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www.nationalsterling.org

Letter from the editor

Summer is long gone and Fall is in full swing here in the eastern part of the US. Cooler days and nights are starting to prevail, and that means many cars are going to be shuttered for the winter in the garage mahals. With the fall came a sweeping of listings of cars for sale across the US. The economic situation seems to be affecting most everyone, and it's showing with the cars coming to light. Mostly projects, of course, but a few good runners as well. With a couple exceptions, many of the cars were in the sub $1K zone and were for sale for only a few days... sometimes only hours. The new owners had done their homework for the most part, and had already signed up with www.sterlingkitcars.com and were asking the right questions for their future builds. Others were shaking the idea tree to see what leaves would stick and what wouldn't!

This issue is going to be a little disjointed - there's no one feature story, but a couple of builds and a couple nice tech step by steps to read through. Enjoy!

NATIONAL STERLING OWNERS ASSOCIATION

Mike McBride's Final Build

Well... could be. I think Mike deserves his 'retirement' after finally finishing off the last turnkey customer car. Mike offered up these photos back in August of last year, and finally have a page or two to showcase some of the mad fiberglass skills he developed building these cars. I think the customer will be quite pleased! So captioned in his (basically) own words:

Dashboard and steering column; dashboard rises and the steering column shifts to the right automatically as the top opens.

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Custom radio enclosure moving from inside the rear of the console to it's forward position just behind the gearshift lever, all automatically at the flip of a rocker switch.

The car is also equipped with a GPS nav unit, backup sensors with voice warnings, A/C, yellow high intensity fog lights and high intensity driving lights (either/or) which can be turned on only when the headlights are on and an electrically retractable radio antenna. The car also has electric hood and rear louver latches and a high power lift pump for the top all controlled by a keychain remote.

Owner's Rides

What should have been highlighted long ago, Steve Andrejeski's incredible V6 Sebring. Along with these photos is the article run by Kit Car Illustrated back in June, 1990. Those are scanned pages, sorry for the quality!

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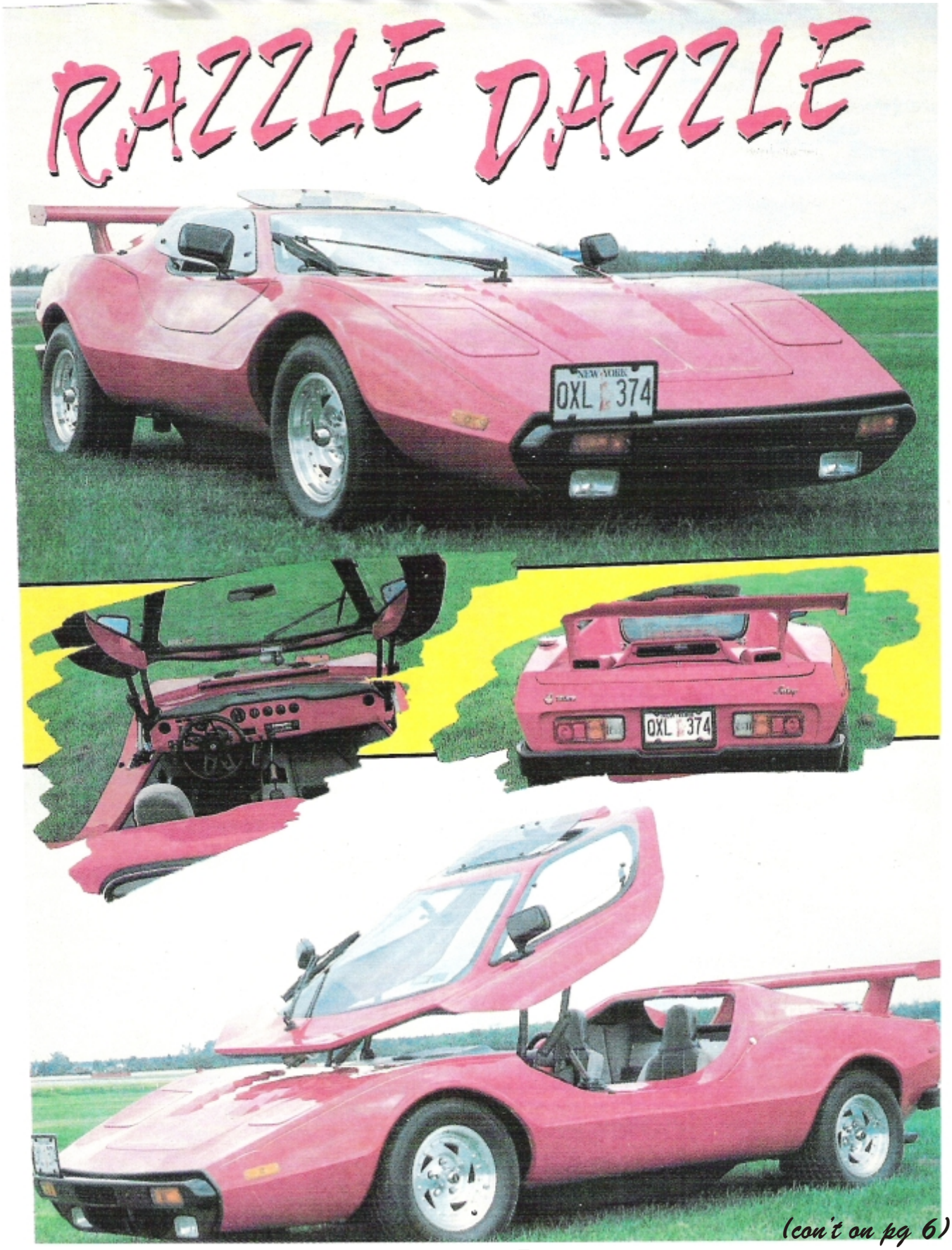
Owner's Rides

RAZZLE DAZZLE



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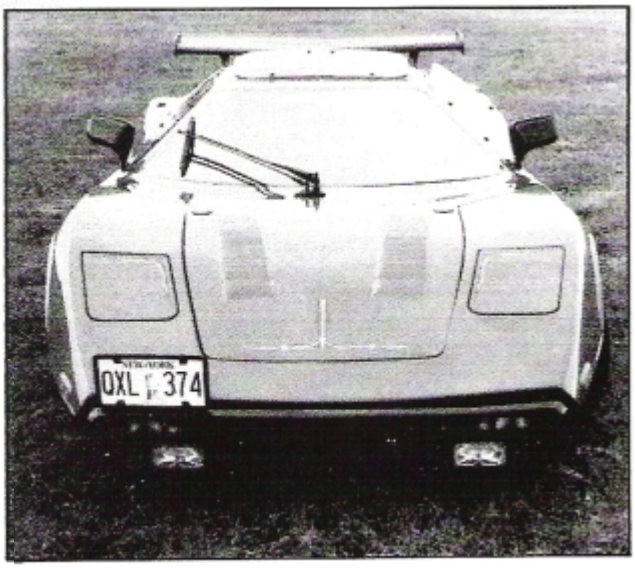
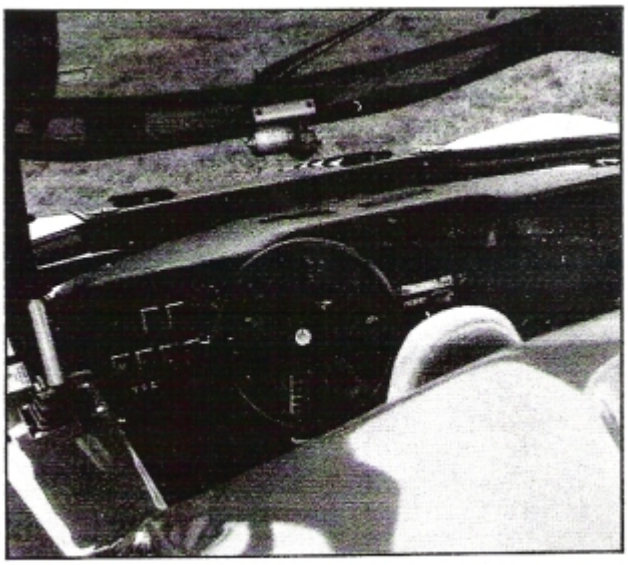
PHOTOGRAPHY BY BILL MOORE AND JOSEPH R. CORBETT





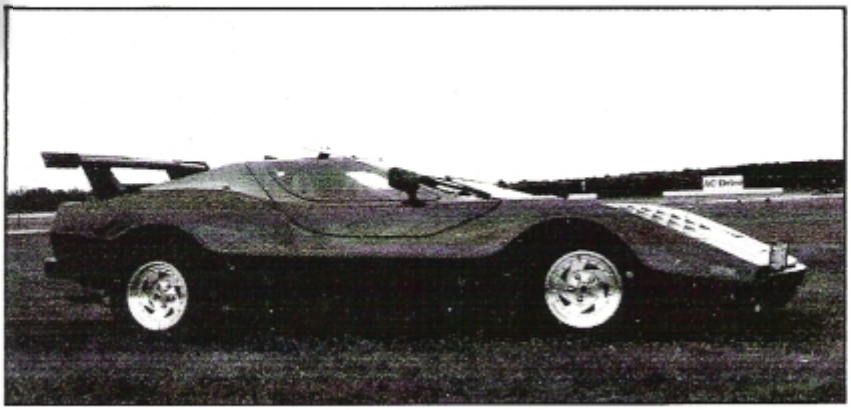
Steve Andrejeski's Bremen Sebring, thanks to hard work and a Buick V-6 transplant, has led two lives so far.

When it comes to kit cars, there are probably no two exactly alike. Each kit has minor variations of fit and finish built into it. Each assembler follows the directions just a bit differently. Each craftsman's skills vary. And, probably most important of all, each car leaves a huge space for individual creativity.

Steve Andrejeski of Bellerose, N.Y., started his Bremen Sebring — like most kit car builders — with a bunch of jig-saw pieces, and when he was finished it more or less looked like the picture on the box. Altogether he had spent 200 hours and $8,000 on the project. It used a '69 VW chassis and engine and Steve did all the work, including upholstery, himself.

Then, for three and a half years and 15,000 miles, Steve drove the car back and forth to work in all kinds of weather — including a hurricane. And, from the outside, it was a real success. "Everybody loved it," says Steve. "Everyone thought it was a Ferrari or a Lamborghini."

But there were some problems making the run from his home on Long Island to Brooklyn, especially getting into fast-flowing parkway traffic from a dead stop each day. As a consequence, he decided that the VW engine didn't have enough *ooomph*. With that in mind, Andrejeski started changing things. After he picked up a 1970 Beetle with only 20,000 miles on the clock, he completely rebuilt the chassis using all new German parts, heavy duty torsion bars, Ghia front end and disc brakes. Steve also replaced all nuts and bolts, brake lines and anything else he could think of. On top of that, he installed aftermarket adjustable Sway-A-Way front end torsion tubes, added KYB gas shocks and a custom-built VW transaxle.



While all of that effort was fine and good, the real purpose behind the work was to use a Kennedy Engineered adaptor to drop in a 100 percent rebuilt 225 cubic inch Buick V-6 engine which produces about 135 horsepower for just a bit of that ooomph.

Three months and 500 hours after taking his Bremen Sebring off the road, Steve was ready to roll the car out of the garage again. Only this time, it rolled out with real luxuries. It had air conditioning, cruise control, tilt-wheel, an automatic/manual Halon fire fighting system, and new leather and velour upholstery.

Now that Steve is working in the Bedford-Stuyvesant section of Brooklyn's no-man's land, he's leaving his Sebring at home and taking his electrician's truck. But the Sebring has been going on loads of long trips, like up to Long Pond, Pa., for *KCI*'s Pocono Party, and to shows at Valley Forge and Boston. And when the car isn't out on the highway, it's been winning awards in spectacular fashion on the show circuit. In its first 12 appearances, it walked away with eight first-place trophies and four second-place laurels.

Altogether, Steve has invested $15,000 in his Sebring, but he's not done with kit cars yet. Next, he wants to drop a turbocharged Buick Grand National V-6 or a small-block Chevy into a '78 Sterling he's come across for his daughter Lisa — and that sounds like even more razzle-dazzle. **KCI**

TECH TIPS

Chuck's excellent remake of the Sebring classic flip light setup...

OK, here's the low down on how I swapped out the old wiper motor that was used as a headlight actuator for a new linear actuator.

The linear actuator has a 3" stroke and rated at 150lbs push/pull. I got mine from Firgelli Automations. www.firgelliauto.com I just had some 1 1/2" X 1/4" bar stock laying around from another project. As you can see from the "AsWasFront" attached photo, both headlights are connected together via a hollow metal tube. In the original configuration, this tube had a 2" tab welded to it at a right angle. Attached to this tab through a Rubegoldberg linkage system is a old wiper motor mounted perpendicular to the metal tube. When energized, the motor would turn, lifting and then lowering the headlights through the linkage just like an old stream train and drive wheels. The down side is that there was no way to stop the up/down motion (no limit switches) and, as many folks know, the headlights tend to slam down when closing.

The first step was to determine which actuator to get. The two main considerations were stroke length and push/pull strength. Since the cost difference between the 35lb and the 150lb was only $10, I went for more forceful option. No sense in straining a component unnecessarily. That being said, 35lbs of thrust is probably sufficient, I just tend over-engineer. Determining stroke length is a bit more challenging.

To determine stroke length, the first thing I had to figure out was deflection (in degrees) between fully opened headlights and fully closed headlights. To do this, I used a simple angle compass. My deflection was 25 degrees. Next I drew a quick diagram of the bar stock in the 0 degree position, and drew a second representation of the bar stock off-set by 25 degrees.

From the drawing, I could determine how long the bar stock needed to be with the different stroke lengths. All you have to do is measure the distance between the centerlines of the two drawn bars, and mark them when you reach 3" and 2". I've marked mine at the 3" mark with the an intersecting radius. Keeping in mind that the shorter the bar, the less leverage there would be to rotate the metal tube, I went with the 3 inch stroke. Another thing to keep in mind is that the distance of the drawn bars is the length from the pivot point on the metal tube (dead center inside) to the pivot point at the top of the actuator. Since the tube had a 1 1/2" diameter, I had to subtract 3/4" from the overall length of the bar. Likewise, I needed to add about 3/8" past the actuator pivot point to accommodate the pivot pin. Lastly, I had to cut/grind the tube end of the bar stock to fit the radius of the tube.

To get the bar welded in the right position, I had left the old motor in place with the headlights locked in the full upright position. I then pinned my newly cut bar to the fully extended linear actuator. I positioned the base of the actuator where I wanted it to sit on the floor, and placed the radiused end on of the bar on the metal tube. The last thing to check was that the bar was still below hood line with headlights all the way up. My buddy came over and welded on the tube,and after screwing the new actuator base to the floor, I removed the old motor.

The only thing left was to wire everything in. When the light switch is turned on, the headlights come up, the low beam lights come on, and the hi-beam relay is energized. You still have to use the floor mounted hi-beam switch to turn on the hi-beam lights. When the light switch is turned off, the lights go out and the headlights lower. Hi and low lights go out even if you don't switch off the hi-beams with the foot switch. Of course if you forget to turn off the hi-beams thru the foot switch, the next time you turn on the lights, the hi-beams will be on, but that's not a big deal. Let me know if you have any questions and I'll try to answer them.

Chuck

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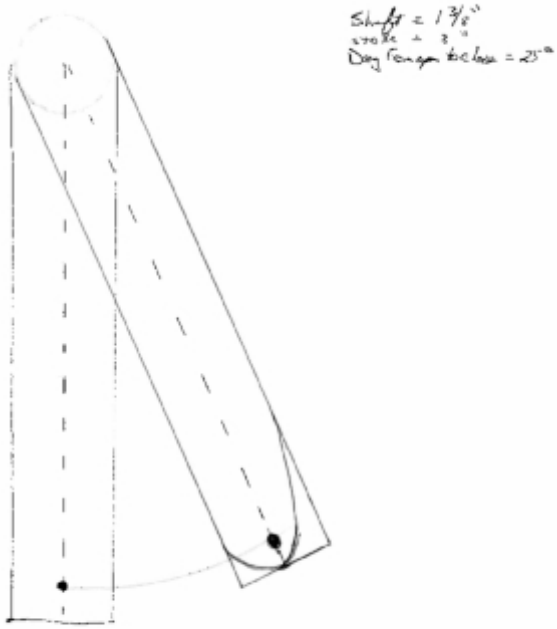
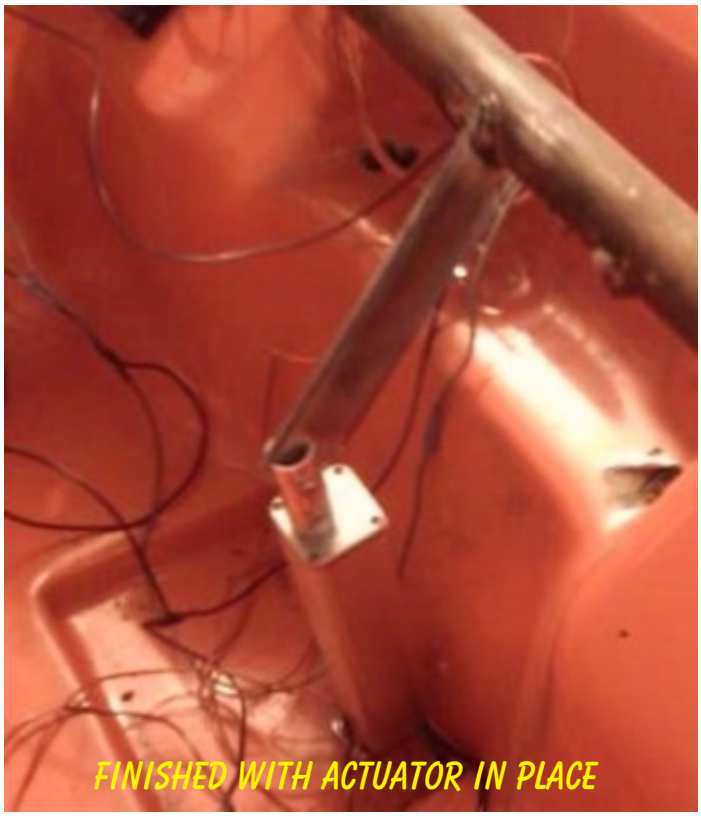
OLD SETUP WITH WIPER MOTOR "ASWASFRONT"



ANGLE OF DEFLECTION

TUBE HELD IN PLACE; ARM WELDED IN PLACE



FINISHED WITH ACTUATOR IN PLACE

Owner's Rides 2

Bill Lewis' S050 incredible tube chassis and custom build - check it!

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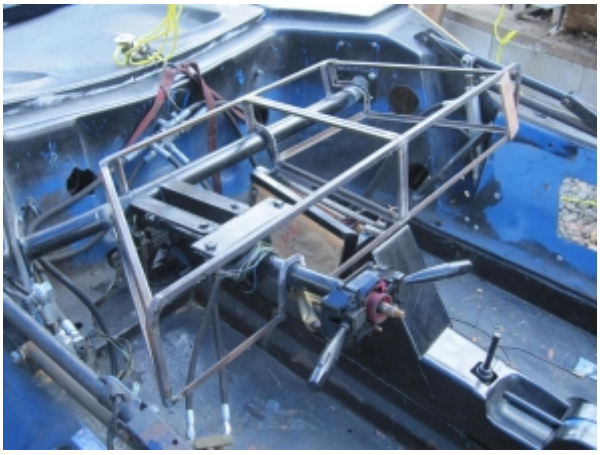
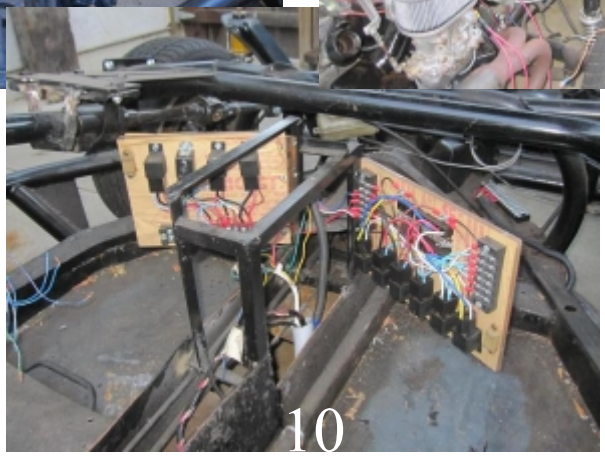
Owner's Rides 2





TECH TIPS 2

A nice step by step by our own "Sterling Meister" Mike McBride!

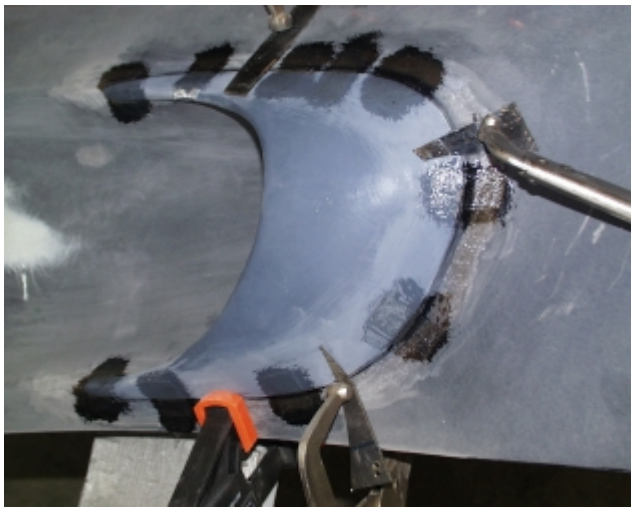
Over the years I have added scoops to the upper air intake holes on a couple of Sterlings I have built, and I thought they added to the overall racy look of the sleek body lines, and made the car look more finished. The more I studied the body and thought about it, the more I realized that scoops are really needed on all the air openings (or pseudo air openings) to really give the entire car more of a completed look.

I set about doing so by first making a set of hand formed scoops, and then making some molds from those. After making the molds, I layed up all six scoops and proceeded to install them on the car.

I took a few pictures of the various scoops in various stages of installation, and will attempt to describe and show step by step what to do to install them. If someone wants to add them, but not mold and bond them to their car, they could be laid up in black gelcoat by Dave, and the person installing them could simply glue the black scoops onto their car and not try to match or blend them into the existing finish color, and also that would save the mess and painstaking job of bonding and smoothing necessary to make them one piece with the body. You would simply scratch the paint off (if your car is painted) under and just inside the edge of the scoop in several places, apply blobs of epoxy glue to the fiberglass in those places, and press the scoop into the epoxy. Tape the scoop in position until the epoxy hardens, and you have it! Just be sure to wipe off any epoxy that gets on the outside of the scoop edge before it hardens, or can damage your visible surface around the scoop.

Now, for the other method of installation. I like to place the scoop into it's proper position on the car and draw or scratch a line around the outside edge onto the body. Take away the scoop and use a die grinder, disk sander, Dremel tool, etc., whatever you have that will grind down through the gelcoat and expose the fiberglass matting underneath and go to it.

Make the area all the way around the scoop show the fiberglass out about 3/4" to 1" from the edge of the scoop.



Scratch the gelcoat all the way around the edge of the scoop about an inch wide also, so that fiberglass will bond to it better. Cut thin fiberglass cloth (available at most hardware stores)into strips about one inch by three or four inches, making eight to twelve strips per scoop. Place the scoop in it's proper position and clamp it or tape it in three or four spots to hold it. Mix resin (also available at hardware stores or boat supply companies) and hardener in a small container in the proportions recommended by the manufacturer.

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With a small disposable paint brush, paint the resin on the scoop and car in the area prepared in the previous steps and lay the fiberglass cloth strips around the edge of the scoop between clamps or tape strips, half on the scoop and half on the body to bond them together into one piece. Dab resin into the cloth with the paint brush, being careful not to make it too wet or runny. Wait 'til that hardens and then remove the clamps and/or tape holding the scoop, as they are no longer needed. Sand the fiberglass around and on the scoop to remove any bumps or stray strands sticking up, and scratch the resin surface, and fiberglass the areas not yet bonded because the clamps or tape were in the way. As before, after that cures, scratch that resin to smooth it, and mix more resin. Paint more resin around the scoop and put on a second layer of fiberglass, or even a third can be added at this time to finish the bonding process.

After that, you simply mix up body filler and blend the scoop into the body all around, just as you would fill a minor dent on a steel bodied car. Just make sure you sand off any paint before applying body filler, as it will not bond well to paint. It sticks great to gelcoat or bare fiberglass, but be sure to wipe it down with solvent and sand the surface before applying Bondo. You will need a new brush for each new application of resin, or you will need to rinse the brush thoroughly with acetone after each application. Acetone is also available at most hardware stores in paint supplies section.

I wrote this article with probably more information than some of you may need, but it was done with the idea that someone who has never worked with fiberglass would be able to do this successfully, I hope :-) The pictures were just for my own album and not for a step by step instruction tutorial, so will be different scoops in different stages of installation, but will show each step in the process as I did it.

PS.

Latex disposable gloves are a good idea, too!

Mike McBride