

TECHNICAL REVIEW

Event date	Event		Chassis	Drivers
Grip	Low, very low. It got slight better as the weekend went but was still very low. Sand and dust blowing and the general track surface are just low grip.			
Curbs/Bumps	Use exit curbs here and they can be slippery. The cork screw kills the splitter and the RR rear tire pod.			
Challenges	Low practice time and not much set up progress made on day one due to the slippery track and low track time. Most of the set up work was done in the warm up.			
Balance Progression	<p>Started no grip but balanced ok. Than had some push when we added rear DF looking for some grip. We did not want to remove the DF so we worked to find a way to get the balance. We ended up with high rear roll center and 35mm of rake. The locked diff saved us here from instability in. Car was very well balanced LS and HS in the race.</p> <p style="color: red;">This place is still a push place. Track is wearing out again and grip will be lower next year. Be ready for lack of grip again.</p>			
Tires	<p>15/16 gave us 25 hot and that was not bad. Went to 28 hot rear to get the balance we needed and help the car rotate in the mid to slow turns. Did not hurt power down at all. 76 car liked 28 hot all around.</p> <p style="color: red;">Still not sure of tire pressure. Use 25 as a good baseline hot and tune from here.</p>			
Springs	<p>Started 1000/600. Tried the 800 fronts with a 7mm smaller packer gap (13mm gap). The 7 post said this should be more grip center and same dynamic RH. It was exactly that. Drivers said more center grip at front and we kept this. When we raised the R roll center we ended up with a softer wheel rate (like going from a 600 to 500 rear spring).</p> <p style="color: red;">The stiff front deal is good. Need to work with bump rubbers more and see what is there for grip.</p>			
Shocks and Bump stops	<p>7 post said low rebounds are good and ran 2 on all rebounds all weekend. Started bumps at 2/6 all shocks. Went to 10 on the rear LSB looking to make it turn better. Did this with 3 other changes so not a pure test. The 13mm front packer gap with 800 springs worked at the front. Had same spring displacement curve as the 1000 fronts and 22mm packer gap.</p> <p style="color: red;">Rig shock stuff looks like it worked. Keep rebounds low and work with the bumps to get grip and platform. Need to really work on the packer gap and bump rubbers at the front. Goal is to get a 600 front with the same shock displacement curve.</p>			
ARB	<p>We never ran any ARB this weekend. The team car thought they liked the front bar connected, but they did that in warm up. We never saw a need for any bar.</p> <p style="color: red;">If we decide to not run the FARB we need to take it off the car to save some weight.</p>			
Roll centers	<p>We ran the low front RC (20mm) and as we needed front grip when kept it. We started with the 32 mm rear RC and went up to 71mm RC looking to help the car turn. It helped. We also got a 100 pound softer rear wheel rate with this change.</p> <p style="color: red;">As always a powerful change. Need to look at even lower front and rear RC.</p>			
Ride height	<p>Started 50/65 and ended up 50/85. This worked well and with the locked diff gave no instability.</p> <p style="color: red;">Need to not be afraid of the numbers, who is to say 35mm rake is too much?</p>			
Camber	Ran 2.5/1.2 all weekend and never saw a reason to change it.			
Toe	1.5mm all 4 wheels			
Aero	<p>Ended up at 5"TF, 14 deg wing with .5" Gny and the thin shoulders with 7mm Gny, rear bumper turning vanes and the big KR4 dive planes. Would have liked more DF if we had it. Had to run the .5" Gny to help the balance.</p> <p style="color: red;">We need more front DF so we can add more rear and get the total up. 76 tried twin dive planes and said balance was moved forward.</p>			
Gears	<p>We keep going slower than we did in 2007 with the Hoosier. So we had to revert to ratios close to the 2007 ratios, shorter than original.</p> <p style="color: red;">Just start with 2007 ratios from now on.</p>			
Diff	<p>Ran full locked with 6 surfaces per side. This worked well but we had to really work to make the car turn. Temptation was to free up the diff, but we kept it and when we made the car turn the locked diff saved the stability into the turns.</p> <p style="color: red;">Locked diff opens up many set up options you don't have with the more open diff as you always chase rear stability in and can't do anything to fight the normal center push.</p>			
Brakes	Ran Cobalt XR 1 pads to good effect. AP rotors front and rear. No problems except the cooling is borderline at the front.			
Other				
Engine	Drivers said 544 had more power than 545.			
Cooling	Had to run rad full open in 85 deg air temps and than cooling was not great with 100 deg water in the race.			
Fuel consumption	4.8 to 5.0 under green. Both drivers could get us 20 under yellow.			
Driver changes	Driver change went in 33 seconds, not bad.			
Pit stops	Stopped on lap 1 for fuel only and than again on lap 47 for TM. Good stops by the guys.			