## **Chevrolet Corvair**

by Anthony Cagle on March 31, 2009

In the pantheon of unloved, some say infamous, cars, the Corvair surely must rank near the top of the list. The Corvair always seemed just a bit too odd-looking for me, but I have something of a late-developing affection for it for a number of reasons: the engineering was innovative in a lot of ways, it was a radical departure for an American manufacturer, and it got what is, in hindsight, an undeserved bad reputation in terms of safety. The Corvair's supposed safety concerns and the resulting bad publicity didn't kill

it off, but they certainly didn't help.

Like many, however, my first introduction to the Corvair was via Ralph Nader's book, *Unsafe At Any Speed*, which is probably the reason most people have heard of it. To get one myth out of the way, that book was not all about the Corvair; the first chapter was about the Corvair, however, and that pretty much sealed its



place in history. Most reviewers checked out the first chapter and that was about it. Fairly or not, the Corvair's reputation as an unsafe car stuck, and these days if you mention "Corvair" that's probably what springs to most peoples' minds.

Most observers nowadays will agree that the Corvair was not, in fact, particularly unsafe compared to many other cars of the time. And in fact, the Corvair had a wide variety of body styles--including a pickup!--to go along with the sedans and coupes that most people are aware of. It was a neat car with interesting engineering and deserves much more positive attention than it has received.

Like the Nomad, the Corvair started life as a show car based on the Corvette platform and was specifically designed as competition for both economy imports such as the VW Beetle and domestics like the 1958 AMC American and the very successful Lark by Studebaker. GM had already had a go with its "captive import" Opel in 1958-59, but 1960 was to be the year of the Corvair. The car was to be modeled on the Beetle as an air-cooled rear-engine design, itself a remarkable distinction for an American car.

Befitting its commercial aim as a small economy car, the first models for 1960 were fairly uninspiring: pretty basic four-door models in base 500 and deluxe 700 trim,

followed mid-year by sportier two-door coupes in both 500 and 700 trim levels. These base models didn't sell very well, largely due to the success of much simpler designs from other manufacturers, such as the Ford Falcon. The game changed with the introduction of the Monza version in the spring of 1960. Bucket seats replaced the benches, and with a



more powerful engine--95 horsepower compared to the 80 horsepower of the others--the Corvair touched on the nascent nerve of those wanting a sportier, but still relatively

inexpensive, performance car, foreshadowing the pony car era that was about to break on the automotive shores.

The engine, placed in the rear ("where an engine belongs"), was a complicated affair. It was an air-cooled 140-cubic inch flat-6 with an aluminum block, integrated intake manifolds and cylinder barrels. The lack of a liquid cooling system, aluminum construction, and flat design made it relatively light, coming in at 366 pounds altogether, though this was still above the target weight. The Monza added a turbocharger. Interestingly, light aircraft enthusiasts realized that this engine would be ideal for aircraft applications, and a cottage industry developed to modify them for aviation. Also, from

A BATCH OF READY-TO-GO LOADING FEATURES—Lift the handy counterbalanced liftgate of the Corvair Station Wagon. You can step right up to the loading area. Load easily through the wide, wide liftgate opening. If you have more to carry, open up the up-front trunk. That's the same key you use for everything—ignition, glove box and doors, too. Single key locking is a real convenience, especially when you're loading and don't want to be fumbling with keys. And remember, with the trunk in front, the rear loading area and the four wide doors at the sides, you're always ready to load and unload easily, no matter where you park.



EASY-TO-REACH ENGINE—Routine access to the Corvair Station Wagon rear engine is made easy by the convenient service door. For less-frequent service, a hinged cargo floor cover can be lifted for quick engine maintenance. Special insulation gives a thick cover to help deaden engine heat and noise.





STATION WAGON INTERIORS—Corvair 700 (above) Station Wagon interiors come with combination pattern clupholstery in striking color choices for '62. Interiors start toughest kind of wagon wear, retain their smart good is Wagon is also available\* with front bucket seats and a

\*Optional

what I understand, the cooling of the engine was assisted by maintaining a negative air pressure within the engine compartment (i.e., a slight vacuum) thus increasing air flow.

The Corvair was one of the first American cars to have a fully independent suspension which, of course, brings us to the infamous swing-axle suspension. The swing-axle design was not uncommon at the time--the Beetle was its most famous application -- and it did have its advantages: light weight, compact, rugged on rough surfaces, and a smooth ride. Unfortunately, handling was the price to be paid. The design makes for a high roll center which, in hard cornering, transfers much of the weight of the vehicle to the rear

outside wheel, which could cause either roll-over or failure of that wheel. This was never as big a problem as many made it out to be, but GM was not unaware of the issue.

The big rap on GM executives was that they chose not to add a roll bar, which would have added between \$4 and \$6 to the cost. In their defense, they did take other measures to improve handling. They used very wide tires and also specified that the front tires be reduced

in pressure by 11 psi relative to the rear. However, many either did not know about the tire pressure differential or didn't take it seriously. So while there was some justification for Nader's criticisms, a National Highway Traffic Safety Administration investigation eventually largely cleared the Corvair of its bad handling reputation. At any rate, the suspension was changed for the 1964 models, making the case moot.

Because of the wild success of the Monza, the Corvair was generally seen as an enthusiast's sports car, but in reality the Corvair was truly envisioned as a whole platform of models. The Lakewood station wagon was introduced for 1961, along with a variety of more or less commercial vehicles. Both the Corvan and the Greenbrier van were small panel vans, very similar to the Volkswagen Transporter. The Greenbrier could be had as a conventional rear-loader or a side-loader with built-in ramps (Bell telephone used the latter a lot as the side entry and ramps provided easier loading and unloading of large cable drums).

Perhaps the most interesting entry was the Corvair 95, a Corvair-based pickup truck. It was based on the Corvan and had a 105-inch bed, which was fairly spacious. Of course, because of the engine placement the entire bedwasn't level; there was a bulge in the back for the engine compartment. This wasn't that big of a problem, as the engine was already small, but it obviously compromised loading in the back. This is where the "rampside" side-loading feature came in handy (see photo). These never proved very popular and were dropped by 1965.

By 1965 all of the utility vehicles had pretty much disappeared, and the Corvair was fully devoted to the luxury sports car market. The body was redesigned for 1965 with the "Coke bottle" styling; this model is generally considered the most attractive of the Corvairs. The look is still fresh today. The new fully independent suspension and more power (up to 180 horsepower) made for a formidable car. It was very well received in the motoring press and *Car and Driver* went so far as to call it "the most important new car of the entire crop of '65 models, and the most beautiful car to appear in this country since before World War II."

There wasn't much change in the Corvair from 1965 until the end of the model run, but a lot of other changes were coming together to eventually drive it from the marketplace. The design changes negated the safety issues, but the criticism from Nader hurt sales. So did the competition from the pony cars that were starting to take over the performance market. These pony cars gave far more power for the buck and were not as finicky to work on as the Corvair.

GM also helped kill the Corvair, of course. GM had decided that the Camaro would take over as Chevy's performance car in 1967, and Corvair development was pretty much halted at that point. Some have even argued that production of the Corvair was slated to end after the 1966 model year, but was kept going just to spite the Naderite crowd.



This was probably not a smart move financially, as sales for 1969 only amounted to some 6,000 units. There were also plans for a 1970 model with entirely new skin, but it was never produced.

The Corvair's bad reputation has lingered; the Corvair even made it onto *Time* Magazine's list of 50 Worst Cars. In some ways that is deserved; the Corvair's very innovative design made it difficult to fix, it had a lot of mechanical problems (at least early on), and although its handling problems were overblown, the early models were a handful. Many are certainly loved by their owners; one woman even tried to take it with her.

Why did the Corvair "fail?" Certainly early on it didn't look like a failure; sales stayed well over 200,000 for its first 6 years of production, and only started to tank after 1965. Nader's work certainly had an impact, but I suspect that its main problem was competition from pony cars which gave more power for the moeny from a simpler design. Its looks are rather unconventional as well, which also probably limited its appeal. Most of the negatives decried by so-called "consumer advocates" were overstated, which should have served as a warning to take such over-the-top criticisms with a large grain of salt. Unfortunately, few heeded such lessons later in cases such as

the <u>Pinto</u> and <u>Audi</u> controversies. The Corvair is a fascinating car and deserves a much better reputation.