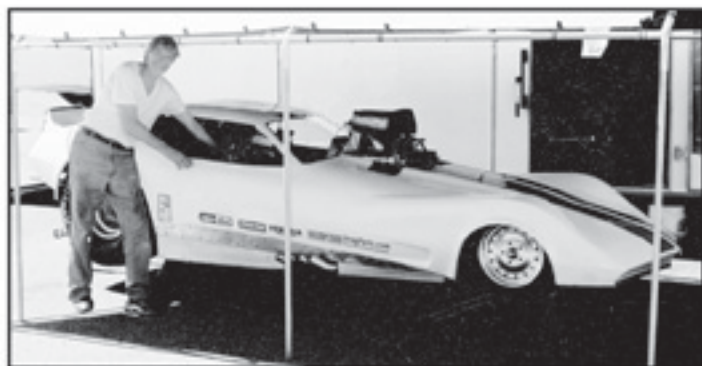


DRIVING A POWERFUL DRAG RACECAR : Part 1 – Getting to the Starting Line

This is number one of several articles that describe the experience of driving a powerful drag race vehicle. At 125 inch wheel base, 2100 pounds, and 1,700 horsepower, our racecar is typical of many in the local Nostalgia categories throughout the country and Canada, IHRA Top Dragster, and typical of the power in IHRA Top Sportsman. Some street legal competition cars are at or exceeding that power level and make life interesting for the owners and drivers.

In the photo, our racecar is now all warmed up, lashed, and fueled up with my favorite, methanol. We certainly like nitro. We are just about \$10,000 per run away from using it though. Our car is all ready to go. It is time to lower it off the stands onto the ground, on all four tires. The car was already checked out in detail from a lengthy checklist. Tire pressure is set front and rear.



READY TO TOW UP: Now the car is on the ground. The lightweight Funnycar body is tilted up in the air. I crawl into the car so that I can steer and brake it when it is towed out of the pits. The tow rope is connected. The crew checks for all of the required equipment in the tow vehicle. Race engine starter and batteries, fire suit, few minor tools, anti-fog for the helmet visor, clean cloth for the helmet visor and wind shield, hand held FIRE EXTINGUISHERS suitable for methanol or oil fire, priming bottle for starting, ear plugs or ear muffs for the crew, and tire air bottle are examples. Do not forget those fire extinguishers. The crew has been briefed on their location and how they work. The crew climbs into the tow car. The tow vehicle driver pulls forward slowly to tighten the tow rope. Before all of this, the tow vehicle driver has gone through a

lengthy discussion with me about his or her responsibilities in that position. The tow driver must look around carefully before pulling forward. We make one other person the tow leader: the eyes and ears behind the tow driver. The tow driver does not pull forward until only the tow leader says it is OK. I have seen near misses when everyone in the tow car is yelling to pull forward (by mistake) when a crew person or maintenance hardware are in the way. We follow that one-person procedure especially in the staging lanes when many are around the racecar for last minute tire pressure checks and entry / exit from the racecar. I have seen track personnel give the go ahead to the tow car driver when crew members or the driver were in harms way around the racecar. Our tow driver waits for clearance from our tow leader.

The tow leader does a final check around the racecar and gives the

go ahead, and the racecar gently moves forward. I steer it behind the tow vehicle and continually watch on both sides to avoid pedestrians. Onlookers watch as the car is directed through the pits, to the pit road, and into the staging lanes. There is pride among the crew to be part of a racecar that will perform in front of many spectators who are so enthusiastic about the sport. The car comes to a halt in the staging lanes, and I crawl back out to get ready to suit up. I have a brief discussion with my competitor. Some are polite. A few are not. Usually it is a pleasant experience. We discuss lane choice and starting idiosyncrasies. My competitor uses an automatic. He has to set his trans brake and launch RPM in staging. I tell him my routine with my clutch, and we decide who will stage first. In some cases, the competitor is secretive. And we

wing it. I do not care who stages first. I would rather have agreement ahead of time. Long staging duals can be a danger to both in that they can damage equipment. If I were in the Pro ranks with a bunch of money on the line or a championship race, it may be different. But in the bracket and gentleman racing that I do, I want staging in concert. Once the tree is lit, we compete all out for the finish line.

SUIT UP: I suit up in my 6-layer fire suit. I put on my fire boots. I put form fitted earplugs in my ears, a Nomex head sock, and Kevlar helmet. The helmet is full faced. Part of my peripheral vision is blocked off. The start of tunnel vision is the result. The racecar body and engine will complete the tunnel vision result. The crew helps me to put on my neck brace. Now I can hardly move my upper body. It is stiffened by layers and layers of safety gear.

GETTING IN: Our Funnycar is equipped with high framing extension for knee protection. My access slot for entry between the body and knee brace frame rails is small. It is a chore to get in and out with the body in the air. I am now seated in the tight cockpit. I cannot reach my seat and shoulder belts tucked away for entry. The combination of my thick fire suit and tight frame & seat reduced my arm movements to only a small range in front of me. That is to reach the controls, although one of those is the seat belt disconnect lever in the center of my lap. The crew must fasten my belts and arm restraint straps to that lever assembly. The restraint straps are required so that a driver's arms are kept inside the racecar in the event of a rollover. I am all secured and comfortable. My feet are in place on the clutch pedal to the left and the throttle pedal to the right. The crew makes one last check of tire pressure. We run 5 to 7 psi for Hoosiers, and 4.5 to 6 PSI for Goodyears. We have also staggered tire pressure from 1/4 psi to 1 psi difference from side to side to compensate for torque steer. We have done that from time to time in this and other racecars that we have worked with. The racecar should track straight under power. Tire pressure stagger is one fine tuning method for some racecars and teams. We get the go ahead to pull up to the starting area. The crew pulls the fire bottle safety pins & parachute pins and shows

them to me as a safety factor. That is a real relief to see those pins. You know the safety equipment is armed.

PULL INTO STARTING POSITION: The track official motions us to go ahead. The tow car pulls the racecar into the starting position then backs along side for starter cable access. The crew climbs out and positions themselves around the racecar to start it. The remote starter is in position ahead of the blower drive. The track official gives the start signal. The crew primes the engine from a bottle of methanol. We use gas for priming on cool days. They look at me for a thumbs-up. I place my left hand firmly on the brake handle with the brake firmly engaged all the time the crew is around the front of the racecar. The crew has been instructed to avoid standing near the front when the racecar is starting in case it jumps forward from a gear engagement mistake. My other hand is firmly on the steering wheel with my thumb on the magneto kill switch. My clutch foot is to the floor. I have to make a conscious thought that my throttle pedal foot is off the pedal. My transmission has no neutral. My centrifugal assisted pedal clutch has enough counter weight to engage itself at high RPM. All that is on my mind is holding that racecar stopped after the engine starts up. I remain nervous about crew safety all the time they are around the racecar to start it and lower the body. I do a last check for controls position and oil pressure. I take a deep breath and give them the thumbs up.

To be continued...

ABOUT THE AUTHOR:

Bob Szabo is an owner / driver of a blown alcohol drag racecar and a technical racing manuals author. "5,000 Horsepower on Methanol with Nitro, Racing Gas, Nitrous, & Ethanol Technology" is an example covering fuel injection, carburetor, normally aspirated, supercharged, & turbocharged setups. "Fuel Injection Racing Secrets" provides technical information for mechanical fuel injection and full details of the racecar in this article as well as several others. Check the DRM Yellow Pages for Szabo Publishing or the Internet at <http://www.racecarbook.com> or call (707) 445 2917.