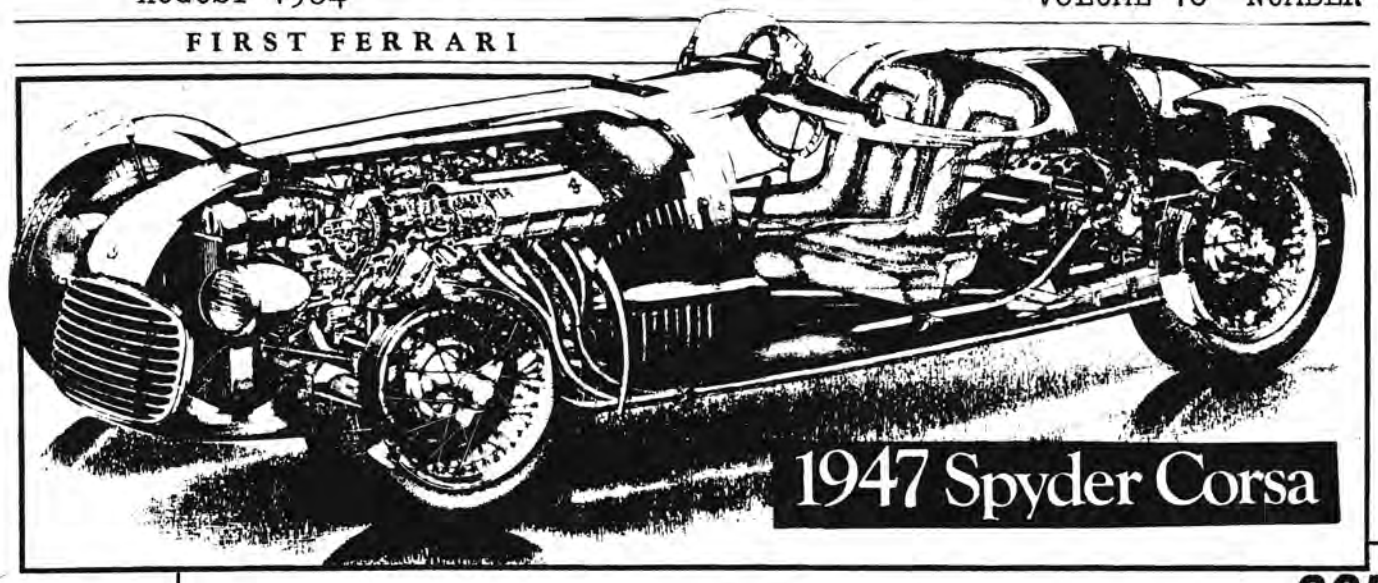
Dave Baker

Corvairsation

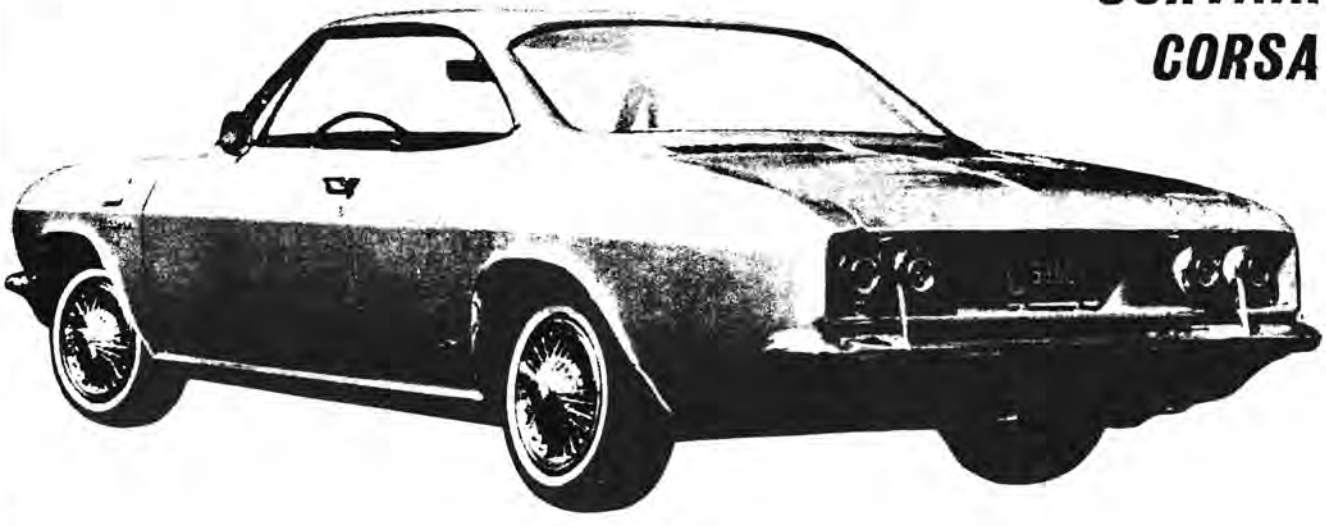
TUCSON CORVAIR ASSOCIATION TUCSON, ARIZONA

AUGUST 1984 VOLUME 10 NUMBER 5

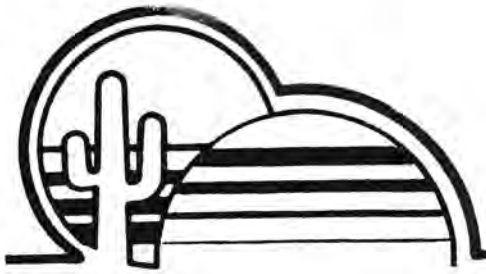
FIRST FERRARI



CORVAIR CORSA



There doesn't seem to anything orginal OR sacred about the Corsa name plate. It's been from Italy to America and now it can be seen on the streets of Spain!



TUCSON CORVAIR ASSOCIATION

CORVAIRSATION is a monthly publication of the TUCSON CORVAIR ASSOCIATION, which is dedicated to the preservation though restoration 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 MEETINGS are held on the 4th Wednesday of each month except December, and one technical/social event is planned for each month except July and August.

MEMBERSHIP DUES are $10 per year payable to the TUCSON CORVAIR ASSOCIATION through the membership chairman.

CORSA MEMBERSHIP DUES are $22 per year and include a subsciption to the CORSA Communique, a monthly publication. Membership applications are available from either the Membership Chairman or the Treasurer.

CLASSIFIED ADS are FREE to all TCA members and are $1.00 per line to others. The deadline for all materials submitted for publication is the 10th of the month. Mail or deliver all materials to the Corvairsation editor.

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Rally Point

TCA REGULAR MEETING - Wednesday, July 25, 1984. The meeting was called to order by President, Bob Gay at 8:00 p.m. at Carrows Restaurant, 1340 N. Wilmot.

Present: 50 Corvairs: 18

The minutes of the June 27, 1984 regular meeting were approved as published in the Corvairsation.

Visitors and new members were introduced.

Copy of one of the petitions was read in regards to the ban on leaded gas. Members were encouraged to write their Congressmen to vote against the ban as it is discriminatory and will cause hardship to millions of Americans who cannot afford it.

Discussion was held in regards to running a Want Ad in the paper for $15.00 a month announcing our meeting to attract new members plus reminding members of the meeting. It was suggested that instead of paying for an ad to run one in the Tucson Weekly paper free on Tuesday prior to the meeting.

Mid-Month activity for September will be a picnic and recreation at the Breakers. More information will be forthcoming on this.

Bob Gay will see about getting the Corvair wall plaque back from the Filling Station Restaurant which has closed.

An updated roster was given to each member in attendance.

Bob Gay will Chair a committee consisting of Betty Chastain, Lucy Post, Patti Tait and Bill Wilcox to look for a place big enough to have our meetings.

After break, door prizes were won by Richard Aufmuth; Howard Wood, Fred Zimmerman and Lee Vader.

A tech tip session followed. For sale items were announced.

The meeting adjourned at 9:20 p.m.

Respectfully submitted,

Lucy Post

Lucy Post
Recording Secretary

SHOCK ABSORBER INTERCHANGABILITY, Much has been written about what will fit, what has the proper valving, the correct length, etc. Listed below is copy from the good book of St.Delco, Son of General Motors, taken from catalog 5PA-100 dated July, 1973. Let this gospel speak for itself. B. Eaton.....

Delco Shock Absorbers

PLEASURIZERS

Make and Year	Model	Pleasurizer Front	Pleasurizer Rear	Pleasurizer HD Front	Pleasurizer HD Rear	Pleasurlift Set No.	Pleasurlift Single Units	Adapter Kit Req'd.
CHEVROLET CORVAIR								
1960-64	All Pass. Car and S/W	P1003	P1068	P2004	—	—	—	—
1961-65	Greenbrier & R10 Truck	P1105	P1104	P2001	P2080	—	—	—
1965-69	All Pass. Car and S/W	P1090	P1091	P2031	P2068	P3040	P3040L P3040R	—

P1003 Chevrolet 1955-57 ..... Front
Chevrolet Truck 1/2 & 3/4 Ton 1955-57 .... Front
Corvair 1960-64 ..... Front
Corvair S/W 1960-64 ..... Front
Corvette 1963-73 ..... Front
Edsel 1958-60 ..... Front
Edsel S/W 1958-59 ..... Front
Fairlane 1960-61 ..... Front
Ford 1957-64 ..... Front
Ford S/W 1957-59 ..... Front
Ford Ranchero 1957-59 ..... Front
Ford Truck 1957-60 ..... Front
Mercury 1957-64 ..... Front
Mercury S/W 1957-58 ..... Front
Thunderbird 1959-60 ..... Front
Toyota (Inc. S/W) (Japan) 1965-67 ..... Front
Toyota (Inc. S/W) (Japan) S/W 1965-67 ..... Front

P1068 Corvair 1960-64 ..... Rear
Corvair S/W 1960-64 ..... Rear

P1104 Corvair 1961-65 ..... Rear
Packard 1956 ..... Front

P1105 Cadillac 1956-60 ..... Front
Corvair 1961-65 ..... Front
Grand Prix 1962-68 ..... Front
Oldsmobile 1965-70 ..... Front
Pontiac 1958-70 ..... Front
Pontiac S/W 1958-60 ..... Front

P1090 Cadillac 1961-65 ..... Front
Corvair 1965-69 ..... Front
Corvair S/W 1965-69 ..... Front

P1091 Corvair 1965-69 ..... Rear
Corvair S/W 1965-69 ..... Rear

P2004 Corvair 1960-64 ..... Front
Corvair S/W 1960-64 ..... Front
Corvette 1963-73 ..... Front
Chevrolet 1955-57 ..... Front
Edsel 1958-60 ..... Front
Edsel S/W 1958-59 ..... Front
Fairlane 1960-61 ..... Front
Ford 1957-64 ..... Front
Ford S/W 1957-59 ..... Front
Ford Ranchero 1957-59 ..... Front
Ford Truck 1/2, 3/4, 1 Ton 1957-60 ..... Front
Mercury 1957-64 ..... Front
Mercury S/W 1957-58 ..... Front
Thunderbird 1959-60 ..... Front
Toyota (Inc. S/W) (Japan) 1965-67 ..... Front

P2080 Corvair 1961-65 ..... Rear
Packard 1956 ..... Front

P2001 Cadillac 1956-60 ..... Front
Corvair 1961-65 ..... Front
Grand Prix 1962-68 ..... Front
Oldsmobile 1965-70 ..... Front
Pontiac 1958-70 ..... Front
Pontiac S/W 1958-60 ..... Front

P2031 Cadillac 1961-65 ..... Front
Corvair 1965-69 ..... Front
Corvair S/W 1965-69 ..... Front

P2068 Corvair 1965-69 ..... Rear
Corvair S/W 1965-69 ..... Rear

LET'S WELCOME OUR NEW MEMBERS!

DENNIS & ANGELIA GARDNER
4735 E. 4th STREET
TUCSON, AZ 85711
326-1564

CHANGES & CORRECTIONS

SHERI ROBERTS
1169 N. TRACY
TUCSON, AZ 85715
886-7628

ETHEL MOORE
1180 N. ALDER #E
TUCSON, AZ 85705
729-9724

BOB & JAN THOMPSON
2672 WOODCREST DRIVE
CONCORD, NC 28025

JUNE [illegible] KNITTLE

JULY DUES: ROBERT STOUT
VICTOR HOWARD
RICHARD MAY

AUGUST DUES: BARNEY GOODWIN
ED CARY
LOUIS LAGE
LARRY DANDRIDGE
DON HOOKS
HOWARD WOOD

SEPTEMBER DUES: DON ROBINSON
DAVID ALBANI
HARRY RANSOM

EFFECIVE AUGUST 1, 1984:
ALL DUES WIL BE $10 PER YEAR

MEMBERSHIPS DROPPED:

DALE WEBB
JOHN SHERLOCK
DON DAVIS
ORVAL LITTLE

"IT HANDLES AS WELL AS ANY PRODUCTION SPORTS CAR AND BETTER THAN MOST." — STIRLING MOSS

BE A SWINGER IN A STINGER!

Tint Your Windows - Yourself!

Why Not? I did, and the results are very satisfactory. After spending over a hundred clams getting a commercial outfit to do it to my Accord, I started thinking about trying a home-grown approach. Then, Pep Boys put their tinting film on sale, and that was enough for Cheapskate Ed. All you need is a spray bottle filled with H2O (and a drop of liquid detergent), a squeege and a single edge razor blade. If your wife has a fabric cutting board, and will let you use it, it makes cutting the film to size much easier. (Use scissors on the cutting board, not the razor blade!) I won't go into a step-by-step routine, but I will pass on a couple of tips (learned the hard way - this was my first effort at tinting windows).

First tip, and big secret! When you are putting the film on the glass, keep everything (well, glass and film) sopping wet! Your squeezee will get it all out later, and you will minimize air bubbles.

Second tip - cut the film oversize, and trim it on the glass with a single-edge razor blade. Much easier than trimming the size prior to installation, and the results are definitely superior.

Third tip - if you have any doubt about what shade you should use, get the lighter of the available tints. That way, if you don't like it, at least you can live with it. I used light tint for my effort.

Big Confession - I hate to lead you folks down the garden path. My own first effort was on my Greenbrier, as in, all flatt windows type of Corvair. The rear window on the sedans will be difficult, due to compound curves, but the problems certainly aren't insurmountable, and I'm already planning my next effort. Now, if Pep Boys will just put their film on sale again.....

Big Ed

TUCSON Corvair ASSOCIATION

-FROM VAIRMAIL, SAN DIEGO CORVAIR CLUB.

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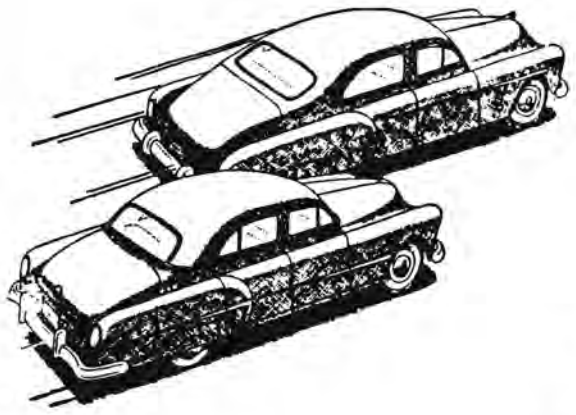
LEAD - FREE GASOLINE AND THE PRE - 1971 AUTOMOBILE



by James W. Lula

Submitted by Chris Kimberly

The elimination of tetraethyllead (TEL) from automotive gasoline appears to be imminent. As a result of this, there is a growing concern among car collectors as to how their pre-1971 cars will operate (or cease to operate) on lead-free gasoline. This concern may be exaggerated but it can be brought back to proper perspective by reviewing several technical papers written on the effects of lead-free gasoline, published by the Society of Automotive Engineers (SAE).

These technical papers identify only two problems with pre-1971 automobiles caused by lead-free gasoline. The first problem is the lower octane rating. High octane gasoline has already been eliminated by restrictions on the lead content, and this situation is likely to remain unchanged. The second problem caused by lead-free gasoline is excessive wear of the exhaust valve seat (exhaust valve recession). The remainder of this discussion will deal with this latter problem.

Exhaust valve recession was observed as early as 1931. However, the addition of TEL to gasoline (as an anti-knock additive) prevented valve recession from becoming a serious problem. Actually, reports of this problem were only sporadic from the 1930's until the 1960's. It was not investigated extensively until the late 1960's when the introduction of lead-free gasoline was mandated and automobile manufacturers were forced to design engines to run (reliably) on lead-free gasoline.

It is true that using lead-free gasoline will result in a higher rate of exhaust valve recession in automobile engines manufactured before 1971. In fact, the wear rate using lead-free gasoline is 10 to 20 times that of leaded gasoline. Research has shown that exhaust valve recession starts with the transfer of material (iron) from the exhaust valve seat to the exhaust valve face. These iron particles oxidize readily and are subsequently embedded in the valve face. Being hard and abrasive, these embedded particles effectively grind away the exhaust valve seat as the valve opens and closes. This produces additional material which is transferred to the valve face and the process continues. As the seat is ground away the exhaust valve gradually recesses into the cylinder head, thus upsetting the valve train clearances.

The normal operating range of a hydraulic valve lifter will accommodate 0.125-0.150 inch of exhaust valve recession before the valve lash is reduced to the point where the valve will not fully close. At this point, impaired performance is usually characterized by hard starting and a rough idle. This point is reached much sooner on engines with mechanical lifters, but these engines can be periodically adjusted to compensate for the change in valve lash.

Exhaust valve recession is not a problem with those engines run on leaded gasoline. This is because lead compounds are deposited on the valve face and also on its seat in the cylinder head. Lead oxides are found on the valve face while a combination of lead bromide and lead chloride is found on the seat. These lead compounds act as a solid lubricant, preventing metal to metal contact between the valve and its seat. As little as 0.5 ml of TEL per gallon of gasoline will prevent exhaust valve recession.

The automobile manufacturers were indeed concerned over this potential problem with lead-free gasoline. To put their concern in perspective, it should be noted what the trends were in the late 1960's. At this time, high performance muscle cars were common. Recreational vehicles were becoming more popular. Legal highway speeds were 70-80 mph or more. All of these factors

CONTINUED 20

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placed high loads on the engines being built at that time and the manufacturers had to design for reliability under those loads.

Testing for exhaust valve recession was, therefore, done under relatively severe conditions. For example, road testing was done at 70 mph for extended periods of time under conditions that produced artificially high coolant temperatures. Bench testing was done at 3000 to 4400 rpm, 230 degrees F. coolant temperature, and 5 inch Hg manifold vacuum. Using lead-free gasoline under these test conditions, exhaust valve recession on pre-1971 engines was measurable and usually led to a sharp drop-off in performance within 50,000 miles or 100 hours of bench testing. Some failures were observed much sooner, depending upon the severity of the test and the particular engine design.

However, some of the conclusions reached during these tests are of interest to the automobile collector, since the conclusions suggest that under some conditions lead-free gasoline may be acceptable for pre-1971 engines. For example:

> ". . . the average driver, who seldom exceeds 70 mph, should not experience significant engine deterioration while using lead-free gasoline. The salesman, however, who drives 15,000 turnpike miles per year at 80 mph, may well expect valve train problems." (SAE Paper 710674)

> "It is clear that exhaust valve seat wear with zero-lead gasoline is responsive to engine speed. . . . At 2300 rpm and 16.0 inch vacuum, exhaust valve seat wear was very low and was detected only by the widening of the valve seats and formation of the red iron oxide deposits that are characteristic of operation on zero-lead gasoline. The coolant on this test was water at 195 degrees F. rather than ethylene glycol at 230 degrees F., which would tend to reduce valve seat wear even more." (SAE Paper 710673)

> "Operation at 60 mph instead of 70 mph reduced valve seat wear . . . by about two-thirds." (SAE Paper 710367)

Today, 70 mph speed limits are a thing of the past. The pre-1971 automobiles that were designed and built for those higher speed limits are now being collected, rebuilt, and restored. These cars are relatively pampered compared to their first years of existence. Because they are now being driven fewer miles at lower speeds under lighter loads, and noting the conclusions of automotive engineers who studied the problem of exhaust valve recession, it appears reasonable that a pre-1971 automobile could be operated on lead-free gasoline without damage. Some guidelines to follow when using lead-free gasoline in a pre-1971 automobile might be:

1) Refrain from exceeding 55-60 mph.

2) Maintain cooling system in good working order and at as low a temperature as possible (160-180 degrees F.).

3) Don't use the vehicle to pull trailers or haul heavy loads.

For those owners that want to do more, there are some modifications that can be done to the engine that will solve the problem of exhaust valve recession.

1) Induction harden locally the area of the exhaust valve seats in the cylinder head. (SAE Paper 710674)

2) Install hardened exhaust valve seat inserts in the cylinder head. (SAE Paper 710368)

3) Changing from a 45 degree valve face angle to a 30 degree angle will reduce recession by approximately 75%. (SAE Paper 710368 and 710674)

4) A 20 lb reduction in exhaust valve closed spring load was found to decrease the maximum recession rate by 40-60%. (SAE Paper 710674)

Besides not contaminating the environment, there are at least three other proven advantages to using lead-free gasoline. One is that the combustion chamber remains much cleaner with fewer deposits (SAE Paper 710368). Another advantage is the insolubles and total acid number for the used oils operated on lead-free fuels are much lower than those for leaded fuels (SAE Paper 710584). And third, there is less internal rusting of engines when lead-free gasoline is used (L.C. Pless).

For those who want more information, the following articles may be obtained from a library:

1) A.E. Felt & R.V. Kerle (Ethyl Corp.), *Engines and Effects of Lead-Free Gasoline*, SAE Paper 710367, Oct. 22, 1970.

2) William Giles (Valve Div., TRW, Inc.), *Valve Problems with Lead-Free Gasoline*, SAE Paper 710368, Oct. 22, 1970.

3) D. Godfrey & R.L. Courtney (Chevron Research), *Investigation of the Mechanism of Exhaust Valve Seat Wear in Engines Run on Unleaded Gasoline*, SAE Paper 710356, Jan. 11-15, 1971.

4) W. Crouse, R.H. Johnson & W.H. Reiland (Sun Oil Co.), *Effect of Unleaded Fuel on Lubricant Performance*, SAE Paper 710584, June 7-11, 1971.

5) W.L. Kent & F.T. Finnigan (Union Oil), *The Effect of Some Fuel and Operating Parameters on Exhaust Valve Seat Wear*, SAE Paper 710673, Aug. 16-19, 1971.

6) W.S. Giles & S.H. Updike (Valve Div., TRW, Inc.), *Influence of Low Lead Fuels on Exhaust Valve Performance*, SAE Paper 710674, Aug. 16-19, 1971.

7) L.C. Pless (GM), *Effects of Some Engine, Fuel, and Oil Parameters on Engine Rusting in Short-Trip Service*, Performance Testing of Lubricants for Automotive Engines & Transmissions, Applied Scientific Publications, Ltd., Barking, Essex, England, 1974.

Vairs 'n Spares

FOR SALE: TURBO REBUILD KIT, $75, Richard Aufmuth 279-2214

FOR SALE: '65 TURBO CORSA, Fresh paint, engine & turbo! Regal Red; title shows 35,000 original miles. $4,000 or trade? Richard Aufmuth 297-2214

FOR SALE: '66 MONZA, 2d, auto, primer gray, rust on right front fender, tires good, needs interior work. Asking $500. Kevin Robb, 11800 E. Timrod, 885-5582.

FOR SALE: AIR CONDITIONER, late model. Condenser, compressor & dash unit. $175. Neil Clements, eves 298-9633.

FOR SALE: '65 MONZA COUPE, 110hp, auto, AC, mechanically all done, including front end, needs minor body work, paint & interior to make fine car. $800. Call Big Ed 885-9214

FOR SALE: '63 CORVAIR, 4dr, auto, no battery but runs, lots of spare parts. LOW PRICE. Call Mr. Fermin Lopez, 825 Calle Bocina, 294-4724

FOR SALE: TIRES, steel belted radials, 175/70SR13 mounted and balanced on early (4-hole) wheels, less than 500 miles. 4 @ $25 each plus replacement wheels. Van Pershing 743-9185

FOR SALE: '63 MONZA, 2dr, auto, good body, rough interior. Mke offer. Call Dave in Catalina 1-825-9225

FOR SALE: Viton "O" rings at $9.50/set. Air & Oil filters, weather strips for trunk & engine lid. Early & late shocks. Other hard to find parts. Gordon Cauble 299-1122

WANTED: ROCKER PANEL for '63 Monza in good to excellent condition, passenger's side. Will buy or trade. Call Gordon Cauble 299-1122

WANTED TO TRADE: '64 CONVERTIBLE body & most all parts to make a complete car. Will trade for early model couple w/ auto transmission. Call Jerry Bishop 748-1444

TREASURER'S REPORT

BALANCE - JULY 1, 1984.....$ 349.28

INCOME
- DUES.....38.00
- CORVAISATION ADS.... 7.50
- RAFFLE TICKETS.....31.25

TOTAL INCOME.....76.75

EXPENCES
- MEETING ROOM.....10.00
- TCA HATS.....98.98

TOTAL EXPENSES.....108.98

BALANCE AUGUST 1, 1984.. .....$317.05

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BILL FISHER!!!

by Van Pershing

Last month I received a letter from Bill Fisher, the author of the "Bible" on how to do neat things to your Corvair, **How to Hotrod Corvair Engines**, an HPBook. As you may know Bill is an honorary member of the club and lives here in Tucson. In my opinion, this publication is the best there is when it comes to making a good thing better. It contains a mountain of information on modifying Corvairs to make them better for street and track. Some of the information is a little out-dated, since some of the parts that are recommended are no longer available, but it's a great reference book. I have worn out one copy and am working on my second (Revision III, copyrighted 1969).

So what's Mr. Fisher up in 1984? He owns a 1965, 66 and 67 Corvair, none of which are running presently and will be starting on a restoration project of the '65. One of his long-time dreams is to build a V-8 conversion, so the '67 may go the way of the world on of these days! He also owns a '65 Cobra w/ a 289 and two 4 bbl carbs, and '75 Monza (not a real one, mind you) that hold 4 world records at Bonneville, ranging from 203 to 217 mph. Its fastest run has been over 219 mph! He hasn't been able to run for the past couple of years because the salt flats have been flooded.

Thanks Mr. Fisher for you interest and efforts!

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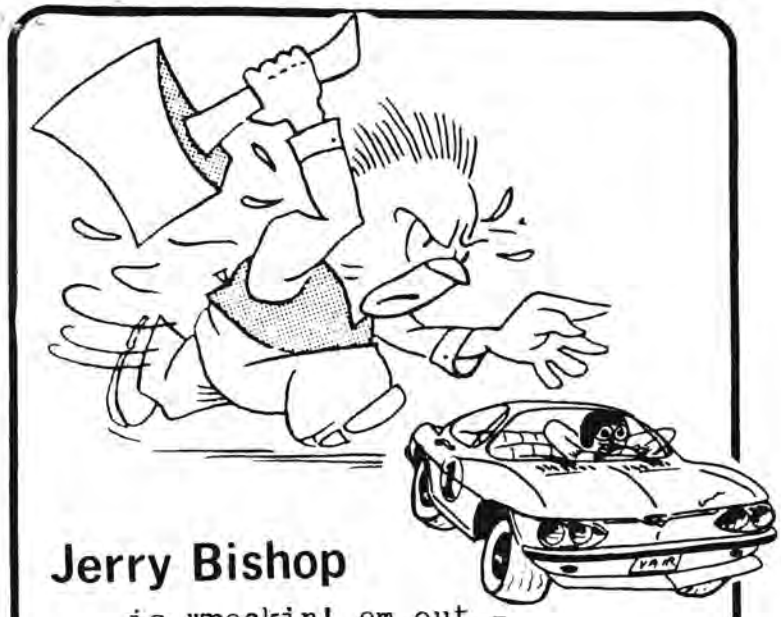

Jerry Bishop
is wreckin' em out -
100 plus Corvairs!!!

JERRY BISHOP'S TOWING
& SALVAGE 748-1444
4260 E. ILLINOIS,
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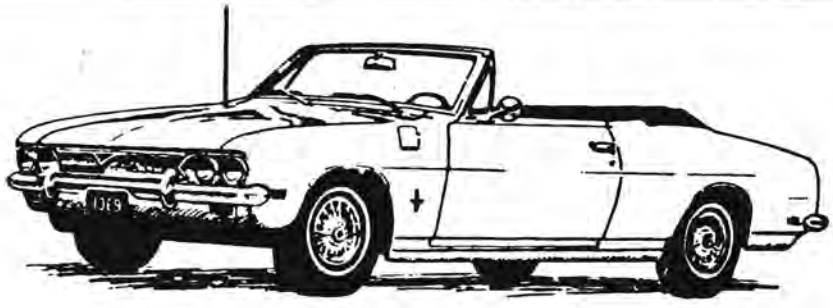
corsa
CORVAIR SOCIETY OF AMERICA



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TCA MEMBERS KNOW **IT'S THE PLACE TO GO!!**

TUCSON CORVAIR ASSOCIATION REGULAR MONTHLY MEETING

* THE TIME: 6:30PM, the forth Wednesday of each month
* THE PLACE: Carrows Restaurant, 1340 N. Wilmont
* THE FOOD: A Full Menu!

COMING EVENTS

SEPT 23, 1984: The Breakers!

OCT 27 &28: 7th Annual Contemporary Vehicle Association
Swap Meet & Show. Pima College West Campus
Swap Meet: Sat 7am - 5pm Sun: 7am - 3pm
Car Show: Sunday Only: 10am - 3pm -- $2.00 entry fee.
FREE TO THE PUBLIC!!

The Tucson Corvair Association is a chartered chapter of the Corvair Society of America (CORSA).

CORVAIRSATION EDITOR
4842 W. Paseo de las Colinas
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TUCSON, AZ
AUG 18
P M
1984

TUCSON Corvair ASSOCIATION

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CORSA
CORVAIR SOCIETY OF AMERICA

Dave Baker
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Tucson, AZ 85715