The Sports Car Era

Expanding Activities

After living a hermit-like existence in a single bedroom upstairs in a rooming house with all my worldly belongings in the trunk of my 53 Buick, the biggest single expansion of my activities occurred when Al Welch and I moved into the ranch. My life had been expanding gradually during my racing activities but meeting Curt and Diane Poulton and joining the McDonnell Sports Car Club, MSCC, started me on a sort of different tack… a changing interest from the hot rods of old to the sports car world. Al Welch owned an MGA which put him right into the mainstream of the MSCC. We used to compete together in all the rallies with him driving and me navigating but in the parking lot events we would each compete, driving his MG, he was a good enough guy to let me drive his car which led us to a friendly but fierce rivalry. We also became aware of the local sports car racing scene which, in those days, was usually conducted at airports that were slightly used municipal airports that were leftover WWII military air fields. There were many of them scattered around the Midwest and their use for sports car racing was originally fostered by General Curtis LeMay, the head of the USAF Strategic Air Command and an avid sports car racer. This racing was sanctioned by the Sports Car Club of America, SCCA, which started out as a group of wealthy sportsmen who liked to gather together and race their exotic machinery. To separate themselves from the crude image of automobile racing in those days these meets were strictly amateur with no paying spectators, only competitors and guests. The course was usually a few miles long using the runways and taxiways of the airfield itself as well as some of the paved roads that made up the airbase during the operational days in WWII. The result was a paved racetrack with an abundance of different radius corners going in each direction. To ensure safety and some form of organization, it was desirable for these corners to be manned by groups of marshals under the direction of the chief steward of the meeting. This was sort of a grunt job that was usually done by groups of sports car enthusiasts as a way of being part of the event as well as having a splendid viewing opportunity for the races. In the early days it was, in fact, the only way one could get in to view these non-spectator events unless you were a guest of one of the participants.

The Ranch

This was the name given to the new quarters of Al Welch and me. This came about in a sort of strange but perhaps predictable way. I met Al by chance in a bar in Overland Missouri where we both resided separately in two different rooming houses a few blocks apart. As it often happens in bar acquaintances, you get to shooting the breeze over a few beers and find out the stuff you have in common, ours happened to be employment by McDonnell Aircraft, drinking beer and cars. One night he came into the bar with the news that an associate of his

at work had been transferred to Oxnard California and wanted to rent his home out while he was gone and did Al have any interest in that. Al asked me if I had any interest in moving out of the rooming house and sharing the rent on this place and moving in with him as room-mates. He said this place was a house-behind-a-house with a garage to work on cars out in the country but still convenient to McDonnell. Well I said “Yeah man, I’m sick of living in that rooming house, keeping all my shit in the car and working out of that garage down in the city. Let’s go look at it.” so we got in his MG and drove out to Shackleford Road and New Halls Ferry to check it out. It turns out that the guy was born and raised in the cozy brick house out front of a small farm where his elderly parents lived. Behind the main house where they lived was another house, much smaller but it had a garage on one end and a kitchen, living room, one bedroom and a bathroom on the other end. According to the story, the place was once a chicken coop that the guy and his dad modified into a home when the guy got married and moved in with his new bride. Little did anyone know what a den of iniquity this cozy little place would turn into? The rent was $70 a month plus we had to pay for electricity, bottled gas for heating and cooking and water that got delivered into a cistern. We extolled to each other that this was perfect for our needs and made an instant deal to rent the place. Needless to say, neither one of us had a whole lot more than our clothes, our cars and my supply of tools and equipment that were stashed either in the trunk of my car or in the garage down in the city so we had to go to the goodwill and speak to all our friends to be able to come up with the minimum of furniture that we required; a refrigerator and stove, two beds and a table and chairs to eat off of as well as dishes, pots and pans and some silverware. We quickly came up with most of this stuff as well as an old day bed, some dressers and a giant old roll-top desk which when all moved in made the place adequately homey. Al knew how to cook so we immediately established that he was the cook and I was the washer which established our basic domestic arrangement. We went to the store and bought food, gin, vermouth and a shit-load of beer and figured we were all set. By buying long-neck bottled beer we quickly added to our furniture by using the empty cases as sitting places and small tables and whatever else we needed in the way of places to set stuff. Al had a whole bunch of Playboy magazines out of which we removed the centerfolds and basically wall-papered our new abode with almost life-size photos of outrageously good-looking girls in various states of undress. This was getting to really look like home. He also had a stereo and a huge supply of jazz records, the favorite music of both of us, so the place also began to sound like home.

Our living arrangement turned out to be pretty compatible, we both left for work at about the same time in separate cars since we worked in different buildings, neither of us ate breakfast, we ate lunch in the cafeteria at work and when we arrived home in the afternoon and shared a few beers, Al would broil a couple of monster steaks, make a salad and maybe a frozen vegetable while I would mix up a couple of big-league martinis and we would have dinner. After dinner Al would lounge around while I cleaned up the kitchen and washed the dishes after which we did what ever we felt like doing which most of the time was

me working on a race car and Al sometimes helping and sometimes just kibitzing. The word of the existence of this den of iniquity spread rapidly among our acquaintances in the sports car club and racing and it became THE gathering place for almost any event complete with the consumption of huge amounts of alcohol. Aside from the old couple who lived in the front house who didn't seem to give a shit what went on there was no civilization for a distance of a couple of miles, it was dark as the inside of a hat at night outside and so these get-togethers could go on unabated without fear of disturbing anyone or having reason for interference by the long arm of the law. It was clearly the best and most outrageous bachelor pad in captivity and as such it got the label "The Ranch".

Sometime after moving to the ranch we met John and Virginia Davis, an older couple that were friends of Curt Poulton and lived on Jamestown Road which made them almost a neighbor out there in the country since if you continued north on Shackelford it turned into Jamestown. John Boston Davis, who portrayed the persona of a grumpy old man perfectly, was employed as a tool and die maker, owned one gorgeously restored antique automobile, had restored a number of old Rolls Royce's and loved to hang out with us and give us no end of shit for sloppy workmanship, whether justified or not. His wife Virginia was the sweetest person on the face of the earth and took care of John in spite of his derogatory nature to everyone including her. He often would refer to her as a "clumsy claptrap" and she would resolutely put up with it. As you got to know John it became evident that he too would give you the shirt off his back if you needed it but he never would let on to it. He and Virginia would often come to some of the rowdy parties that went on at the ranch where, being quite a tall and striking man with a commanding personality, he would hold forth with grumpy remarks in his inimitable way. He once dubbed a particularly rowdy and quite inebriated young lady "Cracker Ass". Nearly every Saturday morning and particularly those preceded by one of these drunken orgies on Friday night, he would show up at the Ranch about seven AM, roust Al and I out of bed demanding fresh coffee. He thought it was funny as hell that we would be suffering from the bad head from hell. During this period I began to see the need for some genuine machining equipment to continue to turn out better and better racing machinery. I bought a drill press from Sears which was infinitely better than using a hand drill or a torch to drill holes But John Davis, as you might expect, ridiculed this purchase as a "cheap toy", not a real tool. I would very often bug him to find me a used lathe which wasn't a "cheap toy" and one day he did exactly that. He came to the house and said "I found you a lathe" and proceeded to tell me of this 16" behemoth that was being excessed by a company down in the city of St. Louis called Gruendler Crusher and Pulverizer Co. for the kingly sum (to me) of $700. "This is a real machine and is exactly what you need" says John, implying that if I didn't buy this I wasn't really serious about getting a lathe in the first place. This whole deal, frankly scared the shit out of me because the thing was so big that buying it threatened to tie me down more than the idea of getting married which, at this time was not even a possibility. I also knew that if I did not buy this machine, I could write off any further attempts to obtain a lathe

through John Boston. With all this troubling my mind I went and consulted with my other guru, Boots Strutman, who ran the Propulsion Lab at Mc Donnell and had helped me shorten the old Ford driveshaft for Pink Lady II. Boots told me that he, like John Davis, thought that this lathe was probably the find of the century and was exactly what I needed. He put me even more at ease by offering to help me go retrieve it from the Gruendler Crusher and Pulverizer Co., haul it on his heavy duty trailer and put it in place in the garage of the Ranch. I went to the bank and borrowed the $700 to pay for this treasure, made arrangements with Gruendler and Boots and I went down into the city with his trailer to get the treasure. There it was, supported on large timbers on the loading dock at Gruendler Crusher and Pulverizer Co. with a guy with a crane at the ready to lift it onto the trailer. This done, Boots and I set off for the ranch with Boots informing me that he thought the machine weighed in the neighborhood of 4000 pounds because he had hauled some pretty heavy stuff on his trailer and it had not been as loaded down as this. I was sweatin' "Jesus Christ, what have I got myself into?" but we carried on. When we got to the Ranch he backed the trailer up and basically lined it up with the general area where it was going to live and using heavy duty bottle jacks, lengths of pipe and a big sheet of plywood rolled it off the trailer into the garage. Near the end of this exercise the thing sort of got away from us and rolled uncontrolled into the garage and ended up exactly where I wanted it without tipping onto its side or any other such disaster. I breathed a big sigh of relief and started to feel a lot better about the whole thing. There was still a lot to do but at least it was basically in its new home.

This lathe was formidable enough that it will, from now on, be referred to as the Lathe. It was a huge cast iron monster created sometime around the turn of the century for use in the kind of machine shop used in those days, a single power source, usually a steam engine, coupled to multiple shafts with wide flat leather belts. The machine tools were driven off these shafts with the same wide flat leather belts. This Lathe had been converted sometime into a more modern arrangement with a three phase motor driving a four speed gearbox with vee belt drive that drove the short wide flat leather belt that still rotated the Lathe. This gearbox along with the double granny back gears gave ample speed flexibility. The Lathe when standing on its legs was about five feet tall at the headstock end with the four speed gearbox extending above this for a total height approaching seven feet. The bed was about two feet deep and ten feet long with the vee rails about four feet off the ground, allowing it to turn something 18-inches in diameter by six feet between centers. The Lathe was indeed FORMIDABLE! John Boston Davis came over after he heard that it was in my garage and exclaimed "Now that is a machine", he was pleased indeed and immediately set to work measuring things up to make a cast iron adapter plate to fit a three-jaw chuck to the Lathe, since it only came with a faceplate that looked like a manhole cover and a huge four-jaw chuck that wasn't real handy for the type of turning that I was going to do. This adapter plate was a casting that one purchased, bored and threaded it on another lathe to fit on the threaded end of the spindle, then installed on the lathe to be used to machine the chuck locating into it. This way the chuck would be true to the lathe upon which it was installed. Thanks to John

Davis this was all handled expertly for me by him, nice guy. He also told me to pour four concrete foundations deep down into my dirt floor to support the behemoth properly and sturdily, emphasizing the necessity for level strength and stability. Boots had told me the same thing and further offered to lend me heavy duty machinery moving dollies to move it onto the concrete supports and supply leveling mount blocks for the legs to sit on for final leveling. I found a 1HP single phase motor to drive the machine using the somewhat wimpy electric power available and with the three-jaw chuck installed I ended up with a machine that was the envy of all, the Lathe! I owned this ancient jewel for well over twenty years and made literally hundreds of parts with it as well as using its bulk as the support for a home made press brake to form wing leading edges. Alas, when I moved to California and had to part with it was like losing a family member but there was no way I was going to attempt to transport this heavyweight all the way across the country and try to insert it in a diminutive California garage.

The antique car that John Davis owned was really something special, just like him, it was a 1917 Dorris Opera Coupe, a very expensive nearly custom automobile built in St. Louis. The thing was so tall that he had to jack it up with a floor jack, remove the rear wheels, lower it down to the brake drums and wheel it into the garage, jack it back up and put the wheels back on. It sat far enough off the ground that you could crawl on your hands and knees straight under it. The inside was tall enough that it was possible for the passengers to leave their top hats on inside on the way to the opera. It had a collapsible front passenger seat to allow full access to the rear seat. Aside from the obviously impressive size and luxury John was quick to point out the not-so-obvious mechanical marvels. Raising the hood revealed a massive six cylinder engine with overhead valves. Not obvious but quickly pointed out by John was that the engine had a seven main bearing crank, one journal between each cylinder, unheard of in those days. This machine was truly magnificent, just the kind of thing John would own proudly.

Another character who never became a denizen of the Ranch but whose car I bought which became a legend and whose name was liberally bandied about was Vincent Scognamiglio. Vince was a physicist that I met at work who had nearly spherical geometry and ran an Italian restaurant with his brother on the side. Seems that he owned a 53 Oldsmobile that he wanted to get rid of and since my old piece-o-shit 54 Pontiac was on its last legs, I decided to buy it. Curt Poulton, the great fan of European racing language immediately dubbed my new acquisition “the ex-Scognamiglio works machine”. We also occasionally went to Vinnie’s place which was actually a pretty damn good Italian restaurant. The red Oldsmobile became my official transporter, towing race cars around for several years until John Martin found me a magnificent 66 Pontiac Bonneville coupe that I couldn’t turn down. During the ex-Scognamiglio works machines existence it also substituted for a viewing platform for watching racing which gave rise to its alternate name, “The Thorked-Top Oldsmobile” which came from the sound that issued forth when someone went inside to convert the viewing platform back to a car by lying on the seat feet in the air and pushed the concave roof back into its convex configuration. When the structure underwent the snapping transition the

sound that issued forth at was a resounding “THORK”, thus the name. The hood, being the first step on the way to the roof took on a similar geometry but since it couldn’t cave in further than the top of the air cleaner and that didn’t affect the up-down operation it was never returned to its original shape. A bit later on these two surfaces took on yet another task, that of being beds for Jeep Frey and I. He was an armored personnel carrier driver in Germany during his stint is the service in the Army of the US and A and found out that the engine cover was a perfect place for sleeping because of its ability to retain the heat generated by the engine so upon returning home and heading off to the races in the middle of the night he would reserve the hood for his bed when we would arrive at the dark and yet to open venue. Since I hated sleeping all squished up inside the car I would take over the roof with a big thick moving robe as a pad and warm snuggly cover. Now the continuous deformation of the roof rendered the dome light inoperative and finally the lens covers missing and leaving just the metal frame exposed to the world which was no particular problem except when the roof was in the retracted position and access to the rear seat was attempted. Remembering that the primary function of this machine was being a race car transporter, the trunk was naturally full of tools and equipment and beer, as important as it was to the well-being of the entire crew, was relegated to a cooler in the rear seat. One afternoon at the racetrack after all official activities were over I rushed over to get a beer before the top was thorked and leaping over the seat into the back my head encountered the sharp frame of the dome light and I emerged with not only a cool one but with blood streaming down my face from a major league gash in the top of my head. Some of the more conservative types in attendance suggested that I ought to go and seek medical attention and get my wound stitched up. “Fuck it, that would majorly interfere with beer-drinking time.” and I directed that a shop rag be taped tightly to my head using racer tape which is what we called duct tape. This solution stemmed the bleeding and the trip to the doctor was summarily forgotten.

Due to a mechanical failure of the shift linkage for the automatic transmission and the simplest fix for the problem, the Oldsmobile developed the need for a unique technique for changing gears that had to be learned by anyone wanting to drive. The shiftless condition was repaired by threading the end of a steel rod about 18” long and using it as the clamping bolt to hold on the shifting lever on the side of the transmission. Cutting a slit in the floor for the rod to protrude into the cabin and giving it a unique bend allowed the gears to be shifted from Park into Drive to get the car to move in the forward direction. Now, if you are old enough, you might remember that before the familiar PRNDL pattern that ultimately became universal for all cars shifting sequence GM employed the PNDLR so that when shifted normally from the column, to back up the shifter was pulled into the down most position. Due to the intricacies of the linkage geometry the improvised floor shift had P all the way back against the seat and to go to D one merely notched the rod forward a bit but to back up required the rod to go forward all the way to the firewall to engage R. The technique for forward motion was simple hand movements but to get reverse one flung the lever forward, intercepting it with the foot to jam it against the firewall.

To bring it back to forward the toe was hooked under the rod with the leg propelling it rearward with sufficient momentum for the hand to pick it up to select drive. With a little practice it worked pretty well and no attempt was ever made to change it for the remaining life of the Thorked-Top Oldsmobile.

Working at Broadwell's

After moving to the Ranch and becoming sports car buffs, we attended a few of the sports car racing events at airports around Missouri and signed up as corner marshals since that was the best way to gain admission and get close to the action. The after-the-races-get-togethers offered an opportunity to meet some of the participants and generally hang out with the racers. In addition, Curt Poulton who had considerable skill at writing and drawing along with the ability to make detailed mechanical drawings worked part-time for one of the racers, a fellow named Jim Broadwell, one of the guys that competed in the smallest modified category, HM, which had a maximum engine displacement of 750 cc's and most of the cars were homebuilt specials. Jim Broadwell, whose daytime job was acting as a manufacturer's representative was quite well-to-do and lived in an upscale suburb of St.Louis called Ladue with an expansive workshop in his basement where he built not only his race car but those of a number of associates. He was the sort of guy that was willing and able to turn any hobby he might take up into a business and racing sports cars was no exceptions. In the early days getting all his buddies interested in racing these little cars gave a monetary base and a working team that allowed for body fabrication and a certain amount of building jig fabrication allowing for a standard racing car which was dubbed the Jabro, for obvious reasons. After the cooperative effort to get the cars built the organized group sort of broke up as the other guys maintained their race cars in their own garage or shop and the Broadell shop reverted back to a one man show. This situation was unacceptable to old Mr. B because he wanted to turn out a lot of customer stuff as well as working on his own racing stuff so he sported around for a temporary staff to do a lot of the grunt work on his many customer projects. A few of us heard about this and joined the Sunday work force over in Broadwell's basement. This was actually a lot of fun for everyone, he always had a bunch of interesting projects plus the free pizza at lunchtime and a crisp five dollar bill for pay at the end of the day. There were two primary jobs we worked on, converting Crosley 750 cc four cylinder engines to cross-flow configuration and building customer frames for their HM projects. The frames were usually Jabro Mk I or II frames for which Jim had extensive tooling so that two guys could easily turn one of these out in a single Sunday and he could have it shipped the next week. The frames were built out of thin-wall electrical conduit which Broadwell was able to buy through one of his contacts before it went through the zinc-plating process so it was bare steel tubing in ten foot long sections and did not emit all the toxic smoke that came off from welding ordinary electrical conduit. He had a whole bunch of these well marked cutting fixtures consisting of two split tubular ends with the appropriate fish mouth connected together at the proper length with a strap that you slid over the raw material

tubing and marked off with a pencil. It was then cut off to the correct length with a hacksaw and the ends trimmed using an aircraft tin snips which would easily cut the 0.049” tubing wall into the fish-mouth shape necessary for the joint. The resulting pieces were clamped into a frame jig and tack welded in place with an aircraft acetylene torch. When the whole assembly was tacked together two guys, usually Broadwell and I since we were the best welders would jump on it and weld it all together.

The Crosley engines were a good bit more complicated and took a lot longer, usually at least a couple of Sundays at least. The standard Crosley was an inline four with an aluminum crankcase that held the crank and rod assembly topped by a cast iron cylinder block with an integral single overhead camshaft cylinder head. incorporating four intake and exhaust overhead valves each. The porting arrangement was one exhaust port for each cylinder and a pair of Siamese intake ports all arranged on the same side of the block. The modification, which I have a strong suspicion was dreamed up by one of Broadwell’s ingenious buddies with whom I later partnered up with, one Edgar Alsbury, also known as Uncle Ed, was to seal up the Siamese ports and cut four new ones in from the other side thus making a cross-flow arrangement that four separate motorcycle carburetors could be attached to giving a much cleaner flow along with a reshaped combustion chamber. Again, like the frame all the development of the technique had already been done and all we had to do was the necessary operations. The first step was to position a template on the block and mark out the area of the external water-jacked to be removed and remove it using drills, little grinders and a hammer to knock off extraneous pieces, a carefully angled jig was bolted to the block and four new intake ports were hole-sawed into the cylinders from the opposite side, next a special iron casting called a “dog-dick” was fitted into the Siamese ports to seal it up and re-form the combustion chamber on the cylinder end of it. After shaping and trial fitting, the casting was brazed into place getting access for the operation through the new port holes in the other side. After the brazing the combustion chamber was smoothed and slightly reshaped through what ever holes provided access after which the new intake tubes were cut and fitted to an assembly jig and brazed in place. The modification was finished up by cutting an assortment of steel pieces from templates that filled up the open spaces in the external water jacket on the new intake side. The net result of all this surgery to a basic cast iron block was small water leaks all over the place, to both the outside and the inside. This was discovered in the original engines after they were completely assembled and fired up for the first time. The solution was some sort of commercial block sealer run in the cooling system long enough to seal everything up after which everything was cool. This procedure was deemed unacceptable for a product destined to a customer so we rigged up a leak sealing tool consisting of a five gallon reservoir of water and block sealer on a gas heating plate with a pump and suitable plumbing into which we would mount up the newly finished product and fire it all up. It was both amusing and amazing to watch water squirting all over the place initially go to completely dry in a few minutes. That stuff really worked

well. A little paint to cover all the surgical scars finished up the assembly ready for shipping.

Another project that was totally non-productive but quite a lot of fun except for Broadwell's sometimes disturbing fussiness was building what we hoped was the world's smallest pee scooter. A pee scooter was a product of the race meetings being conducted on the endless expanses of runways and taxiways of vast WWII airbases where bathrooms were few an far between thereby making some kind of motorized transportation more than just a luxury. Since, in those days the transporter consisted of the family sedan loaded full of people with the trunk loaded full of tools and spare parts and a simple open trailer loaded full of race car, there wasn't much room for additional vehicles to be used for the simple expedient of going to the bathroom, hence a small scooter was cool. A Vespa, a Cushman or a small motorcycle was usually more than could be managed by the existing transport systems so guys started welding up little scooters utilizing lawn mower engines and the like and finding a place on the trailer where they would fit for easy transport. For obvious reasons these little scooters got the name pee scooters and they became a fixture at all sports car races, the ridiculous sight of a grown adult male (or female) sitting on one of these tiny scooters became commonplace. As with most motorized contraptions a subtle competition ensued to see who could have the fastest or coolest or smallest one of these. Broadwell found an engine someplace that was just a little bigger than a model airplane engine and decided that it was the core of the world's littlest pee scooter and began to design it and gather together parts like wheels, tires, centrifugal clutch and teeny chain drive. I sort of remember working on this little creation but, unlike my roommate Al, became pretty much disgusted with the whole deal saying words such as "I haven't got time for working on that little fuckin' pee scooter when I could be home working on my race car." which sort of led to the end of my career at Broadwell's on Sundays. As I remember though, Broadwell did get the thing operating and it was really cool, a pee scooter about twelve inches long and about eight inches high that could carry a full size man down the runway. Genuine road courses and paddocks paved over with grass with convenient bathroom facilities pretty much killed off the pee-scooter craze.

The TR-3

As I became more interested in the sports car scene, I began to get a genuine itch to own my own sports car to be able to compete in the events and just to be able to drive around in something a bit sexier that an old rusted out tow car. Any decent sports car cost way more money than I had ever spent on a car before so I was in no rush to just run out and get one. For my money, a new one like Al Welch had was out of the question so I would just go around to various used sports car dealers and drive different ones to kind of see what I wanted. An MG like Al's was pretty nice and I liked the Austin Healy but it cost a lot. I once drove a Morgan which was an experience. The Morgan is an English sports car built in the old way with metal fitted over a hardwood body frame to form the body, with some weirdly old fashioned suspension and a Triumph TR-3 engine.

The front suspension was a sliding pillar arrangement that was so stiff that it was almost solid. The hood was held down by a pair of massive straps giving the car a rude and crude old fashioned look that was sort of appealing. It was light as hell so the TR-3 engine made it really pretty quick. I took off in this thing from a car lot down near Delmar in the middle of the city and stood on the gas. With a snarl from the exhaust system it scooted away down the street until it came to some street car tracks which when I hit them launched me off the ground. I started laughing like hell at this ridiculous car but decided that I was not going to spend my hard-earned cash on such an antique piece of shit. I finally decided on a powder blue Triumph TR-3 which was pretty nice, perhaps not quite as sophisticated as the MGA but a bit quicker and a lot of fun to drive. Whereas the MGA was more of a convertible with a top that manually retracted the TR-3 was much more roadster like, the top frame folded up but the canvas came all the way off and could be left at home with the side curtains. A snap-on tonneau cover was the main rain protection when the top was at home, it basically kept the inside dry if it rained while it was parked and could be opened so that only the driver stuck out while driving. Driving in the rain was not to bad as long as you were moving but when stopped, not only did it rain on you but the cut-down door side allowed huge quantities of water to be thrown into the cockpit by passing cars going through big puddles but all of this was the sports car mystique. In the winter however, the cold of the Midwest winter overpowered the mystique and the top and side curtains went on as well as the rudimentary heater. I remember going home to Milwaukee one Christmas in the TR-3 since I sort of wanted to show it off to my parents. The weather was brutal, near zero when I left St. Louis and colder as I proceeded north. The heater on full bore was just enough to actually keep a guy from freezing to death but certainly not enough to feel anything like comfortable. I stopped some where about midway and stiffly walked into a restaurant and got some hot coffee and had a hard time deciding if I should drink it or pour it into my shoes to thaw out my feet. What a shitty trip.

As with most English sports cars, the TR-3 had some weird idiosyncrasies that were both laughable and frustrating at the same time. One of these was the jack arrangement for lifting the car off the ground, one side at a time for maintenance or a flat tire. Instead of a bumper or scissors jack the TR-3 had two holes in the floor under the carpeting with rubber plugs in them. In the tool pack in the rear was a tubular jack that extended and retracted by turning a screw at the end, with a ratcheting box wrench that fitted over the hex screw, one way for up and the other for down. A metal protrusion on the side of the jack engaged a matching receptacle welded to the frame under the hole in the floor. To operate this contraption one removed the plug from the hole in the floor, stuck the tubular jack down through the hole, engaged the lifting lug and wound the jack up or down to raise and lower one side of the car, slick, you could jack up the car while sitting inside. Once I had a flat tire and discovered the flaw in the system, the jack worked fine as long as there was air in the tires but when one was flat the side of the car was lowered down to the extent that the jack in its shortest length was still too long to engage the lifting lug and one had to tug mightily upward on

the car to get the jack to fit, engineering anomaly? I discovered another of these engineering anomalies when I found it necessary to remove the cylinder head for a valve job. Way back in the 30's many cars used studs to locate and hold down the cylinder heads but went over to bolts because of the corrosion problem between the head and the studs, not Triumph, they still had studs at the end of the 50's. Now some engines with aluminum blocks are obliged to use studs because of the nature of things but they relieve the studs so that they only touch the head in the crucial places and are free for most of their length. Not the TR-3, big old full round studs stuck so tight in the holes that I think you could run the engine with no head nuts and the head would not leak. This, of course, means that each stud must be double nutted and painstakingly backed out one-at-a-time, what a pain in the ass. The last of these anomalies that I remember was a strange loud banging in the rear that occurred only on certain types of bumps in the road. It didn't happen real often but when it did it was indeed startling. It was like there was a big loose piece of iron in the trunk that would bounce up and crash down. I checked for stuff in the trunk and stuff loose and never could find out the source of this disconcerting crash noise. Finally one day I grabbed the back of the body in the rear a lifted up and it sort of came with me, hello what is this, the whole back of the body was loose from the frame and was kind of held in place by the bolts further forward causing sort of a spring effect. A certain kind of bump would cause the frame and body to separate and come back together with a resounding crash. I found that the entire rear of the body had ripped through the mounting bolts and had come loose. Who ever heard of that? A little disassembly and some big washers fixed it but it goes down as English car strangeness. I had a lot of fun with the TR-3 during the time I owned it before I sold it to Steve Turner to turn into a racing car, but the experience was such that I never again even thought of buying another English car.

The First Road Racer

As a prelude to this section I am going to repeat what my thoughts were after the bitter failure of my last effort to build a racing car. I had built a road race chassis to go dirt track racing and I had also bit off way more than I could chew with my limited fabrication equipment. However, building one road race chassis along with my increasing knowledge and experience with sports cars led me to give up on the dirt track racing and think about building a real road racer and going sports car racing. The concepts for the new road racer however took a not-too-unexpected one-hundred-eighty degree switch from the sophisticated design back to an easy-to-build hell-for-stout hot rod based sports car. In short, I had built a road race car for the dirt track and now I was going to build a dirt track car for sports car racing, weird, but not entirely unexpected when one endures a major failure and is determined not to repeat it. Basically no design effort went into this car at all other than a gathering stage where a bunch of the stuff was rounded up to build a car out of. The basic dimensions of the car were derived from a raw fiberglass Devin body that I borrowed from a friend of mine. This body consisted of a nose, tail and doors for a sports car of contemporary design, a

front-engine, and rear wheel drive topless roadster with about a 90-inch wheelbase and a 50-inch track width. I found a 51 Ford chassis in the form of a complete car that I dragged to the backyard of the ranch to serve as the basic chassis complete with the 389 CID Pontiac V8 and transmission from the ill-fated Indy roadster look-a-like with the bent frame that lay forlornly in another corner of the chicken coop backyard. To conveniently liberate the usable stuff from the undesired, a bunch of us gathered at the ranch one Saturday afternoon to put the Ford in a posture to make this separation easy. We threw a long chain over the roof and secured it around the center door post on the opposite side. The other end was connected to the trailer hitch of my venerable old tow-car, the 54 Pontiac which I fired up to gently pull the Ford over on its side since I didn't want it to roll all the way over onto the roof. We were all amazed that it tilted up about 70° before it wanted to gently roll onto it's side, "Shit man, you'd have to hit a curb to roll a car over, no way you could roll just going around a corner". Deft use of the cutting torch freed up all the pieces useful for the construction of the new sports car racer with the dregs just left to rust away in the orchard. This was livin', out in the country drinking beer and fuckin' up old cars.

Measurements from the Devin body indicated that the Ford had to be narrowed and shortened to fit. Since the 51 Ford was based on a simple ladder frame with no X-member like the earlier Ford's made this project pretty elementary, just measure and cut a section out of the middle of the frame to shorten it and a small section from each of the cross members and weld it back together. This surgery centered the wheels into the wheel wells and under the fenders. The nose of the body had a pre-fashioned hood with a matching hole which said to me, "Put the engine here", which was a little back from where the engine normally lived in the Ford. At this point I thought that all we had to do was to use a three point engine mount consisting of two for the engine and a third at the back of the transmission just like the Ford but adapted to the Pontiac/GM mount design. A little measurement yielded yet another little known fact about American car design, the engine, transmission and drive-line is not on the centerline of the chassis but is, instead offset to the right about 2-inches, "What the fuck is this all about?". It took many beers late into the evening brain-storming the many possible reasons for this oddity along with measurements of all the cars handily around to confirm that Ford was not the only manufacturer that did this. I don't know about now, but in those days, after you knew this, it was apparent that the foot-well on the passenger side was narrower than that on the driver's side on all cars, even in the Corvettes. We finally concluded that the natural symmetry of the rear axle assembly with an equal length axle on each side naturally put the pinion centerline off center and that extending this forward put the driveline off center. The advantages of doing this were that it gave additional room for mounting the steering gear on the left side of the engine compartment, more room inside for location and operation of the standard three pedals in the driver's compartment and last compensated for the weight off-set of the most common driver only mode of operation. Thus this design decision was made, "Fuck it, and mount the engine off center like Detroit does it"

There was one other project made necessary by the narrowing of the width of the Ford chassis, the rear end assembly was too wide and had to be narrowed on each side so that the wheels would go under the fenders and the parallel leaf springs would fit into the axle spring mounts. This procedure had already been researched and done making the narrow center section for the DeDion arrangement in the ill-fated roadster so it was relatively easily handled. The rest of the chassis construction was pretty straightforward, basically putting the Ford stuff back in place, but moved around to fit the new seating position and adapting the GM stuff to the Ford stuff where necessary. The body mounts were more-or-less copied out of magazine pictures of other sports cars using the Devin body, sort of hoops and bulkheads formed out of 1/2" water pipe bent to suit with aluminum panels metal screwed to them where necessary, like separating the engine compartment and trunk area from the driving compartment.

When I got ready to permanently mount the body, I got another surprise. As it turned out my buddy that owned the body wouldn't sell it to me because, so he said, "I'm going to use the body to build my own car.", "yeah, fat chance of that!!" but he insisted so we compromised by him allowing me to use his body for a mold to make my own body. I remembered all the time and trouble Curt and I went through making a male mold, a fiberglass lay-up female mold and finally the finished body parts, smooth on the outside and rough on the inside, so I says to myself, "Self, fuck all that money, time and aggravation, we'll just spray up his body with parting compound and lay up our body straight over his and so what if it comes out rough on the outside and smooth on the inside." Well we did that and in one Saturday afternoon we had a complete body that looked a little like a stiff greenish burlap bag but it was ready to mount and fuck him. We mounted the new body to the frame using a combination of sheet metal screws and little fiberglass wraparound's laid up in the key places. Aside from having less than a smooth shiny finish it turned out pretty good and was actually beginning to look like a sports car.

Since I had bounced on my lid pretty violently using a roll bar made from EMT electrical conduit, I decided on that for the roll bar for this car with one exception. I found out that they sold prefabricated gentle 90° bends for EMT so I bought a couple of lengths of 2" conduit and two 2" elbows and welded up a slick looking roll bar for my new sports car. Some 1/2" plywood floorboards, a fiberglass double seat formed off of one of Jim Broadwell;s molds and the seat belts and shoulder harness from the roadster completed the interior. The rest of the details were completed in a big thrash before the deadline to leave for my first SCCA mandated driver's school.

Driver's School

This sports car racing was quite a bit different than the dirt track racing I had been doing from the point of view of rules and regulations. At the local dirt speedways there were zero requirements for any training or special licensing, you just showed up and raced. Not so for sports car racing, there was only one

store in town. All the road racing was sanctioned by the Sports Car Club of America, the SCCA, and in order to race with them you had to join up in the local region, fill out some paperwork, get a physical examination and attend at least one officially sanctioned driver's school where you drove your race car around the course while being coached and observed by experienced road race drivers and officials. If you passed this scrutiny successfully and logged sufficient time on the track you were awarded a regional competition license which allowed you to compete in regional races. Finally after successfully competing in a sufficient number of regional races you finally earned the coveted National license necessary to compete in all SCCA sanctioned event all over the country.

Another new thing was Scrutineering or Tech Inspection, a soon-to-be-hated procedure that went on before you were allowed to take your car onto the course. Technically this was an inspection of your car to ensure that it was mechanically sound and conformed to SCCA rules and regulations, many of which seemed extraordinarily stupid and trivial but were rigidly enforced nonetheless. It often seemed, at least to the newbie, that SCCA officialdom, of which tech inspection was a part, was a group whose sole pleasure in life seemed to come from enacting the maximum hassle on each competitor. This was particularly true when a guy showed up with a shit-kickin' hot rod rough and ready racer like I had built. A sleek dignified foreign sports car this was not. In those days, even a modified class car had to have stuff like operating headlights and taillights, a horn and two seats with at least one operable door. One of the goofiest tests you were obliged to pass was the brake test. The gist of this test was that you had to lock all four wheels simultaneously from about ten mph with your hands in the air and the car had to come to a stop in a straight line without veering to one side or the other. What the hell this had to do with the adequacy of the braking system for racing I do not know but it did make one quite proficient at holding a car straight by judicious application of one knee against the steering wheel. Suffice it to say that getting the car through tech was the first and often the biggest challenge of the weekend.

In an attempt to pattern themselves like the international auto racing governing bodies the SCCA also specified that all drivers wear flame resistant driving suits. Now at this time in history, such stuff did not exist so it was necessary to improvise. There was also no internet to look into for answers so in asking around it was determined that an article of clothing was deemed flame retardant if it was soaked in a mixture of borax and boric acid and allowed to dry without rinsing. The cheap way to was to buy a surplus pair of air-force coveralls and do the soak routine so that they were sort of stiff and streaked with white stuff and this would get by the tech inspectors. The outfit was completed by a pair of leather work boots and leather gloves. We also found out that one never washed the treated coveralls because the boric acid deteriorated the material and after a few cycles it would fall all to pieces. Unwashed and stinky would give it better longevity. The really stylish way was to ante up and buy a professional light blue driver's suit complete with Dunlop advertising but these were cost prohibitive. We ultimately found out that there was an outfit in Indianapolis called Hinchman that made all the uniforms for the Indy car drivers and crews that sold

a reasonably priced driver's suit that they claimed was fire resistant and was approved by the SCCA so it ultimately turned out to be the best way to go. It also looked a hell of a lot better than baggy old white streaked olive drab coveralls that were falling apart.

As spring started to overtake the drab winter the first driver's school at the Lawrenceville Municipal Airport straight over old highway 50 in southern Illinois near the Indiana line drew nigh. An enormous thrash was instigated to get everything ready to go. We had to finish all the little detail shit like lights and horn, etc as well as soaking coveralls and getting the trailer ready. We looked at the greenish fiberglass body and decided that we had to do something in the way of paint so we did a quick spray job in gray primer and stuck numbers made out of white sticky-back shelf paper on doors, hood and trunk. All done it looked pretty good from a distance but up close it looked a lot like a gray burlap bag,,, "oh well fuck it, it has a certain quaint charm." The car was finished off with a set of brand new Firestone 500 670x15 street tires. I didn't know a hell of a lot about racing tires and these were the top of the line street tires so what the hell we'll try them and see what happens, we've been racing the dirt track on junkyard tires and recaps so who knows? As the fateful Driver's School weekend drew nigh, we loaded the car onto the trailer and tied it down with chains since the ramp restraints we used for the roadster wouldn't work on a car with fenders. We threw in all the tools and extra shit that we might need and hooked the trailer to my old 54 Pontiac with the rusted out floor and set off east.

Now it is difficult to say which challenge was the greatest. Contemplating driving a course made up of turns of various radiuses joined by straight-aways of various lengths or actually towing the trailer over Highway 50 to Lawrenceville with the 54 Pontiac. Highway 50 was a major cross-country US highway but it still was a 16 foot wide two lane through most of its length, at least through southern Illinois, and was used by bunches of big tractor trailers going in both directions. The transporter consisted of an old worn out piece of shit 54 Pontiac that had at least a half turn of play in the steering towing a trailer that was almost exactly eight feet wide to the outside of the wheels. The technique for guiding the Pontiac/trailer combination down the road was to sort of let it go wherever it wanted to and bump the steering left and right to keep it generally pointed east and on the road, remembering that these bump spots were approximately 180° of steering wheel motion apart. This was cool until one of those big semis came barrel-assing down the highway at you using up all of the eight foot half of the road on his side. "Oh shit, how the hell do we dodge this big fucker?" Well the trick is to wait until the nose of the Pontiac is about even with the nose of the truck and give the steering a pretty stout bump to the right to sort of move the car and trailer up the slight rise on the edge of the road. Then, before the whole rig plummets off the road you give the steering a matching but opposite stout bump back to the left which completes the curving dodge of the hurtling behemoth. One more bump back to the right completes the maneuver and we are back to aimed eastbound and down without a disaster. A little practice and dodging those big semis is not so bad unless you encounter one that is over about three inches into your lane, that gets your attention and tests your adrenaline flow.

On Saturday morning we went out to the airport a signed in at registration, unloaded and then took the car over to tech inspection. Now for a guy that has an MG converted to racing by the addition of a roll bar this is pretty simple, they look over the car, you do the silly little brake test and they give you a sticker. When you show up with a big old V-8 powered home-made car that looks like a gray burlap bag it is a completely different story. It seems like a contest, they see how much nit-picking you can stand and you just patiently keep fixing stuff until they finally give up and give you a sticker. Being a newbie, this took most of Saturday morning and really cut into my track time. The instructors sort of divided the school up into groups of similar types of cars and since mine was in the big modified category, one of my instructors had a Maserati and the other had a Ferrari, “wow, how cool is this?” My first road racing laps were made following the Maserati to learn how the course went around and to get a small feel of the speed, I was in hog heaven. When they finally turned us loose to play on our own is when I really felt like I had a lot to learn. My car might have looked funny but when you got a 389 cubic inch V-8 in a little light weight sports car that sumbitch is FAST! I remember coming down one of the back roads into the big turn onto the runway part of the circuit really flying when I thought to myself, *“When the hell do I get out of it and start braking and how hard do I brake?”* Then it really hit me *“This road racing is really different than rippin’ around a little old dirt oval.”* I was hooked and really began to pay attention to the details and remembering to repeat them every lap and start to think about stuff to improve my lap time. I must have at least looked like I knew what I was doing because the two instructors, unlike the tech inspectors, kind of took me under their wing and gave me some pointers. Bill Cooper, the older guy in the Ferrari from the Milwaukee Region, seemed to be particularly nice to me for whom I was forever grateful, he sort of turned into my mentor and got me out of a lot of difficult situations at succeeding race tracks where they wanted to throw me out for being too rude and crude. I always felt that he showed something of a fatherly pride in my later accomplishments as a seasoned championship road racer after being responsible, to a large degree, for keeping me in the fold in the early days.

When all the dust had settled on Sunday afternoon and the fresh new regional licenses were handed out, I did not receive one, sob. I seemed with all my difficulties with my new home-made car I had not logged enough on-track time to qualify for a regional license and was told that I would have to attend another driver’s school to further build up my on-track time and that the nearest one for me was at Indianapolis Raceway Park in a few weeks. Undaunted, I towed back home and did some more work on the car to attempt to correct the difficulties that cropped up over the course of the weekend and then set off for my second school at IRP. This attempt was much more successful and I even had more fun and came away with my regional license. The rest of the season was spent towing off to all the nearby regional races to compete and get the old logbook signed off and by the end of the season I had accumulated enough experience to qualify for my national license and was now a bona-fide SCCA road racing driver.

The Red Warrior

I had learned a lot of things during my maiden season of road racing. Usually, the regional races in which I had participated were run in conjunction with a national race on the same weekend which gave me the opportunity to meet and talk to more veteran competitors and pick their brains on things that were still plaguing me such as the weekly hassle with tech inspection. I ran into one guy from the central division that told me that if I ever wanted to run at Road America in Elkhart Lake, Wisconsin that I had to spiff my car up a lot. He said the best way to get through a Chicago Region tech, the region that sanctioned the races at Road America, was to put my car out in the middle of a big field surrounded by spray cans set in kindling, set the whole thing on fire and let the exploding paint cans cover every square inch of the car in paint. He basically said that if they look over your car and everything is neatly painted, they will pass you right through. Knowing that I definitely wanted to compete at Elkhart Lake, I dedicated the winter to spiffing up the old gray burlap bag. I thought, first I needed to smooth up the finish and I tried sanding it smooth. It didn't take much of that before I figured out that there had to be an easier way. I thought, *"I wonder what would happen if I just painted over the burlap material with fiberglass resin by itself and let it cure?"* and the more I thought about it the more I thought that might work. I bought some more resin, added the hardener to it and brushed it on. Well it could have gone on smoother and it could have had fewer runs but by and large, after several days setting in the sun it cured up so it could be sanded without totally gumming up the paper. With a little sanding it looked quite a bit smoother than it had. Fuck it bum, good enough. The next step was easy, paint that sumbitch with the brightest, shiniest fuckin' paint known to man. I went down to the paint store and found a quart of bright red gloss enamel and a nice brush and before the day was out the Durant Special was a gleaming brilliant red. "Shit man, with white number circles and some cool sponsor stickers this piece-o-shit will look like a real race car!!!" Now to sum it all up, a fiberglass body layed up inside out, painted with resin and then brush painted with hardware store gloss enamel ain't gonna win any car shows but we all thought it would have a much easier time getting through tech inspection. I got a big piece of 1/4" thick plexiglass, built a mold, and used the oven in the house to sag form a one piece windshield that fit all the way across to replace the little piece of plastic that we had. Due to the size constraints of the oven, I had to form one end first and then the other end, but it turned out pretty good. We got some more black paint from the paint store and painted every surface that might be seen by the tech inspectors on the inside of the car, in the trunk and under the hood and lo and behold, the thing started to look fairly respectable. One day we rolled it out into the sun to have an overall look at it and suddenly it had a name change that stuck with it for the rest of its life, The Red Warrior. The red was obvious but the warrior moniker was due to the fact that not only was the car an obvious warrior but it was powered by a huge Pontiac V-8 and Pontiac had carried the Indian head motif for years.

Another problem that had plagued us all season was overheating. We had hacked up more aluminum sheet and other tin modifying the ductwork feeding air

to and from the radiator and achieved virtually zero success in keeping the engine cool. We also realized that part or maybe all of the problem might be in the low, slanted, cross-flow configuration of the radiator in which the top of the radiator was below the top of the engine. An interesting coincidence was about to unfold in which there was a cross-over between my work engineering and my race car engineering. It so happened that I was assigned to a special laboratory group of engineers at McDonnell Aircraft that was doing all the engineering necessary to put in a large Space Simulation Laboratory. We young guys were all up-to-date on the latest in vacuum technology and cryogenics but in spite of our never ending confidence we really didn't know shit about the nuts and bolts of fluid engineering, pumps, valves and industrial plumbing so the company hired a guy to handle this end. He was a grumpy old, misshapen fart out of industry named Cleo Elsey that was at least twenty years older than any of us, had a strange gimp and was the epitome of a "cook-book" engineer and couldn't derive an equation if his life depended on it. He also had an attitude that did not do anything to endear him to us young guys so it was a sort of Mexican standoff between him and the rest of the group and he didn't even give a shit. He spoke a strange language that none of had ever heard before using strange terms like NPSH and Cv along with vivid descriptions of actual physical phenomena like "If ya ain't got enough NPSH your pump will suck a hole in the water, know what I mean?" "What the fuck is this guy talking about? ", we thought. I figured that this guy could, no way be as dumb as we thought, and sort of befriended him to find out what in the hell he was talking about. It turned out that NPSH means Net Positive Suction Head and is the pressure necessary at the inlet of a pump to avoid cavitation or loss of flow due to the fluid vaporizing or colloquially "sucking a hole in the water". This definitely piqued my interest since it seemed somehow related to the overheating problem in the Red Warrior. One evening after regular working hours, I went up to old Elsey's desk and said, "Cleo, I've got a problem with my race car cooling system that I think you might be able to help me with." Well you'd think that I had just offered him a huge sum of money or something, he sort of started acting like my father. I explained to him the geometry of the cooling system and how the radiator was cross-flow with the top lower than the engine gooseneck and how we never were able to prevent overheating. Well he starts to explain how the cooling systems in old cars used thermal siphon to effect circulation and how that depended upon height differences and hose sizes and how this just sort of grew into pump assisted thermal circulation that we were all acquainted with in the cars we drove. He then explained that what I was trying to do was put together a pumped heat exchanger closed system and that what I needed to do was to tee the system pressure into the water pump inlet to keep the NPSH high enough to achieve a solid liquid system. He also described how I needed a restricted vent/bleed system to vent air, entrapped air and steam to create and maintain a solid circulating water system. By this time I was nearly over-whelmed but all this shit made sense and all I needed to do was to figure out how to implement this novel new concept. I had already built a reservoir with a pressure cap on it that lived up near the fire wall, elevated above both the engine and the radiator but plumbed into the system in the position that would be

the top of the radiator like a conventional gravity happy old car cooling system. I drilled and tapped the water pump inlet and connected the pressure reservoir to that position, drilled into the thermostat housing for a bleed to the top of the reservoir which I hooked up with small rubber tubing and wound up with a solid circulation system with no free surface. The radiator cap pressure was applied to the pump suction and the pressure in the rest of the system was higher, thereby avoiding boiling. This system worked beautifully and I never again made fun of old crotchety engineers that walked funny. A year later the Corvette Sting Ray came out and when looking at the cooling system in it I suddenly realized that it too had the same layout as the Red Warrior, ain't it cool, I beat General Motors to the punch with the help of Cleo Elsey.

Another thing that I thought might be nice before my second season of road racing was to breathe upon the engine to make it develop a bit more power. In the interests of reliability for my beginner season, I had opted to run the engine bone stock with a two-barrel carburetor and rely on the fact that cubic inches in a lightweight car would make it amply fast. I thought that by milling the heads, putting in a race cam and a four barrel manifold and carburetor that the car would certainly be quicker. I took the engine out of the car, cleaned it up a bit and took it into my living room at the ranch to give me a nice warm place over the winter to measure compression volumes and such. I figured out how much I needed to shave down the heads to get 12:1 compression without the valves hitting the heads and all that stuff. I thought I was doing it all right and I assembled the engine and put it back into the chassis. It was about this time, before the start of the season, that I met a guy named John Martin who would turn into a lifelong friend of mine. A female acquaintance of mine brought him over to the ranch one evening while I was putting a point plate in the Pontiac's distributor and his first words to me were, "That won't work because you have the points shorted to ground." I thought *"Who the fuck is this guy telling me I'm doing it wrong."* when I looked closely and he was right, the connector was rotated slightly and touching the backing plate of the distributor. Well the night lasted into the wee hours. This feller was a Pontiac mechanic at a Pontiac dealer down in St. Louis as well as a drag racer and in spite of being quite a bit younger than me was extremely knowledgeable and we hit it off famously. His drag race car was a 34 Ford two door sedan with a Pontiac engine that he called "Country Boy" and had a guy in bib overalls chewing on a weed painted on the rear. Almost immediately he began hanging out at the ranch and became an enormous asset to the Durant Racing crew in spite of his drag racing background. The concept of road racing was foreign to him but it fascinated him to no end. He went along to the first race of the season which was at Lawrenceville where my driver's school was the year before and was immediately initiated into the road race scene when the modestly souped up Pontiac engine begun to smoke and fuss. Being used to drag racing where they do stuff like this, he immediately grabbed tools and before you could catch your breath had pistons lying out on the ground. The piston skirts were apparently fitted too tight and were scuffing against the bores, causing the overheating and oil smoke. He just calmly filed some material off the pistons and

reassembled the engine and in a short while we were back in business. This guy was a miracle worker.

Since John had seemingly solved our problems, at least for the day, we decided to go out and have some fun on Saturday night. Now little burgs like Lawrenceville sort of fold up the sidewalks after dark so we went hunting for the action. It seems this occurs in little honky-tonk joints alongside the highway. We went into this joint and occupied a table toward the back, ordered some beers and sat and talked while we watched the action. They had a live combo and folks were dancing like it was a real nightclub. Well, after more than just a couple of beers we decided to liven up the activity and I told big Phil to go up and tell the MC at the microphone that we had the Missouri State Twist Champion in our group who might be talked into demonstrating his skills with a few of the pretty young ladies in attendance. Our “Champion” was little Cookie, who was incessantly blowing off his mouth about how good he was at the twist, so after big Phil goes up and tells this stuff to the announcer who immediately broadcasts it out to the multitudes, we shove little Cookie out on the floor to the howls and screams of the crowd. Needless to say, we are laughing our asses off, but actually little Cookie starts dancing with some girl and they think he is pretty good and start cheering and after that we were sort of the heroes of the club. Another good night at the races was had by all

When we got back home, it became apparent that John was going to be the most important member of the team, since he knew where all the slightly used warranty parts were stored at the dealer where he worked and would bring big armloads of this shit out to the ranch to replace the fucked up stuff from the race car engine. The season turned into an engine nightmare that without John and his stash of Pontiac parts would have been a worse disaster. We blew a total of eight engines over the course of the season and learned an infinite amount about the ins and outs of racing engines in general and Pontiac engines in particular. These early Pontiac V-8’s had a lot of flaws that were never demonstrated on the street. For beginners, the pistons were cast aluminum with little steel reinforcing plates cast in near the wrist pins. They were no where near strong enough for 12:1 compression and would bend right over the piston pin, expanding the skirts until they rubbed against the bores. Increasing the skirt clearance in the bore would fix that but then the piston would rock in the cylinder and the weak-ass cast skirts would break off. By midseason it had become obvious that we badly needed stronger pistons. As part of my space age duties where I worked at McDonnell Aircraft, dubbed by my crew “The Kite Store”, I made a few trips to the west coast and on one of them journeyed down to Long Beach to Mickey Thompson’s speed shop and got a beautiful set of forged aluminum pistons for the race car engine and brought them home. Installing these new pistons immediately cured all the upstairs problems in the engine and moved them to downstairs. We started to spin bearings, overheat connecting rods and sometimes ventilate the engine block with flying parts. To make a long and sordid story short, this path of ruin was because the forged pistons were heavier than the stock cast pistons and although the rods were stout enough to withstand the extra inertial loading the bearings were not. I initiated a study on

the details of journal bearing lubrication and oil wedge load carrying and learned a hell of a lot about the details of journal bearing performance but the bottom line turned out to be that the Pontiac V-8 had old fashioned Babbitt bearings like the ancient cars of the past. The difference was that instead of poured bearings these were fashioned in steel shells but the Babbitt was still about a strong as clay. About the same time as I discovered this, Federal Mogul came out with solid aluminum alloy bearings for Pontiacs that were bunches stronger than the old Babbitt lined shells. Installing these bearings and limiting the maximum RPM to reduce the inertial loads seemed to solve all the problems of the Pontiac engines. I was extremely gun shy about the whole issue to the point where I would remove the oil pan on the Saturday night of race weekends to inspect the condition of the rod bearings. I was in there looking at the bearings so often that I was able to actually see them break in and smooth out.

Racing the Red Warrior

Road racing in the early sixties was an adventure in as much as the racing was definitely in a transition period from the ‘50’s when the venues were primarily airports to the modern days where many permanent circuits exist. The first of these were Watkins Glen, NY and Road America, WI which came about because of regulations banning racing on public roads followed by Riverside, CA. A few years after these courses were established there was a boom in road racing course construction, at least in the Midwest where I often competed in the Central Division with Wilmot, WI, Blackhawk Farms, IL, Meadowdale, IL, Mid-Ohio Sports Car Course, Lynndale Farms, WI, Greenwood Roadway, IA and Mid-America Raceway in Wentzville, Missouri being some of the ones I raced at. Mid-America was actually conceived on the kitchen table of my humble abode at the ranch by the original builder and owner, Wayne (Cookie) Koch. This race track was built in the early sixties and served as my home track for all the years that I raced with many tests of my various race cars run there as well as the races I competed in. I belonged to the St. Louis Region of the SCCA which was at the eastern edge of the Midwest Division, which mostly ran their races on a combination of airport circuits and temporary circuits consisting of converted city parks such as Ponca City, OK, Lake Garnett, KA, Burns Park, AR and Lake Afton near Wichita Kansas.

The airport circuits were generally flat with far more pavement that was needed for racing. The course was laid out using traffic cones and paint markers so generally there were ample run-off areas so safety was usually not an issue. The concrete surface was rough to accommodate aircraft tires and mercilessly ate up tires on the racing cars. In general racing on an airport was safe but boring. Better than not racing at all but definitely not in the same league with the new permanent and temporary circuits. These places had a generally smooth asphalt surface and ran up and down hills through the forest. This was huge fun, albeit one had to ignore the obvious danger inherent in such a venue. Today’s safety conscious sanctioning bodies and drivers would do a double shit if they saw some of the places we raced. Road America, for example, had a curving back straight called Thunder Valley that was long enough for all cars of the day

to reach maximum velocity. At the end of this stretch was a more-than-90° corner called Canada Corner whose run-off contained a huge rusting road building machine sitting about 50 feet off the pavement. The Mid-Ohio Sportscar Course had several entertaining features. A dense forest about 50 feet off the end was the view while hurtling down the back straight at maximum speed into a right-hander. This was followed by a couple of hump-backed off-camber corners that would throw the car off the ground slightly and right after that was a right hand corner with an enormous tree living right on the outside edge of the road all covered in scars from contact with race cars. The tree always won. Lake Garnett, in the middle of Kansas, was basically flat but had an interesting feature at the end of the back straight, a sharp right-hand turn onto a bridge lined on both sides with big square posts made out of stones. Any attempt to avoid crashing into the stone posts would result in the car disappearing down into a deep gully that was said to be inhabited by poisonous snakes. Lake Afton in suburban Wichita, Kansas was formed by a dam which was near the course edge but made invisible by high grass. Some unexpected anomaly caused my friend John Martin to leave the course across the apparently flat grass runoff and disappear into lower reaches of the dam spillway. The race was red-flagged and when I stopped near the crash site I heard John's name and exited my car running through the grass to see if he was OK. I spotted this low concrete wall, jumped up on it and damn near fell into a 35 foot deep area that contained John and his black Corvette. "What the fuck????" I cried. I yelled down to John who reported that he was fine but the Corvette was mortally wounded from the fall with at least four flat tires where the rims went straight through the inflated tires upon landing. Burns Park in North Little Rock, Arkansas was probably the most ridiculously dangerous racing place that I have ever been to, a heap of fun if you ignored the dangers. This course was sort of two long curvy straights joined by roundhouse turns at each end. One straight and the roundhouse following it were through dense woods that came right up to the very edge of the road which was not too wide. About two thirds the way down the other straight was a jump that sent the car sailing through the air for a considerable distance. The only redeeming feature of the jump was that the terrain, by some miraculous geological accident, was such that it sort of set the car down gently. The roundhouse turn at this end contained a flagpole with all of the war memorial brick and stonework sitting there majestically on the OUTSIDE of the turn, absolutely fuckin' amazing!!

One of the places we went to fairly frequently was Wilmot. This course was a short little road course situated at a tiny ski resort right past the state line into Wisconsin where the Chicago Region sanctioned races almost every weekend during the season. It was a cool little course where the region sort of tested cars and trained their marshals and other workers for their big events at Road America. Going there with my newly sanitized ride got the Chicago Region tech inspectors used to me so that it might not be such a shock when I showed up at RA in Elkhart Lake. The most unique feature of the course was Pray Hill, a sort of blind hump that had a right-left turn right after it leading onto the back straight. In the middle of the hump in the road was painted "PRAY" in big letters that you ran over every lap.

Every year near the end of the season in September was the Road America 500, a 500 mile sports car race at Elkhart Lake. With all our engine woes pretty much behind us and all our git-ready events at Wilmot I decided to enter this prestigious event with my trusty old Red Warrior with my MG driving roommate Al as my co-driver. In those days technical inspection was conducted on Friday evening in the state maintenance garage a few miles down the road from the course. The usual drill was that upon completion of the inspection, instead of loading the car back onto the trailer it was simply driven over the public road to the course and then up the hill into the paddock area. How absolutely fuckin' cool was that, sitting in a thumping race car and going up the public highway with a bunch of other race cars, Ferrari, Maserati, D-Jags, etc. This was truly the "Big Time." I had seen Road America from the hillsides before but to actually drive around it in a race car was nothing short of awesome, to this day this is my all-time favorite race course. After successfully completing Saturday practice and qualifying we loaded up and took the race car to the little town of Plymouth which is just a few miles from the track to a gas station owned by a guy that I had met racing. He had assured me that I could use his rack to pull down the pan for my Saturday night bearing check. That all went smoothly and we coincidently noticed that the station had a modest supply of auto parts, this was to play a big part in our race on the next day. Part of our preparation for this 500 mile race was to select a few tools, wrap them in a shop towel and nail the package to the plywood floor just in case we had some fixable gremlin somewhere out in the far reaches of the four mile circuit. During practice and qualifying we never ran with a full tank of fuel so for Sunday morning warm up we filled the tank to see how the car felt in that configuration. Now Road America has a lot of elevation change, one of which is on the front straight where after coming through a right hander you are accelerating flat out through a compression into a major hill climb up to the start/finish line and on into the forest to turn 1. During each of my practice laps during the warm up, I heard this funny noise as I climbed the hill on the main straight and thought to myself *"Wonder what the hell that is?"* and proceeded to ignore it and forget about it. Time passes and we fill the fuel tank, check over the car and finally the race begins and in the early laps, every time I go through the bottom of the hill, there it is; "scrruuump" so I start to let off for an instant when I pass through that spot and it is not so bad. On one lap early in the race the "scrruuump" turns into a "bang" followed by a whole bunch of rattley noises emanating from under the car and I suddenly realize what the noise has been all along. The extra weight of the full fuel tank along with the compression at the bottom of the hill is binding up the u-joints in my drive shaft and they have finally taken a major shit. Well, does this bother ole boy scout Durant? Hell no, I limp the car through turns 1 and 2 to a big meadow off to the right of the circuit and drive way the hell out of the way, park the car and leap out. I coolly whip the tool pack off the floor, slide under the car and deftly remove the drive shaft with the way-less-than-perfect u-joints and begin a frantic run through the infield back to our pit. Gasping for breath, I speechlessly hand the offending drive shaft to our chief mechanic, Big John Martin, who immediately assesses the problem and jumps into Al's big ole gray Pontiac and

peels out headed for the gas station in Plymouth. As the story was later related, he screeches into the driveway of the station, runs past the speechless attendant without saying a word into the shop, grabs two new u-joints off the shelf and using the vise and a big hammer, deftly replaces both u-joints and is off again without a word. Arriving back at the track, he comes and gets me and drives me as close to where the car is, drops me off so that I can sprint across the field to the car, install the driveshaft put on my helmet, goggles and gloves and set off, back in the race. By not filling the tank and letting off through the compression the driveshaft survives and we finish the race, probably not very far off the finish we would have had without the off-track adventure. This is called ENTHUSIASM!

The RA 500 took place in mid-September so it pretty much wound up the 1963 season except for a few significant happenings. Big John Martin was hooked and decided he was going to be a road racer next season so he went to work on his new, not-even-paid-for black split-window Corvette Sting Ray coupe and began to strip it out and make a race car out of it. Shortly after this commenced we received am entry blank in the mail for an endurance race at the airport circuit at Stuttgart, Arkansas and being the 500 mile specialists we decided to shake down John's Corvette at this event, John wrenching and Al and me driving. Since this place is hell on tires we decide to use up all the left-over tires from my first two seasons. On Friday afternoon of the race we were all loaded up and over the radio we hear that President Kennedy was shot. Our first reaction was "Sure hope this doesn't effect the endurance race" and we took off for Arkansas. Well, I think the endurance race was the only event in the entire United States that went off that weekend and we forgot all about the somber events and had a good time, finished the race in John's car and as I recall even won the damn thing. His first trophy and he hadn't even been to driver's school yet.

The Stuttgart Enduro finished the 1963 season and John and I retreated to the garage to get ready for the upcoming 1964 season, he getting the Corvette ready and me refining the Red Warrior. After two seasons of incessant wrenching solving the "first sports racing car" teething problems along with the seemingly endless engine woes, I sort of settled into what could be considered a leisurely winter, just sort of taking care of cleanup and minor maintenance problems and helping John with some of the setup work on the Corvette. Sometime during the winter John came up with a Hilborn fuel injection setup from one of his drag racing buddies that I could get at a reasonable price so I bought it. I figured it wouldn't hurt the horsepower having eight individual intake stacks and it would certainly be cool looking having what amounts to a sprint car setup on a sports car. In those days fuel injection was fairly common on drag, midget, sprint and Indy cars but pretty much a rarity on sports cars except for the Corvette. The Hilborn was a strictly mechanical system that was extremely simple, made just for racing having none of the little niceties to subtly adjust the mixture for various street conditions. The manifold contained an individual injector nozzle and throttle butterfly for each cylinder linked together so that it could be adjusted for synchronization. Fuel was supplied by an engine driven pump turning at half-engine speed. The pump and nozzles were sized for the correct flow for the

engine running at WOT with a little extra returning through a metering jet called a “pill” that could easily be changed to richen or lean out the mixture. It can be seen how devilishly clever this scheme is since the engine requires a certain air-fuel ratio throughout its speed range and the air to the engine and the fuel pumped by an engine driven pump are both directly proportional to the engine speed so if the mixture is right at one speed it is right at all speeds. To accommodate idle and the coming off part throttle to WFO there is a device called a barrel valve that has sort of a cam machined into it that roughly but effectively restricted the flow during part throttle operation. The main challenge to get this system working on a sports racing car was to get it able to start up easily and reliably. In its most common application the cars were usually push started so that the engine was turned sufficiently to bring up fuel pressure before the ignition was switched on the fire it up. This didn’t work too well with a starter motor so a method of priming had to be devised particularly for when the engine had not run for awhile. We connected an electric fuel pump to the fuel supply line a discharged it into the nozzle feed line downstream of the pump to slightly pressurize the line so that when the throttle was held open a little fuel would drip into the ports. Hitting the starter would then usually fire the engine and all the systems would then come up to pressure and run OK. It took a little technique at the beginning but after the engine had been run it pretty much started normally with no problem. It was also more than a little cool talking sprint car lingo among the wine and cheese set. “Lets put in a bigger pill to lean ‘er out and then adjust the barrel valve so it comes off of corner six better.”

Traditionally one of the first races of the year is in Stuttgart Arkansas at the airport so we take off and go down there. This place is a typical airport circuit with a lot of pavement with long straights and huge acreage for runoff, conditions which often draw out guys with a lot more bravado than skill and this weekend was no exception. A guy shows up with this bright red needle nosed front engine C-modified called the Bocar. This car has a Chevrolet V-8 engine back near the firewall in front of which is a direct driven roots supercharger which is plumbed back into the intake of the Chevy. This arrangement prompted Jeep Frey into dubbing it the Blowcar. Well apparently this brute arrangement produces a bushel basket of horsepower because when this guy gets the nose pointed down the runway and stands on it, it takes off like a bullet down to the other end where it invariably spins around about twice or three times before the guy can get around the corner and this happens on every corner! It is absolutely the funniest sight ever. Our day goes fairly routinely so we decide to go to the lavish party thrown by the Arkansas Region but we have a bit of a logistics problem. Since we read in the entry blank that, although the party was free to entrants and crew it was a mandatory dress-up affair requiring coats and ties. Now we had brought that stuff along but since we were planning on staying at the track and sleeping in the car, we had no shower or other cleanup facilities and were forced to improvise. Needless to say after driving all Friday night to get there and greasing around all day with the race car we were pretty grungy. We hit a gas station bathroom and thoroughly washed our faces and hands, wetted down our hair and combed it and then stuck on our finery and voila we were slick looking enough to

get in the party and garbage up on the free food and drink. The advantage of the coat and tie routine is that you only have to wash down to or up to where the coat and the buttoned up collar are and just leave the rest greasy ‘cause it don’t show. The next morning is a real show, hung over dudes sleeping all over the place in wrinkly suits with ties hanging on their necks. Chuck Jackson was a premier sight sitting straight up in the driver’s seat of the Red Warrior with dew dripping off his nose sound asleep in his finery. The new super-fit guys in today’s racing just don’t have any fun at all!

Next we head off to a new venue in Pewaukee, Wisconsin a bit west of Milwaukee called Lynndale Farms. One of the cool things about coming here is that my son, Mike, lives about two miles from the track with his mother, my ex-wife so I get to see him for the weekend. On this particular weekend he has a surprise for me, a genuine Durant car emblem from a car of that name made in around 1927 by the guy that ended up founding GM. We cut a little hole in the front of the Red Warrior and installed this emblem. Not many guys have their name on a badge on their car. Cool. By this time we are a regular racing team with me and the Red Warrior and John with his big ole black Corvette. John has found out that the Achilles heel of the 63 Stingray is the drum brakes and has installed the segmented metallic pad shoes and polished the insides of the big finned drums to a mirror finish but still has to pump the brakes on the straights to have a full pedal at the end. We were in the same race but in different classes, he in A-Production and me in C-Modified so we sort of got to watch one another. During the race on this day he was doing fine, leading his class when I happened to notice him go off over the hill on the outside of first turn in a great cloud of smoke. I wondered what the hell happened. After I finished I asked him what had occurred. He replied that he was happily pumping up his brakes on, at least the main straightaway giving him enough to handily lead AP when suddenly without warning he apparently pumped the wheel cylinders all the way out and the brakes went to the floor and he sailed off the road in a cloud of vaporized brake fluid, and now they brake at 5.5 g’s! Good old days?

Every summer there is some legendary races and at that time one of them that I had only heard about was Lake Garnett, Kansas. I had heard stories about birdcage Maserati’s with Ferrari engines and other mouth watering stuff and here I was actually going there to compete. Another entrant in the C-Modified class, one of my competitors, was a wealthy member of the St. Louis Region named Dave Biggs who raced one of the ultra-cool cars of the day, a Ferrari Testa Rosa. Not one of the big low coupes of today but the genuine article from the halcyon days, the rip-shittin’ 12 cylinder with the cut-out front fenders. This is a super bitchen car that sells today somewhere north of $50 million. Just racing at this track was exciting to me but when I came up on Biggs in the Testa Rosa at the beginning of the long straightaway next to the lake and stood on the gas to race him down the straight my heart rate went bonkers. About two thirds of the way down the straight I eased by the screaming 12 cylinder and entered the turn ahead of him. I suddenly realized that I had just driven my home-made car past a world legend in a fair-and-square fight for top end, wow!!! I ended up winning my first National race and beat a Testa Rosa doing it, what a day. I think we drank all

the beer in Kansas out of the overgrown loving cup trophy that I got for my first victory. This is what I went racing for, this is what I felt when I was a boy, this was IT!

In the 60's SCCA had a professional racing series called the United States Road Racing Championship or USRRC that ran all over the country. They decided to have one of these at Greenwood Roadways, one of the new tracks that were springing up all over to replace the old airports. This one was near Indianola, Iowa, just south of Des Moines which was within easy reach of St. Louis so I decided to enter and go see how the old Red Warrior stood up to the big time guys. I don't remember the track layout very well other than just past the start/finish line it seems like there was a long fast turn to the right that kind of went down and up though a hollow or depression as it curved around followed by a downhill section that went under the track crossing bridge right at the bottom of the hill which means that as you crested the hill and started down you were above the level of the bridge going flat out at what seemed like blinding speed. I can't speak for the other guys but I could not keep from ducking down in the cockpit as I went under the bridge at the bottom of the hill. Needless to say there was absolutely no need for this, the overhead clearance was tens of feet but I just couldn't help myself, it was one of those optical things. During practice on Saturday morning as I was flat sailing through the right hander corner one there was a loud bang followed by my left front wheel disappearing into the distance off the left side of the track and my car sinking down onto the A-frames scraping loudly and throwing spark all over the place. I jammed on the brakes which went immediately to the floor since there was no brake drum to restrain the shoes and the car had to just stop on its own by friction. They towed my disabled racer back into the pits whereupon examination showed that the left front spindle had snapped rendering the entire brake drum, wheel and tire free to head off in a tangential direction. Well, hell, this didn't seem like it would be much trouble to fix if we could find the errant assembly along with a local junkyard to find a replacement spindle so we set off to find the wheel assembly. As it was with many of the new tracks, there was no Armco along the outside of turn one so that wheel could have gone a long way over toward the highway that ran adjacent to the track. We started walking down the entrance road and came upon a ticket booth with a bunch of shaken white-faced people standing around the booth whose entire top was gone with all that was left were shattered wooden support posts. We decided that it would be distinctly bad form to ask if these people had seen my wheel come by so we just kept walking. In another quarter of a mile or so we finally found the basically undamaged wheel assembly reposing in the ditch next to the highway. We picked it up and began rolling it back to the pits, avoiding the ticket booth a much as we could for fear of some sort of retaliation for nearly killing them. We were actually able to get the thing fixed in time to go out for practice again in the afternoon session, only to experience another bizarre event. After the aforementioned bridge there were a couple of sharper right handers as I recall. At any rate during this session I attempted one of these turns beyond the limit of grip and slid off the outer edge of the road. It seemed that the luxurious growth of grass about two feet deep disguised the fact that there was

no runoff are but an embankment down which my car slid ass-end-first to the bottom about 30 feet down in a great shower of seeds and other biological debris. The corner workers who apparently knew about this rift in the terrain ran over and shouted down in the hole to find out if I was still among the living and I replied that I was fine if they would be kind enough to get my car hauled back to the surface. This was accomplished and I was able to drive the car back to the paddock where we finally decided to call it a day, retire and come back tomorrow. Now, as usual, we were not staying anyplace that cost money but instead were going to camp out sleeping on the ground in some nearby state park so we headed over there to commence some serious beer drinking and reminisce about the events of our first day of professional road racing. Much later as darkness prevailed I was walking toward where I thought my sleeping bag was and encountered about an 18 inch tall unknown irregularity in the ground which caused me to trip, slip, lose my balance and fall unceremoniously on my ass. The gals in the group, concerned as they were about my well being, excitedly exclaimed “Are you all right, are you hurt?” to which I replied loudly and drunkenly “I drive my fuckin’ race car over a thirty foot deep embankment backwards and you wanna know if I hurt myself fallin’ down in a park, Jeeesusss H fuckin’ Cheeeriiist.” We all went to bed laughing.

Sometime during this season with the Red Warrior, John Martin and I decided to go over to Indianapolis Raceway Park and give it a try after completing my driver’s school there the year before. As we often did to avoid the need for a motel on Friday night we left sometime approaching the middle of the night. We were smokin’ down Highway 40 in the thork-top Olsmobile with the Red Warrior safely chained down to the trailer when at about 5AM we entered Terre Haute, Indiana. Not bothering to slow down much for the rough-ass railroad crossing entering town, we heard a loud noise accompanied by the Red Warrior and trailer coming up to pass us on the right. Without much of a word I calmly forced the loose assembly over toward the curb with the Olds where it knocked over a parking meter and ground to a stop. We jumped out and walked around to see what had happened when a police car pulled up and the officer ran down the window on the passenger side to ask what had happened and if we need assistance. Well when we spotted him driving up we both thought about the destroyed parking meter and how much that might cost to replace so we sauntered over to a position so as to block the officer’s view of the flattened meter while we talked to him and assured him that we had everything under control and required no assistance after which he drove off much to our relief. It seemed that this disaster was caused by the trailer ball snapping off so the first thing we needed was a replacement which we conveniently found bolted to the back of a vehicle parked nearby. Wondering if the guy might want to sell it but wasn’t around to ask, we made the executive decision that he did and removed the ball from his car and installed it on the Oldsmobile. Being the nice guys that we are I composed a note explaining why his trailer ball disappeared and stuck it under the horn ring along with a five dollar bill and we hooked the trailer back up and dragged it across the street into an all night gas station with a lot of light to examine the extent of the damage. The race car fortunately was unscathed but

the trailer had gained an undue amount of toe-out in the encounter with the meter post which needed to be adjusted back near to pointing straight down the road. We separated the trailer from the Oldsmobile so that we could align them in such a way to use the Olds as a slide hammer to bang the wheel back straight. It worked cool and after a few deft blows we had to toe within tolerance and could hook back up and proceed. The thing needed some welding to complete the job but it was good enough to get to IRP and back home before that needed to happen. While we were there across the street we observed a derelict looking dude come out of one of the buildings and get in the “ball-less” car to apparently go to work. Encountering the note and the fiver he sat in there for awhile and ultimately decided that there were more important things in this world than trailer balls and work. He got out of the car and stumbled into a handy dandy all-night bar for a bit of the hair of the dog. We never saw him again.

Epilogue

Reflecting on this, my third and by far the most satisfying season of road racing, I saw that some changes were necessary to advance the package to the next level. The first season was largely making it through Driver’s school and the required number of Regional races to qualify for my National license along with “getting accepted” by the road racing gentry. The next season was devoted largely to an unbelievable string of engine failure which was solved only by persistent grinding away at the issues causing the problems. This, to a great degree, changed my attitude toward the whole adventure of going road racing. I realized that we did not travel 200 to 500 miles one way through the night to thrash around with a broken car, we did it to go racing and to do that I needed to concentrate a lot more effort on reliability, stuff that did not fall apart. Doing this led to a much more satisfying third season. There was, however, a rising feeling of dissatisfaction that resulted from the antique Pontiac engine that was stretched to its maximum and still did not produce startling performance, the inadequacies of a basically stock 51 Ford chassis with massively undersized drum brakes and clumsy handling at best. This car ran behind almost all of its challengers with the possible exception of Dave Biggs and his Testa Rosa and that hardly counted considering that he was an elderly gentleman driving his pride-and-joy that he in no way wanted to ding up or damage for a simple trophy or to whip up on a young upstart with a home-made car. The winds of change were a blowing, I needed a new race car, one that was lighter, more powerful, more agile with better brakes and, hopefully, a lot faster. It was time to step up, I had the knowledge, I had the experience and I had the tools; it was time to abandon the trusty Red Warrior and move on.