

How to Approach Track days

Once your latest creation is 'finished', through SVA, and has a few country miles under its wheels, it must be very tempting to book-up a trackday session to "see what it'll do". If any of your mates have similar cars, it'll be difficult to avoid being drawn into a sort of unofficial race and this could have potentially disastrous consequences...

Those of you with previous competition experience – races, sprints, hill-climbs etc. will probably be used to how a car feels when 'on-the-edge'. For newcomers, in a freshly built car and at a strange venue, there may just be too many variables to cope with. So, let's see if we can get the odds on our side a little.

Workshop Suspension 'Set-ups'

I suppose I should be used to it by now, but, it still scares me when I see the settings that come into us – sometimes on cars that have been used on the road for quite a while. It's not unusual, for instance, to see positive camber on one side and negative on the other. Caster settings are often reversed or in opposition (this really scares me!). Mix in some toe in and toe out on the same axle, a bit of bump-steer, and non-standard Ackerman and you'll have a nasty car on your hands. The solution is simple – have the car professionally set up using the correct equipment. Beware, there are some rogue operators out there. These days, set-ups should be done with computer scales and laser-alignment gear. It is possible to do it with lesser equipment, but it's difficult to get the required level of accuracy.

Your car / kit should come supplied with recommended manufacturers settings – these might not be the ultimate track settings for your car but they should provide a good, safe, reference point for you to start with. If you have bought a 'special', of unknown origin, then, I always recommend a full computer suspension and dynamics analysis to determine baseline settings, spring rates etc. This won't be cheap, but it's a better option than a hospital bed, which brings me nicely onto safety.

Safety

Please, please, please don't compromise on this – your life is far too valuable to scrimp on a few pounds worth of decent safety equipment. Firstly, have a good quality hand-held fire extinguisher on-hand in the cockpit. Plumbed-in systems are fine but they can fail. If you're ever trapped upside down in a car with fuel leaking onto you and a hot exhaust by your elbow...I'll leave you to fill in the rest!

Next up is brake fluid. Standard road fluid will rarely contain the sort of temperatures that your brakes will see in just a few brisk laps. Dot 5, or equivalent, is the sort of spec. to run. Remember that as brake fluid 'ages' it

absorbs moisture and this will degrade performance. If in doubt – have it out ! Finally, never venture out onto a track without a proper roll-cage. CDS or T45 steel spec. is preferred, but, as a minimum, it should be above an extended line drawn from your head to the dash /scuttle – don't think that the windscreen will protect you – it won't. Nylon socks – never wear them in the car. If you ever see what they do to ankles in a fire it is truly grotesque. For track use, good quality Nomex is the racing standard, failing this; a well-washed pair of light wool socks is a good substitute. I really shouldn't need to mention a properly fitting safety helmet? Hardly any good tracks will let you out without one.

Tyres

Are you going to run your normal road tyres ? If so, choose with care. Expect square-shouldered designs to be sensitive to camber settings. Make sure that you have a nicely scrubbed set of tyres suitable for wet conditions which have an adequate depth of drainage channel left in them

Tracks

Some tracks are more demanding /intimidating than others. For example, Hulfavington and Llandow are both suitable for beginners having fairly generous run off areas and no real gradients to catch you out. Leave Cadwell, Oulton Park and the Nurburgring, until you have a few more track miles under your belt.

Lines

The correct racing line through a corner or bend is the safest, fastest and most satisfying way to go. Funnily enough, I quickly discovered in my days as an F3 test and development driver, that the 'correct' line shown in the text books, racing schools etc. isn't quite as right as it might have been! Consequently, in our driver training sessions, I will sometimes depart from the 'book' line to show a better line which is usually easier on the nerves and is faster and safer to boot.

Improving yourself and your car

In the early days, you will probably find that there is more time in yourself than in the car. Later on, as lines and driving rhythm become more natural, you can start experimenting with damper settings and anti-roll bars. This is where you will often find the 'racer's edge'...

David Cooper is Technical Director of **Track Developments Ltd.** He can be reached on 01666 840482. The company web-site can be visited at www.trackdevelopments.co.uk