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WORLD EXCLUSIVE

**ALL YOU NEED
TO KNOW ABOUT
NEXT YEAR'S
LOTUS ELAN**



WRAPS OF LOTUS

The British roadster is likely to make a glorious comeback when this car – the new



FF THE '89 ELAN

Elan – hits the streets halfway through next year. And it will be yours for only £13,000

THE NEW LOTUS ELAN, THE MOST IMPORTANT model in the Hethel company's history, is unveiled here, for the first time, in undisguised form. These photographs, of the full convertible model, show a sports car of little more than Honda CRX length. They also show what is plainly the best-styled British sports car since the E-type Jaguar. It's aerodynamic, as well: sources tell us that the Cd of the convertible is 0.32, while the hardtop model will slice the air with a drag factor of only 0.30.

Other technical highlights include the use of a yet-to-be-launched 1.6litre 16-valve Isuzu engine, said to deliver 125bhp in non-turbo form. The new engine, to be shipped to Lotus's Norfolk headquarters from Isuzu's Japanese plant, will deliver a meaty 115lb ft of torque, and will run on a compression ratio of 10.0 to one. The engine will have an identical bore and stroke, will run on electronic fuel injection, and uses a cast iron block/aluminium alloy

head. This is the unit which will power the base Elan – which Lotus chief executive Mike Kimberley has already gone on record as saying will cost £13,000.

The new Elan – known within the company as project M100 – represents a number of major departures for its maker. It is not only the first Lotus to use a Japanese engine, but will be the company's first car to use front-wheel drive. The configuration is almost certainly dictated by General Motors' (which now owns Lotus) insistence that the British-based company uses in-house components wherever possible. Lotus

apparently therefore selected the Isuzu 16-valver as the most suitable unit available. For cost reasons it also makes sense to use the transmission designed for that powerplant – and that means front-drive. Sources from within Lotus tell us, though, that the car 'won't handle like a front-driver'. Apparently, the Hethel firm is putting enormous effort into tuning the steering and front suspension in order to quell torque steer and neutralise the handling as much as possible.

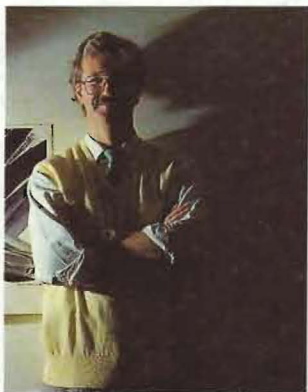
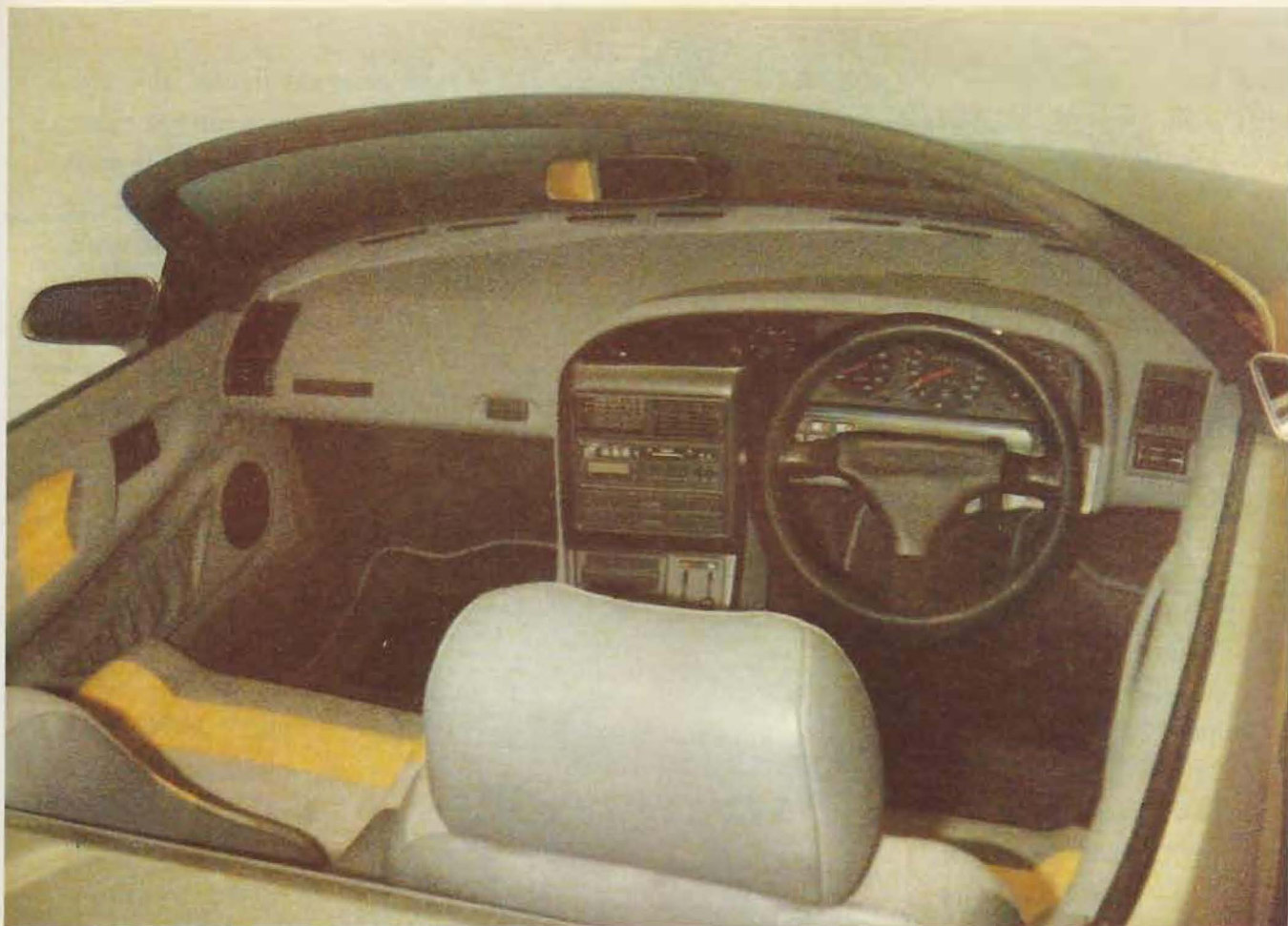
What has also emerged from our inquiries is that a four-wheel drive version of the M100 will also be on offer. That transmission will come

with a turbocharged version of the Isuzu engine. The turbo motor delivers 160bhp, our Lotus sources say, and 150lb ft of torque. Maximum speed is said to be 150 mph. Our sources also say that Lotus is evaluating a turbo version of the 2.0litre 16-valve Opel engine, for possible use in the M100. Both turbo and non-turbo cars use five-speed boxes.

**'It is
the first
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use front-
wheel drive'**

Although the use of front-drive and four-wheel drive are unusual for Lotus, the suspension of the Elan will be very much in keeping with the company's traditions. At the front there will be unequal length wishbones and, to reduce unsprung weight and help improve the body air flow, the coil springs and dampers will be mounted in-board. At the rear, wishbones will also be used. The coils and dampers will be mounted outboard.

The brakes will also be mounted outboard. The front discs, of 9.5in diameter, are ventilated, while the marginally smaller rear discs are solid. The handbrake works directly on them.



Dash of Lotus well sculpted,
instrumentation comprehensive.

Car is strictly two-seater. Note
sharp rake of windscreen. The
body dimensions of car come
close to those of Honda CRX.

Body all glassfibre. Design is
by Peter Stevens (left), also

responsible for recent Esprit



Styling of car really excellent.
Shape is only just finalised.
Note retractable headlamps.
Base engine will be Japanese
Isuzu 1.6litre 16-valve unit,
which develops 125bhp. Turbo
version also to be offered, said
to deliver 160bhp. There is still
a chance of Opel 2.0litre turbo
in top-range car. 4wd will be
option. Convertible pictured,
although hardtop also available



In order to keep the price down to £13,000 – which will make the new Lotus cheaper than the likes of the Toyota Celica and Honda Prelude – steel wheels will be offered as standard. The car pictured is fitted with the optional alloy wheels. Lotus may decide, closer to launch date, to standardise the alloys. Word is that the alloy wheels will wear 205/45VR16 rubber, while the steels, were they to be available, would use 185/70VR14s.

The car you see in these photos was designed by Lotus's chief stylist Peter Stevens. Designs submitted to Lotus by Giugiaro (who styled the original Esprit) and by General Motors' design department, were rejected. Stevens' work is simple, yet beautiful in both detail and overall effect. The bodywork will be made from glass-fibre, using Lotus's new VARI (vacuum assisted resin injection) production process – as seen on the latest Esprit.

Our information is that the overall length will be around the 149in mark – which makes it an inch and a bit longer than a CRX. Put another way, this dimension places the new Elan between the Ford Fiesta and Ford Escort in size. A wheelbase of 88.6in means there won't be much in the way of front or rear overhangs – as our pictures make clear. Predictably, the car will be very light – the current production target is about 1600lb. That means this 125bhp car will be considerably lighter (by almost 200lb) than the MG Metro. Little wonder that, even for the non-turbo model, Lotus is talking about a 0-60mph acceleration time of around 7.0sec. And that makes the new car

comfortably brisker than any hot hatchback. The turbo's performance should be sensational given its 212bhp per ton power to weight ratio, a figure that betters a 911 Carrera's by almost 20bhp.

Two major body styles will be offered on the Elan. The big seller will be the convertible, pictured, while a hardtop model – featuring a Targa-type lift out roof panel – will also be available. The convertible is likely to be particularly popular in the United States, which will swallow most of the 3000-a-year Elan production run. Britain and Japan are likely to be the other really big markets for the car, although

Lotus is also hoping to do well in mainland Europe, where the firm's sullied reputation for uneven quality control and a limited dealer network have been inhibiting sales.

Chief executive Kimberley is in no doubt that the car, potentially, can sell far more than 3000 units a year, worldwide. But he is also determined that demand for the car should far exceed supply.

Lotus expects the Elan to secure it a solid manufacturing base.

Kimberley is hoping to introduce M100 in the late summer of next year, preparatory to the Frankfurt Show. Although the design of the car has recently been finalised, a number of technical decisions have still to be made – namely spring/damper rates, suspension and steering geometries, detail engine tuning and testing. In addition, Lotus still has much reliability and durability testing to do. Kimberley is determined that the Elan will be fully developed by launch date. GM's finances have helped Lotus a lot in this area.

**'With 160bhp,
the turbo
Elan will
be good for
150mph'**