## **VOICE OF EXPERIENCE**



## DAVE CONSTANTINO

In His Own Words

As told to **Lew Boyd** 

- Born March 6, 1981 in Amsterdam, New York
- A lively and talented big-block modified driver, Constantino is an RPI-trained mechanical engineer and co-founder of an up-and-coming chassis company utilizing advanced technical solutions.

hen we were starting DKM, our fabrication company, we decided to go visit Scott Bloomquist and ask about building bodies for him. He mentioned that the closest track to his shop was three hours away, the next six. That's when we realized that we were in God's country here in upstate New York, with 20 tracks within three hours of us. Racing is everywhere along the Mohawk Valley.

My business partner, Eric Mack, and I grew up like brothers, completely obsessed. We raced bikes, go-karts, anything we could afford. There was no question we would be racers. We certainly were not wealthy and had to do everything on our own. My dad was fine with it but said it was up to me. That's so different from what we often see at DKM today. A father, kind of living through his kid, might bring him in to us and buy him a car. The kid will race for a while and then face a decisiondoes he really want to do this? If he has discovered girls, parties, or just wanting to do fun things with friends on the weekends, it kind of puts a damper on his racing career.

In my case, I wanted to go full bore. I thought I could get it done behind the wheel—most kids think that, but I was also interested in the technical side. My first job was selling programs at Fonda Speedway. That's how I could get into the pits and begin to get a look at the cars close up.

Then, completely by chance, things really accelerated. My grandfather had many years before sold property just through the

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woods from our house to a racer, Maynard "Cyclone" Forrette, who brought in his racing operation. Through the woods I could always hear the sounds of engines from his dyno and wondered what he was doing there. Eric had gone racing with him a few times and invited me to go with them. It was so different from what I was used to. He was crazy, out of the box in every way, and I could spend days telling you stories. Good thing there weren't cell phones and cameras back then. Eric and I were intrigued, going over to his shop every day, and he was crazy enough to accept us.

By age 15 we were on the dyno ourselves, way before we probably should have been, assembling engines and learning so much about race cars and how they work. In no time we were even shadowing him at the races, and people started calling us "those damn kids." You could say that was the beginning of "Damn Kids Motorsports."

At the end of high school, Dad let me warm up his sportsman at Fonda. I loved it immediately and found that for me, the driving part was actually relaxing. There were no interruptions, and the concentration was complete. The car had a huge push that day. I found myself thinking about the role of the steering wheel, the steering arms, the tie rod, the springs and shocks and what might be causing the problem. Even then I wondered how anyone could race effectively without the technical understanding that Maynard had given us over the years.

But as a kid just out of high school, I still had a lack of money. I decided to take a break from racing and see if it was really that important to me. I went up and down the lake in a boat, I tried a four-wheeler, but nothing worked. That's when I applied to Hudson Valley Community College, determined to get a good job so I could afford to compete.

I began taking some technical courses and realized I could actually apply some of what I was learning to racing. Now I was on a mission, got good grades, and won a scholarship to Rensselaer Polytechnic Institute in mechanical engineering. I took every manufacturing class, ran a manufacturing lab, and learned 3-D printing.

Then I joined GE, but I had a side mission. I stayed 10 years and worked hard, but I made it clear I was not on a career path and would be leaving just as soon as I could afford to go out on my own.

My first year of racing in my own car didn't last long. I lost an engine early in the year, and my dad had given me his car to use when that happened. When I won my first feature that year, it was a big thrill to have Maynard in victory lane with me. I had to scavenge lots of parts, and many came from Maynard. I ran a lot from then on, alternating between the modified and sportsman divisions and with different car owners.

I always like to have fun and to remember that racing is an entertainment sport. When I qualified for my first Fonda 200, I brought sparklers with me for driver introduction. I was standing next to Brett Hearn and Tim McCreadie before they called my name. They looked at me like I was nuts and I felt like an idiot, but I lit my sparklers and ran around when they called my name anyway. I once made a T-shirt cannon to shoot shirts into the grandstands, and I even would carry a funny mask in the car to wear when I jumped out of the car after a win.

Eric was operating a bar and a restaurant and, like me, he started driving relatively late. We were both waiting for the moment we could break out of our normal jobs. He made the jump first, selling his businesses and opening DKM in 2012.

We got started fabricating just bodies for the center-steer dirt cars so popular in the Northeast. My brother Chip helped us purchase a computerized router that really got us going. Lots of guys were making panels by hand, measuring everything, shearing, cutting holes, and filing. We could do that in a fraction of their time with our router. And our panels would fit on any manufacturer's car because we could program the size, shape, and the exact location of the mounting holes.

It was a busy time for everyone. Eric, on top of everything else, was the crew chief for Stewart Friesen. I was working 40 hours at GE, working DKM at night, racing, and trying to be the devoted dad I wanted to be.

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Business at DKM grew and grew. In 2016, I finally joined the company full time, doing just as I'd wanted to do as a kid, both driving and working on race cars. We realized at this point that we were located in a great area. We were miles and miles closer to a lot of our customers than our competitors, so we pulled in a lot of repair work on all types of cars.

Around 2016, we began building our own chassis. As with the body panels, our focus was on the absolute latest technical solutions. I spent most of three years on programing. We can now take data we have compiled at the racetrack and simulate on the screen the full movement of the chassis in real time. It really helped us to get further advanced.

We also do a lot with stress-analysis software. It's particularly important these days-there's so much talk about flex chassis. Flex is important. A chassis has to flex, as it is now considered essentially a car's fifth spring. If it is too stiff, the setup window to good handling becomes very narrow. If it is too flexible, there will be cracks and fatigue, even in places like seat mounts, floors and subframes.

All this has created a very expensive problem for racers. Some well-financed teams are now often getting rid of chassis after 15 to 20 races because they are "flexed out." The new issue that we are facing is that few people would now consider buying a used race car. The market is now so beat up that many sellers are resorting to raffles to unload one.

We take pride in the fact that our cars last for many seasons of racing. Many of our customers have recorded wins with cars well over three years old. We still service and repair some of our earliest cars built. One of the cars I am still driving was built at the end of 2019 and won a feature this past season at Fonda Speedway.

My car owner, Laudy Hoyenga, is fine with testing our new ideas. Eric and I will be in Florida in February assisting any customers who go down for Speedweeks. Northeast modified racing is expanding, so we'll also be helping our customers down South. We just sold a car to a guy from Louisiana, and we'll be keeping an eye on him, too.



With motors running \$35,000 to \$50,000 and cars about \$40,000, we're doing everything we can to keep costs under some control. Our cars usually cost about 25 percent less than our competitors.

We currently put out 40 cars a year, while Bicknell does probably about 300. They have done an exceptional job getting top teams to use their equipment. There's some kind of monkey-see, monkey-do phenomenon at work. Everyone wants the exact car the big winners are using. That means that the guy who finishes 24th likely has the same car as the guy in victory lane. That, of course, also means that despite his equipment and the money he spent for it, most drivers will probably never win.

The situation has only worsened because some sanctioning bodies are motivated to have the car designs "the same" as one another so they can be easily regulated. All the manufacturers are essentially producing the same stuff, the same geometry and everything. We try so hard to be "out of the box," creative. And the approach does seem to be working. Even though we have fewer cars out there running regularly, we have winners every week.

One of the reasons our repair business is so strong is that a lot of our customers don't have the necessary equipment, materials, or extra time. In the future, we will continue to supply customers with our race cars, parts and services. We're deeply into 3-D printing now. That noise you are hearing in the background is our 3-D printer, currently using carbon fiber nylon. It is producing a prototype of a shock mount that we have designed so we can perfect it before producing it in metal.

My wife called me the other day to bring home some wall hangers for pictures she wanted to put up. It was just simpler for me to do a quick design and print them up. The 3-D printing world is moving quickly. Ford now has the technology that allows them to 3-D print with aluminum. In 10 years most anyone will be able to print in most any metal or composite they want. Think about it. That would mean that you would not order a shock mount or any part from me. You would buy my design and print it yourself. FSW