January 2015

NORTHSTAR CHEVELLE CLUB

MINNESOTA'S '64 - '87 CHEVELLE and EL CAMINO CLUB™

1980 Malibu

A few months ago, I was asked by someone outside our club why I stopped doing the Automania car show. This wasn't a new question to me. In fact, I have heard it several dozen times over the past 15 or so months and I normally tell them it was tough to coordinate everything and make it enough of a success for the two clubs involved. That usually worked, but sometimes I had to follow up with the fact that we lost several good sponsor companies which made it more difficult financially. The truth is that while it was a lot of work and a lot of fun, I knew I could be doing more. You need only go back to our October 2014 newsletter to read about Cruise for Troops and what a great event it was, but the cause goes much deeper for me, and I wanted to do something more significant.

Early November, I was invited to the Tribute to the Troops Christmas party and winter meeting. I also was asked to speak on behalf of Cruise for Troops and share our event's success with the entire organization. During the dinner hour, and talking with their members, I noticed a strong sense of family and camaraderie. They have a strong bond, the kind that only comes with sharing strong emotional experiences. As I met their members, I heard about their events and visits with Gold star families (those who have lost an enlisted service member while in conflict) and they are very powerful. These people are committed to supporting those families. Many are Gold Star families themselves.

Several events are held which raise funds to support Tribute to the Troops. Each has a different angle, including Scoops for Troops, Tee it up for Troops, agents donating real estate commissions, and of course, Cruise for Troops. I had the honor of presenting the "giant check" from Cruise for Troops. After expenses, we were able to donate $15,306.32. The final donation amount total was a surprise to most members since we had shared the total with only their board. While it is something to be proud of, I am quick to explain that it went far beyond just us three organizers. All our volunteers do a great job.

I would like to thank everyone from Northstar Chevelle Club who attended, donated, shared it on Facebook, or otherwise supported this great event. Next year, we will be building on this success and raising the bar even higher.

Easy fix: **In the May 2014 newsletter I wrote about the AC delete box I put in my ’72. What I didn’t cover was something that came about when I turned on my heater blower motor later in the season. I didn’t notice it initially because I had just quickly flicked the switch to verify the fan came on. What I missed was a sound not unlike when you had playing cards hitting the spokes of your bicycle wheel. I assumed that the squirrel cage of the motor was hitting a piece of the new cover, but that meant taking the wheel well out again.**

Fast forward to this past month when I decided it should be fixed before I put it off too long. Out came the wheel well, and I removed the fan motor. There were no signs on the cover of interference, and no sides on the side of the cage either… Grabbing a flashlight, I climbed under the fender area with a light and found that the end of the fan was hitting a small piece of the firewall. The AC delete cover puts the end of the fan a hair too close, so I grabbed a large socket, put an extension in it backwards, grabbed a large hammer, and made some clearance. It only needed about ¼” extra room, and took barely a minute to do. Man I wish those wheel wells went in easier though…..

Have you given much thought about your air compressor fittings? Can you tell which one in this picture is the higher flowing?

Like a car engine, free flowing air gives you better performance. Your air compressor could be putting out tons of air but it could be hindered by couplers that flow less than optimal. Think about your air tools and how they rely on that airflow in to drive them. Tools that have a high air requirement like basting cabinets, sprayers, or grinders really should have couplers like this that compliment their air flow needs. There are different ways to measure airflow, but this chart from about-air-compressors.com helps illustrate the point.

I found this coupler set at Home Depot for $15 but you can find them online in singles or kits ranging from $3 and up.

Air Flow Through A Fixed Orifice

Orifice Size	Approx. Flow in CFM @ 90 / 100 PSI Supply
1/8"	23
3/16"	53
1/4"	94
5/16"	147
3/8"	202
1/2"	328
3/4"	806
1"	1433
1 1/4"	2239

Project: Front Coilovers

Front and Rear coilover shocks and springs. Rear has spring installed. Rear installation in an upcoming month.

We all know that muscle cars weren't designed specifically to handle well. They were fine back in the day, but when your daily driver Malibu can embarrass your 40 year old Malibu on the corners; it's time to make a change.

Back before I even put the engine in my Chevelle, I went through the suspension and did a few upgrades. I got a polygraphite kit from PST, including new tie rod ends, and KYB gas-adjust shocks. The sway bar is from Helwig. I really didn't know what I was doing back then, and ordered the giant 1-5/16" bar along with a matching 1" rear bar. It handled ok, fine for the street, but definitely not modern feeling or competitive at all.

This winter's project was to help bring my Chevelle into the modern era. I have had the thought in my head for a while and at this past Car Craft show I talked to some of the Real Street Eliminator competitors as well as the manufacturers. By the end of the weekend, I had struck a deal with Viking Performance and bought a full set of double adjustable front and rears coilover shocks with correct weight springs at a good price.

If you have a restored or otherwise new front suspension setup, all you have to be concerned with on removal is carefully pulling things apart without creating scratches. If you're in the process of cleaning it all up, disassembly will go even faster. I will skip the removal process short of saying that if you have never taken front coil springs out of a car; learn how to do it first. The proper way is to use a coil spring compressor to keep them from doing damage when that spindle is unbolted. I used a floor jack under the lower control arm. Once I unbolt the spindle nuts, I slowly drop the jack down to release the spring. Because I didn't have the car up super high, I used a long pry bar to unwedge the spring from the bottom perch. Once free, you're good to go.

Setup on the Viking front coilover shocks is pretty simple. Number one is: read the directions. As a car guy, we all think we know what to do. Viking is very adamant about using that evil silver stuff called Anti-seize lubricant on the threads and faces of the adjusting nuts and bearing. Pre-assembly is easy, paint the threads silver, spin the nuts all the way down, slide the bearing and washers on, and then drop the coil spring in place. Somewhere along the way, you're going to end up looking like the Tin Man from getting Anti-seize on your hands. I was VERY careful, used several shop rags, and quickly wiped up any errant globs since it transfers to things easily.

Installation of these is actually quite simple. Extend the shock fully upward, insert it up through the hole, drop the upper bushing and washer on, then spin the nut on to hold it in place. Raise up the lower control arm to the bottom on the shock, making sure the spring is in its upper pocket and bolt the shock to the arm. The instructions do say to have the shock sit ON TOP of the lower control arm. From this point, it's a matter of tightening the bottom bolts and top nut, then reassembly of the spindle. Adjustment of the spring is made using proper spanner wrenches. The shocks themselves have adjustment knobs for both compression and rebound, each giving 19 different settings. Ride height is changed by adjusting the large nuts on the shock body.

After an alignment is done, I will start playing with shock settings and maybe even hit a cone course somewhere. I know I'm giving up a lot by staying with the 15" wheels and tires (for now), but those will change in time. I still haven't found the style I want for the price I can bear to part with. My goal isn't to be a pro-touring racer, or even to be competitive in SCCA events. I just want something that can take a corner at reasonable speed with confidence.

Parts swap: Baer front calipers

Over the past several years, I have had a problem with the brakes on my car. Yes they stop, just not as well as I feel they should. When I converted from drum/drum to disc/drum, we swapped in a power booster, master cylinder, proportioning valve, and calipers. The brakes started out decent, but over time, they have begun to feel more like a non-power brake car. Last spring, I swapped booster units hoping that was the solution, but it made a marginal difference.

An opportunity came when member Chris P came across a set of Baer brake calipers off a Mustang Cobra. These particular calipers are the S4 design which are 4 piston, and will work with the factory rotors and fit under 15" wheels. The calipers came with brackets which mount them correctly to the GM A-body spindle.

After painting, I stuck the pieces in my toaster oven for a couple hours and baked them at about 250 degrees. It helps make the paint harder and more durable.

When I was doing the coilover swap, I took the time to also change out the spindles. Since the new calipers don't use dust shields, I swapped in some drum brake spindles which are a little different. The disc spindles are more valuable for swappers and will go with my old calipers and dust shields anyway. While I was at it, I cleaned them up in my blast cabinet and gave them a good shot of black paint for protection.

The calipers have integral brackets like modern cars have, and being used, I took the time to disassemble them for cleaning. The pads were nearly new, so those just took a quick brushing off to clean. The brackets went into the sandblast cabinet for a cleanup, and then they got a good shot of brake caliper red paint. The calipers themselves were in pretty good shape, but bring bare metal; they needed cleaning from road dust. Once clean, I gave them a good shot of clear on top where they would be seen, but avoided the moveable parts areas.

Minding how the brackets needed to be positioned, I installed them on the spindles using Loctite on the threads. The pads insert into the caliper body itself and do not float on the bracket. The caliper is held to the bracket with a pin that also locks the pads in place. After driving those pins in, they're held in place with a simple washer and E clip. Attach the braided brake hose to the hard line from the master cylinder, bleed the brakes, and the swap is complete.

From start to finish on both projects which were done together, it probably took me 10 hours of actual work. A real mechanic could do both in better than half that I'm sure. I work slowly, but it's a hobby for me and not a job. Eventually, my budget will buy better rotors but next up is rear coilovers and a rear disc brake swap.

BOWTIE BRUNCH
January 17th at Crystal Lake Automotive in Lakeville