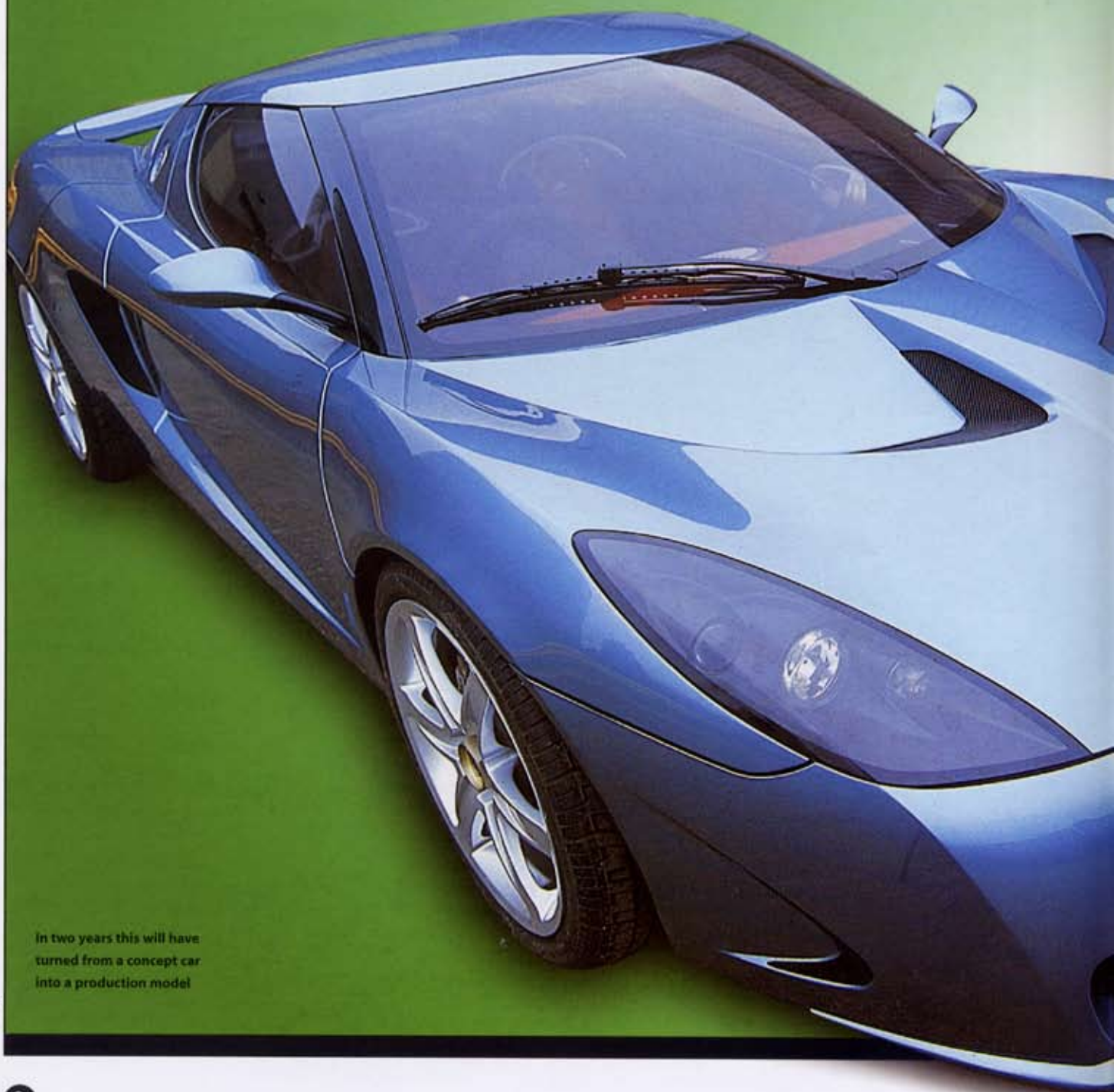


M250: the story has just begun

Preparing the M250 for production is a complicated process. Here's how it starts



In two years this will have turned from a concept car into a production model



For many of us, the most important piece of news to emerge from this year's Geneva Motor Show was Lotus giving the green light to production of the M250. Apparently, though, reaction from the press was more muted than anyone at Lotus had expected – that was only because the media had always believed that the M250 would happen, and therefore weren't surprised by the announcement.

But now that all the excitement and congratulations have died down, there's lots of hard and demanding work to be done before the first production models sit seductively in your local Lotus dealer's showroom. Some of this work has already been done,

because when Lotus builds a concept car, it tends to build it with possible production in mind. The M250's basic aerodynamic package has already been tested, which is why Lotus has made such bold claims for the car's high speed stability. Access to the cabin has been checked and the basic mechanism for those dramatic scissor-action doors has been designed. The

suspension layout has been decided upon, as has the general configuration of the chassis.

The designers and engineers have also calculated what's required from the engine and gearbox, and allocated its space within the car; all they need to do now is to find a powerplant that meets all the requirements! There's much speculation in the press about where that engine might be sourced from, but Lotus insists that no decision has been made, although there are several options on the table. Currently a 'project team' is being assembled, which will have responsibility for not only bringing the M250 to a production-ready state, but also for ensuring it meets all its targets for performance and costs. The team's first task, and it's a daunting and protracted one, is to start sorting out the fine detail of the design – that's the whole design from nuts and grommets to the overall shape. All the design work will be done using 3D CAD models together with a lot of sophisticated software developed in-house by Lotus. From these models the engineers will be able to accurately predict how the M250 will behave. For example, crash analysis is completed on the computer before vehicles are tested.

This gives a high degree of confidence before expensive prototypes are built and crashed. Another advantage of the 3D CAD models is that a lot of dynamic testing can be done 'on-screen'. This allows basic engine and chassis settings to be set up on the car before the road testers fine-tune its dynamic package using the most important tool in the Lotus armoury – years of experience of producing the best-handling cars in the world.

At the same time that all this is going on, the project team will be talking to suppliers. It's crucial to get them on board as early as possible, because not only will they be producing finished components for the M250, they'll also be taking part in their design and development.

Because Lotus can so swiftly take a car from concept to production – the M250 should be in showrooms by Spring 2002 – the production team is also starting to think about how the car will be manufactured. Where in Hethel will the production line be sited? What tooling will be required? How many components will be needed and how many sub-assembly stages will there be? And will any elements of the concept car need to be changed to make it more production-friendly?

If we can stop a few members of the project team long enough to get them to talk to us, we'll bring you another insider's progress report on the M250 next month. Because so far we've only scratched the surface of the amount of work they have before them.