

FAST LANE

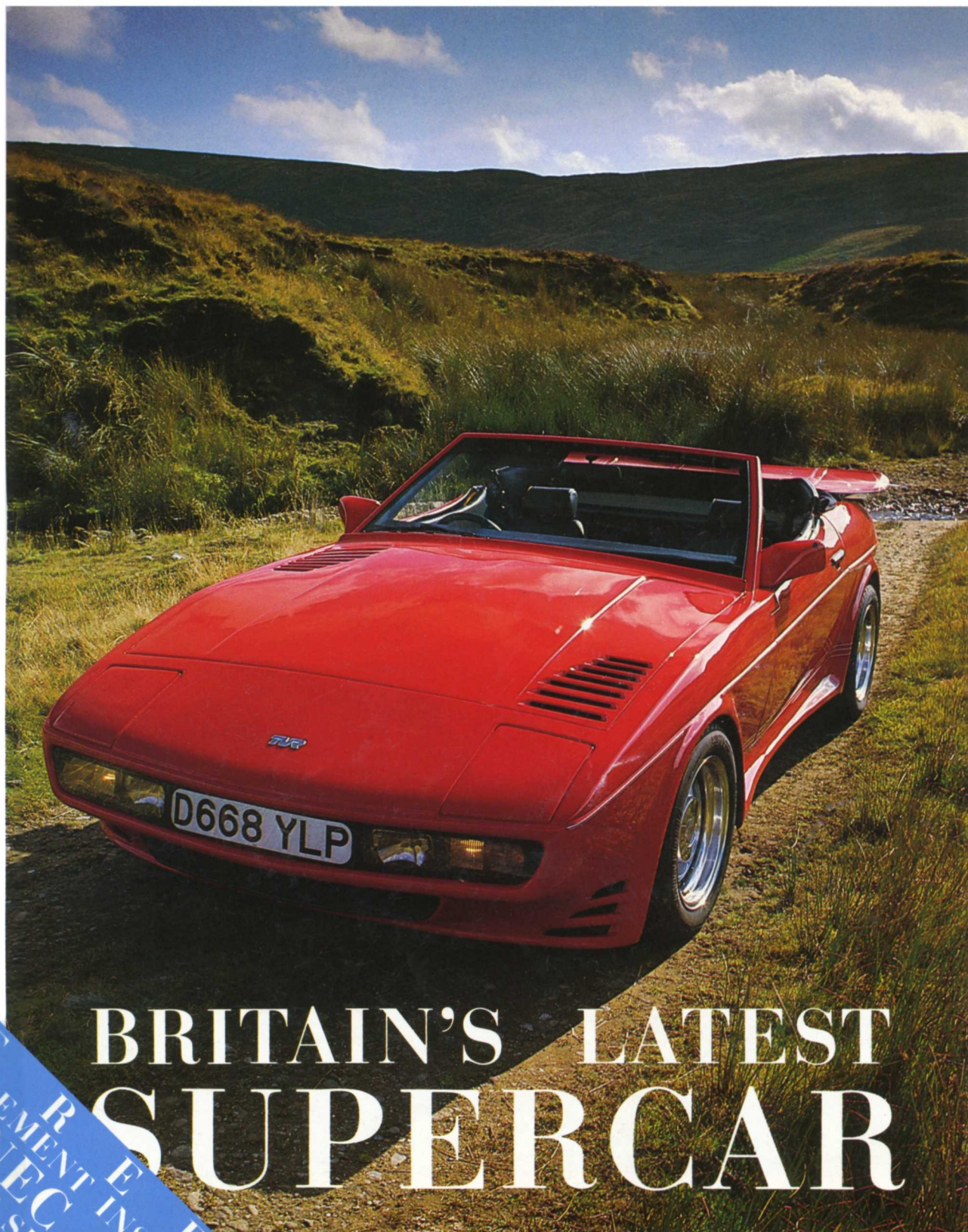
NOV

1986

£1.40

FAST CARS • TESTS • COMMENT

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THREE-PRONGED



TVR's feat of producing three new models for the Motor Show is at the same time an astonishing accomplishment for such a small company and a demonstration of the short lead times possible with specialist construction techniques. David Sutherland paid a pre-NEC visit to the Blackpool company to watch the 420 SEAC, the 420 saloon and the 280S go into final production

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AT THE end of September Blackpool seemed to be in a pretty relaxed state. Labour party conference delegates spent time thrashing out policy issues, while the tail-end of the holiday population unhurriedly tussled with the last of the season's candy-floss. Even British Rail were winding down, switching to reduced winter schedules in and out of the seaside resort.

However, just a couple of miles away in the TVR factory situated in the town's suburbs, the pace of life was noticeably quicker. In fact you could say there was a faint air of panic in the air. For the sports car firm was committed to displaying two new models at the Birmingham Motor Show, and with just two weeks to go the only evidence of their existence was a couple of untreated glass-fibre bodies, straight out of their moulds.

But TVR made it in the end, and on their stand this year can be seen the two new cars—the convertible 280S and the 420 saloon. Also new, if not being unveiled for the first time, is the Kevlar-bodied 420 SEAC (Special Equipment Aramid Composite), which is to run alongside the existing 350/390 range. It's a sign of how proud TVR are to show off their cars that they hired as much expensive NEC floor space as did Porsche.

The 420 SEAC is TVR's meatiest and most aggressive car to date. Blunter than the 350i and 390SE, and with heavily emphasised wheel arches and side skirts, the car's more rounded look works well, and to most eyes is an improvement on the slightly over-sharp lines of what TVR themselves call, the Wedge. But though the SEAC body is all-new, it was the chassis engineering input that accounted for the

greater part of the car's overall development programme—that's the way it is when you're in the business of building composite-bodied cars. And much of the necessary design experience was gained through TVR's own race-car, which your editor has recently been trying his hand in, round Oulton Park.

To bring the Rover V8 engine up to 3,905cc for the 390SE, TVR had bored it out, so the next development was to lengthen the stroke, bringing capacity up to 4,228cc. In conjunction with this, the crankshaft was strengthened and the cylin-

der head valve size increased. The already-modified injection was further developed, with a recalibrated control unit.

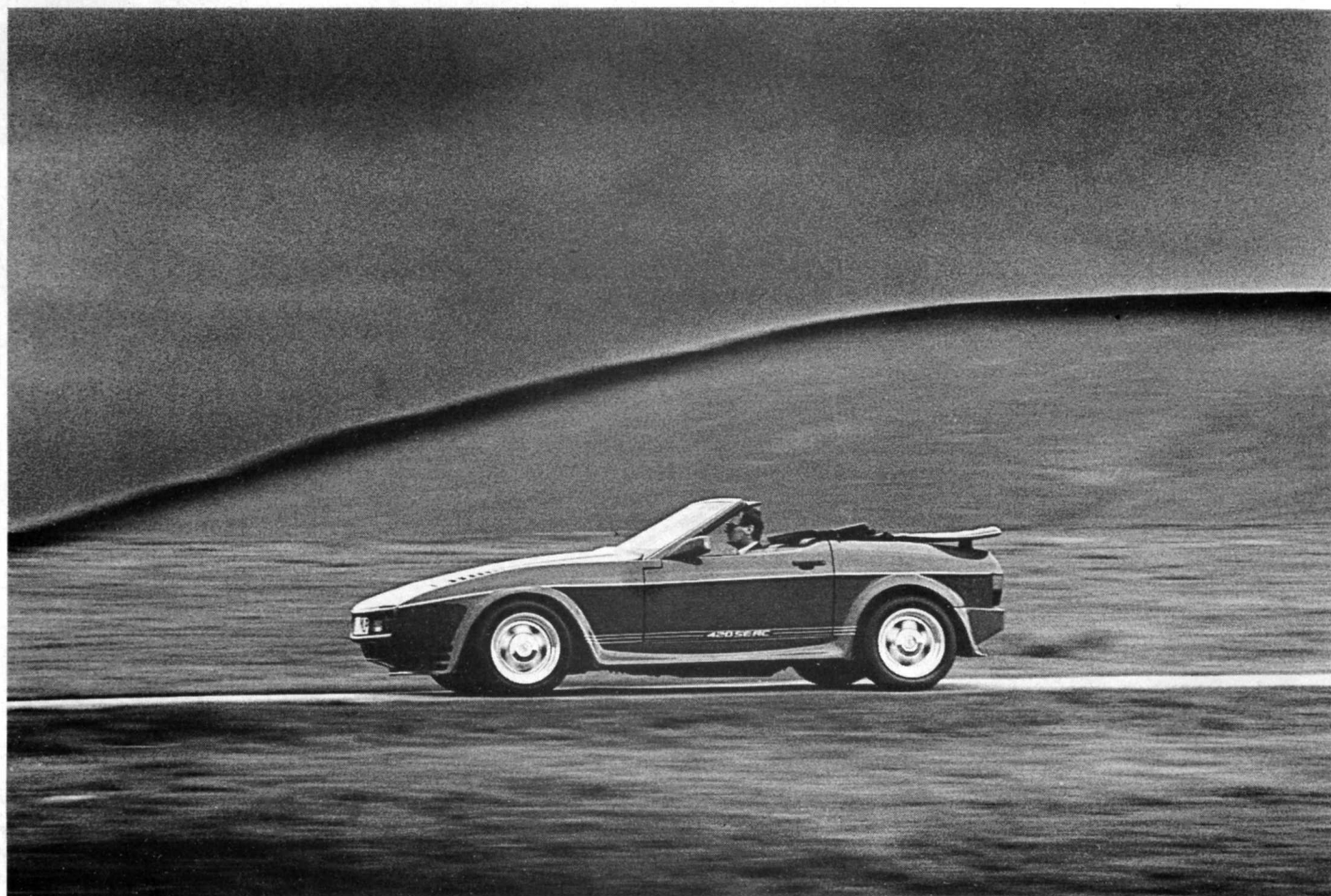
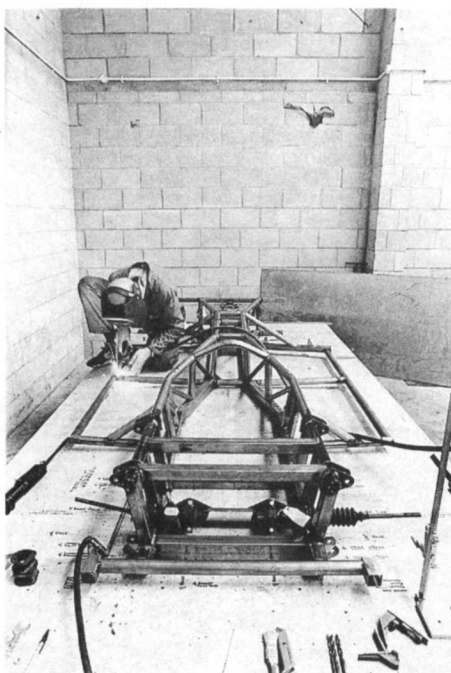
Power rose from 275bhp to a massive 300bhp at 5,500rpm, and torque became usefully greater too; up from 270lb ft at 4,500rpm to 290lb ft at 4,500rpm. Maximum speed? Is 165mph good enough?

But perhaps even more important than the engine tune-up was the work carried out on the chassis. The old semi-trailing arm rear suspension did not have sufficiently strong forward chassis-linking to cope with the vast power output, and heavy starts transferred a lot of strain on to the driveshaft universal joints. This was a trait well known to *Fast Lane*, as this magazine ran one of their cars for a while and kept breaking the transmission.

The solution was to develop a four-point lower wishbone, with the driveshaft acting as the upper link. A torque reaction arm also helped prevent changes in wheel position, which had partly been the downfall of the previous set-up. Now if this new design worked for the fierce, cammy racer, there would be no problems for the 'softer' road cars.

Naturally, the SEAC is the Blackpool company's flagship, and the car comes with the usual TVR equipment specification. There are electric door mirrors, electric windows, and an expensive radio/cassette. The colour of the leather upholstery is up to the customer, and the cost is £28,500. However, there's nothing to stop you going for a car close to race trim, with a lightweight chassis and even more power. That would cost close to £35,000.

At the other end of the scale, TVR are very definitely retracing their steps, for the





new 280S bears a distinct similarity to the old pre-Tasmin Taimar model, dropped at the beginning of the 1980s. In engine and chassis terms it will be a simpler car than the SEAC: the faithful 150bhp Ford V6 2.8-litre engine is used, and rear suspension relies on a semi-trailing arm set-up. To rationalise the range, TVR have dropped the 2.8-litre Wedge, for demand has been limited since the 1983 introduction of the 350i.

A variation on the SEAC is what the firm call the 420 Saloon. It's an angular-looking two plus two, and being eight inches longer than the SEAC convertible, it is said to offer a couple more inches legroom than that which a Porsche 944 can provide.

The Saloon's engine is the same unit which powers the SEAC, except that it's tuned for torque rather than brute power. The 350i engine will also be available. The chassis, too, is engineered with long-distance cruising ability in mind. The price of the 420 Saloon is £24,500.

Given that TVR now offer four basic

body shapes, and are planning to increase production from 12-15 cars per week up to around 20, it's tempting to wonder if this is not simply too much for a small firm. Is there not a danger that such a wide range will throw too many spanners into the works?

Peter Wheeler, TVR's chairman and co-owner, thinks not. He says; "Apart from the US market, we try and build our cars to order. We'll build to colour, interior trim etc, and we'll even do modifications for a customer as long as they don't affect the car's Type Approval.

"The number of different cars we build doesn't really affect us, because one of the advantages of the way we work is that we can be extremely flexible. If we were building steel cars, the body tooling costs represented by our model range would be huge—hundreds of millions of pounds. But obviously we don't need that sort of investment.

"Our expense isn't so much in the cars, but in getting them certified for different countries—that's our biggest problem. For instance, if we didn't have the benefit of our experience and knowledge, it would cost around £200,000 to homologate a car for the States."

Certainly one of the reasons TVR want to develop their range is that the existing line-up was a little short on charisma. Furi-

ously fast and with road grip to match, the 350i and 390SE are nevertheless awkward lookers, and their styling has dated quite quickly. They haven't gained 'classic' status, as did the Taimar before them.

Wheeler is ready to admit as much; "For the new 'little car' we wanted as safe a styling package as we could get. We knew that the old pre-Tasmin car was one everyone liked, so rather than risk upsetting people we went for a design that was known. We also wanted to build a completely new car underneath—remember we had to drop the Taimar because of legislation problems."

TVR aren't exactly 'doing a Morgan' with the 280S, though the idea is that the shape will be a long-lasting one. There will be no modifications to the body and chassis, but as component availability changes engines may vary.

In fact although the Ford V6 motor is reliable and cheap to buy in, Wheeler feels that a smaller four-cylinder engine would have been more in keeping with the character of the car. But the two favourite available engines both posed problems, as Wheeler explains: "Austin Rover's M-16 engine would have been very suitable—a British-built engine which was light and high-revving. But it had one serious problem—it wouldn't fit under the bonnet!

"It was too tall, and also had too deep a sump. But we could still use it, though that would depend on what sort of cooperation we could get to modify it. We just didn't have the time before launching the car.

"The two-litre Peugeot engine would also have been quite nice, but there was a supply problem. For a start it's made in France, and in any case they would only sell it to us in large batches, which wasn't much use."

But whichever engine the 'little car' uses in the future, Wheeler believes it's important that the car should be seen as a simple one. "I wouldn't say we'd go back to an actual carburettor engine, but the car does have more of a carburettor image than it does a fully-programmed-engine image. Our customers tend to be happier if they can fiddle around with the car."

The 280S was brought to the market to win over the traditionalists, but the SEAC's purpose in life could hardly have been more different. It was a race-bred car designed to be as fast as possible, and with the best possible handling.

Says Wheeler: "SEAC was an aerodynamic development of the Tasmin—what we were trying to do was to reduce the lift at the front of the car. And I think we've done that very successfully—look at the huge spoiler we've had to fit on the rear to create sufficient downforce to compensate.

"We were looking to make the car very safe over 120mph, and given that it has to travel on the road and have plenty of ground clearance, we couldn't go into any serious ground-effects. So we've utilised the top shell of the car as much as we can in trying to reduce lift."



With the 280S, TVR have retraced their steps with an updated version of the old convertible body (left and top left)

Considering the amount of effort TVR have put into SEAC's aerodynamics, the next question inevitably concerns the drag factor. But Wheeler barely manages to conceal his contempt. "We're not really interested in Cd," he says. "What we're concerned with is the handling of the car."

"But in fact the car is actually a little more aerodynamic than the Wedge. But that's mainly because of the underflow conditions."

The no-expense-spared SEAC, plus a return to a relatively cheaply-priced sports car while still retaining the Wedge gives TVR a nicely balanced range. But what is the logic behind the Saloon? After all, TVR don't have much experience of this market.

According to Wheeler, it's a simple, practical move: "One of the reasons we wanted the Saloon—for want of a better word—is that it will help our UK sales in winter. With convertibles, we do better when the

sun is shining."

With so many new models all coming out more or less at once, TVR's image and appeal stands to be changed considerably. And that can only be a good thing, for while there has never been any doubting the driver-appeal element of the cars, their image has been a little weak considering the high prices charged. The next couple of years should see a stronger identity emerging for the marque.



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