

# THE BOWTIE BULLETIN

The Official Newsletter  
Of The **PIEDMONT CLASSIC CHEVY CLUB**

**DECEMBER 2015 EDITION**



## *This Months Contents*

*Message from our PCCC Vice President  
Club Info, News and Social Events  
Feature Articles  
PCCC Parts & Swap  
Photo Puzzle and Chevrolet Trivia*



Max & Beth Cooper's 1966 Chevelle

## *A Message From Our PCCC President—David Smith*

*Greetings to all, I hope this greeting finds all in good health. The Holidays are fast approaching as is cooler weather. That means that it must be Parade time, I believe that PCCC is signed up for 3 more parades (it will be 2 when you read this) The Christmas Parade downtown which is always a great time., as well as The Apex Parade and the Cary Parade. If you wish to be in any of the parades please contact the Parade Director Ray Bader for times and info. As you all know there is no December meeting so I would like to remind everyone of couple of events happening in December, December 5th is the Toys for Tots at Lonestar on Business 64 in Knightdale at 10:00, then the Apex Christmas Parade at 4:00, then on to the Christmas Party at Fairview at 6:00 eat at 6:45, October 12th is the Cary Parade tentative meeting time is 1:00 at Coopers Furniture. Ray will send out an email with all updates. And let us not forget to kick off the New Year at Lonestar in Knightdale also on January 1st. Thank you and I hope to see you all at one or more events.*

*David Smith*



**NO MEETING IN DECEMBER**

Next Scheduled Business Meeting—Jan 25, 2016

**CLUB INFO ♦ NEWS**

**PCCC Apparel!**

**Royal Blue Polyester Golf Shirts**  
(including standard embroidery) [\$25]

**Royal Blue Cotton Golf Shirts**  
(including standard embroidery) [\$20]  
Add [\$2] for 2XL and [\$3] for 3XL

**Club Jacket Black or Royal Blue/Navy**  
(including standard embroidery) [\$44]  
Add [\$3] for 2XL and [\$4] for 3XL  
\$5 extra for embroidered name on shirt or jacket  
\$10 for embroidered club logo on back

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

Contact **Barry Kitchener** @ 919.833.0882  
or **barrykit2000@yahoo.com**  
for complete ordering details

**2015 Club Officers**

President - David Smith  
[dmsmith@nc.rr.com](mailto:dmsmith@nc.rr.com)

Vice President - Barry Kitchener  
[barrykit2000@yahoo.com](mailto:barrykit2000@yahoo.com)

Secretaries - Jim Toups & Carol Keith  
[jtoups@nc.rr.com](mailto:jtoups@nc.rr.com)  
[tedkeith@bellsouth.net](mailto:tedkeith@bellsouth.net)

Treasurer - Tom Doherty  
[tdoherty@mpcllp.com](mailto:tdoherty@mpcllp.com)

***Send your 2016 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 David Matthews for a complete listing of carshows and cruise in's.

Email—[matthewsdavid1955@gmail.com](mailto:matthewsdavid1955@gmail.com)

For a copy of any past PCCC Bowtie Bulletin Newsletter, contact Jeff Hopp @ [jhopp55@att.net](mailto:jhopp55@att.net)

Contact PCCC Treasurer Tom Doherty for copies of the PCCC Member Directory

**SCHEDULED 2015 SOCIAL EVENTS**



**This Saturday December 5, 2015 – CHRISTMAS BANQUET**  
Fairview Community Center on NC 1010  
6:00 PM.

Any Questions or Suggestions?  
Contact **David Ward Jones** at 919.971.4615 or [daviddwjarchitect@nc.rr.com](mailto:daviddwjarchitect@nc.rr.com)

## DAVE SMITH'S TECHNICAL TIDBITS—*Filler' Up!!*

The fuel gauge is one of an automobile's most important instruments. An accurate gauge helps keep one from running out of fuel, or at least indicates when more is needed. However, some believe that cars generate gas or that someone else will fill the tank. (Usually me) Does that sound familiar?

Faulty fuel gauges are a common problem in collector cars. Sometimes this is due to sitting in an unfavorable environment, and sometimes it is due to old age; everything wears out sooner or later. And, it is a sensitive instrument. But, it is simple to test and most problems are easy to fix. My experience with fuel gauges has been primarily with General Motors cars, but much of what follows is generally applicable to many others.

The fuel gauge is composed of two components: a sender in the tank and a gauge in the instrument panel. The sender consists of a float on an arm that varies the resistance the sender applies to the circuit with gauge. GM cars from the 1930s to the 1960s operate on a 30 ohm scale. At zero ohms in the sender, the float is on the bottom of the tank and the gauge should read empty. At 30 ohms, the float is at the top of its travel and the gauge should read full. The sender must be grounded to operate properly. The lack of a good ground is often the reason the gauge does not work properly.

### Gauge Reads Full At All Times

If the fuel gauge reads full at all times, the probable causes are:

- The wire between the sender and gauge is broken and/or the connections are not good.
- The resistance wire in the sender is broken.
- The sender is not grounded and/or the tank is not grounded to the chassis.

To determine what is causing the problem:

- Remove the wire from the terminal on the sender and ground it to the chassis. If the gauge now reads empty, the sender is not grounded or the sender is bad.
- Ground a test lead and touch it to the sending unit terminal on the back of the dash gauge (it is often marked with a red paper tag). If the gauge now reads empty, the wire between the sender and gauge is broken, or there is a poor connection at the gauge.
- Remove the sender from the tank and connect one lead of an ohmmeter to the sender terminal and the other lead to the sender housing. Then, move the float arm and observe the resistance as the float arm is moved; it should vary from 0 to 30 ohms.

If the foregoing tests do not identify the problem, then the dash gauge is bad and it must be rebuilt.

### Gauge Reads Empty At All Times

If the fuel gauge reads empty at all times, the probable causes are:

- The wire between the sender and gauge is shorted to ground.
- The sending unit is shorted internally.
- The float has a hole and no longer floats.

To determine what is causing the problem:

- Remove the wire from the contact stud on the sender. If the gauge now reads full, the sender is faulty.
- Disconnect the wire from sender terminal at the dash gauge. If the gauge now reads full, the wire between the sender and gauge is shorted to ground.

### Repairs

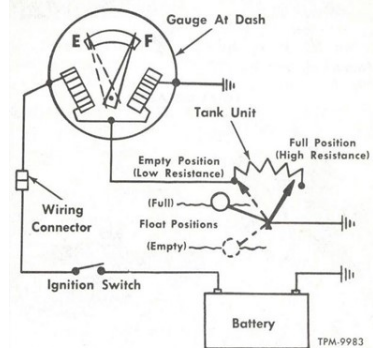
Repairing faulty wires or connections is straight forward. To ensure a good ground, I always install a short wire from the sender to the frame. If the sender is replaced with a new unit or an aftermarket replacement, it is advisable to check that it performs correctly before putting it in the tank. Use the test procedure described earlier.

If the dash gauge needs repair, this work should be done by those who specialize in instrument repairs; many offer this service.

The above testing and repairs are the same for vehicles built after the 60's also except that the sending units were 0 to 90 ohms, 0 being empty and 90 being full.

Always use a good meter when testing, I used a cheap one and it sent me in every direction trying to figure out my problem. Ray said buy a good one,,,30 bucks later I had perfect readings and found the problem.

***As always keep the shiny side up and the greasy side down.***



## Automotive Paint History



The history of automotive paint dates back to just after the turn of the century. It is true that the process of coating metal, wood and stone surfaces dates back much further. However, we have to acknowledge that a true vehicle related coating began about 1900. It came of age about 1910, roughly 6 years after Henry Ford founded Ford Motor Company. These coatings were products from the "varnish" category. Most were a carry over from the horse and buggy days. Much like old wood coatings, they were brushed on the surface and allowed to dry. The coating was then sanded smooth and refinished in the same manner. When a desired thickness was achieved the surface was polished. In many cases the process of painting a car took as long as 40 days. These products were not colorful. Remember, Henry always said, "You can have a car any color you like as long as it is "black." This system was used until the mid 1920's.



During the early 30's the auto industry started using "stoving enamels" based on alkyd resins. Initially the product was applied much like the "varnish" used earlier. These enamels were originally selected because of a higher gloss yield than varnish. They were also thicker and applied a little faster. Then somewhere between 1930 and 1940 a dentist developed the "spray gun." The spray gun application was much faster than the brush method. It minimized sanding between coatings and applied the product evenly. Now, what used to take over a month, could be done in a third of the time. This product and process was the system of choice for most vehicle manufacturers until the 1950's.

In 1960 the Ford Motor Company went back to the stoving methods. They did this after realizing that consumers made a vehicle purchase using their eyes and not their heads. There was no denying it -- Americans liked a shiny car. Ford also decided that they liked many of the properties that the early acrylic resins provided. They went to work with yet another new group of suppliers to create "acrylic stoving enamels." At this point Ford had the best method to offer the consumer and it wasn't long before the competition kept pace. This product was also applied with a spray gun. It had a very high gloss, was durable and was oven cured to produce a hard and colorful surface. This process was popular throughout the industry into the early 70's.



In the mid 70's the number of raw material suppliers to the paint industry had grown. Names like BASF, Du Pont™, Ditzsler, PPG and hundreds more. This enabled the manufacturer to pick the best process and product for the job. Today's Base Coat/Clear Coat, and Base Coat/Tint Coat painting processes were experimental at the time. The goal was to improve gloss and depth of color. By the late 70's these processes were perfected. However durability of the Clear Coat was poor. Not until the 80's would manufacturers have confidence in these paint systems. The carmakers needed Clear Coats to last 5 years. This was a magic number because that's how long consumers usually kept new cars.



This article has excerpts taken from a book Encyclopedia of Automobiles, Chevrolet Chronicles and the Internet. It is solely meant for the PCCC Members to enjoy some automotive history.

Long Style Cast Iron Water Pump (for small block) [\$25]; Carter Fuel Pump [\$15]; Cast Water Neck [\$15]; Chrome Water Neck [\$10]; 1970-72 Chevelle Original Dash Pad [\$75]; 1970 Chevelle tail light lenses [\$40 for both]; "350" emblems (R&L) for 70 Chevelle [\$40]; Trunk Emblem for 70 Chevelle [\$30]; Grill Emblem for 70 Chevelle [\$15]; Rocker Panel Trim for 1970-72 Chevelle [\$100 for pair]; Craftsman Compressor (needs some maint) [\$20]; Crawler [\$10]; Stool w/ tool trays [\$10]; K&N 13x2 Washable Air Filter [\$10]; 14x3 Air Filter [\$5]; 68-72 Chevelle Fuel Tank Door/License Plate Mount [\$10]; Original 1970 Chevelle Grill and Stainless Trim [\$75]  
**Jeff Hopp** @ 919-467-9594

Small Block Quadrajet manifold [\$40]; ; Edelbrock 750 Performer Carb - may need rebuild [\$85]  
**Ray Bader** @ 919-387-0479

Fully restored "Henderson" city tag dated 1966 [\$60]  
**Ted Korab** @ 973-420-2804

1988 Corvette Convertible [\$10000]  
**Dick Sossomon** @ 919-889-4950

Chrome rear bumper, fits 2001-2006 Tahoe, Suburban, GMC Yukon, Yukon XL, and CK 1500 pickup. One small dent, no rust. [\$50 OBO]. **Larry Marks** @ 919-782-1993

The 1970 Chevelle shared many sheet metal body parts with the 1970 Buick Skylark GSX, both are GM automobiles and have interchangeable sheet metal. They're also the only 2 high performance muscle cars to share the same roofline.

The Pontiac LeMans and Oldsmobile Cutlass shared a different roof design. The two-door sedan body style was unique to Buick; it had the same swoopy roofline as the hardtop but with a thick "B" pillar, with Buick's traditional styling feature called the "Sweepspear" appearing as a crease that ran the length of the vehicle. Chevrolet did not offer a pillared coupe for the Chevelle from 1970 to 1972; all two-doors were hardtops.

# Chevrolet

## Trivia

What Chevrolet name was taken from a show car displayed at the 1955 General Motors Motorama?

*Answer will appear in the January 2016 Edition*

**Nov 2015 Winners:**  
 Barry Kitchener  
 Jim Beedenbender  
 Keith Archambault

*Answer from the Nov 2015 Edition*



Send your answers to  
**Jeff Hopp** at  
 jhopp55@att.net

### FROM NOV 2015 EDITION



**Hector Lerena's 1971 Chevelle**



Out & About  
With PCCC



Photos By  
Max Cooper, Jeff Hopp & David Smith