

# THE BOWTIE BULLETIN

THE OFFICIAL NEWSLETTER OF THE



DECEMBER 2018 EDITION



Message from our PCCC President  
Club Info, News and Social Events  
Welcome New Members  
Local Car Events  
Feature Articles  
PCCC Parts & Swap  
Classic Car Trivia  
Out and About



Tim Martin's  
1949  
Chevy Truck

## *2018 has been a Wonderful Year*

We are nearing the end of another wonderful year in the best car club anywhere! We currently have 113 members in our club; the most members ever, and we continue to grow. So many of these members came because one of us invited them to join when we met at a show, cruise in or we sell them one of our rides, and with that comes a new member (no names needed here).

December is a busy time for our club. December 1<sup>st</sup> is the Toys and Tots cruise in Knightdale. December 8<sup>th</sup> is our annual Christmas Party and we are returning to Angie's Restaurant again this year. The club will also supply cars for The Historic Oakwood Candlelight Tour for the 6<sup>th</sup> year, December 8<sup>th</sup> and 9<sup>th</sup>. We have several Christmas parades in the next few weeks as well. And finally, we kick off the New Year with the New Years Day cruise in at LoneStar in Knightdale.

This will also be my last message as President of Piedmont Classic Chevy Club. It has been an honor to serve and I cherish the many friends I have made as well as those that I have yet to meet. THANK YOU!!

Merry Christmas, Happy Hanukkah, Happy Kwanza and a Happy New Year to all

Barry Kitchener PCCC President

**NO MEETING IN DECEMBER**

Next Business Meeting Scheduled on **Monday January 28, 2019**

Advance Auto Store Support Center-University Building  
4709 Hargrove Rd, Raleigh, NC 27616

## CLUB INFO

### 2017–2018 Club Officers

President - Barry Kitchener  
barrykit2000@yahoo.com

Vice President - Chris Peedin  
crystalclean67@aol.com

Secretary - Jane Overman  
medassist61@yahoo.com

Treasurer - Tom Doherty  
tdoherty@mpcllp.com

*Send your PCCC Dues payment to:*

*Tom Doherty  
4008 Ridgebrook Bluffs ; Raleigh, NC 27603*

*For a complete listing of carshows and cruise in's  
Contact club member*

*Kaye Brady  
for a complete listing of carshows and cruise in's.*

*kbrady.southernclassic@hotmail.com*

Got an interesting project or story you would like to submit for future newsletters?  
Contact Jeff Hopp at jhopp55@att.net

## PCCC APPAREL

### Royal Blue Polo Shirts

Including standard embroidery [\$22]

### Hats

Solid Kaki, Kaki with Black Brim, Solid Black  
Style will be popular soft cover type and adjustable fit  
[\$15 ea]

### Club Jacket Royal Blue

Including standard embroidery [\$46]

### New 'Soft Shell Black Jacket

With lighter contrast collar [\$56]

### Magnetic Engraved Name Badges [\$10.70]



Contact *Larry Lewis* @ 919.215.3946 or  
[rclarry@aol.com](mailto:rclarry@aol.com)  
for complete ordering details

*WELCOME NEW MEMBERS*

BRUCE AND BARBARA SCAMMAN  
BENSON, NORTH CAROLINA

BRENT AND KATHY ROBERTS  
RALEIGH, NORTH CAROLINA

*PLANNED PCCC SOCIAL EVENTS & CLUB CRUISES*

Saturday, December 8—The PCCC Christmas Party  
Angie's Restaurant, Garner, NC



Message from Carol Keith:

"We will be doing the gift exchange like we did last year. If you want to participate please bring a wrapped gift for a man if you are a man and a woman's gift if you are a woman.

I will be passing the sign-up sheet again at the December Meeting but anyone not signing can also send me an email at [tedkeith@bellsouth.net](mailto:tedkeith@bellsouth.net) with the number attending.

Thank you. Carol

Any Questions or Suggestions?

Contact Carol Keith at 919.847.5515 or David Peedin (Travel Coordinator for car cruises) at 919.612.6998

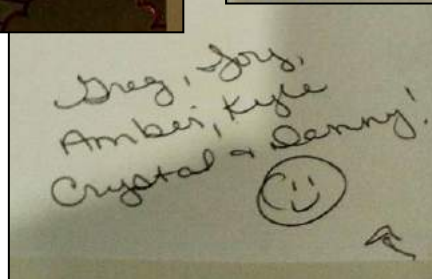
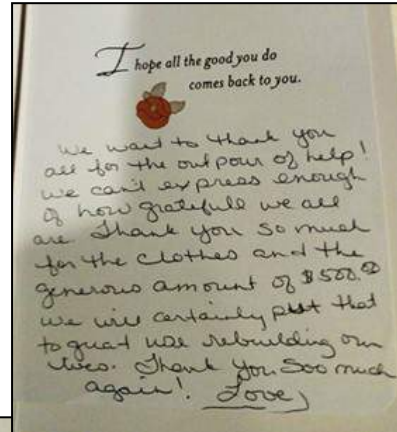
Got an interesting project or story you would like to submit for future newsletters?  
Contact Jeff Hopp at [jhopp55@att.net](mailto:jhopp55@att.net)



## WE DO SPECIAL THINGS—Thank you from Denise Grady

In the October meeting, Max Cooper brought up that my daughter & granddaughter (2 separate households) suffered losses from the flooding in Wallace NC from hurricane Florence. My daughter had 3' of water consume their home & granddaughter lost EVERYTHING with water to the ceiling. The club proposed a donation be given to them in the amount of \$500.00. This was divided between them & oh so appreciated.

This club is awesome and I'm proud to be a member!



OFFICIAL CONVERSION CHART	
HOW TO INTERPRET	
* ANTIQUE CAR ADS *	
IF IT SAYS:	IT REALLY MEANS:
Rare model.....	Nobody liked them when new either
Older restoration.....	Can't tell it's been restored
Needs engine work.....	It's been frozen for 30 years
Uses no oil.....	Just throws it out
No rust.....	Body and fenders missing
Rough.....	It's too bad to lie about
One owner.....	Never been able to sell
No time to complete.....	Can't find parts anywhere
Needs interior.....	Seats are gone
Rebuilt engine.....	Has new spark plugs
May run.....	But it never has
Low mileage.....	Third time around
Many new parts.....	Keeps breaking down
29 coats hand-rubbed paint.....	Needed that much to cover rust
Clean.....	It sat out in the rain yesterday
Best offer.....	About what I expect to get
Always driven slowly.....	Won't go any faster
Prize winner.....	Hard luck trophy 3 times in a row
Stored 25 years.....	Under a tree
Real show stopper.....	Orange with purple fenders
Easy restoration.....	Parts will come off in your hand
Ready to show.....	Just washed it
Top good.....	Only leaks when it rains
Good investment.....	Can't depreciate any more



Submitted by  
Chris Peedin



Years ago, A good friend (Ray Bader) introduced me to using a vacuum gauge to diagnose engine problems, in-fact it was often the first tool he would reach for when confronted with a poorly running engine. I'll admit to being a little skeptical at first, but over the years I have become convinced that engine vacuum is a great source for information in helping diagnose problems inside the engine. Of course, high-performance engines with loopy camshafts often make little vacuum but even then the vacuum gauge can give you insights to the inner workings of your engine.

Simply put, the vacuum gauge has proven itself time and time again to be an invaluable tool in troubleshooting engine problems.



The key to using a vacuum gauge to diagnose engine problems is to understand exactly what the gauge is telling you. When armed with this knowledge you'll be able to quickly discern between simple tuning issues to potentially more severe mechanical problems.

Good quality vacuum testing gauges are available at most auto parts stores and online resources, and are relatively inexpensive. Before beginning any vacuum testing, a visual inspection should be made of the entire vacuum system. Check all hoses, hose connections, and all open ports on carburetors and intake manifolds are plugged (note: some cars also have vacuum operated heat/ac controls).

To get started, hook the vacuum gauge to an intake manifold vacuum source. Manufacturers install ports on their manifolds for lots of different reasons: Brake Booster, PCV tube, EGR Switch, A/C vents, etc. You simply need to find one small enough for the vacuum gauge line to slide onto firmly. This is also done with a tee on an existing line or pulling a line and connecting it direct (for example, the vacuum line to the transmission can be used). Start your engine and allow it to come up to operating temperature before testing.



**COMMON VACUUM TEST RESULTS:**

**Normal Engine:**

On most engines, accelerate to around 2000 rpm and then quickly release the throttle. The engine should snap right back to a steady 17- 21"hg vacuum.

**Steady low between 5-10"hg vacuum:**

This indicates that the engine has a leak in the intake manifold or the intake gasket.

**Steady low between 10-15"hg vacuum:**

This reading indicates late valve timing. There's a chance the vehicle has jumped timing. Check the timing belt or chain depending on the application.

**Steady low between 15-18"hg vacuum:**

This low reading indicates retarded ignition timing. Advance the timing on the distributor to correct this problem, and recheck vacuum.

**Fluctuating needle:**

A fluctuating needle indicates there's a problem with a valve or there's an engine mis-fire.

**Needle drops during acceleration:**

If the needle drops steady during acceleration there's a restriction in the exhaust or intake. This is typically due to a clogged muffler or exhaust system.

**Also see vacuum gauge chart on the next page.**

**Print it out and hang it on your tool box, and you'll never second guess what your gauge is telling you!**



**GRAY NEEDLES ARE FLUCTUATING | BLACK NEEDLES ARE STEADY**



**Normal Motor**  
Needle steady between 17 & 21



**Normal Motor**  
Open and close throttle rapidly  
rings and valves okay.



**Poor Rings or Oil**  
Needle steady but lower  
than normal



**Poor Rings or Oil**  
Open and close throttle rapidly  
needle pulls down to zero.



**Sticky Valve**  
Needle drops occasionally  
about 4 divisions



**Burnt Valve**  
Needle drops regularly  
several divisions



**Leaky Valve**  
Needle drops 2 or more divisions  
when valve should close



**Loose Valve Guide**  
Fast Vibration of needle  
between 14 and 19



**Weak Valve Guides**  
Motor racing, needle registers 10  
to 22, variations increase with RPM



**Late Valve Timing**  
Needle reads between 8 to 15  
and remains steady



**Late Ignition Timing**  
Needle reads between 14 to 17  
and remains steady



**Plug Gap Too Close or  
Points not Synchronized**  
Needle floats slowly between 14-17



**Leaky Intake or Carb Gasket**  
Needle reads below 5



**Leaky Head Gasket  
Between Cylinders**  
Needle floats between 5 & 19



**Chocked Muffler**  
High reading at first, Breaks to 0  
and builds back to 16



**Carb Out of Adjustment**  
Needle floats slowly  
between 13 and 17

### *LOCAL DECEMBER CARSHOWS*

**DEC 1**— RALEIGH/KNIGHTDALE NC - Toys for Tots Toy run from Tobacco Road Harley Davidson in Raleigh to Lone Star Steakhouse in Knightdale. Classic Car & Bike Show at Lonestar Steakhouse in Knightdale (6601 Knightdale Blvd. Knightdale NC).

**DEC 8** - FAYETTEVILLE NC - Wild Land Diesel Performance 2nd Annual Toys for Tots car/truck show. 12 noon to 4pm. 6060 Hall Park Rd. Fayetteville NC. Call 910-426-4605 for information.

**DEC 8** - GREENVILLE NC - Ron Ayers Motorsports Toys for Tots Motorcycle Ride. Registration starts at 9am. 1929 N. Memorial Dr. Greenville NC. Call 252-758-3084 for details.

### *LOCAL DECEMBER CRUISE-IN's and CARS & COFFEE EVENTS*

**DEC 1**— CLAYTON NC - Clayton Cars & Coffee. 11407 Us Hwy 70 Bus. Clayton. Donations for Toys for Tots.

**DEC 15** - WAKE FOREST NC - Cars & Coffee Wake Forest 8am to 11am. 3229 Burlington Mills Rd. Wake Forest NC. NOTE: In Front Lot for this month (weather permitting). ENTER from Burlington Mills rd. and EXIT on to Ligon Mill. Gates will lock at 11am. Please consider donating non perishable items to the Richland Church.

**DEC 28** - FAYETTEVILLE NC - Monthly 4th Friday cruise in at the Fayetteville Transportation Museum. starts at 6pm. Historic Downtown Fayetteville

**DEC 29** - WAKE FOREST NC - Cruise night at Sonic Drive In. starts at 6pm year round event. 12509 Capital Blvd. - in Wake Forest Plaza

*For More Info—Contact Kaye Brady at  
[kbrady.southernclassic@hotmail.com](mailto:kbrady.southernclassic@hotmail.com)*



*Photos by, Elke Watkins and Jeff Hopp*



## PCCC PARTS & SWAP

Contact the PCCC member listed below  
for additional details

Original heater core & blower motor for 1966/67 Chevelle. Perfect condition [\$200 for both.]; Original heater core and blower motor for 1970-72 Chevelle - perfect condition with Temp Control panel. [\$200]; O.E. "Spread Bore" 4 Barrel intake off of 1968 327 Corvette engine [\$75]  
Contact [Dave Peedin](#) @ 919-612-6998.

62 Impala S/S hubcaps. Excellent condition (set of 4) [\$250];  
Contact [Barry Kitchener](#) @ 919-623-7287

Edelbrock 750 Performer Carb - may need rebuild [\$60]  
Contact [Ray Bader](#) @ 919-387-0479

Two small 10 bolt rear ends for 67 - 69 Camaro or  
68 - 72 Nova (273 gears, one wheel pull) - [\$225 each]  
Contact [Jon Williams](#) @ 919-244-6901

1973 Super Beetle Convertible, 4 speed on the floor, yellow  
with a black top, all original. [\$8500 OBO]  
Contact [Denise Grady](#) @ 919-830-6509

Chevelle Parts and Ford Model A Parts for sale—  
Contact [Bill Aldridge](#) @ 919-523-4619

Eagle GLO-8000 storage/service lift. Runs on 110V power.  
[\$1000] Contact [Ted Korab](#) @ 919-616-0427

1988 Cougar LS for sale, white with deep blue interior; fuel  
injected 3.8L V6, auto trans original owner, original paperwork  
available. Also has set of brand new Splash Guards with  
Cougar Logo and some spare Wheel Covers and Center Caps.  
[\$TBD]  
Contact [Robert Andersen](#) @ 919-749-1454

## DEVELOPMENT AND HISTORY OF THE CARBURETOR

The carburetor was invented by Karl Benz in 1885 and patented in 1886. It was apparently also invented by the Hungarian Engineers Janos Csonka and Donát Bánki in 1893. The first carburetor to use a float was developed in 1885 by Wilhelm Maybach and Gottlieb Daimler, and Karl Benz also patented a float-style carb around the same time. But, Since so many different methods of mixing air and fuel were used in the early days of the automobile, and earlier, stationary gasoline engines also used carburetors, it's somewhat difficult to pinpoint who "invented" the device.



All early carburetor designs were Surface carbs, using rotating brushes to expose gasoline to air from the intake. The first carburetor to use a float was developed in 1885 by Wilhelm Maybach and Gottlieb Daimler, and Karl Benz also patented a float-style carb around the same time.



Spray carbs started to take over right around the turn of the 20th century. Rather than relying on evaporation, these carburetors actually sprayed a metered amount of fuel into the air, where it was sucked into the intake. These carburetors used a float like Maybach and Benz's earlier designs, but they operated based on the Bernoulli principle and also relied on the Venturi effect, just like modern designs. One notable subtype of the "spray carburetor" is the so-called "pressure carburetor," which first appeared in the 1940s. Although pressure carbs resemble spray carbs superficially, they were actually early examples of fuel injection. Rather than relying on the Venturi effect to suck fuel out of a bowl, pressure carbs sprayed pressurized fuel out of valves in a manner that was very similar to a modern fuel injector.

Carburetors were the usual fuel delivery method for almost all gasoline-fueled engines up until the late 1980s, when fuel injection became the preferred method of automotive fuel delivery. In the U.S. market, the last automobiles sold to the general public equipped with a carburetor were the 1990 Oldsmobile Custom Cruiser and the Buick Estate Wagon. Until 1991 the Ford Crown Victoria Police Interceptor equipped with the 351 in<sup>3</sup> (5.8 L) engine had an Autolite four barrel carburetor. The SUV Jeep Grand Wagoneer equipped with a 360ci (5.9L) AMC engine came with either a two or a four barrel carburetor. The last light truck to have a carburetor was the 1994 Isuzu.



*Out and About  
with PCCC*



*Photos by, JoAnn Hopp, Jeff Hopp & Kaye Brady*