

Straight Talk

Publication of the Red River Chapter of the Solid Axle Corvette Club



Red River Chapter Summer Picnic

Saturday, July 15

1-4 PM

Isabella Village Club House 1402 S. Peach Dr. Savannah, TX.

Our President, Dennis Conte, will be grilling
Hot Dogs and Hamburgers for you at his neighborhood's Club House.
Also having Corn on the Cob and Soft Drinks (BYOB). All compliments of the Red River Chapter.

It's a short drive in your Vette to the North side of the Metroplex

Hang out for a few hours, have lunch on our club, talk about our Vettes, make some new friends and get back together with old friends again!



2023 National SACC Convention Report See Page 3



President's Message

I hope everyone has enjoyed the events we have had to date and look forward to seeing you at our picnic July 15th.

It is with great sadness that I report my 1961 Jewel Blue/White Corvette caught fire and burned to the ground in May. It is a total

loss and can't be salvaged. It was the love of my life and I'm so sad this happened.



Dennis Conte President, SACC, Red River Chapter

My REALLY Cool 1960 Corvette Golf Cart! by Bill Huffman, President Michigan Chapter





My base golf cart is a 2001 Club Car with custom body reputed to be one of 20 units made without GM licensing permission, before GM had the molds destroyed.

I saw one of these carts at the NCRS Winter-Nationals in 2010 at Kissimmee, FL owned by Florida Region NCRS. Of course, it didn't have my cool modifications.

I added trailer lights for headlights, 1960 Corvette parking lights, tail lights, rear license bracket, and horn button. It has 1957 front and rear emblems, a rumble seat lid, plywood rear storage compartment, turn signals and painted side coves with chrome trim.

When I bought it, the body needed repair and painting due to damage from an accident.

The previous owner of my cart was Port St Richie, Florida Corvette Club.





The 2023 Solid Axle Corvette Club Annual National Convention was held at the Home2 Suites in Normal, Illinois on May 31-June 3. It was hosted by the Great Rivers Chapter and chaired by SACC Secretary, Mary Rae Brockhouse. Participants began arriving on Tuesday, May 30 from all over the country. Wednesday, May 31 began the planned activities.



Board Members-Lucy Badenhoop, Mary Rae Brockhouse, Don Brittin, Jack Hollada, Tom Barnes, and Michelle Paillou

First was the Annual Board meeting attended by the national officers and regional representatives in the morning. Items of discussion can be found in the minutes. Wednesday afternoon the board met with the chapter representatives to discuss club issues, including retention, dues collection, IRS reporting and recruiting



Gerri Hollada, Leslie Barnes and Marie Chance registering Bob Cook.

new members. Bill Huffman, president of the Michigan Chapter, did a special presentation of a recruitment flyer he had developed for his chapter

That evening the welcome party was held at the hotel and everyone enjoyed a delicious Italian buffet



Annual SACC Business Meeting was held immediately after dinner Wednesday evening.

who joined us at our Welcome Reception. We appreciate them inviting us to be special guests at the 2023 Bloomington Gold. They were gracious hosts all weekend and we had full access to all events and venues.

Thursday morning a tour of the David Davis Mansion was scheduled for those wanting to go. The mansion, known as Clover Lawn was completed in 1872. It was the



Judy Coughlin, Gerri Hollada, Mary Rae Brockhouse, Karen Borchardt, Jackie Cook, Michelle Paillou, Cheryl Jarvis, Stephanie Huffman, Kathy Rohde, Leslie Barnes, Marie Chance, Jane Fontana and Lucy Badenhoop at Clover Lawn.

President, Jack Hollada conducting the auction and presenting the Noland Adams award to Larry Spilman.

arranged by Gerri Hollada. President Doc Hollada presented the Noland Adams Award to Past President Larry D. Spilman. An auction was held for an event poster, framed letter from Noland Adams to Max Brockhouse and some very special commemorative coins.

Our special guests Wednesday evening were the owners of the Bloomington Gold Event, Guy and Jocelyn Larsen,



Bloomington Gold owners Guy and Jocelyn Larsen, Jack Hollada and Mary Rae Brockhouse.

home of David Davis, the friend, mentor and campaign manager for Abraham Lincoln. Lincoln appointed Davis as United States Supreme Court Justice in 1862. The mansion and garden remained in the Davis Family for three succeeding generations. In 1960, the house was donated to the State of Illinois; today, it is operated as a state historic site and has been declared a National Historic Landmark. The SACC Ladies enjoyed a luncheon after the tour.

The alternate activity for Thursday morning was a Tech Session featuring Ken Yeager (Mid-America Corvette Mike Yeager's older brother). He conducted a lively open discussion on C-1 technical issues that tend to plague all early Corvette owners. Water leaks, electrical issues and gasoline seem to be on everybody's mind.

Thursday afternoon a group of us drove north along historic Route US-66 to Pontiac, Illinois to visit the Route 66 Museum. It conjured up memories of the days when we were kids travelling cross country. The same building had a wonderful Veterans' museum with an unbelievable number of uniforms belonging to Veterans from the area.



Bill Preston, Jack Jenkins and Dale Lael at the Pontiac Museum



Don Brittin, SACC VP, at the Pontiac Museum.

We found a great place for lunch just around the corner next to the Pontiac/Oakland Car Museum. This museum housed an astounding collection of memorabilia, a research library and some very nice vehicles. Everything we did was well worth the 30-mile trip.

Thursday evening, we began participating in the Bloomington Gold activities. We attended the Welcome Reception on the campus of Illinois State University with hors d'oeuvres and drinks. It was held among the 2023 Gold



Diane Preston, Mary Rae Brockhouse, and Gerri Hollada at the Gala.



Lucy Badenhoop photographing the FIRST 1963 Z06, which was on display Collection featuring a fantastic assemblage of Z06 Corvettes, including the first one. The new 2023 Z06 was also on display with Corvette Chief Engineer Josh Holder near it answering questions.



Friday and Saturday parking set aside during the main events for our Solid Axle Corvettes was as good as it could get. We were parked inside the Bloomington Gold perimeter fence near the main gate where all Corvette parking attendees entered. We were close to all activity areas, on grass with shade trees and with security at all times.

There were Gold School Seminars repeated both days. John Kraman of Mecum Auctions told about what goes on within the auction and what it takes to make their auction happen. He also talked about the current market for collector cars. In another, a panel of experts discussed and answered questions about the purpose of NCRS and Bloomington Judging. Bob Jones, Caretaker of the Z06 Registry and Marty Fowler, Bloomington Gold Judge presented info about the history of the Z06 and the current Gold Collection.

CONVENTION--Continued from page 5



Chief Corvette Engineer, Josh Holder talking about the new Z06

Chief Corvette Engineer, Josh Holder, held two separate tech sessions both Friday and Saturday to introduce and answer questions about both the new Z06 and E-Ray separately. Unfortunately, the E-Ray itself was a no show due to technical difficulties.



Jocelyn Larsen presenting Bill Huffman with a door prize at the Gold Member dinner.

Friday evening, we joined all Gold Members for a buffet dinner at Medici's, a local downtown Italian restaurant. The food was excellent and the lively conversation indicated everyone had a good time. There were great door prizes furnished by Bloomington Gold sponsors. SACC members won most of them.

Saturday was a repeat of Friday's tech sessions, swap meet, judging in the Arena, and automotive vendors in the Horton Field House. Some of our members assisted Jack Hollada in staffing our SACC membership booth in the vendor area both days. We thank Michelle Palliou for allowing her 1958 to be recruited at the last minute to display in our booth, when Don Brittin's 1960 broke down on the way the Convention from Oklahoma.



Bloomington Gold visitors talk to VP Don Brittin (right) about SACC and Michelle Paillou's 1958 which was on display.



Kathy and Greg Rohde with their Silver 1962 during judging.

The ultimate moment of Bloomington Gold was the presentation of the awards to each of the owners whose cars had been on display for us all weekend. Our SACC members Kathy and Greg Rohde from Green Bay, Wisconsin earned a Gold Award for their beautiful Silver Fuel-Injected 1962. The Bloomington Gold judging is famous for its fairness and the way the judges compare each car to the benchmark. Among the cars were several that received Benchmark Awards for being survivors and their originality. See page 7 for photos of the other Solid Axle Corvettes being judged.

The final event was truly what Corvettes were meant for... a road cruise!!! Vettes of every generation lined up late Saturday afternoon for a 35-mile cruise around Lake Bloomington. We returned along old Route 66 to Uptown Normal for a rousing block party hosted by the Town of Normal.

The 2024 SACC Convention will be held in the Eastern Region and is scheduled be in conjunction with Corvettes at Carlisle. Details will be announced soon.





Robert Burnett's 1956 Cascade Green/Beige VIN #3943 from Ohio



Scott & Gary Fuller's Harvest Gold/Yellow 1955 VIN #1637



Gary Myer's 1965 with 1958 front clip Charcoal/Taupe Modified won Silver



John Bennett's Honduras Maroon/Black 1962 VIN #2412



Don & Linda France's Harvest Gold/Yellow 1955 from Michigan VIN #1454



Chuck Lewis' Sebring Orange/Black Modified 1962 with LS from Ohio won Silver



Lawrence Sachs' Black/Red 1957 VIN #4060 from New York
BLOOMINGTON-Continued on page 8



Gary Schmitz's 1961 Sateen Silver/Black VIN #3892 Survivor



David & Kendra Strawser's Polo White/Red 1953 VIN #1071 from Ashville, OH



Dale Anderson's 1957 Cascade Green/Beige VIN #6159



Kathy & Greg Rhode's Silver Fuel-Injected 1962 won Gold.



FOR SALE LOT-White 1955 VIN #364, 327, TH 350, front disc and power brakes, Plasticon hard top & more \$89,500 Jim Bakersfield, 661-204-1763 in California.



PARKING LOT-Black/Black modified 1952 from Illinois.



PARKING LOT-Maroon/Black 1962 from Illinois



IN THE C-1 PARKING: Yellow/White 1958 from Illinois



IN THE C-1 PARKING: Russ & Karen Borchardt's Red 1960 from, Neenah, WI



IN THE C-1 PARKING: Red Customized 1955



IN THE C-1 PARKING: Bill & Stephanie Huffman's Red 1960 from Jackson, MI



IN THE C-1 PARKING: Rex Barnes' 1961 Blue/White 1961 from Williamsburg, OH



IN THE C-1 PARKING: Michelle Paillou's Red/White 1958 from St. Louis, MO



Aug. 10-12, 2023

> Vernon, TX



www.summerslastblast.com

NOSTALGIC CRUISE WEEKEND

Main Street Car Show, Main St. & Olive-7:30 pm Chamber of Commerce Power Wheels Race Waggoner Bank Parking Lot-7:30 pm FRIDAY

Waggoner National Bank Antique Car Exhibit 1818 Texas St.-9:00 am - 2:00 pm

Sumner Colley Lumber Co. Redneck Car Show 1830 Maiden St.-9:00 am - 2:00 pm

Vernon Auto Group Car Show

Ford House-Hwy 287-2:00 pm - 6:00 pm

Swap Meet-North End of Orbison Park **Concert-**Wilbarger Auditorium-7:00 pm **Burn-Out Contest-**Laurie Street-8:30 pm

SATURDAY

Crime Stoppers Golf Tournament

Hillcrest Country Club-8:00 am

Summers Last Quack Duck Race

Orbison Park Aquatic Center-10:30 am

SLB "Show-N-Shine" Car Show

Orbison Park-9:00 am - 2:00 pm

Antique Tractor Exhibit & Engine Show

Orbison Park-9:00 am - 2:00 pm

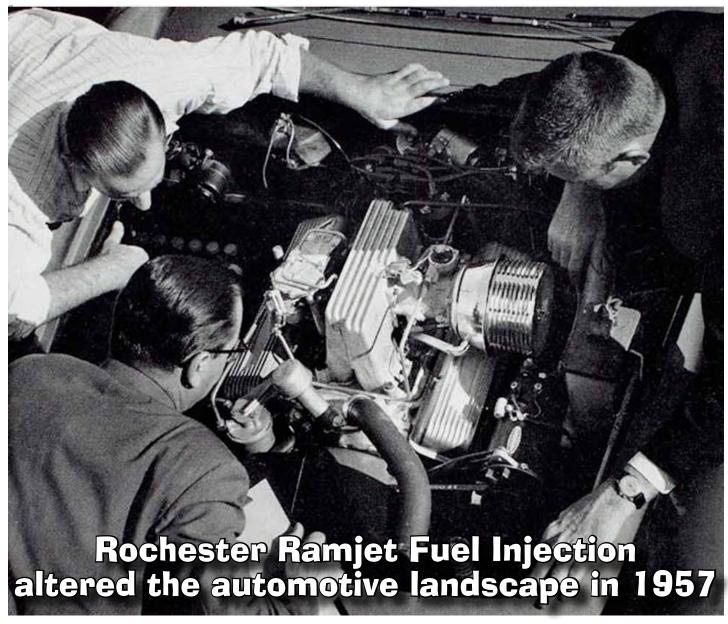
33rd Annual SLB Nostalgic Cruise Night

Wilbarger Street-7:00 pm - 9:30 pm

Registration for the Nostalgic Cruise Night:

Orbison Park: 8:00 am - 5:00 pm

Courthouse (South Side): 6:00 pm - 9:30 pm



by Paul Stenquist

In the mid-20th century, fuel injection was still largely the stuff of fantasies. Then General Motors shocked the automobile world and put injected Chevys and Pontiacs on the showroom floor. Car-loving performance enthusiasts drooled, and the Beach Boys sang about a "fuel-injected engine sittin' under my hood." It was automotive culture shock. We were accustomed to seeing that technology on race cars, but fuel-injected cars that you and I could drive? That was other-worldly.

Although the Rochester Ramjet fuel-injection system that premiered in 1957 on Corvettes, full-size Chevrolets, and Pontiacs moved musicians to song, it wasn't long before it had mechanics tearing their hair out, and, on occasion, replacing the pricey injection system with a carburetor or three. Although Rochester FI is relatively simple in concept and includes only three main components—an air meter, a fuel meter, and a manifold—it is a unique design rife with hidden complexities, multiple versions, a

long parts list, and an abundance of pitfalls for even skilled mechanics.

Today, fuel-injected GM cars of this era are rare and expensive collectibles. A quality restoration of any of these mid-century classics must include the rebuilding and tuning of the fuel-injection system. While a knowledgeable DIY mechanic might attempt the job, most will want to farm it out to a skilled tech in order to get the fuel-injection system functioning as it should. No matter who does the job, it's best that the car's owner understands how the system works.

Fuel-injection—pressurized fuel delivered via nozzles and a pump—made its debut on 19th-century diesel engines. During World War II, injection systems fueled aircraft engines. Postwar, Mercedes-Benz had implemented a timed injection system on its 1953 300SL, which borrowed largely from diesel systems. But the technology was still foreign to most American buyers when GM introduced it.

ROCHESTER-Continued from page 10

Fuel Injection! An overcaffeinated copywriter had Chevy detonating the fuel injection announcement news, but the Rochester Ramjet system was truly groundbreaking. Originally offered in both modestly powerful and what was considered ultra-high performance engine packages on all Chevy models, Chevrolet tried to push both the system's performance potential and its efficiency. The modestly powered version never took off and the expensive option eventually became exclusive to Corvette.

By 1961 Chevrolet copywriters at the Campbell Ewald agency still relied on the simple phrase "fuel injection!" to grab the attention of potential Corvette buyers. Claiming an "astonishing combination of flexibility, reliability, and sheer storm," they continued to take liberties with the language in their attempt to communicate the power and uniqueness of it all.

Chevy explodes the biggest auto news of 1957-

FUEL INJECTION!



Ramjet fuel injection, optional at extra cost on any Chevrolet model, offers constant-flow port injection, choice of 250 or 283 h.p. And that's the beginning of a whole new era of efficiency! For Chevrolet fuel injection puts on the road—today—the precision gasmetering, the instantaneous acceleration that used to be reserved for super-priced custom sports cars. You'll want to take a good long look at this brilliant piece of engineering. But, better still, you'll want to get behind the wheel of a Chevrolet V8 with Ramjet fuel injection—believe us, that's an experience! . . . Chevrolet Division of General Motors, Detroit 2, Mich.





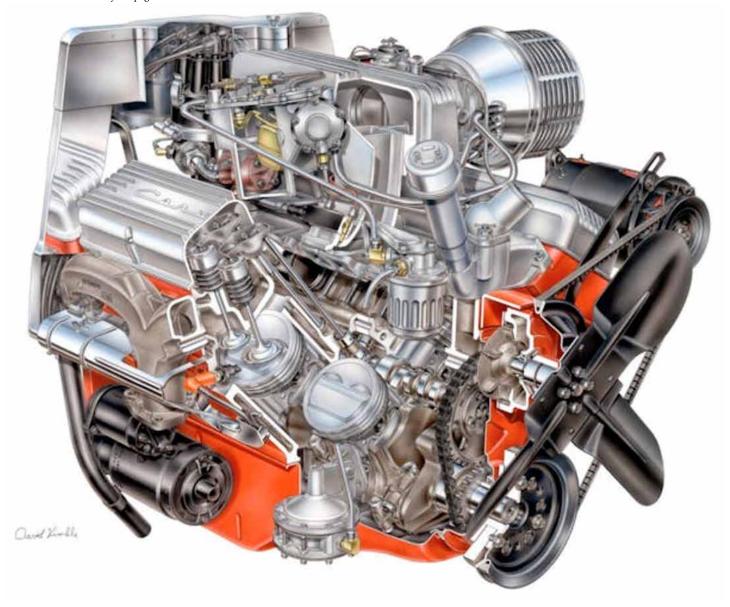
fuel injection!

Every Corvette fitted with a Fuel Injection engine* has a small emblem on either side that says so. Actually we needn't waste the time or effort; when an F.I. Corvette goes by, you know it! Sometime, if you should overhear a couple of aficionados arguing about the comparative performance of their own cars, sidle up and tell 'em you drive a Corvette with Fuel Injection. . . . End of argument. When you own one of these machines you don't have to

talk about performance, it's practically your own private word. The astonishing combination of flexibility, and sheer storm that we call Corvette Fuel Injection is unsurpassed here or abroad; its powerful yowl will still be thrilling keen people when many a lesser sports car

Corvette by Chevrolet

is being restored and exhibited like a fragile antique.



At its heart, the Rochester system is constant-flow fuel injection, not unlike the fuel-injection systems manufactured by Hilborn and others that drag racers have used for more than 70 years. Like those systems, it constantly delivers fuel under pressure to nozzles in the intake runners.

The Hilborn system uses a return line in the fuel system to send some fuel back to the tank and thereby regulate mixture. An orifice or "jet" in the return line determines how much fuel will be returned, allowing only a specific amount to be delivered to the nozzles. Because dragsters operate almost exclusively at wide open throttle, mixture can be regulated by that single jet. A simple valve attached to the throttle linkage controls fuel delivery at idle. But these "on or off" fuel delivery systems are undrivable on the street.

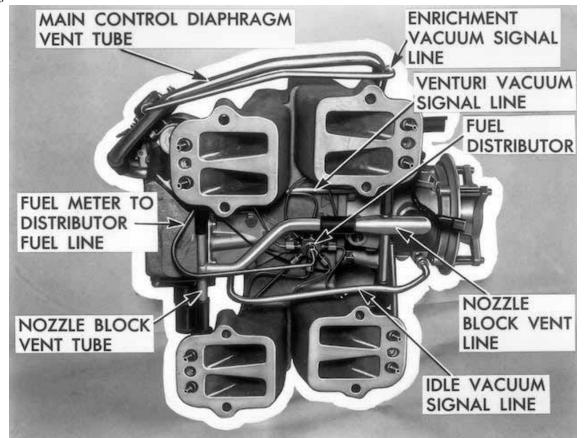
The Rochester system also utilizes a return line to regulate mixture, but rather than controlling return-line flow with a single orifice, the Rochester uses a moving valve or "spill plunger" that opens and closes a spill port to the return line in proportion to the needs of the engine at various

throttle openings and load conditions.

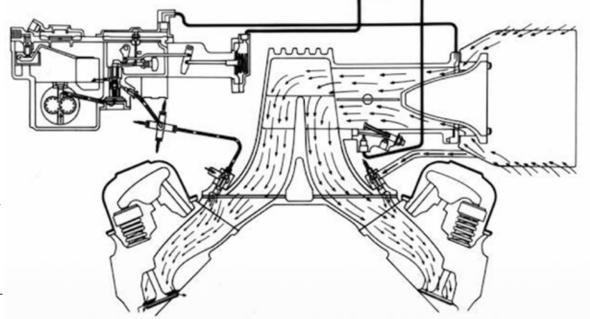
This cutaway illustration of the fuel-injected 1957 Corvette engine was created by David Kimble for GM. The distributor-driven fuel pump and fuel reservoir are clearly visible at top, as is the throttle airflow meter's throttle plate. A brass-colored injector can also be seen in a cylinder's intake port on the engine's right bank.

A conventional mechanical fuel pump delivers fuel to a reservoir at the base of the fuel meter. A float system, like that of a carburetor, regulates fuel level in the reservoir. A gear pump in the reservoir is driven at half engine speed by the ignition distributor and delivers pressurized fuel to the fuel meter.

The system determines engine fuel requirements by measuring vacuum at two locations—in the intake manifold and at a venturi in the air intake. The vacuum levels sensed at the intake venturi and manifold determine how much fuel should be delivered to the spider fuel distributor, directed to eight fuel lines, and injected into the intake ports by eight nozzles, one above each intake port.



An underside view of a 1958 injection system reveals the "spider" fuel distributor at center, plus the eight nozzles, vent tubes, and vacuum lines. A short, flat manifold, not seen here, is located between the injection unit and the cylinder heads.

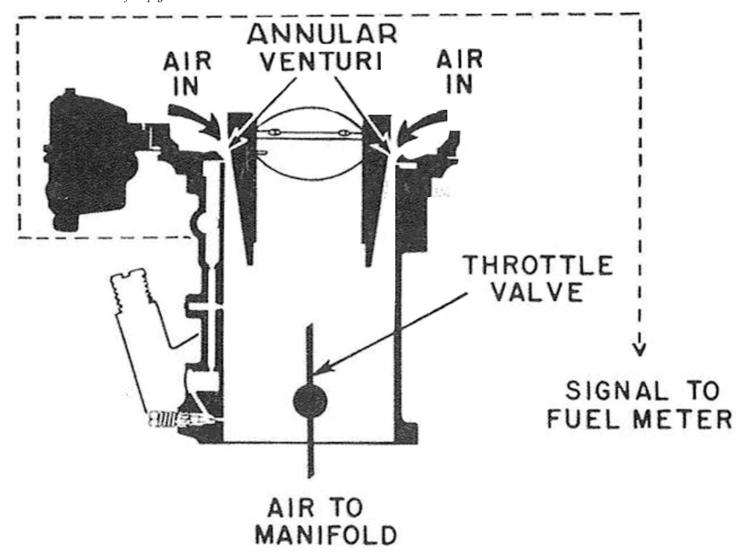


This illustration of the 1957 fuel-injection system shows the air flow through the venturis past the throttle plate and down through the manifold to the intake valves. Vacuum lines connect the airflow sensor in the venturi and a mani-

fold vacuum port just past the throttle plate centerline to diaphragms in the fuel meter at left. Injectors in the intake ports add fuel to the air stream just before it enters the cylinder heads.

Vacuum at each location is measured by a diaphragm. A relatively small enrichment diaphragm measures the strong manifold vacuum signal, and a large diaphragm measures the weaker venturi signal. The venturi vacuum signal is a

direct measure of air flowing into the engine at any throttle position above idle. The venturi vacuum diaphragm is linked to a fuel control lever. That lever is in contact with the spill plunger and moves it up and down, opening and closing the return line spill port and regulating the amount of fuel delivered to the nozzles. How much force the fuel control lever can exert on the spill plunger at any given time is determined by manifold vacuum.



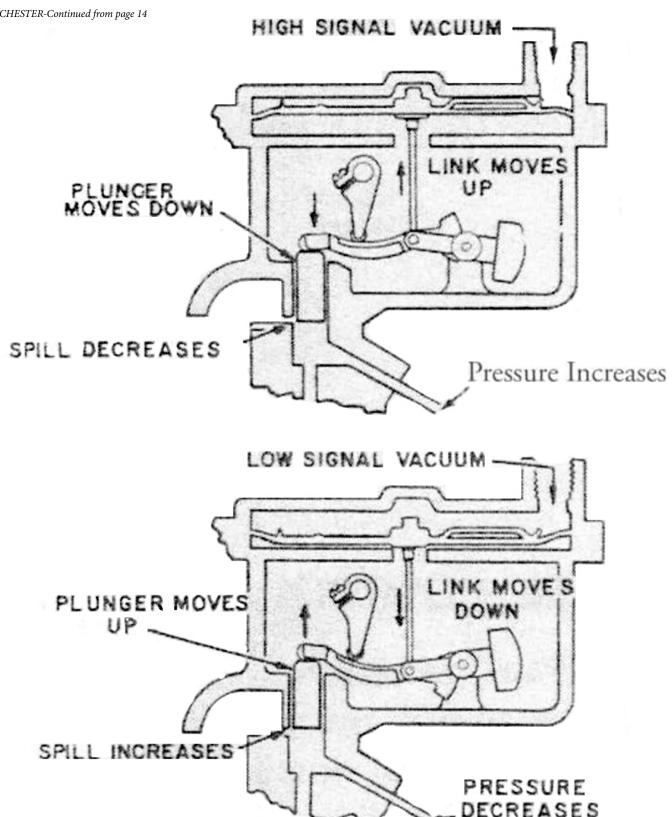
This illustration depicts the airflow meter of a 1962 Corvette system. It is similar in concept to other Rochester systems. Air flow is regulated by the throttle valve, which is linked to the accelerator pedal. When the throttle valve is opened, air flowing through the venturi generates a vacuum signal that acts on the large diaphragm in the fuel meter. Unlike earlier Rochester Corvette systems, a conventional choke mechanism is positioned at the airflow meter's opening.

Manifold vacuum, which varies in respect to throttle opening and load, acts on the smaller enrichment diaphragm, which actuates an enrichment control lever. (The enrichment control lever is called the ratio lever in early GM documents.) When the enrichment control lever changes position, it alters the pivot point of the fuel control lever, thereby varying the amount of force that is applied

to the spill plunger. That, in turn, determines how far the plunger moves and how much of the return line spill port is exposed.

The enrichment control lever is where adjustments are made to fine-tune the air-fuel ratio. Rich and lean stops limit the movement of the lever. The lean stop determines fuel mixture at cruising speed with moderate throttle opening and high manifold vacuum. The rich stop comes into play at wide open throttle, when manifold vacuum is reduced. Both stops must be set accurately to achieve good performance.

The above covers only the basics. Supporting systems, like cold-start and cranking detection are important as well, and their function varies by model year and even system part number. Anyone attempting a restoration must come to battle heavily armed with knowledge and documents.



These illustrations depict a typical fuel meter's mixture control system. With the throttle closed and a minimal venturi vacuum signal from the air meter, the diaphragm drops, the fuel control lever is lifted off the plunger, and the spill port is opened, decreasing fuel flow to the nozzles. When the throttle is open and increased airflow at the inlet gener-

ates a stronger vacuum signal, the diaphragm is lifted and the spill port is closed, increasing fuel flow to the nozzles.

Jack Podel, of South Bend, Indiana, is among the few highly skilled techs who still specialize in Rochester FI. Podel notes that he doesn't rebuild fuel-injection systems; he restores them to like-new condition. He says that many skilled DIY mechanics try to repair the system, but a lot of them end up shipping their failed attempts to him. Part of the problem, he says, is that most systems have been repaired in the past, often incorrectly or with the wrong parts. So, when you disassemble the unit, you can't be sure that what you see is what GM intended. While the system was produced for only nine model years, from 1957 to 1965, 20 different part numbers were assigned. Podel says that among them, he counts 16 significantly different systems. And though all systems are conceptually straightforward, each includes hundreds of small parts, all of which are subject to deterioration over time, and many of which are specific to one model year.

John DeGregory, a Pennsylvania-based tech who is also a highly respected restorer of Rochester FI systems, offers a bit more encouragement to DIY fuel injection techs, but he says anyone attempting the job must be educated or they'll do some damage. Both Podel and

DeGregory will assist those who have problems over the phone, and each offers a wide range of replacement parts.

A GM service manual for your system is essential if you choose to rebuild a Rochester Fuel Injection unit. This edition covers the models listed on the cover. But even among the covered systems, there are variations.

If you're going to try to do it yourself, you'll need a factory manual and some secondary references. Because the systems have so many differences, your primary source should be the appropriate GM manual. Reproductions of most can be purchased inexpensively online. But the factory manuals are best supplemented with the advice of experienced techs. A good secondary source, like Jerry Bramlett's Ramjets that Run! can be very helpful as well. Bramlett was a leading Rochester FI tech for many years but is now retired.

ROCHESTER FUEL INJECTION

1957-1962 CORVETTE AND 1957-1959 CHEVROLET

ROCHESTER PRODUCTS DIVISION - GENERAL MOTORS CORP.

ROCHESTER, NEW YORK

Parts are available from a few providers who still doggedly deal in the restoration of these systems. Among them are Podel, DeGregory, and Jim Neuffer. All are listed below. It's recommended that parts be purchased from an expert source—that's the best way to be reasonably sure you're getting the right part.

Rochester Ramjet fuel injection was a milestone achievement for the U.S. auto industry, and the injected GM cars that have survived are esteemed classics. Restoring one of these automobiles correctly is both an obligation and an honor.

Rochester Ramjet Parts and Service

John Podel: (574) 232-6430 John DeGregory: (724) 832-3786

Jim Neuffer (Parts Only): (585) 637-9562, 11 am-11 pm ET



These and other questions and answers available at: solidaxle.org under Technical Help.

To submit a technical question regarding a 1953 to 1962 Corvette, simply e-mail sacctech@solidaxle.org. In the subject box you need to put "sacctech/ (your SACC membership number)". Example: sacctech/1234

Question: My 1961 is being repainted following an accident and the painter wants to know if the inside of the trunk was originally black, or speckled. Could you please advise if it was speckled, was it light, medium or dark grey and if possible what the paint code was.

Answer from Chip Werstein, SoCal Chapter Advisor: All 1961 Corvette trunks (and the trunk lid bottom as well as the convertible top well and deck lid bottom) were painted body color. Note that the paint in these areas was not as glossy as the body because the factory prep was not very good, nor were these areas polished out.

Question: Can the radiator in a 1962 Corvette be removed without removing the fan shroud?

Answer from Chip Werstein, SoCal Chapter Advisor: In my experience, the radiator can not be removed without removing the fan shroud because it is almost impossible to access the lower hose for removal (and reinstallation) from the radiator. In addition, the outlet at the bottom of the radiator will not clear the right lower portion of the shroud unless you modify/cut it. I always take the hood off too, just to make access easier.

Question: I believe the 62 Vette that I own, to be a numbers matching car. It still has the serial number plate riveted to the column, it matches the block number along with the transmission number etc, etc. My problem is I just can't find out much about the car. I purchased it about 21 years ago while in California from a very well known Vette dealer (they are still in business) with the original black plates on it. I had it shipped back east and at the time was to ignorant to ask for any documentation, I just wanted to get it back and drive it. I would like to learn more about

it but don't really know where to start to do my home work. The serial number is 20867S101111. Any suggestions on how to go about finding more about the car?

Answer from Chip Werstein, SoCal Chapter Advisor: Since I live in California, I will try to answer your question. California DMV keeps records on cars for only about 3 years after they are no longer currently registered in California. So unless your car is still registered in California on the black plates, DMV will be no help. Even if it was, the records would probably show only your name going back a few years.

I would suggest contacting the dealer. They may be able to help. Also, I would place ads in the NCRS Driveline, On Solid Ground and the S. California SACC newsletter The Solid Scoop under info wanted with a good description of the car and details of the purchase. It has only been 21 years... someone is likely to remember your car.

Question: I have a 1960, 270 HP Corvette and would like to know which configuration my aluminium tank top radiator would have come in to confirm my car is correct. My VIN is 00867S101617 and the engine number is dated F1208CU, which is December. So I am assuming my car is an early car produced in around January 1960. Hoping you can confirm this as well.

I am wondering if my car would have had the ribbed tank top with the sight hole, or if it would have had the flat tank top with no sight hole. I would like to get confirmation, so I can ensure this is correct The car has been subject to a body off restoration and is in extremely nice condition. It may be that both types may have been in use at this time, but that is not clearly documented anywhere I have tried to find this information. I'm in Australia.

Answer from Bill Huffman, Michigan Chapter Pres.:

Your engine number indicated a 270 HP Corvette engine assembled in Flint on 8 Dec 1959. It must have been built early and shipped fast because VIN # 00867S101617 is a car built in St Louis early in the second week of December. First Dec build was #1454 and last was #2059.

I can't answer your question regarding the tank top. Both my '60s are early and both have copper/brass radiators. Since there are not many old Corvettes in Australia, unless you imported it recently, I would assume that, if it fits and appears original, it probably is. The November/December/January time period had several changes going on. Transition from all copper to copper or aluminum, based on application. Transition of VIN plate from driver door jam to steering column. Transition from engine number like yours to one incorporating the last digits of VIN #. As a consequence, stuff happened.

Question: Is the tach cable for a 1961 black or grey? All the reproduction suppliers list it as being grey. All the pictures I've seen of original engine compartments the cable sure looks like it's black.

My rear axle housing appears to be original (has mounts for strut rods, etc.). The casting numbers are L 561, 3725899, GM with a T over a 2. The casting number seems to be correct, it is non-posi. The date appears to be December 5th, 1961. My car is a late 61, 110063. The stamped code looks like BB1221. The first B is very faint, but the second B is very legible. The 1221 I believe is December 21st. But the BB doesn't seem close to any axle codes for 61s or 62s. Any help would be appreciated.

Answer from Chip Werstein, SoCal Chapter Advisor: According to the NCRS 1961-62 judging manual, all 61 tach cables for non FI motors were black vinyl covered and driven off the generator. FI tach cables were steel cased and driven off the distributor.

The rear end you have is not original to your car. Based on your info, it came from a 1961 passenger car. BB indicates V8, 3 speed or 6 cyl, powerglide 3.36 ratio, non-posi.

Regarding the dates on the rear end, your 61 was built on June 28, so the casting date should be May or early June 1961 with an assembly date in the first half of June. Of course there are exceptions to this, but if you look for a correctly dated rear end, this is a good guideline to follow.

Question: Looking for info on what was the power train that came with my '60, Serial #100. I know it was a 283, but at what level? The first owner bought the Vette 24 Dec. 1959.

Also would like to find out how many owned my Vette before me.

Answer from Bill Huffman, Michigan Chapter Pres.: VIN #00867S100100 tells us nothing except that it is the 100th 1960 Corvette built in St Louis. Any additional information has to be determined from studying the car itself. You have to look for clues as to which RPO's were installed in the car originally. Things like which tachometer, windshield wiper reservoir location, mounting holes under the hood with nothing attached, generator, starter and distributor part numbers.

Your car is early enough that it should have a copper/brass radiator regardless of engine option, but it may have a 4-blade fan or a 5-blade clutched fan. They are all important clues as to the original engine, if it was replaced. If it is original, the engine # will tell you what it is.

Regarding previous owners, check with your state DMV. In Michigan, they will check the records for \$15-\$20 a name.

Question: I have a 59 all-original Vette, but I am not sure where to look for the engine number, I have manifold numbers but I do not think they have a value.

Answer from Bill Huffman, Michigan Chapter Pres.: The engine number should be F (Flint), month and day of assembly (ex. 1023 for Oct 23) plus two letter suffix (CQ,CR,CS,CT,CU, DG) depending on horse power and transmission option.

Corvette engines were not stamped with the VIN number until mid-1960 model year. This number can be found on the stamp pad at the front of the engine just forward of the passenger side head. It may be hidden under the fuel pump to carburetor fuel line.

The intake part number and date code are important if your car is really "original". The part number should match the HP application noted in the engine code and the casting date code (A thru L for Jan-Dec and numerical date, 1-31) must pre-date the car manufacturing date.

Question: I have a 1960 with dual quads, 245 Hp engine. I bought it about 7 years ago and I do not know the history of the car. Ever since I purchased the car it would overheat when I drove it with external temps much above 85 degrees. Below that external temperature the engine temp would run above 180 degrees, probably 195 or so. On warm days I can let it idle in the driveway and the engine temp will continue to climb. I checked all of the usual things, fluid levels, coolant mix, I flushed the system, did a pressure check, changed the thermostat and nothing seems to help. I checked the sender and temp gauge with my IR temp meter and they appear to be accurate. Also, you can watch the temperature gauge and it will climb to 180 degrees (the temp of the thermostat) and it will hold there for a while and then it will begin to slowly climb. I know that it is either an air flow or a water flow problem.

The water pump had a slight leak, so I decided to change that. I am in the process of buying a matching numbers water pump but there is an issue there. The pump that I took off was not a matching numbers pump. It was an aftermarket pump and it had been rebuilt. On that pump, the distance from the pulley hub flange to the mounting surface of the pump was 5 5/8 inches. The matching numbers pump that I received had a dimension of 5 ¾ inches, so the pulleys did not line up. From what I can find, this dimension should be 5 5/8 like the one that I took off. Is this correct?

I am also addressing the air flow issue as well. I read in the Corvette forums that overheating is a common problem. Some people have improved it by eliminating the gaps between the radiator and fan shroud. I have sealed that up by flattening a length of 5/8 inch heater hose and pushing it in the gap between the shroud and the radiator (this actually looks like it belongs there) and I have blocked off the square hole on the lower right fan shroud. Now more of the air that the fan draws should flow through the radiator. I am still waiting for the water pump before I can tell if I have improved the situation.

I am thinking of the next step, if this does not solve the problem. This engine has the 4-blade fan directly mounted to the water pump pulley. I noticed that there are two versions of the 4-blade fan, one up to '57 and one after '57. How can I tell which one I have. and what is the difference between these two? Would this be part of the problem, if I had the wrong one? Should I consider switching to the 5-

blade fan with the fan clutch?

My car has the "conventional" copper brass radiator. I am finding conflicting information with regards to what radiator cap should be used, a 7 lb. or 13 lb. The car came with a 7 lb. cap, changing to the 13 lb. cap did not change the overheating problem.

Answer from Bill Huffman, Michigan Chapter Pres.: It's good that you mentioned the radiator cap change, because that would have been my first question back to you.

1960 Vettes came with both copper and aluminum radiators. Early ones appear to be all copper, while later ones had copper for 230 HP base engine and aluminum w/ overflow tank for 245, 270 & 290 HP engines.

Copper radiator should have the 7 psi cap and all engines had a 170 degree thermostat. The 13 psi cap would cause the engine to run a little warmer due to the pressure differential. The 230 HP base engine had a 4-blade fan that was riveted. The 245, 270 & 290 HP engines had 5-blade clutched fans.

Regarding the correct length for the water pump shaft, I would address that question to either John Pirkle at Masters City Corvette Parts in Augusta, GA or Ron Burke at ChevyCool in Scottsdale, AZ. That's what they do for a living and they both do it well.

Regarding the 5/8" hose between radiator and shroud, a properly installed shroud shouldn't have that much clearance. However, in early Dec 1959, at approx. VIN #1600, they added weather strip to the front underside of the hood to seal off airflow between the hood and the radiator. Adding that, and all the other radiator seals that are supposed to be there, would certainly help.

Question: I have a 62 Corvette with a rear light problem. Changing the signal light position turns on and off the brake lights, when I hold the brake down. I can find a position about midway between up and down on the turn signal, when the brake lights work and another position slightly up or down, where just the driver's side works. When either signal side is active, the brake on that side is off (not sure if that is the way it was designed to work). I have done the following without success: replaced the rear wiring harness, replaced the turn signal harness (twice), ran separate ground wire for the rear harness, and ran a separated fuel tank ground wire. I only succeeded in stopping my fuel gage movement when the lights were activated.

Answer from Doug Prince, SoCal Chapter Advisor:

This is a frequent problem with C1 Corvettes, although most of my experience has been with 58-62s. The first area of concern is usually the turn signal harness. All electrical to the rear of the car runs through this switch with the exception of the gas tank sender. You have an all-too-typical grounding problem, since you have already replaced the turn signal switch and the rear harness. Your problem probably lies with the rear tail light socket to housing ground as this connection becomes corroded overtime. I drill a very

small hole between the tail light housing, where it meets the tail light socket, and screw in a small sheet metal screw between the two. This will create a proper ground for the tail light housing and the tail light socket. Since we are dealing with a fiberglass car, grounds are very important for proper electrical function. Good luck with this problem but this should solve it for you.

Answer from Chip Werstein, SoCal Chapter Advisor: Although grounding could be a problem, my guess is that your canceling cam assembly is worn out (you did not indicate that you replaced it) and/or your turn signal cup is

Question: I think I need to rebuild my steering box. My first concern is, what are the steps I need to take to remove the steering box?

Answer from Doug Prince, SoCal Chapter Advisor:

All C1 owners should a have copy of the Corvette Servicing Guide ST-12 on hand at all times. Chapter 9 gives a very complete detail of servicing the C1 steering box and how to remove and install the unit. Good luck with this project as all the rebuild components are available from the Corvette reproduction parts suppliers.

Question: If the assembly plate is missing to install restored original horns, does it require removing the hood and radiator to access this area to rivet on the assembly plate to the inner skirt fiberglass underbody? And if I do not want to work with my head upside down, I would also need to remove the motor?

Answer from Doug Prince, SoCal Chapter Advisor: While no job is impossible it is my opinion that life will be

While no job is impossible it is my opinion that life will be much better for you to remove the hood for easier access to your particular problem as space before the radiator is very limited.

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