Michigan

"Where it all began"

Volume 9 Issue 4

2018 MI SACC EVENT CALENDAR pages 4-10

Inside this Issue:

From the President's laptop

June 2018

Memorial Day is one of those bittersweet holidays. It's the traditional start of summer holiday for all of us, but for many, the Veterans Memorial services are a somber reminder of the true cost of the freedoms we cherish. We must never forget.

A highlight of the weekend: our granddaughter was home for the holiday so I had a passenger riding with me in the old roman red chariot in the Memorial Day Parade. (Yes, Cheryl we used the two deck lid US flags you & Stef bought for me at FunFest in Effingham). Just when you think a 58 year old car is old, we were behind a 1909 Jackson and a 1915 Ford. Maybe…….. the next generation will keep her running.

We have selected several venues as MI SACC club events that we believe you will enjoy. Our kickoff event is **Corvettes at the Summit** in Canton, MI on 14 July 2018. Pre-registration is recommended. This allows MI SACC to enter and park as a group. Tom & Sue Gamache will once again host our pre-show coffee and doughnut gathering at their home at 45451 Augusta Drive, Canton. MI SACC C1s will leave for the show at approx. 9:45am. Please advise Tom and Sue if you will be attending. See page 4 for additional information.

We also believe you will enjoy the new all **Corvette Show & Swap** meet at the **Gilmore Museum**, Hickory Corners, MI on 22 July 2018. How can they have a successful Corvette event without our C-1s attending? Pre-registration recommended. In the past, we met along the way. East and South would meet on I-94 near Chelsea or Marshall and those on the North or central would meet on I-96 at Brighton or Lansing. Please advise Mike & Chris McLain, the event organizers, if you are interested in caravanning. See page 4 for additional information.

Unfortunately, my wife & I will not be at the Gilmore show this year because we will be attending the **2018 SACC Convention** in Ventura, CA from July 20-22, 2018. Our purpose is to present a preview of MI SACC 2019 Detroit SACC Convention proposed activities to the National SACC Board & the various SACC Chapters. Somebody had to take the evening Harbor Dinner Cruise and enjoy sunsets over the Pacific Ocean. Hey, might as well be us.

Also coming up on July 28 is the **Capital City Auto Show** on the Capital grounds in Lansing, MI. We participated last year and enjoyed a wide range of really nice cars. My advice is to arrive early, pre-register as a Corvette & follow Ron Melaragni. Lansing is his hometown. Caravanning to Lansing is an option. Contact Ron if your are interested. See page 4 for additional info.

Planning for the 2019 SACC convention is in process. Be on the lookout for opportunities to become involved. Check out MI SACC website for an up-date for proposed activities and events.

A big welcome to all the new & returning chapter members since our last newsletter.

Bill Huffman, Pres. Michigan Chapter SACC,

Don't forget our website: www.solidaxlecorvettemi.com

Greetings to all Michigan SACC members

from the 2018 MI SACC Board.

Save This Date:

Aug. 13-16, 2019

2019 SACC CONVENTION

MI SACC is continuing to plan and schedule activities

as the host chapter for the 2019 SACC Convention in the Detroit area.

We are encouraging all members to engage in the SACC Convention process. Volunteers are needed to assist in the planning, and implementation of the events for the 2019 Convention.

Volunteers contact Bill Huffman: swh73@comcast.net

See our website for proposed activities.

www.solidaxlecorvettemi.com

MI SACC EVENT CALENDAR

July 14, 2018 Corvettes at the Summit — Canton, MI
Champion: Tom Gamache tsgama22@comcast.net Pre-registration recommended

www.corvettesatthesummit.com/index.html See Volume 9 Issue 3 page 5-6

July 20-22, 2018 SACC National Convention — Ventura, CA
Champion: Bill Huffman SWH73@comcast.net

www.solidaxle.org/ See Volume 9 Issue 3 page 7

July 22, 2018 Gilmore Museum Corvette Show & Swap Meet — Hickory Corners, MI
Champion: Mike McLain mcmclain@sbcglobal.net Pre-registration recommended
See page 8

www.gilmorecarmuseum.org/event/new-show-years-corvette-show-swap-meet/

July 28, 2018 Car Capital Auto Show — Lansing, MI
Champion: Ron Melaragni arjay0@msn.com Pre-registration recommended

www.carcapitalautoshow.org/ See Volume 9 Issue 3 page 9

Aug 25, 2018 Corvette Crossroads — Mackinaw City, MI
Champion: Paul Lemieux jplvet9@gmail.com Pre-registration required
See Volume 9 Issue 3 page 10

www.mackinawcity.com/event-detail/28th-annual-corvette-crossroads-auto-show/

Sept 15, 2018 Paragon Reproductions Open House — Swartz Creek, MI
Champion: Harry Jones choochooharry@comcast.net Info to follow

www.paragoncorvette.com/t-show_schedule.aspx

Oct 13, 2018 Fall Color Tour — Chelsea to St Johns, MI
Champion: Bill Huffman SWH73@comcast.net Info to follow

www.ujcidermill.com/

Dec 8, 2018 Christmas Lunch — Plymouth, MI
Champion: Bill Huffman SWH73@comcast.net Info to follow

www.karlscabin.com/location/karls-cabin/

Non MI SACC events of interest

June 7- 10, 2018

NCRS Motor City Regional

Dearborn, MI

http://www.michiganncrs.org/

July 27-29, 2018

Concours d'Elagance

Inn at St. John's

Plymouth, MI

Aug. 18, 2018

Dream Cruise

NCRS Parking

Contact: Harry Jones

choochooharry@comcast.net

http://www.woodwarddreamcruise.com/

Technically speaking..... Volume 9—issue 4

... a voice of experience *By Harry Jones, Jr.*

This column is intended to be a question and answer forum for Chapter members who are seeking assistance with C1 maintenance or restoration issues. You are invited to submit questions via email choochooharry@comcast.net Please put "SACC Tech question" in your subject line. Harry will attempt to address the questions promptly and if he does not have an answer he will try to seek the help of others. Issues thought to be of the greatest interest will be selected for publication here. Harry worked for GM at the St. Louis Assembly Plant and has better that the average knowledge of the C1 Corvettes, particularly the 58-62 years.

All SACC Members should have the following in their library as a minimum if you plan on working on your C1 Corvette.

Corvette Factory Assembly Instruction Manual. Can be purchased from Mid-American Designs, Inc. Indicate to them the particular year Manual you need. Mid America does the best job duplicating the manual pictures of all the companies' selling these Manuals. This will give you a pictorial of how the parts go together. However, it does not spell out the assembly sequence.

1958-1960 Corvette Restoration Handbook written by Bob Baird PhD, PC., and Tom Howey, MD. Can be purchased from the NCRS library. Contains information about Corvette Assembly processes and over 100 pictures of parts that are used on these three vehicle years.

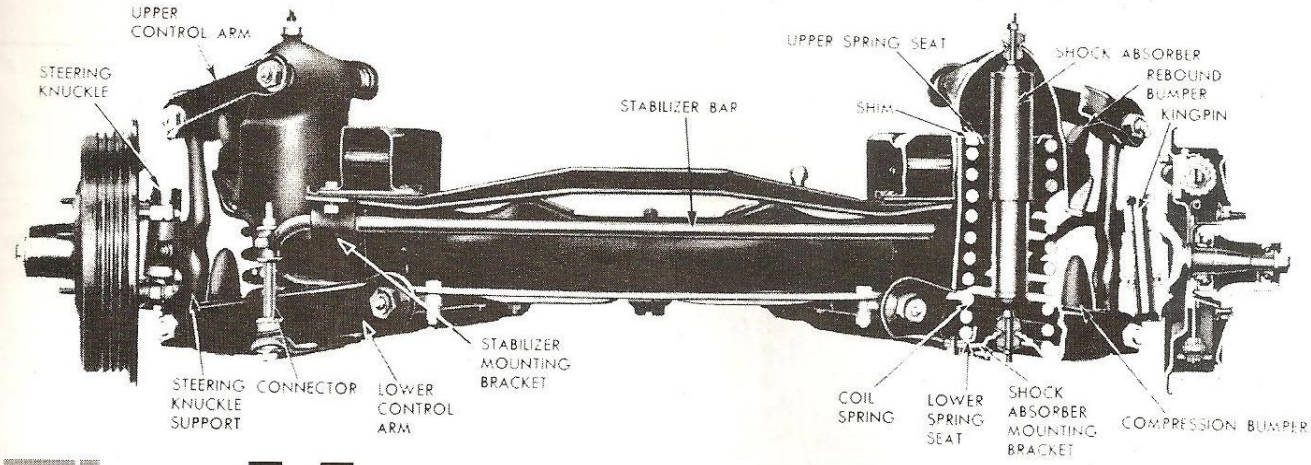
The Complete Corvette Restoration & Technical Guide, Vol 1, 1953 through 1962 written by Noland Adams. Can be purchased from the NCRS library. Contains a gallery of information and pictures of Corvettes including assembly manual pictures and much information about these vehicles and parts.

1953 - 1962 Corvette Servicing Guide ST-12. Can be purchased from the NCRS library. Contains repair and disassembly information and pictures.

1953 - 1972 Corvette Wiring Diagrams. Can be purchased from the NCRS library. 1960 wiring diagram has one mistake in it-dealing with the AMP gage, reverse the wires or the gage will show discharge when the battery is being charged.

Chevrolet Passenger Car Shop Manual. Indicate the year of your Corvette so you obtain the correct manual. Can be purchased from the NCRS library. Contains repair and disassembly information and pictures.

Chevrolet Passenger Car Shop Manual Supplement. Indicate the year of your Corvette so you obtain the correct manual. Can be purchased from the NCRS library. Contains repair and disassembly information and pictures.



The Mystery Alignment

How to Align Your Solid-Axle Corvette

By Richard F. Newton

Nobody gets their old solid-axle Corvette aligned. Hey, we don't even drive them that often. If we align them once a decade, it's a big deal. I decided to get four wheels on my '58 pointed in the proper direction for the first time in 20 years—no sense in ripping up all that BFG radial rubber I just installed. This was a major Corvette decision for me.

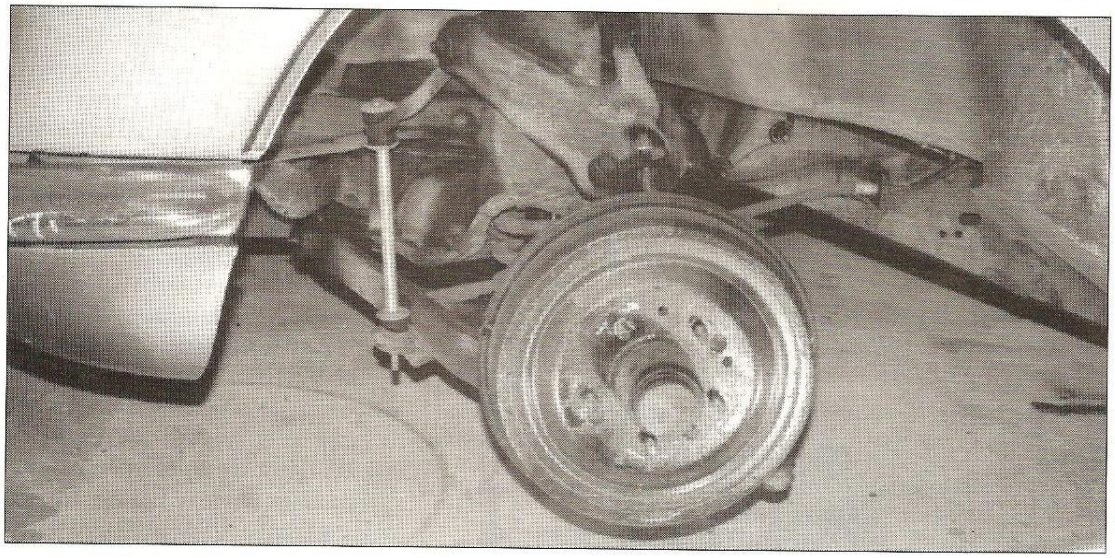
Then came the task of finding a guy who remembers how to align these cars. When my '58 left the St. Louis plant the average alignment mechanic was about 30 years old. They retired those guys about 15 years ago. No one has taken their place—at least no one with the knowledge of early-'50s Chevrolets.

This is no problem. I still have my contacts at one of the largest technical training schools in the United States, Lincoln Technical Institute. I know these people. I've worked with the people. The result? No one had a clue about how to set the camber and caster on my car. Six different highly-skilled people looked at my old Corvette and arrived at six different answers.

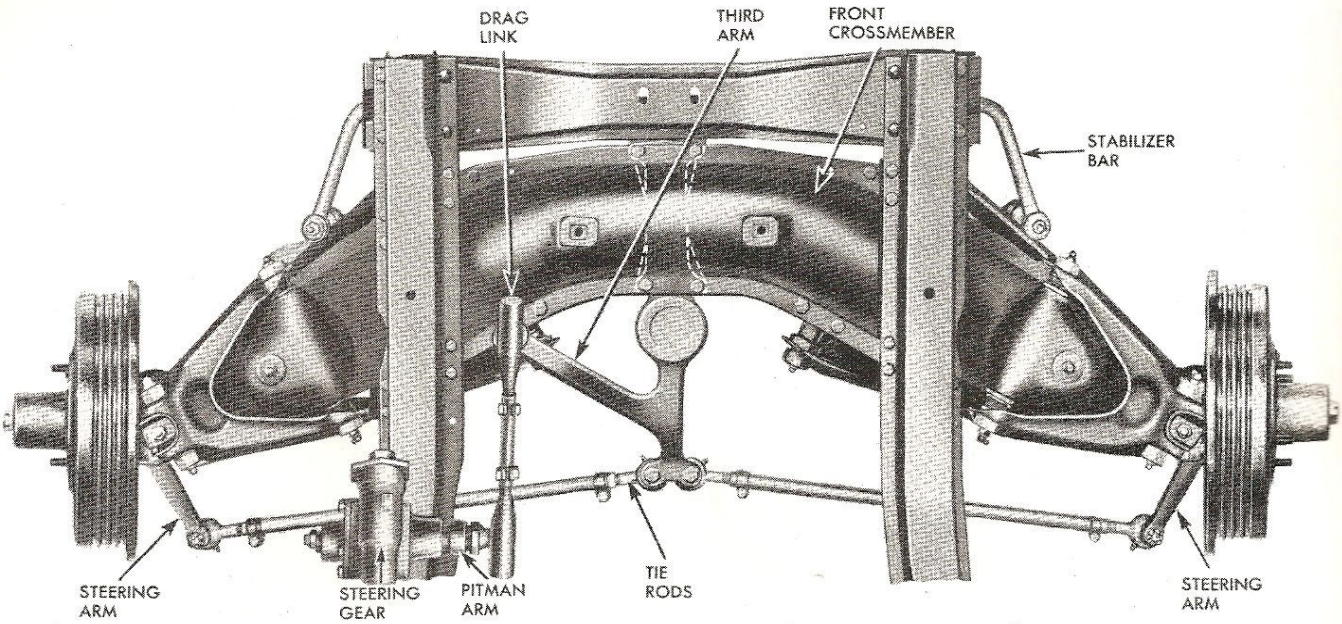
Some even resorted to the standard automotive repair shop cliché, "These were never made for caster and camber adjustment. People just didn't do it in those days." So much for state-of-the-art equipment and the latest technology.

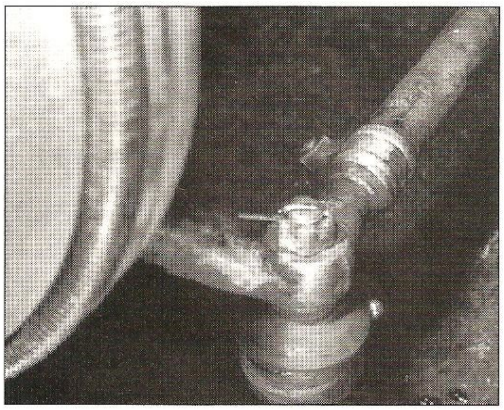
Then someone remembered Fred. Fred was retiring in a few months, which meant there was a chance he'd remember cars that were built before the '60s. With 10 seconds of reflection he said, "Remove the grease fitting at the rear of the upper control arm and put a hex wrench into the void. There's an eccentric bolt inside there."

This caused a series of incredulous looks on



You're really looking at late-'40s technology here. This Corvette front suspension was taken right off a '53 Chevrolet sedan. These early Corvettes were designed before Chevrolet began using ball joints. The Corvette got ball joints 7 years after the sedans. We just kept going on with the old kingpin suspension.

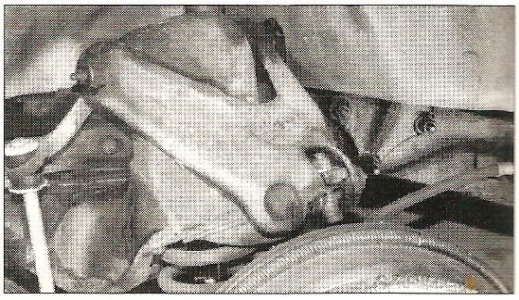




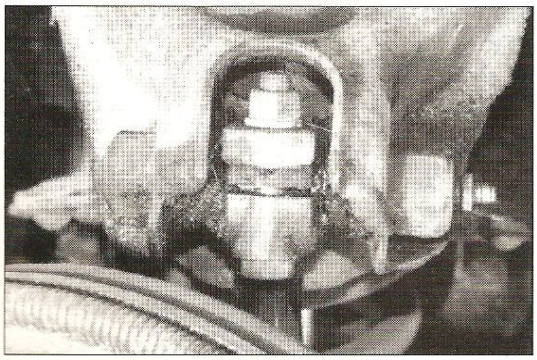
This is the tie rod end and is used for setting the toe on these early Corvettes. The tie rod end itself is a ball socket arrangement that should be checked for wear by having a friend turn the steering wheel while you watch for play in the joint. In order to adjust the toe on the car loosen the nut on the sleeve clamp and then turn the tie rod. Make sure you loosen the inner clamp as well when you do this. That one is a little harder to reach since it's actually under the middle of the car.

SOME SUGGESTED SETTINGS

STANDARD	TOURING	PERFORMANCE
Toe (total)	1/8 - 1/4 toe-in	0 - 1/8 toe-in0 - 1/8 toe-out
Caster	3/4 - 11/4 positive	11/4 11/2 positive
Camber	1/4 - 1/2 positive	0- 3/4 positive1/4 - 1/2 negative



Here we can see how the upper control arm works. It's a stamped steel pressing which is attached to the frame at the inboard side, while the outboard side attaches to the kingpin. Someday I intend to actually count the number of grease fittings on this car. Right now I just keep looking since there seem to be dozens of them. Hopefully, they've all been used, since we want everything well lubed and moving properly.



Here we can see both the clamping bolt that has to be loosened, or removed, as well as the grease fitting that must be removed. It might not be a bad idea to make sure all these bolts can be loosened before you go to the alignment shop. If anything needs replacement, it's a good idea to know well before your alignment appointment, that way you can order the necessary parts. Chances are the shop won't have parts for a '53 Chevy front suspension.

the faces of all those assembled. It also worked. In fact, the actual alignment took less time than it took to find Fred. The truth of the matter was that this alignment was really one of the easiest I've seen done in a long time—once we figured out how to actually perform it.

The C1 Corvette, or the Corvettes that have non-independent straight axles in the rear, use the front suspension from the '53 Chevrolet sedans. Remember, the first Corvette was really constructed from the parts bins of the standard Chevrolet. In 1955, Chevrolet changed everything in the product line except the Corvette. Hey, the C2, or the Sting Ray as we used to call

THE MYSTERY ALIGNMENT

them, was on the way so why make unnecessary changes to the Corvette? GM also wasn't sure that this Corvette thing was going to work out real well and they didn't want to spend money putting ball joints on a car that might not make it.

This early-'50s or really-late-'40s technology, means you have to find an alignment guy that's worked on pre-'55 Chevrolets. Since there's not much chance of that you might have to take this article to the alignment shop with you. The actual alignment is easier than finding a guy who knows how to do it.

THE ALIGNMENT

The first step to a proper alignment is to make sure that your tires have the proper inflation and the wheel bearings are properly adjusted. If you fail to do this, no alignment technician in the world is going to get your Corvette properly aligned.

Since the average alignment shop works on a production basis, it's best that you check all of this yourself. The correct inflation pressure for these early Corvettes is 24 pounds at all corners. The shop manual also states that 36 pounds is appropriate for high-speed driving. The important thing is that it be even all around the car.

You can check the wheel bearings by jacking up the front of the car and checking for play in the wheel by wobbling it back and forth. Just make sure that you do it by having one hand on the top of the wheel and your other hand on the bottom of the wheel.

SETTING TOE

Setting the toe on these early Corvettes is simply a matter of adjusting the tire rod sleeve just like any regular car. You loosen the two clamps at either end of the tie rod and turn the sleeve to lengthen the distance between the two rod ends and you've got the toe setting down pat. In reality this part is just like the '63-82 Corvette. The only problems you might encounter is a rusted clamp. Most of these old Corvettes have either been restored, or had enough grease and oil covering them over the years, that they're easy to break loose. If you have any problems here be very careful and don't break anything.

Remember the rod and the clamps don't wear out, so severe rust is the only reason you might consider replacing them. You should have the alignment shop check the tie rod ends for wear. These are readily available since they're nothing more than early Chevrolet parts. Just make sure that you check both the inner and outer tie rod ends.

SETTING CASTER

The caster and camber adjustments are unique. The upper control arm has an eccentric that moves 3/32 of an inch. First, you need to loosen the clamping bolt at the upper end of the steering knuckle. Then, remove the grease fitting that only Fred knew about. If you have trouble seeing all this, simply remove the front wheels. It's harder to visualize some of this than it is to actually do.

The next step is to loosen, or completely remove, the clamping bolt at the top of the king pin. Lastly, put your Allen wrench through the hole where the grease fitting previously lived. When you turn the pin with your Allen wrench you can watch the caster and camber turn on the computer screen. You are paying for a computerized alignment, aren't you? The eccentric bolt should move easily.

This turning of the eccentric will have a greater effect on the caster than it will on the camber, even though they'll both change together. The eccentric allows for a slight change in caster and a full range of camber adjustment.

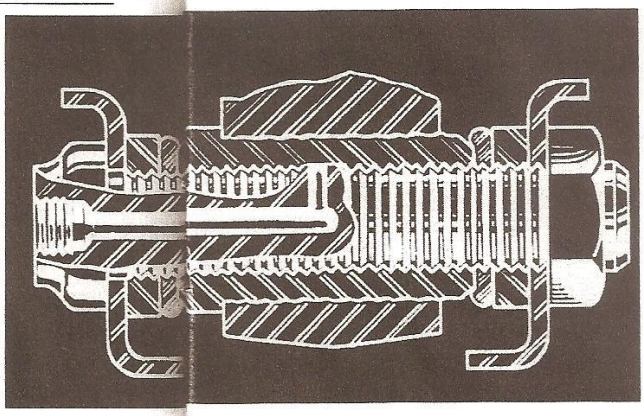
The idea is to turn the pivot pin until you get the proper caster setting, then move it less than a half turn to get the camber correct. Which direction will depend on the position of the eccentric.

It should come within specification after a couple of trial attempts. The real trick is to get the caster correct while also getting the correct camber. It only took us two or three turns on each side to get it correct.

THE SPECIFICATIONS

There's very little reason to deviate from the original factory settings. You generally don't drive these old Corvettes fast enough to have any effect. Just in case you want some suggestions, I've spent some time over the years talking to Dick Guldstrand about possible variations.

This is a drawing of the eccentric bolt.



Guldstrand believes the original settings are fine if you do very little high-speed driving. He's also offered some suggestions should your driving become a little more aggressive. Keep in mind that these alternate settings will help you go faster, but they may shorten the life of your tires—for most of us that means that we might have to buy tires once every 5 years rather than once a decade.

These performance setting may be a little difficult to achieve for the normal alignment shop, as they often involve heating the spindles. If you're that serious, simply ship your car to Guldstrand's shop. For the rest of us, it's a big improvement if our Corvette simply goes down the road in a straight line.

Once you've removed the grease fitting, you can insert the hex wrench, or Allen wrench if you prefer, into the void and begin to turn the wrench. It'll take a little practice, and a few movements back and forth to get everything correct but this is no big deal. Actually, it's a lot easier to turn the eccentric than it is to add all the shims that we're accustomed to. It sort of makes you wonder if the system introduced in 1963 was a real improvement.

1953-1962 Corvette Front End Alignment Specifications

	Caster	Camber	King pin Alignment	Toe In
Pass. Car Shop Manual RS-34-SM	0◦ to 1.0◦ positive +1/2◦ ± 1/2◦	0◦ to 1.0◦ positive +1/2◦ ± 1/2◦	3 1/2◦ to 4 1/2◦ positive 4◦ ± 1/2◦	3/16" to 5/16" 1/4″ ± 1/16″
Corvette Shop Manual ST-12	1 1/2◦ to 2 1/2◦ positive +2◦ ± 1/2	0◦ to 1.0◦ positive +1/2◦ ± 1/2◦	3 1/2◦ to 4 1/2◦ positive 3 1/2◦ to 4 1/2◦	1/16″ to 1/8″
The Mystery Alignment - Touring	3/4◦ to 1 1/4◦ positive	1/4◦ to 1/2◦ positive	No Spec.	1/8″ to 1/4″
The Mystery Alignment- Performance	1 1/4◦ to 1 1/2◦ positive	0 to +3/4 -1/4 to –1/2	No Spec.	0 ± 1/8″ in/out
Spec Averages	**7/8◦ to 1 9/16◦ positive**	**1/4◦ to 1/2◦ positive**	**3 1/2◦ to 4 1/2◦ positive**	**1/16" to 3/16"**
My Alignments recommended by Bill Huffman	**1 ◦ positive**	**3/8◦ positive**	**4 ◦ positive**	**3/16"**

Found this article in the June 2002 *Vette Magazine*—author Richard F Newton.

I did a little research on alignment specs & found two more besides the two listed in the article. So.... I did the engineering thing and averaged them. Then, because we now have computer controlled alignment racks, I asked the technician to set it at dead nominal, which is called --My Alignment. I have used this with both bias ply & radial tires with no adjustments required.

Ken Amrick published this in *On Solid Ground* in 2015.

BTW- I looked up The Gear Box trans service now in Garden City. Time marches on, folks want to retire http://www.thegearbox.org/home.html

Bill Huffman

Welcome to the Michigan Chapter

SOLID AXLE CORVETTE CLUB

Michigan Chapter SACC Membership or Renewal Application - 2018 New___ Renewal___

Michigan Chapter Membership requires membership in the National SACC organization.

For record keeping: MI SACC collects both National and Chapter dues and submits your National dues to SACC National.

	1 year	3 years
2018 Michigan Chapter SACC dues @ $15.00 a year:	**$15.00.**	**$40.00**
Michigan Chapter SACC windshield decals: ____ decals @ $5.00 each:	_____	_____
National SACC yearly dues, renewable December 1st :	**$35.00 ***	**$100.00***
Total :	_____	_____

***SACC National and MI SACC offer one year or three year dues options.**

Chapter dues include our quarterly Chapter Newsletter "Michigan"

National Membership includes the quarterly magazine "On Solid Ground"

SACC National publishes an annual membership & roadside assistance roster. The roster contains names, phone numbers, city & state, but no street address. It also has a field to indicate that you are willing to help if a traveling SACC member needs roadside assistance in your area.

If you do not want your name listed in the roster initial here: _____

If you do not want to participate in the road side assistance program initial here: _____

FAILURE TO INITIAL ABOVE INDICATES YOUR PERMISSION TO BE LISTED IN THE ROSTER.

If you are a new member: SACC National will send you a National membership number separately.

If you are an existing National member please insert your National membership #_____

Please make checks payable to: MI SACC and mail to:

Paul Lemieux
MI SACC Treasurer
403 Loris Lane
Oxford, MI 48371

Questions: jplvet9@gmail.com

Applicant Name _____**Applicant:**_____

Address _____

City _____ **State:** _____ **Zip:**_____

Home phone _____**Work/Cell:** _____

E-Mail _____ **Fax:** _____

Corvettes presently owned - please include the VIN # for all C-1's

_____ _____ _____ _____ _____

I will enjoy participating in these club activities: Driving tours_____ Get away weekends _____

Museum tours ___ Historic site/shop tours ___ Car Shows ___ Tech sessions ___ Race events___

Newsletter Contributions ___ Tour/Event Planning ___ Other_____

Suggestions for events or cruise _____

I would be interested in assisting with the 2019 SACC Convention in the Detroit area Yes____ No____

Michigan Chapter SACC
2018 Volunteers

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Solid Axle Corvette Club

The Solid Axle Corvette Club is for enthusiasts who drive and show America's first sports car., our beloved C1's. The Solid Axle Corvette Club invites you to share our enthusiasm and dedication to the Solid Axle Corvettes, and to enjoy the fellowship of our members.

SACC is the initials of the Solid Axle Corvette Club. So, just what is a solid axle Corvette? The rear axle housing on all 1953 to 1962 Corvettes was a one-piece shell. The rear differential (rear gears) and the axles were mounted within this rear axle housing. (The rear axle housing is sometimes called a solid [or straight] axle housing.)

Beginning with the 1963 model year, Corvettes had an independent rear suspension (IRS). The rear differential is built into the center housing: universal joints and short shafts (called jack shafts) transfer power to the rear wheels. Each rear wheel reacts independently to the road surface, and has earned the nickname "rubber axle".

The Solid Axle Corvette Club (SACC) is a non-profit organization dedicated to the preservation, care, history, and enjoyment of the 1953 to 1962 Corvettes. Ours is a family oriented club with membership covering all members of your family. You do not need to own a Corvette to join.

Road Rules

The ***Michigan*** is the quarterly newsletter for the Michigan Chapter of the Solid Axle Corvette Club and is published four times yearly (Spring, Summer, Fall & Winter). It is published in PDF format, e-mailed to members in good standing.

Membership in the Michigan Chapter is open ***only*** to members of the parent organization, the Solid Axle Corvette Club. The Solid Axle Corvette Club is a non-profit organization, serving members with an interest in 1953—1962 model year Corvettes. Ownership of a Solid Axle or any Corvette is not necessary to become a member of the organization.

The newsletter provides a forum for members to communicate with other members. As a result, the newsletter will often contain member opinions. Those opinions should not be construed as an endorsement by Michigan SACC or the parent organization, SACC.

Direct National SACC Membership questions to:

Lucy Badenhoop, SACC NATIONAL
P.O. Box 2288
N. Highlands, CA 95660-8288
badenhoop@comcast.net

Michigan membership dues, inquiries and corrections to the address list should be directed to the Treasurer:

Paul Lemieux
403 Loris Lane
Oxford, MI 48371
jplvet9@gmail.com

Membership renewal and application form on previous page.

Please submit articles for publication to the editor. Generally, articles for publication should follow the broad theme of anything of interest to the Solid Axle Corvette community". Suggested items for publication would include how-to articles, parts information, performance issues, scheduled events, restoration or repair information, and personal stories.

The Michigan Newsletter editor can be reached at:

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