



Peugeot Car Club (Auckland)

Peugeotex[©]



Volume 36, #9, October 2022



CONTENTS October 2022

- 2 President's Ramble
- 4 Coming events
- 5 Jeanette's Jottings
- 6 Pride of Ownership
- 6 NZFoMC AGM fuel update
- 7 Classic cars do less damage
- 8 50th Rotorua Sulphur City Rally
- 11 2023 Ellerslie Car Show
- 11 Do you know?
- 12 8 of the worst cars ever made
- 13 For Sale
- 14 CATL Batteries
- 14 Answers from p11
- 15 From the history books
- 17 Can you use these?
- 20 Female pioneers
- 20 Joke of the month
- 20 Abandoned transportation

Front cover – Don's 406 coupe at the 2022 Brit & Euro Show
Above – Electric Mercedes C-350-E on fire in Mt Eden

Euroline
FOR
**AUDI, VW
& PEUGEOT**

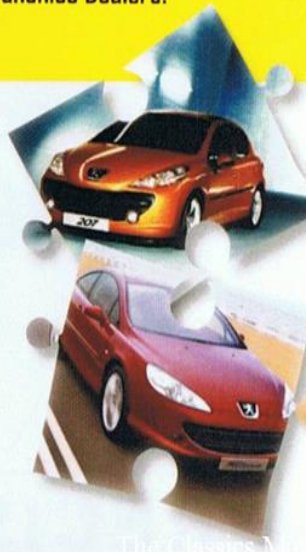
**Parts
Connection**

SPECIALIST AUTO PARTS NETWORK

New and used parts that would be the envy
of Many European Franchise Dealers!

Euroline Autoparts are an established specialist Audi, Peugeot and VW dismantler with a history of stocking parts for both NZ new and imported cars. We are a member of The Parts Connection - New Zealand's leading automotive dismantlers group.

Peugeot Car Club Member Special:
Mention this ad and receive 15% off all Peugeot parts.



60 Firth Street, Drury, South Auckland
Telephone: 09 294 7635 ■ Free Fax: 0800 492 291
E-Mail: info@euroline.co.nz ■ Website: www.euroline.co.nz

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

John Cooney, 021 686 191.
coanna@xtra.co.nz

Secretary

Jeanette Grant, 09 638 8566
jeanette_grant@hotmail.com

Membership Secretary

Soo Land Wong, 09 625 5189
sojewong@gmail.com

Treasurer

Steve Cornwall, 09 402 5006
jensteve@xtra.co.nz

Webmaster

Kevin Hardie, 027 625 0505
kevin@azorah.co.nz

Committee

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

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**

October 30 – Pride of Ownership

**November 11-14 – Far North
Weekend - Cancelled**

November 20 - Navigation Trial; TBC

February 12 – Eilerslie Car Show

March 5 – Brit & Euro Car Show

March 12 – Gymkhana at Cato's Farm

THOUGHT FOR THE MONTH

Einstein said

“Knowledge is limited, whereas imagination
embraces the entire world, stimulating
progress, giving birth to evolution.”



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

Last month I was disappointed for Graeme Neil and his MI16 disaster, a car enthusiast's worse nightmare. Graeme, I think I can speak for many in the club that we felt your loss, but also thank you for sharing your story and photos. I can only imagine you were feeling quite raw as you wrote your article. I am equally pleased for you that it didn't get the house and other assets too.

In other news Jayden Hardie has been accumulating 203s, Graham Pooley passing on the ownership of "Edith" to him, Graham also has one of the most immaculate bodied 404s looking for a new home. Her name is Gwen, apparently needs some brake work, get hold of him if you are in the market for a beauty, a real beauty.

Meanwhile Nathan Yelash got a 505 from Nick Watson and has wrecked it. I have taken a few body panels, but Nathan has some mint doorcards, seats, bumpers, boot and a few other panels available. They will be heading for the tip soon so be in quickly if you need anything.

Whilst picking up the parts Nathan showed me his 404 ute,

the newest 404 in the country and likely the highest mileage Peugeot in the country. Although he can't be 100% certain, Nathan estimates it has travelled 1.5 million miles, that's miles not kilometres. Incredible. It's a 1977 model, first registered in 1982. It was a Campbell Motors work vehicle and used to travel between Thames and Auckland, there and back twice a day in its working years, so clocked up the mileage quickly. It's not on its original motor, the current one apparently been in there for about 200,000km. The original engine is still around, just not in a vehicle at the moment.

On the club front we have the Pride of Ownership on the last Sunday of this month. Come along that afternoon and enjoy a look at each other's models; plenty of trophies in the running.

Further afield we have now got a date in which we will hold our club Gymkhana. This will be held at Cato-Peart Road in Karaka on March 12 next year; put it in your diary now, you know you want to.

Will leave you with that thought,

Brent



Nathan and Brent with
Nathan's 404 ute.



COMING EVENTS

29-30 October	Targa's South Island event in Tasman/Nelson
October 30	Pride of Ownership; Smales Farm, Northcote from 1.45pm
November 20	Possible Navigation Trial; to be confirmed
February 12	Ellerslie Car Show's Concours d'elegance
March 5	Brit & Euro Car Show, Lloyd Ellesmere Park
March 12	Gymkhana at Cato's Farm



MotorWorks

Unit A, 19 Holmes Rd, Manurewa, Auckland 2102

ph 09 914 1590 - 0508 762343

www.euromotorworks.co.nz

sales@euromotorworks.co.nz

Full mechanical repairs on all makes and models.
Specialist repairer of Citroen-Peugeot-Renault.

JEANETTE'S JOTTINGS

Researchers at Berkeley Lab and UC Berkeley have developed and demonstrated printed circuits that can break down into reusable materials, including precious metals, on demand.

Glaciologists studying the seasonal growth and loss of the Greenland Ice Sheet have concluded that even if we stopped burning fossil fuels today, it would shed enough mass to cause global sea levels to rise by almost a foot, at a minimum.

Life expectancy at birth has fallen to 76.1 years in the US – the lowest since 1996. This is one of the lowest among all developed nations and has dropped from 78.8 years in 2019. [NZ is 82.65years.]

Archaeologists have discovered the oldest evidence of a surgical procedure in humans. A Stone Age hunter-gatherer, who lived more than 30,000 years ago, had a carefully amputated leg, making it the earliest known surgery by tens of thousands of years.

The engine which remained essentially unchanged for the longest time on record, was the horizontal twin in the Jowett range which was in production from 1920 to 1954.

WHEEL TORQUE' the FOMC's newsletter is available on their website: <https://fomc.nz/wp-content/uploads/WheelTorqueIssue37.pdf>

Marine plastic pollution is a big problem, as exemplified by the Great Pacific Garbage Patch. According to a study conducted by the Ocean Cleanup project and Wageningen University, most of the plastic in that patch comes from the fishing industry.

Scientists have turned plastic into diamonds. Using high-powered lasers, the team zapped samples of common PET plastic, which produces intense heat and pressure to form tiny diamonds that may naturally rain down on planets like Uranus and Neptune.

Front wheel brakes were introduced in 1923 on a 3 litre Bentley.

Boston startup T-Omega Wind says it's prototyped and tested a unique floating offshore wind turbine that can withstand massive storms, but at 20% the weight and around 30% the price of conventional designs, unlocking the world's best wind resources.

'Nessie' may really have been a plesiosaur as fossilised bones have now been found in a dried-up African riverbed proving they could survive in fresh water.

Researchers from Rutgers University have tracked half a million people for nearly seven years to conduct a close investigation of the metabolic differences between night owls and early birds. They found that those who prefer staying up late had a 10% greater risk of type 2 diabetes and heart disease.

According to scientists from Julius Maximilians University (JMU), there are almost 20 quadrillion ants on Earth right now. That's a 20 followed by 15 zeroes. There are 2,000 times more ants on Earth than there are stars in our galaxy.

**PRIDE OF OWNERSHIP
SMALES FARM**

1,45pm, 30 October

Take the motorway exit at Northcote Road. When travelling south turn left into Northcote Rd, when going north turn right.

Go along Northcote Rd to the first set of lights (approx 400 metres from motorway exit). Turn left at these lights into Smales Farm - then go to the first turn on the left and the cars will be parked in the car park.

**NZFoMC AGM
FUEL UPDATE**

Transport Minister Michael Wood assured the NZFoMC conference that *“the Government is working very carefully to ensure there is an ongoing supply of suitable fuels for all vehicles.”* He also indicated that the options could include the supply of “drop-in fuels” which can be safely used in older vehicles.

The Government’s Biofuels Mandate will come into force in April 2023 and will apply to all liquid fossil transport fuels produced or imported into NZ.

Fuel suppliers will be required to reduce their greenhouse gas emissions by a set % which increases annually. However, they will have flexibility to deploy any type of biofuels anywhere in NZ, as long as they meet the sustainability criteria.

Bioethanol can damage or increase deterioration in the fuel systems and

other mechanical parts of a wide range of vehicles built before 2005, or even as late as 2010. By and large bioethanol is not compatible for use in any engine with a carburettor, and this includes boats, aircraft and garden machinery.

In older vehicles, even a blend as low as 3% ethanol can seriously corrode metal components and rubber parts in fuel systems. The key areas of concern are corrosion of metal components, swelling, shrinking and cracking of elastomers (seals and flexible pipes) and other unsuitable gasket materials and air/fuel ratio enleanment.

Ethanol contains approximately 35% oxygen by weight which causes fuel mixture enleanment and increased hydrocarbon pollution when blended into petrol for use in older vehicles. For example, a 10% ethanol blend results in a mixture-leaning effect equivalent to approximately 2.6%, which may be felt as a power loss, driveability issues (hesitations, flat spots, stalling), but also could contribute to slightly hotter running.

The NZFoMC will keep contact with NZ's current four fuel importers (BP, Gull, Mobil and Z) so they can advise members on which grades of petrol will be on sale, with or without bioethanol, as the mandate comes into effect.

Wood also spoke on the work being done by his officials to streamline the vehicle inspection process in order to implement a 12 month WoF and CoF regime for older collectable vehicles.

CLASSIC CARS DO LESS DAMAGE...

BY Harrison Wade in Autocar

A recent Footman James' Indicator Report conducted in the United Kingdom on the automotive industry suggests that **classic cars cause less damage to the environment than modern equivalents.**

The report found that the average classic car emits 563kg of CO2 per year, yet an average passenger car like a Volkswagen Golf emits 6.8-tonne of CO2 immediately after production.

It is worth noting that the classic car emissions figure is based on 1,950km of travel per year. A new Golf driven the same distance would cough out 286kg of CO2, so best take this 'research' with the usual grain of salt.

As such, the study does mention that although a modern car would be more efficient and use less fuel if used on a daily basis, it reckons the environmental cost of manufacturing a new vehicle immediately negates this.

The report also states that battery-electric vehicles have even more of an impact on the environment than a classic or modern internal combustion engine car.

An example of this is how the all-electric Polestar 2 is said to create 26 tonnes of CO2 during its production alone which a classic car would need 46 years to match. No figures are given for how much CO2 the old

factory producing the classic would have spewed out at its peak however.

Managing Director of Footman James, David Bond explained: *"The Indicator Report is extremely useful in determining how much of an impact our beloved classics have on the environment. It's easy for one to assume that classic cars are more damaging simply because of their older and less efficient engines, however, the data in this report disproves that theory."*

"It's really about how these vehicles are maintained and used; it is clear that while new modern and electric cars might seem better for the planet day-to-day, the problem is how much of an impact their production causes."

"Speaking to our audience, we're glad to discover that a substantial portion is concerned about the effects of climate change, and many would sign up for emissions offsetting schemes. The future of classic cars is in our hands, and we must do everything we can to ensure they stay on the road."

Furthermore, this suggests car scrappage schemes like the one detailed in the New Zealand government's Emissions Reduction Plan are counter-productive.

While the vehicle scrappage scheme seeks to move low-income families into "greener" new or used vehicles, the emissions figures produced in the production of such a vehicle, as stated in the Indicator Report, suggest that it would be more damaging to the environment to do so.

50th ROTORUA SULPHUR CITY RALLY

This year's Rotorua rally was our only long distance event for 2022.

After booking our accommodation at the Rotorua Distinction Hotel in 2020 and cancelling, then booking and cancelling again in 2021 we were finally off to Rotorua, from Paihia in August 2022.

With planning and driver changes, Jen and I are able to make the 460km trip from Paihia to Rotorua easily in 1 day in our Citroen Traction Avant; changing drivers every 2 hours and refuelling twice.

With our changeable winter weather certain precautions are needed with a Post War car that leaks a bit, so all of our bags were in the boot each in a plastic bin liner, there was a towel for the dashboard leak and a chamois leather in lieu of windscreen washers.

The weather was fine down to Tirau and the drive along the new section of the Waikato Expressway was boring but great for fuel economy and had none of the Stop signs or traffic lights of the old route.

After a stop at Tirau for fuel and a driver change I was ready to drive over the Mamaku Range. It was fine and easy driving to the bottom of Fitzgerald Glade but coming out of the eastern end the rain had started. The rain then got heavier and the visibility ahead got worse. It was time to put the headlights on so cars coming towards us could see us on this narrow and twisting road. A catch though; I was driving so slowly that the generator was in "discharge".

The section from the top end of the passing lane to the freezing works, about 7 km, was the most stressful drive I have had in many years. Fortunately, near the freezing works was a safe place to pull over and let about a dozen cars pass; relief and headlights off because the rain had stopped and the rest of the trip down to Rotorua was a piece of cake.

These are the times when modern ABS brakes are so safe, because I always felt that a hard push on the drum brakes in the heavy rain could cause either of the front brakes to "grab" and pull us in to an "incident".

Saturday morning was fine and after a fresh coffee at a Lynmore cafe we were ready for the rally.

It was great to see familiar faces and their cars again and there was much relief when we were told that there wasn't to be "straight line navigation"; just out onto the country roads to the south of Rotorua.

The oldest car was a 91-year-old Austin 7 Chummy driven by a 90 year with a selection of Vintage and Post Vintage American cars; 7 pre War in total. There were 10 Post War Vintage entered; 1960s, 8; 1970s, 14; Modern, 9; total 48 cars. Other interesting cars were a large 1933 Rolls Royce 20/25, a large 1934 Graham Coupe that was restored in 2020, and a young fellow driving a 1959 "bug eye" Austin Healey Sprite. The pair of 1960s Holden Premiers were also very smart.

An interesting feature of this year's event was the dreaded Waikite Valley Road hill, west of Waitapu, which was traversed up-hill in the morning and down-hill after lunch. At the bottom of the hill the altitude is about 380 metres



(1,210 feet) and at the top is about 500 metres (1,640'). The distance is about 800 metres so the average gradient is 15% or 1 in 6.5 which must be one of the steepest main road hills in NZ.

Because our Citroën has a high ratio differential, only 3 forward gears and no synchro on first, we knew that going up the very steep hill would be a challenge. Fortunately, David Tomlinson had used the massive power of his Rolls Royce to get a long way ahead from us and the cars behind us were still trying to find out what year the Waikite Valley School opened, we had the road to ourselves.

I said to Jen that at some stage we would have to stop near the top of the hill to engage 1st gear. We had a good run up and Jen was able to achieve a perfect stop, use the hand brake under the dash, engage 1st gear and off we continued up the hill.

After crossing over State Highway 5 at Waiotapu we continued to the east through the dairy farms of Reporoa

towards the large Kaingaroa Radiata pine forests. The public road along the edge of the forest is the famous Goudies Road, location of many New Zealand land speed records.

Goudies Road is a combination of public and private roads, both sealed and gravel. The total straight length is 11.5 Km, (7 miles) of which about 6 km (3.5 miles) is open to the public and is two lane tar seal. Goudies Road actually runs from State Highway 38, near Murupara to State Highway 5, east of Taupo and was a short cut between the Whakatane area all the way through to south of Taupo until locked forestry gates were installed at either end of the gravel section.

The land speed record for cars is 348 kph, (216 mph) and was made in 1996 by a highly modified Porsche 911. The motorcycle speed record is 364 kph, (228 mph) and was set earlier this year on a modified Kawasaki H2R motorcycle.

Back in 1972 Goudies Road was all gravel and the continuing "High Level

Road" were part of the 1972 Heatway International Car Rally; a stage of about 45 km that was basically a straight line on gravel. Although the final Heatway Winner was Andrew Cowan in a Mini 1275GT, aka Mini Cooper S, with a top speed of about 85 mph, the fastest car on the Goudies Road stage was Jean-Louis Leyraud from New Caledonia in a large Citroen DS23 with a top speed on gravel of about 125 mph or 200 kph; he apparently passed about a dozen cars!

Anyway we travelled along Goudies Road at a moderate 95 kph on our way to the excellent lunch at the Mihi School, followed by a short gymkhana event.

I need to improve my "throwing balls into buckets" skills because my poor performance in this "highly skilled" task most likely cost us the better place in the final results. We were 3rd in our class.

In the afternoon, as navigator I had to warn Jen that down the Waikite Valley hill would also be a challenge. Our

Citroen only has single leading-shoe front drum brakes so braking is also an art. Just over the brow of the hill I suggested to Jen that she change down to 2nd gear while the going was good - and we made it safely down the long steep hill without any fuss.

After a shorter run back to Rotorua and afternoon tea we had a change of drivers and wonderful trip back to Cambridge in the afternoon sunshine. Two nights with family in Cambridge and we were in for an easy run back home to Paihia.

Our total trip was 1,100 km (685 miles) and our average fuel consumption was over 28 miles per gallon although the average fuel consumption on the Saturday rally was only 24 mph; too many intersections, sharp corners and steep hills; too much 2nd gear, unavoidable, but very enjoyable.

A great rally once again.

Jen and Steve Cornwall, Paihia.



ELLERSLIE CAR SHOW

FEBRUARY 12, 2023

"NZ's Premier Classic Car Show since 1972"

The second Sunday in February has become a highlight in every New Zealand car lover's calendar. Thousands of car enthusiasts visit Ellerslie Racecourse to enjoy this country's biggest line up of classics – many of them regarded among the world's best restorations.

The Intermarque Concours d'Elegance is central to the show. It celebrates classic cars with competitions of an international standard based on presentation, cleanliness, condition, originality and excellence. The coveted awards include the Intermarque Team Shield for club teams of two, Masters Class for individual entries and Best "Survivor".

Aside from the Concours cars and a number of exciting new events, about 80 car clubs will create the biggest display of car marques from all around the globe. These displays compete for the title of "Best Club Display".

Back for next year (the COVID postponed 2022 show) are attractions introduced last show:

- the 50-50-50 competition for younger cars and younger entrants.
- a display of classic hot rods
- Unfinished projects - a display of unrestored cars, barn finds, partial builds & other bits & pieces

New for next show will be:

- A display of Concours Standard Modified vehicles
- A display of rally cars
- A special display of Jaguars - celebrating 100 years of production.

Displayed vehicles range from the early 1900s, through to the latest modern exotics. Vehicles range from micros to high performance supercars. The event is renowned for the diversity of cars on show – from British, European and American marques through to Japanese, Australian and even sometimes New Zealand made cars.

Tickets are \$20 on the day but check out the iticket at <http://www.iticket.co.nz/events/2022/feb/ell-slie-car-show> for early bird tickets.

Watch the judging from 10am and then the prize giving at approximately 2.30pm.

Food and drink is available or bring a picnic. The event is held rain or shine but sorry no dogs are allowed at Ellerslie Racecourse.

As previously, there are also the Tours d'Elegance road tours for classic cars to participate in a delightful drive around local areas with fellow classic car enthusiasts on Saturday the 11th February, the day before the show. See Tours info and online entry for details of the timings and routes for 2023.

DO YOU KNOW?

These days we live in a world of abbreviations and acronyms. Do we always know what they actually stand for? Here are just 40 currently used in the automotive world.

The answers are on another page.

ABS, AC, A/C, ADAS, AMT, AWD, CNG, DSC, EAT, EFT, ESC, EGR, EV, FWD, GVW, HAD, HC, HEV, HFC, HP, HSDI, ICE, LDT, LED, LEV, LPG, LSD, LVW, PB, PC, PHEV, RPM, PS, RWD, SULEV, SUV, TBI, TCS, TRR, ZEV.

8 of the WORST CARS EVER MADE

No One Liked The **Pontiac Aztek**

As soon as the Pontiac Aztek was announced, it was universally hated by car lovers. Critics claimed the design of the car itself made no sense, especially its oddly-shaped front end. It didn't help that the body was made of plastic instead of something safer. People just weren't willing to pay for unimpressive performance and underwhelming design.

The **Mustang II** Was A Major Mistake

Ford bought into the idea of Pinto like no one could have expected. The Mustang II was based on the same idea as the Pinto. It was designed as a coupe that was supposed to drive like a roadster but like the Pinto, the Mustang II suffered from several fatal flaws, including a generally underwhelming performance.

The **Lincoln Blackwood** Vanished In Less Than One Year

Raise your hand if you remember the Lincoln Blackwood. Released in 2002, the crossover project between Lincoln and Ford was a strange attempt to create a luxury pick-up truck. It was so strange that consumers rejected it entirely, and Lincoln and Ford pulled the plug in less than one year.

The **Lamborghini LM002** Made Zero Sense

Lamborghini's first mistake in designing and releasing the LM002 was thinking their consumer base wanted to take their car off-roading. Lamborghini stuck by their beliefs, producing 382 of these off road super luxury vehicles between 1986 and 1993. It became known as the Lamborghini truck.

The **1975 AMC Pacer** Was Great For Professional Drivers

The 1975 AMC Pacer did not help reverse the poor fortunes of the American Motor Company. Released at the height of the '70s compact car craze, the Pacer was the king of the hill when it came to size and fuel economy but critics were quick to point out the Pacer's poor performance and difficult handling.

The **Maserati Biturbo** Ruined The Brand's Reputation

In the early '80s, Maserati was under new ownership who wanted to release a "more affordable" sports car under the brand name. The result was the Biturbo, a car which many blame for Maserati leaving the American market in 1991. Maserati kept making Biturbos overseas until 1997. In 2002, the brand finally returned to the United States. The Maserati Spyder, priced at \$89,000, helped the company return to prominence.

The **Cadillac Fleetwood** Was The King Of Awkward

The Cadillac Fleetwood that we're referring to was manufactured from 1976 until 1996 and never found stable footing in the market. Even though it lasted for 20 years, the car had a bad reputation for stalling, jerking, and making awkward noises. In 1996, the final year of the production, only 15,109 units were produced by Cadillac, less than half of the 1993 production number.

The **Ferrari Mondial 8** Was Never Meant For Greatness

The Ferrari Mondial 8 was produced for two years starting in 1980. In that time there was a rumour that every single model's system failed. That's how bad this car's reputation was. It was replaced in 1983 by the Mondial QV. 'Time Magazine' listed it as the eighth worst car of all-time.

RECOMMENDATION

Peter Hagglund reports that when he rang Apex, he was encountered a very friendly response and some good advice.

FOR SALE

[1] 2004 307SW - \$2200 ono

It has done 250,000kms but still runs well. It is a petrol automatic and its condition is average for its age. It has a towbar and roofrack and all the seats come out so it can be used as a van

Jay Hardie 0223593749
jayden@localeyes.co.nz



[I also have a 2002 307 2.0 EW10J4 engine and AL4 auto gearbox for sale if anyone's looking for one.]

[2] 2007 206GTi 180 - \$7500.

It is a repaired and fully compliant insurance write-off (2018) complete with Marcus Gronholm WRC livery. It has a new VTNZ WoF and the Rego is on hold. It has done 100,000km with regular oil changes and has the standard GTi180 interior, near new tyres, two spare wheels, and a Quaife limited slip differential. It is great fun to drive...

Richard Ball - ph 021 178 1742 or
rej.ball@gmail.com



[3] 1991 405Mi16 – Offers needed

It is a 1991 series 1 with the 1905cc alloy block motor and a Quaife LSD. Before the fire it did start readily and drive well. Sorry, but I'm probably keeping the wheels for my new 306 cabrio.

Graeme Neal -
graneal@hotmail.com



CATL BATTERIES

Geely's electric brand Zeekr has teamed up with Chinese battery giant CATL on an ultra-long-range version of its Zeekr 001 shooting brake, resulting in a production electric car capable of doing more than 1,000 km (621 miles) on a single charge.

The collaboration will be the first to use mass-produced versions of CATL's liquid-cooled, highly-integrated Qilin batteries, which offer a specific energy of 255 Wh/kg, as well as a "record-breaking volume utilization efficiency" of 72%. CATL claims the Qilin battery pack can deliver some 13% more power than Tesla's new 4680 batteries, given the same chemistry and pack size.

The company doesn't specify the capacity of the pack in terms of kilowatt-hours, but touts an impressive 10-minute fast charge from 10-80%, provided high-power charge stations are available, as well as the capability to warm itself up for a hot start within 5 minutes in cold temperatures.

A 1,000-km-plus range and a 10-minute fast charge time are pretty much about all most folks could wish for from an EV battery. Even cannonball racers need to stop for a pee every few hours. According to Zeekr, the 001 Qilin Edition will debut in Q2 2023, so there's still a chance somebody else could make the first thousand-kilometre production electric. But either way, it's an impressive thing to start seeing on spec lists.

ANSWERS from page 11

ABS: Anti-lock braking system
AC: Alternating Current
A/C: Air conditioning
ADAS: Advanced Driving Autonomous Systems
AMT: Automated manual transmission
AWD: All Wheel Drive
CNG: Compressed natural gas
DSC: Dynamic stability control
EAT: Electronically assisted turbocharging
EFI: Electronic Fuel Injection
ESC: Electronic stability control
EGR: Exhaust gas recirculation
EV: Electric vehicle
FWD: Front-wheel drive
GVW: Gross vehicle weight
HAD: Highly Autonomous Driving
HC: Hydrocarbons
HEV: Hybrid-electric vehicle
HFC: Hydrofluorocarbon
hp: Horsepower
HSDI: High-speed (diesel) direct injection
ICE: Internal combustion engine
LDT: Light-duty truck
LED: Light Emitting Diode
LEV: Low-emission vehicle
LPG: Liquefied petroleum gas
LSD: Limited slip differential
LVW: Loaded vehicle weight
PB: Power brakes
PC: passenger car
PHEV: Plug-in hybrid diesel vehicle
RPM: Revolutions Per Minute
PS: Power steering
RWD: Rear Wheel Drive
SULEV: Super ultra-low emission vehicle
SUV: Sport utility vehicle
TBI: Throttle body injection
TCS: Traction control system
TRR: Tire rolling resistance
ZEV: Zero-emission vehicle

FROM THE HISTORY BOOKS

...The first proper motor race, contested in 1895, was the Paris-Bordeaux-Paris race, but the Paris-Madrid race of 1903 which was stopped at Bordeaux by order of an irate government due to the many accidents which happened, caused future contests to be held over properly policed closed roads. These were still public roads fenced off and guarded for the purpose, usually triangular circuits of considerable length. This continued to be the norm up to and even after WW1. The result was that cars were raced, and thus demonstrated, under normal road-going conditions, having to contend with hills, conventional corners, cambered road surfaces, dust and the other natural hazards of the kind encountered by travellers. As early as 1898 it had become logical to institute classes for the various-sized vehicles that were avidly entered for such exciting contests of speed and endurance, and eventually to impose certain restrictions on the engineering factors of the motor cars that were being specially constructed for racing purposes.

Racing for the Grand Prix was abandoned for political reasons between 1909 and 1911 when long-distance events were boycotted out of jealousy by the major French and German manufacturers. When it was revived in 1912 at Dieppe, Ernest

Henry had brought about a revolution in racing engine layout with his Peugeot Grand Prix cars. These had the epoch making feature of overhead valves inclined in the cylinder heads and operated by two overhead camshafts, a formula followed ever after for the majority of top racing power units.

By having a camshaft above each line of valves, the lightest possible operating gear could be applied to them, killing valve float. the use of inclined valves meant that the hemispherical combustion chamber of maximum efficiency could be used.

The then existent problems of the noise of driving two camshafts situated so far from the engine crankshaft and the manufacturing expense of the whole set-up were not problems that governed the design of a racing engine. The Peugeot not only won the 1913 French Grand Prix with this new remarkably efficient engine of 7602cc (from a Fiat possessed of a vast engine of 14.1 litres) but in voiturette racing a 3-litre Peugeot to the refreshing new Henry formula was remarkably successful.

The twin-cam Peugeot racing engines were the product of this brilliant Swiss engineer Henry and the Peugeot racing drivers Goux and Georges Boillot. They used a still excessive piston stroke for their 7.2 litre GP cars of 200mm, in conjunction with a 100mm cylinder bore, so that with these new high-speed engines running at a maximum of 2200rpm and producing some 130bhp. the

piston speed was as high as 2900 feet per minute. But it all held together to give a race average speed of nearly 68.5 mph for this gruelling two-day 956-mile race of 1912.

This Peugeot advance set the fashion for the future but was not immediately taken up universally. While shaft instead of chain final drive was now the vogue and detachable wheels with centre-lock hubs had facilitated tyre-changing, there were those who went cautiously towards twin overhead camshafts. Certainly, for the 1913 French Grand Prix at the Dieppe circuit, run again on a fuel consumption basis, the 5.6-litre Peugeots ruled supreme. But in the dramatic 1914 race over the Lyons course, the single-overhead camshaft 4.5 litre Mercedes racing cars dominated the scene...The Mercedes team had rear-wheel brakes of expanding shoes within rear-axle drums cooled by air fins, supplemented by a brake on the transmission, as were commonplace from around 1904. They won against cars with the latest front-wheel brakes as used by Peugeot and Delage. That the Peugeot was able to out-brake the Mercedes in this event is indisputable but this ability was no match for team tactics as employed very professionally by the Mercedes organisation...

At this formative period of racing-car development, ball and roller crankshaft bearings were accepted as a way round lubrication problems that had been far from solved at this date,

and castor-base lubricants instead of mineral oils were the norm.

Valve-gear was semi-exposed in many cases but engine speeds had been creeping up. From driving on the ignition and governor controls, the racing driver for some years prior to the war had had to make full and proper use of his gearbox with, of course, no aids of the synchro-mesh kind. Indeed he had to be able to change gear without the clutch if need be, and the practice of heeling and toeing was rife, whereby the accelerator was pressed to speed up the engine revs to accommodate the gearbox, at the same time as the footbrake was being applied to slow the car for a corner, round which it would be driven in the lower gears. This need to change difficult gears constantly while braking with indifferent brakes, using an outside handbrake as well as prodding the brake pedal while changing gear, together with wrestling with insensitive steering and a cord-bound steering wheel that would kick and cut the hands, made driving these pre-1914 racing cars in the long engagements that were normal to them, a very tiring and tough proposition suitable only for the very fit. But their worst feature in this respect was the hard springing, from leaf springs that scarcely "gave", and which were further stiffened in later years by various forms of damper.

However these pre-war racing cars were in general very fast, not too unreliable and generally pleasant vehicles...

CAN YOU USE THESE?

The club was given the following workshop manuals and toolkits some years ago but no-one has ever wanted to borrow them. The committee thinks that they should be offered to any members who own the relevant models and can make use of them, and any left over could be offered to Euromotorworks.

WORKSHOP MANUALS

204/304	Workshop Manual vol 1 (August 1980)	
	Workshop Manual vol 2	
504	Workshop Manual #184	saloon, convertible coupe
from 1968	(not a Peugeot production)	
	Workshop Manual vol 1	
	Workshop Manual vol 2	
604	Workshop Manual vol 2 (sections 4-15 only)	
	Airconditioning 604	
405	Technical information 405 – Bodywork vols 1 & 2	
	Technical information 405 - Controls	
	Technical information 405 – Electricity vols 1 & 2	
	Technical information 405 - Mechanical vols 1 & 2	
505	Workshop Manual 505 vol 1 - 1985 sections 1-5	
	Workshop Manual 505 vol 2 – 1985 sections 6-15	
	Workshop Manual 505 vol 1 - 1986 sections 1-9	
	Workshop Manual 505 Supplement 1986	
	Workshop Manual 505 - Heating & ventilation	
	Guide to mechanical documentation 505	
	Workshop memorandum vols 1 & 2 – electrical wiring diagrams	
406	Technical documentation 406 – bodywork & body equipment	
	Technical documentation 406 – checks, repairs & adjustments	
	Technical documentation 406 - electrical	
	Technical documentation 406 – information vols 1 & 2	
	Technical documentation 406 – mechanical vols 1 & 2	
	GENERALITIES vols 1 & 2	
	Electrical wiring diagrams vol2 1 & 2;	205, 305, 505
	Wiring diagrams 1990-1991	205 & 309
	Wiring diagrams 1985-1989	205, 305, 405, 505 & 604
	Wiring diagrams 1990-1993	205, 309, 405, 505, J5

TOOL KITS - some incomplete.

- 6.1334-ZZ black plastic box – for 306 Cabriolet [for hood??]
- 7.0336 yellow plastic box – diagnostic gear for 406
- 7.0903 – ZX on Box; 8.0903 –ZX on inside card. A blue plastic box.
“for front & rear suspension”
- 8.0144 punches of some kind no card; no details
- 8.0310BA7 Gearbox tool set; for BA7 - BA 10 - BA 10/5
- 8.0314card says 8.0314-ZY
supplementary chest for BA10 and BA 10/5 gearboxes
for 504C - 505 - 604
- 8.0521card inside says for 8.0521-ZX and 8.0521-ZY
Tools for the rear hubs ; 504 - 505 - 604 all types
- 8.0703Steering tool set in a tiny box. Card says 8.0703-ZZ.
For 404 - 504 - 505 - 604
- 8.0906 card says 8.0908-ZX front & rear suspension plus elastic
bushes 104 - 205 - 305
- 883 2123 -
8.0907 card says 8.0907-ZZ ; small box; never used; for front
and rear elastic bushings 504 –505 - 604

Federation of Motoring Clubs

We have been asked to inform all members that

“The Draft minutes of the 27th NZ Federation of Motoring Clubs Inc (FoMC) AGM, held at the North Shore Vintage and Classic Car Club on Sunday 24 July 2022 are now available on the FoMC Website.”

Brit & Euro Classic Car Show

If you are interested in displaying a car, contact Don Howarth – 883 2123 – as he is entering and says they do not need to be immaculate. The idea is to display as many variants as possible.

Auto France Ltd



Peugeot Specialists

WOF

**Service and repair
Restoration**



David Jones

Phone: 092784301 / 0210557117

Email: sales@autofrance.co.nz

Clarks Beach, Auckland

Apex Auto Centre

Specialise in the Manufacture of Rubber & Braided Hoses

Oil
Fuel
Brake
Braided
Powersteering
Air conditioning
Brake and fuel pipes and fittings

**Our aim is to have your parts repaired with the
Quickest turn-around times possible**

Apex Auto Centre - 66 Killarney Rd - Hamilton 3204

ph 0800 10 27 39 or 07 8477179

Email - parts@apexautocentre.co.nz

FEMALE PIONEERS

Laura Jane Addams (6.9.1860–21.5.1935)

Recognized as the founder of the social work profession in the United States, she was an American settlement activist, reformer, social worker, sociologist, public administrator and author. In 1905 she was appointed to Chicago's Board of Education and subsequently made chairman of the School Management Committee. In 1908 she participated in the founding of the Chicago School of Civics and Philanthropy and in the next year became the first woman president of the National Conference of Charities and Corrections.

In 1931 Jane Addams became the first American woman to be awarded the Nobel Peace Prize.

JOKE OF THE MONTH

Have you ever wondered why there's a fence around the cemetery?

It's because people are dying to get in!



Abandoned transportation - Rusting in a shed in Newcastle, Australia

iOWN
INTELLIGENT OWNERSHIP

from \$165/week*



CLEAN CAR
STANDARD
REBATE



NEW e-208

FOR THOSE AHEAD OF THEIR TIME

Full Electric - 340km range - Rapid charge 80% in 30 min**

0 GRAMS OF CO₂, 340KM RANGE (WLTP)**

*Based on a Peugeot e-208, RRP of \$53,990. Offer of \$165/week over a 4 year term, and a one-off payment of \$8,789.55 (Standard payment + Govt. Subsidy) in week 8. With no deposit required and a final balloon payment (the Guaranteed Future Value) of \$26,995.50. Total mileage of no more than 30,000kms over the term applies. A fixed interest rate of 5.95% p.a. applies. The total loan amount is \$69,682.35. Lending criteria, T&Cs and fees (including a \$262 establishment fee and a \$7.39 PPSR fee) apply. iOWN is provided by Heartland Bank Limited. At the end of the term you can choose to keep the car, by paying the Guaranteed Future Value, trade it, or return it (subject to T&Cs and excess charges). Offer excludes ORC. Limited stock is available for pre-order at participating dealers arriving in Spring 2021. Not available in conjunction with any other offer. Subject to government subsidy (zero emission) of \$8,625 including GST applies and is necessary for week 8 one-off payment, available to one new registration between 1 July to 31 December 2021. **WLTP cycle, 2019 standard, corresponding to 340 km WLTP. Rapid Charge at public ev 100kW charging station.

SOUTHERN AUTOS

1 Bakerfield, Manukau Phone 09-884 3020

Find us online SouthernAutos.co.nz



facebook.com/southernautosaukland

NEW PEUGEOT SUV RANGE

SET YOUR SIGHTS ABOVE ORDINARY

3.08% + 0%*

FINANCE OVER 36 MTHS

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