



Peugeot Car Club (Auckland)

Peugeotex[©]



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Front cover – Peugeot E 208 GT

Above – Matthew Ensor at the Ellerslie Concours

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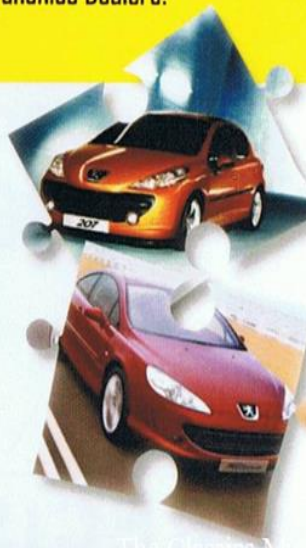
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11 Railside Place
Hamilton

Peugeot Car Club (Ak) Inc
P O Box 29002
EPSOM, Ak 1023

Patrons

Don Hadfield, Ray Williams,

President

Brent Druskovich, 09 638 9421

brentdruskovich@gmail.com

Vice-president

Acting Secretary

Jeanette Grant, 09 638 8566

jeanette_grant@hotmail.com

Membership Secretary

Treasurer

Steve Cornwall, 09 402 5006

jensteve@xtra.co.nz

Webmaster

Kevin Hardie, 027 625 0505

kevin@azorah.co.nz

Committee

Liesje Bradley, 027 2897 634

liesjeb Bradley@gmail.com

John Grant, 09 638 8566

jeanette_grant@hotmail.com

Peter Hagglund, 09 280 5737

haggy251@gmail.com

Jayden Hardie, 022 359 3749

jayden@localeyes.co.nz

Matthew Ensor, 027 483 0892

ensor@ensor.nz

Immediate Past President

Greg Winkley, 09 483 4023

gregwinkley@hotmail.com

Technical Officers

John Grant, 09 638 8566

Dennis Lowe, 09 267 6461

Club Shop

Brent Druskovich - 09 638 9421

Peugeotex Layout

Jeanette Grant, 09 638 8566

jeanette_grant@hotmail.com

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www.copiesplus.co.nz

COMING EVENTS

peugeotclub.org.nz

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

April 21 – Petanque contest v Citroen

June – Midwinter get-together

THOUGHT FOR THE MONTH

You never learn from talking.
You learn from listening and paying
attention



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

Hello all,

I am still seeking at least one more committee member. Please put your hand up; it isn't too onerous. Also seeking a volunteer to organise a navigation trial or possibly an economy run.

In the meantime we have picked up a couple of new members, including one with a 309, a model I haven't seen at a club event for some time now. Perhaps it is the only one in the club? There was a time when our advertiser Auto France had them as courtesy cars. I have fond memories of them, but do recall that one of the two (don't remember if it was the silver one or the white) they had would apply its own brakes if I went over speed humps too fast. It was disconcerting the first couple of times it happened. I slowed down after that.

I hope you have all enjoyed the recent Easter weekend, I stayed at home for much of it, dare I say it doing a mix of yard work and some of my professional work; the downside of being self-employed, no such thing as stat holidays! Mandy, Jessica and I did have one afternoon off and visited the Nikau Caves at Waikaretu Valley in the

Northern Waikato. Just over 200km return so good driving practice for Jessica as she heads towards a full licence. The caves themselves were a treat; grassroots tourism. The guide reckoned he has just passed 5000 trips in the caves. Like me he wore sandals and had a dad joke sense of humour. Worked well for me, both he and I didn't mind our feet almost continually wet in the very cold water that runs through the cave. The tour takes about 1.5 to 2 hours, through a bit of farmland and native bush and then subterranean. Not everyone can do it - physical impediments, lack of fitness, claustrophobia etc. At one stage you literally have to crawl in running water as the roof of the cave is too low, and the sides are very close too! Ideal for seven year olds, a bit difficult as you get bigger. We saw glow worms, dead rats, and a live eel in the cave. Apparently there are cave wetas too, but they are shy and generally retreat as people approach. Some parts of the caves contain fossilised shell fish and crustaceans within the limestone. I was fascinated to see the outlines of crab carapace and claws. In some chambers the stalagmites and stalactites were magnificent, in my opinion better than the Waitomo caves. If you are fit enough and built of the right

stuff I would say give it a go, but probably wait till summer. I don't imagine the km walk back from the cave would be nice if you were already cold and it was a wet windy wintery day.

What I also found interesting is that many people for one reason or another can't or won't do it. Despite being in an extremely out of the way isolated location, at least for the Auckland Waikato region, many people were driving there simply to go to the cafe.

After our cave experience we shared a chicken and quince pizza, it was delicious. Many of the ingredients are grown on the property (the quince for instance), others they have to travel for an hour to the supermarket in Pukekohe, 1.5 hours if the traffic is right to Gilmours in Manukau – and that is one way. The setting is wonderful, the food fantastic and they have a good assortment of beverages to relax with it, coffee to ginger beer to wine, I enjoyed a Black Doris Plum cider.

This month we have petanque, I haven't RSVP'd yet, but I will. I suggest you do to and enjoy some sport at the Rose Gardens with Citroen. Details in this magazine and previously by email.

See you there,

Brent

404 FOR SALE

Fraser Cameron has asked us to advise all members that he has a 1966 404 for sale. He says the car needs only a little work and can be seen on Trademe at present.

The car is located in Oamaru, and was originally owned by the family who ran a Peugeot business in Hokitika. It comes complete with numerous 'New Old Stock' parts and service documentation ex the dealership.

He would like to sell to a Peugeot enthusiast so could you please contact him on 0277 479 628 as there's a big story with the car as well as a lot of parts with the car.

Contact

Fraser Cameron; Ph 0277 479 628 or
fraser_cameron71@yahoo.co.nz
or via Trademe.

WELCOME TO NEW MEMBERS

The committee would like to welcome the following new members

1] Flynn HUNTER of Hamilton East,
Hamilton 3216,
flynnunter@gmail.com

2' Frank & Pat LESTER of Lynfield,
Auckland 1041
frankpatlester@gmail.com

COMING EVENTS

April 21	PETANQUE DAY: Citroen and Peugeot Clubs of Auckland
June	Midwinter get-together

PETANQUE - Sunday 21 April at 11AM

The Auckland Citroen and Peugeot Clubs are joining forces on Sunday 21 April for pétanque games. The Citroen Club can supply 4 sets of boules. Members are welcome to add more.

Where? Dove Meyer Robinson Park (otherwise known as the Rose Gardens), Gladstone Road, Parnell.

Enter by car through the triple stone arch on the corner of Judges Bay Road, and meet in the carpark by the café building.

If parking there is tight, park along the accessway, or out on Gladstone Road.

This is a free event, but **please register your interest** with Laurie Newhook of the Citroen Club committee, laurencenewhook@gmail.com. Supply your email address or cell phone number so we can contact you if weather etc forces cancellation.

There will be BBQs on hand, so bring along sausages and salad and whatever you would like to wash them down with.





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BELIEVE IT OR NOT

1] The apple tree which inspired Newton's Theory of Gravity still exists today at his home - Woolsthorpe Manor. It is attended by gardeners, secured with a fence, and cared for by the National Trust for Places of Historic Interest or Natural Beauty.

2] In its Energy Transition Strategy 2024 report, Shell announced that it was planning to divest 1,000 of its retail gas stations (including joint ventures) between 2024 and 2025. The company said this move was aimed at reallocating those resources towards EV charging stations "*in response to customer needs.*". Shell hasn't mentioned which retail locations it wants to unload, but it's clear that it is looking to replicate some of the success it has had with EV charging stations in China in other countries as well. That includes the U.S.

3] The world's population will drop for the first time since the Black Death 700 years ago if predictions are correct. Up to 50 million people died, including half of Europe's population and up to 40% of England's, when the bubonic plague swept through medieval Europe. Earth's population has kept growing since that point in the mid-1300s when the number of humans fell for the only time in history. More than eight billion people roam the Earth now, a number reached due to dramatic growth sparked by the Industrial Revolution 200 years ago. At that point, the population was less than a billion.

JEANETTE'S JOTTINGS

Researchers have succeeded in creating a novel optical metamaterial using conventional materials. Its enhanced electromagnetic effect may make true one-way glass a reality and solar panels more efficient.

Solar cell efficiency may get a bump from bumps. New research suggests that building tiny domes into the surface of organic solar cells could boost their efficiency by up to two-thirds, while capturing light from a wider angle.

Life expectancy in New Zealand is 83.2 today, up from 69.3 in 1950. The figure is predicted to hit 86.6 in 2050.

The term 'salary' is a reminder of two millennia ago when Roman soldiers were often paid in salt.

Never give honey to a child less than a year old, even if it's pasteurized. That's because honey can contain botulism spores, which an infant's immature digestive system can't yet combat. Botulism is a rare but life-threatening disease.

The word "hour" comes from the Egyptian god of the sky Horus whose right eye was believed to be the sun.

The term "knot" used for marine speed measurements originated by extending a line with equally spaced knots overboard and timing how quickly the knots dragged out to sea.

The 24 hour day may have originated from the fact that each of our four fingers on each hand have three joints – making a total of 24.

Tyres are rapidly eclipsing the exhaust as a major source of emissions from vehicles,

Studying a species of microscopic worms exposed to almost forty years of high radiation following the 1986 explosion at the Chernobyl Nuclear Power Plant, researchers couldn't find signs of genetic damage caused by the exposure. They hope the findings will help guide future cancer research.

Standard national time was introduced on British railways on 1 December 1847 and became law in 1880. Before the adoption of 'railway time' in 1883 in the USA, there were over 300 local time zones.

Polynesian navigators employed a system whereby their vessel was imagined as a stationary object while the world revolved beneath it.

In 1845, members of Cambridge University established the first set of rugby rules, known as the "Cambridge Rules".

The first known rules of cricket were drafted in 1744 by a group of gentlemen who called themselves The Cricket Club. They codified the game by drawing up a set of six rules at the Star and Garter Hotel in London's Pall Mall.

Donald Campbell's record-breaking Bluebird will run again on Coniston Water after a 23-year restoration project. His body and the K7 hydroplane sank to the bottom of the lake in Cumbria after it crashed as the 45-year-old tried to break his own water speed record of 276mph, on January 4, 1967.

BMW New Zealand has confirmed a string of luxury vehicles have been caught up in a global recall affecting thousands of vehicles. The issue regards an electronics issue that can result in an inconsistent brake pedal and the temporary disabling of ABS.

MAIN POLLUTION SOURCE NOT EXHAUSTS!

It seems almost unbelievable that our vehicle tyres cause more particle pollution than exhaust fumes! However, scientists from the Imperial College London say they are "increasingly concerned" by the particles tyres release, as reported by The Guardian.

For decades, one of the main focuses when reducing air pollution has been the exhaust fumes from our vehicles. But as data from the United Kingdom government shows, far more microscopic pollution particles are released from tyres as they erode over time. In an article for the Chartered Institute of Environmental Health, Kerry Taylor-Smith explains, *"Tyres are made from synthetic rubber, a derivative of crude oil, and contain a number of toxic organic compounds, including known carcinogens. As they make contact with the road, they release tiny particles measuring less than 23 nanometres, which pollute the air, soil and water. Tests carried out by independent emissions testing company, Emissions Analytics, reveal that tyres produce more than one trillion of these ultrafine particles for each kilometre driven."*

The report from the Imperial College London estimates that *"52% of all the small particle pollution from road transport came from tyre and brake wear in 2021, plus a further 24% from abrasion of roads and their paint markings."*

More astoundingly, the study indicates that *"Just 15% of the emissions came from the exhausts of*

cars and a further 10% from the exhausts of vans and HGVs."

"Tire wear emissions are now more than 1,850 times the tailpipe particulate mass emissions, as the latest petrol and diesel internal combustion engines have become so clean."

Fortunately, there is hope for solving this pollution conundrum. The Guardian reported that Transport for London (TfL) is running trials on new kinds of tyres and has found that *"they could result in up to 35% less emissions."* Moreover, the European Union also has plans for tyre regulations to help reduce tyre emissions which are expected to be implemented by mid-2025.

Tyres vary significantly in chemical composition, and potential toxicity, and so eliminating just the worst tyres could lead to big environment gains.

However, BEV (Battery electric vehicles) often cause more pollution through tyre particles than cars that run on fuel, simply because *"their extra weight and torque can significantly increase emissions."*

Luckily, as electric vehicles become lighter and new tyres become available, this will likely become less of an issue. According to The Guardian, the startup company Enso has designed a new kind of tyre specifically for electric vehicles. During a six-month trial, the company found that their tyres produced less tyre pollution, were more efficient and cost 10% less than "regular" tyres to boot.

So, there is hope that in the future, we will all be breathing far cleaner air thanks to a combination of electric and low-emission vehicles and far less polluting tyres.

SELF-HEATING ROADS

Incorporating a phase-change material into concrete, researchers have created a self-heating material that can melt snow and ice for up to 10 hours without using salt or shovels. The novel material could reduce the need for plowing and salting and help preserve the integrity of road surfaces.

According to the US Department of Transportation (DOT), more than 70% of roads are in snowy regions. Snow and ice accumulation reduces road friction and vehicle manoeuvrability, causing drivers to slow and increasing the risk of crashes. Snow-obstructed lanes and roads also reduce roadway capacity and increase travel time.

The DOT states that local and state agencies spend more than US\$2.3 billion annually on snow and ice control operations, in addition to the millions spent repairing infrastructure damage caused by snow and ice. Salting is often used before a snow event to prevent icing, but the highly concentrated salt solution can deteriorate concrete or asphalt. In addition, when water seeps into the road and freezes, it expands, causing internal pressure and damaging the road.

In a new study, researchers from Drexel University in Pennsylvania, US, a known 'cold state,' present their self-heating concrete: a potential fix to snowed-over roads and the cost associated with clearing and maintaining them.

"One way to extend the service life of a concrete surfaces [sic], like roadways, is to help them maintain a surface temperature above freezing during the winter," said Amir Farnam, principal investigator at Drexel's Advanced Infrastructure Materials (AIM) lab and one of the study's corresponding authors. "Preventing freezing and thawing and cutting back on the need for plowing and salting are good ways to keep the surface from deteriorating. So, our work is looking at how we can incorporate special materials in the concrete that help it to maintain a higher surface temperature when the ambient temperature around it drops."

The researchers' 'special material' is paraffin, a so-called phase-change material because it releases heat when it moves from a liquid state at room temperature to a solid state when temperatures drop. In a previous study, they tested phase-change concrete in a thermally controlled lab setting, but in the current study, they tested it in real time, under real-world conditions.

Two methods were used to incorporate paraffin into concrete slabs.

- In the first, porous lightweight aggregate – the small stones and pebbles added to give concrete its strength – was submerged in and absorbed liquid paraffin before being mixed into the concrete.
- In the second, micro-capsules of paraffin were mixed directly into the concrete.

The researchers poured three slabs: two with the different methods of paraffin incorporation and a third containing no phase-change material. All three have been outside, next to a parking lot at the Drexel University

campus, since December 2021. In the first two years, they were exposed to 32 freeze-thaw events in which the temperature dropped below freezing, regardless of precipitation (that is, rain, drizzle, snow, sleet or hail), and exposed to five snowfalls or one inch or more.

The 30-inch-by-30-inch (76-cm-by-76-cm) slabs' snow- and ice-melting capabilities were monitored using cameras and thermal sensors. The researchers found that the phase-change concrete maintained a surface temperature of 42 °F to 55 °F (5.6 C° to 12.8 °C) for up to 10 hours when air temperatures fell below freezing. The heat produced was enough to melt a couple of inches of snow at a rate of about a quarter inch per hour.

"We have demonstrated that our self-heating concrete is capable of melting snow on its own, using only the environmental daytime thermal energy – and doing it without the help of salt, shovelling or heating systems," Farnam said. *"This self-heating concrete is suitable for mountainous and northern regions in the US, such as Northeast Pennsylvania and Philadelphia, where there are suitable heating and cooling cycles in winter."*

The lightweight aggregate slab was better at sustaining its heating, maintaining a temperature above freezing for up to 10 hours, whereas the micro-capsule paraffin heated up more quickly but only maintained heat for half the time. The researchers noted that the porosity of the aggregate likely contributes to the paraffin remaining a liquid below its usual freezing temperature of 42 °F, meaning that the slab did not

immediately release its heat energy when the temperature began falling but held off until the material reached 39 °F/3.9 °C. This is in contrast to the microencapsulated paraffin slab, which began releasing its heat energy when its temperature reached 42 °F.

"Our findings suggest that the phase-change material treated lightweight aggregate concrete was more suited for de-icing applications at sub-zero temperatures due to its gradual heat release within a wider range of temperature," said Farnam.

The researchers say the ability to prevent a concrete surface from dropping below freezing will help prevent its deterioration.

"Freeze-thaw cycles, periods of extreme cooling – below freezing – and warming, can cause a surface to expand and contract in size, which puts a strain on its structural integrity and can cause damaging cracking and spalling over time," said Robin Deb, the study's lead and co-corresponding author. *"And while this alone may not degrade the structure to the point of failure, it creates a vulnerability that will lead to the problematic interior deterioration that we need to avoid. One of the promising findings is that the slabs with phase-change materials were able to stabilize their temperature above freezing when faced with dropping ambient temperatures."*

The researchers noted that the slabs were less effective for heavy snow accumulation of more than two inches. And that if the phase-change material didn't have an opportunity to 'recharge' by warming enough to return to its liquid state between

freeze-thaw or snow events, performance may be diminished.

They plan to continue collecting data to assess the slabs' long-term effectiveness and study how incorporating phase-change materials may extend concrete's lifespan.

It's unclear from the study whether the paraffin used was synthetic. An issue with using non-synthetic paraffin is that paraffin wax is a by-product of petroleum (crude oil), a non-renewable resource requiring intensive machinery to mine and refine. As a non-renewable resource, paraffin wax is not sustainable, biodegradable, or environmentally friendly.

The study was published in the 'Journal of Materials in Civil Engineering'.

IS THIS THE WAY OF THE FUTURE?

If you're comfortable with the present green, amber, and red traffic lights, be prepared to get uncomfortable. New research suggests that adding a white light will speed up traffic and improve safety for both cars and pedestrians.

Red for stop, green for go, and amber for prepare to stop (or stomp on the accelerator, if you're like some drivers). It's been that way since the 1920s and is even codified by an international treaty to make sure accidents don't occur because a London driver doesn't understand signals in Tokyo.

Over the past century, the technology has been undergoing constant refinement. Electric lights replaced semaphores. Computers

allowed multiple lights to be linked, and sensors allowed them to analyse traffic flow and adjust timing for maximum flow.

Systems have been developed that control lights for whole cities and digital models of traffic flow have been honed to a fine art.

The emergence of autonomous vehicles (AV) has introduced a new twist. Instead of cars being regarded as little more than wooden blocks being pushed around on a map, AVs not only have the ability to drive themselves, they can also communicate with one another as well as a central traffic computer system.

What this means is that the AVs become part of the traffic control system itself and can work together to improve traffic flow by a considerable margin. A team of researchers from North Carolina State University have suggested that once a critical number of AVs are on the road, a fourth, white traffic signal light can be added to the traditional trio. Their computer model worked very well at speeding up moving through intersections, but there was room for improvement.

"Our earlier work introduced the idea of a fourth traffic signal called a 'white phase,' which taps into the computing power of autonomous vehicles in order to expedite traffic at intersections – but we had not yet incorporated what this concept would mean for pedestrians," says Ali Hajbabaie, an associate professor of civil, construction and environmental engineering at North Carolina State University. "We've now expanded our computational modelling to account for foot traffic, and the results are extremely promising for both pedestrians and vehicles."

As in the previous study, the AVs act as shepherds for the human-controlled vehicles in their lanes. When enough AVs are present, the signal turns to white, telling the human drivers to

follow the AV or the other car ahead of them. The more AVs, the faster the flow. The difference this time is that pedestrians are now incorporated into the model.

What the team found was that even with foot traffic present, the general flow still improved for both vehicles and pedestrians by over 25 percent.

Of course, there's still a long way to go before such a system becomes practical. Aside from getting enough AVs on the road, there's also the problem of installing enough of the four-light signals. Even then, there's getting human drivers to trust the new white signal and to modify signals so that they will be meaningful to pedestrians, such as introducing blinking green lights or something more immediately legible.

"We are currently setting up a physical testbed that will allow us to experiment with this concept in the physical world – not just in a computer model," said Hajbabaie. "However, the vehicles we are using in the testbed are small enough to hold in your hands. This will help us identify challenges in implementation without the expense – and safety risk – involved with using full-scale vehicles. In the meantime, we are open to working with industry and research partners to explore ways to move forward with these technologies."

The larger question, of course, is how to fit the new light into the songs we sing to our kids. *"Stop, says the red light. Go, says the green. Wait, says the yellow light, sitting in between."* Not an ounce of fat on that. *"Follow the autonomous car in front of you, if there is one, and cross the road too if you want to, or otherwise just stay where you are, says the white."* Hmm, needs work.

The study was published in Computer-Aided Civil and Infrastructure Engineering.

Source: North Carolina State University

DEATH OF DIESEL

Volvo is living up to the promise it made last year when it announced to end production of vehicles powered by diesel engines in early 2024.

An XC90 assembled at the company's Torslanda factory is the final oil-burner produced by the Swedish automaker, ending an era that started 45 years ago.

The Geely-owned marque didn't start to keep track of diesel car production until 1991, and since then, it has built more than nine million vehicles. Since the records don't show how many vehicles were built from 1979 until 1991, the total number is much higher considering 12 years are missing.

The last of the diesel breed – a blue SUV won't be heading to a customer since it is heading to the World of Volvo museum in Gothenburg.

by Adrian Padeanu

BIRTH OF THE BICYCLE

The earliest bicycle was invented in Germany in the 1810s but the pedal-driven vehicle didn't enter the mainstream until the 1890s with the introduction of the so-called safety bike. Regarded at the time as a frivolous pastime for the aspirational middle- and decadent upper-classes, the innovation was mercilessly panned.

Female cyclists in particular were the objects of ridicule, and journalists were quick to dismiss the bicycle as a silly short-lived craze. In 1902 The Washington Post declared the activity a passing fancy, while the New York Sun confidently proclaimed the death of the pastime in 1906.

SOME OTHER UNAPPRECIATED INVENTIONS...

Cynics rushed to disparage the automobile too. Literary Digest weighed in on the technology in 1899, concluding that *"the ordinary 'horseless carriage' is at present a luxury for the wealthy; and although its price will probably fall in the future, it will never, of course, come into as common use as the bicycle"*.

The New York Times agreed, stating in 1902 that the price of automobiles *"will never be sufficiently low to make them as widely popular as were bicycles,"* while the following year the President of the Michigan Savings Bank warned Henry Ford's lawyer Horace Rackham not to invest in the Ford Motor Company on the grounds that *"the horse is here to stay, but the automobile is only a novelty – a fad"*. Ford didn't take any notice of this warning and his investment in the mass production of cars was a key driver behind the great future success of cars.

Other inventions underestimated at the time were Email and the Internet...

Electronic mail was invented way back in 1965 at the Massachusetts Institute of Technology (MIT) and the first message from computer to computer was sent in 1969 via the US Department of Defence's Advanced Research Projects Agency Network (ARPANET). Interestingly, the agency initially dismissed the technology, stating that sending messages between users *"was not an important motivation for a network of scientific computers"*.

Even during the mid-1990s when email was going mainstream, naysayers were dismissive of the technology. In 1994 UK government officials mulling over whether to set up an email account for the then Prime Minister John Major claimed that the new method of

exchanging messages would likely never catch on.

Back in the mid-1990s a number of experts were less than keen on the internet, which they viewed as a nerdy fad that would end up going nowhere. By way of example, a now-infamous article penned by scientist Clifford Stoll in 1995 for Newsweek entitled "The Internet? Bah!" slammed the innovation and predicted it would crash and burn.

Also in 1995, Ethernet inventor Bob Metcalfe wrote in an opinion piece for InfoWorld magazine that *"the internet will soon go spectacularly supernova and in 1996 catastrophically collapse"*. Metcalfe vowed to eat his words if he was wrong, and did just that at the World Wide Web Conference in 1997 when he blended a copy of the article with some water and drank the concoction.

Some inventors have regretted their work e.g.

Dynamite was invented by Swedish scientist and businessman Alfred Nobel. He is said to have been so disturbed by the use of this invention in warfare that he started the Nobel Peace Prize to make up for the damage he had caused.

The Automat Kalashnikova 1947 or AK-47, named after its creator and the year it was developed, was developed for use by the Russian Armed Forces, who started using it in 1949. But the gun was later adopted by nations in the Warsaw Pact, and it is now used by countries all over the world, even featuring on Mozambique's flag. In Russia, Kalashnikov was hailed as a hero, and throughout his life he often defended his creation, saying that politicians were to blame for violence. However, in the year before his death in 2013 he wrote a letter to the head of the Russian Orthodox Church describing the "pain" he felt about creating the weapon and being "responsible for... deaths" as "unbearable"

PEUGEOTEST

Answers on page 16

Diagnose the problems with these 10 Peugeots:

1. 1961 Peugeot 404 - Sudden Loss of Power and Rough Running

- A. Faulty fuel pump
- B. Worn distributor points
- C. Clogged fuel filter
- D. Damaged spark plugs
- E. Any of the above

2. 1978 Peugeot 504 Diesel - Difficulty Starting and Black Smoke

- A. Faulty glow plugs
- B. Low compression
- C. Incorrect injection timing
- D. Any of the above

3. 1990 Peugeot 205 GTI - Grinding Noise When Shifting Gears

- A. Worn clutch disc
- B. Damaged synchronizers
- C. Low transmission fluid
- D. Faulty shift linkage

4. 2003 Peugeot 307 - Vibration Felt Through Steering Wheel at High Speeds

- A. Unbalanced wheels
- B. Worn suspension bushings
- C. Damaged CV joints
- D. Faulty wheel bearings

5. 2009 Peugeot 407 HDi - Loss of Power, "Check Engine" Light, and Burning Smell

- A. Faulty EGR valve
- B. Clogged particulate filter
- C. Damaged turbocharger

6. 1986 Peugeot 505 Turbo - Whining Noise Increasing with RPM

- A. Faulty power steering pump
- B. Worn timing belt
- C. Damaged water pump
- D. Low engine oil level

7. 2015 Peugeot 508 SW - Sudden Loss of Brake Pressure and Illuminated ABS Warning Light

- A. Air in the brake lines
- B. Faulty ABS control module
- C. Damaged brake master cylinder
- D. Low brake fluid level
- E. Any of the above

8. 1998 Peugeot 106 Rallye - Inconsistent Idling and Occasional Stalling

- A. Faulty idle air control valve
- B. Vacuum leak
- C. Worn spark plugs
- D. Clogged fuel injectors

9. 1972 Peugeot 304 - Spongy Brake Pedal and Reduced Stopping Power

- A. Air in the brake lines
- B. Worn brake master cylinder
- C. Damaged brake rotors
- D. Faulty brake booster

10. 2007 407 Coupe V6 Petrol Manual – clutch pedal goes to the floor, immobilising the car while leaving Ellerslie Concours 2024. (see p16)

- A. Leaking slave cylinder
- B. Jammed clutch release bearing
- C. Worn clutch pressure plate and clutch plate
- D. All of the above (and still counting)

STELLANTIS NEWS

By Shannon Jones

On March 22, global automaker Stellantis—maker of Jeep, Chrysler, Dodge, Fiat, and other models—carried out a mass firing of 400 white-collar workers in the US. The terminations are among the most recent in a global cost-cutting drive by the corporation that will be followed by further downsizing as the company ramps up electric vehicle production.

In the wake of the white-collar terminations a Stellantis spokesperson issued a cold and bureaucratic statement: *“As the auto industry continues to face unprecedented uncertainties and heightened competitive pressures around the world, Stellantis continues to make the appropriate structural decisions across the enterprise to improve efficiency and optimize our cost structure.”*

The manner Stellantis chose to go about firing the white-collar workers—most employed in engineering, tech, software—was brutal. Workers were informed Thursday that there would be a mandatory remote work day due to *“important operational meetings that require specific attention and participation.”* During the remote meeting held Friday the workers were told they were being laid off.

A source told CarScoops, *“This isn’t going to be the last.”* They added, *“They are going to be doing this in waves so they can game the WARN Act.”* The 1988 law requires large companies to give at least 60-day notice of a layoff of

500 employees or more within a 30-day period.

The layoffs are the third round of white-collar job cuts this year. In 2023 Stellantis offered buyouts to 9,000 US salaried workers.

The latest white-collar job cuts have been followed by reports that Stellantis has come to a deal with unions in Italy to cut at least 2,500 jobs. The layoffs are reported as being “voluntary,” including retirement incentives, and will impact 1,520 workers in Turin and 950 at two other locations. The cuts are part of an ongoing downsizing in the country, with Stellantis slashing some 12,000 jobs in Italy since 2021.

In a statement, Stellantis said about the layoffs in Italy, *“The agreements are part of the initiatives implemented by Stellantis to address the effects of the ongoing energy and technology transition process including on employment.”*

Throughout 2024, Stellantis has been carrying out mass terminations of temporary workers at US production facilities. The workers had been promised under terms of the supposedly “historic” 2023 national contract with the United Auto Workers union that those with nine months or more would be made full-time. Instead, many found themselves out of work.

These cuts all come while the company posts record profits. The company made \$20 billion last year, an 11 percent increase over 2022, despite a 1 percent decline in overall sales.

Anger is mounting among rank-and-file workers, particularly as the union apparatuses have refused to mount any

serious opposition to the layoffs. Last month Italian autoworkers staged wildcat strikes over threats by Stellantis to close the Mirafiori and Pomigliano d'Arco plants. In Detroit earlier this month a group of fired Stellantis temporary workers (known at the company as "supplemental employees") staged a protest outside of the UAW headquarters in Detroit against their terminations.

In response to the Stellantis layoffs one worker posted acerbically on thelayoff.com, *"Who cares if hundreds of loyal and hard-working employees lose their livelihoods when there are executives with multi-million dollar pay who need to ensure their bonuses keep growing? Their priorities are perfectly clear. Sc—w the employees. We're insignificant."*

A worker at the Stellantis Toledo Jeep plant posted on Facebook, *"It's all across the world. It's just a poor me excuse for these companies to get kickbacks. They've had record profits for almost a decade but yet didn't have money to make this transition. It's a load of BS. They're going towards AI tech and that's why they're getting rid of white-collar jobs."*

Other workers commenting on Facebook spoke about the impact of the cuts. *"They have done this several times including when my dad worked in the industry,"* wrote one worker. *"Typically it starts with lower white collar and then works its way up on white collar jobs because it isn't as bad news coverage. Then it hits the blue collar. They will drag it out as long as they can."*

Another exclaimed, *"Wow this is a pretty s***ty thing to do. I've been laid off before, right after a company-wide mandatory in-person meeting where they announced that everyone's job was safe."*

During an investor call last month, Stellantis CEO Carlos Tavares spelled out the global economic and technological processes driving the cuts—particularly what the company views as the main threat—competition from China.

"The Chinese offensive is possibly the biggest risk that companies like Tesla and ourselves are facing right now," he said. *"We have to work very, very hard to make sure that we bring our consumers better offerings than the Chinese."*

Stellantis has been slower than other carmakers in the transition to EVs. It plans to introduce its first fully electric vehicle in the US this year and spend \$50 billion by 2030 on the EV transition. By that year it plans to sell 50 percent EVs in the US and 100 percent in Europe.

Chinese automaker BYD is currently selling its Seagull electric vehicle in China for the US equivalent of \$10,000, breaking even or even turning a profit by some reports. The company has had success developing battery technologies that are cheaper to make than lithium-ion batteries, which are also prone to fires.

The average price of a US-built EV is over \$50,000, according to Cox Automotive, and the sector remains unprofitable for Stellantis and other Detroit-based carmakers. US-built EVs

have been plagued by quality problems, including a rash of battery fires. One blaze involving warehoused lithium-ion batteries forced the temporary shutdown of General Motors’ flagship Factory Zero in Detroit.

Under capitalist private ownership, developments in science, such as AI and EV technologies, are turned against the worker. Instead of a global effort of research and development aimed at the rational use and deployment of electric vehicle technology for the benefits of society, workers are being pitted in a fratricidal race against each other to see who can work the cheapest and whose jobs will be eliminated.

With fewer moving parts than gas powered vehicles, electric vehicles require less labour to manufacture and assemble and thus fewer engineers and design specialists. At the same time, the enormous costs associated with the development of this technology require that auto companies such as Stellantis squeeze ever more profit and production out of its existing workforce.

The corporatist unions, both in the US and in Europe, have offered no opposition to the stepped-up attacks on workers’ jobs and living standards.

In Italy, the unions have helped Stellantis lobby fascist Prime Minister Giorgia Meloni for subsidies while collaborating with management to slash costs. In the US, the UAW bureaucracy offered no opposition to the layoff of some 2,000 supplemental workers.

Meanwhile, Shawn Fain and the UAW executive board have embraced the re-election campaign of Joe Biden, who just helped ram through a budget that combines record military funding with cuts to social spending.

The rational and progressive use of labour-saving technologies such as AI and EVs would entail the reduction of the workweek and workday with no loss in pay, and the hiring of more workers to address reduce workloads and understaffing and improve safety. But such policies are incompatible with the profit system, which subordinates everything to the accumulation of private wealth. What is required are organizational structures under workers’ democratic control—rank-and-file committees—and the adoption of a socialist and international strategy to ensure the needs of the working class are met.

! PEUGEOTEST
! ANSWERS from p 13
! 1E, 2D, 3B, 4A, 5C,
! 6A, 7E, 8A, 9A, 10D.
!



SALES OF EVS IN THE UK

Sales of new electric cars have been slowing down in Britain, raising questions over whether the public could be falling out of love with the green machines.

A House of Lords committee report released yesterday said EV sales are 'stalling' among private motorists as many cannot afford them and because of the slow roll-out of public chargers – particularly in rural areas. But MailOnline found that even where public chargers were installed, many EV charging bays lay empty.

The poor sales have ignited a blame game in Westminster, with actor and comedian Rowan Atkinson even being held responsible after he described EVs as 'a bit soulless' in a comment piece he penned in June last year.

The OBR (Office of Budget Responsibility) believes that customers are being deterred by the higher upfront costs, while the availability of public charging points also seems to be a concern for many drivers.

It comes amid a government goal to completely phase out petrol, diesel and hybrid vehicles by 2035 – something Prime Minister Rishi Sunak pushed back five years in September.

Industry figures showed that new EV sales to private car buyers plummeted by 25 per cent last month when compared with January 2023, and annual figures showed that the proportion of car sales that were electric had dropped from 16.6 per cent in 2022 to 16.5 per cent last year – the first time it has fallen into reverse.

The OBR had forecast that EVs would account for 17.7 per cent of new car sales in March 2023. They also predicted that sales would rise to 59.6 per cent by 2026-27.

While EV sales among businesses grew 42 per cent, it is a major blow to the Government's target of banning sales of new petrol and diesel cars by 2035 as it needs to convince more than 30million private motorists to make the switch.

Society of Motor Manufacturers and Traders figures published in March show that 20,935 electric cars were registered in January – a rise of 21 per cent year on year. However, purchases by private buyers fell by a quarter (25.1 per cent).

The trade body's chief executive Mike Hawes previously said the UK was now 'probably in the bottom half in Europe' for driver demand for EVs, falling below nations such as France, Germany, Ireland and Portugal.

Peugeot 308 FOR SALE

This is John Cooney's immaculate, Sporty 308 GT Line in pearlescent white. You get the sporty looks and feel of the GTI, with the economy of a hybrid. The 1.2L engine is super economical, but also pretty punchy for such a small engine. NZ new from Armstrong's. Just had 30,000km service.

Over the base models the GT Line has 18" wheels, blacked out mirrors and accents, a sportier factory body kit & exhaust, sportier red stitched seats, and the perforated leather sports steering wheel.

- 5 star ANCAP safety rating
- Lane keep assist
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- Parking sensors
- CarPlay / Android Auto
- Large touch screen display w/ built in navigation
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Walking is No. 1 in the ecological rank ©Provided by Showbizz Daily International

The best means of transport is the most primitive one: your legs. To spare the planet, walk whenever you can. If the journey is too long, take the bike. It's a means of transport free of CO₂ emissions, and they tend to last longer than electronic autopeds. If that isn't fast enough, take the train. And when a car is your only option? Try to share rides as much as possible.

It is true that electric scooters or autopeds don't release CO₂ into the atmosphere. However, their environmental footprint adds up in terms of the energy and pollution involved in their mass production. Due to vandalism and deterioration, these steps last relatively little time. They have to be mass-produced, which increases their ecological impact.

The train emits only 14 grams of CO₂ per passenger per kilometre. It is a sustainable means of transport.

The bus pollutes (on average) 68 grams of CO₂ per passenger per kilometre. Since it is a shared means of transport and with capacity for many passengers, it is more ecological than a van or a car.

A motorcycle emits 72 grams of CO₂ per passenger per kilometre.

According to the European Environment Agency, cars emit 104 grams of CO₂ into the atmosphere per passenger per kilometre. However, it depends a lot on the model. One sure fact: a car over 20 years old pollutes as much as 36 cars of a new model.

FEMALE INVENTORS

Chien-Shiung Wu, 1912-97: nuclear physics

Chien-Shiung Wu was a Chinese-American particle and experimental physicist who made significant contributions in the fields of nuclear and particle physics. Wu worked on the Manhattan Project, where she helped develop the process for separating uranium metal. In 1956, she conducted the Wu experiment that focused on electromagnetic interactions, which yielded surprising results. However, her colleagues who originated a similar theory in the field, Tsung-Dao Lee and Chen-Ning Yang, received credit for her work and ended up winning the Nobel Prize for the experiment in 1957.

GENUINE ANSWERS FROM THE GED EXAM

Q. Name the four seasons

A. Salt, pepper, mustard and vinegar

Q. Give the meaning of the term 'Caesarean section'

A. The caesarean section is a district in Rome

Q. What is a turbine?

A. Something an Arab or Shreik wears on his head



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