

### *Very Hot, now Very Cold*

*What a nice summer! I can't remember such a warm summer in a long time. The best part, almost no mosquitos. If you go to the lake during the summer it was the best. If you see me in the water you know it's really hot! But the cold sure came quick, at least a month early.*

*One thing most people don't know is that the hot weather puts a strain on your vehicle. Especially the battery. In fact, in the south like Las Vegas, you are lucky to get 2-3 years from your battery (average battery life is 5 years). The heat puts a strain on your alternator, A/C compressor, transmission, differential, and many other parts.*

*What does this mean to you? You need to do regular maintenance - coolant flushes - power steering flushes - brake flushes - transmission flushes - differential flushes. Get rid of the harmful particles and deposits and fluid breakdown from the heat. Give your vehicle a fighting chance going into winter.*

*This fall/winter, instead of just doing a fall oil change, have our Fall-Winter Tune/Check Up done which includes an alignment check, pressure test cooling system, auto EKG, AVR test, computer scan for codes, plus check front end, brakes and much, much more. Call today 204-783-5802 to set up an appointment.*

*I'm writing this on Thanksgiving weekend. Be thankful for the many advantages we have in our great country, Canada, and most of all be thankful for your family and friends.*

*Warmly,*



*Lance Reinheimer  
President*



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**Mission Statement**

**To have the ultimate client experience ever.**

### **Employee Profile**



### **Dylan Frederickson Technician**

**Started at Lanpro:** June 2018

**Experience prior to Lanpro:** 4 years

**Education:** Graduated Grade 12, Kildonan East Collegiate - 2014

**Interests/Hobbies:** Baseball and hockey.

**“Ultimate Service So You Can Have Safe and Breakdown Free Driving”**

## Signs and Symptoms of Spark Plug Problems

During its lifetime, an average spark plug might fire 27.5 million to 110 million times. Eventually, the spark plug gap widens and the air-fuel mixture no longer ignites efficiently. Other engine problems might contaminate the spark plug, and in certain circumstances, it may not fire at all.



### How the Spark Plug Works

Fire requires three components: oxygen ( $O_2$ ), fuel, and heat. In your engine, every time a cylinder pulls an intake stroke, it pulls in air (=21%  $O_2$ ). Port-injection engines inject **fuel** during the intake stroke, while direct-injection engines, gasoline or diesel, might wait until the compression stroke. Finally, heat is provided in one of two ways: one or two spark plugs for gasoline engines, or the heat of compression for diesel engines. The result, as when any time these three components are combined, is a tiny explosion. Cruising at 88 kph, the average cylinder will fire about 1,000 times per minute, or 16 times per second!

In gasoline engines, the heat is provided in the form of a tiny lightning bolt. High voltage, 5kV to 45 kV, depending on the vehicle, is generated in an ignition coil, controlled by a distributor or engine control module (ECM). The charge is conducted to the spark plug via a spark plug wire.

The spark occurs when the charge jumps between the spark plug electrodes, just 0.01" to 0.07" (0.25mm to 1.8mm) across. The heat generated, between 8,500 F and 11,800 F (4,700 C to 6,500 C), ignites the air-fuel mixture, driving the piston down in the power stroke.

### Signs of Spark Plug Problems

How can you tell if your spark plugs need attention? Your engine is a fine-tuned machine, and performance, fuel economy, and reliability are dependent on consistent delivery of air, fuel, and spark. Here are seven signs of spark plug problems.

**1. Fuel Economy** - If you're tracking fuel economy, as everyone should, spark plug problems might cause your engine to consume more fuel than usual. As the ECM has no control over spark strength or oxygen content, it adds fuel to compensate for poor combustion.



**2. Misfire** - A cylinder misfire occurs when the spark plug can't ignite the air-fuel mixture. This can occur because of worn spark plugs, contamination, cracked spark plug wires, or other problems.



**3. Check Engine Light** - For many people, the check engine light might be the only sign your engine is having spark plug problems. The ECM is far more sensitive than many drivers and can detect a single cylinder misfire in thousands of good ignitions.

**4. Hard Starting** - Proper ignition is most difficult when the engine is "cold". The ECM adds more fuel to account for poor vaporization, which can be difficult for a worn spark plug to ignite, resulting in hard starting, long cranking, or a no-start condition.

**5. Rough Idle** - At idle, spark plug problems might be evident as more vibration, basically a cylinder misfire that occurs only at idle.

**6. Poor Performance** - On acceleration, spark plugs are under particular demand to deliver a strong spark to ignite more fuel and generate more power. Faulty spark plugs or weak ignition coils may not keep up with demand.

**7. Hesitation/Surging** - Slightly less noticeable, hesitation on acceleration, and surging might be described as the engine not "responding" immediately to driver input. Then, a "surge" in power might come unexpectedly. This slight delay in power delivery might indicate a spark plug problem.

## Thai Chicken Lettuce Wraps

**Prep Time**  
**7 minutes**

**Cook Time**  
**8 minutes**

**Total Time**  
**15 minutes**

Thai Chicken Lettuce Wraps—Ready in 15 minutes from start to finish, perfect quick lunch. These Thai-style lettuce wraps will please your taste buds, super healthy and delicious. Serves 4

### **Ingredients**

1 lb ground chicken  
1 tbsp. olive oil  
2 tbsp. red curry paste  
1 tbsp. ginger, minced  
4 cloves garlic, minced  
1 red bell pepper, sliced thinly  
4 green onions, chopped  
1 cup cabbage, shredded or coleslaw mix  
1/4 cup hoisin sauce  
1/4 tsp salt or to taste  
1/4 tsp pepper or to taste  
5 leaves basil, chopped  
1/2 head iceberg lettuce or romaine leaves



### **Instructions**

1. Add olive oil to large skillet and heat until oil is very hot. Add ground chicken and cook until no longer pink and starts to brown, break it up with a wooden spoon as necessary. Should take about 3 minutes.
2. Add red curry paste, ginger, garlic, peppers and cabbage or coleslaw mix, stir-fry for another 3 minutes.
3. Add hoisin sauce and green onions, and toss. Remove from heat and then add basil and toss. Transfer cooked chicken to a bowl.
4. Serve by placing spoonful's of chicken into pieces of lettuce, fold lettuce over like small tacos and eat.

## Thank You for Your Referrals

Along with the Gift Certificates they have received, all are entered to win an iPad ( 1 in 10 chance to win)

- Mia Douchant
- Allie McCrea
- Oliver Albig
- Mel Wolko
- Leni Sarmiento
- Cheryl Rayter
- Ken Hacking

## SHOP TALK - ON THE LIGHTER SIDE

### Funny Trivia and Short Jokes

1. In 1899 Jacob German got the world's first what in New York?  
Answer: A speeding ticket - 12MPH
2. In the USA, every 12 seconds someone does what in a Holiday Inn?  
Answer: Steals a towel
3. What do 66% of North Americans reading on the toilet read? Answer: Readers Digest.
4. In Singapore you can be publicly caned for failing to do what?  
Answer: Flushing a toilet after use.
5. What magazine declared bankruptcy in the early 90's? Answer: Success.
6. What was the ice cream cone invented for? Answer: To hold flowers.
7. Why don't cannibals eat clowns? Answer: They taste funny!
8. How do people find furniture in the dark? Answer: With their shins.
9. The wingspan of a Being 747 is longer than?  
Answer: The first flight of the Wright Brothers.
10. Most people eat which part of the Easter Bunny? Answer: The ears.
11. What do lottery winnings do? Answer: Put on weight
12. What do you call cheese that's not yours? Answer: It's nacho cheese!
13. What goes "Ha Ha Thump"? Answer: A man laughing his head off!
14. What do you call a sleepwalking nun? Answer: A roamin' Catholic!

Newest Technician  
Andrew Tambiloc



Comments, questions, or anything else you'd like to tell us.

**Contact us at:**  
lance@lanproauto.com, if its personal only my eyes (Lance) will see it. If it is a testimonial or something all should see it will be shared with all staff.

Check out our website: [www.lanproauto.com](http://www.lanproauto.com) Email: [lanpro@mts.net](mailto:lanpro@mts.net)

HOURS: MONDAY - FRIDAY 7:30AM - 5:30PM

\*SATURDAY 8:00AM - NOON \*CLOSED LONG WEEKENDS

"Ultimate Car Care"