

The Solid Scoop



Vol. 15 No. 2

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

"We don't judge, we just keep them on the Road"

June 2019

See us on the web at www.socalsacc.com

On the cover: SoCal SACC member cars (Fred Kokaska, Bob Brown) attending the Plastic Fantastic all Corvette show in San Diego on May 19.

Scoop Features Inside:

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2019 SoCal Planned Events:

<u>Date</u>	<u>Subject</u>	<u>Location</u>	<u>Organizer</u>
July 28 2019	Duntov car show	Petersen Auto Museum	Jack Revel (jrevel@travcom.com)

NOTE: Not an official SACC Event – contact Jack or Barry Charles (bcharles@bc-forensiccpa.com) for info

Editor’s Note:

I am always in need of content for future editions of The Solid Scoop. Please consider sending me photos of your car, photos from car shows, articles, etc., anything relating to Solid Axle Corvettes. And don’t forget “For Sale” and “Wanted” ads are placed at no cost to members. Thank You! Fred Kokaska (fkokaska@yahoo.com), SCOOP Editor



Solid Axle Corvette Club
 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 on 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
 2019 Club Officers**

ELECTED BOARD OFFICES

President	Phil Roche	pdr44@aol.com
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So. Cal SACC Tech Session Summary

The Spring Tech Session was held at the Auto Driving Museum in El Segundo, CA on June 15th. The solid axle cars that attended were prominently displayed.



The following topics were covered:

- ✓ New motor/transmission startup procedures, and misc tips – Joe LeMay
- ✓ Radio speaker refurbishment – Joe Fekete
- ✓ Modern motor oil selection for vintage motors - Fred Kokaska
- ✓ Ignition timing for maximum performance (with live demo) – Duke Williams





So. Cal SACC Spring Tech Session Photos

Joe Fekete explains the delicate process of voice coil repair and re-coning of a radio speaker from a C1



Duke Williams checks the “all in” ignition timing at 3500 RPM on Joe LeMay’s ‘57 using a dial-back timing light.





So. Cal SACC Spring Tech Session Photos

Each topic included a lively group discussion. For lunch, we had fresh grilled tacos





So. Cal SACC Spring Tech Session Photos

We concluded the event with a tour of the Driving Museum's fine collection of cars.



Motor Oil Selection for Classic Cars

Selecting the proper motor oil for use in a vintage car can be a hotly debated topic. Let's take a look at the reason for concern, and what we can do about them.

Initially, this seems like it should be a no-brainer. After all, the original manufacturer's recommendation can be clearly found in the owner's manual.

The following table will assist in the selection of the proper viscosity oil at various seasons of the year.

If the lowest anticipated temperature during the interval in which the oil will remain in the crankcase, is:	SAE Viscosity RECOMMENDED:	Multi-Viscosity oils RECOMMENDED:
32°F	SAE 20W or SAE 20	SAE 10W-30
0°F	SAE 10W	SAE 10W-30
Below 0°F	SAE 5W	SAE 5W-20

The problem is that quart of SAE 10W-30 oil on the store shelf today is different than the one there in the 1960s – 1980s. Let's take a look at the reasons behind this change, and what we can do about it.

Besides the weight of an oil, you must also consider the additives it contains. Additives are substances added to the oil by the manufacturer to give it desirable properties. Oil has additives to clean, prevent rust and corrosion, increase flow when cold, prevent foaming and misting, and minimize wear. The most commonly used anti-wear additives are zinc dialkyldithiophosphate, or ZDDP, or zinc di-thiophosphate, or ZDTP, which is used in synthetic oils.. When engine parts move during operation, sliding motion takes place on top of or within the ZDDP/ZDTP anti-wear film, reducing metal-to-metal contact

ZDDP has been added to motor oils for more than 60 years. It is well proven to reduce or prevent sliding surface wear. In the muscle car era (1960's-70s), the ZDDP content in most commonly available off-the-shelf engine oils resulted in a zinc and phosphor concentration between .10% - .14%, or 1000-1400 PPM (parts-per-million).

So if ZDDP is so great, why did they reduce it in modern motor oil?

First, high levels of ZDDP can result in phosphorus being transferred from the combustion chambers to the exhaust. In modern automobiles with catalytic converters, this phosphorus can affect the catalytic reaction sites in the converter, reducing it's efficiency and eventually causing premature failure of the unit.

Second, compared to vintage motors, modern engines have fewer blunt friction surfaces. Unlike the flat surfaces in our vintage motors found at the lifter faces, rocker arms, etc., modern engines utilize roller lifters, trunnion rockers, and other reduced friction mechanisms. These mechanical advances reduce the amount of blunt friction in the motor, thus reducing the required zinc and phosphor concentration in the oil.

So since phosphor can reduce the useful life of the emission control systems in modern cars, and modern engines don't need as much, starting in the mid-1990's, levels in motor oils were reduced. Generally zinc and phosphor levels in modern off-the-shelf 10W-30 oils (SN or SM API rated) are between .07% and .08% (700-800 PPM). While fine for modern motors, it is below the levels needed for a vintage motor.

Motor Oil Selection for classic cars

What can oil certifications and ratings tell us?

The American Petroleum Institute (API) is the largest U.S. trade association for the oil and natural gas industry. Their Engine Oil Licensing and Certification System (EOLCS) is a voluntary program that authorizes engine oil marketers that meet specified requirements to use the API Engine Oil Quality Marks. For gasoline engines, the most recent API "SM" and "SN" specifications for standard use (10W or less) limit zinc and phosphor content to .08% (800 PPM). While this is enough for modern engines, it is likely inadequate for a vintage motor with flat tappet cam/lifters. The general consensus is that flat tappet motors should have a zinc and phosphor concentration in the range of .10% - .14% (1000 - 1400 PPM)

What are the available solutions today?

Below I have listed some various options available in today's market to provide adequate zinc levels for a vintage flat-tappet motor.

Additives to boost ZDDP levels: The fuel and oil additive market is ripe with hype and spin. It is also lacking in standards and specifications. There are various offerings that claim to contain ZDDP. Caveat Emptor (buyer beware)!



Boutique Oils: There are a group of smaller oil companies catering to the vintage car market. They offer a wide variety of options tailored to the vintage car owner, including elevated ZDDP/ZDTP concentrations. However, they can be costly and difficult to find.



Diesel motor oils: Primarily intended for use in diesel engines, Shell Rotella, Chevron Delo, and generics (Walmart SuperTech) are typical examples of CJ-4 rated oils. These oils are available in 15W-40 weight. The CJ-4 specification allows up to .12% (1200 PPM) zinc. These oils typically measure between .11 - .12% (1100 - 1200 PPM). These are a reasonable and economical choice (Walmart SuperTech is about \$2.50/quart). It should be noted that the newer CK-4 spec, which these oils are moving to, further limits zinc and phosphor content. For example, the latest Chevron Delo only has .08% (800 PPM) zinc. It's rumored that the ZDDP in these oils is being supplemented by a new boron-based anti-wear additive; however the concentration of this is not published. It's likely still a good choice as the oil must pass the "C" category anti-wear tests in order to earn the CK-4 rating.



Mobil 1 15W-50: SN rated full synthetic, but because of it's 15W weight, is not limited like the lighter SN oils. The zinc concentration is .13% (1300 PPM). Mobil's spec sheet lists "For racing and flat tappet applications". A good option for warm climates like Southern California. Available at Walmart in the 5Q bottle for about \$4.50/quart.



Motor Oil Selection for classic cars

Racing Oils: All of the major motor oil companies offer “racing” lines of their products. Valvoline VR-1 is a typical example. Generally these oils are higher in ZDDP/ZDTP content. However, since racing engines are typically torn down very frequently, these oils lack other additives needed for extended life and protection from rust and corrosion. They are also costly and can be difficult to find on the shelf.



Selecting a proper modern motor oil for our classic motors is a critical decision. My advise is to use the Internet to look up the zinc and phosphor content from the manufacturer’s website. Also pay attention to the API rating of the oil as this ensures it has been tested to that specification. I hope this information is useful to you in your decision.

Fred Kokaska
SoCal SACC #252

References:

- Mobil 1 website (<http://mobileoil.com>)
- Hemmings Daily: Tech 101: Zinc in oil and its effects on older engines
- NAPA Know-how blog: Zinc oil additive: Why your classic car needs it
- Engine Oil for Vintage Corvettes: Duke Williams, NCRS



Chuck Gibney, So Cal member #139
cgibney@cox.net

C1 Restoration, Article #27

Editor's note: Two 1962 C1's in-process of restorations began during 2011. Both C1's are being completed somewhat concurrently. The hope is that these articles may motivate others to start, or restart their work and share the steps in future articles. The SoCalSACC member owners of the '62's being reported are Chuck Gibney, #139, and George Iverson, #62. Assisting both owners are Steve Clifford, #58, and a couple additional non-members. All copy's from previous C1 Restorations are posted on our Chapter Web Site (www.socalsacc.com). Click on "C1 Restorations".

LED bulbs – follow up

In the June 2017 Scoop issue I wrote an article about using LED bulbs in early Corvettes. I also made a brief presentation on this subject at the Fall 2018 Tech session. Since then I have found there may be a few complications that you may run into in changing to LEDs from Superbrightleds.com. There may be more, but this is what I have experienced first hand, and have also heard from one other member with similar experiences.

The LED bulb for the rear tail/stop lights and for the front parking/turn lamps has a base that looks almost identical to the 1034/1157 bulb which it replaces. (Picture 1)

Usually it will fit into the bulb housing with no problem (picture 2)



Picture 1



Picture 2



Picture 3

If you look closely at the old and new bulb you will see there are 4 small strengthening tabs at the top of the base where the base flares out and joins the LED stacks. The top of the base also flares out more than on the 1157 bulb base. (picture 3)

Depending on how the socket was made, these tabs may keep the bulb from fitting down into the socket and being able to turn so the bayonet tips on the bulb won't secure the bulb in place. I also found that the bayonet tips on the bulb base that fit into the socket grooves may be slightly too high on the base, also causing the bulb to be impossible to turn into the grooves. (picture 4).



Picture 4

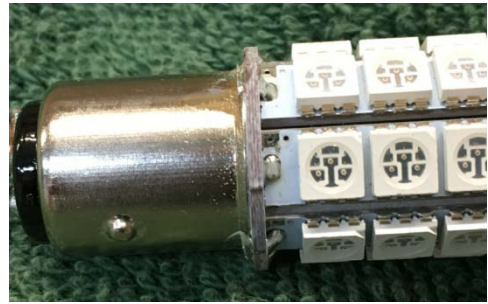
Either of these issues will not allow the bulb to turn properly. Be careful in trying to turn the bulb in the socket, as you can break the led stacks quite easily if you squeeze too hard, or twist too hard (don't ask me how I know - see Picture 5)



Picture 5

The solution I found was to carefully file off the strengthening tabs, and to do the same to the bayonet tips that fit into the bulb base. (picture 6). There is no vacuum inside the bulb base, and there is no glass bulb, but the LEDs are brittle, so take care as you file them down. I have also been told that someone solved this by filing down the place in the base where the two bayonet tips lock into place.

The other issue is with the turn signal flasher. The original flasher will work with LED bulbs in the rear of the car and standard bulbs in the front. But because LEDs draw much less current, if you change both the rear and front bulbs, the original flasher will not work, and will need to be replaced with a solid state flasher designed to work with LED bulbs.

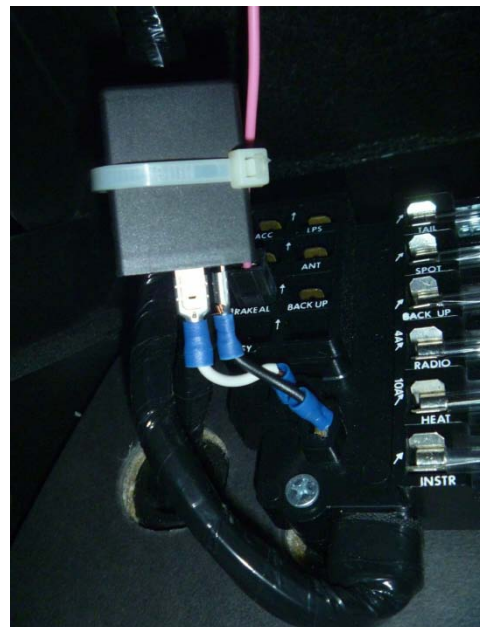


Picture 6

The replacement flasher, and all flashers designed to work with LEDs, must be connected with the correct polarity. The wires at the rear of the flasher socket in the fuse block on our Corvettes was installed with no regard to polarity. It didn't matter to our incandescent bulbs or the flasher. But, it does matter to the new flashers. I plugged my new flasher in and found it didn't work. I realized that the polarity in the socket was reversed. The flasher has two contacts and will only fit into the socket one way. I spoke with the customer service office at Superbrightleds and found they do not make a flasher with the polarity reversed. I also checked in two auto parts stores and found only 3 contact flashers.

The best solution is to loosen the fuse block from the firewall and reverse the wires at the back of the flasher socket. I plan to do that someday. For now, I decided to make a temporary fix by placing some jumper wires from the bottom of the flasher to the socket, reversing the polarity. I tied the flasher to the wiring harness temporarily with a zip tie to keep it from falling out of the socket. (picture 7).

It works perfectly, and will serve the purpose until I find a two wire flasher that has the polarity reversed, or go to the trouble of reversing the wires on the back of the socket in the fuse block. The new LEDs are much brighter than the old incandescent bulbs.



Picture 7

Corvette C1 Classified Ads

FOR SALE: Chevy Corvette X heads 1961 1962 fuelie camel hump 3782461. Dated K161 and K171 for late 1961 early 1962 build. Very rare heads with matching date codes. Heads were drilled for accessories and can be plugged or sealed if desired. Heads checked OK for cracks a few years ago. \$125. Local pickup (Anaheim). Larry Boksa 714-348-1994 jtranger@pacbell.net

FOR SALE: 1962 Corvette, white, fawn beige, 2 tops, complete body restoration, 350hp rebuild, new heads and internals, 4 bolt main and balanced crank, 4-speed trans, new 330 camshaft and rear end gears,. Have all paperwork. Lee Barry 949-310-2129

FOR SALE: 56-62 rear springs various dates, 56-58 hubcaps, Corvette Valve covers, misc ignition shielding pieces, several tach drive distributors, 62 Fuel injection unit complete and running on my 61, many T-3 hi beam headlights, lots of used cove trim, misc 56-62 emblems new and used, 58-62 front license bracket pieces, T-10 4 speed cases, tail housings and side covers, Several posi rear ends various ratios. Nice original windshield, 61-2 trunk lid nice shape, side windows, door parts, 61-62 grill bar; 62 seats (black Al Knoch covers) Many more parts too. Contact me for price and description. Chip Werstein, chipsgarage@aol.com or 818-554-6560

FOR SALE: 1958-62 - pair "new" headlight bucket sub-bodies complete; 1961-62 orig trunk latch, excellent cond; 61-62 trunk latch wire and wire retainer on lid; 1962 dual-point dist #1110985, rebuilt and restored; 58-61 dual point dist #1110891, rebuilt and restored; 58-62 orig male and female deck lid latch assy with rod & clip, restored; 56-57 brand new 2x4 air cleaner assemblies; 59-62 large "022" brake master cylinder, rebuilt and restored w/stainless sleeve & correct cap; 61-62 #441 & #442 original horns, rebuilt and restored; 62 original hiPerf radiator seal clips, set of 6, restored; 57-61 dual-quad aluminum intake #3739653, restored; 56-60 trunk latch cover, restored; 58-62 washer bottle bracket, restored; Len Marino #39, (626)358-1466

FOR SALE: Cast iron bell housing for 1959 corvette cast # C159 \$75. 1960 short block never been bored cast April 7, 1960 , build date July 12, 1960 passenger car power glide four barrel. \$ 250. may pick up here. David Freedman 864 Avenida Acapulco San Clemente Ca 92672 949-230-0750


FOR SALE: 1958 Corvette front crossmember with a-arms and steering box. Taken off running car to do a modern conversion. \$450. 00. OBO; 1958 trunk lid \$300 ; 1958. Deck lid \$175; 1961-62 Soft top kit. New 12 pieces \$100; Pair 1956-62 Welded oval Aluminum mufflers in box. \$130.00 Carlos Vivas. My1963vet@aol.com 310-710-1230

WANTED: 1957 Corvette pictures/movies of any '57 Corvettes at a racetrack near Fresno, Madera, or Stockton, Ca area. Also any race programs especially with Clarence Hager on it. 570-656-3420 57airbox@gmail.com.

SoCal SACC FREE COMMERCIAL VENDOR LIST

C-1 Services by SoCalSACC Chapter Members. Support those in our Chapter.

NOTE: Only those active SoCal SACC Chapter members with a C1 related business/products are eligible to be listed for FREE!

Product or Service	Name & Member #	Contact Information	Details
<p>AM/FM Stereo Radio, 1958-62 Corvette Radio w/Wonderbar New Repro Radios</p>	<p>Len Marino #39</p>	<p>(626) 358-1466</p>	<p>One year guarantee '56 – '57 \$695 + Ship '58 – '62 \$650 + Ship</p>
<p>GM Down Under</p> <hr/> <p>Driver quality to restored early Corvettes and Classic Muscle cars for sale.</p> <p>We also consign or will buy your Corvette.</p>	<p>John Piovesan</p>	<p>www.gmdownunder.com 3197 Airport Loop Dr. Unit D Costa Mesa, CA 92626 Ph. 714.434.8388 john@gmdownunder.com</p>	
<p>American Motoring Memories C-1 Corvette Repairs</p>	<p>Jeff Reade #33C</p>	<p>11375 Playa St., Culver City, (310) 397-3800 FAX (310) 397-6969</p>	<p>All type repairs, Total & Partial Restoration, Engine Overhaul, Consulting, Sales & Service</p>
<p>Corvette Frame Straightening Corvette Restoration 1953 – 1962 Specialist</p>	<p>Walden Dahl #116</p>	<p>(760) 949-6653 Victorville</p>	<p>Chassis straightening for C1's. We have the attachments to correct any frame problems.</p>
<p>Corvette Mike</p> 	<p>Mike Vietro #60</p>	<p>1133 N. Tustin Av, Anaheim, (714) 630-0700 www/Corvettemike.com</p>	<p>We sell the best..... And service the rest!</p>
<p>Vette Garage 53 thru 67 Restorations From Drivers to Concourse</p>	<p>Ron Lefler #91</p>	<p>(760) 983-5944 Cell (909) 519-7977 rdlef@aol.com</p>	<p>C-1 Hardtop Restoration</p>
<p>Interior Concepts & Design</p>	<p>Little John, Engelhardt #50C</p>	<p>17391 Mt. Cliffwood Cir. Fountain Valley, CA (714) 435-9448 Shop (714) 267-9996 Cell littlejohns@sbcglobal.net</p>	<p>Complete Interior Restoration Convertible Tops</p>



SoCal SACC Merchandise For Sale

Item Description	Price
SoCal SACC decal	\$1
SoCal SACC throw	\$35
SoCal SACC hat (black, white, or grey)	\$25
Woman's tee-shirt (black)	\$20
Men's tee-shirt (black, grey)	\$18
2018 SACC Ventura Convention tee-shirt (light grey)	\$15
Men's 'Make C-1s Great' tee-shirt	\$15
Woman's 'Make C-1s Great' tee-shirt	\$15
SoCalSACC sweatshirt	\$20
SoCal SACC denim shirt	\$35
Long sleeve shirt (black)	\$25
Polo shirt (beige, blue, red, or white)	\$30
Men's jacket (black, red, or beige)	\$55
Men's windbreaker (black, navy, grey)	\$45

Shipping and handling is \$5 flat. Most sizes are available (S, M, L, XL, XXL). Contact Carole Blake (Carole.Vette@att.net) with any questions or to place an order.

