

# When The Fire System Fails

I could see the paint bubbling on the hood, the Lexan windshield melting, and the paint burning off the transmission tunnel



*Comer returned to the track (and the grass) post BBQ*

**A**lthough SCM isn't a racing publication, a large number of SCMer's are vintage racers, including yours truly. A recent racing "close call" has made me rethink a few things in my racing endeavors. I want to share what I discovered so others can learn from my mistakes. The worst that can happen is that you waste a few minutes reading this column; the best is that it may save your life.

I race a 1966 Shelby GT350 B/Production car in the "take no prisoners" Group 6 of Sportscar Vintage Racing Association and the Vintage Sports Car Drivers Association. We have a lot of fun going way faster than we should in these over-developed remnants of vintage Trans Am racing. Strapping into a Group 6 car, you know there is a high probability you may bend some metal, swap some paint, or take an off-track excursion when you exceed the limits of drum brakes and bias ply tires, or just your own abilities.

However, serious injuries are very few and far between. These are inherently safe cars, with strictly regulated safety features including roll cages, fuel cells, driver restraints and protective gear, and fire systems. The last three items gave me trouble recently.

A little background: My GT350 was built by the foremost Shelby race shop in the U.S. It has the best equipment available, and was built to the highest standards with an emphasis on safety, even incorporating a NASCAR-style roll cage with additional side impact protection and cross bars from rocker to rocker across the floor pan. Nothing was left to chance with safety, including a properly plumbed remote actuated fire suppression system with the required engine, passenger, and trunk compartment nozzles.

The shop that built the car also maintains it and provides trackside support. This eliminates thoughts such as "Did I torque the lug nuts?" while racing at 165 mph. Being the "driver" rather than the "wrench" has its advan-

tages from the perspective of being able to focus on your job behind the wheel.

From July 19–22, I was racing in the Kohler International Challenge at Road America, one of the best vintage events of the year. During Thursday practice, we decided we needed to re-jet the carb. The technician did this Thursday night. Friday morning I went out for a qualifying session. On the first lap I noticed a moderate driveline vibration but decided to finish the session and see how the engine was working after the jet change.

## The car literally exploded in flames

Problem #1: About four laps into the session, exiting turn eight, a sharp right-hander, the car literally exploded in flames. As near as we can tell, a fuel leak went unnoticed after the jet change and fuel had accumulated on the engine until it splashed onto the right header in the hard left turn and erupted. There was lots of fire at the base of the windshield coming through the open cowl vent, through the shift boot, and through the firewall.

I could see the paint bubbling on the hood, the Lexan windshield melting, and the paint burning off the transmission tunnel and passenger's floor. I quickly went into preservation mode, deciding that a crash and a fire was worse than just a fire. I killed the electrical power, pulled off the track near a fire station, pulled the pin from the fire system, kept my gloves on and face shield down to protect my eyes and gave the handle a firm pull.

Nothing. Hmmm, every time I practiced my fire drill with imaginary flames this damn thing worked. Maybe it is a push handle?

Nope. It's a pull-to-discharge system like I thought. I glanced at the bottle, gauge still in the green, fire gaining momentum, another tug on the lever for good measure, still nothing. Time to get out!

## My first race with new belts

Problem #2: This was my first race with new belts that had a Velcro sternum belt rather than the lever-lock arrangement of the old belts. I remembered: pop the lap, shoulder, and anti-submarine belts, tug the sternum strap...

I could get the top layer, but the Velcro wrapped under the shoulder belts wouldn't release, so my HANS device was locked into the belts, tying me to the seat. Not good.

I took a breath and thought—steering wheel off, window net off, inside door handle has always been tricky and doesn't work. I reached outside and popped the door. Back to the sternum belt... no go.

Okay. I disconnected the HANS tethers from the helmet and yanked the shoulder

belts up over the helmet along with the HANS device. How long before a fire crew gets here, and will they beat the fire to the fuel cell?

Watching the fire-proof shift boot burn through like somebody was under the car with a plasma cutter was not reassuring.

Finally, I managed to fight my way out of the car, helmet and HANS in tow, and remembered the Cool Suit hoses attached to me. I popped them free and ran for the wall to take cover, just as the fire truck showed up. On later inspection, we found the fire had spread so far to the rear of the car that the rear brake cooling ducts (under the fuel cell) were melted off. The Hurst shifter was de-chromed, and the detent springs melted out. Fire spreads fast, and cars like to burn.

### Making it out alive

So what did I do wrong? A number of things. Even though I had done fire drills in the past with this car, I didn't do one with these belts and the recently added Cool Suit. That could have made the difference between making it out alive or not. A lot of us have raced since before HANS devices, Cool Suits, and Velcro belt closures became commonplace.

These are all things we need to know: how to work intuitively in a time-sensitive situation such as a crash or fire. Feeling safe in this gear can lull one into a false sense of security. Most importantly, no matter how good your fire system is supposed to be, either service it yourself regularly or insist whoever maintains your car does. Keep a log, even a sticker on the bottle with the date of last service.

In my case, it was found that the head on the bottle was seized, a common issue I have since learned. Had my fire system worked properly, the fire would have been out within seconds, the damage to the car minimal, and the risk to my life nearly non-existent. We all look for that little demon tweak or better line to gain a few seconds. In the end, what really matters is our safety—not winning, or a track record, or the race win that is forgotten by all within days.

The moral of the story is to plan for the worst. Make sure, if there is an equipment issue, safety gear you are not familiar with, or an untested fire system, that it is attended to. Know how everything works even with your eyes closed. Don't leave anything to



*Fire retardant, not fire proof*

chance. I've been racing for almost 20 years and was guilty of being lulled into a false sense of security.

Luckily, I made it out unscathed and my car, although crispy, was able to race again the next day; I finished the weekend with a fairly good showing. This sure beat the alternative that flashed through my mind that Friday morning.

Check your car, know your gear, work an escape plan drill into your pre-race routine, and know what to do should the unthinkable occur. ♦

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*COLIN COMER is president and founder of Colin's Classic Automobiles and a longtime vintage racer.*

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