

Newsletter of Lehigh Valley Corvair Club Inc. (LVCC)

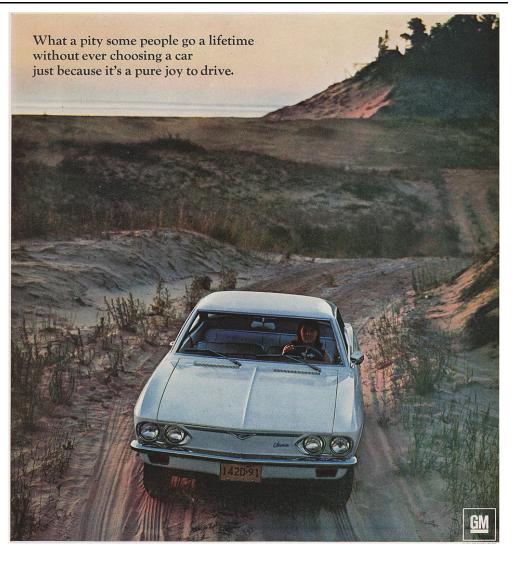
the fifth wheel

NOVEMBER 2018

Inside this issue Next LVCC Meeting: 1 Wednesday 01/23/2019 Director's Turn 2 by Allan Lacki Vintage Corvair 3 Performance Ads Nominations Are 4 OPEN! LVCC Meeting Notes 4 October 24th Valve & Lifter Noise 5 By Blake Swafford Local Car Show and 7 Event Listing LVCC Classified Ads 8 Cars & Parts LVCC Officer 8 Contact Information

HTTP://WWW.CORVAIR.ORG/CHAPTERS/LVCC

ESTABLISHED 1976



Next Meeting! Wednesday, January 23, 2019

Time 7:30 PM. Place: Lehigh and Northampton Transportation Authority Headquarters (LANta), 2nd Floor Meeting Room, 1060 Lehigh Street, Allentown, PA 18103. Don't get locked out. If you arrive late, the main door of the LANta office building may be locked. But the facility is open around the clock, so ask one of the garage employees to direct you to the second floor.

The Fifth Wheel is published monthly by Lehigh Valley Corvair Club Inc. (LVCC), a chartered chapter for the Corvair Society of America. We accept articles of interest to Corvair owners for publication. Classified advertising of interest to Corvair owners is available free of charge to all persons. Commercial advertising is also available on a fee basis. For details, email our newsletter editor, Allan Lacki, redbat01@verizon.net.

Director's Turn at the Wheel By Allan Lacki

The car shows are over, it's snowing outside, and many of us have put our Corvairs away for the coming winter months. We won't be holding our next LVCC meeting until late January so there isn't much to write about this month. However, things are happening in CORSA at the national level. So, as your regional CORSA Director, I'm taking this opportunity to tell you all about it!

The months have been flying by, and it seems like I just finished my last "Director's Turn" article for the CORSA Communique magazine. But that was twelve months ago.

It Was a Very Good Year

In last year's article, I outlined some of the items in the Board's action plan for 2018. And I'm happy to tell you that we completed even more than anticipated. When I say "we", I mean not me, but all the members of the Board as well as several volunteers. Here are highlights:

- Filled the CPF Corvair Museum with a wide variety of beautiful cars and unique exhibits. (Many thanks to Mike Hall for pulling this together.)
- Added features to the CORSA website, including a tech topics search function and a portal for chapters to submit their annual chapter reports online. (Thank you Steve Spilatro and Harry Jensen.)
- Expanded our presence on Facebook and became more active on popular Corvair discussion boards.
- Held a gala Museum Grand Opening event that drew Corvair lovers from across the USA.

- Offered a limited-time incentive that entitled each "newbie" member to receive a free copy of our <u>Corvair</u> <u>Basics</u> book.
- Revised, updated and upgraded rulebooks for the Economy Run, Model Car Concours and Frank Winchell Scholarship.

There were so many additional things little things - we accomplished too. We were able to do all this while bringing our new Executive Secretary Paul Bergstrom and Executive Editor Don Keefe onboard. (Actually, that wasn't difficult at all. I think we made good choices when we selected them and I hope you agree!)

On-Tap for 2019

So, what's on-tap for 2019?

We expect to enter into an arrangement with Silkworm, Inc. – a company that would hold our merchandise and sell it on our behalf to customers through an online catalog designed specifically for CORSA. If all goes according to plan, Silkworm would stock our inventory, replenish it as necessary, take customer orders, and package, ship and track them. Naturally, we would get a cut of the proceeds. CORSA already does business with Silkworm on a limited basis and their service has been exemplary.

We're also working with the Edward Cole family and the V8 Registry Special Interest Group to add a Dollie Cole Award and Ted Trevor Award to the list of convention trophies. Like the Edward N. Cole and Don Yenko Awards, the cost of the trophies would be defrayed by their sponsors at no cost to CORSA.

At the same time, we should probably

take a look at reducing the total number of trophies we pay for. Our rulebooks talk about combining classes where turnout is low, and that would reduce the trophy count, but this almost never occurs.

We're considering the possibility of adding another volume – Volume 4 - to the CORSA Tech Guides.

Money, Money, Money!

During 2018, we applied to General Motors and the Margaret Dunning Foundation for grants to support the Corvair Museum. We also looked at the Ford Foundation and RPM Foundation. So far, no hits. We're finding that most of the big foundations limit their grants to organizations that are involved in either social issues or teaching programs. We'll continue to be on the lookout.

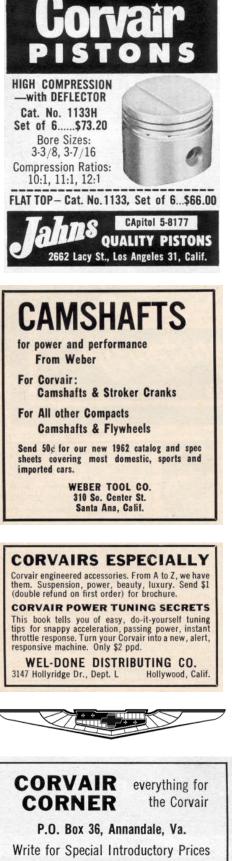
Meanwhile, we've been exploring financial vehicles individual donors can use to contribute to the Corvair museum. Of course, we've always ac-(Continued on page 4)



NOVEMBER 2018

THE FIFTH WHEEL







PAGE 4

cepted outright cash donations. We should also be in a position to accept bequests and deal with POD accounts, donor advised funds, charitable gift annuities, etc.

Does CORSA membership include people whose use such techniques to manage their charitable giving? Frankly, I don't know. But speaking for the members of the Board, I think we agree that we should not depend totally on our membership to support the museum. In other words, there may be people out there who have no interest in joining CORSA but may nonetheless have a place in their hearts for Corvairs. I certainly hope so.

Nominations are OPEN!

How would you like to be an officer of the Lehigh Valley Corvair Club? It's great for your resume and you get to work with a bunch of cool people! Have a buddy nominate you - or simply nominate yourself!

Here is what our By-laws say:

Article II Officers

Sec. 1

The elected officers of this club shall be a president, vice president, secretary, and treasurer, the latter which may be a combined post (secretarytreasurer).

The term of office, for each of the above shall be one year, or until their successors are elected.

Sec. 2

LVCC shall have a board of directors. The members of the board shall consist of the elected officers

LVCC Meeting Notes

We held our last meeting on October 24. Here are notes from that meeting.

Vice President Fred Scherzer opened the meeting at 7:30 PM. In attendance were Allan Lacki, Larry Lewis, Ed Prescott, Fred Scherzer Bob Weideman and Dick Weidner. President Dennis Stamm was not able to attend the meeting tonight.

THE FIFTH WHEEL

Minutes and Reports

Secretary / Treasurer Dick Weidner read the minutes from our October meeting and presented the treasury report. In September, we had a checking account balance of S1.604.78. Since then, we collected membership dues amounting to \$80 and spent \$32.69 on newsletter photocopies and postage. As of October, the balance was \$1,652.09. Motions were made to approve the minutes and the treasury report. Both were approved as read.

Meeting Schedule

With the rapidly approaching holiday season, Dick suggested that we postpone our next meeting until January 2019. Everybody agreed and so our next meeting will occur January 23. (We traditionally skip meetings in November and December every year).

Jerry Safe and Sound

Fred Scherzer has been in contact with Jerry Moyer, who is wintering at his Florida residence. Jerry reported his place was not damaged by Hurricane Michael which hit the west coast of Florida hard.

Larry's Travels

Larry Lewis talked about his trip to the Lane Motor Museum in Nashville. Tennessee. This is a working museum with the goal of maintaining all vehicles in running order. Some cars are in showroom condition, while others represent typical aging. Efforts are made to restore each vehicle to near-original specifications.

Although it specializes in European cars, Larry was surprised to find the one-andonly Corvair Corphibian on exhibit. The Corphibian is – as the name implies – an amphibious vehicle. It started life as a Chevy Corvair 95 Loadside pickup truck.

Of course, a number of other modifications were needed to turn the





TENZALOY WHEELS



HEADLIGHT GRILLES Corvair gees continental with these very European gauge chrome plated wire and weided at all points. Furnished with all neces-sary screws and clips for ease of installation, #4328 \$11.95 pr.

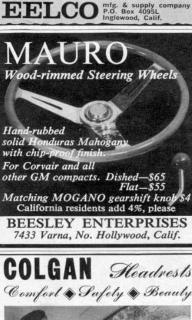


high-gloss vinyl boot makes a neat in-stallation;

precision molded for per-fect fit, hides can

pet hole.







truck into a boat. Two GM engineers built and and tested the Corphibian for two years but only one was ever built. It has been restored and is fully functional on the land and in the water.

Larry also reported that he visited the American Picker's store in Nashville. American Pickers is a TV show that has been on the History channel since 2010. The stars. Mike Wolfe and Frank Fritz travel across America in search of rare artifacts they can buy from collectors they visit and then sell in their antique shops or, in some cases, put in their personal collections. They usually have to dig through boxes or piles filled with items that have accumulated over the years, which are often located in such places as barns or spare rooms in the owners' homes. While the guys are willing to buy pretty much anything old, their particular interests include items having to do with the auto industry and classic toys.

During his travels, Larry took many photos. He passed around his cell phone to show them to the other folks at our meeting.

Show and Tell

Dick Weidner brought two NOS GM accessory kits to the meeting. One kit contained a pair of GM seat belt retractors. The other kit contained a trunk light assembly, complete with mercury switch. Both of these could be – and still can be – installed on

Corvairs.

In addition to those NOS items, Dick also passed around some used but rare accessories, including a Forward Control windshield washer bag, an early-Corvair dash-top clock, an underdash emergency brake warning light, a Normark-brand "lights-on" audio alarm, and an aftermarket cylinder head temperature gauge.

Unsafe at Any Speed

Bob Weideman proudly wore his "Unsafe at Any Speed" baseball cap! He bought it while visiting Park City, Utah, a ski and cycling resort town located high in the mountains north of Salt Lake City. Presumably, the inscription on the hat referred to daredevil skiers and not Corvair drivers!

Rocky Mountain Splendor

There was also lots of discussion about non-Corvair topics of interest to those in attendance. Much of it concerned the Durango and Silverton narrow gauge railroad. Ed Prescott, Dick Weidner and Bob Weideman have all visited this historic train that has been in continuous operation between Durango and Silverton, Colorado since 1882. Originally built for mine hauling, it now carries passengers behind vintage steam locomotives and rolling stock indigenous to the line. The ride offers views of Colorado's spectacular mountain splendor, inaccessible by highway.

See 'Ya Next Year!

The meeting broke up with everybody wishing each other Seasons Greetings for the holidays to come!

Valve and Lifter Noise by Blake Swafford, Otto Parts

Wherever Corvair enthusiasts assemble to show off their beautifully restored Corvairs and talk about their experiences and adventures, listen to the engines run and you will find that about half of them have a very noticeable amount of valve noise: the nowfamiliar rhythmical clicking sound coming from the valve train. Ask the owner and he will tell you "I don't know, the lifters just won't adjust up properly. I've tried everything!"

Wait a minute, wasn't the main reason for engines being fitted with hydraulic lifters to provide a smooth-running, low maintenance, quiet valve train? The original Corvair engines didn't have noisy valves and lifters; they didn't even need readjustment for fifty thousand miles or more. This should make us wonder what has changed to create this problem. Let's review some of the most common alterations that affect how well the valve train does its job.

The common practices of stacking head gaskets, shimming up the cylinders, milling the cylinder heads, valve grinding, and the use of regrind cams, all

Figure 1..200" Approx. contact area, centered on end of valve stem. Correct rocker geometry, pushrod correct length.

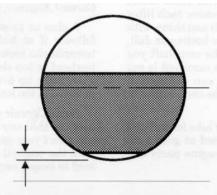


Figure 2. Contact area below center and less than .060" from lower edge of stem. Pushrod too short .025" or more.

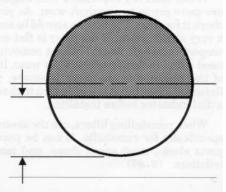


Figure 3. Contact area above center and more than .090" from lower edge of stem. Pushrod too long .025" or more.

PAGE 6

change the relationship between the engine and the total length of the valve train. Chevrolet engineers paid close attention to this requirement, and the result was a reliable, smooth-running valve train.

Today's low octane fuels have brought the need for many of the abovementioned alterations, to make the engine more compatible with these fuels; along with them have come a new set of problems. We need to pay close attention to the effect these changes have on the valve train, and correct for it. The relationship of the rocker arm to the end of the valve stem is referred to as the rocker arm geometry. If you want quiet-running, easy to adjust lifters, and a smooth working valve train in your Corvair engine, you must have proper rocker arm geometry. That clicking sound coming from your rocker arms, that is most frequently blamed on the hydraulic lifters, is actually the sound of the valve train beating itself to death as a direct result of improper rocker arm geometry.

Let's take a close look at the original design geometry. The toe radius of the rocker arm travels a short distance across the end of the valve stem as it pushes the valve through one complete lift cycle and returns to the point of origin. This distance can be referred to as the contact area or wear area. I use these two terms almost interchangeably, depending on whether I am referring to a new setup or evaluating an inservice condition.

In the stock engine all the dimensions were set to locate the contact area in the center of the valve stem, as shown in Figure 4 (valve at half lift). The contact starts just below center and ends at full lift an equal distance above center, then retraces the area as the valve closes. This places the contact area in the center of the valve stem (see Figure 1) and is the result of proper rocker arm geometry.

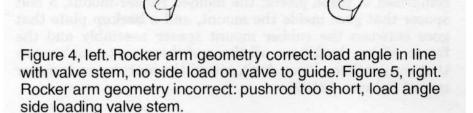
When the pressure is applied to the center of the valve stem in this manner, all of the related parts are under minimal stress. The valve moves easily through the valve guide with very little side load or friction with the guide. The rocker arm has a wide square area to center against and it is not thrust to one side, so it functions smoothly and quietly.

At this point we need a scenario to illustrate what happens to cause all of these good parts to not work so well together. Slim, the local certified Corvair Nut, gets tired of being embarrassed when his pride and joy Corvair pings and knocks as he starts off from every stop light. So he decides to reduce the compression by putting a .050" spacer under each cylinder and then, just to be sure, he uses an extra head gasket that is .030" thick, for a total of .080". He puts the heads back on, and adjusts the lifters per the good old GM manual. He is eager to test drive so he takes off, foot to the floor. The engine doesn't ping, but there is a new noise in the engine that is equally embarrassing. It's that clicking and thrashing sound coming from the valve train. So now what?

The .080" change in total height of each side of the engine was not compensated for in the length of the pushrod, and not obvious to Slim, the wear pattern now looks like Figure 2. The rocker arm is starting on the edge of the valve stem end and can't get squared up as the valve starts to open. Traveling along the edge of the valve stem end for a short distance it snaps into place with a clicking sound and continues to open the valve.

A great deal of side load is exerted on the valve stem, valve guide, and rocker arm. These parts are now working against each other and trying to beat themselves to death. A set of pushrods .080" longer than stock would correct the problem; the wear area would return to the center of the valve stem and everything would be back to normal.

If this engine had been rebuilt, a stock regrind cam might have been installed, which would make the cam lobe size smaller and therefore the effective length of the pushrod shorter. On top of that, a good valve grind makes the



valve stem higher in relation to the rocker arm and pushrod. The correct pushrod length could easily become plus .100" or more.

Without correction, the rocker contact area and resultant load angle would resemble Figures 2 and 5. Notice here that as the relative pushrod becomes shorter, the rocker to stem contact width becomes narrower. At some point the rocker cannot square up to the narrow width and starts to rock side to side, making a clicking sound as it snaps over to square up to the valve stem during the lift cycle.

While we have been talking about extreme cases here to demonstrate what takes place in the overall rocker arm geometry, I should point out that even on a stock rebuild, the accumulated variables can shift the rocker arm geometry tolerance enough to cause more passive problems. Only extreme cases will cause audible evidence of the problem. It only takes about .025" deviation from nominal to make a significant difference in the rocker arm geometry.

Accelerated wear on the valve guide, valve stem to guide, valve stem end, valve face to seat seal, rocker toe radius, ball pivot, guide plate, and pushrod are all common to engines with less than optimum setting of the rocker arm geometry. Attending to the requirements of correct rocker arm geometry will prevent all of these related problems. The cost and effort required to correct for these variables is clearly preferable to the consequences of ignoring them. As a bonus for your efforts you will have a better running, more reliable engine, and the selfsatisfaction of a job well done.

How to deal with correcting the rocker arm geometry? The H.P. Book How to Hotrod Corvairs offers a fairly complex method for doing this. The method requires you to make adjustable pushrods, special length tappets, set up a long travel dial indicator, and go through a lengthy procedure. This method places priority on achieving exact lift over exact rocker geometry.

Otto Parts offers a Rocker Geometry Test Kit that includes two adjustable pushrods, two solid lifters, and comprehensive instruction with illustrations. With this method you do not need dial indicators. The methods are quick and easy to employ, and best of all, for those of you who have noisy valve gear in a running engine, the procedure can be performed in the vehicle. Otto Parts can also supply pushrods in various lengths to meet the requirements determined by this procedure.

Editor's Note: Otto Parts sold it's stock to Clark's Corvair Parts several years ago. Clark's continues to offer most of the parts that were in the Otto catalog, including the Rocker Geometry Test Kit. Look for Part #C8640.

Local Car Shows and Other Events

September 29 2018 to March 23 2019 :::: Fabulous Fins of the 50's and 60's:

Location: America on Wheels Museum, 5 N Front St, Allentown, PA 18102. Winter Hours: Wednesday through Saturday 10 AM to 4 PM. General admission is \$10 with discounts for seniors and students. America On Wheels is proud to showcase our new exhibit, "Fabulous Fins of the 50's and 60's: The Jet Age of Automobile Design". Visitors will see an assortment of vintage automobiles and tailfins on display. (610) 432-4200 http://americaonwheels.org/

Sunday November 18, 2018 :::: Before We Put Em Away Run

RSVP Required! Contact Dave via phone at (215) 257-1202 or via email at dave@ragtops.com. \$\$\$. Open to all antique, classic and sports cars. Meet at Ragtops & Roadsters 203 South Fourth St. Perkasie, PA for coffee, scones and a shop tour. Look over our new restoration projects, then we hit the road at 10 AM. We will navigate the rural country roads of Bucks and Montgomery County and take the long scenic route to our sister shop in Pottstown. We plan to arrive at Pollock Auto Restoration at 70 South Franklin St. Pottstown before noon. More new restoration projects will be on display. Lunch will be waiting for us and we can join the Fall Open House already in progress.

Friday-Sunday, January 18-20 2019 :::: Auto Mania

Location: Agri-Plex at the Allentown PA Fairgrounds, 02 North 17th Street, Allentown, PA 18104. Time: 9 AM to 6 PM. Price: Not listed. Pennsylvania's biggest indoor heated automotive flea market. The 59,000 square foot facility that is Agri-Plex at the Allentown PA Fairgrounds is the perfect setting to buy, sell and trade all things automotive. Rain or shine. Email: show-info@carlisleevents.com. Phone: (717) 243-7855. Website: www.carlisleevents.com/carlisle-events/automania/default.aspx

Saturday January 19, 2019 :::: Jacktown Gas & Steam Engine Show

Blue Mountain Antique Gas and Steam Engine Assn. January Get-Together. Location: Jacktown Grove, 1229 Richmond Road, Bangor, PA. Price: Free admission. Free parking. Telephone: (570) 897-6893. Email: tbbuist@frontiernet.net. Website: http://jacktown.org/

LVCC Classified Ads!





For Sale: 1964 Corvair Monza 2door coupe. 110 hp engine. Powerglide automatic transmission. Goldwood yellow exterior. Black vinyl and deep weave fabric interior. Great condition. 77,000 miles. \$7,500. Contact Wayne Troxell, Andreas, PA. (570) 386-4347

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Clark's supports LVCC by donating gifts every year for our door prizes at Das Awkscht Fescht.

Next LVCC Meeting: Wednesday 01/23/2019

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