The official newsletter of: Revs Institute Volunteers

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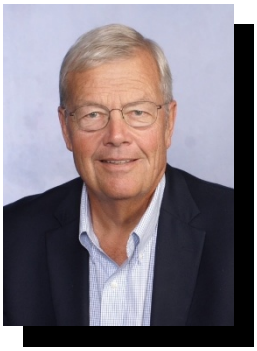
Thank You to this month's contributors:

- Bud Terbell
- Bill Vincent
- Brian Lanoway
- Whitney Herod
- Joe Ryan
- Chip Halverson
- Tom Dussault
- Anna McDowell

TAPPET CLATTER

Volume 29.8 April 2024



Chairman's Notes

By Chip Halverson

March was a very busy month for our organization. We had a number of excellent events highlighted by our guest speaker, Jonathan Diuguid from Porsche/Penske motorsport. Thanks again to Bill Vincent for arranging for Jonathan to come.

We also delivered our first one hour Le Mans tour. In doing the research for the tour we verified that 18 collection cars actually participated in the race! More work is being done on the roll out of that tour and the one-hour design and styling tour. More to follow on that.

Speaking of tours, Mark Komanecky has taken over as leader of the docent program. With that he will also have responsibility for the TA program, and had his first TA training class last week. Its already apparent that he and his team will lead an already successful program to the next level. Many thanks to Roc Linkov for his previous leadership of the program.

For April we will have another Cars and Coffee. These events are major undertakings that take a lot of effort from both the staff and the volunteers. Please sign up to help.

We will also have our last member meeting of the season on April 17 at 11:30am. Whitney has scheduled this around volunteer appreciation day and will include lunch.

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Chairman's Notes... continued

(Continued from page 1)

I am pleased to say that we will have Revs Institute management presenting an update. We will also have a brief business meeting as part of our organizational charter.

The Active Matter display is taking shape and will be in place shortly. The materials are in the shop ready for assembly. It will be a great addition to our guest experience and an opportunity for our volunteers to have another new exhibit to talk about.

Finally, a word about Lodge McKee. Lodge will be leaving the board when his term expires in April. As many of you heard at the banquet he is one of the founding members of our volunteer organization. His collection knowledge is extraordinary. He has been a great resource to have on the board. Lodge served many terms on the board and was Chair several times. Please join me in thanking Lodge for all he has done for all of us.

Keep up the Great Work!

Chip Halverson

Membership Report

By Tom Dussault

The Membership Committee represented Revs Institute at the AACA Antique Automobile Club of America Car Show at Naples Depot on March 24th. We were able to recruit at least one new volunteer to join our ranks. Thanks to Pedro Vela and Rick Kusey for driving the 1912 Mercer Raceabout. And thanks as well to Phil Panos, Ralph Papa, Mark Komanecky and Mark Koestner for staffing our table and explaining the intricacies of the Mercer to the attendees.

The Membership Committee is pleased to introduce five new members to the Revs Institute Volunteer team.

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Membership Report...continued

(Continued from page 2)

Griffin Connors is a high school student living in Naples. He is an avid Pickle-ball player, is a volunteer at his church, and works part time at Black Horse Motors helping during Cars on 5th as well as keeping the cars looking great. Griffin has a passion for all things automotive, loves being around cars and hopes to eventually make it his career. We are delighted to have Griffin join us as a Steward.

Jacqueline Woods is a biology major at FGCU focusing on Botanical Science and Health. Jackie enjoys hiking and playing the flute in a band. Jackie grew up in a family where the car of choice was the Camaro. She helped her dad rebuild a 1979 Z28. Jackie looks forward to learning the stories about the collection cars and sharing them with our guests. Jackie is looking forward to volunteering as a Steward here at Revs Institute.

Stuart Ducker grew up in Ohio and taught school after graduating from college. He soon moved to New Jersey where he had a extensive career in real estate. Stuart has a varied interest in the automotive hobby. He has owned and driven many sports cars. His current car is a rare Aston Martin DB 7 Vantage. Stuart has participated in many rallies and shows and loves attending racing events. He looks forward to expanding on his knowledge by learning the collection and sharing it with our guests. Thanks to Manny Blanco for recruiting Stuart and to Gary Oertli for volunteering to be his mentor.

David Laurenzo spent his early years in Detroit. He now lives in Chicago and soon will make Naples his full time home. David built an Advertising Agency with a particular focus on non-profit organizations. He is passionate about volunteering, putting in countless hours at a nursing home in Chicago. David has owned many great cars including a 1974 Chevelle, a Porsche 911, a Datsun 280 Z and a Jaguar. David will be learning the collection alongside his mentor Phil Panos.

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Membership Report...continued

(Continued from page 3)

Joel Stray is originally from Michigan and now makes his home in Bonita Springs. Joel has worked in the automotive industry for 28 years as an engineer specializing in material science, chemistry and process. Joel drives a 2017 Corvette. He looks forward to learning the collection with his mentor, Roc Linkov, whom he met during a recent tour, and sharing the many stories with our guests.

Photos Courtesy of Tom Dussault and Stuart Ducker

2024 NAAMY Awards

During the National Association of Automobile Museums conference last week, we were deeply honored when our colleagues recognized some of our projects at the awards ceremony:

Photo Courtesy of Revs Institute

- the NAAMY for film & video, Division II, for "The Smiling Shark: Cunningham C-5R." Be sure to check it out on our YouTube channel if you haven't yet seen it: Video Link

- an Award of Excellence in the Newsletters & Magazines category for Tappet Clatter, our volunteer-run monthly publication (Editor: Eric Jensen). You can find past issues on our website: Tappet Clatter Issues

Many congratulations to our staff and volunteers for their dedication and hard work. Many thanks to our colleagues at NAAM for the recognition and to our gracious hosts for this conference, the @Savoy Automobile Museum.

Thanks to all the contributors to the Tappet Clatter. It is your research and writing skills that make the newsletter what it is. Keep writing and submitting your articles! And we'll keep sharing them... Editor

TAPPET TRIVIA

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 (very) obscure or (impossibly) tricky. Test your knowledge and *have fun!*

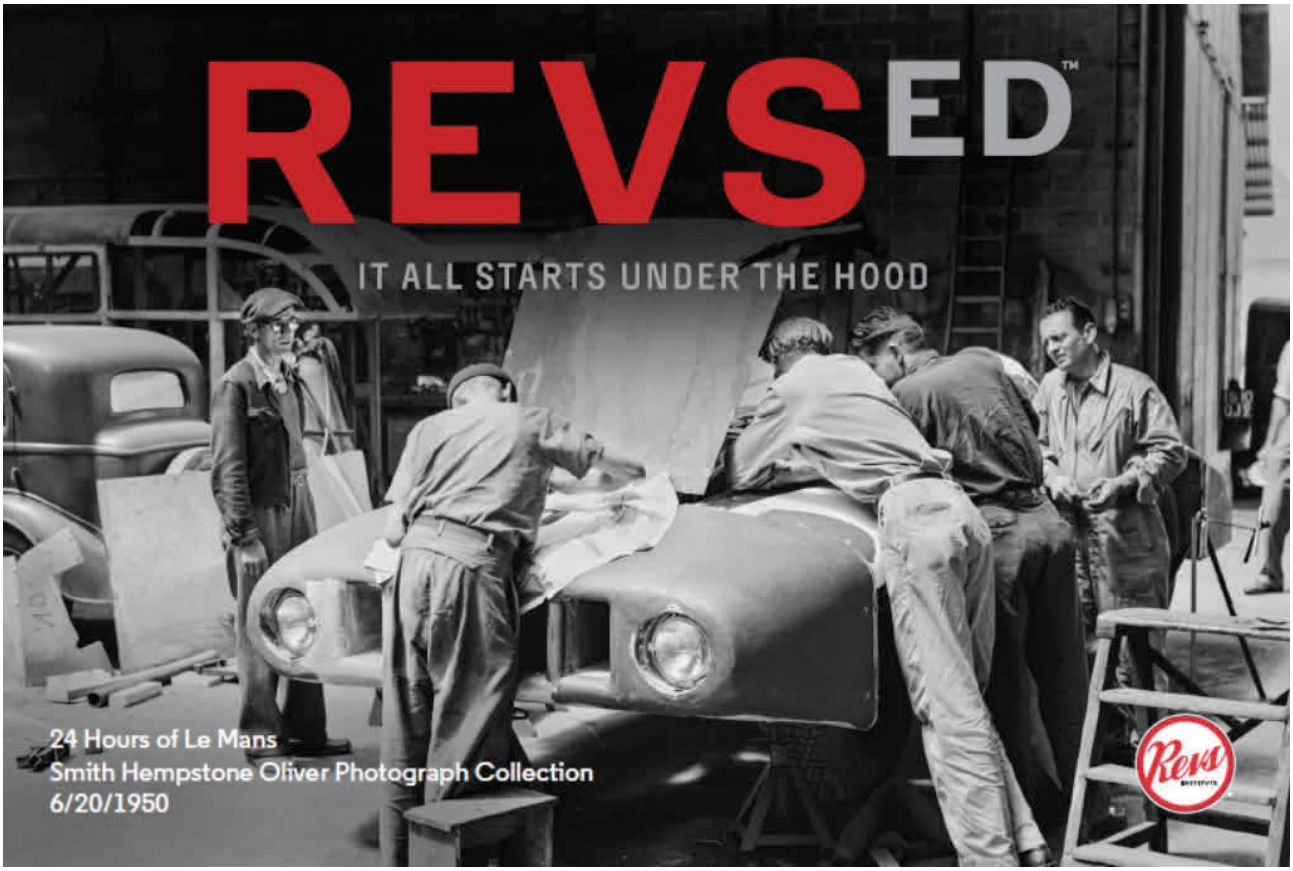
Every month, I provide questions that kindle a desire to increase information about the cars at the Revs Institute. The purpose is to help the knowledge of Station Guides and Docents and anyone at the Revs Institute. The questions for this month are about the iconic 1934 Alfa Romeo Tipo 8C 2300 Spider.

1. **Question:** What famous automobile company founder and owner was the team manager for Alfa Romeo?
2. **Question:** Did the Miles Collier Collections' 1934 Alfa Romeo win the 24 hours of Lemans?
3. **Question:** Did Alfa Romeo manufacture the Tipo 8C 2300 for sale as a production car?
4. **Question:** Who was the technical principal responsible for the success of the Tipo 6C 1500, 6C 1750, and the 8C 2300?
5. **Question:** Under the dash is a small dial wheel about 2 inches in diameter. What is that adjustment used for?

The answers appear later in this issue

Alpha Romeo 8C 2300 Spyder

Photo Courtesy of Revs Institute



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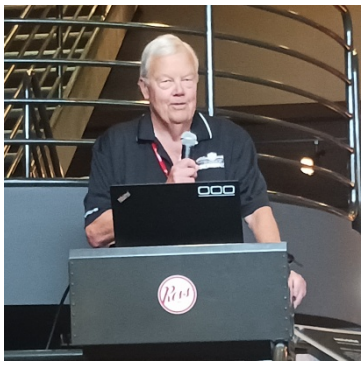
Metal Fabrication 101 Learn how to design, cut, bend, and fasten sheet metal to construct a finished product.

Members Meeting with Jonathon Diuguid

By Eric Jensen



Our guest speaker for the March Members Meeting was Jonathan Diuguid, the Managing Director of Porsche Penske Motorsport. Porsche Penske just recently won the 2024 IMSA Rolex 24 at Daytona with their Porsche 963 GTP hybrid racecar. Not since 1969 has a Penske entry brought home the overall win at the Rolex. Penske last won in 1969 in a Lola driven by Mark Donohue and Chuck Parsons.

Each of the three times Roger Penske was involved with Porsche as a factory team they were successful; the 917-10 and 917-30 CanAm cars, the RS Spyder in IMSA's LMP2 class and now the 963 LMPh in IMSA's top class.

Bill Vincent met Jonathan when his son, Billy and Jonathan were both working for the Penske racing organization. They were roommates.

Jonathan Diuguid was hired by Penske right from North Carolina State University where he graduated as a mechanical engineer. During his time at school he was on the Formula SAE team and convinced the school to buy two Legends circle track cars for the students to race as part of their education. No surprise he ended up at a race team.

During his 20 years (so far) at Penske, Jonathan was involved in both sports cars and IndyCars with increasing levels of responsibility. He has worked with racing drivers such as Will Power, Scott McLaughlin, Ryan Brisco and Helio Castroneves.

Fielding Porsche's 963 LMPh car under the current rules, much of the development must be done far in advance of the first race. This complicated hybrid design with its electric assist drive for every car coming from Williams Engineering (the Formula 1 team) is integrated with the twin-turbocharged Porsche V8 engine and XTrac 7 speed transmission.

The homologation paperwork must be submitted before racing and very limited changes are allowed after submission. This is quite a change from earlier series where the cars' specifications evolved from race to race. The testing involved a 30 hour endurance test at Sebring late in 2022 for the January 2024 introduction of the car at the first race; the Rolex 24 Hours of Daytona.

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Photos Courtesy of Eric Jensen

Members Meeting....continued

(Continued from page 7)

The team itself consists of more than 90 full time staff with over 500 years of experience. Their European headquarters in Mannheim, Germany is a showcase shop housing the World Endurance Championship team. This is no surprise as the goal is to win 24 Hours of Le Mans!

We thank Jonathan for speaking with the Revs Institute Volunteers and wish him and his team luck at the world's signature endurance race. The one race Penske has yet to win!

Photo Courtesy of Revs Institute

Spring Gimmick Rally

By Eric Jensen

The starting point for this spring's rally was at Gulf Coast Motorworks on Route 41 in Bonita Springs. We thank Gulf Coast Motorworks for their hospitality and letting us enjoy viewing the various supercars in their showroom and garage. Cars like a Ferrari F40, various McLarens and Lamborghinis in the showroom plus the BMW M1 in the shop.

The gimmick rally format shows the path to the final destination and asks clever and confusing questions about things and places along the route. To keep driving distractions to a minimum, the right or left side clue location was provided. The mostly right side instructions kept the driver's eyes on the road.

John Fritz *(below)* gave each car instructions as they proceeded to the start spaced by a couple of minutes so we did not form a conga -line of looky-loos driving north. The first car out was at 11:30am. The questions started before the first turn onto Route 41.

The finish was Famous Dave's BBQ north of College Parkway for a buffet lunch. John Fritz, Tom Dussault, Mary Pyatte and Mark Koestner scored the sheets. Before Tom announced the winners, he told us the answers to some of the trickier questions. The 3rd place car was Eric and Ginny Jensen, the 2nd, Jim and Peggy Wood and Casey Shepherd. The winners were Bryan Lanoway and his son, Jordan Lanoway.

The speaker was Mike Ellis from the shop, telling us stories about his racing engine building experiences and the connections to the Mile Collier Collections cars. Mike started working at Traco right out of high school. Sweeping floors and cleaning up. Traco was the premier west coast engine builder.

Photos Courtesy of Brian Lanoway and Eric Jensen

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Spring Gimmick Rally...continued

(Continued from page 9)

Photos Courtesy of Eric Jensen

TRACO built Chevy V8s for the Scarab, the GT40 Mk1, and the Corvette GS as well as the laydown Offy race engine for Reventlow. If you'd like to learn more about Mike's career, jump back to the November 2023 *Tappet Clatter* interview.

Mike *(left)* was asked about his favorite car of the Collection to drive… the list was quite long! The Mercer and the T15 Hispano-Suiza being two. Both are a bit dodgy to drive in Naples traffic with rear-only brakes though both have good power. Some cars that are very difficult and not as much fun to drive include the 8 Liter Bentley and the MG K3 Magnette… a stiff kidney crusher! The 1927 Lambda Torpedo has good power but the non-adjustable alignment is quite far off due to a suspected accident in its early life so it can be a handful to steer.

Good fun was had by all. The next rally might be a poker run… but you didn't hear it from me!

Events Calendar

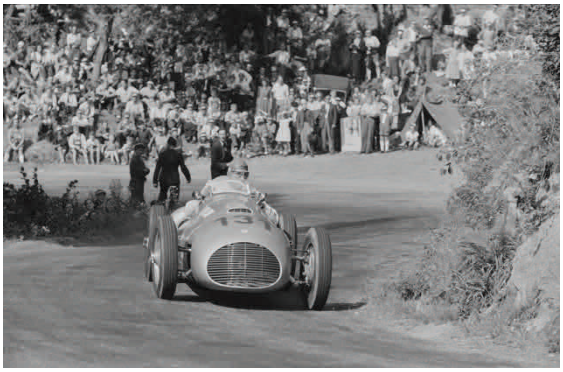
Event	Date	Info or contact
Revs Cars and Coffee	Apr. 6 @ 8:30 am	Sign up on VicNet
SWFL Concierge Reception	Apr. 8 @5:30 pm	Sign up on VicNet
BOD Zoom Meeting	Apr. 12 @ 10:30 am	Contact Whitney
Artis Friends Tour	Apr. 12 @ 10:30 am	Sign up on VicNet
Suncoast BMW CCA	Apr. 12 @ 1:30 pm	Sign up on VicNet
Volunteer Appreciation Lunch	Apr. 17 @ 11:30 am	Sign up on VicNet
Royal Palm Academy	Apr. 19 @ 10:30 am	Sign up on VicNet
Venice Park Chapter of AACA	Apr. 19 @ 1:30 pm	Sign up on VicNet
Sageworth Trust Dinner	Apr. 27 @ 6:00 pm	Sign up on VicNet
Sandpiper Club Tour	May 3 @ 1:30 pm	Sign up on VicNet
For a full list of daily tour groups and events, go to the 'Calendar of Events' on VicNet.		

Social Climbing

By Morris Cooper

Hill climbing is one of the oldest forms of motorsport and its origins can be traced back to the earliest days of the automobile. In its simplest form, it is driving a car from the bottom to the top of a hill as quickly as possible. The course is usually a narrow road with various grades, often steep, with changing elevations.

It is obviously a time trial competition. Drivers are racing against the clock instead of directly against each other on a track or road course. The goal is simple but exceedingly difficult to execute. It requires drivers to perform flawlessly in a single attempt, with no margin of error. There remains the ever-present possibility of a dangerous accident and tests the ability of the most experienced drivers.



Hans Stuck at the 1950 Bergreis Freiburg Hill Climb
Photos Courtesy of Revs Institute

The steep grades challenge the power and traction of the car. Hillclimb races are often on narrow, winding roads with tight corners, requiring the drivers to push the vehicles to the limits of grip along with potential altered weather conditions. As well, the road surface can vary significantly during the hillclimb, sometimes changing from asphalt to gravel. As a result, the drivers must be able to adjust their speed and driving techniques to maintain control and keep the pace.

The first hill climb race was held in France in 1897 outside the small mountain town of La Turbie, near to Nice. The last stage of the race from Marseilles to Nice that year was a 17 km hill climb up to La Turbie. It was won by Andre Michelin (the tire guy) at the wheel of a steam powered De Dion, driving at an astonishing average speed for its era of 31.8 kph (19.8 mph). The course took him just over 32 minutes!

Equally historic is the famous Shelsley Walsh Hillclimb in Worcestershire England. Aside from being one of the oldest motorsports events in the world, it is the oldest to be continuously run since 1905, other than in wartime. It is also the oldest venue in the world to run its events on its original course.

By the standards of other hillclimb races, Shelsley Walsh is surprisingly short, at only 1000 yards in length. It is, however, very steep. The average gradient is 11% with the steepest portion being 16%. It is also very narrow, being only twelve feet wide at some points.

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Social Climbing...continued

(Continued from page 11)

None other than "our own" Eddie Hall (of later Le Mans Bentley fame) won the July 1926 race, in a Vauxhall. The race also attracted Raymond Mays, who went on to become the co-founder of BRM. At the June 2021 race, a memorial plaque to Stirling Moss was unveiled, who had raced there as a teenager.

1955 Shelshly Walsh Hillclimb
Courtesy of Revs Institute

Shelsley Walsh is best understood for its sheer simplicity and the challenge it represents. The track begins with a relatively gentle incline. This allows the drivers to build up speed before the steeper sections and the famous "S bends". These tight corners make the difference in the fractions of seconds defining the winner, followed by a sprint to the finish line.

The Miles Collier Collections 1920 Vauxhall in the Vitesse gallery displays the car in the large photo behind it during a hill climb race. It crashed at the 1921 Shelsely Walsh race at one of the "S" curves.

Hillclimbs in Europe are run on much longer race courses, such as the FIA European Hill Climb Championship. Its past winners include models of many of the racing Porsches in the museum, including the 1959 718 RSK, the RS60, 356, 904, 911 and 908. The Miles Collier Collections' 1964 Abarth Simca won the European Hill Climb Championship in that year, beating the formidable Ferrari and Porsche competition.

Germany has had a long hill climbing tradition, known as "Bergrennen." The 1930's "Silver Arrows" from Mercedes and Auto Union dominated the field where famous German driver Hans Stuck earned his nickname as "Bergkonig" ("King of the Mountains").

Louis Unser at Pikes Peak in the Maserati 8CTF

The most famous hill climb race is the Pikes Peak International Hill Climb, founded in 1916 at Colorado Springs. The 20 km (12.4 mile) course takes 156 turns to reach its summit at 14,100 feet. The Miles Collier Collections car that raced successfully here includes the 1938 8CTF Maserati. Pikes Peak has now become a showcase of technological innovation with electric racecars. It is one of many hillclimb venues in North America.

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Social Climbing...continued

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Famous amongst vintage car enthusiasts is the annual race up Goodwood Hill at The Festival of Speed in England. Established by The Duke of Richmond at his estate in Sussex, it remains a hugely popular and prestigious event held each July.

The Monterey Historics held each year at Laguna Seca Raceway have included a hillclimb event for the last two meetings. The event is run backwards up the famous Corkscrew turn. That first event in 2022 was won by Gunnar Jeanette in the Miles Collier Collections Porsche 908/3. The white Mini seen around the shop competed in 2023 with less success.

Courtesy of Revs Institute

The red Abarth Simca 2000 car in the Revs Institute lobby *(right)* was a French car derived from the Simca rear engine small family car. It too had a serious career as a hillclimb racecar although it raced extensively in other motorsport venues. Its lightweight construction proved to be a potent competitor in hill climbs where the power to weight ratio was paramount. Arguably, its rear engine configuration with its engine hanging out back, aft of the rear axle, gave it an advantage in hill climbing. The car is red for the same reason it is called an Abarth Simca (Italian red) and not a Simca Abarth in (French) blue. Anyway, it would clash with the other two red cars in the lobby.

It is interesting to compare hill climb races with endurance races. In an endurance race you do not want to be the fastest car on the track. Rather, the objective is to only be faster than the cars behind you, conserving the car, shifting smoothly, and making it last.

A good analogy is to compare a marathon foot race to a sprint. The modern winners at Shelsley Marsh finish the race in under 23 seconds. The 200-meter Olympic race record is just under 20 seconds. The Olympic marathon record is just over 2 hours.

Hill climbing holds a unique spot in motorsport because of its accessibility. It allows amateur drivers and privateers to compete on a relatively equal footing against professional teams because of the short courses and emphasis on driver skill. Preparation of the race car for a Hillclimb requires specific adjustments for tire choice, gearing, and aerodynamics to optimize these for the unique demands of each course.

Hillclimb races have retained their grassroots feel in many lesser-known venues around the world. There are a wide range of vehicles from professional race cars to highly modified street cars and purpose-built hill climbers. This inclusivity has fostered a strong community of enthusiasts since the early days of the 20th century.

Jimmy Murphy and the French GP

By Bud Terbell

The first post-WWI French Grand Prix was held on July 25, 1921. At the time, this was considered the world's most prestigious Grand Prix race. It was a very chaotic period in France, a result of the heavy bombing during the war with many roads still covered with debris, crushed gravel, sand, and riddled with potholes. The European continent, particularly France, fostered the earliest town-to-town motor competition at the turn of the century which would eventually lead to European Grand Prix racing. The last French Grand Prix had taken place in 1914 less than four weeks before the war started.

Jimmy Murphy
Courtesy of Revs Institute

The 1921 French Grand Prix was sanctioned in part by the Automobile Club of France (ACF). Officials decided to stage it in a part of France where American popularity was the highest and selected the Le Mans region, insisting it be held "on ordinary roads common for daily use." Indianapolis Speedway rules were adopted to make it more attractive, even though the 10.7 mile 30 lap (laps, not hours - the first 24 hour Le Mans was not held until 1923) course would be in deplorable condition. Participants included Great Britain, France, Italy and the United States. Germany was not welcome and was prohibited from entering.

Duesenberg, a big name in America but virtually unknown in Europe, entered a strong four car team painted in America's international racing colors of white and blue. Duesenberg had been a promising contender in the first post war 1921 Indianapolis 500 race, finishing second, the last 500 to be run under the 300 cubic inch limit. One of the French Grand Prix Duesenbergs would be driven by "King of Boards" Jimmy Murphy. The Duesenberg entrants were all sponsored by French born, Champion sparkplug tycoon Albert Champion and the American Automobile Association (AAA). They supplied $60,000 to transport the four cars to France and house the teams.

All the Duesenbergs had 3.0 liter straight-eight, 182 cubic inch engines; the same type that were being raced at Indianapolis. They were equipped with a single overhead camshafts (a decision made by "Frugal Fred" Duesenberg), 3 valves per cylinder, a detachable head, three speed transmissions and a Delco coil-and-battery ignition system instead of a magneto. This was the result of Delco`s generous bonus to Delco users at Indianapolis. The principle of eight small cylinders instead of four large ones offered many advantages.

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Jimmy Murphy...continued

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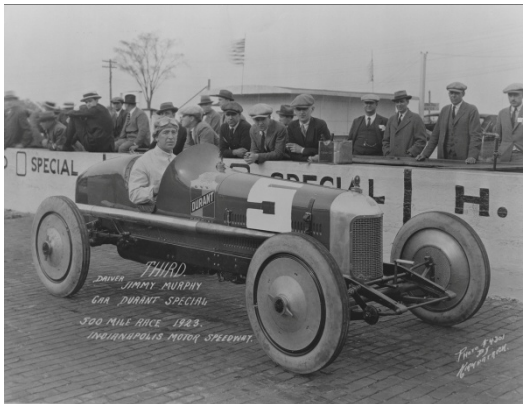

Jimmy Murphy at Indy in 1921
Courtesy of Revs Institute

The engines were better balanced, had excellent torque and because of the smaller cylinders and pistons, they had lighter reciprocating parts making higher RPMs possible. Horsepower was approximately 115 at 4,250 rpm and a top speed of more than 100 mph could easily be reached. "Power of the Hour" was the highly appropriate slogan given to the Duesenbergs.

In 1920, at the New York Auto Salon, the Duesenberg brothers introduced four-wheel hydraulic brakes on their first production passenger car, the Model A. These superior brakes, designed by Lockheed, applied equal force to all four wheels simultaneously when braking and were installed on the Grand Prix Duesenbergs. This allowed them to go deeper into the corners at higher speeds before braking, a distinct advantage over the mechanical brakes that were used by the other cars. All the race cars had four-wheel brakes but only the Duesenbergs were activated hydraulically.

Ernest Henry, who gained fame as the creator of the famous Peugeots of 1913-1914, assembled a formidable team of four Ballot cars and drivers. The Ballots, very technically advanced race cars for their time, followed Peugeot's 3.0 liter style of straight-8 engines with an aluminum crankcase split down the middle, twin overhead cams, four valves per cylinder, five-bearing crankshaft as opposed to three that were used on the Duesenberg, a Robert Bosch magneto, four-wheel mechanical brakes and twin updraft Caudel carburetors. The rating of the Ballot engine was 107 bhp at 3,800 rpm.

It quickly became obvious that the Duesenbergs were going to be a problem for the French. Ballots may have been faster on the straights, but the Duesenberg's superior torque and their magnificent brakes would prove to be more than the Ballots could handle, much to the consternation of the French. They were quick, steady in the corners, and had tremendous stopping ability.

The French incorrectly assumed that the Ballots would have the advantage on a road course as this would be the first serious attempt by an American team to enter an international road course event. All European Grand Prix races had been held on challenging town-to-town road courses as opposed to banked board racing oval races in full swing in America. The Duesenbergs, thanks to an absence of spare wheels & boasting a lighter transmission (2006 lbs), were 55 lbs. lighter than the Ballots.

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Jimmy Murphy...continued

(Continued from page 15)

While running tire tests, the Americans discovered that if a blowout occurred it was quicker to drive on a rim at reduced speed and change the tire/wheel at the subsequent pit stop versus stopping on the racecourse for repairs. The French did not consider racing without spare tires/wheels since it had never been done before.

Carburetor manufacturer Caudel-Hobson, made a financially appealing offer suggesting that all entrants use the updraft racing Claudel type carburetor *(right)* that were being used on the Ballots. Murphy, alone among the Duesenberg drivers, was the only competitor who did not switch to a Claudel carburetor for sponsorship money. He elected to stay with the reliable and proven Miller carburetor *(below)*, designed and built by carb genius Harry Miller who never lost interest in carburetor challenges on race engines. The Miller carb provided optimal fuel-air mixtures during all rpm ranges but worked best under full throttle conditions.

This proved to be the correct choice for the French Grand Prix. Several entrants who had switched to the Claudels had trouble during the race and required replacement of the carb throttle spring returns.

One week prior to the start of the race, Murphy and his co-driver crashed heavily during practice. Both had been seriously injured. Nonetheless, against medical advice and taped from armpits to hips, Murphy drove the entire Grand Prix even though he had required assistance getting in his car at the start. When the race began, the course rapidly deteriorated as the pounding wheels kicked up debris. Practically every driver and mechanic was hit on the head and arms by flying stones, making it very difficult to pass another car at speed because of the rocks. Most of the cars were also damaged.

By lap 23 there were only 10 of the 13 starters remaining in the race. Murphy and his Duesenberg prevailed, crossing the finish line 15 minutes ahead of the second-place Ballot, driven by Italian-born, American racer, Ralph De Palma. De Palma had been a strong contender in his Ballot at the 1921 Indy 500 earlier that year. Murphy averaged 78 mph over 322 miles, a record that stood until 1930. The sensational victory tremendously increased America's prestige.

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Jimmy Murphy...continued

(Continued from page 16)

Murphy`s Duesenberg race car, bred from the superior Model A, finished the race with a hole in the radiator, a dry block, and one rim without a tire. Even so, he was able to nurse his virtually indestructible Duesenberg around the course one more time completing the required post-race safety lap. At the finish the crowd was in utter disbelief stunned to have witnessed Europe`s best factory team getting drubbed by the Duesenberg brothers' cars in first, fourth and sixth.

Jimmy Murphy at the French GP
Courtesy of Revs Institute

Murphy was the first American to win a Grand Prix event with a completely American car. It was a "Duesy!" This American victory would not be repeated until 1967 when American Dan Gurney won the Belgium Grand Prix in the Gurney designed Eagle-Westlake. At the French Grand Prix finish, Ernest Ballot was outraged and immediately proclaimed a moral victory saying, "Look at my cars, in perfect condition, all ready to start over again. Then look at that American junk, all shot to pieces. Unfit to go another mile. If they had lengthened the race a little bit I should have won. I am ready to start again; let them line up just as they are, and you will see what the Ballot can do. I may not have the Grand Prix, but I am the moral winner of this race."

Race officials then refused to release the gold trophy to the winning team, on the grounds that it was "illegal to export gold from France," a matter later resolved. Instead, Murphy was given a small medal. At the victory banquet the Star Spangled Banner was not played and the first toast of the evening went to third place finisher Jules Goux (1913 Indy 500 winner) who had driven a Ballot. When American, but French born, Champion was preparing to go across the Atlantic and return to America, French gendarmes appeared at his door and promptly arrested him. He was charged with desertion because he had not served in the French military. Thankfully, the matter was unraveled by the United States Embassy and Champion was allowed to leave France and return to America. This would be the last time he set foot on the land of his birth.

Unlike Miller, who only built and sold race cars, the Duesenberg brothers' real goal was to build high performance passenger cars. Racing was simply a way to get name exposure and make it easier for them to secure financial support for their expanding United States operations. Soon after winning the French Grand Prix, production of the Duesenberg Model A was announced. Orders began pouring in, resulting in sales of approximately 650 vehicles. This was the first production straight-eight (4.3 liter) engined car in the world.

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Jimmy Murphy...continued

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The following year in 1922, Murphy won the Indianapolis 500 in the same Duesenberg (christened the Murphy Special) that he had driven to victory at the 1921 French Grand Prix, though he had replaced the original Duesenberg engine with a Miller. This was the first Indy 500 win for a car with a Miller engine. Murphy was also the first driver to win the race after starting from the pole. Duesenberg cars would go on to win the Indy 500 seven times, with three of the winning cars powered by Miller engines.

At this point in Jimmy Murphy's life, fate would intervene. It was no secret "King of Boards'" Murphy did not like racing on dirt because of the unpredictability of the track surface. Dirt racing was close, fast, chaotic, and he felt the risk was unnecessary. What compelled him to race at a Syracuse dirt track in 1924 was that he was the AAA points leader, and a good finish would guarantee the championship. He reluctantly accepted an invitation to race his Miller "GOLD FLASH" at the 150 lap Syracuse race, the only dirt track on the Automobile Association of America's nine-race championship trail.

Jimmy in his Duesenberg at Greater San Francisco Speedway Courtesy of Revs Institute

Unfortunately, as he charged for the lead on lap 138, he was fatally injured when he lost control of his car and struck a wooden fence. At his funeral, Fred Wagner, Chief Starter for AAA's Contest Board, said:

"Sportsmanship, like every other moral quality, is not instinctive. It must be acquired. Jimmy Murphy, as no other, possessed the quality of a 100% sportsman. Invariably, when he won, he attributed his success to the goddess of fortune. He carried his honors more blithely than any other man I had ever met in my 30 years as an official. He accepted victory without a sneer or a strut, and defeat without a whimper. He was one in a million."

Murphy had won everything there was to win. He drove in the Indy 500 five years, winning once, winning the pole twice, and finishing third and fourth. He was the first driver to average 90 mph in the Indy 500. He won the 1921 French Grand Prix, 18 board track races and more. As *Motor Age* wrote in a 1924 post-race issue *"Race critics, looking back over the years, agree that no other American driver won greater racing honors than the dead champion."* In fact, they hold that he was the greatest driver of all time, a consistent performer always, a wonderful judge of pace and one who, up to today, had been singularly lucky in *escaping injuries on a racetrack."

Clearly, Jimmy Murphy helped define championship racing from 1920 until his untimely death in 1924.

World Saving Bentleys

By Bill Vincent

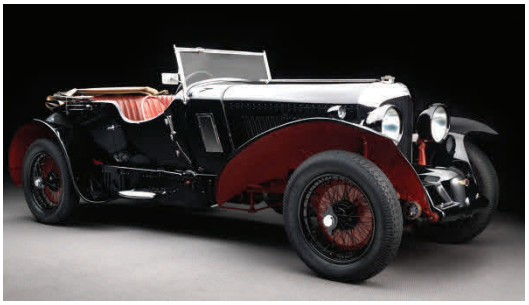
If you grew up between the late fifties and early seventies, you were probably aware of the cold war and all the other "evils of the day" and the effects it had on our day to day lives. There was the fear of (real and cinema) organizations like "SMERSH", "SPECTRE", "THRUSH", and "KAOS" - among others - to keep us all up at night!

Drills at schools, with us curling up under our desks… I even remember seeing the Civil Defense rations stored in the basement of my Junior High!

So it was a comfort to know that we were able to go to sleep at night knowing the world was being protected by the likes of Illya Kuryakin and Napoleon Solo *(from The Man from U.N.C.L.E.)*, and the Impossible Missions Force *(Mission Impossible).*

The ones I put my most trust in was: John Steed and Emma Peel *(The Avengers TV series)* and, of course, Bond… James Bond! *(right).*

Steed had Emma, along with his bowler hat and umbrella to ward off the "bad guys" and was under the direction of "Mother." Bond had "M" for directions and "Q" for the required gadgets, to go along with his 007 "license to kill." One thing they both had in common though, was a fine taste in automobiles as both had a bond (pun intended) with Bentleys!



Revs Institute Photo

When Ian Fleming's first James Bond novel was published in 1953, Bond's ride of choice was a Bentley, a Blower Bentley, as exemplified by the 1931 Bentley 4-1/2 Liter Supercharged Sports Tourer, *(left)* in the Vitesse Gallery. Not a bad choice for a spy whose name was drawn upon by Fleming's bird watching hobby. In "real life" James Bond was an American ornithologist, a Caribbean bird expert, and author of the definitive field guide Birds of the West Indies.

Bond's Bentley had a four cylinder in-line mill of 4,396 cc's, with a single overhead camshaft, four valves per cylinder, and a Roots-type supercharger, combining to produce 240hp at 4,200 rpm. In Fleming's 1959 book *Gold Finger,* Bond was given an Aston Martin DB3 *(upper right)* - on the suggestion from a letter he received by a fan. When the movie came out in 1964, it became the now famous DB5 *(lower right)*.

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World Saving Bentleys...continued

(Continued from page 19)

But John Steed stuck with the Bentley brand for almost his entire career - and had a number of them!

In late 1964 and early 1965 Steed wielded a 1929 4.5-Liter. Then in May 1965 he moved over to a 1924 3 Liter Vanden Plas Open Bodied Tourer. In September 1965 Steed made another change - into a 1928 3-Liter Bentley, which he then followed up with a 1925 3-Liter Green Label, Open Four Seater by Vanden Plas, in September 1966.

Revs has a wonderful 1926 Bentley 3-Liter Super Sport Skiff/Boattail, *(right)* which is a good representation of the Bentleys of that era. Although nine inches shorter than the standard 3-Liter, it has a four cylinder, 2996 cc engine, putting out a little over 80 horsepower at 3,500 rpm. It tipped the scales at 3,470 pounds, but could whisk Steed *(or any other do-gooder)* away at 100 miles an hour!

Revs Institute Photo

Revs Institute Photo

Steed must have been a bit disappointed with that one though, as he only used it in one episode. So, in October 1966, he upgraded into a 1930 6.5 Liter - of which Revs Institute has a fantastic example on display *(left)*; the 1930 6.5 Liter Speed Six Sports Tourer!

That beast is powered by 6,597 cc, four valves per cylinder lump, with six cylinders in line and puts out 180 horsepower at 3,500 rpm. Although she tips the scales at 4,511 pounds, she could still pull her skirts up and reach 120 miles an hour!

Emma Peel's Lotus Elan weighed only about 1,500 pounds, but with its 1,558 cc twin cam engine could also reach around 120 mph - so they made an interesting pair!

As a side note, Steed later had a thunderous Jaguar XJ12C, *(upper right)* in the short lived series "*The New Avengers.*" That car was a replica of one of the Jaguar Broadspeed cars - and one of this author's favorites *(lower right)*.

So even though Bugatti called Bentleys "The fastest lorry in the world," it turns out it was the Bentleys that did their part to help keep the world a safer and care-free place, back in the day!

I know I slept a lot better!

TAPPET TRIVIA

By Joe Ryan

And Now The Answers….

1. **Q:** What famous automobile company founder and owner was the team manager for Alfa Romeo? **Answer:** Enzo Ferrari. Enzo, in the early days was a race car driver and then Alfa Romeo's team manager.
2. **Q:** Did the Miles Collier Collections' 1934 Alfa Romeo win the 24 hours of Le Mans? **Answer:** No, the display Tipo 8C 2300 Alfa Romeo did not win the 24 hours of Lemans. Models of the Tipo 8C 2300 did win the 24 hours of Le Mans for 4 consecutive years; years 1931, through 1934. Alfa Romeo also won the Miglia Miglia in 1928, 1929, and 1930.
3. **Q:** Did Alfa Romeo manufacture the Tipo 8C 2300 for sale as a production car? **Answer:** Yes! The car was available in a 122-long (lungo) and a 107-inch short (corto) wheelbase for a "paltry" sum of $10,000 (about $227,000 today!).
4. **Q:** Who was the technical principal responsible for the success of the Tipo 6C 1500, 6C 1750, and the 8C 2300? **Answer:** Chief Engineer Vittorio Jano. He started the Alfa Romeo's ascendance to world fame and dominance in 1923. Vittorio also designed automobiles for Fiat and Lancia.
5. **Q:** Under the dash is a small dial wheel about 2 inches in diameter. What is that adjustment used for? **Answer:** The adjustment is used to make adjustments in the shock absorber stiffness.

The 1934 Alfa Romeo Tipo 8C 2300 Spider is a remarkable race car in its heyday. Zero to 60 in under 10 seconds is a very quick time for that period.

If anyone would like more information on Alfa Romeo and other Miles Collier Collections cars, I strongly suggest using the Revs Institute digital library. You will find multiple pages on this and hundreds more unique race cars.

Contributions from Paul Kierstein

Contributions to the column are always welcome.

TAPPET TECH

2 Stroke Engines

Trabant, You Say?

By Eric Jensen

A previous *Tappet Tech* explained the operation of a 4 stroke gasoline engine. The 4 stroke engine was the predominant automobile engine over the last century but certainly not the only one. I am alluding to our "little smoker," the Trabant with its 2 stroke engine design. While most often relegated to small yard equipment these days, there were some notable cars other than the Trabant that featured 2 stroke engines. Very early SAABs come to mind.

First, a brief refresher. Each time a piston in an engine travels up or down in the bore, that travel is called a stroke. So a 4 stroke engine goes up twice and down twice for two full revolutions. See *Figure 1*. This means the power stroke happens every *other* rotation of the crankshaft.

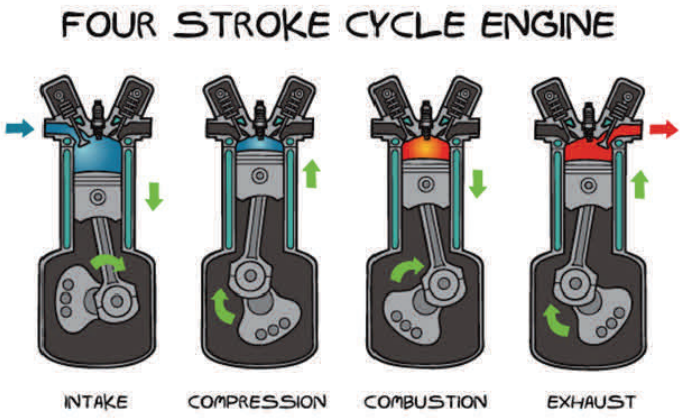

Figure 1

A 2 stroke engine has one up and one down stroke for every power stroke. This means for every revolution there is a power stroke. Because of this, comparing equal size engines, a 2 stroke will make more power than a four stroke. Not twice as much, but roughly only 40% more. Why? Hopefully the explanation of how it works will explain why.

From *Figure 2*, In a 2 stroke engine the Intake stroke and the Compression stroke are combined into a single upward motion of the piston. When the piston gets to the top, the spark plug ignites the mixture creating the Combustion stroke and the piston drops producing power. As the piston drops, it uncovers the exhaust port creating the Exhaust stroke. Combustion and Exhaust are a single stroke.

Since the exhaust port opens before the piston is all the way down, some power is lost out the post. Because the intake transfer port is open as the piston rises to compress the mixture, more performance is lost on that stroke. That is the reason why a 2 stroke engine won't produce twice the power of a four stroke.

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TAPPET TECH

2 Stroke Engines

...continued

(Continued from page 22)

Because a 2 stroke engine operates with the intake being sucked through the crankcase it becomes the lubrication for the crankshaft. This is why we mix oil into the gasoline so it becomes a better bearing lubricant. If mixing oil and gas at every fill-up isn't annoying enough, the use of the air-fuel intake mixture to lubricate produces an odd quirk for drivers of some 2 stroke cars. The driver cannot let the car coast down hills without applying a little throttle or the lack of lubrication would cause the engine to seize.

That oil also creates that tell-tale stinky-smoky cloud emitted from the Trabant's tailpipe. It is also why yard equipment can operate upside down and be light enough to carry all day long.

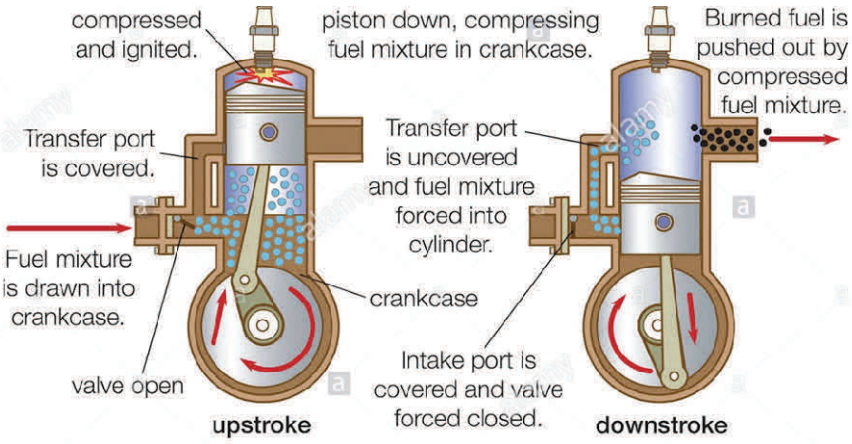

Figure 2

While the 2 stroke may be powerful and light, the exhaust is very dirty and cannot be cleaned up like a 4 stroke engine exhaust. Many have tried to remedy that problem and many have failed.

The Trabant's companion in the former East Germany (GDR) was the larger, faster and more expensive Wartburg. It too, was equipped with a 2 stroke engine. The Wartburg, given its upscale status, was equipped with a 3 cylinder, 992 cc variant rather than the Trabbi's 2 cylinder, 594 cc engine. Even in the GDR, rank still had its privileges.

The 2 stroke automobile engine essentially disappeared from both western European and American markets in the late 1960s with the introduction of tailpipe emission standards. They can still be found in widespread use in Asia and Africa especially in scooters and 3 wheeled vehicles.

Adopt-A-Car Program

Available Adopt-A-Car Automobiles and Engines

Alfa Romeo Guilietta SV	Lancia Aurelia B20	Vauxhall 30-98 Type OE
Ardent Alligator	Lotus Elite	Waymo Firefly
Austin Cooper S	Maserati Tipo 60	Abarth 1000-TC-R engine
Bugatti Type 55 Super	Mercedes Benz W-154	Alfa Romeo GTZ engine
Cadillac Series 61	Mercer Raceabout	C-6R Offenhauser engine
Cisitalia SC	Miller board track racer	Cadillac OHV V-8 engine
Cooper Climax T-43	OSCA Sports Racer	Chrysler Hemi (C-3) engine
Cooper T-51	Packard Speedster	Duesy Sprint Car engine
Cunningham C-1	Porsche Elva	Ford GT-40 Transaxle engine
Cunningham C-3	Porsche RS-60 Spyder	Ford Turbocharged Indy
Cunningham V3	Porsche RS-61L Spyder	Gurney Eagle GP engine
Delage Grand Prix	Rolls Royce Silver Ghost	Jaguar XK120 Series engine
Delahaye 135 CS	Scarab Sports-Racer	Meyer-Drake Turbo Prototype
Duesenberg Model J	Simplex	Columbia Three-Track
Fiat Abarth TCR	Stutz Black Hawk	Humber 58" Ordinary Bicycle
Jorgensen Eagle	Trabant	Velocipede Bicycle

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

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Cunningham C-1	Porsche Elva	Ford GT-40 Transaxle engine
Cunningham C-3	Porsche RS-60 Spyder	Ford Turbocharged Indy
Cunningham V3	Porsche RS-61L Spyder	Gurney Eagle GP engine
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