

Renault News

FOR THE NORTH AMERICAN RENAULT ENTHUSIAST | FALL-WINTER 2020 | 121



CARLISLE 2020

Renault Owners
Club OF NORTH AMERICA



fall-winter 2020 | **IN THIS ISSUE**

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Gordini Engines, Custom Building

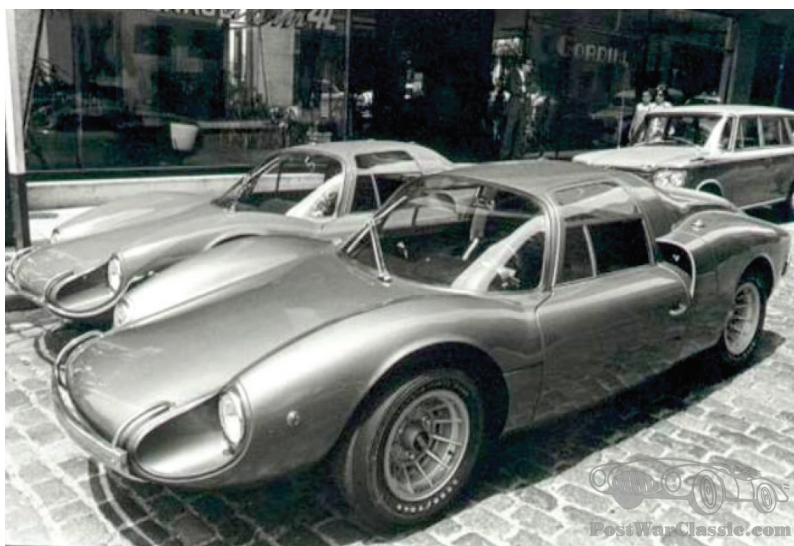
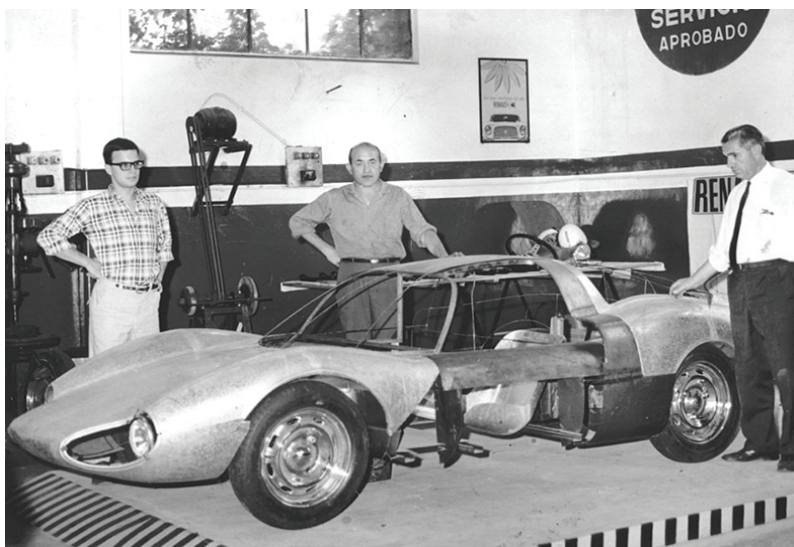
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Not a Dino

by Maurice Davin



When is a Dino not a Dino? Well maybe when it is an Andino! ... A what? During the seventies, a most remarkable sports coupé was built in Buenos Aires, Argentina by a company with the unusual name of Automotores 9 De Julio SA (the significance in the title being that Argentina declared its independence from Spain on July 9, 1816).

Following the success of the Alpine-Renault A106, A108 and early A110 sports coupés in the fifties and sixties, the idea of a small Renault-based sportscar captured the imagination of a number of manufacturers around the world. Some of them took the direct approach, and it is well-known that Automobiles Alpine of Dieppe subsequently licensed the manufacture of the A108/110 to FASA in Spain, Willys Overland in Brazil, Bulgaralpine in Bulgaria and Diesel Nacional (DINA) in Mexico.

Also, in the sixties, Renault had established an important presence in Argentina in the form of a partnership with Industrias Kaiser Argentina (IKA) SA, a large local company involved with automobile and aircraft manufacture. A contract was duly signed and both Renault Dauphine and Fregate manufacture commenced in Argentina in 1960. IKA-Renault continued to build the Dauphine and its Gordini variant for the remainder of the decade.

Renault went on to purchase IKA's half of the shares in 1970 and the company was then renamed Renault Argentina S.A. Renault R4, R6 and R12 vehicles were then produced for many years and the company is still in business today, being currently the oldest automobile manufacturer in Latin America.

Argentina's answer to Alpine creator, Jean Rédélé, was young designer Luis Varela. Luis had connections within IKA Renault and fancied the idea of building a small sports coupe using Renault Dauphine mechanical components. Varela was particularly interested in a more exotic layout than the Alpine and consulted local specialist manufacturer Tulio Crespi, where he was told that by swapping the crown wheel to the other side of the pinion in the Dauphine Gordini transaxle, he would be able to achieve a mid-engined layout.

This was precisely the encouragement he needed and without further ado, Varela started designing his

dream sports car. For the shape of the body he took some influence from the svelte Alfa Romeo Canguro of the period – styled by none other than the master Giorgetto Giugiaro when he worked for Studio Bertone. As the project progressed, Varela became interested in the possibility of series production and soon a prototype started to take shape.

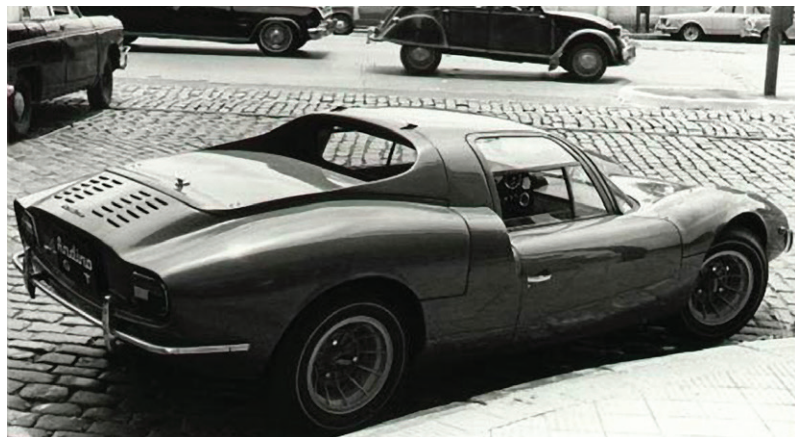
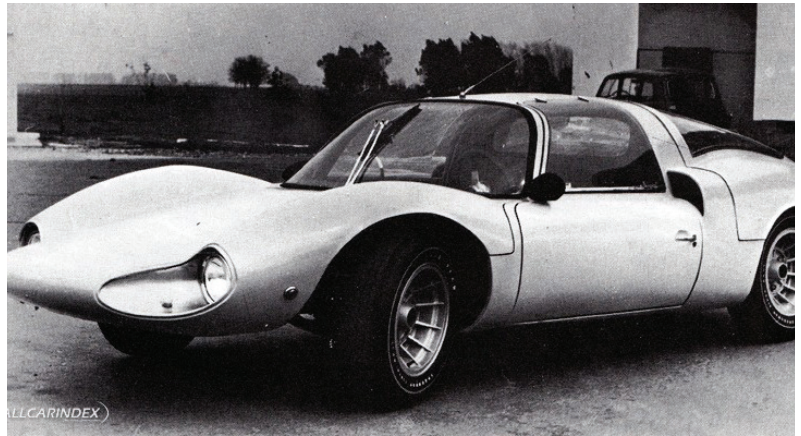
Building a motor car from scratch for yourself is one thing, but creating one with engineering solutions to cater for efficient series production is quite another. Apart from its space frame chassis, the body of the car needed to be made in three modules to allow for access respectively to the front mechanical components, the passenger compartment and the engine and transmission. The front and rear covers would be a relatively simple clamshell design but the cockpit would prove to be much more complicated.

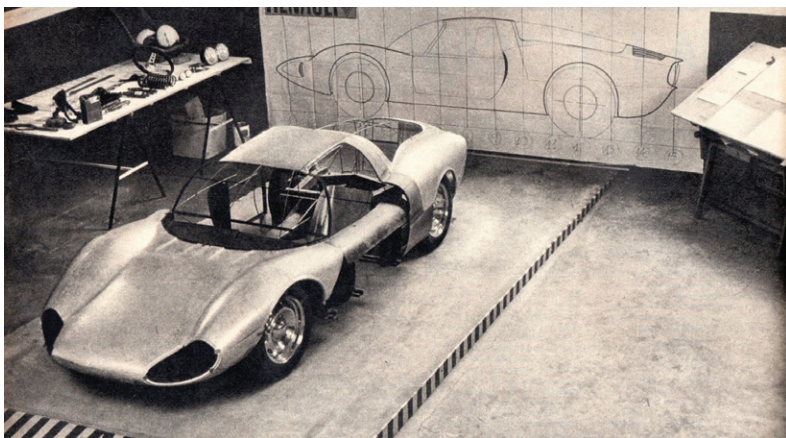
At this point, Varela established Automotores 9 De Julio SA and commissioned accomplished local engineer Roberto Lui to manage the project. The construction of the cockpit of the car was contracted out to an agricultural machinery firm (specializing in tractor cabs) and were made in steel, following experiments with both aluminum and fiberglass for the clamshell bodywork at each end.

It took a full six months for the prototype to be completed. Lui was meticulous in his attention to detail. He also presented the car to IKA's engineers at various stages so that they could assess it and make suggestions. This was part of his plan for them to consider the car for an official IKA-Renault factory warranty when it did reach production. The shape of the prototype was very streamlined and incorporated thin tubular bumpers at the front and Alfa Romeo lamps in the Kamm tail.

At this stage the car did not have a name. Roberto's wife Rosita, observing that the Alpine was named after the Alps, suggested that the new car be named after the Andes. This was accepted by all concerned and the newly named Andino GT was unveiled to officials from IKA, other dignitaries and the media on January 20th 1970.

Amongst the interested audience was one Juan Manuel Fangio – by then a household name worldwide and five times Formula One World Champion. Fangio's day job was President of Mercedes-Benz Argentina and he recognized the design and layout of the Andino as something that might appeal to European customers. The great man took a step further by offering to establish a franchise in Europe through which the Andino could be sold.





From the few accounts that exist, it seems the production of the Andino was a fraught affair. The car was very difficult and time consuming to build and once completed could not be sold at a commercially viable price. Consequently, only twelve cars were sold in the first three years. These cars were offered with a full IKA-Renault factory warranty, which was a testament to the quality of the vehicle.

The performance of the Andino was impressive, considering it featured only 845cc engine, which had been tuned with higher compression, a more aggressive camshaft, better carburation and an extractor exhaust. With the longest gearing, the manufacturer claimed a top speed of more than 110 mph. An extraordinary speed, given the Dauphine Gordini on which it was mechanically based could achieve a claimed 80 mph.

Sadly, Fangio's offer could not be taken advantage of as the car was just too difficult to build in commercial quantities. Production of the Andino suffered another blow when Roberto Lui was involved in a very serious accident and spent many months in hospital. His beloved wife Rosita was tragically killed in the accident and he lost interest in the Andino project as a result.

Realizing that the project was losing momentum, Luis Varela resorted to offering the Andino in kit form and this was more successful, eventually selling some ninety kits in the early seventies. By 1972 mechanical parts from the Renault 12 became available and this led to a second series of the Andino. The orientation of the R12 engine and transmission allowed it to be fitted straight in without any changes to the differential crown wheel. Roberto Lui was no longer involved but Varela carried out a refresh of the front (deleting the bumpers and fitting headlamp covers) and rear styling, incorporating larger Fiat 125 tail lamps and fitting a full-sized rear window.

The car kit continued to be available until the late seventies, but sales were slow. Nevertheless, there are survivors, cared for by an enthusiastic group of owners in Argentina today, making sure that as many Andino GTs as possible remain in good working order. 🏆

Renault Restoration: The Saga of Baby Blulette

by Norm Nyhuis

Our association with Renaults started in the early 70's when we had several customers at our Texaco station, who owned and loved them. This was a time when many shops simply refused to work on "foreign cars" leaving the customer with few choices other than the dealership, for repair and service. Being an experienced mechanic, but relatively new to operating our own business, and wanting to increase our customer base, we decided, "It burns gasoline, has more than two wheels, and the owner is willing to spend money; they might as well spend their money with us." So we welcomed all cars, regardless of country of origin. One customer, who happened to be the machinist, at the shop where I took cylinder heads, and short blocks for rebuilds, owned three; a 4CV, a Dauphine, and the strangest looking little van I'd ever seen, an Estafette. In working on his Renaults, I fell in love with them. They were far ahead of their time, had innovative features and delivered much of what modern manufacturers are still striving to provide, reasonably priced transportation that gives excellent gas mileage.

I found my first 4CV (a 1961) in 1978. My wife loved driving it around town, and using it to drive the "kid's carpool" to our local Christian elementary school. All good things come to an end, and about 15 years later, when the oil consumption started to equal the gas mileage, it was time to take it off the road, and store it for the day when I could restore it properly.

Fast forward to 2016: after raising our family and in our spare time restoring and enjoying several other cars (1929 Model "A" Ford Tudor, 1966 Mustang Coupe, 1955 Belair Sport coupe) we are now retired, and still had the 4CV. It had not "aged well", so an internet search for parts revealed a seller with three 4CVs, and a large amount of spare parts for sale. He had started a restoration on one of them, but determined that the rust was too advanced for him to handle. 4CV # 1, had been involved in a roll-over accident, so the unitized body was deformed, beyond practical repair, but had a good running original 4CV drive train. 4CV # 2, had a fair body, with some, but not an excessive amount of rust, but a broken engine. 4CV # 3, the one he had started to restore, had what I was pleased to determine was a Dauphine 845cc engine with the early (non synchronized first gear) four speed transmission, but there





was considerable rust.

So, on a grey October day, after enlisting the help of a friend with a second car trailer, we went on a safari into the woods of the Olympic Peninsula to bring the trio home. The car on the front of the trailer is the "roll-over" wreck,

the rear one is #2 (good body sans engine) and the last is the "big engine hot rod".

After assessing the possibilities, I determined that I had enough parts and pieces to make two running vehicles: I'd use the best pieces to make one "pretty" car, and still have enough to get 4CV #2, running also. I envision #2 being sort of a "mouse rod" – it's too small to call it a "rat rod". The current plan is to just arrest any further body deterioration, preserve the patina, as is popular in other segments of the automotive world, and make it safe to drive. Some may argue that they would have attacked the challenge differently, but I chose to use the car on which a restoration had been started, and had the best drive train. After all, the battle cry of an old car restorer is "In Rust, we Trust!"

After assessing exactly what all was in the "package" I'd purchased, it was wonderful to find that the "spare parts" as advertised in the sale, included many sets of ignition parts; distributor caps, rotors, points, condensers and carburetor parts. The engine now runs great, and all auxiliary systems, 6 volt starter, and generator all work well. The finding of a NOS fuel pump diaphragm on E-Bay, and successfully getting it shipped from Rio De Janeiro, is another story in itself. But the fuel pump now works fine. The suspension was disassembled, cleaned, new rubber bushings were installed as needed, and both the service and parking brakes were fully restored.

This photo shows 4CV #3 after considerable work has been done on the rusted out box sections below the door openings. As you may know, this is also the warm air channel to supply the "demisting" system. It took about 20 hours of work, on each side to cut out the rotted metal, form a piece to replace the "outer" and most of the "lower" wall of the side rail box section, and weld it all in place.

The body was stripped down to bare steel, in preparation for paint. Although both our original 4CV and the car I chose to restore, were painted a shade of "off-white", we chose to use 1964 Ford Skyline Blue for this restoration. Since we also have the habit of naming our restored cars, my wife christened this one, "Baby Bluette".

As of the date of this writing, the rear fenders have been repaired, painted and mounted, with new "chrome" welting, between the rear fenders and the body. The second installment of this saga will cover the remaining body and paint work, as it is completed, and the restoring of the interior. One find in the treasure trove of extra parts was an original, NOS headliner, and enough of the old headliner was still intact to determine the placement of the listings for the top bows. The seats and door panels were ready for installation once the doors are repaired and painted.

Renault Restoration: The Saga of Baby Blulette, Part Deux.

Part of any restoration is identifying the remaining wiring and determining if any of it can be re-used. Let's think about this for a moment: 56 year old insulation - that ought to be good enough, right? As expected, any insulation that was near a source of heat or exposed to the sun's UV rays was questionable at best, so new wire and soldered terminals were in order.

The body had been painted many times, by its previous owners. Some of the panels had five different colors: the factory original "off white", followed by red, royal blue, orange (?), and finally the "refrigerator white" and metallic blue color scheme seen the previous photo. Of course there was a layer of primer between each color coat; Innumerable hours were spent removing the paint down to the bare steel, then after the various dings, dents and rusted places were repaired, it was all primed with epoxy primer, in prep for the final color coat.

Because my shop is set for mechanical repairs, rather than "body work", I had to paint all the removable parts separately. This was not a bad plan, as in this way, all surfaces and edges could get well covered.

Once the fenders were painted and reinstalled, the fun began with the reassembly of the seemingly 1001 parts that were removed.

The last task most of us amateur restorers tackle, is the interior. Having several dash panel assemblies to provide parts, it was tedious, but not too difficult, to reinstall the dash board, a fully functional dash panel, and a NOS floor mat. That's a vintage 6 volt Motorola AM radio in the usual location.

The most daunting task, of installing the new



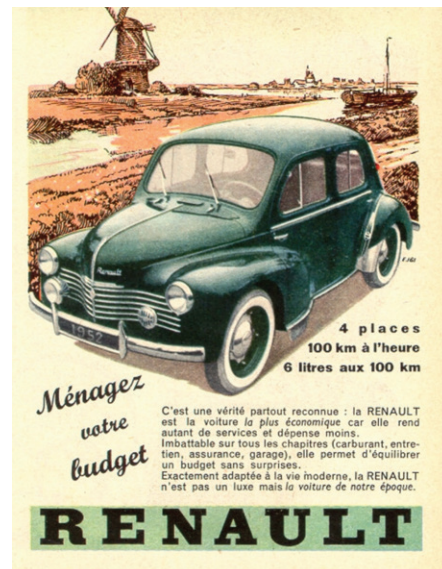


head liner, still remained. A local upholstery shop, Shoreline Custom Canvas, was willing to install the NOS headliner, and as part of the deal, manufactured the vinyl pieces that cover the wheel wells in the interior. Looks great, doesn't it?

It was relatively simple to hang the doors, and glue in place the new weather stripping as well as install the other pieces of interior trim. As mentioned previously, the seats were in excellent shape and once cleaned, were useable. The seat belts were color matched to the exterior color.

Having grown up in the late 50's and early 60's, white wall tires were deemed a necessity. Many dealers can be found on the internet selling the correct size tire, however almost all are black wall. The good folks at Diamondback Tires, were the only ones I could find, who had not only the correct size of 135R x 15's but had a choice of either black or white wall. The time spent waiting for the delivery of the tires was used to strip and refinish the wheels.

Doesn't the combination of the light gray (as close to factory original wheel color as I could find) and the white walls make a pretty combination? I got lots of kidding at the local tire shop when I took the new rubber to be mounted. My old '70's vintage tire machine requires a center hole in the rim, which all 4CV and Dauphine owners know isn't present. They made a big deal too of the fact that there are only three "lug nuts". However, I got the "last laugh" when they had no means to balance the tires. I could, and did balance them, on the car, using my vintage Hunter spin balancer. I admit that I may be a bit biased, but I think in these last two photos of our restored "Baby Bluette"; she looks pretty nice, coming or going. 🍷



2020 Carlisle Import and Performance

Marvin McFalls

After the last ten Carlisle meets we knew that it would take a lot to top our previous efforts. So we began working very early, for this year's event we had in mind featuring two unique displays, as well as celebrating 20 years of the Renault Owners Club at Carlisle.

However the entire focus of the event changed when we learned of Covid 19. Not knowing if there would even be a show, we waited and watched as the State of Pennsylvania took Carlisle Events to court. In the end, the State backed down and Carlisle Events confirmed new dates for the show of August 14-16th.

At this point we decided to shelve our two unique displays which were the Collective Works of Robert Opron and Renault of Canada and only focus on the Club's milestone. With only the one display, we dedicated the other half of Building R to our Toys for Tots campaign. On Thursday, Brad Stevens arrived in his A310, as well as Nick and George Dimopoulos with the 17TS and Encore. They all were at the front gate waiting when I arrived. After placing all of our vehicles, including my Fuego Turbo, it was not long before Claude Vancea arrived with his Renault 12 Wagon and Eric Matson with his Dacia 1310. Following a nice dinner we retired for the evening.

On Friday we added Christopher Westfall's Fuego and Hector Lopez's Alliance Convertible. Also Nick Chennell arrive with his Alliance Sedan and Tom Gross brought his GTA Convertible. After setting up our great display we turned our attention to a traditional Event that had been shelved in recent years, our Toy Run driving tour. Participants could either donate an unwrapped toy to be given to Toys for Tots or make a comparable donation. Our friend from the Meyer's Manx club turned out in great numbers and we enjoyed a spirited drive through the Central PA countryside. Following the Toy Run, we hung out until dinner time.

On Saturday August 15th, we once again returned to the Carlisle Fairgrounds. Where we were joined by Karl Fosburg, with his recently restored Renault LeCar, also on this day, we had volunteers work the Toys for Tots area all day to encourage spectators to donate to Toys for Tots. Over the weekend we were able to collect three boxes full of toys and raise more than \$2,000 to the most money we had ever raised!





On Sunday, following Breakfast at the Waffle House, we returned to the fairgrounds to take one last look at our displays before tearing down and heading home. It was another great year, not sure how our 2021 event will go, but plans are already underway. The Show is currently scheduled for May 14-16, 2021, and we have already agreed to expand our Toy Run, and open to all show participants and co-sponsored by Carlisle Events. The toys donated will again support kids in Cumberland, Perry, and York, Pennsylvania counties. Hope you can join us at next year's show. 📌



A Brief History of DAF Cars

by Marvin McFalls

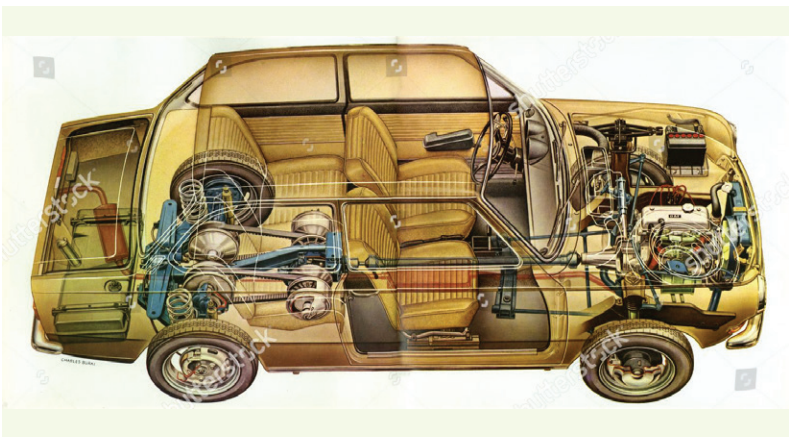
The DAF Variomatic was launched at the 1958 motor show in Amsterdam. The reaction from the Press and public was astounding - here was a small, compact car which could comfortably carry four people and their luggage, economically and also be very easy to drive. This was due to the simplicity and brilliance of the Variomatic fully automatic transmission. Until now, automatic transmissions tended to be only available on large cars. And conventional automatic transmissions were not very efficient.

The Variomatic was the brain child of Dr. Hub van Doorne (van Doorne's Automobielen Fabriek - DAF) and was infinitely variable in its ratios - there were no noticeable gear changes. The pulleys in the transmission expanded and contracted, depending on speed, road conditions and driver's demand automatically. Final drive to the rear wheels was transmitted by rubber-composite drive belts. It became known as the "car of a hundred gears" and "the easiest car in the world to drive". There was a selector lever between the front seats - simply push it forward to go forwards and back to go back! And as with any other automatic car, there are just two pedals - accelerator and brake.

The engine capacity was increased in 1967 to 850cc with the introduction of the DAF 44 which was offered in sedan, wagon, and coupe forms, and carried on in production until 1975 in the DAF 46. However in 1968, the DAF 55 was launched which used the Renault 1108cc water-cooled engine. This car shared the same basic body shell as the 44. With the introduction of this larger four cylinder engine, DAF appealed to more customers. DAF continued with the air-cooled cars alongside the 55 and then later the 66, which replaced the 55 in 1972. The 66 also made use of the 1300cc version of this Renault engine, still of course using the Variomatic transmission, but a redesigned rear suspension using de-Dion set-up.

Following the takeover by Volvo, DAF models were taken off the market, apart from the DAF 46, and the 66 was replaced by the Volvo 66. Then in 1976, Volvo launched the Volvo 343, which would originally have been launched as a DAF 77 had DAF cars survived. The 343 was developed over the years into the Volvo 340/360 range and continued on the market, even with Variomatic until 1992.

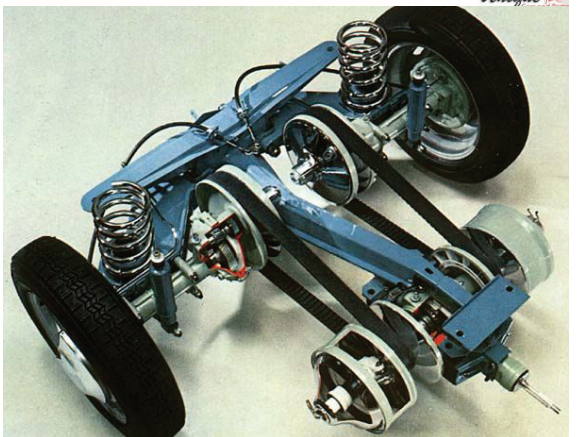
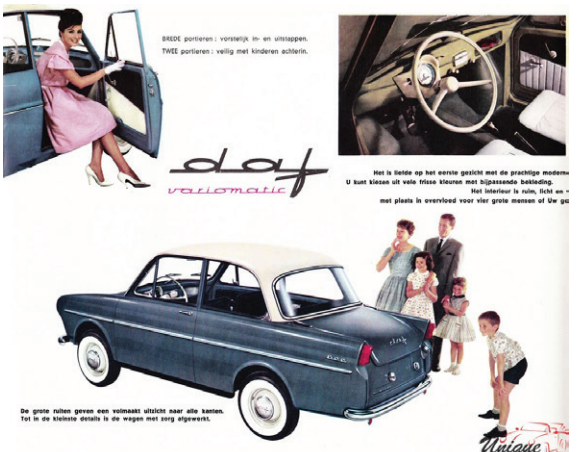




Now that you have the background on the DAF and Renault's connection to the brand. I wanted to introduce to quite possibly the earliest example of the Renault powered DAF. Late last year I was able to acquire what I was told was a DAF 55. Being that it had a Renault 1100cc engine I figured that was the case, but once I had the car home and did some research it turned out that this was actually a DAF 44 chassis.

After putting the car on the lift I couldn't see any signs of an engine change from the smaller two-cylinder engine so I believe that it is a pre-production DAF55. So possibly this car was used for auto shows or even a test mule for development of the 55 model.

While my DAF 44 coupe is quite rare possibly the only one here in the States, it turns out that there is club dedicated to DAF models here in the US. They claim to have over a hundred members to learn more about DAF and to join the club visit www.daf-clubofamerica.org 📌



The Elkhart Collection

by Marvin McFalls

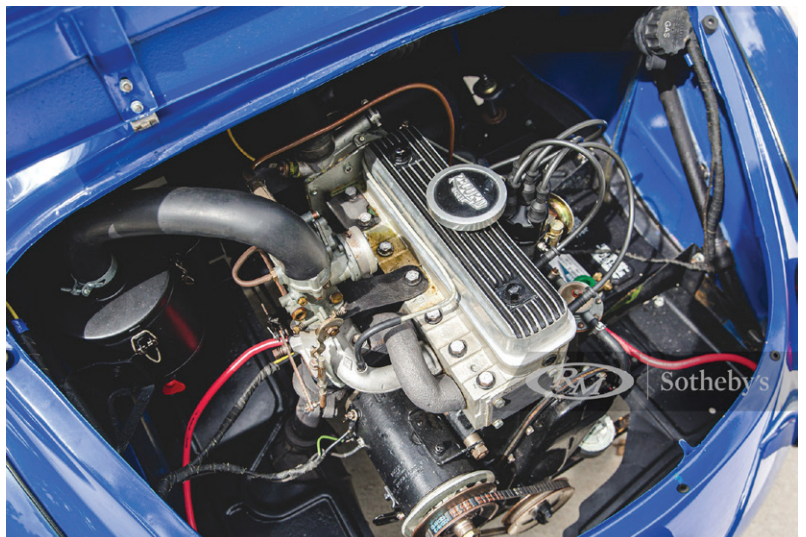
It turns out the perfect recipe to have a good automobile auction is, a bankrupt CEO accused of fraud who had amassed a \$31 million collection of some of the most desirable cars in the world. Promoted by RM Sotheby's, more than 2,500 bidders from 53 countries paid the hundred-dollar registration fee to acquire bidding numbers.

So, on October 23rd, the soon to be former car collection of Indiana-based fraudster, Najeeb Kahn, went up for auction. Regardless of the source, the Elkhart Collection as it has become known, is one of the most comprehensive group of cars ever offered at a single sale and most with no reserve. There was truly something for everybody, no matter your preferred marque or nationality, era or price range.

The tone for auction was set before the first car ever crossed the block as most of the Automobilia items brought near or exceeded world record prices. This continued for the majority of the more than 240 cars sold over the two-day sale. Not Surprisingly, a Ferrari claimed the top selling price. It was 1952 Ferrari 225 S Berlinetta with coachwork by Vignale which brought \$2.8 million. The next most expensive was, one of three Fiat 8Vs, Th Ghia-bodied 8V Supersonic brought in just a little more than \$2 million. While the other two 8Vs, fell just short of seven figures. Three Jaguars also were sold for seven figures, a 1955 D-Type, \$1.325 million, the 1957 XKSS, \$1.985 million, and a 1963 E-Type Lightweight, at \$1.7 million.

As I previously mentioned, this sale was not just for million-dollar cars, and for those who are fans of the Renault, there were three interesting offerings. First offered was 1962 Renault Dauphine Gordini Deluxe, which to my knowledge does not exist. The engine in the car was a standard 32 horse, and the car was only about 70 percent complete, but along with buyer's fee it brought in an impressive \$22,400. Next to sell was an older restoration of a 1961 Renault 4CV Jolly. While it did not eclipse the world record price, set last year, at \$95,200 it was by no means a bargain. Finally, the 1974 Alpine-Renault A110 1600 VD. Which had been played with hard, and put up wet. According to the auctioneer it may or may not of had a rare 1800cc race engine. Even with an unconfirmed power train, at \$168,000 it was definitely above market value.

Before the gavel was laid down, a Lamborghini Mi-





ura brought \$1.16 million, then an Aston Martin DB5 sold for \$852,000, and a 1955 Mercedes-Benz 300 SL passed through for \$1.5 million. While the entertainment value was high, however those looking for a bargain were in the wrong place. In total more than 44 million was raised for Mr. Kahn's creditors. It is still to be determined if this will be enough for him to avoid significant jail time or not. 💎





Renaults in Finland (or, what is an AWZ?)

by John Waterhouse

The Etala Karjalien Museum, Imatra, Finland

A small car museum in Finland, about 10 km from the Russian border, didn't give any hints that it would be interesting.

I thought "perhaps a few old Volvos and, with luck, a rear-engined Renault since the Finns liked them for traction." What we found was far more interesting than we'd imagined, packed into a series of interconnected rooms.

There were indeed old Volvos and the inevitable SAAB. There were many old motor bikes, ranging from a Finnish moped to an MV Agusta, and some very interesting European motor racing memorabilia (cars and bikes) and photographs. The collection was diverse indeed, from big US cars to an Austin A30 – they even got to Finland it seems. One of only three 1939 straight-eight Daimlers ever made, originally owned by the Swedish royal family, was a complete surprise. It was in apparently quite good original condition and reportedly the only car in the museum not drivable. Several old Moskvitches, a Skoda and a Wartburg represented the Eastern Block of the 1950s and 60s and sundry odd things like a Morris Minor completed a pretty diverse collection of cars. Downstairs were trucks and old workshop gear too, with some interesting motor bikes. It was a remarkable little museum.

I'd told our group that we'd probably find a rear-engined Renault. No-one believed me of course, but... There it was, downstairs in yet another room. According to the information, it is a 1956 car with two owners from new. The car looks very original overall and has the usual French front doors with fixed glass and a large quarter pane. At the rear, it has the double air filter arrangement fitted to some Australian cars, with the air pipe running to the front of the vehicle.

It also has the later type instrument cluster in front of the driver and various stickers testifying to the car's involvement in a number of Renault club events in the 1990s.

So, moving from the Renaults, what is or was an AWZ? There was a curious little car tucked in that back corner behind the R4. It had a bit of a Trabant look, but wasn't. The badge (below) gave a slight hint, that word "Zwickau". Some readers may be aware of Zwickau's importance in the Auto Union story and



Two-owner 1956 Renault 4CV (nice Ford V8 to rear)



RENAULT 4CV
sport

Vuosimalli 1956
Syl.tilavuus 747 cm
Teho 21 hv
Ajettu 76.700 km

Auto on alkuperäisessä kunnossa ja katsastettu.

1. omistaja 1956 - 89
Reino Mikkola, Tampere

2. omistaja (myyjä) v. 1989 -
Markku Klemola, Lappeenranta

Various stickers on the windows of the 4CV



Trabants were made there. This little car was hidden in a corner, behind a post, and I had to climb in past a surprisingly nice Renault R4 to photograph it.

About 36,000 of these AWZ cars were made in Zwickau, in East Germany, from 1955 to 1958. It seems they used pre-war DKW components (2-cylinder, 2-stroke engine for example) and morphed into the early Trabant model. I imagine they are pretty rare.

All in all, the museum was a surprising delight. The man in the museum was the only person we met in Finland with little or no English, but we made our pleasure clear to him. 💎

Genuine AWZ, hidden in a corner



The only other Renault was this R4, hiding the AWZ in the back corner. Observant readers will recognise the Wartburg (black bonnet), a Morris Minor and two European offerings from US parent companies (probably Ford/GMH but I don't remember).



Corroded AWZ badge – note "Zwickau" at upper left



AWZ badge from a download



Renault 4CV
Lovers by the Pont-Neuf
1962

Silentbloc and Fluidbloc Suspension Bushes

by John Waterhouse

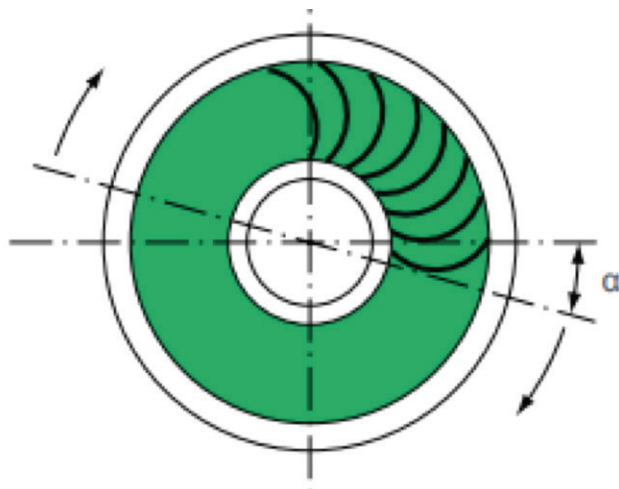


Screw bush suspension components – Renault 4CV
(Thirteen threads plus four grease nipples on these components alone)

Typical pair of Silentbloc bushes (R8/10 lower wishbone)
The only other components are bolts with long, plain shanks and nuts to tighten the fitting



Diagram showing Silentbloc bush angular movement mechanism



For post-1957 Renaults.
(particularly referring to R8/10 and Caravelle front suspensions)

INTRODUCTION

The old technology “screw bush” suspension was used on the suspension pivots of the pre-1957 4CV cars. These early 4CVs have been described as a 12 cwt csr (that’s 620 kg) of which half the weight is grease nipples.

These hardened steel bushes last well if you keep them greased frequently. Mine have no play in 30 years, but I do grease them, along with the king pins, every few hundred or 1,000 kilometres (this means annually most of the time). These hardened steel screw-bushes were made in Australia as replacement parts, by the established company Dufor, alas no longer....

The screw-bush and kingpin suspensions wear a lot if not greased – I think many older 4CVs were in very bad condition because second or third owners who bought them cheaply as second cars or as student cars neglected their maintenance. Apart from being expensive to make, using a system that has less active maintenance requirements is better in every way.

The next technology was what many of us know as ‘Silentbloc’ bushes, which appeared as the major wishbone pivots on Dauphines and on 4CVs when they first acquired disc wheels in the latter part of 1957. Once the “rubber” technology was established, these bushes must have been far cheaper, part of the ongoing evolution of the 4CV with cheaper and cheaper design approaches adopted. Cheaper does not necessarily mean inferior: Silentbloc bushes have no moving parts, no grease nipples to be ignored and insulate the car body from some of the noise and vibration from the road wheels.

Even the very early 4CV models have small Silentbloc bushes - the links from the front suspension to the anti-sway bars are Silentbloc, as is the muffler hanging bracket. Silentbloc bushes are used in the engine stabiliser bar to improve the action of the very early type of clutch mechanism.

Perhaps the key Silentbloc application is in the

bushes used for the front suspension wishbone pivots. The bushes were a key component from 1957 to the end of rear-engined Renault production. All of the cars after 1957 with kingpin suspension used Silentbloc bushes for top and bottom wishbones and for the top and bottom king-pin assemblies as far as I know.

The only other components are bolts with long, plain shanks and nuts to tighten the fitting

A mounting pin runs through and is tightened against the inner part of the bush and the outer part is pressed into the suspension or other component. Since the pin cannot rotate inside the inner part of the bush, rotation can only occur by deformation of the rubber in the annulus. That is a Silentbloc bush.

When 'rubber' is mentioned in this article, it refers to whatever polymer compound the manufacturers actually used.

It took me many years to understand this mechanism! Old bushes that have failed can actually have microcrack patterns in the rubber bush end that mimic this diagram.

'Silentbloc' and Related Bush Types with a Rubber Annulus

There are several related types of "rubber annulus" bushes, one of which, the Fluidbloc bush, is used on the upper wishbones pivots of Renault R8, R10 and Caravelle models with their ball-joint suspension that superseded king pins.

These bushes can look similar but do not all function the same way. However, all of the bushes are generally pressed into place in their housings and can be challenging to remove.

Many companies (from Europe, USA, India and China, and probably other countries) produce bushes of these types and may have used different descriptive product names!

This link below leads to a good pdf file that includes a good description, with diagrams, of the different types of bush in this family. Some of us will recognize the name Paulstra.

<https://www.paulstra-industry.com/download/catalog/2019/en/277/>

The diagrams below from the website show the Paulstra factory's diagrams to describe the different types of related "rubber" bushes. There are basically two types, one well-known, where the rotation in the bush is taken up as rotational strain in the rubber (Silentbloc and Flexibloc) and one, much less commonly recognised, where the rubber element rotates against the outer steel bush, with presumably silicone grease as a lubricant (Fluidbloc).

1. 'Silentbloc' bushes

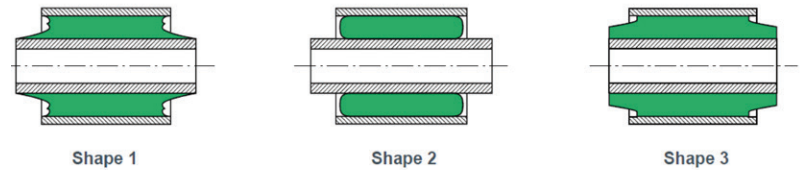
FLEXIBLOC (fig. 1) - FULLY BONDED

This is a bush made up of 2 concentric tubes between which of elastomer is bonded. Under the effect of external forces or torques, the relative movement of the tubes will cause an elastic deformation of the elastomer. By consulting the service conditions, a bush should be chosen which will remain within its elastic operational limits.

SILENTBLOC (fig. 2) - PRESTRESSED

This is a bush made up of 2 concentric tubes between which a ring of "adhérite®" elastomer is inserted by force. Under the effect of external forces or torques, the relative movement of the tubes will cause an elastic deformation of the elastomer. Above a certain value the adhérite will slide in the tubes.

These simple bushes are considered to have lateral stops (shape. 3) when the elastomer protrudes from the external tube in the form of a support surface with various profiles.

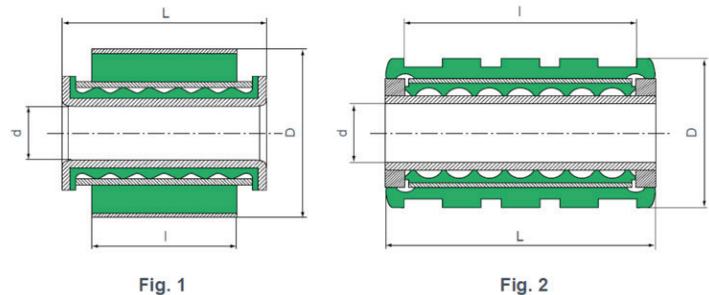


2. 'Fluidbloc' bushes

FLUIDBLOC® AND TOURIFLEX®

These are high precision bushes; they are made of injected polyurethane and can resist oil, water, ozone, etc.

These "pivoting" bushes are characterised by their very low torsional resistance (0.1 to 0.2 N.m). They can ensure a complete rotation (360°), and have no requirements for maintenance because they have a permanent lubricant.



3. Discussion

Paultra's site, from which these diagrams come, make it clear that the Silentbloc bush is not bonded to the inner and outer steel bushes but that the Flexibloc bushes are explicitly bonded to the inner and outer steel bushes. The Silentbloc bushes are apparently pressed into place in the annulus between inner and outer steel bushes and then heated to achieve, I suppose, a de-stressed conditions in the "rubber" and some sort of bond with the steel sur-

faces. For our purposes, these bushes operate in the same way.

Web searches suggest that Porsche investigated the use of Fluidbloc bushes for their 911 model because of their low-torque rotation, but opted instead for Silentbloc. It seems likely that they were concerned about the service life of the Fluidbloc bush system with its sealed-for-life lubrication. My experience suggests that the life of the bush is limited by the persistence of the sealed-in grease!

Since I “discovered” the Fluidbloc bushes on our R8, discussions with several people with decades of experience with these cars have provided contradictory opinions and experiences. Some don’t know, some say never have they seen Fluidbloc bushes on an R8 but always encountered Silentbloc bushes top and bottom. Some say they always had Fluidbloc bushes for the upper pivots and Silentbloc bushes for the lower pivots: I have seen nothing but upper Fluidbloc and lower Silentbloc bushes on mine!

Since the spare parts available now seem only to be Silentbloc bushes for the upper wishbones, it seemed time for some research. That research has led to this article...

4. Silentbloc bush elastic operational limits

Silentbloc bushes have limits on the angle though which they can rotate without over-straining the rubber annulus, depending upon their dimensions. Put simply, the thicker the rubber insert, the greater the angle that can be accommodated without over-stressing that rubber. With greater thickness comes greater potential for deformation and therefore changes in the suspension geometry under dynamic load, that is when driving! So the dimensions of the bush and characteristics of the rubber used in the insert are a compromise between vibration insulation, deformation and the angle for which the bush will have a long service life.

The Paulstra website for their flexible bushes has tables that include the maximum angle for the bush’s deformation and a range of bush dimensions.

<https://www.paulstra-industry.com/download/catalog/2019/en/277>

As shown below in Homberger’s tables, the rotational capacity of the nearest size bushes to those on the R8 are 300 for the lower wishbone and 200 for the upper wishbone. The 200 angle is relevant only if using the currently available Silentbloc bush for the

upper pivot).

The first table covers the size of lower inner R8/10 wishbone bushes: 16mm ID x 36mm OD x 31 mm long (the length of enclosed rubber inside the bush) gives 300 of rotation within the elastic operational limits.

Table 1: Angular movement specifications matching lower wishbone Silentbloc bushes

d (mm)	D (mm)	L (mm)	l (mm)	Obs	RADIAL		TORSION	AXIAL		CONICAL	Reference
					Static Load (daN)	Deflection (mm)	Max angle (degrees)	Static Load (daN)	Deflection (mm)	Max angle (degrees)	
16	32	32	28	BL	130	0.05	20°	65	0.4	3°	861141
	32	54	50		330	0.05	20°	220	0.4	1°	861143
	32	54	50		330	0.05	20°	220	0.4	1°	864108
	32	59	55		400	0.05	20°	250	0.4	1°	861145
	32	65	50		450	0.05	20°	300	0.4	1°	861146
	32	76	70		500	0.1	20°	180	1.5	1°	561358
36	38	35	90	0.1	30°	45	0.5	7°	861624		
36	43	35	90	0.1	30°	45	0.5	7°	861756		

The second table covers approximately the upper inner R8/10 wishbone bushes. The size 14 mm ID x 26 mm OD x 25 mm long (the length of enclosed rubber inside the bush) gives only 20° of rotation within the elastic operational limits.

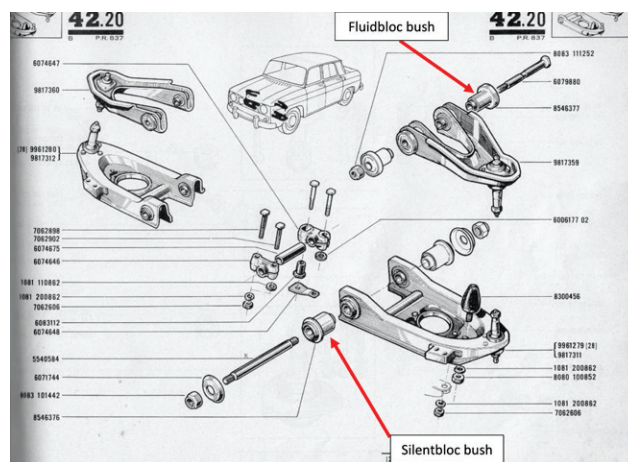
Table 2: Angular movement specifications closely matching lower wishbone Silentbloc bushes

14	27	25	17	60	0.2	20°	30	1.1	3°	561120
	27	28	25	120	0.2	20°	50	1.8	4°	561227
	27	28	25	90	0.04	20°	45	0.4	3°	861128
	27	33	25	150	0.15	20°	40	1	3°	561747

Note that the highlighted lines from the tables are the closest dimensions to R8/R10 wishbone pivot bushes.

Replacement of These Bushes on Later Rear-Engined Renault Front Suspensions

R8 factory parts manual front axle page



1. Silentbloc bushes removal

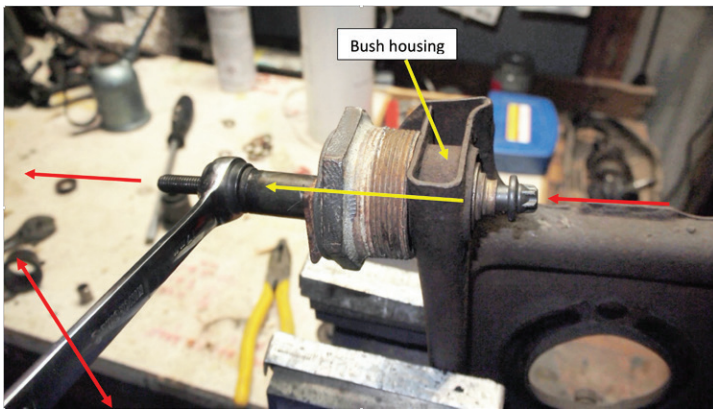
These bushes cannot be serviced simply. If the rubber fails, typically a new bush is used and they are

not expensive (8 Euros or \$12-15 approximately plus postage from France in mid-2020). It is theoretically possible to rebuild bushes with an appropriate specification flexible compound, as some home mechanics have done, but this does require specialist knowledge and experimentation and may be successful. There are companies (globally) which remanufacture Silentbloc bushes used in, for example, engine mounts and stabiliser bars for Citroën CX models.

There will be a short discussion of Nolathane later in the article, as some see this material in bushes as an alternative to Silentbloc construction.

Replacement of the bushes is basically simple providing you can work out how to remove and replace the bushes without damaging the wishbones – a press or home-made extraction tool is all you need for all models. The photo shows an R8 lower wishbone pivot being pulled out using a head bolt and washers of the right size, with a 2½” galvanised pipe fitting to bear against the wishbone. The bushes can be very tight after some decades in place....

Silentbloc bush removal, being pulled out from right to left by home-made service tool



Simple components of tool to pull Silentbloc bush out of lower R8 wishbone



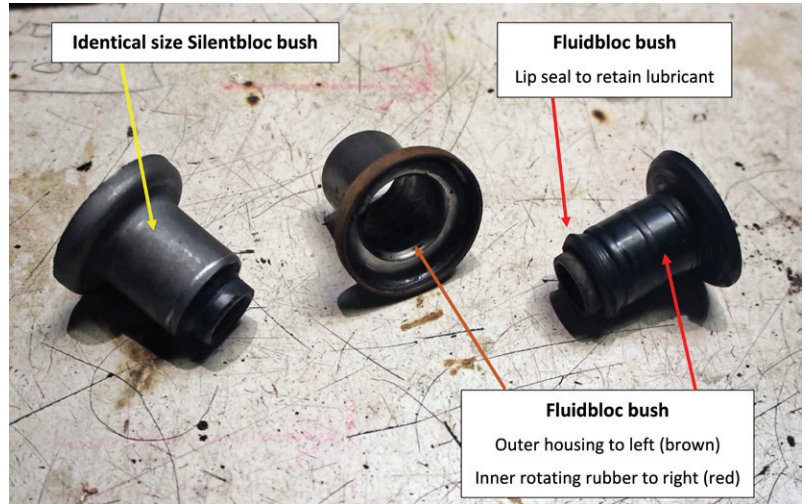
A key item is this heavy washer, slightly smaller in diameter than the OD of the bush

It will be clear to the reader that this tool is home-

made. Total cost was zero.

2. Fluidbloc bush removal and servicing

These bushes can be serviced by dismantling and, if sound, regreased and reassembled.



The R8/10 and Caravelle front suspension bush options (upper wishbone)

The Fluidbloc bush can be dismantled by pressing out the inner from the outer, an easy job. As the photo shows, there is a lip seal at the inner end to retain the lubricant. The photograph shows one of mine immediately after dismantling. Since there was little or no lubricant left after 20 years and a mere 100,000 km, it is easy to understand why Porsche did not use them on the 911, despite their advantage of low rotational torque. The bushes are robust but lubricant retention is obviously an issue for the long term.

In this case, for my R8 front suspension, I judged that the Fluidbloc bushes would be fine if relubricated – the photo above shows that the rubber has little if any sign of wear or of damage. Much discussion came to the view that a silicone grease would be a good lubricant and I have used Dow Corning’s “Molykote 111 Compound” as recommended by another user. I also polished the inside of the bush with 1200-grade rubbing paper.

This Molykote 111 grease is designed, among other things, for the bizarre uses in ‘O’ ring and crane pivot lubrication. It is stiffer than the grease that I remember seeing on the bushes when they were new. I suspect that more or less any silicone grease would

be fine and some have recommended using rubber grease. Who knows but you'd want it to be waterproof? I opted for a good quality, high specification product (\$27 for a 100 g tube, of which 5% was used on this job).



Fluidbloc bush relubricated with silicone grease prior to re-assembly)

Nolathane and Similar Products

It is common to hear people recommending Nolathane (or equivalent) bushes as a replacement for a

new Silentbloc bush. While this works physically (I've no idea of their lifespan although Nolathane offers a "lifetime guarantee") you are left with rotational sliding at the pin inside the bush and presumably a loss of some or most of the vibration insulation that comes with the Silentbloc system. On the positive side, the Nolathane bush will deflect less under load, preserving suspension and steering geometry.

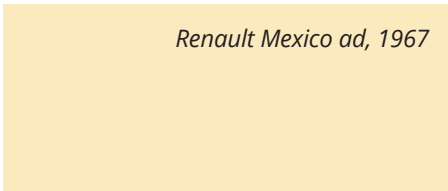
This is one for personal preference. More information is available at:

<https://www.nolathane.com.au/>

Closing Remarks

As usual for jobs done rarely, this R8 suspension overhaul job turned into another learning exercise. Who knew there were two radically different bushes used on these upper wishbones? A very few people did but I certainly didn't until I started serious thinking about this rebuild.

My thanks to all whose opinions and knowledge have helped develop this article. 🙏



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Vanderbilt Renault Auction

by Marvin McFalls

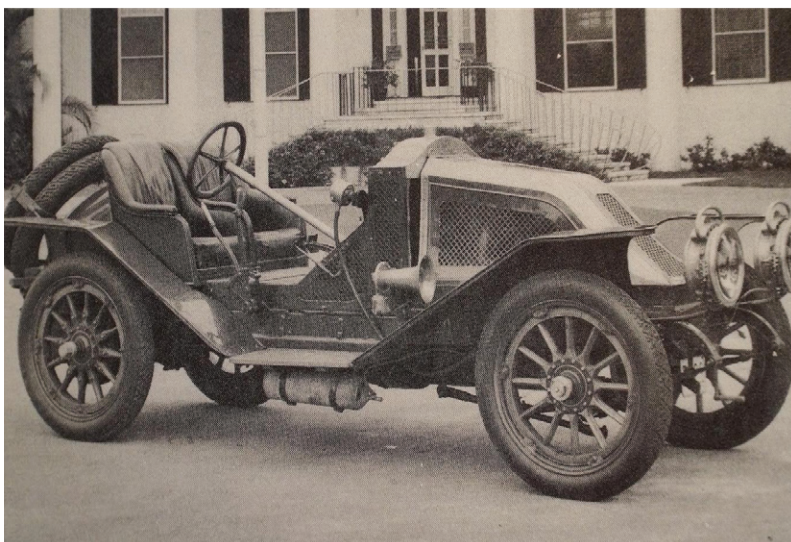
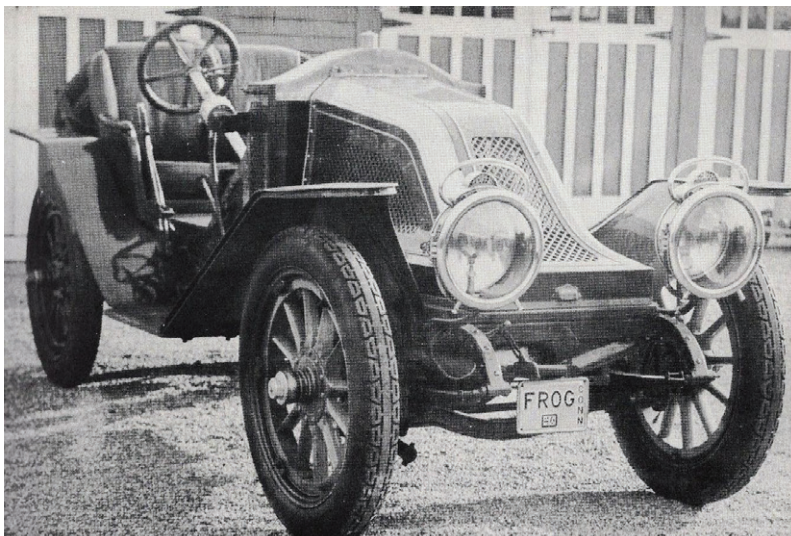
No person was more integral in the birth of early American motor racing than William K. Vanderbilt Jr. Willie K, first cut his teeth on a De Dion Bouton motorized tricycle, but quickly moved to automobiles, soon acquiring his first race car a 23 hp Daimler. By 1900 he was organizing his own races in Newport, Rhode Island and competed in city to city races in Europe first driving a Mors Model Z, then switching to Mercedes.

By 1904 he was the world record holder in the flying mile, and that same year he hosted an international race on Long Island, in New York. Calling his new race the Vanderbilt Cup, it was an instant success, quickly becoming the most important of all motor races in America, if not the world.

In 1906, Willie K attended the world's first Grand Prix, held in LeMans, France, which was won by Renault. Typical top level racers of the period were chain driven, with huge displacement engines. Louis Renault had revolutionized the automobile with his direct-drive, System Renault, and for the second time, had beaten the world's best with one of his racers. While most of these top-tier racers were built by the factories at great expense, to this point, lower forms of racing were done in fairly unsophisticated racers often based on modified passenger cars. Following the Grand Prix, Willie K commissioned a series of production racers built by Renault. This batch of cars were based on their top of the line, smaller but taller riding, 35/45hp production car known as the Type AI.

At that time, to meet the new regulations of the American Automobile Association Racing Board for a stock car class racer, at least ten examples had to be created. But at a cost of \$8,500 each for just the chassis, even though the price was great, they were able to sell Willie K and ten of his New York, High Society friend's cars.

Referred to as the Vanderbilt Renaults, their official designation were Type AI Series C. Featuring a 7.4 litre engine that had a bore of 130mm (5.1 inches) and a stroke of 140mm (5.5 inches), with shaft driven four-speed transmission. It had a wheel base of 112- ½ inches. These car had comparable body work to the Grand Prix cars, and at first glance appeared to be a smaller version of the French race winner. Some were outfitted with road equipment including: Lights,





fenders, and ornamental horns, while others were just bare boned racers.

The Vanderbilt Renault was introduced to the press in Paris in July of 1907, and then were delivered to their new owners in New York later that summer. A twelfth car was also delivered to the Renault Freres Selling Branch in New York. Where the Vice-President and General Manager Paul LaCroix, along with his newest employee, Maurice G. Bernin, boarded a train bound for Chicago with the Vanderbilt Renault on board.

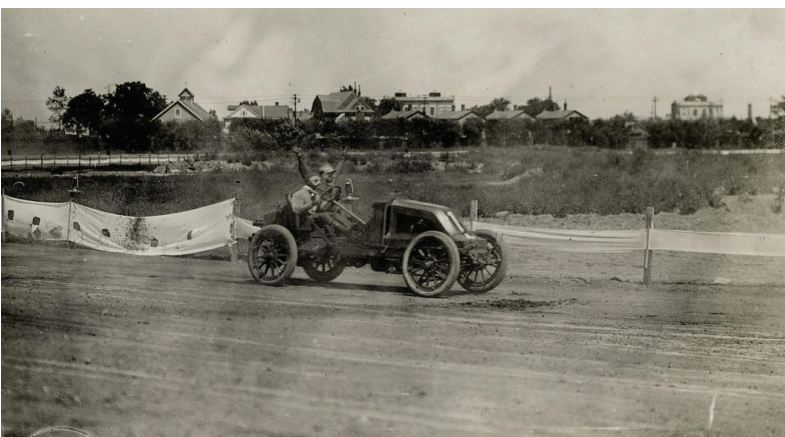
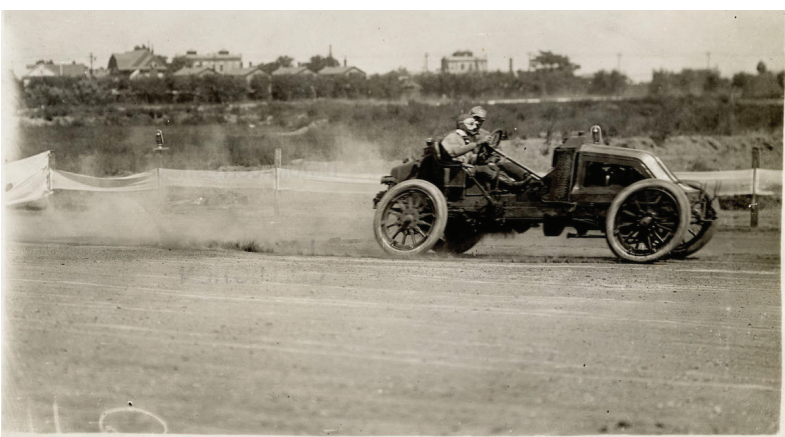
The duo planned to drive the Vanderbilt Renault from Chicago back to New York, at a new record pace. While the attempt was unsuccessful, the pair then entered it in Morris Park 24 hour race on September 6 - 7, and went on to an impressive victory. Completing 1,079 miles at an average speed of 45 mph for the day, setting the American Circuit Track record.

Over the next two racing seasons, various Vanderbilt Renaults were campaigned in hill climbs, road and track events, but by 1910 they were obsolete as racers, and quickly disappeared from the public eye. By the late 1920's a movement had begun to preserve old cars, referring to these vehicles as Veterans, and Kirkland H. Gibson Jr, Marcus Chambers and George Waterman had all discovered Vanderbilt Renaults prior to World War II.

James Melton acquired one in Ridgefield, Connecticut in 1946, though it reportedly had been there since the 1920s. Melton, was a famous radio and opera singer, and became an early prominent collector of Veteran automobiles. Next, its ownership passed on to William Spear Jr. Spear was a top racing driver and had competed in several 24 Hours of Le Mans races. During Spear's ownership the car was often displayed at Briggs Cunningham's collection.

In 1957, Indianapolis Speedway owner Tony Hulman, acquired the car for the Indianapolis Speedway Hall of Fame Museum. Hulman had paid Spear, which at time was an incredible sum, of \$7500 for the car. The car remained in the Speedway Museum for nearly 60 years, until it was purchased by the Robert Kauffman of Charlotte, North Carolina.

Under Kaufmann's ownership the racer had its gearbox rebuilt and received paint and interior work. While renewing the interior the original upholstery was discovered underneath what had been on the car since the 1950s. This was carefully removed and new leather that closely matched the original was found and installed. In 2017 the car competed in



the Wilbraham Vintage Hill Climb, scoring the fastest time for a pre-WWI racer. Next it completed the Pebble Beach Tour D'Elegance, then it joined the 110th anniversary reunion of the four, American owned, Vanderbilt Renaults held at Pebble Beach, winning the Pre-War Racing Class, The Phil Hill Trophy and the Revs Institute Award.

Early in 2020, it was announced that the Melton/Spear/Indy/Kaufmann Vanderbilt Renault would again change hands, as it was entered in the Bonhams Amelia Island Auction. Ahead of the auction the sale was well advertised and the car was even pictured on the back cover of the catalog. The Auction was held at the Fernandina Beach Golf Club on March 5. The auction began at 11:00AM, but it would be a number of hours before lot 159 would drive on to the block.

As the time finally arrived, even before the car was fired, Bonhams had prepared a video highlighting the car, then the car took center stage. The auctioneer had announced various proxy or opening bids prior to other cars being sold, and in the case of the Vanderbilt Renault he declared an opening bid of two million dollars.

The reaction to this statement was mixed, as many cheered while others gasped. A series of \$100,000 bid increases took place between a bidder on the front row, and a phone bidder. By the time the bid reached 2.4 million dollars, new offers had decreased to \$25,000 increments. Though the volleys continued, it became clear that the front row bidder was being advised by Donald Osborne, the car appraiser on Jay Leno's Garage. Also at some point the auctioneer announced that the phone bidder was in Europe.

By the time the bid had reached 2.8 million the pauses grew longer between each bid. On at least one occasion, the auctioneer reached final call before receiving another bid. As each new bid came in, the auctioneer would state that if no further bids came in the car would either stay in America or return to Europe.

When the bidding reached the three million dollar mark, the crowd exploded in a cheer, and the auctioneer was quick to state that it was back in European hands. Then, the front row bidder conferred with his advisor, and then increased the bid another \$25,000. Three million must have been the European bidder's breaking point, because his proxy on the telephone said he was out, the auctioneer quickly asked if there were any other bidders, gave three warnings and dropped the hammer.





The crowd again cheered, and as the excitement began to finally wane, the auctioneer then asked the bidder if it would be all right to announce the new owner of the Vanderbilt Renault. The bidder agreed, and the auctioneer stated the car would now be residing in Newport, Rhode Island, in the Audrain Automobile Museum. Then the Vanderbilt Renault was pushed off the block and the next car drove on.

While the term million dollar car has been associated with the Vanderbilt Renault for more than a decade. When the Ex George Waterman car was sold for \$1.1 million at the Gooding & Company Auction held on October 21, 2006. Now the term multi-million dollar car will need to be used, because after auction fees, the final price came to \$3,332,500. Quite a sum, from the estimated between \$15,000-19,000 original price tag back in 1907.

While it will probably be another decade or more before another one of these gems directly tied to racing pioneers, Renault and Vanderbilt come up for sale. In the meantime, it will be interesting to see how other examples from the Renault marque will fare. 💎

The Back Page - Renault Estafette

Mexican advertising catalog for the Estafette. Many thanks (as always) to Estafette owner Francisco Miranda for this.

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ASIENTOS. Tres Asientos traseros y dos delanteros, los delanteros con tapete motorizado y sistema de ajuste de altura. Sillón delantero.

ESPECIFICACIONES TÉCNICAS

Modelo del 1968 con 2000 cc. (1200 cc. en México). Equipado con 4 cilindros de aluminio. Sistema de inyección. Motor con potencia máxima de 40 CV a 2400 rpm. Velocidad máxima de 120 km/h. Consumo de combustible: 10 km/l. Capacidad de carga: 1000 kg. Capacidad de pasajeros: 9. Capacidad de carga de mercancías: 1000 kg. Capacidad de carga de pasajeros: 9. Capacidad de carga de mercancías: 1000 kg.

RENAULT
Producción en México por Diesel Nacional, S.A.

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