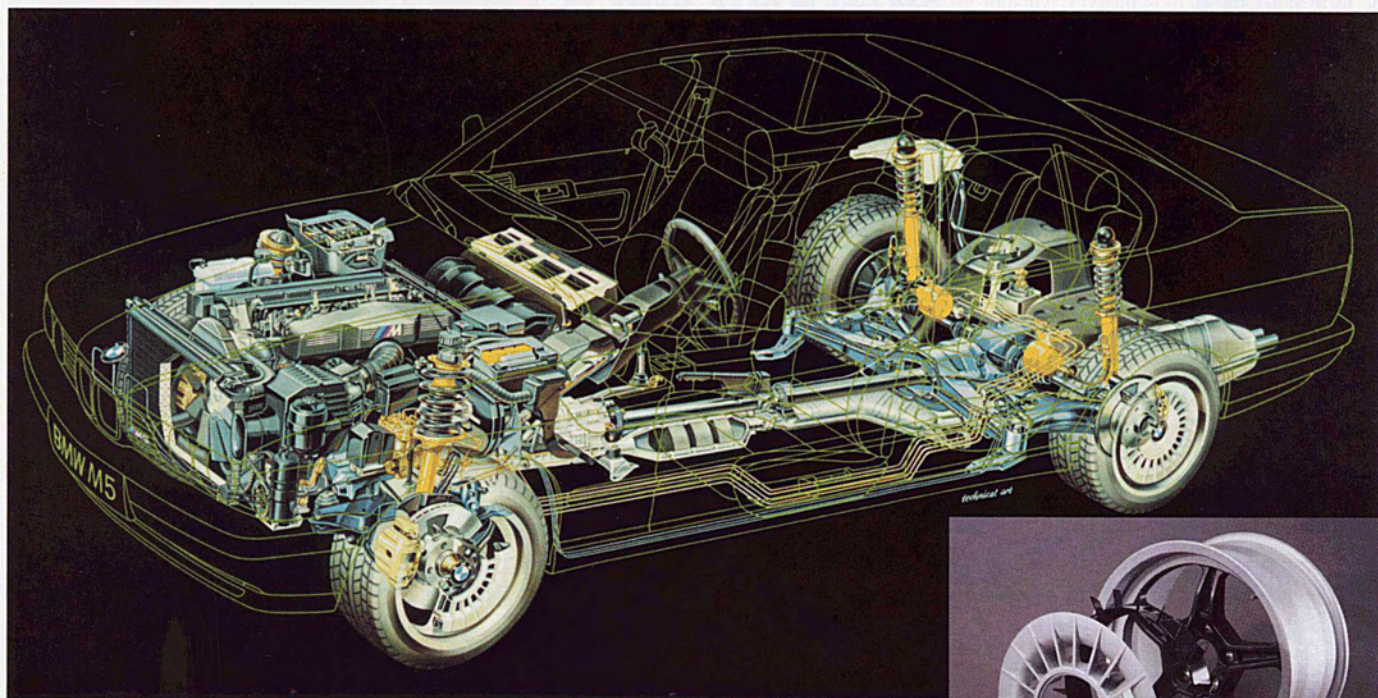


by Richard Baxter



E34 M5

A Short History

Part 1 1988 to 1993

Part 2 1991 to 1995 – next issue

The E34 5 Series was a vital stepping stone in BMW's history for it brought much needed class winning technology after the previous E12 1972-1981 and E28 1981-1987 (visually similar models) had been in production for 15 years.

Two important issues were introduced with the new car – modern, less angular styling and a more rigid chassis (43% bending and 70% twist), which gave an improved ride, with a stronger safety zone. Enhanced sound proofing making the car more comfortable, quiet and refined, if not a little too bulky spatially. The penalty however came in the form of extra weight up from 1400kg to 1525kg. The overall height was slightly reduced. The car was a big success story setting the standards for all other manufacturers to achieve, and was finally surpassed by only its successor, the E39.

As is usual the exciting M model appeared once the broader range of models had been in production for two years. However limited availability was reflected by the bespoke nature of the car, it being hand built at the M factory in Garching. Customers could order their own, specification for trim / colour and extras so that it is doubtful that two identical cars exist.

On the excellent forum bmw34m5@yahoo.com, owners have long debated whether what appears to be a date and signature are actual signatures by assembly technicians, these seem to appear behind the black plastic bumper strip, or perhaps an instruction left in

place for a following gang during assembly.

The famous M88 twin overhead camshaft engine from the M1, first M5 and M6 models received a longer stroke to increase capacity by 82cc to 3535 and now referred to as the 3.6 litre unit. This increased bhp by nearly 30bhp so speed increase over the earlier lighter model was marginally improved, though with increased sound damping it did not feel different, causing the raw sporting edge of the previous model to become muted.

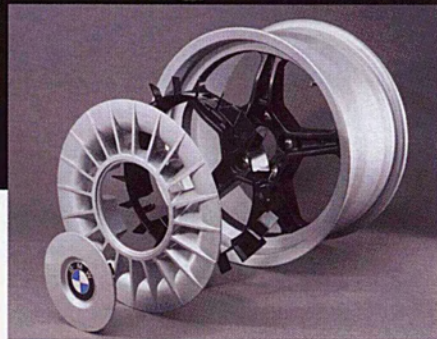
The intake system had been carefully reworked by featuring an ingenious electronic butterfly valve inspired from racing practice, this improved throttle response and boosted torque so that one notices a 'step up' in acceleration at approximately 4,000 rpm.

The M5 retained the 5-speed Getrag gearbox and ratios from the earlier model. However owners of the previous wolf in sheep's clothing Q car were not impressed as by comparison the car felt bulky and too refined robbing the driver of greater participation.

The ventilated brake discs were thicker as well as larger in diameter, the car rode 20mm lower than the 535i with higher spring rates, different dampers and greater dia anti roll bars. Also fitted were compliant elasto-kinematic bushes in the rear suspension. This caused the whole axle to toe in during cornering and so generate safe understeer.

Self-levelling was included in the rear suspension in order to preserve spring movement regardless of load. The steering had ZF Servotronic variable – ratio system with lower ratio to give the driver a greater degree of feel.

To keep the understated appearance a front spoiler with extra slots directed air to the brakes, the rear apron and side skirts were initially blacked out and could hardly be seen. At the rear a black plastic panel was fitted between the light clusters and two stainless steel 70mm dia exhaust pipes exited at one side. An optional extra was to remove all chrome trim and replace in black.



The distinctive and striking road wheels were 8" x 17" dia in two parts, which was developed and patented by BMW. The visible part was a pressure cast magnesium cover of turbine design – developed in the wind tunnel, the radial blades of which provide an axial effect to duct cold air onto the disc brakes in the interests of maximum efficiency at high speed.

These were designed separately for the left and right hand sides (*but difficult to keep clean*) and hid a load bearing 5 spoke alloy wheel with an asymmetric hump that was designed to stop a deflated tyre rolling off the wheel. Initially a wider rear wheel was offered 9" x 17" as an optional extra, this improved appearance but marginally increased understeer. Internally the car could be ordered in Motorsport check cloth sports seats or full leather, Power adjusted seats were standard in the UK.

There was a unique 3 spoke steering wheel with 186mph speedo in common with M cars the instrument needles were red. The performance gauge in the lower section of the rev counter being changed for an oil temp gauge and one had to wait for the oil temperature gauge to rise to 75° before using engine performance above 4,000 rpm. The M5 came as standard with ABS, electric windows, active check control, on board computer, limited slip differential, electric sunroof and graduated tinted front screen.

Performance figures:

- 0 - 60 in 6.4 secs
- 0 - 100 in 15.6 secs
- 0 - 1/4 mile in 15secs dead at 98mph
- 30 - 70 through gears in 5.7 secs
- Overall consumption 19mpg

Next issue: The 3.8 litre is spotlighted in its two variations finally bestowing some distinction