



VALVE BOUNCE

self-isolation edition



Sandown, 1978, the 'Fangio' meeting: the team that rebuilt the Repco-Brabham BT19, as narrated in this edition by Bill Freame (3rd from right)

blast

APRIL, 2020

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

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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.

Correction!

Last month's edition of Valve Bounce carried a note advising members the trophies for the summer series were being presented at the next hillclimb. This is not the case. Trophies for the summer series will be presented at the next annual awards night along with all of the other major club awards.

CALENDAR 2020

The competition events for April and May have been removed – it is unlikely that any motorsport activity will be held during that time. The events shown for June onwards may or may not take place.

APRIL

Tuesday 14 Board Meeting, 7.00 p.m., (Teleconference)

MAY

Tuesday 5 Valve Bounce collation

Tuesday 12 Board Meeting, Clubrooms, 7.00 p.m.

JUNE

Tuesday 2 Valve Bounce collation

Friday to Sunday, 5/7 Supercars at Winton

Sunday 7 NSWHC Round 5, Grafton

Tuesday 9 Board Meeting, Clubrooms, 7.00 p.m.

Saturday to Sunday, 6/7 VHCC Round 5 at One Tree Hill, Ararat

Friday to Sunday, 12/14 Shannons Nationals at The Bend

Sunday 21 Repco Sprint Series Round 3, Winton

Friday to Sunday, 26/28 Supercars at Townsville

Saturday to Sunday, 27/28 PIARC Supersprint Round 3

Sunday 28 GCC Multiclub Hill Climb at Bryant Park (Winter Cup)

JULY

Friday to Sunday, 3/5 Shannons Nationals Morgan Park Queensland

Sunday 5 GCC Khanacross at Bryant Park

Sunday 5 VHCC Round 6 at Wodonga TAFE Logic (new venue)

Tuesday 7 Valve Bounce collation

Tuesday 14 Board Meeting, 7.00 p.m., Clubrooms

Friday to Sunday, 17/19 Supercars at Darwin

Sunday 19 NSWHC Round 6, Tamworth

Saturday 18 M&DCC Boisdale Hill Climb Round 4, Long Track VCAS

Saturday to Sunday, July 25/26 Victorian State Circuit Racing Championship, Sandown

AUGUST

Saturday to Sunday, 1/2 Access 2020 Phillip Island

Saturday to Sunday, 1/2 Winton Festival of Speed

Tuesday 4 Valve Bounce collation

Saturday to Sunday 8/9 Victorian 6 Hour Regularity Relay Phillip Island

Sunday 9 NSWHC Round 7, Ringwood

Sunday 9 Repco Sprint Series Round 4, Winton

Tuesday 11 Board Meeting, Clubrooms, 7.00 p.m.

Friday to Sunday, 14/16 Australian GT Championship at Phillip Island

Saturday 15 M&DCC Boisdale Hill Climb Round 5, Long Track

Sunday 16 GCC Khanacross at Bryant Park

Sunday 16 Vintage Rob Roy

Friday to Sunday, 21/23 Shannons Nationals at Phillip Island

Sunday 23 VHCC Round 7 at Broadford

Friday to Sunday, 27/28 Supercars at Sydney

Sunday 30 GCC Multiclub Hill Climb at Bryant Park

Sunday 30 RACES East Sale Super Sprint - CANCELLED

SEPTEMBER

Tuesday 1 Valve Bounce collation

Tuesday 8 Board Meeting, Clubrooms, 7.00 p.m.

Friday to Sunday, 4/6 LMP3 Cup at Sydney Motorsport Park

Saturday to Sunday, 5/6 Formula Vee Nationals at Phillip Island

Sunday 6 Fathers Day

Friday to Sunday, 11/13 Shannons Nationals at Sandown

Saturday to Sunday, 12/13 PIARC Supersprint Round 4

Sunday 13	GCC Multiclub Hill Climb at Bryant Park
Sunday 13 or 20	M&DCC Boisdale Hill Climb Round 6, Short Track
<u>Sunday 20</u>	<u>CAMS Club Challenge track hire at Bryant Park</u>
Friday to Sunday, 18/20	Supercars at The Bend
<u>Saturday 26</u>	<u>HRA track hire at Bryant Park (a.m. only)</u>
Saturday to Sunday, 26/27	Victorian State Circuit Racing Championship, Phillip Island
Sunday 27	GCC Khanacross at Bryant Park

OCTOBER

Sunday 4	NSWHC Round 8, Canberra
Sunday 4	MG Car Club Interclub Challenge Round 3 at Rob Roy
<u>Sunday 4</u>	<u>Kyneton Car Club track hire at Bryant Park</u>
Tuesday 6	Valve Bounce collation
Thursday to Sunday, 8/11	Supercars at Bathurst
Tuesday 13	Board Meeting, Clubrooms, 7.00 p.m.
Saturday 17	M&DCC Boisdale Hill Climb Round 7, Long Track
<u>Saturday 17</u>	<u>MG Car Club track hire at Bryant Park</u>
Saturday to Sunday, 17/18	AROCA 12 Hour Regularity Relay, Winton
Saturday to Sunday 17/18	Mt Tarrengower Hill Climb
<u>Friday 23</u>	<u>Monaro Club Nationals at Bryant Park</u>
Sunday 25	GCC Multiclub Hill Climb at Bryant Park
Sunday 25	MotoGP at Phillip Island
Friday to Sunday, 30 to Nov 1	Supercars at the Gold Coast
Friday to Sunday, 30 to Nov 1	Legend of the Lakes Hill Climb, Mt Gambier

NOVEMBER

Sunday 1	MG Car Club Historic and Classic Rob Roy
Sunday 1	GCC Khanacross at Bryant Park
Wednesday 4	Valve Bounce collation
Thursday 5 to Sunday 8	Australian Hill Climb Championship, Mt Cotton, Queensland
Saturday to Sunday, 7/8	PIARC Supersprint Round 5
Sunday 8	GCC Multiclub Hill Climb at Bryant Park
Sunday 8	RACES East Sale Super Sprint - CANCELLED
Wednesday 11	Board Meeting, Clubrooms, 7.00 p.m.,
Friday to Sunday, 13/15	Bathurst International
Sunday 14	Private Clubrooms hire
Sunday 14	Repco Sprint Series Round 5, Winton
Saturday 14	M&DCC Boisdale Hill Climb Round 8, Short Track (Noel Burley Memorial)
Friday to Sunday, 20/22	Supercars at Sandown
<u>Saturday 28</u>	<u>Nugget Nationals at Bryant Park</u>
Saturday to Sunday 28/29	Island Magic

DECEMBER

December 1	Valve Bounced collation
Friday to Sunday, 4/6	Supercars at Newcastle
Friday to Sunday, 4/6 (TBC)	Bathurst International
Saturday 5	GCC Twilight Multiclub Hill Climb at Bryant Park
Tuesday 8	Board Meeting, TBA
Sunday 13	GCC Khanacross at Bryant Park

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 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 p.m. until 4.00 p.m..

If you believe that any of the dates listed are incorrect, please contact John Bryant and they will be amended.

Editorial Ponderings:

Hasn't a lot happened since our last edition of VB? Back in March we were hearing about COVID-19 and how it might affect our lives...and here now in April, it is! All manner of events have been cancelled or postponed, including our own. Hopefully this will prove to be a short-lived episode, and we will be able to get back to what we know and love doing before too long – see how we go. In the meantime, stay happy, stay safe...and stay distant!



If nothing else, this enforced break is a great time to get into the shed and do all those things on the competition car you were going to do but never had time!

(If you're married, check out the card image at right) → We can't do much to help you for the next few weeks, and you'll notice this edition is devoid of the usual entry forms, supp regs, etc – but what we *can* do for you is to provide some great reading while we're under 'house arrest.' I have brought forward some articles and gratefully received some new contributions to make this a bumper read, to help you while away the days until we can hit the track again: enjoy!

As I climb warily back on to my soap box, I'd like to share two new gripes about motoring nowadays – I think we need a Driving Standards Officer for the road, like they do in SuperCars! First is something that has been an issue for years, in fact – as several of us have experienced. Why is it, when you're towing a heavy load (such as a track car) people will overtake, then cut in quickly and leave you inadequate room to brake, if needed? And of course, there's that other beauty: those who overtake, pull in front...and then slow up! Don't they cover overtaking when you try for your licence? Doesn't seem so.

The next offence is a fairly new development, as more people buy into modern cars: I call it 'cruise overtaking.' Imagine Joe travelling at 100 kph down the freeway, as determined by his cruise control, coming up behind someone doing 99 kph. Does Joe sink the gumby in and overtake briskly? Not any more, it seems! Nowadays Joe will move right and ever-so-slowly creep by the other car, not bothering to change cruise control settings or (gasp!) over-ride it, at a pace so reptilian that he probably contracts Corona virus as they pass. The result is that by the time Joe has returned to the left lane where he duly belongs, a conga line of disgruntled truckies, trailers, caravans (vintage cars?) and other motorists have assembled behind Joe, patiently(?) waiting for him to complete this manoeuvre. If you find yourself in Joe's position and the road is clear, then fine – do the cruise overtake – but if there is other traffic about, I suggest check the mirror and consider stirring things along to clear the right lane a little quicker – makes for easier travelling for everyone. 😊

Totally out of sequence now (when has that stopped me?) but you might recall in earlier editions of VB I included some examples of people bending the rules in motorsport. I was told recently of yet another creative example: a mate was at a race meeting and took an unannounced short cut through the back of a pit tent, where a team was apparently doing some quick changes before their open-wheeler went for a weight check. He noticed the rear wing was on the ground, and they were hurriedly fitting a replacement – the interesting part was the crew member holding the wing in place was



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apparently having trouble lifting it! And while it isn't in the same ball park, I have a set of second-hand slicks in my shed that came off a Radical – these tyres have about 8mm of rubber shreds glued to the surface. Apparently, this is a creative technique employed on the cool-down lap by some who



1920s Fiat Warehouse With A Test Track On Top

are worried about meeting minimum weight – pick up all you can on the way back to the pits!

Trivia for the day: someone posted this picture on Facebook. It actually isn't a warehouse – it's the FIAT factory in Turin, built in the 1920s and yes, it has its own test track on the roof! This was a clever idea to allow testing of new models without having to worry about the opposition's prying eyes. And yes, you've probably seen it before – it was used in the original 'Italian Job' movie, where they are being chased (poorly) by police in Alfa Romeo Giulietta sedans, just before they jump between buildings. While the factory still exists, it is now apparently a shopping mall with a helipad on the roof.



You would have seen Ian Speight's ads in recent editions to sell his Mallock U2 clubman. The car has been sold, but unfortunately not to one of our members: the car has gone to NSW. A shame – but you had your chance.

What follows this month? You should find in this edition an article I put together about the superb engines they use in the British Hillclimb Championship. If you're an aspiring racer, these should amaze! John Bryant has dug into the archives to give us an account of the remarkable proposal for a Yallourn race circuit: another wonderfully historic context – thanks, John. Rhys Yoemans provides the next stage of how to tackle Bryant Park: how to prepare your car...for when we get to do it! Again, apologies for last month, but we had so much to fit in that I couldn't accommodate the fascinating behind-the-scenes article by Bill Freame on rebuilding the Repco-Brabham BT19 – but take heart: it's in this edition! I should also explain that the formatting you saw last month was *not* how it left the editor's desk, but I hope we've been able to fix that for this month. Add in some quirky items from Bill Revill; reviews of the Philli[p Island Classic; a couple of historic/articles of interest and you've got some seriously entertaining reading to get through. As editor, I'd like to thank all those who contributed to the magazine this month.

That's my lot for the month – hope you enjoy the mag. -Ian, VB Editor.

Chairman's Report – April, 2020

At the time of writing my last report we were looking forward to some upcoming events and getting our competition year rolling along. My how things have changed. Who'd have thought that we would be looking at the world we currently face, major health challenges, significant financial issues and just about every facet of what we could call a normal life thrown into absolute turmoil. Things have certainly changed and we are all being challenged on many fronts. Life can be complex enough at the best of times and the Coronavirus has certainly raised the complexity to a whole new level.

So, what does this all mean for our great club? It means that we have to hunker down, make hard decisions, look after each other and make sure that we minimise the risk of passing the virus around the club. That way we will hopefully all still be here to hit the track when the 'World' gets on top of the virus.

I know that there has been lots of discussion around the club as we've watched the virus spread. Much of that discussion has revolved around whether or not we could keep the club open at some level. The Board considered many options, including; limited numbers of people at the track at any given time, social distancing resolutions, cleaning options if we did open in some form etc, etc. The Board also took into consideration our membership and the risk category that many of our members sit in. It would be fair to say when looking at our demographic that a considerable portion of our cohort of members sit in the high-risk categories if they were to contract the virus. As a result, the Board decided that we would put a temporary hold on proceedings until we got a clearer picture of what the risks looked like for our members and what we could do to mitigate those risks. In my opinion this was a wise move. In any case a few days later the Federal and State Governments implemented restrictions that effectively meant that we would need to close the track for the foreseeable future. Frustrating, I know! We were all looking forward to catching up with friends, talking rubbish and doing a bit of racing in the better weather. However, as frustrating as this may be, I would much rather be inconvenienced for a while than take the risk of having the virus spread through our members and their families. The result of that could be catastrophic.

So where to from here? The Board will continue to meet (via teleconference) and attend to the administrative processes that make the club run. We will also maintain a contemporary understanding of what is going on with the virus. We will use the information that we obtain to make informed decisions regarding the eventual reopening of the track. Our aim will be to get us back out there doing what we all love doing as soon as it is safe to do so.

As we head towards the time when we can reopen the track, we will keep the membership informed as to what's happening. We will do that via our social media forums (Facebook and our Webpage) and Valve Bounce. There is of course always the phone and email systems if you have any specific questions that you'd like to ask. I am very confident that most if not all Board members are happy to take a call or answer an email.

As I said earlier, I know that the current environment is challenging and I think it will become a bit worse before it gets better. Looking at the news tonight it is very clear that the actions of a few imbeciles are going to lead to the government imposing stronger restrictions on what we can and can't do. My guess is that we are going to end up confined to our homes unless we have very good reasons not to be there. This is not all gloom and doom of course and there is a silver lining to being locked up at home with your race car. You can still order just about anything you need on line and have it delivered to your door. So, it's probably time to get hold of some go faster bits and get to work. I have been chatting to a few of our members and I can assure you that there is plenty of work going on in sheds across the State at the moment. You could of course start painting the house and things like that but I know where I'll be and what I'll be doing!

Now onto something a bit more pleasant than the Coronavirus. Earlier this year I was approached by David Bellinger from PIARC and asked if I would be interested in running the Media Centre at the Phillip Island Classic. I worked extensively with the media prior to retirement and always enjoyed the challenge, so I accepted. Janet also put her hand up to help Jean Bellinger in the office.

The event took place at the Phillip Island Circuit in early March and what an event it was. There were about 440 entries (Entries were down a bit probably due to the emerging virus issue), lots of very competitive racing and lots and lots of very interesting things to see and interesting people to speak to. As to the cars there were too many mouth-watering examples to pick out one favourite, although there was a Repco-Brabham V8 powered open wheeler that I'd have taken home if I could pick just one! (*Ed: perhaps the very one featured in the article later in this edition?*) One stand-out category was the Formula Fords. There were 58 entries in this class and I believe they had to expand the grid to fit them all in. It was an amazing class to watch in action, with action aplenty. I just happened to be up in race control during one of their sessions and boy did the crew up there have to be on their toes. It was amazing to watch the team coordinate the race from the tower and they certainly knew what they were doing. With 58 cars on the track there were inevitable mishaps. These were managed superbly by the team and they had things safely sorted in very short order.

Looking at the event from an administrative view point was very interesting. It was extremely pleasing to see the number of women involved in running the event. There were women performing roles at every level of the administrative processes associated with the event and not just one or two, but lots of very competent and capable women doing outstanding work. All, of course, on a voluntary basis.

Then there were the competitors. There were plenty of women drivers across lots of classes. Many of them putting in very credible performances.

Just by chance the event happened to coincide with "International Women's Day", very fitting, I think. In any case it caused me to reflect on my time around motor racing circles. I've been involved most of my life in some way or another. I was introduced to motor racing as a very young child growing up near Ballarat. My father ran a wrecking yard, part time and raced hot-rods (Now called speedway I reckon) all around the State. In those days men raced cars, men ran the races and the women came occasionally along for a look.

Over the years I've watched the slow evolution of motor sport and the gradual influx of women into all aspects of the sport and we are much better for it. We have come a long way over the last 60 or so years and we probably have a bit further to go. However, as a husband, father to a daughter and grandfather to a granddaughter it makes me extremely proud to think that any of the significant women in my life can become seriously involved in our wonderful sport at any level they choose.

I know that we have a number of women involved in the sport at our club and I look forward to seeing their ranks grow as we mature as a club and a sport.

Anyway, that's probably about enough from me at this stage. As I said earlier, we are negotiating our way through very difficult times at the moment and we will be challenged. The Board will keep you informed as things develop and we will get the track open as soon as is humanly possible. In the meantime, I encourage you to keep abreast of what's going on, listen to and act on the advice that the experts are providing and above all keep you and your families safe.

I look forward to catching up at the track once it is safe to do so.
Mick McGinn: Chairman, Gippsland Car Club.

Competition Secretary's Report

Not much to report on, given recent events. See you at the track (in future).

-Janet McGinn



What do you need to know now?

➤ KHANACROSS 2020

On hold for the time being.

➤ CLUB CHAMPIONSHIP 2020

Not surprisingly, this has also had to be modified. Further details can be found in 'The Ramblings of John Bryant,' later in this mag. Subject to what happens in the next few weeks, here is the updated version:

Club Championship events for 2020 are as follows (and this may change*):

- | | |
|------------------------|---|
| ○ Sunday, April 5 | GCC Multiclub Hill Climb |
| ○ Sunday, April 19 | Victorian Hill Climb Championship Round 4 |
| ○ Sunday, May 3 | GCC Multiclub Hill Climb |
| ○ Sunday, June 28 | GCC Multiclub Hill Climb (Winter Cup) |
| ○ Sunday, August 30 | GCC Multiclub Hillclimb ← NEW! |
| ○ Sunday, September 13 | GCC Multiclub Hill Climb |
| ○ Sunday, October 25 | GCC Multiclub Hill Climb |
| ○ Saturday, December 5 | GCC Multiclub Hill Climb (Twilight) |

*We are still looking for appropriate events at Phillip Island and at Winton.

➤ More for your calendar:

GCC WORKING BEE AND CLUB PRACTICE DAY

Umm...no: all postponed for the time being



NOTE: practice is available only to GCC members who have helped with the working bee!



Next KHANACROSS for 2020:

And, no: also on hold.



Competition ^{usually} begins around 10:00am

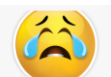
Entries taken on the day or via MEECAMS (entry fee for Seniors \$30: Juniors \$10).

BYO lunch as the Canteen does not operate on khanacross days.



Next GCC MULTICLUB HILLCLIMB:

Strike 3: Unknown at this stage



Entry via MEECAMS. First competition run at 10.00am.

And the VHCC: was to look like this:

- | | | |
|---------------------------------|-----------------------------------|-----------------------|
| ○ Sunday, April 19 | PIARC | Bryant Park |
| ○ Saturday and Sunday, June 6/7 | ACC | One Tree Hill, Ararat |
| ○ Sunday, July 5 | Albury, Wodonga &
Districts CC | Wodonga TAFE Logic |
| ○ Sunday, August 23 | Mini Club | Broadford |
- ➔ See John Bryant's update on the VHCC later in this magazine

➤ **REMINDER TO ALL COMPETITORS**

MEECAMS-only entry **now applies** for all events from now on!! Go to the CAMS website for access.

Save the trees, forget the paper, see your event SuppRegs for more info or help if required.





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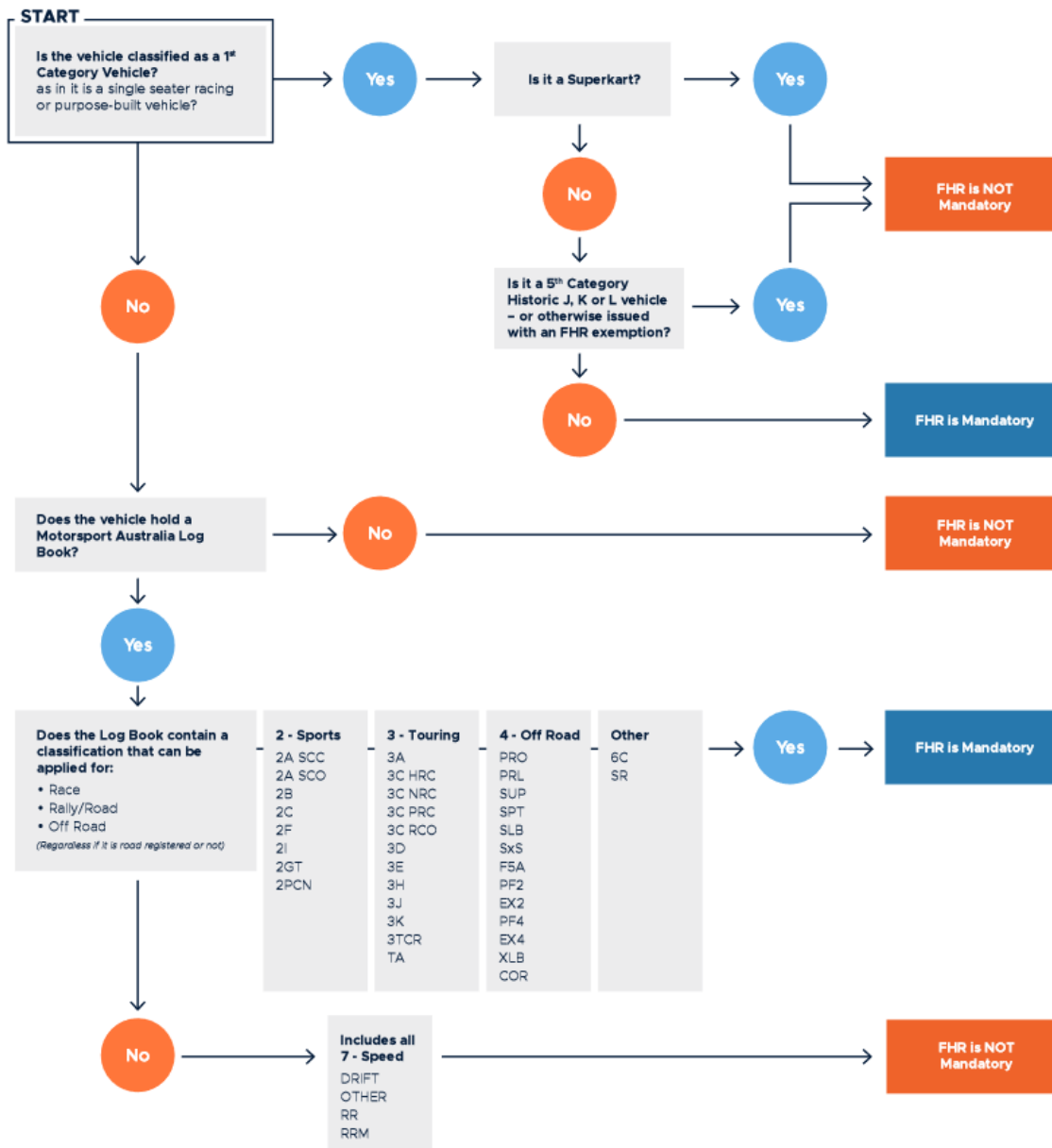


- **FRONTAL HEAD RESTRAINTS** – look: if you haven't sorted this out by now, you're either so thick a FHR may not be of any benefit to you, or b) you're not competing anyway. But, in the spirit of making things easier, we've included a marvellous new flow chart from Motorsport Australia:

Frontal Head Restraints in Speed Events Flow Chart



The use of Frontal Head Restraints (FHR) has become mandatory in SPEED Events for vehicles that are determined as meeting certain criteria. The following chart will aid in determining which vehicles will require the use of FHR:



NOTE: It is permitted to apply to Motorsport Australia for a Log Book to be re-classified for SPEED Events.
Contact: logbooks@motorsport.org.au or call 1300 883 959


Motorsport Australia ABN: 55 069 045 665
275 Canterbury Rd, Canterbury VIC 3126
Phone: +61 3 9593 7777 Hotline: 1300 883 959
motorsport.org.au



➤ **What else has been in the media?**

In an effort to answer members' questions, AOMC sent out this bulletin regarding Club Permits:

Message from the AOMC [View this email in your browser](#)

 committee@sportingregister.org.au
CLUB REPRESENTATIVE
GIPPSLAND SPORTING AND CLASSIC CAR REGISTER
INC

To minimise contact by staff and public
Vic Roads Service Centres will no longer accept Club Permit Scheme payments
Until further notice, club permit renewals can only be accepted by post to:


VicRoads
GPO Box 1644
MELBOURNE VIC 3001

Please advise your club members of this change to service.

Iain Ross
President

...but then, a couple of days later, came this:

Message from the AOMC [View this email in your browser](#)

 committee@sportingregister.org.au
CLUB REPRESENTATIVE
GIPPSLAND SPORTING AND CLASSIC CAR REGISTER
INC

After some discussion today, it has been determined that:

- Whilst they remain open, VicRoads Customer Service Centres will continue to accept payment for club permit renewals.
- If permit holders do not wish to attend a customer service centre, they can continue to renew permits though mailing the renewal to VicRoads, GPO Box 1644 Melbourne 3001

The renewal process is described on VicRoads' website.

Queries have also been received about applications for new permits. The process for applying for new permits has not changed, and is described on VicRoads' website. New club permits can continue to be applied for at VicRoads' Customer Service Centres.

Please accept my apologies for any confusion caused.

I request that you pass this updated information to your constituent clubs.

John Lewis
Principal Practice Advisor - Registration and Licensing
VicRoads

So...let's assume they've sorted it out, and go with the second version: you *can* renew your club permit at a VicRoads office. 😊

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Some ramblings from John Bryant:

CLUB CHAMPIONSHIP 2020 - A LOT HAS CHANGED IN THE PAST MONTH

The subject of the 2020 Club Championship was discussed at some length at the March Board meeting. The following conclusions were reached:

- Due to the cancellation of all Sprint meetings at East Sale this year, we will not run the Sprint Championship in 2020 – it may be resurrected in 2021 dependent upon the availability of tracks. It was determined that we would not have a Championship which would use only Winton and Phillip Island sprints due to the cost factor (Sandown cannot be used by open-wheeler vehicles at sprint meetings).
- Two additional hillclimbs were added to the Calendar so that there would be ten hillclimbs in the Club Championship in 2020 – one has already been run and won, and the other nine are as shown earlier in this mag.

As would by now be well known, we have ceased operations at the track for the foreseeable future – thus the hillclimbs on April 5 and April 19 will definitely not be held, and the one scheduled for May 3 will probably not be held. Only time will tell as to whether or not we are able to recommence operations for the June 28 event.

- The rules for the Club Championship were changed to be the best eight events out of ten – this will obviously now change unless the events we have cancelled are rescheduled for later in the year.
- The Hillclimb Championship for 2020 would also disappear, as the Club Championship and the Hillclimb Championship would be one and the same.
- The subject of the Club Championship will be discussed at length by the Board later in the year.
- The Khanacross Championship has also been suspended at the present time, and will recommence when appropriate.

VICTORIAN HILL CLIMB CHAMPIONSHIP 2020

The Victorian Hill Climb Advisory Panel has suspended the 2020 Championship, and has determined that the rounds of the Championship scheduled for Mt Leura (March 28/29) and for Bryant Park (April 19) will be rescheduled for later in the year, probably September for Mt Leura and October for Bryant Park. The first scheduled event to hopefully take place will be the August 23 event at Broadford. The other two events listed will be further assessed dependent upon the circumstances.

The remaining rounds designated for the 2020 Victorian Hill Climb Championship remain as listed in the 'more for your calendar' section earlier in this mag.

HOW TO FILL IN A LITTLE BIT OF TIME

I have been directed to two motorsport 'youtube' videos of great interest. The first is called Rally Heaven - shotgun in a Lancia Stratos and Delta S4, and can be found at:

<https://www.youtube.com/watch?v=mXgWWNJVdYA&t=20s>

For a non-rally person such as myself, the speed of these cars is mind-blowing, as is the extremely casual attitude of the drivers. The second, which has at least one person from the Leongatha suburb of Koonwarra very excited (and maybe two others as well) is of the recently held Ben Nevis Station Golden 1200 Hill Climb held just out of Cromwell in New Zealand – the event was promoted by NZ rally driver Haydon Paddon. The Highlands Park Motorsport Complex is also situated in Cromwell, which is between Wanaka and Queenstown. So also is the Race to the Sky Hill Climb, and rumour has it that Haydon Paddon may be resurrecting this event – time will tell. Some of our members have competed in, and others spectated at, the Race to the Sky, and may be interested in going to

this new event. The youtube of the Ben Nevis 1200 can be found at:
<https://www.youtube.com/watch?v=mduDsrXnDTM>

(Ed: there are heaps of good hillclimb videos to watch! Being a FIAT fan, I recommend these two: <https://www.facebook.com/hillclimbmonsters/videos/2604564096440330/> (FIAT 600, bike engine) <https://www.youtube.com/watch?v=Z7YGVEMIHPs> (FIAT X1/9, bike engine, FTD)
Italian hillclimbs are different to what we are used to: they tend to be on closed public roads, and are LOTS longer – can be kilometres in length! They use slaloms to slow the car down – like a high-speed khanacross.)

DAYS OF TOTAL FIRE BAN IN THE WEST AND SOUTH GIPPSLAND FIRE DISTRICT

No activities will be undertaken at the track on days of total fire ban in our district – this includes working bees, khanacross events and hill climbs. The lease that we have with Energy Australia expressly forbids activity on such days, due to the closeness of the coal mine and the consequent risk of fire.

The Naked Racer – from Bill Revill:

You've no doubt seen the film "World's Fastest Indian." It seems Bert Munro was not the only motorcyclist to gain fame at Bonneville. Bill has been frequenting what he describes as a "sensational cafe/motorcycle museum/sales place in Moorabbin" called the Naked Racer, and was surprised to find none of his friends knew of the origin of this term, so he has supplied the following extract:

Roland "Rollie" Free (November 18, 1900 – October 11, 1984) was a [motorcycle racer](#) best known for breaking the [American motorcycle land speed record](#) in 1948 on the [Bonneville Salt Flats](#), Utah. The picture of Free, prone and wearing a bathing suit, has been described as the most famous picture in motorcycling.^{[1][2]}



On the morning of September 13, 1948, Free raised the American motorcycle speed record by riding the very first [Vincent](#) HRD (it is debated as to whether it was a [Black Lightning](#) or [Black Shadow](#)), owned by the California sportsman John Edgar and sponsored by [Mobil Oil](#), to a speed of 150.313 mph (241.905 km/h). Special features included the first-ever Vincent use of a rear [shock absorber](#), the first Mk II racing cams, and horizontally mounted racing [carburetors](#). Free adopted a style used by others of lying flat-prone along the machine's back spine,^[4] thereby minimizing wind resistance and placing most weight over the rear wheel.

To protect himself and allow comfort when in such a position, Free had developed special protective clothing. However, when his leathers tore from early runs at 147 mph (237 km/h), he discarded them and made a final attempt without jacket, pants, gloves, boots or helmet. Free lay flat on the motorcycle wearing only a bathing suit, a shower cap, and a pair of borrowed sneakers – inspired by friend [Ed Kretz](#). This resulted not only in the record, but also one of the most famous photographs in motorcycling history, the "bathing suit bike" shot taken from a speeding car alongside his run on the Bonneville Salt Flats in Utah.

(Ed: Apparently the salt lake surface at Bonneville had a texture like coarse sandpaper – one can only imagine how different the photo would have been if Free had fallen off during the run...!)

Phillip Island Classic

-as told by Jill Hickey

Jill went to the Phillip Island classic this year as a team member for MJR Motorsport and Engineering Team, running the catering for them. Her jobs included supplying breakfast and lunch at the track, helping clean cars and just generally running from one side of the island to the other! The team had seven cars at the Island: amazing machines of all different categories. The weather was a bit average but the atmosphere was electric. Jill says "I've been doing this kind of work for a few years now and (have) been to lots of different tracks with a few different teams .. always a good week away, lots of fun." She "absolutely loved being part of the team (and) here are just a few of the cars that we were taking care of for the weekend..."



Bill Revill was also at the Classic:

PHILIP ISLAND CLASSIC – ESSENTIAL MOTORSPORT! -Bill Revill

Victoria is blessed with some of the finest historic motorsport events in Australia. And one of the best is the annual Philip Island Classic which is held each year on the weekend preceding the Australian Grand Prix. The event usually has about 500 competitors, many from interstate and some from overseas, with the greatest diversity of cars imaginable. It's really a classic car museum, on wheels, with the cars sounding their finest – rather than sitting quietly in a showroom, the full

spectacular beauty of the wonderful cars of yesteryear at their fastest and most exciting are on display.

Not only can the cars be seen on the track, but pit entry for everyone is encouraged. So everyone can get close to the cars, the colours, savour the smells and can share the excitement of the drivers and crews up close. But close contact to some of the world's most beautiful cars is not limited to the competitors: The spectator area has a huge static display from many Victorian clubs: Multiple Mustangs rub shoulders with a Complement of Cobras, a Heap of Healeys, a Treasure Trove of Triumphs and a half dozen Mini Marcos ... unusual to say the least! But examples of most of the world's most desirable cars were on display, either on track or statically. Just the car parks and the displays were worth the admission.

The racing was sensational as usual, with some wonderful dices between so many makes of car, all with different sounds, looks and persona – so different to modern one-make motorsport.

- Open wheel racing was fabulous, with everything from a 1930's speedway racer to the Bongiorno-Nettis 1985 Turbo F1 Ferrari and everything in between. The open-wheel fields were excellent and the Formula Ford fields immense (56 entries with drivers from the UK, USA and Holland). The number of overseas drivers was limited due to the current circumstances, so we didn't see the likes of Paddins Dowling in either his ERA or Maserati. Dowling, like many overseas drivers, drives to the limit without rollbar or seatbelts, like his period competitors, preferring to take his chances in the same way his heroes of yesteryear did.
- Sports car racing was excellent: Group S Production again had large fields with booming 7 litre Corvettes running against Porsches and Panteras: The big cars were off the air, with Ex- Le Mans Porsches, giant Elfins and the winner in an ex-Vic Elford McLaren M8E, the booming 8.4 litre CAN-AM car sounding wonderful and looking just so fast at the sweeping Philip Island Circuit which suited its 900 horsepower so well. It was just spectacular.
- Touring cars – where do all the Mustangs, Camaros and Toranas come from? 59 entries of Australia's finest big tourers... looking and sounding terrific and really competing hard together. A brilliant spectacle even better than they used to be back when they were running as current race cars. The smaller tin-tops were good, too, with Sierras and BMW's reminding us how fast these cars were and how good they sounded.
- We in the Gippsland Car Club played our part as well, sponsoring the Group S Production Sports Car events, thus allowing a field of nearly 60 mostly amateur enthusiasts the chance to compete at the iconic Philip Island circuit. The Gippsland Car Club is proud to be involved in this great event and we congratulate Wayne Seabrook in his Porsche who won both the races we sponsor.

YOU'VE GOT TO COME NEXT YEAR!! No matter what your interest in motoring is, there's something for you at the beautiful Philip Island Classic. It's simply a great day out that will rekindle memories of the past and make new ones on the day.

And Bill has provided the following photographs to whet your appetite for the 2021 event:





FOR SALE

RX7 Spaceframe Sports Sedan

13B PP, Fuel Inj, Dry Sump, Motec ECU & Dash & Data logging, Alcon 6&4 Spot Brakes. Hewland DGB Transaxle with cooler & spare ratios & C/W & P. Cabin Adjustable Blade-type Anti Roll Bars, All Braided Lines. Fuel Cooler, new Wiring loom, Air Jacks, Flat Floor, Carbon Fibre Rear Wing, Removable Front Splitter.

Many spares including 6 rims, Bonnets, moulds etc.

Too much to list. Call for full details. Has had an extensive rebuild with many new parts. Very little left to finish. \$55,000.00 ono

Call Stefan Trnacek: 0427032860



Have you given thought to becoming more involved in motorsport?

Our club needs more people to become qualified in various areas of running a motorsport event, from scrutineering to radio work through to applying for permits and overseeing the event. While we're on 'house arrest' you won't be able to get out to these, but hopefully MA will be arranging video conferencing or similar. As Mitsubishi used to say: "Please consider."



Dear Victorian Clubs,

Please see attached list of dates currently set for Victorian officials training.

We ask you to please share amongst your club members and encourage them to register for any courses of interest.

Officials can enroll via the Motorsport Australia website by visiting <https://motorsport.org.au/membership/officials/training> and clicking on "Enrol in a Face to Face Course"

We will continue to book additional courses throughout the year, so if a course is not yet available, please ask officials to register their interest by selecting the course they wish to complete from the drop down box at the bottom of the form. Once the course is available, we are then able to contact them directly with the course details.

If your club has interest or need for any particular training, please let me know so we may organise something for you.

Please don't hesitate to contact me with any questions.

Thanks & kind regards

Chantel Collins

Chantel Collins

Administration Officer - VIC (Part Time: Mon, Wed & Thurs)

phone +61 3 9593 7740

email ccollins@motorsport.org.au

web motorsport.org.au

address 275 Canterbury Road, Canterbury, VIC 3126, Australia

Ed: Motorsport Australia have also written to the club to inform us that while they have shut their offices to visitors, they can still be contacted via phone and e-mail.



VICTORIAN OFFICIALS TRAINING 2020 – Current Courses Available

Type of Event:	Location:	State:	Date:
Officials Training – Bronze Fire & Rescue	Pakenham	VIC	31 st March (evening)
Officials Training – Critical Incident Upskilling	Motorsport Australia House, Canterbury	VIC	22 nd April (evening)
Officials Training – Communications Upskilling	Motorsport Australia House, Canterbury	VIC	9 th May
Officials Training – Bronze Scrutiny	Tullamarine	VIC	30 th May
Officials Training – Event Assessor	Motorsport Australia House, Canterbury	VIC	3 rd & 4 th June (evening)
Officials Training – Silver Officials	Motorsport Australia House, Canterbury	VIC	27 th June
Officials Training – Women's Silver Officials	Motorsport Australia House, Canterbury	VIC	August TBC
Officials Training – Bronze Scrutiny	Nunawading	VIC	15 th August
Officials Training – CATO	Motorsport Australia House, Canterbury	VIC	17 th September
Officials Training – Bronze Fire & Rescue	Pakenham	VIC	15 th October (evening)

Hot tips for your first hill climb! -by Rhys Yeomans

Preparing for your first hill climb or sprint

Since it may be a little while before we are back running hill climbs, I figured we'd step back and look at how to prepare your car for your first hill climb or sprint.

I'm making the assumption that you are using a road-registered car, as that is mostly where people start their motorsport career. You may also not be as mechanically minded as you want to be, I know I wasn't when I started doing all this! The Honda Tech forum (There will be a forum/Facebook page for your car also) and asking friends has helped increase my mechanical skills over the years, so don't be afraid to ask the 'dumb' questions!

I will also reference the Motorsport Australia Manual, which can be found here. You should read the sections referenced in Supp Regs documents anyway -

<https://motorsport.org.au/regulations/manual/general-requirements>

And a disclaimer - This is purely a guide, if you do not pass scrutineering because you haven't read the Supp Regs or Motorsport Australia Manual, that is on you!!

Ensure your car is going to last the day!

You can do a few simple checks which you can do at home in your driveway to ensure you are heading to the track with a smile on your face.

1) Make sure your car has fluids where they need to be!

- Check your oil, coolant and brake fluid to ensure it is fresh and filled as required.
- Bleeding brakes is often overlooked, so get your significant other to assist or ask a friend.
- You may find you want to upgrade your brake fluid and pads as you do more events. A road going pad and fluid will be adequate for your first event.
- The internet or your car manual will tell you how to do this if you are unsure. And if you are still unsure, take your car to a mechanic! There is no shame in paying someone to do your mechanical work! The same applies for the next two points.

2) Do a bolt check

- A motorsport event will put more pressure on a vehicle compared to driving it to Coles, so jacking up the car to remove the wheels and checking all bolts are torqued to specification is a must. Once again, each vehicle and bolt has different torque specs, so check the internet for a manual on your car and check the specs. My engineering friends tell me 10 uggas is not always the ideal level of tight for all bolts!
- Many people also mark bolts with a paint pen once it torqued to spec, so you can easily see if it has moved. This is also useful for alignment bolts, particularly those that adjust camber like in a MX5.



***SAFETY FIRST – If you are going under a car, PLEASE put it on jack stands!! PLEASE! ***

3) Inside the cabin

- As mentioned in the first paragraph, I'm assuming you're driving a road-registered car with standard safety features. Inspect your seat belt and ensure it is not frayed and is retracting as it should. These will be items that the scrutineer will be checking, so save yourself the embarrassment of failing scrutineering and get it sorted before the event.
- You should also securely mount a 1kg fire extinguisher in a metal mount to your vehicle using high tensile bolts. There is a date on all fire extinguishers, so look at 'Schedule H: Fire Extinguishers' (Ed: in the *Motorsport Australia manual*) for all the finer details.
- You also need to be able to reach it when in your seat, so don't put it in the boot!
- Also: tech screws are *not* high tensile bolts!
- As with all questions, if you are unsure on how to mount a fire extinguisher in your car, the internet will provide some inspiration. There are companies that make fire extinguisher mounts for your specific chassis, though you can make quite a good one in your back shed with a few lengths of steel or aluminium.
- While you are here, remove all the junk some people seem to keep in their vehicles. 12 little tree air fresheners on the rear view mirror, 3 McDonalds cups and a bag of chips from a month ago are not required for a hill climb or sprint.



4) Personal safety gear

- I'd suggest reading 'Schedule D - Safety Gear' (see link above), as ensuring your own personal safety should be your absolute priority. You will be able to check that your helmet meets the requirements, though most Australian purchased motorcycle helmets meet the minimum requirement.
- If you are buying a helmet, it is worth looking at buying one that is Frontal Head Restraint (FHR) compatible. It will save you buying another helmet in the near future.
- Schedule D also details the requirement for long sleeves, pants and covered shoes as minimum requirements for clothing. Make sure it is not flammable. There is no harm in also buying flame-resistant underwear and a race suit, as safety first!
- You will also need to mark the tow and battery locations for your vehicle with red and blue triangles respectively. The dimensions and locations are in Schedule A and B of the Motorsport Manual. (This doesn't quite fit into this section, but didn't require its own.)



5) Licencing

- This is detailed in the Supp Regs of the event you want to enter: we usually have a couple of Supp Regs at the end of each issue of Valve Bounce.
- For hillclimbs and sprints, you would require a Speed (also known as L2S) licence, which can be arranged online via Motorsport Australia.

6) What to take to the track

- Spare fluids (oil, coolant, brake fluid), hand tools, jack and jack stands, tyre gauge and some water for yourself should be enough to cover you off for your first event. (*Ed: cable ties and race tape are also a great idea!*)
- Motorsport enthusiasts are a friendly bunch, so if you do need something and you ask nicely, you usually can find what you're after.

As you do more events, you will soon learn what you do and do not need. You should now be ready to attend your first event, covering off the basic safety items for you and your vehicle. As mentioned above, take a look at Motorsport Australia Manual: you have the time at the moment!

-Rhys Yoemans

British Hillclimb Championship – like to compare?

A motorsport engineer mate occasionally passes magazines to me to read – some are beyond my grasp except to be blown away by what amazing developments are being made and tried. Every now and then an article comes my way that is of great interest, as happened recently.

The magazine that is the source of this wonderment is 'Race Engine Technology,' an absorbing English publication intended for engineers and those interested in all aspects of modern engine technology. If you're used to paying eight or nine dollars at the local newsagency for your weekly read, you might be initially impressed by the cost of this in Oz: \$32.50 for a 'normal'- thickness magazine: should give you some idea of the quality and specific target audience! If you're into such matters, you should get a hold of a copy – it features excellent articles supported by quality illustrations: you'll find it inspired reading.

Anyway – the article that drew my attention appeared in the June/July 2019 edition, and was titled "Routes to the Summit - Challenge of the British Hillclimb Championship." Given that hillclimbing reputedly originated in the UK, it is of no great surprise to find they: a) take it pretty seriously, and b) operate on a level most of us colonials can only drool over. With the kind permission of their Editor and Publisher, here's a few extracts as illustration: enjoy!

At the top level of hillclimbing in Oz we have a number of super-fast open-wheelers, built specifically for the task – they will never venture on to a circuit or other type of competition. I've seen one with a Judd motor, numerous with Hayabusa, and a collection with other bike engines, forced-induction VW...even ex-snow mobile motors! The article in *RET* covers an analysis of some lip-licking open-wheelers using Cosworth XB, XD, & KF V6/8s; RPE (Radical Performance Engines) Suzuki Hayabusa-

based 3.2-litre V8; and further brief mentions of a Judd V8 and a 1-litre BMW S1000 RR superbike engine, all enclosed in composite bodywork and some serious aero devices. There is a clear comparison to be made for the equivalent of an F1 car taking on a gradient. So, why such widespread use of non-turbo motors? The point is made that while vehicles using sub-2.0 litre engines make full use of blowers and all the electronic trickery that goes with them, it seems the quickest cars make use of larger V6 and V8 motors. To quote:

“We asked Morris (*Ed: Trevor Morris, of Trevor Morris Engines*), what are the key characteristics you need from an engine to succeed in the BHCC? “It needs to be light, have a low centre of gravity and plenty of horsepower,” he replies. “...you also need good driveability.”

“It’s a challenge to package a turbocharged engine because it’s hard to find space for the turbocharger, the intercooler and its pipework and so on, which in a super-narrow single-seater takes up space. Hillclimb cars tend to use very narrow tubs, and therefore people typically stick with naturally aspirated engines.””

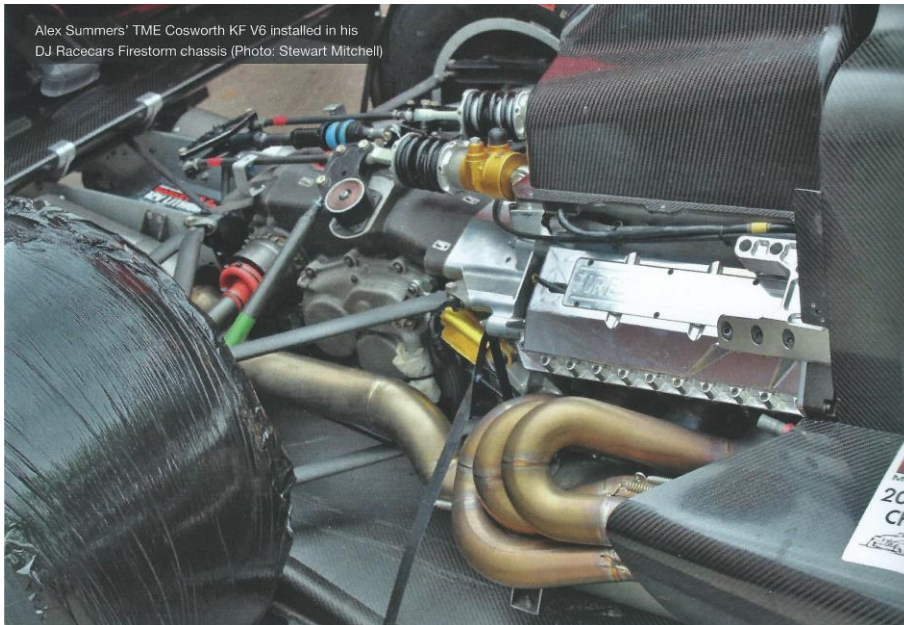
Combine this with the need for driveability, and there is a clear interest in using naturally-aspirated engines, with larger capacities to produce the instantaneous grunt needed. Now, where this scales another level of interest is that these are not just any old engines, extracted and adapted from a road car: we’re talking works of engineering art – a fantasy world of billet aluminium, titanium and carbon fibre, CNC-milled, turned, balanced and fettled – all come true due to the hard work, brilliance and skill of a few talented people.

For example; the Cosworth XB. *RET* describes how this evolved from an engine used for IndyCar racing as a 2.65-litre, methanol-fuelled, turbo-supercharged V8 into a 3.3-litre, petrol-fuelled, naturally-aspirated V8 for the Le Mans LMP 675 category, and then adapted for use in a hillclimb open-wheeler. It weighs just 117kg, and like all these V6/8 motors featured, has a narrow ‘V’ which makes it suitable for inclusion in a narrow chassis. And for the motorheads amongst us, get this: these motors (V8s, remember?) had a redline of 13,500 in IndyCar, now reduced to (just!) 9,500 rpm for hillclimbing!

“...Morris says the 3.5 litre XB he prepares “...pulls well from around 3,500 rpm up to 9,500 rpm.” Running on pump petrol (*Ed: curiously, they are not allowed to use racing fuel, yet methanol is allowed*), it provides about 680 bhp at 9,400 rpm and 350 lb-ft (575 Nm) of torque at 7,500 rpm.””

Wouldn’t you like to have that in your hillclimb special?! I get goosebumps just imagining it in the back of the FIAT. But that’s just the start! Continuing through the article in *RET*, you find talk of





pneumatic valves (most still run springs); 15,000 rpm limits; 24-injector setups; 1,600 bhp (in a blown but apparently undriveable car); 15:1 compression ratios; stressed engines (used as chassis members); etc. There are some fantastic, inspirational setups here to give our competitors ideas.

Wallace Menzies, who races a Cosworth XD-powered Gould, is quoted as saying:

“Most of the time on the hill this engine is between 11,000 and 13,600 rpm.”

And, “...you are only in each gear for between 1.1 and 1.3 seconds...”

I rather feel this article should be re-classified as the equivalent of engine porn! It's exciting, tantalising, and for the vast majority of us...utterly unattainable! Anyone who is remotely interested in race engine design and still has a functioning pulse should be salivating furiously at this stage! A point I found interesting is that many of these engines have had the ECU re-programmed to create more 'driveability,' even if at the expense of ultimate power. They could clearly deliver even more impressive figures, but have been optimised for their intended function.

A comparison with the Cosworth KF finds this motor weighs only 97kg dry: while it is down a little in power from some of the other motors described, its light weight means it creates advantages in chassis dynamics – another huge area of development in these cars. (Where's Colin Chapman when he's needed?) This emphasis on less weight is epitomised by the 3.2-litre RPE V8, which is derived from the Hayabusa motor as developed by Radical Performance Engines (RPE). The article relates how this motor has a flat torque curve, allowing it to pull strongly from as low as 4,500 rpm to redline at 10,500 rpm, making it a strong and flexible motor despite its lower output. Interestingly, at the time of publication in 2019, Trevor Willis was the reigning BHCC champion, driving an OMS powered by an RPE V8.



So, how's that? Some serious engineering with impressive outcomes. It would be unfair to compare budgets between these top-level BHCC competitors and our own – but you can dream, can't you? Imagine a field at Bryant Park that included a handful of these high-tech masterpieces: 7,000 rpm take-offs, 13,000 rpm shifts, 1-second gear use, and no doubt jaw-dropping grip and performance. A super-turbo-charged WRX motor is impressive in its own right, but just how far could you take an open-wheeler if you had these resources? One day?

(The Editor would like to acknowledge and thank Race Engine Technology enormously for allowing us the use of sections of their article, and illustrations. Chase down one of their publications – you'll be impressed!)

-Ian Maud

And for your next reading delight, here's another of John Bryant's fantastic 'reminiscence' articles:

AN UNFULFILLED DREAM - DID IT EVER HAVE A CHANCE OF SUCCESS?

-John Bryant

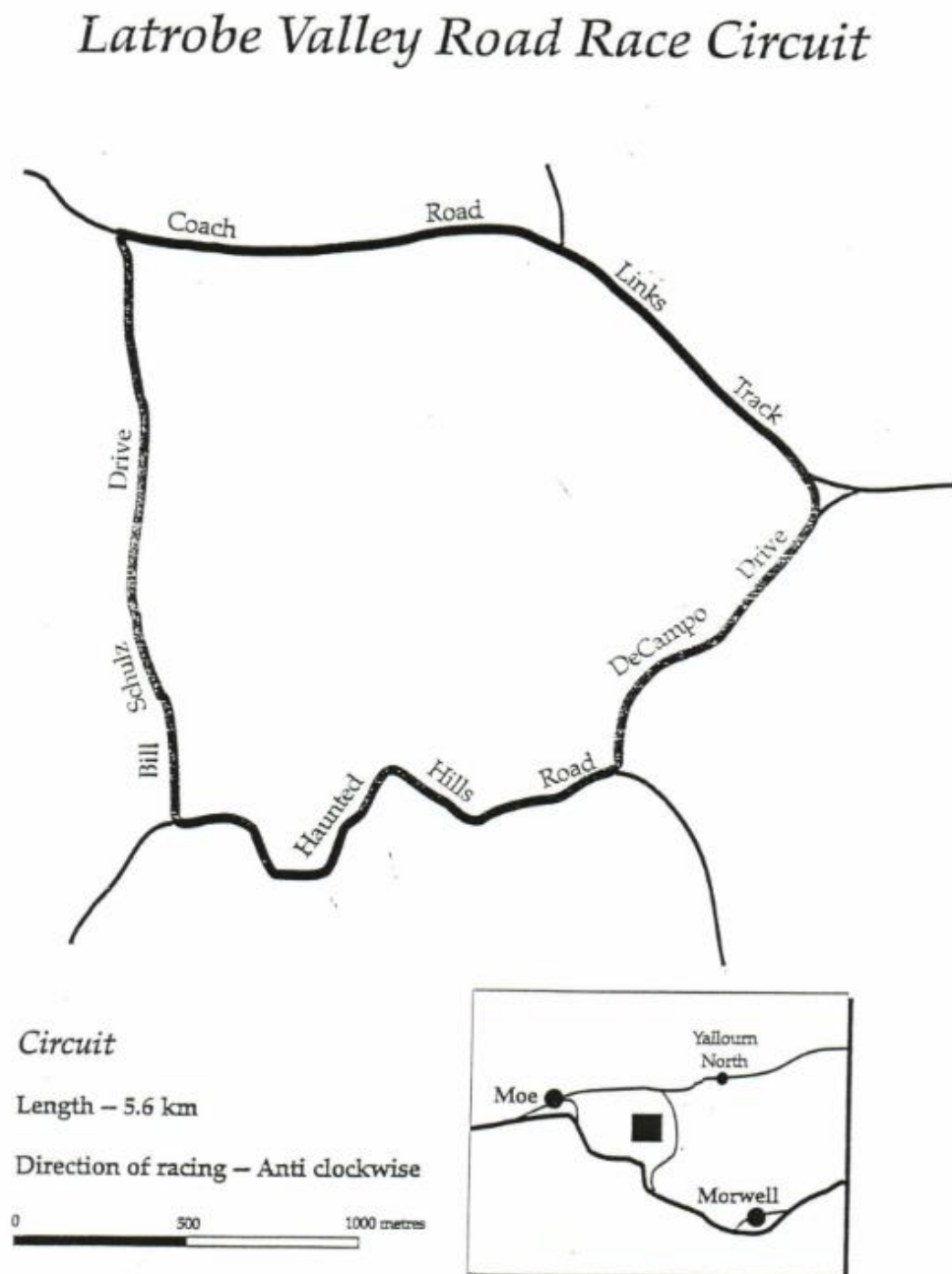
"This report investigates the possibility of establishing a motor cycle race circuit in the Latrobe Valley using an existing public road network. The proposal to establish a motor race circuit in the Latrobe Valley using existing public roads was first presented in August 1991. A major presentation, conducted by the Latrobe Regional Commission was made to relevant groups and organisations. The decision to conduct a two-stage feasibility study was supported by Traralgon, Morwell, Moe and Narracan Councils. Funding for the study was made available by the LRC and Sport and Recreation Victoria."

(Latrobe Valley Road Race Circuit Feasibility Study, 1994 pages 1 and 2).

A number of you will have been members of the Club at the time of this report, whilst it will be new to others, particularly those who were not even born in 1994! At the time of this study, our Club was going along nicely at Gippsland Park, and most knew little of this proposal. This did change in the next couple of years, however. The driver of the project was a local, Col Murray, who did work for the LRC. Col produced a further study entitled "Latrobe Region Motorsports Complex Feasibility Study" in August 1997. The scope of this study broadened considerably from the initial motor cycle proposal – it now included motor racing, motor cycle racing, speedway, hill climb, off road cars, go karts and drag racing. The published study included letters of support from numerous government and non-government organisations, and all indicated a high level of support for the project. You have to remember that this was a time when the SEC had been privatised, and there was widespread unemployment on the Latrobe Valley, and any project which may help to alleviate this situation was favourably looked upon.

To go back a year or two: a meeting was called in Traralgon in October 1995, hosted by the newly formed Latrobe Council to establish the Latrobe Region Motorsport Complex Committee as a special committee of the Council, with specific powers, duties and functions relating to the conduct of a detailed feasibility study. Peter Beasley was elected Chairman of this group, and I was elected Secretary, positions we held until the Committee petered out. It is interesting to note, however, that the Committee has been re-formed in the last couple of years, apparently without motor sport representation, to look at the possibility of developing a motor race circuit in the Latrobe Valley – not much is heard about what is going on from this committee which is largely Council-based. It is

further interesting that a motor race circuit proposal for Pakenham is much further advanced in planning – will either or both or none of these circuits actually come to fruition?



I have the minutes of all of the meetings of the LRMCC, and if I could be bothered I would go through them all so that everything I say is factually correct, but the plain simple fact of the matter is that I cannot be bothered! Meetings of the Committee took place on a monthly basis, with many suggestions as to how each of the various components of the motor sport world in the Latrobe Valley might fit into the overall plan. Given the topography of the Haunted Hills area, it was reasonably obvious that a drag racing strip would be very difficult to incorporate into the overall plan, so the drag racers took a relatively early exit from the Committee. Others followed, until it was

basically left with motor vehicle road racing and speedway, i.e Gippsland Car Club and Moe Speedway.

The Committee, via the Council, had enough influence to have a professional Economic Impact and Job Creation Study carried out (with a large amount of State Government funding) by a five person team from IER Strategic Planning, and this was published in October 2001. The study makes fascinating reading, but I will not bore you with all of the details, apart from a few salient features:

- The project would require \$15 million of investment capital (imagine how much that would be today)
- The project had the capacity to create the equivalent of 92 jobs in the first year, rising to 105 in five years (remember that this study was done at a time of high unemployment in the Latrobe Valley, and any success of the project would hinge on whether or not it would create jobs or bring tourists to the area)
- Revenue generation for the area was estimated at \$8.5 million in the first year
- The Haunted Hills 500 (the event that was envisaged for the track) would create more than \$20 million worth of publicity from television alone
- In five years, it was estimated that the event would bring in over \$46 million of economic benefit to the Latrobe Valley
- At the time of this study, an engineering study had also been carried out, and this concluded that “there appears to be no technical reasons why the proposal cannot be achieved, however there remain some political and statutory requirements to be addressed prior to detailed design commencing”

The big question is – **WHY DID IT NOT HAPPEN??** I am not privy to the entire behind-the-scenes discussions that took place at other than our committee level, but my one and only guess is **POLITICS!!** Every study undertaken, and every organisation approached, said that the development of the track would have been to the advantage of the local community, but it never happened. The ironic part of the whole deal is that the Council has now resurrected the Committee (as mentioned previously) and is planning for a motor race circuit in the Latrobe Valley (not the Haunted Hills) – as I asked before, will it happen? Who knows?

What I do know, however, is that we actually had at least two, and possibly even three, events at the Haunted Hills long before our hill climb track moved to the area. Peter Beasley and myself decided very early in the day that a good way to get the public onside, would be to run some sort of event of the 5.6 kilometre circuit. We knew that we could not run a race meeting because the infrastructure costs would have been enormous, so we decided upon a regularity event for the circuit, and maybe a hill climb or two for the Haunted Hills Road section.

Consultation with CAMS was the next step in the process, with a track inspection to take place to determine the suitability of the track for a regularity event. To the surprise of both Peter and myself, the requirements for a track for a regularity event were almost the same as for a race meeting – scratch that idea. To our further surprise, we were told that we could run a sprint meeting at the circuit – we both thought that cars in a sprint event would be going faster than in a regularity, but who were we to ask questions? A sprint it was. Sunday, March 29, 1997 was the chosen day.

I have absolutely no idea how long before that date that planning started, but it was an extremely long time, as it is far from easy to organise an event on public roads – we are lucky that we have always had our own tracks and have not had to worry about this aspect of organisation. I have done it since this time (in 2003) with a hill climb when the Gippsland Car Club started Mt Leura hill climb

off after a closure of some years, and that was far from easy and it was only one road (most of you would not have known about that but I do have the track licence for Mt Leura for 2003 in my possession!!).

How do you go about planning for an event on a road circuit which had never been used before (and unfortunately has not been used since)? There was a large traffic island on the corner of Haunted Hills Road and De Campo Drive – the Council (or was it VicRoads) had this removed as it was very dangerous the way it was. At around this time, the Council erected many signs on the roads leading on to the track stating that the road would be closed between certain hours on March 29, 1997. The Council (or was it another organisation) arranged for a very large number of water barriers to be delivered to the track which we were able to use in the appropriate places. The Council provided barriers to block off all of the roads leading on to the circuit. CAMS deemed that a chicane be placed at the top of the Coach Road Hill, where we placed the start finish line, so that cars would be slowed down at this point. We used the area at the top of the hill as the pit area. We even had a double decker bus to use as the timing bus – I have no idea where that came from, but it does have Warragul written on it somewhere so I guess it came from Warragul.

For the event itself, we needed Police in attendance, ambulance, tow vehicles, and a huge amount of manpower. People were required to put all of the barriers in place (and remove them) at the appropriate times, to be officials in a line of sight situation (and that is a lot of officials around a 5.6 kilometre circuit!), and some heavies to man the road blocks to stop the general public from entering onto the racing circuit whilst it was being used. De Campo Drive is the main road to the Yallourn W Power Station from the eastern end of the LV, so many people were somewhat disgruntled when turned back and made to go the long way (quite a long way). The same applied to some who lived in other areas around the track – in fact, one resident from an area close by decided to crash the road block with his car and trailer to get to the Moe Tip – probably came from Fairway Drive Peter Horter! Another decided to try the same trick from a different road block, and was somewhat frightened when he was overtaken by a racing car going considerably faster than him, so he took to the scrub alongside the track.

When the big day arrived, all was in readiness – all we lacked was competitors – nine in all, two of whom did not start. The results of the cars follow (we did also have motorcycles, but I do not have any results from them):

1.	Ernie Corry	Torana	2:48.4	2:54.5	2:49.8	Fastest	2:48.4
2.	Phil Webster	Torana	2:54.7	DNS	DNS	Fastest	2:54.7
3.	Barry Taylor	HQ Holden	3:05.0	2:55.1	DNS	Fastest	2:55.1
4.	Jim McDonald	Riley	3:20.0	3:18.0	3:12.4	Fastest	3:12.4
5.	Jenny Tame	A/H Sprite	3:37.0	3:30.5	3:25.2	Fastest	3:25.2
6.	Peter Matthews	Austin 7	3:28.2	3:29.2	3:26.5	Fastest	3:26.5
7.	John Weymouth	Sunbeam	3:32.0	3:27.5	DNS	Fastest	3:27.5
8.	Leo Bates	Lobito 7	DNS	DNS	DNS		
9.	John Althuizen	Scorpion	DNS	DNS	DNS		

The entry was disappointing when one compared it to the amount of work that had to be undertaken to put on the event, but it did show that the circuit was fantastic, that an event could run there, and we were optimistic for the future – misplaced optimism as it turned out.

We ran at least one and maybe two hill climbs, starting at the intersection of De Campo Drive and Haunted Hills Road, and headed in a clockwise direction to Bill Schulz Drive, where the track turned to the right, with the finish line somewhere in the vicinity of the where our Clubrooms now are. I have a notion that one of the hill climbs was a car event, and the other was for motorcycles, but I do not have any results for either. I believe that Rod Schilling drove his Mazda RX7 in one of the events, and it is entirely possible that current member Rick Dathan rode his motor cycle in one. If you happened to compete in either you may be able to fill in the dots.

The LRMCC continued to meet for a number of years: we knocked on thousands of doors, had heaps of publicity, but then the LRMCC slowly faded away as did the dream for the Haunted Hills Motor Racing circuit. We did have renewed hope in around 2005 when it became evident that we would have to move our hill climb, but that amounted to nothing.

The photographs that follow are from John Weymouth – they have darkened a little with age, but give some idea of the Sprint meeting held at the circuit.





You can find better quality photographs on the Facebook page: 'Gippsland Park Morwell Hillclimb 1960's to 2008.'

-John Bryant

(Ed: an absorbing read, thanks John: I wasn't aware this event even took place! Apart from the intersections these roads don't have many slow corners, so the speeds must have been impressive!)

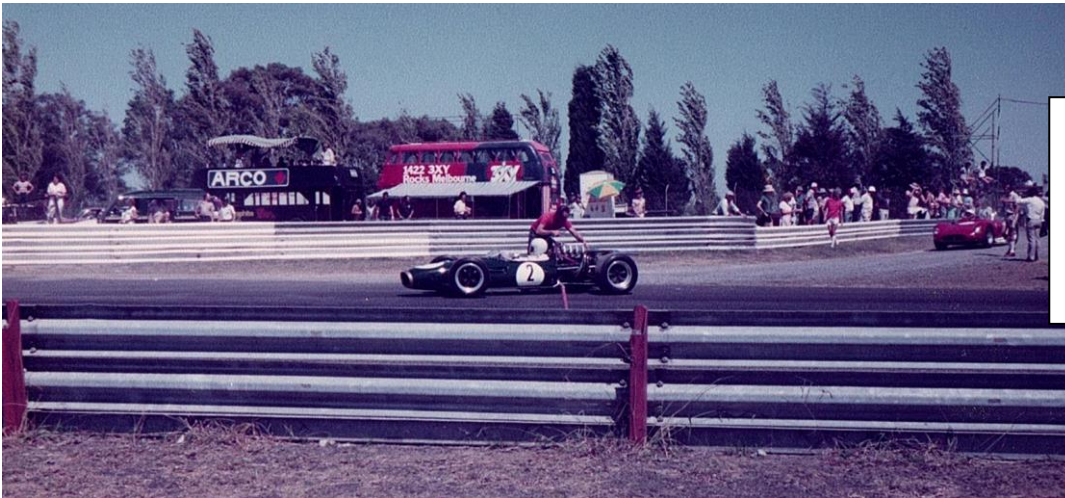
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My First Repco Brabham Adventure

-by Bill Freame



After all the hours and effort, Jack Brabham heads out on to the Sandown circuit as part of the 'Fangio' meeting, 1978.

Please bear in mind that I am recalling memories from the mid to late 1970's, now about 40 years ago.

Back then I was an employee of the vast Repco organization, at a time when it was still being run by Engineers, not Accountants! I was in a small department that was involved in product development of engine parts for the various car companies this country was blessed with at that time. Many newly developed replacement parts were also tested, before being released onto the market under the Repco brand name. There were several engine dynamometer test cells in use and a test rig for severe loading of Holden timing gears as well as a sound proofed rig room for hydraulic load testing of engine bearings during the development of bearing materials as they searched for an alternative to lead. Copper/ Lead has now been almost universally replaced by Aluminium/ Tin as the search for environmentally friendly materials in OE engines began, further complicated by low friction and synthetic oils, unleaded fuels and including a great expansion in the use of LPG.

In the late 1970's the Light Car Club, in control of motorsport at Sandown, (and CAMS?) announced that five-time world champion, Fangio would come out to Sandown to demonstrate one of the historic factory Mercedes race cars he had raced in the 1950's. This was big news! Everyone at all interested in motorsport at that time knew who Fangio was, so huge crowds were expected to pay to see him drive anything around the Sandown Park race track.

Some months earlier than this announcement, someone within the Repco organization had (secretly) purchased the 1966 World Championship winning Repco Brabham BT19, probably from Jack himself, for goodness knows how much money. With the car/ chassis being only about ten years old, it had been retired and superseded, replaced as further improvements and developments in chassis design surged with the performance of the Ford DFV that by then even the Brabham team had found necessary to use. The two valves per cylinder headed RB engines won the drivers world championship in 1966 and again in 1967, while the four valve RB engines never did that. Anyway, this purchased BT19 was in pieces, the chassis had just been repainted and it just needed to be assembled, about two or three days work!????

Well, Don Halpin had been sent out to the Bayswater panel shop to start assembling it, all alone, just by himself, 'Should only take you a couple of days', he was told. Meanwhile, there had been a broad media announcement that three-time world champion, Jack Brabham, would also be at the Fangio meeting; he demonstrating the BT19. The Fangio meeting at Sandown was only about six weeks away and everybody was expecting our triple world champion to be driving in the BT19

championship winning car. In only 6 weeks!!!!!!! The media announcement intimated that the BT19 was ready to go, just waiting for the date to roll around.

Honestly, then, as now, I believe that it should have been the tribute to Fangio that he well deserved, without the meeting being diluted with the inclusion of our Jack. As Jack was frequently living back here, any number of tribute meetings for him could have been arranged, at all our race tracks, just about at any time, but certainly run after this Fangio meeting. Whatever were the 'That's a Good Idea' thoughts at that time, Fangio should have been the only champion on show.

Don was distraught with what he discovered that he was expected to simply screw back together in a couple of days. It was not only incomplete, it was supplied with the wrong RB engine, not a '620', the wrong gearbox, no bell housing or exhaust pipes. Don hastily returned to our Richmond base, to negotiate for a team for the assembly and start the manufacture of missing parts. With that agreed, all the parts were trucked from Bayswater to Richmond, to be assembled in one of the Repco machine shops with three of us added to the assembly team, making a total of only four, meanwhile most of our other projects were handballed to other staff. And so the race against a very short time frame began.

As Don Halpin had an astounding knowledge of all things Repco Brabham, at that time (and since) maintaining and rebuilding various RB engines in his own time, he was able to source most of the required pieces. For the exhaust system, Graham Facey would build the pipes, but only when the engine and gearbox were installed so he would know how much space was available. The other requirement was that the car would need to be delivered to his workshop, somewhere in the rural SE of Melbourne, for about a week. Don was able to swap enough engine pieces to have a correct RB620 engine and while that was being assembled, the 'Magnaflux' crack tester we had was used on many engine, gearbox and suspension parts as we had no knowledge of their history. The 'Triumph' front stub axles were carefully inspected and where they always crack was ground out and welded, then repainted. While the car was away for the exhaust system we continued to prepare other parts for ignition, braking system overhaul and fuel delivery. After a few days the car returned and we could then continue assembly. Unlike how the BT19 was raced, the exhaust now curved around outside the top suspension arm, out in the breeze, whereas when raced, the pipes were closer to the engine by being inside the suspension arms. A small detail but very obvious when compared to the original racing photos.

A few strings were pulled with 'Goodyear' and we were able to purchase newer period tyres for the car, representative of the mid-sixties racing tyres. All the electrical connections were cleaned and checked for durability, the fuel system cleaned and flushed and a battery box built to mount on the rear of the gearbox. The injection system was missing the trumpets and we had to make them as close to original as possible, a collection of racing photos helped us keep the looks of the car as original as possible. The mechanical fuel injection is pressurized by a very, very large 'SU' pump, mounted in the airstream, on the front of the radiator, for cooling. Post Fangio meeting, there was a cog belt driven mechanical fuel pump installed on the left front of the engine, thereafter the electric pump is now only used for starting.

As the meeting got closer, the days became longer, with early starts and late finishes the norm. The final week was frantic, with all the fiddly bits still on a long list of things to be completed. Then there were seemingly endless TV interviews, all with Jack sitting in the car. Each of the TV channels were allotted a time for an interview with him, essentially the car needed to look complete, ready to drive on the track. In between the interviews, Jack was entertained away from us, somewhere in the offices. The TV crew would arrive early to set up lighting and sound, while we would assemble the car with the body and wheels back on it. Jack and entourage would arrive, Jack would settle in the

car and be interviewed, then he left while the camera was filming the interviewer asking the same questions, but to the camera, so it could all be cut and spliced for the evening news. While that TV crew retreated we dismantled the car again for more assembly and preparation. This cycle would then repeat again with another TV crew.

When Jack saw the almost assembled BT19 for the first time, he smiled a big smile and asked Don if it would be ready in time. Don responded that it would be ready and as safe as we could make it for him. Certainly there would be no test drive of it, its first test would be on track at Sandown, ready or not. On a borrowed trailer, eventually the BT19 was completed and sent off to Sandown, attracting almost as much attention as Fangio's Mercedes. His Mercedes had the advantage of not having just been quickly assembled, they even had a specialist along just to blend the exotic fuel! Typically, the Mercedes Benz Company was very well prepared, nothing would go wrong to damage their company image!

The BT19 was on a diet of BP Avgas and had a slight misfire as soon as the revs got up high. Eventually a change of battery from the 12 volt we were using to a loaned 16 volt battery from Kevin Bartlett solved that, the extra voltage providing higher fuel pressure for the Lucas injection. However, the injection metering unit is actually mounted above but in the valley, and when the diaphragm suddenly sprung a leak it filled the valley to the brim with Avgas. Just how old was the diaphragm we had trusted to be OK at 12 volts but not when supplied with 16 volts?

At that meeting, all the cars were being taken off track at turn 1. Hot tyres and loose gravel! Two members of our crew were always waiting for the car there at the end of each run, just off the edge of the track, to install some mesh covers over the open trumpets, thus reducing the possibility to swallow any stones. Plus a tow rope would be attached and the car towed back to the pit area we were camped in, behind the grandstand. Don noticed the valley awash with fuel and suggested Jack vacate the car. In a single leap, Jack was out of the cockpit, his feet hitting the ground many, many feet away. Without even turning to survey the situation, he suggested we attend to that before his next run. How easily we could have BBQ'd a national treasure, and the car too. Thus, with a hot engine, valley full of fuel, we got to tow it back through a vast crowd, some of whom may have been smoking.



The professional-looking pit crew fettling the RB behind the grandstand at Sandown.

There were many things that we needed to check over that night, so we were permitted to work on the car in Allan Hamilton's Porsche Cars Australia workshops, which was then just around the corner from Sandown and anyway, that's where it was intended to be secured overnight. A full end to end spanner check and a few niggling issues were attended to, ready for the Sunday demonstrations.

The crew again: Bill Freame in the red shirt and glorious towelling hat fourth from left: Don Halpin (with sunglasses) at front. By the time of the main race, someone had appeared with matching Repco-Brabham shirts, as seen on our front cover.



There was very little doubt for us that Fangio was annoyed with our involvement in his meeting. He had rightfully expected that he would be the main attraction, him and his car. As it was only demonstration runs, not racing, he was allowed to wear his battered brown helmet. Jack admitted that early in the meeting, with the misfire until the battery change on Sunday morning, he was having trouble keeping up with the Mercedes, even just keeping it in sight. However, by the final run on Sunday, the BT19 was giving as good as it had ever had and he could easily hold onto it. Jack was pleased with the opportunity to display his championship winning car here in Australia. It appeared every time, on schedule and always returned to the pits to the applause of the many spectators. Remember: this was at a far distant time, a long time before we had an annual F1 race and many years after the Tasman series had ended.

After the Fangio meeting a proper enclosed trailer was acquired, and is still used to this day. The car returned to Richmond to have further work done. This involved the engine being installed and tested on the Heenan & Froude GB4 dynamometer that had originally been used in 1965 development and Phil Irving, the main RB620 engine designer was invited to attend while the engine was being tested. An excellent photo opportunity was not wasted, with Phil happily standing alongside his engine in the test cell, but only while the engine was stationary.

Forty years further on and that Repco Brabham BT19 is still attending major motorsport events, at most historic meetings and certainly always attends the AGP F1 meeting at Albert Park. Now an extremely important part of the Brabham collection memorabilia, it is in the ongoing care of Nigel Tait who had further developed an already excellent relationship with Jack, especially in his final years. Nigel was the driving force behind getting this project completed in the short time available and for the ultimate benefit of the Repco Company name.

The BT19 is now over 50 years old and may it live forever. It must never be raced again, regardless of who owns it well off into the future! Many years ago it was used in the TV show, Neighbours, when Kylie was cast as a mechanic(?) Regretfully the car was slightly damaged while filming a scene at Calder.

That 620 engine block is one of the engines that was used in 1966, but there were always several engines rotated through the team cars. The chassis however is definitely the only BT19 that Jack drove that year to win his third championship. Sir Jack Brabham has long gone on to drive the race tracks up in Heaven, now, but his outstanding achievements will and should be remembered for a very long time.

Over the following years Don continued to provide newly made parts for all the RB engines, as most of the casting patterns were in his care. He also continued to build other types of race engines,

including the Chevy engines for the Alfredo Costanzo F5000 successes and also some Holden Commodore engines for several Bathurst races.

At the time of the Repco Company being dismantled, by an accountant in 1986, I branched out, in partnership, to set up an engineering business, specializing in small volume pistons and quality piston rings. But that, I'm afraid, is a whole different story. Therefore, I'm pleased to announce that I have had the honour of making replacement Repco Brabham pistons, for the engines that continue to have a racing life, including engines used in hillclimb cars and also racing speed boats. That has occasionally involved engines being de-stroked to suit a particular capacity class, but also some were loaded up with longer stroke cranks and the largest sleeves that can be squeezed into the later blocks, giving good reliable grunt in a lightweight package. Interesting times? That they were.

Sadly, Don Halpin passed away in October 2018.

He was never at all fazed by the fame of the many people he met throughout his long career. His advice and problem solving was frequently sought and requested, with his skill at tuning a variety of engines, regardless of the fuel or injection/ carburation installed. He was a very important member of the Repco part of the Repco Brabham years, then when it later changed to the Repco Engine Development Company (REDC), Don was involved with development of the Holden 308 into a F5000 engine and its milder cousin, the L34, for General Motors Holden to produce and install in the (race) Torana. He also developed a smaller L34 engine, based on the Holden 253, for a production speed boat class. For a time he drove a 308 powered HQ Holden, with the 4 speed 'box option, as his street car. What he modified and learned from the months of L34 development work was incorporated into the modifications he performed/ installed/ tested on his own car. It may well have been quite close to an F5000 engine?

During his Repco years, Don travelled to Indianapolis in 1969 where the Repco Brabham team qualified both cars for the 500. Jack's car failed to finish, however the Peter Revson car finished 5th. Many teams (in Gasoline Alley) were amazed that they qualified both cars, at a time when teams struggled to qualify even one car. The fuel used at Indy was an alcohol fuel, so the Repco engines were running a slightly higher compression ratio than their petrol engines in Formula 1. His knowledge of the many Repco Brabham engines was sought by many from all over the world, with his ability to supply the correct parts to keep the many engines still in use today.

Don had a good relationship with many prominent race drivers: Kevin Bartlett, Jack Brabham, Peter Brock, Alf Costanzo, Warren Cullen, Alan Hamilton, Johnny Walker, Bob Jane, Frank Matich, Alan Moffat and Alan Jones, to name just a few of them. Many of their championships were won due to Don's involvement with their teams and the mechanics who maintained the cars.

Australian motorsport has lost another legend. I have lost another friend.

-Bill Freame

(Ed: I recall as a younger man Bill telling me a little more of this story. After working enormous hours to get the car ready, it came together and was ready to fire up late one night. Now, the Repco complex in Richmond comprised a couple of buildings three or four stories high (as I recall), with a narrow laneway in between. Bill told me they towed the Brabham up and down this laneway then roll-started it. Late night, no mufflers, high compression F1 motor, sitting in a brick canyon...the noise was fantastic, but apparently lots of window lights came on! Like all brave motoring enthusiasts, they shut it down, rolled it back into the workshop, pulled down the door and knew nothing about it. 😊)

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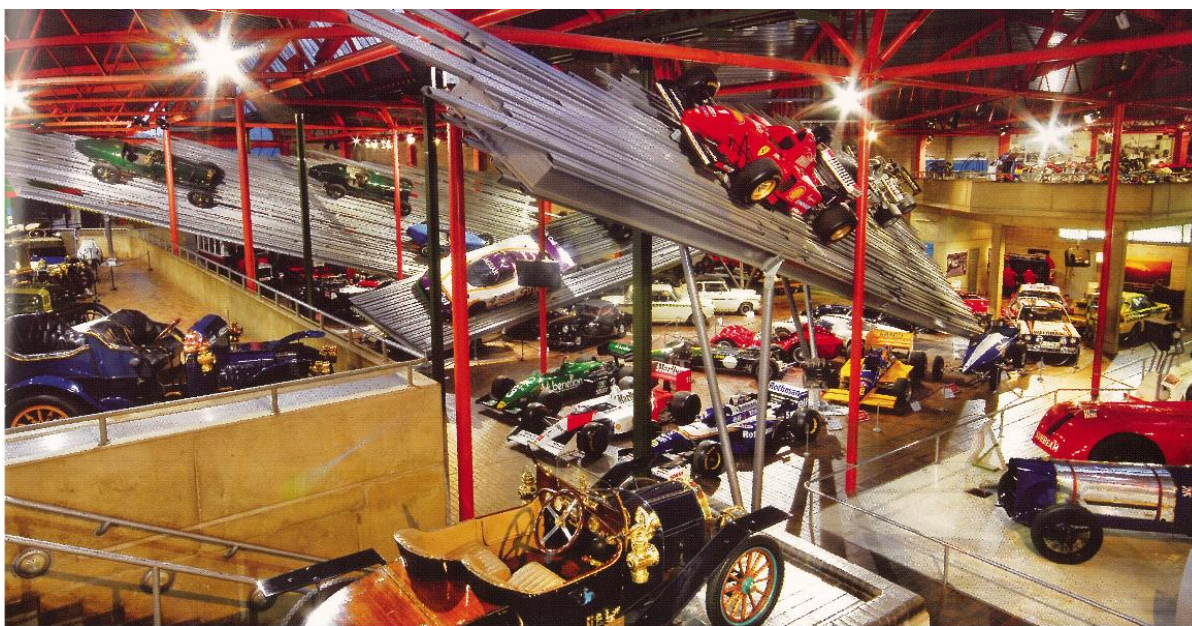


- **HISTORIC RACING CAR.** CHEETAH MK IV. C of D, CAMS (Motorsport Australia) Log Book. Built in 1973. Owned by Neil Neilson Holden and driven by Peter Roach. Purchased by me in 1974, and I have raced and maintained it for 43 years. Fresh 1298cc Corolla engine with all the good bits, Holinger 5-speed gearbox, 4 spare ratios, Avon tyres. The car is ready to race. \$45,000.



-Hugh Gartley (Lakes Entrance) 03 5155 3755

The following article is by Bill Revill, as published in RACE Magazine. IN these times of home isolation, it might be nice to dream a little about travel once more! 😊



Three Additions to your Bucket List!

Words and Images: Bill Revill

Above: UK National Motor Museum

People visit Europe for holidays. Cheap air fares and a high Australian dollar make this a prime visiting time. Many motoring enthusiasts are leaving full – time work thus having increased time on their hands, allowing many classic car fans to flock to both of the Goodwood events (Festival of Speed and the Revival – more on these next issue!) and all return to Australia with glowing reports of these wonderful spectacles.

But lurking within an easy day trip from London are three of the world's greatest competition car museums. They show the entire history of UK and international motorsport since its inception, the history told in displays of some of the most beautiful, fastest and most spectacular cars ever made. In addition, some museums are located at the circuits where the world's greatest motorsport battles have been fought.

Visiting these museums is a must for every motorsport enthusiast and it's easy – either by train or by hire car. Each is less than 2 hours drive from central London. It would be easy for a visiting couple to divide for a day, she heading for the delights of Harrods Grill Room, he for Brooklands! All three Museums could be seen easily in three days, allowing a full day at each and a leisurely drive between them in the evening – the most logical order being Brooklands, National Motor Museum in Beaulieu and the Donington Collection in the Midlands.

For those taking this path and who enjoy classic aircraft as well, your return trip to London goes right past Shuttleworth Collection (SG18 9EP) which includes many hangers packed with Edwardian and other early aircraft. Also nearby is the Imperial War Museum Duxford (CB22 4QR) which is Europe's most comprehensive collection of combat aircraft from all eras. Both museums have airstrips and fly their aircraft regularly: Both museums allow visitors to view their restoration areas and watch the craftsmen at work.

Brooklands Museum

Brooklands! This is the spiritual home of both motorsport and aviation in Great Britain. The track was the first purpose built motor racing circuit in the world, holding the first car race meeting in 1907, and parts of it are still available for viewing now.

Some parts of the famous track still exist. The Byfleet Banking: Stand at the bottom and marvel at the engineering skills and hard work needed to complete this mighty concrete construction in Edwardian times. (The original track was 2 ¾ miles around, all concrete with two immense banked corners reaching 30 feet tall. Construction took a mere 9 months).

Then imagine the sight and sound of the giant racing cars of years gone by, marques such as Bentley, Bugatti and Frazer – Nash driven by brave young men. Always wealthy, socially attached and sometimes titled such as Earl Howe and Sir "Tim" Birkin. These drivers accepted the terrible danger and drove for the love of the sport, watched by the smart set of the time, illustrated by the Brooklands slogan "The right crowd and no crowding". The generation of cars made for the Brooklands track used to lap at the top of the speed bowl at speeds above 130 mph in days when tyres and suspension were rudimentary.

The museum is set in the infield of what is left of the track using the original buildings and grounds from the circuit's racing years. Go to the Campbell and ERA sheds to share your time with Malcolm Campbell in his workshop and office, see the ex-Birkin Bentley and the monster 24 Litre Napier Railton of John Cobb. Then to the Jackson shed for a blend of modern and older vehicles. Like aircraft? Many examples are available, some to walk through. These range from Great War examples, a Hawker Hurricane from WW II and a complete Concorde – intact and available for viewing. Seeing a beautiful Concorde up close, marvelling at its engineering complexity and walking through the interior is a must for any air enthusiast.



Top: 925bhp Golden Arrow land speed record car built for Henry Seagrave

Left: Classic F1 cars in the main hall at Donnington.

Middle: Autounions at Donnington - many millions of dollars sitting there!

Right: BRM collection at Donnington, marque less famous than some other cars there.

Walk the grounds, look in the hangers, have tea in the clubhouse and walk up the Test Hill. A wonderful day to be immersed in the history of British aviation and motorsport. Getting There: <http://www.brooklandsmuseum.com/index.php?>

Brooklands Museum Trust Limited
Brooklands Road, Weybridge,
Surrey KT13 0QN

By car: The Museum is between Weybridge and Byfleet, just a few minutes from Junction 10 of the M25 and the A3 London to Portsmouth trunk road. Leave the A3 at the Painshill junction (A245) and follow the brown 'Brooklands Museum' signs.

By Train: The nearest railway station is Weybridge (less than a mile away) which is on the Woking and Waterloo line.

The National Motor Museum

The National Motor Museum is located in the New Forest in the grounds of the Beaulieu Estate. This is the most family friendly of all of the museums, with the historic attractions of the Palace House (built about the 13th century and owned by the Montagu family since 1538) and Beaulieu abbey, also from the 13th century on display. A vast open garden, monorail and large amusement park combined with the special displays such as the Secret Army Exhibition, the James Bond Experience and the World

of Top Gear provide entertainment for everybody.

The museum is superb, with over 250 exhibits. These range from early world land speed record breaking cars of the greats such as the beautiful 'Golden Arrow' of Sir Henty Seagrave and Sir Malcolm Campbell's 'Bluebird' in the same configuration as when it broke the World Land Speed Record achieving over 400 mph at Lake Eyre, Australia. Other racing cars include Graham Hill's original Lotus 49 from 1967 and many other Grand Prix cars of various eras. The displays are radically set up and provide a thrilling view of the cars in their element.

Getting There: <http://www.beaulieu.co.uk/beaulieu/index>

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John Montagu Building

Beaulieu

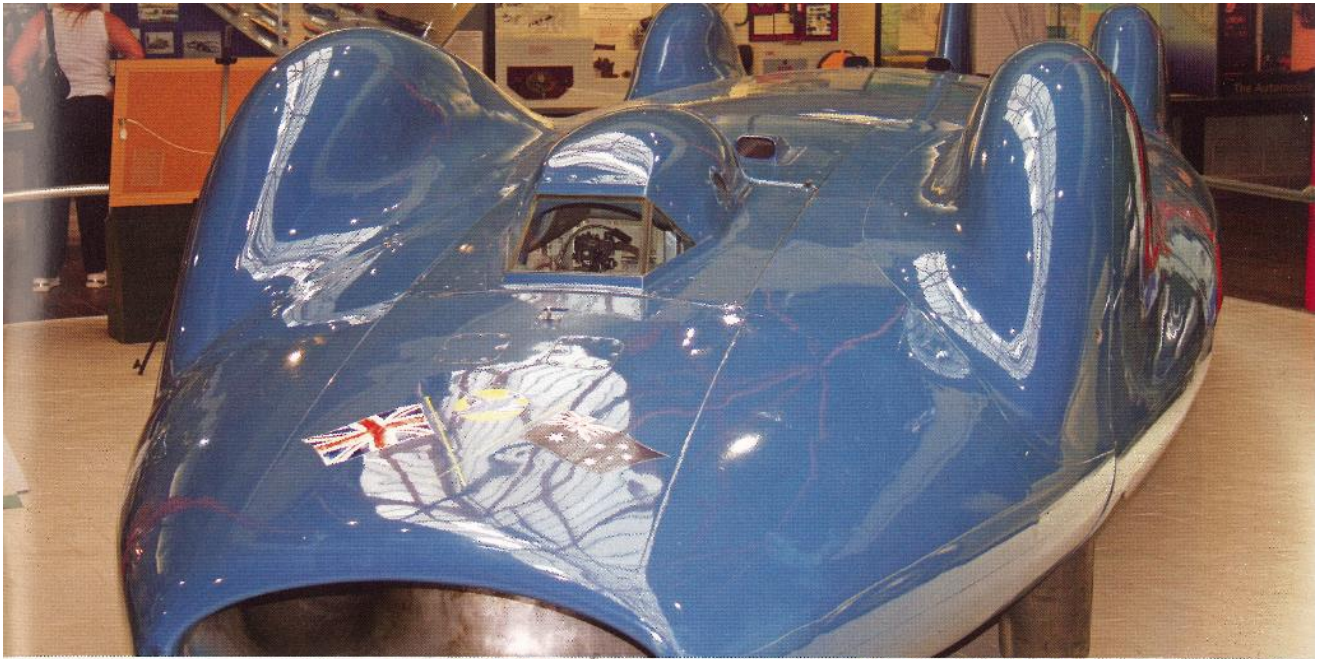
Brockenhurst

Hampshire

United Kingdom

SO42 7ZN

By Car: Beaulieu is situated in the south of England, in the New Forest between Bournemouth and Southampton, with easy access from London and the Home Counties. By Road- M27 exit junction 2, follow the brown and white tourist signs towards Beaulieu.



Top: Donald Campbell's famous Bluebird Land Speed Record car.
Left: Famous trophy's in Donnington Museum
Middle: Williams collection at Donnington
Right: Matra F1 car at Donnington: note organ pipe exhaust system.

The Donnington Collection

The history of Motorsport at Donington Park ranges from the early days of motoring to the present. Perhaps the track's most influential time was as the venue for the visit of the great German race teams – Mercedes – Benz and Auto- Union in 1938 which occurred just before the outbreak of WW II. So many people remember seeing the absolute dominance of the 'Silver Arrows' and realised how technically advanced Germany, which was now threatening their nation, had become....

Post-war, the circuit languished until purchased and redeveloped by a local builder, Tom Wheatcroft. The story of the circuit, of Wheatcroft's dedication and determination to get the project running, of its role in the 1993 European Grand Prix (won by Ayrton Senna) and of his support for the late and talented Roger Williamson are all wonderful stories, told with records and the actual cars of the time at the Museum.

The museum features the Donington Grand Prix Collection – the largest collection of Grand Prix cars in the world. Visitors can get close to over 130 cars, notably two of the five rooms dedicated to cars by Williams and McLaren respectively. Both rooms contain over 40 cars, lined up so each year and variant can be compared and examined. It provides a fascinating insight into the progress, the kaizen small but continual improvement by which Grand Prix cars evolve as innovation after innovation is implemented and

adopted. Similarly the complete collection of Vanwalls, the beautiful English marquee of the 50s can be seen nowhere else in the world. Classic racing cars from all eras are there including the Brooklands Austin's, Auto – Unions, Matras and ERAs to name but a few of the more unusual machines. The walls are lined with trophy cabinets, pictures and memorabilia of races won and lost in the past. A visit here is an emotional reminder of the beauty and excitement of motorsport, but also of the high price so many young men paid for their enjoyment of it. An unforgettable experience. Getting There: <http://www.donington-park.co.uk/>

Donington Park Racing
 Donington Castle
 (Near Airport)
 Derby
 DE74 2RP

By Car: Donington Park is situated right at the heart of England, just minutes from M1 junction 23a and MOTO Donington Park Motorway Services and Travelodge, or junction 24 southbound.

Conclusion

You've read about these cars all your life, you've looked at pictures of them since you were a kid and now in the space of a few days you can see these icons of motorsport in real life. A few days visiting these museums provide priceless memories which last a lifetime.

The following article is taken from the AOMC February 2020 newsletter, with kind permission:

Clear the Way: A History of Automotive Windshield Wipers

This article has been lifted from the Cadillac La Salle Club of Valley Forge USA January 2020 newsletter.

There are so many things we never think about, taking it for granted, for instance, that when it's rainy or snowy our windshield wipers will keep the windshield sufficiently clean for us to keep motoring. But windshield wipers weren't always a given. Early vehicles didn't have them. After all, if a horse-drawn carriage didn't need them, why did a horseless one? Well, because a driver needed some protection from those gnats, for one; because a driver who got up some speed needed a windbreak, and because drivers really did need to see where they were pointing their cars.

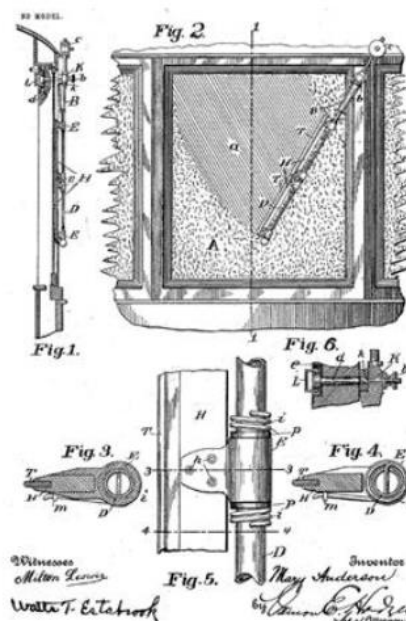
Besides, if a horse came upon an immovable object, it'd usually stop contrary to the drivers wishes. Cars didn't provide this second opinion. Early drivers were resourceful when it came to keeping their cars running. In lieu of the yet-to-be-invented windshield wiper, they are said to have used plug tobacco, a piece of potato, carrot or onion, or most anything else they could remember to bring along to keep their small piece of vertical glass wiped down during inclement weather. Some of them must have tried rags or sponges, too, before squeegees became the tool of choice.

The first known inventor of an actual windshield wiper was Irish-born inventor J. H. Apjohn, who, in 1903, developed a method of moving two brushes top to bottom to clear the windshield. As so often happens, however, another inventor was working on a solution about the same time. This inventor, Mary Anderson, is credited with the first American wipers and the first operational windshield wiper. On a visit to New York City in 1902 she watched a streetcar motorman struggle to keep his windshield clear during a sleet storm. He could leave the glass down and get cold and drenched, or stop the car to clear the glass. Either way riders weren't happy with the results. Ms. Anderson

came up with a swinging arm fitted with a rubber blade that could be operated via an inside lever. A spindle passed through a hole in the frame of the windshield, connecting the external rubber wiping blade and the interior handle. A counterweight and spring held the external blade to the glass. Her ingenious invention predated the emergence of the automobile to prominence. And in any case, few vehicles of the time had windshields, which were then optional equipment. By 1916, however, her invention was available in all U.S.-made vehicles.

In 1917 Charlotte Bridgewood invented and patented the first automatic windshield wiper, one that was rollerbased and dubbed the "Storm Windshield Cleaner". The product was not a commercial success, however. Most drivers still had to steer and shift with one hand while operating the wipers with the other. Realizing the inherent danger in this practice, other inventors came up with motorized solutions, e.g., a one-armed blade installed in the top centre of the windshield (an invention of Hawaiian dentist Dr. Ormand Wall) or double blades, the outside rubber and the inside felt-lined squeegees.

Following a collision one rainy night in 1917 between a National Roadster and bicyclist in Buffalo, New York, J.R. Oishei, the car's shaken driver, sought a way to keep windshields clear. He found a retired electrical engineer, John W. Jepson, who had invented a hand-operated squeegee known as "Rain Rubber". Put away in the car's tool box during fair weather, a driver took it out for foul weather, sticking its handle through the opening between the upper and lower sections of the two-part windshield. As the driver pushed the handle back and forth, the blade cleared the windshield. Oishei patented the device and in 1920 Tri-Continental Corporation (later known as Trico) was incorporated to manufacture it.



Left:
Mary Anderson
and her 1902
patent for the first
windscreen wiper.



In 1921, American inventor William Folberth patented a vacuum-powered, single blade wiper run by suction from the engine's intake manifold. Timing was a bit of a problem in that wiper speed was inversely proportional to the speed of the engine. With the throttle wide open, the vacuum available as motive power decreased sharply and wipers either slowed down or stopped altogether. Nonetheless, Trico, now a major name in wipers, bought Folberth's company in 1925 for \$1 million and his inexpensive vacuum system saw widespread and unchanged use for many years.

On cars built prior to 1920 most wipers were paired and anchored at the top of the windshield. Cadillac introduced vacuum-driven wipers in the 20s and other manufacturers soon followed suit. Henry Ford, notoriously stubborn about adding any new gadgets to cars, saw the light after a Trico salesman installed a manual wiper on Ford's own car. As electrical systems evolved, wipers were relocated to the base of the windshield. By the mid-thirties Trico had introduced the first windshield-washer system and by the late forties the first combination wiper/washer system. Eventually windshield washers were commonplace, requiring spray nozzles in front of the windshield and a reservoir for washer fluid located under the hood. Typically they were operated by an electrical pump. In the late 1950s another novelty was introduced whereby a driver could push the washer button and activate the wipers for a few swipes across the windshield. Nowadays that's

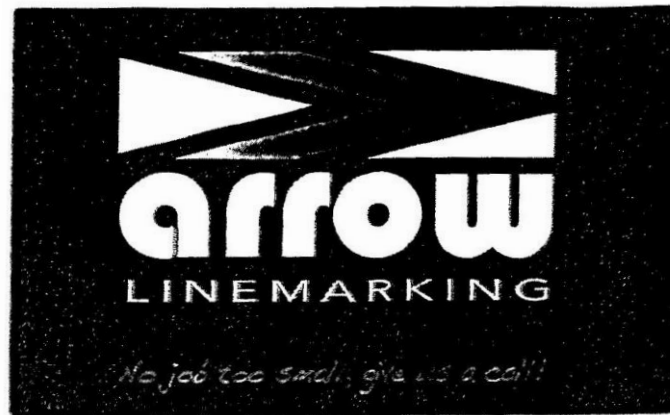
accomplished by means of an electronic timer but then a small cylinder connected to a switch provided the delay as the vacuum leaked off.

The next major improvement in wipers came with a David and Goliath-type story, at least according to the David in the story. Robert Kearns, an engineering professor, after noticing that the human eye blinked only every few seconds rather than continuously, began tinkering with the idea of intermittent power wipers. Eventually he installed a prototype of them on his '62 Ford Galaxie. In 1963 he demonstrated the system to Ford, hoping they would license his technology (patented in 1967 and utilizing a solid-state circuit) that enabled drivers to select one of several delays between two consecutive swipes. Instead, they came out with their own version of intermittent wipers in 1969, a decision that frustrated Kearns and led him to file a patent infringement suit against them and other car manufacturers who followed their lead. As the 2008 film "Flash of Genius" detailed, after many years of litigation and the hiring and firing of numerous law firms, federal juries assessed Ford damages of a little more than \$10 million for unintentional patent infringement and Chrysler roughly \$19 million in damages. Suits filed against other automakers were, however, dismissed, after Kearns, by then proceeding on his own, missed multiple filing deadlines.

1970 found Saab introducing headlight wipers and Citroen bringing out rain-sensitive intermittent wipers. The resistance the wipers met on the first swipe was measured: slight resistance meant the windshield was relatively dry while greater resistance indicated more moisture. In the 1990s, infrared optical micro sensors built into windshields could sense rain and determine wiper speed. Cadillac introduced these sensor wipers in 1996 but they're now available on many other makes and models.

With the passage of time and the further development of electronic gadgetry, wipers appeared on front and rear windshields and also on headlights. From the days when drivers had to remember to bring a squeegee along or fish in their toolkit to find their purpose-made squeegee, we now have windshields with built-in sensors that don't require us even to hit a button to have clear windshields. Now we can just take it for granted that wipers, no longer optional equipment, will be there when we need them.





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