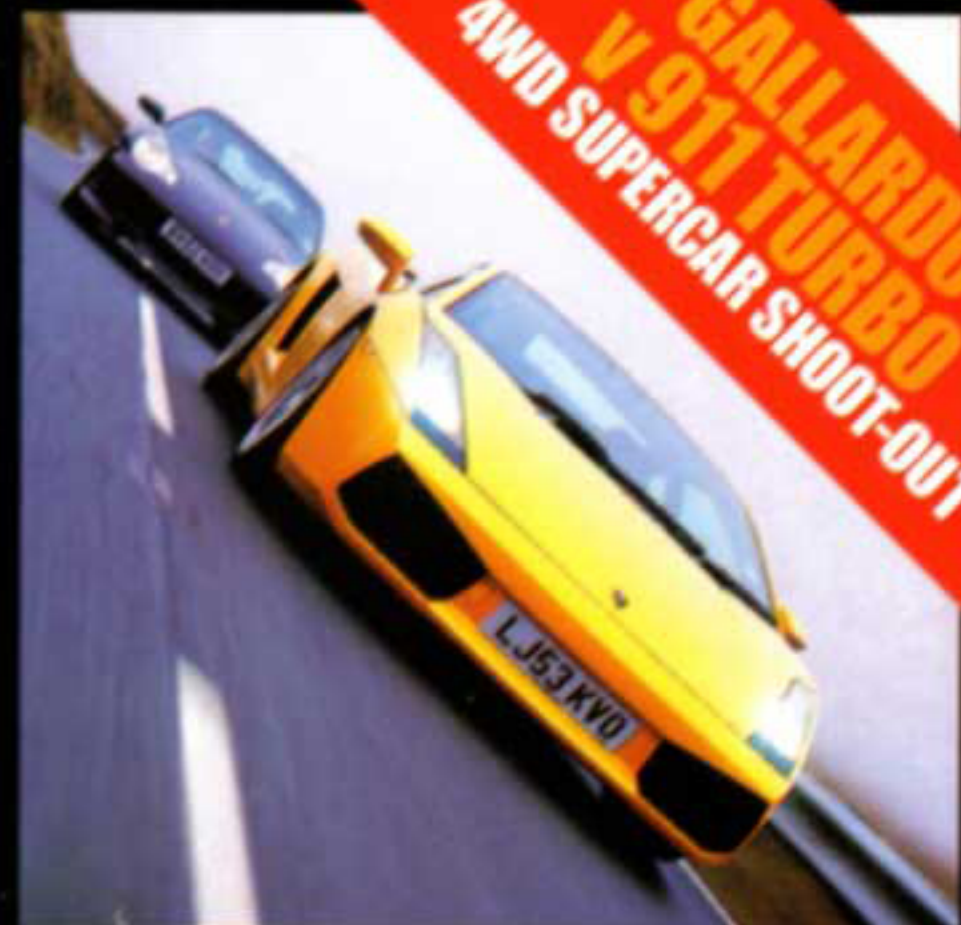


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[Toyota-engined Elise]







# B R A V E N E W W O R L D

Lotus is about to launch the Elise on the American market. It's a bold move, and we've had a sneak preview of the car that's carrying the company's hopes ➔



## [Toyota-engined Elise]



**C**onfidence, happiness, and excitement seep from Tony Shute like an infectious disease; he can hardly sit still he's so fired-up. A 20-year veteran of Lotus, Shute is programme leader for what Lotus calls the Federal Elise – to you and me, that's an American spec version of Lotus's bare bones sports car – and he's just back from giving the car its first official airing at the Los Angeles Auto Show. Reaction to the car, says Shute, was tremendous.

Which is good news for Lotus. Effectively a one-model manufacturer since the departure from Europe of the Esprit last year (ironically, the remainder of the US-spec Esprits are being shipped westwards as you read this), Lotus saw sales slide by around 32 per cent during the last 12 months. It seems that everyone in the UK who wants an Elise has already got one. Which makes the virgin American market an important one, although the company is also making inroads into unlikely territories such as Mexico, Russia and China. But as with so many other smallish British sports car makers, the land of the Stars and Stripes is the biggie, the horn of plenty – just remember, the MGB became the world's best-selling sports car after it was embraced warmly by Uncle Sam; ditto the MX-5. No wonder Shute has got an attack of the fidgets.

America. Such an obvious market. So why didn't Lotus ship the Elise out there from day one? Come to that, why aren't all our plucky lads, TVR and the rest, out there tucking into a wholesome slice of American pie with double whipped cream on the side? Well, as you might have guessed, things ain't that easy.

As Shute explains: 'Going into the States from scratch would be a massive undertaking. What people don't realise is that Lotus has never left the American market from the days of the rear-drive Elan – we still sell the Esprit there, we still have a




dealer network there, and there's probably more understanding of what the Lotus brand stands for than anywhere else in the world.

'Those factors give us a head start, plus Lotus Engineering has had to develop several other manufacturers' cars for the US; my last Federal project was the Vanquish. Our homologation department therefore knows all of the engineering requirements for meeting Federal regulations, together with the cost implications.'

And therein lies the crunch. Shute won't be cajoled into revealing how much the Federal Elise project cost, but does let slip that it was three to four times the amount spent on developing the S1 Elise. So we're talking tens of millions. About four years ago when the project was first proposed and costed out, the board turned it down; only when Proton obtained full ownership of Lotus and realised that it couldn't grow the company unless it went Stateside, did Shute and the team (which at times has numbered 60) get the green light.

Quite apart from anything else, you have to go through a crash test programme, which involves between 12 and 20 cars hitting the wall. Then your shiny new sports car must survive a 120,000-mile durability test with no parts replacement –



A dark blue Toyota Elise is shown from a rear three-quarter view, driving on a road towards the right. The car is in motion, with motion blur on the wheels and the background. The scene is set at sunset or sunrise, with a bright, hazy sky and a dark horizon. The car's taillights are illuminated, and its headlights are on. The overall mood is dynamic and adventurous.

New Toyota-powered Elise goes through its paces at Hethel. This is Federal-spec car, but we're getting Toyota engine in UK too. Despite small shift in weight balance with heavier engine, handling largely unchanged, with initial understeer, throttle-induced oversteer. New design of alloy wheel (inset) for Sports versions of Federal Elise, claimed to be ultra-light; made in Russia

*'Then your shiny new sports car must survive a 120,000-mile durability test with no parts replacement – not even the cam belt'*





Tony Shute (above) led the Federal Elise project team. Left: Toyota-sourced VVTL-i 1.8-litre engine met size and power requirements – more importantly, it already met US regs. Facia (below, right) different to Euro cars; has twin airbags, speakers on top of facia, and new air vents. Base model cars, however, still get manual windows – electric lifts cost extra

not even a cam-belt – to ensure the engine maintains its emissions compliance. That's why job #1 on the Federal Elise was to find a powerplant that had already gone through the durability process and also met Lotus's power, weight and size requirements.

The way the specialist sports car industry in the UK pans out, airbags aren't an issue – the law doesn't require them, the market doesn't demand them, most of the manufacturers in this sector can't afford them. But like the English language, it's different in the States. Airbags are a legal requirement, not least because wearing seatbelts isn't. 'It's the one thing we were worried about,' confesses Shute, 'but in fact, the Elise walked the unbelted crash test.' Again, though, what undoubtedly helped Lotus here is that it had already engineered airbags for clients, most

relevantly Vauxhall with the VX220.

Other changes to the Elise for use by the Yankees are minor. There's ABS – shared with the forthcoming Exige – because it's a market requirement, and side markers on the leading edge of the front wheelarches and the trailing edges of the rears, because it's a legal requirement. And the rear valance area is restyled because the tailpipes now emerge very low and centrally.

Low-volume car-makers selling in the States do get a bit of help from the authorities in the form of 'waivers', a sort of 'we'll let you get away with it this time as long as you promise to fix the problem when you launch your next car', 'get out of hideous expense free' card. Lotus has used a couple of waivers. The first is for the headlights which aren't as tightly encapsulated to prevent moisture ingress as the Yanks like them; the

second is for the bumpers – or in this case the nose and tail mouldings – that are supposed to survive a 2.5mph impact without damage.

As far as Shute's concerned, however, sorting out the mechanical side of getting a car into the States is essentially the easy bit. Understanding the market is far more critical. 'We found out you don't 'half' go into the States,' he explains, 'you have to show commitment to the market before the dealers will take you seriously. Each dealer expects at least 100 cars a year from you and they need to be convinced that there are more models on the way.'

'Although Americans generally have a lot of money, they're very careful how they spend it, so you have to pitch the price right. We studied the market in extreme detail, examined how our rivals were doing in every area of the country, and concluded that the Elise needed to be a niche product, a weekend toy. And having discovered that \$40,000 is a key psychological barrier, we've pitched in at \$39,985.'

'Some of our dealers sell very expensive machinery, so the Elise will effectively be their 'volume' model. However, we're keeping supplies tight, just 2200 for the first year, to maintain exclusivity. I'm sure that initially we could sell many more, but we're after a sustainable market.'

Lotus's commitment to what is a massive undertaking can be seen in its decision to set up a US headquarters in Atlanta, Georgia, from where it will run training programmes for dealers and mechanics. Driver training courses are also being developed, and although there won't be any official involvement to begin with, Lotus will offer technical support to those Elise owners steering onto the track. Lotus has also done a



## WAITING IN THE WINGS EXIGE READY FOR LAUNCH

Another beneficiary of the need for a Federalised Elise is the Exige, which shares the 189bhp Toyota engine. Unlike its predecessor, the S2 Exige (left) isn't based on a racecar, looking more like an Elise with a hardtop and a rear wing than a stand-alone model.

Yet it does have an eye on the circuit; its purpose is to attract trackday clientele, and for that reason it's

handling is sharper, its responses more acute than the identically-engined roadster.

But its role stretches a bit further than just being able to beat an Elise – and even the S1 Exige – around a circuit. The Exige, despite its hardcore demeanour, also needs to form a makeshift bridge into Esprit territory. European production of the mid-engined supercar ended last year, and its original replacement, the M250, was postponed pending a total

reworking of the project to make it more 'global' in its scope.

That's why the S2 Exige will be more 'everyday' than its predecessor, with decent air-conditioning, ABS, and even a boot. However, long-distance touring is still unlikely to be an Exige forte.

The S2 Exige is launched at the Geneva motor show in March and goes on sale in the UK soon after, for approximately £32,000, about four-grand more than the Euro-spec, Toyota-engined Elise 111R.





promotional deal with McDonald's to give away toy Exiges with meals.

'The British are coming' was once the great war cry of the UK film industry following a few Oscar successes in the mid-'80s. We're unlikely to hear the same clarion call from the British specialist sports car industry. As the Lotus experience shows, you have to be loaded and you have to be knowledgeable. And it also helps to have the sort of enduring and up-front heritage of a one-time leading light in the F1 world. Others hoping for a smooth Atlantic crossing may merely find themselves looking wistfully out to sea from the dockside.

## LAPPING HETHEL

Tony Shute is just back from the clement climes of southern California where he's been helping launch the Federal Elise at the Los Angeles Auto Show. It almost seems cruel, then, to drag him out into the sub-zero chill of Hethel in mid-January.

But needs must, and we need to go for a thrape in the 190bhp, Toyota-engined, Federal-spec Elise because, as you may already know by now, Europe is getting this car too (minus a few of the American bits) in a few weeks' time. And because of the way our publishing deadline falls, we won't be able to bring you a full drive story on the new EuroLise until next issue.

The car we're going out in is a Federal development car and the second we're finished it's off for last-minute electrical testing. So we need to pack a lot into a very short time. Visually, little has changed, and this development hack doesn't



even have the cool-looking new alloys – part of a US 'Sports' pack – that are said to trim 2.7kg a corner off the unsprung weight of the car. Still, at least the legally required side markers, which have a trio of LED lights inside them as well as being reflective, don't spoil the Elise's looks too much.

Even if this development car's steering wheel didn't have a Vauxhall griffin at its centre, it'd be easy to tell that the airbagged tiller was lifted from the VX220. Which is no big deal because it's a

neat installation. There are also some changes to the rest of the fascia, with the speakers moving from low down the door apertures to right on top of the fascia, and the outermost vents becoming fixed items to comply with US regs about side-window demisting.

What a regular Elise driver will notice most, however, is the alloy ball-topped gearlever, now marked out with an extra ratio. Compared with the old five-speeder linked to the K-series motor, ②



## [Toyota-engined Elise]



the shift action is wonderfully slick and positive; unlike before, there's now never any doubt that you have actually selected a fresh ratio.

As we discovered in the prototype Toyota-engined S2 Exige we drove in issue 061, the 2.0-litre VVT-i power unit, despite being the gutsiest motor yet fitted to a production Elise, sounds nothing special at idle. However, most of the coarseness we heard in the Exige has now gone, partly because we've got the roof off so aren't so exposed to the fine detail of the engine note, and partly because there's been a few extra months of engine and exhaust tuning since last we met with the Toyota engine.

Off we trundle, slowly at first, as there's still some ice out there on the track. Even in a tall gear at low speeds there's no hesitancy or faltering, just an easy-natured tug that subjectively feels to have a keen edge over the 156bhp K-series-engined Elise. There's also a bit of extra tang to the engine and exhaust notes, suggestive of future excitement.

That suggestion becomes a promise delivered at 6200rpm, the second wave of the engine's

management strategy booting up to release a torrent of extra energy, almost turbo-like in its intensity. Approaching the step-up point, the Elise hardly felt reluctant, but now it's moving as if assisted by Johnny Wilkinson's golden right foot. The increase in pace is tangible, but just in case you'd missed the point, the engine note kicks over from glam rock to thrash metal; the Sport 190 K-series still has it licked for aural aggression, however.

But the point is that the VVT-i engine is a standard unit, not a motorsport special, and should keep doing its thang long after the Sport 190 has been in for its second major rebuild. And you're not going to be disappointed with its performance – Lotus claims top speed is lifted to 150mph, while the 0-60mph figure drops (from 5.2sec to 4.9sec for the base Fed-spec Elise, and to 4.7sec for the Sports version with Yokohama AO48 tyres and firmed-up suspension).

What's important, though, is how the Toyota engine alters the character of the Elise. You can still drive it in the same carefully considered fashion that makes for hot lap times, but now you can also go completely nuts in it. The K-series – unless it's the Sport 190 – never feels truly special, never gives you the sense it has the capability to unlock the full potential of chassis, steering and brakes, as soundtracks go it's more TV movie than Hollywood blockbuster.

With Toyota power, the Elise exhibits a newfound vitality, a punch to go with its poise. Of course, you could argue that having two-phase performance makes for an annoyingly disjointed drive, but a quick blast in the Lotus should soften your opinion on that score.

Talking of quick drives, ours is over. The brevity of it and the track conditions preclude us from forming a definitive opinion on the new Lotus, but all the signs point to it being a belter. ■

## Specification

### LOTUS Elise

● Engine	In-line 4-cyl
● Location	Transverse, mid-mounted
● Displacement	1796cc
● Cylinder block	Aluminium alloy
● Cylinder head	Aluminium alloy, dohc, four valves per cylinder, variable valve timing and lift (VVT-i)
● Fuel and ignition	Lotus electronic engine management, multi-point fuel injection, electronic ignition
● Max power	189bhp @ 7800rpm
● Max torque	133lb ft @ 6800rpm
● Transmission	Toyota six-speed, close-ratio manual, rear-wheel drive
● Front suspension	Unequal-length double wishbones, Bilstein dampers, Eibach springs, anti-roll bar
● Rear suspension	Unequal length double wishbones, Bilstein dampers, Eibach springs, anti-roll bar
● Steering	Rack and pinion
● Brakes	Lotus/AP Racing front callipers, Brembo rear callipers, vented and drilled discs, four-channel ABS
● Wheels	5.5 x 16in front, 7.5 x 17in rear, aluminium alloy
● Tyres	175/55 R16 front, 225/45 R17 rear, Bridgestone RE040
● Weight (kerb)	860kg, no options (916kg, full options)
● Power-to-weight	219bhp/ton
● 0-60mph	4.9sec (claimed)
● Max speed	150mph (claimed)
● Insurance group	20
● Basic price	£27,995 (\$39,985 in US)
● On sale	March 2004

Below: orange and red reflective side markers on arches also incorporate LEDs. Rear valance redesigned – tailpipes now exit centrally beneath the (enlarged) number plate. Research says US buyers will go for wild colours – this isn't one of them

