

CORVAN ANTICS

The official Bi-monthly publication of CORVANATICS, a chartered chapter of CORSA. Established Sept. 1972.

Membership: Still hovering around 300, give or take ...

Stories, articles, photos or anything of interest to CORVANATICS members may be submitted to the Editor. Deadline is the FIRST of each ODD numbered month.

Membership in CORVANATICS is open to any CORSA member with an interest in Forward Control Corvairs. Annual dues are \$6 (US) and should be sent to Caroline Silvey.

Changes of address should be sent to Caroline Silvey as soon as possible.

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On The Cover

Your FC Spy Maxwell Intelligent, Agent 95 reporting: Found under construction - "would you believe an FC Crewcab pickup?" The problem is what to call it. CREWBRIER? GREENSIDE? CREWSIDE? Stay tuned for further details!

FC Classified Ads

1963 Greenbrier. Has excellent engine, 4-speed, good tires, seats recovered. Badly in need of paint job. \$900. Edwin Upham, 3158 S. 6th, Abilene Texas, 79605. (915)677-0888.

NOS GM "cromflex rings, std '61-63, set of 5, \$20; '61 carb, \$60; '60-63 crankshaft gear (cam) \$37; new early 80HP camshaft, installed but never run, \$47; blue AC oil filters, \$3.50, 6 or more \$3.10 each; FC dome light lenses, \$1.00 each; '61-62 FC "Corvair 95" emblem, \$15 each, only have 2; '61 "Standard" brand distributor caps \$2.00 each; '61 points/rotor, please inquire. All plus shipping. Don (Gene Brier) Richmond, 3929 North "P" St., Pensacola, FL 32505.

WILLY 'n' ETHEL



Forward Controlling With The President

It is a bit of a shock to learn that our hard working and willing editor is receiving so little input from the membership that two newsletters must be combined. It is especially surprising after getting so many promises of material from members at the National Convention. Come on folks! Let's support our editor and newsletter. Are we going to be forced to go back to four newsletters per year instead of six?

"ON THE ROAD AGAIN"

We have been doing some traveling related to Corvairs. We went to the VICE (Vermont Independent Corvair Enthusiasts) Chapter meet in Vermont. This is normally called the Fall Foliage Tour. We only had one FC in the group Tim and Rita Colson's (New York) Rampside. However there were several Corvanatics members present. The convoy of cars on the tour was very impressive. Many onlookers stated that they had never seen so many Corvairs in one group before. And as usual many said they had owned a Corvair and wished they had kept it.

We also attended an Ultravan Club National Convention in Hot Springs, Arkansas. There were approximately 35 Ultravans present plus a few brand X's. Interesting technical sessions were presented each day. The sessions dealt with the most common problems: engine, transmission, differential, lubrication, etc. Many Ultravans have over 100,000 miles on them and a few are approaching the 200,000 mile mark.

One common problem of the Corvair engine in the Ultravan as well as in FC's is valve seat failure. Two Ultra's "dropped" valve seats on the way to the convention. However, the cautious and experienced owners both had spare haeds with them. As we have all found from experience, the 140 HP heads seem to have the most valve seat trouble.

One way to avoid a dropped valve seat is to do as recommended to us at the CORSA National Convention in Philadelphia by Chevrolet Chief Engineer Hansen. He recommended that when working a Corvair engine hard, such as running at high speed or climbing a long grade, always reduce throttle slowly, such as slowing down before reaching the top of the hill. This lets the head and valve seat cool together. Suddenly closing the throttle causes the seat to cool rapidly while the much more massive head stays hot, thus causing the loss of the press fit between the head and the seat. Then the seat falls out. Many seats fall out after a hard run, a quick deceleration and sudden engine shutoff. The seat falls out before the head can cool and the problem is found on the next start. Guess where the dropped seat usually happens? To most people that I have talked and my own ex-perience number <u>five</u> cylinder is the most common loaction.

A lot of things seem to happen to number five cylinder since I seem to have a stack of heads with dropped seats in that cylinder,



burned pistons, broken rings and rods that are too egg shaped to be reconditioned - all from the same location. What's your experience?

We now have the excellent filing cabinet that member John McCardle from Indianapolis, Indiana donated at our meeting at the National Convention in Chicago. Thanks very much John, it certainly helped us to straighten up a lot of our records and past issues of newsletters.

From The Editor's

Glovebox



Since the theme of this issue is TECH I will share a recent experience of the technical na-ture that happened to my "64 Corvan - crankshaft failure. The sucker broke. I had heard of this happening before. It always seems to break on 164 engines between #5 and #6 when a harmon-ic balancer is not used. The engine in my Corvan had been totally rebuilt 30,000 miles before, had been meticulously maintained, never abused and ran as smooth and quiet as a Swiss watch until the time it happened. I had notica kind of hum or vibration at speeds of 65 MPH and above for several thousand miles before it let loose, and upon examining the metal at the point of the break it was evident that it had been partially broken for some time. When I built this engine from parts of many other engines and, of course many new parts such as TRW forged pistons, I did not use a harmonic balancer. GM did not put them on so I didn't see any need to either. Maybe GM found it not neccesary or maybe they left it off as an economy move on this "base" engine, but after this experience with my 95 HP engine I think I will use them from now on on any 164 engine. Just a little cheap insurance. Repair of the engine involved, of course, a complete teardown and a re-rebuild. There was no visible wear on any of the internal parts upon in-spection at 30,000 miles - the inside of the case had barely even lost its silvery color! I attribute this to changing the oil every 2,000 miles and using 20w50 Castrol GTX. So other than re-installing another reground crankshaft the only thing neccesary was to clean up the parts and reassemble it with new gaskets and seals. My budget sure wasn't ready for this expense, though!

At the recent National Convention Harold Dexter, a Corvanatics member from Fenton, MI, brought a ceramic prototype model of the preproduction FC. It was about 3 or 4 feet long. What do you say Harold? How about letting us in on this treasure with an article? Where did it come from?

I'd like to thank Bob Kirkman, Dave Palmer and Byron Eaton for the great tech articles in this issue, and Harold Evjen of Flagstaff, AZ for last issue's "Gene Brier". Donald Richmond of Pensacola, FL was the artist behind this issue's.

ALTERNATE BATTERY BOX by Byron Eaton

This alternate battery box attaches with existing fasteners, in front of the left rear wheel. There is <u>no</u> modification required to the vehicle - it can be returned to stock at any time.

The advantages of this modification are: 1. Uses a group 24 battery 2. Group 24 is available everywhere and quite often on sale. 3.Group 24 has a higher amp-hour rating 4.Battery is located about the same distance from the starter as the original position

On my Greenbrier I used a side terminal battery. This makes the terminals handy for jumping, if necessary. Some deflector will need to be installed to reduce the road dirt that could accumulate on the battery located in this position. A lightweight plastic panel does a good job. Since my vehicle is seldom driven in bad weather, I have no protection and have had no problems with battery operation.

If your Greenbrier is a camper, a second battery can be installed on the right side by folding the adapter in the reverse direction. I also made an auxillary fuel tank (just under five gallons) to set in the right side location, but never found time to get it installed.

As you can see from the sketch, the adapter is easy to make. If any members lack the material or equipment to make this adapter, I had several made by a sheet metal shop and will sell them for \$20 each including a large HD cable tie and shipping.



Required Parts: New battery mount; positive battery cable, 24 inch; ground battery cable, 36 inch long; group 24F battery (side terminal type recommended but not required; battery holddown.

INSTALLATION INSTRUCTIONS: 1.Disconnect and remove present battery 2.Raise vehicle and remove left rear tire 3.Clean heads of two hex screws and remove screws 4.Install battery mount into opening ahead of rear wheel. Hook formed lip over frame rail. Align two holes and install screws. Use cable tie provided to secure right side of box to frame. (see sketch) Remove all slack from cable tie. If extremely rough road conditions are expected, substitute long (16") screw type hose clamp for cable tie. 5.Place battery in mount. Install battery holddown. 6.Install positive battery cable to connection on starter. Route cable to battery. 7. Install ground battery cable. Remove bottom starter mounting bolt and install ground cable. Install and tighten bolt. Route cable to battery. 8.Note: Original battery cables are still connected. Positive cable is used to carry power to voltage regulator. Clean positive cable and wrap with electrical tape to avoid shorting to ground. Positive cable may be removed if a suitable wire (10 guage, ed.) is substituted between starter (battery connection) and voltage regulator. Ground cable may be removed, but not required (ed. note: at least a 10 guage wire must be used as a ground between engine and body) 9.Attach cables to battery. Install tire. Lower vehicle.





IMPROVE FC STOP AND TURN SIGNAL LIGHTS by Dave Palmer

One thing that bothered me with my '64 Greenbrier was the lack of warning to those following me when I signaled to turn or hit the brakes. The driving lights nearly flooded out the signal element.

Here is a way to increase your tail lamp visibility by 30% and utilize the un-used area of the tail lamp lens.

First go to your parts "junk" collection and locate two dash plate light sockets. These have a metal housing and will carry a #1895 lamp.



Use the diagram to locate the hole in the tail lamp housing for the 1895 lamp socket. The trick is to locate the lamp in between the housing mounting screw and the lens mounting screw. You may have to bend the tail light mounting bracket inside the fender a little to give clearance for the 1895 lamp socket. I used channel lock pliers to crimp this tab a little. Drill out the housing and snap in the 1895 socket. Seal it in place with RTV silicon. Splice your new lamp into the turn signal wire leading to the light housing. This wire I have seen in several different colors so it would be best to check it with a test light, before cutting away at your wiring.

Remount the tail lamp housing and lens. The whole job should take no more than 20 minutes. It is amazing how much more visible the extra lamp is. I estimate the improvement to be at least 30%.

WHITE ROOF FC'S

Several members have asked about white roof FC's; those with white belt stripe and also a white roof. I asked Dave Newell for facts and here is his reply:

The <u>only</u> RPO two-toning for all FC years was in the cove area. Perhaps you could get the roof painted white as a COPO. (control office production order - ed.) I've seen a lot of vans and 'Briers (and a few pickups) with white roofs, one of which I owned. But I knew most of them to be done by their owners (or previous ones) themselves to keep the heat down inside the trucks. Only one comes to mind that was a factory body color, that could have been done at the factory. I'm sure that a lot of dealers must have needed to "doll up" plain FC's to sell them, and painted many of the cove areas (stripe) in colors other than white or red (white with all colors other than white, red with cameo or pure white) so I think it's likely that some also painted the roofs.

I've never seen any reference to a white roof in any Chevy publication, but through COPO's and fleet orders I'm sure it could have been done!

An interesting note is that my '61 (very early production) appears to have had the white stripe area (cove) painted <u>before</u> the cardinal red body color. It may have been easier to control overspray that way (?) and they wouldn't have had to mask <u>over</u> the lip onto the main body color. Comments? (the white stripe was painted first because it was easier to mask off when the body color was applied - ed.)

Bob Kirkman

SERIAL NUMBERS

Has any attempt been made to identify the oldest and youngest FC owned by Corvanatics members? If you have a very low 1961 serial number, or a very high 1965 serial number, please contact editor Ken. More details could be acquired on the oldest and youngest and a future article would appear in CORVAN ANTICS. Remember that serial numbers began each year with a fake 100,000. Thus a serial number 100,001 would be job number one for that year. I believe you will find an "F" in the serial for Flint-built jobs and an "S" for St. Louis-built jobs.

MORE ON FC BODY BUILDING by Bob Kirkman

At the Chicago Convention Corvanatics Annual Meeting I went through some of the process of building the FC body. Part of that appeared in a recent issue of CORVAN ANTICS, but I'll add a bit here that could be new to all.

The FC was built in two assembly plants: St. Louis, Missouri and Flint, Michigan. Most of my time at the assembly plants was at Flint, as it was only 60 miles away from Engineering in the Detroit area.

etc. All was fixtured, spot welded, arc welded and even rivited in a couple places. This underbody established location for front suspension, steering, rear suspension and powertrain. The completed underbody went through a wash and phosphate process to prepare it for paint. There was no "prime" coat applied. The charcoal color epoxy paint applied was was both prime and color coat. To the best of my recollection it was sprayed, not dipped.

A previous article explained that the Chevrolet Indianapolis Plant supplied complete side assemblies, front end, roof and doors to the assembly plant. These were bolted to the underbody and certain end joints were arc welded together. MIG (wire welding with CO₂ gas shield) was used rather than stick welding, as it left no slag. Openings in the assembled body were closed off to preserve the interior paint that Indianapolis had applied. The body exterior was wiped clean (Indianap-olis applied the primer) and sanded. The ex-terior was was painted and baked and the body went to Body Trim. In that department the instrument cluster, wiring, glove box, door glass and hardware, windshield, weatherstrips and all such stuff was installed.

The side cargo doors were fixture adjusted for up and down and in and out, but as you know there is no fore and aft adjustment to get the gaps proper and even. The assembly plant had a long bar with a device at the end to fit over the hinge to <u>bend</u> it (cold) to make the door fit. That's why the hinge pins are not always straight through.

Interior panels were always a problem to install. Not really the panels themselves, but the small screws that attach them. Those are the screws with the pancake heads and tiny, tiny Philips screwdriver slots, and machine screw threads. The body and the doors almost always had the nut threads coated with some paint. The Philips slots tended to chew out because the screws were difficult to drive. That's why so many of those screw heads are sharp from being all burred up. The Staff Engineer was not sympathetic to the problem and resisted a change from machine threads to the more tolerant "sheet metal" screw thread.

The body was now lifted overhead and work was done from below. This included steer-ing gear, gas tank, front suspension, rear suspension, powertrain, heater, brake lines, wiring harness, clutch cable, transmission controls, wheels and tires, etc.

The powertrain rested on a hydraulic lift that was mounted on a dolly that could be po-sitioned under the body and the powertrain was jacked up into place and secured.

Engineering specifications called for shims to be used between the transmission and the transmission mount to control rear wheel toein. There was no way to measure toe-in at the time of shim assembly, so the process was to The assembly plant built the underbody from individual rails, crossmembers, reinforcements not, a different "pattern shim" group was used the next day. Willow Run had been into production of Corvairs for a year and shared their experience with Flint. I <u>believe</u> the shim pattern may have been set early at Flint and continued for years without change.

> When all the underneath stuff was completed. the vehicle was lifted and dropped through a hole in the second story floor onto the moving truck assembly line on the first floor. Truck production was the main event on that side of the Flint plant (passenger cars on the other side). The trucks were scheduled for build from 1 ton to 2 ton, and certain spaces were left open so that an FC could be dropped into place.

Work continued on the FC on the first floor line. Seats were built on that level and installed. Perhaps the battery was added. Engine throttle cable and choke cables (1961) were attached to the engine. Hub caps and the front and rear floor mats were thrown in (rolled up, as I recall). Electrical and Mechanical inspections were performed and the headlamps were aimed. What a deal! When the vehicle was lowered to the assembly line, the rear suspension was hanging down, all tucked in. When placed on the line it stayed that way; tail end high, nose down, and you had to adjust headlamps! Obviously a correction factor was used since the vehicle could not be rolled to settle out the rear until the vehicle reached the end of the line. Water test was done outside of the assembly plant main building.

That was the general processing of the FC vehicle.

BOOMERRANGS AND IDLER ARMS

Corvanatics had a small part in making rebuilt Boomerrangs available. John Dozsa advertized in the NOV 1986 CORSA COMMUNIQUE and so far has had very few orders. John is the only one able to rebuild using new, original design parts. You Corvanatics members were hurting because of worn out parts. Now is the time to take advantage of the rebilding service available. John can also do rebuilds of idler arms, since they use the same new, original design parts.

Contact: John Dozsa

> 4800 Old Washington Road Sykesville, MD 21784

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FC VENT WINDOW SEALS

While attending the Convention in Chicago, I was asked about someone (anyone!) that would repro the FC vent window seals. After that, I contacted a couple of places that seem to specialize in repro rubber for old cars. At the moment, the Lynn H. Steele Co. is interested and negotiations have started. They say it takes about six months from start to finish. It should be a joy to many of us to have live rubber again to seal the vent windows. (ed. note: I installed Lynn H. Steele vent window rubber seals in my '63 Monza Convertible. The quality was EX-CELLENT and the repro was FLAWLESS. I know I'll be sending in my order as soon as the product becomes available!)

DALE MFG. FC REAR AXLE BEARINGS

Those who attended the National Convention in Chicago may have seen the Dale Mfg. display of rear axle bearings. They have devised a substitute that has the capacity and articulation necessary for an FC. Internal construction is quite different. The price will be about like the ones you see now for scarce NOS bearings. The good points are: -Greasable

-adjustable

-Your FC does not have to become a

museum piece when NOS and used bearings are gone.

The drawbacks (if you want to call them that)

- are: -The bearings are not a direct replacement, in that it is a larger outside diameter. The hole in the brake backing plate and the hole in the control arm must be greatly enlarged for fit.
 - -The bearing has no "puller" for use in removal. If you twist the splines off an axle shaft, or mess up the flange, there is a bit of extra work involved to remove the bearing from the bad shaft to save the bearing.

I would believe Dale Mfg. will soon announce availability. They should be congratulated for working on the problem until they found a solution.

REAR DOOR HINGES

Rear door hinges were reviewed briefly at the Chicago Convention, but for the members not attending, here's the story.

At start of 1961 production the body rear quarter had a rubber bumper on each side that the rear door would contact if it were opened fully; about 180 degrees. The door had a reinforcement patch inside to keep it from showing a dent or ding from contact with the bumper. The rear quarter panel had enough contour that it was supposed to be stiff enough to stand the strain.

The assembly plant was experiencing handling damage that dented the body. I don't recall if the door dented also or not. The plant showed "Engineering" that a wind-caught door would bang the bumper hard enough to dent the body, so it was an "Engineering Problem" to be solved. The assembly plant, to protect their product, began welding a metal strap/bar across the hinge so that the hinge bottomed out upon itself before the door went far enough to touch the body bumpers. Edges were ground down a bit to take the coarse off this cobbled fix. The hinge-on-hinge contact does crush through the paint and result in a rust line, but the body is not damaged. I believe Engineering had to officially authorize this hinge rework so somebody could get paid for the labor. The bumper, although now useless, continued to be used because there was a hole in the quarter panel that needed something to cover it. The quantity of rear quarter panels on hand continued the bumper use. Maybe someone can tell me if any Greenbrier/Corvair 95 <u>ever</u> appeared without the bumper. This was before J.I.T., you know!

The hinges came from Chevrolet Indianapolis and they probably got stuck with the rework. At any rate the Engineering Department there began work to find a more engineered solution. The end result was a hinge with a metal stop pawl in a midsection notch. The pawl was, I believe, made of powdered metal. This served the same function of the strap/bar, was more consistant in opening position, and reduced paint chip and rust potential.

So, the vehicle had three hinge styles during its lifetime. I have lost track of entry dates of style #2 and #3. Maybe only the shadow, Dave Newell, now knows. It does not really matter because whatever you have on your vehicle was proper for the time at which it was built.

SIDE CARGO DOOR LATCH STRIKER PLATES

Side cargo doors seem to be just made to rattle around in the body opening. Those rubber wedges top and bottom are supposed to be shimmed to take up space so the door will close far enough to latch, but be tight enough so the door won't rattle up and down. If the . wedges are adjusted too tightly, the door must be slammed <u>hard</u> and it will eventually crack along the belt line. What has this to do with the latch striker plates top and bottom of the body? When production started, the striker plates had one "notch" for the door lock pawl to enter. The door was either latched or it was not. Top could be latched or bottom not, or the reverse. If the latch pawl was adjusted to not stick out from the door very far, and if the wedges were adjusted a bit too loose, the door would jump up and down in the body opening on certain kind of bumps and unlatch and could swing open. This happened to the staff engineer in charge of the body and he assigned his door latch engineer to put in a <u>safety position</u>. What this amounted to was two notches in the latch striker plate. If things were adverse and the door pawl jumped out of the full closed notch, it was still in the safety notch. The semi-loose door should now make so much noise that you knew the door needed attention. I <u>think</u> the double notch striker plates went into production during the 1961 model run. Some of you early 1961 own-ers may still have the single notch type.



THE FORWARD CONTROL CORVAIR PEOPLE