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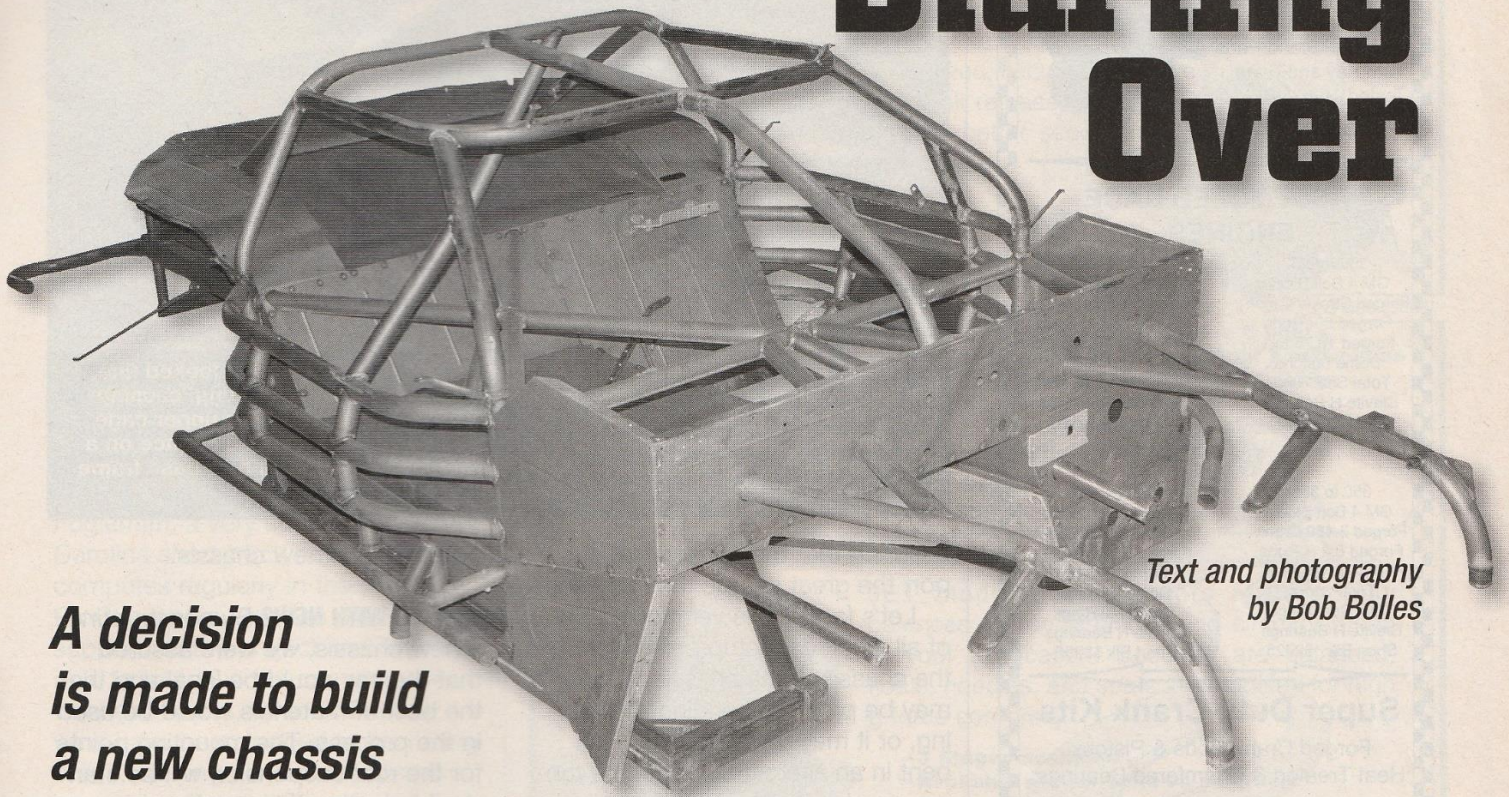
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# Starting Over



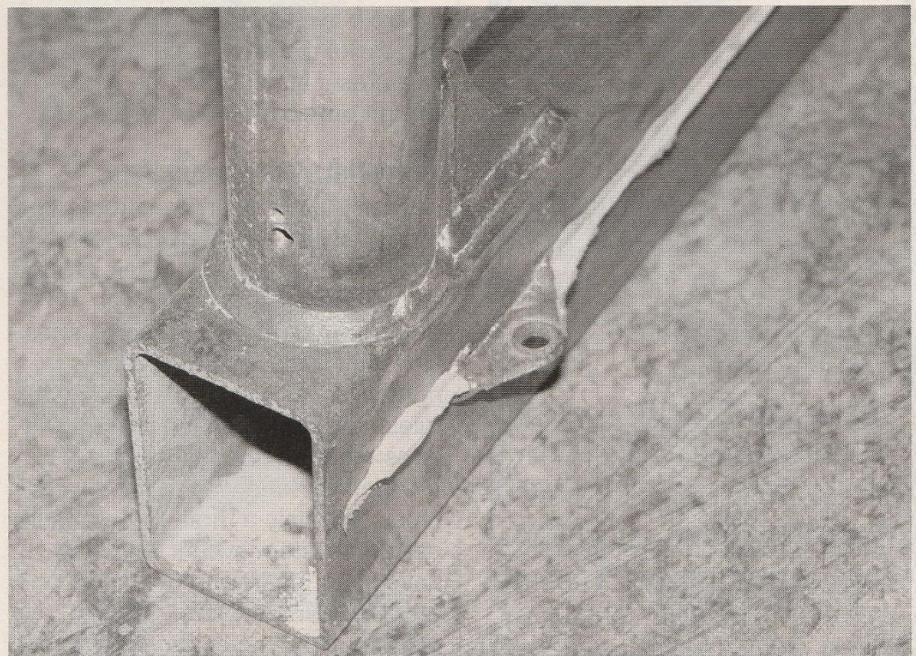
*Text and photography  
by Bob Bolles*

## ***A decision is made to build a new chassis***

**I**n planning our race car, first and foremost, we wanted it to be absolutely legal for its class.

We took a close look at the NASCAR rule book for Late Model Stock cars and discovered that the '98 chassis we had was somewhat obsolete. There were several issues related to the construction of the car. When it was built, everything was up to par, but since that time, the rules have evolved so that many structural changes would have to be made in order for the car to be legal to race.

**MODERNIZING AN OLDER CAR** Many short-track racers face this decision after they have raced a chassis for a number of years. Many teams opt to purchase a new, bare frame and rollage assembly and bolt on all of the suspension parts, gauges, engine, body, and so on so that the only new part is the actual chassis. This saves a lot of money while



**The right-rear corner of the original main framerail shows the small 2x3-inch size of the square tubing. Although legal, it is still small, and we need to have a solid and structurally stiff chassis. This is also the area where the legal right trailing arm would need to be mounted. As you can see, there is no structure in place where we could weld the front mounting bracket.**

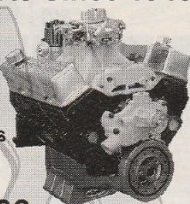
The old frame and rollage assembly, minus the front clip, sits in Mark Davis' school building while we decide on its future. After a close review of the NASCAR Late Model Stock car rule book, we had to make the critical decision of whether to keep this one and make a lot of necessary changes or build a new one.

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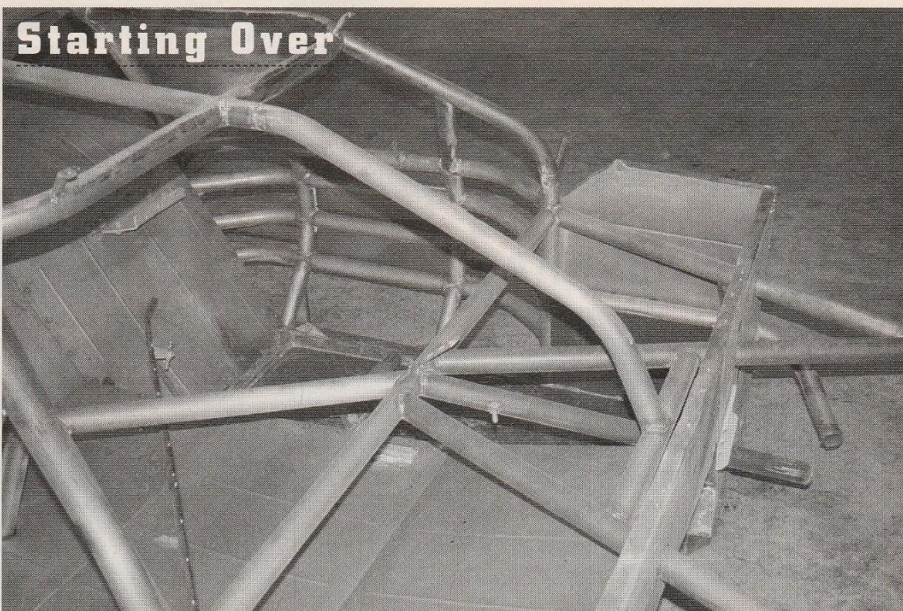
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## Starting Over



Once we had the chassis tubing sandblasted and bead-blasted, it looked fine, but looks can be deceiving. The insides of the tubing may be rusting, causing the wall thickness to be less than legal and therefore unsafe. This upper cage has already been lowered once to fit the rules. Rather than take a chance on a 6-year-old race chassis, we made the decision and opted for a new base frame and rollcage assembly by Hess Race Cars.

ensuring that the chassis will support the great setups they develop.

Let's face it, the very foundation of all stock car setup performance is the chassis. If the chassis is older, it may be prone to bending and flexing, or it may have actually been bent in an altercation. Also, the tubing may be rusting on the inside where it is difficult to detect, and that can make the car unsafe in the event of a crash. In our case, the basic design did not fit the current rules.

**THE PROBLEMS WE FOUND** The framerrails, although constructed of the minimum size and within the rules, were small and not as strong as they could have been. The design of the three-link rear suspension was illegal due to a longer right-side trailing arm. The NASCAR rules now state that the rear trailing arms must be of equal length.

Another issue was that we were stuck with only a three-link rear suspension system even if we could have fixed the trailing arm length problem. With our new chassis being built by the experienced crew over at Hess Race Cars in Mooresville, North Carolina, we had the option of running a three-link system or a very popular truck arm system, similar to the ones used on the Hooters ProCup, Craftsman Trucks, Busch Series, and Nextel Cup cars. The mounts for both are

built into this new chassis.

**WHY GO WITH NEW?** By constructing a new chassis, we were assured that the car would be legal and that the best of materials would be used in the process. The mounting points for the rear suspension will be standard industry placement and adjustable, but the front-suspension control arm pickup point locations will be dictated by our own preferences. We will be able to adjust the moment center location as well as the camber change characteristics of the car for different racetrack designs.

Most of the old parts on the previous chassis will be utilized on the new chassis. The complete drag link steering system (the only one allowed on these cars) will be transferred to the new chassis, as well as the Wilwood Wide Five hubs, wheels, the steering shaft assembly, and the fuel cell container. We will completely redo the dash layout, along with the wiring, and install a new seat and headrest, seatbelts, brake calipers and pads, fuel cell, shocks, springs, sway bar, lightweight spindles, quick-change rearend, and other components to make this a rolling chassis.

**WE HAVE POWER** In another development, we have entered preliminary discussions with Jeremy Upchurch

of Upchurch Engineering in Durham, North Carolina, to develop an engine package for our car. Jeremy builds engines for Late Model Stock racers as well as top contenders in the Hooters ProCup. His shop is outfitted with the latest in equipment, which includes an engine dyno as well as a chassis dyno that we might be able to utilize on this project.

For his part, Upchurch may do a complete engine buildup. He even offered to loan us an engine so we can test the car once it is completed if the time schedule isn't exactly as we had hoped.

The neighbor to Upchurch Engineering is the race shop of Jay Fogleman, a very successful North Carolina short-track racer who now competes regularly in the Hooters ProCup series. Jay has pledged his support for the project and is available to testdrive the car whenever the need arises. Over 100 career wins have been logged to his racing credit, earning him track championships at Orange County Speedway in Rougemont, North Carolina, South Boston Speedway in Virginia, and Ace Speedway in Altamahaw, North Carolina. He has won major Late Model events at Martinsville, Virginia, and North Wilkesboro, North Carolina.

Billy Hess and his crew are going to work on the new chassis. Once they complete the new unit, it will be taken to Mark Davis' Carolina Tech Center for powdercoating of the frame and suspension parts. It will be returned to the Hess shop for re-assembly of the body and the front and rear suspension.

*As the project moves along, we encourage your input. Send any suggestions, questions, or comments to: CIRCLE TRACK, 3816 Industry Blvd., Lakeland, FL 33811, or e-mail us at circle.track@primedia.com. CT*

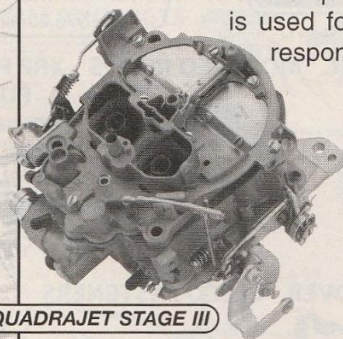
## SOURCES

Hess Race Cars • 704/799-6740

Carolina Motorsports Tech Center • 866/459-2758  
• www.carolinatteamconcept.com

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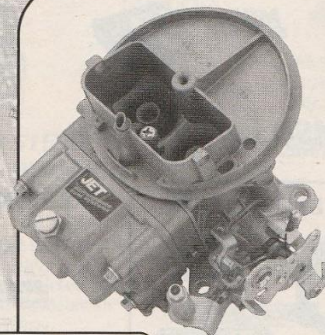


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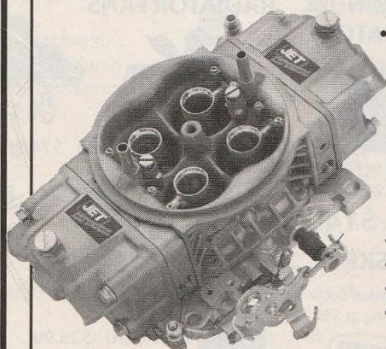
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