



Volume 22 Issue 2 Q2 2022



The Front End

- > A BIG Newsletter
- > Chairman's Recap!

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Chairman's Message

HoO Chairman's Letter-Q2

Spring is here and the car season is quickly approaching. As you read this, the Heart of Ohio Chapter is busy preparing for our annual spring chapter judging meet. Currently, we have 5 cars signed up and we will again be meeting at CN Motors dealership in Marysville, OH. Mike Treece and Nick Petruzzi have been going over every detail to ensure we have a great meet. We want to have a great experience for the car owners and the judges.

In March, the Chapter had a great visit to HOO member Doug Bergen's place in Marietta, OH. Fourteen members made the trip and were welcomed by Doug and his family. Doug rolled out the red carpet to our Chapter and treated the crew to some amazing food and racing stories from the past with the likes of Shelby and Bondurant. ALL members raved on the food and commented that it was the best they had been treated at an NCRS event (or maybe ever!). We definitely have to up our game for food at the Chapter meet. Terry Buchanan presented the Heart of Ohio Participation awards for 2021 at the meeting. Nice recognition for the 18 members who continue to be the foundation of the club. Many thanks to Doug on his hospitality and sharing his stories at his home.

February's meeting was cancelled at Corvette Clocks by Roger in Delaware, OH. Mike Treece is working to reschedule at a later date.

Our activity calendar has been updated on the website. Upcoming events include the Chapter Meet in April. Regional Meet in Auburn, IN at the end of April hosted by the Indiana Chapter. Several HOO members are helping with this meet. In May, we will go Bud's Chevrolet in St. Mary's, OH.

Randy Early received his Master Judging Hat in Florida this



year. Congrats to Randy. Randy is our membership chairman and has several ideas to help retain and increase our membership.

From the National Level, Shannon Urton, our regional representative, was elected as President of the NCRS. Shannon has been a great supporter of our club and already reached out for feedback on how to promote the NCRS. She had really positive things to say about our Chapter.

I'm really proud of how our Chapter weathered the last 2 years of Covid. Several Chapters are in financial duress, we have maintained our balance sheet, waived dues, kept our HOO participation awards, and continued to raise money for charities. A big thanks to Pete Hagen for his stewardship.

The Chapter has some really great people in the club. If you haven't attended an event, you will find everyone welcoming and friendly (and ready to talk cars!). Bring a friend, bring your spouse, and enjoy the day. I look forward to seeing you this summer.

Wes

Board Reports

Financials - Pete Hagan

As of February 28, 2022

Beginning Cash Balance 1/01/2022	
Fifth-Third Bank	\$8,028.57
Paypal Account	\$414.27
Total Cash Balance 1/01/2022	\$8,442.84

REVENUE:

Membership Dues	\$340.00
Judging Meet Registration Fees	\$550.00
Donation Income	\$0.00
Christmas Luncheon	\$0.00
Total Revenue	\$890.00

EXPENSES:

Operations & Planning	\$440.33
Judging Meet Expense	\$0.00
Charitable Contribution	\$0.00
Charity Car Show Expense	\$0.00
PayPal Service Fees	\$43.46
Total Expenses	\$483.79

Closing Cash Balance 2/28/2022	\$8,849.05
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Closing Cash Balance 2/28/2022	
Fifth-Third Bank	\$8,830.24
Less: Uncleared Checks	\$0.00
PayPal	\$18.81
Total	\$8,849.05

Board Reports

Upcoming Events - Mike Treece

Upcoming Events

Below are the upcoming events planned, so far, for the Heart of Ohio Chapter NCRS 2022:

April 2 Judging Mini Meet C&N Motors

April 28-30 Indiana Chapter Regional Judging Meet

May 7 Bud's Chevrolet Corvette Cruise In

June 25 Chapter Meet at Whitewater Valley Railroad

July 10 Road Tour will leave from Dan Singer 5817 Logan Thornville Road NE Rushville Ohio 43780

August 14 picnic Grand Lake state Park St. Marys Ohio

September 11 Corvette Gathering Lancaster Ohio

October 15 Business Meeting Perry Yasher 165 Brandon Drive Pataskala Ohio 43062

November 12 Tech session Matt Lewis 5555 Fessler Buxton Road Houston Ohio 45333

December 10 Party Dur Dutchman 455 Jefferson Ave. Plain City Ohio 43064 5:00-7:00

Visit The Events page of our Chapter website for up to date details.

<https://www.ncrs.org/hoo/events.html>

Letter from the Editor—Fred Richards

Thank you for reading this issue.

We hope that you will find that each newsletter is filled with educational information, helpful hints and tips, events, and news. We want this newsletter to be valuable for you so *please, please* share your feedback and suggestions to help us improve.

Tech articles can be sent to me via email at:
Fred@98PaceCar.com



2021 Heart Award Winners

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1st Year Award Winners - Red - Heart of Ohio Shirt – Polo Shirt

1. Richard Crary
2. John Rogers

2nd Year Award Winners – Red Hat

1. Pete Hagan
2. Karl Luketic
3. Gene Milhoan
4. Fred Richards

3rd Year Award Winners – Black Jacket

1. Joe Mattingly
2. Nick Petruzzi
3. Wes Wells
4. Perry Yasher

4th Year Award Winners – Gold Heart Pin

1. Terry Buchanan
2. Randy Early
3. Joe Eyl
4. Tom Fetchik
5. Mark Hearndon
6. Rick Pfeifer
7. Butch Price
8. Mike Treece

2021 Top 5 Heart Award Point Scores

1. 47 Rick Pfeifer
2. 45 Randy Early
Mark Hearndon
Mike Treece
5. 44 Wes Wells

To view information on the Heart Award scoring and see your point totals go to our members only page on our Chapter website at <https://www.ncrs.org/hoo/members.html>

Doug Bergen's Garage, Marietta Ohio — March 19, 2022

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If you missed this meeting then you missed the opportunity to hear stories from the guy that made history racing L88 Corvettes. Doug bought his first L88 in 1968 and funded a race team that won Sebring. Locals from Marietta volunteered to be his pit crew. Bob Johnson from Columbus was his driver. A private collector restored the car. Doug was able to drive the car at Bloomington Gold. After 3 Seasons of racing Doug's own car, John Greenwood asked Doug to work in his pit. Doug stated that the whole experience was incredible. Afterwards Doug provided a catered lunch that was incredible. Many stated that the food was better than they would get in a 5 star restaurant. HoO is very fortunate to have such an incredible resource in Ohio.



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Doug Bergen's Garage, Marietta Ohio — March 19, 2022

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Time to revisit the C8 Corvette by Duff Parsons

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Following up on my article in Volume 17, issue 2, and with the recent release of the C8 Z06 wide body with wider tires and a smoking-hot 5.5 liter LT6 engine that reportedly develops 670 horsepower at 8400 RPM's. I thought it might be time to revisit this new Kraken of the U.S. auto world.

According to Marc Reuss, GM President, the new Corvette defines the American supercar. "It is the perfect combination of track beast and supercar. It builds on the distinctive design and ground-breaking dynamics introduced with the mid-engine Corvette and elevates them to deliver refined but uncompromising track capability with world class performance."

An engine that revs to 8400 RPM sounds like a full-blown race car. But that's how we measure horsepower on an engine capable of handling that level of RPM's. Heck, Porsche's 911 GT3, 4-liter, 6-banger cranks out 9000 RPM's.

And that's part of the story. More revs mean more horsepower.

This new engine is a design that steals the LT6 designation from the 4.3 V-6 Oldsmobile diesel platform and maintains the 4.4" bore that has been the mainstay of all GM small blocks since the introduction of the 265-cubic-inch engine back in 1955. You probably know that GM first debuted the V8 in 1917, right?

Anyhow, what is awesome about the new Z06 is that GM developed another first with the aluminum block and heads with a short stroke and fat bore that is naturally aspirated. Stay tuned for the supercharged power that is sure to come, with the ZR1 due out around 2025 or sooner, if Z06 sales are slow as enthusiasts drool in anticipation of Zora, [ZR1's nickname honoring Corvette engineer Zora Arkus-Duntov]. Remember the 2019 ZR1? It was an investment that is paying huge dividends. Heck, even 2017 Z06's are bringing near six figures. So maybe buyers will think the same is going to happen with the new Z06 and the Zora. We'll see. Call your broker and get your wallet out. According to one Chevrolet dealer in Charlotte that I met in February, dealers may want a surplus fee just to place you on the buyer's list. Hugh White in Lancaster, says no deposit required.

According to Corvette Chief Engineer Tadge Juechter, in an interview with K. C. Colwell at *Car & Driver*, this Corvette is the reason behind the mid-engine design in the first place. The concept of the dual overhead cam, 32-valve, with double springs on each valve to prevent float at high revs, means more horsepower. If you want more specifics about the new LT6 and its ability to navigate 0-60 in 2.4 seconds [maybe 2.6, depending on who you read] and 0-100 in 6.5 seconds, have a look at <https://gmauthority.com/blog/gm/gm-engines/lt6/>. [It's wintertime; what else do you have to do?] More on that later herein.

Time to revisit the C8 Corvette - Continued

There are lots of articles already published about the Z06-C8 and the facts are getting distorted on everything from horsepower, 0-60 times, measurements and production numbers. For example, *Car & Driver* [12/21] said that we won't have a chance to drive a Z06 until sometime this year. So the best approach is to read as many articles as you can before buying. You'll likely have more questions than a car salesman can answer. Or, talk to the guy that already owns one.

With an estimated curb weight of 3,700 pounds and a horse power to weight ration of 5.5 pounds per horsepower and even though the 5.5 liters delivers 670 horse power with only 460 foot-pounds of torque, it packs a punch that's powerful enough to win on race day. And that's the idea, right? Win on Sunday and sell on Monday. While factual statistics are not yet published, if GM can actually gets that 2.4, 0-60 to the concrete, it's safe to say that the new Z06 could take the "King of the Mountain" title for fastest American-made car. A 2.6 places the Corvette behind the Tesla S and ties it with the Dodge Demon. So, bragging rights are important, even if they are imaginary.

Trying to dissect this new engine would take volumes, but the essence is that it's a lower crankcase design with two plenums that deliver fuel between the exhaust valves. The injectors squirt fuel toward the incoming air to create a mixing effect, which creates more burn and allows for more revs.

Here's more if you want it: Mechanically, the **flat-plane crank V8** is essentially a pair of inline four-cylinders fused at the crankshaft. Why is this design important?

Firstly, the cylinders of a traditional cross-plane crank V8 fire once every 90 degrees of crank rotation, resulting in smooth power delivery and good torque characteristics. A flat-plane V8 fires one cylinder every 180-degrees of rotation, which means a primarily well-balanced crank and pistons with less counterbalance mass required. With lighter rotating mass, the flat-plane crank can spin faster. This means it benefits from the higher power potential that's typical of high-revving engines.

Secondly, flat-plane crank V8s have a greater operational symmetry offering greater tuning efficiency. While cross-plane arrangements have uneven firing orders, resulting in inherently 'lazy' cylinders, the flat-plane crank has an even firing order and exhaust pulses that enter the exhaust system at equal intervals, as well as optimum induction conditions.

The result is cylinders that perform identically. Put simply, a flat-plane crank V8 will always offer a higher tuning limit than a cross-plane equivalent. However, there are significant engineering challenges presented by the layout. While the flat-plane crank offers excellent primary balance, it also produces an undesirable secondary imbalance and vibration.

Time to revisit the C8 Corvette - Continued

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Engines with inline and flat cylinder orientation are less prone to the problem, as their pistons move in the same linear plane, but V-engines have two banks of cylinders in different angular planes, which magnifies the problem. If not eliminated, the high-frequency vibration increases vehicle NVH levels (noise, vibration and harshness from the engine) and shortens engine life. Worse, the problem is intrinsically linked to engine size.

Backed up by an 8-speed, dual clutch Tremec automatic to handle the torque, this car will become the test platform for the ZR1 that will deliver an anticipated 800-1000 horsepower. Here's a rundown on the new LT6 specs.

Type:	LT6 5.5L DOHC V-8 Direct Injection
Bore & Stroke (in / mm):	4.104 x 3.150 / 104.25 x 80
Block Material:	A319-T7 sand-cast aluminum with pressed-in iron cylinder liners and four-bolt main bearing caps
Oiling System:	Six stage dry sump (8-qt. capacity); includes oil-spray piston cooling
Oil Type:	DexosR synthetic 5W50
Cylinder Head Material:	A356 T6 cast aluminum
Combustion Chamber Volume:	58.8cc
Compression Ratio:	12.5:1
Valve train:	Dual overhead camshafts with mechanical finger follower valve train and dual-coil valve springs
Valve Size (in / mm):	1.654 / 42 titanium (intake) & 1.378 / 35 sodium filled (exhaust)
Fuel Delivery:	Exhaust side direct injection. Max pressure: 5,076 psi
Firing Order:	1-4-3-8-7-6-5-2
Throttle Body:	Twin 87mm single bore (electronic)
ECU:	GM E68 (32-bit processing)
Horsepower (hp):	670 @ 8400 rpm (GM tested per SAE J1349)
Torque (lb-ft/ Nm):	460 / 623 @ 6300 rpm (GM tested per SAE J1349)

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Time to revisit the C8 Corvette - Continued

Okay, enough about the drive-train of the new Z06. What's so different about the body? Why not just stick the new engine in the 2021 body and go racing? Here's what's measurable? How about stance with 66.3" front and 107.2 wheel base and overall width of 79.7" inches in the rear. The marketing folks at GM came up with this short and sweet description:

"The striking exterior of Z06 features wider fenders, quarter panels, and fascias than the Stingray, resulting in a form as commanding as it is functional. The standard ground effects and spoiler optimize aerodynamic drag and power-train cooling efficiency. Replaceable spoiler wicker bills, rear brake cooling ducts, removable front fascia panel and front under-wing stall gurneys increase down force, keeping the Z06 poised and planted as you round the track".

Did you know that most Corvette buyers buy the Aero kits and spoilers and other add-on's as matter of looks and not function. I spoke with Mike Yager at MidAmerica about that and he has gone so far as to develop an entire presentation on that subject.

With the new 14.6" front and 15.0" rear brakes dictating better tires. The new 20x10 Michelin tires on the front and 21x13 on the rear, might help keep it on the ground. And, they come in 5 different finishes.

Sounds good, but what does it mean when GM breaks out the LZ1-2-3 packages? It means you have the privilege of paying progressively more money when you order the car and fill out the option list. Want a leather dash and carbon fiber trim on your steering wheel and perhaps GT2 seats in a nice soft, quality, pliable Napa leather? That's the 3LZ package, which must include leather from a very rare pasture of cows raised in Napa valley. Want just the normal creature amenities? The base LZ1 package gives you all the necessary tools to navigate and enjoy the Z06, including; Bose radio system, rear facing camera, power GT1 seats, and heads-up display. What more can you ask for?

Time to revisit the C8 Corvette - Continued

Oh, so you do want more? Then consider the Z07 package. What's that, you say? A Z07 package? Yep, what could be more enticing than adding more 'stuff' to an already badass car? How about adding a few options like these, which haven't been priced out yet?

Carbon fiber Aero package with larger front splitter, front-corner dive planes, a rear wing and under-body strakes that enhance down force and improve air flow under the car.

Unique FE7 suspension with specific Magnetic Ride Control 4.0 calibrations.

Michelin Sport Cup 2 R ZP tires developed specifically for the Z06.

Available carbon fiber wheels that deliver a 41-pound (18.6 kg) reduction in un-sprung mass.

Brembo® carbon ceramic brake system featuring larger, 15.7-inch-diameter (398 mm) front rotors and 15.4-inch-diameter (391 mm) rear rotors.

If you get the Z07 performance package in the track prepared configuration, on a 300-foot diameter circle, the car has 1.22g of road-hugging grip. We used to call that COD curves; Come Over Dear.

Are you ready to buy yet? You better be, if you want one. Production figures for the new Stingray body are still lagging behind 2019 levels. Only 26,216 units were produced in 2021, with an average 175 built per day. Compared to 20,368 in 2020. The production run for 2019 was 34,822. Of those, 6937 were Z06s and 2953 were ZR1s, which are now selling for as high as \$242,000. (Mecum 1/2022, Kissimmee).

According to the McNally Institute, who analyzed the production data for the C8, if GM can increase production above the 175 units per day, it is possible for the Corvette plant to produce 11,000 versions of the 2023 Z06 which could start production as early as this March. We can talk more that while we wait in line.

See the USA in your Chevrolet.

Time to revisit the C8 Corvette - Continued



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10. mcnallyinstitute.com

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