



## *Circuit Car Newsletter No.02*

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Hi, once again it's time to bring you up to speed with progress on the development of the Circuit Car. As I reported previously, the initial runs at Shelsey Walsh were very encouraging, but left us with a list of things to work on and improve prior to production commencing.

The most obvious of these was changes to the front suspension geometry to improve on the balance of the car; by modifying the front upper wishbone and the steering arm we have been able to generate much improved camber and bump-steer curves which have rewarded us with a significant increase in front end bite. The high-speed balance of the car is now much improved, with better steering feel and weighting as an important by-product. The next phase of work in this area will be concentrating on the final specification of spring rates and damper tune to give the car that special Lotus ride and handling.

The car has also spent some time in the windtunnel at MIRA, Nuneaton. This proved to be a very useful exercise as we found a number of areas where we could make significant improvements, especially around the front ducts and the wheelarch exit arrangements. Changes in these areas, together with greater attention to detail around the radiator ducting and exit area have given us a very useful reduction in drag whilst improving the front end downforce, which further helps with the high speed balance mentioned earlier.



We also took the opportunity to optimise the location and angle of incidence for both the standard and optional wings and the front splitters, giving us an excellent downforce balance for the non-adjustable standard setup and a useful range of complementary settings for the optional adjustable wings.



Once back at Hethel, I was interested to run the car with the various wing combinations to see how pronounced the differences were in real life. I must admit to being amazed at just how fast it was possible to take Windsock Corner with the wings wound up to the high downforce



setting. I'm not ashamed to say that it took me more than a few laps to build up to going through the corner without lifting, but once you've done it, it's addictive!

The good news is that the drag reduction work, combined with the improved balance and downforce we now have, has brought the car's lap times down even further; with an indicated 150 now easily attainable on the run down to the Chicane on the back straight.

The weight reduction programme is also bearing fruit, with the base specification 190 PS car now within just a few kilo's of the target figure of 650kg full of fuel and ready to run. To put this in perspective, this is just over 100kg lighter than the original Series 1 Elise in equivalent condition.

The programme through to production is now starting to take shape, with design work on the body panels and chassis progressing as I write. Currently the production date has yet to be finalised as we have a lot of work on right now and need to prioritise our workload accordingly.



As before, I would welcome your thoughts on the car and any suggestions you might have for options or accessories, so please feel free to drop me a line at <mailto:circuitcar@lotuscars.co.uk>

All the best,

Nick Adams, Vehicle Development Manager, Elise Platform