



VALVE BOUNCE

JULY,
2021



The very early days of our motorsport: a hillclimb in 1926 (or 1930 – some uncertainty) – at Terry's Hill in Belgrave.

Photographer: Charlie Hammond

In this edition: coming events; stroking your crankshaft; track inspection; khanacross review; and one of the greatest motoring tales ever told!

- Gippsland Car Club Inc PO Box 493, Morwell, 3840 A3759. ABN 76 691 013 424
- Website: gippslandcarclub.com.au
- Track: Bryant Park, Bill Schulz Drive, Yallourn, 3852.
- All contents © Gippsland Car Club 2020

**GIPPSLAND CAR CLUB INCORPORATED
2021-2 BOARD OF DIRECTORS**

CHAIRMAN	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
DEPUTY CHAIRMAN	Scott Seddon seddo@seddo.me	0427 962733
SECRETARY	James Dyer james.dyer.90@gmail.com	0437 760019
TREASURER	Yvette Stolk ystolk@gmail.com	0411 166 628
COMPETITION SECRETARY	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
KHANACROSS	Rob Duncan hxdude76@yahoo.com.au	0419 501394
PROPERTY	Bill Jennings niscap@aussiebroadband.com.au	0459 833431
MEMBERSHIP	Ken Neilson ken@streetwize.net.au	0409 427199
VALVE BOUNCE EDITOR	Ian Maud icfm710@gmail.com	0414 580921
PUBLICITY AND MARKETING	James Dyer james.dyer.90@gmail.com	0437 760019
HEALTH AND SAFETY	James Dyer james.dyer.90@gmail.com	0437 760019
BUILDINGS	Phil Tullett phil.tullett@energyaustralia.com.au	5127 8915
TRACK	Wayde Griffiths arrowlinemarking@y7mail.com	0458 882353
CLUB WEBSITE/FACEBOOK	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
CLUB PERMIT REGISTRAR	Ken Neilson P.O. Box 1377, Traralgon, 3844 ken@streetwize.net.au (enquiries to Rhys Yeomans)	0409 427199
CLUB POINTS SCORER		
CLUB ASSET HIRE	John Bryant johnandcarolbryant@yahoo.com.au	0439 741473
SOCIAL	Jill & Paul Hickey jillracer727@gmail.com	0409 412452
CAMS DELEGATE		

MAGAZINE CONTRIBUTIONS Forward by email to icfm710@gmail.com Contributions should be forwarded by the third Friday in the month.

BANK DETAILS: Bendigo Bank, BSB 633000, Account Number 1574 73836, Gippsland Car Club

WEB PAGE: www.gippslandcarclub.com.au

GIPPSLAND CAR CLUB VISION: To inspire and enable people to participate in motor sport.

GIPPSLAND CAR CLUB MISSION: To provide affordable motor sporting experiences for people of all abilities in a safe and friendly environment.



CALENDAR 2021

JULY

Friday to Sunday, 9/11

Saturday 10

SATURDAY 10

Saturday to Sunday, 10/11

Sunday 11

Sunday 11

Tuesday 13

Wednesday 14

Friday 16

Saturday 17

Saturday to Sunday, 17/18

Sunday 18

Sunday 18

Sunday 18

Thursday 22

Saturday to Sunday, 24/25

Sunday 25

Saturday 31 to Sunday 1

Saturday 31 to Sunday 1

Supercars at Townsville, FNQ

M&DCC Boisdale Twilight Hill Climb, Long Track

WORKING BEE AND CLUB PRACTICE DAY

Super Trucks at Winton

WONIU track hire at Bryant Park

MSCA Sprints at Sandown

Board Meeting, 7.00 p.m.

Private hire

Tampered Motorsport Track Day at Sandown 0497262178

Tampered Motorsport Track Day at Sandown 0497262178

VHCC Round 5 at One Tree Hill, Ararat

GCC Multiclub Hill Climb at Bryant Park

NSW Hill Climb Championship Round 6 at Tamworth

AROCA Sprint at Broadford

Pilota Sportiva track hire at Bryant Park

Victorian State Race Series Round 4 at Sandown

Repco Sprints Round 4 at Winton

6 Hour Relay Phillip Island

Supercars at Winton

AUGUST

Sunday 1

Sunday 1

Tuesday 3

Saturday to Sunday, 7/8

Saturday to Sunday, 7/8

Sunday 8

Tuesday 10

Friday to Sunday, 13/15

Saturday 14

Saturday to Sunday, 14/15

Sunday 15

Sunday 15

Sunday 15

Friday to Sunday, 20/22

Friday to Sunday, 20/22

Sunday 29

6 Hour Relay Phillip Island

Supercars at Winton

Valve Bounce collation

Festival of Speed at Winton

PIARC Access at Phillip Island

NSW Hill Climb Championship Round 7 at Ringwood

Board Meeting, 7.00 p.m.

Shannons Nationals/TCR Australia at Morgan Park

M&DCC Boisdale Twilight Hill Climb Long Track

All Triumph Challenge, Winton

MSCA Sprints at Winton

GCC Khanacross at Bryant Park

VSCC Vintage Hill Climb at Rob Roy

Supercars at Sydney Motorsport Park

Champion at Winton

VHCC Round 7 at Bryant Park (VMCI track hire)

SEPTEMBER

Saturday 4

Sunday 5

Sunday 5

Sunday 5

Tuesday 7

Friday to Sunday, 10/12

Saturday to Sunday, 11/12

Saturday to Sunday, 11/12

Sunday 12

Sunday 12

Tuesday 14

Friday to Sunday 17/19

Friday to Sunday, 17/19

Saturday to Sunday, 18/19

Sunday 19

Sunday 19

AROCA Sprint at Sandown

Austin 7 Club OST at Bryant Park

NSW Hill Climb Championship Round 8 at Gunnedah

Fathers Day

Valve Bounce collation

South Australian Hill Climb Championship at Collingrove

Supercars at Waneroo, WA

Nugget Nationals at Winton

MSCA Sprints at Phillip Island

GCC Khanacross at Bryant Park

Board Meeting, 7.00 p.m.

Shannons Nationals/TCR Australia at Sandown

Super Trucks at Winton

PIARC Supersprint Round 4 at Phillip Island

M&DCC Boisdale Hill Climb Short Track

MOTORSPORT AUSTRALIA Club Challenge at Bryant Park

Saturday to Sunday, 25/26
Saturday 25
Sunday 26

Victorian State Race Series Round 5 at Phillip Island
Honda Nationals at Winton
VHCC Round 2 at Bryant Park

OCTOBER

Sunday 3	NSW Hill Climb Championship Round9 at Fairbairn Park
Sunday 3	MGCC Interclub Hill Climb Round 3 at Rob Roy
<u>Sunday 3</u>	<u>Kyneton Car Club track hire at Bryant Park</u>
Tuesday 5	Valve Bounce collation
Thursday to Sunday, 7/10	Bathurst 1000
Saturday 9	MSCA Sprints at Sandown
Tuesday 12	Board Meeting, 7.00 p.m.
Friday to Sunday 15/17	Shannons Nationals at The Bend
Saturday to Sunday, 16/17	AROCA 12 Hour Relay at Winton
Saturday to Sunday, 16/17	Mt Tarrengower Historic Hill Climb
Saturday 16	M&DCC Boisdale Twilight Hill Climb Long Track
<u>Saturday 16</u>	<u>MG Car Club track hire at Bryant Park</u>
Sunday 17	GCC Multiclub Hill Climb at Bryant Park
Thursday to Sunday, 21/24	Australian Hill Climb Championship, Mt Cotton, Queensland
Friday to Sunday, 22/24	Australian MotoGP at Phillip Island
Saturday to Sunday, 23/24	Formula Vee Nationals at Winton
Sunday 24	MG Car Club Youth Challenge at Rob Roy
Friday to Sunday, 29/31	Saloon Fest at Winton
Sunday 31	GCC Khanacross at Bryant Park

NOVEMBER

TBA November or December	TCR Australia Bathurst International
Wednesday 3	Valve Bounce collation
Friday to Sunday, 5/7	Excel Enduros at Winton
Saturday to Sunday, 6/7	Supercars in Auckland, NZ
Sunday 7	GCC Multiclub Hill Climb at Bryant Park
Tuesday 9	Board Meeting, 7.00 p.m.
Thursday to Tuesday, 11/16	Bathurst Challenge
Saturday 13	Repco Sprints Round 5 at Winton
Saturday 13	M&DCC Boisdale Hill Climb (Noel Burley Memorial) Short Track
Saturday to Sunday, 13/14	PIARC Supersprints Round 5 at Phillip Island
Sunday 14	AROCA Sprints at Winton
<u>Wednesday 17</u>	<u>Targa Florio at Bryant Park</u>
Thursday to Sunday, 18/21	Australian Grand Prix at Albert Park
Saturday 20	Winton 300
<u>Saturday or Sunday, 20/21</u>	<u>Sporting Register at Bryant Park</u>
Saturday to Saturday, 20/27	RACV Alpine Trial Centenary
Friday to Sunday, 26/28	Bathurst International
Friday to Sunday, 26/28	HQ Enduro at Winton
Friday to Sunday, 26/28	Geelong Revival Motoring Festival
<u>Saturday 27</u>	<u>Nugget Nationals track hire at Bryant Park</u>
Saturday to Sunday, 27/28	Island Magic at Phillip Island
<u>Sunday 28</u>	<u>CCRMIT track hire at Bryant Park</u>

DECEMBER

Friday to Sunday, 3/5	Supercars at Surfers Paradise, Qld
Saturday 4	GCC Multiclub Twilight Hill Climb at Bryant Park
Tuesday 7	Valve Bounce collation
Sunday 12	AROCA Sprints at Phillip Island (TBC)
Sunday 12	GCC Khanacross at Bryant Park
Tuesday 14	Board Meeting, 7.00 p.m.

CALENDAR 2022

MARCH

Sunday 6

Porsche Club of Victoria track hire

NOTE:

- All dates shown above are subject to change - please check with the organisers of the events to confirm the dates.
- Events shown as **Bold** are rounds of the Gippsland Car Club Club Championship (some of these dates may be changed)
- Events shown as **Bold Italics** are rounds of the Gippsland Car Club Khanacross Championship.
- GCC Practice Days are for members and associate members only, and will run from 1.00 pm until 4.00 pm.
- If you believe that any of the dates listed are incorrect, please contact John Bryant and they will be amended.

RARE PHOTO OF MOTHER
WRENCH FEEDING HER
YOUNG. ABSOLUTELY
BREATHTAKING!



Editorial Ponderings:

You will have noticed this edition of VB is rather lighter than previous: there is a good reason for this! I tweaked my back a few days ago and cannot sit at the keyboard for the hours I usually need to churn out one of these tomes, so yes, we're a bit thin at present, but all going well we'll be back to usual size next month.



Like many locals, our family have just been through an interesting few days after the recent storms. We lost our power almost immediately, and had to improvise or make do for a couple of days until we borrowed a generator – even then, it took another two or three days of limited use until we were 'restored.' In the time we were without power, I was trying to finish a gearbox rebuild for my X1/9, so I could get back into motorsport at the forthcoming khanacross, so there were difficulties in the house, and the workshop. It's interesting how you can get around things when you need to:

- No lighting? I used a head torch, that could be charged in the car
- Cooking? Boiling the kettle? Used a butane stove, then later the camp stove.
- Heating? LOTS of clothes! I looked like the Michelin Man.
- No water/pressure pump? Filled up buckets from the rainwater tank
- Pumping up tyres (no compressor)? Used a 12V unit
- Degreasing parts? Used aerosol degreaser; then a spray bottle filled with water; followed by a second spray bottle containing metho, to disperse the water.
- No lathe? Yes, well...still working on that one – just about gave the generator a cardiac when you kicked it in.

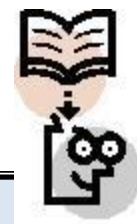
This storm also served to remind us how quickly we can be cut off from mains power. So again, my thoughts wandered to our future. Yallourn was reduced in output capacity while threatened with being swamped by the Morwell River; we have heard there may be 'brown-outs' over summer due to insufficient supply when everyone turns on their air conditioners; yet we're being pushed into buying electric cars that will be charged overnight from the same sources (until there is a massive increase in renewable sources) ...this can't end very well. And now, the realisation that a big storm can isolate many households. So, does owning an electric car in the future provide you with a justifiable 'sickie' if there isn't power to recharge it? How do you get to work if there is no power, and no public transport? And on top of all these, with the move to electric cars there must surely be less demand for petrol & diesel, and therefore progressively less availability. Where will you get your fuel for the generator you may now be relying upon? Of course, we can rely on our far-sighted politicians to have foreseen all this, can't we?

(That's enough: off for another walk up and down the hallway 😊)

-IM. The Ed



What do you need to know now?



➤ CLUB CHAMPIONSHIP 2021:

➤ Next GCC HILLCLIMB:

- Sunday, July 18th

GCC Championship

➤ Next GCC KHANACROSS:

- Sunday, August 15th

GCC Championship

➤ VICTORIAN HILL CLIMB CHAMPIONSHIP 2021 - next round:

- Sunday, August 29th

Chairman's report, June, 2021

- Rhys Yeomans

I spoke too soon when I wrote last month that I look forward to a year of uninterrupted Motorsport!!

As you would be aware, our last hillclimb on Sunday 6th June was cancelled due to COVID restrictions, which was quite disappointing!! All who entered this event will have received an email detailing what they need to do for our next hillclimb on the 18th July, though if you have any questions, please let me know!

Otherwise, this month the Board has been working through our submissions for Community Motorsport Program grants, with the Club Assistance submissions due on 21st June.

Scott Seddon has led the submissions for this portion, focusing on funding to run our round Victorian Hillclimb Championship in 2022, improvements to our event timing, as well as barriers and cones to be used for khanacross.

Ian Maud is leading the Infrastructure Grant submission, which we expect to open in mid-July. This will focus on a new scrutineering building and toilet block, along with additional seating and shelter for spectators, because as we know, the weather can be less than ideal at Bryant Park!

I won't jinx us again and say I look forward to uninterrupted Motorsport for the rest of the year, just that I look forward to as many events as we can run at Bryant Park for the remainder of 2021!

Motorsport Australia Track Inspection

To celebrate the end of financial year (!!), we were joined by Motorsport Australia's Track Inspection team at Bryant Park on Wednesday 30th June, to conduct a track inspection.

An interim track inspection was completed after the resurfacing in 2018, with the most recent formalised (by receiving a report) inspection being completed in 2015. The club had completed some of the requirements outlaid in this report, though were aware of some minor items that we had yet to complete.

I was joined by John Bryant, Scott Seddon and James Dyer as Gippsland Car Club representatives, where we spent a number of hours walking the track and discussing items of interests.

We are yet to receive a formal report, though the consensus is that we have some of the best facilities in the country, which is very well maintained and presented at a very high level for competition.

Some items of interest that the Board will manage with club members assistance, is the extension of barriers in some areas and improvement to drainage to help with water dispersion and also to reduce the risk for vehicles who do exit the track in this area.

The track itself was praised many times for its layout, surface condition and overall presentation.

It was also a great opportunity for us to meet several Motorsport Australia's team who some of us have had a lot of communication via phone and email with, to put a face to the name!

Overall, I believe Motorsport Australia's track inspection team were very happy with the Bryant Park presented and it is nice to here some praise from external parties that the efforts of Members in establishing and maintaining such a venue haven't gone to waste.

Once the report is received, we will outline a plan to complete the required items, some that we will be able to cover off at working bees and others that may require professionals or more focused plan of attack.



Competition Secretary's Report

-Rhys Yeomans

I don't have a hillclimb to write about, so will focus on the Multiclub Khanacross that we held on Sunday 27th June. These events are getting very popular!! We had 48 entries for this past event, which on the back of 50 entered for the VKC round, has been quite hectic!!

Rob Duncan continues to do a great job setting up and packing up the khanacross courses, which are a perfect combination of approachable for new competitors and technical enough to keep people returning.

The weather was less than ideal, as expected at Bryant Park this year. This didn't do much to dull the enthusiasm of competitors and everyone went home with smiles on their faces. The results can be found in this issue of Valve Bounce or on our website.

Our next hill climb is Sunday 18th July, which unfortunately clashes with a rescheduled round of the Victorian Hillclimb Championship. As much as I'd love to see everyone at Bryant Park, if you had to choose one event or were entered for both, I think it'd be great to see a full field at One Tree Hill supporting the Ararat Car Club.

Next GCC WORKING BEE

Upcoming Working Bee and Club practice – Saturday, 10th July.

These will be great opportunities for us to complete some of the major projects we've had running at Bryant Park in 2020, which includes the timing building and the new scrutineering shed extension.

All members are welcome to attend working bees and we will endeavour to delegate a job to you that aligns with your skills.

The obvious task is cutting the grass, so if you have a lawn mower or whipper snipper, please bring it along. The gardens will need weeding; toilets, clubrooms & garages cleaning; etc.

The working bees start at 9:00am, with a free BBQ lunch provided at 12:00pm. Hill climb practice - **ONLY for GCC members who have assisted with the working bee** - is held from 1:00pm to 4:00pm. **If you have a valid reason for wanting to practice but cannot attend the working bee, please send Chairman Rhys an e-mail, or phone Rhys or Phil - before-hand.**

Wednesday working bees

We've had a couple of requests from people wanting to assist in the maintenance of Bryant Park during the week, outside of normal organised working bees.

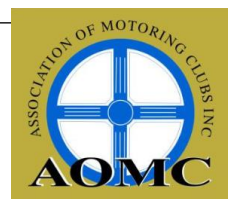
It could be as simple as you cutting grass for an hour, weeding some of the garden or something else that is deemed as required.

These days will not be as formal as our regular working bees and there will be no practice or BBQ.

As Bill Jennings is at Bryant Park most Wednesdays, please contact him (details in front of Valve Bounce) if you would like to assist on an upcoming future Wednesday.



Ed: Here's a selection of events scheduled by groups outside the GCC, that might be of interest to our members:



➤ From the AOMC:

The Gippsland Vehicle Collection

presents Rod & Custom Cars & Bikes



Opening
Sun 11th
JULY
2021

**A DISPLAY OF UNIQUE HAND CRAFTED BEAUTIES
AT OUR MAFFRA MOTOR MUSEUM FROM JULY 11th
2021 UNTIL END OF OCTOBER 2021**



Museum open Fri to Mon 10 til 4
Daily during school holidays
Anytime by appointment (groups)



gippslandvehiclecollection.org.au

Gippsland Vehicle Collection



Sep 12, 2021

Gippsland Vehicle Collection - Swap
Meet

1A Sale Road

Maffra, Victoria

And more locally:

Second Sunday of each month: why not join some of our members at the Gippsland Sporting and Classic Car Register's 'Breakfast Club' in Warragul? This is a very low-key, friendly event: people simply park their cars of interest (ALL sorts of vehicles welcome!) in the southern end of the Woolworth's car park, off Victoria St – and wander around! Breakfast and coffee available at a number of local businesses. Officially, this runs between 8:00 and 9:30am but many are now arriving before this. Last month there were 150+ cars on show! Everything from vintage to hot rods...even a restored tow truck!



2021 YOUTH CHALLENGE



24 OCTOBER 2021
ROB ROY HILLCLIMB



\$50 ENTRY

Open to Juniors and parents from all clubs
Motorkhana, autokhana and OST competitors
Motorsport Australia Speed Licence Required
Free Long sleeve competition shirt and sponsor pack for Juniors
Contact Adrian Hunter of the MG Car Club
YOW@MGCC.com.au

MGCC.COM.AU



American Motoring Show



Sunday 26th September 2021
Yarra Glen Racecourse Armstrong Grove, Yarra Glen

Proudly presented by: Association of Motoring Clubs

- Veteran • Vintage • Classics • Customs • Muscle Cars
- Fifties Fins • Sixties Cruisers • Modified •
- Hot Rods • Commercials •



Gates Open
Display Cars 9:00 am
Spectators 10:00 am

Admission:
Display Cars \$15.00 includes all occupants
Spectators \$8.00
Children Free

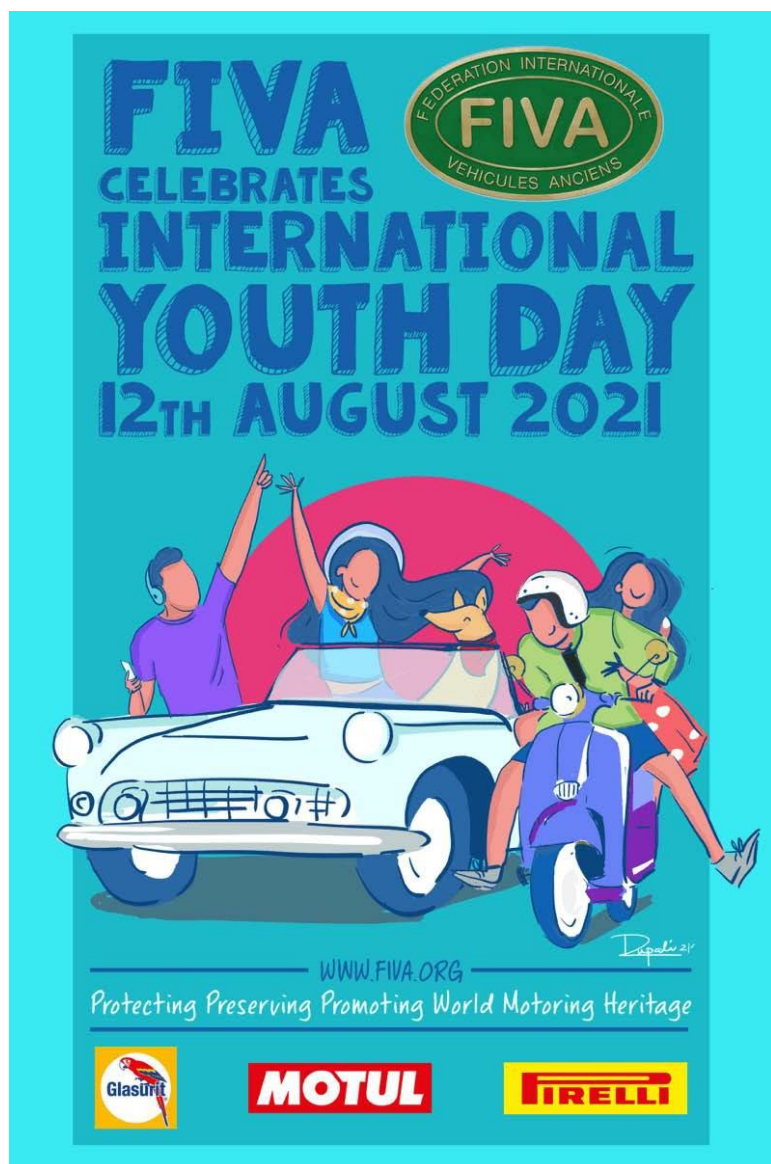
Enquiries: Iain on Mob: 0473 832 277
For updates, maps and information see website: www.aomc.asn.au Facebook: [fb.com/infoaomc](https://www.facebook.com/infoaomc)
Association of Motoring Clubs 21 Rosalie St, Springvale Vic 3171
ABN: 96 979 750 693

IMPORTANT NOTE: Due to Covid requirements, admission to this show is by pre-booking only, via trybooking. Drivers and passengers must all be pre registered through this facility. To register and pay for your booking, go to trybooking at:

<https://www.trybooking.com/BQTBJ>



Call for entries! FIVA competition marks International Youth Day



FIVA (the Fédération Internationale des Véhicules Anciens or international federation of historic vehicles) has opened entries to its annual creative competition for youngsters and the young-at-heart. This year, historic vehicle enthusiasts are invited to submit photographs, sketches, paintings, illustrations and videos on the theme of 'Restoring the Passion'.

"After the success of last year's competition, we are again celebrating the United Nations International Youth Day on 12 August with a creative competition," explains Nataša G. Jerina, vice-president of FIVA. "Aimed primarily at the under-18s, we nevertheless believe that youth is a state of mind, not a number, so we've again included a category for more mature enthusiasts".

"If there's one positive message that we at FIVA can take away from the pandemic, it's the precious gift of quality time. Time spent getting back to the garage, getting our hands dirty, sharing laughter and making memories. This year, restoration has taken many forms: not only the time spent restoring our historic vehicles but also the bonds we've rebuilt with the people we love".

"So... we invite you to share a photograph, a sketch/painting/illustration or a video of how you 'Restored the Passion' this year with your historic vehicle, interpreting the theme as creatively as you can."

(continued next page)

The 2021 FIVA competition has three categories:

Category 1: Photograph

Category 2: Sketch/Painting/Illustration

Category 3: Video

Entries will be judged in three age groups: 5 to 11 years; 12 to 17 years; and 18 years and above.

The winners in each category will be promoted on FIVA social media sites using the hashtags **#fiva_classic** **#historic_vehicles** **#culture** **#youth** **#internationalyouthday** **#2021youth**. Their artwork will be presented to the FIVA General Assembly, held in November, and they will be awarded a FIVA book, a FIVA vehicle plaque and a recognition diploma. In addition, FIVA's global partners (paint specialist Glasurit, oil and lubricant specialist Motul and tyre specialist Pirelli) will reward winners with a small gift.

The entry form can be found at the link below and completed forms, along with the artwork itself, should be sent to fivayouthday2021@fiva.org and cc'd to secretary@fiva.org by the end of July 2021. Please note that all entries are on condition that FIVA may use the material for promotion and information purposes, in whatever way FIVA sees fit, and without any obligation to the sender(s) or creator(s) of the work. In case entries violate a third party's copyright, privacy or other rights, the sender / applicant will indemnify FIVA against all compensation that FIVA owes to those third parties.

The winners of each category will be announced by 30 September 2021.



O'CONNELL'S TYRES
136 MOORE ST, MOE
(03) 5126 2822

MECHANICAL REPAIRS	STEERING ADJUSTMENTS
LOG BOOK SERVICES	SAFETY CHECKS
BRAKES	SUSPENSIONS
ALIGNMENTS	GENERAL REPAIRS
COMPUTER SCANS	PARTS FITMENT
TYRE REPAIRS	TYRE REPLACEMENT
WHEEL BALANCE	MECHANICAL INVESTIGATION

ALL TRIUMPH CHALLENGE

14-15TH AUGUST 2021 | WINTON RACEWAY VICTORIA



SAT - MOTORKHANA, DRIVER TRAINING

SUNDAY - ALL TRIUMPH CHALLENGE



MOE PARKLANDS MOTEL



- Closest motel to Bryant Park!
 - 3.5 stars
 - Family restaurant next door
 - Guest Laundry
 - BBQ area
- Car and trailer parking
 - Free wireless internet
 - Solar heated pool
 - At the Moe Parklands Motel, we invite you to picnic or use the guest barbeque in our delightful gardens.
 - For your evening meal, Rookies Bar and Restaurant is next door.
 - A dip in our solar-heated pool will relax you at the end of a day enjoying all that Moe and surrounds has to offer.

RECEPTION HOURS : 7.30 am to 9.30 pm

98 Narracan Drive, Moe, Victoria

Telephone 03 5127 3344

EMAIL: stay@moeparklandsmotel.com.au
WEBSITE: www.moeparklandsmotel.com



PO Box 199 Trafalgar Vic 3824

Bryant Park track was asphalted by Fowlers Asphaltting
For domestic and industrial asphaltting services, please call 03 56332918

BITS AND PIECES, INCLUDING 'FROM THE BOARD' - John Bryant

APOLOGIES FOR PRINT QUALITY

The June edition of Valve Bounce contained seven pages of historical newspaper articles from 1969 – 52 years ago. These articles were submitted by John Weymouth and contain a mountain of information. The only problem with 52 year-old newspapers is that they are notoriously difficult to copy and print, as these proved to be. Most of the photographs came out well, but the printing was hardly readable in some places. **APOLOGIES.** As editor Ian Maud suggested in the June edition, it is interesting to read back through these old articles to see how much cars cost at the time. I did buy a brand spanking new EH Holden in 1964 for 1,030 pounds (pounds were the predecessors to dollars which came in to existence on February 14, 1966!), and a brand spanking new Monaro in 1969 for \$2990! Fancy paying off tyres or batteries for \$1 per week!! As Ian Maud asks – would you like to drive a Honda Scamp on the highway to Melbourne – no way, especially the way the highway used to be at the time of these newspapers – it would be a bit like driving a Smart Car on the freeway in front of a B-Double! The prices of second-hand cars at Ted Neill's Motors were quite interesting also – a one year old Holden ute for \$1325!

WORKING BEE/CLUB PRACTICE DAY

SATURDAY. JULY 10, 2021

Working Bee at 9.00 a.m., lunch (provided) at 12 noon, Practice Day commences at 1.00 p.m. There is always plenty of work to do, and the expectation is that if you wish to practice you will have participated in the working bee.

CALENDAR.

Further changes! One significant date that has been changed is that the Victorian Hill Climb Championship Round 7 event which was to have been held at Broadford on August 22 will now be held at our track on August 29 – we had a Multiclub Hill Climb scheduled for that date, so we are merely changing the name of the event – it will still be a round of our Club Championship. We will finally get to run our own round of the VHCC (Round 2!!) in late September! Given that we had to cancel a recent multiclub event due to COVID, we have now put in an additional event on Sunday, October 17 – this again means that we still have 8 hill climbs for the year, albeit that three of them are rounds of the Victorian Hill Climb Championship - our round which is now later in the year, one which has already occurred (in April) and the Mini Club event to be held on August 29. The Victorian Hill Climb Championship at One Tree Hill at Ararat has also had a date change, and will now occur on the same day as our multiclub event in July - unfortunate that they are both on the same day, but that is the way the cookie crumbles.

Other dates shown on our Calendar which are not run by our Club may also change – keep your eye on the motorsport media or your favourite “socials” to keep track of what is happening.

CATERING AT OUR HILL CLIMB EVENTS

The same caterers who were at our most recent event, Single Shot Double Shot from Morwell, will again be at our event on July 18. Whilst their range of food is not expansive, it is certainly very tasty. If you are not into purchasing items from Canteens (in this case a very flash caravan) then BYO.

KHANACROSS.

We had our most recent khanacross on June 27, with 48 competitors. The last two khanacross events have had similar numbers of entries – a huge increase over our entry numbers in recent years. With increased entry numbers, however come increased problems – we cannot run such events with our usual small number of volunteers. When we were running events with 15 to 20 entrants, we could do it with three people at a stretch – last weekend we had five people working as officials, and with this number it is virtually impossible to do the job efficiently, even though all of the entrants would have thought that it was extremely well run.

An example of what I am talking about: our events are unique in that they are run on asphalt and competitors are penalised five seconds if they venture onto the grass anywhere around the test they are undertaking. This penalty is also imposed to keep people on the track and thus not cause possible damage our track edges. Two of the tests require competitors to do a 180 degree turn around a witch's hat at the Crossover – very tight, and many cannot do it without undertaking a three point turn thus taking 10 to 15 seconds longer than otherwise might be the case – most people who have to do this actually do it, but there are a number who do not. If we had sufficient officials, we would be able to have a spotter on site, but we do not, so we rely on the honesty system, which does not always work. How do I know that many competitors took only one turn around the marker, ventured onto the grass, and then continued on their merry way? – I had a look at the area at each end of the Crossover and it was plain to see from all of the tyre marks on the grass that this is what has occurred.

How do we overcome this? Do not use these tests. Or, ask all competitors to be honest and report in if they have ventured on to the grass. Or, have more officials, and this way the transgressions would not occur. The answer is thus simple – if a few more members volunteered to assist at our khanacross events, the problem would go away – no special skills are required of such officials apart from a few hours of your time

COMMUNITY MOTORSPORT PROGRAM SUBMISSIONS. Thanks to Ian Maud for co-ordinating the preparation of the Infrastructure Funding submission and to Scott Seddon for preparing the Club Assistance submission. Details of these submissions are contained elsewhere in this Valve Bounce.

TRACK INSPECTION. Motorsport Australia has a series of Triennial Track Inspections for motor sporting venues – we had our first since 2014 the other day! Rhys has written about this elsewhere, and we will shortly receive a report outlining what, if any, tasks we have to undertake to keep the place up to scratch, and thus in a safe condition for motor sport activities.

Even more of; 'The way we Were'

—c/o John Weymouth.

Ed: Last month long-term GCC member John Weymouth provided a fascinating look back into the history of the club through some pages of an old local newspaper. Sadly, despite my efforts, some of these scanned documents did not reproduce as well as I had hoped. Two articles in particular would be of interest to GCC members, so I have had these professionally scanned and they are putting in a repeat appearance here, to do justice to John's efforts.

THE GIPPSLAND
Car Club is getting ready for action again.

On Sunday, October 26, a quarter mile sprint has been organised jointly with the Simca Car Club of Victoria.

The organising committee for the event is headed by a well-known man in Gippsland motoring circles, Norm Boys from the GCC and Lindsay McColl from the Simca Car Club, which is based in Melbourne.

But the most exciting part of this news is that the event will be held at the Sandown Motor Race Track — how about that!

Entry fee is \$3 and the event is open to all members of a Confederation of Australian Motor Sports affiliate club.

So that means that all financial members of the GCC and the sub-branches at Warragul and Maffra may enter.

Car clubs from all over Victoria have been invited so we should see over 160 cars racing.

★

FOR THE public who are not aware of what a quarter mile sprint is, I will tell you.

Two cars of similar engine capacity line up side by side in the hands of the starter.

The green light says go. The two cars contact the starting spoons which start the timing clocks.

The two cars are off on their quarter mile

IN TUNE
With IAN LOCKWOOD



hill climb track remodel. More later on about that.

★

I MUST thank those who helped to send the representative Gippsland team to the Winter six hour race last Sunday. John Groute, Shell, Traralgon, supplied the petrol, J. Smith Motors tuned the cars and Connell's Garage supplied the spare parts.

Unfortunately we did not bring back the trophy. The four drivers put up a faultless drive.

In my opinion the team was handicapped out of the race this year.

★

NEXT WEEK: A full report on the event.

journey, racing against the clock and the other car.

At the end of the quarter, the cars stop the clock by passing through a set of photo elective cells.

Each car has four runs during the course of the day.

Times over classes are compared to assess the winner.

★

IT SOUNDS pretty tame, but what about coming down to Sandown on the day and seeing how spectacular this form of motor racing is?

You will see sports cars, racing cars and even the car you drive.

So why don't you come and see how the Gippsland motor sportsmen match up to the other clubs from all over Victoria?

★

LAST WEEK the Moe Race Track Development Committee presented their race track submission to the Moe City Council.

I have heard on the grape vine that the submission was very favorably received.

Let's hope, for the

MOTORING AROUND

with the TRARALGON JOURNAL

MORWELL ADVERTISER

MOE ADVOCATE



A TOUGH DAY AT WINTON



THE CRACK Gippsland Car Club team which competed in the Winton six hour relay at the weekend.

TOP LEFT: The team, Bill Harbridge (Tyers), Trevor McGee (Trafalgar) and Bill Riley (Willow Grove) pictured before the race.

ABOVE: Timer, Greg Ireland (Trafalgar) with Graeme Cornell (Morwell), the team manager, and Neville Smith (Morwell).

LEFT: Smith and Cornell.

BELOW: On the grid.

● How did they go? See In Tune, this issue.



**SO A NEIGHBOR
KNOCKED ON MY
FRONT DOOR AT 3AM...
3AM!!!
LUCKILY I WAS
ALREADY UP PLAYING
THE BAG PIPES.**

Ed: A letter sent to all members clubs from the AOMC – changes affecting Club Permit system:

Proposed Changes to the Club Permit Scheme

To all Member Clubs,

On Friday 11th June Department of Transport released a regulatory impact statement on the Road safety (Vehicles) Regulation 2021. They are seeking comment and feedback on the proposed changes. Note submissions close on Thursday 8th July.

This documentation is available for download on the Engage Victoria website. The link is <https://engage.vic.gov.au/road-safety-vehicles>

As part of this review some minor changes are proposed for the Club Permit Scheme.

These include

- Change the eligible age of permitted vehicles to 30 years, with some concessions for buses and military vehicles.
- Requiring evidence to accompany applications for club permits (incomplete application and renewal forms) In some cases clubs are not providing correctly completed forms to the authority.
- Providing for new penalties for offences of the operating conditions of the club permit and penalties for specific offences for logbook obligations
- Introduce a definition for a replica vehicle for the purpose of vehicle eligibility for the CPS to mean a light motor vehicle that is an individually constructed vehicle that resembles, as close as practicable, the appearance and dimensions of the equivalent production vehicle
- Adjust permit fees to see parity with full registration fees.

Electronic logbooks are being considered, but there is no suggested change within this documentation.

Please note there may be implications for classic and historic vehicles within the other proposed changes particularly to the regulations concerning written off vehicles!

The Association was advised of minor changes proposed to be introduced to the scheme in June 2020. Subsequently all member clubs were asked for comment on these proposed changes.

We encourage our member clubs to engage with The Department of Transport in their consultation process. Please make sure your comments to the department are reasonable and respectful!

Please advise our organisation of your club's input to the proposed changes.

Iain Ross
President

Ed: Bill Freame has very kindly submitted a number of articles in the past for Valve Bounce. In this offering, he goes into details about some of the 'stroker' motors he has been involved with over the years. Bill is a long-term and Life Member of the FIAT Car Club of Victoria, which will explain his numerous references to FIAT motors, as they have been his interest for decades.

It's wonderful what a bit of stroking will do.

-Bill Freame.

Insurance companies expect full disclosure when you negotiate insurance cover on your ride. They will probably notice when the engine has an extra two or four cylinders in the engine bay, or if there is an added, non-standard supercharger or turbo installation crammed in there. Some insurance companies even start getting nervous with a multiple carburettor or aftermarket injection system installed. However, if it all looks as standard as it was originally manufactured then insurance should be easily arranged. But the standard size engine may not provide the thrill you need and want, eventually. The problem is, if it's a collector vehicle of some desirability, matching numbers can be vital to maintain full value. We want to keep the insurance company happy and we want to improve the overall performance. What can we do? Well, read on, there is often a solution available with a little bit of investigative planning and money: lots and lots of money.

Additionally, there are many motorsport classes that impose engine capacity limits on the vehicles participating. This is often a means of controlling the performance and costs(?) by determining that capacity will be required to be 'Up to' and thus vehicles from many manufacturers can be involved. Fortunately, so many manufacturers assisted this situation by producing cars with engine capacities just under 3000cc, 2000cc, 1600cc, 1300cc and 1000cc. Yes, I'm ignoring the bigger engines at this time, just for the sake of this part of this story. They will eventually be mentioned!

Regretfully, at club level events there is never any threat of engine capacity checking amongst the entered vehicles, more so than ever before, now we are in an era of 'Self Scrutiny'. Yes, we are relying on the honesty system for entries to be in the correct classes. Hey, you guys with modern, factory turbocharged petrol engines, the swept volume needs to be multiplied by 1.7 to ensure you are entered in the correct capacity class. For example, a FIAT 500 Abarth of 1368cc swept volume, when multiplied by 1.7 comes out to 2326cc, so stop entering them in the under 2 litre class! How many competing in a Morris Cooper 'S' of 1275cc claim to have only been bored out 0.020" to become 1293cc and still remain under 1300cc? The SOHC 2 litre Ford Escort - well, that engine was available in other countries at 2300cc. How many Datsun 240Zs used in tarmac rallying haven't been 'stretched' to 2800cc or even larger? I could go on, but I better not.



Scrutineering- the moment of accountability

Many engine manufacturers have designed and produced their engines with some amazing over-engineering. The Morris Cooper 'S' mentioned above is based on the 'A' series engine that has been able to utilize the Morris 1100 auto crank, where the larger diameter big end journals have been able to be offset ground to increase the stroke, plus by offset boring the cylinders can have a capacity of around 1480cc, in extreme cases. Those extra 205cc have given an increase of 14% which is never to be sneezed at! Many engines have massive crank journal diameters that are capable of

being reduced and radially offset at the same time. That of course will require a connecting rod with a smaller big-end diameter. I can advise from experience that the FIAT 2 litre twin-cam crankshaft can have the stroke changed by 5mm, up to 95mm or reduced to 85mm with the use of a Mitsubishi Lancer Evo con-rod that uses turbo-capable bearings. Thus, with a 2mm bore increase the engine could be stretched to 2200cc, or reduced to 1975cc with improved breathing and strong revs capability yet still remain well under the 2-litre class limit. In each case the engine will require special pistons that have a non-standard compression height and very careful balancing and assembly.

It's all very well to dream about this world-beating engine we are all going to build, but having any standard crank stroked by welding and grinding or having a crank specially made is very expensive. Additionally, you may also need to purchase alternative pistons and con-rods to achieve the desired capacity within the confines of the original crankcase. Before you spend too much money on this astounding engine it might be a good idea to see if it is all going to fit inside and rotate with safety clearances in all the vital areas. Yes, theoretically that factory V-12 Jaguar of 5.3 litres could be stretched to 7 litres, because that was done for racing, but before I spend any of my money, I want to know that it can be successfully assembled. I don't have need of a paper weight that big if the stroke is wrong and won't fit!

Of all the FIAT engines I have (successfully) stroked over previous decades, I have always checked that the stroke I'm hoping to swing inside the crankcase will be able to be installed without too many interferences to be modified by grinding or machining. You always need to check the Con-rod shank clearance to the bottom of the bore or the big-end striking the cast-in oil gallery. The camshaft, the oil pan rails and the big-end striking some sump baffles are all the usual suspects. A soon-to-be-discarded used piston with all the rings removed should be mounted on the small end of the con-rod to give the desired con-rod travel as a dummy crank is rotated.



Dummy crank? Where in hell did that come from? Well, my technique has always been to machine out of a few scraps of round steel (or Aluminium) a mock-up main bearing and big-end journal of the correct sizes that will fit inside used bearings. With them bolted together eccentrically, the stroke can be very easily adjusted to whatever extreme you intend to try in the crankcase. For extreme stroke experiments where there is very little overlap between the journals, a bolted or welded on metal strip will permit larger offsets to be attempted. At this stage no money has been spent and yet

you will know if it can be successfully assembled and you will be able to accurately measure how much shorter the desired piston compression height will need to be on the new pistons. Stroke increases and with longer con-rods can become a piston problem if the deck height has become too short for your dream engine. The dummy crank helps identify these problems very early in the project!

The American V-8's that have been sold in cars here over the last 60 years have all been easily modified with some amazing stroker kits available from speed shops and performance suppliers. 350 Chev's can be stroked to 383 cubic inches with several kits available to suit. That's achieved with about a 6mm stroke increase. There are multiple stroker kits available for just about any small block and big-block Chev, Ford, Chrysler, Buick, plus in the USA they have also been stroking various VW engine combinations for years, for racing and quick street use. There are local importers of USA speed equipment so these kits can be obtained with a little searching, or you can buy directly from the USA manufacturers and import it yourself.

Holden 308s can be stretched up to about 355 CI, sometimes using a 350 Chev-style crank highly modified. Holden 186s were being stretched as far as 235 CI by using a very modified Falcon 221 crankshaft, however, the camshaft needs flats machined between the lobes, at the correct timing, progressively along the cam. Factory Holden 202 cams are reduced radially to clear the con-rods, but that is only 202 cubic inches, not the extreme modification out to 235 CI. The Red Holden engine began life as 149CI and 179 CI with a 76.2mm stroke, had the bore enlarged to achieve 186 CI and eventually was (factory) stroked to 82.55mm to achieve 202 CI. Local manufacturers of specialist crankshafts have been Harrop, Crankshaft Rebuilders and Chev Offroad and Marine, just in Victoria, plus Ivan Tighe Engineering in Brisbane. No doubt there are others I have missed but these were the main local players that I know of, capable of supplying good crankshafts.

That Jaguar V-12 mentioned earlier has a bore of 90mm and the stroke of only 70mm in its 5.3 litre standard form, thus just crying out for more stroke to be swinging in the crankcase. A once common conversion for Lotus twin-cam engines had been to install a modified Datsun 180B crankshaft to increase the capacity from 1600cc to around 1750cc, depending on how brave you are. The aforementioned Datsun 240Z has been stroked to beyond 2800cc: again bravery may be required. For serious rallying, the Datsun 200B engines of 2 litres were being stretched out to as big as 2.4 litres to make the 1600s fly! When Volvo replaced the B21 engine with the B23, the bore increased by 4mm, going from 92mm to 96mm, but the stroke remained the same at 80mm. If ever an engine cried out for more stroke, it was definitely the B23, but no, Volvo added a turbo instead to increase the urge on some models. The Mitsubishi Sigma had the engine options of 1850cc, 2000cc and 2600cc. For some motorsport (rallying) applications, the 2-litre crank was installed in the 2.6 block, giving 2400cc and the revs (red line) ability beyond the 2-litre with almost the torque of the 2.6 litre engine and with the balance shafts eliminated.

You want further examples, but of race engines? Well, the earliest Repco Brabham engines, known as the RB 620s, were built as 2500cc, 3000cc and 4200cc, all on the same Oldsmobile F85 crankcases. Peter Holinger, of Holinger Transmission fame, hill-climbed a 5000cc version he made, in his self-built car, and it was flexible enough that he would usually do a climb in the one gear, no gear changing ever necessary, to save time! An amusing secret that very few knew about this world-renowned gear-box manufacturer. The BRM V-8 started life for F1 at 1500cc, in the early '60s, was then stretched to 2000cc and finally to 2200cc for the Tasman series of races, which were limited to 2500cc engines. Similarly, Coventry Climax built the bullet proof, four-cylinder FPF that started at 1500cc for Formula One racing, was stretched to 2000cc, then 2500cc and finally the absolute limit became 2700cc, for Jack Brabham and the T54 Cooper-Climax run at the Indy 500, in 1961. The 2.7 engine obviously then became very popular for use in Sports Car racing, from that time on. These were all race engines, used in serious racing, at that time.



Coventry-Climax 1.5 litre FPF engine

The incredible FIAT X1-9 when originally released was performance limited by the little 1290cc engine of 86mm bore and with only a 55.5mm stroke. There was actually room in the crankcase to swing about 70mm of stroke, except there is a cast-in oil gallery that protrudes very low into the crankcase, the only thing getting in the way of the con-rod rotation. I did think of modifying a block once, by installing external oil feeds so the cast in gallery could be removed, but that has never (yet) happened. A 70mm stroke would give it beyond 1625cc capacity, more possible depending how

brave you are with stroke and a boring bar. Eventually a larger stroke engine was produced by FIAT for the later X1-9s, that crank being increased to 63.9mm stroke. That longer stroke crank was available as a spare part from FIAT dealers and so I became involved in making a few pistons for those small engines that we put the bigger crank into to increase the urge that those cars cried out for. Those pistons all had the pin hole machined into the oil ring groove, a common practice for any extreme stroker piston. But all that was such a long time ago so maybe there are only a few of them still in action! Now the fix for these X1-9s is they are getting the similar block, UNO Turbo engines installed which gives them the urge they are well capable of handling and gives them a factory set up that solves so many problems.



Abarth 750 GT, as mentioned in the May 2021 edition of VB

The Abarth 750 GT (Car #210) that has done 26 Targa Tasmania and many other Tarmac Rallies, eventually had two FIAT 600 original engines stretched from 633cc, of 60mm bore and a 56mm stroke crank, eased out to 994cc with a 65.4mm bore and a 74mm crank. That is an extreme stretch of any engine and replaced the originally modified engine that Abarth had stretched out to 750cc, back in the early '60s. I was keen to be involved with the build of these two engines and the pistons we made gave a compression ratio of 12.5:1 to run on AVGAS. We had to reduce the comp ratio a little

when leaded fuels were eventually banned. The bottom of the bores must be notched to clear the con-rods and the cam lobes only just miss the rotating bits, and that is only when the cam is correctly timed. The easier way would have been to install a much later FIAT 127 engine, of 65 x 68 = 903cc, but that would be an illegal Targa engine, using a more modern block and head. However, we did use the bigger 127 valves, the 127 con-rods, camshaft and the diaphragm clutch pressure plate. Thus, we elected to go all the way to 1000cc with our two legal engines in Targa 'Early Classic'.

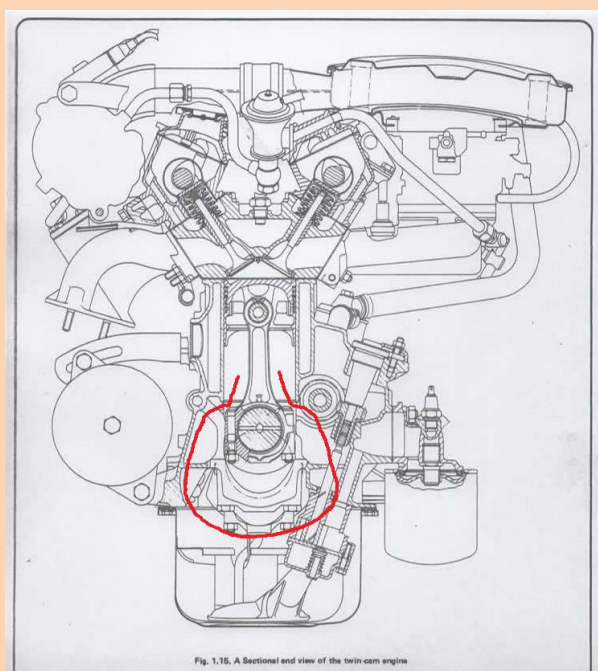
Many years ago, Maudy enjoyed rallying in his 1200cc push-rod FIAT 124 sedan and had me as one of several navigators for plenty of events. Eventually he sold the car to me while he replaced it with his previous to now, FIAT X1-9. Ian had installed a 5-speed 'box which gave the 124 a leisurely top speed, eventually, when it could get there. My solution was to stick with a push-rod engine, but a bigger one using a 'rare as hen's teeth' 1438cc push-rod block into which I would install a 1608cc, 80mm stroke twin-cam crank. That would fit because the mains are all at the same spacing and diameter. However, the longer stroke big end journals are bigger and I still wanted to use the 1438 con-rods. So, as the B/E journals needed to be ground smaller, might as well offset them as well? Thus, the new stroke became 82.4mm, only 11mm (slightly!) longer than the 1438 stroke of 71.5mm. I had the crank 'Tuftrided' which is a process that toughens the journals and stress relieves the whole crankshaft, prior to use. I made a set of pistons to 81mm bore and with the stroke at 82.4mm it gave me a very standard-looking pushrod engine of 1698cc, but with lots more torque. As it was my everyday driver, I also rallied it, towed



A blast from the past: the Editor and Bill in the late 70s rallying in a FIAT 124 sedan: 1,200cc of lusty Italian power, but soon to be transformed by stroking.

a race car with it and enjoyed the flexibility of it for about six years, finding using just 1st, 3rd and 5th gears in the 'box was the quickest way to drive it. 2nd gear was usually only used for turning tight left-hand corners.

Early 1975 FIAT 131's were only sold here with a 1585cc push-rod engine, but in the USA, they had the 1756cc DOHC engine instead. Common sense would see most (2nd) owners here do that very easy engine swap, as soon as the original engine became tired. That of course was a bit too easy for Bill, so for my early 131's next engine an unloved 1585 pushrod engine was sourced and also a 1756 crankshaft. The crank was stroked to 81.4mm and when bored to 85mm it had a capacity of 1848cc and pulled the 3speed auto very, very well. As luck would have it, a suitable cast piston blank to use was for the Datsun 200B, at a time when they were a recently current car and I had access to plenty of them! A lovely engine, I presently have dismantled it for a freshen-up after it being in storage for several years. Rings, bearings, gaskets and a valve grind are all it needs. That capacity increase of 263cc made a huge driving difference. Later on, my son Paul had a Fiat Regatta 100S for a while, that's got the DOHC 1585cc engine. On country trips, he had to decide between 5th gear or the air-con, but never both! After we stroked another 100S engine to 1850cc for his car he could then use 5th gear and the air-con at the same time. As I wanted to keep as much inertia in this stroked crank



End view of a FIAT Regatta 100S twin-cam engine. The red line shows the path of the con-rod with the standard 71.5mm crank.

An increased stroke has it all moving in bigger arcs and getting closer to everything.

This FIAT 1756 crank is 79.2mm, but was stroked to 81.4mm, to further fill up the crankcase!

as possible, I machined three flats on each of the counterbalance weights, just where the piston gets close at BDC. The most was machined at BDC: then less needed to be machined off at 15 degrees either side of that - thus eliminating an interference of about 5mm with the pin boss at that one spot.

I'm not suggesting that stroking a 'rare in this market' engine is easy, or cheap. But any combination built with a long stroke and short con-rods in an engine gives amazing flexibility at low revs, which is why stroked engines are great for towing and cruising. I don't know about you, but that's about all I seem to be doing these days and I do enjoy driving with flexibility.

If you have read this far, you are obviously a bit interested in the subject, so I better point out a few things that need to be considered to ensure a successful capacity increase. The little end of the con-rod travels up and down the bore in a straight line, guided by the piston in the cylinder. The big-end

however flails around within the crankcase and increasing the stroke brings the lumpy bits of the big-end closer to the crankcase walls, the cast-in oil gallery, the oil pump, the sump sides and baffles plus the camshaft or balance shaft. The piston travels further into the crankcase and at BDC may have interference with the crank balance weights, unless they are machined to allow clearance. Because the big-end is going further up into the cylinder, the bottom of the bores may need to be notched to provide clearance because the big-end travels sideways as the crank approaches and departs TDC. As you will possibly need to have pistons specially made to suit your application, the pin diameter can be reduced and a skinny ring pack specified to help with the reduced compression height. There are very good pin materials available, far superior to standard production items made to a price. It should be pretty obvious to most that increasing the stroke of an engine places further stress on the main bearing caps and on all the mains and big-end bolts that are trying to hold it all together. Thus, it's a very good idea to have it all carefully balanced to reduce vibrations as much as possible. With the pistons travelling further with each crank rotation, they will be doing more useful work and trying to suck harder on the intake system. Big-valve heads that are ported to feed more air are really only necessary for race applications. Keeping the ports and valves small will further enhance the bottom end torque and keep the fuel economy respectable because the gas velocity through the ports will be quite high at low revs.

I would never suggest or encourage that anyone make a false declaration when applying for an insurance policy or filling in an event entry, so please don't do that. Be proud of what you have squeezed into the confines of your engine. Let the others wonder how you have stretched it out to the capacity that you are claiming it is. For a cruiser or a tow vehicle, capacity is king.



MACHINING & CYLINDER HEADS

28 CHICKERELL ST. MORWELL phone: 51344023
email: simon@btrmorwell.com.au

- Cylinder Head Reconditioning
- New Cylinder Heads
- Torque Plate Boring
- Diamond Honing
- Flywheel Grinding
- Engine Reconditioning: Petrol and Diesel
- Engine Balancing, Crankshaft & Flywheel
- Crankshaft Grinding And Crack Testing
- Pressure Testing Of Cylinder Heads
- Petrol Injector Reconditioning & Testing.



SPECIALIZING IN DYNO TUNING CARBURETOR'S



Simon@btrmorwell.com.au

5134 4023

arrow
LINEMARKING

No job too small, give us a call!

Ed: One of the greatest tales ever told in motorsport history must be journalist Denis 'Jenks' Jenkinson's fabulous account of the 1955 Mille Miglia, in which he navigated for Stirling Moss in a Mercedes 300SLR – the duo famously won, becoming the first non-Italian team to do so. A good part of this success was due to the use of pace notes, and an innovative 'toilet roll' design that allowed Jenks to scroll through the notes without having loose papers blowing around the cockpit.

On his return to England, Jenks wrote a 10,000-word account of the race, in which he gives reasons why they won, but in amongst the legendary driving by Moss there are a handful of events that could have easily brought them undone. This article was published in the next edition of 'MotorSport' magazine.

I have received kind permission from the Editor-At-Large of MotorSport magazine, Mr Gordon Cruickshank, to reproduce extracts from this wonderful account, as it appeared in the June, 1955 edition of MotorSport.

If you've never read this account before, you're in for a treat! Grab a cuppa, sit back and enjoy an insight into the times and conditions these two faced as they tackled the ultimate road course in 1955.

MOTORSPORT

With Moss in the Mille Miglia



On May 1st motor-racing history was made, for [Stirling Moss](#) won the 1,000-mile Mille Miglia, the first time in twenty-two years that this has been achieved by a British driver, and I had the very great privilege of sitting beside him throughout this epic drive.

But let us go back to the beginning, for this win was not a fluke on the spur of the moment, it was the result of weeks, even months, of preparation and planning. My enthusiasm for the Mille Miglia race goes back many years, among the reasons being the fact that it is permissible to carry a passenger, for this event is for all types of road-going cars, from family saloons to Grand Prix-type racing/sports cars, and when I had my first taste of the lure of the Mille Miglia as a competitor last year, with Abecassis in the H.W.M., I soon set about making plans for the 1955 event.

Regular *Motor Sport* readers will remember that last year I enthused over a little private dice that Moss gave me in a [Maserati](#), and at the time I mentioned to him my desire to run in the Mille Miglia again. Then in September, whilst in discussion with the American driver John Fitch, we came to the decision that the only way a non-Italian could win the Mille Miglia was by applying science. At the time he was hoping to be in the official [Mercédès-Benz](#) team for the event, and we had long talks about ways in which the driver could use a passenger as a mechanical brain, to remove the responsibility of learning the circuit. When it is realised that the race is over 1,000 miles of ordinary, unprepared Italian road, the only concession to racing being that all traffic is removed from the roads for the duration of the race, and the way through towns is lined with straw bales, it will be appreciated that the task of one man learning every corner, every swerve, gradient, hummock, brow and level-crossing is nigh impossible. Even the top Italian drivers, such as [Taruffi](#), [Maglioli](#), [Castellotti](#), etc., only know sections of the route perfectly, and all the time they must concentrate on remembering what lies round the next corner, or over the next brow.

During the last winter, as is well known, Moss joined the Mercedes-Benz team and the firm decided that it would not be possible for Fitch to drive for them in the Mille Miglia, though he would be in the team for [Le Mans](#), so all our plans looked like being of no avail. Then, just before Christmas, a telephone call from Moss invited me to be his passenger in the Mille Miglia in a Mercédès-Benz 300SLR, an invitation which I promptly accepted, John Fitch having sportingly agreed that it would be a good thing for me to try out our plans for beating the Italians with Moss as driver.

When I met Moss early in the new year to discuss the event I already had some definite plan of action. Over lunch it transpired that he had very similar plans, of using the passenger as a second brain to look after navigation, and when we pooled our accumulated knowledge and ideas a great deal of ground work was covered quickly. From four previous Mille Miglia races with Jaguars Moss had gathered together a good quantity of notes, about bumpy level-crossings, blind hill-brows, dangerous corners and so on, and as I knew certain sections of the course intimately, all this knowledge put down on paper amounted to about 25 per cent of the circuit.

Early in February Mercédès-Benz were ready to start practising, the first outing being in the nature of a test for the prototype 300SLR, and a description of the two laps we completed, including having an accident in which the car was smashed, appeared in the March *Motor Sport*. While doing this testing I made copious notes, some of them rather like Chinese due to trying to write at 150 m.p.h., but when we stopped for lunch, or for the night, we spent the whole time discussing the roads we had covered and transcribing my notes. The things we

concentrated on were places where we might break the car, such as very bumpy railway-crossings, sudden dips in the road, bad surfaces, tramlines and so on. Then we logged all the difficult corners, grading them as “saucy ones”, “dodgy ones” and “very dangerous ones”, having a hand sign to indicate each type. Then we logged slippery surfaces, using another hand sign, and as we went along Moss indicated his interpretation of the conditions, while I pin-pointed the place by a kilometre stone, plus or minus. Our task was eased greatly by the fact that there is a stone at every kilometre on Italian roads, and they are numbered in huge black figures, facing oncoming traffic.



Stirling Moss pictured next to his Mercedes 300SLR during testing at Hockenheim

In addition to all the points round the course where a mistake might mean an accident, and there are hundreds of them, we also logged all the long straights and everywhere that we could travel at maximum speed even though visibility was restricted, and again there were dozens of such points. Throughout all this preliminary work Moss impressed upon me at every possible moment the importance of not making any mistakes, such as indicating a brow to be flat-out when in reality it was followed by a tight left-hand bend. I told him he need not worry, as any accident he might have was going to involve me as well, as I was going to be by his side until the race was finished. After our first practice session we sorted out all our notes and had them typed out into some semblance of order, and before leaving England again I spent hours with a friend, checking and cross-checking, going over the whole list many times, finally being 100 per cent. certain that there were no mistakes.

On our second visit to Italy for more laps of the circuit, we got down to fine details, grading some corners as less severe and others as much more so, especially as now we knew the way on paper it meant that we arrived at many points much faster than previously when reconnoitring the route. On another lap I went the whole way picking out really detailed landmarks that I would be able to see no matter what the conditions, whether we had the sun in our eyes or it was pouring with rain, and for this work we found Moss' Mercedes-Benz 220A saloon most useful as it would cruise at an easy 85 m.p.h. and at the same time we could discuss any details.

“Moss said he'd ease it back to 160 m.p.h. for, though that 10 m.p.h. would make no difference to the resulting crash if I had made a mistake, it comforted him psychologically!”

Our whole plan was now nearing completion, we had seventeen pages of notes, and Moss had sufficient confidence in me to take blind brows at 90-100 m.p.h., believing me when I said the road went straight on; though he freely admitted that he was not sure whether he would do the same thing at 170 m.p.h. in the race, no matter how confident I was. He said he'd probably ease it back to 160 m.p.h. for, though that 10 m.p.h. would make no difference to the resulting crash if I had made a mistake, it comforted him psychologically! Throughout all this training we carefully kept a log of our running time and average speeds, and some of them were positively indecent, and certainly not for publication, but the object was to find out which parts of the 1,000 miles dropped the overall average and where we could make up time, and our various averages in the 220A, the 300SL and the 300SLR gave us an extremely interesting working knowledge of how the Mille Miglia might be won or lost.

Our second practice period ended in another accident and this time a smashed 300SL coupé, for Italian army lorries turn across your bows without warning just as English ones do. Rather crestfallen, we anticipated the rage of team-chief Neubauer when we reported this second crash, but his only worry was that we were not personally damaged; the crashed car was of no importance; these things happened to everyone and anyway their only interest was to win the Mille Miglia, regardless of cost.



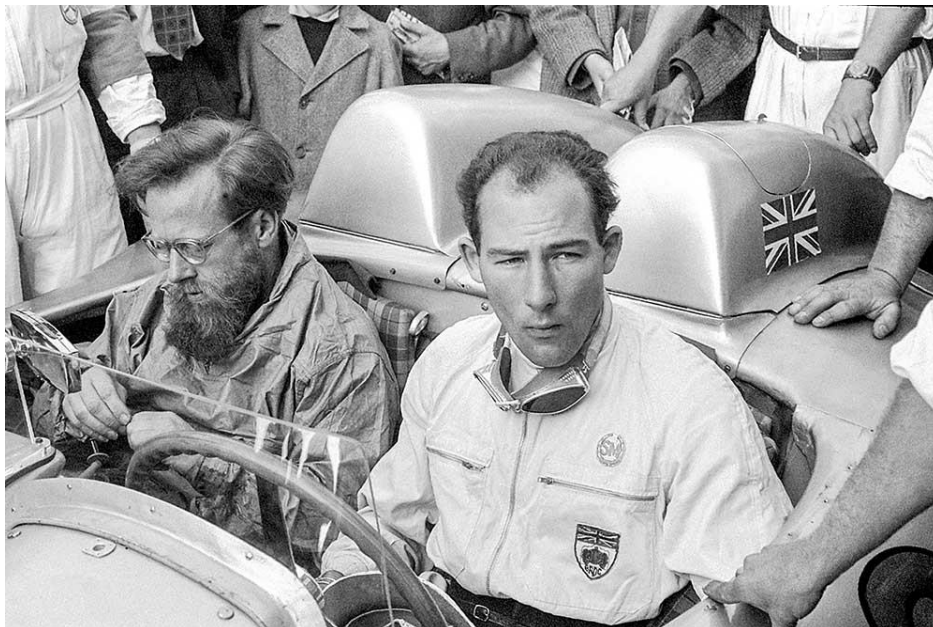
Motor Sport correspondent Denis Jenkinson and Stirling Moss prepare for the start of 1955 Mille Miglia

Leaving Italy for another brief respite, we both worried-out every detail we could think about, from every aspect, the car, the route, our hand signals — for we could not converse in the 300SLR — any emergencies that might arise, anywhere we could save seconds, details of our own personal comfort which would avoid fatigue, and so on. We lived and breathed Mille Miglia day in and day out, leaving no idea untried. The joy of all this was that Daimler-Benz were doing exactly the same things on the mechanical side, supervised by engineers Uhlenhaut, Kosteletzky and Werner, while the racing department were working unceasingly and Neubauer was worrying-out every detail of the race-organisation in Italy. We were putting all our efforts into this race, knowing that they were negligible in comparison with those of the factory.

After Easter we went out to Brescia for our third and final practising session, the technical department, with Kling and Herrmann, having already made an extra one. During their

practice period they had thrashed the prototype car up and down the section from Rome to Florence, for this part of the route was the hardest. There are few straights, but all the time the car is averaging nearly 100 m.p.h., the chassis being subjected to strains from every possible angle, and as the 58-gallon petrol tank would be full when leaving Rome, this part of the route would be the most likely on which a breakdown would occur.

A week before the event we went to Stuttgart to try out the actual car we were using in the race, and several laps of the fast Hockenheim circuit convinced us that we had a truly magnificent 3-litre sports car under us, the eight-cylinder fuel-injection engine giving well over 290 b.h.p. on normal pump petrol, and the car geared to give a maximum of 170 m.p.h. at the peak revolutions of 7,500 r.p.m., though we were given no ultimate limit, should the car wind itself over this downhill. On this SLR the seats were made to measure for us, being cut-and-shut just like a tailor would make a suit, while every detail in the cockpit received our personal attention, and anything was altered to our desire without question. When we finally left the racing department at 5 p.m. on Tuesday, April 26th, we had the pleasant feeling that we had just left an organisation that knew no limit to the trouble they would go to in order that we might start the Mille Miglia with everything on our side.



*Motor Sport correspondent
Denis Jenkinson and Stirling
Moss before the start of the
race*

Next day we flew to Brescia and when we went round to the garage in the evening the cars were already there, having been driven down in the fast racing lorries overnight. We were now satisfied with almost everything we could think about; we had practised wheel-changing over and over again, in case we had tyre trouble, and I would add that we impressed the Mercedes-Benz mechanics by changing a rear wheel in 1 min. 25 sec. from stopping the car to starting off again, including getting the tools and spare wheel out of the boot and putting everything back again. We had practised fitting the temporary aluminium aero-screens that went in front of the Perspex screen should it be broken by a stone—Mercedes-Benz engineers remembering how [Hermann Lang](#) was nearly suffocated at 170 m.p.h. at Donington Park in 1938 when his windscreen was broken. We had tried changing plugs; we had studied the details of the pipes of the fuel-injection, the petrol pumps, various important parts of the wiring system, how the bonnet catches functioned; we were given spare ignition keys, shown where numerous small spares were stowed should we stop by the roadside with minor trouble; and by the end of the week we felt extremely confident that we could give of our best in this toughest of motor races, lasting for more than 10 hours over every known road condition, over mountains and through cities, for 1,000 miles.

On the Friday before the race we did a final test on the nearby Autostrada, to try-out some windscreen modifications to improve the air-flow along the cockpit sides. Also Moss tried out a new mechanism fitted to the gear-change that would prevent him from changing from second gear to fifth gear. The gear-gate is exposed, with first left-forward, second centre-rear, third centre-forward, fourth right-rear, and fifth right-forward. Being used to four-speed boxes Moss was occasionally going across the gate from second to fifth, and when he told the engineers about this the racing department set to and designed, drew and made an entirely foolproof link mechanism that fitted on the top of the gate that would prevent this. He mentioned this on Tuesday afternoon and on Friday morning the new parts arrived in Brescia and he was trying the mechanism out before lunch — at such speed does a true racing department work.

For the week before the race I had been going to bed extremely early and getting up extremely early, a complete reversal of my normal life, for to suddenly get up at 6 a.m. gives me a feeling of desolation until well past mid-morning. Moss had been employing similar tactics, so that when we went down to the start at 6.30 a.m., on the morning of May 1st we were both feeling ready for anything.



*Juan Manuel Fangio
prepares to roll off in his
Mercedes*

All the previous week a truly Italian sun had blazed out of the sky every day and reports assured us that race-day would be perfectly dry and hot, so we anticipated race speeds being very high. I had a list of the numbers of all our more serious rivals, as well as many of our friends in slower cars, and also the existing record times to every control point round the course, so that we would have an idea of how we were doing. We had privately calculated on an average of 90 m.p.h. – 2 m.p.h. over the record of Marzotto, providing the car went well and the roads were dry. Mercedes-Benz gave us no orders, leaving the running of the race entirely to each driver, but insisting that the car was brought back to Brescia if humanly possible. Moss and I had made a pact that we would keep the car going as long as was practicable having decided in practice at which point we could have the engine blow-up and still coast in to the finish, and how many kilometres we were prepared to push it to the finish, or to a control. At Ravenna, Pescara, Rome, Florence and Bologna there were Mercedes-Benz pits, complete with all spares, changes of tyres should it start to rain, food, drink and

assistance of every sort, for in this race there are no complicated rules about work done on the car or outside assistance; it is a free-for-all event.

“If we didn’t press-on straight away there was a good chance of the dice becoming a little exciting, not to say dangerous”

The enormous entry had started to leave Brescia the previous evening at 9 p.m., while we were sleeping peacefully, the cars leaving at 1-min. intervals, and it was not until 6.55 a.m. on Sunday morning that the first of the over-2,000-c.c. sports cars left. It was this group that held the greatest interest, for among the 34 entries lay the outright winner of this race, though many of the 2-litre Maseratis and smaller Oscas and [Porsches](#) could not be overlooked. Starting positions were arranged by ballot beforehand and the more important to us were: Fangio 658, Kling 701, [Collins](#) ([Aston Martin](#)) 702. Herrmann 704, Maglioli (Ferrari) 705; then there went off a group of slower cars, and [Carini](#) (Ferrari) 714, [Scotti](#) (Ferrari) 718, Pinzero (Ferrari) 720, and then us at 7.22 a.m. There was no hope of seeing our team-mates, for they left too long before us, as did Maglioli, but we were hoping to catch Carini before the end. Our big worry was not so much those in front, but those behind, for there followed Castellotti (Ferrari 4.4-litre) 723, Sighinolfi (Ferrari 3.7-litre) 724, Paulo Marzotto (Ferrari 3.7-litre) 725, Bordoni ([Gordini](#) 3-litre) 726, [Perdisa](#) (Maserati 3-litre) 727 and, finally, the most dangerous rival of them all, that master tactician, Taruffi (Ferrari 3.7-litre) 728. With all these works Ferraris behind us we could not hang about in the opening stages, for Castellotti was liable to catch us, and Sighinolfi would probably scabble past us using the grass banks, he being that sort of driver, and Marzotto would stop at nothing to beat the German cars, so if we didn’t press-on straight away there was a good chance of the dice becoming a little exciting, not to say dangerous, in the opening 200 miles.

Neubauer was ever present at the start, warning Moss to give the car plenty of throttle as he left the starting ramp, for Herrmann had nearly fluffed his take-off; he also assured us that we could take the dip at the bottom of the ramp without worrying about grounding. The mechanics had warmed the engine and they pushed it up onto the starting platform to avoid unnecessary strain on the single-plate clutch, one of the weak points of the 300SLR. The route-card which we had to get stamped at the various controls round the course was securely attached to a board and already fitted in its special holder, the board being attached by a cord to one of my grab-rails, to avoid losing it in the excitement of any emergency. We both settled down in our seats, Moss put his goggles on, I showed him a note at the top of my roller device, warning him not to apply the brakes fiercely on the first corner, for the bi-metal drums needed a gentle application to warm them after standing for two days.



*The Moss/Jenkinson
Mercedes rolls off at the
start*

Thirty seconds before 7.22 a.m. he started the engine, the side exhaust pipes blowing a cloud of smoke over the starter and Sig. Castegnato and Count Maggi, the two men behind this great event, and then as the flag fell we were off with a surge of acceleration and up to peak revs, in first, second and third gears, weaving our way through the vast crowds lining the sides of the road. Had we not been along this same road three times already in an SLR amid the burly-burly of morning traffic, I should have been thoroughly frightened, but now, with the roads clear ahead of us, I thought Moss could really get down to some uninterrupted motoring. We had the sun shining full in our eyes, which made navigating difficult, but I had written the notes over and over again, and gone over the route in my imagination so many times that I almost knew it by heart, and one of the first signals was to take a gentle S-bend through a village on full throttle in fourth gear, and as Moss did this, being quite unable to see the road for more than 100 yards ahead, I settled down to the job, confident that our scientific method of equalling the Italians' ability at open-road racing was going to work.

At no time before the race did we ever contemplate getting into the lead, for we fully expected Fangio to set the pace, with Kling determined to win at all costs, so we were out for a third place, and to beat all the Ferraris. Barely 10 miles after the start we saw a red speck in front of us and had soon nipped by on a left-hand curve. It was 720. Pinzero, number 721 being a non-starter. By my right hand was a small grab rail and a horn button; the steering was on the left of the cockpit, by the way, and this button not only blew the horn, but also flashed the lights, so that while I played a fanfare on this Moss placed the car for overtaking other competitors. My direction indications I was giving with my left hand, so what with turning the map roller and feeding Moss with sucking sweets there was never a dull moment. The car was really going well now, and on the straights to Verona we were getting 7,500 in top gear, a speed of 274 k.p.h., or as close to 170 m.p.h. as one could wish to travel. On some of these long straights our navigation system was paying handsomely, for we could keep at 170 m.p.h. over blind brows, even when overtaking slower cars, Moss sure in the knowledge that all he had to do was to concentrate on keeping the car on the road and travelling as fast as possible. This in itself was more than enough, but he was sitting back in his usual relaxed position, making no apparent effort, until some corners were reached when the speed at which he controlled slides, winding the wheel from right to left and back again, showed that his superb reflexes and judgment were on top of their form.

Cruising at maximum speed, we seemed to spend most of the time between Verona and Vicenza passing Austin-Healeys that could not have been doing much more than 115 m.p.h., and, with flashing lights, horn blowing and a wave of the hand, we went by as though they were touring. Approaching Padova Moss pointed behind and looked round to see a Ferrari gaining on us rapidly, and with a grimace of disgust at one another we realised it was Castellotti. The Mercédès-Benz was giving all it had, and Moss was driving hard but taking no risks, letting the car slide just so far on the corners and no more. Entering the main street of Padova at 150 m.p.h. we braked for the right-angle bend at the end, and suddenly I realised that Moss was beginning to work furiously on the steering wheel, for we were arriving at the corner much too fast and it seemed doubtful whether we could stop in time. I sat fascinated, watching Moss working away to keep control, and I was so intrigued to follow his every action and live every inch of the way with him, that I completely forgot to be scared. With the wheels almost on locking-point he kept the car straight to the last possible fraction of a second, making no attempt to get round the corner, for that would have meant a complete spin and then anything could happen. Just when it seemed we must go head-on into the straw bales Moss got the speed low enough to risk letting go the brakes and try taking the corner, and as the front of the car slid over the dry road we went bump into the bales with our left-hand front corner, bounced off into the middle of the road and, as the car was then pointing in the right direction, Moss selected bottom gear and opened out again.

...and that's where we have to leave it for the time being! (Awww!)

If you'd like to read the entire account, the good folk at MotorSport have published it on their web site, which in itself is a fascinating read. You can find the Moss/Jenks article at:

<https://www.motorsportmagazine.com/archive/article/june-1955/14/moss-mille-miglia>

Their entire archive, covering 95 years of motorsport in the UK and around the world, can be found at: <https://www.motorsportmagazine.com/archive/issues>

-with many thanks to Gordon and the team at MotorSport magazine for allowing the use of this extract.



FOR SALE:

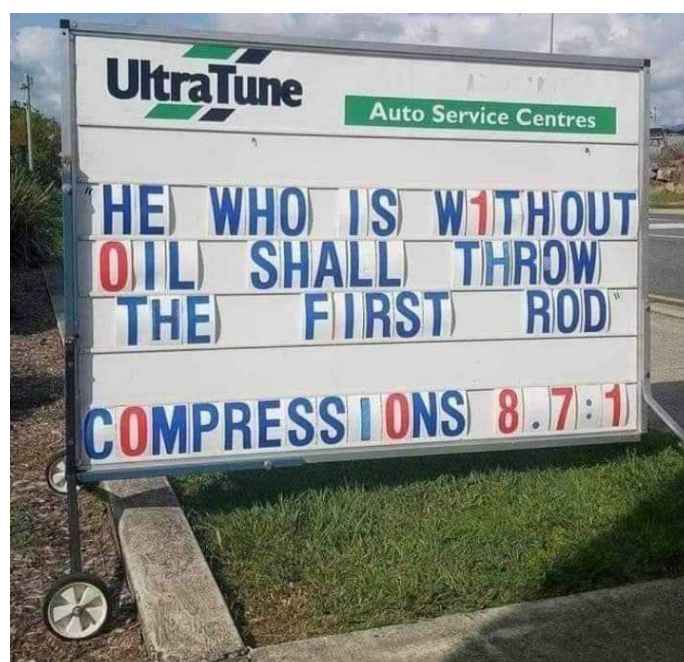
AVON ACB10 Race tyres

Size 6.0/21.0-13"

Several sets available

Many tyres as new, \$15-20 each

PHILIP FINGER 0412 671395



RESULTS

Outright Place	NAME	CLUB	VEHICLE	Carpark A		Carpark B		Back CW		Back ACW		D&B North		D&B South		Short CW		TOTAL
				Rank	Time	Penalty	Time	Penalty	Time	Penalty	Time	Penalty	Time	Penalty	Time	Penalty	Time	
1	Matthew Paulet	GCC	Hyundai Excel	F	1	38.47	33.42	36.78	37.68	44.68	55.02	65.16						311.21
2	Steven Cassar	MX5VT	Mazda MX-5	D	1	36.23	35.92	38.85	37.76	43.59	54.22	68.64						315.21
3	Saneth Wijekoon	MX5VT	Mazda MX-5	C	1	32.84	31.74	40.28	38.94	46.03	56.18	71.63						317.64
4	Jake Southgate	IWC	Volkswagen Golf	G	1	32.50	33.51	41.00	39.89	48.92	57.52	68.82						320.16
5	Andrew Tate	MX5VT	Mazda MX-5	D	2	38.06	34.34	40.78	39.54	48.36	54.89	68.38						320.35
6	Ian Maud	GCC	Fiat X11/9	C	2	40.05	F	38.86	38.04	43.46	55.40	67.85						321.15
7	Scott Seddon	GCC	Volkswagen Golf	G	2	34.53	32.75	39.36	41.95	44.67	62.42	68.69						324.37
8	Peter Ferguson	GCC	Mazda MX-5	C	3	35.39	34.18	39.89	39.47	44.26	59.99	72.35						325.63
9	Mark Wakeman	PAC	Toyota Celica	D	3	35.86	35.59	40.25	39.93	46.53	58.51	72.03						328.70
10	Adam Pass	FFCC	Toyota Paseo	C	4	34.17	32.45	39.40	38.43	57.20	67.63	70.24						329.52
11	Sei Vella	GCC	Mazda MX-5	C	5	36.91	36.48	44.46	40.03	48.02	56.42	69.34						331.66
12	Andrew Boyce	MX5VT	Ford Focus	D	4	35.79	34.78	39.59	39.88	45.02	65.07	73.32						333.43
13	Mitchell Newton	GCC	Holden Commodore SS	D	5	36.37	41.51	F	38.01	46.21	57.88	76.35	T					336.45
14	Neil Roshier	GCC	Ford Fiesta	C	6	32.74	32.97	41.16	38.31	52.69	66.20	73.02						337.09
15	David Mackrell	MX5VT	Mazda MX-5	C	7	32.40	WD	40.76	39.11	43.75	56.75	68.69						339.45
16	David Salter	MX5VT	Mazda MX-5	C	8	37.41	36.15	41.90	39.65	47.63	62.18	74.89						339.51
17	Wayne Jensen	IWC	Ford Focus	D	6	37.00	34.89	42.54	39.88	50.50	65.92	73.27						344.00
18	Charles Pratt	VCBG	Caterham 355S	C	9	49.75	WD	37.87	36.15	57.06	X	62.21	X					355.14
19	James Neilson	VMC	Leyland Mini	C	10	38.81	F	41.17	56.70	50.62	61.30	75.78						358.13
20	William Roshier	GCC	Ford Fiesta	C	11	34.82	38.96	F	44.49	54.12	68.85	76.56						358.47
21	Benjamin Selwyn	GCC	Hyundai Accent	J	1	39.12	40.30	45.90	45.91	49.31	65.09	75.14						361.27
22	Ian Matthews	PAC	Suzuki Swift	C	12	35.08	WD	42.07	39.09	52.14	81.35	73.82						361.54
23	Jarrod Bryant	GCC	Toyota Corolla	C	13	38.72	36.43	43.28	43.11	54.28	71.31	75.23						362.34
24	Styler Jensen	IWC	Ford Focus	J	2	40.00	37.21	44.31	39.92	53.75	72.74	F						365.25
25	Nicholas Owens	NCCA	Ford Falcon	D	7	35.42	WD	39.14	38.76	60.99	F	73.00						365.44
26	Raymond Vella	GCC	Mazda MX-5	C	14	44.06	F	47.84	44.41	55.84	F	75.63						368.58
27	Cai Allen	MX5VT	Mazda MX-5	D	8	38.31	WD	45.42	45.28	47.26	83.51	71.02						368.77
28	William Morgan	GCC	Hyundai Accent	C	15	41.64	39.30	46.24	42.09	55.52	69.04	78.05						371.88
29	Praveen Hordagoda	NCCA	BMW 318is	D	9	44.50	39.74	43.72	49.74	47.74	74.25	74.12						373.81
30	Read Ross	MX5VT	Mazda MX-5	C	16	33.54	32.74	47.56	39.49	WD	80.03	77.27	T					379.92
31	Byron Townsend	GCC	Austin 1800	F	2	41.89	WD	50.89	47.21	56.48	81.06	73.44						389.06
32	Dylan Goodwin	GCC	Nissan 370z	C	17	WD	40.48	43.06	42.60	51.19	73.67	T						394.55
33	Aith Perera	MX5VT	Mazda MX-5	C	17	WD	32.97	42.06	39.51	44.24	57.96	DNS						394.84
34	Robert Krygsmann	MX5VT	Mazda MX-5	C	18	WD	37.96	48.98	47.92	50.13	88.48	80.17						397.99
35	Jeffrey Marsh	MX5VT	Mazda MX-5	C	19	42.41	WD	48.63	46.24	56.71	69.36	83.55						404.89
36	John Radnell	MX5VT	Mazda MX-5	C	20	38.65	35.84	48.48	44.95	WD	87.14	F						405.80
37	Ian Mayze	GCC	MGB Roadster	C	21	39.10	WD	46.06	43.84	51.88	85.27	WD						406.89
38	Hugh Chanton	VCBG	Fraser Seven	C	22	46.58	F	40.17	39.33	43.13	DNS	DNS						417.55
39	Darren Groatorex	MX5VT	Mazda MX-5	C	23	48.58	43.52	54.78	51.70	57.92	84.01	88.31						428.82
40	Alyssa Perks	GCC	Mazda MX-5	J	3	44.92	40.98	55.32	51.62	60.34	79.33	96.42						428.93
41	Sarah Seddon	GCC	Volkswagen Golf	J	4	52.32	44.51	56.28	50.18	60.41	79.64	91.40						434.74
42	Corey Wakeman	PAC	Toyota Celica	J	5	WD	WD	40.68	WD	57.50	T	87.81	T					444.22
43	Marisa Gangemi	AROCA	Abarth 500	D	11	38.51	38.25	51.39	52.41	91.65	T	97.75	F					446.21
44	Emily Newton	GCC	Holden Commodore	D	12	40.72	38.63	49.98	49.35	DNS	83.39	DNS						458.08
45	Jack Groatorex	MX5VT	Mazda MX-5	J	6	59.35	52.99	62.86	53.45	60.23	81.37	94.78	F					465.15
46	Mark Newton	GCC	Holden Commodore	D	13	45.74	41.11	39.75	38.03	DNS	DNS	DNS						480.65
47	Bill Roder	MX5VT	AMG A45	G	3	35.15	34.11	40.64	DNS	DNS	DNS	DNS						488.62
48	Peter Shinn	MX5VT	Mazda MX-5	C	24	DNS	DNS	DNS	DNS	DNS	DNS	DNS						612.04

Penalties noted in TIME column have Slowest Time + Penalty Applied

Slowest Time Used (slowest or twice fastest)

59.35

52.89

62.98

56.70

86.26

84.01

97.75

Penalties Legend

F	Strike course flag/cone	Time +5 secs per marker
T	Leaving Track bounds	Time +5 secs per incident
X	Finishing with part of vehicle outside garage	Time +5 secs
FS	Failure to Stop in Garage	ST + 5 secs
WD	Wrong Direction	ST + 5 secs
FC	Failure to Complete the Test	ST + 5 secs
DNS	Did not attempt test	ST + 10 secs

CLASSES

C	Production 2WD up to 2000 capacity
D	Production 2WD 2001 and over
G	Production 4WD
F	Special
J	Junior

HIGHLIGHTED TIME INDICATES FASTEST TIME OF RUN (Including any penalty)

2021 GCC KHANACROSS CHAMPIONSHIP

		R1 21-Feb	R2 28-Mar	R3 23-May	R4 27-Jun	R5 15-Aug	R6 12-Sep	R7 31-Oct	R8 12-Dec	Total
OUTRIGHT										
1	Matthew Paulet	20	20	20	20					80
2	Scott Seddon	17	15	17	15					64
3	Peter Ferguson	10	17		13					40
4	Byron Townsend	4	8	15	3					30
5	Mitchell Newton	7	1	11	10					29
6	William Roshier	6	6	8	8					28
7	Neil Roshier	5	9	4	9					27
8	Sei Vella			13	11					24
9	Mark Newton	2	11	9						22
10	Benjamin Selwyn	1	7	6	7					21
11	Ian Maud				17					17
12	William Morgan		2	10	4					16
13	Sean Priestly	15								15
14	David Thirlwall	13								13
15	Dean Evans		13							13
16	Raymond Vella			7	5					12
17	Blake Coady	11								11
18	Terry Selwyn	3	3	5						11
19	Thomas Foley		10							10
20	Rhys Yeomans	9								9
21	Carrie Thirlwall	8								8
22	Jarrold Bryant				6					6
23	Tom Green		5							5
24	Ian Mayze		4		1					5
25	Sarah Seddon			3						3
26	Emily Newton			2						2
27	Dylan Goodwin				2					2
28	Alyssa Perks									0
29	Jack Priestly									0
30	Zara Priestly									0

Production 2WD up to 2000 capacity										
1	Peter Ferguson	20	20		17					57
2	William Roshier	15	15	15	11					56
3	Neil Roshier	13	17	10	13					53
4	Sei Vella			20	15					35
5	William Morgan		10	17	8					35
6	Terry Selwyn	11	11	11						33
7	Raymond Vella			13	9					22
8	Ian Maud				20					20
9	Ian Mayze		13		7					20
10	Rhys Yeomans	17								17
11	Jarrold Bryant				10					10

Production 2WD 2001 and over										
1	Mitchell Newton	13	13	20	20					66
2	Mark Newton	11	17	17	13					58
3	Emily Newton		11	15	15					41
4	Sean Priestly	20								20
5	Dean Evans		20							20
6	Blake Coady	17								17
7	Dylan Goodwin				17					17
8	Carrie Thirlwall	15								15
9	Tom Green		15							15

Production 4WD										
1	Scott Seddon	20	20	20	20					80
2	Thomas Foley		17							17

SPECIAL										
1	Matthew Paulet	20	20	20	20					80
2	Byron Townsend	15	17	17	17					66
3	David Thirlwall	17								17

JUNIOR										
1	Benjamin Selwyn	20	20	20	20					80
2	Alyssa Perks	17	17		17					51
3	Sarah Seddon			17	15					32
4	Zara Priestly	15	13							28
5	Jack Priestly		15							15

SUPPORTERS AND ADVERTISERS INDEX

These businesses support our club!! Make sure we support them!

Name	Product	Contact Details
Moe Parklands Motel	Accommodation	03 5127 3344 stay@moeparklandsmotel.com.au
BTR Machining and Cylinder heads	Dyno tuning, engine rebuilds, race prep, general repairs	03 5134 4023 simon@btrmorwell.com.au
Penrite Oils	Oils and lubricants	www.penritetopclass.com.au
Fowlers Asphalting	Roadmaking	03 5633 2918 admin@fowlersasphalting.com.au
Arrow Linemarking	Linemarking	0458 882 353 arrowlinemarking@y7mail.com
Alfa Motorsport Fibreglass	Automotive repairs	info@alfamotorsportfibreglass.com.au
O'Connell's tyres	Suspension, front end, brakes, shocks	03 5126 2822 Facebook presence https://oconnellstyres.weebly.com/
James Lambert	Photography	James Lambert @SJLambert6
Jim Jones	Photography	Jim Jones Jamar Imaging.net
SPIN Media	Photography and video	ncardwell@spinmelbourne.com
Trafalgar Auto Elec	Auto Electrics	56332062
Capaldo Automotive Repairs	Mechanical, alignment and MX 5 specialist	5134 4328 Ask for Steve
Peter Weaver Msport Photography	Photography	0438 109 027 peter.weaver@speedway.net.au