Peugeot Car Club (Auckland)

Peugeotex©

Volume 38, #7, August 2024

CONTENTS
August 2024

Front & rear inside cover – Peugeot Bébé
Above – Brent Druskovich

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
liesjebradley@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
matt@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
Printed by CopiesPlus
www.copiesplus.co.nz

COMING EVENTS

peugeotclub.org.nz

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

August 25 – AGM at 1pm at Vintage Car Club rooms

October 24-28 – NZ Targa

November 17 – Pride of Ownership

2025
February 9 – Ellerslie Classic Car Show; the theme is “Summer Holiday”.

March 9 – Auckland Brit & Euro Classic Car Show

THOUGHT FOR THE MONTH

If money doesn’t grow on trees, why do banks have branches?

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

I decided to look at a few other August Rambles I have written over the years for inspiration. I have found they have largely followed a theme. We have either just had the AGM and I am re-elected President, or we are about to have the AGM and I am asking for volunteers to take on roles in the committee.

After reading them I have decided that inspiration is not required, just a repeat of other years. Again we are about to approach the AGM and again I think what we (meaning the club) need is a new secretary, not that there is anything wrong with the old one, or at least the one that has been acting as secretary. It isn't officially Jeanette's role, but to be fair she has done her time plus some. We need someone new to take on the role.

We also need some new committee members. I would suggest two, but more are welcome.

On another point the existing committee have all volunteered to carry on, so thanks to them, and even more importantly, assuming no-one pops up on the day to put in a challenge, Jay Hardie has nominated himself to be Vice President. As per usual I am more than happy to be challenged and voted out of the Presidential role on the day too. If that happens I will just put my name forward to be an ordinary committee member.

Beyond the AGM we can look forward to our club Show and Shine. The date has been set for us to visit, critically look at and love each other's cars on the Mangere waterfront on Sunday November 17. We may even have a good natter.

And that is it for this month, short, not sure if it is sweet or not.

Please, at least come to the AGM at the Vintage Car Club Rooms – 39 Fairfax Ave, Penrose from 1pm. We need a quorum to vote in the new Constitution.

Brent

COMING EVENTS

Sunday August 25	AGM at 1pm Vintage Car Club Rooms. 39 Fairfax Ave, Penrose
October 24-28	NZ Targa
November 17	Show & Shine contest at Mangere Sailing Club
2025 February 9	Ellerslie Classic Car Show; the theme is “Summer Holiday”.
March 9	Auckland Brit & Euro Classic Car Show, Pakuranga

JEANETTE'S JOTTINGS

Superstition surrounding black cats goes way back—all the way to 1232, in fact. That's when Pope Gregory IX published a work describing the rituals witches used to summon the Devil. According to the Pope, witches would kiss and adore black cats, even kissing their 'hind parts'. This revelation ignited a wave of feline eradication that could have led to a surge in the population of plague-carrying rats in Europe.

In 1811, the invading ruler Napoleon forced the Dutch to adopt fixed surnames. They made up names to mock the census takers, and we now have people stuck with names like Naaktgeboren (born naked) and Paardebek (horse's mouth.)

A new heat-to-energy converter has reached a record efficiency of 44% – the average steam turbine manages about 35%, for comparison. This thermophotovoltaic cell is a major step on the way to sustainable, grid-scale renewable energy storage.

As recently as 2009, Samoa became the first country in more than 40 years to switch from right to left side driving, given most of their cars are imported by left-side driving countries, such as, Australia, New Zealand and Japan.

More than 1,500 tertiary institutions around the world were evaluated in 106 locations, with eight from NZ. The University of Auckland was 65th, the only NZ university in the top 100 and it surpassed 95.7 percent of institutions worldwide in the evaluations.

Getting a tattoo, regardless of its size, increases the risk of developing lymphoma by 21%, according to a new study.

The designer of the world's tallest building, SOM, has joined forces with Energy Vault Holdings to investigate the possibility of creating huge skyscrapers that would function as gigantic gravity based energy storage systems.

Scientists have now identified a marine fungus which devours polyethylene plastic. Parengyodontium album, was found living with other marine organisms on samples of plastic trash drawn from the North Pacific Garbage Patch in December 2019 during the Ocean Cleanup's North Pacific Mission 3 and when grown in the lab was found to break down one of the most commonly used plastics.

New Zealand workers were among the first in the world to claim the right to limit a working day to eight hours. In 1840, the carpenter Samuel Parnell won an eight-hour day in Wellington & 'Labour Day' was first celebrated in New Zealand on 28 October 1890, when several thousand trade union members and supporters attended parades in the main centres. The Labour party was not formed until 1916.

In 1700, it was claimed that a total of 8 names (Charles, Edward, Henry, James, John, Richard, Robert and William) accounted for almost 90% of the male population in England.

PEUGEOT CAR CLUB (Ak) Inc

Statement of Financial Performance for the year ended 30th June 2024

INCOME	30/06/2024	30/06/2023
Advertising	880.00	881.00
Annual subscriptions	2,235.00	1,875.00
Bank Interest	126.25	78.58
Ellerslie Concours Income	228.84	276.31
Raffles & Other	65.00	66.00
Club Shop Gross Sales	-	175.00
	3,535.09	3,351.89
EXPENDITURE		
Club Shop COGS/giveaways	60.00	186.00
Donation	-	300.00
Editors	200.00	200.00
Insurance - Public Liability	-	786.46
Miscellaneous	147.65	79.89
Postage & PO Box	1,017.32	820.33
Printing PEUGEOTEX	1,424.25	1,459.12
Subscriptions	214.88	143.72
Trophies	186.00	180.00
Website	50.00	-
	3,300.10	4,155.52
Excess Income / (Expenditure)	234.99	(803.63)
Less depreciation	-	-
(Decrease)/Increase in Equity	234.99	(803.63)

Statement of Movements in Equity for the year ended 30th June 2024

Equity at beginning of year	5,555.26	6,358.89
Net Surplus / (Deficit)	234.99	(803.63)
Equity at end of year	5,790.25	5,555.26

PEUGEOT CAR CLUB (Ak) Inc Statement of Financial Position as at 30th June 2024		
	30/06/2024 $	30/06/2023 $
Assets		
Current account	**698.68**	625.01
Accelerater account	**3,830.39**	3,704.14
Accounts Receivable	**365.00**	276.31
Pre paid envelopes	**757.18**	550.80
Club Shop Stock (cost)	**318.00**	378.00
	5,969.25	5,534.26
Accrued Expenses	**200.00**	-
Sub in Advance	**-**	-
	200.00	-
Working Capital	**5,769.25**	5,534.26
Fixed Assets	**21.00**	21.00
Net Assets	**5,790.25**	5,555.26
Accumulated funds	**5,555.26**	6,358.89
Change in accumulated funds	**234.99**	(803.63)
Total Accumulated Funds	**5,790.25**	5,555.26

Audit Report

To the members of the Peugeot Car Club (Ak) Inc

I have audited the attached financial statements. The financial statements provide information about the financial performance of the Peugeot Car Club (Ak) and its financial position as at 30 June 2024.

Responsibilities

The Committee is responsible for the preparation of financial statements that fairly reflects the financial position of the Peugeot Car Club (Ak) as at 30 June 2024 and the result of operations for the year ended 30 June 2024.

It is my responsibility to express an independent opinion on the financial report presented by the Committee.

Basis of Opinion

An audit opinion includes examining, on a test basis, evidence relevant to the amounts and disclosures in the financial statements. It also includes assessing:

• The significant estimates and judgments made by the Committee in the preparation of the financial statements, and

• Whether the accounting policies are appropriate for the Committees circumstances, consistently applied and adequately disclosed.

I conducted the audit in accordance with New Zealand Auditing Standards. I planned and performed the audit so as to obtain all the information and explanations which I considered necessary in order to provide me with sufficient evidence to obtain reasonable assurance that the financial report is free from material misstatement. In forming my opinion, I also evaluated the overall adequacy of the presentation of information in the financial statements.

I have a relationship with the Peugeot Car Club (Ak) as a member.

Qualified Opinion

As with other organizations of this type no controls exist over accounting for income prior to entry into the accounting system. Accordingly, I cannot form an opinion as to whether all income has been recorded.

In the above respects alone:

• I have not obtained all the information that I have required; and

• I am unable to determine whether proper accounting records have been kept.

Subject to the above qualification, in my opinion, the financial statements fairly reflect the financial position of the Peugeot Car Club (Ak) Inc as at 30 June 2024 and of its financial performance for the year ended that date.

The audit was completed on 27 July 2024 and my qualified opinion is expressed as at that date.

Mandy Druskovich

B Com, CA Auckland

TREASURER'S REPORT

For the year 2023-24, the Club made an Audited Book Profit of $234.99 compared with a $803.63 "loss" last year.

By cancelling the Public Liability insurance, we save about $1,000 per year.

Memberships fees are up. Bank Interest was up and expenses are less.

Postage remains a significant cost to the club. The committee has made considerable savings on postage by obtaining unwanted postage paid envelopes, 824 of them at approximately $1.22 each. Current pricing at NZ Post is $265 for a pack of 100 envelopes, therefore we got them for less than half price!

The most important result is that the Bank Accounts are very healthy.

The Closing bank balances, at 30th June 2024, were $4,529.07, a gain of $199.92 over the previous year.

Our Club's Equity is now $5,790.25

This year, we didn't have to take cash out of the Savings account.

The new ASB system for authorising payments is working well and we always receive a paper copy of the bank statements in the shared Club post office box.

I am happy to continue as Treasurer for the foreseeable future.

Steve Cornwall

Treasurer
Paihia

TROPHY LIST 2023-2024

Arthur Brinton Cup for Services to the Club	Donald Webster
Cooper Cars Attendance Trophy	1= Andrew Corbett 1= Brent Druskovich 3= Liesje Bradley 3= Matthew Ensor 3= Dennis Lowe
Pride of Ownership Cup - "05"	1 Brent Druskovich
Pride of Ownership Cup – "06"	1 Don Howarth 2 Jeanette Grant 3 Peter Hagglund
Pride of Ownership Cup - "07"	1 Dennis Lowe 2 Matt Ensor
Ian Grimmer Memorial Trophy for Long Distance Attendance	1 Graham Pooley 2= Anne & Ray Cotterill 2= Mary Pullman
New Member Cup	Matthew Ensor
President's Award	Revealed on the day

BELIEVE IT OR NOT

Three weeks after one of Waymo's autonomous vehicles drove itself into a telephone pole for no apparent reason whatsoever (prompting 672 cars recalled), Waymo has released a statement saying its AVs are still 200 to 350% better at avoiding crashes than humans.

PEUGEOTS I HAVE WORKED ON.

In the 1980s, I was running a business at the airport called Automotive Enterprises. We had gained a reputation for being able to cope with Peugeots – but we got some odd ones from time to time.

One customer lived right up the top of the Coromandel Peninsula past Port Jackson. He drove a 404 as it was the only vehicle he had found capable of coping with the unsealed roads and the fords. He produced oysters and orchids - both perishable - and made twice weekly trips to the airport to freight them overseas. The trip only took him 2½ hours! Not surprisingly, his Michelin tyres were worn to the steel in only three months.

One day his wife ended up in a ditch trying to dodge a tourist who wasn't sure which side of the road to drive on. The Japanese car she met was a write-off and the driver was most irate. *'Those big solid cars were unfair competition and should not be allowed on the roads*."

The 404 was off the road for a week being straightened so they hired a Landcruiser from AVIS rentals for the week - and on its return he was blacklisted. Their cars were not intended for his Coromandel conditions and they intended that he would never ever get his hands on another one.

Some other 404s we encountered were in less than perfect condition. A Napier resident who had had a 403 for years, decided to upgrade to a later model and bought a 404 from a South Auckland dealer. The car was advertised as having been re-ringed - and that was literally what it had been. Within half a mile of leaving the yard it had broken down and in those days before true dealer liability, it was a real case of Caveat Emptor.

It was towed out to our workshop and we pulled it apart. The dealer had literally just put in a new set of compression and oil rings on the pistons and popped them straight back in without doing anything else. The bores had not been honed and the ridge had not been taken off the top of the bore. Inevitably the top rings broke on all four cylinders and it lost all power. When we tested its compression, the highest cylinder had 50lbs.

It needed a major rebuild as the cylinders were shot, the bores were worn and even the crank was worn. This was one of the very few times I ever found it necessary to get a Peugeot crank ground. We put in a new piston and liner kit and he ended up with a reconditioned engine in what was really a very dodgy car. The brake booster was not working and there was a lot of rust under the new coat of paint. In fact, when it rained the car filled up with water as the plenum chamber under the dash had a hole in it that you could stick your arm in. Fortunately he had access to facilities in Napier to work on such things so it was not such a disaster for him as it might have been for someone else. Soon afterwards, he had the opportunity to buy a really good low mileage 404 which he mothballed, so that when he had got his money's worth out of the dud one, he had a good one in reserve to move into. Years later he was very happily driving around in what had become a collector's item. Driving really happily since he converted it to diesel.

Sometimes a lack of ordinary care can lead to extraordinary expense. The two examples which come to mind were both Peugeot 604 models - big solid cars which in NZ were some of the more expensive on the market, competing with Mercedes and Volvo.

One of these unfortunates belonged to a Dutchman who had bought it in Holland where it was much cheaper. He

regarded and treated it as a workhorse, not a luxury car. At some time in the past, he had been told that oil never wears out so he thought that meant that you never needed to change it. While it is technically true, it does not take into account the fact that oil in use gets contaminated. It holds acids, sludge, water and microscopic particles of metal in suspension. It also loses its "body" with use. The viscosity level is determined by the presence of a thickening agent which over time is broken up by the constant squeezing between the bearings. Over several thousand miles, a 15/50 oil would be broken down to a straight 15 which gives minimal protection - particularly when further thinned by the heat of a working engine.

The only time this car got any servicing was when it just wouldn't go any longer. His orders were always to get it going at minimal expense. I was permitted to top the oil up, but I was not allowed to give it a real oil change. Under these conditions, the engine lasted an incredible 30,000 miles before the camshaft seized. The car came in on the back of a tow-truck and when I told him that it needed a complete engine rebuild, he didn't want to know. He had it taken out to Peter McGeedy who put a Holden motor in it instead.

The poor car looked totally neglected. Every panel was dented by the time it had done 10,000 miles as he kept backing into his own gate posts. Rather than go to a panel-beater to have the big dents taken out, he drilled holes in the body, screwed a screw in and pulled the dent out. This is an old panel-beater's trick, but they then fill the hole, paint it and hide the scars. He just left the holes to rust with the rough edges sticking up. When he finally came to sell the car, he was unpleasantly surprised to find that no-one would buy it.

The other 604 was treated very differently. Its owner was elderly and not mechanically minded but made sure that the car was serviced regularly. His big expenses came from the way he drove.

One day he had an argument with a big Kenworth truck on the Thames Highway. It is a tribute to the solidity of the 604 that he was unharmed, even though they met hard enough to immobilise the truck. The car was towed back to my workshop and the assessors analysed the damage. The body had to be taken right off the running gear and straightened. The rear housing on the gearbox had sheared off (as it was designed to do) so that the engine dropped down instead of crushing the cab. The torque tube was bent. The steering rack and front struts were bent. In fact the whole front of the car was mangled while the radiator - just wasn't. It needed new chassis rails and a complete front. However the only damage to the engine proper was the fan and the distributor cap.

And the insurance company paid to have it fixed! Of course the car was expensive and fairly new - had only done about 20,000 miles. We had to take the engine, running gear and front suspension out. All that was left was the rear suspension so that it could be towed to the panel-beater. He did a great job and we put in a new water pump, radiator, alternator etc and in two months it was back on the road.

Six months later he did it again! This time he lost an argument with an ARA bus. Once again he was unhurt and the insurance company paid to put the car back together again but I had nothing to do with it that time.

However, the following year he was in trouble once more. Driving down the Thames Highway, he noticed the temperature gauge rising. and instead of stopping to investigate, he put his foot down harder, hoping that the increased air movement would help cool the motor. It didn't work. He was slowing down for the

Kopu Bridge when the engine seized. He got a lift on down to Thames and arranged for two men and a car transporter trailer towed by a Datsun ute to pick up the car and bring it out to me at the airport.

He was on the phone at 9am to see it they had arrived and again every hour on the hour until it finally struggled in about 3pm. He had overlooked the fact that the 604 weighed nearly one and a half tons and the trailer another ton. The poor little 1500cc ute was way overburdened.

I pulled the engine apart and it turned out to be one of the most major overhauls I have ever had to do. The block was warped; the heads were mangled; the pistons were scored; the overhead cams (which fit through holes in the head) had been pinched as the head warped with the heat. The head had to go into a press to get the cams out. The steel exhaust valve seats had overheated and dropped right out of the aluminium head. The valves then could not close because the seats were out of place. The pistons hit the valves and snapped the heads off the valves. They had then been trapped between the valve seats and the pistons. Some smashed holes in the cylinder head and some smashed the tops of the pistons. In fact he did a fairly thorough job of destroying the engine.

There was about a fortnight's work involved in getting machining work done. The heads were repaired and straightened by Jennings Engineering. Then we had to make sure that the crankshaft would turn in the block. It needed slight line-boring to get it to line up in the bottom so it would spin freely. The top of the block had to be machined on both sides of the V. The seats where the liners seal at the bottom of the block had to be machined to make up for the amount that had been taken off the top of the block. Then we had to reassemble it, find out how much the pistons were sticking out of the top of the block, measure that carefully, take them all out and get them machined so they would not hit the head, and then get them balanced. This was essential to get the compression ratio correct.

The new liners and pistons, bearings, rings, timing chain etc were obtained easily and when the engine was finally back together it ran sweetly and the last I heard, the car was still going strong - fifteen years later.

One of my customers sold on his early 504 injection to a woman who was travelling backwards and forwards to Wellington regularly. It was very reliable despite its high mileage and he told her to bring it out to me for servicing.

Unfortunately, she was one of those people who feel that an old car does not need servicing. She had it for two years and never even bothered to find out how to open the bonnet. When she finally came out to the workshop, we heard her coming for the last half mile or so as the engine was rattling its head off. When we looked at the dipstick, there was no oil registering on it at all. She admitted that the oil pressure warning light had been coming on on bends for some weeks but she hadn't bothered to do anything until it became so noisy she could no longer ignore it.

The car holds four litres. We topped it up and it took over three litres! To crown it all, she wanted to know if running out of oil was the same as giving it an oil change! We told her it wasn't and that the engine was now almost worn out and needed major work doing on it. However, it still went and that was all that concerned her so she drove away, noise and all and continued making her regular long trips. A bad way to treat a good car.

She sold it a couple of years later and it was bought by a Frenchman at Whangaparaoa who knew what a good car it could be. He took it into a local garage who was used to tackling everything that came along. They rang me for advice and I

supplied him with the necessary parts, so once again the car was going as it should.

Some years later I had a phone call from another Whangaparaoa resident with a 504. It was burning a bit of oil so he was doing his own engine reconditioning - just sending the block and crank off to be machined. When it came to the reassembly, he put it all back together and it had a very bad rattle and heavy knocks - much worse than before he started.

He rang me and described what he had done. and how it sounded. One noise went worse when he put his foot on the clutch pedal so I suggested that he tried putting a screwdriver between the crankshaft pulley and the timing cover to see if there was any fore and aft movement in the crank. He did and there was. About a quarter of an inch. I then asked him if he had put the four thrust washers in on the rear main bearing. He hadn't. He found them after he had finished putting it together, didn't know where they went and didn't bother looking. He had to pull the engine out, take the sump and the rear main bearing cap off and fit the thrust washers. This solved one of the noise problems only.

He still had a knock in the motor and it was pinking all the time. I suggested that he check the ignition timing and it seemed to be fairly right, so next I queried how much had been taken off the cylinder head and how many times it had been machined. He thought they had taken about 1mm off which means that the pistons would be hitting the inlet valves and the compression had been raised. He had 8:1 compression pistons in - the later model ones - and with the amount taken off the head, the ratio was probably about 11:1 - much too high to run on petrol. It would have needed racing fuel. He took the motor out and brought it in in his other car for me to see.

When they had done the machining, they had machined the top of the block and so the liners were sticking out of the top when he came to re-assemble it. They then put the liners in without the bottom seals and re-machined the top to get the block and the liners all level. Then they were able to put the shims in and that gave the right protrusion out of the top of the block. Unfortunately, when you do this, the pistons still continue coming out the same distance, but the block and liners are shorter. The pistons were coming right out of the top of the liners and hitting the valves and the inside of the head. This raised the compression even more.

I recommended he took it to White Metal Bearings at Whangaparaoa as they specialise in unusual problems, (normally vintage work), and explained to them that the pistons needed their tops machined down to give clearance and a more respectable compression ratio. They reduced the dome down to the equivalence of a lower compression piston and everything cleared and worked. The total overhaul ended up costing him about $3000, but it ran very sweetly.

We also got some real weird ones. Some tourists flew in from Australia to go down to Invercargill for a wedding the next day but when they picked up their campervan, it wouldn't go. At even 10mph it was vibrating like the devil so they came in to us to see what the problem was.

It was very simple. Air NZ had used a fork-hoist to lift it off the pallet and had somehow managed to bend the propeller shaft. It was badly bent, too badly to straighten and there were no new parts available as it had a different wheel base to the models on sale in NZ.

We took the problem to Beattie Engineering and within four hours they had made a new one! We were able to get the vehicle back on the road that day and Air NZ eventually paid for it.

World's first carbon-neutral tire,
by Paul Ridden

Norway's innovative tire maker reTyre has cooked up what's claimed to be the first carbon-neutral tire. Debuting at Eurobike this week, the concept is made from 100% reclaimed materials – including recycled fishing nets and beads from body armour.

You may remember the Oslo-based company from the novel zip-up system for adding interchangeable tread skins to a base tire, which allows riders to tackle different surfaces without having to change wheels or tires. Last year, reTyre stepped up its sustainability game even further by offering a rubber-free wheel-wrap solution that's 100% recyclable.

With Eurobike about to open its doors to trade and public, the innovation continues with the unveiling of a carbon-neutral tire concept that "marks a monumental step towards sustainable tire production."

The casing is made using discarded fishing nets recovered from the ocean. Algae harvested from blooms in lakes and oceans around the world is used in the tread, helping to restore aquatic ecosystems and "preventing eutrophication and methane release." Para-aramid (Kevlar) fibre from used body armour that's recycled in a closed-loop process is incorporated in the beads and puncture protection. And the tire also makes use of post-consumer recyclate from "local waste streams with a low CO2-equivalent."

The carbon-neutral tire is at the concept stage of development at the moment, with reTyre giving no indication of production and availability timelines. It will be showcased alongside the company's current range of bio-based and recyclable tires – including a new City line aimed at urban cyclists – at reTyre's Eurobike booth in Hall 12.1 from July 3.

"The product carbon footprint of this tire is based on our third-party verified LCA [Life Cycle Assessment], including the end-of-life, which is how we measure all our products," said project lead, Friedemann Ohse. "Our production and transportation processes are optimized to be close to zero emissions. End-of-life is reduced to almost zero due to the recycling of the tires.

"The algae used in the tire has a negative CO2-equivalent, balancing any remaining emissions to achieve a net-zero impact. In this way, we have a carbon-neutral product without using any of the well-known shortcuts, such as carbon quotas, subsidies or other non-product related contributions."

Source: reTyre

China claims 10 world records for new bridge/tunnel sea crossing

In July, China opened the Shenzhen-Zhongshan Link, a new cross-sea tunnel and bridge system located in Guangdong Province, South China. The architectural marvel apparently breaks 10 world records – albeit very specific ones.

The Pearl River estuary, where the Pearl River flows into the South China Sea, is one of the most densely populated areas in the world. It encompasses Hong Kong, Macao and nine cities in Guangdong, which are separated by wide bodies of water –

and that makes getting around a massive pain.

The Shenzhen-Zhongshan Link is designed to remedy that. The link runs for 24 km (15 miles), connecting the two cities in its name which are located on opposite banks of the Pearl River estuary. It's not one long bridge though – an underwater tunnel in the middle runs between two artificial islands, with bridges connecting each island to the city on that side.

With eight lanes allowing for speeds of up to 100 km/h (62 mph), the link apparently shaves what's normally a two-hour drive down to just 30 minutes. After seven years of construction, the link finally opened to traffic at 3 pm local time on June 30.

According to the China Global Television Network (CGTN), the Shenzhen-Zhongshan Link sets 10 new world records. They aren't your basic records like longest or biggest bridge, though – in fact, they're hilariously specific. Here's the list:

Largest span for a fully offshore steel box girder suspension bridge (1,666 m/5,466 ft)

Highest bridge deck (91 m/299 ft)

Highest navigation clearance for a sea bridge

Largest offshore suspension bridge anchor (344,000 m3 /12 million cubic ft of concrete)

Highest wind resistance test speed for a suspension bridge (83.7 m/273.6 ft per second)

Largest steel bridge deck with hot-mix epoxy asphalt paving (378,800 m2 /4 million sq ft)

Longest two-way, eight-lane immersed tube tunnel (5,035 m/16,519 ft)

Widest underwater steel shell-concrete immersed tube tunnel (up to 55.6 m/182.4 ft)

Largest single-volume cast for a steel-shell immersed tube using self-compacting concrete (29,000 m3 /1 million cubic ft per tube section)

Widest repeatedly foldable M-shaped water stop used in the final joint of an immersed tube tunnel (3 m/9.8 ft)

It also happens to be the world's first underwater expressway interchange and airport interchange.

On top of all that, the tunnel section packs some intriguing safety features, including new firefighting and smoke exhaust systems. A team of 14 robots constantly patrols the tunnel, monitoring the pipes and cables that keep everything running smoothly, and can even keep an eye out for car accidents. When that happens, they can apparently direct traffic via built-in loudspeakers, and film the scene while transmitting it to a remote control center.

Lights along the walls also feature color-coded light systems. When all is fine they're green, but in emergencies they'll turn red.

They can even progressively turn from yellow to green along the length of the tunnel to help guide people in the right direction during an evacuation.

The Shenzhen-Zhongshan Link joins the Hong Kong-Zhuhai-Macau Bridge – the world's longest sea crossing bridge, located about 31 km (19 miles) away – in helping people get around these densely populated areas a bit easier.

Sources: State Council of People's Republic of China, CGTN, Xinhua

WHY DO WE DRIVE ON THE LEFT?

The majority of countries in the world drive on the right side of the road. However, there are still 76 who drive on the left.

The reason why can be traced back to Ancient Rome, when people drove charriots. Historians believe that Romans drove on the left side of the road as a matter of safety. Because most people are right handed, driving on the left side would have allowed them to wield a weapon with their dominant hand if they crossed paths with an enemy. The practice then carried over to some medieval parts of Europe.

Later, in the 18th century, horse and wagon traffic was so light that the decision to drive on the left or right side of the road often varied according to local custom.

However, at the end of the 18th century, left hand driving became a law in Britain, but funnily, opposite lanes were established in France, where the law became right hand driving after the French Revolution.

These two countries later exported their driving styles to their respective colonies, which is why many former British territories such as Australia, New Zealand, South Africa and India still drive on the left side of the road.

A major influence was the arrival of the famous automobile Model T in 1908 made by American carmaker Henry Ford, who mass-produced the car with a left-positioned steering wheel, making driving on the right side of the road a necessity.

In the case of Canada (a former British colony) driving changed from left to right in the 1920s, mainly to facilitate traffic to and from the United States.

Canada was not the only country who changed from left to right in the 1920s. Other countries in Europe that previously drove on the left side of the road, changed to the right side, such as Spain in 1924, Italy and Portugal in 1926. Moreover, during World War II, Hitler forced Czechoslovakia and Hungary to change from left to right side driving.

After that, in 1967, Sweden also made a change from left to right hand side driving overnight, specifically on September 3. The date is even remembered as H-Day, short for "Högertrafik", the Swedish word for right-hand traffic. The decision from Swedish authorities had two main reasons. First, that bordering Finland had changed from left to right, and second, that Volvo, the biggest Swedish car manufacturer made driving seats in the left for ease of export to the rest of Europe. That meant that Swedes drove from a left seat, in the left side of the road, so their visibility wasn't good and was leading to a rise in traffic accidents.

After Sweden, Iceland moved, and was followed in the 1970s by former British colonies -Nigeria and Ghana.

ORIGINS OF THE GOODWOOD FESTIVAL OF SPEED

The Goodwood Festival of Speed has been around since 1993, hosted every year in June or July at the Goodwood House in West Sussex, England.

Lord March, the owner of the estate, didn't have the necessary permits to host a racing event at the Goodwood Circuit, so he decided to host a race on his property. It is such a popular race event, that spectators are capped at 150,000 people who line the hill-climb track to watch everything from Formula 1 cars to motorcycles to soap box derby carts race up (or down) the 1.17-mile (1,890-m), nine-turn track that climbs 304 feet (93 m).

The hill-climb track record, set in 2022, is a blisteringly quick 39.08 seconds set by former F1 driver Max Chilton in the McMurtry Speirling, whom oddly enough just set the record at Hockenheim Racetrack in the very same vehicle.

However, in July, after recently setting the Nurburgring Nordschleife 12.9-mile (20.8-km) track record, the Lotus Evija X suffered a traction control issue and laid a smoky trail of rubber straight into the hay bales at the start line in two seconds. Instant torque combined with all that tire speed and no traction or rev limiter was a recipe for disaster. The entire incident lasted about 1.5 seconds from start to finish. Thankfully, the driver (who remains unnamed) walked away unharmed.

SUPERLUBRICITY

Using biowaste from cassava plants, scientists have created a coating that virtually eliminates friction in metal parts. The breakthrough has the potential to deliver better fuel economy, extend the lifespan of moving parts, and deliver enormous savings in myriad industries.

For all they can do for us, moving parts inside machinery come with an inherent problem: friction.

According to a research paper just released by scientists from various institutions in Africa and the United States, friction is responsible for consuming about one-fifth of all energy generated globally each year. Furthermore, the authors write, damage caused by friction in machinery eats up between one to four percent of industrialized economies' GDP. In the automotive industry, the researchers say that about 30% of fuel put into passenger vehicles is used to overcome friction.

Reducing friction, therefore, could have a major impact on the cost of working with machines, and potentially save fuel used in the operation of cars. The research team – led by the president of New York's SUNY Polytechnic Institute, Winston "Wole" Soboyejo, and postdoctoral

researcher Tabiri Kwayie Asumadu – decided to take up the friction challenge by focussing on a concept known as "superlubricty." Superlubricity is a condition of near-zero friction between two moving, dry materials in contact with each other.

Until now, superlubricious behavior has only been seen between super-small particles at the nanoscale. The new study though, shows that the phenomenon is possible at the macroscale.

To get it to work, the researchers deposited carbon derived from cassava plants onto metal surfaces using a low-cost high-temperature biowaste treatment process. Once the carbon bonded to the metal, it had the footprint of graphene, a material consisting of a single layer of carbon atoms. This material filled in the grooves caused by wear, creating graphene-only contact points that protected the metal beneath.

In tests, the carbon bonded to steel and nickel substrates led to a virtually frictionless state that remained robust in normal conditions for about 150,000 cycles.

"This research truly could touch most industries," said Asumadu. "From biomedical to energy sectors to nearly every kind of manufacturing, this approach could help to extend the life of machine parts, reduce maintenance and replacement costs, and create a more sustainable industrial future."

The paper describing the findings has been published in the journal, Applied Materials Today. Source: SUNY Polytechnic Institute

POTLUCK DINNER REPORT

PRESENT; Andrew & Sally Corbett, Brent & Diane Druskovich, Matthew and Janne Ensor, Jeanette & John Grant.

As the numbers show, this turned out to be a fairly exclusive evening at the Grant's place. We had apologies from members who had just got married, got out of hospital, were working etc

The quantity and variety of the food contributed was admirable, the conversations were of interest and the evening proved to be most enjoyable – and worth repeating.

REMOTE DRIVING TECHNOLOGY

Peugeot has signed up with a new German firm exploring the possibility of making a van delivery without the driver leaving the office.

'Vay' has already equipped an e-208 city car wth tele-driving technology and it has been demonstrated on Peugeot's stand at the Vivatech 2024 exhibition in Paris where start-up companies and leaders showcase their innovations. The show has been described as "a gathering of the world's brightest minds, talents and products."

Peugeot says "Users for remote driving technology would be mainly business customers – short distance scenarios such as final delivery of goods, vehicle flow management in logistic centres, car sharing or rental and proving valet services for delivery and parking.

PEUGEOT Bébé
"CHEAPER THAN A HORSE"

The Peugeot Bébé or Baby was a small car nameplate from Peugeot made from 1905 to 1916. Vehicles under this name were known technically within Peugeot as the Type 69 and the Type BP1.

The original Bébé first appeared at the Paris Motor Show in 1904 and greatly impressed attendees as a modern and robust creation that was cheap, small, and practical. Its weight was 350 kilograms (770 lb) and length was 2.7 metres (110 in), and these tiny dimensions meant that its small engine could propel it to 40 kilometres per hour (25 mph). Though selling price was deliberately kept as low as possible, technologies like rack and pinion steering and a driveshaft instead of a chain were included in the vehicle. Production began in Audincourt in 1905, and the car proved to be popular. Bébé sold 400 units in the first year, or 80 percent of Peugeot's production. It was also exported, particularly to Britain. The Type 69 was sold only during 1905.

The year 1912 marked an important step in Peugeot's history. This year saw the construction of the factories in Sochaux and the Bébé, the second vehicle to bear this name, caused a sensation at the Paris Motor Show.

The type BP1 was completely different to the first 1903 Bébé. It was designed by Ettore Bugatti, who first proposed the prototype to the German manufacturer Wanderer. In the end, it was manufactured by Peugeot according to the terms of an agreement signed between the two parties.

The Bébé's low prices and modern design took the market by surprise. This was a tiny, light vehicle weighing under 350 kilos – a real car at a low price.

It was powered by a 4-cylinder 855cc monobloc unit with a T-head cylinder. There were side valves fitted on both sides of the cylinders with two camshafts in the housing. The engine delivered 10hp at 2000rpm. Enabling the Bébé to reach a maximum speed of 60mph.

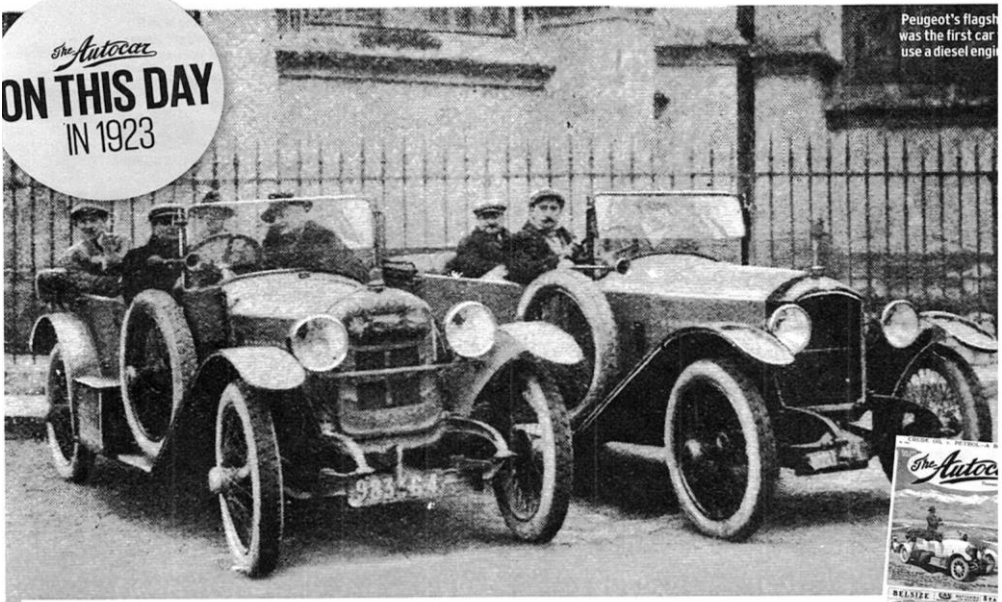
Designed by Ettore Bugatti with a 4-speed gearbox, it was initially manufactured with a 2-speed gearbox - then a 3-speed gearbox followed in 1913. As on the Bébé type 69, it has a cardan drive-shaft transmission. The rear suspension was sprung on inverted semi-cantilever springs. It was quite wide, despite its relatively short length (2.62metres) and could seat two people.

It was a huge success. The advertising slogan says it all: "a penny a kilometre; the Bébé Peugeot costs less to maintain than a horse.'

In 1913, victories in the Coupe Internationale des Cyclecars and the Mont Ventoux Hill Climb contributed enormously to its fame. The car continued to be manufactured until 1916 and 3095 vehicles were produced in the factory.

The Autocar

ON THIS DAY IN 1923



Peugeot creates first diesel car

RUDOLF DIESEL PATENTED an engine that would ignite its fuel-air mix by compression, rather than a spark, in 1892, but it took a quarter of a century for the concept to be developed enough for use in cars.

It was Peugeot that took the leap, and in 1923 it invited Autocar to make a comparative test in Paris.

It provided two Type 156 six-seat tourers, identical except that one had the usual 3.0-litre four-cylinder four-stroke carburetted petrol engine; the other the new 2.2-litre two-cylinder two-stroke direct injection 'heavy oil' engine.

We ran them for a whole day, doing 209 miles in various tests.

We concluded: "While there was very little difference in speed over a normal road, the petrol car was quicker in getting into its stride. On a long, steady rise, however, on top gear with full throttle opening, the [diesel] car could close up.

"In the matter of economy, the advantage is enormous, for while the fuel bill for the [diesel] is only 3s 5d for a distance of a hundred miles, the petrol cost 13s 6d."

France and Germany continued to drive progress, and so Citroën released the first diesel production car in 1935, just before Hanomag, Mercedes-Benz and Peugeot.

KRIS CULMER

UNAPPRECIATED WOMEN

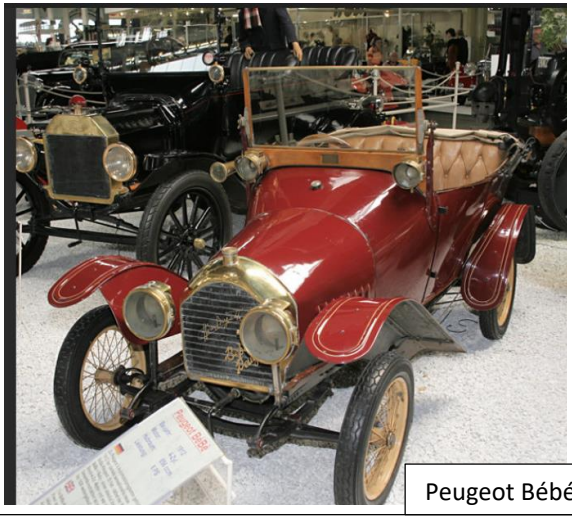
Vera Rubin -1928-2016 - was the American astrophysicist who pioneered work on galaxy rotation rates and confirmed the existence of dark matter in the atmosphere. She worked with astronomer Kent Ford in the '60s and '70s, but did not receive any further recognition than being a 'national treasure.' However, the Vera C. Rubin Observatory in Chile is named in her honour.

Not so SERIOUS QUESTIONS

1. If you ate both pasta and antipasto, would you still be hungry?
2. If you try to fail, and succeed, which have you done?
3. Whose cruel idea was it for the word 'lisp' to have 's' in it?
4. How is it possible to have a civil war?
5. Would a fly without wings be called a walk?

It only took 80 men to build the Royal Gorge Bridge in Colorado in 1929 and they completed it within just seven months.

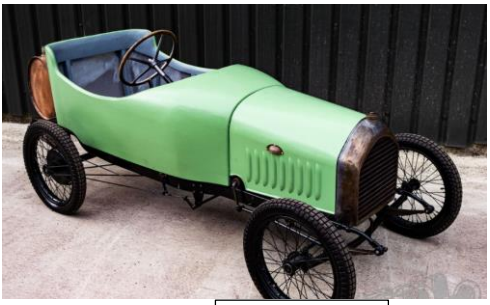
1914 Peugeot Bébé Two-Seat Roadster



Peugeot Bébé Auto

1914 – Type BP1; Chassis # 11290

1913 Bébé



1912 Bébé

NEW PEUGEOT SUV RANGE

SET YOUR SIGHTS ABOVE ORDINARY

3.08% **FINANCE** OVER 36 MTHS* + **0%*** **DEPOSIT**

Powered by bnz

PEUGEOT 2008 SUV
FROM $29,990 +ORC

PEUGEOT 3008 SUV
FROM $39,990 +ORC

PEUGEOT 5008 SUV
FROM $49,990 +ORC

PEUGEOT

*This advertisement is for a credit agreement with BNZ. BNZ lending criteria, terms and conditions and fees apply. Application fee of $330 applies to consumer loans. Fees differ for business purpose loans. Offer only available on the PEUGEOT SUV range, prices include GST. Fixed interest rate of 3.08% p.a. 0% deposit required, maximum term of 36 months. For business purpose loans, the GST component must be repaid within the first three months of the loan term. Loan to be secured by the asset or other current business assets if additional security is required. You will be required to insure the asset. Insurance covers are subject to the terms and conditions and exclusions contained in the relevant policy document and schedule. For further details contact BNZ on 0800 236 777. Each offer not in conjunction with any other special, discount or promotional offer. Available at participating dealers only. Valid until 31st July 2018 or while stocks last. PEUGEOT reserves the right to vary, withdraw or extend this offer.

Armstrong MOTOR GROUP

227 Great South Road, Greenlane | 09 887 1230
Open 7 Days | www.armstrongmotorgroup.com