May 2018

NORTHSTAR CHEVELLE CLUB

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

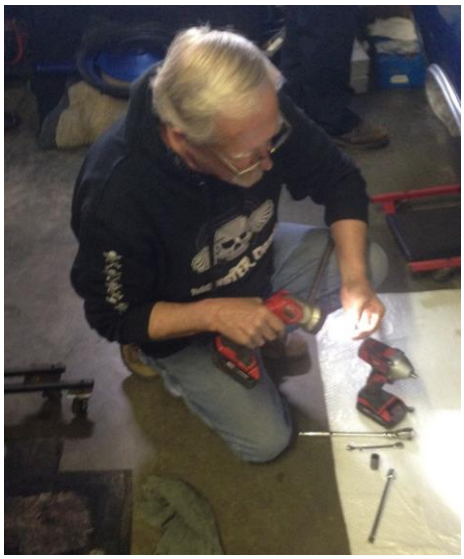
April Meeting

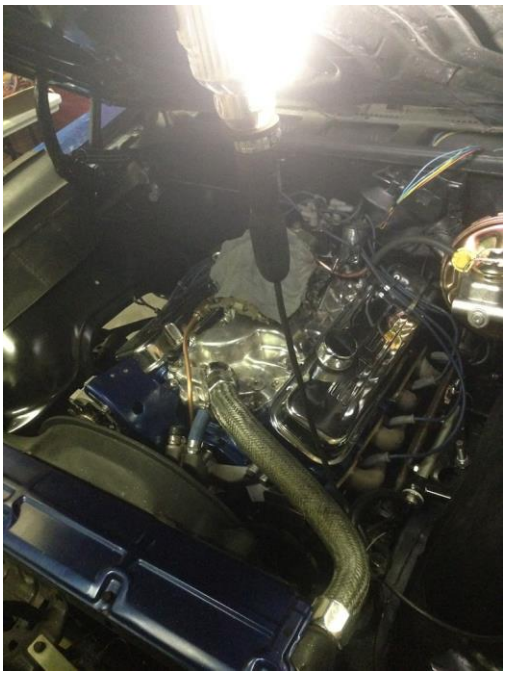
The April meeting was a tech session on Andrew's 71 Chevelle. It was once again at Mitch's. There were close to twenty members there to help. During a break, Mitch was reminiscing about the members' cars he had worked on. There are a BUNCH of us who owe him big time.

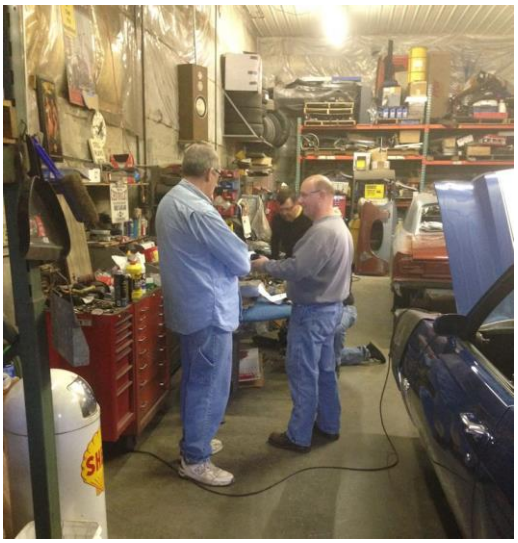
There were many more volunteers than there were places to work. John D took charge of the dash. Except for a few small jobs, he pretty much did everything. He cleaned the dash, and steel-wooled the printed circuit. There was a small spot in a corner that needed repair, and then it was time to put it together with the new wiring harness. Meanwhile, another group was first removing all old wiring under the hood, then installing the new harness. The new harness had the fuse-box end wired, but then extra-long wires to be cut to fit on the other end. Those ends were rolled up and secured for transportation to Hank's.

Another group started on the rear brakes and suspension. Of course a few bolts resisted coming off, but eventually, between impact wrench and cut-off wheel (and a lot of loud noises), it all came apart. Then it was time to install the new rear coil-over suspension and disc brakes.

Sometime after noon, we broke for lunch. Andrew and his wife made corned beef and pulled pork, and Chris made baked beans. I believe there was a motion to make Andrew the official club chef. Lunch was followed by a brief meeting, then back to work. Most of us drifted away over time, but a few stayed until 7:00. Mitch is then going to do a bunch more before it goes to Hank's to finish the wiring. What a change from the partial car that was dragged in a few months ago.







TOOLS!

Wireless stethoscope in action

Track down annoying hard-to-find noises with a wireless stethoscope. Clamp the microphones near the suspects and go for a drive. Then note which transmitter is capturing the offending sound.

This kit comes with four transmitters and microphone clamps, a receiver, headphones and hook-and- loop straps. Just clamp the microphones to the most likely suspects in the general vicinity of the noise. Then take the vehicle for a spin. Listen to each microphone until you hear the noise. That's your villain.

Spark plug pliers

Remove spark plug wires without tearing the boot.

Grab hold of plug wires with pliers and you'll for sure damage the boot. But the padded jaws on this spark plug boot pliers let you get a firm grip on the spark plug boot without tearing it. Slide it onto the top portion of the boot near the wire and clamp down. That'll

apply force to the metal clip inside the boot. Then twist and pull. No more torn boots or wires.

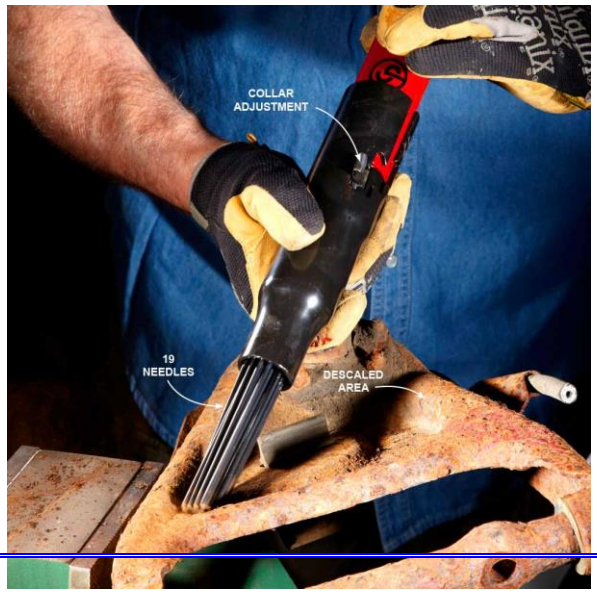
Lisle No. 52990 Spark Plug Pliers, about $11

Vacuum pump, bleeder, pressure-testing kit

Use the vacuum pump to test your vacuum-controlled sensors and motors. Or find a leaking vacuum line by plugging each one and applying vacuum. If it holds, it's good. You can also use the gauge to find a vacuum leak. Just spray carb cleaner around the possible leak sites. The gauge will flutter if you spray a leaking area. Want to bleed your brakes yourself? Just attach the fluid transfer bottle and vinyl tubing to the pump. Next, use the refill adapters to keep the master cylinder filled while you suck brake fluid out of the bleeder screws. Keep pumping until you see fresh fluid. You can also use the pump to flush power-steering fluids.

Reach into Tight Places with a Ratchet Extender

When you're working in areas like engine compartments, sometimes you just can't get your socket into the tight places. That's where this Tite-Reach tool comes in handy. Slap your socket onto one end of the extension tool and attach your ratchet to the other end. Then loosen or tighten the "unreachable" bolt. The extension tools are available for 1/4-in. and 3/8-in.-drive sockets/ratchets.

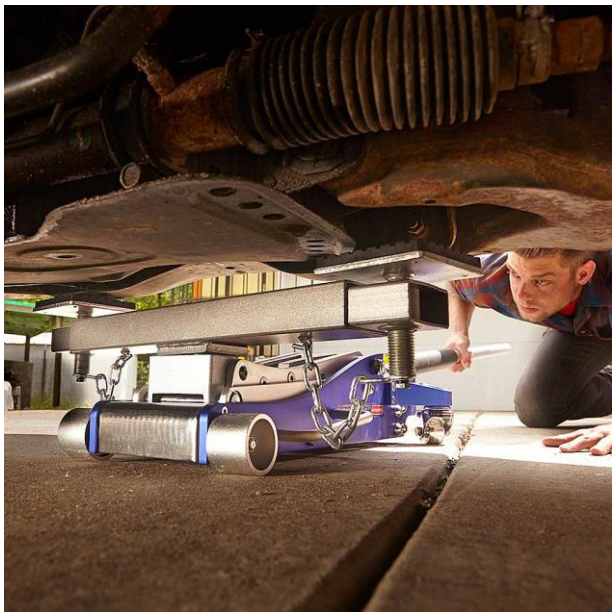


Needle Scaler Blasts Off Rust

This air tool may look like a sea monster with tentacles. But the tentacles are actually nineteen 1/8-in. needles that hammer off rust, scale and dirt at 4,600 blows per minute. Move the adjustment collar forward or backward to vary the needle force and coverage area. Use it to knock rust and old paint off your car, wheelbarrow or other metal object. You'll still have to deal with the pits from the corrosion, but at least the flakes will be gone. Wear hearing and eye protection and leather gloves, because this baby kicks up a lot of dust and debris, and it's loud.

The scaler comes with a set of needles and a chisel attachment. Find the Chicago Pneumatic CP7120 Needle Scaler at a local air tool supplier or online.

A Floor Jack That Can Lift in Two Places



If you do your own repair work on a newer vehicle, you know you usually need two floor jacks. Ixnay on that! Just remove the saddle from your Pittsburgh 3-ton floor jack and replace it with this Pittsburgh cross-beam lifting accessory. Extend the arms and rotate the lift pads to meet a cross member. Then pump the handle and your vehicle is up in the air. The Pittsburgh 68052 3-ton aluminum floor jack with RapidPump and the Pittsburgh 60762 cross-beam twin arm adapter are both available online

Here is another picture from the tech session. I include it because it is a good shot of the color of Mitch's car. There was an unfortunate incident with the painter, so the car is back a t Mitch's waiting for a solution to the paint problem.

Soon, Mitch!

Chevelle Trivia.

Chevelle Trivia –'65 Z16

1965 Chevelle SS396 Z16: 201 Built, And A Common 396 Engine Misunderstanding Finally Resolved

By: *Paul Niedermeyer* – September 5, 2012

A brief recap: the new Mark IV "porcupine" 396 CID engine arrived in the early months of 1965, and was available as a production option in the Corvette and full-sized Chevrolets, in L78 425 hp form. That meant aggressive solid-lifter cam, big valves, rectangular ports, 11.0:1 compression, and all the other best goodies available at the time. All of 2157 Corvettes and 1838 full-sized Chevys were built with L78s under the hood (any Caprices?).

But Chevy also wanted in on the mid-sized action, where the Pontiac GTO had created a whole new genre. Their response was the mid-year 1965 Z16 SS396, of which only 201 were built. They were never advertised, although they got plenty of publicity otherwise. Dan Blocker ("Hoss" in Bonanza) was one of its big fans. Why Chevy didn't put the SS396 into production in 1965 is a good question, and I'm surely not the first to ask. It was a wickedly fast machine, and those that got their hands on one were highly enthusiastic.

The '65 Z16 was a much better car than the actual production '66-up SS396. It was built on the reinforced convertible frame, and had unique chassis components including the biggest brakes from the full-sized Chevy line. The '66 SS396's chassis was mostly unchanged from the mild regular V8/SS coupes, and was decidedly not renowned for its handling or brakes. It was built to a price, to undercut the GTO.

Under the hood is the source of the 396 confusion. The Z16's engine was rated at 375 hp, and since the legendary solid-lifter L78 375 hp 396 became available on SS396s as of mid-year 1966, and was also the top engine on Camaros and Novas during the 1967-1969 heydays, I - as well as probably a few others–mistakenly assumed that the Z16's 375hp engine was also an L78. Not so!

It was actually an L37, made only for those 201 Z16s (as far as I know). The difference? The L37 had a hydraulic lifter cam, somewhat less aggressive in its lift and duration too. Someone correct me if I'm wrong (again), but it appears that the only difference between the 375 hp L37 and the 360 hp L34 was that the former had 11.0:1 compression and the latter had the a more civilized 10.25:1 CR. Which makes me wonder if the they had the same heads? Did the L37 have the rectangular port heads, and the L34 the oval-port heads? Or did both of them have oval-port heads? Chevy "L" experts; where are you in our moment of need?

One of the most distinctive features of the '65 Z16 was the rear-end treatment, which was different from the cooking SS models. The black trim was unique, and those tail lights are from a 300 Series Chevelle. An SS 396 emblem was mounted on the right side of the dash. An SS 396 emblem was mounted on the right side of the dash. Z16 equipped Chevelles got 7.75 x 14" gold stripe Firestone tires mounted on 14" rims with mag style wheel covers. The interior featured a 160 mph speedometer, 6000 rpm tach and accessory clock. An AM /FM stereo radio with four speakers came standard with this option, along with a padded dash. A remote driver's side mirror came as standard equipment as well.

The Z16 option was priced at $1501.05, which probably accounts for the fact that only 201 such equipped Chevelles were built. (200 coupes and 1 convertible).

A couple of remaining questions and factoids on the early Mark IV engine. If the hydraulic cam L37 Z16 engine "made" 375 hp, then why was the solid lifter L78 engine also rated at 375 hp, when it was essentially the same engine as the 425 hp version in the Corvette and big Chevys. Well, the 425 hp rating was undoubtedly closer to the truth, although the Chevelle versions did use a slightly different exhaust manifold to fit in its engine bay.

And if the L78 396 made 425 hp, how come the essentially identical but larger displacement 1966 L72 427 was rated also at 425 hp? According to some sources, Chevrolet fully intended to give the L72 a 450 hp rating, which it undoubtedly actually made with its extra 30 cubic inches, but then got cold feet as the insurance industry was beginning to raise the issue of big hp numbers in a big way. Realistically, the insurance industry was the primary source of all the hp rating "gaming" that went on for the next several years, like the 430 hp L88. With its 12.5:1 CR and other race-ready parts, it undoubtedly made closer to 500 hp.

An interesting note: All Z16s (1965 Malibu SS396s) came with open rear ends, none of them had posi-traction.

Next meeting:
See the forum for more information