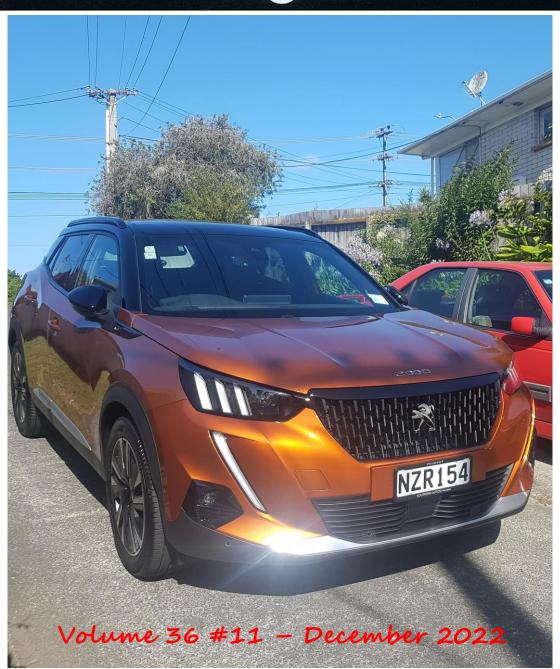


# Peugeot Car Club (Auckland) Peugeot Car Club (Auckland) Peugeot Car Club (Auckland) One of the context of the





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Front cover - Peugeot 2008 GT Above - Greg Winkley





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#### **COMING EVENTS**

#### peugeotclub.org.nz

For updates on events, keep an eye on our website peugeotclub.org.nz

February 12 - Ellerslie Car Show

March 5 - Brit & Euro Car Show

March 12 – Gymkhana at Cato's Farm

#### THOUGHT FOR THE MONTH

Today's headlines and history's judgement are rarely the same.

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#### P O BOX 29002 Epsom Auckland 1023

Peugeotex is the monthly magazine of the Peugeot Car Club (Ak) Inc. The Club accepts no responsibility for any views expressed in it.

#### PRESIDENT'S RAMBLE

This one is going to be short as once again the editor has told me I have a general lack of space and because I want some photos of a 204 I spotted on a trailer in Dunedin at the end of last month - fabulous city for a visit. At the time it was warmer and drier than Auckland! Haven't been in winter so can't comment on whether my shorts would get long legs or not. What I would like is some more volunteers for the Ellerslie Concours next year, preferably with some older vehicles, say a 203, a 404, a 504 and perhaps a 205 or 206, a 309? Maybe a 106, 405 - or what do you have? I don't want anything else this side of 2000 (but maybe you can twist my arm), we have three from that time period already. Anyway I need four more cars (or a ute?) and people to join us Sunday 12th Feb at the Ellerslie Racecourse for the club stand. Let me know, brentdruskovich@gmail.com.





The pictured 204 I found on the back of a trailer outside a section of the street where a number of motels are, presumably it had been picked up somewhere in Dunedin and was heading elsewhere to be restored. It was full of stuff inside, presumably spare parts but the plastic bags and boxes gave away little. Would love to know if it was heading to an Auckland or Wellington member. It had a Peugeot Car Club badge on it already, though it didn't state which club; maybe it once belonged to the now defunct Southland Club?

Don't forget Don Howarth is organising participation in the Brit & Euro Car Show next year.

Anyway, Merry Christmas and a Happy New Year, no magazine in January, see you February, especially those that volunteer to join me on the 12th, hoping I won't have to chase volunteers up, come to me instead © Brent





#### **COMING EVENTS**

February 12	Ellerslie Car Show's Concours d'elegance. Brent is the contact person if you want to be involved – ph 638 9421
March 5	Brit & Euro Car Show, Lloyd Ellesmere Park. Don Howarth is the contact person if you want to be involved - ph 883 2123
March 12	Gymkhana at Cato's Farm



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#### JEANETTE'S JOTTINGS

Did you know that visitors on the Milford Track are limited to 40 a day and the traffic is one way only?

The Tongariro National Park Act of 1894 saw the creation of the 6<sup>th</sup> oldest national park in the world. The Maori owners of the land gave it to the government to protect it from being split up by greedy developers.

New analysis of a volcanic eruption off the coast of Tonga earlier this year has revealed the true extent of the massive explosion, and established its plume as the highest on record and the first recorded entering the mesosphere.

Along with their use in foods, soybeans have also been utilized as a source of graphene, a greener alternative to mulch, and an ingredient in longer-lasting tires. Now, they're additionally being used to extend the life of asphalt roads.

Each king in a deck of playing cards represents a great king from history:
Spades - King David
Hearts - Charlemagne
Clubs -Alexander, the Great
Diamonds - Julius Caesar.

If a statue in the park of a person on a horse has both front legs in the air, the person died in battle. If the horse has one front leg in the air, the person died because of wounds received in battle. If the horse has all four legs on the ground, the person died of natural causes.

It is impossible to lick your elbow.

Only two people signed the Declaration of Independence on July 4, John Hancock and Charles Thomson. Most of the rest signed on August 2, but the last signature wasn't added until 5 years later.

In Shakespeare's time, mattresses were secured on bed frames by ropes so when you pulled on the ropes, the mattress tightened, making the bed firmer to sleep on.

Hence the phrase . . 'Goodnight , sleep tight'

## Q. What do bulletproof vests, fire escapes, windshield wipers and laser printers have in common?

A All were invented by women.

It was the accepted practice in Babylon 4,000 years ago that for a month after the wedding, the bride's father would supply his new sonin-law with all the mead he could drink. Mead is a honey beer and because their calendar was lunar based, this period was called the honey month, which we know today as the honeymoon.

In English pubs, ale is ordered by pints and quarts. So, in old England, when customers got unruly, the bartender would yell at them 'Mind your pints and quarts, and settle down.'

It's where we get the phrase

"mind your P's and Q's".

Coca-Cola was originally green. The drink's name refers to two of its original ingredients: coca leaves and kola nuts.

Over 20 years of research has produced a perennial rice – a hybrid created from an Asian domesticated annual rice crossed with a related African wild perennial.

Scientists tracking climate change have found Europe is seeing temperatures increase at more than twice the global average. This rate of warming is the highest of any continent in the world, with the team warning of more frequent heatwaves, wildfires and other extreme weather events as a result.

#### PEUGEOT E-STREETZONE ELECTRIC SCOOTER

Peugeot Motorcycles has revealed an electrified version of its tried and tested 50cc Streetzone combustion-engine scooter that's been motoring around cities for the last 10 years. The e-Streetzone will be available with one or two batteries for up to 112 km of range, as well as a cargo version.

The e-Streetzone can accommodate a single battery or dual batteries under the seat – where a storage compartment big enough for a jet helmet can also be found – and is designed for inner-city riding or short urban trips.

A single battery unit offers a percharge range of 61 km (38 miles) in Eco mode at up to 25 km/h (15.5 mph), or 51 km (31.6 miles) at up to 45 km/h (30 mph) in Boost. Riders can also opt for two batteries and the Eco range goes up to 112 km (69.5 miles) or 96 km (59.6 miles) at the higher Boost speeds. Scooter weight with one battery is 90 kg (198.4 lb), or 102 kg (224.8 lb) with two.

The battery packs can reportedly be removed in a few seconds for charging via a domestic wall socket indoors, with 4.5 hours on charge getting each pack up to 80% capacity. And there's support for fast charging too.

Elsewhere, the motor produces 105 Nm (77.4 lb.ft) of torque, the scoot benefits from hydraulic suspension front and back and rides on 110/70-12 tires, with disc braking to the front and a drum brake at the rear. There's a two-seat padded saddle, a new LCD dash for at-aglance battery level, ride mode, speed and distance checks plus a USB charging port for topping up mobile gadgetry while out and about, and a bag hook in the space below the handlebar.

The e-scoot is also being made available as a dual-battery cargo version for package and food delivery businesses, which comes with a single seat only and rear cargo rack capable of hauling up to 20 kg (44 lb), and has been designed "to withstand particularly regular and sustained use."

The 2023 e-Streetzone was first shown at the Paris Motor Show in October and more recently the EICMA trade show in Milan. Peugeot expects the electric scooter to be released in the first half of 2023, with black/blue, white, red and black being the available color options.

Source: Peugeot Motorcycles



#### AeroHT FLYING CAR

by Loz Blain

[Extracts from the article by Loz Blain in New Atlas.]

Chinese automaker XPeng has updated the design of its AeroHT flying car – a luxury electric sportster with a fold-out vertical-lift octacopter system on the roof. It looks absolutely nutty, but a two-ton flying prototype indicates this is no joke...the new design looks less like a Minority Report hypercar and more like a luxury electric rally-raider with a massive box on top...

Xpeng wants to offer a true flying car you can drive around on the highway and then lift off vertically to cruise over traffic jams. Kicked off with a massive half-billion-dollar bank account last year, AeroHT is also working on an eVTOL air taxi design, which has just been flown for the public in Dubai. But that thing is a simple manned multicopter, the likes of which we've seen plenty of times before.

The eVTOL flying car, on the other hand, is the kind of bonkers idea that very few other companies are even experimenting with – certainly nobody with this kind of money behind them.

Why not? Well, if weight is the enemy of flight, it's the mortal nemesis of electric VTOL flight – particularly for straight-up wingless multicopter designs like this, which need to burn energy constantly to stay airborne. Lithium batteries are heavy enough that even single-purpose manned multicopter air taxis all suffer from heavily restricted endurance and range figures.

Street-legal electric cars are typically very heavy in and of themselves; they need to pass crash tests. They need separate road-going powertrains, suspension, brakes, big wheels, windscreen wipers and cup holders, along with great big heavy battery packs.

AeroHT's practical little air taxi weighs around 560 kg (1,235 lb) with nobody sitting in it, and still only gets around 35 minutes out of a battery. The flying car's weight could end up being more than four times higher, and it still only flies two people.

And yet here we are looking at a fullsize prototype of the X3 flying car prototype in the air. Weighing in at an eyewatering 1,936 kg (4,268 lb), it follows roughly the body shape of the renders, and looks pretty cool from the front. It looks a lot less cool from the sides and back, but bodywork is just bodywork.

Source: AeroHT



#### LUCID'S 1<sup>ST</sup> HOME EV CHARGER

EV maker Lucid Motors turned a few heads with the introduction of its Air sedan and its industry-leading range figures, and now it's rolling out some accessories to go with it. Included in the range is the company's first at-home wall charger, which it says is capable of adding 80 miles (128 km) of range every hour.

Lucid's lineup of Air sedans performed impressively in range testing last year, landing a set of EPA figures that outstripped the previous best-inclass Tesla Model S Long Range. The company says it is on track to produce 6,000 to 7,000 of the vehicles for the calendar year, and as these luxury sedans roll off the production line it is introducing new tools to keep them topped up and on the road.

Called the Connected Home Charging Station, Lucid's first at-home charging station is a black wall-mounted unit for indoor or outdoor use. It hooks up to the Lucid Air sedan via a 24–foot (7.3-m) charging cable, delivering 19.2 kW of power to add up to 80 miles of range per hour. The unit is fitted with the hardware needed for bidirectional charging, according to Lucid, and is Wi-Fi-enabled for over-the-air-updates.

These charge times pale in comparison to what you could expect from the latest generation of DC Tesla Superchargers for example, with their 250-kW max charge rates that add up to 200 miles (321 km) in 15 minutes. But so far as at-home AC charging goes, Lucid is again looking to take up a position at the head of the pack. Tesla's current at-home wall chargers, for reference, offer up to 11.5 kW for 44 miles (70 km) of

added range per hour, depending on the model.

Along with the Connected Home Charging Station, Lucid has also introduced a US\$2,000 rooftop capsule with 11.5 cubic feet (325 L) of cargo space that it says was carefully sculpted to boost aerodynamics and range. The same goes for the newly introduced, \$500 set of Crossbar roof racks rated for loads of up to 165 lb (75 kg), while the new \$250 All-Weather Mats floor mats will do nothing for aerodynamics but will keep the car's original interior nice and clean.

All are up for order now, with the Lucid Air Crossbars and All-Weather Mats expected to be available later this year. The Air Cargo Capsule and \$1,200 Connected Home Charging Station will be available in 2023.

by Nick Lawson in New Atlas.

#### STELLANTIS & AI

Stellantis N.V. and aiMotive, a leading developer of advanced artificial intelligence and autonomous driving software, announced in November that they have entered into an agreement for Stellantis to acquire aiMotive.

aiMotive is based in Budapest, Hungary, with offices in Germany, the United States and Japan, with over 200 highly skilled employees worldwide, including engineers with advanced artificial intelligence and autonomous driving expertise. aiMotive will operate as a subsidiary of Stellantis, maintaining its operational independence and startup culture.

This acquisition enhances Stellantis' artificial intelligence and autonomous driving core technology, expands its global talent pool, and boosts the mid-term development of the all-new STLA AutoDrive platform.

### A FEW 504s I HAVE KNOWN by John Grant

In 1974 we bought our one and only brand new car - a Peugeot 504 of course. At this stage the value of the French franc was temporarily down on the eve of the French elections and the French assembled cars were actually about \$600 cheaper than the locally assembled ones. This suited me down to the ground for the French assembled cars had a welldeserved reputation for superior build quality and paint finish. In fact, for many years, the words "French assembled" in an ad, quaranteed a considerable price premium on second-hand models.

The new car was midnight blue with grey vinyl upholstery but before we could take delivery of it, it had to go to a panelbeaters for repairs. While the cars had been chained down in the hold of the roll-on roll-off ship, someone or ones in hobnailed boots had walked over many of them and most had to have damage to their boots, roofs and bonnets repaired. An excellent job was done but the car proved a real trial to keep looking cared for as every speck of dust showed on the dark blue paint. My mother-in-law actually had the car "armourglazed" as a birthday present for me and this treatment which put a protective glaze over the paint, stopped it taking up the small polishing scratch marks which were starting to show. Seeing the car again 20 years later, the original panels were still in good shape despite obvious later neglect.

Much as I would have liked a fuel injection model, our finances could not stretch the little bit further necessary to buy one, so this car was a 2 litre carburettor model which gave us utterly reliable and comfortable service for six years. At the end of that time we traded it in on a fuel injected model of the same age. This turned out to be a comparative lemon as it

had suffered accident damage and within a year the white paint was revealing the fact that it had not been properly rust protected afterwards.

I then had a stroke of luck in that I was able to lay my hands on a low mileage 504Ti with a most unusual history. It was sold new to a policeman up in Broadwood and within a few weeks was deliberately run into by a truck and suffered damage to the left front guard. The insurance company fixed it up but he was not satisfied. This was his new car that had been damaged and he wanted a new car in compensation. He took a snitch against the car and started bombarding the agents with complaints about the speed with which it wore tyres out. He became convinced that the body was twisted on it and even persuaded the agents to replace the drive shafts. As far as they could see, the ones they took out had nothing wrong with them, but he was still not satisfied and in the end the insurers even paid to have the mechanicals taken out and the body shell sent down to Thames to be put on the factory jigs to check that it was square which it was. [It was probably better than the locally made cars as their iigs were aettina worn1

The end of the story was that the insurance company bought it back from him and had it stripped to find what was wrong with it. No problem was found and the car sat up against a wall in the back of the showroom in Campbell Motors building in Upper Queen St for several years. No one ever spent time cleaning it and it just sat there neglected. It sat there for so long I suspect the insurers forgot about it. Eventually Campbell Motors ceased to exist and the car had to go.

I bought it for \$6600 - which was just about its new price six years earlier. It was a deep wine in colour and looked great. We had that car for seven years and sold it for \$8500! By that time it had done 100,000 miles and still looked as good as new. It drove like new too. It had the fuel injected 2 litre motor and sunroof which

were virtually standard in France. I have never been able to understand why the majority of the Peugeots brought out to NZ were - by the agent's special request - without the sunroof.

Every month I used to hear of 404s and 504s going off the road because their owners were no longer prepared to pay to meet the requirements of the testing stations. Not all of their demands are reasonable. For instance, most 504 owners know that they will face an argument about the handbrake lever. The Peugeot idea is that the lever will have a large travel and operate over a range of 7 -13 notches. When it reaches the 13 click point, it will self-adjust and go back down to 7. What happens over time is that the callipers get wear in them and no longer self-adjust completely. The lever will come up even higher and stay at about 15-16 notches. In this state it still operates satisfactorily. Remember though that they were never a very powerful handbrake being designed as a parking brake. As they operate on disc rear brakes, they are less powerful than earlier systems which worked on the much larger area of a brake drum. On a very steep slope they may prove inadequate - a fault they share with most disc brake cars of their era.

If they go into a garage, the mechanic automatically tries to adjust them on the handbrake cable. This gives a limited range of clicks without making the handbrake more powerful. After a few days there will be no handbrake at all because the lever is being pulled across on the calliper as though the brake were being applied. It must go right back against the stops before it can readiust. However, the testina stations' so-called mechanics believe that four clicks are all that should exist. It is therefore guite common for 504 owners to get the handbrake adjusted to suit the testing stations' prejudices and then, after the WOF is obtained, readjust to the system the designers intended.

There is a trick to getting them to adjust properly - but once there is major

wear, it is not a permanent cure. You take one pad out of the brake, press the footbrake pedal down carefully until you hear it click, insert the pad again and see how much clearance you have got. If you still have clearance, press the pedal again until it clicks again and recheck. The aim is to get no clearance. Once this is achieved, repeat the procedure on the other wheel. You must listen carefully for the click as if you go too far you have to take the other pad out and push the whole piston assembly back out to get clearance and start all over again. Tricky. It is also necessary to stress to the owner to take it to the testing station immediately. If he drives round on it like that for a week or two. it will come out of adjustment again as soon as the pads wear even a little.

Later on when the 505 V6 came in, I found another reason — the brake compensator on the 504 back wheels was not allowing enough pressure on the back brakes for it to self-adjust. You had to take just one turn up on the external adjusting screw on the rear brake compensator to give more pressure. However the V6 had no such problem because it had the ABS braking system which allowed a lot more braking on the rear wheels which in turn adjusted the handbrake.

When I was working on Peugeots one of my customers had possibly the highest mileage 504 in the country at that time. He was a commercial traveller, living in Auckland but doing the South Is one month and the North Is the next. It always had regular maintenance – tappets set, full synthetic oil used, timing chain changed on time, new diaphragms in the injection pump etc.

It had two families of owners and finally went off the road having done 520,000 MILES and never had the head off. However, one day someone made a Uturn in front of it and the impact not only broke the headlights but broke the doorpillars off at the base - so although it was still driveable it was not worth repairing.

#### **NEW PEUGEOT e-208**

After an initial optimisation at the end of 2021, which increased its range by 6.5% (+22 km), the PEUGEOT e-208 will benefit from a major technological shift in 2023 to incorporate the new PEUGEOT e-308's engine: maximum power will increase by 15%, from 100 kW/136 bhp to 115 kW/156 bhp, while major work on efficiency will reduce average energy consumption to just 12 kWh, increasing the range by 10.5%, or 38 km, to reach up to 400 km. Very significant improvements for enjoyment, budget and daily life of users!

The PEUGEOT e-208, the 100% electric version of the 208, looks contains state-of-the-art fantastic. equipment and is great fun to drive thanks to its electric technology as well as its PEUGEOT i-cockpit® with its steering wheel. This compact quarantees direct sensations and unparalleled handling. Its many qualities have made it a huge success with customers: almost 110,000 have been produced since its launch in 2019, but above all, the PEUGEOT e-208 has been leading sales in the electric B seament in Europe since the beginning of 2022 and, over the same period, in 1st place for all segments combined of electric vehicles sold in France.

Up to 400 km range thanks to major technological developments

In 2023, the PEUGEOT e-208 will adopt the PEUGEOT e-308's new drivetrain. It will then offer up to 38 km and 10.5% more range, enabling it to reach up to 400 km on the WLTP cycle (certification in progress).

The new version of the 100% electric PEUGEOT e-208 will come with:

- a new engine with 115 kW/156 hp, an additional 15 kW/20 hp and 260 Nm of torque available from 0 km/h for immediate reactivity. The result is even greater driving enjoyment, with no vibration, no noise, no shifting, no smell and no CO2 emissions.
- a new, more efficient highvoltage battery, with a gross capacity of 51 kWh (48.1 kWh useful) and operating at 400 volts.

Efficiency was at the heart of the designers' concerns for this new powertrain and the PEUGEOT e-208, since all of these developments make it possible to aim for remarkably low average energy consumption of around 12 kWh per 100 km.

The advantages from the first optimisation in 2021 remain

At the end of 2021. PEUGEOT e-208 had already benefited from an initial technological development aimed at increasing its efficiency, which enabled it to offer up to 362 km of WLTP range - 22 km more than the very first version released at the end of 2019. Since its launch and thanks to these two successive developments, PEUGEOT e-208 offers 17.65% more range and 15% less energy consumption! The first stage optimisation implemented a series of measures, which are of course still present in the new e-208:

A heat pump coupled with a humidity sensor installed on top of the windscreen maximises the enerav efficiency of the heating and air conditioning. The information transmitted by the sensor makes it possible to control the air recirculation in passenger compartment more accurately and, ultimately, to preserve the amount of energy contained in the battery when heating and maintaining the temperature inside the vehicle.

- A class "A+" tyre, 16-inch wheels which minimises energy loss through friction.
- A transmission ratio of the gearbox that increases the range on road and motorway journeys.

The effectiveness of this first development is particularly noticeable at low outside temperatures. But beyond the substantial increases in range on the WLTP cycle, there are significant benefits for customer usage as well. Including 40 km in urban traffic at temperatures close to 0°C.

Easy to buy and use every day

Two types of on-board chargers are available on the PEUGEOT e-208, to suit all uses and all charging solutions: as standard, a single-phase 7.4 kW charger and, as an option, a three-phase 11 kW charger. In addition, the PEUGEOT e-208 is capable of fast charging: from a 100kW public charging point, it is possible to go from 20% to 80% charge in less than 25 minutes.

Thanks to a push button on the centre console, the driver can select one of the three available driving modes (ECO, NORMAL and SPORT) to increase range or performance.

Via the 'BRAKE' mode, activated by another button on the gearbox control line, the user can also increase energy recovery while accentuating deceleration on release of the accelerator pedal.

Depending on the country of sale, the new PEUGEOT e-208 can be purchased on the Brand's online sales site. This means customers can have a 100% digital experience ("Selling On line") that is entirely secure. Customers can purchase their new vehicle, trade-in their old vehicle and finance their new vehicle from their smartphone, tablet or PC. Each customer has the freedom to

choose to have their vehicle delivered to their home free of charge.

A range of services is available to make customers' daily lives easier:

- The MyPeugeot smartphone application allows customers to communicate with their vehicle and schedule a remote charge or launch a thermal pre-conditioning remotely.
- The Free2Move eSolutions smartphone application allows users to plan their journey, in particular by anticipating when to charge since the charging stations along the journey are listed.

The new PEUGEOT e-208 will arrive on the market in 2023.

#### LEAD IN PETROL

I wonder how many of the present generation of drivers are aware of the damage leaded petrol has done to our environment? For too many years it was routinely added to prevent the juddering condition known as 'engine knocking'.

In 1923, General Motors, Du Pont and Standard Oil of New Jersey formed the joint enterprise – the Ethyl Corporation - and on February 1 1923, they began selling the ethyl additive. (Ethyl sounded better than lead.)

"Almost at once, production workers began to demonstrate the staggered gait and confused faculties that mark the recently poisoned. Also, almost at once, the Ethyl Corporation embarked on a policy of calm but unyielding denial that would serve it well for decades...

Altogether at least 15 workers died in the early days of production of leaded gasoline, and untold numbers of others became ill, often violently so. The exact numbers are unknown because

the company nearly always managed to hush up news of embarrassing leakages, spills and poisonings. At times however suppressing the news became impossible – most notably in 1924 when in a matter of days, five production workers died and 35 more were turned into permanent staggering wrecks at a single ill-ventilated facility...

For the next forty years, what research was done on the effects of lead on humans was almost invariably wrong or misleading – and not surprisingly, since every study of lead's effects had been funded exclusively by the manufacturers of lead additives who had a vested interest in discouraging research

Clair Patterson (1922-1995) was an lowa chemist who not only correctly calculated the age of the Earth, using a lead-dating technique, but created the first 'clean room' in history – something he found essential as current lead levels in the atmosphere were so great they were contaminating the samples that were being measured.

Patterson quickly established that we had a lot of lead in the atmosphere – and still do as it never goes away - and that about 90% of it appeared to come from exhaust pipes. However he could not prove it easily. He needed to find a way to compare current lead levels with those before 1923.

Patterson travelled the world by land, air and sea to collect environmental samples from surface water, deep water, marine sediment, snow-capped peaks, Arctic and Antarctic ice and even Peruvian and Egyptian mummies. He discovered from such sources as Greenland ice layers, that before 1923 there was almost no lead in the atmosphere but since then the planet had become one big ball of lead: its concentration in the atmosphere was more than 1000 times above natural

levels, and 100 times in the human body itself, a figure he later corrected to 600.

was ignored and Patterson ridiculed for years until finally, in 1976, Environmental Protection the US Agency - as a precaution - mandated a reduction in the levels of lead in gasoline. which were incompatible with the new catalytic converters designed to lower particle emissions. But it was not until the 1980s that Patterson's work was accepted and his data recognised, 1986 marked the beginning of the end of gasoline, which leaded finally disappeared from all filling stations in the US on 31 December 1995, weeks after an asthma attack ended Patterson's life.

Lead levels in the US have fallen by 80%, but because lead stays forever, the levels in people alive before that date are 625 times higher than before 1923. The US finally banned lead in indoor paints – 44 years after Europe had done so, but lead solder in American food containers was not banned until 1993!

Since then, as prohibitions on leaded gasoline spread across the globe, lead levels in the atmosphere, the environment and the human body have fallen dramatically, especially in high-income countries. However, blood lead levels remain a problem today in some low- and middle-income countries mainly from sources other than leaded gasoline — mining, smelting and industrial activities.

New Zealand started phasing out leaded petrol in 1986, before finally banning it in 1996. Lead is still used in some aviation and racing fuels, however.

Its use in sub-Saharan Africa ended by 2006 and by 2011 just six countries remained. The last one still pumping leaded petrol into vehicles was Algeria.

Sources - 'A short history of nearly everything' by Bill Bryson - Javier Yanes in Ventana al Conocimiento

#### TOO GOOD TO BE TRUE?

An electric car that can charge in as little time as it takes to pump a gas vehicle has long been the dream of existing and would-be EV drivers. But what if it could charge even more quickly? The average gas fill-up takes two minutes, according to the American Petroleum Institute, with other estimates coming in higher.

Morand is the namesake of former F1 driver and team manager Benoît Morand, who was integral in developing the Hope Racing Oreco 01 Hybrid, the first hybrid prototype to start at the 24 Hours of Le Mans over a decade ago. Along with a small team of former F1 engineers managers, Morand has set out to apply hybrid and electric technologies derived from the upper echelons of motorsport to more practical everyday solutions. A new electric energy storage technology being developed by Swiss tech start-up Morand could offer electric city car charging times in slightly more than half that two-minute time. A cross between traditional batteries and ultra-capacitors, the company's eTechnology units offer potential game-changing charging rates, coupled with the possibility of much longer lifespans than lithium-ion batteries.



Morand has been hard at work developing what it calls eTechnology, describing it as an energy storage solution that combines characteristics of an ultra-capacitor with those of a chemical battery. In part of its test and

evaluation program, the company says a 7.2-kWh eTechnology prototype was able to recharge to 80 percent in just 72 seconds, 98 percent in 120 seconds, and 100 percent in 2.5 minutes at up to 900 A/360 kW. It says independent testing was performed by Geo Technology.

Of course, 7.2 kWh is a far cry from the 100-kWh+ battery packs that feature in some of the market's longest-range electric vehicles. Morand has focused on smaller-capacity applications, such as drones and ebikes, explaining that eTechnology is best-suited to applications requiring fast, semi-frequent charges of five minutes or less. The example automobile with 7.2-kWh battery would be a small city car like the Citroën Ami and its 5.5-kWh battery pack.

As far as ebikes go, Morand estimates that a bike with a 6-Ah battery could charge in six minutes at a lower rate of 3.2 kW. That would be a game changer for ebikes, which typically take hours to recharge. With a ~six-minute charging time, a rider could plug in and get back all or most of the bike's range on a short break, without the need to buy and carry a spare battery. That could make ebikes a more viable option for replacing cars on longer-distance daily commutes and errands.

Among the other advantages Morand cites for eTechnology are efficient operation in extreme temperatures and the potential for a far greater number of charge/discharge cycles. It claims that it has safely tested the units to more than 50,000 cycles, tens of times more than traditional battery packs.

Morand says it is working with a manufacturing partner on low-volume production and planning to ramp up production to make eTechnology more cost competitive with lithium-ion batteries. It's also looking for investors to supply it with capital for scaling production.

Source: Morand

#### **NEW RECORDS**

The Rimac-powered Pininfarina Battista electric hypercar has just snatched the production car acceleration records from 0-60-120 mph (and 0-100-200 km/h), and it's set a braking record too.

At the Dubai Autodrome, the pretty Battista laid down its new record times on what appears to be an untreated piece of racetrack, rather than a drag strip sprayed with VHT or PJ1 TrackBite resins for extra grip on takeoff.



Either way, from a standing start, it went from 0-60 mph (96.5 km/h) in 1.79 seconds, 0-100 km/h (62 mph) in 1.86 seconds, 0-120 mph (193 km/h) in 4.49 seconds and 0-200 km/h (124 mph) in 4.75 seconds — making it the fastest production car ever to those vaunted marks.

the previous best was the Rimac Nevera, which measured a 1.9-second 0-60-mph mark in August last year on a prepped drag strip. The Battista is built on a Rimac powertrain, but specified for a measly 1,900 horsepower instead of the Nevera's far more substantial 1,914 hp. The Battista weighs less, at about 2,063 kg (2,548 lb) to the Nevera's 2,150 kg (4,740 lb), but since both electric hypercars are so wildly overpowered, maybe it's traction that separates them. Pininfarina uses Pirelli, Rimac uses

Michelin, and Pininfarina says it uses a "unique launch control technology."

The Battista did manage to set another record on the day, though, claiming the world record for the fastest-braking EV by pulling up from 100 km/h (62 mph) in just 31 m (102 ft). For reference, SupercarLists quotes the 2020 Mercedes-AMG GT Black Series as taking 28 m (92 ft), making it the outright production street car stopping champion. I guess weight is the enemy here; the Black series weighs around 75% of what the Battista does, lugging a 120-kWh battery pack designed for some 500 km (310 miles) of range autonomy.

Source: Pininfarina

#### **BLACK FRIDAY**

The term "in the black" means to be making money or to be at a profit. Therefore Black Friday is when stores can move from "in the red," meaning in debt, to "in the black."

Using the term in November originated in the US. The true story behind Black Friday is actually that in the 1950s local police in Philadelphia started calling the day after Thanksgiving Black Friday in response to the crowds of people and huge traffic jams caused by the beginning of the Christmas shopping season.

#### A TALE OF TWO GTs

by Chas Dikkins. Accompanied by "I'm dreaming of an Orange Christmas", by Bling Clodsby

December 2021 and January 2022 saw the ex-Presidential car fleet expand with the purchase of two new orange GTs (his and hers?).

They are not matching vehicles in any way, and only one is relevant to a story in this fine publication. It is a 2022 model 2008 GT. It was a long considered replacement for our 2006 model 307 HDi with 180,000km on the clock, which was just beginning to a few reliability problems suffer (pollution control sensor and conditioning) and rapidly rising diesel prices with the ominous RUC on top. Our 2018 European trip allowed us to sample a Eurolease 3008 GT Line SUV with a superb 1.2 litre turbo 130 bhp three-cylinder engine. We did 10,000 km with four of us on board, and were very impressed (even on German Autobahns) with the grunty odd beat triple, reminiscent of 1980s Daihatsu Charades. So as a possible replacement vehicle, problem one, was that NZ did not offer that multiaward winning engine in 3008s here. Problem two, was that the main driver thought the 3008 was too large for her everyday drive, and not the suitable replacement for our beloved 307 workhorse. When the new 2008 was released in 2020, the GT spec included the three cylinder engine in 155bhp tune, mated to an 8 speed Aisin transmission. [Note that even the new release 308 doesn't have this spec engine!!!] Launch colour was the attractive orange fusion, and it wasn't too long after launch that a test drive confirmed what I suspected. It passed our testing driveway (one in three gradient with a nasty pinch point) backwards with aplomb, and I knew this was the one!!! We soldiered on with the 307 during covid lockdown periods, but upon release, we decided to grab one of the hot selling mini SUVs.

Dimensionally it is almost identical to the 307, but it does have a higher floor to give better ground clearance, so suffers slightly in the cabin height/footwell depth dimension to the 307, and you need to be slightly more agile getting in and out. The interior is an extremely comfortable and modern design, with Peugeot's usual design ergonomic seat again unrivalled. Boot space is a surprisingly good 434 litres, better than the 307's 340 litres.

The touch screen is large enough and high enough to ensure ease of use whilst driving, but I'm still a fan of individual knobs and controls.

Ten months in, it is still a delight to look at and drive, although some of the exterior panel alignment leads me to believe it was assembled on a Friday afternoon. I took a while to come to grips with the adaptive cruise control, but now use it most of the time - even around town, where ever reducing and speed limits make for changing challenging driving. It uses camera technology rather than relying on GPS to identify speed signs, so it even picks up temporary speed zones registers them on the speedo panel. Unfortunately, it doesn't have HUD (heads up display) for this and your current speed, which I really liked in another vehicle I drove recently. I like the placement and tactile feel of the

cruise control function which allows you to keep your attention on the road Conversely, most other controls are through the central touch which although well screen. positioned. always requires vour attention to be diverted from the road It has proximity sensors all ahead. over its aggressive looking exterior, and a very accurate camera for reversing, which also includes a bird'seye view of the vehicle!!! The only downside of the adaptive cruise control is its overly sensitive recognition of cars turning off in front of you, when it apply the brakes somewhat can unnecessarily suddenly.

Heated front seats and a panoramic sun (moon?) roof allow for a range of climate options, but I find the air conditioning controls and function, fussy and not user friendly or specific.

The (external only) boot release is not always easy and the hatch itself lacks obvious grab handles and requires good arm muscles and reach abilities. I see an electric option is now available, but I would have expected this feature included in an upmarket GT spec vehicle.

It lacks the under seat drawers of the 307, and is supplied with not manual. The manual can be accessed on line!!!, as appropriate of our electronic society, but not me/us. It also lacks the spacious and well used refrigerated centre compartment of our Eurolease 3008.

layout, although multi-variable, lacks an obvious odometer/trip meter display at appropriate size or location.

It is frugal on the 95 min octane fuel, and no more pesky RUC charges attach to it (yet!!!).

It rides on 215/55/18 Michelin tyres, which cushion its otherwise sporty and stiff setup suitably. Its slightly higher centre of gravity limits its ability to be pushed on in true sports car (GT?) fashion (unlike the surprisingly good 307 HDi, which was great when driven keenly). It likes to keep rolling freely and effortlessly, and requires a bit of taming at speed on twisty back roads (my favourites these days!!!). Maybe part of this is a lack of feedback from the overly light steering dictated by the typical small steering wheel gracing Peugeots these days, which is great around town. and although "progressive", still lacks at speed.

I'm still awaiting a call to say my prepaid towbar is ready to be fitted (only 10 months now).

So overall, I/we would give it 8 out of 10.



A tyre imbalance pressure warning has been useful, but the dash panel

An interesting summary by Top Gear, which rated it 7/10 is attached below (but only 6/10 for a more specific GT test review).

"Yet another dinky SUV. But it's hard to be angry at something wearing the face of a robotic chipmunk like this Peugeot 2008 does.

It's an aesthetically pleasing thing all round, really, looking like it was designed from the off as an individual model. As opposed to the old 2008, which had the demeanour of a 208 hatchback carrying lockdown weight. It looks *big*, mind, and indeed it's longer and more commodious than before.

And the other GT? Not really one to be discussed in this magazine, but here's a brief intro. It came to last February's Gymkhana event, albeit not to compete. It did have to cross a couple of farm paddocks in the process, and whilst it is very capable and easily driveable, it is not really an off-roader. It is a 2021 model McLaren GT, in stunning (and appropriate for a McLaren) ventura orange. almost identical to Bruce's choice papaya racing colour from the 1960s. It was recently designed as a GT, with a little more comfort for "gold card" holders and 570 litres of luggage space, although you have to be choosy about the dimensions of the luggage for the rear hatch compartment. It is made to fit the golf clubs (or the skis), although having bought the car, I probably can't afford the McLaren designer golf bag. It has the typical McLaren 4 litre V8 twin turbo engine in 620bhp trim, mated to a seamless 7 speed twin

clutch transmission. Zero to the open road limit in 3.2 seconds with a top speed of 320kph (though only proven to 250 by me on Teretonga). It can be surprisingly frugally driven 7.8I/100km average on many trips, though changes dramatically on the track (of which it has done - playdays on 7 of our 8 NZ circuits). It has notched up over 15,000km in 10 months (mostly in the South Island), and has just had its first service plus new tyres and brake pads upon its return to Auckland for the summer??? It is an absolute delight to drive anywhere and puts a big smile on my face, and many others' who have been entertained with rides (or drives!!!), or just admirers. It, like me, loves our NZ back roads, especially those used in Targa events, and its first post lockdown excursion was to Hawkes Bay via the Gentle Annie Road with a friend, in order to prove the 150 litre "frunk" could bring home four dozen bottles of wine from my favourite producers (they suffered too with covid lockdowns!!!). The 420 litre hatch space was used to keep the luggage warm. So altogether this GT has more luggage space than the other, although it does lack a back seat."





#### CAR OF THE YEAR 2023???

There are seven contenders for this title – and the 408 is one of them!

The Peugeot 408 is the first SUV coupé of the French brand. There are two plug-in hybrid engines available. HYBRID 225 e-EAT8 and HYBRID 180 e-EAT8.

The lithium-ion battery has in both cases a capacity of 12.4 kWh and a power of 102 kW. A thermal engine is also available: the 1.2-liter 3-cylinder petrol engine with 130 hp PureTech engine.

Since the 504 was named the European Car of the Year for 1969, Peugeot has won the accolade on several other occasions. For instance -

In 2020, PEUGEOT entered the "top 3" of the brands with the most awards in the Car of the Year history, with six trophies. The all-new PEUGEOT 208, named Car of the Year 2020, follows the 3008 SUV in 2017, the compact hatch 308 in 2014, the 307 in 2002, the 405 in 1988 and the 504 in 1969. This prestigious trophy joins the twelve other international awards the all-new PEUGEOT 208 has already won.

Jan 7, 2021 · PEUGEOT has continued its award-winning run in 2021, with the all-new e-208 named 'Best Small Electric Car' and the all-new 2008 winning the 'Best Small SUV' title at the annual carwow 2021 'Car of the Year' Awards.

On 14<sup>th</sup> February 2002, the Peugeot 308 was named "Urban and Compact Car of the Year 2022" by the 56 female automotive journalists who make up the jury.

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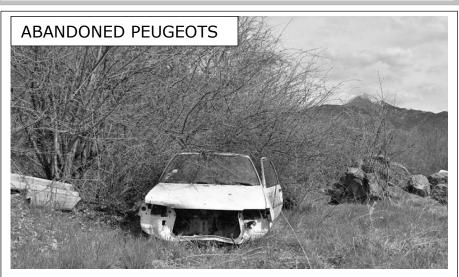
#### **FAMOUS FEMALES**

Mary Anning (1799-1847) was only 12 when she discovered and began extracting the first fossilised ichthyosaurus found in the British Isles. This pioneer palaeontologist became world famous for the discoveries she made in Jurassic marine fossil beds in cliffs along the English Channel near Lyme Regis. However, as a woman, she was not eligible to join the Geological Society of London and she did not always receive full credit for her scientific contributions.





JOKES OF THE MONTH



Made in the 1980s, this two-door Peugeot 205 was relegated to parts-car status after a front-end collision, though it hasn't been touched in many years.





#### **NEW e-208**

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