

Corvair-powered Drag Car

There's one guy out there still trying to live the dream

Ray Clayton, Canfield, Ohio retired from tool and die making and poured extra energy into building a unique dragster for a National Hot Rod Association class.

"There isn't another one like this," Ray Clayton said. "It's the only one of its kind. This car is supposed to run in e-econo dragster. It's a Corvair engine, 190 cu. in. It's supposed to make 390 horsepower. Right now I'm trying to get my license in the NHRA."

The Corvair engine runs on gas and a carburetor, no turbo or nitrous, Ray Clayton said.

"So far the car is running 8.80s," Ray Clayton said. "We're hoping to do better than that. It should run 8.20 to 8.30 when everything is tuned right."

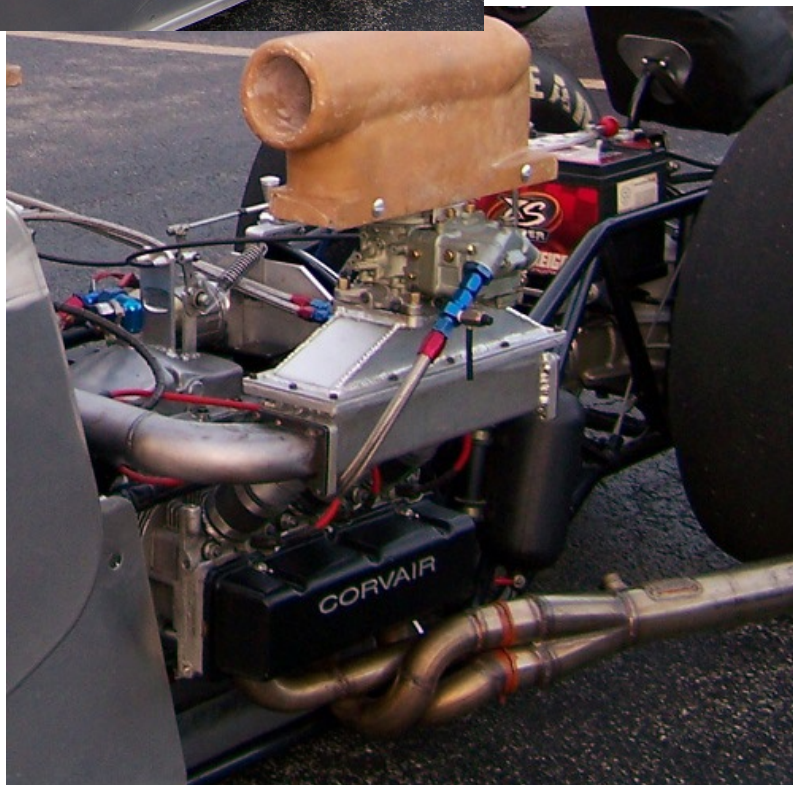
The ten-year project threw a few curves along the way.

"I've been working on the engine forever," Ray Clayton said. "It's hard to get the engine to make enough power and be reliable."

For the dragster chassis and body work Ray Clayton turned to Kenny Bowers at Advanced Chassis in Antwerp, Ohio.

And for a crew chief, friend and tool and die maker Mike Semchee, Austintown, Ohio stepped in for the evening.

"I used to do bracket racing a long time ago," Ray Clayton said. "But this is about it. It was in a 1964 Volkswagen Bug. It used to go about 11 flat. It had a Corvair motor similar to this one."



Tucson Corvair Association



Established 1975

The *Corvairsation* is a monthly publication of the Tucson Corvair Association, which is dedicated to the preservation of the Corvair model of the Chevrolet Motor Division of General Motors. The Tucson Corvair Association is a chartered member of the Corvair Society of America (CORSA) as Chapter 357.

Membership dues are \$15 per year for individuals and \$18 for families. Initial dues are \$19 for individuals and \$22 for families (includes name tags) for members of CORSA. Add \$3 per person for non-CORSA members. Make checks payable to the Tucson Corvair Association.

Change of Address: Report any change of address or phone number to the Membership Chairperson.

CORSA membership dues are \$45 per year (\$90 for 26 months) and include a subscription to the CORSA Communique, a bi-monthly publication. CORSA memberships is not required for membership in the Tucson Corvair Association, but is highly recommended. See any TCA officer for more information.

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TCA 2013 Events at a Glance

Jun 26, Wed

Regular Monthly Meeting. Parking Lot Bull Session at 6:30pm. Meeting starts at 7:00pm. Golden Corral, 6865 N Thornydale Road (just south of Ina).

Jul 16 - 20

CORSA National Convention, Kalamazoo, Michigan

Jul 18, Thu

Cruise In at Freddy's. 6:30pm. A gathering of over 100 great cars at Freddy's Hamburgers, sw corner of Orange Grove and Thornydale. Bring your Corvair and hang out for a fun evening.

August

Breakfast at Todd's. Ryan Field. Details to follow.

September

Madera Canyon Picnic. Details to follow.

Oct 12, Sat

Cars in the Park, Sierra Vista, Arizona

Oct 19, Sat

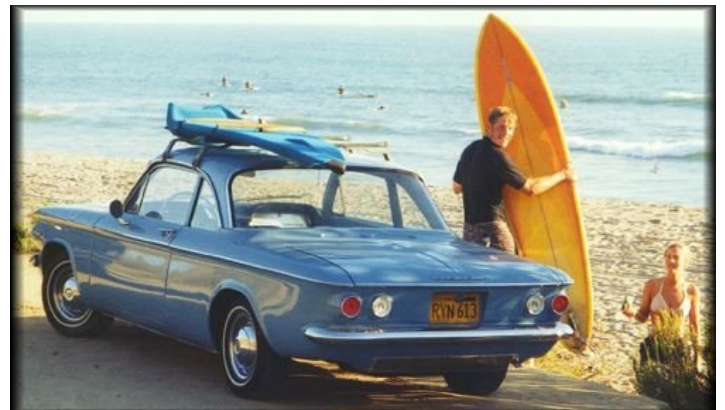
Tucson Classics Car Show at St Gregory's. More details as the become available.

Oct 25 - 27

36th Annual Great Western Fan Belt Toss & Swap Meet. Sunrise Park, Palms Springs, California

Nov 2, Sat

Cops and Rodders Car Show. More details as they become available.



May Meeting Minutes

Minutes from the monthly meeting held May 22, 2013 at the Golden Corral Restaurant, 6865 N. Thornydale, Tucson, Arizona.

The meeting was called to order at 7:02pm by President Mike Lake.

In attendance were Frank McKenna, Mark McKenna, Patrick McKenna, Van Pershing, Ken Farr, Jim Mills, Mike Lake, Bill Maynard, Allen Elvick, and Lynn Marrs.

The minutes of the April meeting were approved.

President Lake reported that 36 people attended the party at the Mills' home after the Chevy Showdown on April 27. Several members of the Classic Chevy Club attended. A good time was had by all.

The tech clinic sponsored by Jim Mills on May 11 was a success. Jim gave a very good presentation on the working and rebuilding of the Corvair H series carburetor.

Van Pershing gave a brief report on the Chevy Showdown.

The next mid-month activity will be a cruise to Summerhaven for lunch at the new restaurant there. It will take place on June 15. We will meet at the McDonalds on Grant and Tanque Verde at 10:00am.

Allen Elvick gave the treasurer's report. The balance at the beginning of April was \$2,494.72 and the closing balance at the end of April was \$2,256.72.

Van Pershing gave an update on the website and the newsletter.

Tech Talk: Jim and Ken reported that the Clark's oil filter require at least 35 ft-lbs of torque to keep the from leaking. Seems a little excessive.

The raffle winners were Allen Elvick, Ken Farr, Jim Mills, Lynn Marrs, Van Pershing, Bill Maynard, Frank McKenna, Patrick McKenna, Mike Lake, and Mark McKenna. Mike Lake and Allen Elvick volunteered to bring prizes for next month's raffle.

The meeting adjourned at 7:43pm.

Submitted by Lynn Marrs

185/80-13 Tires Once Again Available!

It's true! The 13" tires that have so long been difficult, if not impossible, to find are once again being manufactured. Maxxis International has 185/80-13 available for purchase. They run \$109 each which includes shipping. The MA-1 is a nice looking white wall street tire. Frank DuVal (Virtual Vairs) bought a set and they carried a date code indicating they were manufactured in the 9th week of 2013. Their part number is TP36520000. Go to www.maxxis.com and check them out.



President's Message

With the temperatures heating up we are moving the July club function to an evening event which will be held on Thursday the 18th at Freddy's. Freddy's is located at Orange Grove and Thornydale about 1/4 of a mile from I-10 on the right side of the road. The event starts at 6:00pm. I have yet to make a show there, but I've been told that there is quite a large turn out of fine cars to feast your eyes on. Lets have a large showing of Corvairs.

It was brought to my attention that some members have suggested that we move the monthly meeting closer to midtown. I think it is something we should discuss at the up coming meeting. If anyone has a suggestion for a new venue, please let me know.



I spent this weekend, the 1st and 2nd, working on the car in 100 degree plus weather. I think it's time I curtail this project until the October freeze. Okay, it's not quite a freeze but it does feel that way. Knowing me, I won't be able to leave the car alone for that long. Guess it's time to put AC in the garage.

Keep those Corvairs looking good,

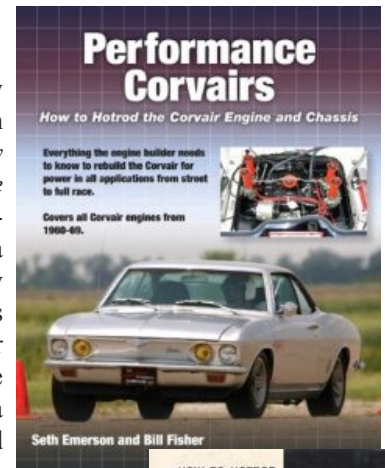
Mike

How to Hotrod Corvairs is Back

A resurrection of a great book brings new life

I just received my copy of the brand new publication *Performance Corvairs - How to Hotrod the Corvair Engine and Chassis* by Seth Emerson and Bill Fisher. The is a new modern update to *How to Hotrod Corvair Engines* put together by Bill Fisher in 1969. Bill has long since left us, but Seth has done a great job of updating the old information and adding lots of new stuff as well.

I have worn the cover off of the old Bill Fisher book so it nice to have a fresh look at all the performance information that can be applied to the Corvair. A great addition to any Corvair library, to be sure.



Van Pershing

The Future of Automotive Air Conditioning

By Mike Dawson, HACO A

I found the following information on the ASE website as of February 28, 2013 as they attempt to upgrade A/C certifications for professional automotive technicians. I currently have a certification in air conditioning systems from ASE and I also am certified in the EPA Section 609 program.

There are several HACO A members who have air conditioning in their cars, some still with R-12 and others with R-134A. Most of you have one or more second cars and still others will be buying new cars, most likely with air conditioning. R-12 worked just fine for half a century, and then the ozone (good in the atmosphere ozone as opposed to bad on the ground ozone) debate began to seriously shape the use of refrigerants along with many other consumer products. By 1998, R-12 was replaced by R-134A and included was a series of regulations that required some new equipment and serious laws preventing release of refrigerant into the atmosphere. There have been retrofit kits available that varied in their complexity, some drop in, and others required new oil, dryers, hoses and compressors. The A/C service community settled in and everyone adjusted. The price of R-12 was artificially raised and R-134A became a good deal.

Well, it is 2013 and the ozone layer folks have merged with the global warming group and they have decided we need another change. R-134A has been detected in the atmosphere (even though it is highly illegal to vent it) and has been designated a greenhouse gas - a global warmer. We will now be introduced to a new refrigerant, R-1234yf (pronounced "R twelve thirty-four yf"). This newcomer has some significant features you will appreciate hearing about.

- R-1234yf is mildly flammable and is regulated under the Toxic Substance Control Act.

- Daimler/Mercedes Benz and VW/Audi are refusing to use it and are lobbying for Europe to start using Carbon Dioxide. The initial cost at the retail and service level is expected to be between \$65.00 and \$135 per pound. It will only be available in large (20lb) plus containers - one pound cans will not be sold.

- None of the current or past air conditioning service equipment can be used; this includes recovery units, charging stations, fittings, etc. Retrofitting the new systems with cheaper R-134A is not possible.

- The only current manufacturing plant is owned by DuPont-Honeywell and is located in China. They have stated that production should be adequate and that another plant may be built if demand exceeds current capacity.

- The 2013 cars currently being fitted with R-1234yf are certain models of Cadillac, Buick, GMC, Hyundai, Mazda and Subaru.

By now you are probably wondering, like I am, if R-134A and R-12 are always recovered (including salvage yards, and there are serious penalties for any venting), how could R-134A be detected in the atmosphere? And since all refrigerant is now being recovered and not vented to the atmosphere, why can't we go back to R-12 which used to be \$1.00 a pound (\$2.00 in 2013 dollars)?

I wish I could now state this is an April Fool -- sorry.

Reprinted from: VAIRCOR, Heart of America Corvair Owners Association,

April 2013, Page 4.

Corvair Airstream?

From *Vairmail*, June 2013. San Diego Corvair Club

A member of the San Diego Club received an email from a gentleman seeking assistance in getting his rather unusual Corvair-powered vehicle back on the road. He was hoping to be directed to good Corvair mechanic in San Diego. It has been in "dead storage" at MCRD (Marine Corps Recruit Depot) for years and wants to resurrect it.

His great uncle, who worked at Convair in San Diego, had modified a Greenbrier van chassis to accept a 20 foot vintage Air Stream trailer and built himself his own motorhome back in the early '60s. It's Corvair underneath with VW van windshield. It is registered with the DMV as a 1961 Chevy Housecar. Claims it was great fun to drive and always got a lot of attention on the road and in camp grounds.

When he left San Diego he left "the Armadillo" in the storage lot at MCRD. He feels it's time to bring the old beast back to life.



CORVAIR CYLINDER HEADS SOFTEN IN USE

By Bob Helt

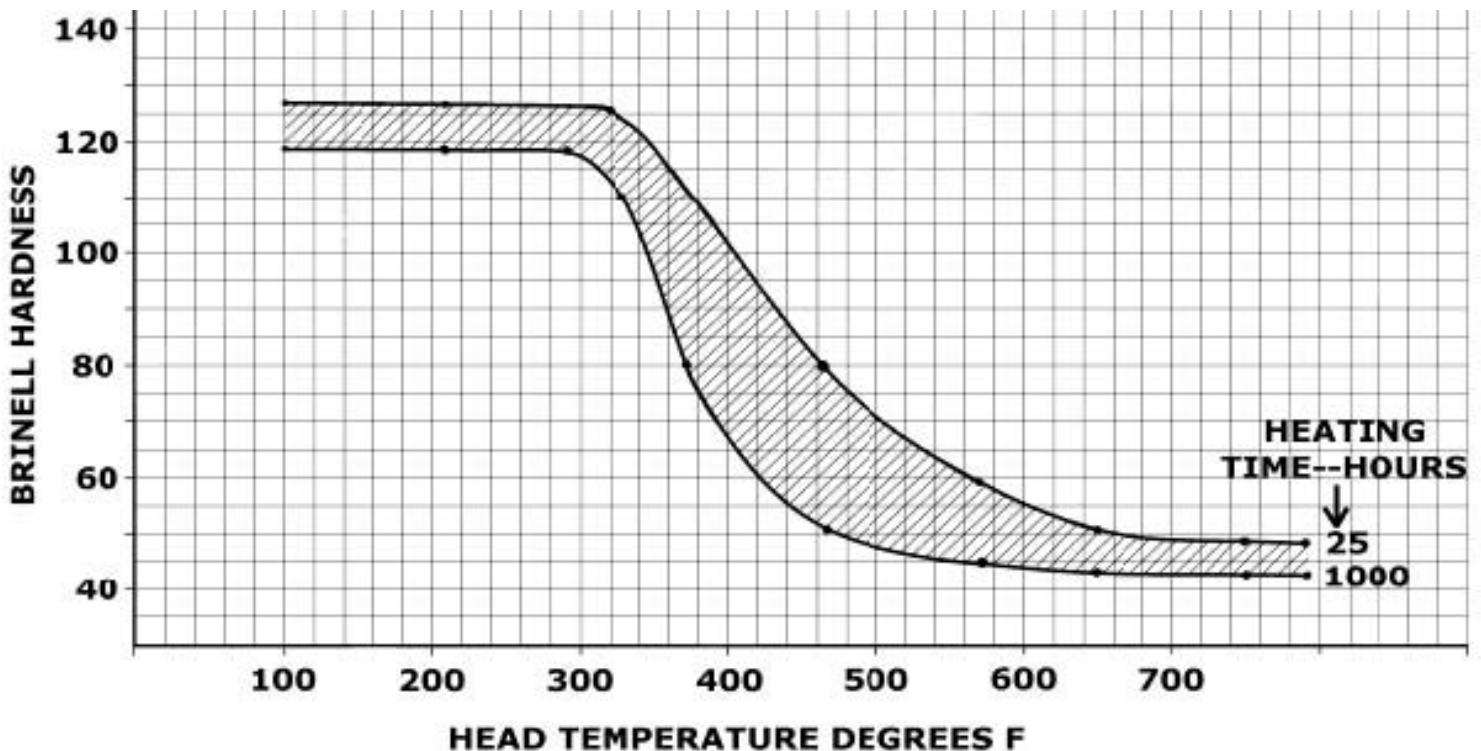
Corvaire cylinder heads were molded from an aluminum alloy known as A365 and hardened to an industry specification called "T6". This hardening was done by a series of heat treatments annealing the aluminum head after molding. First the casting is heated to a temperature of 1000° F (5400° C) and allowed to soak for four hours, after which it is cold-water quenched. This is followed by an "aging" treatment at 320 degrees for six hours, after which it is naturally cooled. The casting now achieves a Brinell hardness of around 120 and about 75 Rockwell B.

The critical temperature is the aging temperature of 320° F. As long as operating temperatures never exceed this critical temperature (320° F) the aluminum will retain its initial hard-

ness.

But exposure to elevated temperatures and duration at these elevated temperatures induce a softening of the aluminum. You will note in the following diagram adapted from Mackerle* that exposure to subsequent high temperatures tends to reduce this initial hardness and soften the aluminum.

Head temperatures in the 465 degree range continued for a cumulative duration of only 25 hours will reduce this hardness to around 80 Brinell (a 30% reduction). Longer exposure or higher temperatures will exacerbate the softening problem. The 1960 SAE report, 140C, showed Corvaire head temperatures exceeding 450° F WOT at 60 mph in 100° ambient temperature. And these temperatures ran even higher for the higher horse-



power, air conditioned, smog, and turbo engines.

Well, what's wrong with having these heads soften with use? It is bad news. The softer the head material is, the more valve seat retention becomes questionable and loss of valve seats becomes more likely. In addition, temperature variation extremes will likely cause cracks in the heads and other fatigue failures such as bolts and studs pulling out of the head.

Air-cooled aircraft aluminum heads have the same problems and are even more critical in operation. Thus, complete replacement of these heads is frequently recommended during engine overhauls. Automotive applications using liquid-cooled

aluminum heads would operate at much lower temperatures (~230° F max) and never see the critical 320 degree point, and thus will avoid many of these problems.

* *Air-cooled Automotive Engines* by Julius Mackerle, 1961

This article appeared in the *Vegas Vairs Vision*, March 2013



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Corvair Society of America Chapter 857



Regular Monthly Meetings are held on the Fourth Wednesday of every month with a bull session starting at 6:30pm with the meeting starting at 7:00pm.

The November meeting is generally held on the third Wednesday. The December meeting is our annual Christmas party with the time and place to be announced.

MEETING PLACE:

Golden Corral, 6865 N Thornydale Road (just south of Ina), Tucson, Arizona.

Board of Director meetings are held at 5:30pm before the regular monthly meeting at the same location in the months of January, April, July and October. All members are welcome to attend.

This newsletter can also be accessed at www.corvairs.org



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