

NÜRBURGRING CORNER ANALYSIS

Ex Mühle to Karussell

Hey everyone! By now you have likely spent a good deal of time studying the Nürburgring. We have covered a lot of corners, but a few good ones remain. Bergwerk is one of these. Let's take a closer look at the corner. Since it leads onto the very long run up to Höhe Acht, it is an important corner to get right. And an easy one to get wrong. Accelerating up the hill from Ex Mühler, you first need to pass through Lauda Links, or the Lauda Left. I'm sure you all know the origin of the name so I won't go into that.



Lauda Links is not an especially difficult corner. It's fast. But there are two things that make it a bit more challenging. First, as you can see by this photo, you are heading into what feels like a tunnel of trees. The trees really close in so that you go from the sun to the shade in the middle of the corner, depending on the time of day. That means, if it's wet or if there is dew in the morning, it is one of the last places to dry out. It is also a bit intense to dive into the shade knowing Bergwerk is just ahead. Which is the second problem...it leads into the Bergwerk braking zone. Approaching Lauda Links, you don't want to take it flat. Initially at least, coast a bit or even brake slightly, then get back on the power before turning in. A typical fast corner in that respect.



At the apex of Lauda Links. You are coming into this section with a head of steam. Like other areas, a lot is about to happen. You are likely in 5th or 6th gear and need to find 3rd. You also need to take a lot of speed off the car before going into Bergwerk.



Taking Lauda Links at lower speeds means you won't have to track out as far right exiting the corner, which makes it easier to line up for the braking zone on the left.



As you carry more speed through Lauda Links you will naturally track out farther right as the above photo shows. Just be prepared for a more difficult line when you get to Bergwerk. Regardless, you will be using a strong brake pedal in this area.



Initially you will likely be hugging the white line, farther left than the camera car.



The secret to Bergwerk is a late apex. When you think you are late, it is probably later. Late apexing is a bit of a hallmark of the Ring, with this corner being one of the best examples of that, right up there with Eiskurve. Turn down (though it kind of feels like you are turning up) to the apex as the white line starts to curve to the right (also note the brick “curbing” on the left – you can use the end of it as place to begin your turn-in). Bring on the power progressively because it is easy to get wheel spin here.



The apex view. Obviously, these curbs are not friendly. You can begin to feed in power here. Just a side note, if it is wet, rim shot this corner. During a very wet track day, myself and a fellow driver in identical M3's played with this corner (among others) to see the best line. At least on that day, the farther we went out, the better the grip. The one who was closest to the

white line on the left easily out accelerated the other car. If it rains, try it carefully and progressively and see if you have the same results.



You have tracked out here. (Sorry about the dashboard glare). Notice the corner keeps turning. Stay with the white line on the left and don't be in a hurry to move right. You will be turning left way up there where you can just see the sign in the trees on the right. No hurry. Watch for traffic here as well. You are heading up a steep hill and power differentials become an issue here.

We are going to switch to a different view now. The view is from on top of the car, but there is a bit of a bug that kamikazed the lens. Let's take a moment to thank the bug for giving its life for the video... Thank you.

Okay, let's head up the hill. And a long hill it is.



Exiting Bergwerk we are hard on the power. Depending on the car you are driving you will either be passed or will pass a lot of cars here.



We are coming up on an intense section. The 11 km sign up ahead is our reference point to make a gentle bend to the left. There are a series of 3 corners, or cornerettes (yes, that is a driving term here - feel free to use it) that can be taken as a triple apex, one steering angle.



One, just keep the turn going, power on, full throttle.



The second. Just let the car flow in and out of the corners. This one you don't track out as much to the right. The third apex you take somewhat diagonally. Still full throttle.



Coming up on the third cornerette. This one has a bit of a rise in it. Just let the car flow over it. And still full throttle.



Next up is a real corner. It can be taken very quickly and the good news is there is a slight camber to help turn the car. You want to turn in when you just see the apex curbing, a little early, but it works. Just turning in here. You can do a slight lift for confidence, but braking is not necessary. You are still going uphill so speed will come off quickly. Turn in under power to keep the car stable.



The view from the apex. Pretty normal track out. It is not unusual to kiss the grass on the right. From here, you just continue uphill keeping the car on the pavement so we are going to “fast forward” a bit to the next real corner. Don’t lose focus in the meantime. I have gotten sloppy here and done more than kiss the grass up ahead. No guardrail but plenty of OMG!!! Oh, and it’s all full throttle up here.



This is a non-event corner, but the exit has an interesting feature that can catch you as you build speed, so take this one properly, using a bit of the concrete grating on the right.



Couple things to notice here. First of all we have had our foot on the gas since Bergwerk through the section called Kesselchen, so we are really moving. You can also see we are using all of the road, being about a foot from the metal barrier. Up ahead is a very fast left hander called Mutcurve. Notice the track is cambered here, and if you look closely, notice the camber reverses. The peak of that transition can really throw the car so you want to take it straight and pointed in the right direction. This is another one of those spots that can get you as your speed increases. Pack this away somewhere in your brain so that you don't find out the hard way.



The corner we are in is a non-event, but we are mentally preparing for Mutkurve. You will have to take some speed off and likely grab a lower gear.



Mutcurve. Doesn't look like much does it? This is what Yelmer Buurman, the 2013 24-Hour winner, said about this corner: "It's a corner where most of the time you feel you could have gone a little bit quicker, but when you do go a little bit quicker, it's almost too quick. That's why they call it the **Mutkurve**, which translated means 'Courage Curve'."

So, another corner to build into. Take some speed off here, more than you think you need initially. Shift down one gear and get on a balanced throttle. It is a double apex, sort of. You really don't apex the second apex. Just say hello to it as you go by.



Hold the first apex a bit. The corner keeps turning ahead.



The second apex. Notice the car is not on it. You can see up ahead that this part of the corner is a bit cambered. But as you track out you lose that camber so a bit of grip also goes.



The track out for Mutcurve. There are times you will be very glad those bricks on the right are there. Staying on the power we continue up the hill to Klostertal - another very quick and very blind corner.



There is a fast, right-hander up there somewhere. While we took a bit of speed off for Mutcurve, we still have our foot down hard on the right pedal. The steepness of the hill here means we don't really need to brake for this corner unless you are in a really fast car. A long lift is usually adequate.



We finally get to see where we are going, though the track falls away at the apex. Get back on a bit of power to collect the car, then turn in just beyond where the white line on the left goes left.



Mid-corner, notice the track drops away. Still a very quick corner. Let the car track to the left on exit. We are still going uphill here, moving into the long, slow right hander before the famous Karussell, called Steilstrecke.



The approach to Steilstrecke. Brake just before the red and white curbing starts on the left. This is one of the few places on the track requiring heavy braking.



Well in the braking zone here. There are several lines through this corner. Some go deep on the left then use a very late apex on this long corner. My preference is to go in on the right and hug the inside curbing. Try it both ways and see what you like.



This clearly shows the inside line. In a race this protects you from an easy pass (not that we're worried about that!).



This is long corner that actually tightens at the exit. You will get punished if you get greedy with the power. This is a common site for fender benders as people deal with this and the traffic that tends to pile up here.



Still up hill we are back to full power. The track snakes a bit here. No need to follow the corners. Just keep the car as straight as you can.



Up ahead is one of the most famous corners in the world, the Carocciola-Karussell. Named after one of the most famous Grand Prix drivers of all time, it is perhaps the best corner to reflect on the fact that you are driving on the same track as many of the greats. The list includes Nuvolari and Fangio to Moss, Clark, Stewart, Lauda and Hunt. The list goes on and on. It is really something to have the privilege to drive here.

Having said that, once you have driven this thing a couple of times it becomes a bit of a pain in the neck. It is really slow. Beats the heck out of the car and rattles your teeth. Still, it has to be done right or you will be launched out into the guard rail.



You can't see the corner until you are right on it. The curbing ahead on the right is your reference for some reasonable hard braking, though I would start braking a bit before that point initially. You can just see a white sign at the top, center of the picture. To the right of that is a marshal's station. Aim there and you will drop into the banking at the correct spot.



Approaching the braking zone, we are already lined up with our marker.



Finally, we can see the banking. Still slowing the car, we are also grabbing a low gear, probably 3rd.



A lot to see here. First of all the car is just dropping into the banking. Dropping is an accurate description of how it feels. It is hard to imagine how a car can take this, which is why the Nordscheife is such a good test track for vehicle development. It is really hard on cars. If you are driving your expensive Lamborghini you can use the upper asphalt area, but when in Rome.... We are positioned well here as you can see by all of the rubber laid down from other cars dropping in. You cannot go quickly through the Karussell. If you try to carry too much speed the right tires will slide out and you will be paying for guardrail. So be patient.



The car is properly placed on the banking. Do NOT use the asphalt on the left unless you want to break the car. You can see the banking is made up of slabs of concrete. These are not matched well so expect the car to buck like a stallion. Your job is to keep it on the concrete. The key is to turn and tilt your head to look up and around the corner.



Almost out. You can see here the concrete ends ahead. Your goal is to exit the Karussell at the upper right corner of the last concrete slab. At this point you are getting tired of going slowly

and know you have to get on the power to continue up the hill. Feed in the power smoothly, but know that you will get some wheel spin as you exit.



I couldn't resist one shot to illustrate this point. To say that you fly out of the Karussell is no joke.



Finally, back on real pavement, we are still heading steeply uphill toward Hohe Acht.

That is a ton of info for you to ingest. This is a fun and intense section of the Nürburgring. Let it sink in, hit the sim and it will start to make sense. Next stop, the top of the Ring at Hohe Acht.