

# The Official Newsletter of the Piedmont Classic Chevy Club

## *THE BOWTIE BULLETIN*

July 2012

*Club Info / News*

*Social Events / New Members*

*Cruise & Car Show Info*

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*Feature Articles*

*Cars & Parts Swap*

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*Dave Peedin's 1969 Barracuda Convertible*

### Message from Barry Kitchener

*We have just completed one of the most successful car shows in the history of PCCC. I want to thank everyone who contributed their money and/or time to make it a success. Final numbers are not in as I write this, but we announced at the end of the show that we will donate a minimum of \$5,000.00 to Hilltop Home. We most likely will also make a second donation towards the end of the year thanks to the newly created "charity fund." Job well done by all.*

*By the time you read this we will have just enjoyed the annual Bubba Burger cookout. Thank you David Ward Jones and all your helpers. As summer approaches the number of shows are reduced, but there are weekly cruise-ins close by. Check our website for locations and times.*

*We are always looking for new members. If you know someone interested invite them to our next meeting or just bring them along on your next ride. Membership is only \$25 a year and you get so much in return.*

*Hope to see you at a show or cruise-in very soon.*

*Barry*

*Next Scheduled Meeting - Monday July 23, 2012*

*CLUB INFO • NEWS • SOCIAL EVENTS*

***Club 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** **(\$7.50)**

Contact **Barry Kitchener** @ **919.853.0882**  
or **barrykit2000@yahoo.com**  
for complete ordering details

***2012 Club Officers***

President - Ray Bader  
***raybader@earthlink.net***

Vice President - Barry Kitchener  
***barrykit2000@yahoo.com***

Secretary - David Smith  
***dmsmith@nc.rr.com***

Treasurer - Keith Archambault  
***karchambault@nc.rr.com***

***To pay your 2012 Club Dues***  
***Send \$25 to PCCC Treasurer***  
***Keith Archambault***  
***1010 Acorn Court; Knightdale, NC 27545***

***Scheduled PCCC Social Events***

***BBQ - Sunday August 19 - Fairview Community Center @ 200PM***

***Oktoberfest - Saturday October 6 - Fairview Community Center @ 600PM***

***Christmas Banquet - Saturday December 1 - Fairview Community Center @ 630PM***

***Any Questions? Contact David Ward Jones at 919.971-4615 or***  
***daviddwjarchitect@nc.rr.com***

***WELCOME NEW MEMBERS***

***Mike & Dawn Childers***  
***Raleigh, NC***  
***1974 El Camino***

***Robert & Judy Simpson***  
***Garner, NC***  
***1969 Camaro***

***Mark Herbert***  
***Cary, NC***  
***1970 Camaro SS***

***Dwayne & Angela Locker***  
***Willow Springs, NC***  
***2010 Camaro***

## CARSHOWS & CRUISES

July 14 - *Cool Rides for Education Carshow* - Raleigh [Website - <http://moparmotivators.9f.com>] 10AM-4PM  
July 21 - *National Street Rod Association Appreciation Day* - Rougemont - 9AM-4PM

1st Fri - *Southern Roast Coffee Shoppe Cruise-In* - Holly Springs - 6PM-9PM  
1st Sat - *Zaxby's Cruise In* - US 70 E, Clayton - 3PM-9PM  
2nd Sat - *Char-Grill* - Atlantic Ave, Raleigh - 2PM-9PM  
2nd Sat - *Cruise-In At The Pickled Onion*, Raleigh - 3PM- Dusk  
2nd Sat - *Cruise in at Rally Point Sport Grill* - Cary - 5PM - Until  
3rd Sat - *Grill 57* - US 401 S, Garner - 2PM-9PM  
3rd Sat - *Goldston Cruise In* - Goldston - 4PM-Until  
4th Sat - *Sonic Drive In* - NC 96 - Zebulon - 3PM-9PM  
4th Sat - *Andy's Cruise In* - US 301 S, Four Oaks - 2PM - Until  
3rd Fri - *Andy's Creedmoor/Butner Cruise In* - NC 56 W (at Food Lion Parking Lot) Creedmoor - 4PM -Until  
4th Fri - *Chick-Fil-A / Goodberry's Cruise In* - Roxboro Rd, Durham - 4PM-9PM  
Every Thurs - *Dairy Queen* - Knightdale -4PM-9PM

FOR A COMPLETE LIST OF DETAILS  
AND LINKS FOR ALL UPCOMING EVENTS

VISIT OUR PCCC WEBSITE AT [www.piedmontccc.com](http://www.piedmontccc.com)  
or contact [David Matthews @ dmhotrod089@gmail.com](mailto:dmhotrod089@gmail.com)

## IT ALL STARTED WITH

My first car was a 1963 Impala, White exterior and black cloth bench seat interior. 327 cu in/ 250 HP. It had the factory installed Carter AFB 4 barrel carb, Muncie 4 speed. Options included bumper guards front & back rear speaker and rear window defroster. I changed the floor shifter over to a Hurst unit, added a FM converter and Re verb to the "audio". I bought the car for \$750 from a soldier who was shipping out to Viet Nam in 1967.

*Barry Kitchener*

My first car was a '55 Chevy 2 door wagon, no motor or transmission, green with a off white & green interior, I was 13 and paid \$50 for it. I Sold it 2 years later in pretty much the same condition with some improvements, not quite sure for how much then bought a 1963 Ford Galaxy 500 XL 2 door with a 390 & 4 speed. I was able to get a drivers license when I was 14 and the car crazy behavior has never stopped. I've lost track to the car count over the years but its well over a 100. And yes there are several I really wish I had now.

*Craig Merrill*

Do you know your PCCC Club Member Plates ?



## Feature Article - Horsepower

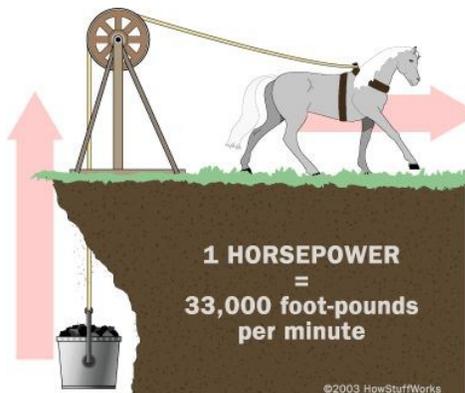
### Understanding Gross VS Net Horsepower - Submitted By David Smith

There are a lot of misunderstandings among car enthusiasts and historians about vintage horsepower ratings. It's easy to assume from a casual glance at ads or spec sheets that even quite ordinary American family sedans of the sixties were overwhelmingly powerful, with 300 horsepower or more, and yet by 1975, many of those same cars were down to 150 hp or less. When asked the reason for the huge difference, gear heads tend to shake their heads and mutter about emissions controls and anemic, low-octane unleaded gasoline – which is true, but only partly.

What complicates the issue and makes apples-to-apples comparisons difficult is the fact that those pre-smog horsepower ratings were not calculated in the same way as modern engines. "A horsepower is a horsepower, right?" While a horsepower, pre-smog or post, remains 746 watts (or 736, for metric horsepower), the way that output was *measured* has changed quite a bit.

Before 1972, most American engines were rated under the methodology laid out in Society of American Engineers (SAE) standards, which calculated the output of a 'bare' engine on a test stand with no accessories, optimal ignition timing, free-flowing exhaust headers (no mufflers), with a correction factor for standard atmospheric conditions.

What does all that mean? The engine in your car is burdened with various engine-driven accessories, ranging from the engine's own oil and water pumps and generator/alternator to the power steering pump and air conditioning compressor, each of which consumes a certain amount of power. An engine in a passenger car also has mufflers and an exhaust system designed for quiet operation, rather than low back pressure, while the ignition is retarded to prevent detonation with pump gasoline. Meanwhile, carburetor jetting and fuel injection calibration are aimed at fuel economy and drivability, not maximum power. The gross rating reflects none of these losses; it represents an engine's theoretical maximum output under ideal conditions, not how much power it actually produces when installed in a car.



As an example, Chevrolet's original small-block V8, which bowed for 1955, had a gross rating of 162 hp at 4400 rpm with a 8.0 compression ratio and a single two-barrel carburetor. Motor Life magazine reported in December 1954 that the factory quoted a net output of 137 hp.

## Feature Article - Horsepower

Until the mid-fifties, the gap between gross horsepower and as-installed output was not vast, but by the end of the decade advertised horsepower ratings far outstripped usable power. Significant inflation was clearly taking place, sometimes to the tune of 25-30%. Nothing in the SAE standards said that the calculated horsepower could be whatever the marketing department wanted it to be, but it might as well have, because that was what happened. If Chevrolet advertised 195 gross horsepower for its standard V8, for example, it was not difficult for Ford engineers to tweak their calculations to justify a rating of 200 hp for their standard engine.

By the same token, in the mid- to late sixties, it was also not uncommon for power ratings to be deliberately *understated*. For example, in 1965, Chevrolet released the 396 cu. in. Turbojet V8 as an option for Corvettes, rated at 425 gross horsepower. The following year, the engine was bored to 427 cubic inches, but its power rating remained suspiciously unchanged. (Indeed, some early GM promotional material credited the 427 with 450 gross horsepower) GM imposed corporate rules limiting all their cars except the Corvette to a maximum of one gross horsepower per 10 pounds of curb weight, leading to curious and suspicious ratings like Pontiac's 3,300 lb Firebird at 325 hp while claiming 360 hp for the identical engine in a 3,600 lb GTO.



This is a 1966 Corvette 427 (7.0 L) L72 engine. Early literature credited the L72 with 450 hp (336 kW) at 6,400 rpm, but this was quickly amended to 425 hp (317 kW) at 5,600 rpm – the same horsepower as the previous year's 396 cu. in. L78. Why would a manufacturer underrate their engines? Particularly at GM, the most conservative of the automakers, there was real fear of the growing safety lobby, which already thought the amount of power the auto industry offered in its cars was unseemly. In that climate, advertising a 500 hp Corvette or 400 hp GTO seemed like asking for trouble. Insurance was also becoming an issue, with a growing number of insurance companies levying prohibitive surcharges on very powerful cars or simply refusing to offer coverage at all.

Another concern was racing. Eligibility for different drag strip classes was based on power-to-weight ratio, calculated using advertised horsepower and shipping weight. If an engine produced more power than its rating, it would have a competitive advantage.

## *Feature Article - Horsepower*

This type of underrating was at best an open secret. Testing a Pontiac GTO Judge equipped with the \$390 Ram Air IV engine, for example, Car Life magazine noted that the division's own executives freely admitted the 370 hp gross rating was purely a fiction to satisfy insurance companies and their corporate superiors. As a result, racing officials frequently "factored" underrated engines for the purposes of classification; Chrysler's very strong 340 cu. in. engine, for example, carried a conservative 275 hp rating from the factory, but the NHRA treated it as a 325 hp engine for racing purposes.

Between inflation and deliberate underrating, by 1970, the relationship between advertised gross horsepower and actual power was at best unrelated. The gross ratings served a variety of political and marketing purposes, but they were far from useful as a realistic measure of engine output.

Starting in 1971, manufacturers began to lower compression ratios and de-tune their engines to prepare for the advent of unleaded gasoline. Both the early emission-control systems (air-injection pumps, exhaust gas recirculation) and the reduced compression ratios made engines perceptibly less powerful, whether those losses were reflected in the gross power ratings or not.



Faced with this reality, along with the pressures of the safety and environmental lobby, domestic manufacturers decided it was time to abandon the gross rating system. In its place they adopted the SAE net rating methodology, described by SAE standards. "Net" horsepower ratings are still made with the engine on a test stand, but with stock ignition timing, carburetion, exhaust, and accessories: in short, a closer approximation

of how much power an engine produces as actually installed in the car. (SAE net horsepower does NOT, contrary to some assumptions, measure horsepower at the drive wheels; both gross and net ratings are at the flywheel, and don't reflect power losses in the drive train.

The result of the new rating system was a dramatic drop in advertised power. The Cadillac Eldorado's mammoth 500 cu. in. V-8, for instance, dropped from 400 gross horsepower in 1970 to 360 gross horsepower in 1971, a drop of about 10%. The rated horsepower of the 1972 version was only 235 net horsepower, even though the engine itself was basically unchanged. (Although GM did not quote a net horsepower rating for the higher-compression 1970 engine, it was probably 275-285 hp on paper, though; output had been cut by 35%.

## Feature Article - Horsepower

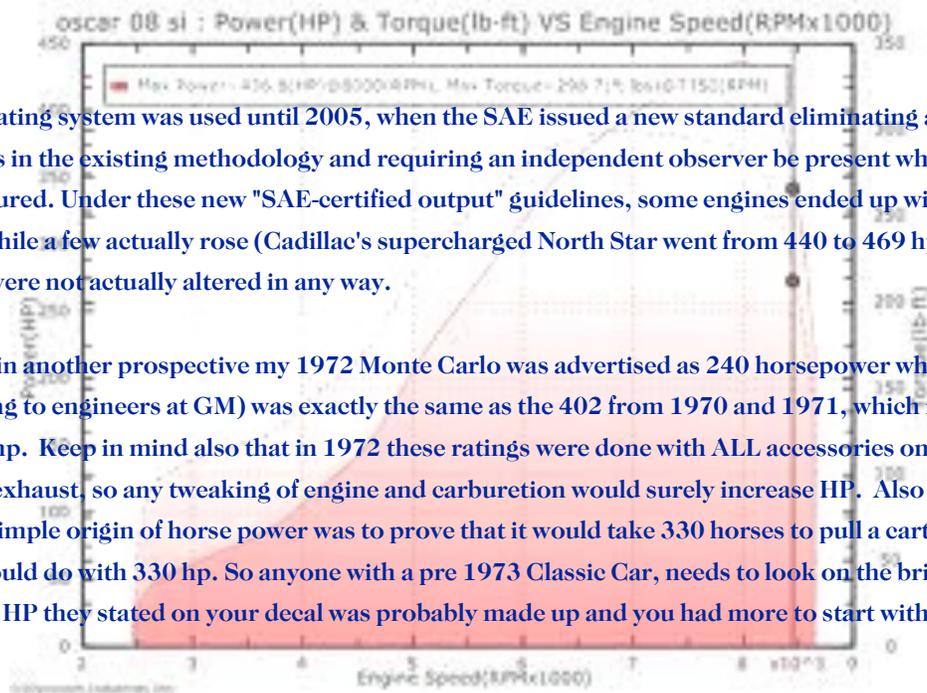
Why was this change made? The most obvious reason was as an inexpensive PR gesture; overnight, the carmakers made it clear that they were no longer offering irresponsible levels of horsepower, without making any expensive engineering changes whatsoever. Beyond that, the switch in ratings made it easier for salesmen to hide the actual loss of power caused by reduced compression and smog control hardware - useful when trying to explain to a customer why the 1972 Cadillac he's looking at seems to have 40% less power than the 1970 he's trading in.

By the end of the decade, the big drops in horsepower were no longer just on paper. For example, Pontiac's 455 cu. in. V8, which as late as 1973 had produced a conservative 310 *net* horsepower could muster only 200 by the time it faded out in 1976. Ford's 302 cu. in., which had made as much as 306 gross horsepower in the sixties, had plummeted by 1979 to less than 140. While the late sixties were a golden age of horsepower compared to the late seventies or early eighties, the differences weren't quite as vast as they appear at first look. A '67 Impala with the 396 cu. in. V8, rated at 325 gross horsepower, probably had something like 220 net horsepower.

$$\text{Horsepower} = \text{Vehicle Weight} * \left( \frac{\text{Vehicle Speed}}{234} \right)^3$$

The net rating system was used until 2005, when the SAE issued a new standard eliminating a number of loopholes in the existing methodology and requiring an independent observer be present when the ratings are measured. Under these new "SAE-certified output" guidelines, some engines ended up with lower ratings while a few actually rose (Cadillac's supercharged North Star went from 440 to 469 hp. The engines were not actually altered in any way.

To put it in another prospective my 1972 Monte Carlo was advertised as 240 horsepower when in reality (according to engineers at GM) was exactly the same as the 402 from 1970 and 1971, which in this case was 330 hp. Keep in mind also that in 1972 these ratings were done with ALL accessories on and running with full exhaust, so any tweaking of engine and carburetion would surely increase HP. Also keep in mind that the simple origin of horse power was to prove that it would take 330 horses to pull a cart that one engine could do with 330 hp. So anyone with a pre 1973 Classic Car, needs to look on the bright side whatever HP they stated on your decal was probably made up and you had more to start with.



## *CHEVROLET HISTORY - 1955*

For 1955, Chevrolet's full-size model received new styling that earned it the "Hot One" designation by enthusiasts. Unlike Ford and Plymouth, Chevrolet's styling was considered crisp and clean. Bel Airs came with features found on cars in the lower models ranges plus interior carpet, chrome headliner bands on hardtops, chrome spears on front fenders, stainless steel window moldings, and full wheel covers. Models were further distinguished by the Bel Air name script in gold lettering.

For 1955 Chevrolets gained a V8 engine option. The new 265 cu in (4,340 cc) V8 featured a modern, overhead valve high compression, long stroke design that was so good that it remained in production in various forms, for many decades. The base V8 had a two-barrel carburetor and was rated at 162 hp (121 kW), and the "Power Pack" option featured a four-barrel carburetor and other upgrades yielding 180 bhp (130 kW). Later in the year, a "Super Power Pack" option added high-compression and a further 15 bhp (11 kW). "Idiot" lights replaced gauges for the generator and oil pressure.



*Motor Trend* magazine gave the Bel Air top marks for handling. Front legroom was 43.1". Brakes were 11" drums. Chevrolet boasted improved handling, which included longer, wider leaf springs riding outside the frame rails, diagonally mounted shocks and improved "Glide Ride" front suspension with coil springs, unequal length A-Arms and new "spherical ball joint geometry. Tubeless tires were standard.



The 1955 accessory book listed, wheel covers, wheel trim rings, backup lamps, locking gas cap, compass, cigarette lighter, nylon/plastic/fiber seat covers, outside rearview mirror, traffic light viewer, exterior shades for windshield and side windows, and electric shaver.

Chevrolet's costliest was the Nomad at \$2571. It was introduced as a last minute addition to the '55 passenger car line. The stiff price, water leak problems with the tailgate and lack of practicality, limited the production of just 8,386 Nomads.

In 1954, a 1955 Chevrolet Bel Air rolled down the Flint, Michigan assembly line as General Motors 50 Millionth car.

### *Answer to June 2012 Trivia*

*There were 16 Body Styles for the 1955 Chevrolet*

<i>Bel Air Convertible</i>	<i>Bel Air Beauville Wagon</i>	<i>210 Two Door Sedan</i>	<i>150 Four Door Sedan</i>
<i>Bel Air 2 Door Sedan</i>	<i>Bel Air Nomad</i>	<i>Daisy 210 Club Coupe</i>	<i>150 Two Door Sedan</i>
<i>Bel Air 4 Door Sedan</i>	<i>210 Hardtop Coupe</i>	<i>210 Townsman Wagon</i>	<i>150 Utility Sedan</i>
<i>Bel Air Sport Coupe</i>	<i>210 Four Door Sedan</i>	<i>210 Handyman Wagon</i>	<i>150 Handyman Wagon</i>

## CARS & PARTS CLUB SWAP

Looking for plain stock wheel to use as a spare for a 1967 Camaro; tire is optional.

[Jay Shealy](#) @ 919-605-0017

Edelbrock Performer Carb (600 CFM) (\$125); Long Style Cast Iron Water Pump (for small block) (\$25); HEI Distributor (\$75); 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) (\$25); Shop Vac (\$20); K&N 13x2 Washable Air Filter (\$10); 14x3 Air Filter (\$5); 68-72 Chevelle Fuel Tank Door/License Plate Mount (\$10); NEW Low-high pitch horn set w/ mounting kit (\$50); Set of Chrome Lug Nuts/Washers for Cragar (7/16x20) (\$25); Set of (4) Lug Nut Locks (\$10)

[Jeff Hopp](#) @ 919-467-9594

Small Block Quadrajets manifold (\$40); Kenwood AM/FM Cass & CD Controller (\$100); Kenwood 6 CD Changer (\$50) [Ray Bader](#) @ 919-387-0479

2002 Chevy Avalanche 4 X 4; 5.3 L V-8, 17" aluminum wheels, 6-way power bucket seats, Sunroof, automatic climate control, roof luggage carrier, fog lamps, towing package and add-on XM Radio. (\$5900) [John Monroe](#) @ 919-810-3021

Erson Performance Cam and Lifters for 350 Small Block (Lift Intake - 435; Lift Exhaust - 455; Duration 275/278) Perfect Condition / Low Hrs. (\$75) [John Gilliam](#) @ 919-259-6239

Contact club members listed for more details on items for sale

### Do you think you know Chevrolet Trivia?

**How many 'Body - Styles' did Chevrolet offer in 1955?**

*See answer on Page 6*

*Answer from June 2012 Edition*

**What year Chevrolet was considered to be the last "Shoebox" model?**

*Answer in Aug 2012 Edition*

June Trivia and Photo Winners - David Smith, Lee Caplan

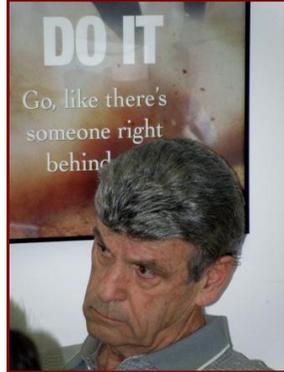
Guess the year, make and who in the club owns the car



Send your answers to Jeff Hopp at [suncrest@nc.rr.com](mailto:suncrest@nc.rr.com)

Dan Mangrum's 1958 Custom Chevy Truck

*OUT AND ABOUT WITH PCCC*



*Photos by  
David Pittman, Richard Urich, Ray Bader, Jeff Hopp, David Ward Jones*