

Newsletter of the Performance Corvair Group (PCG)

CORVAIR RACER UPDATE

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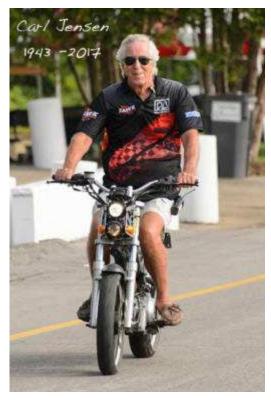
CORVAIR ALLEY NEWS, by Rick Norris



MEMORIAL INFORMATION FOR ROAD AMERICA OFFICIAL CARL JENSEN

ELKHART LAKE, Wis., January 7, 2017 - Carl Jensen, a profound racer and vintage racing event official for Road America, passed away on January 5. He was 74.

The following is an update to the previous release:



A memorial service is being planned to celebrate Carl's life and will take place during the WeatherTech International Challenge with Brian Redman at Road America July 19-23. Additional details on the exact location and time will be included in the competitor information packets, posted to the event page on the Road America website and sent in additional correspondences to competitors and friends. In lieu of flowers the Jensen family has asked for donations to be made to:

Equestrian Spirits, P.O. Box 713 Anthony, FL 32617

Donations can also be made directly through the Equestrian Spirits website at

www.equestrianspirits.org Equestrian Spirits is a 501 (c) (3) company. Tax ID 352384797.

"Everyone is deeply saddened to hear of the passing of Carl Jensen, he was family to us, a member of a long-standing kinship amongst racers and promoters throughout the country," said Road America President and General Manager, George Bruggenthies. "He's been racing at and a part of Road America for so many years, to say he played an integral role in our success - especially with planning and officiating our vintage racing events - would be an understatement. He was a mainstay of this facility, and more importantly, he possessed a humility and character that made him a person that fellow racers and partners alike enjoyed being around. His presence, charisma and graciousness will be missed but never forgotten at Road America. The thoughts and prayers of everyone at Road America and our extended family of partners and friends are with the Jensen family in this difficult time." Jensen is survived by his beloved wife Ellie, and two brothers Dick and David.

THE ART OF PASSING

Story by Tim Sharp, photos by Gordon Jolley

This article is from an old 2000 issue of Grassroots Motorsports.

A great race driver adjusts to the unique variations in each race. He is both an offensive and defensive player simultaneously. He is both hunter and prey. He must know when to follow and when to attack. He must assess the strengths and weaknesses of each competitor. He must be an expert at psychological warfare. Proficiency in passing is a skill that reveals a driver's true greatness. Given a clear track and enough time in a quality race car, almost any solid driver can turn in a quick qualifying lap. The far more difficult task is to maintain momentum in traffic.

The Straightaway Pass

The most simple pass, by far, is the "draft and pass" on a straight. If you are fortunate enough



to have superior power, this pass is easy: You simply come off the corner cleanly, push hard on the right pedal, draft for a few seconds and then cruise on by.

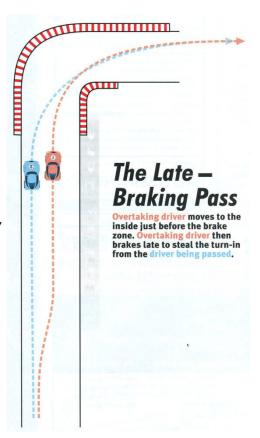
If you have a more evenly matched race car, this pass is a bit tougher. First, you need to lay back slightly as you enter the corner, then accelerate and run up on the car in front as you exit the turn. Next, you must draft a little longer on the straight, then pull out and pass when you have enough momentum to get by cleanly.

Here is an important footnote: If you have someone pursuing from behind as you are attempting to set up this pass, it complicates matters. On most tracks, you can take a defensive line as you enter the corner just before the straight (or two corners prior in the case of a series of "S" turns). Brake a tad early and close the door cleanly on the car behind you then accelerate off the corner to achieve more exit speed than the car in front as you exit the corner going onto the straight.

A rookie mistake is to run up prematurely on the slower car in front before the exit of the corner. If you are being pursued by a smart driver, he will gladly let you kill your momentum and box yourself in. He will then take the lay-off space you gave him and use it for superior exit speed. Zip—he is gone!

Late-brake Pass

While you may be able to draft and pass slightly slower cars on the straightaway with relative ease, again, things become more complicated when you are running against an evenly-matched race car. Sometimes you just cannot draft and pass completely on the straightaway. There are times when only a late-brake pass will do.



Before attempting a late-brake pass, there are several things you should consider. First, in practice you should have already set your front-to-rear brake bias to be able to execute a late-brake pass. Be sure the rear brakes will not lock up and spin you. Also, pick late-brake reference points as well as normal brake points in practice. Second, you should have already tried a couple of off-line and inside-late-brake passes in practice (preferably on drivers whom you knew would give way in this situation). Unless track conditions have deteriorated substantially, you should be able to pull off a similar late-brake pass during the race.

Next, you should know the braking capabilities of both your car and the car you are about to pass. For example, if you are running in the latter stages of a street stock endurance race in a Chevy Camaro and are attempting a late-brake pass on a lighter BMW, you may have a problem. The lighter Bimmer may have more brakes left. The ideal solution to the above problem is to take the Camaro into the corner as deeply as you practically can while watching the BMW with your peripheral Vision. (You are simultaneously watching the apex of the corner with your primary vision.)

The key is to adjust to the BMW's reaction to your pass attempt with your braking. Do not let the BMW take you into the corner any deeper than you can handle. In addition, try to keep your nose clearly alongside the BMW. The driver of a lightweight BMW will think twice about slamming the door on a huge Camaro. Your ace in the hole here is that the BMW driver probably knows the laws of physics as well as you do. If he is smart, he will know that you have the upper hand.

Passing in the Rain

If you practiced in the dry and you are now racing in the rain, all bets are off. As you know, rain lines are different from dry lines. The classic line will probably be too greasy and too tight in the rain. Your best bet is to brake smoother and take a gentle, sweeping radius through the corners. Also, break off your draft earlier when passing and be sure you are clearly inside of the car you are overtaking. Close drafting is dangerous on a wet track. If the driver in front brakes early, you may hit his rear end. It is better to be inside of an early braker as you enter a

comer in the race. Also, only a fool would challenge you from the outside of a comer in the rain.

<u>Passing Setup Techniques</u>

As many different road racing rulebooks state, the responsibility for a safe pass rests with the overtaking driver. Thus, a world-class mirror driver can make life difficult for you. As you attempt to dive under him for a late—brake pass, he seemingly anticipates the pass and takes a very defensive line to block. While overt blocking is illegal in road racing, it is hard to recognize from the sidelines; thus blocking rules are rarely enforced.

One of the most frustrating experiences in racing is having to follow a mirror driver for five laps before he finally makes a mistake and you can get by. Fortunately, over the years, I have found a few techniques that will help you in this situation. At the first indication that the driver in front of you is overtly blocking, shake your fist visibly in the air, then point at the offending car as you stare at the flagmen in the very next comer. It this does not produce a blue and yellow passing flag really soon, it is time to move on to Step B.

Step B is to pressure the blocking driver into late-braking situations at every possible chance—especially in tight corners. Let him think you will attempt a late-brake pass at any moment. Make him early apex every corner to protect his line then when he is convinced that this is your plan, set him up for a corner leading onto a long straight. Just before this corner, use a "head and hand fake" to the inside, forcing the blocking driver to move to protect his line and apex early.

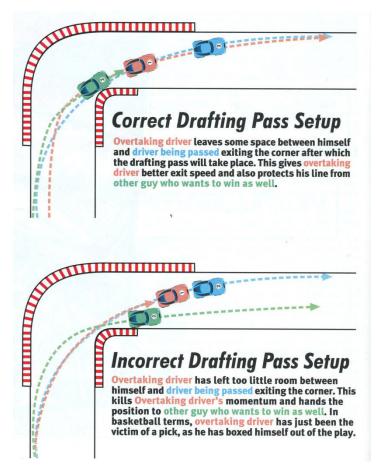
If you are entering a right turn, hold the steering wheel by its left spoke with your left hand, making sure the car stays on a straight braking path. Quickly tilt your head to the right and slide your right hand over the wheel to the right. Of course, your right hand is really not turning the car to the right, but any self-respecting mirror driver will move his car to thwart your late-brake pass. (Note: This technique works better on closed—wheel cars than formula cars. Formula car drivers are not likely to fall for this ploy as they key off the directional change of the front wheels—not hand or head movement).

Next, move slightly to the outside and take the blocker deep under braking into the corner. If he bites, which he probably will, he will glide across your bow and you can pass behind him as he tries to save his car from leaving the track. If he checks up, realizing that he has been had, he has in essence relinquished the fast line to you. You are obliged to take it immediately. You cannot hesitate, or someone is going to get hurt. Final note: As with all passing situations, this one is not 100-percent foolproof. Before trying it, you must know the radius of the corner, the track surface, the track exit width and your own ability to react.

Brake and Park Pass

Step C is what I would call the "brake and park pass." You have played by the rules; however, let's assume you have given the comer workers an opportunity to give the blocker a passing flag and that you have already used various psychological techniques to get by the blocking driver, with no results. It's time to move on the blocker.

Blockers are snivelers. After the race, they will say that they changed their line to an early apex (i.e.: blocking line) because "my car got loose" or "I just made a few driver errors." Well, if they can make a



mistake, so can you. The "brake and park pass" is just one of those unfortunate late-braking mistakes you, too, might have to make.

Even the best mirror driver cannot convince race officials that he needs all of the track, all of the time. Moreover, he has to leave some space on the inside, or you will go around him on the outside. Sometimes you have to take that meager piece of asphalt inside and use it. Even if the line looks horrible, it will look better as you get closer to the comer apex-especially if you miss your brake point and go in too deep. (Oops!)

The "brake and park pass" requires good car control skills, since the back end of the car will probably step out (oversteer) on you as you enter the comer under extreme late braking. If you do not have these skills, do not attempt this pass. Incidentally, I am making a strong distinction between "slamming" and "parking" here. Parking usually means you simply made an aggressive latebrake pass, taking the best line and much of the corner exit away from the blocker. Slamming means you laid so much metal on him that you launched him into an Armco barrier. The purpose of the "brake and park" is to pass and move on, not to destroy a competitor's race car.

<u>Defensive Driving Techniques</u>

It may seem incongruous that I am discussing defensive driving techniques just after I assailed drivers who drive with their mirrors. While the difference between a blocking driver and a defensive driver may seem imperceptible, I assure you there is a substantial difference between the two types of drivers.

Moreover, defensive driving is as important a part of racing as passing. It is the other side of the same coin. Here is how I make the distinction between "blockers" and "defensive drivers:" A blocker is generally inconsistent, slow through the corners, has weak technique and hurts your lap times substantially when you encounter him. You know that once you get by him, you will leave him in the dust. He deserves little respect. A defensive driver has excellent skills. He is consistent and quick through the corners. He does little, if anything, to hurt your lap times. You may even wonder whether, if you do get by him, you will be able to pull away. He is a driver you can respect.

The Best Defense is a Good Offense

Skilled defensive drivers use a fast, consistent line and do not use their mirrors to excess. They are confident that they can get around the track as fast as anyone and they do not need to resort to blocking to keep a competitor behind them.

Good defensive drivers are also proficient passers. They can pass almost anywhere when their car is well set up and running right. They think ahead, planning their next pass just after they have completed their previous one. Thus, on defense, they can predict where and when the driver behind them is most likely to pass them.

Discretion is also part of being a good defensive driver. It makes little sense to slam the door on a car that's coming up fast and is about to lap you. Moreover, it rarely makes sense to keep a car behind you that is much faster on the straight. If anything, use that car as a drafting tool. Let it help you work through traffic. Then, repass it in the closing stages of the race. Drive defensively only when it counts for position.

<u>Defensive Driving in Close Contests</u>

There are situations in which you and the car behind you are locked in serious combat. Your cars and your driving skills are so closely matched that you know you cannot let the other driver pass. This is a classic offensive/defensive driving battle.

First, remember that you are in front and you have the better track position. Next, do not obsess over the driver behind you. Yes, you can use a slightly earlier brake point or take a slightly earlier apex on occasion to disrupt the rhythm of the driver behind you. However, do not lose sight of the fact that it was fast, consistent laps that put you ahead of your nemesis in the first place.

Next, try subtle tactics to determine your rival's talent and experience (unless you already know he has no weaknesses—then just drive fast and smooth). In a car with brake lights, you can use left-foot braking to determine whether your challenger is driving his own line or keying off yours. By using left-foot braking and a slight brake check in the brake zone before the corner (just enough pressure to trigger the brake lights), you can find out if the driver behind you is a hawk or a vulture. Left-foot brake lightly and early as you continue to accelerate with your right foot as you move toward the corner.

If the driver behind you brakes heavily and keys off your brake lights, he will drop back way before the corner. He has shown himself to be a vulture. He is scavenging off your line and brake points. This guy can be had.

If, on the other hand, the driver behind you closes up on your rear bumper, then you are dealing with a hawk. He is a confident racer who knows the right line and brake points. He was waiting for you to make a mistake. Hold him off going into the comer and do not brake check him again. You have a battle on your hands. The only tactic that I have ever found to work consistently on a hawk is to take him out as fast as you can and challenge his ego. If you are confident that you can drive on overheated tires better than he can, push the envelope. It is a calculated risk, but he may bite.

If you find him laying back, even just a little, give up the ploy. He is waiting for you to cook your tires and then he will make his move. This guy is smart. Sometimes you get a gut feeling that a hawk is waiting for the last one or two laps to make his move. Usually your gut feeling is right. He will make his move late.

No strategy works all of the time. However, on the second-to-last lap, you may want to take away your pursuer's first option by slamming the door hard on him if he tries a late-brake pass to the inside, for example. This limits the hawk's option to a one-shot, last—lap pass in a corner that is probably his second choice. Suck it up and drive as fast as you can for the last lap. Chances are your pursuer will not be as confident he was on the prior lap. Of course, I have been wrong before.

One final defensive driving technique is what I call the "late-brake booty shake." I saw it a number of times before I trained myself to recognize it and to react appropriately to it. I have even seen the "booty shake" work in both CART and F1. The "booty shake" is best used entering a series of tight turns where overtaking is difficult. It relies on surprise and the quick, instinctive reactions of a good race driver who is in hot pursuit. Its execution goes something like this:

- 1: As the race is winding down, the driver in front appears to be driving into corners a little bit deeper in order to hold off the guy in pursuit.
- 2: Seeing that the driver in front is pushing the envelope a bit too hard, the driver in pursuit moves in closer to take advantage of any mistake which will allow him

to pass. The driver in pursuit may be convinced that it is his driving talent that is causing the leader's minor miscues. The lead driver is counting on this.

- 3: Entering the braking zone before the "S" turns, the leading driver appears to take a moderately defensive line and proceeds to execute a relatively late brake.
- 4: The rear tires of the first car lock up slightly. This leading formula car starts the "booty shake" from left to right, taking up the whole track as it approaches the "S" turns.
- 5: Reacting to avoid a crash into the rear of the car in front, the second driver climbs on his brakes, locking up his fronts, which forces him into a mild understeer.
- 6: Miraculously, the driver in front has recovered and is hard on the gas through the "S" turns and off like a rabbit! The panic stop and momentary hesitation by the pursuing car has left too large a gap for him to close in the remaining few laps.

Was the "booty shake" a driving error or a planned strategy? You make the call.

The Art of Passing

A professional race driver who says he does not have a mental book on passing or defensive driving techniques is stroking you. Some drivers are great at blocking. Others are good at sucking unsuspecting rookies too deep into a corner and showing them the gravel pit. Some are experts at running a competitor out of tires before they pick him off. A few use their late-braking talent and reputation as a wild man to intimidate other drivers off the line.

When it comes to passing strategies, there are an infinite number of combinations and permutations. No single driver can know them all. What makes the art of passing so intriguing is that certain techniques only work on certain drivers. You need to know the personalities of the drivers you race with just as well as you know your skills.

Disclaimer

The above driving techniques have been found to be successful for the author in many but not all situations. They presume the knowledge of proper

advanced race driving techniques and an advanced race experience level. They may or may not be successful for a driver depending upon his or her training, experience, car control ability, mental state, physical condition and response time.

Moreover, the effectiveness of the techniques discussed are further limited by the preparation and fitness of one's individual race car and those of one's competitors, as well as track design, track conditions, sanctioning body rules and reactions by another competitor. Hence, GRM and the author disclaim liability for any or all damages, injuries or other consequences arising from the use of any and all techniques discussed herein. In other words, if you choose to use these techniques, you do so at your own risk and assume all liabilities for yourself, others and any and all consequences in doing so.

Under no circumstances are these techniques to be employed on the street or in any non-race sanctioned event where full racing safety harness, Snell-approved racing helmets, fireproof apparel, roll bars, and all other proper safety equipment are not required.

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