

## In The Breeze



August 2024

Official Newsletter of the Bluebonnet Miata Club

Still Free!

# The Long Trip Home

#### A Border-to-Border Run

Some time ago we found out that US highway 281 runs from the Mexican border all the way to the Canadian border. According to Wikipedia "At 1,875 miles it is the longest continuous three-digit U.S. Route. The highway's northern terminus is at the International Peace Garden, north of Dunseith, North Dakota, at the Canadian border."

So, for no other reason than we had nothing better to do we decided to get in the Miata and make the run. Jim got a detailed map, his Garmin gps, google maps and planned out the route.

The trip started in San Antonio and went to the International Bridge in Hidalgo, Texas. In true Bluebonnet Miata club fashion (in honor of George) we performed a u-turn then headed back north to San Antonio.

From San Antonio to Burkburnett on the Oklahoma border the road is primarily divided but after that it was almost always 2 lane, no shoulder, zig zag. Overall, the road was in very good condition. The speed limit was generally 65-70 but would often very quickly slow to 35 or even 25 mph going through the small towns. We do not own a "fuzz buster" and never felt the need for it. We seldom saw any police or highway patrol.

We made numerous side trips to see funny and interesting things along the way but we always returned back to Hwy 281. The hardest thing for Jim was the "not planning". With the exception of 1 night, we never planned ahead where we would stop. We drove until we found something we wanted to see or were ready to stop. Before we left San Antonio, we did map and google searches of interesting things to see but while we were driving Delia was always looking for fun things not too far off the beaten track.

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## 2023 Club Officers

#### President

Sophie Parazo

bbmcpresident@gmail.com

Vice President

Dave Ogden

bbmcvicepresident@gmail.com

Treasurer

Joe Knight

bbmctreasurer@gmail.com

Secretary

Stephanie Turner

bbmcsecretary@gmail.com

Membership\*

Harry Maxwell

bbmcmembership@gmail.com

Newsletter Editor\*

George Lucas

bbmcnewsletter@gmail.com

\* Appointed positions

## New Members

Orlando & Monica Cabrera

San Antonio 1995 Merlot

William Cassin & Gabriela Davis

Uvalde

2021 Soul Red Metallic RF

Total Membership

195

Contributing Photographrs

Jim and Delia Voss, George Lucas

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## President's Message

Hello Bluebonnet Miata Club!

It feels like it's been a while since I have seen many of you, missing last month's meeting and missing Bunco this month too, but I am excited as we are already half way through the year. The runs are going to start ramping up with our next big one to Miata's at the Gap (MATG) to drive the Tail of the Dragon. I'm looking forward to getting together with new Miata friends and driving some beautiful and fun roads. There is also a run to the Ozark's coming up in September, celebrating the NW Arkansas Miata club's 25th anniversary! Another event coming up is the Texas

Miata Roundup in October. This is another big event hosted by the Austin club this year, so we should do what we can to support our neighboring Miata club. For each of these events, we have a few club members who can help with planning our trips and participation, so I encourage those who are involved in any way to share with the group to ensure a successful event for all.

Keep an eye on the website calendar for more upcoming runs and events at bluebonnetmiata.org. I look forward to seeing all of you at some of these upcoming events!

Till then, drive safe and keep on zoomin!

Sophie Parazo, President



As I sit here watching the rain, I decided to finish the newsletter. This month's issue is a mixed bag. With so few runs, that means fewer run stories and, of course, fewer photos! But, Delia and Jim Voss came through with a fun-filled trip that gives us fun things to see and hear about. Great job, Jim and Delia!

Interesting that my pal Ed Polansky sends me a story about tire care as I had what could have been a harrowing episode with Veelo. While on an adventure to add to my collection of Texas Miata Challenge, I noticed a rattle. Now, the rattle was bad enough and became one of those "I'll fix that right away" things, but suddenly on

my trip from Uvalde to Junction, Veelo started a Shake, Rattle and Roll thing. Getting worse, I slowed down and decided I would go on in to Junction (it was only 10 miles away). I limped into town and stopped at the first auto repair shop to have them check my wheels and tires. This nice young man inspected me and looked as if I sane to be driving on my right rear tire! He said, this tire could blow in any minute! Yikes! I asked him to put my donut spare on that rear tire position and he did that for a very bargain of 10 bucks.

Kerrville was just a few more miles away and I remembered they have a Discount Tire Store! I drove very slowly on that spare as it's not designed for too many miles. Discount Tire put a cheap tire on and I decided to get into SA and made an appointment to get new tires!

After getting new tires and already installed new shocks, I've come to the conclusion that the previous owner, while a nice fellow, didn't drive Veelo enough to realize it's age shortcomings. Driven only 2.000 miles in the 7 years he had it, the problems never arose.

All is well, I'm ready to roll up to Arkansas for the big Northwest Arkansas 25th Anniversary shindig! I'm ready for a trip, for goodness sakes! Aren't you guys?





#### The Long Trip Home, A Border to Border Run (Continued from front page)

As you will see from the list below there are A LOT of wild and crazy things to visit. The country, by and large, was amazing. We never got bored. The vistas and landscapes were always changing. The small towns we went through were super picturesque. Small town USA is alive and well. One or the other of us was always saying, "wow, look at that!"

We arrived at the Canadian border on the 7th day and visited the International Peace Garden which is built right on the border. The weather was nice and cool but we were a little early in the spring for most of the flowers. We forgot that spring comes much later that far north. (Morning temperatures were a lovely 45-50 degrees). There are no major towns near the peace garden so we stayed in the town of Bottineau, ND in a very basic motel. We toured the surrounding area and did some simple mountain climbing as well as a short trip into Canada to have lunch in the very small town of Boissevain. We even got to try some poutine! The trip back to San Antonio was not as entertaining but still very picturesque. We initially followed the Lewis and Clark trail along the Missouri River then turned our windshield to the South and headed home. After 11 days and 4287 miles we pulled back into our driveway.

We have been asked if we felt cramped riding that long in the Miata. We both said "no". We found the little roadster comfortable and neither suffered any back issues.

Some random thoughts to consider if you do a long trip like this.

- Make sure your car has good tires and is in good mechanical conditions. The towns we passed through had little to no support. The nearest Discount tire was a long way away.
- The majority of the highway was 2 lane without any shoulder. A breakdown of any kind could be very dangerous.
- Do some research about possible hotels. We saw numerous, clean looking, Mom and Pop type hotels that we would have been comfortable with as we drove through the small towns but they never show up on "Hot Wire" or Trip Advisor.

Sometimes the reason for a trip is the destination but for us, this time, the trip itself was our reason for going. Take your time and enjoy the sights.

So here is a short list of just some of the fun, different, strange, and sometimes bizarre, but always entertaining places we visited.

- The World's Littlest Skyscraper- Wichita Falls, TX
- Hot and Cold Water Towers- Pratt, KS
- The World's Largest Czech Egg- Wilson, KS The World's Largest Travel Plate- Lucas, KS
- The Garden of Eden House-Lucas, KS (by far the most bizarre. You need to google this place)
- The World's Largest Ball of Sisal Twine- Cawker City, KS
- The original "Home on the Range" cabin- Smith Center, KS
- The geographic center of the lower 48 states- Lebanon, KS
- Birth place of Kool-Aid and Stuhr Museum- Hastings, NE
- The Corn Palace and Thunder Bunny- Mitchell, SD
- The World's Largest Pheasant- Huron, SD
- The World's Largest Buffalo monument- Jamestown, ND
- Wee'l Turtle- Dunseith, ND
- Mystical Horizons- Bottineau, ND
- Tommy Turtle Statue- Boissevain, Manitoba CA
- The geographical center of North America- Rugby, ND
- Walleye Up Statue- Mobridge, SD

## The Long Trip Home Photos



































What should we know about Mazda Miata tire management?





By OpEd Polansky

Since Miatas are foregoing spares (to reduce weight and reclaim truck space), it is even more important to properly maintain and timely replace tires. So, I sought answers from the experts to common tire questions and retrieved the following.

- 1. What is the recommended tire size for the Mazda Miata? The recommended tire size for the Mazda Miata is typically 195/50R15 for the NA and NB generations and 205/45R17 for the NC and ND generations. However, it's always best to refer to your vehicle's owner's manual for accurate tire size information.
- 2. Can I mix different tire brands on my Miata? While it is possible to mix different tire brands, it is generally recommended to use a complete set of tires from the same brand and model to maintain consistent performance and handling characteristics.
- 3. How often should I rotate my Miata's tires? It's recommended to rotate your Miata's tires every 5,000 to 7,000 miles Regular tire rotations promote even tread wear and prolong the life of your tires. One key factor in tire maintenance is to avoid improper tire inflation and misalignment because that can accelerate tire wear.
- 4. Are run-flat tires suitable for the Miata? Run-flat tires are not recommended for the Mazda Miata, as they can negatively affect ride quality and handling characteristics. The Miata does not come equipped with a tire pressure monitoring system specifically designed for run-flat tires.
- 5. What is the average lifespan of a set of tires on a Miata? The average lifespan of tires can vary depending on driving habits, road conditions, and tire maintenance. However, with proper care and regular inspections, you can expect a set of tires on a Miata to last approximately 30,000 to 40,000 miles.

If you are like me and carry a "donut" tire for emergencies, note the following: the general guideline is to limit your driving to 50 to 70 miles and not exceed a speed of 50 miles per hour when using a donut spare. These restrictions are in place because, of course, the donut spare is not built for durability or high-speed performance.

One final thought: remember a bad attitude is like a flat tire, you can't get very far until you change it.

Source: topmiata.com

# NOT SO FAST, ELECTRIC CARS

#### Mazda Has Improved the Gasoline Engine to a Level that even Tesla Should Respect

There are lots of reasons why we're not all driving <u>electric vehicles</u> now. You've probably thought of two or three already, but let me add one that I'm sure you haven't. It's a big obstacle to EVs, and it's rarely remarked upon.

It's the internal combustion engine, which is no sitting duck. It's a moving target, and a fast-moving one at that.

There's no better example of this agile, relentless progress than Mazda's Spark Controlled Compression Ignition (SPCCI) system, which is scheduled to reach the car-buying public in the form of a new combustion engine in <u>late 2019</u>. Mazda borrowed a trick from the diesel engine, which compresses a fuel-air mixture to the point of ignition rather than igniting it with a spark plug, as gasoline engines do. It's the biggest advance in combustion engines since electronic fuel injection, which started proliferating in the 1970s.

The new engine operates under some conditions with compression ignition, like a diesel engine, and at other times with spark ignition, like a standard gasoline engine. It will sell under the name Skyactiv-X, building on Mazda's current engine design, known as Skyactiv-G (*G* is for gasoline). "We've dubbed it Skyactiv-X because it is kind of the intersection of gasoline and diesel technologies," said Mazda power-train engineer Jay Chen, in a press briefing.

Mazda claims that the 2.0-liter four-cylinder Skyactiv-X provides from 10 to 30 percent more torque and from 20 to 30 percent better fuel efficiency than the Skyactiv-G. So, using the 2.0-L Skyactiv-G as the reference, figure on torque somewhere between 224 and 264 newton meters (165 to 195 foot-pounds) for the Skyactiv-X. If you put it in the Mazda3, a compact car, and assume it has only a minimal hybrid-electric design, then its fuel economy should come to between 6.36 and 5.88 liters per 100 kilometers (37 and 40 miles per gallon). Mazda has not yet announced which model will debut Skyactiv-X.

True, an all-electric car posts better numbers. The U.S. Environmental Protection Agency gives the Chevrolet Bolt EV the e-car equivalent of 119 mpg (1.98 L/100 km). On the other hand, the Bolt will go just 383 km (238 miles) on a charge, while the Mazda3, using today's Skyactiv-G engine, can manage 785 km (488 miles) on a tank of gas.

"The biggest thing I believe Skyactiv-X does is demonstrate that the internal combustion engine is not dead and that EVs are not a shoo-in," says George Peterson, president of industry consultancy AutoPacific. "There's a lot of life left in internal combustion power trains until cost and range issues with EVs are solved."

To understand how SPCCI works, start with the fundamentals of ignition in the three kinds of combustion engine—the diesel engine, the standard gasoline engine, and the immediate forerunner to the SPCCI, called the homogeneous charge compression ignition (HCCI) engine.

In ideal combustion, each hydrocarbon molecule is paired with an oxygen molecule, producing water and carbon dioxide. The molecules are present in the chemically correct ratio that engineers describe as lambda 1. In a lean fuel condition, when there's more oxygen, lambda is greater than 1. That's good when the goal is to reduce fuel consumption. And, because such lean combustion mixtures burn cooler than those at lambda 1, they produce less nitrogen oxide pollution.

However, it's not always easy to get that lean mixture to burn. "The less and less fuel you have in a mixture, the harder and harder it gets to ignite," Chen explains. "Just like lighting your barbecue without enough lighter fluid."

The solution, employed in both HCCI and SPCCI engines, is to keep compressing the air-fuel mixture until it is so hot and under so much pressure that it detonates spontaneously. Diesel engines also use such compression ignition, but they first compress pure air into the combustion chamber, then inject the diesel fuel. Only then does the fuel burst into flame.

This sequence is important because the fire starts at the spot where the fuel is injected and spreads to the rest of the combustion chamber. High temperatures in this expanding flame front cause diesel's characteristic emission of soot particles and nitrogen oxides.

In HCCI combustion, air and fuel mix together in the cylinder during the compression stroke and spread homogeneously throughout the combustion chamber, as they would in a direct-injected gasoline engine. Only after that spreading and mixing are they compressed to the point of autoignition, as in a diesel engine.

So, in a traditional gasoline engine, combustion begins at the spark plug; in a diesel, it begins at the fuel injector; and in an HCCI engine it happens in all parts of the combustion chamber at once. That makes for an intense explosive reaction, one that puts more downward force on the piston during the engine's power stroke than the other two engine types do. Gasoline and diesel engines both must light the fuel while the piston is still moving upward on the compression stroke, achieving peak cylinder pressure while the piston is close to the top of its stroke.

(continued from previous page)

"That means the piston is still moving up, already building pressure," says Chen. "The piston has to fight against the current, if you will, of the pressure."

"If we did compression ignition, it happens over such a short period of time, we can actually target the peak of the pressure right after top dead center of the piston," Chen continues, using the industry term for the point when the volume of the cylinder is at an absolute minimum. That way, "all the energy is released immediately, and bam!—the piston just pushes down with the greatest amount of force. For the same amount of fuel, we can get a much higher pressure out of our combustion process through compression ignition than we can through traditional spark ignition."

To make it work, HCCI engines need to run at a very high compression ratio, just as diesel engines do. According to <u>Sandia National Laboratories</u>, one of the few outside sources that gives numbers, HCCI engines typically run at compression ratios as high as 14:1. Conventional turbocharged gasoline engines commonly run at <u>around 10:1</u>, while diesels, such as the familiar Cummins 5.9-L turbo diesel installed in Ram pickups, run at <u>17.2:1</u>.

However, HCCI engines can't always time that spontaneous explosion so that it happens just after the piston passes top dead center in its stroke and begins moving downward on its power stroke. They simply can't be designed to exert such precise control, because they're harnessing highly exothermic chemical reactions that behave chaotically, in a fast-changing environment.

As Chen puts it, "Whenever the air and the fuel inside the cylinder reaches a critical temperature and pressure, it's just going to go boom."

**Because HCCI combustion** is possible under only the right conditions of load and engine speed, HCCI engines need spark plugs to let them run in conventional, spark-ignition mode as well. And here is where the challenges begin. In an HCCI engine, compression ignition is spontaneous, so it

is difficult to know exactly when the cylinder's air and fuel mixture will ignite. If that rapid, forceful combustion that we prize so much during the power stroke occurs too early, while the piston is still rising for the compression stroke, catastrophic engine damage could occur. But variations in engine load, throttle position, and temperature make it difficult to rule out such premature ignition if some combination of those factors suddenly creates a compression ratio high enough for compression ignition.

Mazda finesses the problem by having the engine initially give just a very small squirt of fuel. That trick ensures that the mixture is so lean, regardless of conditions, that it will never preignite. "Then, during the compression stroke, we give a larger injection of fuel, under higher pressures. That atomizes, but it doesn't have the same amount of time to heat up. In that way, it doesn't have enough time to reach the autoignition temperature threshold," explains Chen.

How, then, to get this lean mixture to light at the most opportune moment in the cycle? Mazda's creative solution to this problem is to build its SPCCI engines with a compression ratio of about 16:1—just below the threshold for compression ignition in this engine.

The earlier, HCCI engines needed a spark plug for conventional operation when the temperature, engine load, throttle position, and rpms were unsuitable for compression ignition. But Mazda's engineers realized that by manipulating conditions within the compression chamber, they could use that spark plug to ignite a local fire within the chamber. The expanding flame front increases pressure throughout the combustion chamber, effectively raising the compression ratio high enough to trigger ignition in all parts of the chamber at once.

That left the lighter-fluid problem: How do you light that compression-enhancing fireball in a fuel mixture that's too lean to catch fire? Mazda's solution is to create a region near the spark plug that's just a bit too lean to catch fire by compression alone. The spark can then set off a fireball whose expansion will boost pressure throughout the cylinder and cause compression ignition. In other words, the spark doesn't so much light the fire as help the fire to light itself.

Creating such a local less-lean zone isn't easy. "We can't just put fuel in and make it slightly less lean, because it will just mix with [everything else in the chamber]," Chen notes. "In order to cordon off this region of slightly less lean, and very lean outside of that, we introduce cylinder swirl."

Just as baristas create artistic images in espresso foam, it is possible to induce the air-fuel mixture inside the cylinder to swirl in a very carefully designed pattern. But rather than drawing a whimsical heart shape, Mazda engineers induce the flowing air to swirl like a hurricane, with a placid eye centered on the spark plug.



"We create this swirl inside the cylinder through our port design in the cylinder head and also because we have a lean supercharger that helps deliver a high amount of flow," Chen says. "The more flow, or the harder it is blowing, the more turbulence and vortex we have." It is into this walled-off vortex that the Skyactiv-X engine injects a little extra fuel, just enough extra to let the spark plug set off the fireball that triggers the cylinder-wide spontaneous compression ignition at the correct instant.

Editor's Note. Do you find this kind of information interesting, as I did? If so, read the entire article at;

# Ladies, Ladies, Ladies





Looks like the ladies were doing it up right! Marilyn Hamilton hosted this event! Looking good, ladies!

-Ed

#### More Ladies Events coming up!

**AUG 9 - NATURAL BRIDGE CAVERNS -**

Join us for an exciting tour of the Hidden Wonders Cavern, the newest at Natural Bridge Caverns. Meet at 10:00 am on Friday, August 9th for the tour, then lunch afterwards at Caparelli's in Garden Ridge. We will buy our tickets at the gate, as a group to ensure we can all be together on the tour. They have dynamic pricing (meaning it can change) that will be approx. \$35ish per person. They do offer Military and AAA diounts. Tour will last approximately 75 minutes

#### Natural Bridge Caverns (210) 651-6101

26495 Natural Bridge Caverns Road San Antonio, TX 78266

#### What should I wear?

Regardless of the outside temperature and weather, the cavern is a constant 70 degrees with a relative humidity of 99% that makes it feel more like 80 degrees. We recommend wearing comfortable walking shoes with good traction as the trails are steep and wet. Most visitors are comfortable in shorts and a t-shirt while inside the cavern. There are handrails and using a cane is ok; however, use your own judgement on your abilities to go on the tour. more details are available on the website.

SEP 6 - POOL PARTY, Coordinator Monica Harrison NOTE ADJUSTED DATE

OCT 11 - LADIES ONLY TRACK DAY, Coordinator Monica Harrison

NOV 8 - KRIS KRINGLE CHRISTMAS FAIR, Coordinator Barb Thompson

DEC 13 - MUSEUM - New Braunfels, Coordinators: Wanda Begnoche and Barbara Thompson

# Upcoming Runs and Events

### August 2024

Thursday-Sunday, August 1—4, Miatas at the Gap. Held every year, some of our folks are going to Deal's Gap to run the Tail of the Dragon near Fontana Village in North Carolina. If you're going, this isn't very pertinent to your plans as of now.

**Friday, August 9th, 9:00 a.m. Men's Breakfast, hosted by George Lucas**. Tried and True, we'll be meeting at the Whataburger at 11003 NW Military Highway in the Alon Town Center. Great affordable breakfast and free coffee!

Friday, August 9th, Join us for an exciting tour of the Hidden Wonders Cavern, the newest at Natural Bridge Caverns.

Meet at 10:00 am on Friday, August 9th for the tour, then lunch afterwards at Caparelli's in Garden Ridge. More information is on the Ladies page in this issue.

Saturday, August 10th, District Run, led by Jimbo Treat. Details and start time will be available soon! Watch the website!

**Thursday, August 15th, Ladies Bunco, hosted by Marilyn Hamilton.** Meet at Big'z Burger Joint, 2303 N Loop 1604, west bound access road. Meet there at 6:30 for a fun evening!

**Sunday, August 18th, Sunday Sunrise Run, Led by Craig and Lisa Martin.** Meet at 6:45 a.m. at the Valero, Old Seguin Road and FM 78. Depart at 7:00 a.m. Wake up sleepy heads!

**Tuesday, August 27th, BBMC Meeting, Sophie Parazo, president presiding.** Bigz Burger Joint, 2303 N. Loop 1604 W, SATX 78258. Greet and Eat, 6:30 p.m., Meeting starts promptly at 7:30 p.m.

September 4th, Run to the Ozarks, led by George Lucas, see below!

### Run to the Ozarks Led by George Lucas

(Yes, this is in leu of the earlier planned Head for the Mountains)

THE NORTHWEST ARKANSAS MIATA CLUB CELEBRATES 25 YEARS!

THE NORTHWEST ARKANSAS MIATA CLUB WILL CELEBRATE THEIR 25th ANNIVERSARY THIS SEPTEMBER 5th- 8th, 2024 IN EUREKA SPRINGS, AR.

WE WOULD LOVE TO HAVE ALL OUR MIATA FRIENDS TO JOIN IN WITH US

IN THIS CELEBRATION OF MIATA FUN, SO SAVE THE DATES AND COME TO

BEAUTIFUL EUREKA SPRINGS AND HELP the NWA Club CELEBRATE!

479-253-9768

**LOOK LOOK!** On the morning of September 4th, we will be meeting at the QT, 4311 IH35, New Braunfels at 8:00 a.m. and depart at 8:30 a.m. We will run up to Idabel, OK for our first evening. We have group reservations at the Comfort Suites in Idabel. Their direct number to the front desk is 580-245-6546, press 2! The following day, we'll drive on in to Eureka Springs for the event. Our hotel for the event is Best Western Inn of the Ozarks. Their number is 479-253-9768. A great time is in store at this big event, join in! Questions? Call George Lucas at 210-846-1944

Friday, August 9th, Men's Breakfast,

9:00 a.m.

hosted by George Lucas.



11003 NW Military Highway in the Alon Town Center. Great affordable breakfast and free coffee!

Stay and visit!



### Sunday, August 18th

6:30 p.m.

Let's meet at





San Antonio's

**Best New York Style Diner!** 

226 West Bitters Rd., Ste. 126, San Antonio, TX 78216

## Did you know?

Beginning January 1, 2025, non-commercial vehicles will no longer need a vehicle safety inspection prior to registration. However, all non-commercial vehicles in the state will be subject to a \$7.50 inspection program replacement fee. This fee will be added to your total when you register your vehicle.

Emissions tests are required in major metropolitan areas. Bexar County will be added to the list of counties requiring emissions tests in November of 2026.

#### Soooo:

- 1) Those folks driving unsafe vehicles will no longer be harassed by diligent inspectors. I'll leave it up to you whether we should switch to 8,000 pound Miata Hummers for survival.
- 2) Those folks in the TX State Official Vehicle Inspection Stations will have to find an alternate line of criminality to replace their '\$24.00 charge for a \$7.00 inspection.' Yes, incredible as it may seem, ill-informed motorists are still paying more than three times the official cost because the 'inspection guy' said they should.

Note: All information presented here is from www.dps.texas.gov.

Thanks to Larry Stivers for this information! -Ed

### Don't forget our Sponsors!







## Remember When?



Diane and Jeff Holbrook, Colorado 2010