

Hot Air Newsletter



Molly



Jason



Dale

Lots of progress on Dan Rutka's Car!!!!

Well Lots of progress has been made on Dan Rutka's car. After hours and hours of sanding and body work, The finishing touches were done in the paint booth before the paint went on. A few of us met and did some Taping off the windows to get it ready for paint. I had to leave early but the crew finished up and got it painted. With the new engine and new paint. Dan will have a ride to be proud of for yrs to come. This is what a club is all about. Thanks to all that helped!! The club members pulled together and helped out with Money and labor to git R DUN!!

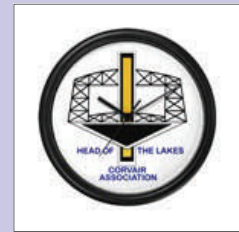


Dan's early in the paint booth getting finishing touches before new paint goes on.

Birthdays
Happy Birthday!!

March 2 Tim Verthein
16 Ryan Yax

*Don't forget to check out
our merchandise at our Club Store!!*



<http://www.edselmotors.com/hlcahome.html>

Treasurers Report

Dec starting		\$710.26
Expenses	Chum Donation	200.00
Dec Ending		\$510.25
Jan Starting		\$510.00
Expenses		\$194.00
Income Dues:		
Charles Running		20.00
Art Bringe		20.00
Gary Antilla		20.00
Dick Dee		15.00
Dick Eilers		15.00
John Herkenratt		30.00
Ending Jan		\$558.43

Pete Prudden Treas.

*Don't miss our First meeting
of the new year at Perkins
London RD March 6th
6:30 Committee meeting
7:00 General Membership*

*Happy
Easter!!!*

Activities and Events

March 6th Perkins London road **6:30 Committee Meeting 7pm General membership meeting**

COVER STORY



Harvey Earl, GM's style chief, poses with his rear-engine Corsair.

General Motor's Rear-Engine Car

(The following article is a direct reprint of the article beginning on page 67 of the April 1949 *Mechanix Illustrated*. As you will note, the concept of rear engines was not new in 1949 as the article takes you back through the automobile age outlining some of the early rear-engine designs. —Ed.)

By Bernard W. Crandell

© April, 1949

Mechanix Illustrated

Whenever the subject of rear-engine cars plays across the auto columns of the nation's newspapers, a certain bunch of boys in Detroit snicker to themselves!

Rear-engine cars! Not for the American public, they say. And they ought to know. They're the head stylists and engineers for General Motors Corporation. Why are they so convinced?

They know this rear-engine stuff isn't news at all. In 1902, 18 out of the 23

automobiles in production had their engines placed aft. But then gradually the engineers were overcome with violent symptoms of *front-engine fever*. They wanted to put the motors up front! And they said they had good reasons for doing so.

Safety was one of these reasons and better weight distribution another. They got their way eventually and soon almost all American cars were being manufactured with engines in the front. But then the picture started to reverse itself. In 1925, the *Julian* chugged into print with "the first rear-engined car in 20 years." Entirely unsatisfactory and "old fashioned," it shortly thereafter became the first rear-engine model to go off the market in 20 years, too.

In 1931, Sir Dennistoun Burney, noted airship designer, had a go at a rear-engine car. He tried to peddle it to GM and Studebaker on the theory that its 66-33 weight distribution (66% of the weight on the back wheels and 33% on the front) would, when the brakes were applied, shift to a 50-50 balance. He also thought his machine took bumps easier with front-wheel shocks rotating on an arc from the rear axle, and bumps under the back wheels being absorbed by a rotation around the front axle. If this sounds screwy, it's typical of some of the inspired double-talk that has been going on ever since the revival of the rear-engine ruckus.

The Burney design, which went whole-hog on radiators with one in back to cool the engine and another in front to heat passengers, was sold eventually to the British Crosley. They came out with a \$3000 sedan which set no sales records.

An experimental rear-engine design made its appearance in 1933. John Tjaarda, a Detroit engineer who designed two experimental models for the Briggs Manufacturing Company, claimed it was ridiculously simple to drive. He explained in the magazine *Automobile Topics*: "When starting, all one has to do is turn on the ignition, when a red light will show on the dash. Then step on the throttle which simultaneously starts the engine and the red light will go out and a green light shows. As the engine can not be heard in the front seat, the lights will tell what is happening in the rear."

Tjaarda's car caused a mild sensation in the industry for a year or two. Then Chrysler and Ford, potential customers for whom Briggs already made bodies, had to decide whether the sensation was good or bad. The freaks had V-8 engines mounted over the rear axles and buzzed through the streets of Detroit without mishap until winter arrived. The original notion was that the engine heat could not seep forward and cause discomfort during hot weather. As it turned out, passengers were cool enough in summer, but during the winter they froze. No heating system had been devised!

Most unconventional and probably most comfortable of all interiors in a rear-engine experiment was brought out several years before World War II by William B. (Bill) Stout. He first achieved engineering fame by building the first all-metal airplane. In 1934, Stout showed up with a living-room on wheels. There were broad back seats, three chairs which could be moved around and a comfortable chair for the driver. A drop-down bed and a table completed the ensemble. Stout planned to build 100 of these cars the following year. Instead of launching production, however, he refined the job into a newer model called the Scarab. It got a good press but never got any farther down a production line. One reason alone was enough to kill the idea—it would have had to sell for \$5000.

In 1938, Emile E. C. Mathis, French motor manufacturer, and Axel Wenner-Gren, Swedish industrialist, announced plans to build in France, Sweden, England and the U.S. a small car with a radial engine in the rear. It would be "designed to give 50 to 60 miles on a gallon of gasoline." In this country they hoped to sell the car for \$500 but the War interrupted their aspirations and the car never got into production.

Several other European pre-war designs for rear-engines—the English Crosley, the German Mercedes-Benz, Czech Tatra, Italian Isotta-Fraschini, French Renault and Hitler's Volkswagen—got along well enough by European standards. But that was principally because their size, speed and styling were so far under American par for the production line that major problems didn't develop. Most of the small cars with little horsepower couldn't go fast enough to get the front-end sway. Engine-cooling was of so little consideration that in the 8-hp Renault, for instance, the radiator was behind the engine.

Then, of course, came Tucker with his plans for a posterior-powered jalopy with more truck space, more power, better vision, more safety, better brakes, better styling, etc., at the same cost as a conventional auto. But production-line Tuckers still haven't made their appearance for general distribution and it looks like Tucker's dream won't come true (at this writing anyway).

One day in 1946, an automobile that appeared to be an ordinary Pontiac sedan stopped at the New York mouth of the Holland Tunnel to pay the toll before proceeding to New Jersey. The attendant, casually preparing to charge the regular fare, let his gaze wonder downward. He stopped short! The car had twice as many rear wheels as an ordinary private car, so he upped his fee to the bus category—a few cents more.

This special six-wheels rear-engine job, put together in New York for General Motors, has since been driven, dissected, patted, pooh-poohed and praised by scores of engineers.

Results? The tests kindled some enthusiasm. Its dual tires had unusually good traction on any kind of road surface. On snow, ice or gravel it performed better than others. It didn't "fishtail" on slippery surfaces while gathering speed. The light front end made steering easy, without the tires side-slipping on a sharp turn. But that's about where its advantages stopped.

What are some of the arguments against the rear-engine design? One of the principal ones is weight distribution. With the heavy motor over the rear axle, the center of gravity of the car is shifted to the rear. This means that when not under complete control, the car will have a tendency to turn around and travel backwards, like an arrow shot tail first. When skidding on ice, for example. Then, too, in case of an accident, the heavy rear moves

forward, telescoping the car and its occupants. Even the rear-engine boys recognized this. In almost all models, the front hood has been retained.

The driver, in his perch way up front, is minus the protection of the heavy engine and its frame, it is claimed. Steering will not be as positive since not enough weight will bear down on the front wheels. Engine cooling, too, is another problem.

What can be said in favor of the rear-engine car? The driver can be moved forward for better visibility. Added weight in back gives better traction. Noise and engine heat are eliminated from the passenger compartment. Fewer engine parts are necessary; one of the first to go would be the long drive shaft and its bulge in the car floor.

That Pontiac and a number of other GM "bustle buggies," told the engineers the pros and cons of the problem.

But the styling section of GM still wasn't convinced. What about those super-stream-lined beauties the artists have been playing up as the "cars of the future"? You've seen plenty of them. Three persons in front, looking through the swept-back windshield. There is no hood on this creation—remember, the engine's way back out of the way. In the rear seat are three passengers with engaging grins on their faces, happily contemplating life.

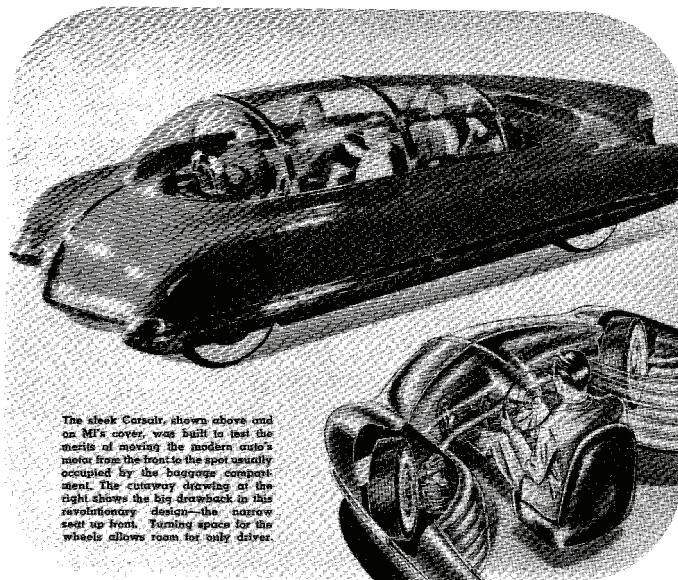
There wasn't enough evidence against the rear-engine to warrant its complete dismissal. If the body could be styled to fit, and if enough advantages could be found in it to outweigh the objections to its engine location, GM would have itself a new car.

To answer these questions, they built a rear-engine car which they called the Corsair. It's a three-eighths life size, natty little model, just like one of those futuristic dream-wagons the artists have conjured up. But here's what they had to do with it. Do you like it?

To make room for the front wheels to turn and to give the driver all the extra visibility the design is supposed to afford, they had to put him all by himself up front. With the wheels fully turned, only 34 inches remained between them for the driver's legs. To accommodate the passengers, two more seats were necessary. The overall effect was that of a bus.

This, in the GM minds, was enough of a reason to pigeon-hole the idea. At least for the time being.

The Corsair is undoubtedly GM's "car of the future." Will it ever be produced? It has been tested. Its advantages and disadvantages are known. If you, the motoring public, demand this style car, GM won't have any alternative but to take it from its moth balls, wipe it off, and hand it over.



The sleek Corsair, shown above and on GM's cover, was built to test the merits of moving the modern auto's motor from the front to the spot usually occupied by the baggage compartment. The cutaway drawing at the right shows the big drawback to this revolutionary design—the narrow seat up front. Turning space for the wheels allows room for only the driver.

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Bob's Loadside Progress!!!

Jason and I have been over working on Bob's loadside. She has all new brake lines and brake parts. New suspension all around and rebuilt steering box. It is going to be one sweet truck. I still have to finish building the engine for it and then swap out to loaner engine we installed. I picked up an engine from my buddy John out in Seattle last trip out there. It's an early block machined out with all late model innards. It was in his loadside before and ran it for a long time. It should push Bob's rig around just fine. Not much left to do, The steering column needs to be assembled, new gas lines and some wiring. It WILL be back on the road this spring.

Ron and Jason

Here sit's my 62 wagon outside in the cold. I have it partially stripped and hope to finish stripping it this spring. I have some work to do on the floors then the body work and paint. It runs great so not much to do there. It needs an interior so I'll have to get creative there. After I stripped the top and trunk I noticed it has hail damage. Good thing I have a pal that does body work and has been directing me on the work. Maybe get new paint on it later this summer.

Ron Thompson



Here's a couple of pictures of Dan Rutka's Fresh paint job!!!

Kelsey Hayes Wire Wheels

Bob Johnston

Recently I decided that I would look into restoring my set of Kelsey Hayes wire wheels that I have for my 63 Spyder Convertible. I had read in the Corvair Forum that Dayton Wheel will restore them to “like new” or even better than new condition. Unfortunately, that service comes with a \$650 per wheel price tag. Needless to say, I know of a Palomar Red Spyder that WON’T have wire wheels on it.

I went through some old Corvair material looking for information on the “factory” wire wheels to share. This first piece was printed in the “Windmill” Issue 2, from July – August 1971. The “Windmill” was the original newsletter of CORSA.

TECH topics

Corvair Wire Wheels

by: David Newell & Tony Fiore

During the 1963 model year, Kelsey-Hayes built between 2000 and 2500 13" knock-off wire wheels, which combined both radial and cross-laced patterns. They were called "K/H Originals," and were intended for the retail market. However, all of them were later sold to Chevrolet (Chevy part #3838280), together with lock nuts and adaptors. They were then installed in sets of five as a factory option, which would mean about 400-500 Corvair were delivered with these wheels as original equipment.

No wheels were sold to Chevrolet during the 1964 model year (except for some adaptors and nuts), so any 1964 Corvair with wire wheels used what was left over from the year before. Due to their poor sales, and their cost in relation to the price of a Corvair, Kelsey-Hayes discontinued them and destroyed the dies used to make them. One complete set though, is for sale by Mr. Noble Keenan of K/H. He can be reached at: Kelsey Products Division, Kelsey-Hayes Company, Romulus, Michigan 48174. The wheels came with rubber hammers for "knock-off" purposes and Mr. Keenan may still have one with his set.

An interesting note is the mention of the rubber hammer for removing and tightening the knockoffs. I knew several people that had the wire wheels in the mid-1970's and all of those sets came with lead hammers from the factory. The wheels had adapters that bolted to the car in place of the original steel wheel. The wheel then slipped on the adapter and engaged alignment/locking tabs to ensure the wheel did not slip or spin on the adapter. Then, the wheel was secured to the adapter with a spin on “knock off” that you hit with the lead hammer to ensure it was tight. Remember, this knock off was what kept the wheel on the car. The adapters were “side specific” to ensure the knockoffs would not “unscrew” while driving.

This same wheel was also made for Corvettes of the era, only in larger sizes. The 1963 Corvette used the 2 bar knockoff where the 1964 to 1966 Corvette switched to a 3 bar knockoff. I still see some lead hammers available for sale, from time to time. The knockoff spinners have been reproduced under license from Chevrolet. I have purchased a couple of those and they look identical to the originals, only the chroming is a lot nicer.



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 Superior, WI 54880
 Bus: (715) 395-0609
 Cell: (218) 591-6766
 Fax: (715) 395-0837

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 www.oreillyauto.com

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Bard of Directors

President

Bob Saunders
904 E 5th ST
Superior, Wisc 54880
upnorth1@gmail.com

Vice President

Dan Rutka
230 Maple Grove Rd
Duluth, Minn 55803
dancorvir@yahoo.com

Secretary

Kathy Thompson
3932 E. 8TH ST
Superior, Wisc 54880
Karingkat@aol.com

Treasurer

Pete Prudden
5129 Howard Gnesen Rd
Duluth, Minn 55803
corrsa@aol.com

Newsletter Editor

Ron Thompson
3932 E. 8TH ST
Superior, Wisc 54880
corvkid50@aol.com

Directors:

Art Bringge
4133 Schultz Rd
Duluth, Minn 55803
Bbringge@aol.com

Pete Latour
4910 Maple Grove Rd
Hermantown, Minn 55811
peletour@msn.com

Jason Agnich
P. O Box 3495
Duluth, Minn 55803
jagnich@yahoo.com



Head Of the Lakes Corvair Association
3932 E 8th st
Superior, Wisc 54880

Ron & Kathy Thompson
3932 E 8TH ST
Superior Wisc
54880