

Group Corvair Comments



GROUP CORVAIR'S NEWSLETTER FOR THE NATIONAL CAPITAL AREA

VOLUME LI, No. 12 December 2023



Mark Shiffler's Christmas Present – Just Back from the Painter!

CALENDAR OF COMING EVENTS

December

16 – Group Corvair Holiday Dinner. 4 p.m. for social hour, dinner after 5. Hosted by Diana and Jerry Yates, 13461 Overbrook Lane, Bowie, MD. RSVP: yatesj@verizon.net, 301-262-8428. Directions later in the newsletter.

19 – Group Corvair Zoom Meeting. 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

January 2024

16 – **Group Corvair Zoom Meeting**. 7:30 p.m. Zoom link details will be sent out the weekend before; check your email.

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From the Oval Garage

Bob Hall

The 2024 CORSA Convention host hotel in Dayton is now accepting reservations so get out your 2024 calendars and reserve Monday, July 22nd through Thursday, July 25th and start planning your trip. The Marriott at the University of Dayton is offering CORSA members room rates of \$142.00 per night. You will probably have to call the hotel to get the CORSA rate.

Clark's Corvair Parts is still offering discounts through December on selected parts. I finally bit the bullet and ordered a 4 spider differential kit for my Positraction equipped Greenbrier because I couldn't resist the low price. Take a look at Corvair.com to see if any sale items include something on your wish list. Afterall, it is the season of giving.

I was 15 minutes late—again—for our November Zoom meeting while I was in Pennsylvania, but I finally logged on with my phone and, eventually, a borrowed laptop. There were good discussions of current projects after we reviewed Marolyn's October minutes and Jim's Treasurer's report.

My wife, Carol, and I met Jim and Marolyn at the Truist Bank in Parole so I could add my name to Jim and Marolyn's on the Group Corvair bank account. The bank service was not prompt, but it was friendly, and we are saving the bank fees that the prior bank charged.

As announced in November, Jerry and Diana Yates have invited Group Corvair members to a semi-potluck holiday dinner at their home in Bowie on Saturday, December 16th. If you haven't already RSVP'd, please do so—today. Jerry and Diana will be providing ham as a main course and others will provide side dishes and drinks with Group Corvair picking up the cost of food. We ask that those attending be mindful of the current Covid/RSV and flu risks and get up to date with their vaccinations. Group Corvair members are pretty much all in one high risk category or another. We need to continue to protect all of our legacy Corvair knowledge.

Mike Coale showed me his latest purchase last week at his business—a very solid 1965 Monza PG 110 HP coupe from Arizona with the aqua and white interior and factory AC. The 110 was tired and only firing on five cylinders and Mike showed me what looked like a broken no. 6 cylinder. After he pulled the head, and talked with Larry Claypool, he discovered that the head was one that Chevrolet sleeved to use up old cylinders while they transitioned to the upgraded cylinder heads with wider gasket surfaces. See Jim's article below.

Mike also has his eye on a pretty solid '64 Corvan with manual transmission and a disassembled engine that can be purchased for less than \$1,000.00. If you are interested, let Mike Coale know at his shop--Coale's Automotive--in Millersville.

I hope to see everyone at Jerry and Diana's home on December 16th. See details below.

Minutes of the November Virtual Meeting

Marolyn Simpson

The monthly Group Corvair business meeting was held on Tuesday, November 21. Six members started logging in at 7:30 pm. The conversation centered around the coming holiday dinner. Jerry and Diana Yates have offered to host this on Saturday, December 16th. They will provide the main course (ham) with everyone else bringing side dishes and desserts. Please let our hosts know if you plan to attend and what you plan to bring. The event will begin about 4:00 with dinner starting about 5:00 or 5:30.

Bob Hall officially called the meeting or order at 7:52 pm. The minutes of the October meeting were approved as they appeared in the newsletter. Jim Simpson gave the treasurer's report—no expenses and no income for the last month.

Bob told us he plans to see Mike Coale about getting a couple of tires mounted and as part of that outing, he could stop by and get his name on the Group Corvair bank account.

The topic of our holiday dinner came up again. Jerry and Diana will provide the ham as the main course and make some deviled eggs as a side. Bob and Carol plan to bring drinks, chips, and some extra chairs. Jim offered to send out an email to help coordinate the side dishes.

Jim & Marolyn attended the Rockville Antique and Classic Car Show post-show meeting. The city organizers recognized that it was not the spectacular event it has been in the past. There was only light drizzle during the show, but there was heavy rain in the surrounding areas that participants had to drive through getting to and from the show that had a significant impact on the attendance. They also announced that Charley Carroccio has formally retired from his work on the show. (He had confided that to us during the show but asked us not to spread it around.) As a result, there will not be a special show within the show every year; it takes a lot of legwork to make that happen. The 2024 show will be on Saturday, October 19th with pre-registration starting on July 1. There will be a planning meeting in June.

Mark Shiffler had his car painted Aztec bronze. He's also acquired a set of Oldsmobile 14" rally wheels that he had painted to match.

Jim received a call from Tom Rahochick asking if we would take charge of the registration for the 2026 CORSA national convention in Gettysburg. Jim declined – Jim & Marolyn have done two nationals and a regional convention and are a bit burned out -- but did offer to help with registration, tally scores for concourse, or help in other ways. (Diana Moy – Mid-Maryland Corvair Club – has since volunteered to take on registration; Tom called us back and asked if we'd help her out. We agreed to help and there's likely plenty of opportunity for other Group Corvair members to take part.) The organizing committee has signed a contract with the hotel and located two potential autocross lots, so they are making progress.

The meeting ended at 8:45 p.m.

Group Corvair Holiday Dinner

As noted in the Calendar, President's column, and Minutes, we're going to have a Holiday Dinner! Diana and Jerry Yates have graciously offered to host us at their home in Bowie, Maryland. We'll start gathering at about 4 p.m. while it is still reasonably light out and plan to eat around 5-5:30.

The main course will be a ham provided by the Yates. The guests are requested to bring side dishes to complement the main course and we do request you coordinate with Diana so we can avoid duplicates. (Phone 301-262-8428)

Directions: Their address is **13461 Overbrook Lane, Bowie, MD**. This is off Racetrack Road, one of the main roads in Bowie. Depending upon where you are coming from, there are multiple routes, but I am going to assume you can get to the portion of MD Rt-450/Annapolis Road between MD Rt-197 and MD Rt-3. From Rt-450, take Racetrack Road north where Racetrack Road meets Rt-450 at the Hilltop Plaza Shopping Center. (There's a traffic light at the intersection; Racetrack Road only goes north from there. The 5th road on your right will be Ovalstone

Lane; turn right onto Ovalstone. The 3rd road on your left will be Overbrook Lane; Diana and Jerry live in the house right at the corner of Ovalstone and Overbrook.

Tech Topics

Jim Simpson

Interesting Engine Failure: Mike Coale has acquired another car, this one a '65 Monza coupe with factory air conditioning, full tinted glass, and the original "Protecta Plate". It had been in storage for 30+ years with no rust – just 58 years of patina -- and was in general very clean. It even came with a Nixon-Agnew campaign button! But it had a serious engine issue; while the engine seemed to run pretty well, one of the cylinders was dead and making what sounded like "backfiring" under the shroud. Something was obviously amiss!

Mike has investigated the engine problem and discovered it had a blown head gasket. You can see there's a large piece head gasket metal ring missing just

above the spark plug hole.

There's little damage to the cylinder head beyond some erosion to the sealing surface.

But now take a look at the cylinder jug itself!

Obviously, the previous owner ran this engine for a considerable time after the head gasket blew. The escaping hot gases have burned away a substantial chunk of the cast iron cylinder jug along with the shim that went between the head and the jug.

It is hard to imagine that the owner didn't notice there was a problem. First there would be the



noise! As Mike described, it sounded like it was backfiring under the engine shroud. Second there would be the odor coming though the heater/defroster/air-conditioning system. Not just the exhaust smell, but also the sharp metallic scent of the vaporized iron from the cylinder wall and shim. Hard to miss!

Neither Mike, Bob Hall, nor I have ever seen an engine with these upper cylinder shims before. But Mike as been in touch with Larry Claypool, one of the most experienced Corvair experts around, and he said that the shims appeared with the introduction of the '65 cylinder heads. Bill Fisher, in his book *How to Hotrod Corvair* Engines says this was to accommodate wider head gaskets. My assumption is that this was in anticipation of the new 140 Hp high compression & improved 180 Hp turbo engines. At about the same time, they introduced new cylinder jugs machined to match these larger head bores along with new, larger diameter head gaskets. But at the same time, they must have had a large supply of earlier cylinders on hand and being the frugal company they are, they



decided rather than scrap them, use up the remaining supply in lower Hp engines and insert a 1/32" thick shim to properly center the jug in the cylinder head.

Now why did this head gasket fail? The usual explaination is that the head nuts were not properly torqued. I can only hypothesize, but I doubt that was the issue. Assuming this was the original engine – which every indication suggests it is – the factory usually does a good job on engine nut and bolt torquing. My guess is that it may be a combination of assembly sequence and parts selection issues. With the new heads, Chevrolet introduced new head gaskets that fit the new larger head bore diameter. But if they had a large number of older jugs on hand, chances are they also had a similarly large number of the original, smaller, head gaskets in stock as well. Waste not, want not and it would save a few pennies to keep on using those older head gaskets.

Using the smaller head gaskets would be fine if they used the following assembly sequence and everything stayed in place. First insert the needed shim in the cylinder head. Second, install the old style gasket. The shim would hold it properly centered. Third, install the head on the engine. As long as the shim stayed fully inserted so the gasket couldn't move off-center, everything would be fine.

But I can think of two possible failure paths. First, if the shim slides out of the head a little bit, the head gasket could slip sideways and become off-centered. That would create a weakpoint in the seal. The second path is an incorrect assembly sequence. In this case, the shim may have been installed on the jug rather than inserted in the cylinder. If they used the older gasket – which matched the old, smaller diameter heads – then it could easily be off-centered in the cylinder head. This too would create a potential weak point in the seal (Of course, they may have switched to the newer, larger diameter gasket in which case my hypothesis is wrong.) We'll have to take a close look at the surviving head gaskets and see if either of my hypotheses are correct.

And as a bit of post script, Mike noted that this "110 Hp" A/C car engine has 95 Hp low-compression heads. In his conversations with Larry Claypool, Mike says that from Larry's experience all the '65 A/C "110 Hp" engines came that way. So what should this hybrid be rated? Half way between 95 and 110 Hp - 102 Hp perhaps? So much for "truth in advertising"!

Heat Does Work. I'm in the process of rebuilding a steering box. And since I don't want to do this again, I'm replacing all the potential wear surfaces including the steering worm thrust bearing race in the big aluminum adjustable nut at the bottom of the steering box. But that bearing race is countersunk in a recess in the nut. How do you get it out?

There are two recesses under the steel races. I suppose there is a puller tool that would have fingers that fit in there and allow you to pull the race. But I don't have one and my searches for tools such as pilot bearing pullers didn't turn up any that would seem to fit. But a conversation with Bob Lewis did point me in the right direction.

Heat! We were discussing bearing installation in general and he pointed out that one should, whenever possible, chill the part that's going in the hole and heat the part with the hole. Metals shrink when they're cold and expand when they are hot. And aluminum alloys have a much larger change in size with temperature than iron alloys. Normally there's a slight interference fit between a bearing and the holder, but it's only a few 10-thousandths of an inch difference. Freezing the bearing and heating the holder will frequently allow the bearing to just slide into position without needing a press or any other mechanical aid.

Well, the steering box worm adjusting nut is an aluminum alloy and the bearing race is steel so they should expand at significantly different rates when they are heated. The outside aluminum should "grow" at a much faster rate than the steel insert.

So that's what I tried. I turned the aluminum nut upside-down and screwed it a couple turns back into the steering box housing. That way I could hold it securely in place using a vise without risking damage to the threads. I lite my



Worm Gear Adjusting Nut and Bearing Race



Race Removed, Note the Two Recesses

trusty propane torch and started heating the aluminum nut. Before long, the residual grease started melting and eventually there was even a little trace of smoke. At that point – well before any possibility of the aluminum being hot enough to melt – I used a flat bladed screwdrive to twist and lever the bearing race up and out of the pocket. It took little time – it would move a couple hundredths of an inch at a time. I worked it back and forth using both recesses so the race didn't get jammed sideways while reheating the nut as needed. And after a few minutes, it popped free! (If you try this, be careful not to gouge or otherwise damage the machined aluminum surfaces anywhere that would interfere with proper installation or seating of the new race. If you do ding a machined surface, be sure to smooth it out again.)

When I put the new race in, I'll use the same process, but have the added advantage of being able to put the new race in the freezer overnight as well as heating the aluminum nut. It should just drop into place. We'll see...

Vair Vendor

For Sale: Late Model Trim. '66 – '69 passenger-side rear wheel trim (10 pieces). New, never installed. Clark's price is \$55 each. \$20 each, pick up in Arnold MD. Get them while they last. Late model rear end trim – long pieces that go on the top and bottom of the rear cover. Clark's part C301P priced at \$100 for the pair. Make me an offer; I have four pieces. I also have a set of NOS upper and lower mounting clips. Mark Shiffler, 443-770-4719, mshiphty@gmail.com.

For Sale: Original GM Luggage Rack. 4-post as used on '65 – '69 Corvairs and C2 Corvettes. Good condition, chrome is fair and adequate for a daily driver but for a show car, needs to be rechromed. It has black plastic bullets filling the ends of the tubes. Asking \$170. Bob Lewis, 301-246-4278, rtl1936@gmail.com . (5/23)

For Sale: Early and Late Parts:

'64 3.27 differential, \$40

'64 3.27 4-speed transaxle, \$100

'64 Sypder engine lid, \$120

'64 Convertible top frame, \$65

'64 4-door NOS left quarter panel (GM # 6279405), \$200

'64 2 each front cross members, complete with brakes, shocks, springs. Very good condition: one from a Sypder, \$175, other \$150

'62 – '64 Convertible rear quarter window glass, left and right, \$30

'65 – '69 underbody plastic heater duct, \$30

'65 – '69 Convertible corner weight, \$15

? year – Engine cover with fan bearing, \$20

3 standard transmission bell housings, \$30 each.

Prices are negotiable. Contact Bob Lewis, 301-246-4278, <u>rtl1936@gmail.com</u>.

(5/23)

Wanted: Right Front (passenger side) FC wheel arch and rocker panel. Prefer NOS but a very clean used one would be acceptable. Michael Coale, 443-994-2559 or mikecoale@verizon.net (8/23)

For Sale: Mike Coale is thinning his collection: 1965 Corsa coupe body, no drive train, gold interior (with '66 front seats), Corsa dash. Fair condition, but highly restorable. \$1,500 or best offer.



1965 Corsa convertible body, power top, Corsa dash, steering wheel, no seats, but has correct door panels. It does have a '64 engine/positrac differential, and empty 4-speed case in it to allow it to roll around. Fair condition, but highly restorable. \$1,500 or best offer.

1965 Monza convertible, complete, 110 hp, powerglide. Silver with red interior, older restoration, decent condition. Asking \$3,000.

1965 Monza Four-Door, 4-speed. White, fair condition, but



highly restorable. \$1,500 or best offer.

1967 Monza convertible, 110,
Powerglide.
Relatively rare –
only 2,109
convertibles were

produced in 1967. Complete, including the "Protecta Plate." Asking \$3,500. All have titles. Contact Mike Coale, mikecoale@verizon.net or 443-994-2559.

(5/23)





For Parts, Old and New, and All Body, Mechanical, and Suspension Work

Corvair Ranch

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2023- Clark's Corvair Parts 50th Anniversary!!

DECEMBER SALES

December 1- December 31 Prices shown on website have been discounted to the sale prices.

LAST CHANCE SALES!

DECEMBER'S SALE WILL MAINLY BE A REPEAT IF YOU MISSED OUT, NOW IS YOUR CHANCE! **OF FAVORITE SALE ITEMS DURING 2023!** New prices start last weeks of January Beat any 2024 price increases Some discounted even more!

See the Clark's website for details – www.corvair.com.