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Next Meeting! Wednesday, September 26, 2018

Time 7:30 PM. Place: Lehigh and Northampton Transportation Authority Headquarters (LANta), 2nd Floor Meeting Room, 1060 Lehigh Street, Allentown, PA 18103.

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.
Unsung Heroes: 
Lukes and Shorman

Editor’s note. Folks in the Corvair community may think Ted Trevor of Crown Engineering came up with the idea of stuffing Corvair engines into Volkswagens.

But a good case can be made that Porsche specialists Richie Lukes and Harry Shorman did it first. In fact, their master machinist, Tom Manning, claimed that Crown pirated the design of Lukes and Sherman’s Vair-to-Volks adapter plate from them. To this day, Lukes and Shorman remain unrecognized in the Corvair hobby. Unsung heroes, if you will….

Here’s an article from the July 1962 issue of Motor Trend magazine that describes how Lukes and Shorman went about this now-famous engine swap.

REAR ENGINE SWAPPING
Placing Corvair’s Flat Six Under the Volkswagen Shell
By Peter Biro.

THE GENTLE ART OF ENGINE SWAPPING seems to have become a national pastime. We’ve seen every kind of swap imaginable, from stuffing Corvettes into Sprites and Renaults, 421-inch Pontiacs into compact Tempests and the latest, the 409 Chevy into the Chevy-II. Most swaps seem to follow the same basic rule, “put in the most inches and power available, and if at first it doesn’t fit, make it fit.”

Now we’ve finally seen one that falls into the practical, possibly even necessary, class: Swapping a Corvair into a Volkswagen.

It’s really a natural. Both are air-cooled, and easily maintained. The horsepower gain isn’t staggering, but an increase from the VW’s 36 to the standard Corvair’s 80 hp (or 102 with a Monza engine) really gets the job done and makes a tiger of a heretofore kitten. If you really want to go into orbit you might try the 150 hp Turbo-Charged engine. Let us know where you come down.

Pioneering the swap was Bud Hopkins, long time VW enthusiast, but never really satisfied with performance. Bud installed a stock Corvair in the engine room of his Karmann-Ghia and only one trip through the 1/4-mile traps was needed to satisfy his need, turning 80 mph in 17.35 seconds. One mile-per-hour per hp!

Following Hopkins’ Ghia swap, was Charles Coffey, Chief engineer of United Engine and Machine, makers of Silvolite and Dualoy pistons. Coffey, having difficulty with mountain passes on camping trips with his fully outfitted VW Kombi, dropped a Corvair in the back of his bus, and now has the strongest hill-climbing, freeway-cruising camper going. Top speed with the VW before the swap was 56 mph, now better than 80 mph is available, at 4300 rpm, with no strain at all.

The actual machine work and engineering of these swaps was performed by Lukes and Shorman, Porsche-VW specialists from Albany, California. Early swaps required dismantling of the Corvair engine and re-working the flywheel end of the crank. This has been eliminated, with the design of a modified flywheel, made-up with a Porsche flywheel with a piece of 4140 steel heli-arced into the center section and drilled to the bolt pattern of the Corvair crank. A Lukes and Sherman cast aluminum adapter plate makes the actual engine swap a bolt-in proposition, to the VW transaxle. To take the added load (3 times more torque) a VW Commercial clutch disc, mated to a Porsche Carrera diaphragm pressure plate, should be used.

Aside from the actual swap, a few minor modifications were made to the Kombi, to aid reliability and increase overall performance. None of these changes was necessary on the Ghia. Standard final drive was 5.1:1 and by changing the reduction gears at the end of the rear axles this was brought up to 4.1:1. With this change in ratio a 17 mph increase in speed was achieved at a given engine speed. Rear tire size was changed from 6 x 40 x 15 to 6 x 70 x 15. In city traffic you can pull without lagging at 18 mph in 4th gear. Speed through the gears @ 4000 rpm: 1st-29 mph, 2nd-42 mph, 3rd-55 mph, 4th-75 mph. At the drags, fully loaded with camping

LVCC Dues are Due! If you haven’t already done so, please pay up for August 2018 through July 2019. Price? Still only $10 for CORSA Members. $15 for all others.

You can pay at our September meeting or mail a check to LVCC Secretary / Treasurer Dick Weidner, 2304 Main Street, Northampton, PA 18067.
Corvair engine with Porsche flywheel and pressure plate in place. In foreground (left) is the Lukes and Shorman adapter plate that replaces the VW bell housing.

Kombi engine compartment has much room, requires only minimum work for swap. Outboard gears were changed from 5.1:1 to 4.1:1 ratio to take advantage of hp increase.

Neat installation resembles original factory job. Swap resulted in top speed increase from 56 to 82 mph. Fully loaded camper weighs in at 2976 lbs. Against 2150 stock (unloaded).

One of the more unusual projects L&S worked on was the twin-Porsche engine Indianapolis 500 race-car built by Orinda resident Al Stein. It was midget racer Stein who L&S had crewed for prior to World War II so with their former relationship and expertise with Porsche engines, they were the logical choice to prepare the two, 911 engines used in Stein’s unusually creation. Unfortunately, the car did not qualify for the 1966 Indy 500 although it did reach a speed of over 150 mph in practice.
gear at 2976 lbs., trap time was 67.5 mph in 19.66 seconds. A stock VW bus weighing 2150 lbs. turned 51.42 mph in 24.27 seconds. A VW Beetle turned 59.60 in 21.43 seconds and a VW with a 1760 cc Porsche engine turned 77.85 in 16.61 seconds.

Surprisingly gas mileage was the same with either engine right around 24 mpg. Hopkins' Ghia with the Corvair gets 28 mpg in combined city and highway use.

Corvair engine revolution is opposite to the VW making it necessary to remove the VW transaxle and have your local VW service department flop the ring gear. If this is not done you wind up with four speeds reverse and one forward. A late model ball-bearing type throw-out bearing should be used in place of the carbon type found in many VWs.

The VW starter must be modified, also because of engine rotation. A Bosch starter from a Goliath works fine. Comparing the drive gear end of the Bosch/Goliath armature with the VW unit you will notice the Goliath unit is threaded, the VW is not. The threads should be removed, a simple operation with a lathe. Re-assemble the Goliath starter, mating to the VW starter adapter plate, which then bolts right in place.

VW electrical components are six-volt, while the Corvair system is 12-volt. This makes it necessary to re-work the engine to be six-volt. Much easier than re-wiring all the car's electrical system. A standard six-volt Delco generator case, armature and field should be used, mating same to the 12-volt generator end plates. A six-volt Delco coil should be used in place of the 12-volt coil.

When swapping into a Karmann-Ghia it is necessary to alter the inner body panels slightly to take the bigger powerplant. With the Kombi, only a single notch need be cut to clear the oil filter. Two small bubbles must be hammered in the deck lid to clear the rear-most parts of the Corvair.

Hopkins performed the body modification by himself in a single afternoon with a simple sabre saw. He first made a template the shape of the Corvair engine out of cardboard, placing it in the VW engine compartment. The area to be cut away was marked with a crayon and the metal was removed. The rear rocker panel was altered to simplify installation and removal of the engine. With these relatively simple body changes the engine can simply be bolted in, the fuel lines, linkages and electrical connections hooked up and the VW-Corvair can be driven away fast.

Handling characteristics remain practically unchanged with the Ghia. Improved if anything, with the added traction from the extra 45 lbs. of the Corvair engine. With the added weight, rear camber is 2 degrees negative.

Both installations look and work just like they came right off the assembly line, and as we said, it's the most natural swap we've ever seen. For those of you who prefer to do-it-yourself, adapter plates, special flywheels and parts, as well as detailed information are available from Lukes and Shorman, 1011 San Pablo Avenue, Albany 6, California. /MT

**LVCC Guys at the DACC Homecoming**

Jerry Moyer, Fred Scherzer, Dick Weidner and I attended the Detroit Area Corvair Club’s “Corvair Homecoming” event on the weekend of August 23-26. We mustered at Jerry’s place in Jim Thorpe and then Jerry drove us out to Michigan (and back) in his big GMC crew cab pickup truck. It’s a true four-door truck so there was plenty of room for all of us and our gear.

The Homecoming is a nice relaxing mini convention that draws more than 200 Corvair enthusiasts and nearly 100 cars every year. It includes a car show, cruise night, valve cover races, swap meet and more. It's not really located in Detroit but instead in Plymouth, Michigan, as distant suburb.

This year, there were two special bonuses. DACC arranged free admission to the Ypsilanti Automotive Heritage Museum with a catered lunch for everybody no extra cost. Although the Corvair Preservation Foundation moved it's collection from Ypsilanti to Decatur last year, the Ypsilanti museum still has a small number of Corvairs among its collection of other cars that were manufactured in the region, including old Hudsons and Kaisers.

In addition, for a mere $10 extra, tickets were provided to the GM Heritage Center. Located in an 81,000 square foot facility in Sterling Heights, the Center has more than 165 General Motors vehicles on display including but not limited to the Monza GT, Monza SS, Astro I and Super Spyder show cars.

The Comfort Inn Clocktower hotel in Plymouth served as the base for festivities. Renovated a few years ago, it was a clean and attractive setting.

Up on the second floor, DACC member Ken Pepke and friends staffed a great hospitality room that was chock-full of goodies to eat, and on one of the days, there was a lunch smorgasbord that included an almost unbelievable variety of sandwich fixin’s, beverages and desserts presented on tables that stretched around three sides of the room. All included in the reasonable base registration fee of $40 per person. Did I mention the pizza party Saturday night?

Jerry and Dick have been active in the Corvair hobby for decades and have friends all over the eastern half of the country, so we were always bumping into people they know. They're a good bunch.

It was a real pleasure for me to get to know one of them - Earl Jones of Zebulon, North Carolina. Earl is a youthful 93 years old and he remains a great Corvair enthusiast and an active
Detroit Area Corvair Homecoming
Photos provided by Molly Bacon of Corvanatics and Allan Lacki

Left to right: Dick, Jerry, Earl & Fred.

Dick Weidner at the Ypsilanti Museum.

DACC auction at the hotel front entrance.

Morning rain went away and the skies cleared.

GM Heritage Museum. Monza GT & SS.

Willow Run plant where Corvairs were made.
member of CORSA. When we went out for dinner, he shared stories and perspectives about the national club’s history which I enjoyed very much. He also insisted on paying the bill which was more than I expected.

When the Homecoming was over, we went our separate ways. Earl embarked on his journey back home, stopping at the Auburn Cord Duesenberg Museum along the way. That’s the way to live!

Al Lacki

John Egerton at Pittrace

John is not only a member of LVCC but also the Northeast Corvair Council, Inc. – also known as NECC. He’s been doing autocrosses and track days with his 1964 Corvair for many years and this year has been no exception.

On the next page are photos of his car and other action shots from the July 23rd NECC time trials at Pittsburgh International Raceway in Beaver County, PA. Thirty-four drivers including John participated in this event and the field was made up entirely of Corvairs because the event was held just a few miles away from the 2018 CORSA Convention in Pittsburgh. Well, there were a couple of exceptions – a silver Firebird campaigned by Jay Dover of Canada and a deep red Maserati Biturbo by David Burnham of New York State.

John did rather well during the timed laps. His best lap time was 1 minute 19 seconds, which put him right in the middle of the Comp-class Corvairs. This is rather remarkable because all the other Corvairs in the Comp-class were of the 1965-69 variety, which are reputed to have the superior rear suspension design.

John’s ’64 coupe started as a barn find – a bit too rough to deserve a concours restoration, but just the ticket for a track car. Over the years, it’s been extensively modified. The engine is a rebuilt 164 bored 50 over with roller rockers, triple-barrel Weber carbs, slant tube exhaust. The suspension has been lowered and has anti-roll bars front and rear. Tires are Hoosier racing slicks and the interior sports a racing seat and full roll cage.

As mentioned above, John autocrosses his Corvair. When he pulled up for tech at a recent autocross sponsored by the Corvette club, the officials sneered until John blew them all away during the runs. Take that, Corvette people!

LVCC Gets Honorable Mention

Well, LVCC didn’t win the CORSA chapter newsletter competition this year, but at least we got honorable mention. Here’s a blurb written by Terry Kalp, head of the newsletter judging committee. This will appear in the upcoming October issue of the CORSA Communique:

The Tony Fiore Memorial CORSA Chapter Newsletter Awards judging has been completed. The newsletters from the 2017 calendar year were evaluated by Frank Dotson, Ed Halpin, Terry Kalp, and Gary and Helen Moore.

First Place for CORSA Chapter Newsletter competition went to the Dayton Corvair Club for their Dayton Corvair newsletter. All the judges ranked this excellent newsletter highly. Jim Stukenborg is the editor of Chapter 454 newsletter. The Dayton newsletter moved up one spot from their second place finish last year.

Second Place was the CorvanAntics newsletter of Corvanatics specialty chapter of CORSA. The Corvanatics chapter of the Corvair Society of America advances preservation, restoration and enjoyment of Corvair Forward Control (FC) vehicles. Editor of the publication is Molly Bacon. CorvanAntics made the winners list previously, placing third in newsletters from the 2014 calendar year.

At Third Place was the newsletter of the Corvair Houston chapter of CORSA. The Corvair Houston Newsletter editor is Mark Clarke. The Corvair Houston Newsletter has made several appearances in the top three of the newsletter competition, placing third in the newsletter competition in 2003, 2005, 2006 and first in 2005.

The judges would like to recognize the newsletters that were in the top ten, but did not quite make the cut for the top three awards. The remainder of the top ten newsletters (in no particular order) were: Enchanted Corvairs Newsletter, Corvairs of New Mexico; The Drip Line, Pikes Peak Corvair Club; Group Corvair Comments, Group Corvair; The Fanbelt, NJACE; The Fifth Wheel, Lehigh Valley Corvair Club; The Flat Six, Prairie Capital Corvair Association; Transaxle Telegraph, North Texas Corvair Association.

Korvair Kluge #1

Years ago I learned how to remove tie rod ends or ball joints without using a “Pickle Fork” or causing damage to the rubber boot.

I removed the cotter key as needed then loosened the castle nut until the very end of the nut was flush with the end of the stud. This protected the threads as well as kept the tie rod or ball joint from coming apart unexpectedly while allowing room for the joint to release.

I used two hammers, the larger of the two would be placed on the back side of the drag link or spindle assembly (depending on which I wanted to remove) then I would hammer on the opposite side with the smaller hammer (Usually nothing less than a 16 oz size). Usually after two or three good solid blows, the tie rod or ball joint would pop loose. I would then properly support any parts as needed and remove the castle nut and disassemble the part as needed.

(Continued on page 9)
Corvairs at NECC Pittrace Time Trials!

*Photos by Ron Fedorczak and Janet Norris*

John Egerton’s ’64 coupe ready for action.  
Adjustments in the paddock.

Action on the track.  
Drivers meeting precedes track sessions.

The NECC timing crew.  
Terry Stafford’s black ’64 Fitch, another early.
Local Car Shows and Other Events

Saturday, September 15, 2018 :::: Salem E.C. Church 10th Anniversary Car Show
Location: Salem E.C. Church, 2150 Old Route 22, Lenhartsville, PA 19534. Time: 11 AM to 3 PM. Price: $20 day of show. Live music, silent auction, pig roast, ice cream, farm tractor display, kids activities. For more info, call (610) 562-5033. www.fb.com/WeAreSalem.

Sunday, September 16, 2018 :::: Air-Cooled Gathering
Location: Swim and Sport Club of Flanders New Jersey, 272 Emmans Road, Flanders, NJ 07836. Price: Entrance to the show on Sunday – $15.00 [per person, car included]. Time: 8 AM to 3 PM. Big car show, swap meet, dub push, valve cover racing, huge raffle, kids games and more! Everyone is encouraged to enter the show, daily drivers to show cars, early or late model. As long as it’s an air-cooled, it’s welcome - Corvairs especially. Sponsored by the Central Jersey Volkswagen Society. http://www.allaircooledgathering.com

Saturday September 22, 2018 :::: Corvair Day - Hershey, PA  [Central Pennsylvania Corvair Club]
Location: AACA Museum, 161 Museum Dr, Hershey, PA 17033. Registration opens: 8 AM. Rain date: September 23. Price: $12 day of event and includes admission to the museum. Also includes car show, door prizes, scavenger hunt inside the museum, bake sale and 50/50 drawing. Event will be followed by a dinner at the Skyline Diner. Point of contact is Earl Holmes, (717) 991-7341, earlzgames@comcast.net.

Saturday September 22, 2018 :::: Coatesville Invitational Vintage Grand Prix
Location: 3rd and Lincoln Highway, Coatesville, PA, 19320. Time: 7:30 AM to 5 PM. Price: Free to spectators. $200 for drivers. Pre-registration required. Deadline September 10. https://coatesvillegrandprix.com/fast-track-signup Like the by-gone days of early American sports car racing, vintage and classic sports cars of all types will take to the streets of downtown Coatesville and bring back the sound and excitement of those long forgotten days. The cars will compete in a individually timed event, that will take them around a long 2.2 mile road course through the city and surrounding neighborhoods. Complete with old style hay bales chicanes to add a bit of challenge and excitement for the drives. Spectators will get to see over 50 rare and unique historic cars and motorcycles dating from the 1900s to 1970. Visit the pit and paddock area that will be alive with drivers and their cars, prepping for their turn to compete. Contact: call Denis Branca at (484) 787-6408 or call Bill O'Connell at (484) 787-6408 or visit https://coatesvillegrandprix.com/home

Sunday September 23, 2018 :::: 21st Anniversary Car Show, Birdboro

Saturday September 29 :::: Salem Berne UMC 14th Annual Country Car Show
Location: Salem Berne United Methodist Church, 292 Salem Church Road, Hamburg, PA 19526. Time: 10 AM to 4 PM. Price: $15 day of event. Rain or shine. Peer judging in 11 categories. (No Corvair class). Door prizes, food drive, kids activities. Chicken BBQ dinners available. Contact Sue Carvin (610) 562-5867 or carshow@sbumc.com www.sbumc.com

Saturday September 29, 2018 :::: Atria Bethlehem Car Show
Location: Atria Bethlehem, 1745 W Macada Rd, Bethlehem, PA 18017. Time: 10 AM to 3 PM. Price: Not listed. Rain date: September 30. Help Atria Bethlehem 'Drive the Fight against Breast Cancer' by supporting us as we have a day of fun with car/ bike show, music, raffles, and food all benefiting the PA Breast Cancer Coalition. Contact Dorine or Cheryl at 610-317-0700 for more information or to register for the car show.

Sunday October 7, 2018 :::: Cruisin’ for the Cadets Car Show, Sinking Spring
Location: Fecera’s Parking Lot, 4710 Penn Avenue (Rt 422), Sinking Spring, PA 19608. Time: 9 AM to 3 PM. Price: $10 day of event. 1st 150 receive goody bags. 1st 100 receive dash plaque. This is our 2nd annual show. Benefits Troop L Camp Cadet. Contact George at (610) 678-4555.

(Continued on page 9)
Local Car Shows and Other Events (cont’d)

Wednesday – Saturday, October 10-13, 2018 :::: AACA Eastern Regional Fall Meet
Location: Hershey Park and the Giant Center in Dauphin County, 550 W. Hershey Park Drive, Hershey. More than 9,000 flea market spaces, 1,000 corral spaces and approximately 1,500 show cars. Car corral and flea market open each day at 7 AM. Info: www.hersheyaaca.org.

Saturday October 27, 2018 :::: Curt Rhine Memorial Car Show, Blandon
Location: Maidencreek Community Park, 753 Park Road, Blandon, PA 19510. Time: 9 AM to 3 PM. Price $10. Benefits Northern Berks Emergency Medical Services. This is our 4th annual show. Contact (610) 926-3858 or communityoutreach@northernberksems.com

Sunday October 28, 2018 :::: Old Car Show & Flea Market, Kempton
Location: 83 Community Center Drive, Kempton, PA 19529. Time: 8 AM to 3 PM. Price: $10 day-of-show. Rain, shine, or snow. All makes & models welcome. Judged show, no Corvair class. Conducted by the Free Spirit Chapter of the Buick Club of America. Website: www.buickfreespirit.org

Also, be sure to visit the Corvair Society of America website to see events being conducted by our neighboring CORSA chapters!

(Continued from page 6)

It is amazing how simple this procedure is and equally amazing how many people have never heard of this procedure. I find it works well for me. Your results may vary.

Caraholic4life

Korvair Kluge #2

Here’s a hack for you. It is a way to hold nuts or washers when your fingers cannot reach.

It is a piece of brake line with a loop of string inside. With the loop of string loose, place a nut or washer on the straight end of the tube, then pull the loop of string tight around the O.D. of the nut or washer.

Keeping the string tight from the other end, place the nut or washer where it needs to go... usually some place some numb-nut engineer wasn't thinking about finger sizes, and then when this nut or washer is set into place and the nut is started, simply release the tension on the string and remove the tube... and wahoo! - you got that darned nut into a spot that your fingers couldn't reach, easy without swearing, bloody fingers, or super glue!!

Total cost is 5 dollars or less and it works way better than those stupid nut starters that don't work! The last picture is how a rusty looking nut is held in place by the cord/string.

Kevin Nash

Korvair Kluge #3

An oldie, but a goodie!

Extending a tension spring so it can be easily installed on it’s retainer pins.

Bend the spring to one side and insert a coin or washer. Bend the other direction and do the same until the spring has extended to an easier installation length.

Back in the day I would pull the springs into place wit a pair of vice grips. many times slipping lose and neatly removing skin from my knuckles!!!!

Corventure Dave
LVCC Classified Ads!


Go Electronic! Still getting black & white copies of The Fifth Wheel in your US Postal mail box? Give us your email address and we’ll send it to you electronically. It will save photocopy and postage costs for us and help you protect the environment. And besides, the email version is in living color and it’s beautiful!

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.

Clark’s Corvair Parts® 400 Mohawk Trail, Shelburne Falls, MA 01370
(413)625-9776 www.corvair.com email: clarks@corvair.com

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

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