



LOTUS CARS LTD.

ALL SYSTEMS GO FOR THE ELISE 340R

Lotus is to put the Elise 340R, its radical lightweight sports car concept and the most extreme machine Lotus has produced since the 7, into production, to satisfy the huge public demand for the car since its world debut at the 1998 Birmingham Motor Show.

The need to comply with European homologation regulations means that the production 340R will differ slightly in detail to the original concept car; the 340R was designed from the outset with production in mind, to ensure only minimal changes would be needed should the concept be given the green light.

Completely unchanged by the homologation process will be the ebullient spirit of the 340R. This is a car designed to be driven hard and fast, and above all, to be enormous fun. The 340R's phenomenal performance combined with the sort of exceptional ride and handling which has become a Lotus hallmark, promise an unparalleled – and unforgettable – driving experience.

Although intended primarily to be used for track days, the 340R is a fully-fledged and exceptionally exciting road car.

The Elise 340R is expected to go on sale in December 1999 and will be priced at approximately £35000.

340R – the Extreme Elise

The 340R concept was created in record-breaking time by Lotus Engineering and Lotus Design. It puts a new spin on the considerable talents of the multi-award winning Elise, taking it down a more extreme path with the design and engineering purity of a motorcycle.

The philosophy behind the 340R is explained by Lotus Design Manager, Russell Carr: 'We decided to develop a road-going racing car which would be even more essential than the Elise, solely directioned and focused for pure driving pleasure. We wanted a car that would embody the Lotus characteristics of innovation, light weight, elegance and fun to drive – the 340R is all of these.'

What has made the 340R's striking looks and minimalist bodywork possible, is its light and exceptionally stiff chassis. Made from extruded and bonded aluminium and pioneered on the Elise, the chassis is the central feature of the 340R concept and is the load-bearing structure of the car.

This means that unlike conventional cars, the body panels aren't an essential part of the 340R's structural integrity, and can therefore be used only where driver comfort and protection, and aerodynamic considerations make them essential. Motorbikes and single-seater racing cars, two of the inspirations for the 340R, are designed the same way.

High-tech composites are used for the body architecture. These advanced materials lend themselves ideally to Lotus vehicles, being not only strong and lightweight, but also capable of being precisely moulded to design engineers' or aerodynamicists' requirements.

The doorless, lightweight advanced composite top shell body is a single-piece unit designed to be completely removable for easy access to major mechanical components, just like on a race car. While this dynamic and modern, yet sensuous, top shell covers

the upper surfaces of the 340R, the lower sections of the car are 'unclothed', exposing the chassis, engine, and suspension components in all their intricate glory.

The 340R has a dynamic, feline stance on the road or track, in keeping with the Lotus philosophy of combining elegance of style and design with basic scientific principles, and it shows, in dramatic fashion, the inherent flexibility of the Elise chassis.

The Mechanical Package

The production 340R will be powered by the VHPD (Very High Performance Derivative) version of the 1.8-litre K series engine. This light and free revving powerplant produces one of the most fabulous engine notes of any four-cylinder engine in the world, it develops 170hp at 8000rpm, (and an equally impressive 142ft.lb of torque at 5000rpm) in road form and about 190hp in race tune

As you'd expect of a car designed with track sessions and other forms of motorsport firmly in mind, the 340R is fitted with an close ratio gearbox. This means that when driven hard, the 340R never falls out of its powerband, crucial if the car is going to be competitive on the track , hill climbs, and for maximum enjoyment on the road.

Lotus has more than 50 years' experience of making cars handle superbly, and the 340R makes full use of this extraordinary heritage. Whether it's on the road or track, the 340R can be placed with millimetre accuracy, and while never less than totally involving and exciting, the chassis is also remarkably forgiving.

Aerodynamic downforce is provided by the powerful underbody rear diffuser and the top exit radiator (which ducts air up through the front radiator and over the cut-down windscreen) creating a net downforce on the nose of the car.

As befits its racing aspirations, the 340R will be fitted with road-legal versions of the super-sticky hand-cut Yokohama tyres it wore when introduced at the 1998 Birmingham Motor Show. The road version of this tyre is being developed by Yokohama in close

conjunction with Lotus ride and handling engineers, and will be of a soft compound, high-grip composition. Ultra-light wheels complete the wheel package.

Again with track work very much in mind, the 340R is provided with some very serious brakes. At the front and rear, cross drilled and vented discs are 282mm in diameter, and are gripped by AP Racing opposed piston callipers.

The 340R's composite wheel fenders can be removed for track use, making the car seem all the more like a single-seat racer. With the wheels and tyres exposed, especially at the front, the driver gets an unspoiled view of the position and orientation of the wheels and tyres for precision placement of the car.

Inside – the bare essentials for maximum fun

Sit inside the 340R and you quickly realise it has been designed with great clarity of purpose – to deliver an unparalleled driving experience.

It starts when you have to literally step into the cockpit – it has no doors, or hood - for that matter – just like you would in a single-seat racing car. Lightweight composite racing seats are minimally trimmed in alcantara, and each features a four-point competition harness. The adjustable driver's seat is located towards the centre-line of the car, while the easily removable passenger seat is fixed in the rearmost position, to give the driver more room and greater peripheral visibility.

The centre console has been designed with a high level of 'jewel-like' technical details, similar to that of a powerful motorbike. Crowning the centre console is a race-style starter button, and the motorsport theme continues with the optional quick release Momo steering wheel (for track use only).

The 340R's instrumentation is provided by Stack, the famous maker of race car instrumentation.

Stylish “speedster bars” are positioned behind the seats to offer the best protection. They also add extra stiffness to an already very rigid chassis.

The 340R – You’ll Never Experience Anything Like It

Driving the 340R on the public highway is the next best thing to being out in a road-legal single-seat racing car. You sit extremely low to the ground, the car’s translucent flanks mean that you can see the road rushing past beside you, and you can almost reach out and touch the front wheels.

The engine barks loudly with every shift of the close-ratio gearbox. Performance is breathtaking, throttle response is instantaneous, roadholding is phenomenal, and the handling so well balanced and rewarding that it’s easy to see the 340R will be known in many quarters as the king of sports cars.

Ends.

Lotus 340R

Engine:	4 cylinder in Line, mid mounted watercooled engine. Double overhead camshafts with Hydraulic Tappets Electronic multi-point injection Maximum power: 170bhp @ 8000 RPM Maximum Speed: 133 mph 0-62mph ~(100 km/h) 4.4s
Transmission:	5 speed transaxle driving rear wheels Close ratio box
Body:	Composite body panels with detachable Clamshell.
Chassis:	Lotus-designed spaceframe structure of epoxy-bonded sections of aluminium extrusions incorporating integral roll over hoop.
Suspension:	Independent upper and lower wishbones Co-axial springs and adjustable Platform KONI racing dampers. Anodised Aluminium racing hubs.
Steering:	Rack & Pinion, non power assisted.
Wheels:	Unique alloys Front: 6 x 15J. Rear: 8 x16J
Tyros:	Unique YOKOHAMA A038 Front: 195/50 ZR15 Rear: 225 /45 ZR16
Brakes:	282mm diameter cast iron ventilated cross-drilled discs. Non-servo split hydraulic system. AP Racing opposed piston calipers.
Unladen weight:	586kg
Standard Equipment:	4 Point Competition Harness, Lightweight Alcantara Trimmed Seats.
Optional Equipment:	TRACK PACK (Lotus Sport Fitment) Cat replacement, 190bhp Track key for ECM, Motorsport Air filter, Titanium exit pipes. Quick Release steering wheel. ACCESSORIES Roll cage, Fire extinguisher, ignition cut off switch, track exhaust, Oil cooler Kit, Dry Sump, Close ratio straight cut gear set