

FIATMonth

The official publication of the Fiat Car Club of Victoria Inc.

www.fiatclub.org.au

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SEP 2022

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Club Meetings are held at 8pm on the second Thursday of each

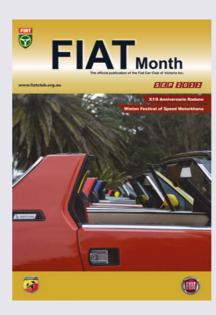
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Front cover: X1/9's Raduno Seahorse Inn Boydtown, NSW **Photo- Peter Bartold**

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2022-2023

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CAMS Delegate

Paul Freame

Supper Organiser

Paul Pozzobon

AOMC Delegate

Peter Kerr

Property Officer

David Judd

Library

Bruce McCann

^Where no email has been indicated, the committee member can be emailed via secretary@fiatclub.org.au

LIFE MEMBERS



Perc Delmenico* David Plummer* Graeme Shephard*

Richard Carlson Barry Ellis* Noel Tyzack

Peter Bartold

Lvn Bartold William Freame Colin Templer

Phillip Buggee

Jon Carroll Robert Judd Debra Judd

Janet Fry Shirley Clark Stephen Mayer*

Richard Unkles Ian Payne David Hughes

Alana Freame Harry Baker* David Judd

Sebastian Bongiorno Joseph Sammut

*deceased

Life Member and Patron — Peter Bartold

SERVICE AWARD MEMBERS

Mark Rae

Tony Romeo

Joe Sammut

Keith Ellis

Sandro Cesario Jonathan Crellin **Bob Durrant** Frank Fazio

Paul Freame Stuart Granger Bruce McCann Danny Petterlin

Gary Spencer Shayne Williams



For those of us who are X1/9 fans, this is a special year as it is the 50th Anniversary of its release in Italy. We had intended to go to Torino to be part of the weekend of celebrations but the uncertainties of Covid made us decide not to go. More than 90 X's turned up for a display at Volandia Museum where the Bertone Historical Collection is kept, coming for all over Europe and the UK. There were also fans from the US...... who were there without their cars but joined into the celebrations that were organised by Club X1/9 Italia. The Stellanis Heritage hub hosted one of the events and the Museum of Nazionale dell'Automobile hosted an exhibition dedicated to the X1/9.

There were also special quests connected to the history of X1/9



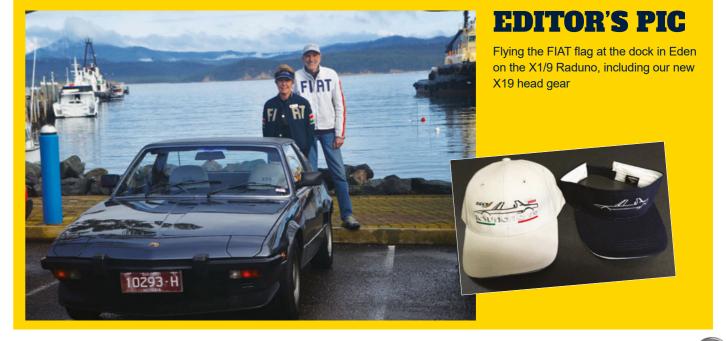
and Bertone - Gian Beppe Panicco our display of X's at our July Caffe (Director of Communications at Bertone for over 30 years), Michael Robinson (world class designer and design director of Bertone) and Marie-Jeanne Bertone (daughter of Nuccio, founder and president of the Bertone Foundation) In all there were 315 people and 200 cars (which included X1/9 and service

This information was provided by Daniele Accornero on the Club X1/9 Italia Facebook page and club president, Gandolfo Madonia, whom we met a few years ago when we were in Torino and who is in communication with us.

Allora.... did we make the wrong decision and should have gone to Torino despite our concerns - you betya!! But our club has made a huge effort to celebrate from afar with our X1/9 Raduno to Eden and

d sabato at the Veneto Club (on the same weekend as the celebrations in Torino). You can read about these events in this magazine and we still have a few more ways in which we show our love for the X1/9 coming up in the next few months.

As life returns to something approaching normal, we have been able to organise events that get us out in our cars, which you will read about in the FIATMonth. We also have quite a calendar of coming events where you can get out your Fiats along with fellow Fiatisti, so check the Coming Events pages in this magazine and look at our Facebook page.







Rapporto del presidente



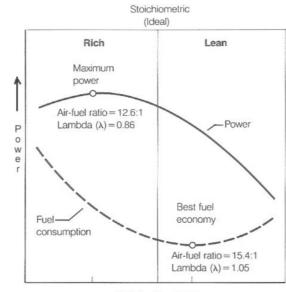
are moments when you realise the value of being part of a club. When I decided fairly late to attend the X1/9 50th Anniversary trip there was one glaring issue. I don't own an X1/9. Thankfully Frank Caia offered me his to drive for the weekend and with the encouraging words "I wouldn't drive it to Eden!' I was away. Peter and Lvn Bartold offered me the extra room in their cabin so I even had somewhere to sleep. Frank's fears were

all ill-founded and his car performed flawlessly for the whole weekend apart from the radio ceasing to function a few minutes from the start. When I got a chance to report back on my progress and mentioned this I was reminded that I had said I don't often listen to the radio.

The 11 hour trip to Eden (yes, I was shocked when I added up all the meal breaks) meant I spent a lot of time with my own thoughts. Anyone who knows me reasonably well will probably recognise the danger in that however I have decided to use this column to share some of my musings. They all lead to questions based on automotive phenomena that remain unanswered despite the long periods spent alone in a confined space trying to ignore my "9er knee". For those who have not driven an X1/9 any distance there is not a lot of spare left knee room and I bruised mine against the centre console repeatedly so I coined my own name for the condition. Stoichiometric efficiency is a term used to define the ratio of fuel/ air consumption. My dim memories of trade school had me thinking about weights of air relative to fuel and the ideal being 14.7:1 so approximately (very approximately) 100,000 litres of air for every litre of fuel. This was all going swimmingly until I calculated the air consumption of an X1/9 at 4,000 rpm (again my rough approximation of the 100km speed) and came up with 180,000 litres of air per hour indicating fuel use of 2 litres at decent efficiency. This did not reflect my experience.







Air-fuel ratio = 14.7:1 Lambda (λ) = 1 Please address all comments, complaints or suggestions to the Editor marked 'Why Roger is wrong'. Maybe I shall keep my powder dry on my ignition thoughts to annoy the more technically minded next magazine but if you want to start thinking about how many microfarads are required for an efficient condenser and how far can a rotor button advance before the spark goes the wrong way please do so!

Until next time I remain confused.

Of course, a response is required from the Editor!! There is nothing more comfortable than an X, either as a driver or a passenger and so much fun to be in. You always get a smile or a wave from people you pass and the inevitable question – what sort of car is that? After spending a couple of thousand kms over 4 days in our X on Targa Florio I still can't be convinced by Roger's theories!! Editor

Vale Kristine Shephard

Kristine Shephard, daughter of Life Member number 3, Graeme Shepard and wife Val, passed away in May. Kristine spent a lot of time with her brother Greg, at FCCV events as a youngster and I am sure that there are a number of members who will remember her We first met her when we joined the club in 1970 and often visited the Shephard home in Forest Hills. At the time Graeme and Val had a 124 AC so Kristine and Greg would pile into the back seat to attend the many family-friendly club social events that were held.

Just as Graeme was a talented cartoonist, Kristine was a talented artist and she spent the last years of her life in Bendigo, developing her talent with her sketches and sculptures.

We did see Kristine on some occasions, with Val, and I remember them both attending the last Autobella that we held at Como, to present the Graeme Shephard Memorial Trophy for Bella Concorso

We send our condolences and love to Val and I am sure those who remember Kristine will be saddened at her passing.

Lyn Bartold







SEPTEMBER – NOVEMBER 2022

We are offering a more comprehensive calendar of events for 2022.

However, all events are still subject to venue specific restrictions. Members are strongly advised to read **Fiat Pronto** emails as they often contain new events not listed in **FIAT Month** and changes to advertised event.

SEPTEMBER

Sat 3 Caffe di sabato. Veneto Club 9am

Mario Di Censo 0419 171 661 or Paul Pozzobon 0418 552 290

Thurs 8 General Meeting. Veneto Club 8.00 pm

Sun 11 Harry's Run honouring Harry Baker. Run and lunch

Contact Richard Unkles 0411 185 779

Sat 17 FIAT vs Alfa Bocce Night. Veneto Club 6pm

Contact Paul Pozzobon 0418 552 290

Sun 25 Run to The Kitchen Winery. Limited to 50 participants

Contact Sandro Cesario 0402 277 701

OCTOBER

Sat 1 Caffe di sabato. Veneto Club 9am

Contact Mario Di Censo 0419 171 661 or Paul Pozzobon 0418 552 290

Sat 1 – Sun 2 AROCA 12 Hour. See Competition page.

Sun 2 Run to AROCA 12 Hour at Winton

Contact Joseph Sammut 0412 221 581 or Sandro Cesario 0420 277 701

Fri 7 – Sun 9 Motorclassica at Exhibition Buildings

Sat 8 or Sun 9 Possible FCCV Display at Motorclassica. **TBC** See future **FIAT Pronto**

Thurs 13 General Meeting. Veneto Club 8.00 pm

Sat 15 – Sat 22 RACV Alpine Trial Centenary for pre 1930s vehicles. Gippsland

and Victorian High Country. Departs RACV Noble Park

Contact Richard Unkles 0411 185 779

Sun 16 Bay to Birdwood South Australia

Contact Roger Beattie 0400 708 284

Sat 22 Dinner Dance at Veneto Club. TBC

Contact Mario Di Censo 0419 171 661 or Paul Pozzobon 0418 552 290

NOVEMBER

Sat 5 Caffe di sabato. Veneto Club 9am

Mario Di Censo 0419 171 661 or Paul Pozzobon 0418 552 290

Sun 6 X1/9 Display at Historic Sandown

Contact Sandro Cesario 0420 277 701

Thurs 10 General Meeting. Veneto Club 8.00 pm

Thurs 10 – Sun 13 FIAT 123 (123rd Anniversary of FIAT) Events around the Bendigo area

Contact Roger Beattie 0400 708 284

Sun 20 Hobson's Bay Men's Shed Car Show

Contact Joseph Sammut 0412 221 581

Fri 25 – Sun 27 2022 Geelong Revival Motoring Show

FIAT month — September 2022

Sat 26 Run to Geelong Revival and FCCV Display

Contact Joseph Sammut 0412 211 581

General Meetings



Club Meetings are held at 8pm on the second Thursday of each month. Dinner in Bistro at 6.30pm

> The Veneto Club 191 Bulleen Rd, Bulleen VIC 3105

Future General Meetings 2022 Thursday 8th September, Thursday 13th October, Thursday 10th November

Note: These meetings will be held at the Veneto Club, Gondola Room unless there are changes to the COVID rules.

Notification of changes will be via Fiat Pronto, our Facebook site and on the club website fiatclub.org.au

> Find us on www.fiatclub.org.au Facebook Fiat Car Clu<u>b</u> of Vic<u>toria</u>

Contributions to FIATmonth
are always welcome
Contact Editor
editor@fiatclub.org.au
If you are sending photos please
send at high resolution and as
seperate files to the article

Fiat Car Club of Victoria Is affiliated with Motorsport Australia MSCA

Compiled by Roger Langdon

Membership News

Robert Judd, Membership and Club Permit Secretary

NEW MEMBER UPDATE

We have had 11 new members since the last magazine.

WE WELCOME THE FOLLOWING NEW MEMBERS LAT CAR

Daniel Romeo: son of Toni & Tony getting into motorsport in the Abarth 595

Peter Hayton: Fiat 124 Spider

David, Helen, Ben & Josh Apsey: Fiat 124BC

Timothy & Philip Lack: Fiat 124CC

Julian Maccora: No car info

Pasquale Maugeri: Fiat 132 GLS

Trevor Haines: return of a member from many years ago, with a 124 Spider

We look forward to seeing you all and your cars at future events.

MEMBERSHIP & CLUB PERMIT UPDATE

Don't forget to maintain your membership to keep the Club Permit valid. Club membership expires at June 30th each year. We still have many (at time of writing) that have not renewed membership.

CLUB PERMITS

You would be aware that the Registration and Licensing section of VicRoads is being transferred into corporate 3rd party hands with assurances that costs will not go up and the processes will improve. At the time of writing (early August) there has been no advice regarding any changes to the permit scheme.

ELECTRONIC PERMIT RENEWAL

The process for **renewing** permits completely electronically (also using your 'myVicRoads' account) is continuing to work well. We have now processed more than 60 renewals by this service and it has been very successful.

To use this process please send a scanned copy (or good readable photo) of your renewal form to our dedicated email address permitrenewals@fiatclub.org.au

Robert Judd: Membership and Club Permit Secretary

CLUB PERMIT SIGNATORIES

Name	Location	Phone
Peter Bartold	Wonga Park	0414 867 280
Phil Buggee	Dandenong	03 9794 6692
Mario di Censo	Heidelberg/Balwyn	0419 171 661
Bill Freame	Glen Waverley	0412 814 855
Frank Marinelli	Brunswick	0411 511 679



Competition Report

Marisa Gangemi

Hi for those of you who don't know me I am Marisa Gangemi your new FCCV Competition Secretary and I am honored to be taking on this role, and thank you to the people who put my name up for nomination, it was quite a surprise. I began racing with our club back in 2018, after Paul and Bill Freame both kept encouraging me many times to participate in a motorkhana. I took the plunge and did my first come and try event which I believe was the practice motorkhana at METEC, for Fiat Nationals that year. I then went on to Fiat Nationals 2018 at Shepperton and competed in the motorkhana. I was then later encouraged to give Khanacross a try and I loved it. In 2019 I decided it was time to go faster and entered my first Sprint at Fiat Nationals at The Bend and the rest is history. I have been competing in the Victorian Motorkhana and Khanancross championships. Group 5 Motorkhana, AROCA and MSCA Sprints and the occasional Hill Climb. I mostly compete in my Abarth 500 and sometimes take out my Alfa 33 for some dirt events in the warmer months.

I am still learning the ropes of this new role so bear with me as I am trying to do the best I can to keep you all up to date with upcoming events and I have just completed my officials training. I am hoping I can bring something new to the club and my goal is to improve our club's participation numbers in events overall but most importantly encourage new female and junior participants to represent our club. In saying that we have a new club points system in place which we are currently implementing with attendance sheets at each event. For the motorsport category I am going to do my best to back track for all the motorsport events this year. However I will need help from my fellow FCCV competitors to work out results for this year so far. If you have competed at an event which I was not present at this year, please let me know as soon as possible with your race results so I can add you to the points tally.

I am pleased to say we have had quite a few FCCV members participating in motorsport events over the past couple of months. On Sunday the 12th of June I competed at MSCA Sprint at the Bend which was amazing (more detail on that in a special article). The following weekend I was back out competing and finally



reunited with team Freame (Paul, Ruth, Erin and Mark) at the Westmere Motorsport Club Motorkhana at Colac Saleyards June 18th. I then competed solo in the VMC Round 4 the next day at the same venue. Also on the 19th of June, Ian Maude was competing in the Bryant Park Hillclimb and unfortunately had an accident on his 3rd run. Thank goodness he was ok but his X19 suffered some damage and is on the mend with help from some Fiat Club members. We hope to see Ian and the X19 back on track soon. On the 3rd of July we had some of the usual suspects competing at the AROCA Sprints at Phillip Island including Frank Spinosa, Frank Caia, Peter Bartold and Tony Romeo was there with his son. On 10th of July our newest competing Junior Mark Freame participated in his first Riccardo's Racers event at Sandown. He got to drive a V8 Manual Mustang and judging from the smiles in the photos on Facebook, he had a great time. On Saturday the 16th of July, I competed in VMC Round 5 at Bendigo Saleyards. On Sunday 17th of July a few members competed in a very wet and rainy AROCA Sprint at Broadford. Some of the members that participated included Mario di Censo, Frank Caia and Tony Romeo. Unfortunately, Adrian Masocco's Abarth encountered a kangaroo on the way to the event, with some damage to the bonnet. Apologies if I have missed anyone's names in attendances.

By the time this edition of the magazine has been published our club would have run the VMC Round 6 event at the Winton Festival of Speed, which we have a few members competing and a few generous members offering up their time to volunteer and help on the day. Huge thanks to Paul Freame, Bill Freame and Rob Judd for their efforts to make this event happen. I look forward to seeing some of you at this event and a few club members competing in the upcoming MSCA Sprint on August 21st.

COMING EVENTS: SEPTEMBER TO NOVEMBER

Please check the Motorsport Australia website to conform dates that are listed – it is possible they can change

AROCA	Sandown
MSCA	Phillip Island
AROCA 12 hr Regularity	Winton
MSCA	Sandown
AROCA	Winton
Geelong Motoring Festival	Geelong
EVENTS	
GCC Khanacross	Bryant Park
VMC Round 7	Winton
VKC Round 5	Mt Gambier
FCCV Motorkhana	TBC
GCC	Bryant Park
GCC	Bryant Park
GCC	Bryant Park
	MSCA AROCA 12 hr Regularity MSCA AROCA AROCA Geelong Motoring Festival SEVENTS GCC Khanacross VMC Round 7 VKC Round 5 FCCV Motorkhana GCC GCC

EVENTS REPORTS & PHOTOS

AROCA BROADFORD SPRINTS

Photos: Jac Black





EVENTS REPORTS & PHOTOS

MOTORKHANA IN COLAC

By: Marisa Gangemi Photos by Otway Edge Photography

On a very cold weekend of the 18th and 19th of June, I was joined by Paul, Ruth, Erin and Mark Freame at the Colac Saleyards. Westmere Motorsport were hosting a club motorkhana on the Saturday before the VMC Round 4 on Sunday. It was good to see team Freame back out racing with the Punto which had quite the busy day rotating all 4 drivers. Mark even joined me in my car as a passenger for one of the reversing tests. He then tried a reversing test for the first time with Paul by his side in the passenger seat and did a great job. Erin is also improving her confidence as a driver so it's great to see our juniors doing so well.



We did well to represent our club on Saturday with Paul finishing 5th, followed by me in 11th, Ruth 17th, Erin 18th and Mark 21st outright out of 24 competitors. In Class A for our cars, Paul 3rd, Me 5th, Ruth 8th, Erin 9th and Mark 13th out of 15 vehicles. In our drivers' categories Erin won the Junior class, well done Erin! And Mark finished 5th out of 8 Juniors. Solid effort from Mark as I think it was only his second motorkhana. I took out the Ladies class, with Ruth finishing 4th.



Sadly, Team Freame had to return home on Saturday night, while I stayed in Colac and had dinner with other regular competitors at the Beeac Pub. The next day was even colder for VMC Round 4 but I managed to finish 16th outright with about 30 competitors in the field, won the ladies class and finished 5th in Class A. I will also add Huntingdale Car Club brought along their new digital timing gear, which was great because we could all see our times appear live on a screen. We are in the process of getting similar equipment for our club soon. It was a very successful and fun racing weekend and well done to Westmere Motorsport for hosting.



AROCA SPRINTS PHILLIP ISLAND

Photos: Peter Bartold

Although we only had a small group of FCCV drivers at Phillip Island, it was a good day for all. Frank Spinosa and Tony Romeo were driving their Abarths, Frank Caia was in his 124 Spider and I had my X1/9 race car on the track for the first time for a long time. The rain did not trouble us too much and we all finished the day smilling!!







EVENTS REPORTS & PHOTOS

(CONT.)

MSCA SPRINT AT THE BEND

By Marisa Gangemi Photos by: SD Pics, Katrina Varnish and Marisa Gangemi

My journey started very early on Saturday morning 11th of June. I was up at 6am and left home just after 7am and heading up the Ring Rd for the start of a very long drive. The weather was great for the drive, not even a sprinkle of rain. I made quite a few stops on my way to the Bend as I was driving solo. At lunchtime I pulled into the cute and quiet town of Kaniva just before the border of South Australia. While I was eating my packed lunch of salad, cheese and carrots in my car I saw a sign that said, "Silo Art". I drove down the next street and found this beautiful mural painted on the silos and knew I had to get a photo of the Abarth in front of it.

I arrived at the track around 3.30pm for pre-event sign in. This was great because I was able to get my numbers and Dorian already saving time for the next day. The track was buzzing as there was an open track day on and there were cars out doing the full GT circuit. After a few quick hellos I heading to my motel in Tailem Bend as I missed out on accommodation at the circuit hotel because I was a late entry after the event had been postponed and cancelled the past 2 years due to Covid.

I stayed at the Bend Abode which was not bad and only a 7min drive from the circuit. I later returned to



the circuit for the MSCA Dinner which was held in the Apex Bar & Restaurant. We had a lovely 3 course meal and were formally welcomed to the event by Bruce and Petrina Astbury. There was also a presentation by Wayne Williams, The Bend Operations Manager which was interesting and informative. We learned about the day to day running and maintenance of the track and a bit of the track short history and some tips about how to race on the International Circuit layout.





The next morning, I was up again bright an early at 6am and got to the track by 7am. It was freezing cold as I pulled into my carport which I was able to hire for the day. I proceeded to change my wheels by myself and got the car ready for the track. Before I knew it was 9am and the track was open, and racing had begun. I was in group 3 which was great because I had plenty of time to get ready. I was joined in my

group by Greg Schultz a Fiat Club SA member with his X19. Greg was very fast and lapped me and other vehicles in every session.

On my first run, I was confident and having fun learning the International Circuit track, maybe a bit too much fun? I did have a little bit of a moment on turn 6 where I understeered into the corner, pressed on the brakes and the car spun a bit and I went onto the grass on the other side of the track. Spooked by my little moment, I was a lot slower in the following session. I was super cautious and took my time to learn the track rather than going fast. In the 3rd session I did a bit better and started to get the hang of it. By the 4th and final session, I got my confidence back and finally got a time under 3 minutes, my personal best 2:56.6039.

When the day ended, I got some help from one of my fellow racers, David Parr from the Gippsland Car club to change my wheels, which was very kind of him. We then joined many of our fellow MSCA racers back at the APEX diner for an informal dinner.

The next morning, I started my journey back to Melbourne, leaving Tailem Bend around 9am. As I slowly made my way back, I stopped a fair bit and found more silo art on my journey home. It was a truly amazing weekend and a fun road trip adventure. I highly recommend our club members to participate in this event next year! When I have confirmation on the event details, I will let the club know so we can plan a FCCV convoy next year.





X1/9 50th Anniversario Raduno

By Lyn Bartold
Photos Peter Bartold, Joseph Sammut, Mark Weinberger (drone and camera)

With 2022 being the 50th Anniversary of the X1/9, it was the right time to resurrect the X1/9 Run to Eden which had been held 3 times previously, intermittently from 1998. The original concept was for X 1/9 drivers from Victoria, NSW and ACT to meet in Eden for a weekend of driving, showing off our cars, dining and camaraderie. The weekend of 22- 24th July was chosen, July being significant as that was when the celebrations in Torino were held. Peter Bartold, organizer of the original runs and Mark Weinberger in Sydney set about trying to get as many X's as possible to meet up and share our love of the car

in Eden. The idea was to encourage as many X1/9 owners to participate but also open the event to other club members. We had seven X1/9's from Victoria (including il presidente, Roger, in the borrowed Frank Caia's X1/9 - see Presidents Report!) It was great to see the number of non X drivers and passengers who joined us to create a group of 20 from Victoria and a total of 32 participants from the 3 states





Friday Drivers from Vic, NSW and ACT made their way to the Seahorse Inn in Boydtown, just out of Eden, which was our base for the weekend. FCCV members met at Officer and drove to Sale for coffee, Lakes Entrance for lunch then onto Boydtown. Accommodation was at the Seahorse Inn and the 2 adjoining Cabin Parks which provided excellent facilities and kept the group within easy access of each other and to the planned events. Our first event was dinner at the Seahorse Inn and a Trivia Night with X1/9 and other Italian car questions. This was an excellent way to kick off the weekend and gave us a chance to mingle and meet up with old friends and to make new ones.











FIAT month — September 2022

X1/9 50th Anniversario Raduno (cont.)

Saturday morning saw us all heading to Eden Wharf for a photo shoot. The wharf provided an excellent backdrop and some great photos were the result. We then headed up to the nearby lookout which gives a panoramic view of the area and some of the whaling history on which Eden and the area was founded. We had time to find get a bite to eat, visit the Whaling Museum, or just return to Boydtown to relax before the X1/9 photo shoot at

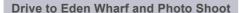
the back of the Seahorse Inn. The Inn which dates back to the 1840's provided a magnificent backdrop for the many photos you see on these pages. Mark had his drone there to get every angle shot possible so there were some great photos to choose from. Dinner was at the Longstocking Brewery in Pambula, a 20min drive from Boydtown, where we enjoyed pizza and more chances to mingle with the group.

























Dinner at Longstocking Brewery, Pambula

Sunday Some of the group needed to head back to their home states whilst some of us where able to stay on and take part in a drive that took us to Bega, where we visited to Bega Cheese Factory Café and Museum. The Museum was very interesting and provided the opportunity for some excellent photos. We continued inland heading to Tilba Tilba for a quick look at the amazing old town. The few NSW and ACT driver who were with us headed north while the Victorians headed down the coast through Bermagui to Tathra Hotel for lunch. We had a couple of hours free to explore Merimbula and surrounds before driving a short distance to the Top Pub (another 1870's hotel), in Pambula for dinner.



Bega Cheese Factory

This brought our X1/9 Raduno to an end and the remaining members either headed home on the Monday or did their own thing for a few days.

I am sure all participants enjoyed the experience and our chance to celebrate the X1/9 without travelling to Torino. It was great to catch up with old friends or to make new ones and to experience another beautiful part of Australia. Our thanks to Peter Bartold and

Mark Weinberger for all the research and planning that went into the this event, a huge job and , mostly from afar. It is always great to meet up with our Fiat lovers from interstate and to get a chance to travel with fellow FCCV members finally after all that we have endured in the past few years. It was especially good also to prove just how great our little X's are, with no problems with the cars over the many kilometres we covered. Thanks to all participants for making this such a memorable event and one we hope will be back on the club calendar every couple of years.





LIFE MEMBER 26 JOSEPH SAMMUT

By Lyn Bartold Life Member No. 8

It is with great pleasure that the FCCV Committee announces that Joseph Sammut has been made a Life Member- Number No. 26.

I have asked Joseph to tell me about the beginning of his love of Fiats and his history in the Fiat Car Club or Victoria This Joseph's Fiat story....

Joseph bought his first Fiat, a 1500, that he purchased from Continental Motors in Sydney Rd Brunswick. He was looking for a car that could fit a large pushchair in the boot and the Manager of Continental Motors showed him his wife's car. It was the only car they had that would suit that use and was parked in the back (it was the Manager's wife car that he was driving for the day) Joseph says I heard them talking on the phone and his wife was not happy at all.....and so my love of Fiats began.

"One year on and my wife, Mary wanted to know why I had an engine on the floor. I said I needed to make my car faster so that I needed to make the Fiat faster could beat my Foreman at work, who had a Holden, when we raced down Sydney Rd after work.....and so it all began!

"In 1985 I (or should I say, my family) joined the Fiat Car Club as we went on a lot of Club Events together

"My best early memory was in 1992 when I placed 4th the Clubman Award and was 1st in Outright, 1st in Rally, 4th in Speed and 1st in Double Overhead Cam classes at the Presentations.

"From the early 80's I have served on the Sub Committee, Committee Assistant, I helped in the printing of the magazine, I was the 124 Register Captain, and I am currently the Display and Run Coordinator and I was awarded a Club Service Award.

I have enjoyed every minute of my time with the Fiat car Club and I am honored to be awarded a Life Membership."

It is with great please that we welcome Joseph to our group of Life Members and look forward to continuing to work with him in our support of the Fiat Car Club of Victoria.







Early Fiats

FIATS I HAVE OWNED

1500, 124AC, 124BC, 124CC(1 Red, 1White) 132, 131(Station Wagon , Sedan) Regatta(Station Wagon Sedan) X1/9

LANCIAS I HAVE OWNED

Lancia HPE, Lancia Beta

FIATS I OWN AT THE MOMENT

124 Spider, Red, 124 Spider in progress White, 124CC, Blue, Fiat Ritmo, Blue Fiat Freeman





Current Fiats



Photos: Ian Maud



Winton Sprints



FCCV volunteers at Motorkhana





Marisa Gangemi

A STATE ROUND RUN

By Bill Freame

Photos: Marisa Gangemi, Bill Freame, Paul Freame

Once again, the opportunity arose for the FFCC, the TCCA and FCCV to support the VHRR Winton Festival of Speed, by conducting two motorkhana's on the skid pan on the inside of the sweeper of the Winton complex. The Ford and Toyota clubs ran a Group 5 motorkhana on the Saturday, while the FIAT club conducted a round of the State Championship on the Sunday. Both days attracted over 30 competitors, with eight Juniors participating each day. The tests each day were being timed by the electronic timing equipment owned by the HAC club, the same equipment that FCCV is also purchasing. This equipment has a big screen to display the time, visible by everyone watching.

Saturday began with a wet surface for the morning tests, but had dried out by the lunch break. Thus, the surface was a bit tricky for some competitors to hook up to, until we had some big dry patches. 12 tests were scheduled but only 10 were run, due to our time constraints. It was a very good day, although a few flags were killed and a few WD's scored. Near the end of the motorkhana competition, during the lengthy recovery of a Mustang race car, Blendline TV aimed their TV cameras on the happenings on the skid pan, thus some of us competing went out live on their telecast. That sort of free publicity can only help. Most of the competition cars and trailers were secured on the skid pan overnight, protected by overnight security services.

Sunday started off dry but foggy, which meant the races on the circuit were delayed due to lack of visibility between flag points as well as to race control. That's a safety issue, so our drivers briefing was conducted with minimal background noise. All the FCCV officials were issued with a Hi-Vis vest upon sign on, so it was easy to see who the officials were all day. Rob Judd and Bill Freame were joint CoC's, with Paul Freame as Event Secretary. I am very proud of the support our members provided as officials, with many taking the opportunity to understand and operate the electronic timing equipment during the day. We had chosen ten tests for the day, several of them from the upcoming FIAT Nationals in 2023. We started off with test layouts that can be used for several different tests, without needing to move any of them, and all the flag bases were chalked on the

ground, for ease of correct relocation after being hit by a car. Six tests had been conducted before a lunch break which enabled the resetting of the test fields, including the swapping over of the start and finish garages. As can sometimes happen, at least one competitor was caught out by this, finishing an event in the start garage, by mistake. All the juniors (12-18yo) drove very well, for most it had been two days of intense concentration.

Something I had promised for some time, Ian Maud had officiated for us and as a reward he had a drive of our special on the last test before it was pulled down and packed away. He drove it very, very well and has written a funny story about the experience of driving it. Grey clouds were forming and threatening as all the equipment was packed away, fortunately the club shelters were able to be secured while it was still dry. Some of us were still swapping wheels around and loading cars on trailers when the skies did open, but loading did continue anyway. The last vehicles left the skid pan area by 3:30pm, pleased with a great weekend of competition successfully completed. Each of the organising clubs are hoping we will be invited to support the VHRR in this way at future Winton Festival of speed race meetings.

Thank you to the FCCV members who supported the club in running this State Championship event, for without accredited officials to safely run events, we won't get to play with our cars. Many of our officials had stayed Saturday night in the surrounding area (Benalla had booked out months earlier) plus also had fuel/ travelling costs to get there and back home



WINTON FESTIVAL OF SPEED (CONT.)

FCCV DRIVERS







JUNIOR DRIVERS





IMPRESSIONS OF DRIVING A **MOTORKHANA SPECIAL**



(or; I left my heart – and possibly other ageing bits of anatomy – in Winton)

By Ian Maud

If you are a little weird and fancy the idea of being tied in a semi-reclining position into a mechanical missile that then bears you hurtling toward a narrow post, with your legs held wide apart, then this recreation is for you!

Well, that's one interpretation of my recent experience at the Winton Festival of Speed. After two days of watching competitors tacking various courses on the Winton skid pan as part of a motorkhana display in the FofS, I was torn between being weary from standing most of the day, and wanting to push someone out of their car so I could have a go! Fortunately, that someone was spared the ignominy, as Bill Freame appeared at my side to quietly ask if I would like to have a short drive of their special. You need to understand that as a long-term motorkhana-er, this has been a wish of mine for some time, and is rather akin to asking a dehydrating Dracula if he'd fancy a glass of AB+. I apologize here to anyone I may have bowled over in my haste to take up the offer.

Like many, I have watched specials for years and wondered what it would be like to drive one. So, having finally had this experience, I thought it might be of interest to some to hear a few deranged musings on the reality involved. Keep in mind this is based on all of about five minutes' experience, so the vehicle owners may just play down some of my rantings!

Bill & Paul's motorkhana special is what is termed a 'rail' - these are basically the Formula One machines of the motorkhana world and comprise an engine, a few assorted and specialised mechanical components, a skimpy bucket that serves as a seat, and just enough tube work and panels to connect the aforementioned bits. They are notoriously light, generally possessed of fire-breathing engines capable of impressive RPM and horsepower, and can rocket mercilessly between flags as is their purpose in life. The Freame machine is, perhaps not surprisingly, an engineer's delight: features a number of clever innovations, and is propelled by a turbo-ed FIAT 127 motor, with around

twice the standard horsepower for this unit. I had never sat in the thing before, but as time was short, I jammed on Bill's offered helmet, minus my glasses as they wouldn't fit inside, lamented my footwear was a broad pair of work boots, and belted in: my tutoring came down to being told which of the four pedals did what; how to select first gear (it's mirrored to normal); and...that was about it. Our FCCV colleagues kindly indulged me by holding off packing up the last course while I had a short play.

I'm not sure what expletive or exclamation to include here - perhaps add your own as you see fit. It's sufficient to relate that sitting astride an accelerating giant firework rocket would not be a ridiculous analogy: a belt on the go-pedal and it's like watching an old movie that's been sped up. To a spectator, these things appear to accelerate at a ballistic pace, and the on-board experience is little different. Imagine being the ball in a game of croquet conducted by giants, and you start to get the picture. From a standing start, there is a massive shunt in the back, your head flies backward, and you're off!

As one Mini Sports Sedan driver once told me years ago about racing at Sandown: "You're lucky to have what you're going to hit in focus by the time you get

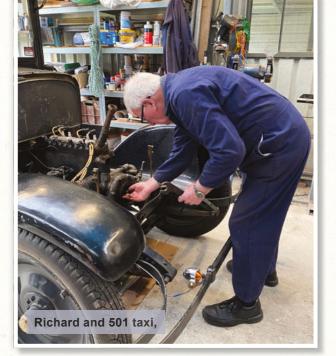
One last and rather mind-altering off-shoot of this experience was that when I set off down the highway for home a short while later, I found I kept looking at the speedo and thinking there was something wrong, as I seemed to be going so slowly. I eventually hypothesised this was because I was possibly still pumped with adrenalin from the run in the special, and was processing at a much faster rate than needed for a highway cruise. This thankfully settled down after a few kilometres.

Thank you to Bill and Paul for the life-changing

- Ian Maud



FIAT month — September 2022 FIAT month — September 2022



The News Stand

Richard Unkles

David Stott has got his Tipo 50 Itala running better and followed a clue from Augustin Banko to check if the butterfly is seating properly. Seems it is not which should explain why starting has been difficult and low speed idle has also been a problem. Also the main jet is positioned in a technical dead spot behind the butterfly so he is looking at trying a Solex in place of the Zenith. Kevin Wilby has a Solex on his Tipo 51 which is actually a sports version of the Tipo 50 and it starts easily so it looks like David will fit one from Sigurd Bolling in Norway. The replacement modern radiator core seems to have solved the overheating problem and it has easily run at 75kph down EastLink and David reports that he has finally worked out the timing for his gear changes. So looking fit for the RACV Centenary of the 1921 Alpine Trial.

Also entered in the RACV Centennial Alpine is your scribe's Fiat 501 "taxi". It has developed a most unusual problem. 3 years ago it had symptoms of typical starter motor lock up, but that was not the problem. This is some 3 years after the engine rebuild when it has run sweetly. The problem has become more frequent and got to the stage of locking up within 10 – 15 minutes of running normally. So engine out and it was found that #3 big end was the point that was locking the engine. Bearing clearance has been measured at 1 thou. It was discussed with the guy who remetalled the bottom end. He had never heard of this. Certainly with a new engine but they work through binding with use. He normally now sets the clearance at 2 thou. Current thinking is a

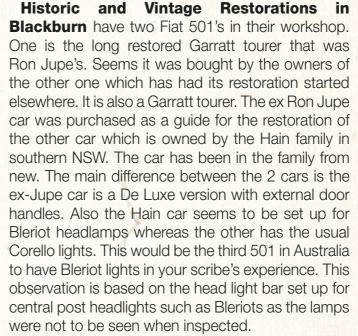


very faint lip on the edge of the oil gallery relief on the end of the bearing cap plus a possible build up of carbon from dirty oil may be responsible. So some bearing scraping or some careful hand linishing of the journal is planned. (see photos at top of page)

At the same time checks were undertaken of just how secure the bottom end is in terms of oil pressure loss. This is done by putting compressed air into the oil inlet pipe and sealing off the pipe with a rag. The hole in the front camshaft holder was already partially blocked with a roll pin but that was still leaking pressure badly. Also a slight leakage was found from under the camshaft holder so an O ring has been fitted to seal this. The roll pin has been removed and replaced by a grub screw by Augustin Banko with a 1.5mm hole. We look forward to reporting how this improves the oil pressure when hot and on idle.

Spare Parts

Crown Wheel and Pinions are making progress. We have received 2 sets for proofing in Australia. We find that the two spigot recesses are on the wrong side of the crown wheel and a spacing issue. So, we must commend the manufacturers on the policy of making a couple of proof sets. We are getting there, but give us a couple more months.



Min Innes- Irons has asked for our opinion on what to paint on his 501 Sports project. Options are red paint on all or some of the bodywork. We feel it needs either a red bonnet and satin finish body or satin bonnet and red bodywork.

The 501 that was meticulously restored by Alan Collis in the 1980's is now available again in Melbourne after some years with an owner in the ACT. Believe haggling starts at \$20,000. Info on the owner can be obtained from Roger Beattie.











Tipo Torque (cont.)

The Car Radio

Material sourced from The Automobile magazine and Riley NewZ, newsletter of the Riley Club of New Zealand.

The Automobile reports the first efforts to receive on a car radio was in August 1922 by the Cardiff & South Wales Wireless Society in a car travelling at touring speeds. Daimler quickly realized the potential demand for these and set up two Light 30 saloons with Marconi eight valve receivers in the rear compartments and large vertical frame aerials on their roofs.

By January 1923 Daimler and Marconi had developed a neater flat copper plate aerial suspended from the luggage grid but was planned to be fitted into the roof of a sedan car. Daimler did develop a suppressor system for the discharges from the car's magnetos and could pick up London stations from Newcastle. A joint program was developed by Daimler's sister company BSA with Marconi to develop a car radio that could be used when parked. However at a cost of £55 it cost a quarter as much as a BSA car and the option was dropped after a year. Somewhat later the car radio was developed in the USA.

One evening in 1929 two young men named William Lear and Elmer Wavering

drove their girlfriends to a lookout point high above the Mississippi River town of Quincy, Illinois to watch the sunset. It was a romantic night to be sure but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios and Lear served as a radio operator in the U.S. Navy during World War 1) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car.

But it wasn't easy: automobiles have ignition switches, generators, spark plugs and other electrical equipment that generate noisy static interference making it nearly impossible to listen to the radio when the engine was running.

One by one Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work they took it to a radio convention in Chicago. There they met Paul Galvin, the owner of Galvin Manufacturing Corporation. He made a product called a "battery eliminator", a device that allowed battery-powered radios to run on household AC current.

But as more homes were wired for electricity more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention he found it. He



believed that mass-produced affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory and when they perfected their first radio they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal he had his men install a radio in the banker's Packard. Good idea but it didn't work. Half an hour after the installation the banker's Packard caught on fire. (They didn't get the loan.)

Galvin didn't give up. He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth he parked the car outside the convention hall and cranked up the radio so that passing conventioneers could hear it. That idea worked -- He got enough orders to put the radio into production.

WHAT'S IN A NAME

That first production model was called the ST71. Galvin decided he needed to come up with something with a little catchy name. In those



days many companies in the phonograph and radio businesses used the suffix "ola" for their names – Radiola, Columbiola and Victrola were three of the biggest.

Galvin decided to do the same thing and since his radio was intended for use in a motor vehicle he decided to call it the Motorola.

In 1930 it took two men several days to put in a car radio. The dashboard had to be taken apart so that the receiver and a single speaker could be installed and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries not on the car battery so holes had to be cut into the floorboard to accommodate them.

The installation manual had eight complete diagrams and 28 pages of instructions. Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression

Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory.

In 1934 they got another boost when Galvin struck a deal with B.F.Goodrich tyre company to sell and install them in its chain of tire stores.

By then the price of the radio with installation included had dropped to \$55. The Motorola car radio was off and running. (The name of the company would be officially changed from Gàlvin Manufacturing to "Motorola" in 1947.)

In the meantime Galvin continued to develop new uses for car radios.

In 1936 the same year that it introduced push-button tuning it also introduced the

Motorola Police Cruiser. A standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed the first handheld two-way radio - The Handy-Talkie for the U. S. Army. A lot of the communications technologies that we take for granted today were born in Mòtorola labs in the years that followed World War 11.

In 1947 they came out with the first television for under US\$200

In 1956 the company introduced the world's first pager; in 1969 came the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon. In 1973 it invented the world's first handheld cellular phone. And it all started with the car radio.

AMSC 1/4 Mile Sprints - 4 August 1946

By Kevin Lemm
History of Photographer and Photograph courtesy of State Library Victoria.

A photograph is of Mr R Gray competing at an Australian Motor Sports Club ¼ Mile Sprint event, somewhere off Geelong Road on 4 August 1946.

The car itself is quite interesting. It's a Devon "Nippy 7", marketed by Fiat dealer Devon Motors of Lonsdale Street Melbourne in 1939 for around £199 plus tax. These pretty little cars were built on a Fiat 500A Topolino rolling chassis with a side-valve engine. The coachwork was manufactured by James Flood Pty Ltd at their works in St Kilda Road Melbourne.

The black and white photo depicts the vehicle is in good condition with a striking two-tone paint. Mr Gray looks determined to set his personal best time with the windscreen folded to reduce drag. The engine can be seen to be fitted with an aluminium high-capacity oil sump, we can only guess at any other modifications. Twin carburettor manifolds, sports camshafts and special exhaust systems were common modifications available from Italian tuning companies at the time, but for the over-achievers the option of a special OHV cylinder head manufactured by Siata or a supercharger by Italmeccanica were available.......

The September 1946 issue of Australian Motor Sports Magazine reported Mr Gray's time for the ¼ mile at 25.8 seconds. Perhaps a little slow by today's standards but considering a Fiat 500A Coupe would



have turned a time of around 30 seconds, Mr Gray would likely have been very happy with his efforts.

This Photograph is from the George Thomas Motoring Collection which is held by the State Library Victoria. George Thomas was born in Melbourne in 1928. He was educated at Melbourne High and went on to owning his own electrical contracting business. He was a founding member of the Phillip Island Auto Racing Club (PIARC) and was awarded life membership for his service. With his interest in both motor sports and photography, he became a semi-professional photographer active at Victorian motor sports events in the 1940's and 1950's. George died in 2013.

Vita Sociale

CAFFE DI SABATO

July

By Lyn Bartold Photos: Joseph Sammut. Peter Bartold

To celebrate the 50th Anniversary of the X19 that was being held in Torino on our Caffe di sabato weekend, we invited all X1/9s in the club to a display in front of the Veneto Club. 20 X1/9s were on display and, of course, we had plenty of other Fiats and Italian cars in our normal display area, as usual, making it a great day

August

By Lyn Bartold Photos: Joseph Sammut

Once again, a big crowd of Fiats and other Italian cars attended our monthly coffee morning at what is our home base at the Veneto Club.













UNDERSTANDING THE BUMP STICK

By Bill Freame

The Bump Stick, better known as the Camshaft is a device in most 4 stroke automotive engines that is used to open and close the valves when the engine is rotated. I intend to ignore any engines that have their valves activated by solenoid valves, or sleeve valve engines, instead just covering engines that use camshafts to operate poppet valves in a running engine. With that decision made, I also need to comment that the camshaft usually rotates at half the crankshaft rotational speed. That means it is exactly a 2:1 ratio, regardless of how it is being driven from the crankshaft (most often from the nose end). Some use helical spur gears, some use sprockets and timing chain, some use sprockets and a rubber (cog) belt, while some (usually vintage) have bevel gears and a vertical shaft to transfer the drive to the camshaft. That covers most of the drive systems used. Often the distributor is also driven off a gear or off the end of one of the camshafts, so that it also stays in correct timing with the rest of the engine. I can assure you that whenever the drive system fails and the camshaft stops rotating in time with the crankshaft and piston motion, very, very often some of the valves will be open and may get bent by the piston in that cylinder, with the result being a very large repair bill to get it back into operating normally and usefully capable of doing its job of transportation or racing, if indeed it can be worth being repaired.

Automobile manufacturers want their engine to start easily, idle smoothly, produce a wide torque and power curve across the operating range it is intended to be used at. In addition, the fuel economy needs to be among the best in the market for that size vehicle, or the motoring journalists will point out the thirst that owners will be stuck with. So, camshaft timing and valve lift on these vehicles will be quite mild, although previously with sporting versions of the same engine often with stepped up valve lift and duration for the competition vehicle. GTHO Falcon and XU-1 Torana spring to mind instantly, along with many other performance modifications included in the vehicle. But all that was a long time ago, eventually killed off by the threat of the Phase 4 GTHO Falcon being amongst us on the streets of suburbia because it was a time of production car racing. They were racing

our street cars on the race track, at a time when the manufacturers were very keen to win, especially the one that didn't support racing, except through their dealers.

To get the cylinder to fill adequately, the inlet valve must start to open before the piston has even reached and passed over at Top Dead Centre (TDC) but the valve is usually not very far off its seat as it can't just be banged open to full lift instantly. The cam profile is designed to gently lift the valve off the seat and then accelerate it and decelerate all before it gets to full lift and then do the same thing during the closing of the valve and gently lowering it back onto its seat at the end of that cycle. That's how it should all work when the valve clearances are correct on a solid lifter camshaft, the acceleration ramp is designed to gently reduce the clearance until the valve is lifting and then a more aggressive acceleration ramp can take over. Acceleration rate is described in the amount of lift per degree of angular rotation for each cam grind and must take into account how much weight it is required to move. A heavy valve, rocker arm, pushrod and lifter, or cam bucket and shim will all affect just how aggressive the cam lobe profile can be before losing control of the follower and it no longer remains in contact with the follower/ bucket and it will bounce off the closing ramp of the cam lobe and/ or bounces off the seat until the valve spring can reassert control. Excessive engine revs per minute is the easiest way to cause this problem, it's called 'Valve Bounce'.

Now way back in the good old days, when there were very few camshaft grinding companies in this country, Waggott in Sydney, Tighe in Brisbane and Speco-Thomas and Wade in Melbourne, many of the performance grinds were referred to as Half Race, Three Quarters Race and Full Race, or Stage One, Stage Two and Stage Three. I believe these names are self-explanatory! These companies knew that the full race cam grind would need triple valve springs to keep the valve train under control at the higher revs it would be racing up to and they could be more aggressive with the cam profile. All that was a long time ago, but to help with the further understanding of springs and profiles, Tighe and Wade had both

built testing rigs that could simulate the valve train for studying the operation with the aid of a strobe light to observe valve float, spring float and loss of control plus at what RPM that would all happen.

A further consideration to be mindful of is the rod length to stroke ratio of the engine. Some engines have a very long connecting rod on a short stroke crankshaft, 1300cc FIAT X1/9 comes immediately to mind, with a ratio of 2.16:1 while others are keeping the engine height shorter by using a much shorter ratio, like the Toyota 4AGE which is 1.58:1. The critical rod ratio minimum is considered and often quoted as being about 1.4:1, but I don't want to be building any engines that are that extreme. At that ratio there is a strong possibility that the rod angularity will be trying to push the piston out the side of the cylinder instead of up the bore, never a good result.

Consider this, the Toyota engine is going to have the piston further down the bore at 15 or 20 degrees past TDC than the FIAT X1/9 engine, because of the far shorter rod ratio. Thus, the cam grind acceleration rate can be far more aggressive because the piston crown is rapidly accelerating away from the inlet valve, as the valve lifts further into the cylinder. We all quote how much valve lift a cam grind has at TDC because that is an easy to find and measure location, but the valve is already accelerating off it's seat at TDC while the piston is sitting stationary (momentarily) on rock over and not yet moving back down the bore. The critical location is actually somewhere between 10 and 20 degrees after TDC, where the valve and the piston are closest, which is why we always need, at all times, at least 2mm valve head to piston clearance, best measured by using plasticine in the valve pocket, to provide a physical example of the clearance of the valve head, all around it.

Probably the above paragraph casts a little light on why there are so many different camshaft grinds available for some very similar engines. Ofcourse we must also be taking into consideration just how efficiently the cylinder head is working, compression ratio, how much carburation and the exhaust system when we are choosing a camshaft grind. If we are forcing the air and fuel in under pressure, by a supercharger or turbocharger then we will be able to use less valve overlap than we need for a naturally aspirated engine. That needs to be discussed with the camshaft supplier, preferably he is also the camshaft grinder, so he can speak from a vast range of knowledge. Regardless of what grind we decide to install, it will usually work the best when it is installed in the correct timing to the piston travel. Yes, it will work if installed on the factory timing marks, but there may be still more performance available if we can set it up to the timings that the camshaft was ground to. Getting it right is the performance that you have already paid for, when you purchased it.



As mentioned previously, inlet valve lift at TDC is a relatively easy measurement to check and then make a cam timing adjustment if found necessary. Firstly, you need to find the true TDC, not almost or just about, but the true TDC! That is so very important, otherwise you are just wasting your time. At TDC you should find that one of the inlet valves is just starting to open and an exhaust valve is almost closed. This is referred to as valve overlap and the more aggressive the competition grind, the more overlap between the valves. Usually, a turbo grind will have very little valve overlap to reduce the loss of fresh charge out through the exhaust port. Besides, the fresh charge is being forced in past the inlet valve to easily overfill the cylinder, so we don't need extreme valve timing.

Valve lift at TDC is what we will be measuring, so now we need to mount a dial indicator on the inlet valve cap or on the bucket on an OHC head, but mounted so that the rotation of the camshaft will not disturb the dial indicator and cause it to move sideways! Now we need to rotate the engine until the inlet valve is fully closed again, so that we know that we can set the indicator at almost full lift, remembering that as the valve lifts off its seat, the indicator shaft is going to extend because the valve cap/ bucket is going away from the indicator, with the needle heading back towards zero. If the camshaft is set correctly, then

UNDERSTANDING THE BUMP STICK (cont.)

when we get the engine to TDC, the lift of the valve off the seat should be correct. If we are reading less at TDC then the camshaft is installed retarded, while if it is reading too much lift then the camshaft is installed advanced to where it should be and there is the risk of the valve touching a piston crown or the bottom of the valve pocket. When the camshaft is being driven by a timing chain or a rubber belt, I will usually set the camshaft very slightly advanced to allow for chain stretch, pushrod flex, or belt stretch over time and it will slightly improve the throttle response. More valve lift than standard will provide more midrange response with very little loss in flexibility but is much harder on the valve springs, while retarding the standard camshaft would slightly improve the top end power and gain a few more revs, which is useful knowledge for restricted engine classes.

That's covered setting the camshaft at TDC, but now we will cover checking the camshaft at full lift. All cam grinds should list the lobe centreline timing it has been ground to. As a mild example of a Stage Two cam grind advertised as 30/70, then that cam has 30 degrees opening before TDC and closes at 70 degrees after BDC, a duration of 280 degrees. Thus, by calculation the lobe centreline should be set at 110 degrees after TDC, which is exactly mid-way between the opening and closing angles of this cam lobe. This is why we need to know that we have, and work with an accurate TDC, so that we can check where the cam is set. As the cam lobe at full lift is a very large curve where it touches the cam follower, we need to record the crankshaft angle when we are about 1mm from full lift, on both sides of full lift. This will give us angles of something around 78 degrees before fully open and 142 degrees after. The split of these two angles is 110 degrees, exactly where we had calculated the cam should be set. This is the system I usually prefer to use when building an engine on an engine stand, but not when it is in a vehicle!

There are classes of motor racing where the camshaft specification is strictly controlled within the rules that they compete to. HQ Holden, 1600 Formula Ford, 1200 Formula Vee, Hyundai Excell and the 944 Porsche classes are only some of them. If the rules don't specify the lift at TDC, then there is room to fiddle and seek an improvement in performance by slightly advancing or retarding the camshaft from where the factory setting has it. This might be achieved by

cutting an alternative keyway in a gear or sprocket, if permitted. Alternatively, an offset on the key, but hidden in the crankshaft has been a very successful cheat for many years. I should probably mention at some point in this story that there are cam lobe direct on the bucket OHC engines, cam lobe on rocker arms OHC engines where the cam lift is usually increased by the rocker arm and pushrod engines where the cam lift is increased by up to 1.7:1, by the rocker arm, at the valve. I hope it has become obvious that only the direct acting OHC cam lobe profile needs to be ground to the full lift we want at the valve. The pushrod camshaft lobe profile can have much less

aggression in the shape, relying on the rocker arm ratio to accelerate the valve action. The FIAT 850 and 127 pushrod engines have a 1.5:1 rocker arm ratio, while the FIAT 124 twin cam engines use a direct acting OHC mechanism.



A mild cam grind of 25/65 will usually only provide about one extra millimetre of lift at the valve over the standard cam, because to get more lift the acceleration curve might be too extreme to keep the valve train under control. A 40/80 grind has an extra 30 degrees of duration so there is more time available to push the valve higher without extreme acceleration curves. That is why the 'hotter' cams, the ones with big numbers can also have more lift to torture the valve springs. Adding a few degrees of duration, in the above case 15 degrees extra at each end of the cam lobe is quite noticeable to the driver with the increased performance measurable on the racetrack, or the street. Adding lots more duration to the camshaft of a street engine can make it almost undriveable, requiring lots of revs to avoid stalling at the traffic lights we all have to contend with. If a few extra degrees of duration are noticeable. I hope you can see how important it is to set it at the correct timing to the crankshaft.

If you have spent your hard earned on a 'performance' camshaft grind, it's worth your while making sure you are getting all it can give you. That's where (easily) adjustable cam wheels and a stint on a chassis dynamometer with a skilled operator is worth every cent you are charged for the session, or at least set the camshafts to what the specification sheet indicates they should be set at.

Coming Events

General Meetings

September 9th 8pm Veneto Club
October 14th 8pm Veneto Club
November 11th 8pm Veneto Club
Join us for dinner in the Bistro from

6.30pm. – Bookings essential

Contact Lyn Bartold 0433 034 721

Caffe di sabato

Sept 3rd Veneto Club 9.00 am

Oct 1st Veneto Club

9.00 am

Nov 5th Veneto Club

9.00am



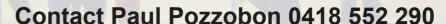
Fiat v Alfa Bocce Challenge



Join us to defend the Cup

(last played in 2019 when we won!!)

Pasta and Pizza Dinner after the match



We will be supporting the charity, Special Olympics Bocce Team at this event



FCCV The Winery Kitchen Run

Sunday 25th September 2022

10.30am start

(Meet at Ford Motor Company of Australia 1735 Sydney Rd, Campbellfield VIC 3061) Lunch at the Winery Kitchen 1 Emily St, Seymour VIC 3660

Book through Eventbrite

https://www.eventbrite.com.au/e/fccv-the-winery-kitchen-run-tickets-379511969517

Contact Sandro on 0420 277 701 for further information.

FIAT month — September 2022

Coming Events



Run to AROCA 12 Hour Regularity Relay Sunday October 2nd

Join us for a run to Winton to cheer on and assist our 2 teams competing in this event

Details of meeting point and times will be available on Fiat Pronto **Contact Joseph Sammut to register your interest** Contact Joseph Sammut 0412 211 581



Motorclassica Friday 7 – 9th October

We are hoping that we will be having a display at Motorclassica Reimagined this year

It you are interested in displaying your car Contact Sandro Cesario 0420 277 701 Fiat Pronto will keep you informed, once we have details

Heritage Event. 123 years of FIAT cars. November 10 to 13 2022, Bendigo, Victoria.

Hotel bookings are filling fast. Get organised to be at this first heritage event since 1991 for the marque.

TIMETABLE:

Thursday evening Friday morning Friday evening Saturday Saturday evening Sunday morning

Registration

Sunday afternoon Depart on optional post event run

Run (optional Remembrance service) Dinner and Display under lights Run or optional Swap Meet visit Short run for BBQ dinner Downtown Coffee and Display morning

Event cost, driver and car \$100, Extra adult \$70, Children u/14 \$40 Includes dinner at the Display on Friday and BBQ dinner Saturday. Email details to fiatcentral.victoria@gmail.com

Accommodation: All Seasons Resort, 171 McIvor Hwy, Bendigo Ph. (03) 5443 8166 rooms held under Fiat Car Club for \$149/night rate

More details: fiatclub.org.au or Roger Beattie 0400 177278 (Payments to BSB 814282 Acc. 30369100 Ref. F123 and name)







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FIAT month — September 2022







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SEPTEMBER, NOVEMBER

FULL PAGE \$2,500FOR 6 ISSUES
1/2 PAGE \$1,500FOR 6 ISSUES
1/4 PAGE \$750FOR 6 ISSUES
1/8 PAGE \$250FOR 6 ISSUES

CONTACT PETER BARTOLD ~ 0414 867 280 FOR FURTHER INFORMATION







FCCV MERCHANDISE

often.

Our club has a wide range of merchandise which is updated often.

It is available for purchase at club meetings and events such as Autobella.

Committee Member, Ralph Di Censo, is in charge of the merchandise and can be contacted on 0438 232 875 if you wish to purchase any items.

SOME OF THE CURRENT RAGE OF MERCHANDISE:-







'Harry's Run'

Sunday 11th September 2022



Our Annual Harry's Run 2022 has been planned by Elsa & Richard Unkles.

Assemble at MY Car, beside Shell Service Station, cnr Fitzsimons Lane and Parker Street, Templestowe.

Melways Map 21 H10 Leaving at 9.30 Sunday 11th September

Follow 'tulip' diagram route to the morning tea venue at 10.30 at the

The Ambulance Victoria Museum

55 Barry Road, Bayswater Melways Map 64 H5

There is a \$10 entry fee which includes morning tea and a talk on the contents of the museum by the Curator.

Arrive at lunch stop at Whispering Hills Vinyard from 12:30 onwards.

Paynes Road, Seville. Melways Map 119 J11

(Members are welcome to join us directly at morning tea or at the lunch if preferred)