

## Rick Titus - Showroom Stock Mustang Tips

The two most most important components on any “Showroom Stock” race car are tires and shocks. Leading teams spend a lot of time in development with the tire supplier (sponsor). At first glance most would assume that a tire is a tire a tire — you’d think by now the tire as we know it had been fully developed, there were races were our team a ran nearly every weekend a completely different casing, tread pattern, compound or sidewall design. Our deltas for a tire’s performance were completely different than that of a street tire. For one we only needed it to last the distance of a tank of fuel, usually around 90 minutes in a Mustang. We required all the grip a tire could possibly make so softer compound, indifferent to tire life, was often used. And our alignment specs would stop your heart if you ran them on street because they not only made the car “party” but were wear the tire out in a day two or two in the real world. For example, take a track called Mid-Ohio known for its tenacity to make a car underwater. The way we overcame that was by running a inch of toe out and 5 degrees of negative camber. Mustangs of the eighties were well know for their “roll-positive” suspension behavior in hard corners. to compensate for that we ran huge camber angles in an effort to keep the tire footprint as flat as possible during the roll increase.

Car come with a pre-engineered “roll rate”, this an engineering conclusion that is designed into the vehicle and designed to give a “normal use” vehicle the best compromise of ride and handling, bearing in mind that all suspension designs are a compromise for a delta of “street use”. To help a fast showroom stock race car overcome this limited “sweet spot” of roll geometry shock absorbers became the second most highly developed component on the car. Again, a sponsorship relationship was (and is) critical here. With access to their engineering teams we were constantly developing the shock to not only control surface inputs but also help, if artificially control roll rate, at least in the short span.

SCCA required “bolt-in” roll cages only, great for cost savings but certainly not much help in stiffening the chassis for the high loads the fastest cars put on them. We saw cracks around nearly every bolt-down point of the cage door to constant body flex loads being to delivered to just a few bolt-down points. In short, the loads were work hardening the metal around the mount points.

Given that our cars were entered as Saleen Mustangs, we had the benefit of several aerodynamic aids, exhaust enhancements, slightly stronger brakes and stiffer springs. These enhancements made us the fastest Mustangs every race. Amazingly, and for reasons I still don’t understand, when offered all these upgrades by Steve Saleen to all the other Mustangs running in the series all but one turned the offer down — not a smart move in my view.