

AMD M3

# CARBON COPY

Words Matthew Robinson  
Photography Alisdair Cusick



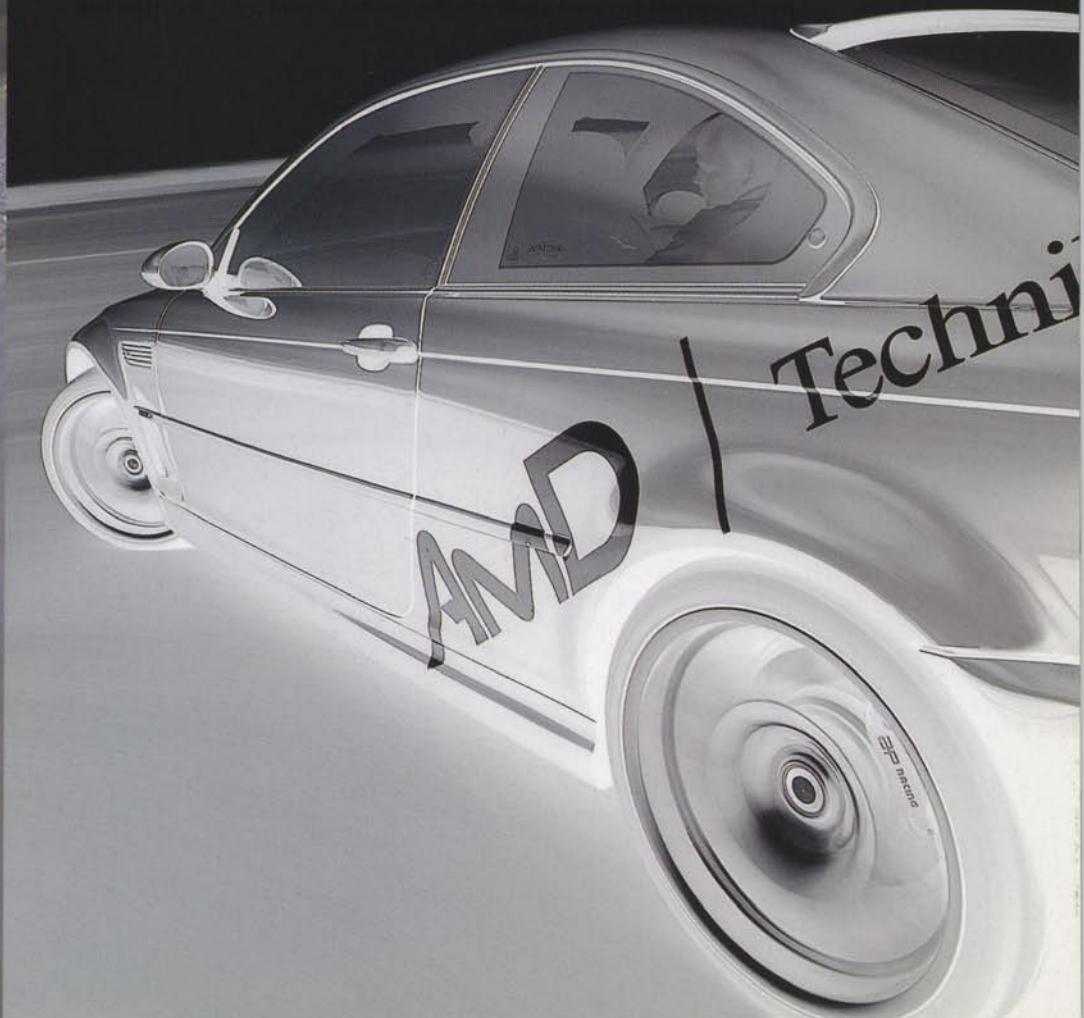
## This is the story of one company's efforts to build its own rival to the CSL M car.

The M3 CSL is a car which splits opinion equally — you either love it or really love it. While BMW was criticised by some sections of the motoring press for making a focused performance car with single-pot sliding calliper brakes and a 60 grand price tag, most fans of the Munich marque were rejoicing at this hotter M3. An extra 17 bhp, 110 kg lopped off the weight and semi-slick Michelin Cup tyres made it something very special, while the final cherry on the cake was a malevolent induction roar which makes your spine tingle. Hear a CSL at full chat and you'd understand what I mean.

But of course, it always comes back to that price tag and the rarity of the CSL. A standard E46 M3 is £40,000, the CSL was £60,000 a pop for just 422 right-hand-drive versions. The question was always whether there was £20,000 worth of difference between the two cars and if you've driven an E46 M3, you'll understand that it's a very capable car anyway. Sharpening it up was never going to be an easy task, undermined by the fact that while the brake discs on the CSL are well up to the job of hauling it down from big speeds, if you stamp on them time and time again they fade badly. It is the Achilles' heel of the CSL and coupled with the cost, it could be the deciding factor in opting for a standard E46 M3 and tuning it up instead.

It's a route AmD Technik has taken. This well-respected Bicester company has been established in aftermarket tuning for years and it specialises in sourcing the best kits it can from manufacturers around the world — nothing is AmD branded. If you go to AmD and request the ultimate track day car, the technicians at the workshop will get you the best kit they can for your car, from AP Racing brakes to Milltek exhausts. The only work branded AmD is the remapping of engines, carried out using the rolling road at the Oxfordshire site.

It's only recently that AmD has turned its attentions back towards BMWs, because for years there really wasn't much to be done to the company's engines. BMWs are notoriously hard to tune, as almost all powerplants in the cars are normally aspirated. But as more and more models filter out of Munich >





Standard M3 is hardly understated but the Carbon Black AmD car gets an extra dose of aggression thanks to the bigger rims and lower stance. It's a shame you can't hear it in this photo too – the Milltek exhaust sounds superb.

and and more owners demand better braking, handling and power, AmD has focused on BMW once more. The result is this M3 CSL rival, done for around £11,000 worth of work. OK, that sounds a lot, but consider that you can get a used M3 coupe for about £27,000 now, then add on your AmD work and you're looking at a genuine CSL rival for the price of a new M3. That's a big saving on buying a lightly used CSL, which can still command around £45,000 on the second-hand market.

John Thorne is showing us around this car, as it is actually his own. He bought this standard SMG-equipped E46 M3 because he wanted an M3 but then offered it to AmD as a test-bed vehicle, so the company could try out various different upgrade options on it until they found the best possible combination.

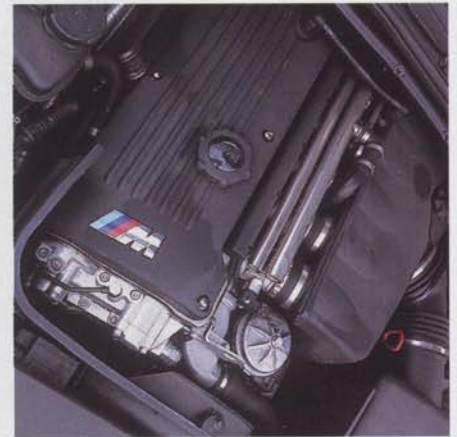
"The aim was to provide an alternative to the CSL, not try and copy it," John explains. "We've cut 90 kg off the weight and got about 360 bhp from the remap, but of course we've not got the carbon-fibre roof or the CSL's bootlid. We tried the CSL and liked it a lot, but still thought it was too soft for track day work as it has to work on the road. That's the point of any car — there's always a compromise between ride and handling."

Although not here. When John got the car it was a 7000-mile example, but it's piled on



the miles during testing. AmD has uprated the brakes to six-pot AP Racing callipers up front, gripping 355 mm ventilated discs, while at the rear four-pot efforts work in conjunction with discs of the same size as a standard M3. A full Milltek exhaust with a pair of racing cats is bolted onto the engine and frees up the breathing, while under the bonnet AmD technical bods have tinkered with the ECU and got an extra 25-30 bhp and some useful added grunt in the form of about 30 lb.ft. CSL 19 inch alloys were sourced and prepared by Lepsons and look great with the Carbon Black paint of John's car. The SMG has been remapped and inside is carbon-fibre trim and a pair of CSL buckets by Hyperturismo.

But it's that suspension which provides the balance. A number of kits were weighed

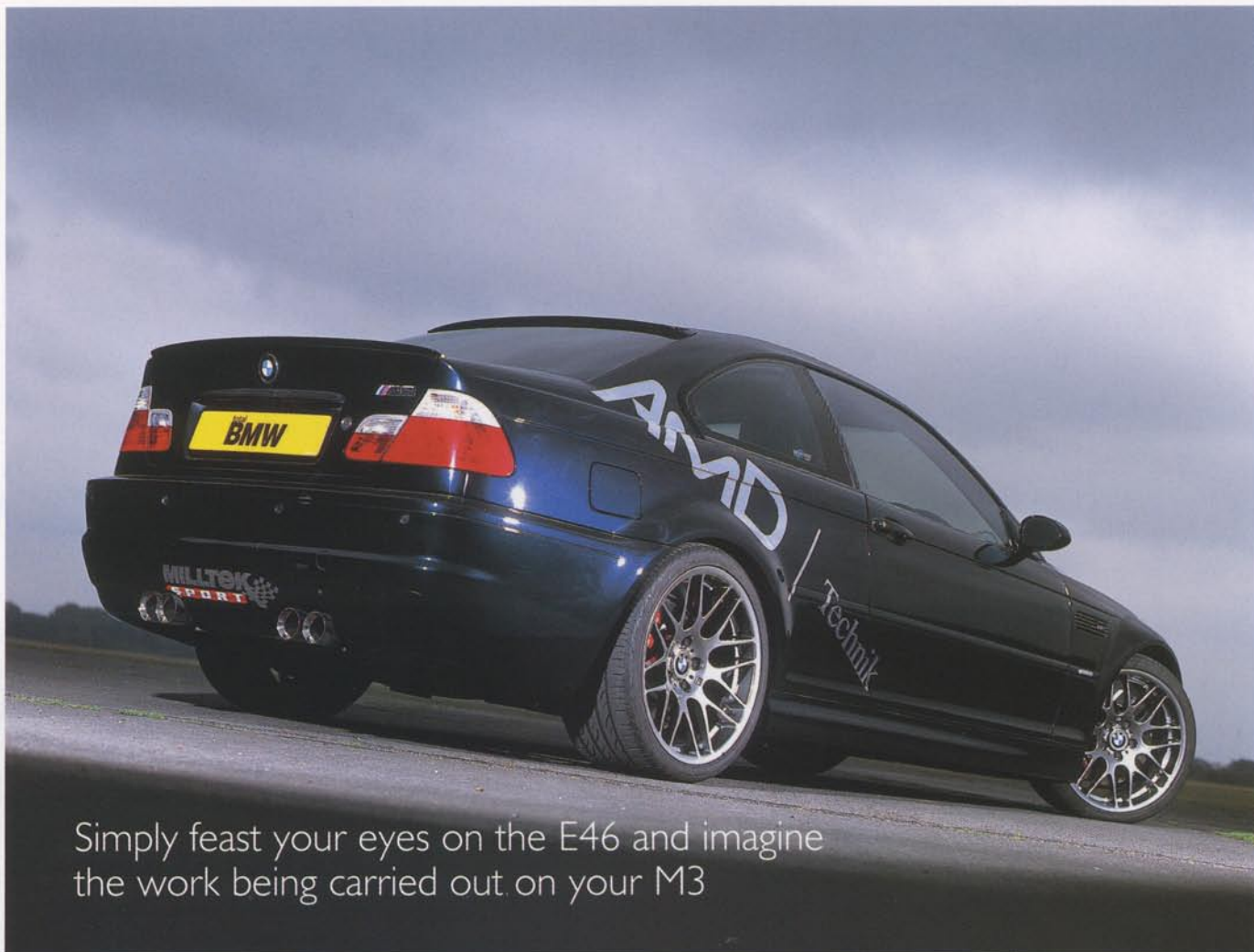


up but in the end AmD went with Bilstein and stuck a full coil-over kit in there with adjustable dampers. It's these clickable struts which mean that on track the AmD M3 is sharper than a CSL, but on road it can drive like a standard E46 M3. You just wind it up to the hardest setting for circuit work and knock it back when you've had enough hot lappery.

It took seven months of development to get the right bits of kit for each aspect of the car. "We took it on A-roads, B-roads and to Donington for the majority of testing, before deciding which components to use," explains John. "We feel that this car is a better compromise than a CSL if you enjoy track days, because good though it is, the CSL rolls a bit too much on track. This M3

Just wind it up to the hardest setting for circuit work and knock it back when you've had enough hot lappery





Simply feast your eyes on the E46 and imagine the work being carried out on your M3

can be put on its hardest setting and it's a lot better through the curves."

We'll bring you a short series of articles on exactly tuning up your M3 to full AmD spec in the future, but for now simply feast your eyes on this E46 and imagine the work being carried out on your M3. The sound is very distinctive, but not the same as a CSL — that bellow is more to do with induction,

**The M3's brakes always come in for their fair share of criticism, which is why AmD called on AP Racing for a set of their six-pot callipers. No clearance problems here, since the car is running 19 inch CSL rims.**

while on this car the induction is standard. But it's quick. Trying to keep up with the AmD car in a Z4 3.0i manual (itself no slouch) is an exercise in futility. And by all accounts it goes round the track as expected — brilliantly.

Now that AmD has put in the hard work and developed a total package for the E46 M3, you can take your car to the workshop and have all the kit you see here fitted in three days. A CSL rival for £38k that actually stops and handles better on track? If that's not a tempting thought, you're clearly not someone who really loves the CSL. ○

## Contact

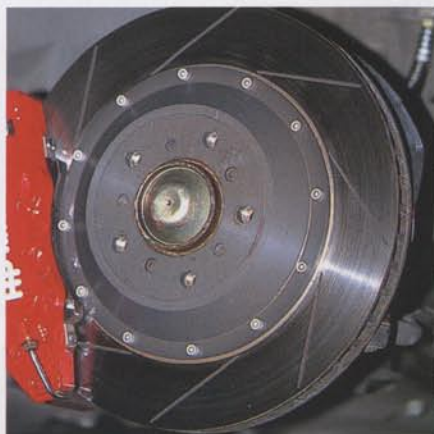
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01869 323205

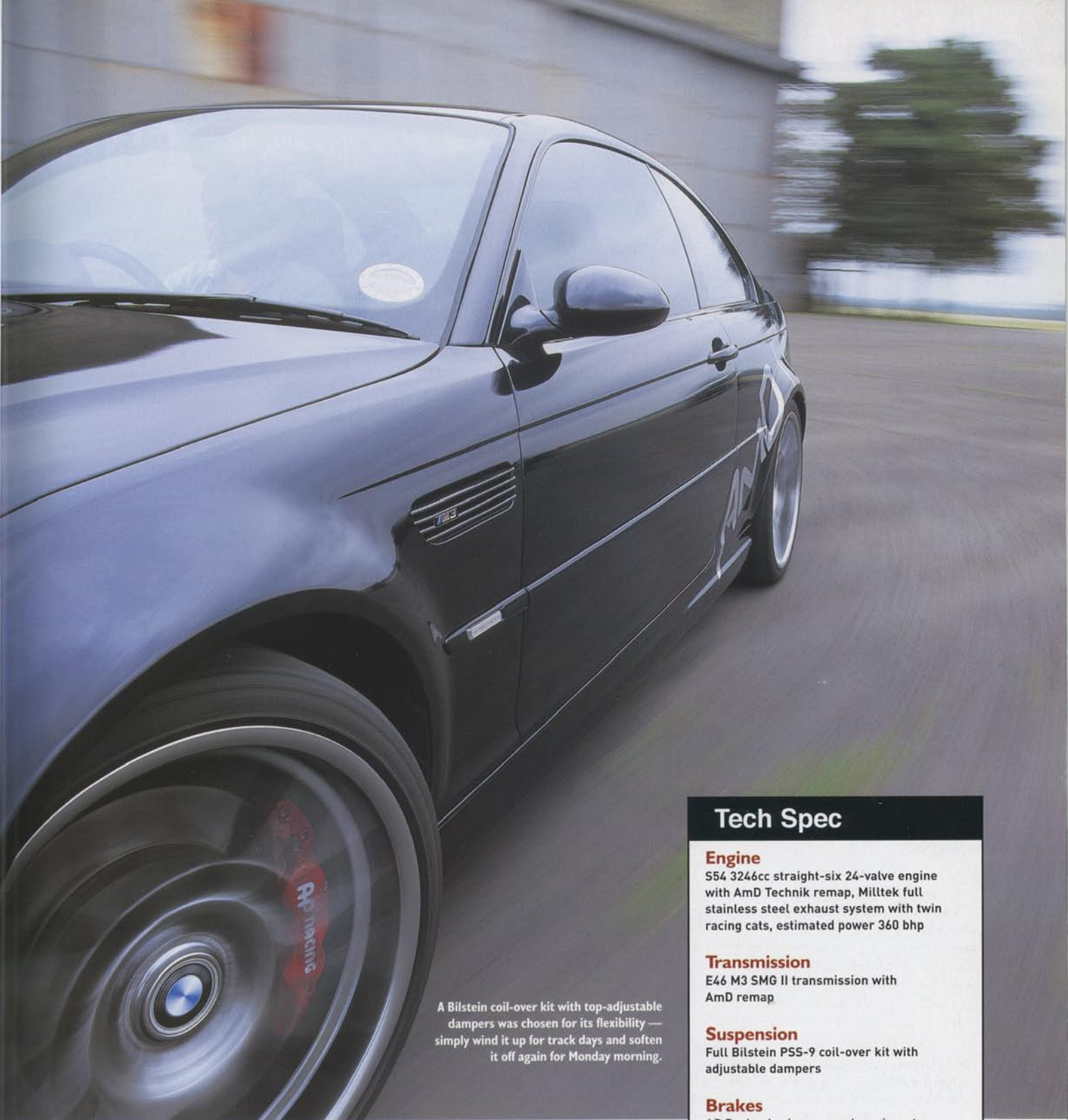
AP Racing  
024 7663 9595

Milltek Exhausts  
0115 944 0044

Lepsons  
01634 580582

Hyperturismo  
0870 080 81 82





A Bilstein coil-over kit with top-adjustable dampers was chosen for its flexibility — simply wind it up for track days and soften it off again for Monday morning.

## Tech Spec

### Engine

S54 3246cc straight-six 24-valve engine with AmD Technik remap, Milltek full stainless steel exhaust system with twin racing cats, estimated power 360 bhp

### Transmission

E46 M3 SMG II transmission with AmD remap

### Suspension

Full Bilstein PSS-9 coil-over kit with adjustable dampers

### Brakes

AP Racing brake conversion, six-pot callipers gripping 355 mm ventilated discs front, four-pot callipers rear gripping standard M3 discs

### Wheels & Tyres

E46 M3 CSL 19 inch alloys with Pirelli P Zero Nero tyres all round, 235/35ZR19 front, 265/30ZR19 rear

### Exterior

E46 M3 in Carbon Black with AC Schnitzer rear roof spoiler and AmD decals

### Interior

Black leather with CSL-style bucket seats front and carbon-fibre interior trim

