



# **Gateway Gazette**

www.stlouisbuickclub.net

## Monthly Newsletter of the St Louis Chapter

## **Buick Club of America**

### Volume XLI No. 1 January 2022





What to do about a broken bolt





times a year." Buick tests at that time had shown that oil changes would neer be necessary, with the Oil Biller to remove impurities, and with the Crank-case Ventiliator, Thermostatic Circulation Control and Automatic Heat Control to prevented iditution. Now, more than a year has passed, and Buick owners in every section of the world—under every climatic condition—have also proved that you climatic condition—have also proved that you climatic condition—have also proved that you family control to the paids to life you can buick —replication every section of the Buick Coll Flora Oil Are required.

Sedans \$1195 to \$1995

Sport Models \$1195 to \$1850

All prices \$, a, b, Flint, programment ten to be added, The G. H. A. C. framering plan, the most dark in available, The model illustrated show it is produced to the control of the

## BUICK for 1928

Fishel-Walker Buick, Inc.
Dealer
Colfax at Lincoln
Broadway Buick Co.
Dealer
Dealer

UICK MOTOR CO.

Denver Branch

Lincoln Street at

Seventh Avenue

O. Denver Buick, Inc.
Dealer
Seventh at Broadway

Lee & Rice, Inc.
Dealer
1842 So. Broadway

Why do we change oil on our cars?

Director's Letter January 2022



#### Greetings,

Yes folks, it's that time of year again where I recap our accomplishments of the previous year, and review our plans for the New Year.

## 2021 the year of the 2020 Heartland Regional..???

After three years of planning, a false start, a cancellation, and a week of absolutely perfect weather, we finally did it. Even with the lingering fear and restrictions offered by Covid we registered 92 guests and members to the event held at the Doubletree by Hilton Hotel, Chesterfield, MO. Thank you, thank you, to all those who worked so hard to make this a successful event. **THANK YOU...!!!** 

### Member News

We started the year off on a sad note with the passing of **Ed Keil**. Ed passed away Sunday, January 24<sup>th</sup>, 2021. Ed served on the Board as Secretary from 1995 to 1998, and as a Memberat-Large from 2012 to 2014. He also served as club historian to document our 20<sup>th</sup> and 25<sup>th</sup> Anniversaries. And he played a major role in leading us through our 1994 Regional Meet and the 1997 National Meet, and the 2004 and 2012 Regional Meets. In 1994 Ed submitted the documents that allowed our club to become a tax-exempt organization under the Internal Revenue Code Section 501 C (7) for social clubs.

**Monica Ledwon** celebrated her 40th Anniversary with the St. Louis Gateway Chapter - BCA She served eight years as Editor of the Gazette from 1984 to 1991, and four years as Secretary from 1987 to 1990, while serving as Secretary, she continued to maintain her position as Editor. Monica continues to serve us today as our club Secretary. Monica, Thank You for your many years of service and dedication. **THANK YOU...!!!** 

## Generous Giving

Following our tradition of giving and supporting others in need, this year we supported the following organizations:

• The National Children's Cancer Society: It has been a long-standing tradition of the club, to sell snow cones at the annual Wheels in Motion Car Show. This year, the Wheels in Motion Car Show was scheduled the same weekend as the Heartland Regional

and we were not able to attend. In our continued effort to support The National Children's Cancer Society, the club donated \$250.00 from its 50/50 Account.

- **O.A.S.I.S Food Drive:** We had another very successful Food Drive in November for O.A.S.I.S. Besides maxing out the large shopping cart provided by O.A.S.I.S. our contribution also included \$100.00 in cash donations.
- **Toys for Tots drive:** Well, my friends, our Food Drive was nothing compared to what we accomplished with our annual Toys for Tots drive. Our members donated a total of \$450.00, along with a large stack of gifts. Truly amazing
- Shriners Hospital for Children, and, to top it all off; thanks to the Charity Events held at the 2021 Heartland Regional we also raised \$1,891.10 for Shriners Hospital for Children.

Once again, I am truly humbled and overwhelmed by your generosity. THANK YOU...!!!

## Happy New Year and Welcome to 2022

As with each year, we end the year with a party and we start the New Year with yet, another party.

- So to get the year started I hope to see everyone at C. J. Muggs on January 9<sup>th</sup>.
- I'm sure we will have our forever popular events this year like:
  - o The "Paul Meyer Memorial Oil Spill" in March, and
  - o And our Annual Club BBQ & Monthly Meeting at Love Park in July
- Something new for 2022 includes:
  - A visit to David Baker's garage to see his car collection, hopefully sometime in April.
  - o A visit to Jeff Johnson's farm in Eolia, MO. In the past, the September meeting was held at our home. This year we might move it to Jeff's farm in Eolia, along with a trip to include a visit to Mark Magruder's car collection. If you remember, Mark attended the Heartland Regional with his Black 1940 Buick Pickup truck.
  - o In the fall, possibly visit a winery in the Ste. Genevieve area, and
  - $\circ$  New members, Melba and Wayne Nolan have also offered a viewing of their car collection, with 15 20 5 to 20 people at a time, on a Sunday afternoon.
  - What else...??? Please let me know if you have any suggestions.

All for now..., I hope to see you soon.

Wishing you and your family the very best in 2022.

Enjoy! Chet

### Meeting Minutes, December 5th, 2021

- The December Meeting, Christmas Party, and Toys for Tots drive was held at **CJ Muggs** in Webster Groves and was facilitated by Chet Palumbo, Director.
- The meeting opened at 12:30 pm with The Pledge of Allegiance of the United States. 27 Members were present.
- Chet thanked everyone for attending and thanked them for their generous donations to the Toys for Tots drive. In addition to the toys brought to the meeting, we received \$450.00 from members who were not able attend the party.
- **November 1**<sup>st</sup> **Meeting Minutes:** Motion made by <u>Bob Brasses</u> to approve the November Meeting Minutes, second by Larry Longworth and approved by all.

#### **Member News:**

Mark Kistner is recovering form Covid, back at work but on call today so unable to attend the luncheon.

Pete Nathan was ill and unable to attend also.

Bill Bicknell is trying to sell his Corvair.

Sherrie Dodson is home from a hospital stay.

#### **Member Check-in:**

In the interest of time, the Check-in was skipped for this meeting

### **Treasurer's Report:** (Chet Palumbo)

• Club Account: \$2,422.84, as of November 5<sup>th</sup>, 2021

• 50/50 Account: <u>\$176.00</u>

- Motion made by Geoff Lockett to accept the Treasurers Report, second by Pat Bulfin, approved by all.
- Car Show Account: (Discussed with Heartland Regional Update)
  A brief executive meeting was held to explain and resolve some discrepancies of account figures.

#### **BCA Club News:**

- National News Events:
  - 2022, June 22-25, BCA National Meet, Lisle, Illinois. Hosted by the Chicagoland Chapter
- **Heartland Region Events:** 
  - o <u>2023 Heartland Regional</u> hosted by the Dairyland Chapter
  - o Fred Pennings and Erv Hutjens
- Gateway Buick Performance Chapter (BCA).
  - o December Meeting, December 12, Hooters, Maryland Hts.

#### **Old Business:**

- <u>2021 Heartland Regional Meet</u>, Chesterfield, MO. September 08 11, 2021
  - o Profit/Loss Review:
    - Our financial goal for this event was to break even and to use the generous gift received from the STL Gateway Buick Dealers Association to subsidize the costs for this event, making it the most economical Regional ever attended by our guest.
    - Our budget had a reasonable margin reserved for unplanned expenses and flexibility to change our plans as we progressed.
      - One of the biggest changes we made was with the Welcome Party: we agreed to exceed our budget by offering real food and adding a Cash Bar, instead of offering party trays with cheese, crackers and veggies.
      - With the exception of Covid we would have finished well within our budget and met our goal to break even.
      - With the credit received from Doubletree for "Nights Sold" added back into our account, we were able to report a "minimal profit" for the show.
  - o Car Show Account Review:
    - Audit of Heartland Regional Income and Expense Data
    - Audit of Show Car Financial Reporting beginning in April 2013
    - Audit of Show Car Bank Account beginning in November 2018
  - Shriners Hospital for Children Donation: (Pending)
    - \$ 1,891.00 payment will be made after we complete our financial review.

#### **New Business:**

- Direct Payment option for Membership Dues, for folks who no longer have checks... Chet investigated options:
  - o Per Dennis Burkholder, MAD MOOSE MEDIA, our website, and GoDaddy have the capability to support online payments, all we need to do is set up a shopping cart
  - Per Regions Bank, once we have our shopping cart set up, we can deposit directly into an existing checking account.
     No credit card or any other accounts are needed.
  - This project will be tabled until after the books are closed on the Heartland Regional.
- 2022 EVENTS WHAT TO DO...???
  - A visit to the garage and car collection of David Baker. Perhaps could happen in or around April.
  - o Mark Magruder attended the Regional with his 1940 Buick Pickup truck. Mark has a car collection in Eolia, MO, and expressed a willingness to host our club for a tour of his collection. After that visit, Jeff Johnson offered to host a BBQ at his

- farm just a few miles from Mark's place. That event could perhaps replace the annual September picnic at Chet Palumbo's house.
- o A trip to the Ste. Genevieve, MO was discussed with a visit to the winery and an overnight stay. Mark Kistner to investigate further.
- $\circ$  Melba and Wayne Nolan have offered a tour of their car collection, with 15-20 people at a time, on a Sunday afternoon.

#### **Past Events:**

• Barb Knudsen's "Grab a Hug Party in the Park" Party —a grand time was had by all on a picture-perfect day to celebrate Barb's 60 years of car club membership. She commented that she wanted to do something to thank all of car family who are so precious to her. A catered lunch and free hugs were the highlights of the party.

#### **Upcoming CLUB Events:**

2022 - January 9th – Monthly Meeting / Holiday Party

- CJ Muggs in Webster Groves Private Room, Lower Level
- Starts at 4:00 p.m.
- Address: 101 W. Lockwood Ave, Webster Groves 63119 (314) 963-1976
- http://www.cjmuggs.com/webster.htm
- [Chet Palumbo reservations, Pete Nathan door prizes]

### **Upcoming Events (OTHER):**

50/50 Drawing: \$40 Total, with \$20 going to Geoff Locket who donated his winnings back to the 50/50 account plus gave a \$10 donation. (?)

Motion to adjourn made by: Geoff Lockett Seconded by Bob Brasses Meeting adjourned at 1:15 pm.
Approved by all.

# Annual Toys for Tots Meeting

Our annual Toys for Tots meeting was held this year at CJ Muggs in Webster Groves. They

have consistently appreciated our business and were quite accommodating to our meeting needs this year. Meeting attendance was very good with a total of 27 members, spouses and guests present. After a short business meeting, we all sat down to a fine dinner of the offerings from the menu.

As mentioned in the director's letter, the outpouring of gifts for needy children in our area was nothing short of phenomenal. Among our club's many strengths, stepping up for those in need is consistently demonstrated.



Following are pictures of those in attendance.



L to R: Barb Rehling, Bob Windal, Bob and Barb Brasses and Mike Saputo



L to R: Chet and Jeanne Palumbo, Atena and Adam Martin, Ginny and Bill Landers.



L to R: Pat Bulfin, Geoff and Angela Lockett, Mary Becker (Ted Becker not shown was taking the picture)



L to R: Melissa Mason, Scott Keller, Nancy and Larry Longworth and Monica Ledwon



L to R: Gary Blakemore, Doug Bremer, Bob Merrick, Gene Jacobs, Tracy Canter and Suzie Gould



### **January Birthdays**

Al Tornabeni

Atena Martin

Chris Waltz

Ed Lanfer

Rhonda Ford

Richard Self

Scott Keller

Steve Dodson

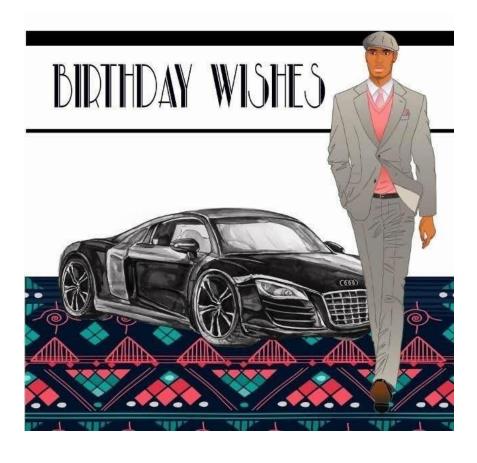


### **January Anniversaries**

Dave & Susan Pollmann

John & Angie Midkiff

Wayne & Melba Nolan



# **Kustom Corner**





# **Bolt Extraction**

### By Geoff Lockett

Maybe you've encountered this, maybe not, but a bolt that's broken off in a part, like an engine block for me, is no fun. It's happened to me before and trying to drill out the shank and using an Easy-Out has just compounded the problem in the past for me. I didn't even consider that method.

The problem began when I removed the rear bearing cap on a Chevrolet 235 CI six to examine the rear seal. Finding a lip seal, I decided to leave it in place and re-install the 4-bolt cap (If you want a good laugh, ask Bill Bicknell sometime about my experience with that particular cap). Torquing to 120 ft-lbs., I continued tightening the last bolt with the dial torque wrench not "clicking" to indicate the time to stop. My suspicions that I was stretching the bolt to failure were confirmed when it snapped.

I first tried tapping a corner of the exposed bolt shank with a cold chisel to get it to begin to rotate, but access just didn't provide enough leverage. I could not get a ViseGrip or Channel Lock pliers to grab the top of the shank & I

didn't want to drill and risk leaving steel filings loose in what is a pristine block.

This is where I was reminded of one of the best reasons to join a car club – allowing me to tap into experience and expensive equipment, and Ted Becker once again fulfilled that role!

Ted suggested welding a nut on the top of the exposed broken bolt shank, so he graciously made a house call with his Hobart MIG welder.

In 20 minutes, of which all but 30 seconds was spent setting up, the bolt was out. What surprised me was how little effort was required to turn the shank with the nut welded on.

Preparation included using aluminum duct tape to protect surrounding surfaces like the rear bearing, block surface and crankshaft counterweights from welding splatter (no spatter

occurred). Ted had drilled a nut to match the shank diameter, so it fit over the shank to maximize the material to fuse to the nut. The actual welding took a few seconds.



Thank you, Ted! The bearing cap is on and properly torqued with new Grade 8 bolts. A lesson here is to not reuse bolts that require high torque, like head and bearing cap bolts. In fact, Ted wrote an article in a previous Gazette edition on the engineering behind head bolts, discussing the stretching that takes place by design.



## Some Technology Behind this Story

By Ted Becker

The technique I used to extract this bolt is far from unique. A quick Google or YouTube search will produce quite a few examples of welding on a broken bolt to extract it. However, I have never seen an example of using this on a main bearing cap bolt. The close proximity to the main bearing journals and bearing inserts makes this a little tricky. Although I was hesitant to stick my welder into the inside of an engine, Geoff had tried several customary techniques without success. In other words, he was desperate.

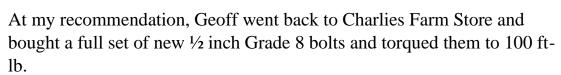
I must admit that I can't ever remember hearing of a case of breaking off a main bearing cap bolt. In retrospect, however, this failure was not a total surprise due to some (in my opinion) questionable design characteristics of this engine.

The factory bolt torque spec for this joint is 120 ft-lbs. Normal torque specification for a ½ inch bolt is 100 ft-lb. This spec is based on providing adequate clamping of the joint while keeping the bolt material within the "elastic range" of the material. By the term "elastic" this means that there is no permanent stretch of the bolt when it is unfastened. For reasons beyond the scope of this article, there are cases where an overtorque is desired for a highly loaded joint. This joint is not heavily loaded, which surprised me to see this amount of torque. If a bolt is torqued too tight, the bolt can be deformed beyond its elastic limit. In other words, it has taken a permanent stretch that will not be relieved if the bolt is unfastened. In and of itself, that is not necessarily bad, but it will then weaken the bolt if it is reused and torqued to such a high amount.

In the case of Geoff's engine, it would appear that this bolt had been torqued multiple times. The original factory assembly of the engine was the first time. Based on Geoff's observation that a lip type crankshaft seal was installed, that probably is an indication that the engine had been apart and rebuilt at least once. Since Geoff had retorqued that bolt when he was

reassembling the engine, that means this same bolt was torqued at least 3 times. Assuming this high amount of torque caused the bolt material to exceed the elastic limit on multiple occasions, it was doomed to failure.

Compounding the problem is the fact that the bolt shank is showing some signs of pitting corrosion (also called rusting). This corrosion seeps below the visible surface and makes the steel more brittle than virgin material. This attached photo clearly shows surface pitting indicating that this bolt was a disaster looking for a place to happen. Unfortunate for Geoff, he was the recipient of the consequences.





One final word about how the bolt is manufactured. The shank of the bolt appears to have a smaller diameter than the threads. This is the result of the threads being "rolled" rather than cut. Rolled threads are always stronger than cut threads for multiple reasons. Cutting threads causes material to be torn out, leaving cracks down in the root and along the sides of the threads. The rolling process not only does not cause material to be torn out, but the forces applied cause the steel to be "cold worked" which increases the hardness and strength of the steel.

Funny story to end my discussion here. The head of the bolt is forged in a hexagonal die in multiple steps. As the rod is hammered in the forging process, material "oozes" out along the base of the head. The final operation is to shear this oozed material out. Looking at the bottom of the head, there is a visible lip from that shearing operation. The sheared off material is an irregular round piece with a nice hexagon inside it. I once visited a bolt manufacture during a business trip. The engineer who was giving me the tour got all excited when he was explaining the process and this piece that had been sheared off. He said he always thought that was a really attractive piece of metal. In fact, said he, it was so visually appealing that he took one of these pieces, had it chrome plated, and made a necklace that he gave his wife as a Christmas present. My goodness, what a lucky girl!!! And who thinks Engineers are weird??

# Why do we change oil in our car?

### By Ted Becker

This advertisement from an old magazine popped up on a Buick site on Facebook recently. Though we all have been conditioned to know that this is a very false claim, do we really know why it is so? Glad you asked.

If you said it is because the oil gets dirty and contaminated, you are partially correct. If you said it is because all the chemicals in the oil have been depleted, you are more accurately correct.

Yes, oil does get dirty. Internal to an engine are many parts that rub against each other. As that happens, wear particles break loose and are picked up in the oil. All engines currently produced have full flow oil filters. Larger particles above about 50 microns are trapped in the filter to protect the engine from further wear. Smaller particles, however, go through the filter and back into the engine. These small particles do some further damage, but that is minimal. Throughout an oil change period, you will observe the oil becoming blacker, which is caused by these very small particles.

The bigger issue with oil, however, is the chemistry of the oil. Although the oil is the lubricating element, there is so much chemistry going on inside an engine that neutralizing chemicals must be added to the oil. One of the chemicals is a detergent, that prevents oil from "gunking" (technical term is "agglomerate", but that is



not on the test) and leaving greasy deposits inside the engine. Other elements are to neutralize the acids that are produced by the combustion products entering the crankcase. Primary cause of acids is from sulfur in the fuels. Other elements are "anti-foaming" agents that prevent the oil from foaming as it comes in contact with rotating elements within the engine. Primary cause of foaming comes from the oil hitting the crankshaft as it rotates within the engine. Left unchecked, oil can become foamy like the head on a poured glass of beer.

If you look at a bottle of oil, it contains many numbers and specifications. These are industry standards that the oil manufacture must guarantee be met. This particular photo is from a jug of Castrol Syntec Full Synthetic oil. The weight of the oil is SAE 5W-20, which is a Society of Automotive Engineers standard that defines the thickness of the oil. Further is an API SP standard. The American Petroleum Institute develops standards for the various characteristics that were mentioned previously in this article. Each oil producer must prove through a series of "sequence testing" that their oil meets these standards before they are permitted to include this symbol on their product. The next time you are in an auto parts store, look at the various containers



of oil and they will all have this same symbol showing both the oil weight and the API standard.

Oil technology has advanced incredibly so over the last 50 years or so. You are probably aware that mid-20<sup>th</sup> century, oil changes were recommended every 1000 miles. During that time of oil development, there was very little chemistry added to the oil, so all the detrimental effects of engine operation got into the oil and reduced its ability to lubricate the engine and keep its internal parts clean of greasy deposits. As a side note, elimination of Tetraethyl Lead in the gasoline has really cleaned up the engine oil situation. I have disassembled many engines which were run with leaded fuel and the engine deposits are quite remarkable. Not sure the chemical composition, but the greasy deposits were a light gray color and quite thick. This "grease", if left to build up, can come loose and plug up oil supply passages in the engine or at least restrict the oil flow in those passages.

OK, back to the advertisement that started this discussion. During my years working at Caterpillar, our primary engine market was heavy truck engines. That was, and is today, a highly technical and competitive market. Each primary manufacturer (Caterpillar, Cummins and Detroit Diesel) would continuously work towards a competitive advantage. Though Cat and Cummins engines were of the 4-stroke cycle design, Detroit Diesel had a 2-stroke design that they stayed with far longer than they should have. There are numerous disadvantages to a 2-stoke design in a heavy engine application, among them being high oil consumption. The 2-stroke cycle itself consumes a lot of oil, but the Detroit Diesel engines were notorious for external oil leaks. Since the engines were painted green, they were known amongst competitors as "Jolly Green Leakers". As a means of turning a disadvantage into and advantage, they once had an advertising claim that the engines never needed an oil change. Sort of like the old saying "Fill it up with oil and check the fuel level."

# **Gazette Centerfolds**





# Gazette Giggles





"It's just a simple little operation, but we want you to pay now."



### STL Gateway Chapter – BCA 2022 Event Details

2022-----

## $January \ 9^{th} - Monthly \ Meeting \ / \ Holiday \ Party$

- CJ Muggs in Webster Groves
- Starts at 4:00 p.m.
- Address: 101 W. Lockwood Ave,
- Webster Groves 63119
- (314) 963-1976
- http://www.cjmuggs.com/webster.htm
- [Chet Palumbo reservations, Pete Nathan door prizes]



# GATEWAY CHAPTER MEMBERSHIP APPLICATION AND PROFILE SHEET

Annual Dues: \$25.00 to the Gateway Chapter, Renewed: May of each year



(BCA Membership also required for club liability insurance)

Family & Personal Information:			
Name:		Birth Month:	
Spouse's Name:	Birth Month:	Wedding:	
Mailing Address:			
City, State, Zip Code			
Home Phone:			
Email (required):			
Profession:	Employer:	years _	
Spouse's Profession:	Employer:	years	
Military History: Branch of Service:			
Rank/Duties/Veteran of a Foreign War:			
Buick Club of America Information:			



Authorized Signature

# **Buick Club of America**

**Application for Membership** 

www.buickclub.org

The Buick Club of
America is a non-profit
membership corporation
dedicated to the
preservation and restoration
of those vehicles built by
Buick Motor Division of General

Motors Corporation. BCA membership (includes spouse and minor children only) offers you the following:

- Monthly issue of The Buick Bugle published by the BCA.
- Advertising privilege in The Buick Bugle for Buick-related items.
- Participation in all club events and opportunity to join local chapters and divisions.
- Membership card, and as a new member, one BCA decal.

#### **BCA MEMBERSHIP DUES SCHEDULE**

Membership is on an annual basis beginning with the month following receipt of application. Membership is available in increments as follows:

<u>1</u>	Year	2 Years	3 Years
U.S. Periodical Class Mail	\$ 50	\$ 95	\$130
U.S. 1st Class Mail	\$ 70	\$130	\$200
Canada & Mexico Periodical	\$ 68	\$131	\$194
Canada & Mexico Priority	\$ 93	\$181	\$269
International Surface	\$ 68	\$131	\$194
International Air	\$ 98	\$191	\$284
E-Membership	\$ 35 <i>(E-I</i> )	Membership is an on hard copy — email i	line Bugle only; required)

Without right of transfer or survivorships. Dues are non-refundable.

All foreign countries note: Membership dues and all other financial transactions with the BCA must be a bank draft, drawn on a U.S.A. bank and payable in U.S.A. currency, MasterCard, VISA or Discover charge cards. Make all checks payable to The Buick Club of America. The U.S.A. annual membership is \$50

		OFFICE USE ONLY	
Spouse (if applicable):		Check/Money Order	
Address:		#	
City:		Visa Mastercard Discover	
Country:		Date Processed:	
Phone:	Expire Date:		
E-mail Address:		We occasionally make the membership list	
Sponsoring Member (not required):		available to carefully screened companies whose product or services might interest you. If you would prefer to have your name withheld, place a mark in this box.	
New or Renewal: BCA #			
*Buicks Currently Owne			
Year Model Number or Type	Body Style (4 dr./2 dr.)	Vehicle ID Number (VIN Number on Registration)	

Phone Number