

The official newsletter of

The Revs Institute Volunteers

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TAPPET CLATTER

Volume 26.7

March 2021



Chairman's Notes

Well, I was beginning to think that the day would never come but here we are..... Revs Institute is open again!

After a successful "Soft" opening the previous week, the Revs Institute finally reopened to a full house on February 25. And speaking with my fellow Volunteers, it wasn't a day too soon... and speaking with the spouses of some Volunteers it should've been much sooner!!!

We had our new maximum capacity and the volunteers manning the new front door station did a fantastic job of checking in guests, taking temperatures and making sure all guests sanitized their hands before entering the new one way entrance.

Whitney did a great job organizing for the reopening and my hat is off to her and her crew for a job well done.

Thanks also to the volunteers who did great job of re-acclimating after so many months off.... I have to admit I was a teeny bit rusty on my station guide skills.

The employees were happy to have us back as well and I heard that from many of them. Nice to be back to a little bit of normal here.

Mark Koestner

Cars on 5th

February 6, 2021

By Tom Saracco

Naples brought some of all types of its weather with the slight threat of rain but a cloudy-sunny windy and humid day. The breeze had a nice cooling effect on the streets which ran north and south but less so for the east west avenues. The Revs volunteers liked it most of all, as we were in the sun much, if not most of the second half of the day. The Revs volunteers were John Balconi, Tom Dussault (the organizing force), Carmen Ermi, John Lozen, Peter McLaughlin, yours truly and Steve Smith. The Revs Institute staff member whose job was to bring and return the car was a very patient David Santiago.



Our Spot!

Many of us thought the new admission fee would deter some from attending this event. It would appear that many were willing to spend the \$30 presale and \$35 at-the-door fees. These fees are up from \$20 in 2019 and 2020. For those who wanted that special treatment,



Carman Ermi talks to a visitor

the VIP tent offered adult beverages and Ferraris for one cool picture of Benjamin Franklin (on a \$100 bill). The event did successfully raise over \$500,000 for the St. Mathews House charity.

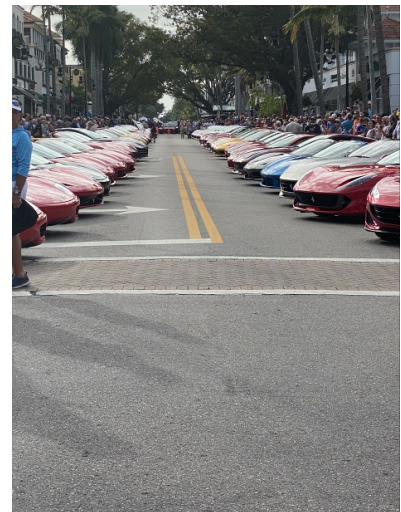
Our exhibit car this year was the perfectly restored and improved Fiat Multipla seen here being admired by the many who stopped by to inquire about it and the status of the museum.

Of special note here is the great many people who inquired about the opening date, many with the promise of attending.

I was also surprised by a few who knew

nothing of the museum including an inquiry to see if the Fiat was for sale. We handed out almost all the literature to the literal thousands of attendees.

As usual Cars on Fifth attracts all the beautiful people and cognoscenti who live in and around and visit Naples and SWFL. The preponderance of people wore masks which was very much appreciated. Our road mates were two dramatically different cars: on our left was a 1973 Porsche 911T which was for sale and the very attractive 2021 Ferrari F8 Spider for sale at the bargain price of a small king's ransom.



Tom Saracco and Tom Dussault Photos

(Continued on page 3)

Cars on 5th... *continued*

(Continued from page 2)

The end of the day's activities was marked by the cars revving their engines and taking off one by one down Fifth Ave towards Route 41. [Linked here is a 17 minute YouTube video](#) of the cars leaving the show revving their engines as they passed. It was incredible as there were Ferraris, Corvettes and more of every size and shape and vintage. In every color.

I walked north towards the hospital to wait for my ride so as not to get mired in the supercar traffic jam and spotted a gorgeous Porsche 918 hybrid being loaded onto its trailer.

As I waited to be picked up a vintage Rolls Royce silently slid past me and I was approached by a couple who noticed my Revs shirt to inquire about the reopening. By this time the word was out for Feb. 25 reopening.

A very special young man of about 8 or 9 and his parents, came by and softly asked about the Multipla. His name is Matthew. He admired the car and its Matthew -perfect size. I asked him if he had ever been to see our museum to which he smiled and said no. I could see his parents smiling out of the corner of my eye. I gave him my name and told him to ask for me when he comes to see us. Later I left to find some water and when I got back, Matthew had come back and asked for me.

I had missed him, but I expect to see him again when his parents bring him to the museum.



TAPPET RIVIA

By Joe Ryan

This section is devoted to questions about the Miles Collier Collections cars or cars of the same period. Some of the questions might be a bit obscure or tricky. Test your collection knowledge and *have fun!*

1. What is BMW headquarters building shaped like?
2. What famous Race car driver drove several of the cars in the Miles Collier Collections and also helped in the design of disc brakes?
3. Who was the first African-American to design and build an automobile?

The answers are posted later in the issue.

Opening Day at Revs Institute

By Eric Jensen

The day we have all been anticipating has finally arrived; the Revs Institute is open to guests.

Prior to the opening on February 25th, 2021, a "soft opening" was scheduled for February 16. Friends and family of the Volunteers were invited to tour the museum to test and verify the procedures developed to keep our volunteers, staff and guests safe. Forty visitors attended the soft opening. The Multipla was on display outside for pictures to be taken with the guests to be emailed along with a survey about their experience. The great deal of preparation from the staff and the Volunteers resulted in an impressive execution as noted by Mark Vargas, Scott George and Mike Grebing. So now we were ready for the Big Day.



*John Balconi and John Brooks next to the Multipla
Max Trullenque Photo Above
Eric Jensen Photos Below*



It was no surprise the museum was sold out for opening day. Reservations and sales were online only with no Docent tours allowed as yet. A limit of 30 guests per hour for self-guided tours were greeted at the door with mask and temperature checks, hand sanitizing. Next stop is the front desk for the touchless check-in of their tickets purchased online. Amy Howard and Anna McDowell (left) greeted the guests briefly slipping down their masks only for the picture!

Next stop was station 1 manned by Tom Saracco and new volunteer Dave Foltz. A quick orientation and direction into the galleries for the guests to reduce congestion in the lobby and spread the guests apart. Some to Vitesse; some to Revs and some to Porsche.

John Wharton and Chuck Shapiro handled the Porsche Gallery. Chuck Schmitt (right) greeted guests in the Peoples Cars. Phil Panos, Gary Oertil and Mike Lawther covered Vitesse. John Balconi was working with new volunteer Shawn Schroeder. Todd Murvine manned Revs Gallery. The Station Guides did a great job interacting with guests and keeping each group socially distanced.

The volunteer's feedback showed the guests to be mostly visitors to Florida. All seemed to have been anxiously awaiting the reopening.

It feels great to be back!



Targa 66, 2021

While the Revs Volunteers did not organize a trip to Brian Redman's Targa 66, that doesn't mean the Miles Collier Collections cars did not get a chance to play. This was Brian's 30th year organizing this event. While not open to spectators in 2021, we can have hopes for next year. Here are a few pictures, courtesy of Revs Institute of the day's activities.



The 1955 Lancia D50 Formula 1

By Mike Lawther

The Lancia Automobile Company; originally Lancia and C. Fabbrica Automobili, was founded on November 29, 1906 in Turin, Italy by Vincenzo Lancia and Claudio Fogolin. Both men were race car drivers testing cars for Fiat and Vincenzo Lancia was a pilot and an engineer. The goal of the new company was to build sports cars for racing enthusiasts that were light-weight and inexpensive. Even early models had beautiful and unique body lines, with interiors that could match any competitor for luxury and quality.



All Photos Courtesy of Revs Institute

Lancia also proved to be a very innovative company with many patented features. The Theta model of 1913 was the first European car to feature a complete electrical system as standard equipment. Lancia also introduced the first monocoque chassis (or uni-body) on the Lambda model that was produced between 1922 and 1931. During this period, they also developed an independent front suspension – known as the sliding pillar suspension - that was well ahead of its time. The Lambda also pioneered the industry's first V4 engine; a narrow compact 20 degree V design. Sadly, Vincenzo Lancia passed away in 1937, but he did leave his interest in the company to his wife Adele Miglietti and his son Gianni Lancia.

In 1948, the first 5-speed gearbox was fitted to the Lancia Ardea model - another important development. By 1950, the company started first full production of V6 motors which they put in the Aurelia model after experimenting on V8 and V12 motors which proved to be too expensive. To achieve an optimum front to rear weight balance, the Aurelia used a front-engine, rear-transmission layout that was later adopted by others, such as Ferrari, Alfa Romeo, Porsche, GM and Volvo.

However, this all-consuming drive for innovation, the constant quest for excellence, a fixation on quality and the complex construction processes used, all executed with old-fashioned production machinery, meant that every Lancia car had to be hand-built. With very little commonality between models, the cost of production continually rose and with their high prices, demand for Lancia cars soon became flat.

In 1950, to increase customer demand, Gianni Lancia decided to focus on Grand Prix racing. If Lancia could produce a successful race car, it would encourage customers to buy its sports cars.

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The 1955 Lancia D50.....*continued*

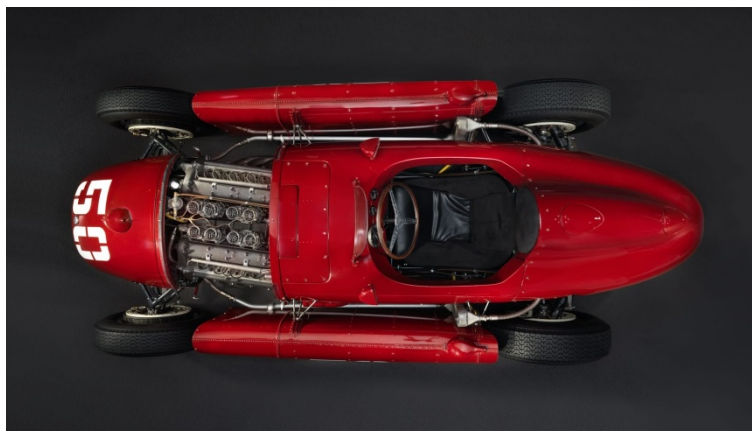
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In 1953, a factory competition team was formed under Vittorio Jano's leadership. Jano had achieved prominence earlier as a designer for Fiat and Alfa Romeo.

Emboldened by the racing success of the early D20, D23 and the D24 sports racers, the latter finishing first, second and third at the 1953 Carrera Panamericana, Lancia moved on from its sports racing program to concentrate on the D50 racer. This was to be a pure Grand Prix car.

Supervising a talented team of designers, Jano started the project with a clean sheet of paper and ambitious design goals honed by his 33 years of race car design experience. In order to produce the short, light-weight racer envisioned, engineer Ettore Zaccaroni designed a compact, naturally-aspirated DOHC V8; the first-ever used in a Grand Prix car - and a radical departure from the inline engines used by the competition. With all the weight concentrated towards the center of the car, within an 89.8 inch wheelbase, the D50 had superior handling because of its reduced polar moment of inertia and better turn-in response.

To further reduce the weight of the D50, Jano used the engine block as a stressed member of the chassis; where the front suspension loads were transmitted through the engine block into the firewall without the use of the usual front chassis longitudinal members. Such radical thinking did not reappear again until the more familiar 1967 Lotus 49.



In another radical move, to lower the center of gravity of the car, Jano also offset the engine in the D50 by 18 degrees so the driveshaft ran beside the driver on the left, which allowed the driver to sit lower in the chassis. All the competitor cars had the driver sitting higher and over the driveshaft. Throwing convention further to the wind, the D50 driveshaft then engaged with a twin-plated clutch and 5-speed

transaxle positioned at the rear of the car. This novel configuration resulted in a balanced front to rear weight distribution with the engine in front, the transaxle in the rear, and the driver in between. All the other competitor Grand Prix cars of the era were longer, higher, and heavier.

With the concentration of all the heavy components between the axles, the Jano D50 design left no room for conventional fuel and oil tanks. Gianni Lancia came up with the idea to place large pannier fuel tanks on either side of the car between the front and rear wheels.

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The 1955 Lancia D50.....*continued*

(Continued from page 7)

Not only did this idea allow the car to stay balanced as fuel was consumed, but the final aerodynamic exterior of the tanks dealt with the difficult-to-manage dirty airflow between the open front and rear wheels. The resulting design allowed the D50 to stay balanced as fuel was consumed. Competitor cars, with large fuel tanks in the tail, were hampered by a marked change in handling as the fuel weight in the rear of their cars decreased during a race.

Jano went so far as to specify that no baffles were to be used in the pannier tanks. The thinking was that the weight transfer of fuel moving to the rear would help during acceleration and the reverse during braking. This, however, proved to be awkward in practice, as Lancia's D50 drivers had to contend with the uncontrolled sloshing of fuel in the pannier tanks. Nevertheless, the D50 cars were more than a match for their Mercedes-Benz W196 competitors with their weight advantage and more responsive handling.

The D50 front suspension was a tubular, double-wishbone setup with a thin transverse leaf spring controlled by inboard telescopic dampers. The rear suspension used a de Dion semi-independent axle, also with an upper transverse leaf spring with telescopic dampers. For the final power delivery to the rear wheels, the D50 used a ZF differential where the final drive ratio could be varied depending on the speed range desired.

The all-aluminum V8 DOHC had twin chain-driven overhead camshafts (another Grand Prix first) with two valves per cylinder. It originally produced 250 bhp at 8,200 rpm with 155 pounds of torque at 6,000 rpm. The engine design displacement was measured at 2479cc with a nearly-square bore of 73.6mm and stroke of 73.1mm. Fuel was fed to the engine through four, twin-barrel Solex carburetors. The tires used were either Pirelli or Englebert with 5.50 x 16 fronts and 6.00 x 16 rears mounted on Borrani wheels with 72 spokes. The brakes



employed by the car were expanding drums all around with twin leading and twin trailing shoes. With Jano's design, these cars were better suited to tracks with tight corners and long straights.

The end result was a Lancia Grand Prix race car that weighed only 1367 pounds, with a claimed top speed of 185 miles per hour. Its main competitor, the Mercedes-Benz W196, had to carry 1841 pounds with its 290 bhp.

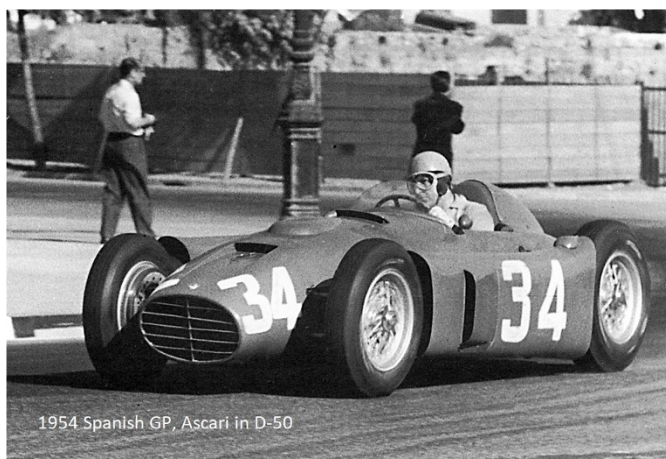
The Lancia D50 test program started on February 24th, 1954 with two-time world champion Albert Ascari at the wheel. However, due to the sorting required by the radical new design, it took until October of that year before Lancia was able to enter two D50s at the Spanish Grand Prix with Ascari and Gigi Villorosi.

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The 1955 Lancia D50.....*continued*

(Continued from page 8)

Ascari won the pole position a full second in front of Juan Manuel Fangio's Mercedes W196, but neither D50 finished because of more mechanical problems. Ascari was leading by almost 20 seconds going into the 9th lap when he had to retire with oil on the clutch. Villorresi suffered a bearing failure on the opening lap.



1954 Spanish GP, Ascari in D-50

For the 1955 Grand Prix season, Ascari and Villorresi were joined by Eugenia Castellotti to fill out the Lancia team. Ascari finished first in Turin and Naples, with the other D50s doing well; but, these were considered non-championship races. At Monaco, Ascari started at the front between Fangio and Stirling Moss in their W196's and took the early lead. Later in the race, the Lancia somehow lost control and Ascari and the car somersaulted through an outer palisade into the water in the

harbor below. Both the D50 and Ascari survived. Sadly, Ascari was killed a week later in an unseen crash during an impromptu test of a new Ferrari that he was to race at Monza the following weekend.

Gianni Lancia's obsession with quality at any cost, and his very ambitious plan for winning at the highest level of automobile racing, almost bankrupted Lancia. With little to show for their effort and Ascari's untimely death, the board of directors at Lancia decided they had had enough of Grand Prix racing and told Gianni to shut down the racing program. Sweetened with a cash infusion from Fiat, the Italian Automobile Club decided that the team, cars and Jano would go to Scuderia Ferrari. Fiat's promise of 50 million lire a year for 5 years convinced a reluctant and proud Enzo Ferrari to take on the challenge of the still-teething D50 race car.

Lancia did not hand over all the D50 cars to Ferrari in July, 1955. One of the D50s is in the Lancia Museum and the other is in the Carlo Biscaretti Museum. Neither car has run and probably never will; both still reside there as static displays.

Ferrari made significant changes to the D50 to make it more conventional. Although the panniers were retained for aerodynamic reasons (and to provide a small reserve for fuel in the front of the tanks), a new, more traditional, main fuel tank was installed in the rear of the car. The exhaust outlets were changed from four-into-one headers to a four separate exhaust pipes that exited each side through the now empty panniers. This resulted in a modest increase in horsepower.

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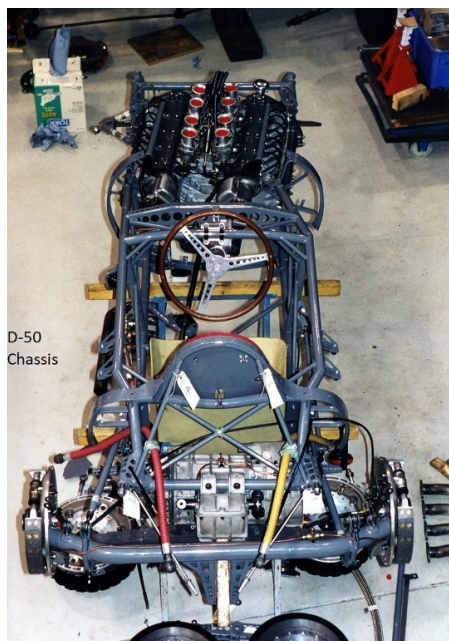
The 1955 Lancia D50.....*continued*

(Continued from page 9)

Suspension changes were also made to make the car more conventional. The front suspension received a new coil spring setup and the de Dion suspension at the rear was revised. With these changes, Ferrari drivers found the car much easier to drive with more familiar characteristics.

Finally, in 1956, with Fangio behind the wheel, the Lancia-Ferrari D50 won the Grand Prix championship. Fangio, now with a 4th Grand Prix world championship title to his name, had moved to the Ferrari team after the tragic 1955 Le Mans crash. Even with this success, Ferrari decided they would no longer run the D50s and had them dismantled and destroyed; a normal practice for Ferrari. All that remained from the original cars were the engines, transaxles, and some miscellaneous parts.

Thirty-seven years later, Guido Rosani, who grew up with Lancia (his father was a director at the company), was in the process of building a recreation of the D50 race car in his garden garage. Rosani was designer, fabricator, and some would say, mechanical genius. He had already produced a 1990 recreation of a Lancia D24 race car for enthusiast Anthony Maclean. When Rosani showed Maclean his new project, a reconstructed D50 chassis with an original motor but no transaxle. Maclean and Rosani formed a partnership and approached Sir Anthony Bamford, who had purchased three engines and a number of transaxles from Ferrari years ago. Bamford joined the project and the recreation project expanded beyond the one car. A fourth engine was purchased from a well-known Italian tuning business and a fifth was obtained from an elderly collector in Bergamo. The last engine was found in its original shipping crate in perfectly new condition. It had been destined for a 1955 power boat project that never came to fruition.



These five original engines and transaxles became the foundation of five Lancia D50 recreations that were fabricated in a modern automotive workshop outside of Turin. This factory, which made parts for Italian Formula One and rally teams, had the capabilities required to make the sophisticated suspension, steering and braking components. Even more, Rosani was able to acquire a complete and original set of D50 drawings, technical data (including Dyno reports) and hand-written race reports to guide the project. Final accuracy was ensured when Fiat allowed Rosani to dismantle and measure one of the original cars in the Fiat Lancia Museum.

The recreation project slowly gathered momentum. The new bodies for the recreations were hand-crafted by a coach builder outside of Turin.

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The 1955 Lancia D50.....*continued*

(Continued from page 10)

Borrani manufactured new wheels and hubs to the original pattern and Allemano, the original manufacturer, once again made new sets of instruments. The team even found almost-new magnetos and 17 of the very rare Solex carburetors.

The recreation work was fastidious and accurate. Even the pannier tanks were perfect recreations, despite being upgraded with modern internal fuel cells for safety. The only real giveaways were perhaps the placement of the rivets, which are in different positions from those placed by hand in the original cars.

After the cars were finished in the correct, dark Lancia red, they were shipped to British builder Jim Stokes, who rebuilt the engines and gearboxes and did some of the final assembly of the chassis, suspension and brakes in his shop in England. Everything was rebuilt to original specifications using the same methods that were used in the 1950s. The final cars proved to be race worthy and reliable as built.

Without the efforts of Guido Rosani, Anthony Maclean, Anthony Bamford and Jim Stokes, we would not have these near-perfect recreations of a very unique and unobtainable Grand Prix car. Some owners past and present include: Tom Wheatcroft of the Donnington Museum, who placed the first order, Anthony Maclean, Sir Anthony Bamford, Bernie Ecclestone, Peter Giddings and Miles Collier. Of the five cars originally built, it is believed that three were in the original Lancia form and two were recreated in the Lancia-Ferrari form. One recreation was recently sold at Monterey in 2014 for 1.1 million dollars.

Miles Collier Collections obtained the car in February, 2008 from Anthony Maclean; he is the second owner of this car. Since its acquisition, the D50 has run in several historic races and demonstrations. We are very fortunate that Miles Collier Collections shares this Lancia D50 with the public at Revs Institute.

The Lancia D50 represents a unique and different approach to Grand Prix racing in the 1950s. Although Vittorio Jano used the highly successful Lancia sports racing cars as a guide, his design team was bound by no restrictions and the D50 was a clean sheet design. It only takes a glance at the two conventional race cars on each side of the Lancia D50 in its gallery; the 1938 Maserati 8CTF and the famous Mercedes W154, to realize just how unconventional and sophisticated the D50 design actually was.

**Video
Treat**

**Revs Lancia D50 Out for a
run around Lime Rock Park**
[Click Here](#)



Denise McCluggage

Writer, racer, skier, Born 1927 – Died May 2015

By Ralph Stoesser

Commuting to New York City by railroad in 1957, the *New York Herald Tribune* became my introduction to the reporting of Denise McCluggage. Wordsmith extraordinaire and one who kept the NY area sports car world up to date on auto racing. *Road & Track* could do their car tests, Denise actually raced them. "Extreme sports coverage" they call it today. Ski racing, car racing, and sky diving. All awesome. I watched her race at Lime Rock in 1958 when she stayed at the White Hart Inn in Lakeville, Connecticut with the rest of the Cunningham team, racing a Porsche 550 Spyder for Briggs. Leap ahead 50 years. I shared the pleasure of touring the then CAM Collection with other volunteers before our annual dinner party. And although we gave her a tour, she gave us one as well. She would even find and critique a small error in signage or on a wall hanging and make sure we saw it. She really enjoyed the ephemera too, especially the Autoweek logo helmet of Jean Behra, and of course, she told all of us some great stories. Her story follows...

Denise was born and raised in Kansas and received a degree from Mills College, Phi Beta Kappa, in Philosophy. She began a journalist's career the San Francisco Chronicle. With her first \$100 of earnings she allegedly had enough money in those early post World War II years to buy a 1926 Dodge and a 1936 Chevrolet. Signs of an early car collector; when she saw a black used MG TC at the Kjell Qvale dealership she knew she had to have it. There were too many ciphers in the price tag so she first had to convince Dad to wire some funds to take care of a medical emergency. Said funds were exactly \$1,850. Her second MG was a red one and it showed up in the Greenwich Village (read Bohemian) section of Manhattan when she moved east to take a job at the *NY Herald Tribune*. She lived around the corner from a struggling young actor named Steve McQueen who happened to own the cream colored TC often parked in the same Bleeker St. area. Yes, they became an item. It is 1956, she is a sports writer doing well so it was time to step up to a Jaguar XK-140. That car soon got raced at the SCCA National Event at the Montgomery, NY airport course races. And then a nickname was bestowed; Lady Leadfoot.



*Denise McCluggage, 2015 Revs Institute visit
Paul Kierstein Photo*

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Denise McCluggagecontinued

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Denise next raced an OSCA, a Stanguelini and met a jazz musician friend of Steve McQueen's named Allen Eager. Steve went on to race his MG for British Motor Corporation at Sebring. Time flew. A marriage to Michael Conrad lasted one year. Rough patches occurred, divorce, races for Briggs, and eventually a move to Vermont, skiing, and a Land Rover with a Vermont tag; "DOG."

Time to move this article along. She had some real scraps with Luigi Chinetti, Sr., too. She was proposed to the Ferrari team to race at Le Mans in 1958. The answer came back to her from the Le Mans organizers, **"This is an invitational event and we do not choose to invite women."** Oh my! Only many years later did Denise regret the trade of her Ferrari 250 GT, short wheelbase, Scaglietti, to Bob Grossman (Westchester County auto dealer) for \$6,000 cash and a used Mini. I guess she never became a car collector after all.

Denise knew all the greats and often wrote about them. Phil Hill wrote the forward to her auto racing book, a great deal of which this article is based upon. All the greats, Juan Fangio, Dan Gurney, Lance Reventlow, Briggs Cunningham and dozens of other racers, too, are in her *Autoweek* compendium *By Brooks Too Broad For Leaping*. Buy it or borrow it, but definitely read it.

She raced for years for Briggs and always his Porsches, not the Cunninghams or his other cars. She wore and was always recognized in her white Bell helmet with the painted pink polka dots. She was never an activist, but always an enthusiast. Her Porsche victories were legendary, at



McCluggage (seated in the OSCA she and Eager drove in '62) had less success crashing out after only 10 laps.

*Courtesy of the Revs Institute,
Albert R. Bochroch Photograph Collection*

Thompson Raceway, CT for Briggs a first overall in 1959. With his Porsche RS a 5th overall at Watkins Glen later that year. In 1961 a GT Class victory in her Ferrari 250 GT at Sebring with her jazz musician friend Allen Eager, *who had never driven in a race before!*

In all, over a dozen first and seconds in SCCA and some European events as well. She raced and garnered those Ladies Class and Overall or second place wins a few times at Nassau Speed Week, Cumberland, Maryland, Watkins Glen, the Venezuela 1,000 km, Virginia International Raceway, Thompson, Connecticut, Le Mans, Monte Carlo, Nurburgring, etc. Denise never had a bad accident either, but at her last race at Lime Rock, her eyeglasses were smashed.

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Denise McCluggagecontinued

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And, as always, as an entrant in these races she could impart a quality in her reports that made you feel that you were racing at that track that day.

During the tour of the CAM/REVs Collection that day, being led that day by Lodge McKee, she abruptly stopped in front of the Maserati when someone in the group said "birdcage." She pointed out to all at that moment that she had not liked the pasta sounding name the company officials and mechanics called the car and that she was the one who gave it the moniker of "birdcage." It was a tour that was offered to her but quickly had become our turn to learn a few things from *her*. She told us then that her favorite cars were Alfas, Porsches, and Ferraris. Nice choices.



Left to Right; John Boles, Joe Leikhim, Peter Blackford, Judy Boles, Denise McCluggage, Lodge McKee, George Meyer, Ralph Stoesser

Paul Kierstein Photo

The Automotive Hall of Fame inducted Denise in 2001 and they point out that she "created the category in America of participatory journalism." She said she did it because women were not allowed in the pits or paddocks, and so the only way to be a good journalist was to be a participant. It was her final wish to have a scholarship for women at McPherson College in her name. She does. She died in New Mexico, no heirs, not long after giving her fullest endorsement to the 1993 Suzuki Sidekick with the license plate "PODNAH" she then owned and drove.

Events Calendar

Event	Date	Info or contact
Revs Institute Re-Opens	Feb 25, 2021	Whitney Herod
Volunteer Zoom Meeting	Mar 26, 2021	Whitney Herod
For a full list of daily tour groups and events, go to the 'Calendar of Events' on VicNet.		

Welcoming our Newest Volunteers



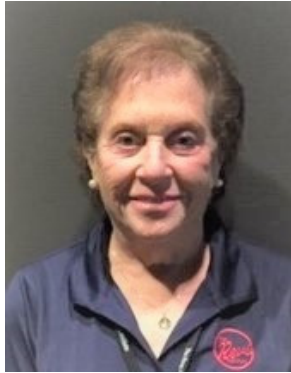
David Foltz

Joined February 2021

Full Time Resident

I have worked for OEM automotive component manufactures for almost 40 years. I have enjoyed following the continual improvement of automobiles and always desired to learn more about the complete history of automobiles.

After I toured Revs Institute over a year ago, I decided I would like to volunteer there to continue my automotive education and possibly others who would visit the museum I like to fish and golf in warm weather and that's what brought me to Naples 10 years ago.



Joyce Saracco

Joined February 2021

Full Time Resident

Joyce is our new Guest Services Volunteer. She's originally from Huntington Long Island, NY where she was systems analyst for Family Computer Service Bureau. Joyce has been a full time resident of Naples since 2018. She's an avid reader, loves walking on the beach and also volunteers at Options Thrift Store, the support arm of the Shelter for Abused Women and Children in Naples.



Shawn Schroeder

Joined February 2021

Part Time Resident

I grew up in Sheboygan WI. During the heydays of IMSA in the 80's I would crash sponsor parties, idolize Paul Newman, Group 44, and Roush racing. I did pit crew work for a local E Production MGB, going to tracks such as Black Hawk Farms, and Brainerd. I have been married 34 years, with 2 boys of our own. I have a garage/studio in Green Bay WI that I designed for YouTube DIY videos and to showcase interesting local cars and their owners. I will begin this spring on this project alongside my youngest son Liam. I have a collection of 9 cars and 3 bikes, and naming a favorite is like naming your favorite music.

Next Volunteers' Meeting

March 26, 2021 @ 10 AM

Our March volunteers monthly meeting will be held on March 26, 2021 at 10:00 AM on Zoom. The guest speaker will be Larry Webster, Vice President of Content at Hagerty.

You don't want to miss this!

Larry Webster joined Hagerty as Vice President of Content in February 2016 after a career spent in print and television journalism with leading automotive magazines. In his current role, Larry oversees Hagerty's print and online media strategy and engagement.

From June 2012 until early 2016, Webster served as Editor-in-Chief of *Road & Track*. He rejuvenated the magazine with stunning visuals and sharp writing, which increased subscriptions despite the industry's newsstand collapse. During his tenure, *Road & Track* nabbed its first ASME nomination for a magazine section, joining the ranks of *Esquire* and *New Yorker*, and returned to its rightful place as the home of automotive enthusiasm.



Larry Webster behind the wheel of a 1966 Ford GT40

Jamey Price Photo

Prior to that assignment, he served as the automotive editor of *Popular Mechanics*, overseeing the development of the magazine's automotive content across print, web, broadcast, and tablet platforms. He was also responsible for managing the auto staff, editing all automotive content, and writing reviews and features.

Before joining *Popular Mechanics*, Webster worked for *Car and Driver* from 2004 to 2008 as its technical director, where he managed a team of editors and writers and served as the magazine's chief test driver and instructor. He was also the host of *Car and Driver Television* from 2002 to 2005, working on and off camera as both a stunt driver and scriptwriter. From 1995 to 2004, Webster was technical editor for *Car and Driver*.

Webster is an amateur race car driver who has competed on over a dozen of North America's premier circuits. He is also a serial collector of vintage cars, which he restores in his home shop. He has a mechanical engineering degree from Lehigh University and is the graduate of several Society of Automotive Engineers (SAE) programs.

Details of the meeting and how to join Zoom for the interactive meeting will be forthcoming in an E-mail blast so mark your calendars!

TAPPET TECH

1927 Delage Brake Cable Reverse Pulleys

By Eric Jensen

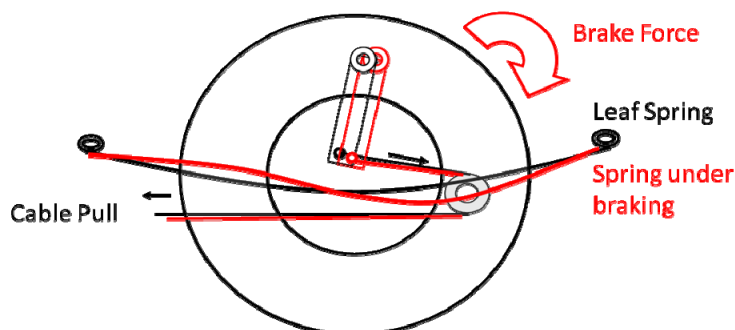
Why does the Delage have a pulley to reverse the direction of the front brake cables? This is a question we sometimes hear in the Revs Gallery when viewing the 1927 Delage Grand Prix car. Why is it needed?

The 1927 Delage Type S 8 Grand Prix racecar is fitted with power assisted, cable actuated drum brakes. At the front specifically, the brakes are applied by a flexibly jointed shaft running between the body and the brake drum. The shaft is turned by a lever attached to the brake cable coming from the brake pedal mechanism seen outside the car in the vicinity of the driver.

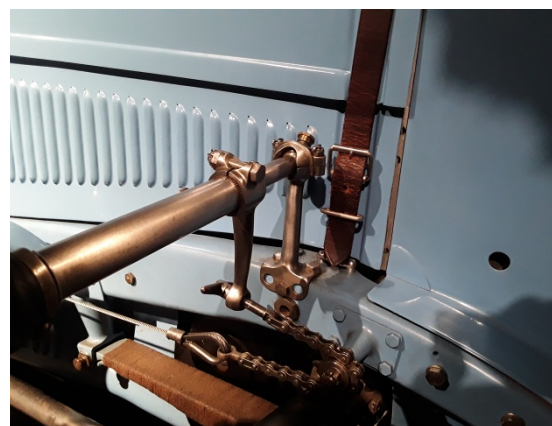
The shaft is fitted with universal joints at each end to allow the wheel to move up and down as well as steering without causing the brakes to apply. This type of mechanism can also be seen on the 1928 Hispano Suiza H6C chassis.

The cable mechanism seems to have too many parts to apply the Delage's rather large drum brakes. Why is there a pulley to re-route the cable pull around the pulley to pull the lever forward to twist the shaft to apply the brakes? Why not just go directly to the shaft, pull rearwards and eliminate the pulley?

If we consider for a moment what happens to the axle when the brakes are applied, the picture starts to become clear. The brake cables pull rearward to apply the brake. The braking forces try to twist the wheel, axle and springs forward from the force of braking. Since the brake apply shaft is at the top of the drum brake, it wants to rotate forward under the braking forces. The axle rotates forward a small amount and twist the leaf springs into the shape of an "S" (note the S shape in **RED**).



That twisting movement, if the cable directly pulled rearwards on the brake lever, would cause the brakes to apply more force, rotate the axle farther forward. apply the brakes more and so on.



*The Delage brake cable pulley
Eric Jensen Photo and Diagram*

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TAPPET TECH

1927 Delage Brake Cable Reverse Pulleys

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This action building upon action would create an uncontrolled gain in braking force until the brake skids the front tire resulting in the loss of steering and the car sliding off the road. The power assisted brakes just makes this all that much worse.

Now consider the addition of the pulley to reverse the action of the brake apply force. You would, of course, swap the brakes side-to-side so the lever to actuate the brake must move forward. Under braking, the axle would still tend to rotate forward, but this would reduce the force being applied to the brakes a little. At this point, the driver just applies a little more force on the brake to compensate. The reverse pulley puts the brakes back into the driver's control.

Brakes should be easy to modulate to prevent skidding of the tires when braking. The simple addition of a pulley in each front brake system makes modulation easy. Given the dominance of this Grand Prix racer car in 1927, clearly, this was the correct solution.

TAPPET TRIVIA

And now, the answers...

1. *What is BMW headquarters building shaped like?* **Answer:** A Four Cylinder Engine! The BMW Headquarters is a high-rise building located in Munich serving as world headquarters for the German automaker since 1973. It was declared a protected historic building in 1999. The Tower consists of four vertical cylinders standing next to and across from each other.
2. *What famous Race car driver drove several of the cars in the Miles Collier Collections and also helped in the design of disc brakes?* **Answer:** Sterling Moss
3. *Who was the first African-American to design and build an automobile?* **Answer:** Frederick Patterson debuted the Patterson-Greenfield Car in 1915. It sold for \$685.00. It featured a 4 cylinder Continental engine and was comparable to the contemporary Ford Model T. Patterson's company is considered the world's first and only African-American owned and founded automobile company.

Adopt-A-Car Program

Available Adopt-A-Car Automobiles and Engines



Peter Harholdt

ALFA 1300 Giuliett Sprint Veloce	LOTUS Type 14 Elite	ENGINE: Cadillac OHV V-8
Alfa 8C 2900B	MASERATI Birdcage	ENGINE: 1965 Ford Indy Car
ALFA GTZ	MERCEDES SSK	ENGINE: Abarth 1000-TC-R
ARROWS Formula 1	OSCA MT4	ENGINE: Alfa Romeo GTZ
BENTLEY 6 1/2 LITRE SPEED SIX	PANHARD LEVASSOR Wagonette	ENGINE: Chrysler Hemi (Cunningham C-3)
BENTLEY Corsica 8 litre	PORSCHE 550A Spyder	ENGINE: Duesenberg Sprint Car
BRM P578 GP	PORSCHE 718 RSK Spyder	ENGINE: Ford 1965 Indy Car
BUGATTI Type 55	PORSCHE 904 Carrera GTS (red)	ENGINE: Ford GT-40 Transaxle
CISITALIA 202	PORSCHE 904 Carrera GTS (silver)	ENGINE: Ford Turbocharged Indy Car
COLUMBIA Three-Track Tricycle	PORSCHE 907	ENGINE: Jaguar XK Series
CUNNINGHAM C-1	PORSCHE 908/3	ENGINE: Jaguar XK100 Prototype
CUNNINGHAM C-4R	PORSCHE 910/6	ENGINE: Porsche Type 771
CUNNINGHAM C-5R	PORSCHE 911	ENGINE: Porsche Type 901/20
CUNNINGHAM C-6R	PORSCHE 911R	ENGINE: Porsche Type 901/22
FIAT ABARTH 1000	PORSCHE 917K	ENGINE: Porsche Type 908
FORD MODEL A	PORSCHE Abarth Carrera GTL	ENGINE: Porsche Type 916
GURNEY EAGLE G.P.	PORSCHE BEHRA F2	
HISPANO SUIZA H6C CHASSIS	PORSCHE GT CARRERA SPEEDSTER	
HUMBER 58" Ordinary Bicycle	PORSCHE RS 61L	
JAGUAR D-TYPE	ROLLS ROYCE SILVER GHOST	
JORGENSEN EAGLE	STUTZ BLACKHAWK	
LAMBORGHINI 350 GT	VANWALL F1	
LANCIA LAMBDA 7TH SERIES TORPEDO	VAUXHALL, 1927 "Quicksilver"	
LOTUS 23	VELOCIPEDE Bicycle	

To adopt a car or engine, contact:
Brian Lanoway
Adopt-A-Car Chair

The **Tappet Clatter** is the official newsletter of **The Revs Institute Volunteers** of Naples, Florida. Its intended purpose is to inform, entertain and promote camaraderie for our members.

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