster, but I didn’t know which way it was supposed to be pointing, and the interior looked like something out of a 70s Nissan,” Russ chuckles. “The cabin on mine’s nothing special either – in fact, it’s little different to a regular R171’s – but then I do have a 5.5-litre V8...”

It’s that mighty engine that sold Russ on this very late 2007



SLK55 AMG

Right Fatter rear tyres wouldn't hurt the SLK55...

Far right AMG's M152 V8 wasn't used elsewhere.

Below Interior more premium in feel than R171.



“Do you know what? I think the SLC43 is rather wonderful. I was worried the loss of two cylinders would dilute the AMG brand, and that it would feel slow compared to my SLK55, but it accelerates incredibly quickly. It's energetic in the way it performs, whereas my SLK55 is more laid back and torque focused. I wouldn't have switched to the SLC when new, as it was out of my price range, but now it has depreciated a little? I'd definitely consider it.”

Ian Checkley

2013 SLK55 AMG



➤ model, which he picked up in January 2015. “I looked at a lot of rubbish when searching for this car, but eventually I found it in Kent, having been shipped over from Belfast where it was first sold. It's as close to standard specification as possible, and I've only done 10,000 miles in it – I have a company car for daily use and this is basically my new motorbike. I just love the V8 noise, the everyday usability; it's a modern classic.”

Nothing classic about the way the R171 SLK55 AMG picks up pace, though. It is stonkingly quick, with an absolutely fabulous exhaust note during hard acceleration. The body control is magnificent without having a shockingly firm ride, and Russ notes that the steering is more feelsome on the older car than the newer SLC43. The brakes, too, deserve mention – six-pot calipers up front, and four-pot rears. They bite with real venom from high road speeds. No doubt about it, the R171 feels a marked step on from the R170 and even quicker than its quoted 4.9-second 0-62mph time suggests. Perhaps your biggest obstacle to owning one is whether you like the styling or not, as the F1-inspired nose and flared wheelarches make it a standout machine among its more sober looking relatives.

Which brings us to Ian's stealthy black and de-badged, 415bhp R172 SLK55, the most powerful road going SLK yet built (R171 Black Series included). And he's in the honeymoon period, as aptly demonstrated by his huge grin, echoed by his son Sam who accompanies him on the photoshoot. “I only bought it recently. I was coerced into buying it by Sam, who works for a Mercedes-Benz dealership, and I took one drive in it and knew I had to have it. I had to make the numbers work, but it's just that sort of 'OMG' car.”

Despite the V8's cylinder shut-off system, Ian is still getting used to the fuel consumption, having migrated to the 55 from a performance diesel “capable of 40 to 50mpg”. But apart from regular trips to the refuelling station, he's smitten. “It's the sound of the exhaust, the noise of the engine, the sheer brute force of the acceleration – it's intoxicating,” he explains.

Despite the fact they're both normally aspirated V8s, there are subtle differences to both the idle sound and the high revs roar of the M113 and the M152 respectively; it's a tough call, but we just prefer the noise of the later engine because it spins up a little further than the M113 – sorry, Russ! However, both SLK55 AMGs are extremely similar in terms of the phenomenal straight line go, and generally ➤



SLC43

Below left SLC43 cabin much like the R172 SLK55's.

Below Plenty of low down punch from V6 biturbo.

Bottom LSD as standard on the V6 engined SLC43.



“we’ll happily admit we love the SLC43 - the engine and gearbox are tremendous”

➤ excellent road holding. There’s slightly less float on the later 55 than the R171, the body settling on its springs faster in the wake of big compressions, but otherwise it’s the familiar story: epic noise, monster go, wind-in-your-hair exhilaration. The performance SLK, in all its guises, is a truly marvellous car.

So, how about the ‘newbie’? The general consensus of our SLK owners is that the SLC’s strong points are its panoramic roof (a £410 option when new) and that it has a tidy appearance, save for a few details. Nick opines: “The front end looks too cluttered and I really don’t like black door mirrors on a blue car, it looks base spec.” Russ really isn’t fussed by it at all, while R172 pre facelift owner Ian adds: “I like the new front lights and the stubby SLC gear lever inside, but the rest of the interior is very similar and that chrome grille... oh dear.” Indeed, it’s the grille of the SLC that draws the most ire from our SLK owners throughout the day, although there are mutters of discontent when the 43’s bonnet is popped and the red striped engine cover is bereft of the signature of its builder; the M276 is not a pure, hand built AMG engine, you see, unlike the other three units here today.

Nevertheless, we’ll happily admit we love the 43. When we first drove it overseas, it felt fun but overly noisy and harsh in the ride

department; back here in the UK, it comes across as a much more cohesive performance car. The engine and gearbox

work together tremendously well, while it can easily access its huge reserves of power and torque in the dry with little unruly behaviour, thanks to suspension that feels far more supple than it did previously. Inside, subtle details have been tidied up in the facelift, such as the digital displays in the instrument cluster, the climate control switchgear and that aforementioned tiny shifter, but otherwise this is as-you-were.

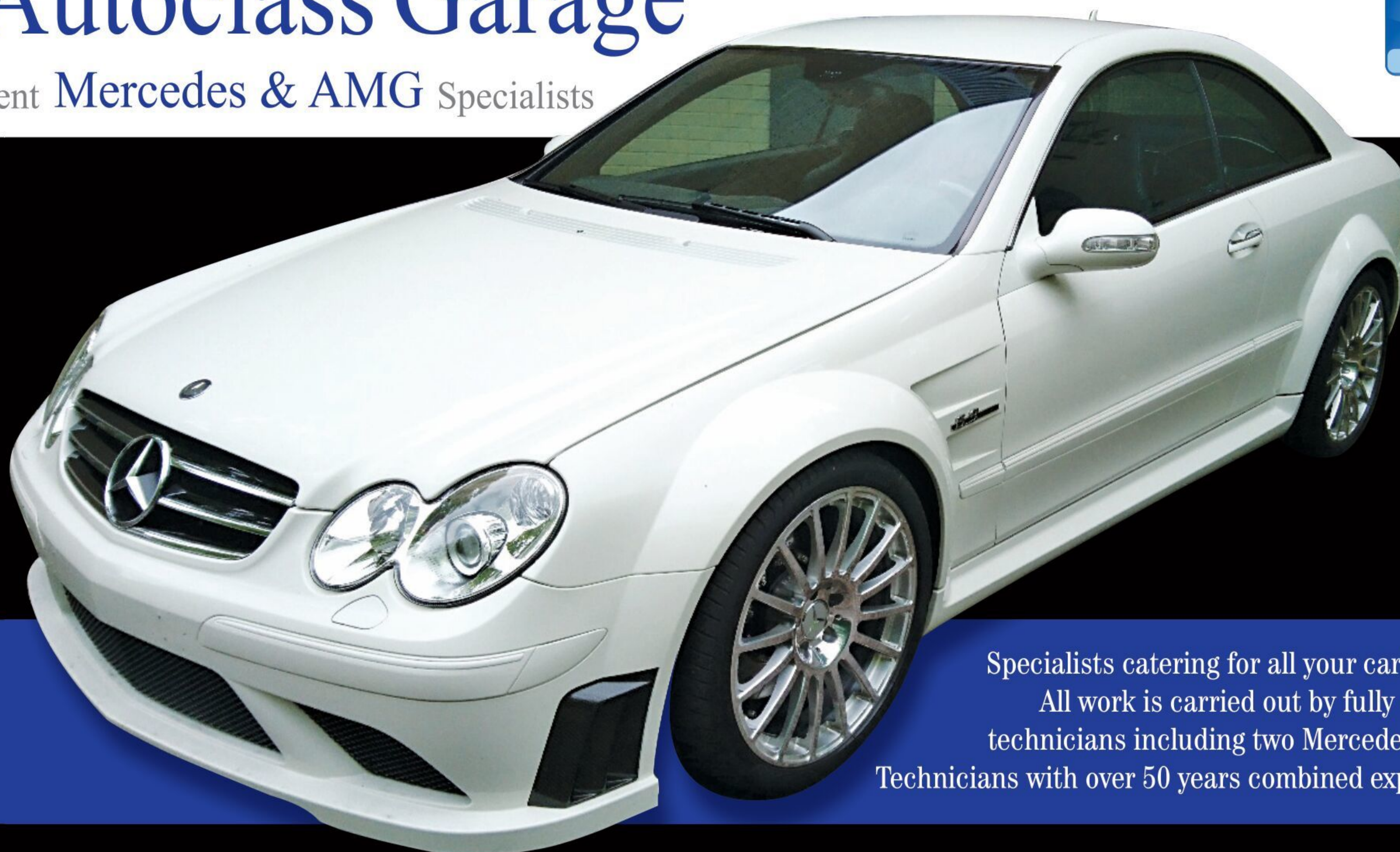
At £46,360 when brand new, the SLC43 was a good deal cheaper than the R172 SLK55 was when new in 2012 (£54,965), but this particular car has £10,405 of options, bringing the final ticket to £56,765. Even so, that compares well, inflation adjusted, to the £45,615 a non designo SLK32 AMG would have set you back in 2003. If there are issues with the SLC, it’s that there’s a little more flex in the structure than we’d really like from a performance machine, and we’d ideally want a touch more feel at the gorgeous Alcantara clad rim of the steering wheel, but otherwise this is an impressive product from Affalterbach and one of the most enjoyable roadsters of the moment.

So, in answering our two questions posed at the outset of this piece, firstly we have to say the SLC43 doesn’t feel lost in this company. It is a fine standard bearer for the reputation the SLK AMG models have built up, and we reckon the Mercedes was top of the compact premium roadster pile until Porsche decided to re-insert a naturally aspirated flat-six in its Boxster.

MP

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This handsome roadster
is one of one: the only
known Brabus-modified
SL600 Silver Arrow



SILVER



WORDS Reed Hitchcock
IMAGES Kaveh Sardari

BULLET

For most drivers in 2002, the V12-powered SL600 Silver Arrow Edition USA would be considered fast and rare enough, but the first owner of this stunning roadster employed Brabus to install its modified 7.3-litre motor and much more besides - we find out what it all means for the 129-series roadster experience



When AMG officially became part of DaimlerChrysler on January 1 1999, the company inherited a new set of rules surrounding its performance cars. The days of brutal, all-out modified AMG Mercedes were gone, replaced with traction control, efficiency regulations, product warranties, and acres upon acres of lawyers. While AMG continued to engineer some absolutely brilliant cars – and it does

to this day – some would argue the firm was somewhat tamed, reigned-in even, in the name of progress. Fortunately for enthusiasts of substantial means who wanted their Merces tuned up to 11, companies like Brabus were there to fill the void with raw, unbridled cars like this bonkers, 2002 R129 SL600 7.3 V12.

Brabus takes its names from its founders, the late Bodo Buschmann and Klaus Brackmann, although the former bought out his friend's shares shortly after the company was registered in 1977. For 43 years the company's prime directive has been to develop and build high performance supercars and transform Mercedes into something even more special. A quick look through the Brabus' current stock reveals that it remains true to that mission all these years later. Things were

Left Silver Arrow one of many special edition R129 SLs.

many believe the 129-series SL is the next collectible Mercedes, and have started snatching up clean, low mileage examples



JUST THE FACTS

Brabus SL600 7.3 Silver Arrow Edition USA (R129)

ENGINE M120 7,258cc V12
POWER 523bhp@5,750rpm
TORQUE 556lb ft@3,750rpm
TRANSMISSION 5-speed auto, RWD
WEIGHT 2,050kg
0-62MPH 5.2sec
TOP SPEED 191mph
YEAR PRODUCED 2001

FIGURES SUPPLIED BY BRABUS, EXCEPT KERB WEIGHT WHICH IS FOR STANDARD 1998-2001 SL600 ON WHICH THIS 2002-REGISTERED CAR IS BASED

Top M120 V12 now has bore and stroke of 91x93mm.

Above A grand total of 11,089 600SL/SL600s were made.

much the same in 2002, Brabus offerings including modified W210 E-Class saloons, 221-series S-Classes and R129s like this already rare example. Mercedes-Benz produced just 1,615 R129 Silver Arrow cars: 1,415 US-market SL500s, 100 UK-market SL500s, and 100 US-market SL600s. This Brabus-modified SL600 is one of one: the only known Brabus-modified SL600 Silver Arrow Edition USA.

The R129 SL500 and SL600 were cosmetically similar, painted in the same special Silver Arrow Silver, had the same unique alloy wheels, and the same grey bird's-eye maple wood throughout the interior. The inlaid Silver Arrow graphic covering the ash tray was a particularly nice touch. The key visual difference between the two cars was the upholstery: while the SL500 had two-tone black and white leather similar to what was available in the contemporary C43 and E55, the SL600 was swathed in black leather, with special perforated sections in the centre of the seats. This SL600 has the added bonus of the relatively rare but desirable panoramic glass roof, easily identified by the larger side windows and the huge dark glass panels spanning from the base of the rear windshield to the front windshield header.

This unusual car belongs to the Collector Car Showcase in Oyster Bay, New York – a small coastal town on Long Island located less than an hour from Manhattan. The Showcase is a collection comprised

mostly of rare and unusual Porsches, but also including a Brabus-restored (or more accurately rebuilt as new) W111 280SE 3.5 Cabriolet and an immaculate 1957 300SL Roadster in classic silver over red leather upholstery. The Showcase is owned by pcarmarket.com, an online Porsche auction site exclusively created to connect buyers and sellers of all Porsche models.

appreciating asset

The curators of the Showcase had flagged the R129 Silver Arrows as interesting and collectible from a time when most of their contemporaries are still just considered old, used cars. Many spectators believe the 129-series SL is the next collectible Mercedes, and have started snatching up clean, low mileage examples and special editions. The first Silver Arrow added to the Showcase collection was an SL500 with just 36,000 miles. About four months later, in 2017, a local collector contacted them about another SL500. When the curators went to see that car, this fellow asked if they'd like to see something even more special and showed them the Brabus.

Production of the R129 SL ended in July 2001, but new cars were still entering the USA in 2002 – examples like the one pictured here. At that time, the SL600 Silver Arrow had a retail sticker price of \$136,270, or about \$195,000 (£148,000) in today's currency. The Brabus conversion added approximately \$75,000 (£57,000) to that cost – but



Just 9,000 miles on the clock for this 2002 SL.



Top Dials backed by aluminium look smart and stylish.

Middle Silver Arrow badge on the seat's perforated leather.

Bottom Five-speed auto standard on V12 SL from 09/1995.

collector car showcase

The Collector Car Showcase, located just outside New York City, is a hidden gem that is part car museum, part car dealership, and part automobilia store owned by the folks responsible for Pcarmarket.com - the online Porsche-only auction website. The private collection - not for sale - includes a number of rare and interesting cars. While the majority are Porsches ranging from 1950s racers to modern day limited editions, the Showcase also includes a BMW 507, a couple of Ferraris (including an F40), and a few Mercedes including our subject car, a 1957 300SL Roadster, and an essentially brand new, Brabus-restored 280SE 3.5 Cabriolet.

The showroom is replete with vintage signs, petrol station accessories, and a number of items for sale including art, models and attire. There is a sitting area where visitors can enjoy a drink and a great car chat. Any motoring enthusiast could spend hours enjoying a tour of both the private and retail collections.

➤ For more information visit
 WEB www.csmotors.com and
www.pcarmarket.com



➤ despite the subtle exterior cues to the conversion, that upcharge covered a lot of changes to an already brilliant car.

Brabus' dozen

The most notable Brabus modification to the SL600 was to take the M120 V12 engine from six litres, 389bhp and 420lb ft torque to a staggering 7.3 litres, 523bhp and 556lb ft torque. This was achieved by boring and stroking the engine, installing new camshafts, fitting a special crankshaft, porting the exhaust tracts of the cylinder heads, fitting larger valves and balancing the engine. The 7.3's output is more even than the SL73 AMG's at a still very impressive 518bhp/553lb ft. Of course, the US didn't receive any AMG versions of the R129, so the tweaked Brabus was one of very few options for those looking for a 'bahn-storming R129. Like we say Stateside, there's just no replacement for displacement!

To ensure the 7.3 V12 could breathe, Brabus added a stainless steel Brabus sports exhaust system with two large angled tailpipes. And to make sure that the SL's locomotive-like power could be controlled effectively, Brabus installed a high efficiency brake system consisting of four-piston fixed aluminium calipers both front and rear, slotted and vented brake discs, and steel-flex brake hoses. Of course, bigger brakes warranted bigger wheels, so Brabus added its Monoblock V light alloy wheels - 9.5x19 up front and 10x19 in the rear - and Z-rated Pirelli P-Zero Tyres. To keep it all planted firmly on the ground, Brabus installed its sport suspension with bespoke springs and dampers, specifically set up for cars with the Adaptive Damping System (ADS), including the SL600.

going the extra mile

Out of the box, a standard SL600 could hit 62mph in 6.1 seconds and go on to an electronically limited 155mph flat out. The Brabus 7.3 version, however, achieves 62mph from a standing start in 5.2 seconds

and won't stop accelerating until it arrives at 191mph, although some claim the car is capable of going north of 200mph. Having witnessed the raw brutality of this car first-hand, I don't doubt any of those figures. To look at it, our subject car is a very nice modern classic SL. Showing less than 9,000 original miles, it's a veritable infant.

That said, a turn behind the wheel in the new-smelling leather driver's seat and a crank of the ignition key reveals something very grown up. The starter has a unique sound familiar to anyone who has spent time with an M120-powered car – somewhat reminiscent of an old Ferrari 308. As the Brabus comes to life, it is actually remarkably muted, although emits a deeper rumble than a standard six-litre. Rev it up a little and you start to get a sense of the beast that lies within.

If ever a car could be called a 'sleeper', this SL600 is it. These SLs are known for build quality, solidity, and even for being remarkable boulevardiers or tourers, but they are not generally considered true



**IF EVER A CAR COULD BE CALLED
A 'SLEEPER', THIS SL600 IS IT**



sports or performance cars. Even the most die-hard of Mercedes fans smirk at the thought of 'SL' in the context of the R129 as meaning 'Sport Leicht' or 'Sport Light'. These are substantial cars, and a long way off in concept and purpose from the original cars that bore the moniker. Still, with

this motor and this power, the car comes to life.

under the radar

I expected the Brabus to be a handful around town – a stiffly sprung brute whose whole purpose in life was to be fast. What I found was a car that was remarkably easy to drive in the neighbourhood, but which is an absolute beast when pushed. Out here on Long Island one would be hard-pressed (regardless of the ever-present constabulary) to get this car up to more than about half of its potential terminal velocity, but just driving around both the backroads and the highways is exhilarating. It's a wolf in a sheep's tailored suit – and when pushed, it's an angry one at that. I'm just mad these guys found it before I did. **MP**



BIG

IMAGES
Ian Kuah & Rémi Dargegen

WORDS
Ian Kuah

HITTERS

For years, Mercedes-Benz tuners have extracted ever more incredible performance from the latest three-pointed stars, turning luxury cruisers into genuine supercar killers. Of course, AMG was one of the first to

unleash extra potential from Stuttgart's machines, delving into V8 internals and applying its racing know-how to really put the 'F' in 'fast'. However, many more companies have joined the party since AMG first took a spanner to a Star and found power

in ever more extravagant ways. In this section of *Mercedes Performance* magazine, we run through the history of some of the world's biggest and best Mercedes-Benz tuners, and take a look at what they've launched in recent years. Let's get started!



RENNTECH Florida, USA

In 1987, the 5.6-litre, four-cam V8-engined AMG Hammer scorched to 60mph in 5.4 seconds, passed the quarter-mile in 13.6 seconds at 109mph, and went to record a 183mph top speed. The first of these cars was built by Hartmut Feyhl, back then a young master mechanic from Affalterbach, who had become Hans Werner Aufrecht's blue-eyed boy. When Aufrecht started AMG North America to build Hammers and other AMG models for wealthy Americans he appointed Hartmut as Technical Director. Not long afterwards, Mercedes-Benz acquired part of AMG and the North American operation was wound down. Hartmut elected to stay on in the US to look after existing AMG customers there, and eventually left to set up RennTech.

The first home grown Merc tuner in the US, but with German roots, RennTech had the advantage of a close relationship with AMG. And of course Hartmut had intimate knowledge of how to source the right parts to develop and build larger displacement motors. When we first met him over 20 years ago, Hartmut was building 7.2-litre SL600s and turning up the wick on the then new supercharged SLK230. By 2002, RennTech was tuning the R230 SL, extracting more power from the SL55 AMG, as well as offering a supercharger conversion for the SL500.

RennTech's marriage of German and American tuning philosophies taps the best of both worlds. For instance, while long tube exhaust headers have always figured in the US motor tuning scene, of all the German Mercedes tuners only MKB seems to believe they make a positive difference an engine's power and torque output. Of course, modern turbocharged Mercedes engine have less space than ever in their engine bays. So while it has become easier to tune engines with ECU remapping, the hardware side of the top level conversions now centres around larger turbochargers, exhaust downpipes, free-flow catalytic converters, and high efficiency intercoolers.



Where it used to require 7.2 litres of thirsty and very expensive RennTech V12 to obtain 580bhp, today's E63 S comes from the factory packing 604bhp from its four-litre biturbo V8. RennTech turns up the wick to around 830bhp, with 777lb ft of torque for a fraction of the cost of that old, big bang V12. Being an engineer heavily involved in race car prep too, Hartmut is conservative with wheel and aerodynamic upgrades. Thus, RennTech's parts are elegant designed to reduce lift and unsprung weight rather than be bling eye-candy in Beverly Hills.

Representing solid German engineering with an American spin, RennTech products have global appeal. It is thus no surprise that its European distributor is located in Germany on the industrial estate across the road from the Nürburgring.

Welcome to the world of Mercedes-Benz tuners, where horsepower records are there to be broken and tyre dealers are saved on speed dial – strap yourself in and get ready for launch as we highlight some of the best companies in the business



CARLSSON saarland, germany

The idea of a Mercedes-Benz tuning company based in the Saarland region of south-west Germany was born in 1982 when Rolf and Andreas Hartge met with Ingvar Carlsson, an old friend from the rally world. The use of his name for their new Mercedes tuning company was not too much of a stretch since Swedish rally ace, Carlsson had partnered Hannu Mikkola, Björn Waldegård and Walter Röhrl, in a works Mercedes 500SLC.

Carlsson Autotechnik GmbH, was formally incorporated in 1989, initially catering for the 190E, W124 E-Class and W140 S-Class. Rolf always kept a hand in motorsport and, apart from preparing the odd race car for the Nürburgring 24 Hours, he occasionally produced road cars with an obvious hint at track days. Most notable of these was the supercharged CM32 K RS based on a W203 C-Class with four racing seats and a roll cage that was literally a family track day car.

Then in 2007, the brothers received an offer for Carlsson from a party in Germany, so they sold up and retired. The new owner had some big ideas, the biggest of which was the C25, a coach built, made-to-order super GT based on the SL600 inner structure and running gear. The C25 was rolled out in 2010 to celebrate the 25th anniversary of Carlsson and, ambitious price tag of €429,000 aside, exclusivity was guaranteed as only one car could be sold in each country.

In 2012, a Chinese conglomerate, Zhongsheng Group Holdings Ltd acquired a 70 per cent stake in Carlsson for the Chinese market, but the deal collapsed and Carlsson went into receivership. The company was bought out in late 2015 by Sambo Motors of South Korea and is now back on its feet in new premises in Saarlouis.

Determined not to repeat the mistakes of the former owner, new CEO Tae Yun Yee, a Korean American with business and law degrees, has gone in a different direction by offering a smaller, more bespoke programme to his clients. A good example of this is the Diospyros, based on the S500 Cabriolet, and named after the amazing West African ebony used to create its exquisite cabin detailing. Tae also found an original Carlsson 190E C20 in a tent at Gut Wiesenhof and had it restored to new condition. With pride of place in the showroom, it serves as a constant reminder to his team and customers of where the company's tuning roots lie.

1 Carlsson is now owned by Korean American Tae Yun Yee.

2 The company will also upgrade your Merc's interior.

3 Diospyros and original Carlsson 190E C20 model.

4 S-Class and GL destined for the Chinese market.

5 SL600-based C25 sold in very limited numbers.

1 RennTech founder Hartmut Feyhl with AMG's.

3 RennTech also makes forged rims and aero parts.

2 You never know what you'll find in the workshop...

4 A remap will give the 213 E63 as much as 773bhp.





MKB
Baden-
württemberg,
Germany

What do AMG and MKB have in common? The clue is in the 'M' that stands for Erhard Melcher, who was Hans Werner Aufrecht's partner at AMG. AMG was founded in 1967, when it moved to larger premises in Affalterbach, Melcher (M) and Konrad (K) moved to the nearby village of Burgstall (B), and called their growing company MKB.

While Aufrecht was the front man at AMG, Melcher was the engineering genius, so MKB worked away in the background building race winning engines for AMG as well as developing the first water-cooled Rotax engine for ultra-light aircraft. By 1991 Melcher was getting on in years and decided to retire. Greek national, Panagiotis (Pano) Avramidis, a leading AMG race engineer who had worked there for 10 years, was a good friend of Melcher and saw the potential of MKB. He offered to buy Melcher out and left AMG to



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1 Ex Michael Schumacher 560SL 6.0 AMG restored...

2 ... and upgraded by MKB made a healthy 326bhp.

take over the business alongside his brother Pavlos, who now holds an external consultancy role.

The irony is that other companies in the German Mercedes tuning industry were indirectly responsible for the birth of the MKB we knew (the company went into administration in February 2020). When the Avramidis brothers took over MKB they continued developing and building powerful Mercedes engines for other companies - even Carlsson, Lorinser and RennTech who sold these motors under their own labels.

However, when MKB moved into larger premises in 1997 some of its previous clients misread that as a signal that MKB was about to launch itself as a competitor, and so stopped buying their engines. "What they did not realise is that this is a purely technical building," Pano explained. "There is no showroom and very little space for anything other than machinery and parts." It was the need to survive after this that gave MKB the impetus to become a fully-fledged Mercedes tuner in its own right.

Before it went bankrupt, MKB was still tuning engines. However, demand from long term customers who also loved older Mercedes-Benz models encouraged the company to start a new Classic division, which restored and upgraded these cars to meet today's more demanding driving conditions, as well as evolving driver tastes.

3 'E70 TE' V12 restored by MKB for 25th year in 2014.

4 The M120 V12 in this 124 Estate makes 493bhp!

5 Flared arches one of few hints at the power beneath.

6 MKB P600 upgrade gives AMG C63 at least 604bhp.

7 690bhp tune-up for 4.0L V8 one of MKB's last projects.



6



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weistec california, USA

Weistec is the youngest Mercedes tuner in this group, but thanks to the vast experience and technical competence of founder Michael Weiss and his team, this relatively small, decade-old California-based company and the quality of its products is world class.

The Weistec focus from day one was to engineer state of the art performance systems for cars powered by the 6.2-litre M156 and M159 AMG motors. While other tuners offered minor upgrades with ECU and exhaust conversions at this time, no one provided performance engineering on the scale that Weistec was aiming at. Once the excellence of its supercharger and turbocharger components had been proven, even some big players in the European tuning industry began to acknowledge Weistec as a company with some breakthrough ideas. In fact, the Weistec supercharger system so impressed Kleemann in Denmark and V&th in Germany that they became customers.

Weistec soon outgrew its original premises and moved into a new HQ in early 2015. As the company designs, prototypes and makes many of its own components, it was vital to have enough space to house the 3D prototyping machine, two large CNC milling machines and six hydraulic lifts. The new workshop and administrative building accommodate all this equipment with room to spare.

With emphasis on reliable power, Weistec cars have set multiple Mercedes world performance records with notably low 0-60mph and

5 Record-breaking CLK63 with parachute!

6 Supercharged V8 achieved quarter mile in 9.16sec.

5



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1 Supercharger made already fast SLS hit new heights.

2 Plenty room for a supercharger in SLS's engine bay.

3 Weistec R63 AMG with 690bhp and 653lb ft torque.

4 US firm has the resources to make its own components.

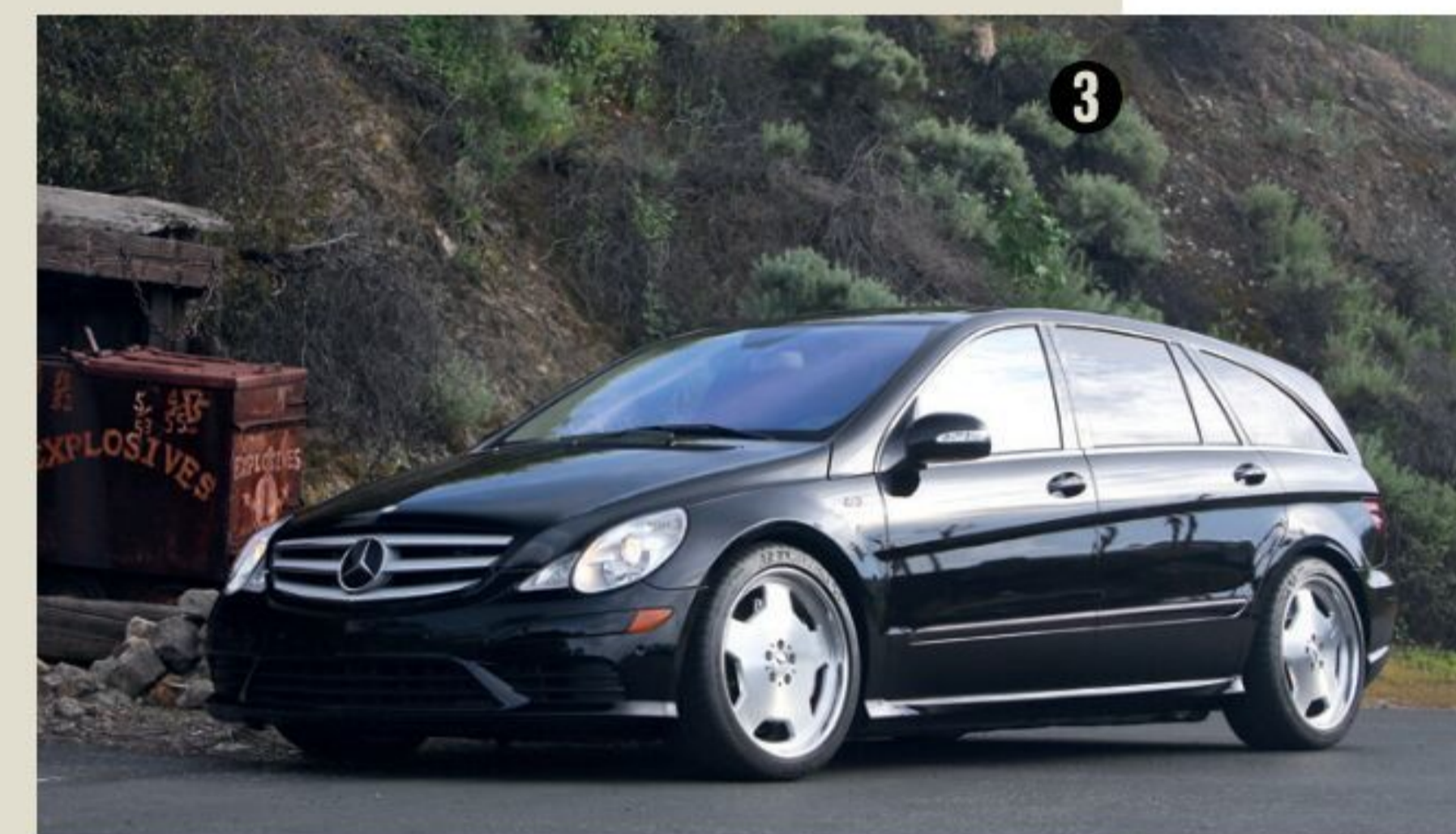
quarter-mile times. The team have beaten their own Mercedes quarter-mile record twice, and their present time stands at 9.16 seconds, with a terminal speed over 150mph.

The CLK63 AMG that achieved these numbers has the company's supercharger, intercooler, transmission, oil coolers and electronics, and deploys a parachute to slow down after each run!

Enthusiastic customers help keep Weistec's engineers busy, and one unusual project that went through the workshops recently was an R63 AMG for a local client. With 690bhp and 653lb ft of torque, this ultimate Q-car hits 60mph in under four seconds and gives supercar drivers heart palpitations in the stop light grand prix!



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1 Hottest E63 from Kleemann hits 62mph in 3.2sec!

2 Just the 837bhp for the reworked 5.5L M157 V8.

3 Kleemann's full exhaust systems are a work of art.



Kleemann zealand, denmark

Based in Farum, Denmark, Kleemann A/S was founded in 1985 by two enthusiastic young men who turned their passion into their living, tuning and styling Mercedes-Benz vehicles. In 1994, a third partner joined the company and Kleemann A/S began the mass production of its by now proven Kompressor systems. However, along the way two of the partners dropped out, so today Kleemann is solely owned by Claus Ankjær who wears the CEO and Technical Director hats.

Kleemann developed its first supercharger conversion back in 1988 for a handful of local clients. But it really shot to fame in the international tuning scene with its supercharger upgrades for

Mercedes' M113 V8. When AMG supercharged this engine in 2002, Kleemann then took its output up to 572bhp by boosting the efficiency of the factory installation. The company also offered a 473bhp aftermarket supercharger conversion for the SL500 using the Swedish-made AutoRotor, which is more efficient than the factory Eaton blower.

The more recent, factory twin-turbo V8 motors opened a whole new chapter in Kleemann's business, and its upgrades for the mainstream M278 and AMG M157 V8s quickly became popular. Recognising that the factory exhaust systems are very restrictive, Kleemann created a comprehensive sports exhaust programme. It believes that long tube headers are the foundation of a good exhaust system and claims they can add over 20bhp to a good cat back sport exhaust system.

As a logical extension to its motor tuning repertoire, Kleemann A/S also offers uprated suspension and brake kits, alloy wheels, aerodynamic components and bespoke interior trim. It is worth noting that Kleemann's signature TS-6 and TS-7 alloy wheels are handed for each side of the car to ensure that the air flow generated by their slanted spokes draws heat outwards from the brakes.

The most powerful Kleemann motor to date is its conversion for the 5.5-litre M157 biturbo V8, which packs 837bhp and 1,004lb ft of torque. During our performance testing of an E63 S 4Matic Estate equipped with this motor and LSDs on both axles, we managed to spin all four wheels on bone dry tarmac, launching to 62mph in just 3.2 seconds!

4 Fearsome looking C63 Black Series...

5 ... hides a supercharged 6.2L M156 V8.





Brabus

North Rhine-Westphalia, Germany

Born in 1954 into a family that owned the local Mercedes-Benz in Bottrop, the late Prof Bodo Buschmann was a visionary who experimented with tuning his own W123 230E in 1976. He then went on to sell the idea of individualised Mercedes first to his friends and then to his father's clients.

From the seed of this idea Brabus was founded in 1977, and by the turn of the 21st century the company had become not only the largest Mercedes tuner in the world but also the world's largest tuner, period. Today, more than just a Mercedes tuner and creator of bespoke vehicles, Brabus is a multi-faceted exclusive lifestyle company that encompasses Brabus GmbH (Mercedes tuning), smart-Brabus GmbH (50/50 joint venture with Daimler), Brabus Classic (restoration and sales of classic Mercedes), Brabus Private Aviation, Brabus Marine, Startech (tuning for Bentley and Jaguar-Land Rover) and CRD (Car Research & Development), its in-house consultancy and low volume manufacturing business.

Along the way, Brabus achieved many industry firsts along with several *Guinness Book of Records* entries in the mid to late 1990s. These were Fastest Production Saloon with the W210-based E V12S, Fastest Production Estate (E V12S Estate), and Fastest Production SUV (ML V12S), all of which were powered by the mighty 582bhp Brabus 7.3-litre V12 S motor.

When Mercedes-Benz turbocharged its new-generation V8 and V12 motors, the gloves came off

1 Iconic 190E 3.6S finished in bright red a driver's dream.

2 Three-litre M103 straight-six was basis for 268bhp.

3 Brabus unlocks as much as 793bhp for its G-Classes.

4 Brabus Classic is a successful firm in its own right.



5 C63-based Bullitt Coupe 800 V12 6.3 with near 800bhp.

6 Long history of tuning E-Classes with 'EV12' badges.



A WALK DOWN VICTORY LANE

WORDS Kyle Molyneux
IMAGES Daimler AG

From oily workshops to champagne-soaked podium celebrations and spine-tingling performance cars, we look back on over five decades of AMG history

1960s

In the beginning... Hans Werner Aufrecht ① and Erhard Melcher ② work in the Development Department at Daimler-Benz, focusing their attention on a 300SE racing engine until the company gradually withdraws from motorsport. But determined to succeed, the duo further develop the motor and in 1965 it powers Daimler colleague Manfred Schiek ③ to victory in the German Touring Car Championship 10 times over.

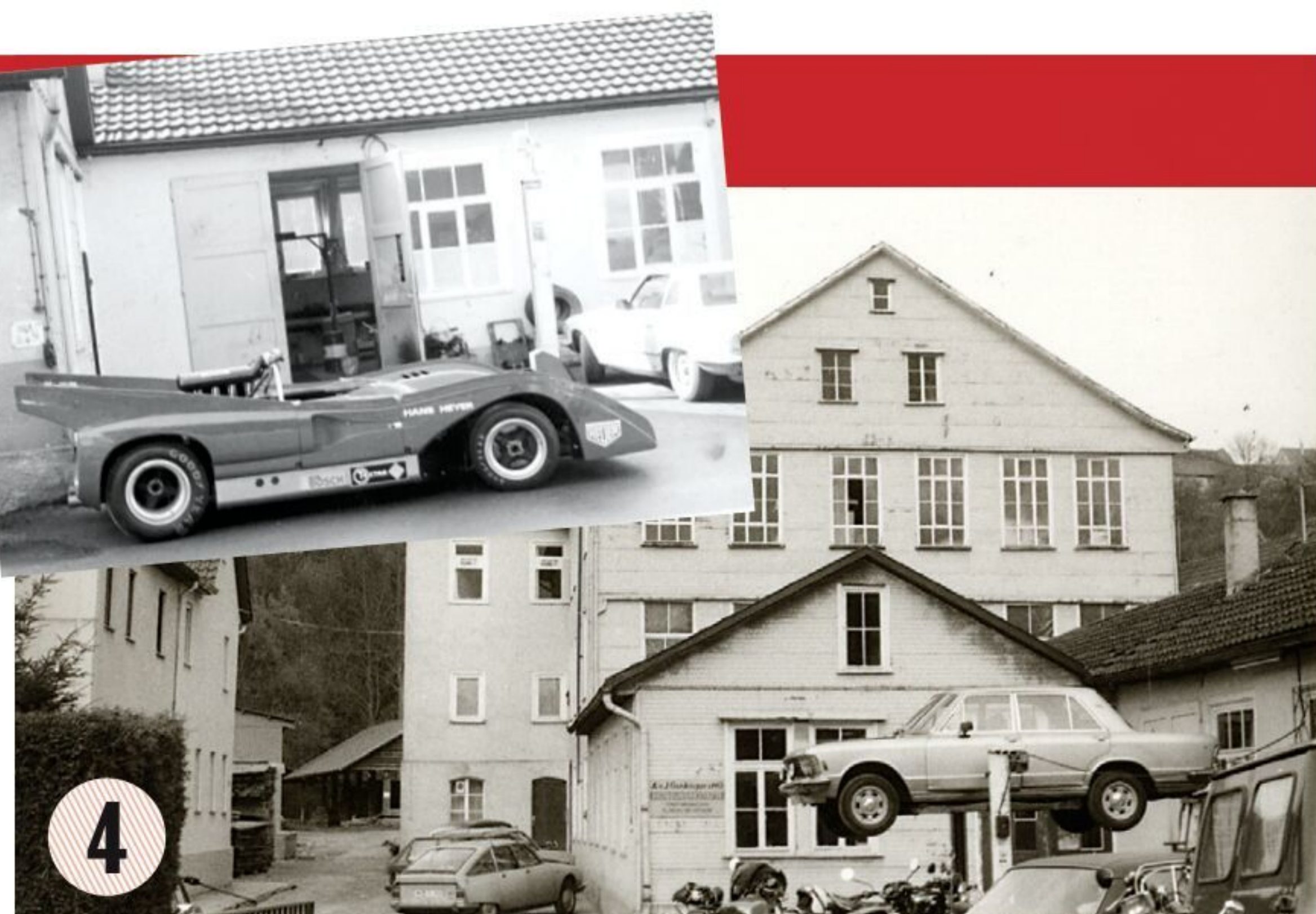
1966 Aufrecht leaves the Mercedes-Benz manufacturer and convinces Melcher to join him.

1967 Aufrecht and Melcher establish AMG and acquire an old mill in Burgstall ④ to serve as an 'engineering office and design and testing centre for the development of racing engines'. The name 'AMG' stands for 'Aufrecht', 'Melcher' and 'Großaspach' (the latter being Aufrecht's place of birth).



“we founded AMG out of our passion for motorsport**”**

Hans Werner Aufrecht



1970s

1971 In the capable hands of Hans Heyer and Clemens Schickentanz, AMG's 300SEL 6.8 takes a class victory and second overall in July's 24-hour race at Spa-Francorchamps **5** in Belgium. The bright red, 422bhp saloon is later sold to French company Matra and used for high speed tests of aircraft tyres.

1976 The company begins moving operations to larger premises in Affalterbach **6**, and Erhard Melcher gives up his partnership with Hans Werner Aufrecht but continues working on race engines in Burgstall.



5

FACT

AMG
employees:
1,400



6

1980s

1980 In 1980, the 450SLC AMG **1** scores its first and only victory - in the Touring Car Grand Prix on the Nürburgring's North Loop. The 370bhp coupe was originally developed in 1978 and, competing in that year's European Touring Car Championship, scored a fifth at Monza in Italy and third place at the Salzburgring in Austria. This rare machine became known as the 'Mampe SLC' owing to its striking Mampe and Lufthansa livery. It's little known that this 'Group 2' car also entered Le Mans in 1978 but failed to qualify due to unreliability and so was kept on the reserve entry list.

1986 AMG shoehorns a five-litre V8 engine into the 124-series E-Class Coupe, thus creating the 'Hammer' **2**, as nicknamed by an American motoring publication. Meanwhile, the Affalterbach tuning operation continues to flourish, with customers hailing from all over the world and buying ever more powerful and luxurious machines **3**.

1987 AMG develops a 'Group A' racing version of the 500SEC **4**, but a lack of homologation means the big two-door doesn't compete until 1989 in the

Spa and Nürburgring 24-hour events. Sadly, the SEC retires from each race with a broken driveshaft and rear axle failure respectively. Its five-litre V8 boasted innovative four-valve cylinder heads, made 454bhp, and was linked to a five-speed manual gearbox. Meanwhile the car's kerb weight was cut down from 1,660kg to 1,340kg. Just two were built.

1988 Mercedes-Benz and AMG officially work as partners in motorsport, the duo most notably taking wins in DTM with a Dany Snobeck driven 190E 2.3-16 **5**.



2

FACT

Performance Centres:
Over 500 in
40 countries

3

500SEL 5.4

4



5



280E 5.0

300GD STT

190E 2.3

1



1990s

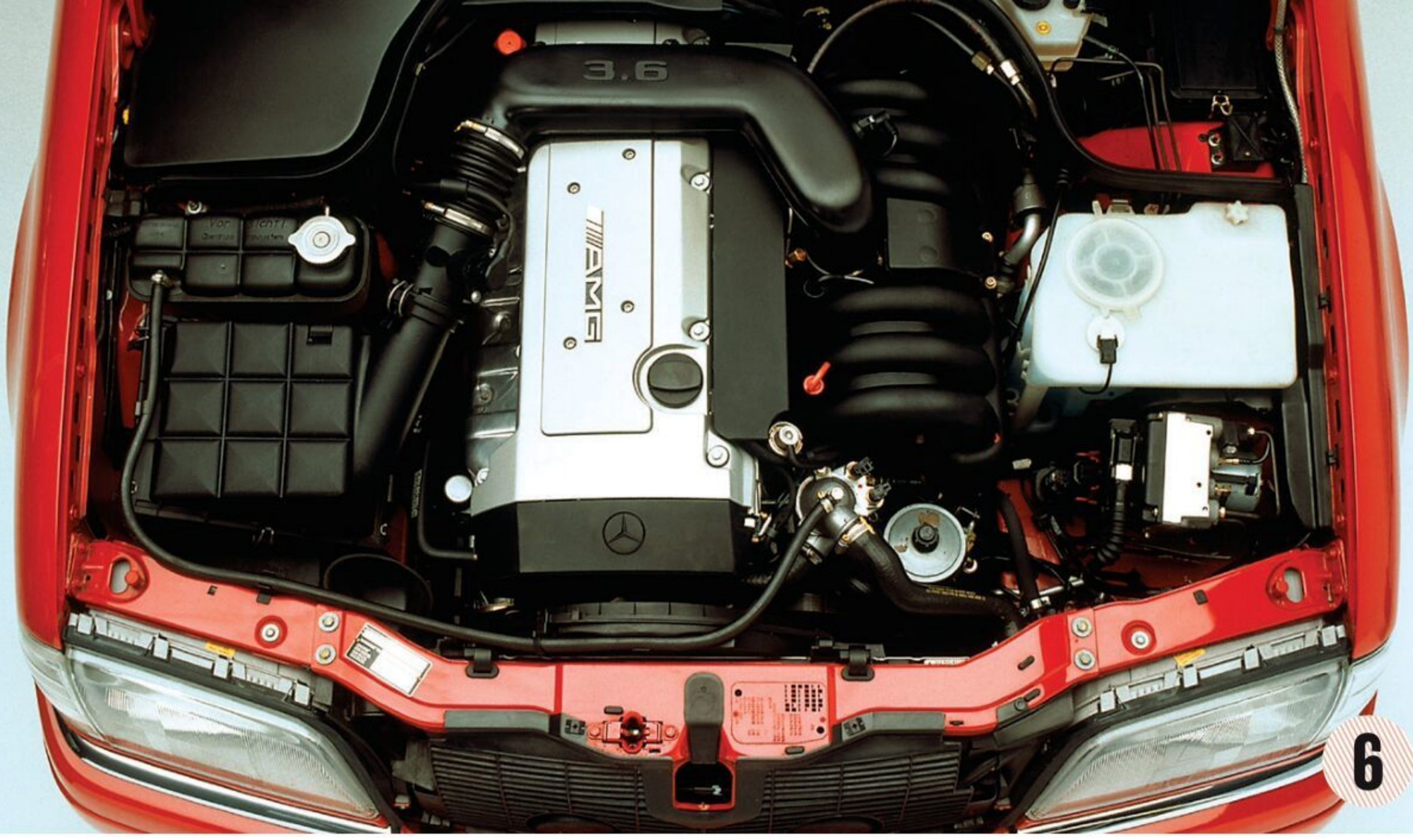
1990 AMG and Mercedes-Benz begin co-developing road cars. The 3.6-litre, M104 straight-six powered C36 **6** of 1993 is the first AMG badged machine to emerge from the new partnership, along with E36 variants **7**. In 1996 the C36 becomes the first Official Formula 1 Safety Car and Official Formula 1 Medical Car from Mercedes-AMG, starting a tradition that continues to this day.

1992 Klaus Ludwig gives Mercedes-AMG its first DTM championship driving a 190E 2.5-16 Evolution II **8**.

1997 The newly created FIA GT Championship offers AMG a new opportunity, and in just 128 days Affalterbach designs the 'GT1' class CLK-GTR **9**. The racer's 6.9-litre V12 is developed from the Mercedes S600's six-litre, and it makes 604bhp with 572lb ft torque. The car wins six races and earns Bernd Schneider the championship. The following year, the succeeding (V8-powered) CLK-LM wins all 11 races, Klaus Ludwig and Ricardo Zonta taking the drivers' title this time.

1997 The 202-series C43 and 210-series E55 are the first cars to run an AMG version of Mercedes' prolific M113 V8. The motor is given a supercharger by AMG in 2002 **10**, and forms the basis of the SLR McLaren's V8 of 2004.

1999 DaimlerChrysler purchases 51 per cent of AMG shares and Mercedes-AMG GmbH is born.



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8

2000s

2000 Mercedes-AMG strikes a deal with supercar manufacturer Pagani to supply highly modified, 7.3-litre versions of its M120 V12 for the Italian maker's Zonda S **1**. Company owner Horacio Pagani admits that he opted for Mercedes engines because that's what close friend Juan Manuel Fangio recommended. The Zonda is replaced by the Huayra in 2012 and Affalterbach provides a new V12 twin-turbo motor called the M158.

2001 The '32 AMG' badge hits the streets. The company supercharges Mercedes' M112 V6 motor for the R170 SLK and 203 C-Class, in the process making 349bhp/332lb ft torque.

2003 Affalterbach launches its first turbodiesel model, the C30 CDI Sports Coupe, with 228bhp/398lb ft torque **2**.

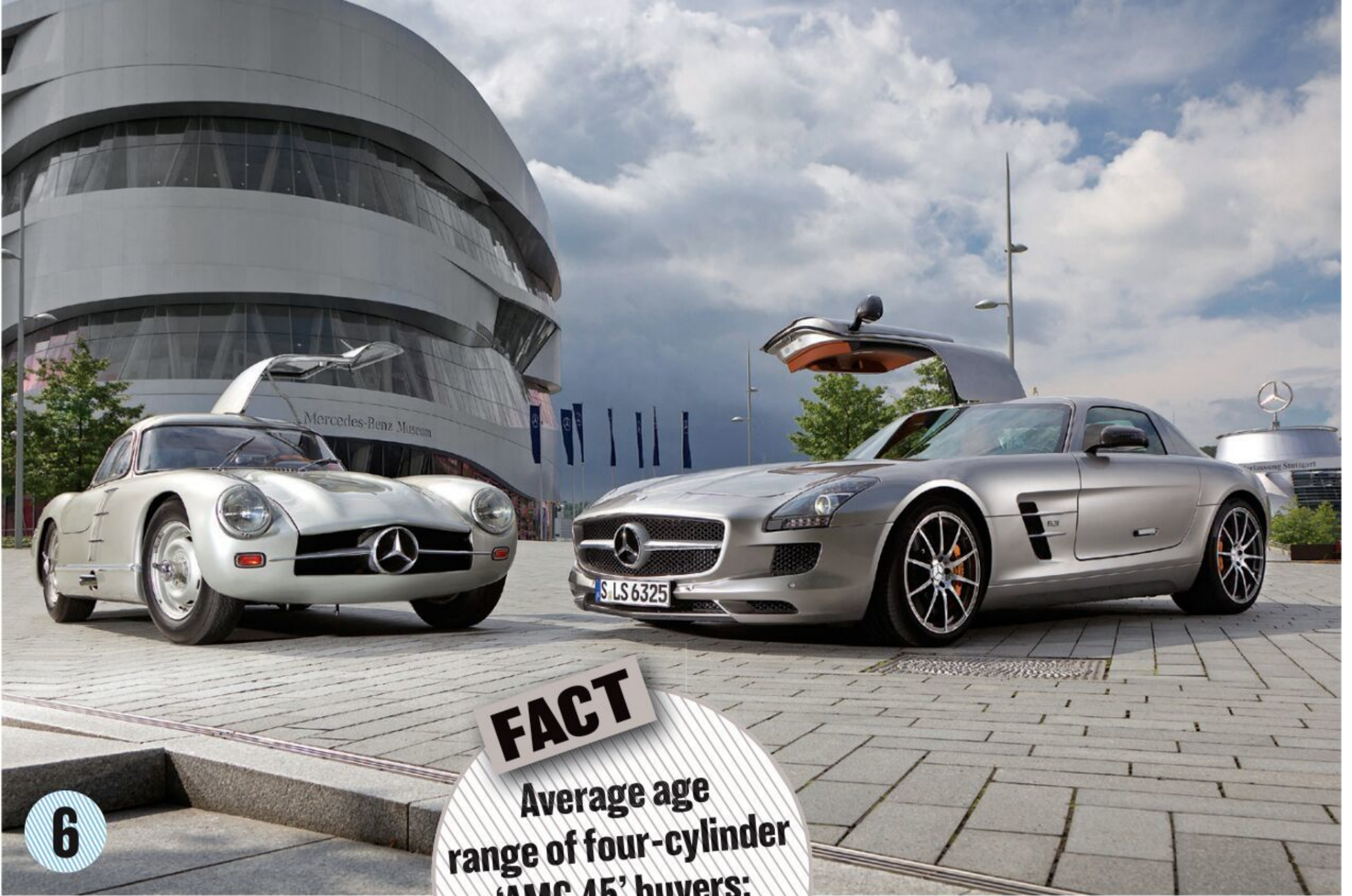
2005 AMG is fully bought out by DaimlerChrysler following Aufrecht's decision to sell his remaining shares in the company. However, racing engine development continues in Burgstall under HWA (Aufrecht's initials) - and still does today, although Aufrecht now holds a less hands-on, supervisory role in the company.

2006 The 211-series E63 AMG **3** is the first model to feature Affalterbach's new 6.2-litre M156 V8, developed in-house by AMG for the first time and hand-built with the 'One man, one engine' philosophy **4**. The 6,208cc motor features four valves per cylinder, two cams per bank, and a redline of 7,200rpm.

2006 The first AMG Black Series model arrives, based on the R171 SLK55 AMG **5**.

2006 Launch of AMG Private Lounge, an online brand community now with over 60,000 members worldwide.

2009 The SLS AMG **6** becomes Affalterbach's first completely in-house developed car, and uses a development of the 6.2-litre M156 V8 called the M159, boasting dry sump lubrication and an even higher redline among many other advancements.



6

FACT
Average age
range of four-cylinder
'AMG 45' buyers:
35 to 45
years



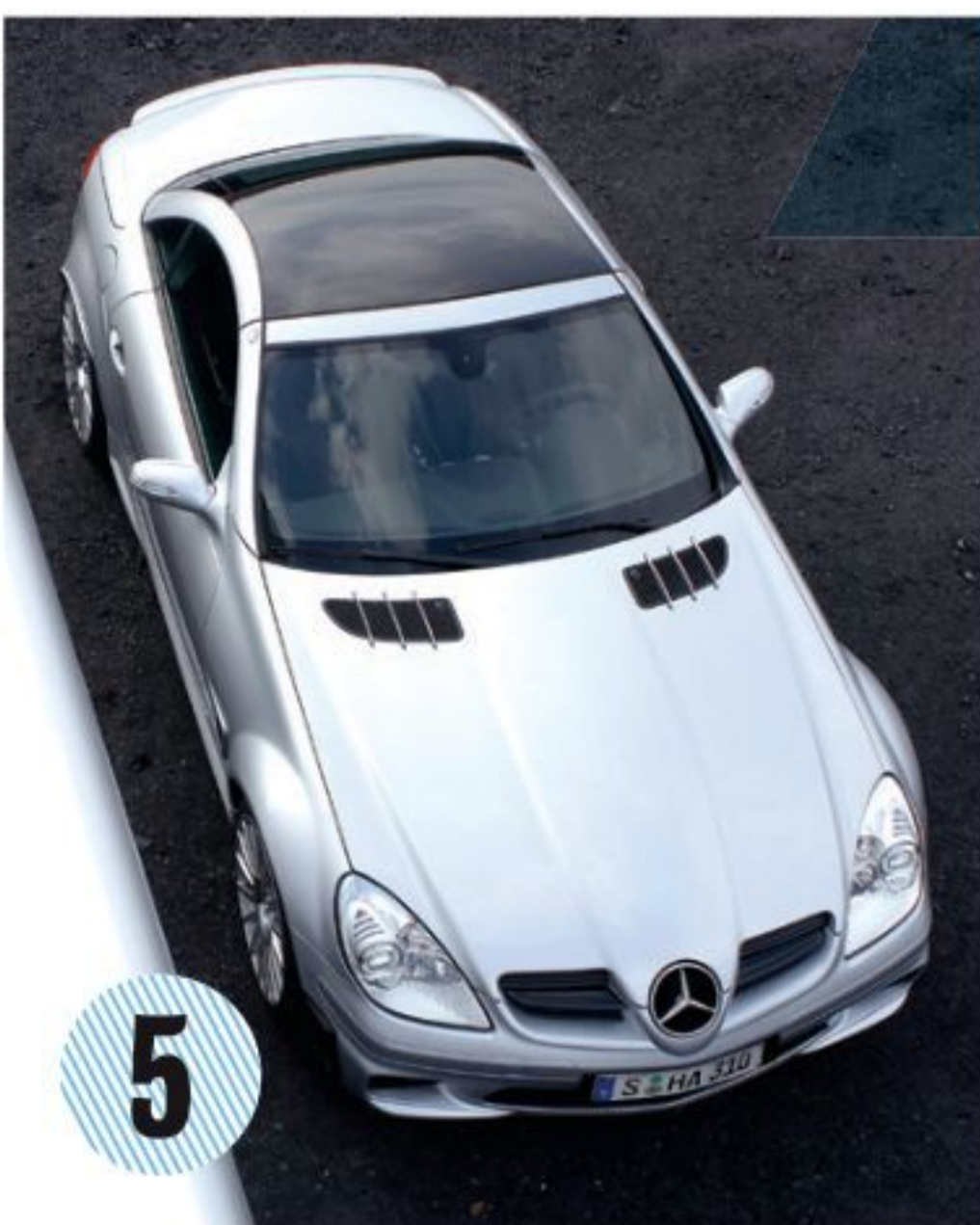
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NEWSPRESS



2



5



3



2010-ON

2010 AMG's first battery-powered car is launched, the SLS AMG Electric Drive ⑦ generating the equivalent of 741bhp and boasting a range of over 150 miles.

2011 The SLS AMG spawns a GT3 racing car ⑧ which proves highly competitive from the off, taking wins in Spa, Dubai and at the Nürburgring during the next few seasons.

2013 The Mercedes tuner enters the four-cylinder petrol market with its stonking, two-litre M133 motor, developing 355bhp, or 178bhp per litre. During the same year, Daimler AG agrees to supply Mercedes-AMG V8 biturbo engines to UK company Aston Martin.

2014 Affalterbach targets the sports car market with its GT range, housing a new four-litre V8 biturbo motor that succeeds the old 6.2-litre eight-cylinder engine ⑨. In the same year, Mercedes-AMG wins the drivers' and constructors' championships in the new V6 hybrid era of F1 with drivers Lewis Hamilton and Nico Rosberg ⑩.

2017 AMG marks its 50th anniversary with the unveiling of its new Project One hypercar at the Frankfurt motor show, featuring an Formula 1-derived powertrain ⑪.

2018 The AMG Speedway circuit is opened in South Korea. MP



7



FACT

Sales in 2019:
132,136
Cars



8



11



10



9

C63 AMG

Make your 204-series C63 even more spectacular with upgrades from some of the best aftermarket tuners in the business

WORDS Kyle Molyneux & Simon Holmes

CATBACK

Akrapovič

The C63 has two catalyst-converters running either side of its V8 engine, and the exhaust that follows can be improved. By increasing flow through a larger bore, power can be increased as the naturally aspirated engine breathes better, plus the sound is more pleasing.

PRICE £4,882

CONTACT www.akrapovic.com

AIR FILTER

K&N

A simple modification for a slight power improvement, replacing both of the C63 AMG's panel filters, which are located inside the air boxes, allows the M156 V8 engine to breathe more freely. The filters themselves should also last for the life of the car so consider them a good investment.

PRICE £55

CONTACT www.knfilters.co.uk

LSD

Quaife

Unless fitted with the Performance Pack Plus option which included a factory LSD, then a C63 will massively improve with the fitment of a torque-biasing differential. With a clever Quaife unit fitted in place, traction and enjoyment both improve significantly.

PRICE £1,392 fitted

CONTACT www.birdsauto.com

SUPERCHARGER

Weistec Engineering

If you really want to ramp it up, then there are a range of supercharger conversions for the M156 V8 that can boost power up to an additional 285bhp and 187lb ft of torque. The bolt-on kits are offered in stages and as complete packages from Weistec.

PRICE From £5,378

CONTACT www.weistec.com



COIL-OVER SUSPENSION

KW Clubsport

Upgrading to coil-over suspension allows height adjustment, but KW Clubsport's two-way items also allow adjustable compression and rebound, which reduces body roll, squat and dive in order to finely tune the C63 AMG's suspension set up to suit personal preference - just what you want for track days.

PRICE £2,199

CONTACT www.kwsuspensions.co.uk

FRONT AND REAR STRUT BRACE

CKS Performance

Chassis flex is the enemy of turn-in response and stability, especially when the car is travelling at a fair old lick on a race track. Front and rear strut braces are usually fitted to the top of suspension turrets and strengthen a car's chassis. Made from 6061A alloy, they reduce flex and improve handling.

PRICE £245

CONTACT www.ckspowerformance.com

The 204-series C63 AMG may have bitten the dust several years ago, but Mercedes-Benz aficionados still go weak at the knees when discussing the mesmerising, 6.2-litre AMG V8 under its bonnet.

In our view, the M156 motor is one of the greatest powerplants to emerge from any car company in the last 20 years, and it gave the C63 Saloon, Estate and Coupe character unlike anything else in their sectors, even when Audi and BMW were building V8s of their own.

Opened up, the sound of the quad-cam V8 will stand the hairs on your arms to attention, and more often than not you'll find yourself driving without the radio turned on, so you can fully savour the delicious notes emanating from the C63's four-pipe AMG exhaust system. Such is the hand-built V8's vocal range, you don't need to

drive this C-Class fast to fall in love, but when you do it will blow your socks off and then some.

With the C63, AMG went on full attack, taking the fight to both BMW's M3 and Audi's RS4, with many reviewers of the time considering it the best of the bunch. Boasting 451bhp with 442lb ft torque, the early C63 saloon could sprint to 62mph in 4.5 seconds. When the C63 Coupe joined the party at the C-Class's facelift in 2011, it brought a more responsive, seven-speed MCT gearbox and even faster 0-62mph time of 4.4 seconds.

Today, you can buy an early C63 Saloon for just £13,000 and there are plenty of aftermarket parts out there to make your AMG even more thrilling. Take a look at our top performance modifications for this living legend.

REAR SPOILER

Vorsteiner saloon boot spoiler

For some added aggression, this sporty yet elegant lip spoiler that fits to the C63 Saloon's bootlid seems perfect. Made from carbon fibre weave, it adds a degree of downforce whilst improving looks and can be fitted alongside other aero parts to create a mean appearance.

PRICE £566

CONTACT www.vorsteiner.com

REAR DIFFUSER

Severn Valley Motorsport

You won't achieve Formula 1 levels of downforce with a diffuser for your C63, but you will certainly increase its kerb appeal. Factory carbon trim packs were pricey, but there is another way to achieve a premium look - Severn Valley Motorsport's diffuser being one.

PRICE £425

CONTACT

www.severnvalleymotorsport.co.uk

REMAP

GAD Tuning

By finely tweaking the car's original ECU, power can be increased to as much as 550bhp, although output is specific to each car. Naturally aspirated cars do not react as well as boosted applications, but the gains are still simple and easy to achieve.

PRICE POA

CONTACT www.gadtuning.co.uk



WHEELS

Vorsteiner V-FF 101

By switching the original alloy wheels with lightweight replacements, cornering ability can mildly improve thanks to a reduction in unsprung weight, plus a new design can improve the looks of the C63. New rims also provide a chance to fit sticky new tyres.

PRICE POA

CONTACT www.vorsteiner.com



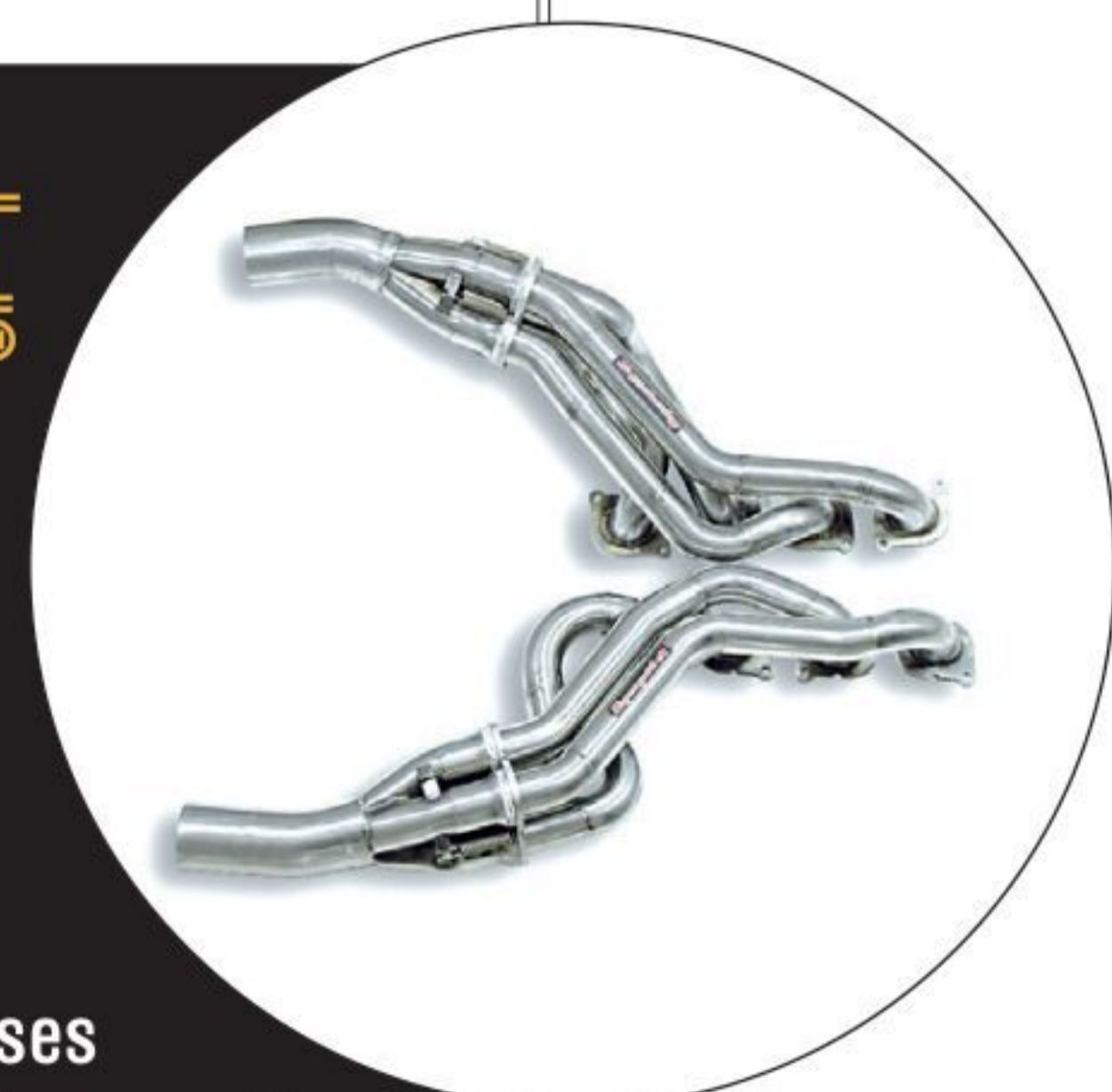
EXHAUST HEADERS

Supersprint

Improving the design of the exhaust manifolds can release a lot of power, thanks to a freer-flowing design that allows gasses to be expelled faster. They aren't easy to fit but will notably increase performance and improve sound, especially as part of a full system.

PRICE £3,471

CONTACT www.supersprint.com



BLOOD BROTHERS

Already with a 202-series C43 AMG Estate to his name, Clifton Morris couldn't resist increasing his car count when he came across a high-spec C36 AMG Saloon - we find out how these two hot C-Classes compare

WORDS Kyle Molyneux
IMAGES Steve Hall





“Their racer-style bodies and red-blooded engines attract a certain type of uncompromising, headstrong buyer”

So why does Clifton Morris have a C36 AMG and a C43 AMG Estate, both of which stem from the 202-series C-Class tree? “Some people have several pairs of shoes, others a collection of Picassos. I have a pair of AMG Mercedes. The C43 came first in 2010, but when I saw the C36 a year later, I had to grab it – the spec is so good.

“They’ve definitely got something about them,” continues Clifton as we stand together and absorb their bungalow-on-monoblocks postures.

“They’re not your average, run-of-the-mill car; in good condition they look like classics, but modern as well. In fact, I think they are becoming fashionable again,” he concludes, almost as if justifying his reasons for owning them. Although some would argue these automotive carnivores have never fallen out of favour, their race car-style bodies and red-blooded engines always demanding unfettered respect and attracting a certain type of uncompromising, headstrong buyer.

The 202 C-Class’s bargain prices today make them accessible to a whole new generation of petrolheads who regularly find themselves just a beer and a click of the mouse away from ownership, such is the nature of sometimes impulsive, online buying.

“The young guys see these cars and they want them,” says Clifton, with experiences on the road to prove it. “The C43 is very... undercover, but my car’s [optional] two-tone seats give it away. I think I’ve only ever seen one other Estate, though.” That’s no surprise given only 86 came to the UK (32 in 1998, 37 in 1999 and 17

in 2000), the remaining 320 C43s being Saloons. Just 3,857 C43s were made in total, with a 3,085/772 split between Saloons and Estates.

“The C36 is a more leisurely drive, whereas the C43 is always up for action. There’s no in between – it’s like, ‘Come on – let’s go!’ You have to be more careful with your right foot and there’s a different technique to driving it. When you get funky with the C43, you have to know how to

catch the tail. But I don’t do that really,” Clifton says with a grin.

As the fourth keeper of the Brilliant Silver wagon, Clifton has just witnessed the odometer spin past 91,000 miles. “Before I bought the C43, I had a C240 which I found on Barry Island in South Wales. At the time, I said if the car makes it home, it’s a good one – and it did. It was beautifully specced and was very nice to drive. I part-exchanged it for the C43, which was offered for sale by an independent dealer who traded off a farm in Surrey.”

“These guys are prone to oil leaks, though,” he says. “Especially on the left-hand side of the engine, towards the back of the rocker cover. I’ve recently had that sorted on my C43 but it still leaks slightly. These 202 C-Classes are also known to rust,” Clifton continues with a spiralling tone. “Someone reversed into the C43’s driver’s door while it was parked, so I thought it was a chance to have the whole car treated for corrosion, which was particularly bad around the driver’s footwell and the front arches, both on the underside and in the engine bay where a hole had appeared – you could literally see what tyre was fitted.”

“This C36 was over 50 grand new with extras, which was a hell of a lot in 1995”



JUST THE FACTS

	Mercedes-Benz C36 AMG (W202)	Mercedes-Benz C43 AMG Estate (S202)
ENGINE	M104 3,606cc 6-cyl	M113 4,266cc V8
POWER	276bhp@5,750rpm	302bhp@5,850rpm
TORQUE	284lb ft@4,000-4,750rpm	302lb ft@3,250-5,000rpm
TRANSMISSION	4-speed auto, RWD	5-speed auto, RWD
WEIGHT	1,560kg	1,610kg
0-62MPH	6.7sec	6.7sec
TOP SPEED	155mph	155mph
FUEL CONSUMPTION	20.8mpg	21.6mpg
YEARS PRODUCED	1993-1997	1997-2000

FIGURES FOR CARS AS PICTURED; FUEL CONSUMPTION ACCORDING TO EEC URBAN; TOP SPEEDS ELECTRONICALLY LIMITED



A used car's interior always reflects the attitudes of its previous owners, and clearly all of the C43's custodians have been saints, keen to preserve its original condition. Unfortunately, during Clifton's ownership a miscreant stole the original Mercedes radio by ramming a screwdriver into the centre console to prise it out, but Clifton has done a great job restoring things. "The surround for the climate control alone was £90 and you can't just buy it off the shelf – you have to go direct to Mercedes-Benz. And the carbon effect trim is specifically shaped for the C43." The only thing Clifton hasn't cracked is why the ESP button on the dash doesn't work anymore, although that's probably to the benefit of his health and the rear tyres!

With this job in mind and being something of a sound system fanatic, Clifton took this opportunity to upgrade the C43's speakers and head unit, including adding a boxy, 12-inch subwoofer in the, oversize boot, which was swallowed ➤



Top left Both cars run an AMG-tuned multi-link set up.

Top Bored and stroked M104 in superb condition.

Above C43's V8 less exciting to look at, but boy does it go!





Left Thinner rim in the C36; less special looking dial set.

Below left Revised controls and five-speed auto in C43.

Right This C43 also boasts a full two-tone leather cabin.



➤ with clinical ease. It's a relatively subtle upgrade, however, and something Clifton has refrained from doing to his other 202 C-Class, for reasons I shall explain in due course.

Also finished in Brilliant Silver, the Saloon-only C36 AMG, of which just 378 came to the UK out of 5,221 made, has the lowest mileage I've seen on a car of its type – just 47,000. Clifton is the second owner of this 1995 example and he bought it from 4 Star Classics in Surrey. "I think this car was over 50 grand new with extras, which was a hell of a lot in 1995. The first owner was a businessman who lived quite close to his work. If he did six miles in one day that was a lot. The car has practically every option available – and I mean everything. It's even got a powered blind in the back window. Whoever bought this car originally went wild."

Given this C36's lofty position in the range and also its motorsport pedigree, it is surprising to hear the car left the factory without badges on the bootlid. But like us, Clifton thinks it is important for them to be there, so decided to fit the silver characters himself. You see plenty of botched DIY badge jobs, but being something of a perfectionist, Clifton's work is utterly impeccable and looks as good as a factory effort.

Due to the nature of the beast, it will seem strange to highlight the C36's rear quarters. However, the spare wheel and Bridgestone tyre have never been used, and two subwoofers plus two loud speakers lurk on the parcel shelf, all with Bose branding and all fitted by the factory with Mercedes-Benz stamps to prove it. The latter particularly, are not something I've laid eyes on before and pretty much sum up this car – it's special through and through.

“The V8 sounds super-saloon angry, rather than merely sporty like the straight-six, yet the C43 motor feels more sophisticated too.”

Clearly feeling the weight of responsibility that only a young at heart oldie can create, Clifton uses the C36 more sparingly than his V8 wagon. “I bought the C36 in 2011 with around 45,500 miles and I never drive it in the winter; I SORN it, disconnect the battery, give it a good wash and wipe down, then I cover it. In spring, she starts in one hit. I then give her a service and off she goes.”

Clifton has reasonable garage space and likes to do maintenance himself, although his talents with a spanner were challenged last year shortly after an MOT. “The C36 was turning over and just before I put it away, the radiator just went,” he says, motioning a deluge of liquid with his hands. “So, I had to put in a new rad and change the fluids. However, I let Mercedes-Benz Stratford do all the big work to guarantee it was done properly. Once, I gave my C43 to Gem-Tech in Romford to cure a running issue that kept putting the car in ‘limp’ mode. The guys there replaced a coil pack and all the injectors [there are eight in the C43’s M113 engine], and got it running well again.”

Now is a good time to ask which AMG Clifton prefers. For a fun drive on a twisting back road he would take the C43, thirst and all. Although as he rightly points out, “you don’t buy an AMG to discuss environmental concerns” before adding, “The C43 is just a better drive and it doesn’t even flinch at high speed. It’s more responsive than the C36 and practical, too. The AMG C-Class is a nice, compact car and I think Merc pitched them right in terms of aggressiveness. For me, AMGs make less sense when they’re bigger.”

This is the first chance I’ve had to drive a C36 and C43 back-to-back, and the differences are surprisingly great in number. The torque of the C43’s two extra cylinders means you press the throttle less to travel as fast as the C36. The 302bhp C43 also sounds super-saloon angry, rather than merely sporty like the C36’s straight-six, yet the V8 somehow feels more sophisticated too.

The 276bhp C36 needs a good kicking to muster anything like exciting thrust, which makes these cars’ identical 0-62mph times all the more unexpected. With an extra gear ratio in its slicker automatic gearbox, this C43 doesn’t just feel like a newer car, it also feels on another level in the performance stakes, despite a bigger backside and far greater mileage. I think it rides a touch more compliantly than the C36 as well.

So what about a 342bhp C55? Has Clifton ever been tempted to complete his set of 202-series AMGs? The 5.5-litre Saloon and Estate were built from 1998 to 2000 and based on the C43, but you are more likely to glimpse the Beast of Bodmin Moor than a C55 on the road. “I saw a left-hand drive C55 for sale in Japan once, but the guy selling it couldn’t guarantee the car would arrive in the UK in one piece.

“I almost bought a Brabus C5.8 Estate from Avantgarde in Tamworth,” he goes on to admit while rubbing his chin and seemingly contemplating the car all over again. “That was a lot of performance for the money but reality kicked in and I thought, ‘You know what? The C43 is just as good.’ I get a lot of excitement out of it and its big boot and five seats mean I’d probably sell the C36 saloon first.” Given its amazing overall condition, I’m sure Clifton would have a bidding war on his front lawn...

MP

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POWER TO THE STARS

From four-cylinder to V12, here we look back at the best Mercedes engines over the years, starting with the mighty M198

WORDS David Sutherland & Kyle Molyneux
IMAGES Daimler AG & Steve Hall

No car manufacturer has produced as many different engines as Mercedes-Benz. While some players will stretch out a design for as long as possible, Stuttgart refuses to let a motor date, and any that serve more than a decade usually undergo substantial re-engineering.

The diversity of engine design is breathtaking, too. For the last two decades, the car maker has been turning out engines from sub two-litre four-cylinder to V12s displacing six litres, and in the 2000s offered supercharged engines alongside turbo motors. There are also numerous industry firsts: four valves per cylinder technology in 1910, fuel injection in the 1950s, a turbocharged diesel in the 70s, improved V8 efficiency in the 80s and plenty more after that. Here we delve into the world of Mercedes-Benz engine codes to highlight some of the company's most impressive motors. Our story begins as the German manufacturer rebuilt itself from the ruins of World War Two...



M198 (1954-1963) **3.0-litre** **six-cylinder**

degrees which also allowed a low and more aerodynamic bonnet line.

Two years later this engine, assuming the M198 tag, provided power for Mercedes' most legendary road car ever, the W198 300SL. Fuelling switched to a Bosch pump system, increasing power by almost 40bhp and making the Gullwing the world's first fuel injected production car. In evolved form, its engine would serve in the 1957 300SL Roadster, and then in high end Mercedes models until 1967.



JUST THE FACTS

CAPACITY 2,996cc

CONFIGURATION

6-cyl in line, SOHC, two-valve

MAXIMUM OUTPUT 212bhp/203lb ft

USED IN

W198 300SL and 300SL Roadster

OUTSTANDING FEATURE

The first production road car engine with fuel injection

ANY WEAKNESSES?

It is prone to overheating in traffic

WHY IT'S SPECIAL

Prior to Mercedes-Benz's return to motorsport in 1952, in sports car racing, the car maker's biggest engine (the M186 three-litre straight-six) was considered versatile, not iconic. With twin carbs, the former truck unit made 113bhp for the 300 saloon, and in modified, triple-carb, M188 form 148bhp for the 300S 2+2.

Perceptions changed when, lacking funds to develop an all new large-capacity engine, Mercedes reasoned that the only way for its new race car, the W194 300SL, to make an impact was to major on efficiency. Hence the space frame chassis and body kept it to 870kg, while the engine, with triple carbs, 173bhp, and dry sump lubrication to prevent oil surge during cornering, was canted over to 50

Right It doesn't get much better than the 300SL Roadster.

Right 450SEL '6.9' owned by F1 stars in the 1970 and 80s.



M100
(1963-1980)
6.3-/6.8-litre V8

WHY IT'S SPECIAL

By the beginning of the 1960s, the lack of a V8 engine in the Mercedes-Benz line up was becoming embarrassing. Efficient as the Gullwing derived, three-litre straight-six was, it no longer truly convinced in a luxury car, particularly from a North American perspective.

The problem was solved when the M100 V8 was revealed as part of the jaw-dropping package that was the W100 600, launched in September 1963. Not only was its 6.3-litre capacity double that of any other Mercedes car engine, it also used an overhead camshaft for each cylinder bank at a time when most V8s had pushrods to operate the valves.

Four years later, the 247bhp M100 helped create the world's first 'super saloon', the W109 300SEL 6.3, and in 1975 was revived and re-engineered with a height-lowering dry sump and increased capacity to 6,834cc for the 116-series flagship, the 450SEL 6.9, toting 282bhp and a stump-pulling 405lb ft torque. No S-Class since has exceeded this engine capacity. The original M100 paved the way for a series of Mercedes V8s, most notably the M116 3.5-litre which, with its pioneering electronic management system, appeared in the W111 280SE 3.5 Coupe and Cabriolet of 1969.

JUST THE FACTS

CAPACITY
6,332cc (W100/W109), 6,834cc (V116)

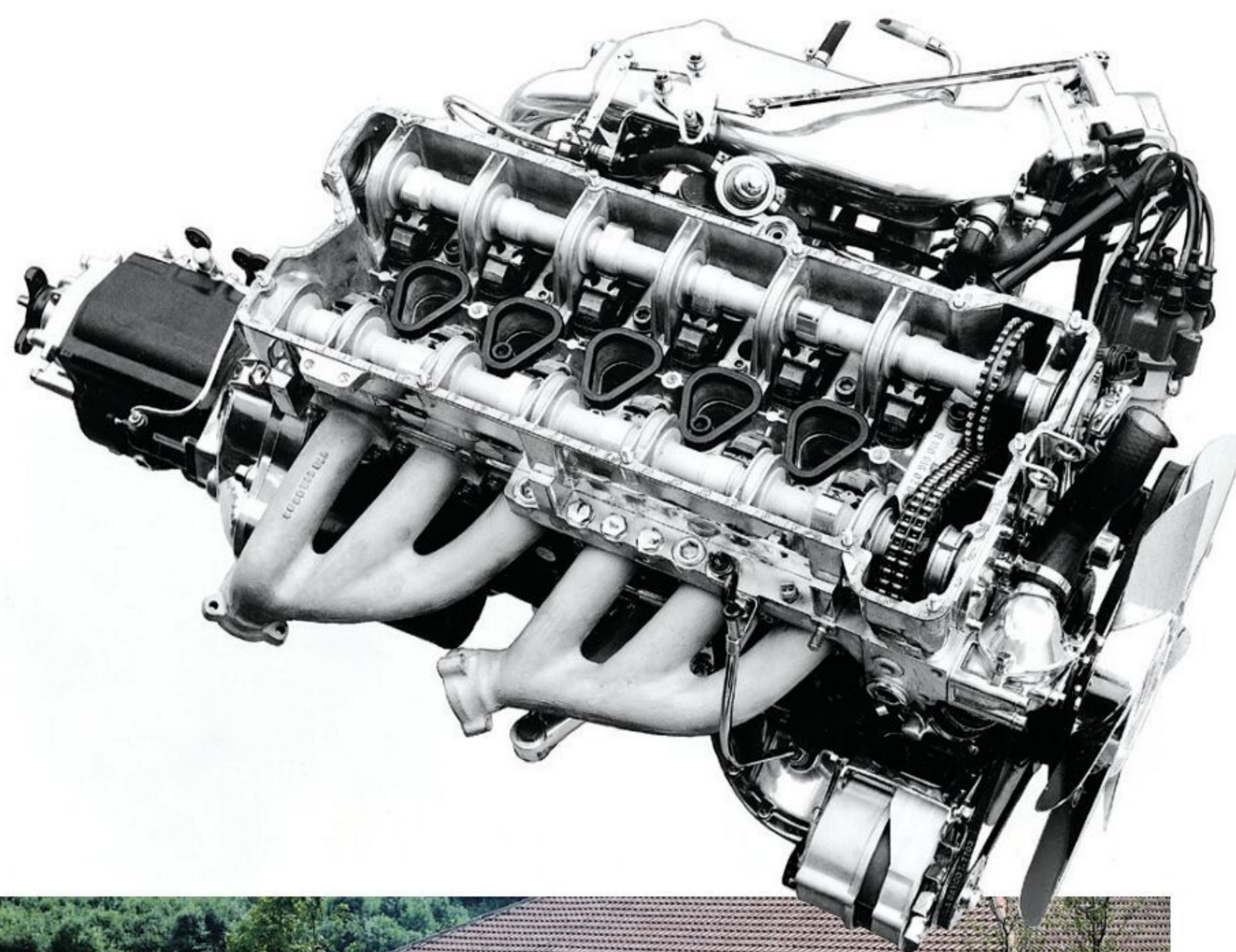
CONFIGURATION
V8, SOHC per bank, two-valve

MAXIMUM OUTPUT
247bhp/369lb ft (W100/W109),
282bhp/405lb ft (V116)

USED IN
600, 300SEL 6.3 (6.3-litre),
450SEL 6.9 (6.8-litre)

OUTSTANDING FEATURE
Luxury level refinement and big low
down pulling power

ANY WEAKNESSES?
Timing chain failure, which can seriously
damage the engine



M110
(1972-1986)
2.8-litre six-cylinder

Above Underneath those straight lines is a great in-line six.

WHY IT'S SPECIAL

By the early 1970s, Mercedes' premium models were using V8 engines that produced easy power and which went down well in the US, the car maker's key export market. But the six-cylinder engines were generally less impressive, which was why the M110 that made its debut in the W114 280E of 1972 was the right engine at the right time.

Displacing 2.8 litres, the petrol M110 was Mercedes' first post-war double-overhead cam engine – and also striking in appearance due to its prominent cam covers. It was revvy in nature, and in fuel-injected form punched out 182bhp, almost half as much again as the M130 engine of the same capacity that Mercedes continued to offer in the W114.

The M110 was one of Mercedes' most versatile engines ever, serving in all model ranges until retired in the mid 1980s, replaced by the single-camshaft M103. At one end of the scale it endowed the top 123-series, the 280E with ample performance, and at the other had sufficient muscle to prevent base level 116- and early 126-series S-Classes feeling underpowered. It was also a convenient installation when in 1974 Stuttgart felt an 'economy' 107-series SL/SLC was needed, and it also powered the G-Wagen, no less.

JUST THE FACTS

CAPACITY 2,746cc

CONFIGURATION
In-line 6-cyl, DOHC, two-valve

MAXIMUM OUTPUT
183bhp/176lb ft

USED IN
W114, 123-series, 116-/126-series S-Class,
107-series SL/SLC, G-Wagen

OUTSTANDING FEATURE
Mercedes' first twin-cam engine, with
a high output and a willingness to rev

ANY WEAKNESSES?
Injection system likely to be worn, resulting
in poor starting and heavy fuel consumption





M119 (1989-1999) 5.0-litre V8

WHY IT'S SPECIAL

The M119 V8's most famous application is in the 124-series 500E/E500, a modern classic super saloon that Mercedes-Benz co-built with Stuttgart neighbour Porsche in the early 1990s. The five-litre, quad-cam V8 gave the E-Class enormous punching performance, much to the surprise of anyone who'd assumed this was just another normal-looking saloon car. The M119 was based on Mercedes' M117 V8, but featured a significant number of enhancements including four valves per cylinder instead of two, dual overhead camshafts, adjustable intake camshafts, modern Bosch fuel injection, an alloy block and cylinder head, improved oil flow, forged connecting rods and an improved vibration damper arrangement.

Emissions controls brought in for September 1992 meant the revised Bosch LH-Jetronic fuel injection system could not provide full throttle enrichment like the earlier version, and thus performance suffered a little, but the M119 was still a magnificent feat of engineering. It was so good in fact, many consider the V8 the company's greatest powerplant of all. Such was its robust build, as well as powering S-Classes of the day, it was breathed on by AMG for the E500-based E60 and SL500-based SL60, with power increasing to 376bhp. A 723bhp M119 V8 also appeared in Merc's C11 Group C racer of 1990.

Top Flared arches confirm this is no ordinary W124.

JUST THE FACTS

CAPACITY 4,973cc
CONFIGURATION V8, DOHC per bank, 4-valve
MAXIMUM OUTPUT 322bhp/354lb ft
USED IN 129-series SL, 124-series E-Class, 140-series S-Class/CL-Class, 210-series E-Class
OUTSTANDING FEATURE Near bulletproof in terms of both reliability and performance - an absolute gem of a powerplant, especially in the E-Class
ANY WEAKNESSES? Bio-degradable wiring harness well-known for perishing and causing issues

M120/M137/ M275 (1992-2015) 6.0-/5.8-/5.5-litre V12

WHY IT'S SPECIAL

It's said that in the late 1980s, Mercedes-Benz was content with the 5.5-litre M117 V8 as its top engine – until Stuttgart got wind that BMW was developing a V12, at which point it launched its own V12 programme, aiming to dwarf Munich's efforts. While the BMW 750i's engine displaced five litres and made 300bhp, Mercedes' six-litre, quad-cam M120 V12 dropped into the 140-series S-Class in early 1991 made 402bhp backed up by a 428lb ft wallop of torque.

A showcase for Mercedes-Benz engineering, with its immensely complexity, including multiple ECUs, the 48-valver was made available in the R129 SL in summer 1992 and in the 140-series Coupe soon after. Unsurprisingly, very deep pockets were needed to buy these grand cars (over £100,000) and maintain them.

A three-way power rivalry with BMW and Audi ensured Mercedes would not stop there and, following the short lived 5.8-litre M137 V12, the M275 was launched in 2002, reduced in capacity to 5.5 litres but twin turbochargers lifting output to 493bhp and 590lb ft. This went into the S-Class, SL and CL, but in 2005 a second M275 appeared for the S/CL/SL65 AMGs, a six-litre twin-turbo that made 604bhp and the magic 1,000Nm (737lb ft).

Below Is it just us, or is the 140 S-Class ageing very well?



JUST THE FACTS

CAPACITY 5,987cc (M120), 5,513/5980cc (M275)
CONFIGURATION V12, DOHC per bank, 4-valve (M275, twin-turbo)
MAXIMUM OUTPUT 402bhp/553lb ft (M120), 604bhp/737lb ft (M275)
USED IN 140-/220-/221 S-Class, R129/230/231 SL, C140/215/216 CL, G65 AMG
OUTSTANDING FEATURE Jewel like refinement and huge power and torque for the time
ANY WEAKNESSES? On older engines, malfunctioning ECUs can be their downfall





M113 (1997-2006) 5.4-litre V8

WHY IT'S SPECIAL

The first 'official' AMG badged C- and E-Class models, launched in 1993, used 3.6-litre straight-sixes, but these did not produce the hoped-for BMW M3 and M5 beaters, prompting Mercedes to believe there was no substitute for cubic capacity.

The result was the 210-series E55 AMG of autumn 1997, using a 5.4-litre version of the M113 three-valve (two intake, one exhaust) V8, which with 349bhp, 391lb ft torque and silken refinement transformed the middleweight saloon into a massively capable four-door sports car.

Working so well, the formula was applied to almost every other car in the Mercedes stable, although before the C-Class and SLK received the V8 they first did a spell with an interesting if not totally successful supercharged 3.2-litre V6 from 2000 to 2004. The E-Class, S-Class, SL roadster and CL used the V8 in the same form as other AMGs until 2001/2002, when they switched to the supercharged rendition.

The first to receive this powerplant

was the SL55 AMG, its 469bhp (increased to 493bhp soon after) and 516lb ft making it briefly Mercedes-Benz's most powerful road car. The M113 Kompressor's thirst and weight limited its future, but this glorious looking – and glorious sounding – eight-cylinder engine will be remembered with great affection for years to come.



JUST THE FACTS

CAPACITY 5,439cc

CONFIGURATION
V8, SOHC per bank, 3-valve

MAXIMUM OUTPUT 355bhp/376lb ft,
493bhp/531lb ft (Kompressor)

USED IN

203-series C-Class, 210-/211-series E-Class,
220-series S-Class, C219 CLS, C208/209-
series CLK, R171 SLK, R230 SL, C215 CL,
W163 ML, G-Class

OUTSTANDING FEATURE

The perfect combination of power, torque,
refinement and reliability

ANY WEAKNESSES?

None, although you should check for
oil leaks from the cylinder heads

Above The E55
looks fantastic on
AMG monoblocks.

M156 (2006-2014) 6.2-litre V8

WHY IT'S SPECIAL

Once the decision was made to drop supercharging on V8s, Mercedes had the choice of either turbocharging (as it already did on the V12s) or increasing capacity if output levels were to be maintained. For AMG's M156 V8 introduced in 2006, the latter route was followed, a 769cc increase to 6,208cc and four- rather than three-valve cylinder heads bringing a rise in power to as

much as 518bhp, though torque fell back 10 per cent. That still left a lot of twisting force (465lb ft), but the M156 did not have the same biblical proportioned pulling power at low revs.

Nonetheless, the AMG M156 should be celebrated as probably the last truly big capacity V8 that Mercedes will build, at least for the foreseeable future, given that downsizing is the watchword in all engine classes. It was replaced in 2014 by the M177/178 V8, which with its twin turbos and four-litre capacity has significantly improved economy and emissions.

If your preference is for a modern but still traditional, normally aspirated, large capacity V8 then AMG's 6.2-litre motor is hard to beat – in any sector of the market. The M156 really is that special.



JUST THE FACTS

CAPACITY 6,208cc

CONFIGURATION
V8, DOHC per bank, 4-valve

MAXIMUM OUTPUT 518bhp/590lb ft

USED IN

204-series C-Class, 211/212-series E-Class,
C219/218 CLS, 221-series S-Class, C216 CL,
SLS AMG (M159 V8), 164-/166-series ML,
R-Class, G-Class

OUTSTANDING FEATURE

Immensely likeable for those who prefer
their V8s without forced induction

ANY WEAKNESSES?

Efficiency is poor, cylinder head bolts break,
worn cam lobes due to seized lifters

Above right The
204 C-Class and
AMG V8 just clicked.





M256 with EQ Boost (2018-on) 3.0-litre six-cylinder turbocharged hybrid

WHY IT'S SPECIAL

Mercedes-Benz's latest straight-six is impressive all on its own, the three-litre turbocharged motor delivering silky performance with a sonorous soundtrack to match. However, in AMG 53 form, it is teamed with a Formula 1 hybrid-inspired EQ Boost starter-alternator, which provides an extra 22bhp and 184lb ft torque – on top of the usual 429bhp and 384lb ft, while powering the air conditioning compressor and water pump. The EQ Boost arrangement unites a starter motor and alternator in a single, powerful electric motor integrated between the engine and nine-speed AMG transmission, and allows the 4-Door GT to shoot from zero to 62mph in 4.5 seconds before topping out at 177mph. Not bad for a car that weighs 2,045kg!

Launched in the 222-series S-Class in 2017, the standard M256 engine followed over two decades of Mercedes V6s and, thanks to its modular design,

shares much with the latest four-cylinder and V8 motors. The integrated starter-generator is powered by a cutting-edge 48V electrical system, but what makes the AMG 53 version really special is the electric auxiliary compressor – basically an electric motor for the turbo, which spins at up to 70,000rpm and improves overall response. Expect this technology to appear on more models in the near future.

JUST THE FACTS

CAPACITY 2,999cc

CONFIGURATION

6-cyl, DOHC, 4-valve + electric motor

MAXIMUM OUTPUT

429+22bhp/384+184lb ft

USED IN

X290-series AMG GT 4-Door, 257-series CLS-Class, 238-series E-Class

OUTSTANDING FEATURE

Electrically assisted turbocharger provides outstanding throttle response

ANY WEAKNESSES?

Engine is too new to tell – but there are lots of electrical components at play



Above GT 4-Door also offered as 4.0L V8 turbo model.



M139 (2019-on) 2.0-litre four-cylinder turbocharged

WHY IT'S SPECIAL

The M139 is AMG's brand new, 1,991cc, four-pot turbo engine that develops 415bhp in the latest A45 S, CLA45 S and GLA45 S. Or in other words, around 208bhp per litre. The M139's performance delivery mimics that of a normally aspirated motor, so peak power in the A45/CLA45 S cars doesn't arrive until 6,750rpm, and max torque isn't unleashed until 5,000rpm; the fact a driver needs to really work the M139 to unleash its best is most pleasing.

maximum charge pressure of 2.1bar, an all-aluminium crankcase, Nanoslide technology for the cylinder linings, twin overhead cams, camshaft adjustment on the inlet and outlet side, variable-valve control tech, two-stage fuel injection, and an additional radiator in the wheelarch for enhanced cooling. Phew!

MP

Even more incredible than AMG's preceding M133 motor, the M139 is assembled by hand in Affalterbach and is mounted transversely, but with the intake system at the front of the car rather than the turbo and exhaust manifold, allowing its custodians more raked noses, to the benefit of aerodynamics. Other technical highlights of the M139 include a twin-scroll turbocharger (good for low and high rpm response), roller bearings for the compressor and turbine to reduce mechanical friction,

Below AMC's new 'super sports cars' are lightning fast.

JUST THE FACTS

CAPACITY 1,991cc

CONFIGURATION

4-cyl, DOHC, 4-valve

MAXIMUM OUTPUT 415bhp/369lb ft

USED IN

177 A-Class, 118 CLA, H247 GLA

OUTSTANDING FEATURE

Turbo engine that delivers max thrust at high revs, like an NA motor

ANY WEAKNESSES?

None so far; the previous M133 motor suffered the odd turbocharger failure





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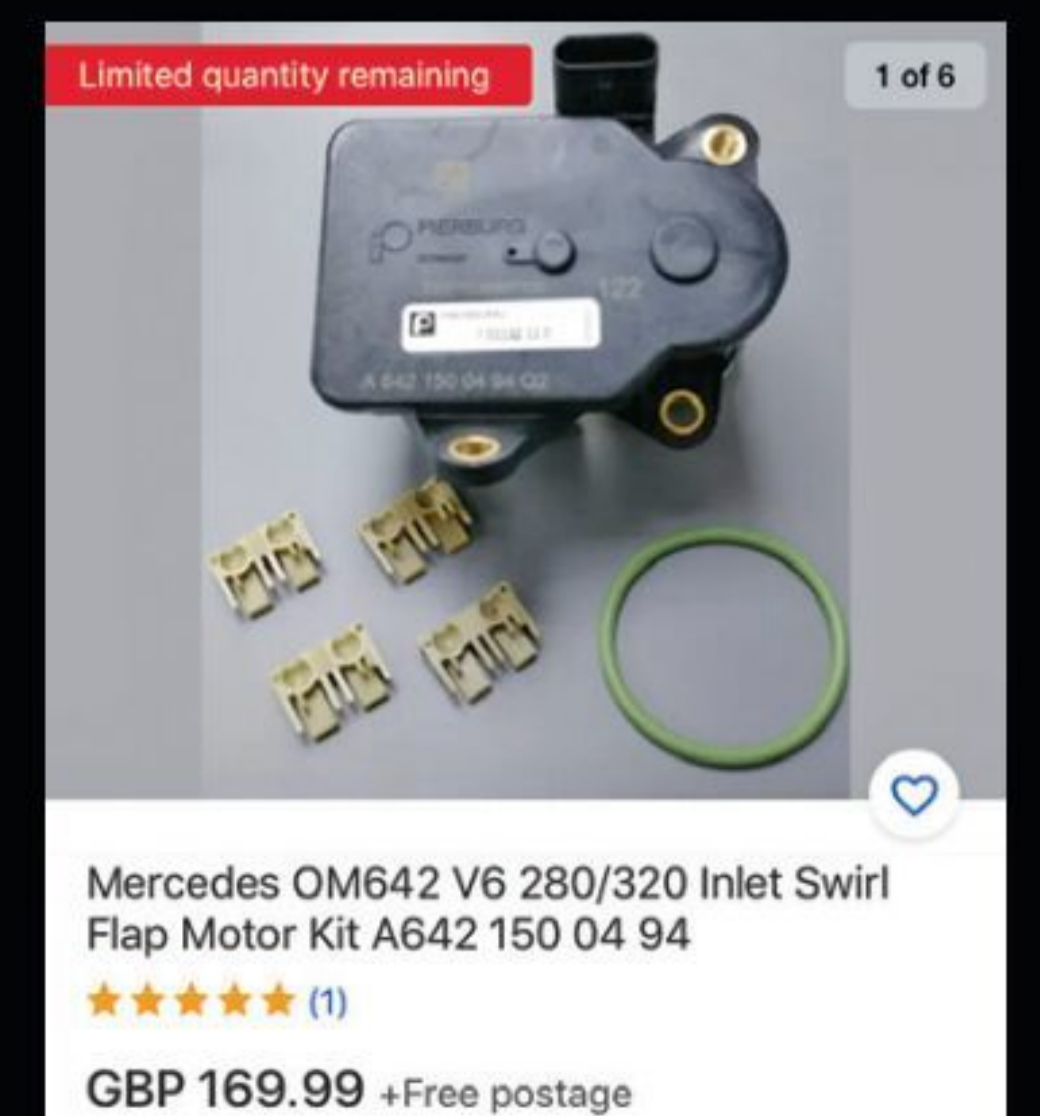
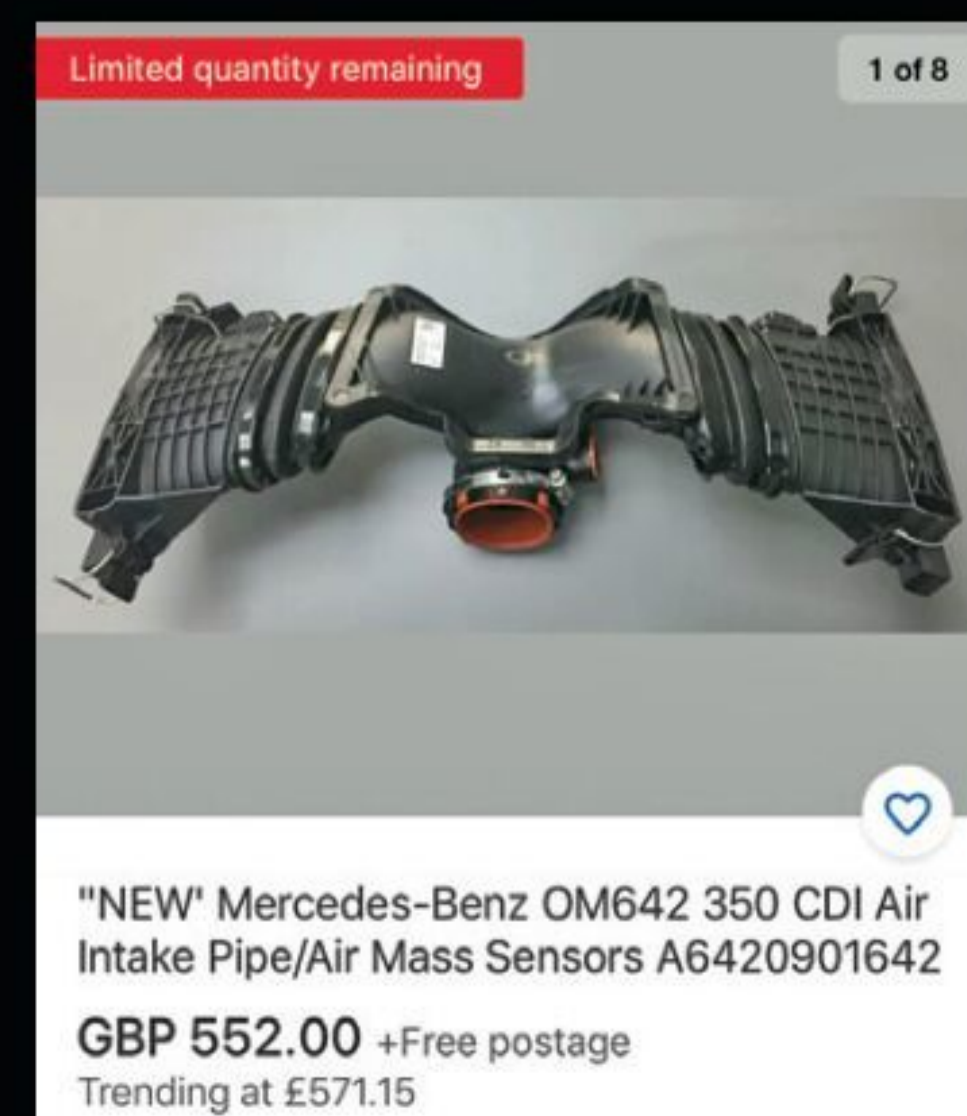
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THE MAN WITH A PLAN

WORDS
Susanne Roeder

IMAGES
Susanne Roeder/Daimler AG

The driving force behind the 16-valve four-cylinder engine that powered 190Es to success on and off the track, engineer Jörg Abthoff offers insight into working for Mercedes-Benz at a time when diesel and eight-cylinder engines were coming into their own

The M102: the four-cylinder petrol engine that had better performance and weighed less than its predecessor, the M115, and which became the heartbeat of many Mercedes built during the 1980s to 90s, including hot compact saloons and racing versions in 16-valve form. It's a well-known powerplant, but the sheer size and still considerable weight of this mighty engine clearly shows how much development has taken place over the last few decades. An example of it had to be wheeled into position for our photoshoot on a hefty frame.

Its presence outside the Mercedes-Benz Museum in Stuttgart is equalled by that of Dr Jörg Abthoff (main image right), who some time ago worked just diagonally opposite our position, in the Untertürkheim factory – the gateway to the world of Mercedes-Benz powertrains. Abthoff was the driving force behind the M102's Cosworth designed, four-valve cylinder head, receiving crucial financial support from then Director of Passenger Car Testing, Dr Rudolf Hörnig, who gave Abthoff funding of around one million deutschmarks to pursue his 16-valve aspirations, which ultimately led him to England. With an eye for a good cause, it should come as no surprise to learn that Hörnig became a full member of the Board of Management in 1986, responsible for the Research and Development division, and held this position until 1990.

Engineers will always be engineers, even in retirement – as is the case with Jörg Abthoff who, with a serene demeanour, will happily talk for hours about 'his' engines, showing as little fatigue as the powerplants he was instrumental in building. He calls himself "an outright maniac", obsessed not with the company as such, but "with certain ideas I simply wanted to push through."

Not giving up

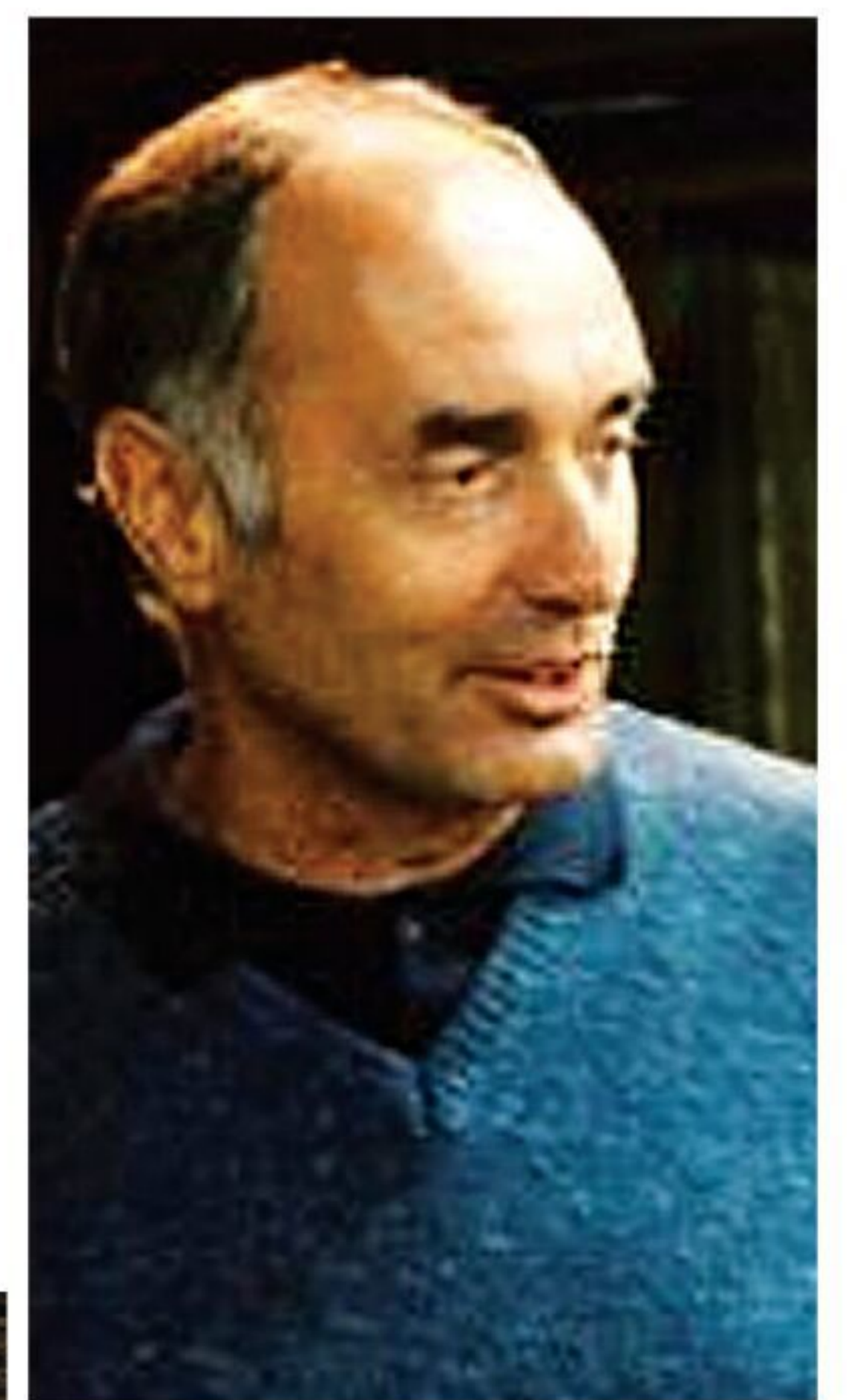
But before we get into Abthoff's role in the development of the 16-valve M102, let us explore times before that engine's launch in 1983, and the rise of diesel-powered cars manufactured by Mercedes-Benz. As early as the late 1960s and early 70s, one of the drivers of engine development was severe emissions controls on cars in the US. The American senator Edmund Muskie's Clean Air Act of 1970 was particularly strict, requiring emissions from new cars to be reduced by 90 per cent (!) within five years. In those days, mainly carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx) were measured, as they were considered the most harmful emissions produced by vehicles including



DR JÖRG ABTHOFF WORKED IN THE UNTERTÜRKHEIM PLANT - THE GATEWAY TO THE WORLD OF MERCEDES-BENZ POWERTRAINS

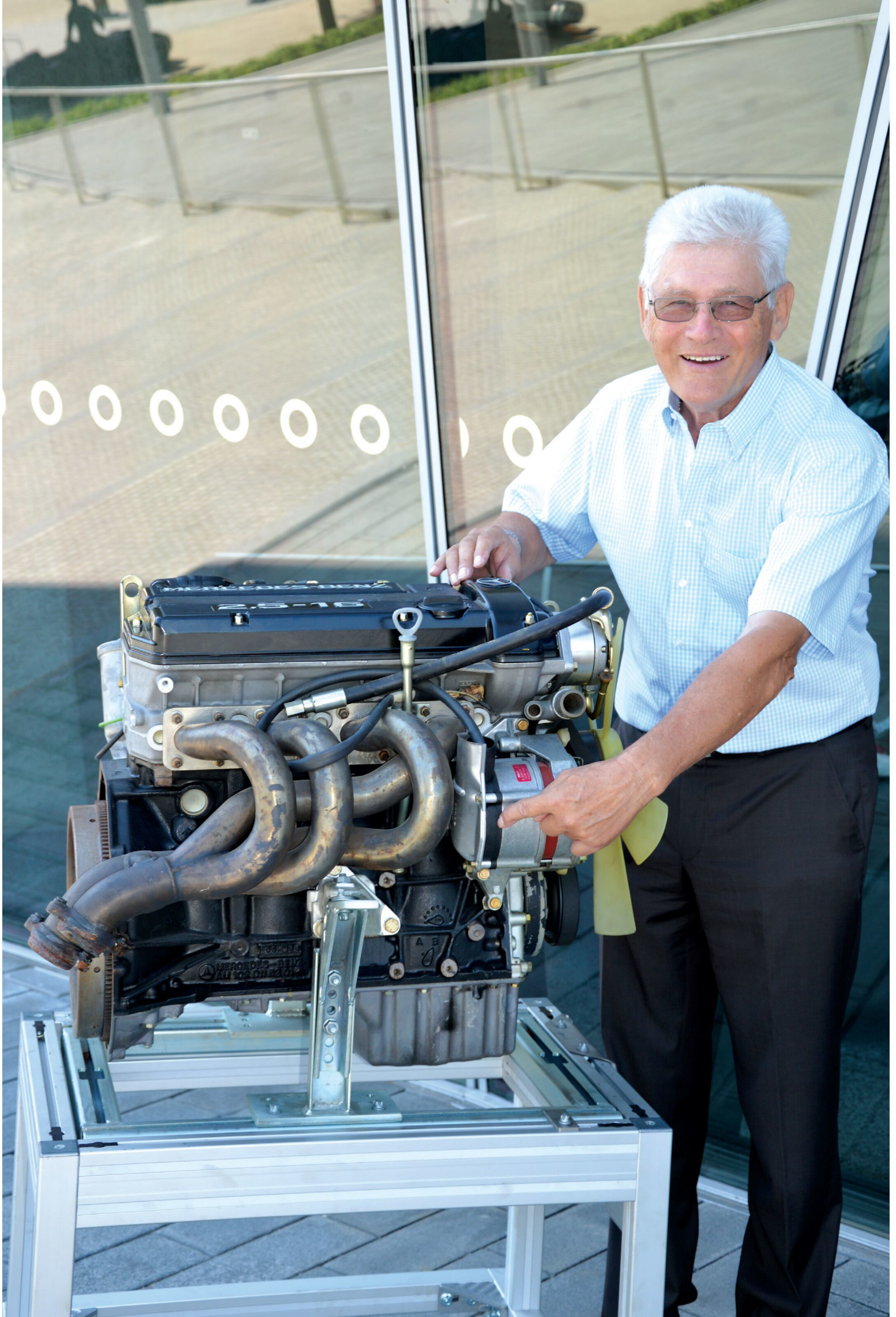
Far right We met Jörg Abthoff at Merc's Museum.

Left Dr Rudolf Hörnig, once head of M-B testing.



Above Hot 190E was built in left- and right-hand drive.

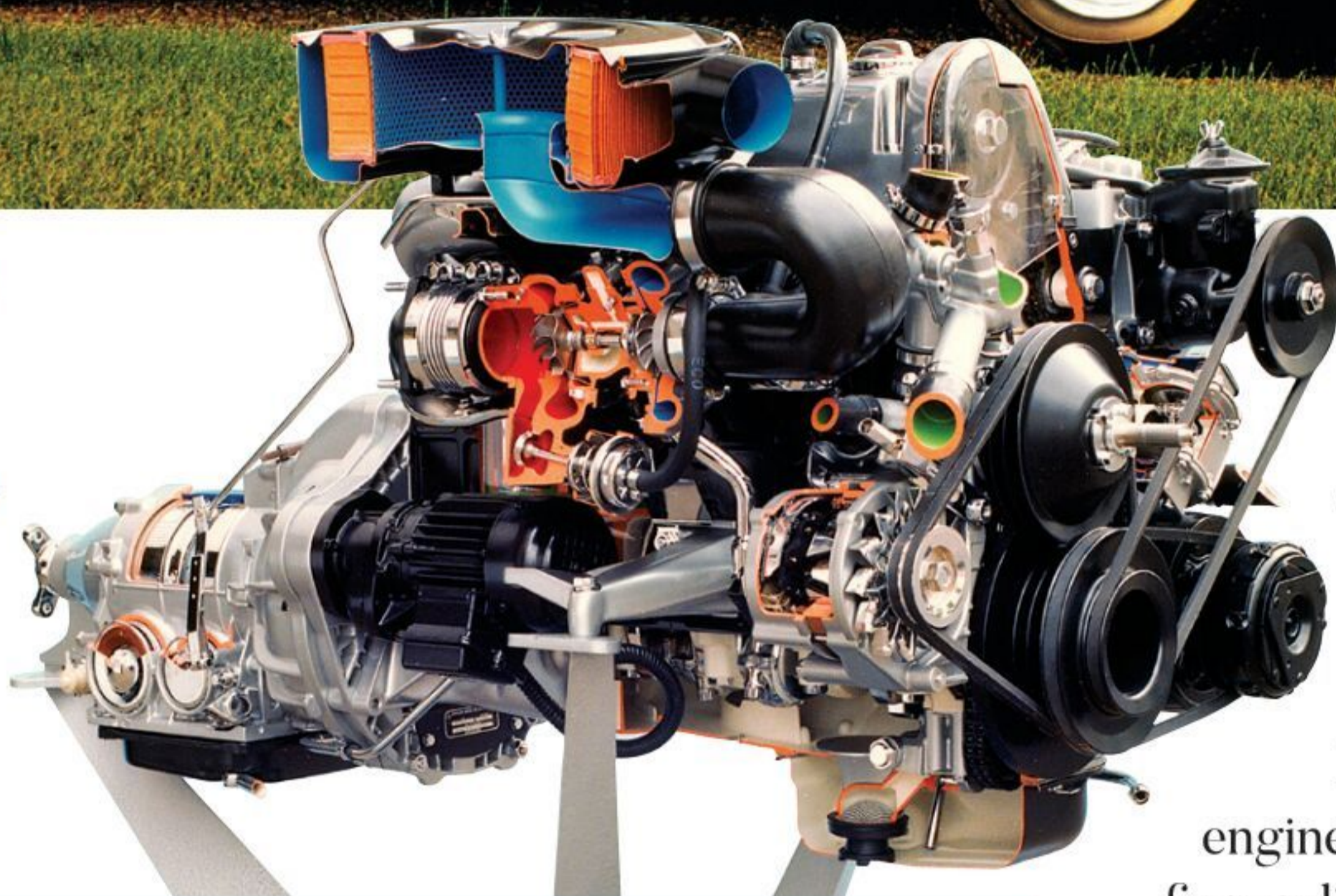






Above Over 28,000 300SDs were built for North America.

Right OM617 turbodiesel won over fans of petrol.



➤ motorcars. Compared to petrol engines without a catalyst, diesel motors emitted far less of these harmful substances and were considered the way forward.

“There were hearings on the subject in Washington,” Abthoff remembers. “All foreign OEMs, including suppliers, were questioned by the senators. Having presented our diesel engine, our little delegation of experts sat patiently around the Head of Development, Rudolf Uhlenhaut. As the North American car industry found it almost impossible to meet the

standards itself, we were asked in all earnest, ‘Can’t you provide diesel engines for the entire US industry?’ meaning all car companies. That of course was an absurd request, because in those days Mercedes-Benz produced about 200,000 diesel car engines per year and they were asking for millions.”

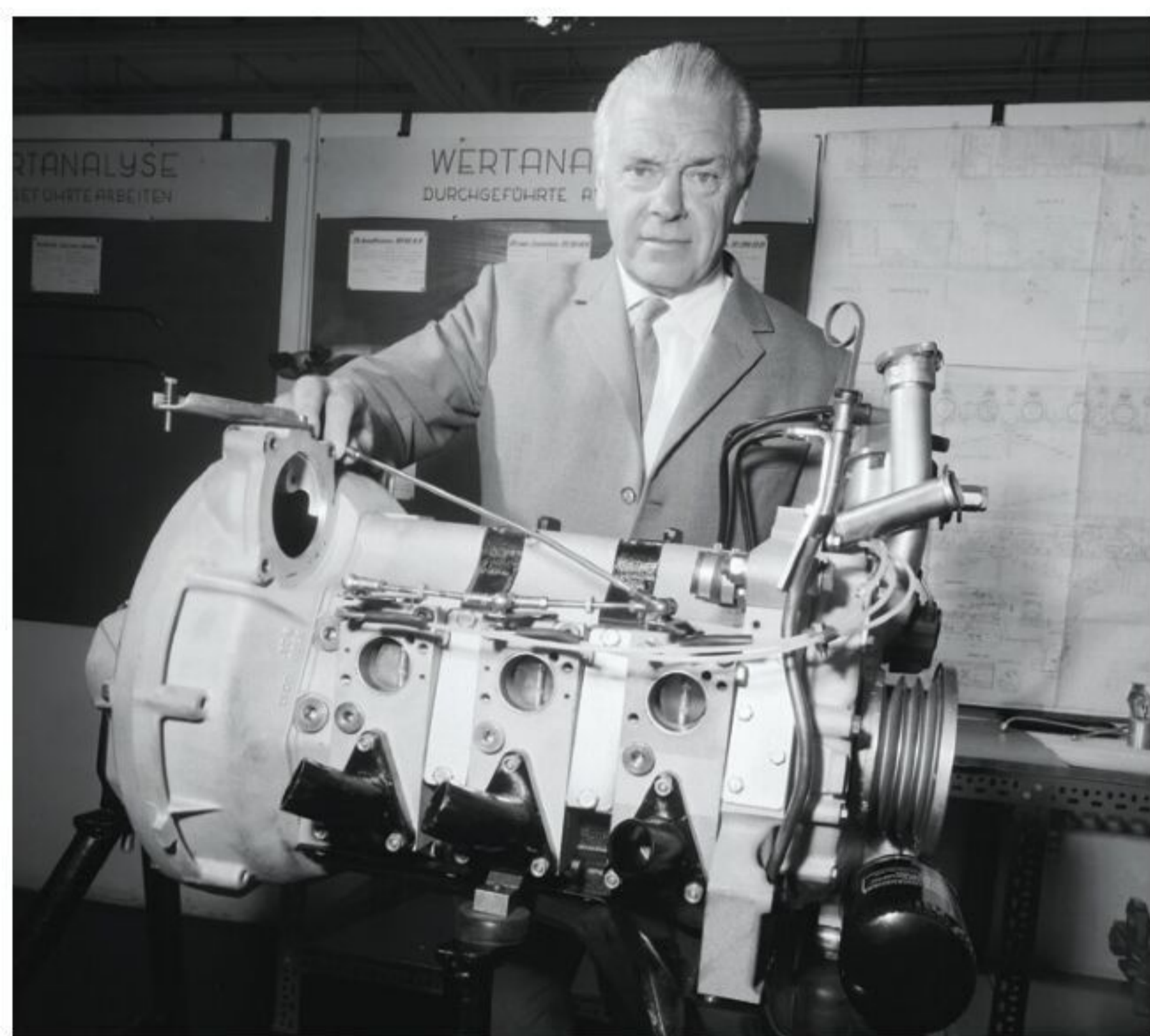
It’s an extraordinary claim, and something Mercedes-Benz obviously turned down. However, from the 1970s to the mid 80s, Mercedes cars shipped to North America increasingly carried diesel engines – the 116-series S-Class, for example, fitted with the three-litre, five-cylinder turbodiesel (OM617), the very first turbocharged diesel motor for a passenger car. And petrol motors were eventually phased out of the popular 123-series range.

The only exception to the diesel boom was the R107 SL sports car, which was very popular in the US and kept its petrol engines. Abthoff describes these times as the “wonder of the diesel in America”, because until the Clean Air Act diesel passenger cars had a bad reputation in the USA. But with the tough new emission laws things began to change for the better. As a maker of outstanding diesel cars, Mercedes quickly became the leading brand. Competitors, however, were simply not capable of producing engines of such quality, and their often unreliable diesel motors did little to boost black oil’s reputation in motorcars in the US. The final nail in the coffin came with the advent of catalysts for petrol engines, making them cleaner than diesels which also produced quantities of harmful particulates.

Making a difference

When it came to engine development during Abthoff’s career, the great difference to nowadays was the absence of sophisticated electronics, and the relatively simple methods of testing. There was no such thing as a digital prototype, which meant rather crude and tediously long testing procedures. Of course, different parts of the world used different grades of fuel, so in the late 1960s and 70s the challenge was not primarily to increase an engine’s performance over its predecessor (although that usually happened), but to ensure that the performance was maintained under all circumstances. And in order to cover all those scenarios, a hell of a lot of test drives into different climate zones had to be made.

“When I joined Mercedes-Benz in 1968 as an engineer in Untertürkheim, engine development was of a higher standard than anywhere else, and many times larger than that of any other OEM,” Abthoff recalls. Pre-testing in Untertürkheim and real world testing elsewhere was so extensive that the passionate engineer cannot recall any major problems with any of their engines once they were

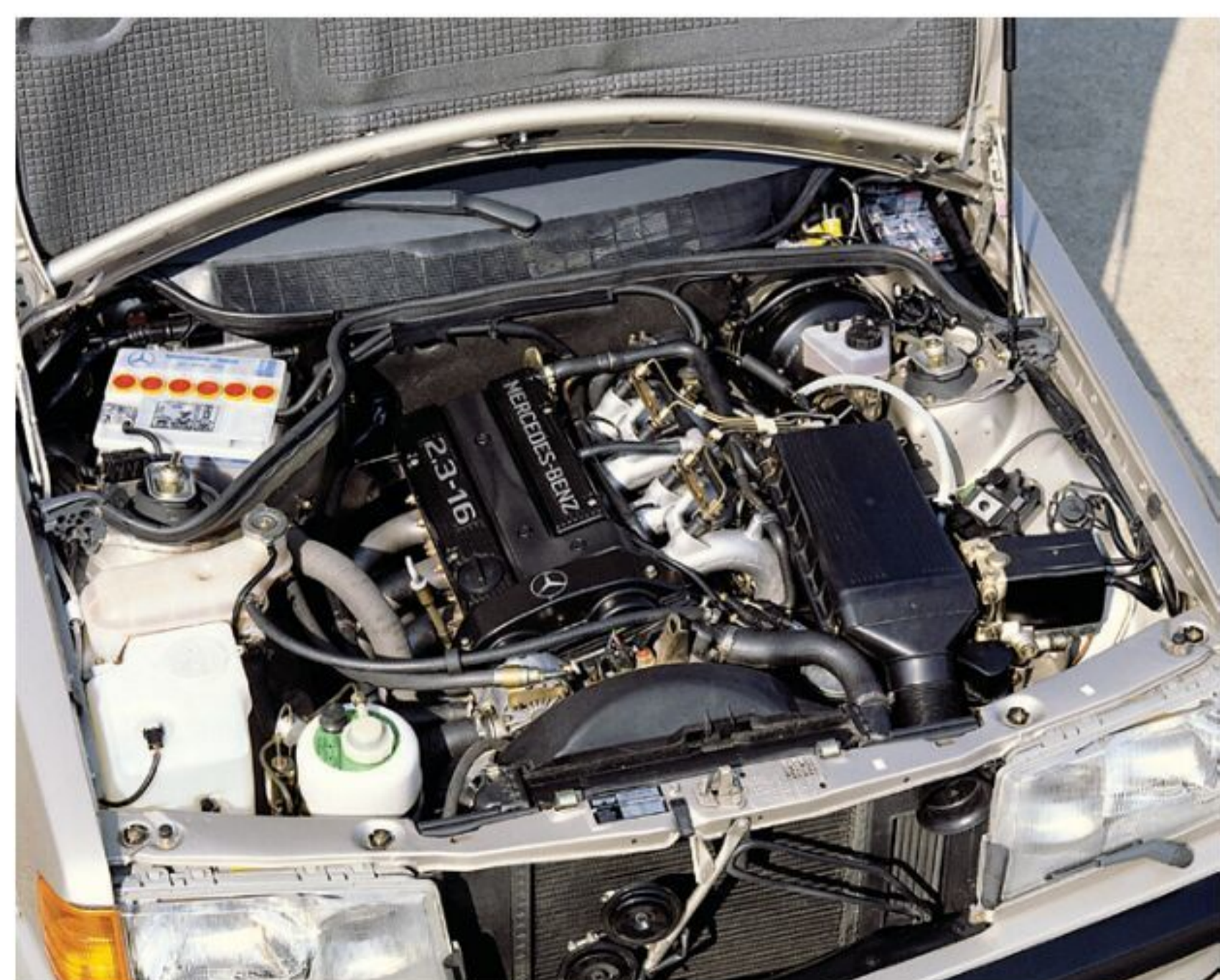


Above Uhlenhaut faced tough talks in the US market.

Below High revving four-cylinder with Cosworth cylinder-head.

Below right 2.3-16 offered in two shades: blue-black and Smoke Silver.

Below far right M102 with two intake and two exhaust valves per cylinder.





made available to the public. "The main problems we faced as testers were those that occurred after extensive use," he tells us. A typical hazard was the use of cheap oils, but essentially there were not any problems because the Mercedes engines were built to last and that is what they did, provided they were handled correctly.

With its eternal Bruno Sacco design, the incredibly successful W201 190 'baby Benz' was built to last, just like any Mercedes-Benz of its era. Setting aside the challenges of testing, Abthoff has lots of fond memories of his time working for Mercedes, and they inevitably take him back to his favourite subject – the 16-valve 190E with the unforgettable M102, complete with four valves per cylinder and 182bhp/173lb ft torque at launch (performance dropped slightly to 175bhp/170lb ft from September 1985 due to a decreased engine compression ratio).

"The British were extremely enthusiastic about the car, not least because it had a cylinder head made by the high performance engineering company Cosworth," Abthoff remembers. "So, in fact, the engine was half English. They absolutely wanted a right-hand drive version of the car, which for us was not at all easy to produce, as this necessitated different construction packaging. However, we felt we had to do it. So we built a rather outrageous beast and eventually sold many 16-valve 190Es with right-hand drive."

When it came to Cosworth and its development of the 16-valve cylinder-head for the M102, Abthoff well remembers how impressed the directors from Untertürkheim were by the expertise of the British. "Some in Untertürkheim thought they could not do it, but Cosworth had an excellent casting method. Having said that, one has to bear in mind that we cast a cylinder-head every 90 seconds, but at Cosworth this happened every quarter of an hour!" At any rate, a whole delegation travelled to the plant in Northampton and Cosworth got the job. "They made such a low-priced offer, it was a really good bargain for us," Abthoff remembers.

A big statement

Speak to Abthoff about engines in general and he will inevitably come back to the 16 valves in the M102, and the long career of the 190E in motorsports. The 2.3-16 proved its reliability and speed during a 50,000km high speed test on the Nardò oval in August 1983. It was there that the compact saloon achieved three world records and nine class records for average speeds

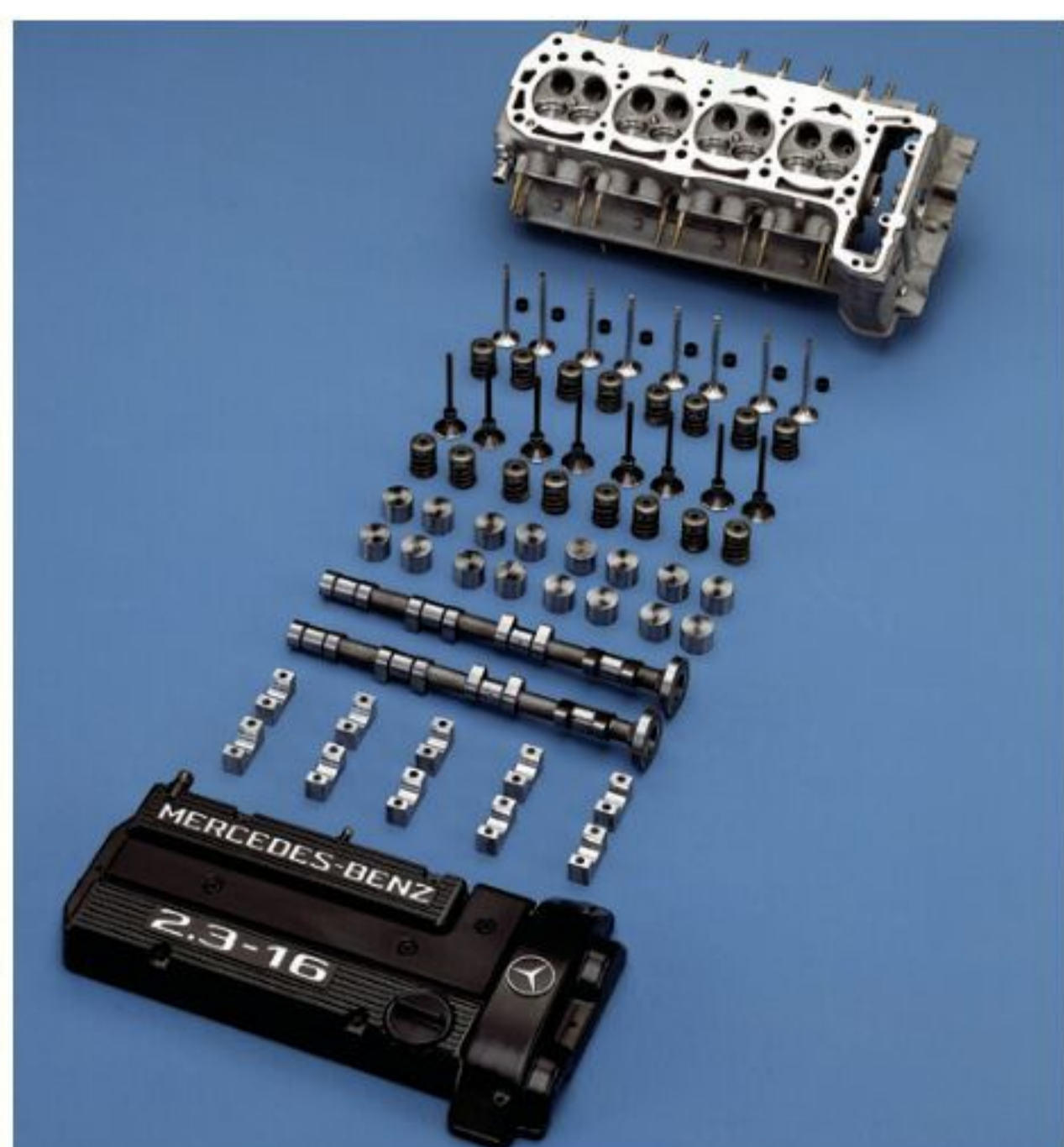
over various distances and time scales. And even more amazingly, the cars ran so smoothly, despite the extreme strain, that replacement parts were not required afterwards. What's more, the cars used for the record runs were only slightly modified compared to the future production cars.

No wonder then, that the 2.3-16 was so loved, with 19,487 built during its standard production run from September 1984 to June 1988, before being succeeded by the more powerful 2.5-16. "Immediately after our world record at Nardò, we presented the car at the International Automobile Show in Frankfurt, and in the first year alone more than 10,000 were sold!" Abthoff exclaims.



Top Crew work on 2.3-16 during 1983's Nardò run.

Above 50,000km at 247.939km/h (154mph) - wow!



“we cast a cylinder-head every 90 seconds, but at cosworth this happened every quarter of an hour!”



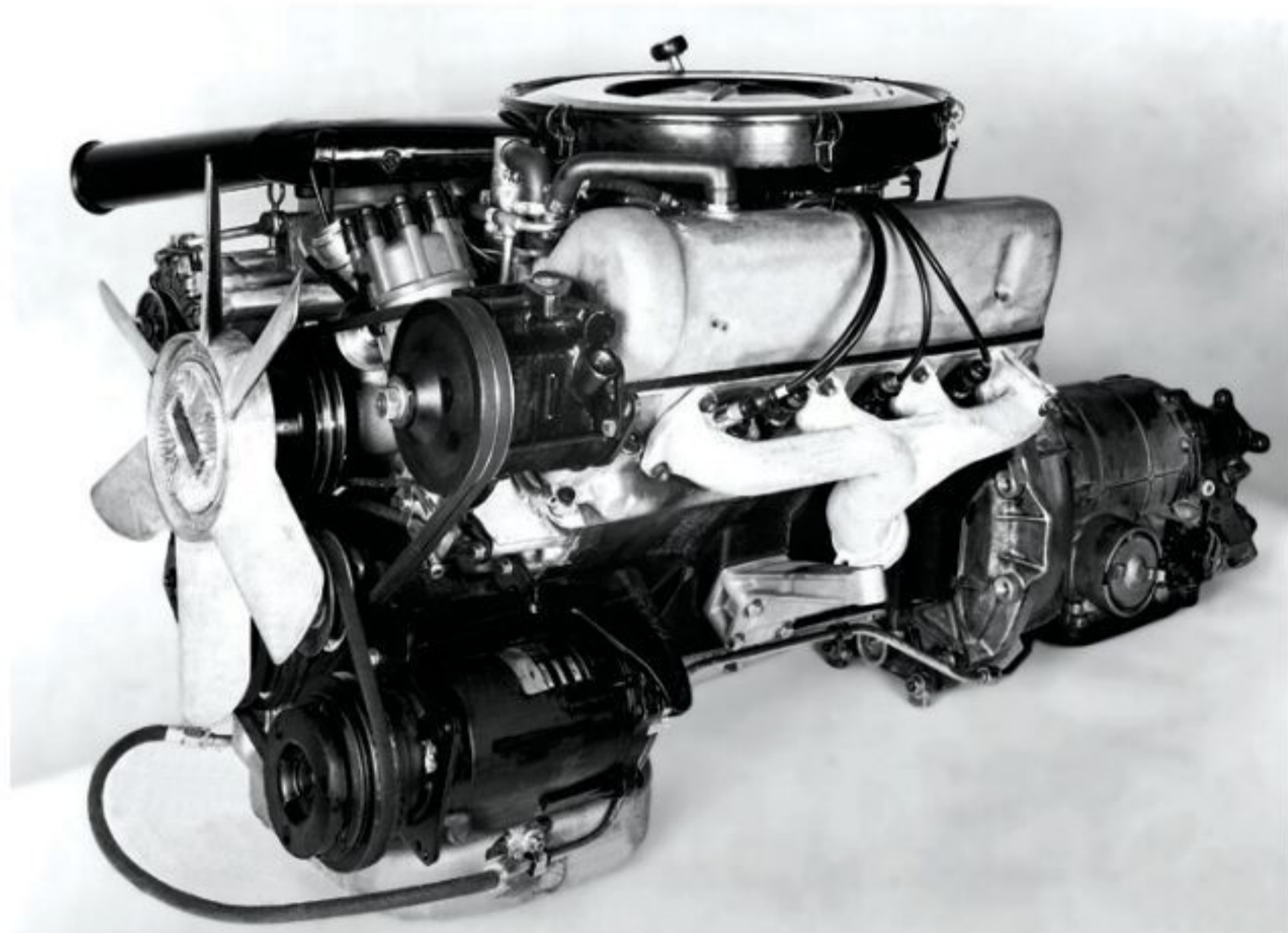
W100 600 paved the way for even more powerful V8 saloons from Mercedes.



Above M100 V8 with Bosch's manifold injection system.

“To install a chemical ceramic in high volume cars is not exactly easy - it took quite some courage and a lot of patience”

Below M116 and M117 V8s debuted in the W108/9 cars.



M117 V8 equipped 300SEL4.5 for North America.



> The magic of 16 valves

The success of this four-valves-per-cylinder motorcar was so overwhelming that Daimler decided to share this concept with the rest of its range. “This decision gave us a head start in terms of performance and torque,” Abthoff reports with visible glee. “We had no problems whatsoever with performance for 10 years. There was no one else who could compete with us, in my opinion. We were also first to change the diesels to four-valve engines.”

Of course, this is all very standard now, but at the time it was a major – and expensive – improvement that gave Daimler a notable advantage in performance over its competitors. And in those days everything was about performance. The conventional way to increase output was by enlarging cylinder capacity, but times changed considerably, leading to the next dramatic development in the 1990s – the transition from four- to three-valve engines.

Now retired, Abthoff somewhat ruefully adds how much he would love to be part of today’s engineering team – the combination of an internal combustion engine and an electric component promising to be the answer to many present challenges, he feels. But within seconds, the restless pensioner immediately reverts to a very special 16-valve specimen that did not, however, make it into series production – the turbocharged 16-valve 190. “This, of course, was what I consider to have been the absolute supercar. I suppose the reason why this engine did not make it into production was that management shied away from letting this rocket loose on mankind!”

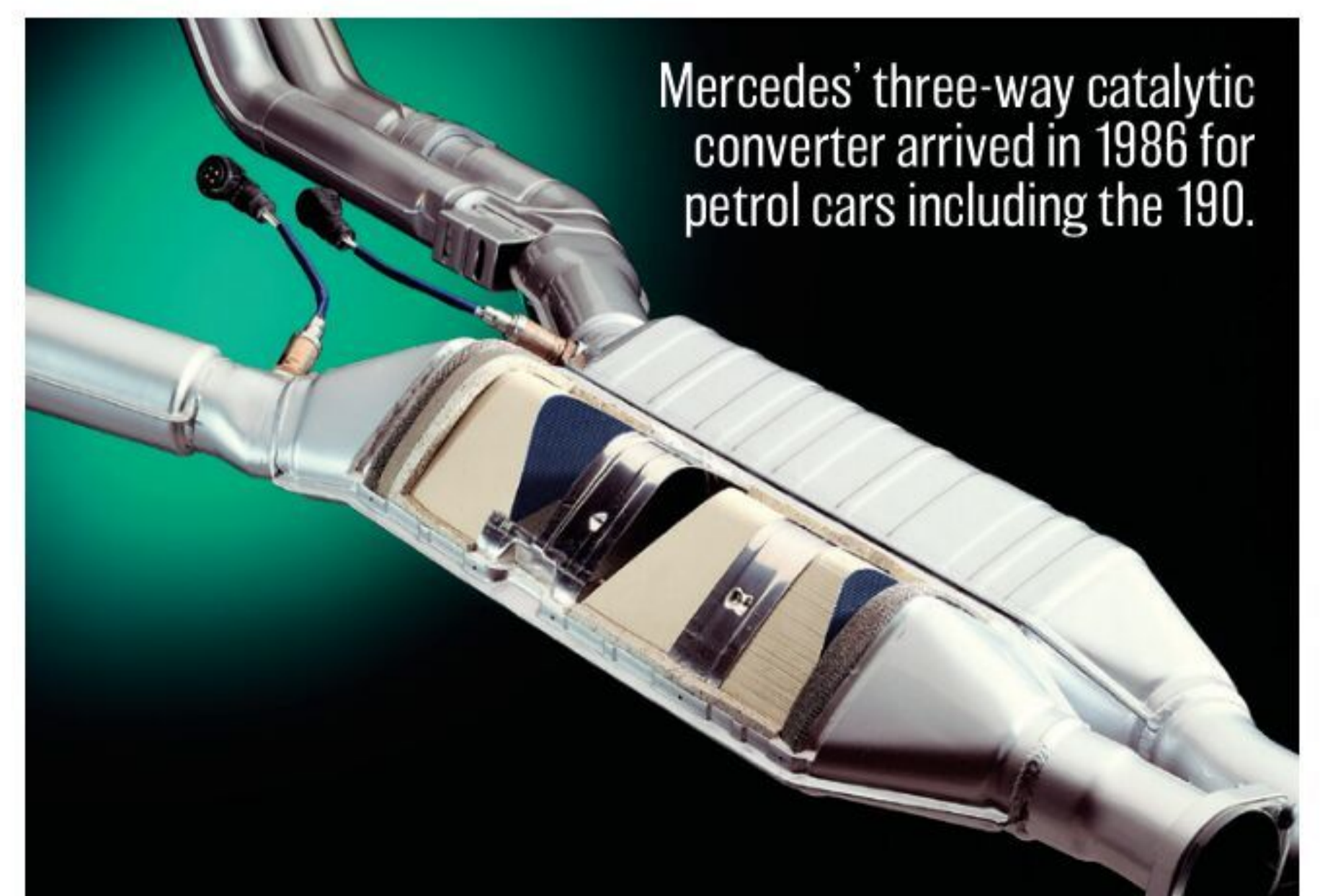
Although the 190E was a small and relatively inexpensive car, a turbocharged performance engine would have dramatically increased its cost. So was Abthoff ever envious of those engineers at AMG who took the next step in performance terms? “Not a bit. Our work was totally different. We built engines from scratch. Our AMG colleagues then went on to refine our work.”

Gimme eight!

As early as the mid 1960s, right at the time when Abthoff joined Daimler, the manufacturer began introducing V8 engines. The 6.3-litre W100 600 was the first Mercedes equipped with an eight-cylinder motor, the M100 unit later installed in the 116-series S-Class in 6.9 form. “But it was the 3.5- (M116) and 4.5-litre (M117) engines that were completely new and produced in large numbers, launching in the W108/9 saloons. They really were the engines to have,” Abthoff points out. There wasn’t anything comparable built by other European car manufacturers, and even today Mercedes’ V8s are highlights in the range and remain bang up to date technically.

So, what does Abthoff consider his greatest achievement as an engineer? “To develop an engine is not that difficult, because a car manufacturer has experts that will be able to solve all issues that might occur during the process. So I suppose what I am really proud of is Daimler’s introduction of the catalyst for the 1986 model year. To install a chemical ceramic in high volume cars was not exactly easy. It took quite some courage and a lot of patience.”

Abthoff also fondly recalls the development of common-rail diesels in the 1990s, and even the V8 diesel. But needless to say, pride of place in his memories is the 190E’s 16-valve M102, which helped cement his reputation at Daimler as an outstanding engineer. MP



Mercedes' three-way catalytic converter arrived in 1986 for petrol cars including the 190.

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SEEING THE LIGHT

WORDS Wilhelm Lutjeharms
IMAGES Danie Nel



BOTH LEAVING THE FACTORY WITH MERCEDES' 3.5-LITRE M116 V8, THIS W111 CABRIOLET HAS GONE ON TO EVEN GREATER THINGS, WHILE THE COUPE SURVIVES AS A BEAUTIFUL EXAMPLE OF ITS SPECIES



You can't stop yourself pushing, pulling and turning every knob and button to sample the supreme build quality

Above left New, the Coupe V8 cost DM3,000 less than the Cabriolet.

Above The dark blue hide has a lovely patina of age.



Just The Facts

Mercedes-Benz	280SE 3.5 Coupe (W111)	Mechatronik M-Cabriolet 500 (W111)
ENGINE	M116 3,499cc V8	M113 4,966cc V8
POWER	197bhp@5,800rpm	302bhp@5,600rpm
TORQUE	211lb ft@4,000rpm	339lb ft@2,700-4,250rpm
TRANSMISSION	4-speed auto, RWD	5-speed auto, RWD
WEIGHT	1,570kg	1,650kg
0-62MPH	9.4sec	6.1sec
TOP SPEED	127mph	143mph
FUEL CONSUMPTION	21.7mpg	NA
YEARS PRODUCED	1969-1971	1969-1971

FIGURES FOR A STANDARD 280SE 3.5 COUPE, FIGURES FOR THE M-CABRIOLET 500 SUPPLIED BY MECHATRONIK, EXCEPT WEIGHT AND YEARS PRODUCED WHICH ARE FOR A STANDARD 280SE 3.5 CABRIOLET; FUEL CONSUMPTION FOR THE W111 COUPE DETERMINED AT 3/4 OF TOP SPEED (NOT MORE THAN 110KM/H, 68MPH) PLUS 10 PER CENT

Bottom Coupe's original Becker CP unit with elegant design.

Below Becker Mexico in the M-Cabriolet 500, complete with sat nav.



Most of us love the thought of having 'the best of both worlds', particularly when it comes to modern cars. It could be a balance between a comfortable ride and top notch handling, or having a droptop experience with the reassuringly solid feel and body rigidity of a coupe.

But when it comes to classic cars, expectations must be realistic, particularly concerning how often you can drive them. Some are hidden away and taken out once a week, or once a month – or even less. Sometimes there are good reasons for this (troublesome reliability and/or an extremely high value being two of them), but it is possible that you *can* have the best of both worlds – that is, a beautiful and expensive classic car that you can drive regularly.

Mercedes-Benz's W111 Coupes and Cabriolets, built from 1961 to 1971, are among the most elegantly shaped cars to grace the road. Their designs are more angular than Mercedes' cars from the 1950s, yet their lines are softer than those which made up the cars that followed them.

The W111s also offered outstanding comfort and luxury, aspects still present in the silver Coupe adorning these pages. With 77,000 miles on the odometer, the interior has coped much better with this distance than some may expect. The dark blue leather interior is in perfect contrast to the light exterior colour, and the double-decker dashboard is covered with wood, which frames your impressive view once you are seated behind the significantly sized steering wheel.

exquisite details

Operating the controls requires much more effort than in modern cars, but you can't stop yourself pushing, pulling and turning every knob and button to sample the supreme build quality of four to five decades ago. I switched on the radio, just to witness the aerial deploying inches from the windscreen. The dashboard's wood trim extends up the inside of the A-pillars and towards the top of the windscreen – if there was ever a definitive classic windscreen frame, this is quite possibly it. What a view!

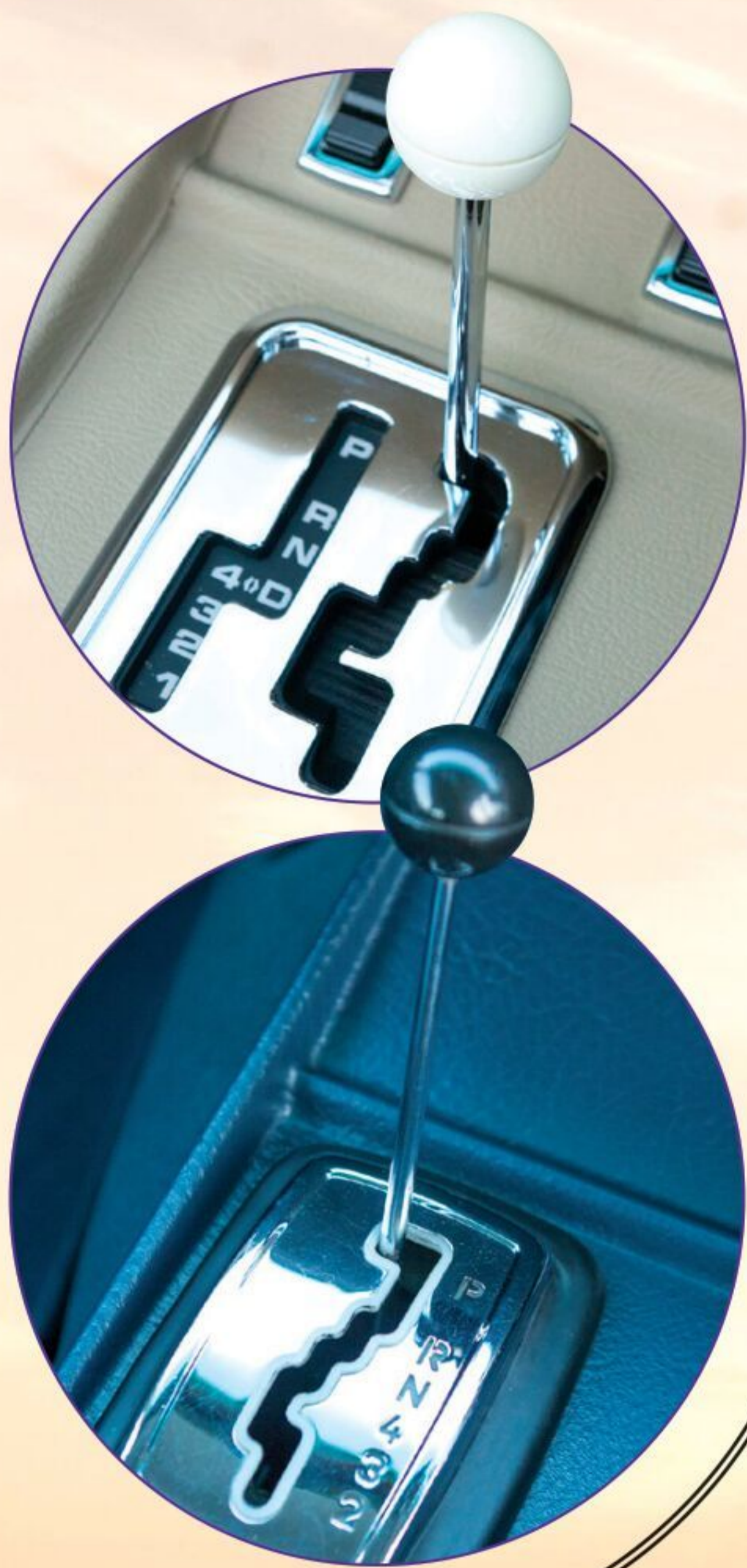
As we head out to our photoshoot location, the Coupe's 3.5-litre V8 is in its element cruising at around 70mph, while the large, upright windows ensure perfect visibility all round. A slower moving vehicle presents the opportunity for an overtake, and as the four-speed gearbox kicks down, the engine sound intensifies, suddenly dominating the driving experience. Unlike today's modern cars with heavily engineered sounds from the exhaust system, the 280SE's engine has a purer period tune, filled with tinkles and subtle crackles.

The two-door coupe offers a perfect, classic driving experience, but there is an alternative way to achieve this, with the added peace of mind of modern mechanicals and a cabin that is arguably better than new. This light blue metallic W111 Cabriolet also started life with a 3.5-litre M116 V8 engine, but its current owner shipped the Mercedes-Benz back to Germany in 2008, to the remarkable technicians, restorers and upholsters at Mechatronik, located 20 miles outside Stuttgart. The results are simply extraordinary.

We have come across Mechatronik cars before, but the sheer amount of work involved in the German company's 18-month restoration and conversion never ceases to amaze, and could take up thousands of words here. In a nutshell, first this Cabriolet was stripped of its old drivetrain, followed by various body parts and paint, before going through a KTL cathodic dip painting process, which covers bare metal in a uniform, protective coat. The body then received a full paint job, before an as-new M113 V8 and five-speed automatic were fitted. Finally, attention turned to the interior, with no stone left unturned. It goes without saying that all Mechatronik cars boast TÜV approval.

classic revolution

As values of W111 Coupes and Cabriolets continue to increase, it comes as no surprise that original engines, transmissions and other parts removed from cars do not go to waste. Depending on the agreement with the client, Mechatronik will store these components in case the client wants to reverse the technical upgrade some time down the line. Of course, the client can also keep the original parts for themselves. Back to this car and after an initial drive in Germany to sort out a ➤



Above The 3.5 Coupe has an original four-speed auto.

Top The new five-speed auto complements the Cabriolet's extra torque.



Left Merc's five-litre M113 V8 saw service in the W220 S-Class and even the W163 M-Class.

Far left Sports car thrust with the W111 Coupe's standard, 197bhp, 3.5-litre engine.

➤ few minor niggles, the owner then safely returned his upgraded Mercedes-Benz Cabriolet to South Africa.

Hidden secret

As the winter sun starts to set over the mountainous landscape, you would need more than a quick glance to acknowledge that this Cabriolet is not standard. However, the moment you step closer, the differences quickly become apparent. Open the Cabriolet's door and the side window immediately drops an inch – as is the case with modern convertibles. The main layout of the instruments is the same, but there are several subtle changes. Look at the central,

vertical instrument cluster and you will notice the red and green ABS and ASR lights. The indicator stalk is a modern item, while the radio/CD player has the appearance of a classic Becker Mexico unit but is entirely modern. The buttons for the modern seat heating elements are also perfectly incorporated into the cabin and somehow don't look out of place.

Open the bonnet and it is impossible not to notice the bay's perfect paint finish, this metallic coat complementing the modern engine with its matte grey cover. Mechatronik offers a range of engines for the W111 Coupe and Cabriolet, from a 3.2-litre 221bhp V6, to a 4.3-litre 275bhp V8, and finally a 5.4-litre 355bhp AMG V8. This

owner did the 'sensible' thing and picked Mechatronik's M-Cabriolet 500 conversion with a five-litre 302bhp V8.

It takes less than a minute behind the wheel to feel the effects of Mechatronik's work. The controls seem tighter, there are fewer noises coming from the cabin (even though this car is a convertible), and the chassis, including the suspension, feels stronger. However, there is still a classical undertone to this Mercedes-Benz, and it is the suspension and drivetrain that demonstrate Mechatronik's expertise most profoundly. As the suspension is re-engineered to cope with the additional power and torque, the W111 Cabriolet drives just as well as the



The controls seem tighter, there are fewer noises coming from the cabin, and the chassis, including the suspension, feels stronger



Above Both cars were built by Mercedes in 1970 with the company's M116 3.5 V8.

Above right Colour matched cover for the Cabrio's fabric roof.

Right The Cabrio handles the extra go well, the cabin's finish absolutely sublime.



standard 3.5, but you have more confidence in the modern parts to get you through a corner should you decide to drive with verve.

I was expecting the car to be some kind of hot rod, but that is not the case – even if it is capable of 0-62mph in 6.1 seconds. At normal cruising speeds, the modern V8 engine is much smoother than the old 3.5, but it is when you press the accelerator to the floor that the close to four decades of engine development really comes to the fore. The nose lifts slightly and the rear squats as the M-Cabriolet gains momentum far quicker than the standard 3.5 Coupe. Having said that, the engine never feels like it's overpowering the drophead's chassis,

which is arguably the single most impressive characteristic of the Mechatronik conversion. The company has got the balance just right.

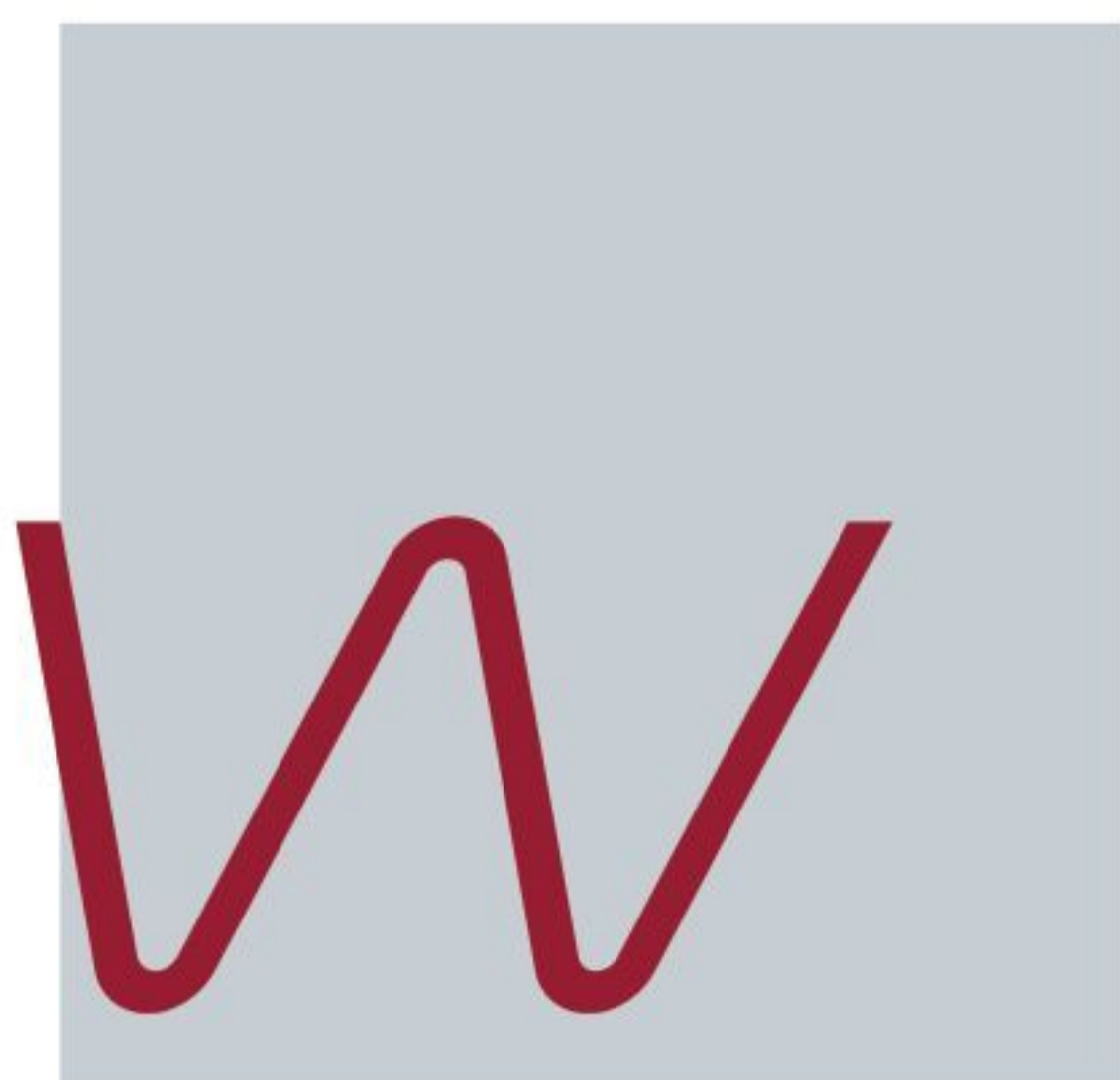
one for the road

The M-Cabriolet is an example of how modern technology can be integrated into a classic car without ruining the original experience. Granted, the Mechatronik convertible has an exhaust note that is a touch more pronounced than the standard car's, yet the soft burble from the twin exhausts is not intrusive, to the point that you still need to pay attention to appreciate it. With just 3,270 3.5 Coupes and 1,232 3.5 Cabriolets built, you will have to fork out a

six-figure sum to purchase a decent one at auction today. And because both these particular cars are right-hand drive, they are even rarer and more valuable than their left-hand drive counterparts.

As the sun sets and the evening's final light reflects off the Cabriolet's long, blue bonnet, I can't help but appreciate the fact that the car potentially has several more decades of life ahead of it, thanks to the excellent treatment it received from Mechatronik a few years ago. It is amazing how both these Mercedes were manufactured in 1970 and lived very different lives, yet now reside in the same garage in South Africa. Some would call it fate.

MP



With a silky smooth M112 V6 under its bonnet, the R170 SLK320 was enthusiastically received when introduced in 2000. It had taken Mercedes-Benz four years to add the 3.2-litre variant to the SLK range (the delay was probably due to fears that this might

affect sales of lower engined SLs), which hitherto had relied on four-cylinder 2.0-/2.3-litre engines, generally regarded as the one weakness of the otherwise sparkling compact roadster. Now, the SLK was looking less hairdresser, more Porsche Boxster challenging.

However the SLK320, introduced at the R170's mid term facelift, could not have been accused of being overpowered. Its 215bhp was a hardly significant 21bhp increase on the SLK230 Kompressor, while torque, 229lb ft at 3,000rpm, was 23lb ft up, but occurring slightly higher up the rev band. Performance, with a standing start or in gear, was marginally quicker, but the V6's obvious advantage was its engine refinement.

All this was not lost on Steve Shali, proprietor of independent Mercedes specialist Klasse of Fulham, who felt that a little extra horsepower would be absolutely in order. And with his vast experience of Mercedes-Benz engines, he also knew that there was a relatively easy way to achieve it – simply drop in the 3.7-litre version of the V6. “The 3.7-litre M112 powerplant is like for like, it has exactly the same dimensions as the 3.2 and it uses the same electronic control units,” he explains. “So you don't have to think about the wiring and the electrics.” ➤

WORDS David Sutherland
IMAGES Terry Osborne

Gifted a 3.7-litre V6 from an SL350 by a Mercedes-Benz specialist, this R170 SLK goes better than ever yet stays firmly under the radar thanks to its factory appearance

THE CAPACITY TO PLEASE



“

in previous years, the fairly high values of six-cylinder SLKs and the cost of another engine would have made this conversion an expensive indulgence

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➤ In previous years, the fairly high values of six-cylinder SLKs and the cost of another engine would have made this conversion an expensive indulgence, given that the aim was to make a subtle improvement. But even the last of the R170s – it was replaced by the R171 in 2004 – can now be bought cheaply, making it a more realistic idea, and by autumn 2012 Steve (whose daily business is mostly routine servicing and repair of modern and classic Mercedes) was in the mood to try it. “I wanted a project and felt like doing something a bit different,” he says.

Finding a suitable candidate

Through his motor trade contacts, he found an SLK320 that was being disposed of by an insurance company as a ‘Category C’ write-off, meaning that the car could legally be rebuilt (for reference, at the time these rules were in place in the UK, Category A cars had to be crushed, and Category B cars could be sold only as spares). It was written off

because it had been driven too fast through some standing water, an excess of which had entered the low mounted front air intake, penetrated the engine and caused the crankshaft, con rods and pistons to lock up and bend, or suffer other terminal damage. Apart from this, the baby roadster was fully serviceable, making it the ideal base for the conversion.

This left-hand drive SLK320 in Amber Red metallic had originally been registered in Germany in 2002, as one of the batch of Special Edition models made in the last two years of R170 production. Hence it has some worthwhile extras over standard models, including 7.5Jx17 Evolution wheels, black nappa leather, brushed aluminium interior trim, and silver instruments. The engine took a little longer to locate, however. “It is not easy to come across; there were three years of the SL350, three years of the S350, and two years of the ML350,” Steve says. “That’s a short lifespan for one engine.”

But these days, if you wait long enough everything turns up on the internet, and within a couple of months a suitable M112 engine from a damaged SL350 had been acquired. In the meantime, the SLK had been tidied up, including the fitting of new brake discs and pads, and



Above Less is more when it comes to this 3.7L R170 SLK.



Above Starter motor location the only mod to the V6.

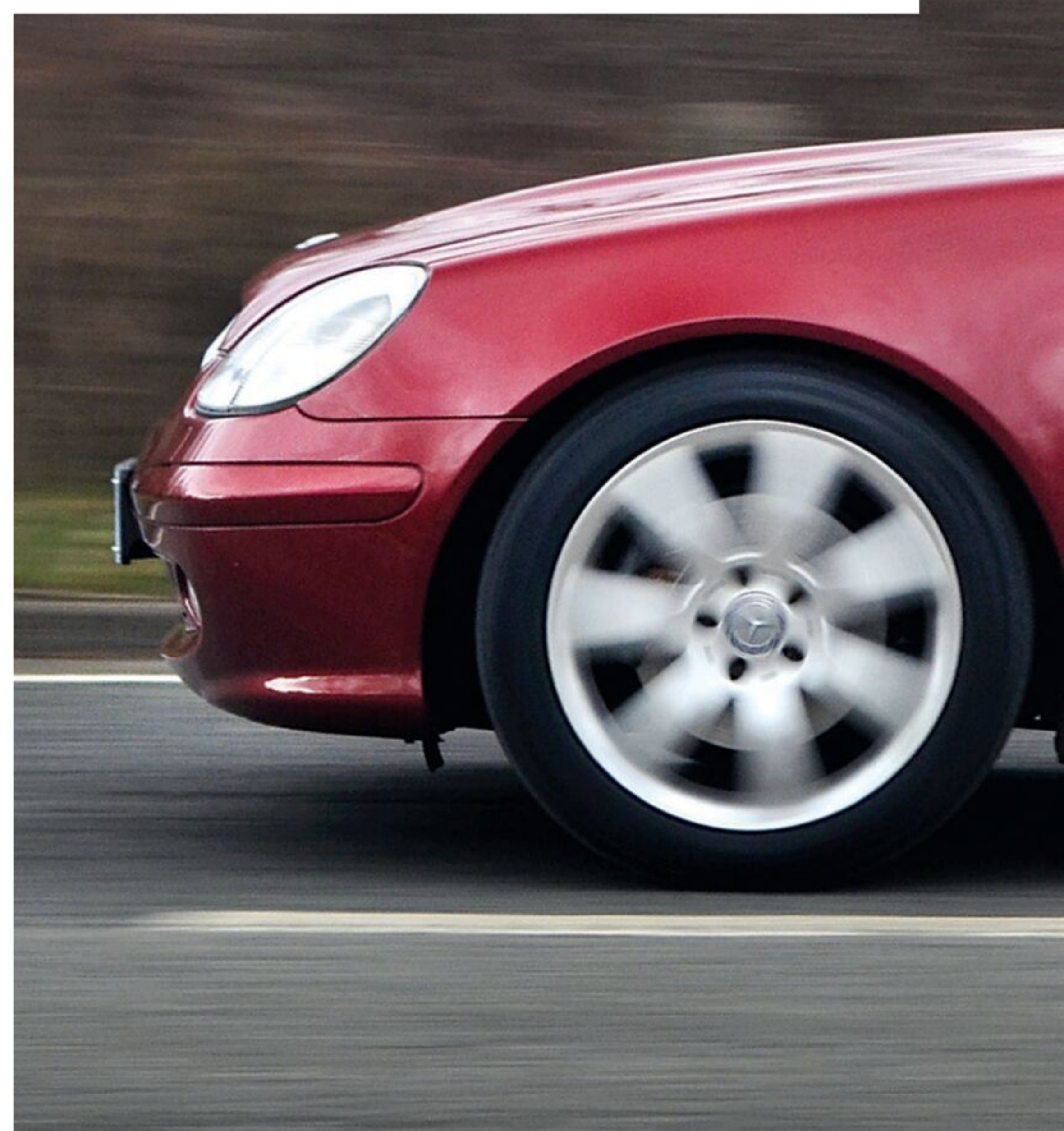
Above right Steve Shali of Klasse of Fulham specialist.

Below Cabin is neatly styled; metal trim lifts the mood.

“

under the bonnet, this SLK certainly does not look like the traditional tuned car

”



was ready and waiting in Klasse's small but busy workshop in Fulham, south west London. Amazingly, only one modification was needed before the engine could go in, and even that was because it had come from a right-hand drive car. "We had to swap the starter motor to the other side of the engine, but the holes where it fits are marked, so we just had to drill them out," Steve explains.

Engine installed, the SLK320 – or should it by now have been referred to as an SLK350, or even an SLK370? – was found to be not running 100 per cent correctly, so was sent over to CKS Performance in Watford, a specialist in auto electronics as well as performance upgrades, which remapped the engine, eliminating the misfire and making it perform more smoothly.

With the conversion finished, the paperwork surrounding every revived insurance write-off had to be attended to. This involved a trip back to Watford, but this time to the VOSA (Vehicle and Operator Services Agency) inspection centre, where it was assessed to ensure

that the damage as documented had been rectified. No power measurements have been taken by Klasse of Fulham, so we have to go on Mercedes' own figures, which may or may not be the exact outputs on this particular car, but do give a reasonable before and after comparison. On this basis, the new engine output is 242bhp at 5,750rpm, supported by 258lb ft torque from 3,000 to 4,500rpm. To save you skipping back a few pages, the original motor developed 215bhp and 229lb ft torque...

Roadster revelation

What does this mean on the road? Under the bonnet, this SLK certainly does not look like the traditional tuned car. There is no difference to be seen, apart from the 3.7-litre six-cylinder having an oil cooler, positioned vertically at the front of the engine, which the original 3.2-litre did not have. The V6, with its now superseded three valves per cylinder configuration (two valves for intake, one for exhaust), fires with the first twist of the key. As with any other Mercedes-Benz V6 or V8 engine, the revs rise briefly before





➤ settling down to a tickover so smooth and quiet you might have to consult the tachometer to check that the engine really is running.

However, once the Mercedes-Benz is moving and that six-cylinder engine gets into the mid range, the difference between old and new is apparent. The extra power and torque provide a stronger surge of acceleration, giving the SLK – three quarters the weight of the SL350 – a muscular feel it did not have previously. And as revs rise, the engine, running with the standard SLK320 exhaust, gives out a pleasantly fizzing, but still subdued rasp.



even on this cold winter's day, I was keen to retract the roof into the boot to catch the sound of the more potent V6

Full package

Revisiting an R170 SLK for the first time in a while reminded me of what a suitable candidate the original, soft nosed model is for an engine upgrade. It is comfortable and it feels solid, the five-speed automatic gearbox is responsive and slick changing, and the handling is nimble, despite the recirculating ball steering (replaced by rack and pinion for the R171 model). I still find the metal folding roof, which in 25 seconds turns the SLK from a delightfully proportioned two-seat coupe into an even prettier drophead, utterly marvellous, and even on the dank and dreary day of our test drive I was keen to see it retracting into the boot to allow me to catch the sound of the more potent V6.



Above left Black on white dials of SLK's Special Edition spec.

Steve Shali did not set out to produce a fire-breathing monster that would eat up the drag strip, rather a car that looks and feels much as standard, but with a subtle edge of performance that makes an already good car even better. As I reluctantly handed the keys back to him, I was left wondering why Mercedes-Benz hadn't done the same job in the first place. Who knows, with a bit of extra tweaking it might have been a better proposition than the SLK32 AMG, which was certainly fast but, with its supercharger, too hard core for some.

MP

190 diesel conversion

in 2009, Mercedes created a 'new' 190-based saloon with a modern turbodiesel, writes Kyle Molyneux

Below 190 given a turbodiesel from a C250 CDI saloon.

Back in September 2009, when Mercedes-Benz was just starting to add labels such as 'BlueEfficiency' to its more eco-friendly engines, the company decided to demonstrate just how far its diesel technology had come

by installing a then new, 2.1-litre 'OM651' four-cylinder motor from a C250 CDI BlueEfficiency in an unsuspecting 190E 2.6 Sportline.

The in-house project was led by Peter Lehmann and the results were quite

something. Re-energised with 201bhp and 369lb ft torque, the '190D BlueEfficiency' could crack 62mph in 6.2 seconds, which was a whole 11.9 seconds faster than the original 190D of 1983, and 0.8 seconds faster than the C250 CDI, which weighed 385kg more. As if that wasn't impressive enough, the re-engineered 190D also achieved 57.6mpg on the combined cycle test.

Left A 6.2sec 0-62mph time for this 2.1L 190D.

Above Engine and six-speed manual slotted in together.



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THE ONE THAT GOT AWAY

The C111 is one of the most recognisable Mercedes ever made, and yet was nothing more than a research vehicle designed to test new technology

WORDS Kyle Molyneux IMAGES Craig Pusey

The steering wheel was familiar. So was the seat upholstery, instruments and sound of the V8. Much less recognisable, however, was the gearlever sprouting from the transmission tunnel. Alien too was the view through the low-slung windscreen and across the cascading, *Weissherbst*-coloured bonnet.

Presented at the Frankfurt motor show in September 1969, the C111 was designed to test rotary piston engine technology based on the work of Felix Wankel, as well as glass fibre-reinforced plastic bodyshells and new-style, multi-link suspension. Officially, it was a research vehicle, but it still gained interest from would-be owners transfixed by Bruno Sacco's arresting design work.

"Right from the beginning, the car was communicated as an experimental car which was not for sale," said a member of the Mercedes-Benz Classic team, speaking exclusively to *Mercedes Performance*. "A lot of people nevertheless wanted to buy a C111, handing in cheques or even blank cheques. At the London motor show in October 1969 potential buyers offered up to £20,000, which at the time was equal to about DM180,000," he continued. "One British customer handed over a blank cheque stating he would tell his bank to pay the equal of up to DM500,000. We know this specifically because a press release was issued by the company in November 1969 stating this and pointing out once more that the car was not for sale." To give you some idea how much that was, a range-topping W111 280SE 3.5 Coupe retailed at around DM30,600 in 1969, while a W100 600 (massively expensive in its own right) could be yours for just shy of DM61,000.

“One British customer handed over a blank cheque stating he would tell his bank to pay the equal of up to DM500,000”

It is believed Mercedes-Benz built 16 C111s between 1969 and 1979, although not all ran the M950F rotary powerplant, as I alluded to earlier. The V8 engines mounted in cars built in 1969 and 1970 cars were created because not enough high-powered, three- and four-rotor engines were available to go around the test cars. Although this situation meant engineers could compare the driving characteristics of a conventional powerplant with their new M950F.

DREAM DRIVE

By 1979, the year the V8 twin-turbo powered C111 IV hit a record 251mph around Nardò, customer interest in a road-going C111 had subsided. "The question of production was discussed in board meetings right from the beginning of the project in December 1968 and over a long period of time. In the end, potential plans for series production were finally cancelled in November 1971. In July 1971 the Board of Management had confirmed its former opinion that series production should not be aimed for – unless the development and/or PR departments would bring up new aspects which had not been considered before. Obviously, they did not."

The example I drove a few years ago was restored by Mercedes-Benz in 2014 and was effectively the second version of the C111, complete with pop-up headlamps and bright orange paintwork, but with a 3.5-litre M116 V8 fitted instead of a four-rotor Wankel unit (one car built in 1970 did run an M116). The throaty V8 was linked to a five-speed manual gearbox which made the driving experience all the more

involving, and the steering – although recirculating ball – had wonderful feel and an alertness to it unlike anything else from Merc of that time. The C111 absorbed bumps remarkably well and allowed the body to roll through corners just enough to make you aware of how fast you were travelling without detracting from your enjoyment of the ride.

I climbed into the gullwing-doored C111 hoping it wouldn't drive like a dog and emerged from the cockpit hours later wishing – like so many others before me – that it wasn't just a 'research vehicle', but a bona fide series production car. We had to wait 56 years, until 2010 and the launch of the SLS AMG for a spiritual successor to the 300SL Gullwing, and that was simply too long for some.

MP

Right inset Cabin of restored C111 with 3.5L V8.



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