



# *the fifth wheel*

DECEMBER 2018

[HTTP://WWW.CORVAIR.ORG/CHAPTERS/LVCC](http://www.corvair.org/chapters/lvcc)

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## **Next Meeting!** Wednesday, January 23, 2019

LVCC Meeting Information: Time 7:30 PM. Place: Lehigh and Northampton Transportation Authority Headquarters (LANta), 2nd Floor Meeting Room, 1060 Lehigh Street, Allentown, PA 18103. Latitude : 40.587607 | Longitude : -75.474405. Bring a guest!

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](mailto:redbat01@verizon.net).

# Commuting in the Snow

## by Bob Weideman

*Bob Weideman and Dick Weidner are two LVCC members who use their Corvairs as daily drivers. Bob drives his to work everyday.*

*Thursday, November 15 brought an unexpectedly harsh snow storm to the Lehigh Valley, with accumulations of more than 8 inches in most areas. But Bob had to go to work that day - and drive back home at the height of the storm. Here is his story.*

I left work around 5 PM Thursday evening. My commute normally takes 30 minutes. In the snow it took me 2 hours and 15 minutes. My Corvair had no issues climbing hills and passing stuck cars.

Friday morning the roads were a little better and my commute took 45 minutes, but I had to contend with the heavy, thick ridges of snow left from plows pushing snow across the road

from side streets and driveways. Unfortunately, my front spoiler did not survive as it has completely broken off and disappeared. I imagine it is in a snow bank along the side of the road somewhere. It's a good thing those Camaro spoilers are dirt cheap on eBay.

The Corvair plowed through the snow like a champ and my new high volume heater blower motor from Clark's really helped to keep the windshield clear.

*Old timers remember Corvairs being nearly unstoppable in snow. Bob's experience proves it was no myth!*

### 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 about the requirements.:

#### 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 (secretary-treasurer).*

*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.*

### Check Your Differential Lube,

*by Tim Palmer of the Green Country Corvair Group*

When was the last time you checked your differential lube level? We know of three cases in the last month where the lube level was allowed become too low and caused the catastrophic failure of a differential. In the worst case scenario this type of failure could cause a serious accident, under the best case scenario it hurts your pocket book.

How do you check the lube? Remove the pipe plug located on the driver's side of the differential. Stick your finger in. The lube level should be level with bottom of the hole.

If you have manual transmission, now is the time to check it also. To check it remove the hex plug on the driver's side of the transmission. Stick your finger in. The lube level should also be level

*(Continued on page 4)*



*Bob Weideman measured the snow in his driveway when he got back home from work. 'Looks like 8 1/2 inches to me!'*



## ***Return of a Styling Trend***

Way back in 1959, GM introduced the “flying wing” roofline. Every GM division used it for their four-door hardtops, and so did the Corvair when it was introduced in 1960.

The flying wing roofline overhangs the wrap-around rear window. Although it was carried through model year 1964 for the Corvair, it soon grew out of fashion.

But fashion is fickle, and now the overhanging roof has returned on almost every SUV, from the economical Mitsubishi Eclipse Cross to the Maserati Levante!





with the bottom of the hole.

If you have a 64 or 65 with an axle dipstick, you should still check the lube level. We know of one case in the past where the dipstick showed full but there wasn't any lube in the differential.

You may be tempted to check just the transmission because the manual transmission and differential share lube. We have found flow between them to be minimal. In all the cases of failure in the last month, the manual transmissions still had lube in them. I know the differential filler plug is difficult to get to and is messy to fill but it is a necessary evil.

What lube should you use? According to the shop manual, SAE 80 is required for early models and SAE 80-90 is required for late models. There is no real advantage to going to higher viscosity gear lubes. Using higher viscosity gear lubes on manual transmissions can cause hard shifting in cold weather.

Two main causes have been identified as causing the leaks. The first is the side adjusters. The large o-ring used to seal them was a square cross-section O-ring until 63 or 64 when it changed to one with a round cross-section. With age the square rings leak.

The second area of leakage is the seal where the yokes insert into the side gears. The leak is caused by the siding action of the yoke in and out with the suspension movement. Normally this doesn't cause any problem, however when the splines become worn the yoke

will start to have a side to side motion and woller out the seal causing leakage.

Late model Corvairs don't seem to have the problem because their yokes are bolted to the side gear, so there is no siding motion to wear the splines. All the failures were on early models. It would be a wise precaution to replace the side adjuster O-rings and seals, especially if you have an early model.

### ***Don't Twist Those Head Studs!***

*by Bob Hall, Group Corvair*

Whenever valves are adjusted, there is always the chance that the rocker stud will loosen as the rocker arm adjusting

(c) Clark's Corvair Parts

nut is backed off. As the rocker stud is also the lower cylinder head nut, then re-torquing is required. It shouldn't happen because the rocker adjusting nut isn't as tight as the rocker stud and it doesn't happen often, but varnish buildup may increase the effort needed to remove the rocker nut. If the rocker stud does loosen, then it has to be torqued back to 32 to 38 ft lbs on the head stud.

I have made it a habit to completely remove the rocker stud if it loosens in order to chase the threads with a tap before reinstalling to be sure of an accurate torque value. I have never en-

*(Continued on page 5)*





# Christmas Breakfast Sausage Casserole

*Our editor thanks Carol Trimper of the Central Pennsylvania Corvair Club, who brought this interesting recipe to our attention! Carol claims she found it on the internet!*

Prep Cook Ready In  
20 m 1 ½ 9 h 50 m

## INGREDIENTS:

- 1 pound ground pork sausage
- 1 teaspoon mustard powder
- 1/2 teaspoon salt
- 4 eggs, beaten
- 2 cups milk
- 6 slices white bread, toasted and cut into cubes
- 8 ounces mild Cheddar cheese, shredded

## DIRECTIONS:

1. Crumble sausage into a medium skillet. Cook over medium heat until evenly brown; drain.
2. In a medium bowl, mix together mustard powder, salt, eggs and milk. Add the sausage, bread cubes, and cheese, and stir to coat evenly. Pour into a greased 9x13 inch baking dish. Cover, and chill in the refrigerator for 8 hours, or overnight.
3. Preheat oven to 350 degrees F (175 degrees).
4. Cover, and bake 45 to 60 minutes. Uncover, and reduce temperature to 325 degrees. Bake for an additional 30 minutes, or until set.



joyed feeling the rocker stud/lower head nut wind up and then let go with a "ping" while being torqued. Especially after a long day on my back methodically reassembling head parts.

The worst case scenario is if the other end of the head stud turns and pulls out of the crankcase. If it does you are about to enter a whole new chapter of Corvair mechanic training.

To avoid this worst case situation and the rocker stud/lower head stud loosening in the first place, you can use a small wire (brass) brush to clean the

stud threads above the rocker arm nut before you loosen it.

While this has mostly – but not always – worked for me, and seeing a "need" for a new tool, I purchased a set of crowfoot wrenches which included a 13/16ths. I now use that 13/16ths to hold the rocker stud firm while loosening the rocker bolt.

The crowfoot will fit from either side of all but the end valve rocker studs and, so far, I have been able to anchor those from only one side with no problem. Result: No loose rocker studs and no

risk of pulling the head stud from the crankcase.

## ***Hit It With A Hammer***

*by Dave Palmer*

When you replace the exhaust donuts between the exhaust tubes on the cylinder head and the cast iron manifold logs, do you seat the manifolds?

I use a dead blow hammer to seat the logs. First install the hangers. Tighten

*(Continued on page 6)*

the log hanger nuts to spec. Then use the dead blow hammer to seat at each head tube. Re-torque to spec, and repeat. (A hammer and wood block can be used if you don't have a dead blow hammer.) Basically the log hangers have little force to seat the donut exhaust gaskets.

*Editor's Note: Don't have a dead blow hammer? Then this is the excuse you need for buying a new tool!*

## Differential Gears

*original author unknown*

- 3.27:1 axles have 11-tooth pinions and 36-tooth ring gears.
- 3.55:1 axles have 9-tooth pinions and 32-tooth ring gears.
- 3.89:1 axles have 9-tooth pinions and 35-tooth ring gears.

The 9-tooth pinion gear for a 3.89:1 axle and the 9-tooth pinion gear for a 3.55:1 axle are not the same gear. They cannot be "mixed and matched," nor can any other combination be used such as using a 9-tooth pinion gear with a 36-tooth ring to get a 4:1 ratio. The cut of the gears won't mesh properly and it won't work.

Opinions as to which ratio is best vary widely. Many people like the "taller" ratio of the 3.27:1 axle to obtain lower engine RPM at highway speeds, while others prefer the "shorter" 3.89:1 ratio for better performance at low speeds. The 3.55:1, arguably the most commonly-found ratio, is a good all-around performer.

## Habits to Develop Around Old Corvairs!

*by Mike Dawson*

**Fan Belt Adjustment:** After you install a new belt, check the tension several times when the car is fully warmed up. New belts will stretch over a short period of time, especially if you drive at high speed. If your car has a history of either wearing out belts or flipping

them off, there is a correctable reason.

**Carburetor Inlet Nuts:** On two- and four-carburetor engines, you should check this item after any long storage and make a habit of a quick check any time the lid is up after the engine has been running.

**Tire Pressure:** Time can get away from us, so save wear, increase gas mileage and improve handling by checking monthly. For cars, keep a 10-12 psi difference between front and rear. FC vehicles handle much better on the highway in wind with pressures 40-45 psi front and back. Your spare should be filled to whatever your rear maximum pressure is.

**Battery Cable Ends:** Another maintenance item that can get away from us. Pull both battery cables off the battery and clean the contact areas twice a year. Keep track of your battery dates to avoid a no-start from a seven-year-old battery you forgot about.

**Brake Stomp Test:** Unless everything in the brake system is new, you should sit in your garage twice a year and do a brake-pedal stomp that would be harder than you would use in a panic stop. The system is designed to accept that and you could head off any pending brake disaster. Better to burst a brake line in your garage than on the highway!

**Oil Filter Bolt:** The '65 Shop Manual called for 15-20 ft.-lbs. of torque on the oil-filter bolt (filter-to-housing) and that is far above "hand tighten only" printed on some older Corvair filter boxes. The big issue is that the filter torque is like fan-belt tension noted above; the filter bolts can loosen up due to fiber gasket shrinkage.

Following a filter change, be sure to check the torque at least once after several driving activities. Half of the cars I checked at the convention last summer had loose bolts; a couple had oil stains on the sides. The 15 ft.-lbs number appears to be adequate and that

is actually pretty tight.

**Lug Nuts:** Corvair lug nuts should be at 65 ft.-lbs. and will not loosen up with that torque. However, if you do some air-wrench tightening, be sure to check them with a torque wrench because some air wrenches make a lot of noise without producing much actual torque. Using a 4-way wrench works fine if you muscle the cross bar a little.

**Mechanical Fuel Pumps:** The single pointed bolt that secures the mechanical pump seems to loosen up due to vibration. Grab the top of the pump and try to rock it. Do not over-tighten or you could lock up the pump internal push rod, but if the pump is loose and allowed to jump up and down, it will quickly erode the aluminum parts. It also makes a rapid knocking noise. Always keep an eye out for leaks.

*Editor's Note: Mike also sells parts: (1) 63 amp internally regulated alternators \$85 w/exchange; (2) Rebuilt harmonic balancer \$90 w/exchange; (3) Rebuilt starter with solenoid (non 60) \$90 w/exchange. And end plates for your oil cooler - 8 or 12 plate - \$10 each. Email: mdawson1961@sbcglobal.net Phone: (816) 322-4057.*

## Vairiations!

*Editor says: This month, LVCC President Dennis Stamm and I received an interesting email from a Corvair guy in Indiana. He was seeking information about a very unusual Corvair he had picked-up along the way.*

Gentlemen, let me introduce myself. I am Lenwood Mangham and I live in Carmel, IN. I am the proud owner of a 68 Corvair 110 convertible and a 65 coupe V8 Toronado conversion. The latter is why I am writing you.

In the Fifth Wheel news letter dated July 14 2014, there is mention of a Toro conversion using drive shafts - an

*(Continued on page 8)*



## ***Vairiations A very unusual mid-engine Corvair***

Here are a few photos of Lenwood Mangham's mid-engine Corvair. It's equipped with an Oldsmobile Toronado drive train, but the engine is connected to the transaxle by way of a short drive shaft rather than the usual chain drive. See the article!

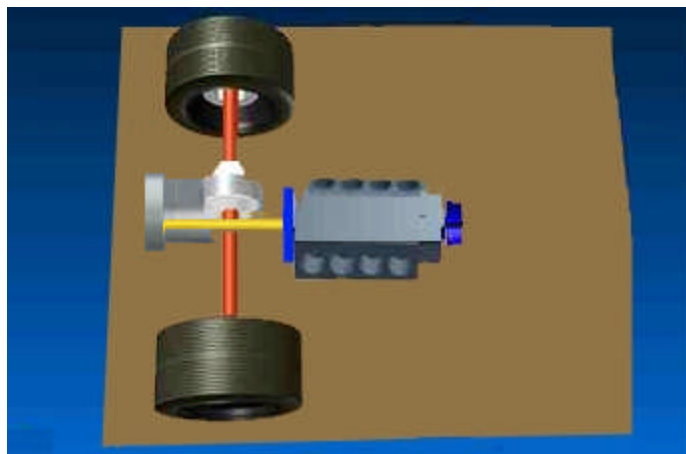


Photo below: Diff pumpkin is on the left. Drive shaft from torque converter to transmission is on the right. Axle shaft to right rear wheel is below the drive shaft.





idea by hot rodder Garnner Swartz. I have such a vehicle with the 455 Olds engine in the back seat and it has the short drive shaft installed.

I am trying to find out all I can about this setup and have not been able to find any info. I would like to know is this a Kelmark or Crown conversion. or something completely custom.

Since the 455 is right behind the front seats I'm leaning toward a Crown conversion but using a 455 Olds instead of a SBC chevy.

I have pictures of the beast if you would like to see. If you have any info on this build, could you please let me know or let me know whom I could contact to find out more.

Thanks in advance,  
Lenwood Mangham.

*We took up Mr. Mangham's offer to send photos and he came through. A few of them are posted on the previous page of this newsletter.*

*What we have here is indeed a Toro conversion, but it's the wildest one we've ever seen! Most if not all Toro conversions have the entire Toronado powertrain intact, installed under the rear window of a late Corvair coupe. But this one is much different.*

*Yes, the builder did make use of the entire Toronado powertrain, but he split the transaxle from the engine so that the big 455 engine could be mounted in the interior of the Corvair, like a Crown or Kelmark conversion.*

*Those of you who are familiar with the original Oldsmobile Toronado are aware that the transaxle sat alongside the engine and they were connected to each other by means of a 2 inch wide silent chain-drive called Hy-Vo.*

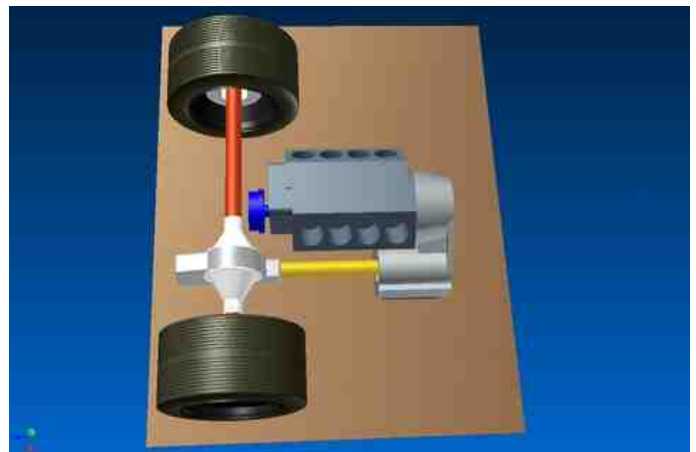
*In Mr. Mangham's Corvair, the chain drive remains intact, but it's no longer bolted directly to the bell housing. Instead, it's connected by way of a short telescopic drive shaft. This way, the transaxle no longer sits beside the engine. Instead, the engine is located forward of it. Does it work? Mr. Mangham went on to write:*

Yes, there are U joints on the ends of the shafts coming out of the diff. They just are not pictured. And yes, there is rear suspension. Its just not pictured. The car is not road ready yet because there are issues with the wiring and fuel pump. It has sat a while. But I have driven it around my cul de sac and back in forth in my driveway.

I will send more pictures and update you once it returns from getting the fuel pump issue fixed.

## ***Blast from the Past - July 2014 Fifth Wheel***

Mr. Mangham was inspired to write to us when he recently encountered our July 2014 issue of the Fifth Wheel, which included an article about another V8 Corvair that was quite like his. The layout would have enabled the engine to be located in the rear seat area without intruding on front legroom - an advantage over most mid-engine V8 Corvairs. The owner posted several photos of the car while it was being built, but then went silent. Was it ever completed?





## ***1960 Corvair with Abarth Quad Exhaust!***



This has got to be the coolest aftermarket exhaust system ever offered for Corvairs! Abarth & C. S.p.A. is an Italian racing car and road car maker founded by Italo-Austrian Carlo Abarth in 1949. It is now a fully owned subsidiary of FCA Italy S.p.A. (formerly Fiat Group Automobiles S.p.A.), the subsidiary of Fiat Chrysler Automobiles. In the 1960s, Abarth was successful in hillclimbing and sports car racing, mainly with Fiat-based cars in classes from 850 cc to 2000 cc. But for a while, Carlo had an interest in developing the Corvair as a performance vehicle. While this venture was short-lived, Abarth manufactured and sold exhaust systems for Corvairs, here in the United States, through Fisher Products USA.

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## **Clark's Corvair Parts®**

Our catalog lists over 15,000 parts for your Corvair. We carry engine parts, body panels, upholstery and much more! There are 1,000's of reproduced items available, pages of technical information and lots of other helpful hints.



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

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## ***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/>

### **Saturday December 15, 2018 :::: Ab Jenkins, Salt King - Saturday Matinee**

Location: AACA Library & Research Center, 501 W. Governor Rd., Hershey, PA. (Not the Hershey AACA Museum!). Time: 1 PM to 2 PM. The AACA Library will be hosting a series of 6 film presentations in the coming months. Our second session will show two films documenting Ab Jenkins' exploits on the Bonneville Salt Flats. Film 1 shows Jenkins testing Firestone tires in advance of the 1934 Indy 500. The second film, "Flight of the Arrow" documents Jenkins 24hr speed and endurance trial on the Flats in 1932 driving a V-12 Pierce-Arrow. Snacks will be provided and the event is free and open to anyone interested in attending. It may be wise to call to reserve a seat for yourself. Phone: 717-534-2082. Website: <http://aacalibrary.org>

### **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](mailto:show-info@carlisleevents.com). Phone: (717) 243-7855. Website: [www.carlisleevents.com/carlisle-events/automania/default.aspx](http://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: [tbuist@frontiernet.net](mailto:tbuist@frontiernet.net). Website: <http://jacktown.org/>

### **Saturday February 16, 2019 :::: Annual NJACE Parts Auction**

Location: Ashley's Auto Body, 274 Hillside Avenue, Flanders, NJ 07836. Time: 9:00 AM to 2:30 PM. Free admission. Hosted by the New Jersey Association of Corvair Enthusiasts. The NJACE Annual Parts Auction is all set for Saturday, February 16 2019, indoors at Ashley's Auto Body on Hillside Avenue in Flanders. At the auction our shameless auctioneers offer Corvair parts and Corvair-related items to the highest bidder, with a 10% commission of the sale price going to the club treasury. You may bring parts to sell, you may buy, or you may do both, or you may just come to enjoy the fun. Admission is free! We will invoke a snow date only if the weather makes traveling difficult or if accumulated snow has rendered the Ashley's parking lot inaccessible. Generally speaking, you can assume that the event is "on," but if it is necessary to postpone we will get the word out via email.

*Also, be sure to visit the Corvair Society of America website to see events being conducted by our neighboring CORSA chapters! Go to [www.corvair.org](http://www.corvair.org) and click on "Events".*

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## ***Next LVCC Meeting: Wednesday 01/23/2019***

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## ***LVCC Officers***

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