

TUCSON CORVAIR ASSOCIATION VOLUME 11 NUMBER 11

TUCSON, ARIZONA FEBRUARY 1986

CACTUS CORVAIR CLUB

PHIEN

PRESENTS

APRIL 4, 5, 6, 1986 FIESTA INN TEMPE, ARIZONA

A CORSA SANCTIONED EVENT

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ANN FISHER 1808 N. 46th St. PHOENIX, Az. 85008

RETURNS

IN THIS ISSUE:

Dids Toronado Powered '65 Why the Corvair DDESN'T Handle. ELECTION TIME at T.C.A.

TUCSON CORVAIR ASSOCIATION

CORVAIRSATION is a monthly publication of the TUCSON CORVAIR ASSOCIATION, which is dedicated to the reservation of the Corvair model of the Chevrolet Motor Division. The Tucson Corvair Association is a chartered member of the CORVAIR SOCIETY OF AMERICA (CORSA).

MONTHLY MEETING are held on the 4th Wednesday of each month except December. One technical/social event is planned for each month except July and August.

MEMBERSHIP DUES are \$10 per year and are payable to the TUCSON CORVAIR ASSOCIATION through the Membership Chairman.

CORSA MEMBERSHIP DUES are \$22 per year and include a subscription to the CORSA Communique, a monthly publication. See a TCA Officer for a membership application.

CLASSIFIED ADS are FREE to all TCA members and are \$1.00 per line to others. The deadline for materials submitted for publication is the 10th of the month for that month's issue. Mail or deliver all materials to the Corvaisation Editor.

BUSSINESS MAILING ADDRESS: P.O. Box 50401, Turson, Arizona 85703

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BOARD OF DIRECTORS

Current TCA Officer, Van Pershing, Bob Gay, Carole Sanford, and the Corvairsation Editor.

17 CORVAIRS PRESENT 49

The Regular Meeting of the TCA was called to order by President Mark McKenna at 7:41 P.M. at Picadillys Cafeteria at 6767 E. Broadway, Tucson, Arizona on Wednesday, January 22, 1986.

New Members and Visiters were introduced and welcomed.

The minutes of the November meeting were approved as published in the December Corvairsation.

An applause was given to Frank McKenna for putting on such a nice Christmas Party held at Rolling Hills.

Ed Sanford announced that we need more volunteers for the Mini Convention, The first meeting will be held on Jan. 25th at Jesse Owens Park at 1 P.M.. Please come out and/or call Ed if you are interested in helping out.

Ed Sanford also told everyone about his debut on Channel 13 in December. They had contacted him since they heard that he owned a Corvair. There was a plug for our club and they talked a little about the Corvair and Ralph Nadar. Then they showed Ed driving off into the Tucson Sunset. It was short but a nice little plug showing off the Corvair. Nice job Ed.

We have a new librarian - Dave Baker - remember the library has a good selection of material on the Corvairs.

Mark announced that there will no longer be any Park Mall Shows. The new manager, Bob Cordell told him that he does not want to have any more car shows at the mall. If you would like to call MR. CORDELL, to complain or ask WHY???? the number to call is 747-7575. We did however get one car into the World of Wheels. It seems that the World of Wheels is becoming more POLITICAL now and it may not be as much fun as in previous years.

Break

After break it was announced that the door prizes were going to be held a little different this next year. Before the numbers are drawn everyone will be shown the prizes. Then they will be put into the bags so that there is still some element of surprise. Lic. #HVE65 was drawn and the winner was Gordan Cauble for driving his Corvair to the Feb. '85 meeting. Winners for the drawings were: Bob Eggers, Barbara Eggers, Nadine Rentchler (twice), Frank McKenna, Alan Altwood, Cathy McKenna and Del Light. Prizes were donated by the Boys at Barney's and TCA.

Cecil Allain discussed his trailer park, Commanche Wells on W. Roger. This is a Co-op and if you are interested in talking to him, please contact him.

Ed Sanford announced that his Exchange Club in holding a golf tourney at Skyline sometime in the middle of April. Cost would be \$75. which is tax deductable. If you are interested please call him.

Buy and Sell items were discussed.

Board of Directors meeting will be Jan. 29th at Bob's Big Boy, Speedway and Swan at 7:30 P.M.. Remember, anyone may attend. Compact falled appelled,

Meeting adjourned at 8:45 P.N..

ELECTIONS

The February Club Meeting is where the annual election take place for the officers who will take the reins in March for the coming year. This year the Nomination Committee has selected the following people to run:

Don Robinson	President
Ernie Alloy	Vice President
Alan Atwood	Treasurer
Beverly Baker	Secretary
Allen Elvick	Board Member at Large

Support TCA by being there to vote!!

CAN REPORT

In 1985 we received \$173.96 income from aluminum (mostly cans) that you, the club members, collected. Scrap aluminum prices dipped to a low of about 18 cents at mid-year after starting the year at 28 cents/pound. In most cases, coupons worth an extra 5 cents/pound were used cashing in the cans.

A total of \$361.55 worth of cans was collected in 1984 which was a great can year. In 1983, the total income was \$138.80.

In January 1986, the we received 29 cents/pound for the cans we turned in. Keep those cans coming in while we are getting higher prices from the re-cyclers. Let's have another great can year!

THE CAN MAN

WORTH PASSING IT ON

Writing in the lastest "356 REGISTRY", Vic Skirmants cautioned people who arc weld and wear contact lenses. He sites two cases where workers removed their contact lenses after welding and the cornea of their eye was removed along with the lens. That's PERMANENT BLINDNESS!!

He goes on to say that the electric arc generates microwaves that instantly dry the fluid between the eye and the lens. The injury is painless and there's no indication what has happened until the contact lens is removed from the eye.

Tell your friends... Pass it on.

Don Robinson

Vairo 'n Spareo

FOR SALE: '63 GREENBRIER, looks good in and out; auto, air, electric fuel pump. AM/FM cassette, prover antenna, roof rack, window film; runs good. Noise in diferential. \$2.150 or trade for convertible or Lakewood. Call Bob Jones 298-3526.

FOR SALE: '63 MONZA Coupe. special encarburetor engine, black w/ new red interior. A real nice car w/ wire wheels. 47, 200 or reasonable offer. Luli Gary & 522-0478.

FOR SALE: TUNE-UP PARTS : : 1950 and early 1951. See the Mechandrise Charperson, Lain, McKenna at the next meeting.

FOR SALE: 4-BARREL manifold for 140HP engine. All new, still on box. Best offer. Call Randy Nelson @ 294-1195.

FOR SALE: '66 MONZA w/ air, 9 speed, 4-door, 110 HP engine, new paint. Runs and 10 hs great. Call Shari Ruberts @ 297-6219.

FOR SALE: "SPARES" A very nice antique Singer sewing muchine. Everything works. Will take best offer. Call Sheri @ 297-6219. FOR SALE: ESPECIALLY for the domit-yourselfers: tune-up distributor caps, 1.1t5+ wrapped fon belts. air filters & oil filters; also vitur O-rings, trunk and engine lid weather strips; plus many other Lorvair parts. Call Gordon Cauble @ 299-1122.

FOR SALE: '63 GREENBRIER, 110/4-speed, bolted flywheel, excellent battery, equipped for camping, 12-volt refingerator, foun rubber bed, drewers, port-a-pottie, respected, radio w/ 8-track stereo. Call Alan Gray @ 795-2639.

FOR SALE: '61 FOUR DOOR automatic: one of Brian tactions. 11 interested Call Floor Plenna 9 885-8571.

FOR SALE: '64 GREENBRIER w/ automatic transmission. '64 engine runs good. Body good nd rust. Doorw need repair. \$600 OBD. Call Gary @ 622-0478.

FOR SALE: '64 MONZACoupe. Call 326-5118

FOR SALE: '61 LAKEWOOD, 95HP, automatic, near cherry, red/ivory. Make offer. Chester Bockstedt, 297-5693.

IN MEMORIUM

Don L. Notter: 1913-1986 Former ICA Member '79 - '81 Services were held 9 Jan 1986, Wakeman Funeral Home, Saginaw, Michigan. Interment at Rose Lawn Memorial Gardens.

JUST ANOTHER CORVAIR? NO WAY!

A Florida high school shop teacher practices what he preaches with an Olds Toronado-powered Corvair

Text & photos by Gary Lantrip • Why would anyone want to build a car like this? When friends told Richard Slayton that it wouldn't be possible to build the kind of car he wanted, he considered that alone was enough reason to attempt it. The result is the car featured here.

Dick, who is a retired Air Force sergeant and an auto shop instructor at Hillsborough High School, Tampa, Florida, wanted a car that combined good looks and design, outstanding acceleration and handling, and such creature comforts as air conditioning and AM/FM stereo and tape player.

Dick ended up with a 1965 Corvair with a sharp paint job, mags with fat tires and the comforts he wanted. What Dick didn't end up with was the Corvair engine and drivetrain. Instead, nestled securely between the Corvair subframe and in the space formerly occupied by the rear seat is a late-model V8 engine.

Now Corvair V8 conversions have been done to the point that they are almost commonplace. The usual conversion involves a small-block Chevy and a Crown or Kelmark adapter kit to mate it to the Corvair transaxle. Dick decided on another approach, one that called for original thinking and engineering. He bought a worn-out 1966 Oldsmobile Toronado and pulled the engine and front-wheel-drive equipment from it.

He performed a valve job; milled the heads; installed TRW valve springs, a capacitive discharge ignition system and a 650-cfm Holley carburetor. Dick also had beefter clutches and a modified valve body installed in the Turbo-Hydramatic for improved shift characteristics

To keep the hassle to a minimum and to ensure the mechanical integrity of the swap. Dick adapted standard Corvair and Chevrolet parts to do, the job. The Toronado axles were cut to the proper length and machined to fit Corvette yokes. The axles were attached to the Corvair hubs with Corvette universal joints. Dick fabricated the front and rear motor mounts from 2x3-inch rectangular steel tubing and bolted them to the Corvair subframe.

The real control arms were fabricated from Corvair control arms and are at-

tached to the front motor mount. The arms were designed with two pivot points apiece, which allows Dick to adjust the camber and toe-in to alter the handling characteristics.

One of the sure-fire giveaways of a V8 Corvair, the slots on the front panel for the radiator, are not present on Dick's car, instead of mounting the radiator in the trunk and installing plumbing to get the water back to the engine, he mounted it directly in front of the engine. To get air to the radiator, he installed a 3¹2-foot-wide deflector on the bottom of the car to force air through the radiator and out the vents behind the rear window.

With the 425-cubic-inch Olds engine and drivetrain in place, the car weighs slightly over 3000 pounds, with a 45-55 front-to-hack weight bias To compensate for the increased weight and to make the ear's handling match its acceleration, the stock springs were discarded and heavier units were installed in their place. The rear springs were replaced with units from a 1968 Chevy sedan and the front springs are from a Rambler American. To maintain the desired vehicle height, the front springs were cut two inches and the rears were cut three, which further added to the suffness of the suspension.

For wheels, Dick used 6x14 steel Keystones with an alloy face. He cut into the wheels on a lathe and welded in a two-inch section to provide negative offset for fenderwell clearance, G60 tires on the rear and h60s on the front provide plenty of traction.

The engine is enclosed in a heavily insulated sheetmetal box, making the interior of the car as cool and as quiet as a conventional front-engined car. The engine housing is carpeted to match the rest of the interior, the carpeting being attached with Velcro fastening tape to allow easy removal for access to the engine compartment.

To increase seating for an occasional third passenger, the bucket seats were discarded and replaced with the reupholstered bench seat from the Toronado. A cluster of Stewart-Warner gauges was added to supplement the Corvair Corsa instrumentation.

Dick prepared the body and painted it with Amer-Flint epoxy paint. Two



pints of orange were mixed with a gallon of bronze to form a striking shade of gold.

The car is remarkably deceptive. The exhaust is routed through stock exhaust manifolds and Corvair Spyder mulfilers. These mulfilers, with 2½-inch inlets and outlets, provide a high degree of silencing and an absolute minimum of back pressure. At idle, the car has a deeper sound and is somewhat quieter than a stock Corvair.

No performance figures were available for the car, but it has been known to pull the front wheels off' the ground under hard acceleration. Dick estimates the car would turn the quarter in the high-13s or low-14s and that it has a top speed in excess of 140 mph.

Because the first Corvolds conversion was so satisfying. Dick is currently working on another car, also a Corvair, that is to be powered by a 455-cn.d Olds engine with twin Rajay turbochargers.

Dick's present car is a low-budget project by anyone's standards. Through careful trading and artful scrounging he spent less than \$500 to make the conversion, including the price of the Toronado. Not included in this figure is the cost of the Corvair or the 200 hours of labor necessary to complete the car.

Richard Slavton's Corvair may be a super sleeper, but when it comes to tooks and performance, it's a real eyeopener! ABOVE- A flawless body, a set of Kerstone mags and Daviona tires give the look of a restored car, but this 'Vair is much more than that. This '65 is packing a '66 Toronado 425-inch 18 adapted for the occasion by owner Dick Slavton CENTER RIGHT-Toro ayles were cut down, machined for Vette vokes, attached to Corvair hubs with Vene U joints. The motor mounts were fabricated from 2x3-inch rectangular tubing. Rear control arms were made from Corvair units, attach to front motor mount with two pivot points each for camber and toe in adjustment. CEN-TER FAR RIGHT-Shot from directly under the engine shows trans layout and axle shaft. Obviously, there was plents of room for the 425. even with the radiator mounted just ahead of the engine instead of up front in the trunk. BOTTOM RIGHT-Detail of joints and cut-down shafts Rear coils are taken from a '68 Chevr sedan, BOTTOM FAR RIGIII Detail of rear trans mount, cooler, shorty exhaust system. Plug in bellhousing reveals timing marks scribed in flywheel



HOT ROD MARCH 1975 93

FROM CENTRAL VIRGINIA CORVAIR CLUB 12-85

Have you ever wondered why early models so often leave the road backward or why they spend so much time on their roofs? If so, perhaps you might be interested in what Jerry Titus had to say about:

WHY DOESN'T THE CORVAIR HANDLE?

by JERRY TITUS

Here, then, reprinted from "Foreign Cars Illustrated and Auto Sports" is Jerry Titus:

Chevrolet's otherwise admirable compact car can be treacherous in a corner. Here, for the first time, are the real reasons-plus a number of possible solutions

WHY DOESN'T THE CORVAIR HANDLE?

THE BALLOTS are in, and the vote is virtually unanimous. Automotive experts—with one or two unconvincing exceptions—all agree that the Corvair is an "oversteer" vehicle. Actually, the term is extremely kind, as under certain conditions the tail end "comes out" like a shot.

Except for this one trait, the Corvair is a first-class and very likeable car. If it weren't, we'd write the whole thing off as a fumble and not bother to analyze one idiosyncracy. We still hesitate to take a manufacturer to task for the design of his product, but under the circumstances we feel that a discussion of the Corvair's handling will be of definite value to our readers. Further, in view of the prevalent rear-engine controversy, clarification of this one peculiarity should prove enlightening.

The rather weird way in which the car "wagged its tail" —as described in last issue's test-set us to thinking. The test vehicle's overall balance was otherwise fine; there was no other indication that the weight distribution between front and rear might be a problem. The tail moved outward only after a corner was entered at well above "normal" velocity.

Our suspicions were confirmed by a photo taken of a Corvair being pressed hard into a turn. The picture showed clearly that both tire roll-under and positive camber of the "outside" rear wheel were excessive. Further, the body was high above the wheel.

From this evidence we derived a rather complicated theory. The next step was to procure another test car, set out to prove or disprove the hypothesis, and if possible come up with a solution. It soon became apparent that the second car was even more of an oversteer vehicle than the first had been. On this one, the tail-wagging occurred during cornering within the limits of normal velocity. We began adding important facts to our data.

To insure the accuracy of our test, we selected a smooth, high-speed, high-adhesion corner, setting 55 mph as the velocity to be maintained through it. This proved ample to bring the tail out considerably. Our first run was made with only one person aboard, and with factory-recommended tire pressures. We had our hands full maintaining control. Instead of the tail *staying* out, as you'd normally expect, it would grab a new bite as soon as we corrected, then repeat the pattern, so that three distinct corrections were required before the turn was negotiated. This was not exactly a happy situation!

After making several of these runs to eliminate the possibility that entering the corner differently might yield better results we undertook a series of attempts to correct the problem. Before explaining the results of these, however, it would be best to clarify exactly what we had decided the problem was.

The Corvair's suspension appears—at first—to be a fully independent design. In effect, though, it's actually a swing axle. For our purposes here, the latter design has two major characteristics. First, swing axle camber must change with axle movement. Second, centrifugal forces acting upon the sprung mass must pass through the same horizontal plane as that of the inner U-joint of the half-shaft. Looking at the latter point conversely, cornering forces on the rear wheel have to exert themselves at this same pivot point. Further, with a swing axle, slight positive camber is desirable to obtain maximum tire life, and this feature Chevy has included.

None of this is detrimental in itself. The hitch lies in the roll center, which appears to be only slightly above the inner axle centers. As a matter of fact, almost all of the vehicle's major weight masses—engine, transmission, differential, seats and gas tank—are located about the same distance above the ground. With all this in mind, let's examine what seems to happen when the Corvair goes into a corner.

As centrifugal loading builds up, slight tire roll-under is incurred by the rear wheel on the outside of the turn. In a more conventional car, some vertical weight-loading would take place simultaneously, as the body and chassis started to lean or pivot. But this doesn't happen in the Corvair because of that low roll center-and positive wheel camber quickly induces more severe roll-under.

Up to a certain point, the latter phenomenon gives the tire 3 good bite, so that the car holds well at moderate velocities. As centrifugal loading increases, however, the roll-under becomes excessive and reduces the effective tire contact area until the rubber shears and the tail goes out all of a sudden.

This tail effect would eventually happen to a "normal" sedan too, but by that time the chassis would have rolled weight onto the wheel, forcing it to bite harder and make the break-away more gradual.

Why is this vertical weight-loading missing from the softly sprung and "under-shocked" Corvair? For the answer, go back to where the tire roll-under is first incurred. The resistance forces are transferred back into the chassis at hub level, through transverse arms in the same plane. As the roll-under increases, the distance from the axie center to the ground *decreases* and the anchor point of the arms moves *above* the hub center. The axle and the arms become, in effect, a lever which prevents chassis-roll onto the suspension. What happens instead is quite the reverse: with the weight mass concentrated on this inner pivot point, the chassis can move in only one direction—upwardl

The results are far from kosher, since a rear-engined car can be practical only if the design utilizes the extra tail weight to hold the rear wheels on the ground. It must be remembered, further, that under side load the outside wheel is assuming more and more of a positive camber angle. One of the usual advantages of a swing axle is to promote *negative* camber under load and thus provide full tread contact on the outside wheel. The Corvair's geometry doesn't do this.

In trying to prove or disprove our theory and at the same time find a solution to the problem, we followed the suggestion of a Chevy engineering representative and increased the front tire pressure from the normal 15 pounds to 26 pounds. This, we were told, was supposed to improve handling, although the only way it could do so would be by increasing the slip angle of the front to compensate for the wild one in the rear. It did help a little, making the break-away less violent, but it was far from a complete answer.

After playing with the pressures of both front and rear tires, we started working on weights: adding passengers, moving them to different positions, placing a 100-pound sack of sand in the front. Some things helped a little, others didn't. One experiment, and only one, netted any real improvement-increasing the weight in the rear! That's right, we took a car that already has 60% of its weight in the rear, added more there, and came up with an almost 40% increase in controllability through corners. We don't blame you for asking, "How come?" No, the weight in itself wasn't helping the cornering.

No, the weight in itself wasn't helping the cornering. But placing it over the outside rear wheel changed the angle of the "swing axle" to one that was slightly uphill, running from the inner pivot out to the wheel hub. Camber became just a hair negative instead of excessively positive. With this setup, lateral forces no longer "locked" the suspension, and tread contact was good. The result: a smooth, fast, and controllable cornering effect.

So, with the cause established, what can be done in the way of correction? Several things. None of them will be as effective as would the adoption of a new design similar to the low-pivot "swing axle" of the Mercedes 300SL roadster, but they'll all be a lot less expensive.

First, installing high-strength, high-adhesion tires such as Michelin X on the rear wheels would improve tread bite with no other changes. More effective, however, would be a de-cambering job. As this would lower the rear and move more weight in that direction, the front should be lowered to match. Sure, tires would wear faster . but we'd rather have the improved handling. Wouldn't you?

Finally, there's another way: extend the support arms downward about an inch and a half at the point where they bolt to the frame. This could be accomplished with blocks and longer mounting bolts. Since lowering the pivots would also extend the springs, the latter would have to be shimmed almost an inch to bring the chassis back up to its original level. Such a modification would lower the pivot point without affecting the roll center, and would also produce a slight negative camber in the rear wheels.

As a sidelight; let's consider another phase of Corvair handling: in the wet. As might be imagined, the car oversteers on slick surfaces. But the effect isn't as violent as



you'd expect after cornering on a dry surface. We didn't have a chance to experiment extensively under wet conditions, but a slight reduction in rear tire pressure should make the car a good handler in the rain. Again, Michelin X tires would do much to make the rear end stick.

To sum it up, we think the Corvair is a fine little car and wouldn't mind owning one personally, but we feel that correction of the oversteer tendency is essential if fast cornering is contemplated. It will be interesting to see what factory corrections are forthcoming. It's possible some will appear on the units entered in the compact car race at Sebring. Keep your eyes on them! \bullet



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TREASURER'S REPORT

Balance January 1, 1985\$469.23
Income
Dues
Corvairsation ads
Raffle tickets
Merchandise sales
Aluminum cans
Total Income\$202.79
Expenses
Corvairsation
Raffle/mechandise
New checks
Total Expenses\$145.47
Balance January 1, 1986\$526.55

Alan Atwood



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TUCSON CORVAIR ASSOCIATION REGULAR MONTHLY MEETING

- * THE TIME: 7 pm, the FOURTH WEDNESDAY of each month.
- * THE PLACE: Piccadilly Cafeteria, 6767 E. Broadway, Tucson

Gather at 6:30pm, eat at 7pm - You don't have to eat to attend.

COMING EVENTS

- Feb 22: Practice Judging Session for Phoenix Concours Judges: 11 am Pima College-West Campus, southeast parking lot. Bring your cars. Picnic afterwards - BYOL!!
- Mar 16: SSCC Slalom: Ft Huachuca Call Chuck Kelley @ 1-458-2685

1st Saturday Rally - 1pm Reid Park Tennis Courts - SASCC Call Carl Broberg @ 297-3934 for details

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