

The Solid Scoop

**A Newsletter for the Southern
Calif. Chapter of the Solid Axle
Corvette Club**



March 2013

Vol. 9 Number 1

“Look Us Over at” www.socalsacc.com



Solid Axle Corvette Club (SACC)
A National Organization dedicated to
keeping these Corvettes
"on the road".

Club Features:

- Membership Chapter Clubs across the U.S.
- National Quarterly Magazine
- Annual National Convention
- Web Site: www.solidaxle.org
(non-profit affiliation)

**Also visit the
SACC National
Web Site
www.solidaxle.org**

The Solid Scoop is a quarterly Newsletter published for the Southern California Chapter of the Solid Axle Corvette Club (SoCalSACC). The SoCalSACC Chapter is affiliated with the National Solid Axle Corvette Club (SACC). The SACC organization is a non-profit group with the intended purpose of bringing together owners and those interested in the early C-1 Corvettes (1953-1962) to help in appreciating these vehicles and "keep them on the road".

C-1 Ownership is not a requirement for membership.

MEMBERSHIP: A prerequisite to become a SoCal SACC Chapter member, a person must belong to the National SACC. Applications for membership are available in this Newsletter or our Chapter Web Site, www.socalsacc.com. Submitting an application along with the appropriate listed dues, is necessary for membership. The SoCal SACC Chapter will forward your National dues to assure your National membership. Once becoming a National member you will receive *On Solid Ground*, the National quarterly published magazine. Again, **MEMBERSHIP APPLICATIONS AVAILABLE: WWW.SOCALSACC.COM**

The Solid Scoop, is intended as a communication for Chapter members about chapter activities, technical articles, classified ads and past events to maintain in keeping our membership informed. The Editor and the Board of Directors of So Cal SACC have made every effort to ensure that the Solid Scoop contains no inaccuracies or errors, either in technical articles, tour information, listings regarding flyer and non-flyer events or in advertisements and is non-offensive and non-political and disclaim liability for any that may occur. Should you find any problem, please do not hesitate to contact the Editor. We will make every reasonable effort to rectify the situation.

Member submitted technical articles are encouraged. Many times these technical articles are based on personal experiences and preferences and as such are intended only as guidelines or helpful information for club members.

**Solid Axle Corvette Club
Southern California Chapter Board
2012 Club Officers**

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Body & Paint	Dan Dempsey	818-846-2948	glassman@glassmandan.com
Interior	John Engelhardt	714-267-9996	littlejohns@sbcglobal.net



The SoCal SACC Chapter Welcomes our Newest Members!

<u>Member #</u>	<u>Name</u>	<u>Location</u>	<u>C1 Year</u>
212	George Barnard		
213	Robert & Beverly Valeski	Huntington Beach	54

Calendar of Coming So Cal SACC Events:

2013 Planned Events (*indicates a Flyer has/will be issued)

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Coordinator</u>
April 27	*Spring Tech Session	Kent Browning Facility	Werstein
May 17 – 19	*Sonoma Historic Motorsports Festival	Sonoma	Roche
August	*Paradise Cove	Malibu	Costales
November 9	*Fall Tech Session	Toyota Museum	Werstein

Scoop Features:

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SCOOP COVER: 1961 Corvette owned and built by Doug Prince. Doug is our Chapter Consultant on C1 Fuel Injection Systems. Doug's "story" was recently profiled in the September 2012 SCOOP Edition. The Sept. 2012 SCOOP can be reviewed on our Chapter Web Site (www.socalsacc.com), click on Past Newsletters

BACK COVER CAR: Chip & Jenni Werstein's 1960 is featured on the Back Cover. Chip is the Chapter Technical Advisor and Jenni is Chapter Treasurer. Jenni's car is also featured in this issue of the SCOOP.

2013 General Membership Meeting!

Saturday, February 9th

The General Membership Meeting is held annually (mandated by the National SACC) to advertise the Chapter and elect a Chapter Board for the following year. The existing Chapter Board is listed on Page 2 and during the Meeting 3 Offices were up for election (3-year term), Secretary, Membership Chairman and Treasurer. All of these positions were filled by acclimation when the existing office holders volunteered to remain the position and no new nominations were heard from the membership.

This years General Meeting was held at the same location as the previous year, The 94th Aero Squadron in Van Nuys, adjacent to the Van Nuys Airport. This Restaurant location is picturesque, quaint and accommodating to our needs. A very good buffet Lunch is served.



Chapter President Phil Roche greeted 69 people attending. During past Meetings Phil has had difficulties in obtaining Speakers for the event and this year he over compensated by inviting 3 speakers (assuming someone would not show) and every speaker showed. Now he had to worry about the length of time for the meeting. Even a unintended speaker got up and presented and award to a Chapter Member. Alan Morris, who holds many positions with Car Organizations, NCRS, etc. presented an "Legend" award to Larry Pearson. Larry has extensive history in Corvettes, NCRS, and a General History of Automobiles.



Alan Morris presents "Legend" award to Larry Pearson.



Our first team of speakers was from the LAPD and brought to everyone's attention of the subject constantly on our minds, auto-theft. Officer Hamm and Getz have worked many of thefts and they indicated that "any device" which can slow down the theft is important and all silent alarms like Lo-jack become critical in locating a car. The quicker that a car is located the better the chances for retrieving your treasure.



Our next speakers was Steven (Steve) Earle, Chairman and founder of the Sonoma Historic Motorsports Festival. Steve was promoting his Racing Event and how he is promoting Auto Club Attendance.



Joining Steve at the podium was So Cal member Orwin Middleton who related to the audience about the thrill of driving cars at Sonoma.



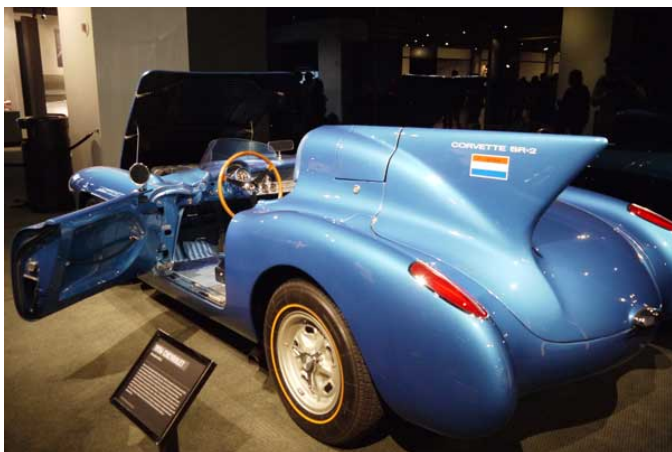
(left) Speaker Tim on left has son being lured away by a waiter with a ice cream sundae.

A young "driver" who works driving cars for the movie studios was the final speaker. Tim (last name not remembered by our President) and his wife Stephanie was joined by their young son Timmy. Tim was telling the audience about driving on various race tracks and for the movie studio. Phil Roche met Tim & Stephanie at the Guldstrand Shop. Tim's experiences were very interesting but the young son was a showman of the duo.



Corvette's 60th Anniversary at Petersen Museum

It was an anniversary weekend celebration at the Petersen Museum in Los Angeles. 3 Days of Events were featured from Friday, March 1st to March 3rd with cocktail parties, featured guests and celebrities, the new C7 Corvette, Tech Sessions and many of the past 60 years of the car represented. Pictures below received from our membership show many of the scenes.





Jenni's Car makes its Debut at the General Meeting.



A Little Background: Published initially in the SCOOP on March 2010 was the initial progress of what is known as Jenni's Vette. Jenni is the wife of Chip Werstein owner and builder of many Vette's when a '60 was located in the San Gabriel Valley in a very tired condition and a descent price. What happened next is not well advertised but the outcome was the Vette was acquired and became know as Jenni's Vette. I will not speculate but Chip restored the car to the "nine's" and currently is having the car NCRS judged. Chip and Jenni (riding) drove the car to the General Meeting and Chip is seen standing next to the car in the parking lot. The car also appears on the Back Cover of this months SCOOP.

Reportedly, it was heard at the day's event, "Jenni has driven it".



Sporting the cars original colors (color found scrawled on a panel at the factory) many of Chip's "friends" got time on the restoration over the last 3 years.

The following list are contributors during restoration:

- Paint by Dave Schwartz of Euro Body in Tarzana (he spoke at one of our tech sessions on body/paint).
- Interior by SoCalSACC member Little John Englehardt, Interior Concepts in Fountain Valley.
- Engine by Quarter Mile Performance, Brad Lagman, Chatsworth, CA.
- Transmission rebuilt by Steve LuVisi, Automotive Expertise in Huntington Beach.
- And lots of help from numerous friends and SACC members



NOTE: A previous Tech Session noted as "War Paint" can be visited on the SoCal Web Site www.socalsacc.com

Jenni's Car is a 245hp 4 speed. NCRS Top Flight Nov. 2012.....97.5



SO. CAL. SACC SPRING TECH SESSION

Saturday, April 27, 2013

Cerritos, Calif.

So. Cal. SACC member Kent Browning #118 will host our Tech Session at his NEW FACILITY in Cerritos, Calif.. See the map below. Only C-1 parking in the lot, please! The address is 16625 Norwalk Boulevard Cerritos, CA 90703

Kent has acquired a new building north of the previous location but on the same side of Norwalk Blvd. The Tech Session will be held in this new building.

Tire Kicking begins around 9:30 AM,

Sessions will begin around 11:00 AM, with a catered lunch at Noon, and more sessions after lunch.

This is NOT a business meeting but a forum to receive and share C1 information.

RSVP by Check (\$20 per person, payable to So Cal SACC) before April 23rd. After April 23rd the cost is \$25 per person.

Send to Jenni Werstein at 23317 Schoenborn St., West Hills, CA 91304

Questions: Call Chip at (818) 883-5766 or email chipsgarage@aol.com.

C-1 Tech Session Topics:

"Basic maintenance and care for the vintage Corvette"

Doug Prince.....Fuel, oil and other lube issues

Chip Werstein.....body lubrication points

Larry Pearson.....Wheel bearing, brake adjustment

Joe Fekete.....radio and electrical troubleshooting

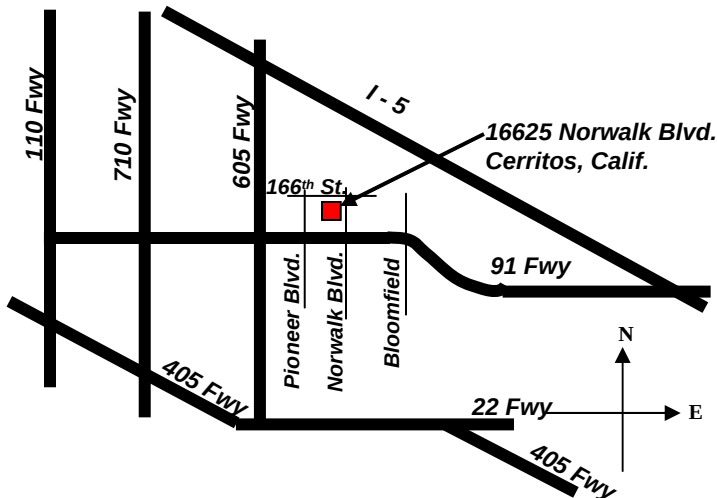
Evan Williams.....fire extinguishers

Greg Davidian.....classic car insurance

***Meal Cost, \$20 when
Paid In Advance.***

Cut-Off Date is April 23.

***After April 23rd, lunch cost is
\$25.***



From Downtown LA/Pasadena (south on 110)

• Exit on 91 Fwy and go east to Norwalk Blvd. Exit on Norwalk and go north to address.

From Riverside/Orange County (west on 91)

• Travel west on 91 to Norwalk Blvd. Exit on Norwalk and go north to address.

From Huntington Beach/San Diego (north 405)

• Travel north on 405 (east on 22 Fwy) and go north on 605 Fwy. Exit 605 east on 91 Fwy. Exit on Norwalk and go north to address.

From Ventura/SF Valley (I - 5)

• Exit on 110, or 710 or 605 and travel to 91 Fwy and exit east on 91 Fwy. Exit on Norwalk Blvd. and go north to address.

From 405 South.

• Take 110 Fwy north to 91 and exit east on 91. Cross the 710 and 605 and Exit on Norwalk Blvd. and go north to address.

Crankcase Ventilation ValveLarry Pearson

Editor Note: The following article was submitted by So Cal SACC member Larry Pearson. This same article will appear in a future National Newsletter "On Solid Ground" but I thought it would be interesting to all our members and some nonmembers who might receive this publication.

Larry's purpose to submit his article: "On page 27 of the Spring, 2013 On Solid Ground, a non Member named Alan asks about PCV Valves on Corvettes. In answer to his questions, I submit a copy of an article I wrote for the local NCRS Chapter almost 10 years ago".

The AC #1552729 Crankcase Ventilation Valve Assembly

by Larry Pearson

BACKGROUND HISTORY

Starting in 1961, RPO 242 became available on all Corvette engines as well as Chevrolet passenger car engines as a Special Crankcase Ventilation option. Some areas (not all) in the State of California mandated this equipment as the first step in controlling harmful emissions from these engines. However, as a note of historical interest, Chevrolet offered this feature on its base six-cylinder and V-8 engines as an option going back at least to 1955. Fleet operators learned that the road draft tube did not provide sufficient crankcase ventilation to remove unburned fuel and water vapor leaking past the piston rings and diluting the engine oil, especially on vehicles used continuously in slow speed and door to door delivery and similar type operations. The resulting presence of these harmful vapors would contaminate the oil and cause corrosion and sludge formation in the crankcase. To get the most life out of the engine oil, the Positive Crankcase Ventilation (PCV) system assured maximum removal of these contaminants. The PCV system routed these harmful vapors back into the engine at the base of the carburetor, where manifold vacuum would cause it to mix with the fuel/air mixture and be burned by the engine in the combustion process, thus preventing it from contaminating the air we breathe. Thus, the PCV system is both good for the engine and the environment.

THE AC # 1552729 PCV VALVE

This article deals only with one model of the many PCV valves that have been used by Chevrolet over the years, the GM Part Number 1552729 Valve. The purpose of this article is to acquaint you with the physical appearance and markings, as well as the mechanical construction of this very hard to find part. According to Noland Adams in his book *The Complete Corvette Restoration & Technical Guide - Vol. 1, 1953 through 1962*, pages 358-359, the 1552729 Valve was used with RPO 242 on the 1961 Corvettes starting with VIN # 8000 through 1962 Corvettes with VIN # 3600. However, this valve is also known to have had applications on other GM car lines.

Figure 1. PCV Valve AC1552729 "Part Number Marking".

The basic valve and its part number marking, AC 1552729, is shown in Figure 1. The valve is machined out of steel and has a gun blue finish. Careful examination of this valve before cleaning revealed that it probably had some kind of paper sticker that wrapped around the body of the valve just below the part number stamping. I have no idea what this sticker may have looked like. The arrow just above the "9" indicates the flow direction, from right to left.

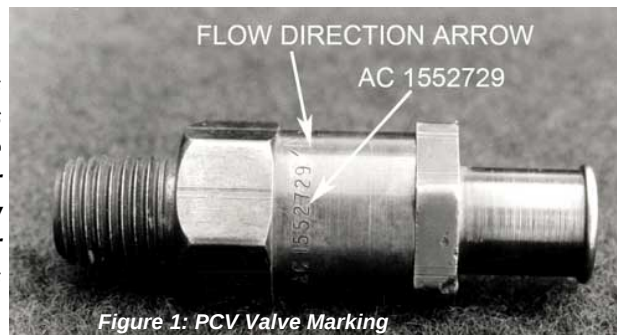


Figure 1: PCV Valve Marking

Figure 2:
Manifold
Marking

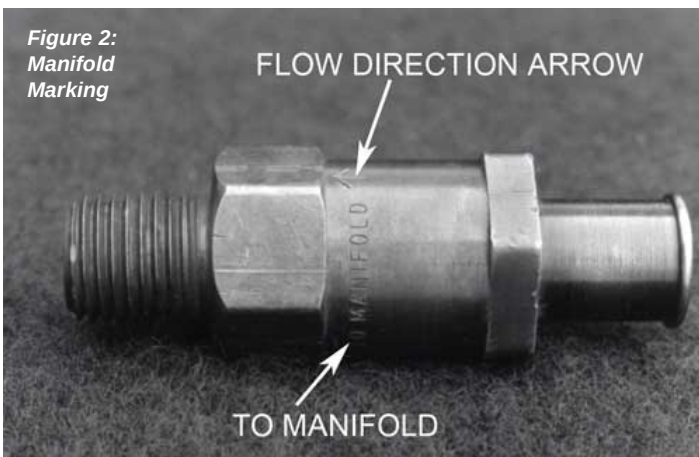


Figure 2. PCV Valve AC1552729 "To Manifold Marking".

Figure 2 shows the direction marking "TO MANIFOLD", along with a second flow direction arrow. What this means is that the threaded end screws into a fitting at the base of the carburetor just above the Intake Manifold, or on the Fuel Injector Manifold (Plenum), where it is subject to manifold vacuum. The nipple on the right end connects to a rubber hose, which connects at the other end to a special fitting at the rear of the engine that replaces the road draft tube.

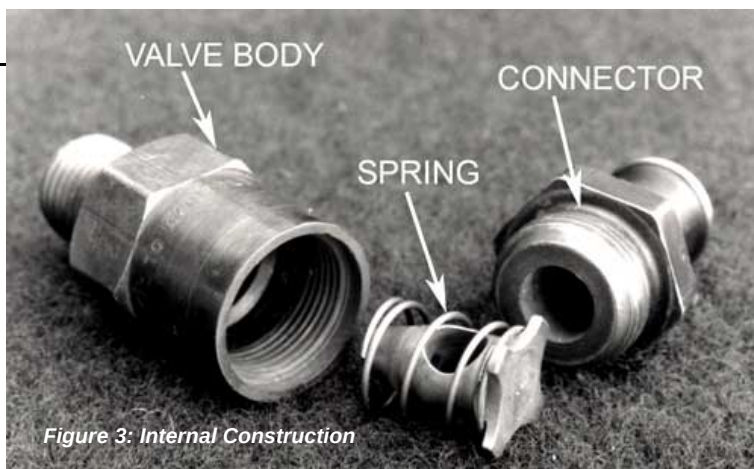


Figure 3: Internal Construction

Figure3. PCV Valve AC1552779 "Internal Construction".

Figure 3 shows the internal construction of the #1552729 PCV Valve. The "Spring" pushes the "Valve Assembly" against a seat machined on the rear of the "Connector". During normal operation of the PCV valve, manifold vacuum pulls the "Valve Assembly" slightly off its seat and meters the flow of crankcase fumes from the back of the engine into the intake manifold, where it mixes with the fuel/air mixture and gets burned in the engine combustion chambers. In the event of a backfire into the carburetor or Fuel Injector, the spring closes the valve assembly and prevents the backfire flash from getting into

the crankcase, where it could cause an explosion if there was an explosive mixture present in the crankcase. Note that all PCV valves are one-way valves, and therefore if you are picking a valve out of a pile of parts, it might not be designed for the direction of flow you need. If the valve is installed backwards, manifold vacuum will cause it to close up resulting in no crankcase fumes being pulled into the engine, but will allow a backfire flash to enter the crankcase, with possible disastrous results.

If you have any questions or desire copies, feel free to call me at (818) 848-2653, or (818) 994-4890 to leave a message. Larry Pearson, lpears1941@att.net, (mornings after 8am) I love to talk.

SoCalSACC Member Profile

Bob Crane, #151

I was born and raised in Baltimore, Maryland. As a high school senior in 1957, I liked the new Corvettes but they were way out of my league. Several friends and I went to Marlboro Raceway in Maryland, which closed in 1969, to watch the Corvettes race. One time they were beating all other cars until it rained. Then a MG won. I moved to Los Angeles in 1962 and bought my first Corvette new from Harry Mann Chevrolet in 1964. It was a 300 HP convertible with a 4-speed transmission and was my main driver for many years. I lived in Huntington Beach and worked part time at TRW Systems in Redondo Beach while going to school at UCLA. I put over 100 miles on the car every work day. At TRW, I worked on the Apollo program designing the lunar landing radar processing equations. I studied for a Ph.D. in Control System Engineering at UCLA. I graduated in 1970 and moved to Ellicott City, Maryland to work at the Johns Hopkins University Applied Physics Laboratory. The following picture is of me taking the Corvette to the train for it's trip to Maryland in 1970.



At the Applied Physics Lab, I developed a program to automatically reconstruct submarine exercises from sonar and navigation sensor data. As part of my job, I logged 18 hours in nuclear submarines making sure the exercise data was collected properly. I was on one submarine for eight days while it completed several exercises with another submarine.

While I was working with submarines, I met people from Interstate Electronics Corporation in Anaheim, California. Four years later, I went to work for Interstate and stayed for 20 years. There I developed Instrumentation Systems for the Navy and the Offshore Oil Drilling Industry. I also

designed algorithms and computer simulations for tracking and navigation systems. I eventually sold the Corvette after keeping it for 19 years. I had performed all the work on the car myself and it was never in the shop. Today, I wish I had kept it.

I left Interstate to work for an Audio Company where I developed a control network to operate hundreds of amplifiers and audio processors in large venues such as rock concerts and stadiums. Afterwards I took several years off to write my first novel. During the years 2000 to 2009, I worked as a consultant designing equations for GPS Navigation Systems. In 2005 I bought my second Corvette, pictured below. It is absolutely the best car I've ever owned. It has 400 HP and a 4-speed automatic transmission.



I retired in 2009 and bought my third Corvette shown in the picture. It has 270 HP and a 4-speed transmission. The 57 is a real kick to operate, it's like driving an amusement park ride. I often wish I could take it back to my high school in 1957 and show it to myself. I belong to three car clubs, SACC, NCRS, and VCCA and am a director on my Association's Board. I am just finishing my third novel. My second novel, entitled "The Reporter's Affairs," is self-published on Amazon.



Tidbits of Interest!.....Jim Lundal

Editor: Receiving "extraneous" information over the period between SCOOP issues sometimes doesn't need to be in a main story but will most likely be interesting to "someone". Besides these small issues become fillers for filling pages, if and when I need to fill space.

Larry Pearson comments on Radiator Coolant.

Noland writes of diluting Prestone antifreeze to 50% using distilled or deionized water. Distilled water is readily obtainable at every grocery store, and this is what should be used to dilute undiluted antifreeze. Tap water should not be used because it can contain harmful salts, especially when used with aluminum radiators. De-ionized water is only available commercially, and must NEVER be used as a coolant in any radiator, especially aluminum radiators. De-ionized water is used commercially to clean contaminants and surface corrosion from metal containers. When used in an aluminum radiator, it will dissolve it!!! It might help clean a badly clogged copper radiator in lieu of having it rodded out, but if left in too long, it might damage it too. De-ionized water definitely must not be used to dilute antifreeze coolant, no matter what the application. Larry Pearson, lpears1941@att.net, 818.848.2653 (mornings after 8am)

ANOTHER TOPIC

If you read the Restoration of the Engine in this issue, it was mentioned that Steve Clifford (So Cal member #58) used a tool he developed to install a Vibration Damper on the engine being restored. Author Chuck Gibney relayed: The service manual says to hammer the vibration damper onto the crankshaft. Pounding on the end of the crankshaft bothers me. If you tried to install the damper by using the regular crank bolt to pull it into place, it would probably strip out the threads in the crankshaft. Steve Clifford, having rebuilt many engines developed the following tool. one inch long 7/16 close thread (SAE) bolt that will thread into the crankshaft, cutting the head off it, and welding it to a thicker 3/4" bolt 4" long. The smaller bolt is screwed all the way into the crankshaft until the face of the 3/4" bolt hits the crankshaft. The vibration damper is set into place on the end of the crankshaft, a 1/4" thick washer, 1 1/2 to 2" wide is placed over it, and a large 3/4" nut is screwed onto the 3/4" Bolt. As the nut is tightened down, it pulls the vibration damper onto the crankshaft, without putting undo stress on the threads inside the crankshaft. Then the tool is removed, and the regular bolt and washer are installed into the crankshaft to permanently hold the damper in place.



7/16 close thread bolt
to thread into crank

3/4 " bolt 4" long, 1/4" thk.
Washer (1 1/2 " to 2 "
diameter.



C1 Restoration Part 4.....Chuck Gibney & others

Editor note: Two 1962 C1's in-process restorations began during 2011. Both C1's are being worked on somewhat concurrently. I (Editor) thought it would be of some interest to follow the restoration process over several issues in the SCOOP. These articles might also be some assistance to motivate others or restart their work and/or also share the steps and recommend "how" best to proceed. Both restorations began by dismantling the cars and have completed the Frame restoration stage. The SoCalSACC member owner's of the '62's being reported are Chuck Gibney, #189, and George Iverson, #62. Assisting the owners are Steve Clifford, #58, and a couple additional non-members. The June 2012 SCOOP was the kick-off article and all copy's from previous SCOOP's are posted on the Chapter Web Site (www.socalsacc.com).

In the December 2012 SCOOP, Part 3 of our restoration project, George Iverson and I had completed the restoration of the front and rear suspension, and the differential. We decided it was time to overhaul our engines, and my transmission. I had experienced some vibration in the transmission and was concerned about it. So, an overhaul seemed to be the best way to go. For simplicity, I'll discuss the engine overhaul as if we only worked on one engine.



Chuck Gibney

Engine Block Machining & Post Cleaning

After disassembly, we took the block to Strip Clean Co. on First Street in Santa Ana (714-775-7797) to have it acid dipped. This seemed like the best way to remove all the old rust, sludge, and scale from all the water and oil passages. For \$ 75 we had a clean block. We had chosen a machine shop in Huntington Beach, Contemporary Auto Machine on Gothard (714-842-3144), to do the engine work, based on recommendations from other car owners, and a local parts house. The owner, Yo, has been in the same location for 35 years. We liked his suggestions, the way he planned the work, and the way he ran the shop. The cylinders were bored to 30/1000s, he fitted new wrist pins, pistons, and new connecting rods. New rods seemed like a reasonable thing to do, given the old ones were 50 years old. The crankshaft was honed to 10/1000s. Yo balanced the engine, including the flywheel (with a new ring gear), and the (resurfaced) pressure plate. The vibration damper wouldn't balance properly, so it was sent out for rebuilding. He boiled out the heads, and installed larger valves, new springs, etc. He installed the camshaft bearings, and checked the main and connecting rod bearings for proper clearance. This would save us a lot of time during reassembly. He also supplied all the gaskets, valve lifters, and push rods.

We took the engine block home, and cleaned it thoroughly with soap and hot water to remove any remaining metal filings, or debris from the machine work. This included running brushes through as many of the oil and water passages as possible. These were then blown out with high pressure air, for final cleaning and drying. The machined surfaces received a light coating of oil to prevent rust.



We installed the Welch (freeze) plugs using gasket cement.

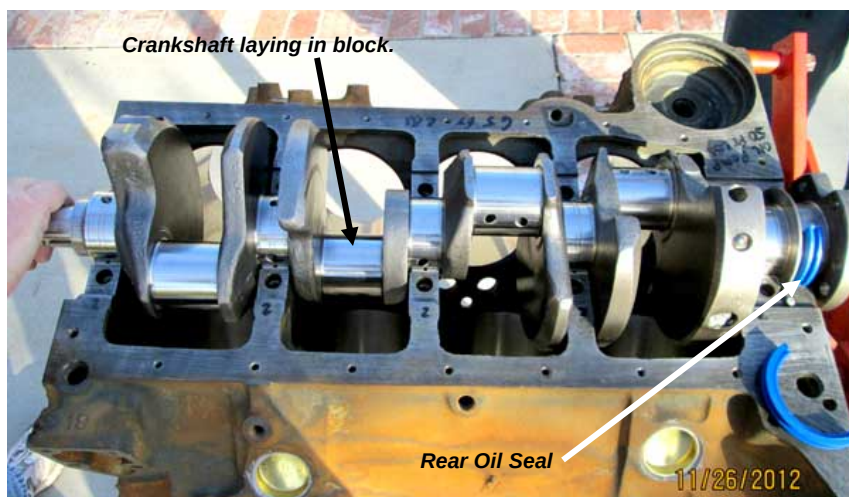
Engine Assembly Begins

We placed the block on an engine stand to allow us to turn the engine as we worked on it. The main bearings were coated with grease to keep them lubed during storage and start-up. We installed the main bearings, the crankshaft, and the main bearing caps, with the rear seal. We used temporary main bearing bolts, as the correct longer bolts to hold the oil baffle would have been in the way while we installed the connecting rod caps. Later we installed the correct bolts, with the oil baffle, and torqued them down.

Those of you that have rebuilt engines have probably already noticed that we failed to install the camshaft first, making that much more difficult later.



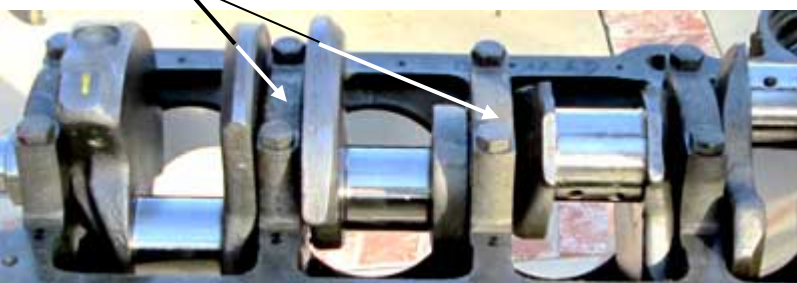
Rod Caps with Temporary Bolts



Crankshaft laying in block.

Rear Oil Seal

11/26/2012



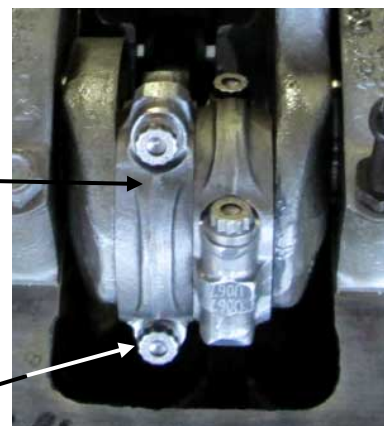
Piston Rings Installed

New Connecting Rod through Screws

The machine shop had checked all the piston rings for correct clearance, to make sure they fit in the grooves properly, and would compress correctly without the ends of the rings touching. I would think that modern manufacturing methods would make that a remote possibility, but, "better safe, than sorry". We installed the rings on the pistons, carefully following the manufacturers' instructions for placement. Then using a ring compressor, we installed the pistons into the block. The machine shop had numbered the pistons to ensure we had them facing the proper direction so the connecting rods were in the correct position on the crankshaft. It is important to protect the surface of the crankshaft when installing the rods and pistons to prevent the rod bolts or edges from hitting the polished surface of the crankshaft journals. The surface can be scratched very easily. The Original Connecting Rods have studs in them using nuts to hold on the rod caps. These studs can easily scratch the crankshaft. The New Connecting Rods use bolts that have through screws to fasten the rod caps to the connecting rod. The through Screws makes it is easier to protect the crankshaft during assembly. However a 12-point socket wrench must be used to torque the Rod Caps.

Connecting Rod Installed onto Crankshaft Journal

Screw Head for Connecting Rod Caps.





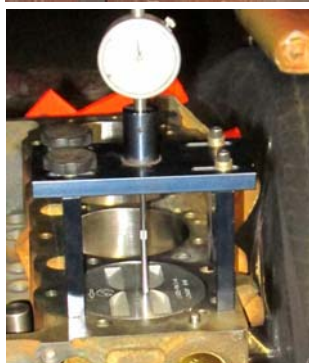
We installed the oil pump, and replaced the five temporary main cap bolts with the correct bolts to hold the oil baffle in place. The correct placement of the oil pump pickup was determined by placing a piece of clay on the pickup, then temporarily setting the oil pan in place, to create a 1/4" to 3/8" space between the pickup and the bottom of the pan. Later, we removed the pump and had the pickup spot welded to the pump.

We torqued the main and connecting rod bolts, using the specs that the machine shop had noted for us. As mentioned before, we quickly realized that we should have installed the camshaft first, as it needed to be supported inside the engine as we slid it into place from the front.

With the crankshaft and rods in place, this was not possible. We coated the camshaft journals with Cam-Lube, and then got lucky, as Steve Clifford's magic hands were able to hold the cam from the front and lift it into place. Following the directions that came with the timing gear set (chain, gear, etc.) to find TDC, we installed the timing gears and chain. If everything is correctly marked, we should have the crankshaft and camshaft set to the correct timing. However, to make sure, the machine shop owner stopped by to "degree the cam" using the appropriate gauges (See Below). No changes were necessary.

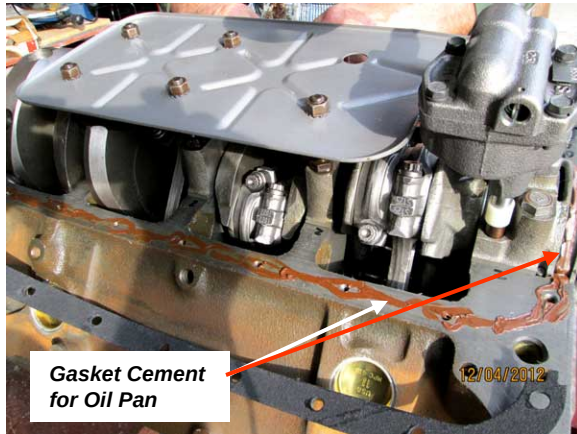


Engine rebuilder visit to check cam degree with his equipment.



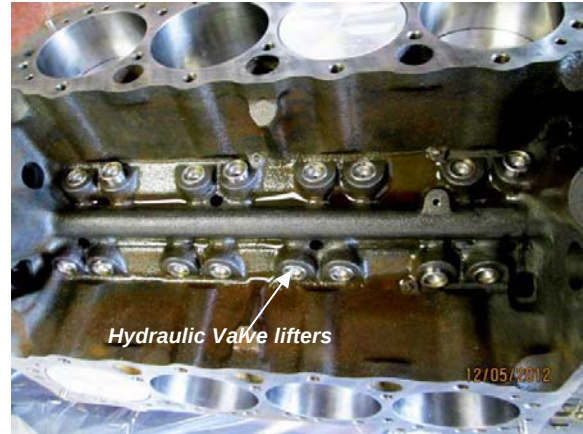
I am building a 340 Hp 327 C.I., with the 2 1/2 " exhaust manifolds, and all the other 340 HP parts. But it's hard to say what the eventual HP will be, as it is bored .030 over, has larger intake and exhaust valves, the block was milled slightly to clean up some waves on the surface, and we used flat top pistons so the compression ratio wouldn't be too high. I did use hydraulic lifters, and roller rockers, as well as the 350 HP cam. - Chuck Gibney

Using gasket cement, we installed the timing chain cover. The pan seals, gaskets and oil pan were installed. The engine assembly was then rotated 180 degrees on the engine mount and we also coated the valve lifters with Cam-Lube, and slid them into place.



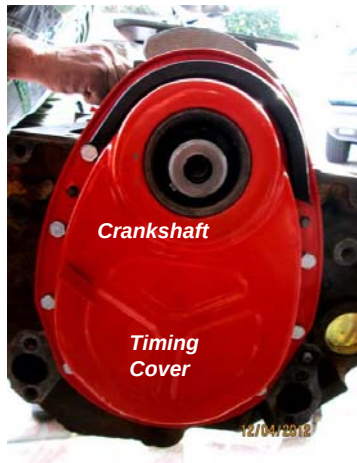
Gasket Cement for Oil Pan

Engine Assembly rotated upside down during oil pan installation.



Hydraulic Valve lifters

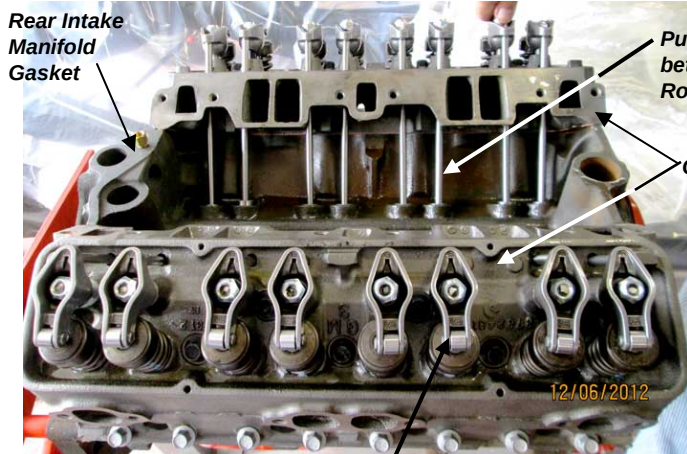
Valve Lifters lubricated with Cam-Lube and set in engine block.



The head gaskets were sprayed with gasket cement, and the heads were placed on the engine. Using an inside to outside circular pattern, the heads were torqued down. The push rods and rocker arms were installed, but not tightened down. We would be storing the engine for awhile, and this would let us turn the engine over without compressing the valve springs. The oil crankcase ventilator can was installed.



Cylinder Head Gasket placed on Engine Block.



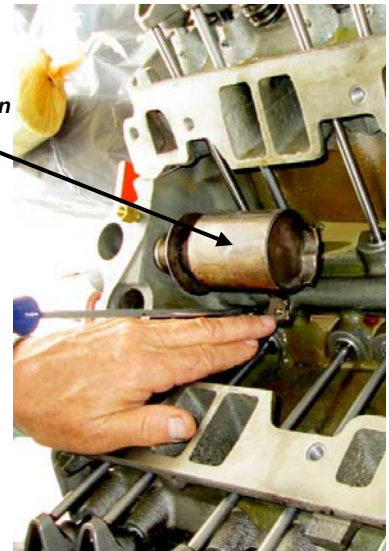
Rear Intake Manifold Gasket

Push Rods transition between Lifters and Rocker Arms.

Cylinder Heads

Roller Rocker Arms

Crankcase Ventilator Can Install



Note: This engine rebuild uses hydraulic (oil filled) valve lifters whereas some Corvette engines install mechanical rocker arms with solid lifters.

Engine – Water Pump Install, Vibration Damper Install and Final Exterior Paint

We washed the outside of the engine with mineral spirits. We covered all the openings in the engine, and placed a temporary intake manifold, spark plugs, and valve covers in place, so we could paint the engine. Multiple coats were required. The front motor mount bracket and the water pump (which had been painted separately) were installed next. The Corvette design for the Water Pump “sandwiches” the Motor Mount between the Engine Block and Water Pump passages. It is important to apply gasket seal to both surfaces of the Engine Mount as shown in the pictures and then install both assemblies (mount and pump) onto the engine block. Special bolts are used and maintain proper torque.



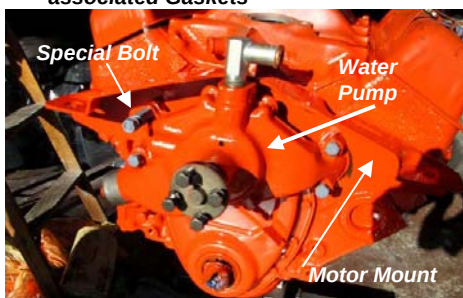
Water Pump, Engine Mount and associated Gaskets



Water Passages on Engine Block



Gasket Seal applied to both sides of Engine Mount.



We installed the spacer onto the front of the crankshaft, to place the vibration damper and lower front pulley into the correct alignment with the water pump pulley. This spacer matches the thickness of the front motor mount which sits behind the water pump. The vibration damper was installed using a special tool that Steve Clifford had made that allows the damper to be pulled into place without danger of stripping out the threads inside the crankshaft.

This special tool is discussed on a previous page in this SCOOP.

We decided to leave the engine on the stand until we completed the transmission overhaul, and were ready to install the drive train onto the frame.



Vibration Damper spacer on crankshaft.



Vibration Damper Install using special tool (used by Steve Clifford)



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FOR SALE:

So Cal Member George Visnic (#110) passed away recently and his 1961 Vette is For Sale. For further information contact Georges's daughter, Brittiny (Visnic) Perry, at 951-201-9034 (buttaflysugababy@yahoo.com).

George's car was one of the cars featured in the book "Fuelies" by Robert Genats. The car is a 283/315HP, 4-spd, 4:11 Posi. It is Ermine White, Jewel Blue Interior, Both Tops, Soft Top new from Al Knoch, Wonderbar, Heater and very nice shape. For more pictures look at the book Fuelies (if you have one, the author was at one of our Tech Sessions) or you can see the car on our Chapter Web Site www.socalsacc.com/Members/Group 4. The car is insured and appraised at \$71,500.

If interested, please call Brittiny at the above phone # or Email her.



1962 Solid Axle Roadster, Vin# 20867S104847, 327/340hp, solid black, red trim, black soft top, auxiliary black hard top, 4-speed close ratio manual transmission.

Frame -off restoration in 1995. Engine rebuilt by Ed Hale High Performance Engines (Lakeside, CA) to run on unleaded fuel. Heater delete option 610A. Runs and looks great, appeared on several magazine covers and featured in March 1998, "Vette" Corvette Magazine. Asking \$62,750. Serious Buyers only.

***Please contact Russ Bergen for further
information. E-Mail:
russell.bergen@yahoo.com
Cell #: 858-610-3749***



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