

SIDE PIPE

January, 2013

OKLAHOMA CHAPTER



NATIONAL CORVETTE RESTORERS SOCIETY

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Vice-Chairman's Ramblings

by Phil Gray

As we do not have a Chairman in office at this time, I will make an effort to provide a few words of wisdom to grace our newsletter.

Those of us who were able to attend and enjoy our Christmas party on December 15th at Mike and Nancy Phillips home want to express our appreciation for them opening their doors with much grace and hospitality. Nancy, in our eyes, has won the Hospitality Award for the year, as ours was the third car group party that she and Mike hosted that week. They have a lovely home and Party Room, no Party Garage, no Party Hall, that has no equal. A Dirty Santa Gift exchange was held for those who enjoy arm wrestling for that ideal gift. Toys were also collected for Toys-For-Tots. You should plan to attend our next Christmas Party to relax and get to know each other and their spouses. I guarantee an enjoyable evening.

At our last meeting we had an election of officers. The following is a list of those that stepped forward to serve and were elected. I list them in reverse order as I consider them all equally important and necessary for a successful chapter:

- Jim Elder — **Events Chairman**
- Brett Driscoll — **Judging Chairman**
- Bob Clark — **Newsletter Editor**
- Don Partridge — **Membership Chairman**
- Scott Pfuehler — **Treasurer**
- Verle Randolph — **Secretary**
- Phil Gray — **Vice President**
- _____ -- **President** (To be filled in when our next Saint steps forward)

I have heard a rumor that someone is in the wings who feels that it is important that our organization is important enough that it deserves to have a

president. Hopefully, we will hear more at our January meeting. If you feel this way and desire to be considered, please let me know before January 5, 2013. Don't be left out!

Verle, Scott, Bob and I have been in discussion on the reports that are to be completed and turned in to the National Board by February 10, 2013. We will be working to complete this task. Our NCRS Director Region VII, Joan Burnett, has been in contact with us regarding these reports. Thanks Joan.

There are numerous opportunities for you to participate in our Chapter. Work needs to be done on activating our web site, updating our by-laws, writing articles for the newsletter, planning and leading events, and gatherings, leading Road Tours, Garage Tours, etc. Please bring your articles to Bob Clark, your ideas for events to Jim Elder, and if you will help with other tasks, please let me know. If we all participate, the effort for all is eased.

I would be remiss if I did not express our thanks and appreciation to Mike Aichele for not only serving as President but also continuing to fill the role of President for an additional year as "Past President". Personally I hope that Mike will continue to provide the Newsletter with "Corvette Trivia Questions" in the future as no one other than Mike knows where these originate. By the time you read this Mike is recovering from total knee surgery. Mike, we will ask for your speedy recovery. Thank you for your service and hope that you will soon be able to attack those projects waiting in your hanger!

See you at our January 5th meeting.

January Breakfast Meeting

Our monthly breakfast will take place on Saturday, January 5. The location is Ollie's Station Restaurant in the Redfork area of West Tulsa. The address is 4070 Southwest Blvd. The phone number is (918)446-0524, in case you need it.

You can choose the buffet or you can order from the menu. The time to be there is 8:30 a.m., but people always start arriving by 8:00 - 8:15 a.m.

Attitude Adjustment Night

The gathering place for our January Attitude Adjustment Night on Tuesday evening, January 15, will be The Rib Crib Restaurant, 8040 South Yale. We have the use of a meeting room for our group.

The time people start to arrive is 5:30 p.m. Most are there before 6:00 p.m. The food is quite good and Tuesday night is "Rib Night" - all the ribs and side orders that you can eat for \$10.99. There are specials on beer, too.

2013 Dues Notice

The New Year is here, and it is time to renew your membership in the Oklahoma NCRS. Annual dues of \$15 should be paid this month.

Bring your wallet or checkbook on Saturday, January 5, to renew your membership in the Oklahoma Chapter NCRS. Don Partridge will be glad to accept your money, or you can mail your 2013 dues payment to:

Don Partridge
18606 East 96th St.
Broken Arrow, OK 74012

A special note to any new member who may have joined since October, 2012. Your payment then will cover your 2013 dues also. If you have any questions, call Don Partridge at 918 / 455-6574(H).

Don't delay! Payment of dues is required to continue receiving chapter benefits.

Remember ---- You must be a National NCRS member in order to be an Oklahoma chapter member. Checks should be made payable to Oklahoma Chapter NCRS

New Membership Directories

New Membership Directories will be available at our January Breakfast meeting. Be sure to get the extra copies that you need. Don Partridge & Bob Clark will both have a supply of directories. There will be 2 included with this *Sidepipe* mailing.

Notes From Your Judging Chairman

by Brett Driscoll
NCRS#26846

Where does the time go? Hard to believe we are now starting a new year. I think we had a good year in 2012, and I am sure 2013 will be even better. With a new Corvette to be unveiled on January 13th at the Detroit Auto Show, I am very excited. If all goes as planned, I hope to have some pictures to share of the unveiling.

With the NCRS National Convention planned for Kansas City in 2014, it could very well be one of our busiest years. I have already been asked to prepare to judge two cars. That being said we are off to a great start. I will work on plans for these two cars to be judged in early spring. I will give you the details as they become more defined.

I hope each of you will come forward and contribute your ideas for judging related topics that you would like covered. I have a few ideas, but I always like to hear of suggestions and thoughts of interest from the other members. I don't always see the possibilities even when they are obviously simple to others in the club. So think about some part or Corvette related topic we can delve into. I will do my best to provide an environment where we can learn more about it. I do not have all the answers to your questions, but I do have a great contact list of people who can.

I look forward to seeing each of you and your cars at the Saturday Breakfast!

Save the Wave

Joplin Regional Update for 2012

by Scott Pfuehler

The Kansas City Chapter, the St. Louis Chapter and the Oklahoma Chapter of the National Corvette Restoration Society held a Regional Corvette Judging meet in Joplin, Missouri, April 28-30, 2011, as they have several times in the past years. Just after the event weekend Joplin was struck with a terrible tornado. The three NCRS chapters decided to give half of their profits from the weekend event to the people of Joplin. Each Chapter donated a third of the \$5000 total donation and the money was sent to the Kansas City Chapter of the NCRS to be funneled to the Joplin Red Cross which was done through the Kansas City Red Cross.



The National organization of the NCRS has a matching funds program for Chapters when the Chapters donate funds to Non-Profit organizations during the calendar year. At the end of the year following the tornado the three Chapters submitted their donations to the National organization for matching funds. Matching funds does not mean they will give an amount equal to the entire amount of the donation but is based on total National NCRS income into its funds and the available money to match their local chapter's yearly donations. So each of the three chapters received a check of \$500 to that end from the National NCRS. Each chapter funneled their checks to their local Red Cross to forward to the Joplin Red Cross.

The Matching Funds check presentation photo is of Mr. John Lewis, an NCRS member who is from Joplin and witnessed both the Joplin NCRS Regional Judging Event and the tornado. He is presenting the

Oklahoma Chapter's matching funds check to the Joplin Red Cross Executive Director, Mr Dave Dillon, at his Joplin office.

Z06 Valve Job

by Glenn Winn

Recently a customer brought a 2006 Corvette Z06 to my shop for an oil change. Upon removing the two drain plugs, I found some pin bearings attached to the magnet on one of the plugs. Both the customer and I found this rather disturbing, especially since the engine was running fine and was not making any unusual noise.

I removed the valve covers and soon found where the bearing pieces had come from. The intake rocker on number 4 cylinder had suffered a failure of the small retaining plate on the forward side of the rocker arm. This allowed the pin bearings on one side to fall out. The subsequent off center pressure on the top of the valve had eaten through the hardened steel valve cap and into the top of the valve stem itself. This required removal of the head in order to replace the valve. The intake valves on the Z06 engine are made of titanium and the only place that I could find a replacement was from General Motors. I found that I could re-surface the valve seats with my existing equipment and re-grinding the exhaust valves was not a problem.

What I was concerned about was grinding those titanium intake valves. I discovered that I could do it with the conventional stone that I was using on my valve-grinding machine. The only problem was that I had to re-surface my stone after every intake valve—the titanium valves are very hard.

I reinstalled the head and replaced all of the roller rocker bearings with an upgrade kit from Comp Cams. Through researching this job I learned that roller rocker bearing failure on 2006 and 2007 Z06 engines is quite common, so much so that Chevrolet has issued a service bulletin on the subject.

If you have a 2006 or 2007 Z06, I strongly recommend that you replace your rocker bearings with the improved ones from Comp Cams before you find yourself paying for a very expensive repair job.

CHRISTMAS PARTY!

*Pictures
From The
Oklahoma
Chapter
NCRS 2012
Christmas
Party*



The Real Wheel

Vintage Tech Bench

by John Hinkley

READER'S QUESTION: I'm removing the aftermarket mag wheels that came on my '67 coupe, and am taking it back to stock appearance. I've located a set of correct "DC" rally wheels and will have them sandblasted and painted. I've seen some that were painted gray on the back side, some that were the same argent silver on the back that's used on the front, and some that were black on the back. How should I tell my painter to do them, and how did the factory paint the wheels?

RESPONSE: '67 rally wheels left the plant with argent silver wheel enamel on the outer face, and semi-gloss black primer on the back side, with some faint fogging overspray of the argent silver that came through the slots in the wheel from the front side. The overspray on the back side isn't essential, but it's a nice touch that judges will appreciate. Rally wheels that are painted gray on the back side are service replacements; they were painted gray all over at Kelsey-Hayes so they wouldn't rust in warehouse storage.

Raw oiled steel wheels arrived from Kelsey-Hayes by the thousands in rail cars. They were unloaded and hung on a conveyor that took them through a hot cleaning and degreasing system, then through an iron phosphate primer adhesion, and then they

were baked. After baking, they went through either a dip system or a flow-coat system that applied black primer, and they were baked again. The dip system submerged the wheels in black primer, and the flow-coat system used an enclosed booth with multiple showerhead-type nozzles that flooded the wheels with black primer from all directions and recirculated the runoff.

After the primer bake cycle, the wheels were transferred to another conveyor for color painting. This overhead conveyor had racks that held a full car set of five wheels; the rack had five rotating spindles mounted so the wheels were tilted back at about a 20-degree angle from vertical, and each spindle had a center pilot that went through the pilot hole in the wheel; the base of each spindle was roughly the same diameter as the wheel's bolt circle.

When the rack moved into the sprayer's station, he spun each wheel manually and sprayed the face with the required color of wheel enamel (argent silver in the case of the '67 rally wheels) while the wheel was spinning on its spindle. The conveyor then carried the wheels through a bake oven and continued to the wheel and tire mount/ balance area, where the wheels were removed from the rack and loaded on the tire mounting conveyor. After many cycles, the wheel prime racks and the wheel color spray racks accumulated a lot of paint. The racks were removed from the conveyors and cleaned in caustic tanks about once a month on a weekend.



The back side of a factory rally wheel, showing the semi-gloss black primer and faint shadows of argent silver overspray through the slots from the front side.



A typical '57 wheel, painted with gloss body color enamel (Cascade Green); this wheel will also be semi-gloss black primer on the back side.

(reprinted with permission from the author, John Hinkley)

Pumpers Or Thumpers?

Vintage Tech Bench

by John Hinkley

READER'S QUESTION: My 1970 I-46 (350/350hp) four-speed has been in our family for many years, is nearing the 90,000-mile mark, and is pretty tired; compression readings average about 120# and it's beginning to use oil. The car is in great original shape otherwise, so I'm planning to have the engine rebuilt this winter. One of my club members said I should take advantage of the rebuild and install a solid lifter cam instead of the hydraulic cam it has now to get more power, like the LT-1 he has. I'm no mechanic - could you explain the difference between hydraulic and solid lifters and what the advantages or disadvantages would be of making that change?

RESPONSE: Lifters ride on the cam lobes and translate the rotary motion of the lobes into linear motion to move the push rods and rocker arms to open and close the valves. They also meter pressurized oil through the hollow pushrods up to the rocker arms to lubricate the balls the rocker arms pivot on and to help cool the valve springs.

Hydraulic lifters have an internal plunger, spring, and check valve arrangement that uses oil pressure to ensure that there is zero clearance in the valvetrain at all times, regardless of engine temperature. The bottom end of the pushrod sits on top of the plunger, which has a pressurized oil cavity below it. When the cam lobe raises the lifter, the pressurized oil has already taken up clearances, so operation is quiet and there is no need for regular valve adjustment. The hydraulic lifter continuously manages valvetrain clearances.

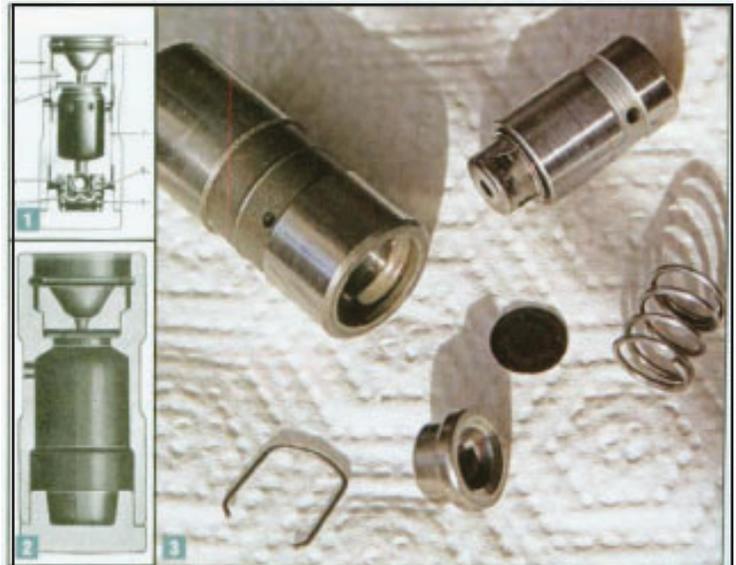
Solid lifters have no moving parts—they simply translate rotary to linear motion and meter oil flow to the pushrods. The different thermal expansion rates of all the parts involved require that there must be some clearance in the valvetrain at all times to ensure that the valves are fully closed when the lifter is on the cam's base circle. The beginning and end of a solid lifter cam lobe profile has opening and closing "ramps" to take up the clearances gently (relatively speaking) when opening the valve to avoid "hammering" the parts, and to close the valve gently so it doesn't "bounce" off its seat.

The advantage of hydraulic lifters is quiet operation and zero maintenance. The added weight of the lifters

and limitations of the lifters' hydraulic system dynamics at high rpm limit the aggressiveness of the cam lobe profile and the maximum rpm capability the system will permit.

The advantage of solid lifters is that they will allow the engine to rev higher, thus producing more peak power (assuming the more aggressive cam profile complements the design of the other engine components). However, occasional maintenance (valve adjustment) is required, and they're noisy.

Your call, but in your case, with a mostly original car, I'd stick with a stock rebuild approach and stay with the hydraulic cam and lifters. Federal-Mogul/Speed-Pro, Crane, and others have "blueprint duplicates of the original L-46 cam.



1) A typical hydraulic lifter—the plunger (item 7) moves up and down independent of the outer shell to take up its valve train clearances, and its position is managed by the pressurized oil cavity and check valve at the bottom.

2) The solid lifter has no moving parts, so the pushrod seat at top lap sees exactly the same motion on the outer shell, occasional maintenance is required, and they are noisy.

3) The parts of a hydraulic lifter; the outer shell, inner plunger and check valve, plunger spring, oil metering disc, pushrod seat and plunger retaining clip.

(reprinted with permission from the author, John Hinkley)

Corvette Classified

For Sale: 1961-62 rear wiring harness, new in the box.
Corvette Central #661325
New \$108, your cost from Scott \$60.
918/437-5292

For Sale: Richmond 6 speed transmission
Its an overdrive with shifter
Will fit C3's and big cars
\$1800
Scott 918/437-5292

For Sale: A Go Fast Corvette with Air Conditioning. A very original 1972 LT-1 coupe is available to you. The long time Oklahoma owner has much of this Corvettes history in writing. Lots of paperwork, window sticker and stuff like that. Its green with a black interior, four speed of course, power steering and power brakes too. Priced at \$39,000. Sue Williams will provide you with all the details if you call her at 918-399-2485.

Some LT-1 information is in your NCRS 1970-72 Judging Guide and at this site.

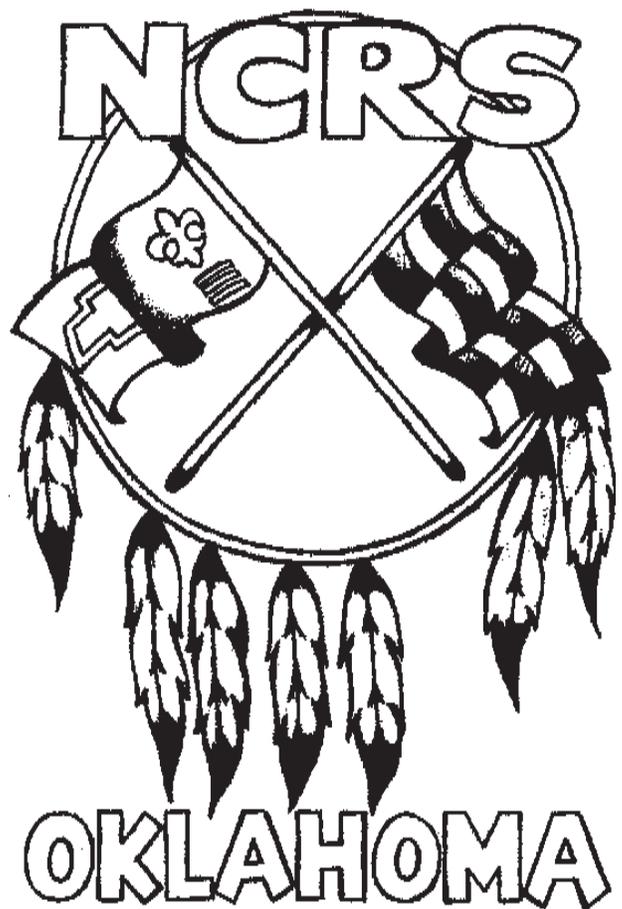
http://www.vetteweb.com/features/vemp_0205_1972_chevy_corvette_specifications/viewall.html

For Sale: 1965 Corvette Convertible, maroon paint w/ black vinyl interior, Original 365HP engine, Original KH knock off wheels, Body on restoration by Joe Provenzano, \$68,000. Please call Scott 918-437-5292 for more details and for a visit to see this beautiful Corvette.

For Sale: 1965 – 1969 NOS Grill Brackets
\$15.00 per bracket. I have more 1969 brackets than mid-year. Phone me with part number, year, and brief description.
Call John Neas
(w) 918-749-7741 (c) 918-231-4454

For Sale: 1964 Corvette Convertible. \$34,000. Black w/black interior. Original drivetrain of 300hp 327 and a Power Glide. Options include Air Conditioning, Power Steering, Power Brakes, Power Windows, Hardtop. Has small flares & mag wheels, Trim tag indicates Corvette was red/red from factory. Arnold Sporing 580-541-8741

For Sale: 1959 Corvette, \$120,000. Restored w/original 283 245hp 2x4 engine and drivetrain of 4 speed and 4:11 gears. White w/silver coves and red interior. Awarded NCRS Top Flight award of 97.9. Awarded Bloomington Gold. Chosen to represent the year 1959 in the "50 Years of Corvette Evolution Display in Nashville TN, June 2003. Arnold Sporing 580-541-8741



Upcoming Events

2013

- Jan 5 Oklahoma Chapter Breakfast Meeting - Ollie's Station Restaurant - 4070 Southwest Blvd - Tulsa, OK
Jan 23-26 Florida Old Town NCRS Winter Regional - Kissimmee, Florida - See *Driveline* for info
Jan 15 Attitude Adjustment Night - Rib Crib Restaurant - 8040 South Yale Ave. - Tulsa, OK
Feb 2 Oklahoma Chapter Breakfast Meeting - Ollie's Station Restaurant - 4070 Southwest Blvd - Tulsa, OK
Apr 11-14 NCRS Southeast Regional - Corvette Museum - Bowling, Kentucky - See *Driveline* for info



Thanks to Brad Williams and Mazzi's for continuing to support the Oklahoma Chapter NCRS. We appreciate your help.

NCRS Communication

To keep up to date with the latest news from your Oklahoma Chapter NCRS and your Region VII Director, be sure to advise Bob Clark or Don Partridge of any e-mail address changes. This also applies to phone numbers and new mailing addresses.

If your address is not current, then you will not receive the latest news and information.



Thanks to Brett Driscoll, Glenn Winn, Scott Pfuehler and Phil Gray for their contributions to this issue.

Thanks also go to Jim Elder, Neal Kennedy, and Verle Randolph for their continuing help in folding and mailing.

*** **Please** think about writing an article or contributing an item of interest for the newsletter. This can be a tech tip you've found, an article to reprint from another publication that would be of interest, a personal experience that would interest other members, or an item of news about the chapter or its members. Remember, include pictures if you can. Your Corvette classified ads are welcome, too. You can mail, e-mail, FAX, or loan me a diskette or flash drive (Windows or Macintosh). **Remember!!** Your help is needed to make this newsletter a voice of our chapter!

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