

VENICE VETTE GAZETTE



Our Club Sponsors
Click on sponsor's logo for website



Executive Board

| | |
|---------------------|--------------|
| President | Linda Gomes |
| Vice President | Terry Tracy |
| Treasurer | Bill Jereb |
| Secretary | Kathy Dowell |
| Membership Director | Lou Sauppe |

Committee Leaders

| | |
|-------------------------|-------------------------------|
| Jenkins Sponsor Liaison | TBD |
| Sage Sponsor Liaison | Don Feurstein |
| Club Photographer | Scott Eckman |
| NCM Ambassador | Mike Walsh |
| New Member Orientation | Lou Sauppe |
| Newsletter Editor | Steve Bieglecki |
| Englewood B&T Liaison | TBD |
| Quartermasters | Bob Bortolot and Sandra Lewis |
| Social Committee | Kathy Tracy |
| Sunshine Celebrations | JoAnn Royal |
| VFC Car Show | Mike Heiner & Terry Tracy |
| Web Master | Don Kerndt |
| Technical Advisor | Jim Mattar |

Contact information for Board Members and Committee Leaders can be found on our **Club Website** [here](#)

Table of Contents *click on heading to go to topic*

| | |
|--|-----------|
| PRESIDENT'S MESSAGE..... | 2 |
| BOARD MEMBER MESSAGES..... | 2 |
| UPCOMING ACTIVITIES & EVENTS..... | 3 |
| MEMBERSHIP NEWS..... | 4 |
| QUARTERMASTER'S CORNER..... | 4 |
| CELEBRATIONS..... | 4 |
| CAR SHOWS & COMPETITIONS | 6 |
| TECH EVENTS, NEWS & WORKSHOPS..... | 9 |
| VFC CLASSIFIEDS & MEMBER BUSINESSES | 13 |

The deadline for submissions to the newsletter is the Tuesday before the next scheduled club meeting

President's Message



It seems like we just welcomed our "sunbirds" back and now we're planning a farewell picnic. Time flies when you're having fun!

And we are having fun!

If you haven't noticed, there have been many things to in the last two months. Ladies' luncheons, men's breakfasts, roads rallies and of course car shows. We had two first time winners at Pelican Preserve. Bill StClair and Marty Dewey. Congratulations!

We also had our first and not last Members Only show that brought out 64 cars! The weather was perfect, well once the temperature got into the 70's! It was so nice to relax and visit with everyone and have time to look at their cars. A big Thank You to Lou Sauppe and his team for a wonderful day.

The next few weeks are fun filled with "Corvettes Invade Sebring" on February 25th and the Arcadia Rodeo, on March 10th. YEEHAA!! And of course, our Vette-Together March 19th. It takes a small army to host a car show and leaders to lead. Terry Tracy and Mike Hiener have been doing a great job of organizing the many moving parts to make it a great show. If you haven't volunteered, it's never too late. A few extra helpers make a difference.

Don't forget to sign up for our Farewell Picnic, April 4th. BBQ, beach, and good friends! Doesn't get any better than that!

Linda Gomes



Board Member Messages

Vice President's Message

Wow, what an exciting February with many events attended by our members. Cruising on Dearborn Street is a monthly event that Kathy and I really enjoy and VFC has reserved parking, get there early, set up your chairs and people and car watch for a few hours. Cars and coffee at Cocoplum Mall in North Port is also great for an early Sunday morning.

Our members only car show at Ideal was a huge success. Many thanks to Lou and all his helpers and Ideal. We are considering another show in the fall or next year.

Eighteen cars made the trip to Sebring for the Corvette Invasion, a warm day to experience the excitement of motorcar racing, from Vintage race cars to current late models. The roar was deafening at times but Awesome.

Corvettes were to be able to drive the track but, due to a late afternoon schedule and crash many members left early and did not get to experience driving on Sebring.



Looking forward to our Annual Show at Centennial Park, hope to see you at the Welcome Dinner to get to know some of the attendees. Please volunteer to help if you can with our Special Day.

Terry Tracy

Upcoming Activities & Events

Venice Florida Corvettes monthly membership meeting is the 1ST Tuesday of the month at **6:00 pm** at the Venice Community Center.

March 2023

- **March 1 - Spring Training Game with the Braves vs the Rays.** Cost is \$67.25 per person. Price includes: private, covered first base terrace area with all-you-can-eat buffet lunch, terrace level seats, and parking. This event begins at 11:30 AM and concludes at the end of the game. We will be on the terrace level at Aaron's Porch. It is private for our group and overlooks the field so you can enjoy all the pre-game action as you enjoy a relaxed lunch. Food is served at 11:30 and ends at first pitch, 1:05 PM. There will be a cash bar right next door in the Terrace Club should you want to but alcoholic drinks. At the first pitch, you can head to your seats located right there on the terrace level or stay in the group space to watch the game. This space is reserved for us for the entire game. Tickets are still available. **SIGN UP TODAY IN EVENTS.** Any questions contact [Kathy Tracy](#)
- **Thursday, March 9, 2023 Ladies Lunch 11:30 am- 1:00 pm - Paradise Grill.** 1097 North Tamiami Trail Nokomis - It'll be closing in on St. Patrick's Day, so wear your green. Sign up in **EVENTS.** Any questions, please contact [Jody Forman-Fall](#)
- **Saturday, March 18, 2023 5-8 PM - Vette Together Welcome Dinner - Hotel Venezia Ramada - \$40.00** There are three plated dinners to choose from with the price of the dinner, tax, and tip included. There is also a cash bar for cocktails. Sign up in **EVENTS.** If you have any questions, contact [Agnes Hiener](#)
- Click [here](#) to log into our website for a real time up-to-date list of upcoming events

Don't forget to check your email for....



Start Your Engines

For weekly updates of VFC events

Food Bank Donations

We will be collecting non-perishable food items at this month's members meeting. Cash or check donations will be given to the designated food pantry for this month. You may also make a donation, by presenting a check to Bill Jereb, our Treasurer, made *payable to the "Louis and Gloria Flanzer Trust" rather than VFC.* The "Louis and Gloria Flanzer Philanthropic Trust" will gift match to South County Food Pantry, our designated food pantry.

Toiletries Collection for Homeless Children

Please keep the homeless children in mind as you enjoy your travels. Any **travel size** items will be appreciated. Collect the amenities in hotel rooms or, If you are not traveling, browse the travel size items at your local Walmart or Target and add a few items to your cart. Items such as toothpaste, toothbrushes, soaps, shampoo, conditioner, deodorant, and skin friendly wipes are always in demand. Of course, any items are welcomed.

North Port Coalition for Homeless/Needy Children, Inc.

AKA



If you don't have time to shop, cash donations are great fully accepted. As always, **I will be collecting items at the monthly meetings.** Thank you in advance for your generosity.

Susan Jakob

Using your Credit Card for VFC Events

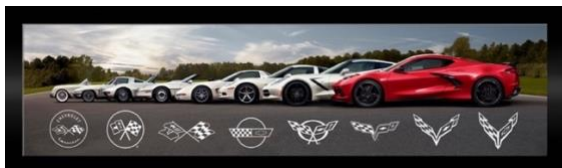
When making payment for a club event with your credit card, the charge on your credit card statement will read: VENICEFLCORVETTECLUB

If you have any questions on payments, please contact Bill Jereb.

Suggestion Box

Wish the club would do something you enjoy? Did your old club have an activity that we don't do that you really enjoy? Let us hear from you. Send your ideas to me and I will distribute them to the proper people for consideration. Steve Bieglecki sbieglecki@gmail.com

Membership News



WELCOME NEW MEMBERS

Irv & Cheryl Davis
Luke Mitchell
Jay & Elaine Nicks
John & Antoinette Reutemann
Gary & Mary Villano

Quartermaster's Corner

We have many **new** VFC items for sale on our club website. Please visit the VFC online store at: <https://venicefloridacorvettes.org/clubstore>

Orders available for pick-up will be brought to each monthly VFC Meeting. Stop by the Quartermaster table to pick up your order, ask a question, look at our inventory of SALE items or just to say hello!

If any member has an idea for items that they might like to see for sale ... please don't hesitate to contact us! quartermaster@venicefloridacorvettes.org

Club shirts and name badges will be ordered for new members from our vendor and available for pick up, typically at the next monthly meeting.

Quartermasters: Bob Bortolot and Sandra Lewis

Celebrations



3/4 Michelle A StClair
3/5 Janine Rudin
3/6 Jim Turner
3/6 Sue Militello
3/11 Amy L Zehms
3/15 Allan Eckle
3/20 Michael Hiener
3/20 Libby Wunderlich
3/21 William Roberts
3/24 Charles Pastva
3/25 Ray Wirtz
3/27 JoAnn Loparco
3/27 Carol Spreter
3/27 Holly Nilson
3/31 John M Vidas
3/31 Howard Kaplan
3/31 Joseph N Golia



3/7 Lex & Jill van Brero
3/8 Ron & Cindy Coleman
3/9 Kam & Karen Jeffries
3/15 Lou & Tanya Sauppe
3/18 Myron & Sue Kujawa
3/29 Robert Bortolot & Sandra Lewis

Click [here](#) to log into our website for an up-to-date list of club member's **Birthdays and Anniversaries** for the next 90 days

From the Museum



Corvette Campus Connection



Artifact of the Month: Dick Thompson Helmet and Goggles

Dr. Thompson, better known as The Flying Dentist, is one of *the* premiere racecar drivers of his time.

MORE INFORMATION



Behind the Scenes: E-Ray on Ice at the Rockefeller Center NYC during the 26th Annual Michelin NCM Bash

Hear from the stunt driver that introduced the brand-new electrified Corvette E-Ray to the world!

REGISTER NOW

Click [here](#) for **all** the latest news from the museum



Cruisin' in the Sunshine State for Twenty Years



Car of John Vidas, founding member and past president



Venice Florida Corvettes, Inc.
Venice, Florida
VeniceFloridaCorvettes.org

Our 2023 NCM Banner

Car Shows & Competitions

Pelican Preserve Car Show

2/4

At 8:00AM on Saturday, February 4th eight VFC Corvettes left the McDonald's on Laurel Road, heading south on I-75 to the Pelican Preserve show in Ft. Myers. After a traffic jam delay on the interstate, we met two additional members at the show.

Pelican Preserve is an upscale golfing community and a great location for a car show. There was plenty to look at with about 90 Corvettes and maybe 50 tin cars. . An arts and craft show shared the venue and there were several options for lunch. The day started cool with jackets welcomed and warmed into the 70s with a breeze.

With only 10 member's Corvettes representing VFC we were one of the smallest Vette groups there but with the outstanding quality of our cars 50% of them won a pelican trophy. None of the other Corvette clubs can make that claim! Congratulations to Marty & Olga Dewey, Sam & Sue Militello, Richard & Janine Rudin, and Bill & Michelle StClair who won Best of Show in Class awards. Vito and Margie Guido won Best of Show by Division and brought home a slightly bigger pelican trophy

Hopefully more VFC members will join us next February for one of the best show locations and trophies in the area.



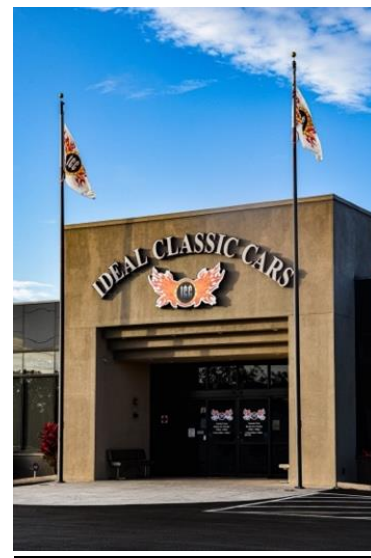
Reporters: Al & JoAnn Royal



VFC Members Car Show

2/18

On Saturday the club held its first Member Car Show at Ideal Classic Cars in Venice.



The weather was perfect and about 65 club member cars were present. We awarded 1st, 2nd, 3rd and 4th place cars which in order were George Morten, Cindy Miller, Al

Royal and Wayne Miller. The Manager of Ideal Classic Cars picked Dave Parker and I picked Marty Dewey so we gave out 6 \$100.00 gift cards to the Cheese Cake Factory.



There is a very large collection of photos from this event on our website. Click [here](#) to see them.

Reporter: Lou Sauppe

Upcoming CAR SHOWS



A VETTE TOGETHER: March 19, 2023

Message from Committee Chairs **Recruiting Volunteers for our Car Show**

We are seeking volunteers for our car Show on March 19, 2023. **Volunteer opportunities are listed on our website**, and you can sign up for the area in which you

want to work. From the Home page, look for Membership Info (on the top menu bar), then choose Volunteering from the drop-down list. Look through the various opportunities and sign up for one that fits your time and your interests.

We need people to **assist with directing parking** for Registered Cars, the Show Vendors, and Special Member parking. Most of this work is early in the day so you can enjoy seeing the rest of the show.

Our **Photographer needs two assistants to stop cars for a photo op after they enter**, to help him keep list of the cars and to hand out information about how they can get their photos. This is from 8-10 am. Contact **Scott Eckman** if you can help.

Our new Quartermasters, Bob Bartolot and Sandra Lewis need **help at the t-shirt sales table**. They will devise a shift schedule for their volunteers. **Email them** or volunteer on the website (Home/Membership information/Volunteering/T-shirt sales - it is on the second page of the volunteering opportunities.)

Bill St Clair needs help early in the morning of the Show to **set up tables, tents, etc.** Sign up on the website.

50/50 sales needs people to sell tickets at the 50/50 sales table and to walk around the Show promoting the sale of 50/50 tickets.

There are other volunteering opportunities... check them out - then step up to help.

The annual VFC Show is always well attended and we have a well deserved reputation for the professionalism of our organization and the friendliness of our Club members. We hope you will join our team.

Competition/Behind the Wheel Events

March 2023

Saturday, March 4, 2023 Cruzin' on Dearborn Mark your calendars and let's back to the tradition of have lots of Vettes from VFCC present. Parking information will follow in upcoming SYEs.

Florida West Coast Car Club (FWCCC)

March 8th - 2nd Wednesday at Perkins in North Port, 3-6 PM

March 13th - 2nd Monday at Culver's in Port Charlotte, 3-6 PM

March 18th - 3rd Saturday at 5 Guys in Port Charlotte, 3-6 PM.

Social Events, Special Interest

VFC at Carlisle Auction February 2023

2/11

On Friday Feb. 11 and Saturday, Feb 12, a group of our members met at Lakeland Florida for the semi-annual Carlisle Auction. The weather was great with warm temperatures and a steady breeze to keep us comfortable. There were over 400 cars auctioned that weekend, and our members drove a wide variety of cars throughout both days. Check out these photos for a few examples of the classic cars we got to drive. Once again, we earned \$750 for our Club which usually is put toward the cost of our Annual Farewell Picnic in April. Can't wait until November when we can do this again!



One Extremeto the other



Reporter: Pat Nevius

Ladies Lunch

2/9

Twelve VFC ladies and two guests enjoyed a wonderful lunch at the Bean Depot in El Jobean. The staff was awesome! They had us seated outside but when I requested the porch seating, they promptly shifted some tables and chairs and seated us there. Our waitress was fantastic too. The backside of the menu had some history of the area and the museum was full of lots of old stuff - just like our grandmothers' had! Everyone had a great time and it will be a place to add to the ever growing list of favorite eating places. Check it out!



Reporter: Kathy Tracy

Men's Breakfast

2/16

This month's Men's Breakfast was attended by 18 members at Skillet's in Venice. The monthly quiz centered around Anniversary years of the Corvette, which managed to stump quite a few.

Next month I am looking for a change of venue possibly to Englewood, stay tuned for further details."



Reporter: Terry Tracy

Tech Events, News & Workshops

Tune into the Corvette Blogger for the latest Corvette news



Click on the link below to find out about everything Corvette - America's Sports Car! Join Steve Garrett, as he talks about what's going on in the world of Corvette. Hear guests from the industry along with the latest news and information about the Corvette.

<http://www.anchor.fm/steve-garrett>

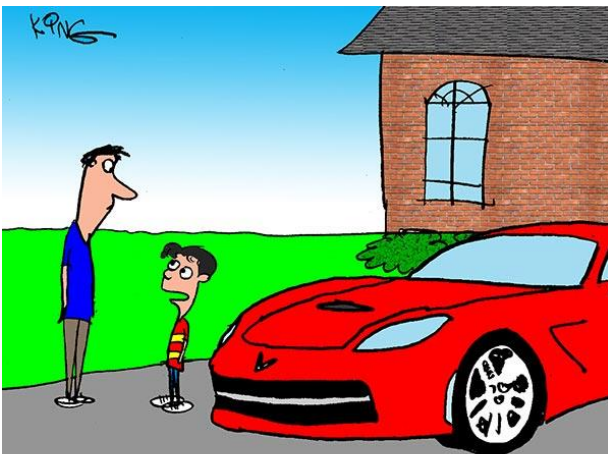
Heavy Breathing: The Z06's LT6 is a love letter to internal combustion.

By: Larry Webster and Don Sherman, Hagerty Media

Editor's Note: Prepare to geek out!



General Motors is loud about its EV future, but that didn't stop its powertrain division from designing an all-new monster V-8 for the [Corvette Z06](#). We might one day look



"I was so good at building model cars, I thought I'd try my hand at real cars. Putting a new engine in it was a challenge."

back at the 670-hp LT6 and recognize it as the pinnacle of the [Chevy small-block](#), a swan song sung by engineers who wanted to demonstrate what they could do before everything in the GM stable runs on electrons rather than gas.

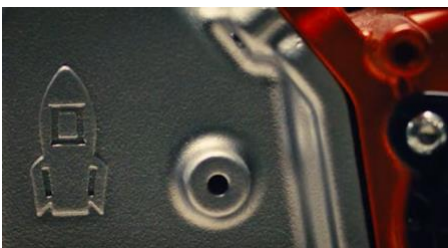
This race-bred engine matches the screamers from Porsche and Ferrari, with an 8600-rpm redline and outstanding power from 5.5 liters. It also marks a new spur for the small-block engine, a path that leans toward high rpm rather than boosting for power.

The previous Z06's V-8 produced 650 horsepower with the assistance of a supercharger, a belt-driven pump that shoves in air. Engine horsepower is directly related to the amount of air that flows in and out, because the more air an engine breathes, the more fuel it can burn, and thus a more forceful boom drives the piston down the cylinder. A turbocharger is a pump like a supercharger, but the turbo is driven by exhaust gases. Engines with either pump—which are often called blowers—are known as boosted. Conversely, an engine without the pump is called a naturally aspirated engine.



As with every engineered product, there are pros and cons to each when it comes to power, fuel economy, cost, and the character or feel of the engine. Blowers are relatively easy-to-adopt bolt-on horsepower-makers, but they have a certain noise and the power delivery often surges, whereas naturally aspirated engines typically pull in a consistent way. As rpm increases, so does the power. The LT6 began with the accountants, who greenlit a blank-sheet engine that would not be compromised by having to share parts with pickups. They were probably strong-armed by GM's famously petrol-fueled president, Mark Reuss. In any case, you can hear the glee in the voices of the two main players for the LT6 engine: Jordan Lee, chief engineer for all small-block V-8s, and his colleague, assistant chief engineer Dustin Gardner.

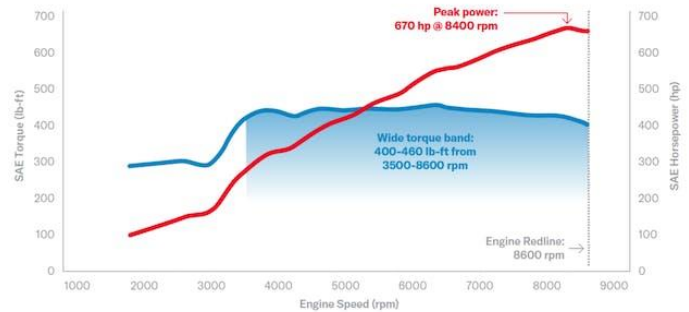
"We wanted the Z06 to scintillate all the senses," says Gardner. "What you feel and hear from the engine is such a huge part of the experience. The mechanical and screaming cacophony of a naturally aspirated engine is the sweetest of music, and that's what we aimed for."



The 54 rocket insignias GM engineers hid around the engine represent the Gemini code name used during the project's eight-year development. Early Corvettes were admired and driven by the first NASA astronauts. GM

Though they biased the engine design for character, they also knew that the 2023 Z06 had to offer at least as much power as the previous model. That meant 650 or more horsepower without the aid of a blower. Furthermore, this new engine was going to be a derivative of the small-block V-8, an engine that debuted in 1955. [Heritage](#) matters to Corvette fans—and to Corvette engineers. "One of the things Corvette customers love about the small-block is low-end torque," says Lee. "Even at low engine speeds, when you just dip on the throttle, it goes. We had to preserve that."

High-rpm power and low-rpm torque are usually not bedfellows. Torque is a force applied in a circular motion, like a wrench turned on a nut. Horsepower is the rate at which torque is applied—how fast the nut was turned. Keep torque constant but increase the engine speed, and the horsepower rises. Conversely, maintain engine speed but increase torque, and horsepower increases. Small, light, and revvy engines, like those in a motorcycle, might boast high horsepower at 14,000 rpm but not enough torque to move a 3500-pound car from a stoplight. Tractors, on the other hand, can yank a stump from the earth with their slow, high-torque engines at idle.

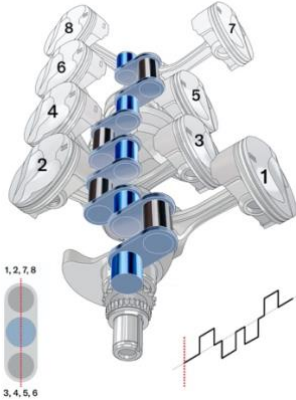


High-revving engines typically compromise peak power for low-rpm torque. That holds mostly true for the new LT6 V-8, as the 670-hp power peak occurs at 8400 rpm and the maximum torque produced, 460 lb-ft, happens at 6300 rpm. The LT6's novel intake system combined with the flat-plane crank, however, ensures this engine isn't dead at low rpm. GM

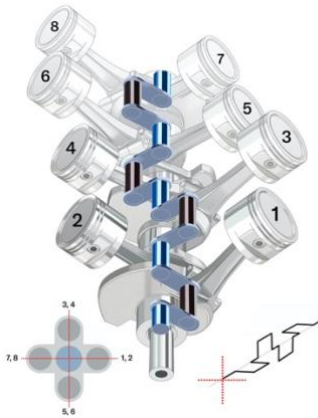
High rpm and high power dictated a flat-plane crankshaft. This maximizes scavenging—the effect where exhaust gas from one cylinder actually sucks spent gases out of an adjoining cylinder's exhaust port, which increases airflow. With a flat-plane crank, the exhaust pulses of one cylinder directly aid the breathing of another cylinder on the same bank, in a way not possible with a conventional V-8 cross-plane crankshaft. Remember, the more air that flows in and out of the engine, the greater power it can produce. The firing order of flat-plane cranks also adds to a distinct, quite pleasing wail.

Flat-plane cranks are standard in Italian supercars but rare in American engines because they cause more vibration. A century ago, Cadillac dropped 180-degree crankshafts for 90-degree units, and most V-8—makers quickly followed suit, sacrificing some power for smoothness.

Vibration can be mitigated by how the engine is mounted in the chassis, and there was more flexibility with the Corvette now that the engine resides in a roomy bay behind the driver. The best strategy, though, is to not just mitigate vibration but to generate less of it to begin with. “It’s really the stroke—the distance the piston travels in the cylinder—and the weight of the piston assembly that drive vibration with a flat-plane crank,” says Gardner. That meant lightweight—but expensive—materials such as titanium for the connecting rods and a shorter-than-usual stroke.



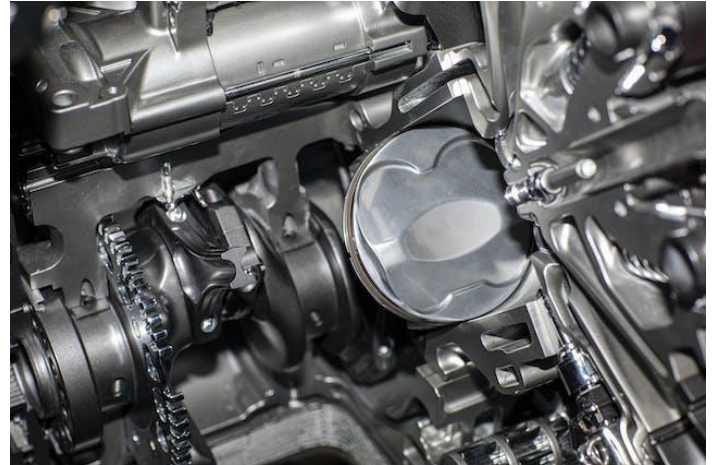
Crankshaft shape determines more than just the firing order; it also affects power output, sound, and vibration. The flat-plane looks, well, flat, because its rod journals are 180 degrees apart, which is better for faster rev-up and horsepower but worse for vibration. Beau Daniels



More common in V-8s: the cross-plane, because the connecting rod attachment points, or journals, are spaced for smoothness at 90-degree intervals, which makes it look like a Greek cross if viewed head-on. Beau Daniels

After numerous iterations and computer models, Lee and Gardner landed on an 80-millimeter (3.1-inch) stroke, nearly a half-inch shorter than the [standard Corvette V-8](#)—which is why the LT6 is called a short-stroke engine. The shorter stroke also kept the piston speeds in check, which is another concern for high-revving engines. If you could see a piston in a running engine, it would be a blur, as if it’s traveling supersonically. But the peak speed is roughly 4500 feet per minute, or about 50 mph. The piston’s back-and-forth motion, however, is the killer. In a typical engine running at 6000 rpm, the piston zips from top speed to zero back to top speed in a microsecond. If we remember that acceleration is the change in speed over time, then we can see that increasing engine speed—

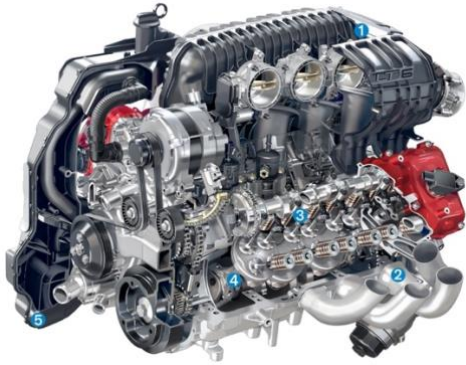
or piston stroke—also ups the acceleration. Go too fast, though, and the piston fatigues, cracks, and then—boom. Not to worry, Lee assures us. “With our 80-millimeter stroke, we didn’t come close to the limit for piston speed. We probably have some room to grow there.” Next came the bore size, which is the diameter of the piston. There are numerous factors at play, including how close the cylinders are to each other, which is defined by the distance from the center of one cylinder to another—the bore center. Here, history played a role. “Yeah, there’s a huge following of small-block lovers who appreciate the engine’s history,” says Lee. “Even though the LT6 is all new, we kept one dimension that is the DNA of the small-block: the 4.4-inch bore center.”



The 104.25-millimeter (4.1-inch) cylinders are packed in shoulder to shoulder. The 104.25-millimeter bore and 80-millimeter stroke yielded 5.5 liters, the combined total volume of all the cylinders and a good compromise between an engine that can rev and one with decent low-end torque. It also happens to be the maximum engine displacement for production-based cars in the 24 Hours of Le Mans, where Corvettes won their class eight times. Once Lee and Gardner defined the LT6’s foundational elements, their attention shifted to maximizing horsepower and making sure that the power gets to the tires by reducing parasitic friction. Friction rises exponentially with engine speed. Double the engine speed and frictional losses triple or more. A major contributor is the engine oil, which the crankshaft usually bathes in. “If you move your arm or your hand through water, there’s resistance,” explains Lee. “That’s a crankshaft trying to move through oil. You want to remove the oil from around the crankshaft.” Achieving that goal is one reason the LT6 has an all-new aluminum block with a shallow oil pan. The LT6 is a so-called dry-sump engine because the bottom of the pan is not a reservoir for oil, as is typical in many engines. Instead, there’s a separate tank that holds 8 quarts. Typical engines have only one oil pump, but the LT6 has seven. Four evacuate oil from around the crankshaft. Two vacuum oil from the cylinder heads, and one pumps the oil back in. About half a quart of oil circulates through the engine, and small nozzles squirt oil on the bottom of the pistons to cool them. The rest of the

oil spins in the tank like a centrifuge, which removes any trapped air.

5 key areas of engineering significance



1. **Big Lungs:** Two 1.5-gallon intake plenums are connected via three computer-controlled butterfly valves and optimize air-pressure pulses to feed more air into the cylinders.
2. **Exhaust Help:** In the LT6, there's a Y-shaped manifold for every two cylinders. The design takes advantage of the flat-plane crank to improve exhaust scavenging, or when the exhaust flow from one cylinder actually sucks exhaust from another, thereby improving the engine's breathing.
3. **Four Cams on Top:** NASCAR engines aside, shooting for 8600 rpm means going overhead cam. The valvetrain has to be as light as possible, with as many valves per cylinder as possible. And meeting torque and emissions targets requires independent control of both the intake and exhaust valve timing.
4. **Short Stroke & Light Weight:** The Italians have been making short-stroke screamers for decades. Now the Corvette has one, with half an inch cut from the base Corvette's stroke for a 3.1-inch stroke, which means shorter and lighter rods, a more compact crankshaft, and faster spin-up.
5. **Dry-Sump Oil System:** Rather than a bottom oil pan, the LT6 has a side-mounted reservoir and dry-sump system for better lubrication at high revs and during high-g cornering, when a sloshing wet sump might lead to starvation. Seven pumps extract not just oil from the bottom but also oil mist in the crankcase, reducing air drag on the crank as it spins.

"That crank," says Lee, "can spin with a vengeance, with very little restriction." It also spins with a fury thanks to a massive breathing system. Since the Corvette engine is behind the passengers, no longer in position to block the driver's view, engineers were not as constrained as they were with previous small-blocks. That meant the space- and cost-saving pushrod valve actuation, which is most often paired with two valves per cylinder, was ditched for four camshafts that sit on top of the valves. That arrangement enabled four valves per cylinder and the largest air paths they could machine into the heads.

Which brings us to the LT6's pair of massive, lung-like 5.5-liter (1.5-gallon) intake plenums, which are canister-like chambers that feed air to the cylinders. Tubes inside the plenums direct air to the intake valves, and the plenums are connected by three butterfly valves. This is where things get interesting and complicated.



No mere plastic box, each of the LT6's intake plenums is a high-tech set of lungs with internal rams and computer-controlled valves that harness the natural spring effect of rushing air to increase pressure inside the plenum and create a mild turbo effect (without a turbo) for better breathing and thus more horsepower. GM

The air moving inside the plenums and traveling to the valves is constantly accelerated by the downward-drawing piston and then it abruptly stops. "These columns of air," says Lee, "compress and decompress, like springs." Those air columns and pressure waves help the LT6 cram even more air into the cylinders. If the intake valves, for example, open at the optimum moment when a column of air is already expanding, then more air goes into the cylinder.

Defined by dozens of characteristics such as the size and shape of those plenums, the runners inside them, and the exhaust system, the optimum moment when an air column is expanding typically occurs over a narrow rpm range. The butterfly valves that connect the intake plenums help widen that range. The LT6's breathing capability emerges from the whole system, including the intake parts, the variable valve timing, and the exhaust, which is itself defined by the flat-plane crank.



"When things are really on the boil," says Lee, "10 percent more air is getting crammed in the cylinder than it displaces normally." A naturally aspirated engine usually strives to inhale the full volume of the cylinders, its displacement, so in a perfect scenario, where losses don't

VFC Classifieds & Member Businesses

VFC Classifieds

Click [here](#) to go to our club classified section of our new website

Member Businesses

If you have a business and would like to see it displayed in the newsletter, please e-mail your business card to Steve Bieglecki (sbieglecki@gmail.com)



Click on the card for more info about this business

