

NASCAR's CoT Brings Change

BROWNSBURG, IND.

The first sign that race season is about to begin is when the NASCAR teams show up at Daytona in January for testing.

Most of the work for this test started the first of December. With 2008 being the first full season of the Car of Tomorrow, the teams can settle in on the one-car design and perfect all the systems — aerodynamically and mechanically.

There are going to be many differences in regard to testing with the CoT. Before the CoT, most of the cars tested in primer. That was because every team was putting the aero tune on the bodywork. The metal men were always busy trying filler panels and beating out tire clearance in the fenders. After the Daytona test, it was off to the wind tunnel for final verification, then to the paint shop.

With the CoT, the body templates pretty much make the body work a spec part. There is very little room to work. Consequently there will be cars at the test that may still have paint from last year. NASCAR has all but eliminated the areas on the body that can be adjusted.

With that in mind, there are still other areas to be optimized. The underbodies still have areas to work on and there are gains to be made there. Fuel-cell placement is regulated, but there are many other areas that can be "massaged" aerodynamically. The underbody work is one reason most teams have a scale-model wind-tunnel program. Scale-model tunnels have a rolling road, which replicates more accurately what the car sees on the track and allows development in the underbody areas.

The front splitter and radiator air inlet are much different than the CoY (Car of Yesterday) and have created a lot of development in radiators and oil coolers. This devel-

THE TECHNICAL SIDE



CHRIS PAULSEN

opment is ongoing and will take all season to perfect. The front splitter and rear wing combination is still new enough to the teams that it will take awhile for the engineers and crew chiefs to grasp the effects they have on aero and handling.

Bump rubbers can now be used on the shocks.

They act like a secondary spring when the wheel travel allows the car to get down on the race track. These bump rubbers are springs and there's an infinite range of rates. At a superspeedway, the car will ride on the bump rubbers so you can imagine the importance of getting this right.

With the CoT body rules being so tight, teams are exploring other areas of the car for performance gains. Searching for parasitic losses in the drive train is one area receiving a lot of attention. Basically, if you can't reduce drag on the bodywork, start working on the other areas that may give you a return on drag reduction. The transmission, drive shaft, rear end, rear axles, seals, lubricants and bearings comprise many areas that have mechanical drag.

The new ARC drive train dyno in Mooresville, N.C., is a piece of test equipment that allows engineers to develop these areas and monitor the changes with a high degree of accuracy. It's drag horsepower and very important to performance on a restrictor-plate track.

These are just a few areas crew chiefs and engineers will be working on at Daytona. The teams that spend the most attention on the details are the teams that are fast. The tighter the rulebook, more time and money has to be spent finding gains in new areas. This is very interesting and part of the reason NASCAR racing is so popular.

Gapinski's Chili Bowl 101

TULSA, OKLA.

In my column in last year's NISSN previewing the Chili Bowl, I wrote why it is one of America's biggest and most important races to win.

This year will mark my 19th Chili Bowl in 22 runnings of the event. I've participated at the event over the years as a car owner, team mechanic, announcer and writer. My column this year will be Chili Bowl 101, taking a quick look back at some memorable moments, and pointing out some unique aspects of this one-of-a-kind auto-racing event.

A record 285 entries are slated to compete. The drivers and teams have different goals, some want to just make the field; others want to win an alphabet feature on Saturday. It is impossible to predict a winner before racing begins. However, only about 10 percent of the driver/owner combinations have a realistic shot of winning the Golden Driller Trophy.

Remember: a 15th place in Saturday's second D Feature means you finished 100th overall.

Chili Bowl tip one: Expect the unexpected, a lot of veterans and rookies have let victories slip through their fingers by making surprising late-race mistakes. What often looks like a sure-win turns into heartbreak for a driver.

Chili Bowl tip two: Don't try to keep track of the flips, there are too many.

Chili Bowl tip three: Don't miss the heat races on preliminary nights, they produce the best and most intense racing of the week.

Chili Bowl tip four: Get to the track early at least one day and walk around the pits for a few hours; you can meet and talk with 95 percent of the drivers in a relaxed casual atmosphere.

Chili Bowl tip five: For fans over 21, a visit to the Elephant Run Bar inside the Best Western

WITHOUT WINGS



BRYAN GAPINSKI

Trade Winds is a must.

Chili Bowl tip six: Go through the trade show and stop by the NISSN booth, meet the staff and renew your subscription.

Two best Chili Bowl finishes: 2003 — Dan Boorse passed Tony Stewart with two laps remaining, and chased down Jay Drake leading the final 100 yards to score the victory. 2002 — Tony

Stewart passed Kevin Doty on the final lap for the win.

Best Chili Bowl Charge: 1995 — Donnie Beechler from 16th to win.

Toughest Chili Bowl Top 10: 2004 — 1. Cory Kruseman, 2. Danny Lasoski, 3. J.J. Yeley, 4. Stewart, 5. Jason Leffler, 6. Boorse, 7. Danny Stratton, 8. Davey Ray, 9. Tracy Hines, 10. Dave Darland.

Biggest upset victory: 2006 — Tim McCreddie. **Best Chili Bowl-only technology:** Left-front motorcycle wheel and tire on the Bondio No. 47.

Favorite Chili Bowl quotes: "It doesn't matter if you're a midget, sprint-car or stock-car driver, everyone competing at the Chili Bowl that week are just plain race-car drivers," two-time winner Dan Boorse.

"Two hundred twenty-two other drivers would be happy to run second in this race, but it's tough to lose this race on the last lap," 2001 winner Jay Drake after finishing second in the 2003 race.

"The best race of the year for me," defending winner Tony Stewart.

Chili Bowl facts: No driver has won the event two years in a row... Tony Stewart is the only driver of the 285 entered guaranteed a spot in Saturday's feature. If he fails to transfer through his events he will use the champions provisional and start last.

Billy Puterbaugh Enjoyed An Outstanding 2007 Sprint-Car Campaign

STANFORD, IND.

Of the many good stories that came out of the 2007 racing season, the re-emergence of Billy Puterbaugh has certainly been heartwarming.

Following a couple of years away from the sport, the tow-headed second-generation racer earned a rare double-championship. Proving that sometimes good things do happen to good people, he captured sprint-car titles at both the tough Gas City I-69 speedplant and Putnamville's Lincoln Park Speedway.

It was a clear but blustery September afternoon at Bloomington Speedway, at least a decade ago, that Puterbaugh showed he had the right stuff, during Racin' With D.O. Racin' Fest, the brainchild of irrepressible D. O. Laycock. Called "Hero and Hotdog Qualifying," and featuring many of the top Midwest sprint-car racers, two laps cost \$100 and the fastest qualifier took the money. Just 15 years old, Billy was one of the first on the clock. Many took shots at

the youngster's time, but when qualifying was over, he not only took the money home, he also had lowered the track record with a trip that wasn't surpassed for years.

You couldn't erase the grin from Bill, Sr.'s face that day. A star under USAC's banner, he had been a barnstormer and an Indy 500 veteran in the '70s. With the help of a well-funded sponsor, he and Billy were soon building their own cars while competing on both dirt and pavement and in USAC's Silver Crown division. Twice Billy finished in the top 10 in USAC's sprint-car points.

But when an economic downturn cost them the sponsorship, Billy decided to take a step back from racing. "Mom and Dad couldn't do it on their own, so we just had to throttle back and decide what we wanted to do," he says.

Billy avoided going to race tracks for more than two years, knowing how difficult it would be to sit in the grandstands or prowling the pits, and not be driving. He admits it "ate him

HOOSIER PIT PASS



MIKE O'LEARY

up inside."

When he decided to return, he found it difficult to line up a ride; in fact, he says that there were many in the pits who didn't remember him.

At the end of 2005, he hooked up with legendary Paul Hazen, an arrangement that lasted most of 2006 and resulted in a handful of victories. This gave Billy a needed boost in confidence, and when they parted ways, he decided to field his own car.

Going into the 2007, Billy knew it wouldn't be a cakewalk. His father had contracted Bell's Palsy and in

addition to affecting his facial muscles, it had severely limited his sight. From his very first efforts, his mother and father had been an integral part of his racing. While he helped prepare the car as much as he could, Bill, Sr., avoided going to the track.

Billy often called his mother, Joyce, his crew chief, and that wasn't far off. She was an experienced helper, both for his father and with his earlier efforts. Billy explains that she helped with everything she could — filling gas bottles, tightening bolts, bringing wrenches and anything else they needed. She became an expert at doing the things that Billy couldn't do while he was in the car.

"I give her credit for having wrenches in her pocket, and she'd always make sure we had water for the wash bucket because she can't stand a dirty race car," Billy contends.

By mid-season, Bill, Sr., was doing well enough to return to the track, just in time for a King of Indiana Sprint Series victory at Putnamville.

His presence gave Billy a huge boost.

It was an extraordinary summer. He collected nine victories: five at Gas City and four at Lincoln Park. He finished in the top 10 in every race at Gas City but one. The only exception came when he was spun out while leading with a lap to go. Billy pragmatically adds, "It's kind of a heartbreaker that I didn't make 13 out of 13 top 10s, but I know where I was at before I got spun out."

As impressive as Billy's record was, the way he accomplished it was even more remarkable. They had just one sponsorship, and it provided \$5,000 at the beginning of the season. They didn't own a spare front end, or rear end, and certainly no spare motors. Yet, they were able to put together a championship effort on just what the car brought in each weekend.

A welder at DRC, he would like to find a ride that will let him compete for the USAC sprint car championship again. But until that happens, he will have the white Puterbaugh 16 back on the road.