

# the fifth wheel

Newsletter of the Lehigh Valley Corvair Club (LVCC)

JULY 2014

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*The Fifth Wheel* is published monthly by the Lehigh Valley Corvair Club (LVCC), Inc. 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. Please contact our newsletter editor, Allan Lacki for details.

LVCC is one of the many regional chapters of the Corvair Society of America (CORSA), a non-profit organization that was incorporated to satisfy the common needs of individuals interested in the preservation, restoration, and operation of the Chevrolet Corvair. LVCC caters to Corvair people who live in and around the Lehigh Valley Region of eastern Pennsylvania. This is a very special car club! LVCC dues are \$10 a year for CORSA members or \$15 a year for non-CORSA members.

### HOW TO MAKE A MID-ENGINE CORVAIR By Al Lacki

Ever since the 1960s, hot-rodders have been figuring ways to stuff big V8 engines in Corvairs. There must be a thousand different ways of doing this! In this article, we'll explore three of the more-common methods:

- 1. Crown Conversion.
- 2. Kelmark Conversion.
- 3. Toronado Conversion.

One of the major challenges of doing a mid-engine V8 Corvair is finding a suitable transaxle that will cope with the torque of bigger engines. The Crown and Kelmark conversion kits made use of the '66-69 Corvair manual transaxle. This works fine with mildlytuned small-block engines, especially if the differential is retrofitted with four spider gears in lieu of the usual two. However, for serious horsepower, a beefier transaxle is necessary. For many years, Toronado power trains seemed to provide an answer.

Today, much ado is made of Porsche and V8 Audi transaxles for such applications, but so far, nobody has offered a kit for installing them, and there are probably less than a half-dozen Corvair so-equipped in the whole country. Likewise, a couple of people are adapting FWD Buick 2800 V6 power trains to their 'Vairs, but just a couple. So, let's stick with the more common applications, starting with the Crown Corv8 conversion.

Crown Conversion. The grand-daddy of all mid-engine Corvair kits! Ted Trevor of Crown Manufacturing offered a complete kit for installing a small-block Chevy V8 in a Corvair where the rear seat would otherwise reside. The Crown "Corv8" kit came complete with bellhousing adapter, subframe, engine cover, and other hardware. The engine cover included molded-in bucket seats. Corvairs equipped with the Crown conversion were known not only for their awesome V8 power, but also extraordinary handling, which was often compared to Group 7 Can-Am racing cars.

The Corv8 rearranged the engine, differential and transaxle such in a way that made for a very long power train. Instead of simply bolting the Corvair transaxle to the V8's bellhousing, Ted Trevor chose to rearrange the transaxle components so that differential was at the very rear. This eliminated the need to make use of the Corvair transaxle's long clutch input shaft - a potential trouble spot. It also enabled all the components - engine, transmission, and differential, to spin in proper rotation. But by positioning the diff at the very rear of the power train, it was necessary to mount the engine farther forward in the interior of the Corvair body. This, in turn, left very little room for the driver and front passenger. That is why the fiberglass engine cover incorporates molded-in seats for the driver and passenger. With stock front seats, the car would be unbearably cramped.

Kelmark Conversion. Another company, Kelmark, offered a kit that was similar to the Crown Corv8 but with a twist. Instead of mounting the differential at the rear of the power train, the Kelmark kit sandwiched the differential between the engine and the transmission. In other words, it made use of the stock Corvair transaxle in its usual configuration. This enabled the engine to be mounted eleven inches father back in the car than the Crown conversion. providing much more interior room for the driver and passenger and allowing the use of stock Corvair bucket seats. But with this arrangement, it was necessary to make use of the Corvair's long clutch input shaft; the weak point in the arrangement. Also, to accommodate the difference in rotation, it was necessary to run the transaxle "backwards" so that horsepower is applied to the backsides of all the gears.

Toronado Conversion. Another classic mid-engine conversion involves the installation of a 1966-1985 Oldsmobile Toronado power train. You may recall that the layout of the Toronado drive train positioned the transmission and differential alongside a big-block Oldsmobile engine, which ranged from 425 to 455 cubic inches in displacement. Only one transmission was ever made available in 1966-1985 Toronados, a three-speed automatic TH425 Turbo-Hydramatic. It's not the ticket for road racing, but it's just fine for street and strip.

The torque converter is mounted to the rear of the engine in the usual fashion. The transmission, which is mounted alongside the engine, is connected to the torque converter by way of a twoinch wide "silent" chain, which is unique to these cars. The right-hand axle ran beneath the engine oil pan.

By the way, this same power train was shared by Cadillac Eldorados of the same vintage. The Caddy version used Cadillac engines, of course, but aside from that, the power train is the same.

When installed in the rear of a secondseries Corvair, this setup leaves plenty of interior space for the driver and even provides enough room for a small "jump seat" in the rear. The Oldsmobile engine provides gobs of horsepower and torque and the TH425 automatic is designed to handle it without any complaints.

The downside is that the engine is almost inaccessible because it is neither in the rear of the car or in the middle. It is located underneath the Corvair's air intake grill behind the rear windshield. And although the engine is not mounted behind the rear axle, it's rearward bias offers little or no improve-

### **CROWN AND KELMARK CONVERSIONS**



Crown conversion power train layout. Transmission is sandwiched between bellhousing and differential, making it necessary to mount the engine far forward in the car's interior.



View of the Crown conversion transaxle, looking in from the Corvair engine compartment.



Limited leg room in the Crown conversion is evidenced in this photograph.



View of the Kelmark conversion transaxle, looking in from the Corvair engine compartment.



Compared to the Crown setup, Kelmark conversion provides more space for driver and passenger.

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ment in weight distribution over a conventional stock Corvair. Also, the engine sits high up in the body to accommodate the right-hand axle shaft, raising the car's center of gravity. Furthermore, the Corvair rear suspension needs to be highly modified or completely replaced. The Corvair transaxle being absent, the axle shafts cannot serve duty as upper control arms and there is no place to bolt the lower control arms to the transaxle case.

Mid-Engineering Inc. offered kits for installing Toronado power trains in Corvairs. Like Crown and Kelmark, Mid-Engineering went out of business many years ago.

Toronado Conversion with Drive Shaft. We just had to include this variation on the Toronado setup! One enterprising individual named Garnner Swartz is attempting to do a Toronado conversion with the engine installed in the rear-seat area, just like a Crown or Kelmark conversion. To do it, he's running a short driveshaft between the Toronado TH425 transmission and a conventional solid rear axle. He's giving up the independent rear suspension but is gaining better weight distribution. And the layout provides reasonable leg room for the driver and front passenger, much like the Kelmark setup. Garnner is apparently still working on this project. Check out the photos. We wish him success!

#### **HELP TIM TURNER!**

Hi, this is Tim Turner. Sorry my dad and I haven't been to any LVCC meetings in awhile, we've both been so busy. My '65 Corsa is almost ready to run for the first time since 1984; it just needs some odds and ends. The problem is, I'm not entirely sure what exactly it needs, so I was wondering if you could send an email out to the club on my behalf asking for help. If someone could stop by and look at the car with me and help me come up with a list, that would be great.

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I know one thing it needs is the bracket that I believe connects to the transaxle and holds the clutch pedal return spring. Clark's does not have this in stock at the moment. So if anyone has a spare, I would gladly buy it off of them.

Also, if anyone would be willing to rebuild 2 carbs for me that would be greatly appreciated. I have the carbs and rebuild kits, and I'd be more than happy to pay them to do it.

My dad was going to rebuild them, but he's been busy with work, and now he's away until the end of July. I'm leaving for college on August 18th, and I'd really like to see it run before then, so any help would be greatly appreciated.

Any questions feel free to call me at 484-866-6277. I work Monday-Thursday until noon and Wednesday from 3:30-7:30, so those are the only times I'm away from my phone. My email address is turnert7696@gmail. com

Thanks so much, Tim Turner

### LVCC MEETING

President Dennis Stamm called our June meeting to order and Secretary-Treasurer Dick Weidner recited the minutes of our prior meeting. Dick reported that the club has \$1,374.69 in its checking account.

Attendees included Rich Greene, Keith Kohler, Allan Lacki, Larry Lewis, Scott Oberholzer, Fred Scherzer, and of course, Dennis and Dick.

Rich Greene inquired about LVCC's preparation for Das Awkscht Fescht. Dick Weidner replied that Randy Kohler takes care of all the administrative arrangements. Dennis Weaver brings the club's EZ-Up to the show. Clarks Corvair and Dick Weidner provide most of the door prizes. Additional door prizes are always appreciated!

Dennis Stamm informed everybody that his tire dealer can obtain 185/70R

13 tires. Two brands are available: Goodride at \$55 apiece and Kumho at \$27 apiece. These are very reasonable prices. They are a bit smaller in diameter than stock Corvair tires and this affects speedometer accuracy. But otherwise they work fine on Corvairs. Al Lacki reported that he ran 185/70R 13s on his Corvair for many years.

Scott Oberholzer reported that he was able to adjust the camber on the rear tires of his late-series Corvair. This was no small job. The prior owner welded the camber adjustment bolts in place, making it impossible to adjust the camber until they were chiselled out and replaced! Scott acknowledged Dennis Stamm for providing assistance.

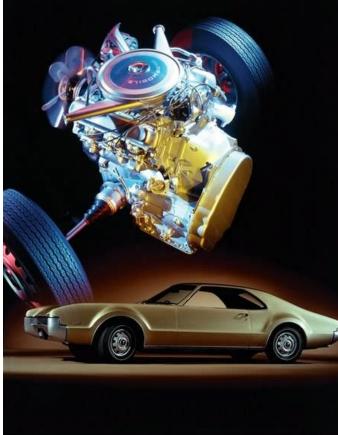
Dennis also circulated photos of a Corvair pedal car that LVCC member Wes Heiss made for his cute little daughter. Wes fabricated the pedal car body from scratch using computer imaging. We're anxiously awaiting more information about the methods that Wes utilized to do this.

Dennis Stamm spoke about the crosscountry motorcycle trip that he and his wife will be making this summer. Dennis Weaver and his wife will be joining the Stem's on this trip. They will be joining other Harley-Davidson riders from our area who will be making this trip. It is being sponsored by Schaeffer's Harley-Davidson dealership of Orwigsburg to raise contributions for the Muscular Dystrophy Association. According to Dennis, Schaeffer's has been very successful in its fund raising efforts for muscular dystrophy, having collected over \$200,000 so are in 2014. Dennis intends to be back on time for Das Awkscht Fescht.

Al Lacki conducted show and tell for our meeting by demonstrating his unique Corvair engine cart. Photos are on the CORSA Facebook pages!

Fred Scherzer will be conducting our next meeting on Wednesday, July 23 while Dennis Stamm is away. Don't forget to attend. Mark your calendar!

### TORONADO CONVERSIONS



Toronado power train makes an interesting basis for a V8 Corvair. Engines range from 425 to 455 CID!



Radical surgery is necessary to adapt Toronado power train to late-model Corvair suspension. Pure trailing arm geometry mimics early BMW 600. Not as sophisticated as stock Corvair suspension, but retains independent control between the two rear wheels.



Engine fits under the intake air grill. Not much access to plugs and filters.



Because the Toronado power train is so compact, it is possible to retain a small rear jump seat.



Radiator (not shown) is installed up front, where the trunk used to be. Replaced by trunk in rear..

### LVCC Calendar of Local Events!

#### Sunday, July 20, 2014 :::: Crazy for Cars 5th Annual Car Show.

Location: Memorytown USA, Grange Road, Mount Pocono, PA. Registration 10:00 AM, \$10.00. Show 10:00 AM - 3:00 PM. Show open to all makes, models, years welcome; classic, custom, muscle, imports, hot rods, antiques, motorcycles & trucks. Trophies, raffles, 50/50, music, hot food and cold drinks available. Contact Janice or Jim Takacs via phone on (570) 894 5676 or e-mail on jantak75@aol.com. https://www.facebook.com/groups/129653417076820/

#### Friday to Sunday, August 1 to 3, 2014 ::: 51st Annual Das Awkscht Fescht.

LVCC will be at this event on Sunday, August 3. Gates open at 7 AM. Friday open to street rods, race cars, sports cars and all other cars and trucks manufactured from 1895 to 2004. Saturday is limited to factory-stock cars no newer than 1989. Sunday is limited to factory stock cars supported by registered car clubs (including LVCC). To show your car, you must pre-register no later than July 1. Location: Macungie Memorial Park, 50 North Poplar Street, Macungie, PA 18062. Information hotline: (610) 967-2317. Email info@awkscht.com Website: http://www.awkscht.com/

#### Friday, August 1, 2014 :::: Cruise Nite at Moo Restaurant.

Location: Moo Restaurant at the intersection of Routes 412 and 611, Ottsville, PA. Time: 6 to 9 PM. All makes, models and years are welcome. Door prizes & 50/50.

#### August 8, 2014 - Cruise at Lucky Stroke Golf.

Lucky Stroke Golf, 7200 Airport Rd., Bath, PA. Time: 5:30 - 8:30 PM. Door prizes, silent auction, 50/50. 10% discount on food when door prize ticket presented. Donations accepted for Camelot House for Children. All vehicles welcome. Hosted by Lehigh Valley Cruisers, Inc.

#### Saturday, August 9, 2014 ::: First State Corvair 25th Annual All Corvair Show.

Location: New Castle Moose Lodge, 621 South Dupont Highway, New Castle, Delaware 19720. An all-Corvair show with vendors, DJ, 50/50 and lunch. Registration and show from 9 AM to 3 PM.

#### Sunday, August 17, 2014 :::: 38th Coopersburg Collector Car Show and Flea Market.

Location: Southern Lehigh Living Memorial Park, Route 309 & Fairmont Avenue, Coopersburg, PA. Time: 8 AM to 3 PM. Pre-register before August 9 at \$10. Day of show registration: \$15. Contact Rich for information at rich99301@gmail.com or (215) 262-3447. Website: www.1st-pa-mustang.org/

#### Friday to Sunday, August 22 to 24, 2014 :::: 36th Annual Wheels Of Time Rod & Custom Jamboree.

Location: Macungie Memorial Park, 50 N Poplar St, Macungie, PA 18062. Time: Registration: Open at 8:00 AM and close at 5:00 PM on Fri. and close at 1 pm Saturday and Sunday. Spectators: The show opens at 7 AM each day and goes until sundown as far as looking at the cars. The music goes until 10:30 PM on Friday and 11:00 PM on Saturday. Limitation: Event is for Rods and Customs 1983 and older. Vehicles must be street legal with proof of insurance. Price for Show Cars: \$45 for all three days. Price for Spectators: \$8 per person. For more info, contact Phil Vanim at (610) 360-8345 or pvanim@gmail.com. Website: http://www.wheelsoftime.org/jamboree/

#### Saturday, August 30, 2014 :::: 49th Annual Duryea Day Antique & Classic Car & Truck Show.

Location: Boyertown Community Park, 417 Madison Street Boyertown, PA 19512. Time: 8 AM to 4 PM.. Pre-registration price: \$10 per car. Day-of-show registration price: \$12 per car. For information, call (610) 367-2090 or visit www. boyertownmuseum.org

#### Saturday, September 13, 2014 :::: Corvair Day at Hershey.

Location: AACA Museum, 161 Museum Drive, Hershey, PA. A full day of Corvair fun hosted by the Central Pennsylvania Corvair Club. All-Corvair Show with People's Choice Awards, Outdoor Vending, Funkana, Tech Sessions, Scavenger Hunt in the beautiful AACA Museum, Social Hour, and Banquet. Outdoor activities begin at 8 AM. Social Hour and Banquet begins at 4 PM. For additional information contact Earl Holmes, 717-991-7341 or email at earlzgames@comcast.net.

#### Sunday, September 28, 2014 :::: Birdsboro Woman's Club Car Show.

Location: Daniel Boone High School, 501 Chestnut Street, Birdsboro, PA 19508. Time: 9 AM to 3 PM. Pre-Register Price: \$10. Day-of-Show Registration Price: \$12. For info, call Sherri at (610) 582-8170

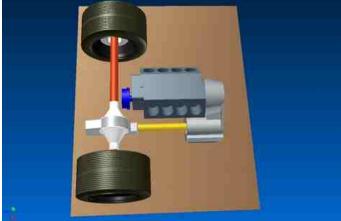
## TORONADO CONVERSION with a twist!



Hot rodder Garnner Swartz is constructing a unique mid-engine Corvair using Toronado chain drive. Power will be provided by Chevy LS-1 V8 with twin turbos.



The layout enables the engine to be pushed into the rear seat area, but does not intrude on front legroom.



Unlike most Toronado conversions, the bellhousing is aimed toward the front of the car.



Swartz could have retained independent rear suspension, but has chosen to run a solid axle.



Offset differential is a common sight on all-wheel drive vehicles. Should pose no problem here.



Driveshaft will be very short indeed!! 'Hope it works! Axle located by trailing arms and panhard rod.

### LVCC Classified Ads!

*FOR SALE:* 1962 Corvair 700 Station Wagon. 102 horsepower 4 speed, 23000 miles, all original, unrestored but refurbished in 2000. Certified by the AACA for "Historical

Preservation of Original Features (HPOF). Awarded the Silver Award in the CORSA 2003

Convention Concours competition. Rated 92.82 points in rigorous CORSA judging. Spinner wheel covers, vent shades, radial tires, back-up lights, front seat belts, 4-way flasher, Pertronix ignition, spare tire cover and aftermarket radio. Engine and trans resealed, door edge guards, all new metal brake lines, new fawn carpeting and engine cover. Runs and drives like new, does not smoke or use oil. Quick shifter. A real turn key and drive vehicle at the low price of \$13,900. Call Fred Scherzer at 484-948-5142. Email: jukeboxman@comcast.net



# Next LVCC Meeting: Weds, July 23, 2014

Time 7:30 PM. Place: LANTA Community Center, 2nd Floor Meeting Room, 1060 Lehigh Street, Allentown, PA 18103. Latitude : 40.587607 | Longitude : -75.474405. Feel free to bring a guest.

## Next LVCC Event: Sunday, August 3, 2014

Das Awkscht Fescht! Location: Macungie Memorial Park, 50 North Poplar Street, Macungie, PA 18062. Meet us at the LVCC tent in the Corvair section! Gates open at 7 AM. Pre-registration is necessary to show your car, and pre-registration closed on July 1. Did you forget? Come anyway as a walk-in spectator! See hundreds of antique show cars. Walk through the vast vending areas. Check out the car corral. And see wares being peddled by numerous crafters. We'll be giving away door prizes to lucky contestants. You'll have a wonderful good time!



### Mail Dues to:

Lehigh Valley Corvair Club c/o Richard Weidner 2304 Main Street Northampton, PA 18067

### LVCC Club Officers:

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