

# Corvette

## RESTORER



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COVER STORY *by Angelo Castelli*

# RESURRECTED

***The #1 Cunningham Le Mans 1960 Corvette: VIN 00867S103535***



**T**his is the resurrection story of a certain Corvette, one of a famous trio of 1960 Corvettes, all with a famous story of their own. Owned by Briggs Cunningham, the three were entered in the 1960 24 Hours of Le Mans as Numbers 1 (3535), 2 (4117) and 3 (2538). It is the #1 Cunningham Corvette with chassis number 3535 that is related here. The racing endeavor was a milestone of American motorsports history, developed with the assistance of Zora Arkus-Duntov and

his team from GM. It would be Cunningham's final all-out effort to win the world's most challenging race in American-built cars with American drivers.

In the fall of 1959, American businessman and entrepreneur Briggs Cunningham had all but given up trying to win the 24 Hours of Le Mans. After a six-year unsuccessful effort, he was approached by Duntov to enter the 1960 Le Mans race. Duntov had raced at Le Mans in 1952 and 1953 for Allard and for Porsche in 1954 and 1955, and he wanted a Corvette to win Le Mans.





Cunningham was an American patriot and this would be an American effort well before the rivalry of Ford versus Ferrari where Ford achieved a series of wins with its GT40 starting in 1966. Another significant factor that Cunningham brought to the table was his experience at Le Mans. Corvette had never competed there, and in order to beat all the other seasoned competitors, Corvette would need a man like Cunningham. His history included racing a pair of American-built Cadillacs with American drivers, as well as other cars between 1950 and 1955. Money was never an issue: his goal was to win. Cunningham had other competitive pursuits, one of which was winning the 1958 America's Cup race as captain of the yacht Columbia, but success at the Circuit de la Sarthe (24 Hours of Le Mans) was always on his mind.

In 1955 Chevrolet General Manager Ed Cole assembled a team which included Duntov to develop a competition spec car aimed at important endurance events such as Sebring, Daytona and the pièces de resistance Le Mans race. But

development was slow. Cole was unofficially behind the effort and wanted to see Corvettes compete at the big race. People like Cole and Duntov knew that a Le Mans win was essential to develop the reputation of Corvette worldwide. But Chevrolet formally agreed to take part in an industry-wide ban on racing in 1957.

The 1955 Le Mans race had been a human disaster resulting in a



change of sentiment about racing which culminated in the Automobile Manufacturers Association racing ban starting in June 1957, which prohibited all American manufacturer racing programs. But by 1958, strong competitive desires had emerged and development got underway, supported by unofficial agreements between manufacturers and owner racing teams. Cunningham completed negotiations on Jan. 7, 1960, and by Jan. 19, Duntov's team from Chevrolet Engineering was already preparing a group of 283 CI fuel-injected V8 racing engines to be installed in cars that had yet to be purchased.

Three identical Corvettes were purchased by Cunningham through Don Allen Chevrolet in New York City to keep things quiet and not expose Chevrolet's involvement. Each was ordered with 283-CI 290-HP fuel-injection, quick-ratio steering, heavy-duty sintered metallic brake linings, heavy-duty suspension, close-ratio four-speed transmission, Positraction differential, and no radio. Cunningham's right-hand man Alfred Momo managed and engineered the race team. Special parts were installed including Stewart Warner gauges, Halibrand quick-release fuel cap, Halibrand magnesium knock-off wheels, Firestone racing tires, experimental HD competition shocks, Bendix fuel pumps (primary and back-up), additional front sway bar, 37-gallon fuel tank (one of ten built), fresh-air ducting, two aluminum seats from a Douglas C-47 Skytrain aircraft jump seat, a side-exit exhaust system, and heat shields.

After additional testing, the three Corvettes would receive more modifications such as two ignition



Année 1960

## Les 24 Heures du Mans

**Les 24 Heures du Mans**

Marque de la voiture : Chevrolet Corvette engagée par Briggs S. Cunningham

Adresse : Greens Farms, Connecticut Tél. : \_\_\_\_\_

Conducteurs : M. Briggs S. Cunningham et M. Zora Duntov

DE CYLINDRÉE

ET DATE

Marque de la voiture : Greens Farm, Connecticut  
 Adresse : Briggs S. Cunningham et M. Zora Duntov  
 Conducteurs : M. Briggs S. Cunningham et M. Zora Duntov

FICHE DE CYLINDRE

LIEU ET DE VÉRIFICATION
----------------------------

960

FICHE

ATIONS DU CONSTRUCTEUR

NOMBRE DE

MOBILES

C

DECLARATIONS DU CONSTRUCTEUR					LIEU ET DATE DE VERIFICATION	
TYPE DU CHASSIS	N° DU MOTEUR	ALÉSAGE	COURSE	DÉCAXAGE	NOMBRE DE CYLINDRES	CYLINDRE COMPRESSEUR
0086781 03535	18283-1A P0322CZL	98.45	76.2	None	8	4640 None
Vérification de cylindrée (Mesures arrondies au dixième de millimètres) Minimum 98.41 Maximum 98.50 a) Alésage ..... b) Course du moteur non dé- taxé (mesure prise sur le vilebrequin) ..... c) Décaxage ..... d) Course réelle (mesurée, ou calculée, d'après les éle- ments qui précèdent (2) = e) Nombre de cylindres ..... f) Compresseur .....					Pistons. — Nombre de poinçons par piston = Disposition des poinçons sur chaque piston (4). <div style="text-align: center; font-size: 2em;">Bon</div>	
CHASSIS Type	Corvette					
et N°	0086781 03535					
MOTEUR Type (1)	8 cyl.					
et N°	18283-1A P0322CZL					
CYLINDRES N° du bloc	One					
Situation des poinçons et croquis		Disposition des poinçons et croquis				
Left front upper part of cylinder block facing radiator		Bottom crankcase front and top stamped on either side of crankcase and block				
CYLINDRÉE DE BASE		CYLINDRÉE CORRIGÉE				
4640.5		4640.5				
Fac Similé du poinçon Nom, Qualité et Signature du Vérificateur Alfred T. MMD, Engineer <i>Alfred MMD</i>						

4640.5

Observation. — Placer les poinçons de façon qu'ils soient visibles quand le moteur est en marche.

(1) Parfois, ces indications sont les mêmes que pour le cylindre directement, ce qui est préférable, les indications pour les cylindres 1 et 2 sont nécessaires lorsque la grandeur de la chambre de combustion est la même que pour le cylindre 3, et le désalignement est mesuré. Porter ces indications sur la présente carte.

(2) Lorsque la course réelle figurant au vilebrequin n'est pas la même que la course nominale, mesurer la course réelle du vilebrequin, mais elles sont nécessaires lorsque la grandeur de la chambre de combustion est la même que pour le cylindre 3, et le désalignement est mesuré. Porter ces indications sur la présente carte.

(3) Lorsque les cylindres ne sont pas dans une même pièce avec le carter, poinçonner chaque cylindre, au lieu d'un seul.

(4) Lorsque le cylindre n'est pas dans une même pièce avec le carter, poinçonner chaque cylindre, au lieu d'un seul.

Voir au verso renseignements à fournir pour les voitures.

Voir au verso renseignements

## 24 HEURES DU MANS 1960

CERTIFICAT DE  
**Vérification de cylindrée**

A. - Marque de la voiture : CHEVROLET GRAND TOURISME (1) (Sport ou Grand Tourisme)

B. - Engagement au nom de : Briggs S. Cunningham

Adresse : Greens Farms, Connecticut, U.S.A.

C. - Désignation du ou des conducteurs :  
Briggs S. Cunningham and Zora Duntov

MM. Briggs S. Cunningham and Zora Duntov

Suppléants : MM.

Suppléants : MM.

TYPE DU CHASSIS	NUMÉRO DU MOTEUR	NOMBRE DE CYLINDRES	ALÉSAGE	COURSE	CYLINDRÉE	COMPRESSEUR	CYLINDRÉE CORRIGÉE
Corvette	18283-1A F0322CZL	8	98.45	76.2	4640	None	None

soussigné (Nom et prénoms) MOND, Alfred T.

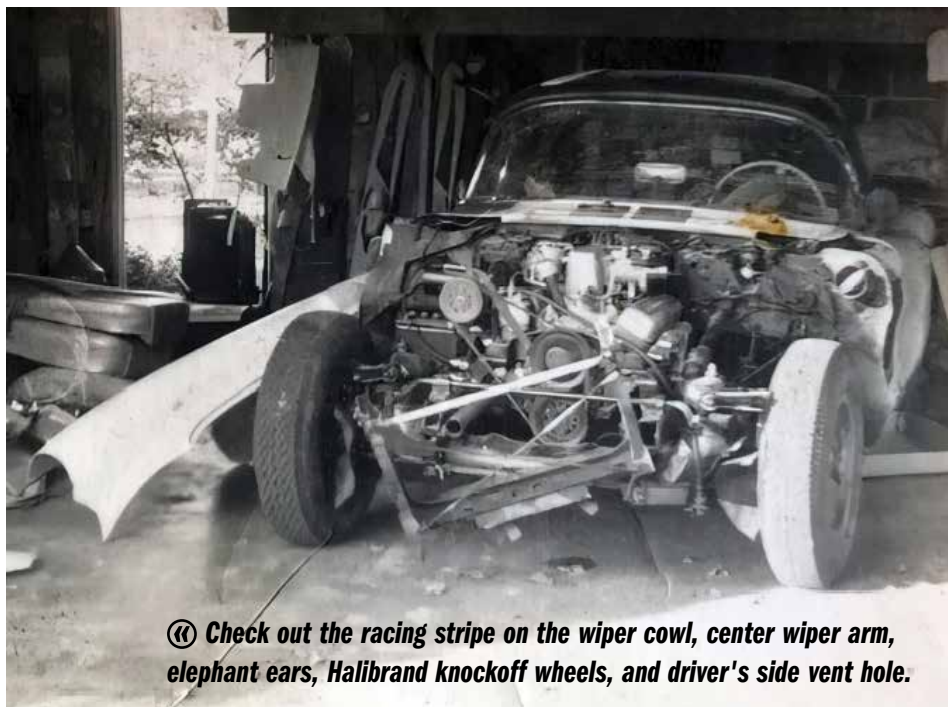
qualité et adresse R. 100

Je soussigné (Nom et prénoms) MOND, Alfred T.  
(Qualité et adresse) Engineer: 32-26 - 80th St., Jackson Heights, N.Y., USA  
certifie avoir vérifié en date du May 25, 1960, les éléments du moteur de la voiture définie  
ci-dessus, fait le calcul de la cylindrée, et poinçonné les organes intéressant la détermination du volume  
de cette cylindrée.

LE VERIFICATEUR 1960

(1) Rayer la Catégorie inutile.





Ⓒ Check out the racing stripe on the wiper cowl, center wiper arm, elephant ears, Halibrand knockoff wheels, and driver's side vent hole.

coils, two starter buttons, two batteries, roll bar, hood air dam, hood louvers, fog lights, roof light, trunk light, side door light, special dashboard, Jones tach, aluminum lower engine pulley, rear quarter window vents, special sprint-car steering wheel, oil cooler, wire mesh grille, and changes to the rear axles, cylinder heads, etc. All exterior trim was removed except for the rear bumpers.

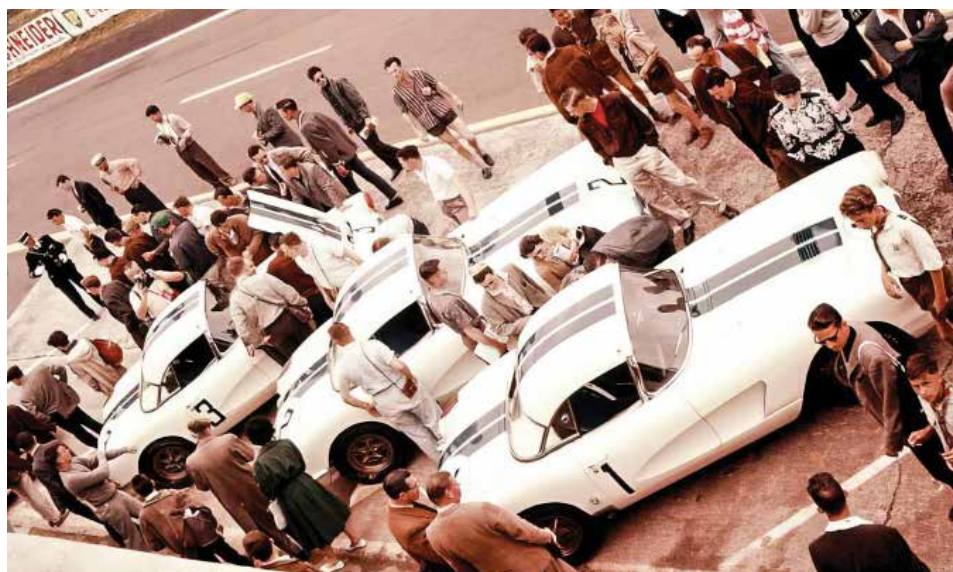
In the months leading up to the Le Mans race, the Cunningham Corvettes benefited from Chevrolet's high caliber of engineering, quantity and quality of testing, and constant improvements. It included pivotal development testing at Sebring and Daytona, Bridgehampton, and of course practice day at the Circuit de la Sarthe (Le Mans). Remember that Chevrolet was not supposed to be involved in racing according to the GM front office. This meant that the Cunningham Corvettes were never specifically referred to by VIN; instead, they were only identified by the use of independent, internal development test-car numbers.

The cars needed on-track experience, which would come in the form of the 12 Hours of Sebring on March 26, 1960. Since only two of the three engines had been completed, those two raced in Sebring. The third car had come in a week before (invoiced March 16) and wasn't available. One Corvette tested at Daytona and the other at the Milford Proving Grounds, Michigan, before being sent to Florida for the race.

Unfortunately, Sebring didn't go well for the team. After 27 laps #1

2538 suffered a rear hub failure, flipped over, and sustained major damage. The driver John Fitch escaped with only minor injuries. At the 41st lap, #2 3535 (later to become #1 for Le Mans), driven by Fred Windridge, had engine failure forcing another retirement. Following the race, the #1 2538 needed repairs including a new fender and a rebuilt engine, and 3535 also required a rebuilt race engine. Both cars underwent additional modifications and testing. On April 9, car 3535 went to Le Mans for practice day but could not complete the 25-lap minimum required before fluids could be added to the 37-gallon fuel tank. Therefore, it was decided to increase the tank capacity by five gallons to guarantee the 25 laps. Although this wasn't permissible, the tech inspectors never caught it.

In preparation for Le Mans, Cunningham's #1 3535 was equipped with CZ aluminum cylinder heads. The other two had CS cast-iron cylinder heads. Momo decided to change the aluminum cylinder heads to cast iron because he felt the former were too risky and didn't want to take a gamble.





On June 8 the Cunningham Corvettes sailed from New York aboard the RMS Queen Elizabeth bound for the 24 Hours of Le Mans race to be run June 25–26. There was also a fourth Corvette entered by the Camoradi Race Team, #4 2272. The cars were assigned numbers before the grueling 24-hour race. The Le Mans registration paperwork dated May 25 showed Duntov as the co-driver with Cunningham. Ed Cole found out about this and reminded him that GM did not support the Le Mans racing effort and that he must not allow Duntov at the wheel. Ed Cole regarded Duntov as being too valuable to GM. In fact, he shouldn't even have been at

the race in France as GM thought Duntov was on a two-week vacation somewhere else.

Bill Kimberly, a famous race car driver in his own right, would co-drive the #1 Corvette with Cunningham. Cunningham's decision not to place Duntov behind the wheel led to a fourteen-year separation between the two. The relationship rekindled itself after Briggs sent Duntov a letter of friendship (handwritten and found by Kevin Mackay at Duntov's home). Later Briggs showed up at Duntov's retirement party in 1974.

Finally, on June 25, 1960, the drivers lined up for what is called the Le Mans start. Back then, drivers stood on one side of the track with their cars on the other side. When the flag dropped, it was a foot race with drivers sprinting to their cars. They would jump in, start the engines, and hook up safety belts as they pulled out onto the track. Aston-Martin took the early lead, but the Maseratis were faster that day. Le Mans isn't just about being fast or early leads; winning this race requires good handling, braking, and being able to see it through to the very end.



» The car was wrecked but never destroyed.

During the race's opening hours, Corvette #1 with Cunningham as the driver and the other two Cunningham Corvettes looked like they were going to give the European cars in the GT 5.0 class a run for the money. However, by 6 p. m. the sky opened up and heavy rain forced several cars to make early pit stops for adjustments. The #1 Corvette changed drivers to Bill Kimberly. All fueled up, still using regular tires as opposed to rain tires, Kimberly raced through the

Dunlop, pushed the car to its limit down the Mulsanne Straight, and took the Mulsanne Corner, Indianapolis, and Arnage carefully. As he was nearing the end of his first lap passing over the top of the hill after Arnage, the car hit a wall of rain, Kimberly took his foot off the accelerator, lost control at the Maison Blanche corner, spun, flipped twice, and caught fire. He was lucky that the car landed right side up and he got out of the car with no injuries. The fire melted the engine

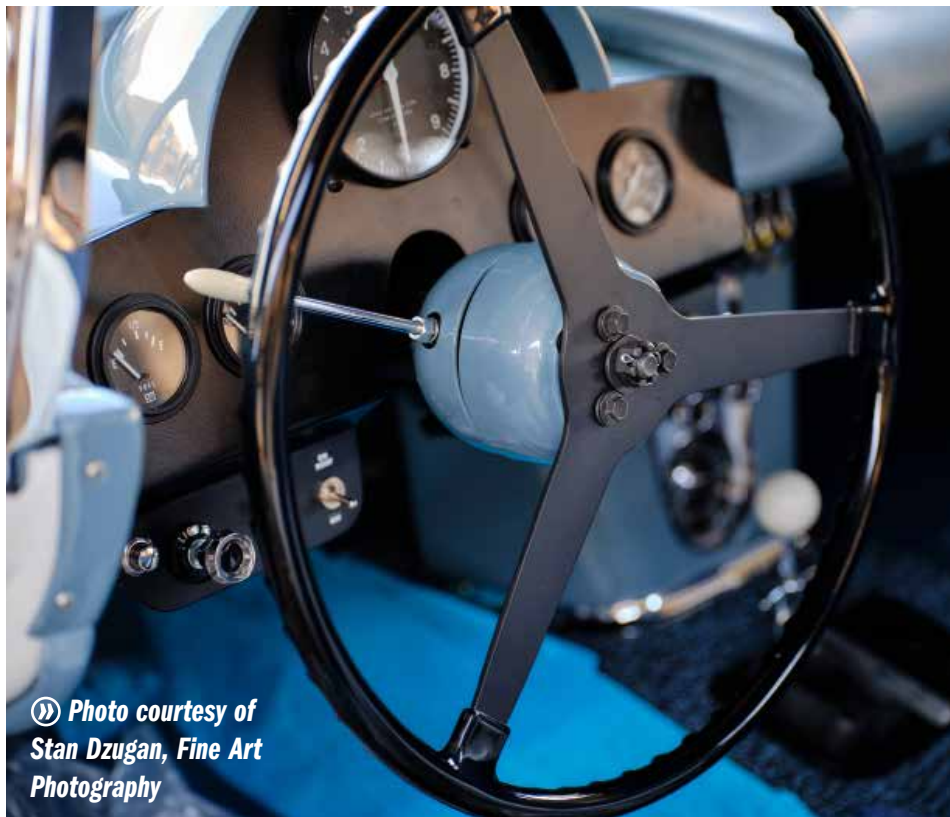
ignition wires, causing 3535's early exit from the race after just 32 laps.

Soon afterward, the #2 Corvette, driven by Dick Thompson, experienced a similar accident at the same corner damaging the front and rear of the car. It was able to make it back to the pits and be repaired, but at Lap 207 engine failure caused #2 to retire.

Another factor that comes into play at Le Mans is fatigue, resulting in careless mistakes. During one pit stop, a crewman pulled the radiator cap causing hot water to shoot out. It was too hot to refill, and the rules would not allow liquids to be added to the car at that point. For a lot of teams, this might have ended their day, but Cunningham had assembled a crew that wouldn't readily accept defeat. Thinking quickly, someone had the idea of putting ice on the engine. Since ice is a solid, they knew this would not be a violation. They did not add any liquid and race officials permitted it.

Duntov watched wide-eyed from afar as the crew began packing ice around the engine to keep it cool. They sent the car out and had more bags of ice as needed. The crowd, sensing the drama of it all, gathered behind the Corvette pit to cheer the team on. At this point it didn't look good for the Cunningham Corvettes. That is, until the #3 Corvette driven by Bob Grossman turned out to be the most dependable of the three entries and ended up winning the GT-5.0 class, finishing eighth overall.

Once the Le Mans race was over, the three Cunningham Corvettes were brought back to the States and Momo returned the Chevrolet race engines to GM engineering. The three cars with stock motors



» Photo courtesy of Stan Dzigan, Fine Art Photography

were sent to Briggs Cunningham associate Bill Frick, who sold the cars in Florida. Corvette #3535 went to another Cunningham friend and SCCA racer Marshall "Perry" Boswell Jr. in Delray Beach, Florida. Boswell received the car in Le Mans racing condition.

The Boswell family kept plenty of historical information on the #1 car with April 1962 photos showing it going from a beat-up race car to a fancy aerodynamic roadster. The

for drag racing. This trade-off was done at Bill's Sunoco station in Tampa, owned by John Lehmkuhle (Billy Sunoco) who kept the car in his lot for over a year before it was sold to Judge Richard W. Carr Sr. in St. Petersburg.

In 1993, before the 3535 was found, well-known restorer Kevin Mackay was able to obtain the VINs of all four Corvettes that competed at Le Mans by contacting the Automobile Club De L'Ouest in France.

With that document, Mackay confirmed the identity of all including the lost one. While Mackay was unable to locate 3535, he was able to find for his friend Chip Miller the class-winning #3 (2538) car. The finding and restoration of the #3 Cunningham car is the subject of the documentary "The Quest." The closing scene of that film ponders whether 3535 would ever be found.

Because of their close friendship, Mackay gave the VIN of 3535 to Chip. When Chip learned he was dying of amyloidosis, he passed the VIN to noted Cunningham historian Larry Berman in the hopes that someday the car could be located. Larry promised not to release the number to the public until after Chip's passing. So at that point the correct VIN was known but not the location of car.

Rick Carr was clearing out a warehouse owned by his father,

## THE CUNNINGHAM 1960 #1 LE MANS CORVETTE ... IS BACK IN ITS GLORY-DAY FORM, READY TO STAND NEXT TO CORVETTES #2 AND #3.

front end had been replaced with a 1956-57 front nose clip with a Zagato-style front grille designed by Boswell himself. The hard top had a rear fin; the hood had a scoop; the rear end however was original and intact. Even the stock-design distinctive side coves had been filled in. In the end, Boswell painted the whole car black and added chrome turbine wheels with whitewall tires.

Around 1966 Boswell sold the black custom-designed Corvette to Bobby Lee Bolinger, who operated Mr. B's Paint and Body shop in Tampa, Florida, before he passed at the early age of 32. He painted it yellow and sold it in 1971 to Jerry Moore. Jerry sold the car in 1974 to Dan Mathis, who after a few days, traded it for a Dodge Demon since it wouldn't pass tech inspection



» Photo courtesy of Stan Dzigan, Fine Art Photography



« Cunningham just getting into the car to start the race



« Marshall "Perry" Boswell Jr. had the car painted black.



« The #1 Cunningham Corvette as found

The Honorable Richard W. Carr Sr., who had recently passed. Rick had no idea what he was in possession of. The car sat in a corner of the warehouse, and when Rick lifted the body off one side, he was able to get the VIN. He then searched the internet to find information about the car and came up with the Briggs Cunningham website. This led him to Larry Berman, who ran the website and was a friend of Chip Miller, who by then had passed away. It was determined that the car was indeed the #1 Cunningham Corvette from the 1960 Le Mans 24-Hour race.

Berman alerted Chip's son Lance Miller, whose father had Mackay restore the #3 car in 2001-2002. Chip had promised Mackay that if #1 car was ever found, he would make sure he got the car. Lance made an offer to Rick Carr to purchase the #1 and in return, sold it to Mackay. The two had intended to display the car, complete with its Cunningham Le Mans history, at Corvettes at Carlisle in August 2012 but only had the chance to show it privately before another claimant to the car stepped forward, a situation that was eventually resolved.

Shown here is a photo of as-found condition. The #1 Cunningham Corvette still presented evidence of its racing history. Although Boswell had tried his best to change the car into a custom Corvette, some of the historical evidence remained. The wheelwells still had ducting on the driver side for fresh-air cooling. A wiring harness still hung from where it would have powered the passenger-side marker light at Le Mans. The large fuel tank remained behind the seats. The underbody showed evidence of mounting



© Photo courtesy of Stan Dzigan,  
Fine Art Photography

points for added components such as an oil cooler, safety straps and cutouts for the racing side-exhaust system and heat shields. In front of the windshield was the mounting hole for the central windshield wiper used at Le Mans, an important feature that enabled true identification of this Corvette. There was a patch covering the area which served as the rear decklid quick-fill fuel assembly. There was also a mounting plate for the remote pushbutton starter still attached to the firewall and toggle switch to activate the second ignition coil. There were other telling traces of its history under the layers of paint. The mounting holes for the fuse panel and the center console still displayed some of the original blue interior color, which is the most compelling evidence that this was the car that went to Practice Day at Le Mans in April 1960.

Since the Cunningham Corvettes #2 and #3 had been fully restored to their 1960 Le Mans glory, this car needed divine intervention to present itself in the finished trim and take its place next to them. The car went on the auction block at RM/



© Photo courtesy of Stan Dzigan,  
Fine Art Photography

Sotheby at Amelia Island on May 22, 2021, and was sold for \$785,500. As fate would have it, the car was fittingly returned to the Cunningham family, who then decided to give the project to Kevin Mackay and his team at Corvette Repair to fully restore it to its original 1960 Le Mans delivery. Since they had completed Corvette #3, the team possessed the records, the parts, and experience to complete this task and return it to period-correct Le Mans racing trim identical to #3.

The Cunningham 1960 #1 Le Mans Corvette has now been completed and is back in its glory-day form,

ready to stand next to Corvettes #2 and #3 63 years later for the 100th anniversary of the 24 Hours of Le Mans. It will be unveiled at Amelia Island in March 2023 for all to appreciate with all three Corvettes together just like they were in 1960.

Appreciation goes to Bryan Shook, Larry Berman, Lance Miller, Irwin Kroiz, Christina Mackay, Tom Sugar and Corvette Repair, Inc.

Any additional information would be greatly appreciated. Contact [CorvetteRepair@yahoo.com](mailto:CorvetteRepair@yahoo.com). **TCR**

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