

DRIVE IT!

GURSTON DOWN

In an article considerably revised and updated since it appeared as the first Drive It in the summer of 1996 (Speedscene 86), **SIMON MCBEATH** describes his technique for tackling the popular Wiltshire hill

A former 2-litre single seater class record-holder here, McBeath is now one of the team of instructors at the Gurston Down Hillclimb Drivers ' School. A regular hillclimber (though not quite so regular these days...) for 25 years with considerable success at hillclimb courses across the British mainland, he is a freelance writer for magazines such as Racecar Engineering, Circuit Driver and the late lamented Cars & Car Conversions, and has also produced a series of technical motorsport books for Haynes. His journalistic activities have led to drives in every hillclimbing category from Mini to 4 litre Gould and Pilbeam. Simon also runs the Wing Shop Ltd, manufacturing composite racecar aerofoils. He also works as the press officer for the BARC (SW Centre) at Gurston Down.

Having spent more meetings at Gurston trackside than cockpit-bound in very recent years, taking notes and photos for the Club's PR and event programmes, I can say with certainty and authority that there are virtually as many ways of ascending Gurston as there are competitors attempting it! It's also fair to say that even among the small team of instructors at the Gurston School there is, how shall I put it, some disparity of opinion on the best technique to use at certain points on the hill. So what follows is, therefore, my personal opinion on how to tackle the hill. Others may disagree and anyway, as with all art forms, we're all entitled to express individual technique! (How's that for a catch-all excuse for cock-ups?)

So, starting with the start - where else? - Gurston is unique in England, at least, in plunging downhill from the startline and ensuring rapid acceleration for everybody. But getting a good launch is still vital, and for that reason it's worth thinking about where you position yourself on the line. In wet weather there's little doubt that there's more grip off the rubber lines either side of the centre of the track, but some maintain that the same applies in dry weather too, so try both and see what works best for you. There may be a tenth or so to be found there.

You're now plunging down the hill, changing up rapidly but with deliberation (a missed gear is such a waste of time) however many times is appropriate to your car, and thinking about positioning for the best line through the rapidly looming fast left-hander that is Hollow Bend. Hollow is, I reckon, one of hillclimbing's really challenging corners (despite what Steve Wilkinson implied recently in these pages from a safe position behind his camera viewfinder!). Some driver/car combinations are capable of taking Hollow flat out, without a lift, pedal to the metal. For whatever reason, I've never been able to do that and have had to lift at some point just before the corner to lose a few miles an hour. If you've got the grit, and/or your car's got the grip, to go through Hollow flat, you won't understand this. But either way it's a fun corner!

I think the main reason that Hollow demands at least a degree of respect is the slight yump over the left-handed apex adjacent to the black and white kerb. This, together with cornering force, does unsettle a car and throw it wide towards the grassy bank on the right. But this is OK, up to a point, anyway, because that's where you need to be (to the right, not on the bank) so you can cut back left for what amounts to the second apex of Hollow at what used to be known as Little Hollow, and is now called Stanley's. You're back on the throttle here, hopefully flat out, and accelerating towards the short braking area for Karousel. By the way, I'd stay off the kerbs in Hollow - they can unsettle the car even more, though it does depend on how compliant your

suspension is.

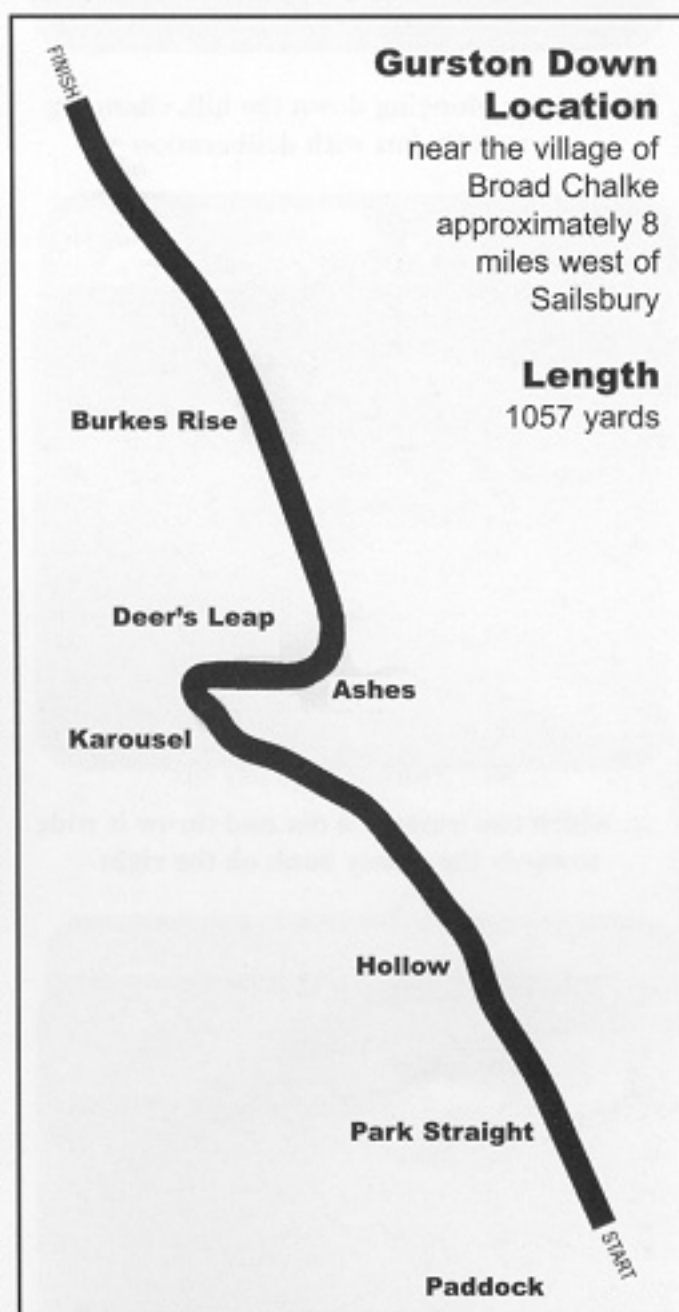
The approach and entry to Karousel is where opinion can divide on best technique, but the main point to remember about this uphill complex is that it's the slowest point on the course. As such, small mistakes tend to lose more time. Furthermore, the first part of Karousel, a 45-degree right-hander, takes you steeply uphill and the gradient slows a car dramatically. So the key to a fast run into Karousel is not slowing down too much. It's a difficult thing to do and coming in too fast here has caught out many a driver, yours truly included (long ago, of course).

One or two of my fellow Gurston instructors teach the technique here of not changing down through the gears until approaching the top part of Karousel, the tight 135-degree turn that completes the full 180-degrees of the Karousel complex. The theory is that by not changing down you carry more momentum into the faster bottom right-hander. Well, if it works for you, and if you can physically do that in your car, that's fine. But having driven a couple of bike-engined single seaters with six-speed sequential gearboxes, I know that it just isn't possible to come through Bottom Karousel in sixth, only to have to downshift four or five times for the top of Karousel - there simply isn't time or space. So in these cases at least a couple of downshifts need to be taken before the first part of Karousel, where most of your braking is done. Many people in a position to use either technique also do one or two downshifts before the first part of Karousel too, me included, whatever I'm driving. As I said, the key is to not lose too much momentum, however you achieve it.

OK, having taken the biggest radius line you could find and missed all the kerbs around Karousel - especially the big, steep one on the inside of the top part which seriously destabilises the car if you clout it - it's on the gas as hard as your car will take it for the trip over Deer's Leap. Most cars go light here, and it's easy to buzz your engine - just don't tell your engine builder. As those who have watched here will know, the most rapid single seaters actually get airborne here, something which focuses the mind when you want to get back on the deck to brake for the next corner, Ashes.

Ashes Bend is another important corner when it comes to getting a good time at Gurston. The first thing a lot of even experienced competitors seem to forget is that you need to get the car to the right hand side of the track on the approach to this tricky left-hander. Sometimes a wriggle over Deer Leap will put a car to the left, but even so, a last minute jink to the right wins you more space for that all-important racing line.

So then it's a case of judging how much speed to take off, given that it's your exit speed that is crucial for the long drag up to the finish. A lift,



a dab or a hard stab on the brakes will be required, depending on how fast your approach speed is. One thing is for certain, unless you drive something like an Austin 7 or similarly low powered car, you'll have to take some speed off so as to turn in without inducing terminal understeer. And you need to aim for a late apex, not quite touching the very top of the kerb on the inside of the corner.

The reason for the late apex is three-fold – first, the camber falls away from the centre of the road as an access road merges from the right, which tends to induce (or worsen) understeer; second, and most important, you can get on the power sooner; and third, it's a slightly defensive line that gives more room for manoeuvre on the exit should things go pear-shaped. Keep off the kerb on the right hand side at the exit of Ashes, it plays havoc with traction and can 'suck' you into the bank.

Having had a clean run through and a swift exit from Ashes, it's back up the 'box again on the climb towards Gurston's sting in the tail. The road is far from straight, but for a while at least it's just hard on the gas up and over Burke's Rise before composing yourself for the kink over the Finish. The road swings slightly left then slightly right as you pass over the Finish line itself, and the degree of difficulty this presents depends on the car you're

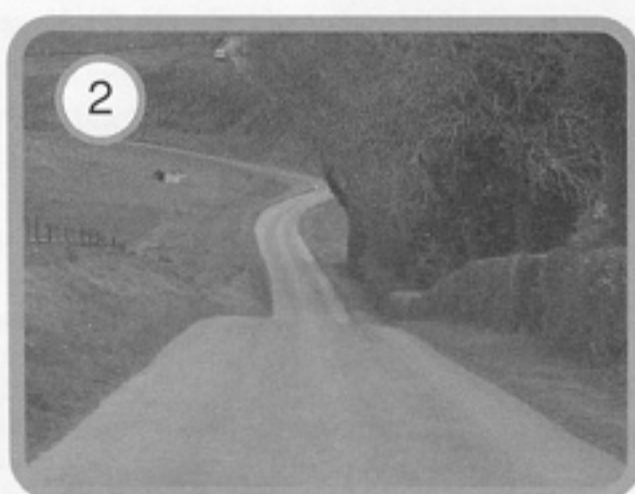
driving. Some cars have plenty of grip and manoeuvrability for the speed they can reach here, and any debate about whether the finish is taken flat or not must seem bizarre! Some cars have enough power to reach high speed but not enough manoeuvrability and high-speed grip so that the finish is a real thrill. And others have a surfeit of power and grip so that it's all down to the driver's bottle again. With speeds of 150mph having been recorded by the top single seaters through here, there's no doubt that the Run-Off contenders deserve bravery awards!

A key point about the Finish though is that cornering force (lateral G) reaches a peak well after the Finish line itself. There's also plenty of room to slow down before you get to the top holding paddock. So whatever you do, don't lift off suddenly as you cross the line - there's no need, and doing so can make the car unstable, and may result in a visit to the scenery. You can wait until the cornering G has all gone before you slow down.

To really learn how to tackle Gurston Down, call Andrew Hext on 07971 989517 to book a place at the Gurston Down Hillclimb Drivers School. You get two meetings worth of runs in one day, and the benefit of what must amount to hundreds of years combined experience from your knowledgeable but still remarkably sprightly instructors!



1
Getting a good launch is vital - think about what works best for you in terms of grip



2
You're now plunging down the hill, changing up rapidly but with deliberation



3
Some driver/car combinations can take Hollow's fast left-hander flat out



4
Hollow demands respect because of the slight yump over the left-handed apex ...



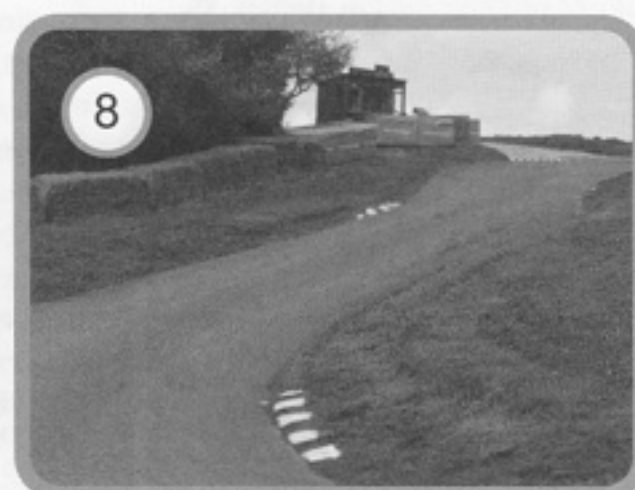
5
... which can unsettle a car and throw it wide towards the grassy bank on the right



6
You're back on the throttle through Stanley's



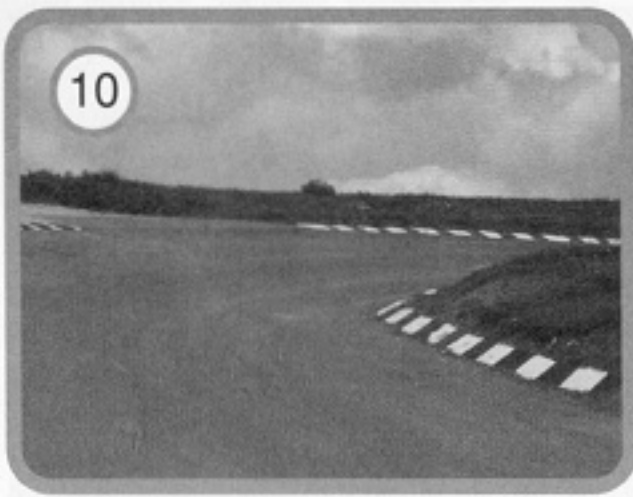
7
Opinion can divide on the best approach to Karousel ...



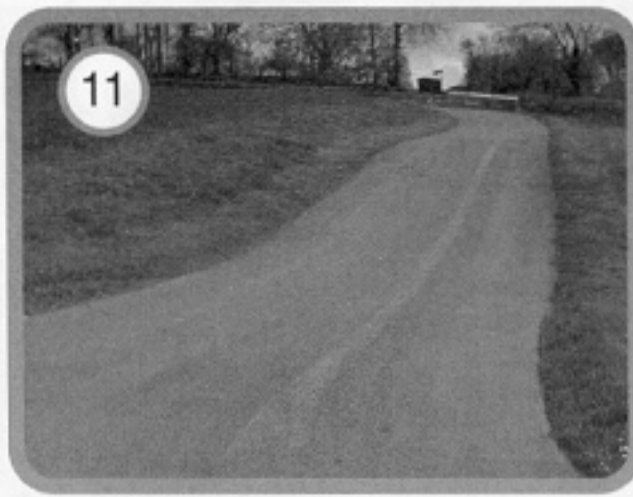
8
... where the first part takes you steeply uphill and the gradient slows the car



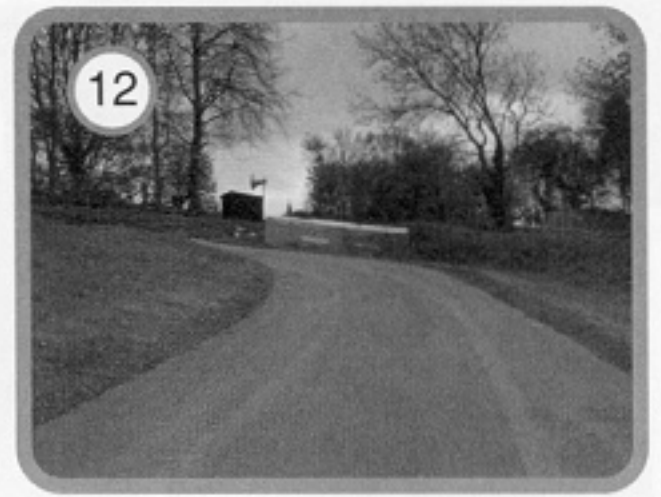
9
Non-sequential box cars needn't change down before approaching the top of the rise



Having taken the biggest radius line you can and missed all the kerbs around Karousel ...



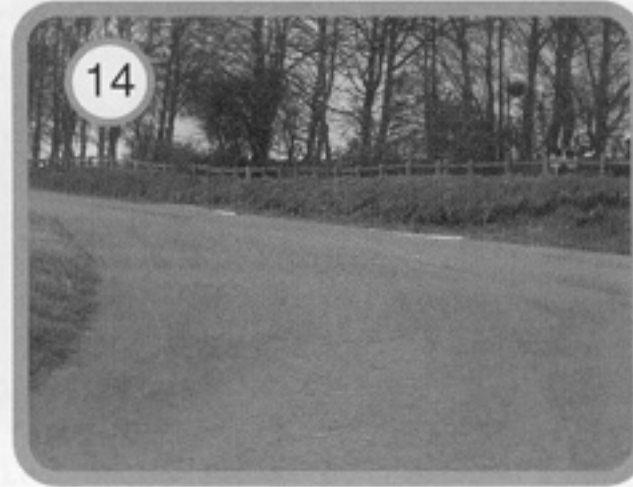
... it's on the gas for Deer's Leap - don't buzz your engine!



Ashes is an important corner when it comes to getting a good time at Gurston



You need to get the car to the right side of the track



Aim for a late apex and ...



... keep off the kerb on the right hand side



Now it's back up the 'box on the final climb



The road is far from straight, but it's hard on the gas over Burke's Rise ...



... before composing yourself for the kink over the finish



The road swings left and slightly right over the finish line



It's all down to the driver's bottle, particularly at 150mph in a big single seater!



There's plenty of room to slow down, so whatever you do don't lift off suddenly