



The race car that made AMG's name, the 300SEL 6.8, at Spa in Belgium.

Track record

He built AMG from a 1960s race engineering company into a road car tuner that Mercedes-Benz liked so much it bought it. **Ian Kuah** profiles Hans-Werner Aufrecht



Hans-Werner Aufrecht has been in the independent tuning business 46 years.

"AMG WAS SET UP TO PREPARE MERCEDES CARS FOR RACING, AS WELL AS TO TUNE ROAD CARS FOR CUSTOMERS DISSATISFIED WITH THEIR PERFORMANCE"

The peace and quiet of country living gives you time to think. That was certainly the case with Hans-Werner Aufrecht and Erhard Melcher, the ex-Mercedes engineers who founded their fledgling race engineering company in 1967 in the small and tranquil village of Burgstall an der Murr, near Stuttgart.

AMG stands for Aufrecht, Melcher, Grossaspach, the latter being the village where Aufrecht was born. AMG Motorenbau und Entwicklungsgesellschaft GmbH (AMG Engine Production and Development, Ltd) was set up to prepare Mercedes cars for racing, as well to tune road cars for customers dissatisfied with their out of the box performance.

As in many successful businesses, the two partners wisely capitalised on their relative strengths. The more outspoken Aufrecht played his natural role as front man and the driving force behind the race programme, while Melcher was the brilliant and innovative engineer behind the scenes.

Melcher founded his own separate engineering workshop company called MKB in the original Burgstall location, while AMG, which had run out of space by this

time, moved to Affalterbach. In 1976, Melcher ceased to be a partner in AMG, with MKB preparing all the race engines and carrying out other specialist engineering work for AMG as well as other clients.

While AMG commenced motorsport activities in 1967, its first true moment of glory did not arrive until 1971 when the bright red 420hp, 6.8-litre Mercedes-AMG 300SEL 6.3 driven by Hans Heyer and Clemens Schickentanz took a class win and second overall placing at Spa. This spectacular and unexpected result by the big, red, square-rigged Mercedes saloon made the evening news in Germany, and put AMG's name firmly on the motorsport world's map.

I met Hans-Werner Aufrecht for the first time in the late 1980s, and remember him telling me how easy that big 6.8-litre car was to drive. "I was doing some development laps on the Nürburgring, and I just blew past some other cars while I was tuning the radio with one hand," he related in a most matter of fact way.

"We were so skint back in 1971 that to finance the next ➔



ABOVE
The Affalterbach workshop looked mundane, but built some very tasty, hot Mercs.

RIGHT
Erhard Melcher, Aufrecht's original business partner, was the engineering mind.



LEFT
A 300SEL 6.8 seen in full flight on the Nürburgring's 14-mile Nordschleife.

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⇒ race car, we had to sell this car soon after Spa," Aufrecht revealed. "We sold the car to Matra in France, who asked us to extend it by 75mm, and up its power to 428hp for use as a high speed test bed for military aircraft landing gear." In 2006, Mercedes-AMG GmbH built a replica of that famous red car, which has since served as a marketing tool.

A MG employees from this era described Aufrecht as a perfectionist, who was very demanding of his employees, but they also respected him because of his vision as a leader. Despite his short fuse and tendency to raise his voice when things went wrong, he was regarded as a very fair boss.

By this time, however, AMG's development engineers had come to the conclusion that they had reached the limit of what could be achieved from simply boring and stroking the factory Mercedes engines. As power output is a direct result of how much air and

The W111 coupe was one of AMG's early subjects for horsepower transfusions.



fuel you can burn in a given time, the engineers knew they had to make their own combustion arrangements. Drawing from motorsport experience, the AMG team set about designing, developing and manufacturing a twin-cam, four-valve cylinderhead for the Mercedes M117 V8 motor.

Used in the W126 and C126 models, and eventually the W124 based Hammer in 5.0-, 5.2-, 5.4-, 5.6- and finally 6.0-litre form, this cylinderhead and its bespoke camshafts were expensive and also fragile. Because of this problem, they went through a lot of tweaking before the design was finally pronounced fully reliable.

A s AMG continued to ruffle the feathers of supercar manufacturers on the autobahn with its tuned 190E, 300E, SEC and S-Class models, as well as motorsport rivals with its 190E entries in the DTM (the German touring car championship), some board members at Mercedes began to pay closer attention. This was the time when the German car maker wished to reinvent itself as a brand with more youthful appeal, and the W201 190 was just the tip of the coming iceberg. The image of high performance road cars with a successful racing pedigree was a great promotional device for the whole Mercedes range, and the AMG way seemed to be just the ticket.



An AMG SLC racer during the 1970s, dicing with BMWs and Ford RS2000s.



Present AMG chairman Ola Kollenius flanked by Aufrecht (left) and Melcher.

⇒ It was no secret that Aufrecht had cultivated friendships with some Mercedes board members, and his wife was also close to a couple of their wives. A legendary tale in Stuttgart circles has it that his wife and the wife of a very senior board member came up with the idea of Mercedes and AMG linking up during an afternoon spa session!

The tie up began with Mercedes and AMG signing a co-operative agreement in 1990, allowing AMG access to the Mercedes-Benz dealer network and other facilities. The first actual Mercedes-AMG production car was the C36 AMG of 1993, its 3.6-litre straight-six a heavily modified version of the factory 3.2-litre.

German business monopoly rules prohibited Mercedes from buying AMG in one go. Hence on January 1 1999, DaimlerChrysler (the then parent company of the recently merged German and American car makers) acquired 51 per cent of AMG, and the Mercedes tuner was renamed Mercedes-AMG GmbH.

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BELOW
The 190E AMG ran in DTM in the 1980s impressed Mercedes management.

BELOW LEFT
Black wheels and body trimming gave the SLC an extremely purposeful look.

BOTTOM LEFT
The Hammer coupe the firm fashioned in the mid 1980s used a six-litre V8.

While some people in this fortunate position would have taken the money and retired in comfort, this was the furthest thing from Hans-Werner Aufrecht's mind. In 1998 he took a leaf from Melcher's book and established his own independent company to build special cars and engines for AMG. Called HWA AG, after his initials, the company set up shop in a brand new turnkey facility in Affalterbach, just a few hundred metres from AMG GmbH.

Split into the two major activities, AMG's 210 employees run the AMG-Mercedes race team in DTM and build special road cars for AMG. The most spectacular of these road cars are the CLK GTR in normal and Super Sport versions, and the CLK DTM AMG.

However a less celebrated HWA project was the ill-fated CLR prototype racer entered in the 24 Hours of Le Mans in 1999. During qualifying, the car driven by Mark Webber flipped while accelerating over the crest of a hill, almost certainly as a result of an



Hans-Werner Aufrecht: the CV



Born 1938, in Grossaspach, near Stuttgart, Germany.

Early work As a Mercedes-Benz engineer he develops a race winning 300SE V8 engine with his future business partner, Erhard Melcher.

AMG Leaves Mercedes-Benz in 1966 and founds AMG with Melcher in 1967, working from a former mill in nearby Burgstall.

High point 1971 Breakthrough with a class win and second overall at the 24 Hours of Spa with the AMG Mercedes 300SEL 6.8, the heavyweight car causing a sensation in Germany.

Low point Both Mercedes-Benz CLR GT1 racers,

built by Aufrecht's post AMG company, HWA AG, crash spectacularly at the 1999 24 Hours of Le Mans, with faulty aerodynamics blamed.

Most famous road car 300E 'Hammer' powered by AMG's own doho five-litre V8.

Company milestones Goes it alone and moves to Affalterbach when Melcher leaves in 1976; becomes an engine manufacturer in 1984; first 'official' road car in 1993 (C36 AMG); sells his majority stake in AMG to Mercedes in 1999.

Present occupation Independent again, after founding his engineering company, HWA AG, near Affalterbach, in 1998.

⇒ aerodynamic deficiency, with almost exactly the same thing happening to Peter Drumbreck's CLR. Mercedes did not field the car again.

HWA also does consultancy work for other companies on a limited scale, and designed and developed the naturally aspirated V8 motor for the forthcoming Lotus Esprit. This came about because the current Lotus development chief is Wolf Zimmerman, the former head of development at AMG.

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A MG does similar work too, and took the Mercedes M120 V12 motor, first seen in the early

1990s 140-series S-Class, to its finest hour by developing a unique 7.3-litre version with a single throttle per cylinder arrangement for the Pagani Zonda. More recently, AMG developed a bespoke version of the later, M275 biturbo V12 for the Pagani Huayra.

By 2002, AMG had created a strengthened block for the M113 V8 engine with its own modified heads to match. It also built the motors for the Mercedes-Benz SLR McLaren, using a further reinforced variation of this block.

The takeover of AMG was completed on January 1, 2005, when it became the official in house, high performance wing of Mercedes-Benz. In that time frame, the parent


company changed its name from Daimler-Benz AG to DaimlerChrysler, and finally to Daimler AG in 2007.

The completion of AMG's acquisition by Mercedes was the signal for the kid gloves to come off, and the following

year AMG rocked the performance car world by announcing its first totally in house developed and produced engine. Where previous AMG motors were based on mainstream Mercedes engines, every single component of the M156 V8 four-cam motor was brand new, and unique to AMG.

A 90-degree V8 with double-overhead cams per cylinder bank and variable valve timing, the 6.3-litre

motor is designated M156, and has an actual swept capacity of 6,208cc. AMG admits that it invoked poetic licence by badging it as a 6.3, to draw the connection with the old Mercedes 6.3-litre V8 from the 1970s.

First complete engine, so why not build a first complete car as well? That followed in 2009 in the spectacular gullwing form of the SLS AMG, which also featured the M159 motor, a development of the M156. AMG's four decade journey from engine tuner to car maker has been as fascinating as it was fruitful. And, so many years later, the man who started it all off shows no sign of slowing down. 

BELOW
Not the original 300SEL 6.8, but a replica built by Mercedes seven years ago.

BELOW RIGHT
The 190E, with its mildly performing engines, was a staple for AMG tuning.

BOTTOM RIGHT
Like most other tuners of the 1980s, AMG did body kits as well as power kits.

