

Formula Student Germany 2008

Thursday: Following the long day and night queueing on Tuesday, the team was set and ready for scrutineering by Wednesday night. This morning (Thursday) the team was assessed and passed scrutineering just after lunch, following a few minor problems being rectified (and a large problem in the form of a fuel leak!). Straight over to the tilt table and the team also passed this second time, before weighing in slightly heavier than at Silverstone. This is attributed to the differences between the 'dry' weighing in the UK and 'wet' weighing in Germany. The team now faces noise and brake test in the morning, a full 2 hours earlier than in Silverstone and giving a day of tuning and testing before the dynamic events start on Saturday. This is welcome as the team member in charge of the tuning is currently stranded in Belgium with a broken down car! Add to this that 3 of the 4 drivers registered this weekend will be driving for the first time and it is promising to be an interesting weekend! Tomorrow will see the team tested in the static events – business, design and cost. The team is looking forward to these events, better prepared than ever following the strong performance in Silverstone and encouraging feedback from the judges. We will let you know how we get on tomorrow – for now it is a well-earned shower and sleeping bag as the team looks forward to an early start in the morning.

Friday: The FBR08 has now passed scrutineering, meaning we are allowed to start testing the engine setup, and continue on to the tilt, brake and noise test in the morning. Having completed the design review at midday, immediately followed by the cost review, the FBR 08 was taken to scrutineering. First time in just 4 small problems were found and the car passed quickly after these were remedied. The business presentation went well, and concluded the static events for the team. The car is now setup for the tilt test first thing in the morning, followed by some engine testing depending on the weather and then brake testing and noise testing. Acceleration and skid pan runs are due to happen tomorrow morning. For now, it's some minor adjustments and then a rare early night for the team.

Saturday: The first day of dynamic events was a trying one for FBR, as a swathe of minor problems hampered competitiveness. Positives included being 2nd UK team in cost event, and gaining two more test stickers for the car... Saturday started on a high, with news of the cost event indicating that FBR came in 27th overall – the 2nd highest UK team. This is a great achievement given that it is our first year entering the event, and spurred us on for the day. Further good news arrived with a pass in the tilt test, gaining another sticker for the car. Problems with the car's electrical systems (ignition switch) were unexpected and delayed the team in its preparations for engine running. Unfortunately this delay meant that the FBR08 missed a slot for the acceleration and skid pan runs; however, what could have been a bitter blow for the team was turned around with typical flair when the engine started first time (and the first time in the FBR08 chassis) in the engine bay. A cooling problem stole further precious time, but after an investigation and a system refill, further good news

arrived as the car passed the noise test with flying colours, a full 7dB under the limit! Onto the brake test, and signs were good until throttle problems stalled the testing. Remedying this took time we did not have, causing the FBR08 to miss its autocross spot. To add insult to injury, the final brake test run was cut short when the fuel pump stopped working. This was sourced to the connection wires having touched the exhaust header, shorting and fusing the system, and requiring replacements. Whilst disappointed, the team is positive about tomorrow and confident that the FBR08 will take to the track to show what it can do in the endurance. This evening presents the opportunity to setup up the car for endurance, work on engine maps and prepare the setup for the brake test now scheduled for 8am tomorrow morning. In addition, a thorough audit of the car will be completed, to ensure that any foreseeable problems have been eliminated and tomorrow runs smoothly. Today was a long one, and with the heat continuing to scorch those who dared to go outside, a warm shower and a cold beer seem all too inviting. But, there is work to do...

Sunday: Following a difficult day yesterday, Sunday saw things come together for the FBR08 to pass brake testing and compete in the endurance race... After the trying times of Saturday, the team approached Sunday with a renewed vigour as it was all or nothing today. If we missed our endurance race time slot that was it – back to Cambridge. An early start saw the suspension setup refined, and the car prepared for the brake test. A positive engine test beforehand suggested some late night fuel map work had paid dividends as the car picked up and idled sweetly. The brake test saw the third driver of the competition enter the car, and after an impressive display of wheel spin he nailed the brakes to lock all four and gain us our final, red sticker. FBR08 was ready for the track! The FBR08 lined up for the endurance race with no formal testing under its belt, no dynamometer testing for engine maps and no previous track time for suspension setup. Entering the unknown, Graeme Leese warmed up the tyres and completed his 13 laps, setting a top time of 59.585s over a 1km track (just 5s off the fastest time at that point). As per the rules, after 13 laps Ben Yarwood took over the controls for his 14. Once again the car handled well, turning in nicely and applying the power to the road from a stable platform. On Ben's 6th lap, a flash of blue flame was seen by the crowd, as the engine noise increased noticeably. The car was called into the pits, to discover that an exhaust failure had caused the car to lose power and unfortunately took it out of the competition at that point. The final cause was thought to be a combination of different factors that caused excessively high Exhaust Gas Temperatures and burnt through the shell of the silencer. Certainly an impressive enough failure to warrant a place on the wall of the workshop! Having completed 19 of the 27 laps of endurance, the team is overjoyed with the FBR08's performance at this competition. To be at Hockenheim and be able to compete as part of the field given the resources available to us has been a truly great experience and has pushed us on to achieve greater things next year. We would like to thank all those who have been involved with the team in any way, from generous sponsors, to those in industry who have supplied parts and valuable advice, to those teams who have helped this weekend and the organisers

of FSG2008. There is absolutely no doubt that FBR will be back next year – we can't wait! Now it is time to pack up and enjoy a much deserved beverage at the after party, before beginning the long journey home on Monday morning.

The Formula Student Germany event gave the Full Blue Racing team an opportunity to show how much the team has moved forward. With a new car, much improved from last year, the team stepped up to compete in the Endurance event and lay the foundations for an impressive 2009. Cost Event – 27th/78, 2nd UK team Business Event – 37th/78, 5th UK team Endurance Event – completed 19/27 laps overall, the Hockenheim results showed positive gains for the FBR team. In just its first year in the cost event, being the 2nd highest UK team is a great achievement and something that the team very much wants to better next year. The business event went well and armed with positive feedback from the judges the team is also looking to improve in this area. Despite a lack of testing time preventing the team from entering 3 of the 4 dynamic events, the endurance event showed great promise from the FBR08. With no engine tuning or setup time, the car lapped within 5 seconds of the top UK team and the car handled well despite a lack of low end power. The FBR08 now falls into a testing and development role, whilst the FBR09 undergoes conceptual design. The team would like to thank all those who helped the team in its preparations for FSG and throughout the competition.